

RYCO



CONNECTING PARTNERSHIPS

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RYCO. THE COMPANY.

RYCO Hydraulics started manufacturing hoses, fittings and filters in 1946. As the hydraulics industry evolved, the Company expanded its range and the main product line soon became high-pressure hydraulic hose and fittings.

RYCO Hydraulics' simple belief of "Higher Technology Equals Greater Performance" applies throughout the Company. The Company's research and development centres and testing facilities are dedicated to developing innovative products and pioneering new processes in fluid conveying systems technology. Our specialised equipment and technology enable us to manufacture our large range of products efficiently and cost effectively.

"HIGHER TECHNOLOGY EQUALS GREATER PERFORMANCE"

RYCO. MISSION STATEMENT.

Our Mission is to listen to our customers and deliver the highest quality and technologically superior fluid conveying connection products and solutions.

RYCO. COMPANY VISION.

Our vision is to be the premier supplier and service provider of choice in every market we participate in.

RYCO. THE QUALITY.

RYCO Hydraulics is certified to current version of AS/NZS ISO 9001 "Quality Management Systems - Requirements" by NATA Certification Services International (NCSI - Registration No. 7029). Company Policy is to supply products and services that meet or exceed our industry standards. These standards include SAE, EN (DIN), AS, ISO, JIS, BS and BCS. The bottom line in Quality Control (QC) & Quality Assurance (QA) is Customer Confidence & Customer Satisfaction.

OUR AIM IS ZERO DEFECTS

RYCO. PRODUCT IDENTIFICATION.

All RYCO Hydraulics products are clearly branded with a unique RYCO Hydraulics part number and batch code, where practical. In today's quality conscious world, RYCO's invaluable batch coding system takes traceability and customer assurance to new levels. Not everyone is an expert in thread identification. Time and money are often wasted identifying goods or despatching the wrong item. Using clearly branded RYCO products reduces the chance of error, saving you time and money.

IF IT'S NOT BRANDED - IT'S NOT RYCO

RYCO. WAREHOUSE & DISTRIBUTION.

At RYCO Hydraulics, we understand that when you need your product, you need it fast. Our network of warehouses and distributors gives the greatest product availability to our customers. Our comprehensive ordering and despatch system ensures that your orders are correct before leaving the warehouse.

WE PRIDE OURSELVES ON SHIPPING CORRECTLY

DISCLAIMER: We reserve the right to alter the design, or discontinue any of the company's products or services without notice. While every effort has been made to ensure the accuracy of the information contained in this publication, our Company Policy of continual research and product development necessitates changes and refinements which may not be reflected in the following pages. If in doubt, please contact your nearest sales office. Illustrations are not to scale, and are indicative only.

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INTRODUCTION

HOW TO USE THIS BOOK

HOW TO USE THE RYCO PRODUCT TECHNICAL MANUAL

This Product Technical Manual is divided into seven colour coded sections; **Introduction, Hose, Couplings, Adaptors, Accessories, Filters** and **Technical**.

A colour coded indicator tab on the edge of every right hand page aids finding and identifying each section.

On pages 4 and 5 is an **Alphanumeric Index** if you know the Part Number you're looking for, and pages 6 to 9 provide a Contents by Section that lists the product ranges each section contains.

In addition, each section contains a **Contents** and/or **Pictorial Index** as relevant to further aid you in finding the exact information you require. In addition to a Contents and Pictorial Index, the **Couplings** section also contains an **Index by Endstyle Number**.

IMPORTANT – DO NOT MIX AND MATCH PRODUCT

Hydraulic Hose from one manufacturer is usually not compatible with fittings supplied by another manufacturer.

It is the responsibility of the hose assembly fabricator to consult the manufacturer's written assembly instructions or the manufacturers directly before intermixing hose and fittings from two manufacturers. Similarly, assembly equipment from one manufacturer is usually not interchangeable with that of another manufacturer. It is the responsibility of the hose assembly fabricator to consult the manufacturer's written instructions or the manufacturers directly for the proper assembly equipment. Always follow the manufacturer's instructions for proper preparation and fabrication of hose assemblies.



SAFETY GUIDE

FOR THE SELECTION AND USE OF HOSE, FITTINGS AND RELATED ACCESSORIES

Failure or improper selection or improper use of hose, fittings, or related accessories can cause death, personal injury and property damage. Possible consequences of failure or improper selection or improper use of hose, fittings, or related accessories include, but are not limited to:

- Fittings blown off at high speed.
- High velocity fluid discharge.
- Explosion, or burning, of the conveyed fluid.
- Electrocution from high voltage electric power lines or other sources of electricity.
- Contact with suddenly moving, or falling, objects that are held in position, or moved, by conveyed fluid.
- Injections by high-pressure fluid discharge.
- Dangerously whipping hose.
- Contact with conveyed fluids that may be hot, cold, toxic or otherwise injurious.
- Sparking or explosion caused by static electricity build-up.
- Sparking, or explosion, while spraying paint or other flammable liquid.

THE COMPANY

An Australian-owned company, RYCO has built a strong reputation since it commenced manufacturing of hydraulic hose and fittings in Melbourne, Australia back in 1946.

Engineering excellence, customer-focus and highest quality products continue to attract new customers, from varied industries right across the world.

RYCO Research & Development centres are dedicated to improving product and pioneering new technologies and processes in fluid conveying systems. RYCO quality range of hydraulic hose and fittings is supported by a network of loyal and committed distributors across the world.

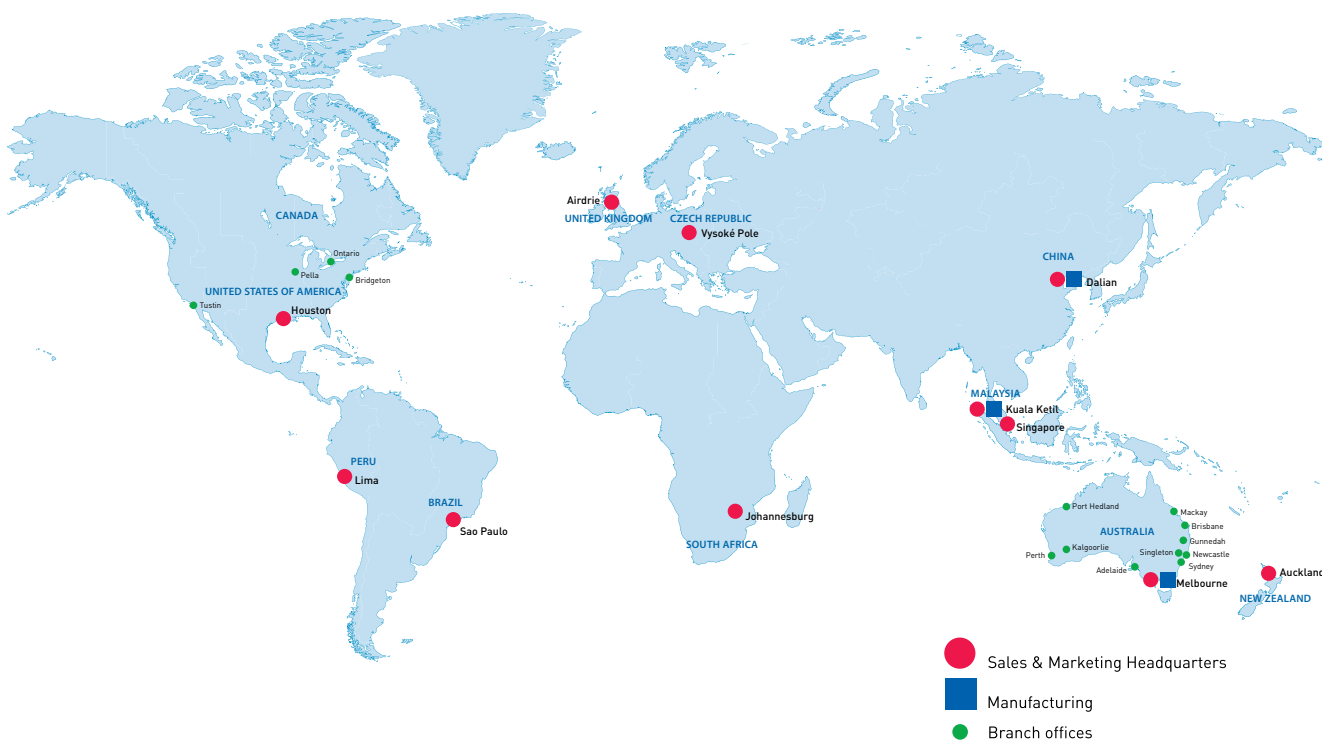
RYCO products supplied to a wide range of industries including mining, construction, utilities, defence, marine, oil & gas, OEMs and more. RYCO continue to expand its product range to meet growing needs of worldwide hydraulic industry.

GLOBAL RESOURCES

In today's competitive international business environment, the requirements for suppliers and customers to work closely together are greater than ever before.

RYCO has expanded its horizons and developed its manufacturing and distribution business on a global scale, working with industries in diverse sectors. RYCO has offices and warehouses strategically placed in Europe, Brazil, Singapore, South and North America and fully Quality Accredited manufacturing centres in Australia, China and Malaysia.

With such an extensive global footprint, RYCO can ensure quality product is delivered to our customers, whenever and wherever required.



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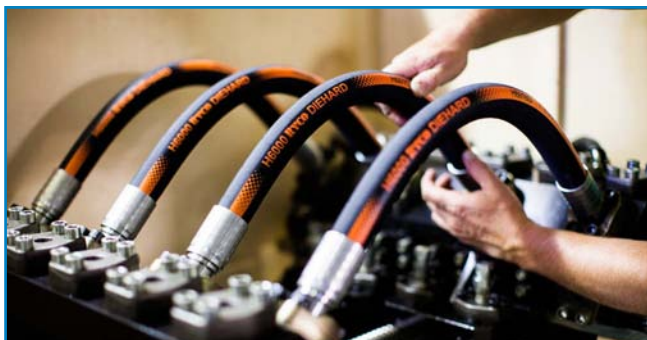
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ABOUT RYCO – POLICIES



RYCO QUALITY, SAFETY AND ENVIRONMENTAL POLICIES

RYCO's mission is to exceed our customers', shareholders, stakeholders' and employee expectations through continuous improvement.

We are driven by innovation, teamwork and the integrity of our people whilst embracing community, cultural and Quality, Environmental and Health and Safety (QEHS) awareness. RYCO achieve this objective through the integration of the QEHS Management System into day-to-day operations of all of the company's facilities.

QUALITY POLICY

RYCO specialises in the design, manufacture, distribution and sales of a comprehensive range of high pressure hydraulic hoses and fittings. The Company operates on a global scale and its products service a wide range of industrial applications.

Since 1946 RYCO has established an enviable reputation for expertise, service, quality and delivery.

RYCO's Mission is to exceed our customers', shareholders', suppliers' and employees' expectations through continuous improvement driven by innovation, teamwork and the integrity of our people whilst embracing community, cultural and environmental awareness.

RYCO's Quality system and policy requires compliance with applicable industry standards, statutory regulations, world best practice philosophy, value added processes, service and efficiency.

RYCO Management shall ensure that suitable infrastructure and resources are provided and utilised to guarantee Quality is not compromised.

Quality is the responsibility of all RYCO personnel.

The RYCO Quality System is based on "AS/NZS ISO 9001, Quality Management Systems - Requirements".

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Leigh Morrison
CEO,
RYCO

www.RYCO.com.au

QUALITY IS THE RESPONSIBILITY OF ALL RYCO PERSONNEL.

OCCUPATIONAL HEALTH AND SAFETY POLICY

RYCO specialises in the design, manufacture and sales of a comprehensive range of high pressure hydraulic hoses and fittings. The Company operates on a global scale and its products service a wide range of industrial applications.

RYCO is committed to protecting the health and safety of employees, contractors, visitors and the general public in the workplace. RYCO shall fulfil this commitment through a health and safety management system that is integrated with RYCO's business activities related to products, services and people.

RYCO employees, contractors and visitors have a duty of care to take reasonable care for their own health and safety and for the health and safety of persons who may be affected by their actions and inactions in the workplace.

RYCO will take reasonably practical steps to improve workplace health and safety conditions and to prevent injury and illness to its employees, contractors, visitors and the general public.

This Policy applies to RYCO fixed and mobile workplaces and persons attending those workplaces. This Policy will be reviewed from time to time for Continuous Improvement, changes to legislation, industry best practices and policy directions within RYCO.

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RYCO shall:

- Comply with Legal Obligations and other OHS requirements- by ensuring that the RYCO business is conducted in accordance with the relevant occupational health and safety legislations, other applicable OHS requirements (eg. Codes of Practice, Standards and Client requirements) and RYCO Occupational Health and Safety Policies.
- Manage Risk - by identifying workplace hazards, performing hazard assessments and taking reasonably practical actions to prevent injury, loss or damage and control exposure to illness.
- Provide appropriate Instruction, Training and Supervision to enable RYCO employees, contractors and visitors to work safely and carry out their duties and responsibilities in a safe environment.
- Involve and Ensure meaningful and effective Consultation with its employees and contractors in matters potentially impacting workplace health and safety.
- Communicate clearly and openly RYCO's occupational health and safety commitments and performance.
- Establish clear Objectives and Targets to improve health and safety in the workplace.

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Leigh Morrison
 CEO,

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ENVIRONMENTAL POLICY

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RYCO is committed to compliance with applicable environmental legislation, regulations and any other requirements to which RYCO subscribes.

RYCO operates a program of continual improvement in environmental performance and pollution prevention, aiming to minimise the environmental impacts resulting from relevant activities.

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Improvements in our environmental performance will be achieved by:

- Minimising, re-using and recycling solid waste.
- Ensuring recycling, safe disposal and reclaim of waste oil.
- Controlling and reducing where practical environmental noise.
- Reducing atmospheric emissions.
- Minimising the consumption of energy.
- Consider favourably upon suppliers and contractors who pursue good environmental management practices.
- Helping conserve resources by the design and production of products to reduce the use of raw materials, packaging and energy in manufacture, use and disposal.
- Maintaining an environmental management system which complies with ISO 14001 and enables environmental objectives and targets to be established and implemented.
- Promoting throughout the company a strong environmental ethic as part of its culture.
- Communicating openly and constructively with applicable government authorities, the community, and other interested parties.

This Policy applies to RYCO fixed and mobile workplaces and persons attending those workplaces. This Policy will be reviewed from time to time for Continuous Improvement, changes to legislation, industry best practices and policy directions within RYCO.

Leigh Morrison
 CEO,

www.RYCO.com.au

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ABOUT RYCO – QUALITY ACCREDITATION

RYCO QUALITY ACCREDITATION

RYCO Hydraulics is certified to current version of AS/NZS ISO 9001 “**Quality Management Systems - Requirements**” by NATA Certification Services International (NCSI - Registration No. 7029). Company Policy is to supply products and services that meet or exceed our industry standards.

These standards include SAE, EN (DIN), AS, ISO, JIS, BS and BCS.

The bottom line in Quality Control (QC) & Quality Assurance (QA) is Customer Confidence & Customer Satisfaction.



RYCO Hydraulics / RYCO 24•7
19 Whitehall Street
Footscray Vic 3011

Operates a management system that complies with the requirements of:

AS/NZS ISO 9001:2008

The Scope of Certification is:




Design, research and development, manufacture and supply of hydraulic hose assemblies, hose couplings, fittings, adaptors and pneumatic couplings and adaptors for the defence, marine, mining, agricultural, automotive and general industries.

Capabilities include specialist CAD design and drafting, facilities for mass production to close tolerances, high pressure hose testing facilities, impulse testing, hydrostatic and external cyclic pressure testing. A complete range of hydraulic hose assembly equipment including hose crimping machines and hose cut off saws are supplied and supported.

Management of RYCO 24•7 franchised mobile connector specialist services, which provide on-call, on-site servicing for emergency breakdown and/or repair maintenance work for hose and tube systems.

Date of Issue: 01 November 2012
Expiry Date: 31 October 2015
Certificate Number: 7029000-QMS-003
Certification Number: 7029
Certification Date: 06 April 1995

Greg Johnson
On behalf of the board members



To confirm the currency of this certificate please email certification@ncsi.com.au
This Certificate remains the property of NCS International Pty Limited ACN 078 459 211
7 Leeds Street, Rhodes NSW 2138
A wholly owned subsidiary of The National Association of Testing Authorities, Australia ACN 004 370 748
Accreditation by the Joint Accreditation System of Australia and New Zealand (www.jas-anz.org/register)



**CERTIFIED
QUALITY
MANAGEMENT SYSTEM**

ISO 9001

AS/NZS ISO 9001
A Company Policy.

COMMITTED TO CONTINUAL IMPROVEMENT

RYCO QUALITY ACCREDITATION

RYCO Hydraulics is committed to the objective of zero defects.

As a manufacturer of quality hydraulic hose and fittings, RYCO Hydraulics ensures that our products are accredited by independent third party organisations.

Some of the third party accreditations that RYCO Hydraulics manufactured product have achieved include:



RYCO Hydraulics recommends SAE J1273 as a guide to the selection, manufacture, installation and servicing of hydraulic hose assemblies. RYCO Hydraulics complies with and exceeds third party accreditations as well as international ISO and EN (DIN) standards.

RYCO Hydraulics specifically design and manufacture hydraulic hose and fittings to “match” each other for greater performance and safety. Use only hose assemblies that consist of RYCO “matched” hydraulic hose with RYCO “matched” fittings.

RYCO Hydraulics testing and evaluation processes guarantee the performance and quality required to meet the demands of today’s applications to safely convey fluids at high pressure.

RYCO Hydraulics are proud members of, and contribute to, the world’s main industry groups including:

- SAE** SAE International
- MSHA** U.S. Department of Labor, Mine Safety and Health Administration
- NAHAD** National Association of Hose and Accessories Distributors (USA)
- NCS** NATA Certification Services (AS/NZS ISO 9001:2008)
- NFPA** National Fluid Power Association (USA)
- RMA** Rubber Manufacturers Association
- ABS** American Bureau of Shipping
- MED** Marine Equipment Directive
- AGA** Australian Gas Association
- GL** Germanischer Lloyd
- DNV** Det Norske Veritas
- LR** Lloyd's Register
- USCG** US Coast Guard

**RYCO HYDRAULICS
COMPLIES WITH SAE J343
AND SAE AS3791 STANDARDS, AND WITH
THE RELEVANT ISO, EN AND DIN STANDARDS**



OEM Support

We understand that our success is dependent upon our clients' success.

- ☑ Comprehensive engineering solutions
- ☑ Hose management systems
- ☑ Vendor managed stock
- ☑ Cost reduction programs
- ☑ Kanban supply
- ☑ JIT deliveries
- ☑ Reliable despatch

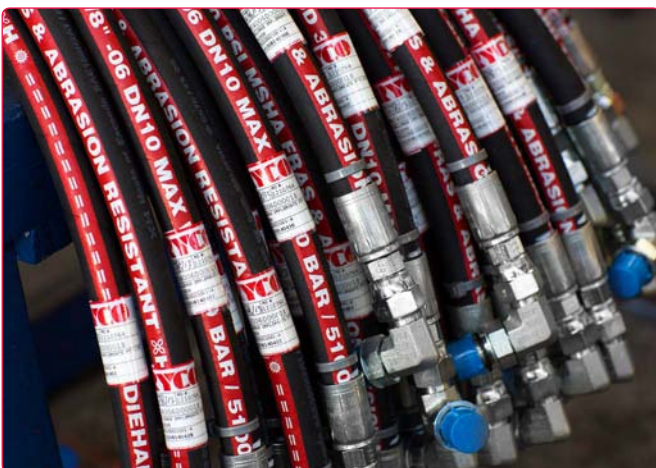
In today's competitive international business environment, the requirements for suppliers and clients to work closely together is greater than ever before. At RYCO we do more than simply supply our product; we listen to our clients as we understand that our success is dependent upon our clients' success.

We actively work with our clients, connecting partnerships across our broad range of services. In partnership we implement and support cost reduction programs; comprehensive engineering solutions; hose management systems; vendor managed stock; Kanban supply; JIT deliveries; reliable despatch; all of which combine to give higher technology and greater performance to our clients.

Our hydraulics technology and professional expertise is regularly required to solve problems arising from the often unique applications of our clients. The experience and knowledge gained from involvement in these special applications increase our service levels so we can provide a superior service to our clients.

Whether you are a manufacturer involved in the worldwide export market, a mining operation in a remote location, or a local distributor, talk to RYCO about "Connecting Partnerships" to enhance your business.





Quality

Improved safety and risk management are of prime concern in today's industries. RYCO design hydraulic hose and fittings that MATCH, enabling RYCO hose assemblies to exceed SAE or EN/DIN performance requirements.

RYCO is certified to AS / NZS ISO 9001: 2008 "Quality Management Systems – Requirements" by NATA Certification Services International (NCSI – Registration No. 7029) and ISO 9002 "Quality Systems for Production and Installation" by the Department of Defence (Australia).



Service

A key service to our OEM customers is the onsite pre-production fluid routing service provided by RYCO 24·7 Mobile Connector Specialists.

RYCO 24·7 has extensive coverage specialising in mobile hydraulic hose, fittings, service and replacement 24 hours a day, 7 days a week.

RYCO 24·7 actively supports and services national contracts and Original Equipment Manufacturers (OEM) in industries covering the mining, agriculture, marine, construction, defence and industrial market sectors.

Production

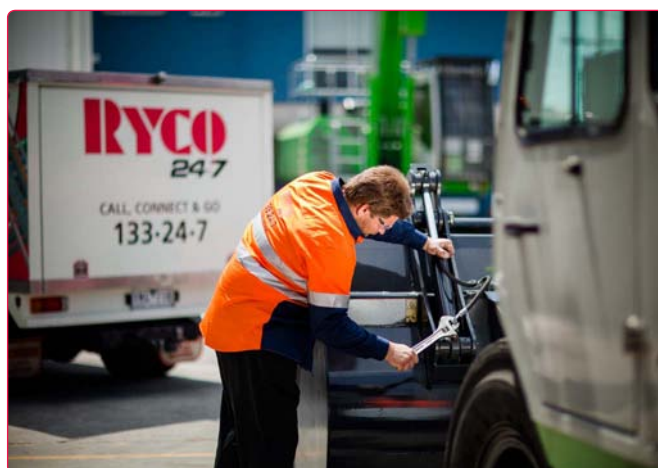
RYCO owns and operates manufacturing facilities in Australia, Malaysia and China, producing a complete range of hydraulic hose and fittings for the world market.

Due to our continuous improvement and investment program, and our specialised equipment and technology, we are able to manufacture a large range of hose and fittings efficiently and cost effectively. Our focus on production development and flexible manufacturing systems guarantee that we continually increase production levels and standards.



Innovation

RYCO's commitment to Innovation and Continuous Improvement ensures that we can deliver tomorrow's solutions today. We believe that our global strength in Engineering, Innovation and product development provide our customers a higher level of service and solutions that are unparalleled in the industry.



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ABOUT RYCO - MINING



RYCO IS A SPECIALIST SUPPLIER OF HYDRAULIC HOSE AND FITTINGS TO THE MINING INDUSTRY WITH OVER 65 YEARS EXPERIENCE.





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RYCO KNOW HOW

RYCO is a specialist supplier of hydraulic hose and fittings to the mining industry with over 65 years experience. Whether it is for heavy off-road mining vehicles, underground mining equipment at the coal face, lifting buckets of ore, or shifting mountains of overburden, you will find RYCO products hard at work.

RYCO has offices around the world and is committed to long term support of the resource industry on a global scale. **“Our People Are Our Greatest Asset”**. Dynamic and dedicated our teams bring together the best and most experienced people in the industry.

The focus is to continually improve on our current business activities and ensure we offer quality, technology and service to the resource industry, with safety being our prime objective.

MINING

In today’s competitive international business environment the requirement for suppliers and clients to work closely together is greater than ever before; particularly in the resource industry. At RYCO we do more than simply supply a product; we understand that our success is dependent on our client’s success, safety and quality.

Our teams of field engineers proactively work with our clients **“Connecting Partnerships”** across a broad scope of services to provide complete port to port solutions. The resulting fluid connection systems are designed to work. They are reliable. They are safe and can operate at their maximum potential.

RYCO is a solution based supplier providing our clients with a complete range of services including; on-time delivery; solving difficult engineering problems; cost reduction activities; on-site hose management systems and asset management. Many Mining operations around the globe rely on RYCO’s extensive knowledge of the mining industry and RYCO’s large range of services to deliver them substantial cost reduction benefits.

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ABOUT RYCO – MDG-41 AND MDG-15 SAFE



MDG 41

MDG 41 is a document which was created in response to an increasing number of incidents involving high-pressure fluid injection injuries on mine sites. In response to this, the NSW Department of Primary Industries (DPI) established a joint committee with involvement from the Mining Industry, Equipment Manufacturers, Repairers, and Suppliers of Fluid Power components in order to formulate a 'best practice' document. The result is Mechanical Design Guideline Number 41 (MDG 41).

The Mechanical Design Guidelines are a series of tools to assist companies in achieving compliance with the OH&S Act and Regulations through implementing industry best practices. We all have a duty of care to assess the hazards in the workplace and to implement systems and programs in order to eliminate or minimise the risk they present.

These documents prompt the review of many areas in fluid power systems that may present a risk and sets out guidelines of how they should be addressed using 'best industry practice'.

RYCO have a commitment to OH&S and the MDG's, and as such have developed products and strategies to assist our customers in understanding the requirements of the guideline. We can assist you to adopt the recommended practices outlined in MDG 41 and MDG 15.

MDG 15

MDG15 is a guideline for all mobile or transportable plant used at mines, and refers to MDG41 for fluid power systems. It has further requirements in relation to the routing of hosing.

MATCHED SYSTEM MDG 41 - CLAUSE 1.6.13

Where the hose and fittings (insert/ferrule) are from the same manufacturer and are assembled and crimped using the method as specified by that manufacturer.

MATCHED SOLUTIONS

Today's hydraulic systems are required to withstand tremendous pressures. This means that the attachment of a fitting to the end of a hose becomes more critical. This may be a simple operation, but it is a complex engineering solution.

International Hose standards specify a set of materials and tolerances, such as internal and external dimensions and reinforcement types and patterns. The reality is that while these standards are adhered to by all manufacturers, the tolerances themselves are so broad that if the entire allowable tolerance was used in manufacturing, users would encounter a high failure rate due to hose and fitting tolerance mismatching. High quality hose manufacturers have to adopt their own tolerance limits which are often at least half of the allowed range.

This is where "Mixing and Matching" becomes an issue: Component manufacturer 'A' could produce parts on the lower limits of the tolerance, and manufacturer 'B' is on the upper end of the tolerance. If a fitting from 'B' was put on a hose from 'A' at the specified crimp diameter of 'B', there would be little chance of adequate fitting retention, which would most likely result in failure. Similarly if a fitting from 'A' was assembled to a hose from 'B' the likelihood is that the inner tube of the hose would be over-compressed or the hose reinforcement could be cut, again resulting in premature failure.

MDG 41 stipulates hose assemblies shall only be carried out using "Matched Hose and Fittings" (MDG 41 Clause 3.7.6.1k). MDG 41 defines a "Matched System" as "where the hose and fittings (insert/ferrule) are from the same manufacturer and are assembled and crimped using the method as specified by that manufacturer" (MDG 41 Clause 1.6.13).

Suppliers of manufactured hydraulic hose assemblies must be able to guarantee that the hose and fittings used are matched. RYCO products provide our customers with a matched system. Our design teams create and stringently test the hoses and fittings together to ensure optimum performance and reliability. All this is achieved using RYCO's assembly methods which are reliable and easy to follow.



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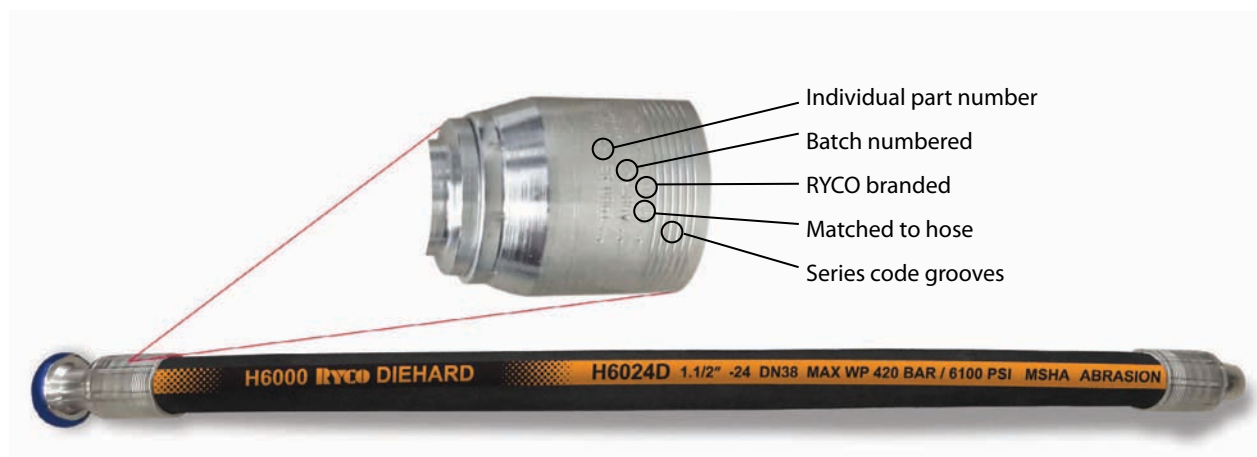
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HOSE ENDS MDG 41 - CLAUSE 3.7.6.2

**Hose ends shall not be interchanged and shall be properly matched.
Note: Only select hose fittings compatible for the hose application.**



COMPETENCE MDG 41 CLAUSE - 3.7.6.6

Persons fabricating hose assemblies shall be competent and trained in the proper use of equipment, materials, assembly procedures and testing. People should be assessed in their competence for hose assembly and the assessment should be recorded.

SAFETY SOLUTIONS

Our team of experienced engineering personnel can provide a engineering solution to suit your needs. Whether it's a simple question of product application, or the supply contract to multiple mine sites, we have the knowledge, experience and products to give you the most complete solution to your needs.

Experience is a very important quality in a supplier. The experience that RYCO has gained in many industries is a tangible asset, and one that keeps customer's coming back to us, because, like you, we've been out there working. The chances are that we've already supplied to someone who had exactly the same need for a solution as you, and that we've already helped someone else find that solution. "That's experience".

RYCO is aware of its responsibility to you the customer. We understand that the supply of our product does not finish with the goods being shipped.

Hydraulic hose assemblies can present a very real danger if misapplied. We understand this, and can provide you with the competence based training ensuring that you have the methods, products and knowledge to manufacture a matched hydraulic hose assembly each and every time.

RESEARCH

RYCO is a specialist supplier of hydraulic hose and fittings to the mining industry; heavy-duty mining requires heavy-duty product. RYCO is constantly working together with the mining industry to research and develop new technologies and solutions to your specific hydraulic requirements. MDG 41 is just one of these solutions.

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ABOUT RYCO – INNOVATION

INNOVATION

RYCO's commitment to Innovation and Continuous Improvement ensure that we can deliver tomorrow's solutions today. We believe that our global strength in Engineering, Innovation and product development provide our customers a high level of service and solutions unparalleled in the industry.

RYCO's Global Research and Development test facilities give our design teams the platform they require to continually improve our products to surpass the performance requirements as demanded by our customers and industry standards.

RYCO's product range is continually expanding and evolving, providing improved efficiency, higher working pressures and increased safety standards.

We design our product for tomorrow's requirements, today.

RYCO's Technology makes us a leader in our industry. Our policy of high investment in technology ensures that we not only maintain our position in the industry, but also continually improve and develop products that surpass industry standards.

We continually enhance our Hydraulic Hose Specifications as we introduce new technical developments.

RYCO's Coupling technology and higher performing ISOBARIC hose families make our matched assemblies a world leader in performance, efficiency and safety.

RYCO's extensive testing process of hydraulic hose, fittings and assemblies is crucial to deliver accredited and proven product quality.

WE DESIGN OUR PRODUCT FOR TOMORROW'S REQUIREMENTS, TODAY.



RYCO Dalian

TRAINING



RYCO offers a broad range of modular training solutions to meet the needs of the hydraulic industry.

With safety a priority RYCO training equips you with the knowledge and confidence you need .



RYCO's commitment is to continually improve our services to you, our partners.

We understand that training is an essential part of your business. We strive to provide the best in the industry.



RYCO is a specialist supplier of hydraulic hose and fittings with over 65 years experience.

RYCO training equips you with the knowledge and the confidence you need, and the KNOW HOW to back it up.

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ABOUT RYCO – SERVICES AND SUPPORT

HAVE - HOSE ASSEMBLY VISUAL EVALUATION



HAVE is a training presentation with three purposes:

- ☑ To highlight the dangers inherent with the use of high pressure hoses
- ☑ To demonstrate signs of potential failure
- ☑ To explain best practices for hose installation

HAVE Hose Assembly Visual Evaluation **RYCO** KNOW HOW

Are you making a fatal mistake?

In the past, many companies and personnel have viewed hydraulic hose and fittings as low tech, consumable product that should be fixed only when it fails.

The attitude is often: "She'll be right - We'll replace the hose when it's busted!"

Tragically, this could have dire consequences, and it could even be a FATAL mistake!

Here are some newspaper articles, reports and statistics detailing some of the potential consequences of such a decision:

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Hydraulic hoses are designed and built to work in high pressure systems.

Therefore a failing hose presents great potential for harm.

The RYCO HAVE training program to conveys a message demonstrating ways of reducing risks.

HAVE Hose Assembly Visual Evaluation **RYCO** KNOW HOW

Cover

Spiral Type

Braided Type

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RYCO HAVE is a computer based program that can be presented formally to a group, or run individually as a self-paced learning program.

Risk reduction is a 4 part process:

- Stop and identify the hazards
- Assess the risks
- Manage the risks
- Take action to make it safe

HALP® - HOSE ASSEMBLY LIFESPAN PREDICTOR

Hose Assembly Lifespan Predictor, an online program that predicts the lifespan of hose assemblies for given conditions and environments.



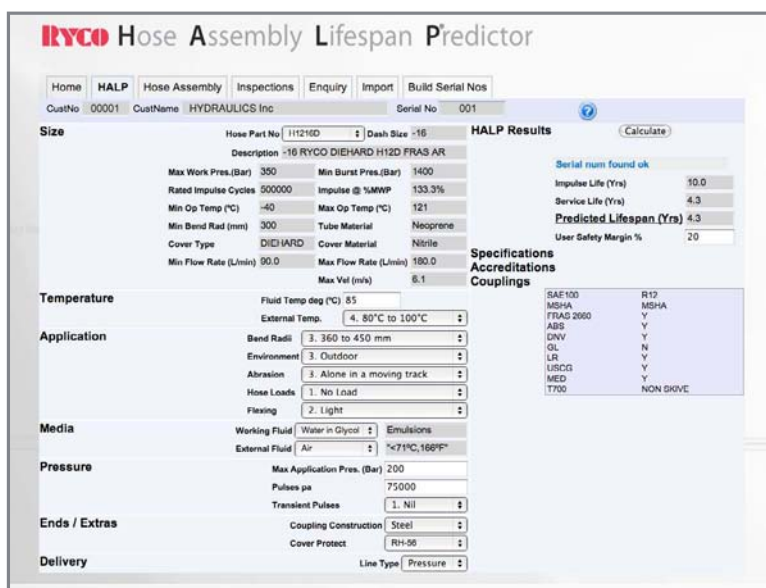
RYCO HALP® aids in determining the optimum time to carry out preventative maintenance and replace hose assemblies before they fail.

By being proactive HALP® assists in risk management and helps to prevent fluid injection injuries.



HALP® incorporates a database of hose assemblies, tracking their components and machine locations.

When coupled with predictive technology, HALP® keeps you on track with scheduled hose maintenance.



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ABOUT RYCO – SERVICES AND SUPPORT



RYCO 24•7 - MOBILE HOSE AND FITTING SERVICE

During 65 years of business, RYCO has increased its market coverage by establishing RYCO 24•7 Service Centres, Mobile Connector Specialists and Onsite Container Workshops in several countries around the world.

Today RYCO 24•7 has extensive coverage specialising in mobile hydraulic hose, fittings, service and replacement 24 hours a day, 7 days a week. RYCO 24•7 actively supports and services national contracts and Original Equipment Manufacturers (OEM) in industries covering mining, agriculture, marine, construction, defence and industrial markets.

With the continued support of RYCO Hydraulics, Australia's leading manufacturer of hydraulic hose and fittings we offer a network of RYCO 24•7 Service Centres, Mobile Connector Specialists and Onsite Container Workshops for the emergency break down, programmed maintenance, OEM support, installation and aftermarket business.

RYCO 24•7 MISSION STATEMENT

Our Mission is to listen to our customers and deliver the highest quality and technologically superior fluid conveying connection products and solutions.



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Increase productivity and profitability

Extensive training & support

Ensures minimal downtime

Set-up to suit specific site requirements

Onsite container workshop and inventory storage

Ideal for remote locations, fully relocatable

RYCO 24•7 SERVICES

RYCO 24•7 offers a comprehensive service for the hydraulic industry with emergency break down, programmed maintenance, Original Equipment Manufacturer support, installation and aftermarket business. Our professionally trained and dedicated teams are on call 24 hours a day, 7 days a week offering expert technical support for all types of hydraulic systems.

Whether it is mining, marine, agriculture, defence, construction, industrial or utilities the team at RYCO 24•7 will be on hand, anywhere, anytime, to offer you professional assistance.

RYCO 24•7 Service Centres, Mobile Connector Specialists and Onsite Container Workshops offer extensive national contract and Original Equipment Manufacturer support through the development of hose assembly design, configuration, installation and aftersales service.

Quite often hose assembly plumbing can be an afterthought when designing complex hydraulic systems. With RYCO 24•7 support, our technical teams have the knowledge to assist with efficient and effective port to port solutions in the early stages of system design.

With comprehensive product and system knowledge, RYCO 24•7 technicians can be an integral partner in developing a marketing leading product including efficiency in system performance, warranty reduction and aftersales service.

Also, RYCO 24•7 has developed a new range of onsite hose assembly workshops and product storage containers. Ideal solution for remote mining locations, construction sites, offshore and large manufacturing sites.

ONSITE HOSE CONTAINERS

As part of the ongoing focus on customer service, RYCO 24•7 has developed a new range of onsite hose assembly workshops and product storage containers. The RYCO 24•7 containers are an ideal solution for remote mining locations, construction sites, offshore and large manufacturing sites.

INTRODUCTION

RYCO EXPERIENCE

HYDRAULIC HOSE AND COUPLING TOLERANCING

A common misconception is that **IF** a coupling matches to a hose that meets SAE or EN (DIN) specification **THEN** that coupling will match with **ALL** hydraulic hoses that meet that specification. Conversely, **IF** a hose that meets SAE or EN (DIN) specification matches to a coupling **THEN** that hose will match with **ALL** couplings made for hoses within that specification. **THIS IS SIMPLY NOT TRUE.**

As stated in SAE J517, the specification for Hydraulic Hose:

"SAE J517 HOSE FROM ONE MANUFACTURER IS USUALLY NOT COMPATIBLE WITH SAE J516 CONNECTORS SUPPLIED BY ANOTHER MANUFACTURER. IT IS THE RESPONSIBILITY OF THE (HOSE ASSEMBLY) FABRICATOR TO CONSULT THE MANUFACTURER'S WRITTEN INSTRUCTIONS OR THE MANUFACTURERS DIRECTLY BEFORE INTERMIXING HOSE AND CONNECTORS FROM TWO MANUFACTURERS".

There are various societies and organisations that develop specifications for Hydraulic Hose. The major ones are:

- SAE** The Society of Automotive Engineers
- EN** European Normes (based on the former DIN German standards)
- ISO** International Organization for Standardization
- AS** Australian Standards

These standards cover the performance specifications and dimensional tolerances of Hydraulic Hose.

SAE dimensional tolerances are the most widely used. EN, ISO and AS dimensional tolerances are similar to the corresponding SAE standard. Therefore, it is generally possible to meet the dimensional tolerances of these standards with a single series of hose. In the main, EN (DIN) standards have higher working pressures than their corresponding SAE standards.

Dimensional tolerances of these standards are quite broad. Hoses not manufactured to tight tolerance control may still meet these standards, but will perform poorly due to compression variations and will have assembly difficulties. This is not commonly understood. Hence, the common misconception stated above.

RYCO Hydraulics has its own **HYDRAULIC HOSE SPECIFICATION**. **RYCO** dimensional tolerances are much tighter than SAE or EN, and often have higher maximum working pressures.

Close tolerancing enables **RYCO** to provide higher performance Hydraulic Hose. **RYCO** Couplings are designed to match technically superior **RYCO** Hydraulic Hose. Superior technology gives **SAFER, STRONGER AND LONGER LASTING HOSE ASSEMBLIES**.

**DO NOT MIX/MATCH HOSE
AND COUPLINGS FROM
ONE MANUFACTURER
WITH HOSE AND COUPLINGS
FROM ANOTHER
MANUFACTURER.**



RYCO HOSE IS MATCHED TO RYCO COUPLINGS

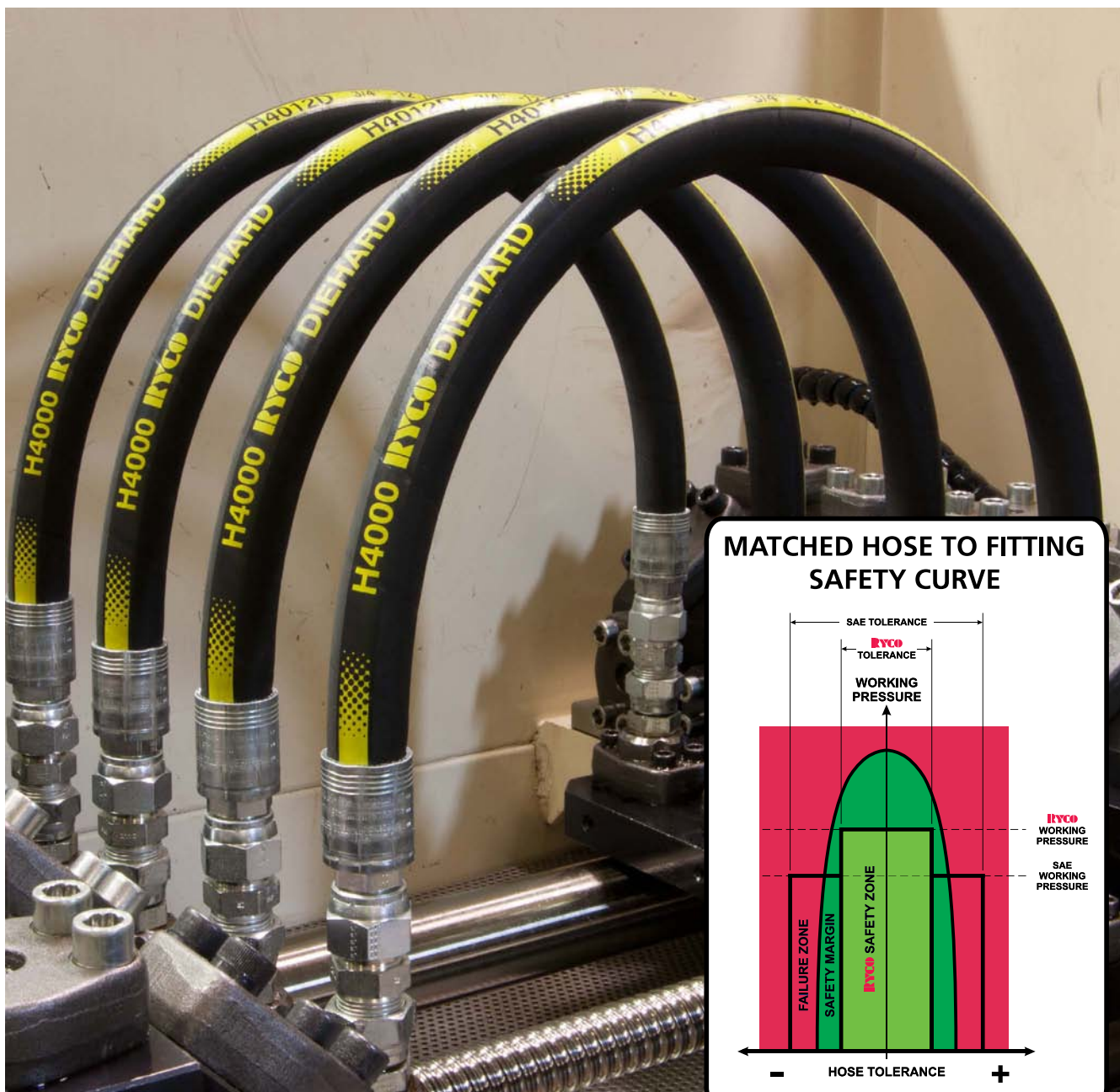
RYCO SAFETY ZONE

The RYCO SAFETY ZONE provides an increased margin of operational safety when using RYCO matched hose and fittings.

Hose tolerance bands for Hose Bore, Reinforcement Diameter, Braid Wall, Cover Thickness and Concentricity of RYCO hoses are typically half the tolerance specified by SAE and EN/DIN standards.

All hoses and all fittings are not equal, "RYCO fittings are designed, matched and qualified for use with RYCO hose."

All RYCO hydraulic hose and fittings are designed and manufactured to meet and exceed relevant industry standards. RYCO produces hydraulic hose that is dimensionally consistent and when matched with RYCO fittings, results in increased safety and performance.



SAFETY SAYS
"DO NOT MIX 'N' MATCH OR ELSE PAY THE PRICE!"

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IMPORTANT INFORMATION: HOSE COUPLING PART NUMBER CHANGES

RYCO's dedication to customer service is paramount. That's why we are constantly expanding our range of hose couplings to meet all of your application needs. In 2012, RYCO updated and improved the part numbering system, which was seamlessly integrated across the product range.

This new part numbering system entailed adding an extra numeric character to 2-digit end style (thread/connector termination) codes, and converting most alpha-numeric end styles to a 3-digit code. The exceptions to this rule are the following:

"N" will remain in the end style coding where "N" currently represents NPT or NPSM

"S" will replace current "SS" in the end style coding where "SS" currently represents Stainless Steel material

"B" will remain in the end style coding where "B" currently represents Brass material.

These changes are further highlighted and explained in the examples provided herein on pages 158 and 159, with a cross-reference of Previous to New end style codes listed in the Index by Endstyle Number on pages 170 to 174 in the Couplings section.

To maintain high levels of Customer Service, traceability and accurate product identification, for many years RYCO has been branding both ferrules and inserts of hose couplings. RYCO will continue to provide this level of detail on hose couplings (including ferrules and inserts) bearing the new part numbering format. There will be no change to the identification grooves that currently exist, except for those new hose coupling series' for which the basic markings/branding are represented on the graphics herein and in the RYCO Crimp Chart.

The basic nomenclature for identifying New to Previous hose coupling series' is as follows:

ONE-PIECE COUPLING SERIES		TWO-PIECE COUPLING SERIES				FIELD-ATTACHABLE AND PUSH-ON COUPLING SERIES			
NEW	PREVIOUS	NEW		PREVIOUS		NEW		PREVIOUS	
Series	Series	Coupling/ Ferrule	Insert	Coupling/ Ferrule	Insert	Coupling/ Ferrule	Insert	Coupling/ Ferrule	Insert
T1000	—	69000N	9000N	6900N	900N	8000	—	800	—
T2000	T200	1G000	G000	1G00	G00	33000	—	3300	—
T4000	T400					K000	6000	K00	600
T7000	T700					L000	6000	L00	600
T9000	T900					M000	6000	400	600
TT000	1100/RT00*					P000	6000	—	—
						V000	6000	V00	600

*TT000 replaces the Two Piece 1100 Ferrule and RT00 insert.

It should be noted that the following remain identical for a coupling branded with the new part numbering convention and its equivalent part branded with the previous part numbering convention:

- assembly parameters (crimp diameters, mark length and skive lengths)
- performance
- design
- scope of application.

In addition to the hose coupling part numbering change, the following applies:

- The part number change was effective as of the January 2013 Price List
- Parts supplied and invoiced under either the new part number or the equivalent previous part number will be of identical price, including discount (excluding agreements over and above pricing listed in current Price List)
- Parts supplied under the new part number may reflect previous part number branding
- Both new and previous part numbers will appear on each invoice line until further notice
- Both new and previous couplings series are matched to the same range of RYCO hoses as listed in current RYCO literature (unless otherwise stated), and should be assembled as per the current RYCO Crimp Chart
- Thread/Connector and Hose Dash Size numbering remains unchanged.

One of the many, well recognised advantages of RYCO Hydraulics products is that virtually all parts are branded with the RYCO name and Part Number, making for easy identification and reducing the chance for errors.

The Part Number includes the Size of the Hose, or Thread or Connector ("Dash Size Part Numbering").

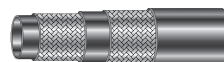
ESSENTIALLY:

IMPERIAL DIMENSIONS are expressed as the number of SIXTEENTHS of an inch.
 METRIC DIMENSIONS are expressed as the number of MILLIMETRES.
 Further explanation is given on the following pages.

FOR EXAMPLE:

1. **T26A** is T2A Series two wire braid non-skive hose:

-6 = $6/16'' = 3/8''$ inside diameter.



2. **T2040-0812** is a T2040 JIC Female Coupling with:

Hose Size -08 = $8/16'' = 1/2''$

Thread Size -12 = $12/16'' = 3/4''$



3. **M75S-2208** is an M75S Adaptor with:

Thread A -22 = 22 mm Metric thread one end and

Thread B -08 = $8/16'' = 1/2''$ BSPP thread other end.



4. **S27-0202**

S27 is BSPT Male Nipple Series

-0202 is size $1/8''$ by $1/8''$.

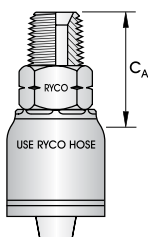


The size is clearly incorporated in the Part Number.

With a little familiarity, and by following the simple guidelines on the next pages, you will find that you can specify Part Numbers without needing to refer to the Product Technical Manual.

NPT **T2090**

60° SEAT



HOSE COUPLINGS

Part No. **T2090-0406**

T2090 is the Group Designator for NPT Male T2000 Series BITELOK One-Piece Crimp Couplings.

T2090-0406 T2000 T2000 Series BITELOK One-Piece Crimp Couplings

T2090-0406 090 NPT Male (End Style Termination)

T2090-0406 0406 is the Size Designator (Dash Size) (Hose Size then Thread Size)

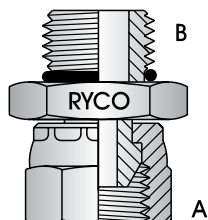
T2090-0406 04 Hose Size $4/16'' = 1/4''$

T2090-0406 06 Thread Size $6/16'' = 3/8''$

HOSE SIZE		THREAD SIZE	DASH SIZE	NPT MALE
DN	inch	inch		PART NO
6	1/4	1/8	-0402	T2090-0402
6	1/4	1/4	-0404	T2090-0404
6	1/4	3/8	-0406	T2090-0406

BSP/UNO **S95**

STRAIGHT



ADAPTORS

Part No. **S95-0409**

S95 is the Group Designator for BSPP Female Swivel to UN O Ring Male

S95-0409 BSPP Female Swivel to UN O Ring Male

S95-0409 is the Dash Size (A end then B end)

S95-0409 4/16" Thread Size = 1/4"

S95-0409 9/16" Thread Size

THREAD SIZE A		THREAD SIZE B	DASH SIZE	BSPP FEMALE SWIVEL UN O RING MALE
inch	inch			PART NO
1/8	7/16		-0207	
1/4	9/16		-0409	S95-0409

INTRODUCTION

DASH SIZE PART NUMBERING

RYCO “DASH SIZE” DEFINITIONS

The “Dash Size” of a Hose, Coupling, Thread or Connector is:

1. FOR HOSE

The number of SIXTEENTHS of an inch in the Inside Diameter.

2. FOR THREADS OR CONNECTORS WITH IMPERIAL DIMENSIONS

a) JIC, SAE Threads, ORFS, UNO: the number of SIXTEENTHS of an inch in the size of the Male Thread.

b) BSP, NPT, SAE Flange, RYCO WEO, HAMMER UNION: the number of SIXTEENTHS of an inch in the Nominal Size of the Connector.

c) Tubing and Tube Bite: the number of SIXTEENTHS of an inch in the Outside Diameter of the Tube.

3. FOR THREADS OR CONNECTORS WITH METRIC DIMENSIONS

a) the number of MILLIMETRES in the OD of the Male Thread (pitch of thread is sometimes included).

b) Tubing and Tube Bite: the number of MILLIMETRES in the Outside Diameter of the Tube.

4. FOR CROCBITE, RKV, STAPLELOK & SUPERLOK COUPLINGS

The nominal size of the Coupling in MILLIMETRES.

5. FOR QUICK RELEASE COUPLINGS

The nominal size of the Coupling in SIXTEENTHS of an inch.

6. FOR HOSE PROTECTION

RWA, RH, RCS Inside Diameter in MILLIMETRES.

FS1072 Inside Diameter in SIXTEENTHS of an inch.

RSG/RSGY/RSGF Outside Diameter in MILLIMETRES.

7. FOR HYDRAULIC FILTERS EXCEPTION TO RULE.

Hydraulic Filters are dash sized for the number of EIGHTHS of an inch in the port size of the Filter.

RULES FOR “DASH SIZE” PART NUMBERING

HYDRAULIC HOSE

Part Number comprises the Hose Series Number followed by the Dash Size.

Note: For Dash Sizes -02, -03, -04, -05, -06 and -08 the “0” is not included in the Part Number except for Spiral Hose and Isobaric Hose.

Hose Series Numbers are shown in Hose Pictorial Index on pages 34 to 40.

Dash Sizes are shown in the Quick Reference Chart on page 32.

EXAMPLES

-16 size SRF Series Hose is SRF16

-12 size M2 Series Hose is M212

-10 size RTH1 Series Hose is RTH110

-08 size R4SPA Series (Spiral) Hose is R4SP08

NOTE

If there are letters at the end of the Hose Series Number, Dash Size comes before letters.

T3000A, T3000D, T3000S, T4000A, T4000D, T4000S, T5000A, T5000D, T5000S, T6000A, T6000D, T6000S, H3000A, H3000D, H3000S, H4000A, H4000D, H4000S, H5000A, H5000D, H5000S, H6000A, H6000D, H6000S, DF2A, D2B, H12A, H12D, H12S, M2G, PL1D, R4SHA, R4SHD, R4SPA, R4SPD, TP7N, TP7T, TP7TN, TP8N, TP8T, TP8TN, T1A, T1D, T1F, T1S, T2A, T2D, T2S, T2C, TJ2D, TXA2D.

EXAMPLES

-32 size H6000D Series Hose is H6032D

-20 size H12A Series Hose is H1220A

-06 size DF2A Series Hose is DF26A

-06 size TP7TN Series hose is TP76TN

HOSE COUPLINGS

Part Numbers comprise Coupling Series and End Style Number followed by the Dash Size of the Hose and the Dash Size of either the Thread or Connector Size. Coupling Series and End Style Numbers are described at start of Hose Coupling Section. (See page 156 and pages 170 to 174).

EXAMPLES

T2000 BITELOK ONE-PIECE CRIMP COUPLING

3/4" hose x 1.1/16" JIC Female

Order Part No. T2040-1217

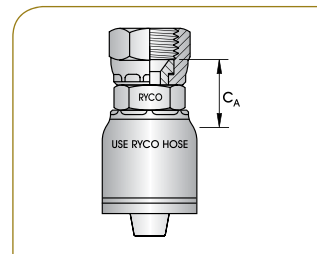
T2040-1217 T200 Series Coupling

T2040-1217 JIC Female End Style

T2040-1217 is the Size Designator (Dash Size),
(Hose Size then Thread Size)

T2040-1217 -12 = 12/16" = 3/4" hose

T2040-1217 -17 = 17/16" = 1.1/16" thread



FIELD ATTACHABLE INSERT

1/2" BSPT Male for 3/8" hose.

Order Part No. 6010-0608

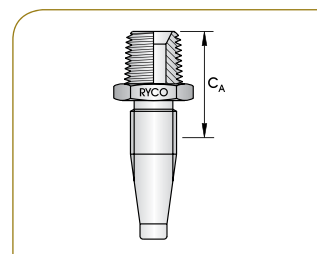
6010-0608 600 Series Insert

6010-0608 BSPT Male End Style

6010-0608 is the Size Designator (Dash Size),
(Hose Size then Thread Size)

6010-0608 -06 = 6/16" = 3/8" hose

6010-0608 -08 = 8/16" = 1/2" thread



ADAPTORS

Part Numbers comprise of Group Designator followed by Dash Size.

(Group Designators are shown in Adaptors Pictorial Index pages 296 to 303).

EXAMPLES

NPT MALE TO NPT MALE NIPPLE (STRAIGHT)

3/4" NPT Male x 1/4" NPT Male Nipple

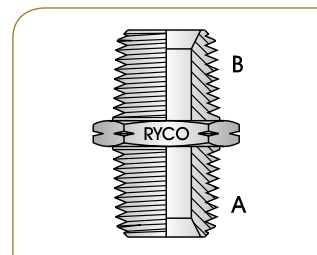
Order Part No. S27N-1208

S27N-1208 Group Designator for NPT Male Nipple

S27N-1208 is the Dash Size (A end then B end)

S27N-1208 -12 = 12/16" = 3/4" thread (A)

S27N-1208 -08 = 8/16" = 1/2" thread (B)



JIC MALE TO UNO RING MALE 90 ELBOW

3/4" JIC Male x 1.5/16" UNO Ring Male 90 Elbow

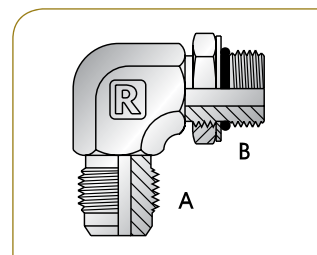
Order Part No. S91-1221

S91-1221 Group Designator for NPT Male Nipple

S91-1221 is the Dash Size (A end then B end)

S91-1221 -12 = 12/16" = 3/4" thread (JIC) (A)

S91-1221 -21 = 21/16" = 1.5/16" thread (UNO) (B)



There are supplementary rules which determine the listing order for multi-ended adaptors. These rules are shown in detail on pages 294 to 295.

See page 521 for Important Note regarding Thread Dash Sizes/Tube Dash Sizes.

INTRODUCTION

DASH SIZE PART NUMBERING

QUICK REFERENCE CHART OF DASH SIZE EQUIVALENTS

EXAMPLE: Find Dash Size for 1.5/16" JIC thread. Read down JIC & UNO column until 1.5/16" is reached.
Read off Dash Size in far left column (-21).

DASH SIZE	* INCH	BSP INCH-TPI	NPT INCH-TPI	JIC & UNO INCH-TPI	SAE FLARE INCH-TPI	ORFS INCH-TPI
-02	1/8	1/8 - 28	1/8 - 27			
-03	3/16					
-04	1/4	1/4 - 19	1/4 - 18			
-05	5/16			5/16 - 24	5/16 - 24	
-06	3/8	3/8 - 19	3/8 - 18	3/8 - 24	3/8 - 24	
-07	7/16			7/16 - 20	7/16 - 20	
-08	1/2	1/2 - 14	1/2 - 14	1/2 - 20	1/2 - 20	
-09	9/16			9/16 - 18		9/16 - 18
-10	5/8	5/8 - 14			5/8 - 18	
-11	11/16					11/16 - 16
-12	3/4	3/4 - 14	3/4 - 14	3/4 - 16	3/4 - 16	
-13	13/16					13/16 - 16
-14	7/8			7/8 - 14	7/8 - 14	
-15	15/16					
-16	1	1 - 11	1 - 11.1/2			1 - 14
-17	1.1/16			1.1/16 - 12	1.1/16 - 14	
-18	1.1/8					
-19	1.3/16					1.3/16 - 12
-20	1.1/4	1.1/4 - 11	1.1/4 - 11.1/2			
-21	1.5/16			1.5/16 - 12		
-22	1.3/8					
-23	1.7/16					1.7/16 - 12
-24	1.1/2	1.1/2 - 11	1.1/2 - 11.1/2			
-25	1.9/16					
-26	1.5/8			1.5/8 - 12		
-27	1.11/16					1.11/16 - 12
-28	1.3/4					
-29	1.13/16					
-30	1.7/8			1.7/8 - 12		
-31	1.15/16					
-32	2	2 - 11	2 - 11.1/2			2 - 12
-33	2.1/16					
-36	2.1/4					
-40	2.1/2	2.1/2 - 11	2.1/2 - 8	2.1/2 - 12		
-42	2.5/8					
-48	3	3 - 11		3 - 8		
-50	3.1/8					
-52	3.1/4					
-60	3.3/4					
-63	3.15/16					
-75	4.11/16					

DASH SIZE	** MM	METRIC MM X PITCH
-02	2	
-03	3	
-04	4	
-05	5	
-06	6	
-07	7	
-08	8	
-09	9	
-10	10	
-11	11	
-12	12	
-13	13	
-14	14	14 x 1,5 (-1415)
-15	15	
-16	16	16 x 1,5 (-1615)
-17	17	
-18	18	18 x 1,5 (-1815)
-19	19	
-20	20	20 x 1,5 (-2015)
-21	21	
-22	22	22 x 1,5 (-2215)
-23	23	
-24	24	24 x 1,5 (-2415)
-25	25	
-26	26	26 x 1,5 (-2615)
-27	27	
-28	28	
-29	29	
-30	30	30 x 1,5 (-3015) 30 x 2,0 (-3020)
-31	31	
-32	32	
-33	33	33 x 1,5 (-3315)
-36	36	36 x 1,5 (-3615) 36 x 2,0 (-3620)
-40	40	
-42	42	42 x 1,5 (-4215) 42 x 2,0 (-4220)
-48	48	
-50	50	50 x 2,0 (-5020)
-52	52	52 x 2,0 (-5220)
-60	60	60 x 2,0 (-6020)
-63	63	
-75	75	

***INCH COLUMN IS USED FOR:**

- Hose ID.
- Imperial Tube OD.
- FS1072 FIRE SLEEVE ID.
- Nominal size of SAE FLANGE.
- Nominal size of Quick Release Coupling.

****MM COLUMN IS USED FOR:**

- Metric Tube OD.
- Nominal size of CROCBITE, RKV, STAPLELOK and SUPERLOK Couplings.

■ HYDRAULIC HOSE



HOSE

PICTORIAL INDEX

HOSE SERIES		INSIDE DIAMETER	RECOMMENDED	CONSTRUCTION	PERFORMANCE SPECIFICATIONS MET OR EXCEEDED	COUPLING SERIES
ISOBARIC BRAID						
61	T3000A AVENGER™					
PRODUCT SUPERSEDED						
62	T3000D DIEHARD™					
		-04 to -16 1/4" to 1"	High pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. One or two braids of high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover.	ISO 18752-BC SAE 100R17	T1000 T2000
63	T3000S SLIDER™					
		-04 to -16 1/4" to 1"	High pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. One or two braids of high tensile steel wire reinforcement. Synthetic rubber cover sheathed with a layer of extremely abrasion resistant polyethylene cover.	ISO 18752-BC SAE 100R17	T1000 T2000
64	T3600A AVENGER™					
PRODUCT SUPERSEDED						
65	T3600D DIEHARD™					
		-04 to -16 1/4" to 1"	High pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. One or two braids of high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover.	ISO 18752-BC	T1000 T2000
66	T3600S SLIDER™					
		-04 to -16 1/4" to 1"	High pressure hydraulic oil lines.	Oil resistant synthetic rubber. One or two braids of high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene cover.	ISO 18752-BC	T1000 T2000
67	T4000A AVENGER™					
PRODUCT SUPERSEDED						
68	T4000D DIEHARD™					
		-04 to -12 1/4" to 3/4"	High pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. One or two braids of high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover.	ISO 18752-AC SAE 100R19	T2000
69	T4000S SLIDER™					
		-04 to -12 1/4" to 3/4"	High pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. One or two braids of high tensile steel wire reinforcement. Synthetic rubber cover sheathed with a layer of extremely abrasion resistant polyethylene.	ISO 18752-AC SAE 100R19	T2000
70	T5000A AVENGER™					
PRODUCT SUPERSEDED						
71	T5000D DIEHARD™					
		-04 to -08 1/4" to 1/2"	Very high pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover.	ISO 18752-AC	T2000
72	T5000S SLIDER™					
		-04 to -08 1/4" to 1/2"	Very high pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Synthetic rubber cover sheathed with a layer of extremely abrasion resistant polyethylene.	ISO 18752-AC	T2000

HOSE SERIES		INSIDE DIAMETER	RECOMMENDED	CONSTRUCTION	PERFORMANCE SPECIFICATIONS MET OR EXCEEDED	COUPLING SERIES
ISOBARIC BRAID (CONT)						
73	T6000A AVENGER™			Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover.	ISO 18752-AC	T2000
PRODUCT SUPERSEDED						
74	T6000D DIEHARD™	-04 to -06 1/4" to 3/8"	Extremely high pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover.	ISO 18752-AC	T2000
75	T6000S SLIDER™	-04 to -06 1/4" to 3/8"	Extremely high pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Synthetic rubber cover sheathed with a layer of extremely abrasion resistant polyethylene.	ISO 18752-AC	T2000
ISOBARIC SPIRAL						
76	H3000A AVENGER™			Oil resistant synthetic rubber tube. Four alternating layers of spiralled high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover.	EN 856 Type R12 EN 856 Type 45P ISO 18752-DC SAE 100R12	T7000
PRODUCT SUPERSEDED						
77	H3000D DIEHARD™	-20 to -32 1.1/4" to 2"	High pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Four alternating layers of spiralled high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover.	EN 856 Type R12 EN 856 Type 45P ISO 18752-DC SAE 100R12	T7000
78	H3000S SLIDER™	-20 to -32 1.1/4" to 2"	High pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Four alternating layers of spiralled high tensile steel wire reinforcement. Synthetic rubber cover sheathed with a layer of extremely abrasion resistant polyethylene.	EN 856 Type R12 EN 856 Type 45P ISO 18752-DC SAE 100R12	T7000
79	H4000A AVENGER™			Oil resistant synthetic rubber tube. Four or six alternating layers of spiralled high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover.	EN 856 Type R12 EN 856 Type 45P (size DN25, -16) ISO 18752-DC SAE 100R12	T7000
PRODUCT SUPERSEDED						
80	H4000D DIEHARD™	-06 to -32 3/8" to 2"	High pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Four or six alternating layers of spiralled high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover.	EN 856 Type R12 EN 856 Type 45P (size DN25, -16) ISO 18752-DC SAE 100R12	T7000
81	H4000S SLIDER™	-06 to -32 3/8" to 2"	High pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Four or six alternating layers of spiralled high tensile steel wire reinforcement. Synthetic rubber cover sheathed with a layer of extremely abrasion resistant polyethylene.	EN 856 Type R12 EN 856 Type 45P (size DN25, -16) ISO 18752-DC SAE 100R12	T7000
82	H5000A AVENGER™			Oil resistant synthetic rubber tube. Four or six alternating layers of spiralled high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover.	EN 856 Type R13 ISO 18752-CC SAE 100R13	T7000 T9000
PRODUCT SUPERSEDED						
83	H5000D DIEHARD™	-06 to -32 3/8" to 2"	Very high pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Four or six alternating layers of spiralled high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover.	EN 856 Type R13 ISO 18752-CC SAE 100R13	T7000 T9000
84	H5000S SLIDER™	-06 to -32 3/8" to 2"	Very high pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Four or six alternating layers of spiralled high tensile steel wire reinforcement. Synthetic rubber cover sheathed with a layer of extremely abrasion resistant polyethylene.	EN 856 Type R13 ISO 18752-CC SAE 100R13	T7000 T9000

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PICTORIAL INDEX

HOSE SERIES		INSIDE DIAMETER	RECOMMENDED	CONSTRUCTION	PERFORMANCE SPECIFICATIONS MET OR EXCEEDED	COUPLING SERIES
ISOBARIC SPIRAL (CONT)						
85	H6000A AVENGER™					
PRODUCT SUPERSEDED						
86	H6000D DIEHARD™		-06 to -32 3/8" to 2"	Extremely high pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Four, six or eight alternating layers of spiralled high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover.	EN 856 Type R15 ISO 18752-CC SAE 100R15 T7000 T9000 69000N (Skive)
87	H6000S SLIDER™		-06 to -32 3/8" to 2"	Extremely high pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Four, six or eight alternating layers of spiralled high tensile steel wire reinforcement. Synthetic rubber cover sheathed with a layer of extremely abrasion resistant polyethylene.	ISO 3862 Type R15 ISO 18752-CC SAE 100R15 T7000 T9000 69000N (Skive)
BRAID						
88	T1A AVENGER™					
PRODUCT SUPERSEDED						
89	T1D DIEHARD™		-03 to -32 3/16" to 2"	High pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. One braid of high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover.	AS 3791 100R1AT DIN 20022-15N EN 853 Type 15N ISO 1436 Types R1AT & 15N SAE 100R1AT T2000 T7000 6000 (K000)
90	T1S SLIDER™		-03 to -32 3/16" to 2"	High pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. One braid of high tensile steel wire reinforcement. Synthetic rubber cover sheathed with a layer of extremely abrasion resistant polyethylene.	AS 3791 100R1AT DIN 20022-15N EN 853 Type 15N ISO 1436 Types R1AT & 15N SAE 100R1AT T2000 T7000
91	T1F FIRE SUPPRESSION		-03 to -16 3/16" to 1"	Fire Suppression Systems of off-road vehicles, mining equipment, stationary engines, etc.	Oil resistant synthetic rubber tube. One braid of high tensile steel wire reinforcement. Red, heat resistant, abrasion resistant and oil resistant rubber cover.	AS 3791 100R1AT DIN 20022-15N EN 853 Type 15N ISO 1436 Types R1AT & 15N SAE 100R1AT T2000 T7000 6000 (K000)
92	T2A AVENGER™					
PRODUCT SUPERSEDED						
93	T2D DIEHARD™		-04 to -48 1/4" to 3"	High pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover.	AS 3791 100R2AT DIN 20022 - 25N EN 853 Type 25N ISO 1436 Types R2AT & 25N SAE 100R2AT T2000 T7000 6000 (L000)
94	T2S SLIDER™		-04 to -32 1/4" to 2"	High pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Synthetic rubber cover sheathed with a layer of extremely abrasion resistant polyethylene.	AS 3791 100R2AT DIN 20022-25N EN 853 Type 25N ISO 1436 Type 2AT SAE 100R2AT T2000 T7000
95	T2C ICEBREAKER		-04 to -32 1/4" to 2"	High pressure hydraulic oil lines in applications where low temperature environmental conditions exist.	Specially formulated oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil resistant and abrasion resistant synthetic rubber cover.	AS 3791 100R2AT DIN 20022-25N EN 853 Type 25N ISO 1436 Types R2AT & 25N SAE 100R2AT T2000 T7000
96	TXA2D DIEHARD™		-08 to -16 1/2" to 1"	Extra high pressure hydraulic oil lines where pressure exceeds 100R2 by at least 30%.	Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover.	AS 3791 100R2AT BCS 174 DIN 20022-25N EN 853 Type 25N ISO 1436 Types R2AT & 25N SAE 100R2AT T2000 T7000 6000 (L000)

HOSE SERIES		INSIDE DIAMETER	RECOMMENDED	CONSTRUCTION	PERFORMANCE SPECIFICATIONS MET OR EXCEEDED	COUPLING SERIES
BRAID (CONT)						
97	DF2A AVENGER™			Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover.	AS 3791 100R2AT EN 857 Type 25C ISO 1436 SAE 100R2AT SAE 100R16	T2000
PRODUCT SUPERSEDED						
100	E2 ENERGY		-04 to -16 1/4" to 1"	High pressure hydraulic oil lines	Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil resistant synthetic rubber cover.	EN853 2SN SAE 100R2AT SAE 100R2S T2000 T7000 6000 (L000)
98	TJ2D DIEHARD™ JACK		-04 to -06 1/4" & 3/8"	Hydraulic Jack applications requiring a light weight, small outside diameter hose.	Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover.	Materials Handling Institute specification IJ 100 (July 1979) T2000
SPIRAL						
101	H12A AVENGER™			Oil resistant synthetic rubber tube. Four alternating layers of spiralled high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover.	AS 3791 100R12 EN 856 Type R12 EN 856 Type 45P (-12 and above) ISO 3862 Type R12 SAE 100R12	T7000
PRODUCT SUPERSEDED						
102	H12D DIEHARD™		-06 to -40 3/8" to 2.1/2"	Very high pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Four alternating layers of spiralled high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover.	AS 3791 100R12 EN 856 Type R12 EN 856 Type 45P (-12 and above) ISO 3862 Type R12 SAE 100R12 T7000
103	H12S SLIDER™		-06 to -32 3/8" to 3"	Very high pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Four alternating layers of spiralled high tensile steel wire reinforcement. Synthetic rubber cover sheathed with a layer of extremely abrasion resistant polyethylene.	AS 3791 100R12 EN 856 Type R12 EN 856 Type 45P (-12 and above) ISO 3862 Type R12 SAE 100R12 T7000
104	R4SHA AVENGER™			Oil resistant synthetic rubber tube. Four alternating layers of spiralled high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover.	EN 856 Type 45H ISO 3862 Type 45H	T7000 T9000
PRODUCT SUPERSEDED						
105	R4SHD DIEHARD™		-12 to -32 3/4" to 2"	Extra high pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Four alternating layers of spiralled high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover.	EN 856 Type 45H ISO 3862 Type 45H T7000 T9000
106	R4SPA AVENGER™			Oil resistant synthetic rubber tube. Four alternating layers of spiralled high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover.	EN 856 Type 45P ISO 3862 Type 45P	T7000 (Skive)
PRODUCT SUPERSEDED						
107	R4SPD DIEHARD™		-06 to -16 3/8" to 1"	Extra high pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Four alternating layers of spiralled high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover.	EN 856 Type 45P ISO 3862 Type 45P T7000 (Skive)

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SPECIALTY AND HIGH TEMPERATURE

108	T5 TRUCKER		-04 to -32 1/4" to 2"	Medium to high pressure hydraulic oil applications.	Oil resistant synthetic rubber tube. Polyester inner braid covered with one braid of high tensile steel wire reinforcement. Polyester braid cover.	AS 3791 100R5 SAE 100R5 SAE J1402 Type All (up to -12 size)	T4000 V000
109	D2B DRILLER		-24 to -32 1.1/2" to 2"	Hydraulic oil or air lines. Drill rigs - high pressure, large bore air hose.	Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover.		T7000
110	MS1000 MINESPRAY		-08 to -32 1/2" to 2"	Water and air spray suited for dust control in all industrial and mining applications.	Oil resistant synthetic rubber tube. One braid of high tensile steel wire reinforcement. Oil resistant and abrasion resistant synthetic rubber cover.		T2000 T4000
111	CS1000 COALSPRAY		-08 to -32 1/2" to 2"	Water and air spray suited for dust control in all industrial and mining applications.	Oil resistant synthetic rubber tube. One braid of high tensile steel wire reinforcement. Oil resistant and abrasion resistant synthetic rubber cover.		T2000 T4000
112	BT1 BIOTRANS		-04 to -16 1/4" to 1"	Transportation, marine fuel and engine hose applications.	Oil resistant synthetic rubber tube. One braid of high tensile steel wire reinforcement.	SAE J1527 Type Class I SAE J30R2 (non-marine) USCG SAE J1942	T2000 6000 (K000)
114	RQP1 SURVIVOR™		-04 to -16 1/4" to 1"	High pressure hydraulic oil applications, or where resistance to phosphate ester fluid is required.	Synthetic rubber tube, compounded for temperature resistance and multi fluid resistance. One braid of high tensile steel wire reinforcement. Oil resistant and abrasion resistant synthetic rubber cover.	AS 3791 100R1AT DIN 20022-1SN EN 853 Type 1SN ISO 1436 Types R1AT & 1SN SAE 100R1AT	T2000 T7000 6000 (K000)
115	RQP2 SURVIVOR™		-04 to -32 1/4" to 2"	High pressure hydraulic oil applications, or where resistance to phosphate ester fluid is required.	Synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil resistant and abrasion resistant synthetic rubber cover.	AS 3791 100R2AT DIN 20022-2SN EN 853 Type 2SN ISO 1436 Types R2AT & 2SN SAE 100R2AT	T2000 T7000 6000 (L000)
116	RQP5 SURVIVOR™		-04 to -32 1/4" to 2"	Medium to high pressure hydraulic oil applications, or where resistance to phosphate ester fluid is required.	Oil resistant synthetic rubber tube. Polyester inner braid covered with one braid of high tensile steel wire reinforcement. Polyester braid cover.	AS 3791 100R5 SAE 100R5 SAE J1402 Type All (up to -12 size)	T4000 V000
117	RQP6 SURVIVOR™ PUSH-ON		-04 to -12 1/4" to 3/4"	Hydraulic oil lines, transmission oil cooler lines, glycol antifreeze solutions, water, diesel fuels and air.	Oil resistant synthetic rubber tube. One textile braid reinforcement. Oil resistant and abrasion resistant synthetic rubber cover.	AS 3791 100R6 DIN 20021-1TE ISO 4079 Type 1 SAE 100R6	T4000 8000

PRESSURE WASHER

118	TW1 TORNADO WASHER				Oil resistant synthetic rubber tube. One braid of high tensile steel wire reinforcement. Oil resistant and abrasion resistant synthetic rubber cover.		T2000
119	PW2 PRESSURE WASHER				Heat resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil resistant and abrasion resistant synthetic rubber cover.		T2000

*Fitted as factory hose only

HOSE SERIES		INSIDE DIAMETER	RECOMMENDED	CONSTRUCTION	PERFORMANCE SPECIFICATIONS MET OR EXCEEDED	COUPLING SERIES	
SUCTION AND RETURN							
120	SR SUCTION		-12 to -48 3/4" to 3"	Petroleum and water base hydraulic fluids in suction lines or in low pressure return lines.	Oil resistant synthetic rubber tube. Textile reinforcement with spiral wire to prevent collapsing. Oil resistant and abrasion resistant synthetic rubber cover.	AS 3791 100R4 (except SR48) SAE 100R4 33000 T4000	
121	SRF COMPACT SUCTION		-12 to -32 3/4" to 2)	Petroleum and water base hydraulic fluids in suction lines or in low pressure return lines.	Oil resistant synthetic rubber tube. Textile reinforcement with spiral wire to prevent collapsing. Oil resistant and abrasion resistant synthetic rubber cover.	AS 3791 100R4 SAE 100R4 33000 T4000	
TEFLON®							
122	RTH1 TEFLON		-04 to -16 1/4" to 1"	High pressure hydraulic oil lines. Fluids at extremes of pressure and temperature.	PTFE tube (TEFLON*). One braid of high tensile Grade 304 stainless steel wire reinforcement. *DuPont Reg. TM	SAE 100R14. RTH112 meets ID and OD requirements of SAE 100R14. Other sizes have ID and OD different to SAE 100R14 TT000	
TEXTILE BRAID							
123	FB2 BARRIER		PRODUCT SUPERSEDED		Automotive air lines. Synthetic rubber internal braid with Nylon Barrier tube. Synthetic yarn reinforcement. Oil resistant and abrasion resistant synthetic rubber cover.	SAE J2064 Type C Class II 1G000	
124	M1 FUEL LINE		-04 to -06 1/4" to 3/8"	Multi-purpose hose for use on fuel lines, PCV and EEC systems, and fuel return hose connections on diesel fuel injection systems.	Oil resistant synthetic rubber tube. One textile braid reinforcement. Oil resistant synthetic rubber cover.	SAE 30R7 N/A	
125	MP1 MULTI-PURPOSE		-04 to -20 1/4" to 1.1/4"	Air, water, petroleum oils, kerosene and fuel oils.	Oil resistant synthetic rubber tube. One textile braid reinforcement. Oil resistant and abrasion resistant synthetic rubber cover.	RMA Class A (tube) RMA Class B (cover) T4000	
126	M2 TEXTILE		-04 to -16 1/4" to 1"	Medium pressure hydraulic oil lines, antifreeze solutions, water.	Oil resistant synthetic rubber tube. Two textile braids reinforcement. Oil resistant and abrasion resistant synthetic rubber cover.	AS 3791 100R3 DIN 20021-2TE ISO 4079 Type R3 SAE 100R3 T4000 6000 (M000)	
128	PL1 PUSH ON		PRODUCT SUPERSEDED		Petroleum base hydraulic oils, glycol antifreeze solutions, water, diesel fuels, and air.	Oil resistant synthetic rubber tube. One textile braid reinforcement. Oil and abrasion resistant synthetic rubber cover.	AS 3791 100R6 DIN 20021-1TE ISO 4079 Type 1 SAE 100R6 T4000 8000
129	PL1D DIEHARD™		-04 to -12 1/4" to 3/4"	Petroleum base hydraulic oils, glycol antifreeze solutions, water, diesel fuels, and air.	Oil resistant synthetic rubber tube. One textile braid reinforcement. Oil and abrasion resistant synthetic rubber cover.	AS 3791 100R6 DIN 20021-1TE ISO 4079 Type 1 SAE 100R6 T4000 8000	
127	M2G LPG/C		-04 to -12 1/4" to 3/4"	Liquefied Petroleum Gas and Natural Gas.	Oil resistant synthetic rubber tube. Two textile braids reinforcement. Abrasion resistant synthetic rubber perforated cover.	AS/NZS 1869 Class C T4000 6000 (M000)	

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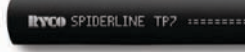

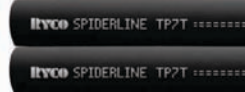



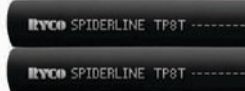
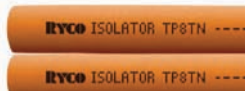

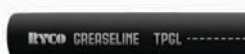

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HOSE SERIES		INSIDE DIAMETER	RECOMMENDED	CONSTRUCTION	PERFORMANCE SPECIFICATIONS MET OR EXCEEDED	COUPLING SERIES	
THERMOPLASTIC							
132	TP7 SPIDERLINE R7		-03 to -16 3/16" to 1"	High pressure hydraulic oil lines; pilot lines; greasing and lubrication lines; and some pneumatic and water lines.	Oil resistant seamless thermoplastic tube. One or two braids of synthetic fibre reinforcement. Oil and abrasion resistant thermoplastic perforated cover.	AS 3791 100R7 EN 855 TYPE R7 ISO 3949 SAE 100R7	T1000 T4000
133	TP7N ISOLATOR R7		-04 to -16 1/4" to 1"	Hydraulic oil lines where electrical non-conductivity is required.	Oil resistant seamless thermoplastic tube. One or two braids of synthetic fibre reinforcement. Oil and abrasion resistant thermoplastic cover.	AS 3791 100R7 EN 855 TYPE R7 ISO 3949 SAE 100R7	T1000 T4000
134	TP7T SPIDERLINE TWIN R7		-04 to -08 1/4" to 1/2"	Payout and return reels on forklifts and cranes, dispensing equipment and other applications requiring two hoses.	Oil resistant seamless thermoplastic tube. One or two braids of synthetic fibre reinforcement. Oil and abrasion resistant thermoplastic perforated cover.	AS 3791 100R7 EN 855 TYPE R7 ISO 3949 SAE 100R7	T1000 T4000
135	TP7TN ISOLATOR TWIN R7		-04 to -08 1/4" to 1/2"	Payout and return reels on forklifts and cranes, hydraulic powered hand tools and other applications requiring two hoses.	Oil resistant seamless thermoplastic tube. One or two braids of synthetic fibre reinforcement. Oil and abrasion resistant thermoplastic cover.	AS 3791 100R7 EN 855 TYPE R7 ISO 3949 SAE 100R7	T1000 T4000
136	TP8 SPIDERLINE R8		-04 to -08 1/4" to 1/2"	High pressure hydraulic oil lines; pilot lines; greasing and lubrication lines; and some pneumatic and water lines.	Oil resistant seamless thermoplastic tube. One or two braids of aramid fibre reinforcement. Oil and abrasion resistant thermoplastic perforated cover.	AS 3791 100R8 EN 855 TYPE R8 ISO 3949 SAE 100R8	T1000
137	TP8N ISOLATOR R8		-04 to -08 1/4" to 1/2"	Hydraulic oil lines where electrical non-conductivity is required.	Oil resistant seamless thermoplastic tube. One or two braids of aramid fibre reinforcement. Oil and abrasion resistant thermoplastic cover.	AS 3791 100R8 EN 855 TYPE R8 ISO 3949 SAE 100R8	T1000
138	TP8T SPIDERLINE TWIN R8		-04 to -08 1/4" to 1/2"	Payout and return reels on forklifts and cranes, dispensing equipment and other applications requiring two hoses.	Oil resistant seamless thermoplastic tube. One or two braids of aramid fibre reinforcement. Oil and abrasion resistant thermoplastic perforated cover.	AS 3791 100R8 EN 855 TYPE R8 ISO 3949 SAE 100R8	T1000
139	TP8TN ISOLATOR TWIN R8		-04 to -08 1/4" to 1/2"	Payout and return reels on forklifts and cranes, hydraulic powered hand tools and other applications requiring two hoses.	Oil resistant seamless thermoplastic tube. One or two braids of aramid fibre reinforcement. Oil and abrasion resistant thermoplastic cover.	AS 3791 100R8 EN 855 Type R8 ISO 3949 SAE 100R8	T1000
140	TP3000 SPIDERLINE N8		-04 to -08 1/4" to 1/2"	Medium pressure hose suitable for petroleum or synthetic based hydraulic fluids in forklift systems.	Polyester elastomer tube. One or two braids of synthetic fibre reinforcement. Special polyester, black with white ink-jet branding. Cover is perforated (pin-pricked).	SAE 100 R18	T4000
GREASING AND LUBRICATION							
141	TPGL GREASE LINE		-02 1/8"	High pressure greasing and lubrication systems.	Oil resistant seamless thermoplastic tube. One or two braids of synthetic fibre reinforcement. Oil and abrasion resistant thermoplastic perforated cover.		TG000 6000 (P000)
142	R4000		-03 3/16"	Flexible Grease Gun extension for high pressure greasing and lubrication systems.	Oil resistant synthetic rubber tube. One braid of high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover.		—

HOSE PROTECTION		INSIDE DIAMETER	RECOMMENDED	CONSTRUCTION	PERFORMANCE SPECIFICATIONS MET OR EXCEEDED	
144	FS FIRE SLEEVE		-08 to -104 1/2" to 6.1/2"	Protection of hoses from heat and molten metal splashes.	Braided glass fibre tubing coated with silicon rubber.	SAE Aerospace Standard AS 1072
146	RCS CROCSLEEVE		23 to 129 mm 7/8" to 5"	Burst and pinhole protection. Protection of hoses from abrasion. Bundling hoses together.	Woven polyamide. RCSB - Black. RCSR - Red.	MSHA approved FRAS
148	RH RAWHIDE		23 to 93 mm 7/8" to 3.5/8"	Protection of hoses from severe abrasion. Bundling hoses together.	Woven nylon tubing.	MSHA approved
149	RSG SPIRAL GUARD		16 to 110 mm (OD) 5/8" to 4.1/2"	Protection of hoses from abrasion and impact. Bundling hoses together.	Polyethylene plastic spiral. Black.	
149	RSGF SPIRAL GUARD FRAS		16 to 110 mm (OD) 5/8" to 4.1/2"	Protection of hoses from abrasion and impact. Bundling hoses together.	Polyethylene plastic spiral. Dark Grey.	MSHA approved FRAS
149	RSGY SPIRAL GUARD		16 to 110 mm (OD) 5/8" to 4.1/2"	Protection of hoses from abrasion and impact. Bundling hoses together.	Polyethylene plastic spiral. Yellow.	
150	RWA PUSH ON		12 to 75 mm 1/2" to 3"	Protection of hose cover from abrasion and gouges.	Spring Steel Wire, galvanised.	
151	RHYS PACKAGING SLEEVE		48 & 79 mm 1.9" and 3.1"	Packaging and protection of hose assemblies during transport and storage.	Heavy duty, low density polyethylene sleeve.	
152	RHYT RHYT-10, -32		Suits sizes -04 to -10 & -12 to -32	Permanent identification of hose assemblies.	High performance plastic.	
152	RHWT RHWT-10, -32		Suits sizes -04 to -10 & -12 to -32	Permanent identification of hose assemblies.	High performance plastic.	
153	750/760 SPRING GUARD		Suits some -04 (1/4") & -06 (3/8") hoses	Control bend radius at end of hose assemblies.	Spring Steel Wire, galvanised.	

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AVENGER

THE SMART CHOICE

ABRASION RESISTANT

PRODUCT SUPERSEDED

MSHA - FLAME RESISTANT

H6000 **RYCO AVENGER**

H6032A 2"

RYCO QUALITY

The tables following on pages 43 to 49 list the approvals RYCO Hydraulics have with various third parties for hoses used in RYCO Matched Hose Assemblies. For each Certification Body/Organisation referenced in the table, listed is; the Approval/Certificate Number held by RYCO, and the Matched Coupling Series approved for the hose.

EXAMPLE:

A Hose Assembly using **T112A** needs to meet **Marine Equipment Directive (MED)** approval; the table shows:

The **MED Approval Number** for RYCO Hydraulics **T1A** Series Hose: **MED-B-3625**.

The **Matched Couplings** approved for use with **T112A** hose: **T2000** & **T7000** Series BITELOK Crimp, and **K000** Series Field Attachable Couplings.

RYCO HOSE TYPE APPROVALS											
HOSE SERIES	AVENGER	DIEHARD	SLIDER								
T3000	A	D	S								
T3004	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000
T3005	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000
T3006	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000
T3008	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000
T3010	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000
T3012	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000
T3016	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000
T3600	A	D	S								
T3604	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		
T3605	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		
T3606	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		
T3608	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		
T3610	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		
T3612	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		
T3616	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		
T4000	A	D	S								
T4004	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000
T4005	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000
T4006	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000
T4008	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000
T4010	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000
T4012	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000
T5000	A	D	S								
T5004	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000
T5005	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000
T5006	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000
T5008	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000
T6000	A	D	S								
T6004	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000
T6005	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000
T6006	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000

* Refer to our website www.RYCO.com.au for current certificate approvals numbers.

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HOSE SERIES	AVENGER	DIEHARD	SLIDER								
	A	D	S	ABS	DNV	GL	LR	MED	USCG	DOT	GOST-R
H3000	A	D	S								
H3020	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000
H3024	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000
H3032	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000
H4000	A	D	S								
H4006	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000
H4008	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000
H4010	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000
H4012	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000
H4016	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000
H4020	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000
H4024	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000
H4032	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000
H5000	A	D	S								
H5006	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000
H5008	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000
H5010	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000
H5012	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000
H5016	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000
H5020	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000
H5024	•	•	•	T9000	T9000	T9000	T9000	T9000	T9000		T9000
H5032	•	•	•	T9000	T9000	T9000	T9000	T9000	T9000		T9000
H6000	A	D	S								
H6006	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000
H6008	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000
H6010	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000
H6012	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000
H6016	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000
H6020	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000
H6024	•	•	•	T9000 & 69000N	T9000 & 69000N	T9000 & 69000N	T9000 & 69000N	T9000 & 69000N	T9000 & 69000N		T9000 & 69000N
H6032	•	•	•	69000N	69000N	69000N	69000N	69000N	69000N		69000N
T1	A	D	S								
T13	•			T2000	T2000	T2000	T2000	T2000	T2000		T2000
T14	•	•	•	T2000 & K000	T2000 & K000	T2000 & K000	T2000 & K000	T2000 & K000	T2000		T2000 & K000
T15	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000
T16	•	•	•	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000		T2000, T7000 & K000
T18	•	•	•	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000		T2000, T7000 & K000
T110	•	•	•	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000		T2000, T7000 & K000
T112	•	•	•	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000		T2000, T7000 & K000
T116	•	•	•	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T7000		T2000, T7000 & K000
T120	•	•	•	T2000, T7000 & A000	T2000, T7000 & A000	T2000, T7000 & A000	T2000, T7000 & A000	T2000, T7000 & A000	T7000		T2000, T7000 & A000
T124	•	•	•	T7000 & A000	T7000 & A000	T7000 & A000	T7000 & A000	T7000 & A000	T7000		T7000 & A000
T132	•	•	•	T7000 & A000	T7000 & A000	T7000 & A000	T7000 & A000	T7000 & A000	T7000		T7000 & A000

* Refer to our website www.RYCO.com.au for current certificate approvals numbers.

RYCO HOSE TYPE APPROVALS											
HOSE SERIES	AVENGER	DIEHARD	SLIDER								
T1											
T13F				T2000	T2000	T2000	T2000	T2000	T2000		
T14F				T2000 & K000	T2000 & K000	T2000 & K000	T2000 & K000	T2000 & K000	T2000 & K000		
T16F				T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000		
T18F				T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000		
T112F				T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000		
T2	A	D	S								
T24	•	•		T2000 & L000	T2000 & L000	T2000 & L000	T2000 & L000	T2000 & L000	T2000 & L000		T2000 & L000
T25	•	•		T2000	T2000	T2000	T2000	T2000	T2000		T2000
T26	•	•		T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T2000 & T7000		T2000, T7000 & L000
T28	•	•		T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T2000 & T7000		T2000, T7000 & L000
T210	•	•		T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T2000		T2000, T7000 & L000
T212	•	•		T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T2000 & T7000		T2000, T7000 & L000
T216	•	•		T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T7000		T2000, T7000 & L000
T220	•	•		T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T7000		T2000, T7000 & L000
T224	•	•		T7000 & B000	T7000 & B000	T7000 & B000	T7000 & B000	T7000 & B000	T7000		T7000 & B000
T232	•	•		T7000 & B000	T7000 & B000	T7000 & B000	T7000 & B000	T7000 & B000	T7000		T7000 & B000
T240	•			12000	12000	12000	12000	12000	12000		12000
T2	A	D	S								
T24			•	T2000	T2000	T2000	T2000	T2000	T2000		
T26			•	T2000 & T7000	T2000 & T7000	T2000 & T7000	T2000 & T7000	T2000 & T7000	T2000 & T7000		
T28			•	T2000 & T7000	T2000 & T7000	T2000 & T7000	T2000 & T7000	T2000 & T7000	T2000 & T7000		
T210			•	T2000 & T7000	T2000 & T7000	T2000 & T7000	T2000 & T7000	T2000 & T7000	T2000 & T7000		
T212			•	T2000 & T7000	T2000 & T7000	T2000 & T7000	T2000 & T7000	T2000 & T7000	T2000 & T7000		
T216			•	T2000 & T7000	T2000 & T7000	T2000 & T7000	T2000 & T7000	T2000 & T7000	T2000 & T7000		
T220			•	T2000 & T7000	T2000 & T7000	T2000 & T7000	T2000 & T7000	T2000 & T7000	T2000 & T7000		
T224			•	T7000	T7000	T7000	T7000	T7000	T7000		
T232			•	T7000	T7000	T7000	T7000	T7000	T7000		
DF2A	A	D	S								
DF26A	•			T2000	T2000	T2000	T2000	T2000	T2000		T2000
DF28A	•			T2000	T2000	T2000	T2000	T2000	T2000		T2000
DF210A	•			T2000	T2000	T2000	T2000	T2000	T2000		T2000
DF212A	•			T2000	T2000	T2000	T2000	T2000	T2000		T2000
DF216A	•			T2000	T2000	T2000	T2000	T2000	T2000		T2000

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DIEHARD

HOSE THAT WONT SAY DIE

EXTRA ABRASION RESISTANT

FRAS - FLAME RESISTANT ANTI STATIC

H6000 RYCO DIEHARD

H6032D 2"

RYCO QUALITY

HIGHLY FLEXIBLE

RYCO HOSE TYPE APPROVALS											
HOSE SERIES	AVENGER	DIEHARD	SLIDER	ABS	DNV	GL	LR	MED	USCG	DOT	GOST-R
H12	A	D	S								
H1206	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000
H1208	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000
H1210	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000
H1212	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000
H1216	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000
H1220	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000
H1224	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000
H1232	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000
BT1											
BT14				T2000 & K000	T2000 & K000	T2000 & K000	T2000 & K000	T2000 & K000	T2000 & K000		T2000 & K000
BT15				T2000 & K000	T2000 & K000	T2000 & K000	T2000 & K000	T2000 & K000	T2000 & K000		T2000 & K000
BT16				T2000 & K000	T2000 & K000	T2000 & K000	T2000 & K000	T2000 & K000	T2000 & K000		T2000 & K000
BT18				T2000 & K000	T2000 & K000	T2000 & K000	T2000 & K000	T2000 & K000	T2000 & K000		T2000 & K000
BT110				T2000 & K000	T2000 & K000	T2000 & K000	T2000 & K000	T2000 & K000	T2000 & K000		T2000 & K000
BT112				T2000 & K000	T2000 & K000	T2000 & K000	T2000 & K000	T2000 & K000	T2000 & K000		T2000 & K000
BT116				T2000 & K000	T2000 & K000	T2000 & K000	T2000 & K000	T2000 & K000	T2000 & K000		T2000 & K000
RQP1											
RQP14				T2000 & K000	T2000 & K000	T2000 & K000	T2000 & K000	T2000 & K000	T2000 & K000		T2000 & K000
RQP15				T2000	T2000	T2000	T2000	T2000	T2000		T2000
RQP16				T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000		T2000, T7000 & K000
RQP18				T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000		T2000, T7000 & K000
RQP110				T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000		T2000, T7000 & K000
RQP112				T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000		T2000, T7000 & K000
RQP116				T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000	T2000, T7000 & K000		T2000, T7000 & K000
RQP2											
RQP24				T2000 & L000	T2000 & L000	T2000 & L000	T2000 & L000	T2000 & L000	T2000	T4000 & V000	T2000
RQP25				T2000	T2000	T2000	T2000	T2000	T2000	T4000 & V000	T2000
RQP26				T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T4000 & V000	T2000, T7000 & L000
RQP28				T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T4000 & V000	T2000, T7000 & L000
RQP210				T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T4000 & V000	T2000, T7000 & L000
RQP212				T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T4000 & V000	T2000, T7000 & L000
RQP216				T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	V000	T2000, T7000 & L000
RQP220				T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T2000, T7000 & L000	T7000	V000	T7000
RQP224				T7000 & B000	T7000 & B000	T7000 & B000	T7000 & B000	T7000 & B000	T7000 & B000	V000	T7000 & B000
RQP232				T7000 & B000	T7000 & B000	T7000 & B000	T7000 & B000	T7000 & B000	T7000 & B000	V000	T7000 & B000

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HOSE TYPE APPROVALS

RYCO HOSE TYPE APPROVALS								
HOSE SERIES	 ABS	 DNV	 GL	 LR	 MED	 USCG	 DOT	 GOST-R
RQP5								
RQP54	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000
RQP55	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000
RQP56	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000
RQP58	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000
RQP510	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000
RQP512	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000
RQP516	V000	V000	V000	V000	V000	V000	V000	V000
RQP520	V000	V000	V000	V000	V000	V000	V000	V000
RQP524	V000	V000	V000	V000	V000	V000	V000	V000
RQP532	V000	V000	V000	V000	V000	V000	V000	V000
T5								
T54	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000		T4000 & V000
T55	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000		T4000 & V000
T56	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000		T4000 & V000
T58	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000		T4000 & V000
T510	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000		T4000 & V000
T512	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000		T4000 & V000
T516	V000	V000	V000	V000	V000	V000		V000
T520	V000	V000	V000	V000	V000	V000		V000
T524	V000	V000	V000	V000	V000	V000		V000
T532	V000	V000	V000	V000	V000	V000		V000
D2B								
D224B	T7000	T7000	T7000	T7000	T7000	T7000		T7000
D232B	T7000	T7000	T7000	T7000	T7000	T7000		T7000
RTH1								
RTH14	TT000	TT000	TT000	TT000	TT000	TT000		TT000
RTH16	TT000	TT000	TT000	TT000	TT000	TT000		TT000
RTH18	TT000	TT000	TT000	TT000	TT000	TT000		TT000
RTH110	TT000	TT000	TT000	TT000	TT000	TT000		TT000
RTH112	TT000	TT000	TT000	TT000	TT000	TT000		TT000
RTH116	TT000	TT000	TT000	TT000	TT000	TT000		TT000
SR								
SR12	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000		T4000 & 33000
SR16	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000		T4000 & 33000
SR20	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000		T4000 & 33000
SR24	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000		T4000 & 33000
SR32	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000		T4000 & 33000
SR40	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000		T4000 & 33000

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RYCO HOSE TYPE APPROVALS								
HOSE SERIES	ABS	DNV	GL	LR	MED	USCG	DOT	GOST-R

SRF								
SRF12	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000		T4000 & 33000
SRF16	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000		T4000 & 33000
SRF20	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000		T4000 & 33000
SRF24	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000		T4000 & 33000
SRF32	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000		T4000 & 33000

M2								
M24	T4000	T4000	T4000	T4000	T4000	T4000		T4000
M26	T4000	T4000	T4000	T4000	T4000	T4000		T4000
M28	T4000	T4000	T4000	T4000	T4000	T4000		T4000
M212	T4000	T4000	T4000	T4000	T4000	T4000		T4000

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NOTE: MED/USCG approval must use FS1072 FIRESLEEVE for RTH1, SR, SRF, M2, T5 and RQP5.

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HOSE COVERS



RYCO AVENGER™

THE SMART CHOICE

- **ABRASION RESISTANT**
- **MSHA FLAME RESISTANT**

PRODUCT SUPERSEDED

AVENGER™ has a synthetic rubber cover compounded to resist abrasion and is specifically designed for multiple applications. The complete AVENGER™ series meets MSHA Flame Resistant requirements.



RYCO DIEHARD™

HOSE THAT WON'T SAY DIE

- **EXTRA ABRASION RESISTANT**
- **MSHA FLAME RESISTANT**
- **FRAS FLAME RESISTANT & ANTI-STATIC**

DIEHARD™ has a synthetic rubber cover that is extra resistant to abrasion and complies with Flame Resistant and Anti-Static (FRAS) requirements of AS 2660 methods of test AS 1180.10B and AS 1180.13A, also meeting USA MSHA requirements. DIEHARD™ complies with ISO 6945 method of test for abrasion resistance being less than 10% of the maximum weight loss allowed by EN 853, EN 856 and EN 857.

HYDRAULIC HOSE COVERS TO SUIT YOUR NEEDS

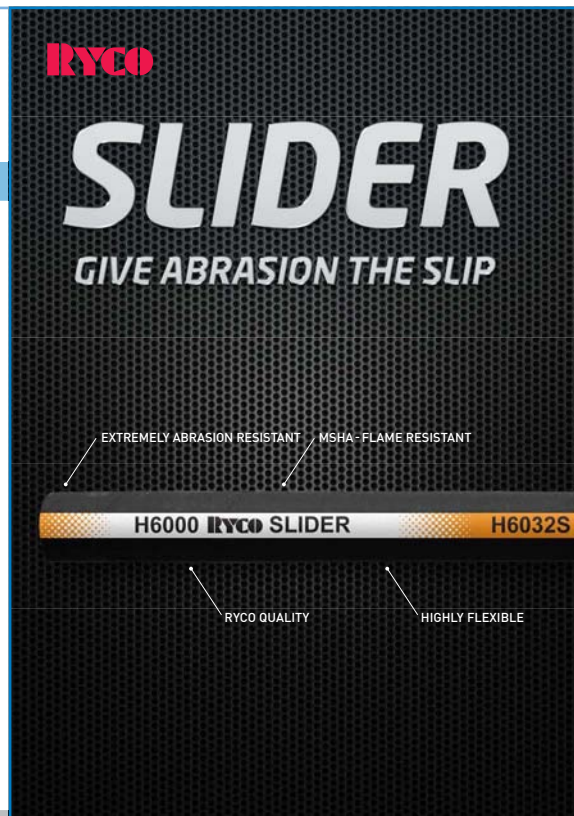
RYCO Hose styles cover a broad range of hydraulic applications. Different applications require different performance criteria. RYCO AVENGER™, DIEHARD™, SLIDER™ and SURVIVOR™ tube and cover compounds offer a perfect choice and are available across a range of our Hose Styles.

RYCO SLIDER™

GIVE ABRASION THE SLIP

- EXTREMELY ABRASION RESISTANT
- MSHA FLAME RESISTANT

SLIDER™ has an additional layer of polyethylene protection over the rubber cover of the hose. The result is an extremely abrasion resistant cover that complies with Flame Resistant requirement of AS 2660 method of test AS1180.10B, meeting USA MSHA requirements. SLIDER™ complies with ISO 6945 method of test for abrasion resistance being less than 0.2% of that allowed by EN 853, EN 856 and EN 857.



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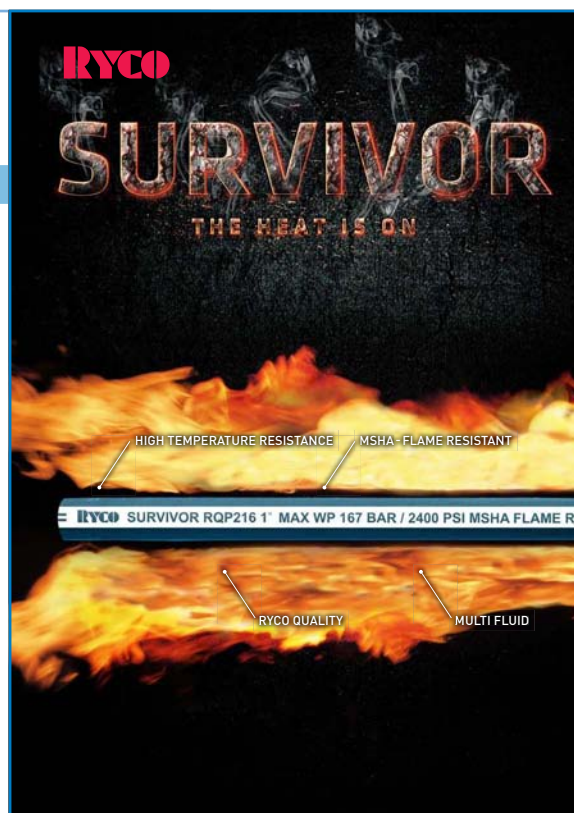
ADAPTORS

RYCO SURVIVOR™

THE HEAT IS ON

- HIGH TEMPERATURE (150°C/302°F)
- MSHA FLAME RESISTANT

Designed for high temperature applications and suitable for use with a variety of fluids.



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SLIDER

GIVE ABRASION THE SLIP

EXTREMELY ABRASION RESISTANT

MSHA - FLAME RESISTANT

H6000 RYCO SLIDER

H6032S

RYCO QUALITY

HIGHLY FLEXIBLE

RYCO

SURVIVOR

THE HEAT IS ON

HIGH TEMPERATURE RESISTANCE

MSHA - FLAME RESISTANT

RYCO SURVIVOR RQP216 1" MAX WP 167 BAR / 2400 PSI MSHA FLAME RES

RYCO QUALITY

MULTI FLUID

HOSE

SPECIFICATIONS SUMMARY

MAXIMUM WORKING PRESSURES

Maximum Working Pressures shown below (except for **RYCO PL1, PL1D, RQP6, SR** and **SRF** Series) are Dynamic Working Pressures for use with hydraulic fluid in systems with pressure surges or variable loads and are based on 4:1 safety factor (minimum burst to maximum working pressure).

RYCO PL1, PL1D and **RQP6** hoses are recommended for use with **RYCO 8000 Series** Push-On Fittings in systems with Static Working Pressures only, and are not recommended for vibration or pressure surge applications. The Maximum Working Pressures for **PL1, PL1D** and **RQP6** shown below are Static Working Pressures.

Hose subjected to both maximum temperature and maximum working pressure will have a shortened lifetime.

HOSE SIZE			T3000A/D/S	T3600A/D/S	T4000A/D/S	T5000A/D/S	T6000A/D/S	H3000A/D/S	H4000A/D/S	H5000A/D/S	H6000A/D/S	T1A/D/S	T1F	T2A/D/S	T2C	TXA2D	DF2A	E2	TJ2D	H12A/D/S	R45HA/D	R45PA/D	T5	D2B	MS1000	CS1000
DN	INCH	DASH	BAR																							

3	1/8	-02																									
5	3/16	-03										250	250														
6	1/4	-04	245	250	280	350	420					225	225	420	420		420	420	700				210				
8	5/16	-05	245	250	280	350	420					215	215	350	350		350	350	700				210				
10	3/8	-06	215	250	280	350	420		280	350	420	180	180	350	350		350	350		350		445	155				
12	1/2	-08	215	250	280	350	420		280	350	420	160	160	350	350	375	295	350		350		420	138		70	70	
16	5/8	-10	215	250	280	350			280	350	420	130	130	250	250	350	250	250		350		380	121		70	70	
19	3/4	-12	215	250	280	350			280	350	420	105	105	215	215	313	215	215		350	420	380	103		70	70	
25	1	-16	215	250	280				280	350	420	90	90	175	175	225	167	175		350	380	350	55		70	70	
31	1.1/4	-20						215	280	350	420	65		140	140					275	350	210	43		70	70	
38	1.1/2	-24						215	280	350	420	50		100	100					255	300	185	35	100	70	70	
51	2	-32						215	280	350	420	40		90	90					210	250	175	24	90	70	70	
63	2.1/2	-40												70						140							
76	3	-48												70													

HOSE SIZE			BT1	RQP1	RQP2	RQP5	RQP6	TW1	PW2	SR	SRF	RTH1	FB2	M1	MP1	M2	PL1	PL1D	M2G	TP7, TP7N	TP7T, TP7TN	TP8, TP8N	TP8T, TP8TN	TP3000	TPGL	
DN	INCH	DASH	BAR																							

3	1/8	-02																								250
5	3/16	-03																		210						
6	1/4	-04	50	225	400	210	28		400			170		3,5	14	88	28	28	2,6	210	210	350	350	210		
8	5/16	-05	50	215	350	210	28		400					3,5			28	28		190	190					
10	3/8	-06	50	180	350	155	28	210	400			165	35	3,5	14	79	28	28	2,6	160	160	280	280	210		
12	1/2	-08	50	160	300	138	28	210				120	35		14	70	28	28	2,6	140	140	245	245	210		
16	5/8	-10	50	130	250	121	24					105	35		14		24	24								
19	3/4	-12	50	120	215	103	21			21	21	85			14	52	21	21	2,6	90						
25	1	-16	50	90	167	55				17	17	55			14					70						
31	1.1/4	-20			150	43						14			14											
38	1.1/2	-24			100	35						10														
51	2	-32			90	24						7														
63	2.1/2	-40								4,3																
76	3	-48								3,9																

PRESSURE CONVERSION CHART 1 BAR = 14.5 PSI 1 MPA = 10 BAR

bar	4	7	10	12	14	17	20	24	28	39	55	69	80	90	120	130
psi	58	100	145	175	200	250	300	350	400	565	800	1000	1160	1300	1740	1890
bar	160	180	200	215	225	250	300	337	350	375	400	420	435	500	585	690
psi	2300	2600	2900	3100	3250	3600	4350	4900	5100	5440	5800	6080	6310	7250	8480	10000

The Working Pressure of each Hose Coupling End Termination Style is shown in the Technical section. In most cases, the Working Pressure of the Hose Coupling End Termination Style that can be chosen for a particular hose exceeds the Maximum Working Pressure of the Hose.

It is possible however, to select a Hose Coupling with End Termination with lower Working Pressure than the Hose. In this case, as noted in SAE J516 and SAE J517, the rated Working Pressure of the Hose Assembly must not exceed the lower of the respective Working Pressure rated values.

EXAMPLE 1.

T28A Hose Assembly with T2040-0812 coupling one end and T2090-0808 coupling other end.

From above table or from page 92, Maximum Working Pressure of T28A is 350 bar.

From page 194, Maximum Working Pressure of T2040-0812 is 690 bar.

From page 192, Maximum Working Pressure of T2090-0808 is 690 bar.

The Maximum Working Pressure of the Hose Assembly is therefore 345 bar, the lowest of the respective Working Pressure rated values (in this case, the hose).

EXAMPLE 2.

H5016D Hose Assembly with T7130-1620 coupling one end and T7030-1621 coupling other end.

From above table or from page 83, Maximum Working Pressure of H5016D is 350 bar.

From page 228, Maximum Working Pressure of T7130-1620 is 280 bar.

From page 220, Maximum Working Pressure of T7030-1621 is 420 bar.

The Maximum Working Pressure of the Hose Assembly is therefore 280 bar, the lowest of the respective Working Pressure rated values (in this case, the T7130-1620).

See page 175 for more information.

IMPULSE LIFE

Although two or more hoses manufactured to different industry standard specifications may have identical Maximum Working Pressures, their suitability for the application must be considered. An important factor to consider is the magnitude and frequency of the pressure impulses that the hose assembly will experience.

FLAME RESISTANCE

All RYCO Hoses (except **RYCO E2, FB2, M1, MP1, PW2, TTW1, TP7, TP7N, TP7T, TP7TN, TP8, TP8N, TP8T, TP8TN, TP3000, RQP5, SR, SRF, T5, RTH1 & PL1** Series) meet Flame Resistant Designation "U.S. MSHA" of the U.S. Department of Labor, Mine Safety and Health Administration and also comply with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Contact RYCO Technical Department for more information.

MINIMUM BEND RADIUS

Minimum Bend Radius figures published are the radius to the cover of the Hose at the inside of the bend.

RYCO Hose Assemblies exceed the required impulse test requirements when bent to the published Minimum Bend Radius. Hose assemblies bent to smaller than the Minimum Bend Radius will have shortened lifetime.

ANTI-STATIC

"Anti-Static" refers to Hoses or Hose Assemblies being sufficiently electrically conductive to drain off static electricity. According to the requirements of AS 2660 Clause 2.2, the Hose or Hose assembly shall have an electrical resistance (measured from inside surface to outside surface) of less than 1 megohm per metre, when tested according to Method of Test AS 1180.13A. For applications requiring Anti-Static Hydraulic Hose Assemblies including, but not limited to, underground coal mines, where there is danger of ignition from static electricity discharge, only special Anti-Static Hose can be used.

RYCO DIEHARD™ Hoses and COALSPRAY comply with the requirements of AS 2660 and Method of Test AS 1180.13A.

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NON-CONDUCTIVE

Certain applications require that a Hose, or Hose Assembly, be Non-Conductive to prevent electrical current flow. For applications that require a Hose to be electrically Non-Conductive including, but not limited to, applications near high voltage electric lines, only special Non-Conductive Hoses can be used.

SKIVE/NON-SKIVE

Skiving refers to removing the cover at the ends of the Hose where the Hose Couplings are to be attached*. Most RYCO combinations of Hose and Couplings are Non-Skive.

In a Non-Skive application, RYCO BITELOK couplings bite down through the cover and grip the wire reinforcement. Some combinations of RYCO Hose and Couplings require skiving. If skiving is required, it is clearly stated in both the Hose Section and the Couplings Section.

*** (For H13, H15 and H6000 with 69000N couplings, a section of the tube must also be skived. This is called Internal Skiving).**

OUTSIDE DIAMETERS

See page 145 for reference chart of outside diameters.

SAFETY GUIDE – MAXIMUM TEMPERATURE LIMITS

Some RYCO Hose Series are not listed on page 57: **T1F, TJ2D, M2G, M1, FB2, RTH1, TW1, PW2, MP1.**

These Hoses are specific purpose Hoses, and their temperature limits are specified in the Hose Section of this Product Technical Manual. Contact RYCO Technical Department for any further queries.

Other RYCO Hose Series are listed on page 57. The Maximum Working Temperatures for these hoses, as listed in the Hose Section of this Product Technical Manual are for use with general purpose, mineral (petroleum) oil based hydraulic fluids, except where otherwise stated. Temperature limits for other hydraulic fluids, and some other common applications, are listed on page 57.

CAUTION:

Life expectancy of hoses is shortened at high temperatures. Detrimental effects increase when temperature is elevated, and also when; operating pressure, flow velocity, duration and frequency of exposure, and level of impurities in the media are high. Actual service life at temperatures approaching the recommended limits will depend on the particular application and the fluid being used.

Maximum Working Temperatures refer to the temperature of the media in the hose; not the environmental temperature around the outside of the hose. Please contact RYCO Technical Department for environmental temperatures in excess of 80°C (176°F), except **RQP1** and **RQP2** Series where environmental temperature is the same as media temperature.

Maximum Working Temperatures shown are for continuous temperatures. Slightly higher intermittent temperatures (up to 10% of time) may be acceptable with some hoses and some fluids, if reduced service life is acceptable. Please contact RYCO Technical Department for more information.

DO NOT expose Hose to Maximum Temperature and Maximum Working Pressure at the same time.

The fluid manufacturer's recommended maximum operating temperature for the fluid must not be exceeded. If different to the temperatures listed in the following table, the lower limit must take precedence. We recommend keeping the hose filled with the pressure medium at all times. Further information available on request.

HOSE COVER	GROUP 1	GROUP 2	GROUP 3	GROUP 4
AVENGER	T3000A, T4000A, T5000A, T6000A, T1A, T2A, DF2A	H3000A, H4000A, H5000A, H6000A, H12A, R4SPA, R4SHA		
DIEHARD	T3000D, T4000D, T5000D, T6000D, T1D, T2D, TXA2D, TJ2D, PL1D	H3000D, H4000D, H5000D, H6000D, H12D, R4SPD, R4SHD		
SLIDER	T3000S, T4000S, T5000S, T6000S, T1S, T2S	H3000S, H4000S, H5000S, H6000S, H12S		
SURVIVOR	RQP6		RQP1, RQP2, RQP5	
OTHER SERIES	SR, SRF, M2, T5, BT1, T1F, E2, PL1, DB2, T2C, CS1000, MS1000			TP7, TP7N, TP7T, TP7TN, TP8, TP8N, TP8T, TP8TN, TP3000, TPGL

MEDIA	TEMPERATURE LIMITS			
GENERAL PURPOSE MINERAL (PETROLEUM) BASED HYDRAULIC OIL¹	-40°C to +100°C (-40°F to +212°F) RQP6: -40° to +125°C (-40°F to +257°F)	-40°C to +121°C (-40°F to +250°F)	-40°C to +150°C (-40°F to +302°F)	-40°C to +95°C (-40°F to +203°F)
WATER	+71°C (+160°F)	0°C to +71°C (+32°F to +160°F)	0°C to +121°C (+32°F to +250°F)	0°C to +70°C (+32°F to +158°F)
WATER IN MINERAL OIL (40% to 80% water)	+85°C (+185°F)	-40°C to +85°C (-40°F to +185°F)	-40°C to +121°C (-40°F to +250°F)	-40°C to +70°C (-40°F to +158°F)
MINERAL OIL IN WATER (more than 80% water)	+85°C (+185°F)	-40°C to +85°C (-40°F to +185°F)	-40°C to +121°C (-40°F to +250°F)	-40°C to +70°C (-40°F to +158°F)
WATER/GLYCOL	+85°C (+185°F)	-40°C to +85°C (-40°F to +185°F)	-40°C to +121°C (-40°F to +250°F)	-40°C to +70°C (-40°F to +158°F)
GLYCOL	+85°C (+185°F)	-40°C to +85°C (-40°F to +185°F)	-40°C to +85°C (-40°F to +185°F)	-40°C to +70°C (-40°F to +158°F)
PHOSPHATE ESTERS²	Not suitable	Not suitable	-40°C to +82°C (-40°F to +180°F) (see Note 2)	40°C to +70°C (-40°F to +158°F) (see Note 2)
AIR³	RQP6: -40°C to +100°C (-40°F to +212°F) ***OTHERS: +71°C (+160°F)	-40°C to +71°C (-40°F to +160°F) (see Note 3)	-40°C to +121°C (-40°F to +250°F) (see Note 3)	-40°C to +71°C (-40°F to +160°F) (see Note 3)
PETROL (GASOLINE)	Contact RYCO	Contact RYCO	Contact RYCO	Contact RYCO
DIESEL FUEL	PL1: -40°C to +49°C (-40°F to +160°F) T5: -40°C to +71°C (-40°F to +160°F) RQP6: -40°C to +71°C (-40°F to +160°F) OTHERS: +50°C (+122°F)	-40°C to +50°C (-40°F to +122°F)	Not suitable	
ENGINE LUBRICATING OIL, GEARBOX OIL	-40°C to +100°C (-40°F to +212°F)	-40°C to +100°C (-40°F to +212°F)	-40°C to +100°C (-40°F to +212°F)	-40°C to +95°C (-40°F to +203°F)
AUTOMATIC TRANSMISSION FLUID	-40°C to +100°C (-40°F to +212°F)	-40°C to +100°C (-40°F to +212°F)	-40°C to +100°C (-40°F to +212°F)	-40°C to +95°C (-40°F to +203°F)

- For highly refined and special purpose mineral based hydraulic oils (for example aviation hydraulic oils, MIL spec oils, etc), contact RYCO Technical Department.
- Not suitable for use with aerospace type phosphate esters such as Monsanto Skydrol 500B, Stauffer Aero-Safe 2300W and Chevron Hy-jet IV.
- For use with Air at pressures above 17,2 bar (250 psi), cover of hose must be perforated/pin-pricked (except RQP5 and T5), to allow air permeating through hose to escape without blistering the cover. Maximum working pressure of wire braid and spiral reinforced hose must be reduced by 30% (except for RQP1 and RQP2). Observe all State and Federal Safety Regulations.

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ISOBARIC HOSE

1/2 BEND RADIUS MILLION CYCLE

PERFORMANCE AT A GLANCE:

H SERIES ISOBARIC SPIRAL HOSE

- Half SAE minimum bend radius.
- Highly flexible for easier routing and installation.
- Isobaric pressure from 215 bar/3100 psi (H3000) to 420 bar/6100 psi (H6000).
- Lighter weight means your hydraulic system is more compact and economical.
- 81 products in the H series Spiral range.
- Includes "World First" H6032 2" (DN51) hose.

T SERIES ISOBARIC BRAID HOSE

- Half SAE minimum bend radius.
- Highly flexible for easier routing and installation.
- Isobaric pressure from 215 bar/3100 psi (T3000) to 420 bar/6100 psi (T6000).
- Lighter weight means your hydraulic system is more compact and economical.
- 81 products in the T series Braid hose range.
- T3000 Braid is proven to impulse test of one million cycles in all sizes.
- Meets and exceeds the performance requirements of ISO 18752 (all series).

Up to half SAE minimum bend radius for T Series Isobaric Braid Hose and H Series Isobaric Spiral Hose.
H Series Isobaric Spiral and T3000 tested to one million impulse cycles.

WHAT PRESSURE IS YOUR SYSTEM?



215 bar
3100 psi



250 bar
3625 psi



PRODUCT SUPERSEDED

300 bar
4100 psi



350 bar
5100 psi



420 bar
6100 psi



HOSE

ISOBARIC HOSE

RYCO MATCHED SYSTEM

RYCO hoses and couplings are designed and engineered to match for maximum safety, leak free performance and exceptional productivity and reliability.

H SERIES SPIRAL HOSE:



T7000 SERIES

Bitelok non-skive one-piece crimp

For RYCO Hose Series:
H3000 & H4000 all sizes.
H5000 sizes -06 to -24.
H6000 sizes -06 to -20.



T9000 SERIES

Bitelok non-skive one-piece crimp

For RYCO Hose Series:
H5000 size -32 only.
H6000 size -24 only.



69000N SERIES

Bitelok interlok internal/external skive two-piece crimp

For RYCO Hose Series:
H6000 sizes -12 to -32.

T SERIES BRAID HOSE:



T1000 SERIES

Bitelok non-skive one-piece crimp

For RYCO Hose Series:
PRODUCT SUPERSEDED
T3000 & T3600 all sizes.

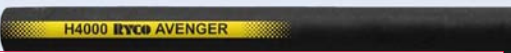


T2000 SERIES

Bitelok non-skive one-piece crimp

For RYCO Hose Series:
T3000, T3600, T4000, T5000 & T6000
all sizes.

RYCO HOSE COVERS:



AVENGER™ PRODUCT SUPERSEDED

- Abrasion resistant
- MSHA flame resistant



DIEHARD™

- Extra abrasion resistant
- MSHA flame resistant
- FRAS flame resistant and anti-static



SLIDER™

- Extremely abrasion resistant
- MSHA flame resistant

LAYLINE IDENTIFICATION

Colour-coded system enables easy and permanent identification of hoses.

PRESSURE RANGE / HOSE SERIES:

	420 bar/6100 psi
	350 bar/5100 psi
	280 bar/4100 psi
	250 bar/3625 psi
	215 bar/3100 psi

COVER TYPE:

	PRODUCT SUPERSEDED™
	DIEHARD™
	SLIDER™

PART NUMBER:

Incorporates information relating to RYCO hose series, nominal hose size, and cover type in a simple, concise manner.

SIZE:

The nominal size of the hose is displayed in three commonly used formats (example shown below in appearance of order):

- 2" (Inch Size)
- 32 (Dash Size)
- DN51 (Metric / DN Size)

WORKING PRESSURE:

RYCO Isobaric range of hose working pressures vary from 215 bar/3100 psi to 420 bar /6100 psi.

FLAME RESISTANCE:

Flame Resistance and Anti-Static (FRAS) and/or MSHA flame resistance properties of the hose are clearly stated and visible.

H6000 RYCO DIEHARD

H6016D 1" -16 DN25 MAX WP 420 BAR / 6100 PSI MSHA

T3000A

COMPACT ISOBARIC HOSE
215 BAR / 3100 PSI
MILLION CYCLE



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RECOMMENDED FOR:

High pressure hydraulic oil lines. Constant pressure (isobaric) 215 bar / 3100 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: ISO 18752-BC, SAE 100R17.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One braid (-04 to -08 size) or two braids (-10 to -16 size) of high tensile steel wire.

COVER:

AVENGER™ Black, oil and abrasion resistant synthetic rubber. Flame Resistant & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T1000 and T2000 Series BITELOK Crimp Couplings.

FEATURES:

Tested to 1 million impulse cycles.
Constant pressure 215 bar / 3100 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

MSHA - FLAME RESISTANCE:

AVENGER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK™ ONE-PIECE CRIMP
2000 Series (sizes -04 to -16) pages 177 to 187.
2000 Series (sizes -04 to -16) pages 188 to 208.
Assembly Instructions page 498.

PRODUCT SUPERSEDED

T3000A - AVENGER COMPACT ISOBARIC HOSE															
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
T3004A	6	-04	6,3	1/4	11,8	0.46	245	3500	980	14000	38	1.5	0,16	0.11	T1000 T2000
T3005A	8	-05	7,9	5/16	14,4	0.57	245	3500	980	14000	41	1.6	0,23	0.15	T1000 T2000
T3006A	10	-06	9,5	3/8	15,6	0.61	215	3100	860	12400	65	2.6	0,26	0.18	T1000 T2000
T3008A	12	-08	12,7	1/2	18,7	0.74	215	3100	860	12400	90	3.6	0,36	0.24	T1000 T2000
T3010A	16	-10	15,9	5/8	23,4	0.92	215	3100	860	12400	100	3.9	0,56	0.38	T1000 T2000
T3012A	19	-12	19,1	3/4	27,6	1.09	215	3100	860	12400	120	4.7	0,78	0.52	T1000 T2000
T3016A	25	-16	25,4	1	34,8	1.37	215	3100	860	12400	150	5.9	1,14	0.77	T1000 T2000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

ISOBARIC BRAID

T3000D

EXTRA ABRASION RESISTANT
FRAS
COMPACT ISOBARIC HOSE
215 BAR / 3100 PSI
MILLION CYCLE



RECOMMENDED FOR:

High pressure hydraulic oil lines. Constant pressure (Isobaric) 215 bar / 3100 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: ISO 18752-BC, SAE 100R17.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One braid (-04 to -08 size) or two braids (-10 to -16 size) of high tensile steel wire.

COVER:

DIEHARD™ Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T1000 and T2000 Series BITELOK Crimp Couplings.

FEATURES:

Tested to **1 million impulse cycles**.

Constant pressure 215 bar / 3100 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

DIEHARD™ complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T1000 Series (sizes -04 to -16) pages 177 to 187.

T2000 Series (sizes -04 to -16) pages 188 to 208.
Assembly Instructions page 498.

T3000D - DIEHARD COMPACT ISOBARIC HOSE																
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE		
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE	
T3004D	6	-04	6,3	1/4	11,8	0.46	245	3500	980	14000	38	1.5	0,16	0.11	T1000	T2000
T3005D	8	-05	7,9	5/16	14,4	0.57	245	3500	980	14000	41	1.6	0,23	0.15	T1000	T2000
T3006D	10	-06	9,5	3/8	15,6	0.61	215	3100	860	12400	65	2.6	0,26	0.18	T1000	T2000
T3008D	12	-08	12,7	1/2	18,7	0.74	215	3100	860	12400	90	3.6	0,36	0.24	T1000	T2000
T3010D	16	-10	15,9	5/8	23,4	0.92	215	3100	860	12400	100	3.9	0,56	0.38	T1000	T2000
T3012D	19	-12	19,1	3/4	27,6	1.09	215	3100	860	12400	120	4.7	0,78	0.52	T1000	T2000
T3016D	25	-16	25,4	1	34,8	1.37	215	3100	860	12400	150	5.9	1,14	0.77	T1000	T2000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths,

T3000S

EXTREMELY ABRASION RESISTANT
COMPACT ISOBARIC HOSE
215 BAR / 3100 PSI
MILLION CYCLE



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RECOMMENDED FOR:

High pressure hydraulic oil lines. Constant pressure (Isobaric) 215 bar / 3100 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: ISO 18752-BC, SAE 100R17.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One or two braids (-10 to -16 size) of high tensile steel wire.

COVER:

SLIDER™ Black, oil and extremely abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene. Flame Resistant, MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T1000 and T2000 Series BITELOK Crimp Couplings.

FEATURES:

Tested to **1 million impulse cycles**.

Constant pressure 215 bar / 3100 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

MSHA - FLAME RESISTANCE AND ANTI-STATIC:

SLIDER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T1000 Series (sizes -04 to -16) pages 177 to 187.

T2000 Series (sizes -04 to -16) pages 188 to 208.

Assembly Instructions page 498.

T3000S - SLIDER COMPACT ISOBARIC HOSE																
PART NO	HOSE SIZE		NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE	
T3004S	6	-04	6,3	1/4	11,8	0.46	245	3500	980	14000	38	1.5	0,16	0.11	T1000	T2000
T3005S	8	-05	7,9	5/16	14,4	0.57	245	3500	980	14000	41	1.6	0,23	0.15	T1000	T2000
T3006S	10	-06	9,5	3/8	15,6	0.61	215	3100	860	12400	65	2.6	0,26	0.18	T1000	T2000
T3008S	12	-08	12,7	1/2	18,7	0.74	215	3100	860	12400	90	3.6	0,36	0.24	T1000	T2000
T3010S	16	-10	15,9	5/8	23,4	0.92	215	3100	860	12400	100	3.9	0,56	0.38	T1000	T2000
T3012S	19	-12	19,1	3/4	27,6	1.09	215	3100	860	12400	120	4.7	0,78	0.52	T1000	T2000
T3016S	25	-16	25,4	1	34,8	1.37	215	3100	860	12400	150	5.9	1,14	0.77	T1000	T2000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

ISOBARIC BRAID

T3600A

COMPACT ISOBARIC HOSE
250 BAR / 3625 PSI



RECOMMENDED FOR:

High pressure hydraulic oil lines. Constant pressure (Isobaric) 250 bar / 3625 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: ISO 18752-BC.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One braid (-04 to -06 size) or two braids (-08 to -16 size) of high tensile wire.

COVER:

AVENGER™ Black, oil and abrasion resistant synthetic rubber. Flame Resistant & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T1000 and T2000 Series BITELOK Crimp Couplings.

FEATURES:

Extremely Flexible. Minimum Bend Radius 25% less than published SAE 100R17 Minimum Bend Radius. Tested to 500,000 cycles. Constant pressure 250 bar / 3625 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

MSHA - FLAME RESISTANCE:

AVENGER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, IP, MED and USCG.

COUPLINGS:

BITELOK™ ONE-PIECE CRIMP
T1000 Series (sizes -04 to -16) pages 177 to 187.
T2000 Series (sizes -04 to -16) pages 188 to 208.
Assembly instructions page 498.

PRODUCT SUPERSEDED

T3600A - AVENGER COMPACT ISOBARIC HOSE													
PART NO	HOSE SIZE	NOMINAL HOSE ID	NOMINAL HOSE OD	MAXIMUM WORKING PRESSURE	MINIMUM BURST PRESSURE	MINIMUM BEND RADIUS	AVERAGE WEIGHT	COUPLING SERIES		ONE PIECE		NON-SKIVE	
T3604A	6 -04	6,3	11,8	250	1000	38	0,16	0,11	T1000	T2000			
T3605A	8 -05	7,9	14,4	250	1000	41	0,23	0,15	T1000	T2000			
T3606A	10 -06	9,5	15,6	250	1000	49	0,27	0,18	T1000	T2000			
T3608A	12 -08	12,7	19,9	250	1000	68	0,45	0,30	T1000	T2000			
T3610A	16 -10	15,9	23,4	250	1000	75	0,61	0,41	T1000	T2000			
T3612A	19 -12	19,1	27,6	250	1000	90	0,78	0,52	T1000	T2000			
T3616A	25 -16	25,4	35,2	250	1000	113	1,30	0,87	T1000	T2000			

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

T3600D

EXTRA ABRASION RESISTANT
FRAS
COMPACT ISOBARIC HOSE
250 BAR / 3625 PSI



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RECOMMENDED FOR:

High pressure hydraulic oil lines. Constant pressure (isobaric) 250 bar / 3625 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: ISO 18752-BC.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One braid (-04 to -06 size) or two braids (-08 to -16 size) of high tensile wire.

COVER:

DIEHARD™ Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T1000 and T2000 Series BITELOK Crimp Couplings.

FEATURES:

Extremely Flexible. Minimum Bend Radius 25% less than published SAE 100R17 Minimum Bend Radius. Tested to 500,000 cycles. Constant pressure 250 bar / 3625 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

DIEHARD™ complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T1000 Series (sizes -04 to -16) pages 177 to 187.

T2000 Series (sizes -04 to -16) pages 188 to 208. Assembly Instructions page 498.

T3600D - DIEHARD COMPACT ISOBARIC HOSE																
PART NO	HOSE SIZE		NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE	
T3604D	6	-04	6,3	1/4	11,8	0.46	250	3625	1000	14500	38	1.5	0,16	0.11	T1000	T2000
T3605D	8	-05	7,9	5/16	14,4	0.57	250	3625	1000	14500	41	1.6	0,23	0.15	T1000	T2000
T3606D	10	-06	9,5	3/8	15,6	0.61	250	3625	1000	14500	49	1.9	0,27	0.18	T1000	T2000
T3608D	12	-08	12,7	1/2	19,9	0.78	250	3625	1000	14500	68	2.7	0,45	0.30	T1000	T2000
T3610D	16	-10	15,9	5/8	23,4	0.92	250	3625	1000	14500	75	3.0	0,61	0.41	T1000	T2000
T3612D	19	-12	19,1	3/4	27,6	1.09	250	3625	1000	14500	90	3.6	0,78	0.52	T1000	T2000
T3616D	25	-16	25,4	1	35,2	1.39	250	3625	1000	14500	113	4.4	1,30	0.87	T1000	T2000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

ISOBARIC BRAID

T3600S

EXTREMELY ABRASION RESISTANT
COMPACT ISOBARIC HOSE
250 BAR / 3625 PSI



RECOMMENDED FOR:

High pressure hydraulic oil lines. Constant pressure (Isobaric) 250 bar / 3625 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: ISO 18752-BC, SAE 100R19.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One braid (-04 to -06 size) or two braids (-08 to -16 size) of high tensile wire.

COVER:

SLIDER™ Black, oil and extremely abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene. Flame Resistant, MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T1000 and T2000 Series BITELOK Crimp Couplings.

FEATURES:

Extremely Flexible. Minimum Bend Radius 25% less than published SAE 100R17 Minimum Bend Radius. Tested to 500,000 cycles. Constant pressure 250 bar / 3625 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

MSHA - FLAME RESISTANCE:

SLIDER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T1000 Series (sizes -04 to -16) pages 177 to 187.

T2000 Series (sizes -04 to -16) pages 188 to 208.

Assembly Instructions page 498.

T3600S - SLIDER COMPACT ISOBARIC HOSE																
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE		
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE	
T3604S	6	-04	6,3	1/4	11,8	0.46	250	3625	1000	14500	38	1.5	0,16	0.11	T1000	T2000
T3605S	8	-05	7,9	5/16	14,4	0.57	250	3625	1000	14500	41	1.6	0,23	0.15	T1000	T2000
T3606S	10	-06	9,5	3/8	15,6	0.61	250	3625	1000	14500	49	1.9	0,27	0.18	T1000	T2000
T3608S	12	-08	12,7	1/2	19,9	0.78	250	3625	1000	14500	68	2.7	0,45	0.30	T1000	T2000
T3610S	16	-10	15,9	5/8	23,4	0.92	250	3625	1000	14500	75	3.0	0,61	0.41	T1000	T2000
T3612S	19	-12	19,1	3/4	27,6	1.09	250	3625	1000	14500	90	3.6	0,78	0.52	T1000	T2000
T3616S	25	-16	25,4	1	35,2	1.39	250	3625	1000	14500	113	4.4	1,30	0.87	T1000	T2000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

T4000A

COMPACT ISOBARIC HOSE
280 BAR / 4100 PSI



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RECOMMENDED FOR:

High pressure hydraulic oil lines. Constant pressure (isobaric) 280 bar / 4100 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: ISO 18752-AC, SAE 100R19.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One braid (-04 size) or two braids (-05 to -12 size) of high tensile wire.

COVER:

AVENGER™ Black, oil and abrasion resistant synthetic rubber. Flame Resistant & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 Series BITELOK Crimp Couplings.

FEATURES:

Constant pressure 280 bar / 4100 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

MSHA - FLAME RESISTANCE:

AVENGER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK™ DRIVE ONE-PIECE CRIMP
T2000 Series (sizes -04 to -12) pages 188 to 208.
Assembly Instructions page 498.

PRODUCT SUPERSEDED

T4000A - AVENGER COMPACT ISOBARIC HOSE															
PART NO	HOSE SIZE		NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
T4004A	6	-04	6,3	1/4	11,8	0.46	280	4100	1120	16400	50	1.97	0,16	0.11	T2000
T4005A	8	-05	7,9	5/16	15,6	0.61	280	4100	1120	16400	55	2.17	0,34	0.23	T2000
T4006A	10	-06	9,5	3/8	16,6	0.65	280	4100	1120	16400	65	2.56	0,37	0.25	T2000
T4008A	12	-08	12,7	1/2	20,6	0.81	280	4100	1120	16400	90	3.55	0,51	0.34	T2000
T4010A	16	-10	15,9	5/8	23,4	0.92	280	4100	1120	16400	100	3.94	0,61	0.41	T2000
T4012A	19	-12	19,1	3/4	28,4	1.12	280	4100	1120	16400	120	4.73	0,92	0.62	T2000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

ISOBARIC BRAID

T4000D

EXTRA ABRASION RESISTANT
FRAS
COMPACT ISOBARIC HOSE
280 BAR / 4100 PSI



RECOMMENDED FOR:

High pressure hydraulic oil lines. Constant pressure (Isobaric) 280 bar / 4100 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: ISO 18752-AC, SAE 100R19.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One braid (-04 size) or two braids (-05 to -12 size) of high tensile wire.

COVER:

DIEHARD™ Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 Series BITELOK Crimp Couplings.

FEATURES:

Constant pressure 280 bar / 4100 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

DIEHARD™ complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP T2000 Series (sizes -04 to -12) pages 188 to 208. Assembly Instructions page 498.

T4000D - DIEHARD COMPACT ISOBARIC HOSE															
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
T4004D	6	-04	6,3	1/4	11,8	0.46	280	4100	1120	16400	50	1.97	0,16	0.11	T2000
T4005D	8	-05	7,9	5/16	15,6	0.61	280	4100	1120	16400	55	2.17	0,34	0.23	T2000
T4006D	10	-06	9,5	3/8	16,6	0.65	280	4100	1120	16400	65	2.56	0,37	0.25	T2000
T4008D	12	-08	12,7	1/2	20,6	0.81	280	4100	1120	16400	90	3.55	0,51	0.34	T2000
T4010D	16	-10	15,9	5/8	23,4	0.92	280	4100	1120	16400	100	3.94	0,61	0.41	T2000
T4012D	19	-12	19,1	3/4	28,4	1.12	280	4100	1120	16400	120	4.73	0,92	0.62	T2000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

T4000S

EXTREMELY ABRASION RESISTANT
COMPACT ISOBARIC HOSE
280 BAR / 4100 PSI



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RECOMMENDED FOR:

High pressure hydraulic oil lines. Constant pressure (isobaric) 280 bar / 4100 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: ISO 18752-AC, SAE 100R19.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One braid (-04 size) or two braids (-05 to -12 size) of high tensile wire.

COVER:

SLIDER™ Black, oil and extremely abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene. Flame Resistant, MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 Series BITELOK Crimp Couplings.

FEATURES:

Constant pressure 280 bar / 4100 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

MSHA - FLAME RESISTANCE:

SLIDER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -04 to -12) pages 188 to 208. Assembly Instructions page 498.

T4000S - SLIDER COMPACT ISOBARIC HOSE															
PART NO	HOSE SIZE		NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
T4004S	6	-04	6,3	1/4	11,8	0.46	280	4100	1120	16400	50	1.97	0,16	0.11	T2000
T4005S	8	-05	7,9	5/16	15,6	0.61	280	4100	1120	16400	55	2.17	0,34	0.23	T2000
T4006S	10	-06	9,5	3/8	16,6	0.65	280	4100	1120	16400	65	2.56	0,37	0.25	T2000
T4008S	12	-08	12,7	1/2	20,6	0.81	280	4100	1120	16400	90	3.55	0,51	0.34	T2000
T4010S	16	-10	15,9	5/8	23,4	0.92	280	4100	1120	16400	100	3.94	0,61	0.41	T2000
T4012S	19	-12	19,1	3/4	28,4	1.12	280	4100	1120	16400	120	4.73	0,92	0.62	T2000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

ISOBARIC BRAID

T5000A

COMPACT ISOBARIC HOSE
350 BAR / 5100 PSI



RECOMMENDED FOR:

Very high pressure hydraulic oil lines. Constant pressure (Isobaric) 350 bar / 5100 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: ISO 18752-AC.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Two braids of high tensile steel wire.

COVER:

AVENGER™ Black, oil and abrasion resistant synthetic rubber. Flame resistant & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 Series BITELOK Crimp Couplings.

FEATURES:

Constant pressure 350 bar / 5100 psi in all sizes. Easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

MSHA - FLAME RESISTANCE:

AVENGER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK™ ONE-PIECE CRIMP
Assembly Instructions (sizes -04 to -08) pages 188 to 208.
Assembly Instructions page 498.

PRODUCT SUPERSEDED

T5000A - AVENGER COMPACT ISOBARIC HOSE															
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
T5004A	6	-04	6,3	1/4	13,2	0.52	350	5100	1400	20400	50	1.97	0,28	0.19	T2000
T5005A	8	-05	7,9	5/16	15,6	0.61	350	5100	1400	20400	55	2.17	0,34	0.23	T2000
T5006A	10	-06	9,5	3/8	17,1	0.67	350	5100	1400	20400	65	2.56	0,41	0.28	T2000
T5008A	12	-08	12,7	1/2	20,6	0.81	350	5100	1400	20400	90	3.55	0,57	0.38	T2000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

T5000D

EXTRA ABRASION RESISTANT
FRAS
COMPACT ISOBARIC HOSE
350 BAR / 5100 PSI



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RECOMMENDED FOR:

Very high pressure hydraulic oil lines. Constant pressure (Isobaric) 350 bar / 5100 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: ISO 18752-AC.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Two braids of high tensile steel wire.

COVER:

DIEHARD™ Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 Series BITELOK Crimp Couplings.

FEATURES:

Constant pressure 350 bar / 5100 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

DIEHARD™ complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -04 to -08) pages 188 to 208.
Assembly Instructions page 498.

T5000D - DIEHARD COMPACT ISOBARIC HOSE																
PART NO	HOSE SIZE		NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE	
T5004D	6	-04	6,3	1/4	13,2	0.52	350	5100	1400	20400	50	1.97	0,28	0.19	T2000	
T5005D	8	-05	7,9	5/16	15,6	0.61	350	5100	1400	20400	55	2.17	0,34	0.23	T2000	
T5006D	10	-06	9,5	3/8	17,1	0.67	350	5100	1400	20400	65	2.56	0,41	0.28	T2000	
T5008D	12	-08	12,7	1/2	20,6	0.81	350	5100	1400	20400	90	3.55	0,57	0.38	T2000	

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

ISOBARIC BRAID

T5000S

EXTREMELY ABRASION RESISTANT
COMPACT ISOBARIC HOSE
350 BAR / 5100 PSI



RECOMMENDED FOR:

Very high pressure hydraulic oil lines. Constant pressure (Isobaric) 350 bar / 5100 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: ISO 18752-AC.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Two braids of high tensile steel wire.

COVER:

SLIDER™ Black, oil and extremely abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene. Flame Resistant, MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 Series BITELOK Crimp Couplings.

FEATURES:

Constant pressure 350 bar/5100 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

MSHA - FLAME RESISTANCE:

SLIDER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP
T2000 Series (sizes -04 to -08) pages 188 to 208.
Assembly Instructions page 498.

T5000S - SLIDER COMPACT ISOBARIC HOSE															
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
T5004S	6	-04	6,3	1/4	13,2	0.52	350	5100	1400	20400	50	1.97	0,28	0.19	T2000
T5005S	8	-05	7,9	5/16	15,6	0.61	350	5100	1400	20400	55	2.17	0,34	0.23	T2000
T5006S	10	-06	9,5	3/8	17,1	0.67	350	5100	1400	20400	65	2.56	0,41	0.28	T2000
T5008S	12	-08	12,7	1/2	20,6	0.81	350	5100	1400	20400	90	3.55	0,57	0.38	T2000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

T6000A

COMPACT ISOBARIC HOSE
420 BAR / 6100 PSI



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RECOMMENDED FOR:

Extremely high pressure hydraulic oil lines.
Constant pressure (Isobaric) 420 bar / 6100 psi in all sizes.
Small bend radius and compact dimensions are advantages in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
ISO 18752-AC.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Two braids of high tensile steel wire.

COVER:

AVENGER™ Black, oil and abrasion resistant synthetic rubber. Flame resistant & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 Series BITELOK Crimp Couplings.

FEATURES:

Constant pressure 420 bar / 6100 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

MSHA - FLAME RESISTANCE:

AVENGER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK™ CRIMP ONE-PIECE CRIMP
T2000 Series (sizes -04 to -06) pages 188 to 208.
Assembly Instructions page 498.

PRODUCT SUPERSEDED

T6000A - AVENGER COMPACT ISOBARIC HOSE																
PART NO	HOSE SIZE		NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE	
T6004A	6	-04	6,3	1/4	13,2	0.52	420	6100	1680	24400	50	1.97	0,28	0.19	T2000	
T6005A	8	-05	7,9	5/16	15,6	0.61	420	6100	1680	24400	55	2.17	0,35	0.24	T2000	
T6006A	10	-06	9,5	3/8	17,6	0.69	420	6100	1680	24400	65	2.56	0,47	0.32	T2000	

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

ISOBARIC BRAID

T6000D

EXTRA ABRASION RESISTANT
FRAS
COMPACT ISOBARIC HOSE
420 BAR / 6100 PSI



RECOMMENDED FOR:

Extremely high pressure hydraulic oil lines.
Constant pressure (Isobaric) 420 bar / 6100 psi in all sizes.
Small bend radius and compact dimensions are advantages in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
ISO 18752-AC.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Two braids of high tensile steel wire.

COVER:

DIEHARD™ Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 Series BITELOK Crimp Couplings.

FEATURES:

Constant pressure 420 bar / 6100 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

DIEHARD™ complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP T2000 Series (sizes -04 to -06) pages 188 to 208.
Assembly Instructions page 498.

T6000D - DIEHARD COMPACT ISOBARIC HOSE															
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
T6004D	6	-04	6,3	1/4	13,2	0.52	420	6100	1680	24400	50	1.97	0,28	0.19	T2000
T6005D	8	-05	7,9	5/16	15,6	0.61	420	6100	1680	24400	55	2.17	0,35	0.24	T2000
T6006D	10	-06	9,5	3/8	17,6	0.69	420	6100	1680	24400	65	2.56	0,47	0.32	T2000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

T6000S

EXTREMELY ABRASION RESISTANT
COMPACT ISOBARIC HOSE
420 BAR / 6100 PSI



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RECOMMENDED FOR:

Extremely high pressure hydraulic oil lines.
Constant pressure (Isobaric) 420 bar / 6100 psi in all sizes.
Small bend radius and compact dimensions are advantages in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
ISO 18752-AC.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Two braids of high tensile steel wire.

COVER:

SLIDER™ Black, oil and extremely abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene. Flame Resistant, MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 Series BITELOK Crimp Couplings.

FEATURES:

Constant pressure 420 bar / 6100 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

MSHA - FLAME RESISTANCE:

SLIDER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -04 to -06) pages 188 to 208.
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T6000S - SLIDER COMPACT ISOBARIC HOSE															
PART NO	HOSE SIZE		NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES
	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	ONE PIECE
T6004S	6	-04	6,3	1/4	13,2	0.52	420	6100	1680	24400	50	1.97	0,28	0.19	NON-SKIVE T2000
T6005S	8	-05	7,9	5/16	15,6	0.61	420	6100	1680	24400	55	2.17	0,35	0.24	T2000
T6006S	10	-06	9,5	3/8	17,6	0.69	420	6100	1680	24400	65	2.56	0,47	0.32	T2000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

ISOBARIC SPIRAL

H3000A

ISOBARIC SPIRAL HOSE
215 BAR / 3100 PSI
MILLION CYCLE



RECOMMENDED FOR:

High pressure hydraulic oil lines.
Constant pressure (Isobaric) 215 bar / 3100 psi in all sizes.
Small bend radius is an advantage in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
EN 856 Type R12, EN 856 Type 4SP, ISO 18752-DC,
SAE 100R12.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four alternating layers of spiralled high tensile steel wire.

COVER:

AVENGER™ Black, oil and abrasion resistant synthetic rubber. Flame Resistant & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 Series BITELOK Crimp Couplings.

FEATURES:

Tested to 1 million impulse cycles at 1/2 SAE 100R12 Minimum Bend Radius. Constant pressure 215 bar / 3100 psi in all sizes for easy system design and hose selection. Small bend radius is an advantage in installations.

MSHA - FLAME RESISTANCE:

AVENGER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +121°C (-40°F to +250°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, IP, MED and USCG.

COUPLINGS:

BITELOK™ ONE-PIECE CRIMP
Assembly Instructions (sizes -20 to -32) pages 217 to 233.
Assembly Instructions page 498.

PRODUCT SUPERSEDED

H3000A – AVENGER ISOBARIC SPIRAL HOSE															
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
H3020A	31	-20	31,8	1.1/4	45,7	1.80	215	3100	860	12400	200	7.9	2,27	1.53	T7000
H3024A	38	-24	38,1	1.1/2	50,3	1.98	215	3100	860	12400	250	9.8	2,35	1.58	T7000
H3032A	51	-32	50,8	2	63,3	2.49	215	3100	860	12400	400	15.8	3,40	2.28	T7000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

H3000D

EXTRA ABRASION RESISTANT
FRAS
ISOBARIC HOSE
215 BAR / 3100 PSI
MILLION CYCLE



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RECOMMENDED FOR:

High pressure hydraulic oil lines. Constant pressure (isobaric) 215 bar / 3100 psi in all sizes. Small bend radius is an advantage in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
EN 856 Type R12, EN 856 Type 4SP, ISO 18752-DC,
SAE 100R12.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four alternating layers of spiralled high tensile steel wire.

COVER:

DIEHARD™ Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 Series BITELOK Crimp Couplings.

FEATURES:

Tested to **1 million impulse cycles** at up to 1/2 SAE 100R12 Minimum Bend Radius. Constant pressure 215 bar / 3100 psi in all sizes for easy system design and hose selection. Small bend radius is an advantage in installations.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

DIEHARD™ complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +121°C (-40°F to +250°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T7000 Series (sizes -20 to -32) pages 217 to 233.
Assembly Instructions page 498.

H3000D - DIEHARD ISOBARIC SPIRAL HOSE																
PART NO	HOSE SIZE		NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE	
H3020D	31	-20	31,8	1.1/4	45,7	1.80	215	3100	860	12400	200	7.9	2,27	1.53	T7000	
H3024D	38	-24	38,1	1.1/2	50,3	1.98	215	3100	860	12400	250	9.8	2,35	1.58	T7000	
H3032D	51	-32	50,8	2	63,3	2.49	215	3100	860	12400	400	15.8	3,40	2.28	T7000	

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

ISOBARIC SPIRAL

H3000S

**EXTREMELY ABRASION RESISTANT
ISOBARIC SPIRAL HOSE
215 BAR / 3100 PSI
MILLION CYCLE**



RECOMMENDED FOR:

High pressure hydraulic oil lines. Constant pressure (Isobaric) 215 bar / 3100 psi in all sizes. Small bend radius is an advantage in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: EN 856 Type R12, EN 856 Type 4SP, ISO 18752-DC, SAE 100R12

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four alternating layers of spiralled high tensile steel wire.

COVER:

SLIDER™ Black, oil and extremely abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene. Flame Resistant, MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 Series BITELOK Crimp Couplings.

FEATURES:

Tested to **1 million impulse cycles** at up to 1/2 SAE 100R12 Minimum Bend Radius. Constant pressure 215 bar / 3100 psi in all sizes for easy system design and hose selection. Small bend radius is an advantage in installations.

MSHA - FLAME RESISTANCE:

SLIDER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +121°C (-40°F to +250°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

**BITELOK NON-SKIVE ONE-PIECE CRIMP
T7000 Series** (sizes -20 to -32) pages 217 to 233.
Assembly Instructions page 498.

H3000S – SLIDER ISOBARIC SPIRAL HOSE															
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
H3020S	31	-20	31,8	1.1/4	45,7	1.80	215	3100	860	12400	200	7.9	2,27	1.53	T7000
H3024S	38	-24	38,1	1.1/2	50,3	1.98	215	3100	860	12400	250	9.8	2,35	1.58	T7000
H3032S	51	-32	50,8	2	63,3	2.49	215	3100	860	12400	400	15.8	3,40	2.28	T7000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

H4000A

ISOBARIC SPIRAL HOSE
280 BAR / 4100 PSI
MILLION CYCLE



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TECHNICAL

RECOMMENDED FOR:

High pressure hydraulic oil lines. Constant pressure (isobaric) 280 bar / 4100 psi in all sizes. Small bend radius is an advantage in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
EN 856 Type R12, EN 856 Type 4SP (size DN25, -16),
ISO 18752-DC, SAE 100R12.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four (-06 to -24 size) and six (-32 size) alternating layers of spiralled high tensile steel wire.

COVER:

AVENGER™ Black, oil and abrasion resistant synthetic rubber. Flame Resistant & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 Series BITELOK Crimp Couplings.

FEATURES:

Tested to 1 million impulse cycles at up to 1/2 SAE 100R12 Minimum Bend Radius. Constant pressure 280 bar / 4100 psi in all sizes for easy system design and hose selection. Small bend radius is an advantage in installations.

MSHA - FLAME RESISTANCE:

AVENGER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +121°C, -40°F to +250°F.
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK™ CRIMP ONE-PIECE CRIMP
Series (sizes -06 to -32) pages 217 to 233.
Assembly Instructions page 498.

PRODUCT SUPERSEDED

H4000A - AVENGER ISOBARIC SPIRAL HOSE															
PART NO	HOSE SIZE	NOMINAL HOSE ID	NOMINAL HOSE OD	MAXIMUM WORKING PRESSURE	MINIMUM BURST PRESSURE	MINIMUM BEND RADIUS	AVERAGE WEIGHT	COUPLING SERIES	ONE PIECE						
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
H4006A	10	-06	9,5	3/8	19,3	0.76	280	4100	1120	16400	62	2.4	0,61	0.41	T7000
H4008A	12	-08	12,7	1/2	22,7	0.89	280	4100	1120	16400	90	3.5	0,78	0.52	T7000
H4010A	16	-10	15,9	5/8	24,9	0.98	280	4100	1120	16400	100	3.9	0,76	0.51	T7000
H4012A	19	-12	19,1	3/4	30,0	1.18	280	4100	1120	16400	120	4.7	1,13	0.76	T7000
H4016A	25	-16	25,4	1	36,9	1.45	280	4100	1120	16400	150	5.9	1,60	1.08	T7000
H4020A	31	-20	31,8	1.1/4	44,0	1.73	280	4100	1120	16400	210	8.3	2,07	1.39	T7000
H4024A	38	-24	38,1	1.1/2	50,8	2.00	280	4100	1120	16400	330	13.0	2,65	1.78	T7000
H4032A	51	-32	50,8	2	66,4	2.61	280	4100	1120	16400	400	15.8	4,73	3.18	T7000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

ISOBARIC SPIRAL

H4000D

EXTRA ABRASION RESISTANT
FRAS
ISOBARIC SPIRAL HOSE
280 BAR / 4100 PSI
MILLION CYCLE



RECOMMENDED FOR:

High pressure hydraulic oil lines. Constant pressure (Isobaric) 280 bar / 4100 psi in all sizes. Small bend radius is an advantage in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
EN 856 Type R12, EN 856 Type 4SP (size DN25, -16),
ISO 18752-DC, SAE 100R12

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four (-06 to -24 size) and six (-32 size) alternating layers of spiralled high tensile steel wire.

COVER:

DIEHARD™ Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 Series BITELOK Crimp Couplings.

FEATURES:

Tested to **1 million impulse cycles** at up to 1/2 SAE 100R12 Minimum Bend Radius. Constant pressure 280 bar / 4100 psi in all sizes for easy system design and hose selection. Small bend radius is an advantage in installations.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

DIEHARD™ complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +121°C, -40°F to +250°F.
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP T7000 Series (sizes -06 to -32) pages 217 to 233. Assembly Instructions page 498.

H4000D - DIEHARD ISOBARIC SPIRAL HOSE															
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
H4006D	10	-06	9,5	3/8	19,3	0.76	280	4100	1120	16400	62	2.4	0,61	0.41	T7000
H4008D	12	-08	12,7	1/2	22,7	0.89	280	4100	1120	16400	90	3.5	0,78	0.52	T7000
H4010D	16	-10	15,9	5/8	24,9	0.98	280	4100	1120	16400	100	3.9	0,76	0.51	T7000
H4012D	19	-12	19,1	3/4	30,0	1.18	280	4100	1120	16400	120	4.7	1,13	0.76	T7000
H4016D	25	-16	25,4	1	36,9	1.45	280	4100	1120	16400	150	5.9	1,60	1.08	T7000
H4020D	31	-20	31,8	1.1/4	44,0	1.73	280	4100	1120	16400	210	8.3	2,07	1.39	T7000
H4024D	38	-24	38,1	1.1/2	50,8	2.00	280	4100	1120	16400	330	13.0	2,65	1.78	T7000
H4032D	51	-32	50,8	2	66,4	2.61	280	4100	1120	16400	400	15.8	4,73	3.18	T7000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

H4000S

EXTREMELY ABRASION RESISTANT
ISOBARIC SPIRAL HOSE
280 BAR / 4100 PSI
MILLION CYCLE



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RECOMMENDED FOR:

High pressure hydraulic oil lines. Constant pressure (isobaric) 280 bar / 4100 psi in all sizes. Small bend radius is an advantage in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
EN 856 Type R12, EN 856 Type 4SP (size DN25, -16),
ISO 18752-DC, SAE 100R12.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four (-06 to -24 size) and six (-32 size) alternating layers of spiralled high tensile steel wire.

COVER:

SLIDER™ Black, oil and extremely abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene. Flame Resistant, MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 Series BITELOK Crimp Couplings.

FEATURES:

Tested to **1 million impulse cycles** at up to 1/2 SAE 100R12 Minimum Bend Radius. Constant pressure 280 bar / 4100 psi in all sizes for easy system design and hose selection. Small bend radius is an advantage in installations.

MSHA - FLAME RESISTANCE:

SLIDER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +121°C, -40°F to +250°F.
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T7000 Series (sizes -06 to -32) pages 217 to 233.
Assembly Instructions page 498.

H4000S - SLIDER ISOBARIC SPIRAL HOSE															
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
H4006S	10	-06	9,5	3/8	19,3	0.76	280	4100	1120	16400	62	2.4	0,61	0.41	T7000
H4008S	12	-08	12,7	1/2	22,7	0.89	280	4100	1120	16400	90	3.5	0,78	0.52	T7000
H4010S	16	-10	15,9	5/8	24,9	0.98	280	4100	1120	16400	100	3.9	0,76	0.51	T7000
H4012S	19	-12	19,1	3/4	30,0	1.18	280	4100	1120	16400	120	4.7	1,13	0.76	T7000
H4016S	25	-16	25,4	1	36,9	1.45	280	4100	1120	16400	150	5.9	1,60	1.08	T7000
H4020S	31	-20	31,8	1.1/4	44,0	1.73	280	4100	1120	16400	210	8.3	2,07	1.39	T7000
H4024S	38	-24	38,1	1.1/2	50,8	2.00	280	4100	1120	16400	330	13.0	2,65	1.78	T7000
H4032S	51	-32	50,8	2	66,4	2.61	280	4100	1120	16400	400	15.8	4,73	3.18	T7000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

ISOBARIC SPIRAL

H5000A

ISOBARIC SPIRAL HOSE
350 BAR / 5100 PSI
MILLION CYCLE



RECOMMENDED FOR:

Very high pressure hydraulic oil lines.
Constant pressure (Isobaric) 350 bar / 5100 psi in all sizes.
Small bend radius is an advantage in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
EN 856 Type R13, ISO 18752-CC, SAE 100R13.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four (-06 to -20 size) and six (-24 to -32 size) alternating layers of spiralled high tensile steel wire.

COVER:

AVENGER™ Black, oil and abrasion resistant synthetic rubber. Flame Resistant & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 and T9000 Series BITELOK Crimp Couplings.

FEATURES:

Tested to 1 million impulse cycles at 1/2 SAE 100R13 Minimum Bend Radius. Constant pressure 350 bar / 5100 psi in all sizes for easy system design and hose selection. Small bend radius is an advantage in installations.

MSHA - FLAME RESISTANCE:

AVENGER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +121°C, -40°F to +250°F.
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, IP, MED and USCG.

COUPLINGS:

BITELOK™ ONE-PIECE CRIMP
T7000 Series (sizes -06 to -24) pages 217 to 233.
T9000 Series (size -32) pages 234 to 240.
Assembly Instructions page 498.

PRODUCT SUPERSEDED

H5000A - AVENGER ISOBARIC SPIRAL HOSE															
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
H5006A	10	-06	9,5	3/8	19,3	0.76	350	5100	1400	20400	62	2.4	0,61	0.41	T7000
H5008A	12	-08	12,7	1/2	22,7	0.89	350	5100	1400	20400	90	3.5	0,78	0.52	T7000
H5010A	16	-10	15,9	5/8	26,2	1.03	350	5100	1400	20400	100	3.9	0,98	0.66	T7000
H5012A	19	-12	19,1	3/4	29,6	1.17	350	5100	1400	20400	120	4.7	1,21	0.81	T7000
H5016A	25	-16	25,4	1	36,8	1.45	350	5100	1400	20400	150	5.9	1,72	1.16	T7000
H5020A	31	-20	31,8	1.1/4	45,0	1.77	350	5100	1400	20400	210	8.3	2,42	1.63	T7000
H5024A	38	-24	38,1	1.1/2	52,7	2.07	350	5100	1400	20400	330	13.0	3,44	2.31	T7000
H5032A	51	-32	50,8	2	67,5	2.66	350	5100	1400	20400	400	15.8	5,40	3.63	T9000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

H5000D

EXTRA ABRASION RESISTANT
FRAS
ISOBARIC SPIRAL HOSE
350 BAR / 5100 PSI
MILLION CYCLE



INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

RECOMMENDED FOR:

Very high pressure hydraulic oil lines. Constant pressure (isobaric) 350 bar / 5100 psi in all sizes. Small bend radius is an advantage in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
EN 856 Type R13, ISO 18752-CC, SAE100R13.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four (-06 to -20 size) and six (-24 to -32 size) alternating layers of spiralled high tensile steel wire.

COVER:

DIEHARD™ Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 and T9000 Series BITELOK Crimp Couplings.

FEATURES:

Tested to **1 million impulse cycles** at up to 1/2 SAE 100R13 Minimum Bend Radius. Constant pressure 350 bar / 5100 psi in all sizes for easy system design and hose selection. Small bend radius is an advantage in installations.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

DIEHARD™ complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +121°C, -40°F to +250°F.
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T7000 Series (sizes -06 to -24) pages 217 to 233.

T9000 Series (size -32) pages 234 to 233.

Assembly Instructions page 498.

H5000D - DIEHARD ISOBARIC SPIRAL HOSE																
PART NO	HOSE SIZE		NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE	
H5006D	10	-06	9,5	3/8	19,3	0.76	350	5100	1400	20400	62	2.4	0,61	0.41	T7000	
H5008D	12	-08	12,7	1/2	22,7	0.89	350	5100	1400	20400	90	3.5	0,78	0.52	T7000	
H5010D	16	-10	15,9	5/8	26,2	1.03	350	5100	1400	20400	100	3.9	0,98	0.66	T7000	
H5012D	19	-12	19,1	3/4	29,6	1.17	350	5100	1400	20400	120	4.7	1,21	0.81	T7000	
H5016D	25	-16	25,4	1	36,8	1.45	350	5100	1400	20400	150	5.9	1,72	1.16	T7000	
H5020D	31	-20	31,8	1.1/4	45,0	1.77	350	5100	1400	20400	210	8.3	2,42	1.63	T7000	
H5024D	38	-24	38,1	1.1/2	52,7	2.07	350	5100	1400	20400	330	13.0	3,44	2.31	T7000	
H5032D	51	-32	50,8	2	67,5	2.66	350	5100	1400	20400	400	15.8	5,40	3.63		T9000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

ISOBARIC SPIRAL

H5000S

EXTREMELY ABRASION RESISTANT
ISOBARIC SPIRAL HOSE
350 BAR / 5100 PSI
MILLION CYCLE



RECOMMENDED FOR:

Very high pressure hydraulic oil lines. Constant pressure (Isobaric) 350 bar / 5100 psi in all sizes. Small bend radius is an advantage in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
EN 856 Type R13, ISO 18752-CC, SAE 100R13.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four (-06 to -20 size) and six (-24 to -32 size) alternating layers of spiralled high tensile steel wire.

COVER:

SLIDER™ Black, oil and extremely abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene. Flame Resistant, MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 and T9000 Series BITELOK Crimp Couplings.

FEATURES:

Tested to **1 million impulse cycles** at up to 1/2 SAE 100R13 Minimum Bend Radius. Constant pressure 350 bar / 5100 psi in all sizes for easy system design and hose selection. Small bend radius is an advantage in installations.

MSHA - FLAME RESISTANCE:

SLIDER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +121°C, -40°F to +250°F.
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T7000 Series (sizes -06 to -24) pages 217 to 233.

T9000 Series (size -32) pages 234 to 240.

Assembly Instructions page 498.

H5000S - SLIDER ISOBARIC SPIRAL HOSE																
PART NO	HOSE SIZE	NOMINAL HOSE ID	NOMINAL HOSE OD	MAXIMUM WORKING PRESSURE	MINIMUM BURST PRESSURE	MINIMUM BEND RADIUS	AVERAGE WEIGHT	COUPLING SERIES		ONE PIECE						
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE	
H5006S	10	-06	9,5	3/8	19,3	0.76	350	5100	1400	20400	62	2.4	0,61	0.41	T7000	
H5008S	12	-08	12,7	1/2	22,7	0.89	350	5100	1400	20400	90	3.5	0,78	0.52	T7000	
H5010S	16	-10	15,9	5/8	26,2	1.03	350	5100	1400	20400	100	3.9	0,98	0.66	T7000	
H5012S	19	-12	19,1	3/4	29,6	1.17	350	5100	1400	20400	120	4.7	1,21	0.81	T7000	
H5016S	25	-16	25,4	1	36,8	1.45	350	5100	1400	20400	150	5.9	1,72	1.16	T7000	
H5020S	31	-20	31,8	1.1/4	45,0	1.77	350	5100	1400	20400	210	8.3	2,42	1.63	T7000	
H5024S	38	-24	38,1	1.1/2	52,7	2.07	350	5100	1400	20400	330	13.0	3,44	2.31	T7000	
H5032S	51	-32	50,8	2	67,5	2.66	350	5100	1400	20400	400	15.8	5,40	3.63		T9000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

H6000A

ISOBARIC SPIRAL HOSE
420 BAR / 6100 PSI
MILLION CYCLE



INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

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FILTERS

TECHNICAL

RECOMMENDED FOR:

Extremely high pressure hydraulic oil lines.
Constant pressure (Isobaric) 420 bar / 6100 psi in all sizes.
Small bend radius is an advantage in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
EN 856 Type R15, ISO 18752-CC, SAE 100R15.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four (-06 to -16 size), six (-20 to -24 size) and eight (-32 size) alternating layers of spiralled high tensile steel wire.

COVER:

AVENGER™ Black, oil and abrasion resistant synthetic rubber. Flame Resistant & MSHA compliant. Highly visible layline branding for easy and permanent identification.
No skiving required with T7000 and T9000 Series BITELOK Crimp Couplings.

FEATURES:

Tested to 1 million impulse cycles at 15 to 1/2 SAE 100R15 Minimum Bend Radius. World First: World's first 2" (-32) hose tested to 1 million impulse cycles at 400mm (15.8") Minimum Bend Radius. Constant pressure 420 bar / 6100 psi in all sizes for easy system design and hose selection. Small bend radius is an advantage in installations.

MSHA - FLAME RESISTANCE:

AVENGER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +121°C (-40°F to +250°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK SKIVE ONE-PIECE CRIMP
69000N Series (sizes -06 to -20) pages 217 to 233.
79000 Series (size -24) pages 234 to 240.
Assembly Instructions page 498.

BITELOK SKIVE TWO-PIECE CRIMP

69000N Series (sizes -12 to -32) pages 245 to 251.
Assembly Instructions page 504.

PRODUCT SUPERSEDED

H6000A - AVENGER ISOBARIC SPIRAL HOSE																
PART NO	HOSE SIZE		NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES	
	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	ONE PIECE	2 PC
H6006A	10	-06	9,5	3/8	19,3	0.76	420	6100	1680	24400	75	2.9	0,61	0.41	T7000	
H6008A	12	-08	12,7	1/2	22,7	0.89	420	6100	1680	24400	100	3.9	0,78	0.52	T7000	
H6010A	16	-10	15,9	5/8	26,2	1.03	420	6100	1680	24400	110	4.3	1,00	0.67	T7000	
H6012A	19	-12	19,1	3/4	30,6	1.20	420	6100	1680	24400	115	4.5	1,38	0.93	T7000	69000N
H6016A	25	-16	25,4	1	37,5	1.48	420	6100	1680	24400	165	6.5	1,99	1.34	T7000	69000N
H6020A	31	-20	31,8	1.1/4	46,4	1.83	420	6100	1680	24400	220	8.7	2,97	2.00	T7000	69000N
H6024A	38	-24	38,1	1.1/2	53,1	2.09	420	6100	1680	24400	350	13.8	3,81	2.56		T9000 69000N
H6032A	51	-32	50,8	2	71,5	2.81	420	6100	1680	24400	400	15.8	7,10	4.77		69000N

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

ISOBARIC SPIRAL

H6000D

EXTRA ABRASION RESISTANT
FRAS
ISOBARIC SPIRAL HOSE
420 BAR / 6100 PSI
MILLION CYCLE



RECOMMENDED FOR:

Extremely high pressure hydraulic oil lines.
Constant pressure (Isobaric) 420 bar / 6100 psi in all sizes.
Small bend radius is an advantage in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
EN 856 Type R15, ISO 18752-CC, SAE 100R15.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four (-06 to -16 size), six (-20 to -24 size) and eight (-32 size) alternating layers of spiralled high tensile steel wire.

COVER:

DIEHARD™ Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 and T9000 Series BITELOK Crimp Couplings.

FEATURES:

Tested to **1 million impulse cycles** at up to 1/2 SAE 100R15 Minimum Bend Radius. **World First:** World's first 2" (-32) hose tested to 1 million impulse cycles at 400mm (15.8") Minimum Bend Radius. Constant pressure 420 bar / 6100 psi in all sizes for easy system design and hose selection. Small bend radius is an advantage in installations.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

DIEHARD™ complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +121°C (-40°F to +250°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T7000 Series (sizes -06 to -20) pages 217 to 233.

T9000 Series (size -24) pages 234 to 240.

Assembly Instructions page 498.

BITELOK SKIVE TWO-PIECE CRIMP

69000N Series (sizes -12 to -32) pages 245 to 251.

Assembly Instructions page 504.

H6000D - DIEHARD ISOBARIC SPIRAL HOSE															
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES	
		mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	ONE PIECE	2 PC
H6006D	10 -06	9,5	3/8	19,3	0.76	420	6100	1680	24400	75	2.9	0,61	0.41	T7000	
H6008D	12 -08	12,7	1/2	22,7	0.89	420	6100	1680	24400	100	3.9	0,78	0.52	T7000	
H6010D	16 -10	15,9	5/8	26,2	1.03	420	6100	1680	24400	110	4.3	1,00	0.67	T7000	
H6012D	19 -12	19,1	3/4	30,6	1.20	420	6100	1680	24400	115	4.5	1,38	0.93	T7000	69000N
H6016D	25 -16	25,4	1	37,5	1.48	420	6100	1680	24400	165	6.5	1,99	1.34	T7000	69000N
H6020D	31 -20	31,8	1.1/4	46,4	1.83	420	6100	1680	24400	220	8.7	2,97	2.00	T7000	69000N
H6024D	38 -24	38,1	1.1/2	53,1	2.09	420	6100	1680	24400	350	13.8	3,81	2.56		T9000 69000N
H6032D	51 -32	50,8	2	71,5	2.81	420	6100	1680	24400	400	15.8	7,10	4.77		69000N

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

H6000S

EXTRA ABRASION RESISTANT
FRAS
ISOBARIC SPIRAL HOSE
420 BAR / 6100 PSI
MILLION CYCLE



INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

RECOMMENDED FOR:

Extremely high pressure hydraulic oil lines.
Constant pressure (Isobaric) 420 bar / 6100 psi in all sizes.
Small bend radius is an advantage in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
ISO 3862 Type R15, ISO 18752-CC, SAE 100R15.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four (-06 to -16 size), six (-20 to -24 size) and eight (-32 size) alternating layers of spiralled high tensile steel wire.

COVER:

SLIDER™ Black, oil and extremely abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene. Flame Resistant, MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 and T9000 Series BITELOK Crimp Couplings.

FEATURES:

Tested to 1 million impulse cycles at up to 1/2 SAE 100R15 Minimum Bend Radius. **World First:** World's first 2" (-32) hose tested to 1 million impulse cycles at 400mm (15.8") Minimum Bend Radius. Constant pressure 420 bar / 6100 psi in all sizes for easy system design and hose selection. Small bend radius is an advantage in installations.

MSHA - FLAME RESISTANCE:

SLIDER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +121°C (-40°F to +250°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T7000 Series (sizes -06 to -20) pages 217 to 233.

T9000 Series (size -24) pages 234 to 240.

Assembly Instructions page 498.

BITELOK SKIVE TWO-PIECE CRIMP

69000N Series (sizes -12 to -32) pages 245 to 251.

Assembly Instructions page 504.

H6000S - DIEHARD ISOBARIC SPIRAL HOSE																
PART NO	HOSE SIZE		NOMINAL HOSE ID	NOMINAL HOSE OD	MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES		ONE PIECE	2 PC
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE	SKIVE
H6006S	10	-06	9,5	3/8	19,3	0.76	420	6100	1680	24400	75	2.9	0,61	0.41	T7000	
H6008S	12	-08	12,7	1/2	22,7	0.89	420	6100	1680	24400	100	3.9	0,78	0.52	T7000	
H6010S	16	-10	15,9	5/8	26,2	1.03	420	6100	1680	24400	110	4.3	1,00	0.67	T7000	
H6012S	19	-12	19,1	3/4	30,6	1.20	420	6100	1680	24400	115	4.5	1,38	0.93	T7000	69000N
H6016S	25	-16	25,4	1	37,5	1.48	420	6100	1680	24400	165	6.5	1,99	1.34	T7000	69000N
H6020S	31	-20	31,8	1.1/4	46,4	1.83	420	6100	1680	24400	220	8.7	2,97	2.00	T7000	69000N
H6024S	38	-24	38,1	1.1/2	53,1	2.09	420	6100	1680	24400	350	13.8	3,81	2.56		T9000 69000N
H6032S	51	-32	50,8	2	71,5	2.81	420	6100	1680	24400	400	15.8	7,10	4.77		69000N

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

BRAID

T1A

ONE WIRE
NON SKIVE HOSE



RECOMMENDED FOR:

High pressure hydraulic oil lines.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
AS 3791 100R1AT, DIN 20022-1SN, EN 853 Type 1SN,
ISO 1436 Types R1AT & 1SN, SAE 100R1AT.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One braid of high tensile steel wire.

COVER:

AVENGER™ Black, oil and abrasion resistant synthetic rubber. Flame resistant & MSHA compliant. No skiving required with T2000 & T7000 Series BITELOK Crimp Couplings and K000 Series Field Attachable Couplings.

MSHA - FLAME RESISTANCE:

AVENGER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK™ ONE-PIECE CRIMP
T2000 Series (sizes -03 to -32) pages 188 to 208.
T7000 Series (sizes -06 to -32) pages 217 to 233.
Assembly Instructions page 498.

FIELD ATTACHABLE NON-SKIVE

6000 Series insert (sizes -03 to -16) pages 276 to 290.
K000 Series ferrule (sizes -03 to -16) page 276.
Assembly Instructions page 496.

PRODUCT SUPERSEDED

T1A - AVENGER NON-SKIVE HOSE																
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES		
		mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	ONE PIECE	FIELD ATT	
T13A	5 -03	4,8	3/16	11,7	0.46	250	3600	1000	14500	35	1.4	0,19	0.13	T2000		6000 (K000)
T14A	6 -04	6,3	1/4	13,3	0.52	225	3250	900	13000	38	1.5	0,22	0.15	T2000		6000 (K000)
T15A	8 -05	7,9	5/16	14,9	0.59	215	3100	860	12400	50	2.0	0,25	0.17	T2000		
T16A	10 -06	9,5	3/8	17,3	0.68	180	2600	720	10400	50	2.0	0,31	0.21	T2000	T7000	6000 (K000)
T18A	12 -08	12,7	1/2	20,3	0.80	160	2300	640	9200	75	3.0	0,39	0.26	T2000	T7000	6000 (K000)
T110A	16 -10	15,9	5/8	23,6	0.93	130	1900	520	7600	89	3.5	0,49	0.33	T2000	T7000	6000 (K000)
T112A	19 -12	19,1	3/4	27,6	1.09	105	1500	420	6000	109	4.3	0,62	0.42	T2000	T7000	6000 (K000)
T116A	25 -16	25,4	1	35,5	1.40	90	1300	360	5200	140	5.5	0,90	0.60	T2000	T7000	6000 (K000)
T120A	31 -20	31,8	1.1/4	43,2	1.70	65	945	260	3780	419	16.5	1,21	0.81	T2000	T7000	
T124A	38 -24	38,1	1.1/2	50,2	1.98	50	725	200	2900	500	19.7	1,45	0.97	T2000	T7000	
T132A	51 -32	50,8	2	63,6	2.50	40	580	160	2320	600	23.6	2,09	1.40	T2000	T7000	

* When using A000 Series Field Attachable Couplings on T1A Series Hose, cover of hose must be skived at ends.

** Tighter Minimum Bend Radius up to 1" does not apply when used with T7000 Series Couplings – refer to standard SAE Bend Radius with T7000 Series. Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

T1D

EXTRA ABRASION RESISTANT
FRAS
ONE WIRE BRAID HOSE



INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

RECOMMENDED FOR:

High pressure hydraulic oil lines in applications where the outside cover of the hose is subjected to abrasion that may cause premature failure of standard hoses.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
AS 3791 100R1AT, DIN 20022-1SN, EN 853 Type 1SN,
ISO 1436 Types R1AT & 1SN, SAE 100R1AT.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One braid of high tensile steel wire.

COVER:

DIEHARD™ Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 & T7000 Series BITELOK Crimp Couplings and K000 Series Field Attachable Couplings.

FEATURES:

The very high abrasion resistant properties of the cover, combined with the high working pressures and excellent impulse life, when tested to EN 853 Type 1SN/SAE 100R1AT test conditions, result in increased service life and minimise equipment downtime.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

DIEHARD™ complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 59.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -03 to -32) pages 188 to 208.

T7000 Series (sizes -06 to -32) pages 217 to 233.
Assembly Instructions pages 498.

FIELD ATTACHABLE NON-SKIVE

6000 Series insert (sizes -03 to -16) pages 276 to 290

K000 Series ferrule (sizes -03 to -16) page 276
Assembly Instructions page 496.

T1D - DIEHARD NON-SKIVE HOSE																	
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES			
		mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	ONE PIECE	FIELD ATT		
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE		
T13D	5	-03	4,8	3/16	11,7	0.46	250	3600	1000	14500	35	1.4	0,19	0.13	T2000		6000 (K000)
T14D	6	-04	6,3	1/4	13,3	0.52	225	3250	900	13000	38	1.5	0,22	0.15	T2000		6000 (K000)
T15D	8	-05	7,9	5/16	14,9	0.59	215	3100	860	12400	50	2.0	0,25	0.17	T2000		
T16D	10	-06	9,5	3/8	17,3	0.68	180	2600	720	10400	50	2.0	0,31	0.21	T2000	T7000	6000 (K000)
T18D	12	-08	12,7	1/2	20,3	0.80	160	2300	640	9200	75	3.0	0,39	0.26	T2000	T7000	6000 (K000)
T110D	16	-10	15,9	5/8	23,6	0.93	130	1900	520	7600	89	3.5	0,49	0.33	T2000	T7000	6000 (K000)
T112D	19	-12	19,1	3/4	27,6	1.09	105	1500	420	6000	109	4.3	0,62	0.42	T2000	T7000	6000 (K000)
T116D	25	-16	25,4	1	35,5	1.40	90	1300	360	5200	140	5.5	0,90	0.60	T2000	T7000	6000 (K000)
T120D	31	-20	31,8	1.1/4	43,2	1.70	65	945	260	3780	210	8.3	1,21	0.81	T2000	T7000	
T124D	38	-24	38,1	1.1/2	50,2	1.98	50	725	200	2900	250	9.8	1,45	0.97	T2000	T7000	
T132D	51	-32	50,8	2	63,6	2.50	40	580	160	2320	315	12.4	2,09	1.40	T2000	T7000	

* When using A000 Series Field Attachable Couplings on T1D Series Hose, cover of hose must be skived at ends.

** Tighter Minimum Bend Radius up to 1" does not apply when used with T7000 Series Couplings – refer to standard SAE Bend Radius with T7000 Series. Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

BRAID

T1S

EXTREMELY ABRASION RESISTANT
ONE WIRE BRAID HOSE

RYCO SLIDER T1S



RECOMMENDED FOR:

High pressure hydraulic oil lines.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
AS 3791 100R1AT, DIN 20022-1SN, EN 853 Type 1SN,
ISO 1436 Types R1AT & 1SN, SAE 100R1AT.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One braid of high tensile steel wire.

COVER:

SLIDER™ Black, oil and extremely abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene. Flame Resistant, MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 & T7000 Series BITELOK Crimp Couplings.

MSHA - FLAME RESISTANCE:

SLIDER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 59.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -03 to -32) pages 188 to 208.

T7000 Series (sizes -06 to -32) pages 217 to 233.

Assembly Instructions pages 498.

T1S - SLIDER NON-SKIVE HOSE															
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
T13S	5	-03	4,8	3/16	11,7	0.46	250	3600	1000	14500	35	1.4	0,19	0.13	T2000
T14S	6	-04	6,3	1/4	13,3	0.52	225	3250	900	13000	38	1.5	0,22	0.15	T2000
T15S	8	-05	7,9	5/16	14,9	0.59	215	3100	860	12400	50	2.0	0,25	0.17	T2000
T16S	10	-06	9,5	3/8	17,3	0.68	180	2600	720	10400	50	2.0	0,31	0.21	T2000 T7000
T18S	12	-08	12,7	1/2	20,3	0.80	160	2300	640	9200	75	3.0	0,39	0.26	T2000 T7000
T110S	16	-10	15,9	5/8	23,6	0.93	130	1900	520	7600	89	3.5	0,49	0.33	T2000 T7000
T112S	19	-12	19,1	3/4	27,6	1.09	105	1500	420	6000	109	4.3	0,62	0.42	T2000 T7000
T116S	25	-16	25,4	1	35,5	1.40	90	1300	360	5200	140	5.5	0,90	0.60	T2000 T7000
T120S	31	-20	31,8	1.1/4	43,2	1.70	65	945	260	3780	210	8.3	1,21	0.81	T2000 T7000
T124S	38	-24	38,1	1.1/2	50,2	1.98	50	725	200	2900	250	9.8	1,45	0.97	T2000 T7000
T132S	51	-32	50,8	2	63,6	2.50	40	580	160	2320	315	12.4	2,09	1.40	T2000 T7000

* Tighter Minimum Bend Radius up to 1" does not apply when used with T7000 Series Couplings – refer to standard SAE Bend Radius with T7000 Series. Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

T1F

FIRE SUPPRESSION
ONE WIRE BRAID HOSE



INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

RECOMMENDED FOR:

Use in Fire Suppression Systems of off-road vehicles, mining equipment, stationary engines, etc. The hose is coloured red, for easy identification as part of the Fire Suppression System.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R1AT, DIN 20022-1SN, EN 853 Type 1SN, ISO 1436 Types R1AT & 1SN, SAE 100R1AT.

TUBE:

Black, oil resistant synthetic rubber. Resistant to aqueous film forming foam, dry chemical powder, carbon dioxide, and water based fire extinguishing agents.

REINFORCEMENT:

One braid of high tensile steel wire.

COVER:

Red, heat resistant, abrasion resistant and oil resistant rubber. Flame Resistant to Australian Standard AS 2660 and U.S. MSHA requirements. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 & T7000 Series BITELOK Crimp Couplings and K000 Series Field Attachable Couplings.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

Complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

MED.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -03 to -16) pages 188 to 208.

T7000 Series (sizes -06 to -16) pages 217 to 233.
Assembly Instructions page 498.

FIELD ATTACHABLE NON-SKIVE

6000 Series insert (sizes -03 to -16) pages 276 to 290.

K000 Series ferrule (sizes -03 to -16) page 276.
Assembly Instructions page 496.

T1F - FIRE SUPPRESSION NON-SKIVE HOSE																	
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		ONE PIECE	FIELD ATT		
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE		
T13F	5	-03	4,8	3/16	11,7	0.46	250	3600	1000	14500	89	3.5	0,19	0.13	T2000		6000 (K000)
T14F	6	-04	6,3	1/4	13,3	0.52	225	3250	900	13000	100	3.9	0,22	0.15	T2000		6000 (K000)
T15F	8	-05	7,9	5/16	14,9	0.59	215	3100	860	12400	114	4.5	0,25	0.17	T2000		
T16F	10	-06	9,5	3/8	17,3	0.68	180	2600	720	10400	127	5.0	0,31	0.21	T2000	T7000	6000 (K000)
T18F	12	-08	12,7	1/2	20,3	0.80	160	2300	640	9200	178	7.0	0,39	0.26	T2000	T7000	6000 (K000)
T110F	16	-10	15,9	5/8	23,6	0.93	130	1900	520	7600	200	7.9	0,49	0.33	T2000	T7000	6000 (K000)
T112F	19	-12	19,1	3/4	27,6	1.09	105	1500	420	6000	240	9.5	0,62	0.41	T2000	T7000	6000 (K000)
T116F	25	-16	25,4	1	35,5	1.40	90	1300	360	5200	300	11.8	0,90	0.60	T2000	T7000	6000 (K000)

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

BRAID

T2A

TWO WIRE
NON SKIVE HOSE

RYCO AVENGER T2A



RECOMMENDED FOR:

High pressure hydraulic oil lines.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
SAE 100R2AT, AS 3791 100R2AT, DIN 20022-2SN,
EN 853 Type 2SN, ISO 1436 Types R2AT & 2SN.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Two braids of high tensile steel wire.

COVER:

AVENGER™ Black, oil and abrasion resistant synthetic rubber. Flame resistant & MSHA compliant. No skiving required with T2000 & T7000 Series BITELOK Crimp Couplings and L000 Series Field Attachable Couplings.

MSHA - FLAME RESISTANCE:

AVENGER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK™ ONE-PIECE CRIMP
Couplings (sizes -04 to -48) pages 188 to 208.
T7000 Series (sizes -06 to -32) pages 217 to 233.
Assembly Instructions page 498.

FIELD ATTACHABLE NON-SKIVE

6000 Series insert (sizes -04 to -20) pages 276 to 290.
L000 Series ferrule (sizes -04 to -20) page 276.
Assembly Instructions page 496.

PRODUCT SUPERSEDED

T2A - AVENGER NON-SKIVE HOSE																	
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		ONE PIECE	FIELD ATT		
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE		
T24A	6	-04	6,3	1/4	14,9	0.59	420	6100	1680	24400	100	3.9	0,35	0.24	T2000		6000 (L000)
T25A	8	-05	7,9	5/16	16,5	0.65	350	5100	1400	20400	114	4.5	0,42	0.28	T2000		
T26A	10	-06	9,5	3/8	18,9	0.74	350	5100	1400	20400	127	5.0	0,51	0.34	T2000	T7000	6000 (L000)
T28A	12	-08	12,7	1/2	21,9	0.86	350	5100	1400	20400	178	7.0	0,65	0.44	T2000	T7000	6000 (L000)
T210A	16	-10	15,9	5/8	25,1	0.99	250	3600	1000	14400	200	7.9	0,75	0.50	T2000	T7000	6000 (L000)
T212A	19	-12	19,1	3/4	29,1	1.15	215	3100	860	12400	240	9.5	0,93	0.62	T2000	T7000	6000 (L000)
T216A	25	-16	25,4	1	37,5	1.48	175	2500	700	10000	300	11.8	1,30	0.87	T2000	T7000	6000 (L000)
T220A	31	-20	31,8	1.1/4	47,6	1.87	140	2000	560	8000	419	16.5	1,97	1.33	T2000	T7000	6000 (L000)
T224A	38	-24	38,1	1.1/2	54,1	2.13	100	1450	400	5800	500	19.7	2,48	1.67	T2000	T7000	
T232A	51	-32	50,8	2	66,8	2.63	90	1300	360	5200	600	23.6	3,02	2.03	T2000	T7000	
T240A	63	-40	63,5	2.1/2	80,1	3.15	70	1000	280	4000	760	29.9	3,70	2.49	T2000		
T248A	76	-48	76,2	3	91,3	3.59	70	1000	280	4000	900	35.4	3,99	2.68	T2000		

* When using B000 Series Field Attachable Couplings on T2A Series Hose, cover of hose must be skived at ends. Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

T2D

EXTRA ABRASION RESISTANT
FRAS
TWO WIRE BRAID HOSE



INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

RECOMMENDED FOR:

High pressure hydraulic oil lines in applications where the outside cover of the hose is subjected to abrasion that may cause premature failure of standard hoses.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
AS 3791 100R2AT, DIN 20022 - 2SN, EN 853 Type 2SN,
ISO 1436 Types R2AT & 2SN, SAE 100R2AT.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Two braids of high tensile steel wire.

COVER:

DIEHARD™ Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 & T7000 Series BITELOK Crimp Couplings and L000 Series Field Attachable Couplings.

FEATURES:

The very high abrasion resistant properties of the cover, combined with the high working pressures and excellent impulse life when tested to EN 853 Type 2SN/SAE 100R2AT test conditions result in, increased service life and minimise equipment downtime.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

DIEHARD™ complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -04 to -48) pages 188 to 208.

T7000 Series (sizes -06 to -32) pages 217 to 233.
Assembly Instructions page 498.

FIELD ATTACHABLE NON-SKIVE

6000 Series insert (sizes -04 to -20) pages 276 to 290.

L000 Series ferrule (sizes -04 to -20) page 276.
Assembly Instructions page 496.

T2D - DIEHARD NON-SKIVE HOSE																	
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		ONE PIECE	FIELD ATT		
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE		
T24D	6	-04	6,3	1/4	14,9	0.59	420	6100	1680	24400	100	3.9	0,35	0.24	T2000		6000 (L000)
T25D	8	-05	7,9	5/16	16,5	0.65	350	5100	1400	20400	114	4.5	0,42	0.28	T2000		
T26D	10	-06	9,5	3/8	18,9	0.74	350	5100	1400	20400	127	5.0	0,51	0.34	T2000	T7000	6000 (L000)
T28D	12	-08	12,7	1/2	21,9	0.86	350	5100	1400	20400	178	7.0	0,65	0.44	T2000	T7000	6000 (L000)
T210D	16	-10	15,9	5/8	25,1	0.99	250	3600	1000	14400	200	7.9	0,75	0.50	T2000	T7000	6000 (L000)
T212D	19	-12	19,1	3/4	29,1	1.15	215	3100	860	12400	240	9.5	0,93	0.62	T2000	T7000	6000 (L000)
T216D	25	-16	25,4	1	37,5	1.48	175	2500	700	10000	300	11.8	1,30	0.87	T2000	T7000	6000 (L000)
T220D	31	-20	31,8	1.1/4	47,6	1.87	140	2000	560	8000	419	16.5	1,97	1.33	T2000	T7000	6000 (L000)
T224D	38	-24	38,1	1.1/2	54,1	2.13	100	1450	400	5800	500	19.7	2,48	1.67	T2000	T7000	
T232D	51	-32	50,8	2	66,8	2.63	90	1300	360	5200	600	23.6	3,02	2.03	T2000	T7000	
T240D	63	-40	63,5	2.1/2	80,1	3.15	70	1000	280	4000	760	29.9	3,70	2.49	T2000		
T248D	76	-48	76,2	3	91,3	3.59	70	1000	280	4000	900	35.4	3,99	2.68	T2000		

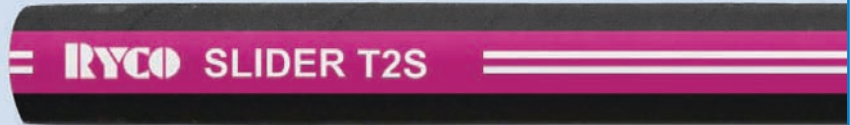
* When using B000 Series Field Attachable Couplings on T2D Series Hose, cover of hose must be skived at ends. Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

BRAID

T2S

EXTREMELY ABRASION RESISTANT
TWO WIRE BRAID HOSE



RECOMMENDED FOR:

High pressure hydraulic oil lines in applications where the outside cover of the hose is subjected to sliding abrasion that may cause premature failure of standard hoses.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R2AT, DIN 20022-2SN, EN 853 Type 2SN, ISO 1436 Type 2AT, SAE 100R2AT.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Two braids of high tensile steel wire.

COVER:

SLIDER™ Black, oil and extremely abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene. Flame Resistant, MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 & T7000 Series BITELOK Crimp Couplings.

MSHA - FLAME RESISTANCE:

SLIDER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -04 to -32) pages 188 to 208.

T7000 Series (sizes -05 to -32) pages 217 to 233.

Assembly Instructions page 498.

T2S - SLIDER NON-SKIVE HOSE																
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE		
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE	
T24S	6	-04	6,3	1/4	14,9	0.59	420	6100	1680	24400	100	3.9	0,35	0.24	T2000	
T25S	8	-05	7,9	5/16	16,5	0.65	350	5100	1400	20400	114	4.5	0,42	0.28	T2000	T7000
T26S	10	-06	9,5	3/8	18,9	0.74	350	5100	1400	20400	127	5.0	0,51	0.34	T2000	T7000
T28S	12	-08	12,7	1/2	21,9	0.86	350	5100	1400	20400	178	7.0	0,65	0.44	T2000	T7000
T210S	16	-10	15,9	5/8	25,1	0.99	250	3600	1000	14400	200	7.9	0,75	0.50	T2000	T7000
T212S	19	-12	19,1	3/4	29,1	1.15	215	3100	860	12400	240	9.5	0,93	0.62	T2000	T7000
T216S	25	-16	25,4	1	37,5	1.48	175	2500	700	10000	300	11.8	1,30	0.87	T2000	T7000
T220S	31	-20	31,8	1.1/4	47,6	1.87	140	2000	560	8000	419	16.5	1,97	1.33	T2000	T7000
T224S	38	-24	38,1	1.1/2	54,1	2.13	100	1450	400	5800	500	19.7	2,48	1.67	T2000	T7000
T232S	51	-32	50,8	2	66,8	2.63	90	1300	360	5200	600	23.6	3,02	2.03	T2000	T7000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

T2C

LOW TEMPERATURE HOSE



INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

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TECHNICAL

RECOMMENDED FOR:

High pressure hydraulic oil lines in applications where low temperature environmental conditions exist.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R2AT, DIN 20022-2SN, EN 853 Type 2SN, ISO 1436 Types R2AT & 2SN, SAE 100R2AT.

TUBE:

Black, specially formulated oil resistant synthetic rubber.

REINFORCEMENT:

Two braids of high tensile steel wire.

COVER:

Black, oil resistant and abrasion resistant synthetic rubber. No skiving required with T2000 & T7000 Series BITELOK Crimp Couplings.

FEATURES:

Low Temperature hose (-60°C/-76°F).

TEMPERATURE RANGE:

From -60°C to +100°C (-76°F to +212°F).

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -04 to -32) pages 188 to 208.

T7000 Series (sizes -06 to -32) pages 217 to 233.

Assembly Instructions pages 498.

T2C LOW TEMPERATURE HOSE																
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE		
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE	
T24C	6	-04	6,3	1/4	15,0	0.59	420	6100	1680	24400	100	4.0	0,38	0.26	T2000	
T25C	8	-05	7,9	5/16	16,6	0.65	350	5100	1400	20400	114	4.5	0,46	0.31	T2000	
T26C	10	-06	9,5	3/8	19,0	0.75	350	5100	1400	20400	127	5.0	0,56	0.38	T2000	T7000
T28C	12	-08	12,7	1/2	22,2	0.87	350	5100	1400	20400	178	7.0	0,65	0.44	T2000	T7000
T210C	16	-10	15,9	5/8	25,2	0.99	250	3600	1000	14400	200	8.0	0.80	0.54	T2000	T7000
T212C	19	-12	19,0	3/4	29,1	1.15	215	3100	860	12400	240	9.5	0,94	0.63	T2000	T7000
T216C	25	-16	25,4	1	37,2	1.46	175	2500	700	10000	300	12.0	1,31	0.88	T2000	T7000
T220C	31	-20	31,8	1.1/4	47,4	1.87	140	2000	560	8000	419	16.5	1,91	1.28	T2000	T7000
T224C	38	-24	38,1	1.1/2	53,8	2.12	100	1450	400	5800	500	20.0	2,14	1.44	T2000	T7000
T232C	51	-32	50,8	2	66,7	2.63	90	1300	360	5200	600	24.0	2,78	1.87	T2000	T7000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

BRAID

TXA2D

EXTRA ABRASION RESISTANT
EXTRA HIGH PRESSURE
FRAS
TWO WIRE BRAID HOSE

RYCO DIEHARD TXA2D



RECOMMENDED FOR:

High pressure hydraulic oil lines in applications where the outside cover of the hose is subjected to abrasion that may cause premature failure of standard hoses. Ideal for high pressure use that requires a smaller outside diameter (except -20 size), lighter weight, and more flexibility than spiral hose.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R2AT, BCS 174, DIN 20022-2SN, EN 853 Type 2SN, ISO 1436 Types R2AT & 2SN, SAE 100R2AT.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Two braids of high tensile steel wire.

COVER:

DIEHARD™ Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 & T7000 Series BITELOK Crimp Couplings and L000 Series Field Attachable Couplings.

FEATURES:

The very high abrasion resistant properties of the cover, combined with the high working pressures and excellent impulse life, when tested to EN 853 Type 2SN/SAE 100R2AT test conditions, result in increased service life and minimise equipment downtime.

FLAME RESISTANCE:

Complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -08 to -16) pages 188 to 208.

T7000 Series (sizes -08 to -16) pages 217 to 233.
Assembly Instructions page 498.

FIELD ATTACHABLE NON-SKIVE

6000 Series insert (sizes -08 to -16) pages 276 to 290.

L000 Series ferrule (sizes -08 to -16) page 276.
Assembly Instructions page 496.

TXA2D - DIEHARD AGGRESSOR NON-SKIVE HOSE																
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES		
		mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	ONE PIECE	FIELD ATT	
TXA28D	12 -08	12,7	1/2	22,0	0.87	375	5440	1500	21760	178	7.0	0,72	0.48	T2000	T7000	6000 (L000)
TXA210D	16 -10	15,9	5/8	25,2	0.99	350	5100	1400	20400	200	8.0	0,87	0.58	T2000	T7000	6000 (L000)
TXA212D	19 -12	19,1	3/4	29,1	1.15	313	4530	1252	18120	240	9.5	1,11	0.75	T2000	T7000	6000 (L000)
TXA216D	25 -16	25,4	1	37,7	1.48	225	3250	900	13000	300	12.0	1,50	1.01	T2000	T7000	6000 (L000)

Contact RYCO for Crimp Diameter and Mark Length for BITELOK Couplings.

DF2A

DINFLEX
TWO WIRE BRAID
COMPACT HOSE



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RECOMMENDED FOR:

High pressure hydraulic oil lines. DINFLEX Hose has the compact outside diameter of one wire braid hose, but exceeds the performance requirements of SAE 100R2 two wire braid hose. Additionally it has a smaller bend radius and higher flexibility than standard two wire braid hoses.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R2AT, EN 857 Type 2SC, ISO 1436, SAE 100R2AT, SAE 100R16.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Two braids of high tensile steel wire.

COVER:

AVENGER™ Black, oil and abrasion resistant synthetic rubber. Flame resistant & MSHA compliant. No skiving required with T2000 Series BITELOK Crimp Couplings.

MSHA - FLAME RESISTANCE:

AVENGER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

PRODUCT SUPERSEDED

COUPLINGS:
BITELOK™ DRIVE ONE-PIECE CRIMP Coupling Series (sizes -04 to -16) pages 188 to 208.
Assembly Instructions page 498.

DF2A - DINFLEX NON-SKIVE HOSE															
PART NO	HOSE SIZE		NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
DF24A	6	-04	6,3	1/4	13,4	0.53	420	6100	1680	24000	50	2.0	0,28	0.19	T2000
DF25A	8	-05	7,9	5/16	14,9	0.59	350	5100	1400	20400	56	2.2	0,41	0.27	T2000
DF26A	10	-06	9,5	3/8	17,3	0.68	350	5100	1400	20400	63	2.5	0,43	0.29	T2000
DF28A	12	-08	12,7	1/2	20,3	0.80	295	4250	1180	17000	88	3.5	0,51	0.34	T2000
DF210A	16	-10	15,9	5/8	23,6	0.93	250	3600	1000	14500	101	4.0	0,63	0.42	T2000
DF212A	19	-12	19,1	3/4	27,6	1.09	215	3100	860	12400	120	4.7	0,81	0.55	T2000
DF216A	25	-16	25,4	1	35,5	1.40	167	2400	668	9700	152	6.0	1,10	0.74	T2000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

BRAID

TJ2D

ABRASION RESISTANT
FRAS
JACK HOSE



RECOMMENDED FOR:

Hydraulic Jack applications requiring a light weight, small outside diameter hose. The very high abrasion resistant properties of the DIEHARD cover extend the life of the hose when it is subjected to the abrasion that may cause the premature failure of standard hoses.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: Materials Handling Institute specification IJ 100 (July 1979) for hydraulic hose and assemblies used with jacking systems.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Two braids of high tensile steel wire.

COVER:

DIEHARD™ Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 Series BITELOK Crimp Couplings.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

DIEHARD™ complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +49°C (-40°F to +120°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Specification IJ 100 (July 1979) is based on 2:1 minimum burst to maximum working pressure safety factor. RYCO TJ2D Series hose has a 2.5:1 safety factor and is suitable for 700 bar/10,000 psi use in hydraulic jack applications ONLY.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP T2000 Series (sizes -04 & -06) pages 188 to 208.

TJ2D - DIEHARD JACK HOSE															
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES	
		mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	ONE PIECE	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
TJ24D	6	-04	6,3	1/4	14.9	0.59	700	10000	1750	25000	100	3.9	0.35	0.24	T2000
TJ26D	10	-06	9,5	3/8	18.9	0.74	700	10000	1750	25000	127	5.0	0.51	0.34	T2000

NOTE: Ensure rated Working Pressure of chosen End Style meets or exceeds the 700 bar/10,000 psi Maximum Working Pressure of TJ2D hose.

For hydraulic jack applications, RYCO recommends the use of 3/8" NPTF Male Extended Couplings.

TJ24D: Part No. T209E-0406 BITELOK One-Piece Crimp. Use of RYCO 750 Spring Guards at each end of the hose assembly is also recommended.

TJ26D: Part No. T209E-0606 BITELOK One-Piece Crimp. Use of a Bend Restrictor device at each end of the hose assembly is also recommended.

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

JACK HOSE ASSEMBLIES

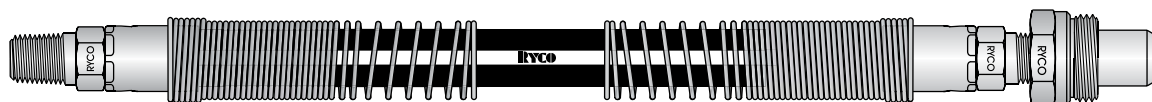
For ease of ordering, Hose Assemblies can be specified using TJ24 and TJ26 numbers below, followed by overall length in millimetres. For example, to order a TJ24D Hose Assembly, 1800 mm overall length, with 3/8" NPTF male one end and male Screw-On coupling other end, with Spring Guards at each end; simply order TJ2402-1800. Standard lengths are 1000 mm, 2000 mm and 3000 mm. Other lengths are available.

JACK HOSE ASSEMBLIES (HOSE ENDS INCLUDE RYCO 750 SPRING GUARD**)

HOSE ASSEMBLY No.	HOSE END 1	HOSE END 2
TJ2401-xxxx* TJ2601-xxxx*	3/8" NPTF Male	3/8" NPTF Male
TJ2402-xxxx* TJ2602-xxxx*	3/8" NPTF Male	R100-06M Male Tip
TJ2403-xxxx* TJ2603-xxxx*	3/8" NPTF Male	R100-06M Male Tip and R100-06DC Dust Cap
TJ2404-xxxx* TJ2604-xxxx*	3/8" NPTF Male	R100-06FM Male and Female Coupling
TJ2405-xxxx* TJ2605-xxxx*	3/8" NPTF Male	R100-06FMPC Male and Female Coupling with Dust Cap and Dust Plug

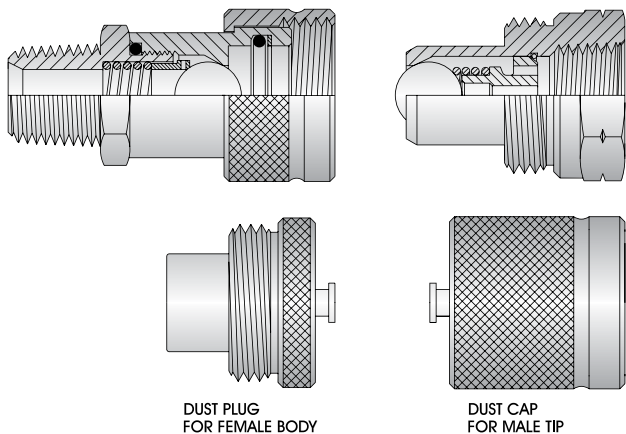
* Substitute xxxx for overall length (mm)

** RYCO 750 Spring Guard is only available to suit TJ24D hose assemblies.



TJ2402 shown

R100 SERIES QUICK RELEASE COUPLINGS, 700 BAR/10,000 PSI, THREAD-TO-CONNECT.



- Designed for use in heavy duty applications on portable cylinders, rams and pumps, where low flow rates and pressures up to 700 bar/10,000 psi are involved.
- Threaded sleeve on female body engages thread on male tip. When the sleeve is screwed completely up, the two coupling halves are secured together. Can connect and disconnect with pressure in line.
- Precision ball type check valves.
- Threaded dust caps and plugs complete with captive chain are available.
- Female body is NPTF male threaded to screw directly into the cylinder or ram.
- Male tip is NPTF female threaded to screw onto hose coupling.

NOMINAL SIZE	NPTF THREAD	MAXIMUM WORKING PRESSURE		FEMALE BODY	MALE TIP	COMPLETE COUPLING	DUST PLUG FOR MALE	DUST PLUG FOR FEMALE
		bar	psi					
1/4	1/4	700	10000	R100-04F	R100-04M	R100-04FM	R100-06DP	R100-06DC
3/8	3/8	700	10000	R100-06F	R100-06M	R100-06FM	R100-06DP	R100-06DC

See page [XX] for further information on RYCO R100 Series Couplings.

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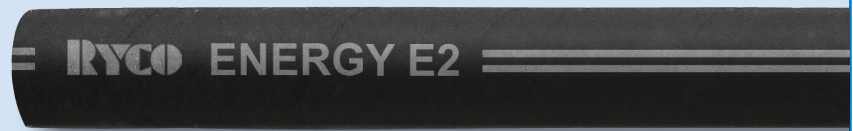
TECHNICAL

HOSE

BRAID

E2

ENERGY
TWO WIRE BRAID HOSE



RECOMMENDED FOR:

High pressure hydraulic oil lines.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
AS 3791 100R2AT, DIN 20022 - 2SN, EN 853 Type 2SN,
ISO 1436 Types R2AT & 2SN, SAE 100R2AT.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Two braids of high tensile steel wire.

COVER:

Black, oil resistant synthetic rubber. No skiving required
with T2000 & T7000 Series BITELOK Crimp Couplings and
L000 Series Field Attachable Couplings.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor
(maximum working pressure to minimum burst pressure).

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -04 to -16) pages 188 to 208.

T7000 Series (sizes -06 to -16) pages 217 to 233.
Assembly Instructions page 498.

FIELD ATTACHABLE NON-SKIVE

6000 Series insert (sizes -04 to -16) pages 278 to 290.

L000 Series ferrule (sizes -04 to -16) page 276.
Assembly Instructions page 496.

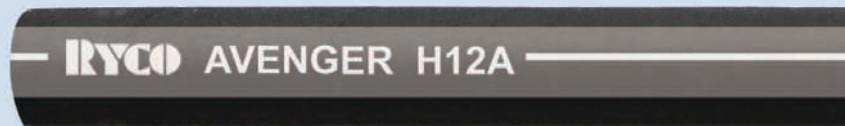
Refer to Product Technical Manual-Hydraulics for
assembly instructions.

E2 - ENERGY HOSE																	
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		ONE PIECE	FIELD ATT		
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE		
E24	6	-04	6,3	1/4	14,9	0.59	400	5800	1600	23200	100	3.9	0,35	0.24	T2000		6000 (L000)
E25	8	-05	7,9	5/16	16,5	0.65	350	5100	1400	20400	115	4.5	0,42	0.28	T2000		
E26	10	-06	9,5	3/8	18,9	0.74	330	4800	1320	19200	125	5.0	0,51	0.34	T2000	T7000	6000 (L000)
E28	12	-08	12,7	1/2	21,9	0.86	275	4000	1100	16000	180	7.0	0,65	0.44	T2000	T7000	6000 (L000)
E210	16	-10	15,9	5/8	25,1	0.99	250	3625	1000	14500	200	7.9	0,75	0.50	T2000	T7000	6000 (L000)
E212	19	-12	19,1	3/4	29,1	1.15	215	3100	860	12400	240	9.5	0,93	0.62	T2000	T7000	6000 (L000)
E216	25	-16	25,4	1	37,5	1.48	165	2400	660	9600	300	11.8	1,30	0.87	T2000	T7000	6000 (L000)

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

H12A

VERY HIGH PRESSURE
MULTI-SPIRAL HOSE



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RECOMMENDED FOR:

Very high pressure hydraulic oil lines. The extra high working pressures and excellent impulse life when tested to SAE 100R12 test conditions result in, increased service life and minimise equipment downtime.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R12, EN 856 Type R12, EN 856 Type 4SP (-12 and above), ISO 3862 Type R12, SAE 100R12.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four alternating layers of spiralled high tensile steel wire.

COVER:

AVENGER™ Black, oil and abrasion resistant synthetic rubber. Flame resistant & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 Series BITELOK Couplings.

MSHA - FLAME RESISTANCE:

AVENGER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +121°C (-40°F to +250°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK™ DRIVE ONE-PIECE CRIMP Series (sizes -06 to -52) pages 217 to 233. Assembly Instructions page 498.

PRODUCT SUPERSEDED

H12A – AVENGER SPIRAL HOSE															
PART NO	HOSE SIZE		NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
H1206A	10	-06	9,5	3/8	19,3	0.76	350	5100	1400	20400	127	5.0	0,61	0.41	T7000
H1208A	12	-08	12,7	1/2	22,7	0.89	350	5100	1400	20400	178	7.0	0,78	0.52	T7000
H1210A	16	-10	15,9	5/8	26,2	1.03	350	5100	1400	20400	200	7.9	0,98	0.66	T7000
H1212A	19	-12	19,1	3/4	30,0	1.18	350	5100	1400	20400	240	9.5	1,21	0.81	T7000
H1216A	25	-16	25,4	1	37,4	1.47	350	5100	1400	20400	300	11.8	1,84	1.24	T7000
H1220A	31	-20	31,8	1.1/4	45,7	1.80	275	4000	1100	16000	400	15.8	2,34	1.57	T7000
H1224A	38	-24	38,1	1.1/2	53,0	2.09	255	3700	1020	14800	500	19.7	3,04	2.04	T7000
H1232A	51	-32	50,8	2	66,0	2.60	210	3050	840	12400	600	23.6	4,23	2.84	T7000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

SPIRAL

H12D

EXTRA ABRASION RESISTANT
VERY HIGH PRESSURE
FRAS
MULTI-SPIRAL HOSE



RECOMMENDED FOR:

Very high pressure hydraulic oil lines, in applications where the outside cover of the hose is subject to abrasion that may cause premature failure of standard hoses.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R12, EN 856 Type R12, EN 856 Type 4SP (-12 and above), ISO 3862 Type R12, SAE 100R12.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four alternating layers of spiralled high tensile steel wire.

COVER:

DIEHARD™ Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 Series BITELOK Crimp Couplings.

FEATURES:

The very high abrasion resistant properties of the cover, combined with the extra high working pressures and excellent impulse life, when tested to SAE 100R12 test conditions, result in increased service life and minimise equipment downtime.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

DIEHARD™ complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +121°C (-40°F to +250°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

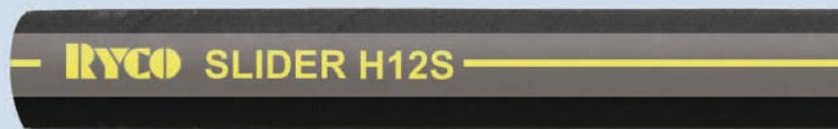
T7000 Series (sizes -06 to -40) pages 217 to 233.
Assembly Instructions page 498.

H12D - DIEHARD SPIRAL HOSE														
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES
		mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	ONE PIECE
H1206D	10 -06	9,5	3/8	19,3	0.76	350	5100	1400	20400	127	5.0	0,61	0.41	NON-SKIVE T7000
H1208D	12 -08	12,7	1/2	22,7	0.89	350	5100	1400	20400	178	7.0	0,78	0.52	T7000
H1210D	16 -10	15,9	5/8	26,2	1.03	350	5100	1400	20400	200	7.9	0,98	0.66	T7000
H1212D	19 -12	19,1	3/4	30,0	1.18	350	5100	1400	20400	240	9.5	1,21	0.81	T7000
H1216D	25 -16	25,4	1	37,4	1.47	350	5100	1400	20400	300	11.8	1,84	1.24	T7000
H1220D	31 -20	31,8	1.1/4	45,7	1.80	275	4000	1100	16000	400	15.8	2,34	1.57	T7000
H1224D	38 -24	38,1	1.1/2	53,0	2.09	255	3700	1020	14800	500	19.7	3,04	2.04	T7000
H1232D	51 -32	50,8	2	66,0	2.60	210	3050	840	12400	600	23.6	4,23	2.84	T7000
H1240D	63 -40	63,5	2.1/2	82,6	3.25	140	2000	560	8000	650	25.6	5,20	3.49	T7000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

H12S

EXTREMELY ABRASION RESISTANT
VERY HIGH PRESSURE
MULTI-SPIRAL HOSE



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RECOMMENDED FOR:

Very high pressure hydraulic oil lines, in applications where the outside cover of the hose is subject to sliding abrasion that may cause premature failure of standard hoses.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R12, EN 856 Type R12, EN 856 Type 4SP (-12 and above), ISO 3862 Type R12, SAE 100R12.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four alternating layers of spiralled high tensile steel wire.

COVER:

SLIDER™ Black, oil and extremely abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene. Flame Resistant, MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 Series BITELOK Crimp Couplings.

FEATURES:

The extremely high abrasion resistant properties of the polyethylene sheathed cover, combined with the extra high working pressures and excellent impulse life, when tested to SAE 100R12 test conditions, result in increased service life and minimise equipment downtime.

MSHA - FLAME RESISTANCE:

SLIDER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +121°C (-40°F to +250°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T7000 Series (sizes -06 to -32) pages 217 to 233.
Assembly Instructions page 498.

H12S - SLIDER SPIRAL HOSE															
PART NO	HOSE SIZE		NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
H1206S	10	-06	9,5	3/8	19,3	0.76	350	5100	1400	20400	127	5.0	0,61	0.41	T7000
H1208S	12	-08	12,7	1/2	22,7	0.89	350	5100	1400	20400	178	7.0	0,78	0.52	T7000
H1210S	16	-10	15,9	5/8	26,2	1.03	350	5100	1400	20400	200	7.9	0,98	0.66	T7000
H1212S	19	-12	19,1	3/4	30,0	1.18	350	5100	1400	20400	240	9.5	1,21	0.81	T7000
H1216S	25	-16	25,4	1	37,4	1.47	350	5100	1400	20400	300	11.8	1,84	1.24	T7000
H1220S	31	-20	31,8	1.1/4	45,7	1.80	275	4000	1100	16000	400	15.8	2,34	1.57	T7000
H1224S	38	-24	38,1	1.1/2	53,0	2.09	255	3700	1020	14800	500	19.7	3,04	2.04	T7000
H1232S	51	-32	50,8	2	66,0	2.60	210	3050	840	12400	600	23.6	4,23	2.84	T7000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

SPIRAL

R4SHA

EXTRA HIGH PRESSURE
FOUR SPIRAL HOSE



RECOMMENDED FOR:

Extra high pressure hydraulic oil lines.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
EN 856 Type 4SH, ISO 3862 Type 4SH.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four alternating layers of spiralled high tensile steel wire.

COVER:

AVENGER™ Black, oil and abrasion resistant synthetic rubber. Flame resistant & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 & T9000 Series BITELOK Crimp Couplings.

MSHA - FLAME RESISTANCE:

AVENGER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, IP, MED and USCG.

COUPLINGS:

BITELOK™ ONE-PIECE CRIMP
T7000 Series (-20 to -32) pages 217 to 233.
T9000 Series (-12 to -16) pages 234 to 240.
Assembly instructions page 498.

PRODUCT SUPERSEDED

R4SHA - AVENGER SPIRAL HOSE															
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
R4SH12A	19	-12	19,1	3/4	31,8	1.25	420	6100	1680	24400	280	11.0	1,47	0.99	T9000
R4SH16A	25	-16	25,4	1	37,9	1.49	380	5500	1520	22000	340	13.4	1,97	1.32	T9000
R4SH20A	31	-20	31,8	1.1/4	44,4	1.75	350	5100	1400	20400	460	18.1	2,44	1.64	T7000
R4SH24A	38	-24	38,1	1.1/2	52,4	2.06	300	4350	1200	17400	560	22.1	3,13	2.10	T7000
R4SH32A	51	-32	50,8	2	66,8	2.63	250	3625	1000	14500	700	27.6	4,51	3.03	T7000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

R4SHD

EXTRA HIGH PRESSURE
FOUR SPIRAL HOSE



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RECOMMENDED FOR:

Extra high pressure hydraulic oil lines.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
EN 856 Type 4SH, ISO 3862 Type 4SH.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four alternating layers of spiralled high tensile steel wire.

COVER:

DIEHARD™ Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 & T9000 Series BITELOK Crimp Couplings.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

DIEHARD™ complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T7000 Series (-20 to -32) pages 217 to 233.

T9000 Series (-12 to -16) pages 234 to 240.
Assembly Instructions page 498.

R4SHD - DIEHARD SPIRAL HOSE															
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
R4SH12D	19	-12	19,1	3/4	31,8	1.25	420	6100	1680	24400	280	11.0	1,47	0.99	T9000
R4SH16D	25	-16	25,4	1	37,9	1.49	380	5500	1520	22000	340	13.4	1,97	1.32	T9000
R4SH20D	31	-20	31,8	1.1/4	44,4	1.75	350	5100	1400	20400	460	18.1	2,44	1.64	T7000
R4SH24D	38	-24	38,1	1.1/2	52,4	2.06	300	4350	1200	17400	560	22.1	3,13	2.10	T7000
R4SH32D	51	-32	50,8	2	66,8	2.63	250	3625	1000	14500	700	27.6	4,51	3.03	T7000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

SPIRAL

R4SPA

EXTRA HIGH PRESSURE
FOUR SPIRAL HOSE



RECOMMENDED FOR:

Extra high pressure hydraulic oil lines.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
EN 856 Type 4SP, ISO 3862 Type 4SP.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four alternating layers of spiralled high tensile steel wire.

COVER:

AVENGER™ Black, oil and abrasion resistant synthetic rubber. Flame resistant & MSHA compliant. Highly visible layline branding for easy and permanent identification. Skiving required with T7000 Series BITELOK Crimp Couplings.

MSHA - FLAME RESISTANCE:

AVENGER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, I.P. MED and USCG.

COUPLINGS:

BITELOK™ ONE PIECE CRIMP
(sizes -06 to -32) pages 217 to 233.
Assembly Instructions page 499.

PRODUCT SUPERSEDED

R4SPA - AVENGER SPIRAL HOSE															
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	SKIVE
R4SP06A	10	-06	9,5	3/8	20,9	0.82	445	6450	1780	25800	180	7.1	0,71	0.48	T7000
R4SP08A	12	-08	12,7	1/2	24,3	0.96	420	6100	1680	24400	230	9.1	0,86	0.58	T7000
R4SP10A	16	-10	15,9	5/8	27,8	1.09	380	5500	1520	22000	250	9.9	1,10	0.74	T7000
R4SP12A	19	-12	19,1	3/4	31,8	1.25	380	5500	1520	22000	300	11.8	1,47	0.99	T7000
R4SP16A	25	-16	25,4	1	38,6	1.52	350	5100	1400	20400	340	13.4	1,95	1.31	T7000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

R4SPD

EXTRA HIGH PRESSURE
FOUR SPIRAL HOSE



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RECOMMENDED FOR:

Extra high pressure hydraulic oil lines.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
EN 856 Type 4SP, ISO 3862 Type 4SP.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four alternating layers of spiralled high tensile steel wire.

COVER:

DIEHARD™ Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. Skiving required with T7000 Series BITELOK Crimp Couplings.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

DIEHARD™ complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK SKIVE ONE-PIECE CRIMP T7000 Series (sizes -06 to -16) pages 217 to 233. Assembly Instructions page 499.

R4SPD – DIEHARD SPIRAL HOSE															
PART NO	HOSE SIZE		NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	SKIVE
R4SP06D	10	-06	9,5	3/8	20,9	0.82	445	6450	1780	25800	180	7.1	0,71	0.48	T7000
R4SP08D	12	-08	12,7	1/2	24,3	0.96	420	6100	1680	24400	230	9.1	0,86	0.58	T7000
R4SP10D	16	-10	15,9	5/8	27,8	1.09	380	5500	1520	22000	250	9.9	1,10	0.74	T7000
R4SP12D	19	-12	19,1	3/4	31,8	1.25	380	5500	1520	22000	300	11.8	1,47	0.99	T7000
R4SP16D	25	-16	25,4	1	38,6	1.52	350	5100	1400	20400	340	13.4	1,95	1.31	T7000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

SPECIALTY AND HIGH TEMPERATURE

T5

POLYESTER BRAID
COVER HOSE



RECOMMENDED FOR:

Medium to high pressure hydraulic oil applications. The small bend radius, temperature resistance and light weight of RYCO T5 hose make it suitable for under the bonnet automotive/trucking applications including hydraulic oil, diesel fuel, lubrication oil and transmission oil coolers. Sizes T54 to T512 also comply with SAE J1402 Type All "Automotive Air Brake Hose" for use in truck "air brake systems including flexible connections from frame to axle, tractor to trailer, trailer to trailer, and other unshielded air lines that are exposed to potential pull or impact". T5 may be used with compressed air if maximum working pressure is reduced by 30%. T5 hose is normally used where there is minimal abrasion to the outside cover. If abrasion is likely, support the hose away from the source of abrasion using mounting clamps, or protect with RWA Wire Armour or RSG Spiral Guard. T5 is a reduced bore hose. It has a similar Inside Diameter to steel or copper tubing of the same nominal (outside diameter) size. See page 145 for more information.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R5, SAE 100R5, SAE J1402 Type All (up to -12 size).

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Polyester inner braid covered with one braid of high tensile steel wire.

COVER:

Black polyester braid. Skiving of cover is not required.

MSHA - FLAME RESISTANCE:

Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration and Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B when used with FS1072 Fire Sleeve.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

USCG - Hydraulic Systems, DoT

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T4000 Series (sizes -04 to -20) pages 209 to 216.
Assembly Instructions page 498.

FIELD ATTACHABLE NON-SKIVE

V000 Series (sizes -04 to -32) pages 262 to 275.
Assembly Instructions page 496.

T5 - TRUCKER POLYESTER COVER HOSE																				
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND R SAE100R5		MINIMUM BEND R SAEJ1402		VACUUM RATING		AVERAGE WEIGHT		ONE PC	FIELD	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	mm	inch	inHg	mmHg	kg/m	lb/ft	NON-SKIVE	
T54	5	-04	4,8	3/16	13,2	0.52	210	3050	840	12200	75	3.0	51	2.0	710	28	0,23	0.15	T4000	V000
T55	6	-05	6,4	1/4	14,8	0.58	210	3050	840	12200	85	3.3	64	2.5	710	28	0,26	0.17	T4000	V000
T56	8	-06	7,9	5/16	17,2	0.68	155	2250	620	9000	100	4.0	76	3.0	710	28	0,30	0.20	T4000	V000
T58	10	-08	10,3	13/32	19,4	0.76	138	2000	552	8000	117	4.6	89	3.5	710	28	0,36	0.24	T4000	V000
T510	12	-10	12,7	1/2	23,4	0.92	121	1750	484	7000	140	5.5	102	4.0	710	28	0,53	0.36	T4000	V000
T512	16	-12	15,9	5/8	27,4	1.08	103	1500	414	6000	165	6.5	114	4.5	710	28	0,65	0.44	T4000	V000
T516	22	-16	22,2	7/8	31,4	1.24	55	800	221	3200	187	7.4			510	20	0,63	0.42	T4000	V000
T520	28	-20	31,0	1.1/8	38,1	1.50	43	625	172	2500	229	9.0			510	20	0,90	0.60	T4000	V000
T524	35	-24	32,0	1.3/8	44,5	1.75	35	500	140	2000	267	10.5			380	15	1,00	0.67		V000
T532	46	-32	45,0	1.13/16	56,3	2.22	24	350	98	1400	337	13.3			280	11	1,48	0.99		V000

***IMPORTANT NOTE:** MAXIMUM WORKING PRESSURE and MINIMUM BURST PRESSURE shown above relate to SAE 100R5 specification and hose used in non Air Brake applications. For Air Brake applications, SAE J1402 Type All Air Brake Hose specification requires Minimum Burst Pressure 900 psi (62,1 bar) and Proof Pressure of 300 psi (20,7 bar) for all sizes, and reduced Minimum Bend Radii as shown below. T54 to T512 comply with SAE J1402 Minimum Bend Radius at SAE J1402 pressures, and SAE 100R5 Minimum Bend Radius at SAE 100R5 working pressures. Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

D2B

DRILLER
HIGH TEMPERATURE
DRILL RIG HOSE



INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

RECOMMENDED FOR:

Hydraulic oil or air lines. Drill rigs - high pressure, large bore air hose.

PERFORMANCE:

SAE 100R16 (size -20).

TUBE:

Black, oil resistant synthetic rubber specifically compounded for temperature resistance.

REINFORCEMENT:

Two braids of high tensile steel wire.

COVER:

Perforated blue, oil and abrasion resistant synthetic rubber. No skiving required with T2000 & T7000 Series BITELOK Crimp Couplings.

MSHA - FLAME RESISTANCE:

Complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

Air: -40°C to +121°C (-40°F to +250°F)

Oil: -40°C to +135°C (-40°F to +275°F)

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:
BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -20 & -32) pages 188 to 208.

T7000 Series (sizes -24 to -32) pages 217 to 233.

Assembly Instructions pages 498.

Not suitable for use with field attachable couplings. Refer to Product Technical Manual - Hydraulics for assembly instructions.

D2B - DRILLER HOSE															
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
D220B	31	-20	31,8	1.1/4	40,4	1.59	140	2030	560	8120	200	7.9	1,22	0.82	T2000
D224B	38	-24	38,1	1.1/2	48,0	1.89	100	1450	400	5800	250	9.8	1,49	1.00	T2000 T7000
D232B	51	-32	50,8	2	62,0	2.44	90	1300	360	5200	300	11.8	2,24	1.50	T2000 T7000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

SPECIALTY AND HIGH TEMPERATURE

MS1000 MINESPRAY



RECOMMENDED FOR:

Water and air spray suited for dust control in all industrial and mining applications.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One braid of high tensile steel wire.

COVER:

Yellow, oil resistant and abrasion resistant synthetic rubber. No skiving required with T2000 & T4000 Series BITELOK Crimp Couplings.

MSHA - FLAME RESISTANCE:

Complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).








COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -12 to -32) pages 188 to 208.

T4000 Series (sizes -20 to -32) pages 209 to 216.

Assembly Instructions page 498.

CS1000 - MINESPRAY HOSE															
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
MS1008	12	-08	12,7	1/2	18,5	0.73	70	1000	280	4000	90	3.6	0,29	0.19	T2000
MS1010	16	-10	15,9	5/8	22,1	0.87	70	1000	280	4000	100	3.9	0,35	0.24	T2000
MS1012	19	-12	19,1	3/4	25,8	1.02	70	1000	280	4000	120	4.7	0,40	0.27	T2000
MS1016	25	-16	25,4	1	32,5	1.28	70	1000	280	4000	150	5.9	0,62	0.42	T2000
MS1020	31	-20	31,8	1.1/4	39,5	1.56	70	1000	280	4000	210	8.3	0,75	0.50	T2000 T4000
MS1024	38	-24	38,1	1.1/2	46,0	1.81	70	1000	280	4000	250	9.9	1,00	0.67	T2000 T4000
MS1032	51	-32	50,8	2	59,1	2.33	70	1000	280	4000	300	11.8	1,42	0.95	T2000 T4000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

CS1000

COALSPRAY



INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

RECOMMENDED FOR:

Water and air spray suited for dust control in all industrial and mining applications.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One braid of high tensile steel wire.

COVER:

Yellow, oil resistant and abrasion resistant synthetic rubber. No skiving required with T2000 & T4000 Series BITELOK Crimp Couplings.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

Complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).

For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:
BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -12 to -32) pages 188 to 208.

T4000 Series (sizes -20 to -32) pages 209 to 216.

Assembly Instructions page 498.

CS1000 - COALSPRAY HOSE																
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE		
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE	
CS1008	12	-08	12,7	1/2	18,5	0.73	70	1000	280	4000	90	3.6	0,29	0.19	T2000	
CS1010	16	-10	15,9	5/8	22,1	0.87	70	1000	280	4000	100	3.9	0,35	0.24	T2000	
CS1012	19	-12	19,1	3/4	25,8	1.02	70	1000	280	4000	120	4.7	0,40	0.27	T2000	
CS1016	25	-16	25,4	1	32,5	1.28	70	1000	280	4000	150	5.9	0,62	0.42	T2000	
CS1020	31	-20	31,8	1.1/4	39,5	1.56	70	1000	280	4000	210	8.3	0,75	0.50	T2000	T4000
CS1024	38	-24	38,1	1.1/2	46,0	1.81	70	1000	280	4000	250	9.9	1,00	0.67	T2000	T4000
CS1032	51	-32	50,8	2	59,1	2.33	70	1000	280	4000	300	11.8	1,42	0.95	T2000	T4000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

SPECIALTY AND HIGH TEMPERATURE

BT1

ONE WIRE BRAID HOSE



RECOMMENDED FOR:

Transportation, marine fuel and engine hose applications. Low pressure hydraulic oil return lines, general purpose water, glycol antifreeze solutions, biodiesel, diesel fuel, ethanol, gasoline/petrol or air.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: SAE J1527 Type Class I, USCG SAE J1942, SAE J30R2 (non-marine). Meets SAE J30R2 performance requirements for non-marine applications and SAE J1527 Type Class I and USCG SAEJ1942 for marine applications.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One braid of high tensile steel wire.

COVER:

Blue, oil resistant and abrasion resistant synthetic rubber.

MSHA - FLAME RESISTANCE:

Complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

TEMPERATURE RANGE:

MEDIA	TEMP °C	
	MIN	MAX
Petroleum based hydraulic fluids	-40	+135
Water, water/oil emulsion and water/glycol hydraulic fluids	—	80
Engine oil, lubricating oils	-40	121
Air	—	121
Diesel, JP8	-20	100
Biodiesel	-40	100
Gasoline/petrol	-20	80
Ethanol blends (15% max.ethanol)	-20	80

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -04 to -16) pages 188 to 208. Assembly Instructions page 498.

FIELD ATTACHABLE NON-SKIVE

6000 Series insert (sizes -04 to -16) pages 276 to 290.

K000 Series ferrule (sizes -04 to -16) page 276.

Assembly Instructions page 496.

BT1 - BIOTRANS HOSE																
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES		
		mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	ONE PC	FIELD ATT	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE	
BT14	6	-04	6,3	1/4	13,3	0.52	50	725	200	2900	25	1.0	0,22	0.15	T2000	6000 (K000)
BT15	8	-05	7,9	5/16	14,9	0.59	50	725	200	2900	30	1.2	0,25	0.17	T2000	
BT16	10	-06	9,5	3/8	17,3	0.68	50	725	200	2900	35	1.4	0,31	0.21	T2000	6000 (K000)
BT18	12	-08	12,7	1/2	20,3	0.80	50	725	200	2900	55	2.2	0,39	0.26	T2000	6000 (K000)
BT110	16	-10	15,9	5/8	23,6	0.93	50	725	200	2900	70	2.8	0,49	0.33	T2000	6000 (K000)
BT112	19	-12	19,1	3/4	27,6	1.09	50	725	200	2900	82	3.2	0,62	0.41	T2000	6000 (K000)
BT116	25	-16	25,4	1	35,5	1.40	50	725	200	2900	105	4.1	0,90	0.60	T2000	6000 (K000)

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.



BIOTRANS

TRANSPORTING OUR FUTURE

WIDE RANGE OF FLUIDS

MULTI PURPOSE HOSE



MSHA

HOSE

SPECIALTY AND HIGH TEMPERATURE

RQP1

HIGH TEMPERATURE
MULTI FLUID
ONE WIRE BRAID HOSE

RYCO RQP1



RECOMMENDED FOR:

High pressure hydraulic oil applications where pressure or temperature requirements exceed the performance requirements of SAE 100R1AT and DIN 20022-1SN, or where resistance to phosphate ester** fluid is required. May be used with compressed air if cover of hose is perforated (pin-pricked) and additional Safety Devices are used.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R1AT, DIN 20022-1SN, EN 853 Type 1SN, ISO 1436 Types R1AT & 1SN, SAE 100R1AT.

TUBE:

Black, synthetic rubber, specifically compounded for temperature resistance and multi fluid resistance.

REINFORCEMENT:

One braid of high tensile steel wire.

COVER:

Blue, oil resistant and abrasion resistant synthetic rubber. No skiving required with T2000 & T7000 Series BITELOK Crimp Couplings and K000 Series Field Attachable Couplings*.

MSHA - FLAME RESISTANCE:

Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration. Complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B.

TEMPERATURE RANGE:

From -40°C to +150°C (-40°F to +302°F).

For water, water/oil emulsions, diesel fuels, glycol, air, and some phosphate esters** see page 57.

**Not suitable for use with aerospace type phosphate esters such as Monsanto Skydrol 500B, Stauffer Aero-Safe 2300W and Chevron Hy-jet IV.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -04 to -16) pages 188 to 208.

T7000 Series (sizes -06 to -16) pages 217 to 233.

Assembly Instructions page 498.

FIELD ATTACHABLE NON-SKIVE*

6000 Series insert (sizes -04 to -16) pages 276 to 290.

K000 Series ferrule (sizes -04 to -16) page 276.

Assembly Instructions page 496.

RQP1 - SURVIVOR NON-SKIVE HOSE																
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		ONE PIECE	FIELD ATT	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE	
RQP14	6	-04	6,4	1/4	13,4	0.53	225	3250	900	13000	100	4.0	0,24	0.16	T2000	6000 (K000)
RQP15	8	-05	7,9	5/16	15,0	0.59	215	3120	860	12500	114	4.5	0,27	0.18	T2000	
RQP16	10	-06	9,5	3/8	17,4	0.69	180	2600	720	10400	127	5.0	0,34	0.23	T2000	T7000 6000 (K000)
RQP18	12	-08	12,7	1/2	20,5	0.81	160	2300	640	9300	178	7.0	0,44	0.30	T2000	T7000 6000 (K000)
RQP110	16	-10	15,9	5/8	23,7	0.93	130	1880	520	7540	200	8.0	0,51	0.34	T2000	T7000 6000 (K000)
RQP112	19	-12	19,1	3/4	27,6	1.09	120	1740	480	7000	240	9.5	0,64	0.43	T2000	T7000 6000 (K000)
RQP116	25	-16	25,4	1	35,7	1.41	90	1300	360	5200	300	12.0	0,98	0.66	T2000	T7000 6000 (K000)

* Field Attachable Couplings should not be used on RQP1 Hose at maximum working pressure when temperature exceeds 121°C (250°F). Field Attachable Couplings may be used on RQP1 Hose at over 121°C but at reduced working pressure. Contact RYCO for more information. Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

RQP2

HIGH TEMPERATURE
MULTI FLUID
TWO WIRE BRAID HOSE



INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

RECOMMENDED FOR:

High pressure hydraulic oil applications where pressure or temperature requirements exceed the performance requirements of SAE 100R2AT, DIN 20022-2SN and EN 853 Type 2SN, or where resistance to phosphate ester[†] fluid is required. May be used with compressed air if cover of hose is perforated (pin-pricked) and additional Safety Devices are used.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R2AT, DIN 20022-2SN, EN 853 Type 2SN, ISO 1436 Types R2AT & 2SN, SAE 100R2AT.

TUBE:

Black, synthetic rubber, specifically compounded for temperature resistance and multi fluid resistance.

REINFORCEMENT:

Two braids of high tensile steel wire.

COVER:

Blue, oil resistant and abrasion resistant synthetic rubber. No skiving required with T2000 & T7000 Series BITELOK Crimp Couplings and L000 Series Field Attachable Couplings*.

MSHA - FLAME RESISTANCE:

Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety & Health Administration. Complies with Flame Resistant requirements of Australian Standard AS 2660 & Method of Test AS 1180.10B.

TEMPERATURE RANGE:

From -40°C to +150°C (-40°F to +302°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -04 to -32) pages 188 to 208.

T7000 Series (sizes -06 to -32) pages 217 to 233.

Assembly Instructions page 498.

FIELD ATTACHABLE NON-SKIVE*

6000 Series insert (sizes -04 to -20) pages 276 to 290.

L000 Series ferrule (sizes -04 to -20) page 276.

Assembly Instructions page 496.

RQP2 - SURVIVOR NON-SKIVE HOSE																
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		ONE PIECE	FIELD ATT	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE	
RQP24	6	-04	6,4	1/4	15,0	0.59	400	5800	1600	23200	100	4.0	0,39	0.26	T2000	6000 (L000)
RQP25	8	-05	7,9	5/16	16,6	0.65	350	5100	1400	20400	114	4.5	0,45	0.30	T2000	
RQP26	10	-06	9,5	3/8	19,0	0.75	350	5100	1400	20400	127	5.0	0,53	0.36	T2000	T7000 6000 (L000)
RQP28	12	-08	12,7	1/2	22,0	0.87	300	4350	1200	17400	178	7.0	0,65	0.44	T2000	T7000 6000 (L000)
RQP210	16	-10	15,9	5/8	25,2	0.99	250	3600	1000	14500	200	8.0	0,77	0.52	T2000	T7000 6000 (L000)
RQP212	19	-12	19,1	3/4	29,1	1.15	215	3100	860	12400	240	9.5	0,93	0.62	T2000	T7000 6000 (L000)
RQP216	25	-16	25,4	1	37,7	1.48	167	2400	670	9600	300	12.0	1,38	0.93	T2000	T7000 6000 (L000)
RQP220	31	-20	31,8	1.1/4	48,0	1.89	150	2175	600	8700	419	16.5	2,03	1.36	T2000	T7000 6000 (L000)
RQP224	38	-24	38,1	1.1/2	54,4	2.14	100	1450	400	5800	500	20.0	2,30	1.55	T2000	T7000
RQP232	51	-32	50,8	2	67,3	2.65	90	1300	360	5200	600	24.0	3,16	2.12	T2000	T7000

* Field Attachable Couplings should not be used on RQP2 Hose at maximum working pressure when temperature exceeds 121°C (250°F). Field Attachable Couplings may be used on RQP2 Hose at over 121°C but at reduced working pressure. Contact RYCO Hydraulics for more information.

† Not suitable for use with aerospace type phosphate esters such as Monsanto Skydrol 500B, Stauffer Aero-Safe 2300W and Chevron Hy-jet IV. Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

SPECIALTY AND HIGH TEMPERATURE

RQP5

HIGH TEMPERATURE
POLYESTER BRAID COVER
ONE WIRE HOSE

RYCO RQP5



RECOMMENDED FOR:

Medium to high pressure hydraulic oil applications, or where resistance to phosphate ester** fluid is required. The small bend radius, temperature resistance and light weight of RYCO RQP5 hose make it suitable for under the bonnet automotive/trucking applications including hydraulic oil, diesel fuel, lubrication oil and transmission oil coolers. Sizes RQP54 to RQP512 also comply with SAE J1402 Type All "Automotive Air Brake Hose" for use in truck "air brake systems including flexible connections from frame to axle, tractor to trailer, trailer to trailer, and other unshielded air lines that are exposed to potential pull or impact". RQP5 may be used with compressed air if maximum working pressure is reduced by 30%. RQP5 hose is normally used where there is minimal abrasion to the outside cover. If abrasion is likely, support the hose away from the source of abrasion using mounting clamps, or protect with RWA Wire Armour or RSG Spiral Guard. RQP5 is a reduced bore hose. It has a similar Inside Diameter to steel or copper tubing of the same nominal (Outside Diameter) size. See page "How To Order" on page 263 for Branding Information.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R5, SAE 100R5, SAE J1402 Type All (up to -12 size).

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Polyester inner braid covered with one braid of high tensile steel wire.

COVER:

Blue polyester braid. Skiving of cover is not required.

MSHA - FLAME RESISTANCE:

Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration and Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B when used with FS1072 Fire Sleeve.

TEMPERATURE RANGE:

From -40°C to +150°C (-40°F to +302°F).
For water, emulsions etc. see page 57.

**Not suitable for use with aerospace type phosphate esters such as Monsanto Skydrol 500B, Stauffer Aero-Safe 2300W and Chevron Hy-jet IV.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

MED and USCG - Hydraulic and Fuel Systems, DoT.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T4000 Series (Sizes -04 to -20) pages 209 to 215.
Assembly Instructions pages 498.

FIELD ATTACHABLE NON-SKIVE

V000 Series (sizes -04 to -32) pages 262 to 275.
Assembly Instructions page 496.

RQP5 - SURVIVOR POLYESTER COVER HOSE																				
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND R SAE 100R5		MINIMUM BEND R SAE J1402		VACUUM RATING		AVERAGE WEIGHT		ONE PC	FIELD	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	mm	inch	inHg	mmHg	kg/m	lb/ft	NON-SKIVE	
RQP54	5	-04	4,8	3/16	13,2	0.52	210	3050	840	12200	75	3.0	51	2.0	710	28	0,23	0.15	T4000	V000
RQP55	6	-05	6,4	1/4	14,8	0.58	210	3050	840	12200	85	3.3	64	2.5	710	28	0,26	0.17	T4000	V000
RQP56	8	-06	7,9	5/16	17,2	0.68	155	2250	620	9000	100	4.0	76	3.0	710	28	0,30	0.20	T4000	V000
RQP58	10	-08	10,3	13/32	19,4	0.76	138	2000	552	8000	117	4.6	89	3.5	710	28	0,36	0.24	T4000	V000
RQP510	12	-10	12,7	1/2	23,4	0.92	121	1750	484	7000	140	5.5	102	4.0	710	28	0,53	0.36	T4000	V000
RQP512	16	-12	15,9	5/8	27,4	1.08	103	1500	414	6000	165	6.5	114	4.5	710	28	0,65	0.44	T4000	V000
RQP516	22	-16	22,2	7/8	31,4	1.24	55	800	221	3200	187	7.4			510	20	0,63	0.42	T4000	V000
RQP520	28	-20	31,0	1.1/8	38,1	1.50	43	625	172	2500	229	9.0			510	20	0,90	0.60	T4000	V000
RQP524	35	-24	32,0	1.3/8	44,5	1.75	35	500	140	2000	267	10.5			380	15	1,00	0.67		V000
RQP532	46	-32	45,0	1.13/16	56,3	2.22	24	350	98	1400	337	13.3			280	11	1,48	0.99		V000

***IMPORTANT NOTE:** MAXIMUM WORKING PRESSURE and MINIMUM BURST PRESSURE shown above relate to SAE 100R5 specification and hose used in non Air Brake applications. For Air Brake applications, SAE J1402 Type All Air Brake Hose specification requires Minimum Burst Pressure 900 psi (62,1 bar) and Proof Pressure of 300 psi (20,7 bar) for all sizes, and reduced Minimum Bend Radii as shown below. RQP54 to RQP512 comply with SAE J1402 Minimum Bend Radius at SAE J1402 pressures, and SAE 100R5 Minimum Bend Radius at SAE 100R5 working pressures. Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

RQP6

HIGH TEMPERATURE
ONE TEXTILE BRAID HOSE



INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

RECOMMENDED FOR:

Hydraulic oil lines, transmission oil cooler lines, glycol antifreeze solutions, water, diesel fuels and air.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R6, DIN 20021-1TE, ISO 4079 Type 1, SAE 100R6.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One textile braid.

COVER:

Blue, oil resistant and abrasion resistant synthetic rubber.

MSHA - FLAME RESISTANCE:

Meets Flame Resistance Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration. Complies with Flame Resistant requirement of Australian Standard AS 2660 and Method of Test AS 1180.10B.

TEMPERATURE RANGE:

Petroleum base hydraulic oils & transmission oils:

-40°C to +135°C (-40°F to +275°F) constant, and up to +150°C (+302°F) intermittent (up to 10% of operating time).

Air: -40°C to +100°C (-40°F to +212°F)

Diesel fuels: -40°C to +71°C (-40°F to +160°F).

For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

RQP6 Hose, and 800 Series Push-On Fittings, are recommended for use in systems with Static Working Pressures (constant loads without pressure spikes) only. They are not recommended for vibration or pressure surge applications. RQP6 Hose should not be used at both maximum working pressure and maximum temperature simultaneously.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T4000 Series (Sizes -04 to -12) pages 209 to 216. Assembly Instructions page 498.

8000 SERIES PUSH-ON

RQP6 Hose simply pushes on to 800 Series Couplings, and for Static Working Pressures up to 50% of Maximum Static Working Pressures a clamp is not required. For diesel fuel and other potentially dangerous, or critical applications such as transmission oil cooler lines, and for Static Working Pressures above 50% of maximum; a clamp around the hose is required. Do not overtighten clamp as this will damage hose. Factory crimped couplings are also available in some sizes.

RQP6 - SURVIVOR HIGH TEMPERATURE PUSH ON HOSE																		
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		VACUUM RATING		AVERAGE WEIGHT		COUPLING SERIES		
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	inHg	mmHg	kg/m	lb/ft	NON-SK	
RQP64	6	-04	6,4	1/4	12,3	0.48	28	410	112	1640	65	2.5	710	28	0,12	0.08	T4000	8000
RQP65	8	-05	7,9	5/16	13,9	0.55	28	410	112	1640	75	3.0	710	28	0,14	0.09	T4000	8000
RQP66	10	-06	9,5	3/8	15,5	0.61	28	410	112	1640	75	3.0	635	25	0,17	0.11	T4000	8000
RQP68	12	-08	12,7	1/2	19,0	0.75	28	410	112	1640	100	4.0	460	18	0,22	0.15	T4000	8000
RQP610	16	-10	15,9	5/8	22,6	0.89	24	350	96	1400	125	5.0	380	15	0,29	0.19	T4000	8000
RQP612	20	-12	19,1	3/4	25,8	1.02	21	305	84	1220	150	6.0	380	15	0,34	0.23	T4000	8000

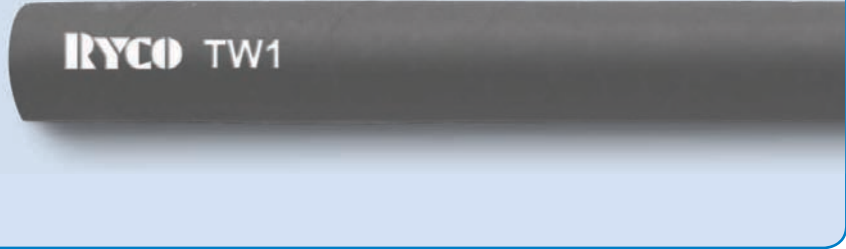
Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

PRESSURE WASHER

TW1

TORNADO WASHER
ONE WIRE BRAID



RECOMMENDED FOR:

Hot Water Pressure Washer Machines.

TUBE:

Black, oil resistant synthetic rubber. Heat, cleaning chemicals and detergent resistant.

REINFORCEMENT:

One braid of high tensile steel wire.

COVER:

Grey synthetic rubber; oil, chicken fat and abrasion resistant. The cover of TW1 Hose is formulated to resist marking. No skiving required with T2000 Series BITELOK Crimp Couplings.

TEMPERATURE RANGE:

TW1 TORNADO WASHER Hose handles hot water up to +155°C (+310°F). For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -06 to -08) pages 188 to 208. Assembly Instructions page 498.








Common hose couplings used on TW1 Hose include:

T2020S BSPP Female Live Swivel

T2940 PW Female

T2950 PW Gun Handle Tube.

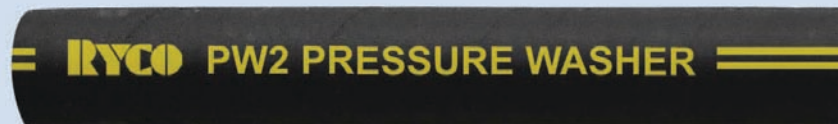
PRODUCT SUPERSEDED

TW1 – TORNADO WASHER HOSE															
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
TW16	10	-06	9,5	3/8	17,4	0.69	210	3050	840	12200	60	2.4	0,34	0.23	T2000
TW18	12	-08	12,7	1/2	20,6	0.81	210	3050	840	12200	90	3.5	0,45	0.30	T2000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

PW2

PRESSURE WASHER
TWO WIRE BRAID



INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

RECOMMENDED FOR:

Hot Water Pressure Washer Machines.

TUBE:

Black, heat resistant synthetic rubber.

REINFORCEMENT:

Two braids of high tensile steel wire.

COVER:

Black, oil resistant and abrasion resistant synthetic rubber. The cover of PW2 hose is formulated to resist marking. No skiving required with T2000 Series BITELOK Crimp Couplings.

TEMPERATURE RANGE:

PW2 PRESSURE WASHER Hose handles hot water up to +150°C (+302°F).

For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 series (sizes -04 to -06) pages 188 to 208. Assembly Instructions page 498.

Common hose couplings used on PW2 Hose include:

T2020S BSPP Female Live Swivel

T2940 PW Female

T2950 PW Gun Handle Tube.

(Note: The Maximum Working Pressures of **T2020S** couplings are lower than the Maximum Working Pressures of **PW2 Series** hoses.)

PRODUCT SUPERSEDED

PW2 - PRESSURE WASHER HOSE															
PART NO	HOSE SIZE		NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	ONE PIECE
PW24	6	-04	6,4	1/4	15,0	0.59	400	5800	1600	23200	100	4.0	0,39	0.26	NON-SKIVE T2000
PW25	8	-05	7,9	5/16	16,6	0.65	400	5800	1600	23200	114	4.5	0,46	0.31	T2000
PW26	10	-06	9,5	3/8	19,0	0.75	400	5800	1600	23200	130	5.0	0,56	0.38	T2000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

SUCTION & RETURN

SR

SUCTION & RETURN HOSE



RECOMMENDED FOR:

Petroleum and water base hydraulic fluids in suction lines or in low pressure return lines.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R4 (except SR48), SAE 100R4.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Textile reinforcement with spiral wire to prevent collapsing.

COVER:

Black, oil resistant and abrasion resistant synthetic rubber.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).

For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

Working pressure shown is for hose performance capabilities. Performance of a hose assembly depends on couplings used.

1. For Suction Applications, and Low Pressure Delivery (up to 25% of Maximum Working Pressure).

33000 SERIES COUPLINGS WITH RSC CLAMP

33000 Series (sizes -12 to -48) pages 258 to 261.

33000 Series Couplings require a suitable clamp around the outside of the hose. Refer to RYCO RSC Clamps shown below. Assembly instructions page 501.

2. For Suction Applications, and High Pressure Delivery (up to 100% of Maximum Working Pressure).

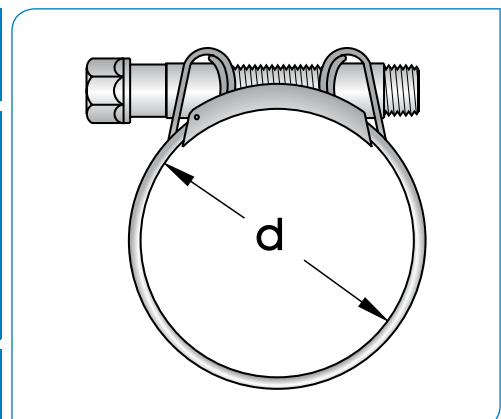
BITELOK NON-SKIVE ONE-PIECE CRIMP

T4000 Series (sizes -12 and -16) pages 209 to 216.

Assembly Instructions page 498.

SR - SUCTION AND RETURN HOSE																
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		VACUUM RATING		AVERAGE WEIGHT		
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	mmHg	inHg	kg/m	lb/ft
SR12	19	-12	19,1	3/4	31,5	1.24	21	300	84	1200	125	4.9	635	25	0,82	0.55
SR16	25	-16	25,4	1	40,0	1.57	17	250	68	1000	150	5.9	635	25	1,00	0.67
SR40	63	-40	63,5	2.1/2	78,5	3.09	4,3	62	17	250	350	13.8	635	25	2,37	1.59
SR48	76	-48	76,2	3	90,7	3.57	3,9	56	16	225	450	17.7	635	25	2,45	1.65

HOSE PART NO	CLAMP PART NO	CLAMP ADJUSTMENT RANGE	RECOMMENDED TIGHTENING TORQUE	
		d mm	N.m	ft.lbf
SR12	RSC-3134	31 to 34	20	15
SR16	RSC-3740*	37 to 40	20	15
	RSC-4043*	40 to 43	20	15
SR40	RSC-7379	73 to 79	25	18
SR48	RSC-8591	85 to 91	25	18



NOTE: For sizes -20, -24 & -32, use RYCO SRF Hose.

*Due to the manufacturing tolerance on outside diameter of the hose and the range of adjustment of the clamp, it is necessary to confirm correct clamp at time of assembly.



SRF

COMPACT
SUCTION & RETURN HOSE

RECOMMENDED FOR:

Petroleum and water base hydraulic fluids in suction lines or in low pressure return lines. Small bend radius is an advantage in installations where space is minimal. (Tighter Bend Radius than SAE 100R4)

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R4, SAE 100R4.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Textile reinforcement with spiral wire to prevent collapsing.

COVER:

Black, oil resistant and abrasion resistant synthetic rubber.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

Working pressure shown is for hose performance capabilities. Performance of a hose assembly depends on couplings used.

- For Suction Applications, and Low Pressure Delivery (up to 25% of Maximum Working Pressure).**

33000 SERIES COUPLINGS WITH RSC CLAMP

33000 Series (sizes -12 to -32) pages 258 to 261.
3300 Series Couplings require a suitable clamp around the outside of the hose. Refer to RYCO RSC Clamps shown below.
Assembly instructions page 501.

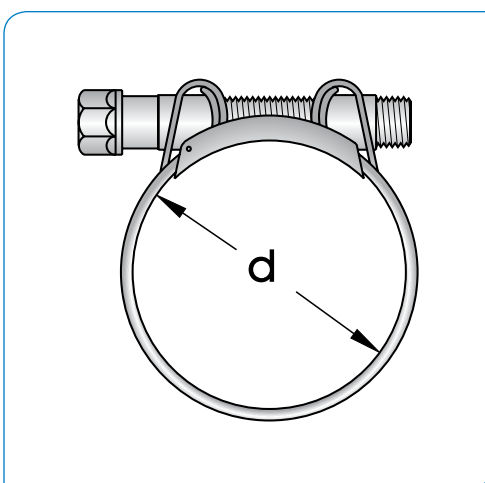
- For Suction Applications, and High Pressure Delivery (up to 100% of Maximum Working Pressure).**

BITELOK NON-SKIVE ONE-PIECE CRIMP

T4000 Series (sizes -12 to -32) pages 209 to 216.
Assembly Instructions page 498.

SRF - DEFiant COMPACT SUCTION AND RETURN HOSE																
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		VACUUM RATING		AVERAGE WEIGHT		
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	mmHg	inHg	kg/m	lb/ft
SRF12	19	-12	19,1	3/4	31,5	1.24	21	300	84	1200	63	2.5	635	25	0,82	0.55
SRF16	25	-16	25,4	1	40,0	1.57	17	250	68	1000	75	2.9	635	25	1,00	0.67
SRF20	31	-20	31,8	1.1/4	46,5	1.83	14	200	56	800	100	3.9	635	25	1,19	0.80
SRF24	38	-24	38,1	1.1/2	53,1	2.09	10	150	40	600	125	4.9	635	25	1,39	0.93
SRF32	51	-32	50,8	2	65,5	2.58	7	100	28	400	150	5.9	635	25	1,94	1.30

HOSE PART NO	CLAMP PART NO	CLAMP ADJUSTMENT RANGE	RECOMMENDED TIGHTENING TORQUE	
		d mm	N.m	ft.lbf
SRF12	RSC-3134	31 to 34	20	15
SRF16	RSC-3740*	37 to 40	20	15
	RSC-4043*	40 to 43	20	15
SRF20	RSC-4347*	43 to 47	20	15
	RSC-4751*	47 to 51	20	15
SRF24	RSC-5155	51 to 55	20	15
SRF32	RSC-6368	63 to 68	25	18



NOTE: For sizes -20, -24 & -32, use RYCO SRF Hose.
*Due to the manufacturing tolerance on outside diameter of the hose and the range of adjustment of the clamp, it is necessary to confirm correct clamp at time of assembly.

RTH1

STAINLESS STEEL
BRAID TEFLON* HOSE



RECOMMENDED FOR:

High pressure hydraulic oil lines. Fluids at extremes of pressure and temperature. RYCO RTH1 Series Hose Lining is chemically pure, inert and contains no leachable additives. RYCO RTH1 is remarkably resistant to high temperature and flame. It has a very high melting point, thermal degradation threshold and auto-ignition temperature. Warning: RTH1 Hose Liner is non-conductive. Do not use with high velocity fluids and gases, as static electricity may be generated and cause premature failure of hose. If in doubt contact RYCO Hydraulics technical department.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: SAE 100R14. RTH112 meets ID and OD requirements of SAE 100R14. Other sizes have ID and OD different to SAE 100R14.

TUBE:

TEFLON* (PTFE).

REINFORCEMENT:

One braid of high tensile Grade 304 stainless steel wire.

TEMPERATURE RANGE:

From -60°C to +260°C (-76°F to +500°F).
(According to application).
For water, emulsions etc. see page 57.

WORKING TEMPERATURE		% OF WORKING PRESSURE THAT MAY BE USED SAFELY
°C	°F	Percentage
-60°C to +100°C	(-76°F to +212°F)	100
+101°C to +150°C	(+214°F to +302°F)	93
+151°C to +200°C	(+304°F to +392°F)	85
+201°C to +250°C	(+394°F to +482°F)	77
+251°C to +260°C	(+484°F to +500°F)	70

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

MED and USCG.

COUPLINGS:

ONE-PIECE CRIMP

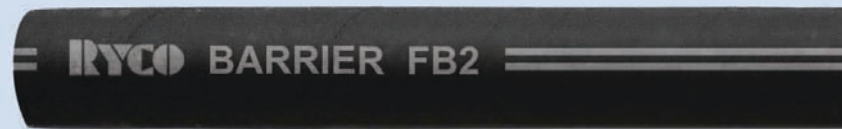
TT000 Series (sizes -04 to -16) pages 241 to 243.
Assembly instructions page 500.

RTH1 - TEFLON* HOSE																	
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MAXIMUM WORKING PRESSURE SAE100R14		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	
RTH14	6	-04	6,4	1/4	9,4	0.37	170	2450	103	1500	680	9800	75	3.0	0,12	0.08	TT000
RTH16	10	-06	9,5	3/8	11,7	0.46	165	2375	103	1500	660	9500	125	5.0	0,14	0.09	TT000
RTH18	12	-08	12,7	1/2	15,4	0.61	120	1750	55	800	485	7000	140	5.5	0,22	0.15	TT000
RTH110	16	-10	15,9	5/8	18,4	0.72	105	1500	55	800	420	6000	165	6.5	0,28	0.19	TT000
RTH112	19	-12	19,1	3/4	22,1	0.87	85	1250	55	800	345	5000	200	8.0	0,33	0.22	TT000
RTH116	25	-16	25,4	1	28,6	1.13	55	800	55	800	220	3200	300	12.0	0,46	0.31	TT000

* DuPont Registered TM
Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

FB2

**BARRIER
TWO TEXTILE BRAID HOSE
NYLON BARRIER**



INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

RECOMMENDED FOR:

Automotive air conditioning systems and other refrigeration and air conditioning systems using refrigerants R12 and R134A. Also suitable for use with R22 and R114. The internal rubber layer assures coupling integrity and reduces the risk of refrigerant loss around the couplings, and the nylon barrier reduces the permeation of refrigerant, to protect the environment. FB2 is a reduced bore hose. It has a similar Inside Diameter to metal tubing of the same nominal size. For example, 5/8" (OD) tubing has an Inside Diameter of approximately 1/2". FB210 is also 1/2" Inside Diameter.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: SAE J2064 Type C Class II.

TUBE:

Black, synthetic rubber internal layer (polychloroprene) with Nylon Barrier.

REINFORCEMENT:

Two braids of synthetic yarn.

COVER:

Black, oil resistant and abrasion resistant synthetic rubber. No skiving required with 1G000 Series Crimp Couplings.

TEMPERATURE RANGE:

From -30°C to +125°C (-22°F to +257°F). For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

1G000 SERIES CRIMP COUPLINGS page 252 and 253. Assembly instruction page 502.

1G000 Series Crimp Couplings consist of G00 Series Insert and 1G000 Series Crimp Ferrule.

Use only with 1G000 Series Crimp Ferrules. Worm drive hose clamps must not be used with FB2 Hose.

PRODUCT SUPERSEDED

FB2 - BARRIER AIR CONDITIONING HOSE																		
PART NO		HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES 1G000 CRIMP COUPLINGS			
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	Insert	Ferrule		
FB26	8	-06	7,9	5/16	19,0	0.75	35	500	140	2000	16	0.6	0,28	0.19	G000	1G000-06		
FB28	10	-08	10,3	13/32	23,0	0.91	35	500	140	2000	25	1.0	0,42	0.28	G000	1G000-08		
FB210	12	-10	12,7	1/2	25,4	1.00	35	500	140	2000	32	1.3	0,48	0.32	G000	1G000-10		

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

TEXTILE BRAID

M1

FUEL LINE
ONE TEXTILE BRAID HOSE



RECOMMENDED FOR:

Multi-purpose hose for use on fuel lines, PCV and EEC systems, and for fuel return hose connections on diesel fuel injection systems. For use with leaded and unleaded petrol, oil, diesel and other fuels.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: SAE 30R7.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One textile braid.

COVER:








Black, oil resistant synthetic rubber. Resists the effects of high heat and ozone found in engine compartments.

TEMPERATURE RANGE:

From -40°C to +125°C (-40°F to +257°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

M1 - FUEL LINE HOSE																
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		VACUUM RATING AT 20°C (68°F)		
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	mmHg	inHg
M14	6	-04	6,4	1/4	12,7	0.50	3,5	50	14	200	75	3.0	0,14	0.09	610	24
M15	8	-05	7,9	5/16	14,3	0.56	3,5	50	14	200	75	3.0	0,17	0.11	610	24
M16	10	-06	9,5	3/8	15,9	0.63	3,5	50	14	200	100	4.0	0,18	0.12	610	24

MP1

MULTI PURPOSE
ONE TEXTILE BRAID HOSE



INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

RECOMMENDED FOR:

Air, water, petroleum oils, kerosene and fuel oils.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
RMA (USA) Class A High Oil Resistance (tube),
RMA (USA) Class B Medium Oil Resistance (cover),

TUBE:

Black, oil resistant synthetic rubber. RMA (USA) Class A High Oil Resistance.

REINFORCEMENT:

One textile braid.

COVER:

Red, oil resistant and abrasion resistant synthetic rubber (Modified Nitrile). RMA (USA) Class B Medium Oil Resistance. No skiving required with T4000 Series BITELOK Crimp Couplings.

FEATURES:

Tube non-conductive at 1000 volts DC. Meets electrical resistance of one megohm per inch when subjected to 1000 volts DC. Incorrect storage and use may adversely affect electrical properties.

TEMPERATURE RANGE:

Air, water, petroleum & lubricating oils: -40°C to +93°C (-40°F to +200°F). Petrol, kerosene, fuel oils: -40°C to +49°C (-40°F to +120°F). For continuous service at upper temperature limit, reduce maximum working pressure by 30%. For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure), and are for the performance of the hose with RYCO T4000 Series BITELOK One-Piece couplings only. Maximum working pressure for a hose assembly with other couplings depends on the type of coupling and the type of clamp used. MP1 Hose should not be used at maximum working pressure and maximum working temperature simultaneously.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T4000 Series (sizes -04 to -20) pages 209 to 216. Assembly Instructions page 498.

Standard industrial hose barbed tails with hose clamps may also be suitable depending on working pressure required.

Not suitable for use with RYCO 8000 Series Push-On couplings.

MP1 - MULTI PURPOSE HOSE															
PART NO	HOSE SIZE		NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
MP14	6	-04	6,4	1/4	13,5	0.53	13,8	200	55,2	800	50	2.0	0,16	0.11	T4000
MP16	10	-06	9,5	3/8	17,5	0.69	13,8	200	55,2	800	70	3.0	0,24	0.16	T4000
MP18	12	-08	12,7	1/2	21,4	0.84	13,8	200	55,2	800	85	4.0	0,33	0.22	T4000
MP110	16	-10	15,9	5/8	25,4	1.00	13,8	200	55,2	800	105	5.0	0,43	0.29	T4000
MP112	19	-12	19,1	3/4	28,6	1.13	13,8	200	55,2	800	120	5.0	0,48	0.32	T4000
MP116	25	-16	25,4	1	37,3	1.47	13,8	200	55,2	800	155	8.0	0,82	0.55	T4000
MP120	31	-20	31,8	1.1/4	43,9	1.73	13,8	200	55,2	800	230	10.0	1,00	0.68	T4000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

TEXTILE BRAID

M2

TEXTILE
TWO TEXTILE BRAID HOSE



RECOMMENDED FOR:

Medium pressure hydraulic oil lines, antifreeze solutions, water.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R3, DIN 20021-2TE, ISO 4079 Type R3, SAE 100R3.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Two textile braids.

COVER:

Black, oil resistant and abrasion resistant synthetic rubber. No skiving required with T4000 Series BITELOK Crimp Couplings and M000 Series Field Attachable Couplings.

MSHA - FLAME RESISTANCE:

Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration. Complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T4000 Series (sizes -04 to -12) pages 209 to 216.
Assembly Instructions page 498.

FIELD ATTACHABLE NON-SKIVE

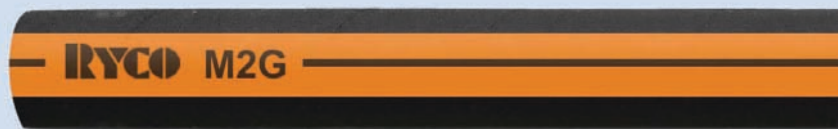
6000 Series insert (sizes -04 to -12) pages 276 to 290.
M000 Series ferrule (sizes -04 to -12) page 276.
Assembly Instructions page 496.

M2 - TEXTILE BRAID																
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		ONE PC	FIELD ATT	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE	
M24	6	-04	6,4	1/4	14,3	0.56	88	1250	350	5000	75	3.0	0,16	0.11	T4000	6000 (M000)
M26	10	-06	9,5	3/8	19,0	0.75	79	1125	315	4500	100	4.0	0,28	0.19	T4000	6000 (M000)
M28	12	-08	12,7	1/2	23,8	0.94	70	1000	280	4000	125	5.0	0,41	0.28	T4000	6000 (M000)
M212	19	-12	19,1	3/4	31,7	1.25	52	750	210	3000	240	9.5	0,65	0.44	T4000	6000 (M000)

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

M2G

TWO TEXTILE BRAID HOSE
LPG (CLASS C)



INTRODUCTION

IMPORTANT INFORMATION

RYCO **M2G Series** LPG Hose has Australian Gas Association approval (AGA approval No. 4247) only when used with RYCO **T4000 Series** BITELOK One-Piece Non-Skive Crimp Couplings, or RYCO **M000 Series** Field Attachables.

AVAILABLE ONLY AS FACTORY FITTED HOSE ASSEMBLIES.

WARNING: Do not use Field Attachable Couplings for domestic applications. (This is a requirement of Australian Standard AS/NZS 1869).

For any queries, please contact RYCO Technical Department.

HOSE

RECOMMENDED FOR:

Liquefied Petroleum Gas and Natural Gas.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS/NZS 1869 Class C (2,6 MPa working pressure, +65°C/+149°F max. temperature).

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Two textile braids.

COVER:

Black, abrasion resistant synthetic rubber. Pin-pricked (perforated). No skiving required with T4000 Series BITELOK Crimp Couplings and M000 Series Field Attachable Couplings.

TEMPERATURE RANGE:

From -20°C to +65°C (-4°F to +149°F).

THIRD PARTY APPROVALS:

AUSTRALIAN GAS ASSOCIATION Approval No. 4247.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T4000 Series (sizes -04 to -12) pages 209 to 216. Assembly Instructions page 498.

FIELD ATTACHABLE NON-SKIVE

6000 Series insert (sizes -04 to -12) pages 276 to 290. **M000 Series** ferrule (sizes -04 to -12) page 276. Assembly Instructions page 496.

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

M2G - LPG HOSE																
PART NO	HOSE SIZE		NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES	
	Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	ONE PC
M24G	6	-04	6,4	1/4	14,3	0.56	26	375	104	1500	75	3.0	0,16	0.11	T4000	6000 (M000)
M26G	10	-06	9,5	3/8	19,0	0.75	26	375	104	1500	100	4.0	0,28	0.19	T4000	6000 (M000)
M28G	12	-08	12,7	1/2	23,8	0.94	26	375	104	1500	125	5.0	0,41	0.28	T4000	6000 (M000)
M212G	19	-12	19,1	3/4	31,7	1.25	26	375	104	1500	240	9.5	0,65	0.44	T4000	6000 (M000)

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

TEXTILE BRAID

PL1

PUSH-ON HOSE
ONE TEXTILE BRAID HOSE



RECOMMENDED FOR:

Petroleum base hydraulic oils, glycol antifreeze solutions, water, diesel fuels, and air.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R6, DIN 20021-1TE, ISO 4079 Type 1, SAE 100R6.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One textile braid.

COVER:

Black, oil and abrasion resistant synthetic rubber. No skiving required with T4000 Series BITELOK Crimp Couplings.

MSHA - FLAME RESISTANCE:

Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration. Complies with Flame Resistance requirements of Australian Standard AS 1180.10B, Method of Test AS 1180.10B.

TEMPERATURE RANGE:

From -40°C to +95°C (-40°F to +203°F). For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure). PL1 Hose, and 800 Series Push-On Fittings, are recommended for use in systems with Static Working Pressures (constant loads without pressure spikes) only. They are not recommended for vibration or pressure surge applications. PL1 Hose should not be used at both maximum working pressure and maximum temperature simultaneously.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP T4000 Series (Sizes -04 to -12) pages 209 to 216. Assembly Instructions Page 498.

BITELOK NON-SKIVE 8000 Series Push-On (sizes -04 to -12).

PL1 Hose simply pushes on to 8000 Series Couplings. For diesel fuel and other potentially dangerous, or critical applications crimp fittings are required.

PRODUCT SUPERSEDED

PL1 PUSH ON HOSE																		
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM STATIC WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		VACUUM RATING		AVERAGE WEIGHT		COUPLING SERIES		
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	mmHg	inHg	kg/m	lb/ft	NON-SKIVE	
PL14	6	-04	6,4	1/4	12,3	0.48	28	410	112	1640	65	2.5	710	28	0,12	0.08	T4000	8000
PL15	8	-05	8,0	5/16	13,9	0.55	28	410	112	1640	75	3.0	710	28	0,14	0.09	T4000	8000
PL16	10	-06	9,5	3/8	15,5	0.61	28	410	112	1640	75	3.0	635	25	0,17	0.11	T4000	8000
PL18	12	-08	12,7	1/2	19,0	0.75	28	410	112	1640	100	4.0	460	18	0,22	0.15	T4000	8000
PL110	16	-10	16,0	5/8	22,6	0.89	24	350	96	1400	125	5.0	380	15	0,29	0.19	T4000	8000
PL112	19	-12	19,1	3/4	25,8	1.02	21	305	84	1220	150	6.0	380	15	0,34	0.23	T4000	8000

PL1D

EXTRA ABRASION RESISTANT
FRAS
ONE TEXTILE BRAID HOSE
PUSH ON HOSE



INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

RECOMMENDED FOR:

Petroleum base hydraulic oils, glycol antifreeze solutions, water, diesel fuels, and air.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
AS 3791 100R6, DIN 20021-1TE, ISO 4079 Type 1, SAE 100R6.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One textile braid.

COVER:

DIEHARD™ Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T4000 Series BITELOK Crimp Couplings.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

DIEHARD™ complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure). PL1 Hose, and 800 Series Push-On Fittings, are recommended for use in systems with Static Working Pressures (constant loads without pressure spikes) only. They are not recommended for vibration or pressure surge applications. PL1 Hose should not be used at both maximum working pressure and maximum temperature simultaneously.

COUPLINGS:
BITELOK NON-SKIVE ONE-PIECE CRIMP

T4000 Series (Sizes -04 to -12) pages 209 to 216. Assembly Instructions page 498.

FIELD ATTACHABLE NON-SKIVE
8000 Series Push-On (sizes -04 to -12).

PL1 Hose simply pushes on to 8000 Series Couplings. For diesel fuel and other potentially dangerous, or critical applications crimp fittings are required.

PL1 D PUSH ON HOSE																		
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM STATIC WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		VACUUM RATING		AVERAGE WEIGHT		COUPLING SERIES		
		mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	mmHg	inHg	kg/m	lb/ft	ONE PC	FIELD	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	mmHg	inHg	kg/m	lb/ft	NON-SKIVE	
PL14D	6	-04	6,4	1/4	12,7	0.50	28	410	112	1640	75	3.0	710	28	0,12	0.08	T4000	8000
PL15D	8	-05	8,0	5/16	14,3	0.56	28	410	112	1640	75	3.0	710	28	0,15	0.10	T4000	8000
PL16D	10	-06	9,5	3/8	15,9	0.63	28	410	112	1640	75	3.0	635	25	0,17	0.11	T4000	8000
PL18D	12	-08	12,7	1/2	19,8	0.78	28	410	112	1640	125	5.0	460	18	0,23	0.15	T4000	8000
PL110D	16	-10	16,0	5/8	23,0	0.91	24	350	96	1400	150	6.0	380	15	0,29	0.19	T4000	8000
PL112D	19	-12	19,1	3/4	26,4	1.04	21	305	84	1220	175	6.9	380	15	0,36	0.24	T4000	8000



SPIDERLINE

KINK FREE FLEXIBILITY



RYCO SPIDERLINE

TP76

3/8"

-06

DN10

MAX WP 160 BAR

TP7 & TP7T (SAE 100R7)

RYCO SPIDERLINE

TP86

3/8"

-06

DN10

MAX WP 280 BAR

TP8 & TP8T (SAE 100R8)

COMPACT OUTSIDE
DIAMETER

REDUCE WEIGHT



ISOLATOR

HALT THE CHARGE



RYCO ISOLATOR TP76N 3/8" -06 DN10 MAX WP 1

TP7N & TP7TN (SAE 100R7)

RYCO ISOLATOR TP86N 3/8" -06 DN10 MAX WP 2

TP8N & TP8TN (SAE 100R8)

ELECTRICAL
NON-CONDUCTIVITY

COMPACT OUTSIDE
DIAMETER

REDUCE WEIGHT

HOSE

THERMOPLASTIC

TP7

SPIDERLINE
R7 HOSE



RECOMMENDED FOR:

High pressure hydraulic oil lines; pilot lines; greasing and lubrication lines; and some pneumatic and water lines. Suitable for use with mineral, vegetable and most ester based hydraulic fluids. Suitable for use with some gases, fluids and chemicals. Cover is perforated (pin-pricked) for use with air and gases.

RYCO SPIDERLINE hose is lighter weight, has a more compact outside diameter and is less than half the minimum bend radius of wire braided rubber hose. Smooth inner tube for high flow rate; and smooth, easily cleaned cover.

The synthetic and aramid fibre reinforcement gives SPIDERLINE hose excellent corrosion and fatigue resistance plus low elongation at maximum dynamic working pressure.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
AS 3791 100R7, EN 855 TYPE R7, ISO 3949, SAE 100R7.

TUBE:

White, oil resistant seamless thermoplastic (Polyester).

REINFORCEMENT:

One or two braids of synthetic fibre.

COVER:

Black, oil and abrasion resistant thermoplastic (Polyurethane). Cover is perforated (pin-pricked).

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
Air & Water +70 °C (+158 °F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T1000 Series (sizes -03 to -16) pages 177 to 187.

T4000 Series (sizes -04 to -16) pages 209 to 216.
Assembly Instructions page 498.

TP7 - SPIDERLINE HOSE														COUPLING SERIES		
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		ONE PIECE		
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE	
TP73	5	-03	5,0	3/16	9,6	0.38	210	3000	840	12000	25	1.0	0,06	0.04	T1000	
TP74	6	-04	6,5	1/4	12,2	0.48	210	3000	840	12000	35	1.4	0,10	0.07	T1000	T4000
TP75	8	-05	8,1	5/16	14,3	0.56	190	2700	760	10800	45	1.8	0,13	0.09	T1000	T4000
TP76	10	-06	9,7	3/8	16,0	0.63	160	2300	640	9200	55	2.2	0,15	0.10	T1000	T4000
TP78	12	-08	13,0	1/2	20,3	0.80	140	2000	560	8000	75	3.0	0,22	0.15	T1000	T4000
TP712	19	-12	19,5	3/4	27,1	1.07	90	1300	360	5200	140	5.5	0,34	0.23	T1000	T4000
TP716	25	-16	25,9	1	34,0	1.34	70	1000	280	4000	190	7.5	0,46	0.31	T1000	T4000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

TP7N

ISOLATOR
R7 NON CONDUCTIVE HOSE



INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

RECOMMENDED FOR:

Hydraulic oil lines where electrical non-conductivity is required (for use in applications where there is potential for contact with high voltage sources). Suitable for use with mineral, vegetable and most ester based hydraulic fluids. Heat and hydrolysis stabilised for use with water based hydraulic fluids up to +70°C (+158°F). Smooth inner tube for high flow rate; and smooth, easily cleaned cover. The high strength, non-metallic reinforcement gives these hoses excellent corrosion and fatigue resistance, and low elongation of ±2% at maximum dynamic working pressure.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R7, EN 855 TYPE R7, ISO 3949, SAE 100R7.

TUBE:

White, oil resistant seamless thermoplastic (Polyester).

REINFORCEMENT:

One or two braids of synthetic fibre.

COVER:

Orange, oil and abrasion resistant thermoplastic (Polyurethane). Cover is non-perforated.

FEATURES:

Meets non-conductivity requirements of SAE 100R7, AS 3791 100R7, EN 855 Type 7 (maximum leakage does not exceed 50 µA when subjected to 75 kV/305 mm or 250 kV/m for 5 minutes). Incorrect storage and use, particularly that leading to oil or moisture entering the reinforcement, may adversely affect electrical properties.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
Air & Water +70 °C (+158 °F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T1000 Series (sizes -04 to -16) pages 177 to 187.

T4000 Series (sizes -04 to -16) pages 209 to 216.

Assembly Instructions page 498.

TP7N - ISOLATOR NON-CONDUCTIVE HOSE																
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE		
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE	
TP74N	6	-04	6,5	1/4	12,2	0.48	210	3000	840	12000	35	1.4	0,10	0.07	T1000	T4000
TP76N	10	-06	9,7	3/8	16,0	0.63	160	2300	640	9200	55	2.2	0,15	0.10	T1000	T4000
TP78N	12	-08	13,0	1/2	20,3	0.80	140	2000	560	8000	75	3.0	0,22	0.15	T1000	T4000
TP712N	19	-12	19,5	3/4	27,1	1.07	90	1300	360	5200	140	5.5	0,34	0.23	T1000	T4000
TP716N	25	-16	25,9	1	34,0	1.34	70	1000	280	4000	190	7.5	0,46	0.31	T1000	T4000

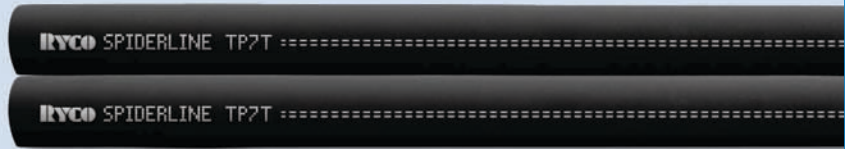
Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

THERMOPLASTIC

TP7T

SPIDERLINE
R7 TWIN HOSE



RECOMMENDED FOR:

RYCO TP7T SPIDERLINE TWIN Hose consists of two TP7 Series Hoses of the same size, permanently joined together in a flat compact form that can be easily reeled onto payout and return reels on forklifts and cranes. It is also used on dispensing equipment and other applications requiring two hoses.

High pressure hydraulic oil lines; pilot lines; greasing and lubrication lines; and some pneumatic and water lines. Suitable for use with mineral, vegetable and most ester based hydraulic fluids. Suitable for use with some gases, fluids and chemicals. Cover is perforated (pin-pricked) for use with air and gases.

RYCO SPIDERLINE hose is lighter weight, has a more compact outside diameter and is less than half the minimum bend radius of wire braided rubber hose. Smooth inner tube for high flow rate; and smooth, easily cleaned cover.

The synthetic and aramid fibre reinforcement gives SPIDERLINE hose excellent corrosion and fatigue resistance plus low elongation at maximum dynamic working pressure.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
AS 3791 100R7, EN 855 TYPE R7, ISO 3949, SAE 100R7.

TUBE:

White, oil resistant seamless thermoplastic (Polyester).

REINFORCEMENT:

One or two braids of synthetic fibre.

COVER:

Black, oil and abrasion resistant thermoplastic (Polyurethane). Cover is perforated (pin-pricked).

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).

Air & Water +70 °C (+158 °F).

For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).








COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T1000 Series (sizes -04 to -08) pages 177 to 187.

T4000 Series (sizes -04 to -08) pages 209 to 216.

Assembly Instructions pages 498 and 505.

TP7T - SPIDERLINE TWIN HOSE																
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE		
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE	
TP74T	6	-04	6,5	1/4	12,2	0.48	210	3000	840	12000	35	1.4	0,20	0.13	T1000	T4000
TP75T	8	-05	8,1	5/16	14,3	0.56	190	2700	760	10800	45	1.8	0,26	0.18	T1000	T4000
TP76T	10	-06	9,7	3/8	16,0	0.63	160	2300	640	9200	55	2.2	0,30	0.20	T1000	T4000
TP78T	12	-08	13,0	1/2	20,3	0.80	140	2000	560	8000	75	3.0	0,44	0.30	T1000	T4000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

TP7TN

ISOLATOR
R7 NON CONDUCTIVE
TWIN HOSE



INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

RECOMMENDED FOR:

RYCO TP7TN ISOLATOR TWIN Hose consists of two TP7N Series Hoses of the same size, permanently joined together in a flat compact form that can be easily reeled onto payout and return reels on forklifts and cranes. It is also used for hydraulic powered hand tools, such as loppers and chain saws, and other applications requiring two hoses. TP7TN is used where electrical non-conductivity is required (for use in applications where there is potential for contact with high voltage sources). Suitable for use with mineral, vegetable and most ester based hydraulic fluids. Heat and hydrolysis stabilised for use with water based hydraulic fluids up to +70°C (+158°F). Suitable for use with some gases, fluids and chemicals (contact RYCO Hydraulics Technical Department). Smooth inner tube for high flow rate; and smooth, easily cleaned cover. The polyester reinforcement gives TP7TN Hose excellent corrosion and fatigue resistance, and low elongation of ±2% at maximum dynamic working pressure.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R7, EN 855 TYPE R7, ISO 3949, SAE 100R7.

TUBE:

White, oil resistant seamless thermoplastic (Polyester).

REINFORCEMENT:

One or two braids of synthetic fibre.

COVER:

Orange, oil and abrasion resistant thermoplastic (Polyurethane). Cover is non-perforated.

FEATURES:

Meets non-conductivity requirements of SAE 100R7, AS 3791 100R7, EN 855 Type 7 (maximum leakage does not exceed 50 µA when subjected to 75 kV/305 mm or 250 kV/m for 5 minutes). Incorrect storage and use, particularly that leading to oil or moisture entering the reinforcement, may adversely affect electrical properties.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
Air & Water +70 °C (+158 °F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T1000 Series (sizes -04 to -08) pages 177 to 187.

T4000 Series (sizes -04 to -08) pages 209 to 216.

Assembly Instructions pages 498 and 505.

TP7TN - ISOLATOR NON-CONDUCTIVE TWIN HOSE																
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE		
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE	
TP74TN	6	-04	6,5	1/4	12,2	0.48	210	3000	840	12000	35	1.4	0,20	0.13	T1000	T4000
TP76TN	10	-06	9,7	3/8	16,0	0.63	160	2300	640	9200	55	2.2	0,30	0.20	T1000	T4000
TP78TN	12	-08	13,0	1/2	20,3	0.80	140	2000	560	8000	75	3.0	0,44	0.30	T1000	T4000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

THERMOPLASTIC

TP8

SPIDERLINE
R8 HOSE



RECOMMENDED FOR:

High pressure hydraulic oil lines; pilot lines; greasing and lubrication lines; and some pneumatic and water lines. Suitable for use with mineral, vegetable and most ester based hydraulic fluids. Suitable for use with some gases, fluids and chemicals. Cover is perforated (pin-pricked) for use with air and gases.

RYCO SPIDERLINE hose is lighter weight, has a more compact outside diameter and is less than half the minimum bend radius of wire braided rubber hose. Smooth inner tube for high flow rate; and smooth, easily cleaned cover.

The synthetic and aramid fibre reinforcement gives SPIDERLINE hose excellent corrosion and fatigue resistance plus low elongation at maximum dynamic working pressure.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
AS 3791 100R8, EN 855 TYPE R8, ISO 3949, SAE 100R8.

TUBE:

White, oil resistant seamless thermoplastic (Polyester).

REINFORCEMENT:

One or two braids of aramid fibre.

COVER:

Black, oil and abrasion resistant thermoplastic (Polyurethane). Cover is perforated (pin-pricked).

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

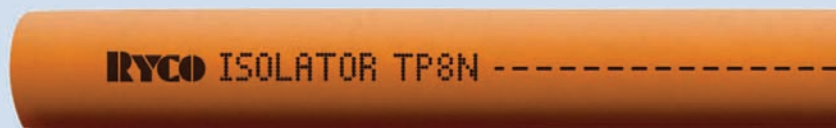
T1000 Series (sizes -04 to -08) pages 177 to 187.
Assembly Instructions page 498.

TP8 - SPIDERLINE HOSE															
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES	
		mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	ONE PIECE	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
TP84	6	-04	6,5	1/4	11,5	0.45	350	5000	1400	20000	50	2.0	0,09	0.06	T1000
TP86	10	-06	9,7	3/8	15,5	0.61	280	4000	1120	16000	60	2.4	0,14	0.09	T1000
TP88	12	-08	13,0	1/2	19,9	0.78	245	3500	980	14000	80	3.1	0,20	0.13	T1000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

TP8N

ISOLATOR
R8 NON CONDUCTIVE HOSE



INTRODUCTION

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TECHNICAL

RECOMMENDED FOR:

Hydraulic oil lines where electrical non-conductivity is required (for use in applications where there is potential for contact with high voltage sources). Suitable for use with mineral, vegetable and most ester based hydraulic fluids. Heat and hydrolysis stabilised for use with water based hydraulic fluids up to +70°C (+158°F). Smooth inner tube for high flow rate; and smooth, easily cleaned cover. The high strength, non-metallic reinforcement gives these hoses excellent corrosion and fatigue resistance, and low elongation of ±2% at maximum dynamic working pressure.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R8, EN 855 TYPE R8, ISO 3949, SAE 100R8.

TUBE:

White, oil resistant seamless thermoplastic (Polyester).

REINFORCEMENT:

One or two braids of aramid fibre.

COVER:

Orange, oil and abrasion resistant thermoplastic (Polyurethane). Cover is non-perforated.

FEATURES:

Meets non-conductivity requirements of SAE 100R7, AS 3791 100R7, EN 855 Type 7 (maximum leakage does not exceed 50 µA when subjected to 75 kV/305 mm or 250 kV/m for 5 minutes). Incorrect storage and use, particularly that leading to oil or moisture entering the reinforcement, may adversely affect electrical properties.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
Air & Water +70 °C (+158 °F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T1000 Series (sizes -04 to -08) pages 177 to 187.
Assembly Instructions page 498.

TP8N – ISOLATOR NON-CONDUCTIVE HOSE															
PART NO	HOSE SIZE		NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
TP84N	6	-04	6,5	1/4	11,5	0.45	350	5000	1400	20000	50	2.0	0,09	0.06	T1000
TP86N	10	-06	9,7	3/8	15,5	0.61	280	4000	1120	16000	60	2.4	0,14	0.09	T1000
TP88N	12	-08	13,0	1/2	19,9	0.78	245	3500	980	14000	80	3.1	0,20	0.13	T1000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

THERMOPLASTIC

TP8T

SPIDERLINE
R8 TWIN HOSE



RECOMMENDED FOR:

RYCO TP8T SPIDERLINE TWIN Hose consists of two TP8 Series Hoses of the same size, permanently joined together in a flat compact form that can be easily reeled onto payout and return reels on forklifts and cranes. It is also used on dispensing equipment and other applications requiring two hoses.

High pressure hydraulic oil lines; pilot lines; greasing and lubrication lines; and some pneumatic and water lines. Suitable for use with mineral, vegetable and most ester based hydraulic fluids. Suitable for use with some gases, fluids and chemicals. Cover is perforated (pin-pricked) for use with air and gases.

RYCO SPIDERLINE hose is lighter weight, has a more compact outside diameter and is less than half the minimum bend radius of wire braided rubber hose. Smooth inner tube for high flow rate; and smooth, easily cleaned cover.

The synthetic and aramid fibre reinforcement gives SPIDERLINE hose excellent corrosion and fatigue resistance plus low elongation at maximum dynamic working pressure.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
AS 3791 100R8, EN 855 TYPE R8, ISO 3949, SAE 100R8.

TUBE:

White, oil resistant seamless thermoplastic (Polyester).

REINFORCEMENT:

One or two braids of aramid fibre.

COVER:

Black, oil and abrasion resistant thermoplastic (Polyurethane). Cover is perforated (pin-pricked).

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).

Air & Water +70 °C (+158 °F).

For water, emulsions etc. see page 57.

WORKING PRESSURE:








Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T1000 Series (sizes -04 to -08) pages 177 to 187.

Assembly Instructions pages 498 and 505.

TP8T - SPIDERLINE TWIN HOSE															
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
TP84T	6	-04	6,5	1/4	11,5	0.45	350	5000	1400	20000	50	2.0	0,17	0.11	T1000
TP86T	10	-06	9,7	3/8	15,5	0.61	280	4000	1120	16000	60	2.4	0,27	0.18	T1000
TP88T	12	-08	13,0	1/2	19,9	0.78	245	3500	980	14000	80	3.1	0,40	0.27	T1000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

TP8TN

ISOLATOR
R8 NON CONDUCTIVE TWIN HOSE



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RECOMMENDED FOR:

RYCO TP8TN ISOLATOR TWIN Hose consists of two TP8N Series Hoses of the same size, permanently joined together in a flat compact form that can be easily reeled onto payout and return reels on forklifts and cranes. It is also used for hydraulic powered hand tools, such as loppers and chain saws, and other applications requiring two hoses. TP8TN is used where electrical non-conductivity is required (for use in applications where there is potential for contact with high voltage sources). Suitable for use with mineral, vegetable and most ester based hydraulic fluids. Heat and hydrolysis stabilised for use with water based hydraulic fluids up to +70°C (+158°F). Suitable for use with some gases, fluids and chemicals (contact RYCO Hydraulics Technical Department). Smooth inner tube for high flow rate; and smooth, easily cleaned cover. The aramid reinforcement gives TP8TN Hose excellent corrosion and fatigue resistance, and low elongation of ±2% at maximum dynamic working pressure.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R8, EN 855 Type R8, ISO 3949, SAE 100R8.

TUBE:

White, oil resistant seamless thermoplastic (Polyester).

REINFORCEMENT:

One or two braids of aramid fibre.

COVER:

Orange, oil and abrasion resistant thermoplastic (Polyurethane). Cover is non-perforated.

FEATURES:

Meets non-conductivity requirements of SAE 100R7, AS 3791 100R7, EN 855 Type 7 (maximum leakage does not exceed 50 µA when subjected to 75 kV/305 mm or 250 kV/m for 5 minutes). Incorrect storage and use, particularly that leading to oil or moisture entering the reinforcement, may adversely affect electrical properties.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).

Air & Water +70 °C (+158 °F).

For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T1000 Series (sizes -04 to -08) pages 177 to 187.

Assembly Instructions pages 498 and 505.

TP8TN - ISOLATOR NON-CONDUCTIVE TWIN HOSE															
PART NO	HOSE SIZE		NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES
			mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	ONE PIECE
TP84TN	6	-04	6,5	1/4	11,5	0.45	350	5000	1400	20000	50	2.0	0,17	0.11	NON-SKIVE T1000
TP86TN	10	-06	9,7	3/8	15,5	0.61	280	4000	1120	16000	60	2.4	0,27	0.18	T1000
TP88TN	12	-08	13,0	1/2	19,9	0.78	245	3500	980	14000	80	3.1	0,40	0.27	T1000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

THERMOPLASTIC

TP3000

LOW TEMPERATURE R18
ISOBARIC HOSE
210 BAR / 3000 PSI



RECOMMENDED FOR:

Medium pressure hose suitable for petroleum or synthetic based hydraulic fluids in forklift systems. Optimum bonding characteristics and special cover also make it the ideal hose for equipment operating in cold environments, while maintaining a high level of flexibility.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: SAE 100 R18.

TUBE:

Polyester elastomer.

REINFORCEMENT:

One or two braids of synthetic fibre.

COVER:

Special polyester, black with white ink-jet branding. Cover is perforated (pin-pricked).

FEATURES:

Special polyester cover resistant to low temperatures and harsh weather conditions. Optimum bonding between tube, braids and cover for tight bend radii without cover wrinkling.

TEMPERATURE RANGE:

From -55°C to +100°C (-67°F to +212°F)
Air & Water +70 °C (+158 °F)
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP
T4000 Series (sizes -04 to -08) pages 209 to 216.
Assembly Instructions page 498.

TP3000 - ISOBARIC THERMOPLASTIC HOSE															
PART NO	HOSE SIZE	NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES	
		mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	ONE PIECE	
TP3004	6	-04	6,5	1/4	12,2	0.48	210	3000	840	12000	35	1.4	0,09	0.06	NON-SKIVE T4000
TP3006	10	-06	9,7	3/8	16,6	0.65	210	3000	840	12000	45	1.8	0,16	0.11	T4000
TP3008	12	-08	13,0	1/2	22,5	0.89	210	3000	840	12000	70	2.8	0,29	0.20	T4000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.



TPGL

THERMOPLASTIC
HIGH PRESSURE
GREASELINE HOSE

RECOMMENDED FOR:

Thermoplastic constant pressure hose for high pressure greasing and lubrication systems.

TUBE:

White, oil resistant seamless thermoplastic polymer.

REINFORCEMENT:

One braid of synthetic fibre.

COVER:

Black, oil and abrasion resistant thermoplastic polymer. Cover is non-perforated.

FEATURES:

Polyester reinforcement for high pressure. Extremely compact and flexible, and highly kink resistant. Special low-friction smooth cover for easy installation and compact routing.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

TG000 Series (size -02) page 244. Assembly Instructions page 498.

FIELD ATTACHABLE NON-SKIVE

6000 Series insert (size -02) pages 276 to 290. **P000 Series** ferrule (size -02) page 276.

TPGL - THERMOPLASTIC GREASELINE HOSE		NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES	
PART NO	HOSE SIZE	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	ONE PC	FIELD ATT
TPGL2	4 -02	4,0	0.16	8,3	0.33	250	3600	1000	14400	25	0.98	0,05	0.03	TG000	6000 (P000)

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

GREASING AND LUBRICATION

R4100

FLEXIBLE GREASE GUN EXTENSIONS



RECOMMENDED FOR:

Rubber-covered hose for high pressure greasing and lubrication systems.

TUBE:

Black, oil resistant seamless synthetic rubber.

REINFORCEMENT:

One braid of high tensile steel wire.

COVER:

Black, oil and abrasion resistant synthetic rubber.

FEATURES:

Suit standard grease guns.

High tensile wire reinforcement for high pressure and durability.

Available in a variety of lengths

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).

For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

R4100 - FLEXIBLE GREASE GUN EXTENSIONS

PART NO	OVERALL LENGTH		END 1 CONNECTION	END 2 CONNECTION
	mm	inch		
Hose				
R4100	255	10	1/8" BSPT MALE	1/8" BSPT MALE
R4200	380	15	1/8" BSPT MALE	1/8" BSPT MALE
R4101	460	18	1/8" BSPT MALE	1/8" BSPT MALE
R4201	610	24	1/8" BSPT MALE	1/8" BSPT MALE
R4202	710	28	1/8" BSPT MALE	1/8" BSPT MALE



HOSE PROTECTION

EXTRA ABRASION RESISTANT

FRAS - FLAME RESISTANT ANTI STATIC



RYCO QUALITY

BUNDLE MULTIPLE HOSES

RCS CROCSLEEVE SHOWN ABOVE
THE LATEST IN RYCO'S SUPERIOR RANGE OF HOSE PROTECTION PRODUCTS

HOSE

HOSE PROTECTION – FS1072 FIRE SLEEVE

FS1072

FIRE SLEEVE



MEETS OR EXCEEDS THE PERFORMANCE REQUIREMENTS OF:
SAE AEROSPACE STANDARD AS 1072.

RECOMMENDED FOR:

Increasing service life of hoses used in hostile environments. It is a tough, flexible insulation, which not only protects from intense external radiant heat, but also sheds molten metal splash. Consequently, damage to hoses is reduced and service life is increased. In the event of fire, hoses carrying flammable or hazardous materials remain intact longer. It can also be used to protect cables, pipes and wire ropes. RYCO FS1072 FIRE SLEEVE can also be used to reduce heat loss from hoses.

CONSTRUCTION:

RYCO FS1072 FIRE SLEEVE is manufactured from high bulk braided glass fibre tubing, coated with silicon rubber. The “danger red” colour of the silicon rubber is due to heavy loading of iron oxide to improve heat resistance.

TEMPERATURE RANGE:

Continuous exposure:

from -54°C to +260°C (-65°F to +500°F)

15 to 20 minutes:

from +260°C to +1090°C (+500°F to +2000°F)

15 to 30 seconds:

from +1090°C to +1640°C (+2000°F to +3000°F)

TYPICAL PROPERTIES:

K Value in $\frac{\text{BTU}}{^\circ\text{F}\cdot\text{hr}\cdot\text{in}^2}$ 1.20

K Value in $\frac{\text{Cal}}{\text{cm}\cdot\text{sec}\cdot\text{cm}^2\cdot^\circ\text{C}}$ 0.0004134

FLAME RESISTANCE:

7 seconds to extinguish with no afterglow.

ABRASION RESISTANCE:

Wyzenbeck 9500 cycles, 3.1/3 lb pressure, 6 lb tension using fine emery cloth.

OIL AND FLUID RESISTANCE:

Remains functional after immersion for 120hr @ 80°F in MIL-H-5606, MIL-L-6082, Skydrol 500 LD and Skydrol 500.

SIZE SELECTION:

FS1072 FIRE SLEEVE performs best when installed with a loose fit over a hose. However, some end users insist on a tight fit for the sake of appearance. To achieve this tight fit, use compressed air to expand FIRE SLEEVE as it is installed over the hose. Length of FIRE SLEEVE will shorten in length as it increases in diameter, so allow for some extra length to compensate for this.

For a loose fit, there is no hard and fast rule to relate the Nominal Inside Diameter of FIRE SLEEVE with the Nominal Outside Diameter of the hose being covered. However, it is important to take two factors into account: hose length and hose cover.

For hoses up to 5 metres (16 ft) long, use a Nominal Inside Diameter of FIRE SLEEVE 15% larger than the Nominal Outside Diameter of hose being covered. For hoses over 5 metres (16 ft) long, use a size 20% larger. Remember the FIRE SLEEVE must slide over the outside of the hose. The longer the hose, the tougher it is to install, especially if enough tolerance on a long hose has not been allowed.

As the FIRE SLEEVE must slide over the outside of the hose, the hose covering also requires special consideration. A hose with a rough rubber cover is more difficult to slide FIRE SLEEVE over than a hose with a smooth cover.

For hose covers that have a high co-efficient of friction, be sure to allow for greater tolerance between the Nominal Inside Diameter of FIRE SLEEVE and the Nominal Outside Diameter of the hose to be covered.

Sizes FS1072-08 to FS1072-104:

Standard coil length is 15,24 metres (50 ft); or cut lengths. Lengths longer than 15,24 metres (50 ft) are also available, contact RYCO Customer Service.

Sizes FS1072-80 and FS1072-104:

Standard coil length is 5 metres (16.4 ft)

FS1072 FIRE SLEEVE can be slit longitudinally to form a flat FIRE TAPE which can be wound around larger diameter hoses and secured with stainless steel ties or FSTAPE-16.

FSTAPE-16

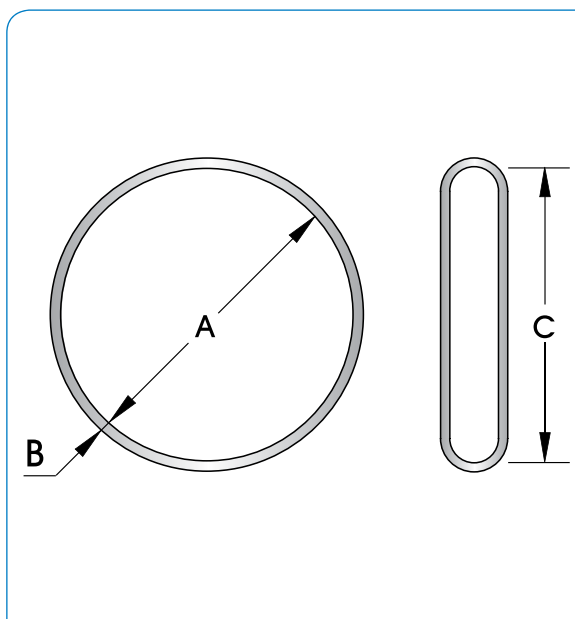
FSTAPE-16 is an iron oxide, red silicone rubber tape. It is designed to be, not only self-bonding and self-curing, but to also bond and cure onto FS1072 FIRE SLEEVE. It can be used to join separate sections of FIRE SLEEVE, as well as to repair any scuffed or nicked areas of FIRE SLEEVE. It can be used as an end sealant (instead of clamps) to prevent moisture and hydraulic oils wicking into the inner fibreglass braid.

FSTAPE-16 is supplied in a roll 25 mm WIDE x 11 metres LONG x 0,5 mm THICK (1 inch x 36 ft x 0.02 inch)



FS1072 FIRE SLEEVE SPECIFICATIONS

PART NO	FIRE SLEEVE DIMENSIONS							
	NOMINAL ID		NOMINAL WALL THICKNESS		NOMINAL INSIDE FLAT DIMENSION		NOMINAL WEIGHT	
	A mm	A inch	B mm	B inch	C mm	C inch	kg/m	lb/ft
FS1072-08	12,7	0.50	4,3	0.17	20,0	0.79	0,19	0.13
FS1072-11	17,5	0.69	4,3	0.17	27,5	1.08	0,29	0.19
FS1072-14	22,2	0.87	4,4	0.17	34,9	1.37	0,28	0.19
FS1072-16	25,4	1.00	4,8	0.19	39,9	1.57	0,31	0.21
FS1072-18	28,6	1.13	4,7	0.19	46,6	1.84	0,37	0.25
FS1072-20	31,8	1.25	4,7	0.19	47,4	1.87	0,36	0.24
FS1072-22	34,9	1.38	4,8	0.19	54,8	2.17	0,43	0.29
FS1072-24	38,1	2.50	4,0	0.16	58,3	2.29	0,46	0.31
FS1072-30	47,6	1.87	4,0	0.16	74,8	2.93	0,54	0.36
FS1072-32	50,8	2.00	4,0	0.16	79,8	3.14	0,55	0.37
FS1072-40	63,5	2.50	4,1	0.16	94,2	3.71	0,84	0.56
FS1072-44	69,9	2.75	5,0	0.20	109,8	4.32	0,85	0.57
FS1072-64	102,0	4.02	5,0	0.20	160,2	6.32	1,07	0.72
FS1072-80	127,0	5.00	5,0	0.20	199,5	7.89	2,26	1.52
FS1072-104	165,0	6.50	5,0	0.20	259,2	10.21	2,86	1.92



HOSE NOMINAL OUTSIDE DIAMETER REFERENCE CHART

This chart may be used as a quick reference to assist in choosing correct size of Hose Protection. Dimensions are nominal only, and are in millimetres. Divide by 25.4 to convert to inches.

HOSE SIZE			HOSE SERIES																											
DN	inch	Dash	T3000A/D/S	T3600A/D/S	T4000A/D/S	T5000A/D/S	T6000A/D/S	H3000A/D/S	H4000A/D/S	H5000A/D/S	H6000A/D/S	T1A/D/S	T1F	T2A/D/S	T2C	TXA2D	DF2A	E2	TJ2D	H12A/D/S	R4SHA/D	R4SPA/D	T5	D2B	M51000	CS1000				
3	1/8	-02																												
5	3/16	-03										11,7	11,7																	
6	1/4	-04	11,8	11,8	11,8	13,2	13,2					13,3	13,3	14,9	15,0		13,4	14,9	14,9				13,2							
8	5/16	-05	14,4	14,4	15,6	15,6	15,6					14,9	14,9	16,5	16,6		14,9	16,5	18,9				14,8							
10	3/8	-06	15,6	15,6	16,6	17,1	17,6		19,3	19,3	19,3	17,3	17,3	18,9	19,0		17,3	18,9		19,3		20,9	17,2							
12	1/2	-08	18,7	18,7	20,6	20,6	21,5		22,7	22,7	22,7	20,3	20,3	21,9	22,2	22,0	20,3	21,9		22,7		24,3	19,4			18,5	18,5			
16	5/8	-10	23,4	23,4	23,4	24,8			24,9	26,2	26,2	23,6	23,6	25,1	25,2	25,2	23,6	25,1		26,2		27,8	23,4			22,1	22,1			
19	3/4	-12	27,6	27,6	28,4	27,8			30,0	29,6	30,6	27,6	27,6	29,1	29,1	29,1	27,6	29,1		30,0	31,8	31,8	27,4			25,8	25,8			
25	1	-16	34,8	34,8	35,2				36,9	36,8	37,5	35,5	35,5	37,5	37,2	37,7	35,5	37,5		37,4	37,9	38,6	31,4			32,5	32,5			
31	1.1/4	-20						45,7	44,0	45,0	46,4	43,2		47,6	47,4					45,7	44,4	49,6	38,1			39,5	39,5			
38	1.1/2	-24						50,3	50,8	52,7	53,1	50,2		54,1	53,8					53,0	52,4	56,0	44,5	48,1		46,0	46,0			
51	2	-32						63,3	66,4	67,5	71,5	63,6		66,8	66,7					66,0	66,8	68,9	56,3	61,8		59,1	59,1			
63	2.1/2	-40												80,1						82,6										
76	3	-48												93,4																

DN	inch	Dash	BT1	RQP1	RQP2	RQP5	RQP6	TW1	PW2	SR	SRF	RTH1	FB2	M1	MP1	M2	PL1	PL1D	M2G	TP7, TP7N	TP7T, TP7TN	TP8, TP8N	TP8T, TP8TN	TP3000	TPGL
3	1/8	-02																							8,3
5	3/16	-03																		9,6					
6	1/4	-04	13,3	13,4	15,0	13,2	12,7		15,0			9,4		12,7	13,5	14,3	12,3	12,3	14,3	12,2	12,2	11,5	11,5	12,2	
8	5/16	-05	14,9	15,0	16,6	14,8	14,3		16,6					14,3			13,9	13,9		14,3	14,3				
10	3/8	-06	17,3	17,4	19,0	17,2	15,9	17,4	19,0			11,7	19,0	15,9	17,5	19,0	15,5	15,5	19,0	16,0	16,0	15,5	15,5	16,6	
12	1/2	-08	20,3	20,5	22,0	19,4	19,8	20,6				15,4	23,0		21,4	23,8	19,0	19,0	23,8	20,3	20,3	19,9	19,9	22,5	
16	5/8	-10	23,6	23,7	25,2	23,4	23,0					18,4	25,4		25,4		22,6	22,6							
19	3/4	-12	27,6	27,6	29,1	27,4	26,4			31,5	31,5	22,1			28,6	31,7	25,8	25,8	31,7	27,1					
25	1	-16	35,5	35,7	37,7	31,4				40,0	40,0	28,6			37,3					34,0					
31	1.1/4	-20			48,0	38,1						46,5			43,9										
38	1.1/2	-24			54,4	44,5						53,1													
51	2	-32			67,3	56,3						65,5													
63	2.1/2	-40								78,5															
76	3	-48								90,7															

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HOSE PROTECTION – RCS CROCSLEEVE

RCS

**CROCSLEEVE
FLAME RESISTANT
ANTI-STATIC**



RECOMMENDED FOR:

Hose burst and pinhole protection and protection of individual hoses from severe abrasion. The CROCSLEEVE Provides a cost effective method of bundling hoses together, while providing abrasion resistance to the bundle. When abrasion occurs, the thousands of tiny filaments in the sleeve bulk up to continually renew the surface.

CONSTRUCTION:

Densely woven, polyamide tubular sleeve. Black or Red colour. The CROCSLEEVE is not affected by exposure to air, water, hydraulic oil and many other fluids. The inside bore of the CROCSLEEVE is smooth, allowing hose to move inside the sleeve, and allowing easy installation.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

Meets Flame Resistant Designation "U.S. MSHA" of the U.S. Department of Labor, Mine Safety and Health Administration. The CROCSLEEVE is both Flame Resistant and Anti-Static.

TEMPERATURE RANGE:

From -50°C to +121°C (-58°F to +250°F).

SIZE SELECTION:

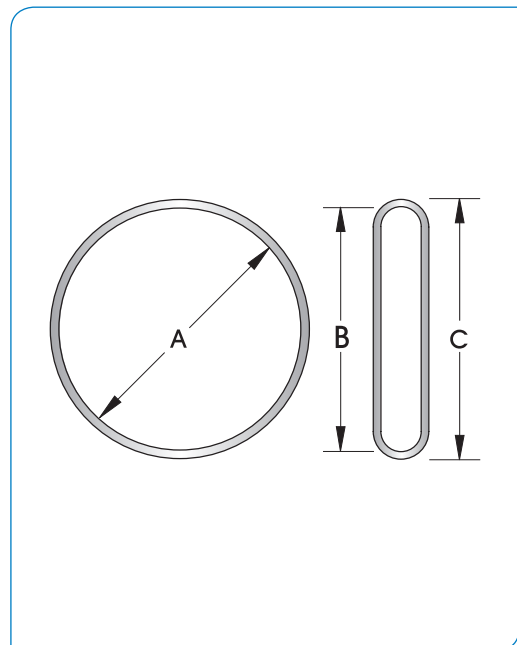
Choose a size that is slightly larger than the hose or hoses to be sleeved - the recommended size is 50% larger than the nominal Hose OD. If the CROCSLEEVE is to be installed onto fitted hose assemblies, then allow for the maximum outside profile of the hose fittings.

ASSEMBLY INSTRUCTIONS:

1. Cut the CROCSLEEVE to length.
2. Seal the loose fibres of the cut edges with a heat gun or hot knife, to prevent fraying.
3. Install the CROCSLEEVE over the hoses or hose assemblies.
4. Secure in place using 2 x RCSTD-12 CROCTIES for hose sizes -3 to -12 or 3 x RCSTD-32 CROCTIES for hose sizes -16 to -32.

RCS CROCSLEEVE SPECIFICATIONS

CROCSLEEVE DIMENSIONS									
PART NO		NOMINAL ID		NOMINAL FLAT ID		NOMINAL FLAT OD		NOMINAL WEIGHT	
BLACK	RED	A mm	A inch	B mm	B inch	C mm	C inch	kg/m	lb/ft
RCSB-20	RCSR-20	20	0.79	31	1.22	34	1.34	0,039	0.026
RCSB-23	RCSR-23	23	0.91	36	1.42	39	1.54	0,044	0.030
RCSB-27	RCSR-27	27	1.06	42	1.65	45	1.77	0,052	0.035
RCSB-31	RCSR-31	31	1.22	49	1.93	52	2.05	0,060	0.040
RCSB-36	RCSR-36	36	1.42	54	2.13	57	2.24	0,065	0.044
RCSB-44	RCSR-44	44	1.73	69	2.72	72	2.83	0,082	0.055
RCSB-47	RCSR-47	47	1.85	74	2.91	77	3.03	0,086	0.058
RCSB-55	RCSR-55	55	2.17	86	3.39	89	3.50	0,102	0.068
RCSB-60	RCSR-60	60	2.36	94	3.70	97	3.82	0,111	0.074
RCSB-66	RCSR-66	66	2.60	104	4.09	107	4.21	0,122	0.082
RCSB-73	RCSR-73	73	2.87	115	4.53	118	4.65	0,135	0.091
RCSB-93	RCSR-93	93	3.66	146	5.75	149	5.87	0,170	0.114
RCSB-112	RCSR-112	112	4.41	176	6.93	179	7.05	0,206	0.138
RCSB-129	RCSR-129	129	5.08	202	7.95	205	8.07	0,360	0.241



MDG 41 SAFE

CROCSLEEVE SIZE VERSUS HOSE AND DASH SIZE SELECTION TABLE

PART NO.		T3000D/S	T3600D/S	T4000D/S	T5000D/S	T6000D/S	H3000D/S	H4000D/S	H5000D/S	H6000D/S	H12D/S	R4SHD	R4SPD	T1D/S	T2D/S	D2B
BLACK	RED	Dash Size														
RCSB-20	RCSR-20	-04	-04	-04	-04	-04									-03,-04	
RCSB-23	RCSR-23	-05	-05	-05	-05	-05									-05	-04
RCSB-27	RCSR-27	-06	-06	-06	-06	-06									-06	-05
RCSB-31	RCSR-31	-08	-08	-08	-08			-06	-06	-06	-06		-06	-08	-06	
RCSB-36	RCSR-36	-10	-10	-10	-10	-08		-08	-08	-08	-08		-08	-10	-08	
RCSB-44	RCSR-44	-12	-12	-12	-12			-10	-10	-10	-10		-10	-12	-10,-12	
RCSB-47	RCSR-47							-12	-12	-12	-12	-12	-12			
RCSB-55	RCSR-55	-16	-16	-16				-16	-16	-16		-16		-16	-16	
RCSB-60	RCSR-60										-16		-16			
RCSB-66	RCSR-66							-20	-20			-20		-20		
RCSB-73	RCSR-73						-20			-20	-20		-20	-24	-20	-24
RCSB-93	RCSR-93						-24	-24	-24	-24	-24	-24	-24	-32	-24	-93
RCSB-112	RCSR-112						-32	-32	-32	-32	-32	-32	-32		-32	
RCSB-129	RCSR-129										-40				-40	

CROCSLEEVE - SAFETY FIRST

DESIGN FEATURES	BENEFITS
GREATER STRENGTH	CROCSLEEVE is made from high density PA (polyamide) for greater strength.
FLAME RESISTANT - ABRASION RESISTANT	CROCSLEEVE is Flame Resistant and Anti-Static - FRAS.
BURST RESISTANT	CROCSLEEVE is very resistant to hose burst.
PIN HOLE RESISTANT	CROCSLEEVE is very resistant to hose pin holes.
LEAK RESISTANT	CROCSLEEVE will allow pressure build up of up to 7 bar (100 psi).
STABLE	CROCSLEEVE is stable and has great resistance to sun, atmospheric agents and ageing.
NON-TOXIC	CROCSLEEVE is non toxic.
TOUGH	CROCSLEEVE is super tough.
COLOURS	CROCSLEEVE comes in BLACK (RCSB) and RED (RCSR).
EASY INSTALLATION	CROCSLEEVE has a smooth bore providing easy installation of the hose.

CHEMICALLY COMPATIBLE			
Acetone	Very Good	Ether	Very Good
Alcohols	Very Good	Gasoline	Very Good
Bacterium	Very Good	Ionic Metallic Solutions	Very Good
Benzene	Very Good	Mineral Oil	Very Good
Carbon Tetrachloride	Very Good	Moths	Very Good
Chlorine Based Solvents	Very Good	Mould	Very Good
Diluted Acids	Good	Oil	Very Good
Diluted Bases	Very Good	Vegetable Oil	Very Good

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HOSE PROTECTION – RAWHIDE NYLON HOSE SLEEVE

RH

RAWHIDE
NYLON HOSE SLEEVE



RECOMMENDED FOR:

Protection of individual hoses from severe abrasion. Provides a cost effective method of bundling hoses together, while providing abrasion resistance to the bundle. When abrasion occurs, the thousands of tiny filaments in the sleeve bulk up, to continually renew the surface.

CONSTRUCTION:

Densely woven, multi-filament nylon, tubular sleeve. Black colour. Nylon is not affected by exposure to air, water, hydraulic oil and many other fluids. The inside bore of the sleeve is smooth, allowing hose to move inside the sleeve, and allowing easy installation.

FLAME RESISTANCE:

Meets Flame Resistant Designation "U.S. MSHA" of the U.S. Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From - 50°C to + 121°C (- 58°F to + 250°F).

SIZE SELECTION:

Choose a size that is slightly larger than the hose or hoses to be sleeved (see chart on page 145). If sleeve is to be installed onto fitted hose assemblies, allow for the maximum outside profile of the hose fittings.

ASSEMBLY INSTRUCTIONS:

1. Cut the Nylon Hose Sleeve to length.
2. The loose fibres of the cut edges can be sealed with a heat gun or hot knife, to prevent fraying.
3. Install over hoses or hose assemblies.
4. Secure in place using cable ties, band clamps or hose clamps.

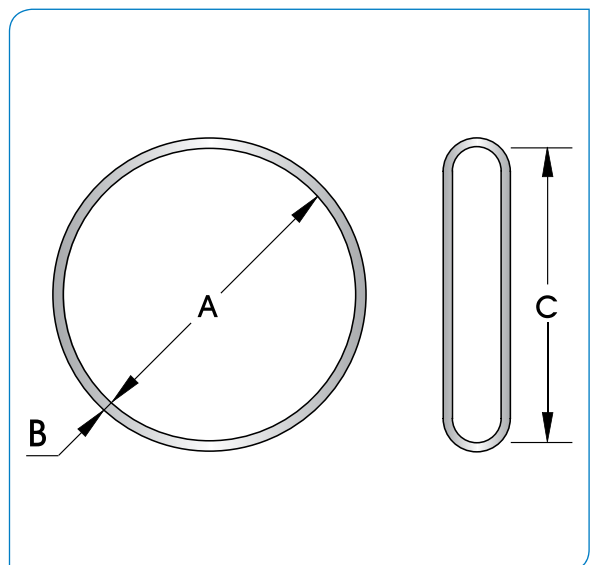
STANDARD COIL LENGTHS:

91,4 metre (300 ft) long coils; or cut lengths.



RH RAWHIDE SPECIFICATIONS

RAWHIDE NYLON HOSE SLEEVE								
PART NO	NOMINAL ID		NOMINAL WALL THICKNESS		NOMINAL INSIDE FLAT DIMENSION		NOMINAL WEIGHT	
	A mm	A inch	B mm	B inch	C mm	C inch	kg/m	lb/ft
RH-23	22,9	0.90	2,3	0.09	29,8	1.41	0,06	0.03
RH-27	26,9	1.06	2,3	0.09	39,8	1.67	0,07	0.04
RH-31	31,0	1.22	2,3	0.09	49,9	1.92	0,08	0.05
RH-36	36,0	1.42	2,5	0.10	56,6	2.23	0,09	0.06
RH-46	46,0	1.81	2,5	0.10	72,1	2.84	0,12	0.08
RH-56	55,6	2.19	2,5	0.10	87,4	3.44	0,15	0.10
RH-61	60,5	2.38	2,5	0.10	95,0	3.74	0,16	0.11
RH-67	66,8	2.63	2,5	0.10	104,6	4.12	0,17	0.12
RH-73	73,2	2.88	2,5	0.10	115,1	4.53	0,19	0.13
RH-93	93,0	3.66	2,5	0.10	146,1	5.75	0,25	0.17



RSG

POLYETHYLENE SPIRAL GUARD
RSG (BLACK), RSGY (YELLOW),
RSGF (FRAS)



INTRODUCTION

RECOMMENDED FOR:

Lightweight, cost-effective protection of hoses and cables from abrasion and impact. It can also be used to bundle hoses together in groups. RSGF meets Flame Resistance Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

CONSTRUCTION:

Polyethylene plastic spiral, with rounded edges to protect hose cover. RSG Black; RSGY Yellow; RSGF FRAS (Dark Grey). Polyethylene is not affected by exposure to air, water, hydraulic oil and many other fluids.

TEMPERATURE RANGE:

From -40°C to +120°C (-40°F to +248°F).

ASSEMBLY INSTRUCTIONS:

RYCO Spiral Guard can easily be applied after hose assembly because of its spiral form. Place one end of completed hose assembly in a vice. Wrap coil onto hose. It is recommended to choose RYCO Spiral Guard size so that it is a tight fit on the hose. This will keep the Spiral Guard in place on the hose. The Spiral Guard expands to fit the hose or hose bundle. Allow extra length of Spiral Guard to allow for this expansion.

SIZE SELECTION:

The tables below show RYCO Spiral Guard size selection for a tight fit on the hose. Due to the Spiral Guard expanding to fit the hose, extra length of Spiral Guard must be allowed. This extra length can be estimated as follows:
T26A Nominal OD = 18,9 mm (see chart on page 145)
RSG-20L Nominal ID = 15,0 mm (from chart below)
Estimated length of RSG-20L to cover 2,3 metres of T26A
$$= \frac{18,9}{15,0} \times 2,3 \text{ m} = 2,90 \text{ metres}$$

HOW TO ORDER:

Complete the Part Number: **RSG-16L, RSGY-75L, RSGF-50L** etc.

Sizes -16L to -90L: 20 m (65.6 ft) coils or cut to length.

Size -110L: 10 m (32.8 ft) coils or cut to length.

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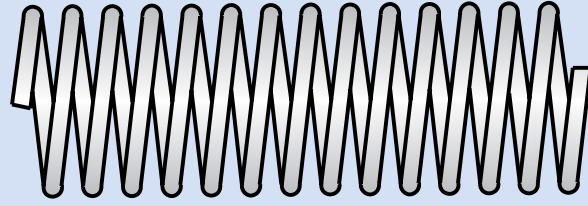
SPIRAL GUARD					HOSE SERIES																								
DASH SIZE	NOMINAL ID		NOMINAL OD		T3000A/D/S	T3600A/D/S	T4000A/D/S	T5000A/D/S	T6000A/D/S	H3000A/D/S	H4000A/D/S	H5000A/D/S	H6000A/D/S	T1A/D/S	T1F	T2A/D/S	T2C	TXA2D	DF2A	E2	TJ2D	H12A/D/S	R45HA/D	R45PA/D	T5	D2B	MS1000	CS1000	
	mm	inch	mm	inch																									
-12L	9,0	0.35	13,0	0.51	-4	-4	-4	-4						-3	-3				-4										
-16L	12,0	0.47	16,5	0.65	-5,-6	-5,-6	-5	-5	-4,-5					-4,-5	-4,-5	-4	-4		-5	-4	-4					-4,-5			
-20L	15,0	0.59	20,0	0.79	-8	-8	-6,-8	-6,-8	-6		-6	-6	-6	-6,-8	-6,-8	-5,-6	-5,-6		-6	-5,-6	-5	-6				-6,-8		-8	-8
-25L	19,0	0.75	24,5	0.96	-10	-10	-8,-10	-8,-10	-8		-8	-8	-8	-10	-10	-8,-10	-8,-10	-8,-10	-8	-8,-10		-8			-8	-10	-10	-10	-10
-32L	23,0	0.91	30,0	1.18	-12	-12	-12	-10,-12			-10,-12	-10,-12	-10,-12	-12	-12	-12	-12	-12	-10,-12	-12		-10,12			-10	-12	-12	-12	
-40L	30,5	1.20	39,0	1.54	-16	-16	-16	-16			-16	-16	-16	-16	-16	-16	-16	-16	-16	-16		16	-12,-16	-12,16	-16,-20	-16	-16	-16	
-50L	38,0	1.50	46,5	1.83							-20	-20	-20	-20,-24		-20	-20					-20	-20	-20	-24		-20,-24	-20,-24	
-63L	47,0	1.85	58,0	2.28							-24	-24	-24	-32		-24	-24,-32					-24	-24	-24	-32	-24	-32	-32	
-75L	61,0	2.40	73,0	2.87							-32	-32	-32			-32,-40	-32					-32	-32	-32		-32			
-90L	70,5	2.78	84,5	3.33												-48						-40							
-110L	84,0	3.31	99,0	3.90																									

DASH SIZE	NOMINAL ID		NOMINAL OD		BT1	RQP1	RQP2	RQP5	RQP6	TW1	PW2	SR	SRF	RTH1	FB2	M1	MP1	M2	PL1	PL1D	M2G	TP7, TP7N	TP7T, TP7TN	TP8, TP8N	TP8T, TP8TN	TP3000	TPGL
	mm	inch	mm	inch																							
-12L	9,0	0.35	13,0	0.51		-4								-4,-6													
-16L	12,0	0.47	16,5	0.65	-4,-5	-5	-4	-5	-5,-6	-4				-8		-5,-6		-4	-5,-6	-5,-6		-4	-4	-4	-4	-4	-2
-20L	15,0	0.59	20,0	0.79	-6	-6,-8	-5,-6	-6,-8	-8	-6	-5,-6			-10	-6		-4,-6	-6	-8	-8	-4,-6	-8	-8	-8	-8	-6	
-25L	19,0	0.75	24,5	0.96	-8,-10	-10	-8,-10	-10	-10	-8				-12	-8		-8,-10	-8	-10	-10	-8					-8	
-32L	23,0	0.91	30,0	1.18	-12	-12	-12	-12	-12					-16	-10		-12	-12	-12	-12	-12	-12					
-40L	30,5	1.20	39,0	1.54	-16	-16	-16	-16,-20						-12			-16					-16					
-50L	38,0	1.50	46,5	1.83				-20	-24					-16	-16		-20										
-63L	47,0	1.85	58,0	2.28				-24	-32					-20,-24													
-75L	61,0	2.40	73,0	2.87				-32						-32													
-90L	70,5	2.78	84,5	3.33																							
-110L	84,0	3.31	99,0	3.90										-48													

HOSE

HOSE PROTECTION – RWA WIRE ARMOUR

RWA
WIRE ARMOUR



RECOMMENDED FOR:

Protection for Hose Cover in arduous operating conditions; especially against abrasion and deep gouges, thus prolonging the life of the Hose.

CONSTRUCTION:

Spring Steel Wire; galvanised for corrosion protection.

TEMPERATURE RANGE:

Suitable for use with all RYCO Hoses at their published temperature ranges.

ASSEMBLY INSTRUCTIONS:

1. Slide RWA Wire Armour over hose after first end of hose assembly is completed.
2. Then complete second end of hose assembly.

STANDARD LENGTH:

6 metres (19.7 ft) in all sizes.

WIRE ARMOUR			HOSE SERIES																							
PART NO	NOMINAL ID		T3000A/D/S	T3600A/D/S	T4000A/D/S	T5000A/D/S	T6000A/D/S	H3000A/D/S	H4000A/D/S	H5000A/D/S	H6000A/D/S	T1A/D/S	T2A/D/S	T2C	TXA2D	DF2A	E2	TJ2D	H12A/D/S	R4SHA/D	R4SPA/D	T5	D2B	MS1000	CS1000	
	mm	inch																								
RWA-12	12	0.47																								
RWA-16	16	0.63	-4,-5	-4,-5	-4	-4	-4					-4,-5	-4			-4	-4						-4,-5			
RWA-20	20	0.78	-6	-6	-5,-6	-5,-6	-5,-6					-6	-5	-4,-5		-6	-5	4					-6			
RWA-21	21	0.83	-8	-8					-6	-6	-6	-6	-6	-6		-6	-5						-8		-8	-8
RWA-23	23	0.91			-8	-8	8					-8	-8		-8	-8	-8			-6	-6					
RWA-27	27	1.06	-10	-10	-10	-10			-8,-10	-8	-8	-10		-8,-10		-10	-10			-8	-8	-10		-10,-12	-10,-12	
RWA-30	30	1.19	-12	-12	-12	-12				-10	-10	-12	-10		-10	-12			-10		-10	-12				
RWA-31	31	1.22								-12			-12	-12	-12		-12									
RWA-34	34	1.34							-12	-12									-12	-12	-12	-16			-16	-16
RWA-39	39	1.52	-16	-16	-16				-16	-16	-16	-16		-16		-16	-16			-16						
RWA-41	41	1.61											-16	-16					-16	-16	-20			-20	-20	
RWA-49	49	1.93						-20	-20	-20	-20	-20	-20	-20	-20				-20	-20		-24		-24	-24	
RWA-56	56	2.2						-24	-24	-24	-24	-24	-24	-24					-24	-24	-20		-24			
RWA-61	61	2.4																			-24	-32		-32	-32	
RWA-68	68	2.68						-32	-32			-32	-32	-32					-32				-32			
RWA-75	75	2.95								-32	-32									-32	-32					

PART NO	NOMINAL ID		BT1	RQP1	RQP2	RQP5	RQP6	TW1	PW2	SR	SRF	RTH1	FB2	M1	MP1	M2	PL1	PL1D	M2G	TP7, TP7N	TP7T, TP7TN	TP8, TP8N	TP8T, TP8TN	TP3000	TPGL
	mm	inch																							
RWA-12	12	0.47										-4								-3					-2
RWA-16	16	0.63	-4,-5	-4,-5	-4	-4,-5	-4,-5					-6,-8		-4,-5	-4	-4	-4,-5	-4,-5	-4	-4,-5	-4,-5	-4	-4	-4	-4
RWA-20	20	0.78	-6	-6	-5	-6	-6	-6	-4,-5					-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6
RWA-21	21	0.83			-6	-8	-8		-6			-10	-6		-6	-8	-8	-6	-6	-8	-8	-8	-8		
RWA-23	23	0.91	-8	-8	-8			-8					-8		-8				-8	-8					
RWA-27	27	1.06	-10	-10		-10	-10					-12	-10		-10	-8	-10	-10	-8					-8	
RWA-30	30	1.19	-12	-12	-10	-12	-12								-12	-12	-12		-12						
RWA-31	31	1.22			-12							-16								-16					
RWA-34	34	1.34				-16													-12						
RWA-39	39	1.52	-16							-12	-12									-16					
RWA-41	41	1.61		-16	-16	-20				-16	-16														
RWA-49	49	1.93			-20	-24					-20														
RWA-56	56	2.2			-24						-24														
RWA-61	61	2.4				-32																			
RWA-68	68	2.68			-32						-32														
RWA-75	75	2.95																							

RHYS PACKAGING SLEEVE



INTRODUCTION

RECOMMENDED FOR:

Packaging and protection of hose assemblies, in transit and in storage. RYCO RHYS Packaging Sleeve is installed over the finished hose assembly. The ends may be heat sealed, or folded over and stapled, or taped closed.

CONSTRUCTION:

Heavy gauge low density polyethylene clear plastic tubing; printed at intervals with “RYCO” logo, and incorporating an area for the hose assembly Part Number to be written.

ASSEMBLY INSTRUCTIONS:

1. Select correct size of RYCO RHYS Packaging Sleeve. It must be large enough to allow for the maximum outside profile of the hose couplings.

Two sizes are available:

RHYS-75 suits most hoses up to -16 (1”) hose bore.

RHYS-125 suits most hoses from -16 to -32 (1” to 2”) hose.

2. If required, write the hose assembly Part Number onto the Packaging Sleeve using a ball point pen.

3. Slide the hose assembly into the RHYS Packaging Sleeve.

4. Trim Packaging Sleeve to length, and seal ends.

STANDARD COIL LENGTHS:

350 metres (1,150 feet).

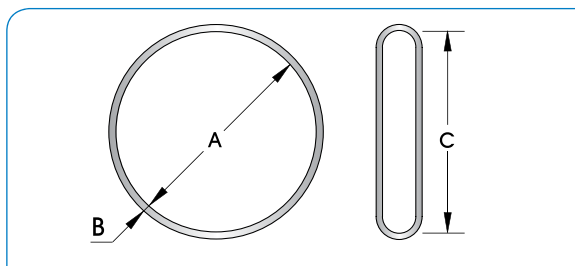
HOSE

COUPLINGS

ADAPTORS

RHYS HOSE ASSEMBLY PACKAGING SLEEVE SPECIFICATIONS

PART NO	PACKAGING SLEEVE							
	NOMINAL ID		NOMINAL WALL THICKNESS		NOMINAL INSIDE FLAT DIMENSION		NOMINAL WEIGHT	
	A mm	A inch	B mm	B inch	C mm	C inch	kg/m	lb/ft
RHYS-75	48	1.9	0,15	0.006	75	3.0	0,021	0.014
RHYS-125	79	3.1	0,15	0.006	125	5.0	0,035	0.023



ACCESSORIES

FILTERS

TECHNICAL

HOSE

HOSE PROTECTION – RHYT HOSE TAG

RHYT/ RHWT HOSE TAG



RECOMMENDED FOR:

Permanent identification of hose assemblies. RYCO Hose Tags enable hose assembly information to be attached to the hose assembly in a cost effective manner.

Two sizes of Hose Tags allow all common hose sizes to be tagged.

Information can be written or printed on the Hose Tag prior to being attached to the hose. When the Hose Tag is wrapped on the hose, a clear panel at the end of the tag wraps over to protect the written or printed information.

Hose Tag remains in position on the hose due to the adhesive backing, and the Hose Tag bends with the hose, ensuring that flexibility is not affected.

The slim profile of the attached Hose Tag reduces the risk of accidental removal. Hose Tag does not damage or cut the cover of the hose.

CONSTRUCTION:

Heat, oil, ozone, sunlight, and weather resistant high performance plastic.

Adhesive-backed for permanent attachment to the hose assembly. Area to write or print information, with a clear panel that wraps over to protect the hose assembly identification information.

TEMPERATURE RANGE:

Suitable for use with all RYCO Hoses at their published temperature ranges.

ASSEMBLY INSTRUCTIONS:

1. Select correct size of RYCO RHYT Hose Tag for the hose assembly that is to be identified.

Two sizes are available:

RHYT-10 and **RHWT-10** suits hose sizes -04 to -10 (1/4" to 5/8").

RHYT-32 and **RHWT-32** suits hose sizes -12 to -32 (3/4" to 2").

2. Using a ball point pen or label printer, apply the required information onto the Hose Tag.
3. Remove the release paper from the back of the Hose Tag to expose the adhesive.
4. While ensuring that the Hose Tag is parallel to the axis of the hose, wrap the Hose Tag tightly around the hose, then continue to wrap the clear plastic panel over the Hose Tag.
5. Press firmly to ensure that the adhesive bonds.

RHYT HOSE TAGS SPECIFICATIONS

RHYT/RHWT HOSE TAGS			
PART NO	SUITS HOSE SIZE ID RANGE		
	DN	INCH	DASH
RHYT-10	6 to 16	1/4 to 5/8	-04 to -10
RHYT-32	12 to 51	3/4 to 2	-12 to -32
RHWT-10	6 to 16	1/4 to 5/8	-04 to -10
RHWT-32	12 to 51	3/4 to 2	-12 to -32

Contact RYCO for further information.

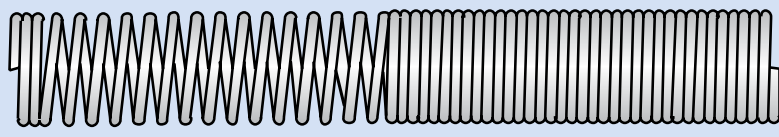
RHYT-32

RHYT-10

RHWT-32

RHWT-10

750/760 SPRING GUARD



RECOMMENDED FOR:

TJ24D and TJ26D Specialist Jacking Hose Assemblies, to control bend radius at end of hoses to avoid excessive strain on hose couplings. Can also be used with **PW24, PW26, T24A, T24C, T24D, T24S, T26A, T26C, T26D** and **T26S** Hoses. Can be used with **L000** Series Field Attachable and **T2000** Series BITELOK Couplings.

- 750** Suits some -4 (1/4") and -6 (3/8") hoses
- 760** Suits some -6 (3/8") hoses

CONSTRUCTION:

Spring Steel Wire; galvanised for corrosion protection.

ASSEMBLY INSTRUCTIONS:

Slide Spring Guards over the hose before assembling hose ends. After ends are assembled, twist and push Spring Guards onto the ferrules. The close pitched end of the Spring Guard goes over the ferrule, and the wide pitched end goes over the hose (as depicted in below image).



HOSE

HOW TO ORDER RYCO HYDRAULIC HOSE

SEE PAGES 486 AND 487 FOR "HOW TO ORDER HOSE ASSEMBLIES".

Coil length of RYCO Hydraulic Hose varies according to Hose Series and Size.

Wire braid, textile braid and spiral wire reinforced hydraulic hoses are in most cases manufactured in long lengths on flexible mandrels, which results in coils of hose of different lengths. These hoses are produced and supplied in random lengths.

SR Suction Hose is manufactured on rigid mandrels of a specified length.

SR Hose 20 metres (65.6 ft)

If hose is part of a general stock order, every effort will be made to supply length closest to length ordered, but length supplied may be shorter or longer than length ordered. If ordering "a coil" of hose, please specify the length required. If a specific cut length is required, this must be specified when ordering, e.g. 19,5 metres exact length and may be subject to surcharge.

Shown in the table below is the availability of RYCO Hydraulic Hose in Coils (C), and on Reels (R) or in Bulk Cartons (B). Details of average quantities packed on reels (or in cartons) and their dimensions are available from RYCO on request.

HOSE SIZE		HOSE SERIES																									
DASH	INCH	T3000A/D/S	T4000A/D/S	T5000A/D/S	T6000A/D/S	H3000A/D/S	H4000A/D/S	H5000A	H5000D/S	H6000A/D/S	H12A/D/S	R4SPA/D	R4SHA/D	T1A	T1D/S	T1F	T2A/D/S	T2C	TXA2D	DF2A	E2	TJ2D	BT1	R0P1	R0P2	R0P5	
-03	3/16"																										
-04	1/4"	R,B	R,B	R,B	R,B							R,B		R,B	R,B	R,B	R,B			R,B		R,B	R,B	R,B	R,B	R,B	R,B
-05	5/16"													R,B		R,B	R,B										
-06	3/8"	R,B	R,B	R,B	R,B				R,B	R,B	R,B	R,B		R,B	R,B	R,B	R,B			R,B		R,B	R,B	R,B	R,B	R,B	R,B
-08	1/2"	R,B	R,B	R,B	R,B		R,B		R,B	R,B	R,B	R,B		R,B	R,B	R,B	R,B			R,B	R,B			R,B	R,B	R,B	R,B
-10	5/8"	R,B	R,B				R,B		R,B	R,B	R,B	R,B		R,B	R,B	R,B	R,B			R,B	R,B			R,B	R,B	R,B	R,B
-12	3/4"	R,B	R,B				R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B			R,B	R,B			R,B	R,B	R,B	R,B
-16	1"	R,B					R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B			R,B	R,B			R,B	R,B	R,B	R,B
-20	1.1/4"					C,B	C,B		C,B	C,B	C,B		C,B	C,B	C,B					C,B		C,B				C,B	C,B
-24	1.1/2"					C,B	C,B		C,B	C,B	C,B		C,B	C,B	C,B					C,B						C,B	C,B
-32	2"					C,B	C,B		C,B	C,B	C,B			C,B	C,B					C,B						C,B	C,B
-40	2.1/2"																			C,B							
-48	3"																										

HOSE SIZE		HOSE SERIES																									
DASH	INCH	R0P6	T5	D2B	MS1000	CS1000	TW1	PW2	RTH1	SR	SRF	M1	MP1	M2	PL1/PL1D	M2G	FB2	TP7	TP7N	TP7T	TP7TN	TP8	TP8N	TP8T	TP8TN	TP3000	
-03	3/16"																										
-04	1/4"	R,B	R,B							R,B					R,B	R,B	R,B	R,B			R,B	R,B	R,B	R,B	R,B	R,B	R,B
-05	5/16"																										
-06	3/8"	R,B	R,B							R,B	R,B	R,B			R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B
-08	1/2"	R,B	R,B							R,B	R,B	R,B			R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B
-10	5/8"	R,B	R,B							R,B					R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B
-12	3/4"	R,B	R,B							R,B	R	R			R,B	R,B	R,B	R,B	R,B	R,B	R,B			R,B	R,B		
-16	1"		R,B								R	R			R,B	R,B	R,B	R,B			R,B	R,B			R,B	R,B	
-20	1.1/4"		C,B								C	C			C,B												
-24	1.1/2"		C,B	C,B							C	C			C,B												
-32	2"		C,B	C,B							C	C															
-40	2.1/2"										C	C															
-48	3"										C																

■ COUPLINGS



COUPLINGS

CONTENTS

THIS SECTION IS ARRANGED IN THE FOLLOWING COUPLING SERIES ORDER:

PAGES	COUPLING SERIES	APPLICATION
BITELOK ONE-PIECE CRIMP COUPLINGS (Series numbers have changed. Previous series in brackets.)		
177 to 187	T1000	BITELOK One-Piece Crimp for T3000 & T3600 Braid Hose, TP7, TP7T, TP7N, TP7TN, TP8, TP8T, TP8N, TP8TN Thermoplastic Hose
188 to 208	T2000 (T200)	BITELOK One-Piece Crimp for Wire Braid Hose
209 to 216	T4000 (T400)	BITELOK One-Piece Crimp for M2, M2G, MP1, RQP5, TP7, TP7N, TP7T, TP7TN, TP3000, PL1, PL1D, RQP6, MS1000, CS1000, SR, SRF and T5 hose
217 to 233	T7000 (T700)	BITELOK One-Piece Crimp for Wire Braid Hose and selected High Pressure Spiral Hose
234 to 240	T9000 (T900)	BITELOK One-Piece Crimp for H5032, H6024 and selected sizes of R4SH hose
241 to 243	TT000	BITELOK One-Piece Crimp for RTH1 Hose
244	TG000	BITELOK One-Piece Crimp for TPGL Greaseline
BITELOK TWO-PIECE CRIMP COUPLINGS (Series numbers have changed. Previous series in brackets.)		
245 to 251	69000N (6900N)	BITELOK Interlok Two-Piece Crimp for H6000 Isobaric Hose
252 to 253	1G000 (1G00)	Two-Piece Crimp for FB2 Air Conditioning Hose
FIELD ATTACHABLE COUPLINGS (Series numbers have changed. Previous series in brackets.)		
254 to 257	8000 (800)	Push-On for PL1, PL1D and RQP6 Hose
258 to 261	33000 (3300)	Suction and Return for SR and SRF Hose
262 to 275	V000 (V00)	Field Attachable for RQP5 and T5 Hose
276	K000 (K00), L000 (L00) M000 (400) P000	Field Attachable Ferrules
276 to 290	6000 (600)	Field Attachable Inserts for Wire Braid Hose, M2 and M2G Series Textile Braid Hose, and TPGL Hose With appropriate Ferrules, these form K000, L000, M000, P000 and V000 Series Field Attachable Couplings
TWO INDEXES FOLLOW:		
160 to 40	—	Pictorial Index
170 to 174	—	Index by End Style Number & Coupling Series

WITHIN EACH COUPLING SERIES THE LISTING ORDER IS ALPHABETICAL * BY THREAD OR CONNECTOR TYPE:

BSP (BSPT, BSPP, BSPP ENCAPSULATED SEAL, BSPP O RING, BANJO)
 NPT* (NPT, NPTF, NPSM)
 CROCBITE
 GREASELINE
 JIC
 JIS (BSP, METRIC)
 JOINER
 METRIC (DKL, DKOL, DKS, DKOS, FRENCH GAZ, FRENCH MILLIMETRIC, JIS, BANJO)
 ORFS
 PW
 RKVP/RKVF
 RYCO WEO
 STAPLELOK, SUPERLOK
 SAE (Thread, then Flange)
 SALVAGE
 STANDPIPE
 TUBE BITE
 UNO (O RING BOSS)
 HAMMER UNION (WING UNION)

*NOTE: NPT is not in strict alphabetical order. NPT is similar in concept to BSP therefore has been placed directly after BSP.

WITHIN EACH ALPHABETICAL THREAD OR CONNECTOR TYPE, THE LISTING ORDER IS:

MALE
 FEMALE
 SPECIAL FEATURES (live swivel, etc)
 SPECIAL SEATS (flat, concave, etc)
 ELBOWS (45° then 90°)
 TUBE BENDS (in increasing degree of bend from 10° to 110°)

PLEASE BE AWARE THAT COUPLING PART NUMBERS HAVE CHANGED. SEE PAGE 28 IN INTRODUCTION AND THE EXAMPLES ON PAGES 158 TO 159 FOR MORE INFORMATION.

PLEASE NOTE THAT THE NEW AND EXTENDED RANGE OF RYCO STAINLESS STEEL COUPLINGS AND ADAPTORS WILL BE INTRODUCED IN 2014. CONTACT YOUR LOCAL RYCO REPRESENTATIVES FOR MORE DETAILS.

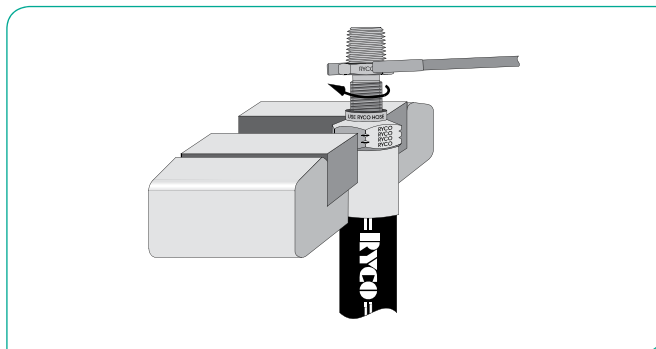
RYCO Hydraulics manufacture hose couplings in many different styles and sizes to match each RYCO hose series, with a wide range of thread and connection types.

Hose Couplings must be carefully matched to the hose. When the hose for an application has been selected, it is crucial that the couplings to be fitted are designed specifically for that hose. This information is listed in this RYCO PRODUCT TECHNICAL MANUAL on the pages for each Hose Series, and also on the pages for each Coupling Series.

HOSE COUPLINGS CAN BE BROADLY DIVIDED INTO TWO TYPES:

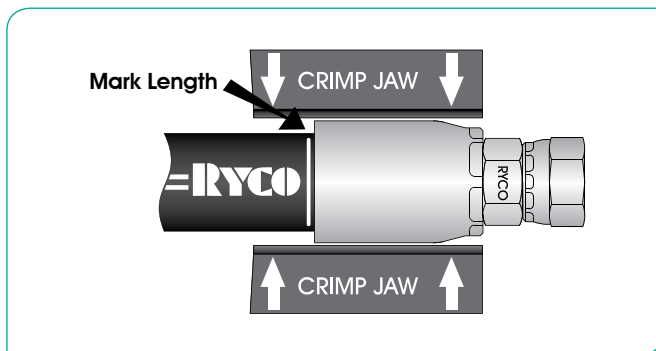
1) FIELD ATTACHABLE COUPLINGS

Attached to the hose using commonly available hand tools. Push-On Hose Couplings and Suction and Return Hose Couplings are often classed as Field Attachable couplings.



2) CRIMP, OR SWAGE, COUPLINGS

Permanently attached to the hose using a crimping, or swaging, machine.



DO NOT MIX / MATCH HOSE AND COUPLINGS FROM DIFFERENT MANUFACTURERS.

It is critical that the hose and coupling manufacturer are the same and that they are assembled using the manufacturer's recommended equipment, components and procedures.

NOTE: Illustrations are indicative only, and are not to scale.

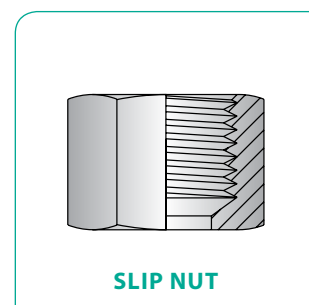
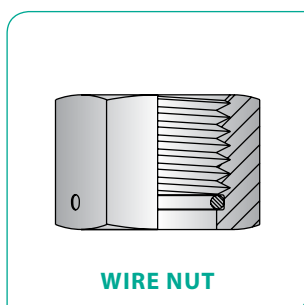
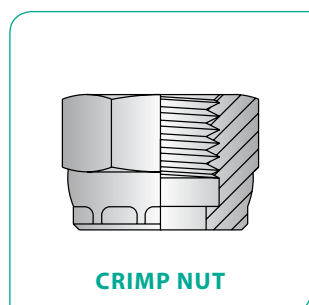
NOTE: Drop Length (DL) and Cut-off Allowance (C_A) dimensions shown are for reference only, and may vary according to manufacturing method.

Female Swivel Nut fittings are typically illustrated as "Crimp Nut", except T7020H (T702H) and T9000 (T900) Series.

Generally, RYCO Fittings including T9000 (T900) Series are as follows:

1. BSPP, NPSM, JIC, JIS, ORFS and SAE nuts are "Crimp Nut" up to and including 1" Hose Size; and "Wire Nut" 1.1/4" to 2" Hose Size.
2. PW and SAE Inverted Flare Male nuts are always "Slip Nut."
3. Metric DKL, DKOL, DKS and DKOS nuts are generally "Slip Nut" where possible and "Wire/Crimp Nut" on jump sizes.
4. T7022 (T702H) is "Wire Nut".

There are many exceptions to these general rules; for precise information, contact RYCO.



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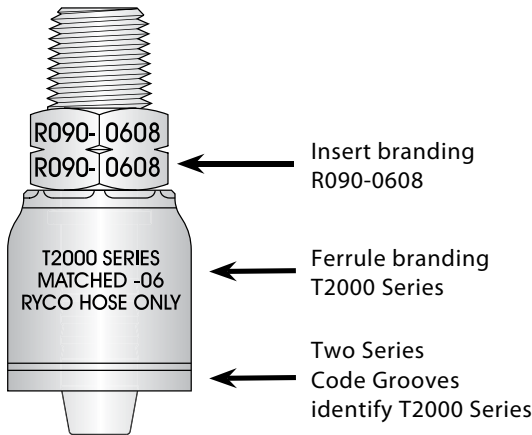
IMPORTANT INFORMATION: HOSE COUPLING PART NUMBER CHANGES

BRANDING EXAMPLES

The pictorial examples in the following pages indicate the differences in branding and identification between New and Previous Coupling Series. Ferrules are branded with the Coupling Series and the following identification marks;

- T1000 has no series code grooves
 - T2000 (T200) has two series code grooves
 - T4000 (T400) has three series code grooves
 - T7000 (T700) has four series code grooves
 - T9000 (T900) has six series code grooves
 - TT000 has two series code grooves (one at each end of the ferrule)
 - TG000 has no series code grooves
 - 69000N (6900N) has six series code grooves
- Field Attachable Coupling identification is shown on page 276.

NEW T2000



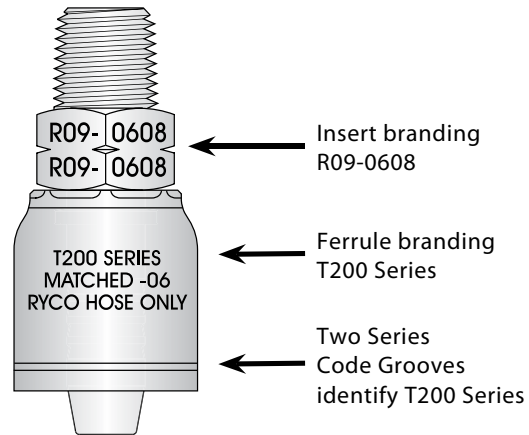
To complete the Part Number for Coupling:

Insert Part Branding is R090-0608
Series is T2000 (from T2000 Ferrule Branding or Two Series Code Grooves)

Simply replace "R" of Insert Part Branding with "T2"
(first two characters of Series)

(replace R with T2) R090-0608 → T2090-0608

PREVIOUS T200



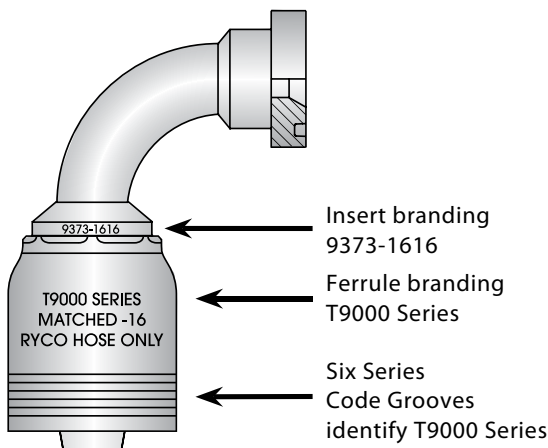
To complete the Part Number for Coupling:

Insert Part Branding is R09-0608
Series is T200 (from T200 Ferrule Branding or Two Series Code Grooves)

Simply replace "R" of Insert Part Branding with "T2"
(first two characters of Series)

(replace R with T2) R09-0608 → T209-0608

NEW T9000



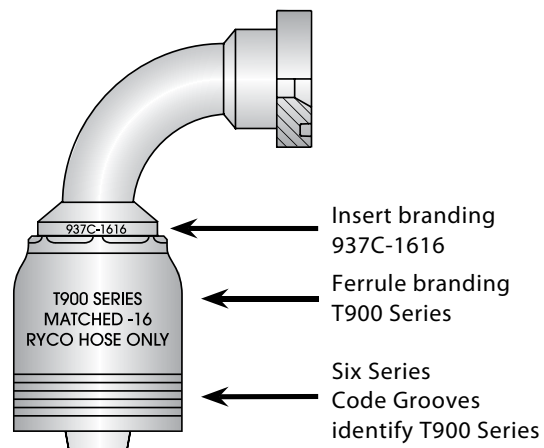
To complete the Part Number for Coupling:

Insert Part Branding is 9373-1616
Series is T9000 (from T9000 Ferrule Branding or Six Series Code Grooves)

Simply add "T" to Insert Part Branding

(add T) 9373-1616 → T9373-1616

PREVIOUS T900



To complete the Part Number for Coupling:

Insert Part Branding is 937C-1616
Series is T900 (from T900 Ferrule Branding or Six Series Code Grooves)

Simply add "T" to Insert Part Branding

(add T) 937C-1616 → T937C-1616

IMPORTANT INFORMATION: HOSE COUPLING PART NUMBER CHANGES

IMPORTANT INFORMATION- NEW COUPLING SERIES TT000

As part of RYCO's commitment to innovation and continuous improvement, we have created a new one-piece coupling series to supercede the discontinued two-piece 1100 Ferrule and RT series insert. The new coupling series is the TT000.

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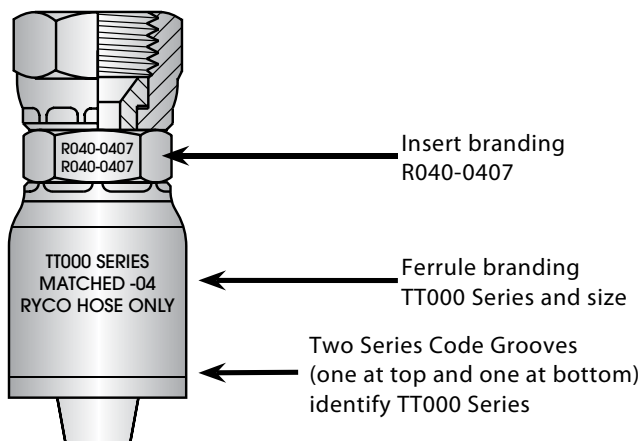
ADAPTORS

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NEW TT000



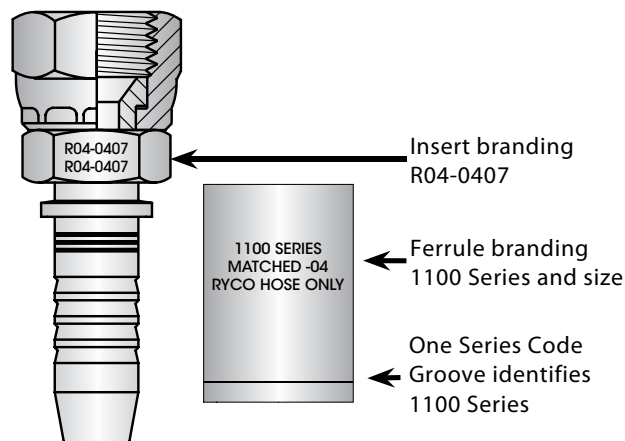
To complete the Part Number for Coupling:

Insert Part Branding is R040-0407
Series is TT000 (from TT000 Ferrule Branding or Two Series Code Grooves, one at each end of the ferrule)

Simply replace "R" of Insert Part Branding with "TT"
(first two characters of Series)

(replace R with TT) R040-0407 → TT040-0407

PREVIOUS 1100 AND RT INSERT



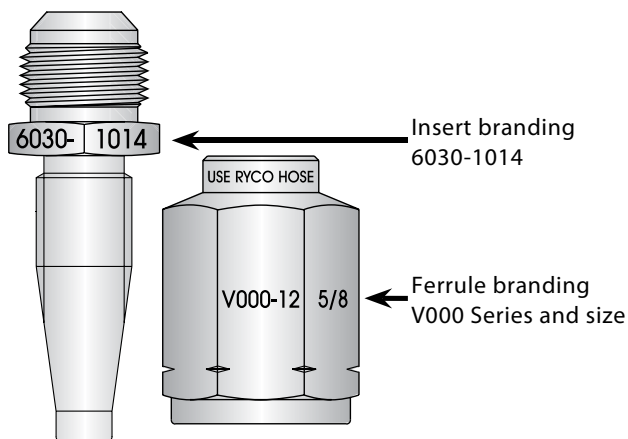
To complete the Part Number for Coupling:

Insert Part Branding is R04-0407
Series is 1100

Simply replace "R" of Insert Part Branding with "11"
(first two characters of Series)

(replace R with 11) R04-0407 → 1104-0407

NEW V000



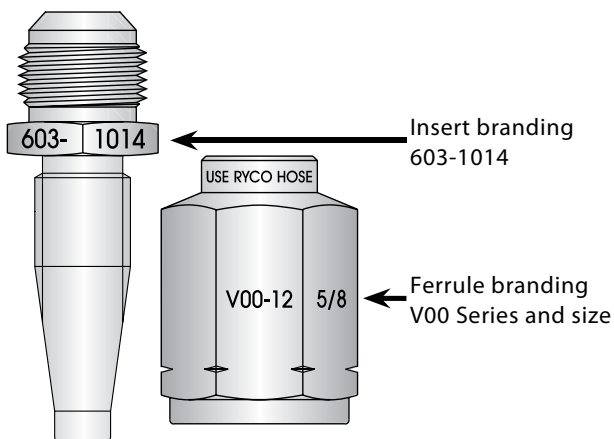
To complete the Part Number for Coupling:

Insert Part Branding is 6030-1014
Series is V000

Simply replace "6" of Insert Part Branding with "V"
(first character of Series)

(replace 6 with V) 6030-1014 → V030-1014

PREVIOUS V00



To complete the Part Number for Coupling:

Insert Part Branding is 603-1014
Series is V00

Simply replace "6" of Insert Part Branding with "V"
(first character of Series)

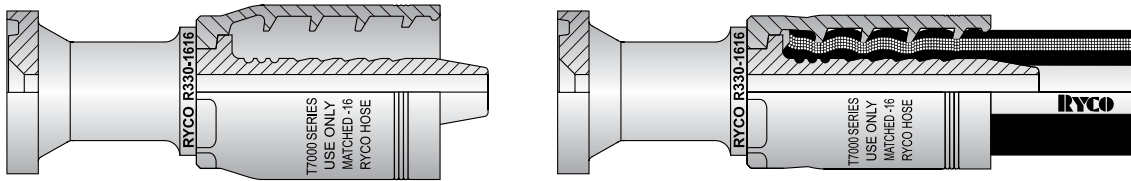
(replace 6 with V) 603-1014 → V03-1014

COUPLINGS

PICTORIAL INDEX

BITELOK ONE-PIECE CRIMP COUPLINGS

RYCO BITELOK Crimp Couplings are permanently attached fittings, assembled onto the hose with a swaging press.



RYCO BITELOK One-Piece Crimp Couplings have the ferrule already attached to the hose insert at the factory. This eliminates the possibility of selecting the wrong ferrule type when fabricating hose assemblies, which can cause failure of the assembly.

Each BITELOK One-Piece Crimp Coupling Series suits specific styles of hose, as shown in the table below. T1000, T2000, T4000, T7000 and T9000 BITELOK One-Piece Crimp Couplings Series can be used on more than one hose style - only the finished crimp diameter changes.

BITELOK One-Piece Crimp couplings eliminate the need to "skive" the cover off the hose before attaching the couplings - even for Spiral reinforced hoses. This makes assembly simple, quick and efficient. Simply push the coupling onto the hose to the correct mark length, and crimp the ferrule. The teeth inside the ferrule BITE down though the cover to LOK onto the reinforcement wires*.

* T4000 Series for One and Two Braid Textile reinforced hoses do not bite down to the textile reinforcement.

BITELOK SERIES	SUITS HOSE TYPE	RYCO HOSE SERIES AND SIZES
T1000	Thermoplastic Hoses & R17 Wire Braid AT END OF FERRULE	For RYCO Hose Series T3000, T3600 all sizes. For RYCO Hose Series TP7, TP7N, TP7T, TP7TN, TP3000 all sizes.
T2000	One and Two Wire Braided Hoses TWO SERIES CODE GROOVES AT END OF FERRULE	For RYCO Hose Series T1A, T1D, T1F, T1S, T2A, T2D, T2S, T2C, DF2A, TXA2D, TJ2D, RQP1, RQP2, TW1, PW2 up to size -48. For RYCO Hose Series T3000, T3600, T4000, T5000, T6000, E2, BT1. For RYCO Hose Series CS1000, MS1000 up to -32.
T4000	Some One and Two Textile Braided Hoses and some Thermoplastic Hoses THREE SERIES CODE GROOVES AT END OF FERRULE	For RYCO Hose Series TP7, TP7N, TP7T, TP7TN, TP3000 all sizes. For RYCO Hose Series SR and SRF sizes -12 to -32. For RYCO Hose Series M2, M2G, PL1, PL1D and RQP6 sizes -4 to -12. For RYCO Hose Series MP1 sizes -4 to -20. For RYCO Hose Series RQP5 and T5 sizes -4 to -12. For RYCO Hose Series CS1000, MS1000 sizes -20 to -32.
T7000	Selected Spiral Hoses One and Two Wire Braided Hoses FOUR SERIES CODE GROOVES AT END OF FERRULE	For RYCO Hose Series H3000, H4000, T1A, T1D, T1F, T1S, T2A, T2D, T2S, T2C, BT1, E2, D2B, DF2A, H12A, H12D, H12S, TXA2D, RQP1, RQP2 all sizes. For RYCO Hose Series H5000 up to -24. For RYCO Hose Series H6000 up to -20. For RYCO Hose Series R4SP (cover must be skived) and R4SH (sizes -20 to -32).
T9000	Selected Spiral Hoses AT END OF FERRULE	For RYCO Hose Series H3000, H4000, T1A, T1D, T1F, T1S, T2A, T2D, T2S, T2C, BT1, E2, D2B, DF2A, H12A, H12D, H12S, TXA2D, RQP1, RQP2 all sizes.

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MALE STRAIGHT cont'd

MALE STRAIGHT cont'd







MALE STRAIGHT cont'd

T1010 P177	T1013 P177	T1017 P177	T1320 P178				T1090 P180		
T2010 P188	T2013 P188	T2017 P188	T2220 P189/P195	T2320 P189	T2475 P190	T2090 P192	T2091 P192		
T4010 P209		T4013 P209			T4320 P209		T4090 P210		
T7010 P217	T7014 P217	T7013 P217				T7090 P218	T7091 P218		
T9010 P234		T9013 P234				T9090 P234	T9091 P234		
BSPT MALE	BSPT MALE HEAVY	BSPP MALE	BSPP MALE CAPTIVE SEAL	BSPP MALE 60° CONVEX SEAT (JIS)	BSPT MALE SWIVEL	BSP BANJO	NPT MALE	NPT MALE EXTENDED	
T1320N P180			T1030 P181	T1650 P183	T1630 P184				
T2320N P192	T2880 P193	T2880A P194	T2030 P194	T2650 P196	T2630 P198	T2920 P199	T2924 P199	T2470 P200	
T4320N P210			T4030 P211						
T7880 P219		T7880A P219	T7030 P220		T7630 P223	T7920 P223	T7924 P224		
T9880 P235		T9030 P235			T9630 P236				
NPT MALE SWIVEL	CROCBITE MALE	CROCBITE MALE HIGH FLOW	JIC MALE	METRIC DKL MALE 24° CONE	METRIC DKS MALE 24° CONE	METRIC FRENCH GAZ MALE	METRIC FRENCH MILLIMETRIC MALE	METRIC BANJO	
T1840 P185						T1530 P186			
T2840 P201	T2950 P202	T2896 P203	T2890 P203	T2480 P204	T2870 P204	T2530 P205	T2740 P205		
T4840 P213						T4530 P214			T4740 P214
T7840 P225		T7896 P226	T7890 P226	T7480 P226	T7870 P227	T7876 P227			
T9896 P236				T9870 P237		T9876 P237			
ORFS MALE	PW GUN HANDLE TUBE	RKVP MALE	RKVF MALE	RYCO WEO MALE	STAPLELOK MALE	SUPERLOK MALE	SAE MALE	SAE INVERTED MALE FLARE	
T1200 P187		T1380 P187							
T2200 P208		T2380 P208							
T7200 P233									
UN O RING MALE (O RING BOSS)	UN O RING MALE SWIVEL (O RING BOSS)								

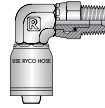
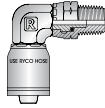
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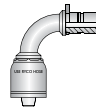


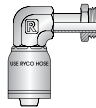


MALE
45° & 60°

T2881 P193	T2482 P204	T2871 P204	T2750 P205	T2760 P205	
T4750 P214					
T7881 P219	T7881A P219	T7482 P226	T7871 P227		
T9881 P235			T9871 P237		
					
CROCBITE MALE 45° ELBOW	CROCBITE MALE HIGH FLOW 45° ELBOW	RYCO WEO MALE 45° TUBE BEND	STAPLELOK MALE 45° ELBOW	SAE INVERTED MALE FLARE 45° TUBE BEND	SAE INVERTED MALE FLARE 60° TUBE BEND










MALE
90°

T1340 P178	T1340N P180
T2340 P189	T2340N P192
	
BSPT MALE SWIVEL 90° ELBOW	NPT MALE SWIVEL 90° ELBOW

MALE
90°

							T1390 P187
T2882 P193	T2483 P204	T2872 P204	T2780 P205	T2790 P205	T2770 P205	T2390 P208	
T4770 214							
T7882 P219	T7882A P219	T7483 P226	T7872 P227				
T9882 P235				T9872 P237			
							
CROCBITE MALE 90° ELBOW	CROCBITE MALE HIGH FLOW 90° ELBOW	RYCO WEO MALE 90° TUBE BEND	STAPLELOK MALE 90° ELBOW	SAE INVERTED MALE FLARE 90° ELBOW	SAE INVERTED MALE FLARE 90° EXTENDED ELBOW	SAE INVERTED MALE FLARE 90° TUBE BEND	UN O RING MALE SWIVEL (O RING BOSS) 90° ELBOW

FEMALE
STRAIGHT

T1020 P177			T1120 P182			T1020N P180		T1040 P181	
T2020 P188	T2028B P189	T2024 P189		T2120 P189/P195	T2190 P193	T2020N P193	T2861 P194	T2040 P194	
T4020 P209			T4120 P210/P212			T4020N P210		T4040 P211	
T7020 P217		T7022 P217				T7020N P218		T7040 P220	
T9020 P234								T9040 P235	
									
BSPP FEMALE	BSPP FEMALE LIVE SWIVEL	BSPP FEMALE HEAVY	BSPP FEMALE FLAT FACE	BSPP FEMALE 60° CONCAVE SEAT (JIS)	NPT FEMALE FIXED	NPSM FEMALE	GREASE LINE FIXED FEMALE	JIC FEMALE	

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FEMALE STRAIGHT cont'd & FEMALE 45°

FEMALE 45° cont'd

FEMALE 90°

T1501 P183		T1711 P184		T1680 P184		T1800 P185	
T2600 P197	T2501 P197	T2711 P198	T2921 P199	T2925 P199	T2680 P196/P200	T2800 P201	T2899 P203
T4600 P213						T4800 P213	
T7045 P220	T7501 P222	T7711 P223	T7921 P223	T7925 P224	T7680 P222/P224	T7800 P225	T7899 P226
T9045 P235			T9711 P236			T9800 P236	T9899 P236

JIC FEMALE HIGH PRESSURE	METRIC DKL FEMALE 24°/60° CONE	METRIC DKOL FEMALE 24° CONE	METRIC DKOS FEMALE 24° CONE	METRIC FRENCH GAZ FEMALE 24° CONE	METRIC FRENCH MILLIMETRIC FEMALE 24° CONE	METRIC FEMALE 60° CONCAVE SEAT (JIS) KOMATSU	ORFS FEMALE	RKVP FEMALE

T1540 P186		T1060 P178		T1080 P181		T1580 P186		T1270 P179		T1250 P182	
T2894 P203	T2540 P205	T2940 P202	T2060 P190	T2080 P194	T2580 P205	T2270 P191	T2250 P195				
T4540 P214										T4250 P211	
T7894 P226			T7060 P217		T7080 P220		T7270 P218		T7250 P221		

								T9250 P235		T9255 P235	
RKVP FEMALE	SAE FEMALE	PRESSURE WASHER FEMALE	BSPP FEMALE 45° ELBOW	JIC FEMALE 45° ELBOW	SAE FEMALE 45° ELBOW	BSPP FEMALE 45° TUBE BEND	JIC FEMALE 45° TUBE BEND	JIC FEMALE HIGH PRESSURE 45° TUBE BEND			

T1510 P183		T1720 P184		T1810 P185		T1050 P178		T1070 P181		T1570 P186		T1260 P179	
T2660 P197	T2510 P197	T2720 P198	T2810 P202	T2050 P190				T2070 P194		T2570 P205		T2260 P191	
T4660 P213				T4810 P213		T4550 P214		T4050 P209		T4570 P214		T4260 P209	
				T7720 P223		T7810 P225		T7050 P217		T7070 P220		T7260 P218	

				T9720 P236		T9810 P236		T9050 234		T9260 P234		
METRIC DKL FEMALE 24°/60° CONE 45° TUBE BEND	METRIC DKOL FEMALE 24° CONE 45° TUBE BEND	METRIC DKOS FEMALE 24° CONE 45° TUBE BEND	ORFS FEMALE 45° TUBE BEND	SAE FEMALE 45° TUBE BEND	BSPP FEMALE 90° ELBOW	JIC FEMALE 90° ELBOW	SAE FEMALE 90° ELBOW	BSPP FEMALE 90° TUBE BEND				

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T1210 P179	T1243 P182	T1240 P182	T1280 P182			T1520 P183	T1730 P184
T2210 P191	T2243 P195	T2240 P195	T2280 P195	T2670 P197	T2520 P197	T2730 P198	T2923 P199
		T4243 P212	T4240 P212	T4280 P212	T4670 P213		
T7210 P218	T7243 P221	T7240 P221	T7245 P221	T7280 P221	T7730 P223		T7923 P223
		T9243 P235	T9240 P235	T9245 P235	T9730 P236		

FEMALE
90°
cont'd



BSPF FEMALE 90° LONG BEND	JIC FEMALE 90° SHORT BEND	JIC FEMALE 90° MEDIUM BEND	JIC FEMALE HIGH PRESSURE 90° MEDIUM BEND	JIC FEMALE 90° LONG BEND	METRIC DKL FEMALE 24°/60° CONE 90° TUBE BEND	METRIC DKOL FEMALE 24° CONE 90° TUBE BEND	METRIC DKOS FEMALE 24° CONE 90° TUBE BEND	METRIC FRENCH GAZ FEMALE 24° CONE 90° TUBE BEND
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T1823 P185	T1820 P185	T1830 P185	T1900 P183			T1230 P186	
T2823 P202	T2820 P202	T2830 P202	T2900 P196			T2230 P207	T2180 P207
		T4820 P213				T4230 P216	
T7823 P225	T7820 P225	T7830 P225	T7900 P222			T7230 P233	
		T9820 P236				T9230 P240	

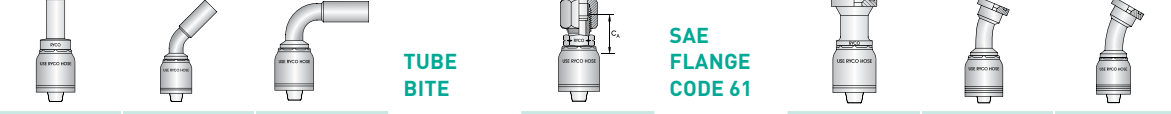
FEMALE
90°
cont'd



ORFS FEMALE 90° SHORT BEND	ORFS FEMALE 90° MEDIUM BEND	ORFS FEMALE 90° LONG BEND	SAE FEMALE 90° TUBE BEND	JOINER	JOINER	SALVAGE (LIFESAVER)	IMPERIAL STANDPIPE
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T2640 P207	T2643 P207	T2646 P207	T2850 P208			T2130 P206		
			T4850 P216			T4130 P215		
T7640 P232	T7643 P232	T7646 P232				T7130 P228	T7140 P228	T7290 P229
						T9130 P238		

SALVAGE/
STANDPIPE
cont'd



METRIC STANDPIPE	METRIC STANDPIPE 45° TUBE BEND	METRIC STANDPIPE 90° TUBE BEND	TUBE BITE	TUBE BITE	SAE FLANGE CODE 61	CODE 61 FLANGE	CODE 61 FLANGE 22.5° TUBE BEND	CODE 61 FLANGE 30° TUBE BEND
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T2150 P206		T2170 P206						
T4150 P215		T4170 P215						
T7150 P228	T7300 P228	T7160 P229	T7170 P229	T7171 P229	T7172 P229	T7173 P229	T7174 P230	T7910 P230
T9150 P238		T9170 P238				T9910 P238		

SAE
FLANGE
CODE 61
cont'd



CODE 61 FLANGE 45° TUBE BEND	CODE 61 FLANGE 60° TUBE BEND	CODE 61 FLANGE 67.5° TUBE BEND	CODE 61 FLANGE 90° TUBE BEND	CODE 61 FLANGE 90° LONG BEND	CODE 61 FLANGE 90° LONG BEND	CODE 61 FLANGE 90° LONG BEND	CODE 61 FLANGE 90° SPECIAL TUBE BEND	CODE 61 FLANGE 110° TUBE BEND
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SAE
FLANGE
CODE 62

T7330 P230	T7440 P230	T7450 P230	T7350 P230	T7460 P231	T7360 P231	T7370 P231	T7930 P231
T9330 P238	T9440 P238	T9450 P238	T9350 P238	T9460 P239	T9360 P239	T9370 P239	T9930 P239
CODE 62 FLANGE	CODE 62 FLANGE 22.5° TUBE BEND	CODE 62 FLANGE 30° TUBE BEND	CODE 62 FLANGE 45° TUBE BEND	CODE 62 FLANGE 60° TUBE BEND	CODE 62 FLANGE 67.5° TUBE BEND	CODE 62 FLANGE 90° TUBE BEND	CODE 62 FLANGE 110° TUBE BEND

SPECIAL
FLANGE
RYCO
CODE 62C

T7333 P231	T7443 P231	T7453 P231	T7353 P231	T7463 P232	T7363 P232	T7373 P232	T7933 P232
T9333 P239	T9443 P239	T9453 P239	T9353 P239	T9463 P240	T9363 P240	T9373 P240	T9933 P240
R62C FLANGE	R62C FLANGE 22.5° TUBE BEND	R62C FLANGE 30° TUBE BEND	R62C FLANGE 45° TUBE BEND	R62C FLANGE 60° TUBE BEND	R62C FLANGE 67.5° TUBE BEND	R62C FLANGE 90° TUBE BEND	R62C FLANGE 110° TUBE BEND

HAMMER
UNION

T71502 P233	T71501 P233						
T91502 P240	T91501 P240						
FIG 1502 MALE (WITH NUT)	FIG 1502 FEMALE (WITH SEAL)						









TT000 ONE-PIECE CRIMP COUPLINGS FOR RTH1 SERIES HOSE

TT010 P241	TT320 P241	TT030 P242	TT090 P242	TT020 P241	TT040 P242	TT600 P243	TT540 P243	TT250 P242	TT050 P241
BSPT MALE	BSPT MALE SWIVEL	JIC MALE	NPT MALE	BSPP FEMALE	JIC FEMALE	DKL FEMALE 24°/60° CONE	SAE FEMALE	JIC FEMALE 45° BEND	BSPP FEMALE 90° ELBOW
TT260 P241	TT240 P242	TT670 P243							
BSPP FEMALE 90° BEND	JIC FEMALE 90° BEND	DKL FEMALE 24°/60° CONE 90° TUBE BEND							













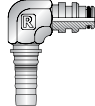
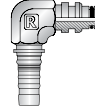








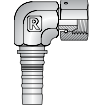
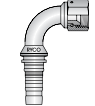






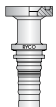









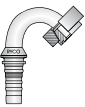

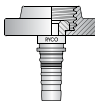

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TG000 ONE-PIECE CRIMP COUPLINGS FOR TPGL SERIES HOSE (GREASELINE)

TG010 P244	TG320 P244	TG090 P244	TG320N P244	TG030 P244	TG020 P244	TG020N P244	TG040 P244
							
BSPT MALE	BSPT MALE SWIVEL	NPT MALE	NPT MALE SWIVEL	JIC MALE	BSPP FEMALE	NPSM FEMALE	JIC FEMALE

69000N (6900N) BITELOK INTERLOK TWO-PIECE CRIMP COUPLINGS FOR H6000 SERIES HOSE

69000N P245	9010N P245	9090N P246	9880N P246	9030N P246	9630N P247	9840N P247	9896N P247	9870N P250	9876N P250
									
CRIMP FERRULE	BSPT MALE	NPT MALE	CROCBITE MALE	JIC MALE	METRIC DKS MALE 24° CONE	ORFS MALE	RKVP MALE	STAPLELOK MALE	SUPERLOK MALE
9881N P246	9871N P250	9882N P246	9872N P250	9020N P245	9040N P246	9711N P247	9800N P247	9899N P247	9250N P246
									
CROCBITE MALE 45° ELBOW	STAPLELOK MALE 45° ELBOW	CROCBITE MALE 90° ELBOW	STAPLELOK MALE 90° ELBOW	BSPP FEMALE	JIC FEMALE	METRIC DKOS FEMALE 24° CONE	ORFS FEMALE	RKVP FEMALE	JIC FEMALE 45° TUBE BEND
9720N P247	9810N P247	9050N P245	9240N P246	9730N P247	9820N P247	9130N P248	9150N P248	9170N P248	9330N P249
									
METRIC DKOS FEMALE 24° CONE 45° TUBE BEND	ORFS FEMALE 45° TUBE BEND	BSPP FEMALE 90° ELBOW	JIC FEMALE 90° TUBE BEND	METRIC DKOS FEMALE 24° CONE 90° TUBE BEND	ORFS FEMALE 90° MEDIUM BEND	CODE 61 FLANGE	CODE 61 FLANGE 45° TUBE BEND	CODE 61 FLANGE 90° TUBE BEND	CODE 62 FLANGE
9333N P249	9350N P249	9353N P249	9370N P249	9371N P249	9373N P249	9335N P250	9445N P250	9355N P250	9375N P250
									
R62C FLANGE	CODE 62 FLANGE 45° TUBE BEND	RYCO CODE 62C FLANGE 45° TUBE BEND	CODE 62 FLANGE 90° TUBE BEND	CODE 62 FLANGE 90° LONG TUBE BEND	RYCO CODE 62C FLANGE 90° TUBE BEND	RYCO CODE 62K FLANGE	RYCO CODE 62K FLANGE 30° TUBE BEND	RYCO CODE 62K FLANGE 45° TUBE BEND	RYCO CODE 62K FLANGE 90° TUBE BEND
9100N P250	9900N P246	91502N P251	91501N P251						
									
RYCO CODE 62K FLANGE 135° TUBE BEND	JOINER	FIG 1502 MALE (WITH NUT)	FIG 1502 FEMALE (WITH SEAL)						

1G000 (1G00) BITELOK TWO-PIECE CRIMP COUPLINGS FOR FB2 SERIES HOSE

1G000 P252	GP010 P252	GP340 P252	GP020 P252	G540 P253	G580 P253	GP050 P252	GP240 P252	G570 P253	G230 P253
CRIMP FERRULE	PILOT O RING MALE	PILOT O RING MALE 90° ELBOW	PILOT O RING FEMALE	SAE FEMALE	SAE FEMALE 45° ELBOW	PILOT O RING FEMALE 90° ELBOW	PILOT O RING FEMALE 90° ELBOW SHORT	SAE FEMALE 90° ELBOW	SALVAGE (LIFE SAVER)

8000 (800) PUSH-ON COUPLINGS FOR PL1, PL1D AND RQP6 SERIES HOSE

PL1, PL1D and RQP6 Hose simply pushes on to 8000 Series couplings. Clamps are required for critical applications, and when Working Pressure exceeds 50% of the Maximum Static Working Pressure. Do not overtighten Clamps as this will damage hose.

8010 P254	8111 P254	8090 P255	8030 P255	8530 P256	8740 P256	8200 P257	8020 P254	8040 P255	8540 P256
BSPT MALE	BSPP O RING MALE	NPT MALE	JIC / SAE MALE	JIC / SAE MALE	SAE INVERTED FLARE MALE	UN O RING MALE (O RING BOSS)	BSPP FEMALE	JIC / SAE FEMALE	JIC / SAE FEMALE
8060 P254	8050 P254	8070 P255	8570 P256	8240 P255	8900 P256	8230 P256	8180 P257	8640 P257	8100 P257
BSPP FEMALE 45° ELBOW	BSPP FEMALE 90° ELBOW	JIC / SAE FEMALE 90° ELBOW	JIC / SAE FEMALE 90° ELBOW	JIC FEMALE 90° TUBE BEND	JOINER	SALVAGE (LIFE SAVER)	IMPERIAL STANDPIPE	METRIC STANDPIPE	200 AIR COUPLING NIPPLE

33000 (3300) SUCTION AND RETURN COUPLINGS FOR SR AND SRF SERIES HOSE

33000 Series Couplings require a suitable Clamp around the outside of the hose.

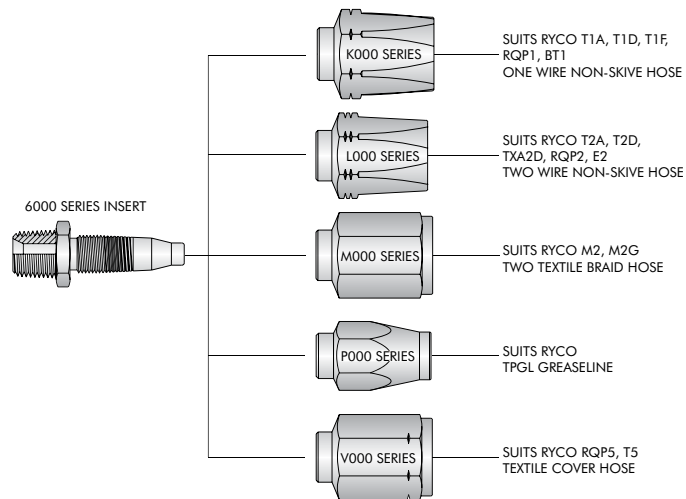
RSC P260	33010 P258	33111 P258	33090 P259	33200 P261	33400 P258	33410 P258	33400N P259	33420 P261	33020 P259
SUCTION HOSE CLAMP	BSPT MALE	BSPP O RING MALE	NPT MALE	UN O RING MALE (O RING BOSS)	BSPT MALE 90° ELBOW	BSPP O RING MALE 90° ELBOW	NPT MALE 90° ELBOW	UN O RING MALE (O RING BOSS) 90° ELBOW	BSPP FEMALE
33024 P259	33040 P259	33130 P260	33150 P260	33170 P260					
BSPP FEMALE FLAT FACE	JIC FEMALE	CODE 61 FLANGE	CODE 61 FLANGE 45° TUBE BEND	CODE 61 FLANGE 90° TUBE BEND					

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FIELD ATTACHABLE FERRULES FOR 6000 (600) SERIES INSERTS

The RYCO Field Attachable system consists of five ferrule styles, each specific to a hose type, and one common Insert. Field Attachable Inserts and Ferrules can be ordered individually, or as a complete coupling for specific hose types.



K000 P276	L000 P276	V000 P264	M000 P276	P000 P276
SUITS RYCO T1A, T1D, T1F, RQP1 ONE WIRE NON-SKIVE HOSE	SUITS RYCO T2A, T2D, TXA2D, TJ2D, RQP2 TWO WIRE NON-SKIVE HOSE	SUITS RYCO RQP5, T5 TEXTILE COVER	SUITS RYCO M2 TWO TEXTILE BRAID HOSE	SUITS RYCO TPGL GREASELINE

6000 (600) SERIES FIELD ATTACHABLE INSERTS

6000 Series Inserts for K000, L000, V000, M000 and P000 ferrules. Common V000 Series are indicated in the bar above Insert Group designation eg. (V010). Where there are two page references, the second is the V000 Series page reference.

[V010]		[V090]		[V030]		[V530]			
6010 P278/P264	6320 P278	6090 P280/P266	6091 P280	6320N (632N)	6860 P280	6030 P282/P266	6650 P284	6630 P285	6530 P286/P272
BSPT MALE	BSPT MALE SWIVEL	NPT MALE	NPT MALE EXTENDED	NPT MALE SWIVEL	GREASE LINE MALE	JIC MALE	METRIC DKL MALE 24° CONE	METRIC DKS MALE 24° CONE	SAE MALE
[V740]		[V200]		[V750]		[V770]			
6740 P287/P273	6200 P290/P275	6380 P290	6750 P287/P274	6760 P287	6340 P278	6780 P287	6790 P287	6390 P290	6770 P287/P274
SAE INVERTED MALE FLARE	UN O RING MALE (O RING BOSS)	UN O RING MALE SWIVEL (O RING BOSS)	SAE INVERTED MALE FLARE 45° TUBE BEND	SAE INVERTED MALE FLARE 60° TUBE BEND	BSPT MALE SWIVEL 90° ELBOW	SAE INVERTED MALE FLARE 90° ELBOW	SAE INVERTED MALE FLARE 90° EXTENDED ELBOW	UN O RING MALE SWIVEL (O RING BOSS) 90° ELBOW	SAE INVERTED MALE FLARE 90° TUBE BEND
[V020]		[V040]		[V800]					
6020 P278/P264	6024 P279	6120 P279/283	6960B P280	6861 P280	6040 P282/P267	6600 P284	6711 P285	6680 P284/P285	6800 P286/P270
BSPP FEMALE	BSPP FEMALE FLAT FACE	BSPP FEMALE 60° CONCAVE SEAT (JIS)	NPSM FEMALE LIVE SWIVEL	GREASE LINE FIXED FEMALE	JIC FEMALE	METRIC DKL FEMALE 24°/60° CONE	METRIC DKOS FEMALE 24° CONE	METRIC FEMALE 60° CONCAVE SEAT (JIS) KOMATSU	ORFS FEMALE

6000 (600) SERIES FIELD ATTACHABLE INSERTS (CONT)

6000 Series Inserts for K000, L000, V000, M000 and P000 ferrules. Common V000 Series are indicated in the bar above Insert Group designation eg. (V010). Where there are two page references, the second is the V000 Series page reference.

[V540]				[V270]		[V250]				[V810]	[V550]
6540 P286/P272	6060 P279	6080 P282	6580 P286	6270 P279/P265	6250 P283/P268	6660 P284	6720 P285	6810 P286/P270	6550 P287		
SAE FEMALE	BSPP FEMALE 45° ELBOW	JIC FEMALE 45° ELBOW	SAE FEMALE 45° ELBOW	BSPP FEMALE 45° TUBE BEND	JIC FEMALE 45° TUBE BEND	METRIC DKL FEMALE 24°/60° CONE 45° TUBE BEND	METRIC DKOS FEMALE 24° CONE 45° TUBE BEND	ORFS FEMALE 45° TUBE BEND	SAE FEMALE 45° TUBE BEND		
[V070]			[V260]			[V240]			[V280]		
6050 P279	6052 P279	6070 P282/P268	6570 P286	6260 P279	6210 P280	6311 P279/P283	6240 P283/P269	6280 P283/P269	6670 P284		
BSPP FEMALE 90° ELBOW	BSPP FEMALE FLAT FACE 90° ELBOW	JIC FEMALE 90° ELBOW	SAE FEMALE 90° ELBOW	BSPP FEMALE 90° TUBE BEND	BSPP FEMALE 90° LONG BEND	BSPP FEMALE 60° CONCAVE SEAT (JIS) 90° TUBE BEND	JIC FEMALE 90° TUBE BEND	JIC FEMALE 90° LONG BEND	METRIC DKL FEMALE 24°/60° CONE 90° TUBE BEND		
[V820]		[V830]		[V560]		[V230]					
6730 P285	6820 P286/P271	6830 P286/P271	6560 P287/P273	6563 P287	6130 P288	6150 P288	6170 P288	6230 P289/P274	6180 P289		
METRIC DKOS FEMALE 24° CONE 90° TUBE BEND	ORFS FEMALE 90° TUBE BEND	ORFS FEMALE 90° LONG BEND	SAE FEMALE 90° TUBE BEND	SAE FEMALE 90° LONG BEND	CODE 61 FLANGE	CODE 61 FLANGE 45° TUBE BEND	CODE 61 FLANGE 90° TUBE BEND	SALVAGE (LIFESAVER)	IMPERIAL STANDPIPE		
6640 P289	6850 289										
METRIC STANDPIPE	TUBE BITE										

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INDEX BY END STYLE NUMBER

“Index by End Style Number” is a quick reference if the End Style Number is already known. It can also be used to show the availability of End Styles in different Coupling Series.

The following Coupling Series is not listed in this table:
1G000 see pages 252 & 253

Example:

End Style of “330” SAE Code 62 Flange is available in four Series:

T7000 Series – **T7330** (page 230)

T9000 Series – **T9330** (page 238)

69000N Series **9330N** (page 249)

END STYLE NO.		END STYLE DESCRIPTION	COUPLING SERIES & PAGE NUMBER											
NEW	PREV		T1000	T2000	T4000	T7000	T9000	TT000	TG000	69000N	8000	33000	V000	6000
010	01	BSPT Male	177	188	209	217	234	241	244	245	254	258	264	278 281
010S	01SS	Stainless Steel BSPT Male												
013	01P	BSPP Male	177	188	209	217	234							
014	01H	BSPT Male Heavy				217								
017	01C	BSPP Male Encapsulated Seal	177	188										
020	02	BSPP Female	177	188	209	217	234	241	244	245	254	259	264	278
020N	02N	NPSM Female	180	193	210	218			244					
020S	02SS	Stainless Steel BSPP Female												
022	02H	BSPP Female Heavy				217								
024	02F	BSPP Female Flat Face		189								259		279
027	02C	BSPP Female O Ring												
028B	02S	BSPP Female Live Swivel		189										
030	03	JIC Male	181	194	211	220	235	242	244	246	255		266	282
030S	03SS	Stainless Steel JIC Male												
040	04	JIC Female	181	194	211	220	235	242	244	246	255	259	267	282 281
040S	04SS	Stainless Steel JIC Female												
042	04H	JIC Female Heavy												
045	04V	JIC Female High-Pressure				220	235							
050	05	BSPP Female 90° Elbow	178	190	209	217	234	241		245	254			279
052	05F	BSPP Female Flat Face 90° Elbow												279
060	06	BSPP Female 45° Elbow	178	190		217					254			279
070	07	JIC Female 90° Elbow	181	194		220					255		268	282
080	08	JIC Female 45° Elbow	181	194		220								282
090	09	NPTF Male	180	192	210	218	234	242	244	246	255	259	266	280 281
090S	09SS	Stainless Steel NPTF Male												
091	09E	NPTF Male Extended		192		218	234							280
100	10	Specials									257			
111	11	BSPP O Ring Male									254	258		
120	12	BSPP Female 60° Concave Seat (JIS)	178 182	189 195	210 212									279 283
130	13	SAE Code 61 Flange		206	215	228	238			248		260		288
130S	13SS	Stainless Steel SAE Code 61 Flange												
140	14	SAE Code 61 Flange 22.5° Tube Bend				228								
150	15	SAE Code 61 Flange 45° Tube Bend		206	215	228	238			248		260		288
160	16	SAE Code 61 Flange 67.5° Tube Bend				229								
170	17	SAE Code 61 Flange 90° Tube Bend		206	215	229	238			248		260		288

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END STYLE NO.		END STYLE DESCRIPTION	COUPLING SERIES & PAGE NUMBER											
NEW	PREV		T1000	T2000	T4000	T7000	T9000	TT000	TG000	69000N	8000	33000	V000	6000
170S	17SS	Stainless Steel SAE Code 61 Flange 90° Tube Bend												
171	17A	SAE Code 61 Flange 90° Special Tube Bend				229								
172	17B	SAE Code 61 Flange 90° Special Tube Bend				230								
173	17L	SAE Code 61 Flange 90° Long Tube Bend				230								
174	17D	SAE Code 61 Flange 90° Special Tube Bend				230								
180	18	Imperial Standpipe		207						257				289
190	19	NPT Female Fixed		193										
200	20	UN O Ring Male (O Ring Boss)	187	208		233				257	261	275	290	
210	21	BSPP Female 90° Long Tube Bend	179	191		218								280
220	22	BSPP Male 60° Convex Seat (JIS)		189 195										
230	23	Salvage / Lifesaver	186	207	216	233	240			256		274	289	
231S	23SS	Stainless Steel Salvage / Lifesaver												
240	24	JIC Female 90° Medium Tube Bend	182	195	212	221	235	242		246	255	269	283	
240S	24SS	Stainless Steel JIC Female 90° Tube Bend												
243	24S	JIC Female 90° Short Tube Bend	182	195	212	221	235							
245	24V	JIC Female High-Pressure 90° Tube Bend				221	235							
250	25	JIC Female 45° Tube Bend	182	195	211	221	235	242		246		268	283	
255	25V	JIC Female High-Pressure 45° Tube Bend					235							
260	26	BSPP Female 90° Tube Bend	179	191	209	218	234	241				265	279	
260S	26SS	Stainless Steel BSPP Female 90° Tube Bend												
270	27	BSPP Female 45° Tube Bend	179	191		218						265	279	
270S	27SS	Stainless Steel BSPP Female 45° Tube Bend												
280	28	JIC Female 90° Long Tube Bend	182	195	212	221						269	283	
290	29	SAE Code 61 Flange 30° Tube Bend				229								
300	30	SAE Code 61 Flange 60° Tube Bend				228								
311	31	BSPP Female 60° Concave (JIS) 90° Tube Bend											279 283	
320	32	BSPT Male Swivel	178	189	209			241	244				278 281	
320N	32N	NPTF Male Swivel	180	192	210				244				281	
330	33	SAE Code 62 Flange				230	238			249				
330S	33SS	Stainless Steel SAE Code 62 Flange												
333	33C	RYCO Code 62C Flange				231	239			249				
335	33K	RYCO Code 62K Flange								250				
340	34	BSPT Male Swivel 90° Elbow	178	189									278	
340N	34N	NPTF Male Swivel 90° Elbow	180	192										
350	35	SAE Code 62 Flange 45° Tube Bend				230	238			249				
353	35C	RYCO Code 62C Flange 45° Tube Bend				231	239			249				
355	35K	RYCO Code 62K Flange 45° Tube Bend								250				
359	35KL	RYCO Code 62K Flange 45° Long Tube Bend												
360	36	SAE Code 62 Flange 67.5° Tube Bend				231	239							
363	36C	RYCO Code 62C Flange 67.5° Tube Bend				232	240							
370	37	SAE Code 62 Flange 90° Tube Bend				231	239			249				
370S	37SS	Stainless Steel SAE Code 62 Flange 90° Tube Bend												
371	37A	SAE Code 62 Flange 90° Long Tube Bend								249				
373	37C	RYCO Code 62C Flange 90° Tube Bend				232	240			249				

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NEW	PREV		T1000	T2000	T4000	T7000	T9000	TT000	TG000	69000N	8000	33000	V000	6000
375	37K		RYCO Code 62K Flange 90° Tube Bend								250			
380	38	UN O Ring Male Swivel (O Ring Boss)	187	208										290
390	39	UN O Ring (Boss) Male Swivel 90° Elbow	187	208										290
400	40	BSPT Male 90° Elbow										258		
400N	40N	NPTF Male 90° Elbow										259		
410	41	BSPP O Ring Male 90° Elbow										258		
420	42	UN O Ring Male 90° Elbow										261		
440	44	SAE Code 62 Flange 22.5° Tube Bend				230	238							
443	44C	RYCO Code 62C Flange 22.5° Tube Bend				231	239							
445	44K	RYCO Code 62K Flange 22.5° Tube Bend								250				
450	45	SAE Code 62 Flange 30° Tube Bend				230	238							
453	45C	RYCO Code 62C Flange 30° Tube Bend				231	239							
460	46	SAE Code 62 Flange 60° Tube Bend				231	239							
463	46C	RYCO Code 62C Flange 60° Tube Bend				232	240							
470	47A	Metric Banjo Straight		200										
475	47B	BSP Banjo Straight		190										
480	48	RYCO WEO Male		204		226								
482	48B	RYCO WEO Male 45° Tube Bend		204		226								
483	48C	RYCO WEO Male 90° Tube Bend		204		226								
501	50	DKOL Female	183	197		222								
501	50R	DKOL Female (Round Bar)	183	197		222								
510	51	DKOL Female 45° Tube Bend	183	197										
520	52	DKOL Female 90° Tube Bend	183	197										
530	53	SAE Male	186	205	214					256		272	286	
540	54	SAE Female	186	205	214		243			256		272	286	
550	55	SAE Female 45° Tube Bend			214							273	287	
560	56	SAE Female 90° Tube Bend			214							273	287	
563	56L	SAE Female 90° Long Tube Bend												287
570	57	SAE Female 90° Elbow	186	205	214					256				286
580	58	SAE Female 45° Elbow	186	205										286
590	59													
600	60	DKL Female		197				243						284
610	61	DKM Female 60° Seat												
620	62	DKS Female												
630	63	DKS Male	184	198	223	223	236		247					285
640	64	Metric Standpipe		207		232				257				289
643	64B	Metric Standpipe 45° Tube Bend		207		232								
646	64C	Metric Standpipe 90° Tube Bend		207		232								
650	65	DKL Male	183	196										284
660	66	DKL Female 45° Tube Bend		197										284
670	67	DKL Female 90° Tube Bend		197				243						284
680	68	Metric Female 60° Concave Seat (JIS)	183 184	196 200		222 224								284 285
682	68B	Metric Female 60° Concave Seat (JIS) 45° Bend												
683	68C	Metric Female 60° Concave Seat (JIS) 90° Bend												

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			T1000	T2000	T4000	T7000	T9000	TT000	TG000	69000N	8000	33000	V000	6000
NEW	PREV													
690	69	DKS Female 45° Tube Bend												
700	70	DKS Female 90° Tube Bend												
711	71	DKOS Female	184	198		223	236			247				285
711	71R	DKOS Female (Round Bar)	184	198		223	236			247				285
720	72	DKOS Female 45° Tube Bend	184	198		223	236			247				285
730	73	DKOS Female 90° Tube Bend	184	198		223	236			247				285
740	74	SAE Inverted Flare Male		205	214						256		273	287
750	75	SAE Inverted Flare Male 45° Tube Bend		205	214								274	287
760	76	SAE Inverted Flare Male 60° Tube Bend		205										287
770	77	SAE Inverted Flare Male 90° Tube Bend		205	214								274	287
780	78	SAE Inverted Flare Male 90° Elbow		205										287
790	79	SAE Inverted Flare Male 90° Long Elbow		205										287
800	80	ORFS Female	185	201	213	225	236			247			270	286
810	81	ORFS Female 45° Tube Bend	185	202	213	225	236			247			270	286
813	81S	ORFS Female 45° Short Tube Bend												
820	82	ORFS Female 90° Medium Tube Bend	185	202	213	225	236			247			271	286
823	82S	ORFS Female 90° Short Tube Bend	185	202		225								
830	83	ORFS Female 90° Long Tube Bend	185	202		225							271	286
840	84	ORFS Male	185	201	213	225				247				
850	85	Tube Bite		208	216									289
860	86M	Grease Line Male												280
861	86	Grease Line Fixed Female		194										280
870	87	STAPLELOK Male		204		227	237			250				
870S	87SS	STAPLELOK Male Stainless Steel												
871	88	STAPLELOK Male 45° Elbow		204		227	237			250				
872	89	STAPLELOK Male 90° Elbow		204		227	237			250				
876	87S	SUPERLOK Male				227	237			250				
876S	87SSS	Stainless Steel SUPERLOK Male												
880	88	RYCO CROCBITE Male		193		219	235			246				
880A	88	RYCO CROCBITE Male HIGH FLOW		194		219								
881	—	RYCO CROCBITE Male 45° Elbow		193		219	235			246				
881A	—	RYCO CROCBITE Male 45° HIGH FLOW				219								
882	—	RYCO CROCBITE Male 90° Elbow		193		219	235			246				
882A	—	RYCO CROCBITE Male 90° Elbow HIGH FLOW				219								
890	89	RYCO RKVF Male HIGH FLOW		203		226								
894	—	RYCO RKVF Female HIGH FLOW		203		226								
896	89	RYCO RKVP Male		203		226	236			247				
899	—	RYCO RKVP Female		203		226	236			247				
900	90	Joiner	183	196		222				246	256			
910	91	SAE Code 61 Flange 110° Tube Bend				230	238							
920	92	Metric French GAZ Male		199		223								
921	92F	Metric French GAZ Female		199		223								
922	92H	Metric French GAZ Female 45° Tube Bend												
923	92G	Metric French GAZ Female 90° Tube Bend		199		223								
924	92M	Metric French Millimetric Male		199		224								

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NEW	PREV		T1000	T2000	T4000	T7000	T9000	TT000	TG000	69000N	8000	33000	V000	6000
925	92N	Metric French Millimetric Female		199		224								
930	93	SAE Code 62 Flange 110° Tube Bend				231	239							
933	93C	RYCO Code 62C Flange 110° Tube Bend				232	240							
940	94	Pressure Washer Female		202										
950	95	Pressure Washer Gun Handle Tube		202										
960B	96	NPSM Female Live Swivel												280
1501	501	Figure 1502 Hammer Union Female (male thread)				233	240			251				
1502	502	Figure 1502 Hammer Union Male (with nut)				233	240			251				
1502A	502A	Figure 1502 Hammer Union Male (reduced head dia.)												
P010	P01	Pilot O Ring Male												
P020	P02	Pilot O Ring Female												
P050	P05	Pilot O Ring Female 90° Elbow												
P240	P24	Pilot O Ring Female 90° Elbow Short												
P340	P34	Pilot O Ring Male 90° Elbow												

EXAMPLES OF PREVIOUS TO NEW HOSE COUPLING PART NUMBERS

EXAMPLE #1	NEW	PREVIOUS
Part #	T2020N-0808	T202N-0808
End Style #	020N	02N
EXAMPLE #2	NEW	PREVIOUS
Part #	T7240-1217	T724-1217
End Style #	240	24
EXAMPLE #3	NEW	PREVIOUS
Part # (insert only)	9333N-2424	933CN-2424
Part # (coupling)	69333N-2424	6933CN-2424
End Style #	333	33C

WORKING PRESSURE OF HOSE ASSEMBLIES

Working Pressure of each Hose Coupling End Style Termination is shown in the Technical section. In most cases, the Working Pressure of the Hose Coupling End Style Termination that can be chosen for a particular hose exceeds the Maximum Working Pressure of the Hose. It is possible however, to select a Hose Coupling with an End Style having a lower Working Pressure than the Hose. In this case, as noted in SAE J516 and SAE J517, the rated Working Pressure of the Hose Assembly must not exceed the lower of the respective Working Pressure rated values.

EXAMPLE 1.

T28A Hose Assembly with **T2040-0812** coupling one end and **T2090-0808** coupling other end.

From page 92, Maximum Working Pressure of **T28A** is 350 bar.

From page 194, Maximum Working Pressure of **T2040-0812** is 690 bar.

From page 192, Maximum Working Pressure of **T2090-0808** is 690 bar.

The Maximum Working Pressure of the Hose Assembly is therefore 350 bar, the lowest of the respective Maximum Working Pressure rated values (in this case, the hose).

EXAMPLE 2.

H5016D Hose Assembly with **T7130-1620** coupling one end and **T7030-1621** coupling other end.

From page 83, Maximum Working Pressure of **H5016D** is 350 bar.

From page 228, Maximum Working Pressure of **T7130-1620** is 280 bar.

From page 220, Maximum Working Pressure of **T7030-1621** is 420 bar.

The Maximum Working Pressure of the Hose Assembly is therefore 280 bar, the lowest of the respective Maximum Working Pressure rated values (in this case, the **T7130-1620**).

33000 SERIES COUPLINGS FOR SR AND SRF SERIES HOSE

The Maximum Working Pressure of a **SR** or **SRF** Series Hose Assembly depends on the couplings used, and the method of attachment. See pages 120 and 121.

33000 Series Couplings with **RSC** Clamps are suited to Suction Applications, and Low Pressure Delivery (up to 25% of Maximum Working Pressure of the hose).

T4000 Bitelok One-Piece Crimp Couplings are suited to Suction Applications, and High Pressure Delivery (up to 100% of Maximum Working Pressure of the hose).

EXAMPLE:

SRF20 Hose Assembly with **33020-2020** Couplings each end secured with **RSC-4347** Clamps.

From page 121, Maximum Working Pressure of **SRF20** hose is 14 bar.

From page 259, Maximum Working Pressure of **33020-2020** coupling is 215 bar.

Maximum Working Pressure of the Hose Assembly is 25% of 14 bar = 3,5 bar.

If this Hose Assembly was made with **T4020-2020** Bitelok One-Piece Crimp Couplings instead:

From page 120, Maximum Working Pressure of **SR20** hose is 14 bar.

From page 209, Maximum Working Pressure of **T4020-2020** coupling is 215 bar.

Maximum Working Pressure of the Hose Assembly is 100% of 14 bar = 14 bar.

8000 SERIES COUPLINGS FOR PL1 AND RQP6 SERIES HOSE

PL1, **PL1D** and **RQP6** Series hose, and **8000** Series Push-On Fittings, are recommended for use in systems with Static Working Pressures (constant loads without pressure spikes) only. They are not recommended for vibration or pressure surge applications.

PL1, **PL1D** and **RQP6** Series hose should not be used at both maximum working pressure and maximum temperature simultaneously.

8000 Series Push-On pages 254 to 257.

Assembly Instructions page 503.

PL1, **PL1D** and **RQP6** Series hose simply pushes on to **8000** Series Couplings, and for Static Working Pressures up to 50% of Maximum Static Working Pressures a clamp is not required. For diesel fuel and other potentially dangerous or critical applications, and Static Working Pressures above 50% of maximum; a clamp around the hose is required. Do not overtighten clamp as this will damage hose. Factory crimped couplings are also available in some sizes. Contact RYCO for more information.

DROP LENGTH & CUT-OFF ALLOWANCE DIMENSIONS FOR COUPLINGS

In this Product Technical Manual, dimensional values for Drop Length (DL) and Cut-off Allowance (C_A) are published.

Due to different manufacturing methods and design changes, DL and C_A values may vary from time to time.

Before attaching couplings to the hose, measure and check that the DL and C_A dimensions of the actual coupling to be used complies with that published, or is suitable for the application.

COUPLINGS

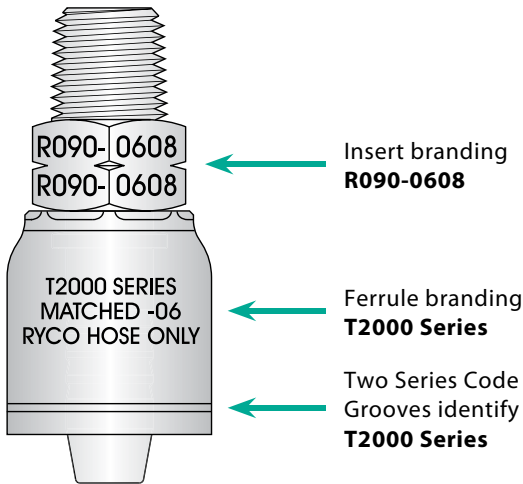
INFORMATION

RYCO BITELOK T1000, T2000, T4000, T7000 AND TT000 SERIES COUPLINGS

Branding of T1000, T2000, T4000, T7000 and TT000 Couplings shows a universal prefix "R".

T1000 has one identification groove, T2000 has two grooves, T4000 has three grooves, T7000 has four grooves and TT000 has two grooves (one at the top and one at the bottom of the ferrule) branded on the ferrule (body) of the Couplings signifying their series designation.

T2000 EXAMPLE



← Insert branding
R090-0608

← Ferrule branding
T2000 Series

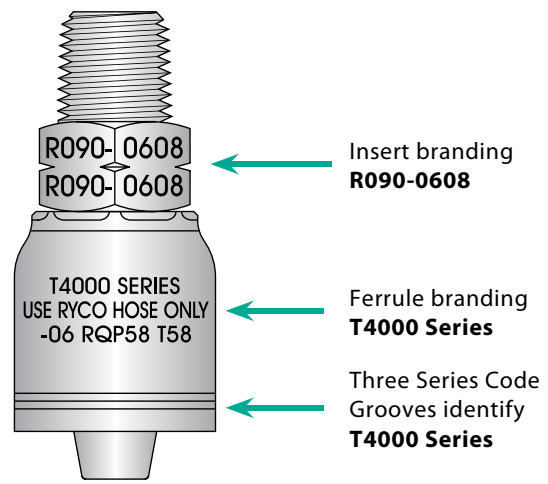
← Two Series Code Grooves identify
T2000 Series

To complete the Part Number for Coupling:
Insert Part Branding is **R090-0608**

Series is **T2000** (from **T2000** Ferrule Branding or Two Series Code Grooves)

Simply replace "R" of Insert Part Branding with "T2" (first two characters of Series): **T2090-0608**

T4000 EXAMPLE



← Insert branding
R090-0608

← Ferrule branding
T4000 Series

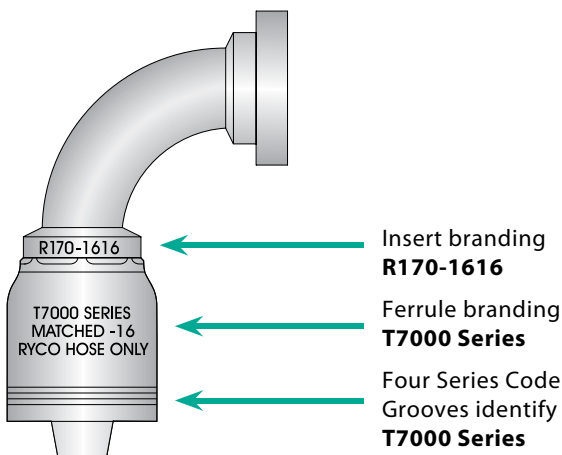
← Three Series Code Grooves identify
T4000 Series

To complete the Part Number for Coupling:
Insert Part Branding is **R090-0608**

Series is **T4000** (from **T4000** Ferrule Branding or Three Series Code Grooves)

Simply replace "R" of Insert Part Branding with "T4" (first two characters of Series): **T4090-0608**

T7000 EXAMPLE



← Insert branding
R170-1616

← Ferrule branding
T7000 Series

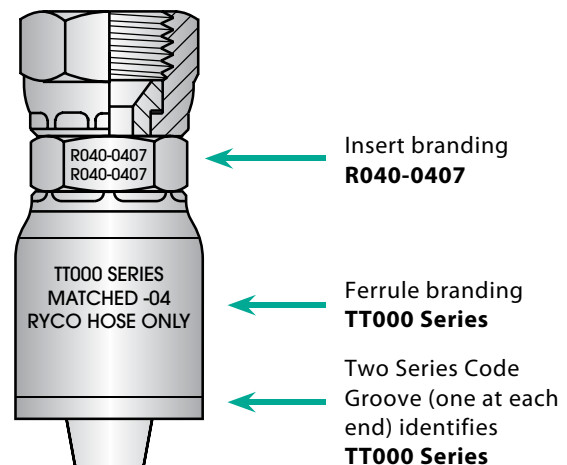
← Four Series Code Grooves identify
T7000 Series

To complete the Part Number for Coupling:
Insert Part Branding is **R170-1616**

Series is **T7000** (from **T7000** Ferrule Branding or Four Series Code Grooves)

Simply replace "R" of Insert Part Branding with "T7" (first two characters of Series): **T7170-1616**

TT000 EXAMPLE



← Insert branding
R040-0407

← Ferrule branding
TT000 Series

← Two Series Code Groove (one at each end) identifies
TT000 Series

To complete the Part Number for Coupling:
Insert Part Branding is **R040-0407**

Series is **TT000** (from Two Series Code Groove, one at each end)

Simply replace "R" of Insert Part Branding with "TT" (first two characters of Series): **TT040-0407**

T1000 SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

HOSE COMPATIBILITY FOR T1000 SERIES

NON-SKIVE

For RYCO Hose Series T3000A, T3000D, T3000S, T3600A, T3600D, T3600S all sizes.
For RYCO Hose Series TP7, TP7N, TP7T, TP7TN, TP8, TP8N, TP8T, TP8TN all sizes.

BSP

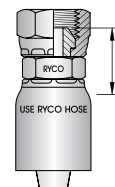
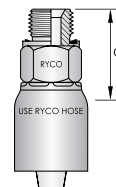
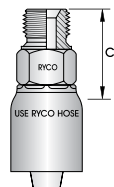
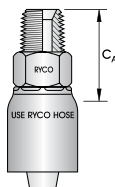
T1010

T1013

T1017

T1020

60° SEAT
EXCEPT T1017
ENCAPSULATED SEAL
INCLUDED



HOSE SIZE		THRD SIZE	DASH SIZE	BSPT MALE	BSPP MALE	BSPP MALE ENCAPSULATED SEAL	BSPP FEMALE	
DN	inch	inch		PART NO	C _A	PART NO	C _A	
6	1/4	1/8	-0402	T1010-0402	25			
6	1/4	1/4	-0404	T1010-0404	30	T1013-0404	27	
6	1/4	3/8	-0406	T1010-0406	30			
6	1/4	1/2	-0408	T1010-0408	32			
8	5/16	1/4	-0504			T1013-0504	25	
8	5/16	3/8	-0506	T1010-0506	25	T1013-0506	25	
8	5/16	1/2	-0508	T1010-0508	32			
10	3/8	1/4	-0604	T1010-0604	33			
10	3/8	3/8	-0606	T1010-0606	33	T1013-0606	33	
10	3/8	1/2	-0608	T1010-0608	35			
12	1/2	3/8	-0806	T1010-0806	37			
12	1/2	1/2	-0808	T1010-0808	40	T1013-0808	31	
12	1/2	5/8	-0810	T1010-0810	41			
12	1/2	3/4	-0812	T1010-0812	41			
15	5/8	1/2	-1008	T1010-1008	41			
15	5/8	5/8	-1010	T1010-1010	41	T1013-1010	34	
16	5/8	3/4	-1012	T1010-1012	41	T1013-1012	40	
19	3/4	3/4	-1212	T1010-1212	41	T1013-1212	40	
19	3/4	1	-1216	T1010-1216	46			
25	1	1	-1616	T1010-1616	48	T1013-1616	45	
25	1	1.1/4	-1620			T1017-1616	45	
							T1020-1620	40

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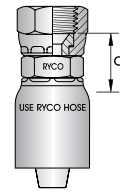
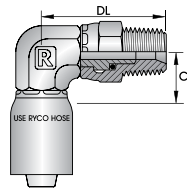
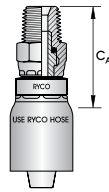
BSP

T1320

T1340

T1120

60° SEAT
SPECIAL SEAT



HOSE SIZE			THRD SIZE	DASH SIZE	BSPT MALE SWIVEL	BSPT MALE SWIVEL 90° ELBOW	BSPP FEMALE 60° CONCAVE SEAT (JIS)				
DN	inch	inch			PART NO	C _A	PART NO	C _A	DL	PART NO	C _A
6	1/4	1/4	-0404							T1120-0404	21
10	3/8	1/4	-0604								
10	3/8	3/8	-0606		T1320-0606	49	T1340-0606	23	44	T1120-0606	22
10	3/8	1/2	-0608		T1320-0608	53	T1340-0608	23	48		
12	1/2	1/2	-0808		T1320-0808	55	T1340-0808	29	50	T1120-0808	27
19	3/4	3/4	-1212				T1340-1212	30	54	T1120-1212	26
25	1	1	-1616							T1120-1616	32

NOTE: These "Live Swivel" T1320 and T1340 Series Couplings are for Maximum Working Pressure: 420 bar (6100 psi): -04 & -06 Thread Size, 350 bar (5100 psi): -08 Thread Size, 280 bar (4100 psi): -12 Thread Size, 215 bar (3100 psi): -16 Thread Size. Their swivel capability is to allow easy installation and orientation and avoid twisting of hose. They are not designed for continuous rotation or continuous movement. This **T1120** Series Coupling is also listed in the **METRIC** section on page 182.

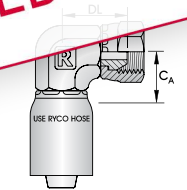
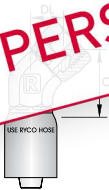
BSP

T1060

T1050

60° SEAT

PRODUCT SUPERSEDED - REFER TO T2000 SERIES



HOSE SIZE			THRD SIZE	DASH SIZE	BSPP FEMALE 45° ELBOW			BSPP FEMALE 90° ELBOW		
DN	inch	inch			PART NO	C _A	DL	PART NO	C _A	DL
6	1/4	1/4	-0404		T1060-0404	30	15	T1050-0404	21	24
6	1/4	3/8	-0406					T1050-0406	21	28
8	5/16	3/8	-0506					T1050-0506		
10	3/8	3/8	-0606		T1060-0606	36	18	T1050-0606	23	28
10	3/8	1/2	-0608					T1050-0608	23	31
12	1/2	1/2	-0808		T1060-0808	40	18	T1050-0808	29	31
19	3/4	3/4	-1212		T1060-1212	44	20	T1050-1212	30	36
25	1	1	-1616		T1060-1616	51	23	T1050-1616	32	40

NOTE: Hose Compatibility for the **T1000** series can be found on page 177.

T1000 SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

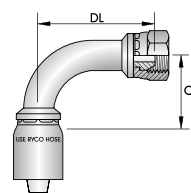
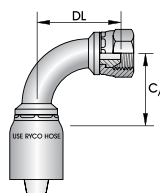
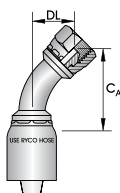
BSP

T1270

T1260

T1210

60° SEAT



HOSE SIZE		THRD SIZE	DASH SIZE	BSPP FEMALE 45° TUBE BEND			BSPP FEMALE 90° TUBE BEND			BSPP FEMALE 90° LONG BEND		
DN	inch	inch		PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL
6	1/4	1/4	-0404	T1270-0404	34	16	T1260-0404	27	29	T1210-0404	25	47
6	1/4	3/8	-0406				T1260-0406	27	28			
8	5/16	1/4	-0504				T1260-0504	28	29			
8	5/16	3/8	-0506	T1270-0506	44	19	T1260-0506	35	34			
10	3/8	3/8	-0606	T1270-0606	43	18	T1260-0606	35	33	T1210-0606	32	55
10	3/8	1/2	-0608	T1270-0608	45	19	T1260-0608	34	33			
12	1/2	1/2	-0808	T1270-0808	49	22	T1260-0808	40	45	T1210-0808	38	70
16	5/8	5/8	-1010	T1270-1010	55	23	T1260-1010	49	50	T1210-1010	44	81
16	5/8	3/4	-1012	T1270-1012	58	28						
19	3/4	3/4	-1212	T1270-1212	70	29	T1260-1212	55	58	T1210-1212	52	96
25	1	1	-1616	T1270-1616	85	41	T1260-1616	67	77	T1210-1616	65	106

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NOTE: Hose Compatibility for the **T1000** series can be found on page 177.

COUPLINGS

T1000 SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

NPT

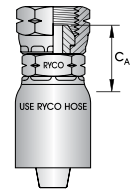
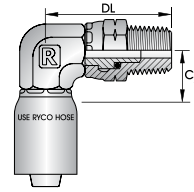
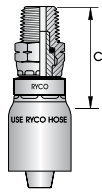
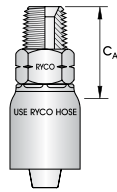
T1090

T1320N

T1340N

T1020N

60° SEAT



HOSE SIZE		THRD SIZE	DASH SIZE	NPT MALE		NPT MALE SWIVEL		NPT MALE SWIVEL 90° ELBOW			NPSM FEMALE	
DN	inch	inch		PART NO	C _A	PART NO	C _A	PART NO	C _A	DL	PART NO	C _A
6	1/4	1/8	-0402	T1090-0402	25	T1320N-0402	39				T1020N-0402	21
6	1/4	1/4	-0404	T1090-0404	30	T1320N-0404	39	T1340N-0404	21	41	T1020N-0404	24
6	1/4	3/8	-0406	T1090-0406	30	T1320N-0406	41					
6	1/4	1/2	-0408	T1090-0408	32							
8	5/16	1/4	-0504	T1090-0504	30							
8	5/16	3/8	-0506	T1090-0506	30							
10	3/8	1/4	-0604	T1090-0604	33	T1320N-0604	39				T1020N-0604	22
10	3/8	3/8	-0606	T1090-0606	33	T1320N-0606	41	T1340N-0606	23	41	T1020N-0606	27
10	3/8	1/2	-0608	T1090-0608	38	T1320N-0608	45				T1020N-0608	28
12	1/2	3/8	-0806	T1090-0806	35	T1320N-0806	42					
12	1/2	1/2	-0808	T1090-0808	40	T1320N-0808	46	T1340N-0808	29	57	T1020N-0808	29
12	1/2	3/4	-0812	T1090-0812	37							
16	5/8	1/2	-1008	T1090-1008	41							
16	5/8	3/4	-1012	T1090-1012	41							
19	3/4	1/2	-1208	T1090-1208	41							
19	3/4	3/4	-1212	T1090-1212	41	T1320N-1212	47	T1340N-1212	30	56	T1020N-1212	28
19	3/4	1	-1216	T1090-1216	43							
25	1	1/2	-1612	T1090-1612	43							
25	1	3/4	-1616	T1090-1616	48	T1320N-1616	58	T1340N-1616	32	69	T1020N-1616	33
25	1	1 1/4	-1620	T1090-1620	46							

PRODUCT SUPERSEDED - REFER TO T2000 SERIES

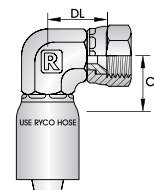
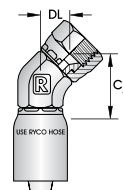
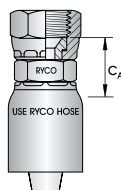
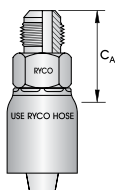
NOTE: These "Live Swivel" **T1320N** and **T1340N** Series Couplings are for Maximum Working Pressure: 420 bar (6100 psi): -04 & -06 Thread Size, 350 bar (5100 psi): -08 Thread Size, 280 bar (4100 psi): -12 Thread Size, 215 bar (3100 psi): -16 Thread Size. Their swivel capability is to allow easy installation and orientation and avoid twisting of hose. They are not designed for continuous rotation or continuous movement.

NOTE: Hose Compatibility for the **T1000** series can be found on page 177.

T1000 SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

JIC	T1030	T1040	T1080	T1070
------------	--------------	--------------	--------------	--------------

37° FLARE



HOSE SIZE		THRD SIZE	TUBE SIZE	DASH SIZE	JIC MALE		JIC FEMALE		JIC FEMALE 45° ELBOW			JIC FEMALE 90° ELBOW		
DN	inch	inch	inch		PART NO	C _A	PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL
6	1/4	3/8	3/8	-0406			T1040-0406	22						
6	1/4	7/16	1/4	-0407	T1030-0407	29	T1040-0407	22	T1080-0407	27	10	T1070-0407	21	17
6	1/4	1/2	5/16	-0408	T1030-0408	29	T1040-0408	22	T1080-0408	27	11	T1070-0408	21	17
6	1/4	9/16	3/8	-0409	T1030-0409	30	T1040-0409	22	T1080-0409	27	11	T1070-0409	21	22
6	1/4	3/4	1/2	-0412	T1030-0412	32	T1040-0412	23						
8	5/16	1/2	5/16	-0508	T1030-0508	29	T1040-0508	22						
8	5/16	9/16	3/8	-0509	T1030-0509	30	T1040-0509	22						
10	3/8	7/16	1/4	-0607			T1040-0607	22						
10	3/8	9/16	3/8	-0609	T1030-0609	32	T1040-0609	22	T1080-0609	30	13	T1070-0609	23	22
10	3/8	3/4	1/2	-0612	T1030-0612	35	T1040-0612	24	T1080-0612	31	14	T1070-0612	23	24
10	3/8	7/8	5/8	-0614	T1030-0614	37	T1040-0614	27						
12	1/2	9/16	3/8	-0809			T1040-0809	24						
12	1/2	3/4	1/2	-0812	T1030-0812	37	T1040-0812	24	T1080-0812	32	14	T1070-0812	29	26
12	1/2	7/8	5/8	-0814	T1030-0814	39	T1040-0814	27	T1080-0814	33	15	T1070-0814	29	28
12	1/2	1.1/16	3/4	-0817	T1030-0817	41	T1040-0817	29				T1070-0817	29	30
16	5/8	3/4	1/2	-1012			T1040-1012	26						
16	5/8	7/8	5/8	-1014	T1030-1014	41	T1040-1014	28						
16	5/8	1.1/8	3/4	-1017	T1030-1017	43	T1040-1017	29						
16	5/8	7/8	5/8	-1214			T1040-1214	29						
19	3/4	1.1/16	3/4	-1217	T1030-1217	43	T1040-1217	30	T1080-1217	37	16	T1070-1217	30	31
19	3/4	1.3/16	7/8	-1219	T1030-1219	44	T1040-1219	31						
19	3/4	1.5/16	1	-1221	T1030-1221	45	T1040-1221	34						
25	1	1.1/16	3/4	-1617			T1040-1617	33						
25	1	1.5/16	1	-1621	T1030-1621	47	T1040-1621	36	T1080-1621	42	20	T1070-1621	32	36
25	1	1.5/8	1.1/4	-1626	T1030-1626	48								

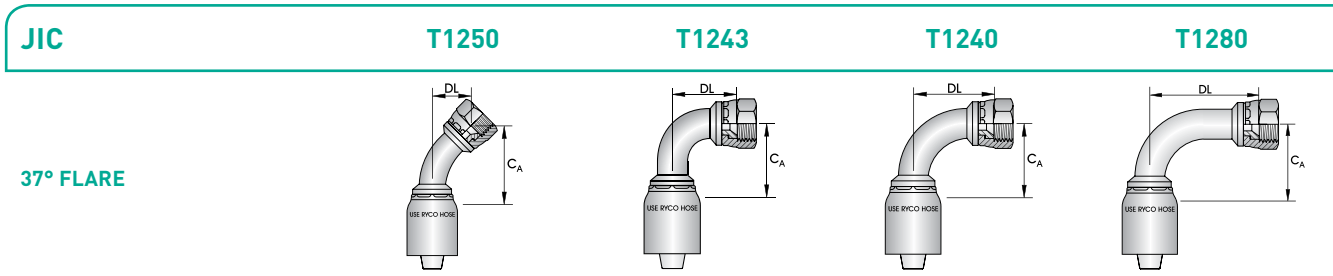
PRODUCT SUPERSEDED - REFER TO T2000 SERIES

NOTE: Hose Compatibility for the **T1000** series can be found on page 177.

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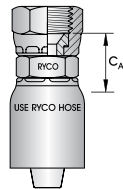
37° FLARE

HOSE SIZE		THRD SIZE	TUBE SIZE	DASH SIZE	JIC FEMALE 45° TUBE BEND	JIC FEMALE 90° SHORT BEND	JIC FEMALE 90° MEDIUM BEND	JIC FEMALE 90° LONG BEND								
DN	inch	inch	inch		PART NO	CA	DL	PART NO	CA	DL	PART NO	CA	DL	PART NO	CA	DL
6	1/4	7/16	1/4	-0407	T1250-0407	31	10	T1243-0407	27	21	T1240-0407	26	32	T1280-0407	43	47
6	1/4	1/2	5/16	-0408	T1250-0408	40	12				T1240-0408	26	32			
6	1/4	9/16	3/8	-0409	T1250-0409	40	12	T1243-0409	27	22	T1240-0409	26	38	T1280-0409	47	54
8	5/16	9/16	3/8	-0509	T1250-0509	39	11				T1240-0509	35	38			
10	3/8	9/16	3/8	-0609	T1250-0609	39	11	T1243-0609	31	23	T1240-0609	35	38	T1280-0609	52	54
10	3/8	3/4	1/2	-0612	T1250-0612	42	15	T1243-0612	31	29	T1240-0612	35	41	T1280-0612	62	64
12	1/2	3/4	1/2	-0812	T1250-0812	45	15	T1243-0812	43	29	T1240-0812	41	41	T1280-0812	53	64
12	1/2	7/8	5/8	-0814	T1250-0814	48	18	T1243-0814	43	33	T1240-0814	41	47	T1280-0814	54	70
12	1/2	1.1/16	3/4	-0817	T1250-0817	47	21				T1240-0817	41	45			
16	5/8	3/4	3/8	-1012							T1240-1012	43	41			
16	5/8	7/8	5/8	-1014	T1250-1014	50	19	T1243-1014	43	32	T1240-1014	48	48	T1280-1014	51	70
16	5/8	1.1/16	3/4	-1017	T1250-1017	54	24	T1243-1017	43	48	T1240-1017	44	50	T1280-1017	51	96
19	3/4	7/8	5/8	-1214							T1240-1214	48	48			
19	3/4	1.1/16	3/4	-1217	T1250-1217	65	22	T1243-1217	48	48	T1240-1217	53	57	T1280-1217	56	96
19	3/4	1.5/16	1	-1221	T1250-1221	74	25	T1243-1221	48	58	T1240-1221	56	71			
25	1	1.5/16	1	-1621	T1250-1621	84	29	T1243-1621	64	58	T1240-1621	68	72	T1280-1621	75	114
25	1	1.5/8	1.1/4	-1626							T1240-1626	68	78			

PRODUCT SUPERSEDED - REFER TO T2000 SERIES

JIS T1120

JAPANESE INDUSTRIAL STANDARD (JIS)
BSPP THREAD FORM
60° CONVEX / CONCAVE SEAT



HOSE SIZE	THRD SIZE	DASH SIZE	BSPP FEMALE 60° CONCAVE SEAT (JIS)	
DN	inch	inch	PART NO	CA
6	1/4	1/4	T1120-0404	21
10	3/8	3/8	T1120-0606	22
10	3/8	1/2	T1120-0608	26
12	1/2	1/2	T1120-0808	27
19	3/4	3/4	T1120-1212	26
25	1	1	T1120-1616	32

NOTE: This T1120 Series Coupling is also listed in the BSP section on page 178.

NOTE: Hose Compatibility for the T1000 series can be found on page 177.

T1000 SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

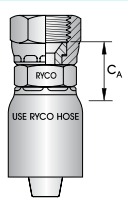
ACCESSORIES

FILTERS

TECHNICAL

JIS T1680

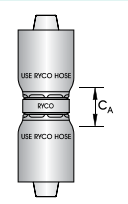
JAPANESE INDUSTRIAL STANDARD (JIS)
"KOMATSU"
METRIC THREAD FORM
60° CONCAVE SEAT



HOSE SIZE		THRD SIZE	DASH SIZE	METRIC FEMALE 60° CONCAVE SEAT (JIS)	
DN	inch	inch		PART NO	C _A
6	1/4	14x1,5	-0414	T1680-0414	20
8	5/16	16x1,5	-0516	T1680-0516	20
10	3/8	18x1,5	-0618	T1680-0618	22
10	3/8	22x1,5	-0622	T1680-0622	26
12	1/2	22x1,5	-0822	T1680-0822	25
12	1/2	24x1,5	-0824	T1680-0824	32
16	5/8	24x1,5	-1024	T1680-1024	25
16	5/8	30x1,5	-1030	T1680-1030	30
19	3/4	24x1,5	-1224	T1680-1224	27
19	3/4	30x1,5	-1230	T1680-1230	30
19	3/4	33x1,5	-1233	T1680-1233	30
25	1	33x1,5	-1633	T1680-1633	28

NOTE: These T1680 Series Couplings are also listed in the METRIC section on page 184.

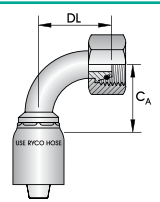
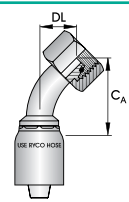
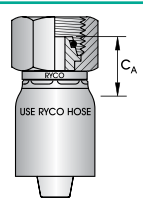
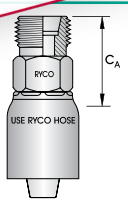
JOINER T1900



HOSE SIZE		DASH SIZE	JOINER	
DN	inch		PART NO	C _A
6	1/4	-0404	T1900-0404	14
8	5/16	-0505	T1900-0505	14
10	3/8	-0606	T1900-0606	15
12	1/2	-0808	T1900-0808	15
16	5/8	-1010	T1900-1010	15
19	3/4	-1212	T1900-1212	15
25	1	-1616	T1900-1616	25

METRIC T1650 T1501 T1510 T1520

DKOL METRIC O RING (LIGHT)
24° CONE



HOSE SIZE		THRD SIZE	TUBE SIZE	DASH SIZE	DKL MALE 24° CONE	DKOL FEMALE 24° CONE	DKOL FEMALE 24° CONE 45° TUBE BEND	DKOL FEMALE 24° CONE 90° TUBE BEND				
DN	inch	mm	mm		PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL
6	1/4	12x1,5	6	-0412	T1650-0412	25	T1501-0412	21	18	T1520-0412	26	31
6	1/4	14x1,5	8	-0414	T1650-0414	25	T1501-0414	22	17	T1520-0414	26	31
6	1/4	16x1,5	10	-0416			T1501-0416	22				
8	5/16	14x1,5	8	-0514			T1501-0514	22				
8	5/16	16x1,5	10	-0516	T1650-0516	29	T1501-0516	23	20	T1520-0516	35	35
8	5/16	18x1,5	12	-0518	T1650-0518	26	T1501-0518	23	20	T1520-0518	35	35
10	3/8	16x1,5	10	-0616	T1650-0616	29	T1501-0616	23	20	T1520-0616	36	35
10	3/8	18x1,5	12	-0618	T1650-0618	29	T1501-0618	23	20	T1520-0618	36	35
10	3/8	22x1,5	15	-0622	T1650-0622	24						
12	1/2	22x1,5	15	-0822	T1650-0822	32	T1501-0822	26	22	T1520-0822	40	44
12	1/2	26x1,5	18	-0826	T1650-0826	32	T1501-0826	29	24	T1520-0826	40	48
16	5/8	26x1,5	18	-1026	T1650-1026	29	T1501-1026	26	28	T1520-1026	48	54
19	3/4	26x1,5	18	-1226			T1501-1226	28				
19	3/4	30x2,0	22	-1230	T1650-1230	31	T1501-1230	27	31	T1520-1230	56	65
25	1	36x2,0	28	-1636	T1650-1636	37	T1501-1636	33	46	T1520-1636	69	79

NOTE: Hose Compatibility for the T1000 series can be found on page 177.

COUPLINGS

T1000 SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

METRIC

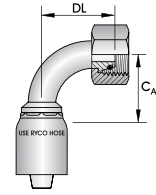
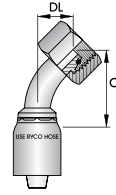
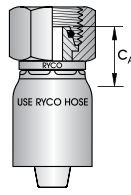
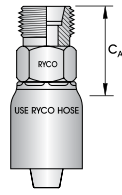
T1630

T1711

T1720

T1730

DKOS
METRIC O RING (HEAVY)
24° CONE

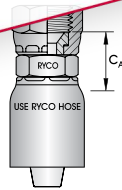


HOSE SIZE	THRD SIZE	TUBE SIZE	DASH SIZE	DKOS MALE 24° CONE	DKOS FEMALE 24° CONE	DKOS FEMALE 24° CONE 45° TUBE BEND	DKOS FEMALE 24° CONE 90° TUBE BEND							
DN	inch	mm	mm	PART NO	C _A	PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL	
6	1/4	14x1,5	6	-0414		T1711-0414	19	T1720-0414	36	16	T1730-0414	27	28	
6	1/4	16x1,5	8	-0416	T1630-0416	27	T1711-0416	22	T1720-0416	36	17	T1730-0416	27	31
6	1/4	18x1,5	10	-0418	T1630-0418	23	T1711-0418	22	T1720-0418	46	20	T1730-0418	27	30
8	5/16	18x1,5	10	-0518		T1711-0518	26	T1720-0518	45	20				
8	5/16	20x1,5	12	-0520	T1630-0520	30	T1711-0520	30	T1720-0520	45	20	T1730-0520	34	37
10	3/8	20x1,5	12	-0620	T1630-0620	30	T1711-0620	24	T1720-0620	45	20	T1730-0620	36	36
10	3/8	22x1,5	14	-0622	T1630-0622	29	T1711-0622	26	T1720-0622	46	20	T1730-0622	35	36
10	3/8	24x1,5	16	-0624		T1711-0624	27							
12	1/2	24x1,5	16	-0824	T1630-0824	30	T1711-0824	28	T1720-0824	53	24	T1730-0824	34	48
16	5/8	30x2,0	20	-1030	T1630-1030	31	T1711-1030	31	T1720-1030	63	21	T1730-1030	44	58
19	3/4	30x2,0	20	-1230	T1630-1230	35	T1711-1230	30	T1720-1230	76	25	T1730-1230	56	68
19	3/4	36x2,0	25	-1236	T1630-1236	37	T1711-1236	30	T1720-1236	76	35	T1730-1236	57	68
25	1	42x2,0	30	-1642	T1630-1642	43	T1711-1642	37	T1720-1642	87	37	T1730-1642	69	77

PRODUCT SUPERSEDED - REFER TO T2000 SERIES

METRIC

JAPANESE INDUSTRIAL
STANDARD (JIS)
"KOMATSU"
METRIC THREAD FORM
60° CONCAVE SEAT



HOSE SIZE	THRD SIZE	DASH SIZE	METRIC FEMALE 60° CONCAVE SEAT (JIS)		
DN	inch	mm	PART NO	C _A	
6	1/4	14x1,5	-0414	T1680-0414	20
8	5/16	16x1,5	-0516	T1680-0516	20
10	3/8	18x1,5	-0618	T1680-0618	22
10	3/8	22x1,5	-0622	T1680-0622	26
12	1/2	22x1,5	-0822	T1680-0822	25
12	1/2	24x1,5	-0824	T1680-0824	32
16	5/8	24x1,5	-1024	T1680-1024	25
16	5/8	30x1,5	-1030	T1680-1030	30
19	3/4	24x1,5	-1224	T1680-1224	27
19	3/4	30x1,5	-1230	T1680-1230	30
19	3/4	33x1,5	-1233	T1680-1233	30
25	1	33x1,5	-1633	T1680-1633	30

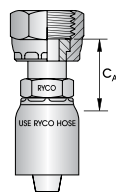
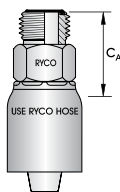
NOTE: This T1680 Series Coupling is also listed in the JIS section on page 183.

NOTE: Hose Compatibility for the T1000 series can be found on page 177.

T1000 SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

ORFS T1840 T1800

O RING
FACE SEAL

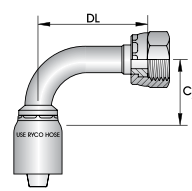
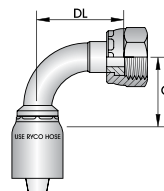
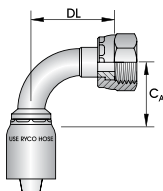
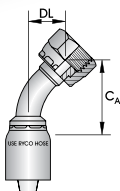


HOSE SIZE		THRD SIZE	TUBE SIZE	DASH SIZE	ORFS MALE		ORFS FEMALE	
DN	inch	inch	inch		PART NO	C _A	PART NO	C _A
6	1/4	9/16	1/4	-0409	T1840-0409	25	T1800-0409	28
6	1/4	11/16	3/8	-0411	T1840-0411	26	T1800-0411	32
8	5/16	11/16	3/8	-0511			T1800-0511	33
10	3/8	9/16	1/4	-0609			T1800-0609	29
10	3/8	11/16	3/8	-0611	T1840-0611	29	T1800-0611	31
10	3/8	13/16	1/2	-0613	T1840-0613	31	T1800-0613	34
12	1/2	11/16	3/8	-0811			T1800-0811	31
12	1/2	13/16	1/2	-0813	T1840-0813	33	T1800-0813	34
12	1/2	1	5/8	-0816	T1840-0816	36	T1800-0816	40
12	1/2	1.3/16	3/4	-0819			T1800-0819	43
16	5/8	1	5/8	-1016	T1840-1016	37	T1800-1016	38
16	5/8	1.3/16	3/4	-1019	T1840-1019	38	T1800-1019	43
19	3/4	1	5/8	-1216			T1800-1216	43
19	3/4	1.3/16	3/4	-1219	T1840-1219	38	T1800-1219	43
19	3/4	1.7/16	1	-1223	T1840-1223	41	T1800-1223	52
25	1	1.7/16	1	-1623	T1840-1623	41	T1800-1623	54

PRODUCT SUPERSEDED - REFER TO T2000 SERIES

ORFS T1810 T1823 T1820 T1830

O RING
FACE SEAL



HOSE SIZE		THRD SIZE	TUBE SIZE	DASH SIZE	ORFS FEMALE 45° TUBE BEND			ORFS FEMALE 90° SHORT BEND			ORFS FEMALE 90° MEDIUM BEND			ORFS FEMALE 90° LONG BEND		
DN	inch	inch	inch		PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL
6	1/4	9/16	1/4	-0409	T1810-0409	39	18	T1823-0409	27	21	T1820-0409	26	32	T1830-0409	28	47
6	1/4	11/16	3/8	-0411	T1810-0411	39	18	T1823-0411	26	26	T1820-0411	32	38	T1830-0411	28	55
8	5/16	11/16	3/8	-0511							T1820-0511	32	38			
10	3/8	11/16	3/8	-0611	T1810-0611	45	21	T1823-0611	32	24	T1820-0611	32	38	T1830-0611	32	54
10	3/8	13/16	1/2	-0613	T1810-0613	40	15	T1823-0613	35	29	T1820-0613	32	41	T1830-0613	33	64
12	1/2	13/16	1/2	-0813	T1810-0813	49	20	T1823-0813	43	30	T1820-0813	38	41	T1830-0813	41	65
12	1/2	1	5/8	-0816	T1810-0816	46	19	T1823-0816	42	35	T1820-0816	41	47	T1830-0816	48	70
12	1/2	1.3/16	3/4	-0819				T1823-0819	42	48	T1820-0819	42	58	T1830-0819	46	96
16	5/8	1	5/8	-1016	T1810-1016	59	20	T1823-1016	40	32	T1820-1016	50	47	T1830-1016	51	70
16	5/8	1.3/16	3/4	-1019	T1810-1019	58	24	T1823-1019	40	48	T1820-1019	45	58	T1830-1019	51	96
19	3/4	13/16	1/2	-1213							T1820-1213	41	41			
19	3/4	1.3/16	3/4	-1219	T1810-1219	64	29	T1823-1219	56	49	T1820-1219	54	59	T1830-1219	58	96
19	3/4	1.7/16	1	-1223	T1810-1223	60	26	T1823-1223	55	56	T1820-1223	56	71	T1830-1223	55	114
25	1	1.7/16	1	-1623	T1810-1623	84	34	T1823-1623	64	56	T1820-1623	69	71	T1830-1623	74	114

NOTE: Hose Compatibility for the T1000 series can be found on page 177.

INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

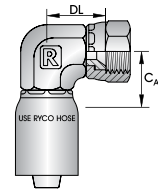
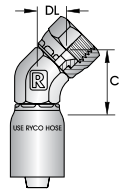
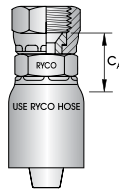
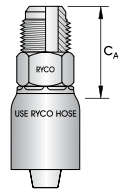
TECHNICAL

COUPLINGS

T1000 SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

SAE	T1530	T1540	T1580	T1570
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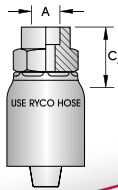
45° FLARE



HOSE SIZE	THRD SIZE	TUBE SIZE	DASH SIZE	SAE MALE	SAE FEMALE	SAE FEMALE 45° ELBOW	SAE FEMALE 90° ELBOW							
DN	inch	inch	inch	PART NO	C _A	PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL	
6	1/4	7/16	1/4	-0407		T1540-0407	19							
6	1/4	5/8	3/8	-0410	T1530-0410	31	T1540-0410	21						
10	3/8	1/2	5/16	-0608	T1530-0608	32	T1540-0608	20	T1580-0608	32	14	T1570-0608	23	22
10	3/8	5/8	3/8	-0610	T1530-0610	34	T1540-0610	20	T1580-0610	32	15	T1570-0610	23	23
19	3/4	1.1/16	3/4	-1217		T1540-1217	26							

SALVAGE	T1230
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TUBE WELD



HOSE SIZE	A	DASH SIZE	SALVAGE (LIFESAVE)		
DN	inch	inch	PART NO	C _A	
6	1/4	3/8	-0404	T1230-0404	18
6	1/4	1/2	-0405	T1230-0405	18
6	1/4	3/8	-0406	T1230-0406	18
10	3/8	3/8	-0606	T1230-0606	19
10	3/8	1/2	-0608	T1230-0608	19
12	1/2	1/2	-0808	T1230-0808	19
12	1/2	5/8	-0810	T1230-0810	21
16	5/8	5/8	-1010	T1230-1010	21
16	5/8	3/4	-1012	T1230-1012	21
19	3/4	3/4	-1212	T1230-1212	21
25	1	1	-1616	T1230-1616	27

PRODUCT SUPERSEDED - REFER TO T2000 SERIES

NOTE: Hose Compatibility for the T1000 series can be found on page 177.

T1000 SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

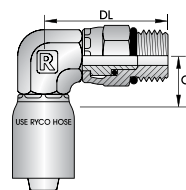
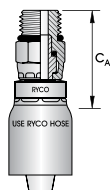
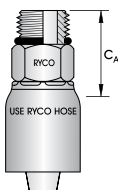
UNO (O RING BOSS)

T1200

T1380

T1390

O RING SUPPLIED



HOSE SIZE		THRD SIZE	TUBE SIZE	DASH SIZE	UN O RING MALE	UN O RING MALE SWIVEL	UN O RING MALE SWIVEL 90° ELBOW				
DN	inch	inch	inch		PART NO	C _A	PART NO	C _A	PART NO	C _A	DL
6	1/4	7/16	1/4	-0407	T1200-0407	25					
6	1/4	1/2	5/16	-0408	T1200-0408	25					
6	1/4	9/16	3/8	-0409	T1200-0409	25					
10	3/8	9/16	3/8	-0609	T1200-0609	28	T1380-0609	41	T1390-0609	23	36
10	3/8	3/4	1/2	-0612	T1200-0612	29	T1380-0612	41	T1390-0612	23	41
10	3/8	7/8	5/8	-0614	T1200-0614	28			T1390-0614	23	38
12	1/2	3/4	1/2	-0812	T1200-0812	31	T1380-0812	42	T1390-0812	29	43
12	1/2	7/8	5/8	-0814	T1200-0814	33	T1380-0814	43	T1390-0814	29	40
12	1/2	1.1/16	3/4	-0817	T1200-0817	32	T1380-0817	42			
16	5/8	7/8	5/8	-1014	T1200-1014	34	T1380-1014	42			
16	5/8	1.1/16	3/4	-1017	T1200-1017	32					
19	3/4	1.1/16	3/4	-1217	T1200-1217	36	T1380-1217	44	T1390-1217	30	44
19	3/4	1.5/16	1	-1221	T1200-1221	34					
25	1	1.5/16	1	-1621	T1200-1621	38					

NOTE: These "Live Swivel" T1380 and T1390 Swivel Couplings are designed for maximum working pressure. 350 bar (5100 psi) -09 & -12 Thread Size, 280 bar (4100 psi) -14 & -17 Thread Size. The flexibility is to allow easy installation and orientation and avoid twisting of hose. They are not designed for continuous rotation or continuous movement.

PRODUCT SUPERSEDED - REFER TO T2000 SERIES

NOTE: Hose Compatibility for the T1000 series can be found on page 177.

INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

COUPLINGS

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

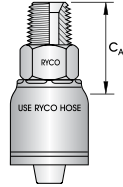
HOSE COMPATIBILITY FOR T2000 SERIES

NON-SKIVE

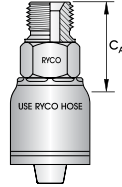
For RYCO Hose Series T3000A, T3000D, T3000S, T3600A, T3600D, T3600S, T4000A, T4000D, T4000S, T5000A, T5000D, T5000S, T6000A, T6000D, T6000S, T1A, T1D, T1F, T1S, T2A, T2D, T2S, T2C, TXA2D, DF2A, RQP1, RQP2, TW1, PW2, E2, BT1, TJ2D, CS1000 and MS1000.

BSP

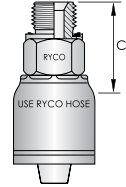
**T2010
(T201)**



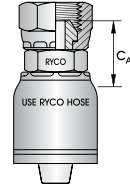
**T2013
(T201P)**



**T2017
(T201C)**



**T2020
(T202)**



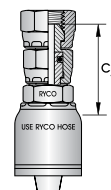
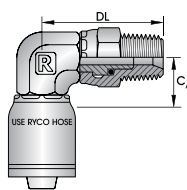
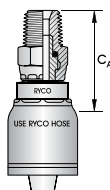
**60° SEAT
EXCEPT T2017
ENCAPSULATED SEAL
INCLUDED**

HOSE SIZE		THRD SIZE	DASH SIZE	BSPT MALE	BSPP MALE	BSPP MALE ENCAPSULATED SEAL	BSPP FEMALE		
DN	inch	inch		PART NO	C_A	PART NO	C_A	PART NO	C_A
5	3/16	1/8	-0302	T2010-0302	25	T2013-0302	25		
6	1/4	1/8	-0402	T2010-0402	25	T2013-0402	24	T2020-0402	23
6	1/4	1/4	-0404	T2010-0404	30	T2013-0404	27	T2017-0404	30
6	1/4	3/8	-0406	T2010-0406	30	T2013-0406	30		
6	1/4	1/2	-0408	T2010-0408	32				
8	5/16	1/4	-0504			T2013-0504	27		
8	5/16	3/8	-0506	T2010-0506	30	T2013-0506	30		
8	5/16	1/2	-0508	T2010-0508	32				
10	3/8	1/4	-0604	T2010-0604	33				
10	3/8	3/8	-0606	T2010-0606	33	T2013-0606	33	T2017-0606	33
10	3/8	1/2	-0608	T2010-0608	38	T2013-0608	32		
12	1/2	3/8	-0806	T2010-0806	35				
12	1/2	1/2	-0808	T2010-0808	40	T2013-0808	31	T2017-0808	37
12	1/2	5/8	-0810	T2010-0810	40	T2013-0810	34		
12	1/2	3/4	-0812						
16	5/8	1/2	-1008	T2010-1008	41				
16	5/8	5/8	-1010	T2010-1010	41	T2013-1010	34		
16	5/8	3/4	-1012	T2010-1012	41	T2013-1012	40		
19	3/4	3/4	-1212	T2010-1212	41	T2013-1212	40	T2017-1212	40
19	3/4	1	-1216	T2010-1216	46				
25	1	1	-1616	T2010-1616	48	T2013-1616	45	T2017-1616	45
25	1	1.1/4	-1620						
31	1.1/4	1.1/4	-2020	T2010-2020	53	T2013-2020	51	T2017-2020	51
38	1.1/2	1.1/2	-2424	T2010-2424	55				
51	2	2	-3232	T2010-3232	66				
63	2.1/2	2.1/2	-4040	T2010-4040					

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

BSP T2320 (T232) T2340 (T234) T2028B (T202S)

60° SEAT

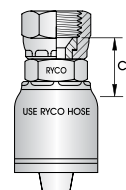
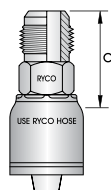
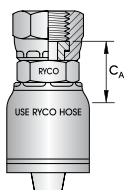


HOSE SIZE		THRD SIZE	DASH SIZE	BSPT MALE SWIVEL		BSPT MALE SWIVEL 90° ELBOW			BSPP FEMALE LIVE SWIVEL	
DN	inch	inch		PART NO	C _A	PART NO	C _A	DL	PART NO	C _A
6	1/4	1/4	-0404						T2028B-0404	40
10	3/8	1/4	-0604						T2028B-0604	41
10	3/8	3/8	-0606	T2320-0606	49	T2340-0606	23	44		
10	3/8	1/2	-0608	T2320-0608	53	T2340-0608	23	48		
12	1/2	1/2	-0808	T2320-0808	55	T2340-0808	29	50		
19	3/4	3/4	-1212			T2340-1212	30	54		

NOTE: These "Live Swivel" T2320, T2340 and T2020S Series Couplings are for Maximum Working Pressure: 420 bar (6100 psi): -04 & -06 Thread Size, 350 bar (5100 psi): -08 Thread Size, 280 bar (4100 psi): -12 Thread Size, 215 bar (3100 psi): -16 Thread Size. Their swivel capability is to allow easy installation and orientation and avoid twisting of hose. They are not designed for continuous rotation or continuous movement.

BSP T2024 (T202F) T2220 (T222) T2120 (T212)

SPECIAL SEATS



HOSE SIZE		THRD SIZE	DASH SIZE	BSPP FEMALE FLAT FACE		BSPP MALE 60° CONVEX SEAT (JIS)		BSPP FEMALE 60° CONCAVE SEAT (JIS)	
DN	inch	inch		PART NO	C _A	PART NO	C _A	PART NO	C _A
6	1/4	1/4	-0404			T222-0404	31	T2120-0404	21
10	3/8	3/8	-0606			T222-0606	35	T2120-0606	22
10	3/8	1/2	-0608	T2024-0608	22			T2120-0608	26
12	1/2	1/2	-0808	T2024-0808	22	T222-0808	39	T2120-0808	27
19	3/4	3/4	-1212					T2120-1212	26
25	1	1	-1616					T2120-1616	32

NOTE: These T2220 and T2120 Series Couplings are also listed in the METRIC section on page 195.

NOTE: Hose Compatibility for the T2000 series can be found on page 188.

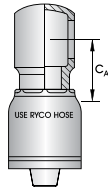
COUPLINGS

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

BSP

T2475

STRAIGHT



HOSE SIZE		THRD SIZE	DASH SIZE	BSP BANJO	
DN	inch	inch		PART NO	C _A
6	1/4	1/4	-0404	T2475-0404	25
8	5/16	3/8	-0506	T2475-0506	27
10	3/8	3/8	-0606	T2475-0606	27
10	3/8	1/2	-0608	T2475-0608	28
12	1/2	1/2	-0808	T2475-0808	29
16	5/8	5/8	-1010	T2475-1010	30
19	3/4	3/4	-1212	T2475-1212	37
25	1	1	-1616	T2475-1616	45

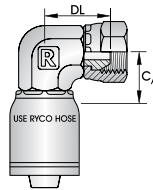
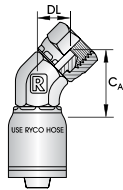
NOTE: Other configurations available on request. For BBB Banjo Bolt see page 366 and RL21D Seal see page 309.

BSP

**T2060
(T206)**

**T2050
(T205)**

60° SEAT



HOSE SIZE		THRD SIZE	DASH SIZE	BSPP FEMALE 45° ELBOW			BSPP FEMALE 90° ELBOW		
DN	inch	inch		PART NO	C _A	DL	PART NO	C _A	DL
6	1/4	1/4	-0404	T2060-0404	30	15	T2050-0404	21	24
6	1/4	3/8	-0406				T2050-0406	21	28
8	5/16	3/8	-0506				T2050-0506	23	28
10	3/8	3/8	-0606	T2060-0606	36	18	T2050-0606	23	28
10	3/8	1/2	-0608				T2050-0608	23	31
12	1/2	1/2	-0808	T2060-0808	40	18	T2050-0808	29	31
19	3/4	3/4	-1212	T2060-1212	44	20	T2050-1212	30	36
25	1	1	-1616	T2060-1616	51	23	T2050-1616	32	40
31	1.1/4	1.1/4	-2020	T2060-2020	42	25	T2050-2020	43	49
38	1.1/2	1.1/2	-2424				T2050-2424	60	59
51	2	2	-3232				T2050-3232	56	62

NOTE: Hose Compatibility for the **T2000** series can be found on page 188.

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

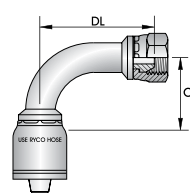
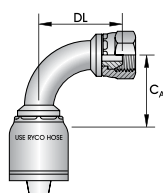
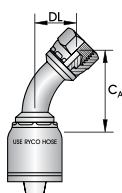
BSP

T2270
(T227)

T2260
(T226)

T2210
(T221)

60° SEAT



HOSE SIZE			THRD SIZE	DASH SIZE	BSPP FEMALE 45° TUBE BEND			BSPP FEMALE 90° TUBE BEND			BSPP FEMALE 90° LONG BEND		
DN	inch	inch		PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL	
6	1/4	1/8	-0402				T2260-0402	27	29				
6	1/4	1/4	-0404	T2270-0404	35	17	T2260-0404	27	29	T2210-0404	25	47	
6	1/4	3/8	-0406				T2260-0406	27	28				
8	5/16	1/4	-0504				T2260-0504	27	29				
8	5/16	3/8	-0506	T2270-0506	44	19	T2260-0506	35	34				
10	3/8	3/8	-0606	T2270-0606	43	18	T2260-0606	35	34	T2210-0606	32	55	
10	3/8	1/2	-0608	T2270-0608	45	19	T2260-0608	34	33				
12	1/2	1/2	-0808	T2270-0808	49	22	T2260-0808	40	45	T2210-0808	38	70	
12	1/2	5/8	-0810	T2270-0810	49	23	T2260-0810	40	45	T2210-0810	40	72	
16	5/8	5/8	-1010	T2270-1010	55	23	T2260-1010	49	50	T2210-1010	44	81	
16	5/8	3/4	-1012	T2270-1012	58	28							
19	3/4	3/4	-1212	T2270-1212	70	29	T2260-1212	55	58	T2210-1212	52	96	
25	1	1	-1616	T2270-1616	85	41	T2260-1616	67	72	T2210-1616	65	116	
31	1.1/4	1	-2016				T2260-2016	69	77				
31	1.1/4	1.1/4	-2020	T2270-2020	105	46	T2260-2020	90	91	T2210-2020	86	142	
	1.3/8	1.1/2	-2224	T2270-2224	118	52	T2260-2224	100	106				
38	1.1/2	1.1/2	-2424	T2270-2424	118	52	T2260-2424	104	105				
51	2	2	-3232	T2270-3232	142	65	T2260-3232	137	132				

NOTE: Hose Compatibility for the **T2000** series can be found on page 188.

COUPLINGS

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

NPT

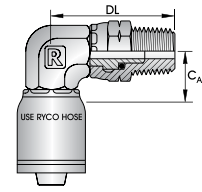
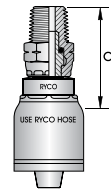
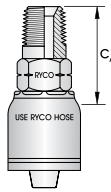
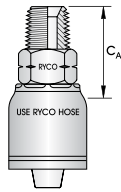
T2090
(T209)

T2091
(T209E)

T2320N
(T232N)

T2340N
(T234N)

60° SEAT



HOSE SIZE		THRD SIZE	DASH SIZE	NPT MALE	NPT MALE EXTENDED	NPT MALE SWIVEL	NPT MALE SWIVEL 90° ELBOW					
DN	inch	inch		PART NO	C _A	PART NO	C _A	PART NO	C _A	PART NO	C _A	DL
5	3/16	1/8	-0302	T2090-0302	24							
5	3/16	1/4	-0304	T2090-0304	30							
6	1/4	1/8	-0402	T2090-0402	25			T2320N-0402	42			
6	1/4	1/4	-0404	T2090-0404	30			T2320N-0404	42	T2340N-0404	21	41
6	1/4	3/8	-0406	T2090-0406	30	T2091-0406	38	T2320N-0406	41			
6	1/4	1/2	-0408	T2090-0408	32							
8	5/16	1/4	-0504	T2090-0504	30							
8	5/16	3/8	-0506	T2090-0506	30							
10	3/8	1/4	-0604	T2090-0604	33			T2320N-0604	39			
10	3/8	3/8	-0606	T2090-0606	33	T2091-0606	41	T2320N-0606	41	T2340N-0606	23	41
10	3/8	1/2	-0608	T2090-0608	38			T2320N-0608	45			
12	1/2	3/8	-0806	T2090-0806	35			T2320N-0806	42			
12	1/2	1/2	-0808	T2090-0808	40			T2320N-0808	46	T2340N-0808	29	51
12	1/2	3/4	-0812	T2090-0812	37							
16	5/8	1/2	-1008	T2090-1008	41							
16	5/8	3/4	-1012	T2090-1012	41							
19	3/4	1/2	-1208	T2090-1208	41							
19	3/4	3/4	-1212	T2090-1212	41			T2320N-1212	47	T2340N-1212	30	55
19	3/4	1	-1216	T2090-1216	43							
25	1	3/4	-1612	T2090-1612	43							
25	1	1	-1616	T2090-1616	48			T2320N-1616	58	T2340N-1616	32	73
25	1	1.1/4	-1620	T2090-1620	46							
31	1.1/4	1	-2016	T2090-2016	52							
31	1.1/4	1.1/4	-2020	T2090-2020	53							
38	1.1/2	1.1/2	-2424	T2090-2424	55							
51	2	2	-3232	T2090-3232	56							

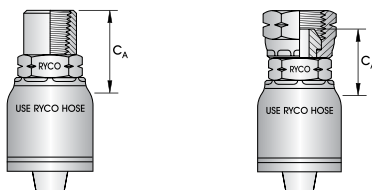
NOTE: These "Live Swivel" **T2320N** and **T2340N** Series Couplings are for Maximum Working Pressure: 420 bar (6100 psi): -04 & -06 Thread Size, 350 bar (5100 psi): -08 Thread Size, 280 bar (4100 psi): -12 Thread Size, 215 bar (3100 psi): -16 Thread Size. Their swivel capability is to allow easy installation and orientation and avoid twisting of hose. They are not designed for continuous rotation or continuous movement.

NOTE: Hose Compatibility for the **T2000** series can be found on page 188.

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

NPT T2190 (T219) T2020N (T202N)

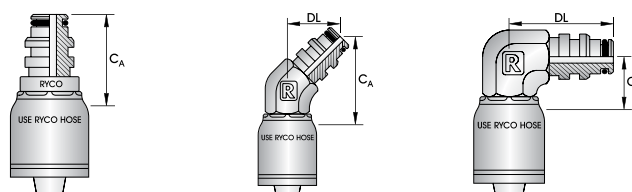
60° SEAT



HOSE SIZE		THRD SIZE	DASH SIZE	NPT FIXED FEMALE		NPSM FEMALE	
DN	inch	inch		PART NO	C _A	PART NO	C _A
6	1/4	1/8	-0402			T2020N-0402	
6	1/4	1/4	-0404	T2190-0404	26	T2020N-0404	24
6	1/4	3/8	-0406	T2190-0406	28		
10	3/8	1/4	-0604			T2020N-0604	22
10	3/8	3/8	-0606	T2190-0606	29	T2020N-0606	27
10	3/8	1/2	-0608	T2190-0608	33	T2020N-0608	28
12	1/2	3/8	-0806	T2190-0806	28		
12	1/2	1/2	-0808	T2190-0808	34	T2020N-0808	29
16	5/8	3/4	-1012	T2190-1012	37		
19	3/4	3/4	-1212	T2190-1212	36	T2020N-1212	28
25	1	1	-1616			T2020N-1616	33
31	1.1/4	1.1/4	-2020			T2020N-2020	41
38	1.1/2	1.1/2	-2424			T2020N-2424	45
51	2	2	-3232			T2020N-3232	54

CROCBITE T2880 T2881 T2882

CROCBITE
HIGH PRESSURE



HOSE SIZE		MWP	DASH SIZE	CROCBITE MALE	CROCBITE MALE 45° ELBOW			CROCBITE MALE 90° ELBOW			
DN	inch	bar		PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL
10	3/8	450	-0610	T2880-0610	39	T2881-0610	43	28	T2882-0610	23	49
12	1/2	450	-0812	T2880-0812	39	T2881-0812	45	28	T2882-0812	29	51
19	3/4	420	-1220	T2880-1220	48	T2881-1220	58	34	T2882-1220	35	60
25	1	420	-1625	T2880-1625	65	T2881-1625	73	48	T2882-1625	45	84
31	1.1/4	420	-2032	T2880-2032	68	T2881-2032	77	50	T2882-2032	52	94
38	1.1/2	420	-2440	T2880-2440	71	T2881-2440	88	53	T2882-2440	61	101
51	2	420	-3250	T2880-3250	97	T2881-3250	107	73	T2882-3250	66	135
63	2.1/2	350	-4063	T2880-4063	97	T2881-4063	114	75	T2882-4063	80	146

NOTE: Hose Compatibility for the **T2000** series can be found on page 188.

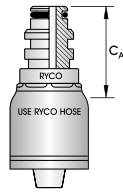
COUPLINGS

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

CROCBITE

T2880A

CROCBITE
HIGH FLOW

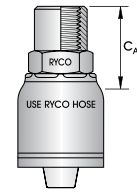


HOSE SIZE		MWP	DASH SIZE	CROCBITE MALE	
DN	inch	bar		PART NO	C _A
51	2	350	-3250	T2880A-3250	94
63	2.1/2	280	-4063	T2880A-4063	93
76	3	215	-4875	T2880A-4875	

GREASE LINE

T2861 (T286)

60° SEAT



HOSE SIZE		THRD SIZE	DASH SIZE	GREASE LINE FIXED FEMALE	
DN	inch	inch		PART NO	C _A
6	1/4	1/2-27TPI	-0408	T2861-0408	23

JIC

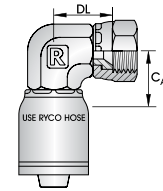
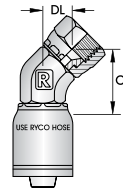
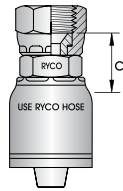
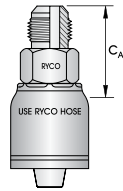
T2030 (T203)

T2040 (T204)

T2080 (T208)

T2070 (T207)

37° FLARE



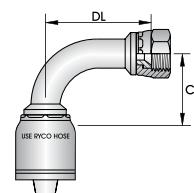
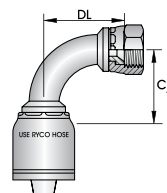
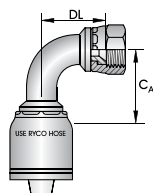
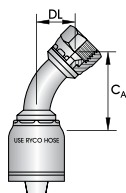
HOSE SIZE		THRD SIZE	TUBE SIZE	DASH SIZE	JIC MALE		JIC FEMALE		JIC FEMALE 45° ELBOW		JIC FEMALE 90° ELBOW			
DN	inch	inch	inch		PART NO	C _A	PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL
5	3/16	7/16	1/4	-0307			T2040-0307	22				T2070-0307	22	17
6	1/4	3/8	3/16	-0406			T2040-0406	22						
6	1/4	7/16	1/4	-0407	T2030-0407	29	T2040-0407	22	T2080-0407	27	10	T2070-0407	21	17
6	1/4	1/2	5/16	-0408	T2030-0408	29	T2040-0408	22	T2080-0408	27	11	T2070-0408	21	17
6	1/4	9/16	3/8	-0409	T2030-0409	30	T2040-0409	22	T2080-0409	27	11	T2070-0409	21	22
6	1/4	3/4	1/2	-0412	T2030-0412	32	T2040-0412	23						
8	5/16	1/2	5/16	-0508	T2030-0508	29	T2040-0508	22						
8	5/16	9/16	3/8	-0509	T2030-0509	30	T2040-0509	22						
10	3/8	7/16	1/4	-0607			T2040-0607	22						
10	3/8	9/16	3/8	-0609	T2030-0609	32	T2040-0609	22	T2080-0609	30	13	T2070-0609	23	22
10	3/8	3/4	1/2	-0612	T2030-0612	35	T2040-0612	24	T2080-0612	31	14	T2070-0612	23	24
10	3/8	7/8	5/8	-0614	T2030-0614	37	T2040-0614	27						
12	1/2	9/16	3/8	-0809			T2040-0809	24						
12	1/2	3/4	1/2	-0812	T2030-0812	37	T2040-0812	25	T2080-0812	32	14	T2070-0812	29	26
12	1/2	7/8	5/8	-0814	T2030-0814	39	T2040-0814	27	T2080-0814	33	15	T2070-0814	29	28
12	1/2	1.1/16	3/4	-0817	T2030-0817	42	T2040-0817	29				T2070-0817	29	30
16	5/8	3/4	1/2	-1012			T2040-1012	26						
16	5/8	7/8	5/8	-1014	T2030-1014	41	T2040-1014	28						
16	5/8	1.1/16	3/4	-1017	T2030-1017	43	T2040-1017	29						
19	3/4	7/8	5/8	-1214			T2040-1214	29						
19	3/4	1.1/16	3/4	-1217	T2030-1217	43	T2040-1217	30	T2080-1217	37	16	T2070-1217	30	31
19	3/4	1.3/16	7/8	-1219	T2030-1219	44	T2040-1219	31						
19	3/4	1.5/16	1	-1221	T2030-1221	45	T2040-1221	34						
25	1	1.1/16	3/4	-1617			T2040-1617	33						
25	1	1.5/16	1	-1621	T2030-1621	47	T2040-1621	36	T2080-1621	42	20	T2070-1621	32	36
25	1	1.5/8	1.1/4	-1626	T2030-1626	48								
31	1.1/4	1.5/8	1.1/4	-2026	T2030-2026	52	T2040-2026	44						
38	1.1/2	1.7/8	1.1/2	-2430	T2030-2430	57	T2040-2430	49						
51	2	2.1/2	2	-3240	T2030-3240	73	T2040-3240	60						
63	2.1/2	3	2.1/2	-4048	T2030-4048		T2040-4048	39						

NOTE: Hose Compatibility for the T2000 series can be found on page 188.

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

JIC T2250 (T225) T2243 (T224S) T2240 (T224) T2280 (T228)

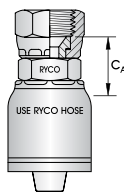
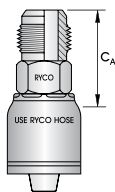
37° FLARE



HOSE SIZE				THRD SIZE	TUBE SIZE	DASH SIZE	JIC FEMALE 45° TUBE BEND			JIC FEMALE 90° SHORT BEND			JIC FEMALE 90° MEDIUM BEND			JIC FEMALE 90° LONG BEND		
DN	inch	inch	inch		PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL		
6	1/4	7/16	1/4	-0407	T2250-0407	31	10	T2243-0407	27	21	T2240-0407	26	32	T2280-0407	43	47		
6	1/4	1/2	5/16	-0408	T2250-0408	40	12				T2240-0408	26	32					
6	1/4	9/16	3/8	-0409	T2250-0409	40	12	T2243-0409	27	22	T2240-0409	26	38	T2280-0409	47	54		
8	5/16	9/16	3/8	-0509	T2250-0509	39	11				T2240-0509	35	38					
10	3/8	7/16	1/4	-0607							T2240-0607	27	25					
10	3/8	9/16	3/8	-0609	T2250-0609	39	11	T2243-0609	31	21	T2240-0609	35	38	T2280-0609	52	54		
10	3/8	3/4	1/2	-0612	T2250-0612	42	15				T2240-0612	35	41	T2280-0612	59	64		
12	1/2	3/4	1/2	-0812	T2250-0812	45	15	T2243-0812	43	29	T2240-0812	41	41	T2280-0812	53	64		
12	1/2	7/8	5/8	-0814	T2250-0814	48	18				T2240-0814	41	47	T2280-0814	54	70		
12	1/2	1.1/16	3/4	-0817	T2250-0817	47	21				T2240-0817	41	45					
16	5/8	3/4		-1012							T2240-1012	43	41					
16	5/8	7/8	5/8	-1014	T2250-1014	50	19	T2243-1014	43	32	T2240-1014	48	47	T2280-1014	51	70		
16	5/8	1.1/16	3/4	-1017	T2250-1017	52	24				T2240-1017	48	57	T2280-1017	51	96		
19	3/4	7/8	5/8	-1214							T2240-1214	48	48					
19	3/4	1.1/16	3/4	-1217	T2250-1217	65	22				T2240-1217	55	57	T2280-1217	56	96		
19	3/4	1.5/16	1	-1221	T2250-1221	74	28				T2240-1221	55	71					
25	1	1.5/16	1	-1621	T2250-1621	77	30				T2240-1621	68	73	T2280-1621	75	114		
25	1	1.5/8	1.1/4	-1626							T2240-1626	68	78					
31	1.1/4	1.5/8	1.1/4	-2026	T2250-2026	97	39				T2240-2026	88	82	T2280-2026	86	129		
38	1.1/2	1.7/8		-2430	T2250-2430	121	50				T2240-2430	106	106	T2280-2430	104	141		
51	2	2.1/2		-3240	T2250-3240	152	63				T2240-3240	136	132	T2280-3240	136	222		

JIS T2220 (T222) T2120 (T212)

JAPANESE INDUSTRIAL STANDARD (JIS)
BSPP THREAD FORM
60° CONVEX / CONCAVE SEAT



HOSE SIZE				THRD SIZE	DASH SIZE	BSPP MALE 60° CONVEX SEAT (JIS)		BSPP FEMALE 60° CONCAVE SEAT (JIS)	
DN	inch	inch		PART NO	C _A	PART NO	C _A		
6	1/4	1/4	-0404	T2220-0404	31	T2120-0404	21		
10	3/8	3/8	-0606	T2220-0606	35	T2120-0606	22		
10	3/8	1/2	-0608			T2120-0608	26		
12	1/2	1/2	-0808	T2220-0808	39	T2120-0808	27		
19	3/4	3/4	-1212			T2120-1212	26		
25	1	1	-1616			T2120-1616	32		

NOTE: These T2220 and T2120 Series Couplings are also listed in the BSP section on page 189.

NOTE: Hose Compatibility for the T2000 series can be found on page 188.

INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

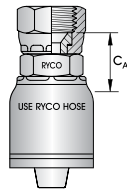
COUPLINGS

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

JIS

T2680 (T268)

JAPANESE INDUSTRIAL
STANDARD (JIS)
"KOMATSU"
METRIC THREAD FORM
60° CONCAVE SEAT



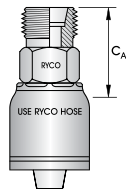
HOSE SIZE		THRD SIZE	DASH SIZE	METRIC FEMALE 60° CONCAVE SEAT (JIS)	
DN	inch	inch		PART NO	C _A
6	1/4	14x1,5	-0414	T2680-0414	20
8	5/16	16x1,5	-0516	T2680-0516	20
10	3/8	18x1,5	-0618	T2680-0618	22
10	3/8	22x1,5	-0622	T2680-0622	26
12	1/2	22x1,5	-0822	T2680-0822	25
12	1/2	24x1,5	-0824	T2680-0824	32
16	5/8	24x1,5	-1024	T2680-1024	25
16	5/8	30x1,5	-1030	T2680-1030	30
19	3/4	24x1,5	-1224	T2680-1224	27
19	3/4	30x1,5	-1230	T2680-1230	30
19	3/4	33x1,5	-1233	T2680-1233	30
25	1	33x1,5	-1633	T2680-1633	28
31	1.1/4	36x1,5	-2036	T2680-2036	31
31	1.1/4	42x1,5	-2042	T2680-2042	32

NOTE: These T2680 Series Couplings are also listed in the **METRIC** section on page 200.

METRIC

T2650 (T265)

DKL
METRIC (LIGHT)
24° CONE

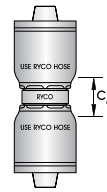


HOSE SIZE		THRD SIZE	TUBE SIZE	DASH SIZE	DKL MALE 24° CONE	
DN	inch	mm	mm		PART NO	C _A
6	1/4	12x1,5	6	-0412	T2650-0412	25
6	1/4	14x1,5	8	-0414	T2650-0414	25
6	1/4	16x1,5	10	-0416	T2650-0416	26
8	5/16	16x1,5	10	-0516	T2650-0516	29
8	5/16	18x1,5	12	-0518	T2650-0518	26
10	3/8	16x1,5	10	-0616	T2650-0616	29
10	3/8	18x1,5	12	-0618	T2650-0618	29
10	3/8	22x1,5	15	-0622	T2650-0622	24
12	1/2	22x1,5	15	-0822	T2650-0822	32
12	1/2	26x1,5	18	-0826	T2650-0826	32
16	5/8	26x1,5	18	-1026	T2650-1026	29
19	3/4	30x2,0	22	-1230	T2650-1230	31
25	1	36x2,0	28	-1636	T2650-1636	37

NOTE: Hose Compatibility for the **T2000** series can be found on page 188.

JOINER

T2900 (T290)



HOSE SIZE		THRD SIZE	DASH SIZE	JOINER	
DN	inch	inch		PART NO	C _A
6	1/4	1/4	-0404	T2900-0404	14
8	5/16	5/16	-0505	T2900-0505	14
10	3/8	3/8	-0606	T2900-0606	15
12	1/2	1/2	-0808	T2900-0808	15
16	5/8	5/8	-1010	T2900-1010	15
19	3/4	3/4	-1212	T2900-1212	15
25	1	1	-1616	T2900-1616	25
31	1.1/4	1.1/4	-2020	T2900-2020	25
38	1.1/2	1.1/2	-2424	T2900-2424	26
51	2	2	-3232	T2900-3232	26
63	2.1/2	2.1/2	-4040	T2900-4040	26
76	3	3	-4848	T2900-4848	

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

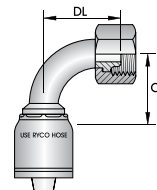
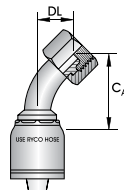
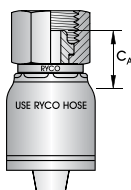
METRIC

T2600
(T260)

T2660
(T266)

T2670
(T267)

DKL
METRIC (LIGHT)
RYCO DKL FEMALE SWIVELS
UP TO M26 SIZE HAVE
MULTISEAL DKL 24° AND DKM
60° CONE. M30 AND OVER HAVE
DKL 24° CONE ONLY.



HOSE SIZE		THRD SIZE	TUBE SIZE	DASH SIZE	DKL FEMALE 24°/60° CONE	DKL FEMALE 24°/60° CONE 45° TUBE BEND	DKL FEMALE 24°/60° CONE 90° TUBE BEND					
DN	inch	mm	mm		PART NO	C _A	PART NO	CA	DL	PART NO	C _A	DL
6	1/4	12x1,5	6	-0412	T2600-0412	21	T2660-0412	36	18	T2670-0412	27	31
6	1/4	14x1,5	8	-0414	T2600-0414	21	T2660-0414	36	17	T2670-0414	27	31
6	1/4	16x1,5	10	-0416	T2600-0416	23				T2670-0416	27	32
8	5/16	16x1,5	10	-0516	T2600-0516	23	T2660-0516	45	20	T2670-0516	35	35
8	5/16	18x1,5	12	-0518	T2600-0518	25						
10	3/8	16x1,5	10	-0616	T2600-0616	23	T2660-0616	45	20	T2670-0616	35	35
10	3/8	18x1,5	12	-0618	T2600-0618	23	T2660-0618	45	20	T2670-0618	35	35
12	1/2	22x1,5	15	-0822	T2600-0822	25	T2660-0822	60	22	T2670-0822	40	44
12	1/2	26x1,5	18	-0826	T2600-0826	26	T2660-0826	50	22	T2670-0826	41	53
16	5/8	26x1,5	18	-1026	T2600-1026	26	T2660-1026	60	28	T2670-1026	48	53
19	3/4	30x2,0	22	-1230	T2600-1230	26	T2660-1230	73	32	T2670-1230	56	64
25	1	36x2,0	28	-1636	T2600-1636	28	T2660-1636	82	42	T2670-1636	69	73
31	1.1/4	45x2,0	35	-2045	T2600-2045	34						

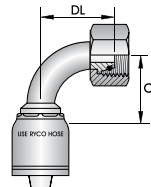
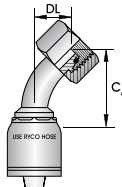
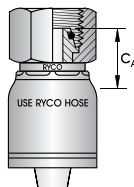
METRIC

T2501
(T250 & T250R)

T2510
(T251)

T2520
(T252)

DKOL
METRIC O RING (LIGHT)
24° CONE



HOSE SIZE		THRD SIZE	TUBE SIZE	DASH SIZE	DKOL FEMALE 24° CONE	DKOL FEMALE 24° CONE 45° TUBE BEND	DKOL FEMALE 24° CONE 90° TUBE BEND					
DN	inch	mm	mm		PART NO	C _A	PART NO	CA	DL	PART NO	C _A	DL
6	1/4	12x1,5	6	-0412	T2501-0412	21	T2510-0412	36	18	T2520-0412	26	31
6	1/4	14x1,5	8	-0414	T2501-0414	22	T2510-0414	35	17	T2520-0414	26	31
6	1/4	16x1,5	10	-0416	T2501-0416	22						
8	5/16	14x1,5	8	-0514	T2501-0514	22						
8	5/16	16x1,5	10	-0516	T2501-0516	23	T2510-0516	45	20	T2520-0516	35	35
8	5/16	18x1,5	12	-0518	T2501-0518	23	T2510-0518	45	20	T2520-0518	35	35
10	3/8	16x1,5	10	-0616	T2501-0616	23	T2510-0616	45	20	T2520-0616	36	35
10	3/8	18x1,5	12	-0618	T2501-0618	23	T2510-0618	45	20	T2520-0618	36	35
12	1/2	22x1,5	15	-0822	T2501-0822	26	T2510-0822	51	22	T2520-0822	40	44
12	1/2	26x1,5	18	-0826	T2501-0826	29	T2510-0826	53	24	T2520-0826	40	48
16	5/8	26x1,5	18	-1026	T2501-1026	26	T2510-1026	59	28	T2520-1026	48	54
19	3/4	26x1,5	18	-1226	T2501-1226	28						
19	3/4	30x2,0	22	-1230	T2501-1230	27	T2510-1230	73	31	T2520-1230	56	65
25	1	36x2,0	28	-1636	T2501-1636	33	T2510-1636	91	46	T2520-1636	69	79
31	1.1/4	45x2,0	35	-2045	T2501-2045		T2510-2045	101	40	T2520-2045	88	72
38	1.1/2	52x2,0	42	-2452	T2501-2452		T2510-2452			T2520-2452		

NOTE: Hose Compatibility for the T2000 series can be found on page 188.

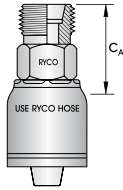
COUPLINGS

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

METRIC

T2630
(T263)

DKS
METRIC (HEAVY)
24° CONE



HOSE SIZE	THRD SIZE	TUBE SIZE	DASH SIZE	DKS MALE 24° CONE	PART NO	C _A
6	1/4	16x1,5	8	-0416	T2630-0416	27
6	1/4	18x1,5	10	-0418	T2630-0418	23
8	5/16	20x1,5	12	-0520	T2630-0520	30
10	3/8	20x1,5	12	-0620	T2630-0620	30
10	3/8	22x1,5	14	-0622	T2630-0622	29
12	1/2	24x1,5	16	-0824	T2630-0824	30
16	5/8	30x2,0	20	-1030	T2630-1030	31
19	3/4	30x2,0	20	-1230	T2630-1230	35
19	3/4	36x2,0	25	-1236	T2630-1236	37
25	1	42x2,0	30	-1642	T2630-1642	43
31	1.1/4	52x2,0	38	-2052	T2630-2052	47

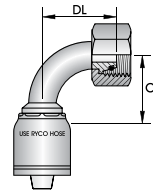
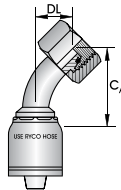
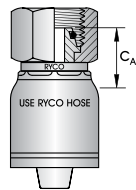
METRIC

T2711
(T271)

T2720
(T272)

T2730
(T273)

DKOS
METRIC O RING (HEAVY)
24° CONE



HOSE SIZE	THRD SIZE	TUBE SIZE	DASH SIZE	DKOS FEMALE 24° CONE	DKOS FEMALE 24° CONE	DKOS FEMALE 24° CONE						
DN	inch	mm	mm	PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL	
6	1/4	14x1,5	6	-0414	T2711-0414	19	T2720-0414	35	16	T2730-0414	27	28
6	1/4	16x1,5	8	-0416	T2711-0416	22	T2720-0416	36	17	T2730-0416	27	31
6	1/4	18x1,5	10	-0418	T2711-0418	22	T2720-0418	36	17	T2730-0418	27	30
8	5/16	18x1,5	10	-0518	T2711-0518	26	T2720-0518	46	20			
8	5/16	20x1,5	12	-0520	T2711-0520	30	T2720-0520	45	20	T2730-0520	34	37
10	3/8	20x1,5	12	-0620	T2711-0620	24	T2720-0620	45	20	T2730-0620	36	36
10	3/8	22x1,5	14	-0622	T2711-0622	26	T2720-0622	46	20	T2730-0622	36	36
10	3/8	24x1,5	16	-0624	T2711-0624	27						
12	1/2	24x1,5	16	-0824	T2711-0824	28	T2720-0824	53	24	T2730-0824	40	48
16	5/8	30x2,0	20	-1030	T2711-1030	31	T2720-1030	63	31	T2730-1030	45	58
19	3/4	30x2,0	20	-1230	T2711-1230	30	T2720-1230	74	35	T2730-1230	56	68
19	3/4	36x2,0	25	-1236	T2711-1236	33	T2720-1236	76	35	T2730-1236	55	68
25	1	42x2,0	30	-1642	T2711-1642	36	T2720-1642	87	36	T2730-1642	69	77
31	1.1/4	52x2,0	38	-2052	T2711-2052	40	T2720-2052	128	48	T2730-2052	90	89

NOTE: Hose Compatibility for the **T2000** series can be found on page 188.

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

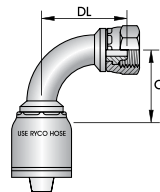
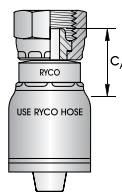
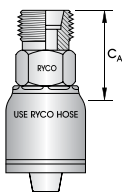
METRIC

T2920
(T292)

T2921
(T292F)

T2923
(T292G)

FRENCH GAZ
24° CONE



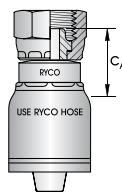
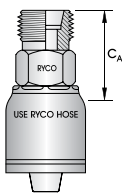
HOSE SIZE	THRD SIZE	TUBE SIZE	DASH SIZE	METRIC FRENCH GAZ MALE		METRIC FRENCH GAZ FEMALE		METRIC FRENCH GAZ FEMALE 90° TUBE BEND			
				PART NO	C_A	PART NO	C_A	PART NO	C_A	DL	
DN	inch	mm	mm								
6	1/4	20x1,5	13,25	-0420							
8	5/16	20x1,5	13,25	-0520							
10	3/8	20x1,5	13,25	-0620							
12	1/2	24x1,5	16,75	-0824							
16	5/8	30x1,5	21,25	-1030							
19	3/4	36x1,5	26,75	-1236							
25	1	45x1,5	33,50	-1645							

METRIC

T2924
(T292M)

T2925
(T292N)

FRENCH MILLIMETRIC
24° CONE



HOSE SIZE	THRD SIZE	TUBE SIZE	DASH SIZE	METRIC FRENCH MILLIMETRIC MALE		METRIC FRENCH MILLIMETRIC FEMALE	
				PART NO	C_A	PART NO	C_A
DN	inch	mm	mm				
16	5/8	27x1,5	20	-1027			
19	3/4	30x1,5	22	-1230			
19	3/4	33x1,5	25	-1233			
19	3/4	36x1,5	28	-1236			
25	1	36x1,5	28	-1636			
25	1	39x1,5	30	-1639			

NOTE: Hose Compatibility for the **T2000** series can be found on page 188.

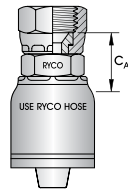
COUPLINGS

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

METRIC

T2680 (T268)

JAPANESE INDUSTRIAL
STANDARD (JIS)
"KOMATSU"
METRIC THREAD FORM
60° CONCAVE SEAT



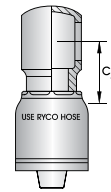
HOSE SIZE		THRD SIZE	DASH SIZE	METRIC FEMALE 60° CONCAVE SEAT (JIS)	
DN	inch	mm		PART NO	C _A
6	1/4	14x1,5	-0414	T2680-0414	20
8	5/16	16x1,5	-0516	T2680-0516	20
10	3/8	18x1,5	-0618	T2680-0618	22
10	3/8	22x1,5	-0622	T2680-0622	26
12	1/2	22x1,5	-0822	T2680-0822	25
12	1/2	24x1,5	-0824	T2680-0824	32
16	5/8	24x1,5	-1024	T2680-1024	25
16	5/8	30x1,5	-1030	T2680-1030	30
19	3/4	24x1,5	-1224	T2680-1224	27
19	3/4	30x1,5	-1230	T2680-1230	30
19	3/4	33x1,5	-1233	T2680-1233	30
25	1	33x1,5	-1633	T2680-1633	30
31	1.1/4	36x1,5	-2036	T2680-2036	31
31	1.1/4	42x1,5	-2042	T2680-2042	32

NOTE: These T2680 Series Couplings are also listed in the JIS section on page 196.

METRIC

T2470

STRAIGHT



HOSE SIZE		THRD SIZE	DASH SIZE	METRIC BANJO	
DN	inch	mm		PART NO	C _A
6	1/4	12	-0412	T2470-0412	23
6	1/4	14	-0414	T2470-0414	25
8	5/16	14	-0514	T2470-0514	25
8	5/16	16	-0516	T2470-0516	26
10	3/8	12	-0612	T2470-0612	26
10	3/8	14	-0614	T2470-0614	27
10	3/8	16	-0616	T2470-0616	27
10	3/8	18	-0618	T2470-0618	29
10	3/8	20	-0620	T2470-0620	30
10	3/8	22	-0622	T2470-0622	30
12	1/2	18	-0818	T2470-0818	30
12	1/2	22	-0822	T2470-0822	30
16	5/8	22	-1022	T2470-1022	30
16	5/8	26	-1026	T2470-1026	31
19	3/4	26	-1226	T2470-1226	38
19	3/4	30	-1230	T2470-1230	
19	3/4	36	-1236	T2470-1236	
25	1	30	-1630	T2470-1630	38
25	1	36	-1636	T2470-1636	

NOTE: Other configurations available on request. For BBM Banjo Bolt see page 366 and MBD Seal see page 337.

NOTE: Hose Compatibility for the T2000 series can be found on page 188.

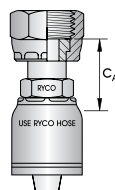
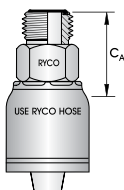
T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

ORFS

T2840
(T284)

T2800
(T280)

**O RING
FACE SEAL**



HOSE SIZE		THRD SIZE	TUBE SIZE	DASH SIZE	ORFS MALE	ORFS FEMALE		
DN	inch	inch	inch		PART NO	C _A	PART NO	C _A
6	1/4	9/16	1/4	-0409	T2840-0409	25	T2800-0409	28
6	1/4	11/16	3/8	-0411	T2840-0411	26	T2800-0411	32
8	5/16	11/16	3/8	-0511			T2800-0511	33
10	3/8	9/16	1/4	-0609			T2800-0609	29
10	3/8	11/16	3/8	-0611	T2840-0611	29	T2800-0611	31
10	3/8	13/16	1/2	-0613	T2840-0613	31	T2800-0613	34
12	1/2	11/16	3/8	-0811			T2800-0811	31
12	1/2	13/16	1/2	-0813	T2840-0813	33	T2800-0813	34
12	1/2	1	5/8	-0816	T2840-0816	36	T2800-0816	40
12	1/2	1.3/16	3/4	-0819			T2800-0819	43
16	5/8	1	5/8	-1016	T2840-1016	37	T2800-1016	38
16	5/8	1.3/16	3/4	-1019	T2840-1019	38	T2800-1019	43
19	3/4	1	5/8	-1216			T2800-1216	38
19	3/4	1.3/16	3/4	-1219	T2840-1219	38	T2800-1219	43
19	3/4	1.7/16	1	-1223	T2840-1223	38	T2800-1223	52
25	1	1.7/16	1	-1623	T2840-1623	41	T2800-1623	54
31	1.1/4	1.11/16	1.1/4	-2027	T2840-2027	45	T2800-2027	59

NOTE: Hose Compatibility for the **T2000** series can be found on page 188.

COUPLINGS

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

ORFS

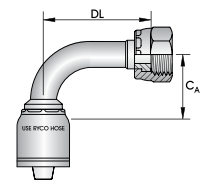
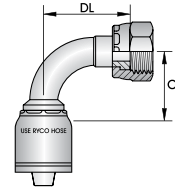
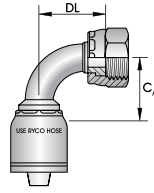
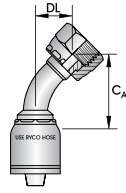
T2810
(T281)

T2823
(T282S)

T2820
(T282)

T2830
(T283)

O RING
FACE SEAL

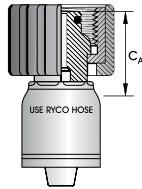


HOSE SIZE		THRD SIZE	TUBE SIZE	DASH SIZE	ORFS FEMALE 45° TUBE BEND			ORFS FEMALE 90° SHORT BEND			ORFS FEMALE 90° MEDIUM BEND			ORFS FEMALE 90° LONG BEND		
DN	inch	inch	inch		PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL
6	1/4	9/16	1/4	-0409	T2810-0409	39	18	T2823-0409	27	21	T2820-0409	28	32	T2830-0409	28	47
6	1/4	11/16	3/8	-0411	T2810-0411	39	18	T2823-0411	26	26	T2820-0411	28	38	T2830-0411	28	55
8	5/16	11/16	3/8	-0511							T2820-0511	34	38			
10	3/8	11/16	3/8	-0611	T2810-0611	45	20	T2823-0611	32	24	T2820-0611	34	38	T2830-0611	32	54
10	3/8	13/16	1/2	-0613	T2810-0613	40	17	T2823-0613	35	29	T2820-0613	34	41	T2830-0613	32	64
12	1/2	13/16	1/2	-0813	T2810-0813	49	19	T2823-0813	43	30	T2820-0813	41	41	T2830-0813	42	65
12	1/2	1	5/8	-0816	T2810-0816	46	19	T2823-0816	42	35	T2820-0816	43	47	T2830-0816	46	70
12	1/2	1.3/16	3/4	-0819				T2823-0819	42	48	T2820-0819	41	58	T2830-0819	46	96
16	5/8	1	5/8	-1016	T2810-1016	59	20	T2823-1016	40	32	T2820-1016	47	47	T2830-1016	51	70
16	5/8	1.3/16	3/4	-1019	T2810-1019	58	24	T2823-1019	40	48	T2820-1019	46	58	T2830-1019	50	96
19	3/4	13/16	1/2	-1213							T2820-1213	41	41			
19	3/4	1.3/16	3/4	-1219	T2810-1219	64	29	T2823-1219	56	49	T2820-1219	54	59	T2830-1219	58	96
19	3/4	1.7/16	1	-1223	T2810-1223	60	26	T2823-1223	55	56	T2820-1223	54	71	T2830-1223	55	114
25	1	1.7/16	1	-1623	T2810-1623	86	34	T2823-1623	64	56	T2820-1623	67	71	T2830-1623	81	113
31	1.1/4	1.11/16	1.1/4	-2027	T2810-2027	125	45	T2823-2027			T2820-2027	84	90	T2830-2027	87	129

PW

T2940
(T294)

PRESSURE WASHER
SUITS KARCHER STYLE

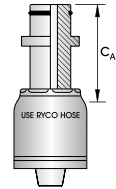


HOSE SIZE		THRD SIZE	DASH SIZE	PW FEMALE	
DN	inch	inch		PART NO	CA
6	1/4	22x1,5	-0422	T2940-0422	30
8	5/16	22x1,5	-0522	T2940-0522	30
10	3/8	22x1,5	-0622	T2940-0622	30

PW

T2950
(T295)

PRESSURE WASHER
SUITS KARCHER STYLE



HOSE SIZE		TUBE OD	DASH SIZE	PW GUN HANDLE TUBE	
DN	inch	inch		PART NO	CA
6	1/4	9,8	-0410	T2950-0410	39
10	3/8				

NOTE: Hose Compatibility for the **T2000** series can be found on page 188.

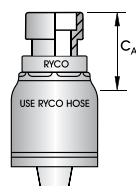
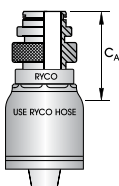
T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

RKVP

T2896

T2899

RKVP
HIGH PRESSURE



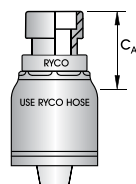
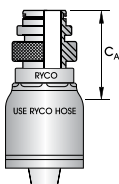
HOSE SIZE		RKVP SIZE	MAX WP	DASH SIZE	RKVP MALE		RKVP FEMALE	
DN	inch	mm	bar		PART NO	C _A	PART NO	C _A
10	3/8	10	450	-0610	T2896-0610	51	T2899-0610	34
12	1/2	12	450	-0812	T2896-0812	53	T2899-0812	37
16	5/8	20	420	-1020	T2896-1020	57	T2899-1020	38
19	3/4	20	420	-1220	T2896-1220	56	T2899-1220	39
25	1	25	420	-1625	T2896-1625	51	T2899-1625	47
31	1.1/4	32	420	-2032	T2896-2032	70	T2899-2032	57
38	1.1/2	40	420	-2440	T2896-2440	88	T2899-2440	61
51	2	50	420	-3250	T2896-3250	85	T2899-3250	63
63	2.1/2	63	350	-4063	T2896-4063	111	T2899-4063	78

RKVF

T2890

T2894

RKVF
HIGH FLOW



HOSE SIZE		RKVF SIZE	MAX WP	DASH SIZE	RKVF MALE		RKVF FEMALE	
DN	inch	mm	bar		PART NO	C _A	PART NO	C _A
51	2	50	165	-3250	T2890-3250	77	T2894-3250	54
63	2.1/2	63	70	-4063	T2890-4063	77	T2894-4063	53
76	3	75	70	-4875	T2890-4875		T2894-4875	

NOTE: Hose Compatibility for the **T2000** series can be found on page 188.

COUPLINGS

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

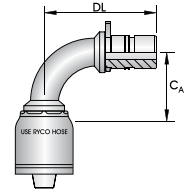
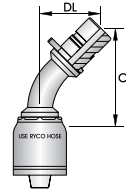
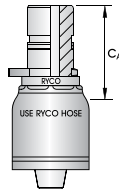
RYCO WEO

T2480
(T248)

T2482
(T248B)

T2483
(T248C)

RYCO WEO



HOSE SIZE			PLUG-IN SIZE		MAX WORKING PRESSURE		RYCO WEO MALE			RYCO WEO MALE 45° TUBE BEND			RYCO WEO MALE 90° TUBE BEND		
DN	Dash	inch	DN	inch	bar	psi	PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL	
5	-03	3/16	6	1/4	350	5100	T2480-0304	31							
6	-04	1/4	6	1/4	350	5100	T2480-0404	31	T2482-0404	44	25	T2483-0404	29	40	
6	-04	1/4	10	3/8	350	5100	T2480-0406	35							
8	-05	5/16	10	3/8	350	5100	T2480-0506	35	T2482-0506	54	27	T2483-0506	35	52	
10	-06	3/8	10	3/8	350	5100	T2480-0606	35	T2482-0606	55	27	T2483-0606	35	52	
10	-06	3/8	12	1/2	350	5100	T2480-0608	35				T2483-0608	35	54	
12	-08	1/2	12	1/2	350	5100	T2480-0808	36	T2482-0808	59	31	T2483-0808	38	58	
12	-08	1/2	19	3/4	350	5100	T2480-0812	47							
16	-10	5/8	19	3/4	350	5100	T2480-1012	45	T2482-1012	72	40	T2483-1012	44	73	
19	-12	3/4	19	3/4	350	5100	T2480-1212	45	T2482-1212	82	43	T2483-1212	54	82	
25	-16	1	25	1	250	3600	T2480-1616	56	T2482-1616	105	53	T2483-1616	72	97	

NOTE: RYCO WEO male and female couplings and adaptors do not contain a shut-off valve. When not in use, cap the RYCO WEO male using the appropriate size RW811 series stop cap and plug the RYCO WEO female/cartridge using the appropriate size RW723 series stop plug.

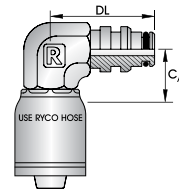
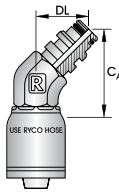
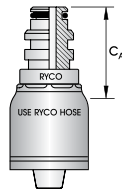
STAPLELOK

T2870
(T287)

T2871
(T288)

T2872
(T289)

STAPLE
O RING & BACK UP RING
SUPPLIED



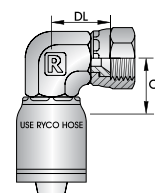
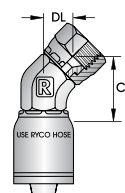
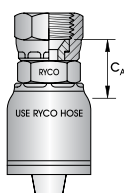
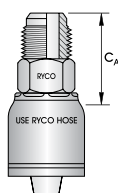
HOSE SIZE			STAPLE SIZE	DASH SIZE	STAPLELOK MALE		STAPLELOK MALE 45° ELBOW			STAPLELOK MALE 90° ELBOW		
DN	inch	mm			PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL
6	1/4	6	-0406		T2870-0406	39	T2871-0406	44	28	T2872-0406	21	46
6	1/4	10	-0410		T2870-0410	39	T2871-0410	45	28	T2872-0410	22	46
10	3/8	10	-0610		T2870-0610	38	T2871-0610	43	28	T2872-0610	21	46
12	1/2	13	-0812		T2870-0812	41	T2871-0812	47	28	T2872-0812	31	50
12	1/2	16	-0816		T2870-0816	41						
16	5/8	13	-1012		T2870-1012	39						
16	5/8	16	-1016		T2870-1016	39	T2871-1016	45	28	T2872-1016	34	53
19	3/4	20	-1220		T2870-1220	38	T2871-1220	57	33	T2872-1220	35	56
25	1	25	-1625		T2870-1625	50	T2871-1625	63	37	T2872-1625	45	68
31	1.1/4	32	-2032		T2870-2032	50	T2871-2032	65	37	T2872-2032	50	68
38	1.1/2	40	-2440		T2870-2440	60	T2871-2440	82	44	T2872-2440	61	85
51	2	50	-3250		T2870-3250	58	T2871-3250	87	46	T2872-3250	64	95
63	2.1/2	63	-4063		T2870-4063	93	T2871-4063	112	69	T2872-4063	80	137
76	3	75	-4875		T2870-4875							

NOTE: Hose Compatibility for the T2000 series can be found on page 188.

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

SAE T2530 (T253) T2540 (T254) T2580 (T258) T2570 (T257)

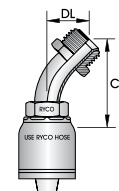
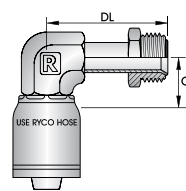
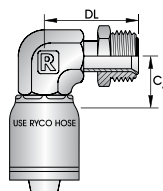
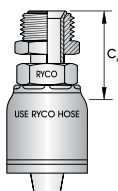
45° FLARE



HOSE SIZE		THRD SIZE	TUBE SIZE	DASH SIZE	SAE MALE		SAE FEMALE		SAE FEMALE 45° ELBOW			SAE FEMALE 90° ELBOW		
DN	inch	inch	inch		PART NO	C _A	PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL
6	1/4	7/16	1/4	-0407			T2540-0407	19						
6	1/4	5/8	3/8	-0410	T2530-0410	31	T2540-0410	21						
10	3/8	1/2	5/16	-0608	T2530-0608	32	T2540-0608	20	T2580-0608	32	14	T2570-0608	23	22
10	3/8	5/8	3/8	-0610	T2530-0610	34	T2540-0610	20	T2580-0610	32	15	T2570-0610	23	23
19	3/4	1.1/16	3/4	-1217			T2540-1217	26						

SAE T2740 (T274) T2780 (T278) T2790 (T279) T2750 (T275)

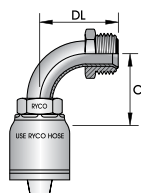
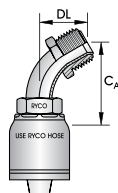
INVERTED MALE FLARE



HOSE SIZE		THRD SIZE	TUBE SIZE	DASH SIZE	SAE INVERTED MALE FLARE		SAE INVERTED MALE FLARE 90° ELBOW		SAE INVERTED MALE FLARE 90° EXTENDED ELBOW		SAE INVERTED MALE FLARE 45° TUBE BEND				
DN	inch	inch	inch		PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL
6	1/4	7/16	1/4	-0407	T2740-0407	40									
10	3/8	5/8	3/8	-0610	T2740-0610	41	T2780-0610	18	32	T2790-0610	18	60	T2750-0610	74	23
10	3/8	11/16	7/16	-0611	T2740-0611	45	T2780-0611	18	36						

SAE T2760 (T276) T2770 (T277)

INVERTED MALE FLARE



HOSE SIZE		THRD SIZE	TUBE SIZE	DASH SIZE	SAE INVERTED MALE FLARE 60° TUBE BEND			SAE INVERTED MALE FLARE 90° TUBE BEND		
DN	inch	inch	inch		PART NO	C _A	DL	PART NO	C _A	DL
6	1/4	7/16	1/4	-0407	T2760-0407	63	29	T2770-0407	44	38
10	3/8	5/8	3/8	-0610				T2770-0610	56	50

NOTE: Hose Compatibility for the **T2000** series can be found on page 188.

INTRODUCTION

HOSE

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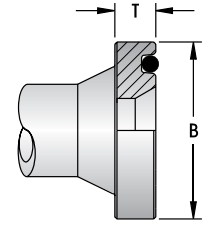
TECHNICAL

COUPLINGS

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

DIMENSIONS FOR SAE CODE 61 AND CODE 62 FLANGES, AND RYCO CODE 62C FLANGES

NOMINAL FLANGE	CODE 61				CODE 62				CODE 62C			
	B		T		B		T		B		T	
inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
1/2	30,2	1.19	6,73	0.265	31,8	1.25	7,75	0.305				
*5/8	34,0	1.34	6,73	0.265								
3/4	38,1	1.50	6,73	0.265	41,3	1.63	8,76	0.345	41,3	1.63	14,20	0.559
1	44,5	1.75	8,00	0.315	47,6	1.88	9,53	0.375	47,6	1.88	14,20	0.559
1.1/4	50,8	2.00	8,00	0.315	54,0	2.12	10,29	0.405	54,0	2.12	14,20	0.559
1.1/2	60,3	2.38	8,00	0.315	63,5	2.50	12,57	0.495	63,5	2.50	14,20	0.559
2	71,4	2.81	9,53	0.375	79,4	3.13	12,57	0.495	79,4	3.13	14,20	0.559
2.1/2	84,1	3.31	9,53	0.375								
3	101,6	4.00	9,53	0.375								



NOTE: *5/8 is used by Komatsu.
RYCO Code 62C fittings conform to the flange OD and bolt hole patterns of SAE Code 62 but require special flange clamps.
RYCO Code 62C flange heads are thicker than SAE Code 62 and measure T = 14,2 mm (0.559 inch) in all sizes.

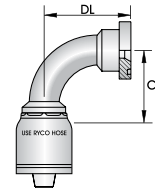
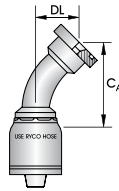
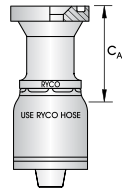
SAE FLANGE

T2130
(T213)

T2150
(T215)

T2170
(T217)

RYCO
CODE 61
CLAMPS - SEE PAGES 345 & 346
***[5/8 KOMATSU]**
O RING NOT SUPPLIED



HOSE SIZE		NOM. FLANGE SIZE	DASH SIZE	CODE 61 FLANGE	CODE 61 FLANGE 45° TUBE BEND	CODE 61 FLANGE 90° TUBE BEND					
DN	inch	inch		PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL
12	1/2	1/2	-0808	T2130-0808	45	T2150-0808	49	20	T2170-0808	41	41
12	1/2	3/4	-0812	T2130-0812	47	T2150-0812	51	24	T2170-0812	41	46
16	5/8	*5/8	-1010	T2130-1010	43	T2150-1010	56	24	T2170-1010	47	48
19	3/4	*5/8	-1210	T2130-1210	45	T2150-1210	56	26			
19	3/4	3/4	-1212	T2130-1212	46	T2150-1212	65	26	T2170-1212	55	54
19	3/4	1	-1216	T2130-1216	50	T2150-1216	69	30	T2170-1216	55	60
25	1	1	-1616	T2130-1616	52	T2150-1616	81	30	T2170-1616	68	68
25	1	1.1/4	-1620	T2130-1620	57	T2150-1620	83	32	T2170-1620	70	69
25	1	1.1/2	-1624	T2130-1624	84	T2150-1624	85	33			
31	1.1/4	1	-2016	T2130-2016	85	T2150-2016	88	30	T2170-2016	78	68
31	1.1/4	1.1/4	-2020	T2130-2020	59	T2150-2020	100	36	T2170-2020	88	78
31	1.1/4	1.1/2	-2024	T2130-2024	85	T2150-2024	102	38	T2170-2024	88	81
38	1.1/2	1.1/2	-2424	T2130-2424	86	T2150-2424	115	42	T2170-2424	104	93
51	2	2	-3232	T2130-3232	96	T2150-3232	150	58	T2170-3232	137	130
63	2.1/2	2.1/2	-4040	T2130-4040	79	T2150-4040			T2170-4040		
76	3	3	-4848	T2130-4848							

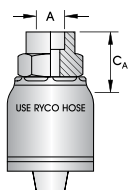
NOTE: Hose Compatibility for the **T2000** series can be found on page 188.

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

SALVAGE

T2230
(T223)

TUBE WELD

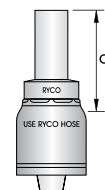


HOSE SIZE		A	DASH SIZE	SALVAGE (LIFESAVER)	
DN	inch	inch		PART NO	C _A
6	1/4	1/4	-0404	T2230-0404	18
6	1/4	5/16	-0405	T2230-0405	18
6	1/4	3/8	-0406	T2230-0406	18
10	3/8	3/8	-0606	T2230-0606	19
10	3/8	1/2	-0608	T2230-0608	19
12	1/2	1/2	-0808	T2230-0808	19
12	1/2	5/8	-0810	T2230-0810	21
16	5/8	5/8	-1010	T2230-1010	21
16	5/8	3/4	-1012	T2230-1012	21
19	3/4	3/4	-1212	T2230-1212	21
25	1	1	-1616	T2230-1616	27
31	1.1/4	1.1/4	-2020	T2230-2020	31
38	1.1/2	1.1/2	-2424	T2230-2424	41
51	2	2	-3232	T2230-3232	41

STANDPIPE

T2180
(T218)

IMPERIAL



HOSE SIZE		TUBE SIZE	DASH SIZE	IMPERIAL STANDPIPE	
DN	inch	inch		PART NO	C _A
6	1/4	3/8	-0406	T2180-0406	34
10	3/8	3/8	-0606	T2180-0606	35
12	1/2	1/2	-0808	T2180-0808	32
12	1/2	5/8	-0810	T2180-0810	42
19	3/4	3/4	-1212	T2180-1212	51
25	1	1	-1616	T2180-1616	57

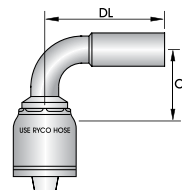
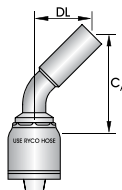
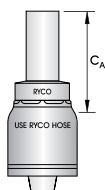
STANDPIPE

T2640
(T264)

T2643
(T264B)

T2646
(T264C)

METRIC



HOSE SIZE		TUBE SIZE	DASH SIZE	METRIC STANDPIPE	METRIC STANDPIPE 45° TUBE BEND			METRIC STANDPIPE 90° TUBE BEND			
DN	inch	mm		PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL
6	1/4	6	-0406	T2640-0406	31						
6	1/4	8	-0408	T2640-0408	31						
6	1/4	10	-0410	T2640-0410	32						
6	1/4	12	-0412	T2640-0412	32						
8	5/16	10	-0510	T2640-0510	32						
8	5/16	12	-0512	T2640-0512	32						
10	3/8	12	-0612	T2640-0612	32						
10	3/8	14	-0614	T2640-0614	38						
12	1/2	15	-0815	T2640-0815	39						
12	1/2	16	-0816	T2640-0816	39						
16	5/8	16	-1016	T2640-1016	39						
16	5/8	18	-1018	T2640-1018	35						
16	5/8	20	-1020	T2640-1020	45						
19	3/4	20	-1220	T2640-1220	45						
19	3/4	22	-1222	T2640-1222	37						
19	3/4	25	-1225	T2640-1225	45						

NOTE: See page 337 for DKL and DKS Metric Nuts and Olives for use with Metric Standpipe Fittings.

NOTE: Hose Compatibility for the **T2000** series can be found on page 188.

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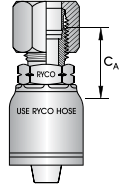
COUPLINGS

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

TUBE BITE

T2850
(T285)

COMPLETE WITH NUT
AND FLARELESS OLIVE



HOSE SIZE	TUBE SIZE	DASH SIZE	TUBE BITE		
DN	inch	inch		PART NO	C_A
6	1/4	1/4	-0404	T2850-0404	27
6	1/4	5/16	-0405	T2850-0405	27
10	3/8	5/16	-0605	T2850-0605	30
10	3/8	3/8	-0606	T2850-0606	30
10	3/8	1/2	-0608	T2850-0608	32
12	1/2	1/2	-0808	T2850-0808	34
12	1/2	5/8	-0810	T2850-0810	36
19	3/4	3/4	-1212	T2850-1212	39
25	1	1	-1616	T2850-1616	41

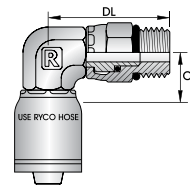
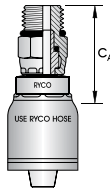
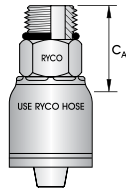
UNO (O RING BOSS)

T2200
(T220)

T2380
(T238)

T2390
(T239)

O RING SUPPLIED



HOSE SIZE	THRD SIZE	TUBE SIZE	DASH SIZE	UN O RING MALE	UN O RING MALE SWIVEL	UN O RING MALE SWIVEL 90° ELBOW					
DN	inch	inch	inch		PART NO	C_A	PART NO	C_A	PART NO	C_A	DL
6	1/4	7/16	1/4	-0407	T2200-0407	25					
6	1/4	1/2	5/16	-0408	T2200-0408	25					
6	1/4	9/16	3/8	-0409	T2200-0409	25					
10	3/8	9/16	3/8	-0609	T2200-0609	28	T2380-0609	41	T2390-0609	23	36
10	3/8	3/4	1/2	-0612	T2200-0612	29	T2380-0612	41	T2390-0612	23	41
10	3/8	7/8	5/8	-0614	T2200-0614	28			T2390-0614	23	38
12	1/2	3/4	1/2	-0812	T2200-0812	31	T2380-0812	42	T2390-0812	29	43
12	1/2	7/8	5/8	-0814	T2200-0814	33	T2380-0814	43	T2390-0814	29	40
12	1/2	1.1/16	3/4	-0817	T2200-0817	32	T2380-0817	42			
16	5/8	7/8	5/8	-1014	T2200-1014	34	T2380-1014	42			
16	5/8	1.1/16	3/4	-1017	T2200-1017	32					
19	3/4	1.1/16	3/4	-1217	T2200-1217	36	T2380-1217	44	T2390-1217	30	44
19	3/4	1.5/16	1	-1221	T2200-1221	34					
25	1	1.5/16	1	-1621	T2200-1621	39					
31	1.1/4	1.5/8	1.1/4	-2026	T2200-2026	43					

NOTE: These "Live Swivel" **T2380** and **T2390** Series Inserts are for Maximum Working Pressure: 350 bar (5100 psi); -09 & -12 Thread Size, 280 bar (4100 psi); -14 & -17 Thread Size. Their swivel capability is to allow easy installation and orientation and avoid twisting of hose. They are not designed for continuous rotation or continuous movement.

NOTE: Hose Compatibility for the **T2000** series can be found on page 188.

T4000 (T400) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

HOSE COMPATIBILITY FOR T4000 SERIES

NON-SKIVE

For RYCO Hose Series M2 sizes -04 to -12.
 For RYCO Hose Series M2G sizes -04 to -12.
 For RYCO Hose Series RQP5, T5 sizes -04 to -20.
 For RYCO Hose Series MP1 sizes -04 to -20.

NON-SKIVE

For RYCO Hose Series TP7, TP7N, TP7T, TP7TN, TP3000 all sizes.
 For RYCO Hose Series PL1, PL1D, RQP6, SR, SRF sizes -12 to -32.
 For RYCO Hose Series CS1000, MS1000 (sizes -20 to -32).

BSP

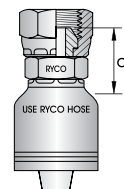
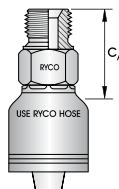
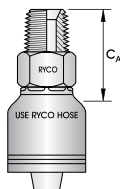
T4010 (T401)

T4013 (T401P)

T4320 (T432)

T4020 (T402)

60° SEAT



HOSE SIZE		THRD SIZE	DASH SIZE	BSPT MALE		BSP MALE		BSPT MALE SWIVEL		BSP FEMALE	
DN	inch	inch		PART NO	C _A	PART NO	C _A	PART NO	C _A	PART NO	C _A
	1/8	1/8	-0202					T4320-0202			
5	3/16	1/4	-0304	T4010-0304	30					T4020-0304	21
6	1/4	1/4	-0404	T4010-0404	30	T4013-0404	27			T4020-0404	24
8	5/16	1/4	-0504	T4010-0504	30					T4020-0504	22
10	3/8	1/4	-0604	T4010-0604	30					T4020-0604	22
10	3/8	3/8	-0606	T4010-0606	33	T4013-0606	33			T4020-0606	24
10	3/8	1/2	-0608	T4010-0608	38	T4013-0608	32			T4020-0608	27
12	1/2	3/8	-0806	T4010-0806	35						
12	1/2	1/2	-0808	T4010-0808	40	T4013-0808	31			T4020-0808	26
12	1/2	3/4	-0812							T4020-0812	30
16	5/8	5/8	-1010							T4020-1010	26
16	5/8	3/4	-1012	T4010-1012	41					T4020-1012	28
19	3/4	3/4	-1212	T4010-1212	41	T4013-1212	40			T4020-1212	28
25	1	1	-1616	T4010-1616	48	T4013-1616	45			T4020-1616	33
31	1.1/4	1.1/4	-2020	T4010-2020	53	T4013-2020	51			T4020-2020	43
38	1.1/2	1.1/2	-2424	T4010-2424	55					T4020-2424	45
51	2	2	-3232	T4010-3232	66					T4020-3232	54

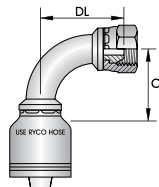
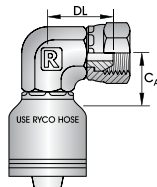
NOTE: This "Live Swivel" T4320 Series Insert is for Maximum Working Pressure: 420 bar (6100 psi): -02 Thread Size. Its swivel capability is to allow easy installation and orientation and avoid twisting of hose. It is not designed for continuous rotation or continuous movement.

BSP

T4050 (T405)

T4260 (T426)

60° SEAT



HOSE SIZE		THRD SIZE	DASH SIZE	BSP FEMALE 90° ELBOW			BSP FEMALE 90° TUBE BEND		
DN	inch	inch		PART NO	C _A	DL	PART NO	C _A	DL
6	1/4	1/4	-0404				T4260-0404	27	29
10	3/8	3/8	-0606				T4260-0606	35	33
10	3/8	1/2	-0608				T4260-0608	34	33
12	1/2	3/8	-0806				T4260-0808	40	45
12	1/2	1/2	-0808	T4050-0808	29	31			
12	1/2	3/4	-0812				T4260-1010	49	50
16	5/8	3/4	-1012				T4260-1212	55	58
19	3/4	3/4	-1212				T4260-1616	67	77

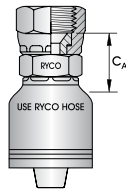
COUPLINGS

T4000 (T400) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

BSP

T4120
(T412)

**SPECIAL SEAT (JIS)
BSPP THREAD FORM
60° CONCAVE SEAT**



HOSE SIZE		THRD SIZE	DASH SIZE	BSPP FEMALE 60° CONCAVE SEAT (JIS)	
DN	inch	inch		PART NO	C _A
6	1/4	1/4	-0404	T4120-0404	21
10	3/8	3/8	-0606	T4120-0606	25
10	3/8	1/2	-0608	T4120-0608	26
12	1/2	1/2	-0808	T4120-0808	27
19	3/4	3/4	-1212	T4120-1212	26

NOTE: These **T4120** Series Couplings are also listed in the **JIS** section on page 212.

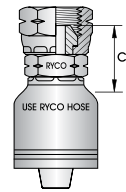
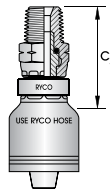
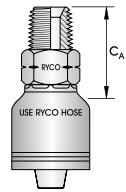
NPT

T4090
(T409)

T4320N
(T432N)

T4020N
(T402N)

60° SEAT



HOSE SIZE		THRD SIZE	DASH SIZE	NPT MALE	NPTF MALE SWIVEL	NPSM FEMALE			
DN	inch	inch		PART NO	C _A	PART NO	C _A	PART NO	C _A
5	3/16	1/8	-0302	T4090-0302	24				
5	3/16	1/4	-0304	T4090-0304	30				
6	1/4	1/8	-0402	T4090-0402	25				
6	1/4	1/4	-0404	T4090-0404	30			T4020N-0404	24
8	5/16	1/4	-0504	T4090-0504	30				
8	5/16	3/8	-0506	T4090-0506	30				
10	3/8	1/4	-0604	T4090-0604	33				
10	3/8	3/8	-0606	T4090-0606	33			T4020N-0606	27
10	3/8	1/2	-0608	T4090-0608	38				
12	1/2	3/8	-0806	T4090-0806	35	T4320N-0806	42		
12	1/2	1/2	-0808	T4090-0808	40			T4020N-0808	25
12	1/2	3/4	-0812	T4090-0812	37				
16	5/8	3/4	-1012	T4090-1012	41				
19	3/4	3/4	-1212	T4090-1212	41				
22	7/8	1	-1416	T4090-1416	44				
25	1	1	-1616	T4090-1616	48				
29	1.1/8	1.1/4	-1820	T4090-1820	46				
31	1.1/4	1	-2016	T4090-2016	52				
31	1.1/4	1.1/4	-2020	T4090-2020	53				
35	1.3/8	1.1/2	-2224	T4090-2224	54				
38	1.1/2	1.1/2	-2424	T4090-2424	55				
46	1.13/16	2	-2932	T4090-2932	66				
51	2	2	-3232	T4090-3232	66				

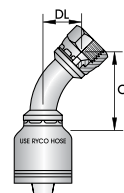
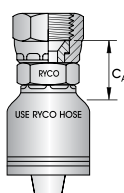
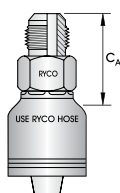
NOTE: This "Live Swivel" **T4320N** Series Insert is for Maximum Working Pressure: 420 bar (6100 psi): -06 Thread Size. Its swivel capability is to allow easy installation and orientation and avoid twisting of hose. It is not designed for continuous rotation or continuous movement.

NOTE: Hose Compatibility for the **T4000** series can be found on page 209.

T4000 (T400) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

JIC	T4030 (T403)	T4040 (T404)	T4250 (T425)
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37° FLARE



					JIC MALE		JIC FEMALE		JIC FEMALE 45° TUBE BEND		
HOSE SIZE	THRD SIZE	TUBE SIZE	DASH SIZE		PART NO	C _A	PART NO	C _A	PART NO	C _A	DL
5	3/16	7/16	1/4	-0307	T4030-0307	28	T4040-0307	22	T4250-0307	31	10
5	3/16	1/2	5/16	-0308			T4040-0308	22			
5	3/16	9/16	3/8	-0309			T4040-0309	22			
6	1/4	3/8	3/16	-0406			T4040-0406	22			
6	1/4	7/16	1/4	-0407	T4030-0407	29	T4040-0407	22	T4250-0407	31	10
6	1/4	1/2	5/16	-0408	T4030-0408	29	T4040-0408	22	T4250-0408	40	12
6	1/4	9/16	3/8	-0409	T4030-0409	30	T4040-0409	22	T4250-0409	40	12
8	5/16	1/2	5/16	-0508			T4040-0508	22			
8	5/16	9/16	3/8	-0509			T4040-0509	22	T4250-0509	39	11
8	5/16	3/4	1/2	-0512			T4040-0512	25			
10	3/8	7/16	1/4	-0607			T4040-0607	23			
10	3/8	9/16	3/8	-0609	T4030-0609	32	T4040-0609	22			
10	3/8	3/4	1/2	-0612	T4030-0612	35	T4040-0612	24			
12	1/2	9/16	3/8	-0809			T4040-0809	23			
12	1/2	3/4	1/2	-0812	T4030-0812	37	T4040-0812	25			
12	1/2	7/8	5/8	-0814	T4030-0814	39	T4040-0814	27			
12	1/2	1.1/16	3/4	-0817			T4040-0817	28			
16	5/8	7/8	5/8	-1014	T4030-1014	33	T4040-1014	27			
16	5/8	1.1/16	3/4	-1017	T4030-1017	43	T4040-1017	28	T4250-1017	54	24
19	3/4	7/8	5/8	-1214			T4040-1214	28			
19	3/4	1.1/16	3/4	-1217	T4030-1217	43	T4040-1217	29	T4250-1217	65	22
22	7/8	1.5/16		-1421			T4040-1421	34			
25	1	1.5/16	1	-1621			T4040-1621	36	T4250-1621	77	30
29	1.1/8	1.5/8		-1826			T4040-1826	41			
31	1.1/4	1.5/8	1.1/4	-2026			T4040-2026	44	T4250-2026	121	50
35	1.3/8	1.7/8		-2230			T4040-2230	48			
38	1.1/2	1.7/8	1.1/2	-2430			T4040-2430	49			
46	1.13/16	2.1/2		-2940			T4040-2940	60			
51	2	2.1/2	2	-3240			T4040-3240	60			

NOTE: Hose Compatibility for the **T4000** series can be found on page 209.

COUPLINGS

T4000 (T400) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

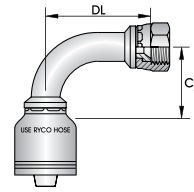
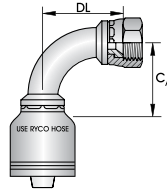
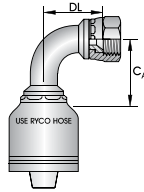
JIC

T4243
(T424S)

T4240
(T424)

T4280
(T428)

37° FLARE

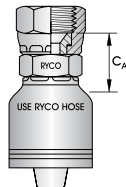


HOSE SIZE	THRD SIZE	TUBE SIZE	DASH SIZE	JIC FEMALE 90° SHORT BEND			JIC FEMALE 90° MEDIUM BEND			JIC FEMALE 90° LONG BEND		
DN	inch	inch	inch	PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL
5	3/16	7/16	1/4	-0307			T4240-0307	26	32			
6	1/4	7/16	1/4	-0407	T4243-0407	27	T4240-0407	26	32			
6	1/4	1/2	5/16	-0408			T4240-0408	26	32			
6	1/4	9/16	3/8	-0409	T4243-0409	27	T4240-0409	26	38			
8	5/16	9/16	3/8	-0509			T4240-0509	35	38	T4280-0509	36	55
10	3/8	9/16	3/8	-0609	T4243-0609	31	T4240-0609	35	38	T4280-0609	30	55
10	3/8	3/4	1/2	-0612			T4240-0612	35	41	T4280-0612	57	64
12	1/2	3/4	1/2	-0812	T4243-0812	43	T4240-0812	41	38			
12	1/2	7/8	5/8	-0814			T4240-0814	41	47			
16	5/8	1.1/16	3/4	-1017			T4240-1017	48	58			
19	3/4	1.1/16	3/4	-1217			T4240-1217	55	57			
25	1	1.5/16	1	-1621			T4240-1621	68	73			
29	1.1/8	1.5/8	1.1/4	-1826			T4240-1826	88	81			
31	1.1/4	1.5/8	1.1/4	-2026			T4240-2026	88	81			
51	2	2.1/2	2	-3240			T4240-3240	137	132			

JIS

T4120
(T412)

JAPANESE INDUSTRIAL
STANDARD (JIS)
BSPP THREAD FORM
60° CONCAVE SEAT



HOSE SIZE	THRD SIZE	DASH SIZE	BSPP FEMALE 60° CONCAVE (JIS)		
DN	inch	inch	PART NO	C _A	
6	1/4	1/4	-0404	T4120-0404	21
10	3/8	3/8	-0606	T4120-0606	25
10	3/8	1/2	-0608	T4120-0608	26
12	1/2	1/2	-0808	T4120-0808	27
19	3/4	3/4	-1212	T4120-1212	26

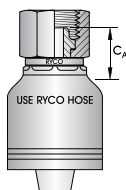
NOTE: These T4120 Series Couplings are also listed in the BSP section on page 210.

NOTE: Hose Compatibility for the T4000 series can be found on page 209.

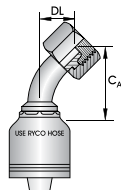
T4000 (T400) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

METRIC

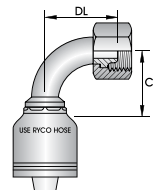
T4600
(T460)



T4660
(T466)



T4670
(T467)

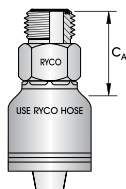


DKL
METRIC (LIGHT)
RYCO DKL FEMALE SWIVELS
UP TO M26 SIZE HAVE
MULTISEAL DKL 24° AND DKM
60° CONE. M30 AND OVER HAVE
DKL 24° CONE ONLY.

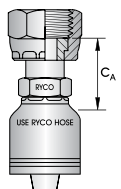
HOSE SIZE		THRD SIZE	TUBE SIZE	DASH SIZE	DKL FEMALE 24°/60° CONE	DKL FEMALE 24°/60° CONE 45° TUBE BEND	DKL FEMALE 24°/60° CONE 90° TUBE BEND
DN	inch	mm	mm		PART NO	C _A	DL
10	3/8	16x1,5	10	-0616	T4600-0616	23	20
10	3/8	18x1,5	12	-0618	T4600-0618	23	20
10	3/8	22x1,5	15	-0622	T4600-0622	26	20
19	3/4	30x2,0	22	-1230	T4600-1230	26	32

ORFS

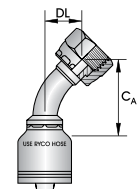
T4840
(T484)



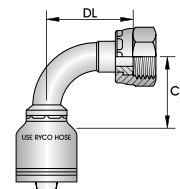
T4800
(T480)



T4810
(T481)



T4820
(T482)



O RING
FACE SEAL

HOSE SIZE	THRD SIZE	TUBE SIZE	DASH SIZE	ORFS MALE	ORFS FEMALE	ORFS FEMALE 45° TUBE BEND	ORFS FEMALE 90° MEDIUM BEND
DN	inch	inch	inch	PART NO	C _A	PART NO	C _A
6	1/4	9/16	1/4	-0409	T4840-0409	25	28
6	1/4	11/16	3/8	-0411	T4840-0411	26	32
8	5/16	13/16	1/2	-0513	T4840-0513	31	32
10	3/8	11/16	3/8	-0611	T4840-0611	29	33
10	3/8	13/16	1/2	-0613	T4840-0613	31	34
12	1/2	13/16	1/2	-0813	T4840-0813	33	34
16	5/8	1	5/8	-1016	T4840-1016	37	34
19	3/4	1.3/16	3/4	-1219	T4840-1219	38	43
19	3/4	1.7/16	1	-1223	T4840-1223	38	52
25	1	1.7/16	1	-1623	T4840-1623	41	54
31	1.1/4	1.11/16	1.1/4	-2027	T4840-2027	46	59
38	1.1/2	2	1.1/2	-2432			59

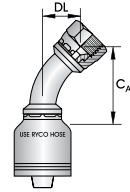
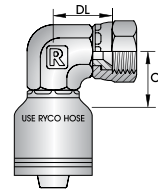
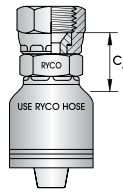
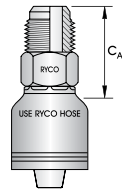
NOTE: Hose Compatibility for the **T4000** series can be found on page 209.

COUPLINGS

T4000 (T400) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

SAE	T4530 (T453)	T4540 (T454)	T4570 (T457)	T4550 (T455)
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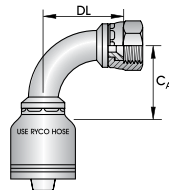
45° FLARE



HOSE SIZE	THRD SIZE	TUBE SIZE	DASH SIZE	SAE MALE	SAE FEMALE	SAE FEMALE 90° ELBOW	SAE FEMALE 45° TUBE BEND							
DN	inch	inch	inch	PART NO	C _A	PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL	
6	1/4	5/8	3/8	-0410		T4540-0410	21							
8	5/16	5/8	3/8	-0510	T4530-0510	33	T4540-0510	20			T4550-0510	38	17	
10	3/8	5/8	3/8	-0610	T4530-0610	34	T4540-0610	20	T4570-0610	23	23	T4550-0610	38	17

SAE	T4560 (T456)
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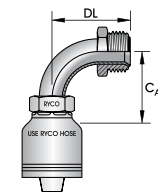
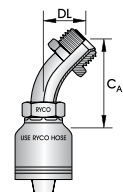
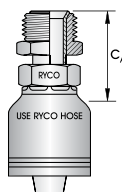
45° FLARE



HOSE SIZE	THRD SIZE	TUBE SIZE	DASH SIZE	SAE FEMALE 90° TUBE BEND			
DN	inch	inch	inch	PART NO	C _A	DL	
10	3/8	5/8	3/8	-0610	T4560-0610	35	32

SAE	T4740 (T474)	T4750 (T475)	T4770 (T477)
-----	-----------------	-----------------	-----------------

INVERTED MALE FLARE



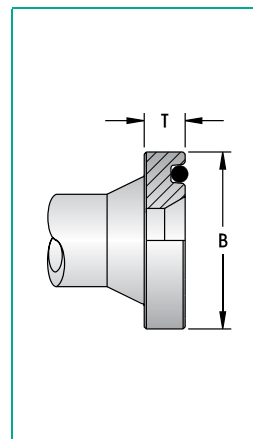
HOSE SIZE	THRD SIZE	TUBE SIZE	DASH SIZE	SAE INVERTED MALE FLARE	SAE INVERTED MALE FLARE 45° TUBE BEND	SAE INVERTED MALE FLARE 90° TUBE BEND						
DN	inch	inch	inch	PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL	
8	5/16	5/8	3/8	-0510	T4740-0510	41	T4750-0510	74	23	T4770-0510	56	50
10	3/8	5/8	3/8	-0610	T4740-0610	41	T4750-0610	74	23	T4770-0610	56	50
10	3/8	11/16	7/16	-0611	T4740-0611	45						

NOTE: Hose Compatibility for the **T4000** series can be found on page 209.

T4000 (T400) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

DIMENSIONS FOR SAE CODE 61 AND CODE 62 FLANGES, AND RYCO CODE 62C FLANGES

NOMINAL FLANGE	CODE 61				CODE 62				CODE 62C			
	B		T		B		T		B		T	
inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
1/2	30,2	1.19	6,73	0.265	31,8	1.25	7,75	0.305				
*5/8	34,0	1.34	6,73	0.265								
3/4	38,1	1.50	6,73	0.265	41,3	1.63	8,76	0.345	41,3	1.63	14,20	0.559
1	44,5	1.75	8,00	0.315	47,6	1.88	9,53	0.375	47,6	1.88	14,20	0.559
1.1/4	50,8	2.00	8,00	0.315	54,0	2.12	10,29	0.405	54,0	2.12	14,20	0.559
1.1/2	60,3	2.38	8,00	0.315	63,5	2.50	12,57	0.495	63,5	2.50	14,20	0.559
2	71,4	2.81	9,53	0.375	79,4	3.13	12,57	0.495	79,4	3.13	14,20	0.559
2.1/2	84,1	3.31	9,53	0.375								
3	101,6	4.00	9,53	0.375								



NOTE: *5/8 is used by Komatsu.

RYCO Code 62C fittings conform to the flange OD and bolt hole patterns of SAE Code 62 but require special flange clamps.
RYCO Code 62C flange heads are thicker than SAE Code 62 and measure T = 14,2 mm (0.559 inch) in all sizes.

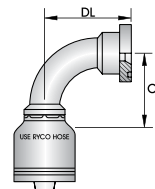
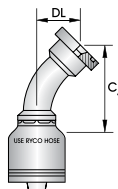
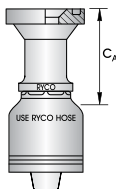
SAE FLANGE

T4130
(T413)

T4150
(T415)

T4170
(T417)

RYCO
CODE 61
CLAMPS - SEE PAGES 345 & 346
*(5/8 KOMATSU)
O RING NOT SUPPLIED



HOSE SIZE		NOM. FLANGE SIZE	DASH SIZE	CODE 61 FLANGE	CODE 61 FLANGE 45° TUBE BEND	CODE 61 FLANGE 90° TUBE BEND					
DN	inch	inch		PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL
19	3/4	3/4	-1212	T4130-1212	46	T4150-1212	65	26	T4170-1212	55	54
19	3/4	1	-1216	T4130-1216	50						
25	1	1	-1616	T4130-1616	52	T4150-1616	81	30	T4170-1616	68	68
25	1	1.1/4	-1620	T4130-1620	57						
31	1.1/4	1.1/4	-2020	T4130-2020	59	T4150-2020	100	36	T4170-2020	88	78
31	1.1/4	1.1/2	-2024	T4130-2024	85						
38	1.1/2	1.1/2	-2424	T4130-2424	85	T4150-2424	115	42	T4170-2424	104	93
38	1.1/2	2	-2432	T4130-2432	95						
51	2	2	-3232	T4130-3232	95	T4150-3232	150	58	T4170-3232	140	130

NOTE: Hose Compatibility for the **T4000** series can be found on page 209.

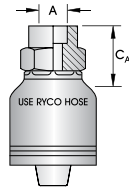
COUPLINGS

T4000 (T400) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

SALVAGE

T4230
(T423)

TUBE
WELD

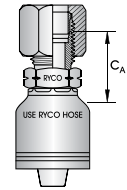


HOSE SIZE		A	DASH SIZE	SALVAGE (LIFESAVER)	
DN	inch	inch		PART NO	C _A
8	5/16	3/8	-0506	T4230-0506	18
10	3/8	3/8	-0606	T4230-0606	19
12	1/2	1/2	-0808	T4230-0808	19
16	5/8	3/4	-1012	T4230-1012	21
19	3/4	3/4	-1212	T4230-1212	21
25	1	1	-1616	T4230-1616	27
31	1.1/4	1.1/4	-2020	T4230-2020	31
38	1.1/2	1.1/2	-2424	T4230-2424	34
51	2	2	-3232	T4230-3232	41

TUBE BITE

T4850
(T485)

COMPLETE WITH NUT
AND FLARELESS OLIVE



HOSE SIZE		TUBE SIZE	DASH SIZE	TUBE BITE	
DN	inch	inch		PART NO	C _A
10	3/8	3/8	-0606	T4850-0606	30

NOTE: Hose Compatibility for the **T4000** series can be found on page 209.

T7000 (T700) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

HOSE COMPATIBILITY FOR T7000 SERIES

NON-SKIVE

For RYCO Hose Series H3000, H4000, H5000 (sizes -06 to -24) and H6000 (sizes -06 to -20).
 For RYCO Hose Series H12A, H12D, H12S all sizes.
 For RYCO Hose Series T1A, T1D, T1F, T1S, T2A, T2D, T2S, T2C, TXA2D, RQP1, RQP2, sizes -06 to -32.
 For RYCO Hose Series D2B, DF2A, E2, R4SHA and R4SHD (sizes -20 to -32).

SKIVE

For RYCO Hose Series R4SPA and R4SPD (cover must be skived) all sizes.

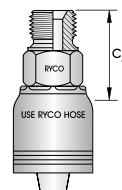
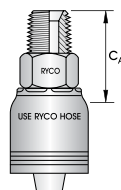
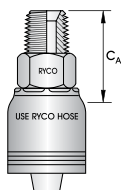
BSP

T7010 (T701)

T7014 (T701H)

T7013 (T701P)

60° SEAT



HOSE SIZE		THRD SIZE	DASH SIZE	BSPT MALE		BSPT MALE HEAVY DUTY		BSPF MALE	
DN	inch	inch		PART NO	C _A	PART NO	C _A	PART NO	C _A
10	3/8	3/8	-0606	T7010-0606	33			T7013-0606	33
12	1/2	1/2	-0808	T7010-0808	40			T7013-0808	31
19	3/4	3/4	-1212	T7010-1212	41			T7013-1212	40
25	1	1	-1616	T7010-1616	48	T7014-1616	48	T7013-1616	45
31	1.1/4	1.1/4	-2020	T7010-2020	53			T7013-2020	51
38	1.1/2	1.1/2	-2424	T7010-2424	55			T7013-2424	55
51	2	2	-3232	T7010-3232	66			T7013-3232	67

BSP

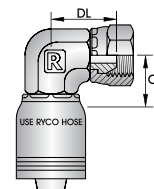
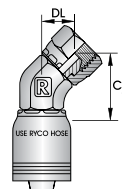
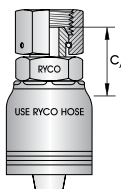
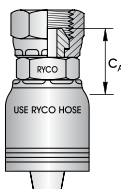
T7020 (T702)

T7022 (T702H)

T7060 (T706)

T7050 (T705)

60° SEAT



HOSE SIZE		THRD SIZE	DASH SIZE	BSPF FEMALE		BSPF FEMALE HEAVY DUTY		BSPF FEMALE 45° ELBOW		BSPF FEMALE 90° ELBOW			
DN	inch	inch		PART NO	C _A	PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL
10	3/8	3/8	-0606	T7020-0606	24						T7050-0606	23	28
12	1/2	1/2	-0808	T7020-0808	26	T7022-0808	28	T7060-0808	40	18	T7050-0808	29	31
19	3/4	3/4	-1212	T7020-1212	28	T7022-1212	34	T7060-1212	44	20	T7050-1212	30	36
25	1	1	-1616	T7020-1616	33	T7022-1616	37	T7060-1616	51	23	T7050-1616	32	40
31	1.1/4	1	-2016	T7020-2016	39								
31	1.1/4	1.1/4	-2020	T7020-2020	40	T7022-2020	44	T7060-2020	42	25	T7050-2020	41	47
38	1.1/2	1.1/2	-2424	T7020-2424	45						T7050-2424	60	59
51	2	2	-3232	T7020-3232	54						T7050-3232	56	62

NOTE: T7000 BSPF, JIC, JIS and Metric Swivel Nut Couplings are shown as "Crimp Nut". Larger sizes are "Wire Nut" or "Slip Nut". See note on page 157.

COUPLINGS

T7000 (T700) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

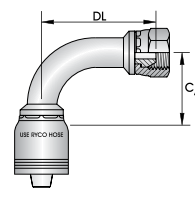
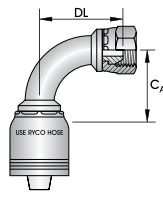
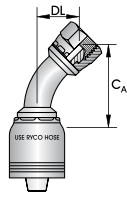
BSP

T7270
(T727)

T7260
(T726)

T7210
(T721)

60° SEAT



HOSE SIZE			THRD SIZE	DASH SIZE	BSPP FEMALE 45° TUBE BEND			BSPP FEMALE 90° TUBE BEND			BSPP FEMALE 90° LONG BEND		
DN	inch	inch		PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL	
10	3/8	3/8	-0606	T7270-0606	43	18	T7260-0606	35	33				
12	1/2	1/2	-0808	T7270-0808	49	22	T7260-0808	40	45				
19	3/4	3/4	-1212	T7270-1212	70	29	T7260-1212	55	58	T7210-1212	55	96	
25	1	1	-1616	T7270-1616	82	42	T7260-1616	67	72	T7210-1616	58	116	
31	1.1/4	1	-2016				T7260-2016	69	79				
31	1.1/4	1.1/4	-2020	T7270-2020	103	44	T7260-2020	87	88	T7210-2020	87	142	
38	1.1/2	1.1/2	-2424	T7270-2424	118	52	T7260-2424	103	106				
51	2	2	-3232	T7270-3232	142	65	T7260-3232	130	132				

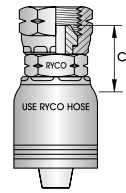
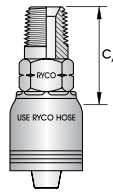
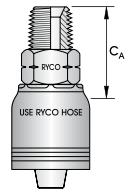
NPT

T7090
(T709)

T7091
(T709E)

T7020N
(T702N)

60° SEAT



HOSE SIZE				THRD SIZE	DASH SIZE	NPT MALE	NPT MALE EXTENDED (API)		NPSM FEMALE	
DN	inch	inch		PART NO	C _A	PART NO	C _A	PART NO	C _A	
10	3/8	1/4	-0604	T7090-0604	33					
10	3/8	3/8	-0606	T7090-0606	33					
12	1/2	3/8	-0806	T7090-0806	35					
12	1/2	1/2	-0808	T7090-0808	40					
19	3/4	3/4	-1212	T7090-1212	41					
25	1	3/4	-1612	T7090-1612	43					
25	1	1	-1616	T7090-1616	48					
31	1.1/4	1	-2016	T7090-2016	52					
31	1.1/4	1.1/4	-2020	T7090-2020	53			T7020N-2020	41	
38	1.1/2	1.1/2	-2424	T7090-2424	55			T7020N-2424	45	
51	2	2	-3232	T7090-3232	66	T7091-3232	107	T7020N-3232	54	

NOTE: Hose Compatibility for the **T7000** series can be found on page 217.

T7000 (T700) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

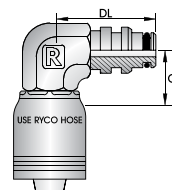
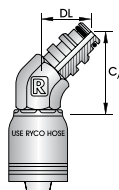
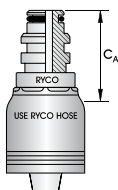
CROCBITE

T7880

T7881

T7882

CROCBITE
HIGH PRESSURE



HOSE SIZE		MWP	DASH SIZE	CROCBITE MALE		CROCBITE MALE 45° ELBOW			CROCBITE MALE 90° ELBOW		
DN	inch	bar		PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL
10	3/8	450	-0610	T7880-0610	39	T7881-0610	43	28	T7882-0610	23	49
12	1/2	450	-0812	T7880-0812	39	T7881-0812	45	28	T7882-0812	29	51
19	3/4	420	-1220	T7880-1220	46						
25	1	420	-1625	T7880-1625	65						
31	1.1/4	420	-2032	T7880-2032	68	T7881-2032	77	50	T7882-2032	52	94
38	1.1/2	420	-2440	T7880-2440	71	T7881-2440	88	53	T7882-2440	61	101
51	2	420	-3250	T7880-3250	97	T7881-3250	107	73	T7882-3250	66	135
63	2.1/2	350	-4063	T7880-4063	97	T7881-4063	114	75	T7882-4063	80	146

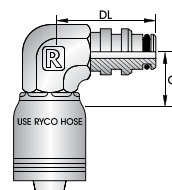
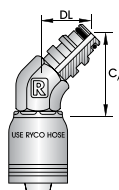
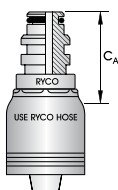
CROCBITE

T7880A

T7881A

T7882A

CROCBITE
HIGH FLOW



HOSE SIZE		MWP	DASH SIZE	CROCBITE MALE		CROCBITE MALE 45° ELBOW			CROCBITE MALE 90° ELBOW		
DN	inch	bar		PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL
50	2	350	-3250	T7880A-3250	94	T7881A-3250	104	70	T7882A-3250	68	129
63	2.1/2	280	-4063	T7880A-4063	93	T7881A-4063	112	73	T7882A-4063	79	141

NOTE: Hose Compatibility for the **T7000** series can be found on page 217.

COUPLINGS

T7000 (T700) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

JIC	T7030 (T703)	T7040 (T704)	T7045 (T704V)
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37° FLARE

HOSE SIZE	THRD SIZE	TUBE SIZE	DASH SIZE	JIC MALE	JIC FEMALE	JIC FEMALE HIGH PRESSURE			
DN	inch	inch	inch	PART NO	C _A	PART NO	C _A	PART NO	C _A
10	3/8	9/16	3/8	-0609	T7030-0609	32	T7040-0609	22	
10	3/8	3/4	1/2	-0612			T7040-0612	24	
12	1/2	3/4	1/2	-0812	T7030-0812	37	T7040-0812	25	
12	1/2	7/8	5/8	-0814	T7030-0814	39	T7040-0814	27	
12	1/2	1.1/16	3/4	-0817			T7040-0817	29	
16	5/8	7/8	5/8	-1014	T7030-1014	41	T7040-1014	28	
	5/8	1.1/16		-1017			T7040-1017	29	
19	3/4	7/8	5/8	-1214			T7040-1214	30	
19	3/4	1.1/16	3/4	-1217	T7030-1217	45	T7040-1217	30	
19	3/4	1.3/16	7/8	-1219			T7040-1219	31	
19	3/4	1.5/16	1	-1221	T7030-1221	42	T7040-1221	34	
25	1	1.1/16	3/4	-1617			T7040-1617	33	
25	1	1.5/16	1	-1621	T7030-1621	47	T7040-1621	36	T7045-1621
25	1	1.5/8	1.1/4	-1626			T7040-1626	41	
31	1.1/4	1.5/16	1	-2021			T7040-2021	41	
31	1.1/4	1.5/8	1.1/4	-2026	T7030-2026	52	T7040-2026	44	T7045-2026
31	1.1/4	1.7/8	1.1/2	-2030			T7040-2030	48	
38	1.1/2	1.7/8	1.1/2	-2430	T7030-2430	57	T7040-2430	49	T7045-2430
51	2	2.1/2	2	-3240	T7030-3240	74	T7040-3240	60	

JIC	T7080 (T708)	T7070 (T707)
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37° FLARE

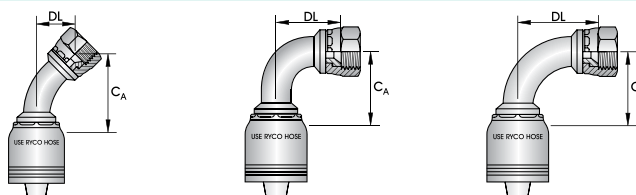
HOSE SIZE	THRD SIZE	TUBE SIZE	DASH SIZE	JIC FEMALE 45° ELBOW	JIC FEMALE 90° ELBOW				
DN	inch	inch	inch	PART NO	C _A	DL	PART NO	C _A	DL
12	1/2	3/4	1/2	-0812	T7080-0812	32	14		
12	1/2	7/8	5/8	-0814	T7080-0814	33	15	T7070-0814	29
19	3/4	1.1/16	3/4	-1217	T7080-1217	37	16	T7070-1217	30
25	1	1.5/16	1	-1621	T7080-1621	42	20	T7070-1621	32

NOTE: Hose Compatibility for the **T7000** series can be found on page 217.

T7000 (T700) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

JIC T7250 (T725) T7243 (T742S) T7240 (T724)

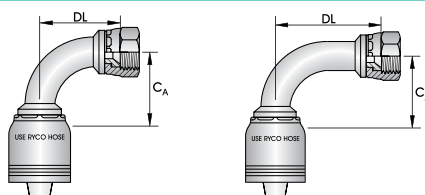
37° FLARE



HOSE SIZE		THRD SIZE	TUBE SIZE	DASH SIZE	JIC FEMALE 45° TUBE BEND			JIC FEMALE 90° SHORT TUBE BEND			JIC FEMALE 90° TUBE BEND		
DN	inch	inch	inch		PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL
10	3/8	9/16	3/8	-0609	T7250-0609	39	11	T7243-0609	31	21	T7240-0609	35	38
12	1/2	3/4	1/2	-0812	T7250-0812	45	15	T7243-0812	43	29	T7240-0812	41	41
12	1/2	7/8	5/8	-0814	T7250-0814	48	18				T7240-0814	41	47
16	5/8	7/8	5/8	-1014	T7250-1014	50	19	T7243-1014	43	32	T7240-1014	48	47
16	5/8	1.1/16	3/4	-1017	T7250-1017	52	24				T7240-1017	48	58
19	3/4	1.1/16	3/4	-1217	T7250-1217	65	22				T7240-1217	55	57
19	3/4	1.5/16	1	-1221	T7250-1221	74	28				T7240-1221	56	71
25	1	1.5/16	1	-1621	T7250-1621	77	30				T7240-1621	68	73
31	1.1/4	1.5/8	1.1/4	-2026	T7250-2026	97	39				T7240-2026	88	81
38	1.1/2	1.7/8	1.1/2	-2430	T7250-2430	121	50				T7240-2430	103	106
51	2	2.1/2	2	-3240	T7250-3240	152	63				T7240-3240	137	132

JIC T7245 (T724V) T7280 (T728)

37° FLARE



HOSE SIZE		THRD SIZE	TUBE SIZE	DASH SIZE	JIC FEMALE 90° TUBE BEND			JIC FEMALE 90° LONG BEND		
DN	inch	inch	inch		PART NO	C _A	DL	PART NO	C _A	DL
19	3/4	1.1/16	3/4	-1217				T7280-1217	56	96
25	1	1.5/16	1	-1621	T7240-1621	68	73	T7280-1621	75	114
31	1.1/4	1.5/8	1.1/4	-2026	T7240-2026	88	81	T7280-2026	86	129
38	1.1/2	1.7/8	1.1/2	-2430	T7240-2430	103	106			

NOTE: Hose Compatibility for the **T7000** series can be found on page 217.

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HOSE

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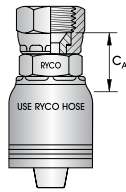
COUPLINGS

T7000 (T700) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

JIS

T7680 (T768)

JAPANESE INDUSTRIAL
STANDARD
"KOMATSU"
METRIC THREAD FORM
60° CONCAVE SEAT



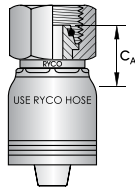
HOSE SIZE		THRD SIZE	DASH SIZE	METRIC FEMALE 60° CONCAVE SEAT (JIS)	
DN	inch	mm		PART NO	C _A
10	3/8	18x1,5	-0618	T7680-0618	22
12	1/2	22x1,5	-0822	T7680-0822	25
12	1/2	24x1,5	-0824	T7680-0824	32
16	5/8	24x1,5	-1024	T7680-1024	25
19	3/4	24x1,5	-1224	T7680-1224	27
19	3/4	30x1,5	-1230	T7680-1230	30
25	1	33x1,5	-1633	T7680-1633	28
25	1	36x1,5	-1636	T7680-1636	34
31	1.1/4	36x1,5	-2036	T7680-2036	31
31	1.1/4	42x1,5	-2042	T7680-2042	32

NOTE: These T7680 Series Couplings are also listed in the **METRIC** section on page 224.

METRIC

T7501 (T750 & T750R)

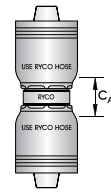
DKOL
METRIC O RING (LIGHT)
24° CONE



HOSE SIZE		THRD SIZE	TUBE SIZE	DASH SIZE	DKOL FEMALE 24° CONE	
DN	inch	mm	mm		PART NO	C _A
31	1.1/4	45x2,0	35	-2045	T7501-2045	35
38	1.1/2	52x2,0	42	-2452	T7501-2452	45

JOINER

T7900 (T790)



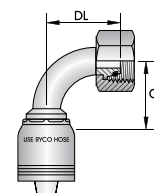
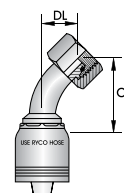
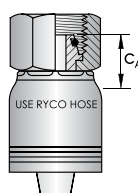
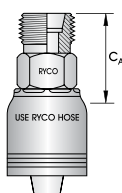
HOSE SIZE		DASH SIZE	JOINER		
DN	inch		PART NO	C _A	
10	3/8	-0606	T7900-0606	15	
12	1/2	-0808	T7900-0808	15	
19	3/4	-1212	T7900-1212	15	
25	1	-1616	T7900-1616	25	
31	1.1/4	-2020	T7900-2020	24	
38	1.1/2	-2424	T7900-2424	25	
51	2	-3232	T7900-3232	26	
63	2.1/2	-4040	T7900-4040	26	

NOTE: Hose Compatibility for the **T7000** series can be found on page 217.

T7000 (T700) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

METRIC T7630 (T763) T7711 (T771) T7720 (T772) T7730 (T773)

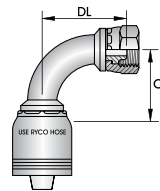
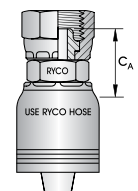
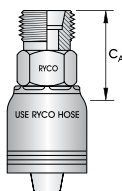
DKS
METRIC O RING
&
DKOS
METRIC O RING (HEAVY)
24° CONE



HOSE SIZE	THRD SIZE	TUBE SIZE	DASH SIZE	DKS MALE 24° CONE	DKOS FEMALE 24° CONE	DKOS FEMALE 24° CONE 45° TUBE BEND	DKOS FEMALE 24° CONE 90° TUBE BEND							
DN	inch	mm	mm	PART NO	C _A	PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL	
10	3/8	20x1,5	12	-0620		T7711-0620	24							
10	3/8	22x1,5	14	-0622		T7711-0622	26							
12	1/2	24x1,5	16	-0824	T7630-0824	30	T7711-0824	28	T7720-0824	53	24	T7730-0824	40	48
16	5/8	30x2,0	20	-1030		T7711-1030	31							
16	5/8	36x2,0	25	-1036		T7711-1036	33							
19	3/4	30x2,0	20	-1230	T7630-1230	35	T7711-1230	30	T7720-1230	74	35	T7730-1230	55	68
19	3/4	36x2,0	25	-1236	T7630-1236	37	T7711-1236	33	T7720-1236	76	35	T7730-1236	56	68
19	3/4	42x2,0	30	-1242		T7711-1242	37							
25	1	30x2,0	20	-1630		T7711-1630	34							
25	1	36x2,0	25	-1636	T7630-1636	41	T7711-1636	34						
25	1	42x2,0	30	-1642	T7630-1642	43	T7711-1642	36	T7720-1642	87	36	T7730-1642	69	77
31	1.1/4	42x2,0	30	-2042	T7630-2042	48	T7711-2042	38						
31	1.1/4	52x2,0	38	-2052		T7711-2052	40	T7720-2052	128	48	T7730-2052	90	89	
38	1.1/2	52x2,0	38	-2452		T7711-2452	41							

METRIC T7920 (T792) T7921 (T792F) T7923 (T792G)

FRENCH GAZ
24° CONE



HOSE SIZE	THRD SIZE	TUBE SIZE	DASH SIZE	METRIC FRENCH GAZ MALE	METRIC FRENCH GAZ FEMALE	METRIC FRENCH GAZ FEMALE 90° TUBE BEND				
DN	inch	mm	mm	PART NO	C _A	PART NO	C _A	PART NO	C _A	DL
10	3/8	20x1,5	13,25	-0620						
12	1/2	24x1,5	16,75	-0824						
16	5/8	30x1,5	21,25	-1030						
19	3/4	36x1,5	26,75	-1236	T7920-1236	31				
25	1	45x1,5	33,50	-1645	T7920-1645	39				
31	1.1/4	52x1,5	42,25	-2052	T7920-2052	42				

NOTE: Hose Compatibility for the **T7000** series can be found on page 217.

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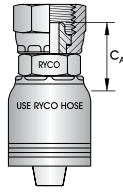
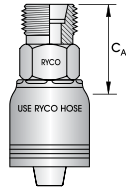
T7000 (T700) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

METRIC

T7924
(T792M)

T7925
(T792N)

FRENCH
MILLIMETRIC
24° CONE

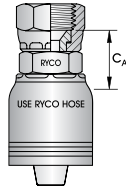


HOSE SIZE	THRD SIZE	TUBE SIZE	DASH SIZE	METRIC FRENCH MILLIMETRIC MALE	METRIC FRENCH MILLIMETRIC FEMALE
DN	inch	mm	mm	PART NO	C _A
16	5/8	27x1,5	20	-1027	
19	3/4	30x1,5	22	-1230	
19	3/4	33x1,5	25	-1233	
19	3/4	36x1,5	28	-1236	
25	1	36x1,5	28	-1636	
25	1	39x1,5	30	-1639	
25	1	45x1,5	35	-1645	
31	1.1/4	45x1,5	35	-2045	

METRIC

T7680
(T768)

JAPANESE INDUSTRIAL
STANDARD (JIS)
"KOMATSU"
METRIC THREAD FORM
60° CONCAVE SEAT



HOSE SIZE	THRD SIZE	DASH SIZE	METRIC FEMALE 60° CONCAVE SEAT (JIS)
DN	inch	inch	PART NO
10	3/8	18x1,5	-0618
12	1/2	22x1,5	-0822
12	1/2	24x1,5	-0824
16	5/8	24x1,5	-1024
19	3/4	24x1,5	-1224
19	3/4	30x1,5	-1230
25	1	33x1,5	-1633
25	1	36x1,5	-1636
31	1.1/4	36x1,5	-2036
31	1.1/4	42x1,5	-2042
38	1.1/2	42x1,5	-2442

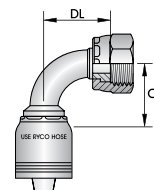
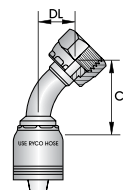
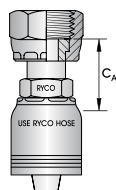
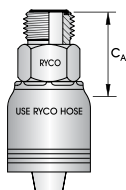
NOTE: These T7680 Series Couplings are also listed in the JIS section on page 222.

NOTE: Hose Compatibility for the T7000 series can be found on page 217.

T7000 (T700) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

ORFS T7840 (T784) T7800 (T780) T7810 (T781) T7823 (T782S)

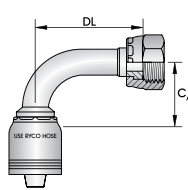
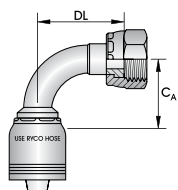
O RING
FACE SEAL



HOSE SIZE		THRD SIZE	TUBE SIZE	DASH SIZE	ORFS MALE			ORFS FEMALE			ORFS FEMALE 45° TUBE BEND			ORFS FEMALE 90° SHORT BEND		
DN	inch	inch	inch		PART NO	C _A	PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL		
10	3/8	11/16	3/8	-0611	T7840-0611	29	T7800-0611	31	T7810-0611	45	20					
10	3/8	13/16	1/2	-0613					T7810-0613	40	17					
12	1/2	13/16	1/2	-0813	T7840-0813	33	T7800-0813	34	T7810-0813	49	19					
12	1/2	1	5/8	-0816			T7800-0816	40	T7810-0816	46	19					
12	1/2	1.3/16	3/4	-0819			T7800-0819	43								
16	5/8	1	5/8	-1016			T7800-1016	38	T7810-1016	59	20					
19	3/4	1.3/16	3/4	-1219	T7840-1219	38	T7800-1219	43	T7810-1219	64	29	T7823-1219	56	49		
19	3/4	1.7/16	1	-1223			T7800-1223	52								
25	1	1.7/16	1	-1623	T7840-1623	41	T7800-1623	54	T7810-1623	86	34	T7823-1623	64	56		
25	1	1.11/16	1.1/4	-1627			T7800-1627	59								
31	1.1/4	1.11/16	1.1/4	-2027	T7840-2027	45	T7800-2027	59	T7810-2027	107	45	T7823-2027				
38	1.1/2	2	1.1/2	-2432			T7800-2432	66	T7810-2432	126	53					

ORFS T7820 (T782) T7830 (T783)

O RING
FACE SEAL



HOSE SIZE		THRD SIZE	TUBE SIZE	DASH SIZE	ORFS FEMALE 90° MEDIUM BEND			ORFS FEMALE 90° LONG BEND		
DN	inch	inch	inch		PART NO	C _A	DL	PART NO	C _A	DL
10	3/8	11/16	3/8	-0611	T7820-0611	32	38			
12	1/2	13/16	1/2	-0813	T7820-0813	32	41			
12	1/2	1	5/8	-0816	T7820-0816	41	47			
12	1/2	1.3/16	3/4	-0819	T7820-0819	138	46			
16	5/8	1	5/8	-1016	T7820-1016	50	47			
19	3/4	1.3/16	3/4	-1219	T7820-1219	51	59	T7830-1219	55	96
25	1	1.7/16	1	-1623	T7820-1623	67	71	T7830-1623	74	113
31	1.1/4	1.11/16	1.1/4	-2027	T7820-2027	84	90	T7830-2027	86	129
38	1.1/2	2	1.1/2	-2432	T7820-2432	105	107			

NOTE: Hose Compatibility for the **T7000** series can be found on page 217.

COUPLINGS

T7000 (T700) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

RKVP

T7896

T7899

RKVP
HIGH PRESSURE



HOSE SIZE		RKVP SIZE	MAX WP	DASH SIZE	RKVP MALE		RKVP FEMALE	
DN	inch	mm	bar		PART NO	C _A	PART NO	C _A
10	3/8	10	450	-0610	T7896-0610	51	T7899-0610	34
12	1/2	12	450	-0812	T7896-0812	53	T7899-0812	37
16	5/8	20	420	-1020	T7896-1020	57	T7899-1020	38
19	3/4	20	420	-1220	T7896-1220	56	T7899-1220	39
25	1	25	420	-1625	T7896-1625	51	T7899-1625	47
31	1.1/4	32	420	-2032	T7896-2032	70	T7899-2032	57
38	1.1/2	40	420	-2440	T7896-2440	88	T7899-2440	61
51	2	50	420	-3250	T7896-3250	85	T7899-3250	63
63	2.1/2	63	350	-4063	T7896-4063	111	T7899-4063	78

RKVF

T7890

T7894

RKVF
HIGH FLOW



HOSE SIZE		RKVF SIZE	MAX WP	DASH SIZE	RKVF MALE		RKVF FEMALE	
DN	inch	mm	bar		PART NO	C _A	PART NO	C _A
51	2	50	165	-3250	T7890-3250	77	T7894-3250	54
63	2.1/2	63	70	-4063	T7890-4063	77	T7894-4063	53

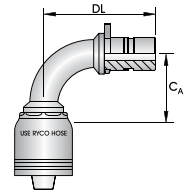
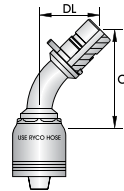
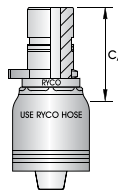
RYCO WEO

T7480 (T748)

T7482 (T748B)

T7483 (T748C)

WEO



HOSE SIZE		PLUG-IN SIZE		MAX WORKING PRESSURE		RYCO WEO MALE		RYCO WEO MALE 45° TUBE BEND			RYCO WEO MALE 90° TUBE BEND			
DN	Dash	inch	DN	inch	bar	psi	PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL
10	-06	3/8	10	3/8	350	5100	T7480-0606	35	T7482-0606	55	27	T7483-0606	35	52
12	-08	1/2	12	1/2	350	5100	T7480-0808	36	T7482-0808	59	31	T7483-0808	38	58
16	-10	5/8	19	3/4	350	5100	T7480-1012	45	T7482-1012	72	40	T7483-1012	44	73
19	-12	3/4	19	3/4	350	5100	T7480-1212	45	T7482-1212	82	43	T7483-1212	54	82
25	-16	1	25	1	250	3600	T7480-1616	56	T7482-1616	105	53	T7483-1616	72	97

NOTE: RYCO WEO male and female couplings and adaptors do not contain a shut-off valve. When not in use, cap the RYCO WEO male using the appropriate size RW811 series stop cap and plug the RYCO WEO female/cartridge using the appropriate size RW723 series stop plug.

NOTE: Hose Compatibility for the **T7000** series can be found on page 217.

T7000 (T700) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

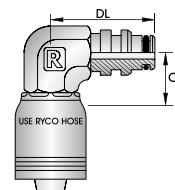
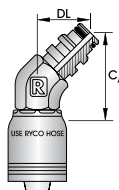
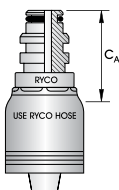
STAPLELOK

T7870
(T787)

T7871
(T788)

T7872
(T789)

STAPLE
O RING & BACK UP RING
SUPPLIED

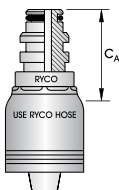


HOSE SIZE		STAPLE SIZE	DASH SIZE	STAPLELOK MALE	STAPLELOK MALE 45° ELBOW			STAPLELOK MALE 90° ELBOW			
DN	inch	mm		PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL
10	3/8	10	-0610	T7870-0610	38	T7871-0610	43	28	T7872-0610	21	46
12	1/2	12	-0812	T7870-0812	41	T7871-0812	47	28	T7872-0812	31	50
16	5/8	16	-1016	T7870-1016	39	T7871-1016	45	28	T7872-1016	33	53
19	3/4	20	-1220	T7870-1220	38	T7871-1220	57	33	T7872-1220	35	56
25	1	25	-1625	T7870-1625	50	T7871-1625	63	37	T7872-1625	45	84
31	1.1/4	32	-2032	T7870-2032	50	T7871-2032	65	37	T7872-2032	50	68
38	1.1/2	40	-2440	T7870-2440	57	T7871-2440	82	44	T7872-2440	61	85
51	2	50	-3250	T7870-3250	58	T7871-3250	87	46	T7872-3250	64	95
63	2.1/2	63	-4063	T7870-4063	93	T7871-4063	112	69	T7872-4063	80	137

SUPERLOK

T7876
(T787S)

SUPERSTAPLE
O RING & BACK UP RING
SUPPLIED



HOSE SIZE		STAPLE SIZE	DASH SIZE	RYCO SUPERLOK MALE
DN	inch	mm		PART NO
12	1/2	12	-0813	T7876-0812
16	5/8	16	-1016	T7876-1016
19	3/4	20	-1220	T7876-1220
25	1	25	-1625	T7876-1625
31	1.1/4	32	-2032	T7876-2032
38	1.1/2	40	-2440	T7876-2440
51	2	50	-3250	T7876-3250

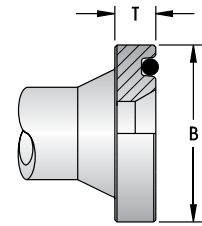
NOTE: Hose Compatibility for the **T7000** series can be found on page 217.

COUPLINGS

T7000 (T700) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

DIMENSIONS FOR SAE CODE 61 AND CODE 62 FLANGES, AND RYCO CODE 62C FLANGES

NOMINAL FLANGE	CODE 61				CODE 62				CODE 62C			
	B		T		B		T		B		T	
inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
1/2	30,2	1.19	6,73	0.265	31,8	1.25	7,75	0.305				
*5/8	34,0	1.34	6,73	0.265								
3/4	38,1	1.50	6,73	0.265	41,3	1.63	8,76	0.345	41,3	1.63	14,20	0.559
1	44,5	1.75	8,00	0.315	47,6	1.88	9,53	0.375	47,6	1.88	14,20	0.559
1.1/4	50,8	2.00	8,00	0.315	54,0	2.12	10,29	0.405	54,0	2.12	14,20	0.559
1.1/2	60,3	2.38	8,00	0.315	63,5	2.50	12,57	0.495	63,5	2.50	14,20	0.559
2	71,4	2.81	9,53	0.375	79,4	3.13	12,57	0.495	79,4	3.13	14,20	0.559
2.1/2	84,1	3.31	9,53	0.375								
3	101,6	4.00	9,53	0.375								



NOTE: *5/8 is used by Komatsu.

RYCO Code 62C fittings conform to the flange OD and bolt hole patterns of SAE Code 62 but require special flange clamps.
RYCO Code 62C flange heads are thicker than SAE Code 62 and measure T = 14,2 mm (0.559 inch) in all sizes.

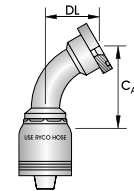
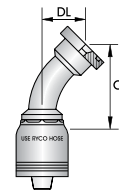
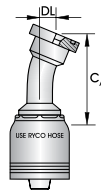
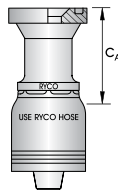
SAE FLANGE

T7130
(T713)

T7140
(T714)

T7150
(T715)

T7300
(T730)



RYCO
CODE 61
CLAMPS - SEE PAGES 345 & 346
***(5/8 KOMATSU)**
O RING NOT SUPPLIED

HOSE SIZE		NOM. FLANGE SIZE	DASH SIZE	CODE 61 FLANGE	CODE 61 FLANGE 22.5° TUBE BEND	CODE 61 FLANGE 45° TUBE BEND	CODE 61 FLANGE 60° TUBE BEND							
DN	inch	inch		PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL
12	1/2	1/2	-0808	T7130-0808	45				T7150-0808	49	20			
12	1/2	3/4	-0812	T7130-0812	47				T7150-0812	51	24			
19	3/4	*5/8	-1210	T7130-1210	45				T7150-1210	56	26			
19	3/4	3/4	-1212	T7130-1212	46	T7140-1212	72	12	T7150-1212	65	26	T7300-1212	78	37
19	3/4	1	-1216	T7130-1216	50	T7140-1216	82	18	T7150-1216	69	30	T7300-1216	80	41
19	3/4	1.1/4	-1220	T7130-1220	56									
25	1	1	-1616	T7130-1616	52	T7140-1616	93	14	T7150-1616	81	30	T7300-1616	99	46
25	1	1.1/4	-1620	T7130-1620	57	T7140-1620	94	17	T7150-1620	83	32	T7300-1620	97	45
25	1	1.1/2	-1624	T7130-1624	84									
31	1.1/4	1	-2016	T7130-2016	85				T7150-2016	88	30			
31	1.1/4	1.1/4	-2020	T7130-2020	59	T7140-2020	107	16	T7150-2020	100	36	T7300-2020	119	51
31	1.1/4	1.1/2	-2024	T7130-2024	85	T7140-2024	116	20	T7150-2024	103	38	T7300-2024	121	54
38	1.1/2	1.1/4	-2420	T7130-2420	59									
38	1.1/2	1.1/2	-2424	T7130-2424	85	T7140-2424	118	24	T7150-2424	115	42	T7300-2424	144	60
38	1.1/2	2	-2432	T7130-2432	95	T7140-2432	134	27	T7150-2432	120	47	T7300-2432	147	68
51	2	2	-3232	T7130-3232	101	T7140-3232	156	56	T7150-3232	150	58	T7300-3232	181	82
51	2	2.1/2	-3240	T7130-3240	101									
63	2.1/2	2.1/2	-4040	T7130-4040	79				T7150-4040					

NOTE: Hose Compatibility for the **T7000** series can be found on page 217.

T7000 (T700) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

SAE FLANGE

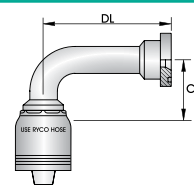
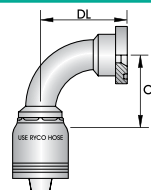
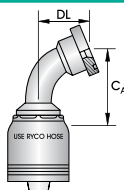
T7290
(T729)

T7160
(T716)

T7170
(T717)

T7171
(T717A)

RYCO
CODE 61
CLAMPS - SEE PAGES 345 & 346
*(5/8 KOMATSU)
O RING NOT SUPPLIED



INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

HOSE SIZE		NOM. FLANGE SIZE	DASH SIZE	CODE 61 FLANGE 30° TUBE BEND			CODE 61 FLANGE 67.5° TUBE BEND			CODE 61 FLANGE 90° TUBE BEND			CODE 61 FLANGE 90° SPECIAL TUBE BEND		
DN	inch	inch		PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL
12	1/2	1/2	-0808							T7170-0808	42	41			
12	1/2	3/4	-0812							T7170-0812	42	46	T7171-0812	51	73
19	3/4	*5/8	-1210							T7170-1210	51	48			
19	3/4	3/4	-1212	T7290-1212	70	18	T7160-1212	76	45	T7170-1212	55	54			
19	3/4	1	-1216				T7160-1216	78	49	T7170-1216	55	60	T7171-1216	55	79
25	1	3/4	-1612							T7170-1612	60	54			
25	1	1	-1616	T7290-1616	94	22	T7160-1616	88	50	T7170-1616	68	68			
25	1	1.1/4	-1620				T7160-1620	88	52	T7170-1620	70	69			
25	1	1.1/2	-1624							T7170-1624	68	73			
31	1.1/4	1	-2016							T7170-2016	78	68			
31	1.1/4	1.1/4	-2020	T7290-2020	104	20	T7160-2020	132	67	T7170-2020	88	78			
31	1.1/4	1.1/2	-2024	T7290-2024	110	23	T7160-2024	133	68	T7170-2024	88	81	T7171-2024	84	79
38	1.1/2	1.1/2	-2424	T7290-2424	118	26	T7160-2424	131	70	T7170-2424	104	93			
38	1.1/2	2	-2432	T7290-2432	130	32	T7160-2432	134	79	T7170-2432	104	99	T7171-2432	103	114
51	2	2	-3232	T7290-3232	149	30	T7160-3232	169	93	T7170-3232	137	130	T7171-3232	138	165
51	2	2.1/2	-3240							T7170-3240	141	134			
63	2.1/2	2.1/2	-4040							T7170-4040					

NOTE: For SAE Code 61/62 and RYCO Code 62C Flange dimensions, see page 228.

NOTE: Hose Compatibility for the **T7000** series can be found on page 217.

COUPLINGS

T7000 (T700) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

SAE FLANGE

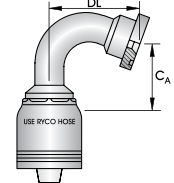
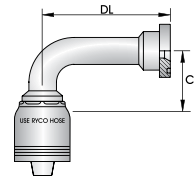
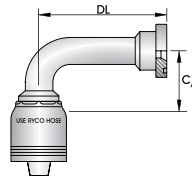
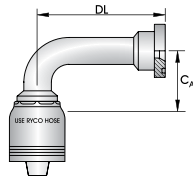
T7172
(T717B)

T7173
(T717L)

T7174
(T717D)

T7910
(T791)

RYCO
CODE 61
CLAMPS - SEE PAGES 345 & 346
O RING NOT SUPPLIED



HOSE SIZE			NOM. FLANGE SIZE	DASH SIZE	CODE 61 FLANGE 90° SPECIAL TUBE BEND	CODE 61 FLANGE 90° LONG TUBE BEND	CODE 61 FLANGE 90° SPECIAL TUBE BEND	CODE 61 FLANGE 110° TUBE BEND								
DN	inch	inch			PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL
19	3/4	3/4	-1212	T7172-1212	56	96	T7173-1212	55	78	T7174-1212	55	96	T7910-1212	75	63	
25	1	1	-1616	T7172-1616	71	67	T7173-1616	71	94	T7174-1616	70	118	T7910-1616	82	80	
25	1	1.1/4	-1620				T7173-1620	67	93	T7174-1620	68	118	T7910-1620	82	85	
31	1.1/4	1.1/4	-2020	T7172-2020	84	92	T7173-2020	80	108	T7174-2020	85	130	T7910-2020	90	95	
31	1.1/4	1.1/2	-2024										T7910-2024	90	98	
38	1.1/2	1.1/2	-2424	T7172-2424	103	148				T7174-2424	103	148	T7910-2424	148	116	
38	1.1/2	2	-2432										T7910-2432	149	107	
51	2	2	-3232							T7174-3232	136	203	T7910-3232	149	142	

NOTE: For SAE Code 61/62 and RYCO Code 62C Flange dimensions, see page 228.

SAE FLANGE

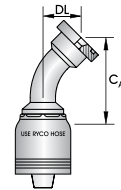
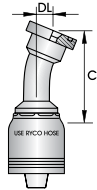
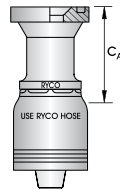
T7330
(T733)

T7440
(T744)

T7450
(T745)

T7350
(T735)

RYCO
CODE 62
CLAMPS - SEE PAGES 345 & 346
O RING NOT SUPPLIED



HOSE SIZE			NOM. FLANGE SIZE	DASH SIZE	CODE 62 FLANGE	CODE 62 FLANGE 22.5° TUBE BEND	CODE 62 FLANGE 30° TUBE BEND	CODE 62 FLANGE 45° TUBE BEND							
DN	inch	inch			PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL
12	1/2	1/2	-0808	T7330-0808	45										
12	1/2	3/4	-0812	T7330-0812	57										
16	5/8	1/2	-1008	T7330-1008	45										
16	5/8	3/4	-1012	T7330-1012	51										
19	3/4	3/4	-1212	T7330-1212	51	T7440-1212	77	16	T7450-1212	70	19	T7350-1212	66	28	
19	3/4	1	-1216	T7330-1216	54	T7440-1216	81	18				T7350-1216	70	31	
25	1	3/4	-1612	T7330-1612	53							T7350-1612	72	28	
25	1	1	-1616	T7330-1616	52	T7440-1616	89	16	T7450-1616	88	22	T7350-1616	82	31	
25	1	1.1/4	-1620	T7330-1620	57				T7450-1620	88	25	T7350-1620	85	34	
31	1.1/4	1	-2016	T7330-2016	85										
31	1.1/4	1.1/4	-2020	T7330-2020	59	T7440-2020	107	17	T7450-2020	107	22	T7350-2020	102	38	
31	1.1/4	1.1/2	-2024	T7330-2024	85	T7440-2024	137	22	T7450-2024	112	25	T7350-2024	106	41	
38	1.1/2	1.1/2	-2424	T7330-2424	85	T7440-2424	126	24	T7450-2424	134	33	T7350-2424	118	45	
38	1.1/2	2	-2432	T7330-2432	95							T7350-2432	120	50	
51	2	2	-3232	T7330-3232	95	T7440-3232	162	28				T7350-3232	152	60	

NOTE: For SAE Code 61/62 and RYCO Code 62C Flange dimensions, see page 228.

NOTE: Hose Compatibility for the T7000 series can be found on page 217.

T7000 (T700) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

SAE FLANGE

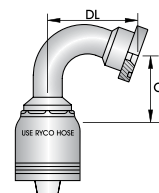
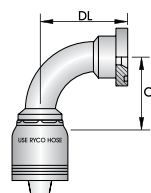
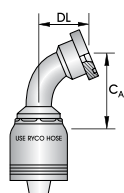
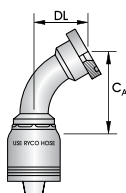
T7460
(T746)

T7360
(T736)

T7370
(T737)

T7930
(T793)

RYCO
CODE 62
CLAMPS - SEE PAGES 345 & 346
O RING NOT SUPPLIED



HOSE SIZE		NOM. FLANGE SIZE	DASH SIZE	CODE 62 FLANGE 60° TUBE BEND			CODE 62 FLANGE 67.5° TUBE BEND			CODE 62 FLANGE 90° TUBE BEND			CODE 62 FLANGE 110° TUBE BEND		
DN	inch	inch		PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL
12	1/2	1/2	-0808							T7370-0808	42	42			
12	1/2	3/4	-0812							T7370-0812	42	46			
19	3/4	3/4	-1212	T7460-1212	80	36	T7360-1212	77	47	T7370-1212	55	56			
19	3/4	1	-1216	T7460-1216	82	37	T7360-1216	78	57	T7370-1216	55	61			
25	1	3/4	-1612							T7370-1612	60	56			
25	1	1	-1616	T7460-1616	96	44	T7360-1616	89	51	T7370-1616	68	70			
25	1	1.1/4	-1620	T7460-1620	97	46	T7360-1620	93	72	T7370-1620	70	71			
31	1.1/4	1	-2016							T7370-2016	78	70			
31	1.1/4	1.1/4	-2020	T7460-2020	99	46	T7360-2020	133	72	T7370-2020	88	80			
31	1.1/4	1.1/2	-2024	T7460-2024	122	58	T7360-2024	137	74	T7370-2024	88	86			
38	1.1/2	1.1/2	-2424	T7460-2424	155	71				T7370-2424	104	98	T7930-2424	149	117
38	1.1/2	2	-2432							T7370-2432	104	104	T7930-2432	150	108
51	2	2	-3232							T7370-3232	137	131	T7930-3232	150	143

NOTE: For SAE Code 61/62 and RYCO Code 62C Flange dimensions, see page 228.

SPECIAL FLANGE

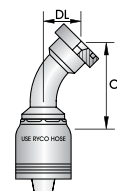
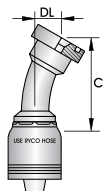
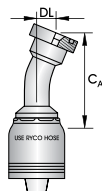
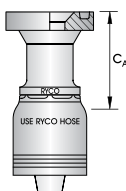
T7333
(T733C)

T7443
(T744C)

T7453
(T745C)

T7353
(T735C)

RYCO
CODE 62C
O RING NOT SUPPLIED



HOSE SIZE		NOM. FLANGE SIZE	DASH SIZE	RYCO CODE 62C FLANGE			RYCO CODE 62C FLANGE 22.5° TUBE BEND			RYCO CODE 62C FLANGE 30° TUBE BEND			RYCO CODE 62C FLANGE 45° TUBE BEND		
DN	inch	inch		PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL	PART NO	CA	DL
19	3/4	3/4	-1212	T7333-1212	62		T7443-1212	82	19	T7453-1212	81	23	T7353-1212	69	31
19	3/4	1	-1216	T7333-1216	62		T7443-1216	85	20				T7353-1216	72	33
25	1	1	-1616	T7333-1616	64		T7443-1616	89	16	T7453-1616	108	24	T7353-1616	83	35
25	1	1.1/4	-1620	T7333-1620	71		T7443-1620	93	16	T7453-1620	111	25	T7353-1620	81	37
31	1.1/4	1.1/4	-2020	T7333-2020	86		T7443-2020	107	17	T7453-2020	115	25	T7353-2020	104	41
31	1.1/4	1.1/2	-2024	T7333-2024	86		T7443-2024	137	22	T7453-2024	114	26	T7353-2024	105	41
38	1.1/2	1.1/2	-2424	T7333-2424	88		T7443-2424	126	24	T7453-2424	116	30	T7353-2424	119	46
51	2	2	-3232	T7333-3232	97								T7353-3232	156	61

NOTE: These T7003 fittings have similar end styles to Caterpillar® XT-3 range of Flanged Hose Couplings. Cat™ Caterpillar®, XT-3™ Caterpillar®
For SAE Code 61/62 and RYCO Code 62C Flange dimensions, see page 228.

NOTE: Hose Compatibility for the T7000 series can be found on page 217.

COUPLINGS

T7000 (T700) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

SPECIAL FLANGE

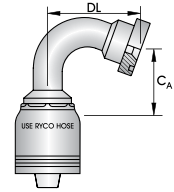
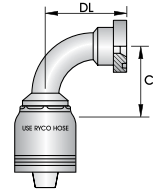
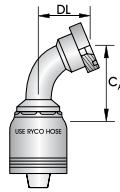
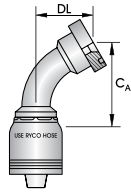
T7463
(T746C)

T7363
(T736C)

T7373
(T737C)

T7933
(T793C)

RYCO
CODE 62C
O RING NOT SUPPLIED



HOSE SIZE		NOM. FLANGE SIZE	DASH SIZE	RYCO CODE 62C FLANGE 60° TUBE BEND	RYCO CODE 62C FLANGE 67.5° TUBE BEND	RYCO CODE 62C FLANGE 90° TUBE BEND	RYCO CODE 62C FLANGE 110° TUBE BEND								
DN	inch	inch		PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL
19	3/4	3/4	-1212	T7463-1212	80	37	T7363-1212	79	52	T7373-1212	55	61			
19	3/4	1	-1216	T7463-1216	82	41	T7363-1216	80	53	T7373-1216	55	66			
25	1	1	-1616	T7463-1616	96	47	T7363-1616	91	53	T7373-1616	68	74			
25	1	1.1/4	-1620	T7463-1620	101	49	T7363-1620	92	56	T7373-1620	68	75			
31	1.1/4	1.1/4	-2020	T7463-2020	120	56	T7363-2020	113	67	T7373-2020	85	83			
31	1.1/4	1.1/2	-2024	T7463-2024	145	66	T7363-2024	136	76	T7373-2024	86	85			
38	1.1/2	1.1/2	-2424	T7463-2424	144	68	T7363-2424	136	77	T7373-2424	99	99	T7933-2424	140	120
51	2	2	-3232							T7272-3232	137	133			

NOTE: These **T7003** fittings have similar end styles to Caterpillar® XT-3 range of Flanged Hose Couplings. Cat™ Caterpillar®, XT-3™ Caterpillar®. For SAE Code 61/62 and RYCO Code 62C Flange dimensions, see page 228.

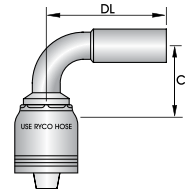
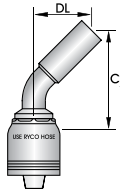
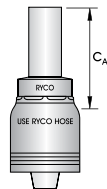
STANDPIPE

T7640
(T764)

T7643
(T764B)

T7646
(T764C)

METRIC



HOSE SIZE	TUBE SIZE	DASH SIZE	METRIC STANDPIPE	METRIC STANDPIPE 45° TUBE BEND	METRIC STANDPIPE 90° TUBE BEND					
DN	inch	mm	PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL
12	1/2	14	-0814	T7640-0814	40					
12	1/2	16	-0816					T7646-0816	41	53
19	3/4	20	-1220	T7640-1220	47					
19	3/4	25	-1225							
25	1	25	-1625							
31	1.1/4	30	-2030	T7640-2030	23					
31	1.1/4	38	-2038	T7640-2038	23					

NOTE: See page 337 for DKL and DKS Metric Nuts and Olives for use with Metric Standpipe Fittings.

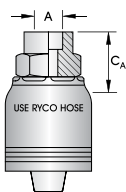
NOTE: Hose Compatibility for the **T7000** series can be found on page 217.

T7000 (T700) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

SALVAGE

T7230
(T723)

TUBE WELD



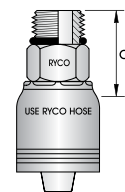
HOSE SIZE		A	DASH SIZE	SALVAGE (LIFESAVER)	
DN	inch	inch		PART NO	C_A
12	1/2	1/2	-0808	T7230-0808	19
12	1/2	5/8	-0810	T7230-0810	21
19	3/4	5/8	-1210	T7230-1210	21
19	3/4	3/4	-1212	T7230-1212	26
19	3/4	1	-1216	T7230-1216	21
25	1	3/4	-1612	T7230-1612	27
25	1	1	-1616	T7230-1616	26
25	1	1.1/4	-1620	T7230-1620	27
31	1.1/4	1	-2016	T7230-2016	29
31	1.1/4	1.1/4	-2020	T7230-2020	31
38	1.1/2	1.1/2	-2424	T7230-2424	34
51	2	2	-3232	T7230-3232	41

WARNING: Due to high pressures involved, special care must be taken when using **T7230** Salvage Couplings. See Clause 8 of the Terms & Conditions of Sale.

UNO (O RING BOSS)

T7200
(T720)

O RING SUPPLIED



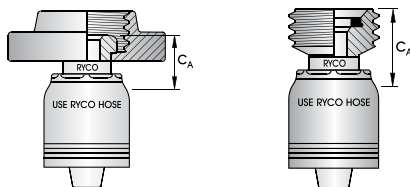
HOSE SIZE		THRD SIZE	TUBE SIZE	DASH SIZE	UN O RING MALE	
DN	inch	inch	inch		PART NO	C_A
19	3/4	1.1/16	3/4	-1217	T7200-1217	36
25	1	1.5/16	1	-1621	T7200-1621	39

HAMMER UNION

T71502

T71501

FIGURE 1502
STANDARD SERVICE



HOSE SIZE		THRD SIZE	DASH SIZE	FIG 1502 MALE (WITH NUT)	FIG 1502 FEMALE (WITH SEAL)
DN	inch	inch		PART NO	PART NO
38	1.1/2	2	-2432	T71502-2432	T71501-2432
51	2	2	-3232	T71502-3232	T71501-3232

NOTE: Nut must be installed onto hose before coupling is installed and crimped. Replacement parts **RF1502N-32** nut and **RF1502W-32** Nitrile seal are available.

NOTE: Hose Compatibility for the **T7000** series can be found on page 217.

COUPLINGS

T9000 (T900) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

HOSE COMPATIBILITY FOR T9000 SERIES

NON-SKIVE

For RYCO Hose H5032, H6024, R4SH12, R4SH16.

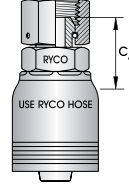
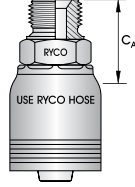
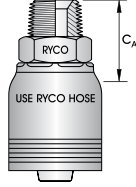
BSP

T9010
(T901)

T9013
(T901P)

T9020
(T902)

60° SEAT



HOSE SIZE		THRD SIZE	DASH SIZE	BSPT MALE	BSPP MALE	BSPP FEMALE			
DN	inch	inch		PART NO	C _A	PART NO	C _A	PART NO	C _A
19	3/4	3/4	-1212	T9010-1212	42	T9013-1212	42	T9020-1212	27
25	1	1	-1616	T9010-1616	49	T9013-1616	46	T9020-1616	37
31	1.1/4	1.1/4	-2020	T9010-2020	54	T9013-2020	51	T9020-2020	41
38	1.1/2	1.1/2	-2424	T9010-2424	61	T9013-2424	55	T9020-2424	44
51	2	2	-3232	T9010-3232	64	T9013-3232	67	T9020-3232	53

BSP

T9050
(T905)

T9260
(T926)

60° SEAT



PRODUCT SUPERSEDED - REFER TO T6000 SERIES

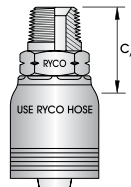
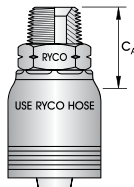
HOSE SIZE		THRD SIZE	DASH SIZE	BSPP FEMALE 90° ELBOW	BSPP FEMALE 90° TUBE BEND				
DN	inch	inch		PART NO	C _A	DL	PART NO	C _A	DL
19	3/4	3/4	-1212	T9050-1212	36	30			
25	1	1	-1616	T9050-1616	40	32	T9260-1616	71	71
31	1.1/4	1.1/4	-2020	T9050-2020	49	43	T9260-2020	86	91
38	1.1/2	1.1/2	-2424	T9050-2424	59	60			
51	2	2	-3232	T9050-3232	62	56			

NPT

T9090
(T909)

T9091
(T909E)

60° SEAT



HOSE SIZE		THRD SIZE	DASH SIZE	NPT MALE	NPT MALE EXTENDED (API)		
DN	inch	inch		PART NO	C _A	PART NO	C _A
19	3/4	3/4	-1212	T9090-1212	42		
25	1	1	-1616	T9090-1616	49		
31	1.1/4	1.1/4	-2020	T9090-2020	54		
38	1.1/2	1.1/2	-2424	T9090-2424	55		
51	2	2	-3232	T9090-3232	66	T9091-3232	107

T9000 (T900) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

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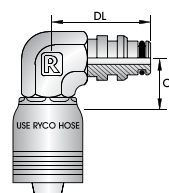
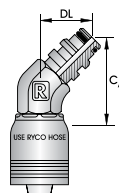
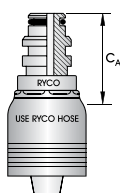
CROCBITE

T9880

T9881

T9882

CROCBITE
HIGH PRESSURE



HOSE SIZE		MWP	DASH SIZE	CROCBITE MALE		CROCBITE MALE 45° ELBOW			CROCBITE MALE 90° ELBOW		
DN	inch	bar		PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL
19	3/4	420	-1220	T9880-1220	47						
25	1	420	-1625	T9880-1625	66						
31	1.1/4	420	-2032	T9880-2032	68	T9881-2032	77	50	T9882-2032	52	94
38	1.1/2	420	-2440	T9880-2440	72	T9881-2440	86	53	T9882-2440	59	101
51	2	420	-3250	T9880-3250	102	T9881-3250	114	73	T9882-3250	73	135

JIC

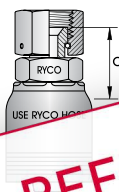
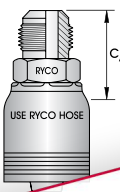
T9030 (T903)

T9040 (T904)

T9045 (T904V)

T9250 (T925)

37° FLARE



PRODUCT SUPERSEDED - REFER TO T6000 SERIES

HOSE SIZE		THRD SIZE	TUBE SIZE	DASH SIZE	JIC FEMALE	JIC FEMALE	JIC FEMALE HIGH PRESSURE		JIC FEMALE 45° TUBE BEND				
DN	inch	inch	inch		PART NO	C _A	PART NO	C _A	PART NO	C _A	DL		
19	3/4	1.1/16	3/4	-1217	T9030-1217	43	T9040-1217	28		T9250-1217	66	22	
19	3/4	1.5/16	1	-1221			T9040-1221	32					
25	1	1.5/16	1	-1621	T9030-1621	47	T9040-1621	34	T9045-1621	37	T9250-1621	78	30
31	1.1/4	1.5/8	1.1/4	-2026	T9030-2026	52	T9040-2026	44	T9045-2026	36	T9250-2026	96	39
38	1.1/2	1.7/8	1.1/2	-2430	T9030-2430	57	T9040-2430	49	T9045-2430	57	T9250-2430	121	50
51	2	2.1/2	2	-3240	T9030-3240	73	T9040-3240	60			T9250-3240	156	63

JIC

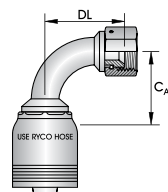
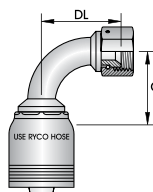
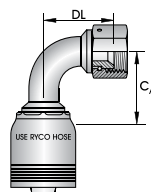
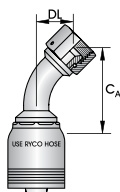
T9255 (T925V)

T9243 (T924S)

T9240 (T924)

T9245 (T924V)

37° FLARE



HOSE SIZE		THRD SIZE	TUBE SIZE	DASH SIZE	JIC FEMALE HIGH PRESSURE 45° BEND			JIC FEMALE 90° SHORT BEND			JIC FEMALE 90° MEDIUM BEND			JIC FEMALE HIGH PRESSURE 90° MEDIUM BEND		
DN	inch	inch	inch		PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL
19	3/4	1.1/16	3/4	-1217							T9240-1217	58	57			
19	3/4	1.5/16	1	-1221												
25	1	1.5/16	1	-1621	T9255-1621	85	35				T9240-1621	69	72	T9245-1621	69	72
31	1.1/4	1.5/8	1.1/4	-2026	T9255-2026	104	43				T9240-2026	88	81	T9245-2026	88	87
38	1.1/2	1.7/8	1.1/2	-2430	T9255-2430	127	55				T9240-2430	104	106	T9245-2430	103	111
51	2	2.1/2	2	-3240							T9240-3240	141	132			

NOTE: Hose Compatibility for the **T9000** series can be found on page 234.

COUPLINGS

T9000 (T900) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

METRIC

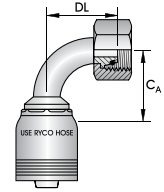
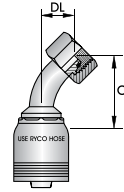
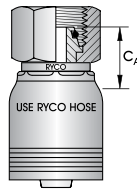
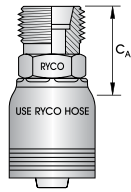
T9630
(T963)

T9711
(T971)

T9720
(T972)

T9730
(T973)

DKS/DKOS
METRIC O RING (HEAVY)



HOSE SIZE	THRD SIZE	TUBE SIZE	DASH SIZE		DKS MALE 24° CONE		DKOS FEMALE 24° CONE		DKOS FEMALE 24° CONE 45° TUBE BEND		DKOS FEMALE 24° CONE 90° TUBE BEND			
DN	inch	inch	inch		PART NO	C _A	PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL
19	3/4	36x2,0	25	-1236	T9630-1236	40	T9711-1236	33	T9720-1236	76	36	T9730-1236	57	88
25	1	42x2,0	30	-1642	T9630-1642	43	T9711-1642	35	T9720-1642	89	37	T9730-1642	70	77
31	1.1/4	52x2,0	38	-2052	T9630-2052	48	T9711-2052	39	T9720-2052	130	48	T9730-2052	91	89

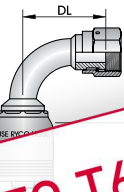
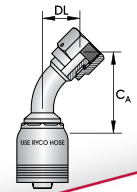
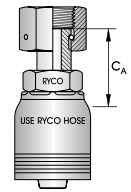
ORFS

T9800
(T980)

T9810
(T981)

T9820
(T982)

O RING
FACE SEAL



HOSE SIZE	THRD SIZE	TUBE SIZE	DASH SIZE		ORFS FEMALE		ORFS FEMALE 45° TUBE BEND		ORFS FEMALE 90° MEDIUM BEND			
DN	inch	inch	inch		PART NO	C _A	PART NO	C _A	PART NO	C _A	DL	
19	3/4	1.3/16	5/4	-1219	T9800-1219	44	T9810-1219	66	29	T9820-1219	55	59
25	1	1.7/16	1	-1623	T9800-1623	56	T9810-1623	87	34	T9820-1623	71	71
31	1.1/4	2	1.1/2	-2027	T9800-2027	59	T9810-2027	107	45	T9820-2027	87	90
38	1.1/2	2	1.1/2	-2432	T9800-2432	69						

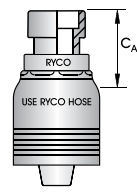
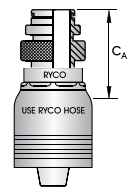
PRODUCT SUPERSEDED - REFER TO T6000 SERIES

RKVP

T9896

T9899

RKVP
HIGH PRESSURE



HOSE SIZE	RKVP SIZE	MAX WP	DASH SIZE		RKVP MALE		RKVP FEMALE	
DN	inch	mm	bar		PART NO	C _A	PART NO	C _A
19	3/4	20	420	-1220	T9896-1220	57	T9899-1220	39
25	1	25	420	-1625	T9896-1625	61	T9899-1625	48
31	1.1/4	32	420	-2032	T9896-2032	75	T9899-2032	54
38	1.1/2	40	420	-2440	T9896-2440	89	T9899-2440	60
51	2	50	420	-3250	T9896-3250	82	T9899-3250	66

NOTE: Hose Compatibility for the **T9000** series can be found on page 234.

T9000 (T900) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

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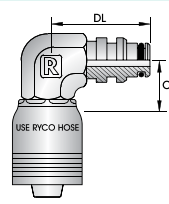
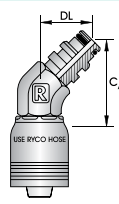
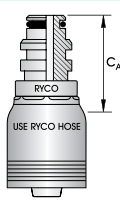
STAPLELOK

T9870
(T987)

T9871
(T988)

T9872
(T989)

STAPLE
O RING & BACK UP RING
SUPPLIED

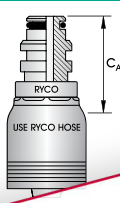


HOSE SIZE		STAPLE SIZE	DASH SIZE	STAPLELOK MALE	STAPLELOK MALE 45° ELBOW			STAPLELOK MALE 90° ELBOW			
DN	inch	inch		PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL
19	3/4	20	-1220	T9870-1220	39	T9871-1220	59	33	T9872-1220	37	56
25	1	25	-1625	T9870-1625	49	T9871-1625	64	37	T9872-1625	46	68
31	1.1/4	32	-2032	T9870-2032	49	T9871-2032	65	37	T9872-2032	48	68
38	1.1/2	40	-2440	T9870-2440	58	T9871-2440	83	44	T9872-2440	62	85
51	2	50	-3250	T9870-3250	58	T9871-3250	91	46	T9872-3250	67	95

SUPERLOK

T9876
(T987S)

SUPERSTAPLE
O RING & BACK UP RING
SUPPLIED

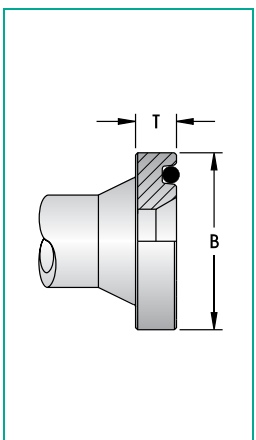


HOSE SIZE		STAPLE SIZE	DASH SIZE	SUPERLOK MALE	C _A
DN	inch	inch		PART NO	
19	3/4	20	-1220	T9876-1220	48
25	1	25	-1625	T9876-1625	57
31	1.1/4	32	-2032	T9876-2032	71
38	1.1/2	40	-2440	T9876-2440	78
51	2	50	-3250	T9876-3250	83

PRODUCT SUPERSEDED - REFER TO T6000 SERIES

DIMENSIONS FOR SAE CODE 61 AND CODE 62 FLANGES, AND RYCO CODE 62C FLANGES

NOMINAL FLANGE	CODE 61				CODE 62				CODE 62C			
	B		T		B		T		B		T	
inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
1/2	30,2	1.19	6,73	0.265	31,8	1.25	7,75	0.305				
*5/8	34,0	1.34	6,73	0.265								
3/4	38,1	1.50	6,73	0.265	41,3	1.63	8,76	0.345	41,3	1.63	14,20	0.559
1	44,5	1.75	8,00	0.315	47,6	1.88	9,53	0.375	47,6	1.88	14,20	0.559
1.1/4	50,8	2.00	8,00	0.315	54,0	2.12	10,29	0.405	54,0	2.12	14,20	0.559
1.1/2	60,3	2.38	8,00	0.315	63,5	2.50	12,57	0.495	63,5	2.50	14,20	0.559
2	71,4	2.81	9,53	0.375	79,4	3.13	12,57	0.495	79,4	3.13	14,20	0.559
2.1/2	84,1	3.31	9,53	0.375								
3	101,6	4.00	9,53	0.375								



NOTE: *5/8 is used by Komatsu.
RYCO Code 62C fittings conform to the flange OD and bolt hole patterns of SAE Code 62 but require special flange clamps.
RYCO Code 62C flange heads are thicker than SAE Code 62 and measure T = 14,2 mm (0.559 inch) in all sizes.

NOTE: Hose Compatibility for the **T9000** series can be found on page 234.

COUPLINGS

T9000 (T900) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

SAE FLANGE

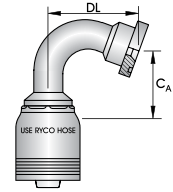
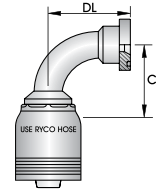
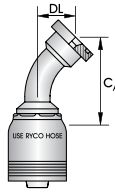
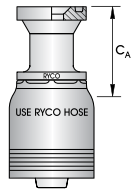
T9130
(T913)

T9150
(T915)

T9170
(T917)

T9910
(T991)

RYCO
CODE 61
CLAMPS - SEE PAGES 345 & 346
O RING NOT SUPPLIED



HOSE SIZE		NOM. FLANGE SIZE	DASH SIZE	CODE 61 FLANGE	CODE 61 FLANGE 45° TUBE BEND	CODE 61 FLANGE 90° TUBE BEND	CODE 61 FLANGE 110° TUBE BEND							
DN	inch	inch		PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL
19	3/4	3/4	-1212	T9130-1212	46	T9150-1212	68	26	T9170-1212	58	54			
25	1	1	-1616	T9130-1616	52	T9150-1616	83	30	T9170-1616	70	68			
25	1	1.1/4	-1620	T9130-1620	57	T9150-1620	85	32	T9170-1620	70	69			
31	1.1/4	1.1/4	-2020	T9130-2020	59	T9150-2020	99	36	T9170-2020	87	78			
31	1.1/4	1.1/2	-2024	T9130-2024	85	T9150-2024	102	38	T9170-2024	87	81			
38	1.1/2	1.1/2	-2424	T9130-2424	86	T9150-2424	116	42	T9170-2424	105	93	T9910-2424	148	107
38	1.1/2	2	-2432	T9130-2432	96	T9150-2432	121	47	T9170-2432	104	99	T9910-2432	147	115
51	2	2	-3232	T9130-3232	100	T9150-3232	154	58	T9170-3232	148	130	T9910-3232	166	136

NOTE: For SAE Code 61/62 and RYCO Code 62C Flange dimensions, see page 237.

SAE FLANGE

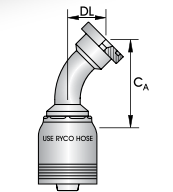
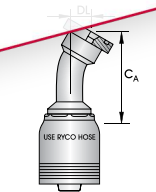
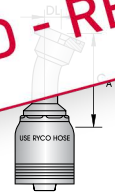
T9330
(T933)

T9440
(T944)

T9450
(T945)

T9350
(T935)

RYCO
CODE 62
CLAMPS - SEE PAGES 345 & 346
O RING NOT SUPPLIED



PRODUCT SUPERSEDED - REFER TO T6000 SERIES

HOSE SIZE		NOM. FLANGE SIZE	DASH SIZE	CODE 62 FLANGE	CODE 62 FLANGE 22.5° TUBE BEND	CODE 62 FLANGE 30° TUBE BEND	CODE 62 FLANGE 45° TUBE BEND							
DN	inch	inch		PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL
19	3/4	3/4	-1212	T9330-1212	53	T9440-1212	80	16	T9450-1212	73	19	T9350-1212	69	28
19	3/4	1	-1216	T9330-1216	57							T9350-1216	73	31
25	1	3/4	-1612	T9330-1612	54									
25	1	1	-1616	T9330-1616	57	T9440-1616	91	16	T9450-1616	90	22	T9350-1616	84	31
25	1	1.1/4	-1620	T9330-1620	69				T9450-1620	90	25	T9350-1620	85	34
31	1.1/4	1	-2016	T9330-2016	68									
31	1.1/4	1.1/4	-2020	T9330-2020	69	T9440-2020	108	17	T9450-2020	108	22	T9350-2020	101	38
31	1.1/4	1.1/2	-2024	T9330-2024	98	T9440-2024	138	22	T9450-2024	113	25	T9350-2024	105	41
38	1.1/2	1.1/4	-2420	T9330-2420	70									
38	1.1/2	1.1/2	-2424	T9330-2424	100	T9440-2424	127	24	T9450-2424	135	33	T9350-2424	119	45
38	1.1/2	2	-2432	T9330-2432	118							T9350-2432	121	50
51	2	1.1/2	-3224	T9330-3224	105									
51	2	2	-3232	T9330-3232	122	T9440-3232	167	28	T9450-3232	165	40	T9350-3232	157	60

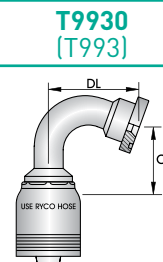
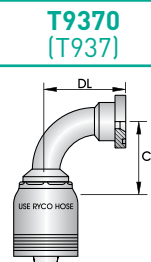
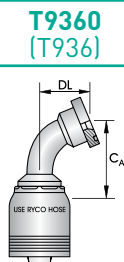
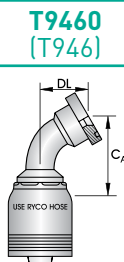
NOTE: For SAE Code 61/62 and RYCO Code 62C Flange dimensions, see page 237.

NOTE: Hose Compatibility for the T9000 series can be found on page 234.

T9000 (T900) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

SAE FLANGE

RYCO
CODE 62
CLAMPS - SEE PAGES 345 & 346
O RING NOT SUPPLIED

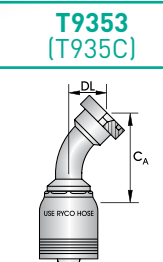
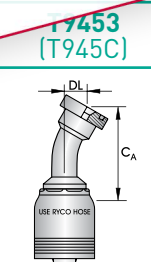
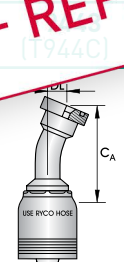


HOSE SIZE		NOM. FLANGE SIZE	DASH SIZE	CODE 62 FLANGE 60° TUBE BEND			CODE 62 FLANGE 67.5° TUBE BEND			CODE 62 FLANGE 90° TUBE BEND			CODE 62 FLANGE 110° TUBE BEND		
DN	inch	inch		PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL
19	3/4	3/4	-1212	T9460-1212	81	36	T9360-1212	80	47	T9370-1212	58	56			
19	3/4	1	-1216							T9370-1216	57	61			
25	1	3/4	-1612							T9370-1612	61	56			
25	1	1	-1616	T9460-1616	98	44	T9360-1616	91	51	T9370-1616	70	70			
25	1	1.1/4	-1620	T9460-1620	99	46	T9360-1620	95	72	T9370-1620	70	71			
31	1.1/4	1.1/4	-2020	T9460-2020	100	46	T9360-2020	134	72	T9370-2020	87	80	T9930-2020	89	97
31	1.1/4	1.1/2	-2024	T9460-2024	123	58	T9360-2024	138	74	T9370-2024	87	86			
38	1.1/2	1.1/2	-2424	T9460-2424	156	71				T9370-2424	105	98	T9930-2424	119	142
38	1.1/2	2	-2432	T9460-2432	160	79				T9370-2432	104	104	T9930-2432	113	122
51	2	2	-3232	T9460-3232	221	101				T9370-3232	165	131	T9930-3232	170	143

NOTE: For SAE Code 61/62 and RYCO Code 62C Flange dimensions, see page 237.

SPECIAL FLANGE

RYCO
CODE 62C
CLAMPS - SEE PAGES 345 & 346
O RING NOT SUPPLIED



HOSE SIZE		NOM. FLANGE SIZE	DASH SIZE	RYCO CODE 62C FLANGE			RYCO CODE 62C FLANGE 22.5° TUBE BEND			RYCO CODE 62C FLANGE 30° TUBE BEND			RYCO CODE 62C FLANGE 45° TUBE BEND		
DN	inch	inch		PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL
19	3/4	3/4	-1212	T9333-1212	88	16	T9443-1212	80	16	T9453-1212	84	23	T9353-1212	72	31
25	1	1	-1616	T9333-1616	90	16	T9443-1616	91	16	T9453-1616	111	24	T9353-1616	87	35
25	1	1.1/4	-1620	T9333-1620	90	16	T9443-1620	95	16	T9453-1620	114	25	T9353-1620	84	37
31	1.1/4	1.1/4	-2020	T9333-2020	87	17	T9443-2020	108	17	T9453-2020	116	25	T9353-2020	104	41
31	1.1/4	1.1/2	-2024	T9333-2024	87	22	T9443-2024	138	22	T9453-2024	115	26	T9353-2024	106	41
38	1.1/2	1.1/2	-2424	T9333-2424	89	24	T9443-2424	127	24	T9453-2424	117	30	T9353-2424	120	46
51	2	2	-3232	T9333-3232	110								T9353-3232	159	61

NOTE: These T9000C fittings have similar end styles to Caterpillar® XT-5 range of Flanged Hose Couplings. Cat™ Caterpillar®, XT-5™ Caterpillar®.

For SAE Code 61/62 and RYCO Code 62C Flange dimensions, see page 237.

NOTE: Hose Compatibility for the T9000 series can be found on page 234.

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T9000 (T900) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

SPECIAL FLANGE

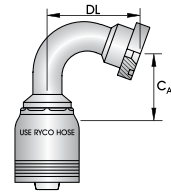
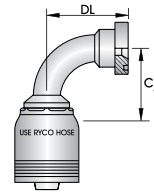
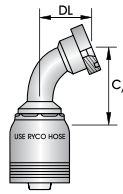
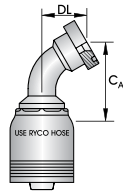
T9463
(T946C)

T9363
(T936C)

T9373
(T937C)

T9933
(T993C)

RYCO
CODE 62C
CLAMPS - SEE PAGES 345 & 346
O RING NOT SUPPLIED



HOSE SIZE		NOM. FLANGE SIZE	DASH SIZE	RYCO CODE 62C FLANGE 60° TUBE BEND	RYCO CODE 62C FLANGE 67.5° TUBE BEND	RYCO CODE 62C FLANGE 90° TUBE BEND	RYCO CODE 62C FLANGE 110° TUBE BEND								
DN	inch	inch		PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL
19	3/4	3/4	-1212	T9463-1212	87	46	T9363-1212	82	52	T9373-1212	58	63			
25	1	1	-1616	T9463-1616	99	47	T9363-1616	94	53	T9373-1616	70	74			
25	1	1.1/4	-1620	T9463-1620	104	49	T9363-1620	95	56	T9373-1620	70	75			
31	1.1/4	1.1/4	-2020	T9463-2020	121	56	T9363-2020	114	67	T9373-2020	87	83			
31	1.1/4	1.1/2	-2024	T9463-2024	146	66	T9363-2024	137	76	T9373-2024	87	85			
38	1.1/2	1.1/2	-2424	T9463-2424	145	68	T9363-2424	137	77	T9373-2424	100	99	T9933-2424	141	120
51	2	2	-3232							T9373-3232	165	133			

NOTE: These **T9000C** fittings have similar end styles to Caterpillar® XT-5 range of Flanged Hose Couplings. Cat™ Caterpillar®, XT-5™ Caterpillar® For SAE Code 61/62 and RYCO Code 62C Flange dimensions, see page 237.

SALVAGE

T9230
(T923)

TUBE WELD



PRODUCT SUPERSEDED - REFER TO T6000 SERIES

HOSE SIZE		A	DASH SIZE	SALVAGE (LIFESAVER)	
DN	inch	inch		PART NO	C _A
19	3/4	3/4	-1212	T9230-1212	23
25	1	1	-1616	T9230-1616	27
31	1.1/4	1.1/4	-2020	T9230-2020	31
38	1.1/2	1.1/2	-2424	T9230-2424	34
51	2	2	-3232	T9230-3232	48

WARNING: Due to high pressures involved, special care must be taken when using **T9230** Salvage Couplings. See Clause 8 of the Terms & Conditions of Sale.

HAMMER UNION

T91502

T91501

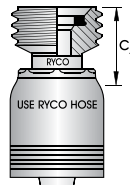
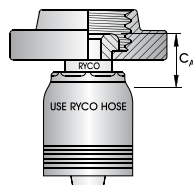


FIGURE 1502
STANDARD SERVICE

HOSE SIZE		THRD SIZE	DASH SIZE	FIG 1502 MALE (WITH NUT)	FIG 1502 FEMALE (WITH SEAL)		
DN	inch	inch		PART NO	C _A	PART NO	C _A
38	1.1/2	2	-2432	T91502-2432	111	T91501-2432	92
51	2	2	-3232	T91502-3232	115	T91501-3232	96

NOTE: Nut must be installed onto hose before coupling is installed and crimped. Replacement parts **RF1502N-32** nut and **RF1502W-32** Nitrile seal are available.

NOTE: Hose Compatibility for the **T9000** series can be found on page 234.

TT000 ONE-PIECE CRIMP COUPLINGS

HOSE COMPATIBILITY FOR TT000 SERIES

For RYCO Hose Series RTH1.

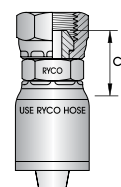
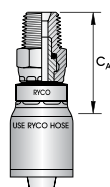
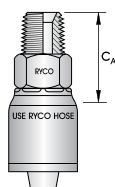
BSP

TT010

TT320

TT020

60° SEAT



HOSE SIZE		THRD SIZE	DASH SIZE	BSPT MALE		BSPT MALE SWIVEL		BSP FEMALE	
DN	inch	inch		PART NO	C _A	PART NO	C _A	PART NO	C _A
6	1/4	1/4	-0404	TT010-0404	30			TT020-0404	24
10	3/8	1/4	-0604	TT010-0604	33				
10	3/8	3/8	-0606	TT010-0606	33			TT020-0606	27
10	3/8	1/2	-0608	TT010-0608	38				
12	1/2	3/8	-0806	TT010-0806	35				
12	1/2	1/2	-0808	TT010-0808	40	TT320-0808	55	TT020-0808	29
16	5/8	1/2	-1008					TT020-1008	27
19	3/4	3/4	-1212	TT010-1212	42			TT020-1212	27
25	1	1	-1616	TT010-1616	49			TT020-1616	37

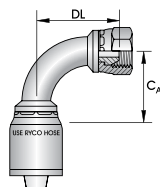
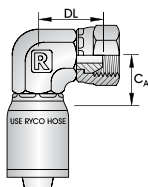
NOTE: This "Live Swivel" TT320 Series Insert is for Maximum Working Pressure: 350 bar (5100 psi): -08 Thread Size. Its swivel capability is to allow easy installation and orientation and avoid twisting of hose. It is not designed for continuous rotation or continuous movement.

BSP

TT050

TT260

60° SEAT



HOSE SIZE		THRD SIZE	DASH SIZE	BSP FEMALE 90° ELBOW			BSP FEMALE 90° BEND		
DN	inch	inch		PART NO	C _A	DL	PART NO	C _A	DL
6	1/4	1/4	-0404				TT260-0404	27	29
10	3/8	3/8	-0606				TT260-0606	35	33
12	1/2	1/2	-0808	TT050-0808	29	31	TT260-0808	40	45
19	3/4	3/4	-1212				TT260-1212	55	58
25	1	1	-1616				TT260-1616	62	62

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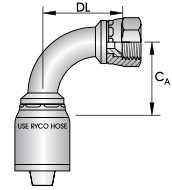
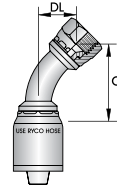
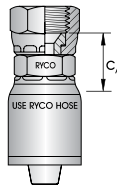
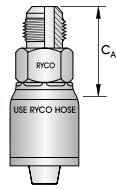
TECHNICAL

COUPLINGS

TT000 ONE-PIECE CRIMP COUPLINGS

JIC TT030 TT040 TT250 TT240

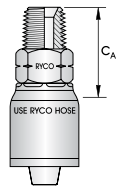
37° FLARE



HOSE SIZE		THRD SIZE	DASH SIZE	JIC MALE	JIC FEMALE	JIC FEMALE 45° BEND			JIC FEMALE 90° BEND				
DN	inch	inch		PART NO	C _A	PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL
6	1/4	7/16	-0407	TT030-0407	29	TT040-0407	22				TT240-0407	26	32
6	1/4	1/2	-0408	TT030-0408	29	TT040-0408	22				TT240-0408	26	32
6	1/4	9/16	-0409	TT030-0409	30	TT040-0409	22				TT240-0409	26	38
10	3/8	9/16	-0609	TT030-0609	32	TT040-0609	22	TT250-0609	39	11	TT240-0609	35	38
10	3/8	3/4	-0612	TT030-0612	35	TT040-0612	24				TT240-0612	35	41
12	1/2	3/4	-0812	TT030-0812	37	TT040-0812	25				TT240-0812	41	41
12	1/2	7/8	-0814	TT030-0814	39	TT040-0814	27	TT250-0814	48	18	TT240-0814	41	47
16	5/8	7/8	-1014			TT040-1014	27				TT240-1014	48	47
16	5/8	1.1/16	-1017			TT040-1017	29						
19	3/4	7/8	-1214			TT040-1214	29						
19	3/4	1.1/16	-1217			TT040-1217	30				TT240-1217	55	57
25	1	1.5/16	-1621			TT040-1621	36				TT240-1621	68	73

NPT TT090

60° SEAT



HOSE SIZE		THRD SIZE	DASH SIZE	NPT MALE	
DN	inch	inch		PART NO	C _A
6	1/4	1/4	-0404	TT090-0404	30
10	3/8	3/8	-0606	TT090-0606	33
12	1/2	1/2	-0808	TT090-0808	40
19	3/4	3/4	-1212	TT090-1212	42
25	1	1	-1616	TT090-1616	48

NOTE: Hose Compatibility for the **TT000** series can be found on page 241.

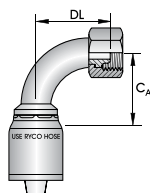
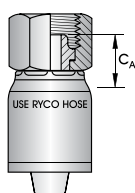
TT000 ONE-PIECE CRIMP COUPLINGS

METRIC

TT600

TT670

DKL 24°/60° CONE

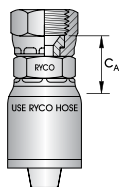


HOSE SIZE		THRD SIZE	DASH SIZE	DKL FEMALE 24°/60° CONE	DKL FEMALE 24°/60° CONE 90° TUBE BEND
DN	inch	inch		PART NO	C _A
12	1/2	1.3/8	-0822	TT600-0822	25
				PART NO	C _A
				TT670-0822	40
					DL
					44

SAE

TT540

45° FLARE



HOSE SIZE		THRD SIZE	TUBE SIZE	DASH SIZE	SAE FEMALE
DN	inch	inch	inch		PART NO
6	1/4	7/16	1/4	-0407	TT540-0407
6	1/4	1/2	5/16	-0408	TT540-0408
10	3/8	5/8	3/8	-0610	TT540-0610
10	3/8	3/4	1/2	-0612	TT540-0612
12	1/2	3/4	1/2	-0812	TT540-0812
12	1/2	7/8	5/8	-0814	TT540-0814
16	5/8	7/8	5/8	-1014	TT540-1014
19	3/4	7/8	5/8	-1214	TT540-1214
19	3/4	1.1/16	3/4	-1217	TT540-1217
					C _A
					19
					19
					20
					22
					22
					26
					25
					25
					26

NOTE: Hose Compatibility for the **TT000** series can be found on page 241.

COUPLINGS

TG000 ONE-PIECE CRIMP COUPLINGS

HOSE COMPATIBILITY FOR TG000 SERIES

For RYCO Hose Series TPGL.

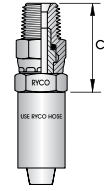
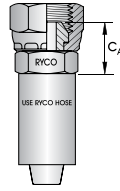
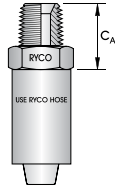
BSP

TG010

TG020

TG320

60° SEAT



HOSE SIZE				BSPT MALE	BSPP FEMALE	BSPT MALE SWIVEL			
DN	inch	inch	inch	PART NO	C _A	PART NO	C _A	PART NO	C _A
4	1/8	1/8	1/8	TG010-0202	24	TG020-0202	23	TG320-0202	25

NOTE: This "Live Swivel" TG320 Series Insert is for Maximum Working Pressure: 420 bar (6100 psi): -02 Thread Size. Its swivel capability is to allow easy installation and orientation and avoid twisting of hose. It is not designed for continuous rotation or continuous movement.

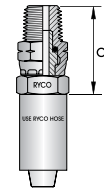
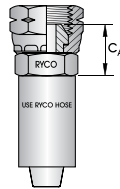
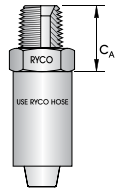
NPT

TG090

TG020N

TG320N

60° SEAT



HOSE SIZE				NPT MALE	NPSM FEMALE	NPT MALE SWIVEL			
DN	inch	inch	inch	PART NO	C _A	PART NO	C _A	PART NO	C _A
4	1/8	1/8	1/8	TG090-0202	24	TG020N-0202	23	TG320N-0202	25

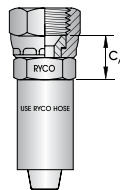
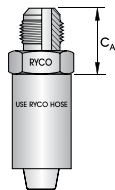
NOTE: This "Live Swivel" TG320N Series Insert is for Maximum Working Pressure: 420 bar (6100 psi): -02 Thread Size. Its swivel capability is to allow easy installation and orientation and avoid twisting of hose. It is not designed for continuous rotation or continuous movement.

JIC

TG030

TG040

37° FLARE



HOSE SIZE				JIC MALE	JIC FEMALE		
DN	inch	inch	inch	PART NO	C _A	PART NO	C _A
4	1/8	7/16	1/4	TG030-0207	29	TG040-0207	15

69000N (6900N) SERIES BITELOK INTERLOK TWO-PIECE CRIMP COUPLINGS

HOSE COMPATIBILITY FOR 69000N SERIES

INTERNAL AND EXTERNAL SKIVE

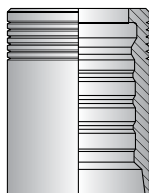
For RYCO Hose H6000 sizes -12 to -32.
Part No. is for Inserts only. Add prefix "6" to Part No. shown to include **69000N** Series Ferrule.
EXAMPLE: Part No. 9010N-1212 is Insert only. To include Ferrule as well as Insert, order Part No. 69010N-1212.

NOTE:

All **9000N** Female Swivel Nut Couplings are shown as "Wire Nut" or "Slip Nut". Some sizes of BSPP, JIC and Metric are "Crimp Nut". See note on page 157.

FERRULE

69000N
(6900N)



HOSE SIZE		DASH SIZE	FERRULE
DN	inch		PART NO
19	3/4	-12	69000N-12
25	1	-16	69000N-16
31	1.1/4	-20	69000N-20
38	1.1/2	-24	69000N-24
51	2	-32	69000N-32

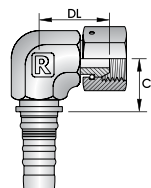
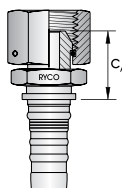
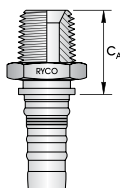
BSP

9010N
(901N)

9020N
(902N)

9050N
(905N)

60° SEAT



HOSE SIZE		THRD SIZE	DASH SIZE	BSPT MALE	BSP FEMALE	BSPP FEMALE 90° ELBOW				
DN	inch	inch		PART NO	C _A	PART NO	C _A	PART NO	C _A	DL
19	3/4	3/4	-1212	9010N-1212	43	9020N-1212	27			
25	1	1	-1616	9010N-1616	50	9020NH-1616	37	9050N-1616	40	32
31	1.1/4	1.1/4	-2020	9010N-2020	54	9020N-2020	41			
38	1.1/2	1.1/2	-2424	9010N-2424	61	9020N-2424	44			
51	2	2	-3232	9010N-3232	64	9020N-3232	53			

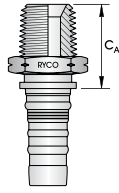
NOTE: 9020NH -1616 is Heavy Duty.

COUPLINGS

69000N (6900N) SERIES BITELOK INTERLOK TWO-PIECE CRIMP COUPLINGS

NPT

9090N
(909N)

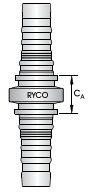


60° SEAT

HOSE SIZE		THRD SIZE	DASH SIZE	NPT MALE	
DN	inch	inch		PART NO	C _A
19	3/4	3/4	-1212	9090N-1212	47
25	1	1	-1616	9090N-1616	50
31	1.1/4	1.1/4	-2020	9090N-2020	55
38	1.1/2	1.1/2	-2424	9090N-2424	62
51	2	2	-3232	9090N-3232	48

JOINER

9900N
(990N)



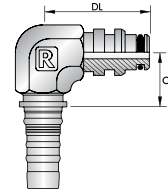
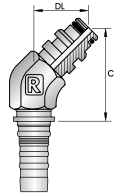
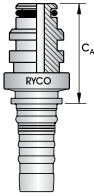
HOSE SIZE		DASH SIZE	JOINER	
DN	inch		PART NO	C _A
51	2	-3232	9090N-3232	41

CROCBITE

9880N

9881N

9882N



CROCBITE
HIGH PRESSURE

HOSE SIZE		MWP	DASH SIZE	CROCBITE MALE		CROCBITE MALE 45° ELBOW			CROCBITE MALE 90° ELBOW		
DN	inch	bar		PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL
19	3/4	420	-1220	9880N-1220	47						
25	1	420	-1625	9880N-1625	66						
31	1.1/4	420	-2032	9880N-2032	70	9881N-2032	79	50	9882N-2032	54	94
38	1.1/2	420	-2440	9880N-2440	73	9881N-2440	86	53	9882N-2440	59	101
51	2	420	-3250	9880N-3250	102	9881N-3250	114	73	9882N-3250	74	135

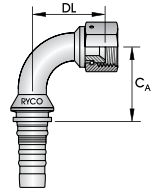
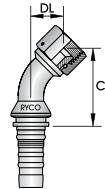
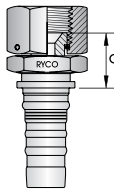
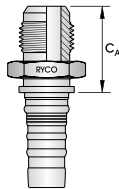
JIC

9030N
(903N)

9040N
(904N)

9250N
(925N)

9240N
(924N)



37° FLARE

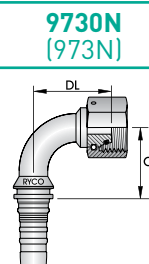
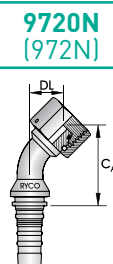
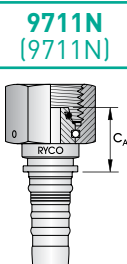
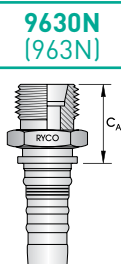
HOSE SIZE		THRD SIZE	TUBE SIZE	DASH SIZE	JIC MALE		JIC FEMALE		JIC FEMALE 45° TUBE BEND		JIC FEMALE 90° TUBE BEND			
DN	inch	inch	inch		PART NO	C _A	PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL
19	3/4	1.1/16	3/4	-1217	9030N-1217	46	9040N-1217	28	9250N-1217	67	22	9240N-1217	57	57
25	1	1.5/16	1	-1621	9030N-1621	48	9040N-1621	40	9250N-1621	78	30	9240N-1621	69	72
31	1.1/4	1.5/8	1.1/4	-2026	9030N-2026	58	9040N-2026	40	9250N-2026	96	39	9240N-2026	88	81
38	1.1/2	1.7/8	1.1/2	-2430	9030N-2430	63	9040N-2430	43	9250N-2430	121	50	9240N-2430	104	106
51	2	2.1/2	2	-3240	9030N-3240	71	9040N-3240	65	9250N-3240	156	63	9240N-3240	141	132

NOTE: Hose Compatibility for the **69000N** series can be found on page 245.

69000N (6900N) SERIES BITELOK INTERLOK TWO-PIECE CRIMP COUPLINGS

METRIC

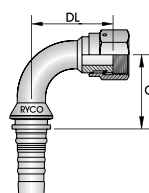
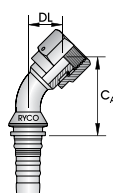
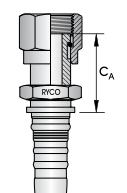
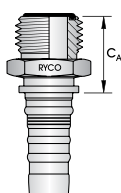
DKS/DKOS
METRIC O RING (HEAVY)



HOSE SIZE	THRD SIZE	TUBE SIZE	DASH SIZE	DKS MALE 24° CONE	DKOS FEMALE 24° CONE	DKOS FEMALE 24° CONE 45° TUBE BEND	DKOS FEMALE 24° CONE 90° TUBE BEND							
DN	inch	mm	mm	PART NO	C _A	PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL	
19	3/4	36x2,0	25	-1236	9630N-1236	42	9711N-1236	44	9720N-1236	89	36	9730N-1236	57	68
25	1	42x2,0	30	-1642	9630N-1642	47	9711N-1642	38	9720N-1642	88	37	9730N-1642	70	77
31	1.1/4	52x2,0	38	-2052	9630N-2052	52	9711N-2052	41	9720N-2052	129	48	9730N-2052	91	89

ORFS

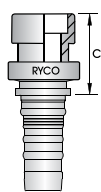
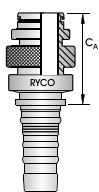
O RING
FACE SEAL



HOSE SIZE	THRD SIZE	TUBE SIZE	DASH SIZE	ORFS MALE	ORFS FEMALE	ORFS FEMALE 45° TUBE BEND	ORFS FEMALE 90° TUBE BEND							
DN	inch	inch	inch	PART NO	C _A	PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL	
25	1	1.7/16	1	-1623	9840N-1623	42	9800N-1623	55	9810N-1623	87	34	9820N-1623	71	71
31	1.1/4	1.11/16	1.1/4	-2027	9840N-2027	49	9800N-2027	61	9810N-2027	108	45	9820N-2027	88	90

RKVP

RKVP
HIGH PRESSURE



HOSE SIZE	RKVP SIZE	MAX WP	DASH SIZE	RKVP MALE	RKVP FEMALE			
DN	inch	mm	bar	PART NO	C _A	PART NO	C _A	
19	3/4	20	420	-1220	9896N-1220	57	9899N-1220	40
25	1	25	420	-1625	9896N-1625	61	9899N-1625	47
31	1.1/4	32	420	-2032	9896N-2032	75	9899N-2032	55
38	1.1/2	40	420	-2440	9896N-2440	89	9899N-2440	61
51	2	50	420	-3250	9896N-3250	90	9899N-3250	67

NOTE: Hose Compatibility for the 69000N series can be found on page 245.

INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

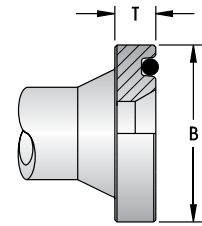
TECHNICAL

COUPLINGS

69000N (6900N) SERIES BITELOK INTERLOK TWO-PIECE CRIMP COUPLINGS

DIMENSIONS FOR SAE CODE 61 AND CODE 62 FLANGES, AND RYCO CODE 62C FLANGES

NOMINAL FLANGE	CODE 61				CODE 62				CODE 62C			
	B		T		B		T		B		T	
inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
1/2	30,2	1.19	6,73	0.265	31,8	1.25	7,75	0.305				
*5/8	34,0	1.34	6,73	0.265								
3/4	38,1	1.50	6,73	0.265	41,3	1.63	8,76	0.345	41,3	1.63	14,20	0.559
1	44,5	1.75	8,00	0.315	47,6	1.88	9,53	0.375	47,6	1.88	14,20	0.559
1.1/4	50,8	2.00	8,00	0.315	54,0	2.12	10,29	0.405	54,0	2.12	14,20	0.559
1.1/2	60,3	2.38	8,00	0.315	63,5	2.50	12,57	0.495	63,5	2.50	14,20	0.559
2	71,4	2.81	9,53	0.375	79,4	3.13	12,57	0.495	79,4	3.13	14,20	0.559
2.1/2	84,1	3.31	9,53	0.375								
3	101,6	4.00	9,53	0.375								



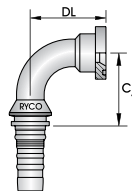
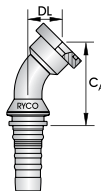
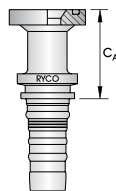
NOTE: *5/8 is used by Komatsu.
 RYCO Code 62C fittings conform to the flange OD and bolt hole patterns of SAE Code 62 but require special flange clamps.
 RYCO Code 62C flange heads are thicker than SAE Code 62 and measure T = 14,2 mm (0.559 inch) in all sizes.

SAE FLANGE

9130N
(913N)

9150N
(915N)

9170N
(917N)



RYCO
CODE 61
CLAMPS - SEE PAGES 345 & 346
O RING NOT SUPPLIED

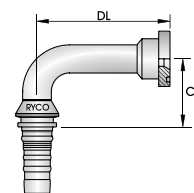
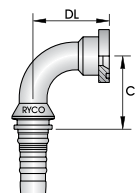
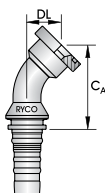
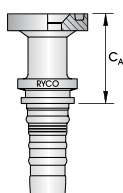
HOSE SIZE	NOM. FLANGE SIZE	DASH SIZE	CODE 61 FLANGE		CODE 61 FLANGE 45° TUBE BEND			CODE 61 FLANGE 90° TUBE BEND			
			PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL	
19	3/4	3/4	-1212	9130N-1212	46	9150N-1212	69	26	9170N-1212	59	54
25	1	1	-1616	9130N-1616	52	9150N-1616	82	30	9170N-1616	69	68
31	1.1/4	1.1/4	-2020	9130N-2020	59	9150N-2020	101	36	9170N-2020	87	77
38	1.1/2	1.1/2	-2424	9130N-2424	86	9150N-2424	116	42	9170N-2424	105	81

NOTE: Hose Compatibility for the **69000N** series can be found on page 245.

69000N (6900N) SERIES BITELOK INTERLOK TWO-PIECE CRIMP COUPLINGS

SAE FLANGE

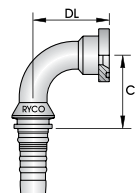
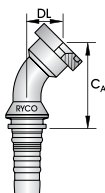
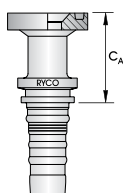
RYCO
CODE 62
CLAMPS - SEE PAGES 345 & 346
O RING NOT SUPPLIED



HOSE SIZE		NOM. FLANGE SIZE	DASH SIZE	CODE 62 FLANGE	CODE 62 FLANGE 45° TUBE BEND	CODE 62 FLANGE 90° TUBE BEND	CODE 62 FLANGE 90° LONG TUBE BEND							
DN	inch	inch		PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL
19	3/4	3/4	-1212	9330N-1212	53	9350N-1212	70	28	9370N-1212	59	56			
25	1	1	-1616	9330N-1616	57	9350N-1616	83	31	9370N-1616	69	70			
31	1.1/4	1	-2016						9370N-2016	78	70			
31	1.1/4	1.1/4	-2020	9330N-2020	70	9350N-2020	103	38	9370N-2020	89	80	9371N-2020	89	150
31	1.1/4	1.1/2	-2024	9330N-2024	98	9350N-2024	107	41	9370N-2024	88	86	9371N-2024	88	156
38	1.1/2	1.1/2	-2424	9330N-2424	102	9350N-2424	119	45	9370N-2424	105	98	9371N-2424	105	174
38	1.1/2	2	-2432	9330N-2432	112	9350N-2432	124	50	9370N-2432	104	104			
51	2	2	-3232	9330N-3232	122	9350N-3232	157	60	9370N-3232	165	131			

SPECIAL FLANGE

RYCO
CODE 62C
O RING NOT SUPPLIED



HOSE SIZE		THRD SIZE	DASH SIZE	RYCO CODE 62C FLANGE	RYCO CODE 62C FLANGE 45° TUBE BEND	RYCO CODE 62C FLANGE 90° TUBE BEND					
DN	inch	inch		PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL
38	1.1/2	1.1/2	-2424	9333N-2424	89	9353N-2424	120	46	9373N-2424	104	106

NOTE: These 9000N (900CN) fittings have similar end styles to Caterpillar® XT-6 range of Flanged Hose Couplings. Cat™ Caterpillar®, XT-6™ Caterpillar®.
For SAE Code 61/62 and RYCO Code 62C Flange dimensions, see page 237.

NOTE: Hose Compatibility for the 69000N series can be found on page 245.

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69000N (6900N) SERIES BITELOK INTERLOK TWO-PIECE CRIMP COUPLINGS

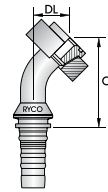
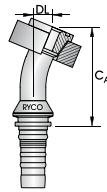
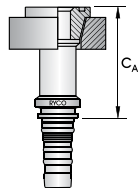
SPECIAL FLANGE

9335N

9445N

9355N

SPECIAL FLANGE
RYCO CODE 62K
O RING NOT SUPPLIED



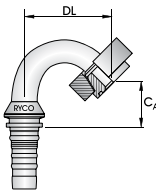
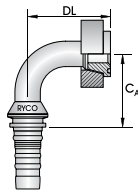
HOSE SIZE		NOM. FLANGE SIZE	DASH SIZE	RYCO CODE 62K FLANGE		RYCO CODE 62K FLANGE 22.5° TUBE BEND		RYCO CODE 62K FLANGE 45° TUBE BEND			
DN	inch	inch		PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL
25	1	1	-1616	9335N-1616					9355N-1616		
25	1	1.1/4	-1620	9335N-1620							
31	1.1/4	1.1/4	-2020	9335N-2020	75				9355N-2020	150	68
38	1.1/2	1.1/2	-2424	9335N-2424	96				9355N-2424	167	82
51	2	2	-3232	9335N-3232	111	9445N-3232	231	42	9355N-3232	208	93

SPECIAL FLANGE

9375N

9100N

SPECIAL FLANGE
RYCO CODE 62K
O RING NOT SUPPLIED



HOSE SIZE		THR D SIZE	DASH SIZE	RYCO CODE 62K FLANGE 90° TUBE BEND		RYCO CODE 62K FLANGE 135° TUBE BEND			
DN	inch	inch		PART NO	C _A	DL	PART NO	C _A	DL
25	1	1	-1616	9375N-1616	93	94			
31	1.1/4	1.1/4	-2020	9375N-2020	130	123			
38	1.1/2	1.1/2	-2424	9375N-2424	141	149			
51	2	2	-3232	9375N-3232	174	185	9100N-449	109	242

STAPLELOK & SUPERLOK

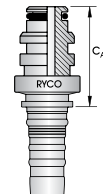
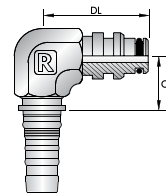
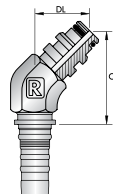
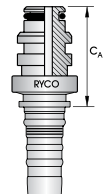
9870N

9871N

9872N

9876N

STAPLE & SUPERSTAPLE
O RING & BACK UP RING
SUPPLIED



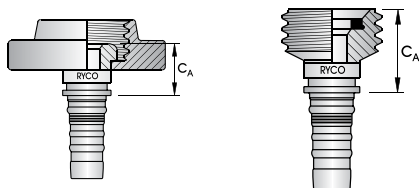
HOSE SIZE		STAPLE SIZE	DASH SIZE	STAPLELOK MALE		STAPLELOK MALE 45° ELBOW		STAPLELOK MALE 90° ELBOW		SUPERLOK MALE			
DN	inch	inch		PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A
19	3/4	20	-1220	9870N-1220	42	9871N-1220	59	33	9872N-1220	37	56	9876N-1220	51
38	1.1/2	40	-2440									9876N-2440	80
51	2	50	-3250									9876N-3250	84

NOTE: Hose Compatibility for the 69000N series can be found on page 245.

69000N (6900N) SERIES BITELOK INTERLOK TWO-PIECE CRIMP COUPLINGS

HAMMER UNION 91502N 91501N

FIGURE 1502
STANDARD SERVICE



HOSE SIZE		THRD SIZE	DASH SIZE	FIG 1502 MALE (WITH NUT)		FIG 1502 FEMALE (WITH SEAL)	
DN	inch	inch		PART NO	CA	PART NO	CA
38	1.1/2	2	-2432	91502N-2432	110	91501N-2432	91
51	2	2	-3232	91502N-3232	111	91501N-3232	92

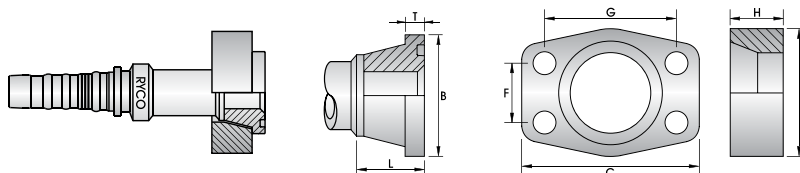
NOTE: Nut must be installed onto hose before coupling is installed and crimped. Replacement parts **RF1502N-32** nut and **RF1502W-32** Nitrile seal are available.

69000N SERIES COUPLING WITH RYCO CODE 62K SPECIAL FLANGE

SKIVE
For RYCO Hose H6000 sizes -16 to -32.
Part No. is for Complete Coupling including the **9000N** Insert, **69000N** Ferrule and **S142H** Flange Clamp Block.

NOTE:
RYCO **69000N** Series Hose Couplings with RYCO Code 62K are used on some heavy mining equipment. They utilize an interlock hose tail and ferrule, with a RYCO Code 62K Flange (with the same Outside Diameter and O Ring groove dimensions as SAE Code 62, but a different shape at the rear of the flange). RYCO Code 62K Flanges have a long taper at the back of the Flange Head for the Flange Clamp. The S142H Flange Clamp is a one-piece heavy block style that clamps the long taper.

DIMENSIONS FOR RYCO CODE 62K SPECIAL FLANGES



NOM. FLANGE SIZE	DASH SIZE	B		T		L		G		F		C		H		D		BOLT HOLE DIA.	
inch		mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
1	-16	49,3	1.94	9,1	0.39	30,0	1.18	57,2	2.25	27,8	1.06	81,0	3.19	26,9	1.06	70,3	2.77	13,0	0.51
1.1/4	-20	53,8	2.12	10,0	0.39	34,3	1.35	66,7	2.63	31,8	1.25	95,9	3.78	32,0	1.26	98,5	3.88	15,2	0.60
1.1/2	-24	68,4	2.69	13,0	0.51	44,7	1.76	79,4	3.13	36,5	1.44	112,5	4.43	39,1	1.54	94,4	3.72	16,9	0.67
2	-32	79,2	3.12	13,0	0.51	55,0	2.17	96,8	3.81	44,5	1.75	133,5	5.23	50,4	1.98	114,3	4.50	20,7	0.81

NOTE: Hose Compatibility for the **69000N** series can be found on page 245.

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1G000 SERIES AIR CONDITIONING CRIMP COUPLINGS

HOSE COMPATIBILITY FOR 1G000 SERIES

NON-SKIVE

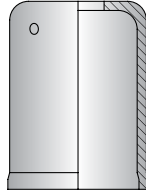
For RYCO Hose Series FB2 all sizes.

Part No. is for Inserts only. Add prefix "1" to Part No. shown to include 1G000 Series Ferrule.

EXAMPLE: Part No. G540-0610 is Insert only. To include 1G000 Series Ferrule as well as Insert, order Part No. 1G540-0610.

FERRULE

1G000
(1G00)



HOSE SIZE		DASH SIZE	FERRULE
DN	inch		PART NO
8	5/16	-06	1G000-06
10	13/32	-08	1G000-08
12	1/2	-10	1G000-10

PILOT O RING

GP010
(GP01)

GP340
(GP34)

GP020
(GP02)

GP050
(GP05)

O RING NOT SUPPLIED
USE GREEN HNBR
O RING ONLY (RO-AC)
SEE PAGE 355

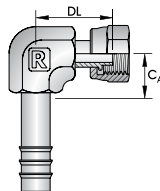


HOSE SIZE		THRD SIZE	DASH SIZE	PILOT O RING MALE	PILOT O RING MALE 90° ELBOW			PILOT O RING FEMALE		PILOT O RING FEMALE 90° ELBOW			
DN	inch	inch		PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	PART NO	C _A	DL
8	5/16	5/8	-0610	GP010-0610	39	GP340-0610	47	39	GP020-0610	39	GP050-0610	47	39
10	13/32	3/4	-0812	GP010-0812	42	GP340-0812	49	44	GP020-0812	42	GP050-0812	49	44
12	1/2	7/8	-1014	GP010-1014	44	GP340-1014	51	48	GP020-1014	44	GP050-1014	51	48

PILOT O RING

GP240
(GP24)

O RING NOT SUPPLIED
USE GREEN HNBR
O RING ONLY (RO-AC)
SEE PAGE 356

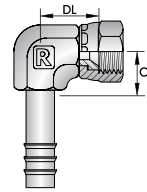
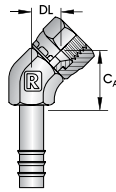
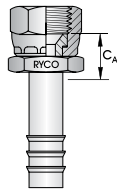


HOSE SIZE		THRD SIZE	DASH SIZE	PILOT O RING FEMALE 90° ELBOW SHORT		
DN	inch	inch		PART NO	C _A	DL
8	5/16	5/8	-0610	GP240-0610	47	25
10	13/32	3/4	-0812	GP240-0812	49	25
12	1/2	7/8	-1014	GP240-1014	51	27

1G000 SERIES AIR CONDITIONING CRIMP COUPLINGS

SAE G540 (G54) G580 (G58) G570 (G57)

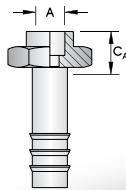
45° FLARE



HOSE SIZE		THRD SIZE	DASH SIZE	SAE FEMALE		SAE FEMALE 45° ELBOW			SAE FEMALE 90° ELBOW		
DN	inch	inch		PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL
8	5/16	5/8	-0610	G540-0610	16	G580-0610	21	14	G570-0610	10	22
10	13/32	3/4	-0812	G540-0812	17	G580-0812	25	15	G570-0812	12	24
12	1/2	7/8	-1014	G540-1014	19	G580-1014	25	14	G570-1014	16	27

SALVAGE G230 (G23)

TUBE WELD



HOSE SIZE		A	DASH SIZE	SALVAGE (LIVESAVER)	
DN	inch	inch		PART NO	C _A
8	5/16	3/8	-0606	G230-0606	10
10	13/32	1/2	-0808	G230-0808	10
12	1/2	5/8	-1010	G230-1010	10

PRODUCT DISCONTINUED

NOTE: Hose Compatibility for the 1G000 series can be found on page 252.

COUPLINGS

8000 (800) SERIES PUSH-ON COUPLINGS

HOSE COMPATIBILITY FOR 8000 SERIES

For RYCO Hose Series PL1, PL1D and RQP6 all sizes.

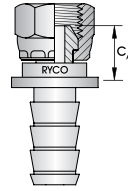
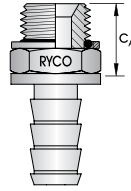
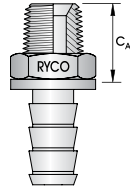
BSP

8010
(801)

8111
(811)

8020
(802)

60° SEAT



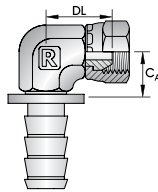
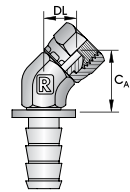
HOSE SIZE		THREAD SIZE	DASH SIZE	BSPT MALE		BSPP O RING MALE		BSPP FEMALE	
DN	inch	inch		PART NO	C _A	PART NO	C _A	PART NO	C _A
6	1/4	1/8	-0402	8010-0402	18			8020-0402	15
6	1/4	1/4	-0404	8010-0404	22			8020-0404	15
6	1/4	3/8	-0406	8010-0406	22			8020-0406	17
8	5/16	1/8	-0502	8010-0502	18			8020-0502	15
8	5/16	1/4	-0504	8010-0504	22			8020-0504	16
8	5/16	3/8	-0506	8010-0506	22				
10	3/8	1/4	-0604	8010-0604	22				
10	3/8	3/8	-0606	8010-0606	22			8020-0606	17
10	3/8	1/2	-0608	8010-0608	29			8020-0608	19
12	1/2	3/8	-0806	8010-0806	22				
12	1/2	1/2	-0808	8010-0808	29			8020-0808	19
12	1/2	3/4	-0812	8010-0812	29				
16	5/8	1/2	-1008	8010-1008	29	8111-1008	24	8020-1008	19
19	3/4	1/2	-1208	8010-1208	29				
19	3/4	3/4	-1212	8010-1212	29			8020-1212	19

BSP

8060
(806)

8050
(805)

60° SEAT



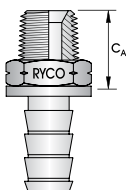
HOSE SIZE		THR D SIZE	DASH SIZE	BSPP FEMALE 45° ELBOW			BSPP FEMALE 90° ELBOW		
DN	inch	inch		PART NO	C _A	DL	PART NO	C _A	DL
6	1/4	1/4	-0404				8050-0404	13	24
8	5/16	1/4	-0504				8050-0504	13	24
10	3/8	3/8	-0606				8050-0606	17	29
12	1/2	1/2	-0808				8050-0808	19	32
16	5/8	1/2	-1008				8050-1008	21	36
19	3/4	3/4	-1212	8060-1212	30	27	8050-1212	22	36

8000 (800) SERIES PUSH-ON COUPLINGS

NPT

8090
(809)

60° SEAT



HOSE SIZE		THRD SIZE	DASH SIZE	NPT MALE	
DN	inch	inch		PART NO	C _A
6	1/4	1/8	-0402	8090-0402	18
6	1/4	1/4	-0404	8090-0404	22
8	5/16	1/8	-0502	8090-0502	18
8	5/16	1/4	-0504	8090-0504	22
10	3/8	1/4	-0604	8090-0604	22
10	3/8	3/8	-0606	8090-0606	22
12	1/2	3/8	-0806	8090-0806	22
12	1/2	1/2	-0808	8090-0808	29
19	3/4	3/4	-1212	8090-1212	30

JIC

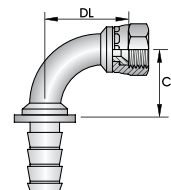
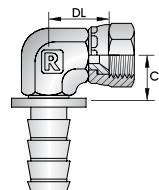
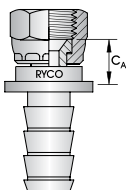
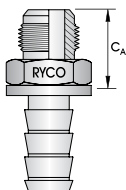
8030
(803)

8040
(804)

8070
(807)

8240
(824)

37° FLARE



HOSE SIZE		THRD SIZE	TUBE SIZE	DASH SIZE	JIC MALE		JIC FEMALE		JIC FEMALE 90° ELBOW			JIC FEMALE 90° TUBE BEND		
DN	inch	inch	inch		PART NO	C _A	PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL
6	1/4	7/16	1/4	-0407	8030-0407	22	8040-0407	13	8070-0407	13	18			
6	1/4	1/2	5/16	-0408	8030-0408	22	8040-0408	13	8070-0408	13	18			
6	1/4	9/16	3/8	-0409			8040-0409	14						
8	5/16	1/2	5/16	-0508	8030-0508	22	8040-0508	13						
8	5/16	9/16	3/8	-0509			8040-0509	14						
10	3/8	9/16	3/8	-0609	8030-0609	22	8040-0609	14	8070-0609	17	23	8240-0609	28	38
10	3/8	3/4	1/2	-0612	8030-0612	24	8040-0612	15	8070-0612	17	24			
12	1/2	3/4	1/2	-0812	8030-0812	24	8040-0812	15	8070-0812	19	27	8240-0812	37	41
12	1/2	7/8	5/8	-0814	8030-0814	28	8040-0814	16	8070-0814	19	28			
16	5/8	7/8	5/8	-1014	8030-1014	28	8040-1014	16				8240-1014	42	48
19	3/4	1.1/16	3/4	-1217	8030-1217	31	8040-1217	17	8070-1217	22	30			

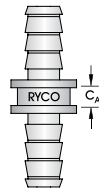
NOTE: Hose Compatibility for the **8000** series can be found on page 254.

COUPLINGS

8000 (800) SERIES PUSH-ON COUPLINGS

JOINER

8900
(890)



HOSE SIZE		THRD SIZE	DASH SIZE	SAE FEMALE 90° ELBOW	
DN	inch	inch		PART NO	C _A
6	1/4	1/4	-0404	8900-0404	9
8	5/16	5/16	-0505	8900-0505	9
10	3/8	3/8	-0606	8900-0606	10
12	1/2	1/2	-0808	8900-0808	10
16	5/8	5/8	-1010	8900-1010	10
19	3/4	3/4	-1212	8900-1212	10

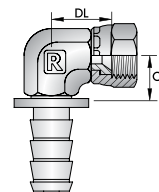
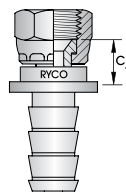
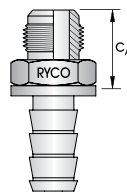
SAE

8530
(853)

8540
(854)

8570
(857)

45° FLARE

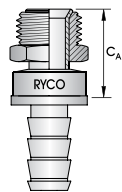


HOSE SIZE		THRD SIZE	TUBE SIZE	DASH SIZE	SAE MALE		SAE FEMALE		SAE FEMALE 90° ELBOW		
DN	inch	inch	inch		PART NO	C _A	PART NO	C _A	PART NO	C _A	DL
8	5/16	5/8	3/8	-0510	8530-0510	23	8540-0510	14			
10	3/8	5/8	3/8	-0610	8530-0610	23	8540-0610	14	8570-0610	17	23
16	5/8	1.1/16	3/4	-1017			8540-1017	16			
19	3/4	1.1/16	3/4	-1217	8530-1217	35	8540-1217	17			

SAE

8740
(874)

INVERTED MALE FLARE BRASS

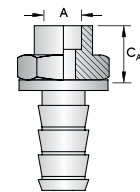


HOSE SIZE		THRD SIZE	TUBE SIZE	DASH SIZE	SAE INVERTED MALE FLARE	
DN	inch	inch	inch		PART NO	C _A
6	1/4	7/16	1/4	-0407	8740-0407	23
6	1/4	1/2	5/16	-0408	8740-0408	25
8	5/16	1/2	5/16	-0508	8740-0508	25
8	5/16	5/8	3/8	-0510	8740-0510	28
10	3/8	5/8	3/8	-0610	8740-0610	28

SALVAGE

8230
(823)

TUBE WELD



HOSE SIZE		A	DASH SIZE	SALVAGE (LIFESAVER)	
DN	inch	inch		PART NO	C _A
6	1/4	3/8	-0406	8230-0406	14
10	3/8	1/4	-0604	8230-0604	14
10	3/8	3/8	-0606	8230-0606	14
12	1/2	1/2	-0808	8230-0808	14
12	1/2	5/8	-0810	8230-0810	16
16	5/8	5/8	-1010	8230-1010	16
19	3/4	3/4	-1212	8230-1212	16

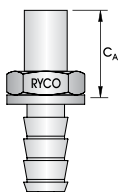
NOTE: Hose Compatibility for the **8000** series can be found on page 254.

8000 (800) SERIES PUSH-ON COUPLINGS

STANDPIPE

8180
(818)

IMPERIAL

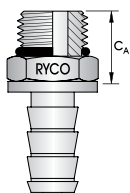


HOSE SIZE		TUBE SIZE	DASH SIZE	IMPERIAL STANDPIPE	
DN	inch	inch		PART NO	C _A
6	1/4	1/4	-0404	8180-0404	30
6	1/4	5/16	-0405	8180-0405	30
6	1/4	3/8	-0406	8180-0406	31
10	3/8	3/8	-0606	8180-0606	31
10	3/8	1/2	-0608	8180-0608	31
12	1/2	1/2	-0808	8180-0808	31
19	3/4	3/4	-1212	8180-1212	31

UNO (O RING BOSS)

8200
(820)

O RING SUPPLIED

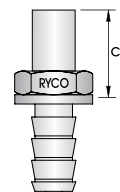


HOSE SIZE	THRD SIZE	TUBE SIZE	DASH SIZE	UN O RING MALE (O RING BOSS)		
DN	inch	inch	inch	PART NO	C _A	
12	1/2	3/4	1/2	-0812	8200-0812	20

STANDPIPE

8640
(864)

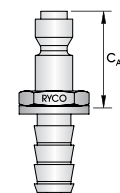
METRIC
MALE FLARE



HOSE SIZE		TUBE SIZE	DASH SIZE	METRIC STANDPIPE	
DN	inch	mm		PART NO	C _A
6	1/4	6	-0406	8640-0406	30
6	1/4	8	-0408	8640-0408	30
12	1/2	15	-0815	8640-0815	33
19	3/4	20	-1220	8640-1220	47
19	3/4	22	-1222	8640-1222	39

200 COUPLING NIPPLE

8100
(810)



HOSE SIZE		DASH SIZE	BARB NIPPLES FOR RYCO 200 AIR COUPLING	
DN	inch		PART NO	C _A
6	1/4	-0404	8100-0404	27
10	3/8	-0604	8100-0604	27

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NOTE: Hose Compatibility for the **8000** series can be found on page 254.

COUPLINGS

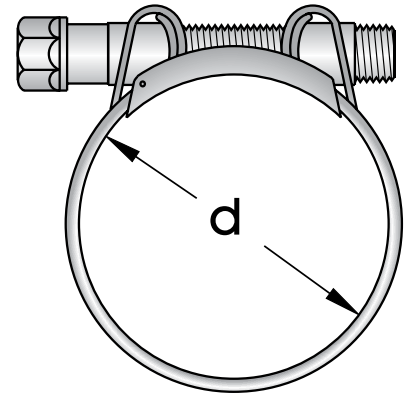
33000 (3300) SERIES SUCTION AND RETURN COUPLINGS

HOSE COMPATIBILITY FOR 33000 SERIES

For RYCO Hose Series SR and SRF all sizes.

33000 Series require a suitable clamp around the outside of the hose.

HOSE DASH SIZE	CLAMP PART NO	CLAMP ADJUSTMENT RANGE	RECOMMENDED TIGHTENING TORQUE	
			Nm	ft. lbs
-12	RSC-3134	31 to 34	20	15
-16	RSC-3740*	37 to 40	20	15
	RSC-4043*	40 to 43	20	15
-20	RSC-4347*	43 to 47	20	15
	RSC-4751*	47 to 51	20	15
-24	RSC-5155	51 to 55	20	15
-32	RSC-6368	63 to 68	25	18
-40	RSC-7379	73 to 79	25	18
-48	RSC-8591	85 to 91	25	18



* Due to the manufacturing tolerance on outside diameter of the hose and the range of adjustment of the clamp, it is necessary to confirm correct clamp at time of assembly.

BSP

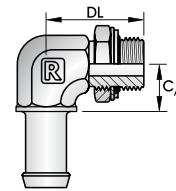
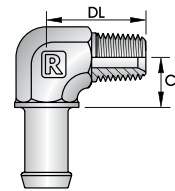
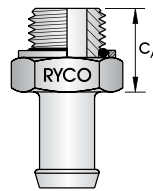
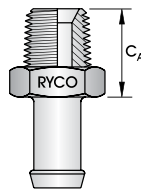
33010
(3301)

33111
(3311)

33400
(3340)

33410
(3341)

60° SEAT
FLAT SEAT



HOSE SIZE		THRD SIZE	DASH SIZE	BSPT MALE		BSPP O RING MALE		BSPT MALE 90° ELBOW		BSPP O RING MALE 90° ELBOW			
DN	inch	inch		PART NO	C _A	PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL
19	3/4	3/8	-1206	33010-1206	23								
19	3/4	1/2	-1208	33010-1208	28			33400-1208	20	37			
19	3/4	3/4	-1212	33010-1212	28			33400-1212	23	40			
19	3/4	1	-1216	33010-1216	36								
25	1	1/2	-1608					33400-1608	23	42	33410-1608	23	46
25	1	3/4	-1612	33010-1612	29	33111-1612	27	33400-1612	23	40	33410-1612	23	47
25	1	1	-1616	33010-1616	36	33111-1616	30	33400-1616	29	50			
25	1	1.1/4	-1620	33010-1620	38			33400-1620	35	60			
31	1.1/4	3/4	-2012	33010-2012	31	33111-2012	27	33400-2012	30	45	33410-2012	28	50
31	1.1/4	1	-2016	33010-2016	36	33111-2016	30	33400-2016	30	50	33410-2016	28	52
31	1.1/4	1.1/4	-2020	33010-2020	38	33111-2020	32	33400-2020	34	60	33410-2020	34	57
31	1.1/4	1.1/2	-2024	33010-2024	39			33400-2024	39	67			
38	1.1/2	1	-2416	33010-2416	36	33111-2416	30	33400-2416	36	60	33410-2416	34	57
38	1.1/2	1.1/4	-2420	33010-2420	38	33111-2420	32	33400-2420	36	60	33410-2420	34	57
38	1.1/2	1.1/2	-2424	33010-2424	39			33400-2424	39	67			
51	2	1	-3216	33010-3216	39								
51	2	1.1/4	-3220					33400-3220	51	75			
51	2	1.1/2	-3224	33010-3224	40			33400-3224	51	75			
51	2	2	-3232	33010-3232	44								

33000 (3300) SERIES SUCTION AND RETURN COUPLINGS

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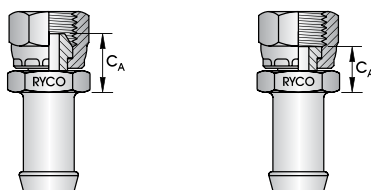
ACCESSORIES

FILTERS

TECHNICAL

BSP 33020 (3302) 33024 (3302F)

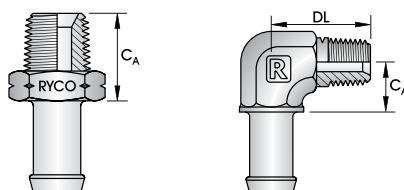
60° SEAT
FLAT SEAT



HOSE SIZE		THRD SIZE	DASH SIZE	BSPP FEMALE		BSPP FEMALE FLAT FACE	
DN	inch	inch		PART NO	CA	PART NO	CA
19	3/4	3/4	-1212	33020-1212	24	33024-1212	19
25	1	1	-1616	33020-1616	27	33024-1616	23
31	1.1/4	1.1/4	-2020	33020-2020	26	33024-2020	23
38	1.1/2	1.1/2	-2424	33020-2424	29	33024-2424	27
51	2	2	-3232	33020-3232	41		

NPT 33090 (3309) 33400N (3340N)

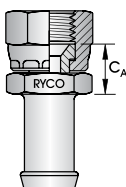
60° SEAT



HOSE SIZE		THRD SIZE	DASH SIZE	NPT MALE		NPT MALE 90° ELBOW		
DN	inch	inch		PART NO	CA	PART NO	CA	DL
19	3/4	1/2	-1208			33400N-1208	20	37
25	1	3/4	-1612	33090-1612	29			
25	1	1	-1616	33090-1616	36	33400N-1616	29	50
31	1.1/4	3/4	-2012	33090-2012	31			
31	1.1/4	1.1/4	-2020	33090-2020	38			
38	1.1/2	1.1/4	-2420	33090-2420	38			
38	1.1/2	1.1/2	-2424	33090-2424	39			

JIC 33040 (3304)

37° FLARE



HOSE SIZE		THRD SIZE	TUBE SIZE	DASH SIZE	JIC FEMALE	
DN	inch	inch	inch		PART NO	CA
25	1	1.1/16	3/4	-1617	33040-1617	22
31	1.1/4	1.5/8	1.1/4	-2026	33040-2026	26

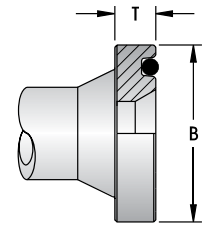
NOTE: Hose Compatibility for the **33000** series can be found on page 258.

COUPLINGS

33000 (3300) SERIES SUCTION AND RETURN COUPLINGS

DIMENSIONS FOR SAE CODE 61 AND CODE 62 FLANGES, AND RYCO CODE 62C FLANGES

NOMINAL FLANGE	CODE 61				CODE 62				CODE 62C			
	B		T		B		T		B		T	
inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
1/2	30,2	1.19	6,73	0.265	31,8	1.25	7,75	0.305				
*5/8	34,0	1.34	6,73	0.265								
3/4	38,1	1.50	6,73	0.265	41,3	1.63	8,76	0.345	41,3	1.63	14,20	0.559
1	44,5	1.75	8,00	0.315	47,6	1.88	9,53	0.375	47,6	1.88	14,20	0.559
1.1/4	50,8	2.00	8,00	0.315	54,0	2.12	10,29	0.405	54,0	2.12	14,20	0.559
1.1/2	60,3	2.38	8,00	0.315	63,5	2.50	12,57	0.495	63,5	2.50	14,20	0.559
2	71,4	2.81	9,53	0.375	79,4	3.13	12,57	0.495	79,4	3.13	14,20	0.559
2.1/2	84,1	3.31	9,53	0.375								
3	101,6	4.00	9,53	0.375								



NOTE: *5/8 is used by Komatsu.
RYCO Code 62C fittings conform to the flange OD and bolt hole patterns of SAE Code 62 but require special flange clamps.
RYCO Code 62C flange heads are thicker than SAE Code 62 and measure T = 14,2 mm (0.559 inch) in all sizes.

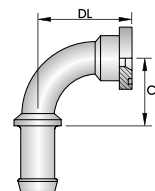
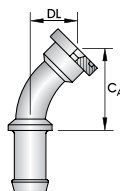
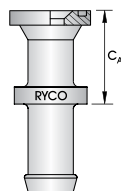
SAE FLANGE

33130
[3313]

33150
[3315]

33170
[3317]

RYCO
CODE 61
CLAMPS - SEE PAGES 345 & 346
O RING NOT SUPPLIED



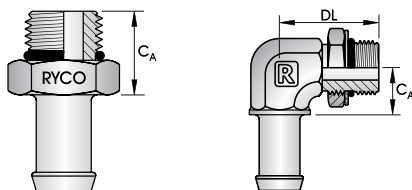
HOSE SIZE			NOM. FLANGE SIZE	DASH SIZE	CODE 61 FLANGE	CODE 61 FLANGE 45° TUBE BEND			CODE 61 FLANGE 90° TUBE BEND			
DN	inch	inch			PART NO	CA	PART NO	CA	DL	PART NO	CA	DL
25	1	1	-1616		33130-1616	50	33150-1616	73	36	33170-1616	81	44
25	1	1.1/4	-1620		33130-1620	50	33150-1620	73	36	33170-1620	81	44
31	1.1/4	1	-2016							33170-2016	69	80
31	1.1/4	1.1/4	-2020		33130-2020	50	33150-2020	81	39	33170-2020	69	80
31	1.1/4	1.1/2	-2024		33130-2024	50	33150-2024	86	40	33170-2024	69	80
38	1.1/2	1.1/4	-2420		33130-2420	49						
38	1.1/2	1.1/2	-2424		33130-2424	50	33150-2424	87	41	33170-2424	92	103
38	1.1/2	2	-2432		33130-2432	52	33150-2432	95	46	33170-2432	92	104
51	2	2	-3232		33130-3232	62	33150-3232	109	56	33170-3232	103	114
51	2	2.1/2	-3240		33130-3240	52	33150-3240	109	56	33170-3240	103	114
63	2.1/2	2	-4032		33130-4032		33150-4032			33170-4032		

NOTE: Hose Compatibility for the **33000** series can be found on page 258.

33000 (3300) SERIES SUCTION AND RETURN COUPLINGS

UNO (O RING BOSS) 33200 (3320) 33420 (3342)

O RING SUPPLIED



HOSE SIZE					UN O RING MALE (O RING BOSS)		UN O RING MALE (O RING BOSS) 90° ELBOW		
DN	inch	inch	inch	DASH SIZE	PART NO	CA	PART NO	CA	DL
19	3/4	7/8	5/8	-1214	33200-1214	21	33420-1214	25	46
19	3/4	1.1/16	3/4	-1217	33200-1217	25	33420-1217	29	52
19	3/4	1.5/16	1	-1221	33200-1221	27	33420-1221	29	52
25	1	1.1/16	3/4	-1617	33200-1617	25	33420-1617	29	52
25	1	1.5/16	1	-1621	33200-1621	27	33420-1621	29	52
31	1.1/4	7/8	5/8	-2014	33200-2014	24			
31	1.1/4	1.1/16	3/4	-2017	33200-2017	27	33420-2017	29	52
31	1.1/4	1.3/16	7/8	-2019	33200-2019	27	33420-2019	29	51
31	1.1/4	1.5/16	1	-2021	33200-2021	27	33420-2021	29	52
31	1.1/4	1.5/8	1.1/4	-2026	33200-2026	28	33420-2026	36	57
38	1.1/2	1.1/16	3/4	-2417	33200-2417	27			
38	1.1/2	1.5/16	1	-2421	33200-2421	27	33420-2421	36	57
38	1.1/2	1.5/8	1.1/4	-2426	33200-2426	28	33420-2426	36	57
38	1.1/2	1.7/8	1.1/2	-2430	33200-2430	30			
51	2	1.7/8	1.1/2	-3230	33200-3230	30			

NOTE: Hose Compatibility for the **33000** series can be found on page 258.

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COUPLINGS

V000 (V00) SERIES FIELD ATTACHABLE COUPLINGS

HOSE COMPATIBILITY FOR V000 SERIES

FOR RYCO SURVIVOR RQP5 AND TRUCKER T5 HOSE SERIES

RYCO V000 Series Ferrules follow the dash size of **SURVIVOR RQP5** and **TRUCKER T5** series hose. **RQP5** and **T5** Series are SAE 100R5 specification hose, and, accordingly the dash size is the corresponding tube size. SAE 100R5 hose internal diameters (nominal bores), unlike SAE 100R1, R2, etc, are smaller than their dash sizes. For example, **T58** has nominal tube size of 1/2" and internal diameter of 13/32", whereas **T18** and **T28** have nominal bore size of 1/2" and internal diameter of 1/2". The reason for this difference is that T5 Series hoses are often used in applications where hose is connected to steel or copper tubing. The hose is sized so that its flow diameter is approximately the same as the flow diameter of the same nominal size tubing. Hence, the hose size relates to the nominal tube size.

RYCO V000 Series Ferrules are designed to match with **RYCO 6000** Series Inserts.

RYCO 6000 Series Inserts have the same nominal sizing as their corresponding **T1** and **T2** Series Hose. Therefore, V000 Series Ferrules and matching 6000 Series Inserts have different "dash" sizes. When matched together, V000 Series Couplings have the same dash size as the 6000 Series Inserts. See table below.

The chart below shows the relationship of Part Numbers for Ferrules, Inserts and Couplings for each size.

SURVIVOR RQP5	TRUCKER T5	HOSE (TUBE) DASH SIZE	HOSE ID INCH	V000 SERIES FERRULE	FERRULE DASH SIZE	6000 SERIES INSERTS	INSERT DASH SIZE	V000 SERIES COUPLINGS	COUPLING DASH SIZE
RQP54	T54	-04	3/16	V000-04	-04	6xxx-03	-03	Vxxx-03	-03
RQP55	T55	-05	1/4	V000-05	-05	6xxx-04	-04	Vxxx-04	-04
RQP56	T56	-06	5/16	V000-06	-06	6xxx-05	-05	Vxxx-05	-05
RQP58	T58	-08	13/32	V000-08	-08	6xxx-06	-06	Vxxx-06	-06
RQP510	T510	-10	1/2	V000-10	-10	6xxx-08	-08	Vxxx-08	-08
RQP512	T512	-12	5/8	V000-12	-12	6xxx-10	-10	Vxxx-10	-10
RQP516	T516	-16	7/8	V000-16	-16	6xxx-14	-14	Vxxx-14	-14
RQP520	T520	-20	1.1/8	V000-20	-20	6xxx-18	-18	Vxxx-18	-18
RQP524	T524	-24	1.3/8	V000-24	-24	6xxx-22	-22	Vxxx-22	-22
RQP532	T532	-32	1.13/16	V000-32	-32	6xxx-29	-29	Vxxx-29	-29

ADDITIONAL COUPLING END STYLES

Pages 209 to 215 show the T4000 Series Coupling End Styles that are also used with **RQP5** and **T5** hose.

As **RYCO V000** Series Ferrules match with **RYCO 6000** Series Inserts it is possible to use any **RYCO 6000** Insert from -03 to -10 listed in the **6000** Series Field Attachable Inserts with the matching Series Ferrule.

Refer to RYCO for the availability of other **6000** Series Field Attachable Inserts.

CUT-OFF ALLOWANCE (C_A) DIMENSIONS FOR FIELD ATTACHABLES

Due to differences in Ferrule design, many Cut-Off Allowance (C_A) dimensions vary between each Ferrule Series for the same matched Insert/Hose size.

The Cut-Off Allowance (C_A) dimensions published in "V Series Field Attachable Inserts" section allow for the Ferrule being eased back 5/8 of a turn after the hose has bottomed in the ferrule, as per "Field Attachable Assembly Instructions" (ease back between 1/2 and 3/4 of a turn).

The Cut-Off Allowance (C_A) values for **6000** Series Inserts, published in the tables on pages 264 to 275 are for **6000** Series Inserts used with **V000** Series Ferrules. If using V000 Series Ferrules with other matched **6000** Series Inserts listed on pages 278 to 290, contact RYCO Hydraulics Technical Department for the correct Cut-Off Allowance (C_A).

If the hose assembly length is critical, when calculating the Cut Length of hose, you must also allow for an increase in length of hose when the coupling is attached, due to compression within the coupling; see page 487.

For further information about Hose Assemblies and Cut-Off Allowances (C_A), see pages 486 to 492 of the Technical Section.

HOW TO ORDER

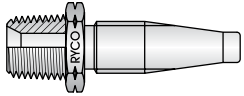
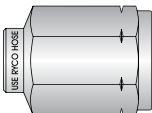
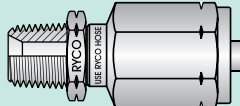
EXAMPLE To order 1/2" NPT male insert and ferrule for **T58** (13/32") hose.

(a) Individually Order ferrule **V000-08**.
V000 Series ferrules are used on **T5** hose; see chart on page 262, or chart for Couplings Selection on **T5** page 108.
 Ferrule Dash Size -08 is same as Dash Size of hose.

Order insert **6090-0608** (6000 Series).
T58 hose uses 6000-06 size inserts, see page 262.

(b) Complete Coupling Order **V090-0608**.
 Simply replace the first character of the insert's part number with the first character of the ferrule's part number.
 (replace 6 with V): **6090-0608** »» **V090-0608**

The **V000 Series** Couplings on pages 264 to 275 clearly show the Insert, Ferrule and Complete Coupling part numbers for each size of hose.

6090-0608 insert	plus V000-08 ferrule equals	V090-0608 complete coupling
		

HOSE BRANDING:

In common with industry practice, **RYCO RQP5** and **T5** hoses are branded with their Part Number, and their Actual Inside Diameter. For example:

RYCO TRUCKER T55 1/4" MAX WP 3050 PSI•210 BAR MALAYSIA
 DOT RYCO MMY 1/4 AII • RYCO AIR BRAKE (METRIC SIZE 6.3) SAE J1402 AII

RYCO TRUCKER T56 5/16" MAX WP 2250 PSI•155 BAR MALAYSIA
 DOT RYCO MMY 5/16 AII • RYCO AIR BRAKE (METRIC SIZE 8) SAE J1402 AII

RYCO SURVIVOR RQP55 1/4" MAX WP 3050 PSI•210 BAR MALAYSIA
 DOT RYCO MMY 1/4 AII • RYCO AIR BRAKE (METRIC SIZE 6.3) SAE J1402 AII

RYCO SURVIVOR RQP56 5/16" MAX WP 3050 PSI•210 BAR MALAYSIA
 DOT RYCO MMY 5/16 AII • RYCO AIR BRAKE (METRIC SIZE 8) SAE J1402 AII

When ordering hose, it is important to be clear about what size is being referred to.

For example **T55** is -05 or **5/16"** Nominal Dash Size, and **1/4"** Actual Inside Diameter.

T56 is -06 or **3/8"** Nominal Dash Size, and **5/16"** Actual Inside Diameter.

Both hoses can be referred to as **5/16"**, depending on whether Nominal or Actual Inside Diameter is being referred to. Other sizes that crossover are:

T54 and **T55**; **T58** and **T510**; and **T510** and **T512**.

RQP54 and **RQP55**; **RQP58** and **RQP510**; and **RQP510** and **RQP512**.

It is NOT RECOMMENDED to refer to the size of the hose only, or there may be confusion about whether it is Actual or Nominal Diameter.

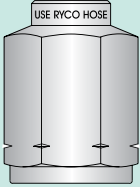
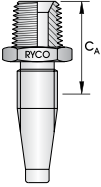
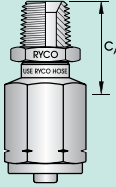
It is RECOMMENDED to only refer to the Part Number of the hose. Example: T56.

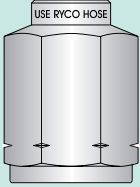
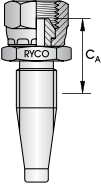
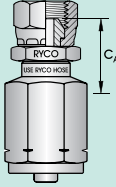
If the size is mentioned, the Part Number of the hose must also be included to remove any confusion.

EXAMPLE: 5/16" T56.

COUPLINGS

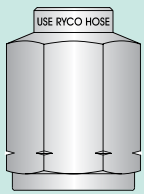
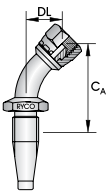
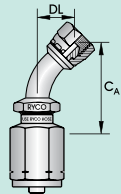
V000 (V00) SERIES FIELD ATTACHABLE COUPLINGS

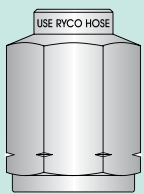
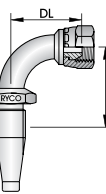
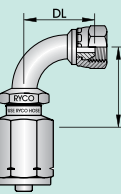
BSP				V000 (V00) FERRULE	6010 (601) INSERT	V010 (V01) COUPLING	
60° SEAT							
HOSE SIZE ACTUAL ID	THRD SIZE	DASH SIZE		BSPT MALE			
DN	inch	inch		PART NO	PART NO	PART NO	C _A
6	1/4	1/8	-0402	V000-05	6010-0402	V010-0402	27
6	1/4	1/4	-0404	V000-05	6010-0404	V010-0404	32
8	5/16	1/4	-0504	V000-06	6010-0504	V010-0504	33
8	5/16	3/8	-0506	V000-06	6010-0506	V010-0506	31
10	13/32	1/4	-0604	V000-08	6010-0604	V010-0604	33
10	13/32	3/8	-0606	V000-08	6010-0606	V010-0606	33
10	13/32	1/2	-0608	V000-08	6010-0608	V010-0608	39
12	1/2	1/2	-0808	V000-10	6010-0808	V010-0808	42
16	5/8	5/8	-1010	V000-12	6010-1010	V010-1010	43
16	5/8	3/4	-1012	V000-12	6010-1012	V010-1012	43
28	1.1/8	1.1/4	-1820	V000-20	6010-1820	V010-1820	58

BSP				V000 (V00) FERRULE	6020 (602) INSERT	V020 (V02) COUPLING	
60° SEAT							
HOSE SIZE ACTUAL ID	THRD SIZE	DASH SIZE		BSPP FEMALE			
DN	inch	inch		PART NO	PART NO	PART NO	C _A
5	3/16	1/8	-0302	V000-04	6020-0302	V020-0302	25
6	1/4	1/8	-0402	V000-05	6020-0402	V020-0402	27
6	1/4	1/4	-0404	V000-05	6020-0404	V020-0404	28
8	5/16	1/4	-0504	V000-06	6020-0504	V020-0504	29
8	5/16	3/8	-0506	V000-06	6020-0506	V020-0506	32
10	13/32	1/4	-0604	V000-08	6020-0604	V020-0604	29
10	13/32	3/8	-0606	V000-08	6020-0606	V020-0606	32
10	13/32	1/2	-0608	V000-08	6020-0608	V020-0608	34
12	1/2	1/2	-0808	V000-10	6020-0808	V020-0808	36
12	1/2	5/8	-0810	V000-10	6020-0810	V020-0810	36
16	5/8	5/8	-1010	V000-12	6020-1010	V020-1010	36
16	5/8	3/4	-1012	V000-12	6020-1012	V020-1012	38
22	7/8	1	-1416	V000-16	6020-1416	V020-1416	39
28	1.1/8	1.1/4	-1820	V000-20	6020-1820	V020-1820	51

NOTE: Hose Compatibility for the V000 series can be found on page 262.

V000 (V00) SERIES FIELD ATTACHABLE COUPLINGS

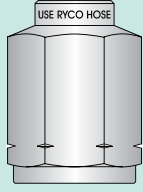
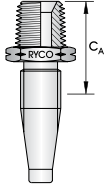
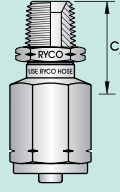
BSP				V000 (V00) FERRULE	6270 (627) INSERT	V270 (V27) COUPLING			
60° SEAT									
HOSE SIZE ACTUAL ID				THRD SIZE	DASH SIZE	BSP FEMALE - 45° TUBE BEND			
DN	inch	inch		PART NO	PART NO	PART NO	C _A	DL	
6	1/4	1/4	-0404	V000-05	6270-0404	V270-0404	44	17	
8	5/16	3/8	-0506	V000-06	6270-0506	V270-0506	53	19	
10	13/32	3/8	-0606	V000-08	6270-0606	V270-0606	53	18	
12	1/2	1/2	-0808	V000-10	6270-0808	V270-0808	62	22	
16	5/8	5/8	-1010	V000-12	6270-1010	V270-1010	67	23	
35	1.3/8	1.1/2	-2224	V000-24	6270-2224	V270-2224	131	52	

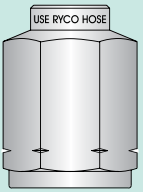
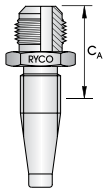
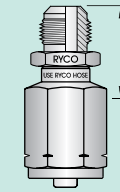
BSP				V000 (V00) FERRULE	6260 (626) INSERT	V260 (V26) COUPLING			
60° SEAT									
HOSE SIZE ACTUAL ID				THRD SIZE	DASH SIZE	BSP FEMALE - 90° TUBE BEND			
DN	inch	inch		PART NO	PART NO	PART NO	C _A	DL	
6	1/4	1/4	-0404	V000-05	6260-0404	V260-0404	36	29	
8	5/16	3/8	-0506	V000-06	6260-0506	V260-0506	44	34	
10	13/32	3/8	-0606	V000-08	6260-0606	V260-0606	45	33	
10	13/32	1/2	-0608	V000-08	6260-0608	V260-0608	45	33	
12	1/2	1/2	-0808	V000-10	6260-0808	V260-0808	53	45	
16	5/8	5/8	-1010	V000-12	6260-1010	V260-1010	61	50	
35	1.3/8	1.1/2	-2224	V000-24	6260-2224	V260-2224	113	106	

NOTE: Hose Compatibility for the V000 series can be found on page 262.

COUPLINGS

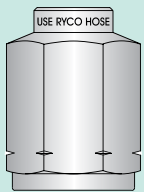
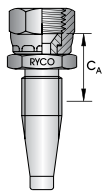
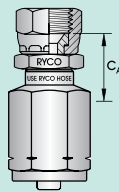
V000 (V00) SERIES FIELD ATTACHABLE COUPLINGS

NPT				V000 (V00) FERRULE	6090 (609) INSERT	V090 (V09) COUPLING		
60° SEAT								
HOSE SIZE ACTUAL ID	THRD SIZE	DASH SIZE		NPT MALE				
DN	inch	inch		PART NO	PART NO	PART NO	C _A	
5	3/16	1/8	-0302	V000-04	6090-0302	V090-0302	25	
5	3/16	1/4	-0304	V000-04	6090-0304	V090-0304	30	
6	1/4	1/8	-0402	V000-05	6090-0402	V090-0402	27	
6	1/4	1/4	-0404	V000-05	6090-0404	V090-0404	32	
6	1/4	3/8	-0406	V000-05	6090-0406	V090-0406	32	
8	5/16	1/4	-0504	V000-06	6090-0504	V090-0504	33	
8	5/16	3/8	-0506	V000-06	6090-0506	V090-0506	33	
10	13/32	1/4	-0604	V000-08	6090-0604	V090-0604	33	
10	13/32	3/8	-0606	V000-08	6090-0606	V090-0606	33	
10	13/32	1/2	-0608	V000-08	6090-0608	V090-0608	39	
12	1/2	3/8	-0806	V000-10	6090-0806	V090-0806	37	
12	1/2	1/2	-0808	V000-10	6090-0808	V090-0808	42	
16	5/8	1/2	-1008	V000-12	6090-1008	V090-1008	43	
16	5/8	3/4	-1012	V000-12	6090-1012	V090-1012	43	
22	7/8	1	-1416	V000-16	6090-1416	V090-1416	48	
28	1.1/8	1.1/4	-1820	V000-20	6090-1820	V090-1820	58	
35	1.3/8	1.1/2	-2224	V000-24	6090-2224	V090-2224	51	

JIC				V000 (V00) FERRULE	6030 (603) INSERT	V030 (V03) COUPLING			
37° FLARE									
HOSE SIZE ACTUAL ID	THRD SIZE	TUBE SIZE	DASH SIZE	JIC MALE					
DN	inch	inch	inch	PART NO	PART NO	C _A	PART NO	C _A	
5	3/16	7/16	1/4	-0307	V000-04	6030-0307	29	V030-0307	30
6	1/4	7/16	1/4	-0407	V000-05	6030-0407	31	V030-0407	31
6	1/4	1/2	5/16	-0408	V000-05	6030-0408	31	V030-0408	31
6	1/4	9/16	3/8	-0409	V000-05	6030-0409	32	V030-0409	32
6	1/4	3/4	1/2	-0412	V000-05	6030-0412	36	V030-0412	27
10	13/32	9/16	3/8	-0609	V000-08	6030-0609	33	V030-0609	33
10	13/32	3/4	1/2	-0612	V000-08	6030-0612	37	V030-0612	37
10	13/32	7/8	5/8	-0614	V000-08	6030-0614	39	V030-0614	39
12	1/2	3/4	1/2	-0812	V000-10	6030-0812	39	V030-0812	39
12	1/2	7/8	5/8	-0814	V000-10	6030-0814	42	V030-0814	42
12	1/2	1.1/16	3/4	-0817	V000-10	6030-0817	46	V030-0817	46
16	5/8	7/8	5/8	-1014	V000-12	6030-1014	43	V030-1014	43
16	5/8	1.1/16	3/4	-1017	V000-12	6030-1017	46	V030-1017	46

NOTE: Hose Compatibility for the V000 series can be found on page 262.

V000 (V00) SERIES FIELD ATTACHABLE COUPLINGS

JIC					V000 (V00) FERRULE	6040 (604) INSERT	V040 (V04) COUPLING		
37° FLARE									
HOSE SIZE ACTUAL ID	THRD SIZE	TUBE SIZE	DASH SIZE		JIC FEMALE				
DN	inch	inch	inch		PART NO	PART NO	PART NO	C _A	
5	3/16	7/16	1/4	-0307	V000-04	6040-0307	V040-0307	23	
6	1/4	7/16	1/4	-0407	V000-05	6040-0407	V040-0407	25	
6	1/4	1/2	5/16	-0408	V000-05	6040-0408	V040-0408	25	
6	1/4	9/16	3/8	-0409	V000-05	6040-0409	V040-0409	26	
6	1/4	3/4	1/2	-0412	V000-05	6040-0412	V040-0412	27	
8	5/16	9/16	3/8	-0509	V000-06	6040-0509	V040-0509	27	
10	13/32	7/16	1/4	-0607	V000-08	6040-0607	V040-0607	27	
10	13/32	1/2	5/16	-0608	V000-08	6040-0608	V040-0608	27	
10	13/32	9/16	3/8	-0609	V000-08	6040-0609	V040-0609	27	
10	13/32	3/4	1/2	-0612	V000-08	6040-0612	V040-0612	30	
10	13/32	7/8	5/8	-0614	V000-08	6040-0614	V040-0614	31	
12	1/2	9/16	3/8	-0809	V000-10	6040-0809	V040-0809	31	
12	1/2	3/4	1/2	-0812	V000-10	6040-0812	V040-0812	32	
12	1/2	7/8	5/8	-0814	V000-10	6040-0814	V040-0814	34	
12	1/2	1.1/16	3/4	-0817	V000-10	6040-0817	V040-0817	36	
16	5/8	7/8	5/8	-1014	V000-12	6040-1014	V040-1014	34	
16	5/8	1.1/16	3/4	-1017	V000-12	6040-1017	V040-1017	36	
22	7/8	1.5/16	1	-1421	V000-16	6040-1421	V040-1421	37	
28	1.1/8	1.5/8	1.1/4	-1826	V000-20	6040-1826	V040-1826	46	
35	1.3/8	1.7/8	1.1/2	-2230	V000-24	6040-2230	V040-2230	45	
46	1.13/16	2.1/2	2	-2940	V000-32	6040-2940	V040-2940	37	

INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

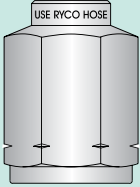
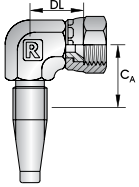
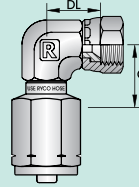
FILTERS

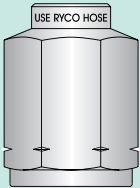
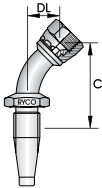
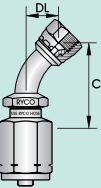
TECHNICAL

NOTE: Hose Compatibility for the **V000** series can be found on page 262.

COUPLINGS

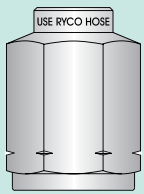
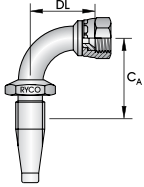
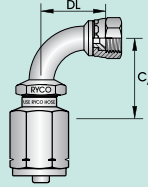
V000 (V00) SERIES FIELD ATTACHABLE COUPLINGS

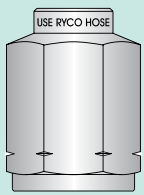
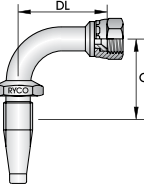
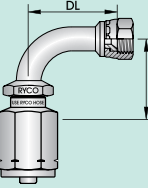
JIC					V000 (V00) FERRULE	6070 (607) INSERT	V070 (V07) COUPLING		
37° FLARE									
HOSE SIZE ACTUAL ID	THRD SIZE	TUBE SIZE	DASH SIZE		JIC FEMALE - 90° ELBOW				
DN	inch	inch	inch		PART NO	PART NO	PART NO	C _A	DL
6	1/4	7/16	1/4	-0407	V000-05	6070-0407	V070-0407	23	18
6	1/4	1/2	5/16	-0408	V000-05	6070-0408	V070-0408	23	18
6	1/4	9/16	3/8	-0409	V000-05	6070-0409	V070-0409	23	18
10	13/32	9/16	3/8	-0609	V000-08	6070-0609	V070-0609	25	20
10	13/32	3/4	1/2	-0612	V000-08	6070-0612	V070-0612	25	21
12	1/2	3/4	1/2	-0812	V000-10	6070-0812	V070-0812	32	22
12	1/2	7/8	5/8	-0814	V000-10	6070-0814	V070-0814	32	23
12	1/2	1.1/16	3/4	-0817	V000-10	6070-0817	V070-0817	32	25
16	5/8	7/8	5/8	-1014	V000-12	6070-1014	V070-1014	33	29
16	5/8	1.1/16	3/4	-1017	V000-12	6070-1017	V070-1017	31	28

JIC					V000 (V00) FERRULE	6250 (625) INSERT	V250 (V25) COUPLING		
37° FLARE									
HOSE SIZE ACTUAL ID	THRD SIZE	TUBE SIZE	DASH SIZE		JIC FEMALE - 45° TUBE BEND				
DN	inch	inch	inch		PART NO	PART NO	PART NO	C _A	DL
5	3/16	7/16	1/4	-0307	V000-04	6250-0307	V250-0307	40	10
6	1/4	7/16	1/4	-0407	V000-05	6250-0407	V250-0407	42	10
6	1/4	1/2	5/16	-0408	V000-05	6250-0408	V250-0408	42	12
6	1/4	9/16	3/8	-0409	V000-05	6250-0409	V250-0409	42	12
8	5/16	9/16	3/8	-0509	V000-06	6250-0509	V250-0509	45	11
10	13/32	9/16	3/8	-0609	V000-08	6250-0609	V250-0609	45	11
10	13/32	3/4	1/2	-0612	V000-08	6250-0612	V250-0612	49	15
12	1/2	3/4	1/2	-0812	V000-10	6250-0812	V250-0812	57	15
12	1/2	7/8	5/8	-0814	V000-10	6250-0814	V250-0814	57	18
16	5/8	1.1/16	3/4	-1017	V000-12	6250-1017	V250-1017	62	24
22	7/8	1.5/16	1	-1421	V000-16	6250-1421	V250-1421	94	28
35	1.3/8	1.7/8	1.1/2	-2230	V000-24	6250-2230	V250-2230	131	50

NOTE: Hose Compatibility for the V000 series can be found on page 262.

V000 (V00) SERIES FIELD ATTACHABLE COUPLINGS

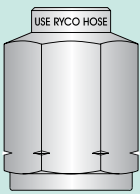
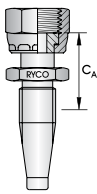
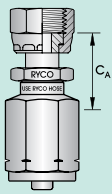
JIC					V000 (V00) FERRULE	6240 (624) INSERT	V240 (V24) COUPLING				
37° FLARE											
HOSE SIZE ACTUAL ID	THRD SIZE	TUBE SIZE	DASH SIZE		JIC FEMALE - 90° TUBE BEND						
DN	inch	inch	inch		PART NO	PART NO	PART NO	C _A	DL		
5	3/16	7/16	1/4	-0307	V000-04	6240-0307	V240-0307	33	32		
6	1/4	7/16	1/4	-0407	V000-05	6240-0407	V240-0407	35	32		
6	1/4	1/2	5/16	-0408	V000-05	6240-0408	V240-0408	35	32		
6	1/4	9/16	3/8	-0409	V000-05	6240-0409	V240-0409	35	38		
8	5/16	9/16	3/8	-0509	V000-06	6240-0509	V240-0509	45	38		
10	13/32	9/16	3/8	-0609	V000-08	6240-0609	V240-0609	45	38		
10	13/32	3/4	1/2	-0612	V000-08	6240-0612	V240-0612	45	41		
12	1/2	3/4	1/2	-0812	V000-10	6240-0812	V240-0812	54	41		
12	1/2	7/8	5/8	-0814	V000-10	6240-0814	V240-0814	54	47		
16	5/8	7/8	5/8	-1014	V000-12	6240-1014	V240-1014	60	48		
16	5/8	1.1/16	3/4	-1017	V000-12	6240-1017	V240-1017	60	58		
22	7/8	1.5/16	1	-1421	V000-16	6240-1421	V240-1421	77	72		
28	1.1/8	1.5/8	1.1/4	-1826	V000-20	6240-1826	V240-1826	103	81		
35	1.3/8	1.7/8	1.1/2	-2230	V000-24	6240-2230	V240-2230	113	104		

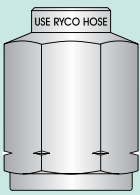
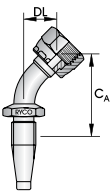
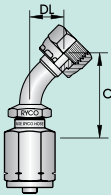
JIC					V000 (V00) FERRULE	6280 (628) INSERT	V280 (V28) COUPLING				
37° FLARE											
HOSE SIZE ACTUAL ID	THRD SIZE	TUBE SIZE	DASH SIZE		JIC FEMALE - 90° LONG TUBE BEND						
DN	inch	inch	inch		PART NO	PART NO	PART NO	C _A	DL		
6	1/4	7/16	1/4	-0407	V000-05	6280-0407	V280-0407	36	47		
6	1/4	1/2	5/16	-0408	V000-05	6280-0408	V280-0408	36	47		
6	1/4	9/16	3/8	-0409	V000-05	6280-0409	V280-0409	36	54		
8	5/16	9/16	3/8	-0509	V000-06	6280-0509	V280-0509	48	54		
10	13/32	9/16	3/8	-0609	V000-08	6280-0609	V280-0609	42	54		
10	13/32	3/4	1/2	-0612	V000-08	6280-0612	V280-0612	45	64		
12	1/2	3/4	1/2	-0812	V000-10	6280-0812	V280-0812	53	64		
12	1/2	7/8	5/8	-0814	V000-10	6280-0814	V280-0814	53	70		
16	5/8	1.1/16	3/4	-1017	V000-12	6280-1017	V280-1017	50	96		

NOTE: Hose Compatibility for the V000 series can be found on page 262.

COUPLINGS

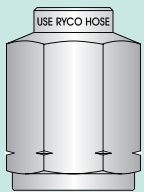
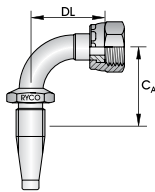
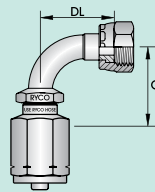
V000 (V00) SERIES FIELD ATTACHABLE COUPLINGS

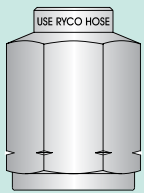
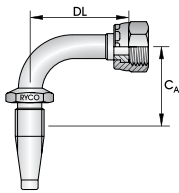
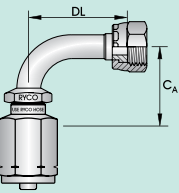
ORFS					V000 (V00) FERRULE	6800 (680) INSERT	V800 (V80) COUPLING	
O RING FACE SEAL								
HOSE SIZE ACTUAL ID	THRD SIZE	TUBE SIZE	DASH SIZE		ORFS FEMALE			
DN	inch	inch	inch		PART NO	PART NO	PART NO	C _A
5	3/16	9/16	1/4	-0309	V000-04	6800-0309	V800-0309	32
6	1/4	9/16	1/4	-0409	V000-05	6800-0409	V800-0409	34
6	1/4	11/16	3/8	-0411	V000-05	6800-0411	V800-0411	36
8	5/16	11/16	3/8	-0511	V000-06	6800-0511	V800-0511	37
10	13/32	11/16	3/8	-0611	V000-08	6800-0611	V800-0611	37
10	13/32	13/16	1/2	-0613	V000-08	6800-0613	V800-0613	40
12	1/2	13/16	1/2	-0813	V000-10	6800-0813	V800-0813	41
12	1/2	1	5/8	-0816	V000-10	6800-0816	V800-0816	47
16	5/8	1	5/8	-1016	V000-12	6800-1016	V800-1016	47
16	5/8	1.3/16	3/4	-1019	V000-12	6800-1019	V800-1019	50
22	7/8	1.7/16	1	-1423	V000-16	6800-1423	V800-1423	56

ORFS					V000 (V00) FERRULE	6810 (681) INSERT	V810 (V81) COUPLING		
O RING FACE SEAL									
HOSE SIZE ACTUAL ID	THRD SIZE	TUBE SIZE	DASH SIZE		ORFS FEMALE - 45° TUBE BEND				
DN	inch	inch	inch		PART NO	PART NO	PART NO	C _A	DL
5	3/16	9/16	1/4	-0309	V000-04	6810-0309	V810-0309	46	18
6	1/4	9/16	1/4	-0409	V000-05	6810-0409	V810-0409	48	18
6	1/4	11/16	3/8	-0411	V000-05	6810-0411	V810-0411	48	19
8	5/16	11/16	3/8	-0511	V000-06	6810-0511	V810-0511	54	20
10	13/32	11/16	3/8	-0611	V000-08	6810-0611	V810-0611	54	20
10	13/32	13/16	1/2	-0613	V000-08	6810-0613	V810-0613	50	17
12	1/2	13/16	1/2	-0813	V000-10	6810-0813	V810-0813	60	19
12	1/2	1	5/8	-0816	V000-10	6810-0816	V810-0816	60	19
16	5/8	1	5/8	-1016	V000-12	6810-1016	V810-1016	71	20
16	5/8	1.3/16	3/4	-1019	V000-12	6810-1019	V810-1019	71	24
22	7/8	1.7/16	1	-1423	V000-16	6810-1423	V810-1423	96	34

NOTE: Hose Compatibility for the V000 series can be found on pages 262.

V000 (V00) SERIES FIELD ATTACHABLE COUPLINGS

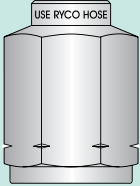
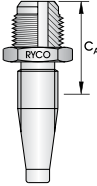
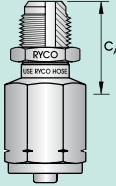
ORFS					V000 (V00) FERRULE	6820 (682) INSERT	V820 (V82) COUPLING				
O RING FACE SEAL											
HOSE SIZE ACTUAL ID	THRD SIZE	TUBE SIZE	DASH SIZE		ORFS FEMALE - 90° TUBE BEND						
DN	inch	inch	inch		PART NO	PART NO	PART NO	C _A	DL		
5	3/16	9/16	1/4	-0309	V000-04	6820-0309	V820-0309	35	32		
6	1/4	9/16	1/4	-0409	V000-05	6820-0409	V820-0409	37	32		
6	1/4	11/16	3/8	-0411	V000-05	6820-0411	V820-0411	37	38		
8	5/16	11/16	3/8	-0511	V000-06	6820-0511	V820-0511	44	38		
10	13/32	11/16	3/8	-0611	V000-08	6820-0611	V820-0611	44	38		
10	13/32	13/16	1/2	-0613	V000-08	6820-0613	V820-0613	44	41		
12	1/2	13/16	1/2	-0813	V000-10	6820-0813	V820-0813	52	41		
12	1/2	1	5/8	-0816	V000-10	6820-0816	V820-0816	55	47		
16	5/8	1	5/8	-1016	V000-12	6820-1016	V820-1016	59	47		
16	5/8	1.3/16	3/4	-1019	V000-12	6820-1019	V820-1019	59	58		
22	7/8	1.7/16	1	-1423	V000-16	6820-1423	V820-1423	79	71		

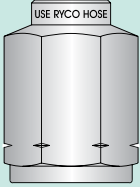
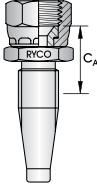
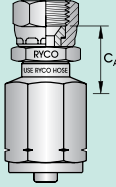
ORFS					V000 (V00) FERRULE	6830 (683) INSERT	V830 (V83) COUPLING				
O RING FACE SEAL											
HOSE SIZE ACTUAL ID	THRD SIZE	TUBE SIZE	DASH SIZE		ORFS FEMALE - 90° LONG TUBE BEND						
DN	inch	inch	inch		PART NO	PART NO	PART NO	C _A	DL		
5	3/16	9/16	1/4	-0309	V000-04	6830-0309	V830-0309	35	47		
6	1/4	9/16	1/4	-0409	V000-05	6830-0409	V830-0409	37	47		
6	1/4	11/16	3/8	-0411	V000-05	6830-0411	V830-0411	37	54		
8	5/16	11/16	3/8	-0511	V000-06	6830-0511	V830-0511	42	54		
10	13/32	11/16	3/8	-0611	V000-08	6830-0611	V830-0611	42	54		
10	13/32	13/16	1/2	-0613	V000-08	6830-0613	V830-0613	42	64		
12	1/2	13/16	1/2	-0813	V000-10	6830-0813	V830-0813	53	65		
12	1/2	1	5/8	-0816	V000-10	6830-0816	V830-0816	58	70		
16	5/8	1	5/8	-1016	V000-12	6830-1016	V830-1016	63	70		
16	5/8	1.3/16	3/4	-1019	V000-12	6830-1019	V830-1019	63	96		
22	7/8	1.7/16	1	-1423	V000-16	6830-1423	V830-1423	87	113		

NOTE: Hose Compatibility for the V000 series can be found on page 262.

COUPLINGS

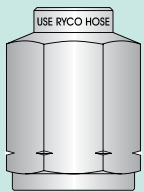
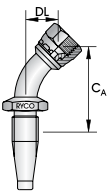
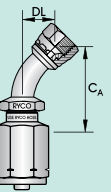
V000 (V00) SERIES FIELD ATTACHABLE COUPLINGS

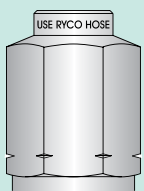
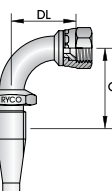
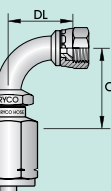
SAE					V000 (V00) FERRULE	6530 (653) INSERT	V530 (V53) COUPLING	
45° FLARE								
					SAE MALE			
HOSE SIZE ACTUAL ID	THRD SIZE	TUBE SIZE	DASH SIZE					
DN	inch	inch	inch		PART NO	PART NO	PART NO	C _A
6	1/4	5/8	3/8	-0410	V000-05	6530-0410	V530-0410	33
8	5/16	5/8	3/8	-0510	V000-06	6530-0510	V530-0510	34
10	13/32	1/2	5/16	-0608	V000-08	6530-0608	V530-0608	33
10	13/32	5/8	3/8	-0610	V000-08	6530-0610	V530-0610	34

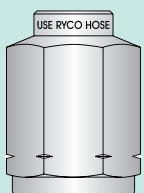
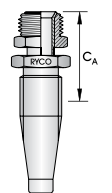
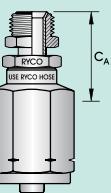
SAE					V000 (V00) FERRULE	6540 (654) INSERT	V540 (V54) COUPLING	
45° FLARE								
					SAE FEMALE			
HOSE SIZE ACTUAL ID	THRD SIZE	TUBE SIZE	DASH SIZE					
DN	inch	inch	inch		PART NO	PART NO	PART NO	C _A
5	3/16	7/16	1/4	-0307	V000-04	6540-0307	V540-0307	23
6	1/4	7/16	1/4	-0407	V000-05	6540-0407	V540-0407	25
6	1/4	1/2	5/16	-0408	V000-05	6540-0408	V540-0408	25
8	5/16	5/8	3/8	-0510	V000-06	6540-0510	V540-0510	27
10	13/32	5/8	3/8	-0610	V000-08	6540-0610	V540-0610	27
10	13/32	3/4	1/2	-0612	V000-08	6540-0612	V540-0612	30
12	1/2	7/8	5/8	-0814	V000-10	6540-0814	V540-0814	32
16	5/8	1.1/16	3/4	-1017	V000-12	6540-1017	V540-1017	36

NOTE: Hose Compatibility for the **V000** series can be found on page 262.

V000 (V00) SERIES FIELD ATTACHABLE COUPLINGS

SAE					V000 (V00) FERRULE	6550 (655) INSERT	V550 (V55) COUPLING				
45° FLARE											
HOSE SIZE ACTUAL ID	THRD SIZE	TUBE SIZE	DASH SIZE		SAE FEMALE - 45° TUBE BEND						
DN	inch	inch	inch		PART NO	PART NO	PART NO	C _A	DL		
5	3/16	7/16	1/4	-0307	V000-04	6550-0307	V550-0307	40	15		
8	5/16	5/8	3/8	-0510	V000-06	6550-0510	V550-0510	50	17		
10	13/32	1/2	5/16	-0608	V000-08	6550-0608	V550-0608	50	15		
10	13/32	5/8	3/8	-0610	V000-08	6550-0610	V550-0610	51	17		

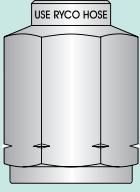
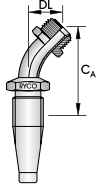
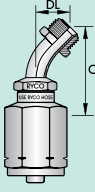
SAE					V000 (V00) FERRULE	6560 (656) INSERT	V560 (V56) COUPLING				
45° FLARE											
HOSE SIZE ACTUAL ID	THRD SIZE	TUBE SIZE	DASH SIZE		SAE FEMALE - 90° TUBE BEND						
DN	inch	inch	inch		PART NO	PART NO	PART NO	C _A	DL		
5	3/16	7/16	1/4	-0307	V000-04	6560-0307	V560-0307	38	29		
8	5/16	5/8	3/8	-0510	V000-06	6560-0510	V560-0510	44	33		
10	13/32	5/8	3/8	-0610	V000-08	6560-0610	V560-0610	44	33		

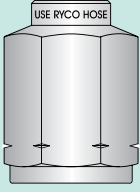
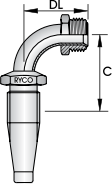
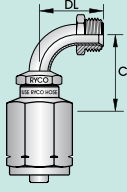
SAE					V000 (V00) FERRULE	6740 (674) INSERT	V740 (V74) COUPLING				
INVERTED MALE FLARE											
HOSE SIZE ACTUAL ID	THRD SIZE	TUBE SIZE	DASH SIZE		SAE INVERTED MALE FLARE						
DN	inch	inch	inch		PART NO	PART NO	PART NO	C _A			
6	1/4	7/16	1/4	-0407	V000-05	6740-0407	V740-0407	46			
8	5/16	5/8	3/8	-0510	V000-06	6740-0510	V740-0510	47			
10	13/32	5/8	3/8	-0610	V000-08	6740-0610	V740-0610	48			
10	13/32	11/16	7/16	-0611	V000-08	6740-0611	V740-0611	51			

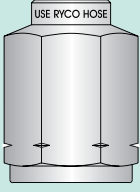
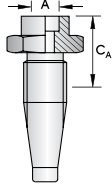
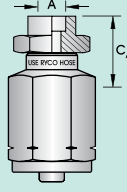
NOTE: Hose Compatibility for the V000 series can be found on page 262.

COUPLINGS

V000 (V00) SERIES FIELD ATTACHABLE COUPLINGS

SAE					V000 (V00) FERRULE	6750 (675) INSERT	V750 (V75) COUPLING		
INVERTED MALE FLARE									
					SAE INVERTED MALE FLARE - 45° TUBE BEND				
HOSE SIZE ACTUAL ID	THRD SIZE	TUBE SIZE	DASH SIZE		PART NO	PART NO	PART NO	C _A	DL
8	5/16	5/8	3/8	-0510	V000-06	6750-0510	V750-0510	80	23
10	13/32	5/8	3/8	-0610	V000-08	6750-0610	V750-0610	80	23

SAE					V000 (V00) FERRULE	6770 (677) INSERT	V770 (V77) COUPLING		
INVERTED MALE FLARE									
					SAE INVERTED MALE FLARE - 90° TUBE BEND				
HOSE SIZE ACTUAL ID	THRD SIZE	TUBE SIZE	DASH SIZE		PART NO	PART NO	PART NO	C _A	DL
6	1/4	7/16	1/4	-0407	V000-05	6770-0407	V770-0407	49	38
8	5/16	5/8	3/8	-0510	V000-06	6770-0510	V770-0510	62	50
10	13/32	5/8	3/8	-0610	V000-08	6770-0610	V770-0610	62	50

SALVAGE					V000 (V00) FERRULE	6230 (623) INSERT	V230 (V23) COUPLING	
TUBE WELD								
					SALVAGE (LIFESAVER)			
HOSE SIZE ACTUAL ID		A	DASH SIZE		PART NO	PART NO	PART NO	C _A
5	3/16	1/4	-0304		V000-04	6230-0304	V230-0304	22
6	1/4	3/8	-0406		V000-05	6230-0406	V230-0406	24
8	5/16	3/8	-0506		V000-06	6230-0506	V230-0506	25
10	13/32	3/8	-0606		V000-08	6230-0606	V230-0606	25
10	13/32	1/2	-0608		V000-08	6230-0608	V230-0608	25
12	1/2	5/8	-0810		V000-10	6230-0810	V230-0810	29
16	5/8	3/4	-1012		V000-12	6230-1012	V230-1012	29
22	7/8	1	-1416		V000-16	6230-1416	V230-1416	32
28	1.1/8	1.1/4	-1820		V000-20	6230-1820	V230-1820	41
35	1.3/8	1.1/2	-2224		V000-24	6230-2224	V230-2224	33

NOTE: Hose Compatibility for the V000 series can be found on page 262.

V000 (V00) SERIES FIELD ATTACHABLE COUPLINGS

UNO (O RING BOSS)					V000 (V00) FERRULE	6200 (620) INSERT	V200 (V20) COUPLING		
O RING SUPPLIED									
					UN O RING MALE (O RING BOSS)				
HOSE SIZE ACTUAL ID	THRD SIZE	TUBE SIZE	DASH SIZE		PART NO	PART NO	PART NO	C _A	
6	1/4	9/16	3/8	-0409	V000-05	6200-0409	V200-0409	27	
10	13/32	9/16	3/8	-0609	V000-08	6200-0609	V200-0609	28	
10	13/32	3/4	1/2	-0612	V000-08	6200-0612	V200-0612	31	
12	1/2	3/4	1/2	-0812	V000-10	6200-0812	V200-0812	33	
12	1/2	7/8	5/8	-0814	V000-10	6200-0814	V200-0814	35	
12	1/2	1.1/16	3/4	-0817	V000-10	6200-0817	V200-0817	39	
16	5/8	1.1/16	3/4	-1017	V000-12	6200-1017	V200-1017	39	

INTRODUCTION

HOSE

COUPLINGS

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TECHNICAL

NOTE: Hose Compatibility for the **V000** series can be found on page 262.

COUPLINGS

FIELD ATTACHABLE FERRULES FOR 6000 (600) SERIES INSERTS

HOSE COMPATIBILITY FOR 6000 (600) SERIES

FIELD ATTACHABLE FERRULES FOR 600 SERIES INSERTS

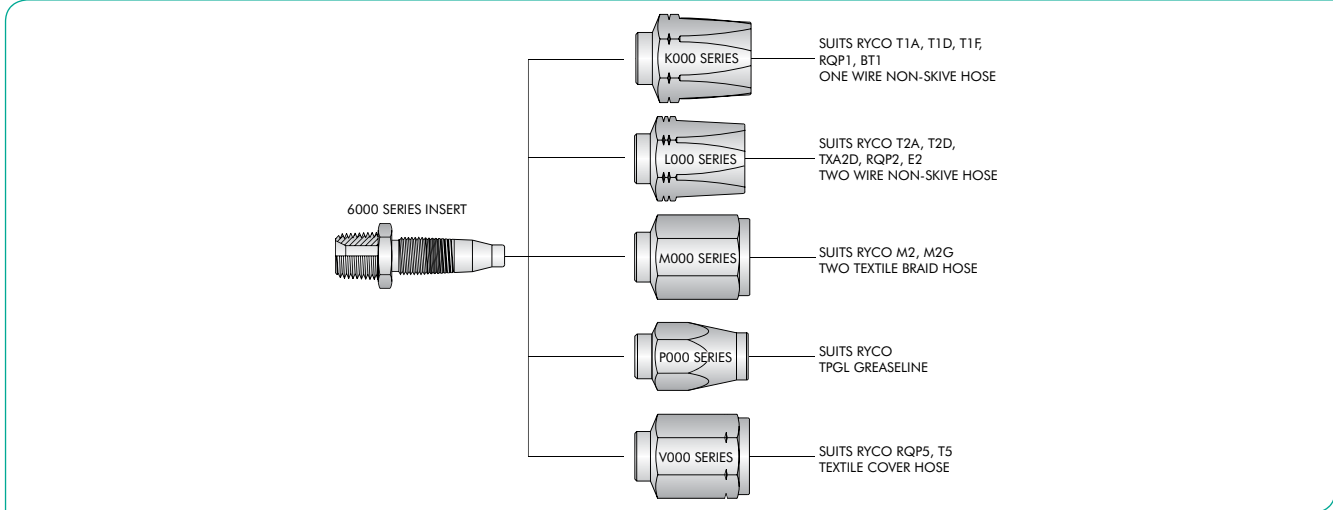
The RYCO Field Attachable system consists of five ferrule styles, each specific to a hose type, and one common insert.

Field attachable inserts and ferrules can be ordered individually, or as a complete coupling for specific hose types.

Field Attachable Inserts for RYCO Hose Series T1A, T2A, T1D, T2D, TXA2D, RQP1, RQP2, T1F, M2, M2G, BT1, E2.

For **V000** Series for RQP5 and T5 Hose Series, see pages 262 to 275.

6000 Series Inserts are used with NON-SKIVE Ferrules **K000**, **L000**, **M000**, **P000** and **V000** Series.



V000 Series Couplings for T5 Hose Series are shown on pages 262 to 275.

6000 Series Inserts, for use with **K000**, **L000**, **M000** and **P000** Series Ferrules, are shown on pages 276 to 290.

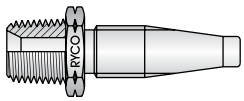
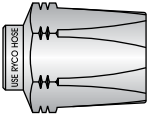
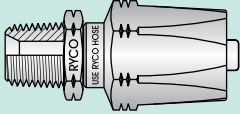
FERRULES				K000 (K00)		L000 (L00)		M000 (400)		P000	
SUITS RYCO HOSE TYPE				ONE WIRE BRAID NON-SKIVE		TWO WIRE BRAID NON-SKIVE		TWO TEXTILE BRAID		GREASELINE	
SUITS RYCO HOSE SERIES				RYCO T1A, T1D, T1F, RQP1, BT1		RYCO T2A, T2D, TXA2D, RQP2, E2		RYCO M2, M2G		RYCO TPGL	
HOSE SIZE		USE INSERT		C _A ADJ		C _A ADJ		C _A ADJ		C _A ADJ	
DN	inch	Dash	Series	PART NO	mm	PART NO	mm	PART NO	mm	PART NO	mm
	1/8	-02	6000-02							P000-02	0
5	3/16	-03	6000-03								
6	1/4	-04	6000-04	K000-04	0	L000-04	0	M000-04	0		
10	3/8	-06	6000-06	K000-06	0	L000-06	0	M000-06	0		
12	1/2	-08	6000-08	K000-08	+3	L000-08	0	M000-08	0		
16	5/8	-10	6000-10	K000-10	+1	L000-10	0				
19	3/4	-12	6000-12	K000-12	+2	L000-12	0	M000-12	0		
25	1	-16	6000-16	K000-16	0	L000-16	0	M000-16	-2		
31	1.1/4	-20	6000-20			L000-20	0				
38	1.1/2	-24	6000-24								
51	2	-32	6000-32								

NOTE: For previous Part Number series, remove a zero from the end of the new series Part Number. Eg, **K000** series was previously **K00** series. Part Number **L000-04** was previously **L00-04**. The exception is **M000**, which was previously the **400** series.

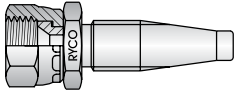
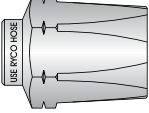
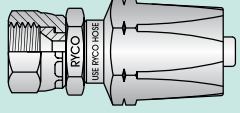
ALL SERIES (EXCEPT V SERIES)

Field Attachable Inserts and Ferrules can be ordered individually, or as complete Couplings. Each Ferrule Series is specific to a hose type as detailed on the previous page. For all Series, except V Series*, the following method is used:

- EXAMPLE 1** To order 1/2" NPT male Insert and Ferrule for 1/2" two wire non-skive hose (T2A).
- (a) Individually Order Insert **6090-0808** (6000 Series). See NPT 6000 Series Inserts on page 280.
Order Ferrule **L000-08**.
L000 Series Ferrules are used on T2A hose; see table on the previous page, or table for Matched Couplings for T2A on page 92.
Dash Size -08 part of **L000-08** comes from 1/2" hose = $8/16" = -08$; or from the tables.
- (b) Complete Coupling Order **L090-0808**.
Simply replace the first character of the Insert part number with the first character of the Ferrule part number.
(replace 6 with L) = **6090-0808 »» L090-0808**

6090-0808 Insert	plus L000-08 Ferrule equals	L090-0808 complete Coupling
		

- EXAMPLE 2** To order 3/4"-16 JIC female Insert and Ferrule for 3/8" RQP1 series hose.
- (a) Individually Order Insert **6040-0612** (6000 Series). See JIC 6000 Series Inserts on page 282.
Order Ferrule **K000-06**.
K000 Series Ferrules are used on RQP1 hose; see table on previous page, table for Matched Couplings for RQP1 on page 114.
Dash Size -06 part of **K000-06** comes from 3/8" hose = $6/16" = -06$; or from the tables.
- (b) Complete Coupling Order **K040-0612**.
Simply replace the first character of the Insert part number with the first character of the Ferrule part number.
(replace 6 with K) = **6040-0612 »» K040-0612**

6040-0612 Insert	plus K000-06 Ferrule equals	K040-0612 complete Coupling
		

* See page 263 for How To Order RYCO V000 Series Field Attachable Couplings for RQP5 and T5 Series Hose.

CUT-OFF ALLOWANCE (C_A) DIMENSIONS FOR FIELD ATTACHABLES

Due to differences in Ferrule design, many Cut-Off Allowance (C_A) dimensions vary between each Ferrule Series for the same matched Insert/Hose size.

The Cut-Off Allowance (C_A) dimensions published in "6000 Series Field Attachable Inserts" section allow for the Ferrule being eased back 5/8 of a turn after the hose has bottomed in the ferrule, as per "Field Attachable Assembly Instructions" (ease back between 1/2 and 3/4 of a turn).

The Cut-Off Allowance (C_A) values for 6000 Series Inserts, published in the tables on pages 278 to 290 are:
Up to and including -20 Size; the C_A is for **L000** Series (the most popular series)

To determine the correct Cut-Off Allowance (C_A) for other Ferrule Series, use the published figure from pages 278 to 290, and adjust by the C_A Adjustment dimension listed in the table on the previous page.

- EXAMPLE:** Determine the Cut-Off Allowance (C_A) for **K090-0808**.
From table on page 108, Cut-Off Allowance (C_A) for **6090-0808** (L090-0808) is 42 mm.
From the table on the previous page, adjustment for **K000** Series in -08 size is "add 3 mm".
Cut-Off Allowance (C_A) for K090-0808 = 42 mm + 3 mm = 45 mm.

If the hose assembly length is critical, when calculating the Cut Length of hose, you must also allow for an increase in length of hose when the coupling is attached, due to compression within the coupling; see page 487.

For further information about Hose Assemblies and Cut-Off Allowances (C_A), see pages 486 to 492 of the Technical Section.
* For Cut-Off Allowances (C_A), and **V Series** Couplings, refer to pages 262 to 275.

COUPLINGS

BSP

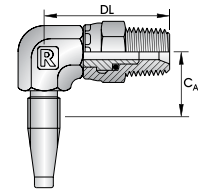
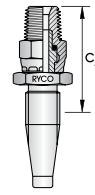
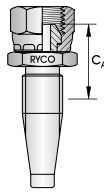
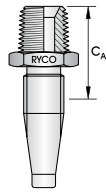
6010
[601]

6020
[602]

6320
[632]

6340
[634]

60° SEAT



HOSE SIZE		THRD SIZE	DASH SIZE	BSPT MALE		BSPF FEMALE		BSPT MALE SWIVEL		BSPT MALE SWIVEL 90° ELBOW		
DN	inch	inch		PART NO	CA	PART NO	CA	PART NO	CA	PART NO	CA	DL
4	3/16	1/8	-0302			6020-0302	25					
6	1/4	1/8	-0402	6010-0402	31	6020-0402	31					
6	1/4	1/4	-0404	6010-0404	35	6020-0404	31					
6	1/4	3/8	-0406	6010-0406	35	6020-0406	33					
8	5/16	1/4	-0504	6010-0504	33	6020-0504	29					
8	5/16	3/8	-0506	6010-0506	33	6020-0506	32					
10	3/8	1/8	-0602	6010-0602	28							
10	3/8	1/4	-0604	6010-0604	32	6020-0604	28					
10	3/8	3/8	-0606	6010-0606	32	6020-0606	31	6320-0606	52	6340-0606	24	44
10	3/8	1/2	-0608	6010-0608	38	6020-0608	33	6320-0608	56	6340-0608	24	48
12	1/2	1/4	-0804	6010-0804	38							
12	1/2	3/8	-0806	6010-0806	38	6020-0806	36					
12	1/2	1/2	-0808	6010-0808	43	6020-0808	37	6320-0808	57	6340-0808	32	50
12	1/2	5/8	-0810			6020-0810	38					
12	1/2	3/4	-0812			6020-0812	38					
16	5/8	1/2	-1008	6010-1008	46							
16	5/8	5/8	-1010	6010-1010	46	6020-1010	39					
16	5/8	3/4	-1012	6010-1012	46	6020-1012	40					
19	3/4	3/4	-1212	6010-1212	42	6020-1212	38	6320-1212	60			
19	3/4	1	-1216	6010-1216	50	6020-1216	42					
22	7/8	1	-1416			6020-1416	39					
25	1	1	-1616	6010-1616	54	6020-1616	46					
29	1.1/8	1.2/8		6010-1820	58	6020-1820	51					
31	1.1/4	1.1/4	-2020	6010-2020	59	6020-2020	51					
38	1.1/2	1.1/2	-2424	6010-2424	57	6020-2424	51					
51	2	2	-3232	6010-3232	66	6020-3232	62					

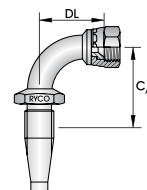
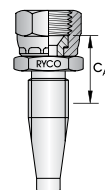
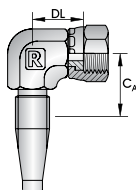
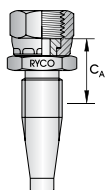
NOTE: These "Live Swivel" 6320 and 6340 Series Inserts are for Maximum Working Pressure: 420 bar (6100 psi): -04 & -06 Thread Size, 350 bar (5100 psi): -08 Thread Size, 280 bar (4100 psi): -12 Thread Size, 215 bar (3100 psi): -16 Thread Size. Their swivel capability is to allow easy installation and orientation and avoid twisting of hose. They are not designed for continuous rotation or continuous movement.

NOTE: Hose Compatibility for the 6000 series can be found on page 276.

6000 (600) SERIES FIELD ATTACHABLE INSERTS

BSP **6024**
(602F) **6052**
(605F) **6120**
(612) **6311**
(631)

SPECIAL SEATS

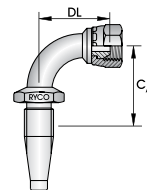
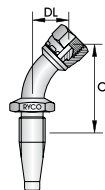
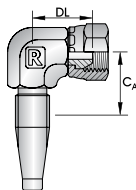
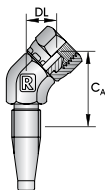


HOSE SIZE		THRD SIZE	DASH SIZE	BSPP FEMALE FLAT FACE			BSPP FEMALE FLAT FACE 90° ELBOW			BSPP FEMALE 60° CONCAVE SEAT (JIS)			BSPP FEMALE 60° CONCAVE SEAT (JIS) 90° TUBE BEND		
DN	inch	inch		PART NO	C _A		PART NO	C _A	DL	PART NO	C _A		PART NO	C _A	DL
6	1/4	1/4	-0404	6024-0404	28					6120-0404	31				
10	3/8	3/8	-0606	6024-0606	28					6120-0606	29		6311-0606	44	30
10	3/8	1/2	-0608	6024-0608	29	6052-0608	24	26							
12	1/2	1/2	-0808	6024-0808	34					6120-0808	33				
12	1/2	3/4	-0812	6024-0812	34										
19	3/4	3/4	-1212	6024-1212	34					6120-1212	36				
25	1	1	-1616							6120-1616	43				

NOTE: These 6120 and 6310 Series inserts are also listed in the JIS section on page 283.

BSP **6060**
(606) **6050**
(605) **6270**
(627) **6260**
(626)

60° SEAT



HOSE SIZE		THRD SIZE	DASH SIZE	BSPP FEMALE 45° ELBOW			BSPP FEMALE 90° ELBOW			BSPP FEMALE 45° TUBE BEND			BSPP FEMALE 90° TUBE BEND		
DN	inch	inch		PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL
6	1/4	1/4	-0404	6060-0404	40	15	6050-0404	27	24	6270-0404	47	17	6260-0404	39	29
6	1/4	3/8	-0406				6050-0406	26	28						
8	5/16	3/8	-0506							6270-0506	53	19	6260-0506	41	34
10	3/8	3/8	-0606	6060-0606	39	18	6050-0606	24	28	6270-0606	52	18	6260-0606	44	33
10	3/8	1/2	-0608				6050-0608	24	31				6260-0608	44	33
12	1/2	1/2	-0808	6060-0808	48	18	6050-0808	32	31	6270-0808	64	22	6260-0808	55	45
12	1/2	5/8	-0810										6260-0810	56	45
16	5/8	5/8	-1010	6060-1010	50		6050-1010	35	30	6270-1010	70	23	6260-1010	64	50
19	3/4	3/4	-1212	6060-1212	48	20	6050-1212	32	36	6270-1212	82	29	6260-1212	68	58
25	1	1	-1616	6060-1616	60	23	6050-1616	39	40	6270-1616	97	39	6260-1616	82	72
31	1.1/4	1.1/4	-2020	6060-2020	65	25	6050-2020	43	49	6270-2020	124	44	6260-2020	105	88
35	1.3/8	1.1/2	-2224							6270-2224	118	52	6260-2224	100	106
38	1.1/2	1.1/2	-2424	6060-2424	72		6050-2424	50	59						
51	2	2	-3232	6060-3232	85		6050-3232	56	62	6270-3232	165	65	6260-3232	152	132

NOTE: Hose Compatibility for the 6000 series can be found on page 276.

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HOSE

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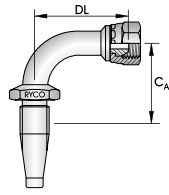
TECHNICAL

COUPLINGS

6000 (600) SERIES FIELD ATTACHABLE INSERTS

BSP

6210
(621)



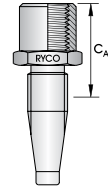
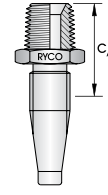
60° SEAT

HOSE SIZE	THRD SIZE	DASH SIZE	BSP FEMALE 90° LONG TUBE BEND			
DN	inch	inch		PART NO	C _A	DL
6	1/4	1/4	-0404	6210-0404	39	47
10	3/8	3/8	-0606	6210-0606	43	55
12	1/2	1/2	-0808	6210-0808	54	70
12	1/2	5/8	-0810	6210-0810	56	72
16	5/8	5/8	-1010	6210-1010	61	81
19	3/4	3/4	-1212	6210-1212	67	96
25	1	1	-1616	6210-1616	83	116
31	1.1/4	1.1/4	-2020	6210-2020	105	142

BSP

6860
(686M)

6861
(686)



60° SEAT

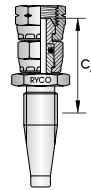
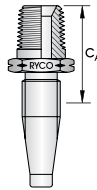
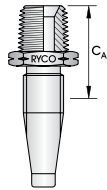
HOSE SIZE	THRD SIZE	DASH SIZE	GREASE LINE MALE			GREASE LINE FIXED FEMALE	
DN	inch	inch		PART NO	C _A	PART NO	C _A
6	1/4	1/2x27 TPI	-0408	6860-0408	32	6861-0408	32
10	3/8	1/2x27 TPI	-0608			6861-0608	29

NPT

6090
(609)

6091
(609E)

6960B
(696)



60° SEAT

HOSE SIZE	THRD SIZE	DASH SIZE	NPT MALE		NPT MALE EXTENDED		NPSM FEMALE LIVE SWIVEL		
DN	inch	inch		PART NO	C _A	PART NO	C _A	PART NO	C _A
6	1/4	1/8	-0402	6090-0402	31				
6	1/4	1/4	-0404	6090-0404	35			6960B-0404	50
6	1/4	3/8	-0406	6090-0406	35	6091-0406	43		
8	5/16	1/4	-0504	6090-0504	33				
8	5/16	3/8	-0506	6090-0506	35				
10	3/8	1/4	-0604	6090-0604	32			6960B-0604	46
10	3/8	3/8	-0606	6090-0606	32	6091-0606	40		
10	3/8	1/2	-0608	6090-0608	39				
12	1/2	3/8	-0806	6090-0806	38				
12	1/2	1/2	0808	6090-0808	43				
16	5/8	1/2	-1008	6090-1008	45				
16	5/8	3/4	-1012	6090-1012	45				
19	3/4	1/2	-1208	6090-1208	42				
19	3/4	3/4	-1212	6090-1212	42				
22	7/8	1	-1416	6090-1416	48				
25	1	1	-1616	6090-1616	54				
	1.1/8	1.1/4	-1820	6090-1820	58				
31	1.1/4	1.1/4	-2020	6090-2020	59				
35	1.3/8	1.1/2	-2224	6090-2224	51				
38	1.1/2	1.1/2	-2424	6090-2424	53				
51	2	2	-3232	6090-3232	66				

NOTE: These "Live Swivel" **6960B** Series Inserts are for Maximum Working Pressure: 420 bar (6000 psi) -04 Hose Size, 350 bar (5100 psi) -06 Hose Size
Their swivel capability is to allow easy installation and orientation and avoid twisting of hose. They are not designed for continuous rotation or continuous movement.

NOTE: Hose Compatibility for the **6000** series can be found on page 276.

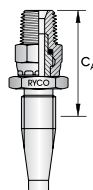
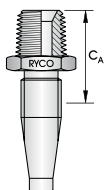
6000 (600) SERIES FIELD ATTACHABLE INSERTS

GREASELINE BSP

6010
(601)

6320
(632)

60° SEAT
FOR TPGL HOSE



HOSE SIZE		THRD SIZE	DASH SIZE	BSPT MALE		BSPT MALE SWIVEL	
DN	inch	inch		PART NO	C _A	PART NO	C _A
4	1/8	1/4	-0202	6010-0202		6320-0202	

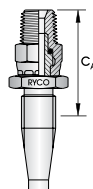
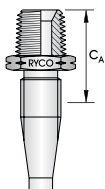
NOTE: For use with TPGL2 and P000-02. These "Live Swivel" 6320 Series Inserts are for Maximum Working Pressure: 420 bar (6100 psi) -02 Hose Size.

GREASELINE NPT

6090
(609)

6320N
(632N)

60° SEAT
FOR TPGL HOSE



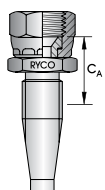
HOSE SIZE		THRD SIZE	DASH SIZE	NPTF MALE		NPTF MALE SWIVEL	
DN	inch	inch		PART NO	C _A	PART NO	C _A
4	1/8	1/8	-0202	6090-0202		6320N-0202	

NOTE: For use with TPGL2 and P000-02. These "Live Swivel" 6320 Series Inserts are for Maximum Working Pressure: 420 bar (6100 psi) -02 Hose Size.

GREASELINE JIC

6040
(604)

37° FLARE
FOR TPGL HOSE



HOSE SIZE		THRD SIZE	DASH SIZE	JIC FEMALE	
DN	inch	inch		PART NO	C _A
4	1/8	7/16	-0207	6040-0207	

NOTE: For use with TPGL2 and P000-02. These "Live Swivel" 6320 Series Inserts are for Maximum Working Pressure: 420 bar (6100 psi) -02 Hose Size.

NOTE: Hose Compatibility for the 6000 series can be found on page 276.

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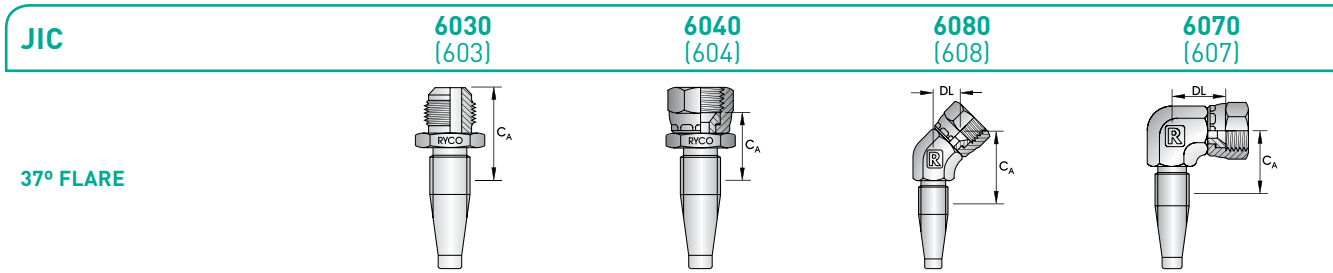
ACCESSORIES

FILTERS

TECHNICAL

COUPLINGS

6000 (600) SERIES FIELD ATTACHABLE INSERTS



37° FLARE

HOSE SIZE		THRD SIZE	TUBE SIZE	DASH SIZE	JIC MALE	JIC FEMALE	JIC FEMALE 45° ELBOW	JIC FEMALE 90° ELBOW						
DN	inch	inch	inch		PART NO	CA	PART NO	CA	DL	PART NO	CA	DL		
3	1/8	7/16	1/4	-0207			6040-0207*	23						
4	3/16	7/16	1/4	-0307	6030-0307	29	6040-0307	23						
6	1/4	7/16	1/4	-0407	6030-0407	35	6040-0407	29	6080-0407	38	14	6070-0407	27	18
6	1/4	1/2	5/16	-0408	6030-0408	35	6040-0408	29	6080-0408	38	14	6070-0408	27	18
6	1/4	9/16	3/8	-0409	6030-0409	35	6040-0409	29	6080-0409	38	14	6070-0409	27	22
6	1/4	3/4	1/2	-0412	6030-0412	35	6040-0412	31						
8	5/16	9/16	3/8	-0509			6040-0509	27						
10	3/8	7/16	1/4	-0607			6040-0607	26				6070-0607	26	23
10	3/8	1/2	5/16	-0608			6040-0608	26						
10	3/8	9/16	3/8	-0609	6030-0609	32	6040-0609	26	6080-0609	36	12	6070-0609	24	23
10	3/8	3/4	1/2	-0612	6030-0612	36	6040-0612	29	6080-0612	37	13	6070-0612	24	25
10	3/8	7/8	5/8	-0614	6030-0614	38	6040-0614	30						
12	1/2	9/16	3/8	-0809			6040-0809	34						
12	1/2	3/4	1/2	-0812	6030-0812	40	6040-0812	34	6080-0812	46	15	6070-0812	32	28
12	1/2	7/8	5/8	-0814	6030-0814	43	6040-0814	33	6080-0814	46	13	6070-0814	32	29
12	1/2	1.1/16	3/4	-0817	6030-0817	47	6040-0817	36	6080-0817	48	15	6070-0817	32	30
16	5/8	7/8	5/8	-1014	6030-1014	45	6040-1014	36	6080-1014	49	19	6070-1014	33	30
16	5/8	1.1/16	3/4	-1017	6030-1017	48	6040-1017	38	6080-1017	48	14	6070-1017	33	30
19	3/4	7/8	5/8	-1214			6040-1214	36						
19	3/4	1.1/16	3/4	-1217	6030-1217	46	6040-1217	36	6080-1217	48	15	6070-1217	32	30
19	3/4	1.3/16	7/8	-1219	6030-1219	47	6040-1219	38				6070-1219	31	35
19	3/4	1.5/16	1	-1221	6030-1221	49	6040-1221	39						
22	7/8	1.5/16	1	-1421			6040-1421	37						
25	1	1.1/16	3/4	-1617	6030-1617	52	6040-1617	43						
25	1	1.5/16	1	-1621	6030-1621	53	6040-1621	43	6080-1621	58	18	6070-1621	39	37
25	1	1.5/8	1.1/4	-1626	6030-1626	60	6040-1626	44						
29	1.1/8	1.5/8	1.1/4	-1826			6040-1826	50						
31	1.1/4	1.5/8	1.1/4	-2026	6030-2026	58	6040-2026	48	6080-2026	62	21	6070-2026	43	47
35	1.3/8	1.7/8	1.1/2	-2230			6040-2230	45						
38	1.1/2	1.7/8	1.1/2	-2430			6040-2430	50						
46	1.13/16	2.1/2	2	-2940			6040-2940	54						
51	2	2.1/2	2	-3240			6040-3240	62						

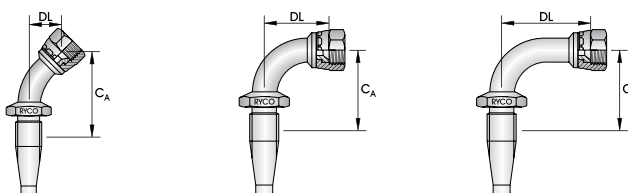
NOTE: * 6040-0207 is for use with TPGL2 and P000-02

NOTE: Hose Compatibility for the 6000 series can be found on page 276.

6000 (600) SERIES FIELD ATTACHABLE INSERTS

JIC 6250 (625) 6240 (624) 6280 (628)

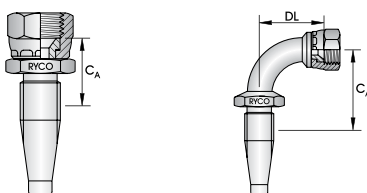
37° FLARE



HOSE SIZE		THRD SIZE	TUBE SIZE	DASH SIZE	JIC FEMALE 45° TUBE BEND			JIC FEMALE 90° TUBE BEND			JIC FEMALE 90° LONG BEND		
DN	inch	inch	inch		PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL
4	3/16	7/16	1/4	-0307	6250-0307	41	10	6240-0307	33	32			
6	1/4	7/16	1/4	-0407	6250-0407	45	10	6240-0407	38	32	6280-0407	39	47
6	1/4	1/2	5/16	-0408	6250-0408	45	12	6240-0408	38	32	6280-0408	39	47
6	1/4	9/16	3/8	-0409	6250-0409	45	12	6240-0409	38	38	6280-0409	39	54
8	5/16	9/16	3/8	-0509	6250-0509	42	11	6240-0509	45	38	6280-0509	48	55
10	3/8	9/16	3/8	-0609	6250-0609	42	11	6240-0609	44	38	6280-0609	41	55
10	3/8	3/4	1/2	-0612	6250-0612	48	15	6240-0612	44	41	6280-0612	44	64
12	1/2	3/4	1/2	-0812	6250-0812	60	15	6240-0812	56	41	6280-0812	53	62
12	1/2	7/8	5/8	-0814	6250-0814	62	18	6240-0814	56	47	6280-0814	53	70
16	5/8	7/8	5/8	-1014	6250-1014	65	19	6240-1014	63	48	6280-1014	62	70
16	5/8	1.1/16	3/4	-1017	6250-1017	65	24	6240-1017	63	58	6280-1017	62	96
19	3/4	1.1/16	3/4	-1217	6250-1217	77	22	6240-1217	68	57	6280-1217	53	96
19	3/4	1.3/16	7/8	-1219	6250-1219	76	24	6240-1219	68	58			
19	3/4	1.5/16	1	-1221	6250-1221	84	28	6240-1221	70	71			
22	7/8	1.5/16	1	-1421	6250-1421	94	30	6240-1421	76	72			
25	1	1.1/16	3/4	-1617				6240-1617	77	58			
25	1	1.5/16	1	-1621	6250-1621	99	30	6240-1621	83	72	6280-1621	91	114
29	1.1/8	1.5/8	1.1/4	-1826				6240-1826	103	81			
31	1.1/4	1.5/8	1.1/4	-2026	6250-2026	118	39	6240-2026	106	81	6280-2026	104	129
35	1.3/8	1.7/8	1.1/2	-2230	6250-2230	130	50	6240-2230	120	104			
38	1.1/2	1.7/8	1.1/2	-2430	6250-2430	138	50				6280-2430	119	141

JIS 6120 (612) 6311 (631)

JAPANESE INDUSTRIAL STANDARD (JIS)
BSPP THREAD FORM
60° CONCAVE SEAT



HOSE SIZE		THRD SIZE	DASH SIZE	BSPP FEMALE 60° CONCAVE SEAT (JIS)		BSPP FEMALE 60° CONCAVE SEAT (JIS) 90° TUBE BEND		
DN	inch	inch		PART NO	C _A	PART NO	C _A	DL
6	1/4	1/4	-0404	6120-0404	31			
10	3/8	3/8	-0606	6120-0606	29	6311-0606	44	30
12	1/2	1/2	-0808	6120-0808	33			
19	3/4	3/4	-1212	6120-1212	36			
25	1	1	-1616	6120-1616	43			

NOTE: These 6120 and 6310 Series inserts are also listed in the BSP section on page 279.

NOTE: Hose Compatibility for the 6000 series can be found on page 276.

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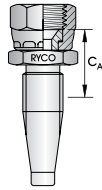
COUPLINGS

6000 (600) SERIES FIELD ATTACHABLE INSERTS

JIS

6680
(668)

JAPANESE INDUSTRIAL
STANDARD (JIS)
"KOMATSU"
METRIC THREAD FORM
60° CONCAVE SEAT



HOSE SIZE		THRD SIZE	DASH SIZE	METRIC FEMALE 60 CONCAVE SEAT (JIS)	
DN	inch	mm		PART NO	C _A
6	1/4	14x1,5	-0414	6680-0414	33
10	3/8	18x1,5	-0618	6680-0618	27
10	3/8	22x1,5	-0622	6680-0622	30
12	1/2	22x1,5	-0822	6680-0822	33
12	1/2	24x1,5	-0824	6680-0824	33
16	5/8	24x1,5	-1024	6680-1024	37
16	5/8	30x1,5	-1030	6680-1030	37
19	3/4	24x1,5	-1224	6680-1224	36
19	3/4	30x1,5	-1230	6680-1230	36
19	3/4	33x1,5	-1233	6680-1233	39
25	1	33x1,5	-1633	6680-1633	41

NOTE: These 6680 Series inserts are also listed in the METRIC section on page 285.

METRIC

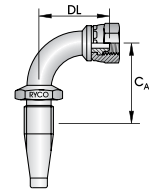
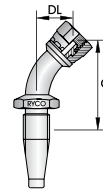
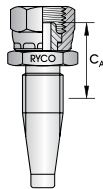
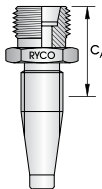
6650
(665)

6600
(660)

6660
(666)

6670
(667)

DKL
METRIC (LIGHT)
RYCO DKL FEMALE SWIVELS UP TO
M26 SIZE HAVE MULTISEAL DKL
24° AND DKM 60° CONE.
M30 AND OVER HAVE DKL
24° CONE ONLY.



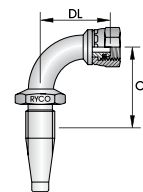
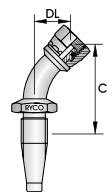
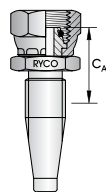
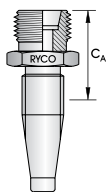
HOSE SIZE		THRD SIZE	TUBE SIZE	DASH SIZE	DKL MALE 24° CONE	DKL FEMALE 24°/60° CONE	DKL FEMALE 24°/60° CONE 45° TUBE BEND	DKL FEMALE 24°/60° CONE 90° TUBE BEND						
DN	inch	mm	mm		PART NO	C _A	PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL
6	1/4	12x1,5	6	-0412	6650-0412	31	6600-0412	34	6660-0412	49	18	6670-0412	36	31
6	1/4	14x1,5	8	-0414	6650-0414	31	6600-0414	34	6660-0414	48	17	6670-0414	39	31
6	1/4	16x1,5	10	-0416			6600-0416	35						
10	3/8	16x1,5	10	-0616	6650-0616	29	6600-0616	32	6660-0616	54	20	6670-0616	44	35
10	3/8	18x1,5	12	-0618	6650-0618	29	6600-0618	34	6660-0618	54	20	6670-0618	44	35
12	1/2	18x1,5	12	-0818	6650-0818	33								
12	1/2	22x1,5	15	-0822	6650-0822	34	6600-0822	38	6660-0822	67	22	6670-0822	56	44
12	1/2	26x1,5	18	-0826	6650-0826	34	6600-0826	39	6660-0826	66	23	6670-0826	56	53
16	5/8	26x1,5	18	-1026	6650-1026	36	6600-1026	43	6660-1026	73	28	6670-1026	63	53
19	3/4	30x2,0	22	-1230	6650-1230	35	6600-1230	43	6660-1230	43	30	6670-1230	69	64
25	1	36x2,0	28	-1636	6650-1636	43	6600-1636	47	6660-1636	102	42	6670-1636	85	72

NOTE: Hose Compatibility for the 6000 series can be found on page 276.

6000 (600) SERIES FIELD ATTACHABLE INSERTS

METRIC 6630 [663] 6711 [671] 6720 [672] 6730 [673]

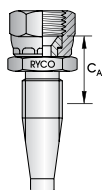
**DKS/DKOS
METRIC O RING (HEAVY)
24° CONE**



HOSE SIZE	THRD SIZE	TUBE SIZE	DASH SIZE	DKS MALE 24° CONE	DKOS FEMALE 24° CONE	DKOS FEMALE 24° CONE 45° TUBE BEND	DKOS FEMALE 24° CONE 90° TUBE BEND							
DN	inch	mm	mm	PART NO	C_A	PART NO	C_A	PART NO	C_A	DL	PART NO	C_A	DL	
6	1/4	16x1,5	8	-0416	6630-0416	33	6711-0416	34	6720-0416	48	17	6730-0416	41	30
6	1/4	18x1,5	10	-0418	6630-0418	33	6711-0418	34	6720-0418	47	17	6730-0418	41	32
10	3/8	20x1,5	12	-0620	6630-0620	29	6711-0620	33	6720-0620	55	20	6730-0620	45	36
10	3/8	22x1,5	14	-0622	6630-0622	33	6711-0622	36	6720-0622	56	19	6730-0622	45	37
12	1/2	24x1,5	16	-0824	6630-0824	36	6711-0824	40	6720-0824	69	24	6730-0824	55	48
19	3/4	30x2,0	20	-1230	6630-1230	40	6711-1230	44	6720-1230	87	35	6730-1230	68	67
19	3/4	36x2,0	25	-1236	6630-1236	44	6711-1236	47	6720-1236	92	35	6730-1236	68	67
25	1	42x2,0	30	-1642	6630-1642	49	6711-1642	49						
31	1.1/4	52x2,0	38	-2052			6711-2052	59						

METRIC 6680 [668]

**JAPANESE INDUSTRIAL
STANDARD (JIS)
"KOMATSU"
METRIC THREAD FORM
60° CONCAVE SEAT**



HOSE SIZE	THRD SIZE	DASH SIZE	METRIC FEMALE 60° CONCAVE SEAT (JIS)		
DN	inch	inch	PART NO	C_A	
6	1/4	14x1,5	-0414	6680-0414	33
10	3/8	18x1,5	-0618	6680-0618	27
10	3/8	22x1,5	-0622	6680-0622	30
12	1/2	22x1,5	-0822	6680-0822	33
12	1/2	24x1,5	-0824	6680-0824	33
16	5/8	24x1,5	-1024	6680-1024	37
16	5/8	30x1,5	-1030	6680-1030	37
19	3/4	24x1,5	-1224	6680-1224	36
19	3/4	30x1,5	-1230	6680-1230	36
19	3/4	33x1,5	-1233	6680-1233	39
25	1	33x1,5	-1633	6680-1633	41

NOTE: These 6680 Series inserts are also listed in the JIS section on page 284.

NOTE: Hose Compatibility for the 6000 series can be found on page 276.

INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

COUPLINGS

6000 (600) SERIES FIELD ATTACHABLE INSERTS

ORFS

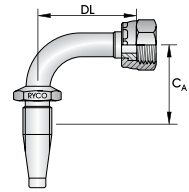
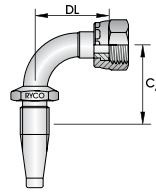
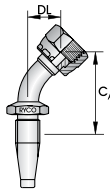
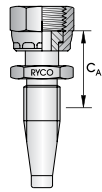
6800
(680)

6810
(681)

6820
(682)

6830
(683)

O RING
FACE SEAL



HOSE SIZE	THRD SIZE	TUBE SIZE	DASH SIZE	ORFS FEMALE	ORFS FEMALE 45° TUBE BEND	ORFS FEMALE 90° TUBE BEND	ORFS FEMALE 90° LONG BEND								
DN	inch	inch	inch	PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL	
4	3/16	9/16	1/4	-0309	6800-0309	32	6810-0309	46	18	6820-0309	35	32	6830-0309	35	47
6	1/4	9/16	1/4	-0409	6800-0409	38	6810-0409	51	18	6820-0409	40	32	6830-0409	41	47
6	1/4	11/16	3/8	-0411	6800-0411	40	6810-0411	51	19	6820-0411	46	38	6830-0411	40	54
8	5/16	11/16	3/8	-0511	6800-0511	38	6810-0511	55	20	6820-0511	44	38	6830-0511	41	54
10	3/8	11/16	3/8	-0611	6800-0611	36	6810-0611	54	20	6820-0611	43	38	6830-0611	40	54
10	3/8	13/16	1/2	-0613	6800-0613	39	6810-0613	49	17	6820-0613	43	41	6830-0613	42	64
12	1/2	13/16	1/2	-0813	6800-0813	41	6810-0813	62	19	6820-0813	54	41	6830-0813	53	65
12	1/2	1	5/8	-0816	6800-0816	47	6810-0816	62	20	6820-0816	57	47	6830-0816	58	70
16	5/8	1	5/8	-1016	6800-1016	49	6810-1016	74	20	6820-1016	62	47	6830-1016	65	70
16	5/8	1.3/16	3/4	-1019	6800-1019	52	6810-1019	74	24	6820-1019	62	58	6830-1019	63	96
19	3/4	1.3/16	3/4	-1219	6800-1219	50	6810-1219	76	29	6820-1219	66	59	6830-1219	71	96
19	3/4	1.7/16	1	-1223	6800-1223	61	6810-1223	78	26	6820-1223	71	53	6830-1223	70	114
22	7/8	1.7/16	1	-1423	6800-1423	59	6810-1423	100	34	6820-1423	79	71	6830-1423	87	113
25	1	1.7/16	1	-1623	6800-1623	65	6810-1623	125	45	6820-1623	85	71	6830-1623	93	113
31	1.1/4	1.11/16	1.1/4	-2027	6800-2027	72	6810-2027	125	45	6820-2027	105	90	6830-2027	107	129

SAE

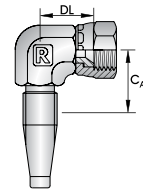
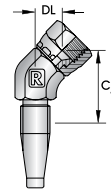
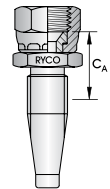
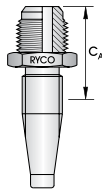
6530
(653)

6540
(654)

6580
(658)

6570
(657)

45° FLARE



HOSE SIZE	THRD SIZE	TUBE SIZE	DASH SIZE	SAE MALE	SAE FEMALE	SAE FEMALE 45° ELBOW	SAE FEMALE 90° ELBOW							
DN	inch	inch	inch	PART NO	C _A	PART NO	C _A	PART NO	C _A	DL	PART NO	C _A	DL	
4	3/16	7/16	1/4	-0307		6540-0307	23							
6	1/4	7/16	1/4	-0407		6540-0407	29							
6	1/4	1/2	5/16	-0408		6540-0408	29							
6	1/4	5/8	3/8	-0410	6530-0410	37	6540-0410	29						
8	5/16	5/8	3/8	-0510	6530-0510	33	6540-0510	27						
10	3/8	1/2	5/16	-0608	6530-0608	32	6540-0608	26	6580-0608	35	10	6570-0608	26	22
10	3/8	5/8	3/8	-0610	6530-0610	33	6540-0610	26	6580-0610	36	11	6570-0610	24	23
10	3/8	3/4	1/2	-0612		6540-0612	29							
12	1/2	3/4	1/2	-0812		6540-0812	32							
12	1/2	7/8	5/8	-0814		6540-0814	32							
19	3/4	1.1/16	3/4	-1217		6540-1217	36							

NOTE: Hose Compatibility for the 6000 series can be found on page 276.

6000 (600) SERIES FIELD ATTACHABLE INSERTS

INTRODUCTION

HOSE

COUPLINGS

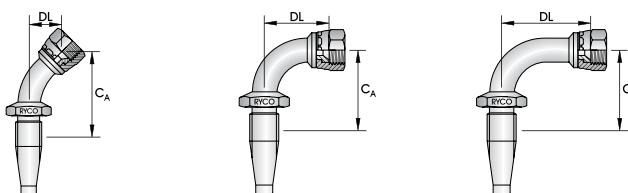
ADAPTORS

ACCESSORIES

FILTERS

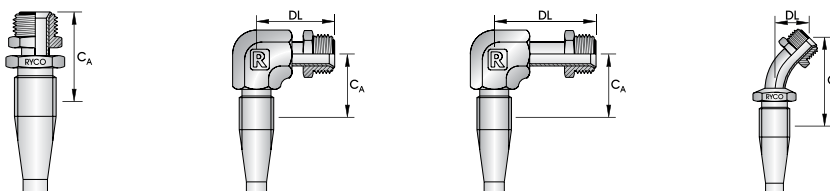
TECHNICAL

SAE	6550 (655)	6560 (656)	6563 (656L)
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45° FLARE


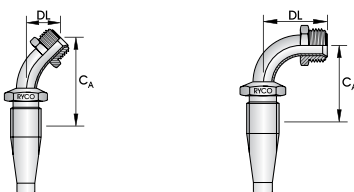
HOSE SIZE		THRD SIZE	TUBE SIZE	DASH SIZE	SAE FEMALE 45° TUBE BEND			SAE FEMALE 90° TUBE BEND			SAE FEMALE 90° LONG TUBE BEND		
DN	inch	inch	inch		PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL
4	3/16	7/16	1/4	-0307	6550-0307	40	15	6560-0307	33	32			
8	5/16	5/8	3/8	-0510	6550-0510	51	17	6560-0510	44	38			
10	3/8	1/2	5/16	-0608	6550-0608	49	15						
10	3/8	5/8	3/8	-0610	6550-0610	56	17	6560-0610	43	38	6563-0610	43	55

SAE	6740 (674)	6780 (678)	6790 (679)	6750 (675)
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INVERTED MALE FLARE


HOSE SIZE		THRD SIZE	TUBE SIZE	DASH SIZE	SAE INVERTED MALE FLARE			SAE INVERTED MALE FLARE 90° ELBOW			SAE INVERTED MALE FLARE 90° EXTENDED ELBOW			SAE INVERTED MALE FLARE 45° TUBE BEND		
DN	inch	inch	inch		PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL	PART NO	C _A	DL
6	1/4	7/16	1/4	-0407	6740-0407	50										
8	5/16	5/8	3/8	-0510	6740-0510	47								6750-0510	84	23
10	3/8	5/8	3/8	-0610	6740-0610	47		6780-0610	26	32	6790-0610	26	60	6750-0610	83	23
10	3/8	11/16	7/16	-0611	6740-0611	50		6780-0611	26	36						

SAE	6760 (676)	6770 (677)
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INVERTED MALE FLARE


HOSE SIZE		THRD SIZE	TUBE SIZE	DASH SIZE	SAE INVERTED MALE FLARE 60° TUBE BEND			SAE INVERTED MALE FLARE 90° TUBE BEND		
DN	inch	inch	inch		PART NO	C _A	DL	PART NO	C _A	DL
6	1/4	7/16	1/4	-0407	6760-0407	72	29	6770-0407	53	38
8	5/16	5/8	3/8	-0510				6770-0510	62	50
10	3/8	5/8	3/8	-0610				6770-0610	61	50

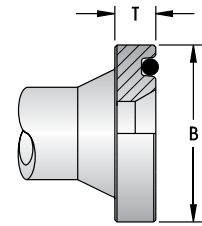
NOTE: Hose Compatibility for the 6000 series can be found on page 276.

COUPLINGS

6000 (600) SERIES FIELD ATTACHABLE INSERTS

DIMENSIONS FOR SAE CODE 61 AND CODE 62 FLANGES, AND RYCO CODE 62C FLANGES

NOMINAL FLANGE	CODE 61				CODE 62				CODE 62C			
	B		T		B		T		B		T	
inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
1/2	30,2	1.19	6,73	0.265	31,8	1.25	7,75	0.305				
*5/8	34,0	1.34	6,73	0.265								
3/4	38,1	1.50	6,73	0.265	41,3	1.63	8,76	0.345	41,3	1.63	14,20	0.559
1	44,5	1.75	8,00	0.315	47,6	1.88	9,53	0.375	47,6	1.88	14,20	0.559
1.1/4	50,8	2.00	8,00	0.315	54,0	2.12	10,29	0.405	54,0	2.12	14,20	0.559
1.1/2	60,3	2.38	8,00	0.315	63,5	2.50	12,57	0.495	63,5	2.50	14,20	0.559
2	71,4	2.81	9,53	0.375	79,4	3.13	12,57	0.495	79,4	3.13	14,20	0.559
2.1/2	84,1	3.31	9,53	0.375								
3	101,6	4.00	9,53	0.375								



NOTE: *5/8 is used by Komatsu.
RYCO Code 62C fittings conform to the flange OD and bolt hole patterns of SAE Code 62 but require special flange clamps.
RYCO Code 62C flange heads are thicker than SAE Code 62 and measure T = 14,2 mm (0.559 inch) in all sizes.

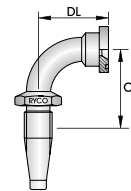
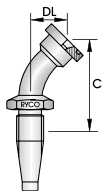
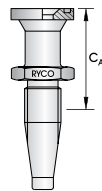
SAE FLANGE

6130
(613)

6150
(615)

6170
(617)

CLAMPS - SEE PAGES 345 & 346
*(5/8 KOMATSU)
O RING NOT SUPPLIED



HOSE SIZE		NOM. FLANGE SIZE	DASH SIZE	CODE 61 FLANGE	CODE 61 FLANGE 45° TUBE BEND	CODE 61 FLANGE 90° TUBE BEND
DN	inch	inch		PART NO	PART NO	PART NO
12	1/2	1/2	-0808	6130-0808	6150-0808	6170-0808
12	1/2	3/4	-0812	6130-0812	6150-0812	6170-0812
16	5/8	*5/8	-1010	6130-1010	6150-1010	6170-1010
19	3/4	3/4	-1212	6130-1212	6150-1212	6170-1212
19	3/4	1	-1216	6130-1216	6150-1216	6170-1216
19	3/4	1.1/4	-1220	6130-1220	6150-1220	6170-1220
25	1	3/4	-1612			6170-1612
25	1	1	-1616	6130-1616	6150-1616	6170-1616
25	1	1.1/4	-1620	6130-1620	6150-1620	6170-1620
25	1	1.1/2	-1624	6130-1624	6150-1624	6170-1624
31	1.1/4	1	-2016	6130-2016	6150-2016	6170-2016
31	1.1/4	1.1/4	-2020	6130-2020	6150-2020	6170-2020
31	1.1/4	1.1/2	-2024	6130-2024	6150-2024	6170-2024
38	1.1/2	1.1/2	-2424	6130-2424	6150-2424	6170-2424
38	1.1/2	2	-2432	6130-2432		6170-2432
51	2	2	-3232	6130-3232	6150-3232	6170-3232

NOTE: Hose Compatibility for the **6000** series can be found on page 276.

6000 (600) SERIES FIELD ATTACHABLE INSERTS

INTRODUCTION

HOSE

COUPLINGS

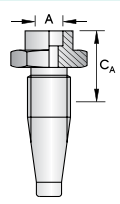
ADAPTORS

ACCESSORIES

FILTERS

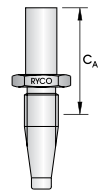
TECHNICAL

SALVAGE 6230 (623)

TUBE WELD


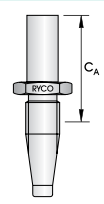
HOSE SIZE		A	DASH SIZE	SALVAGE (LIVESAVER)	
DN	inch	inch		PART NO	C _A
6	1/4	1/4	-0404	6230-0404	28
6	1/4	3/8	-0406	6230-0406	28
8	5/16	3/8	-0506	6230-0506	26
10	3/8	3/8	-0606	6230-0606	24
10	3/8	1/2	-0608	6230-0608	24
12	1/2	1/2	-0808	6230-0808	29
12	1/2	5/8	-0810	6230-0810	29
12	1/2	3/4	-0812	6230-0812	29
16	5/8	5/8	-1010	6230-1010	31
16	5/8	3/4	-1012	6230-1012	31
19	3/4	3/4	-1212	6230-1212	30
19	3/4	1	-1216	6230-1216	34
22	7/8	1	-1416	6230-1416	32
25	1	3/4	-1612	6230-1612	37
25	1	1	-1616	6230-1616	39
25	1	1.1/4	-1620	6230-1620	40
29	1.1/8	1.1/4	-1820	6230-1820	40
31	1.1/4	1.1/4	-2020	6230-2020	44
35	1.3/8	1.1/2	-2224	6230-2224	33
38	1.1/2	1.1/2	-2424	6230-2424	39
38	2	2	-3232	6230-3232	50

STANDPIPE 6180 (618)

IMPERIAL


HOSE SIZE		TUBE SIZE	DASH SIZE	IMPERIAL STANDPIPE	
DN	inch	inch		PART NO	C _A
6	1/4	5/16	-0405	6180-0405	43
6	1/4	3/8	-0406	6180-0406	44
10	3/8	3/8	-0606	6180-0606	41
10	3/8	1/2	-0608	6180-0608	41
12	1/2	1/2	-0808	6180-0808	52
12	1/2	5/8	-0810	6180-0810	52
16	5/8	3/4	-1012	6180-1012	60
19	3/4	3/4	-1212	6180-1212	66
19	3/4	7/8	-1214	6180-1214	66
25	1	1	-1616	6180-1616	70
31	1.1/4	1.1/4	-2020	6180-2020	81

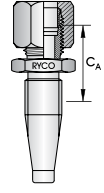
STANDPIPE 6640 (664)

METRIC


HOSE SIZE		TUBE SIZE	DASH SIZE	METRIC STANDPIPE	
DN	inch	mm		PART NO	C _A
6	1/4	6	-0406	6640-0406	43
6	1/4	8	-0408	6640-0408	43
6	1/4	10	-0410	6640-0410	44
10	3/8	10	-0610	6640-0610	40
10	3/8	12	-0612	6640-0612	40
10	3/8	14	-0614	6640-0614	46
12	1/2	15	-0815	6640-0815	47
12	1/2	16	-0816	6640-0816	52
16	5/8	16	-1016	6640-1016	54
19	3/4	20	-1220	6640-1220	60
19	3/4	22	-1222	6640-1222	52
25	1	30	-1630	6640-1630	74

NOTE: See page 337 for DKL and DKS Metric Nuts and Olives for use with Metric Standpipe Fittings.

TUBE BITE 6850 (685)

COMPLETE WITH NUT AND FLARELESS OLIVE


HOSE SIZE		TUBE SIZE	DASH SIZE	TUBE BITE	
DN	inch	inch		PART NO	C _A
10	3/8	3/8	-0606	6850-0606	32

NOTE: Hose Compatibility for the 6000 series can be found on page 276.

COUPLINGS

6000 (600) SERIES FIELD ATTACHABLE INSERTS

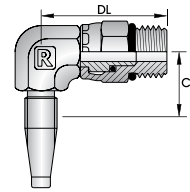
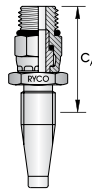
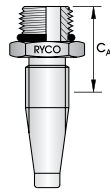
UNO (O RING BOSS)

6200
[620]

6380
[638]

6390
[639]

O RING SUPPLIED



HOSE SIZE		THRD SIZE	TUBE SIZE	DASH SIZE	UN O RING MALE	UN O RING MALE SWIVEL	UN O RING MALE SWIVEL 90° ELBOW				
DN	inch	inch	inch		PART NO	C _A	PART NO	C _A	PART NO	C _A	DL
6	1/4	9/16	3/8	-0409	6200-0409	31	6380-0409	44	6390-0409	27	35
6	1/4	3/4	1/2	-0412					6390-0412	28	49
10	3/8	9/16	3/8	-0609	6200-0609	27			6390-0609	25	38
10	3/8	3/4	1/2	-0612	6200-0612	30	6380-0612	47	6390-0612	24	41
10	3/8	7/8	5/8	-0614	6200-0614	32			6390-0614	24	38
12	1/2	3/4	1/2	-0812	6200-0812	33			6390-0812	32	43
12	1/2	7/8	5/8	-0814	6200-0814	35	6380-0814	51	6390-0814	32	40
12	1/2	1.1/16	3/4	-0817	6200-0817	39					
16	5/8	7/8	5/8	-1014	6200-1014	37	6380-1014	53			
16	5/8	1.1/16	3/4	-1017	6200-1017	41					
16	5/8	1.5/16	1	-1021	6200-1021	43					
19	3/4	1.1/16	3/4	-1217	6200-1217	39					
19	3/4	1.5/16	1	-1221	6200-1221	41					
25	1	1.1/16	3/4	-1617	6200-1617	50					
25	1	1.3/16	7/8	-1619	6200-1619	45					
25	1	1.5/16	1	-1621	6200-1621	45					

NOTE: These "Live Swivel" **6380** and **6390** Series Inserts are for Maximum Working Pressure: 350 bar (5100 psi): -09 & -12 Thread Size, 280 bar (4100 psi): -14 & -17 Thread Size. Their swivel capability is to allow easy installation and orientation and avoid twisting of hose. They are not designed for continuous rotation or continuous movement.

NOTE: Hose Compatibility for the **6000** series can be found on page 276.

■ ADAPTORS



ADAPTORS

CONTENTS

THREAD OR CONNECTOR TYPE	MIXTURE	PAGE
BSP	BSPT/BSPP/BSPP O RING BSPT/JIC & BSPP O RING/JIC BSP/ORFS BSP/SAE BSP/UNO	304 - 319
NPT & NPSM	NPT/NPT NPT/JIC NPT/ORFS NPT/SAE NPT/UNO & NPSM/UNO	320 - 326
JIC	JIC JIC/JIC JIC/ORFS JIC/UNO	327 - 336
JOINER	TUBEWELD/TUBEWELD	336
METRIC*	METRIC METRIC/BSPP O RING METRIC/JIC	337 - 340
ORFS	ORFS ORFS/ORFS ORFS/UNO	340 - 343
SAE THREADS	SAE SAE/SAE	344 - 349
SAE FLANGES*	SAE FLANGE CLAMPS & CLAMP KITS SAE FLANGE PLUGS & TUBE WELD SAE FLANGE/JIC SAE FLANGE/ORFS SAE FLANGE BLOCKS	349 - 353
SWIVEL JOINTS	BSP/BSPP JIC/JIC	354
UNO (O RING BOSS)	UNO UNO/UNO	355
MISCELLANEOUS	O RINGS PLASTIC CAP AND PLUGS TUBE BENDS	356 - 362
CROCBITE*	CROCBITE CROCBITE/CROCBITE CROCBITE/BSPT & CROCBITE/BSPP CROCBITE/NPT CROCBITE/UNO	—
STAPLELOK & SUPERLOK*	STAPLELOK & SUPERLOK BALL VALVES	—
RKVP/RKVF*	—	—
RYCO WEO*	RYCO WEO/RYCO WEO RYCO WEO/BSPP RYCO WEO/JIC RYCO WEO/METRIC RYCO WEO/UNO	363 - 365

NOTE: If an ADAPTOR is available in both BSPT Male and BSPP O RING Male styles they are located close to each other.

*All adaptors with these thread or connector types are grouped together. The **METRIC, SAE FLANGE, CROCBITE, STAPLELOK, SUPERLOK, RKVP/RKVF** or **RYCO WEO** end takes precedence. All METRIC adaptors, regardless of other end mixture, are in the METRIC group, and all SAE FLANGE adaptors are in SAE FLANGE group. Therefore a JIC/METRIC nipple will be found in METRIC Section not JIC Section; and an SAE FLANGE/BSPP adaptor is in SAE FLANGE section not BSP section.

WORKING PRESSURES – STEEL ADAPTORS

Since many factors influence the pressure at which a hydraulic system will, or will not, perform satisfactorily, Maximum Working Pressures should be used as a **guide only** and not as a “standard” nor “specification” nor construed as a “guaranteed minimum.” Unless otherwise listed below, refer to pages 516 to 520 for **Maximum Working Pressure** guide. For further technical assistance contact RYCO or your RYCO distributor.

CAUTION: The Maximum Working Pressure of an Adaptor with a combination of Thread / End Styles and sizes is the Maximum Working Pressure of the least rated end.

NOTE: DROP LENGTHS (DL) AND CUT-OFF ALLOWANCES (CA):

Drop Lengths (DL) and Cut-off Allowances (CA) are in millimetres and are shown for reference only, and may vary according to manufacturing method, or due to design refinement.

There are three easy rules to remember to quickly find an ADAPTOR in this section. These are, in order:

RULE 1. ALPHABETICAL RULE

The ADAPTORS section follows THREAD or CONNECTOR TYPE order and is in the "ALPHABETICAL" sequence shown on the Contents Page opposite. (This order is strictly alphabetical; except for NPT, which is similar in concept to BSP and is placed directly after BSP; and CROCBITE, RKVP/RKVF, STAPLELOK, SUPERLOK and RYCO WEO which are placed at the end of the ADAPTORS section).

RULE 2. MIXTURE RULE

Where there is a MIXTURE of THREAD or CONNECTOR TYPES eg. JIC one end UNO other end, this adaptor will be found in the JIC section (because JIC comes alphabetically before UNO). All the JIC/JIC adaptors come first, then JIC/ORFS then JIC/UNO.

There are SEVEN EXCEPTIONS to this MIXTURE rule:

- METRIC**
- SAE FLANGE**
- CROCBITE**
- STAPLELOK**
- SUPERLOK**
- RKVP/RKVF**
- RYCO WEO**

In these cases, the **METRIC, SAE FLANGE, CROCBITE, STAPLELOK, SUPERLOK, RKVP/RKVF** or **RYCO WEO** end takes precedence. All METRIC adaptors, regardless of other end mixture, are in the METRIC group, and all SAE FLANGE adaptors are in SAE FLANGE group. Therefore a JIC/METRIC nipple will be found in METRIC Section not JIC Section; and an SAE FLANGE/BSP adaptor is in SAE FLANGE section not BSP section.

RULE 3. NUMBER OF ENDS RULE

Within each subsection the order is as follows:

FIND BY END NUMBER		
ONE ENDED ADAPTORS	PLUG CAP	Male Plugs before Female Caps.
TWO ENDED ADAPTORS	TUBE WELD NUT & SLEEVE/NUT & OLIVE STRAIGHT 45° ELBOW 90° ELBOW 45° TUBE BEND 90° TUBE BEND	Male/Male before Male/Female before Female/Female
THREE ENDED ADAPTORS	TEE Y	Male Tees before Male/Female Tees before Female Tees
FOUR ENDED ADAPTORS	CROSS X	

OTHER WAYS TO QUICKLY FIND AN ADAPTOR

- CONTENTS PAGE** on page 292.
- ALPHANUMERIC INDEX** on pages 4 and 5.
- PICTORIAL INDEX** on pages 160 to 303.

The PICTORIAL INDEX is in NUMBER OF ENDS rule order except 45° TUBE BENDS are after 45° ELBOWS, and 90° TUBE BENDS are after 90° ELBOWS.

All PLUGS first, then CAPS, TUBE WELDS, etc. finishing with CROSSES except all SAE FLANGES, SAE FLANGE BLOCKS and all CROCBITE, RKVP/RKVF, STAPLELOK, SUPERLOK and RYCO WEO are at the end of the index.

PLEASE NOTE THAT THE NEW AND EXTENDED RANGE OF RYCO STAINLESS STEEL COUPLINGS AND ADAPTORS WILL BE INTRODUCED IN 2013. CONTACT YOUR LOCAL RYCO REPRESENTATIVES FOR MORE DETAILS.

INTRODUCTION

HOSE

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ADAPTORS

DASH SIZE NUMBERING RULES

The DASH SIZE numbering rules for HOSE and HOSE COUPLINGS are shown on pages 29 to 31, and are quite straightforward. With a little familiarity, you will find that you can specify Part Numbers without reference to the Product Technical Manual.

The DASH SIZE numbering rules for ADAPTORS are a little more complex, and are shown on this page, and the next page, for those who would like to understand the logic applied to determine the sequence ADAPTOR ends are listed.

Adaptors Dash Size numbering rules are very similar to the Three Rules on page 293. The main criteria is the **NUMBER OF ENDS** the Adaptor has, with other factors being **GENDER** (Male or Female) and **MIXTURE** of Thread or Connector type. Note also that BSPT, BSPP, and BSPP O RING are treated as "different" thread types.

1. ADAPTORS WITH ONE END. (Plugs and Caps, Lock Nuts, Bonded Seals etc.)

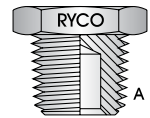
RULE IS: Adaptor Group Designator followed by Dash Size

EXAMPLE: **1/2" BSPT MALE PLUG**

Group Designator for BSPT Male Plug is S64 (from Pictorial Index page 296).

Dash Size for 1/2" BSP is -08 (see page 304).

Part Number is S64-08.



2. ADAPTORS WITH TWO ENDS. (Straights, Elbows, Tube Bends)

(A) SAME THREAD OR CONNECTOR TYPE. SAME GENDER

RULE IS: Larger Dash Size first, followed by smaller Dash Size.

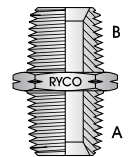
(Except if a Bulkhead fitting, Bulkhead End first).

EXAMPLE 1: 1/2" NPT MALE TO 3/4" NPT MALE NIPPLE

Group Designator is S27N.

Dash Size for 1/2" NPT is -08. Dash Size for 3/4" NPT is -12.

Part Number is S27N-1208.

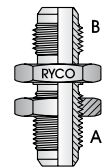


Example 2: 1.1/16" JIC MALE BULKHEAD TO 7/8" JIC MALE NIPPLE

Group Designator is S10.

Dash Size for 1.1/16" JIC is -17. Dash Size for 7/8" JIC is -14.

Part Number is S10-1714.



(B) SAME THREAD OR CONNECTOR TYPE. DIFFERENT GENDER

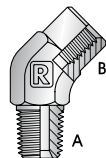
RULE IS: Dash Size of Male End first, then Dash Size of Female End.

EXAMPLE: **3/8" BSPT FEMALE TO 1/4" BSPT MALE 45° ELBOW**

Group Designator is S39.

Dash Size for 3/8" BSP is -06. Dash Size for 1/4" BSP is -04.

Part Number is S39-0406.



(C) TUBE WELD & NUT AND SLEEVE

Thread x Tube Weld **RULE IS:** Thread Dash Size First, then Tube Dash Size.

Flange x Tube Weld **RULE IS:** Flange Dash Size First, then Tube Dash Size.

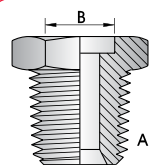
Nut and Sleeve **RULE IS:** Thread Dash Size First, then Tube Dash Size.

EXAMPLE 1: 1/2" BSPT MALE TO 3/4" TUBE OD TUBE WELD

Group Designator is S53.

Dash Size for 1/2" BSP is -08. Dash Size for 3/4" OD Tube is -12.

Part Number is S53-0812.

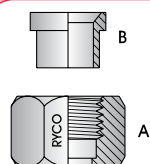


EXAMPLE 2: JIC NUT AND SLEEVE FOR 3/8" TUBE OD

Group Designator is S6.

Dash Size for 3/8" OD Tube is -06. JIC Thread Size for 3/8" Tube is 9/16" JIC (-09)

Part Number is S6-0906.



DASH SIZE NUMBERING RULES

(D) MIX OF THREAD OR CONNECTOR TYPES

RULE IS: In order shown below, which is alphabetical except for NPT, which comes immediately after BSP; and METRIC and SAE FLANGE are in groups (all METRIC, SAE FLANGE, CROCBITE, STAPLELOK, SUPERLOK, RKVP/RKVF and RYCO WEO adaptors are grouped together regardless of the other end mixture).

THREAD OR CONNECTOR TYPE	MIXTURE	EXAMPLES
BSP	BSPT MALE BSPT MALE BULKHEAD BSPP MALE WITHOUT O RING BSPP ENCAPSULATED MALE BSPP O RING MALE BSPP FACE SEAL MALE BSPT FEMALE FIXED BSPP FEMALE FIXED BSPP FEMALE SWIVEL	<p>EXAMPLES:</p> <ol style="list-style-type: none"> BSPT FEMALE TO JIC MALE ADAPTOR BSPT End comes first UNO MALE TO JIC MALE JIC End comes first NPT MALE to STAPLELOK FEMALE STAPLELOK is a Group, so Staplelok End comes first JIC MALE TO DKL MALE DKL is in METRIC Group so it comes first If adaptor is a mixture of "grouped" ends e.g. SAE Flange one end and Metric other, hierarchy is: CROCBITE STAPLELOK SUPERLOK RKVP/RKVF RYCO WEO SAE FLANGE METRIC <p>Therefore Metric Male to SAE Flange would be in SAE Flange section and SAE Flange end comes first.</p>
NPT	NPT MALE NPT FEMALE FIXED NPSM FEMALE SWIVEL	
JIC	JIC MALE BULKHEAD JIC MALE JIC FEMALE FIXED JIC FEMALE SWIVEL	
METRIC	DKL MALE DKS MALE JIS (KOMATSU) MALE METRIC O RING BOSS	
ORFS	ORFS MALE BULKHEAD ORFS MALE ORFS FEMALE	
SAE THREAD	SAE MALE BULKHEAD SAE MALE SAE FEMALE	
SAE FLANGE	O RING GROOVED FLANGE FLAT FACED FLANGE (BLANK)	
UNO (O RING BOSS)	UNO RING MALE UNO FEMALE FIXED	
CROCBITE	CROCBITE MALE CROCBITE FEMALE	
STAPLELOK	STAPLELOK MALE STAPLELOK FEMALE	
SUPERLOK	SUPERLOK MALE SUPERLOK FEMALE	
RKVP/RKVF	RKVP MALE RKVF MALE RKVP FEMALE RKVF FEMALE	
RYCO WEO	RYCO WEO MALE RYCO WEO FEMALE	

(E) SWIVEL JOINTS

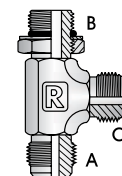
RULE IS: The Dash Size of Thread on the centre spindle comes first, and Dash Size of Thread on the rotating body comes second.

3. ADAPTORS WITH THREE ENDS. (Tees & Y's)

Always numbered in order

- Dash Size of Run End A
- Dash Size of Run End B
- Dash Size of Branch End C

RULES FOR DETERMINING WHICH OF RUN END A OR RUN END B COMES FIRST ARE SAME RULES AS FOR ADAPTORS WITH TWO ENDS (ABOVE).

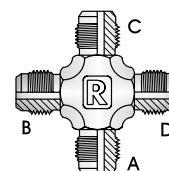


4. ADAPTORS WITH FOUR ENDS. (Crosses & X's)

- S32 BSPT Female Cross
- S32N NPT Female Cross
- S100 JIC Male Cross

only, no jump sizes & no mixes of threads.

RULE IS: Start at first end A, and then proceed clockwise.



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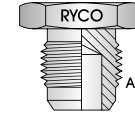
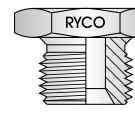
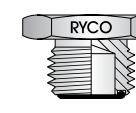
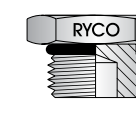
FILTERS

TECHNICAL

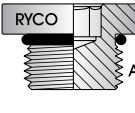
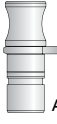
ADAPTORS

PICTORIAL INDEX

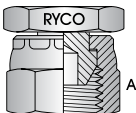

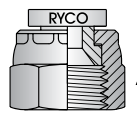

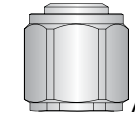
PLUG

S64 P304	S73 P304	S64N P320	S56 P327	M73 P337	S111 P340	S97 P355
						
BSPT MALE PLUG	BSPP ENCAPSULATED MALE PLUG	NPT MALE PLUG	JIC MALE PLUG	METRIC MALE PLUG	ORFS MALE PLUG	UN O RING MALE PLUG

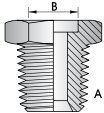
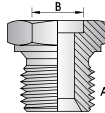
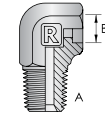
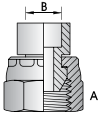
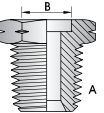
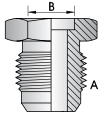
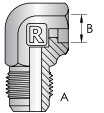
PLUG cont'd

S97AK P355	RW723 P363					
						
UN O RING MALE ALLEN KEY HEAD PLUG	RYCO WEO MALE PLUG					

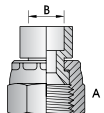
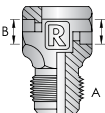

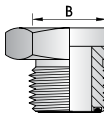
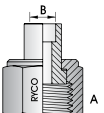
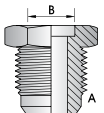
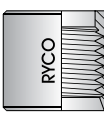
CAP

S59 P304	S65 P327	S65S P327	S113 P340	RW811 P363		
						
BSPP FEMALE SWIVEL CAP	JIC FEMALE CAP	JIC FEMALE SWIVEL CAP	ORFS FEMALE CAP	RYCO WEO FEMALE STOP CAP		

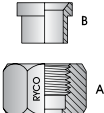
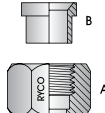
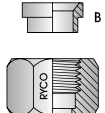
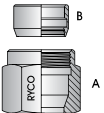
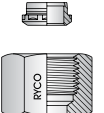
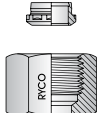
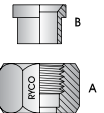
TUBE WELD WELD ON

S53 P304	S53P P304	S54 P304	S58 P304	S53N P320	S51 P327	S52 P327
						
BSPT MALE TUBE WELD	BSPP MALE TUBE WELD	BSPT MALE TUBE WELD 90° ELBOW	BSPP FEMALE SWIVEL TUBE WELD	NPT MALE TUBE WELD	JIC MALE TUBE WELD	JIC MALE TUBE WELD 90° ELBOW

TUBE WELD WELD ON cont'd

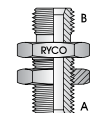
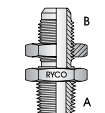
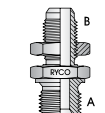
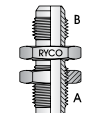
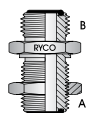
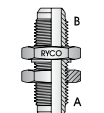
S57 P327	S152 P327	S112 P336	S115 P340	S106 P340	SA51 P344	S148 P355
						
JIC FEMALE SWIVEL TUBE WELD	JIC MALE TUBE WELD TEE	JOINER TUBE WELD	ORFS MALE TUBE WELD	ORFS FEMALE SWIVEL TUBE WELD	SAE MALE TUBE WELD	UN O RING FEMALE HALF SOCKET WELD ON

NUT & SLEEVE

S6 P328	S6M P328	S6S P328	S134 P328	M6L P337	M6S P337	SA6 P344
						
JIC FEMALE NUT & SLEEVE	JIC FEMALE NUT & METRIC SLEEVE	JIC FEMALE NUT & SHORT SLEEVE	J-LOK NUT & OLIVE	METRIC DKL NUT & OLIVE	METRIC DKS NUT & OLIVE	SAE FEMALE NUT & SLEEVE

NUT & OLIVE

BULKHEAD NIPPLE

S44 P306	S130 P311	S130P P311	S10 P329	S141 P341	SA10 P344	
						
BSPP MALE BULKHEAD BSPP MALE	BSPTM NO SEAT JIC MALE BULKHEAD	BSPP MALE JIC MALE BULKHEAD	JIC MALE BULKHEAD JIC MALE	ORFS MALE BULKHEAD ORFS MALE	SAE MALE BULKHEAD SAE MALE	

INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

MALE NIPPLE

S27 P305	S75 P306	S46 P307	S7 P312	S74 P314	S180 P317	SA7 P317
BSPT MALE BSPT MALE	BSPT MALE BSPP ENCAPSULATED MALE	BSPP MALE BSPP ENCAPSULATED MALE	BSPT MALE JIC MALE	BSPP ENCAPSULATED MALE JIC MALE	BSPP ENCAPSULATED MALE ORFS MALE	BSPT MALE SAE MALE

MALE NIPPLE cont'd

S93 P318	S27N P321	S7N P321	S114N P325	SA7N P326	S17 P329	S108 P333
BSPT MALE UN O RING MALE	NPT MALE NPT MALE	NPT MALE JIC MALE	NPT MALE ORFS MALE	NPT MALE SAE MALE	JIC MALE JIC MALE	JIC MALE ORFS MALE

MALE NIPPLE cont'd

S90 P334	S107 P334	M75L P338	M75S P338	M7 P339	M7L P339	M7S P339
JIC MALE UN O RING MALE	JIC MALE EXTENDED UN O RING MALE	METRIC DKL MALE 24° CONE BSPP O RING MALE	METRIC DKS MALE 24° CONE BSPP O RING MALE	METRIC MALE JIC MALE	METRIC DKL MALE 24° CONE JIC MALE	METRIC DKS MALE 24° CONE JIC MALE

MALE NIPPLE cont'd

S116 P341	S122 P342	SA17 P344	S162 P355	RW722 P363	RW727 P364	RW725 P364
ORFS MALE ORFS MALE	ORFS MALE UN O RING MALE	SAE MALE SAE MALE	UN O RING MALE ADJUSTABLE UN O RING MALE	RYCO WEO MALE NIPPLE	RYCO WEO MALE JIC MALE	RYCO WEO MALE DKL MALE

MALE NIPPLE cont'd

RW726 P365						
RYCO WEO MALE DKS MALE						

REDUCING BUSH

S24 P305	S102 P307	S85 P318	S24N P320			
BSPT MALE BSPT FEMALE FIXED REDUCING BUSH	BSPP ENCAPSULATED MALE BSPP FEMALE FIXED REDUCING BUSH	BSPT FEMALE FIXED UN O RING MALE REDUCING BUSH	NPT MALE NPT FEMALE FIXED REDUCING BUSH			

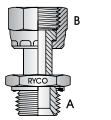
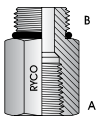
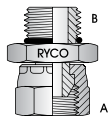
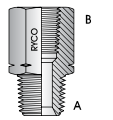
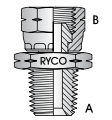
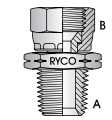
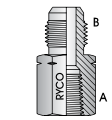
STRAIGHT MALE X FEMALE

S72 P305	S80 P305	S43 P307	S128 P312	S61 P312	S16 P312	S71 P314
BSPT MALE BSPT FEMALE FIXED	BSPT MALE BSPP FEMALE SWIVEL	BSPP ENCAPSULATED MALE BSPP FEMALE SWIVEL	BSPT MALE JIC/UN O RING FEMALE FIXED DUAL SEAT	BSPT MALE JIC FEMALE SWIVEL	BSPT FEMALE FIXED JIC MALE	BSPP ENCAPSULATED MALE JIC FEMALE SWIVEL

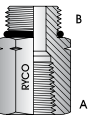
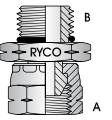
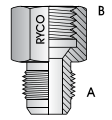
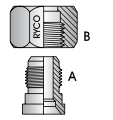
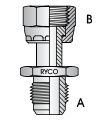
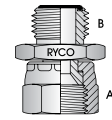

ADAPTORS

PICTORIAL INDEX

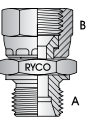
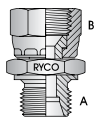
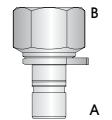
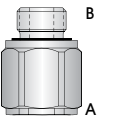
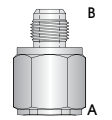
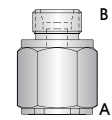
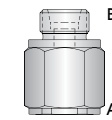
**STRAIGHT
MALE X
FEMALE
cont'd**

S181 P317	S96 P318	S95 P319	S72N P321	S80N P321	S61N P323	S16N P323
						
BSPP ENCAPSULATED MALE ORFS FEMALE SWIVEL	BSPT FEMALE FIXED UN O RING MALE	BSPP FEMALE SWIVEL UN O RING MALE	NPT MALE NPT FEMALE FIXED	NPT MALE NPSM FEMALE SWIVEL	NPT MALE JIC FEMALE SWIVEL	NPT FEMALE FIXED JIC MALE

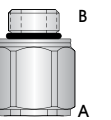
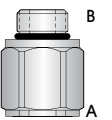
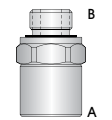
**STRAIGHT
MALE X
FEMALE
cont'd**

S96N P326	S95N P326	S66F P329	S66 P329	S109 P333	S110 P333	S101 P334
						
NPT FEMALE FIXED UN O RING MALE	NPSM FEMALE SWIVEL UN O RING MALE	JIC MALE JIC FEMALE FIXED REDUCER	JIC MALE JIC FEMALE REDUCER	JIC MALE ORFS FEMALE SWIVEL	JIC FEMALE SWIVEL ORFS MALE	JIC FEMALE SWIVEL UN O RING MALE

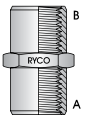
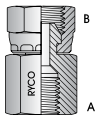
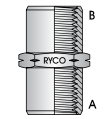
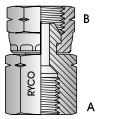
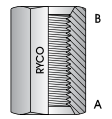
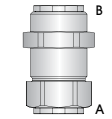
**STRAIGHT
MALE X
FEMALE
cont'd**

M71L P340	M71S P340	RW721 P364	RW830 P364	RW824 P364	RW822 P364	RW823 P365
						
METRIC DKL MALE 24° CONE JIC FEMALE SWIVEL	METRIC DKS MALE 24° CONE JIC FEMALE SWIVEL	RYCO WEO MALE BSPP FEMALE	RYCO WEO FEMALE BSPP ENCAPSULATED MALE	RYCO WEO FEMALE JIC MALE	RYCO WEO FEMALE DKL MALE	RYCO WEO FEMALE DKS MALE

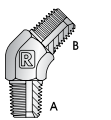
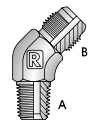
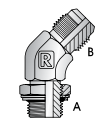
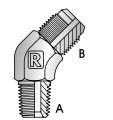
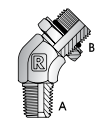
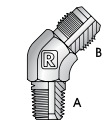
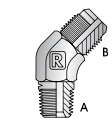
**STRAIGHT
MALE X
FEMALE
cont'd**

RW831 P365	RW826 P365	RW860 P364				
						
RYCO WEO FEMALE METRIC MALE O RING BOSS	RYCO WEO FEMALE UN O RING MALE	RYCO WEO FEMALE SWIVEL BSPP ENCAPSULATED MALE				

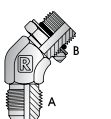
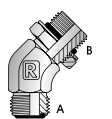
**STRAIGHT
FEMALE X
FEMALE**

S26 P306	S81 P306	S26N P321	S81N P321	S163 P355	RW813 P363
					
BSPT FEMALE SOCKET	BSPT FEMALE FIXED BSPP FEMALE SWIVEL	NPT FEMALE SOCKET	NPT FEMALE FIXED NPSM FEMALE SWIVEL	UN O RING FEMALE SOCKET	RYCO WEO FEMALE BULKHEAD

**45° ELBOW
MALE X
MALE**

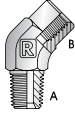

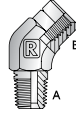


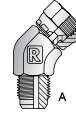
S45 P308	S9 P313	S69 P315	SA9 P317	S60 P319	S9N P324	SA9N P326
						
BSPT MALE BSPT MALE 45° ELBOW	BSPT MALE JIC MALE 45° ELBOW	BSPP O RING MALE JIC MALE 45° ELBOW	BSPT MALE SAE MALE 45° ELBOW	BSPT MALE UN O RING MALE 45° ELBOW	NPT MALE JIC MALE 45° ELBOW	NPT MALE SAE MALE 45° ELBOW

**45° ELBOW
MALE X
MALE
cont'd**

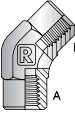
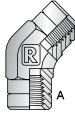
S88 P335	S123 P342					
						
JIC MALE UN O RING MALE 45° ELBOW	ORFS MALE UN O RING MALE 45° ELBOW					

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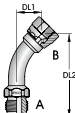
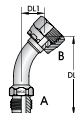
**45° ELBOW
MALE X
FEMALE**

S39 P308	S84 P308	S39N P322	S84N P322	S23 P329	SA23 P344
					
BSPT MALE BSPT FEMALE FIXED 45° ELBOW	BSPT MALE BSPP FEMALE SWIVEL 45° ELBOW	NPT MALE NPT FEMALE FIXED 45° ELBOW	NPT MALE NPSM FEMALE SWIVEL 45° ELBOW	JIC MALE JIC FEMALE 45° ELBOW	SAE MALE SAE FEMALE SWIVEL 45° ELBOW

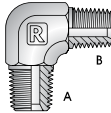
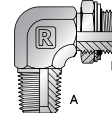
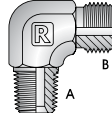
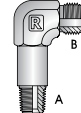
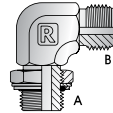
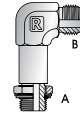
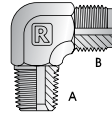
**45° ELBOW
FEMALE X
FEMALE**

S31 P308	S31N P322
	
BSPT FEMALE FIXED BSPT FEMALE FIXED 45° ELBOW	NPT FEMALE FIXED NPT FEMALE FIXED 45° ELBOW

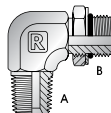
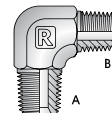
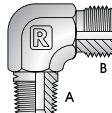
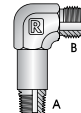
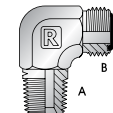
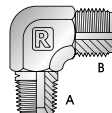
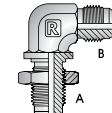
**45°
TUBE BEND
FEMALE X
FEMALE**

S5 P330	S138 P333
	
JIC MALE JIC FEMALE SWIVEL 45° TUBE BEND	JIC MALE ORFS FEMALE SWIVEL 45° TUBE BEND

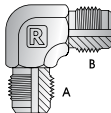
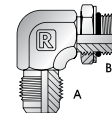
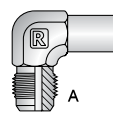
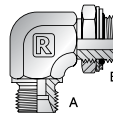
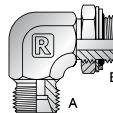
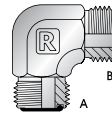
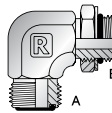
**90° ELBOW
MALE X
MALE**

S49 P308	S77 P309	S8 P313	S11 P313	S76 P315	S70 P315	SA8 P317
						
BSPT MALE BSPT MALE 90° ELBOW	BSPT MALE BSPP O RING MALE 90° ELBOW	BSPT MALE JIC MALE 90° ELBOW	BSPT MALE EXTENDED JIC MALE 90° ELBOW	BSPP O RING MALE JIC MALE 90° ELBOW	BSPP O RING MALE EXTENDED JIC MALE 90° ELBOW	BSPT MALE SAE MALE 90° ELBOW

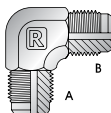
**90° ELBOW
MALE X
MALE
cont'd**

S89 P319	S49N P308	S8N P324	S11N P324	S145N P325	SA8N P326	S13 P330
						
BSPT MALE UN O RING MALE 90° ELBOW	NPT MALE NPT MALE 90° ELBOW	NPT MALE JIC MALE 90° ELBOW	NPT MALE EXTENDED JIC MALE 90° ELBOW	NPT MALE ORFS MALE 90° ELBOW	NPT MALE SAE MALE 90° ELBOW	JIC MALE BULKHEAD JIC MALE 90° ELBOW

**90° ELBOW
MALE X
MALE
cont'd**

S18 P330	S91 P335	S12 P336	M77L P338	M77S P338	S117 P341	S124 P342
						
JIC MALE JIC MALE 90° ELBOW	JIC MALE UN O RING MALE 90° ELBOW	JIC MALE UN O RING MALE EXTENDED 90° ELBOW	METRIC DKL MALE BSPP O RING MALE 90° ELBOW	METRIC DKS MALE BSPP O RING MALE 90° ELBOW	ORFS MALE ORFS MALE 90° ELBOW	ORFS MALE UN O RING MALE 90° ELBOW

**90° ELBOW
MALE X
MALE
cont'd**

SA18 P344

SAE MALE SAE MALE 90° ELBOW

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90° ELBOW MALE X FEMALE

S25 P308	S82 P308	S105 P309	S94 P319	S25N P322	S82N P322	S94N P326
BSPT MALE BSPT FEMALE FIXED 90° ELBOW	BSPT MALE BSPP FEMALE SWIVEL 90° ELBOW	BSPP O RING MALE BSPP FEMALE SWIVEL 90° ELBOW	BSPP FEMALE SWIVEL UN O RING MALE 90° ELBOW	NPT MALE NPT FEMALE FIXED 90° ELBOW	NPT MALE NPSM FEMALE SWIVEL 90° ELBOW	NPSM FEMALE SWIVEL UN O RING MALE 90° ELBOW

90° ELBOW MALE X FEMALE cont'd

S15 P330	S86 P335	S118 P341	S125 P342	SA15 P344
JIC MALE JIC FEMALE SWIVEL 90° ELBOW	JIC FEMALE SWIVEL UN O RING MALE 90° ELBOW	ORFS MALE ORFS FEMALE SWIVEL 90° ELBOW	ORFS FEMALE SWIVEL UN O RING MALE 90° ELBOW	SAE MALE SAE FEMALE SWIVEL 90° ELBOW

90° ELBOW FEMALE X FEMALE

S28 P308	S28N P322
BSPT FEMALE BSPT FEMALE FIXED 90° ELBOW	NPT FEMALE FIXED NPT FEMALE FIXED 90° ELBOW

90° TUBE BEND

S4 P330	S103 P330	S137 P333	S154 P341
JIC MALE JIC FEMALE SWIVEL 90° TUBE BEND	JIC MALE JIC FEMALE SWIVEL 90° LONG BEND	JIC MALE ORFS FEMALE SWIVEL 90° TUBE BEND	ORFS MALE ORFS FEMALE SWIVEL 90° TUBE BEND

TEE MALE X MALE

S50 P310	S104 P311	S135 P311	S21 P316	S78 P316	S20 P316	S79 P316
BSPT MALE BSPT MALE BSPT MALE	BSPT MALE BSPP O RING MALE BSPT MALE	BSPT MALE BSPT MALE BSPP O RING MALE	BSPT MALE JIC MALE JIC MALE	BSPP O RING MALE JIC MALE JIC MALE	JIC MALE JIC MALE BSPT MALE	JIC MALE JIC MALE BSPP O RING MALE

TEE MALE X MALE cont'd

SA20 P317	S50N P322	S21N P325	S20N P325	SA20N P326	S19 P331	S62 P331
SAE MALE SAE MALE BSPT MALE	NPT MALE NPT MALE NPT MALE	NPT MALE JIC MALE JIC MALE	JIC MALE JIC MALE NPT MALE	SAE MALE SAE MALE NPT MALE	JIC MALE JIC MALE JIC MALE	JICM BULKHEAD JIC MALE JIC MALE

TEE MALE X MALE cont'd

S63 P331	S92 P336	S87 P336	S119 P342	S126 P343	S127 P343	SA19 P345
JIC MALE JIC MALE JICM BULKHEAD	JIC MALE JIC MALE UN O RING MALE	JIC MALE UN O RING MALE JIC MALE	ORFS MALE ORFS MALE ORFS MALE	ORFS MALE ORFS MALE UN O RING MALE	ORFS MALE UN O RING MALE ORFS MALE	SAE MALE SAE MALE SAE MALE

**TEE
MALE X
FEMALE**

S48 P310	S167 P310	S47 P310	S83 P310	S48N P322	S47N P322	S68 P332
BSPT MALE BSPT FEMALE FIXED BSPT FEMALE FIXED	BSPT MALE BSPP FEMALE SWIVEL BSPT MALE	BSPT FEMALE FIXED BSPT FEMALE FIXED BSPT MALE	BSPP FEMALE SWIVEL BSPP FEMALE SWIVEL BSPT MALE	NPT MALE NPT FEMALE FIXED NPT FEMALE FIXED	NPT FEMALE FIXED NPT FEMALE FIXED NPT MALE	JIC MALE JIC MALE JIC FEMALE SWIVEL

**TEE
MALE X
FEMALE
cont'd**

S67 P332	S120 P342	S121 P342				
JIC MALE JIC FEMALE SWIVEL JIC MALE	ORFS MALE ORFS MALE ORFS FEMALE SWIVEL	ORFS MALE ORFS FEMALE SWIVEL ORFS MALE				

**TEE
FEMALE X
FEMALE**

S29 P311	S139 P311	S29N P322				
BSPT FEMALE FIXED BSPT FEMALE FIXED BSPT FEMALE FIXED	BSPP FEMALE FIXED BSPP FEMALE FIXED BSPP FEMALE FIXED	NPT FEMALE FIXED NPT FEMALE FIXED NPT FEMALE FIXED				

CROSS

S32 P311	S32N P322	S100 P332				
BSPT FEMALE FIXED CROSS	NPT FEMALE FIXED CROSS	JIC MALE CROSS				

**SAE
FLANGE
CLAMPS &
KITS
CODE 61**

S40 P345	S140 P345	S40K P345	S140K P345	S40M P346	S140M P346
SPLIT FLANGE CLAMPS CODE 61 SUPPLIED IN PAIRS	SOLID FLANGE CLAMP CODE 61	UNC BOLTS SPLIT FLANGE CLAMP KITS CODE 61	UNC BOLTS SOLID FLANGE CLAMP KITS CODE 61	METRIC BOLTS SPLIT FLANGE CLAMP KITS CODE 61	METRIC BOLTS SOLID FLANGE CLAMP KITS CODE 61

**SAE
FLANGE
CLAMPS &
KITS
CODE 62**

S42 P345	S142 P345	S42K P345	S142K P345	S42M P346	S142M P346
SPLIT FLANGE CLAMPS CODE 62 SUPPLIED IN PAIRS	SOLID FLANGE CLAMP CODE 62	UNC BOLTS SPLIT FLANGE CLAMP KITS CODE 62	UNC BOLTS SOLID FLANGE CLAMP KITS CODE 62	METRIC BOLTS SPLIT FLANGE CLAMP KITS CODE 62	METRIC BOLTS SOLID FLANGE CLAMP KITS CODE 62

**SAE
FLANGE
PLUG &
TUBE WELD**

S979 P347	S980 P347	S981 P347	S982 P347	S982C P347		
BLANK PLUG CODE 61	BLANK PLUG CODE 62	CODE 61 O RING FACE SOCKET WELD	CODE 62 O RING FACE SOCKET WELD	RYCO CODE 62C O RING FACE SOCKET WELD		

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SAE FLANGE JIC ADAPTORS

S1 P348	S3 P348	S2 P348	S2L P348	S1H P348	S3H P348	S2H P348
CODE 61 FLANGE JIC MALE	CODE 61 FLANGE JIC MALE 45° TUBE BEND	CODE 61 FLANGE JIC MALE 90° TUBE BEND	CODE 61 FLANGE JIC MALE 90° LONG BEND	CODE 62 FLANGE JIC MALE	CODE 62 FLANGE JIC MALE 45° TUBE BEND	CODE 62 FLANGE JIC MALE 90° TUBE BEND

SAE FLANGE ORFS ADAPTORS

S147H P349	S146H P349	S143H P349
CODE 62 FLANGE ORFS MALE	CODE 62 FLANGE ORFS MALE 45° TUBE BEND	CODE 62 FLANGE ORFS MALE 90° TUBE BEND

SAE FLANGE BLOCKS CODE 61 BLIND & WELD

S967 P350	S940 P350	S940F & FM P350	S970 P351	S970F & FM P351	S976 P351	S976F P351
CODE 61 FLANGE BLIND	CODE 61 FLANGE SOCKET WELD TUBE	CODE 61 FLANGE FLAT SOCKET WELD TUBE	CODE 61 FLANGE SOCKET WELD PIPE	CODE 61 FLANGE FLAT SOCKET WELD PIPE	CODE 61 FLANGE BUTT WELD PIPE	CODE 61 FLANGE FLAT BUTT WELD PIPE

SAE FLANGE BLOCKS CODE 62 BLIND & WELD

S968 P350	S941 P350	S941F & FM P350	S971 P351	S971F & FM P351	S977 P351	S977F P351
CODE 62 FLANGE BLIND	CODE 62 FLANGE SOCKET WELD TUBE	CODE 62 FLANGE FLAT SOCKET WELD TUBE	CODE 62 FLANGE SOCKET WELD PIPE	CODE 62 FLANGE FLAT SOCKET WELD PIPE	CODE 62 FLANGE BUTT WELD PIPE	CODE 62 FLANGE FLAT BUTT WELD PIPE

SAE FLANGE BLOCKS CODE 61

S951 P352	S951F & FM P352	S953 P352	S957 P353
CODE 61 FLANGE BSPP FEMALE	CODE 61 FLANGE FLAT BSPP FEMALE	CODE 61 FLANGE BSPP MALE	CODE 61 FLANGE JIC MALE

SAE FLANGE BLOCK FASTENING KIT

FK61 & M P349
SUITS SAE FLANGE BLOCKS CODE 61

SAE FLANGE BLOCKS CODE 62

S952 P352	S952F & FM P352	S954 P352	S958 P353
CODE 62 FLANGE BSPP FEMALE	CODE 62 FLANGE FLAT BSPP FEMALE	CODE 62 FLANGE BSPP MALE	CODE 62 FLANGE JIC MALE

SAE FLANGE BLOCK FASTENING KIT

FK62 & M P349
SUITS SAE FLANGE BLOCKS CODE 62

SWIVEL JOINTS

S37 P354	S36 P354	S131 P354	S33 P354	S34 P354	S35 P354	SJK/RKS P354
BSPT MALE BSPT MALE 90° SWIVEL JOINT	BSPT MALE BSPP FEMALE SWIVEL 90° SWIVEL JOINT	JIC MALE JIC FIXED FEMALE SWIVEL JOINT	JIC MALE JIC MALE 90° SWIVEL JOINT	JIC MALE JIC FEMALE 90° SWIVEL JOINT	JIC FEMALE JIC MALE 90° SWIVEL JOINT	REPLACEMENT SEAL KIT

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O RINGS

ROD-AC P356	ROD-BP P356	ROD-DL P356	ROD-DS P356	ROD-FS P356	ROD-SF P357	ROD-UN P357
AIR CONDITIONING PILOT FITTING 70 DUROMETER (GREEN HNBR)	BSPP O RING MALE THREAD 90 DUROMETER	DKOL FEMALE METRIC 70 DUROMETER	DKOS FEMALE METRIC 70 DUROMETER	ORFS 90 DUROMETER	SAE FLANGE 90 DUROMETER	UNO THREAD 90 DUROMETER

**O RINGS
cont'd**

ROD-WD/BE P357	35B P309		36B P309	35/37 P332	MBD P337	RL21D P309
BSPP ENCAPSULATED MALE SEAL	COMPONENTS & ACCESSORIES		BSPP LOCK NUT	BSPP RETAINING RING	JIC LOCK NUT	METRIC METAL BONDED SEAL W/ CENTRALISING LIP
						BSPP METAL BONDED SEAL W/ CENTRALISING LIP

**COMPONENTS
&
ACCESSORIES
cont'd**

BBB P366	BBM P366	RL20SH P366
BSP BANJO BOLT	METRIC BANJO BOLT	BALL VALVE BSPP FEMALE BSPP FEMALE

**PLASTIC
PROTECTORS**

BPD P358	BCD P358	JPD P358	JCD P358	JCTD P358	MPD P359	MCD P359
PLUG SUITS FEMALE BSP & NPSM	CAP SUITS MALE BSP & NPT	PLUG SUITS FEMALE JIC, SAE & UNO	CAP SUITS MALE JIC, SAE & UNO	TEAR OFF CAP SUITS MALE JIC, SAE & UNO	PLUG SUITS FEMALE METRIC	CAP SUITS MALE METRIC

**PLASTIC
PROTECTORS
cont'd**

OPD P359	OCD P359	FC61D P360	FC62D P360	PPD P360
PLUG SUITS FEMALE ORFS	CAP SUITS MALE ORFS	SUITS SAE CODE 61 FLANGE	SUITS SAE CODE 62 & R62C FLANGE	SUITS 800 SERIES FITTING

**TUBE
BENDS
IMPERIAL
OUTSIDE
DIAMETER**

14 P361	15 P361	25 P361	25HL P361	17 P361	16 P361
22.5° TUBE BEND	30° TUBE BEND	45° TUBE BEND	45° TUBE BEND HEAVY	60° TUBE BEND	67.5° TUBE BEND

**TUBE
BENDS
IMPERIAL
OUTSIDE
DIAMETER
cont'd**

24A P362	24B P362	24 P362	24HL P362	21 P362	91 P362
90° SPECIAL LONG TUBE BEND	90° SPECIAL LONG TUBE BEND	90° TUBE BEND	90° TUBE BEND HEAVY	90° LONG TUBE BEND	110° LONG TUBE BEND

ADAPTORS

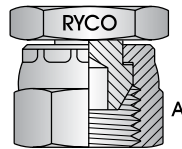
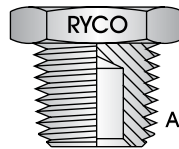
BSP ADAPTORS

BSP

S64

S59

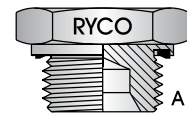
**PLUG
CAP**



BSPP

S73

**PLUG
SEAL SUPPLIED**



THREAD A	DASH SIZE	BSPT MALE PLUG	BSPP FEMALE SWIVEL CAP
inch		PART NO	PART NO
1/8	-02	S64-02	S59-02
1/4	-04	S64-04	S59-04
3/8	-06	S64-06	S59-06
1/2	-08	S64-08	S59-08
3/4	-12	S64-12	S59-12
1	-16	S64-16	S59-16
1.1/4	-20	S64-20	S59-20
1.1/2	-24	S64-24	S59-24
2	-32	S64-32	S59-32

THREAD A	DASH SIZE	BSPP ENCAPSULATED MALE PLUG
inch		PART NO
1/8	-02	S73-02
1/4	-04	S73-04
3/8	-06	S73-06
1/2	-08	S73-08
3/4	-12	S73-12
1	-16	S73-16
1.1/4	-20	S73-20
1.1/2	-24	S73-24
2	-32	S73-32

NOTE: S73 was previously O Ring & Retaining Ring design. Stock of previous design may exist and may be supplied.

BSP

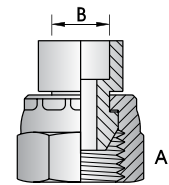
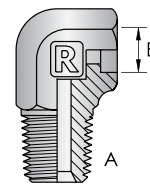
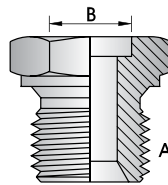
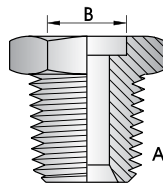
S53

S53P

S54

S58

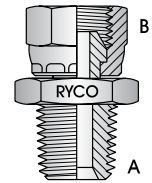
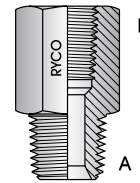
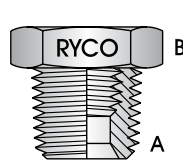
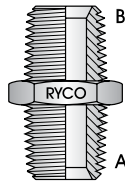
TUBE WELD



THREAD A	TUBE OD B	DASH SIZE	BSPT MALE TUBE WELD	BSPP MALE TUBE WELD	BSPT MALE TUBE WELD 90° ELBOW	BSPP FEM SWIVEL TUBE WELD
inch	inch		PART NO	PART NO	PART NO	PART NO
1/4	3/8	-0406	S53-0406		S54-0406	S58-0406
3/8	3/8	-0606	S53-0606			S58-0606
3/8	1/2	-0608	S53-0608		S54-0608	
3/8	5/8	-0610			S54-0610	
1/2	1/2	-0808	S53-0808	S53P-0808	S54-0808	S58-0808
1/2	5/8	-0810	S53-0810	S53P-0810	S54-0810	
1/2	3/4	-0812	S53-0812		S54-0812	
3/4	3/4	-1212	S53-1212		S54-1212	S58-1212
3/4	7/8	-1214	S53-1214		S54-1214	
3/4	1	-1216	S53-1216			
1	1	-1616	S53-1616		S54-1616	S58-1616
1	1.1/4	-1620	S53-1620			
1.1/4	1.1/4	-2020	S53-2020			S58-2020
1.1/2	1.1/2	-2424	S53-2424			S58-2424
1.1/2	1.15/16	-2431	S53-2431			
2	2	-3232				S58-3232

BSP/BSP **S27** **S24** **S72** **S80**

STRAIGHT



THREAD		DASH SIZE	BSPT MALE	BSPT MALE	BSPT MALE	BSPT MALE
A	B		BSPT MALE	BSPT MALE	BSPT MALE	BSPT MALE
inch	inch		PART NO	PART NO	PART NO	PART NO
1/8	1/8	-0202	S27-0202		S72-0202	S80-0202
1/8	1/4	-0204			S72-0204	
1/4	1/8	-0402	S27-0402	S24-0402		
1/4	1/4	-0404	S27-0404		S72-0404	S80-0404
1/4	3/8	-0406			S72-0406	
3/8	1/8	-0602		S24-0602		
3/8	1/4	-0604	S27-0604	S24-0604		
3/8	3/8	-0606	S27-0606		S72-0606	S80-0606
3/8	1/2	-0608			S72-0608	S80-0608
1/2	1/8	-0802		S24-0802		
1/2	1/4	-0804	S27-0804	S24-0804		
1/2	3/8	-0806	S27-0806	S24-0806		S80-0806
1/2	1/2	-0808	S27-0808		S72-0808	S80-0808
1/2	3/4	-0812			S72-0812	S80-0812
5/8	1/2	-1008	S27-1008			
5/8	5/8	-1010	S27-1010			
3/4	1/4	-1204		S24-1204		
3/4	3/8	-1206	S27-1206	S24-1206		
3/4	1/2	-1208	S27-1208	S24-1208		
3/4	5/8	-1210	S27-1210			
3/4	3/4	-1212	S27-1212		S72-1212	S80-1212
3/4	1	-1216				S80-1216
1	3/8	-1606		S24-1606		
1	1/2	-1608	S27-1608	S24-1608		
1	3/4	-1612	S27-1612	S24-1612		S80-1612
1	1	-1616	S27-1616		S72-1616	S80-1616
1	1	-1616	S27H-1616*			
1.1/4	1/2	-2008		S24-2008		
1.1/4	3/4	-2012	S27-2012	S24-2012		
1.1/4	1	-2016	S27-2016	S24-2016		
1.1/4	1.1/4	-2020	S27-2020			S80-2020
1.1/2	1/2	-2408		S24-2408		
1.1/2	3/4	-2412	S27-2412	S24-2412		
1.1/2	1	-2416	S27-2416	S24-2416		
1.1/2	1.1/4	-2420	S27-2420	S24-2420		
1.1/2	1.1/2	-2424	S27-2424			
2	1	-3216		S24-3216		
2	1.1/4	-3220	S27-3220			
2	1.1/2	-3224	S27-3224	S24-3224		
2	2	-3232	S27-3232			

NOTE: *S27H-1616 Special High Pressure Nipple for Hydraulic Hammer use.

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ADAPTORS

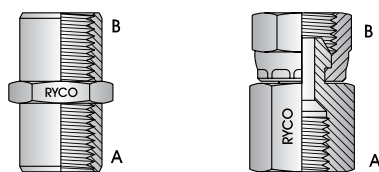
BSP ADAPTORS

BSP/BSP

S26

S81

STRAIGHT



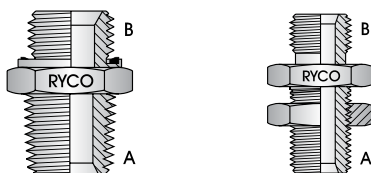
THREAD		DASH SIZE	BSPT FEMALE SOCKET	BSPT FEMALE FIXED BSPP FEMALE SWIVEL
A	B			
inch	inch		PART NO	PART NO
1/8	1/8	-0202	S26-0202	
1/4	1/4	-0404	S26-0404	S81-0404
3/8	1/4	-0604	S26-0604	
3/8	3/8	-0606	S26-0606	S81-0606
1/2	1/4	-0804	S26-0804	
1/2	3/8	-0806	S26-0806	S81-0806
1/2	1/2	-0808	S26-0808	S81-0808
3/4	1/4	-1204	S26-1204	
3/4	1/2	-1208	S26-1208	
3/4	3/4	-1212	S26-1212	S81-1212
1	3/4	-1612	S26-1612	
1	1	-1616	S26-1616	S81-1616
1.1/4	1.1/4	-2020	S26-2020	
1.1/2	1.1/2	-2424	S26-2424	
2	2	-3232	S26-3232	

BSP/BSPP

S75

S44

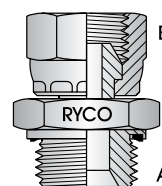
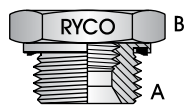
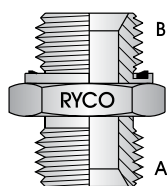
STRAIGHT
SEAL SUPPLIED



THREAD		DASH SIZE	BSPT MALE BSPP ENCAPSULATED MALE	BSPP MALE BULKHEAD BSPP MALE
A	B			
inch	inch		PART NO	PART NO
1/4	1/4	-0404	S75-0404	S44-0404
1/4	3/8	-0406	S75-0406	
1/4	1/2	-0408	S75-0408	
3/8	1/4	-0604	S75-0604	
3/8	3/8	-0606	S75-0606	S44-0606
3/8	1/2	-0608	S75-0608	
1/2	1/4	-0804	S75-0804	
1/2	3/8	-0806	S75-0806	
1/2	1/2	-0808	S75-0808	S44-0808
1/2	5/8	-0810	S75-0810	
1/2	3/4	-0812	S75-0812	
3/4	1/2	-1208	S75-1208	
3/4	3/4	-1212	S75-1212	S44-1212
3/4	1	-1216	S75-1216	
1	3/4	-1612	S75-1612	
1	1	-1616	S75-1616	S44-1616
1	1.1/4	-1620	S75-1620	
1.1/4	1.1/4	-2020	S75-2020	S44-2020
1.1/2	1.1/2	-2424	S75-2424	
2	2	-3232	S75-3232	

NOTE: S75 was previously O Ring & Retaining Ring design. Stock of previous design may exist and may be supplied.

BSP/BSPP	S46	S102	S43
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**STRAIGHT
SEAL SUPPLIED**


THREAD		DASH SIZE	BSPP MALE BSPP ENCAPSULATED MALE	BSPP ENCAPSULATED MALE BSPP FEMALE FIXED REDUCING BUSH	BSPP ENCAPSULATED MALE BSPP FEMALE SWIVEL
A	B				
inch	inch		PART NO	PART NO	PART NO
1/8	1/8	-0202			S43-0202
1/4	1/8	-0402		S102-0402	
1/4	1/4	-0404	S46-0404		S43-0404
1/4	3/8	-0406	S46-0406		
3/8	1/8	-0602		S102-0602	
3/8	1/4	-0604		S102-0604	
3/8	3/8	-0606	S46-0606		S43-0606
3/8	1/2	-0608	S46-0608		S43-0608
1/2	1/4	-0804	S46-0804	S102-0804	
1/2	3/8	-0806		S102-0806	S43-0806
1/2	1/2	-0808	S46-0808		S43-0808
1/2	3/4	-0812	S46-0812		
3/4	1/4	-1204		S102-1204	
3/4	3/8	-1206		S102-1206	
3/4	1/2	-1208		S102-1208	
3/4	3/4	-1212	S46-1212		S43-1212
3/4	1	-1216	S46-1216		
1	1/2	-1608		S102-1608	
1	3/4	-1612		S102-1612	
1	1	-1616	S46-1616		S43-1616
1.1/4	3/4	-2012		S102-2012	
1.1/4	1	-2016		S102-2016	
1.1/4	1.1/4	-2020	S46-2020		S43-2020
1.1/4	1.1/2	-2024	S46-2024		
1.1/2	1	-2416		S102-2416	
1.1/2	1.1/4	-2420		S102-2420	
1.1/2	1.1/2	-2424	S46-2424		
2	2	-3232	S46-3232		

NOTE: S43, S46 & S102 were previously O Ring & Retaining Ring design. Stock of previous design may exist and may be supplied.

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BSP ADAPTORS

BSP/BSP

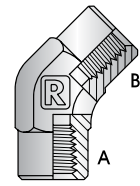
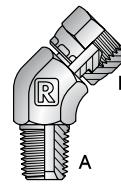
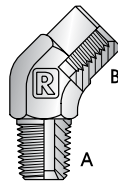
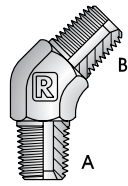
S45

S39

S84

S31

45° ELBOW



THREAD		DASH SIZE	BSPT MALE BSPT MALE 45° ELBOW	BSPT MALE BSPT FEMALE FIXED 45° ELBOW	BSPT MALE BSPT FEMALE SWIVEL 45° ELBOW	BSPT FEMALE FIXED BSPT FEMALE FIXED 45° ELBOW
A	B					
inch	inch		PART NO	PART NO	PART NO	PART NO
1/8	1/8	-0202				S31-0202
1/4	1/4	-0404	S45-0404	S39-0404	S84-0404	S31-0404
1/4	3/8	-0406		S39-0406		
3/8	3/8	-0606	S45-0606	S39-0606	S84-0606	S31-0606
1/2	3/8	-0806			S84-0806	
1/2	1/2	-0808	S45-0808	S39-0808	S84-0808	S31-0808
3/4	1/2	-1208	S45-1208			
3/4	3/4	-1212	S45-1212	S39-1212	S84-1212	S31-1212
1	1	-1616	S45-1616		S84-1616	S31-1616

BSP/BSP

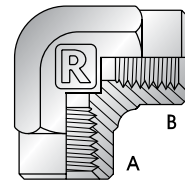
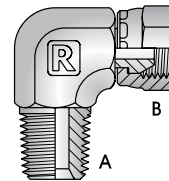
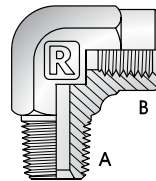
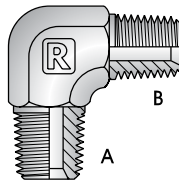
S49

S25

S82

S28

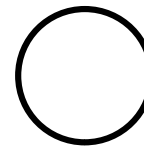
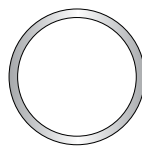
90° ELBOW



THREAD		DASH SIZE	BSPT MALE BSPT MALE 90° ELBOW	BSPT MALE BSPT FEMALE FIXED 90° ELBOW	BSPT MALE BSPT FEMALE SWIVEL 90° ELBOW	BSPT FEMALE FIXED BSPT FEMALE FIXED 90° ELBOW
A	B					
inch	inch		PART NO	PART NO	PART NO	PART NO
1/8	1/8	-0202	S49-0202	S25-0202	S82-0202	S28-0202
1/4	1/8	-0402	S49-0402			
1/4	1/4	-0404	S49-0404	S25-0404	S82-0404	S28-0404
3/8	1/4	-0604	S49-0604	S25-0604		
3/8	3/8	-0606	S49-0606	S25-0606	S82-0606	S28-0606
3/8	1/2	-0608		S25-0608		
1/2	1/4	-0804	S49-0804			
1/2	3/8	-0806	S49-0806	S25-0806	S82-0806	
1/2	1/2	-0808	S49-0808	S25-0808	S82-0808	S28-0808
1/2	3/4	-0812		S25-0812	S82-0812	
3/4	1/2	-1208	S49-1208			
3/4	3/4	-1212	S49-1212	S25-1212	S82-1212	S28-1212
3/4	1	-1216			S82-1216	
1	3/4	-1612	S49-1612		S82-1612	
1	1	-1616	S49-1616	S25-1616	S82-1616	S28-1616
1.1/4	3/4	-2012	S49-2012			
1.1/4	1	-2016	S49-2016			
1.1/4	1.1/4	-2020	S49-2020	S25-2020		S28-2020
1.1/2	1.1/2	-2424	S49-2424			

BSP	35B	36B	RO-BP	RL21D
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**LOCK NUT
RETAINING RING
O RING
&
METAL BONDED SEAL
WITH CENTRALISING LIP**



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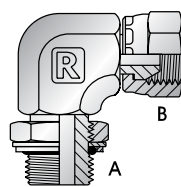
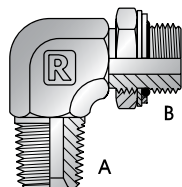
TECHNICAL

THREAD/ SEAL SIZE	DASH SIZE	BSP LOCK NUT	BSP RETAINING RING	BSP O RING	BSP METAL BONDED SEAL W/ CENTRALISING LIP	PACK QTY
inch		PART NO	PART NO	PART NO	PART NO	
1/8	-02	35B-02	36B-02	RO-BP02	RL21D-02	10
1/4	-04	35B-04	36B-04	RO-BP04	RL21D-04	10
3/8	-06	35B-06	36B-06	RO-BP06	RL21D-06	10
1/2	-08	35B-08	36B-08	RO-BP08	RL21D-08	10
5/8	-10		36B-10	RO-BP10	RL21D-10	10
3/4	-12	35B-12	36B-12	RO-BP12	RL21D-12	10
7/8	-14				RL21D-14	10
1	-16	35B-16	36B-16	RO-BP16	RL21D-16	5
1.1/4	-20	35B-20	36B-20	RO-BP20	RL21D-20	5
1.1/2	-24		36B-24	RO-BP24	RL21D-24	5
2	-32		36B-32	RO-BP32	RL21D-32	5

NOTE: O Rings are sold only in packs of 10. **Example:** Order Part No ROD-BPxx for pack of 10. (D is added after RO).
NOTE for RL21D: bonded seals are sold only in packs of 5 or 10. Part Number Series for individual seal is RL21. **Example:** Order Part No RL21-02 for individual seal. (D is removed from RL21D).

BSP/BSPP O RING	S77	S105
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**STRAIGHT
90° ELBOW
O RING & RETAINING
RING SUPPLIED**



THREAD		DASH SIZE	BSPT MALE BSPP O RING MALE 90° ELBOW	BSPP O RING MALE BSPP FEMALE SWIVEL 90° ELBOW
A	B			
inch	inch		PART NO	PART NO
1/4	1/4	-0404	S77-0404	S105-0404
1/4	3/8	-0406	S77-0406	
3/8	3/8	-0606	S77-0606	S105-0606
3/8	1/2	-0608	S77-0608	
1/2	3/8	-0806		S105-0806
1/2	1/2	-0808	S77-0808	S105-0808
1/2	3/4	-0812	S77-0812	S105-0812
3/4	1/2	-1208		S105-1208
3/4	3/4	-1212	S77-1212	S105-1212
3/4	1	-1216	S77-1216	S105-1216
1	1	-1616	S77-1616	S105-1616
1.1/4	1.1/4	-2020		S105-2020

ADAPTORS

BSP ADAPTORS

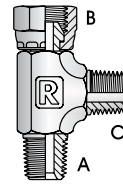
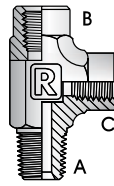
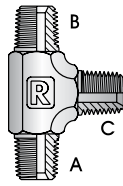
BSP/BSP

S50

S48

S167

TEE



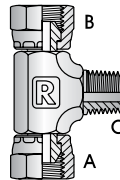
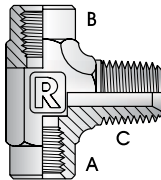
THREAD			DASH SIZE	BSPT MALE	BSPT MALE	BSPT MALE
A	B	C		BSPT MALE	BSPT FEMALE FIXED	BSPT FEMALE FIXED
inch	inch	inch		PART NO	PART NO	PART NO
1/8	1/8	1/8	-020202	S50-020202	S48-020202	
1/4	1/4	1/4	-040404	S50-040404	S48-040404	S167-040404
3/8	3/8	3/8	-060606	S50-060606	S48-060606	S167-060606
3/8	3/8	1/2	-060608	S50-060608		
1/2	1/2	1/2	-080808	S50-080808	S48-080808	S167-080808
1/2	1/2	3/4	-080812	S50-080812		
3/4	1/2	3/4	-120812	S50-120812		
3/4	3/4	1/2	-121208	S50-121208		
3/4	3/4	3/4	-121212	S50-121212	S48-121212	S167-121212
1	3/4	1	-161216	S50-161216		
1	1	1	-161616	S50-161616	S48-161616	S167-161616
1.1/4	1.1/4	1.1/4	-202020	S50-202020		

BSP/BSP

S47

S83

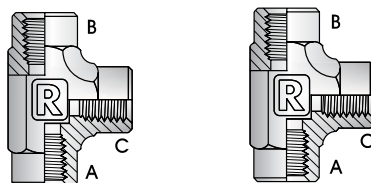
TEE



THREAD			DASH SIZE	BSPT FEMALE FIXED	BSPT FEMALE FIXED	BSPT FEMALE FIXED
A	B	C		BSPT FEMALE FIXED	BSPT FEMALE FIXED	BSPT FEMALE FIXED
inch	inch	inch		PART NO	PART NO	PART NO
1/4	1/4	1/4	-040404		S83-040404	
3/8	3/8	3/8	-060606		S83-060606	
1/2	1/2	1/2	-080808	S47-080808	S83-080808	
3/4	3/4	3/4	-121212	S47-121212	S83-121212	
1	1	1	-161616		S83-161616	

BSP/BSP S29 S139

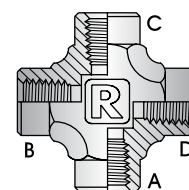
TEE



THREAD			DASH SIZE	BSPT FEMALE FIXED	BSPP FEMALE FIXED
A	B	C		BSPT FEMALE FIXED	BSPP FEMALE FIXED
inch	inch	inch		PART NO	PART NO
1/8	1/8	1/8	-020202	S29-020202	
1/4	1/4	1/4	-040404	S29-040404	S139-040404
3/8	3/8	3/8	-060606	S29-060606	
1/2	1/2	1/2	-080808	S29-080808	
3/4	3/4	3/4	-121212	S29-121212	
1	1	1	-161616	S29-161616	
1.1/4	1.1/4	1.1/4	-202020	S29-202020	
2	2	2	-323232	S29-323232	S139-323232

BSP/BSP S32

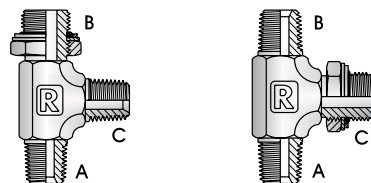
CROSS



THREAD	DASH SIZE	BSPT FEMALE FIXED
A, B, C, D	SIZE	CROSS
inch		PART NO
1/4	-04040404	S32-04040404
3/8	-06060606	S32-06060606
1/2	-08080808	S32-08080808
3/4	-12121212	S32-12121212
1	-16161616	S32-16161616

BSP/BSPP O RING S104 S135

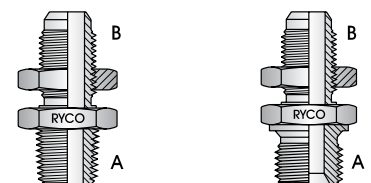
**TEE
O RING & RETAINING
RING SUPPLIED**



THREAD			DASH SIZE	BSPT MALE	BSPP MALE
A	B	C		BSPT MALE	BSPP MALE
inch	inch	inch		PART NO	PART NO
1/4	1/4	1/4	-040404	S104-040404	
1/4	3/8	1/4	-040604	S104-040604	
3/8	3/8	3/8	-060606	S104-060606	S135-060606
1/2	1/2	1/2	-080808	S104-080808	
3/4	3/4	3/4	-121212	S104-121212	
1	1	1	-161616	S104-161616	
1.1/4	1.1/4	1.1/4	-202020	S104-202020	

BSP/JIC S130 S130P

BULKHEAD



THREAD	DASH SIZE	BSPTM NO SEAT	BSPP MALE
A	B	JICM BULKHEAD	JICM BULKHEAD
inch	inch	PART NO	PART NO
3/8	9/16	-0609	S130P-0609
1/2	3/4	-0812	S130-0812
1/2	7/8	-0814	S130P-0814

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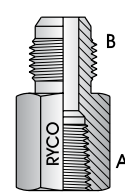
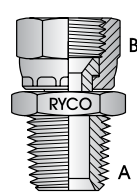
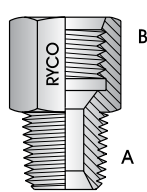
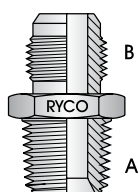
TECHNICAL

ADAPTORS

BSP ADAPTORS

BSP/JIC	S7	S128	S61	S16
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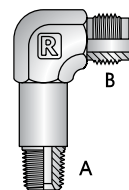
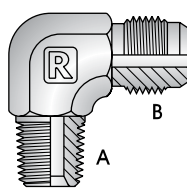
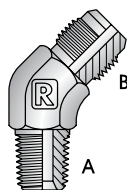
STRAIGHT



THREAD		DASH SIZE	BSPT MALE JIC MALE	BSPT MALE JIC/UN O RING FEMALE FIXED DUAL SEAT	BSPT MALE JIC FEMALE SWIVEL	BSPT FEMALE FIXED JIC MALE
A	B					
inch	inch		PART NO	PART NO	PART NO	PART NO
1/8	3/8	-0206	S7-0206			
1/8	7/16	-0207	S7-0207			S16-0207
1/8	1/2	-0208	S7-0208			
1/8	9/16	-0209	S7-0209			S16-0209
1/4	7/16	-0407	S7-0407		S61-0407	
1/4	1/2	-0408	S7-0408			
1/4	9/16	-0409	S7-0409		S61-0409	S16-0409
1/4	3/4	-0412	S7-0412			
1/4	7/8	-0414		S128-0414		
3/8	7/16	-0607	S7-0607			
3/8	1/2	-0608	S7-0608			
3/8	9/16	-0609	S7-0609		S61-0609	
3/8	3/4	-0612	S7-0612		S61-0612	S16-0612
3/8	7/8	-0614	S7-0614		S61-0614	
3/8	1.1/16	-0617	S7-0617			
1/2	7/16	-0807	S7-0807			
1/2	9/16	-0809	S7-0809			S16-0809
1/2	3/4	-0812	S7-0812	S128-0812	S61-0812	S16-0812
1/2	7/8	-0814	S7-0814	S128-0814	S61-0814	S16-0814
1/2	1.1/16	-0817	S7-0817			S16-0817
1/2	1.5/16	-0821	S7-0821			
5/8	3/4	-1012	S7-1012			
3/4	9/16	-1209	S7-1209			
3/4	3/4	-1212	S7-1212			
3/4	7/8	-1214	S7-1214			
3/4	1.1/16	-1217	S7-1217		S61-1217	S16-1217
3/4	1.3/16	-1219	S7-1219			
3/4	1.5/16	-1221	S7-1221			
1	7/8	-1614	S7-1614			
1	1.1/16	-1617	S7-1617			
1	1.3/16	-1619	S7-1619			
1	1.5/16	-1621	S7-1621		S61-1621	
1	1.5/8	-1626	S7-1626			
1.1/4	1.1/16	-2017	S7-2017			
1.1/4	1.5/16	-2021	S7-2021			
1.1/4	1.5/8	-2026	S7-2026			
1.1/2	1.5/16	-2421	S7-2421			
1.1/2	1.5/8	-2426	S7-2426		S61-2426	
1.1/2	1.7/8	-2430	S7-2430			
2	2.1/2	-3240	S7-3240			

BSP/JIC **S9** **S8** **S11**

45° ELBOW
90° ELBOW



THREAD		DASH SIZE	BSPT MALE JIC MALE 45° ELBOW	BSPT MALE JIC MALE 90° ELBOW	BSPT MALE EXT JIC MALE 90° ELBOW
A	B		PART NO	PART NO	PART NO
1/8	7/16	-0207	S9-0207	S8-0207	S11-0207
1/8	1/2	-0208		S8-0208	
1/8	9/16	-0209		S8-0209	
1/4	7/16	-0407	S9-0407	S8-0407	
1/4	1/2	-0408	S9-0408	S8-0408	
1/4	9/16	-0409	S9-0409	S8-0409	
1/4	3/4	-0412	S9-0412	S8-0412	
3/8	7/16	-0607		S8-0607	
3/8	1/2	-0608		S8-0608	
3/8	9/16	-0609	S9-0609	S8-0609	
3/8	3/4	-0612	S9-0612	S8-0612	
3/8	7/8	-0614	S9-0614	S8-0614	
1/2	7/16	-0807		S8-0807	
1/2	9/16	-0809	S9-0809	S8-0809	
1/2	3/4	-0812	S9-0812	S8-0812	
1/2	7/8	-0814	S9-0814	S8-0814	S11-0814
1/2	1.1/16	-0817	S9-0817	S8-0817	
5/8	7/8	-1014		S8-1014	
3/4	9/16	-1209		S8-1209	
3/4	3/4	-1212		S8-1212	
3/4	7/8	-1214	S9-1214	S8-1214	
3/4	1.1/16	-1217	S9-1217	S8-1217	
3/4	1.3/16	-1219		S8-1219	
3/4	1.5/16	-1221	S9-1221	S8-1221	
1	1.1/16	-1617		S8-1617	
1	1.5/16	-1621	S9-1621	S8-1621	
1	1.5/8	-1626	S9-1626	S8-1626	
1.1/4	1.5/16	-2021		S8-2021	
1.1/4	1.5/8	-2026	S9-2026	S8-2026	
1.1/2	1.7/8	-2430	S9-2430	S8-2430	

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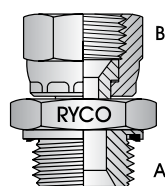
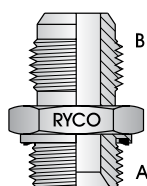
BSP ADAPTORS

BSPP/JIC

S74

S71

STRAIGHT
SEAL SUPPLIED

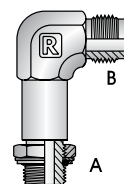
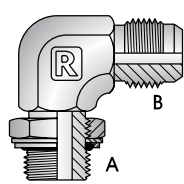
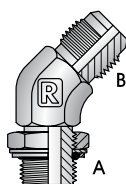


THREAD		DASH SIZE	BSPP	BSPP
A	B		ENCAPSULATED MALE JIC MALE	ENCAPSULATED MALE JIC FEMALE SWIVEL
inch	inch		PART NO	PART NO
1/8	7/16	-0207	S74-0207	
1/8	9/16	-0209	S74-0209	
1/4	7/16	-0407	S74-0407	S71-0407
1/4	1/2	-0408	S74-0408	
1/4	9/16	-0409	S74-0409	S71-0409
1/4	3/4	-0412	S74-0412	
1/4	1.1/16	-0417	S74-0417	
3/8	7/16	-0607	S74-0607	
3/8	9/16	-0609	S74-0609	S71-0609
3/8	3/4	-0612	S74-0612	S71-0612
3/8	7/8	-0614	S74-0614	S71-0614
3/8	1.1/16	-0617	S74-0617	
1/2	7/16	-0807	S74-0807	
1/2	1/2	-0808		S71-0808
1/2	9/16	-0809	S74-0809	
1/2	3/4	-0812	S74-0812	S71-0812
1/2	7/8	-0814	S74-0814	S71-0814
1/2	1.1/16	-0817	S74-0817	
3/4	9/16	-1209	S74-1209	
3/4	3/4	-1212	S74-1212	
3/4	7/8	-1214	S74-1214	S71-1214
3/4	1.1/16	-1217	S74-1217	S71-1217
3/4	1.5/16	-1221	S74-1221	
3/4	1.5/8	-1226	S74-1226	
1	1.1/16	-1617	S74-1617	S71-1617
1	1.5/16	-1621	S74-1621	S71-1621
1	1.5/8	-1626	S74-1626	
1.1/4	1.1/16	-2017	S74-2017	
1.1/4	1.5/16	-2021	S74-2021	S71-2021
1.1/4	1.5/8	-2026	S74-2026	
1.1/2	1.1/16	-2417	S74-2417	
1.1/2	1.5/16	-2421	S74-2421	
1.1/2	1.5/8	-2426	S74-2426	
1.1/2	1.7/8	-2430	S74-2430	
2	1.5/16	-3221	S74-3221	

NOTE: S71 and S74 were previously O Ring & Retaining Ring design. Stock of previous design may exist and may be supplied.

BSP O RING/JIC **S69** **S76** **S70**

**45° ELBOW
90° ELBOW
O RING & RETAINING
RING SUPPLIED**



THREAD		DASH SIZE	BSP O RING MALE	BSP O RING MALE	BSP O RING MALE EXT
A	B		JIC MALE 45° ELBOW	JIC MALE 90° ELBOW	JIC MALE 90° ELBOW
inch	inch		PART NO	PART NO	PART NO
1/8	7/16	-0207		S76-0207	
1/8	9/16	-0209		S76-0209	
1/4	7/16	-0407		S76-0407	
1/4	1/2	-0408		S76-0408	
1/4	9/16	-0409	S69-0409	S76-0409	
1/4	3/4	-0412		S76-0412	
3/8	7/16	-0607		S76-0607	
3/8	9/16	-0609		S76-0609	S70-0609
3/8	3/4	-0612		S76-0612	S70-0612
3/8	7/8	-0614		S76-0614	
1/2	1/2	-0808		S76-0808	
1/2	9/16	-0809	S69-0809	S76-0809	
1/2	3/4	-0812	S69-0812	S76-0812	S70-0812
1/2	7/8	-0814	S69-0814	S76-0814	S70-0814
1/2	1.1/16	-0817		S76-0817	
3/4	9/16	-1209		S76-1209	
3/4	3/4	-1212		S76-1212	
3/4	7/8	-1214		S76-1214	
3/4	1.1/16	-1217		S76-1217	S70-1217
3/4	1.5/16	-1221		S76-1221	
1	1.1/16	-1617		S76-1617	
1	1.5/16	-1621	S69-1621	S76-1621	S70-1621
1.1/4	1.5/16	-2021		S76-2021	
1.1/4	1.5/8	-2026		S76-2026	

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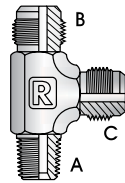
ADAPTORS

BSP ADAPTORS

BSP/JIC

S21

TEE

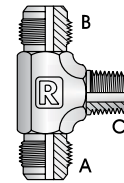


THREAD			DASH SIZE	BSPT MALE JIC MALE JIC MALE
A	B	C		
inch	inch	inch		PART NO
1/8	7/16	7/16	-020707	S21-020707
1/4	7/16	7/16	-040707	S21-040707
1/4	9/16	9/16	-040909	S21-040909
3/8	9/16	9/16	-060909	S21-060909
3/8	9/16	3/4	-060912	S21-060912
3/8	3/4	3/4	-061212	S21-061212
1/2	3/4	3/4	-081212	S21-081212
1/2	7/8	7/8	-081414	S21-081414
1/2	1.1/16	1.1/16	-081717	S21-081717
3/4	1.1/16	1.1/16	-121717	S21-121717
1	1.1/16	1.1/16	-161717	S21-161717
1	1.5/16	1.5/16	-162121	S21-162121

BSP/JIC

S20

TEE

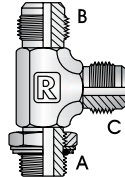


THREAD			DASH SIZE	JIC MALE JIC MALE BSPT MALE
A	B	C		
inch	inch	inch		PART NO
7/16	7/16	1/8	-070702	S20-070702
7/16	7/16	1/4	-070704	S20-070704
1/2	1/2	1/4	-080804	S20-080804
1/2	1/2	1/2	-080808	S20-080808
9/16	9/16	1/4	-090904	S20-090904
3/4	3/4	3/8	-121206	S20-121206
3/4	3/4	1/2	-121208	S20-121208
3/4	1.1/16	1/2	-121708	S20-121708
7/8	7/8	3/8	-141406	S20-141406
7/8	7/8	1/2	-141408	S20-141408
1.1/16	1.1/16	3/4	-171712	S20-171712
1.1/16	1.1/16	1	-171716	S20-171716
1.5/16	1.5/16	3/4	-212112	S20-212112
1.5/8	1.5/8	1.1/4	-262620	S20-262620

BSPP O RING/JIC

S78

TEE
O RING & RETAINING
RING SUPPLIED

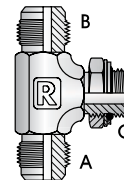


THREAD			DASH SIZE	BSPP O RING MALE JIC MALE JIC MALE
A	B	C		
inch	inch	inch		PART NO
1/4	7/16	7/16	-040707	S78-040707
1/4	9/16	9/16	-040909	S78-040909
1/4	3/4	3/4	-041212	S78-041212
3/8	9/16	9/16	-060909	S78-060909
3/8	3/4	3/4	-061212	S78-061212
1/2	3/4	3/4	-081212	S78-081212
1/2	7/8	7/8	-081414	S78-081414
1/2	1.1/16	1.1/16	-081717	S78-081717
3/4	3/4	3/4	-121212	S78-121212
3/4	1.1/16	1.1/16	-121717	S78-121717
1	1.5/16	1.5/16	-162121	S78-162121
1.1/4	1.1/16	1.1/16	-201717	S78-201717
1.1/4	1.5/8	1.5/8	-202626	S78-202626

BSPP O RING/JIC

S79

TEE
O RING & RETAINING
RING SUPPLIED



THREAD			DASH SIZE	JIC MALE JIC MALE BSPP O RING MALE
A	B	C		
inch	inch	inch		PART NO
7/16	7/16	1/4	-070704	S79-070704
9/16	9/16	1/4	-090904	S79-090904
9/16	9/16	3/8	-090906	S79-090906
3/4	3/4	3/8	-121206	S79-121206
3/4	3/4	1/2	-121208	S79-121208
7/8	7/8	1/2	-141408	S79-141408
7/8	7/8	3/4	-141412	S79-141412
1.1/16	1.1/16	3/4	-171712	S79-171712
1.5/16	1.5/16	3/4	-212112	S79-212112
1.5/16	1.5/16	1	-212116	S79-212116
1.5/8	1.5/8	1.1/4	-262620	S79-262620

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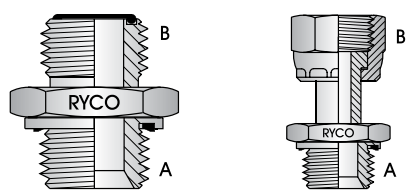
ACCESSORIES

FILTERS

TECHNICAL

BSP/ORFS **S180** **S181**

**STRAIGHT
SEAL SUPPLIED**

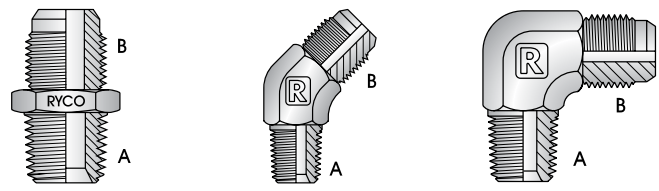


THREAD		DASH SIZE	BSPP MALE	BSPP MALE
A	B		ORFS MALE	ORFS FEMALE SWIVEL
inch	inch		PART NO	PART NO
1/4	11/16	-0411	S180-0411	S181-0411
3/8	11/16	-0611	S180-0611	S181-0611
3/8	13/16	-0613	S180-0613	S181-0613
1/2	13/16	-0813	S180-0813	S181-0813
3/4	1.3/16	-1219	S180-1219	

NOTE: S180 and S181 were previously O Ring & Retaining Ring design. Stock of previous design may exist and may be supplied.

BSP/SAE **SA7** **SA9** **SA8**

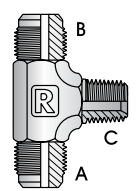
**STRAIGHT
45° ELBOW
90° ELBOW**



THREAD		DASH SIZE	BSPT MALE	BSPT MALE	BSPT MALE
A	B		SAE MALE	SAE MALE 45° ELBOW	SAE MALE 90° ELBOW
inch	inch		PART NO	PART NO	PART NO
1/8	3/8	-0206			SA8-0206
1/8	5/8	-0210			SA8-0210
1/4	5/8	-0410	SA7-0410	SA9-0410	SA8-0410
3/8	5/8	-0610	SA7-0610	SA9-0610	SA8-0610
3/4	1.1/16	-1217	SA7-1217		SA8-1217

BSP/SAE **SA20**

TEE



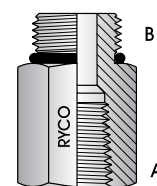
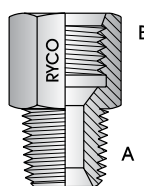
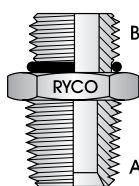
THREAD			DASH SIZE	SAE MALE
A	B	C		SAE MALE BSPT MALE
inch	inch	inch		PART NO
3/4	3/4	3/8	-121206	SA20-121206

ADAPTORS

BSP ADAPTORS

BSP/UNO	S93	S128	S85	S96
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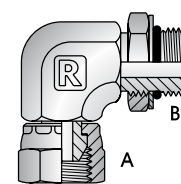
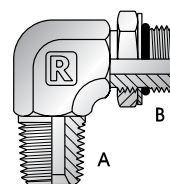
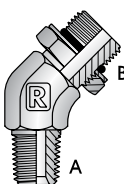
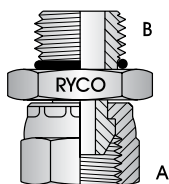
**STRAIGHT
O RING SUPPLIED**



THREAD		DASH SIZE	BSPT MALE UN O RING MALE	BSPT MALE JIC/UN O RING FEMALE FIXED DUAL SEAT	BSPT FEMALE FIXED UN O RING MALE REDUCING BUSH	BSPT FEMALE FIXED UN O RING MALE
A	B					
inch	inch		PART NO	PART NO	PART NO	PART NO
1/8	9/16	-0209			S85-0209	
1/8	3/4	-0212			S85-0212	
1/8	7/8	-0214			S85-0214	
1/4	9/16	-0409	S93-0409			S96-0409
1/4	3/4	-0412	S93-0412		S85-0412	
1/4	7/8	-0414	S93-0414	S128-0414	S85-0414	
1/4	1.1/16	-0417			S85-0417	
1/4	1.5/16	-0421			S85-0421	
3/8	9/16	-0609	S93-0609			
3/8	3/4	-0612	S93-0612			S96-0612
3/8	7/8	-0614	S93-0614		S85-0614	S96-0614
3/8	1.1/16	-0617	S93-0617		S85-0617	
3/8	1.5/16	-0621			S85-0621	
1/2	9/16	-0809	S93-0809			
1/2	3/4	-0812	S93-0812	S128-0812		S96-0812
1/2	7/8	-0814	S93-0814	S128-0814	S85-0814	S96-0814
1/2	1.1/16	-0817	S93-0817		S85-0817	
1/2	1.5/16	-0821			S85-0821	
1/2	1.5/8	-0826			S85-0826	
5/8	7/8	-1014	S93-1014			
5/8	1.1/16	-1017	S93-1017			
3/4	3/4	-1212	S93-1212			
3/4	7/8	-1214	S93-1214			
3/4	1.1/16	-1217	S93-1217			
3/4	1.5/16	-1221	S93-1221		S85-1221	
3/4	1.5/8	-1226			S85-1226	
1	1.1/16	-1617	S93-1617			
1	1.5/16	-1621	S93-1621			
1	1.5/8	-1626	S93-1626		S85-1626	
1.1/4	1.5/16	-2021	S93-2021			
1.1/4	1.5/8	-2026	S93-2026			
1.1/2	1.5/8	-2426	S93-2426			
1.1/2	1.7/8	-2430	S93-2430			

BSP/UNO **S95** **S60** **S89** **S94**

**STRAIGHT
45° ELBOW
90° ELBOW
O RING SUPPLIED**



THREAD		DASH SIZE	BSPP FEMALE SWIVEL UN O RING MALE	BSPT MALE UN O RING MALE 45° ELBOW	BSPT MALE UN O RING MALE 90° ELBOW	BSPP FEMALE SWIVEL UN O RING MALE 90° ELBOW
A	B					
inch	inch		PART NO	PART NO	PART NO	PART NO
1/8	7/16	-0207				S94-0207
1/4	9/16	-0409	S95-0409	S60-0409	S89-0409	S94-0409
1/4	3/4	-0412			S89-0412	
1/4	7/8	-0414				
3/8	9/16	-0609			S89-0609	
3/8	3/4	-0612	S95-0612	S60-0612	S89-0612	S94-0612
3/8	7/8	-0614	S95-0614	S60-0614	S89-0614	
3/8	1.1/16	-0617				
1/2	3/4	-0812	S95-0812	S60-0812	S89-0812	S94-0812
1/2	7/8	-0814	S95-0814	S60-0814	S89-0814	S94-0814
1/2	1.1/16	-0817		S60-0817	S89-0817	
3/4	3/4	-1212			S89-1212	
3/4	7/8	-1214	S95-1214		S89-1214	
3/4	1.1/16	-1217	S95-1217	S60-1217	S89-1217	S94-1217
3/4	1.5/16	-1221				
1	1.5/16	-1621	S95-1621	S60-1621	S89-1621	S94-1621
1	1.5/8	-1626			S89-1626	
1.1/4	1.5/8	-2026			S89-2026	S94-2026

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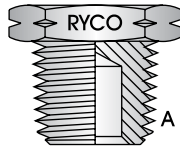
ADAPTORS

NPT ADAPTORS

NPT

S64N

PLUG

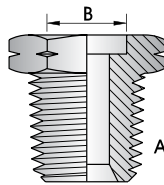


THREAD A	DASH SIZE	NPT MALE PLUG
inch		PART NO
1/8	-02	S64N-02
1/4	-04	S64N-04
3/8	-06	S64N-06
1/2	-08	S64N-08
3/4	-12	S64N-12
1	-16	S64N-16
1.1/4	-20	S64N-20
1.1/2	-24	S64N-24
2	-32	S64N-32

NPT

S53N

TUBE WELD

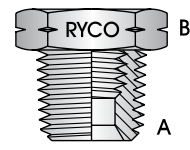


THREAD A	TUBE OD A	DASH SIZE	NPT MALE TUBE WELD
inch	inch		PART NO
3/8	1/2	-0608	S53N-0608
3/4	3/4	-1212	S53N-1212

NPT/NPT

S24N

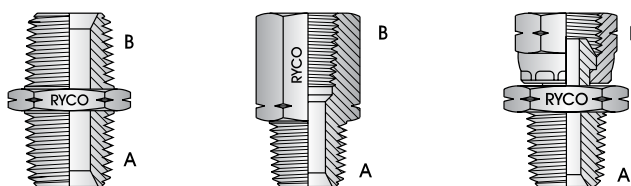
REDUCING BUSH



THREAD		DASH SIZE	NPT MALE NPT FEMALE FIXED REDUCING BUSH
A	B		
inch	inch		PART NO
1/4	1/8	-0402	S24N-0402
3/8	1/8	-0602	S24N-0602
3/8	1/4	-0604	S24N-0604
1/2	1/8	-0802	S24N-0802
1/2	1/4	-0804	S24N-0804
1/2	3/8	-0806	S24N-0806
3/4	1/8	-1202	S24N-1202
3/4	1/4	-1204	S24N-1204
3/4	3/8	-1206	S24N-1206
3/4	1/2	-1208	S24N-1208
1	3/8	-1606	S24N-1606
1	1/2	-1608	S24N-1608
1	3/4	-1612	S24N-1612
1.1/4	1/2	-2008	S24N-2008
1.1/4	3/4	-2012	S24N-2012
1.1/4	1	-2016	S24N-2016
1.1/2	1/2	-2408	S24N-2408
1.1/2	1	-2416	S24N-2416
1.1/2	1.1/4	-2420	S24N-2420
2	1.1/2	-3224	S24N-3224

NPT/NPT **S27N** **S72N** **S80N**

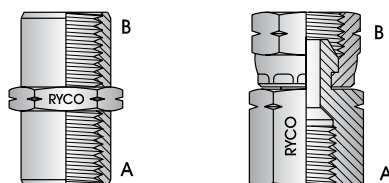
STRAIGHT



THREAD		DASH SIZE	NPT MALE	NPT MALE	NPT MALE
A	B		NPT MALE NIPPLE	NPT FEMALE FIXED	NPSM FEMALE SWIVEL
inch	inch		PART NO	PART NO	PART NO
1/8	1/8	-0202	S27N-0202	S72N-0202	S80N-0202
1/8	1/4	-0204		S72N-0204	
1/4	1/8	-0402	S27N-0402		
1/4	1/4	-0404	S27N-0404	S72N-0404	S80N-0404
1/4	3/8	-0406		S72N-0406	
3/8	1/4	-0604	S27N-0604		
3/8	3/8	-0606	S27N-0606	S72N-0606	S80N-0606
3/8	1/2	-0608		S72N-0608	S80N-0608
1/2	1/4	-0804	S27N-0804		
1/2	3/8	-0806	S27N-0806		
1/2	1/2	-0808	S27N-0808	S72N-0808	S80N-0808
1/2	3/4	-0812		S72N-0812	
3/4	1/2	-1208	S27N-1208		
3/4	3/4	-1212	S27N-1212	S72N-1212	S80N-1212
1	3/4	-1612	S27N-1612		
1	1	-1616	S27N-1616	S72N-1616	S80N-1616
1.1/4	1	-2016	S27N-2016		
1.1/4	1.1/4	-2020	S27N-2020		S80N-2020
1.1/2	3/4	-2412	S27N-2412		
1.1/2	1.1/2	-2424	S27N-2424		
2	1.1/2	-3224	S27N-3224		
2	2	-3232			S80N-3232

NPT/NPT **S26N** **S81N**

STRAIGHT



THREAD		DASH SIZE	NPT FEMALE	NPT FEMALE FIXED
A	B		SOCKET	NPSM FEMALE SWIVEL
inch	inch		PART NO	PART NO
1/8	1/8	-0202	S26N-0202	S81N-0202
1/4	1/4	-0404	S26N-0404	S81N-0404
3/8	3/8	-0606	S26N-0606	S81N-0606
1/2	1/2	-0808	S26N-0808	S81N-0808
3/4	3/4	-1212	S26N-1212	S81N-1212
1	1	-1616	S26N-1616	S81N-1616
1.1/4	1.1/4	-2020		S81N-2020
2	2	-3232	S26N-3232	

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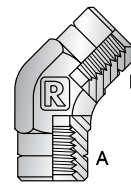
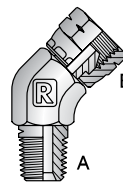
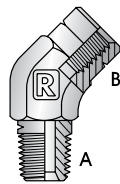
NPT/NPT

S39N

S84N

S31N

45° ELBOW



THREAD		DASH SIZE	NPT MALE NPT FEMALE FIXED 45° ELBOW	NPT MALE NPSM FEMALE SWIVEL 45° ELBOW	NPT FEMALE FIXED NPT FEMALE FIXED 45° ELBOW
A	B		PART NO	PART NO	PART NO
1/8	1/8	-0202	S39N-0202		S31N-0202
1/4	1/4	-0404	S39N-0404	S84N-0404	
3/8	3/8	-0606		S84N-0606	
1/2	3/8	-0806		S84N-0806	
1/2	1/2	-0808		S84N-0808	
1	1	-1616		S84N-1616	
1.1/4	1.1/4	-2020		S84N-2020	

NPT/NPT

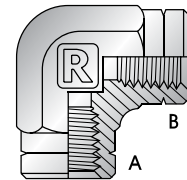
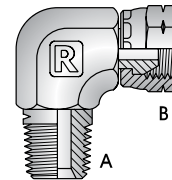
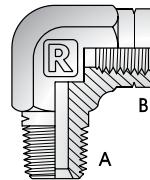
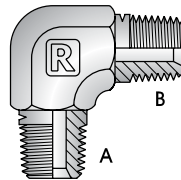
S49N

S25N

S82N

S28N

90° ELBOW



THREAD		DASH SIZE	NPT MALE NPT MALE 90° ELBOW	NPT MALE NPT FEMALE FIXED 90° ELBOW	NPT MALE NPSM FEMALE SWIVEL 90° ELBOW	NPT FEMALE FIXED NPT FEMALE FIXED 90° ELBOW
A	B		PART NO	PART NO	PART NO	PART NO
1/8	1/8	-0202	S49N-0202	S25N-0202		S28N-0202
1/4	1/4	-0404	S49N-0404	S25N-0404	S82N-0404	S28N-0404
3/8	1/4	-0604	S49N-0604			
3/8	3/8	-0606	S49N-0606	S25N-0606	S82N-0606	S28N-0606
1/2	1/2	-0808	S49N-0808	S25N-0808	S82N-0808	S28N-0808
3/4	3/4	-1212	S49N-1212	S25N-1212	S82N-1212	S28N-1212
1	1	-1616	S49N-1616	S25N-1616	S82N-1616	S28N-1616
1.1/4	1.1/4	-2020		S25N-2020	S82N-2020	

NPT/NPT

S50N

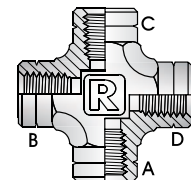
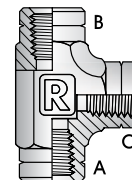
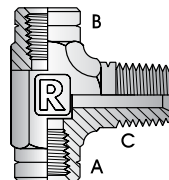
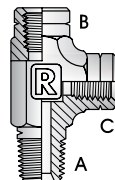
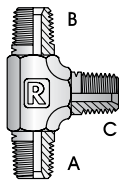
S48N

S47N

S29N

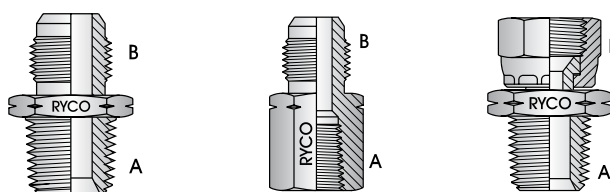
S32N

TEE CROSS



THREAD ALL ENDS	DASH SIZE	NPT MALE NPT MALE NPT MALE	NPT MALE NPT FEMALE FIXED NPT FEMALE FIXED	NPT FEMALE FIXED NPT FEMALE FIXED NPT MALE	NPT FEMALE FIXED NPT FEMALE FIXED NPT FEMALE FIXED	NPT FEMALE FIXED CROSS
inch		PART NO	PART NO	PART NO	PART NO	PART NO
1/8	-020202	S50N-020202	S48N-020202		S29N-020202	
1/4	-040404	S50N-040404	S48N-040404	S47N-040404	S29N-040404	S32N-04040404
3/8	-060606	S50N-060606	S48N-060606		S29N-060606	S32N-06060606
1/2	-080808	S50N-080808	S48N-080808		S29N-080808	S32N-08080808
3/4	-121212	S50N-080808	S48N-121212		S29N-121212	S32N-12121212
1	-161616		S48N-161616		S29N-161616	S32N-16161616
1.1/4	-202020				S29N-202020	
1.1/2	-242424				S29N-242424	

NPT/JIC	S7N	S16N	S61N
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STRAIGHT


THREAD		DASH SIZE	NPT MALE JIC MALE	NPT FEMALE FIXED JIC MALE	NPT MALE JIC FEMALE SWIVEL
A	B				
inch	inch		PART NO	PART NO	PART NO
1/8	7/16	-0207	S7N-0207	S16N-0207	
1/8	1/2	-0208	S7N-0208		
1/8	9/16	-0209	S7N-0209		
1/4	7/16	-0407	S7N-0407	S16N-0407	S61N-0407
1/4	1/2	-0408	S7N-0408	S16N-0408	
1/4	9/16	-0409	S7N-0409	S16N-0409	S61N-0409
1/4	3/4	-0412	S7N-0412		
3/8	7/16	-0607	S7N-0607		
3/8	1/2	-0608	S7N-0608		
3/8	9/16	-0609	S7N-0609	S16N-0609	
3/8	3/4	-0612	S7N-0612		S61N-0612
3/8	7/8	-0614	S7N-0614		
3/8	1.1/16	-0617	S7N-0617		
1/2	7/8	-0807	S7N-0807		
1/2	9/16	-0809	S7N-0809		
1/2	3/4	-0812	S7N-0812	S16N-0812	S61N-0812
1/2	7/8	-0814	S7N-0814		
1/2	1.1/16	-0817	S7N-0817	S16N-0817	
3/4	9/16	-1209	S7N-1209		
3/4	3/4	-1212	S7N-1212		
3/4	7/8	-1214	S7N-1214		
3/4	1.1/16	-1217	S7N-1217	S16N-1217	
3/4	1.3/16	-1219	S7N-1219		
3/4	1.5/16	-1221	S7N-1221		
1	3/4	-1612	S7N-1612		
1	7/8	-1614	S7N-1614		
1	1.1/16	-1617	S7N-1617		
1	1.3/16	-1619	S7N-1619		
1	1.5/16	-1621	S7N-1621		
1	1.5/8	-1626	S7N-1626		
1.1/4	1.1/16	-2017	S7N-2017		
1.1/4	1.5/16	-2021	S7N-2021		
1.1/4	1.5/8	-2026	S7N-2026		
1.1/2	1.5/8	-2426	S7N-2426		
1.1/2	1.7/8	-2430	S7N-2430		
2	2.1/2	-3240	S7N-3240		

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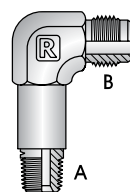
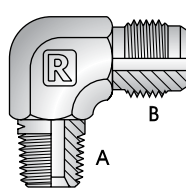
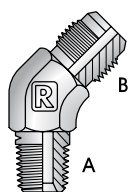
NPT/JIC

S9N

S8N

S11N

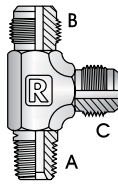
45° ELBOW
90° ELBOW



THREAD		DASH SIZE	NPT MALE JIC MALE 45° ELBOW	NPT MALE JIC MALE 90° ELBOW	NPT MALE EXT JIC MALE 90° ELBOW
A	B				
inch	inch		PART NO	PART NO	PART NO
1/8	7/16	-0207	S9N-0207	S8N-0207	S11N-0207
1/8	1/2	-0208		S8N-0208	
1/8	9/16	-0209		S8N-0209	
1/4	7/16	-0407	S9N-0407	S8N-0407	
1/4	1/2	-0408	S9N-0408	S8N-0408	
1/4	9/16	-0409	S9N-0409	S8N-0409	
1/4	3/4	-0412	S9N-0412	S8N-0412	
3/8	7/16	-0607		S8N-0607	
3/8	1/2	-0608		S8N-0608	
3/8	9/16	-0609	S9N-0609	S8N-0609	
3/8	3/4	-0612	S9N-0612	S8N-0612	
3/8	7/8	-0614	S9N-0614	S8N-0614	
1/2	9/16	-0809	S9N-0809	S8N-0809	
1/2	3/4	-0812	S9N-0812	S8N-0812	
1/2	7/8	-0814	S9N-0814	S8N-0814	
1/2	1.1/16	-0817	S9N-0817	S8N-0817	
3/4	3/4	-1212		S8N-1212	
3/4	7/8	-1214	S9N-1214	S8N-1214	
3/4	1.1/16	-1217	S9N-1217	S8N-1217	
3/4	1.3/16	-1219		S8N-1219	
3/4	1.5/16	-1221	S9N-1221	S8N-1221	
1	1.1/16	-1617		S8N-1617	
1	1.5/16	-1621	S9N-1621	S8N-1621	
1	1.5/8	-1626		S8N-1626	
1.1/4	1.5/16	-2021		S8N-2021	
1.1/4	1.5/8	-2026	S9N-2026	S8N-2026	
1.1/2	1.7/8	-2430	S9N-2430	S8N-2430	
2	2.1/2	-3240	S9N-3240	S8N-3240	

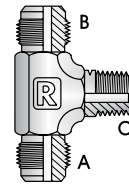
NPT/JIC S21N

TEE



NPT/JIC S20N

TEE

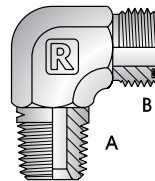
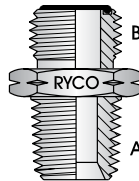


THREAD			DASH SIZE	NPT MALE JIC MALE JIC MALE	PART NO
A	B	C			
1/8	7/16	7/16	-020707		S21N-020707
1/4	7/16	7/16	-040707		S21N-040707
1/4	9/16	9/16	-040909		S21N-040909
3/8	9/16	9/16	-060909		S21N-060909
3/8	3/4	3/4	-061212		S21N-061212
1/2	3/4	3/4	-081212		S21N-081212
1/2	7/8	7/8	-081414		S21N-081414
3/4	1.1/16	1.1/16	-121717		S21N-121717

THREAD			DASH SIZE	JIC MALE JIC MALE NPT MALE	PART NO
A	B	C			
7/16	7/16	1/8	-070702		S20N-070702
7/16	7/16	1/4	-070704		S20N-070704
1/2	1/2	1/4	-080804		S20N-080804
9/16	9/16	1/4	-090904		S20N-090904
9/16	9/16	3/8	-090906		S20N-090906
3/4	3/4	3/8	-121206		S20N-121206
3/4	3/4	1/2	-121208		S20N-121208
7/8	7/8	1/2	-141408		S20N-141408
1.1/16	1.1/16	3/4	-171712		S20N-171712
1.5/16	1.5/16	1	-212116		S20N-212116

NPT/ORFS S114N S145N

STRAIGHT
90° ELBOW
O RING INCLUDED



THREAD		DASH SIZE	NPT MALE ORFS MALE	NPT MALE ORFS MALE 90° ELBOW
A	B			
1/4	9/16	-0409	S114N-0409	S145N-0409
3/8	11/16	-0611	S114N-0611	S145N-0611
1/2	13/16	-0813	S114N-0813	S145N-0813
1/2	1	-0816	S114N-0816	S145N-0816
3/4	1.3/16	-1219	S114N-1219	S145N-1219
1	1.7/16	-1623	S114N-1623	S145N-1623

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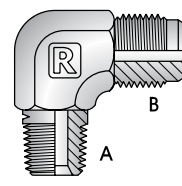
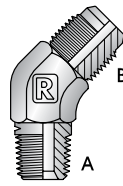
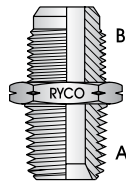
NPT/SAE

SA7N

SA9N

SA8N

STRAIGHT
45° ELBOW
90° ELBOW

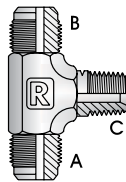


THREAD		DASH SIZE	NPT MALE SAE MALE	NPT MALE SAE MALE 45° ELBOW	NPT MALE SAE MALE 90° ELBOW
A	B				
inch	inch		PART NO	PART NO	PART NO
1/8	1/2	-0208	SA7N-0208		
1/8	5/8	-0210	SA7N-0210		SA8N-0210
1/4	7/16	-0407	SA7N-0407		SA8N-0407
1/4	1/2	-0408	SA7N-0408		SA8N-0408
1/4	5/8	-0410	SA7N-0410	SA9N-0410	SA8N-0410
3/8	1/2	-0608	SA7N-0608		
3/8	5/8	-0610	SA7N-0610		SA8N-0610
1/2	3/4	-0812	SA7N-0812		
3/4	1.1/16	-1217	SA7N-1217		SA8N-1217

NPT/SAE

SA20N

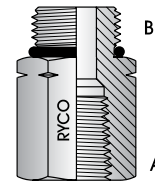
TEE



NPT/UNO

S96N

STRAIGHT
O RING SUPPLIED



THREAD			DASH SIZE	SAE MALE SAE MALE NPT MALE
A	B	C		
inch	inch	inch		PART NO
7/16	7/16	1/4	-070704	SA20N-070704
1/2	1/2	1/4	-080804	SA20N-080804

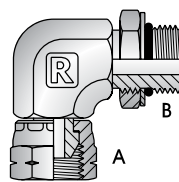
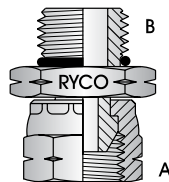
THREAD		DASH SIZE	NPT FEMALE FIXED UN O RING MALE
A	B		
inch	inch		PART NO
1/2	3/4	-0812	S96N-0812
3/4	1.5/16	-1221	S96N-1221

NPSM/UNO

S95N

S94N

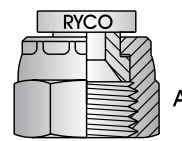
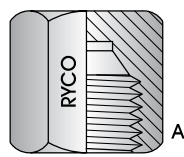
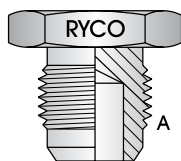
STRAIGHT
90° ELBOW
O RING SUPPLIED



THREAD		DASH SIZE	NPSM FEMALE SWIVEL UN O RING MALE	NPSM FEMALE UN O RING MALE
A	B			
inch	inch		PART NO	PART NO
1/4	9/16	-0409		S94N-0409
1/2	3/4	-0812	S95N-0812	

JIC **S56** **S65** **S65S**

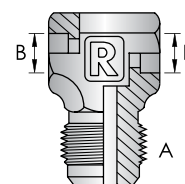
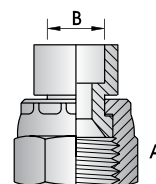
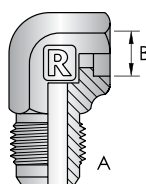
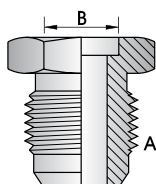
**PLUG
CAP**



THREAD A	DASH SIZE	JIC MALE PLUG	JIC FEMALE CAP	JIC FEMALE SWIVEL CAP
inch		PART NO	PART NO	PART NO
7/16	-07	S56-07	S65-07	S65S-07
1/2	-08	S56-08	S65-08	S65S-08
9/16	-09	S56-09	S65-09	S65S-09
3/4	-12	S56-12	S65-12	S65S-12
7/8	-14	S56-14	S65-14	S65S-14
1.1/16	-17	S56-17	S65-17	S65S-17
1.3/16	-19	S56-19	S65-19	S65S-19
1.5/16	-21	S56-21	S65-21	S65S-21
1.5/8	-26	S56-26	S65-26	S65S-26
1.7/8	-30	S56-30	S65-30	S65S-30
2.1/2	-40	S56-40	S65-40	S65S-40

JIC **S51** **S52** **S57** **S152**

**TUBE WELD
90° TUBE WELD
TEE TUBE WELD**



THREAD A	TUBE OD B	DASH SIZE	JIC MALE TUBE WELD	JIC MALE TUBE WELD 90° ELBOW	JIC FEMALE SWIVEL TUBE WELD	JIC MALE TUBE WELD TEE
inch	inch		PART NO	PART NO	PART NO	PART NO
7/16	1/4	-0704	S51-0704	S52-0704	S57-0704	
7/16	3/8	-0706	S51-0706		S57-0706	
9/16	3/8	-0906	S51-0906	S52-0906	S57-0906	
9/16	1/2	-0908	S51-0908			
3/4	3/8	-1206		S52-1206		
3/4	1/2	-1208	S51-1208	S52-1208	S57-1208	S152-120808
3/4	5/8	-1210	S51-1210		S57-1210	
3/4	3/4	-1212	S51-1212			S152-121212
7/8	5/8	-1410	S51-1410	S52-1410	S57-1410	S152-141010
7/8	3/4	-1412	S51-1412	S52-1412	S57-1412	
1.1/16	5/8	-1710	S51-1710			
1.1/16	3/4	-1712	S51-1712	S52-1712	S57-1712	
1.1/16	7/8	-1714	S51-1714			
1.1/16	1	-1716	S51-1716		S57-1716	S152-171616
1.3/16	7/8	-1914	S51-1914	S52-1914		
1.5/16	1	-2116	S51-2116	S52-2116	S57-2116	
1.5/16	1.1/8	-2118	S51-2118			
1.5/16	1.1/4	-2120	S51-2120		S57-2120	S152-212020
1.5/8	1.1/4	-2620	S51-2620	S52-2620	S57-2620	
1.5/8	1.3/8	-2622	S51-2622			
1.5/8	1.1/2	-2624	S51-2624		S57-2624	
1.7/8	1.1/2	-3024	S51-3024		S57-3024	
2.1/2	2	-4032	S51-4032		S57-4032	

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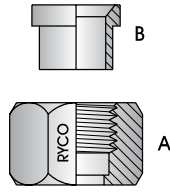
ADAPTORS

JIC ADAPTORS

JIC

S6

**TUBE NUT &
SLEEVE
(FLARE TYPE)**

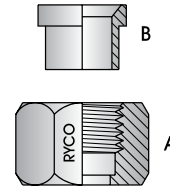


THREAD A	TUBE OD B	DASH SIZE	JIC FEMALE NUT & SLEEVE
inch	inch		PART NO
7/16	1/4	-0704	S6-0704
1/2	5/16	-0805	S6-0805
9/16	3/8	-0906	S6-0906
3/4	1/2	-1208	S6-1208
7/8	5/8	-1410	S6-1410
1.1/16	3/4	-1712	S6-1712
1.3/16	7/8	-1914	S6-1914
1.5/16	1	-2116	S6-2116
1.5/8	1.1/4	-2620	S6-2620

JIC

S6M

**TUBE NUT &
METRIC SLEEVE
(FLARE TYPE)**

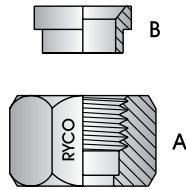


THREAD A	TUBE OD B	DASH SIZE	JIC FEMALE NUT & METRIC SLEEVE
inch	mm		PART NO
7/16	6	-0706	S6M-0706
1/2	8	-0808	S6M-0808
9/16	10	-0910	S6M-0910
3/4	12	-1212	S6M-1212
7/8	16	-1416	S6M-1416
1.1/16	19	-1719	S6M-1719
1.3/16	20	-1920	S6M-1920
1.5/16	25	-2125	S6M-2125
1.5/8	32	-2632	S6M-2632

JIC

S6S

**TUBE NUT &
SHORT SLEEVE
(FLARE TYPE)**

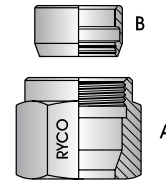


THREAD A	TUBE OD B	DASH SIZE	JIC FEMALE NUT & SHORT SLEEVE
inch	inch		PART NO
9/16	3/8	-0906	S6S-0906
3/4	1/2	-1208	S6S-1208
7/8	5/8	-1410	S6S-1410

J-LOK

S134

**JIC FEMALE NUT
& FLARELESS OLIVE**

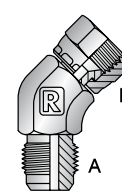
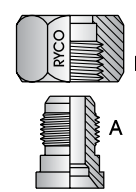
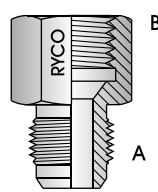
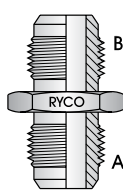


THREAD A	TUBE OD B	DASH SIZE	J-LOK NUT & OLIVE
inch	inch		PART NO
7/16	1/4	-0704	S134-0704
9/16	3/8	-0906	S134-0906
3/4	1/2	-1208	S134-1208
7/8	5/8	-1410	S134-1410
1.1/16	3/4	-1712	S134-1712
1.5/16	1	-2116	S134-2116

NOTE: S134 Assembly Instructions page 510.

JIC/JIC **S10** **S17** **S66F** **S66** **S23**

**STRAIGHT
BULKHEAD
45° ELBOW**



THREAD		DASH SIZE	JIC MALE BULKHEAD JIC MALE	JIC MALE JIC MALE	JIC MALE JIC FEMALE FIXED REDUCER	JIC MALE JIC FEMALE REDUCER	JIC MALE JIC FEMALE SWIVEL 45° ELBOW
A	B		PART NO	PART NO	PART NO	PART NO	PART NO
7/16	7/16	-0707	S10-0707	S17-0707			S23-0707
7/16	9/16	-0709			S66F-0709	S66-0709	
7/16	3/4	-0712			S66F-0712	S66-0712	
7/16	7/8	-0714			S66F-0714	S66-0714	
7/16	1.1/16	-0717			S66F-0717	S66-0717	
7/16	1.5/16	-0721			S66F-0721	S66-0721	
1/2	1/2	-0808		S17-0808			S23-0808
9/16	7/16	-0907		S17-0907	S66F-0907		
9/16	9/16	-0909	S10-0909	S17-0909			S23-0909
9/16	3/4	-0912			S66F-0912	S66-0912	
9/16	7/8	-0914			S66F-0914	S66-0914	
9/16	1.1/16	-0917			S66F-0917	S66-0917	
9/16	1.5/16	-0921			S66F-0921	S66-0921	
9/16	1.5/8	-0926			S66F-0926		
3/4	9/16	-1209		S17-1209	S66F-1209	S66-1209*	
3/4	7/16	-1207			S66F-1207		
3/4	3/4	-1212	S10-1212	S17-1212			S23-1212
3/4	7/8	-1214			S66F-1214	S66-1214	
3/4	1.1/16	-1217			S66F-1217	S66-1217	
3/4	1.5/16	-1221			S66F-1221	S66-1221	
3/4	1.5/8	-1226			S66F-1226		
3/4	1.7/8	-1230			S66F-1230		
7/8	3/4	-1412		S17-1412	S66F-1412	S66-1412*	
7/8	7/8	-1414	S10-1414	S17-1414			S23-1414
7/8	1.1/16	-1417			S66F-1417	S66-1417	
1.1/16	7/16	-1707		S17-1707			
1.1/16	1/2	-1708		S17-1708			
1.1/16	9/16	-1709		S17-1709	S66F-1709		
1.1/16	3/4	-1712		S17-1712	S66F-1712		
1.1/16	7/8	-1714	S10-1714	S17-1714	S66F-1714	S66-1714	
1.1/16	1.1/16	-1717	S10-1717	S17-1717			S23-1717
1.1/16	1.5/16	-1721			S66F-1721	S66-1721	
1.1/16	1.5/8	-1726			S66F-1726		
1.3/16	1.3/16	-1919	S10-1919	S17-1919			
1.5/16	3/4	-2112			S66F-2112	S66-2112	
1.5/16	7/8	-2114		S17-2114			
1.5/16	1.1/16	-2117		S17-2117	S66F-2117	S66-2117	
1.5/16	1.5/16	-2121	S10-2121	S17-2121			S23-2121
1.5/16	1.5/8	-2126			S66F-2126	S66-2126	
1.5/16	1.7/8	-2130			S66F-2130		
1.5/8	1.5/16	-2621		S17-2621	S66F-2621	S66-2621	
1.5/8	1.5/8	-2626	S10-2626	S17-2626			S23-2626
1.7/8	1.7/8	-3030	S10-3030	S17-3030			S23-3030
2.1/2	1.5/16	-4021			S66F-4021		
2.1/2	2.1/2	-4040	S10-4040	S17-4040			

NOTE: *These Sizes are One Piece Construction - see S66F range.

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JIC ADAPTORS

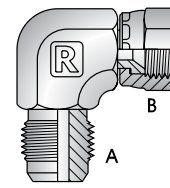
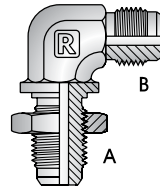
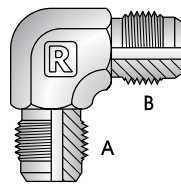
JIC/JIC

S18

S13

S15

90° ELBOW



THREAD		DASH SIZE	JIC MALE	JIC MALE BULKHEAD	JIC MALE
A	B		JIC MALE 90° ELBOW	JIC MALE 90° ELBOW	JIC FEMALE SWIVEL 90° ELBOW
inch	inch		PART NO	PART NO	PART NO
7/16	7/16	-0707	S18-0707	S13-0707	S15-0707
1/2	1/2	-0808	S18-0808	S13-0808	S15-0808
9/16	9/16	-0909	S18-0909	S13-0909	S15-0909
3/4	9/16	-1209	S18-1209		
3/4	3/4	-1212	S18-1212	S13-1212	S15-1212
7/8	3/4	-1412	S18-1412		S15-1412
7/8	7/8	-1414	S18-1414	S13-1414	S15-1414
7/8	1.1/16	-1417			S15-1417
1.1/16	7/8	-1714	S18-1714		S15-1714
1.1/16	1.1/16	-1717	S18-1717	S13-1717	S15-1717
1.3/16	1.3/16	-1919	S18-1919		S15-1919
1.5/16	1.1/16	-2117	S18-2117		
1.5/16	1.5/16	-2121	S18-2121	S13-2121	S15-2121
1.5/8	1.5/8	-2626	S18-2626	S13-2626	S15-2626
1.7/8	1.7/8	-3030			S15-3030

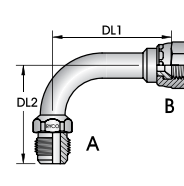
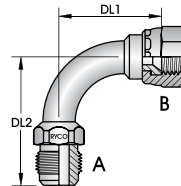
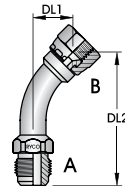
JIC/JIC

S5

S4

S103

45° BEND 90° BEND

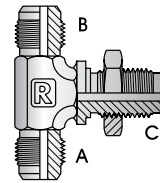
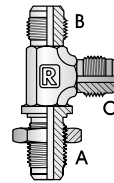
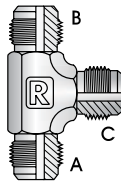


THREAD		DASH SIZE	JIC MALE			JIC MALE			JIC MALE		
A	B		JIC FEMALE SWIVEL 45° TUBE BEND	JIC FEMALE SWIVEL 90° TUBE BEND	JIC FEMALE SWIVEL 90° LONG BEND	JIC FEMALE SWIVEL 45° TUBE BEND	JIC FEMALE SWIVEL 90° TUBE BEND	JIC FEMALE SWIVEL 90° LONG BEND	JIC FEMALE SWIVEL 45° TUBE BEND	JIC FEMALE SWIVEL 90° TUBE BEND	JIC FEMALE SWIVEL 90° LONG BEND
inch	inch		PART NO	DL1	DL2	PART NO	DL1	DL2	PART NO	DL1	DL2
7/16	7/16	-0707				S4-0707	22	38	S103-0707	47	38
9/16	9/16	-0909	S5-0909	16	54	S4-0909	27	43	S103-0909	55	44
3/4	3/4	-1212	S5-1212	22	64	S4-1212	38	60	S103-1212	62	60
7/8	7/8	-1414	S5-1414	24	72	S4-1414	48	66	S103-1414	70	66
1.1/16	1.1/16	-1717	S5-1717	30	90	S4-1717	57	78	S103-1717	96	78
1.5/16	1.5/16	-2121	S5-2121	33	102	S4-2121	73	92	S103-2121	114	94
1.5/8	1.5/8	-2626	S5-2626	46	121	S4-2626	82	108	S103-2626	140	108
1.7/8	1.7/8	-3030				S4-3030	104	130			
2.1/2	2.1/2	-4040				S4-4040	140	164	S103-4040	222	164

NOTE: Drop Lengths (DL) dimensions are in millimetres.

JIC/JIC S19 S62 S63

TEE



THREAD			DASH SIZE	JIC MALE	JIC MALE BULKHEAD	JIC MALE
A	B	C		JIC MALE	JIC MALE	JIC MALE BULKHEAD
inch	inch	inch		PART NO	PART NO	PART NO
7/16	7/16	7/16	-070707	S19-070707	S62-070707	S63-070707
1/2	1/2	1/2	-080808	S19-080808	S62-080808	S63-080808
9/16	9/16	9/16	-090909	S19-090909	S62-090909	S63-090909
9/16	9/16	3/4	-090912		S62-090912	
3/4	1/2	3/4	-120812	S19-120812		
3/4	3/4	9/16	-121209	S19-121209		
3/4	3/4	3/4	-121212	S19-121212	S62-121212	S63-121212
3/4	3/4	7/8	-121214	S19-121214	S62-121214	
3/4	3/4	1.1/16	-121217	S19-121217		
7/8	3/4	7/8	-141214	S19-141214		
7/8	7/8	3/4	-141412	S19-141412		
7/8	7/8	7/8	-141414	S19-141414	S62-141414	S63-141414
7/8	7/8	1.1/16	-141417	S19-141417	S62-141417	
1.1/16	3/4	3/4	-171212	S19-171212		
1.1/16	7/8	7/8	-171414	S19-171414		
1.1/16	1.1/16	7/8	-171714	S19-171714		
1.1/16	1.1/16	1.1/16	-171717	S19-171717	S62-171717	S63-171717
1.1/16	1.1/16	1.5/16	-171721	S19-171721		
1.1/16	1.1/16	1.5/8	-171726	S19-171726		
1.3/16	1.3/16	1.3/16	-191919	S19-191919		
1.5/16	7/8	7/8	-211414	S19-211414		
1.5/16	1.1/16	1.1/16	-211717	S19-211717		
1.5/16	1.5/16	7/8	-212114	S19-212114		
1.5/16	1.5/16	1.1/16	-212117	S19-212117		
1.5/16	1.5/16	1.5/16	-212121	S19-212121	S62-212121	S63-212121
1.5/8	1.5/8	1.5/8	-262626	S19-262626	S62-262626	S63-262626

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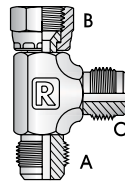
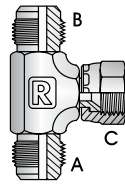
JIC ADAPTORS

JIC/JIC

S68

S67

TEE



THREAD			DASH SIZE	JIC MALE	JIC MALE
A	B	C		JIC FEMALE SWIVEL	JIC FEMALE SWIVEL
inch	inch	inch		PART NO	PART NO
7/16	7/16	7/16	-070707	S68-070707	S67-070707
1/2	1/2	1/2	-080808	S68-080808	S67-080808
9/16	9/16	9/16	-090909	S68-090909	S67-090909
9/16	3/4	9/16	-091209		S67-091209
3/4	3/4	9/16	-121209		S67-121209
3/4	3/4	3/4	-121212	S68-121212	S67-121212
7/8	7/8	9/16	-141409		S67-141409
7/8	7/8	3/4	-141412		S67-141412
7/8	7/8	7/8	-141414	S68-141414	S67-141414
7/8	7/8	1.1/16	-141417		S67-141417
7/8	1.1/16	7/8	-141714		S67-141714
1.1/16	1.1/16	7/8	-171714	S68-171714	S67-171714
1.1/16	1.1/16	1.1/16	-171717	S68-171717	S67-171717
1.1/16	1.5/16	1.1/16	-172117		S67-172117
1.5/16	1.5/16	7/8	-212114		S67-212114
1.5/16	1.5/16	1.1/16	-212117	S68-212117	S67-212117
1.5/16	1.5/16	1.5/16	-212121	S68-212121	S67-212121
1.5/8	1.5/8	1.5/8	-262626	S68-262626	S67-262626
1.7/8	1.7/8	1.7/8	-303030	S68-303030	S67-303030

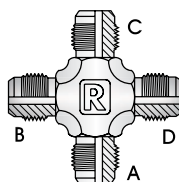
JIC

S100

JIC LOCK NUT

35/37

CROSS



LOCK NUT



THREAD A, B, C, D	DASH SIZE	JIC MALE CROSS
inch		PART NO
9/16	-09090909	S100-09090909
3/4	-12121212	S100-12121212
7/8	-14141414	S100-14141414
1.1/16	-17171717	S100-17171717
1.5/16	-21212121	S100-21212121

THREAD	DASH SIZE	JIC LOCK NUT
inch		PART NO
7/16	-07	37-07
1/2	-08	37-08
9/16	-09	37-09
3/4	-12	37-12
7/8	-14	37-14
1.1/16	-17	37-17
1.3/16	-19	37-19
1.5/16	-21	37-21
1.5/8	-26	35-26

NOTE: 37- is JIC B/H Lock Nut, 35- is UNO Adj. Male Nut (-26 size is common for both).

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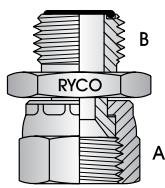
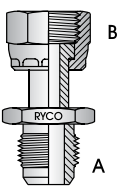
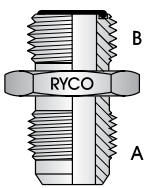
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JIC/ORFS **S108** **S109** **S110**

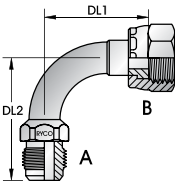
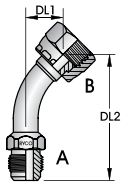
STRAIGHT
O RING INCLUDED



THREAD		DASH SIZE	JIC MALE ORFS MALE	JIC MALE ORFS FEMALE SWIVEL	JIC FEMALE SWIVEL ORFS MALE
A	B		PART NO	PART NO	PART NO
7/16	9/16	-0709	S108-0709	S109-0709	S110-0709
9/16	11/16	-0911	S108-0911	S109-0911	S110-0911
3/4	13/16	-1213	S108-1213	S109-1213	S110-1213
7/8	13/16	-1413	S108-1413		S110-1413
7/8	1	-1416	S108-1416	S109-1416	S110-1416
1.1/16	1.3/16	-1719	S108-1719	S109-1719	S110-1719
1.5/16	1.7/16	-2123	S108-2123	S109-2123	S110-2123

JIC/ORFS **S138** **S137**

45° TUBE BEND
90° TUBE BEND



THREAD		DASH SIZE	JIC MALE ORFS FEMALE SWIVEL 45° TUBE BEND		JIC MALE ORFS FEMALE SWIVEL 90° TUBE BEND			
A	B		PART NO	DL1	DL2	PART NO	DL1	DL2
7/16	9/16	-0709	S138-0709	21	42	S137-0709	32	39
9/16	11/16	-0911	S138-0911	28	62	S137-0911	38	46
3/4	13/16	-1213	S138-1213	20	62	S137-1213	40	56
7/8	1	-1416	S138-1416	23	77	S137-1416	47	65
7/8	1.3/16	-1419				S137-1419	49	65
1.1/16	1.3/16	-1719	S138-1719	27	87	S137-1719	59	81
1.5/16	1.7/16	-2123	S138-2123	45	104	S137-2123	71	89

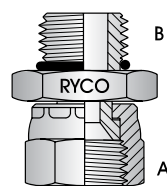
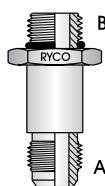
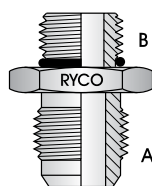
NOTE: Drop Lengths (DL) dimensions are in millimetres.

ADAPTORS

JIC ADAPTORS

JIC/UNO	S90	S107	S101
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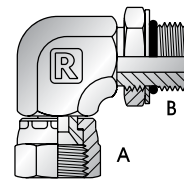
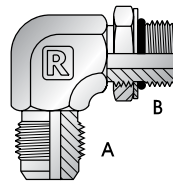
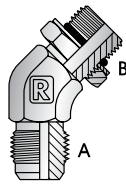
**STRAIGHT
O RING SUPPLIED**



THREAD		DASH SIZE	JIC MALE UN O RING MALE	JIC MALE EXT UN O RING MALE	JIC FEMALE SWIVEL UN O RING MALE
A	B		PART NO	PART NO	PART NO
7/16	7/16	-0707	S90-0707		S101-0707
7/16	9/16	-0709	S90-0709		S101-0709
7/16	3/4	-0712	S90-0712		
1/2	1/2	-0808	S90-0808		
1/2	3/4	-0812	S90-0812		
1/2	7/8	-0814	S90-0814		S101-0814
9/16	7/16	-0907	S90-0907		S101-0907
9/16	1/2	-0908	S90-0908		
9/16	9/16	-0909	S90-0909	S107-0909	S101-0909
9/16	3/4	-0912	S90-0912		S101-0912
9/16	7/8	-0914	S90-0914		S101-0914
9/16	1.1/16	-0917	S90-0917		
3/4	7/16	-1207	S90-1207		
3/4	9/16	-1209	S90-1209		S101-1209
3/4	3/4	-1212	S90-1212	S107-1212	S101-1212
3/4	7/8	-1214	S90-1214		S101-1214
3/4	1.1/16	-1217	S90-1217		S101-1217
3/4	1.5/16	-1221	S90-1221		
7/8	3/4	-1412	S90-1412	S107-1412	S101-1412
7/8	7/8	-1414	S90-1414	S107-1414	S101-1414
7/8	1.1/16	-1417	S90-1417		S101-1417
7/8	1.5/16	-1421	S90-1421		S101-1421
1.1/16	3/4	-1712	S90-1712		S101-1712
1.1/16	7/8	-1714	S90-1714	S107-1714	S101-1714
1.1/16	1.1/16	-1717	S90-1717	S107-1717	S101-1717
1.1/16	1.3/16	-1719	S90-1719		
1.1/16	1.5/16	-1721	S90-1721		S101-1721
1.1/16	1.5/8	-1726	S90-1726		
1.3/16	1.1/16	-1917	S90-1917		
1.3/16	1.3/16	-1919	S90-1919		
1.3/16	1.5/16	-1921	S90-1921		
1.5/16	3/4	-2112	S90-2112		
1.5/16	7/8	-2114	S90-2114		S101-2114
1.5/16	1.1/16	-2117	S90-2117		S101-2117
1.5/16	1.3/16	-2119	S90-2119		
1.5/16	1.5/16	-2121	S90-2121	S107-2121	S101-2121
1.5/16	1.5/8	-2126	S90-2126		
1.5/8	1.1/16	-2617	S90-2617		
1.5/8	1.5/16	-2621	S90-2621		
1.5/8	1.5/8	-2626	S90-2626		S101-2626
1.5/8	1.7/8	-2630	S90-2630		
1.7/8	1.7/8	-3030	S90-3030		S101-3030

JIC/UNO **S88** **S91** **S86**

**45° ELBOW
90° ELBOW
O RING SUPPLIED**



THREAD		DASH SIZE	JIC MALE UN O RING MALE 45° ELBOW	JIC MALE UN O RING MALE 90° ELBOW	JIC FEMALE SWIVEL UN O RING MALE 90° ELBOW
A	B		PART NO	PART NO	PART NO
7/16	7/16	-0707	S88-0707	S91-0707	
7/16	1/2	-0708		S91-0708	
7/16	9/16	-0709		S91-0709	
1/2	1/2	-0808		S91-0808	
9/16	7/16	-0907		S91-0907	
9/16	1/2	-0908		S91-0908	
9/16	9/16	-0909	S88-0909	S91-0909	S86-0909
9/16	3/4	-0912	S88-0912	S91-0912	
9/16	7/8	-0914		S91-0914	
9/16	1.1/16	-0917		S91-0917	
3/4	9/16	-1209		S91-1209	
3/4	3/4	-1212	S88-1212	S91-1212	S86-1212
3/4	7/8	-1214	S88-1214	S91-1214	
3/4	1.1/16	-1217		S91-1217	
3/4	1.5/16	-1221		S91-1221	
7/8	3/4	-1412	S88-1412	S91-1412	S86-1412
7/8	7/8	-1414	S88-1414	S91-1414	S86-1414
7/8	1.1/16	-1417		S91-1417	
1.1/16	3/4	-1712	S88-1712	S91-1712	
1.1/16	7/8	-1714		S91-1714	
1.1/16	1.1/16	-1717	S88-1717	S91-1717	S86-1717
1.1/16	1.3/16	-1719		S91-1719	
1.1/16	1.5/16	-1721		S91-1721	
1.3/16	1.1/16	-1917		S91-1917	
1.3/16	1.3/16	-1919	S88-1919	S91-1919	
1.3/16	1.5/16	-1921		S91-1921	
1.5/16	1.1/16	-2117	S88-2117	S91-2117	
1.5/16	1.3/16	-2119	S88-2119		
1.5/16	1.5/16	-2121	S88-2121	S91-2121	
1.5/16	1.5/8	-2126	S88-2126	S91-2126	
1.5/8	1.5/16	-2621	S88-2621	S91-2621	
1.5/8	1.5/8	-2626	S88-2626	S91-2626	

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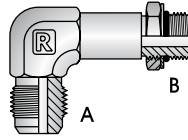
ADAPTORS

JIC ADAPTORS & JOINER

JIC/UNO

S12

**EXTENDED
90° ELBOW
O RING SUPPLIED**

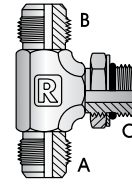


THREAD		DASH SIZE	JIC MALE UN O RING MALE EXTENDED 90° ELBOW
A	B		
inch	inch		PART NO
9/16	9/16	-0909	S12-0909
9/16	7/8	-0914	S12-0914
3/4	3/4	-1212	S12-1212
3/4	7/8	-1214	S12-1214
7/8	7/8	-1414	S12-1414
7/8	1.1/16	-1417	S12-1417
1.1/16	7/8	-1714	S12-1714
1.1/16	1.1/16	-1717	S12-1717
1.5/16	1.5/16	-2121	S12-2121

JIC/UNO

S92

**TEE
O RING SUPPLIED**

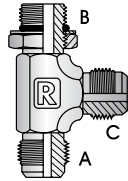


THREAD			DASH SIZE	JIC MALE JIC MALE UN O RING MALE
A	B	C		
inch	inch	inch		PART NO
7/16	7/16	7/16	-070707	S92-070707
1/2	1/2	1/2	-080808	S92-080808
9/16	9/16	7/16	-090907	S92-090907
9/16	9/16	9/16	-090909	S92-090909
9/16	9/16	3/4	-090912	S92-090912
3/4	9/16	3/4	-120912	S92-120912
3/4	3/4	9/16	-121209	S92-121209
3/4	3/4	3/4	-121212	S92-121212
3/4	3/4	7/8	-121214	S92-121214
7/8	3/4	3/4	-141212	S92-141212
7/8	7/8	7/8	-141414	S92-141414
1.1/16	1.1/16	1.1/16	-171717	S92-171717
1.5/16	1.1/16	1.5/16	-211721	S92-211721
1.5/16	1.5/16	1.1/16	-212117	S92-212117
1.5/16	1.5/16	1.5/16	-212121	S92-212121

JIC/UNO

S87

**TEE
O RING SUPPLIED**



THREAD			DASH SIZE	JIC MALE UN O RING MALE JIC MALE
A	B	C		
inch	inch	inch		PART NO
7/16	7/16	7/16	-070707	S87-070707
7/16	7/8	9/16	-071409	S87-071409
9/16	9/16	9/16	-090909	S87-090909
9/16	3/4	3/4	-091212	S87-091212
3/4	3/4	3/4	-121212	S87-121212
3/4	3/4	7/8	-121214	S87-121214
3/4	7/8	3/4	-121412	S87-121412
7/8	3/4	7/8	-141214	S87-141214
7/8	7/8	3/4	-141412	S87-141412
7/8	7/8	7/8	-141414	S87-141414
7/8	1.1/16	7/8	-141714	S87-141714
7/8	1.1/16	1.1/16	-141717	S87-141717
1.1/16	7/8	1.1/16	-171417	S87-171417
1.1/16	1.1/16	9/16	-171709	S87-171709
1.1/16	1.1/16	3/4	-171712	S87-171712
1.1/16	1.1/16	7/8	-171714	S87-171714
1.1/16	1.1/16	1.1/16	-171717	S87-171717
1.5/16	1.5/16	1.1/16	-212117	S87-212117
1.5/16	1.5/16	1.5/16	-212121	S87-212121

JOINER

S112

TUBE WELD



TUBE OD	DASH SIZE	JOINER TUBE WELD
inch		PART NO
3/4	-1212	S112-1212
1	-1616	S112-1616
1.1/4	-2020	S112-2020
1.1/2	-2424	S112-2424
2	-3232	S112-3232

METRIC M73

**PLUG
REQUIRES BONDED
SEAL (P/N MB)**



THREAD A	METRIC PLUG
mm	PART NO
12x1,5	M73-1215
14x1,5	M73-1415
16x1,5	M73-1615
18x1,5	M73-1815
20x1,5	M73-2015
22x1,5	M73-2215
24x1,5	M73-2415
26x1,5	M73-2615
27x2,0	M73-2720
28x1,5	M73-2815
30x2,0	M73-3020
33x2,0	M73-3320
36x2,0	M73-3620
42x2,0	M73-4220
52x2,0	M73-5220

METRIC MBD

**METAL BONDED SEAL
WITH CENTRALISING LIP**

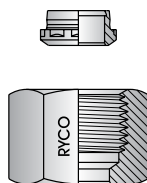


THREAD	DASH SIZE	METRIC METAL BONDED SEAL WITH CENTRALISING LIP	
mm		PART NO	PACK QTY
10	-10	MBD-10	10
12	-12	MBD-12	10
14	-14	MBD-14	10
16	-16	MBD-16	10
18	-18	MBD-18	10
20	-20	MBD-20	10
22	-22	MBD-22	5
24	-24	MBD-24	5
26	-26	MBD-26	5
30	-30	MBD-30	5
28	-28	MBD-28	5
30	-30	MBD-30	5
33	-33	MBD-33	5
36	-36	MBD-36	5
42	-42	MBD-42	5
48	-48	MBD-48	5

Note: Bonded Seals are sold only in packs of 5 or 10. Part Number Series for individual seal is MB. Example: Order Part No MB-12 for individual seal. (D is removed from MBD).

METRIC M6L

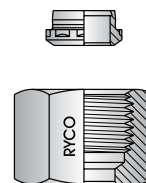
**DLK LIGHT SERIES
NUT AND OLIVE
(CUTTING RING)**



THREAD	TUBE OD	DASH SIZE	DKL NUT AND OLIVE
mm	mm		PART NO
12x1,5	6	-06	M6L-06
14x1,5	8	-08	M6L-08
16x1,5	10	-10	M6L-10
18x1,5	12	-12	M6L-12
22x1,5	15	-15	M6L-15
26x1,5	18	-18	M6L-18
30x2,0	22	-22	M6L-22
36x2,0	28	-28	M6L-28

METRIC M6S

**DKS HEAVY SERIES
NUT AND OLIVE
(CUTTING RING)**



THREAD	TUBE OD	DASH SIZE	DKS NUT AND OLIVE
mm	mm		PART NO
14x1,5	6	-06	M6S-06
16x1,5	8	-08	M6S-08
18x1,5	10	-10	M6S-10
20x1,5	12	-12	M6S-12
22x1,5	14	-14	M6S-14
24x1,5	16	-16	M6S-16
30x2,0	20	-20	M6S-20
36x2,0	25	-25	M6S-25
42x2,0	30	-30	M6S-30
52x2,0	38	-38	M6S-38

ADAPTORS

METRIC ADAPTORS

METRIC/BSPP O RING

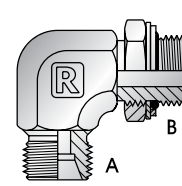
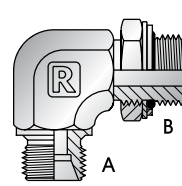
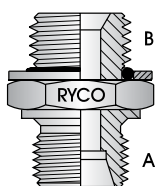
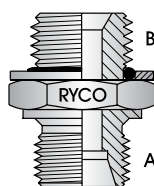
M75L

M75S

M77L

M77S

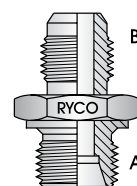
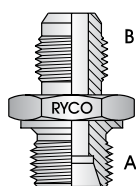
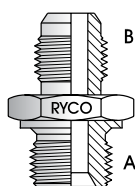
STRAIGHT
90° ELBOW
BSPP O RING AND
RETAINING RING SUPPLIED
METRIC END REQUIRES
BONDED SEAL (P/N MB)
IF USED IN A PORT



THREAD		DASH SIZE	DKL MALE 24° CONE BSPP O RING MALE		DKS MALE 24° CONE BSPP O RING MALE		DKL MALE 24° CONE BSPP O RING MALE 90° ELBOW		DKS MALE 24° CONE BSPP O RING MALE 90° ELBOW	
A	B		PART NO	TUBE OD mm	PART NO	TUBE OD mm	PART NO	TUBE OD mm	PART NO	TUBE OD mm
14x1,5	1/4	-1404	M75L-1404	8						
16x1,5	1/4	-1604			M75S-1604	8				
18x1,5	1/8	-1802			M75S-1802	10				
18x1,5	1/4	-1804			M75S-1804	10	M77L-1804	12	M77S-1804	10
18x1,5	3/8	-1806			M75S-1806	10	M77L-1806	12		
18x1,5	1/2	-1808	M75L-1808	12			M77L-1808	12		
20x1,5	3/8	-2006			M75S-2006	12				
22x1,5	1/2	-2208			M75S-2208	14				
22x1,5	3/4	-2212	M75L-2212	15						
24x1,5	3/8	-2406			M75S-2406	16				
24x1,5	1/2	-2408			M75S-2408	16			M77S-2408	16
30x2,0	1/2	-3008							M77S-3008	20
30x2,0	3/4	-3012			M75S-3012	20				
36x2,0	3/4	-3612			M75S-3612	25			M77S-3612	25
36x2,0	1	-3616			M75S-3616	25				
42x2,0	3/4	-4212							M77S-4212	30
42x2,0	1.1/4	-4220			M75S-4220	30				
52x2,0	1.1/2	-5224			M75S-5224	38				

METRIC/JIC	M7	M7L	M7S
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**STRAIGHT
METRIC END REQUIRES
BONDED SEAL (P/N MB)
IF USED IN A PORT**



THREAD		DASH SIZE	METRIC MALE	DKL MALE 24° CONE	DKS MALE 24° CONE		
A	B		JIC MALE	JIC MALE	JIC MALE	JIC MALE	
inch	inch		PART NO	PART NO	TUBE OD mm	PART NO	TUBE OD mm
12x1,5	7/16	-1207		M7L-1207	6		
12x1,5	9/16	-1209		M7L-1209	6		
14x1,5	9/16	-1409		M7L-1409	8		
14x1,5	3/4	-1412		M7L-1412	8		
16x1,5	7/16	-1607	M7-1607	M7L-1607	10		
16x1,5	9/16	-1609	M7-1609				
16x1,5	3/4	-1612	M7-1612				
16x1,5	7/8	-1614	M7-1614				
18x1,5	9/16	-1809				M7S-1809	10
18x1,5	9/16	-1809	M7-1809	M7L-1809	12		
18x1,5	3/4	-1812	M7-1812	M7L-1812	12		
18x1,5	7/8	-1814	M7-1814				
20x1,5	3/4	-2012	M7-2012				
20x1,5	7/8	-2014	M7-2014				
20x1,5	1.1/16	-2017	M7-2017				
22x1,5	3/4	-2212		M7L-2212	15		
22x1,5	7/8	-2214		M7L-2214	15		
22x1,5	1.1/16	-2217	M7-2217				
24x1,5	3/4	-2412				M7S-2412	16
24x1,5	1.1/16	-2417				M7S-2417	16
26x1,5	1.1/16	-2617	M7-2617				
26x1,5	1.5/16	-2621	M7-2621				
27x2,0	1.1/16	-2717	M7-2717				
27x2,0	1.5/16	-2721	M7-2721				
28x1,5	1.1/16	-2817	M7-2817				
28x1,5	1.5/16	-2821	M7-2821				
30x2,0	7/8	-3014				M7S-3014	20
33x2,0	1.1/16	-3317	M7-3317				
33x2,0	1.5/16	-3321	M7-3321				
33x2,0	1.5/8	-3326	M7-3326				
36x2,0	1.1/16	-3617				M7S-3617	25
42x2,0	1.5/16	-4221	M7-4221			M7S-4221	30
42x2,0	1.5/8	-4226	M7-4226				
42x2,0	1.7/8	-4230	M7-4230				
48x2,0	1.5/8	-4826	M7-4826				
48x2,0	1.7/8	-4830	M7-4830				

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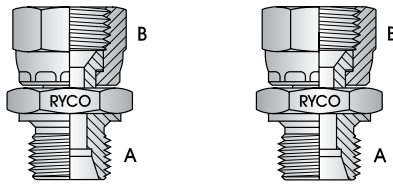
METRIC & ORFS ADAPTORS

METRIC/JIC

M71L

M71S

**STRAIGHT
METRIC END REQUIRES
BONDED SEAL (P/N MB)
IF USED IN A PORT**



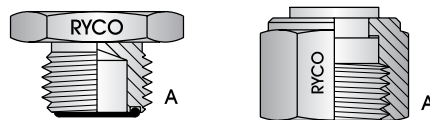
THREAD		DASH SIZE	DKL MALE 24° CONE JIC FEMALE	TUBE OD mm	DKS MALE 24° CONE JIC FEMALE	TUBE OD mm
A	B					
inch	inch		PART NO		PART NO	
18x1,5	7/16	-1807			M71S-1807	10
18x1,5	9/16	-1809			M71S-1809	10
18x1,5	9/16	-1809	M71L-1809	12		
24x1,5	3/4	-2412			M71S-2412	16
30x2,0	1.1/16	-3017			M71S-3017	20

ORFS

S111

S113

**PLUG
CAP
O RING INCLUDED**



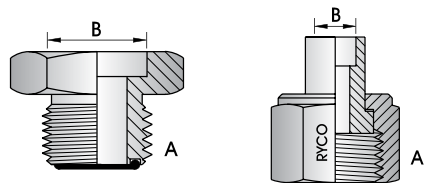
THREAD A	DASH SIZE	ORFS MALE PLUG	ORFS FEMALE CAP
inch		PART NO	PART NO
9/16	-09	S111-09	S113-09
11/16	-11	S111-11	S113-11
13/16	-13	S111-13	S113-13
1	-16	S111-16	S113-16
1.3/16	-19	S111-19	S113-19
1.7/16	-23	S111-23	S113-23
1.11/16	-27	S111-27	S113-27
2	-32	S111-32	S113-32

ORFS

S115

S106

**TUBE WELD
O RING INCLUDED**



THREAD A	TUBE OD B	DASH SIZE	ORFS MALE TUBE WELD	ORFS FEMALE SWIVEL TUBE WELD
inch	inch		PART NO	PART NO
9/16	1/4	-0904	S115-0904	S106-0904
11/16	3/8	-1106	S115-1106	S106-1106
13/16	1/2	-1308	S115-1308	S106-1308
1	5/8	-1610	S115-1610	S106-1610
1.3/16	3/4	-1912	S115-1912	S106-1912
1.7/16	1	-2316	S115-2316	S106-2316
1.11/16	1.1/4	-2720	S115-2720	S106-2720

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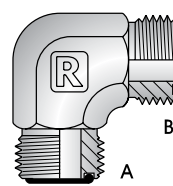
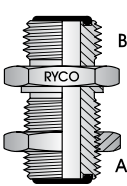
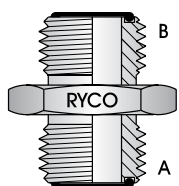
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ORFS/ORFS **S116** **S141** **S117**

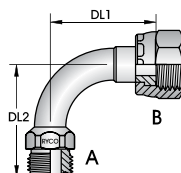
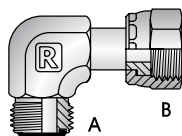
**STRAIGHT
BULKHEAD NIPPLE
90° ELBOW
O RINGS INCLUDED**



THREAD		DASH SIZE	ORFS MALE ORFS MALE	ORFS MALE BULKHEAD ORFS MALE	ORFS MALE ORFS MALE 90° ELBOW
A	B				
inch	inch		PART NO	PART NO	PART NO
9/16	9/16	-0909	S116-0909	S141-0909	S117-0909
11/16	9/16	-1109	S116-1109		
11/16	11/16	-1111	S116-1111	S141-1111	S117-1111
13/16	11/16	-1311	S116-1311		
13/16	13/16	-1313	S116-1313	S141-1313	S117-1313
1	13/16	-1613	S116-1613		
1	1	-1616	S116-1616	S141-1616	S117-1616
1.3/16	9/16	-1909	S116-1909		
1.3/16	13/16	-1913	S116-1913		
1.3/16	1	-1916	S116-1916		
1.3/16	1.3/16	-1919	S116-1919	S141-1919	S117-1919
1.7/16	1.3/16	-2319	S116-2319		
1.7/16	1.7/16	-2323	S116-2323	S141-2323	S117-2323
1.11/16	1.11/16	-2727		S141-2727	

ORFS/ORFS **S118** **S154**

**STRAIGHT
BULKHEAD NIPPLE
90° ELBOW
O RINGS INCLUDED**



THREAD		DASH SIZE	ORFS MALE ORFS FEMALE SWIVEL 90° ELBOW	ORFS MALE ORFS MALE 90° ELBOW	
A	B			PART NO	DL1
inch	inch		PART NO		
9/16	9/16	-0909	S118-0909		
11/16	11/16	-1111	S118-1111		
13/16	13/16	-1313	S118-1313		
1	1	-1616	S118-1616		
1.3/16	1.3/16	-1919	S118-1919		
1.7/16	1.7/16	-2323	S118-2323	S154-2323	84 80

NOTE: Drop Lengths (DL) dimensions are in millimetres.

ADAPTORS

ORFS ADAPTORS

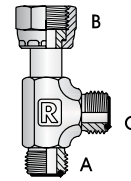
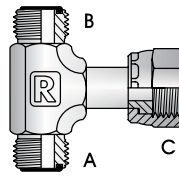
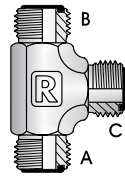
ORFS/ORFS

S119

S120

S121

TEE
O RINGS INCLUDED



THREAD			DASH SIZE	ORFS MALE ORFS MALE ORFS MALE	ORFS MALE ORFS MALE ORFS FEMALE SWIVEL	ORFS MALE ORFS FEMALE SWIVEL ORFS MALE
A	B	C				
inch	inch	inch		PART NO	PART NO	PART NO
9/16	9/16	9/16	-090909	S119-090909	S120-090909	S121-090909
11/16	11/16	11/16	-111111	S119-111111		S121-111111
13/16	13/16	13/16	-131313	S119-131313	S120-131313	S121-131313
1	1	13/16	-161613			S121-161613
1	1	1	-161616	S119-161616	S120-161616	S121-161616
1.3/16	1.3/16	13/16	-191913			S121-191913
1.3/16	1.3/16	1.3/16	-191919	S119-191919	S120-191919	S121-191919
1.7/16	1.7/16	1.7/16	-232323	S119-232323	S120-232323	S121-232323

ORFS/UNO

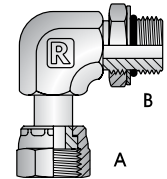
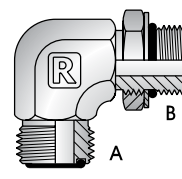
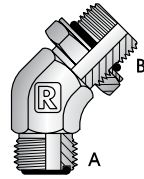
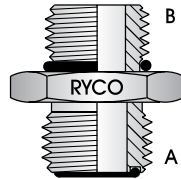
S122

S123

S124

S125

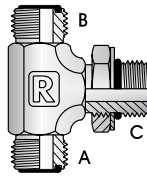
STRAIGHT
45° ELBOW
90° ELBOW
O RINGS INCLUDED



THREAD		DASH SIZE	ORFS MALE UN O RING MALE	ORFS MALE UN O RING MALE 45° ELBOW	ORFS MALE UN O RING MALE 90° ELBOW	ORFS FEMALE SWIVEL UN O RING MALE 90° ELBOW
A	B					
inch	inch		PART NO	PART NO	PART NO	PART NO
9/16	7/16	-0907	S122-0907	S123-0907	S124-0907	S125-0907
9/16	9/16	-0909	S122-0909	S123-0909	S124-0909	
9/16	3/4	-0912	S122-0912			
11/16	7/16	-1107	S122-1107	S123-1107	S124-1107	
11/16	9/16	-1109	S122-1109	S123-1109	S124-1109	S125-1109
13/16	9/16	-1309	S122-1309		S124-1309	
13/16	3/4	-1312	S122-1312	S123-1312	S124-1312	S125-1312
13/16	7/8	-1314	S122-1314			
13/16	1.1/16	-1317	S122-1317			
1	3/4	-1612	S122-1612		S124-1612	
1	7/8	-1614	S122-1614	S123-1614	S124-1614	S125-1614
1	1.1/16	-1617	S122-1617			
1.3/16	7/8	-1914	S122-1914		S124-1914	
1.3/16	1.1/16	-1917	S122-1917	S123-1917	S124-1917	S125-1917
1.3/16	1.5/16	-1921	S122-1921			
1.7/16	1.1/16	-2317	S122-2317			
1.7/16	1.5/16	-2321	S122-2321	S123-2321	S124-2321	S125-2321
1.11/16	1.5/8	-2726	S122-2726			
2	1.5/8	-3226	S122-3226			

ORFS/UNO **S126**

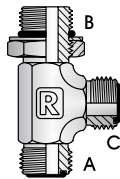
TEE
O RINGS INCLUDED



THREAD			DASH SIZE	ORFS MALE ORFS MALE UN O RING MALE
A	B	C		
inch	inch	inch		PART NO
13/16	13/16	3/4	-131312	S126-131312

ORFS/UNO **S127**

TEE
O RINGS INCLUDED



THREAD			DASH SIZE	ORFS MALE UN O RING MALE ORFS MALE
A	B	C		
inch	inch	inch		PART NO
9/16	7/16	9/16	-090709	S127-090709
11/16	9/16	11/16	-110911	S127-110911
13/16	3/4	13/16	-131213	S127-131213
1	7/8	1	-161416	S127-161416
1.3/16	1.1/16	1.3/16	-191719	S127-191719
1.7/16	1.5/16	1.7/16	-232123	S127-232123
1.11/16	1.5/8	1.11/16	-272627	S127-272627

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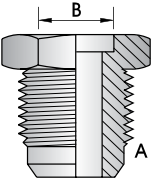
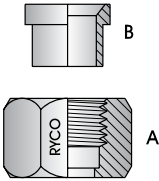
ACCESSORIES

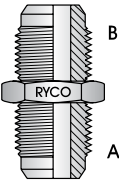

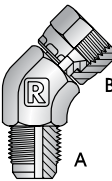
FILTERS

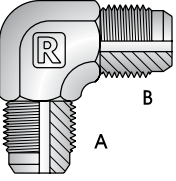
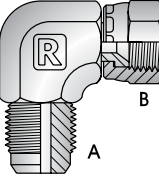
TECHNICAL

ADAPTORS

SAE ADAPTORS

SAE		SA51	SA6	
TUBE WELD TUBE NUT & SLEEVE (FLARE TYPE)				
THREAD A	TUBE OD B	DASH SIZE	SAE MALE TUBE WELD	SAE FEMALE NUT AND SLEEVE
inch	inch		PART NO	PART NO
5/8	3/8	-1006	SA51-1006	SA6-1006
1.1/16	3/4	-1712		SA6-1712

SAE/SAE		SA17	SA10	SA23	
STRAIGHT BULKHEAD NIPPLE 45° ELBOW					
THREAD		DASH SIZE	SAE MALE SAE MALE	SAE MALE BULKHEAD SAE MALE	SAE MALE SAE FEMALE SWIVEL 45° ELBOW
A	B				
inch	inch		PART NO	PART NO	PART NO
7/16	7/16	-0707	SA17-0707		
1/2	1/2	-0808	SA17-0808	SA10-0808	
5/8	5/8	-1010	SA17-1010		SA23-1010
3/4	3/4	-1212	SA17-1212	SA10-1212	
7/8	7/8	-1414	SA17-1414		
1.1/16	1.1/16	-1717	SA17-1717		

SAE/SAE		SA18	SA15	
90° ELBOW				
THREAD		DASH SIZE	SAE MALE SAE MALE 90° ELBOW	SAE MALE SAE FEMALE SWIVEL 90° ELBOW
A	B			
inch	inch		PART NO	PART NO
5/8	5/8	-1010	SA18-1010	SA15-1010
3/4	3/4	-1212		SA15-1212
7/8	7/8	-1414		SA15-1414
1.1/16	1.1/16	-1717		SA15-1717

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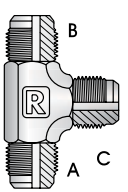
ACCESSORIES

FILTERS

TECHNICAL

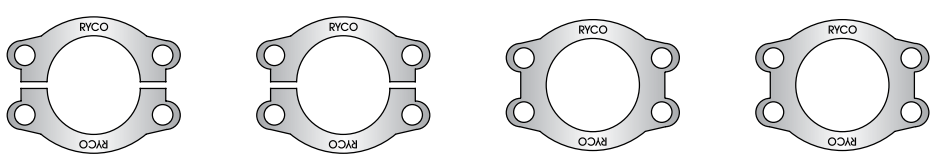
SAE/SAE SA19

TEE



THREAD			DASH SIZE	SAE MALE SAE MALE SAE MALE
A	B	C		
inch 5/8	inch 5/8	inch 5/8	-101010	PART NO SA19-101010

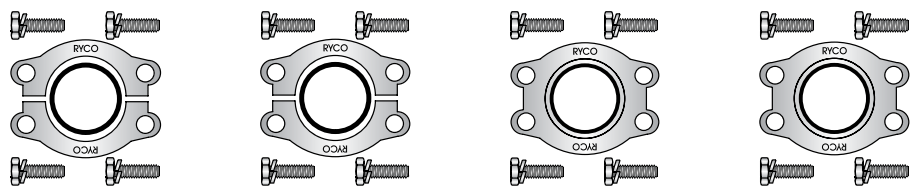
SAE FLANGE CLAMPS S40 S42 S140 S142



NOMINAL FLANGE	DASH SIZE	SPLIT FLANGE CLAMPS CODE 61 SUPPLIED IN PAIRS	SPLIT FLANGE CLAMPS CODE 62 SUPPLIED IN PAIRS	SOLID FLANGE CLAMP CODE 61	SOLID FLANGE CLAMP CODE 62
inch		PART NO	PART NO	PART NO	PART NO
1/2	-08	S40-08	S42-08	S140-08	S142-08
3/4	-12	S40-12	S42-12	S140-12	S142-12
1	-16	S40-16	S42-16	S140-16	S142-16
1.1/4	-20	S40-20	S42-20	S140-20	S142-20
1.1/2	-24	S40-24	S42-24	S140-24	S142-24
2	-32	S40-32	S42-32	S140-32	S142-32
2.1/2	-40	S40-40		S140-40	
3	-48	S40-48		S140-48	
4	-64	S40-64		S140-64	

SAE FLANGE CLAMP KITS - UNC BOLTS S40K S42K S140K S142K

WITH O RING
BOLTS &
WASHERS



NOMINAL FLANGE	DASH SIZE	UNC BOLTS SPLIT FLANGE CLAMP KITS CODE 61	UNC BOLTS SPLIT FLANGE CLAMP KITS CODE 62	UNC BOLTS SOLID FLANGE CLAMP KITS CODE 61	UNC BOLTS SOLID FLANGE CLAMP KITS CODE 62
inch		PART NO	PART NO	PART NO	PART NO
1/2	-08	S40K-08	S42K-08	S140K-08	S142K-08
3/4	-12	S40K-12	S42K-12	S140K-12	S142K-12
1	-16	S40K-16	S42K-16	S140K-16	S142K-16
1.1/4	-20	S40K-20	S42K-20	S140K-20	S142K-20
1.1/2	-24	S40K-24	S42K-24	S140K-24	S142K-24
2	-32	S40K-32	S42K-32	S140K-32	S142K-32
2.1/2	-40	S40K-40		S140K-40	

ADAPTORS

SAE ADAPTORS

SAE FLANGE CLAMP KITS - METRIC BOLTS

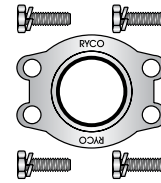
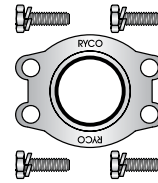
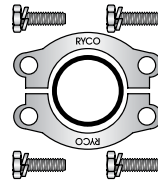
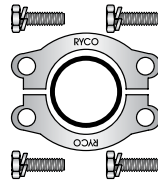
S40M

S42M

S140M

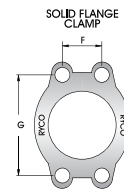
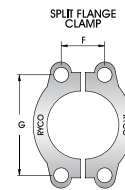
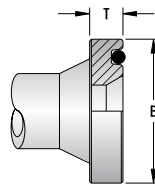
S142M

WITH O RING,
BOLTS &
WASHERS



NOMINAL FLANGE	DASH SIZE	METRIC BOLTS SPLIT FLANGE CLAMP KITS CODE 61	METRIC BOLTS SPLIT FLANGE CLAMP KITS CODE 62	METRIC BOLTS SOLID FLANGE CLAMP KITS CODE 61	METRIC BOLTS SOLID FLANGE CLAMP KITS CODE 62
inch		PART NO	PART NO	PART NO	PART NO
1/2	-08	S40M-08	S42M-08	S140M-08	S142M-08
3/4	-12	S40M-12	S42M-12	S140M-12	S142M-12
1	-16	S40M-16	S42M-16	S140M-16	S142M-16
1.1/4	-20	S40M-20	S42M-20	S140M-20	S142M-20
1.1/2	-24	S40M-24	S42M-24	S140M-24	S142M-24
2	-32	S40M-32	S42M-32	S140M-32	S142M-32
2.1/2	-40	S40M-40		S140M-40	

DIMENSIONS OF SAE FLANGES & FLANGE CLAMPS



NOM. FLANGE	DASH SIZE	BØ		T		F		G		PORT THREAD & BOLT LENGTH			
		mm	inch	mm	inch	mm	inch	mm	inch	UNC	inch	METRIC	mm
CODE 61													
1/2	-08	30,2	1.19	6,73	0.265	17,5	0.69	38,1	1.50	5/16 - 18	1.1/4	M8 x 1,25	35
*5/8	-10	34,0	1.34	6,73	0.265	19,8	0.78	42,9	1.69	5/16 - 18		M8 x 1,25	
3/4	-12	38,1	1.50	6,73	0.265	22,2	0.88	47,6	1.88	3/8 - 16	1.1/4	M10 x 1,5	35
1	-16	44,5	1.75	8,00	0.315	26,2	1.03	52,4	2.06	3/8 - 16	1.1/4	M10 x 1,5	35
1.1/4	-20	50,8	2.00	8,00	0.315	30,2	1.19	58,7	2.31	7/16 - 14	1.1/2	M10 x 1,5	40
1.1/2	-24	60,3	2.38	8,00	0.315	35,7	1.41	69,8	2.75	1/2 - 13	1.1/2	M12 x 1,75	45
2	-32	71,4	2.81	9,53	0.375	42,9	1.69	77,8	3.06	1/2 - 13	1.1/2	M12 x 1,75	45
2.1/2	-40	84,1	3.31	9,53	0.375	50,8	2.00	88,9	3.50	1/2 - 13	1.3/4	M12 x 1,75	45
3	-48	101,6	4.00	9,53	0.375	61,9	2.44	106,4	4.19	5/8 - 11	1.3/4	M16 x 2,0	45
CODE 62													
1/2	-08	31,7	1.25	7,75	0.305	18,2	0.72	40,5	1.59	5/16 - 18	1.1/4	M8 x 1,25	35
3/4	-12	41,3	1.63	8,76	0.345	23,8	0.94	50,8	2.00	3/8 - 16	1.1/2	M10 x 1,5	40
1	-16	47,6	1.88	9,53	0.375	27,8	1.09	57,2	2.25	7/16 - 14	1.3/4	M12 x 1,75	45
1.1/4	-20	54,0	2.12	10,29	0.405	31,8	1.25	66,7	2.63	1/2 - 13	1.3/4	M14 x 2,0	45
1.1/2	-24	63,5	2.50	12,57	0.495	36,5	1.44	79,4	3.13	5/8 - 11	2.1/4	M16 x 2,0	60
2	-32	79,4	3.13	12,57	0.495	44,5	1.75	96,8	3.81	3/4 - 10	2.3/4	M20x 2,5	70

*NOTE: 5/8 is used by Komatsu.

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SAE FLANGE **S979** **S980**

**BLANK PLUG
O RING NOT SUPPLIED**

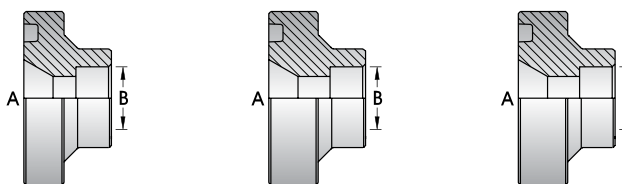


NOMINAL FLANGE	DASH SIZE	BLANK PLUG CODE 61	BLANK PLUG CODE 62
inch		PART NO	PART NO
1/2	-08	S979-08	S980-08
3/4	-12	S979-12	S980-12
1	-16	S979-16	S980-16
1.1/4	-20	S979-20	S980-20
1.1/2	-24	S979-24	S980-24
2	-32	S979-32	S980-32
2.1/2	40	S979-40	

NOTE: Flat Face side will seal against O Ring port. O Ring side will seal against Flat Face port.
O Ring not supplied.
FLANGE OD can be found on page 346, **CLAMPS** can be found on page 345.

SAE FLANGE **S981** **S982** **S982C**

**TUBE WELD
O RING NOT SUPPLIED
*(5/8 KOMATSU)**



NOM. FLANGE A	TUBE OD B	DASH SIZE	CODE 61 O RING FACE SOCKET WELD	CODE 62 O RING FACE SOCKET WELD	RYCO CODE 62C O RING FACE SOCKET WELD
inch	inch		PART NO	PART NO	PART NO
1/2	5/8	-0810	S981-0810		
*5/8	5/8	-1010	S981-1010		
3/4	5/8	-1210	S981-1210		
3/4	3/4	-1212	S981-1212	S982-1212	S982C-1212
3/4	1	-1216		S982-1216	
1	3/4	-1612	S981-1612	S982-1612	S982C-1612
1	1	-1616	S981-1616	S982-1616	S982C-1616
1	1.1/4	-1620	S981-1620		
1.1/4	1	-2016	S981-2016	S982-2016	S982C-2016
1.1/4	1.1/4	-2020	S981-2020	S982-2020	S982C-2020
1.1/4	1.1/2	-2024	S981-2024		
1.1/2	1.1/4	-2420	S981-2420	S982-2420	S982C-2420
1.1/2	1.1/2	-2424	S981-2424	S982-2424	S982C-2424
2	1.1/4	-3220	S981-3220		
2	1.1/2	-3224	S981-3224	S982-3224	
2	2	-3232	S981-3232	S982-3232	
2.1/2	2	-4032	S981-4032		
2.1/2	2.1/2	-4040	S981-4040		

NOTE: **FLANGE OD** can be found on page 346, **CLAMPS** can be found on page 345.

ADAPTORS

SAE ADAPTORS

SAE FLANGE/JIC

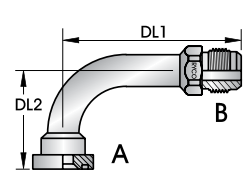
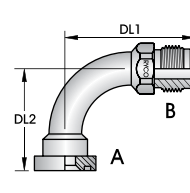
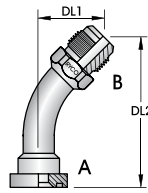
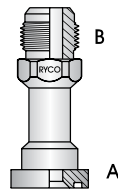
S1

S3

S2

S2L

CODE 61
O RING NOT SUPPLIED



NOM. FLANGE A	THREAD B	DASH SIZE	CODE 61 FLANGE JIC MALE	CODE 61 FLANGE JIC MALE 45° TUBE BEND	CODE 61 FLANGE JIC MALE 90° TUBE BEND	CODE 61 FLANGE JIC MALE 90° LONG BEND
inch	inch		PART NO	PART NO DL1 DL2	PART NO DL1 DL2	PART NO DL1 DL2
1/2	3/4	-0812	S1-0812	S3-0812 32 61	S2-0812 58 41	
1/2	7/8	-0814			S2-0814 68 46	
3/4	3/4	-1212	S1-1212		S2-1212 57 46	
3/4	7/8	-1214	S1-1214	S3-1214 38 71	S2-1214 66 50	
3/4	1.1/16	-1217	S1-1217	S3-1217 41 82	S2-1217 75 56	
1	1.1/16	-1617	S1-1617	S3-1617 46 85	S2-1617 78 61	
1	1.5/16	-1621	S1-1621	S3-1621 46 94	S2-1621 88 66	S2L-1621 116 66
1.1/4	1.1/16	-2017			S2-2017 77 62	
1.1/4	1.5/16	-2021	S1-2021	S3-2021 48 96	S2-2021 89 69	
1.1/4	1.5/8	-2026	S1-2026	S3-2026 53 110	S2-2026 104 81	
1.1/2	1.5/16	-2421	S1-2421		S2-2421 87 74	
1.1/2	1.5/8	-2426	S1-2426	S3-2426 55 113	S2-2426 100 86	
1.1/2	1.7/8	-2430	S1-2430	S3-2430 67 125	S2-2430 127 93	
2	1.5/8	-3226			S2-3226 106 88	
2	1.7/8	-3230	S1-3220			
2	2.1/2	-3240			S2-3240 152 125	

NOTE: Drop Lengths (DL) dimensions are in millimetres.
FLANGE OD can be found on page 346, CLAMPS can be found on page 345.

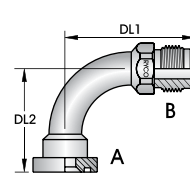
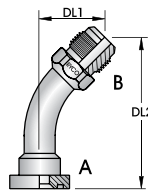
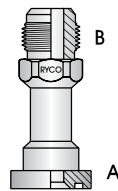
SAE FLANGE/JIC

S1H

S3H

S2H

CODE 62
O RING NOT SUPPLIED



NOM. FLANGE A	THREAD B	DASH SIZE	CODE 62 FLANGE JIC MALE	CODE 62 FLANGE JIC MALE 45° TUBE BEND	CODE 62 FLANGE JIC MALE 90° TUBE BEND
inch	inch		PART NO	PART NO DL1 DL2	PART NO DL1 DL2
3/4	7/8	-1214			S2H-1214 66 52
3/4	1.1/16	-1217	S1H-1217	S3H-1217 48 82	S2H-1217 79 55
3/4	1.5/16	-1221			S2H-1221 83 55
1	1.1/16	-1617	S1H-1617		S2H-1617 78 60
1	1.5/16	-1621	S1H-1621	S3H-1621 50 95	S2H-1621 87 69
1.1/4	1.1/16	-2017			S2H-2017 76 66
1.1/4	1.5/16	-2021	S1H-2021		
1.1/4	1.5/8	-2026			S2H-2026 105 79
1.1/2	1.5/16	-2421	S1H-2421		S2H-2421 77 90
1.1/2	1.5/8	-2426	S1H-2426		S2H-2426 102 88
2	2.1/2	-3240			S2H-3240 149 131

NOTE: Drop Lengths (DL) dimensions are in millimetres.
FLANGE OD can be found on page 346, CLAMPS can be found on page 345.

SAE ADAPTORS & SAE FLANGE BLOCKS

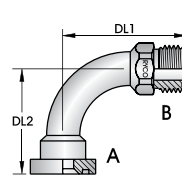
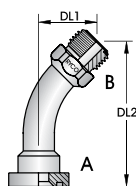
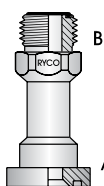
SAE FLANGE/ORFS

S147H

S146H

S143H

**CODE 62
SAE FLANGE
O RING NOT SUPPLIED**



NOM. FLANGE A	THREAD B	DASH SIZE	CODE 62 FLANGE ORFS MALE	CODE 62 FLANGE ORFS MALE 45° TUBE BEND	CODE 62 FLANGE ORFS MALE 90° TUBE BEND
inch	inch		PART NO	PART NO	PART NO
1	1.7/16	-1623	S147H-1623	S146H-1623	S143H-1623
1.1/2	2	-2432			S143H-2432

NOTE: Drop Lengths (DL) dimensions are in millimetres.
FLANGE OD can be found on page 346, **CLAMPS** can be found on page 345.

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ADAPTORS - SAE FLANGE BLOCKS

RYCO SAE Flange Blocks shown on pages 350 to 353 incorporate the SAE Flange Head and the SAE Flange Clamp into a single forged carbon steel unit.

RYCO SAE Flange Blocks with O Ring groove have unthreaded bolt holes.

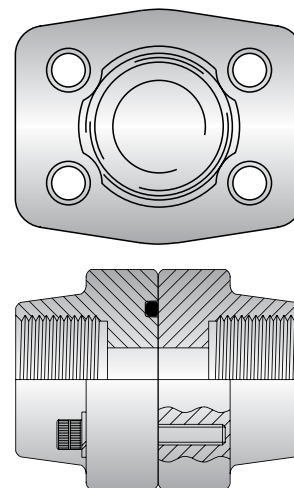
RYCO Flat Flange blocks **S940F**, **S941F**, **S970F**, **S971F**, **S976F**, **S977F**, **S951F** and **S952F** have UNC threaded bolt holes for use with **FK61** and **FK62** Fastening Kits. (NOTE suffix "F" means Flat Face with UNC threaded bolt holes).

RYCO Flat Flange blocks **S940FM**, **S941FM**, **S970FM**, **S971FM**, **S951FM** and **S952FM** have METRIC threaded bolt holes for use with **FK61M** and **FK62M** Fastening Kits. (NOTE suffix "FM" means Flat Face with METRIC threaded bolt holes).

FOR DIMENSIONS OF SAE FLANGE BLOCKS, SEE PAGE 532.

Due to restricted clearance on the neck of Socket Weld and BSPP Female Flange Blocks, Hex Head Bolts cannot be used. **FK61**, **FK61M**, **FK62** and **FK62M** Fastening Kits, which include Socket Head Cap Bolts and special Square Section Spring Washers, must be used.

Blind, Butt Weld, BSPP Male and JIC Male Flange Blocks may be used with Hex Head Bolts and standard Spring Washers if preferred.



Bolts are shown for illustration purposes only. Bolts and O Ring are not included. See below for Fastening Kits.

SAE FLANGE BLOCKS

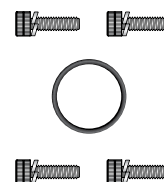
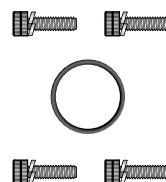
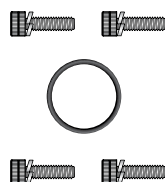
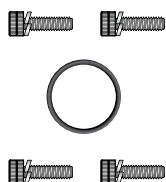
FK61

FK62

FK61M

FK62M

**FASTENING KITS
WITH O RING,
SOCKET HEAD
CAP BOLTS
& WASHERS**



NOM. FLANGE SIZE	DASH SIZE	SUITS SAE FLANGE BLOCKS CODE 61, UNC BOLTS	SUITS SAE FLANGE BLOCKS CODE 62, UNC BOLTS	SUITS SAE FLANGE BLOCKS CODE 61, METRIC BOLTS	SUITS SAE FLANGE BLOCKS CODE 62, METRIC BOLTS
inch		PART NO	PART NO	PART NO	PART NO
1/2	-08	FK61-08	FK62-08	FK61M-08	FK62M-08
3/4	-12	FK61-12	FK62-12	FK61M-12	FK62M-12
1	-16	FK61-16	FK62-16	FK61M-16	FK62M-16
1.1/4	-20	FK61-20	FK62-20	FK61M-20	FK62M-20
1.1/2	-24	FK61-24	FK62-24	FK61M-24	FK62M-24
2	-32	FK61-32	FK62-32	FK61M-32	FK62M-32

ADAPTORS

SAE FLANGE BLOCKS

SAE FLANGE BLOCKS

S967

S968

**BLIND BLANKING
FLANGE
O RING & BOLTS
NOT SUPPLIED**



NOM. FLANGE SIZE	DASH SIZE	CODE 61 FLANGE BLIND	CODE 62 FLANGE BLIND
inch		PART NO	PART NO
1/2	-08	S967-08	S968-08
3/4	-12	S967-12	S968-12
1	-16	S967-16	S968-16
1.1/4	-20	S967-20	S968-20
1.1/2	-24	S967-24	S968-24
2	-32	S967-32	S968-32

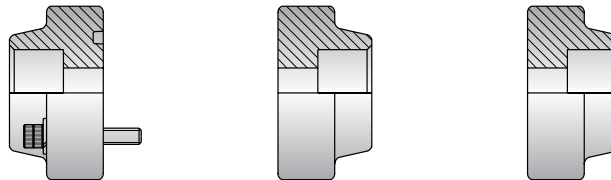
SAE FLANGE BLOCKS

S940

S940F

S940FM

**CODE 61
SOCKET WELD
TO SUIT IMPERIAL TUBE
O RING & BOLTS NOT
SUPPLIED**



NOM. FLANGE SIZE	NOM. TUBE SIZE	DASH SIZE	TO SUIT TUBE OD	CODE 61 FLANGE SOCKET WELD TUBE	CODE 61 FLANGE FLAT SOCKET WELD TUBE UNC BOLT HOLES	CODE 61 FLANGE FLAT SOCKET WELD TUBE METRIC BOLT HOLES
inch	inch		mm	PART NO	PART NO	PART NO
1/2	1/2	-0808	12,7	S940-0808	S940F-0808	S940FM-0808
3/4	3/4	-1212	19,1	S940-1212	S940F-1212	S940FM-1212
1	1	-1616	25,4	S940-1616	S940F-1616	S940FM-1616
1.1/4	1.1/4	-2020	31,8	S940-2020	S940F-2020	S940FM-2020
1.1/2	1.1/2	-2424	38,1	S940-2424	S940F-2424	S940FM-2424
2	2	-3232	50,8	S940-3232	S940F-3232	S940FM-3232

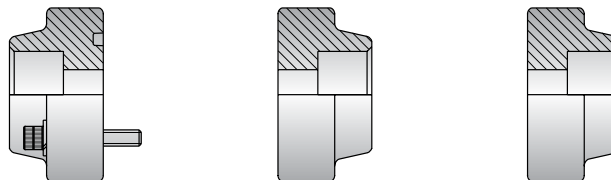
SAE FLANGE BLOCKS

S941

S941F

S941FM

**CODE 62
SOCKET WELD
TO SUIT IMPERIAL TUBE
O RING & BOLTS NOT
SUPPLIED**



NOM. FLANGE SIZE	NOM. TUBE SIZE	DASH SIZE	TO SUIT TUBE OD	CODE 62 FLANGE SOCKET WELD TUBE	CODE 62 FLANGE FLAT SOCKET WELD TUBE UNC BOLT HOLES	CODE 62 FLANGE FLAT SOCKET WELD TUBE METRIC BOLT HOLES
inch	inch		mm	PART NO	PART NO	PART NO
3/4	3/4	-1212	19,1	S941-1212	S941F-1212	S941FM-1212
1	1	-1616	25,4	S941-1616	S941F-1616	S941FM-1616
1.1/4	1.1/4	-2020	31,8	S941-2020	S941F-2020	S941FM-2020
1.1/2	1.1/2	-2424	38,1	S941-2424	S941F-2424	S941FM-2424
2	2	-3232	50,8	S941-3232	S941F-3232	S941FM-3232

NOTE: Bolts are shown for illustration purposes only. Bolts and O Ring are not included. See page 349 for Fastening Kits.

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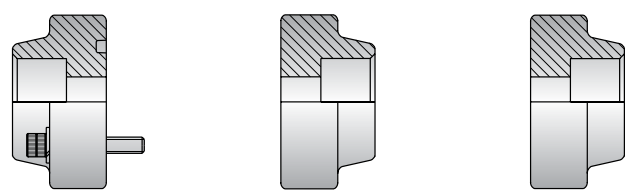
ACCESSORIES

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SAE FLANGE BLOCKS **S970** **S970F** **S970FM**

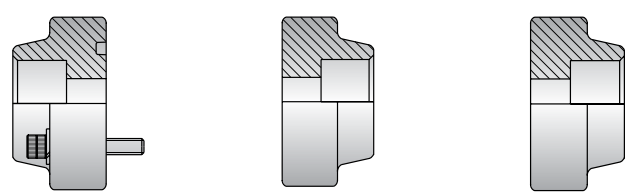
**CODE 61
SOCKET WELD
TO SUIT IMPERIAL PIPE
O RING & BOLTS NOT
SUPPLIED**



NOM. FLANGE SIZE	NOM. PIPE SIZE	DASH SIZE	TO SUIT PIPE OD	CODE 61 FLANGE SOCKET WELD PIPE	CODE 61 FLANGE FLAT SOCKET WELD PIPE UNC BOLT HOLES	CODE 61 FLANGE FLAT SOCKET WELD PIPE METRIC BOLT HOLES
inch	inch		mm	PART NO	PART NO	PART NO
1/2	1/2	-0808	21,3	S970-0808	S970F-0808	S970FM-0808
3/4	3/4	-1212	26,7	S970-1212	S970F-1212	S970FM-1212
1	1	-1616	33,4	S970-1616	S970F-1616	S970FM-1616
1.1/4	1.1/4	-2020	42,2	S970-2020	S970F-2020	S970FM-2020
1.1/2	1.1/2	-2424	48,3	S970-2424	S970F-2424	S970FM-2424
2	2	-3232	60,3	S970-3232	S970F-3232	S970FM-3232

SAE FLANGE BLOCKS **S971** **S971F** **S971FM**

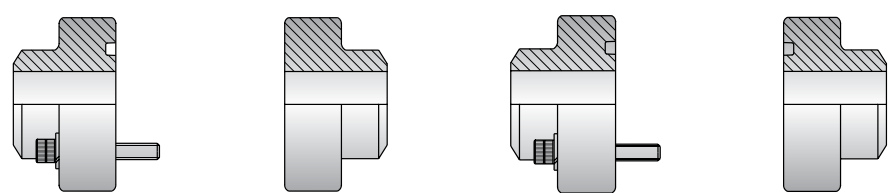
**CODE 62
SOCKET WELD
TO SUIT IMPERIAL PIPE
O RING & BOLTS NOT
SUPPLIED**



NOM. FLANGE SIZE	NOM. PIPE SIZE	DASH SIZE	TO SUIT PIPE OD	CODE 62 FLANGE SOCKET WELD PIPE	CODE 62 FLANGE FLAT SOCKET WELD PIPE UNC BOLT HOLES	CODE 62 FLANGE FLAT SOCKET WELD PIPE METRIC BOLT HOLES
inch	inch		mm	PART NO	PART NO	PART NO
3/4	3/4	-1212	26,7	S971-1212	S971F-1212	S971FM-1212
1	1	-1616	33,4	S971-1616	S971F-1616	S971FM-1616
1.1/4	1.1/4	-2020	42,2	S971-2020	S971F-2020	S971FM-2020
1.1/2	1.1/2	-2424	48,3	S971-2424	S971F-2424	S971FM-2424
2	2	-3232	60,3	S971-3232	S971F-3232	S971FM-3232

SAE FLANGE BLOCKS **S976** **S976F** **S977** **S977F**

**BUTT WELD
TO SUIT IMPERIAL PIPE
O RING & BOLTS NOT
SUPPLIED**



NOM. FLANGE SIZE	NOM. PIPE SIZE	DASH SIZE	TO SUIT PIPE OD	CODE 61 FLANGE BUTT WELD PIPE	CODE 61 FLANGE FLAT BUTT WELD PIPE UNC BOLT HOLES	CODE 62 FLANGE BUTT WELD PIPE	CODE 62 FLANGE FLAT BUTT WELD PIPE UNC BOLT HOLES
inch	inch		mm	PART NO	PART NO	PART NO	PART NO
1/2	1/2	-0808	21,3	S976-0808	S976F-0808	S977-0808	S977F-0808
3/4	3/4	-1212	26,7	S976-1212	S976F-1212	S977-1212	S977F-1212
1	1	-1616	33,4	S976-1616	S976F-1616	S977-1616	S977F-1616
1.1/4	1.1/4	-2020	42,2	S976-2020	S976F-2020	S977-2020	S977F-2020
1.1/2	1.1/2	-2424	48,3	S976-2424	S976F-2424	S977-2424	S977F-2424
2	2	-3232	60,3	S976-3232	S976F-3232	S977-3232	S977F-3232

NOTE: Bolts are shown for illustration purposes only. Bolts and O Ring are not included. See page 349 for Fastening Kits.

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SAE FLANGE BLOCKS

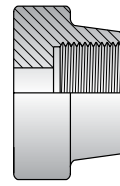
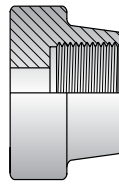
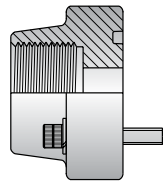
SAE FLANGE BLOCKS

S951

S951F

S951FM

CODE 61
BSPP FEMALE
O RING & BOLTS NOT
SUPPLIED



NOM. FLANGE SIZE	THREAD SIZE	DASH SIZE	CODE 61 FLANGE BSPP FEMALE	CODE 61 FLANGE FLAT BSPP FEMALE UNC BOLT HOLES	CODE 61 FLANGE FLAT BSPP FEMALE METRIC BOLT HOLES
inch	inch		PART NO	PART NO	PART NO
1/2	1/2	-0808	S951-0808	S951F-0808	S951FM-0808
3/4	3/4	-1212	S951-1212	S951F-1212	S951FM-1212
1	1	-1616	S951-1616	S951F-1616	S951FM-1616
1.1/4	1.1/4	-2020	S951-2020	S951F-2020	S951FM-2020
1.1/2	1.1/2	-2424	S951-2424	S951F-2424	S951FM-2424
2	2	-3232	S951-3232	S951F-3232	S951FM-3232

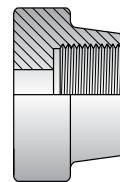
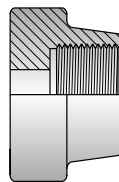
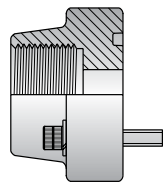
SAE FLANGE BLOCKS

S952

S952F

S952FM

CODE 62
BSPP FEMALE
O RING & BOLTS NOT
SUPPLIED



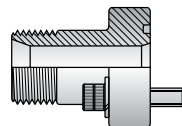
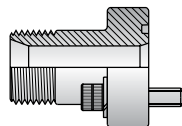
NOM. FLANGE SIZE	THREAD SIZE	DASH SIZE	CODE 62 FLANGE BSPP FEMALE	CODE 62 FLANGE FLAT BSPP FEMALE UNC BOLT HOLES	CODE 62 FLANGE FLAT BSPP FEMALE METRIC BOLT HOLES
inch	inch		PART NO	PART NO	PART NO
3/4	3/4	-1212	S952-1212	S952F-1212	S952FM-1212
1	1	-1616	S952-1616	S952F-1616	S952FM-1616
1.1/4	1.1/4	-2020	S952-2020	S952F-2020	S952FM-2020
1.1/2	1.1/2	-2424	S952-2424	S952F-2424	S952FM-2424
2	2	-3232	S952-3232	S952F-3232	S952FM-3232

SAE FLANGE BLOCKS

S953

S954

BSPP MALE
O RING & BOLTS NOT
SUPPLIED

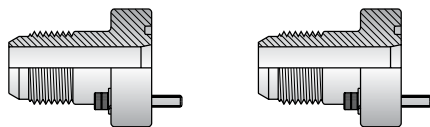


NOM. FLANGE SIZE	THREAD SIZE	DASH SIZE	CODE 61 FLANGE BSPP MALE	CODE 62 FLANGE BSPP MALE
inch	inch		PART NO	PART NO
1/2	1/2	-0808	S953-0808	S954-0808
3/4	3/4	-1212	S953-1212	S954-1212
1	1	-1616	S953-1616	S954-1616
1.1/4	1.1/4	-2020	S953-2020	S954-2020
1.1/2	1.1/2	-2424	S953-2424	S954-2424

NOTE: Bolts are shown for illustration purposes only. Bolts and O Ring are not included. See page 349 for Fastening Kits.

SAE FLANGE BLOCKS **S957** **S958**

**JIC MALE
O RING & BOLTS NOT
SUPPLIED**



NOM. FLANGE SIZE	THREAD SIZE	DASH SIZE	CODE 61 FLANGE JIC MALE	CODE 62 FLANGE JIC MALE
inch	inch		PART NO	PART NO
1/2	3/4	-0812	S957-0812	S958-0812
3/4	1.1/16	-1217	S957-1217	S958-1217
1	1.5/16	-1621	S957-1621	S958-1621
1.1/4	1.5/8	-2026	S957-2026	S958-2026
1.1/2	1.7/8	-2430	S957-2430	S958-2430

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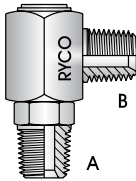
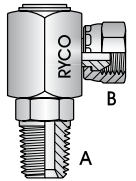
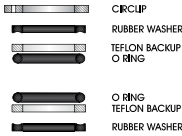
FILTERS

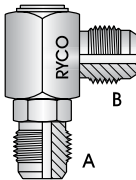
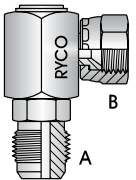
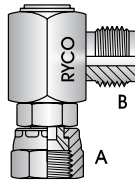
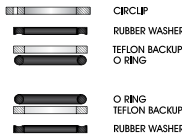
TECHNICAL

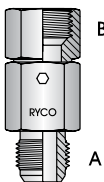
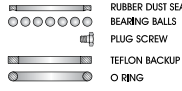
NOTE: Bolts are shown for illustration purposes only. Bolts and O Ring are not included. See page 349 for Fastening Kits.

ADAPTORS

SWIVEL JOINT ADAPTORS

SWIVEL JOINT			S37	S36	SEAL KITS SJK
BSP/BSP 360° ROTATION 10 RPM - NOT CONTINUOUS 3000 PSI MAX					
THREAD		DASH SIZE	BSPT MALE	BSPT MALE	REPLACEMENT SEAL KIT
A	B		BSPT MALE 90° SWIVEL JOINT	BSPP FEMALE SWIVEL 90° SWIVEL JOINTS	
inch	inch		PART NO	PART NO	PART NO
1/2	1/2	-0808	S37-0808	S36-0808	SJK-08
3/4	3/4	-1212	S37-1212	S36-1212	SJK-12

SWIVEL JOINT			S33	S34	S35	SEAL KITS SJK
JIC/JIC 360° ROTATION 10 RPM - NOT CONTINUOUS 3000 PSI MAX						
THREAD		DASH SIZE	JIC MALE	JIC MALE	JIC FEMALE	REPLACEMENT SEAL KIT
A	B		JIC MALE 90° SWIVEL JOINT	JIC FEMALE 90° SWIVEL JOINT	JIC MALE 90° SWIVEL JOINT	
inch	inch		PART NO	PART NO	PART NO	PART NO
7/8	7/8	-1414	S33-1414	S34-1414	S35-1414	SJK-08
1.1/16	1.1/16	-1717	S33-1717	S34-1717	S35-1717	SJK-12

SWIVEL JOINT			S131	SEAL KITS RKS
JIC/JIC 360° ROTATION 20 RPM - NOT CONTINUOUS 4000 PSI MAX				
THREAD		DASH SIZE	JIC MALE	REPLACEMENT SEAL KIT
A	B		JIC FEMALE FIXED SWIVEL JOINT	
inch	inch		PART NO	PART NO
1.1/16	1.1/16	-1717	S131-1717	RKS131-1717
1.5/16	1.5/16	-2121	S131-2121	RKS131-2121

NOTE: RYCO Swivel Joints are ideal for use wherever hose moves, bends or twists. They permit the use of less hose in flexing applications, producing neater space-saving installations and resulting in lower maintenance costs. Compact and lightweight, the RYCO Swivel Joint turns with very low torque under pressure, assuring fluid line flexibility and efficiency of operation.

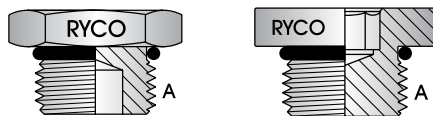
Swivel Joints must not be used as high speed rotary unions, or as load bearing or structural components. They must be connected with a flexible hose on one end. External loads, e.g. the weight of the hose and couplings attached to the swivel joint; must be minimised to avoid premature wear and leakage.

Operating Temperature Range: From -40°C to + 100°C (-40°F to + 212°F).

Fluid Compatibility: Mineral / petroleum based hydraulic oils.

UNO **S97** **S97AK**

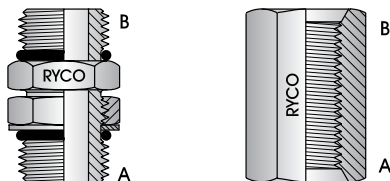
**PLUG
O RING INCLUDED**



THREAD A	DASH SIZE	UN O RING MALE PLUG	UN O RING ALLEN KEY HEAD
inch		PART NO	PART NO
3/8	-06		S97AK-06
7/16	-07	S97-07	S97AK-07
1/2	-08	S97-08	S97AK-08
9/16	-09	S97-09	S97AK-09
3/4	-12	S97-12	S97AK-12
7/8	-14	S97-14	S97AK-14
1.1/16	-17	S97-17	S97AK-17
1.3/16	-19	S97-19	
1.5/16	-21	S97-21	
1.5/8	-26	S97-26	
1.7/8	-30	S97-30	

UNO/UNO **S162** **S163**

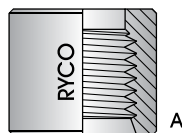
**STRAIGHT
O RING INCLUDED**



THREAD		DASH SIZE	UN O RING MALE ADJUSTABLE UN O RING MALE	UN O RING FEMALE SOCKET
A	B			
inch	inch		PART NO	PART NO
9/16	9/16	-0909		S163-0909
3/4	3/4	-1212	S162-1212	

UNO **S148**

**HALF SOCKET
WELD ON**



THREAD A	DASH SIZE	UN O RING FEMALE FIXED HALF WELD ON
inch		PART NO
9/16	-09	S148-09
3/4	-12	S148-12
7/8	-14	S148-14

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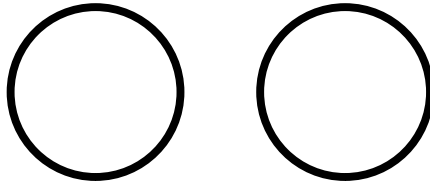
ADAPTORS

MISCELLANEOUS - O RINGS

O RINGS

ROD-AC
SUIT AIR CON

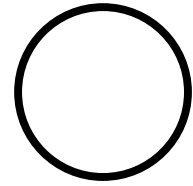
ROD-FS
SUIT ORFS



THREAD SIZE	TUBE SIZE	70 DUROMETER (GREEN HNBR)		90 DUROMETER	
inch	inch	PART NO	PACK QTY	PART NO	PACK QTY
9/16	1/4			ROD-FS09	10
5/8	3/8	ROD-AC10	10		
11/16	3/8			ROD-FS11	10
3/4	1/2	ROD-AC12	10		
13/16	1/2			ROD-FS13	10
7/8	5/8	ROD-AC14	10		
1	5/8			ROD-FS16	10
1.3/16	3/4			ROD-FS19	10
1.7/16	1			ROD-FS23	10
1.11/16	1.1/4			ROD-FS27	10
2	1.1/2			ROD-FS32	10

O RINGS

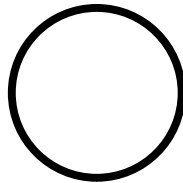
ROD-BP
SUIT BSPP



THREAD SIZE	90 DUROMETER	
inch	PART NO	PACK QTY
1/8	ROD-BP02	10
1/4	ROD-BP04	10
3/8	ROD-BP06	10
1/2	ROD-BP08	10
5/8	ROD-BP10	10
3/4	ROD-BP12	10
1	ROD-BP16	10
1.1/4	ROD-BP20	10
1.1/2	ROD-BP24	10
2	ROD-BP32	10

O RINGS

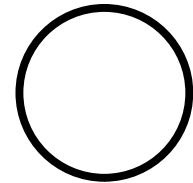
ROD-DL
SUIT DKOL
FEMALE METRIC



THREAD SIZE	TUBE SIZE	70 DUROMETER	
mm	mm	PART NO	PACK QTY
12x1,5	6	ROD-DL12	10
14x1,5	8	ROD-DL14	10
16x1,5	10	ROD-DL16	10
18x1,5	12	ROD-DL18	10
22x1,5	15	ROD-DL22	10
26x1,5	18	ROD-DL26	10
30x2,0	22	ROD-DL30	10
36x2,0	28	ROD-DL36	10
45x2,0	35	ROD-DL45	10
52x2,0	42	ROD-DL52	

O RINGS

ROD-DS
SUIT DKOS
FEMALE METRIC



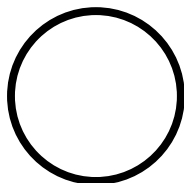
THREAD SIZE	TUBE SIZE	70 DUROMETER	
mm	mm	PART NO	PACK QTY
14x1,5	6	ROD-DS14	10
16x1,5	8	ROD-DS16	10
18x1,5	10	ROD-DS18	10
20x1,5	12	ROD-DS20	10
22x1,5	14	ROD-DS22	10
24x1,5	16	ROD-DS24	10
30x2,0	20	ROD-DS30	10
36x2,0	25	ROD-DS36	10
42x2,0	30	ROD-DS42	10
52x2,0	38	ROD-DS52	10

NOTE: O Rings/Seals are sold only in packs of 10. Part Number Series for individual seal is RO. Example: Order Part No RO-BP02 for individual seal. (D is removed from ROD). Surcharges for breaking packages may apply.

MISCELLANEOUS - O RINGS

O RINGS

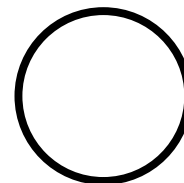
ROD-SF
SUIT SAE FLANGE



NOMINAL FLANGE SIZE	90 DUROMETER	
inch	PART NO	PACK QTY
1/2	ROD-SF08	10
5/8	ROD-SF10	10
3/4	ROD-SF12	10
1	ROD-SF16	10
1.1/4	ROD-SF20	10
1.1/2	ROD-SF24	10
2	ROD-SF32	10
2.1/2	ROD-SF40	10

O RINGS

ROD-UN
SUIT UNO



NOM FLANGE SIZE	TUBE SIZE	90 DUROMETER	
inch	inch	PART NO	PACK QTY
7/16	1/4	ROD-UN07	10
1/2	5/16	ROD-UN08	10
9/16	3/8	ROD-UN09	10
3/4	1/2	ROD-UN12	10
7/8	5/8	ROD-UN14	10
1.1/16	3/4	ROD-UN17	10
1.3/16	7/8	ROD-UN19	10
1.5/16	1	ROD-UN21	10
1.5/8	1.1/4	ROD-UN26	10
1.7/8	1.1/2	ROD-UN30	10

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SEALS

ROD-WD/ROD-BE
SUIT BSPP
ENCAPSULATED MALE



THREAD SIZE	90 DUROMETER	
inch	PART NO	PACK QTY
1/8	ROD-WD084	10
1/4	ROD-WD116	10
3/8	ROD-WD147	10
1/2	ROD-WD185	10
3/4	ROD-WD239	10
1	ROD-WD297	10
1.1/4	ROD-WD388	10
1.1/2	ROD-WD447	10
2	ROD-BE32*	10

*NOTE: Seal is a circular cross-section.

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NOTE: O Rings/Seals are sold only in packs of 10. Part Number Series for individual seal is RO. Example: Order Part No RO-BP02 for individual seal. (D is removed from ROD). Surcharges for breaking packages may apply.

ADAPTORS

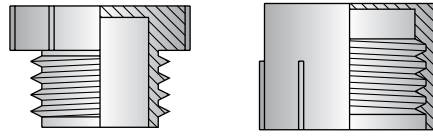
MISCELLANEOUS - PLASTIC CAPS AND PLUGS

BSP/NPT

BPD

BCD

THREADED PLASTIC PROTECTORS



THREAD SIZE	PACK QTY	PLUG SUITS FEMALE BSP & NPSM	CAP SUITS MALE BSP & NPT
inch		PART NO	PART NO
1/8	100	BPD-02	BCD-02
1/4	100	BPD-04	BCD-04
3/8	100	BPD-06	BCD-06
1/2	100	BPD-08	BCD-08
3/4	100	BPD-12	BCD-12
1	100	BPD-16	BCD-16
1.1/4	10	BPD-20	BCD-20
1.1/2	10	BPD-24	BCD-24
2	10	BPD-32	BCD-32

JIC/SAE/UNO

JPPD

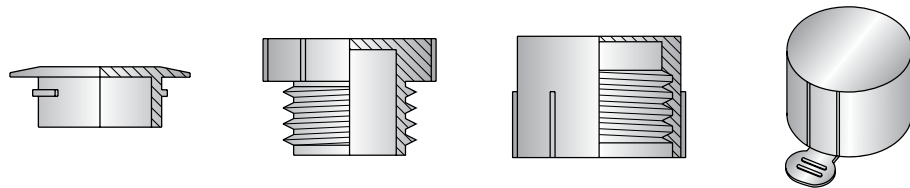
JPD

JCD

JCTD

THREADED PLASTIC PROTECTORS

TEAR OFF PLASTIC THREAD PROTECTOR



THREAD SIZE	PACK QTY	PUSH-IN PLUG SUITS FEMALE JIC, SAE & UNO	PLUG SUITS FEMALE JIC, SAE & UNO	CAP SUITS MALE JIC, SAE & UNO	TEAR OFF CAP SUITS MALE JIC, SAE & UNO
		PART NO	PART NO	PART NO	PART NO
7/16-20	100	JPPD-07	JPD-07	JCD-07	JCTD-07
1/2-20	100		JPD-08	JCD-08	
9/16-18	100	JPPD-09	JPD-09	JCD-09	JCTD-09
5/8-18	100		JPD-10	JCD-10	
3/4-16	100	JPPD-12	JPD-12	JCD-12	JCTD-12
7/8-14	100	JPPD-14	JPD-14	JCD-14	JCTD-14
1.1/16-12	100	JPPD-17	JPD-17	JCD-17	JCTD-17
1.3/16-12	100		JPD-19	JCD-19	
1.5/16-12	100		JPD-21	JCD-21	JCTD-21
1.5/8-12	10		JPD-26	JCD-26	JCTD-26
1.7/8-12	10				JCTD-30

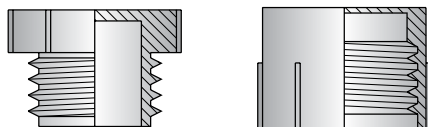
NOTE: Plastic Thread Protectors are sold only in packs with quantities as shown. To order individual Plastic Thread Protectors, remove the "D" preceding the part number dash. Example: Order Part No BP-02 for individual part ("D" is removed from BPD-02 packaged Part No). Surcharges for breaking packages may apply.

Part Numbers for Plastic Caps and Plugs: First letter denotes Thread Type, **B = BSP**, **O = ORFS** etc. Second letter denotes Plug or Cap, **P = Plug**, **C = Cap**. A "D" before the dash represents the packaged part number (omit for unpackaged, individual Plug or Cap). Numbers after the dash represent the Thread Size or Dash Size of the Plug or Cap.

MISCELLANEOUS - PLASTIC CAPS AND PLUGS

METRIC MPD MCD

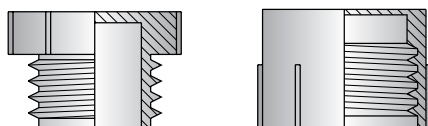
**THREADED
PLASTIC
PROTECTORS**



THREAD SIZE	PACK QTY	PLUG SUITS FEMALE METRIC	CAP SUITS MALE METRIC
mm		PART NO	PART NO
12x1,5	100	MPD-1215	MCD-1215
14x1,5	100	MPD-1415	MCD-1415
16x1,5	100	MPD-1615	MCD-1615
18x1,5	100	MPD-1815	MCD-1815
20x1,5	100	MPD-2015	MCD-2015
22x1,5	100	MPD-2215	MCD-2215
24x1,5	100	MPD-2415	MCD-2415
26x1,5	100	MPD-2615	MCD-2615
30x1,5	10	MPD-3015	
30x2,0	10	MPD-3020	MCD-3020
36x2,0	10	MPD-3620	MCD-3620
42x2,0	10	MPD-4220	MCD-4220
45x2,0	10	MPD-4250	MCD-4250
52x2,0	10	MPD-5220	MCD-5220

ORFS OPD OCD

**THREADED
PLASTIC
PROTECTORS**



THREAD SIZE	PACK QTY	PLUG SUITS FEMALE ORFS	CAP SUITS MALE ORFS
inch		PART NO	PART NO
9/16	100	USE JPD-09	USE JCD-09
11/16	100	OPD-11	OCD-11
13/16	100	OPD-13	OCD-13
1	100	OPD-16	OCD-16
1.3/16	100	USE JPD-19	USE JCD-19
1.7/16	100	OPD-23	OCD-23
1.11/16	10		OCD-27

NOTE: Plastic Thread Protectors are sold only in packs with quantities as shown. To order individual Plastic Thread Protectors, remove the "D" preceding the part number dash. Example: Order Part No BP-02 for individual part ("D" is removed from BPD-02 packaged Part No). Surcharges for breaking packages may apply.

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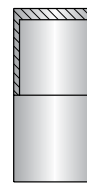
TECHNICAL

ADAPTORS

MISCELLANEOUS - PLASTIC CAPS AND PLUGS

SAE FLANGE	FC61D	FC62D	R62C TYPE
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FLANGE COVERS
PLASTIC
CODE 61
CODE 62
R62C TYPE



NOM. FLANGE SIZE	PACK QTY	SUITS SAE CODE 61 FLANGE	SUITS SAE CODE 62 FLANGE	SUITS R62C FLANGE
		PART NO	PART NO	PART NO
1/2	100	FC61D-08	FC62D-08	
3/4	100	FC61D-12	FC62D-12	USE FC62D-12
1	100	FC61D-16	FC62D-16	USE FC62D-16
1.1/4	10	FC61D-20	FC62D-20	USE FC62D-20
1.1/2	10	FC61D-24	FC62D-24	USE FC62D-24
2	10	FC61D-32	FC62D-32	

800 SERIES	PPD
-------------------	------------

PUSH ON
HOSE TAIL
PLASTIC COLLAR



HOSE SIZE	PACK QTY	SUITS 800 SERIES FITTING
		PART NO
1/4	100	PPD-04
5/16	100	PPD-05
3/8	100	PPD-06
1/2	100	PPD-08
5/8	100	PPD-10
3/4	100	PPD-12

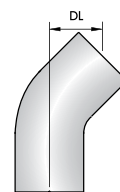
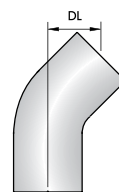
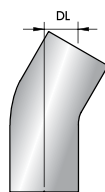
NOTE: Plastic Thread Protectors are sold only in packs with quantities as shown. To order individual Plastic Thread Protectors, remove the "D" preceding the part number dash. Example: Order Part No BP-02 for individual part ("D" is removed from BPD-02 packaged Part No). Surcharges for breaking packages may apply.

Part Numbers for Plastic Caps and Plugs: First letter denotes Thread Type, **B = BSP, O = ORFS** etc. Second letter denotes Plug or Cap, **P = Plug, C = Cap**. A "D" before the dash represents the packaged part number (omit for unpackaged, individual Plug or Cap). Numbers after the dash represent the Thread Size or Dash Size of the Plug or Cap.

MISCELLANEOUS - TUBE BENDS

TUBE BENDS

IMPERIAL
OUTSIDE
DIAMETER

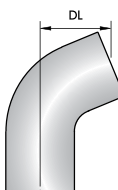
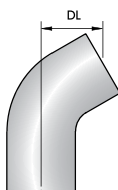


TUBE SIZE	DASH SIZE	22.5° TUBE BEND		30° TUBE BEND		45° TUBE BEND		45° TUBE BEND HEAVY	
inch		PART NO	DL	PART NO	DL	PART NO	DL	PART NO	DL
1/4	-04					25-04	8		
3/8	-06					25-06	10		
1/2	-08					25-08	11		
5/8	-10					25-10	12		
3/4	-12	14-12	7	15-12	8	25-12	14	25HL-12	14
1	-16	14-16	8	15-16	9	25-16	17	25HL-16	17
1.1/4	-20	14-20	9	15-20	10	25-20	20	25HL-20	20
1.1/2	-24	14-24	12	15-24	10	25-24	23	25HL-24	23
2	-32	14-32	17			25-32	30	25HL-32	30

NOTE: Tube Bends can be used in conjunction with S112 Tube Joiners shown on page 336, when a tube bender is not available, or tighter bends than can be achieved by bending hydraulic tube are required. Drop Lengths (DL) dimensions are in millimetres.

TUBE BENDS

IMPERIAL
OUTSIDE
DIAMETER



TUBE SIZE	DASH SIZE	60° TUBE BEND		67.5° TUBE BEND	
inch		PART NO	DL	PART NO	DL
3/4	-12	17-12	26	16-12	30
1	-16	17-16	31	16-16	36
1.1/4	-20	17-20	35	16-20	42
1.1/2	-24	17-24	45	16-24	53
2	-32	17-32	65	16-32	75

NOTE: Tube Bends can be used in conjunction with S112 Tube Joiners shown on page 336, when a tube bender is not available, or tighter bends than can be achieved by bending hydraulic tube are required. Drop Lengths (DL) dimensions are in millimetres.

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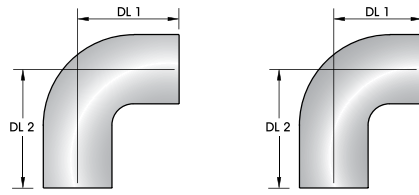
MISCELLANEOUS - TUBE BENDS

TUBE BENDS

24A

24B

IMPERIAL
OUTSIDE
DIAMETER



TUBE BEND	DASH SIZE	90° SPECIAL LONG TUBE BEND			90° SPECIAL LONG TUBE BEND		
inch		PART NO	DL1	DL2	PART NO	DL1	DL2
5/8	-10	24A-10	37	64			
3/4	-12	24A-12	42	66	24B-12	42	84
1.1/4	-20	24A-20	61	68	24B-20	61	80
1.1/2	-24	24A-24	77	101	24B-24	77	137
2	-32	24A-32	107	153			

NOTE: Tube Bends can be used in conjunction with S112 Tube Joiners shown on page 336, when a tube bender is not available, or tighter bends than can be achieved by bending hydraulic tube are required. Drop Lengths (DL) dimensions are in millimetres.

TUBE BENDS

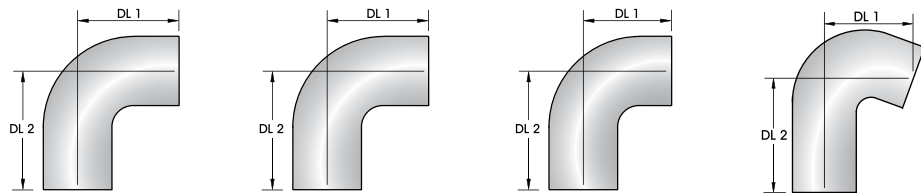
24

24HL

21

91

IMPERIAL
OUTSIDE
DIAMETER



TUBE BEND	DASH SIZE	90° TUBE BEND			90° TUBE BEND HEAVY			90° LONG TUBE BEND			110° LONG TUBE BEND		
inch		PART NO	DL1	DL2	PART NO	DL1	DL2	PART NO	DL1	DL2	PART NO	DL1	DL2
1/4	-04	24-04	17	17				21-04	17	38			
3/8	-06	24-06	22	22				21-06	22	48			
1/2	-08	24-08	27	27				21-08	27	54			
5/8	-10	24-10	31	31				21-10	31	59			
3/4	-12	24-12	36	36	24HL-12	36	36	21-12	36	67			
1	-16	24-16	47	47	24HL-16	47	47	21-16	47	81			
1.1/4	-20	24-20	57	57	24HL-20	57	57	21-20	57	97			
1.1/2	-24	24-24	66	66	24HL-24	66	66	21-24	67	114	91-24	95	127
2	-32	24-32	86	86	24HL-32	86	86				91-32	131	141

NOTE: Tube Bends can be used in conjunction with S112 Tube Joiners shown on page 336, when a tube bender is not available, or tighter bends than can be achieved by bending hydraulic tube are required. Drop Lengths (DL) dimensions are in millimetres.

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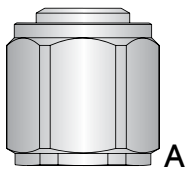
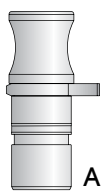
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RYCO WEO **RW723** **RW811**

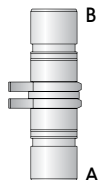
**PLUG
CAP**



RYCO WEO SIZE A		DASH SIZE	RYCO WEO MALE STOP PLUG	RYCO WEO FEMALE STOP CAP
DN	inch		PART NO	PART NO
6	1/4	-04	RW723-04	RW811-04
10	3/8	-06	RW723-06	RW811-06
12	1/2	-08	RW723-08	RW811-08
19	3/4	-12	RW723-12	RW811-12
25	1	-16	RW723-16	RW811-16

RYCO WEO **RW722**

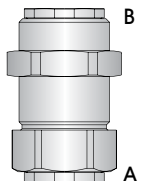
STRAIGHT



RYCO WEO SIZE A, B		DASH SIZE	RYCO WEO MALE NIPPLE
DN	inch		PART NO
6	1/4	-0404	RW722-0404
10	3/8	-0606	RW722-0606
12	1/2	-0808	RW722-0808
19	3/4	-1212	RW722-1212
25	1	-1616	RW722-1616

RYCO WEO **RW813**

FEMALE BULKHEAD



RYCO WEO SIZE A, B		THREAD A, B	DASH SIZE	RYCO WEO FEMALE BULKHEAD
DN	inch	inch		PART NO
6	1/4	M21,5x1,5	-0404	RW813-0404
10	3/8	M26x1,5	-0606	RW813-0606
12	1/2	M30x2,0	-0808	RW813-0808

NOTE: RYCO WEO male and female couplings and adaptors do not contain a shut-off valve. When not in use, cap the RYCO WEO male using the appropriate size RW811 series stop cap and plug the RYCO WEO female/cartridge using the appropriate size RW723 series stop plug.

ADAPTORS

RYCO WEO ADAPTORS

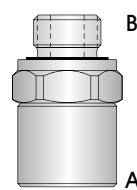
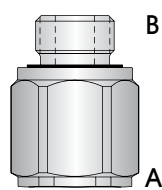
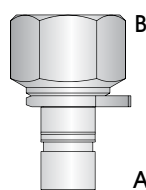
RYCO WEO/BSPP

RW721

RW830

RW860

STRAIGHT



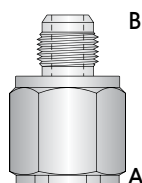
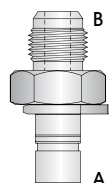
RYCO WEO SIZE A		THREAD SIZE B	DASH SIZE	RYCO WEO MALE BSPP FEMALE	RYCO WEO FEMALE BSPP ENCAPSULATED MALE	RYCO WEO FEMALE SWIVEL BSPP ENCAPSULATED MALE
DN	inch	inch		PART NO	PART NO	PART NO
6	1/4	1/4	-0404		RW830-0404	
10	3/8	3/8	-0606	RW721-0606	RW830-0606	RW860-0606
12	1/2	1/2	-0808	RW721-0808	RW830-0808	RW860-0808
19	3/4	3/8	-1212	RW721-1212	RW830-1212	RW860-1212
25	1	1	-1616		RW830-1616	

RYCO WEO/JIC

RW727

RW824

STRAIGHT



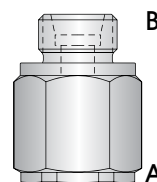
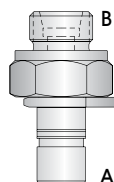
RYCO WEO SIZE A		THREAD SIZE B	DASH SIZE	RYCO WEO MALE JIC MALE	RYCO WEO FEMALE JIC MALE
DN	inch	inch		PART NO	PART NO
6	1/4	7/16	-0407	RW727-0407	RW824-0407
10	3/8	9/16	-0609	RW727-0609	RW824-0609
12	1/2	3/4	-0812	RW727-0812	RW824-0812
12	1/2	7/8	-0814		RW824-0814
12	1/2	1.1/16	-0817		RW824-0817
19	3/4	1.1/16	-1217	RW727-1217	RW824-1217

RYCO WEO/METRIC

RW725

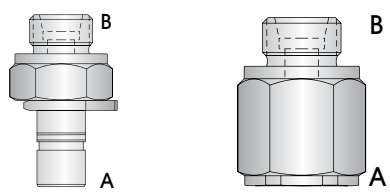
RW822

STRAIGHT

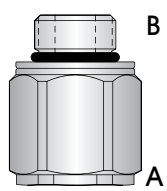


RYCO WEO SIZE A		THREAD SIZE B	TUBE OD	DASH SIZE	RYCO WEO MALE DKL MALE	RYCO WEO FEMALE DKL MALE
DN	inch	inch	mm		PART NO	PART NO
6	1/4	M14x1,5	8	-0414	RW725-0414	RW822-0414
10	3/8	M18x1,5	12	-0618	RW725-0618	RW822-0618
12	1/2	M22x1,5	15	-0822	RW725-0822	RW822-0822
19	3/4	M30x2,0	22	-1230	RW725-1230	RW822-1230

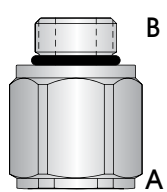
NOTE: RYCO WEO male and female couplings and adaptors do not contain a shut-off valve. When not in use, cap the RYCO WEO male using the appropriate size RW811 series stop cap and plug the RYCO WEO female/cartridge using the appropriate size RW723 series stop plug.

RYCO WEO/METRIC **RW726** **RW823**
STRAIGHT


RYCO WEO SIZE A		THREAD SIZE B	TUBE OD	DASH SIZE	RYCO WEO MALE DKS MALE	RYCO WEO FEMALE DKS MALE
DN	inch	inch	mm		PART NO	PART NO
6	1/4	M16x1,5	8	-0416	RW726-0416	RW823-0416
10	3/8	M20x1,5	12	-0620	RW726-0620	RW823-0620
12	1/2	M24x1,5	16	-0824	RW726-0824	RW823-0824
19	3/4	M36x2,0	25	-1236	RW726-1236	RW823-1236

RYCO WEO/METRIC O RING BOSS **RW831**
STRAIGHT


RYCO WEO SIZE A	THREAD SIZE B	DASH SIZE	RYCO WEO MALE METRIC MALE O RING BOSS
DN	inch	inch	PART NO
10	3/8	M12x1,5	-06 RW831-0612
10	3/8	M16x1,5	-06 RW831-0616
12	1/2	M18x1,5	-08 RW831-0818
19	3/4	M22x1,5	-12 RW831-1222
19	3/4	M27x2,0	-12 RW831-1227

RYCO WEO/UNO **RW826**
STRAIGHT


RYCO WEO SIZE A	THREAD SIZE B	DASH SIZE	RYCO WEO FEMALE UN O RING MALE
DN	inch	inch	PART NO
6	1/4	7/16	-0407 RW826-0407
10	3/8	9/16	-0609 RW826-0609
12	1/2	3/4	-0812 RW826-0812
12	1/2	7/8	-0814 RW826-0814
12	1/2	1.1/16	-0817 RW826-0817
19	3/4	1.1/16	-1217 RW826-1217
25	1	1.5/16	-1621 RW826-1621

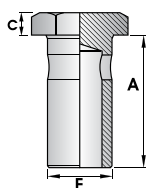
NOTE: RYCO WEO male and female couplings and adaptors do not contain a shut-off valve. When not in use, cap the RYCO WEO male using the appropriate size RW811 series stop cap and plug the RYCO WEO female/cartridge using the appropriate size RW723 series stop plug.

ADAPTORS

ACCESSORIES

BSP BANJO BOLT

BBB

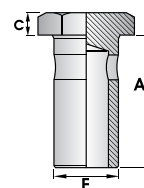


THREAD SIZE E	DIMENSIONS (mm)			BSP BANJO BOLT
	A	C	A/F	
inch				PART NO
G1/4"-19	28,5	6,0	19	BBB-04
G3/8"-19	38,5	7,0	22	BBB-06
G1/2"-14	44,0	8,5	27	BBB-08
G5/8"-14	48,5	10,0	30	BBB-10
G3/4"-14	56,0	10,0	32	BBB-12
G1"-11	68,5	13,0	41	BBB-16

NOTE: RL21D Seals for BBB Banjo Bolts can be found on page 309.

METRIC BANJO BOLT

BBM

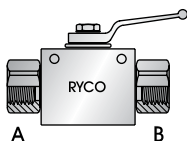


THREAD SIZE E	DIMENSIONS (mm)			METRIC BANJO BOLT
	A	C	A/F	
mm				PART NO
M10x1,0	19	6	14	BBM-10
M12x1,5	24	6	17	BBM-12
M14x1,5	26	6	19	BBM-14
M16x1,5	28	6	22	BBM-16
M18x1,5	32	6	24	BBM-18
M20x1,5	37	7	27	BBM-20
M22x1,5	39	7	27	BBM-22
M26x1,5	45	7	32	BBM-26
M30x1,5	51	7	36	BBM-30
M36x2,0	71	12	46	BBM-36

NOTE: MBD Seals for BBM Banjo Bolts can be found on page 337.

BSPP BALL VALVE

RL20SH



THREAD SIZE		DASH SIZE	MAX. WORKING PRESSURE		BALL VALVE BSPP FEMALE BSPP FEMALE
A	B		bar	psi	
inch	inch		bar	psi	PART NO
1/4	1/4	-0404	500	7250	RL20SH-0404
3/8	3/8	-0606	500	7250	RL20SH-0606
1/2	1/2	-0808	500	7250	RL20SH-0808
3/4	3/4	-1212	400	5800	RL20SH-1212
1	1	-1616	350	5100	RL20SH-1616
1.1/4	1.1/4	-2020	350	5100	RL20SH-2020
1.1/2	1.1/2	-2424	350	5100	RL20SH-2424
2	2	-3232	350	5100	RL20SH-3232

■ ACCESSORIES



ACCESSORIES

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PAGE	ACCESSORY TYPE
369 to 372	PICTORIAL INDEXES
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372	Pictorial Index-Crimping Equipment
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374	R1620 Easy Test - Test Point Couplings
375 to 376	R1620 Easy Test - Inline Test Point Adaptors
377	R1620 Easy Test – Test Hose And Hose Assemblies
378	R1620 Easy Test – Couplings For Test Hoses
379	R1620 Easy Test – Adaptors
380 to 381	R1620 - RG01 Pressure Gauge And Test Kits
382 to 402	QUICK RELEASE COUPLINGS
382 to 383	R80, R81, R82, R85 & R86 Poppet Check Valve Quick Release Couplings
384 to 385	R91, R94 & R96 Ball Check Valve Quick Release Couplings
386 to 387	Quick Release Couplings – Accessories & Spare Parts
388 to 389	Quick Release Couplings - Series Technical Data
390 to 391	R100 10,000 psi Screw Together Quick Release Couplings
392 to 393	R110 Flat Face Valve Quick Release Couplings
394 to 395	R120 Thread to Connect Heavy Duty Quick Release Couplings
396 to 397	R130 High Flow Quick Release Couplings
398 to 399	R140 PBR Interchange Quick Release Couplings
400 to 401	Pressure Drop Graphs
402	Nominal Flow Rates For Quick Release Couplings
403 to 409	MOUNTING CLAMPS
403	RCS & RCD Mounting Clamps
404	RCS & RCD Mounting Clamps - Assembly Instructions
405	RCS & RCD Mounting Clamps - Hose Compatibility
406 to 409	RCS & RCD Mounting Clamps - Specifications
410 to 413	BALL VALVES AND CHECK VALVES
410 to 411	RL20 & RL20SH BSPP Ball Valves
412 to 413	RCV BSPP Check Valves
414	AIRLINE COUPLINGS
415 to 416	200, 200S & 290 Series Airline Couplings
417	300 Industrial Series Airline Couplings
418	400 Hi Flow Series Airline Couplings
419	500R Series Respiratory Breathing Air Airline Couplings
420	500 Super Hi Flow Series Airline Couplings
422	Airline Couplings
423 to 424	Airline Couplings Hose Barbs
425 to 426	Airline Hang Sell Packs
427 to 438	CRIMPING EQUIPMENT/CUT-OFF SAWS
429	R16HP
428	R125-1D
430	R250-3D
431	RY20
432	RY32
433	RY65
434	RY80
435	RY125
436	R13Y-9000
437	CS12/CS14 Cut-Off Saws
438	Crimping Equipment Accessories

INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

TEST POINT COUPLINGS

R1620-BT P374	R1620-BP P358	R1620-NT P374	R1620-MR P374	R1620-MP P359	R1620-MM P374	R1620-UN P374
BSPT MALE	BSPP ENCAPSULATED MALE	NPT MALE	METRIC MALE O RING SEAL	METRIC ENCAPSULATED MALE	METRIC MALE METAL SEAL	UN O RING (O RING BOSS)

INLINE TEST POINT ADAPTORS

S160 P375	S159 P375	S961 P376	S962 P376	FK61L P376	FK62L P376
BSPT MALE BSPP FEMALE SWIVEL M16 X 2,0 TEST POINT	JIC MALE JIC FEMALE SWIVEL M16 X 2,0 TEST POINT	CODE 61 CODE 61 FLAT M16 X 2,0 TEST POINT	CODE 62 CODE 62 FLAT M16 X 2,0 TEST POINT	CODE 61 FASTENING KIT UNC BOLT	CODE 62 FASTENING KIT UNC BOLT

FASTENING KITS (CONT)

FK61LM P376	FK62LM P376	TEST HOSE AND ASSEMBLIES	RT7-M P377	R1621 P377	R1622 P377
CODE 61 FASTENING KIT METRIC BOLT	CODE 62 FASTENING KIT METRIC BOLT		TEST HOSE	TEST HOSE ASSEMBLY	TEST HOSE ASSEMBLY

TEST HOSE COUPLINGS

7202 P378	7202G P378	7204 P378	7262 P378	TEST HOSE ACCESSORIES	750-M P378	CP01 P378
BSPP FEMALE SWIVEL 60° CONE SEAT	BSPP FEMALE SWIVEL GAUGE SEAT	JIC FEMALE SWIVEL 37° SEAT	METRIC SUITS M16X 2,0 TEST POINT		BEND RESTRICTOR SPRING	PLASTIC PLUG M16 X 2,0 WITH PLASTIC COLLAR

TEST POINT ADAPTORS

C81 P379	C81N P379	C27 P379	C80 P379	C99 P379	C24 P379
M16 X 2,0 FEMALE BSPP FEMALE	M16 X 2,0 FEMALE NPT FEMALE	JOINER	CONVERSION ADAPTOR	CONVERSION ADAPTOR	M10 X 1,0 FIXED FEMALE BSPT FEMALE

PRESSURE GAUGE AND TEST KITS

RG01/RG11 P380	RG02/RG12 P380	RG01-COVER P381	RG11-COVER P381	QUICK RELEASE COUPLINGS	R80 P382	R81 P382
PRESSURE GAUGE BOTTOM ENTRY	PRESSURE GAUGE REAR ENTRY	PRESSURE GAUGE COVER	PRESSURE GAUGE COVER		ISO TYPE A POPPET CHECK VALVE	ISO TYPE A POPPET CHECK VALVE

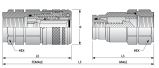
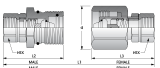
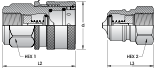

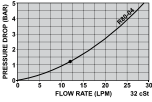
QUICK RELEASE COUPLINGS (CONT)

R82 P382	R85 P382	R86 P382	R91 P384	R94 P384	R96 P384	R100 P390
ISO TYPE A POPPET CHECK VALVE	ISO TYPE A POPPET CHECK VALVE	ISO TYPE A POPPET CHECK VALVE	ISO TYPE A BALL CHECK VALVE	ISO TYPE A BALL CHECK VALVE	ISO TYPE A BALL CHECK VALVE	10,000 PSI SCREW TOGETHER








ACCESSORIES

PICTORIAL INDEX

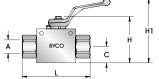
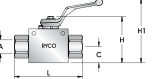
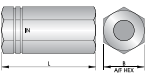

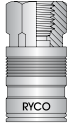
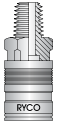
QUICK RELEASE COUPLINGS (CONT)

R110 P392	R120 P394	R130 P396	R140 P398	PRESSURE P400-P402
				
FLAT FACE VALVE	THREAD TO CONNECT HEAVY DUTY	THREAD TO CONNECT HEAVY DUTY	THREAD TO CONNECT HEAVY DUTY	PRESSURE DROP FLOW RATE DATA


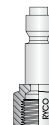




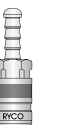
QUICK RELEASE COUPLING ACCESSORIES & SPARE PARTS

R81-08CPM 387	RB 387	QDPC/RDP/RDC P387	MOUNTING CLAMPS & ACCESSORIES	RCS P403	RCD P403	ACCESSORIES P404-P409
						
CONNECT UNDER PRESSURE MALE TIP	BREAKAWAY BRACKETS & BREAKAWAY KITS	RUBBERISED DUST CAPS DUST PLUGS		MOUNTING CLAMPS SINGLE	MOUNTING CLAMPS DOUBLE	MOUNTING CLAMPS ASSEMBLY & ACCESSORIES

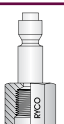


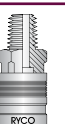
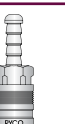


BALL VALVES

RL20 P410	RL20SH P410	RCV P412	AIRLINE COUPLINGS	200/200S P415	200/200S P415
					
BSPP FEMALE BALL VALVE	BSPP FEMALE BALL VALVE	BSPP FEMALE CHECK VALVE		BSPT FEMALE AUTOMATIC COUPLING	BSPT MALE AUTOMATIC COUPLING


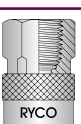
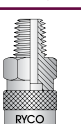
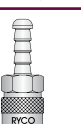
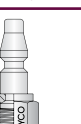

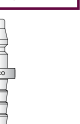
AIRLINE COUPLINGS (CONT)

200/200S P415	200/200S/290 P416	200/200S/290 P416	200/200S/290 P416	290 P415	290 P415	290 P415
						
HOSE BARB AUTOMATIC COUPLING	BSPP FEMALE COUPLING NIPPLE	BSPT MALE COUPLING NIPPLE	HOSE BARB COUPLING NIPPLE	BSPP FEMALE AUTOMATIC COUPLING	BSPT MALE AUTOMATIC COUPLING	HOSE BARB AUTOMATIC COUPLING




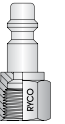

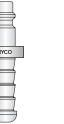

AIRLINE COUPLINGS (CONT)

217 P416	217A P416	300 P417	300 P417	300 P417	300 P417	300 P417
						
SCHRADER SHORT	SCHRADER LONG	BSPP FEMALE AUTOMATIC COUPLING	BSPT MALE AUTOMATIC COUPLING	HOSE BARB AUTOMATIC COUPLING	BSPP FEMALE COUPLING NIPPLE	BSPT MALE COUPLING NIPPLE

AIRLINE COUPLINGS (CONT)

300 P417	400 P418	400 P418	400 P418	400 P418	400 P418	400 P418
						
HOSE BARB COUPLING NIPPLE	BSPP FEMALE AUTOMATIC COUPLING	BSPT MALE AUTOMATIC COUPLING	HOSE BARB AUTOMATIC COUPLING	BSPP FEMALE COUPLING NIPPLE	BSPT MALE COUPLING NIPPLE	HOSE BARB COUPLING NIPPLE

AIRLINE COUPLINGS (CONT)

500 P420	500 P420	500 P420	500 P420	500 P420	500 P420	500R P419
						
BSPP FEMALE AUTOMATIC COUPLING	BSPT MALE AUTOMATIC COUPLING	HOSE BARB AUTOMATIC COUPLING	BSPP FEMALE COUPLING NIPPLE	BSPT MALE COUPLING NIPPLE	HOSE BARB COUPLING NIPPLE	BSPT FEMALE AUTOMATIC COUPLING

AIRLINE COUPLINGS (CONT)

502R P419	224 P421	223 P421	222* P421	221 P421	216* P421	211* P422
BSPT MALE COUPLING NIPPLE	EASY HAND CLASP BLOW GUN	PUSH BUTTON BLOW GUN	AIR-FLEX BLOW GUN	SCREW-ON AIR-FLEX BLOW GUN	AIR CHUCK COUPLING NIPPLE	AIR CHUCK HOSE BARB

AIRLINE COUPLINGS (CONT)

214 P422	218A* P423	259* P423	231* P423	257* P423	372* P424	342* P424
AIR CHUCK BSPP FEMALE	BSPT MALE HOSE BARB	BSPP FEMALE HOSE BARB	BSPP NUT & TAIL HOSE BARB	BARB HOSE BARB	HOSE BARB 90° ELBOW	HOSE BARB 90° ELBOW

AIRLINE COUPLINGS (CONT)

382* P424	352* P424					
HOSE BARB TEE	HOSE BARB BSPT MALE TEE					

ADDITIONAL PART NUMBERS

NOTE: Please note that part numbers for Airline Couplings marked with an asterisk (*) are available under more than one Part Number. See the table below for the additional Part Numbers they are available under.

PART NO	PART	ADDITIONAL PART NUMBERS
222	Air-Flex Blow Gun	422, 522
216	Air Chuck Coupling Nipple	416, 516
211	Air Chuck Hose Barb	213
218A	BSPT Male Hose Barb	218, 219, 207, 268S, 220, 208, 267S, 260, 209, 307, 309, 210, 308, 310, 310-8, 310-10A, 310-2A, 310-9, 310-7A, 310-3A
259	BSPP Female Hose Barb	236, 269S, 237, 261S, 238, 262S, 264S, 263S, 265S
231	BSPP Nut & Tail Hose Barb	232
257	Barb Hose Barb	227, 228, 229, 258
372	Hose Barb 90° Elbow	375, 377, 379
342	Hose Barb 90° Elbow	343, 346, 344, 347, 349
382	Hose Barb Tee	385, 387, 389
352	Hose Barb BSPT Male Tee	353, 356A, 354, 357, 359

ACCESSORIES

PICTORIAL INDEX

CRIMPERS & CUT-OFF SAWS		MAX. HOSE SIZE	POWER OPTIONS	CRIMP DIA. SETTING	OPERATION	
429	R16HP 1" HORIZONTAL CRIMPER		1"	Hand Pump	Vernier Dial	Manual Stop
428	R125 1.1/4" HORIZONTAL CRIMPER		1.1/4" (Six Spiral) 1.1/2" (Wire Braid)	Single Phase, 12V, 24V	Electronic control panel	Automatic Stop
430	R250 2" HORIZONTAL CRIMPER		2" (Six Spiral) 3" (Wire Braid)	Three Phase	Electronic control panel	Automatic Stop
431	RY20 1.1/4" HORIZONTAL CRIMPER		1.1/4"	Single Phase, Three Phase	Electronic control panel	Automatic Stop
432	RY32 2" HORIZONTAL CRIMPER		2"	Single Phase, Three Phase	Electronic control panel	Automatic Stop
433	RY65 3" HORIZONTAL CRIMPER		3"	Three Phase	Electronic control panel	Manual, Semi-Automatic, Automatic
434	RY80 4" HORIZONTAL CRIMPER		4"	Three Phase	Electronic control panel	Manual, Semi-Automatic, Automatic
435	RY125 6" HORIZONTAL CRIMPER		6"	Three Phase	Electronic control panel	Manual, Semi-Automatic, Automatic
436	R13Y-9000 AIR/HYDRAULIC PUMP		—	RYCO R13Y Air/Hydraulic Pump is an economical power pump, providing oil at pressures up to 700 bar (10,000 psi). It operates with compressed air, supplied at pressures between by 4 bar (60 psi) and 8 bar (120 psi). The three position treadle provides for advance, hold, and retract operation.		
437	CS12/CS14 CUT-OFF SAWS		2" (Braided) 1.1/2" (Spiral)	RYCO CS12/CS14 Series Cut-Off Saws are designed especially for use in mobile service vans or workshop environments. All models are ready for connection to exhaust fume extraction.		

R1620

EASY TEST



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TECHNICAL

RECOMMENDED FOR:

RYCO R1620 Easy Test Series is a complete system of Test Points, Inline Test Adaptors, Test Hose Assemblies, Pressure Gauges, Adaptors and Test Point Kits. The system is designed to allow fast, direct connection of pressure measuring gauges and transducers to a hydraulic system. Other applications include; switching, control, and pilot lines; venting/bleeding points; and sample points.

Once installed, connection to the Test Point can be made at up to 400 bar system pressure without the need for tools, and without leakage or spillage. Connection at pressures between 400 bar and Maximum Working Pressure of 630 bar may require tools.

Typical applications include mobile plant, agricultural equipment, industrial equipment, power packs and cylinders, logging and mining, oil processing and exploration, and steel production.

RYCO R1620 Easy Test Test Points can be installed into hydraulic circuits as permanent original equipment, or can be installed temporarily while testing is performed. Inline Test Adaptors also allow quick and easy retro-fitting of Test Points between hoses, or hoses and ports.

RYCO R1620 Easy Test Series utilise the M16x2,0 connection system. Adaptors that enable connection to other connection systems are available: M16x1,5; M12x1,5; S12,65x1,5; and Stake.

FEATURES:

- Connect, and disconnect, under system pressure; up to 400 bar by hand, and up to 630 bar with tools.
- Maximum Working Pressure 630 bar.
- No leakage or spillage when connections are made. The probe in the hose or gauge connection seals into the coupling before the ball check valve is opened.
- Metal protective cap, with captive chain.
- Anti vibration O Ring on body fitted as standard, stops chain collar from rattling.

TECHNICAL DATA:

TEST POINTS AND CAPS:

Steel, zinc-nickel plated for corrosion resistance.

INLINE TEST ADAPTORS:

Steel, RYCOTE CrVI free plated for corrosion resistance.

VALVE IN TEST POINT:

Metal Ball, sealing on metal seat.

SEALS:

Nitrile (Buna N).

OPERATING TEMPERATURE RANGE:

From -35°C to +100°C (-31°F to +212°F).

MAXIMUM WORKING PRESSURE:

630 bar / 9135 psi. Size and temperature dependent - refer to hose working pressures and dimensions data tables for further information.

MAXIMUM CONNECTION PRESSURE:

Up to 400 bar/5800 psi by hand. Between 400 bar and 630 bar requires tools (such as multi-grip pliers to ensure effective connection. Caution: do not overtighten when using tools to tighten connection as this may damage the test point connection, which may result in premature leakage or failure of the connection.

FLUID COMPATIBILITY:

Mineral/petroleum based hydraulic oils.

ACCESSORIES

R1620 EASY TEST - TEST POINT COUPLINGS

NOTE: RYCO R1620 EASY TEST Test Points Couplings can be installed into hydraulic circuits as permanent original equipment, or can be installed temporarily while testing is performed.

BSP/NPT

BT

BP

NT

TEST POINT COUPLINGS



THREAD SIZE		DASH SIZE	BSP		
TEST POINT	MALE		BSPT MALE	ENCAPSULATED MALE	NPT MALE
	inch		PART NO	PART NO	PART NO
M16x2,0	1/8	-02	R1620-BT02	R1620-BP02	R1620-NT02
M16x2,0	1/4	-04	R1620-BT04	R1620-BP04	R1620-NT04

METRIC

MR

MP

MM

TEST POINT COUPLINGS

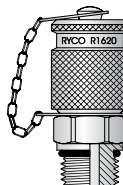


THREAD SIZE		DASH SIZE	METRIC		
TEST POINT	MALE		METRIC MALE O RING SEAL	ENCAPSULATED MALE	METRIC MALE METAL SEAL
			PART NO	PART NO	PART NO
M16x2,0	M8x1,0	-08	R1620-MR08		
M16x2,0	M10x1,0	-10	R1620-MR10		
M16x2,0	M12x1,5	-12		R1620-MP12	
M16x2,0	M14x1,5	-14			R1620-MM14

UNO (O RING BOSS)

UN

TEST POINT COUPLINGS



THREAD SIZE		DASH SIZE	UN O RING MALE (O RING BOSS)
TEST POINT	MALE		
	inch		PART NO
M16x2,0	7/16	-07	R1620-UN07
M16x2,0	1/2	-08	R1620-UN08
M16x2,0	9/16	-09	R1620-UN09

R1620 EASY TEST - INLINE TEST POINT ADAPTORS

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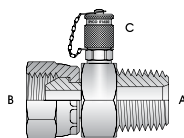
FILTERS

TECHNICAL

NOTE: RYCO R1620 EASY TEST Inline Test Point Adaptors can be installed into circuits as permanent original equipment, or can be installed temporarily while testing is performed. InLine Test Point Adaptors also allow quick and easy retro-fitting of Test Points between hoses, or hoses and ports.

BSP S160

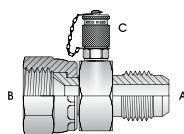
INLINE TEST POINT ADAPTORS



THREAD SIZE			DASH SIZE	BSPT MALE BSPP FEMALE SWIVEL M16 X 2,0 TEST POINT
A	B	C		
inch	inch			PART NO
1/4	1/4	M16x2,0	-040416	S160-040416
3/8	3/8	M16x2,0	-060616	S160-060616
1/2	1/2	M16x2,0	-080816	S160-080816
3/4	3/4	M16x2,0	-121216	S160-121216
1	1	M16x2,0	-161616	S160-161616
1.1/4	1.1/4	M16x2,0	-202016	S160-202016

JIC S159

INLINE TEST POINT ADAPTORS



THREAD SIZE			DASH SIZE	JIC MALE JIC FEMALE SWIVEL M16 X 2,0 TEST POINT
A	B	C		
inch	inch			PART NO
7/16	7/16	M16x2,0	-070716	S159-070716
9/16	9/16	M16x2,0	-090916	S159-090916
3/4	3/4	M16x2,0	-121216	S159-121216
7/8	7/8	M16x2,0	-141416	S159-141416
1.1/16	1.1/16	M16x2,0	-171716	S159-171716
1.5/16	1.5/16	M16x2,0	-212116	S159-212116
1.5/8	1.5/8	M16x2,0	-262616	S159-262616

ACCESSORIES

R1620 EASY TEST – INLINE TEST POINT ADAPTORS

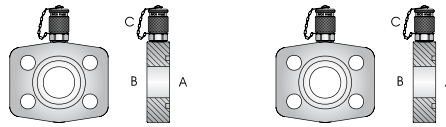
NOTE: RYCO R1620 EASY TEST Inline Test Point Adaptors can be installed into circuits as permanent original equipment, or can be installed temporarily while testing is performed. InLine Test Point Adaptors also allow quick and easy retrofitting of Test Points between hoses, or hoses and ports.

SAE FLANGE

S961

S962

INLINE TEST POINT ADAPTORS



NOMINAL FLANGE SIZE		THREAD SIZE C	DASH SIZE	CODE 61 CODE 61 FLAT M16X2,0 TEST POINT	CODE 62 CODE 62 FLAT M16X2,0 TEST POINT
A	B				
inch	inch			PART NO	PART NO
3/4	3/4	M16x2,0	-121216		S962-121216
1	1	M16x2,0	-161616	S961-161616	S962-161616
1.1/4	1.1/4	M16x2,0	-202016	S961-202016	S962-202016
1.1/2	1.1/2	M16x2,0	-242416	S961-242416	S962-242416
2	2	M16x2,0	-323216	S961-323216	S962-323216

NOTE: Longer bolts are required when mounting S961 and S962 Inline Test Adaptors between an SAE Flange Hose Coupling and an SAE Flange Port. Fastening Kits, consisting of the four hex head Long Bolts, four Spring Washers, and O Ring are available. See table below.

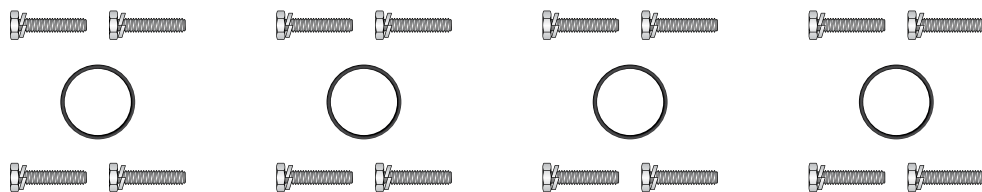
FASTENING KITS

FK61L

FK62L

FK61LM

FK62LM



NOMINAL FLANGE SIZE	DASH SIZE	CODE 61 FASTENING KIT UNC BOLTS	CODE 62 FASTENING KIT UNC BOLT	CODE 61 FASTENING KIT METRIC BOLT	CODE 62 FASTENING KIT METRIC BOLTS
inch		PART NO	PART NO	PART NO	PART NO
3/4	-12		FK62L-12		FK62LM-12
1	-16	FK61L-16	FK62L-16	FK61LM-16	FK62LM-16
1.1/4	-20	FK61L-20	FK62L-20	FK61LM-20	FK62LM-20
1.1/2	-24	FK61L-24	FK62L-24	FK61LM-24	FK62LM-24
2	-32	FK61L-32	FK62L-32	FK61LM-32	FK62LM-32

R1620 EASY TEST – TEST HOSE AND HOSE ASSEMBLIES

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RT7 TEST HOSE FOR R1620 EASY TEST

RECOMMENDED FOR:

Connections between Test Points and pressure measuring gauges and transducers; or between Test Points and control, charging or pilot lines.

TUBE:

Black, oil resistant seamless thermoplastic (Polyamide).

REINFORCEMENT:

One braid of synthetic yarn (Polyester).

COVER:

Black, oil and abrasion resistant thermoplastic (Polyamide).

TEMPERATURE RANGE:

From -35°C to +100°C (-31°F to +212°F) continuous.
From -35°C to +120°C (-31°F to +248°F) intermittent.

WORKING PRESSURE:

Maximum Working Pressures as shown below are dependent on temperature. Refer to chart below for adjustment factors.

COUPLINGS:

7200 Series Two Piece Crimp page 378.
Contact RYCO for assembly instructions.

RT7-M HOSE WORKING PRESSURES AND DIMENSIONS

RT7 - M TEST HOSE													
PART NO	HOSE SIZE	NOMINAL HOSE ID	NOMINAL HOSE OD	MAXIMUM WORKING PRESSURE ¹	MINIMUM BEND RADIUS ²	AVERAGE WEIGHT	COUPLING SERIES TWO-PIECE						
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
RT7-M02	2	-02	2,0	5/64	5,0	0.17	630	9135	20	0.79	0,016	0.011	7200
RT7-M04	4	-04	4,0	5/32	8,6	0.34	380	5510	40	1.57	0,042	0.028	7200

NOTE:

1) PRESSURES are for temperature of +30°C to +50°C (+86°F to +122°F).
If working temperature is not in this range, use the working pressures as shown in the table below.
2) Minimum Bend Radii, when operating at temperatures at or below -20°C (-4°F) are; RT7-M02 = 30mm (1.18"); RT7-M04 = 60mm (2.36").

PART NO	FROM -35°C TO 0°C (-31°F TO +32°F)		FROM 0°C TO 30°C (+32°F TO +86°F)		FROM +30°C TO +50°C (+86°F TO +122°F)		FROM +50°C TO +80°C (+122°F TO +176°F)		FROM +80°C TO +100°C (+176°F TO +212°F)	
	bar	psi	bar	psi	bar	psi	bar	psi	bar	psi
RT7-M02	768	11140	693	10050	630	9135	542	7860	485	7030
RT7-M04	463	6710	418	6060	380	5510	327	4740	293	4250

R1621/R1622 - TEST HOSE ASSEMBLIES

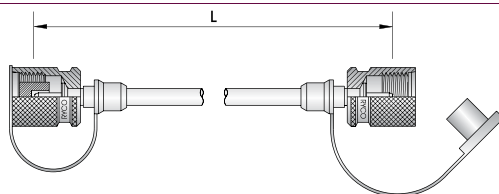
Two combinations of hose couplings with **RT7-M02** Test Hose Assemblies are available as easy to order assemblies:

HOSE ASSEMBLY R1621-XXXX

7262-M0216 (M16x2,0) swivels both ends (replace xxxx with the length required in mm)

Standard lengths available are:

R1621-200, 400, 600, 800, 1000, 1200, 1500, 2000, 2500, 3000, 4000, 5000, 6000

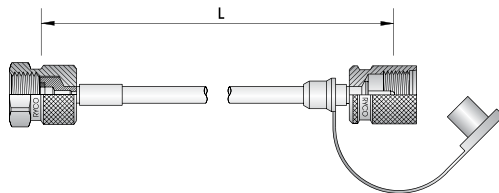


HOSE ASSEMBLY R1622-XXXX

7262-M0216 (M16x2,0) swivel one end, 7202G-M0204 (1/4" BSP Gauge) swivel other end (replace xxxx with the length required in mm)

Standard lengths available are:

R1622-200, 400, 600, 800, 1000, 1200, 1500, 2000, 2500, 3000, 4000, 5000, 6000



OTHER COUPLING COMBINATIONS

Other couplings combinations can be ordered as hose assemblies using, Hose Part No*Length*Coupling End 1*Coupling End 2 for example **RT7-M02*3000*7204-M0207*7262-M0216**

ACCESSORIES

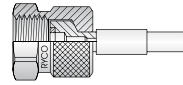
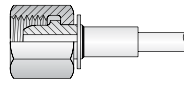
R1620 EASY TEST – COUPLINGS FOR TEST HOSES

BSP/BSP GAUGE

7202

7202G

PLASTIC PLUG INCLUDED



HOSE PART NO	THREAD SIZE	DASH SIZE	BSPP FEMALE SWIVEL 60° CONE SEAT	BSPP FEMALE SWIVEL GAUGE SEAT
	inch		PART NO	PART NO
RT7-M02	1/4	-M0204	7202-M0204	7202G-M0204
RT7-M02	1/2	-M0208		7202G-M0208
RT7-M04	1/4	-M0404	7202-M0404	7202G-M0404

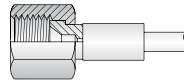
JIC

7204

ACCESSORIES

750-M

PLASTIC PLUG INCLUDED



HOSE PART NO	THREAD SIZE	DASH SIZE	JIC FEMALE SWIVEL 37° SEAT
	inch		PART NO
RT7-M02	7/16	-M0207	7204-M0207
RT7-M02	9/16	-M0209	7204-M0209
RT7-M04	7/16	-M0407	7204-M0407
RT7-M04	9/16	-M0409	7204-M0409

HOSE PART NO	BEND RESTRICTOR SPRING
	PART NO
RT7-M02	750-M02
RT7-M04	750-M04

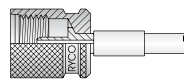
METRIC M16X2,0

7262

ACCESSORIES

CP01

CP01-M02
PLASTIC PLUG INCLUDED



HOSE PART NO	THREAD SIZE	DASH SIZE	METRIC SUITS M16X2,0 TEST POINT
	mm		PART NO
RT7-M02	M16x2,0	-M0216	7262-M0216
RT7-M04	M16x2,0	-M0416	7262-M0416

HOSE PART NO	PLASTIC PLUG M16X2,0 WITH PLASTIC COLLAR
	PART NO
RT7-M02	CP01-M02

NOTE: CP01-M02 is included with 7262-M0216.
750-M Spring must be ordered separately.

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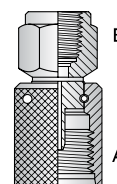
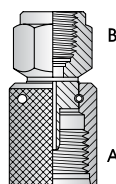
DIRECT GAUGE ADAPTORS

C81

C81N

PLASTIC PLUG INCLUDED

Direct Gauge Adaptors allow the connection of a Pressure Gauge directly to a Test Point. The Pressure Gauge can be oriented to face any particular direction by adjustment of the Swivel Nut.



THREAD SIZE		DASH SIZE	M16X2,0 FEMALE BSPP FEMALE	M16X2,0 FEMALE NPT FEMALE
A	B			
	inch		PART NO	PART NO
M16x2,0	1/4 BSPP	-1604	C81-1604	
M16x2,0	1/2 BSPP	-1608	C81-1608	
M16x2,0	1/4 NPT	-1604		C81N-1604

JOINER/CONVERSION ADAPTORS

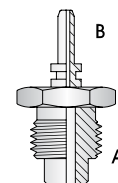
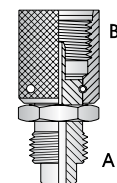
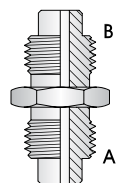
C27

C80

C99

PLASTIC PLUG INCLUDED

Joiners allow the connection of two female hose couplings with M16x2,0 threads. **Conversion Adaptors** allow the interconnection of other series of Test Points with threads other than M16x2,0.

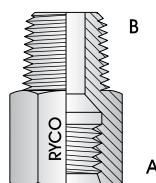


THREAD SIZE		DASH SIZE	JOINER	CONVERSION ADAPTOR	CONVERSION ADAPTOR
A	B				
			PART NO	PART NO	PART NO
M16x2,0	M16x2,0	-1616	C27-1616		
S12,65x1,5	M16x2,0	-1216		C80-1216	
M16x2,0	S12,65x1,5	-1612		C80-1612	
M16x2,0	M16x1,5	-1615		C80-1615	
M16x2,0	PLUG IN	-16SK			C99-16SK

REDUCING ADAPTOR

C24

C24-1004 can be used with many other RYCO M and S Series adaptors, allowing **R1620-MR10** Test Points to be plumbed into the hydraulic system.



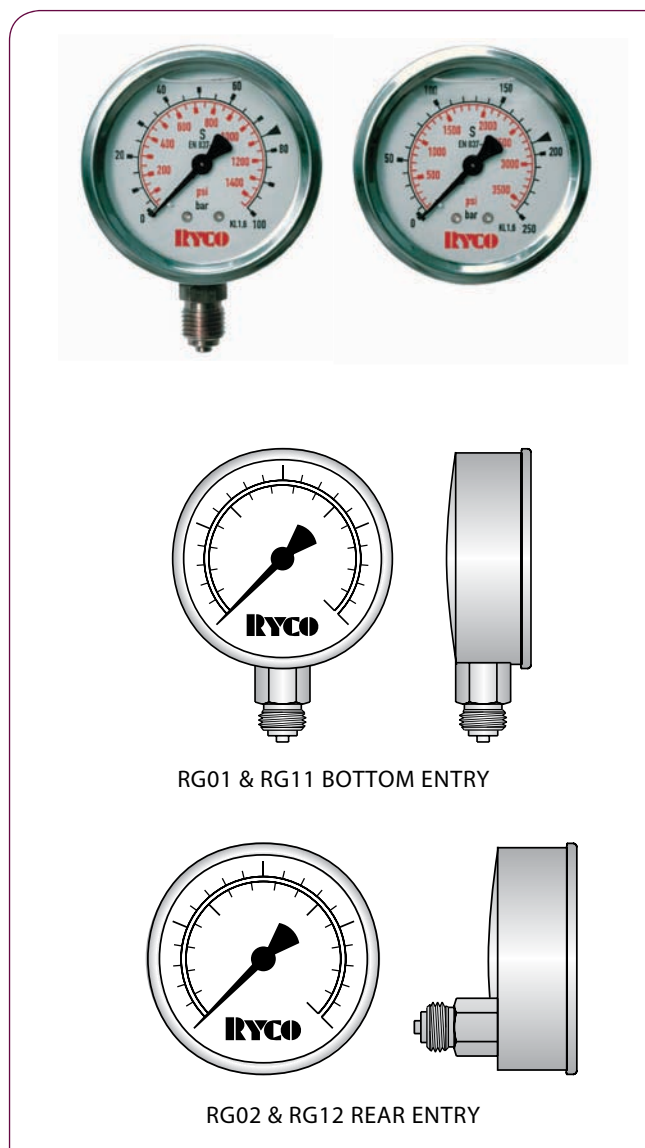
THREAD SIZE		DASH SIZE	M10X1,0 FIXED FEMALE BSPT MALE
A	B		
			PART NO
M10x1,0	1/4	-1004	C24-1004

ACCESSORIES

R1620 - RG01 PRESSURE GAUGE AND TEST KITS

RG01 PRESSURE GAUGE FOR R1620 EASY TEST

63 MM & 100 MM



TECHNICAL DATA

CASE:

Stainless Steel.
O Ring seal between case and entry stem.
Pressure relief in case top.

RG01 & RG02: 63 mm

RG11 & RG12: 100 mm.

WINDOW:

Clear plastic.

SCALE MARKINGS:

Dual scale. Marked in bar (outer scale) and psi (inner scale).

CONNECTING THREAD:

RG01: Brass, bottom entry 1/4" BSPP.

RG02: Brass, rear entry 1/4" BSPP.

RG11: Brass, bottom entry 1/2" BSPP.

RG12: Brass, rear entry 1/2" BSPP.

DAMPING:

Glycerine filled.

ACCURACY CLASS:

RG01 & RG02: ±1.6% of full scale, per EN 837-1/6

RG11 & RG12: ±1.0% of full scale, per EN 837-1/6

Test Certificate available on request (charges apply).

OPERATING TEMPERATURE RANGE:

From -20°C to +60°C (-4°F to +140°F).

WORKING PRESSURE:

	63 MM GAUGES	100 MM GAUGES
Steady:	3/4 of full scale value	full scale value
Fluctuating:	2/3 of full scale value	90% of full scale value
Short time:	full scale value	130% of full scale value

NOTE: A Triangle symbol is marked on the face of the Pressure Gauge at the reading for steady operation. The Pressure Gauge must not be continually subjected to pressures above this reading in accordance with the guidelines above, or damage to the Bourdon Tube may occur.

PRESSURE RANGE	DASH SIZE	63 MM DIAMETER 1/4" BSPP		100 MM DIAMETER 1/2" BSPP	
		BOTTOM ENTRY	REAR ENTRY	BOTTOM ENTRY	REAR ENTRY
bar		PART NO	PART NO	PART NO	PART NO
-1 to 3	-003	RG01-003	RG02-003	RG11-003	RG12-003
0 to 10	-010	RG01-010	RG02-010	RG11-010	RG12-010
0 to 16	-016	RG01-016	RG02-016	RG11-016	RG12-016
0 to 25	-025	RG01-025	RG02-025	RG11-025	RG12-025
0 to 40	-040	RG01-040	RG02-040	RG11-040	RG12-040
0 to 60	-060	RG01-060	RG02-060	RG11-060	RG12-060
0 to 100	-100	RG01-100	RG02-100	RG11-100	RG12-100
0 to 160	-160	RG01-160	RG02-160	RG11-160	RG12-160
0 to 250	-250	RG01-250	RG02-250	RG11-250	RG12-250
0 to 400	-400	RG01-400	RG02-400	RG11-400	RG12-400
0 to 600	-600	RG01-600	RG02-600	RG11-600	RG12-600

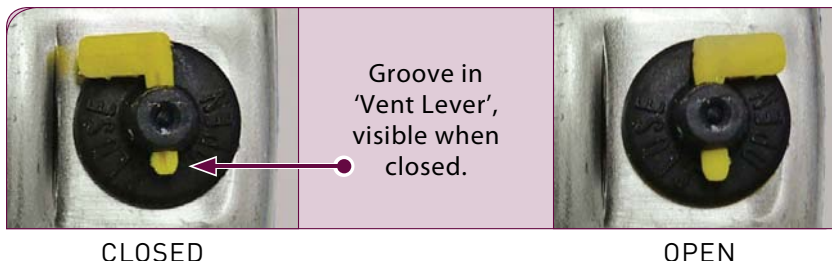
R1620 - RG01 PRESSURE GAUGE AND TEST KITS

CASE PRESSURE RELIEF INSTRUCTIONS

RYCO Pressure Gauges feature a Case Pressure Relief to allow the Bourdon Tube to expand and contract during operation.

During normal operation, the yellow 'Vent Lever' needs to be moved to the 'OPEN' position to allow the case to 'breathe', see picture on right.

NOTE: On initial supply the indicator may not be on 'zero', to correct this simply open the 'Vent Lever' to relieve the case pressure.



INTRODUCTION

HOSE

WALL AND PANEL MOUNT BRACKETS AND FLANGES



PART NUMBER	DESCRIPTION
RG01-WMOUNT	BRACKET WALL MOUNT 63MM GAUGE
RG02-FMOUNT	FLANGE 3H PANEL MOUNT 63MM REAR ENTRY
RG02-PMOUNT	BRACKET PANEL MOUNT 63MM REAR ENTRY
RG11-WMOUNT	BRACKET WALL MOUNT 100MM GAUGE
RG12-FMOUNT	FLANGE 3H PANEL MOUNT 100MM REAR ENTRY
RG12-PMOUNT	BRACKET PANEL MOUNT 100MM REAR ENTRY

COUPLINGS

ADAPTORS

RG01-COVER/RG11-COVER PRESSURE GAUGE COVERS

RECOMMENDED FOR:

Helps protect RYCO Pressure Gauges in situations where they may be subjected to knocks in harsh environments. The cover easily fits over the Pressure Gauge; installation can be prior to, or after connecting the Pressure Gauge.

RG01-COVER suits RG01 & RG02 Series 63 mm Gauges,
RG11-COVER suits RG11 & RG12 Series 100 mm Gauges.

CONSTRUCTION:

Blue, synthetic rubber.



ACCESSORIES

FILTERS

PRESSURE TEST KITS

R1620 EASY TEST Test Points, InLine Test Point Adaptors, Test Hoses, Adaptors and Pressure Gauges supplied in a Protective Case are available. Contact RYCO Customer Service Department for details.

TECHNICAL

ACCESSORIES

POPPET CHECK VALVE QUICK RELEASE COUPLINGS

R80, R81, R82, R85 & R86

POPPET CHECK VALVE QUICK RELEASE COUPLINGS



RECOMMENDED FOR:

General purpose steel hydraulic couplings. Heavy Duty Plating. Typical applications include; industrial equipment, hydraulic hand tools, agricultural machinery, construction and mobile plant, hydraulic cylinders, test rigs and power packs, logging equipment, mining machinery, oil processing and steel production.

FEATURES:

- **Poppet Check Valves** with rubber poppet seal for improved sealing when disconnected. Check Valves automatically close on disconnection, and open on connection.
- **Single Acting Sleeve** is manually retracted to connect, or disconnect.
- **Push/Pull Sleeve** can be moved in either direction to connect, or disconnect. When sleeve is held firmly by hand, or in a bracket, Male Tip will simply push in to connect to Female Body.
- 1/2" Nominal Body Sizes can be mounted in dual breakaway bracket, protecting hose from damage if subjected to excessive pulling force, allowing coupling halves to break apart, eg. a towed farm implement disconnecting from tractor. See page 386.
- **RYCO Quick Release Couplings** have full spanner hex for ease of installation and extra balls in locking mechanism for extra security.
- Couplings are able to swivel when unpressurised, reducing hose kinking and twisting. This feature reduces twist on the hose; the couplings should not be used as swivel joints.
- -08, -12 & -16 Nominal Body Sizes of R81, R82, R85 & R86 Series can be interconnected to same Nominal Body Size.
- Individual Nominal Body Sizes of R80, R81, R82 & R86 Series, and -08, 12 & -16 Nominal Body Sizes of R85 Series, can be connected to same Nominal Body Size of R91, R94 & R96 Series (Ball Check Valves), however the lower of the flow rates and working pressures apply.

TECHNICAL DATA

SEALS:

Nitrile (Buna N) O Rings. Back Up Washer prevents extrusion of O Ring at high pressures.

OPERATING TEMPERATURE RANGE:

From -25°C to +125°C (-13°F to +257°F).

WORKING PRESSURE:

See chart on opposite page.

PRESSURE DROP AND NOMINAL FLOW RATES:

See page 400 and 402. Improved flow and less pressure drop compared to Ball Type Check Valves.

FLUID COMPATIBILITY:

Mineral/petroleum based hydraulic oils.

SPECIFICATIONS AND CROSS REFERENCE:

R85 Series: all sizes conform to ISO Type A and cross reference with other ISO Type A couplings.

R80, R81, R82 & R86 Series: 1/2", 3/4" & 1" Nominal Body sizes conform to ISO Type A and cross reference with other ISO Type A couplings. 1/4", 3/8" & 1/2" Nominal Body sizes cross reference with Pioneer and Safeway. See pages 388 and 389 for cross reference listing.

POPPET CHECK VALVE QUICK RELEASE COUPLINGS

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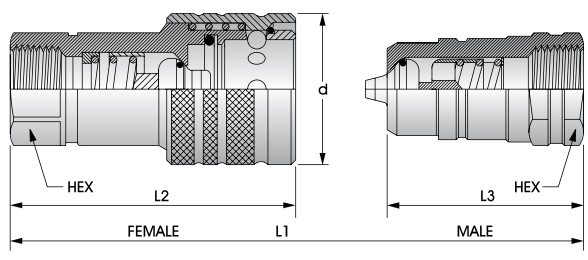
FILTERS

TECHNICAL

SINGLE ACTING SLEEVE POPPET CHECK VALVE

Single Acting Sleeve is manually retracted to connect, or disconnect.

Poppet Check Valves with rubber poppet seal for improved sealing when disconnected. Check Valves automatically close on disconnection, and open on connection.

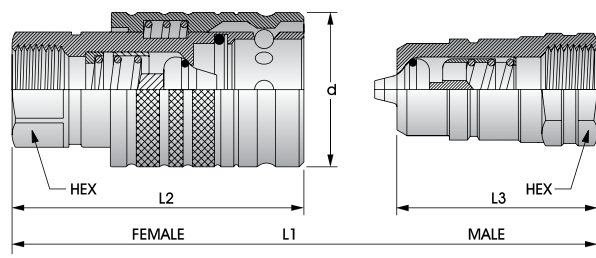


FEMALE THREAD SIZE	NOM. BODY SIZE	RYCO PART NUMBER			MAXIMUM WORKING PRESSURE		d DIAMETER OF SLEEVE	L1 LENGTH COUPLED TOGETHER	L2 LENGTH FEMALE BODY	L3 LENGTH MALE TIP	SPANNER HEX SIZE
		FEMALE BODY	MALE TIP	COMPLETE COUPLING	bar	psi					
1/4 BSPP	1/4	R80-04F	R80-04M	R80-04FM	350	5100	27	76	56	38	19
3/8 BSPP	3/8	R80-06F	R80-06M	R80-06FM	350	5100	34	85	63	43	24
1/2 BSPP	1/2	R81-08F	R81-08M	R81-08FM	300	4350	38	96	70	48	27
3/4 BSPP	3/4	R82-12F	R82-12M	R82-12FM	250	3625	45	114	85	57	34
1 BSPP	1	R82-16F	R82-16M	R82-16FM	250	3625	52	131	99	65	41
1/4 NPT	1/4	R85-04F	R85-04M	R85-04FM	350	5100	26	70	49	35	19
3/8 NPT	3/8	R85-06F	R85-06M	R85-06FM	350	5100	30	85	61	43	22
3/4 NPT	3/4	R85-12F	R85-12M	R85-12FM	250	3625	45	114	85	57	34
1 NPT	1	R85-16F	R85-16M	R85-16FM	250	3625	52	131	99	65	41
3/4 UNO	1/2	R86-12F	R86-12M	R86-12FM	300	4350	38	96	70	48	27

PUSH/PULL SLEEVE POPPET CHECK VALVE

Push/Pull Sleeve can be moved in either direction to connect, or disconnect. When sleeve is held firmly by hand, or in a bracket, Male Tip will simply push in to connect to Female Body.

Poppet Check Valves with rubber poppet seal for improved sealing when disconnected. Check Valves automatically close on disconnection, and open on connection.



FEMALE THREAD SIZE	NOM. BODY SIZE	RYCO PART NUMBER			MAXIMUM WORKING PRESSURE		d DIAMETER OF SLEEVE	L1 LENGTH COUPLED TOGETHER	L2 LENGTH FEMALE BODY	L3 LENGTH MALE TIP	SPANNER HEX SIZE
		FEMALE BODY	MALE TIP	COMPLETE COUPLING	bar	psi					
1/2 BSPP	1/2	R81-08P	R81-08M	R81-08PM	300	4350	38	96	70	48	27
1/2 NPT	1/2	R85-08P	R85-08M	R85-08PM	300	4350	38	96	70	48	27
3/4 UNO	1/2	R86-12P	R86-12M	R86-12PM	300	4350	38	96	70	48	27
7/8 UNO	1/2	R86-14P	R86-14M	R86-14PM	300	4350	38	110	74	58	30

ACCESSORIES

BALL CHECK VALVE QUICK RELEASE COUPLINGS

R91, R94 & R96

BALL CHECK VALVE QUICK RELEASE COUPLINGS



RECOMMENDED FOR:

General purpose steel hydraulic couplings. Heavy Duty Plating. Typical applications include; industrial equipment, hydraulic hand tools, agricultural machinery, construction and mobile plant, hydraulic cylinders, test rigs and power packs, logging equipment, mining machinery, oil processing and steel production.

FEATURES:

- **Ball Check Valves** are precision machined for long reliable life (some slight weeping may occur if couplings are pressurised when disconnected). Check Valves automatically close on disconnection, and open on connection.
- **Single Acting Sleeve** is manually retracted to connect, or disconnect.
- **Push/Pull Sleeve** can be moved in either direction to connect, or disconnect. When sleeve is held firmly by hand, or in a bracket, Male Tip will simply push in to connect to Female Body.
- 1/2" Nominal Body Sizes can be mounted in dual breakaway bracket, protecting hose from damage if subjected to excessive pulling force, allowing coupling halves to break apart, eg. a towed farm implement disconnecting from tractor. See page 386.
- RYCO Quick Release Couplings have full spanner hex for ease of installation and extra balls in locking mechanism for extra security
- Couplings are able to swivel when unpressurised, reducing hose kinking and twisting. This feature is to reduce twist on hose; the couplings should not be used as swivel joints.
- Individual Nominal Body Sizes of R91, R94 & R96 Series can be interconnected. Can be connected to same Nominal Body Size of R80, R81, R82, R86, and -08, -12 & -16 Nominal Body Sizes of R85 Series (Poppet Check Valves), however the lower of the flow rates and working pressures apply.

TECHNICAL DATA

SEALS:

Nitrile (Buna N) O Rings. Back Up Washer prevents extrusion of O Ring at high pressures.

OPERATING TEMPERATURE RANGE:

From -25°C to +125°C (-13°F to +257°F).

WORKING PRESSURE:

See chart on opposite page.

PRESSURE DROP AND NOMINAL FLOW RATES:

See page 400 and 402.

FLUID COMPATIBILITY:

Mineral/petroleum based hydraulic oils.

SPECIFICATIONS AND CROSS REFERENCE:

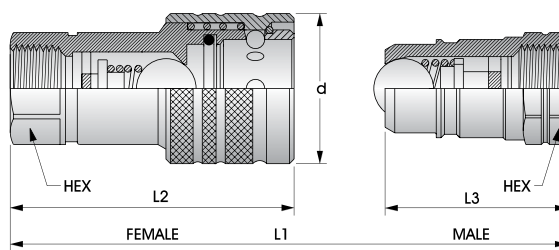
1/2", 3/4" & 1" Nominal Body sizes conform to ISO Type A and cross reference with other ISO Type A couplings. 1/4", 3/8" & 1/2" Nominal Body sizes cross reference with Pioneer and Safeway. See pages 388 and 389 for cross reference listing.

BALL CHECK VALVE QUICK RELEASE COUPLINGS

SINGLE ACTING SLEEVE BALL CHECK VALVE

Single Acting Sleeve is manually retracted to connect, or disconnect.

Ball Check Valves are precision machined for long reliable life (some slight weeping may occur if couplings are pressurised when disconnected). Check Valves automatically close on disconnection, and open on connection.

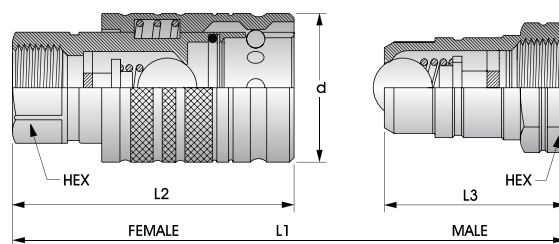


FEMALE THREAD SIZE	NOM. BODY SIZE	RYCO PART NUMBER			MAXIMUM WORKING PRESSURE		d DIAMETER OF SLEEVE	L1 LENGTH COUPLED TOGETHER	L2 LENGTH FEMALE BODY	L3 LENGTH MALE TIP	SPANNER HEX SIZE
		FEMALE BODY	MALE TIP	COMPLETE COUPLING	bar	psi					
1/2 BSPP	1/2	R91-08F	R91-08M	R91-08FM	250	3625	38	96	70	48	27
1/4 NPTF	1/4	R94-04F	R94-04M	R94-04FM	350	5100	27	76	56	38	19
3/8 NPTF	3/8	R94-06F	R94-06M	R94-06FM	250	3625	34	85	63	43	24
1/2 NPTF	1/2	R94-08F	R94-08M	R94-08FM	250	3625	38	96	70	48	27

PUSH/PULL SLEEVE BALL CHECK VALVE

Push/Pull Sleeve can be moved in either direction to connect, or disconnect. When sleeve is held firmly by hand, or in a bracket, Male Tip will simply push in to connect to Female Body.

Ball Check Valves are precision machined for long reliable life (some slight weeping may occur if couplings are pressurised when disconnected). Check Valves automatically close on disconnection, and open on connection.



FEMALE THREAD SIZE	NOM. BODY SIZE	RYCO PART NUMBER			MAXIMUM WORKING PRESSURE		d DIAMETER OF SLEEVE	L1 LENGTH COUPLED TOGETHER	L2 LENGTH FEMALE BODY	L3 LENGTH MALE TIP	SPANNER HEX SIZE
		FEMALE BODY	MALE TIP	COMPLETE COUPLING	bar	psi					
1/2 BSPP	1/2	R91-08P	R91-08M	R91-08PM	250	3625	38	96	70	48	27
1/2 NPTF	1/2	R94-08P	R94-08M	R94-08PM	250	3625	38	96	70	48	27
3/4 UNO	1/2	R96-12P	R96-12M	R96-12PM	250	3625	38	96	70	48	27

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QUICK RELEASE COUPLINGS – ACCESSORIES & SPARE PARTS

R81-08CPM CONNECT UNDER PRESSURE MALE TIP

These Male Tips are able to be connected to the Female Body, even if there is residual pressure in the Male Tip provided that the circuit has been switched off or isolated, i.e. the pump is turned off and circuit is not being supplied with pressure and flow; they are not designed to be connected under pressure while the circuit is operating.

A secondary valve in the poppet of the Male allows sufficient oil to escape to unload the pressure inside the Male Tip at the moment of connecting (same dimensions as **R81-08M** and **R85-08M** on page 382).



RB BREAKAWAY BRACKETS AND BREAKAWAY KITS

RB-08P DUAL 1/2 INCH KIT

Comprises: 2 x **R81-08PM** Female & Male Couplers Push/Pull
 1 x **RB-08X** Bracket
 4 x **C38X** Circlips
 2 x **RDP-08** Dust Plugs
 2 x **RDC-08** Dust Caps

ALSO AVAILABLE SEPARATELY:

RB-08 DUAL BRACKET FOR 1/2 INCH COUPLINGS (includes 4 Circlips)



1/2" Nominal Body Size Quick release Couplings can be mounted in dual breakaway bracket, by means of circlips around sleeve. This protects hose from damage if subjected to excessive pulling force, allowing coupling halves to break apart, eg. a towed farm implement disconnecting from tractor.

A Push/Pull Sleeve coupling mounted in breakaway bracket will allow male tip to push-to-connect. A Single Acting coupling requires coupling to be pushed forward from behind breakaway bracket to connect.

ACCESSORIES AND SPARE PARTS

PACK PART NO	PACK CONTAINS		SUITS
R80D-04TO	5 ea	-04 O Ring and Teflon Back Up Washer	R80-04F, R94-04F
R80D-06TO	5 ea	-06 O Ring and Teflon Back Up Washer	R80-06F, R94-06F
R81D-08TO	5 ea	-08 O Ring and Teflon Back Up Washer	R81-08F, R86-12F, R94-08F NOTE: Also suits newer Push/Pull Sleeve Couplings with lip. R81-08P, R85-08P, R86-12P, R91-08F, R91-08P, R94-08P, R96-12P
R81D-08PTO	5 ea	-08 O Ring and Teflon Back Up Washer Push/Pull Sleeve	R81-08P, R85-08P, R86-12P, R91-08F, R91-08P, R94-08P, R96-12P NOTE: Suits older Push/Pull Sleeve couplings without lip. If coupling has lip in front of O Ring, use R81D-08TO .
R82D-12TO	5 ea	-12 O Ring and Teflon Back Up Washer	R82-12F, R85-12F
R82D-16TO	5 ea	-16 O Ring and Teflon Back Up Washer	R82-16F, R85-16F
R85D-04TO	5 ea	-04 O Ring and Teflon Back Up Washer	R85-04F
R85D-06TO	5 ea	-06 O Ring and Teflon Back Up Washer	R85-06F
R86D-14SK	5 ea	-14 Seal Kit (O Ring and Teflon Back Up Washer)	R86-14F

NOTE: O Rings and Back Up Washers; sold in packs only

ACCESSORIES AND SPARE PARTS (CONT)

RUBBERISED DUST CAPS AND PLUGS
QDPC = BLACK DUST PLUG/CAP
RDP = RED DUST PLUG
RDC = RED DUST CAP



QDPC Black Dust Plug/Cap shown

BLACK NUMBER	RED NUMBER	SUITS
QDPC-04		R80-04F, R85-04F, R94-04F
		R80-04M, R85-04M, R94-04M
QDPC-06		R80-06F, R85-06F, R94-06F
		R80-06M, R85-06M, R94-06M
QDPC-08	RDP-08	R81-08F, R81-08P, R85-08P, R86-12F, R86-12P, R86-14P, R91-08F, R91-08P, R96-12P, R94-08F, R94-08P
	RDC-08	R81-08M, R85-08M, R86-12M, R86-14M, R91-08M, R94-08M, R96-12M
QDPC-12		R82-12F, R85-12F
		R82-12M, R85-12M
QDPC-16		R82-16F, R85-16F
		R82-16M, R85-16M

ACCESSORIES

QUICK RELEASE COUPLINGS - SERIES TECHNICAL DATA

CROSS REFERENCE CHART

All standards specify the dimensions of Male Tips. Female Bodies are not dimensioned and are designed to accept Male Tips.

RYCO PART NO			PARKER/PIONEER PART NO		SAFEWAY PART NO		
FEMALE	MALE	COMPLETE	FEMALE	MALE	FEMALE	MALE	COMPLETE
1/4" INDUSTRIAL/AGRICULTURAL							
R80-04F	R80-04M	R80-04FM	4050-2P	4010-2P			
R94-04F	R94-04M	R94-04FM	4050-2	4010-2	S45-2	S41-2	S40-2
3/8" INDUSTRIAL/AGRICULTURAL							
R80-06F	R80-06M	R80-06FM	4050-3P*	4010-3P*			
R94-06F	R94-06M	R94-06FM	4050-3	4010-3	S45-3	S41-3	S40-3
1/4" ISO A CONFORMS TO ISO 7241-1 SERIES A							
R85-04F	R85-04M	R85-04FM	6601-4-4	6602-4-4	S565-2	S561-2	S56-2
3/8" ISO A CONFORMS TO ISO 7241-1 SERIES A							
R85-06F	R85-06M	R85-06FM	6601-6-6	6602-6-6	S565-3	S561-3	S56-3
1/2" ISO A CONFORMS TO ISO 7241-1 SERIES A, ISO 5675, AS2393, SAE J1036							
R81-08F	R81-08M	R81-08FM	6601-8-10*	6602-8-10*	S25-4P*	S71-4P*	S20-4P*
R81-08P	R81-08M	R81-08PM			S45-4P*	S71-4P*	S40-4P*
R85-08P	R85-08M	R85-08PM	6601-8-10	6602-8-10	S565-4	S561-4	S56-4
R86-12F	R86-12M	R86-12FM	6608-8-10	6610-8-10	S25-15P	S71-15P	S20-15P
R86-12P	R86-12M	R86-12PM			S45-15P	S71-15P	S40-15P
R91-08F	R91-08M	R91-08FM	4050-4*	8010-4*	S25-4*	S71-4*	S20-4*
R91-08P	R91-08M	R91-08PM	4250-4*	8010-4*	S45-4*	S71-4*	S40-4*
R94-08F	R94-08M	R94-08FM	4050-4	8010-4	S25-4	S71-4	S20-4
R94-08P	R94-08M	R94-08PM	4250-4	8010-4	S45-4	S71-4	S40-4
R96-12P	R96-12M	R96-12PM	4050-15	8010-15	S45-15	S71-15	S40-15
3/4" ISO A CONFORMS TO ISO 7241-1 SERIES A, ISO 5675							
R82-12F	R82-12M	R82-12FM	6601-12-12*	6602-12-12*	S565-6*	S561-6*	S56-6*
R85-12F	R85-12M	R85-12FM	6601-12-12	6602-12-12	S565-6	S561-6	S56-6
1" ISO A CONFORMS TO ISO 7241-1 SERIES A							
R82-16F	R82-16M	R82-16FM	6601-16-16*	6602-16-16*	S565-8*	S561-8*	S56-8*
R85-16F	R85-16M	R85-16FM	6601-16-16	6602-16-16	S565-8	S561-8	S56-8

NOTE: *Indicates; for Cross Referenced coupling, RYCO Coupling is BSPP threadform, Competitor's Coupling is NPT threadform.

QUICK RELEASE COUPLINGS - SERIES TECHNICAL DATA

CROSS REFERENCE CHART

All standards specify the dimensions of Male Tips. Female Bodies are not dimensioned and are designed to accept Male Tips.

RYCO PART NO			AEROQUIP PART NO			FASTER PART NO	
FEMALE	MALE	COMPLETE	FEMALE	MALE	COMPLETE	FEMALE	MALE
1/4" INDUSTRIAL/AGRICULTURAL							
R80-04F	R80-04M	R80-04FM	FD42-1001-04-04*	FD42-1002-04-04*	FD42-100-04-04*	NV14GAS	NV14GASM
1/4" INDUSTRIAL/AGRICULTURAL							
R80-06F	R80-06M	R80-06FM				NV38GASF	NV38GASM
1/4" ISO A CONFORMS TO ISO 7241-1 SERIES A							
R85-04F	R85-04M	R85-04FM	5601-4-4S	5602-4-4S	5600-4-4S	ANV14NPTF	ANV14NPTM
3/8" ISO A CONFORMS TO ISO 7241-1 SERIES A							
R85-06F	R85-06M	R85-06FM	5601-6-6S	5602-6-6S	5600-6-6S	ANV38NPTF	ANV38NPTM
1/2" ISO A CONFORMS TO ISO 7241-1 SERIES A, ISO 5675, AS2393, SAE J1036							
R81-08F	R81-08M	R81-08FM				ANV12GASF	ANV12GASM
R81-08P	R81-08M	R81-08PM	5622-8-10S	5623-8-10S*		PV12GASF	NV12GASM
R85-08P	R85-08M	R85-08PM	5601-8-10S	5602-8-10S	5600-8-10S	ANV12NPTF	ANV12NPTM
R86-12P	R86-12M	R86-12PM	5608-8-10S	5610-8-10S	5606-8-10S		
R91-08P	R91-08M	R91-08PM				PS12GASF	NS12GASM
R94-08P	R94-08M	R94-08PM				PS12NPTF	NS12NPTM
3/4" ISO A CONFORMS TO ISO 7241-1 SERIES A, ISO 5675							
R82-12F	R82-12M	R82-12FM	5622-12-12S	5623-12-12S*		ANV34GASF	ANV34GASM
R85-12F	R85-12M	R85-12FM	5601-12-12S	5602-12-12S	5600-12-12S	ANV34NPTF	ANV34NPTM
1" ISO A CONFORMS TO ISO 7241-1 SERIES A							
R82-16F	R82-16M	R82-16FM	5622-16-16S	5623-16-16S*		ANV1GASF	ANV1GASM
R85-16F	R85-16M	R85-16FM	5601-16-16S	5602-16-16S	5600-16-16S	ANV1NPTF	ANV1NPTM

NOTE: *Indicates; for Cross Referenced coupling, RYCO Coupling is BSPP threadform, Competitor's Coupling is NPT threadform.

RECOMMENDED MAXIMUM PRESSURE FOR CONNECTION & DISCONNECTION

Trapped pressure in couplers may make it difficult to connect or disconnect. Shown below are ISO Recommended Maximum Internal Pressure for Connection and Disconnection by hand.

NOMINAL BODY SIZE		RECOMMENDED MAX PRESSURE		NOMINAL BODY SIZE		RECOMMENDED MAX PRESSURE	
inch	bar	psi		inch	bar	psi	
1/4"	10	145		3/4"	3,2	45	
3/8" & 1/2"	6,3	90		1"	2,5	35	

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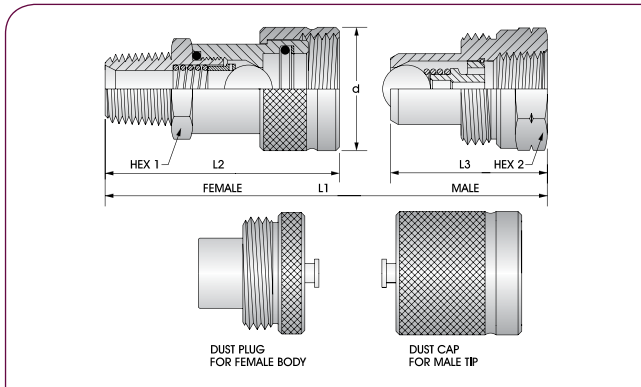
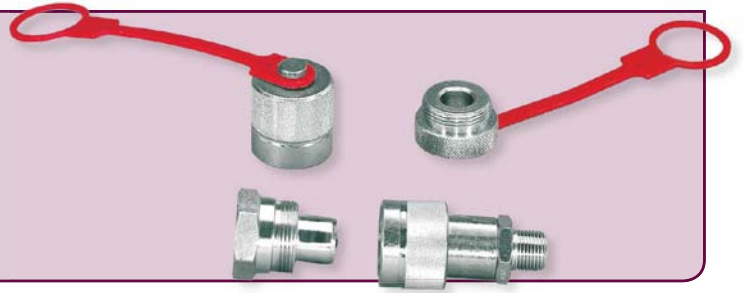
TECHNICAL

ACCESSORIES

10,000 PSI SCREW TOGETHER QUICK RELEASE COUPLINGS

R100

10,000 PSI
SCREW TOGETHER
QUICK RELEASE COUPLINGS



RECOMMENDED FOR:

Designed for use in high pressure applications on portable cylinders, rams, pumps, and hydraulic rescue equipment where low flow rates and pressures up to 700 bar/10,000 psi are involved. Heavy Duty Silver colour plating.

FEATURES:

- Threaded Sleeve on Female Body engages thread on Male Tip. When sleeve is screwed completely up, the two coupling halves are secured together, and the ball check valves open. Can connect and disconnect with residual pressure in lines.
- Precision ball type check valves.
- Metal Threaded Dust Caps, and Dust Plugs, complete with plastic retaining loop are available.
- Female Body is male threaded to screw directly into cylinder or ram.
- Male Tip is female threaded to screw directly onto male threaded hose fitting.

TECHNICAL DATA

FEMALE BODY AND MALE TIP:

Steel, zinc plated and passivated (CrVI free) for corrosion resistance.

SEALS:

Nitrile (Buna N) O Rings. Back Up Washer prevents extrusion of O Ring at high pressures.

OPERATING TEMPERATURE RANGE:

From -20°C to +125°C (-4°F to +257°F).

WORKING PRESSURE:

See chart at right.

PRESSURE DROP AND NOMINAL FLOW RATES:

See page 400 and 402.

FLUID COMPATIBILITY:

Mineral/petroleum based hydraulic oils.

CROSS REFERENCE:

R100-06 cross reference see page opposite.

10,000 PSI SCREW TOGETHER QUICK RELEASE COUPLINGS

PART NUMBERS AND SPECIFICATIONS

THREAD SIZE	NOM. BODY SIZE	RYCO PART NUMBER					MAXIMUM WORKING PRESSURE	
		FEMALE BODY	MALE TIP	COMPLETE COUPLING	DUST PLUG FOR FEMALE	DUST CAP FOR MALE	bar	psi
1/4 NPTF	3/8	R100-04F	R100-04M	R100-04FM	R100-06DP	R100-06DC	700	10000
3/8 NPTF	3/8	R100-06F	R100-06M	R100-06FM	R100-06DP	R100-06DC	700	10000

THREAD SIZE	NOM. BODY SIZE	DIMENSIONS					L1 LENGTH COUPLED TOGETHER	L2 LENGTH FEMALE BODY	L3 LENGTH MALE TIP
		d DIAMETER OF SLEEVE	DIAMETER MALE TIP	HEX 1	HEX2	mm			
1/4 NPTF	3/8	35	19	24	32	89	74	40,5	
3/8 NPTF	3/8	35	19	24	32	87	72	40,5	

CROSS REFERENCE CHART

	FEMALE BODY	MALE TIP	COMPLETE COUPLING	MALE & FEMALE WITH DUST CAP & PLUG	DUST PLUG	DUST CAP
RYCO	R100-06F	R100-06M	R100-06FM	R100-06FMPC	R100-06DP	R100-06DC
ENERPAC	CR-400	CH-604		C-604	CD-411	CD-411
POWERTEAM	9796	9798		9795	9797	9799
PARKER/PIONEER	3050-3	3010-3			3005-3	3009-3
SAFEWAY	S35-3P	S31-3P	S30-3P		S34-3	S39-3
FASTER	PWM1/38NPTF	PWM-38NPTM	PWM-38NPT			

SPARE PARTS AND ACCESSORIES

PACK PART NO	PACK CONTAINS		SUITS
R100D-06TO	5 ea	O Ring and Teflon Back Up Washer	R100-06F, R100-04F

NOTE: O Rings and Back Up Washers; sold in packs only

NOTE:
R100-04FMPC is complete 1/4" Male and Female Coupling, with Dust Plug and Dust Cap.
R100-06FMPC is complete 3/8" Male and Female Coupling, with Dust Plug and Dust Cap.

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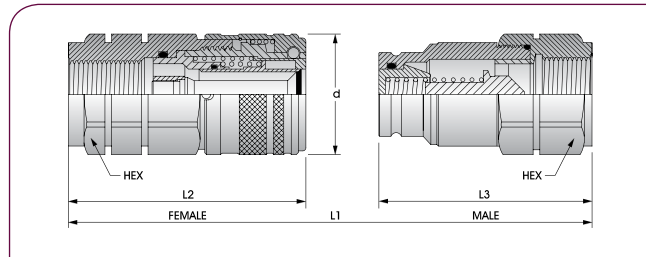
TECHNICAL

ACCESSORIES

FLAT FACE VALVE QUICK RELEASE COUPLINGS

R110

FLAT FACE VALVE QUICK RELEASE COUPLINGS



RECOMMENDED FOR:

Wherever hydraulic oil spillage is a safety, or environmental hazard, either in plant or in the field. Flat Face Valve design minimises fluid loss on disconnection for a cleaner, safer environment. Recommended for quick changeover of hydraulic hand tools in "cherry picker" platforms, and in the mining, road construction and maintenance fields, as well as many industrial applications.

FEATURES:

- Heavy Duty Plating.
- High flow rates with low pressure loss.
- Low fluid spillage and air inclusion during connection and disconnection.
- Easily cleaned exterior surfaces reduce possibility of contamination of hydraulic system.
- Easy, one-handed automatic push-to-connect operation when either half of coupling is solid mounted. Sleeve does not have to be retracted to enable connection. Connects against 17,2 bar/250 psi static pressure.
- Rotating Sleeve Lock safety feature (simply rotate the retracting sleeve) guards against unintentional disconnection. Cannot be disconnected unless pin and recess on sleeve are aligned.
- To disconnect, rotate the sleeve to align pin and recess on sleeve. Pull back the sleeve and the halves pop apart.

TECHNICAL DATA

CONNECTION AND DISCONNECTION:

Connects against 17,2 bar/250 psi static pressure.

FEMALE BODY AND MALE TIP:

Steel, zinc plated and passivated (CrVI free) for corrosion resistance.

OPERATING TEMPERATURE RANGE:

From -20°C to +125°C (-4°F to +257°F).

WORKING PRESSURE:

See chart at right.

PRESSURE DROP AND NOMINAL FLOW RATES:

See page 401 and 402.

FLUID COMPATIBILITY:

Mineral/petroleum based hydraulic oils.

SPECIFICATIONS:

All sizes comply with ISO 16028.

3/8" Nominal Body size also conforms to HTMA dimensions (Hydraulic Tool Manufacturers Association), and Specification ANSI/NFPA T3.20.15-1991.

CROSS REFERENCE:

RYCO R110 Series cross reference with the following Series: Parker FEM, Snaptite 74, Aeroquip FD 89, Faster FFI/FFN, Safeway FF/FFE 491/495. RYCO R110 Series will cross reference with other couplings manufactured to comply with ISO 16028.



Dust Cap
Accessories

FLAT FACE VALVE QUICK RELEASE COUPLINGS

PART NUMBERS AND SPECIFICATIONS

FEMALE THREAD SIZE BSPP	NOM. BODY SIZE	RYCO PART NUMBER			MAXIMUM WORKING PRESSURE	
		FEMALE BODY	MALE TIP	COMPLETE COUPLING	bar	psi
1/4	1/4	R110-0404F	R110-0404M	R110-0404FM	400	5800
3/8	3/8	R110-0606F	R110-0606M	R110-0606FM	350	5100
1/2	3/8	R110-0608F	R110-0608M	R110-0608FM	350	5100
1/2	1/2	R110-0808F	R110-0808M	R110-0808FM	350	5100
3/4	1/2	R110-0812F	R110-0812M	R110-0812FM	350	5100
3/4	3/4	R110-1212F	R110-1212M	R110-1212FM	350	5100
1	3/4	R110-1216F	R110-1216M	R110-1216FM	350	5100
1.1/4	1	R110-1620F	R110-1620M	R110-1620FM	350	5100

THREAD SIZE	NOM. BODY SIZE	DIMENSIONS				
		d DIAMETER OF SLEEVE	SPANNER HEX SIZE	L1 LENGTH COUPLED TOGETHER	L2 LENGTH FEMALE BODY	L3 LENGTH MALE TIP
1/4	1/4	28	22	100	59	52
3/8	3/8	32	30	118	74	61
1/2	3/8	32	30	118	74	61
1/2	1/2	38	36	143	87	73
3/4	1/2	38	36	143	87	73
3/4	3/4	48	41	154	95	81
1	3/4	48	41	154	95	81
1.1/4	1	55	55	177	110	90

SPARE PARTS AND ACCESSORIES

PACK PART NO	PACK CONTAINS		SUITS
R110D-04MTO	5 ea	O Ring and Back Up Washer	R110-0404M
R100D-06MTO	5 ea	O Ring and Back Up Washer	R110-0606M & R110-0608M
R110D-08MTO	5 ea	O Ring and Back Up Washer	R110-0808M & R110-0812M
R110D-12MTO	5 ea	O Ring and Back Up Washer	R110-1212M & R110-1216M
R110-06MC	Dust Cap		R110-0606M and R110-0608M
R110-06FC	Dust Cap		R110-0606F and R110-0608F
R110-08MC	Dust Cap		R110-0808M and R110-0812M
R110-08FC	Dust Cap		R110-0808F and R110-0812F

NOTE: O Rings and Back Up Washers; sold in packs only

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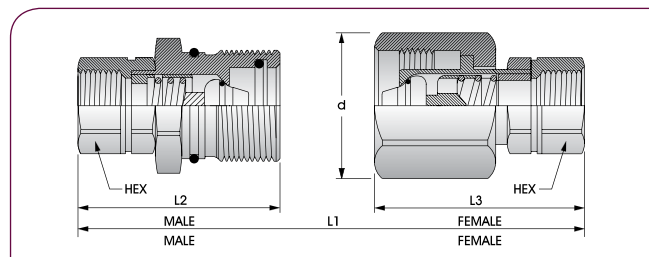
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ACCESSORIES

THREAD TO CONNECT HEAVY DUTY QUICK RELEASE COUPLINGS

R120

THREAD TO CONNECT HEAVY DUTY QUICK RELEASE COUPLINGS



RECOMMENDED FOR:

High pressure applications involving pressure impulses requiring Heavy Duty hydraulic quick release couplings. Rugged thread-to-connect operation allows higher working pressures, and improved performance under pressure impinging conditions. Threaded nut on Female Body engages thread on Male Tip. When nut is screwed completely up, the two coupling halves are secured together, and the Poppet Check Valves open to allow flow.

FEATURES:

- Poppet Check Valves with rubber poppet seal. Check Valves automatically close on disconnection, and open on connection.
- An external O Ring on Male Tip seals inside swivel nut on Female Body to exclude dust and foreign matter from threads.
- Soft Plastic Dust Caps and Dust Plugs are available.

TECHNICAL DATA

CONNECTION AND DISCONNECTION:

Possible with trapped circuit pressure of up to 103 bar (1500 psi), provided that pump is turned off and circuit is not being supplied with pressure and flow.

FEMALE BODY AND MALE TIP:

Steel, zinc plated and passivated (CrVI free) for corrosion resistance.

SEALS:

Nitrile (Buna N) O Ring female body seal. Back Up Washer prevents extrusion of O Ring at high pressure.

OPERATING TEMPERATURE RANGE:

From -20°C to +125°C (-4°F to +257°F).

WORKING PRESSURE:

See chart on page opposite.

PRESSURE DROP AND NOMINAL FLOW RATES:

See page 401 for Pressure Drop and page 402. for Nominal Flow Rates.

FLUID COMPATIBILITY:

Mineral/petroleum based hydraulic oils.

THREAD TO CONNECT HEAVY DUTY QUICK RELEASE COUPLINGS

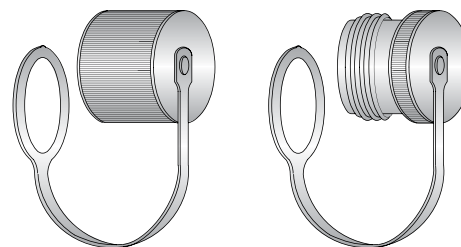
PART NUMBERS AND SPECIFICATIONS

FEMALE THREAD SIZE BSPP	NOM. BODY SIZE	RYCO PART NUMBER			MAXIMUM WORKING PRESSURE	
		FEMALE BODY	MALE TIP	COMPLETE COUPLING	bar	psi
inch	inch					
1/2	1/2	R120-08F	R120-08M	R120-08FM	400	5800
3/4	1	R120-12F	R120-12M	R120-12FM	300	4350
1	1	R120-16F	R120-16M	R120-16FM	300	4350

THREAD SIZE	NOM. BODY SIZE	DIMENSIONS				
		d DIAMETER OF SLEEVE	SPANNER HEX SIZE	L1 LENGTH COUPLED TOGETHER	L2 LENGTH MALE BODY	L3 LENGTH FEMALE TIP
inch	inch	mm	mm	mm	mm	mm
1/2	1/2	42	30	102	66	63
3/4	1	55 A/F	41	153	100	87
1	1	55 A/F	41	153	100	87

SPARE PARTS AND ACCESSORIES

O RING DUST SEALS, O RINGS, BACK UP WASHERS, DUST CAPS, DUST PLUGS (DUST CAP SHOWN AT LEFT, DUST PLUG SHOWN AT RIGHT)



PACK PART NO	PACK CONTAINS		SUITS
R120-08DP	Dust Cap		R120-08F
R120-08DC	Dust Cap		R120-08M
R120-16DP	Dust Cap		R120-12F and R120-16F
R120-16DC	Dust Cap		R120-12M and R120-16M
R120D-08SK	5ea	O Ring Dust Seals, O Ring, Back Up Washer	R120-08M
R120D-16SK	5ea	O Ring Dust Seals, O Ring, Back Up Washer	R120-12M and R120-16M

NOTE: R120-08F Sleeve is Round. R120-12F and R120-16F Sleeve is Hex.

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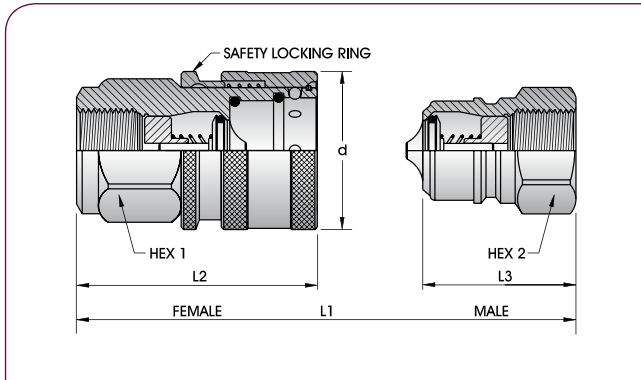
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ACCESSORIES

HIGH FLOW QUICK RELEASE COUPLINGS

R130

HIGH FLOW QUICK RELEASE COUPLINGS



RECOMMENDED FOR:

RYCO R130 High Flow Quick Release Couplings are general purpose steel hydraulic couplings, recommended for use in applications where high flow and low pressure drop are important. Typical applications are mobile plant including tip trucks; industrial equipment; test rigs and power packs; logging and mining; greasing equipment; oil processing; and steel production.

FEATURES:

- Double O Rings in Female Body seal against Male Tip for extra fluid security.
- Single Acting Sleeve is manually retracted to connect or disconnect.
- Safety Locking Ring safety feature (move the Safety Locking Ring forward until it meets the Sleeve, then rotate clockwise approximately 60°. This helps prevent the Coupling from being disconnected unintentionally).
- Poppet Check Valves feature rubber poppet seal for improved sealing when disconnected.
- Check Valves automatically close on disconnection and open on connection.

TECHNICAL DATA

FEMALE BODY AND MALE TIP:

Steel, zinc plated and passivated (CrVI free) for corrosion resistance.

SEALS:

Two Nitrile (Buna N) O Rings.
Back Up Washer -06 and -08 sizes.

OPERATING TEMPERATURE RANGE:

From -20°C to +125°C (-4°F to +257°F).

WORKING PRESSURE:

See chart on page opposite.

PRESSURE DROP AND NOMINAL FLOW RATES:

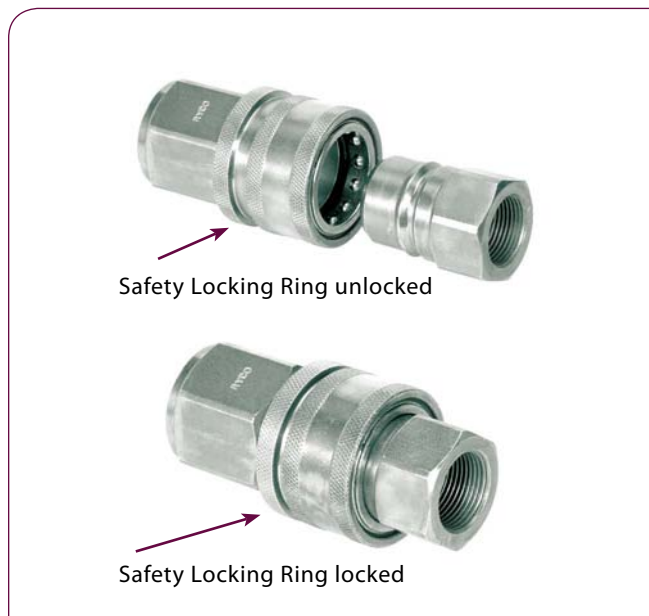
See page 401 for Pressure Drop and page 402. for Nominal Flow Rates.

FLUID COMPATIBILITY:

Mineral/petroleum based hydraulic oils.

CROSS REFERENCE:

TEMA 3800, 5000, 7500 and 10000 series.
See table on page opposite.



HIGH FLOW QUICK RELEASE COUPLINGS

PART NUMBERS AND SPECIFICATIONS

FEMALE THREAD SIZE BSPP	NOM. BODY SIZE	RYCO PART NUMBER			MAXIMUM WORKING PRESSURE	
		FEMALE BODY	MALE TIP	COMPLETE COUPLING	bar	psi
inch 3/8	inch 3/8	R130-06F	R130-06M	R130-06FM	350	5100
1/2	1/2	R130-08F	R130-08M	R130-08FM	300	4350
3/4	3/4	R130-12F	R130-12M	R130-12FM	280	4060
1	1	R130-16F	R130-16M	R130-16FM	250	3630

THREAD SIZE	NOM. BODY SIZE	d DIAMETER OF SLEEVE	DIMENSIONS			L1 LENGTH COUPLED TOGETHER	L2 LENGTH MALE BODY	L3 LENGTH FEMALE TIP
			SPANNER HEX SIZE					
			1	2				
inch 3/8	inch 3/8	mm 35	mm 30	mm 22	mm 81.5	mm 64	mm 40.5	
1/2	1/2	40	36	27	83	66.5	41.5	
3/4	3/4	52	42	36	112	85	56	
1	1	65	55	46	126	99	63	

CROSS REFERENCE CHART

RYCO PART NO	TEMA PART NO	RYCO PART NO	TEMA PART NO
R130-06F	3810	R130-12F	7510
R130-06M	3820	R130-12M	7520
R130-08F	5010	R130-16F	10010
R130-08M	5020	R130-16M	10020

SPARE PARTS AND ACCESSORIES

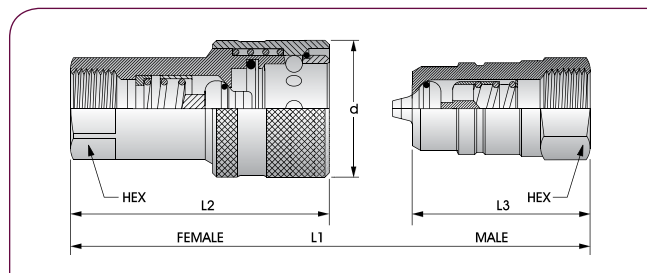
PACK PART NO	PACK CONTAINS		SUITS
R130D-06SK	5ea	Seal Kit (O Rings and Back Up Washer)	R130-06F
R130D-08SK	5ea	Seal Kit (O Rings and Back Up Washer)	R130-08F
R130D-12SK	5ea	Seal Kit (2 different size O Rings)	R130-12F
R130D-16SK	5ea	Seal Kit (2 same size O Rings)	R130-16F

ACCESSORIES

PBR INTERCHANGE QUICK RELEASE COUPLINGS

R140

PBR INTERCHANGE QUICK RELEASE COUPLINGS



RECOMMENDED FOR:

Truck and trailer applications, particularly in Australia and New Zealand. Also suitable for medium pressure general hydraulic systems.

FEATURES:

- Poppet Check Valves with rubber poppet seal for improved sealing when disconnected. Check Valves automatically close on disconnection, and open on connection.
- Single Acting Sleeve is manually retracted to connect, or disconnect.
- RYCO Quick Release Couplings have full spanner hex for ease of installation and extra balls in locking mechanism for extra security.
- Couplings are able to swivel when unpressurised, reducing hose kinking and twisting. This feature reduces twist on the hose; the couplings should not be used as swivel joints.

TECHNICAL DATA

FEMALE BODY AND MALE TIP:

Steel, zinc plated and passivated (CrVI free) for corrosion resistance.

SEALS:

Nitrile O-Ring. Back up washer prevents extrusion of O-Ring at high pressures.

OPERATING TEMPERATURE RANGE:

From -25°C to +125°C (-13°F to +257°F).

WORKING PRESSURE:

See chart at right.

PRESSURE DROP AND NOMINAL FLOW RATES:

See page 400 and 401.

FLUID COMPATIBILITY:

Mineral/petroleum based hydraulic oils.

SPECIFICATIONS AND CROSS REFERENCE:

RYCO R140 Series cross reference with the following Series: PBR 3310, Faster NZ, Stucchi IRN.

PBR INTERCHANGE QUICK RELEASE COUPLINGS

FEMALE THREAD SIZE	NOM. BODY SIZE	RYCO PART NUMBER			MAXIMUM WORKING PRESSURE		d DIAMETER OF SLEEVE	L1 LENGTH COUPLED TOGETHER	L2 LENGTH FEMALE BODY	L3 LENGTH MALE TIP	SPANNER HEX SIZE
		FEMALE BODY	MALE TIP	COMPLETE COUPLING	bar	psi	mm	mm	mm	mm	Hex
1 BSPP	1	R140-1616F	R140-1616M	R140-1616FM	300	4350	64,5	132,6	108	66	46

SPARE PARTS AND ACCESSORIES

PACK PART NO	PACK CONTAINS	SUITS
R140-16SK	5 ea Seal Kit (O Rings and Back Up Washer)	R140-1616F
R140-16MC	Dust Cap Male	R140-1616M
R140-16FC	Dust Cap Female	R140-1616F

NOTE: O Rings and Back Up Washers; sold in packs only

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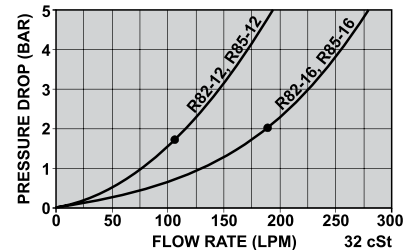
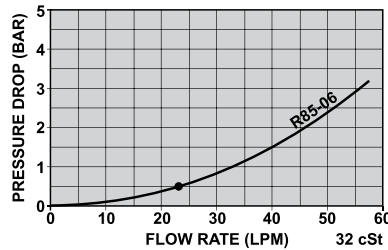
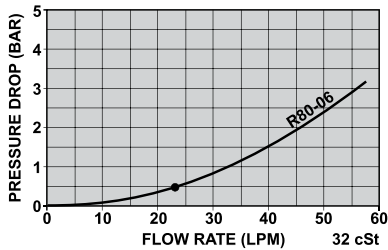
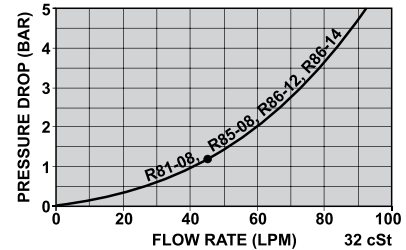
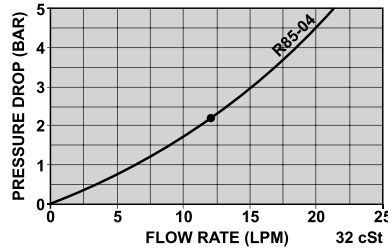
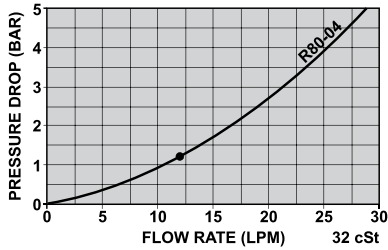
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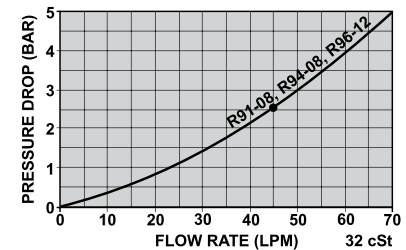
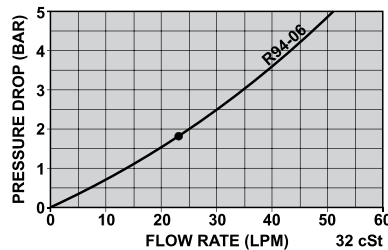
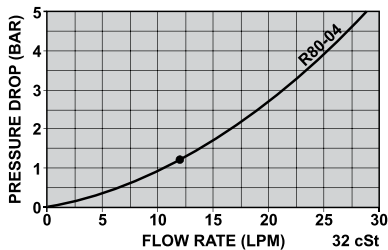
PRESSURE DROP GRAPHS

NOTE: The point marked on the Flow Rate curve is the Nominal Flow Rate value based on maximum flow velocity of oil through the coupling of 9 metres per second. It is the preferred Maximum Flow Rate for maximum life of seals. See page 402 for more information.

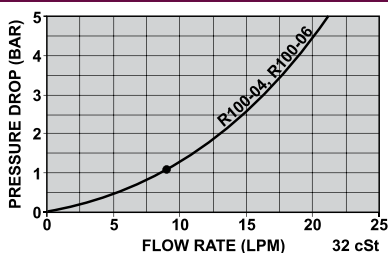
R80, R81, R82, R85 & R86 SERIES – POPPET CHECK VALVES



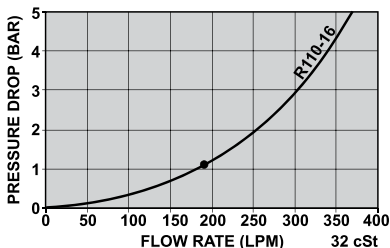
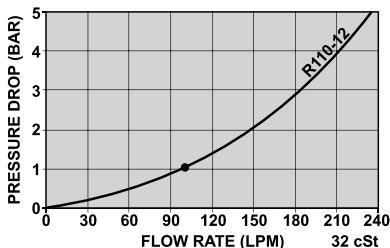
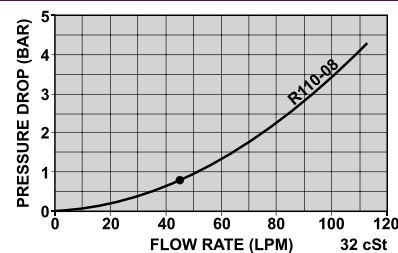
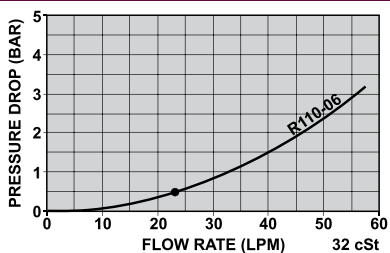
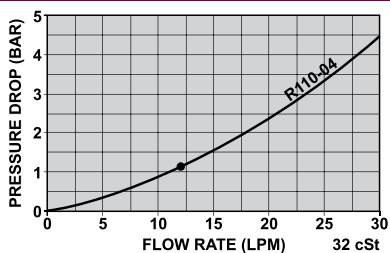
R91, R94 & R96 SERIES – BALL CHECK VALVES



R100 SERIES - 10,000 PSI SCREW TOGETHER QUICK RELEASE COUPLINGS

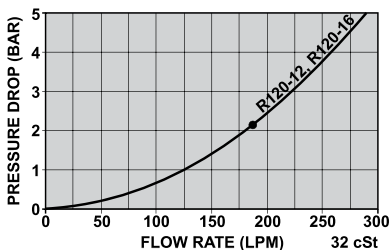
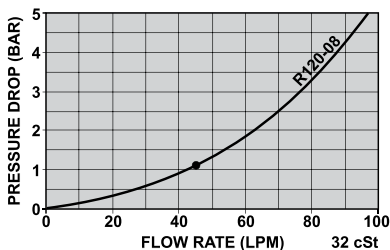


R110 SERIES - FLAT FACE VALVE QUICK RELEASE COUPLINGS

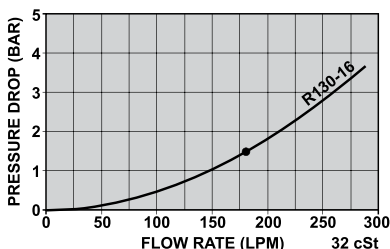
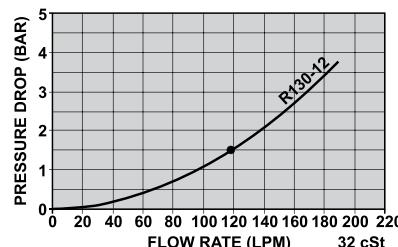
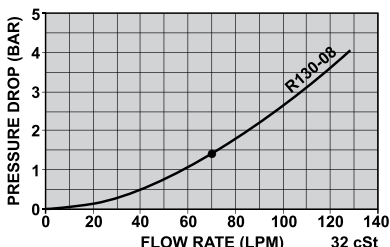
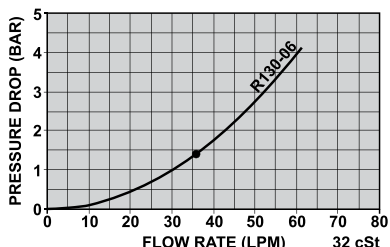


NOTE: Dash numbers for the R110 Series in these graphs refers to the Nominal Body Size of the Coupling, see page 392.

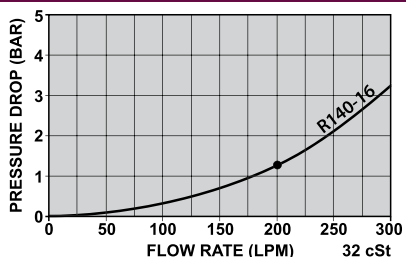
R120 SERIES - THREAD TO CONNECT HEAVY DUTY QUICK RELEASE COUPLINGS



R130 SERIES - HIGH FLOW QUICK RELEASE COUPLINGS



R140 SERIES - PBR INTERCHANGE QUICK RELEASE COUPLINGS



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NOMINAL FLOW RATES FOR QUICK RELEASE COUPLINGS

NOTE:

- Nominal Flow Rate values are based on maximum flow velocity of oil through the coupling of 9 metres per second. It is the preferred Maximum Flow Rate for maximum life of seals.
- Flow Rate For 2,0 bar Pressure Drop values may be used in some applications; but they may reduce seal life. Contact RYCO for more information.
- The data applies to oil of 32 centistoke viscosity, as specified in ISO 7241/2 Test Methods for Quick-action Couplings. For oils of viscosity other than 32 centistokes, the change in flow rate and pressure drop is NOT LINEAR. Contact RYCO for more information. See page 485 for graph of Viscosity Change with Temperature for popular mineral oil based hydraulic oils.
- To convert Litres per Minute to Gallons per Minute: for Imperial Gallons per Minute, divide Litres per Minute by 4.54, for US Gallons per Minute, divide Litres per Minute by 3.78

PART NUMBER	NOMINAL BODY SIZE	NOMINAL FLOW RATE	PRESSURE DROP AT NOMINAL FLOW RATE	FLOW RATE FOR 2,0 BAR PRESSURE DROP
FOR OIL WITH 32 CENTISTOKE VISCOSITY				
	inch	litres per minute	bar	psi
				litres per minute
R80 SERIES POPPET CHECK VALVES				
R80-04	1/4	12	1,3	18
R80-06	3/8	23	0,5	8
R81-08	1/2	45	1,3	18
R82-12	3/4	106	1,8	26
R82-16	1	189	2,0	30
R85-04	1/4	12	2,3	33
R85-06	3/8	23	0,5	8
R85-08	1/2	45	1,3	18
R85-12	3/4	106	1,8	26
R85-16	1	189	2,0	30
R86-12	1/2	45	1,3	18
R86-14	1/2	45	1,3	18
R90 SERIES BALL CHECK VALVES				
R91-08	1/2	30	1,3	18
R94-04	1/4	11	2,0	29
R94-06	3/8	21	1,6	23
R94-08	1/2	30	1,3	18
R96-12	1/2	30	1,3	18
R100 SERIES 10,000 psi SCREW TOGETHER				
R100-04	3/8	8,6	1,1	16
R100-06	3/8	8,6	1,1	16
R110 SERIES FLAT FACE VALVES				
R110-04	1/4	12	1,3	19
R110-06	3/8	23	0,5	8
R110-08	1/2	45	0,9	13
R110-12	3/4	100	1,1	16
R110-16	1	189	1,2	17
R120 SERIES HEAVY DUTY SCREW TOGETHER				
R120-08	1/2	45	1,1	16
R120-12	1	189	2,1	31
R120-16	1	189	2,1	31
R130 SERIES HIGH FLOW POPPET CHECK VALVES				
R130-06	3/8	36	1,4	20
R130-08	1/2	70	1,4	20
R130-12	3/4	118	1,5	22
R130-16	1	180	1,5	22

RCS & RCD

MOUNTING CLAMPS SINGLE
MOUNTING CLAMPS DOUBLE



RCS Series - Single (left) and RCD Series - Double (right)

RECOMMENDED FOR:

Fast, economic and safe mounting of hydraulic hose and hydraulic tube onto machinery and steelwork. The jaws of the clamp grip the hose or tube to reduce vibration, and help absorb noise and shocks.

ORDERING DETAILS:

ORDER AS COMPLETE CLAMPS:

RCSD and **RCDD** are packs of 5 complete clamps. ("D" is added after RCS and RCD, for example RCSD-06 is a pack of components for 5 complete RCS-06 clamps.) Complete Clamps are supplied unassembled.

ORDER AS INDIVIDUAL COMPONENTS:

Standard Pack Size for Components is 50 pieces for Groups 1 to 3, and 25 pieces for Groups 4 and 5.

SIZE SELECTION:

RCS Series Clamps are available with nominal diameters from 6 mm to 50,8 mm, **RCD** Series Clamps are available with nominal diameters from 6 mm to 42 mm. The Nominal Diameter Size of the Clamp is the minimum diameter range of the Clamp, for example, a 20 mm clamp suits Outside Diameters from 20,0 mm up to 21,9 mm. After assembly, the two Jaw halves of a correctly chosen Clamp should not contact each other.

TECHNICAL DATA

SPECIFICATION:

RCS and RCD Series Mounting Clamps comply with Specification DIN 3015.

OPERATING TEMPERATURE:

From -30°C to +90°C (-22°F to +194°F).

MATERIALS:

Bottom Plate:

Steel, zinc plated and passivated (CrVI free).

Jaws:

Green, polypropylene. Upper and lower jaws are identical, and size is moulded into each half. Black, self-extinguishing polyamide jaws, are available on request.

Top Plate:

Steel, zinc plated and passivated (CrVI free).

Bolts:

Steel, plated.

Rails:

Steel, unplated.

Rail Nuts:

Aluminium.

Stacking Plates:

Steel, zinc plated and passivated (CrVI free).

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RCS AND RCD MOUNTING CLAMPS - ASSEMBLY INSTRUCTIONS

ASSEMBLY INSTRUCTIONS

ASSEMBLY WITH BOTTOM PLATE.

Weld metal Bottom Plate in position. (Do not weld with Polypropylene Jaws in place). Position lower half of Jaws on Bottom Plate. Insert Hose or Tube. Position upper half of Jaws over Hose or Tube and secure in place with Top Plate and Bolt(s).

Clamps should be positioned both before and after bends, as near as possible to the bend.

ASSEMBLY WITH MOUNTING RAIL

Mounting Rail is available in lengths of 2 metres, and in three different heights. Mounting Rail can be welded on, or screwed on. Insert Rail Nut(s) into Mounting Rail, and when located in the correct position, twist Rail Nut in clockwise direction to lock it in place.

Then mount lower half of Jaws onto Rail Nut, insert Hose or Tube and position upper half of Jaws; secure in place with Top Plate and Bolt(s).

Clamps should be positioned both before and after bends, as near as possible to the bend.

ASSEMBLY WITH STACKING COMPONENTS

Fasten Bottom Plate or Mounting Rail & Rail Nuts. Position lower half of Jaws; then Hose or Tube; and then upper half of Jaws. Secure in place with Stacking Bolt(s), ensuring the extended hex of Stacking Bolt(s) protrudes above upper half of Jaws. Stacking Plate is then placed over Stacking Bolt(s) to prevent the Bolt(s) turning. The next Mounting Clamp can then be mounted on top of first clamp.

RCS Single Clamps must be of the same Group to be stacked on top of each other. RCD Double Clamps of different Groups of Groups 2 to 5 can be stacked. RCD Double Group 1 Clamps can only be stacked on other Double Group 1 Clamps.

Clamps should be positioned both before and after bends, as near as possible to the bend.

MOUNTING

Standard mounting is Weld On Bottom Plate. Can also be rail mounted, and can be stacked vertically on top of each other. For Groups 1-3 of RCS Series Single Clamps; Double Bottom Plates and Multiple Bottom Plates allow mounting of more than one Clamp on a common bottom plate.

RECOMMENDED SPACING AND BOLT TORQUE

RECOMMENDED SPACING	
CLAMP	MAXIMUM DISTANCE BETWEEN CLAMPS
mm	mm
6 to 14	900
15 to 22	1200
23 to 28	1500
30 to 38	2000
40 to 48,3	2500
50 to 57	3000

RECOMMENDED BOLT TORQUE				
SERIES		BOLT SIZE	TORQUE SETTINGS	
			Nm	ft.lbf
RCS Series Single Clamps	All Groups	M6	8	6
RCD Series Double Clamps	Group 1	M6	5	4
RCD Series Double Clamps	Group 2-4	M8	12	9
RCD Series Double Clamps	Group 5	M8	8	6

RIBBED AND SMOOTH BORE JAWS

On the following pages, Part Numbers for Complete Claps and Jaws are for standard ribbed jaws. Smooth Bore jaws are also available; simply add S to the end of the Part Number.

EXAMPLE 1:

RCS-06S is Part Number for complete clamp with smooth jaws.

RCS-06JS is Part Number for smooth jaws pair.

EXAMPLE 2:

RCD-06S is Part Number for complete clamp with smooth jaws.

RCD-06JS is Part Number for smooth jaws pair.



STANDARD RIBBED JAW



SMOOTH BORE JAW

RCS & RCD MOUNTING CLAMPS - HOSE COMPATIBILITY

HOSE COMPATIBILITY

NOM CLAMP SIZE MM	SUITS HOSE TYPE & SIZE																										
	T3000A/D/S	T3600A/D/S	T4000A/D/S	T5000A/D/S	T6000A/D/S	H3000A/D/S	H4000A/D/S	H5000A/D/S	H6000A/D/S	H12A/D/S	R45HA/D	R4SPA/D	T1A/D/S	T2A/D/S	T1F	T2C	TXA2D	DF2A	E2	TJ2D	BT1	RQP1	RQP2	RQP5			
10	-4	-4	-4																								
12																											
12.7				-4	-4														-4			-4	-4		-4		
14	-5	-5																	5	-4	-4	-5			-5		
15	-6	-6	-5	-5	-5																		-5	-4			
16			-6	-6	-6														-6	-5		-6	-6	-5	-6		
18	-8	-8																			-6	-5					
19							-6	-6	-6	-6															-6	-8	
20			-8	-8	-8							-6	-8	-8	-8				-8	-8		-8	-8				
22	-10	-10	-10	-10			-8,-10	-8	-8	-8		-8	-10	-10	-10	-8	-8	-10				-10	-10	-8	-10		
25.4	-12	-12		-12				-10	-10	-10		-10	-12	-12					-10	-10	-12	-10		-12	-12	-10	-12
28			-12					-12	-12	-12											-12					-12	
30												-12	-12													-16	
32	-16	-16																									
35			-16					-16	-16	-16	-16	-16		-16	-16	-16	-16		-16	-16		-16	-16	-16			
38												-16						-16								20	
42							-20	-20																		-24	

NOM CLAMP SIZE MM	SUITS HOSE TYPE & SIZE																							
	RQP6	T5	D2B	MS1000	CS1000	TW1	PW2	RTH1	SR	SRF	M1	MP1	M2	PL1	PL1D	M2G	FB2	TP7, TP7N	TP7T, TP7TN	TP8, TP8N	TP8T, TP8TN	TP3000	TPGL	
10								-4,-6											-3		-4	-4		-2
12																				-4	-4			-4
12.7	-4	-4									-4									-5	-5			
14	-5	-5									-5	-4	-4				-4			-5	-5			
15	-6						-4	-8			-6											-6	-6	
16		-6				-6	-5				-6								-6	-6				-6
18				-8	-8			-10																
19	-8	-8					-6																	
20						-8					-8								-8	-8	-8	-8		
22	-10	-10		-10	-10			-12					-8	-10	-10	-8	-8							-8
25.4	-12			-12	-12						-10								-10	-12				
28		-12						-16			-12													
30		-16							-12	-12														
32				-16	-16																			
35									-16	-16		-16												
38		-20		-20	-20																			
42		-24	-24																					

NOTE: Above details are correct as at time of publication. Selection chart is intended as a guide for the selection of clamps; manufacturing tolerances may affect size selection. Size selection of clamp should be confirmed with the actual hose to be used.

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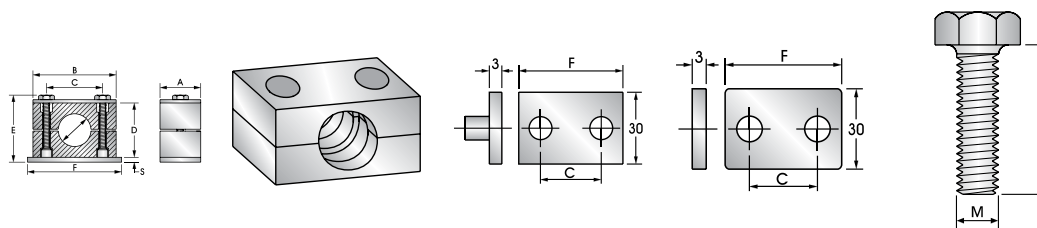
TECHNICAL

ACCESSORIES

RCS MOUNTING CLAMPS

RCS	RCS-J	RCS-PB	RCS-PT	RCS-BH
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SINGLE CLAMPS



	NOMINAL CLAMP SIZE	COMPLETE CLAMP	JAWS (PAIR)	PLATE BOTTOM	PLATE TOP	BOX HEX (2 PER CLAMP)
GROUP 1	6	RCS-06	RCS-06J	RCS-1PB	RCS-1PT	RCS-1BH
	8	RCS-08	RCS-08J			
	10	RCS-10	RCS-10J			
	12	RCS-12	RCS-12J			
GROUP 2	12,7	RCS-127	RCS-127J	RCS-2PB	RCS-2PT	RCS-2BH
	14	RCS-14	RCS-14J			
	15	RCS-15	RCS-15J			
	16	RCS-16	RCS-16J			
	18	RCS-18	RCS-18J			
GROUP 3	19	RCS-19	RCS-19J	RCS-3PB	RCS-3PT	RCS-3BH
	20	RCS-20	RCS-20J			
	22	RCS-22	RCS-22J			
	25	RCS-25	RCS-25J			
GROUP 4	25,4	RCS-254	RCS-254J	RCS-4PB	RCS-4PT	RCS-4BH
	28	RCS-28	RCS-28J			
	30	RCS-30	RCS-30J			
GROUP 5	32	RCS-32	RCS-32J	RCS-5PB	RCS-5PT	RCS-5BH
	35	RCS-35	RCS-35J			
	38	RCS-38	RCS-38J			
	42	RCS-42	RCS-42J			
GROUP 6	50,8	RCS-508	RCS-508J	RCS-6PB	RCS-6PT	RCS-6BH

CLAMP DIMENSIONS

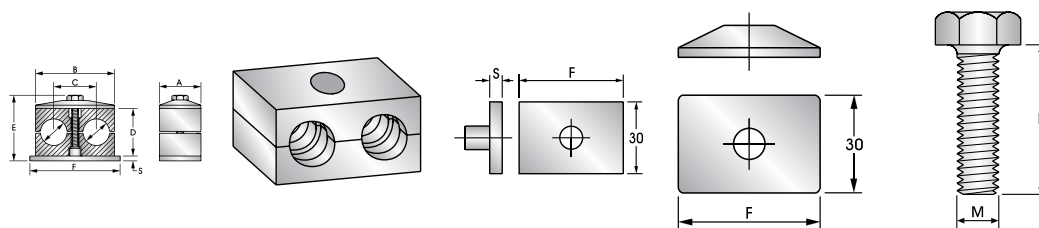
Clamps are divided into Groups 1 to 6. Within each Group, all components except the Jaws have the same size.

DIMENSIONS MM	A	B	C	D	E	F	S	BOLT M X L
GROUP 1	30	37	20	27	37	42	3	M6 x 30
GROUP 2	30	43	26	33	43	48	3	M6 x 35
GROUP 3	30	50	33	35	45	55	3	M6 x 40
GROUP 4	30	57	40	42	53	62	3	M6 x 45
GROUP 5	30	68	52	58	69	74	3	M6 x 60
GROUP 6	30	86	66	66	77	88	3	M6 X 70

RCD MOUNTING CLAMPS

RCD	RCD-J	RCD-PB	RCD-PT	RCD-BH
-----	-------	--------	--------	--------

DOUBLE CLAMPS



	NOMINAL CLAMP SIZE	COMPLETE CLAMP	JAWS (PAIR)	PLATE BOTTOM	PLATE TOP	BOX HEX (1 PER CLAMP)
GROUP 1	6-6 8-8 10-10 12-12	RCD-06 RCD-08 RCD-10 RCD-12	RCD-06J RCD-08J RCD-10J RCD-12J	RCD-1PB	RCD-1PT	RCD-1BH (Use RCS-2BH)
GROUP 2	12,7-12,7 14-14 15-15 16-16 18-18	RCD-127 RCD-14 RCD-15 RCD-16 RCD-18	RCD-127J RCD-14J RCD-15J RCD-16J RCD-18J	RCD-2PB	RCD-2PT	RCD-2BH
GROUP 3	19-19 20-20 22-22 25-25 25,4-25,4	RCD-19 RCD-20 RCD-22 RCD-25 RCD-254	RCD-19J RCD-20J RCD-22J RCD-25J RCD-254J	RCD-3PB	RCD-3PT	RCD-3BH
GROUP 4	28-28 30-30	RCD-28 RCD-30	RCD-28J RCD-30J	RCD-4PB	RCD-4PT	RCD-4BH
GROUP 5	32-32 35-35 38-38 42-42	RCD-32 RCD-35 RCD-38 RCD-42	RCD-32J RCD-35J RCD-38J RCD-42J	RCD-5PB	RCD-5PT	RCD-5BH

CLAMP DIMENSIONS

Clamps are divided into Groups 1 to 5. Within each Group, all components except the Jaws have the same size.

DIMENSIONS MM	A	B	C	D	E	F	S	BOLT M X L
GROUP 1	30	37	20	25	40	37	3	M6 x 30
GROUP 2	30	53	29	26	43	55	5	M8 x 35
GROUP 3	30	67	36	37	54	70	5	M8 x 45
GROUP 4	30	82	45	42	60	85	5	M8 x 50
GROUP 5	30	106	56	54	72	110	5	M8 x 60

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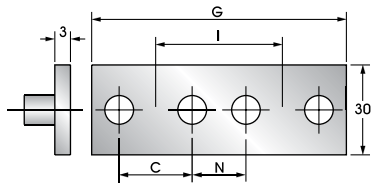
FILTERS

TECHNICAL

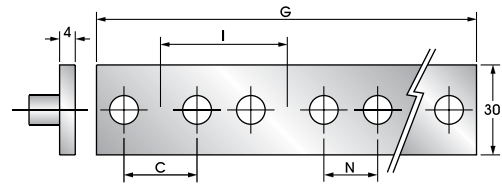
ACCESSORIES

RCS & RCD MOUNTING CLAMPS

RCS-PD & RCS-PM RCS CLAMPS DOUBLE & MULTIPLE PLATE BOTTOM



RCS-PD



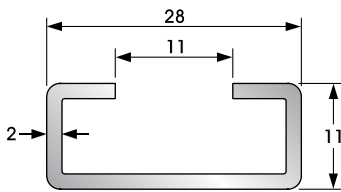
RCS-PM

PART NUMBERS AND SPECIFICATIONS

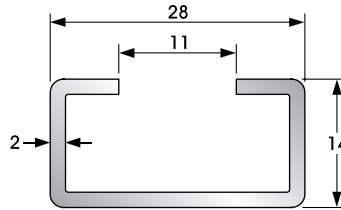
TO SUIT GROUP	DOUBLE BOTTOM PLATE FOR 2 CLAMPS	DIMENSIONS					MULTIPLE BOTTOM PLATE FOR 10 CLAMPS
		C	N	I	F	G	
GROUP 1	PART NO RCS-1PD	mm 20	mm 20	mm 40	mm 81	mm 401	PART NO RCS-1PM
GROUP 2	PART NO RCS-2PD	mm 26	mm 18	mm 44	mm 91	mm 443	PART NO RCS-2PM
GROUP 3	PART NO RCS-3PD	mm 33	mm 19	mm 52	mm 106	mm 522	PART NO RCS-3PM

RC-RAIL RAIL MOUNT COMPONENTS

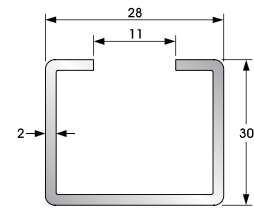
RAIL - supplied in 2 metre lengths. Suits **RCS** and **RCD** series clamps. Three different heights.



RC-RAIL-H11

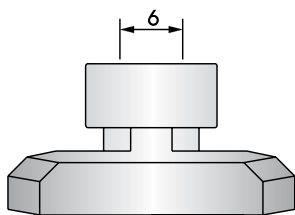


RC-RAIL-H14



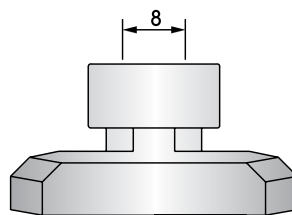
RC-RAIL-H30

RC-RN RAIL NUTS



RC-RN-M6

M6 THREAD SUITS ALL RCS CLAMPS & RCD GROUP 1 CLAMPS

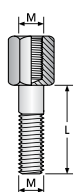


RC-RN-M8

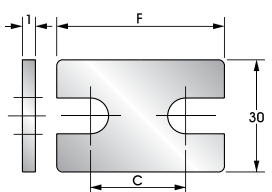
M8 THREAD SUITS RCD GROUPS 2 TO 5 CLAMPS



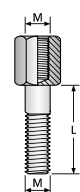
RCS & RCD STACKING COMPONENTS



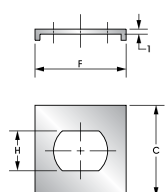
RCS-BS



RCS-PS



RCD-BS



RCD-PS

SINGLE CLAMP STACKING		SINGLE CLAMP PLATE STACKING		DOUBLE CLAMP BOLT STACKING		DOUBLE CLAMP PLATE STACKING	
	DIMENSIONS M X L		DIMENSIONS F X C		DIMENSIONS M X L		DIMENSIONS F X C X H
PART NO	mm	PART NO	mm	PART NO	mm	PART NO	mm
RCS-1BS	M6 x 20	RCS-1PS	34 x 20	RCD-1BS	M6 x 20	RCD-1PS	32 x 30 x 13
RCS-2BS	M6 x 25	RCS-2PS	40 x 26	RCD-2BS	M8 x 20	RCD-2PS	32 x 30 x 14
RCS-3BS	M6 x 30	RCS-3PS	48 x 33	RCD-3BS	M8 x 29	USE RCD-2PS*	32 x 30 x 14
RCS-4BS	M6 x 35	RCS-4PS	57 x 40	RCD-4BS	M8 x 34	USE RCD-2PS*	32 x 30 x 14
RCS-5BS	M6 x 50	RCS-5PS	68 x 52	RCD-5BS	M8 x 47	USE RCD-2PS*	32 x 30 x 14

NOTE: *Group 2 Stacking Plate also suits Groups 3, 4 & 5.

ACCESSORIES

RL20 AND RL20SH BSPP BALL VALVES

RL20 RL20SH BSPP BALL VALVES



RL20SH shown above

RECOMMENDED FOR:

RYCO RL20 and **RL20SH** Ball Valves are used to open or close flow. The Valve is delivered in the open position, with the handle aligned with the longitudinal axis of the body, permitting flow through the valve body. The Valve is closed, and flow is stopped when the handle is turned 90° clockwise from the open position (when viewed from above).

NOTE: Alloy handle of **RL20** has potential to spark if struck by steel and **RL20** is not suitable for use in underground coal mines. Use **RL20SH** instead.

FEATURES:

- Flow can be in either direction (two way).
- Eight sizes; from -0404 (1/4 inch) to -3232 (2 inch).
- Working pressures from 350 to 500 bar (5100 to 7250 psi), depending on size.
- Also suitable for suction and vacuum service.
- Special ball seal design ensures seal at both low and high pressure.
- Handle can be reoriented if required.
- RL20, and RL20SH-0404 to -0808 have two mounting holes in body, to allow Ball Valve to be bolted in place.

TECHNICAL DATA

PORTS:

BSPP Female.

BODY:

RL20 from -0404 to -1616 sizes:

Carbon Steel, zinc plated and passivated (CrVI free).

RL20SH from -0404 to -0808 sizes:

Carbon Steel, zinc plated and passivated (CrVI free).

RL20SH -1212 and -1616 sizes:

Carbon Steel, black finish.

RL20SH from -2020 to -3232 sizes:

Forged Steel, black finish.

BALL:

Nickel plated steel.

STEM:

Zinc plated steel.

HANDLE:

RL20 have alloy handle. RL20SH have steel handle, or alloy complying with underground coal mining specifications. Contact RYCO for more information.

BALL SEALING:

Polyamide.

STEM SEALING:

Nitrile (Buna N).

MAXIMUM WORKING PRESSURE:

See table on opposite page.

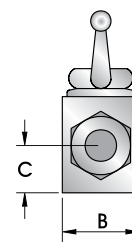
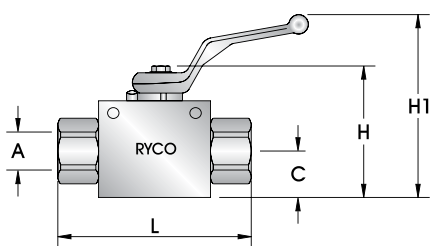
OPERATING TEMPERATURE:

From -10°C to +100°C (-14°C to +212°F).

FLUID COMPATIBILITY:

Mineral/petroleum based hydraulic oils.

PART NUMBERS AND SPECIFICATIONS



PART NO	PORT BSPP	MIN. BORE	MAXIMUM WORKING PRESSURE	
			bar	psi
	A inch	mm		
RL20-0404	1/4	6	500	7250
RL20-0606	3/8	10	500	7250
RL20-0808	1/2	13	500	7250
RL20-1212	3/4	20	400	5800
RL20-1616	1	24	350	5100
RL20SH-0404	1/4	6	500	7250
RL20SH-0606	3/8	10	500	7250
RL20SH-0808	1/2	13	500	7250
RL20SH-1212	3/4	20	400	5800
RL20SH-1616	1	24	350	5100
RL20SH-2020	1.1/4	32	350	5100
RL20SH-2424	1.1/2	38	350	5100
RL20SH-3232	2	48	350	5100

PART NO	DIMENSIONS					
	LENGTH OVERALL	WIDTH	HEIGHT TO LEVER	HEIGHT TO STEM	HEIGHT PORT	WEIGHT
	L mm	B mm	H1 mm	H mm	C mm	kg
RL20-0404	72	26	64	47	13	0,40
RL20-0606	75	32	69	52	16	0,55
RL20-0808	85	35	76	56	18	0,65
RL20-1212	93	50	96	75	23	1,45
RL20-1616	114	57	104	85	28	2,05
RL20SH-0404	72	26	64	47	13	0,45
RL20SH-0606	75	32	69	52	16	0,60
RL20SH-0808	85	35	76	56	18	0,70
RL20SH-1212	96	49	125	79	24,5	1,60
RL20SH-1616	113	60	130	83	26,5	2,20
RL20SH-2020	110	80	160	104	38	3,55
RL20SH-2424	120	84	185	120	42	4,10
RL20SH-3232	140	105	200	143	50	5,60

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RCV BSPP CHECK VALVES

RCV BSPP CHECK VALVES



RECOMMENDED FOR:

RYCO RCV Check Valves permit free flow of fluid in one direction, and prevent flow in the reverse direction.

Not recommended for use checking high velocity reverse flow resulting in shock conditions.

FEATURES:

- Steel poppet valve with metal-to-metal seat.
- Seven sizes from -0404 (1/4 inch) to -2424 (1.1/2 inch).
- 200 bar/2900 psi working pressure for all sizes.
- Two Cracking pressures available:
0,35 bar/5 psi standard.
Optional 3,5 bar/50 psi Springs available.
- Flow direction shown by grooves and "IN" stamped at inlet end.

TECHNICAL DATA

PORTS:

BSPP Female.

BODY:

Carbon Steel, zinc plated and passivated.

POPPET SEAL:

Metal-to-metal seat.

SPRING:

Spring steel, chrome finish.

MAXIMUM WORKING PRESSURE:

200 bar/2900 psi in all sizes.

OPERATING TEMPERATURE:

From -10°C to +80°C (+14°F to +176°F).

FLUID COMPATIBILITY:

Mineral/petroleum based hydraulic oils.

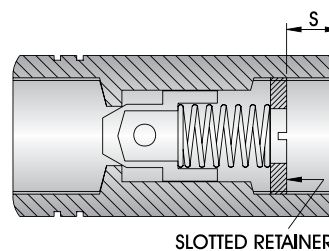
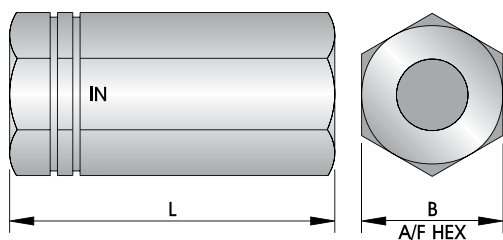
CRACKING PRESSURE:

0,35 bar/5 psi standard.

3,5 bar/50 psi optional. Order **RCVSH** Heavy Spring.

To Fit RCVSH Heavy Spring: Unscrew slotted retainer, remove standard spring and replace with heavy spring. Replace retainer, and screw in until it is distance "S" from end (see table on page opposite). Lock retainer in place with thread locking fluid.

PART NUMBERS AND SPECIFICATIONS



PART NO	PORT BSPP	NOMINAL FLOW	MAXIMUM WORKING PRESSURE	
			bar	psi
	inch	LPM		
RCV-0404	1/4	20	200	2900
RCV-0606	3/8	30	200	2900
RCV-0808	1/2	50	200	2900
RCV-1212	3/4	80	200	2900
RCV-1616	1	150	200	2900
RCV-2020	1.1/4	200	200	2900
RCV-2424	1.1/2	270	200	2900

PART NO	DIMENSIONS			OPTIONAL SPRING 3,5 BAR	
	LENGTH OVERALL	A/F HEX	WEIGHT	PART NO	S FOR RCVSH
	L mm	B mm	kg		mm
RCV-0404	65	19	0,11	RCVSH-04	14,5
RCV-0606	75	25	0,25	RCVSH-06	15,2
RCV-0808	85	30	0,36	RCVSH-08	19,5
RCV-1212	100	38	0,68	RCVSH-12	21,5
RCV-1616	115	41	0,80	RCVSH-16	22,0
RCV-2020	130	55	1,65	RCVSH-20	27,0
RCV-2424	132	65	2,55	RCVSH-24	27,0

ACCESSORIES

AIRLINE COUPLINGS

AIRLINE COUPLINGS



500 Series shown

RYCO AIRLINE COUPLINGS – FEATURES

RUGGED – LONG LASTING

All **RYCO AIRLINE** Couplings have stainless steel springs and balls, synthetic rubber seals, and brass or hardened steel sleeves. Australian designed, for Australian conditions.

SUPER-HI-FLOW

Efficient “Super-Hi-Flow” design produces maximum airflow, with minimum pressure drop. This means more air-power at your tool... where you need it.

ONE TOUCH OPERATION

Retract the sleeve on **290** and **500** Series – “one touch” – and the nipple ejects from the coupling.

The sleeve remains in the release position. To reconnect, **290**, **500** and **500R** Series simply push together with their nipples – “one touch” – to seal and lock – no need to retract the sleeve again. The sleeve snaps forward to confirm positive connection.

SELF SEALING – 360° SWIVEL

Couplings can be coupled and uncoupled up to 17,2 bar/250 psi line pressure. The valve in the coupling automatically seals when your tool is disconnected. Nipple is unvalved. 360° swivel feature allows free movement when unpressurised to avoid hose kinking or twisting.

THREAD LOCKED

Our Automatic Couplings are thread-locked on assembly to eradicate damage from high frequency vibration. **300** Series feature Crimp Ring construction.

THE RYCO AIRPOWER RANGE – SPECIFICATIONS

Recommended for: General industrial pneumatic use with air compressors, air hoses, blow guns, air driven hand tools, air supply to spray painting equipment, tyre inflating equipment, etc.

Only **RYCO 500R** Series Couplings are recommended for Respiratory Breathing Air. **RYCO 500R** and all other RYCO Series are **NOT RECOMMENDED** for Underwater Diving applications.

SPECIFICATIONS		200 SERIES BRASS	200S SERIES STEEL	290 SERIES SUPER HI-FLOW	300 SERIES INDUSTRIAL	400 SERIES SUPER HI-FLOW	500 SERIES SUPER HI-FLOW	500R SERIES BREATHING AIR
FLOW CAPACITY @ 7 bar/100 psi	CFM	60	60	90	165	90	100	100
	LPM	1700	1700	2500	4700	2500	2800	2800
MAX. WORKING PRESSURE	bar	15	20	35	35	15	35	35
	psi	220	290	500	500	220	500	500
TEMPERATURE RANGE	°C	-20° to +80°	-20° to +80°	-20° to +80°	-20° to +80°	-20° to +80°	-20° to +80°	-20° to +80°
	°F	-4° to +176°	-4° to +176°	-4° to +176°	-4° to +176°	-4° to +176°	-4° to +176°	-4° to +176°

MATERIAL

	200 SERIES BRASS	200S SERIES STEEL	290 SERIES SUPER HI-FLOW	300 SERIES INDUSTRIAL	400 SERIES SUPER HI-FLOW	500 SERIES SUPER HI-FLOW	500R SERIES BREATHING AIR
BODY	BRASS	STEEL	STEEL	STEEL	STEEL	STEEL	BRASS
SLEEVE	BRASS	HARDENED STEEL	HARDENED STEEL	HARDENED STEEL	HARDENED STEEL	HARDENED STEEL	BRASS
SEALS	NITRILE	NITRILE	NITRILE	NITRILE	NITRILE	NITRILE	NITRILE
BALLS	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL
SPRING	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL
NIPPLE	BRASS	HARDENED STEEL	HARDENED STEEL	HARDENED STEEL	HARDENED STEEL	HARDENED STEEL	HARDENED STEEL
PLATING	UNPLATED	RYCOTE CrVI free (SILVER)	RYCOTE CrVI free (SILVER)	RYCOTE CrVI free (SILVER)	RYCOTE CrVI free (SILVER)	CHROME PLATED (COUPLING) RYCOTE CrVI free (NIPPLE)	UNPLATED (COUPLING) RYCOTE CrVI free (NIPPLE)

200, 200S & 290 SERIES AIRLINE COUPLINGS

200, 200S & 290 SERIES – SPECIFICATIONS

AIRLINE COUPLINGS				MATCHED CONNECTORS						CORROSION RESISTANCE	LONG LASTING	HARD WEARING	HARDENED SLEEVE	SELF LOCKING	ONE TOUCH OPERATION	HEAVY DUTY	INDUSTRIAL STRENGTH	BRASS VLAVE	STEEL COUPLING
SERIES	BODY	FLOW RATE		200	200S	290	300	400	500										
		CFM	LPM																
200	BRASS	60	1700	200						✓	✓	✓							
200S	STEEL	60	1700		200S						✓	✓	✓						
290	STEEL	90	2500	200	200S	290					✓	✓	✓	✓	✓				

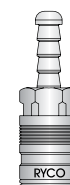
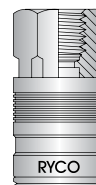
200 & 200S AIRLINE COUPLINGS

BSPT MALE

BSPP FEMALE

HOSE BARB

AUTOMATIC COUPLINGS



SUITED SERIES						THREAD/ BARB	BRASS	STEEL	BRASS	STEEL	BRASS	STEEL
200	200S	290	300	400	500		PART NO	PART NO	PART NO	PART NO	PART NO	PART NO
✓	✓					1/4	201	201S	200	200S	245	245S
✓	✓					5/16					240	240S
✓	✓					3/8	244	244S	243	243S	241	241S

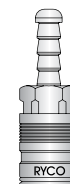
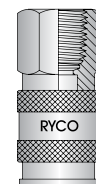
290 AIRLINE COUPLINGS

BSPT MALE

BSPT FEMALE

HOSE BARB

AUTOMATIC COUPLINGS



SUITED SERIES						THREAD/ BARB	STEEL	STEEL	STEEL
200	200S	290	300	400	500		PART NO	PART NO	PART NO
		✓				1/4	291	290	296
		✓				5/16			297A
		✓				3/8	293	292	298
		✓				1/2	295	294	299

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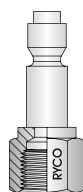
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200, 200S & 290 SERIES AIRLINE COUPLINGS

200, 200S & 290 AIRLINE COUPLINGS	BSPP FEMALE	BSPT MALE	HOSE BARB
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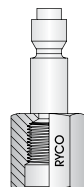
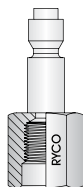
COUPLING NIPPLE



SUITED SERIES						THREAD BSPT	BRASS	STEEL	BRASS	STEEL	BRASS	STEEL
200	200S	290	300	400	500		PART NO	PART NO	PART NO	PART NO	PART NO	PART NO
✓	✓	✓				1/8	255		204			
✓	✓	✓				3/16					256	
✓	✓	✓				1/4	203	203S	202	202S	205	205S
✓	✓	✓				5/16					206	206S
✓	✓	✓				3/8		266S		251S	206A	206AS
✓	✓	✓				1/2		270S		252S		254S

SCHRADER	217	217A
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COUPLING NIPPLE



SUITED SERIES						SCHRADER SHORT BRASS	SCHRADER LONG BRASS
200	200S	290	300	400	500	PART NO	PART NO
✓	✓	✓				217	217A

300 INDUSTRIAL SERIES AIRLINE COUPLINGS

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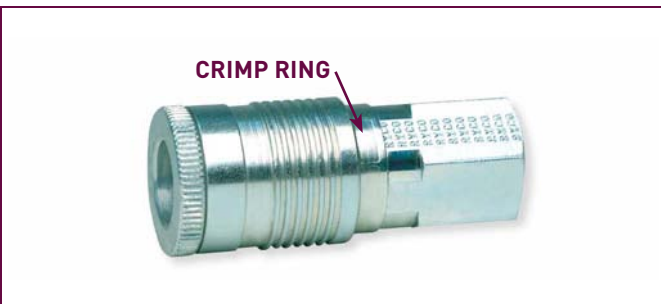
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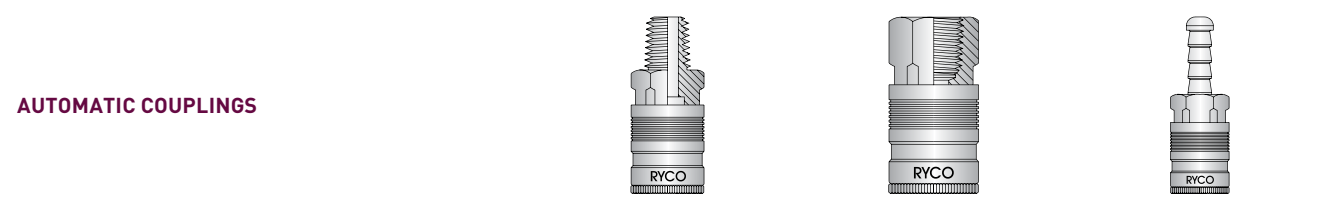
300 SERIES – SPECIFICATIONS

300 Series feature **Crimp Ring** construction. The Crimp Ring locks into grooves in the coupling, and ensures that the Coupling cannot be disassembled by high frequency vibrations or shock loads. "Factory Sealed" for the life of the Coupling.



AIRLINE COUPLINGS				MATCHED CONNECTORS						CORROSION RESISTANCE	LONG LASTING	HARD WEARING	HARDENED SLEEVE	SELF LOCKING	ONE TOUCH OPERATION	HEAVY DUTY	INDUSTRIAL STRENGTH	BRASS VALVE	STEEL COUPLING		
SERIES	BODY	FLOW RATE		200	200S	290	300	400	500												
300	STEEL	165	4700				300									✓		✓	✓	✓	✓

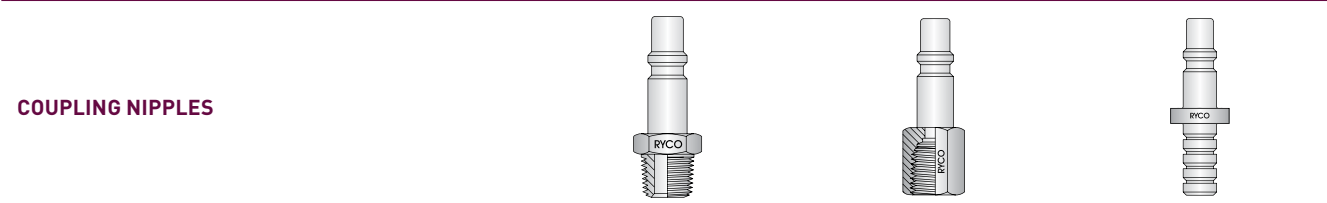
300 AIRLINE COUPLINGS INDUSTRIAL BSPT MALE BSPT FEMALE HOSE BARB



AUTOMATIC COUPLINGS

SUITED SERIES						THREAD/ BARB	STEEL	STEEL	STEEL
200	200S	290	300	400	500		PART NO	PART NO	PART NO
			✓			3/8	323	322	340
			✓			1/2	321	320	341

300 AIRLINE COUPLINGS INDUSTRIAL BSPT MALE BSPP FEMALE HOSE BARB



COUPLING NIPPLES

SUITED SERIES						THREAD/ BARB	STEEL	STEEL	STEEL
200	200S	290	300	400	500		PART NO	PART NO	PART NO
			✓			1/4	332		
			✓			3/8	304	330	305
			✓			1/2	302	303	306
			✓			3/4			331

ACCESSORIES

400 HI FLOW SERIES AIRLINE COUPLINGS

400 SERIES - SPECIFICATIONS

AIRLINE COUPLINGS				MATCHED CONNECTORS						CORROSION RESISTANCE	LONG LASTING	HARD WEARING	HARDENED SLEEVE	SELF LOCKING	ONE TOUCH OPERATION	HEAVY DUTY	INDUSTRIAL STRENGTH	BRASS VLAVE	STEEL COUPLING
SERIES	BODY	FLOW RATE		200	200S	290	300	400	500										
400*	STEEL	90	2500					400*			✓	✓	✓						✓

NOTE: *400 Series AIRLINE Couplings cross references with Nitto couplings.

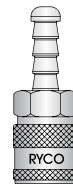
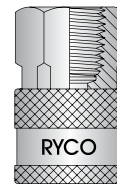
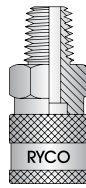
400 AIRLINE COUPLINGS SUPER HI FLOW

BSPT MALE

BSPT FEMALE

HOSE BARB

AUTOMATIC COUPLINGS



SUITED SERIES						THREAD/ BARB	STEEL	STEEL	STEEL
200	200S	290	300	400	500		PART NO	PART NO	PART NO
				✓		1/4	420SM	420SF	420SH
				✓		5/16			425SH
				✓		3/8	430SM	430SF	430SH
				✓		1/2	440SM	440SF	440SH

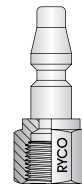
400 AIRLINE COUPLINGS SUPER HI FLOW

BSPT MALE

BSPT FEMALE

HOSE BARB

COUPLING NIPPLES



SUITED SERIES						THREAD/ BARB	STEEL	STEEL	STEEL
200	200S	290	300	400	500		PART NO	PART NO	PART NO
				✓		1/8	410PM	410PF	
				✓		1/4	420PM	420PF	420PH
				✓		5/16			425PH
				✓		3/8	430PM	430PF	430PH
				✓		1/2	440PM	440PF	440PH
				✓		SCHL*		417A	

NOTE: SCHL* stands for SCHRADER-LONG.

500R SERIES RESPIRATORY BREATHING AIR AIRLINE COUPLINGS

500R SERIES - RESPIRATORY BREATHING AIR

RYCO 500R Series Couplings are designed for Respiratory Breathing Air applications, where breathing air is supplied to the operator via air-line. They comply with the relevant clauses of **AS/NZS 1716** "Respiratory Protection Devices".

Disconnection of the Coupling requires two deliberate movements:

1. The Nipple must be pushed further into the Female Body.
 2. While holding the Nipple in, retract the Sleeve.
- This feature reduces the risk of accidental disconnection.

Additionally, **RYCO 500R** Series Coupling Nipples have a longer shank than **RYCO 500** Series. **RYCO 500** Series Coupling Nipples cannot be connected to **RYCO 500R** Series Couplings.

RECOMMENDED FOR:

Typical Respiratory Breathing Air applications; work in confined spaces, oxygen deficient or toxic areas, chemical processing and spraying, spray painting, rescue equipment, asbestos removal, sand blasting, tank cleaning, and fumigation. **RYCO 500R** Series Couplings are **NOT RECOMMENDED** for Underwater Diving applications.

An Independent Test Report, showing compliance of **RYCO 500R** Series Couplings to **AS/NZS 1716-1994** "Respiratory Protection Devices" is available. This Test Report covers the following clauses of **AS/NZS 1716**:

Clause 8.3.4 "Connectors and couplings"
 "All air-line connections shall be of "safety type" i.e. requiring at least two deliberate actions to separate the connection or coupling" and **Clause 8.4.6.1** "Strength of (air-line and) couplings".

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500R SERIES - SPECIFICATIONS

AIRLINE COUPLINGS				MATCHED CONNECTORS						CORROSION RESISTANCE	LONG LASTING	HARD WEARING	HARDENED SLEEVE	SELF LOCKING	ONE TOUCH OPERATION	HEAVY DUTY	INDUSTRIAL STRENGTH	BRASS VALVE	STEEL COUPLING
SERIES	BODY	FLOW RATE		200	200S	290	300	400	500										
500R⁺	BRASS	100	2800						500R*										

NOTE: * **RYCO 500R** Series Couplings are designed for Respiratory Breathing Air applications, where breathing air is supplied to the operator via air-line. They comply with the relevant clauses of **AS/NZS 1716** "Respiratory Protection Devices".

500R AIRLINE COUPLINGS RESPIRATORY BREATHING AIR

BSPT FEMALE

BSPT MALE

AUTOMATIC COUPLINGS
COUPLING NIPPLES

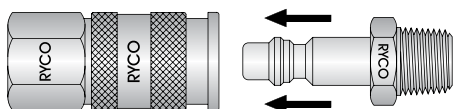


SUITED SERIES						THREAD/ BARB	BRASS	STEEL
200	200S	290	300	400	500	1/4	PART NO 500R	PART NO 502R

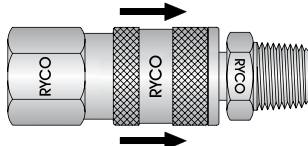
CONNECTING AND DISCONNECTING RYCO 500R SERIES COUPLINGS

HOW TO CONNECT

SIMPLY PUSH NIPPLE INTO FEMALE BODY

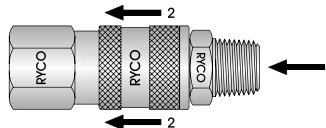


SLEEVE MOVES FORWARD AND CONNECTION IS COMPLETE

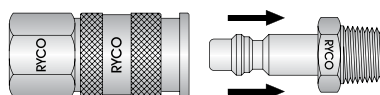


HOW TO DISCONNECT

1. PUSH NIPPLE FURTHER INTO FEMALE BODY
2. HOLD NIPPLE IN AND RETRACT SLEEVE



NIPPLE IS RELEASED FROM FEMALE BODY AND DISCONNECTION IS COMPLETE



ACCESSORIES

500 SUPER HI FLOW SERIES AIRLINE COUPLINGS

500 SERIES - SPECIFICATIONS

AIRLINE COUPLINGS				MATCHED CONNECTORS						CORROSION RESISTANCE	LONG LASTING	HARD WEARING	HARDENED SLEEVE	SELF LOCKING	ONE TOUCH OPERATION	HEAVY DUTY	INDUSTRIAL STRENGTH	BRASS VLAVE	STEEL COUPLING
SERIES	BODY	FLOW RATE		200	200S	290	300	400	500										
500*	STEEL	100	2800						500*	✓	✓	✓	✓	✓					

* 500 Series AIRLINE Couplings cross references with CEJN couplings.

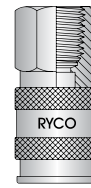
500 AIRLINE COUPLINGS SUPER HI FLOW

BSPT MALE

BSPF FEMALE

HOSE BARB

AUTOMATIC COUPLINGS



SUITED SERIES						THREAD/ BARB	STEEL	STEEL	STEEL
200	200S	290	300	400	500		PART NO	PART NO	PART NO
					✓	1/4	501	500	545
					✓	5/16			540
					✓	3/8	544	543	541
					✓	1/2	547	546	542

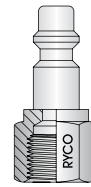
500 AIRLINE COUPLINGS SUPER HI FLOW

BSPT MALE

BSPF FEMALE

HOSE BARB

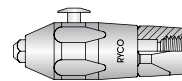
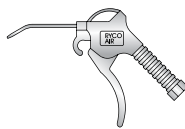
COUPLING NIPPLES



SUITED SERIES						THREAD/ BARB	STEEL	STEEL	STEEL
200	200S	290	300	400	500		PART NO	PART NO	PART NO
					✓	1/8	504		
					✓	1/4	502	503	505
					✓	5/16			506
					✓	3/8	551	566	506A
					✓	1/2	552	570	554
					✓	SCHL*	517A		

NOTE: SCHL* stands for SCHRADER-LONG.

BLOW GUNS 224 223



SUITED SERIES						THREAD BSPP	EASY HAND CLASP BLOW GUN	PUSH BUTTON BLOW GUN
200	200S	290	300	400	500		PART NO	PART NO
✓	✓	✓	✓	✓	✓	1/4	224	223

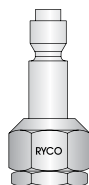
AIR-FLEX BLOW GUNS

- Leakproof internal valve
- Operates by slight pressure between hand & thumb
- Relaxing pressure instantly shuts air off
- Includes part no 2215 extension



SUITED SERIES						THREAD	AIR-FLEX BLOW GUN	SCREW-ON AIR-FLEX BLOW GUN
200	200S	290	300	400	500	inch	PART NO	PART NO
✓	✓	✓					222	
				✓			422	
					✓		522	
✓	✓	✓	✓	✓	✓	1/4" BSPP		221

AIR CHUCKS



SUITED SERIES						THREAD BSPP	AIR CHUCKS
200	200S	290	300	400	500	inch	PART NO
✓	✓	✓					216
				✓			416
					✓		516

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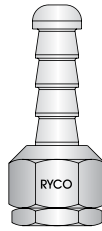
TECHNICAL

ACCESSORIES

AIRLINE COUPLINGS

AIR CHUCKS

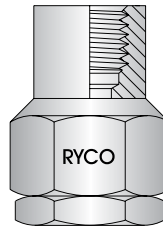
211/213



SUITED SERIES						BARB SIZE	AIR CHUCKS
200	200S	290	300	400	500	inch	PART NO
✓	✓	✓	✓	✓	✓	1/4	211
✓	✓	✓	✓	✓	✓	3/8	213

AIR CHUCKS

214

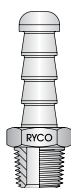


SUITED SERIES						THREAD SIZE	AIR CHUCKS
200	200S	290	300	400	500	inch	PART NO
✓	✓	✓	✓	✓	✓	1/4" BSPT	214

AIRLINE COUPLINGS HOSE BARBS

HOSE BARBS BSPT MALE

STRAIGHT



BARB	THREAD	MATERIAL	HOSE BARB BSPT MALE
inch	inch		PART NO
3/16	1/8	Brass	218A
3/16	1/4	Brass	218
1/4	1/8	Brass	219
1/4	1/4	Brass	207
1/4	3/8	Steel	268S
5/16	1/8	Brass	220
5/16	1/4	Brass	208
5/16	3/8	Steel	267S
3/8	1/8	Brass	260
3/8	1/4	Brass	209
3/8	3/8	Steel	307
3/8	1/2	Steel	309
1/2	1/4	Brass	210
1/2	3/8	Steel	308
1/2	1/2	Steel	310
1/2	3/4	Steel	310-8
3/4	1/2	Steel	310-10A
3/4	3/4	Steel	310-2A
3/4	1	Steel	310-9
1	3/4	Steel	310-7A
1	1	Steel	310-3A

HOSE BARBS BSPP NUT & TAIL

STRAIGHT

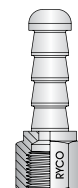


BARB	THREAD	MATERIAL	FEMALE NUT & TAIL
inch	inch		PART NO
1/4	1/4	*	231
5/16	1/4	*	232

NOTE: *Steel Nut/Brass Tail

HOSE BARBS BSPP FEMALE

STRAIGHT



BARB	THREAD	MATERIAL	HOSE BARB BSPP FEMALE
inch	inch		PART NO
3/16	1/4	Brass	259
1/4	1/4	Brass	236
1/4	3/8	Steel	269S
5/16	1/4	Brass	237
5/16	3/8	Steel	261S
3/8	1/4	Brass	238
3/8	3/8	Steel	262S
3/8	1/2	Steel	264S
1/2	3/8	Steel	263S
1/2	1/2	Steel	265S

HOSE BARBS BARB JOINER

JOINER



BARB	MATERIAL	HOSE BARB BARB
inch		PART NO
3/16	Brass	257
1/4	Brass	227
5/16	Brass	228
3/8	Brass	229
1/2	Brass	258

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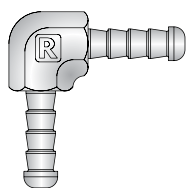
ACCESSORIES

AIRLINE COUPLINGS HOSE BARBS

HOSE BARBS

90° ELBOW

90° ELBOW

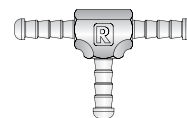


BARB	MATERIAL	BARB JOINER 90° ELBOW
inch		PART NO
1/4	Steel	372
5/16	Steel	375
3/8	Steel	377
1/2	Steel	379

HOSE BARBS

TEE

TEE

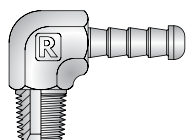


BARB	MATERIAL	BARB JOINER TEE
inch		PART NO
1/4	Steel	382
5/16	Steel	385
3/8	Steel	387
1/2	Steel	389

HOSE BARBS

90° ELBOW

90° ELBOW

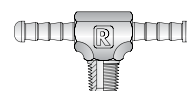


BARB	THREAD	MATERIAL	HOSE BARB BSPT MALE 90° ELBOW
inch			PART NO
1/4	1/4	Steel	342
5/16	1/4	Steel	343
5/16	3/8	Steel	346
3/8	1/4	Steel	344
3/8	3/8	Steel	347
1/2	1/2	Steel	349

HOSE BARBS

TEE

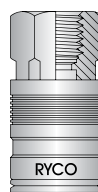
TEE



BARB	THREAD	MATERIAL	HOSE BARB BSPT MALE TEE PIECE
inch	inch		PART NO
1/4	1/4	Steel	352
5/16	1/4	Steel	353
5/16	3/8	Steel	356A
3/8	1/4	Steel	354
3/8	3/8	Steel	357
1/2	1/2	Steel	359

AIRLINE COUPLINGS BSPT MALE BSPT FEMALE HOSE BARB

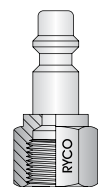
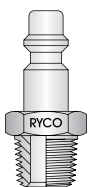
AUTOMATIC COUPLINGS



THREAD/ BARB	PER CARD	AIRLINE COUPLINGS BSPT MALE			AIRLINE COUPLINGS BSPT FEMALE			AIRLINE COUPLINGS HOSE BARB		
inch		200 SERIES	290 SERIES	400 SERIES	200 SERIES	290 SERIES	400 SERIES	200 SERIES	290 SERIES	400 SERIES
1/4	1	P201	P291	P420SM	P200	P290	P420SF*		P296	P420SH
5/16	1								P297A	P425SH
3/8	1		P293	P430SM		P292	P430SF*		P298	P430SH

NOTE: *Thread is BSPT Female

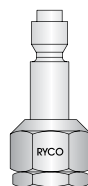
COUPLING NIPPLES BSPT MALE BSPP FEMALE HOSE BARB



THREAD/ BARB	PER CARD	COUPLING NIPPLE BSPT MALE			COUPLING NIPPLE BSPP FEMALE			COUPLING NIPPLE HOSE BARB		
inch		200 SERIES	290 SERIES	400 SERIES	200 SERIES	290 SERIES	400 SERIES	200 SERIES	290 SERIES	400 SERIES
1/4	2	P202	P202S	P420PM	P203	P203S	P420PF*	P205	P205S	P420PH
5/16	2							P206	P206S	P425PH
3/8	2		P251S	P430PM		P266S	P430PF*	P206A	P206AS	P430PH

NOTE: *Thread is BSPT Female

AIR CHUCK P214 P216



THREAD	PER CARD	AIR CHUCK BSPP FEMALE	AIR CHUCK COUPLING NIPPLE	
inch		PART NO	200 SERIES	290 SERIES
1/4" FEMALE	1	P214	P216	P216

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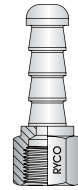
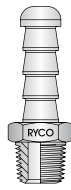
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ACCESSORIES

AIRLINE HANG SELL PACKS

AIRLINE FITTINGS

STRAIGHT JOINER



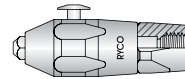
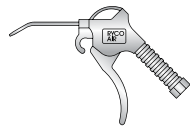
BARB	THREAD	PER CARD	HOSE BARB BSPT MALE	HOSE BARB BSPP FEMALE	BARB JOINER
inch			PART NO	PART NO	PART NO
1/4	1/4	2	P207	P236	P227*
1/4	3/8	2	P268S	P269S	
5/16	1/4	2	P208	P237	P228*
5/16	3/8	2	P267S	P261S	
3/8	1/4	2	P209	P238	P229*
3/8	3/8	2	P307	P262S	

NOTE: *Thread Size N/A for these parts - barb size is the same for both ends.

BLOW GUNS

P224

P223



THREAD	PER CARD	EASY HAND CLASP BLOW GUN	PUSH BUTTON BLOW GUN
inch		PART NO	PART NO
1/4" BSPP FEM	1	P224	P223

NOTE: P224 includes 202S Airline Nipple.

CHOOSING A CRIMPER

HYDRAULIC HOSE CRIMPERS (also known as Swagers or Swaging Presses) are used to permanently assemble Crimp Couplings onto Hydraulic Hose.

Shown on the next 12 pages are RYCO's extensive range of Hydraulic Hose Crimpers.

A number of factors need to be considered when choosing a Crimper; and RYCO Hydraulics Customer Service staff are pleased to assist in identifying the best model to suit your budget and needs.

Factors Include:

HOSE SIZES TO BE CRIMPED

Generally, Crimpers are in either 1", 1.1/4" or 2" Hose Size capacity.

POWERING OPTIONS

Options are; Hand Pump, Auxiliary Pump (eg. air/oil), 12 Volt, 24 Volt, Single Phase, Three Phase.

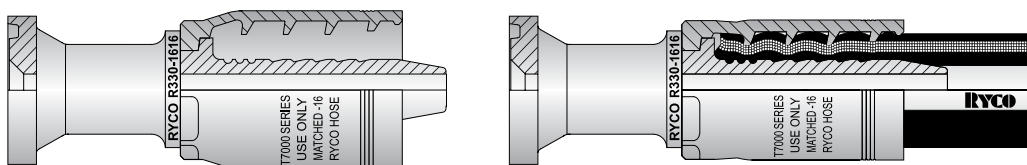
VERTICAL OR HORIZONTAL HOSE FEEDING INTO CRIMPER

CRIMP DIAMETER SETTING

Options are; scale pin, colour wheel, vernier dial, computer controlled.

METHOD OF OPERATION

Manual or automatic stop when crimping diameter is reached.



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CRIMPER SAFETY GUIDE

FOR THE SELECTION AND USE OF RYCO CRIMPERS

For latest and most up to date RYCO Crimp Charts refer to RYCO.com.au

For safety and exceptional performance do not mix and match hose and couplings as hydraulic hoses from one manufacturer is usually not compatible with fittings from another manufacturer.

ACCESSORIES

CRIMPING EQUIPMENT

R125 1.1/4" CRIMPER



RECOMMENDED FOR:

RYCO R125 Series are compact and efficient swaging machines, equally suitable for repair shop applications and high volume production of hose assemblies. This series is available in a single phase version (**R125-1D-115 & R125-1D-240**), 12 volts (**R125-12V**) and 24 volts (**R125-24V**).

TECHNICAL DATA

- Crimp Diameter is easily set by easy to use electronic control panel; operation is by Push Buttons, with automatic stop when crimping is complete.
- Hose is fed horizontally into the machine from the front or rear.
- Rapid retraction of dies is powered by the machine's hydraulic system.
- Crimping Die Sets are easily changed segment by segment using the forked hand tool, or the whole die set can be changed in one operation using optional Rapid Change Tool.
- Hose Couplings from 1/4" up to maximum hose size 1.1/4" can be crimped.
- Contact RYCO for capability to crimp each RYCO Coupling Series and size, and ability to accommodate Compact Elbow and Tube Bend couplings. Additional Die Sets can be purchased to crimp smaller hose sizes.

DIE SETS

Die Set *	Colour	CLOSED DIA. mm	DIE LENGTH mm	Inc.	Opt.
R125-F	Dk Green	13,7	75		✓
R125-G	Grey	15,8	75	✓	
R125-H	Red	18,4	75	✓	
R125-I	Lt Yellow	21,3	75	✓	
R125-J	Dk Blue	24,7	75	✓	
R125-K	Lt Green	28,7	75	✓	
R125-L	Black	33,3	75	✓	
R125-M	White	38,6	75	✓	
R125-N	Lt Blue	44,8	75		✓
R125-O	Dk Yellow	50,3	85	✓	
R125-P	Magenta	56,3	85		✓

ACCESSORIES

Part No	Description	#	Inc	Opt
R125-60100	Die Holder Rack (holds 11 sets)	1	✓	
R125-26100	RYCO Rapid Change Tool	1	✓	
R100-22120	Forked Hand Tool	1	✓	
R100-22000	Spare Die Pin	4	✓	
R100-12100	Spare Die Retaining Cartridge	1	✓	
R100-12900	Lithium-Moly. Grease 450g.	1	✓	
R100-55900	Foot Control Switch	1		✓

*See page 438 for more information on accessories.

R125 - SPECIFICATIONS

ELECTRICAL				PHYSICAL - CRIMPER DIMENSIONS				HYDRAULIC			
VOLTAGE ¹	PHASE	MOTOR POWER	MOTOR SPEED @ 50HZ	WIDTH	DEPTH	HEIGHT	WEIGHT ²	RATED PRESSURE	PUMP FLOW RATE @ 50HZ	RESERVOIR CAPACITY	REC. OIL TYPE
		kW	rpm	mm	mm	mm	kg	bar	L/min	L	Grade
115	Single	1,8	2900/50Hz	675	597	419	91	320	3,0	5,0	46 Grade
240	Single	2,2	3330/60Hz	675	597	419	91	320	3,0	5,0	46 Grade

R125 - TECHNICAL INFORMATION

PART NUMBER	MAX. HOSE SIZE (SIX SPIRAL)	MAX. HOSE SIZE (WIRE BRAID)	CRIMPING RANGE DIAMETER	MAX. DIE OPENING	CRIMPING FORCE
	inch	inch	mm	mm	kN
R125-1D-115 R125-1D-240 R125-12V R125-24V	1.1/4	1.1/2	13,7-56,5	25	2000

NOTE: * Other die sets available depending on country or application.

1) Voltage can be varied on request to suit regional standards

2) Without oil and dies

R16HP

1" HORIZONTAL CRIMPER



RECOMMENDED FOR:

RYCO R16HP is a truly portable crimper; light weight (only 25 kg/55 lb) and compact in dimensions, but robust in construction. It is operated by a hydraulic hand pump, but can also be supplied with **R13Y-9000** Air/Hydraulic Pump, see page 436.

RYCO R16HP is ideally suited for manufacture of, small numbers of hose assemblies in repair workshops, mobile service vans and areas where electrical power is not available. It can be carried to the job site using the built in handle. A built in drawer (5 compartments) holds Die Sets. Crimping Die Sets clip into Master Dies, and are released with a twist.

TECHNICAL DATA

- Hose Couplings from 1/4" up to maximum hose size 1" can be crimped.
- Contact RYCO for capability to crimp each RYCO Coupling Series and size, and ability to accommodate Compact Elbow and Tube Bend couplings.
- Additional Die Sets can be purchased to crimp smaller hose sizes.
- Hose is fed horizontally into the machine from the front only.
- Retraction of dies is by springs.
- Crimp Diameter is easily set by accurate Vernier Scale.
- When the preset Crimp Diameter is reached, an Indicator Lamp is lit, and operation of the pump must be manually stopped.
- Maximum Input Pressure for **R16HP** is 620 bar (9,000 psi).

DIE SETS

Die Set *	Description	Inc.	Opt.
R16-07	Die Set 1" 7mm		✓
R16-10	Die Set 1" 10-12mm		✓
R16-12	Die Set 1" 12-14mm		✓
R16-14	Die Set 1" 14-16mm	✓	
R16-16	Die Set 1" 16-19mm	✓	
R16-19	Die Set 1" 19-23mm	✓	
R16-23	Die Set 1" 23-27mm	✓	
R16-27	Die Set 1" 27-31mm	✓	
R16-31	Die Set 1" 31-38mm	✓	

ACCESSORIES

Part No	Description	#	Inc	Opt
R100-12900	Lithium-Moly. Grease 450g.	1		✓
R13Y-900	Air/Hydraulic Pump	1		✓

R16HP - SPECIFICATIONS											
ELECTRICAL				PHYSICAL - CRIMPER DIMENSIONS				HYDRAULIC			
VOLTAGE ¹	PHASE	MOTOR POWER	MOTOR SPEED @ 50HZ	WIDTH	DEPTH	HEIGHT	WEIGHT ²	RATED PRESSURE	PUMP FLOW RATE @ 50HZ	RESERVOIR CAPACITY	REC. OIL TYPE
		kW	rpm	mm	mm	mm	kg	bar	L/min	L	Grade
				386	331	271	25	620			

R16HP - TECHNICAL INFORMATION				
PART NUMBER	MAXIMUM HOSE SIZE	CRIMPING RANGE DIAMETER	MAXIMUM DIE OPENING	CRIMPING FORCE
	inch	mm	mm	kN
R16HP	1	7-38	20	955

NOTE: * Other die sets available depending on country or application.
 1) Voltage can be varied on request to suit regional standards
 2) Without oil and dies

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R250

2" CRIMPER



RECOMMENDED FOR:

RYCO R250 Series are designed to handle large jobs with speed and efficiency. They are powered by a three phase electric motor. This series is only available with a base.

TECHNICAL DATA

- Crimp Diameter is easily set by easy to use electronic control panel; operation is by Push Buttons with automatic stop when crimping is complete.
- Hose is fed horizontally into the machine from the front or rear. The horizontal attitude of the swage mechanism provides operators with the most ergonomic position for crimping, an important consideration especially when large 2" diameter multi spiral assemblies are required.
- Rapid retraction of dies is powered by the machine's hydraulic system.
- Crimping Die Sets are easily changed segment by segment using the forked hand tool, or the whole die set can be changed in one operation using optional Rapid Change Tool.
- Hose Couplings from 1/4" up to maximum hose size 2" can be crimped.
- Contact RYCO for capability to crimp each RYCO Coupling Series and size, and ability to accommodate Compact Elbow and Tube Bend couplings. Additional Die Sets can be purchased to crimp smaller and some larger hose sizes.

DIE SETS

Die Set *	Colour	CLOSED DIA. mm	DIE LENGTH mm	Inc.	Opt.
R200-F	Dk Green	13,7	75		✓
R200-G	Grey	15,8	75	✓	
R200-H	Red	18,4	75	✓	
R200-I	Lt Yellow	21,3	75	✓	
R200-J	Dk Blue	24,7	75	✓	
R200-K	Lt Green	28,7	75	✓	
R200-L	Black	33,3	75	✓	
R200-M	White	38,6	75	✓	
R200-N	Lt Blue	44,8	85		✓
R200-O	Dk Yellow	50,3	85	✓	
R200-P	Magenta	56,3	100	✓	
R200-Q	Orange	62,4	110	✓	
R200-R	Brown	69,2	110	✓	
R200-S	Lime	76,10	120	✓	

ACCESSORIES

Part No	Description	#	Inc	Opt
R250-60110	Die Holder Rack (holds 12 sets)	1	✓	
R250-26100	RYCO Rapid Change Tool	1	✓	
R100-22120	Forked Hand Tool	1	✓	
R200-22000	Spare Die Pin	4	✓	
R200-12100	Spare Die Retaining Cartridge	1	✓	
R100-12900	Lithium-Moly. Grease 450g.	1	✓	
R100-55900	Foot Control Switch	1		✓

*See page 438 for more information on accessories.

R250 - SPECIFICATIONS

ELECTRICAL				PHYSICAL - CRIMPER DIMENSIONS				HYDRAULIC			
VOLTAGE ¹	PHASE	MOTOR POWER	MOTOR SPEED @ 50HZ	WIDTH	DEPTH	HEIGHT	WEIGHT ²	RATED PRESSURE	PUMP FLOW RATE @ 50HZ	RESERVOIR CAPACITY	REC. OIL TYPE
		kW	rpm	mm	mm	mm	kg	bar	L/min	L	Grade
415	Three	5,5	1,470	735	535	725	250	320	15,9	60,0	46 Grade
Crimper Dimensions with Base				735	575	1,410	290				

R250 - TECHNICAL INFORMATION

PART NUMBER	MAX. HOSE SIZE (SIX SPIRAL)	MAX. HOSE SIZE (WIRE BRAID)	CRIMPING RANGE DIAMETER	MAX. DIE OPENING	CRIMPING FORCE
	inch	inch	mm	mm	kN
R250-3D	2	3	13,7-98,2 mm	39	3,800

NOTE: * Other die sets available depending on country or application.

1) Voltage can be varied on request to suit regional standards

2) Without oil and dies

RY20

1.1/4" CRIMPER

DIGITAL CONTROL



INTRODUCTION

RECOMMENDED FOR:

RYCO RY20 Series are compact and efficient swaging machines, equally suitable for repair shop applications and high volume production of hose assemblies. They are powered by either a single phase electric motor (RY20C-1), or a three phase electric motor (RY20C-3). This series is also available with a base (RY20CB-1 & RY20CB-3).

TECHNICAL DATA

- Crimp Diameter is easily set by easy to use electronic control panel; operation is by Push Buttons, with automatic stop when crimping is complete.
- Hose is fed horizontally into the machine from the front or rear.
- Rapid retraction of dies is powered by the machine's hydraulic system.
- Crimping Die Sets are easily changed segment by segment using the forked hand tool, or the whole die set can be changed in one operation using optional Rapid Change Tool.
- Hose Couplings from 1/4" up to maximum hose size 1.1/4" can be crimped.
- Contact RYCO for capability to crimp each RYCO Coupling Series and size, and ability to accommodate Compact Elbow and Tube Bend couplings. Additional Die Sets can be purchased to crimp smaller hose sizes.

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DIE SETS

Die Set *	CRIMPING RANGE mm	DIE LENGTH mm	Inc.	Opt.
RY32-10	10-12	55		✓
RY32-12	12-14	55	✓	
RY30-14	14-16	55	✓	
RY32-16	16-19	55	✓	
RY32-19	19-22	55	✓	
RY32-22	22-26	70	✓	
RY32-26	26-30	70	✓	
RY32-30	30-34	75	✓	
RY32-34	34-39	75	✓	
RY32-39	39-45	75	✓	
RY32-45	45-51	90	✓	
RY32-51	51-57	90	✓	
RY32-57	57-63	100		✓

ACCESSORIES

Part No	Description	#	Inc	Opt
RY32-22120	Forked Hand Tool	1	✓	
RY32-22130	Greaser Hand Tool	1	✓	
RY32-12900	Lithium-Moly. Grease	1	✓	
RY32-22140	Back Stop	1	✓	
RY32-26100	Rapid Change Tool	1	✓*	
RY32-22150	Grease Gun	1		✓
RY20-BASE	Die Rack Base	1	✓*	

*Rapid Change Tool and Die Rack Base standard only in RY20CB

RY20 - SPECIFICATIONS							
PART NUMBER	ELECTRICAL			PHYSICAL - CRIMPER DIMENSIONS			
	VOLTAGE ¹	PHASE	MOTOR POWER	WIDTH	DEPTH	HEIGHT	WEIGHT ²
			kW	mm	mm	mm	kg
RY20C-1	220*	Single	3.60	610	600	600	190
RY20C-3	440*	Three	3.60	610	600	600	190
Crimper Dimensions with Base (RY20CB-1/RV20CB-3)				680	570	1,350	226

RY20 - TECHNICAL INFORMATION				
PART NUMBER	MAX. HOSE SIZE	CRIMPING RANGE DIAMETER	MAX. DIE OPENING	CRIMPING FORCE
	inch	mm	mm	kN
RY20C-1/RV20C-3	1.1/4	10-63	26	1,700

NOTE: * Other die sets available depending on country or application.
 1) Voltage can be varied on request to suit regional standards
 2) Without oil and dies

ACCESSORIES

CRIMPING EQUIPMENT

RY32

**2" CRIMPER
DIGITAL CONTROL**



RECOMMENDED FOR:

RYCO RY32 Series are designed to handle large jobs with speed and efficiency. They are powered by a single phase electric motor (**RY32CB-1**) or a three phase electric motor (**RY32CB-3**). This series is only available with a base.

TECHNICAL DATA

- Crimp Diameter is easily set by easy to use electronic control panel; operation is by Push Buttons with automatic stop when crimping is complete.
- Hose is fed horizontally into the machine from the front or rear. The horizontal attitude of the swage mechanism provides operators with the most ergonomic position for crimping, an important consideration especially when large 2" diameter multi spiral assemblies are required.
- Rapid retraction of dies is powered by the machine's hydraulic system.
- Crimping Die Sets are easily changed segment by segment using the forked hand tool, or the whole die set can be changed in one operation using optional Rapid Change Tool.
- Hose Couplings from 1/4" up to maximum hose size 2" can be crimped.
- Contact RYCO for capability to crimp each RYCO Coupling Series and size, and ability to accommodate Compact Elbow and Tube Bend couplings. Additional Die Sets can be purchased to crimp smaller and some larger hose sizes.

DIE SETS

Die Set *	CRIMPING RANGE mm	DIE LENGTH mm	Inc.	Opt.
RY32-10	10-12	55		✓
RY32-12	12-14	55	✓	
RY30-14	14-16	55	✓	
RY32-16	16-19	55	✓	
RY32-19	19-22	55	✓	
RY32-22	22-26	70	✓	
RY32-26	26-30	70	✓	
RY32-30	30-34	75	✓	
RY32-34	34-39	75	✓	
RY32-39	39-45	75	✓	
RY32-45	45-51	90	✓	
RY32-51	51-57	90	✓	
RY32-57	57-63	100	✓	
RY32-63	63-69	120	✓	
RY32-69	69-75	120	✓	
RY32-74	74-80	120		✓
RY32-78	78-87	120		✓

ACCESSORIES

Part No	Description	#	Inc	Opt
RY32-22120	Forked Hand Tool	1	✓	
RY32-22130	Greaser Hand Tool	1	✓	
RY32-12900	Lithium-Moly. Grease	1	✓	
RY32-22140	Back Stop	1	✓	
RY32-26100	Rapid Change Tool	1	✓	
RY32-22150	Grease Gun	1		✓

RY32 - SPECIFICATIONS

PART NUMBER	ELECTRICAL			PHYSICAL - CRIMPER DIMENSIONS			
	VOLTAGE ¹	PHASE	MOTOR POWER	WIDTH	DEPTH	HEIGHT	WEIGHT ²
			kW	mm	mm	mm	kg
RY32CB-1	220	Single	3,60	680	570	1400	263
RY32CB-3	440	Three	3,60	680	570	1400	263

RY32 - TECHNICAL INFORMATION

PART NUMBER	MAX. HOSE SIZE	CRIMPING RANGE DIAMETER	MAX. DIE OPENING	CRIMPING FORCE
	inch	mm	mm	kN
RY32CB-1/R32CB-3	2	10-87	32	2,200

NOTE: * Other die sets available depending on country or application.

1) Voltage can be varied on request to suit regional standards

2) Without oil and dies

RY65

3" CRIMPER

DIGITAL CONTROL



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RECOMMENDED FOR:

RYCO RY65 Series crimpers are designed to handle large jobs with speed and efficiency. This series is designed to crimp hose couplings up to **3"** with a crimping force of 3,200 kN. These full scale production units offer; high speed for increased productivity, large die openings to allow small and large hose assemblies to pass through easily, a wide range of available die sets, and high strength.

TECHNICAL DATA

- These heavy duty units include the Rapid Change system and inbuilt storage rack for dies as standard features.
- **RYCO RY65** Series crimpers incorporate the electronic controller with three modes, Manual, Semi-automatic and Automatic.
- The retraction diameter of the dies may be programmed, and together with quick die retraction powered by the machine's hydraulics and use of automatic backstop to control swage cycle, speed in high volume production is increased.

DIE SETS

Die Set *	CRIMPING RANGE mm	DIE LENGTH mm	Inc.	Opt.
RY32-10	10-12	55	✓	
RY32-12	12-14	55	✓	
RY30-14	14-16	55	✓	
RY32-16	16-19	55	✓	
RY32-19	19-22	55	✓	
RY32-22	22-26	70	✓	
RY32-26	26-30	70	✓	
RY32-30	30-34	75	✓	
RY32-34	34-39	75	✓	
RY32-39	39-45	75	✓	
RY32-45	45-51	90	✓	
RY32-51	51-57	90	✓	
RY32-57	57-63	100	✓	
RY32-63	63-69	120	✓	
RY32-69	69-75	120	✓	
RY32-74	74-80	120	✓	
RY32-78	78-87	120	✓	

ACCESSORIES

Part No	Description	#	Inc	Opt
RY80-22120	Forked Hand Tool	1	✓	
RY80-22130	Greaser Hand Tool	1	✓	
RY80-12900	Lithium-Moly. Grease	1	✓	
RY80-22140	Back Stop	1	✓	
RY80-26100	Rapid Change Tool	1	✓	
RY80-22160	Foot Pedal	1	✓	
RY80-22150	Grease Gun	1	✓	

RY65 - SPECIFICATIONS							
PART NUMBER	ELECTRICAL			PHYSICAL - CRIMPER DIMENSIONS			
	VOLTAGE ¹	PHASE	MOTOR POWER	WIDTH	DEPTH	HEIGHT	WEIGHT ²
RY65C-3	440*	Three	kW 5,50	mm 980	mm 1000	mm 1600	kg 1,400

RY65 - TECHNICAL INFORMATION				
PART NUMBER	MAX. HOSE SIZE	CRIMPING RANGE DIAMETER	MAX. DIE OPENING	CRIMPING FORCE
RY65C-3	inch 3	mm 10-87	mm 65	kN 3,200

NOTE: * Other die sets available depending on country or application.
 1) Voltage can be varied on request to suit regional standards
 2) Without oil and dies

ACCESSORIES

CRIMPING EQUIPMENT

RY80

4" CRIMPER
DIGITAL CONTROL



RECOMMENDED FOR:

RYCO RY80 Series crimpers are designed to handle large jobs with speed and efficiency. This series is designed to crimp hose couplings up to 4" with a crimping force of 3,200 kN. These full scale production units offer; high speed for increased productivity, large die openings to allow small and large hose assemblies to pass through easily, a wide range of available die sets, and high strength.

TECHNICAL DATA

- These heavy duty units include the Rapid Change system and inbuilt storage rack for dies as standard features.
- **RYCO RY80** Series crimpers incorporate the electronic controller with three modes, Manual, Semi-automatic and Automatic.
- The retraction diameter of the dies may be programmed, and together with quick die retraction powered by the machine's hydraulics and use of automatic backstop to control swage cycle, speed in high volume production is increased.

ACCESSORIES

Part No	Description	#	Inc	Opt
RY80-22120	Forked Hand Tool	1	✓	
RY80-22130	Greaser Hand Tool	1	✓	
RY80-12900	Lithium-Moly. Grease	1	✓	
RY80-22140	Back Stop	1	✓	
RY80-26100	Rapid Change Tool	1	✓	
RY80-22160	Foot Pedal	1	✓	
RY80-22170	Master Die Show Removal Tool	1	✓	
RY80-22150	Grease Gun	1	✓	

DIE SETS

Die Set *	CRIMPING RANGE mm	DIE LENGTH mm	Inc.	Opt.
RY32-10	10-12	55	✓	
RY32-12	12-14	55	✓	
RY30-14	14-16	55	✓	
RY32-16	16-19	55	✓	
RY32-19	19-22	55	✓	
RY32-22	22-26	70	✓	
RY32-26	26-30	70	✓	
RY32-30	30-34	75	✓	
RY32-34	34-39	75	✓	
RY32-39	39-45	75	✓	
RY32-45	45-51	90	✓	
RY32-51	51-57	90	✓	
RY32-57	57-63	100	✓	
RY32-63	63-69	120	✓	
RY32-69	69-75	120	✓	
RY32-74	74-80	120	✓	
RY32-78	78-87	120	✓	
RY80-84	84-92	120	✓	
RY80-92	92-100	120	✓	
RY80-100	100-108	120	✓	
RY80-108	108-116	120	✓	
RY80-116	116-124	120	✓	

RY80 - SPECIFICATIONS

PART NUMBER	ELECTRICAL			PHYSICAL - CRIMPER WITH BASE DIMENSIONS			
	VOLTAGE ¹	PHASE	MOTOR POWER	WIDTH	DEPTH	HEIGHT	WEIGHT ²
RY80C-3	440*	Three	kW 5,50	mm 980	mm 1000	mm 1600	kg 1450*

RY80 - TECHNICAL INFORMATION

PART NUMBER	MAX. HOSE SIZE	CRIMPING RANGE DIAMETER	MAX. DIE OPENING	CRIMPING FORCE
RY80C-3	inch 4	mm 4-124	mm 80	kN 3,200

NOTE: * Other die sets available depending on country or application.

1) Voltage can be varied on request to suit regional standards

2) Without oil and dies

RY125

6" CRIMPER
DIGITAL CONTROL



RECOMMENDED FOR:

RYCO RY125 Series crimpers are designed to handle large jobs with speed and efficiency. This series is designed to crimp hose couplings up to 6" with a crimping force of 4,000 kN. These full scale production units offer; high speed for increased productivity, large die openings to allow small and large hose assemblies to pass through easily, a wide range of available die sets, and high strength.

TECHNICAL DATA

- These heavy duty units include the Rapid Change system and inbuilt storage rack for dies as standard features.
- **RYCO RY125** Series crimpers incorporate the electronic controller with three modes, Manual, Semi-automatic and Automatic.
- The retraction diameter of the dies may be programmed, and together with quick die retraction powered by the machine's hydraulics and use of automatic backstop to control swage cycle, speed in high volume production is increased.

ACCESSORIES

Part No	Description	#	Inc	Opt
RY125-22120	Forked Hand Tool	1	✓	
RY125-22130	Greaser Hand Tool	1	✓	
RY125-12900	Lithium-Moly. Grease	1	✓	
RY125-22140	Back Stop	1	✓	
RY125-26100	Rapid Change Tool	1	✓	
RY125-22160	Foot Pedal	1	✓	
RY125-22170	Master Die Show Removal Tool	1	✓	
RY125-22150	Grease Gun	1	✓	

DIE SETS

Die Set *	CRIMPING RANGE	DIE LENGTH	Inc.	Opt.
	mm	mm		
RY32-10	10-12	55	✓	
RY32-12	12-14	55	✓	
RY32-14	14-16	55	✓	
RY32-16	16-19	55	✓	
RY32-19	19-22	55	✓	
RY32-22	22-26	70	✓	
RY32-26	26-30	70	✓	
RY32-30	30-34	75	✓	
RY32-34	34-39	75	✓	
RY32-39	39-45	75	✓	
RY32-45	45-51	90	✓	
RY32-51	51-57	90	✓	
RY32-57	57-63	100	✓	
RY32-63	63-69	120	✓	
RY32-69	69-75	120	✓	
RY32-74	74-80	120	✓	
RY32-78	78-87	120	✓	
RY125-84	84-92	120	✓	
RY125-92	92-100	120	✓	
RY125-100	100-108	120	✓	
RY125-108	108-116	120	✓	
RY125-116	116-124	120	✓	
RY125-126	126-136	120	✓	
RY125-136	136-146	120	✓	
RY125-146	146-156	120	✓	
RY125-156	156-166	120	✓	
RY125-166	166-178	120	✓	
RY125-178	178-190	120	✓	
RY125-190	190-202	120	✓	

RY125 - SPECIFICATIONS

PART NUMBER	ELECTRICAL			PHYSICAL - CRIMPER DIMENSIONS			
	VOLTAGE ¹	PHASE	MOTOR POWER	WIDTH	DEPTH	HEIGHT	WEIGHT ²
RY125C-3	440	Three	kW 5,50	mm 1050	mm 1300	mm 1750	kg 2200

RY125 - TECHNICAL INFORMATION

PART NUMBER	MAX. HOSE SIZE	CRIMPING RANGE DIAMETER	MAX. DIE OPENING	CRIMPING FORCE
RY125C-3	inch 6	mm 6-202	mm 125	kN 4,000

NOTE: * Other die sets available depending on country or application.

1) * voltage can be varied on request to suit regional standards

2) Without oil and dies

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R13Y-9000

AIR/HYDRAULIC PUMP



RECOMMENDED FOR:

RYCO R13Y Air/Hydraulic Pump is an economical power pump, providing oil at pressures up to 700 bar (10,000 psi).

It operates with compressed air, supplied at pressures between by 4 bar (60 psi) and 8 bar (120 psi).

The three position treadle provides for advance, hold, and retract operation.

TECHNICAL DATA

- RYCO **R13Y-9000** supplies 620 bar (9,000 psi) oil pressure, and is only suitable for use with **RYCO R16HP** crimper.
- To connect the **RYCO R13Y-9000** to **RYCO R16HP** crimper, the following Hose Assembly should be used: TJ24D*LENGTH*T2711-0418+750*T2020N-0404+S27N-0604+750

R13Y-9000 - SPECIFICATIONS

PART NUMBER	PUMP SPECIFICATIONS						PHYSICAL - PUMP DIMENSIONS			
	USABLE OIL CAPACITY	COMPRESSED AIR INPUT REQUIREMENTS	AIR CONSUMPTION	AIR INPUT PORT	OIL OUTLET PORT	OIL PRESSURE	WIDTH	DEPTH	HEIGHT	WEIGHT
	L	bar/psi	lpm	at front	at side	bar/psi	mm	mm	mm	kg
R13Y-9000	0,586	4/60 - 8/120	255	1/4" NPT female	3/8" NPT female	620/9000	142	375	145	5,4

CS12/CS14

CUT-OFF SAWS



CS12B (at left) and CS12F (at right) shown

RECOMMENDED FOR:

RYCO CS12/CS14 Series Cut-Off Saws are designed especially for use in mobile service vans or workshop environments. All models are ready for connection to exhaust fume extraction.

CS12B: Hand lever operated, Bench mounted, 12" cut off saw.

CS12F: Foot pedal operated, Free standing, 12" cut off saw.

CS14: Heavy duty, Hand lever operated, Bench mounted, 14" cut off saw.

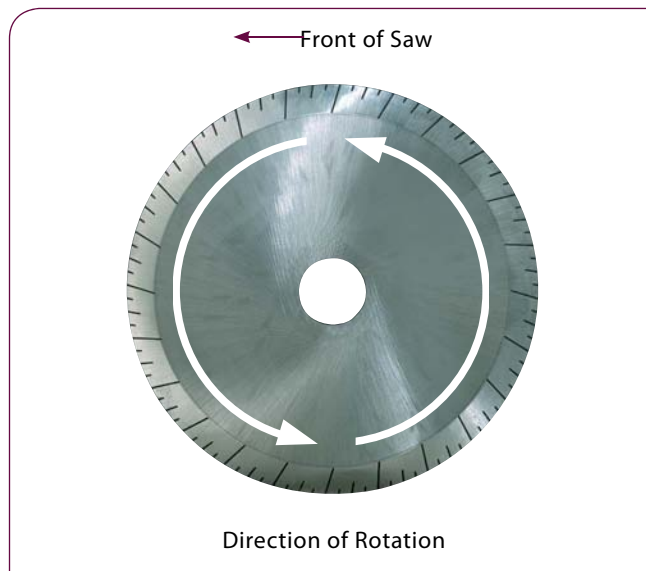
TECHNICAL DATA

- **CUTTING:** Cut up to 2" braided hose and 1.1/2" Spiral hose¹. 12" (300mm) cutting disc.
- **VOLTAGE:** Available in four voltage configurations: 240V single phase, 415V three phase, 12V DC and 24V DC.
- **INCREASED SAFETY:** Improved protection from the cutting blade. Pull motion hand lever CS12B or foot pedal CS12F controls cutting operation, instead of pushing towards the saw.
- **CLEAR GUARDS:** Clear guard to help protect from debris².
- **FUME EXTRATION:** Outlet for connection to fume extraction.

RYCO STEEL CUT-OFF SAW BLADES

RYCO Steel Cut-Off Saw Blades are designed for optimum hose cutting ability, providing safe, efficient cutting of braided and multi-spiral hoses. Matched to the RPM of RYCO Cut-Off Saws they are the only Saw Blades recommended for use with RYCO Cut-Off Saws. They are not suitable for use on non-RYCO Cut-Off Saws.

PART NO	BLADE SIZE
CWS12	300mm (12")
CWS14	350mm (14")



CS12/CS14 - SPECIFICATIONS					
POWER SOURCE	WIRE BRAID	CUTTING CAPACITY		MOTOR POWER	
		4 SPIRAL	6 SPIRAL	KW	SPEED (RPM)
12V/24V	1.1/4"	1"	3/4"	1,1	2,800
240V	2"	1.1/4"	1.1/4"	2,2	2,750
415V	2"	1.1/2"	1.1/2" ¹	3,0	2,750
415V (CS14)	2"	2"	2"	3,0	2,750

CS12/CS14 - TECHNICAL INFORMATION						
PART NUMBER	BLADE SIZE		LENGTH	WIDTH	HEIGHT	WEIGHT
	mm	in	mm	mm	mm	kg
CS12B	300	12	600	503	739	50
CS12F	300	12	712	562	1127	60
CS14-4HP-415	350	14	790	565	640	66

NOTE:

- 1) When used with RYCO Hose Support Pegs
- 2) Safety Glasses must still be worn while operating cut-off saws with clear guard.

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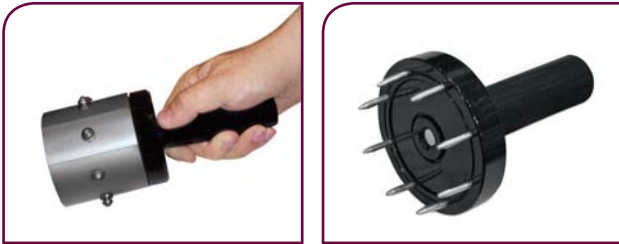
CRIMPING EQUIPMENT ACCESSORIES

CRIMPING EQUIPMENT ACCESSORIES

R125 RAPID CHANGE TOOL

(R125-26100)

When used in conjunction with the **R125 Die Holder Rack** the **R125 Rapid Change Tool** allows for fast changing of die sets. The pins on the **R125 Rapid Change Tool** engage the holes in the dies. As the crimp head opens or closes, the dies are engaged to or disengaged from the crimp head. The **R125 Rapid Change Tool** is magnetic, ensuring dies are held securely during transfer to or from the **R125** crimper.



R125 DIE HOLDER RACK

(R125-60100)

RYCO R125 is supplied complete with the **R125 Die Holder Rack** which may be benchtop or wall mounted. Using the supplied **R125 Rapid Change Tool**, a complete die change can be facilitated in just seconds.



R250 RAPID CHANGE TOOL

(R250-26100)

When used in conjunction with the **R250 Die Holder Rack** the **R250 Rapid Change Tool** allows for fast changing of die sets. The pins on the **R250 Rapid Change Tool** engage the holes in the dies. As the crimp head opens or closes, the dies are engaged to or disengaged from the crimp head. The **R250 Rapid Change Tool** is magnetic, ensuring dies are held securely during transfer to or from the **R250** crimper.



R250 DIE HOLDER BASE

(R250-60100)

RYCO R250 is supplied complete with the **R250 Die Holder Base** with in-built storage drawer. Using the supplied **R250 Rapid Change Tool**, a complete die change can be facilitated in just seconds.



















FILTERS



FILTERS

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HYDRAULIC FILTERS		PORTS	MAX PRESSURE	FILTRATION	FLOW RATES
446	RIF-10 INLINE SPIN-ON FILTERS 1.1/4" PORTS		1.1/4" BSPP	10 bar/150 psi	10 & 25 MIC ABS 10 & 25 MIC NOM to 170 LPM
448	RIF-12 INLINE SPIN-ON FILTERS 1.1/2" PORTS		1.1/2" BSPP & SAE CODE 61	10 bar/150 psi	10 & 25 MIC ABS 10 & 25 MIC NOM to 290 LPM
451	RIF14-1 INLINE SPIN-ON FILTER 1" PORTS		1" BSPT	7 bar/100 psi	32 MICRON to 60 LPM
444	RIF-06 INLINE SPIN-ON FILTERS 3/4" PORTS		3/4" BSPP	10 bar/150 psi	10 & 20 MIC ABS 10 & 25 MIC NOM to 70 LPM
452	RIF-FA INLINE SPIN-ON FILTERS 3/8" PORTS		3/8" BSPT	7 bar/100 psi	15, 20, 32 MICRON to 18 LPM
454	RHF HEAVY DUTY INLINE FILTERS		1/2" to 1.1/2" BSPP	20 bar/290 psi	10, 25 & 149 MIC to 150 LPM
456	RTI & RFI TANK TOP FILTERS		1/2" to 1.1/4" BSPP	10 bar/150 psi	10 & 25 MICRON to 110 LPM
458	RCF COMBINATION FILTERS		1/2" to 1.1/2" BSPP 2.1/2" SAE CD 61	20 bar/290 psi	10, 25 & 149 MIC to 540 LPM
460	RIF15 INLINE SPIN-ON WATER TRAP FILTER		1" BSPT	7 bar/100 psi	15 MICRON to 60 LPM
461	RG & REI CLOGGING INDICATORS		Return line and suction line gauges and electrical indicators		
462	RLG & RLGT LEVEL AND TEMPERATURE GAUGES		LENGTHS: 76 mm, 127 mm & 254 mm (3", 5" & 10")		
463	RSCN SUCTION STRAINERS		1/4" to 3" BSPP		149 MICRON 12 to 600 LPM
464	RD DIFFUSERS		3/4" to 2" BSPP		100 to 480 LPM

RESERVOIR ACCESSORIES		PORTS	MAX PRESSURE	FILTRATION	FLOW RATES
465	R60 & R300 AIR BREATHER FILTERS		1/4" to 2.1/2" BSP 3/4" UNO	10, 27, 40, 149 MIC	DISPLACEMENT: 90 to 4000 LPM
466	R381 PUSH-ON BREATHER		R381: PUSH-ON BREATHER CAP		
467	RFSB FILLER CAP/STRAINER/ AIR BREATHERS		TWO SIZES. BAYONET CAP, METAL STRAINER BASKET	10 & 40 MICRON	DISPLACEMENT: 90 to 720 LPM
468	R365 FILLER STRAINER		R365: 2" BSPP CAP, METAL STRAINER BASKET		

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469	- The Need for Filtration in Hydraulic Systems
469	- How Filters Work
470	WHAT IS A MICRON?
470	PRESSURE DROP
470	BYPASS VALVES
471	SELECTION OF THE FILTER SIZE
471	- Warnings
472	IMPROVED FILTRATION AT NO EXTRA COST
472	- Nominal Filtration
472	- Beta Ratings
472	- Absolute Filtration
473	PRESSURE DROP FLOW GRAPHS FOR FILTERS
475	WARNINGS
477	EFFECT OF TEMPERATURE AND VISCOSITY ON FLOW RATE AND PRESSURE DROP
479	CROSS REFERENCE FOR RYCO RIF-E AND RIF-EA SPIN-ON FILTERS
480	- How To Use This Table
482	INSTRUCTIONS FOR CHANGING FILTER ELEMENTS

IMPORTANT NOTE ON DASH SIZES:

Dash Sizes for Ports of Hydraulic Filters and Reservoir Accessories are in **EIGHTHS of an inch** (not SIXTEENTHS);
-06 = 6/8 = 3/4 inch

except that **R362, R356** and **R358** Series Air Breathers are sized in **SIXTEENTHS of an inch**.

Reference is made to "Filter Series" in several manners in this manual.

For example, an **RIF-RP1210** Filter assembly is a:

RYCO Inline Filter with Spin-On Canister (**RIF**), 1,0 bar Bypass for Return Lines (**R**),
 two parallel Canisters and BSPP Ports (**P**), 1.1/2" Ports (**12**), and 10 Micron filtration (**10**).

It could be referred to/included in the following "Filter Series" groups:

as an "**RIF**" Filter includes all RYCO Inline Filters with Spin-On Canisters, all types & sizes
 as an "**RIF-12**" Filter includes all RYCO Inline Filters, Spin-On Canisters, 1.1/2" Ports (SAE or BSPP)
 as an "**RIF-R**" Filter includes all RYCO Inline Filters, Spin-On Canisters, Return Line
 as an "**RIF-RP**" Filter includes all RYCO Inline Filters, Return Line, two parallel Spin-On Canisters & BSPP Ports
 as an "**RIF-R12**" Filter includes all RYCO Inline Filters with Spin-On canisters, Return Line, 1.1/2" SAE Code 61 or BSPP Ports

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INFORMATION ABOUT RYCO RIF-E AND RIF-EA SPIN-ON FILTERS

There are two series (**RIF-E** and **RIF-EA**) and two sizes (**3/4"** and **1.1/4"**) of Spin-On Canisters shown on pages 446 and 448. (The size **3/4"** and **1.1/4"** refers to the Port size of the Filter Head).

These yellow Spin-On Canisters, and the Filter Heads they are used with, are sized and threaded the same as other internationally available Canisters and Heads:

Canisters from Europe ("European standard") mostly have BSPP Threads.

Canisters from USA ("American standard") mostly have UNF Threads.

RYCO have Spin-On Filter Canisters and Filter Heads using both the BSPP "European" and the UNF "American" system.

3/4" SPIN-ON FILTERS

PAGES 444 TO 445

For 3/4" Canisters and Heads, Post and Canister Threads are either BSPP 3/4"-14 TPI or UNF 1"-12 TPI.

The Thread Diameters are almost the same, but the pitch of the threads is different.

The Top Plates and Gaskets of the Canisters look similar.

In both BSPP and UNF canisters, the Gasket is supplied fitted in a groove in the Canister.

It is essential to use a BSPP Canister with a BSPP Filter Post, and a UNF Canister with a UNF Filter Post.

RYCO have 3/4" Spin-On Filter Series using both the BSPP "European" and the UNF "American" system:

RIF-E0610 and RIF-E0625 Spin-On Canisters have BSPP Threads

RIF-EA0810 and RIF-EA0825 Spin-On Canisters have UNF Threads.

BSPP "EUROPEAN STANDARD"	UNF "AMERICAN STANDARD"
<p>RIF-RH06 Filter Head 3/4"-14 TPI BSPP Post Thread</p> <p>RIF-E0610 and RIF-E0625 Spin-On Canister 3/4"-14 TPI BSPP Canister Thread</p> <p>Gasket is supplied fitted in Canister and seals against Gasket Seating area of Filter Head.</p>	<p>"A" in part number denotes UNF Threads</p> <p>RIF-RHA06 Filter Head 1"-12 TPI UNF Post Thread</p> <p>RIF-EA0810 and RIF-EA0825 Spin-On Canister 1"-12 TPI UNF Canister Thread</p> <p>Gasket is supplied fitted in Canister and seals against Gasket Seating area of Filter Head.</p>

NOTE:

The last two digits of Part Number of **RIF-E06** and **RIF-E10** Series Canisters are the ABSOLUTE filtration rating.

The last two digits of Part Number of **RIF-EA08** and **RIF-EA12** Series Canister are the NOMINAL filtration rating.

See pages 469 to 472 for more information on ABSOLUTE and NOMINAL filtration ratings.

1. ABSOLUTE means at least 98.7% of particles of the micron size and above are removed.
2. NOMINAL means approximately 50% of particles of the micron size and above are removed.

Part Numbers for Filter Heads on this and the following page are for Return Line Filter Heads.

For Suction Line Filter Heads, replace "R" after dash with "S", eg **RIF-SH06**.

For Blocked Bypass Filter Heads, replace "R" after dash with "B", eg **RIF-BHA06**.

1.1/4" SPIN-ON FILTERS

PAGES 446 TO 449

Similarly to 3/4" Spin-On Filters, for 1.1/4" Spin-On Filters:

Canisters from Europe ("European standard") mostly have BSPP Threads.

Canisters from USA ("American standard") mostly have UNF Threads.

RYCO have 1.1/4" Spin-On Filter Series using both the BSPP "European" and the UNF "American" system:

RIF-E1010 and **RIF-E1025** Spin-On Canisters have BSPP Threads.

RIF-EA1210 and **RIF-EA1225** Spin-On Canisters have UNF Threads.

The Top Plate of BSPP Canisters are shaped so the thread is close to the top of the Canister.

The Top Plate of UNF Canisters are "dished", with the thread below the top of the Canister.

This difference allows the use of a Dual Post Thread on the Filter Head.

BSPP 1.1/4"-11 TPI Canister threads onto the top part of a Dual Post Thread.

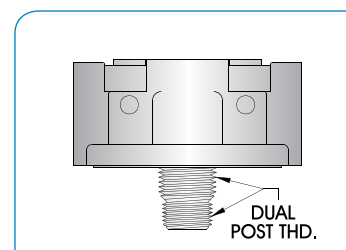
UNF 1.1/2"-16 TPI Canister threads onto the bottom part of a Dual Post Thread.

RYCO RIF-RH10, **RIF-SH10** and **RIF-BH10** 1.1/4" Filter Heads, on page 446, have dual BSPP and UNF Post Threads, to allow the use of both types of Canisters.

RYCO RIF-12 1.1/2" Filter Heads on page 448, using two 1.1/4" Canisters, also have Dual Post Threads.

The Gasket also seals differently in the two systems, BSPP and UNF, and there are two Gasket seating areas in a Dual Post Head. The BSPP Canister Gasket is supplied fitted in a groove in the Canister.

The UNF Canister Gasket is supplied loose, to be fitted into the groove in the Filter Head.



BSPP "EUROPEAN STANDARD"		UNF "AMERICAN STANDARD"	
<p>RIF-RH10 Filter Head 1.1/4"-11 TPI BSPP Post Thread</p> <p>RIF-E1010 and RIF-E1025 Spin-On Canister 1.1/4"-11 TPI BSPP Canister Thread</p> <p>Gasket is supplied fitted in Canister and seals against inner Gasket Seating area of Filter Head.</p>		<p>"A" in part number denotes UNF Threads</p> <p>RIF-RH10 Filter Head 1.1/2"-16 TPI UNF Post Thread</p> <p>RIF-EA1210 and RIF-EA1225 Spin-On Canister 1.1/2"-16 TPI UNF Canister Thread</p> <p>Gasket is supplied loose and seals against outer Gasket Seating area of Filter Head.</p>	
		<p>Additionally, there are different types of Gaskets used by various manufacturers of UNF Threaded Filter Heads.</p> <p>Two Gaskets are supplied with RYCO RIF-EA1210 and RIF-EA1225 UNF Threaded Spin-On Canisters (only one is to be used).</p> <p>RIF-EA12GW wide L-Section Gasket for use with RYCO Filter Heads and other heads with similar (wide) groove.</p>	
		<p>RIF-EA12GM square-section Gasket with green stripe for use with Filter Heads with narrow groove.</p> <p>Photo shows a Filter Head with single UNF Post Thread and single Gasket Seating area only.</p> <p>WARNING: The Gasket must be a tight fit in the groove of the Head. Use of incorrect Gasket prevents sealing, and may cause damage. Refer to pages 446, 479 and 480; and RYCO Technical Department for further information.</p>	

INTRODUCTION

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TECHNICAL

RIF-06 INLINE SPIN-ON FILTERS 3/4" PORTS



RECOMMENDED FOR:

RYCO RIF-06 Series Filters are designed for installation in return lines or suction lines of both stationary and mobile hydraulic equipment. Working pressures up to 10 bar (150 psi), and high flow rates enable these Filters to be utilised in a wide range of applications.

FEATURES OF RYCO SPIN-ON CANISTERS & HEADS:

- Disposable Spin-On Canisters.
- Changing of filter elements is quick and simple.
- High efficiency.
- Multi layer filtration media.
- Available in two different Absolute filtration ratings, and two different Nominal filtration ratings.
- High working pressures.
- Rolled seam on Canisters.
- High collapse resistance inner core.
- High quality cast Aluminium Head.
- RYCO RIF-RH06, RIF-SH06 and RIF-BH06 Filter Heads have BSPP threaded post and are used with RIF-E0610 and RIF-E0625 Spin-On Canisters. RYCO RIF-RHA06, RIF-SHA06 and RIF-BHA06 Filter Heads have UNF threaded post and are used with RIF-EA0810 and RIF-EA0825 Spin-On Canisters. See page 442 for more information.
- Tapped mounting holes.
- Easy to install.
- BSPP threaded Ports.
- Inlet and Outlet Ports are clearly identified.
- Flow direction arrow.
- Bypass Valve in the Aluminium Head allows the flow of oil to bypass the Canister if the Filter becomes blocked with contaminant.
- Two different Bypass Valve cracking pressures are available to suit return or suction lines, plus Blocked Bypass for special applications.
- Clogging Indicators available, see page 461.
- Tapped and Plugged Ports for Clogging Indicator. Both Positions on Inlet Port are tapped and plugged for Return Line filters. Both Positions on Outlet Port are tapped and plugged for Suction Line filters.
- All four Positions are tapped and plugged for Blocked Bypass filters.

TECHNICAL DATA

FILTER HEAD: Cast Aluminium.

SPIN-ON CANISTER HOUSING: Powder coated steel casing.
Pressed steel top plate.

GASKET: Nitrile (Buna N) oil resistant rubber; rectangular section.

FILTRATION MEDIA: Cellulose with reinforced synthetic fibres, folic impregnated resin; extensively pleated to maximise surface area available to trap contaminants and maximise dirt holding capacity.

FILTRATION RATINGS:

RIF-E0610: 10 Micron Absolute (3 Mic Nom). $\beta_{10} \geq 75$, $\beta_3 \geq 2$.
RIF-E0625: 25 Micron Absolute (10 Mic Nom). $\beta_{20} \geq 75$, $\beta_{10} \geq 2$.

RIF-EA0810: 10 Micron Nominal (25 Mic Abs). $\beta_{25} \geq 75$, $\beta_{10} \geq 2$.
RIF-EA0825: 25 Micron Nominal (32 Mic Abs). $\beta_{32} \geq 75$, $\beta_{25} \geq 2$.

MAXIMUM WORKING PRESSURE/VACUUM:

10 bar/150 psi in Return Line applications.
635 mmHg/25 inHg in Suction Line applications.
5,5 bar/80 psi for Return Line applications with Blocked Bypass Valve.

OPERATING TEMPERATURE: 80°C (176°F) maximum continuous working temperature.

FLUID COMPATIBILITY: Mineral/petroleum based hydraulic oils.

BYPASS VALVE POSITION: In Filter Head.

BYPASS VALVE DIFFERENTIAL CRACKING PRESSURE:

RIF-R Series for Return Lines 1,0 bar/14.5 psi.
RIF-S Series for Suction Lines 0,2 bar/2.9 psi.
RIF-B Series Blocked Bypass for special applications.

CLOGGING INDICATORS:

RGR Gauge for return lines. Colour coded Green & Red sectors for quick visual inspection.

RGS Gauge calibrated with negative pressures (for suction lines) and positive pressures (for return lines).

RGS02 Gauge, Stainless Steel, calibrated with negative pressures for Suction Lines.

REIR and **REIS** Electrical Indicators.

See page 461 for more information on Clogging Indicators.

NOMINAL FLOW RATES: As shown, cause a clean element pressure drop of 0,5 bar (7.3 psi) for RIF-R and 0,03 bar (0.5 psi) for RIF-S with 30 centistoke viscosity oil (see page 471 for more detail). The actual flow rate will vary if the oil is of a different viscosity. See also page 473 for "Pressure Drop Flow Graphs", page 475 for "Warnings and Filter Selection Guidelines", and page 477 for "Effect of Temperature and Viscosity on Flow Rate and Pressure Drop".

RIF-06 INLINE SPIN-ON FILTERS - TECHNICAL SPECIFICATIONS

MOUNTING INSTRUCTIONS	DIMENSIONS (MM)
<p>RYCO RIF-06 Series Filter Heads can be mounted to equipment by means of two tapped mounting holes in head.</p> <p>Filter Heads can be mounted directly between rigid pipes, provided that the pipes are anchored to ensure that no undue stress is placed on the Filter Head casting.</p> <p>Allow 25 mm (1") clearance below Spin-On Canister to allow Canister to be changed.</p> <p>Instructions for changing Canister are branded on the Canister, and are also shown on page 482.</p>	

DIMENSIONS									
CANISTER DIAMETER	OVERALL HEIGHT	CANISTER HEIGHT	WIDTH ACROSS PORTS	PORT THREAD BSPP	MOUNTING HOLE CENTRES	MOUNTING HOLE THREADS	WEIGHT HEAD	WEIGHT CANISTER	WEIGHT TOTAL
D mm	H mm	L mm	W mm	A inch	X mm		kg	kg	kg
93	182	135	103	3/4	38	M6 x 1,0	0,36	0,48	0,84

CROSS REFERENCE INFORMATION

The Posts on **RYCO RIF-RH06**, **RIF-SH06** and **RIF-BH06** Filter Heads have 3/4"-14 TPI BSPP thread.

RYCO RIF-E0610 and **RIF-E0625** and "EUROPEAN STANDARD" Canisters have 3/4"-14 TPI BSPP thread.

The Posts on **RYCO RIF-RHA06**, **RIF-SHA06** and **RIF-BHA06** Filter Heads have 1"-12 TPI UNF thread.

RYCO RIF-EA0810 and **RIF-EA0825** and "AMERICAN STANDARD" Canisters have 1"-12 TPI UNF thread.

RYCO RIF-E0610 and **RIF-E0625** Canisters can be used on standard BSPP threaded post Filter Heads.

RYCO RIF-EA0810 and **RIF-EA0825** Canisters can be used on standard UNF threaded post Filter Heads.

For Cross Reference information, please see page 442 and page 479.

BSPP CANISTER THREADS (LAST 2 DIGITS ARE THE ABSOLUTE RATING)									
COMPLETE FILTER	PORT BSPP	NOMINAL FLOW	MAXIMUM WORKING PRESSURE/VACUUM		ABSOLUTE FILTRATION	NOMINAL FILTRATION	REPLACEMENT SPIN-ON CANISTER	HEAD ONLY	
SERIES	PART NO	inch	lpm		micron	micron	PART NO	PART NO	
Return Filter 1,0 bar Bypass	RIF-R0610	3/4	40	10 bar	150 psi	10	3	RIF-E0610	RIF-RH06
	RIF-R0625	3/4	55	10 bar	150 psi	25	10	RIF-E0625	RIF-RH06
Suction Filter 0,2 bar Bypass	RIF-S0610	3/4	4	635 mmHg	25 inHg	10	3	RIF-E0610	RIF-SH06
	RIF-S0625	3/4	6	635 mmHg	25 inHg	25	10	RIF-E0625	RIF-SH06
Blocked Bypass Filter	RIF-B0610	3/4				10	3	RIF-E0610	RIF-BH06
	RIF-B0625	3/4				25	10	RIF-E0625	RIF-BH06

UNF CANISTER THREADS (LAST 2 DIGITS ARE THE ABSOLUTE RATING)									
COMPLETE FILTER	PORT BSPP	NOMINAL FLOW	MAXIMUM WORKING PRESSURE/VACUUM		ABSOLUTE FILTRATION	NOMINAL FILTRATION	REPLACEMENT SPIN-ON CANISTER	HEAD ONLY	
SERIES	PART NO	inch	lpm		micron	micron	PART NO	PART NO	
Return Filter 1,0 bar Bypass	RIF-RA0610	3/4	55	10 bar	150 psi	25	10	RIF-EA0810	RIF-RHA06
	RIF-RA0625	3/4	70	10 bar	150 psi	32	25	RIF-EA0825	RIF-RHA06
Suction Filter 0,2 bar Bypass	RIF-SA0610	3/4	6	635 mmHg	25 inHg	25	10	RIF-EA0810	RIF-SHA06
	RIF-SA0625	3/4	9	635 mmHg	25 inHg	32	25	RIF-EA0825	RIF-SHA06
Blocked Bypass Filter	RIF-BA0610	3/4				25	10	RIF-EA0810	RIF-BHA06
	RIF-BA0625	3/4				32	25	RIF-EA0825	RIF-BHA06

RIF-10 INLINE SPIN-ON FILTERS 1.1/4" PORTS



RECOMMENDED FOR:

RYCO RIF-10 Series Filters are designed for installation in return lines or suction lines of both stationary and mobile hydraulic equipment. Working pressures up to 10 bar (150 psi), and high flow rates enable these Filters to be utilised in a wide range of applications.

FEATURES OF RYCO SPIN-ON CANISTERS & HEADS:

- Disposable Spin-On Canisters.
- Changing of filter elements is quick and simple.
- High efficiency.
- Multi layer filtration media.
- Available in two different Absolute filtration ratings, and two different Nominal filtration ratings.
- High working pressures.
- Specially moulded Gaskets.
- Rolled seam on Canisters.
- High collapse resistance inner core.
- High quality cast Aluminium Head.
- Tapped mounting holes.
- Easy to install.
- BSPP threaded Ports.
- Inlet and Outlet Ports are clearly identified.
- Flow direction arrow.
- RYCO RIF-RH10, RIF-SH10 and RIF-BH10 Filter Heads are Dual Threaded on the Filter Post giving worldwide compatibility of Spin-On Canisters. RYCO RIF-RH10, RIF-SH10 and RIF-BH10 Filter Heads can be used with both RIF-E10 and RIF-EA12 Series Spin-On Canisters. See page 443 for more information.
- Bypass Valve in the Aluminium Head allows the flow of oil to bypass the Canister if the Filter becomes blocked with contaminant.
- Two different Bypass Valve cracking pressures are available to suit Return Lines or Suction Lines, plus Blocked Bypass for special applications.
- Clogging Indicators available, see page 461.
- Tapped and Plugged Ports for Clogging Indicator. Both Positions on Inlet Port are tapped and plugged for Return Line filters. Both Positions on Outlet Port are tapped and plugged for Suction Line filters. All four Positions are tapped and plugged for Blocked Bypass filters.

TECHNICAL DATA

FILTER HEAD: Cast Aluminium.

SPIN-ON CANISTER HOUSING: Powder coated steel casing. Pressed steel top plate.

GASKET: Nitrile (Buna N) oil resistant rubber.

FILTRATION MEDIA: Cellulose with reinforced synthetic fibres, folic impregnated resin; extensively pleated to maximise surface area available to trap contaminants, and maximise dirt holding capacity.

FILTRATION RATINGS:

RIF-E1010: 10 Micron Absolute (3 Mic Nom). $\beta_{10} \geq 75$, $\beta_3 \geq 2$.

RIF-E1025: 25 Micron Absolute (10 Mic Nom). $\beta_{25} \geq 75$, $\beta_{10} \geq 2$.

RIF-EA1210: 10 Micron Nominal (27 Mic Abs). $\beta_{27} \geq 75$, $\beta_{10} \geq 2$.

RIF-EA1225: 25 Micron Nominal (36 Mic Abs). $\beta_{36} \geq 75$, $\beta_{25} \geq 2$.

MAXIMUM WORKING PRESSURE/VACUUM:

10 bar/150 psi in Return Line applications.

635 mmHg/25 inHg in Suction Line applications.

5,5 bar/80 psi for Return Line applications with Blocked Bypass Valve.

OPERATING TEMPERATURE:

80°C (176°F) maximum continuous working temperature.

FLUID COMPATIBILITY: Mineral/petroleum based hydraulic oils.

BYPASS VALVE POSITION: In Filter Head.

BYPASS VALVE DIFFERENTIAL CRACKING PRESSURE:

RIF-R Series for Return Lines 1,0 bar/14.5 psi.

RIF-S Series for Suction Lines 0,2 bar/2.9 psi.

RIF-B Series Blocked Bypass for special applications.

CLOGGING INDICATORS:

RGR Gauge for return lines. Colour coded Green & Red sectors for quick visual inspection.

RGS Gauge calibrated with negative pressures (for suction lines) and positive pressures (for return lines).

RGS02 Gauge, Stainless Steel, calibrated with negative pressures for Suction Lines.

REIR and **REIS** Electrical Indicators.

See page 461 for more information on Clogging Indicators.

NOMINAL FLOW RATES:

As shown, cause a clean element pressure drop of 0,5 bar (7.3 psi) for **RIF-R** and 0,03 bar (0.5 psi) for **RIF-S** with 30 centistoke viscosity oil (see page 380 for more detail). The actual flow rate will vary if the oil is of a different viscosity. See also page 473 for "Pressure Drop Flow Graphs", page 475 for "Warnings and Filter Selection Guidelines" and page 477 for "Effect of Temperature and Viscosity on Flow Rate and Pressure Drop".

RIF-10 INLINE SPIN-ON FILTERS - TECHNICAL SPECIFICATIONS

MOUNTING INSTRUCTIONS

RYCO RIF-10 Series Filter Heads can be mounted to equipment by means of two tapped mounting holes in head.

Filter Heads can be mounted directly between rigid pipes, provided that the pipes are anchored to ensure that no undue stress is placed on the Filter Head casting.

Allow 35 mm (1.35") clearance below Spin-On Canister to allow Canister to be changed.

Instructions for changing Canister are branded on the Canister, and are also shown on page 482.

DIMENSIONS

CANISTER DIAMETER	OVERALL HEIGHT	CANISTER HEIGHT	WIDTH ACROSS PORTS	PORT THREAD BSPP	MOUNTING HOLE CENTRES	MOUNTING HOLE THREADS	WEIGHT HEAD	WEIGHT CANISTER	WEIGHT TOTAL
D mm	H mm	L mm	W mm	A inch	X mm		kg	kg	kg
127	246	178	140	1.1/4	48	M8 X 1,25	0,96	1,08	2,04

CROSS REFERENCE INFORMATION

The Posts on **RYCO RIF-RH10**, **RIF-SH10** and **RIF-BH10** Series Heads are Dual Threaded to allow the use of both common types of Spin-On Canisters.

RYCO RIF-E1010 and **RIF-E1025** and "European standard" Canisters have Top Plate with 1.1/4"-11 TPI BSPP thread to screw onto the upper part of the Dual Post Thread.

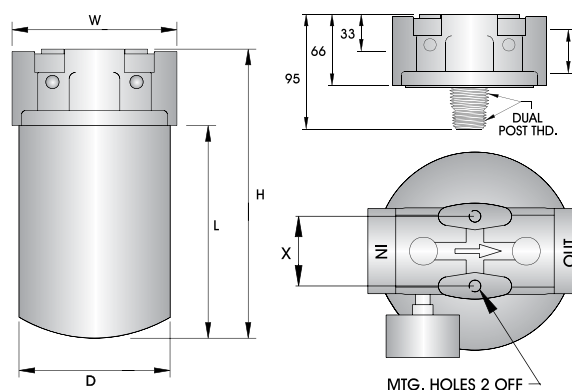
RYCO RIF-EA1210 and **RIF-EA1225** and "American standard" Canisters have a dished Top Plate with 1.1/2"-16 TPI UNF thread to screw onto the lower part of the Dual Post Thread.

RYCO RIF-E1010 AND RIF-E1025 Canisters, threaded 1.1/4"-11 TPI BSPP, can be used on standard BSPP or Dual Threaded Post Filter Heads.

RYCO RIF-EA1210 and **RIF-EA1225** Canisters, threaded 1.1/2"-16 TPI UNF, can be used on standard UNF or Dual Threaded Post Filter Heads.

For Cross Reference information, please see pages 442 and 479.

DIMENSIONS (mm)



PART NUMBERS AND SPECIFICATIONS

COMPLETE FILTER	PORT BSPP	NOMINAL FLOW	MAXIMUM WORKING PRESSURE/VACUUM	ABSOLUTE FILTRATION	NOMINAL FILTRATION	REPLACEMENT SPIN-ON CANISTER	HEAD ONLY
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BSPP CANISTER THREADS (LAST 2 DIGITS ARE THE ABSOLUTE RATING)

SERIES	PART NO	inch	lpm			micron	micron	PART NO	PART NO
Return Filter 1,0 bar Bypass	RIF-R1010	1.1/4	100	10 bar	150 psi	10	3	RIF-E1010	RIF-RH10
	RIF-R1025	1.1/4	135	10 bar	150 psi	25	10	RIF-E1025	RIF-RH10
Suction Filter 0,2 bar Bypass	RIF-S1010	1.1/4	8	635 mmHg	25 inHg	10	3	RIF-E1010	RIF-SH10
	RIF-S1025	1.1/4	16	635 mmHg	25 inHg	25	10	RIF-E1025	RIF-SH10
Blocked Bypass Filter	RIF-B1010	1.1/4				10	3	RIF-E1010	RIF-BH10
	RIF-B1025	1.1/4				25	10	RIF-E1025	RIF-BH10

UNF CANISTER THREADS (LAST 2 DIGITS ARE THE ABSOLUTE RATING)

SERIES	PART NO	inch	lpm			micron	micron	PART NO	PART NO
Return Filter 1,0 bar Bypass	RIF-RA1010	1.1/4	135	10 bar	150 psi	27	10	RIF-EA1210	RIF-RH12
	RIF-RA1025	1.1/4	170	10 bar	150 psi	36	25	RIF-EA1225	RIF-RH12
Suction Filter 0,2 bar Bypass	RIF-SA1010	1.1/4	16	635 mmHg	25 inHg	27	10	RIF-EA1210	RIF-SH12
	RIF-SA1025	1.1/4	20	635 mmHg	25 inHg	36	25	RIF-EA1225	RIF-SH12
Blocked Bypass Filter	RIF-BA1010	1.1/4				27	10	RIF-EA1210	RIF-BH12
	RIF-BA1025	1.1/4				36	25	RIF-EA1225	RIF-BH12

RIF-12 INLINE SPIN-ON FILTERS 1.1/4" PORTS



Left to right: RIF-V12, RIF-P12, RIF-C12

RECOMMENDED FOR:

RYCO RIF-12 Series Filters are designed for installation in return lines or suction lines of both stationary and mobile hydraulic equipment. Working pressures up to 10 bar (150 psi), and high flow rates enable these Filters to be utilised in a wide range of applications.

FEATURES OF RYCO SPIN-ON CANISTERS & HEADS:

- RIF-V12 series with BSPP Ports.
RIF-P12 series with BSPP Ports.
RIF-C12 series with SAE Code 61 Ports (with UNC Bolt Holes).
- Disposable Spin-On Canisters.
- Changing of filter elements is quick and simple.
- High efficiency.
- Multi layer filtration media.
- Available in two different Absolute filtration ratings, and two different Nominal filtration ratings.
- High working pressures.
- Specially moulded Gaskets.
- Rolled seam on Canisters.
- High collapse resistance inner core.
- High quality cast Aluminium Head.
- Tapped mounting holes.
- Easy to install.
- RYCO RIF-12 Filter Heads are Dual Threaded on the Filter Post giving world wide compatibility of Spin-On Canisters. RIF-12 Filter Heads can be used with both RIF-E10 and RIF-EA12 Series Spin-On Canisters. See page 442 for more information.
- For Cross Reference information, see page 447; the same Spin-On Canisters are used. See also pages 442 and 479.
- Bypass Valve in the Aluminium Head allows the flow of oil to bypass the Canister if the Filter becomes blocked with contaminant.
- Two different Bypass Valve cracking pressures are available to suit Return Line or Suction Lines, plus Blocked Bypass for special applications.
- Clogging Indicators available, see page 461.
- Tapped and Plugged Ports for Clogging Indicator. For RIF-V12 Series, there are two Positions, one each for Return Line and Suction Line applications. Both are tapped and plugged. For RIF-P12 and RIF-C12 Series, both Return Line Positions on Inlet side for Return Line filters are tapped and plugged. Both Suction Line Positions on Outlet side for Suction Line filters are tapped and plugged.

TECHNICAL DATA

FILTER HEAD: Cast Aluminium.

SPIN-ON CANISTER HOUSING: Powder coated steel casing. Pressed steel top plate.

GASKET: Nitrile (Buna N) oil resistant rubber.

FILTRATION MEDIA: Cellulose with reinforced synthetic fibres, folic impregnated resin; extensively pleated to maximise surface area available to trap contaminants and maximise dirt holding capacity.

FILTRATION RATINGS:

RIF-E1010: 10 Micron Absolute (3 Mic Nom). $\beta_{10} \geq 75$, $\beta_3 \geq 2$.

RIF-E1025: 25 Micron Absolute (10 Mic Nom). $\beta_{25} \geq 75$, $\beta_{10} \geq 2$.

RIF-EA1210: 10 Micron Nominal (27 Mic Abs). $\beta_{27} \geq 75$, $\beta_{10} \geq 2$.

RIF-EA1225: 25 Micron Nominal (36 Mic Abs). $\beta_{36} \geq 75$, $\beta_{25} \geq 2$.

MAXIMUM WORKING PRESSURE/VACUUM:

10 bar/150 psi in Return Line applications.

635 mmHg/25 inHg in Suction Line applications.

5,5 bar/80 psi for Return Line applications with Blocked Bypass Valve.

Operating Temperature: 80°C (176°F) maximum continuous working temperature.

FLUID COMPATIBILITY: Mineral/petroleum based hydraulic oils.

BYPASS VALVE POSITION: In Filter Head.

BYPASS VALVE DIFFERENTIAL CRACKING PRESSURE:

RIF-R Series for return lines 1,0 bar/14.5 psi.

RIF-S Series for suction lines 0,2 bar/2.9 psi.

RIF-B Series Blocked Bypass for special applications.

CLOGGING INDICATORS:

RGR Gauge for Return Lines. Colour coded Green & Red sectors for quick visual inspection.

RGS Gauge calibrated with negative pressures (for Suction Lines) and positive pressures (for Return Lines).

RGS02 Gauge, Stainless Steel, calibrated with negative pressures for Suction Lines.

REIR and **REIS** Electrical Indicators.

See page 461 for more information on Clogging Indicators.

NOMINAL FLOW RATES: As shown, cause a clean element pressure drop of 0,5 bar (7.3 psi) for RIF-R and 0,03 bar (0.5 psi) for RIF-S with 30 centistoke viscosity oil (see page 380 for more detail). The actual flow rate will vary if the oil is of a different viscosity. See also page 473 for "Pressure Drop Flow Graphs", page 475 for "Warnings and Filter Selection Guidelines", and page 477 for "Effect of Temperature and Viscosity on Flow Rate and Pressure Drop".

RIF-12 INLINE SPIN-ON FILTERS - TECHNICAL SPECIFICATIONS

MOUNTING INSTRUCTIONS

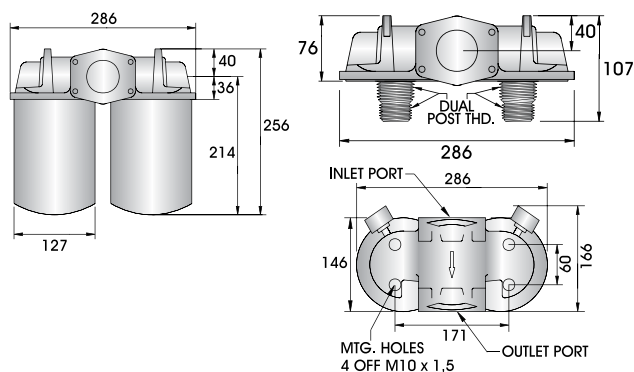
RYCO RIF-12 Series Filter Heads can be mounted to equipment by means of two or four tapped mounting holes in head. Filter Heads can be mounted directly between rigid pipes, provided that the pipes are anchored to ensure that no undue stress is placed on the Filter Head casting.

Allow 35 mm (1.35") clearance below Spin-On Canister to allow Canister to be changed.

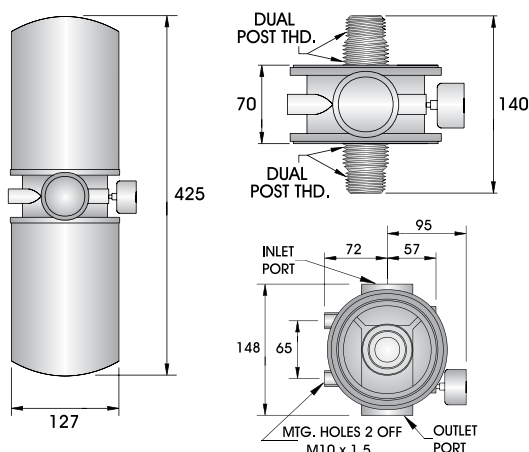
Instructions for changing Canister are branded on the Canister, and are also shown on page 482.

DIMENSIONS (mm)

RIF - P12/C12 SERIES



RIF - V12 SERIES



PART NUMBERS AND SPECIFICATIONS

COMPLETE FILTER	PORT BSPP	NOMINAL FLOW	MAXIMUM WORKING PRESSURE/VACUUM	ABSOLUTE FILTRATION	NOMINAL FILTRATION	REPLACEMENT SPIN-ON CANISTER	HEAD ONLY
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BSPP CANISTER THREADS, LAST 2 DIGITS ARE THE ABSOLUTE RATING

SERIES	PART NO	inch	lpm			micron	micron	PART NO	PART NO
Return Filter 1,0 bar Bypass	RIF-RV1210	1.1/2 BSPP	160	10 bar	150 psi	10	3	RIF-E1010	RIF-RVH12
	RIF-RV1225	1.1/2 BSPP	225	10 bar	150 psi	25	10	RIF-E1025	RIF-RVH12
	RIF-RP1210	1.1/2 BSPP	160	10 bar	150 psi	10	3	RIF-E1010	RIF-RPH12
	RIF-RP1225	1.1/2 BSPP	225	10 bar	150 psi	25	10	RIF-E1025	RIF-RPH12
	RIF-RC1210	1.1/2 CD 61	160	10 bar	150 psi	10	3	RIF-E1010	RIF-RCH12
	RIF-RC1225	1.1/2 CD 61	225	10 bar	150 psi	25	10	RIF-E1025	RIF-RCH12
Suction Filter 0,2 bar Bypass	RIF-SV1210	1.1/2 BSPP	15	635 mmHg	25 inHg	10	3	RIF-E1010	RIF-SVH12
	RIF-SV1225	1.1/2 BSPP	27	635 mmHg	25 inHg	25	10	RIF-E1025	RIF-SVH12
	RIF-SP1210	1.1/2 BSPP	15	635 mmHg	25 inHg	10	3	RIF-E1010	RIF-SPH12
	RIF-SP1225	1.1/2 BSPP	27	635 mmHg	25 inHg	25	10	RIF-E1025	RIF-SPH12
	RIF-SC1210	1.1/2 CD 61	15	635 mmHg	25 inHg	10	3	RIF-E1010	RIF-SCH12
	RIF-SC1225	1.1/2 CD 61	27	635 mmHg	25 inHg	25	10	RIF-E1025	RIF-SCH12
Blocked Bypass Filter	RIF-BV1210	1.1/2 BSPP				10	3	RIF-E1010	RIF-BVH12
	RIF-BV1225	1.1/2 BSPP				25	10	RIF-E1025	RIF-BVH12
	RIF-BP1210	1.1/2 BSPP				10	3	RIF-E1010	RIF-BPH12
	RIF-BP1225	1.1/2 BSPP				25	10	RIF-E1025	RIF-BPH12
	RIF-BC1210	1.1/2 CD 61				10	3	RIF-E1010	RIF-BCH12
	RIF-BC1225	1.1/2 CD 61				25	10	RIF-E1025	RIF-BCH12

Technical specifications for RIF-12 Inline Spin-On Filters continued on next page.

FILTERS

RIF-12 INLINE SPIN-ON FILTERS 1.1/2" PORTS

Technical specifications for RIF-12 Inline Spin-On Filters continued from previous page.

PART NUMBERS AND SPECIFICATIONS									
COMPLETE FILTER	PORT BSPP	NOMINAL FLOW	MAXIMUM WORKING PRESSURE/VACUUM		ABSOLUTE FILTRATION	NOMINAL FILTRATION	REPLACEMENT SPIN-ON CANISTER	HEAD ONLY	
UNF CANISTER THREADS (LAST 2 DIGITS ARE THE ABSOLUTE RATING)									
SERIES	PART NO	inch	lpm			micron	micron	PART NO	PART NO
Return Filter 1,0 bar Bypass	RIF-RVA1210	1.1/2 BSPP	225	10 bar	150 psi	27	10	RIF-EA1210	RIF-RVH12
	RIF-RVA1225	1.1/2 BSPP	290	10 bar	150 psi	36	25	RIF-EA1225	RIF-RVH12
	RIF-RPA1210	1.1/2 BSPP	225	10 bar	150 psi	27	10	RIF-EA1210	RIF-RPH12
	RIF-RPA1225	1.1/2 BSPP	290	10 bar	150 psi	36	25	RIF-EA1225	RIF-RPH12
	RIF-RCA1210	1.1/2 CD 61	225	10 bar	150 psi	27	10	RIF-EA1210	RIF-RCH12
	RIF-RCA1225	1.1/2 CD 61	290	10 bar	150 psi	36	25	RIF-EA1225	RIF-RCH12
Suction Filter 0,2 bar Bypass	RIF-SVA1210	1.1/2 BSPP	27	635 mmHg	25 inHg	27	10	RIF-EA1210	RIF-SVH12
	RIF-SVA1225	1.1/2 BSPP	34	635 mmHg	25 inHg	36	25	RIF-EA1225	RIF-SVH12
	RIF-SPA1210	1.1/2 BSPP	27	635 mmHg	25 inHg	27	10	RIF-EA1210	RIF-SPH12
	RIF-SPA1225	1.1/2 BSPP	34	635 mmHg	25 inHg	36	25	RIF-EA1225	RIF-SPH12
	RIF-SCA1210	1.1/2 CD 61	27	635 mmHg	25 inHg	27	10	RIF-EA1210	RIF-SCH12
	RIF-SCA1225	1.1/2 CD 61	34	635 mmHg	25 inHg	36	25	RIF-EA1225	RIF-SCH12
Blocked Bypass Filter	RIF-BVA1210	1.1/2 BSPP				27	10	RIF-EA1210	RIF-BVH12
	RIF-BVA1225	1.1/2 BSPP				36	25	RIF-EA1225	RIF-BVH12
	RIF-BPA1210	1.1/2 BSPP				27	10	RIF-EA1210	RIF-BPH12
	RIF-BPA1225	1.1/2 BSPP				36	25	RIF-EA1225	RIF-BPH12
	RIF-BCA1210	1.1/2 CD 61				27	10	RIF-EA1210	RIF-BCH12
	RIF-BCA1225	1.1/2 CD 61				36	25	RIF-EA1225	RIF-BCH12

RIF14-1 INLINE SPIN-ON FILTERS 1" PORTS



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RECOMMENDED FOR:

RYCO RIF14-1 Filters are designed for installation in mineral and petroleum based hydraulic oil return lines, to maximum working temperature 80°C (176°F) and maximum working pressure 7 bar (100 psi).

FEATURES:

- Disposable Spin-On Canisters.
- Changing of filter element is quick and simple.
- Cast Aluminium Head with tapped mounting holes.
- Easy to install.
- 1 inch BSPT threaded Ports.
- Inlet and Outlet Ports are clearly identified by flow direction arrow.
- Bypass Valve in the Aluminium Head allows the flow of oil to bypass the Canister if the Filter becomes blocked with contaminant.

TECHNICAL DATA

FILTER HEAD: Cast Aluminium.

SPIN-ON CANISTER HOUSING: Painted steel casing. Pressed steel top plate.

GASKET: Nitrile (Buna N) oil resistant rubber.

TECHNICAL DATA (CONTINUED)

FILTRATION MEDIA: Cellulose with synthetic fibres added, phenolic resin impregnated, and silicone treated for water resistance; extensively pleated to maximise surface area available to trap contaminants, and maximise dirt holding capacity.

FILTRATION RATING: 32 Micron Nominal.

MAXIMUM WORKING PRESSURE: 7 bar (100 psi). Not suitable for Suction Line applications.

OPERATING TEMPERATURE: 80°C (176°F) maximum continuous working temperature.

FLUID COMPATIBILITY: Mineral/petroleum based hydraulic oils.

BYPASS VALVE POSITION: In Filter Head.

BYPASS VALVE DIFFERENTIAL CRACKING PRESSURE: 0,7 bar (10 psi)

NOMINAL FLOW RATES: As shown, cause a clean element pressure drop of 0,3 bar (4.4 psi) with 30 centistoke viscosity oil (see page 471 for more detail). The actual flow rate will vary if the oil is of a different viscosity. See also page 473 for "Pressure Drop Flow Graphs", page 475 for "Warnings and Filter Selection Guidelines", and page 477 for "Effect of Temperature and Viscosity on Flow Rate and Pressure Drop".

RIF14-1 INLINE SPIN-ON FILTERS - TECHNICAL SPECIFICATIONS

MOUNTING INSTRUCTIONS					DIMENSIONS (MM)				
<p>RYCO RIF14-1 Series Filter Heads can be mounted to equipment by means of two tapped mounting holes in head.</p> <p>Filter Heads can be mounted directly between rigid pipes provided, that the pipes are anchored to ensure that no undue stress is placed on the Filter Head casting.</p> <p>Allow 15 mm (0.6") clearance below Spin-On Canister to allow Canister to be changed.</p> <p>Instructions for changing Canister are shown on page 482.</p>									

DIMENSIONS									
CANISTER DIAMETER	OVERALL HEIGHT	CANISTER HEIGHT	WIDTH ACROSS PORTS	PORT THREAD BSPT	MOUNTING HOLE CENTRES	MOUNTING HOLE THREADS	WEIGHT HEAD	WEIGHT CANISTER	WEIGHT TOTAL
D mm	H mm	L mm	W mm	A inch	X mm		kg	kg	kg
94	205	140	116	1	63,3	3/8 - 16	0,49	0,48	0,97

RIF14-1 INLINE SPIN-ON FILTER 1" PORTS						
COMPLETE FILTER	PORT BSPT	NOMINAL FLOW	MAXIMUM WORKING PRESSURE	NOMINAL FILTRATION	REPLACEMENT SPIN-ON CANISTER	PART NO
PART NO	inch	lpm		micron	PART NO	
RIF-RA0610	3/4	55	10 bar	150 psi	10	RIF-EA0810

FILTERS

RIF-FA INLINE SPIN-ON FILTERS 3/8" PORTS

RIF-FA INLINE SPIN-ON FILTERS 3/8" PORTS



RECOMMENDED FOR:

RYCO RIF-FA9 and RIF-FA10 Filters are designed for installation in mineral and petroleum based hydraulic oil return lines. RYCO RIF-FA8 and RIF-FA39 Filters are designed for petrol and diesel fuel filtration. Not suitable for aviation applications.

FEATURES:

- Disposable Spin-On Canisters.
- Changing of filter elements is quick and simple.
- Cast Aluminium Head with tapped mounting holes.
- Easy to install.
- 3/8" BSPT threaded Ports.
- Inlet and Outlet Ports are clearly identified by a flow direction arrow.
- Filter Head dimensions are the same for all RIF-FA Series.
- Bypass Valve built into the Canister of RIF-FA9 and RIF-FA10 allows the flow of oil to bypass the Canister if the Filter becomes blocked with contaminant.
- RIF-FA8 and RIF-FA39 have no Bypass Valve. Spin-On Canisters must be replaced at regular intervals, before clogging occurs.

TECHNICAL DATA

FILTER HEAD: Cast Aluminium.

SPIN-ON CANISTER HOUSING: Painted steel casing. Z39 Canister is also zinc passivated inside and out for extra corrosion resistance. Pressed steel top plate.

GASKET: Nitrile (Buna N) oil resistant rubber.

FILTRATION MEDIA: Cellulose, phenolic resin impregnated and silicone treated for water resistance, extensively pleated to maximise surface area available to trap contaminants, and maximise dirt holding capacity.

MAXIMUM WORKING PRESSURE: See table below. Not suitable for Suction Line applications.

OPERATING TEMPERATURE: 80°C (176°F) maximum continuous working temperature.

BYPASS VALVE DIFFERENTIAL CRACKING PRESSURE & LOCATION:

RIF-FA9 and RIF-FA10: 1,0 bar (14.5 psi) in Canister. RIF-FA8 and RIF-FA39: no Bypass Valve.

NOMINAL FLOW RATES: As shown below cause a clean element pressure drop as follows:
with 30 centistoke viscosity oil; 0,5 bar (7.3 psi) for RIF-FA9 and RIF-FA10 (see page 380 for more detail). The actual flow rate will vary if the oil is of a different viscosity.
with petrol and diesel fuel; 0,3 bar (4.4 psi) for RIF-FA8 and RIF-FA39. See also pages 473, 475 and 477 for more information.

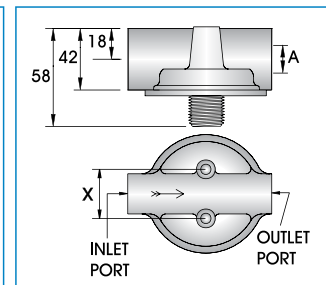
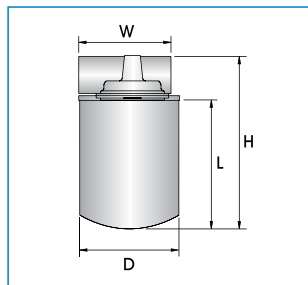
RIF-FA INLINE SPIN-ON FILTERS - TECHNICAL SPECIFICATIONS

MOUNTING INSTRUCTIONS

Allow 20 mm (3/4") clearance below Spin-On Canister to allow Canister to be changed.

Instructions for changing Canister are shown on page 482.

DIMENSIONS (mm)



RIF-FA INLINE SPIN-ON FILTERS 3/8" PORTS

COMPLETE FILTER	CANISTER DIAMETER	OVERALL HEIGHT	CANISTER HEIGHT	DIMENSIONS			MOUNTING HOLE CENTRES	MOUNTING HOLE THREADS	WEIGHT HEAD	WEIGHT CANISTER	WEIGHT TOTAL
				WIDTH ACROSS PORTS	PORT THREAD BSPT	X mm					
PART NO	D mm	H mm	L mm	W mm	A inch	X mm			kg	kg	kg
RIF-FA10	100	145	103	88	3/8	38,1	5/16 - 18	0,33	0,41	0,74	
RIF-FA9	93	185	143	88	3/8	38,1	5/16 - 18	0,33	0,46	0,79	
RIF-FA8	93	185	143	88	3/8	38,1	5/16 - 18	0,33	0,48	0,81	
RIF-FA39	93	142	100	88	3/8	38,1	5/16 - 18	0,33	0,39	0,72	

RIF-FA INLINE SPIN-ON FILTERS 3/8" PORTS						
COMPLETE FILTER	PORT BSPT	NOMINAL FLOW	MAXIMUM WORKING PRESSURE		NOMINAL FILTRATION	REPLACEMENT SPIN-ON CANISTER
PART NO	inch	lpm	bar	psi	micron	PART NO
RIF-FA10	3/8	13	7	100	32	Z89A
RIF-FA9	3/8	13	7	100	32	Z9
RIF-FA8	3/8	18	5,5	80	20	Z8
RIF-FA39	3/8	18	5,5	80	15	Z39

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FILTERS

RHF HEAVY DUTY INLINE FILTERS

RHF HEAVY DUTY INLINE FILTERS



RECOMMENDED FOR HEAVY DUTY:

RYCO RHF Series Heavy Duty Inline Filters are designed for installation in return lines or suction lines of both stationary and mobile hydraulic equipment.

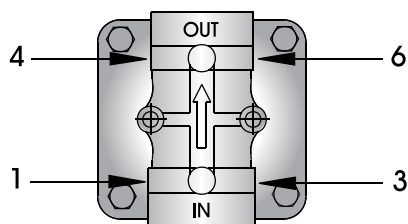
Heavy duty design, maximum working pressures up to 20 bar (290 psi) and high flow rates enable these Filters to be used in a wide range of applications. They may also be used for low pressure delivery applications.

There are three sizes: RHF-05, RHF-10 and RHF-20; with RHF-10 and RHF-20 models each available with two different Port sizes.

In addition to standard Filter Elements, 149 Micron Stainless Steel Mesh Filter Elements are available. They are especially suitable for Suction Line use, as they are easier to service than an in-tank Suction Strainer.

FEATURES:

- All Aluminium Cast Construction.
- One Piece castings for Filter Head and Bowl.
- Tapped mounting holes.
- Easy to install.
- BSPP threaded Ports.
- Inlet and Outlet Ports are clearly identified.
- Sealing of Filter Head and Bowl is by O Ring located in groove in Bowl.
- Bypass Valve in the Aluminium Head.
- Two different Bypass Valve cracking pressures are available to suit Return Lines or Suction Lines, plus Blocked Bypass for special applications.
- Drain Plug on RHF-10 and RHF-20 sizes allows Filter to be drained prior to changing Filter Element.
- Clogging Indicators available, see page 461.
- Tapped and Plugged Port for Clogging Indicator. Position 3 on Inlet Port is tapped (for Return Line Filters). If required, Positions 1, 4 or 6 can also be tapped.



TECHNICAL DATA

FILTER HEAD AND BOWL: Cast Aluminium.

GASKET: Nitrile (Buna N) oil resistant rubber O Ring between Filter Head and Bowl.

FILTRATION RATINGS: 10 Micron Nominal; 25 Micron Nominal; and 149 Micron Absolute.

FILTRATION MEDIA: 10 and 25 Micron Nominal are Cellulose, phenolic resin impregnated; 149 Micron is Stainless Steel Mesh. All are extensively pleated to maximise surface area available to trap contaminants, and maximise dirt holding capacity.

MAXIMUM WORKING PRESSURE/VACUUM:

20 bar/290 psi in Return Line applications.
635 mmHg/25 inHg Maximum Vacuum in Suction Line applications. Recommended use for suction lines is Stainless Steel Mesh Filter Element, Cellulose not recommended. 5.5 bar/80 psi for Return Line applications with Blocked Bypass Valve.

OPERATING TEMPERATURE: 80°C (176°F) maximum continuous working temperature.

FLUID COMPATIBILITY: Mineral/petroleum based hydraulic oils.

BYPASS VALVE POSITION: In Filter Head.

BYPASS VALVE DIFFERENTIAL CRACKING PRESSURE:

RIF-R Series for return lines 1,0 bar/14.5 psi.
RIF-S Series for suction lines 0,2 bar/2.9 psi.
RIF-B Series Blocked Bypass for special applications.

CLOGGING INDICATORS:

RGR Gauge for Return Lines. Colour coded Green & Red sectors for quick visual inspection.

RGS Gauge calibrated with negative pressures (for Suction Lines) and positive pressures (for Return Lines).

RGS02 Gauge, Stainless Steel, calibrated with negative pressures for Suction Lines.

REIR and **REIS** Electrical Indicators.

See page 461 for more information on Clogging Indicators.

NOMINAL FLOW RATES: As shown, cause a clean element pressure drop of 0,5 bar (7.3 psi) or RHF-R and 0,03 bar (0.5 psi) for RHF-S with 30 centistoke viscosity oil (see page 471 for more detail). The actual flow rate will vary if the oil is of a different viscosity. See also page 473 for "Pressure Drop Flow Graphs", page 475 for "Warnings and Filter Selection Guidelines", and page 477 for "Effect of Temperature and Viscosity on Flow Rate and Pressure Drop".

RHF HEAVY DUTY INLINE FILTERS - TECHNICAL SPECIFICATIONS

MOUNTING INSTRUCTIONS	DIMENSIONS
<p>RYCO RHF Series Filters can be mounted to equipment by means of two tapped mounting holes in head.</p> <p>Filters can be mounted directly between rigid pipes, provided that the pipes are anchored to ensure that no undue stress is placed on the Head casting.</p> <p>Allow length L of Bowl clearance below Bowl to allow Filter Elements to be changed.</p> <p>Instructions for changing filter elements are shown on page 482.</p>	

DIMENSIONS											
CASTING SIZE	BOWL DIAMETER	OVERALL HEIGHT	BOWL HEIGHT	WIDTH ACROSS PORTS	PORT THREAD BSPP	PORT CENTRE TO TOP	HEAD TOP TO GASKET	MOUNTING HOLE CENTRES	MOUNTING HOLE THREADS	WEIGHT FILTER ELEMENT	WEIGHT TOTAL
	D mm	H mm	L mm	W mm	A inch	C mm	Z mm	X mm		kg	kg
RHF-05	66	149	105	88	1/2	21	44	38	M8 x 1,25	0,12	0,9
RHF-10	88	185	135	114	3/4 or 1	23	50	44	M8 x 1,25	0,15	1,5
RHF-20	119	305	240	142	1.1/4 or 1.1/2	31	65	57	M10 x 1,5	0,37	3,5

RHF HEAVY DUTY INLINE FILTERS							
COMPLETE FILTER	PORT BSPP	NOMINAL FLOW	MAXIMUM WORKING PRESSURE/VACUUM		NOMINAL FILTRATION	REPLACEMENT FILTER ELEMENT	
SERIES	PART NO	inch	lpm			micron	PART NO
Return Filter 1,0 bar Bypass	RHF-R050410	1/2	20	20 bar	290 psi	10	RHF-E0510
	RHF-R050425	1/2	25	20 bar	290 psi	25	RHF-E0525
	RHF-R100610	3/4	35	20 bar	290 psi	10	RHF-E1010
	RHF-R100625	3/4	55	20 bar	290 psi	25	RHF-E1025
	RHF-R100810	1	35	20 bar	290 psi	10	RHF-E1010
	RHF-R100825	1	55	20 bar	290 psi	25	RHF-E1025
	RHF-R201010	1.1/4	95	20 bar	290 psi	10	RHF-E2010
	RHF-R201025	1.1/4	150	20 bar	290 psi	25	RHF-E2025
	RHF-R201210	1.1/2	95	20 bar	290 psi	10	RHF-E2010
RHF-R201225	1.1/2	150	20 bar	290 psi	25	RHF-E2025	
Suction Filter 0,2 bar Bypass	RHF-S0504149	1/2	5	635 mmHg	25 inHg	149	RHF-E05149
	RHF-S1006149	3/4	15	635 mmHg	25 inHg	149	RHF-E10149
	RHF-S1008149	1	15	635 mmHg	25 inHg	149	RHF-E10149
	RHF-S2010149	1.1/4	40	635 mmHg	25 inHg	149	RHF-E20149
	RHF-S2012149	1.1/2	40	635 mmHg	25 inHg	149	RHF-E20149
Blocked Bypass Filter	RHF-B0504XX	1/2	REPLACE XX IN PART NUMBER WITH 10, 25 OR 149 MICRON AS REQUIRED.			XX	RHF-E05XX
	RHF-B1006XX	3/4				XX	RHF-E10XX
	RHF-B1008XX	1				XX	RHF-E10XX
	RHF-B2010XX	1.1/4				XX	RHF-E20XX
	RHF-B2012XX	1.1/2				XX	RHF-E20XX

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RTI AND RFI TANK TOP FILTERS

RTI & RFI TANK TOP FILTERS



Left to right: RTI series and RFI series

RECOMMENDED FOR:

RYCO RTI and RFI Series Tank Top Filters are designed for Return Line installation on the top of hydraulic oil reservoirs on earth moving, construction, agricultural and industrial equipment. They are compact and easy to mount, and only a small part of the Filter projects above the top of the reservoir. The Filter Element is replaceable by removing the Top Cover Plate.

RTI Tank Immersed Series has Inlet Port above the top of the tank.
RFI Fully Immersed Series has Inlet Port below the top of the tank.

FEATURES:

- All Aluminium Cast Construction.
- One-Piece casting for Main Body Housing.
- Cast Top Cover Plate.
- Maximum Working Pressure 10 bar (150 psi) all sizes.
- Inlet Port (BSPP) is at side of Filter. **NOTE:** RTI-R10 has two Inlet ports. Both can be used, otherwise one must be plugged - plug not supplied.
- Outlet Port (BSPP) is at bottom of Filter.
- Easy installation of RYCO RD Series Diffuser onto Outlet Port, see page 464.
- Outlet Port can be extended below the level of the oil, to reduce foaming and aeration.
- O Ring seals Top Cover Plate to Main Body Housing.
- Bypass Valve built into the Filter Element.
- Flow of oil bypasses the Filter Element if the Filter becomes blocked with contaminant.
- Permanent magnet bonded to bottom of Top Cover Plate to catch coarse ferrous particles.
- Gauge Port tapped into Top Cover Plate.
- Clogging Indicators available, see page 461.
- Supplied with Gasket to seal Filter to Tank.
- RTI Series have O Ring located in groove in mounting flange, to seal filter housing to reservoir.
- RFI Series have Cork Gasket, to seal filter housing to reservoir.

TECHNICAL DATA

MAIN BODY HOUSING AND TOP COVER PLATE:

Cast Aluminium.

GASKETS:

1. Nitrile (Buna N) oil resistant rubber O Ring between Main Body Housing and Top Cover Plate.

2. **RTI SERIES:** O Ring supplied for seal between Main Body Housing and Tank.

RFI SERIES: Cork Gasket supplied for seal between Main Body Housing and Tank.

FILTRATION MEDIA: Cellulose, phenolic resin impregnated; extensively pleated to maximise surface area available to trap contaminants, and maximise dirt holding capacity.

FILTRATION RATINGS: 10 Micron Nominal, and 25 Micron Nominal.

MAXIMUM WORKING PRESSURE:

10 bar/150 psi in Return Line applications.
Not suitable for Suction Line applications.

OPERATING TEMPERATURE: 80°C (176°F) maximum continuous working temperature.

FLUID COMPATIBILITY: Mineral/petroleum based hydraulic oils.

BYPASS VALVE POSITION: In Filter Cartridge.

BYPASS VALVE DIFFERENTIAL CRACKING PRESSURE: 1,0 bar/14.5 psi.

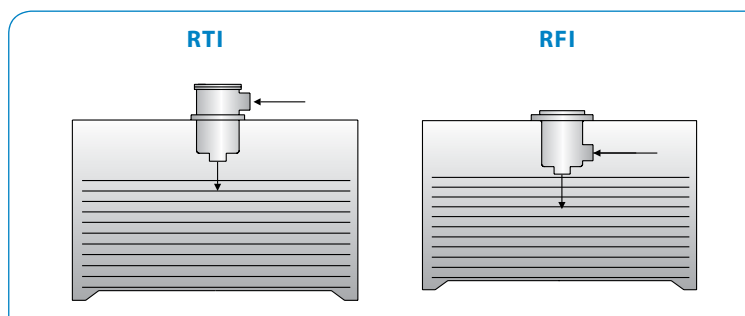
CLOGGING INDICATORS:

RGR Gauge for Return lines. Colour coded Green & Red sectors for quick visual inspection.

REIR Electrical Indicators.

See page 461 for more information on Clogging Indicators.

NOMINAL FLOW RATES: As shown, cause a clean element pressure drop of 0,5 bar (7.3 psi) with 30 centistoke viscosity oil (see page 471 for more detail). The actual flow rate will vary if the oil is of a different viscosity. See also page 473 for "Pressure Drop Flow Graphs", page 475 for "Warnings and Filter Selection Guidelines", and page 477 for "Effect of Temperature and Viscosity on Flow Rate and Pressure Drop".



RTI AND RFI TANK TOP FILTERS - TECHNICAL SPECIFICATIONS

MOUNTING INSTRUCTIONS	DIMENSIONS
<p>RYCO RTI and RFI Series Filters are mounted in the top of the reservoir. A circular hole is cut in the reservoir. Mounting bolt holes are drilled (and tapped if required) and the Filter Housing is bolted in place.</p> <p>The Filters can be mounted inline between rigid pipes, provided that the pipes are anchored to ensure that no undue stress is placed on the Housing casting, and the housing is supported.</p> <p>Instructions for changing Filter Element are shown on page 482. Allow length L of Bowl clearance below Bowl to allow Filter Elements to be changed.</p>	<p>Left to right: RTI, RFI, Mounting Holes (both series)</p>

DIMENSIONS												
RYCO FILTER SERIES	PORT THREAD BSP	BOWL DIA	INTO TANK HEIGHT	PORT HEIGHT	WIDTH PORT TO CENTRE	PORT CENTRE TO TOP	HEAD TOP TO GASKET	MOUNTING DIMENSIONS			WEIGHT FILTER ELEMENT	WEIGHT TOTAL
								APERTURE DIA	HOLE CIRCLE	HOLE DIA		

RTI												
PART NO	A inch	E mm	L mm	D mm	W mm	C mm	Z mm	B mm	X mm	N mm	kg	kg
RTI-R04	1/2	63	78	13	51	30	55	66	90	6,6 x 2	0,10	0,72
RTI-R06	3/4	85	90	13	70	42	75	89	114	8,2 x 2	0,16	1,42
RTI-R08	1 IN 3/4 OUT	85	125	13	70	42	75	89	114	8,2 x 2	0,22	1,70
RTI-R10	1.1/4	122	232	19	89	55	99	130	175	10,5 x 4	0,57	4,20

RFI												
PART NO	A inch	E mm	L mm	D mm	W mm	C mm	Z mm	B mm	X mm	N mm	kg	kg
RFI-R04	1/2	75	106	35	49	92	20	81	100	7,0 x 2	0,10	0,73
RFI-R06	3/4	94	118	50	61	92	24	110	126	9,0 x 2	0,16	1,10
RFI-R08	1	94	159	52	61	134	24	110	126	9,0 x 2	0,22	1,33
RFI-R10	1.1/4	125	246	56	83	217	28	150	175	9,0 x 4	0,57	3,55

RTI AND RFI TANK TOP FILTERS					
COMPLETE FILTER	PORT BSP	NOMINAL FLOW	MAXIMUM WORKING PRESSURE/VACUUM	NOMINAL FILTRATION	REPLACEMENT FILTER ELEMENT

RTI						
PART NO	inch	lpm	bar	psi	micron	PART NO
RTI-R0410	1/2	10	10	150	10	RTI-E0410
RTI-R0425	1/2	20	10	150	25	RTI-E0425
RTI-R0610	3/4	25	10	150	10	RTI-E0610
RTI-R0625	3/4	50	10	150	25	RTI-E0625
RTI-R0810	1 INLET 3/4 OUTLET	40	10	150	10	RTI-E0810
RTI-R0825	1 INLET 3/4 OUTLET	65	10	150	25	RTI-E0825
RTI-R1010*	1.1/4*	90	10	150	10	RTI-E1010
RTI-R1025*	1.1/4*	110	10	150	25	RTI-E1025

RFI						
PART NO	inch	lpm	bar	psi	micron	PART NO
RFI-R0410	1/2	10	10	150	10	RFI-E0410
RFI-R0425	1/2	20	10	150	25	RFI-E0425
RFI-R0610	3/4	25	10	150	10	RFI-E0610
RFI-R0625	3/4	50	10	150	25	RFI-E0625
RFI-R0810	1	40	10	150	10	RFI-E0810
RFI-R0825	1	65	10	150	25	RFI-E0825
RFI-R1010	1.1/4	90	10	150	10	RFI-E1010
RFI-R1025	1.1/4	110	10	150	25	RFI-E1025

*NOTE: RTI-R10 has two Inlet Ports. Both can be used, otherwise one must be plugged - plug not supplied. RTI-E and RFI-E Filter Elements are interchangeable (except RTI-E1010, RTI-E1025, RFI-E1010 and RFI-E1025). RTI-R08 has 1 inch BSP Inlet Port and 3/4 inch BSP Outlet Port.

RCF COMBINATION FILTERS



RECOMMENDED FOR:

RYCO RCF Series Combination Filters are designed for installation in both stationary and mobile industrial hydraulic equipment, and are suited to large systems. With 20 bar (290 psi) maximum working pressure; high flow rates; optional use of either, or both Inlet Ports; mounting options of either tank top or inline; 10, 25 and 149 Micron Cartridges for Return Line or Suction Line use; RCF Filters combine the advantages of RHF Heavy Duty and RTI Tank Top into a single Filter Range.

FEATURES:

- All Aluminium Cast Construction.
- One-Piece casting for Main Body Housing.
- Cast Top Cover Plate.
- BSPP Ports up to 1.1/2".
- SAE Code 61 Ports for 2.1/2" size (with UNC Bolt Holes).
- Two Inlet Ports at side of Filter housing (both can be used, otherwise one must be plugged - plug not supplied).
- Outlet Port is at bottom of Filter.
- Easy installation of RYCO RD Series Diffuser, see page 464.
- Outlet Port can be extended below the level of the oil, to reduce foaming and aeration.
- Two different Bypass Valve cracking pressures are available to suit Return Line or Suction Lines, except RCF-04 size only available as Return Line Filter.
- Permanent magnet bonded to bottom of Top Cover Plate to catch coarse ferrous particles.
- Gauge Port tapped into Top Cover Plate.
- Clogging Indicators available, see page 461.

TECHNICAL DATA

MAIN BODY HOUSING AND TOP COVER PLATE:

Cast Aluminium.

GASKETS:

1. Nitrile (Buna N) oil resistant rubber O Ring between Main Body Housing and Top Cover Plate.
2. Cork Gasket supplied for seal between Main Body Housing and Tank.

FILTRATION MEDIA: 10 and 25 Micron Nominal are Cellulose, phenolic resin impregnated; 149 Micron is Stainless Steel Mesh. All are extensively pleated to maximise surface area available to trap contaminants and maximise dirt holding capacity.

FILTRATION RATINGS: 10 Micron Nominal, 25 Micron Nominal; and 149 Micron Absolute. 149 Micron not available in RCF-SP04149 size.

MAXIMUM WORKING PRESSURE/VACUUM:

20 bar/290 psi in Return Line applications. 635 mmHg/ 25 inHg Maximum Vacuum in Suction Line applications. Recommended use for Suction Lines is Stainless Steel Mesh Cartridges, Cellulose is not recommended.

OPERATING TEMPERATURE: 80°C (176°F) maximum continuous working temperature.

FLUID COMPATIBILITY: Mineral/petroleum based hydraulic oils.

BYPASS VALVE POSITION: attached to Top Cover Plate; except RCF-04 size has Bypass Valve in Cartridge.

BYPASS VALVE DIFFERENTIAL CRACKING PRESSURE:

RHF-R Series for Return Lines 1,0 bar/14.5 psi.
RCF-S Series for Suction Lines 0,2 bar/2.9 psi.

CLOGGING INDICATORS:

RGR Gauge for Return Lines. Colour coded Green & Red sectors for quick visual inspection.

RGS Gauge, calibrated with negative pressures (for Suction Lines) and positive pressures (for Return Lines).

RGS02 Gauge, Stainless Steel, calibrated with negative pressures for Suction Lines.

REIR and **REIS** Electrical Indicators.

See page 461 for more information on Clogging Indicators.

NOMINAL FLOW RATES: As shown, cause a clean element pressure drop of 0,5 bar (7.3 psi) for RCF-R and 0,03 bar (0.5 psi) for RCF-S with 30 centistoke viscosity oil (see page 471 for more detail). The actual flow rate will vary if the oil is of different viscosity. See also page 473 for "Pressure Drop Flow Graphs", page 475 for "Warnings and Filter Selection Guidelines", and page 477 for "Effect of Temperature and Viscosity on Flow Rate and Pressure Drop".

RCF COMBINATION FILTERS - TECHNICAL SPECIFICATIONS

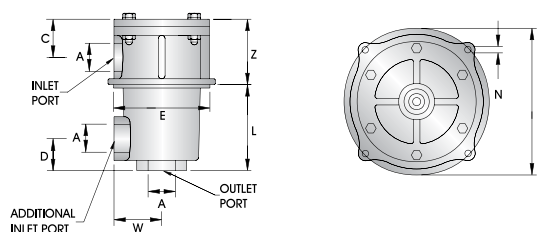
MOUNTING INSTRUCTIONS

RYCO RCF Series Filters can be mounted in the top of the reservoir. A circular hole is cut in the reservoir. Mounting bolt holes are drilled (and tapped if preferred) and the Filter Housing is bolted in place.

RCF Filters can be mounted inline directly between rigid pipes, provided that the pipes are anchored to ensure that no undue stress is placed on the Filter housing, and the Housing is supported.

See page 482 for instructions on changing Filter Elements.

DIMENSIONS



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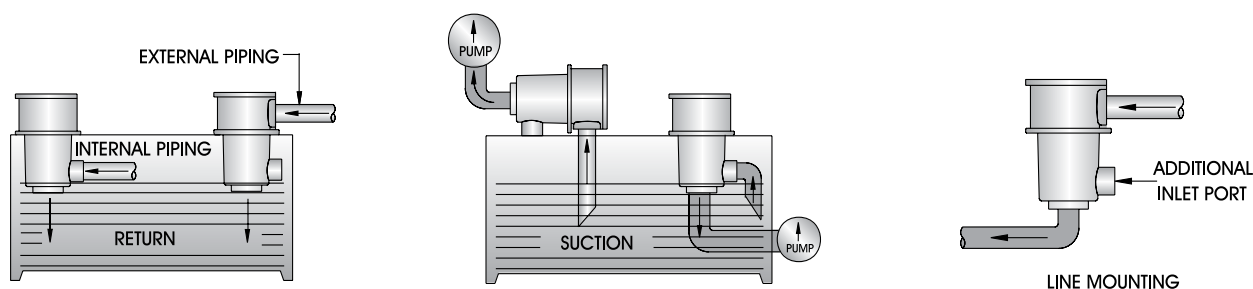
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RYCO FILTER SERIES	PORT	INTO TANK HEIGHT	PORT HEIGHT	WIDTH PORT TO CENTRE	PORT CENTRE TO TOP	HEAD TOP TO GASKET	MOUNTING DIMENSIONS				WEIGHT ELEMENT	WEIGHT TOTAL
							FLANGE DIA	APERTURE DIA	HOLE CIRCLE	HOLE DIA		
PART NO	A inch	L mm	D mm	W mm	C mm	Z mm	E mm	mm	X mm	N mm	kg	kg
RCF-04	1/2 BSPP	73	26	51	34	53	82	84	95	6,6 x 4 OFF	0,10	0,82
RCF-06	3/4 BSPP	99	26	57	44	78	121	123	138	6,6 x 4 OFF	0,16	2,06
RCF-08	1 BSPP	143	52	73	65	105	135	137	152	6,6 x 4 OFF	0,22	3,60
RCF-12	1.1/2 BSPP	212	73	88	72	126	161	163	180	8,2 x 4 OFF	0,49	6,40
RCF-20	2.1/2 CD61	222	87	120	93	168	234	237	275	10,2 x 4 OFF	0,92	14,40



RCF COMBINATION FILTERS

COMPLETE FILTER	PORT BSPP	NOMINAL FLOW	MAXIMUM WORKING PRESSURE/VACUUM	NOMINAL FILTRATION	REPLACEMENT FILTER ELEMENT		
SERIES	PART NO	inch	lpm	bar	psi	micron	PART NO
Return Filter 1,0 bar Bypass	RCF-RP0410	1/2 BSPP	10	20 bar	290 psi	10	RCF-E0410
	RCF-RP0425	1/2 BSPP	20	20 bar	290 psi	25	RCF-E0425
	RCF-RP0610	3/4 BSPP	25	20 bar	290 psi	10	RCF-E0610
	RCF-RP0625	3/4 BSPP	45	20 bar	290 psi	25	RCF-E0625
	RCF-RP0810	1 BSPP	45	20 bar	290 psi	10	RCF-E0810
	RCF-RP0825	1 BSPP	80	20 bar	290 psi	25	RCF-E0825
	RCF-RP1210	1.1/2 BSPP	100	20 bar	290 psi	10	RCF-E1210
	RCF-RP1225	1.1/2 BSPP	120	20 bar	290 psi	25	RCF-E1225
	RCF-RC2010	2.1/2 CD61	400	20 bar	290 psi	10	RCF-E2010
	RCF-RC2025	2.1/2 CD61	540	20 bar	290 psi	25	RCF-E2025
Suction Filter 0,2 bar Bypass	RCF-SP06149	3/4 BSPP	15	635 mmHg	25 inHg	149	RCF-E06149
	RCF-SP08149	1 BSPP	30	635 mmHg	25 inHg	149	RCF-E08149
	RCF-SP12149	1.1/2 BSPP	60	635 mmHg	25 inHg	149	RCF-E12149
	RCF-SC20149	2.1/2 CD61	100	635 mmHg	25 inHg	149	RCF-E20149

FILTERS

RIF15 INLINE SPIN-ON WATER TRAP FILTER

RIF15 INLINE SPIN-ON WATER TRAP FILTER



RECOMMENDED FOR:

RYCO RIF15 Filters are designed for installation on petrol, kerosene, and diesel fuel storage tanks, with gravity feed or pressure to 7 bar (100 psi), to remove solid particles and water from the fuel. Contact RYCO Hydraulics Technical Department for suitability with Ethanol Blend Fuels.

NOT SUITABLE FOR AVIATION APPLICATIONS.

FEATURES:

- Disposable Spin-On Canister.
- Changing of Filter Element is quick and simple.
- Extremely fine Filter, silicone treated to resist water; removes dirt, rust, grit and water.
- Cartridge has tap at bottom to enable trapped water to be manually drained off at regular intervals.
- Cast Aluminium Head with tapped mounting holes.
- Easy to install.
- 1" BSPT threaded Ports.
- Inlet and Outlet Ports are clearly identified by a flow direction arrow.
- Bypass Valve is not fitted to RIF15 Filters.
- Flow of fluid through the Filter will slow as the Canister traps contaminants. Before the flow becomes too slow, the Canister should be drained of trapped water via the tap (turn off flow to the filter before draining). Slow flow of fuel after draining the trapped water indicates that the Canister has become blocked by contaminants and must be replaced. Spin-On Canister must be replaced at maximum intervals of twelve months, or earlier if it has become blocked.

TECHNICAL DATA

FILTER HEAD: Cast Aluminium.

SPIN-ON CANISTER HOUSING: Painted steel casing. Pressed steel top plate.

GASKET: Nitrile (Buna N) rubber; resistant to petrol, kerosene and diesel fuel.

FILTRATION MEDIA: Cellulose, phenolic resin impregnated, and silicone treated for water resistance; extensively pleated to maximise surface area available to trap contaminants, and maximise dirt holding capacity.

FILTRATION RATING: 15 Micron Nominal.

MAXIMUM WORKING PRESSURE: 7 bar (100 psi). Not suitable for Suction Line applications.

OPERATING TEMPERATURE: 80°C (176°F) maximum continuous working temperature.

FLUID COMPATIBILITY:

Petrol, kerosene and diesel fuels. Contact RYCO Hydraulics Technical Department for suitability with Ethanol Blend Fuels.

NOMINAL FLOW RATES: At ambient temperature of 20°C (68°F), petrol and kerosene have viscosity of less than 1 centistoke; and diesel fuel has viscosity of less than 4 centistokes. Due to these low viscosities, nominal flow rate is not significantly affected by temperature except at large variance to 20°C (68°F). See page 475 for "Warnings and Filter Selection Guidelines".

RIF15 INLINE SPIN-ON WATER TRAP FILTER - TECHNICAL SPECIFICATIONS

MOUNTING INSTRUCTIONS	DIMENSIONS (mm)
<p>RYCO RIF15 Series Filter Heads can be mounted to equipment by means of two tapped mounting holes in head.</p> <p>Filter Heads can be mounted directly between rigid pipes, provided that the pipes are anchored to ensure that no undue stress is placed on the Filter Head casting.</p> <p>Allow 15 mm clearance below Spin-On Canister to allow Canister to be changed.</p> <p>Instructions for changing Canister are shown on page 482.</p>	

DIMENSIONS									
CANISTER DIA	OVERALL HEIGHT	CANISTER HEIGHT	WIDTH ACROSS PORTS	PORT THREAD BSPT	MOUNTING HOLE CENTRES	MOUNTING HOLE THREADS	WEIGHT HEAD	WEIGHT CANISTER	WEIGHT TOTAL
D mm	H mm	l mm	W mm	A inch	X mm	BSW	kg	kg	kg
94	220	160	116	1	63,5	3/8 - 16	0,47	0,52	0,99

RIF-15 INLINE SPIN-ON WATER TRAP FILTER						
COMPLETE FILTER	PORT BSPP	NOMINAL FLOW	MAXIMUM WORKING PRESSURE		NOMINAL FILTRATION	REPLACEMENT SPIN-ON CANISTER
PART NO	inch	lpm	bar	psi	micron	PART NO
RIF15	1	60	7	100	15	R15

RG & REI COMBINATION FILTERS



From left to right: RGR, RGS02, RGS, REI with rubber weather cover removed.

RECOMMENDED FOR:

RYCO Clogging Indicators are designed for use with **RYCO RIF-10, RIF-12, RIF-06, RHF, RTI, RFI** and **RCF** Series Filters. They indicate the flow restriction across the Filter and allow quick visual inspection of the need to change the Filter Element, before it becomes clogged and the Bypass Valve opens, to avoid the risk of Element damage or collapse.

Without a Clogging Indicator, it is not possible to visually determine if the Bypass Valve is open or closed. If the Bypass Valve is open, the flow of oil bypasses the Filter Element. The oil is not being filtered, and the hydraulic system is not being protected by the Filter.

SPECIFICATIONS: GAUGES

PART NO RGR-40 RETURN LINE GAUGE

Mounted in a Gauge Port on the Inlet Port of Return Line In-line Filter Heads¹, or the Top Cover Plate of **RTI/RFI** Tank Top and **RCF-R** Combination Filters, to indicate the flow restriction.

When the needle is in the GREEN zone, the flow restriction is less than 1,0 bar (14.5 psi) and the Bypass Valve is closed. All flow is filtered through the Element.

When the needle is in the RED zone, the Bypass Valve is open and the flow is not filtered.

Filter Elements require replacing before the needle enters the RED zone.

PART NO RGS-40 SUCTION LINE GAUGE

Mounted in a Gauge Port on the Outlet Port of Suction Line In-line Filter Heads¹ and the Top Cover Plate of **RCF-S** Combination Filters, to indicate the flow restriction.

The Gauge shows negative pressure readings. When the needle indicates -0,2 bar (-5.9 inHg) or beyond, the Bypass Valve is open and the flow is not being filtered.

Filter Elements require replacing before the needle reaches -0,2 bar (-5.9 inHg).

PART NO RGS02-50 - STAINLESS STEEL, GLYCERINE FILLED, 50MM SUCTION LINE GAUGE

Mounted in a Gauge Port on the Outlet Port of Suction Line In-line Filter Heads^{1,2} and the Top Cover Plate of **RCF-S** Combination Filters, to indicate the flow restriction.

The Gauge shows negative pressure readings. When the needle indicates -0,2 bar (-5.9 inHg) or beyond, the Bypass Valve is open and the flow is not being filtered.

Filter Elements require replacing before the needle reaches -0,2 bar (-5.9 inHg).

SPECIFICATIONS: ELECTRICAL INDICATORS

PART NO REIR RETURN LINE ELECTRICAL INDICATOR

REIR Electrical Indicators are mounted in a Gauge Port on the Inlet Port of Return Line In-line Filter Heads¹ and the Top Cover Plate of **RTI/RFI** Tank Top Filters and **RCF-R** Combination Filters. They are designed to operate a warning buzzer or light when the flow restriction reaches 1,0 bar (14.5 psi), or other preset value.

PART NO REIS SUCTION LINE ELECTRICAL INDICATOR

REIS Electrical Indicators are mounted in a Gauge Port on the Outlet Port of Suction Line In-line Filter Heads¹ and the Top Cover Plate of **RCF-S** Combination Filters. They are designed to operate a warning buzzer or light when the flow restriction reaches -0,2 bar (-5.9 inHg), or other preset value.

TECHNICAL DATA

ELECTRICAL MICRO SWITCH:

Maximum 3A-250V AC.

OPERATING TEMPERATURE:

85°C (185°F) maximum continuous working temperature.

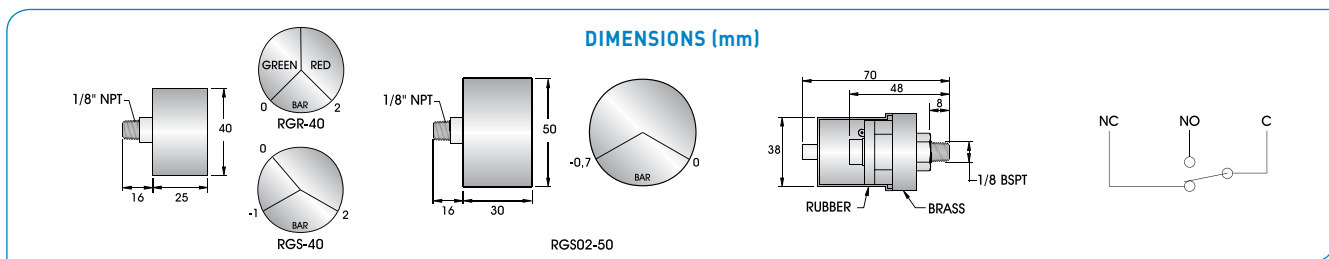
TEST PRESSURE:

10 bar/150 psi.

MAXIMUM WORKING PRESSURE RANGE:

REIR can be adjusted via screw to trigger at pressures from 0,5 to 2,0 bar (7.3 to 29 psi).

REIS can be adjusted via screw to trigger at pressures from -0,15 to -0,4 bar (-2.2 to -5.8 psi).



NOTE:

- 1) Not suitable for use with **RIF14-1, RIF-FA** Series, **RIF15**.
- 2) Requires the use of **S72N-0202** with **RIF-SH10** filter head.

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FILTERS

RLG & RLGT LEVEL AND TEMPERATURE GAUGES

RLG & RLGT LEVEL AND TEMPERATURE GAUGES



RECOMMENDED FOR:

RYCO RLG & RLGT Series Level Gauges are designed for installation on the outside of the oil reservoir. **RLG Series** are Level Gauge, **RLGT Series** are Level Gauge with Thermometer to reading 80°C and 180°F.

Suitable for use on non-pressurised tanks only.

NOTE: Due to aluminium shroud that has potential to spark if struck by steel, RLG and RLGT are not suitable for use in underground coal mines.

FEATURES:

- Three sizes:
76, 127 and 254 mm bolt centres.
(3 inch, 5 inch and 10 inch).
- Aluminium shroud protects the sight glass.
- O Ring type construction.

TECHNICAL DATA

SIGHT GLASS: Shatter resistant clear polycarbonate.

SHROUD:

RLG03, RLGT03, RLG05 & RLGT05: Diecast aluminium.
RLG10 & RLGT10: Anodised aluminium

SEALS: Nitrile (Buna N) O Rings and flat washers.

THERMOMETER: (RLGT Series only) dual scale to 80°C and 180°F. Alcohol filled bulb type.

OPERATING TEMPERATURE: 80°C (176°F) maximum continuous working temperature.

FLUID COMPATIBILITY: Mineral/petroleum based hydraulic oils.

RECOMMENDED BOLT TORQUE: 3 N.m (2 ft.lbf)

RLG & RLGT LEVEL AND TEMPERATURE GAUGES - TECHNICAL SPECIFICATIONS

MOUNTING INSTRUCTIONS	DIMENSIONS (mm)
<p>RYCO RLG and RLGT Series Level Gauges are supplied with M12 bolts and nuts.</p> <p>They can be bolted through the tank wall using the nuts supplied, or can be mounted on holes tapped in the reservoir wall. If the reservoir wall is not thick enough to allow tapping, the nuts can be welded in position on the inside wall of the reservoir.</p> <p>If bolting through the wall, bolt clearance holes of 13 mm (0.51") diameter should be drilled. Maximum thickness of wall 8 mm (0.31").</p> <p>If tapping, threaded holes must be square to mounting face. Tolerance on bolt hole centres: +0,5 mm, -0,2 mm (+0.02", -0.01").</p>	

RLG & RLGT LEVEL AND TEMPERATURE GAUGES						
RLG SERIES	RLGT SERIES	BOLT CENTRE	BOLT CENTRE	LENGTH OVERALL	LENGTH SIGHT GAUGE	WEIGHT
PART NO	PART NO	A mm	A inch	F mm	B mm	kg
RLG-03	RLGT-03	76	3	111	34	0,17
RLG-05	RLGT-05	127	5	162	89	0,19
RLG-10	RLGT-10	254	10	289	203	0,40

RSCN SUCTION STRAINERS



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RECOMMENDED FOR:

RYCO RSCN Series Suction Strainers are designed to be installed on the Suction Line, inside the oil reservoir, below the level of oil; to protect the pump from large particle contamination.

FEATURES:

- Sturdy, all metal construction, continuous epoxy bonded.
- Filtration 149 Micron (100 Mesh Size).
- Stainless steel mesh can be cleaned.
- BSPP threads.
- No Bypass Valve. Flow to pump will stop if Strainer becomes clogged

TECHNICAL DATA

FILTRATION MEDIA: Stainless Steel woven mesh, extensively pleated to maximise surface area thus maximising dirt holding capacity.

FILTRATION RATING: 149 Micron Absolute.

THREADED CAP: Aluminium.

END CAP: Plated steel.

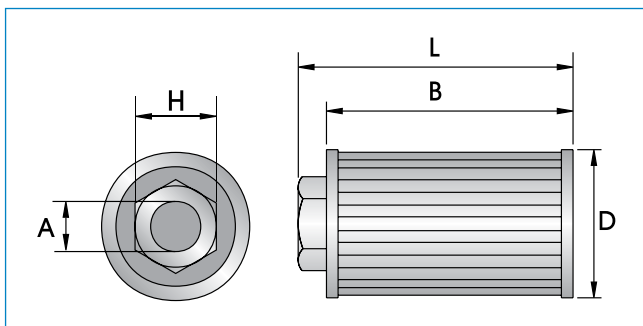
CENTRE TUBE: Plated steel.

OPERATING TEMPERATURE: 80°C (176°F) maximum continuous working temperature.

FLUID COMPATIBILITY: Mineral/petroleum based hydraulic oils, may also be used with lubricants and coolants.

NOMINAL FLOW RATES: Nominal flow rates shown below are for 30 centistoke viscosity oil, and include a factor to allow for normal viscosity changes due to temperature changes, and for normal flow restriction due to clogging between service intervals. Normal selection is to match nominal flow rate of strainer with pump flow rate. However, if regular very cold starts at below 0°C (32°F) are expected, or if extended service intervals are required, or if oil of more than 30 centistoke viscosity at normal system operating temperature is used; a larger size RSCN Suction Strainer should be specified. See page 477 for "Effect of Temperature and Viscosity on Flow Rate and Pressure Drop".

DIMENSIONS



RSCN SUCTION STRAINERS - TECHNICAL SPECIFICATIONS

MOUNTING INSTRUCTIONS

RYCO RSCN Series Suction Strainers are installed inside the oil reservoir, below the level of the oil. They should be installed at the opposite end of the reservoir to the oil return line, to allow the oil to cool, settle and de-aerate as much as possible before it returns to the pump.

RSCN SUCTION STRAINERS

PART NUMBER	NOMINAL FLOW	PORT BSPP	LENGTH	OVERALL LENGTH	DIAMETER	HEX	SCREEN AREA	WEIGHT
PART NO	LPM	A inch	B mm	L mm	D mm	H mm	sq. cm	kg
RSCN-01202	12	1/4	78	90	46	23,50	187	0,10
RSCN-01203	12	3/8	78	90	46	23,55	187	0,10
RSCN-02004	20	1/2	93	105	46	29,57	226	0,10
RSCN-02806	28	3/4	97	109	64	36,10	406	0,20
RSCN-04008	40	1	127	139	64	45,55	542	0,20
RSCN-06010	60	1.1/4	127	139	86	51,40	929	0,30
RSCN-08012	80	1.1/2	154	168	86	59,45	1161	0,35
RSCN-12012	120	1.1/2	188	200	86	59,50	1393	0,40
RSCN-16016	160	2	223	235	100	69,65	1806	0,55
RSCN-20016	200	2	248	260	100	68,00	2032	0,60
RSCN-30020	300	2.1/2	196	211	150	89,92	2787	0,85
RSCN-40024	400	3	257	272	150	99,60	3677	1,00
RSCN-60024	600	3	330	345	150	99,70	4838	1,25

FILTERS

RD DIFFUSERS

RD DIFFUSERS



RECOMMENDED FOR:

RYCO RD Series Diffusers are designed to be installed on the return line, inside the oil reservoir, below the level of the oil. They minimise turbulence and foaming of the oil and help to reduce reservoir noise. They can minimise the risk of cavitation caused by flow disturbance at the pump inlet. The discharge velocity is reduced in two stages; as the oil passes through the holes in the inner baffle tube, and then the holes in the outer baffle tube located 180° opposite the inner baffle tube holes.

FEATURES:

- Sturdy, all metal construction, continuous epoxy bonded.
- BSPP threads.

TECHNICAL DATA

THREADED CAP: Diecast aluminium.

END CAP: Plated steel.

BAFFLE TUBES: Plated steel.

OPERATING TEMPERATURE: 85°C (185°F) maximum continuous working temperature.

FLUID COMPATIBILITY: Mineral/petroleum based hydraulic oils, may also be used with lubricants and coolants.

NOMINAL FLOW RATES: Flow rates shown below are for 30 centistoke viscosity oil. If oil of other than 30 centistoke viscosity is used, flow rates will vary. See page 477 for "Effect of Temperature and Viscosity on Flow Rate and Pressure Drop".

PRESSURE DROP: At Flow rates shown below, for 30 centistoke viscosity oil is 0,03 to 0,04 bar (0.44 to 0.58 psi).

RD DIFFUSERS - TECHNICAL SPECIFICATIONS

MOUNTING INSTRUCTIONS	DIMENSIONS
<p>RYCO RD Series Diffusers are installed inside the oil reservoir, below the level of the oil and preferably in the lower third of the reservoir. They should be installed at the opposite end of the reservoir to the oil suction line, to allow the oil to cool, settle and de-aerate as much as possible before it returns to the pump.</p> <p>The holes in the outer baffle tube must discharge downwards; or if installed vertically, the discharge holes must face the opposite direction to the suction line.</p>	

RD DIFFUSERS						
PART NUMBER	PORT BSPP	NOMINAL FLOW	LENGTH	OVERALL LENGTH	DIAMETER	WEIGHT
PART NO	A inch	LPM	B mm	L mm	D mm	kg
RD-06	3/4	50	105	120	64	0,34
RD-08	1	100	110	125	86	0,38
RD-12	1.1/2	200	160	175	86	0,50
RD-16	2	400	185	200	100	0,70

R60 & R300 AIR BREATHER FILTERS



From left to right: R350-02, R350-06, R355-06, R60, R362, R356/R358

RECOMMENDED FOR:

RYCO R60 Series Air Breathers and R300 Series Air Breather Filters are designed for installation on the oil reservoir, to filter contaminants from the air as it leaves and enters the reservoir due to changes in oil level as the system operates.

FEATURES:

- Sturdy, metal construction.
- Nominal air filtration ratings of 10, 27, 40 and 149 Micron depending on model. 10 and 27 Micron elements are cellulose, 40 and 149 Micron elements are foam plastic.
- BSP threads, except R67 which is UNO.

TECHNICAL DATA

Five Series, two with replaceable elements.

1. R350 Standard Air Breather.
2. R355 Pressurised Air Breather, complete with 0,34 bar (5 psi) relief valve. Pressurised reservoirs can reduce the risk of oil contamination and can assist feed of oil to suction side of pump.
3. R60 Domed Air Breather.
4. R362 Standard Pleated Element Air Breather.
5. R356 & R358 High Volume Pleated Element Air Breather.

R60 AND R300 AIR BREATHER FILTERS - TECHNICAL SPECIFICATIONS

MOUNTING INSTRUCTIONS	DIMENSIONS
<p>RYCO Air Breathers are installed on the top of the oil reservoir. BSPP threaded should be installed with RL21 Bonded Seal.</p> <p>BSPT threaded should be installed with thread tape or thread sealant.</p>	

R60 & R300 AIR BREATHER FILTERS									
PART NUMBER	THREAD	NOMINAL FILTRATION	DIS-PLACEMENT	DIAMETER	OVERALL HEIGHT	CLEARANCE	A/F HEX	WEIGHT	REPLACE. ELEMENT
PART NO	A inch	micron	LPM	D mm	B mm	C mm	mm	kg	PART NO
R350-0210	1/4 BSPP	10	90	46	63	8	25	0,11	
R350-0240	1/4 BSPP	40	150	46	63	8	25	0,11	
R350-0610	3/4 BSPP	10	400	77	75	10	30	0,25	
R350-0640	3/4 BSPP	40	720	77	75	10	30	0,25	
R355-0240	1/4 BSPP	40	150	46	63	8	25	0,13	
R355-0610	3/4 BSPP	10	400	77	75	10	30	0,25	
R355-0640	3/4 BSPP	40	720	77	75	10	30	0,25	
R64	1/4 BSPT	149	150	63	56	12	17,6	0,10	
R62	3/8 BSPT	149	150	63	56	11	17,6	0,10	
R61	1/2 BSPT	149	150	63	62	13	22,3	0,13	
R60	3/4 BSPT	149	150	63	62	17	27	0,16	
R67	3/4 UNO	149	150	63	53	13	22,3	0,12	
R362-12	3/4 BSPT	27	1000	96	95	13	35	0,30	A245-CART
R362-16	1 BSPT	27	1000	96	100	14	35	0,33	A245-CART
R356-12	3/4 BSPT	27	1500	137	150	13	35	0,63	A5-CART
R356-16	1 BSPT	27	1500	137	155	14	35	0,64	A5-CART
R356-20	1.1/4 BSPT	27	1500	137	155	14	44,5	0,72	A5-CART
R356-24	1.1/2 BSPT	27	1500	137	160	14	50,8	0,77	A5-CART
R356-32	2 BSPT	27	1500	137	160	17	63,5	0,83	A5-CART
R358-40	2.1/2 BSPP	10	4000	185	190	15	80	1,30	E358-40

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R381 PUSH-ON FILLER CAP/AIR BREATHER

R381 PUSH-ON FILLER CAP/AIR BREATHER



RECOMMENDED FOR:

RYCO R381-40 Push-On Filler Cap/Air Breathers are designed for installation on 1.1/2" Outside Diameter (38,1 mm) steel tubing, on the top of unpressurised oil reservoirs.

The internal spring steel clip grips the inside of the steel tubing, and allows quick access to the reservoir for adding oil. The Breather filters air as it enters and leaves the reservoir.

FEATURES:

- Sturdy, all metal construction.
- Spring steel clip.
- Nominal air filtration rating of 40 micron.
- Positive stop, when tubing end meets raised locating flange inside body of R381-40, ensures correct installation.

TECHNICAL DATA

CAP: Chrome plated steel.

CLIP: Spring steel.

AIR FILTRATION MEDIA: 40 micron nominal foam plastic.

SUITABLE STEEL TUBING SIZE: 1.1/2" OD x maximum 10 Gauge (0.128") wall thickness (38,1 mm OD x 31,6 mm minimum ID).

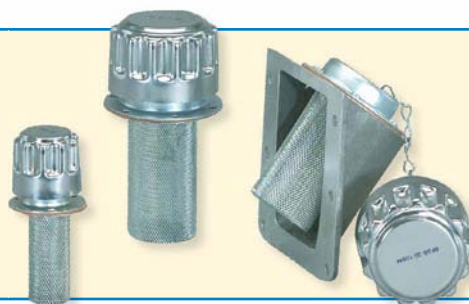
NOTE: Do not use with smaller Outside Diameter tubing. Smaller tubing may enter past the raised locating flange inside the R381-40, reducing the air flow through the breather, and may cause damage to the spring steel clip. Do not use with 1.1/2" Outside Diameter steel tubing of more than 10 Gauge (0.128") wall thickness, this may cause damage to the spring steel clip.

R381 PUSH-ON FILLER CAP/AIR BREATHER - TECHNICAL SPECIFICATIONS

MOUNTING INSTRUCTIONS	DIMENSIONS
<p>Weld steel tubing to reservoir. Minimum length of tubing is 33 mm (1.3") to allow 10 mm (0.4") Minimum Recommended Clearance for air to enter underneath.</p> <p>Push R381-40 onto the tubing, ensuring that both ends of the spring steel clip are inside the tubing, until the internal raised flange locates against the end of the tubing.</p>	

R381 PUSH-ON FILLER CAP/AIR BREATHER						
PART NUMBER	DIAMETER OF CAP	OVERALL HEIGHT	TUBING SOCKET DEPTH	MIN REC. CLEARANCE	MIN INSTALLED HEIGHT	WEIGHT
PART NO	D mm	B mm	L mm	C mm	H mm	kg
R381-40	78	52	17	10	62	0,25

RFSB FILLER CAP/STRAINER/ AIR BREATHERS



From left to right: RFSB-05, RFSB-25, RFSB-25BM

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RECOMMENDED FOR:

RYCO RFSB Series Filler Cap/Strainer/Air Breathers are designed for installation on unpressurised oil reservoirs.

RYCO RFSB-P Series are available for pressurised tanks, complete with 0,34 bar (5 psi) relief valve. Pressurised reservoirs can reduce the risk of oil contamination and can assist feed of oil to suction side of pump.

Filler Cap/Strainer/Air Breathers perform three functions:

1. The Filler Cap, with its quarter turn to release bayonet attachment, allows quick access to add oil to the reservoir.
2. The mesh Strainer basket prevents large particles from entering the reservoir.
3. The Breather filters air as it leaves and enters the reservoir, to compensate for changes in oil level as the system operates.

FEATURES:

- Sturdy, all metal construction.
- Nominal air filtration ratings of 10 and 40 Micron depending on model.
- Two mounting styles:

FEATURES (CONT):

1. Round flange/screws for mounting on top of reservoir
 2. Square flange/bolts & nuts for mounting on side of reservoir.
- Gasket and mounting hardware supplied.
 - Security Chain on Filler Cap. (RFSB-25)
 - Strainer basket can be removed for cleaning by removing the mounting screws.

TECHNICAL DATA

CAP: Chrome plated steel.

BASKET: Plated Steel woven mesh.

FLANGE/BAYONET MOUNT: Plated steel.

AIR FILTRATION MEDIA: 40 Micron: foam plastic.
10 Micron: cellulose, resin impregnated.

GASKET: Cork.

SCREWS: Plated steel.

NUTS AND BOLTS: Black steel.

SECURITY CHAIN: Plated steel.

RFSB FILLER CAP/STRAINER/AIR BREATHERS - TECHNICAL SPECIFICATIONS

MOUNTING INSTRUCTIONS

RYCO RFSB-05 and **RFSB-25** Series Filler Cap/Strainer/Air Breathers are installed on the top of the oil reservoir.

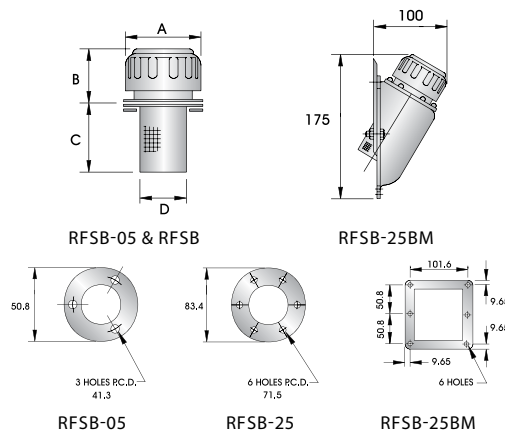
RFSB-05 SERIES: Cut hole of 29 mm (1.142") diameter. Drill mounting holes 3 off 3,8 mm (0.15") diameter on 41,3 mm (1.626") P.C.D.

RFSB-25 SERIES: Cut hole of 50 mm (1.97") diameter. Drill mounting holes 6 off 3,8 mm (0.15") diameter on 71,5 mm (2.815") P.C.D.

RYCO RFSB-25BM SERIES: are installed on the vertical side of the oil reservoir.

Cut hole 75 mm wide x 105 mm high (2.95" x 4.13"). Drill mounting holes 6 off 7,0 mm (0.28") diameter as shown in diagram.

DIMENSIONS (MM)



RFSB FILLER CAP/STRAINER/ AIR BREATHERS

PART NUMBER	MOUNTING HOLES	NOMINAL FILTRATION	DIS-PLACEMENT	DIAMETER OF CAP	INSTALLED HEIGHT	STRAINER DEPTH	STRAINER DIAMETER	WEIGHT
PART NO		micron	LPM	A mm	B mm	C mm	D mm	kg
RFSB-0510	3 x PCD 41,3	10	90	46	49	65	28	0,10
RFSB-0540	3 x PCD 41,3	40	150	46	49	65	28	0,10
RFSB-2510	6 x PCD 71,5	10	400	77	62	91	48	0,29
RFSB-2540	6 x PCD 71,5	40	720	77	62	91	48	0,29
RFSB-2510P	6 x PCD 71,5	10	400	77	62	91	48	0,33
RFSB-2540P	6 x PCD 71,5	40	720	77	62	91	48	0,33
RFSB-2510BM	6 x 101,6SQ	10	400	77	175 x 100	91	48	0,76
RFSB-2540BM	6 x 101,6SQ	40	720	77	175 x 100	91	48	0,76

FILTERS

R365 FILLER STRAINER

R365 FILLER STRAINER

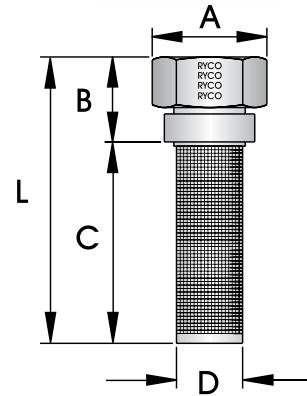


RECOMMENDED FOR:

RYCO R365 Filler Strainer is designed for installation on the top of oil reservoirs. The collar is welded to the reservoir, and the steel mesh basket locates into the collar and is secured by the cap. The basket strains large particles, and can be removed for cleaning.

FEATURES:

- Plated steel mesh basket.
- Heavy hexagon steel cap, threaded 2" BSPP.
- Synthetic rubber O Ring inside cap seals when cap is screwed on to tank collar fitting.
- Weld-on collar fitting for tank.



R365 FILLER STRAINER - TECHNICAL SPECIFICATIONS

MOUNTING INSTRUCTIONS

Cut hole of 55mm [2.16"] diameter. Insert collar into hole, and weld around collar. Then install basket and cap.

R365 FILLER STRAINER						
PART NUMBER	DIAMETER OF CAP	INSTALLED HEIGHT	STRAINER DEPTH	STRAINER DIAMETER	OVERALL HEIGHT	WEIGHT
PART NO	A mm	B mm	C mm	D mm	L mm	kg
R365	66,5 A/F	42	140	50	182	0,50

INTRODUCTION TO FILTRATION

DEFINITION OF FILTRATION

“The process by which solid particles are separated from a fluid by passing the fluid through a permeable material that will not let the solid particles through”.

THE NEED FOR FILTRATION IN HYDRAULIC SYSTEMS

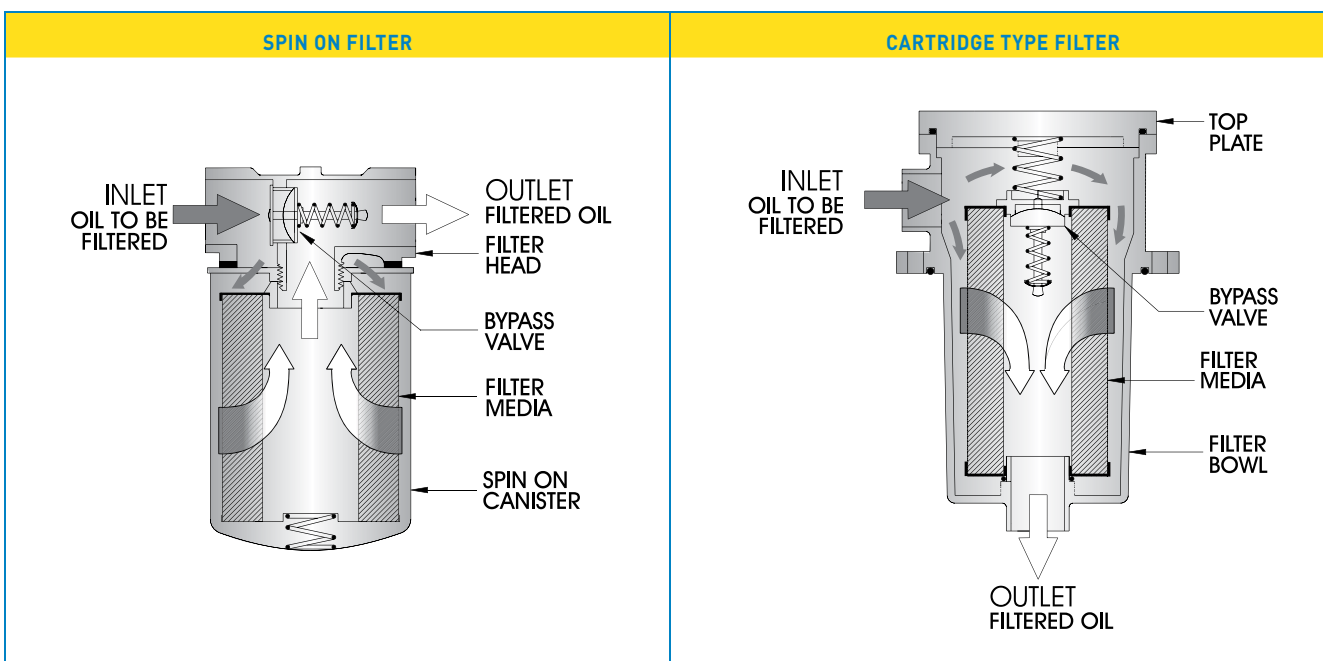
The higher pressures and faster cycle times, and more consistent performance requirements in modern hydraulic circuits, has led to many high precision components being used in pumps, motors, control valves and actuators. Contamination can increase wear on these components, or cause them to jam or malfunction. To keep circuits operating for extended periods and avoid costly down time, it is important to ensure that contamination is removed from the hydraulic fluid as efficiently as possible.

The cleaner the fluid, the longer the life system components will have, and the greater the time between breakdowns.

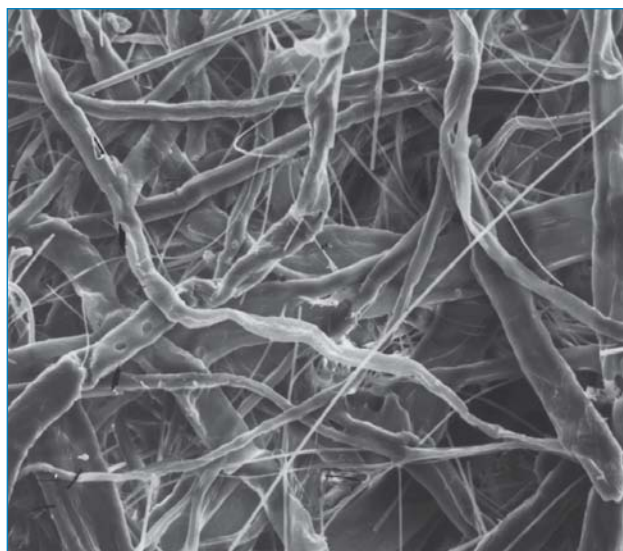
HOW FILTERS WORK

Oil containing contaminants enters via the inlet port, and flows around the outside of the filter element. As the oil passes through the filter element from the outside to the inside, particles of contaminant are trapped in the filter media. The cleaned oil flows through to the centre tube of the filter element and into the outlet port of the filter.

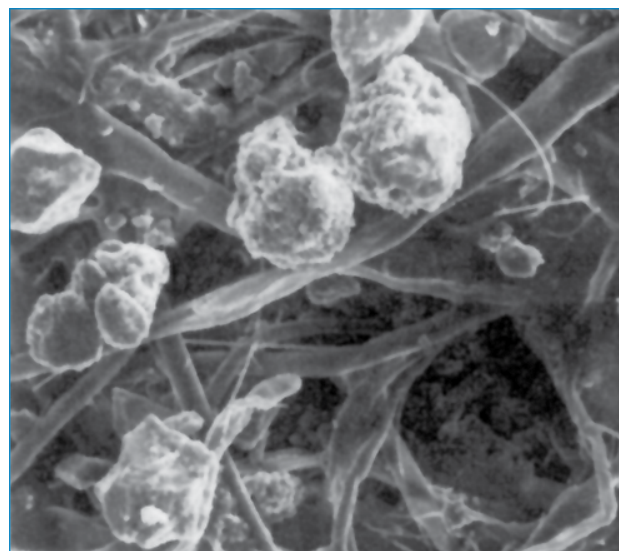
Spin-On Canisters and Cartridge type filter elements both work in the same manner.



The following electron microscope photographs show the trapping of contaminants in the layers of the filter media.



Clean 10 micron filter Filter magnified 250 times



Dirty 10 micron filter Filter magnified 250 times

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WHAT IS A MICRON?

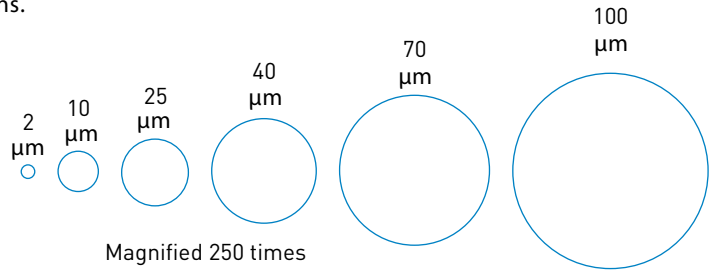
A micron (μm) is one millionth of a metre, or 0.000039 inches. As a comparison, a grain of table salt is about 100 microns, human hair is 70 microns, 40 microns is the smallest object able to be seen by unaided vision, talcum powder is 10 microns, red blood cells are 8 microns and bacteria are 1 to 2 microns.

1 micron = 1 millionth of a metre

1 micron = 1 thousandth of a millimetre

1 micron = 39 millionths of an inch

25.4 microns = 1 thousandth of an inch (.001")



PRESSURE DROP

The understanding of how pressure drop increases as the filter element traps more contaminant influences two important aspects of filter selection. The first is the selection of BYPASS VALVES, and the second is the selection of the SIZE OF FILTER.

When the filter element is clean, there is a small pressure drop as the oil finds its way through the numerous microscopic passages in the filter element.

As the filter element traps more and more contaminant, more and more of the microscopic passages become blocked, the flow rate through the remaining passages increases, thereby increasing the pressure drop across the filter element.

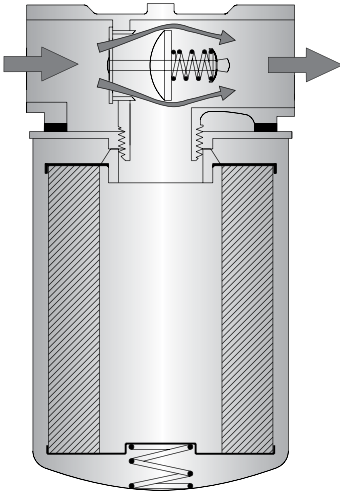
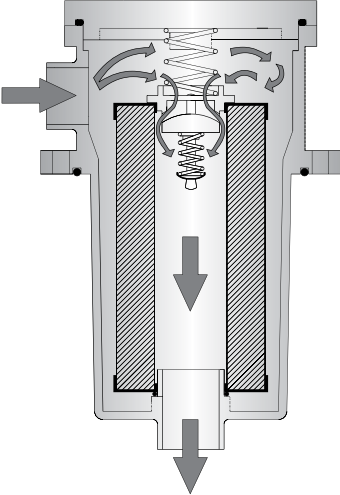
Eventually, if the filter element is not changed, all the passages will become blocked (also known as "plugged" or "clogged"), and very little oil will be able to flow through the filter element. The system may stop working due to oil starvation, or the filter may collapse or rupture.

BYPASS VALVES

In addition to the pressure drop due to contamination loading, other factors can also increase the pressure drop across the filter element. These include; increased viscosity of oil due to contamination, degradation or cold temperatures; and increased flow rates from system components, for example large cylinders retracting quickly, can easily double the normal flow rate of a system.

To keep the system operating, and guard against element collapse or rupture due to any of these factors, many filters incorporate a BYPASS VALVE. The Bypass Valve opens when the pressure drop increases past a predetermined value, to allow flow of unfiltered oil to bypass the filter element.

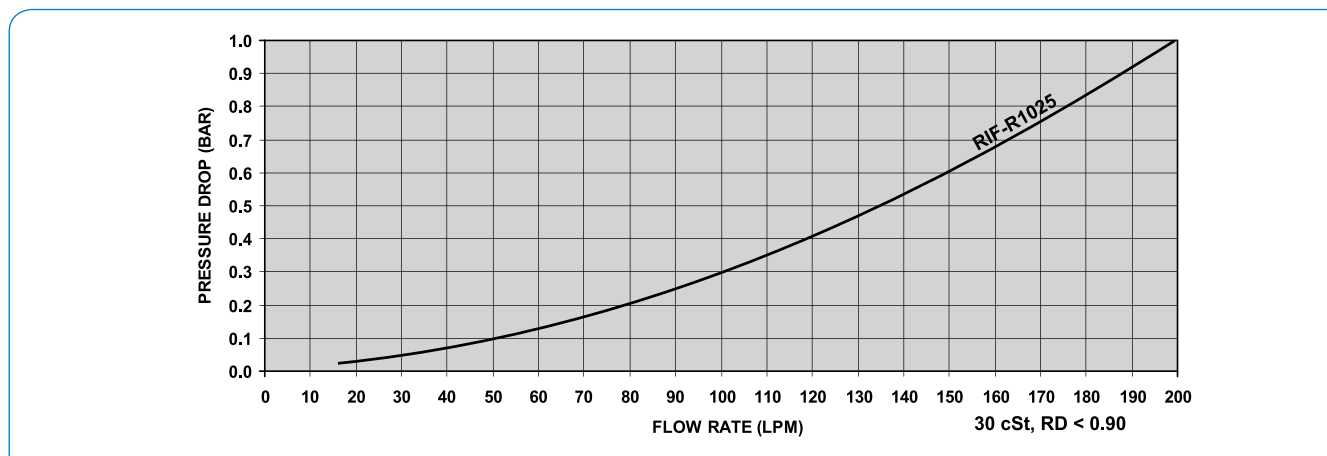
Normally, a Bypass Valve is a spring-loaded poppet set to crack open when the pressure drop reaches the predetermined value. It can be located in the filter head, or in the filter element.

SPIN ON FILTER - BYPASS VALVE OPEN	CARTRIDGE TYPE FILTER - BYPASS VALVE OPEN
	
<p>Many Return Line Filters have Bypass Valves with 0,7 or 1,0 bar (10 or 14.5 psi) cracking pressure, and many Suction Line Filters have Bypass Valves with 0,2 bar (2.9 psi) cracking pressure. Suction Line Filters require a lower Bypass Valve cracking pressure than Return Line Filters, to guard against the pump cavitation that may occur with a higher pressure drop.</p> <p>The flow rate for a filter used in a Suction Line application is lower than a similar filter in a Return Line application.</p>	

SELECTION OF THE FILTER SIZE

It is important to select an adequately sized filter; one that will not cause too great a pressure drop with the expected flow rate in a system; and one that will not become blocked quickly and require changing of the filter element too often.

For each filter listed in this Product Technical Manual, a Pressure Drop versus Flow Rate graph is published from page 473.



It can be seen that pressure drop increases with flow rate. “Nominal Flow Rates” are published as a guide to the selection of a filter, based on these graphs, are calculated as follows:

RETURN LINE FILTERS WITH BYPASS VALVE CRACKING PRESSURE OF 1,0 BAR (14.5 PSI):

(includes the following Series: **RIF-R06, RIF-R10, RIF-RV12, RIF-RP12, RIF-RC12, RIF-FA9, RIF-FA10, RHF-R, RTI-R, RFI-R, RCF-R**).

The Nominal Flow Rates specified will cause a pressure drop across a clean filter element of 0,5 bar (7.3 psi) with 30 centistoke viscosity oil.

The filter element life will depend on the amount of contaminant trapped. Nominal Flow Rate conditions give rise to a Bypass Valve Cracking Pressure to Clean Element Pressure Drop ratio of approximately 2:1. 1,0 bar (14.5 psi) pressure drop is effectively the end of the life of the filter element because at that point the Bypass Valve cracks opens and the filter stops filtering.

Filter elements must be changed prior to the pressure drop reaching Bypass Valve cracking pressure.

RETURN LINE FILTERS WITH BYPASS VALVE CRACKING PRESSURE OF 0,7 BAR (10 PSI): (INCLUDES **RIF14-1**).

The Nominal Flow Rate specified will cause a pressure drop across a clean filter element of 0,3 bar (4.4 psi) with 30 centistoke viscosity oil.

The filter element life will depend on the amount of contaminant trapped. Nominal Flow Rate conditions give rise to a Bypass Valve Cracking Pressure to Clean Element Pressure Drop ratio of approximately 2:1. 0,7 bar (10 psi) pressure drop is effectively the end of the life of the filter element because at that point the Bypass Valve cracks opens and the filter stops filtering.

SUCTION LINE FILTERS WITH BYPASS VALVE CRACKING PRESSURE OF 0,2 BAR (2.9 PSI):

(includes the following Series: **RIF-S06, RIF-S10, RIF-SV12, RIF-SP12, RIF-SC12, RHF-S, RCF-S**).

The Nominal Flow Rate specified will cause a pressure drop across a clean filter element of 0,03 bar (0.5 psi) with 30 centistoke viscosity oil. The filter element must be changed before the pressure drop increases to the Bypass Valve cracking pressure of 0,2 bar (2.9 psi) and the filter stops filtering.

FILTERS WITHOUT BYPASS VALVE:

RIF15, RIF-FA8 and RIF-FA39 filters are designed for petrol, kerosene, and diesel fuel filtration. They do not have a Bypass Valve fitted, and flow will stop when the filter element becomes clogged. Filter elements must be changed prior to becoming clogged.

FILTERS WITH BLOCKED BYPASS VALVE:

(includes the following Series: **RIF-B06, RIF-B10, RIF-BV12, RIF-BP12, RIF-BC12, RHF-B**).

Filters with Blocked Bypass are available for special hydraulic oil filtration applications. Actual flow rates for Blocked Bypass Filters are dependent on system design. Filter elements must be changed prior to becoming clogged.

WARNINGS:

- The above information is only an aid for filter selection. Other factors may affect the performance of a filter. The system designer must consider all criteria when designing a system, and ensure that these criteria are satisfied.
- Nominal Flow Rate information for each filter Series in the “Specification” tables, and then in the “Pressure Drop Flow Graphs” starting on page 473, relate to oil of 30 centistoke viscosity. The actual flow rate will vary if the oil is of a different viscosity. See page 477 for information on “Effect of Temperature and Viscosity on Flow Rate”.
- See page 475 for more information on “Warnings and for Filter Selection Guidelines”.

FILTERS

FILTRATION TECHNICAL INFORMATION

IMPROVED FILTRATION AT NO EXTRA COST

RYCO Hydraulics leads the way by providing ABSOLUTE, BETA RATED Spin-On Canisters RIF-E0610, RIF-E0625, RIF-E1010 and RIF-E1025 (as shown on pages 446 to 444). These Spin-On Canisters also comply with the following ISO Hydraulic Fluid Power Filtration Standards:

- ISO 2941 Hydraulic fluid power - Filter elements - Verification of collapse/burst resistance
- ISO 2942 Hydraulic fluid power - Filter elements - Verification of fabrication integrity and determination of the first bubble point
- ISO 2943 Hydraulic fluid power - Filter elements - Verification of material compatibility with fluids
- ISO 4572 Hydraulic fluid power - Filters - Multi-pass method for evaluating filtration performance

The table at the bottom of the page shows ISO 4572 Multi-Pass Test Results for these RYCO Spin-On Canisters.

NOMINAL FILTRATION

Many filters have a "nominal" filtration rating to indicate the size of particles the filter element will trap. For example, a filter with a nominal rating of 25 micron will trap approximately 50% of 25 micron (and larger) size particles.

BETA RATINGS (B)

With the development of improved filtration materials, the performance of filters has increased. Accordingly, new tests of filtering ability have been developed. One of these tests is the ISO 4572 Multi-pass test to determine the BETA ratio (β) of a filter. This test method counts the number of standard test particles per unit volume upstream of the filter, and compares it to the number of particles downstream after the fluid has passed through the filter.

For example, if there are 50,000 particles of size 25 micron and larger upstream and 25,000 particles downstream after passing through the filter, the BETA ratio would be 2.

$$50,000 \div 25,000 = 2$$

This is written as BETA ratio $\beta_{25}=2$.

Since the filter has removed 50% of the 50,000 particles, it has an efficiency of 50%. Therefore a filter with a BETA ratio of 2 for a certain micron size is similar to a filter with a "Nominal" rating for that micron size.

ABSOLUTE FILTRATION

A filter with a BETA ratio of 75 for a particles of size "x microns" ($\beta_x=75$) is 98.7% efficient at removing particles of x micron and larger size. This efficiency level is often considered as removing ABSOLUTELY ALL the particles.

It is generally considered that a filter with a BETA ratio of 75 or higher has an ABSOLUTE rating for that micron size. For example, if a filter has $\beta_{15}=75$ (BETA ratio for 15 micron equal to 75), it will remove 98.7% of particles 15 micron or larger, and is termed to have an ABSOLUTE rating of 15 micron.

THIS TABLE SHOWS SOME BETA RATIOS AND THE EQUIVALENT EFFICIENCY.

BETA RATIO	EFFICIENCY
1.01	1%
1.5	33.3%
2	50%
5	80%
10	90%
20	95%
75	98.7%
100	99%
200	99.5%
1000	99.9%

PART NO	MICRON RATING ABSOLUTE	MICRON RATING NOMINAL	MULTI-PASS TEST RESULTS TO ISO 4572					
			B3 BETA RATING EFFICIENCY %	B6 BETA RATING EFFICIENCY %	B10 BETA RATING EFFICIENCY %	B15 BETA RATING EFFICIENCY %	B20 BETA RATING EFFICIENCY %	B25 BETA RATING EFFICIENCY %
RIF-E0610	10	3	≥ 2 50.00%	≥ 5 80.00%	75 98.70%	>8000 99.99%	>9000 99.99%	9999.99 99.99%
RIF-E0625	20	10			≥ 2 50.00%	≥ 10 90.00%	≥ 75 98.70%	>6000 99.98%
RIF-E1010	10	3	≥ 2 50.00%	≥ 5 80.00%	75 98.70%	>6000 99.98%	>9000 99.99%	9999.99 99.99%
RIF-E1025	25	10			2 50.00%	≥ 3 66.67%	>150 93.38%	>3000 99.96%

PRESSURE DROP FLOW GRAPHS FOR FILTERS

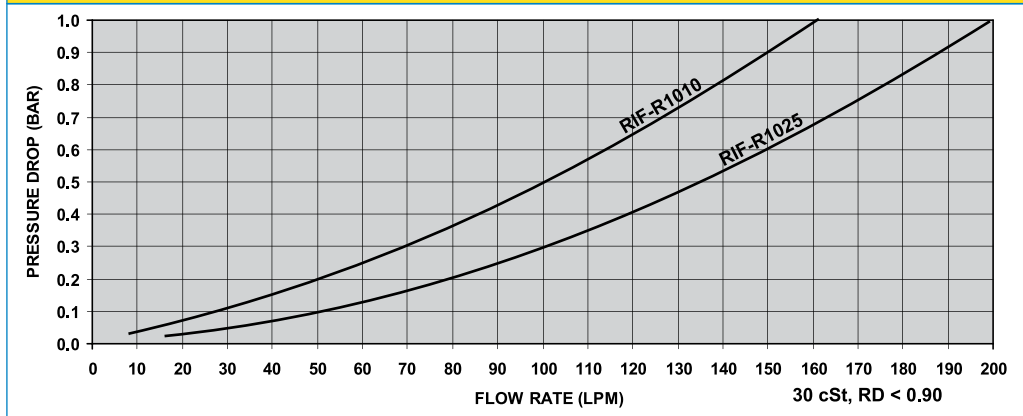
The "Pressure Drop Flow Graphs" for each Filter Series on these two pages relate to oil of 30 centistoke kinematic viscosity, and Relative Density less than 0,9 (except where otherwise noted for RIF-FA and RIF15). The actual pressure drop will vary if the oil is of a different viscosity, or different relative density.

See page 475 for information on "Warnings and Filter Selection Guidelines", page 477 for "Effect of Temperature and Viscosity on Flow Rate and Pressure Drop", and pages 470 and 471 for Bypass Valve options and "Selection of Filter Size".

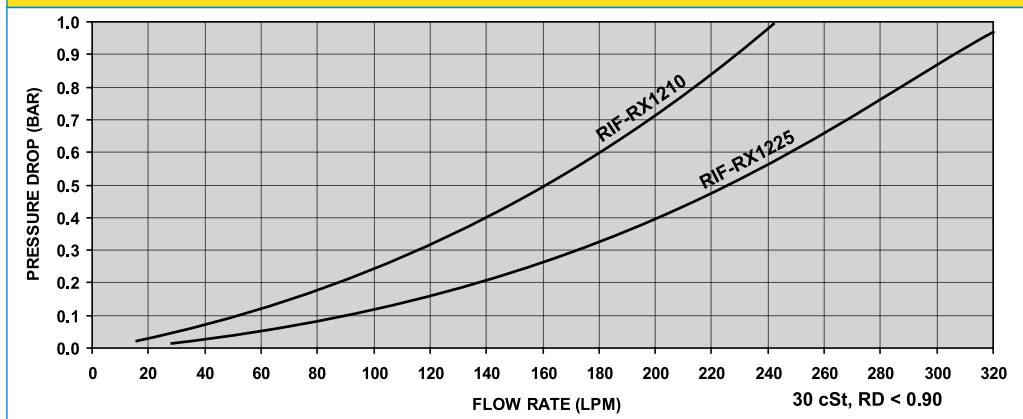
10 and 25 micron curves are labelled with the Return Line filter part number (usually R after dash in part number); the information also applies to Suction Line filters (S after dash) and Blocked Bypass Filters (B after dash) where available. 149 micron curves are labelled with the Suction Line filter part number.

This information is supplied as an aid for filter selection. Other factors may affect the performance of a filter. The system designer must consider all criteria when designing a system, and ensure that these criteria are satisfied.

RIF-10 SERIES 1.1/4" FILTERS

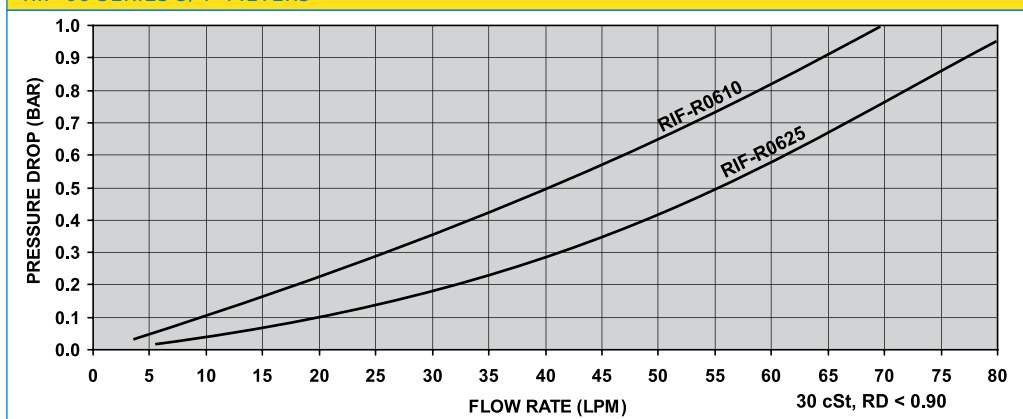


RIF-12 SERIES 1.1/2" FILTERS



Replace **X** in Part No with **V, P or C**.

RIF-06 SERIES 3/4" FILTERS



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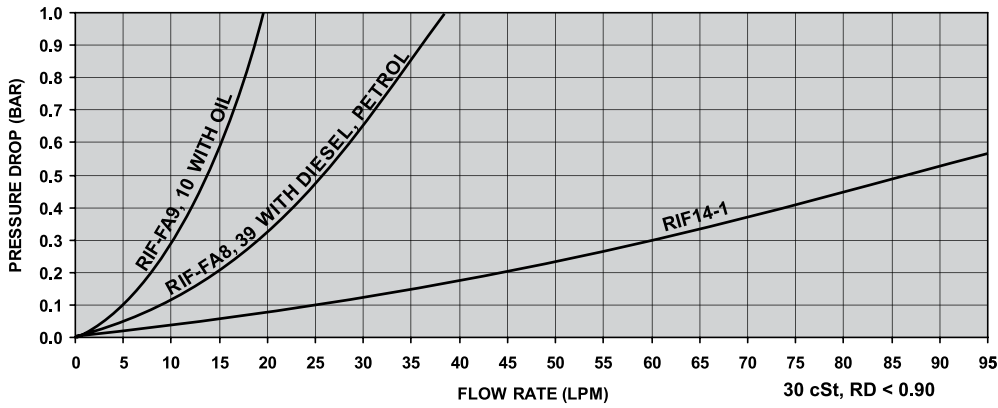
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FILTRATION TECHNICAL INFORMATION

RIF14-1, RIF-FA SERIES, RIF15



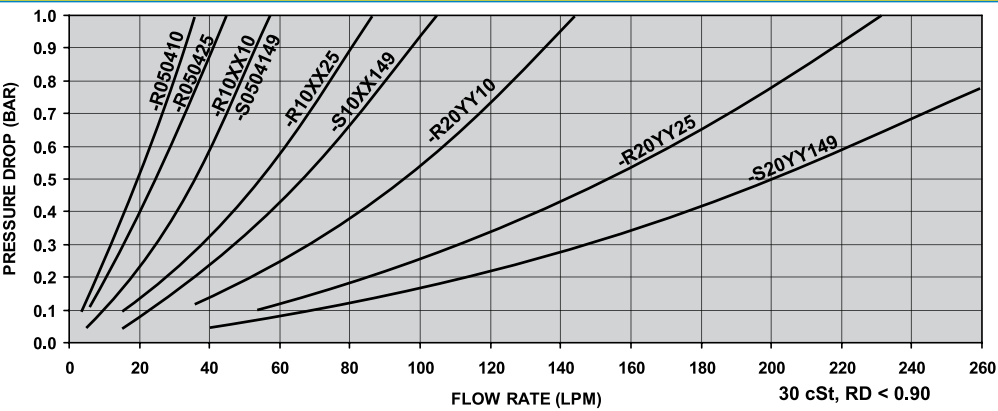
RIF14-1 curve is for 30 cSt oil.

Use **RIF14-1** curve for **RIF15** with petrol and diesel fuel.

RIF-FA9, RIF-FA10, curve is for 30 cSt oil.

RIF-FA8, RIF-FA39 curve is for petrol and diesel fuel.

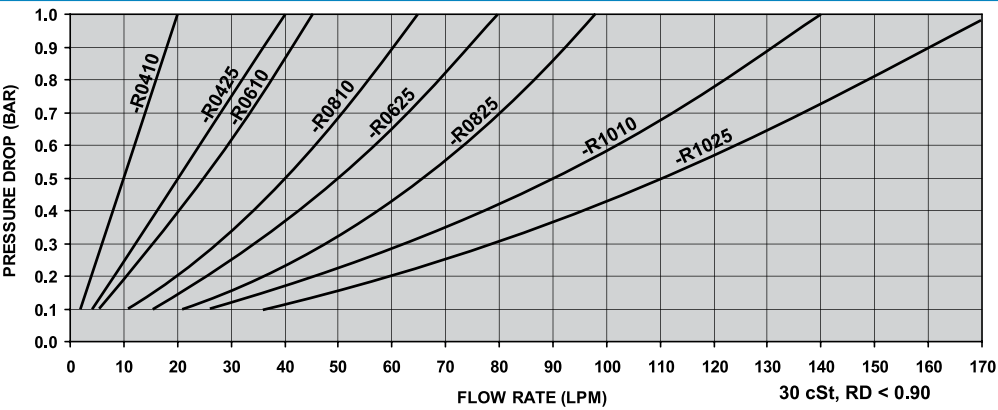
RHF SERIES HEAVY DUTY FILTERS



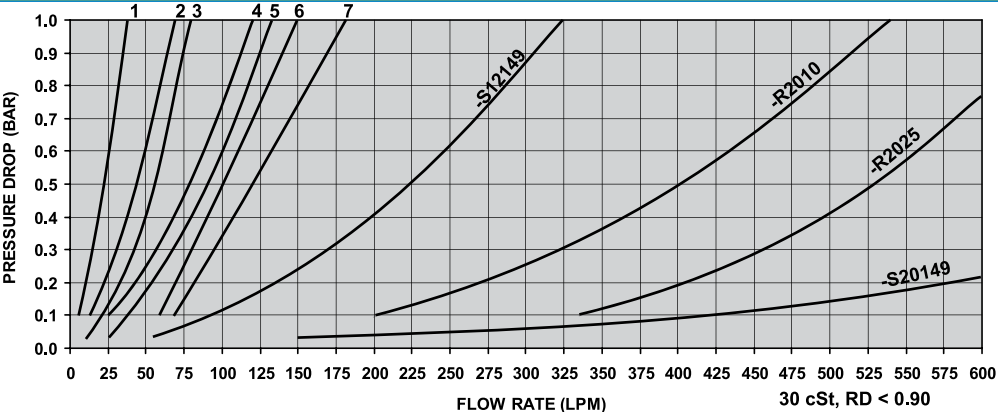
Replace **XX** in Part No with **06** (3/4") or **08** (1").

Replace **YY** in Part No with **10** (1.1/4") or **12** (1.1/2").

RTI AND RFI SERIES TANK TOP FILTERS



RCF SERIES COMBINATION FILTERS



Use **RTI-R0410** graph above for **RCF-R0410**.
 Use **RTI-R0425** graph above for **RCF-R0425**.
 Use Line 1 for **-R0610**.
 Use Line 2 for **-R0810** & **-R0625**.
 Use Line 3 for **-S06149**.
 Use Line 4 for **-R0825**.
 Use Line 5 for **-S08149**.
 Use Line 6 for **-R1210**.
 Use Line 7 for **-R1225**.

WARNINGS:

1. The information and specifications in this Product Technical Manual are only an aid for filter selection. Other factors may affect the performance of a filter. The system designer must consider all criteria when designing a system, and ensure that these criteria are satisfied.
2. Nominal Flow Rate information for each filter Series in the "Specification" tables, and in the "Pressure Drop Flow Graphs" on pages 477 and 478, relate to oil of 30 centistoke viscosity and less than 0,9 Relative Density. The actual flow rate will vary if the oil is of different viscosity and/or Relative Density. See page 477 for information on "Effect of Temperature and Viscosity on Flow Rate".
3. For Return Line Filters fitted with Bypass Valves; Nominal Flow Rates shown in the "Specification" tables for each filter series are based on a factor of the Bypass Valve cracking pressure. The Nominal Flow Rates shown will cause a pressure drop across a clean filter element of a maximum of 50% of the Bypass Valve cracking pressure, with 30 centistokes viscosity oil. In some applications (for example those involving wide operating temperature ranges, and/or large fluctuations in the expected flow rate of the system, and/or heavy contamination levels), the system designer must choose a Flow Rate that will cause a lower clean element pressure drop (for example 25% or 35% of the Bypass Valve cracking pressure). Conversely, it is not recommended to exceed clean element pressure drop of 50% of the Bypass Valve cracking pressure.
4. Cellulose filtration media can be affected by water. It can cause the media to swell and become plugged, especially Suction Line filters. If water from condensation of moist air within a reservoir or other sources is likely, the designer must consider this when selecting the filter. 149 Micron Stainless Steel mesh elements are available for some Series of Suction Line filters.
5. Some systems have wide variations in operating temperature and/or flow rates. Failure to allow for these when selecting filters may result in inadequate filtration or oil starvation. Under some conditions, if pressure within the filter becomes too great due to these wide variations, or other conditions (including restriction due to clogging), it is possible that the system may stop working due to oil starvation, or the filter element may collapse, or rupture, and release oil to the environment and/or allow contaminants to re-enter the oil, or the Bypass Valve may open prematurely.
6. Some systems are designed to allow for oil to Bypass the filter element via the Bypass Valve under cold start, or flow rate surge conditions, etc. Under these conditions, the designer must ensure that flow conditions do not exceed the flow capacity of the open Bypass Valve. This will cause pressure to build up in the filter, which may cause collapse or rupture.
7. For all filters fitted with Bypass Valves; if the designer requires that the Bypass Valve does not open under cold start (increased oil viscosity) conditions, all appropriate criteria must be considered and satisfied.
8. In some filters fitted with Bypass Valves, oil may flow over the surface of the filter element when the Bypass Valve opens. Under these circumstances, it is possible to wash trapped contaminants off the filter element back into the oil flow.
9. Filter elements must be changed prior to becoming blocked or "plugged" or "clogged", otherwise oil flow may be reduced below required limits, or oil may not be adequately filtered. Clogging Indicators should be fitted wherever possible; if not possible the filter element must be changed regularly at predetermined intervals to ensure correct filtration and operation of the circuit. See page 482 for more information; "Instructions for Changing Filter Elements".
10. Change filter elements whenever oil is changed.
11. Minimising oil surge conditions will increase the service life of filter elements.
12. Filters in this Product Technical Manual are unidirectional. Flow through a filter must be in the allowed direction only; from the specified inlet side to the specified outlet side.
13. Incorrect selection, fitment, design, application and/or maintenance of a filter can cause damage to equipment and/or personal injury or death.

SOME OF THE MANY FACTORS TO CONSIDER WHEN CHOOSING FILTERS FOR MINERAL OIL BASED HYDRAULIC FLUIDS ARE:

1. **REQUIRED CLEANLINESS LEVEL:** Manufacturers of the various hydraulic system components can advise the oil cleanliness level required to ensure that the component functions correctly. Appropriate micron rating filters should be chosen. Efficiency and capacity must be balanced. The system designer must select a filter that can remove a given percentage of contaminant particles over a particular size, with sufficient contaminant holding capacity so that it can protect the circuit over a reasonable service life.
2. **FLOW RATE OF THE SYSTEM:** It is important to choose a filter that has a sufficient flow rate. Remember to allow for flow increases due to actuator movement. In some systems the rapid retraction of a cylinder can cause a flow rate from two to five times the normal pump flow rate. If this has not been allowed for, the sudden increase in the flow rate can cause the Bypass Valve to open and allow unfiltered oil through, or may result in filter collapse or rupture.
3. **SYSTEM OPERATING PRESSURE AND TEMPERATURE:** Filters must be able to operate at the design pressure and temperature of the circuit.

- 4. VISCOSITY OF THE OIL:** Pressure Drop charts in this catalogue assume viscosity of 30 centistokes. If the oil is of different viscosity, or if the viscosity of the oil is likely to change due to cold starts, the nominal flow rates should have a correction factor applied to avoid Bypass Valve opening. See page 477.
- 5. MOUNTING SPACE AND MAINTENANCE REQUIREMENTS:** The available space may dictate the choice of filter. Spin-On Canisters are generally quicker and easier to service than other designs.
- 6. REQUIRED INTERVALS BETWEEN CHANGE OF FILTER ELEMENTS:** The required intervals between maintenance need to be considered. A small filter element will become more rapidly blocked with contaminants and require earlier changeout. If oil is expected to be heavily contaminated, specifying a larger filter extends filter element replacement intervals.
- 7. LIKELY PRESENCE OF WATER CONDENSATION:** Water condensation from moist air inside a reservoir can cause cellulose filter elements to swell and become plugged.
- 8. CRITICAL DEPENDENCE AND OPERATOR SAFETY:** If the system is of a critical nature, or there are safety issues to consider, it is often better to install extra filtration.
- 9. COMPONENT TO BE PROTECTED BY THE FILTER:** Placing a filter immediately upstream of the component helps to protect critical or sensitive components.
- 10. BYPASS VALVES:** Selection of Bypass Valves or Blocked Bypass options needs to take the overall circuit design into consideration.

RULES OF THUMB:

The following information is provided to aid in the selection of appropriate filtration and reservoir accessories. The system designer must consider all operating parameters and operating conditions when choosing filters and reservoir accessories, and be sure that the selected system provides for those parameters and conditions.

RETURN LINE FILTERS

- Return Line filters must be located as close to the Reservoir as possible.
- **Maximum line velocity:** 4.5 metres per second (15 feet per second).
- **Maximum pressure drop:** no more than 50% of the filter Bypass Valve setting at normal operating temperature with a clean filter element.
- Maximum pressure drop of 50% of the filter Bypass Valve setting is the normal recommendation. Using a factor lower than 50% of the filter Bypass Valve setting results in lower flow rates than those at 50%. However, the life of the element is increased due to the increased amount of contaminant able to be held before the pressure drop causes the Bypass Valve to open.

SUCTION LINE FILTERS

- **Maximum line velocity:** 1.5 metres per second (5 feet per second).
- **Maximum pressure drop:** no more than 50% of the maximum allowable vacuum recommended by the pump manufacturer.
- Suction Line Filters should not be used if the pump manufacturer recommends against their use.
- Closed loop systems are recommended. If possible, use a sealed reservoir and a pressurised breather.

WARNING: Do not use Suction Line Filters with cellulose filter elements where water contamination is possible.

SUCTION STRAINERS

- **Maximum line velocity:** 1.5 metres per second (5 feet per second).
- **Maximum pressure drop:** 1 inHg (25 mmHg)/0,03 bar (0.44 psi)

DIFFUSERS

- Using tank diffusers helps to prevent air becoming entrapped in hydraulic oil. Air sucked into a pump with the hydraulic fluid can cause cavitation at the pump. Damage to the pump and other components in a system may occur as a result.
- Diffusers and suction strainers perform best when mounted in the bottom third of the reservoir. They should also face in opposite directions, or can be separated from one another by baffle plates to allow the oil to settle, cool and de-aerate.

CLOGGING INDICATORS

- RYCO Hydraulics recommend the fitting of Clogging Indicators (see page 461) to filters wherever possible. Clogging Indicators provide visual indication of the restriction across the filter element.
- Filter elements must be changed before the filter Bypass Valve opens and allows unfiltered oil through the filter. If a Clogging Indicator is not fitted, filter elements must be changed on a regular basis so that they do not become plugged.

AIR BREATHERS

- Breather filtration should match the required hydraulic fluid filtration level.
- Breathers should be replaced regularly, to ensure that they do not become clogged.
- Pressurised filler breather caps can be used in conjunction with a fully sealed reservoir to increase oil supply to the pump inlet. Pressurised filler breather caps function best on reservoirs that have a fairly constant fluid level.
- Generally, the more pressure a pump has at the inlet, the quieter it will operate.

RESERVOIRS

- Oil reservoirs must be fully sealed to prevent contaminants being sucked into the reservoir as the oil level changes. Air should only enter and leave the reservoir via filtered air breathers.

EFFECT OF TEMPERATURE AND VISCOSITY ON FLOW RATE AND PRESSURE DROP

Viscosity is the resistance of a liquid to flow under an applied force. The viscosity of a fluid is low if it flows easily, and high if it flows with difficulty.

Two units are commonly used: **CENTISTOKES (cSt)** and **SAYBOLT SECOND UNIVERSAL (SSU)**.

Both are based on the time required for an amount of oil to flow through a specified orifice at one of two test temperatures. Test temperatures are usually 40°C (104°F) or 100°C (212°F) for centistokes, or 100°F (38°C) or 210°F (99°C) for SSU.

Popular mineral oil based hydraulic fluids now commonly use the ISO Viscosity Classification, which uses the kinematic viscosity in centistokes at 40°C (104°F) test temperature. For example, ISO 46 hydraulic oil has kinematic viscosity of 46 centistokes at 40°C (104°F). Commonly used hydraulic oils have kinematic viscosities from 15 to 150 centistokes at 40°C (104°F) (ISO Viscosity Classifications 15 to 150). The higher the viscosity value is numerically; the thicker, or more viscous, the oil is. 100 centistoke oil is more viscous (greater resistance to flow) than 15 centistoke oil.

It is important to specify the temperature of the test, because oil viscosity changes with temperature. The chart on page 478 shows how ISO grades of hydraulic oil typically change viscosity with temperature, assuming Viscosity Index of 100. (Viscosity Index is a measure of how viscosity changes with temperature). It can be seen that at differing temperatures, each grade can have kinematic viscosity of 30 centistokes. For example, ISO 68 oil (that is 68 centistokes at 40°C/104°F) has 30 centistokes viscosity at approximately 58°C (136°F).

Centistokes and SSU are numerically related to each other, for example 30 centistokes at 40°C (104°F) is the same as 141,7 SSU at the same temperature 40°C (104°F), which in turn is approximately equal to 155 SSU at 37°C (99°F). Another common reference point is that 150 SSU at 37°C (99°F) is approximately equal to 28 centistokes at 40°C (104°F). In this Product Technical Manual, due to increasing acceptance of centistokes and the ISO Viscosity Classification, reference to SSU is not included.

For each RYCO Filter Series, the Nominal Flow Rates in the "Specification" tables, and the "Pressure Drop Flow Graphs" on page 473, assume a kinematic viscosity of 30 centistokes. They can be used for all ISO grades, using appropriate correction factors as discussed below.

FLUID VISCOSITY AND FLOW CAPACITY AND PRESSURE DROP

When selecting hydraulic fluid filters, knowledge of the viscosity of the fluid over the operating temperature range of the hydraulic system is the most critical variable.

The pressure drop of the fluid as it flows through the filter is proportional to the viscosity of the fluid. At any nominated flow rate, a fluid of lower viscosity will have a lower pressure drop than a fluid of higher viscosity. For example, at the same Nominal Flow Ratings, the pressure drop of ISO 30 fluid would be approximately half that of ISO 60. Similarly, for a specified pressure drop, a fluid of lower viscosity will have a higher Nominal Flow Rate than a fluid of higher viscosity.

ESTIMATING PRESSURE DROP AND FLOW CAPACITY

The Pressure Drop Flow Graphs, and the Nominal Flow figures in the Specification tables for each Filter Series in this Product Technical Manual, are based on oil of kinematic viscosity 30 centistokes.

If the fluid to be filtered in your application has kinematic viscosity 30 centistokes at the system's normal operating temperature, the pressure drop values can be taken directly from the graphs, or the Nominal Flow figures from the tables can be used without correction factors.

If the viscosity of the fluid is not kinematic viscosity 30 centistokes, the formulae below can be used to estimate the pressure drop or flow capacity.

$$\text{Estimated pressure drop} = \left(\begin{array}{c} \text{pressure drop value} \\ \text{from graph} \end{array} \right) \times \frac{\text{viscosity of fluid in centistokes at system operating temperature}}{30}$$

$$\text{Estimated flow} = \left(\begin{array}{c} \text{nominal flow value} \\ \text{from table or graph} \end{array} \right) \times \frac{30}{\text{viscosity of fluid in centistokes at system operating temperature}}$$

(These formulae will give an approximate result, but due to the usual conditions of turbulent flow in the housing and laminar flow through the filtration media, the result is not precise. Contact RYCO Hydraulics Technical Department if precise calculations are required. Also, if extremes of temperature are expected, for example extremely cold starts, these should be allowed for in the selection of the filter.)

EXAMPLE

ISO 68 oil is used in a system that normally operates at 65°C. What is the estimated flow capacity of an **RIF-R1025** filter (for maximum 0,5 bar (7.3 psi) pressure drop across clean element)?

From page 478 graph, ISO 68 at 65°C (149°F) will be approximately 24 centistokes.

Nominal flow rate for **RIF-R1025** from Specification table on page 447 or graph on page 473 is 135 litres per minute (for maximum 0,5 bar (7.3 psi) pressure drop across clean element).

Estimated flow capacity for ISO 68 oil at 65°C (149°F) for **RIF-R1025** = 135 X $\frac{30}{24}$ = 169 litres per minute.

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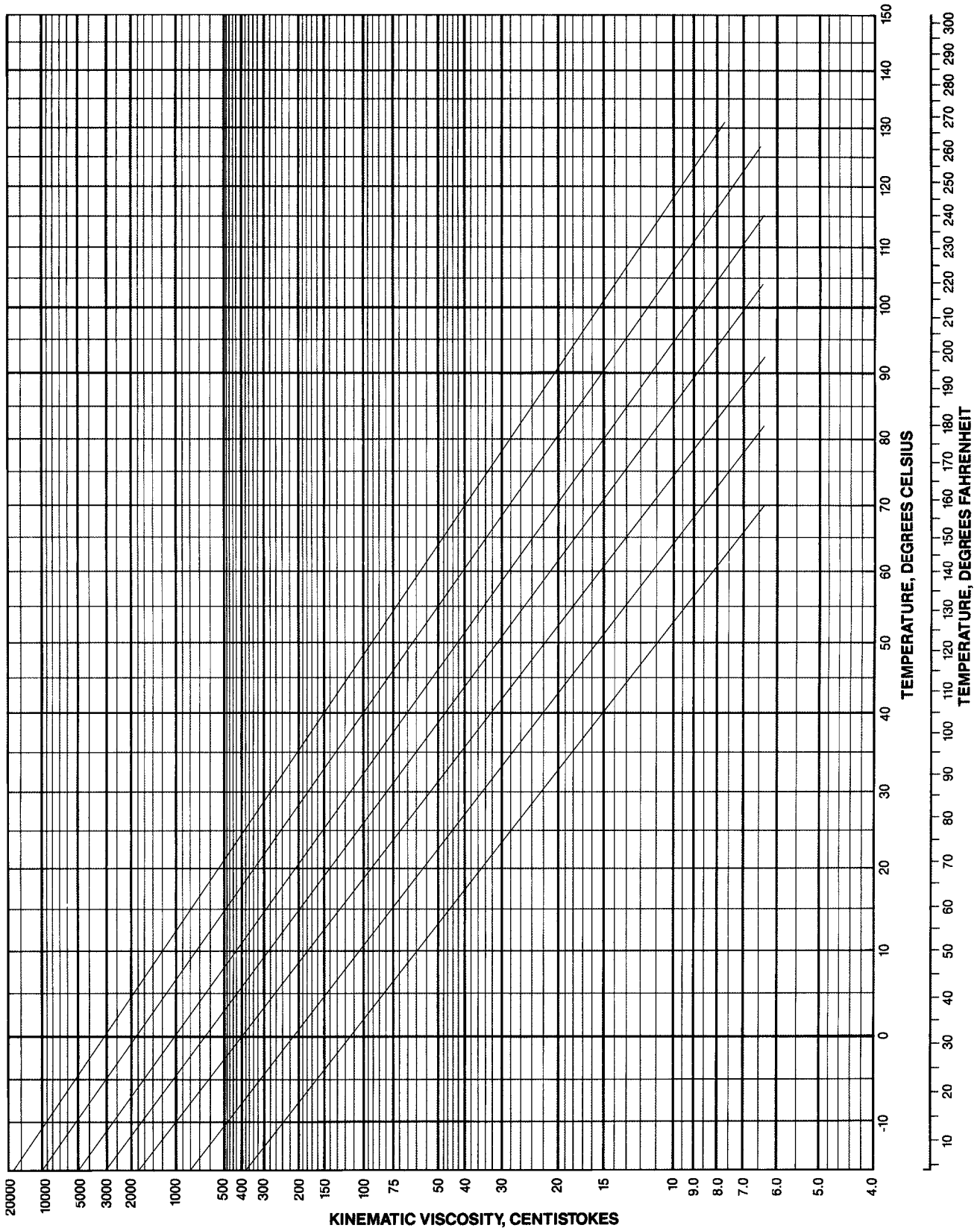
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PRESSURE DROP GRAPH



CROSS REFERENCE FOR RYCO RIF-E AND RIF-EA SPIN-ON FILTERS

If gasket dimensions and gasket sealing surfaces are compatible, the ability to use various Spin-On Filter Canisters on a particular filter head depends on the post thread of the filter head, and the thread of the Canister.

This Cross Reference Information is presented as a general guide to the RYCO Spin-On Filter that can replace another manufacturer's Spin-On Filter when installed on that other manufacturer's filter head, for hydraulic filtration applications; based on:

1. Reasonable matching of filtration ratings
2. General dimensions
3. Threads of the canister and of the post of the filter head.
4. Gasket compatibility.

The listings do not imply identical dimensions and identical performance.

Prior to using products from different manufacturers, users must consider all criteria and satisfy themselves that the products will perform satisfactorily in their particular application.

There are many variables to be considered; including, but not limited to, the following:

Maximum Working Pressure and Vacuum ratings vary between manufacturers.

Nominal Flow Rates and Clean Element Pressure Drops vary between manufacturers.

Filtration ratings and efficiencies vary between manufacturers.

Temperature ratings and fluid compatibilities vary between manufacturers.

Replacing a NOMINAL Rated canister with an alternate NOMINAL Rated canister of the same micron size; and an ABSOLUTE Rated canister with an alternate ABSOLUTE Rated canister of the same micron size; will result in similar but not necessarily identical performance.

Replacing a NOMINAL Rated canister with an ABSOLUTE Rated canister of the same micron size is not recommended, because it may result in a Nominal Flow Rate reduction, or increased Clean Element Pressure Drop.

Replacing an ABSOLUTE Rated canister with a NOMINAL Rated canister of the same micron size is not recommended, because the level of filtration will not be as fine.

Refer to pages 442 to 477 for Technical and other information about Pressure Drop, "Warnings and Filter Selection Guidelines", and "Effect of Temperature and Viscosity on Flow Rate and Pressure Drop" on RYCO Hydraulics products.

Due care has been taken in compiling the Cross Reference Information on page 479 and 480, but no liability of any kind whatsoever is accepted by RYCO Hydraulics Pty Ltd for any loss or damage sustained or incurred by the purchaser, or any other party in consequence of, resulting from the use of this information.

MATCHING OF FILTRATION RATINGS

RYCO Hydraulics Yellow Spin-On Filter Canisters shown on pages 442 to 444 have both ABSOLUTE and NOMINAL filtration ratings.

This means, for example, **RYCO RIF-E1025** is a cross reference for both 25 micron ABSOLUTE and 10 micron NOMINAL. See pages 469 to 472 for more information.

Common filtration ratings are 3, 10 and 25 micron. A Rule of Thumb is:

- 3 Micron Nominal** is approximately equal to **10 Micron Absolute**
- 10 Micron Nominal** is approximately equal to **20 to 27 Micron Absolute**
- 25 Micron Nominal** is approximately equal to **32 to 36 Micron Absolute**

The tables on the page following show the ABSOLUTE and NOMINAL filtration ratings for each RYCO Canister.

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ABSOLUTE AND NOMINAL FILTRATION RATINGS

(Continued from previous page)

BSPP THREADED CANISTERS LAST 2 DIGITS OF RYCO PART NUMBER ARE THE ABSOLUTE RATING	3/4" CANISTERS 3/4" BSPP THREADED		1.1/4" CANISTERS 1.1/4" BSPP THREADED	
RYCO PART NO	RIF-E0610	RIF-E0625	RIF-E1010	RIF-E1025
FILTRATION RATING	10 MIC ABS	20 MIC ABS	10 MIC ABS	25 MIC ABS
	3 MIC NOM	10 MIC NOM	3 MIC NOM	10 MIC NOM

UNF THREADED CANISTERS LAST 2 DIGITS OF RYCO PART NUMBER ARE THE NOMINAL RATING	3/4" CANISTERS 1" UNF THREADED		1.1/4" CANISTER 1.1/2" UNF THREADED	
RYCO PART NO	RIF-EA0810	RIF-E0825	RIF-EA1210	RIF-EA1225
FILTRATION RATING	25 MIC ABS	32 MIC ABS	27 MIC ABS	36 MIC ABS
	10 MIC NOM	25 MIC NOM	10 MIC NOM	25 MIC NOM

HOW TO USE THE COMPETITOR CROSS-REFERENCE TABLE

1. Locate the competitor part number in the chart on the opposite page.
2. The columns to the right of the part number show the competitor filtration rating and canister thread, as well as which **RYCO** Gasket to use (see note below).
3. Read back across to the **RYCO** details in the left hand columns. These show the **RYCO** Cross Reference part number, and the RYCO Canister's filtration rating and Canister thread.

NOTE: If no part number is listed in the "Gasket" column in the competitor columns, the gasket is supplied already mounted in the RYCO Canister.

For RYCO RIF-EA1210 and RIF-EA1225 Canister cross references only. These Canisters are supplied with two Gaskets, only one is to be used, see page 443 for more information. If there is a part number listed in the "Gasket" column, use only this gasket. If "Check" is listed in the "Gasket" column, the gasket to be used must be determined at time of installation. See page 442 for more information.

COMPETITOR CROSS-REFERENCE TABLE

RYCO	Abs	Nom	Thread	Baldwin	Rating	Thread	Gasket	Fairey Arlon/ Stauff	Rating	Thread	Gasket
RIF-E0625	20	10	BSPP	BT366-10	10 nom.	BSPP					
RIF-E1025	25	10	BSPP	BT351	10 nom.	BSPP		SFC5710E	10 nom.	BSPP	
RIF-EA0810	25	10	UNF	BT839-10	10 nom.	UNF		FA35-10	10 nom.	UNF	
RIF-EA0810	25	10	UNF					FA35-CC25	25 abs.	UNF	
RIF-EA0825	32	25	UNF	BT839	25 nom.	UNF		FA35-25	25 nom.	UNF	
RIF-EA1210	27	10	UNF	BT287-10	10 nom.	UNF	RIF-EA12GM	FA57-10	10 nom.	UNF	RIF-EA12GM
RIF-EA1210	27	10	UNF					FA57-CC25	25 abs.	UNF	RIF-EA12GM
RIF-EA1225	36	25	UNF	BT287	25 nom.	UNF	RIF-EA12GM	FA57-25	25 nom.	UNF	RIF-EA12GM

RYCO	Abs	Nom	Thread	Fleetguard	Rating	Thread	Gasket	Filpro	Rating	Thread	Gasket
RIF-E0625	20	10	BSPP	HF6173		BSPP		SOE5-10	10 nom.	BSPP	
RIF-E0625	20	10	BSPP	HF7983		BSPP					
RIF-E1025	25	10	BSPP	HF6177		BSPP		SOE10-10	10 nom.	BSPP	
RIF-E1025	25	10	BSPP	HF7980		BSPP					
RIF-EA0810	25	10	UNF	HF6056		UNF					
RIF-EA0825	32	25	UNF	HF6057		UNF					
RIF-EA1210	27	10	UNF	HF6710		UNF	Check				
RIF-EA1225	36	25	UNF	LF680		UNF	Check				

RYCO	Abs	Nom	Thread	Hydac	Rating	Thread	Gasket	LHA	Rating	Thread	Gasket
RIF-E0625	20	10	BSPP	0080MG010P	10 nom.	BSPP		SPE-16-10	10 nom.	BSPP	
RIF-E1025	25	10	BSPP	0160MG010P	10 nom.	BSPP		SPE-52-10	10 nom.	BSPP	
RIF-EA0810	25	10	UNF	0080MA010P	10 nom.	UNF		SPE-15-10	10 nom.	UNF	
RIF-EA0825	32	25	UNF	0080MA025P	25 nom.	UNF		SPE-15-25	25 nom.	UNF	
RIF-EA1210	27	10	UNF	0160MA010P	10 nom.	UNF	Check	SPE-50-10	10 nom.	UNF	RIF-EA12GM
RIF-EA1225	36	25	UNF	0160MA025P	25 nom.	UNF	Check	SPE-50-25	25 nom.	UNF	RIF-EA12GM

RYCO	Abs	Nom	Thread	OMT	Rating	Thread	Gasket	Prince/Cross	Rating	Thread	Gasket
RIF-E0610	10	3	BSPP								
RIF-E0625	20	10	BSPP	CS05AN	10 nom.	BSPP					
RIF-E1010	10	3	BSPP								
RIF-E1025	25	10	BSPP	CS10AN	10 nom.	BSPP					
RIF-EA0810	25	10	UNF					FA10	10 nom.	UNF	
RIF-EA0825	32	25	UNF					FA25	25 nom.	UNF	
RIF-EA1210	27	10	UNF					FB10	10 nom.	UNF	RIF-EA12GW
RIF-EA1225	36	25	UNF					FB25	25 nom.	UNF	RIF-EA12GW

RYCO	Abs	Nom	Thread	Parker UCC	Rating	Thread	Gasket	Zinga	Rating	Thread	Gasket
RIF-E0610	10	3	BSPP	MXR.8550	10 abs.	BSPP					
RIF-E0625	20	10	BSPP	MX.1518.4.10	25 abs.	BSPP					
RIF-E1010	10	3	BSPP	MXR.9550	10 abs.	BSPP					
RIF-E1025	25	10	BSPP	MX.1591.4.10	25 abs.	BSPP					
RIF-EA0810	25	10	UNF					AE-10	10 nom.	UNF	
RIF-EA0825	32	25	UNF					AE-25	25 nom.	UNF	
RIF-EA1210	27	10	UNF					SE-10	10 nom.	UNF	Check
RIF-EA1225	36	25	UNF					SE-25	25 nom.	UNF	Check

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INSTRUCTIONS FOR CHANGING FILTER ELEMENTS

The Spin-On Canister or Filter Element must be changed before it becomes completely blocked or “plugged” with contaminants. If the Filter Element becomes blocked, the filter will go into bypass and the oil will not be filtered, or the filter may become damaged and release contaminants back into the system.

If a Clogging Indicator is fitted, see page 461, the correct time to change the Filter Element is shown by the reading on the Indicator.

If a Clogging Indicator is not fitted, the correct interval to change the Filter Element is not as easy to determine accurately. The normal recommendation is to change the initial Filter Element after the first 50 hours of operation from new, and then every subsequent 250 hours of operation; or as specified by the equipment manufacturer. More frequent replacement may be required depending on the severity of the operating conditions.

Filter Elements should also be changed whenever the oil is changed.

IMPORTANT FITTING INSTRUCTIONS FOR RYCO RIF SERIES SPIN-ON CANISTERS

1. Turn off the system and relieve pressure to the filter.
2. Clean the outside of the filter head and the spin on canister.
3. Unthread the old canister and remove it. Arrange a suitable catch pan for any oil that may be released.
4. Clean the gasket contact area on the filter head.
5. Remove the new canister from its protective packaging. Apply a film of oil to the face of the gasket of the new spin on canister, where it contacts the filter head. This is to ensure that friction or twisting during installation does not damage the gasket.

IMPORTANT NOTE; RIF-EA1210 AND RIF-EA1225 SPIN-ON CANISTERS.

Two gaskets are supplied, but only one is to be used. See page 443.

The wide (stepped) gasket is used with RYCO and on other filter heads with wide groove.

The narrow gasket is used on filter heads with narrow groove.

The gasket used must be a tight fit in the filter head groove. Use of incorrect gasket prevents seal.

Contact RYCO Hydraulics Technical Department if in doubt. After choosing the correct gasket, apply a film of oil to all surfaces of the gasket and install it in the filter head groove.

6. Line up the threads on the canister and the filter post carefully, and spin on the new canister until the gasket contacts the mounting pad on the filter head. (In some systems it may be desirable to place clean oil in the canister, before it is installed, to reduce air inclusion into the system.)
7. Tighten the canister an additional 1/2 to 3/4 turn by hand - do not over tighten.
8. Operate the system and check to ensure there are no leaks. Check oil level and top up if necessary.

IMPORTANT FITTING INSTRUCTIONS FOR RYCO CARTRIDGE STYLE FILTER ELEMENTS USED IN RYCO SERIES RHF, RTI, RFI, AND RCF FILTERS

1. Turn off the system and relieve pressure to the filter.
2. Clean the outside of the filter housing around the Top Cover Plate (or around the Bowl to Head join of RHF Series).
3. For **RHF-10** and **RHF-20** Series, remove the Drain Plug at the bottom of the bowl. Arrange a suitable catch pan for the oil that will be released. Replace the Drain Plug.
4. For **RTI**, **RFI**, and **RCF** Series, remove the bolts holding the Top Cover Plate. For **RHF** Series, remove the bolts holding the bowl to the head.
5. Remove the old filter element. 149 Micron Stainless Steel mesh filter elements may be cleaned and reused, if there is no damage.
6. Carefully clean inside the filter housing to remove any dirt or sludge. Wipe away from the outlet port. Clean the magnet on the bottom of Top Cover Plates of **RTI**, **RFI** and **RCF** Series filters.
7. Inspect all O Rings, seals and bolts for damage. Replace if necessary.
8. Place the new, or cleaned filter element into the filter housing, taking care to ensure it is centrally located, and the O Ring sealing the filter element to the housing is correctly seated. (In some systems it may be desirable to place clean oil in the filter, before it is reassembled, to reduce air inclusion into the system.)
9. Replace the Top Cover Plate or the Bowl, while maintaining correct spring location and spring pressure on the filter element.
10. Replace the bolts and tighten in a diagonal order. Check that the two components seat uniformly.
11. Operate the system and check to ensure there are no leaks. Check oil level and top up if necessary.

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521	Important Note regarding Thread Dash Size/Tube Dash Size
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536 to 537	TORQUE ASSEMBLY VALUES
538 to 540	MISCELLANEOUS
538 to 539	RYCO Terms of Sale
540	Abbreviations

INDICATING FLOW CAPACITY OF HOSE ASSEMBLIES AT RECOMMENDED FLOW VELOCITIES SELECTING THE RIGHT HOSE SIZE

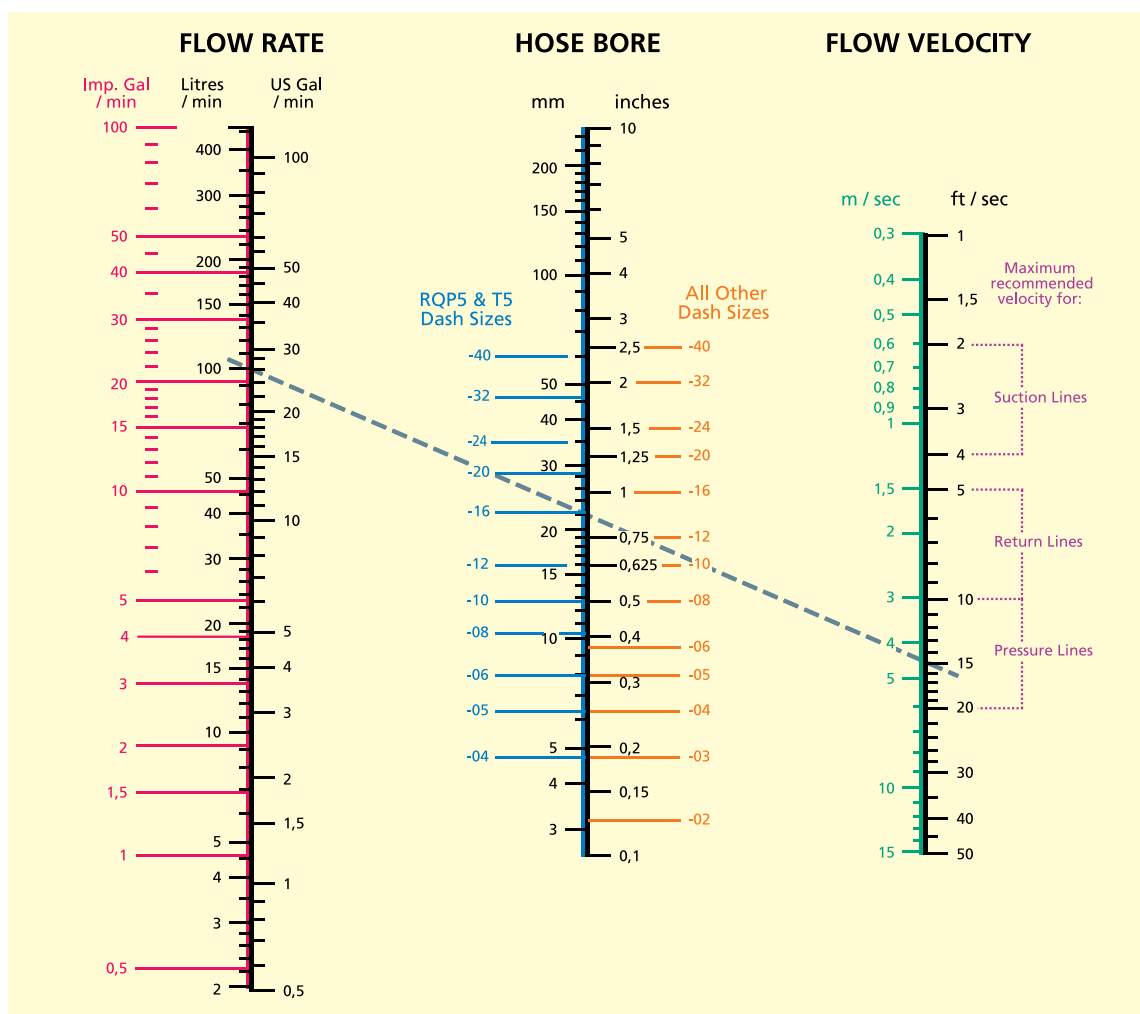
With this nomograph, you can easily select the correct Hose ID size, Desired Flow Rate and Recommended Flow Velocity. If any two of these factors are known, the third can be determined.

TO USE THIS NOMOGRAPH:

1. Pick the two known values.
2. Lay a straightedge to intersect the two values.
3. Intersection on the third vertical line gives the value of that factor.

Example: To find the bore size for a Pressure Line consistent with a Flow Rate of 100 litres per minute (26 US or 22 Imperial gallons per minute), and a Flow Velocity of 4,5 metres per second (14.8 feet per second), connect Flow Rate to Flow Velocity and read Hose Bore on centre scale.

ANSWER: THE LINE CROSSES HOSE BORE BETWEEN -12 AND -16 ON "ALL OTHER DASH SIZES" SIDE OF HOSE BORE AXIS, SO A -16 HOSE IS REQUIRED. IF RQP5 OR T5 HOSE IS TO BE USED, FOR THIS EXAMPLE -16 WOULD ALSO BE REQUIRED.



The velocity of the fluid should not exceed the range shown in the right hand column. When oil velocities are higher than recommended in the chart, turbulent flow occurs, resulting in loss of pressure and excessive heating. For long hoses and/or high viscosity oil, or if the flow of hydraulic fluid is continuous, it is recommended to use figures at the lower end of the Maximum Recommended Velocity range. For short hoses and/or low viscosity oil, or if the flow of hydraulic fluid is intermittent or for only short periods of time, figures at the higher end of the Maximum Recommended Velocity range can be used.

A FURTHER EXAMPLE WILL HELP YOU TO USE THIS CHART:

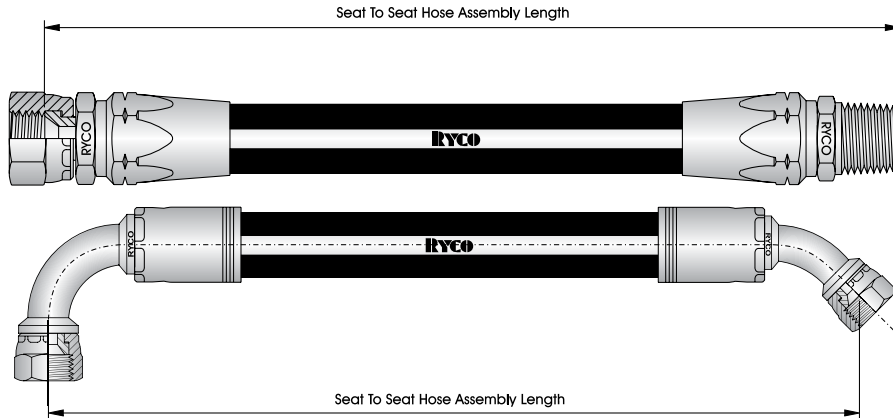
Determine the hose size required to carry 40 litres of oil per minute and determine the velocity of the oil through the hose assembly. The assembly is to be used as a pressure line and the flow will be continuous.

Locate the flow, 40 litres per minute (left hand column), and velocity, 15 feet per second (right hand column), since 15 is the centre of the Pressure Lines Maximum recommended velocity range. Lay a straight edge across these two points. The straight edge crosses the centre column just above the -08 on "All Other Dash Sizes" side of Hose Bore axis. Keeping the straight edge on 40 litres per minute, cross the centre column at -08 and -10 sizes and read the Flow Velocity in the right hand column. It can be seen that using -08 Hose Size, Flow Velocity will be 18 feet per second, and for -10 Hose Size, Flow Velocity will be 11 feet per second. As the flow is continuous, -10 Hose Size is recommended.

HOSE ASSEMBLIES OF SPECIFIC LENGTHS

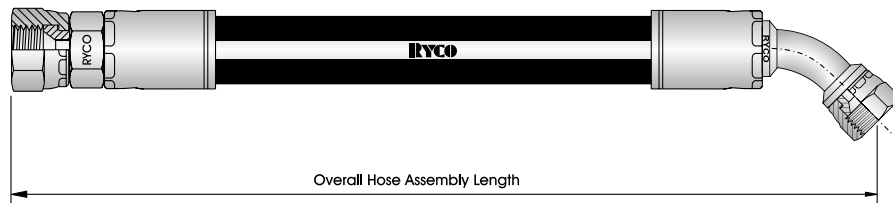
All RYCO hose assemblies are manufactured seat to seat length unless otherwise specified by customer. The length of a Hose Assembly can be measured in three ways:

1. SEAT TO SEAT LENGTH. (RYCO STANDARD, UNLESS OTHERWISE SPECIFIED).



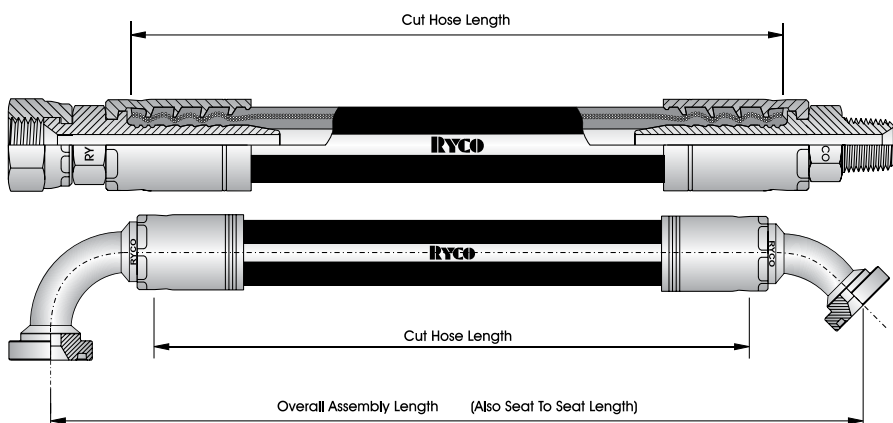
Length is measured from tip of seat to tip of seat.

2. OVERALL LENGTH. (OA)



Length is measured from tip of nut to tip of nut.

3. CUT HOSE LENGTH. (CL)



This is the length that the hose is cut to before couplings are attached. The length of the couplings is extra.

NOTE: For male fittings and flanged fittings, seat and overall length measurement points are the same.

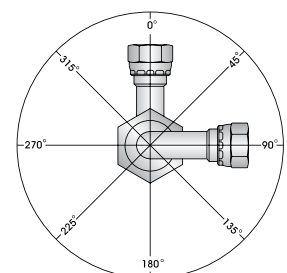
ORIENTATION OF FITTINGS.

Proper positioning of elbow end fittings on a hose is governed by the offset angle, or the amount of angular offset between connecting parts in the installation. If this angle of orientation is not correct in the construction of a hose assembly the performance and life of the assembly will be greatly reduced.

Orientation is determined by the number of degrees between the fitting furthest from the viewer and the fitting nearest to the viewer, measured in a clockwise direction.

ORIENTATION TOLERANCES:

± 3° on lengths up to 600 mm (24").
± 5° on lengths over 600 mm (24").



HOW TO ORDER HOSE ASSEMBLIES

When ordering Hose Assemblies, specifying by the following system will assist; or alternatively supply a clear, concise drawing or sketch.

1. **Hose Type.**
2. **(Hose Protection or extra operations to hose)** - if applicable.
3. **Hose Assembly Length** (expressed in mm), followed by method of measurement:
blank if "Seat to Seat Length"
-OA if "Overall Length"
-CL if "Cut Hose Length"
4. **Fitting End 1.**
5. **Fitting End 2.**
6. **Angle of Orientation** if both fittings are elbows and/or tube bends.

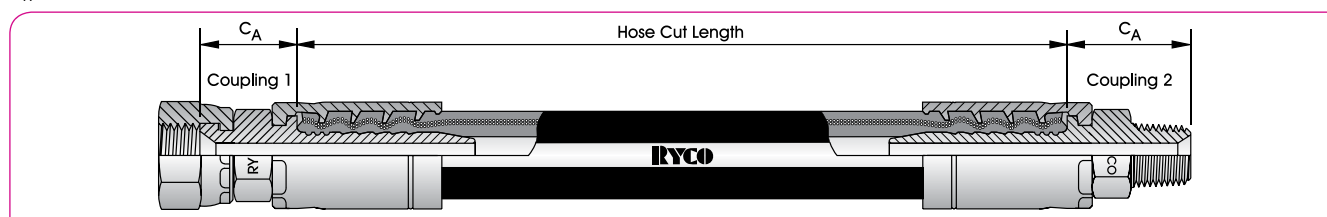
EXAMPLES:

1. **T3008A * 1830 * T2090-0808 * T2040-0814** – Hose will be made 1830 mm Seat to Seat.
2. **T3008A * 1830-OA * T2090-0808 * T2040-0814** – Hose will be made 1830 mm tip of T2090 male to tip of T2040 nut.
3. **T28D * 1830 * T2050-0808 * T2730-0824 @ 135°** – Hose assembly will be manufactured so that when T2050-0808 is furthest away the T2730-0824 will be oriented 135° clockwise.
4. **T5008A * 1640-CL * L010-0812 * L040-0817** – Hose will be cut to 1640 mm and length of fittings will be extra.
5. **H6012D * (RSG-32 * 1000) * 1000-OA * T7630-1236 * T7720-1236** – Hose will be covered with RSG for full length of hose assembly. Length will be overall from T7630 tip to T7720 bend centreline.
6. **RQP212 * (PIERCE * 2200) * 2200 * T2090-1212 * T2040-1217** – Hose cover will be pierced/pin pricked.
7. **T18A * 1830 * T2010-0808 * T2020-0808 + S27-0808** – The length of the S27-0808 is extra, not included in the 1830 mm.

CUT-OFF ALLOWANCE (C_A)

Values for Cut-off Allowance (C_A) dimensions are published in this Product Technical Manual.

C_A dimensions allow calculation of the Hose Cut Length required to make a Hose Assembly of a particular Seat to Seat Length.



EXAMPLE:

For a Hose Assembly using **T2040-0609** coupling one end, and **T2090-0606** coupling other end, with a required Seat to Seat Length of 750 mm, calculate the Hose Cut Length required.

From page 194, C_A dimension for T2040-0609 is 22 mm. This is "coupling 1" for the required hose assembly.

From page 192, C_A dimension for T2090-0606 is 33 mm. This is "coupling 2" for the required hose assembly.

$$\text{Cut Length of Hose} = \text{Seat to Seat Length of Hose Assembly} - C_A (\text{coupling 1}) - C_A (\text{coupling 2}) = 750 \text{ mm} - 22 \text{ mm} - 33 \text{ mm} = 695 \text{ mm}$$

IMPORTANT NOTES:

1. CHECK AND MEASURE COUPLING BEFORE CUTTING HOSE

For all Couplings, before calculating the Cut Length of the hose, measure and check that the C_A dimension of the physical coupling complies with that published. C_A dimensions may vary due to manufacturing method or design refinement.

2. HOSE ASSEMBLY LENGTH GROWTH AFTER COUPLING ATTACHMENT

The C_A dimension is measured from where the hose abuts when fully inserted, to the connection end seat of the coupling. With most Crimp Couplings¹, and Field Attachable Couplings having ferrules²; due to compression of the hose within the coupling after attachment, a growth in length occurs, in addition to the published C_A dimension. Growth varies with different types and sizes of hose and couplings. For longer hoses, and non-critical applications, it is common practice to ignore the growth, as the extra length generated usually does not affect the function of the hose assembly. In applications where the length of the hose assembly is critical, the growth must be allowed for when calculating Cut Length of hose. RYCO recommends measuring the growth when the first coupling is attached by measuring between reference points marked on the coupling and hose before and after coupling attachment, then adjusting the Cut Length of the hose to compensate.

3. See page 276 for extra information about C_A dimensions for K000, L000, M000 and P000 Series Field Attachable couplings.

4. See note on page 175 regarding Drop Length (DL) and Cut-off Allowance (C_A) published dimensions.

5. For Hose Assemblies, the following must be considered: Maximum Working Pressure of the Hose; End Style (Connector Termination), see pages 516 to 520, and Minimum Free Length, see page 492 in the "Safety Guide", pages 490 to 493.

NOTE:

1) For T4000 Series couplings with SR and SRF hose series, growth varies and must be measured each time.

2) For practical purposes, 8000 Series Push-On and 33000 Series couplings do not experience extra growth.

SELECTION, INSTALLATION AND MAINTENANCE OF HOSE AND HOSE ASSEMBLIES

SCOPE:

1. Many factors affect the selection, making, installation and maintenance of hose assemblies. This catalogue, RYCO Hydraulics (RYCO), and The Society of Automotive Engineers recommended practice SAE J1273, have useful information about selecting, making, installing and servicing hydraulic hose assemblies. For further information, please contact your local RYCO representative.

RYCO recommends hose and coupling combinations in the catalogue only after completing extensive testing. Evaluation of a hose and coupling combination requires considerable impulse testing and cannot be determined by a simple burst or pressure hold test. RYCO disclaims all liability for any hose assembly made in violation of RYCO recommendations, procedures and current crimp data. Crimp data is updated from time to time.

The consumer's exclusive remedy with respect to any claim shall be a refund of the purchase price or replacement of the product at the option of RYCO. In no event shall RYCO be liable for any incidental or consequential damages whatsoever.

WARNING: IMPROPER SELECTION, INSTALLATION, OR MAINTENANCE MAY RESULT IN PREMATURE FAILURES, BODILY INJURY, PROPERTY DAMAGE.

SELECTION:

2. The following is a list of factors which must be considered before final hose selection can be made:

- 2.1 **Internal Pressure** – After determining the system pressure, hose selection must be made so that the recommended maximum operating pressure is equal to or greater than the system pressure. Surge pressures higher than the maximum operating pressure will shorten hose life and must be taken into account by the hydraulic engineer. Hose fitting rated pressures should also be considered, as the maximum working pressure is based on the whole hose assembly and not just the hose alone.
- 2.2 **External Pressure:** In certain applications the external environmental pressures may exceed the fluid pressure inside the hose, therefore these factors need to be considered.
- 2.3 **Suction** – Hoses used for suction applications must be selected to ensure that the hose will withstand the vacuum and pressure of the system.
- 2.4 **Temperature** – Care must be taken to ensure that fluid and ambient temperatures, both static and transient, do not exceed the limitations of the hose. Special care must be taken when routing near hot objects such as manifolds.
- 2.5 **Fluid Compatibility** – Hose selection must assure compatibility of the hose tube, cover, and fittings with the fluid used. Additional caution must be observed in hose selection for gaseous applications. For full compatibility table please refer to page 495 in the Technical Section of this manual.
- 2.6 **Size** – Transmission of power by means of pressurised fluid varies with pressure and rate of flow. The size of the components must be adequate to keep pressure losses to a minimum and avoid damage to the hose due to heat generation or excessive turbulence.
- 2.7 **Routing** – Attention must be given to optimum routing to minimise inherent problems.
- 2.8 **Environment** – Care must be taken to ensure that the hose and fittings are either compatible with, or protected from, the environment to which they are exposed. Environmental conditions such as ultraviolet light, ozone, salt water, chemicals and air pollutants can cause degradation and premature failure and, therefore, must be considered.
- 2.9 **Mechanical Loads** – External forces can significantly reduce hose life. Mechanical loads which must be considered include excessive flexing, twist, kinking, tensile or side loads, bend radius, and vibration. Use of swivel type fittings or adaptors may be required to ensure no twist is put into the hose. Unusual applications may require special testing prior to hose selection.
- 2.10 **Abrasion** – While a hose is designed with a reasonable level of abrasion resistance, care must be taken to protect the hose from excessive abrasion which can result in erosion, snagging, and cutting of the hose cover. Exposure of the reinforcement will significantly accelerate hose failure.
- 2.11 **Proper End Fitting** – Care must be taken to ensure proper compatibility exists between the hose and coupling selected based on the manufacturer's recommendations substantiated by testing to industry standards such as SAE J517.
- 2.12 **Length** – When establishing proper hose length; motion absorption, hose length changes due to pressure, as well as hose and machine tolerances must be considered.
- 2.13 **Specifications and Standards** – When selecting hose; government, industry, and manufacturer's specifications and recommendations must be reviewed as applicable.
- 2.14 **Hose Cleanliness** – Hose components vary in cleanliness levels. Care must be taken to ensure that the assemblies selected have an adequate level of cleanliness for the application.
- 2.15 **Electrical Conductivity** – Certain applications require that hose be non-conductive to prevent electrical current flow. Other applications require the hose to be sufficiently conductive to drain off static electricity. Hose and fittings must be chosen with these needs in mind.
- 2.16 **High Pressure Gas** – Do not use hydraulic hose to transmit high pressure gases.

- 2.17 **Vibration:** Vibration can reduce hose service life. If necessary, conduct tests to evaluate the effects of frequency and amplitude of system vibration on a hose assembly. Clamps of other devices may be used to reduce the effects of vibration.

INSTALLATION:

- 3. After selection of proper hose, the following factors must be considered by the installer:
 - 3.1 **Pre-installation Inspection** – Prior to installation, a careful examination of the hose must be performed. All components must be checked for correct style, size and length. In addition, the hose assembly, and each of the individual components comprising the assembly, must be examined for cleanliness, I.D. obstructions, blisters, loose cover, or any other visible defects.
 - 3.2 **Follow Manufacturer’s Assembly Instructions.**
 - 3.3 **Minimum Bend Radius** – Installation at less than minimum bend radius may significantly reduce hose life. Particular attention must be given to preclude sharp bending at the hose/fittings juncture which may result in leaking, hose rupturing, or the hose assembly blowing apart.
 - 3.4 **Lengths:** Unnecessarily long hose can increase pressure drop and affect system performance. When pressurised, hose that is too short may pull loose from its fittings, or stress the hose fitting connections, causing premature metallic or seal failures.
 - 3.5 **Twist Angle and Orientation** – Hose installations must be such that relative motion of machine components produces bending of the hose rather than twisting.
 - 3.6 **Securement** – In many applications, it may be necessary to restrain, or guide, the hose to protect it from damage by unnecessary flexing, pressure surges, and contact with other mechanical components. Care must be taken to ensure such restraints do not introduce additional stress or wear points.
 - 3.7 **Proper Connection of Ports** – Proper physical installation of the hose requires a correctly installed port connection while ensuring that no twist or torque is transferred to the hose.
 - 3.8 **Avoid External Damage** – Proper installation is not complete without ensuring that all tensile loads, side loads, kinking, flattening, potential abrasion, thread damage, or damage to sealing surfaces are corrected or eliminated.
 - 3.9 **System Check out** – After completing the installation, all entrapped air must be eliminated, then the system must be pressurised to the maximum system pressure and checked for proper function, and for freedom from leaks.

NOTE: AVOID POTENTIAL HAZARDOUS AREAS WHILE TESTING.

MAINTENANCE:

- 4. Even with proper selection and installation, hose life may be significantly reduced without a continuing maintenance program. Maintenance and Inspection frequency should be determined by the severity of the application and risk potential. A maintenance program should include the following as a minimum.
 - 4.1 **Hose Storage** – Hose products in storage can be adversely affected by temperatures, humidity, ozone, sunlight, oils, solvents, corrosive liquids and fumes, insects, rodents, radioactive materials, sharp edges and abrasive surfaces, electric or strong magnetic fields, mould and fungi. Storage areas should be relatively cool and dark and free of dust, dirt, dampness and mildew. Store hose in a manner that facilitates age control and first-in, first-out usage based on manufacturing date on hose or hose assembly.
 - 4.2 **Visual Inspection** – Any of the following conditions require immediate system shut down and replacement of the hose assembly:
 - a) Leaks at fittings or in hose. (Leaking fluid is a fire hazard.)
 - b) Damaged, cut, or abraded cover. (Any reinforcement exposed.)
 - c) Kinked, crushed, flattened, or twisted hose.
 - d) Hard, stiff, heat cracked, or charred hose.
 - e) Blistered, soft, degraded, or loose cover.
 - f) Cracked, damaged, or badly corroded fittings.
 - g) Slippage or movement of fittings on the hose.
 - 4.3 **Visual Inspection** – The following items must be tightened, repaired or replaced as required.
 - a) Leaking port conditions.
 - b) Clamps, guards, shields.
 - c) Remove excessive dirt build-up.
 - d) System fluid level, fluid type, and any air entrapment.
 - 4.4 **Functional Test** – Operate the system at maximum operating pressure and check for possible malfunctions and freedom from leaks.
- NOTE: AVOID POTENTIAL HAZARDOUS AREAS WHILE TESTING.**
- 4.5 **Replacement Intervals** – Specific replacement intervals must be considered based on previous service life, government or industry recommendations, or when failures could result in unacceptable down time, damage, or injury risk.

INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL



SAFETY GUIDE

FOR THE SELECTION AND USE OF HOSE, FITTINGS AND RELATED ACCESSORIES

Failure or improper selection or improper use of hose, fittings, or related accessories can cause death, personal injury and property damage. Possible consequences of failure or improper selection or improper use of hose, fittings, or related accessories include, but are not limited to:

- Fittings blown off at high speed.
- High velocity fluid discharge.
- Explosion, or burning, of the conveyed fluid.
- Electrocutation from high voltage electric power lines or other sources of electricity.
- Contact with suddenly moving, or falling, objects that are held in position, or moved, by conveyed fluid.
- Injections by high-pressure fluid discharge.
- Dangerously whipping hose.
- Contact with conveyed fluids that may be hot, cold, toxic or otherwise injurious.
- Sparking or explosion caused by static electricity build-up.
- Sparking, or explosion, while spraying paint or other flammable liquid.

1. GENERAL INSTRUCTIONS:

- 1.1 **Scope:** This safety guide provides instructions for selecting and using (including assembling, installing and maintaining) hose fittings (including all products commonly called “fittings” or “couplings” for attachment to hose), and related accessories (including crimping machines and tooling). This safety guide is to be used in conjunction with the specific publications for the specific hose, fittings and related accessories that are being considered for use.
- 1.2 **Fail-Safe:** Hose and hose assemblies can and do fail. Design all systems in a fail-safe mode, so that failure of the hose or hose assembly or related accessories will not endanger persons or property.
- 1.3 **Distribution:** Provide a copy of this safety guide to each person who is responsible for selecting, or using, hose and fittings and related accessories. Do not select, or use, hose and fittings or related accessories without thoroughly understanding this safety guide.
- 1.4 **User Responsibility:** Due to the wide variety of operating conditions and uses for hose and fittings and related accessories, RYCO do not represent or warrant that any particular hose or fitting or related accessories is suitable for any specific end use. This safety guide does not analyse all technical parameters that must be considered in selecting a product. The product user, through its own analysis and testing, is solely responsible for:
 - The final selection of the hose and fittings and related accessories.
 - Assuming that requirements are met and the use presents no health or safety hazards.
 - Providing all appropriate health and safety warnings where hose and fittings and related accessories are used.
- 1.5 **Additional Questions:** Contact the RYCO Hydraulics Technical Department if you have any questions or require any additional information.

2. HOSE AND FITTING SELECTION INSTRUCTIONS:

- 2.1 **Electrical Conductivity:** Certain applications require that a hose be non-conductive to prevent electrical current flow. Other applications require the hose to be sufficiently conductive to drain off static electricity. Extreme care must be exercised when selecting hose and fittings for these or any other applications. For applications that require hose to be electrically non-conductive, including but not limited to applications near high voltage electric lines, only special non-conductive hose can be used. The manufacturer of the equipment must be consulted to be certain that the hose and fittings selected are correct for the application. Do not use any RYCO hose or fittings for any such application unless:
 - (i) the application is expressly approved by RYCO
 - (ii) the hose is both orange colour and marked “non-conductive”
 - (iii) the manufacturer of the equipment specifically approves the particular RYCO hose and fittings.

Do not use any RYCO hose or fittings for conveying paint in airless spraying or similar applications without the written approval of RYCO in each case. A special hose and fittings assembly is required for this application. If the correct hose and fitting application is not used for this application, static electricity can build up and cause sparks that may result in an explosion and/or fire.

The electrical conductivity or non-conductivity of hose and fittings is dependent upon many factors and may be susceptible to change.
- 2.2 **Pressure:** Hose selection must be made so that the published maximum recommended working pressure of the hose is equal or greater than the maximum system pressure. Surge pressures in the system higher than the published maximum recommended working pressure will cause failure, or shorten hose life.
- 2.3 **Suction:** Hoses used for suction applications must be selected to ensure that the hose will withstand the vacuum and pressure of the system.
- 2.4 **Temperature:** Be certain that fluid and ambient temperatures, both steady and transient, do not exceed the limitations of the hose. Care must be taken when routing hose near hot objects such as manifolds.
- 2.5 **Fluid Compatibility:** Hose selection must assure compatibility of the hose tube, cover, reinforcement, and fittings with the fluid media used.

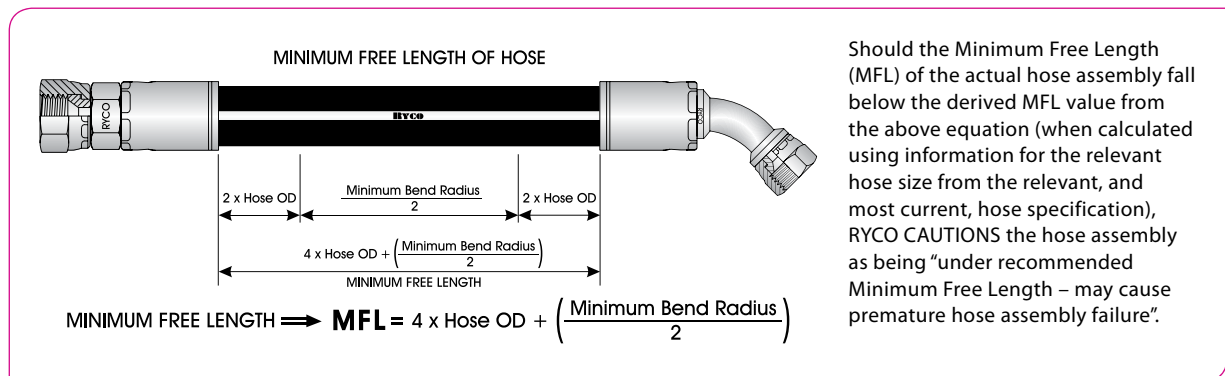
- 2.6 **Permeation:** Permeation (that is, seepage through the hose) will occur from inside the hose to the outside environment when hose is used with gases, liquid and gas fuels, and refrigerants (including but not limited to such materials such as helium, fuel, oil, natural gas or freon). This permeation may result in high concentrations of vapours which are potentially flammable, explosive, or toxic, and in loss of fluid. You must take into account the fact that permeation will occur and could be hazardous.
- Permeation of moisture from the outside environment to inside the hose will also occur. If this moisture permeation would have detrimental effects (particularly for, but not limited to, refrigeration and air conditioning systems), incorporation of appropriate system safeguards should be selected and used. Rubber hoses should not be painted without consulting RYCO first.
- 2.7 **Size:** Transmission of power by means of pressurised fluid varies with pressure and rate flow. The size of the components must be adequate to keep pressure losses to a minimum and avoid damage due to heat generation of excessive fluid velocity.
- 2.8 **Routing:** Attention must be given to optimum routing to minimise inherent problems.
- 2.9 **Environment:** Care must be taken to ensure that the hose and fittings are either compatible with or protected from the environment to which they are exposed including but not limited to ultraviolet radiation, sunlight, heat, ozone, moisture, water, salt water, chemicals and air pollutants.
- 2.10 **Mechanical Loads:** Consideration must be given to excessive flexing, twist, kinking, tensile or side loads, bend radius, and vibration. Use of swivel type fittings or adaptors may be required.
- 2.11 **Physical Damage:** Care must be taken to protect hose from wear, snagging and cuts.
- 2.12 **Proper End Fittings:** See instructions 3.2 through 3.5. These recommendations may be substantiated by testing to industry standards.
- 2.13 **Length: When** establishing a proper hose length; motion absorption, hose length changes due to pressure, and hose and machine tolerances must be considered.
- 2.14 **Specifications and Standards:** When selecting hose and fittings; government, industry, and RYCO specifications and recommendations must be reviewed and followed as applicable.
- 2.15 **Hose Cleanliness:** Hose components may vary in cleanliness levels. Care must be taken to ensure that the assembly selected has an adequate level of cleanliness for the application.
- 2.16 **Fire Resistant Fluids:** Some fire resistant fluids require the same hose as used with petroleum oil. Some use a special hose, while a few fluids will not work with any hose at all. See General Instructions 1.5 and Hose and Fitting Selection Instructions 2.5.
- 2.17 **Radiant Heat:** Hose can be heated to destruction without contact by nearby items such as hot manifolds or molten metal.
- 2.18 **Welding and Brazing:** Heating of plated parts, including hose fittings and adaptors, above 232°C (450°F) such as during welding, brazing, or soldering may emit deadly gases.
- 2.19 **Atomic Radiation:** Atomic radiation affects all materials used in hose assemblies. Do not expose hose assemblies to atomic radiation.

3. HOSE AND FITTING ASSEMBLY AND INSTALLATION INSTRUCTIONS:

- 3.1 **Pre-Installation Inspection:** Prior to installation, a careful examination of the hose assembly must be performed. All components must be checked for correct style, size, and length. The hose must be examined for cleanliness, obstructions, blisters, cover looseness, or any other visible defects.
- 3.2 **Hose and Fitting Assembly:** Do not assemble a RYCO fitting on a RYCO hose that is not specifically listed for that fitting by RYCO. Do not assemble RYCO fittings on another manufacturer's hose or a RYCO hose on another manufacturer's fitting unless RYCO approves the assembly in writing, and the user verifies the assembly and the application through analysis and testing. See instruction 1.4. The RYCO published instructions must be followed for assembling the fittings on the hose. These instructions are provided in the RYCO catalogue.
- 3.3 **Related Accessories:** Do not crimp or swage any RYCO hose or fitting with anything but the proper RYCO swage machine or crimp machine and in accordance with RYCO published instructions. Do not crimp or swage another manufacturer's hose fitting with a RYCO crimp machine or swage machine unless authorised in writing by RYCO.
- 3.4 **Safety Equipment:** During fabrication, use proper safety equipment, including eye protection, respiratory protection, and adequate ventilation.
- 3.5 **Reuse of Hose and Fittings:** Damaged hoses or hose fittings shall not be used.
- 3.6 **Assembly inspection:** After assembly, hose assemblies shall be inspected for visible defects and interior obstructions, such as tube bulges, etc.
- 3.7 **Marking:** Hose assemblies shall be marked in accordance with any relevant standards.
- 3.8 **Parts:** Do not use any RYCO hose or fitting part unless used with the correct RYCO mating parts, in accordance with published instructions, unless authorised in writing by RYCO.
- 3.9 **Field Attachable/Permanent:** Field Attachable couplings may be reattached once only after their first use, provided that they have not been part of a hose assembly that has failed, and are in a fit condition for reuse. Do not reuse any field attachable hose coupling that has blown or pulled off a hose. Do not reuse any permanent (that is, crimped or swaged) hose fittings or any part thereof.

- 3.10 **Minimum Bend Radius:** Installation of a hose at less than the minimum listed bend radius may significantly reduce hose life.
- 3.11 **Twist Angle and Orientation:** Hose installations must be such that relative motion of machine components does not produce twisting.
- 3.12 **Securement:** In many applications, it may be necessary to restrain, protect, or guide the hose to protect it from damage. Care must be taken to ensure such restraints do not introduce additional stress or wear points.
- 3.13 **Proper Connection of Ports:** Proper physical installation of the hose requires a correctly installed port connection while ensuring that no twist or torque is transferred to the hose.
- 3.14 **Assembly Torque:** The correct torque instructions and specifications must be followed to obtain a proper seal when a hose assembly is attached to a port, an adaptor or another assembly.
- 3.15 **External Damage:** Proper installation is not complete without ensuring that tensile loads, side loads, kinking, flattening, potential abrasion, thread damage, or damage to sealing surfaces are corrected or eliminated. See instruction 2.10.
- 3.11 **System Check-out:** After completing the installation, all air entrapment must be eliminated and the system pressurised to the maximum system pressure and checked for proper function and freedom from leaks.
NOTE: Avoid potential hazardous areas while testing.
- 3.12 **Minimum Free Length of Hose Assemblies:** Occasionally requests or orders arise for hydraulic hose assemblies where the 'Free Length' of hose between the ferrules of the couplings is not long enough, and could hinder the ability of the hose assembly to function properly. This is particularly the case when utilising very short hose assemblies, where a shortening or shrinkage of the hose under pressure may result in hose and coupling separation. In addition, small misalignments, vibration and other displacements may induce very high stresses upon the hose/coupling juncture, as there is little capacity for the flexible nature of the hose to compensate.

Due to the possible problems associated with using very short hose assemblies, RYCO has adopted the following general rule (equation) for the allowable Minimum Free Length (MFL) of hose to be used as a guide when fabricating or ordering a hydraulic hose assembly.



4. HOSE AND FITTING MAINTENANCE INSTRUCTIONS:

Even with proper selection and installation, hose life may be significantly reduced without a continuing maintenance program. Frequency should be determined by the severity of the application and risk potential. A maintenance program must include the following as a minimum.

- 4.1 **Visual Inspection Hose/Fitting:** Any of the following conditions require immediate system shut down and replacement of the hose assembly:
- Slippage or movement of fittings on the hose
 - Damaged, cut or abraded cover
 - Hard, stiff, heat cracked, or charred hose
 - Cracked, damaged, or badly corroded fittings
 - Leaks at fitting or in hose
 - Kinked, crushed, flattened or twisted hose
 - Blistered, soft, degraded or loose cover
 - Unusual noise, odour or heat.
- 4.2 **Visual Inspection All Other:** The following items must be tightened, repaired or replaced as required:
- Leaking port conditions
 - Remove excess dirt build-up
 - Clamps, guards, shields
 - System fluid level, fluid type and any air entrapment
- 4.3 **Functional Test:** Operate the system at maximum operating pressure and check for possible malfunctions and freedom from leaks.
- 4.4 **Replacement Intervals:** Specific replacement intervals must be considered based on previous service life, government or industry recommendations. See instructions 1.2.

SAFETY GUIDE – MAXIMUM TEMPERATURE LIMITS

The following RYCO Hose Series are not listed on this page: **T1F, TJ2D, RQG1, M2G, M1, FB2, RTH1, TW1, PW2, MP1.**

These hoses are specific purpose hoses, and their temperature limits are specified in the HOSE section of this Product Technical Manual. Refer to RYCO Hydraulics Technical Department for any further queries.

Other RYCO Hose Series are listed below. The Maximum Working Temperatures for these hoses as listed in the HOSE section of this Product Technical Manual; are for use with general purpose, mineral (petroleum) oil based hydraulic fluids, except where otherwise stated.

Temperature limits for other hydraulic fluids, and some other common applications, are listed below.

CAUTION: Life expectancy of hoses is shortened at high temperatures. Detrimental effects increase when temperature is elevated, and when operating pressure, flow velocity, duration and frequency of exposure, and level of impurities in the media are high. Actual service life at temperatures approaching the recommended limits will depend on the particular application and the fluid being used.

Maximum Working Temperatures refer to the temperature of the media in the hose; not the environmental temperature of around the outside of the hose. Please refer to RYCO Hydraulics Technical Department for environmental temperatures in excess of 80°C (176°F), except RQP1 and RQP2 Series where environmental temperature is the same as media temperature.

Maximum Working Temperatures shown are for continuous temperatures. Slightly higher intermittent temperatures (up to 10% of total operating time) may be acceptable with some hoses and some fluids if reduced service life is acceptable. Please refer to RYCO Hydraulics Technical Department for more information.

DO NOT expose hose to maximum temperature and maximum rated working pressure at the same time.

The fluid manufacturer's recommended maximum operating temperature for the fluid must not be exceeded. If different to the below listed temperatures, the lower limit must take precedence. We recommend keeping the hose filled with the pressure medium at all times. Further information available on request.

HOSE COVER	GROUP 1	GROUP 2	GROUP 3	GROUP 4
AVENGER	T3000A, T4000A, T5000A, T6000A, T1A, T2A, DF2A	H3000A, H4000A, H5000A, H6000A, H12A, R45PA, R45HA		
DIEHARD	T3000D, T4000D, T5000D, T6000D, T1D, T2D, TXA2D, TJ2D, PL1D	H3000D, H4000D, H5000D, H6000D, H12D, R45PD, R45HD		
SLIDER	T3000S, T4000S, T5000S, T6000S, T1S, T2S	H3000S, H4000S, H5000S, H6000S, H12S		
SURVIVOR	RQP6		RQP1, RQP2, RQP5	
OTHER SERIES	SR, SRF, M2, T5, BT1, T1F, E2, PL1, DB2, T2C, CS1000, MS1000			TP7, TP7N, TP7T, TP7TN, TP8, TP8N, TP8T, TP8TN, TP3000, TPGL

MEDIA	TEMPERATURE LIMITS			
GENERAL PURPOSE MINERAL (PETROLEUM) BASED HYDRAULIC OIL¹	-40°C to +100°C (-40°F to +212°F) RQP6: -40° to +125°C (-40°F to +257°F)	-40°C to +121°C (-40°F to +250°F)	-40°C to +150°C (-40°F to +302°F)	-40°C to +95°C (-40°F to +203°F)
WATER	+71°C (+160°F)	0°C to +71°C (+32°F to +160°F)	0°C to +121°C (+32°F to +250°F)	0°C to +70°C (+32°F to +158°F)
WATER IN MINERAL OIL (40% to 80% water)	+85°C (+185°F)	-40°C to +85°C (-40°F to +185°F)	-40°C to +121°C (-40°F to +250°F)	-40°C to +70°C (-40°F to +158°F)
MINERAL OIL IN WATER (more than 80% water)	+85°C (+185°F)	-40°C to +85°C (-40°F to +185°F)	-40°C to +121°C (-40°F to +250°F)	-40°C to +70°C (-40°F to +158°F)
WATER/GLYCOL	+85°C (+185°F)	-40°C to +85°C (-40°F to +185°F)	-40°C to +121°C (-40°F to +250°F)	-40°C to +70°C (-40°F to +158°F)
GLYCOL	+85°C (+185°F)	-40°C to +85°C (-40°F to +185°F)	-40°C to +85°C (-40°F to +185°F)	-40°C to +70°C (-40°F to +158°F)
PHOSPHATE ESTERS²	Not suitable	Not suitable	-40°C to +82°C (-40°F to +180°F) (see Note 2)	40°C to +70°C (-40°F to +158°F) (see Note 2)
AIR³	RQP6: -40°C to +100°C (-40°F to +212°F) ***OTHERS: +71°C (+160°F)	-40°C to +71°C (-40°F to +160°F) (see Note 3)	-40°C to +121°C (-40°F to +250°F) (see Note 3)	-40°C to +71°C (-40°F to +160°F) (see Note 3)
PETROL (GASOLINE)	Contact RYCO	Contact RYCO	Contact RYCO	Contact RYCO
DIESEL FUEL	PL1: -40°C to +49°C (-40°F to +160°F) T5: -40°C to +71°C (-40°F to +160°F) RQP6: -40°C to +71°C (-40°F to +160°F) OTHERS: +50°C (+122°F)	-40°C to +50°C (-40°F to +122°F)	Not suitable	
ENGINE LUBRICATING OIL, GEARBOX OIL	-40°C to +100°C (-40°F to +212°F)	-40°C to +100°C (-40°F to +212°F)	-40°C to +100°C (-40°F to +212°F)	-40°C to +95°C (-40°F to +203°F)
AUTOMATIC TRANSMISSION FLUID	-40°C to +100°C (-40°F to +212°F)	-40°C to +100°C (-40°F to +212°F)	-40°C to +100°C (-40°F to +212°F)	-40°C to +95°C (-40°F to +203°F)

- 1 For highly refined and special purpose mineral based hydraulic oils (for example aviation hydraulic oils, MIL spec oils, etc), contact RYCO Technical Department.
- 2 Not suitable for use with aerospace type phosphate esters such as Monsanto Skydrol 500B, Stauffer Aero-Safe 2300W and Chevron Hy-jet IV.
- 3 For use with Air at pressures above 17,2 bar (250 psi), cover of hose must be perforated/pin-pricked (except RQP5 and T5), to allow air permeating through hose to escape without blistering the cover. Maximum working pressure of wire braid and spiral reinforced hose must be reduced by 30% (except for RQP1 and RQP2). Observe all State and Federal Safety Regulations.

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CHARACTERISTICS OF HOSE ELASTOMERS

The characteristics shown below are for the normal, or usual, range of these specific Elastomers. Characteristics can be changed somewhat, through different compounding, to meet the requirements of specialised applications. Each elastomer has a unique combination of strengths and weaknesses. Depending on each specific application, the elastomer must possess the correct combination of properties if it is to perform satisfactorily.

Tube and cover elastomers may occasionally be upgraded to take advantage of improved materials and technology.

For detailed information on specific hose tube or cover check the Chemical Compatibility Table on page 495, and also the specific hose specifications page.

COMMON NAME CHEMICAL NAME	NEOPRENE Poly - Chloroprene	NITRILE Acrylonitrile & Butadiene	HYPALON™ Chlorosulfonated Polyethylene	EPDM Ethylene Propylene Diene	CPE Chlorinated Polyethylene	POLYESTER Polyamide Resin	TEFLON™ Fluorinated Thermoplastic
Common	CR	NBR	CSM	EPDM	CPE	PE-E	PTFE
Flame Resistance	Very Good	Poor	Good	Poor	Good	Poor	Good
Petroleum Base Oils	Good	Excellent	Very Good	Poor	Very Good	Very Good	Excellent
Diesel Fuel	Good to Excellent	Excellent	Good	Poor	Very Good	Very Good	Excellent
Resistance to Gas Permeation	Good	Good	Good to Excellent	Fair to Good	Good	Good	Good to Excellent
Weather	Good to Excellent	Fair to Good	Very Good	Excellent	Good	Excellent	Excellent
Ozone	Good to Excellent	Poor for Tube Good for Cover	Very Good	Excellent	Good	Good	Excellent
Heat	Good	Good	Very Good	Excellent	Excellent	Good	Excellent
Low Temperature	Fair to Good	Poor to Fair	Poor	Good to Excellent	Good	Good	Excellent
Water - Oil Emulsions	Excellent	Excellent	Good	Poor	Excellent	Very Good	Excellent
Water/ Glycol Emulsions	Excellent	Excellent	Excellent	Excellent	Excellent	Very Good	Excellent
Phosphate Esters to 82°C (180°F)	Fair (For Cover)	Poor	Excellent (not for Aerospace types)	Very Good	Very Good	Good	Excellent
Phosphate Ester Base Emulsions	Fair (For Cover)	Poor	Excellent (not for Aerospace types)	Very Good	Very Good	Good	Excellent

NOTE: HYPALON™ and TEFLON™ are Trademarks of DUPONT

CHEMICAL COMPATIBILITY FOR HOSE

The following Chemical Compatibility Chart is for guidance only.

In all cases, testing is advised to determine the application suitability.

Material for Couplings and Adaptors must also be compatible - refer to RYCO Technical Department.

Specified resistance applies only at room temperature unless otherwise stated, and within the listed concentration.

CHEMICAL NAME	TUBE MATERIAL						
	NEOPRENE	NITRILE	NITRILE PVC	CPE	HYPALON™	POLYESTER	TEFLON™
Acetic Acid (25%)	2	X	2	1	2	X	1
Acetone	X	X	X	1	X	X	1
Acetylene	NO HOSE AVAILABLE						
Air (71°C, 166°F)	1	1	1	1	1	1	1
Air (82°C, 180°F)	2	2	2	1	2	2	1
Air (93°C, 199°F)	X	X	X	1	2	X	1
Amyl Acetate	X	X	X	2	X	X	1
Aniline	X	X	X	2	X	-	1
Benzene (Benzol)	X	X	X	X	X	X	1
Butyl Acetate	X	X	X	2	X	X	1
Butyl Alcohol (Butanol)	2	X	X	1	2	2	1
Carbon Dioxide (Dry)	2	1	1	1	1	-	1
Carbon Dioxide (Wet)	2	1	1	1	1	-	1
Carbon Disulfide	X	X	X	2	X	-	1
Chlorine Gas (Dry & Wet)	NO HOSE AVAILABLE						
Chlorine Water (25%)	X	X	X	-	2	X	1
Chloroform	X	X	X	-	X	X	1
Cyclohexane	X	2	X	1	X	2	1
Diesel fuel (under 50°C, 122°F)	X	1	X	2	X	1	1
Ethers (under 50°C, 122°F)	X	2	2	1	2	X	1
Ethyl Acetate	X	X	X	2	X	2	1
Ethyl Alcohol (Ethanol)	1	1	-	1	1	2	1
Ethyl Cellulose	-	-	-	1	-	-	1
Ethyl Chloride (Wet)	2	X	X	-	X	-	1
Ethylene Glycol (under 66°C, 151°F)	1	1	1	1	1	1	1
Fluorine (Liquid)	NO HOSE AVAILABLE						
Formaldehyde 37%	2	2	-	1	2	2	1
Fuel A (ASTM)	X	2	2	1	1	-	-
Fuel B (ASTM)	X	2	X	2	X	-	-
Fuel Oil	X	1	X	1	X	2	1
Glycerine (Glycerol)	1	1	1	1	1	1	1
Grease (Petroleum Base)	2	1	2	-	2	1	1
Hexane (under 50°C, 122°F)	X	1	2	2	1	2	1
Hydraulic Fluid (Phosphate Ester Base)	X	X	X	1	1	2	1
Hydraulic Fluid (100°C, 212°F) (Std. Petroleum Oils)	2	1	2	1	1	1	1
Hydrochloric Acid (15%)	X	X	X	1	2	X	1
Hydrochloric Acid (37%)	X	-	X	1	2	X	1
Hydrogen (Gas)	1	1	-	1	-	2	1
Hydrogen Peroxide (30%)	X	2	X	1	2	X	1

CHEMICAL NAME	TUBE MATERIAL						
	NEOPRENE	NITRILE	NITRILE PVC	CPE	HYPALON™	POLYESTER	TEFLON™
Isopropyl Alcohol	2	2	2	1	2	-	1
Kerosene	X	2	X	1	X	2	1
L.P.G.	USE L.P.G. HOSE ONLY						
Lubricating Oils (under 50°C, 122°F)	2	1	2	1	2	1	1
Methyl Alcohol (Methanol) 100%	1	1	1	1	1	2	1
Methyl Chloride	X	X	X	X	X	2	1
Methyl Ethyl Ketone (MEK)	X	X	X	2	X	2	1
Naphtha (Low Aromatics)	X	2	X	1	X	X	1
Natural Gas	USE L.P.G. HOSE ONLY						
Nitric Acid (10%)	X	X	X	1	2	X	1
Nitric Acid (40%)	X	X	X	X	X	X	1
Oxalic Acid (10% cold)	X	X	X	1	2	X	1
Ozone (Dry)	2	X	2	1	2	2	1
Paint Solvents (Oil Base)	X	X	-	-	X	2	1
Perchloroethylene	X	X	X	2	X	X	1
Phenol (Carbolic Acid)	X	X	X	1	X	X	1
Phosphoric Acid (50%)	2	2	X	1	1	X	1
Propane Gas	USE L.P.G. HOSE ONLY						
Sodium Hydroxide (40%)	1	2	-	1	1	X	1
Sodium Hydroxide (50%, under 45°C, 113°F)	2	X	X	1	1	X	1
Sodium Hydroxide (50%, under 82°C, 180°F)	-	-	-	1	2	X	1
Sulphur Dioxide (Dry)	X	X	X	-	2	X	1
Sulphuric Acid (10%)	1	2	2	1	1	X	1
Sulphuric Acid (93%)	X	X	X	-	X	X	1
Toluene (Toluol)	X	X	X	X	X	2	1
Trichloroethylene	X	X	X	2	X	2	1
Vegetable Oils	2	1	2	1	2	1	1
Xylene	X	X	-	X	-	2	1

KEY

1 = Excellent Resistance

2 = Good Resistance

X = Not Recommended

- = No Data Available

NOTE: HYPALON™ and TEFLON™ are Trademarks of DUPONT

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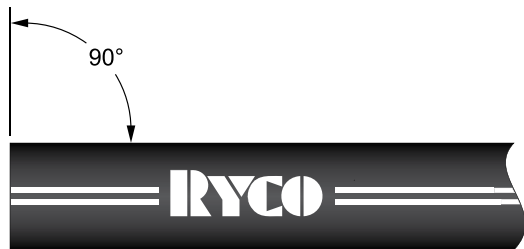
TECHNICAL

ASSEMBLY INSTRUCTIONS FOR:

RYCO FIELD ATTACHABLE COUPLINGS WITH MATCHED SIZES OF RYCO NON-SKIVE HOSE.

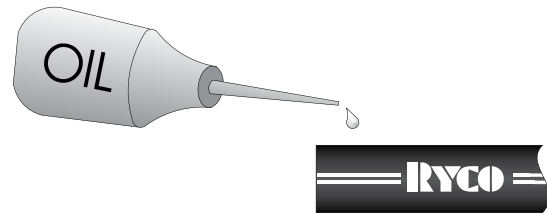
USE ONLY RYCO BT1, E2, M2, M2G, RQP1, RQP2, RQP5, T1A, T1D, T1F, T2A, T2D, TXA2D, T5 and TPGL SERIES HOSE.

STEP ONE



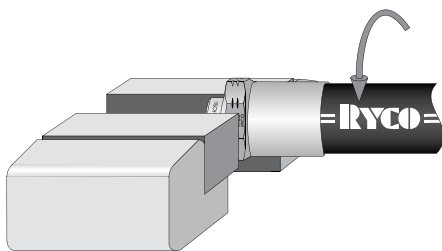
- Cut hose to length required using a cut-off saw.
- Ensure hose is cut squarely.
- Clean hose bore.

STEP TWO



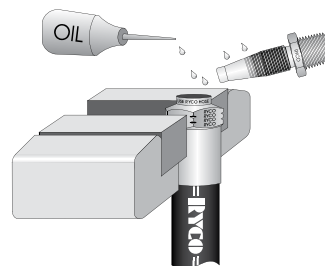
- Lightly lubricate outer cover.

STEP THREE



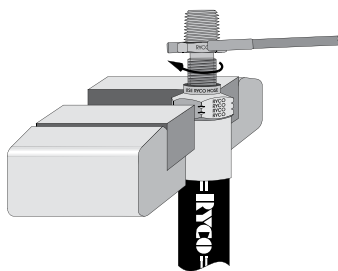
- Screw anti-clockwise until hose bottoms in ferrule.
- Ease back between 1/2 and 3/4 of a turn (Note: This is not required for P000-02 ferrule with TPGL hose).

STEP FOUR



- Lightly lubricate insert and inside of hose.
- **Note: Do not use lubricant for M2G hose, or hose to be used with volatile gases.**

STEP FIVE



- Screw insert clockwise right into ferrule using a continuous motion.
- Do not allow hose to turn during operation.

SPECIAL NOTES

- **FOR T1A AND T1D HOSE IN SIZES -20, -24, -32.** In these sizes, K Series Ferrules are not available and A Series Field Attachable Couplings may be used. The cover of hose must be skived at ends. Refer to page 497 for assembly instructions.
- **FOR T2A, T2D AND RQP2 HOSE IN SIZES -24, -32.** In these sizes, L Series Ferrules are not available and B Series Field Attachable Couplings may be used. The cover of hose must be skived at ends. Refer to page 497 for assembly instructions.
- **FIELD ATTACHABLE COUPLINGS** should not be used at maximum working pressure of hose when temperature exceeds 121°C (250°F). Field Attachable Couplings may be used on suitable hose at over 121°C (250°F) but at reduced working pressure. Contact RYCO Technical Department for more information.

ASSEMBLY INSTRUCTIONS FOR:

RYCO FIELD ATTACHABLE COUPLINGS WITH MATCHED SIZES OF RYCO SKIVE HOSE.
USE ON LARGER SIZES OF RYCO T1A, T1D, T2A, T2D and RQP2 HOSE, SEE NOTE 1 & 2 ON PAGE 496).

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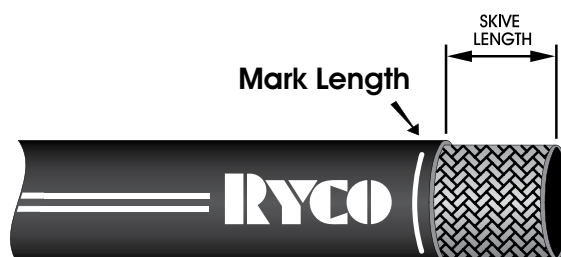
TECHNICAL

STEP ONE



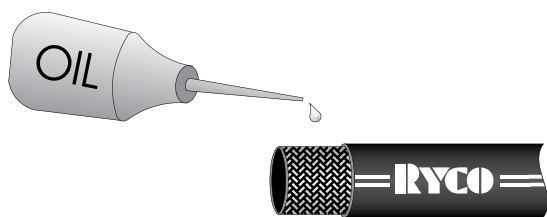
- Cut hose to length required using a cut-off saw.
- Ensure hose is cut squarely.
- Clean hose bore.

STEP TWO



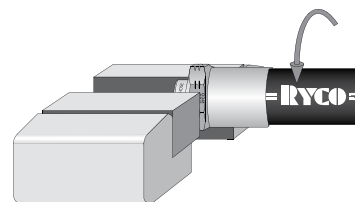
- Mark Skive Length (refer to Hose specification pages).
- Cut rubber cover around and down to wire reinforcement then slit lengthwise.
- Raise flap and pull off with pliers.

STEP THREE



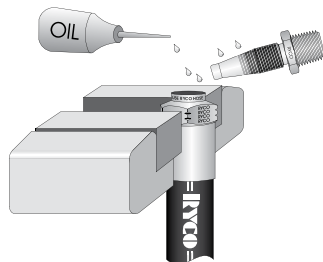
- Lightly lubricate exposed wire reinforcement.

STEP FOUR



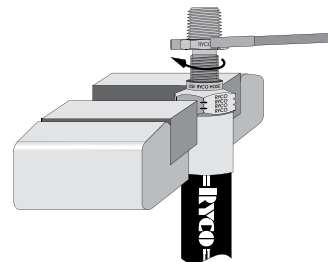
- Screw anti-clockwise until hose bottoms in ferrule.
- Ease back between 1/2 and 3/4 of a turn.

STEP FIVE



- Lightly lubricate insert and inside of hose.
- **Note: Do not use lubricant for hose to be used with volatile gases.**

STEP SIX



- Screw insert clockwise right into ferrule using a continuous motion.
- Do not allow hose to turn during operation.

ASSEMBLY INSTRUCTIONS FOR:

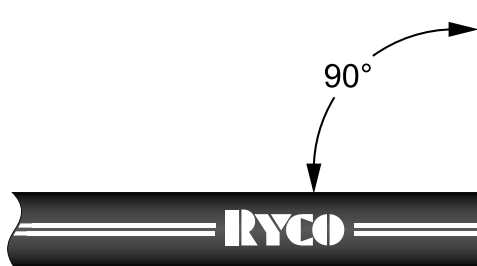
1. RYCO BITELOK T1000, T2000, T7000 and T9000 SERIES COUPLINGS WITH RYCO NON-SKIVE HOSE.

USE ONLY MATCHED SIZES OF RYCO T3000A, T3000D, T3000S, T4000A, T4000D, T4000S, T5000A, T5000D, T5000S, T6000A, T6000D, T6000S, H3000A, H3000D, H3000S, H4000A, H4000D, H4000S, H5000A, H5000D, H5000S, H6000A, H6000D, H6000S, T1A, T2A, T2C, T1D, T2D, TJ2D, TXA2D, T1F, T1S, T2S, BT1, DF2A, D2B, RQP1, RQP2, PW2, TW1, H12A, H12D, H12S, MS1000, CS1000 (SKIVE), R4SH, TP7, TP7N, TP7T, TP7TN, TP8, TP8N, TP8T and TP8TN SERIES HOSE.

2. RYCO BITELOK T4000 and TG000 SERIES COUPLINGS WITH RYCO NON-SKIVE HOSE.

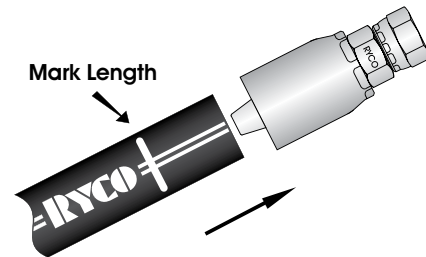
USE ONLY MATCHED SIZES OF RYCO M2, M2G, MP1, PL1, PL1D, RQP5, RQP6, TP7, TP7N, TP7T, TP7TN, TP3000, SR, SRF, T5 and TPGL SERIES HOSE. (See page 505 for instructions for separating of ends of TP7T, TP7TN, TP8T and TP8TN Series.)

STEP ONE



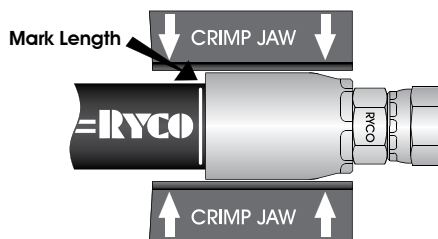
- Cut hose to required length using a cut-off saw.
- Ensure hose is cut squarely.
- Clean hose bore.

STEP TWO



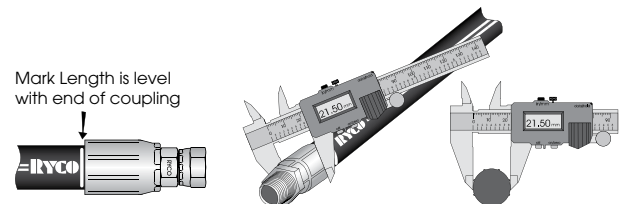
- Mark the Mark Length onto the hose (Mark Length dimension from "RYCO Crimp Chart").
- Push hose into the fitting (lightly lubricate the hose bore only if necessary as excess lubrication may reduce hose assembly impulse life) until the mark on the hose is even with the end of the ferrule*.
- **Note: Push the hose all the way into the fitting.**

STEP THREE



- Place assembled end into the jaws of crimp machine.
- Operate machine to crimp ferrule to predetermined diameter. (Refer to "RYCO Crimp Chart").

STEP FOUR



- Open the crimp machine and remove the assembly.
- Check the crimp diameter with a caliper or micrometer. Crimp diameter should be measured halfway along ferrule. Measure between the ridges, and make sure that the caliper fingers do not touch the ridges.
- Check that the Mark Length mark is still visible and even with the end of the ferrule to ensure coupling has not moved during crimping.

NOTES

- **Extra special care must be exercised in the preparation, assembly and crimping of these fittings due to the very high pressures and end loads encountered.**
- **RYCO Crimp Chart detailing Mark or Skive Length and Crimp Diameter is available from RYCO Hydraulics.**
- **Note: Do not use lubricant for M2G hose, or hose to be used with volatile gases.**

* For TP7, TP7N, TP7T, TP7TN, TP8, TP8N, TP8T, TP8TN, TP3000 and TPGL Hose Series it is preferable to lightly lubricate using a PTFE or Silicon-based aerosol spray lubricant. Use lubricant only if necessary; use sparingly if required.

HOW TO ORDER BITELOK NON-SKIVE HOSE COUPLINGS

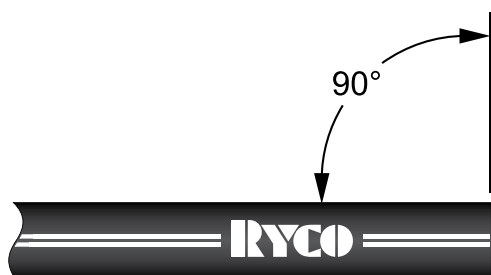
- The RYCO BITELOK Non-Skive Coupling is a one-piece fitting. BITELOK Non-Skive Couplings do not require the hose to be skived externally or internally.
- As the BITELOK Non-Skive Coupling is a complete coupling, simply order by Part Number.

ASSEMBLY INSTRUCTIONS FOR:

RYCO BITELOK T7000 SERIES COUPLINGS WITH RYCO SKIVE HOSE.
USE ONLY MATCHED SIZES OF RYCO R4SP SERIES HOSE.

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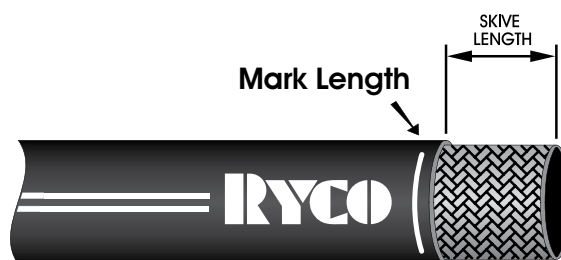
STEP ONE



- Cut hose to length required using a cut-off saw.
- Ensure hose is cut squarely.
- Clean hose bore.

HOSE

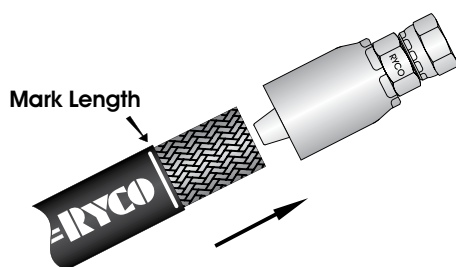
STEP TWO



- Mark the Skive Length onto the hose. (Refer to "RYCO Crimp Chart").
- Cut rubber cover around and down to wire reinforcement then slit lengthwise.
- Raise flap and pull off with pliers.
- Measure coupling insertion depth and add a Mark Length Line on the outer cover as shown.

COUPLINGS

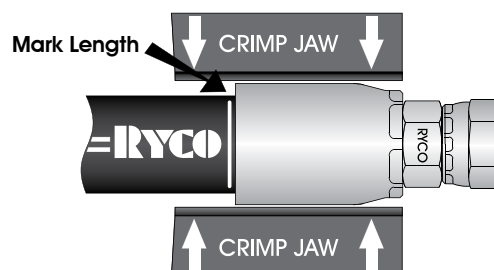
STEP THREE



- Push hose into the fitting (lightly lubricate the hose bore only if necessary as excess lubrication may reduce hose assembly impulse life) until the mark on the hose is even with the end of the ferrule.
- **Note: Push the hose all the way into the fitting.**
- **Note: Do not use lubricant for hose to be used with volatile gases.**

ADAPTORS

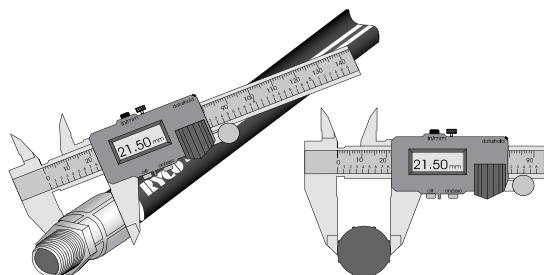
STEP FOUR



- Place assembled end into jaws of crimp machine.
- Operate machine to crimp ferrule to predetermined diameter. (Refer to "RYCO Crimp Chart").

ACCESSORIES

STEP FIVE



- Open crimp machine and remove assembly.
- Check crimp diameter with caliper or micrometer. Crimp diameter should be measured halfway along the ferrule. Measure between the ridges, and make sure that the caliper fingers do not touch the ridges.
- Check that the ferrule still completely covers the skived part of the hose to ensure coupling has not moved during crimping.

FILTERS

NOTE

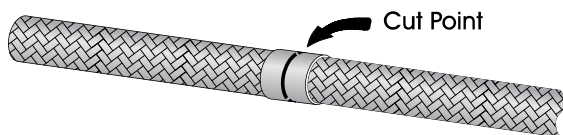
- Extra special care must be exercised in the preparation, assembly and crimping of these fittings due to the very high pressures and end loads encountered.
- The latest RYCO Crimp Chart detailing Mark or Skive Length and Crimp Diameter is available from the RYCO website.

TECHNICAL

ASSEMBLY INSTRUCTIONS FOR:

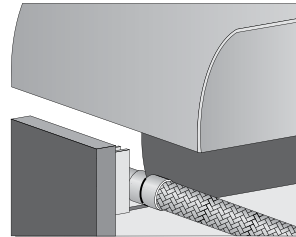
TT000 SERIES ONE-PIECE COUPLINGS. USE ONLY MATCHED SERIES OF RYCO RTH1 SERIES HOSE.

STEP ONE



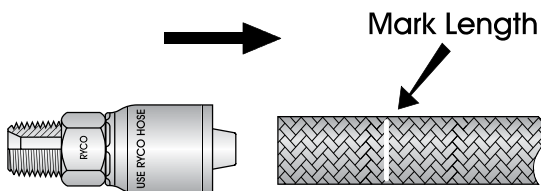
- Tape with masking tape at the cut position to prevent wire braid flaring.

STEP TWO



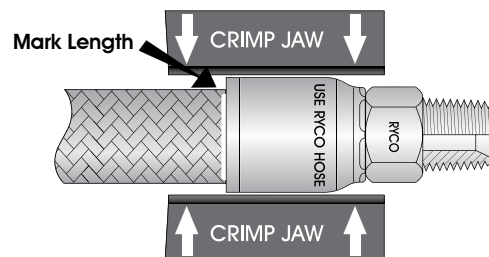
- Cut hose to length. Ensure hose is cut squarely.
- Clean hose bore.
- **WARNING: Do not smoke in the vicinity when cutting RTH1 hoses because fumes created are toxic and may mix with cigarette smoke when inhaled.**

STEP THREE



- Refer to "RYCO Crimp Chart" for Mark Length of Coupling.
- Mark outer cover with Mark Length.
- Push hose into the fitting (lightly lubricate the hose bore only if necessary as excess lubrication may reduce hose assembly impulse life) until the mark on the hose is even with the end of the ferrule*.
- **Note: Push the hose all the way into the fitting.**

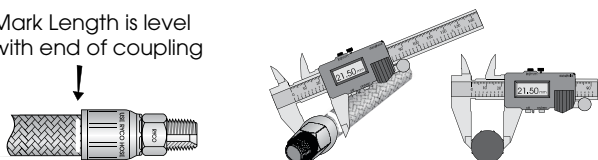
STEP FOUR



- Place assembled end into the jaws of crimp machine.
- Operate machine to crimp ferrule to predetermined diameter. (Refer to "RYCO Crimp Chart").
- Open the crimp machine.
- Check that the Mark Length mark is still visible and even with the end of the ferrule to ensure coupling has not moved during crimping.

STEP FIVE

Mark Length is level with end of coupling



- Check that full length of ferrule has been crimped.
- Check the crimp diameter with a caliper or micrometer. Crimp diameter should be measured halfway along ferrule. Measure between the ridges, and make sure that the caliper fingers do not touch ridges.

NOTE

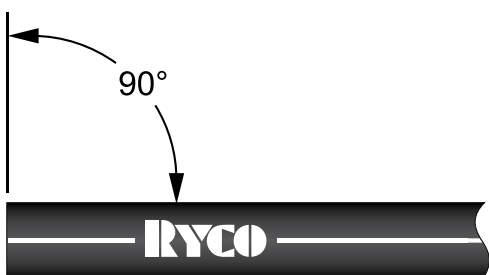
- **Extra special care must be exercised in the preparation, assembly and crimping of these fittings due to the very high pressures and end loads encountered.**
- **The latest RYCO Crimp Chart detailing Mark or Skive Length and Crimp Diameter is available from the RYCO website.**
- **Note: Do not use lubricant for hose to be used with volatile gases.**

ASSEMBLY INSTRUCTIONS FOR:

33000 SERIES SERIES SUCTION HOSE COUPLINGS. USE ONLY MATCHED SERIES OF RYCO SR and SRF SERIES HOSE.

INTRODUCTION

STEP ONE



HOSE

COUPLINGS

ADAPTORS

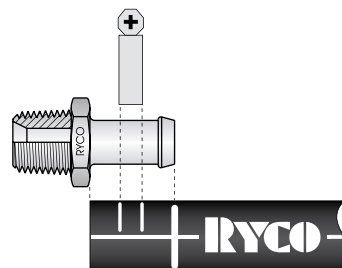
ACCESSORIES

FILTERS

TECHNICAL

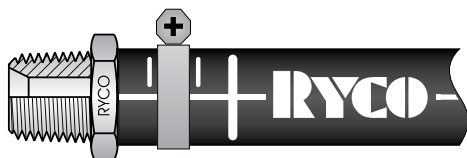
- Cut hose to required length using a cut-off saw.
- Ensure helix wires are not protruding.
- Ensure hose is cut squarely.

STEP TWO



- Mark the cover of the hose to ensure that Clamp will be correctly located.

STEP THREE



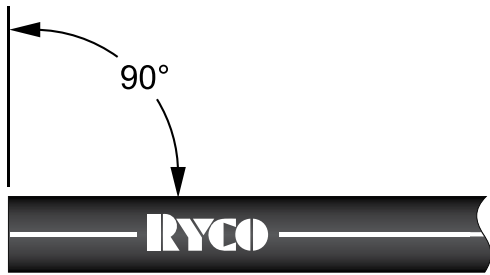
- Slide Clamp over hose.
- Push the coupling into the hose bore until hex or collar abuts end of hose.
- Position Clamp, and tighten bolt to recommended torque.

ASSEMBLY INSTRUCTIONS FOR:

1G000 SERIES TWO-PIECE COUPLINGS. USE ONLY RYCO FB2 SERIES HOSE.

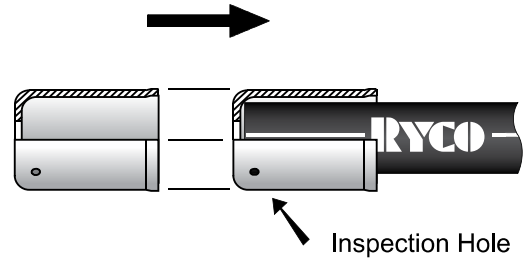
RYCO Crimp Chart detailing Crimp Length and Diameter is available from RYCO.

STEP ONE



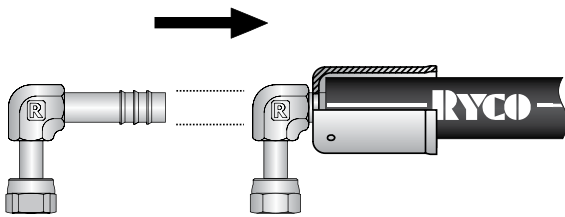
- Cut hose to length required.
- Ensure hose is cut squarely.
- Clean hose bore.

STEP TWO



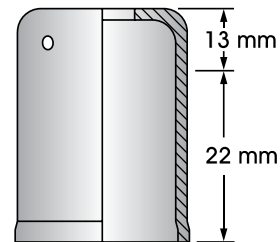
- Push ferrule onto hose until hose end abuts with ferrule end.
- Inspect hose via hole in ferrule to confirm.

STEP THREE



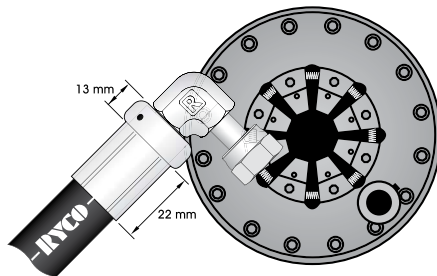
- Push insert into hose bore until the shoulder abuts the ferrule (do not use lubrication).

STEP FOUR



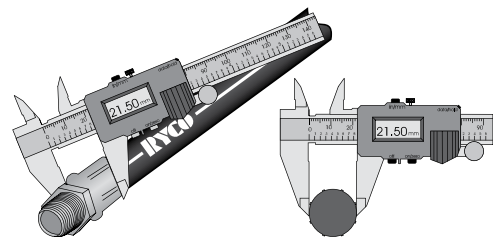
- Place assembled end into the jaws of the crimp machine with 13 mm (0.51") of the ferrule protruding in front of the jaws.
- Crimp only the rear 22 mm (0.87") length of ferrule.

STEP FIVE



- Operate the machine to crimp the ferrule to the predetermined diameter. (Refer to "RYCO Crimp Chart").

STEP SIX



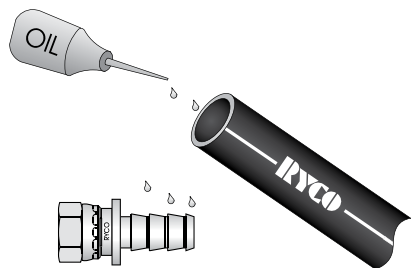
- Open the crimp machine and remove the assembly.
- Check the crimp diameter and crimp length with a caliper or micrometer.
- Check, via inspection hole in ferrule, that the coupling has not moved during crimping.

ASSEMBLY INSTRUCTIONS FOR:

8000 SERIES PUSH-ON COUPLINGS. USE ONLY RYCO PL1, PL1D and RQP6 SERIES HOSE.

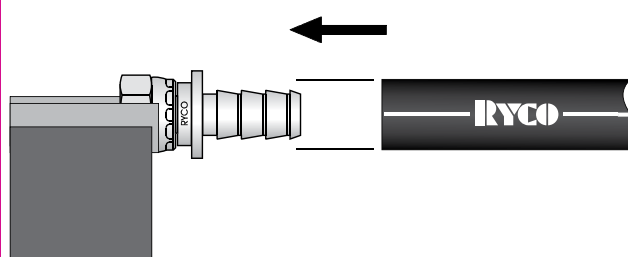
INTRODUCTION

STEP ONE



- Cut hose to required length with a sharp knife.
- Lightly lubricate inside of hose and outside of nipple.

STEP TWO

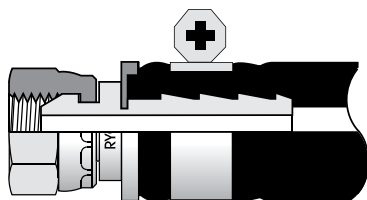


- Push hose onto fitting until hose end bottoms underneath cap as shown.

HOSE

COUPLINGS

STEP THREE

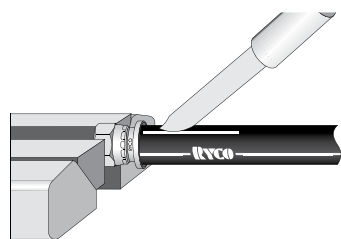


- If hose assembly is to be used at above 50% of Maximum Working Pressure, or in a potentially dangerous or critical application, a clamp must be used.
- Do not overtighten clamp as this may damage hose.

ADAPTORS

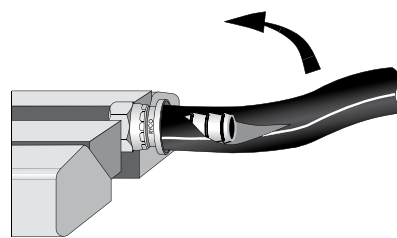
ACCESSORIES

REMOVING COUPLINGS, STEP ONE



- Remove clamp if fitted.
- Slit hose length-wise, from cap to end of hose tail.

REMOVING COUPLINGS, STEP TWO



- Sharply bend hose and remove.

FILTERS

TECHNICAL

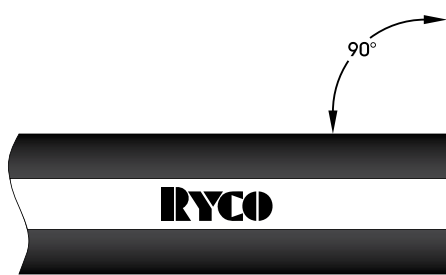
ASSEMBLY INSTRUCTIONS FOR:

69000N SERIES BITELOK INTERLOK TWO-PIECE INTERNAL AND EXTERNAL SKIVE COUPLINGS.
USE ONLY MATCHED SIZES OF RYCO H6000 SERIES HOSE.

NOTE: Extra special care must be exercised in the preparation, assembly and crimping of these couplings due to the very high pressures and end loads encountered.

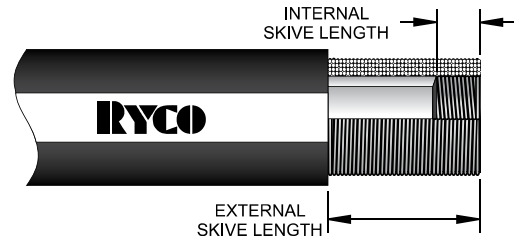
RYCO Crimp Chart detailing Internal and External Skive Length and Crimp Diameter is available from RYCO.

STEP ONE



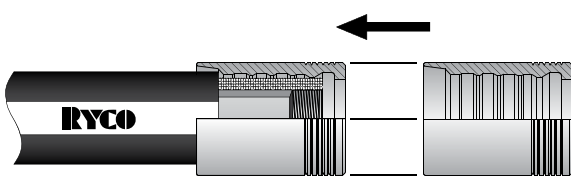
- Cut hose to length required using a cut-off saw.
- Ensure hose is cut squarely.
- Clean hose bore.

STEP TWO



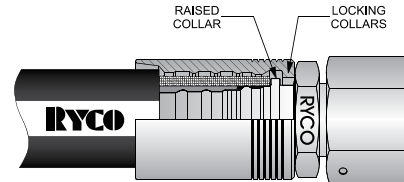
- Use RYCO Internal and External Skive Tool to skive the cover and the tube.
- Check that External Skive length is correct.
- Check that Internal Skive length is correct. (Refer to "RYCO Crimp Chart").
- Clean hose bore, and skived area of cover.

STEP THREE



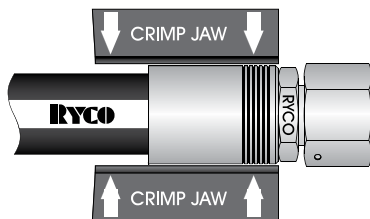
- Slide ferrule onto hose.

STEP FOUR



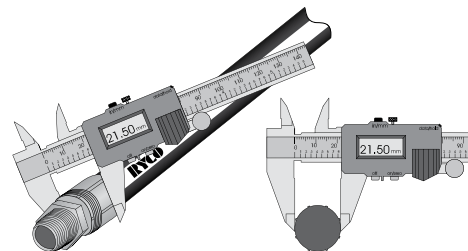
- Push hose tail of fitting into the hose bore until insert fully abuts hoser (lightly lubricate the hose bore only if necessary as excess lubrication may reduce hose assembly impulse life).
- The raised collar on the hose tail must abut the end of the hose.
- Ensure that the locking collar of the ferrule is aligned with, and will lock into, the collar on the hose tail.
- Check that the ferrule completely covers the skived part of the hose cover.

STEP FIVE



- Place assembled end into jaws of crimp machine.
- Operate machine to crimp ferrule to predetermined diameter. (Refer to "RYCO Crimp Chart").
- Open crimp machine and remove assembly.
- Ensure that the locking collar of the ferrule is locked into the collar on the hose tail.

STEP SIX



- Check crimp diameter with caliper or micrometer.
- Crimp diameter should be measured halfway along the ferrule. Measure between the ridges, and make sure that the caliper fingers do not touch the ridges.
- Check that the ferrule still completely covers the skived part of the cover to ensure coupling has not moved during crimping.

ASSEMBLY INSTRUCTIONS – TP7T, TP7TN, TP8T AND TP8TN TWIN HOSE

ASSEMBLY INSTRUCTIONS FOR:

SEPARATION OF THE ENDS OF TP7T, TP7TN, TP8T and TP8TN TWIN HOSE.

Note: RYCO TP7T, TP7TN, TP8T and TP8TN Hose must be separated at the ends to permit the attachment of the couplings. Procedure is as follows.

The latest RYCO Crimp Chart detailing Crimp Diameter and Mark Length is available from the RYCO website.

INTRODUCTION

HOSE

COUPLINGS

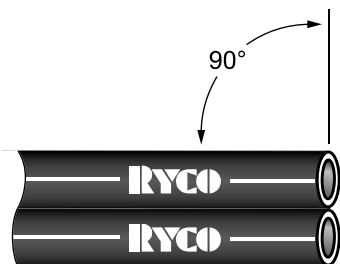
ADAPTORS

ACCESSORIES

FILTERS

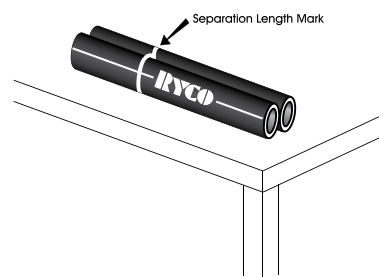
TECHNICAL

STEP ONE



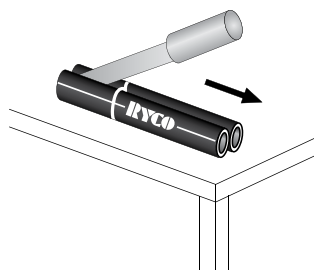
- Cut hose to length required using a sharp knife.
- Ensure hose is cut squarely.
- Clean hose bore.

STEP TWO



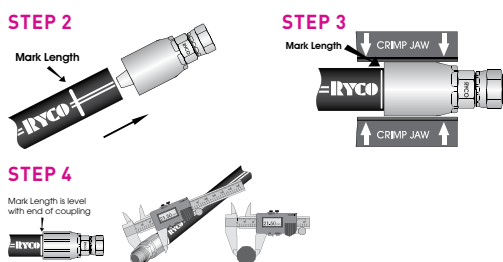
- Arrange the end of the twin line hose so that it is lying straight and flat, resting on the bottom of both hoses, on a horizontal work surface.
- Mark the length to be separated on the cover of the hoses.
- The separation length required may vary depending on the crimper being used.
- Separation length must allow each hose end to be inserted into the crimper without kinking the other hose.

STEP THREE



- Hold the hoses flat on the work bench, and lightly score along the joint between the two hoses with a blunt knife.
- Keep the knife vertical to avoid cover damage. It may be necessary to score along the joint several times.
- Take care not to damage the covers of the hoses.
- Turn the hose over and repeat the above to score the other side of the joint.
- The hoses will now be able to be separated by pulling apart.
- Inspect the covers to ensure there is no damage, if the cover is cut or the reinforcement is exposed, the hoses must not be used.

STEP FOUR, FIVE, SIX



- Follow Step Two, Three and Four of page 498 *BITELOK Non-Skive Hose Assembly) for each end of the hose.

STEP SEVEN



- After crimping the couplings, the hoses can be tied together at the separation area with tape or a cable tie to prevent the hoses becoming further separated accidentally.

TECHNICAL

TUBE FLARING DIMENSIONS – 37° JIC AND 45° SAE

RYCO S6, S6M, S6S AND SA6 TUBE NUTS AND SLEEVES ARE FOR USE WITH FLARED STEEL HYDRAULIC TUBING.

Dimensions for flares shown below are as specified in SAE J533 "Flares for Tubing".

Tubing must be flared to the correct dimensions. Flares must be free from loose scale, burrs, slivers, and cracks. Seating surfaces must be smooth and free from nicks, pit marks, and any other defects that prevent sealing. The flare seat must be concentric with the tube outside diameter within 0,38 mm (.015") Full Indicator Reading (FIR). Smoothly breaking (radiusing) the outside corner of the tube prior to single flaring, to minimise splitting, is permissible.

For S6, S6S and SA6 for Imperial Outside Diameter Tubing, use only seamless annealed hydraulic tubing to ASTM A179 of wall thickness no greater than that specified in the tables.

For S6M for Metric Outside Diameter Tubing, use only seamless annealed hydraulic tubing of wall thickness no greater than that specified in the tables.

Tubing may be double flared for thin wall thicknesses, or single flared for thicker walled tubing. Dimensions below are for single flared tubing.

Recommended maximum wall thickness of tubing specified in tables is the thickest tubing normally considered suitable for flaring. Optional configurations to provide extended length of seal contact surface for tube wall thickness exceeding the limits in the tables, are also specified in SAE J533.

S6 AND S6S SERIES FOR IMPERIAL OD TUBING WITH JIC 37° FLARE

RYCO S6	RYCO S6S	NOMINAL TUBE OD		MAXIMUM WALL THICKNESS D		MAXIMUM FLARE DIAMETER A		MINIMUM FLARE DIAMETER A		FLARE RADIUS ± 0,25 mm (± 0.01") R	
		mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
S6-0502		3,18	0.13	0,89	0.04	5,1	0.20	4,6	0.18	0,80	0.03
S6-0603		4,76	0.19	0,89	0.04	7,1	0.28	6,6	0.26	0,80	0.03
S6-0704		6,35	0.25	1,65	0.06	9,1	0.36	8,6	0.34	0,80	0.03
S6-0805		7,94	0.31	1,65	0.06	10,9	0.43	10,2	0.40	0,80	0.03
S6-0906	S6S-0906	9,52	0.37	1,65	0.06	12,4	0.49	11,7	0.46	1,00	0.04
S6-1208	S6S-1208	12,70	0.50	2,11	0.08	16,8	0.66	16,0	0.63	1,50	0.06
S6-1410	S6S-1410	15,88	0.63	2,41	0.09	20,1	0.79	19,3	0.76	1,50	0.06
S6-1712		19,05	0.75	2,77	0.11	24,1	0.95	23,4	0.92	2,00	0.08
S6-1914		22,22	0.87	2,77	0.11	27,2	1.07	26,4	1.04	2,00	0.08
S6-2116		25,40	1.00	3,05	0.12	30,5	1.20	29,7	1.17	2,30	0.09
S6-2620		31,75	1.25	3,05	0.12	38,4	1.51	37,6	1.48	2,30	0.09
S6-3024		38,1	1.50	3,05	0.12	43,9	1.73	43,2	1.70	2,80	0.11
S6-4032		50,8	2.00	3,40	0.13	59,9	2.36	59,2	2.33	2,80	0.11

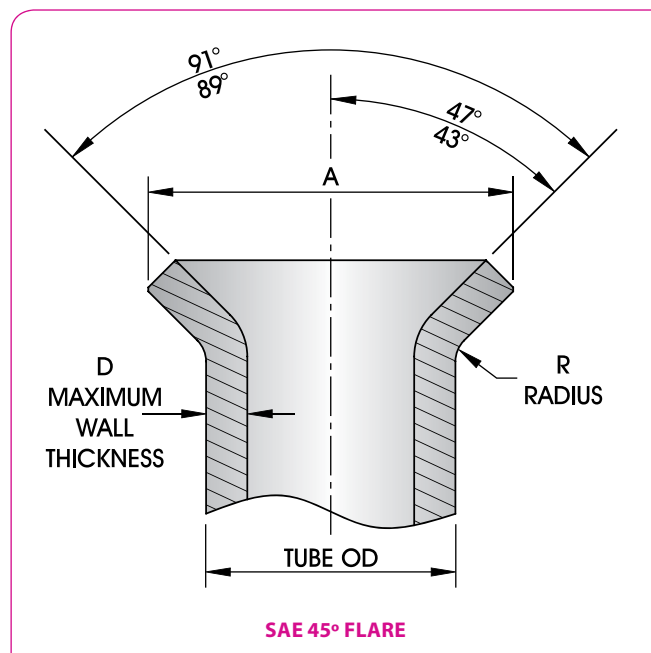
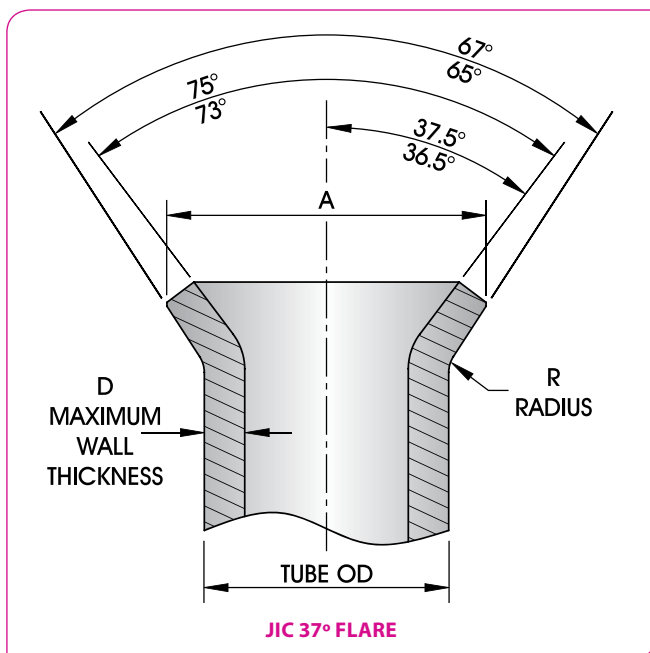
TUBE FLARING DIMENSIONS – 37° JIC AND 45° SAE

S6M SERIES FOR METRIC OD TUBING WITH JIC 37° FLARE

RYCO S6M	NOMINAL TUBE OD		MAXIMUM WALL THICKNESS D		MAXIMUM FLARE DIAMETER A		MINIMUM FLARE DIAMETER A		FLARE RADIUS ± 0,25 mm (± 0.01") R	
	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
S6M-0503	3,00	0.12	0,89	0.04	5,1	0.20	4,6	0.18	0,80	0.03
S6M-0605	5,00	0.20	0,89	0.04	7,1	0.28	6,6	0.26	0,80	0.03
S6M-0706	6,00	0.24	1,65	0.06	9,1	0.36	8,6	0.34	0,80	0.03
S6M-0808	8,00	0.31	1,65	0.06	10,9	0.43	10,2	0.40	0,80	0.03
S6M-0910	10,00	0.39	1,65	0.06	12,4	0.49	11,7	0.46	1,00	0.04
S6M-1212	12,00	0.47	2,11	0.08	16,8	0.66	16,0	0.63	1,50	0.06
S6M-1416	16,00	0.63	2,41	0.09	20,1	0.79	19,3	0.76	1,50	0.06
S6M-1719	19,00	0.75	2,77	0.11	24,1	0.95	23,4	0.92	2,00	0.08
S6M-1920	20,00	0.79	2,77	0.11	27,2	1.07	26,4	1.04	2,00	0.08
S6M-2125	25,00	0.98	3,05	0.12	30,5	1.20	29,7	1.17	2,30	0.09
S6M-2632	32,00	1.26	3,05	0.12	38,4	1.51	37,6	1.48	2,30	0.09
S6M-3038	38,00	1.50	3,05	0.12	43,9	1.73	43,2	1.70	2,80	0.11
S6M-4051	51,00	2.01	3,40	0.13	59,9	2.36	59,2	2.33	2,80	0.11

SA6 SERIES FOR IMPERIAL OD TUBING WITH SAE 45° FLARE

RYCO SA6	NOMINAL TUBE OD		MAXIMUM WALL THICKNESS D		MAXIMUM FLARE DIAMETER A		MINIMUM FLARE DIAMETER A		FLARE RADIUS ± 0,25 mm (± 0.01") R	
	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
SA6-1006	9,52	0.38	1,65	0.06	12,4	0.49	12,0	0.47	0,50	0.02
SA6-1712	19,05	0.75	2,77	0.11	23,3	0.92	22,9	0.90	0,50	0.02



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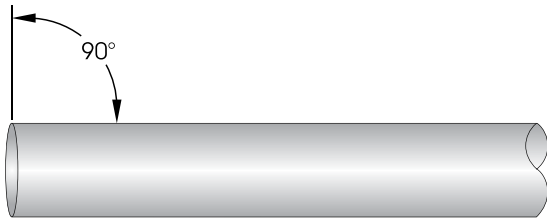
ASSEMBLY INSTRUCTIONS FOR:

TUBE BITE HOSE COUPLINGS (END STYLE 850).

RYCO Hose Couplings Series with Tube Bite End Style 850 (T2850, T4850 and 6850 Series) provide a quick and convenient method of connecting Imperial Outside Diameter seamless steel hydraulic tubing, without the need to flare the tubing.

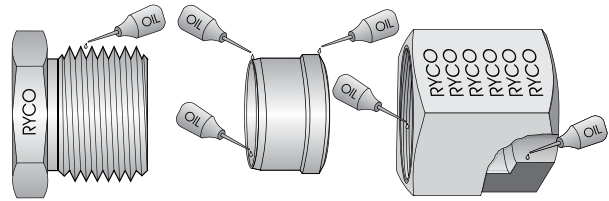
They allow quick and economical repairs to assemblies made of combined hose and Imperial-sized tubing. Often in these assemblies, the tubing is bent to a special shape or includes special mounting brackets, and is difficult or expensive to replace.

STEP ONE



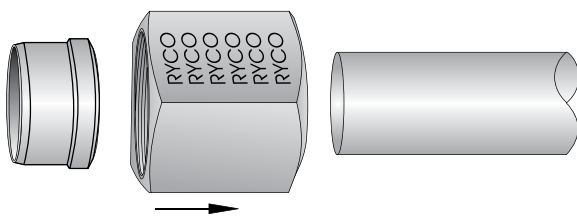
- Ensure that the wall thickness of the tubing is of the approved gauge. See S134 J-Lok & Tubing Selection Table page 511.
- Cut the tube to required length. Ensure that the tube is cut squarely. A tube cutter is preferred, however a hacksaw or abrasive drop saw may be used providing the cut is square and clean.
- Deburr inner and outer edges of tube.

STEP TWO



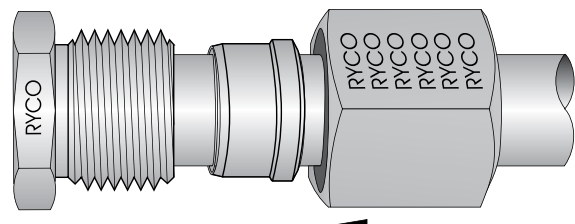
- Remove dirt, grit and cutting debris from the inside and outside of the tube.
- Remove the Nut and Compression Olive from the T2850, T4850 or 6850 coupling.
- Lubricate the threads of the Nut and the Male Thread of the T2850, T4850 or 6850 coupling with assembly oil or hydraulic oil.
- Lubricate internal and external surfaces of the Compression Olive with assembly oil or hydraulic oil.

STEP THREE



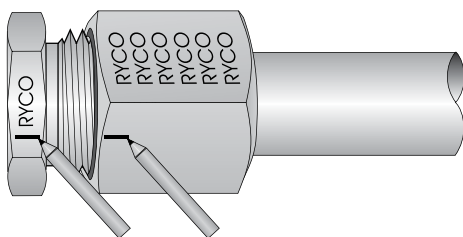
- Slide the Nut onto the tube, so that the threads of the Nut face towards the end of the tube to be assembled to the coupling, then slide the Compression Olive onto the tube.
- The end with the raised collar must be adjacent to the Nut, and the end with the long parallel section must face towards the end of the tube to be assembled to the coupling.

STEP FOUR



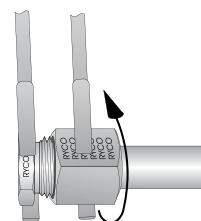
- Insert the tube end into the Male Threaded end of the T2850, T4850 or 6850 coupling, until it bottoms against the shoulder inside the Male Threaded end.
- Slide the Nut and Compression Olive along the tube until the Compression Olive seats inside the coupling body, and thread the Nut onto the Male Threaded end of the coupling.
- Tighten Nut until the Compression Olive just grips the tube. The initial gripping of the tube is complete when the tube can no longer be rotated by hand.

STEP FIVE



- Place a mark on the Nut, and an adjacent mark on the Hex of the T2850, T4850 or 6850 coupling insert.

STEP SIX



- Holding the hex of the T2850, T4850 or 6850 coupling insert stationary with one spanner, with another spanner tighten the Nut down by one full turn, to compress the Olive onto the tube¹.
- Use the marks from Step 5 as a reference. Ensure that the tube end is firmly butted against the shoulder inside the coupling, and that the tube does not rotate².

ASSEMBLY INSTRUCTIONS – TUBE BITE HOSE COUPLINGS (END STYLE 850)

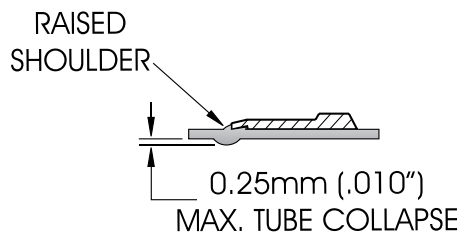
ASSEMBLY INSTRUCTIONS FOR:

TUBE BITE HOSE COUPLINGS (END STYLE 850) CONT.

If safe to do so, the bent tube part can be cut from the old assembly and reused. (NOTE: for combined hose and tubing assemblies with Metric Tubing, Male DKL or DKS Hose Coupling can be used with M6L or M6S Metric Nut and Cutting Ring).

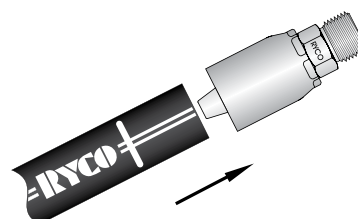
INTRODUCTION

STEP SEVEN



- Disassemble the Nut from the Coupling.
- Inspect the front edge of the Compression Olive. For correct assembly, the cutting edge of the Compression Olive must have formed a shoulder on the tube at least 50% as high as the cutting edge, all the way around the tube³.

STEP EIGHT

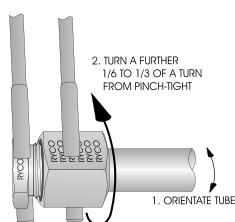


- Attach the T2850, T4850 or 6850 coupling onto the hose, without the tube, Nut and Compression Olive connected to it.
- Refer to the appropriate Assembly Instructions for the Hose Series and Coupling Series being assembled.
- Do not assemble the coupling onto the hose until Steps One to Seven are completed.

HOSE

COUPLINGS

STEP NINE



- Re-assemble the tube, Nut and Compression Olive onto the T2850, T4850 or 6850 end of the hose assembly.
- Nut will turn easily until an increase in force is required. At this point, orient the bent tube assembly pointing to the correct direction if required.
- Holding the Hex of the T285, T485 or 685 coupling insert with one spanner, with another spanner tighten the Nut down a further 1/6 of a turn as a minimum, but no more than 1/3 of a turn, to complete tightening operation.

NOTES

- 1 This is a general rule, and may vary slightly with different tubing materials.
- 2 In some instances (especially when using soft or thin-walled tube), to prevent excessive tube collapse, it may be necessary to support the inside of the tube with a mandrel prior to setting the Compression Olive.
- 3 Note that the maximum allowable radial collapse of the inner tube diameter is 0,25 mm (.010").

ADAPTORS

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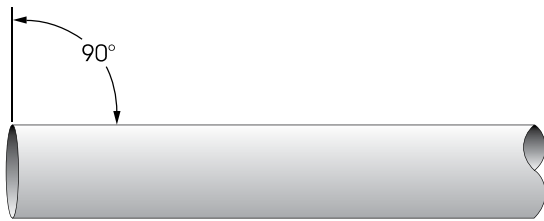
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ASSEMBLY INSTRUCTIONS FOR:

S134 SERIES J-LOK FLARELESS TUBE FITTINGS.

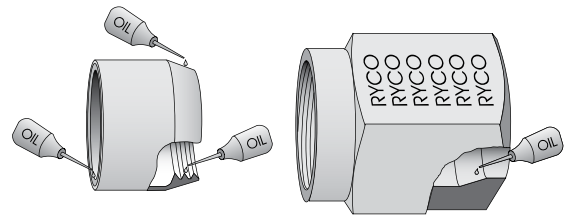
RYCO S134 J-Lok Flareless Tube Fittings provide a quick and convenient method of connecting Imperial Outside Diameter seamless steel hydraulic tubing to RYCO JIC male threads with 37° seat, without the need to flare the tubing. The wall thickness of the tubing must be of the approved gauge (see page 511 for Selection Table).

STEP ONE



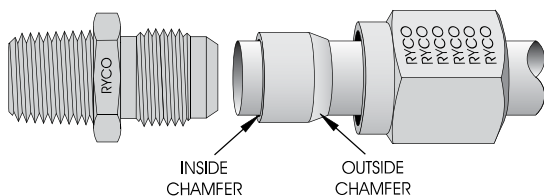
- Ensure that the wall thickness of the tubing is of the approved gauge. See S134 J-Lok & Tubing Selection Table on page 511.
- Cut the tube to required length. Ensure that the tube is cut squarely. A tube cutter is preferred, however a hacksaw or abrasive drop saw may be used providing the cut is square and clean.
- Deburr inner and outer edges of tube.

STEP TWO



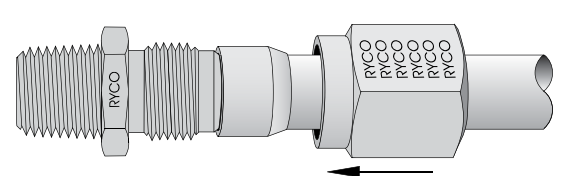
- Remove dirt, grit and cutting debris from the inside and outside of the tube.
- Lubricate the mating surfaces of the S134 J-Lok Flareless Olive and Nut with assembly oil or hydraulic oil.
- Ensure that the teeth inside the Flareless Olive are well lubricated.

STEP THREE



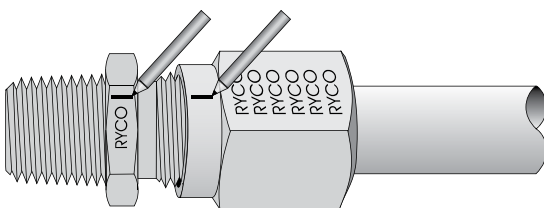
- Slide the S134 Nut on to the tube, so that the thread of the Nut faces towards the end of the tube.
- Then slide the S134 Flareless Olive onto the tube. The outside chamfered end must be adjacent to the S134 Nut, and the inside chamfered end must face towards the end of the tube.

STEP FOUR



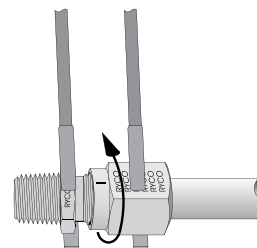
- Butt the tube end against the JIC male seat.
- With the tube held against the JIC male seat, slide the S134 Nut and Flareless Olive along the tube, until the Flareless Olive mates with the JIC male seat, and the S134 Nut mates with the JIC male thread.

STEP FIVE



- Engage the thread of the S134 Nut with the mating JIC male thread, while holding the tube against the JIC male seat. Prevent the tube from rotating.
- When the S134 Nut cannot be further tightened by hand onto the JIC male thread, place a mark on collar of the S134 Nut, and an adjacent mark on the JIC male hex.

STEP SIX



- Hold the JIC male hex stationary and further tighten the S134 Nut by spanner, rotating it 1¼ turns.
- Use the marks from STEP 5 as a reference.
- Ensure the tube is always held against the JIC male seat and prevent the tube from rotating.

ASSEMBLY INSTRUCTIONS – S134 J-LOK FLARELESS TUBE FITTINGS

ASSEMBLY INSTRUCTIONS FOR:

S134 SERIES J-LOK FLARELESS TUBE FITTINGS. CONT.

RYCO S134 J-Lok Flareless Tube Fittings provide a quick and convenient method of connecting Imperial Outside Diameter seamless steel hydraulic tubing to RYCO JIC male threads with 37° seat, without the need to flare the tubing. The wall thickness of the tubing must be of the approved gauge (see page 511 for Selection Table).

STEP SEVEN

IF THE CONNECTION IS TO BE UNDONE AND THEN REASSEMBLED:

- First tighten the S134 Nut onto the JIC male thread by hand.
- When the S134 Nut cannot be further hand tightened, tighten it with a spanner one more hex flat (1/6 of a turn).
- RYCO S134 J-Loks may be reassembled in this manner approximately ten times.

SELECTION TABLE FOR S134 J-LOK FITTINGS AND TUBING

TUBING USED MUST BE IMPERIAL OUTSIDE DIAMETER SEAMLESS ANNEALED STEEL HYDRAULIC TUBING TO ASTM A179.

RYCO S134 J-LOK	TUBE OD X GAUGE	TUBE DIMENSIONS (inch)			TUBE DIMENSIONS (mm)			MAXIMUM DYNAMIC WORKING PRESSURE	
		OUTSIDE DIAMETER	WALL THICKNESS	INSIDE DIAMETER	OUTSIDE DIAMETER	WALL THICKNESS	INSIDE DIAMETER	bar	psi
PART NO		inch	inch	inch	mm	mm	mm	bar	psi
S134-0704	1/4 x 20G	0.250	0.035	0.180	6,35	0,91	4,53	238	3450
S134-0906	3/8 x 18G	0.375	0.049	0.277	9,53	1,22	7,09	252	3650
S134-0906	3/8 x 16G	0.375	0.065	0.245	9,53	1,63	6,27	310	4500
S134-1208	1/2 x 18G	0.500	0.049	0.402	12,70	1,22	10,26	183	2650
S134-1208	1/2 x 16G	0.500	0.065	0.370	12,70	1,63	9,44	252	3650
S134-1410	5/8 x 16G	0.625	0.065	0.495	15,88	1,63	12,62	197	2850
S134-1410	5/8 x 14G	0.625	0.080	0.465	15,88	2,03	11,82	207	3000
S134-1712	3/4 x 16G	0.750	0.065	0.620	19,05	1,63	15,79	162	2350
S134-1712	3/4 x 14G	0.750	0.080	0.590	19,05	2,03	14,99	207	3000
S134-2116	1 x 14G	1.000	0.080	0.840	25,40	2,03	21,34	152	2200
S134-2116	1 x 12G	1.000	0.104	0.792	25,40	2,64	20,12	193	2800

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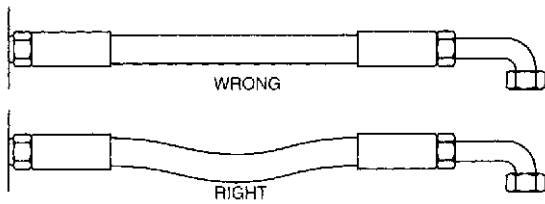
TECHNICAL

INSTALLATION GUIDE - HOSE ASSEMBLY

Proper hose installation is essential for satisfactory performance. If hose length is excessive, the appearance of the installation will be unsatisfactory and unnecessary cost of equipment will be involved. If hose assemblies are too short to permit adequate flexing and changes in length due to expansion or contraction, hose service life will be reduced.

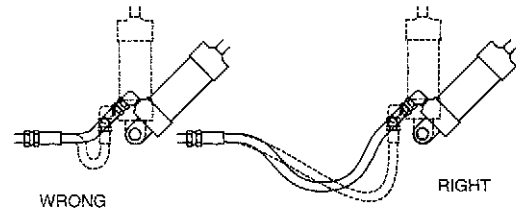
The following diagrams show proper hose installations which provide maximum performance and cost savings. Consider these examples in determining length of a specific assembly.

STRAIGHT HOSE INSTALLATIONS



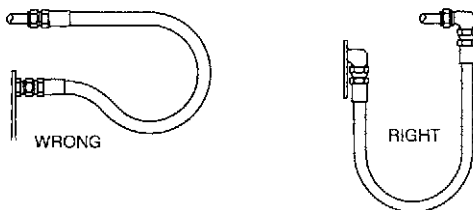
- When hose installation is straight, allow enough slack in hose line to provide for length changes that will occur when pressure is applied.

FLEXING APPLICATIONS



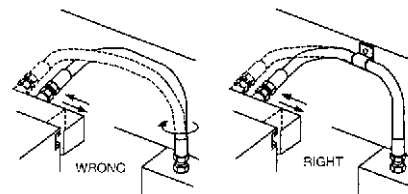
- Adequate hose length is necessary to distribute movement on flexing applications, and to avoid abrasion.

TWISTS AND BENDS, PART ONE



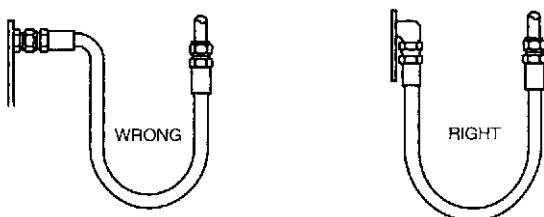
- When radius is below the required minimum, use an angle adaptor to avoid sharp bends.

TWISTS AND BENDS, PART TWO



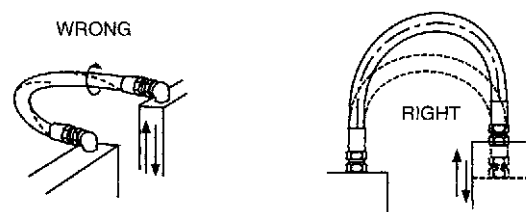
- Avoid twisting of hose lines bent in two planes by clamping hose at change of plane.

TWISTS AND BENDS, PART THREE



- Use proper angle adaptors to avoid sharp twists or bends in the hose.

TWISTS AND BENDS, PART FOUR



- Prevent twisting and distortion by bending hose in same plane as the motion of the boss to which hose is connected.

INSTALLATION GUIDE - HOSE ASSEMBLY (CONT)

Proper hose installation is essential for satisfactory performance. If hose length is excessive, the appearance of the installation will be unsatisfactory and unnecessary cost of equipment will be involved. If hose assemblies are too short to permit adequate flexing and changes in length due to expansion or contraction, hose service life will be reduced.

The following diagrams show proper hose installations which provide maximum performance and cost savings. Consider these examples in determining length of a specific assembly.

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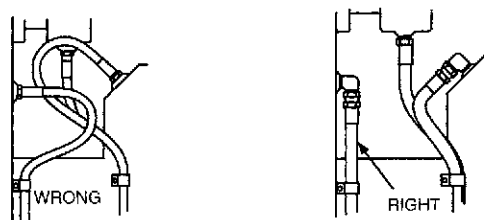
TECHNICAL

REDUCE NUMBER OF PIPE FITTINGS



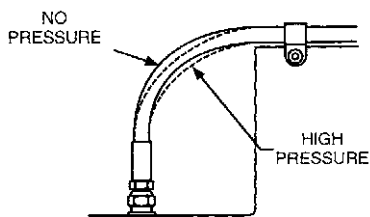
- Reduce number of pipe thread joints by using proper hydraulic adaptors instead of pipe fittings.

USE 45° AND/OR 90° ADAPTORS



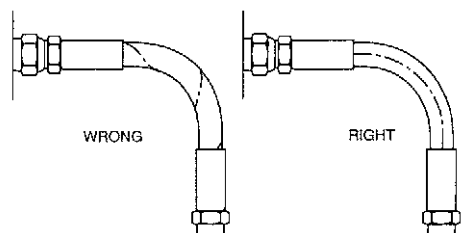
- Route hose directly by using 45° and/or 90° adaptors and fittings.
- Avoid excessive hose length to improve appearance.

ALLOWING FOR LENGTH CHANGE



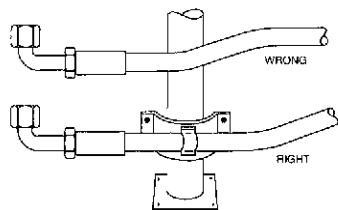
- To allow for length changes when hose is pressurised, do not clamp at bends.
- Curves will absorb changes.
- Do not clamp high and low pressure lines together.

AVOID TWISTING HOSE



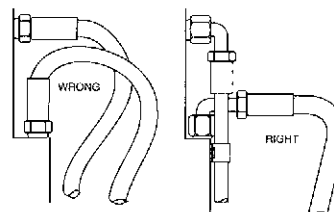
- When installing hose, make sure it is not twisted.
- Pressure applied to a twisted hose can result in hose failure or loosening of connections.

HIGH TEMPERATURE



- High ambient temperatures shorten hose, therefore ensure hose is kept away from hot parts.
- If this is not possible, insulate hose.

RELIEVE STRAIN



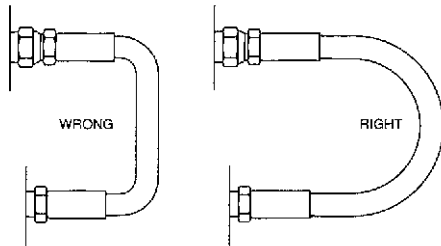
- Elbows and adaptors should be used to relieve strain on the assembly, and to provide neater installations which will be more accessible for inspection and maintenance.

INSTALLATION GUIDE - HOSE ASSEMBLY (CONT)

Proper hose installation is essential for satisfactory performance. If hose length is excessive, the appearance of the installation will be unsatisfactory and unnecessary cost of equipment will be involved. If hose assemblies are too short to permit adequate flexing and changes in length due to expansion or contraction, hose service life will be reduced.

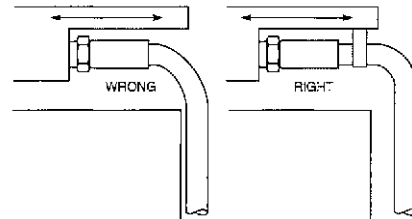
The following diagrams show proper hose installations which provide maximum performance and cost savings. Consider these examples in determining length of a specific assembly.

AVOID COLLAPSE AND RESTRICTION



- To avoid hose collapse and flow restriction, keep hose bend radii as large as possible.
- Refer to hose specification tables for minimum bend radii.

AVOID ABRASION



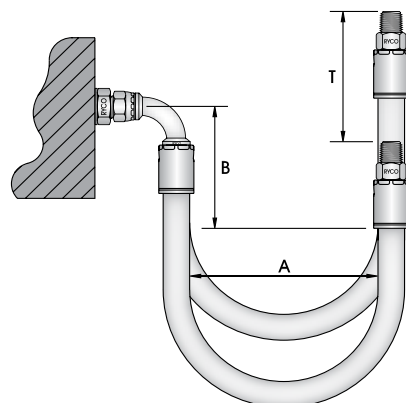
- Run hose in the installation so that it avoids rubbing and abrasion.
- Often, clamps are required to support long hose runs or to keep hose away from moving parts.
- Use clamps of the correct size. A clamp too large allows hose to move inside the clamp and causes abrasion.

NOTE

- When determining the length of hose assemblies, provide sufficient length to prevent bending strain from localising at the back of the coupling. In the 'TYPICAL DIMENSIONS FOR ONE & TWO WIRE BRAID HOSE' diagram below, measurement "B" allows for a strain section of hose beyond the coupling to prevent concentration of bending strain. "T" designates the amount of travel. "A" indicates the smallest diameter to which hose should be bent.
- **OVERALL LENGTH = B+1.57A+T**

TYPICAL DIMENSIONS FOR ONE & TWO WIRE BRAID HOSE

HOSE SIZE			"B" CONSTANT FOR STRAIGHT PORTION INCLUDING COUPLING
DN	inch	Dash	
6	1/4	-04	250 mm (10")
10	3/8	-06	250 mm (10")
12	1/2	-08	300 mm (12)
19	3/4	-12	350 mm (14")
25	1	-16	400 mm (16")
31	1.1/4	-20	450 mm (28")
38	1.1/2	-24	500 mm (20")
51	2	-32	500 mm (20")



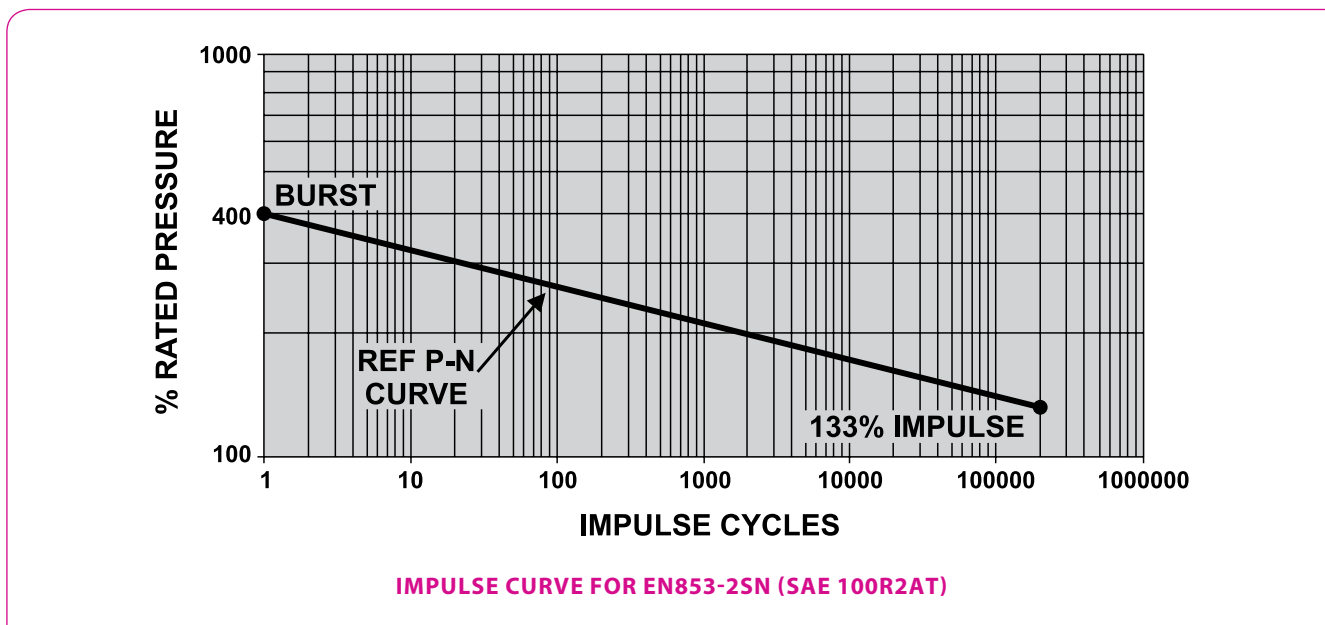
FACTOR OF SAFETY (FOS)

Hydraulic Hose Assemblies have a rated maximum working pressure (MWP) of the lesser of the MWP of the hydraulic hose and the MWP of the connector terminations.

Hydraulic Hose has a finite life. The lifespan of Hydraulic Hose Assemblies is affected by many factors (see 'Hose Selection' and 'Safety Guide' pages 488 to 493, and RYCO HALP® program page 23). Three limiting factors are working pressure, temperature and impulse pressures (pulses). High Impulse Pressures will fatigue hydraulic hose and consume their life.

Fatigue life is specified by a logarithmic **P-N Curve**, where **P** = Pressure and **N** = Impulses.

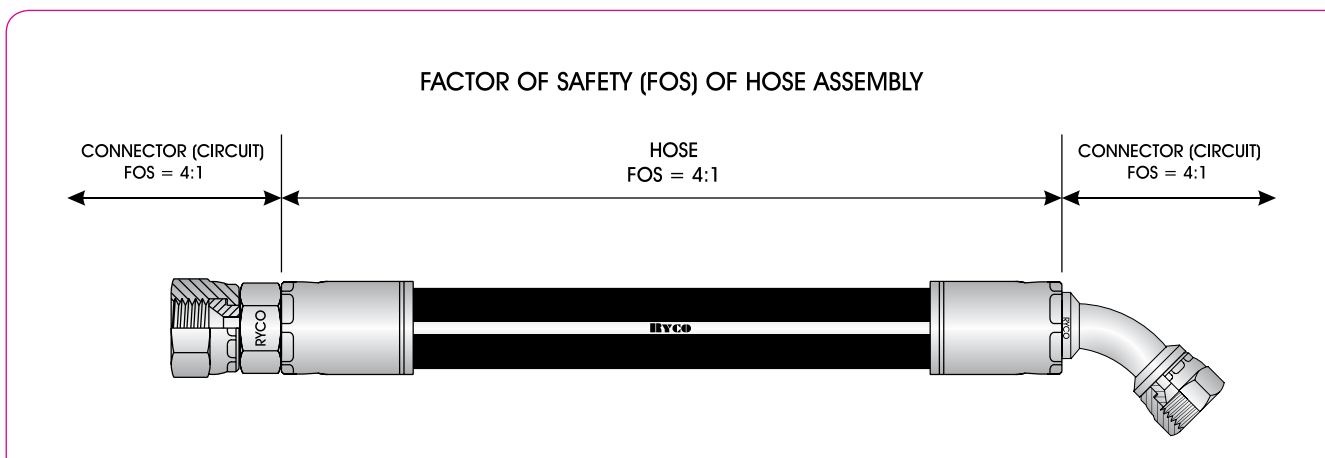
Hydraulic hose assemblies require a FOS (Factor of Safety) of 4:1.



This implies that an unused hydraulic hose assembly has to be able reach four times its MWP (4 x MWP) once only (one pulse).

Depending upon the specification requirements of the hydraulic hose, the Hydraulic Hose Assembly (be sure to use couplings that are **MATCHED** to the hose) must pass an Impulse Test (fatigue life test) at a specified percentage of the hose MWP for a specified number of pressure impulses. In the example above we see that EN853-2SN requires 200,000 impulses at 133% of its MWP (rated pressure). Impulse Tests are generally conducted with fluid heated to the maximum rated operating temperature of the hose.

RYCO Hydraulics Connector Terminations have a FOS of 4:1.





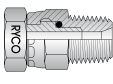





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GUIDE TO THREAD AND CONNECTOR WORKING PRESSURES

WORKING PRESSURES - ADAPTORS, HOSE COUPLINGS AND HOSE ASSEMBLIES.

Since many factors influence the pressure at which a hydraulic system will, or will not, perform satisfactorily, maximum working pressures listed below should be used as a guide only and not as a "standard" nor "specification", nor construed as a "guaranteed minimum." Within the fluid power industry, many criteria are used for the determination of pressure capability. Various fibre stresses, minimum yields and design factors are applied, commensurate with total system conditions. Thus, it is impractical to lay down specific allowable working pressures that satisfy all design criteria. Unless otherwise specified in this document, and given correct working conditions, including, but not limited to, torque setting, assembly, alignment, support, pressures (internal and external), temperature limits, environmental, installation, vibration free, damage free, chemical, cleanliness and regular maintenance and inspection, the following may be used as a guide to maximum working pressure. For further technical assistance contact RYCO Hydraulics Technical Department or your RYCO Hydraulics distributor.

The Maximum Working Pressure of a Hose Assembly is the lesser rated Working Pressure of the Hose or Tube or End Style (Connector termination). The Maximum Rated Working Pressure of an Adaptor with a combination of Thread / End Styles and sizes, is the Maximum Working Pressure of the least rated end.

BSP	BSPT MALE	BSPP MALE	BSPT MALE LIVE SWIVEL	BSPT FEMALE FIXED	BSPP FEMALE SWIVEL (CRIMP NUT)	BSPP FEMALE SWIVEL (WIRE NUT)	BSPP MALE NON-ADJUSTABLE (O RING & RETAINING RING)	BSPP MALE ADJUSTABLE (O RING & RETAINING RING)
								

THREAD SIZE	DASH SIZE	MAX. WORKING PRESSURE															
		bar	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar	psi
1/8	-02	690	10000	690	10000	420	6100	690	10000	690	10000			350	5100	380	5500
1/4	-04	690	10000	690	10000	420	6100	690	10000	690	10000			350	5100	350	5100
3/8	-06	690	10000	620	9000	420	6100	690	10000	620	9000			350	5100	350	5100
1/2	-08	690	10000	480	7000	350	5100	690	10000	480	7000			350	5100	310	4500
5/8	-10	690	10000	480	7000	280	4100	690	10000	480	7000	550	8000	350	5100		
3/4	-12	620	9000	450	6500	280	4100	620	9000	420	6100	420	6100	280	4100	280	4100
1	-16	620	9000	350	5100	215	3100	620	9000	350	5100	350	5100	215	3100	215	3100
1.1/4	-20	480	7000	215	3100			480	7000	215	3100	215	3100	215	3100	170	2500
1.1/2	-24	420	6100	100	1500			420	6100			100	1500	215	3100		
2	-32	350	5100	100	1500			350	5100			100	1500	180	2600		
2.1/2	-40	215	3100														

BSP	BSPP MALE (BONDED SEAL)	BSPP MALE (ENCAPSULATED SEAL)
		

THREAD SIZE	DASH SIZE	MAXIMUM WORKING PRESSURE			
inch		bar	psi	bar	psi
1/8	-02	420	6100	620	9000
1/4	-04	420	6100	620	9000
3/8	-06	420	6100	480	7000
1/2	-08	350	5100	480	7000
5/8	-10	350	5100	480	7000
3/4	-12	280	4100	480	7000
1	-16	280	4100	370	5300
1.1/4	-20	280	4100	280	4100
1.1/2	-24	215	3100	280	4100
2	-32	150	2100	230	3300

GUIDE TO THREAD AND CONNECTOR WORKING PRESSURES

NPT	NPT MALE	NPT MALE LIVE SWIVEL	NPT FEMALE FIXED	NPSM FEMALE SWIVEL (CRIMP NUT)	NPSM FEMALE SWIVEL (WIRE NUT)

JIS (KOMATSU)	METRIC FEMALE SWIVEL 60° CONCAVE SEAT

THREAD SIZE	DASH SIZE	MAX. WORKING PRESSURE									
		bar	psi	bar	psi	bar	psi	bar	psi	bar	psi
1/8	-02	760	11000	420	6100	760	11000	690	10000		
1/4	-04	760	11000	420	6100	760	11000	690	10000		
3/8	-06	690	10000	420	6100	690	10000	690	10000		
1/2	-08	690	10000	350	5100	690	10000	550	8000		
5/8	-10										
3/4	-12	690	10000	280	4100	690	10000	450	6500	480	7000
1	-16	500	7200	280	4100	500	7200	350	5100	420	6100
1.1/4	-20	350	5100			350	5100	280	4100	420	6100
1.1/2	-24	350	5100			350	5100	280	4100	280	4100
2	-32	350	5100			350	5100	215	3100	215	3100
2.1/2	-40	215	3100							215	3100

THREAD SIZE	DASH SIZE	MAX. WORKING PRESSURE	
mm		bar	psi
M14 x 1,5	-14	420	6100
M16 x 1,5	-16	420	6100
M18 x 1,5	-18	420	6100
M22 x 1,5	-22	380	5500
M24 x 1,5	-24	350	5100
M27 x 2,0	-27	280	4100
M30 x 1,5	-30	280	4100
M33 x 1,5	-33	215	3100
M33 x 2,0	-33	215	3100
M36 x 1,5	-36	170	2500
M42 x 1,5	-42	170	2500
M50 x 2,0	-50	100	1500
M60 x 2,0	-60	70	1000

JIC	JIC MALE	JIC FEMALE SWIVEL (CRIMP NUT)	JIC FEMALE SWIVEL (WIRE NUT)	JIC FEMALE SWIVEL HIGH PRESSURE ("V" SERIES)

JIS	BSPP MALE 60° CONVEX SEAT	BSPP FEMALE SWIVEL 60° CONCAVE SEAT

TUBE SIZE	THREAD SIZE	DASH SIZE	MAX. WORKING PRESSURE							
			bar	psi	bar	psi	bar	psi	bar	psi
3/16	3/8	-06	690	10000	690	10000				
1/4	7/16	-07	690	10000	690	10000				
5/16	1/2	-08	620	9000	620	9000				
3/8	9/16	-09	550	8000	550	8000				
1/2	3/4	-12	690	10000	690	10000				
5/8	7/8	-14	550	8000	550	8000	590	8500		
3/4	1.1/16	-17	480	7000	480	7000	550	8000		
7/8	1.3/16	-19	420	6100	380	5500	420	6100		
1	1.5/16	-21	420	6100	320	4600	240	3500	350	5100
1.1/4	1.5/8	-26	350	5100	215	3100	240	3500	350	5100
1.1/2	1.7/8	-30	215	3100			215	3100	350	5100
2	2.1/2	-40	150	2100			110	1600		
2.1/2	3	-48								

THREAD SIZE	DASH SIZE	MAX. WORKING PRESSURE			
inch		bar	psi	bar	psi
1/4	-04	480	7000	480	7000
3/8	-06	450	6500	450	6500
1/2	-08	350	5100	350	5100
5/8	-10				
3/4	-12				
1	-16				

HOSE

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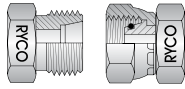
FILTERS

TECHNICAL

TECHNICAL

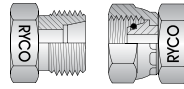
GUIDE TO THREAD AND CONNECTOR WORKING PRESSURES

METRIC DKOL (LIGHT SERIES) MALE & FEMALE O RING



TUBE SIZE	THREAD SIZE	DASH SIZE	MAX. WORKING PRESSURE	
mm	mm		bar	psi
6	M12 x 1,5	-12	430	6300
8	M14 x 1,5	-14	430	6300
10	M16 x 1,5	-16	430	6300
12	M18 x 1,5	-18	350	5100
15	M22 x 1,5	-22	350	5100
18	M26 x 1,5	-26	350	5100
22	M30 x 2,0	-30	280	4100
28	M36 x 2,0	-36	215	3100
35	M45 x 2,0	-45	180	2600
42	M52 x 2,0	-52	180	2600

METRIC DKOS (HEAVY SERIES) MALE & FEMALE O RING



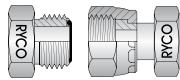
TUBE SIZE	THREAD SIZE	DASH SIZE	MAX. WORKING PRESSURE	
mm	mm		bar	psi
6	M14 x 1,5	-12	690	10000
8	M16 x 1,5	-14	690	10000
10	M18 x 1,5	-16	690	10000
12	M20 x 1,5	-20	620	9000
14	M22 x 1,5	-22	620	9000
16	M24 x 2,0	-24	420	6100
20	M30 x 2,0	-30	420	6100
25	M36 x 2,0	-36	420	6100
30	M42 x 2,0	-45	420	6100
38	M52 x 2,0	-52	420	6100

METRIC BONDED SEAL



THREAD SIZE	DASH SIZE	MAX. WORKING PRESSURE	
mm		bar	psi
M10	-10	350	5100
M12	-12	350	5100
M14	-14	350	5100
M16	-16	350	5100
M18	-18	350	5100
M20	-20	280	4100
M22	-22	280	4100
M24	-24	250	3625
M26	-26	250	3625
M27	-27	280	4100
M30	-30	215	3100
M33	-33	215	3100
M36	-36	215	3100
M42	-42	215	3100
M48	-48	215	3100

ORFS O RING FACE SEAL



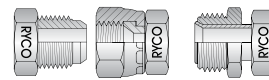
TUBE SIZE	THREAD SIZE	DASH SIZE	MAX. WORKING PRESSURE	
inch	inch		bar	psi
1/4	9/16	-09	690	10000
3/8	11/16	-11	690	10000
1/2	13/16	-13	630	9150
5/8	1	-16	630	9150
3/4	1.3/16	-19	480	7000
1	1.7/16*	-23	420	6100
1.1/4	1.11/16*	-27	280	4100
1.1/2	2*	-32	280	4100

* Wire Nut used

SAE

SAE 45° FLARE

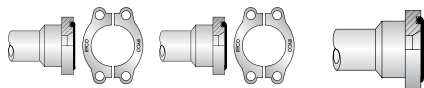
SAE INVERTED FLARE



TUBE SIZE	THREAD SIZE	DASH SIZE	MAX. WORKING PRESSURE			
inch	inch		bar	psi	bar	psi
1/4	7/16	-07	690	10000	215	3100
5/16	1/2	-08	690	10000	215	3100
3/8	5/8	-10	590	8500	180	2600
7/16	11/16	-11			180	2600
1/2	3/4	-12	550	8000		
5/8	7/8	-14	520	7500		
3/4	1.1/16	-17	420	6100		
1	1.5/16	-21				
1.1/4	1.5/8	-26				
1.1/2	1.7/8	-30				
2	2.1/2	-40				

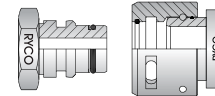
GUIDE TO THREAD AND CONNECTOR WORKING PRESSURES

SAE FLANGE	CODE 61 SAE FLANGE	CODE 62 SAE FLANGE	RYCO CODE 62C SPECIAL FLANGE
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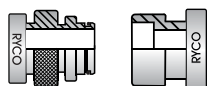
NOM. FLANGE SIZE	DASH SIZE	MAX. WORKING PRESSURE					
		bar	psi	bar	psi	bar	psi
1/2	-08	350	5100	420	6100	420	6100
5/8	-10	350	5100	420	6100	420	6100
3/4	-12	350	5100	420	6100	420	6100
1	-16	350	5100	420	6100	420	6100
1.1/4	-20	280	4100	420	6100	420	6100
1.1/2	-24	215	3100	420	6100	420	6100
2	-32	215	3100	420	6100	420	6100
2.1/2	-40	215	3100				
3	-48	140	2050				

CROCBITE	CROCBITE (HIGH PRESSURE)	CROCBITE (HIGH FLOW)
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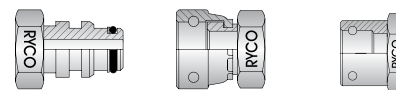
NOMINAL SIZE			MAX. WORKING PRESSURE			
DN	inch	Dash	bar	psi	bar	psi
10	3/8	-10	450	6525		
12	1/2	-12	450	6525		
19	3/4	-20	420	6100		
25	1	-25	420	6100		
31	1.1/4	-32	420	6100		
38	1/1.12	-40	420	6100		
51	2	-50	420	6100	350	5100
63	2.1/2	-63	350	5100	280	4100
76	3	-75			215	3100

RYCO RKV	RKVP (HIGH PRESSURE)	RKVF (HIGH FLOW)
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NOMINAL SIZE			MAX. WORKING PRESSURE			
DN	inch	Dash	bar	psi	bar	psi
10	3/8	-10	450	6525		
12	1/2	-12	450	6525		
19	3/4	-20	420	6100		
25	1	-25	420	6100		
31	1.1/4	-32	420	6100		
38	1/1.12	-40	420	6100		
51	2	-50	420	6100	170	2400
63	2.1/2	-63	350	5100	70	1000
76	3	-75			70	1000

STAPLELOK SUPERLOK SUPER-D	STAPLELOK MALE & FEMALE	SUPERLOK MALE & FEMALE	RYCO SUPER-D MALE & FEMALE
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NOMINAL SIZE			MAX. WORKING PRESSURE					
DN	inch	Dash	bar	psi	bar	psi	bar	psi
6	1/4	-06	420	6100				
10	3/8	-10	420	6100				
12	1/2	-12	415	6020				
16	5/8	-16						
19	3/4	-20	350	5100	420	6100	420	6100
25	1	-25	280	4100	380	5500	420	6100
31	1.1/4	-32	215	3100	350	5100	420	6100
38	1.1/2	-40	215	3100	350	5100	420	6100
51	2	-50	170	2500	350	5100	420	6100
63	2.1/2	-63			350	5100		

WARNING: Staples must only be used ONCE, they MUST NOT BE RE-USED. This applies to all STAPLELOK, SUPERLOK and RYCO SUPER-D Staples. Failure to observe this warning may result in serious personal injury, or property damage.

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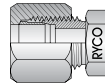
GUIDE TO THREAD AND CONNECTOR WORKING PRESSURES

RYCO WEO



TUBE SIZE	DASH SIZE	MAX. WORKING PRESSURE	
		bar	psi
1/4	-04	350	5100
3/8	-06	350	5100
1/2	-08	350	5100
5/8	-10	350	5100
3/4	-12	350	5100
1	-16	250	3625

TUBE BITE



TUBE SIZE	DASH SIZE	MAX. WORKING PRESSURE	
		bar	psi
1/4	-04	260	3750
5/16	-05	260	3750
3/8	-06	260	3750
1/2	-08	220	3200
5/8	-10	220	3200
3/4	-12	220	3200
1	-16	170	2500
1.1/4	-20	140	2000
1.1/2	-24		
2	-32		

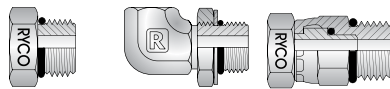
NOTE: Also consider the Maximum Working Pressure of the tubing to be used with TUBE BITE connections.

UN O RING (O RING BOSS)

UN O RING
(O RING BOSS)

UN O RING
(O RING BOSS)
ADJUSTABLE

UN O RING
(O RING BOSS)
LIVE SWIVEL



TUBE SIZE	THREAD SIZE	DASH SIZE	MAX. WORKING PRESSURE					
			bar	psi	bar	psi	bar	psi
1/4	7/16	-07	480	7000	420	6100		
5/16	1/2	-08	480	7000	420	6100		
3/8	9/16	-09	480	7000	350	5100	350	5100
1/2	3/4	-12	480	7000	350	5100	350	5100
5/8	7/8	-14	480	7000	280	4100	280	4100
3/4	1.1/16	-17	480	7000	280	4100	280	4100
7/8	1.3/16	-19	480	7000	280	4100		
1	1.5/16	-21	350	5100	280	4100		
1.1/4	1.5/8	-26	215	3100	170	2500		
1.1/2	1.7/8	-30	215	3100				
2	2.1/2	-38						

IMPORTANT NOTE REGARDING THREAD DASH SIZE/TUBE DASH SIZE

TUBE DASH SIZE – THREAD DASH SIZE

The RYCO Dash Size Part Numbering system for Connection Types associated with Inch sized tubing, follows the **THREAD** size rather than the **TUBE** size.

For example, for JIC 37° Flare; 9/16" **THREAD** is used with 3/8" OD **TUBE**.

The RYCO DASH SIZE for a JIC Hose Tail, 3/8" Hose to 3/8" Tube Size is therefore **-0609** (not -0606).

The Connection Types this applies to are as follows:

- JIC 37°**
- UNO (O Ring Boss)**
- ORFS (O Ring Face Seal)**
- SAE 45°**
- SAE Inverted Flare**

BSP, NPT, JIS, Metric DIN, and SAE Flanges are not affected.

The tables below show the relationship between **TUBE Dash Size** and **THREAD Dash Size**.

JIC 37° AND UNO (O RING BOSS)				
TUBE OD HOSE ID	DASH SIZE		THREAD SIZE	
	TUBE/HOSE	THREAD		
1/8	-02	-05	5/16-24	UNF
3/16	-03	-06	3/8-24	UNF
1/4	-04	-07	7/16-20	UNF
5/16	-05	-08	1/2-20	UNF
3/8	-06	-09	9/16-18	UNF
1/2	-08	-12	3/4-16	UNF
5/8	-10	-14	7/8-14	UNF
3/4	-12	-17	1.1/16-12	UN
7/8	-14	-19	1.3/16-12	UN
1	-16	-21	1.5/16-12	UN
1.1/4	-20	-26	1.5/8-12	UN
1.1/2	-24	-30	1.7/8-12	UN
2	-32	-40	2.1/2-12	UN
2.1/2	-40	-48	3-12	UN

SAE 45°				
TUBE OD HOSE ID	DASH SIZE		THREAD SIZE	
	TUBE/HOSE	THREAD		
1/8	-02	-05	5/16-24	
3/16	-03	-06	3/8-24	
1/4	-04	-07	7/16-20	
5/16	-05	-08	1/2-20	
3/8	-06	-10	5/8-18	
1/2	-08	-12	3/4-16	
5/8	-10	-14	7/8-14	
3/4	-12	-17	1.1/16-14	

SAE INVERTED FLARE				
TUBE OD HOSE ID	DASH SIZE		THREAD SIZE	
	TUBE/HOSE	THREAD		
1/4	-04	-07	7/16-24	
5/16	-05	-08	1/2-20	
3/8	-06	-10	5/8-18	
7/16	-07	-11	11/16-18	

ORFS (O RING FACE SEAL)				
TUBE OD HOSE ID	DASH SIZE		THREAD SIZE	
	TUBE/HOSE	THREAD		
1/4	-04	-09	9/16-18	UNF
3/8	-06	-11	11/16-16	UN
1/2	-08	-13	13/16-16	UN
5/8	-10	-16	1-14	UNS
3/4	-12	-19	1.3/16-12	UN
1	-16	-23	1.7/16-12	UN
1.1/4	-20	-27	1.11/16-12	UN
1.1/2	-24	-32	2-12	UN

RYCO CROCBITE, RKV, STAPLELOK & SUPERLOK		
NOMINAL SIZE DN	INCH	DASH SIZE
10	3/8	-10
12	1/2	-12
16	5/8	-16
19	3/4	-20
25	1	-25
31	1.1/4	-32
38	1.1/2	-40
51	2	-50
63	2.1/2	-63
76	3	-75

For RYCO CROCBITE, RKV, STAPLELOK and SUPERLOK, the Dash Size is the Nominal Size in millimetres.

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THREAD AND CONNECTOR IDENTIFICATION

HOW TO USE THIS SECTION

This section is intended as an aid to identifying the most popular threads on hydraulic hose couplings and adaptors, and hydraulic equipment.

BSP, Metric, American and Japanese thread sizes can be very similar. It is important to measure and match every criteria of thread diameter, thread pitch, seating or sealing type (including angle of seats if present) to accurately determine thread type.

PROCEDURE

STEP 1. INVESTIGATION

Check for any markings on fitting or equipment which may be a clue to thread type. Country of origin may provide a clue.

Europe	Check DIN/BSP
UK/Australia	Check BSP
America	Check NPT/JIC/UNO/ORFS
Japan	Check JIS

All RYCO parts have a unique part number stamped on to aid identification.

STEP 2. VISUAL INSPECTION

Depending on whether the male or female thread or both are available, different features will aid identification.

- Are threads parallel or tapered?
- Is there an O Ring or a washer seal?
- If cone seats are present, are they concave or convex?
- Type and position on fittings.

STEP 3. MEASURE THREADS

With a caliper, measure the thread diameter.

- OD of male threads
- ID of female threads

Using a thread gauge, determine the number of threads per inch.

If thread gauge is not available, measure pitch from crest to crest of adjacent threads, or count the number of threads in 1/4" and multiply by four for threads per inch. Chart at bottom of page may assist.

STEP 4. SEAT ANGLE MEASUREMENT

Using a seat gauge, determine the angle of the seat. Some fittings have dual seats (eg. JIC 37° & SAE 45°), and some have a radiused cone.

STEP 5. CONCLUSION

Match the measurements taken against those in the tables herein that appear to be similar to the coupling under consideration.

A final check can be achieved by mating with an actual coupling of the same thread.



THREAD ID MATE

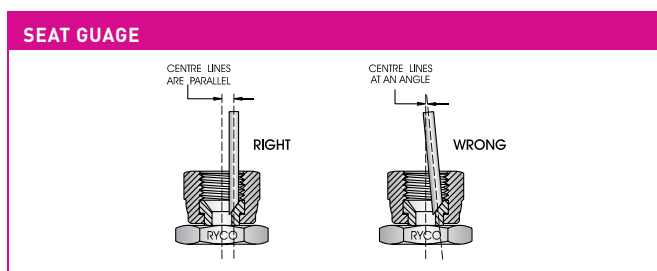
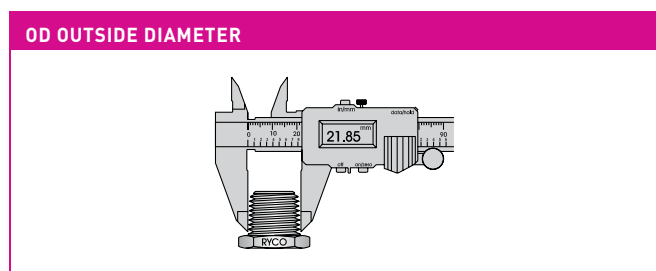
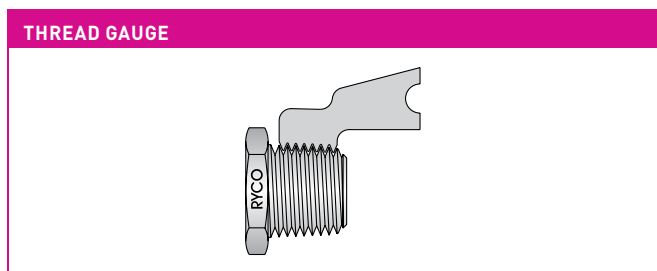
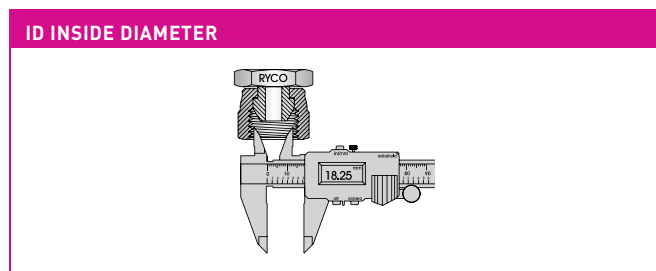
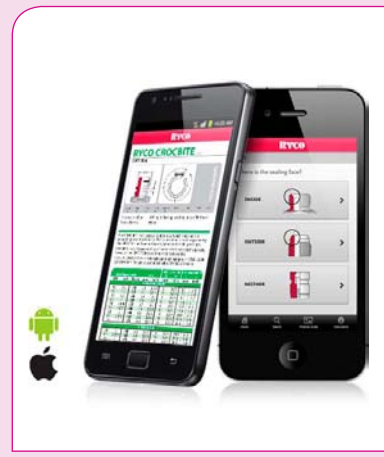
THREAD IDENTIFICATION AT YOUR FINGERTIPS

In 2013, RYCO introduced the Thread ID Mate smartphone app to aid thread identification.

The RYCO Thread ID Mate application enables you to identify hydraulic threads and connectors everywhere you go. The intuitive and simple identification process will help you find detailed information about threads specifications, sizes and more...

The Thread ID Mate app is available for your Android smartphone, iPhone/iPod Touch. Thread identification you can keep in your pocket!

Find out more at www.RYCO.com.au



TPI (Threads Per Inch)	28	27	24	20	19	18	16	14	12	11.5	11	8	16.9	12.7
Thread PITCH (mm)	0,91	0,94	1,06	1,27	1,34	1,4	1,59	1,81	2,12	2,21	2,31	3,18	1,5	2,0

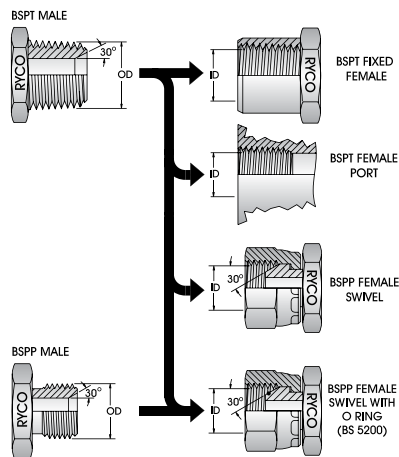
BSPT & BSPP THREADS

BSP	IS	BRITISH STANDARD PIPE	ALSO KNOWN AS WHITWORTH 55° THREAD FORM THREAD FORM PER AS 1722.1, BS 21, ISO 7-1, DIN 3852-2 FORM C (MALE), DIN 3852-2 FORM Z (FEMALE)
BSPT	IS	BRITISH STANDARD PIPE TAPER	
BSPP	IS	BRITISH STANDARD PIPE PARALLEL	

BSPT male threads seal against threads of fixed BSPT female. Contact is made on the flanks of the threads. Use of a thread sealant is recommended for BSPT male to BSPT female connections.

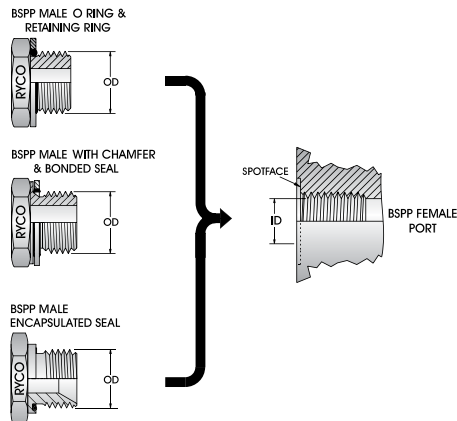
Measure the BSPT male thread OD and female thread ID at the first full thread near the end of the fitting.

BSPT male and BSPP male with conical 30° seat (60° included angle) seal against matching conical 30° seat of BSPP female swivel and BSPP female swivel with O Ring.



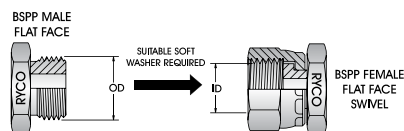
BSPP O Ring male connector has straight threads and O Ring with metal Retaining Ring. It seals against flat external surface of BSPP female port. BSPP male, with chamfer to locate Bonded Seal also seals against flat external surface of BSPP female port.

Surface irregularities require a Spot Face to ensure effective sealing. Elbows and tees have Lock Nut to allow orientation of fitting to required direction.



BSPP male and BSPP female flat face swivel require a suitable soft washer between faces to seal.

For low working pressure.



BSPT & BSPP THREAD DIMENSIONS

BSPT & BSPP SIZE & PITCH	DASH SIZE	BSPT MALE THREAD OD		BSPP MALE THREAD OD		BSPT FEMALE THREAD ID		BSPP FEMALE THREAD ID	
		mm	inch	mm	inch	mm	inch	mm	inch
1/8 - 28	-02	9,5	0.37	9,6	0.38	8,4	0.33	8,6	0.34
1/4 - 19	-04	12,8	0.50	13,0	0.51	11,2	0.44	11,9	0.47
3/8 - 19	-06	16,3	0.64	16,5	0.65	14,7	0.59	15,2	0.60
1/2 - 14	-08	20,4	0.80	20,8	0.82	18,3	0.72	19,1	0.75
5/8 - 14	-10	22,5	0.89	22,8	0.90	20,6	0.81	20,8	0.82
3/4 - 14	-12	25,9	1.02	26,3	1.04	23,9	0.94	24,6	0.97
1 - 11	-16	32,6	1.28	33,1	1.30	29,7	1.17	30,7	1.21
1.1/4 - 11	-20	41,1	1.62	41,8	1.64	38,6	1.52	39,4	1.55
1.1/2 - 11	-24	47,0	1.85	47,7	1.88	44,5	1.75	45,5	1.79
2 - 11	-32	58,6	2.31	59,5	2.34	56,4	2.22	57,4	2.26
2.1/2 - 11	-40	74,1	2.92	75,1	2.95	71,9	2.83	72,6	2.86
3 - 11	-48	86,6	3.41	87,9	3.46	84,6	3.33	85,4	3.36

Thread size refers to the nominal bore of the pipe. Subtract approx. 1/4" (6 mm) from thread diameter measurement for nominal pipe size.

Pitch is Threads Per Inch (TPI).

"Gas", "R" & "G" also refer to BSP. "Male Iron (Pipe)" may be BSP or NPT.

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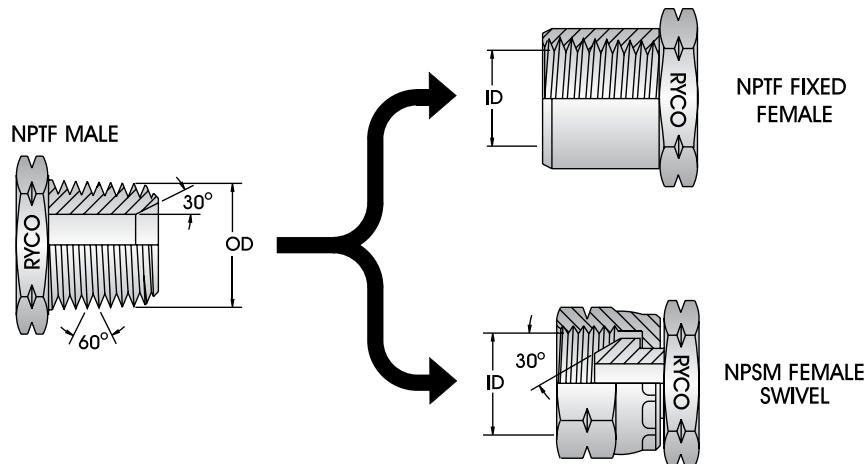
FILTERS

TECHNICAL

NPT & NPS THREADS

NPT	IS	NATIONAL PIPE TAPER (AMERICAN)	THREAD FORM PER ANSI/ASME B1.20.1
NPS	IS	NATIONAL PIPE STRAIGHT (PARALLEL)	THREAD FORM PER ANSI/ASME B1.20.1
NPTF	IS	NATIONAL PIPE TAPER FOR FUEL	THREAD FORM PER SAE J476a, ANSI/ASME B1.20.3
NPSM	IS	NATIONAL PIPE STRAIGHT MECHANICAL	THREAD FORM PER ANSI/ASME B1.20.1, SAE J514

National Pipe threads are similar in function to BSP threads, but are not generally interchangeable. NPTF threads (also known as Dryseal) are an improvement to NPT. Controlled truncation of threads mean the metal-to-metal thread seal is at root and crest of threads, in addition to flanks of threads. Use of thread sealant is recommended for NPT male and NPT.



Measure NPT male thread OD and NPT female thread ID at first full thread near end of fitting.

NPT THREAD DIMENSIONS

NPT THREAD SIZE & PITCH	DASH SIZE	MALE THREAD MINOR OD		FEMALE THREAD ID	
inch - TPI		mm	inch	mm	inch
1/8 - 27	-02	9,9	0.39	8,4	0.33
1/4 - 18	-04	13,2	0.52	11,2	0.44
3/8 - 18	-06	16,6	0.65	14,7	0.58
1/2 - 14	-08	20,6	0.81	17,8	0.70
3/4 - 14	-12	26,0	1.02	23,4	0.92
1 - 11.1/2	-16	32,5	1.28	29,5	1.16
1.1/4 - 11.1/2	-20	41,2	1.62	38,1	1.50
1.1/2 - 11.1/2	-24	47,3	1.86	43,9	1.73
2 - 11.1/2	-32	59,3	2.33	56,4	2.22
2.1/2 - 8	-40	71,5	2.82	69,1	2.72
3 - 8	-48	87,3	3.44	84,8	3.34

NPSM THREAD DIMENSIONS

NPSM THREAD SIZE	DASH SIZE	FEMALE THREAD ID	
inch - TPI		mm	inch
1/8 - 27	-02	8,6	0.34
1/4 - 18	-04	11,9	0.47
3/8 - 18	-06	15,0	0.59
1/2 - 14	-08	19,1	0.75
3/4 - 14	-12	24,6	0.97
1 - 11.1/2	-16	30,5	1.20
1.1/4 - 11.1/2	-20	39,4	1.55
1.1/2 - 11.1/2	-24	45,5	1.79
2 - 11.1/2	-32	57,4	2.26
2.1/2 - 8	-40	68,8	2.71
3 - 8	-48	84,6	3.33

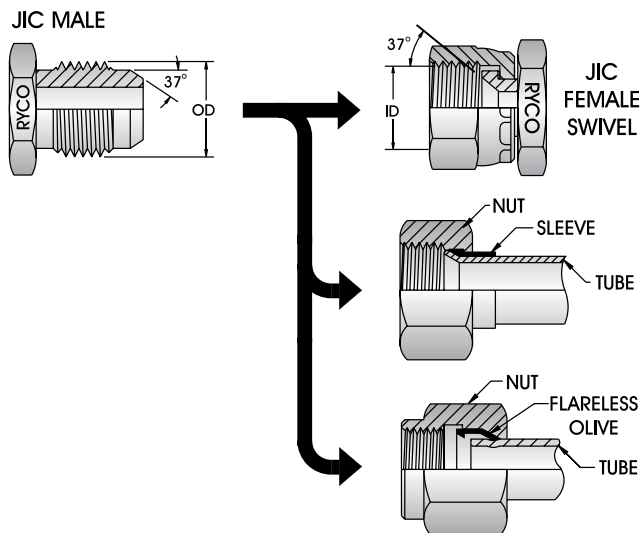
NOTE: Thread size refers to the nominal bore of the pipe.
Subtract approximately 1/4" (6 mm) from thread measurement for nominal pipe size.
Pitch is Threads Per Inch (TPI).

JIC 37° FLARE & UNO (O RING BOSS) THREADS

JIC IS JOINT INDUSTRIES COUNCIL SAE J514, ISO 8434-2
 UN IS UNIFIED NATIONAL SAE J1926, ISO 11926-2

JIC & UNO (O RING BOSS) THREAD FORMS ARE THE SAME (ASME B1.1). METHOD OF SEALING DIFFERS.

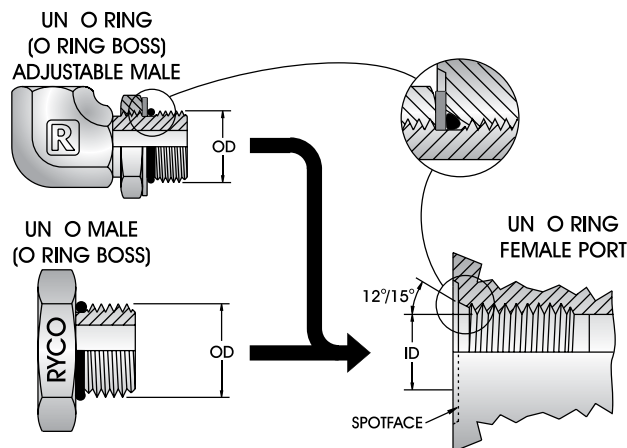
JIC male has 37° flare which seals against 37° seat in female.



JIC male can also seal against 37° flared tubing with JIC nut and sleeve.

JIC male can also be used with RYCO S134 J-Lok Female Nut and Flareless Olive on Imperial OD tubing.

UNO (O Ring Boss) seals with O Ring compressed between hex boss of UN male and 12°/15° tapered bore of UN (O Ring Boss) female port. For elbows and tees, Backup Washer and Lock Nut allow orientation of fitting to required direction.



JIC & UNO THREAD DIMENSIONS

MALE THREAD OD & PITCH	DASH SIZE	MALE THREAD OD		FEMALE THREAD ID		TUBE SIZE
inch - TPI		mm	inch	mm	inch	inch
5/16 - 24 UNF	-05	7,9	0.31	6,9	0.27	1/8
3/8 - 24 UNF	-06	9,5	0.38	8,5	0.33	3/16
7/16 - 20 UNF	-07	11,1	0.44	9,9	0.39	1/4
1/2 - 20 UNF	-08	12,7	0.50	11,4	0.45	5/16
9/16 - 18 UNF	-09	14,3	0.56	13,0	0.51	3/8
3/4 - 16 UNF	-12	19,1	0.75	17,5	0.69	1/2
7/8 - 14 UNF	-14	22,2	0.88	20,3	0.80	5/8
1.1/16 - 12 UN	-17	27,0	1.06	24,9	0.98	3/4
1.3/16 - 12 UN	-19	30,2	1.19	28,2	1.11	7/8
1.5/16 - 12 UN	-21	33,3	1.31	31,2	1.23	1
1.5/8 - 12 UN	-26	41,3	1.63	39,1	1.54	1.1/4
1.7/8 - 12 UN	-30	47,6	1.88	45,5	1.79	1.1/2
2.1/2 - 12 UN	-40	63,5	2.50	61,5	2.42	2

Thread size is actual measurement of male thread and pitch is Threads Per Inch (TPI).

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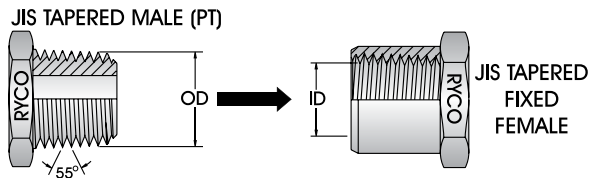
JIS THREADS

JIS IS JAPANESE INDUSTRIAL STANDARDS

There are four popular coupling styles in Japan.

1. JIS TAPERED PIPE THREAD.

Thread form per JIS B 0203 (identical to BSPT)

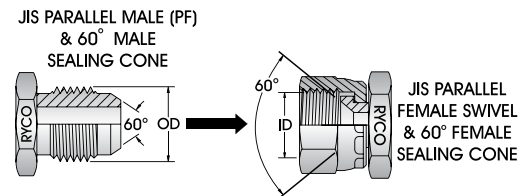


Refer to BSPT section for dimensions of threads.

- The Japanese tapered pipe thread connector is identical to and interchangeable with the BSPT (tapered) connector.
- The Japanese male thread does not have a 30° Flare, and will not mate with the BSPP female swivel with conical seat. The seal on the Japanese tapered pipe thread connector is made on the threads.
- Use of a thread sealant is recommended.

2. JIS 30° FLARE (FEMALE INTERNAL CONE SEAT).

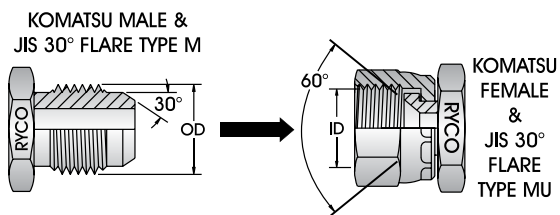
Thread form per JIS B 0202 (identical to BSPP)



Refer to BSPP section for dimensions of threads.

- This connection uses a 60° concave (inverted) seat and British Standard Pipe Parallel threads.
- They are not interchangeable with BSPP conical seat couplings, because the cone seats are opposite.

3. KOMATSU® JIS 30° FLARE (FEMALE INTERNAL CONE SEAT).



Thread form per JIS B 0207

- Threads commonly used on Komatsu equipment (30° cone) have metric thread form. See table opposite.

4. KOMATSU® STYLE FLANGE FITTING JIS B 8363

- The Komatsu® style Flange fitting is nearly identical to, and fully interchangeable with, the SAE Code 61 flange fitting*.
- The O Ring dimensions are different between all sizes.
- When replacing a Komatsu® style flange with an SAE style flange, an SAE style O Ring must always be used.

* 5/8" is not in the SAE Standards.

MALE THREAD OD & PITCH	DASH SIZE	FEMALE THREAD ID	KOMATSU®	JIS B 8363
mm		mm		
M14 x 1,5	-14	12,5	✓	✓
M16 x 1,5	-16	14,5	✓	
M18 x 1,5	-18	16,5		✓
M22 x 1,5	-22	20,5		✓
M24 x 1,5	-24	22,5	✓	
M27 x 2,0	-27	25,0		✓
M30 x 1,5	-30	28,5	✓	
M33 x 1,5	-33	31,5	✓	
M33 x 2,0	-33	31,0		✓
M36 x 1,5	-36	34,5	✓	
M42 x 1,5	-42	40,5	✓	
M50 x 2,0	-50	48,0		✓
M60 x 2,0	-60	58,0		✓

BSPT & BSPP THREAD DIMENSIONS

BSPT & BSPP SIZE & PITCH	DASH SIZE	BSPT MALE THREAD OD		BSPP MALE THREAD OD		BSPT FEMALE THREAD ID		BSPP FEMALE THREAD ID	
		mm	inch	mm	inch	mm	inch	mm	inch
1/8 - 28	-02	9,5	0.37	9,6	0.38	8,4	0.33	8,6	0.34
1/4 - 19	-04	12,8	0.50	13,0	0.51	11,2	0.44	11,9	0.47
3/8 - 19	-06	16,3	0.64	16,5	0.65	14,7	0.59	15,2	0.60
1/2 - 14	-08	20,4	0.80	20,8	0.82	18,3	0.72	19,1	0.75
5/8 - 14	-10	22,5	0.89	22,8	0.90	20,6	0.81	20,8	0.82
3/4 - 14	-12	25,9	1.02	26,3	1.04	23,9	0.94	24,6	0.97
1 - 11	-16	32,6	1.28	33,1	1.30	29,7	1.17	30,7	1.21
1.1/4 - 11	-20	41,1	1.62	41,8	1.64	38,6	1.52	39,4	1.55
1.1/2 - 11	-24	47,0	1.85	47,7	1.88	44,5	1.75	45,5	1.79
2 - 11	-32	58,6	2.31	59,5	2.34	56,4	2.22	57,4	2.26
2.1/2 - 11	-40	74,1	2.92	75,1	2.95	71,9	2.83	72,6	2.86
3 - 11	-48	86,6	3.41	87,9	3.46	84,6	3.33	85,4	3.36

Thread size refers to the nominal bore of the pipe. Subtract approx. 1/4" (6 mm) from thread diameter measurement for nominal pipe size.

Pitch is Threads Per Inch (TPI).

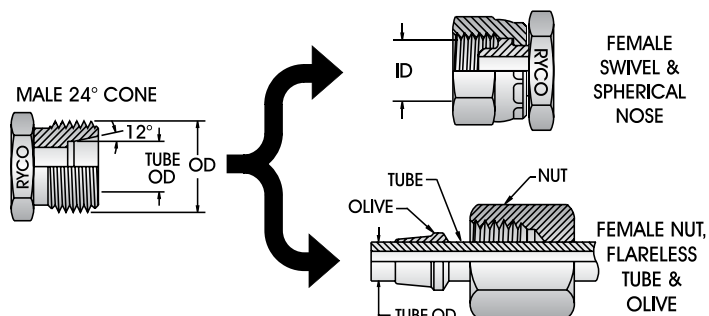
"Gas", "R" & "G" also refer to BSP. "Male Iron (Pipe)" may be BSP or NPT.

METRIC FRENCH GAZ ALSO KNOWN AS METRIC FRENCH GAZ 24°

These seal on a 24° cone seat located internally on the male connector using straight fine metric threads. Metric French GAZ series uses fractional number metric OD tubing, as shown in the table. Metric French Millimetric series uses whole number metric OD tubing. The two series are not interconnectable.

The male will mate with a straight thread female swivel with spherical nose seat.

The same male also mates with flareless tube, Tube Nut and Compression Olive (Cutting Ring). Tightening of the female nut compresses the olive causing it cut into the tube, thereby forming a seal between the tube, olive and 24° male cone.



MALE THREAD OD & PITCH	DASH SIZE	MALE THREAD OD		FEMALE THREAD ID		TUBE SIZE
inch - TPI		mm	inch	mm	inch	mm
M20 x 1,5	-20	20,0	0.78	18,5	0.72	13,25
M24 x 1,5	-24	24,0	0.94	22,5	0.88	16,75
M30 x 1,5	-30	30,0	1.18	28,5	1.12	21,25
M36 x 1,5	-36	36,0	1.41	34,5	1.35	26,75
M45 x 1,5	-45	45,0	1.77	43,5	1.71	33,50
M52 x 1,5	-52	52,0	2.04	50,5	1.98	42,25

METRIC FRENCH MILLIMETRIC ALSO KNOWN AS METRIC MILLIMETRIC

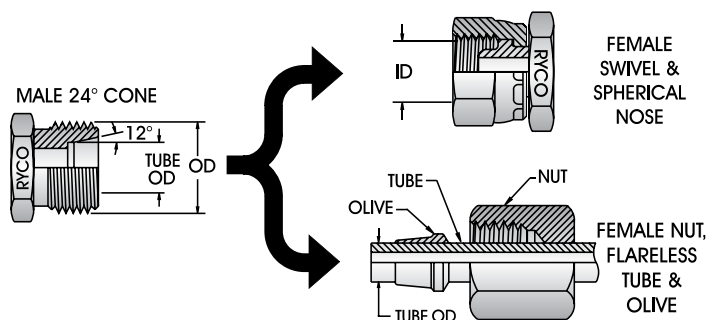
These seal on a 24° cone seat located internally on the male connector using straight fine metric threads.

Metric French GAZ series uses fractional number metric OD tubing, as shown in the table.

Metric French Millimetric series uses whole number metric OD tubing. The two series are not interconnectable.

The male will mate with a straight thread female swivel with spherical nose seat.

The same male also mates with flareless tube, Tube Nut and Compression Olive (Cutting Ring). Tightening of the female nut compresses the olive causing it cut into the tube, thereby forming a seal between the tube, olive and 24° male cone.



MALE THREAD OD & PITCH	DASH SIZE	MALE THREAD OD		FEMALE THREAD ID		TUBE SIZE
inch - TPI		mm	inch	mm	inch	mm
M27 x 1,5	-27	27,0	1.06	25,5	1.00	20
M30 x 1,5	-30	30,0	1.18	28,5	1.12	22
M33 x 1,5	-33	33,0	1.30	31,5	1.24	25
M36 x 1,5	-36	36,0	1.41	34,5	1.35	28
M39 x 1,5	-39	39,0	1.54	37,5	1.48	30
M45 x 1,5	-45	45,0	1.77	43,5	1.71	35

METRIC DIN THREADS

DIN IS DEUTSCHE INDUSTRIE NORMEN (GERMAN INDUSTRIAL STANDARD) 24° CONE SEAT PER DIN 3861, ISO 8434-1/DIN 2353 O RING SEAL PER DIN 3865, BONDED SEAL AND PORT PER DIN 3852-1

DKL	IS	DICHT KEGEL LEICHT	(METRIC LIGHT SERIES 24° CONE)
DKS	IS	DICHT KEGEL SCHWER	(METRIC HEAVY SERIES 24° CONE)
DKOL	IS	DICHT KEGEL O RING LEICHT	(METRIC LIGHT O RING SERIES 24° CONE)
DKOS	IS	DICHT KEGEL O RING SCHWER	(METRIC HEAVY O RING SERIES 24° CONE)
DKM	IS	DICHT KEGEL METRIC	(METRIC 60° CONE)

This DIN connection comes in a Light Series (DKL/DKOL) and a Heavy Series (DKS/DKOS). Some thread sizes in each series are the same, but the Tube OD of the Heavy Series is smaller and has a thicker tube wall. Because the tube and sealing cone are different sizes, Light and Heavy Series are NOT interchangeable.

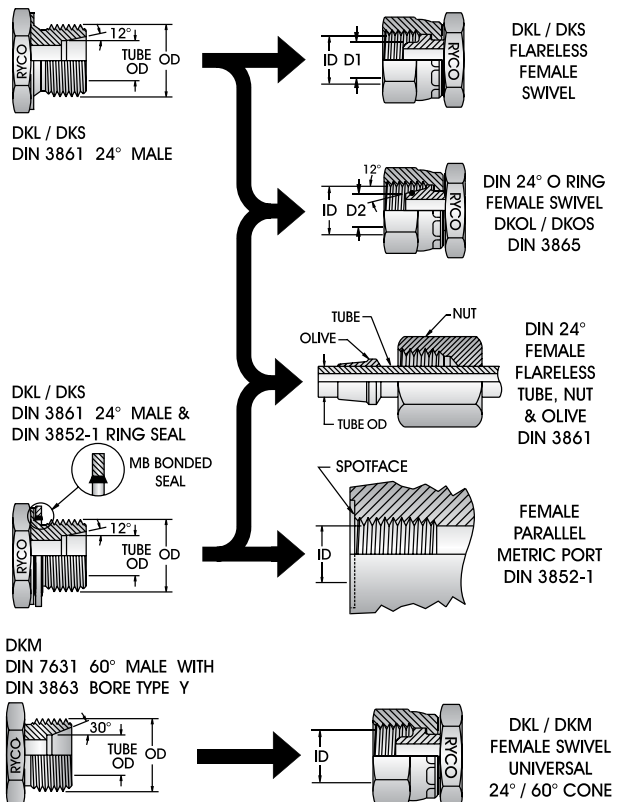
The DIN male 24° internal cone seat will seal with flareless female swivel fittings. These female fittings use either a spherical nose (DKL/DKS) or an O Ring seal (DKOL/DKOS) located on their outward facing 24° cone. Female DKL sizes up to and including M26 have a universal 24°/60° cone and can be used in place of female DKM fittings with 60° cone.

The same male also mates with the DIN system Metric Tube, Tube Nut and Compression Olive (Cutting Ring). Tightening of the female nut compresses the olive causing it to cut into the tube, thereby forming a seal between the tube, olive and 24° male cone.

The same male used with a metal Bonded Seal will mate with a DIN 3852-1 metric threaded port with spotface.

DKM 60° CONE SEAT

The DIN male 60° internal cone seat will mate with DKL/DKM female universal 24°/60° cone fittings up to and including size M26 and DKM female 60° cone fittings from size M30 up.



MALE THREAD OD & PITCH	FEMALE THREAD ID	LIGHT SERIES - DKL/DKOL				HEAVY SERIES - DKS/DKOS			
		DASH SIZE	TUBE OD	D1 DIA	D2 DIA	DASH SIZE	TUBE OD	D1 DIA	D2 DIA
mm	mm		mm	mm	mm		mm	mm	mm
M12 x 1,5	10,5	-1215*	6	7,5	6,3				
M14 x 1,5	12,5	-1415*	8	9,5	8,2	-1415	6	7,5	6,3
M16 x 1,5	14,5	-1615*	10	11,5	10,2	-1615	8	9,5	7,9
M18 x 1,5	16,5	-1815*	12	14,0	12,2	-1815	10	12,0	10,0
M20 x 1,5	18,5					-2015	12	14,0	12,0
M22 x 1,5	20,5	-2215*	15	17,0	15,2	-2215	14	16,0	14,2
M24 x 1,5	22,5					-2415	16	18,0	15,8
M26 x 1,5	24,5	-2615*	18	20,0	18,2				
M30 x 2,0	28,0	-3020	22	24,5	22,2	-3020	20	22,5	19,8
M36 x 2,0	34,0	-3620	28	30,5	28,2	-3620	25	27,5	24,5
M42 x 2,0	40,0					-4220	30	33,0	30,0
M45 x 2,0	43,0	-4520	35	38,0	35,4				
M52 x 2,0	50,0	-5220	42	45,0	42,4	-5220	38	41,0	36,8

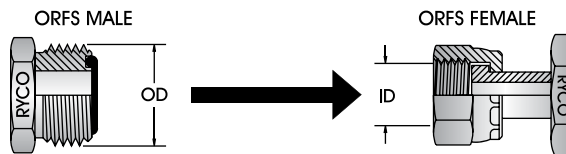
*These DKL Light Series Female Connections can be used in place of DKM Female.
NOTE: in above tables, pitch is included in DASH Size.
 For HOSE COUPLINGS and most ADAPTORS, pitch is not included in the DASH Size.

ORFS THREADS SAE J1453, ISO 8434-3
ORFS IS O RING FACE SEAL

ORFS system consists of ORFS Male with O Ring in Face, which seals against Flat Seated ORFS Female Swivel Nut fitting.

The Swivel Nut can be slipped back to help installation in tight situations.

The prominent position of the O Ring on the Male fitting makes it easy to inspect the condition of the O Ring.



MALE THREAD OD & PITCH	DASH SIZE	MALE THREAD OD		FEMALE THREAD ID		TUBE SIZE
		mm	inch	mm	inch	
9/16 - 18 UNF	-09	14,3	0.56	12,9	0.51	1/4
11/16 - 16 UN	-11	17,3	0.68	16,0	0.63	3/8
13/16 - 16 UN	-13	20,6	0.81	19,1	0.75	1/2
1 - 14 UNS	-16	25,4	1.00	23,6	0.73	5/8
1.3/16 - 12 UN	-19	30,0	1.18	28,2	1.11	3/4
1.7/16 - 12 UN	-23	36,3	1.43	34,3	1.35	1
1.11/16 - 12 UN	-27	42,7	1.68	40,6	1.60	1.1/4
2 - 12 UN	-32	51,8	2.00	48,8	1.92	1.1/2

TECHNICAL

THREAD AND CONNECTOR IDENTIFICATION

SAE THREADS

SAE IS SOCIETY OF AUTOMOTIVE ENGINEERS

These fittings are commonly used in refrigeration, automotive and low pressure applications.

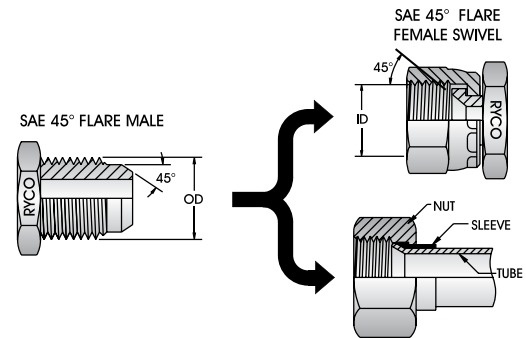
SAE 45° FLARE SAE J512

SAE male has 45° flare which seals against 45° seat in female.

Male can also seal against 45° flared tubing with nut and sleeve.

7/16 - 20, 1/2 - 20, 3/4 - 16 & 7/8 - 14 are the same thread form as JIC 37° flare. Some fittings in these sizes have both JIC 37° & SAE 45° seats.

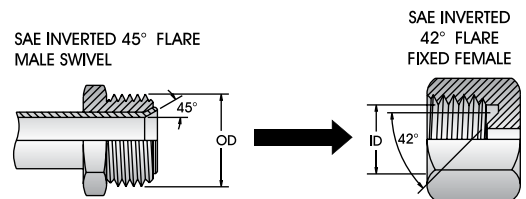
MALE THREAD OD & PITCH	DASH SIZE	MALE THREAD OD		FEMALE THREAD ID		TUBE SIZE
inch - TPI		mm	inch	mm	inch	inch
5/16 - 24	-05	7,9	0.31	6,8	0.27	1/8
3/8 - 24	-06	9,5	0.38	8,4	0.33	3/16
7/16 - 20	-07	11,1	0.44	9,9	0.39	1/4
1/2 - 20	-08	12,7	0.50	11,4	0.44	5/16
5/8 - 18	-10	15,9	0.63	14,2	0.56	3/8
3/4 - 16	-12	19,1	0.75	17,5	0.69	1/2
7/8 - 14	-14	22,2	0.88	20,6	0.81	5/8
1.1/16 - 14	-17	27,0	1.06	24,9	0.98	3/4



SAE 45° INVERTED FLARE

SAE J512

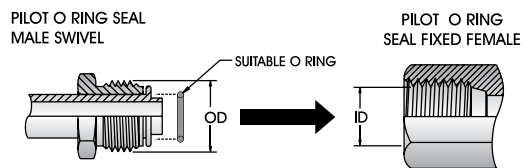
MALE THREAD OD & PITCH	DASH SIZE	MALE THREAD OD		FEMALE THREAD ID		TUBE SIZE
inch - TPI		mm	inch	mm	inch	inch
7/16 - 24	-07	11,1	0.44	9,9	0.39	1/4
1/2 - 20	-08	12,7	0.50	11,4	0.45	5/16
5/8 - 18	-10	15,9	0.63	14,2	0.56	3/8
11/16 - 18	-11	17,5	0.69	16,0	0.63	7/16



SAE PILOT O RING SEALS

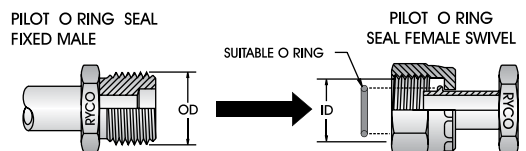
PILOT MALE SWIVEL

MALE THREAD OD & PITCH	DASH SIZE	MALE THREAD OD		FEMALE THREAD ID		TUBE SIZE
inch - TPI		mm	inch	mm	inch	Dash
5/8 - 18	-10	15,9	0.63	14,2	0.56	-6
3/4 - 18	-12	19,0	0.75	17,8	0.70	-8
7/8 - 18	-14	22,2	0.88	20,6	0.81	-10



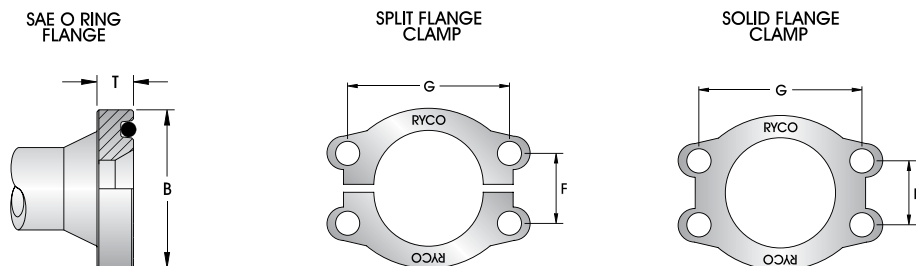
PILOT FEMALE SWIVEL

MALE THREAD OD & PITCH	DASH SIZE	MALE THREAD OD		FEMALE THREAD ID		TUBE SIZE
inch - TPI		mm	inch	mm	inch	Dash
5/8 - 18	-10	15,9	0.63	14,2	0.56	-6
3/4 - 16	-12	19,0	0.75	17,5	0.69	-8
7/8 - 14	-14	22,2	0.88	20,6	0.81	-10



THREAD AND CONNECTOR IDENTIFICATION

SAE O RING FLANGE - CODE 61 & CODE 62 SAE J518, ISO 6162 RYCO O RING FLANGE - CODE 62C



The male connector has a flange head with an O Ring groove on the face. The female can be a flange block or port with smooth face to accept the O Ring, and four threaded bolt holes in a rectangular pattern. The connection is held together using either a split or solid flange clamp, fitted over the male flange head and drawn up to the female port using the four bolts. This compresses the O Ring forming a seal between the male flange and the flat female port face.

SAE J518, DIN 20066, ISO/DIS 6162 and JIS B 8363 are all interchangeable, except for bolt sizes.

NOM. FLANGE SIZE	DASH SIZE	BØ		T		F		G		PORT THREAD & BOLT LENGTH			
		mm	inch	mm	inch	mm	inch	mm	inch	PORT	BOLT LENGTH	PORT	BOLT
inch		mm	inch	mm	inch	mm	inch	mm	inch	UNC	inch	METRIC	mm
CODE 61													
1/2	-08	30,2	1.19	6,73	0.265	17,5	0.69	38,1	1.50	5/16 - 18	1.1/4	M8 x 1,25	35
*5/8	-10	34,0	1.34	6,73	0.265	19,8	0.78	42,9	1.69	5/16 - 18		M8 x 1,25	
3/4	-12	38,1	1.50	6,73	0.265	22,2	0.88	47,6	1.88	3/8 - 16	1.1/4	M10 x 1,5	35
1	-16	44,5	1.75	8,00	0.315	26,2	1.03	52,4	2.06	3/8 - 16	1.1/4	M10 x 1,5	35
1.1/4	-20	50,8	2.00	8,00	0.315	30,2	1.19	58,7	2.31	7/16 - 14	1.1/2	M10 x 1,5	40
1.1/2	-24	60,3	2.38	8,00	0.315	35,7	1.41	69,8	2.75	1/2 - 13	1.1/2	M12 x 1,75	45
2	-32	71,4	2.81	9,53	0.375	42,9	1.69	77,8	3.06	1/2 - 13	1.1/2	M12 x 1,75	45
2.1/2	-40	84,1	3.31	9,53	0.375	50,8	2.00	88,9	3.50	1/2 - 13	1.3/4	M12 x 1,75	45
3	-48	101,6	4.00	9,53	0.375	61,9	2.44	106,4	4.19	5/8 - 11	1.3/4	M16 x 2,0	45
CODE 62													
1/2	-08	31,7	1.25	7,75	0.305	18,2	0.72	40,5	1.59	5/16 - 18	1.1/4	M8 x 1,25	35
3/4	-12	41,3	1.63	8,76	0.345	23,8	0.94	50,8	2.00	3/8 - 16	1.1/2	M10 x 1,5	40
1	-16	47,6	1.88	9,53	0.375	27,8	1.09	57,2	2.25	7/16 - 14	1.3/4	M12 x 1,75	45
1.1/4	-20	54,0	2.12	10,29	0.405	31,8	1.25	66,7	2.63	1/2 - 13	1.3/4	M14 x 2,0	45
1.1/2	-24	63,5	2.50	12,57	0.495	36,5	1.44	79,4	3.13	5/8 - 11	2.1/4	M16 x 2,0	60
2	-32	79,4	3.13	12,57	0.495	44,5	1.75	96,8	3.81	3/4 - 10	2.3/4	M20 x 2,5	70
RYCO CODE 62C													
3/4	-12	41,3	1.63	14,20	0.559	23,8	0.94	50,8	2.00	3/8 - 16	1.3/4	M10 x 1,5	45
1	-16	47,6	1.88	14,20	0.599	27,8	1.09	57,2	2.25	7/16 - 14	1.3/4	M12 x 1,75	45
1.1/4	-20	54,0	2.12	14,20	0.599	31,8	1.25	66,7	2.63	1/2 - 13	2	M14 x 2,0	50
1.1/2	-24	63,5	2.5	14,20	0.599	36,5	1.44	79,4	3.13	5/8 - 11	2.1/2	M16 x 2,0	60
2	-32	79,4	3.13	14,20	0.599	44,5	1.75	96,8	3.81	3/4 - 10	2.3/4	M20 x 2,5	70

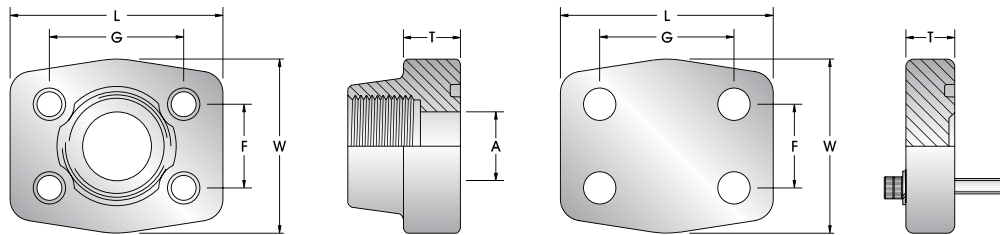
RYCO Code 62C fittings conform to the flange OD and bolt hole patterns of SAE Code 62 but require special flange clamp halves. The RYCO Code 62C flange heads are thicker than SAE Code 62 and measure T = 14,2 mm (0.559") in all sizes. RYCO Code 62C flanges have similar dimensions to the Caterpillar XT-5 and XT-6 range of flanges. Cat™ Caterpillar®, XT-5™, XT-6™ Caterpillar®. *5/8 is used by Komatsu.

TECHNICAL

THREAD AND CONNECTOR IDENTIFICATION

SAE O RING FLANGE BLOCKS - CODE 61 & CODE 62

SAE J518, ISO 6162



NOM. FLANGE SIZE	DASH SIZE	L		W		F		G		A		T EXCEPT BLIND FLANGES		T T BLIND FLANGES S967/S968	
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
CODE 61															
1/2	-08	56	2.20	48	1.89	17,5	0.69	38,1	1.50	13	0.51	16	0.63	16	0.63
3/4	-12	65	2.56	50	1.97	22,2	0.88	47,6	1.88	19	0.75	18	0.71	16	0.63
1	-16	70	2.76	60	2.36	26,2	1.03	52,4	2.06	25	0.98	18	0.71	19	0.75
1.1/4	-20	79	3.11	68	2.68	30,2	1.19	58,7	2.31	32	1.26	21	0.83	18	0.71
1.1/2	-24	93	3.66	78	3.07	35,7	1.41	69,8	3.06	38	1.50	25	0.98	20	0.79
2	-32	102	4.02	90	3.54	42,9	1.69	77,8	3.50	51	2.01	25	0.98	20	0.79
CODE 62															
3/4	-12	71	2.80	60	2.36	23,8	0.94	50,8	2.00	19	0.75	21	0.83	19	0.75
1	-16	81	3.19	70	2.76	27,8	1.09	57,2	2.25	25	0.98	25	0.98	24	0.94
1.1/4	-20	95	3.74	78	3.07	31,8	1.25	66,7	2.63	32	1.26	27	1.06	27	1.06
1.1/2	-24	112	4.41	94	3.70	36,5	1.44	79,4	3.13	38	1.50	30	1.18	30	1.18
2	-32	134	5.28	114	4.49	44,5	1.75	96,8	3.81	51	2.01	37	1.46	28	1.10

NOM. FLANGE SIZE	DASH SIZE	SOCKET HEAD CAP SCREW (THREAD X LENGTH)	SOCKET HEAD CAP SCREW (THREAD X LENGTH)
		UNC x inch	METRIC x mm
CODE 61			
1/2	-08	5/16 - 18 x 1.1/4	M8x1,25 X 30
3/4	-12	3/8 - 16 x 1.1/2	M10x1,5 X 35
1	-16	3/8 - 16 x 1.1/2	M10x1,5 X 35
1.1/4	-20	7/16 - 14 x 1.3/4	M10x1,5 X 40
1.1/2	-24	1/2 - 13 x 1.3/4	M12x1,75 X 45
2	-32	1/2 - 13 x 1.3/4	M12x1,75 X 45
CODE 62			
3/4	-12	3/8 - 16 x 1.1/2	M10x1,5 X 40
1	-16	7/16 - 14 x 1.3/4	M12x1,75 X 45
1.1/4	-20	1/2 - 13 x 1.3/4	M14x2,0 X 45
1.1/2	-24	5/8 - 11 x 2	M16x2,0 X 50
2	-32	3/4 - 10 x 2.1/2	M20x2,5 X 70

THREAD AND CONNECTOR IDENTIFICATION

RYCO CROCBITE - MINE SAFE CONNECTION SYSTEM

The CROCBITE male uses a rubber seal which seals on the smooth bore of the female. The connection is held together by the CROCTAIL and cannot be disconnected under pressure.

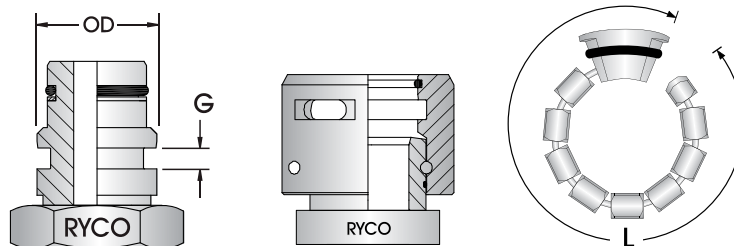
CROCBITE High Pressure and High Flow series' are not interchangeable, however the CROCTAIL is common for both series.

-10 & -12 CROCBITE male & female can interchange with STAPLELOK.

-20 CROCBITE female can connect with STAPLELOK male.

Sealing method: O Ring & Backup washer, or profiled seal

Thread form: None



NOMINAL SIZE			OD		GROOVE WIDTH		CROCTAIL LENGTH	
DN	inch	Dash	mm	inch	mm	inch	mm	inch
HIGH PRESSURE								
10	3/8	-10	20	0.79	5	0.20	65	2.6
12	1/2	-12	24	0.94	5	0.20	75	3.0
19	3/4	-20	29	1.14	5	0.20	95	3.7
25	1	-25	40	1.57	6	0.24	130	5.1
31	1.1/4	-32	47	1.85	6	0.24	160	6.3
38	1.1/2	-40	56	2.20	6	0.24	190	7.5
51	2	-50	68	2.68	10	0.39	210	8.3
63	2.1/2	-63	88	3.46	10	0.39	250	9.8
76	3	-75	100	3.94	10	0.39	300	11.8
HIGH FLOW								
51	2	-50	69	2.72	10	0.39	210	8.3
63	2.1/2	-63	89	3.50	10	0.39	250	9.8
76	3	-75	101	3.98	10	0.39	300	11.8

420 BAR

1,000,000+ IMPULSE CYCLES

CONFORMS WITH THE REQUIREMENTS OF MDG 41



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THREAD AND CONNECTOR IDENTIFICATION

RYCO RKV

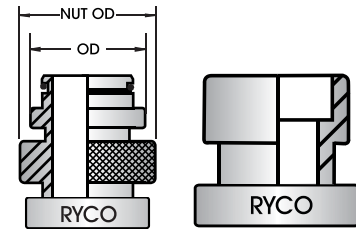
The RKV male uses a O Ring and a backup washer which seals on the smooth bore of the female. The connection is held together by the shell and positively retained by the lock nut.

RKV High Pressure (RKVP) and High Flow (RKVF) series' are not interchangeable (including the shell).

* For various adaptors, the Lock Nut OD may vary from standard (Coupling Lock Nut) OD to the values as listed.

Sealing method: O Ring & Backup washer

Thread form: None



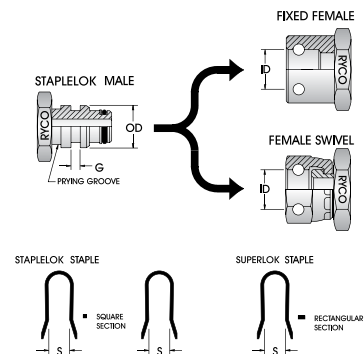
NOMINAL SIZE			OD		NUT OD			
DN	inch	Dash	mm	inch	COUPLING		ADAPTOR*	
mm	inch				mm	inch	mm	inch
HIGH PRESSURE - RKVP								
10	3/8	-10	20	0.79	25	0.98	29	1.14
12	1/2	-12	24	0.94	30	1.18	34	1.34
19	3/4	-20	30	1.18	40	1.57	40	1.57
25	1	-25	36	1.42	46	1.81	46	1.81
31	1.1/4	-32	44	1.73	52	2.05	59	2.32
38	1.1/2	-40	54	2.13	64	2.52	72	2.83
51	2	-50	70	2.76	78	3.07	85	3.35
63	2.1/2	-63	84	3.31	98	3.86	110	4.33
HIGH FLOW - RKVF								
25	1	-25	33	1.30	42	1.65	42	1.65
31	1.1/4	-32	39.8	1.57	50	1.97	50	1.97
38	1.1/2	-40	53	2.09	64	2.52	72	2.83
51	2	-50	65	2.56	75	2.95	80	3.15
63	2.1/2	-63	75	2.95	85	3.35	90	3.54
76	3	-75	99.3	3.91	110	4.33	125	4.92

STAPLELOK SAE J1467

SUPERLOK

STAPLELOK ARE ALSO CALLED CLIP FASTENER & STAPLE

The STAPLELOK male connector uses an O Ring and backup washer, and seals on the smooth bore of the female. The connection is held together by the staple. The male staple groove (G) aligns with the drilled holes of the female allowing the staple to be inserted. STAPLELOK and SUPERLOK use different width staples and are therefore NOT interchangeable.



NOMINAL SIZE			NOM. MALE OD & FEMALE ID		STAPLELOK STAPLE SIZE				SUPERLOK STAPLE SIZE			
DN	inch	Dash	mm	inch	G	G	S	S	G	G	S	S
mm	inch				mm	inch	mm	inch	mm	inch	mm	inch
6	1/4	-06	15	0.59	5,1	0.2	8	0.31	-	-	-	-
10	3/8	-10	20	0.79	5,1	0.2	13	0.51	-	-	-	-
12	1/2	-13	24	0.94	5,1	0.2	17	0.67	-	-	-	-
16	5/8	-16	26	1.02	5,1	0.2	19	0.75	-	-	-	-
19	3/4	-20	29	1.14	5,1	0.2	22	0.87	9	0.35	22	0.87
25	1	-25	39	1.53	7,1	0.28	29	1.14	13	0.51	29	1.14
31	1.1/4	-32	46	1.81	7,1	0.28	36	1.42	13	0.51	36	1.42
38	1.1/2	-40	55	2.16	7,1	0.28	45	1.77	13	0.51	45	1.77
51	2	-50	64	2.52	7,1	0.28	54	2.13	13	0.51	54	2.13

RYCO WEO CARTRIDGE & CARTRIDGE PORT SPECIFICATIONS

PLUG-IN SIZE			TO SUIT RYCO WEO CARTRIDGE	A	B	C	D	E	F	G	H	J	K	L	ASSEMBLY TORQUE
DN	Dash	inch	PART NO	mm	mm	mm	mm	thread	mm	mm	mm	mm	mm	mm	Nm
6	-04	1/4	RW800-04	10.03 +0.08	12.75 +0.10	16.55 +0.07	17.0 +0.1	M18x1,0	8.5 +1	1.1 -0.1	10.65 +0.1	14.15 +0.2	19.65 +0.15	0.2	25-35
10	-06	3/8	RW800-06	13.03 +0.08	16.95 +0.15	20.55 +0.07	21.0 +0.1	M22x1,0	8.7 +1	1.15 -0.1	11.1 +0.1	15.5 +0.2	21.95 +0.15	0.2	30-40
12	-08	1/2	RW800-08	16.03 +0.08	19.95 +0.15	23.55 +0.07	24.0 +0.1	M25x1,0	8.7 +1	1.25 -0.1	11.3 +0.1	15.7 +0.2	22.15 +0.15	0.3	40-50
19	-12	3/4	RW800-12	23.03 +0.08	27.95 +0.15	31.05 +0.07	31.5 +0.1	M33x1,5	11.5 +1	1.7 -0.1	16.5 +0.1	21.4 +0.2	31.35 +0.15	0.3	70-80

AVAILABLE RYCO WEO CARTRIDGE SIZES:

DN6	(1/4")	RW800-04
DN10	(3/8")	RW800-06
DN12	(1/2")	RW800-08
DN19	(3/4")	RW800-12

WORKING PRESSURE:

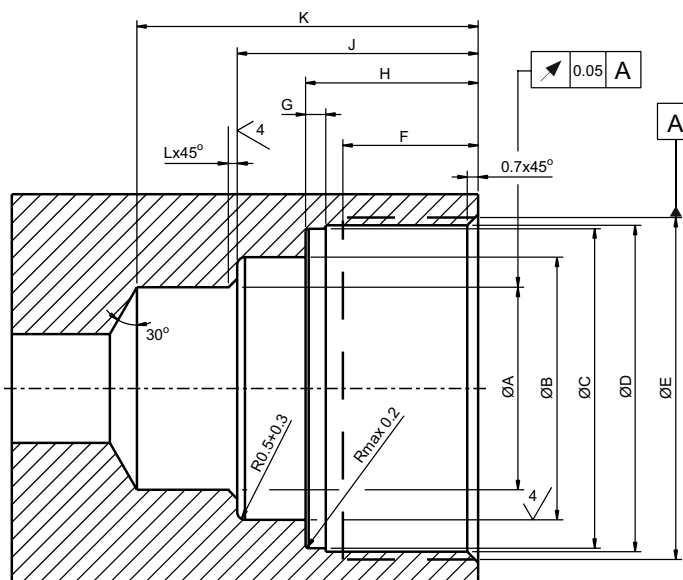
DN6 to DN19 (1/4" to 3/4")
350 bar (5,100 psi)

MINIMUM BURST PRESSURE:

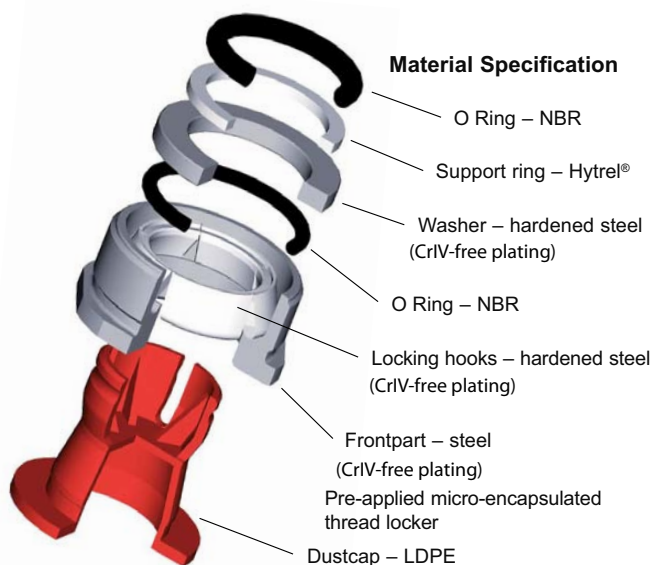
DN6 to DN19 (1/4" to 3/4")
1400 bar (20,400 psi)

TEMPERATURE RANGE:

-30°C to +100°C (-22°F to 212°F)



Sharp edges to be deburred 0.05-0.20 mm
Dimension in millimeters



TECHNICAL

TORQUE ASSEMBLY VALUES

The Torque Values shown are for guidance only and are based on normal industrial applications. The Torque Values shown are for plated carbon steel fittings.

NM = NEWTON METRES

KG.M = KILOGRAM METRES

FT.LBF = FOOT POUNDS FORCE

TO CONVERT	>>> INTO >>>	MULTIPLY BY
Nm	ft.lbf	0.737
Nm	kg.m	0.102
ft.lbf	Nm	1.357
ft.lbf	kg.m	0.138
kg.m	Nm	9.804
kg.m	ft.lbf	7.231

BSPP

BSPP SIZE	DASH SIZE	SWIVEL NUT		BSP ENCAPSULATED SEAL SAE RECOMMENDED TORQUE RANGE		BSP BONDED SEAL			
		TORQUE RANGE		TORQUE RANGE		RECOMMENDED TORQUE (SINGLE)		RECOMMENDED TORQUE (TANDEM SEALING)	
		Nm	ft.lbf	Nm	ft.lbf	Nm	ft.lbf	Nm	ft.lbf
1/8	-02	11-12	8-9	35-39	26-28	25-28	18-20	40-45	29-32
1/4	-04	25-28	18-20	60-66	44-49	51-55	37-40	67-72	49-52
3/8	-06	41-48	30-35	95-105	70-77	80-89	59-65	104-116	77-85
1/2	-08	72-82	55-60	130-143	96-105	99-105	73-77	119-126	88-93
5/8	-10	96-110	70-80	180-198	133-146	136-146	100-107	150-161	110-118
3/4	-12	124-137	90-100	200-220	147-162	220-230	162-169	242-253	179-186
1	-16	151-165	110-120	450-495	332-365	371-407	273-300	409-448	301-330
1.1/4	-20	192-206	140-150	500-550	369-405	501-510	369-376	527-536	388-395
1.1/2	-24	261-275	190-200	600-660	442-486	601-611	443-450	632-642	466-473
2	-32	343-357	250-260	700-770	516-567	746-756	550-557	784-794	578-585

*2" (-32) sizes of BSP Encapsulated Seal use an O-Ring seal.

METRIC

24°, 60° & UNIVERSAL INVERTED CONE					BONDED SEAL					
THREAD SIZE	TUBE DIA. S-HEAVY mm	TUBE DIA. L-LIGHT mm	SWIVEL NUT TORQUE RANGE		THREAD SIZE	DASH SIZE	RECOMMENDED TORQUE (SINGLE)		RECOMMENDED TORQUE (TANDEM SEALING)	
			Nm	ft.lbf			Nm	ft.lbf	Nm	ft.lbf
M12 x 1,5		6	10-20	7-15	M10	-10	53-59	39-43	85-95	63-69
M14 x 1,5	6	8	20-35	15-26	M12	-12	55-60	40-44	88-96	64-71
M16 x 1,5	8	10	25-40	18-30	M14	-14	72-79	53-58	101-111	75-82
M18 x 1,5	10	12	30-45	22-33	M16	-16	80-89	59-65	104-116	77-85
M20 x 1,5	12		35-50	26-37	M18	-18	82-90	60-66	107-117	78-86
M22 x 1,5	14	15	40-70	30-52	M20	-20	99-109	73-80	119-131	88-96
M24 x 1,5	16		40-70	30-52	M22	-22	136-150	100-110	157-173	115-127
M26 x 1,5		18	60-100	44-74	M24	-24	147-162	108-119	170-187	125-137
M30 x 2,0	20	22	80-120	59-89	M26	-26	171-182	126-134	189-201	139-148
M36 x 2,0	25	28	100-150	74-111	M27	-27	220-235	162-173	242-259	179-191
M42 x 2,0	30		150-220	111-163	M30	-30	270-287	199-211	297-316	219-233
M45 x 2,0		35	180-250	133-184	M33	-33	371-392	273-289	409-432	301-318
M52 x 2,0	38	42	200-300	148-221	M36	-36	390-398	287-293	429-438	316-323
					M42	-42	405-413	298-304	446-455	328-335
					M48	-48	501-510	369-376	552-561	406-414

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JIC 37° & SAE 45° (MACHINED OR FLARED)

JIC/SAE THREAD SIZE	DASH SIZE	SAE RECOMMENDED SWIVEL NUT TORQUE RANGE	
		Nm	ft.lbf
5/16 - 24	-05	8-9	6-7
3/8 - 24	-06	11-12	8-9
7/16 - 20	-07	15-16	11-12
1/2 - 20	-08	19-21	14-15
9/16 - 18	-09	24-28	18-20
3/4 - 16	-12	49-53	36-39
7/8 - 14	-14	77-85	57-63
1.1/16 - 12	-17	107-119	79-88
1.3/16 - 12	-19	127-140	94-103
1.5/16 - 12	-21	147-154	108-113
1.5/8 - 12	-26	172-181	127-133
1.7/8 - 12	-30	215-226	158-167
2.1/2 - 12	-40	332-350	245-258

UNO (O RING BOSS)

UNO THREAD SIZE	DASH SIZE	SAE RECOMMENDED STRAIGHT FITTING OR LOCK NUT TORQUE RANGE	
		Nm	ft.lbf
3/8 - 24	-06	11-13	8-10
7/16 - 20	-07	20-22	14-16
1/2 - 20	-08	24-27	18-20
9/16 - 18	-09	33-35	24-26
3/4 - 16	-12	68-78	50-60
7/8 - 14	-14	98-110	72-82
1.1/16 - 12	-17	170-183	125-135
1.3/16 - 12	-19	230-260	170-190
1.5/16 - 12	-21	270-300	200-220
1.5/8 - 12	-26	285-380	210-280
1.7/8 - 12	-30	370-490	270-360

ORFS

ORFS THREAD SIZE	DASH SIZE	SAE RECOMMENDED SWIVEL NUT TORQUE RANGE	
		Nm	ft.lbf
9/16 - 18	-09	14-16	10-12
11/16 - 16	-11	24-27	18-20
13/16 - 16	-13	43-47	32-35
1 - 14	-16	60-68	46-50
1.3/16 - 12	-19	90-95	65-70
1.7/16 - 12	-23	125-135	92-100
1.11/16 - 12	-27	170-190	125-140
2-12	-32	200-225	150-165

SAE FLANGE CLAMP BOLTS CODE 61 & 62

BOLT DATA UN CLASS 2A (THREAD X LENGTH)	FLANGE DASH SIZE	SAE RECOMMENDED BOLT TORQUE RANGE	
		Nm	ft.lbf
CODE 61			
5/16 - 18 X 1.1/4	-08	20-25	15-18
3/8 - 16 X 1.1/4	-12	28-40	21-29
3/8 - 16 X 1.1/4	-16	37-48	27-35
7/16 - 14 X 1.1/2	-20	48-62	35-46
1/2 - 13 X 1.1/2	-24	62-79	46-58
1/2 - 13 X 1.1/2	-32	73-90	54-66
1/2 - 13 X 1.3/4	-40	107-124	79-91
5/8 - 11 x 1.3/4	-48	186-203	138-150
CODE 62			
5/16 - 18 X 1.1/4	-08	20-25	15-18
3/8 - 16 X 1.1/2	-12	34-45	25-33
7/16 - 14 X 1.3/4	-16	56-68	41-50
1/2 - 13 X 1.3/4	-20	85-102	63-75
5/8 - 11 X 2.1/4	-24	158-181	116-133
3/4 - 10 X 2.3/4	-32	271-294	200-217

SAE FLANGE BLOCK BOLTS CODE 61 & 62

BOLT DATA UN CLASS 2B (THREAD X LENGTH)	FLANGE DASH SIZE	RECOMMENDED BOLT TORQUE RANGE	
		Nm	ft.lbf
CODE 61			
5/16 - 18 X 1.1/4	-08	20-25	15-18
3/8 - 16 X 1.1/2	-12	28-40	21-29
3/8 - 16 X 1.1/2	-16	37-48	27-35
7/16 - 14 X 1.3/4	-20	48-62	35-46
1/2 - 13 X 1.3/4	-24	62-79	46-58
1/2 - 13 X 1.3/4	-32	73-90	54-66
CODE 62			
3/8 - 16 X 1.1/2	-12	34-45	25-33
7/16 - 14 X 1.3/4	-16	56-68	41-50
1/2 - 13 X 1.3/4	-20	85-102	63-75
5/8 - 11 X 2	-24	158-187	116-138
3/4 - 10 X 2.1/2	-32	271-294	200-217

These RTS are the terms and conditions of each of RYCO HYDRAULICS PTY LTD ABN No 96 085 527 724; RYCO 24.7 Pty Ltd ABN 97 054 946 173 and each is referred to, severally, as "RYCO".

1. Unless otherwise expressly agreed in writing, the products and services supplied by RYCO ("RPS") are supplied upon the following RTS to the exclusion of any (written or verbal) terms and conditions of the purchaser and no agent or representative of RYCO has any authority to vary or omit any of these terms in relation to a specific purchaser.
2. Before purchasing any RPS the purchaser:
 - a) agrees that they have read and understood these RTS, the safety information, notes, warnings and instructions contained in RYCO's current relevant catalogues, product technical manuals, manuals and published technical data ("Documents"); and
 - b) holds themselves as a responsible, competent and appropriately skilled user or reseller of RPS and that they comprehend and understand the dangers of incorrect use, installation or assembly of such products. Documents are available on the RYCO website www.ryco.com.au.
3. Each request for RPS (whether in writing or verbally) which sets out the quantity, price and a description of the RPS required, including a date and address for delivery (or, in the case of services, date for performance) ("Order") placed by the purchaser amounts to an offer by it to acquire from RYCO the RPS described in the Order upon these RTS. RYCO may, in its discretion, accept an offer by doing one of the following within 30 days after the date that RYCO receives the Order:
 - a) deliver the RPS (or perform the services) to the address for delivery set out in the Order; or
 - b) provide express written acceptance of the Order to the purchaser giving an estimated date for delivery.Failure of RYCO to accept the order in accordance with this clause 3 will be a rejection of the Order.
4. Each Order that is accepted by RYCO under clause 3 constitutes a separate contract between RYCO and the purchaser which the parties agree is governed by these RTS.
5. RYCO may, in its discretion, refuse to sell or supply RPS to the purchaser, and may, but is not obliged to, give written notice to that effect. RYCO is not required to give reasons for its refusal.
6. Any Order, including any order for special production runs under clause 17, that has been accepted by RYCO may not be reduced or cancelled by the purchaser after acceptance without the agreement of RYCO in writing.
7. The purchaser agrees that all RPS it orders are for the purposes of business and the purpose of re-supply or transforming them in the process of trade or commerce, and not for personal, domestic or household use or consumption, and that the Australian Consumer Law does not apply to the supply of RPS to the purchaser to the extent permitted by that Act. The purchaser acknowledges and agrees that RYCO relies upon this representation in agreeing to deliver or provide the RPS.
8. All products supplied by RYCO must be examined by the purchaser at the time of delivery and any deficiency in quantity or quality of or damage to product delivered ("Defect") must be notified to RYCO within 5 business days of the date of delivery to the purchaser. If the purchaser does not provide such notification to RYCO then this shall be deemed to be an acknowledgment by the purchaser that the:
 - a) quantities as set out by the invoice are correct; and
 - b) products are of an acceptable quality; and
 - c) the products are not damaged and will not be returned.
9. Subject to clauses 11 and 13 below, RYCO warrants to the purchaser that the RPS will be of an acceptable quality on delivery and for twelve months from issue of invoice by RYCO ("Warranty"). The purchaser agrees that it will not provide any express warranty in respect of the RPS to any customer other than the Warranty as provided here, and releases and indemnifies RYCO from any liability for any representation made by the purchaser to a customer that exceeds the Warranty. RYCO will not provide any warranty whatsoever on items manufactured, built or acquired wholly or partially to the purchaser's designs or specifications.
10. If the purchaser provides notification of a Defect to RYCO pursuant to clause 8 and lodges a Warranty claim in relation to RPS, RYCO's liability will be limited as set out in clause 13.
11. To the extent permitted by law, RYCO will not be liable for a breach of the Warranty set out in clause 9 for any of the following:
 - a) the purchaser not providing notification to RYCO pursuant to clause 8;
 - b) the purchaser or the user of the RPS has not used the RPS in accordance with the instructions or specifications set out in the Documents;
 - c) use of the RPS that is contrary to the instructions contained in RYCO's Documents, as this may result in an unsatisfactory or even dangerous product;
 - d) defects caused by normal or accelerated deterioration; physical, chemical, electrochemical or environmental conditions; insufficient maintenance or incorrect repair; failure to follow correct storage, user and operating instructions; use of unsuitable materials;
 - e) products that have been incorrectly assembled in accordance with the assembly operations specified in RYCO's Documents;
 - f) the modification of RPS, other than in accordance with RYCO's written approval;
 - g) the performance of any RPS that are welded (except if the welding is carried out by RYCO, its servants or its agents) by a person who is not suitably qualified including, but not limited to, welders, salvage, life saver or any other components. These welded products should be tested and proved fit for the use intended; and
 - h) the claimant does not extend to RYCO a reasonable opportunity to fully inspect the product, the subject of the claim and the circumstances giving rise to the claim.
12. Subject to clause 9 and except as conferred by law, no express warranty or guarantee is given with respect to any of the characteristics or quality of RPS supplied.
13. Where any law or statute implies in these RTS, any term, condition or warranty and that Act, law or statute avoids or prohibits a contract excluding or modifying the application of or exercise of or liability under such term, condition or warranty, such term, condition or warranty will be deemed to be included in these RTS. The liability of RYCO to the purchaser for any breach of such term, condition or warranty, or any breach of the Warranty will be limited, at the option of RYCO, to:
 - a) if the breach relates to goods:
 - i) the replacement of the goods or the supply of the equivalent goods;
 - ii) repair of the goods
 - iii) the payment of the cost of replacing the goods or of acquiring equivalent goods or having the goods repaired; or
 - b) if the breach relates to services:
 - i) the resupply of the services (or part of them); or
 - ii) the payment of the cost of having the services supplied again.
14. RYCO sets out, in its Documents and other product material, suggestions as to the use, installation and care of its products on the understanding that those suggestions are made solely to assist the purchaser to obtain the best results from their purchase and those suggestions do not constitute warranties or otherwise add to or vary these terms in any way.
15. Unless otherwise stated to the contrary by the purchaser on a written Order, RYCO will supply products on the understanding that they will be used in hydraulic applications with mineral oil within the limits shown in RYCO's current Documents.

Please refer to our website www.RYCO.com.au for current Terms and Conditions

16. RYCO will use its best endeavours to deliver at the time stated in the Order, but all delivery dates shall be regarded as estimates only. The purchaser must accept the actual delivery date and RYCO shall not be liable for any losses, costs, damages or expenses suffered by the purchaser or any other party as a result of any delay in delivery.
17. Where Orders are accepted by RYCO for special production runs, unless otherwise agreed to in writing, RYCO reserves the right to make delivery and charge for plus or minus 20 units or 15% of the order quantity, whichever is greater. RYCO will not accept any restriction of its right to manufacture or sell or offer to any other purchaser products which may have been manufactured specially for a specific purchaser or purchasers.
18. Payment is to be made in cash, cheque or by direct debit within 30 days of invoice date. If:
- the purchaser fails to make any payments that are due to RYCO on or before the due date stipulated in the invoice, under this or any other contract, RYCO may delay, suspend or cancel deliveries in whole or in part at its sole discretion;
 - the payment is not made within these RTS, interest will be calculated and charged at the interest rate fixed from time to time in section 2 of the Penalty Interest Rates Act 1983 (Vic) plus an additional 2% per month, and will be charged monthly and accrue from the date of invoice until all overdue amounts are paid in full; and
 - any amount becomes overdue, all amounts recorded on the purchaser's account will be deemed to be immediately due and payable. The purchaser agrees to pay all costs and expenses incurred by RYCO, its agents and its servants in the recovery of the overdue amounts, including but not limited to all legal costs, debt recovery costs and debt recovery agency costs.
19. The RPS remain the property of RYCO and title in the RPS only passes from RYCO to the purchaser once RYCO has received all amounts due to it from the purchaser for those RPS. Risk in the RPS passes to the purchaser when the RPS leave RYCO's premises for delivery to the purchaser and the purchaser must indemnify RYCO against any loss to the RPS occurring after delivery. The purchaser must store the RPS separately from any other goods of its own or other suppliers and in a way that enables the RPS to be clearly identifiable as RYCO's. While RYCO retains title to the RPS, the purchaser holds the RPS as RYCO's fiduciary and the purchaser is authorised to sell the RPS as RYCO's agent and fiduciary and the proceeds of any sale of RPS or insurance claim regarding RPS must be held on trust for RYCO until title to the RPS passes to the purchaser. The parties acknowledge that under this arrangement, when the purchaser receives the RPS the purchaser is deemed to grant RYCO a security interest (as that term is defined in section 12 of the Personal Property Securities Act 2009) (PPSA) in the RPS securing the purchaser's obligation to return the goods to RYCO or pay the purchase price.
20. At any time after the due date for payment of any account owing from the purchaser to RYCO, or if the purchaser is subject to an insolvency event (ie in relation to a body corporate, a winding up, the appointment of a voluntary administrator, receiver, manager or similar insolvency administrator to a party or any substantial part of its assets, or in relation to an individual, becoming bankrupt or entering into a scheme or arrangement with creditors or, in relation to a body corporate or an individual, the occurrence of any event that has a substantially similar effect to any of the above events) and has not paid any outstanding amount owing to RYCO, and so long as such amounts have not been received by RYCO in full, RYCO at the purchaser's expense, may recover possession of these, or any other RPS that RYCO has previously delivered to the purchaser which are of an equivalent value. If this occurs, the purchaser grants a licence to RYCO to enter any premises where such RPS are situated to search for, inspect and/or repossess such RPS. RYCO has the right to resell any RPS repossessed and is not liable to the purchaser or any person claiming through the purchaser arising from any repossession of RPS (or any other act or omission by RYCO or its agents engaged in by RYCO or them pursuant to the licence granted under this clause).
21. The purchaser acknowledges and agrees that these RTS constitute a Security Agreement which creates a Security Interest (a Purchase Money Security Interest) under the PPSA in favour of RYCO. RYCO holds a Security Interest in all RPS previously supplied by RYCO to the purchaser, and will hold a Security Interest in all after acquired RPS supplied on the terms set out in clauses 19 and 20, notwithstanding anything express or implied to the contrary contained in the purchaser's purchase order.
- The purchaser agrees:
- that RYCO may effect a registration of its Security Interest on the Personal Properties Securities Register (PPSR) at its sole discretion;
 - to provide RYCO with all information (which information the purchaser warrants to be complete, accurate and up to date in all respects) and execute any document or do anything that RYCO may reasonably require to enable perfection of its Security Interest or registration of a Financing Statement or Financing Change Statement on the PPSR;
 - not to register a Financing Change Statement or an amendment demand without the prior written consent of RYCO;
 - to provide to RYCO not less than fourteen days prior written notice of any proposed change in the purchaser's name or any other change in its details (including but not limited to change in the address, facsimile, email, trading name or business practice);
 - if requested by RYCO, and to the extent permissible under the PPSA, pay all reasonable costs incurred by RYCO to register a Financing Statement and to maintain up-to-date registration of its Security Interest on the PPSR;
 - reimburse RYCO the full cost incurred by RYCO (including legal costs and disbursements on an indemnity basis) in obtaining an order pursuant to section 182 of the PPSA;
 - as between the purchaser and RYCO, where RYCO has rights under this Agreement in addition to those in Chapter 4 of the PPSA, those rights will continue to apply and will not be limited by s125 of the PPSA;
 - to the extent permitted by law, to waive any rights that the purchaser may have to:
 - receive notice of removal of an accession under section 95 of the PPSA, and not to have the RPS damaged when RYCO removes the accession;
 - reinstatement of the security agreement pursuant to s143 of the PPSA;
 - receive any notice required under the PPSA, including but not limited to a notice of retention or a notice of disposal or a statement of account on enforcement of the Security Interest in accordance with s115 of the PPSA;
 - receive a Verification Statement in respect of any Financing Statement relating to the Security Interest pursuant to section 157 of the PPSA,
 For the purposes of this clause 21, capitalised terms have the meaning of those terms in the PPSA.
22. RYCO will not be liable for breach of contract arising from or caused by, directly or indirectly, fire, flood, earthquake, storm or tempest; the action of any government or any public authority or corporation; the lack of labour, supplies or equipment, from whatever cause; or any other cause beyond RYCO's control.
23. This contract shall be governed by and construed by the laws of the State of Victoria, Australia.
24. If any of these RTS or any part thereof is held by a court to be void or unenforceable such provision shall be read down to such extent as may be necessary to ensure that it does not so infringe and as may be reasonable in all circumstance so as to give it valid operation of a partial character and in the event that the infringing condition cannot be so read down it will be severed from the other provisions.
25. RYCO may amend these RTS from time to time, but those amendments will not take effect until RYCO has notified the purchaser in writing of those amendments. The applicable version will be those RTS attached to or forming part of the relevant Order and will take precedence over any earlier version contained in the Documents.
26. RYCO may cancel these RTS at any time by giving written notice to the purchaser of the cancellation. RYCO will supply any Order that has been accepted by it (under clause 3) on or before the date of that cancellation notice.
27. RPS are designed for use in static equipment, mobile ground vehicles, mobile ground equipment and marine applications. RPS are not designed for use in flight applications. RYCO does not recommend use of its products on aircraft and has no liability to the purchaser if the purchaser supplies the goods to consumers for use on aircraft.
28. The purchaser may not assign, transfer or otherwise dispose of any of the rights or obligations of this or any other contract with RYCO that is subject to these RTS without the prior written consent of RYCO.

Please refer to our website www.RYCO.com.au for current Terms and Conditions

TECHNICAL

ABBREVIATIONS

A/F	Across Flats	FF	Female Fixed	NFPA	National Fluid Power Association (USA)
ABS, Abs.	Absolute	FIX	Fixed	Nm	Newton Metre
ABS	American Bureau of Shipping	FLNG	Flange	NOM, Nom.	Nominal
AC	Air Conditioning	FOS	Factor Of Safety	NPS	National Pipe Straight Thread
AGA	Australian Gas Association	FS	Female Swivel	NPSM	National Pipe Straight Mechanical
AS	Australian Standard	ft	Foot	NPSMFS	National Pipe Straight Mechanical Female Swivel
AV	Average	ft.lbf	Foot Pound force	NPT	National Pipe Taper Thread
BCS	British Coal Standard	g	Gram	NPTF	National Pipe Taper for Fuel
BH	Bulkhead	GL	Germanischer Lloyd	NPTFF	National Pipe Taper Female Fixed
BP	Burst Pressure	GPM	Gallons Per Minute	NPTM	National Pipe Taper Male
BS	British Standard	HP	High Pressure	OA, O/A	Overall
BSP	British Standard Pipe	hp	Horse Power	OD	Outside Diameter
BSPP	British Standard Pipe Parallel Thread	HTS	High Tensile Steel	ORFS	O Ring Face Seal
BSPPFS	British Standard Pipe Parallel Female Swivel	HW	Heavy Wall	ORFSFS	ORFS Female Swivel
BSPPMBH	British Standard Pipe Parallel Male Bulkhead	ID	Inside Diameter	ORFSM	ORFS Male
BSPPOM	British Standard Pipe Parallel O Ring Male	inHg	Inches of Mercury	PCD	Pitch Circle Diameter
BSPPOM EXT	British Standard Pipe Parallel O Ring Male Extended	IMP	Imperial	PCV	Positive Crankcase Ventilation
BSPT	British Standard Pipe Taper Thread	INV	Inverted	P/N, P/NO	Part Number
BSPTFF	British Standard Pipe Taper Female Fixed	ISO	International Organization for Standardization	PREV	Previous
BSPTM	British Standard Pipe Taper Male	JIC	Joint Industries Council (Thread UN)	psi	Pounds per Square Inch
BSW	British Standard Whitworth	JICFS	JIC Female Swivel	PTFE	Polytetrafluoroethylene
C/W	Complete With	JICM	JIC Male	PW	Pressure Washer
CA	Cut-off Allowance	JICMBH	JIC Male Bulkhead	QA	Quality Assurance
CAT	Caterpillar, Inc. Registered Trademark	JICMEXT	JIC Male Extended	QC	Quality Control
CATERPILLAR	Caterpillar, Inc. Registered Trademark	JIS	Japanese Industrial Standard	QRC	Quick Release Coupling
CL, C/L	Cut Length	kg	Kilogram	RED	Reducing
CrVI	Chromium 6	kg.m	Kilogram Metres	RMA	Rubber Manufacturers Association
cSt	Centistoke	KOBELCO	Kobe Steel, Ltd. Registered Trademark	RPM	Revolutions Per Minute
DIA, DIAM	Diameter	KOMATSU	Komatsu Ltd./Komatsu Industries Corporation Registered Trademark	RQP	RYCO Quality Product
DIN	Deutsche Industrie Normen (German Industrial Standard)	kPa	KiloPascal	SAE	Society of Automotive Engineers (USA)
DKL	Dicht Kegel Leicht (Metric Light Series 24° Cone)	kW	Kilowatt	SAEFS	SAE Female Swivel
DKM	Dicht Kegel Metric (Metric 60° Cone)	LNG	Long	SAEM	SAE Male
DKO	Dicht Kegel O Ring (Metric O Ring Seal 24° Cone)	L	Litre	SF	Swivel Female (Union)
DKOL	Dicht Kegel O Ring Leicht (Metric Light O Ring Series 24° Cone)	lb	Pound	SS	Stainless Steel
DKOS	Dicht Kegel O Ring Schwer (Metric Heavy O Ring Series 24° Cone)	LP	Low Pressure	STD	Standard
DKS	Dicht Kegel Schwer (Metric Heavy Series 24° Cone)	LPG	Liquified Petroleum Gas	STPL	Staple
DL	Drop Length	LPM	Litres Per Minute	SWIV	Swivel
DN	Diameter Nominal (mm)	LR	Lloyd's Register	T/NESS	Thickness
DNV	Det Norske Veritas	M	Male	TBA	To Be Advised
DoT	Department of Transportation (USA)	m	Metre	TEFLON	DuPont (E. I. du Pont de Nemours and Company) Registered Trademark
EEC	Evaporative Emission Control	MAX	Maximum	THRD	Thread
ELB	Elbow	MBP	Minimum Burst Pressure	TP	Test Pressure
EPDM	Ethylene Propylene Diene Monomer	MED	Marine Equipment Directive	TPI	Threads Per Inch
EXT	Extended	MFL	Minimum Free Length	TW	Tube Weld
F, FEM	Female	MIC, Mic.	Micron (µm)	UN	Unified National Thread
		MIL	Military Specification (USA)	UNO	UN O Ring (O Ring Boss)
		MIN	Minimum	UNOM	UNO Male (O Ring Boss Male)
		mm	Millimetre	UNOMEXT	UNO Male Extended (O Ring Boss Male Extended)
		mmHg	Millimetres of Mercury	USCG	United States Coast Guard
		MPa	MegaPascal	WEO	Cejn AB Registered Trademark
		MSHA	USA Department of Labor, Mine Safety and Health Administration.	WP	Working Pressure
		MWP	Maximum Working Pressure	°C	Degrees Celcius
		NA, N/A	Not Applicable	°F	Degrees Fahrenheit
		NAHAD	National Association of Hose and Accessories Distributors (USA)	β	Beta (filtration)
		NATA	National Association of Testing Authorities (Aus.)	mm	Micron
		NB	Nominal Bore		
		NCB	National Coal Board		
		NCS	NATA Certification Services		

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