



aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding



Hydraulic Hoses, Fittings and Equipment

Catalogue



ENGINEERING YOUR SUCCESS.

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SOLVING THE WORLD'S GREATEST ENGINEERING CHALLENGES.

Our focus on solving some of the world's greatest engineering challenges sparks our passion for innovation and secures our future growth.

The development of more efficient energy sources; the desire to produce and distribute clean water; new drug discovery and medical advances; the building of infrastructure and transportation to support a growing population; the safe cultivation, transportation and preservation of food sources; emerging developments in defense; and the protection of our environment – all of these challenges drive Parker people forward, seeking new ways to innovate, combine technologies, collaborate, develop systems and partner with our customers to solve problems.

ENGINEERING YOUR SUCCESS.

If you view the world as we do, through the lens of our broad range of motion and control technologies, you can see a vast number of engineering challenges that are yet to be solved and can make a meaningful difference in the lives of people everywhere.

Our focus is on our customers. By improving their productivity and profitability we create a cleaner, more efficient future for everyone.



PARKER HANNIFIN – THE GLOBAL LEADER AND YOUR PARTNER

Parker Hannifin is the world's leading diversified manufacturer of motion and control technologies and systems, providing precision-engineered solutions for a wide variety of mobile, industrial and aerospace markets. Our products are vital to virtually everything that moves or requires control, including the manufacture and processing of raw materials, durable goods, infrastructure development and all forms of transport.

Our engineering expertise spans the core motion and control technologies – electromechanical, hydraulic and pneumatic – as well as a full complement of fluid control systems; software and electronic controls; filtration systems; and refrigeration, instrumentation and sealing technologies.

Dry Technology

The leader in “dry technology” for the fluid power industry, Parker's Fluid Connectors Group is your single source for high-quality tube fittings, hose and hose fittings, thermoplastic tubing, brass fittings and valves, quickdisconnect couplings and assembly tools.

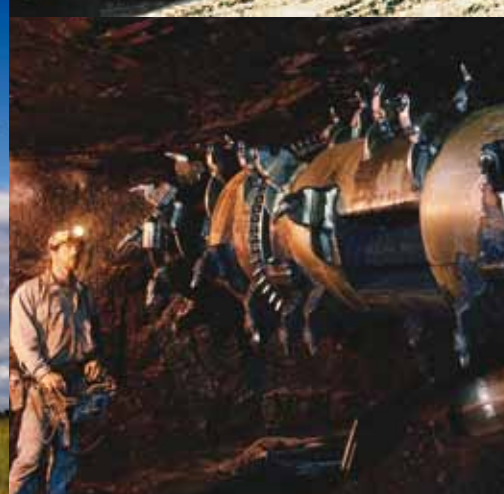
Markets

The Fluid Connectors Group serves customers in a broad range of markets, including Aerial Lift, Agriculture, Bulk Chemical Handling, Construction Machinery, Food & Beverage, Fuel & Gas Delivery, Industrial Machinery, Medical, Mining, Mobile, Oil & Gas and Transportation.

Customer Services

Products are available for shipment 24 hours a day, supported by 49 manufacturing facilities throughout the world, a global distribution network and 25 company-owned stocking service centers. Our commitment to you is impeccable customer service. To meet your specific requirements, we offer a broad range of programs designed to reduce your overall operating costs, streamline manufacturing, improve productivity, manage inventory, enhance delivery and address safety and environmental issues. For value-added services that generate value-added solutions, team up with Parker!

PARKER HANNIFIN – OPPORTUNITY THROUGH INNOVATION IN THE WORLD’S MOST DEMANDING MARKETS



Worldwide availability

With more than 58,000 employees serving over 465,000 customers in almost 49 countries, Parker is literally everywhere you need us to be.

By working with us, you have access to an integrated network of 300+ manufacturing plants, as well as 13,000 distributors and MRO outlets, and over 2,000 ParkerStores™. That's the kind of global network for global businesses demand.

Flexibility

As the world's motion control expert, Parker offers you a complete range of proven, off-the-shelf products. These products deliver exceptional quality and durability, reducing costs and advancing performance.

Innovation

It's what drives us. Our mandate for continuous improvement leads us to partner with our customers to create solutions that are smaller, lighter, sustainable, more energy efficient, and highly reliable.

Hose Products Division Europe

The market leader and your supplier of choice.



Put a bite on the braid.

Parker's world-recognized tiger mascot has represented the Parkrimp No-Skive hose assembly program since its introduction in 1980. In a contest originally held by our marketing department, the tiger was the winning suggestion over three others: a turtle (deemed "too slow"), an alligator ("not very good looking") and a shark ("too intimidating" particularly at the time of the release of the movie Jaws).

More than three decades later, the tiger graphic still supports the Parkrimp message everywhere, clearly symbolizing our unique, patented Parkrimp fittings with tapered steel teeth and our Parkrimp crimping machines. Their ability to eliminate hose cover skiving and achieve the metal-to-metal grip of factory assemblies revolutionized the process for markets worldwide. And today, it's the industry standard.

Pride in our products: At Parker, we believe the best fluid connector products for your operation are the ones that get the job done right. We offer the most comprehensive line of hoses, fittings, equipment and accessories you'll need. And if there's something you need that's not a standard product, we're able to design and manufacture it for you with ease.

You'll also benefit from our ultimate competitive advantage – our network of distribution outlets that can provide our products nearly anytime and anywhere. We strive to provide customers with local engineering, local products and local service.

Parker offers the largest selection of hoses plus more fitting sizes than any other manufacturer. You'll find a wide variety of hoses including braided, spiral and multi-purpose, and more than 4,500 Parkrimp fittings. Parker products have been designed, tested and approved to meet and exceed global standards.



The right product is available for your application, including hose that features a variety of abrasion resistant cover choices, flexibility, a wide range of media compatibility and more – characteristics that make Parker the hose supplier of choice for customers that demand the most from their equipment.



A long history of providing premier customer service.

Our European division headquarters in Veniano, Italy is our precision-engineered-solution center for products, materials and processes, and is equipped with state-of-the-art

development, testing and performance technology. Hose Products Division Europe has 5 manufacturing locations dedicated to provide a quality product on time. Knowing that

uptime and productivity are major drivers in your business success, we proudly present this catalog outlining Parker's best-in-class hose products and services.



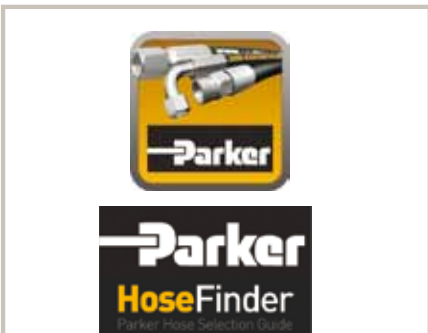
Low, Medium, High and Ultra Pressure Hose



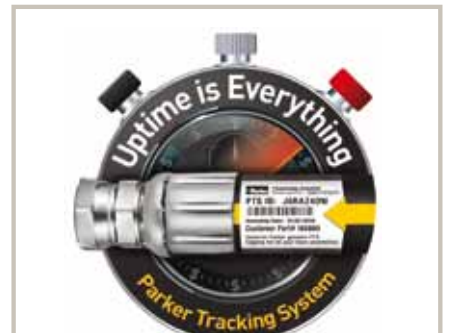
Parkrimp® Hose Fittings



Parkrimp® Assembly Equipment



Mobile Phone Applications



Parker Tracking System



ParkerStore™ Onsite Container Program and Hose Doctor Service



Custom Hose Assemblies and Hose Fittings



Accessories

Compact Spiral™ hose

The next evolution
in hydraulic hose

Unprecedented
35.0 and 42.0 MPa
hose performance
in a compact design

Compared with conventional spiral hose, Parker's Compact Spiral™ 787TC/797TC hose offers measurably greater advantages in routing and installation, product size and weight, inventory savings and much more.

A world first, this development is the most significant advance in hydraulic hose since the introduction of Parker's No-Skive™ technology more than 25 years ago.

Compact Spiral™ was developed in concurrence with the industry trend toward high-pressure hose manufactured to ISO specifications. Its many innovative and proprietary features set new standards in value and deliver hose characteristics deemed. Most important by OEM and aftermarket customers.

up to size -32 (2")



Just one series of hose ends, Parker's 77 series, covers all sizes of both 787TC and 797TC Compact Spiral™ hoses, simplifying fitting selection and reducing hose-end inventory.

For more information about Compact Spiral hoses please refer to pages Da-14 and Da-16

Looking for flexible hose that can be routed in tight spaces?

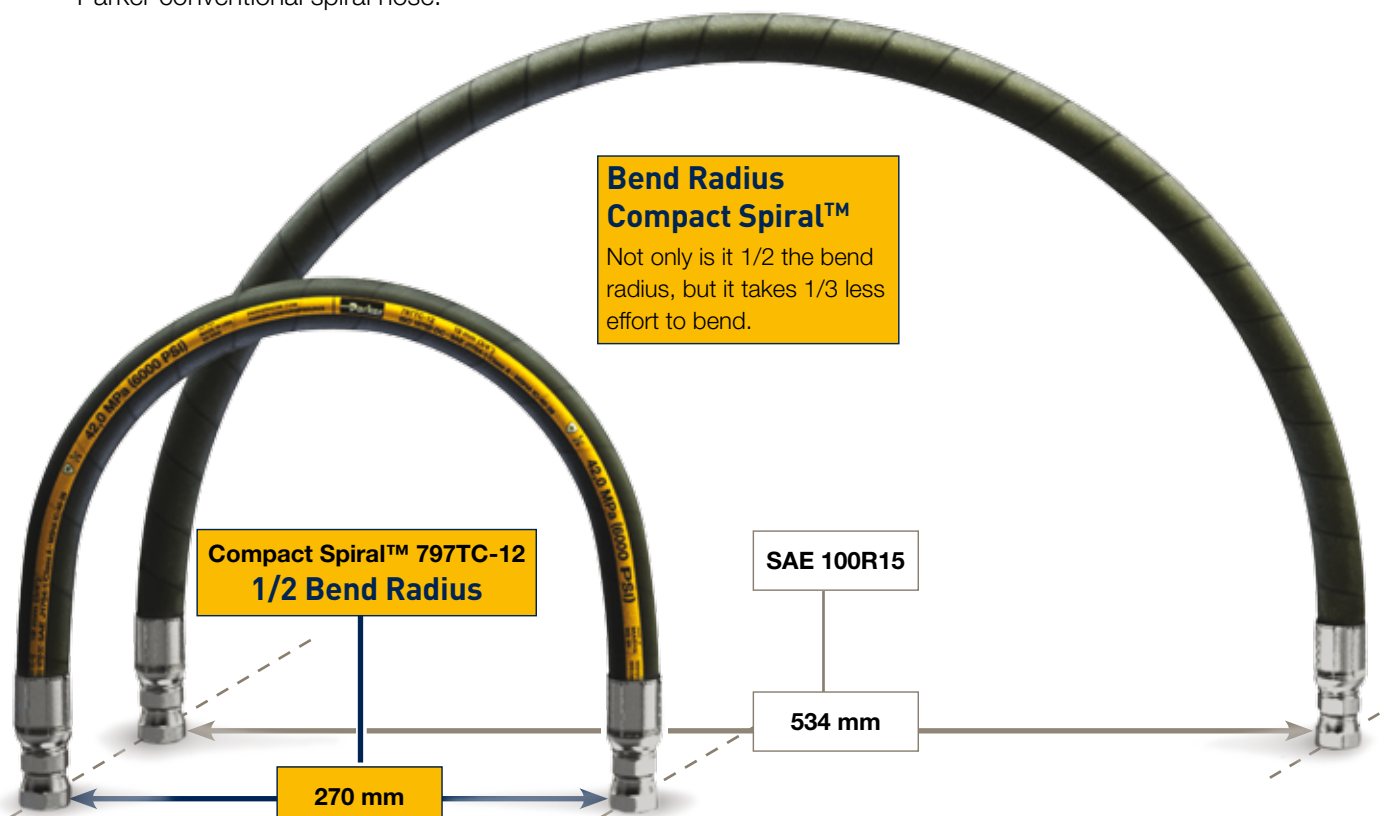
Parker has a full line of hoses designed for one-half SAE bend radius at full SAE pressure. These hoses plumb and bend tighter than other SAE 100R1, 100R2, 100R4, 100R12 and 100R13 type hoses, reducing hose length requirements by up to 47%. The tighter bend radius means fewer bent tube fittings, and longer life in applications where machinery movement causes hoses to bend sharply. It also means reduced inventory requirements for you.

- 1/2 the bend radius of SAE 100R13/SAE 100R15
- 1/3 less effort to bend
- Nearly 30 % smaller O.D.
- Tested to 2,000,000 cycles
- High abrasion resistance
- Constant pressure
- Simplified fitting selection with 77 series in Interlock No-Skive design
- 25 % less hose weight



Bend Radius

Compact Spiral™ hose has half the bend radius of its SAE counterpart and a significantly smaller bend radius than the corresponding size of a Parker conventional spiral hose.



It's so easy to crimp your own hose assemblies whenever YOU need them

Parkrimp® *No-Skive*

The system for fast and leak-free hose assemblies with No-Skive one-piece fittings

Hose fittings have an impact on the overall efficiency and safety of a hydraulic system. The No-Skive concept was launched by Parker Hannifin some 30 years ago but continuous development and the use of modern materials and production techniques have resulted in a state-of-the-art hose to fitting connection. Much easier handling and a high level of safety are available with No-Skive crimp fittings. Parker offers No-Skive fittings in one and two pieces as part of a package consisting of quality hose, No-Skive fittings, hose crimpers and tooling.

- No skiving tool needed
- No need to remove the cover
- Crimps one-piece fittings
- Parkalign positions the fittings in the dies perfectly every time
- Quick and easy: no gauges to set on the machine
- Portable machines for field repair
- Meets EN safety regulations



Modular crimpers with Bench Power Unit for workshops

The modular design enables the customer to choose between the portability that Parker KarryKrimp crimpers have always offered, and the option to make these same crimpers bench mount units.

In addition to the portable versions, the sole crimping units can be used with the Bench Power Unit for workshop versions for faster cycle times, increased productivity and increased height for longer elbows or bent tube fittings.



Please visit us also at
www.easy-crimping.com



ParLock – the complete Big Bore solution

No-Skive™ and Interlock Skive technology

In addition to the new R35TC-40, already launched and very well accepted in the market, Hose Products Division Europe follows its strategy to develop a complete Big Bore hydraulic hose range. Four different hose types are available to fulfil all high flow rate hydraulic needs for markets like oil & gas, mining and heavy duty constructions.



R35TC-40 and RS35TC-48

R35TC-40 and RS35TC-48

- Very high working pressure of 35.0 MPa (5000 psi)
- High abrasion resistant **TOUGH COVER** prolongs hose life, minimizes downtime and eliminates extra cost for additional protection sleeves – MSHA approved
- Approved with Interlock V6 series fittings, connection types: ISO 6162-2 (42.0 MPa/6000 psi)

R35TC-40

- Safety factor of 4:1
- Impulse tested to more than 1.5 million cycles at +120 °C
- Extra strong 6-spiral construction for high-flex-impulse and high-vibration applications
- **NEW:** ISO 6162-2 (42.0 MPa/ 6000 psi) flange

RS35TC-48

- Safety factor of 2.5:1 according ISO 6708-D
- Extra strong 6-spiral construction for high-vibration applications

For heavy duty applications, both sizes -40 (63.5 mm) and -48 (76 mm), based on Interlock technology, will complete the existing ParLock range and is now available from size -4 to -48.

Due to the severe applications, both hoses are coming with TC cover for best abrasion resistance and MSHA approved. Due to the enhanced hose diameters and in combination with very high pressures, flow rates can be increased – this eliminates the need of numerous pressure lines and results in a cost reduction for connectors. Today, all 6000 psi flanges are available and SteckO® fittings can be used for mining applications.



462TC-40/462TC-48

For low pressure and return lines, Parker extended the very well known Elite Compact range with the new 2SC hose type 462TC – available **now** from size -4 to -48.

In order to reach a 7.0 MPa working pressure with Elite Compact hose 462TC in both sizes -40 and -48, Parker developed a brand new Big Bore fitting which will complete the well known 48 series.

462TC-40 and 462TC-48

- No-Skive hose construction – Compact design
- Nitrile (NBR) inner tube – extended fluid compatibility
- Exceeding EN/ISO specifications for pressure, bend radius and abrasion resistance
- Highly abrasion resistant **TOUGH COVER**, MSHA approved
- WP 7.0 MPa with 4:1 safety factor – Dynamic application, impulse tested
- High flexibility in spite of big size
- 2piece fittings for use with adjustable crimper only (47 series nipple and 10048 shell)

Blowout Preventer hose system

for exploration and deep drilling in the oil & gas industry

The Parker Blowout Preventer (BOP) Hose System is a vital part of exploration and drilling equipment in the very demanding oil & gas market. Optimum performance with the highest safety is the main aspect. Especially the high quality components of BOP hoses – all made in Europe – and the assembly process of the

components guarantees our customers the highest flexibility and the easiest installation on site. Parker BOP Hose System has been tested and approved to API16D standard by Lloyds Register.

Together with the new BOP Hose System, Parker Hose Products Division Europe offers a wide range of hose and

fittings for drilling applications such as hose type R35TC (big bore spiral hose). Our offer is completed by the No-Skive Elite hose range with outstanding technical performance. All these matching systems, certified by international certification bodies opens up completely new business opportunities for you.

Blowout preventer (BOP) hose range:

- from size -8 up to size -32 (DN 12 to DN 51)
- Variable length up to 40 m max
- 5,000 psi (35.0 MPa) and 6,000 psi (42.0 MPa) range with a safety factor 4:1
- Glass fibre fire sleeve protection – in compliance with RoHS directive 2002/95/EC
- Protected by square-locked metal flexible hose
- Material: hose fittings and metal protection available in steel and stainless steel
- Available as complete assemblies certified and approved to API16D specification and MSHA
 - Accessories and hammer union adaptors type 1502 and 602 available on request

Tested according to API16D by Lloyds Register

Complete system, assembled and tested

Assemblies made to order according to customers requirements

Full range, from 1/2" to 2", working at 5,000 psi and 6,000 psi

Great flexibility, assured by Parker specific system design and assembly

Available in variable length up to 40 m

Steel and stainless steel fittings and armour

NPT, BSP male and female and integral hammer union in 2"



Parker Rapid Service Unit

Non standard and customized hose fittings

The Rapid Service Unit (RSU) can provide:

- Jump sizes
- Specific end configurations
- Specific drop lengths
- Fitting/tube combinations
- Customised prototypes
- Any batch size upwards from a single piece

Material options include steel, stainless steel, brass and special materials on request.



The Rapid Service Unit (RSU) is part of the Manufacturing Unit Fittings of Hose Products Division Europe and is a dedicated unit for the manufacture of customised and prototype hose fittings. The unit is responsible for both checking the technical possibilities of the customer request from an engineering perspective as well as establishing the most economic production process. Because of close cooperation between Parker's Manufacturing Units and the Parker Sales Companies (PSC) the Rapid Service Unit (RSU) can live up to its name by reacting, quoting and supplying rapidly. After receiving the order, the RSU team will promptly and carefully process the order – from its receipt to the shipping of the fittings. For the production of such fittings, we have dedicated resources in a state-of-the-art manufacturing cell with CNC machinery and tools.



24 Hours Turn-Around Capability with access to 19 modern CNC

EO-3®

Potential assembly errors are eliminated with the innovative fitting system for hose and tube applications.

As a connector component, any fitting is only as good as the effectiveness of the assembly process and therefore depends on how it has been assembled. New end-configurations and material compositions have increasingly improved performance, reliability and ease of assembly. In this field Parker has constantly set new standards in the marketplace.

With the development of the EO-3® fitting, Parker now introduces another very important milestone in the history of connector technology. Our customers practical experience provided

the impetus for the development of the EO-3® system with the message that potential assembly errors, such as over- or under-tightening, should be eliminated. Practical experience often shows that fittings are in large part not expertly assembled. Changing personnel, a shortage of skilled workers and increasingly difficult installation conditions lead to failed assemblies. The consequences are leakage, costly downtime and expensive reworking – or even accidents. The advantages of the new fitting are clearly apparent with its greater simplicity, speed and safety. With its new thread technology, EO-3® can be assembled more easily and faster than other commercially available fittings systems and the assembly outcome of EO-3® is, for the first time ever, easily discernible from the outside; every user is now in a position to directly control work safety and machine reliability.



Users can secure a whole raft of money – saving advantages when they install EO-3® fittings.

- Leakage can be prevented with the help of unambiguous assembly inspection
- Distinctly increased machine performance and reliability
- EO-3® meets the increased safety and quality requirements now in force
- Additional costs of reworking are substantially avoided
- EO-3® increases the quality of the end-product
- Company image is enhanced due to better products
- No oil loss –an important contribution to environmental protection

This arguments support the immediate installation of EO-3® in a very wide range of operating conditions - whether energy, agriculture, paper machinery or oil and gas extraction; the EO-3® system will satisfy the highest requirements for quality and function.

„Fit and forget“ sums it all up.



692PU Hose

for heavy-duty materials handling applications

Off-highway manufacturers involved in the design and manufacture of heavy lifting and materials handling vehicles such as aerial lifts, telehandlers, truck-mounted cranes and rough-terrain forklifts, are coming up against ever-more stringent customer demands. Sure enough, price will always have an influence on product selection but, more and more often, the market is also requesting increased operating efficiency, greater compliance with standards to ensure safety for operators and equipment, and the minimisation of costly downtime. Fortunately, increasing numbers of OEM engineers are discovering that the humble braided hydraulic hose has a significant role to play in helping meet such requirements.

The requirement to improve productivity is paramount in a market that is governed by rapid transportation and delivery. Productivity is linked directly to the speed of moving parts, which in turn implicates factors such as higher flows and the necessity to maximise pressure rates while retaining the same size of tubing in the hydraulic circuit.



- Suitable for all forklift and materials handling applications
- Constant working pressure of 21.0 MPa
- Safety factor of 4:1
- Smaller outside diameter
- Thinner lightweight cover
- Special abrasion resistance
- Tight bend radius enables smaller pulleys
- Addresses critical factors of modern hydraulic circuits

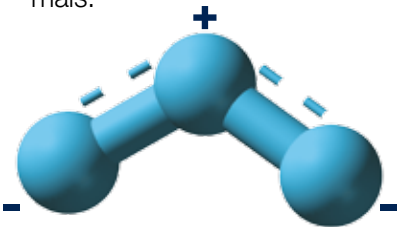


Parker rubber compounds

assuring superior ozone resistance and performance

Ozone – O₃

A molecule consisting of three oxygen atoms is called OZONE (O₃). In the ozone layer this gas protects living organisms against harmful UV-radiation, but also it is a strong oxidant, harmful against the respiratory system of humans and animals.



Ozone is highly impacting the degeneration of rubber

Ozone is one of the strongest oxidants. Beside the harms to all organic material it also applies to elastomer compounds, e.g. NBR, CR. Already small concentrations impacting product quality and service life. Moisture intensifies ozone cracking.

The concentration of ozone is rising

Ozone is generated by UV-rays, electrical discharge and air pollution. The natural ozone concentration is highly influenced by local conditions. Since 1971, the beginning of ozone measurements, the values continuously raised by 30% up to now.

Ozone resistance is a must

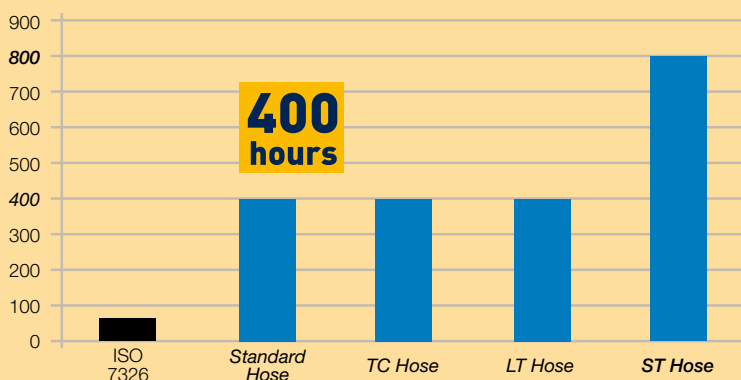
The polymer chains split by ozone, leading to cracks growing vertical to the direction of elongation. Even a small amount of elongation ($\leq 10\%$) is required to provoke cracks and increases rapidly with increasing elongation. The cracks, finally reaching the reinforcement of the hose, will cause corrosion and ending up in severe damage. In order to increase hose life, Parker

developed a new series of rubber compounds for Standard cover, Tough cover (TC) and low temperature (LT) hoses.

Parker Elite and multispiral hoses are able to withstand more than **400 hours** 400 hour ozone resistance, following the ISO7326 Ozone Resistance Test. Super Tough (ST) cover hoses pass even more than 800 hours ozone resistance.



ISO 7326 Ozone Resistance Test



Attention

Ozone resistance is highly influenced by the bending radius (short bend radius = less ozone resistance)

Additional environmental conditions such as chemicals and temperatures may also shorten the hose life!

Where corrosion resistance is vital

state of the art surface protection for hose fittings is the solution

400 hours

Our mandate for continuous improvement leads us to partner with our customers to create smaller, lighter, sustainable, more energy efficient and finally highly reliable solutions. Our goal is thus to provide you with state of the art surface protection for

our standard hydraulic hose fittings in order to withstand the world's most demanding application requirements. In terms of corrosion resistance properties, we decided to follow the needs of our customers and the market and chose improved red corrosion resistance four standard hose fittings.

Parker hose fittings with our chromium 6 free standard plating show a red corrosion resistance of at least **400 hours** of salt spray in a test carried out in accordance with DIN EN 9227.

Chromium-6
Free

Fittings with XTR coating for extreme resistance to corrosion

720 hours

An outstanding advantage for equipment used in highly caustic applications and environments, are Parker fittings with XTR (Extreme-Resistance) coating. This coating withstands corrosion more than seven times longer than the SAE standard of 96 hours. In fact, Parker's proprietary

formulation has been tested to resist corroding for more than **720 hours**. In addition, Parker XTR coating is compliant with environmental restrictions worldwide, including RoHS, ELV and REACH.

Parker products with XTR coating guarantee all the leak-free performance and installation advantages that our customers expect. If your

application requires highly-resistant coating, you can order hose fittings with the extension "ZJ" e. g. **1C348-12-12ZJ**



For special applications in demanding environments stainless steel is the preferred selection

For pneumatic and hydraulic applications in demanding environments, your connection requirements will be met by Parker's range of stainless steel products.

Parker offers a complete system of stainless steel products

such as tubes, tube fittings or 1- or 2-piece hose fittings for low, medium and high-pressure hydraulic hoses – everything from one source and approved by well known international classification bodies. It goes without saying

that Parker's stainless steel components are produced using superior quality stainless steel grade 1.4571, 1.4404, or 1.4401. Thanks to their resistance to corrosion and acids, all components are suitable for tough environments. However, some special applications require special materials and here you can rely on Parker as well – we have the resources to produce customised hose fittings for even the most demanding customer requirements.

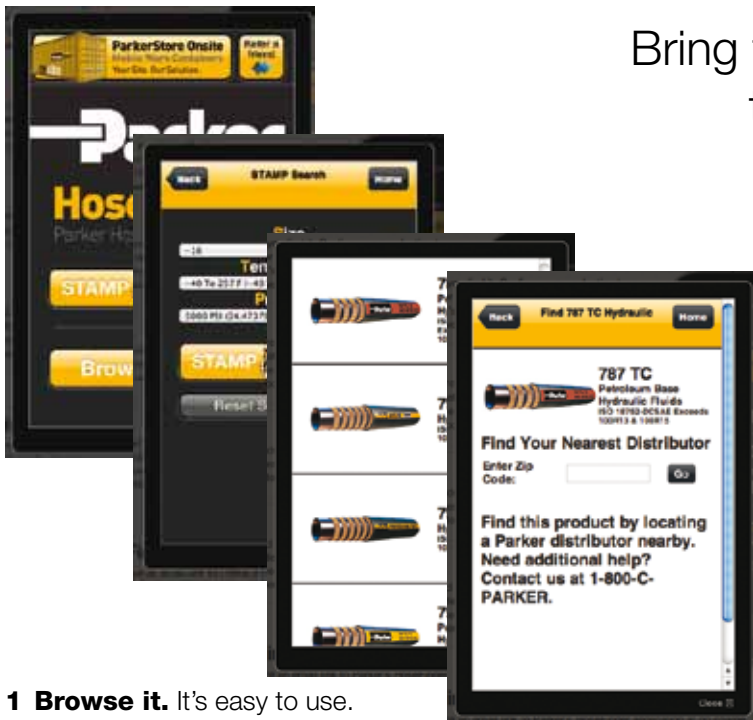
Power in Stainless Steel

- Premier customer service
- Single-source solution
- Worldwide availability
- One team for all requirements
- Customized products
- Special materials
- Complementary design of tube & hose fittings



The benefits of working with Parker hose

Bring the power of Parker to the palm of your hand.



- 1 Browse it.** It's easy to use.
- 2 STAMP it.** Use the STAMP search or browse the catalog to find the product you are looking for.
- 3 Search it.** Results include all the details you need to make an informed decision.
- 4 Find it.** Choose the "Find It" link and you'll be directed to one of Parker's 12,000 worldwide distributor locations.

Parker is committed to delivering customer service options to help you work smarter, faster, and better.

Need the latest? Go online. From complete product information on hose, to 3D-CAD models of our complete fitting line, you'll find everything you need at www.parkerhose.com.

And HoseFinder, our mobile app, makes it fast and convenient to search for hydraulic hose products and information on the go. The app features an abbreviated STAMP selection process to help you find what you need quickly and easily.

Download yours today at www.hosefinder.com.

Whatever you do, visit our site often. It's the fastest and easiest way to keep up with changing technology and our ever expanding product offering.

Save valuable time



HoseFinder
Parker Hose Selection Guide

HoseFinder is currently available for iPhone®, Blackberry® and Android™ mobile phones... and at no charge.

Parker Crimpsource™

Crimpsource is the industry's most complete resource for crimper technical information. It contains all of the crimp specifications approved for Parker's hose:

- Crimp specs
- PDFs of technical manuals
- Parts lists
- Troubleshooting advice
- PDFs of crimper decals

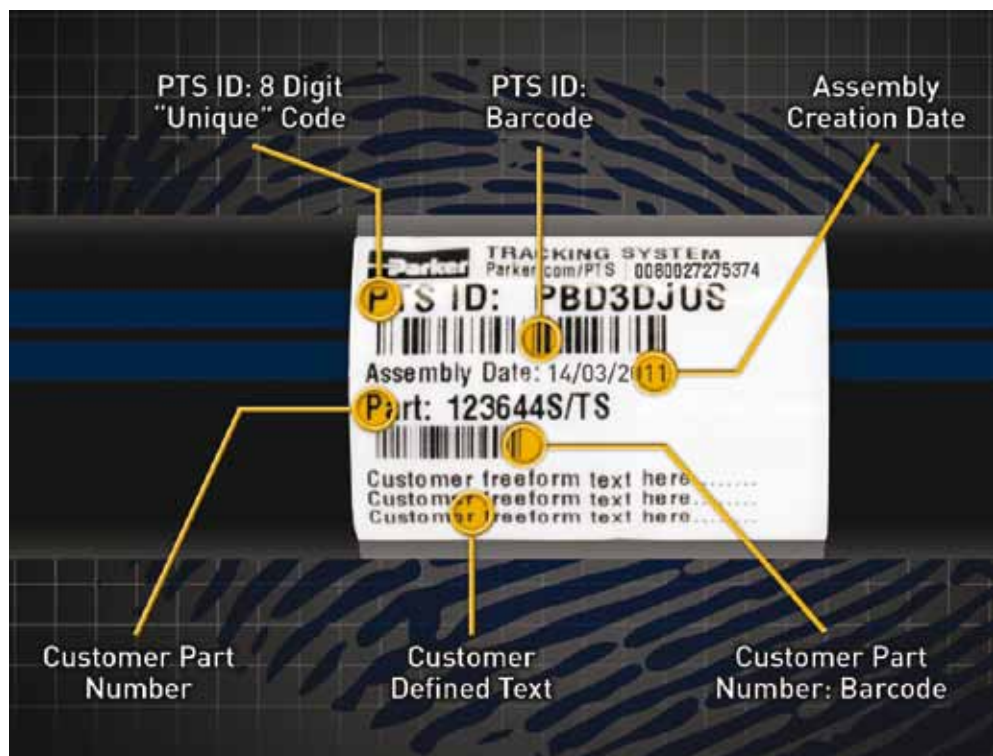
PTS

Parker Tracking System

Global asset tagging and identification system

The Parker® Tracking System Enterprise (PTS) is designed to help customers reduce vehicle or asset downtime through increases in the speed, timing and accuracy of necessary repairs. PTS provides a unique 8 digit identification code and bar code printed on a durable label for each hose assembly. PTS labels are specifically engineered to withstand harsh chemicals, temperatures, UV exposure and other challenging conditions.

- PTS captures, records and recalls unique hose assembly information – on demand
- Provides fast and accurate product identification to speed up replacement regardless of where the original assembly was made.
- Assembly can be replaced with only the 8 digit PTS ID number/bar code eliminating the need to remove hoses prior to replacement. This can provide critical machine uptime and enable more conveniently scheduled repair.
- PTS includes additional reporting tools to assist in continuous improvement programmes and preventative maintenance initiatives.



Save valuable time



**Parker
Tracking
System**

www.Parker.com/PTS

Crimpsource provides easy access to all the specifications necessary to correctly fabricate a factory quality hose assembly.

You can also print a simple-to-follow data specification sheet or crimper decal. Crimpsource is available at www.parker.com/crimpsource-euro



PTS Mobile

Parker Tracking System

Get your next replacement faster. Use PTS Mobile.

PTS is one of the industry's most comprehensive and widely distributed asset-tagging and tracking systems, and the mobile app is the perfect jobsite companion. With millions of tagged assemblies worldwide, you're only a few clicks away to a faster, easier, and more accurate replacement experience.

With you wherever you go

Identifying and replacing faulty hose assemblies can be a frustrating process. Lost or outdated manuals and complex hose routings can make identification difficult and time-consuming. Usually, the only solution is to remove the product and take it to a distributor for a replacement.

PTS makes getting replacement hose assemblies and components fast, easy, and exact. And now that convenience is available wherever you go with the PTS Mobile app.



Scan it

Scan the barcode of any PTS tag and quickly find your record in Parker's global database.



Order it

With exact replacement details provided to a local distributor, arrange for pick up or delivery of replacement parts.



Get it

PTS Mobile provides mapping and directions to any nearby distributor using your smartphone's built-in GPS.



Available on popular platforms

PTS Mobile is available for download to Apple and Android devices. This free application from Parker makes it faster and easier than ever before to accurately order the replacement hoses and other components that you need.



PTS Mobile can also be paired with our OEM or Enterprise application to provide a complete asset management solution for your operation.

Find out more



Parker
Tracking
System

www.Parker.com/PTSmobile

Asset Integrity Management

Track and manage assets with ease

Asset Integrity Management (AIM) is a powerful asset management module within Parker Tracking System. It brings together PTS asset tracking capabilities with Parker's global network of distributors and service partners to provide comprehensive asset management solutions.

Fix when fail is not a strategy

Managing equipment or machinery maintenance can be a challenge for even the most capable organizations.

With hundreds or thousands of individual parts or components that require maintenance, keeping detailed asset records or maintenance logs can be a burden. Most asset management systems do not break capital assets down into the components that comprise them. PTS can help. PTS is an asset identification and management tool from Parker designed to address the parts that can wear or fail.

Global service partner

Parker employs a team of dedicated support staff worldwide to make installing AIM fast and easy. Through more than 13,000 service partners and OEMs, Parker can work with customers to provide advanced, on-site audit and maintenance planning services.

These services include:

- On-site asset identification and tagging
- Inspection, maintenance, and replacement
- Site or computer-based training programs

With Asset Integrity Management, you can:

- Establish detailed asset location data
- Create and deploy custom inspection templates
- Schedule inspections and replacements
- Apply application and related data to an asset group
- Transfer record ownership between PTS accounts
- Store and retrieve historical inspection results
- Export asset details into Excel reports
- Create custom asset books for audits or inspections
- Schedule and personalize MRO alerts and notificationst



Preventive Maintenance Programme

Be preventive ... not reactive!

Hydraulic hose assemblies are essential components in hydraulic systems and each hose assembly will eventually fail: it's just a matter of when!

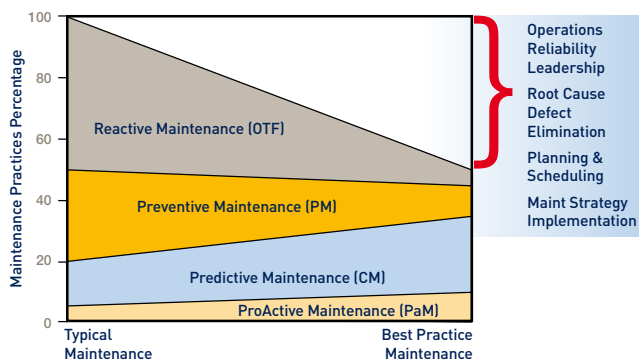
Broken hose assemblies often cause loss of earning, downtime and serious personal injuries.

Avoiding failures, losses and risks is definitely your first priority.

Preventive maintenance is needed whenever your hose assemblies show:

- Damaged, cracked, cut or abraded cover
- Exposed reinforcement
- Cracked, damaged or corroded fittings
- Leaks in fitting, sweating hose cover close to fitting
- Kinked, crushed, flattened or twisted hose
- Hard, stiff, cracked or burnt hose
- Blistered, soft, degraded or loose cover
- Fitting slippage on hose

Despite that, hose assemblies are generally underrated overlooked during machine servicing and the need of their preventive maintenance and timely replacement is ignored. This is simple a fact which we can hardly change. But what we can do, however is to help you to provide a hose assembly in the right place and at the right time whenever and wherever you'll need it.



Hint

A good analogy is automobile tyres. Just like hose, tyres are made of rubber, age with time and experience a lot of strain from the conditions they work in. Most drivers are cautious to replace tyres once they show signs of wear, not leaving it to destiny when they break on the road! So why don't they do it with hydraulic hoses?

As there are countless factors influencing the hose life, there cannot be and are not any exact guidelines to determine when a hose assembly has to be replaced or to judge how long it will work. Yet, we do have a tool to influence and determine the hose life:

**Visual Inspections + Preventive Replacement
= Preventive Maintenance Program!**

Save valuable time



**Parker
Tracking
System**

www.Parker.com/PTS



Photo: Atlas Copco

We offer more

Where corrosion resistance is vital

... we have the best solution in stainless steel



For more information about Parker's Stainless Steel Products please refer to our catalogue 4400.1 "Hydraulic Hose Fittings in Stainless Steel"



Mining hose, fittings and equipment



Parker's mining hoses, fittings and adaptors provide a complete, reliable hydraulic package to connect and support the mining equipment. All Parker mining hose products combine international approvals with total system integrity and long service life in hostile conditions. Special coatings and carefully selected materials ensure reliability in corrosive environments.

For more information about Parker's Mining Products please refer to our catalogue 4410 "Mining Hose, Fittings and Equipment"

We offer more

than just innovative products and solutions

We're constantly updating our customer service options to help you work smarter, faster, and better.



Parker offers concrete knowledge of respective products where selection criteria, scope of application and breadth of operation are invaluable. It is the goal of Parker to offer the possibility to our customers to always acquire and regularly refresh this expertise for daily implementation. In this respect, Parker's Hose Products Division Europe extensive training program offers valuable support.

The program incorporates product and target group training for acquiring not only basic knowledge, but also extensive familiarisation through practical experience with the products, incorporating identification and demonstration of application-specific operational advantages. To ensure that all participants enter the classroom with a fundamental product knowledge, Hose Products Division Europe has developed a complete training concept, including a training sample case.

News for business

This training is ideal for an audience who is interested on all kind of hose products/business news and their benefits for the customers.

- In addition to the regular training offerings, Parker Hose Products Division is offering customised in-house training sessions.
- To support all training activities, a sample case with the part number **HPDE-SAMPLE-CASE** has been developed with a comprehensive product selection to
 - provide you the tools allowing you to run and lead training sessions
 - improve your knowledge of the Division and its products
 - improve your knowledge of the hose market

Hose assembly workshop training

In this training the participant will get familiar with all major aspects (facility + equipment/operational steps/safety requirements) to produce a proper hydraulic hose assembly. This training supports all activities around a certified hose workshop.

Qualified person – hydraulic hose technology

The participants will learn about international safety standards and requirements for hydraulic hose products. The training course includes guidance to select the right product depend on application conditions and Parker instructions to produce a proper hose assembly. The training will convey also knowledge about potential failure and aging affects and how to avoid them.



Part Number HPDE-SAMPLE-CASE

Basic product training

The scope of this training is for beginners in hydraulic hose business and helps to acquire basic knowledge about hose products incl. workshop equipment. The participant is able to identify all hydraulic hose products and to answer application related questions based on catalogue knowledge, the product range and production selection criteria.



Value Added Services

ParkerStore™

At Parker Hannifin, we're continually looking for ways to deliver more products, more efficiently.

The Global ParkerStore™ network enables Parker to provide:

- Prompt, efficient, professional in-store services while you wait
- Expert local services and support
- A safe, friendly and convenient shopping environment
- A greater range of parts options so you get exactly what you're looking for

Customers trust ParkerStores to provide OEM and MRO customers with direct access to:

- Custom-made hydraulic hose assemblies and complementary products to support their applications and decrease their downtime
- Expert technical support
- Professional, personalized services, including 24/7/365 support
- The convenience, comfort and amenities of a local service provider.



ParkerStore™ Container Service



The ParkerStore container is a transportable workshop, providing on-site maintenance and product support for large construction projects such as roadworks, tunnels, railways, underground systems, etc. Provides an on-site product and hose replacement service. With this service on your site, you can reduce your downtime keeping your project on time and on budget!



Cargo Doors



Storage Racks and Cabinets



Full Electrical Service



Security Doors



Heating/Cooling



Rugged Lighting Service

HOSE DOCTOR®

Parker HOSE DOCTORS® are a network of independently-owned, mobile service technicians built around the commitment to identify and replace hose assemblies wherever their customers need them, with the fastest response times possible.

HOSE DOCTORS® are an extension of the worldwide Parker distribution network, coupling their service commitment with Parker products – the highest quality hoses and fittings available in the market today.



VALUE ADDED SERVICES

Kitting

Multiple components are supplied under a single part number

- Reduced number of suppliers
- Reduced stocks and no obsolete items
- Optimized management (stock and supplies)
- Simplified and optimised order handling
- Reduced assembly costs
- Greater productivity



Tech Services

Optimises the performance of your hydraulic and pneumatic circuits

- With Parker Tech Services involved, your time to market is shorter, which saves on development costs
- The 3 year no-leak guarantee enhances your reputation and lowers your warranty costs
- More reliable operation lowers your customer's operating costs
- More efficient performance and no-leak guarantee is beneficial to the environment
- Parker worldwide coverage ensures you can use the service and save costs wherever you are



Breadman Vendor Managed Inventory

Lean logistics and delivery of Parker products and kits directly to the customer's assembly line, work stations or warehouse

- 100 % parts availability minimises downtime, increases production and reduces costs
- Elimination of stock checking reduces manpower and maintains production levels
- Daily delivery reduces inventory and overheads
- Electronic order processing eliminates paperwork and reduces administration costs
- Enjoy a customized program where Parker personnel can manage your inventory in person or remotely
- Reduce overall inventory, increase your inventory turns and increase your efficiency



Parker Tracking System (PTS)

designed to help customers reduce vehicle or asset downtime through increases in the speed, timing and accuracy of necessary repairs.

PTS provides a unique identification code for each hose assembly which is printed on a durable bar code or RFID label.

PTS can eliminate costly hours of equipment downtime, helping customers achieve greater productivity and profitability.



www.parker.com/pts

It's so easy to crimp a hose

Make your own safe and reliable hose assemblies with a Parkrimp hose crimper, whenever and wherever you need them. Easy, fast and safe – the problem solver for your downtime.

Please visit us also at
www.easy-crimping.com



Mobile APPs

Bring the power of Parker to the palm of your hand.

Our mobile apps, makes it fast and convenient to search for hydraulic hose products and information on the go.

Save valuable time



Hose Finder
Parker Hose Selection Guide

Find out more



Parker Tracking System

www.Parker.com/PTSmobile

Crimpsource

The industry's most complete resource for crimper technical information.

- Crimp specs
- PDFs of technical manuals
- Parts lists
- Troubleshooting advice
- PDFs of crimper decals

Crimpsource provides easy access to all the specifications necessary to correctly fabricate a factory quality hose assembly.

You can also print a simple-to-follow data specification sheet or crimper decal.

www.parker.com/crimpsource-euro



Whatever application you have

we have the best solution

Hose Products Division Europe supplies premier customer service by focussing on customer needs and analysing the entire business environment in which our customers operate.

Our expertise spans the core motion and control technologies, and we apply it to make a meaningful difference in the lives of people everywhere. Parker can be found on and around everything that moves!

We engineer and manufacture high quality hoses and hose fittings to help our customers to achieve a higher level of profitability by considering

- our customers' needs and desires
- what hose and fitting technology our customers prefer
- how to advance customer's brand loyalty

By working with us, you have access to an integrated network of global manufacturing plants as well as sales and service offices in 49 countries.



Transportation



Military



Agriculture



Forestry



Utility Equipment



Machine Tool



Waste & Refuse



Marine



Ground Support
Equipment



Mining



RV & Bus



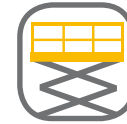
Construction



Grounds & Building
Maintenance



Railroad



Personnel Lift
Equipment



Oil Field Service



Material Handling



Paving & Road
Maintenance



Industrial



Inplant
Automotive

Contents

Technical Handbook

Low Pressure Push-Lok

The intelligent Push-Lok System covering different types of rubber, thermoplastic as well as a hybrid hose version and a wide selection of reusable fittings made of steel, brass and stainless steel.

Pressure range
up to 2.4 MPa

Low Pressure Transportation and Hydraulics

This low pressure range follows the No-Skive concept and the majority can be assembled on Parkrimp machines.

Pressure range
up to 20.7 MPa

Medium Pressure Hydraulics

Hose and fitting product range for applications in mobile and industrial hydraulics.

The perfect range for the more demanding market requirements with a broad selection of Parkrimp No-Skive fittings, with over sixty end configurations, combined with Parker hoses and crimpers allows simple and safe assembly – whenever and wherever needed.

Pressure range
up to 45.0 MPa

High Pressure Hydraulics

Heavy-duty products for heavy-duty applications with a full range of Parkrimp No-Skive multispiral hoses and fittings and ParLock skive type hoses and fittings.

Pressure range
up to 56.0 MPa

Machines, Tooling, Accessories

The perfect complement to the largest range of hoses and fittings in the market. Parker crimping technology is recognised throughout the industry as the easiest and most accurate crimping system available.



aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding



Hydraulic Hoses, Fittings and Equipment

Technical Handbook



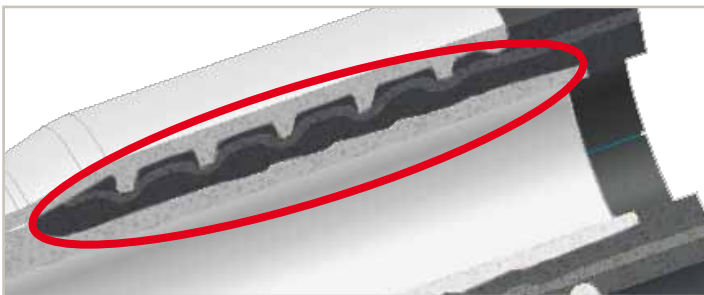
ENGINEERING YOUR SUCCESS.

Crimp Systems you can trust

Along with the ever-growing power and efficiency of each type of machinery and increasing working pressures and flow rates of their hydraulic systems, multispiral hose is gaining an increasingly important role in machine design. Parker Hannifin, as the world leader in the hydraulic hose market, responds to these highly demanding requirements with 3 comprehensive systems – Parkrimp No-Skive, Interlock No-Skive and Parlock Skive type.

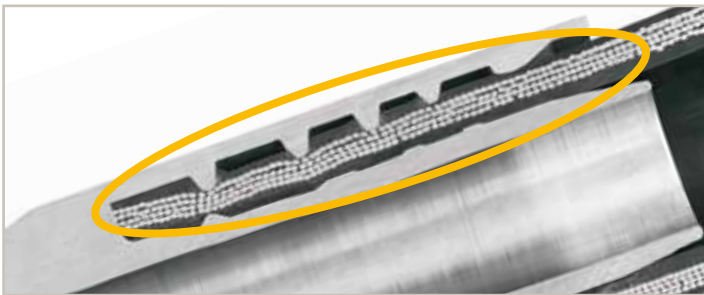
Parkrimp *No-Skive* system

is based on no-skiving technology (without removing the rubber cover before assembling)



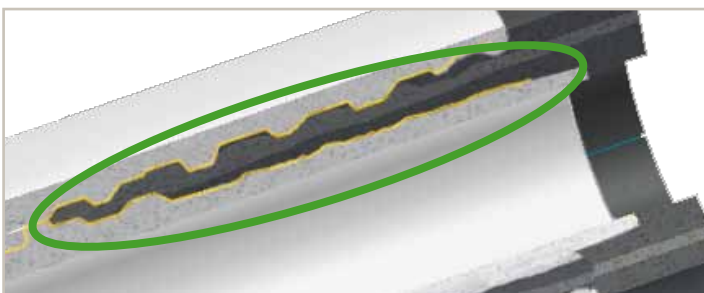
Interlock *No-Skive*™ system

for Compact Spiral™ hoses



ParLock system

uses external or internal and external skiving (Interlock) technology



Each of the systems consists of integrated ranges of hose, fittings and assembling equipment and know-how, all of which are:

- Designed and developed together
- Tested and approved together
- Produced and supplied together

This way Parker Hannifin can guarantee:

- The highest quality and safety and the longest service life of the final product – to the end users,

and at the same time:

- The easiest, most efficient and safe production process – to the assemblers.

In this way Parker Hannifin also meets the requirements of SAE J1273 and ISO 17165-2, which pay particular attention to matching the hose with the fittings and to their compatibility proven by the manufacturer.

Parkrimp *No-Skive*

The easy to operate crimp system from textile to 6 spiral high tensile steel wire

Parkrimp No-Skive is synonymous with the best solution for assembling hydraulic and related hose and fittings from both the technical and the manufacturing points of view!

Throughout the progressive rubber and metal compression during the crimping process the reinforcement always remains intact. The meticulous design,

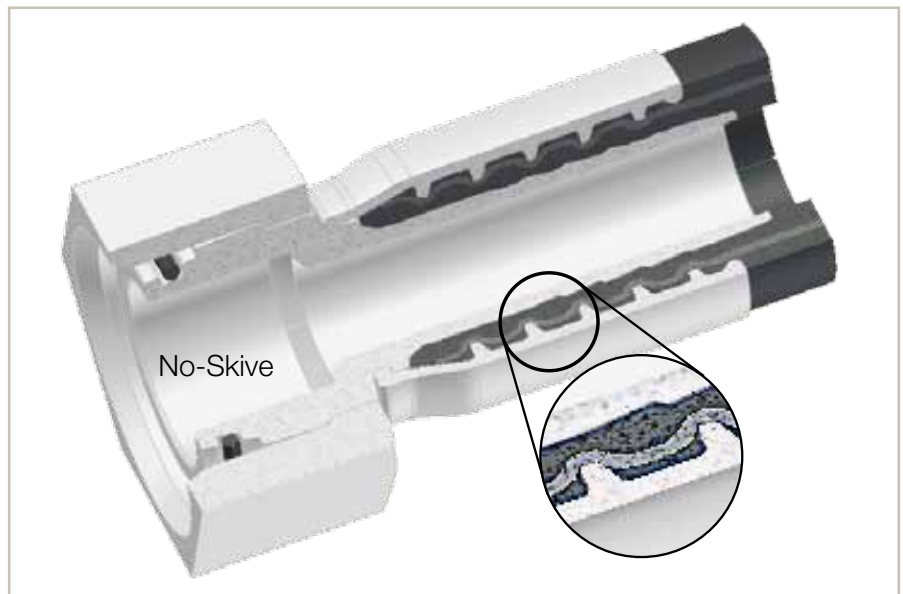
testing and manufacturing processes of Parkrimp No-Skive hose and fittings, combined with the approved crimping diameters provide an excellent mechanical connection between the hose and the fitting. This absolutely leak-free connection gives long service life even with the highest pressures associated with 4- and 6-spiral hose assemblies.

The smartly designed and time-tested Parkrimp No-Skive assembling equipment combined with Parker's assembling know how allow the safest, most efficient and mistake-proof assembly process. The Parkrimp equipment allows cost and time savings to the assembler and guarantees a defect-free, reliable and durable final product to the end-user.

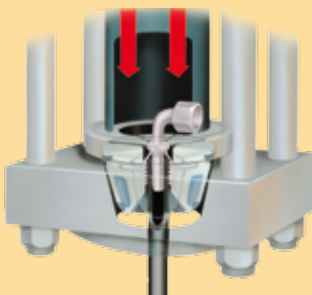
Parkrimp *No-Skive* hose and fittings

the system for fast and leak-free assemblies

- For crimping Parkrimp No-Skive fittings only
- No skiving tool needed
- No need to remove the cover
- Quick and easy: no gauges to set on the machine
- Portable machines for field repair
- Meets EN safety regulations



Parkrimp *No-Skive* hose and fittings the system with the perfect match



The perfect match

The complete system from one source. No-Skive hose, No-Skive fitting and crimping machine with world-wide guarantee and availability.



Parker's colour-coded die sets

No loose parts to mismatch or misplace – die set segments linked together. Die sets provide 360° evenly applied crimping forces for an ideal crimp result.



Parkalign®

Parker's exclusive Parkalign® positions the fitting in the dies perfectly every time.

Interlock *No-Skive*TM

The system for Compact SpiralTM hoses

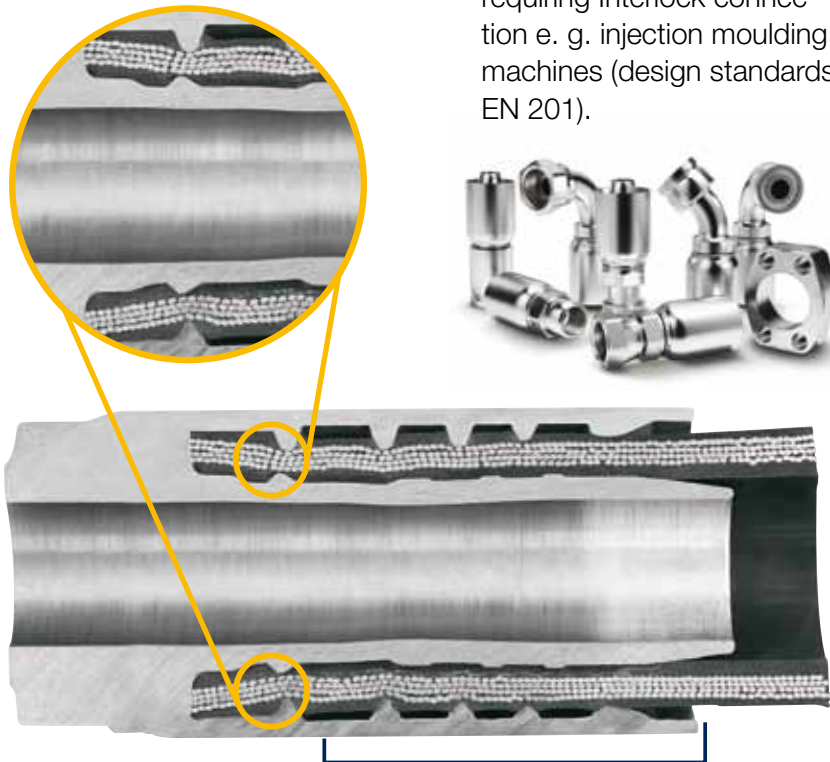
For applications with extremely dynamic pressure profiles, pressure surges and peaks, as well as applications with intense vibrations and hose flexing (bending), especially when close to the fitting, a strong mechanical grip by the fitting onto the hose is paramount. A popular method accepted by the market of achieving this mechanical grip in such applications is to use hose fittings that „lock“ the metal reinforcement of the hose directly between the metal shell and nipple (a concept generally called „Interlock“).

As a response to the market requirement for an „Interlock“ hose fitting system, Parker has developed the Parlock and Interlock No-Skive program. This range consists of a specific range of hose, fittings and assembly equipment combined with Parker crimping know-how.

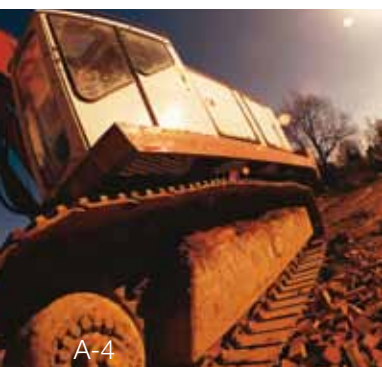
1piece No-Skive 77 series fitting covers the full range of sizes for both Compact SpiralTM hoses 787TC and 797TC hoses – designed to engage the inside of the tube into the spiral wire reinforcement

Parker's exclusive Interlock No-Skive design, with both internal and external „Bite the Wire“ technology for assured connection strength and for better hose to fitting connection which reduces leaks and increases holding power.

- Superior holding power
- Reduced „push- in“ force
- Smart sealing geometry to improve the cool down leakage performance
- Approved by the German DGUV (German Accident Prevention & Insurance Association) for applications requiring Interlock connection e. g. injection moulding machines (design standards EN 201).



Sealing and additional holding power

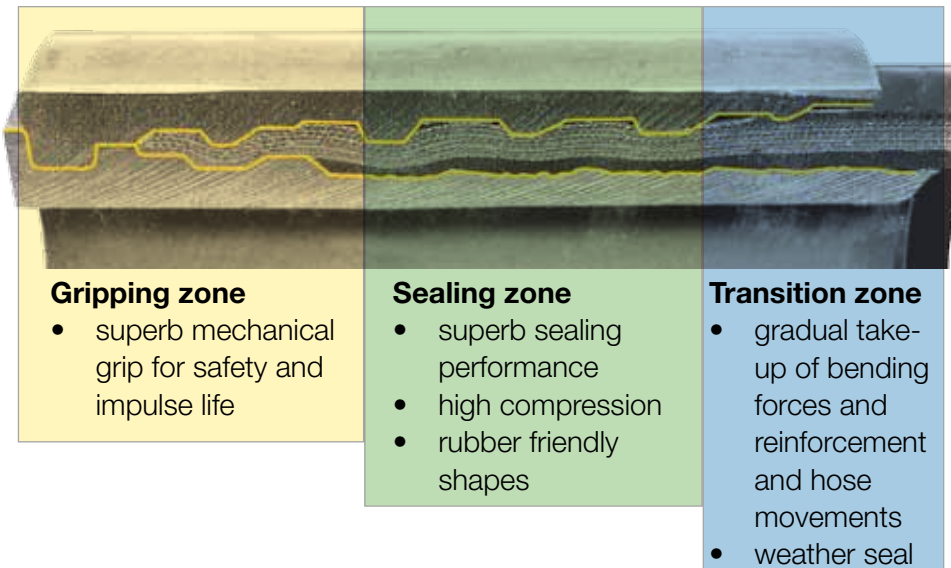


ParLock

The system for extremely dynamic pressure applications

Applications requiring the ParLock system

- Hydrostatic transmissions (combine harvesters, large tractors, excavators, etc.)
- Large injection moulding machines
- Large material handling machines (container handling)
- Vibratory hammers
- Tunnelling machines
- Excavator booms
- Forestry machines
- Blow-out preventers in oil and gas



For manufacturing the ParLock hose assemblies Parker Hannifin offers

- Skiving machines for external and internal skiving
- Universal crimping machines with adjustable crimping diameter
- Detailed assembling instructions (see further in this catalogue)



Hydraulic Hoses and Fittings

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Hoses and fittings terminology

The basics!



Hydraulic hose is a full-value part of the hydraulic system transmitting the hydraulic power – not just conveying a fluid – and deserves adequate attention, just like the other hydraulic components which generate, consume or control that power. Furthermore, it is just hydraulic hose assemblies that are usually most exposed to various extreme conditions in which they have to retain full functionality and assure serviceability of the hydraulic system and safety of the operators.

In spite of that, the importance of the hydraulic hose is often overlooked and underestimated.

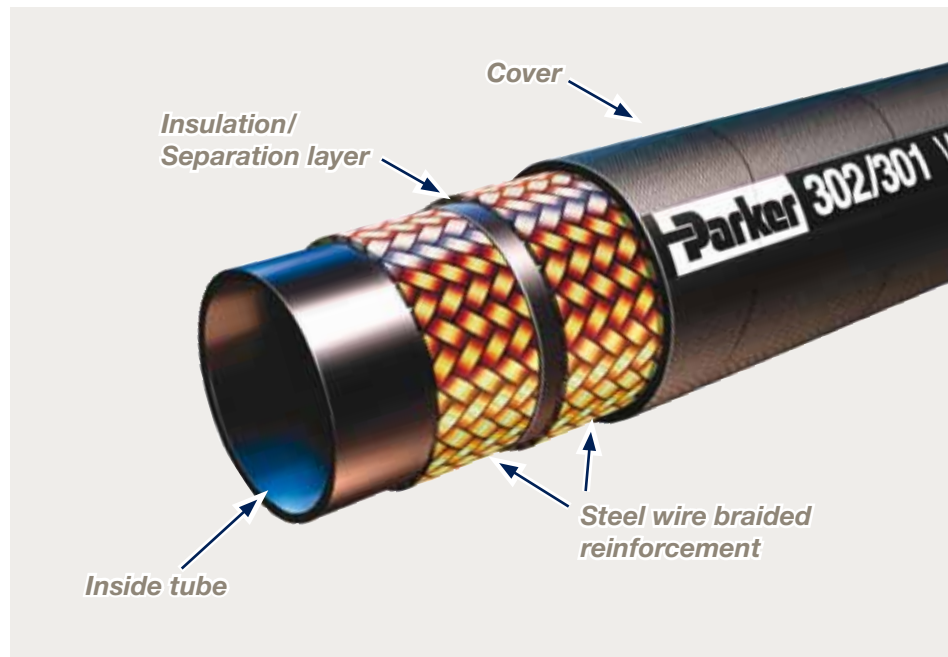
This catalogue is to provide guidelines to correct hoses and fittings selection and hose assembly manufacturing and to highlight the most important safety aspects for its service in the field.

Hydraulic rubber hoses

Tube – inner layer of rubber compound with chemical and physical properties to be long-term resistant to the fluid and working conditions.

Reinforcement – 1 or 2 (exceptionally 3) layers of braided textile fibre or highly tensile steel wire or 4 or 6 layers of spiralled very highly tensile steel wire to bear high pressure but allow flexibility of the hose.

Cover – outer layer of rubber compound with chemical and physical properties to protect the reinforcement against ambient conditions and mechanical damage.



Depending on the pressure level we classify the hydraulic hoses in this catalogue into 4 groups:

- **Push-Lok**
 - low-pressure hoses with self-grip connection to fittings
- **Low pressure and Transportation**
 - 1 and 2 textile yarn braided and 1 steel wire braided hoses
- **Medium pressure**
 - 1 and 2 steel wire braided hoses and suction hoses
- **High pressure**
 - 3 steel wire braided hoses and 4 or 6 steel wire spiral hoses

Depending on the method of hose and fittings assembling we offer 2 basic product concepts (integrated product lines of hoses, fittings, assembling equipment and know-how):

- **Parkrimp *No-Skive***
 - complete range of braided and spiralled hose, not needing removing (skiving) of the hose cover before assembling.
 - Compact Spiral hose with patented internal and external “Bite the Wire” *No-Skive* technology.
- **ParLock**
 - specific range of 4 and 6 spiral hose for extreme applications which require skiving of the cover and for bigger sizes also of the inner tube.

Hose fittings

Nipple (insert etc.) – the body of the fitting whereof one end is coupled to the counterpart of a hydraulic component (termination end), while the other end is inserted into the hose (tail end).

To assure compatibility with the counterpart, the designs of termination ends are specified by international standards.

The main role of the tail end is to provide durable sealing between fitting and hose.

Shell (socket, ferrule etc.) – the outer part of the fitting provides mechanical connection of the fitting with the hose. To assure a strong hold of the hose reinforcement, shells are generally crimped on to the hose during assembly.

The designs of tails and shells are not standardized but they are in the sole responsibility of the manufacturer.

Due to this reason fittings of various manufacturers are not automatically compatible with hoses of other manufacturers - unless the combination is fully tested acc. to the relevant international hose standards! This is also imposed by all international standards for hydraulic hose usage practices and fluid power systems safety!

In this catalogue we offer 3 kinds of fittings:

- **Push-Lok**

- special nipples connectable to Push-Lok hose without any shells.

- **1piece fittings**

- pre-crimped shells on nipples make the assembling of hose with fittings easier, more effective and reliable.

- **2piece fittings** (for ParLock hoses)

- for extreme applications requiring full metal-to-metal connection of the hose reinforcement with the shell or even with the nipple (external or external plus internal skiving).



Note

Parker Hannifin also offers a limited range of 2piece Parkrimp No-Skive fittings but being special products they are not included in this catalogue. For more information about 2piece fittings, please contact our Division Helpdesk (HPDE_Helpdesk@parker.com)

Note

Parker hoses have to be assembled with Parker fittings only! Crimping Parker hoses with fittings of other manufacturers may have serious impact on the hose assembly functionality and safety!

Except Push-Lok, all fittings in this catalogue are crimped and include:

- All Parker 1piece fittings
 - suitable for the **Parkrimp No-Skive** product line
 - suitable for the **Interlock No-Skive** product line
- All 2piece fittings in this catalogue
 - suitable for the **ParLock** product line

Hose assembly

It is the interplay between the fitting tail and shell designs and the hose design with its material properties that primarily determine performance, service, durability and safety of the final hose assembly. Yet compatibility of hose and fitting cannot be just theoretically projected. It requires exhaustive and repetitive laboratory and field tests and further tuning of the designs.

Non-compatibility of hose with fittings or combination of hose and fittings from different manufacturers, do not only influence performance of the hose assembly, they often lead to hose failure with serious health or life-threatening consequences! For this reason the main international standards for hydraulic hose usage practices and fluid power systems safety strictly warn not to mix hose with fittings from different manufacturers!

Parker Hannifin has not approved products of any other manufacturer for combination with Parker hoses and/or Parker fittings and guarantees full compatibility, reliability and safety only for combinations of genuine Parker parts selected and assembled in accordance with the guidelines included in this catalogue!

Hose Hint

Never mix & match one manufacturer's fittings with hoses from another manufacturer!

Parker hoses, fittings, assembling equipment and know-how are designed as an integrated system, guaranteeing the utmost product performance, reliability and safety!



Pressure rating

Hydraulic hose is a component transmitting hydraulic power and the pressure is obviously the main physical quantity determining the hydraulic power. For hydraulic hoses the following pressure ratings are used:

Working Pressure – the pressure for which the hose assembly is designed to operate over its whole service life - provided the other parameters (temperature in particular) stay within reasonable limits.

For apparently static applications (e.g. with hand pumps or water jetting) consult the Working Pressure with your Parker Field Representative or with our Technical Support (HPDE_Helpdesk@parker.com).



Burst Pressure – the pressure which statically applied causes destruction of the hose. Technical standards for hydraulic hoses define the burst pressure to be equal to or higher than 4 times the working pressure (safety factor 4). This rule and the burst pressure in general serve to hose manufacturers for design and testing of the hose only! If you happen to know the burst pressure of certain hose, never use this rule backwards to deduce its working pressure!

$$4 \times \text{Working Pressure} = \text{Burst Pressure}$$



Pressure rating

Remember the working pressure

1. The **hose assembly working pressure** is given by the weakest "link in the chain" - i.e. by the lowest of the working pressures of the hose and of both fittings. Do not forget to check the working pressure of the fittings when selecting components for a hose assembly (see pages **Ab-9** to **Ab-11** of this catalogue!)
2. The **real hydraulic system operating pressure** is not given by the system components setup but by the application which introduces into the system peaks and surges or by the functioning of the system itself (rapid closing or opening) which induces spikes and pulses. Such occurrences are detectable only by sensitive electronic pressure gauges and are usually not fully or not at all filtered out by safety or relief valves and exert excessive strain on the hydraulic system – hoses and tubes first of all!
3. **The hose assembly working pressure must always be equal to or higher than the real hydraulic system operating pressure incl. all peaks, surges, spikes and pulses!**



Unit of measure

The most commonly used unit of measure for hydraulic pressure worldwide is MPa (Mega Pascal) – used also in this catalogue. In the US and in Anglo-Saxon markets also psi (pounds per square inch) is officially used and many European producers, users and even technical standards still also use bar.

For the conversion chart of various units of measure see page **Ab-20**.

Hose Hint

Working pressure is a dynamic parameter, burst pressure is a static parameter. High burst pressure does not mean high working pressure!

In order to assure mutual compatibility, producers of hydraulic equipment, producers of machines and also international technical standards profess certain preferred pressure levels:

| | | | | |
|------------|-------------|-------------|-------------|-------------|
| MPa | 21 | 28 | 35 | 42 |
| bar | 210 | 280 | 350 | 420 |
| psi | 3000 | 4000 | 5000 | 6000 |



Hose Hint

For highly demanding applications (dynamic pressure, high number of pressure cycles, high temperature etc.):

- Select hose with much higher working pressure than officially requested
- Select multispiral hose instead of braided or ParLock instead of Parkrimp No-Skive
- Select all of that in order to increase service life and safety!

Hose size

The other parameter determining the hydraulic power in direct proportion is the flow rate – i.e. the fluid velocity. However, too high fluid velocity gives rise to turbulence, pressure drops and heating up of the fluid, causing excessive ageing of hoses and other components or even their damage. To keep the fluid velocity below certain limits but achieve the required flow rate, the size of the hose has to be defined appropriately (see Flow Capacity Chart on page **Ab-22**).

As the first technical standards for hose came from the USA, dimensions of hose are defined in inches and hose sizes are expressed in inches or from inch-derived units. Global companies – such as Parker – use **dash sizes** (-1 = 1/16”), while the European standards use DIN-based DN (diameter nominal) sizes.



| dash | inch | DN | mm |
|------|-------|----|------|
| -3 | 3/16 | 5 | 4.8 |
| -4 | 1/4 | 6 | 6.4 |
| -5 | 5/16 | 8 | 7.9 |
| -6 | 3/8 | 10 | 9.5 |
| -8 | 1/2 | 12 | 12.7 |
| -10 | 5/8 | 16 | 15.9 |
| -12 | 3/4 | 19 | 19.1 |
| -16 | 1 | 25 | 25.4 |
| -20 | 1 1/4 | 31 | 31.8 |
| -24 | 1 1/2 | 38 | 38.1 |
| -32 | 2 | 51 | 50.8 |
| -40 | 2 1/2 | 63 | 63.5 |
| -48 | 3 | 76 | 76.2 |

Note

SAE 100 R5 hydraulic hose, SAE J1402 air-brake hose and SAE J2064 air-conditioning hose use sizes equivalent to corresponding metal tube I.D. – different from the other hydraulic hoses (see datasheets of these hoses in this catalogue).

| Size | Inch | mm | DN |
|------|------|---------------------|----|
| -6 | 6/16 | 6/16 * 25,4 = 9,525 | 10 |
| ↓ | ↓ | ↓ | ↓ |
| -6 | 3/8 | 9,5 | 10 |

Ambient and fluid temperature



Temperature is one of the factors which most negatively affect rubber characteristics and so it deserves particular attention of the hydraulic system designers and hose users!

High temperature causes degradation of rubber and accelerated ageing of the hose – an effect which can be yet further intensified by the chemical impact of the fluid. That is why the upper temperature limits specified in this catalogue refer to the fluid temperature and why they differ for various media.

However, permanent or long-term use at temperatures close to the upper limit would considerably shorten the hose service life in

any case and if it cannot be avoided the hose should be replaced more frequently once it shows first symptoms of deterioration (stiffness, hard cover and cracks).

Low temperature, on the other hand, affects mainly physical properties of rubber – making it more fragile – and so at extremely low temperatures hose being bent may crack in tube or cover which can cause immediate or later leakage, burst or reinforcement damage. As there are not many hydraulic fluids which flow at or below -40 °C, the lower temperature limits specified in this catalogue refer rather to ambient temperature below which the hose should not be bent or otherwise hit from outside (while staying passively in it does not cause serious problems).

Hose Hint

The combination of high temperature and high pressure reduces the hose service life. Pay attention to regular inspection of such hoses and their preventive replacement if the cover is brittle or cracked!

Hose bend radius



The role of hydraulic hose is to provide a connection of relatively movable parts of the circuit and so its bending is a natural state the hose is designed for. However, the layout of the reinforcement wire or fibre inside a bent hose **may** shift to less appropriate positions. The tube and cover are stretched and become thinner and so the pressure resistance of a bent hose considerably decreases. For this reason working pressure and bend radius are negatively interdependent parameters and the max. working pressures specified in this catalogue are conditioned by respecting the min. bend radii.

Hose Hint

Bend radius and bending force are two different things! Not even apparently "flexible" hose (with low bending force) may be bent below the min. allowed radius!

Recommended fluids

As the power transmitting – not fluid conveying – element, hydraulic hose should be first of all used for the primary applications and with the recommended fluids specified in this catalogue!

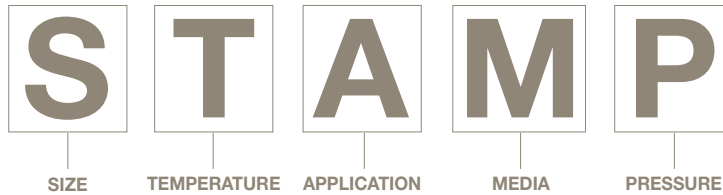
For low pressure applications with various non-hydraulic fluids see our catalogue **"4401 Industrial Hoses"**.

If for required higher pressure or for any other reason you cannot use industrial hoses, follow the instructions in this catalogue (pages **Aa-9** – Application, **Aa-11** – Media and **Ab-24** to **Ab-32** – Chemical Resistance Table).

Safe hose assembly

Working steps

1 Before you spec it, STAMP it.



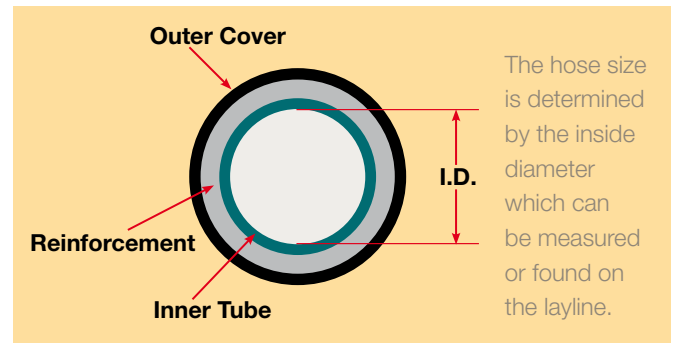
SIZE

Parker uses a system of measurement called Dash Numbers to indicate hose and fitting size. The dash number, or dash size, is the measure of a hose's Inner Diameter (I.D.) in sixteenths of an inch.

This measuring system of the inside diameter of the hose is universally used by the fluid power industry today. Don't know the hose size? Check the layline. If the original printing has worn off, the original hose must be cut and the inside diameter measured. Be sure to measure the overall assembly length and fitting orientation before cutting the hose.

The hose I.D. must be sized accurately to obtain the proper flow velocity. A flow that's too slow results in sluggish system performance, while a flow that's too high causes excessive pressure drops, system damage, and leaks.

Use the Flow Capacity Nomogram page **Ab-22** to determine the proper hose I.D. for an application's flow rate requirements.



Max. recommended fluid velocity:

- Pressure lines – ca. 6.1 m/sec
- Return lines – ca. 3 m/sec
- Suction lines – ca. 1.2 m/sec

Hose Hint

Don't try to save your own or your customer's money by downsizing the hose! It would cost your customer more to replace damaged hoses, other components and oil, and it will cost you more as you may lose your customer!

T TEMPERATURE



High Temperature

For high temperature hoses choose the part numbers ending in "6"
– e.g. **436-12** – SAE 100R16
High Temperature hose size -12

Low Temperature

For extremely low temperature hoses choose the part numbers ending in "LT"
– e.g. **461LT-16** – EN 857-2SC
Low Temperature Hose size -16

When specifying hose, there are two temperatures you need to identify. One is the **ambient temperature**, which is the temperature that exists outside the hose where it is being used; the

other is the **media temperature**, which is the temperature of the media conveyed through the hose. Very high or low ambient temperatures can have adverse affects on the hose cover and reinforce-

ment materials, resulting in reduced service life. Media temperatures can have a much greater impact on hose life. For example, rubber loses flexibility if operated at high temperatures for extended periods.

Parker hoses carry different temperature ratings for different fluids. For example, 811HT hose has a temperature range of -40 °C to +125 °C (-40 °F to + 257 °F) for petroleum-based hydraulic fluids. However for water, water/glycol, and water/oil emulsion hydraulic fluids, the range drops to a rating of up to + 85 °C (+185 °F). Air is rated even lower at up to + 70 °C (158 °F).

Some media can increase or decrease the effects of temperature on the hose. The maximum rated temperature of a hose is specific to the media.

Working steps

APPLICATION

Before selecting a hose, it is important to consider how the hose assembly will be used.

Answering the following questions may help:

- **What type of equipment is involved?**
- **What are the environmental factors?**
- **Are mechanical loads applied to the assembly?**
- **Will the routing be confined?**
- **What about hose fittings – No-Skive or ParLock?**
- **Will the assembly be subjected to abrasion?**

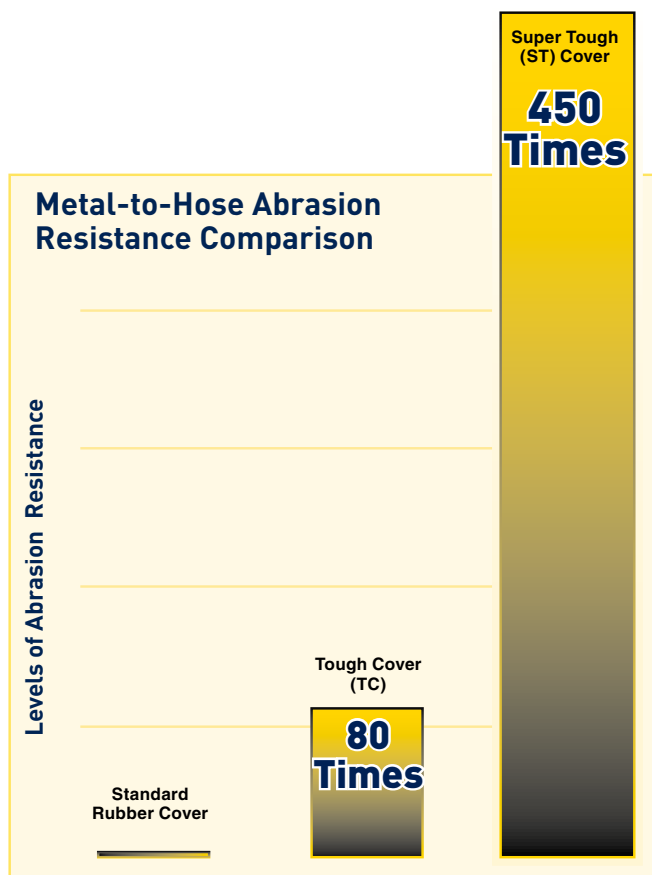
Hose Hint
You do not always need additional sleeve to protect the hose against abrasion!
 Parker high and extremely high abrasion resistant **TOUGH COVER** and **SUPER TOUGH** versions with 80-times and 450-times higher abrasion resistance do the same, but better and cheaper!

Sometimes specific applications require specific hoses. For example, applications where hoses will encounter rubbing or abrasive surfaces, would be best handled

by our family of abrasion-resistant hose with both Tough and Super Tough covers. When application space is tight, bend radius is another important consideration. Parker offers a full line of hoses designed for one-half SAE bend radius at full SAE-rated pressures. We offer hoses with increased flexibility and smaller outer diameters enabling faster, easier routing in small spaces, reducing both hose length and inventory requirements. Industry standards set specific requirements concerning construction type, size, tolerances, burst pressure, and impulse cycles of hoses. Parker hydraulic hoses meet or exceed standards such as:

- **ISO (International Organization for Standardization)**
- **EN (European Norm)**
- **SAE (Society of Automotive Engineers)**
- **DIN (Deutsches Institut für Normung)**

Governmental agencies control additional standards for particular industries such as U.S.C.G. and ABS. You must select a hose that meets the legal requirements as well as the functional requirements of the application.



Working steps

MEDIA

What will the hose convey?
 Some applications require the use of specialized oils or chemicals. The hose you order must be compatible with the medium being conveyed. Compatibility must cover the inner tube, the cover, hose fittings, and o-rings as well. Use a Chemical Resistance Chart to select the correct components of the hose assembly that will be compatible with your system's media. The chart contains the chemical resistance rating of a variety of fluids. See pages **Ab-24** to **Ab-32**.

Technical Handbook
 Ab-19
 Parker
 Copyright 2008

PRESSURE

When considering hose pressure, it's important to know both the system working pressure and any surge pressures and spikes. Hose selection must be made so that the published maximum working pressure of the hose is equal to or greater than the maximum system pressure. Surge pressures or peak transient pressures in the system must be below the published maximum working pressure for the hose. Each Parker hose has a pressure rating which can be found on the hose table. All Parker hydraulic hoses have passed the industry rated specifications for burst pressure and carry a 4:1 design factor unless otherwise noted. Burst pressure ratings for hose are for manufacturing test purposes only. They are not an indication that the product can be used above the published maximum working pressure. Care must also be taken when looking at the "weakest link" of the hose assembly. A hose assembly is rated at the maximum working pressure of the hose and the fitting component. Therefore the maximum working pressure of the hose assembly is the lesser of the rated working pressure of the hose and the end connections used. Always check the fitting working pressure – see pages **Ab-9** to **Ab-11**.

Hose Hint
 Although fittings are made of steel, their working pressure is often lower than that of hose!
 Don't forget to check the working pressures of both fittings when selecting components for your hose assembly!



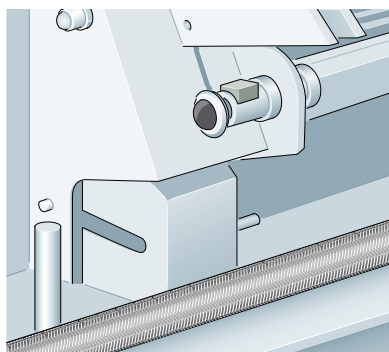
Working steps

2.1

ASSEMBLY

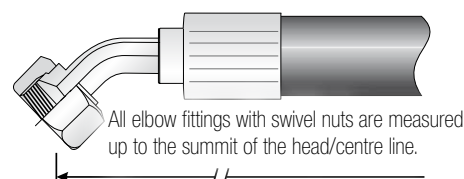
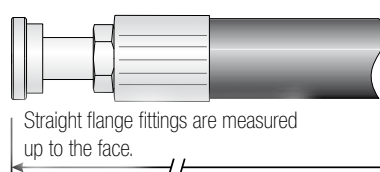
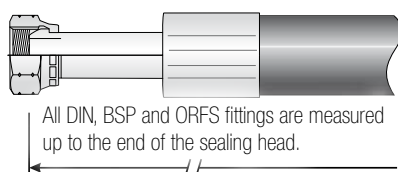
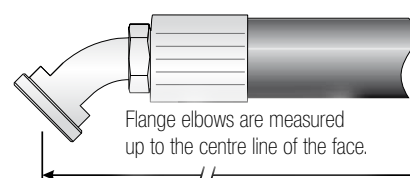
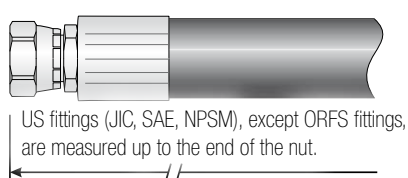
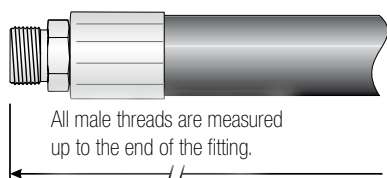
1piece Parkrimp *No-Skive* Fittings

Cutting



Hose is cut to the desired length according to specifications. The correct hose cutting tool ensures a square, clean cut without damaging the pressure reinforcement. Depending on the hose type, different kinds of cutting blades must be used:

- 1) Smooth cutting blade:
for high tensile textile layer, return line hoses and steel wire braided hoses
- 2) Serrated cutting blade:
for hoses with 4 or 6 spiral layer of high tensile steel wire



Tolerances for hose assemblies

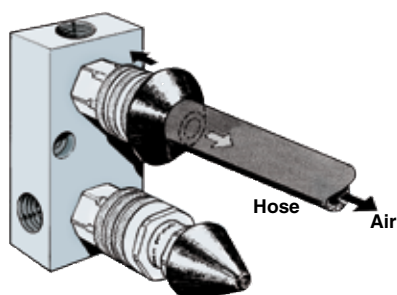
Length tolerance according to DIN 20066 and EN 853 to EN 857

| Hose assembly length | up to DN25 | from DN32 (size -20) | from DN60 |
|----------------------|------------------|-----------------------|------------|
| | (size -16) | up to DN50 (size -32) | (size -40) |
| up to 630 | +7 -3 | +12 -4 | +25 -6 |
| over 630 up to 1250 | +12 -4 | +20 -6 | |
| over 1250 up to 2500 | +20 -6 | +25 -6 | |
| over 2500 up to 8000 | +1,5 % -0,5 % | | |
| over 8000 | +3 % -1 % | | |



According to EN ISO 4413, hose assemblies are not permitted to be manufactured from any components that have already been in use in other hose assemblies.

Cleaning after cutting



After cutting it is recommended to clean the hose with compressed air from both sides.

Please make use of Parker's Cleaning System TH6-7 – A quick and simple system – Delivered with two plastic nozzles for hoses from size -4 up to -32.

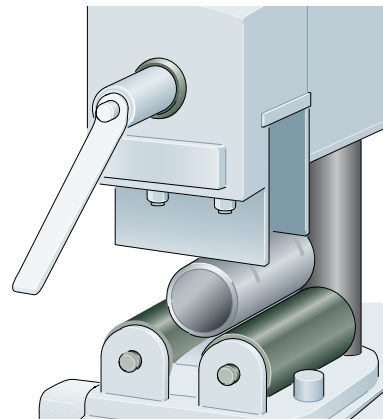
The hose is pressed against the nozzle and thereby opens a valve to allow the compressed air to blow through the hose and blow out loose particles.

Working steps

Marking

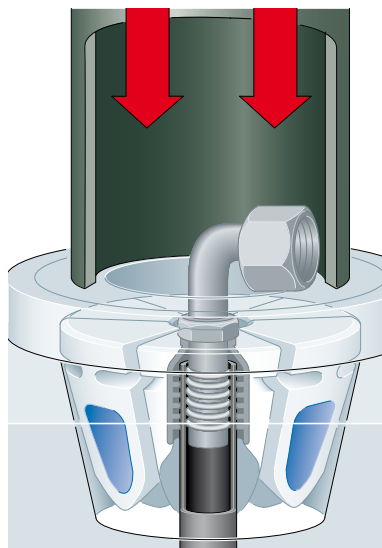
According to EN and ISO standards, hose assemblies must be clearly and permanently marked. They must bear the following information:

- Manufacturer's identification
- Date of production (year and month)
- Maximum permissible working pressure of the whole hose assembly



Crimping 1 piece Parkrimp No-Skive Fittings

Crimping is the safest, fastest and most commonly used method of making a hose assembly. The Parker crimping systems ensure precise, leak-free and tear-proof assembly of hose and fitting. Reaching the exact crimping diameter is possible with Parkrimp crimping tools or adjustable crimping tools. When crimping, it is essential that hose, fitting and crimping tool (dies) match precisely. For crimping dimensions please refer our crimp charts on section **Ed**.



Furthermore, the insertion depth, a square cut hose, correct, burr-free and clean crimping are important to ensure a correctly formed and leak-free connection of hose and fitting. Using the Parkrimp hose crimpers or adjustable crimpers, the fitting is crimped onto the hose in one slow and smooth crimping procedure. A depth stop with automatic function ensures safe positioning of the fitting. This guarantees the correct crimping of hydraulic hose assemblies.

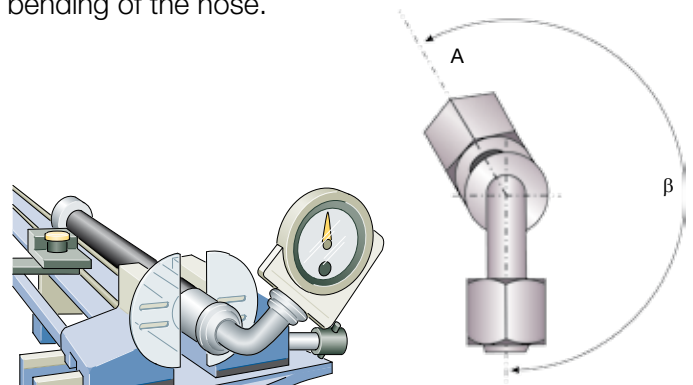
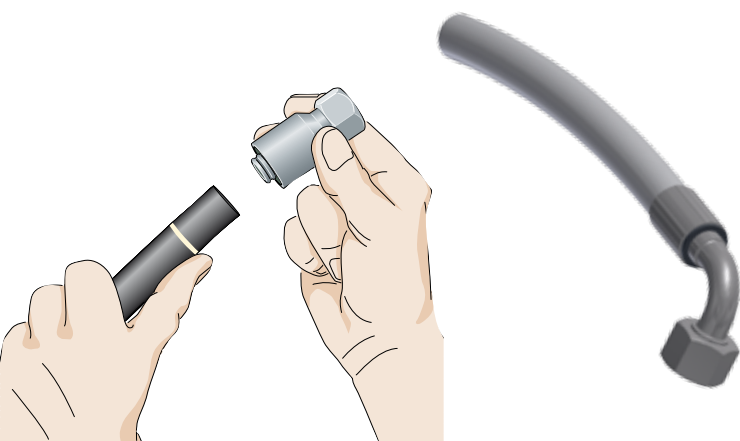
26, 43, 46, 48, 70, 73, 76, 77, 78, 79, S6 series:

Push the hose all the way into the coupling. Place the hose next to the fitting shell and mark the insertion depth or the length of the fitting onto the hose – (lubricate fitting end if necessary), push the hose into the fitting until the mark on the hose is even with the end of the shell.

Angle setting

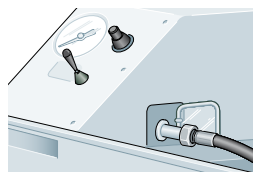
The displacement angle of a hose assembly is indicated only when two elbow fittings are assembled in a displaced way.

The angle always has to be indicated clockwise looking from the elbow fitting at the back to the one in the front. Please also consider the natural bending of the hose.



Working steps

Testing (optional)



Static test pressure depending on the hose type and application is applied to the finished hose assembly for a pre-defined period of time. The test procedure can be documented using a test logging unit. The test pressure for Parker hydraulic hose assemblies is 2 times the value of the dynamic operating overpressure.

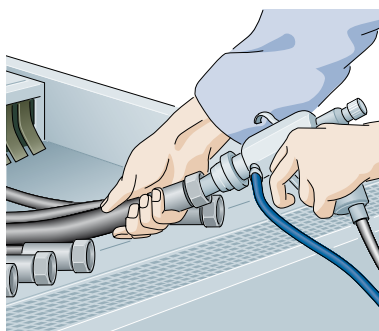
Proof Pressure Test

This test is typically carried out on customer request according to a method defined by the ISO 1402 standard. The test should be done at normal ambient temperature with a proof test bench using water or another suitable liquid. The hose assembly should be pressurised for between 30 to 60 seconds at twice the working pressure of the hose assembly. There should be no leakage or pressure drop. A complete test report should be provided together with the hose assembly to the customer.

Cleaning

The hydraulic systems have to reach a defined degree of cleanliness. For this purpose we use cleaning devices which ensure fast and efficient cleaning of hose assemblies.

With the TH6-6 standard cleaning device, certain cleanliness classes can be achieved. This cleaning device first flushes the hose assembly with an anticorrosive emulsion and dries it afterwards with pressurised air.



For permanent protection of the finished hose assembly against impurities we recommend using plastic caps.

| ISO 4406 | NAS 1638 | SAE 749 |
|----------|----------|---------|
| 11/8 | 2 | |
| 12/9 | 3 | 0 |
| 13/10 | 4 | 1 |
| 14/11 | 5 | 2 |
| 15/12 | 6 | 3 |
| 16/13 | 7 | 4 |
| 17/14 | 8 | 5 |
| 18/15 | 9 | 6 |
| 19/16 | 10 | |
| 20/17 | 11 | |
| 21/18 | 12 | |



Working steps

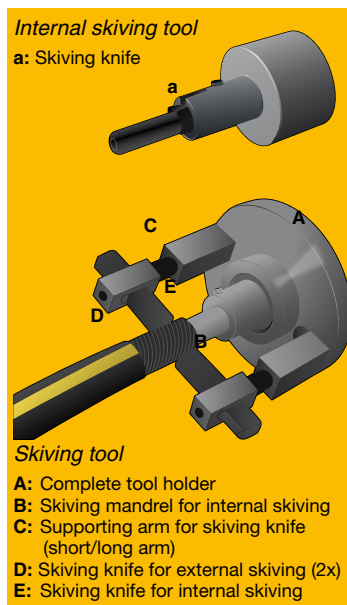
2.2

ASSEMBLY 2piece ParLock Fittings

Cutting, cleaning after cutting and marking
please see “Working Steps for 1piece Parkrimp No-Skive”

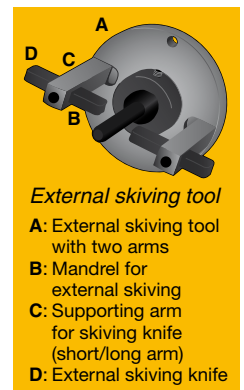
Skiving

For the skiving of hydraulic hose, one distinguishes between internal skiving and external skiving. This system is applied for hose types with 4 or 6 spiral reinforcement layers, the so-called Parker ParLock System or Interlock.



Adjustment of tools for internal skiving

Select the skiving tool according to the manufacturing documents and the hose size. Insert the knife for the internal skiving mandrel into the borehole of the mandrel provided for this purpose and mark it with a lock collar at the straight surface. When adjusting the knife, observe the marking on the internal skiving knife and insert the mandrel into the tool holder.



Adjustment of tools for external skiving

Attach the knives in the supporting arm. Select the supporting arm (long or short) depending on the hose size.

Adjust the knives according to the Parker working instructions and insert the tools into the machine. Push the mandrel onto the hose until it is close to the tool (external or internal skiving knife).

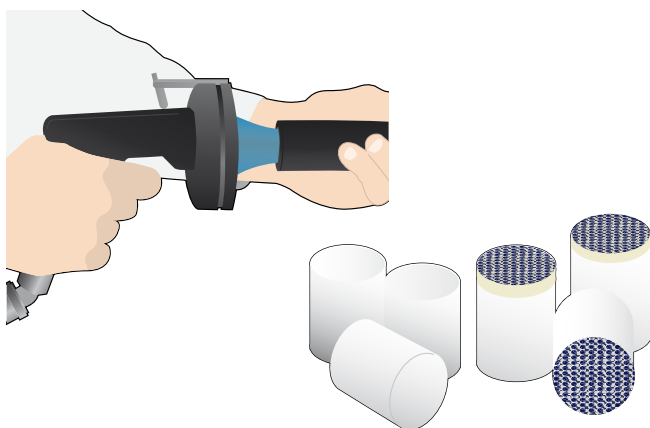
Adjustment of the sense of rotation of the machine

Always skive into the direction of the spiral layers. Please observe the operation instructions of the machine.

Cleaning after skiving

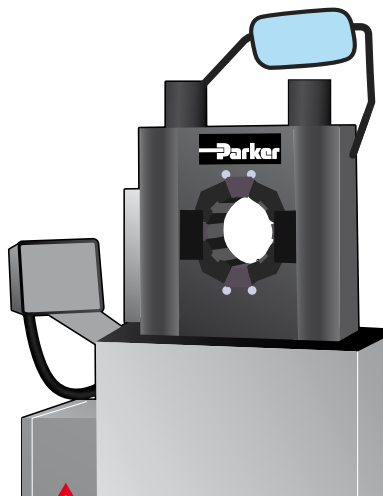
All hose types which have been skived externally or internally should be cleaned immediately after skiving. For this purpose we recommend using cleaning plugs which are shot through the hose using compressed air. (e.g. TH6-10-EL-7 or TH6-10-HL-9-2)

In addition to this working step, the finished hose assembly must be cleaned from both ends using pressurised air after the completion of this working step.



Working steps

Crimping 2piece ParLock Fittings



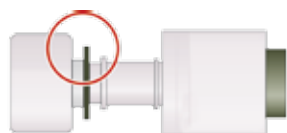
For crimping ParLock fittings V4 series a minimum of 320 tons crimping force is recommended. Min. of 340 tons for V6 series.

- 1) Select the appropriate crimping dies using the crimping diameter chart.
- 2) Before crimping hoses and fittings it must be ensured that you have the most recent crimping dimensions. For crimping dimensions please refer our crimp charts on page **Ed-15** to **Ed-16** or online at www.parker.com/crimpsource-euro
- 3) Insert the dies into the crimping press and set the crimping diameter.
- 4) Place the pre-assembled hose assembly into the crimper and perform the crimping procedure.
- 5) Please observe the operating instructions of the crimper.

! 2piece fittings must not be crimped on Parkrimp crimpers – only with adjustable crimpers.



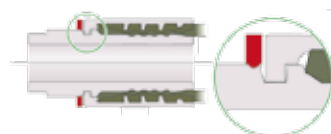
Make sure that the hose ends are cut squarely. Push the ferrule onto the hose. The cut end of the hose must be clearly visible.



Push the nipple down into the hose until it reaches the stop on the lower groove (plastic ring, fitting shoulder or metal stop). Use Hoze-Oil, if required.



The ferrule must bottom up against the plastic ring or metal stop.



After crimping, the ferrule must be located precisely in the groove of the nipple.

Angle setting

please see “Working Steps for 1piece Parkrimp No-Skive”

Checking for the correct crimping diameter

In case of the ParLock System, the conicity is measured. It is measured at the beginning and the end of the ferrule in 2 measuring planes.

The conicity must be within the tolerance range specified in the Parker specification.



Measurement 1 in the plane of force



Measurement 2 displaced by 90°



Measurement 1 at the beginning and the end of the ferrule



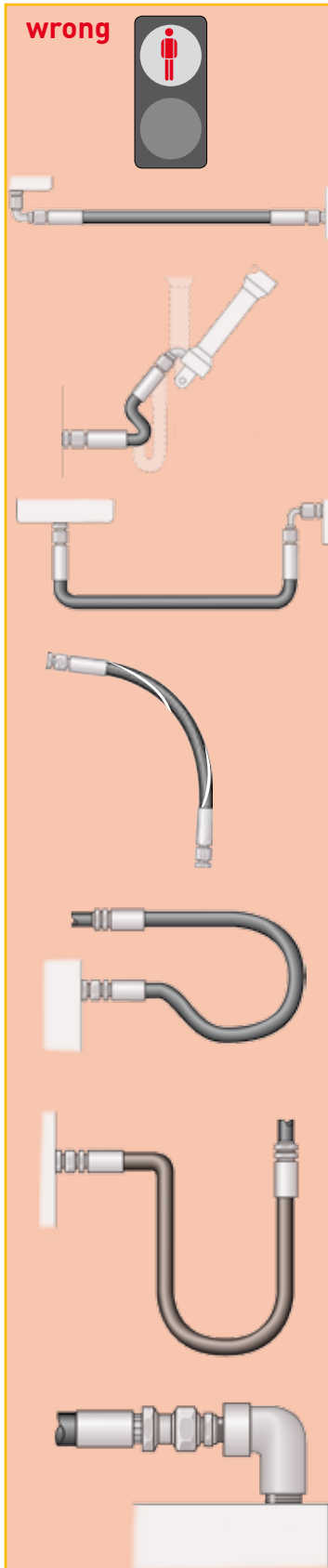
Measurement 2 at the beginning and the end of the ferrule (displaced by 90°)

Testing and cleaning please see “Working Steps for 1piece Parkrimp No-Skive Fittings”

Working steps

3

INSTALLATION



The **routing** of the hose assembly and the environment in which the hose assembly operates directly influence the service life of the hose assembly. The following diagrams indicate the correct routing of hose assemblies that will maximise its service life and assure a safe working functionality.

When hose installation is straight, it must be assured that there is enough slack in the hose to allow for changes in length that occur when pressure is applied. When pressurized, hose that is too short may pull loose from its hose fittings or stress the hose fitting connections, causing premature metallic or seal failures.

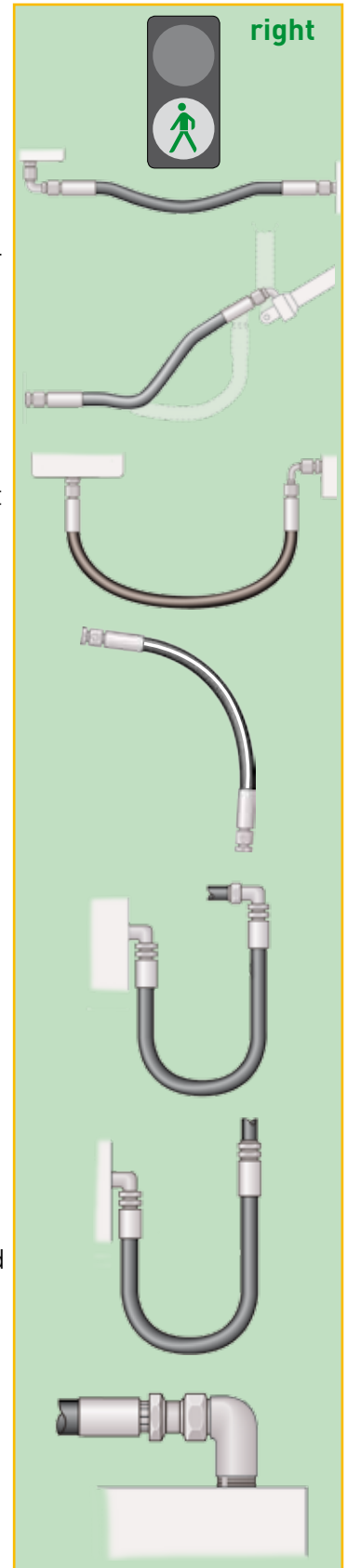
The **hose length** must be determined so that the hose assembly has enough slack to allow the system components to move or vibrate without creating tension in the hose.

However, care needs to be taken not to allow too much slack and therefore introduce the risk of the hose snagging on other equipment or rubbing on other components.

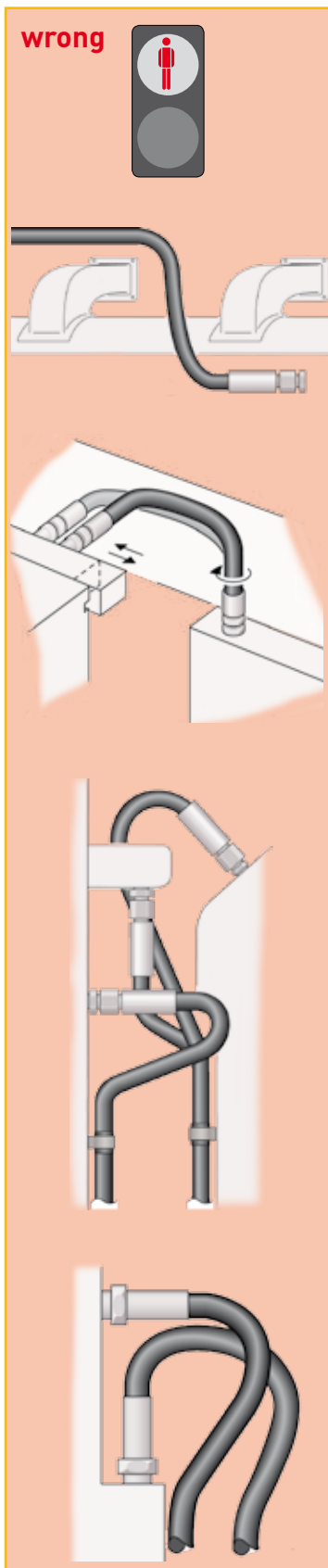
Mechanical straining of the hoses needs to be avoided, so the hose must not be bent below its minimum bend radius or twisted during installation. The minimum bending radii for each hose is stated in the hose tables in the catalogue.

The plane of movement must also be considered and the hose routing selected accordingly.

Hose routing also plays an important role on the selection of the hose fittings, as the correct fittings can avoid straining the hoses, unnecessary hose length or multiple threaded joints.



Working steps



Correct clamping (holding/supporting) of the hose should be exercised to securely route the hose or to avoid the hose contacting surfaces that will cause the hose damage.

It is however, vital that the hose be allowed to keep its functionality as a “flexible-pipe” and not be restricted from changing in length when under pressure.

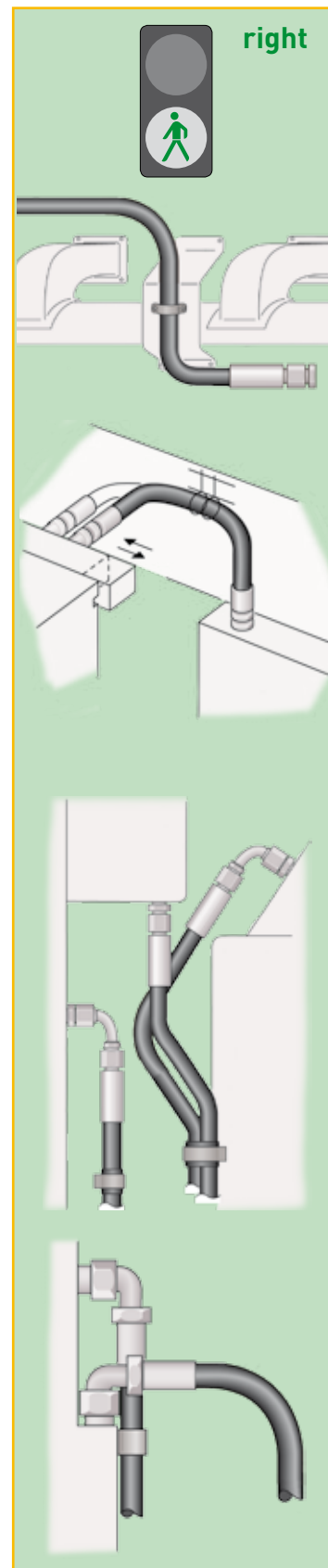
It should also be noted that hoses for high- and low-pressure lines shall not be crossed or clamped together, as the difference in changes in length could wear the hose covers.

Hose should not be bent in more than one plane. If hose follows a compound bend, it shall be coupled into separate segments or clamped into segments that each flex in only one plane.

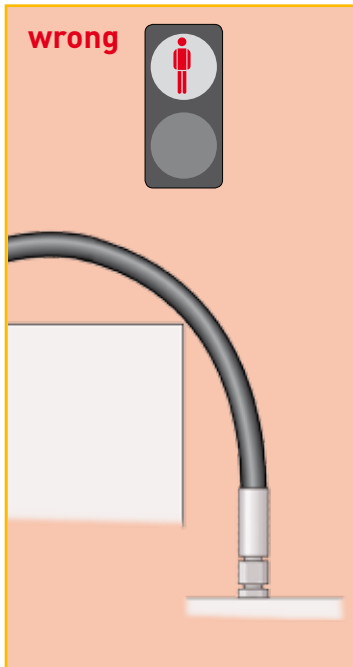
Hoses should be kept away from hot parts as high ambient temperatures shorten hose life. Protective insulation may need to be used in unusually high ambient temperature areas.

Whilst the importance of the functionality is preimate the aesthetics and practicality of the installation should also be considered in the design.

It should be considered that maintenance might be necessary at some stage in the future, so prohibitive design routings should be avoided.



Working steps



Abrasive influences

In general care should be taken that the hose is not exposed to direct surface contact that will cause abrasive wearing of the outer cover (either hose to object or hose to hose contact). If however, the application is such that this cannot be avoided, either a hose with a higher abrasion resistant hose cover or a protective sleeve need to be used.

Parker **TOUGH COVER** (TC) or **SUPER TOUGH** (ST) covers offer 80 times or respectively 450 times the abrasion resistance of standard rubber covers.



Pollution of hydraulic circuits

Modern hydraulic equipment is becoming highly precise and as such more sensitive, so as a result the importance of a clean working fluid in the system is growing. Because as many as 75 % of hydraulic system failures are caused by contamination of the fluid by solid particles, the initial cleanliness of hydraulic components, as the main source of these contaminants, is vital. With hose assemblies most of the pollution/contaminates enter the hose assembly during its production and mainly during the cutting (or skiving) process.

In order to avoid system failures, all hose assemblies should be cleaned before use (cleaned and plugged before shipping) with suitable cleaning equipment; please see also page **Ea-15** up to **Ea-18**. The level of contamination is defined in three popular norms: ISO4406, ISO4405 or NAS 1638. Most common however, is the ISO 4406, which describes the number and size of solid particles in the hydraulic system by means of a classification value e.g. 16/13.



How to order

Hose and hose fittings

To make ordering Parker products easier, we have itemized the order numbers on this page. This will be especially helpful when you order hose assemblies.

Hose

Example:

462TC-6

462TC-6 → Hose type

462TC-6 → Hose inside diameter in size



Hose Fittings

Example:

1CA48-12-6

1CA48-12-6 → Fitting → 1 = Crimp fitting

K = ParLock Nipple

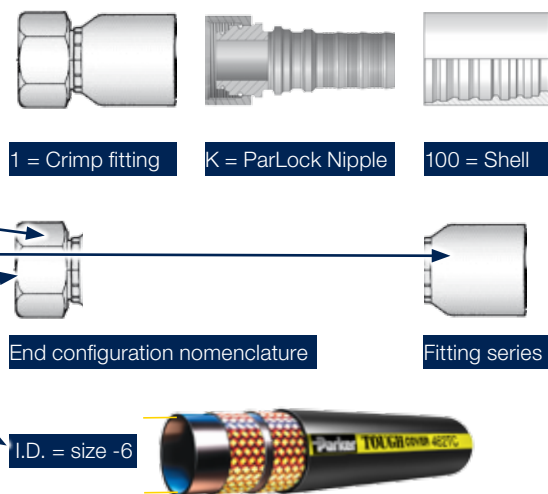
100 = Shell

1CA48-12-6 → End configuration

1CA48-12-6 → Parker Fitting series

1CA48-12-6 → Thread or tube size

1CA48-12-6 → Hose / fitting size



Material and specification:

Without suffix: steel, zinc plated, Cr6-free

B: brass

C: stainless steel

K: without a plastic ring

SM: metric hexagon dimension

The content of the hose crimping tables shows the standard part numbers.

For the availability of non standard parts and materials please contact your local Parker service centre.

Hose assemblies



Hose Assemblies

Example:

P462TCCACF12106-1000-0-SG900

- R** → Low Pressure Push-Lok Fittings Series 82
- P** → Parkrimp No-Skive Fittings Series 26, 48
- D** → Parkrimp No-Skive Fittings Series 46
- F** → Parkrimp No-Skive Fittings Series 43, 70, 73, 76, 77, 78, 79 and S6
- E** → Parlock Skive Fittings Series VS
- V** → Parlock Skive Fittings Series V4
- S** → Parlock Skive Fittings Series V6

P462TCCACF12106-1000-0-SG900

Hose type

P462**T**CACF12106-1000-0-SG900

Fitting 1 end configuration

P462TC**C**ACF12106-1000-0-SG900

Fitting 2 end configuration

P462TCCAC**F**12106-1000-0-SG900

Fitting 1 thread or tube size

P462TCCACF**12**106-1000-0-SG900

Fitting 1 thread or tube size

P462TCCACF12**106**-1000-0-SG900

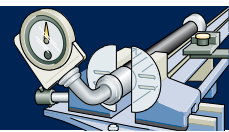
Hose / fitting size

P462TCCACF1210**6**-1000-0-SG900

Hose assembly length in mm

P462TCCACF12106-**1000**-0-SG900

Displacement angle is relevant when the hose assembly has bent fittings



P462TCCACF12106-1000-**0**-SG900

Accessory (e.g. spring guard 900 mm length)

P462TCCACF12106-1000-0-**SG900**

- SG** → Spring Guard
- AG** → Armour Guard
- AS/PS** → Partek Nylon protective sleeve
- FS** → Fire Sleeves
- HG** → PolyGuard-Hose Protector
- PG** → Parkoil-Hose Protector
- DM** → Minesleeve

Explanation of the example

Hose assembly with hose 462TC in size -6 and fitting series 48.

Hose assembly length 1000 mm.

Fitting 1: end configuration CA has a 12 mm pipe diameter and has a size -6 hose nipple

Fitting 2: end configuration CF has a 10 mm pipe diameter and has a size -6 hose nipple

The displacement angle for this combination is 0 degrees. On request a displacement angle can be specified for the bent fitting in relation with the hose curvature. A protection sleeve as a spring guard in length 900 mm is on the hose assembly.

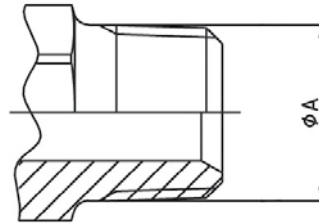
Identifying fitting types

Determining sealing mechanisms

In general fittings can be identified by their visual appearance, their sealing surface/sealing type or by their thread type/form. Viewing the following pages, the visual identification will be self explanatory. The sealing mechanism and the method of thread identification, however, needs further explanation

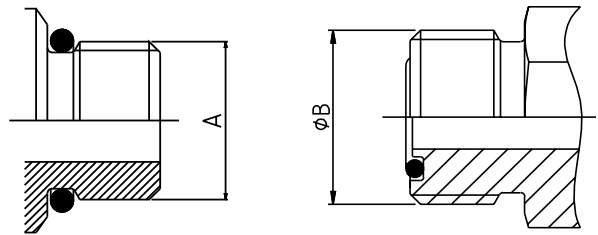
Thread interface

The sealing is assured by the flattening of the edges of the threads when the male is screwed into the female fitting. Typically the front of the male fittings is narrower than the back of the fittings – often referred to as tapered threads.



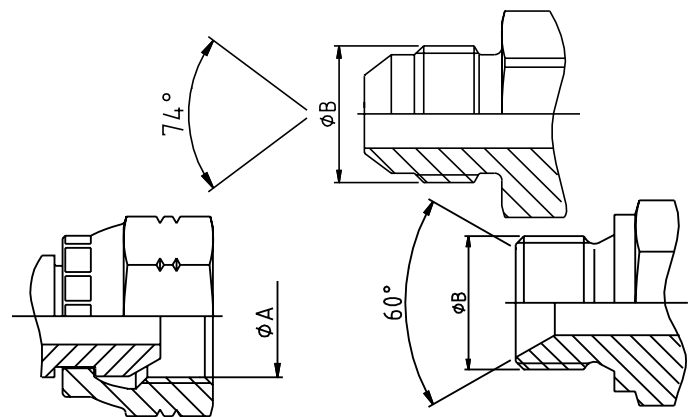
O-ring

The O-ring on the male is compressed against the corresponding female and assures the seal. This type of sealing mechanism should be the preferred choice for high-pressure applications. be convex or concave (seat) on the male or in the head of the pipe of the female as shown.



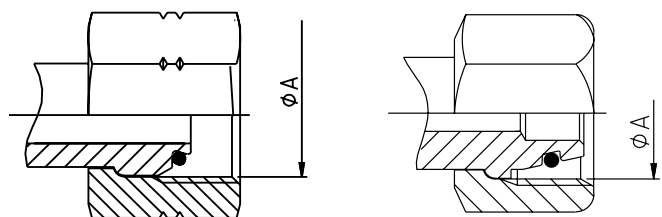
Matching angle or metal-to-metal joint

Sealing takes place where the two angled faces of the male and corresponding female meet and are wedged into one another by the tightening of the threaded nut. The sealing surfaces can either be convex or concave (seat) on the male or in the head of the pipe of the female as shown.



Matching angle with O-ring

These fittings combine the functionality of both the matching angle seal with the O-ring. The O-ring is in the angled sealing surface of the fitting so that when the threaded male and female are screwed together the sealing surfaces wedge together and at the same time deform the O-ring between them.



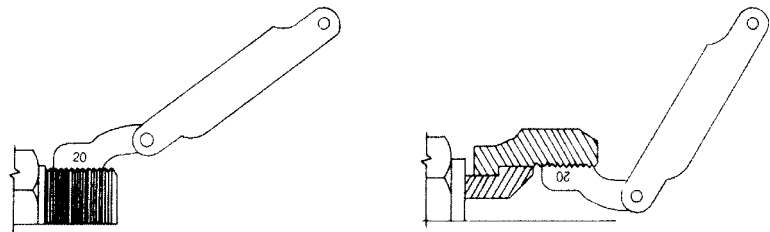
Determining the thread type

In general of the threads of various fittings look similar and hinder the easy identification of the thread. To assure the correct identification, the threads must be measured and compared to the tables listed in the following section.

Thread gauge

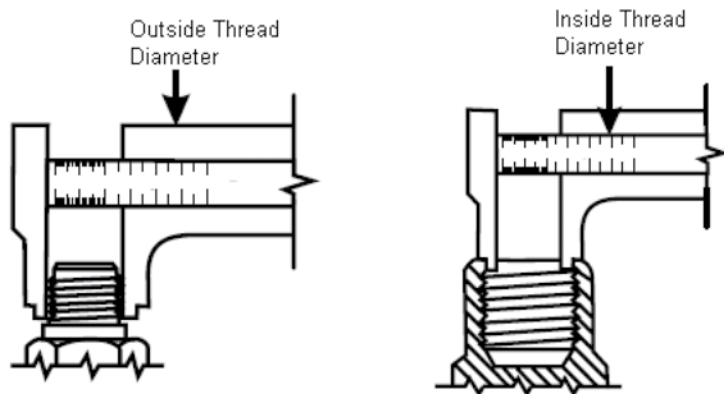
Using a thread gauge, the number of threads per inch can be determined.

Holding the gauge and coupling threads in front of a lighted background helps to obtain an accurate measurement.



Caliper measure

A vernier caliper should be used to measure the thread diameter of the largest point. (Outside diameter (O.D.) of male threads – Inside Diameter (I.D.) of female threads.)



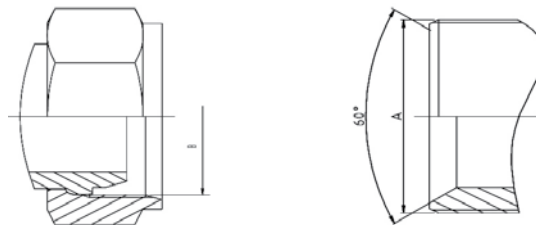
DIN (DIN – Deutsches Institut für Normung)

Often referred to as metric fittings, these fittings seal using the angled sealing surfaces (metal-to-metal) or the combination of metal-to-metal with O-rings. They are available in **very light (LL)**, **light (L)** or **heavy series (S)**. The sealing face angles are either 24° with or without O-rings, or 24°/60° universal cones. Identification is made by measuring the thread size and also the tube outside diameter.

Thread
 Defined by the outside diameter and the pitch (distance between 2 crests of the thread) example: M22x1.5 - pitch of 1.5mm.

DIN very light series (LL)

The male 60° cone will mate with the female 60° cone only. The male has a 60° sealing angle (seat) and straight metric thread. The female has a 60° seat and straight metric thread.

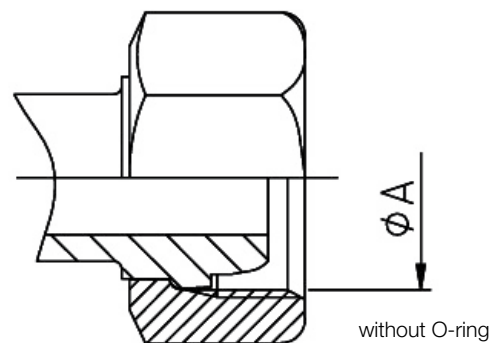


Standard: **DIN 20078 Part 3** ¹⁾
 Parker end configurations: **C0**

| Tube O.D. (DN) | Thread metric | ØA (mm) | ØB (mm) |
|----------------|---------------|---------|---------|
| 20 | M30x1.5 | 30.00 | 28.50 |
| 25 | M38x1.5 | 38.00 | 36.50 |
| 32 | M45x1.5 | 45.00 | 43.50 |
| 40 | M52x1.5 | 52.00 | 50.50 |
| 50 | M65x2 | 65.00 | 63.00 |

DIN light (L) and heavy series (S) without O-ring

The male 60° cone will mate with the female universal 24° or 60° cone only. The male has a 60° sealing angle (seat) and straight metric threads. The female has a 24° and 60° universal seat and straight metric threads.



Standard: **DIN 20078 Part 2** ¹⁾
 (previously DIN 20078 A, D & E)

Light series Parker end configurations: **C3, C4, C5, C6**
 (Often also referred to as "Ball nose cones")

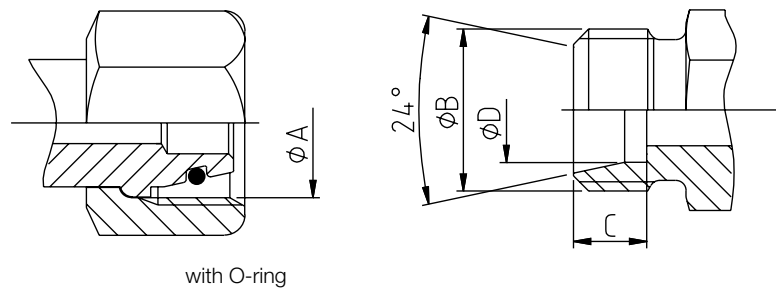
¹⁾ obsolete standard, no exact replacement

DIN (DIN – Deutsches Institut für Normung)

DIN 24° light (L) and heavy series (S) with O-ring

The male has a 24° sealing angle cone seat with straight metric threads.

The female has a 24° convex cone with O-ring and a swivel straight metric threaded nut.



Standard: **ISO 12151-2,**
ISO 8434-1, ISO 8434-4

(Previously
DIN 20 078 Part 4, 5, 8, 9)

Light series Parker end
configurations: **CA, CE, CF, D0**

Heavy series Parker end
configurations: **C9, 0C, 1C, D2**

| Tube O.D. (mm) | Spec. | Thread metric | ØA (mm) | ØB (mm) | C (mm) | ØD (mm) |
|-------------------|-------|------------------|------------|------------|-----------|------------|
| 6.00 | 6L | M12X1.5 | 10.50 | 12.00 | 7.00 | 6.20 |
| 6.00 | 6S | M14X1.5 | 12.50 | 14.00 | 7.00 | 6.20 |
| 8.00 | 8L | M14x1.5 | 12.50 | 14.00 | 7.00 | 8.20 |
| 8.00 | 8S | M16x1.5 | 14.50 | 16.00 | 7.00 | 8.20 |
| 10.00 | 10L | M16x1.5 | 14.50 | 16.00 | 7.00 | 10.20 |
| 10.00 | 10S | M18x1.5 | 16.50 | 18.00 | 7.50 | 10.20 |
| 12.00 | 12L | M18x1.5 | 16.50 | 18.00 | 7.00 | 12.20 |
| 12.00 | 12S | M20x1.5 | 18.50 | 20.00 | 7.50 | 12.20 |
| 14.00 | 14S | M22x1.5 | 20.50 | 22.00 | 8.00 | 14.20 |
| 15.00 | 15L | M22x1.5 | 20.50 | 22.00 | 7.00 | 15.20 |
| 16.00 | 16S | M24x1.5 | 22.50 | 24.00 | 8.50 | 16.20 |
| 18.00 | 18L | M26x1.5 | 24.50 | 26.00 | 7.50 | 18.20 |
| 20.00 | 20S | M30x2 | 27.90 | 30.00 | 10.50 | 20.20 |
| 22.00 | 22L | M30x2 | 27.90 | 30.00 | 7.50 | 22.20 |
| 25.00 | 25S | M36x2 | 33.90 | 36.00 | 12.00 | 25.20 |
| 28.00 | 28L | M36x2 | 33.90 | 36.00 | 7.50 | 28.20 |
| 30.00 | 30S | M42x2 | 39.90 | 42.00 | 13.50 | 30.20 |
| 35.00 | 35L | M45x2 | 42.90 | 45.00 | 10.50 | 35.30 |
| 38.00 | 38S | M52x2 | 49.90 | 52.00 | 16.00 | 38.30 |
| 42.00 | 42L | M52x2 | 49.90 | 52.00 | 11.00 | 42.30 |

BSP (British Standard Pipe)

Also referred to as Whitworth threads, the BSP thread type fittings seal use metal-to-metal angled surfaces or a combination of metal-to-metal and an O-ring. The angle of the sealing surfaces is 60° for both forms.

There are two popular thread forms: British Standard Pipe Parallel (BSPP) and British Standard Pipe Tapered (BSPT).

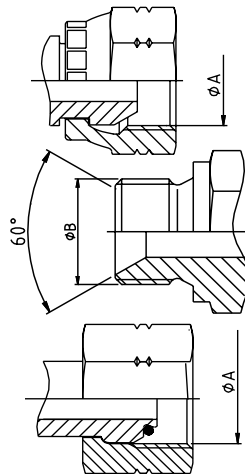
Thread
 Identification is made by measuring the outside diameter of the thread and the number of threads per inch (25.4 mm)

BSPP

metal-to-metal without O-ring

Standard: **BS5200**

Parker end configurations:
92, B1, B2, B4, D9



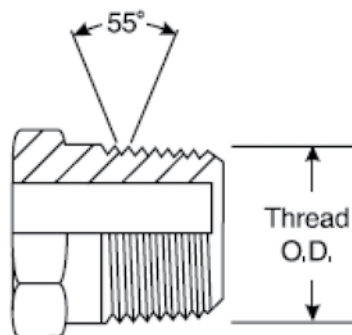
| Tube I.D./O.D. (mm) | Size | Thread BSP | ØA (mm) | ØB (mm) |
|---------------------|------|------------|---------|---------|
| 6/10 | -2 | 1/8x28 | 8.60 | 9.70 |
| 8/13 | -4 | 1/4x19 | 11.50 | 13.20 |
| 12/17 | -6 | 3/8x19 | 14.90 | 16.70 |
| 15/21 | -8 | 1/2x14 | 18.60 | 20.90 |
| 18/23 | -10 | 5/8x14 | 20.60 | 22.90 |
| 20/27 | -12 | 3/4x14 | 24.10 | 26.40 |
| 26/34 | -16 | 1x11 | 30.30 | 33.20 |
| 33/42 | -20 | 1-1/4x11 | 38.90 | 41.90 |
| 40/49 | -24 | 1-1/2x11 | 44.90 | 47.80 |
| 50/60 | -32 | 2x11 | 56.70 | 59.60 |

BSPP

metal-to-metal with O-ring

Standard: **ISO 12151-6**

Parker end configurations:
EA, EB, EC, EE, D9



BSPT

fittings seal through the thread interface mechanism. Care should be taken not to confuse the BSPT fitting with the NPTF male fitting. BSPT has a 55° thread angle. NPTF has 60° thread angle.

Parker end configurations: **91**

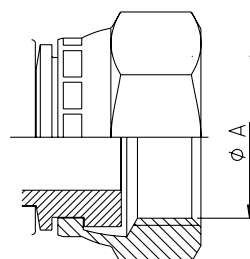
| Tube I.D./O.D. (mm) | Size | Thread BSP | ØA (mm) |
|---------------------|------|------------|---------|
| 5/10 | -2 | 1/8x28 | 9.73 |
| 8/13 | -4 | 1/4x19 | 13.16 |
| 12/17 | -6 | 3/8x19 | 16.66 |
| 15/21 | -8 | 1/2x14 | 20.96 |
| 20/27 | -12 | 3/4x14 | 26.44 |
| 26/34 | -16 | 1x11 | 33.25 |
| 33/42 | -20 | 1-1/4x11 | 41.91 |
| 40/49 | -24 | 1-1/2x11 | 47.80 |
| 50/60 | -32 | 2x11 | 59.61 |

BSP flat seal

These fittings have BSP parallel threads but the sealing surface is flat. The seal is made when the composite seal is compressed against the female flat face.

Parker end configurations:

B5, B6, B7



| Tube I.D./O.D. (mm) | Size | Thread BSP | ØA (mm) |
|---------------------|------|------------|---------|
| 6/10 | -2 | 1/8x28 | 8.6 |
| 8/13 | -4 | 1/4x19 | 11.5 |
| 12/17 | -6 | 3/8x19 | 14.9 |
| 15/21 | -8 | 1/2x14 | 18.6 |
| 18/23 | -10 | 5/8x14 | 20.6 |
| 20/27 | -12 | 3/4x14 | 24.1 |
| 26/34 | -16 | 1x11 | 30.3 |

French gas fittings

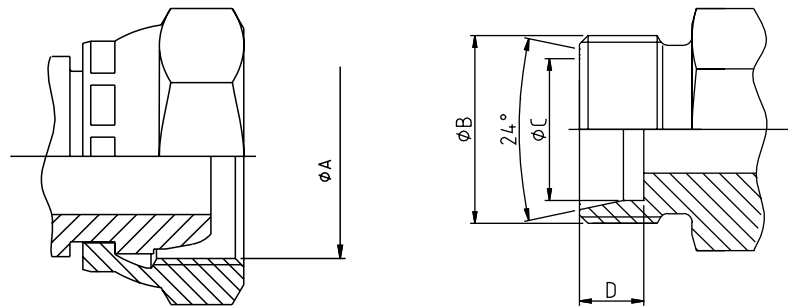
Typical to the French market the French Gas fittings have a 24° sealing surfaces seat with metric straight threads. Although similar to German DIN fittings the threads differ in some sizes as the French Gas fittings have fine threads in all sizes whereas the German DIN fittings use standard threads in the larger sizes.

French metric 24° cone gas fittings

The sealing mechanism is metal-to-metal.
The fittings are not specified in any international standard.

Metric tube Parker end configurations: **F6, F9**

Gas tube Parker end configurations: **FG, F2, F4**



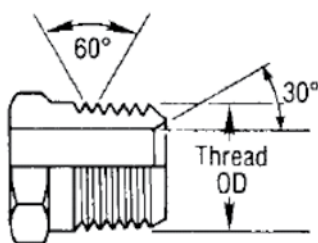
| Tube O.D. (mm) | Spec. | Thread metric | ØA (mm) | ØB (mm) | ØC (mm) | D (mm) |
|----------------|-------|---------------|---------|---------|---------|--------|
| 6.00 | 6N | M12x1 | 11.00 | 12.00 | 6.20 | 9.00 |
| 8.00 | 8N | M14x1.5 | 12.50 | 14.00 | 8.15 | 9.00 |
| 10.00 | 10N | M16x1.5 | 14.50 | 16.00 | 10.20 | 9.00 |
| 12.00 | 12N | M18x1.5 | 16.50 | 18.00 | 12.15 | 9.00 |
| 13.25 | 13G | M20x1.5 | 18.50 | 20.00 | 13.50 | 9.00 |
| 14.00 | 14N | M20x1.5 | 18.50 | 20.00 | 14.15 | 9.00 |
| 15.00 | 15N | M22x1.5 | 20.50 | 22.00 | 15.15 | 9.00 |
| 16.00 | 16N | M24x1.5 | 22.50 | 24.00 | 16.15 | 9.00 |
| 16.75 | 17G | M24x1.5 | 22.50 | 24.00 | 17.00 | 9.00 |
| 18.00 | 18N | M27x1.5 | 25.50 | 27.00 | 18.15 | 9.00 |
| 20.00 | 20N | M27x1.5 | 25.50 | 27.00 | 20.15 | 9.00 |
| 21.25 | 21G | M30x1.5 | 28.50 | 30.00 | 21.50 | 9.00 |
| 22.00 | 22N | M30x1.5 | 28.50 | 30.00 | 22.15 | 9.00 |
| 25.00 | 25N | M33x1.5 | 31.50 | 33.00 | 25.15 | 9.00 |
| 26.75 | 27G | M36x1.5 | 34.50 | 36.00 | 27.00 | 9.00 |
| 28.00 | 28N | M36x1.5 | 34.50 | 36.00 | 28.25 | 9.00 |
| 30.00 | 30N | M39x1.5 | 37.50 | 39.00 | 30.25 | 9.00 |
| 32.00 | 32N | M42x1.5 | 40.50 | 42.00 | 32.25 | 9.00 |
| 33.25 | 34G | M45x1.5 | 43.50 | 45.00 | 33.80 | 9.00 |
| 35.00 | 35N | M45x1.5 | 43.50 | 45.00 | 35.25 | 9.00 |
| 38.00 | 38N | M48x1.5 | 46.50 | 48.00 | 38.25 | 9.00 |
| 40.00 | 40N | M52x1.5 | 50.50 | 52.00 | 40.35 | 9.00 |
| 42.25 | 42G | M52x1.5 | 50.50 | 52.00 | 42.55 | 9.00 |
| 48.25 | 49G | M58x2 | 55.90 | 58.00 | 49.00 | 11.00 |

NPTF / SAE JIC 37°

This type of fitting uses the thread interface to seal and as such has a tapered thread that deforms and forms the seal. They have 30° sealing angle surfaces, forming a 60° inverted (concave) seat. The fittings are most frequently seen on machines of US origin.

Dryseal American standard taper pipe thread (NPTF)

The NPTF male will mate with the NPTF, NPSF, or NPSM females. Care should be taken not to confuse the NPTF fitting with the BSPT male fitting. NPTF fittings have a 60° thread angle. BSPT has a 55° thread angle.



ØA dimension is measured on the 4th pitch of the thread

| Size | Thread NPTF | ØA (mm) | ØB (mm) |
|------|-------------|---------|---------|
| -2 | 1/8x27 | 10.24 | 8.73 |
| -4 | 1/4x18 | 13.61 | 11.90 |
| -6 | 3/8x18 | 17.05 | 15.90 |
| -8 | 1/2x14 | 21.22 | 19.05 |
| -12 | 3/4x14 | 26.56 | 24.60 |
| -16 | 1x11.5 | 33.22 | 30.95 |
| -20 | 1-1/4x11.5 | 41.98 | 39.69 |
| -24 | 1-1/2x11.5 | 48.05 | 45.24 |
| -32 | 2x11.5 | 60.09 | 57.15 |

Standard: **SAE J516**

Parker end configurations: **01**

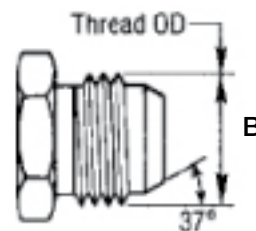
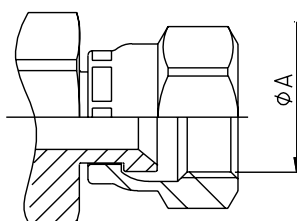
SAE JIC 37°

Commonly referred to as JIC fittings, these metal-to-metal sealing type fittings have a 37° flare (sealing surface angle) and straight United National Fine Threads (UNF).

The original design specification for the fittings comes from the Society of Automotive Engineers (SAE) and these fittings are the most common American fitting types in Europe. Parker JIC hose fittings are fully compatible with Parker Triple-Lok Tube Fittings and adapters.

Standard: **ISO 12151-5, ISO8434-2, SAE J516**

Parker end configurations: **03, 06/68, 37/3V, 39/3W, 41/3Y, L9**



| Tube O.D. (inch) | Tube O.D. (mm) | Thread UNF | Size | ØA (mm) | ØB (mm) |
|------------------|----------------|------------|------|---------|---------|
| 3/16 | | 3/8x24 | -3 | 8.60 | 9.50 |
| 1/4 | 6 | 7/16x20 | -4 | 10.00 | 11.10 |
| 5/16 | 8 | 1/2x20 | -5 | 11.60 | 12.70 |
| 3/8 | 10 | 9/16x18 | -6 | 13.00 | 14.30 |
| 1/2 | 12 | 3/4x16 | -8 | 17.60 | 19.10 |
| 5/8 | 14-15-16 | 7/8x14 | -10 | 20.50 | 22.20 |
| 3/4 | 18-20 | 1-1/16x12 | -12 | 24.60 | 27.00 |
| 7/8 | 22 | 1-3/16x12 | -14 | 28.30 | 30.10 |
| 1 | 25 | 1-5/16x12 | -16 | 31.30 | 33.30 |
| 1-1/4 | 30-32 | 1-5/8x12 | -20 | 39.20 | 41.30 |
| 1-1/2 | 38 | 1-7/8x12 | -24 | 45.60 | 47.60 |
| 2 | | 2-1/2x12 | x32 | 61.50 | 63.50 |

SAE 45° flare / Male ISO 11926

SAE 45° flare

The angle of the flare is commonly used as a name when referring to these metal-to-metal sealing fittings.

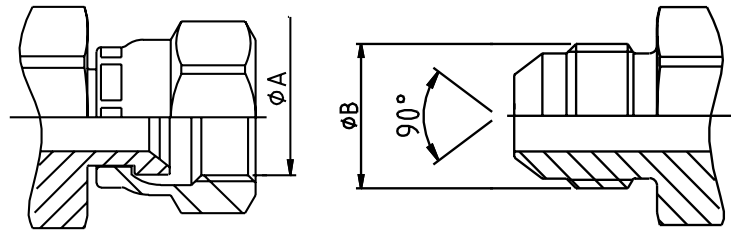
The female fittings have a 90° concave inverted seat, created by the 45° angle sealing surfaces.

The SAE 45° flare male will mate with an SAE 45° flare female only or a dual seat JIC 37°/SAE45°.

Standard: **SAE J516**

Parker end configurations:

04, 08/68, 37/3V, 39/3W, 41/3Y

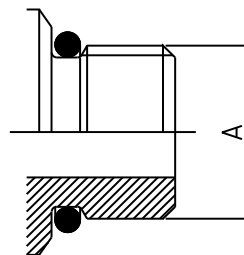


| Tube O.D. (inch) | Size | Thread UNF | ØA (mm) | ØB (mm) |
|------------------|------|------------|---------|---------|
| 1/4 | x4 | 7/16x20 | 9.90 | 11.10 |
| 5/16 | -5 | 1/2x20 | 11.50 | 12.70 |
| 3/8 | -6 | 5/8x18 | 14.30 | 15.90 |
| 1/2 | -8 | 3/4x16 | 17.50 | 19.10 |
| 5/8 | -10 | 7/8x14 | 20.60 | 22.20 |
| 3/4 | -12 | 1-1/16x14 | 25.00 | 27.00 |

Male ISO 11926

This male fitting has straight threads, a sealing face and an O-ring. It is compatible only with female boss type fittings generally found in the ports of machines. Sealing is achieved through the O-ring of the male and through the sealing face of the female.

Parker end configurations: **05**



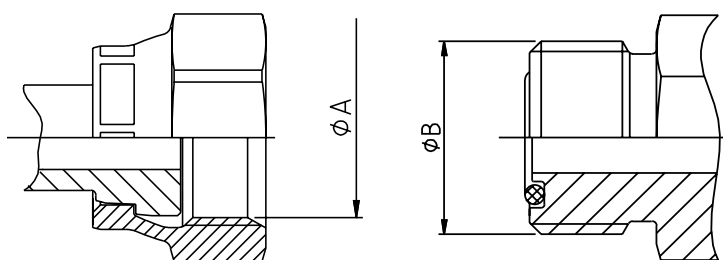
| Thread UNF | Size | ØA (mm) |
|------------|------|---------|
| 5/16x24 | -2 | 7.93 |
| 3/8x24 | -3 | 9.52 |
| 7/16x20 | -4 | 11.11 |
| 1/2x20 | -5 | 12.70 |
| 9/16x18 | -6 | 14.28 |
| 3/4x16 | -8 | 19.10 |
| 7/8x14 | -10 | 22.22 |
| 1-1/16x12 | -12 | 27.00 |
| 1-3/16x12 | -14 | 30.10 |
| 1-5/16x12 | -16 | 33.30 |
| 1-5/8x12 | -20 | 41.30 |
| 1-7/8x12 | -24 | 47.60 |
| 2-1/2x12 | -32 | 63.50 |

ORFS

O-ring face seal (ORFS)

ORFS fittings are becoming the most popular international fitting type used on global OEM machines due to their high level of sealing and their good vibration resistance. The fittings use the O-ring compression mechanism to seal.

The female fittings have flat faces and straight threaded UNF swivel nuts. The male fittings have the O-ring in a groove in the flat face. Seen as a major advantage, these fittings offer the possibility to build the hose assemblies into fixed distances/spaces, without having to move back other system components due the flat faces of the male and female fittings – the hose assembly can be slotted in.



| Tube O.D. (inch) | Tube O.D. (mm) | Thread UNF | Size | ØA (mm) | ØB (mm) |
|------------------|----------------|------------|------|---------|---------|
| 1/4 | 6 | 9/16x18 | -4 | 13.00 | 14.20 |
| 3/8 | 10 | 11/16x16 | -6 | 15.90 | 17.50 |
| 1/2 | 12 | 13/16x16 | -8 | 19.10 | 20.60 |
| 5/8 | 16 | 1x14 | -10 | 23.80 | 25.40 |
| 3/4 | 20 | 1-3/16x12 | -12 | 28.20 | 30.10 |
| 1 | 25 | 1-7/16x12 | -16 | 34.15 | 36.50 |
| 1-1/4 | 32 | 1-11/16x12 | -20 | 40.50 | 42.90 |
| 1-1/2 | 38 | 2x12 | -24 | 48.80 | 50.80 |

Standard: **ISO 12151-1,**
ISO8434-3, SAE J516

Parker end configurations:

JC, JM/J0, JS, JU,
J1, J3, J5, J7, J9

Flanges ISO 6162-1 and ISO 6162-2

Flange fittings

ISO 6162-1 and ISO 6162-2

The 4-bolt split flange (or full flange) fitting is used worldwide for connecting high-pressure hoses typically to pumps, motors and cylinders, where the hose assemblies are subjected to large pressure loadings.

The sealing mechanism is through compression of the O-ring in the face of the flange head against the surface of the port/connection.

The flange fittings are generally separated into two pressure classes referred to as 21.0 MPa/ 3000 psi (SFL) or 42.0 MPa/ 6000 psi (SFS). ISO 12151-3 refers to the flange fittings to as 21.0 MPa/ 3000 psi (SFL) or 42.0 MPa/ 6000 psi (SFS). In addition to these flanges, customer-specific Komatsu® and CATERPILLAR® flanges can also be found in the market.

ISO 6162-1 (21.0 MPa/ 3000 psi) Parker end configurations:
15, 16, 17, 19, P5, P7, P9

ISO 6162-1 (35.0 MPa/ 5000 psi) Parker end configurations:
4A, 4F, 4N

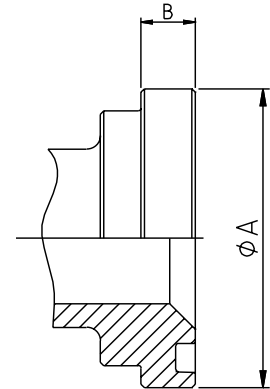
ISO 6162-2 (42.0 MPa/ 6000 psi) Parker end configurations:
6A, 6F, 6N, PA, PF, PN, 89

Caterpillar flange Parker end configurations: **XA, XF, XG, XN**

- Standard ISO 6162-1 for 21.0 MPa/ 3000 psi to 35.0 MPa/ 5000 psi max., depending on size
- High Pressure ISO 6162-2 for 42.0 MPa/ 6000 psi max. regardless of size

| Flange (inch) | Size | ISO 6262-1 MPa / psi | ISO 6162-2 MPa / psi |
|---------------|------|----------------------|----------------------|
| 1/2 | -8 | 34.5 / 5000 | 41.3 / 6000 |
| 3/4 | -12 | 34.5 / 5000 | 41.3 / 6000 |
| 1 | -16 | 34.5 / 5000 | 41.3 / 6000 |
| 1-1/4 | -20 | 27.5 / 4000 | 41.3 / 6000 |
| 1-1/2 | -24 | 20.7 / 3000 | 41.3 / 6000 |
| 2 | -32 | 20.7 / 3000 | 41.3 / 6000 |

Note: 35.0 MPa/ 5000 psi in size -20/-24/-32 with 4A,4F and 4N fittings and 50H flange halves.



ISO 6162-1 – 21.0 MPa/ 3000 psi

| Flange (inch) | Size | ØA (mm) | B (mm) | O-Ring |
|---------------|------|---------|--------|------------|
| 1/2 | -8 | 30.18 | 6.73 | 18.64x3.53 |
| 3/4 | -12 | 38.10 | 6.73 | 24.99x3.53 |
| 1 | -16 | 44.45 | 8.00 | 32.92x3.53 |
| 1-1/4 | -20 | 50.80 | 8.00 | 37.69x3.53 |
| 1-1/2 | -24 | 60.33 | 8.00 | 47.22x3.53 |
| 2 | -32 | 71.42 | 9.53 | 56.74x3.53 |
| 2-1/2 | -40 | 84.12 | 9.53 | 69.44x3.53 |
| 3 | -48 | 101.60 | 9.53 | 85.32x3.53 |

ISO 6162-2 – 42.0 MPa/ 6000 psi

| Flange (inch) | Size | ØA (mm) | B (mm) | O-Ring |
|---------------|------|---------|--------|------------|
| 1/2 | -8 | 31.75 | 7.75 | 18.64x3.53 |
| 3/4 | -12 | 41.28 | 8.76 | 24.99x3.53 |
| 1 | -16 | 47.63 | 9.53 | 32.92x3.53 |
| 1-1/4 | -20 | 53.98 | 10.29 | 37.69x3.53 |
| 1-1/2 | -24 | 63.50 | 12.57 | 47.22x3.53 |
| 2 | -32 | 79.38 | 12.57 | 56.74x3.53 |

CATERPILLAR®

| Flange (inch) | Size | ØA (mm) | B (mm) | O-Ring |
|---------------|------|---------|--------|------------|
| 3/4 | -12 | 41.28 | 14.22 | 25.40x5.00 |
| 1 | -16 | 47.63 | 14.22 | 31.90x5.00 |
| 1-1/4 | -20 | 53.98 | 14.22 | 38.20x5.00 |
| 1-1/2 | -24 | 63.50 | 14.22 | 44.70x5.00 |

Komatsu®

| Flange (inch) | Size | ØA (mm) | B (mm) | O-Ring |
|---------------|------|---------|--------|----------|
| 5/8 | -10 | 34.25 | 6.00 | 21.7x3.5 |

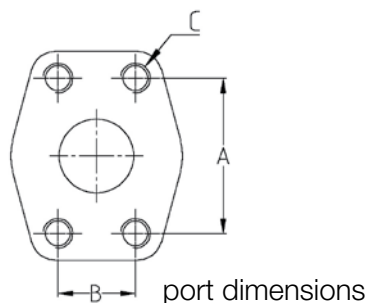
Although not in the SAE or the ISO standard the size -10 (5/8) flange head is gaining popularity. This flange is often found on Komatsu equipment or hydrostatic drives in agricultural machines.

4-bolt split flange

4-bolt split flange

A 4-bolt split flange is used to attach the flange fittings to their ports.

- Standard ISO 6162-1 for 21.0 MPa (3000 psi) to 35.0 MPa (5000 psi) max., depending on size
- High Pressure ISO 6162-2 for 42.0 MPa (6000 psi) max., regardless of size



port dimensions

ISO 6162-1 – 21.0 MPa (3000 psi)

| Flange (inch) | Size | A (mm) | B (mm) | C | |
|---------------|------|--------|--------|---------|-----------|
| | | | | (inch) | (metr.) |
| 1/2 | -8 | 38.1 | 17.5 | 5/16x18 | M8x1.25 |
| 3/4 | -12 | 47.6 | 22.3 | 3/8x16 | M10x1.5 |
| 1 | -16 | 52.4 | 26.2 | 3/8x16 | M10x1.5 |
| 1-1/4 | -20 | 58.7 | 30.2 | 7/16x14 | M10x1.5 |
| 1-1/2 | -24 | 69.9 | 35.7 | 1/2x13 | M12x1.75 |
| 2 | -32 | 77.8 | 42.8 | 1/2x13 | M12x1.75* |

ISO 6162-2 – 42.0 MPa (6000 psi)

| Flange (inch) | Size | A (mm) | B (mm) | C | |
|---------------|------|--------|--------|---------|-----------|
| | | | | (inch) | (metr.) |
| 1/2 | -8 | 40.5 | 18.2 | 5/16x18 | M8x1.25 |
| 3/4 | -12 | 50.8 | 23.8 | 3/8x16 | M10x1.5 |
| 1 | -16 | 57.2 | 27.8 | 7/16x14 | M12x1.75 |
| 1-1/4 | -20 | 66.7 | 31.8 | 1/2x13 | M12x1.75* |
| 1-1/2 | -24 | 79.4 | 36.5 | 5/8x11 | M16x2 |
| 2 | -32 | 96.8 | 44.4 | 3/4x10 | M20x2.5 |

*M14x2 still used in the market but no longer in accordance with ISO 6162

JIS (Japanese Industrial Standard)

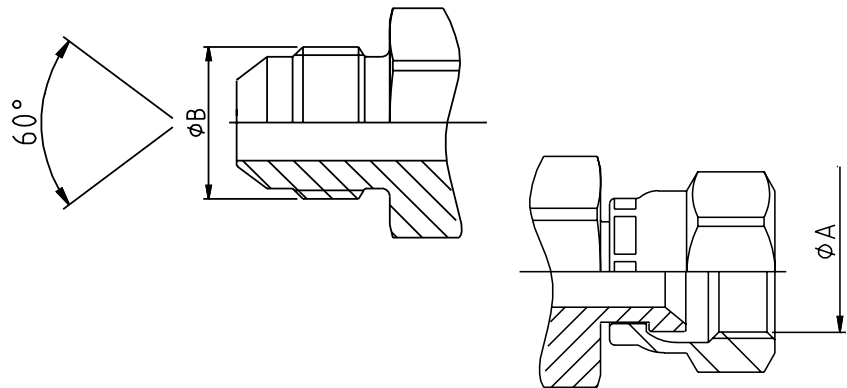
The Japanese Industrial Standard (JIS) is seen on most Japanese equipment and uses a 30° sealing angle seat and either British Standard Pipe Parallel or metric threads. Care must be taken not to confuse the JIS fittings with BSP or JIC fittings.

JIS

The sealing mechanism of the fittings is the 30° metal-to-metal angled surfaces

Metric Parker end configurations:
MU, XU

BSP Parker end configurations:
FU



JIS 30° metric

| Symbol | Thread metric | ØA (mm) | ØB (mm) |
|--------|---------------|---------|---------|
| MU-6 | M14x1.5 | 12.50 | 14.00 |
| MU-9 | M18x1.5 | 16.50 | 18.00 |
| MU-12 | M22x1.5 | 20.50 | 22.00 |
| MU-15 | M27x2 | 25.00 | 27.00 |
| MU-19 | M27x2 | 25.00 | 27.00 |
| MU-25 | M33x2 | 31.00 | 33.00 |
| MU-32 | M42x2 | 40.00 | 42.00 |
| MU-38 | M50x2 | 48.00 | 50.00 |
| MU-50 | M60x2 | 58.00 | 60.00 |

JIS 30° BSP

| Symbol | Thread BSP | ØA (mm) | ØB (mm) |
|------------|------------|---------|---------|
| GUI-3 | 1/8x28 | 8.60 | 9.70 |
| GUI-5/-6 | 1/4x19 | 11.50 | 13.20 |
| GUI-8/-9 | 3/8x19 | 14.90 | 16.70 |
| GUI-12 | 1/2x14 | 18.60 | 20.90 |
| GUI-15/-19 | 3/4x14 | 24.10 | 26.40 |
| GUI-25 | 1x11 | 30.30 | 33.20 |
| GUI-32 | 1-1/4x11 | 38.90 | 41.90 |
| GUI-38 | 1-1/2x11 | 44.90 | 47.80 |
| GUI-50 | 2x11 | 56.70 | 59.60 |

It is a well-known fact that rubber properties deteriorate during the time of storage and service. A system of hose age control should be maintained to ensure that hose is used as long as it retains full capabilities for rendering the intended service.

However, it is impossible to advise the ideal storage period and service life of rubber hose as it is subject to a variety of factors which may affect the rubber characteristics and the suitability for use.

That is also why various standardization committees take very different approaches to rubber hose storage period and service life. The main national and international standards defining rules for rubber hose storage are the following:

DIN 20066

Fluid power systems – Hose assemblies – Dimensions, requirements

Specifies bulk hose shelf life and hose assembly storage period and service life:

- The shelf life of bulk hose before assembling must not exceed 4 years.
- The service life of a hose assembly, incl. any period of storage, should not exceed 6 years.
- The period of storage of a hose assembly must not exceed 2 years.

Bulk Hose

Shelf life
– max. 4 years

Hose Assembly

Service life – max. 6 years
Storage
max. 2 years

BS 5244

Recommendations for application, storage and life expiry of hydraulic rubber hoses and hose assemblies

Specifies tests needed for various storage periods of hose (in bulk or hose assembly):

- Storage period does not exceed 3 years – no tests needed.
- Storage period is between 3 and 5 years – proof pressure test needed.
- Storage period is between 5 and 8 years – proof pressure, burst, impulse, cold flexibility and electrical tests needed.
- Bulk hose or a hose assembly older than 8 years – must be scrapped.

For hose assembly service life no explicit limits are specified, whereas it is recommended to establish rules for each particular equipment and application on the basis of records taken from the real service.

ISO 17165-2 / SAE J1273

Hydraulic fluid power – Hose assemblies – Recommended practices for hydraulic hose assemblies

The specified max. shelf life of bulk hose or a hose assembly is 10 years (40 quarters) from the date of manufacture (vulcanization) of the hose, provided it has been stored in accordance with ISO 2230 (Rubber products - Guidelines for storage) and passes visual inspection and if need be also a proof pressure test. If visual inspection gives rise to any doubts as to the functionality of the hose (cracks in the cover or tube after hose flexing, excessive stiffness, reinforcement rust etc.), a proof pressure test should be carried out before use or the hose should be scrapped.

Hint

German and the British standards are the most rigorous.

ISO 8331

Rubber and plastic hoses and hose assemblies – Guide to selection, storage, use and maintenance

Specifies storage periods similar to DIN 20066 – bulk hose max. 4 years, a hose assembly max. 2 years. If the storage exceeds these limits the hose must be inspected and tested (tests are not specified). Hose assembly service life is not specified.

OEM regulations

In addition to these national and international standards, also some Original Equipment Manufacturers (OEMs) have their own regulations for age of hose used for production of hose assemblies.

We recommend generally observe the regulations relevant for your country or ISO 17165-2 (if there is no domestic regulation), plus the regulation of your customer's country or of your OEM customer in the extent in which they are more demanding.

Best Practices

Hoses storage – best practices

Store hoses and hose assemblies in a cool, dark and dry room with capped ends in closed boxes (preferably in the original Parker packaging) and in the manner facilitating inspection of the hose condition and the first-in first-out (FIFO) inventory control system.

The main factors determining the hose storage are:

a) Temperature

Preferably between 15 °C and 25 °C, without rapid and frequent fluctuation.

b) Humidity

Preferably not higher than 65 %, protect hose against moisture and avoid atmospheric humidity condensation.

c) Heat

Store hose away from heat sources.

d) Light

Protect hose against direct sun light, light of discharge lamps and other ultraviolet sources.

e) Corrosive liquids and fumes

Do not store in the same room with corrosive chemicals.

f) Ozone

Avoid using high power electrical equipment and electrical spark sources in the storage room.

g) Oils and greases

Avoid direct contact.

h) Space and bends

Keep hose in stress-free shape never bent below the min. bend radius.

i) Electrical and magnetic fields

Store hose away from powerful electric transformers, motors and generators that could induce current in the hose metal reinforcement.

j) Rodents and insects

Protect against rodents and insects.

Fittings storage – best practices

For storing fittings the same rules as for hose are applicable (especially for fittings with rubber sealing), in addition:

a) Mismatching and confusing

Avoid unnecessary repacking and store fittings in clearly marked closed containers (preferably in the original Parker packaging).

b) Damage of threads and sealing surfaces

Avoid unnecessary reloading and handling.

c) Fittings with O-rings

Assure that storage period of fittings with O-rings or other rubber sealing does not exceed 2 years (remember: first in-first out) and make sure that hose assemblies or hose fittings with O-rings will be stored in a cool, dry and dark room.

d) Caps

Hose assemblies fittings should be capped against damage and contamination.



Safety First!

A hydraulic hose assembly is a power component and may cause property damage, personal injury or death!

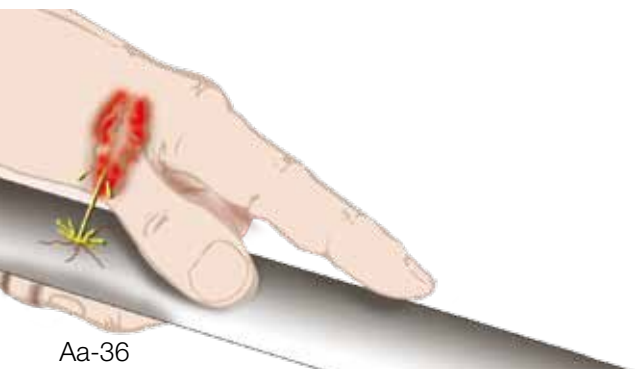
WARNING: Injuries in which hydraulic or other liquid is involved must be treated without delay and not the same way as an ordinary injury!

1. High pressure fluid injection can be almost invisible, leaking from a pinhole, but it can pierce the skin deep into the muscle!
2. If a fluid-injection accident occurs, search immediately for a medical treatment by a doctor!
3. Don't touch pressurized hydraulic hose assemblies and don't look at them from a short distance – especially not close to fittings!
4. Secure ends of hydraulic assemblies with high pulsing pressure and all high pressure air hose assemblies against blow-off of the hose from the fitting with appropriate whip restraints!
5. Stay out of hazardous areas while testing hose assemblies under pressure and wear proper protective clothing and goggles!

We in Parker are making all efforts to develop, manufacture and deliver defect-free, durable and safe products and services – starting from integrated design and testing of all components through sharing our know-how with our customers and providing them with comprehensive support and training.



Please also make all efforts on your side to provide reliable and safe hose assemblies to your customers and forward to them the know-how you acquired, whether from us or due to your own unique experience, especially as regards the proper use and maintenance of hose assemblies.



Avoid injury to yourself and others by following these important rules



Carefully read and observe especially the following sections of this catalogue

- For selection of proper hose and fittings:
 - Safe Hose Assembly Working Steps (pages **Aa-9** ff)
 - Technical Data (pages **Aa-2** ff)
- For manufacturing of hose assemblies:
 - Working Steps for 1piece **Parkrimp No-Skive** Fittings (pages **Aa-12** ff)
 - Working Steps for 2piece **ParLock** Fittings (pages **Aa-15** ff)
 - Crimp Charts (section **Ed**)
- For storing, packing and handling:
 - Hose and Fittings Storage (pages **Aa-34** ff)
- For installation on machines:
 - Routing / Installation / Environmental Influences (pages **Aa-17** ff)
- **READ CAREFULLY AND OBSERVE:**
 - **Parker Safety Guide** for Selecting and Using Hose, Tubing, Fittings and Related Accessories (pages **Aa-38** ff)
- **INVESTIGATE, STUDY AND OBSERVE all relevant international and national standards and directives** of your local trade, technical and work safety associations, such as:
 - **ISO 17165-1** *Hydraulic Fluid Power – Hose Assemblies*
 - **ISO 17165-2** *Hydraulic Fluid Power – Hose Assemblies*
 - **ISO 4413** *Hydraulic fluid power – General rules and safety requirements for systems and their components*
 - **SAE J1273** *Recommended Practices for Hydraulic Hose Assemblies*
- In Germany**
 - **BGR 237** *Hydraulik-Schlauchleitungen – Regeln für den sicheren Einsatz*
 - **FA 015** *Hydraulik-Schlauchleitungen Prüfen und Auswechseln*
 - **BGI 5100** *Sicherheit bei der Hydraulik-Instandhaltung*
- In UK**
 - **BFPDA D8** *Quality Control Procedures and Requirements for BFPDA Distributors*
 - **BFPDA D14** *A Simple Rule for Re-ending Hydraulic Hose Assemblies – Don't*
 - **BFPDA P47** *Guidelines for the Use of Hydraulic Fluid Power Hose and Hose Assemblies*

Hose Hint

There are several analogies between hydraulic and electric systems and it is not inappropriate to compare high-pressure hydraulic hoses to high-voltage electrical cables and to advise to regard and handle them with similar caution and care!

Parker Safety Guide

Parker Safety Guide for Selecting and Using Hose, Tubing, Fittings and Related Accessories

Parker Publication No. 4400-B.1

Revised: November, 2007



WARNING

Failure or improper selection or improper use of hose, tubing, fittings, assemblies or related accessories (“Products”) can cause death, personal injury and property damage. Possible consequences of failure or improper selection or improper use of these Products include but are not limited to:

- Fittings thrown off at high speed.
- High velocity fluid discharge.
- Explosion or burning of the conveyed fluid.
- Electrocution from high voltage electric powerlines.
- Contact with suddenly moving or falling objects that are controlled by the 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 buildup or other sources of electricity.
- Sparking or explosion while spraying paint or flammable liquids.
- Injuries resulting from inhalation, ingestion or exposure to fluids.

Before selecting or using any of these Products, it is important that you read and follow the instructions below.

Only Hose from Parker’s Stratoflex Products Division is approved for in flight aerospace applications.

1.0 GENERAL INSTRUCTIONS

1.1 Scope: This safety guide provides instructions for selecting and using (including assembling, installing, and maintaining) these Products. For convenience, all rubber and/or thermoplastic products commonly called “hose” or “tubing” are called “Hose” in this safety guide. All assemblies made with Hose are called “Hose Assemblies”. All products commonly called “fittings”, “couplings” or “adapters” are called “Fittings”. All related accessories (including crimping and swaging machines and tooling) are called “Related Accessories”. This safety guide is a supplement to and is to be used with the specific Parker publications for the specific Hose, Fittings and Related Accessories that are being considered for use. Parker publications are available at www.parker.com. SAE J1273 (www.sae.org) and ISO 17165 2 (www.ansi.org) also provide recommended practices for hydraulic Hose Assemblies.

1.2 Fail-Safe: Hose, Hose Assemblies and Fittings can and do fail without warning for many reasons. Design all systems and equipment in a fail safe mode, so that failure of the Hose, Hose Assembly or Fitting will not endanger persons or property.

1.3 Distribution: Provide a copy of this safety guide to each person responsible for selecting or using Hose and Fitting products. Do not select or use Parker Hose or Fittings without thoroughly reading and understanding this safety guide as well as the specific Parker publications for the Products.

1.4 User Responsibility: Due to the wide variety of operating conditions and applications for Hose and Fittings, Parker does not represent or warrant that any particular Hose or Fitting is suitable for any specific end use system. This safety guide does not analyze all technical parameters that must be considered in selecting a product. The user, through its own analysis and testing, is solely responsible for:

- Making the final selection of the Products.
- Assuring that the user’s requirements are met and that the application presents no health or safety hazards.
- Providing all appropriate health and safety warnings on the equipment on which the Products are used.
- Assuring compliance with all applicable government and industry standards.

1.5 Additional Questions: Call the appropriate Parker technical service department if you have any questions or require any

additional information. See the Parker publication for the Products being considered or used, or call 1 800 CPARKER, or go to www.parker.com, for telephone numbers of the appropriate technical service department.

2.0 HOSE AND FITTING SELECTION INSTRUCTIONS

2.1 Electrical Conductivity: Certain applications require that the Hose be nonconductive to prevent electrical current flow. Other applications require the Hose and the Fittings and the Hose/Fitting interface 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 in which electrical conductivity or nonconductivity is a factor. The electrical conductivity or nonconductivity of Hose and Fittings is dependent upon many factors and may be susceptible to change. These factors include but are not limited to the various materials used to make the Hose and the Fittings, Fitting finish (some Fitting finishes are electrically conductive while others are nonconductive), manufacturing methods (including moisture control), how the Fittings contact the Hose, age and amount of deterioration or damage or other changes, moisture content of the Hose at any particular time, and other factors. The following are considerations for electrically nonconductive and conductive Hose. For other applications consult the individual catalog pages and the appropriate industry or regulatory standards for proper selection.

2.1.1 Electrically Nonconductive Hose: Certain applications require that the Hose be nonconductive to prevent electrical current flow or to maintain electrical isolation. For applications that require Hose to be electrically nonconductive, including but not limited to applications near high voltage electric lines, only special nonconductive Hose can be used. The manufacturer of the equipment in which the nonconductive Hose is to be used must be consulted to be certain that the Hose and Fittings that are selected are proper for the application. Do not use any Parker Hose or Fittings for any such application requiring nonconductive Hose, including but not limited to applications near high voltage electric lines, unless (i) the application is expressly approved in the Parker technical publication for the product, (ii) the Hose is marked “nonconductive”, and (iii) the manufacturer of the equipment on which the Hose is to be used specifically approves the particular Parker Hose and Fittings for such use.

2.1.2 Electrically Conductive Hose: Parker manufactures special Hose for certain applications that require electrically conductive

Hose. Parker manufactures special Hose for conveying paint in airless paint spraying applications. This Hose is labeled “Electrically Conductive Airless Paint Spray Hose” on its layline and packaging. This Hose must be properly connected to the appropriate Parker Fittings and properly grounded in order to dissipate dangerous static charge buildup, which occurs in all airless paint spraying applications. Do not use any other Hose for airless paint spraying, even if electrically conductive. Use of any other Hose or failure to properly connect the Hose can cause a fire or an explosion resulting in death, personal injury, and property damage. Parker manufactures a special Hose for certain compressed natural gas (“CNG”) applications where static electricity buildup may occur. Parker CNG Hose assemblies comply with the requirements of ANSI/IAS NGV 4.2-1999; CSA 12.52-M99, “Hoses for Natural Gas Vehicles and Dispensing Systems” (www.ansi.org). This Hose is labeled “Electrically Conductive for CNG Use” on its layline and packaging. This Hose must be properly connected to the appropriate Parker Fittings and properly grounded in order to dissipate dangerous static charge buildup, which occurs in, for example, high velocity CNG dispensing or transfer. Do not use any other Hose for CNG applications where static charge buildup may occur, even if electrically conductive. Use of other Hoses in CNG applications or failure to properly connect or ground this Hose can cause a fire or an explosion resulting in death, personal injury, and property damage. Care must also be taken to protect against CNG permeation through the Hose wall. See section 2.6, Permeation, for more information. Parker CNG Hose is intended for dispenser and vehicle use at a maximum temperature of 180°F (82°C). Parker CNG Hose should not be used in confined spaces or unventilated areas or areas exceeding 180°F (82°C). Final assemblies must be tested for leaks. CNG Hose Assemblies should be tested on a monthly basis for conductivity per ANSI/IAS NGV 4.2-1999; CSA 12.52-M99. Parker manufactures special Hose for aerospace in flight applications. Aerospace in flight applications employing Hose to transmit fuel, lubricating fluids and hydraulic fluids require a special Hose with a conductive inner tube. This Hose for in flight applications is available only from Parker’s Stratoflex Products Division. Do not use any other Parker Hose for in flight applications, even if electrically conductive. Use of other Hoses for in flight applications or failure to properly connect or ground this Hose can cause a fire or an explosion resulting in death, personal injury and property damage. These Hose assemblies for in flight applications must meet all applicable aerospace industry, aircraft engine and aircraft requirements.

2.2 Pressure: Hose selection must be made so that the published maximum working pressure of the Hose and Fittings are equal to or greater than the maximum system pressure. The maximum working pressure of a Hose Assembly is the lower of the respective published maximum working pressures of the Hose and the Fittings used. Surge pressures or peak transient pressures in the system must be below the published maximum working pressure for the Hose. Surge pressures and peak pressures can usually only be determined by sensitive electrical instrumentation that measures and indicates pressures at millisecond intervals. Mechanical pressure gauges indicate only average pressures and cannot be used to determine surge pressures or peak transient pressures. Published burst pressure ratings for Hose is for manufacturing test purposes only and is no indication that the Product can be used in applications at the burst pressure or otherwise above the published maximum recommended working pressure.

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. Improperly selected Hose may collapse in suction application.

2.4 Temperature: Be certain that fluid and ambient temperatures, both steady and transient, do not exceed the limitations of the Hose. Temperatures below and above the recommended limit can degrade Hose to a point where a failure may occur and release fluid. Properly insulate and protect the Hose Assembly

when routing near hot objects (e.g. manifolds). Do not use any Hose in any application where failure of the Hose could result in the conveyed fluids (or vapors or mist from the conveyed fluids) contacting any open flame, molten metal, or other potential fire ignition source that could cause burning or explosion of the conveyed fluids or vapors.

2.5 Fluid Compatibility: Hose Assembly selection must assure compatibility of the Hose tube, cover, reinforcement, and Fittings with the fluid media used. See the fluid compatibility chart in the Parker publication for the product being considered or used. This information is offered only as a guide. Actual service life can only be determined by the end user by testing under all extreme conditions and other analysis. Hose that is chemically compatible with a particular fluid must be assembled using Fittings and adapters containing likewise compatible seals.

2.6 Permeation: Permeation (that is, seepage through the Hose) will occur from inside the Hose to outside when Hose is used with gases, liquid and gas fuels, and refrigerants (including but not limited to such materials as helium, diesel fuel, gasoline, natural gas, or LPG). This permeation may result in high concentrations of vapors which are potentially flammable, explosive, or toxic, and in loss of fluid. Dangerous explosions, fires, and other hazards can result when using the wrong Hose for such applications. The system designer must take into account the fact that this permeation will take place and must not use Hose if this permeation could be hazardous. The system designer must take into account all legal, government, insurance, or any other special regulations which govern the use of fuels and refrigerants. Never use a Hose even though the fluid compatibility is acceptable without considering the potential hazardous effects that can result from permeation through the Hose Assembly. Permeation of moisture from outside the Hose to inside the Hose will also occur in Hose assemblies, regardless of internal pressure. If this moisture permeation would have detrimental effects (particularly, but not limited to refrigeration and air conditioning systems), incorporation of sufficient drying capacity in the system or other appropriate system safeguards should be selected and used.

2.7 Size: Transmission of power by means of pressurized 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 due to heat generation or excessive fluid velocity.

2.8 Routing: Attention must be given to optimum routing to minimize inherent problems (kinking or flow restriction due to Hose collapse, twisting of the Hose, proximity to hot objects or heat sources). For additional routing recommendations see SAE J1273 and ISO 17165-2. Hose Assemblies have a finite life and if possible, should be installed in a manner that allows for ease of inspection and future replacement. Rubber Hose because of its relative short life, should not be used in residential and commercial buildings for HVAC (heating, ventilating and air conditioning) applications.

2.9 Environment: Care must be taken to ensure that the Hose and Fittings are either compatible with or protected from the environment (that is, surrounding conditions) to which they are exposed. Environmental conditions including but not limited to ultraviolet radiation, sunlight, heat, ozone, moisture, water, salt water, chemicals and air pollutants can cause degradation and premature failure.

2.10 Mechanical Loads: External forces can significantly reduce Hose life or cause failure. 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 adapters may be required to ensure no twist is put into the Hose. Unusual applications may require special testing prior to Hose selection.

2.11 Physical Damage: Care must be taken to protect Hose from wear, snagging, kinking, bending smaller than minimum bend radius and cutting, any of which can cause premature Hose failure.

Any Hose that has been kinked or bent to a radius smaller than the minimum bend radius, and any Hose that has been cut or is cracked or is otherwise damaged should be removed and discarded.

2.12 Proper End Fitting: See instructions 3.2 through 3.5. These recommendations may be substantiated by testing to industry standards such as SAE J517 for hydraulic applications, or MIL-A-5070, AS1339, or AS3517 for Hoses from Parker's Stratoflex Products Division for aerospace applications.

2.13 Length: When establishing a proper Hose length, motion absorption, Hose length changes due to pressure, and Hose and machine tolerances and movement must be considered.

2.14 Specifications and Standards: When selecting Hose and Fittings, government, industry, and Parker 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 Hose Assembly selected has an adequate level of cleanliness for the application.

2.16 Fire Resistant Fluids: Some fire resistant fluids that are to be conveyed by Hose require use of the same type of Hose as used with petroleum base fluids. Some such fluids require a special Hose, while a few fluids will not work with any Hose at all. See instructions 2.5 and 1.5. The wrong Hose may fail after a very short service. In addition, all liquids but pure water may burn fiercely under certain conditions, and even pure water leakage may be hazardous.

2.17 Radiant Heat: Hose can be heated to destruction without contact by such nearby items as hot manifolds or molten metal. The same heat source may then initiate a fire. This can occur despite the presence of cool air around the Hose.

2.18 Welding or Brazing: When using a torch or arc welder in close proximity to hydraulic lines, the hydraulic lines should be removed or shielded with appropriate fire resistant materials. Flame or weld spatter could burn through the Hose and possibly ignite escaping fluid resulting in a catastrophic failure. Heating of plated parts, including Hose Fittings and adapters, above 450°F (232°C) such as during welding, brazing or soldering may emit deadly gases.

2.19 Atomic Radiation: Atomic radiation affects all materials used in Hose assemblies. Since the long-term effects may be unknown, do not expose Hose assemblies to atomic radiation.

2.20 Aerospace Applications: The only Hose and Fittings that may be used for in flight aerospace applications are those available from Parker's Stratoflex Products Division. Do not use any other Hose or Fittings for in flight applications. Do not use any Hose or Fittings from Parker's Stratoflex Products Division with any other Hose or Fittings, unless expressly approved in writing by the engineering manager or chief engineer of Stratoflex Products Division and verified by the user's own testing and inspection to aerospace industry standards.

2.21 Unlocking Couplings: Ball locking couplings or other Fittings with quick disconnect ability can unintentionally disconnect if they are dragged over obstructions, or if the sleeve or other disconnect member, is bumped or moved enough to cause disconnect. Threaded Fittings should be considered where there is a potential for accidental uncoupling.

3.0 HOSE AND FITTING ASSEMBLY AND INSTALLATION INSTRUCTIONS

3.1 Component Inspection: Prior to assembly, a careful examination of the Hose and Fittings must be performed. All components must be checked for correct style, size, catalog number, and length. The Hose must be examined for cleanliness, obstructions, blisters, cover looseness, kinks, cracks, cuts or any other visible defects. Inspect the Fitting and sealing surfaces for burrs, nicks, corrosion or other imperfections. Do NOT use any compo-

nent that displays any signs of nonconformance.

3.2 Hose and Fitting Assembly: Do not assemble a Parker Fitting on a Parker Hose that is not specifically listed by Parker for that Fitting, unless authorized in writing by the engineering manager or chief engineer of the appropriate Parker division. Do not assemble a Parker Fitting on another manufacturer's Hose or a Parker Hose on another manufacturer's Fitting unless (i) the engineering manager or chief engineer of the appropriate Parker division approves the Assembly in writing or that combination is expressly approved in the appropriate Parker literature for the specific Parker product, and (ii) the user verifies the Assembly and the application through analysis and testing. For Parker Hose that does not specify a Parker Fitting, the user is solely responsible for the selection of the proper Fitting and Hose Assembly procedures. See instruction 1.4. To prevent the possibility of problems such as leakage at the Fitting or system contamination, it is important to completely remove all debris from the cutting operation before installation of the Fittings. The Parker published instructions must be followed for assembling the Fittings on the Hose. These instructions are provided in the Parker Fitting catalog for the specific Parker Fitting being used, or by calling 1 800 CPARKER, or at www.parker.com.

3.3 Related Accessories: Do not crimp or swage any Parker Hose or Fitting with anything but the listed swage or crimp machine and dies in accordance with Parker published instructions. Do not crimp or swage another manufacturer's Fitting with a Parker crimp or swage die unless authorized in writing by the engineering manager or chief engineer of the appropriate Parker division.

3.4 Parts: Do not use any Parker Fitting part (including but not limited to socket, shell, nipple, or insert) except with the correct Parker mating parts, in accordance with Parker published instructions, unless authorized in writing by the engineering manager or chief engineer of the appropriate Parker division.

3.5 Field Attachable/Permanent: Do not reuse any field attachable Hose Fitting that has blown or pulled off a Hose. Do not reuse a Parker permanent Hose Fitting (crimped or swaged) or any part thereof. Complete Hose Assemblies may only be reused after proper inspection under section 4.0. Do not assemble Fittings to any previously used hydraulic Hose that was in service, for use in a fluid power application.

3.6 Pre-Installation Inspection: Prior to installation, a careful examination of the Hose Assembly must be performed. Inspect the Hose Assembly for any damage or defects. DO NOT use any Hose Assembly that displays any signs of nonconformance.

3.7 Minimum Bend Radius: Installation of a Hose at less than the minimum listed bend radius may significantly reduce the Hose life. Particular attention must be given to preclude sharp bending at the Hose to Fitting juncture. Any bending during installation at less than the minimum bend radius must be avoided. If any Hose is kinked during installation, the Hose must be discarded.

3.8 Twist Angle and Orientation: Hose Assembly installation must be such that relative motion of machine components does not produce twisting.

3.9 Securement: In many applications, it may be necessary to restrain, protect, 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.

3.10 Proper Connection of Ports: Proper physical installation of the Hose Assembly requires a correctly installed port connection insuring that no twist or torque is transferred to the Hose when the Fittings are being tightened or otherwise during use..

3.11 External Damage: Proper installation is not complete without insuring that tensile loads, side loads, kinking, flattening, potential abrasion, thread damage or damage to sealing surfaces are corrected or eliminated. See instruction 2.10.

3.12 System Checkout: All air entrapment must be eliminated and the system pressurized to the maximum system pressure (at or below the Hose maximum working pressure) and checked for proper function and freedom from leaks. Personnel must stay out of potential hazardous areas while testing and using.

3.13 Routing: The Hose Assembly should be routed in such a manner so if a failure does occur, the escaping media will not cause personal injury or property damage. In addition, if fluid media comes in contact with hot surfaces, open flame or sparks, a fire or explosion may occur. See section 2.4.

3.14 Ground Fault Equipment Protection Devices (GFEPDs): **WARNING! Fire and Shock Hazard:** To minimize the danger of fire if the heating cable of a Multitube bundle is damaged or improperly installed, use a Ground Fault Equipment Protection Device. Electrical fault currents may be insufficient to trip a conventional circuit breaker. For ground fault protection, the IEEE 515:1989 (www.ansi.org) standard for heating cables recommends the use of GFEPDs with a nominal 30 milliampere trip level for "piping systems in classified areas, those areas requiring a high degree of maintenance, or which may be exposed to physical abuse or corrosive atmospheres".

4.0 HOSE AND FITTING MAINTENANCE AND REPLACEMENT INSTRUCTIONS

4.1 Even with proper selection and installation, Hose life may be significantly reduced without a continuing maintenance program. The severity of the application, risk potential from a possible Hose failure, and experience with any Hose failures in the application or in similar applications should determine the frequency of the inspection and the replacement for the Products so that Products are replaced before any failure occurs. A maintenance program must be established and followed by the user and, at minimum, must include instructions 4.2 through 4.7.

4.2 Visual Inspection Hose/Fitting: Any of the following conditions require immediate shut down and replacement of the Hose Assembly:

- Fitting slippage on Hose;
- Damaged, cracked, cut or abraded cover (any reinforcement exposed);
- 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; and
- Blistered, soft, degraded, or loose cover.

4.3 Visual Inspection All Other: The following items must be tightened, repaired, corrected or replaced as required:

- Leaking port conditions;
- Excess dirt buildup;
- Worn clamps, guards or shields; and
- 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 leaks. Personnel must avoid potential hazardous areas while testing and using the system. See section 2.2.

4.5 Replacement Intervals: Hose assemblies and elastomeric seals used on Hose Fittings and adapters will eventually age, harden, wear and deteriorate under thermal cycling and compression set. Hose Assemblies and elastomeric seals should be inspected and replaced at specific replacement intervals, based on previous service life, government or industry recommendations, or when failures could result in unacceptable downtime, damage, or injury risk. See section 1.2. Hose and Fittings may be subjected to internal mechanical and/or chemical wear from the conveying fluid and may fail without warning. The user must determine the product life under such circumstances by testing. Also see section 2.5. See section 1.2.

4.6 Hose Inspection and Failure: Hydraulic power is accomplished by utilizing high pressure fluids to transfer energy and do work. Hoses, Fittings and Hose Assemblies all contribute to

this by transmitting fluids at high pressures. Fluids under pressure can be dangerous and potentially lethal and, therefore, extreme caution must be exercised when working with fluids under pressure and handling the Hoses transporting the fluids. From time to time, Hose Assemblies will fail if they are not replaced at proper time intervals. Usually these failures are the result of some form of misapplication, abuse, wear or failure to perform proper maintenance. When Hoses fail, generally the high pressure fluids inside escape in a stream which may or may not be visible to the user. Under no circumstances should the user attempt to locate the leak by "feeling" with their hands or any other part of their body. High pressure fluids can and will penetrate the skin and cause severe tissue damage and possibly loss of limb. Even seemingly minor hydraulic fluid injection injuries must be treated immediately by a physician with knowledge of the tissue damaging properties of hydraulic fluid. If a Hose failure occurs, immediately shut down the equipment and leave the area until pressure has been completely released from the Hose Assembly. Simply shutting down the hydraulic pump may or may not eliminate the pressure in the Hose Assembly. Many times check valves, etc., are employed in a system and can cause pressure to remain in a Hose Assembly even when pumps or equipment are not operating. Tiny holes in the Hose, commonly known as pinholes, can eject small, dangerously powerful but hard to see streams of hydraulic fluid. It may take several minutes or even hours for the pressure to be relieved so that the Hose Assembly may be examined safely. Once the pressure has been reduced to zero, the Hose Assembly may be taken off the equipment and examined. It must always be replaced if a failure has occurred. Never attempt to patch or repair a Hose Assembly that has failed. Consult the nearest Parker distributor or the appropriate Parker division for Hose Assembly replacement information. Never touch or examine a failed Hose Assembly unless it is obvious that the Hose no longer contains fluid under pressure. The high pressure fluid is extremely dangerous and can cause serious and potentially fatal injury.

4.7 Elastomeric seals: Elastomeric seals will eventually age, harden, wear and deteriorate under thermal cycling and compression set. Elastomeric seals should be inspected and replaced.

4.8 Refrigerant gases: Special care should be taken when working with refrigeration systems. Sudden escape of refrigerant gases can cause blindness if the escaping gases contact the eye and can cause freezing or other severe injuries if it contacts any other portion of the body.

4.9 Compressed natural gas (CNG): Parker CNG Hose Assemblies should be tested after installation and before use, and at least on a monthly basis per ANSI/IAS NGV 4.2-1999; CSA 12.52-M99 Section 4.2 "Visual Inspection Hose/ Fitting". The recommended procedure is to pressurize the Hose and check for leaks and to visually inspect the Hose for damage. Caution: Matches, candles, open flame or other sources of ignition shall not be used for Hose inspection. Leak check solutions should be rinsed off after use.

5.0 HOSE STORAGE

5.1 Age Control: Hose and Hose Assemblies must be stored in a manner that facilitates age control and first-in and first-out usage based on manufacturing date of the Hose and Hose Assemblies. The shelf life of rubber Hose or Hose Assemblies that have passed visual inspection and a proof test is 10 years (40 quarters) from the date of manufacture. The shelf life of thermoplastic and polytetrafluoroethylene Hose or Hose Assemblies is considered to be unlimited.

5.2 Storage: Stored Hose and Hose Assemblies must not be subjected to damage that could reduce their expected service life and must be placed in a cool, dark and dry area with the ends capped. Stored Hose and Hose Assemblies must not be exposed to temperature extremes, ozone, oils, corrosive liquids or fumes, solvents, high humidity, rodents, insects, ultraviolet light, electromagnetic fields or radioactive materials.

Technical Data

Technical Data

| | |
|--|----------------------|
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Hose Overview

Low pressure

| Hose | Working Pressure (MPa) at size / DN | | | | | | | | | | | | | | | | Temp. | Construction | Standard | |
|------------------------------|-------------------------------------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|--------------|-----------------|---------------------------|
| | -3 | -4 | -5 | -6 | -8 | -10 | -12 | -16 | -20 | -24 | -32 | -40 | -48 | -56 | -64 | -80 | | | | -96 |
| Push-Lok | 801Plus | 2.4 | 2.4 | 2.4 | 2.1 | 2.1 | 2.1 | 1.4 | | | | | | | | | | -40/+100 | 1 braid, fibre | |
| | 830M | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | | | | | | | | | | -40/+80 | 1 braid, fibre | |
| | 831 | 2.4 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 1.4 | | | | | | | | | | -40/+100 | 1 braid, fibre | |
| | 837BM | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.4 | | | | | | | | | | -40/+100 | 1 braid, fibre | |
| | 837PU | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | | | | | | | | | -40/+100 | 1 braid, fibre | |
| | 804 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | | | | | | | | | | -40/+80 | 1 braid, fibre | |
| Low pressure | 821FR | 2.4 | 2.0 | 2.0 | 2.0 | 2.0 | 1.7 | | | | | | | | | | | -40/+100 | 1 braid, fibre | |
| | 836 | 2.8 | 2.8 | 2.8 | 2.8 | 2.4 | 2.1 | | | | | | | | | | | -48/+150 | 1 braid, fibre | |
| Transport + Hydraulic | 838M | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | | | | | | | | | | | -40/+80 | 1 braid, fibre | |
| | 601 | 8.6 | 7.8 | 6.9 | 5.2 | 3.9 | | | | | | | | | | | | -40/+125 | 2 braids, fibre | EN 854-R3 - SAE 100R3 |
| | 681 | 7.5 | 6.8 | 6.3 | 5.8 | 5.0 | 4.5 | 4.0 | | | | | | | | | | -40/+100 | 2 braids, fibre | EN 854-2TE |
| High temperature Railway | 611HT | 2.8 | 2.8 | 2.8 | 2.4 | 2.1 | | | | | | | | | | | | -40/+150 | 1 braid, fibre | EN 854-R6 |
| | 681DB | 7.5 | 6.8 | 6.3 | 5.8 | 5.0 | 4.5 | 4.0 | | | | | | | | | | -40/+100 | 2 braids, fibre | EN 854-2TE |
| | 201 | 20.7 | 15.5 | 13.8 | 12.0 | 10.3 | 5.5 | 4.3 | 3.5 | 2.4 | | | | | | | | -40/+150 | 1 braid, wire | SAE 100R5 - SAE J1402 All |
| | 206 | 20.7 | 15.5 | 13.8 | 12.0 | 10.3 | 5.5 | 4.3 | 3.5 | 2.4 | | | | | | | | -48/+150 | 1 braid, wire | SAE 100R5 - SAE J1402 All |
| | 213 | 13.8 | 10.3 | 8.6 | 6.9 | 5.2 | 2.8 | 2.1 | 1.7 | 1.4 | | | | | | | | -45/+150 | 1 braid, wire | SAE J1402 AI |
| Fire retardant Refrigeration | 293 | 3.5 | 3.5 | 3.5 | 3.1 | 3.1 | 3.1 | 3.1 | | | | | | | | | | -50/+150 | 1 braid, wire | SAE J1402 AI |
| | 221FR | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | | | | | | | | | | -20/+100 | 1 braid, wire | SAE J1527 R3 |
| | 285 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | | | | | | | | | | -31/+125 | 1 braid, wire | SAE J2064 C |

Hose Overview

High pressure

| Hose | Working Pressure (MPa) at size / DN | | | | | | | | | | | | | | | | Temp. | Construction | Standard | | | |
|-----------------------------|-------------------------------------|--------|----|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-------|--------------|----------|------------------|---|--|
| | -3 | -4 | -5 | -6 | -8 | -10 | -12 | -16 | -20 | -24 | -32 | -40 | -48 | -56 | -64 | -80 | | | | -96 | | |
| 3 braids | Standard | 5 | 6 | 8 | 10 | 12 | 16 | 19 | 25 | 31 | 38 | 51 | 63 | 76 | 90 | 100 | 125 | 150 | -40/+100 | 3 braids, wire | | |
| | Low temperature | | | 44.5 | 41.5 | 35.0 | 35.0 | 28.0 | | | | | | | | | | | -50/+100 | 3 braids, wire | | |
| | High abr. resistance | | | 44.5 | 41.5 | 35.0 | 35.0 | 28.0 | | | | | | | | | | | -40/+100 | 3 braids, wire | | |
| | Railway | | | 44.5 | 41.5 | 35.0 | 35.0 | 28.0 | | | | | | | | | | | -40/+100 | 3 braids, wire | | |
| | Standard | 701 | | | 45.0 | 41.5 | 35.0 | 35.0 | 28.0 | | | | | | | | | | | -40/+100 | 4 spiral, wire | EN 856-4SP - ISO 3862-4SP |
| | | 731 | | | | | | 42.0 | 38.0 | 32.0 | 29.0 | 25.0 | | | | | | | | -40/+100 | 4 spiral, wire | EN 856-4SH - ISO 3862-4SH |
| | | 781 | | | | | | 35.0 | 35.0 | 35.0 | 35.0 | | | | | | | | | -40/+125 | 4/6 spiral, wire | EN 856-R13 - ISO 3862-R13 - SAE 100R13 |
| | | P35 | | | | | | | | | | 35.0 | | | | | | | | -40/+125 | 6 spiral, wire | EN 856-R13 - ISO 3862-R13 - SAE 100R13 |
| | Partrimp No-Skive | 722CLF | | | 28.0 | 28.0 | 28.0 | 28.0 | 28.0 | 28.0 | | | | | | | | | | -40/+100 | 4 spiral, wire | EN 856-R12 - ISO 3862-R12 - SAE 100R12 |
| | | 774 | | | | | | 28.0 | 28.0 | 21.0 | 17.5 | 17.5 | | | | | | | | -40/+80 | 4 spiral, wire | |
| F42 | | | | | | 42.0 | | 42.0 | 42.0 | 42.0 | | | | | | | | | -40/+80 | 4/6 spiral, wire | ISO 3862-R15 - SAE 100R15 | |
| 761 | | | | | | | 56.0 | 56.0 | | | | | | | | | | | -40/+125 | 6 spiral, wire | | |
| 721TC | | | | | | | | | 21.0 | 17.5 | 17.5 | | | | | | | | -40/+125 | 4 spiral, wire | EN 856-R12 - ISO 3862-R12 - SAE 100R12 | |
| 722TC | | | | 28.0 | 28.0 | 28.0 | 28.0 | 28.0 | | | | | | | | | | | -40/+125 | 4 spiral, wire | EN 856-R12 - ISO 3862-R12 - SAE 100R12 | |
| 731TC | | | | | | | 42.0 | 38.0 | 32.0 | 29.0 | 25.0 | | | | | | | | -40/+125 | 4 spiral, wire | ISO 3862-4SH - EN 856-4SH | |
| 782TC | | | | | | | 35.0 | 35.0 | 35.0 | 35.0 | | | | | | | | | -40/+125 | 4/6 spiral, wire | EN 856-R13 - ISO 3862-R13 - SAE 100R13 | |
| 791TC | | | | | | | | | 42.0 | 42.0 | | | | | | | | | -40/+100 | 4/6 spiral, wire | ISO 3862-R15 - SAE 100R15 | |
| 792TC | | | | | | | | 42.0 | 42.0 | | | | | | | | | | -40/+100 | 4/6 spiral, wire | ISO 3862-R15 - SAE 100R15 | |
| Compact Spiral | 772LT | | | | 28.0 | 28.0 | 28.0 | 28.0 | 21.0 | 17.5 | | | | | | | | | -57/+100 | 4 spiral, wire | EN 856-R12 - ISO 3862-R12 - SAE 100R12 | |
| | 787TC | | | | 35.0 | 35.0 | 35.0 | 35.0 | 35.0 | 35.0 | 35.0 | | | | | | | | -40/+125 | 4/6 spiral, wire | SAE 100R13 - ISO 3862-R13 - Exceeds ISO 18752-DC | |
| | 797TC | | | | 42.0 | 42.0 | 42.0 | 42.0 | 42.0 | 42.0 | 42.0 | | | | | | | | -40/+125 | 4/6 spiral, wire | SAE 100R15 - ISO 3862-R15 - Exceeds ISO 18752-CC/ | |
| | H31 | 50.0 | | 44.5 | 41.5 | 39.0 | 35.0 | 31.0 | | | | | | | | | | | -40/+100 | 4 spiral, wire | Exceeds EN 856-4SP - ISO 3862-4SP | |
| Standard | H29 | | | | | | 43.0 | 40.0 | 35.0 | 31.0 | 28.0 | | | | | | | | -40/+100 | 4 spiral, wire | Exceeds EN 856-4SH - ISO 3862-4SH | |
| | R35 | | | | | | 35.0 | 35.0 | 35.0 | 35.0 | 35.0 | | | | | | | | -40/+125 | 4/6 spiral, wire | EN 856-R13 - ISO 3862-R13 - SAE 100R13 | |
| | R42 | | | | | | 42.0 | 42.0 | 42.0 | 42.0 | 42.0 | | | | | | | | -40/+125 | 4/6 spiral, wire | ISO 3862-R15 - SAE 100R15 | |
| | H31TC | 50.0 | | 44.5 | 41.5 | 39.0 | 35.0 | 31.0 | | | | | | | | | | | -40/+100 | 4 spiral, wire | Exceeds EN 856-4SP - ISO 3862-4SP | |
| Parlock | H29TC | | | | | | 43.0 | 40.0 | 35.0 | 31.0 | 28.0 | | | | | | | | -40/+100 | 4 spiral, wire | Exceeds EN 856-4SH - ISO 3862-4SH | |
| | R35TC | | | | | | 35.0 | 35.0 | 35.0 | 35.0 | 35.0 | | | | | | | | -40/+125 | 4/6 spiral, wire | EN 856-R13 - ISO 3862-R13 - SAE 100R13 | |
| | RS35TC | | | | | | 42.0 | 42.0 | 42.0 | 42.0 | 42.0 | | | | | | | | -40/+125 | 6 spiral, wire | ISO 6907-D | |
| | R42TC | | | | | | 42.0 | 42.0 | 42.0 | 42.0 | 42.0 | | | | | | | | -40/+125 | 4/6 spiral, wire | ISO 3862-R15 - SAE 100R15 | |
| | R50TC | | | | | | 50.0 | 50.0 | 50.0 | 50.0 | | | | | | | | | -40/+100 | 4/6 spiral, wire | Exceeds ISO 3862-R15 | |
| | R56TC | | | | | | 56.0 | 56.0 | | | | | | | | | | | -40/+100 | 4 spiral, wire | Exceeds ISO 3862-R15 | |
| | H315T | 50.0 | | 44.5 | 41.5 | 39.0 | 35.0 | 31.0 | | | | | | | | | | | -40/+100 | 4 spiral, wire | Exceeds EN 856-4SP - ISO 3862-4SP | |
| Extreme abrasion resistance | H295T | | | | | | 43.0 | 40.0 | 35.0 | 31.0 | 28.0 | | | | | | | | -40/+100 | 4 spiral, wire | Exceeds EN 856-4SH - ISO 3862-4SH | |
| | R425T | | | | | | 42.0 | 42.0 | 42.0 | 42.0 | 42.0 | | | | | | | | -40/+125 | 4/6 spiral, wire | ISO 3862-R15 - SAE 100R15 | |
| | H29RH | | | | | | | | 40.0 | 35.0 | 31.0 | | | | | | | | -40/+100 | 4 spiral, wire | Exceeds EN 856-4SH - ISO 3862-4SH | |

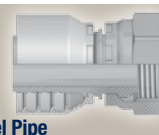

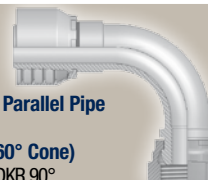
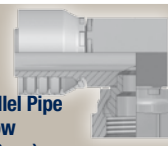
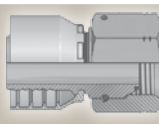


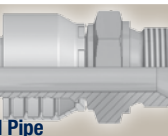
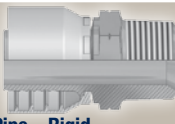
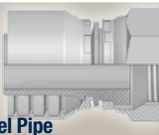
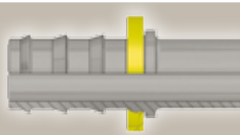
* 35 MPa: Static applications according to ISO 6807-D
* 21 MPa: Dynamic hydraulic application safety factor > 4:1

Fittings Overview

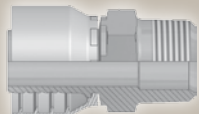

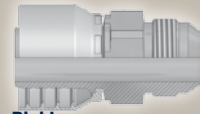
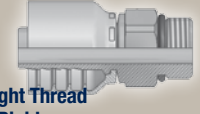
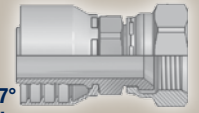
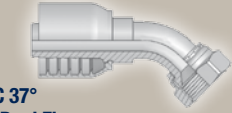
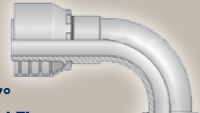

DIN – Metric

| | | | |
|--|--|---|---|
| <p>CA</p>  <p>Female Metric 24° Light Series with O-Ring Swivel – Straight ISO 12151-2-SWS-L – DKOL</p> | <p>CE</p>  <p>Female Metric 24° Light Series with O-Ring Swivel – 45° Elbow ISO 12151-2-SWE 45°-L – DKOL 45°</p> | <p>CF</p>  <p>Female Metric 24° Light Series with O-Ring Swivel – 90° Elbow ISO 12151-2-SWE-L – DKOL 90°</p> | <p>D0</p>  <p>Male Metric 24° Light Series – Rigid Straight ISO 12151-2-S-L – CEL</p> |
| <p>C3</p>  <p>Female Metric Light Series – Swivel Straight (Ball Nose for 24° or 60° Cone) DKL</p> | <p>C4</p>  <p>Female Metric Light Series – Swivel 45° Elbow (Ball Nose for 24° or 60° Cone) DKL 45°</p> | <p>C5</p>  <p>Female Metric Light Series – Swivel 90° Elbow (Ball Nose for 24° or 60° Cone) DKL 90°</p> | <p>C9</p>  <p>Female Metric 24° – Swivel Heavy Series with O-Ring Straight ISO 12151-2-SWS-S – DKOS</p> |
| <p>OC</p>  <p>Female Metric 24° – Swivel Heavy Series with O-Ring 45° Elbow ISO 12151-2 – SWE 45°-S – DKOS 45°</p> | <p>1C</p>  <p>Female Metric 24° – Swivel Heavy Series with O-Ring 90° Elbow ISO 12151-2-SWE-S – DKOS 90°</p> | <p>D2</p>  <p>Male Metric 24° – Rigid Heavy Series – Straight ISO 12151-2-S-S – CES</p> | <p>C6</p>  <p>Female Metric – Swivel Heavy Series – Straight (Ball Nose) DKS</p> |
| <p>49</p>  <p>Metric Banjo Straight DIN 7642</p> | <p>9B</p>  <p>Female Metric Swivel Light Series 45° Elbow (Ball Nose for 24° or 60° Cone)</p> | <p>9C</p>  <p>Female Metric Swivel Light Series 90° Elbow (Ball Nose for 24° or 60° Cone)</p> | |

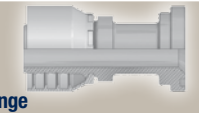
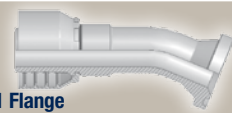
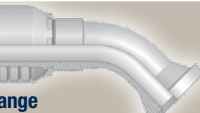

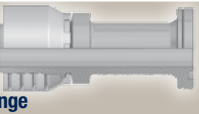
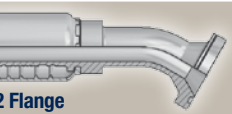
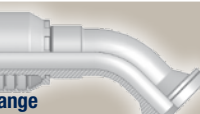

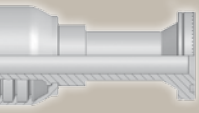
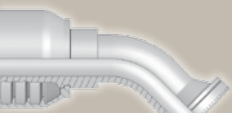
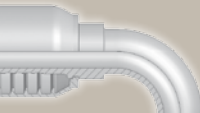
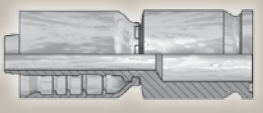
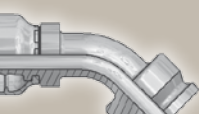

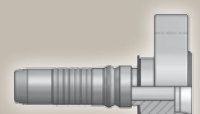
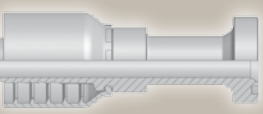

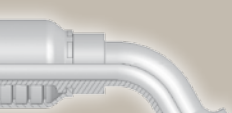
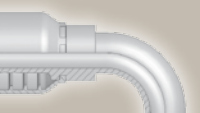
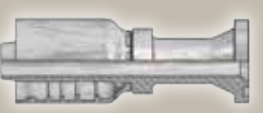


BSP

| | | | |
|---|---|--|---|
| <p>92</p>  <p>Female BSP Parallel Pipe Swivel – Straight (60° Cone) BS5200-A – DKR</p> | <p>B1</p>  <p>Female BSP Parallel Pipe Swivel 45° Elbow (60° Cone) BS 5200-D – DKR 45°</p> | <p>B2</p>  <p>Female BSP Parallel Pipe Swivel 90° Elbow (60° Cone) BS 5200-B – DKR 90°</p> | <p>B4</p>  <p>Female BSP Parallel Pipe Swivel – 90° Elbow Block Type (60° Cone) BS 5200-E – DKR 90°</p> |
| <p>EA</p>  <p>BSP Swivel Female with O-Ring (60° Cone) BS 5200 – ISO 12151-6 – DKOR</p> | <p>EB</p>  <p>BSP Swivel Female with O-Ring 45° Elbow (60° Cone) BS 5200 – ISO 12151-6 – DKOR 45°</p> | <p>EC</p>  <p>BSP Swivel Female with O-Ring 90° Elbow (60° Cone) BS 5200 – ISO 12151-6 – DKOR 90°</p> | <p>D9</p>  <p>Male BSP Parallel Pipe Rigid – Straight (60° Cone) BS5200 – AGR</p> |
| <p>91</p>  <p>Male BSP Taper Pipe – Rigid Straight BS5200 – AGR-K</p> | <p>B5</p>  <p>Female BSP Parallel Pipe Swivel Straight (Flat Seat)</p> | <p>34</p>  <p>Inch Standpipe (Brass)</p> | |

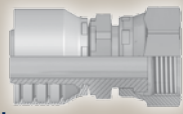
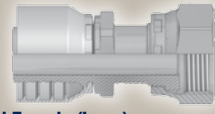
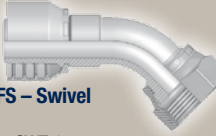
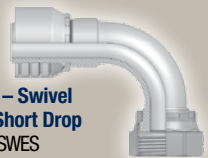


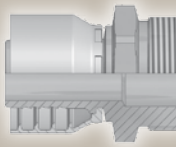
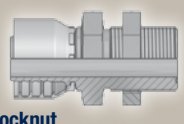
SAE

| | | | |
|---|---|---|---|
| <p>01</p>  <p>Male NPTF Pipe Rigid - Straight SAE J476A / J516 - AGN</p> | <p>02</p>  <p>Female NPTF Pipe - Rigid Straight SAE J476A / J516</p> | <p>03</p>  <p>Male JIC 37° - Rigid Straight ISO 12151-5-S - AGJ</p> | <p>05</p>  <p>Male SAE Straight Thread with O-Ring - Rigid Straight ISO 11926 - SAE J516</p> |
| <p>06/68</p>  <p>Female - JIC 37° SAE 45° Dual Flare Swivel - Straight ISO 12151-5-SWS - DKJ</p> | <p>37/3V</p>  <p>Female JIC 37° SAE 45° - Dual Flare Swivel Female 45° Elbow ISO 12151-5-SWE 45° - DKJ 45°</p> | <p>39/3W</p>  <p>Female JIC 37° SAE 45° - Dual Flare Swivel Female 90° Elbow ISO 12151-5-SWES - DKJ 90°</p> | <p>41/3Y</p>  <p>Female JIC 37° / 45° Swivel Female 90° Elbow (Long) ISO 12151-5-SWEL - DKJ 90°L</p> |

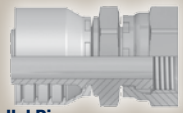
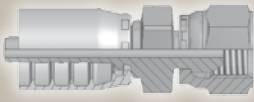
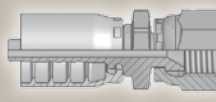
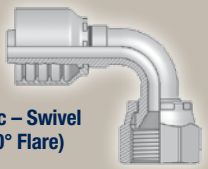
Flange

| | | | |
|---|---|---|---|
| <p>15/4A</p>  <p>ISO 6162-1 Flange Straight ISO 12151-3-S-L - SFL (35.0 MPa/ 5000 psi)</p> | <p>16</p>  <p>ISO 6162-1 Flange 22.5° Elbow ISO 12151-3-E22ML - SFL 22.5° (21.0 MPa/ 3000 psi)</p> | <p>17/4F</p>  <p>ISO 6162-1 Flange 45° Elbow ISO 12151-3 - E45S - L - SFL 45° (21.0 MPa/ 5000 psi)</p> | <p>19/4N</p>  <p>ISO 6162-1 Flange 90° Elbow ISO 12151-3-E-L - SFL 90° (35.0 MPa/ 5000 psi)</p> |
| <p>6A</p>  <p>ISO 6162-2 Flange Straight ISO 12151-3-S-S - SFS (42.0 MPa/ 6000 psi)</p> | <p>6E</p>  <p>ISO 6162-2 Flange 30° Elbow SFS 30° (42.0 MPa/ 6000 psi)</p> | <p>6F</p>  <p>ISO 6162-2 Flange 45° Elbow - Heavy Series ISO 12151-3 - E45-S - SFS 45° (42.0 MPa/ 6000 psi)</p> | <p>6N</p>  <p>ISO 6162-2 Flange 90° Elbow ISO 12151-3 - E-S - SFS 90° (42.0 MPa/ 6000 psi)</p> |
| <p>8A</p>  <p>Flange - Straight 8000 psi</p> | <p>8F</p>  <p>Flange - 45° Elbow 8000 psi</p> | <p>8N</p>  <p>Flange - 90° Elbow 8000 psi</p> | <p>X5</p>  <p>Flange - Straight Full flange system for ISO 6162-1 or ISO 6162-2</p> |
| <p>X7</p>  <p>Flange - 45° Elbow Full flange system for ISO 6162-1 or ISO 6162-2</p> | <p>X9</p>  <p>Flange - 90° Elbow Full flange system for ISO 6162-1 or ISO 6162-2</p> | <p>PY</p>  <p>Flange - 24° Male French Gas Straight</p> | <p>XA</p>  <p>Caterpillar® Flange Straight</p> |
| <p>XF</p>  <p>Caterpillar® Flange 45° Elbow</p> | <p>XG</p>  <p>Caterpillar® Flange 60° Elbow</p> | <p>XN</p>  <p>Caterpillar® Flange 90° Elbow</p> | <p>K5</p>  <p>Komatsu® Flange Straight</p> |
| <p>K7</p>  <p>Komatsu® Flange 45° Elbow</p> | <p>K9</p>  <p>Komatsu® Flange 90° Elbow</p> | | |

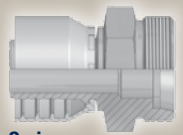


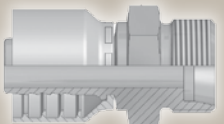
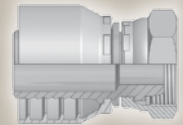
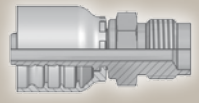
ORFS

| | | | |
|--|---|--|---|
| <p>JC</p>  <p>Female ORFS Swivel - Straight Short ISO 12151-1 - SWSA SAE J516 - ORFS</p> | <p>JS</p>  <p>ORFS Swivel Female (Long) ISO 12151-1-SWSB SAE J516 - ORFS</p> | <p>J7</p>  <p>Female ORFS - Swivel 45° Elbow ISO 12151-1 - SWE 45° SAE J516 - ORFS 45°</p> | <p>J9</p>  <p>Female ORFS - Swivel 90° Elbow - Short Drop ISO 12151-1 - SWES SAE J516 - ORFS 90°</p> |
| <p>J1</p>  <p>Female ORFS - Swivel 90° Elbow - Long Drop ISO 12151-1 - SWEL SAE J516 - ORFS 90° L</p> | <p>J5</p>  <p>Female ORFS - Swivel 90° Elbow - Medium Drop ISO 12151-1 - SWEM - ORFS 90° M</p> | <p>JM</p>  <p>ORFS Male ISO 12151-1-S - SAE J516</p> | <p>JD</p>  <p>Male ORFS Bulkhead with Locknut Straight (with O-ring) ISO 12151-1 - SAE J516</p> |

JIS

| | | | |
|---|--|--|--|
| <p>FU</p>  <p>Female BSP Parallel Pipe Swivel - Straight (30° Flare) ISO 228-1 - JIS B8363 - GUI</p> | <p>GU</p>  <p>Female BSP Parallel Pipe Swivel - Straight (60° Cone) ISO 228-1 - JIS B8363 - GUO</p> | <p>MU</p>  <p>Female Metric - Swivel Straight (30° Flare) JIS B8363 - MU</p> | <p>MZ</p>  <p>Female Metric - Swivel 90° Elbow (30° Flare) JIS B8363</p> |
|---|--|--|--|

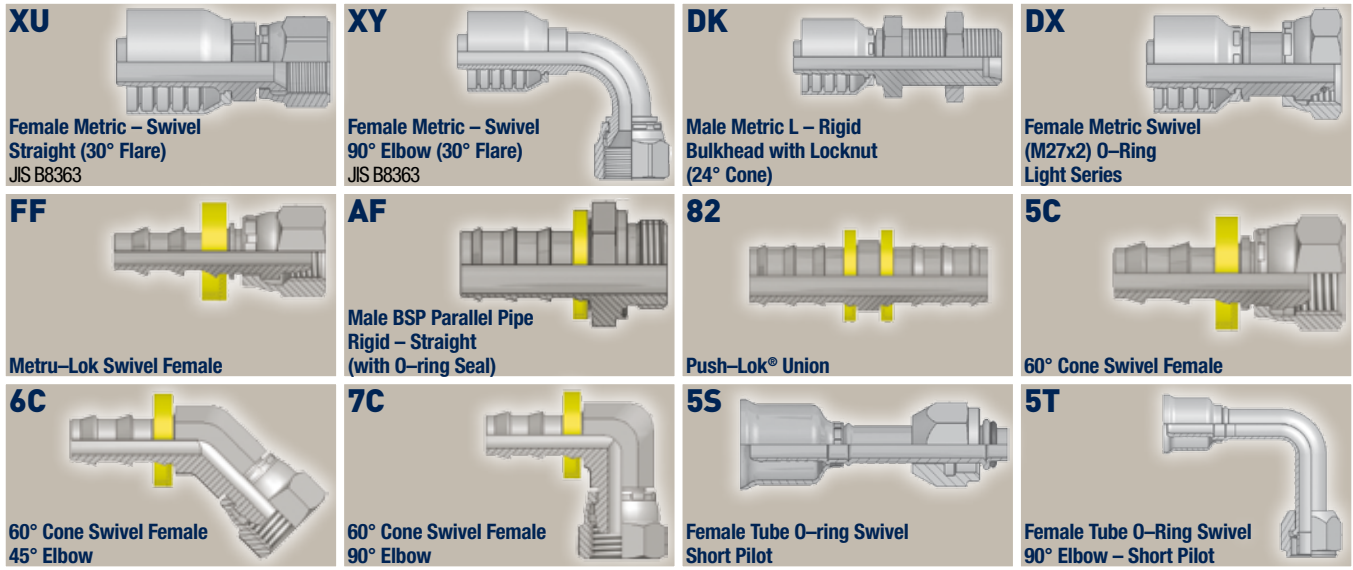
French Standard

| | | | |
|---|--|--|---|
| <p>FG</p>  <p>Male French Gas Series Rigid - Straight (24° Cone)</p> | <p>F2</p>  <p>Female French Gas Series Swivel - 90° Elbow</p> | <p>F4</p>  <p>Female French Gas Series Swivel - Straight (Ball Nose)</p> | <p>F6</p>  <p>French Male Metric Series (24° Cone)</p> |
| <p>F9</p>  <p>French Female Metric Series Swivel - (Ball Nose)</p> | <p>FA</p>  <p>Metric Male for Agriculture Valves</p> | | |

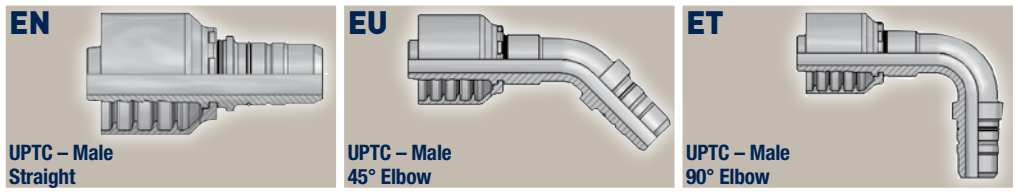
High Pressure Cleaning

| | | |
|---|--|--|
| <p>CW</p>  <p>Power Cleaner Connection</p> | <p>NW</p>  <p>Female Kärcher Metric Cleaning Hose Fitting Swivel - Straight</p> | <p>PW</p>  <p>Male Kärcher Metric Cleaning Hose Fitting Rigid - Straight</p> |
|---|--|--|

Others



UPTC



Hose Fittings Pressure Ratings

| Fitting end connection | Description | Inch fittings (size) Maximum working pressure (MPa) – safety factor 4:1 | | | | | | | | | | | |
|--|--|--|------|------|------|------|------|------|------|------|------|-------|-----------------|
| | | -4 | -5 | -6 | -8 | -10 | -12 | -16 | -20 | -24 | -32 | -40 | -48 |
| 92, B1, B2 | BSP swivel female | 63.0 | | 55.0 | 43.0 | 42.0 | 42.0 | 42.0 | 35.0 | 30.0 | 25.0 | | |
| B5 | BSP swivel female flat seat | 63.0 | | 55.0 | 43.0 | 37.5 | 35.0 | 28.0 | 25.0 | 21.0 | 21.0 | | |
| B4 | BSP swivel female (compact brazed) | 35.0 | 35.0 | 35.0 | 35.0 | 35.0 | 35.0 | 28.0 | 25.0 | 21.0 | 21.0 | | |
| EA, EB, EC | BSP swivel female with O-ring | 45.0 | | 45.0 | 42.0 | 42.0 | 42.0 | 42.0 | 35.0 | 30.0 | 25.0 | | |
| 91, D9 | BSP male | 63.0 | | 55.0 | 43.0 | | 35.0 | 28.0 | 25.0 | 21.0 | 21.0 | | |
| 01 | NPTF male | 83.0 | | 69.0 | 69.0 | | 52.0 | 45.0 | 35.0 | 21.0 | 17.5 | | |
| 02 | NPTF female | 48.0 | | 41.0 | 35.0 | | 28.0 | 21.0 | 17.5 | 14.0 | 14.0 | | |
| 03, 33 | SAE (JIC) 37° male | 41.0 | 41.0 | 35.0 | 35.0 | 35.0 | 35.0 | 28.0 | 21.0 | 17.5 | 17.5 | | |
| 04 | SAE 45° male | 41.0 | 41.0 | 35.0 | 35.0 | 35.0 | 35.0 | 28.0 | 21.0 | 17.5 | 17.5 | | |
| 05 | SAE male with O-ring | 41.0 | 41.0 | 35.0 | 35.0 | 35.0 | 35.0 | 28.0 | 21.0 | 17.5 | 17.5 | | |
| 06/68,37/3V, 39/3W, L9, 41/3Y | SAE (JIC) 37° swivel female | 41.0 | 41.0 | 35.0 | 35.0 | 35.0 | 35.0 | 28.0 | 21.0 | 17.5 | 17.5 | | |
| 07 | Female NPSM-pipe swivel | 48.0 | | 41.0 | 35.0 | | 28.0 | 21.0 | | | | | |
| 08, 77, 79 | Female SAE 45° swivel | 21.0 | 21.0 | 21.0 | 21.0 | 19.0 | 15.5 | 14.0 | 11.0 | 9.0 | 8.0 | | |
| 1L | Male NPTF pipe swivel 90° Elbow | 21.0 | 21.0 | 21.0 | 21.0 | 19.0 | 15.5 | 14.0 | 11.0 | 9.0 | 8.0 | | |
| S2 | Female NPTF pipe swivel | 21.0 | 21.0 | 21.0 | 21.0 | 19.0 | 15.5 | 14.0 | 11.0 | 9.0 | 8.0 | | |
| 0G, 0L | Male SAE O-ring | 21.0 | 21.0 | 21.0 | 21.0 | 19.0 | 15.5 | 14.0 | 11.0 | 9.0 | 8.0 | | |
| 28, 67, 69 | SAE Male inverted 45° swivel | 19.0 | 17.5 | 15.5 | 14.0 | | | | | | | | |
| 15, 16, 17, 18, 19, 26, 27, 89, X5, X7, X9 | ISO 6162-1 Flange (21.0 MPa/ 3000 psi) | | | | 35.0 | 35.0 | 35.0 | 35.0 | 28.0 | 28.0 | 21.0 | | |
| 4A, 4N, 4F | ISO 6162-1 Flange (35.0 MPa/ 5000 psi) | | | | | | | | 35.0 | 35.0 | 35.0 | | |
| 6E, 6F, 6G, 6N, XA, XF, XG, XN, X5, X7, X9 | ISO 6162-2 Flange (42.0 MPa/ 6000 psi) | | | | 41.0 | | 41.0 | 41.0 | 41.0 | 41.0 | 41.0 | | |
| 6A | ISO 6162-2 Flange (42.0 MPa/ 6000 psi) | | | | 41.0 | | 41.0 | 41.0 | 41.0 | 41.0 | 41.0 | 35.0* | 21.0* 35.0** |
| 8A, 8F, 8N | SAE Flange 8000 psi | | | | | | 55.0 | 55.0 | 55.0 | | | | |
| A0 | Male Super Stecko Rigid | | | | 51.8 | | 42.0 | 38.0 | 35.0 | 35.0 | 35.0 | | |
| S0 | Male Stecko Rigid | 45.0 | | 40.0 | 36.2 | | 28.0 | 28.0 | 21.0 | 21.0 | 17.0 | | |

* Dynamic hydraulic application

** Static applications according to ISO 6807-D

| Fitting end connection | Description | Inch fittings (size) | | | | | | | | | |
|--------------------------------|---|--|------|------|------|------|------|------|------|------|-----|
| | | Maximum working pressure (MPa) – safety factor 4:1 | | | | | | | | | |
| | | -4 | -5 | -6 | -8 | -10 | -12 | -16 | -20 | -24 | -32 |
| JM, JC, JS, J1, J5, J7, J9, JD | ORFS male / female | 63.5 | | 63.5 | 63.5 | 41.0 | 41.0 | 41.0 | 28.0 | 28.0 | |
| GU | JIS / BSP swivel female 60° cone | 35.0 | 35.0 | 35.0 | 35.0 | | 28.0 | 21.0 | 17.5 | | |
| FU | Female JIS / BSP 30° parallel pipe swivel | 35.0 | 35.0 | 35.0 | 35.0 | 28.0 | 28.0 | 21.0 | 17.5 | | |
| MU | JIS 30° metric swivel female | 35.0 | 35.0 | 35.0 | 35.0 | 28.0 | 28.0 | 21.0 | 17.5 | | |
| MZ | Metric swivel female 90° Elbow | 35.0 | 35.0 | 35.0 | 35.0 | 28.0 | 28.0 | 21.0 | 17.5 | | |
| UT | JIS / BSP male 60° cone | 35.0 | | 35.0 | 35.0 | | 28.0 | 21.0 | 17.5 | | |
| V1 | Banjo soft seal with UNF bolt | 25.0 | 25.0 | | 21.5 | 21.5 | 20.0 | | | | |
| V3 | Banjo soft seal with BSPP bolt | 25.0 | 25.0 | | 21.5 | 21.5 | 20.0 | | | | |
| XU, XY | Female Metric swivel 30° Flare | 35.0 | 35.0 | 35.0 | 35.0 | 28.0 | 28.0 | 21.0 | 17.5 | | |

| Fitting end connection | Description | Metric tube (mm) • Light series – L | | | | | | | | | |
|------------------------|--|--|------|------|------|------|------|------|------|------|------|
| | | Maximum working pressure (MPa) – safety factor 4:1 | | | | | | | | | |
| | | 6 | 8 | 10 | 12 | 15 | 18 | 22 | 28 | 35 | 42 |
| C3, C4, C5 | DIN 20078 Form A swivel female | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 16.0 | 16.0 | 10.0 | 10.0 | 10.0 |
| CA, CE, CF | ISO 12151-2 swivel female with O-ring | 31.5 | 42.5 | 40.0 | 35.0 | 31.5 | 31.5 | 28.0 | 21.0 | 16.0 | 16.0 |
| D0, DF, DG, DK | ISO 12151-2 male stud | 25.0 | 42.5 | 40.0 | 35.0 | 31.0 | 28.0 | 28.0 | 21.0 | 16.0 | 16.0 |
| DX | Metric swivel female with O-ring | 31.5 | 42.5 | 40.0 | 35.0 | 31.5 | 31.5 | 28.0 | 21.0 | 16.0 | 16.0 |
| 1D, DD, 5D | Metric standpipe | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 16.0 | 16.0 | 10.0 | 10.0 | 10.0 |
| CW, NW | High pressure cleaning hose connection | | | | | 40.0 | | | | | |
| PW | High pressure cleaning hose connection | | | 22.5 | | | | | | | |
| EN, ET, EU | Universal push-in connector | | 40.0 | 35.0 | 35.0 | 29.5 | 28.0 | 21.5 | | | |

| Fitting end connection | Description | Metric tube (mm) • Very light series – LL | | | | | | | | | |
|------------------------|-------------------------------------|--|----|----|----|----|-----|-----|-----|-----|-----|
| | | Maximum working pressure (MPa) – safety factor 4:1 | | | | | | | | | |
| | | 8 | 10 | 12 | 15 | 18 | 22 | 28 | 35 | 42 | 50 |
| C0 | DIN 20078 Form C swivel female DKLL | | | | | | 6.3 | 6.3 | 6.3 | 6.3 | 4.0 |

| Fitting end connection | Description | Metric tube (mm) • Metric | | | | | | | | | | |
|------------------------|------------------------------------|--|------|------|------|------|------|------|------|------|------|------|
| | | Maximum working pressure (MPa) – safety factor 4:1 | | | | | | | | | | |
| | | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 25 | 27 |
| 49 | Metric Banjo - straight (DIN 7642) | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | |
| V2 | Banjo soft seal with metric bolt | | | | 25.0 | 25.0 | | 21.5 | | 21.5 | | 20.0 |

| Fitting end connection | Description | Metric tube (mm) • Heavy series – S | | | | | | | | | |
|------------------------|---------------------------------------|--|------|------|------|------|------|------|------|------|------|
| | | Maximum working pressure (MPa) – safety factor 4:1 | | | | | | | | | |
| | | 6 | 8 | 10 | 12 | 14 | 16 | 20 | 25 | 30 | 38 |
| C6, C7, C8 | Swivel female | 63.0 | 63.0 | 63.0 | 63.0 | 63.0 | 40.0 | 40.0 | 40.0 | 25.0 | 25.0 |
| C9, 0C, 1C | ISO 12151-2 swivel female with O-ring | 63.0 | 63.0 | 63.0 | 63.0 | 63.0 | 42.0 | 42.0 | 42.0 | 42.0 | 42.0 |
| D2 | Male stud | 63.0 | 63.0 | 63.0 | 63.0 | 63.0 | 42.0 | 42.0 | 42.0 | 42.0 | 42.0 |
| 3D | Metric standpipe | 63.0 | 63.0 | 63.0 | 63.0 | 63.0 | 40.0 | 40.0 | 40.0 | 25.0 | 25.0 |

| Fitting end connection | Description | Metric tube (mm) • French gas series | | | | |
|------------------------|---------------------------|--|------|------|------|------|
| | | Maximum working pressure (MPa) – safety factor 4:1 | | | | |
| | | 13 | 17 | 21 | 27 | 33 |
| F2 | Swivel female 90° Elbow | 36.0 | 27.0 | 25.5 | 20.0 | 17.0 |
| F4 | Swivel female (Ball Nose) | 36.0 | 27.0 | 25.5 | 20.0 | 17.0 |
| FG | Male stud | 36.0 | 27.0 | 25.5 | 20.0 | 17.0 |

| Fitting end connection | Description | Metric tube (mm) • French metric series | | | | | | |
|------------------------|--------------------------|--|------|------|------|------|------|------|
| | | Maximum working pressure (MPa) – safety factor 4:1 | | | | | | |
| | | 10 | 12 | 14 | 18 | 20 | 22 | 30 |
| F9 | Swivel female | 20.0 | | 14.0 | 16.0 | 14.0 | 13.0 | 12.2 |
| F6 | Male agricultural valves | 20.0 | | 14.0 | 16.0 | 14.0 | 13.0 | 12.2 |
| FA | Male agricultural valves | | 25.0 | | | | | |

Hose Fittings Nomenclature

| End Configuration | Description | Standards | Common Terms |
|-------------------|---|-------------------------|----------------------|
| 01 | Male NPTF Pipe – Rigid – Straight | SAE J476A / J516 | AGN |
| 02 | Female NPTF Pipe – Rigid – Straight | SAE J476A / J516 | |
| 03 | Male JIC 37° – Rigid – Straight | ISO12151-5-S | AGJ |
| 04 | Male SAE 45° – Rigid – Straight | SAE J516 | |
| 05 | Male SAE Straight Thread with O-ring – Rigid – Straight | ISO 11926, SAE J516 | |
| 06 | Female JIC 37° Swivel – Straight | ISO12151-5-SWS | DKJ |
| 06/68 | Female – JIC 37° / SAE 45° Dual Flare – Swivel – Straight | ISO12151-5-SWS | DKJ |
| 07 | Female NPSM Pipe Swivel | | |
| 08 | Female SAE 45° – Swivel – Straight | SAE J516 | |
| 0C | Female Metric 24° – Heavy Series with O-ring – Swivel – 45° Elbow | ISO 12151-2 – SWE 45°-S | DKOS 45° |
| 0G | Male O-ring Straight | | |
| 0L | Male O-ring 90° Elbow | | |
| 11 | „Ferrul-Fix“ | | |
| 12 | Female SAE Flareless Swivel – Straight (24° Cone) | | |
| 13 | Male NPTF Pipe Swivel | SAE J476A / J516 | |
| 15 | ISO 6162-1 – Flange Head – Straight | ISO 12151-3-S-L | SFL / 3000 psi |
| 15/4A | ISO 6162-1 – Flange Head – Straight / SAE Flange Head (5000 psi) | ISO 12151-3-S-L | SFL |
| 16 | ISO 6162-1 – Flange Head – 22.5° Elbow | ISO 12151-3-E22ML | SFL 22.5° / 3000 psi |
| 17 | ISO 6162-1 – Flange Head – 45° Elbow | ISO 12151-3 – E45 – L | SFL 45° / 3000 psi |
| 17/4F | ISO 6162-1 – Flange – 45° Elbow – 45° Elbow (5000 psi) | ISO 12151-3 – E45S – L | SFL 45° |
| 18 | ISO 6162-1 – Flange – 67.5° Elbow | | SFL 67.5° |
| 19 | ISO 6162-1 – Flange Head – 90° Elbow | ISO 12151-3 – E – L | SFL 90° / 3000 psi |
| 19/4N | ISO 6162-1 – Flange Head – 90° Elbow (5000 psi) | ISO 12151-3-E-L | SFL 90° |
| 1C | Female Metric 24° – Heavy Series with O-ring – Swivel – 90° Elbow | ISO 12151-2-SWE-S | DKOS 90° |
| 1D | Metric Standpipe – Light Series – Rigid – Straight | ISO 8434-1 | BEL |
| 1L | Male NPTF Pipe Swivel – 90° Elbow | | |
| 26 | ISO 6162-1 Flange – 30° Elbow | | SFL 30° |
| 27 | ISO 6162-1 Flange – 60° Elbow | | SFL 60° |
| 28 | SAE Male Inverted 45° Elbow | | |
| 33 | Male JIC 37° – Rigid – 45° Elbow | ISO 12151-5 | AGJ 45° |
| 34 | Inch Standpipe (Brass) | | |
| 37 | Female JIC 37° – Swivel – 45° Elbow | ISO 12151-5-SWE 45° | DKJ 45° |
| 37/3V | Female JIC 37° / SAE 45° – Dual Flare – Swivel Female 45° Elbow | ISO 12151-5-SWE 45° | DKJ 45° |
| 39 | Female JIC 37° – Swivel – 90° Elbow | ISO 12151-5-SWES | DKJ 90° |
| 39/3W | Female JIC 37° / SAE 45° – Dual Flare – Swivel Female 90° Elbow | ISO 12151-5-SWES | DKJ 90° |
| 3D | Metric Standpipe – Heavy Series – Rigid – Straight | ISO 8434-1 | BES |
| 3V | Female JIC 37°/SAE – 45° Swivel – 45° Elbow | | DKJ 45° |
| 3W | Female JIC 37°/SAE – 45° Swivel – 90° Elbow | | DKJ 90° |
| 3Y | Female JIC 37°/SAE – 45° Swivel – 90° Elbow (Long) | | DKJ 90° |
| 41 | Female JIC 37° Swivel – 90° Elbow (Long) | | DKJ 90° |
| 41/3Y | Female JIC 37° / 45° Swivel Female 90° Elbow (Long) | ISO 12151-5-SWEL | DKJ 90°L |
| 45 | Male Tube O-ring Swivel – Long Pilot | | |

| End Configuration | Description | Standards | Common Terms |
|-------------------|--|-----------------------------------|--------------------|
| 49 | Metric Banjo – Straight | DIN 7642 | |
| 4A | ISO 6162-1 – Flange – Straight (5000 psi) | | |
| 4F | ISO 6162-1 – Flange – 45° Elbow (5000 psi) | | |
| 4N | ISO 6162-1 – Flange – 90° Elbow (5000 psi) | | |
| 59 | Female Tube O-ring Swivel – Long Pilot | | |
| 59PT | Male Tube O-ring Swivel – Long Pilot | With Charge Port at 180° for 134a | |
| 5C | 60° Cone Swivel Female | | |
| 5D | Metric Standpipe – Light Series – Rigid – 90° Elbow | ISO 8434-1 | BEL 90° |
| 5G | Male Tube O-ring Rigid Port (3 step) Straight | | |
| 5GPR | Female Tube O-ring Rigid Port (3 step) Straight | With Charge Port for R12 | |
| 5H | Female Tube O-ring Swivel – 45° Elbow – Short Pilot | | |
| 5K | Male Tube O-ring Swivel – 90° Elbow – Short Pilot | | |
| 5LPR | Female Tube O-ring Swivel – 90° Elbow – Long Pilot | | |
| 5LPT | Female Tube O-ring Swivel – 90° Elbow – Long Pilot | With Charge Port at 180° for 134a | |
| 5MPR | Male Tube O-ring Swivel – 90° Elbow – Long Pilot | With Charge Port at 180° for R12 | |
| 5MPV | Male Tube O-ring Swivel – 90° Elbow – Long Pilot | With Charge Port at 270° for 134a | |
| 5N | Female Tube O-ring Swivel – 45° Elbow – Long Pilot | | |
| 5P | Female Tube O-ring Swivel – 45° Elbow – Long Pilot | | |
| 5R | Male Tube O-ring Swivel – 45° Elbow – Short Pilot | | |
| 5S | Female Tube O-ring Swivel – Short Pilot | | |
| 5T | Female Tube O-ring Swivel – 90° Elbow – Short Pilot | | |
| 5V | Female Compressor – Swivel 45° Elbow | | |
| 5W | Female Compressor – Swivel 90° Elbow | | |
| 5Z | Female Compressor – Swivel 90° Elbow – Block Type | | |
| 67 | SAE Male Inverted Flare Swivel – 45° Elbow | | |
| 68 | Female JIC 37° / SAE 45° Swivel | | DKJ |
| 69 | SAE Male Inverted Flare Swivel – 90° Elbow | | |
| 6A | ISO 6162-2 – Flange – Straight | ISO 12151-3-S-S | SFS / 6000 psi |
| 6B | ISO 6162-2 – Flange – 22.5° Elbow | | SFS 22.5° |
| 6C | 60° Cone Swivel Female – 45° Elbow | | |
| 6E | ISO 6162-2 – Flange – 30° Elbow | | SFS 30° |
| 6F | ISO 6162-2 – Flange – 45° Elbow | ISO 12151-3 – E45-S | SFS 45° / 6000 psi |
| 6G | ISO 6162-2 – Flange – 60° Elbow | | SFS 60° |
| 6N | ISO 6162-2 – Flange – 90° Elbow | ISO 12151-3 – E-S | SFS 90° / 6000 psi |
| 77 | Female SAE 45° Swivel – 45° Elbow | | |
| 79 | Female SAE 45° Swivel – 90° Elbow | | |
| 7C | 60° Cone Swivel Female – 90° Elbow | | |
| 7D | Male Standpipe Metric S – Rigid – 90° Elbow | | BES 90° |
| 82 | Push-Lok® Union | | |
| 89 | ISO 6162-1 – Flange – 90° Elbow (Long) – Standard Series | | |
| 8A | Flange – Straight – 8000 psi | | |
| 8F | Flange – 45° Elbow – 8000 psi | | |
| 8N | Flange – 90° Elbow – 8000 psi | | |
| 91 | Male BSP Taper Pipe – Rigid – Straight | BS5200 | AGR-K |

| End Configu-ration | Description | Standards | Common Terms |
|--------------------|--|-----------------------|--------------|
| 92 | Female BSP Parallel Pipe – Swivel – Straight (60° Cone) | BS5200-A | DKR |
| 93 | Female JIC 37° – Swivel – 90° Elbow (Block Type) | | |
| 9B | Metric – Swivel Female 45° Elbow – Light Series | | |
| 9C | Light Series Metric Swivel Female 90° Elbow | | |
| AF | Male BSP Parallel Pipe – Rigid – Straight (with O-ring Seal) | | |
| B1 | Female BSP Parallel Pipe – Swivel – 45° Elbow (60° Cone) | BS 5200-D | DKR 45° |
| B2 | Female BSP Parallel Pipe – Swivel – 90° Elbow (60° Cone) | BS 5200-B | DKR 90° |
| B4 | Female BSP Parallel Pipe – Swivel – 90° Elbow Block Type (60° Cone) | BS 5200-E | DKR 90° |
| B5 | Female BSP Parallel Pipe – Swivel – Straight (Flat Seat) | | |
| C0 | Female Metric – Very Light Series LL – Swivel – Straight (Ball Nose) | | DKM |
| C3 | Female Metric – Light Series – Swivel – Straight (Ball Nose) | | DKL |
| C4 | Female Metric – Light Series – Swivel – 45° Elbow (Ball Nose) | | DKL 45° |
| C5 | Female Metric – Light Series – Swivel – 90° Elbow (Ball Nose) | | DKL 90° |
| C6 | Female Metric – Heavy Series – Swivel – Straight (Ball Nose) | | DKS |
| C7 | Female Metric Swivel – 45° Elbow “Heavy” Series | | DKS 45° |
| C8 | Female Metric Swivel – 90° Elbow “Heavy” Series | | DKS 90° |
| C9 | Female Metric 24° – Heavy Series with O-ring – Swivel – Straight | ISO 12151-2-SWS-S | DKOS |
| CA | Female Metric 24° – Light Series with O-ring – Swivel – Straight | ISO 12151-2-SWS-L | DKOL |
| CE | Female Metric 24° – Light Series with O-ring – Swivel – 45° Elbow | ISO 12151-2-SWE 45°-L | DKOL 45° |
| CF | Female Metric 24° – Light Series with O-ring – Swivel – 90° Elbow | ISO 12151-2-SWE-L | DKOL 90° |
| CW | Power Cleaner Connection | | |
| D0 | Male Metric 24° – Light Series – Rigid – Straight | ISO 12151-2-S-L | CEL |
| D2 | Male Metric 24° – Heavy Series – Rigid – Straight | ISO 12151-2-S-S | CES |
| D9 | Male BSP Parallel Pipe – Rigid – Straight (60° Cone) | BS5200 | AGR |
| DD | Metric Standpipe – Light Series – Rigid – 45° Elbow | | BEL 45° |
| DE | Double Banjo Union | | |
| DK | Male Metric L – Rigid – Bulkhead with Locknut (24° Cone) | | |
| DP | Metric Swivel Female Tee / Male Stud | | |
| DR | Metric Swivel Female Tee | | |
| DS | Metric Swivel Female Tee / Standpipe | | |
| DW | Female Metric Swivel „Light” Series | | TGL |
| DX | Female Metric Swivel (M27x2) O-ring – Light Series | | |
| EA | BSP Swivel Female with O-ring (60° Cone) | BS 5200, ISO 12151-6 | DKOR |
| EB | BSP Swivel Female with O-ring – 45° Elbow (60° Cone) | BS 5200, ISO 12151-6 | DKOR 45° |
| EC | BSP Swivel Female with O-ring – 90° Elbow (60° Cone) | BS 5200, ISO 12151-6 | DKOR 90° |
| EN | UPTC – Male – Straight | | |
| ET | UPTC – Male – 90° Elbow | | |
| EU | UPTC – Male – 45° Elbow | | |
| F2 | Female French Swivel Female – Gas Series 90° Elbow | | |
| F4 | Female French Gas Series – Swivel – Straight (Ball Nose) | | |
| F6 | French Male Metric Series (24° Cone) | | |
| F9 | French Swivel Female Metric Series – (Ball Nose) | | |
| FA | Metric Male For Agriculture Valves | | |
| FB | French Metric | | |

| End Configuration | Description | Standards | Common Terms |
|-------------------|--|--------------------------------------|--------------|
| FF | Metru-Lok Swivel Female | | |
| FG | Male French Gas Series – Rigid – Straight (24° Cone) | | |
| FU | Female BSP Parallel Pipe – Swivel – Straight (30° Flare) | ISO 228-1, JIS B8363 | GUI |
| GE | French Gas Standpipe | | |
| GU | Female BSP Parallel Pipe – Swivel – Straight (60° Cone) | ISO 228-1, JIS B8363 | GUO |
| J1 | Female ORFS – Swivel – 90° Elbow – Long Drop | ISO 12151-1 – SWEL, SAE J 516 | ORFS 90° L |
| J5 | Female ORFS – Swivel – 90° Elbow – Medium Drop | ISO 12151-1 – SWEM | ORFS 90° M |
| J7 | Female ORFS – Swivel – 45° Elbow | ISO 12151-1 – SWE 45°, SAE J516 | ORFS 45° |
| J9 | Female ORFS – Swivel – 90° Elbow – Short Drop | ISO 12151-1 – SWES, SAE J516 | ORFS 90° |
| JC | Female ORFS – Swivel – Straight – Short | ISO 12151-1 – SWSA, SAE J516 | ORFS |
| JD | Male ORFS – Bulkhead with Locknut – Straight (with O-ring) | ISO 12151-1 – SAE J516 | |
| JM | ORFS Male | ISO 12151-1-S, SAE J516 | |
| JS | ORFS Swivel Female (Long) | ISO 12151-1-SWSB, SAE J516 | ORFS |
| L9 | Female JIC 37° – Swivel – 90° Elbow – Medium Drop | ISO 12151-5-SWEM | DKJ 90° M |
| MU | Female Metric – Swivel – Straight (30° Flare) | JIS B8363 | MU |
| MZ | Female Metric – Swivel – 90° Elbow (30° Flare) | JIS B8363 | |
| NM | Male BSP Parallel Pipe – L Series – Rigid – Straight – ED-Seal | ISO 1179 | |
| NW | Female Kärcher Metric Cleaning Hose Fitting – Swivel – Straight | | |
| PW | Male Kärcher Metric Cleaning Hose Fitting – Rigid – Straight | | |
| PY | Flange – 24° Male – French Gas – Straight | | |
| S2 | Female NPTF Pipe Swivel | | |
| S5 | Male Tube O-ring Swivel – Short Pilot | | |
| T1 | Male Refrigerant Tube Mender – Straight (with Nut and Ferrule) | | |
| UT | Male BSP Taper Pipe – Rigid – Straight (60° Cone) | JIS B 8363-R | |
| V1 | Ermeto standard Pressure Banjo – Straight (with UNF Bolt and O-ring) | | |
| VW | Push In Connector | (VW-Standard 39-V-16619) | |
| VW121 | BSP Swivel Female | (VW-Norm 39-V-16631) | |
| VW39D | Push In Connector | (VW-Standard 39D-1401) | |
| WKS | Rubber hand grip | | |
| X5 | Flange – Straight – Full flange system for ISO 6162-1 or ISO 6162-2 | | |
| X7 | Flange – 45° Elbow – Full flange system for ISO 6162-1 or ISO 6162-2 | | |
| X9 | Flange – 90° Elbow – Full flange system for ISO 6162-1 or ISO 6162-2 | | |
| XA | Caterpillar® Flange Head – Straight | | |
| XF | Caterpillar® Flange Head – 45° Elbow | | |
| XG | Caterpillar® Flange Head – 60° Elbow | | |
| XN | Caterpillar® Flange Head – 90° Elbow | | |
| XU | Female Metric – Swivel – Straight (30° Flare) | JIS B8363 | |
| XY | Female Metric – Swivel – 90° Elbow (30° Flare) | JIS B8363 | |
| YW | Male Standpipe – Rigid – Straight – A-Lok | Metric Size Tube O.D. with Vee Notch | |

Classification Bodies

The mission of classification bodies is to contribute to the development and implementation of technical standards for the protection of life, property and the environment.

(1) Germanischer Lloyd (GL)

German independent organisation of technical experts approving products for the German mercantile marine and the energy sector – GLIS (oil and gas, wind energy, etc...)

(2) Det Norske Veritas (DNV)

Norwegian service company for managing risk in ship classification, off-shore industry, etc...

(3) RINA (Registro Italiano Navale)

Italian company offering certification, verification, control, assistance in marine, energy & process, transport and industry.

(4) European Rail Standard EN45545

Railway application – Fire protection on railway vehicles.

Requirements for fire behavior of materials and components (hose and hose assemblies).

(5) French Standard NF F-16-101/102 (NF)

Tests the fire behaviour and fire effluents of the hose cover material for rail applications.

(6) British Standard (BS 6853)

Tests the fire behaviour and fire effluents of the hose cover material for rail applications.

(7) UNI CEI 11170-1:2005

Railway and tramway vehicles
– Guidelines for fire protection of railway, tramway and guided path vehicles

(8) Lloyd’s Register (LR)

English independent organisation providing certification around the world. Marine services, Rail services and Energy services are their main activities.

(9) American Bureau of Shipping (ABS)

US company providing rules for safety in the marine environment.

(10) US Department of Transportation (DOT)

US organisation providing certifications to ensure a fast, safe, efficient, accessible and convenient transportation system in this country.

(11) US Coast Guard (USCG)

Provides maritime safety, law enforcement, recreational boating safety, and environmental protection information for merchant mariners. The approved hoses are not accepted for all applications automatically. If the column contains “H”, the hose is accepted for hydraulic systems only and not for fuel and lube systems.

(12) Mine Safety and Health Administration (MSHA)

US organisation for safety in the mining industry

(13) MarED

MarED is the Group of Notified Bodies for the Implementation of the Marine Equipment Directive.

(14) Bureau Veritas (BV)

Bureau Veritas is today the most widely recognized certification body in the world, offering solutions in the key strategic fields of operations: Quality, Health & Safety, Environment and Social Responsibility.

(15) Verteidigungs-Gerätenorm (VG)

German Organisation providing approvals for military equipment.

(16) OBAC

The OBAC (Ośrodek Badań Atestacji i Certyfikacji – Institute for Research and Certification Ltd.) is a private certification body authorised to test and certify equipment and components for use in Polish underground mines.

| | |
|------------|--|
| EN | European Standard |
| ISO | International Organisation for Standardization |
| SAE | Society of Automotive Engineers (US organisation) |

Classification Body Type Approvals

Low pressure

Description (1)-(16) see Ab-16

| Hose | Construction | Standard | GL (1) | DNV (2) | RINA (3) | EN 45545 (4) | NF (5) | BS 6853 CEI (6) | UNI CEI (7) | LR (8) | ABS (9) | DOT (10) | USCG (11) | MSHA (12) | MarED (13) | BV (14) | VG (15) | OBAC (16) | | |
|-----------------------|--------------|-----------------|-----------|------------|-------------|--------------------|-----------|--------------------------|-------------------|-----------|------------|-------------|--------------|--------------|---------------|------------|------------|--------------|--|--|
| Push-Lok | 801Plus | 1 braid, fibre | | | | | | | | | | | | | | | | | | |
| | 830M | 1 braid, fibre | | | | | | | | | | | | | | | | | | |
| | 831 | 1 braid, fibre | | | | | | | | | | | | | | | | | | |
| | 837BM | 1 braid, fibre | | | | | | | | | | | | | | | | | | |
| | 837PU | 1 braid, fibre | | | | | | | | | | | | | | | | | | |
| Phosphate Ester | 804 | 1 braid, fibre | | | | | | | | | | | | | | | | | | |
| | 821FR | 1 braid, fibre | | | | | | | | | | | | | | | | | | |
| Fire retardant | 836 | 1 braid, fibre | | | | | | | | | | | | | | | | | | |
| | 838M | 1 braid, fibre | | | | | | | | | | | | X | | | | | | |
| High temperature | 601 | 2 braids, fibre | | | | | | | | | | | | | | | | | | |
| | 681 | 2 braids, fibre | | | | | | | | | | | | | | | | | | |
| Non-conductive | 611HT | 1 braid, fibre | | | | | | | | | | | | X | | | | | | |
| | 681DB | 2 braids, fibre | | | | | | | | | | | | | | | | | | |
| Standard | 201 | 1 braid, wire | | | | | | X | | | | | | | | | | | | |
| | 206 | 1 braid, wire | | | | | | | | | | X | | | | | | | | |
| Transport + Hydraulic | 213 | 1 braid, wire | | | | | | | | | | X | | | | | | | | |
| | 293 | 1 braid, wire | | | | | | | | | | X | | | | | | | | |
| High temperature | 221FR | 1 braid, wire | X | | | | | | | | X | | | | | | | | | |
| | 285 | 1 braid, wire | | | | | | | | | | | | | | | | | | |
| Railway | 201 | 1 braid, wire | | | | | | | | | | | | | | | | | | |
| | 206 | 1 braid, wire | | | | | | | | | | X | | | | | | | | |
| Transportation | 213 | 1 braid, wire | | | | | | | | | | X | | | | | | | | |
| | 293 | 1 braid, wire | | | | | | | | | | X | | | | | | | | |
| Fire retardant | 221FR | 1 braid, wire | X | | | | | | | | X | | | | | | | | | |
| | 285 | 1 braid, wire | | | | | | | | | | | | | | | | | | |
| Refrigeration | 221FR | 1 braid, wire | X | | | | | | | | X | | | | | | | | | |
| | 285 | 1 braid, wire | | | | | | | | | | | | | | | | | | |

Classification Body Type Approvals

Medium pressure

Description (1)-(16) see Ab-16

| Hose | Construction | Standard | GL (1) | DNV (2) | RINA (3) | EN 45545 (4) | NF (5) | BS 6853 (6) | UNI CEI (7) | LR (8) | ABS (9) | DOT (10) | USCG (11) | MSHA (12) | MarED (13) | BV (14) | VG (15) | OBAC (16) |
|--|--------------|------------------------|--|---------|----------|--------------|--------|-------------|-------------|--------|---------|----------|-----------|-----------|------------|---------|---------|-----------|
| Standard | 421SN | 1 braid, wire | X | X | X | | | | | X | X | | | | X | X | X | |
| | 422 | 1 braid, wire | | | | | | | | | | | | | | | X | |
| | 301SN | 2 braids, wire | X | X | X | | | | | X | X | | | | X | X | X | |
| | 302 | 2 braids, wire | | | | | | | | | | | | | | | X | |
| | 441 | 1/2 braids, wire | | | | | | | | | | | | | | | | |
| | 451 | 1/2 braids, wire | | | | | | | | | | | | | | | | |
| | 492 | 1 braid, wire | | X | X | | | | | X | X | X | | | X | | X | |
| | 462 | 2 braids, wire | | X | X | | | | | X | X | X | | | X | | X | |
| | 462CLF | 2 braids, wire | | | | | | | | | | | | | | | | |
| | 301TC | 2 braids, wire | Exceeds EN 853-2SN - ISO 1436-2SN/R2AT | | X | | | | | | | X | | | X | | | |
| High abrasion resistance - MSHA approved | 351TC | 2 braids, wire | | | | | | | | | | | | X | | | | |
| | 451TC | 1/2 braids, wire | | | | | | | | | | | | X | | | | |
| | 462TC | 2 braids, wire | | | | | | | | | | | | X | | | | |
| | 471TC | 2 braids, wire | Exceeds EN 857-2SC - ISO 11237-2SC | | | | | | | | | | | | X | | | |
| | 472TC | 2 braids, wire | EN 857-2SC - ISO 11237-2SC | | | | | | | | | X | | | X | | | |
| | 492ST | 1 braid, wire | EN 857-1SC - ISO 11237-1SC | | | | | | | | | | | | | | | |
| Extreme abrasion resistance | 462ST | 2 braids, wire | | | | | | | | | | | | | | | | |
| | 426 | 1 braid, wire | | | | | | | | | | | | | | | X | |
| Low / High temperature | 436 | 2 braids, wire | | | | | | | | | | | | | | | X | |
| | 461LT | 2 braids, wire | | | | | | | | | | | | | | | X | |
| Phosphate Ester | 424 | 1 braid, wire | | | | | | | | | | | | | | | | |
| | 304 | 2 braids, wire | | | | | | | | | | | | | | | | |
| Railway | 441RH | 1/2 braids, wire | | | | | | | | | | | | | | | X | X |
| | 421RH | 1 braid, wire | | | | | | | | | | | | | | X | X | |
| Water cleaning | 493 | 1 braid, wire | | | | | | | | | | | | | | | | |
| | 463 | 2 braids, wire | | | | | | | | | | | | | | | | |
| Pilot | 402 | 1 braid, wire | | | | | | | | | | | | | | | | |
| | 412 | 1 braid, wire | | | | | | | | | | | | | | | | |
| Wire cover | 412ST | 1 braid, wire | | | | | | | | | | | | | | | | |
| | 421WC | 1 braid, wire | | | | | | | | | | | | | | | | |
| Powerlift | 477 | 2 braids, wire | | | | | | | | | | | | | | | | |
| | 477ST | 2 braids, wire | | | | | | | | | | | | | | | | |
| Extremely flexible | 692 | 1/2 braids, wire | | | | | | | | | | | | | | | | |
| | 692TWIN | 1/2 braids, wire | | | | | | | | | | | | | | | | |
| Suction | 811 | 1 braid, 1 steelspiral | | | | | | | | | | | | | | | | |
| | 811S | 1 braid, 1 steelspiral | | X | | | | | | | | | | | | | | |
| | 881 | 1 braid, 1 steelspiral | | X | | | | | | | | | | | | | | H |

Medium pressure

Classification Body Type Approvals

High pressure

Description (1)-(16) see Ab-16

| Hose | Construction | Standard | GL (1) | DNV (2) | RINA (3) | EN 45545 (4) | NF (5) | BS 6853 CEI (6) | UNI CEI (7) | LR (8) | ABS (9) | DOT (10) | USCG (11) | MSHA (12) | MarED (13) | BV (14) | VG (15) | OBAC (16) |
|--|--------------|------------------|--|---------|----------|--------------|--------|-----------------|-------------|--------|---------|----------|-----------|--|------------|---------|---------|-----------|
| 3 braids Low temperature High abr. resistance Railway | 372 | 3 braids, wire | X | X | | | | | | X | X | | | | X | | | |
| | 371LT | 3 braids, wire | | | | | | | | | | | | | | | | |
| | 372TC | 3 braids, wire | | X | | | | | | | | | | X | | | | |
| | 372RH | 3 braids, wire | | | | | X | | | | | | | | | | | |
| | 701 | 4 spiral, wire | X | | X | | | | | | | | | | | | X | |
| | 731 | 4 spiral, wire | | | | | | | | | | | | | | | | |
| | 781 | 4/6 spiral, wire | EN 856-4SH - ISO 3862-4SH | | | | | | | | | | | | X | | | |
| | P35 | 6 spiral, wire | EN 856-R13 - ISO 3862-R13 - SAE 100R13 | | X | | | | | | | X | | X | X | | | |
| | 722CLF | 4 spiral, wire | EN 856-R12 - ISO 3862-R12 - SAE 100R12 | | | | | | | | | | | | | | | |
| | 774 | 4 spiral, wire | | | | | | | | | | | | | | | | |
| Phosphate Ester Extreme pressure | F42 | 4/6 spiral, wire | | | | | | | | | | | | | | | | |
| | 761 | 6 spiral, wire | | | | | | | | | | | | | | | | |
| | 721TC | 4 spiral, wire | | | | | | | | | | | | X | | | | |
| | 722TC | 4 spiral, wire | | | | | | | | | | | | X | | | | |
| | 731TC | 4 spiral, wire | ISO 3862-4SH - EN 856-4SH | | | | | | | | | | | | | | | |
| | 782TC | 4/6 spiral, wire | EN 856-R13 - ISO 3862-R13 - SAE 100R13 | | X | | | | | | | X | | X | | | | |
| | 791TC | 4/6 spiral, wire | ISO 3862-R15 - SAE 100R15 | | X | | | | | | | X | | X | | | | |
| | 792TC | 4/6 spiral, wire | ISO 3862-R15 - SAE 100R15 | | X | | | | | | | X | | X | | | | |
| | 772LT | 4 spiral, wire | EN 856-R12 - ISO 3862-R12 - SAE 100R12 | | | | | | | | | | | | | | | |
| | 787TC | 4/6 spiral, wire | SAE 100R13 - ISO 3862-R13 - Exceeds ISO 18752-DC | | | | | | | | | X | | | X | | | |
| Compact Spiral | 797TC | 4/6 spiral, wire | | | | | | | | | | | | X | | | | |
| | H31 | 4 spiral, wire | X | X | X | | | | | | | | | Exceeds EN 856-4SP - ISO 3862-4SP | | | | |
| | H29 | 4 spiral, wire | X | X | | | | | | | | | | Exceeds EN 856-4SH - ISO 3862-4SH | | | | |
| | R35 | 4/6 spiral, wire | | | | | | | | | | | | EN 856-R13 - ISO 3862-R13 - SAE 100R13 | | | | |
| | R42 | 4/6 spiral, wire | X | X | | | | | | | | | | ISO 3862-R15 - SAE 100R15 | | | | |
| | H31TC | 4 spiral, wire | | X | | | | | | | | | | Exceeds EN 856-4SP - ISO 3862-4SP | | | | X |
| | H29TC | 4 spiral, wire | | X | | | | | | | | | | Exceeds EN 856-4SH - ISO 3862-4SH | | | | X |
| | R35TC | 4/6 spiral, wire | EN 856-R13 - ISO 3862-R13 - SAE 100R13 | | | | | | | | | X | | | X | | | |
| | RS35TC | 6 spiral, wire | ISO 6907-D | | | | | | | | | | | | X | | | |
| | R42TC | 4/6 spiral, wire | ISO 3862-R15 - SAE 100R15 | | X | | | | | | | | | | X | | | |
| ParLock High abrasion resistance - MSHA approved | R50TC | 4/6 spiral, wire | | | | | | | | | | | | X | | | | |
| | R56TC | 4 spiral, wire | | | | | | | | | | | | Exceeds ISO 3862-R15 | | | | |
| | H31ST | 4 spiral, wire | | | | | | | | | | | | Exceeds EN 856-4SP - ISO 3862-4SP | | | | |
| | H29ST | 4 spiral, wire | | | | | | | | | | | | Exceeds EN 856-4SH - ISO 3862-4SH | | | | |
| | R42ST | 4/6 spiral, wire | | X | | | | | | | | | | ISO 3862-R15 - SAE 100R15 | | | | |
| | H29RH | 4 spiral, wire | | | | | | | | | | | | Exceeds EN 856-4SH - ISO 3862-4SH | | | | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |

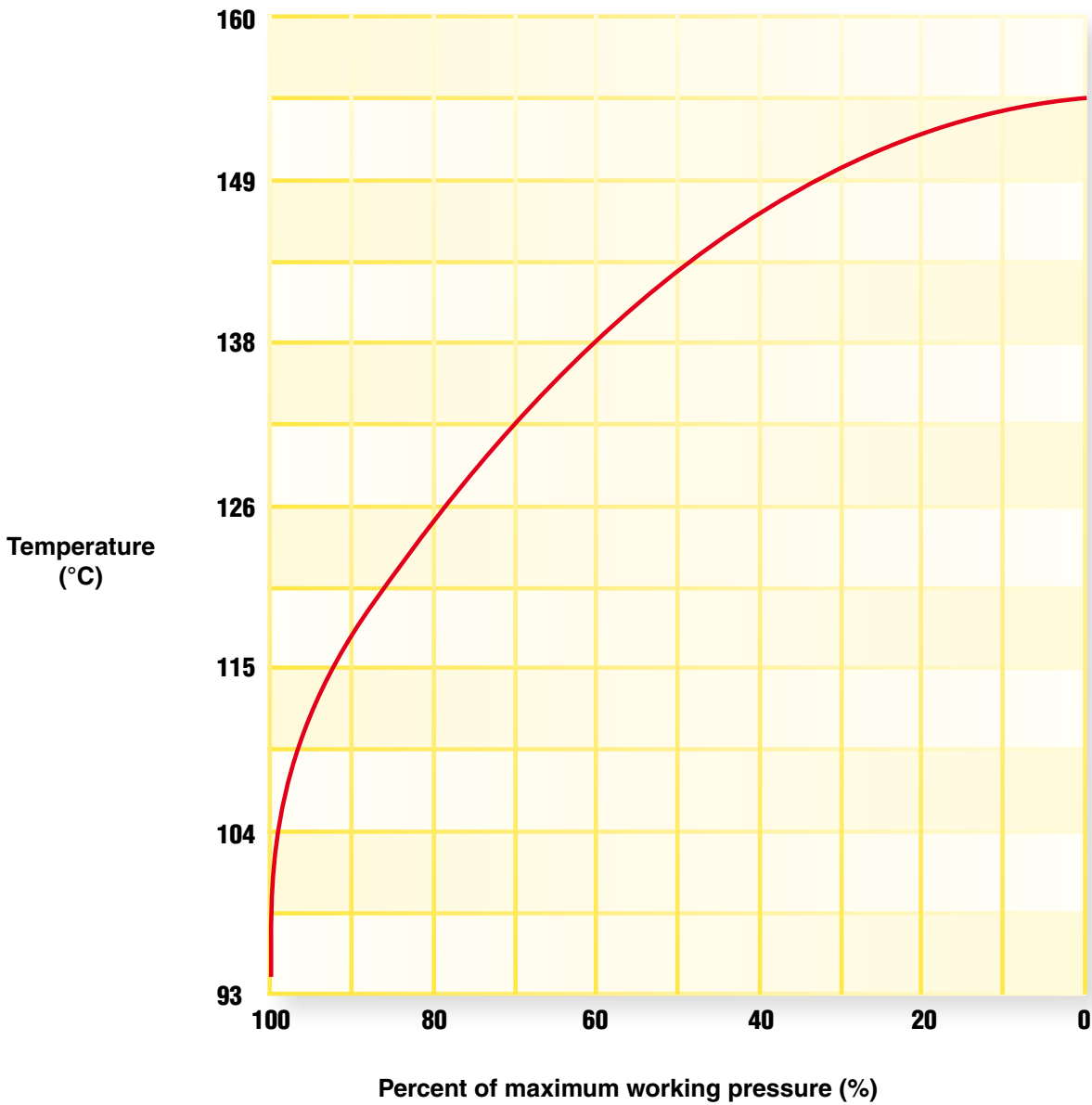
Conversion Chart

| | Unit | Base Unit | Conversion Unit | Factor |
|--------------------|--------------------------|-----------------|-----------------|----------------|
| Length | 1 inch | in | mm | 25.4 |
| | 1 millimetre | mm | in | 0.03934 |
| | 1 foot | ft | m | 0.3048 |
| | 1 metre | m | ft | 3.28084 |
| Area | 1 square inch | sq in | cm ² | 6.4516 |
| | 1 square centimetre | cm ² | sq in | 0.1550 |
| Volume | 1 gallon (UK) | gal | l | 4.54596 |
| | 1 litre | l | gal (UK) | 0.219976 |
| | 1 gallon (US) | gal | l | 3.78533 |
| | 1 litre | l | gal (US) | 0.264177 |
| Weight | 1 pound | lb | kg | 0.453592 |
| | 1 kilogramme | kg | lb | 2.204622 |
| Torque | 1 pound foot | lb • ft | N • m | 1.488164 |
| | 1 Newton metre | N • m | lb • ft | 0.671969 |
| Pressure | 1 pound per square inch | psi | bar | 0.06895 |
| | 1 bar | bar | psi | 14.5035 |
| | 1 pound per square inch | psi | MPa | 0.006895 |
| | 1 mega pascal | MPa | psi | 145.035 |
| | 1 kilo pascal | kPa | bar | 0.01 |
| | 1 bar | bar | kPa | 100 |
| | 1 mega pascal | MPa | bar | 10 |
| | 1 bar | bar | MPa | 0.1 |
| Velocity | 1 foot per second | ft / s | m / s | 0.3048 |
| | 1 metre per second | m / s | ft / s | 3.28084 |
| Flow rate | 1 gallon per minute (UK) | gal / min. | l / min. | 4.54596 |
| | 1 litre per minute | l / min. | gal / min. (UK) | 0.219976 |
| | 1 gallon per minute (US) | gal / min. | l / min. | 3.78533 |
| | 1 litre per minute | l / min. | gal / min. (US) | 0.264178 |
| Temperature | Fahrenheit degree | °F | °C | 5/9 • (°F-32) |
| | Celsius degree | °C | °F | °C • (9/5) +32 |

(UK) Unit of United Kingdom
 (US) Unit of USA

Temperature / Pressure Chart

Reference 201, 206, 213 and 293 hose.



EXAMPLE: 201-8 hose to be used at 121 °C

| | | | | |
|---------------------------------------|---|----------------------------------|---|------------------------------------|
| Maximum Working Pressure up to 100 °C | x | Multiplication Factor from Chart | = | Maximum Working Pressure at 121 °C |
| 13.8 MPa (2000 psi) | x | 85% | = | 11.7 MPa (1700 psi) |

Flow Capacity Nomogram

The chart below is provided as an aid in the determination of the correct hose size.

Example: at 10 gallons per minute (gal/min), what is the proper hose size within the recommended velocity range for pressure lines?

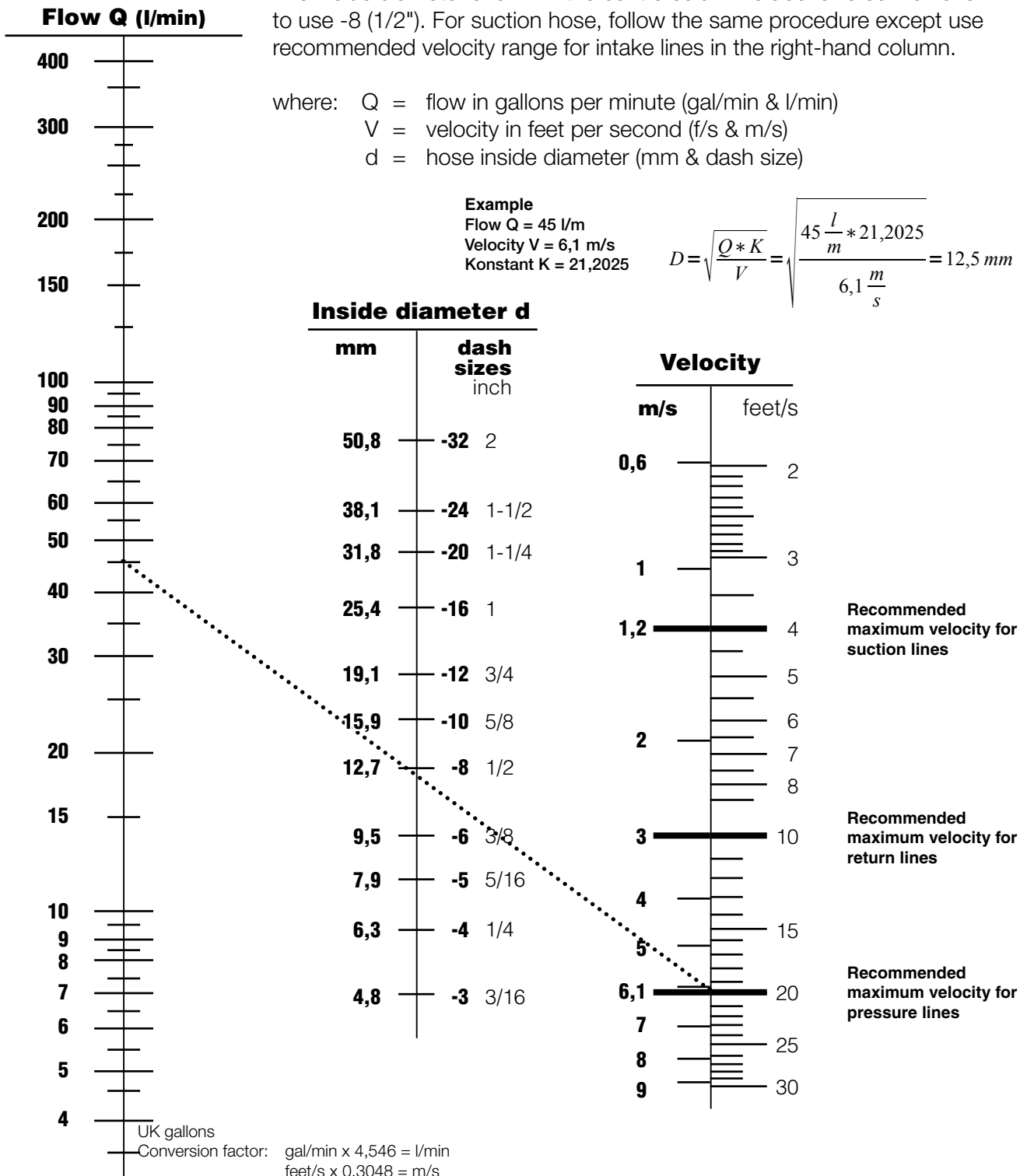
Locate 10 gallons per minute in the left-hand column and 20 feet per second in the right-hand column (the maximum recommended velocity range for pressure lines). Lay a straight line across these two points.

The inside diameter shown in the centre column is above -6 so we have to use -8 (1/2"). For suction hose, follow the same procedure except use recommended velocity range for intake lines in the right-hand column.

- where: Q = flow in gallons per minute (gal/min & l/min)
- V = velocity in feet per second (f/s & m/s)
- d = hose inside diameter (mm & dash size)

Example
 Flow Q = 45 l/m
 Velocity V = 6,1 m/s
 Konstant K = 21,2025

$$D = \sqrt{\frac{Q * K}{V}} = \sqrt{\frac{45 \frac{l}{m} * 21,2025}{6,1 \frac{m}{s}}} = 12,5 \text{ mm}$$



* Recommended velocities are according to hydraulic fluids of maximum viscosity 315 S.S.U. at 38°C working at roomtemperature within 18° and 68°C.

The Correct Method to Fit Female Swivel Ends

To ensure a leakproof seal between swivel female hose ends shown in this catalogue and the appropriate adaptors it is necessary to follow the procedure below which is different from hydraulic tube assembly.

Flats From Wrench Resistance (FFWR)

Parker's recommended assembly method for JIC 37° flare, SAE 45° flare and ORFS swivel female is Flats From Wrench Resistance (FFWR). The torque values assigned by size are for reference only, and are only

applicable to Parker system components using the FFWR method with trivalent chromate passivation on zinc plating of carbon steel components without lubrication.

Metal-to-metal seal

Screw the nut up hand tight and then tighten further with a spanner according to the values mentioned in the table below. Ensure that in all cases the hose is correctly aligned before tightening the nut onto the corresponding adaptor.

Spanner torque values

Metric swivel female

| Thread metric | Tube O.D. | Nm | |
|---------------|-----------|---------|-------------|
| | | nominal | min. - max. |
| M 12x1.5 | 06L | 16 | 15 - 17 |
| M 14x1.5 | 08L | 16 | 15 - 17 |
| M 16x1.5 | 10L | 26 | 25 - 28 |
| M 18x1.5 | 12L | 37 | 35 - 39 |
| M 22x1.5 | 15L | 47 | 45 - 50 |
| M 26x1.5 | 18L | 89 | 85 - 94 |
| M 30x2 | 22L | 116 | 110 - 121 |
| M 36x2 | 28L | 137 | 130 - 143 |
| M 45x2 | 35L | 226 | 215 - 237 |
| M 52x2 | 42L | 347 | 330 - 363 |
| M 14x1.5 | 06S | 26 | 25 - 28 |
| M 16x1.5 | 08S | 42 | 40 - 44 |
| M 18x1.5 | 10S | 53 | 50 - 55 |
| M 20x1.5 | 12S | 63 | 60 - 66 |
| M 22x1.5 | 14S | 79 | 75 - 83 |
| M 24x1.5 | 16S | 84 | 80 - 88 |
| M 30x2 | 20S | 126 | 120 - 132 |
| M 36x2 | 25S | 179 | 170 - 187 |
| M 42x2 | 30S | 263 | 250 - 275 |
| M 52x2 | 38S | 368 | 350 - 385 |

BSP swivel female

| Thread BSPP | size | Nm | |
|-------------|------|---------|-------------|
| | | nominal | min. - max. |
| G1/4 | -4 | 20 | 15 - 25 |
| G3/8 | -6 | 34 | 27 - 41 |
| G1/2 | -8 | 60 | 42 - 76 |
| G5/8 | -10 | 69 | 44 - 94 |
| G3/4 | -12 | 115 | 95 - 135 |
| G1 | -16 | 140 | 115 - 165 |
| G1-1/4 | -20 | 210 | 140 - 280 |
| G1-1/2 | -24 | 290 | 215 - 365 |
| G2 | -32 | 400 | 300 - 500 |

Note

Values given in tables are typical to achieve the recommended assembly methods when fitting material is steel zinc plated. For other materials different values will be applicable (see our recommendations for other materials on this page).

JIC 37° swivel female

| Thread UNF | size | Flats From Wrench Resistance (FFWR) | Swivel Nut Torque Nm (Ref) |
|------------|------|-------------------------------------|----------------------------|
| 7/16-20 | -4 | 2 | 18 |
| 1/2-20 | -5 | 2 | 20 |
| 9/16-18 | -6 | 1-1/2 | 30 |
| 3/4-16 | -8 | 1-1/2 | 57 |
| 7/8-14 | -10 | 1-1/2 | 81 |
| 1.1/16-12 | -12 | 1-1/4 | 114 |
| 1.5/16-12 | -16 | 1 | 160 |
| 1.5/8-12 | -20 | 1 | 228 |
| 1.7/8-12 | -24 | 1 | 265 |
| 2.1/2-12 | -32 | 1 | 360 |

ORFS swivel female

| Thread UNF | size | Flats From Wrench Resistance (FFWR) | Swivel Nut Torque Nm (Ref) |
|------------|------|-------------------------------------|----------------------------|
| 9/16-18 | -4 | 1/2 to 3/4 | 25 |
| 11/16-16 | -6 | 1/2 to 3/4 | 40 |
| 13/16-16 | -8 | 1/2 to 3/4 | 55 |
| 1-14 | -10 | 1/2 to 3/4 | 80 |
| 1.3/16-12 | -12 | 1/3 to 1/2 | 115 |
| 1.7/16-12 | -16 | 1/3 to 1/2 | 150 |
| 1.11/16-12 | -20 | 1/3 to 1/2 | 205 |
| 2-12 | -24 | 1/3 to 1/2 | 315 |
| 2-1/2x12 | -32 | - | - |

Note: The assembly torques listed are higher than the test torques published in SAE J1453.

The torque values for other materials are as follows:

- Brass fittings and adapters
 - 65 % of the torque value for steel.
- Stainless steel and Monel
 - Use 5% higher than listed for steel.
 - Threads to be lubricated for these materials.
- Dissimilar metals
 - Use torque value designated for the lower of the two metals.
- All fittings are dry except as noted above.

Chemical Resistance Table

Warning ! This chemical compatibility guide must not be used in conjunction with any other compatibility guides from previous or future catalogue editions, bulletins or publications. Incorrect use of these charts could result in death, personal injury or property damage.

Hose Selection by Medium and Hose Type

This hose compatibility chart is a ready reference of Parker hose compatibility with various fluid media. It is intended as a guide to chemical compatibility with inner tube materials and assembly lubricants applied internally.

The outer cover of the hose is intended to protect the reinforcement layer(s) from mechanical influences (abrasion, weathering etc), as such the cover compounds are not designed to exhibit the same chemical resistance as the tube compounds. The Hose Division Technical Department should be consulted about the compatibility of the cover should the application involve the extended exposure or immersion in a liquid.

The specific recommendations are based upon field experience, the advice of various polymer or fluid suppliers, and specific laboratory experiments. It must be stressed, however, that this information is offered only as a guide. Final hose selection depends also upon pressure, fluid temperature, ambient temperature, and special requirements or variations, which may not be known by Parker. Legal and other regulations must be followed with particular care.

Where an external compatibility problem may occur, or for fluids not listed, we encourage you to first contact the fluid manufacturer for a recommendation prior to contacting your Parker Field Representative or the Technical Department, Hose Products Division Europe (HPDE_Helpdesk@parker.com)

Use the Chart as Follows:

1. Locate medium to be carried using the Chemical Resistance Table on the following pages.
2. Select suitability of hose and fitting material from the table based on the letter rating in the table. See resistance rating key below for explanation of compatibility ratings. See list of numerals below for an explanation when a numeral, or a numeral and a letter rating are present in the table.
3. The Column headings on the Chemical Resistance Table, I, II, III, IV, V refer to specific groups of hoses.
4. Locate hose part number under Column I, II, III, IV, V. VI from the list below.
5. For fitting material availability refer to appropriate fitting section of catalogue.
6. Check hose specifications in this catalogue. Contact Hose Products Division Europe Technical Department on any items not catalogued.

Resistance Rating Key

A = Preferred, good to excellent with little or no change in physical properties.

F = Fair, marginal or conditional with noticeable effects on physical properties.

X = Unsuitable, severe effects on physical properties.

~ = No rating, insufficient information.

Numerals

1. For air or gaseous applications above 250 PSI (1.7 MPa), the cover should be pin pricked.
2. Legal and insurance regulations must be considered. Contact HPDE Technical Department for more information.
3. Push-Lok hoses (801, 804, 821FR, 831, 836, 837BM, 837PU, 830M, 838M) are not recommended for any type of fuel.
4. Use 285, 235 or 244 hoses. The compatibility of the system's refrigeration oil with these hoses needs to be evaluated on a case by case basis. Contact HPDE Technical Department for more information. Do not use mineral oil or alkyl benzene refrigeration oils with 244 hose. Chemical compatibility does not imply low permeation.
5. 65 °C (150 °F) maximum.
6. Satisfactory at some concentrations and temperatures, unsatisfactory at others.
7. For phosphate ester fluids use 304, 424, 774, 804 or F42 hoses.
8. Acceptable for flushing hose assemblies.
9. 221FR hose recommended.
10. For dry air applications, hoses with inner tubes from columns IV and V are preferred. See hose specifications for maximum recommended temperatures with air.
11. 100 °C (212 °F) maximum.
12. 121 °C (250 °F) maximum.
13. Hoses for gas application are available from Parker. Please contact the Technical Department for more information about the products as well as the legal application requirements.
14. 70 °C maximum for hoses 801, 837BM, 837PU
15. No rating / insufficient information about chemical compatibility for hoses 801, 837BM, 837PU.

Hose Types

| | |
|--------------------|---|
| Column I: | 201, 601, 701, 721TC, 731, 731TC, 761, 77C, P35, 781, 791TC, 881, H31, H29, R35, RS35TC, R42, H31TC, H29TC, R35TC, R42TC, H31ST, H29ST, R42ST, H29RH, R50TC, R56TC |
| Column II: | 351TC, 371LT, 421TC, 421WC, 441, 441RH, 451, 451TC, 451ST, 461LT, 471TC, , 493, 681, 681DB, 772LT, 811 |
| Column III: | 221FR, 301SN, 301TC, 302, 372, 372RH, 372TC, 402, 412, 412ST, 421RH, 421SN, 422, 462, 462CLF, 462ST, 462TC, 472TC, 477, 477ST, 492, 492ST, 492TC, 692, 692Twin, 722TC, 722 CLF, 782TC, 787TC, 792TC, 797TC, 831 |
| Column IV: | 206, 213, 293, 426, 436, 611HT, 821FR, 836, 801*, 837BM*, 837PU* |
| Column V: | 304, 424, 774, 804, F42 - Special EPDM hose for Phosphoric Ester |
| Column VI: | 830M, 838M |

Note: * See Numeral 15,16

Caution: The fluid manufacturer's recommended maximum operating temperature for any specific name-brand fluid should be closely observed by the user. Specific name brand fluids can vary greatly between manufacturers even though they are considered to be from the same family of fluids. Using fluids above the manufacturer's maximum recommended temperature can cause the fluid to break down, creating by-products that can be harmful to elastomers or other materials used in the system. When selecting a hose type, both the fluid manufacturer and hose manufacturer's maximum temperature limit must be taken into consideration, with the lower of the two taking precedence.

| Medium | I | II | III | IV | V | VI | STEEL | BRASS | SS |
|---|----------|----------|----------|---------|----------|----|-------|-------|----|
| 3M FC-75 | A | A | A | A 15 | A | A | A | A | A |
| A | | | | | | | | | |
| Acetic Acid | X | X | X | A 15 | 6 | X | X | X | A |
| Acetone | X | X | X | A 15 | A | X | A | A | A |
| Acetylene | X | X | X | X | X | - | - | - | - |
| AEROSHELL Turbine Oil 500 (See MIL-L-23699) | X | X | F | X | X | - | A | A | A |
| Agip Arnica 46 | A | A | A | A | X | A | | | |
| Agip synth 2000 | A | A | A | A | X | A | | | |
| Air | A, 1, 10 | A, 1, 10 | A, 1, 10 | A 1, 10 | A, 1, 10 | A | A | A | A |
| Air (dry) | X | F, 1, 10 | F, 1, 10 | A 1, 10 | A, 1, 10 | A | A | A | A |
| AEROSHELL Fluid 41 | - | F | A | - | - | - | | | |
| Alusol M | - | A | A | - | - | - | | | |
| Alcohol (Methanol-Ethanol) | F | F | F | A 15 | F | - | F | A | A |
| Ammonia (Anhydrous) | X | X | X | X | X | - | X | X | X |
| Ammonium Chloride | A | A | A | A 15 | A | A | X | X | X |
| Ammonium Hydroxide | F | F | F | A 15 | A | X | F | X | A |
| Ammonium Nitrate | A | A | A | A 15 | A | - | F | X | A |
| Ammonium Phosphate | A | A | A | A 15 | A | - | X | X | F |
| Ammonium Sulfate | A | A | A | A 15 | A | - | F | X | F |
| Ambra Multi G (NH 410 B) | - | A | A | - | - | - | | | |
| Amoco 32 Rykon | X | A | A | F 14 | X | A | A | A | A |
| Ampol PE 46 | X | X | X | X | A, 7 | F | A | A | A |
| AMSOIL Synthetic ATF | F | A | A | A 15 | X | F | A | A | A |
| Amyl Alcohol | X | X | X | A 15 | F | - | X | A | A |
| Anderol 495,497,500,750 | X | X | F | A 15 | X | X | A | A | A |
| Aniline | X | X | X | A 15 | A | X | A | X | A |
| Animal Fats | X | F | F | A 15 | F | - | 6 | 6 | A |
| Aquacent Light, Heavy | X | A | A | X | X | A | A | A | A |
| Aral Vitam HF46 | A | A | A | X | X | F | | | |
| Argon | A | A | A | A | A | A | A | A | A |
| Aromatic 100,150 | X | F | F | - | X | F | A | A | A |
| Arrow 602P | A | A | A | A 14 | X | A | A | A | A |
| Asphalt | X | F | F | F 14 | X | A | F | F | A |
| ASTM #3 Oil | F | F | F | A 15 | X | - | A | A | A |
| ATF-M | F | A | A | A 14 | X | A | A | A | A |
| Avantin 361 | - | A | A | - | - | - | | | |
| Avia Syntofluid PE B50 | A | A | A | - | - | - | | | |
| Avialith 2 WC | - | A | A | - | - | - | | | |
| Automotive Brake Fluid | X | X | X | X | - | X | X | X | X |
| AW 32,46,68 | F | A | A | A 14 | X | A | A | A | A |
| B | | | | | | | | | |
| BCF | F | F | F | F 15 | - | - | A | A | A |
| Benz Petraulic 32,46,68,100,150,220,320,460 | F | A | A | A 14 | X | A | A | A | A |
| Benzene, Benzol | X | X | X | A 15 | X | F | A | A | A |
| Benzgrind HP 15 | - | A | A | A 15 | X | - | A | A | A |
| Benzine | X | X | X | F 15 | X | - | A | A | A |
| Biodegradable Hydraulic Fluid 112B | X | A | A | X | - | - | A | A | A |
| Biodiesel E20 | X | F | X | X | X | X | - | - | - |
| Biodiesel E100 | X | F | X | X | X | X | - | - | - |
| Biodiesel E60 | X | F | X | X | X | X | - | - | - |
| Biodiesel E80 | X | F | X | X | X | X | - | - | - |
| Borax | F | F | F | A 15 | A | - | F | A | A |
| Boric Acid | A | A | A | X | A | X | X | 6 | A |
| Brayco 882 | X | A | A | A 15 | X | - | A | A | A |
| Brayco Micronic 745 | X | X | A | F 14 | X | A | A | A | A |
| Brayco Micronic 776RP | F | A | A | F 14 | X | A | A | A | A |
| Brayco Micronic 889 | X | F | F | - | X | - | A | A | A |
| Brine | F | F | F | A 15 | A | - | X | F | F |

Technical Handbook

| Medium | I | II | III | IV | V | VI | STEEL | BRASS | SS |
|--|------|---------|-------|----------|------|------|-------|-------|----|
| Butane | | See 2 & | | | | F | A | A | A |
| Butyl Alcohol, Butanol | F | F | F | A 15 | F | - | F | F | A |
| C | | | | | | | | | |
| Calcium Chloride | A | A | A | A 15 | A | - | F | F | X |
| Calcium Hydroxide | A | A | A | A 15 | A | - | A | A | A |
| Calcium Hypochlorite | X | X | X | A 15 | A | - | X | F | X |
| Calibrating Fluid | A | A | A | A 14 | X | A | A | A | A |
| Carbon Dioxide, gas | F | F | F | F 15 | 6 | - | A | A | A |
| Carbon Disulfide | X | X | X | A 15 | X | - | A | F | A |
| Carbon Monoxide (hot) | F | F | F | A 15 | 6 | - | F | 6 | A |
| Carbon Tetrachloride | X | X | X | A 15 | X | - | 6 | 6 | 6 |
| Carbonic Acid | F | F | F | X | F | X | X | X | F |
| Castor Oil | A | A | A | A 15 | A | - | A | A | A |
| Castrol 5000 | X | F | F | A 15 | X | X | A | A | A |
| Castrol Wendax | - | A | A | - | - | - | | | |
| Cellosolve Acetate | X | X | X | X | A | - | X | X | A |
| Cellugard | A | A | A | - | A | - | A | A | A |
| Cellulube 90, 150, 220 300, 550, 1000 | X | X | X | - | A | - | A | A | A |
| Chevron Clarity AW 32, 46, 68 | A | A | A | A 14 | X | A | A | A | A |
| Chevron FLO-COOL 180 | F | F | F | - | X | - | A | A | A |
| Chevron FR-8, 10, 13, 20 | X | X | X | X | A, 7 | F | A | A | A |
| Chevron Hydraulic Oils AW MV 15, 32, 46, 68, 100 | A | A | A | A 14 | X | A | A | A | A |
| Chevron HyJet IV (9) | X | X | X | X | A, 7 | F | A | A | A |
| Citric Acid | F | A | A | X | A | X | X | X | 6 |
| Commonwealth EDM 242, 244 | A | A | A | - | X | A | A | A | A |
| CompAir CN300 | X | X | X | A 15 | X | X | A | A | A |
| CompAir CS100, 200, 300, 400 | X | X | X | A 15 | X | X | A | A | A |
| Condat D46 - D68 | F | A | A | - | - | - | | | |
| Coolanol 15, 20, 25, 35, 45 | A | A | A | A 15 | A | X | A | A | A |
| Copper Chloride | F | A | A | X | A | - | X | X | X |
| Copper Sulfate | A | A | A | X | A | - | X | X | F |
| Cosmolubric HF-122, HF-130, HF-144 | X | F | A | X | X | - | A | A | A |
| Cosmolubric HF-1530 | X | F | A | X | X | - | A | A | A |
| Cottonseed Oil | F | A | A | F 15 | X | - | A | A | A |
| CPI CP-4000 | X | X | X | A 15 | X | - | A | A | A |
| Crude Petroleum Oil | F | A | A | A 14 | X | A | F | F | A |
| CSS 1001 Dairy Hydraulic Fluid | F | A | A | A 15 | X | - | A | A | A |
| D | | | | | | | | | |
| Daphne AW32 | A | A | A | A 14 | X | A | A | A | A |
| Dasco FR 201-A | A | A | A | - | X | - | A | A | A |
| Dasco FR150, 200, 310 | F | A | A | - | A | - | A | A | A |
| Dasco FR300, FR2550 | X | X | X | - | X | F | A | A | A |
| Dasco FR355-3 | X | F | A | X | X | X | A | A | A |
| Deicer Fluid 419R | A | A | A | - | - | A | A | A | A |
| Deionized Water | A | A | A | A 15 | A | - | F | F | A |
| Dexron II ATF | F | A | A | A 14 | X | A | A | A | A |
| Dexron III ATF | X | F, 11 | F, 11 | A 15, 12 | X | - | A | A | A |
| Diesel Fuel | F, 3 | A, 3 | A, 3 | A 15, 3 | X | A(2) | A | A | A |
| Diester Fluids | X | X | X | X | X | X | A | A | A |
| Divinol HLP 46 | - | A | A | - | - | - | | | |
| DOT III-IV | X | X | X | X | F | - | | | |
| Dow Corning 2-1802 Sullair (24KT) | - | - | - | F 15 | - | - | A | A | A |
| Dow Corning DC 200, 510, 550, 560, FC126 | A | A | A | A 15 | - | - | A | A | A |
| Dow HD50-4 | F | F | F | - | - | - | - | - | A |
| Dow Sullube 32 | - | - | - | F 15 | - | - | A | A | A |
| Dowtherm A,E | X | X | X | A 15 | X | - | A | A | A |
| Dowtherm G | X | X | X | X | X | - | A | A | A |
| Duro AW-16, 31 | A | A | A | - | X | - | A | A | A |

| Medium | I | II | III | IV | V | VI | STEEL | BRASS | SS |
|--|------|-------|------|---------|------|------|-------|-------|----|
| Duro FR-HD | A | A | A | - | X | - | A | A | A |
| E | | | | | | | | | |
| EcoSafe FR-68 | A | A | A | - | X | X | A | A | A |
| Ethanol | F | F | F | A 15 | F | - | F | A | A |
| Ethers | X | X | X | A 15 | X | - | A | A | A |
| Ethyl Acetate | X | X | X | A 15 | F | - | F | A | A |
| Ethyl Alcohol | F | F | F | A 15 | F | - | F | A | A |
| Ethyl Cellulose | F | F | F | A 15 | F | - | X | F | F |
| Ethyl Chloride | X | X | X | X | A | - | F | F | F |
| Ethylene Dichloride | X | X | X | A 15 | X | - | X | A | X |
| Ethylene Glycol | F | A | A | A | A | A | A | F | A |
| Exxon 3110 FR | A | A | A | A 15 | X | A | A | A | A |
| Exxon Esstic | A | A | A | A 14 | A | A | A | A | A |
| Exxon Nuto H 46, 68 | A | A | A | A 14 | X | A | A | A | A |
| Exxon Tellura Industrial Process Oils | A | A | A | A 14 | X | A | A | A | A |
| Exxon Terresstic, EP | A | A | A | A 14 | A | A | A | A | A |
| Exxon Turbo Oil 2380 | X | F | F | A 15 | X | X | A | A | A |
| Exxon Univolt 60, N61 | F | A | A | A 14 | X | A | A | A | A |
| F | | | | | | | | | |
| FE 232 (Halon) | X | X | X | X | F | - | A | A | A |
| Fenso 150 | - | A | A | - | X | A | A | A | A |
| Formaldehyde | X | X | X | A 15 | A | - | X | F | A |
| Formic Acid | X | X | X | X | A | X | X | 6 | X |
| Freons see refrigerants | - | - | - | - | - | - | - | - | - |
| Fuel Oil | F, 3 | A, 3 | A, 3 | A 15, 3 | X | A(2) | A | A | A |
| Fyre-Safe 120C, 126, 155, 1090E, 1150, 1220, 1300E | X | X | X | X | A, 7 | F | A | A | A |
| Fyre-Safe 200C, 225, 211 | F | A | A | A | A | F | A | A | A |
| Fyre-Safe W/O | A | A | A | A 15 | X | A | A | A | A |
| Fyrguard 150, 150-M, 200 | A | A | A | A | A | F | A | A | A |
| Fyrquel 60, 90, 150, 220, 300, 550, 1000 | X | X | X | X | A, 7 | F | A | A | A |
| Fyrquel EHC, GT, LT, VPF | X | X | X | X | A, 7 | F | A | A | A |
| Fyrtek MF, 215, 290, 295 | X | X | X | X | X | F | A | A | A |
| G | | | | | | | | | |
| Gardner-Denver GD5000, GD8000 | X | X | X | A 15 | X | X | A | A | A |
| Gasoline | | See 9 | | | | - | A | A | A |
| Glue | F | F | F | - | X | - | A | F | A |
| Glycerine, Glycerol | A | A | A | A 15 | A | - | A | F | A |
| Grease | A | A | A | A 14 | X | A | A | A | A |
| Gulf-FR Fluid P37, P40, P43, P45, P47 | X | X | X | A 15 | A | - | A | A | A |
| H | | | | | | | | | |
| H-515 (NATO) | A | A | A | - | X | - | A | A | A |
| Halon 1211, 1301 | F | F | F | F 15 | - | - | A | A | A |
| Helium Gas | X | X | X | X | X | - | A | A | A |
| Heptane | X | F | F | A 15 | X | - | A | A | A |
| Hexane | X | F | F | A 15 | X | - | A | A | A |
| HF-20, HF-28 | | A | A | A | A | F | A | A | A |
| Houghto-Safe 1055, 1110, 1115, 1120, 1130 (9) | X | X | X | X | A, 7 | F | A | A | A |
| Houghto-Safe 271 to 640 | F | A | A | A | A | F | A | A | A |
| Houghto-Safe 419 Hydraulic Fluid | A | A | A | - | X | - | A | A | A |
| Houghto-Safe 419R Deicer Fluid | A | A | A | - | - | A | A | A | A |
| Houghto-Safe 5046, 5046W, 5047-F | A | A | A | A 15 | X | - | A | A | A |
| HP 100C (Jack hammer oil) | F | A | A | A 14 | X | A | A | A | A |
| HPWG 46B | F | A | A | A | - | F | A | A | A |
| Hul-E-Mul | A | A | A | - | X | - | A | A | A |
| Hychem C, EP1000, RDF | A | A | A | A 15 | A | - | A | A | A |
| Hycut SE 12 | F | A | A | - | - | - | | | |
| Hycut SE 46 | F | A | A | - | - | - | | | |
| Hydra Safe E-190 | A | A | A | A 15 | X | - | A | A | A |

| Medium | I | II | III | IV | V | VI | STEEL | BRASS | SS |
|---|---|--------|-----|--------|------|------|-------|-------|----|
| Hydra-Cut 481, 496 | A | A | A | - | X | - | A | A | A |
| Hydrafluid 760 | A | A | A | - | X | - | A | A | A |
| Hydrochloric Acid | X | X | X | X | X | X | X | X | X |
| Hydrofluoric Acid | X | X | X | X | X | X | X | 6 | X |
| Hydrogen Gas | X | X | X | X | X | - | A | A | A |
| Hydrogen Peroxide | X | X | X | A 15 | X | - | X | X | 6 |
| Hydrogen Sulfide | X | X | X | X | A | - | X | X | 6 |
| Hydrolube | A | A | A | A 15 | A | - | A | A | A |
| Hydrolubric 120-B, 141, 595 | F | A | A | A 15 | A | - | A | A | A |
| Hydrosafe Glycol 200 | A | A | A | A | A | F | A | F | A |
| Hydrovane Fluid Force 2000 | - | A | A | - | - | - | | | |
| HyJet IV | X | X | X | X | A, 7 | - | A | A | A |
| HT BRADOL (Virto) | - | A | A | - | - | - | | | |
| I | | | | | | | | | |
| Ideal Yellow 77 | A | A | A | A 15 | X | - | A | A | A |
| Imol S150 to S550 | X | X | X | - | - | - | A | A | A |
| Ingersoll Rand SSR Coolant | X | X | X | A 15 | X | X | A | A | A |
| Isocyanates | X | X | X | A 15 | X | - | A | - | A |
| Isooctane | X | F | F | A 15 | X | - | A | A | A |
| Isopar H | X | X | X | X | X | - | A | A | A |
| Isopropyl Alcohol | F | F | F | A 15 | F | - | F | A | A |
| J | | | | | | | | | |
| Jayflex DIDP | X | X | X | X | A | - | A | A | A |
| JP3 and JP4 | X | A,3 | A,3 | - | X | A(2) | A | A | A |
| JP5 | X | A,3 | A,3 | F 15,3 | X | A(2) | A | A | A |
| JP9 | X | X | X | X | X | - | A | - | A |
| K | | | | | | | | | |
| Kaeser 150P, 175P, 325R, 687R | X | X | X | A 15 | X | - | A | A | A |
| Kerosene | X | A | A | F 14 | X | A | A | A | A |
| KSL-214, 219, 220, 222 | X | X | X | A 15 | X | - | A | A | A |
| L | | | | | | | | | |
| Lacquer | X | X | X | A 15 | X | - | X | A | A |
| Lacquer Solvents | X | X | X | A 15 | X | - | X | A | A |
| Lactic Acids | X | X | X | X | X | X | X | X | A |
| Lindol HF | X | X | X | A 15 | A | - | A | A | A |
| Linseed Oil | F | A | A | A 15 | A | - | A | A | A |
| LP-Gas | | See 13 | | | | - | A | A | A |
| M | | | | | | | | | |
| Magnesium Chloride | A | A | A | A 15 | A | - | X | X | X |
| Magnesium Hydroxide | F | F | F | A 15 | A | - | F | F | F |
| Magnesium Sulfate | A | A | A | A 15 | A | - | A | F | A |
| Mercaptans | X | X | X | X | X | - | - | - | - |
| Methane | | See 13 | | | | - | A | A | A |
| Methanol | A | F | A | A 15 | F | - | F | A | A |
| Methyl Alcohol | A | F | A | A 15 | F | - | F | A | A |
| Methyl Chloride | X | X | X | A 15 | X | - | A | A | A |
| Methyl Ethyl Ketone (MEK) | X | X | X | A 15 | X | - | F | A | A |
| Methyl Isopropyl-Ketone | X | X | X | X | X | - | F | A | A |
| Metsafe FR303, FR310, FR315, FR330, FR350 | X | X | X | X | X | F | A | A | A |
| Microzol-T46 | X | A | A | - | X | - | A | A | A |
| MIL-H-544 | - | A | A | - | - | - | | | |
| MIL-B-46176A | X | X | X | X | X | - | X | X | X |
| MIL-H-46170 | X | F | F | A 15 | X | - | A | A | A |
| MIL-H-5606 | F | A | A | A 14 | X | A | A | A | A |
| MIL-H-6083 | F | A | A | A 15 | X | - | A | A | A |
| MIL-H-7083 | F | A | A | A 15 | X | - | A | A | A |
| MIL-H-83282 | F | A | A | A 15 | X | - | A | A | A |
| MIL-L-2104, 2104B | F | A | A | A 14 | X | A | A | A | A |

| Medium | I | II | III | IV | V | VI | STEEL | BRASS | SS |
|--|------|--------|------|---------|------|----|-------|-------|----|
| MIL-L-23699 | X | X | X | X | X | X | A | A | A |
| MIL-L-7808 | F | A | A | - | X | - | A | A | A |
| Mine Guard FR | A | A | A | - | A | - | A | A | A |
| Mineral Oil | A | A | A | F 14 | X | A | A | A | A |
| Mineral Spirits | 8 | 8 | 8 | 8 | X | - | A | A | A |
| Mobil Aero HF | - | A | A | - | - | - | | | |
| Mobil Aero HFE | F | A | A | F 14 | X | A | A | A | A |
| Mobil ATF 220 | - | A | A | - | - | - | | | |
| Mobil DTE 11M, 13M, 15M, 16M, 18M, 19M | F | A | A | A 14 | X | A | A | A | A |
| Mobil DTE 22, 24, 25, 26 | F | A | A | A 14 | X | A | A | A | A |
| Mobil EAL 224H | X | A | A | X | - | - | A | A | A |
| Mobil EAL Artic 10, 15, 22,32, 46, 68, 100 | X | X | X | X | X | X | A | A | A |
| Mobil Glygoyle 11, 22, 30, 80 | X | F | F | - | X | - | A | A | A |
| Mobil HFA | F | A | A | A 15 | X | - | A | A | A |
| Mobil Jet 2 | X | F | F | A 15 | X | - | A | A | A |
| Mobil Nyvac 20, 30, 200, FR | F | A | A | A | A | F | A | A | A |
| Mobil Rarus 824, 826, 827 | X | X | X | A 15 | X | X | A | A | A |
| Mobil SHC 524 | - | A | A | - | - | - | | | |
| Mobil SHC 600 Series | F | A | A | A 15 | X | - | A | A | A |
| Mobil SHC 800 Series | F | A | A | A 15 | X | - | A | A | A |
| Mobil Vactra Oil | A | A | A | F 14 | X | A | A | A | A |
| Mobil XRL 1618B | X | X | X | X | A, 7 | F | A | A | A |
| Mobilfluid 423 | F | A | A | A 14 | X | A | A | A | A |
| Mobilgear SHC 150, 220, 320, 460, 680 | F | F | F | A 15 | X | - | A | A | A |
| Mobilarma 525 | A | A | A | F 14 | X | A | A | A | A |
| Molub-Alloy 890 | X | X | X | A 15 | X | - | A | A | A |
| Moly Lube "HF" 902 | F | F | F | F 14 | X | A | A | A | A |
| Monolec 6120 Hydraulic Oil | A | A | A | A 14 | X | A | A | A | A |
| Morpholine (pure additive) | X | X | X | X | X | - | X | X | A |
| Motorex Corex HLP 46 | A | A | A | - | - | - | | | |
| N | | | | | | | | | |
| Naptha | F | F | A | A 15 | X | - | A | A | A |
| Napthalene | X | X | X | A 15 | X | - | A | A | A |
| Natural Gas | | See 13 | | | | - | A | A | A |
| Nitric Acid | X | X | X | X | X | X | X | X | F |
| Nitrobenzene | X | X | X | A 15 | X | - | X | X | A |
| Neste SE 46 | F | A | A | - | - | - | | | |
| Neste 46 32 | A | A | A | - | - | - | | | |
| Nitrogen, gas | F, 1 | F, 1 | F, 1 | F 15, 1 | F, 1 | - | A | A | A |
| NORPAR 12, 13, 15 | 8 | 8 | 8 | 8 | X | - | A | A | A |
| Nuto H 46, 68 | A | A | A | A 14 | X | A | A | A | A |
| Nyvac 20, 30, 200, FR | F | A | A | A | A | F | A | A | A |
| Nyvac Light | X | X | X | - | A | - | A | A | A |
| O | | | | | | | | | |
| Oceanic HW | F | A | A | A | X | F | A | A | A |
| Oxygen, gas | A | X | X | X | X | - | X | A | A |
| Ozone | F | X | F | F | A | A | A | A | A |
| P | | | | | | | | | |
| Pacer SLC 150, 300, 500, 700 | X | X | X | A 15 | X | - | A | A | A |
| Panolin HLP 46 | F | A | A | - | - | - | | | |
| Panolin TURWANDA SYNTH 46 | F | A | A | - | - | - | | | |
| Pennzbell AWX | F | A | A | F 14 | X | A | A | A | A |
| PENTOSIN CHF 11S | F | A | A | F | A | X | A | A | A |
| Perchloroethylene | X | X | X | X | X | - | F | X | A |
| Petroleum Ether | X | F | F | F 14 | X | A | A | A | A |
| Petroleum Oils | A | A | A | A 14 | X | A | A | A | A |
| Phenol (Carbolic Acid) | X | X | X | A 15 | X | X | X | F | A |
| Phosphate Ester Blends | X | X | X | X | X | F | A | A | A |

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| Medium | I | II | III | IV | V | VI | STEEL | BRASS | SS |
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| Phosphoric Acid 10 % | F | X | X | X | A | X | X | X | F |
| Plantosin HVI 46 | - | A | A | - | - | - | | | |
| Plexus 46 | F | A | A | - | - | - | | | |
| Polyalkylene Glycol | A | F | F | - | X | - | A | A | A |
| Polyol Ester | X | F | A | X | X | - | A | A | A |
| Potassium Chloride | A | A | A | A 15 | A | - | X | F | F |
| Potassium Hydroxide | X | X | X | A 15 | A | - | 6 | X | A |
| Potassium Sulfate | A | A | A | A 15 | A | - | A | A | A |
| Propane | | See 13 | | | | - | A | A | A |
| Propylene Glycol | A | A | A | A 15 | A | - | F | F | F |
| Pydraul 10-E, 29-E, 50-E, 65-E, 90-E, 115-E | X | X | X | X | A, 7 | F | A | A | A |
| Pydraul 230-C, 312-C, 68-S | X | X | X | X | A, 7 | F | A | A | A |
| Pydraul 60, 150, 625, F9 | X | X | X | X | A, 7 | - | A | A | A |
| Pydraul 90, 135, 230, 312, 540, MC | X | X | X | X | X | - | A | A | A |
| Pydraul A-200 | X | X | X | A 15 | X | - | A | A | A |
| Pyro Gard 43, 230, 630 | X | X | X | X | X | - | A | A | A |
| Pyro Gard C, D, R, 40S, 40W | F | A | A | F 15 | X | A | A | A | A |
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| Renault ST 46M | A | A | A | - | - | - | | | |
| Renolin Lift | - | A | A | - | - | - | | | |
| Renolin HVI 46 | - | A | A | - | - | - | | | |
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| Refrigerant Freon 12 | | See 4 | | | | X | A | A | A |
| Refrigerant Freon 22 | | See 4 | | | | X | A | A | A |
| Refrigerant Freon 502 | | See 4 | | | | X | A | A | A |
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| Reolube Turbofluid 46 | X | X | X | X | A, 7 | - | A | A | A |
| Rivolta B.H.23 | F | A | A | - | - | - | | | |
| Rotella | A | A | A | A 14 | X | A | A | A | A |
| Royal Bio Guard 3032, 3046, 3068, 3100 | X | ~ | A | X | X | X | A | A | A |
| Royco 2200, 2210, 2222, 2232, 2246, 2268 | X | X | X | X | X | X | A | A | A |
| Royco 4032, 4068, 4100, 4150 | X | X | X | A 15 | X | X | A | A | A |
| Royco 756, 783 | A | A | A | A 14 | X | A | A | A | A |
| Royco 770 | X | F | F | F 15 | X | - | A | A | A |
| RTV Silicone Adhesive Sealants | X | X | X | X | X | - | A | A | A |
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| Safco-Safe T10, T20 | - | - | - | - | A | - | F | F | A |
| Safety-Kleen ISO 32, 46, 68 hydraulic oil | F | A | A | - | X | A | A | A | A |
| Safety-Kleen Solvent | 8 | 8 | 8 | | X | 8 | A | A | A |
| Santoflex 13 | F | F | F | - | F | - | A | A | A |
| Santosafe 300 | X | X | X | - | X | - | A | A | A |
| Santosafe W/G 15 to 30 | - | - | - | A 15 | A | - | A | A | A |
| Sea Water | A | F | F | A 15 | A | A | X | F | A |
| Sewage | F | F | F | A 15 | F | - | X | F | A |
| Shell 140 Solvent | 8 | 8 | 8 | 8 | X | - | A | A | A |
| Shell Clavus HFC 68 | X | X | X | X | X | X | A | A | A |

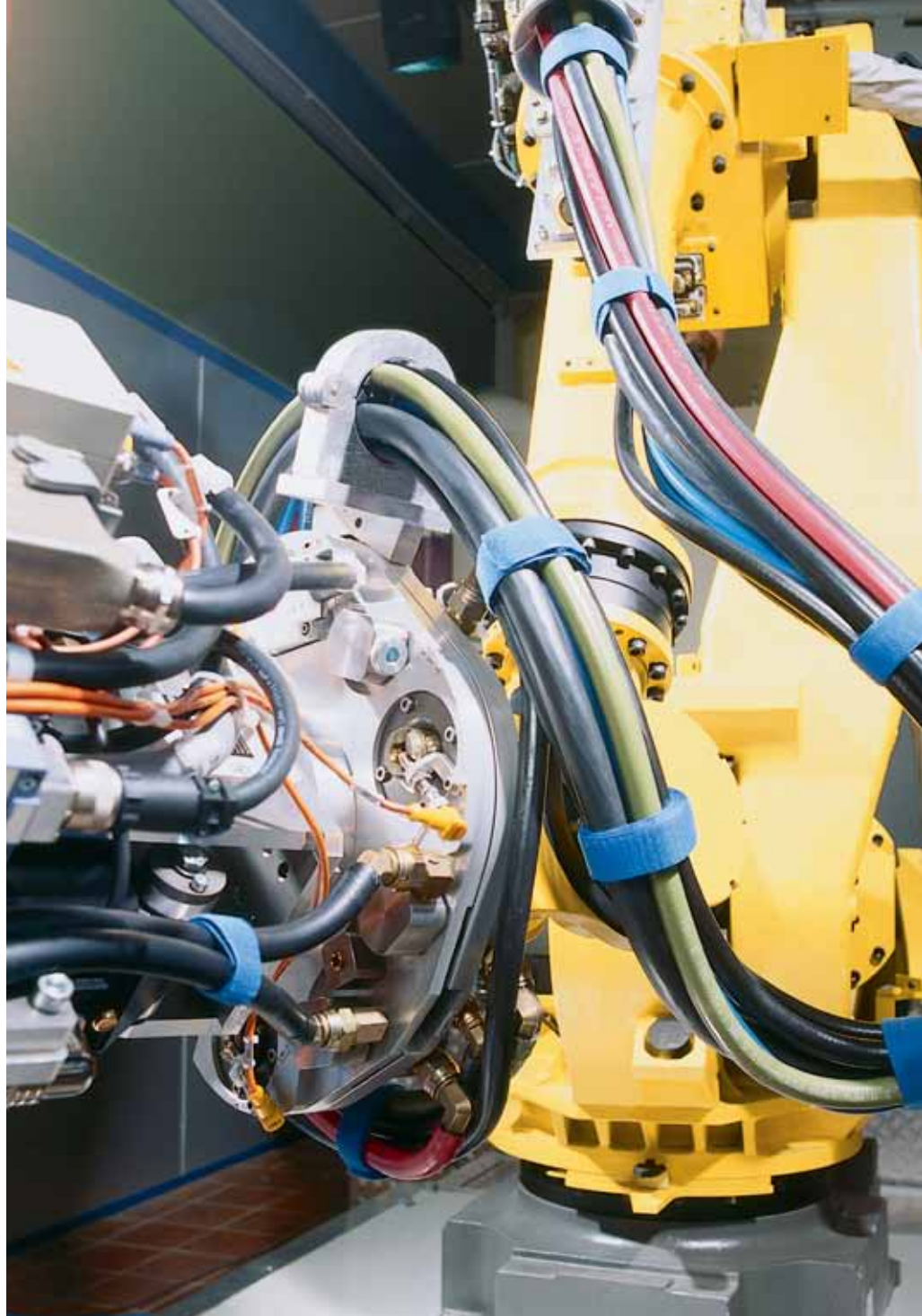
| Medium | I | II | III | IV | V | VI | STEEL | BRASS | SS |
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| Shell Comptella Oil | F | F | F | A 14 | X | A | A | A | A |
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| Shell Comptella Oil SM | F | F | F | A 14 | X | A | A | A | A |
| Shell Diala A, (R) Oil AX | F | A | A | F 14 | X | A | A | A | A |
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| Shell IRUS 902, 905 | A | A | A | - | A | - | A | A | A |
| Shell IRUS Fluid DU 46 | F | A | A | - | - | - | | | |
| Shell Naturelle HF-E | F | A | A | F | X | F14 | A | A | A |
| Shell Pella-A | A | A | A | A 15 | X | - | A | A | A |
| Shell Tellus | F | A | A | A 14 | X | A | A | A | A |
| Shell Tellus TD 46 | A | A | A | A | A | X | A | A | A |
| Shell Thermia Oil C | A | A | A | A 14 | X | A | A | A | A |
| Shell Turbo R | X | F | F | A 15 | X | X | A | A | A |
| SHF 220, 300, 450 | X | X | A | X | X | X | A | A | A |
| Silicate Esters | A | F | F | A 15 | X | - | A | A | A |
| Silicone Oils | A | A | A | - | - | - | A | A | A |
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| Skydrol 500B-4, LD-4 | X | X | X | X | A, 7 | F | A | A | A |
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| Soda Ash, Sodium Carbonate | A | A | A | A 15 | A | - | A | F | A |
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| Sodium Chloride | A | F | F | A 15 | A | - | X | F | A |
| Sodium Hydroxide | A | X | X | A 15 | A | - | A | X | A |
| Sodium Hypochlorite | A | X | X | X | A | X | X | X | X |
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| Soybean Oil | F | A | A | A 15 | X | - | A | A | A |
| SSR Coolant | X | X | X | A 15 | X | X | A | A | A |
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| Sulfuric Acid (0% to 30% room temperture) | F, 6 | F, 6 | F, 6 | X | F, 6 | - | 6 | X | 6 |
| Summa-20, Rotor, Recip | X | X | X | F | X | - | A | A | A |
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| Sun Minesafe, Sun Safe | X | F | F | F | X | - | A | A | A |
| Sundex 8125 | X | F | F | - | X | - | A | A | A |
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| Syndale 2820 | X | F | F | - | - | - | A | A | A |
| Synesstic 32,68,100 | X | X | X | X | X | X | A | A | A |
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| SYN-O-AD 8478 | X | X | X | X | A, 7 | F | A | A | A |
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| Tannic Acid | F | A | A | F | A | X | X | F | X |
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| Texaco 760 Hydrafluid | - | - | - | - | X | - | A | A | A |
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| Texaco A-Z Oil | A | A | A | F 14 | X | A | A | A | A |
| Texaco Spindura Oil 22 | F | F | F | F 14 | X | A | A | A | A |
| Texaco Way Lubricant 68 | A | A | A | A 14 | X | A | A | A | A |

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| Thermanol 60 | X | X | X | X | X | - | A | A | A |
| Toluene, Toluol | X | X | X | X | X | - | A | A | A |
| Transmission Oil | A | A | A | A 14 | X | A | A | A | A |
| Tribol 1440 | X | X | X | X | A | F | A | A | A |
| Trichloroethylene | X | X | X | F | X | - | X | A | A |
| Trim-Sol | F | A | A | F | X | - | A | A | A |
| Turbinol 50, 1122, 1223 | X | X | X | X | A, 7 | - | A | A | A |
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| Ucon Hydrolubes | F | A | A | A | A | F | A | A | A |
| UltraChem 215,230,501,751 | X | X | X | A 15 | X | - | A | A | A |
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| Zinc Chloride | A | A | A | X | A | - | X | X | F |
| Zinc Sulfate | A | A | A | X | A | - | X | A | A |



aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding



Hydraulic Hoses, Fittings and Equipment

Low Pressure

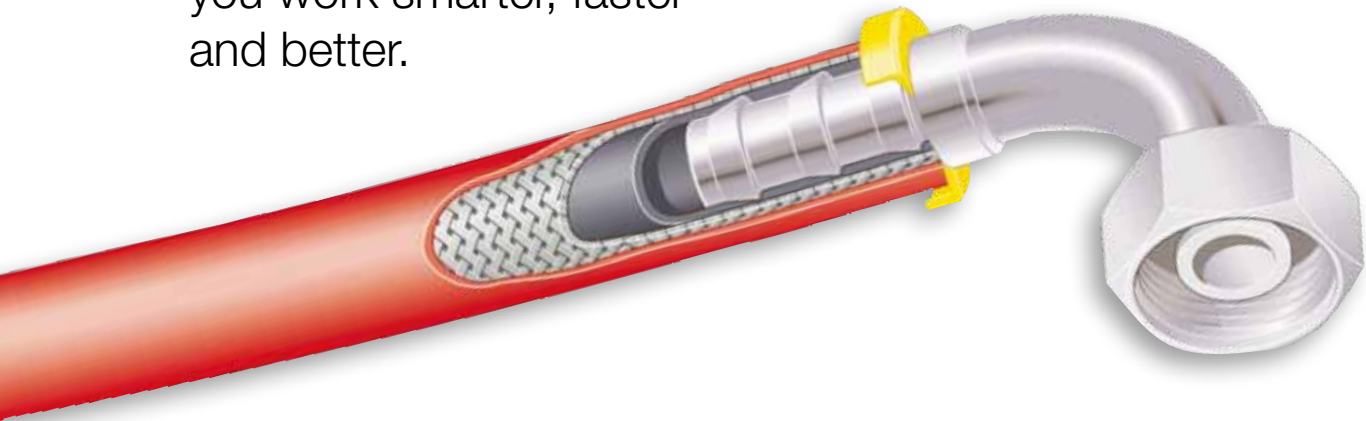


ENGINEERING YOUR SUCCESS.

Low Pressure Push-Lok®

The self-grip hose system for low-pressure applications

We're constantly updating our customer service options to help you work smarter, faster and better.



One fitting series for all hose types

with DIN, BSP, SAE, JIC and ORFS connections in brass, steel and stainless steel



Wide variety of hose types

6 rubber hose types

- 801Plus** for a variety of applications
- 804** for high-temperature water/phosphate ester fluids
- 821FR** with fire-retardant hose cover
- 831** ideal for petroleum-based fluids
- 836** for high oil temperatures
- 837BM** for a variety of applications including automotive

2 thermoplastic hose types

- 830M** for a variety of applications including automotive
- 838M** for non-conductive applications

1 hybrid hose type

- 837PU-Plus** for a variety of applications including automotive

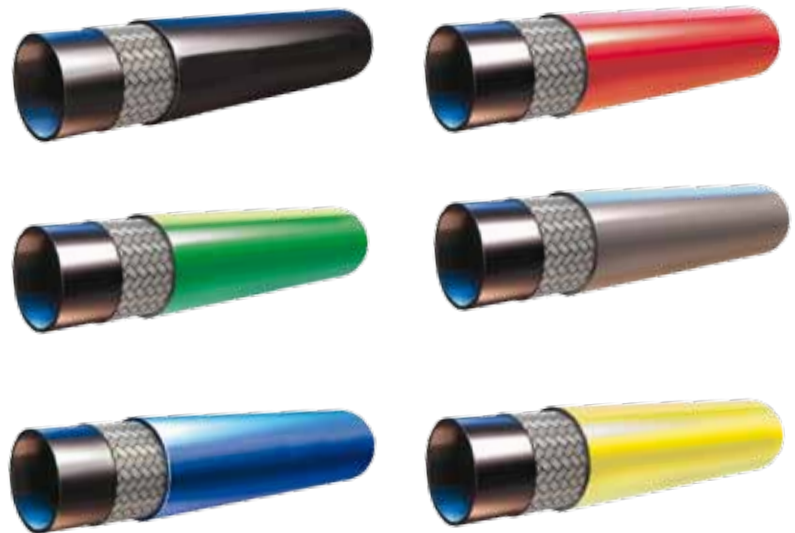
Applications

Push-Lok® hoses offer variety, excellent performance and durability for the following applications



6 different colours

- easy identification
- simple production processes
 - one colour for one particular medium
- easy control of maintenance intervals
- simple stock planning in different departments



Easy assembly – no tools or clamps required

Push-Lok® assembly (1a, b)

- Cut the hose with a sharp knife
- Push the nipple into the hose – that's all!



Push-Lok® disassembly (2a, b)

- Cut lengthwise along a line at approximately a 20° angle from the centre line of the hose. The cut should be approximately 2 cm long. Be careful not to nick barbs when cutting the hose.
- Grip hose and give a sharp downward tug to disengage from fitting.
- Before re-using the nipple, please check it for any damage.



Low Pressure Push-Lok

| Hoses | | | Page |
|----------------|------------------|--|-------|
| 801Plus | Multipurpose | | B1a-1 |
| 804 | Phosphate Ester | | B1a-2 |
| 821FR | Fire retardant | | B1a-3 |
| 830M | Multipurpose | | B1a-4 |
| 831 | Multipurpose | | B1a-5 |
| 836 | High temperature | | B1a-6 |
| 837BM | Multipurpose | | B1a-7 |
| 837PU | Multipurpose | | B1a-8 |
| 838M | Non-conductive | | B1a-9 |

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| BSP | | | B1b-8 – B1b-10 |
| SAE | | | B1b-11 – B1b-14 |
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| Others | | | B1b-16 – B1b-18 |

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| Assembly Instructions / Tools | | | B1b-19 |

Multipurpose

801Plus

B1a-1



Push-Lok Plus
For a variety of applications

830M

B1a-4



Push-Lok
For a variety of applications
including automotive

831

B1a-5



Push-Lok
Ideal for petroleum based fluids

837BM

B1a-7



Push-Lok
For a variety of applications
including automotive

837PU-Plus

B1a-8



Hybrid Push-Lok
For a variety of applications
including automotive

Phosphate Ester

804

B1a-2



Push-Lok
For high temperature
water and phosphate ester fluid

High temperature

836

B1a-6



Push-Lok
For high oil temperatures

Fire retardant

821FR

B1a-3



Push-Lok
With fire retardant hose cover

Non-conductive

838M

B1a-9



Push-Lok
For non-conductive applications

801Plus

Push-Lok Plus

For a variety of applications

Primary Applications

All Markets: For low pressure applications
Paper and Pulp: For water / air applications

Restrictions

Not permitted for use in air brake systems.
Not suitable for high dynamic pulsation systems.
Not recommended for fuels (petrol, diesel etc.).
Not recommended for mineral based hydraulic and lubricating oils.

Construction

Tube: Synthetic rubber
Reinforcement: High-tensile fibre braid
Cover: High performance synthetic rubber in different colours

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C
Water max. +85 °C



- Very flexible
- Wide range of colours
- Available up to size -16

Recommended Fluids

Air, water, water-oil-emulsions and water-glycol-emulsions.
Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | Vacuum* kPa | min. bend radius mm | weight kg |
|---------------|-----------|------|------|------|-----------------|-----------------------|-----|---------------------|------|----------------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure | | min. burst pressure | | | | |
| | | | | | | MPa | psi | MPa | psi | | | |
| 801-4-XXX-RL | 6 | 1/4 | -4 | 6.4 | 12.7 | 2.4 | 350 | 9.7 | 1400 | 95 | 65 | 0.13 |
| 801-6-XXX-RL | 10 | 3/8 | -6 | 9.5 | 15.9 | 2.4 | 350 | 9.7 | 1400 | 95 | 75 | 0.16 |
| 801-8-XXX-RL | 12 | 1/2 | -8 | 12.7 | 19.8 | 2.1 | 300 | 8.4 | 1200 | 95 | 125 | 0.27 |
| 801-10-XXX-RL | 16 | 5/8 | -10 | 15.9 | 23.0 | 2.1 | 300 | 8.4 | 1200 | 51 | 150 | 0.28 |
| 801-12-XXX-RL | 19 | 3/4 | -12 | 19.1 | 26.2 | 2.1 | 300 | 8.4 | 1200 | 51 | 180 | 0.36 |
| 801-16-XXX-RL | 25 | 1 | -16 | 25.4 | 32.5 | 1.4 | 200 | 5.6 | 800 | 51 | 250 | 0.55 |

* the vacuum values listed in the table are vacuum pressure values in kPa. For an absolute value subtract the table value from 101 kPa
Note: when ordering, specify Push-Lok hose part number, followed by size, followed by colour. Example: 801-4-XXX-RL

- XXX = BLK = black
BLU = blue
RED = red
GRN = green
GRA = grey
YEL = yellow



Example: 801-4-GRN-RL (green)

Hose layline example



804

Push-Lok

For high temperature water and phosphate ester fluid

Primary Applications

Injection Moulding: For special tempering circuits.

Restrictions

Not permitted for use in air brake systems.
Not suitable for high dynamic pulsation systems.
Do not allow tube to contact any petroleum based fluids.

Construction

Tube: EPDM material
Reinforcement: High-tensile fibre braid
Cover: Black EPDM material

Temperature Range up to +80 °C
Exception: Air max. +70 °C
Water max. +93 °C



- For hot water up to +93 °C
- For phosphate ester fluids

Recommended Fluids

Phosphate ester based hydraulic fluids, water, water glycol emulsions, air. Use liquid soap as lubricant. Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

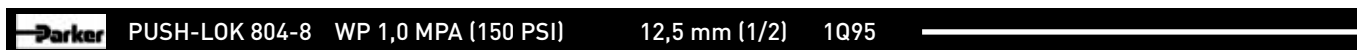
Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | Vaccum* kPa | min. bend radius mm | weight kg |
|-------------|-----------|------|------|------|-----------------|------------------------------|-----|----------------------------|------|----------------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | | |
| 804-4-RL | 6 | 1/4 | -4 | 6.4 | 12.7 | 1.7 | 250 | 6.8 | 1000 | 51 | 65 | 0.13 |
| 804-6-RL | 10 | 3/8 | -6 | 9.5 | 15.9 | 1.7 | 250 | 6.8 | 1000 | 51 | 75 | 0.16 |
| 804-8-RL | 12 | 1/2 | -8 | 12.7 | 19.8 | 1.7 | 250 | 6.8 | 1000 | 51 | 130 | 0.27 |
| 804-12-RL | 19 | 3/4 | -12 | 19.1 | 26.2 | 1.7 | 250 | 6.8 | 1000 | 51 | 180 | 0.28 |

RL = only available on reels

Hose layline example



821FR

Push-Lok

With fire retardant hose cover



- Fire retardant hose cover
- Very flexible
- For high level air temperatures

Primary Applications

All Markets: For a variety of applications

Restrictions

Not permitted for use in air brake systems.
Not suitable for high dynamic pulsation systems.
Not recommended for fuels (petrol, diesel etc.)

Construction

Tube: Synthetic PKR-rubber
Reinforcement: High-tensile fibre braid
Cover: A fire retardant special fiber outer cover

Temperature Range -40 °C up to +100 °C

Exception: Air max. +100 °C
Water max. +85 °C

Recommended Fluids

Mineral based hydraulic and lubricating oils, coolant, antifreeze, air, water and water-oil emulsions.
Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | Vacuum* kPa | min. bend radius mm | weight kg |
|-----------------|-----------|------|------|------|-----------------|-----------------------|-----|---------------------|------|----------------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure | | min. burst pressure | | | | |
| | | | | | | MPa | psi | MPa | psi | | | |
| 821FR-4-XXX-RL | 6 | 1/4 | -4 | 6.4 | 12.7 | 2.4 | 350 | 9.7 | 1400 | 95 | 65 | 0.12 |
| 821FR-6-XXX-RL | 10 | 3/8 | -6 | 9.5 | 15.9 | 2.0 | 300 | 8.3 | 1200 | 95 | 75 | 0.16 |
| 821FR-8-XXX-RL | 12 | 1/2 | -8 | 12.7 | 19.8 | 2.0 | 300 | 8.3 | 1200 | 95 | 130 | 0.18 |
| 821FR-12-XXX-RL | 19 | 3/4 | -12 | 19.1 | 26.2 | 1.7 | 250 | 6.8 | 1000 | 95 | 180 | 0.33 |

* the vacuum values listed in the table are vacuum pressure values in kPa. For an absolute value subtract the table value from 101 kPa

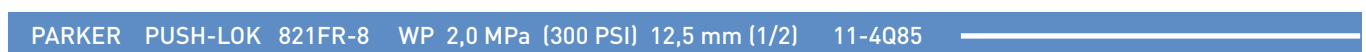
Note: when ordering, specify Push-Lok hose part number, followed by size, followed by colour. Example: 821FR-4-XXX-RL

XXX = BLK = black
BLU = blue
GRN = green



Example: 821FR-4-GRN-RL (green)
RL = only available on reels

Hose layline example



830M

Push-Lok

For a variety of applications including automotive

Primary Applications

All Markets: For a variety of applications
Robot and Automotive market:
For hose bundle systems

Restrictions

Not permitted for use in air brake systems.
Not suitable for high dynamic pulsation systems.
Not recommended for fuels (petrol, diesel etc.)

Construction

Tube: Polyurethane material
Reinforcement: High-tensile fibre braid
Cover: High performance polyurethane material in different colours

Temperature Range -40 °C up to +80 °C



- Chemical resistant for a wide range of fluids
- High abrasion resistance
- Free of wetting disturbing substances (LABS free)
- Small OD and bend radii
- Excellent UV and ozone resistance

Recommended Fluids

Mineral based hydraulic and lubricating oils, coolant, antifreeze, air, water and water-oil emulsions.
Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | Vacuum* kPa | min. bend radius mm | weight kg |
|----------------|-----------|------|------|------|-----------------|-----------------------|-----|---------------------|-----|----------------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure | | min. burst pressure | | | | |
| | | | | | | MPa | psi | MPa | psi | | | |
| 830M-4-XXX-RL | 6 | 1/4 | -4 | 6.4 | 10.7 | 1.6 | 232 | 6.4 | 928 | 10 | 30 | 0.08 |
| 830M-6-XXX-RL | 10 | 3/8 | -6 | 9.5 | 14.9 | 1.6 | 232 | 6.4 | 928 | 10 | 50 | 0.13 |
| 830M-8-XXX-RL | 12 | 1/2 | -8 | 12.7 | 19.1 | 1.6 | 232 | 6.4 | 928 | 10 | 70 | 0.20 |
| 830M-10-XXX-RL | 16 | 5/8 | -10 | 15.9 | 23.0 | 1.6 | 232 | 6.4 | 928 | 10 | 90 | 0.26 |
| 830M-12-XXX-RL | 19 | 3/4 | -12 | 19.1 | 26.0 | 1.6 | 232 | 6.4 | 928 | 10 | 110 | 0.31 |

* the vacuum values listed in the table are vacuum pressure values in kPa. For an absolute value subtract the table value from 101 kPa
Note: when ordering, specify Push-Lok hose part number, followed by size, followed by colour. Example: 830M-4-XXX-RL

XXX = BLK = black
BLU = blue
RED = red
GRN = green



Example: 830M-4-GRN-RL (green)
RL = only available on reels

831

Push-Lok

Ideal for petroleum based fluids

Primary Applications

All Markets: For a wide range of fluids

Restrictions

Not permitted for use in air brake systems.
Not suitable for high dynamic pulsation systems.
Not recommended for fuels (petrol, diesel etc.)

Construction

Tube: Nitrile (NBR)
Reinforcement: High-tensile fibre braid
Cover: High performance synthetic rubber in different colours

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C
Water max. +85 °C



- Max. working pressure up to 2.4 MPa
- High temperature level for petroleum based fluids
- Nitrile (NBR) inner tube – extended fluid compatibility

Recommended Fluids

Mineral based hydraulic and lubricating oils, coolant, antifreeze, air, water and water-oil emulsions.
Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | Vacuum* kPa | min. bend radius mm | weight kg |
|---------------|-----------|------|------|------|-----------------|-----------------------|-----|---------------------|------|----------------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure | | min. burst pressure | | | | |
| | | | | | | MPa | psi | MPa | psi | | | |
| 831-4-XXX-RL | 6 | 1/4 | -4 | 6.4 | 12.7 | 2.4 | 350 | 9.7 | 1400 | 95 | 65 | 0.13 |
| 831-6-XXX-RL | 10 | 3/8 | -6 | 9.5 | 15.9 | 2.0 | 300 | 8.3 | 1200 | 95 | 75 | 0.16 |
| 831-8-XXX-RL | 12 | 1/2 | -8 | 12.7 | 19.8 | 2.0 | 300 | 8.3 | 1200 | 95 | 130 | 0.27 |
| 831-10-XXX-RL | 16 | 5/8 | -10 | 15.9 | 23.0 | 2.0 | 300 | 8.3 | 1200 | 51 | 150 | 0.28 |
| 831-12-XXX-RL | 19 | 3/4 | -12 | 19.1 | 26.2 | 2.0 | 300 | 8.3 | 1200 | 51 | 180 | 0.36 |
| 831-16-XXX-RL | 25 | 1 | -16 | 25.4 | 32.5 | 1.4 | 200 | 5.5 | 800 | 51 | 250 | 0.37 |

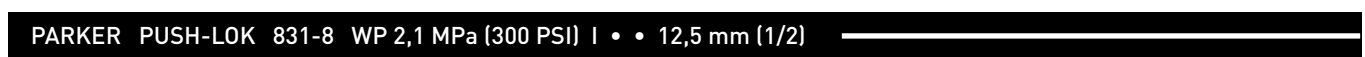
* the vacuum values listed in the table are vacuum pressure values in kPa. For an absolute value subtract the table value from 101 kPa
Note: when ordering, specify Push-Lok hose part number, followed by size, followed by colour. Example: 831-4-XXX-RL

XXX = BLK = black
BLU = blue
RED = red
GRN = green



Example: 831-4-GRN-RL (green)
RL = only available on reels

Hose layline example



836

Push-Lok

For high oil temperatures

Primary Applications

All Markets: Special high temperature applications

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Restrictions

Not permitted for use in air brake systems.
Not suitable for high dynamic pulsation systems.
Not recommended for fuels (petrol, diesel etc.)

Construction

Tube: Synthetic PKR rubber
Reinforcement: High-tensile fibre braid
Cover: MSHA approved
blue synthetic PKR rubber

Temperature Range -48 °C up to +150 °C

Exception: Air max. +100 °C
Water max. +85 °C



- Max. oil temperature up to +150 °C
- Blue hose cover
- MSHA approved

Recommended Fluids

Mineral based hydraulic and lubricating oils, coolant, antifreeze, air, water and water-oil emulsions.
Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | Vacuum* kPa | min. bend radius mm | weight kg |
|-------------|-----------|------|------|------|-----------------|------------------------------|-----|----------------------------|------|----------------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | | |
| 836-4-RL | 6 | 1/4 | -4 | 6.4 | 12.7 | 2.8 | 406 | 11.2 | 1624 | 95 | 65 | 0.13 |
| 836-6-RL | 10 | 3/8 | -6 | 9.5 | 15.7 | 2.8 | 406 | 11.2 | 1624 | 95 | 75 | 0.16 |
| 836-8-RL | 12 | 1/2 | -8 | 12.7 | 19.8 | 2.8 | 406 | 11.2 | 1624 | 95 | 130 | 0.27 |
| 836-10-RL | 16 | 5/8 | -10 | 15.9 | 23.1 | 2.4 | 348 | 9.6 | 1392 | 51 | 150 | 0.28 |
| 836-12-RL | 19 | 3/4 | -12 | 19.1 | 26.2 | 2.1 | 305 | 8.4 | 1220 | 51 | 180 | 0.36 |

* the vacuum values listed in the table are vacuum pressure values in kPa. For an absolute value subtract the table value from 101 kPa
RL = only available on reels

Hose layline example

PARKER HI-TEMP PUSH-LOK 836-8 WP 1,7 MPa (250 PSI) MSHA IC-40/22 I • • 12,5 mm (1/2)

837BM

Push-Lok

For a variety of applications including automotive

Primary Applications

All Markets: For a variety of applications
Automotive: For water / air applications

Restrictions

Not permitted for use in air brake systems
Not suitable for high dynamic pulsation systems
Not recommended for fuels (petrol, diesel etc.)
Not recommended for mineral based hydraulic and lubricating oils

Construction

Tube: Synthetic rubber
Reinforcement: High-tensile fibre braid
Cover: High performance synthetic rubber in different colours

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C
Water max. +85 °C



- High level of hose flexibility
- High abrasion resistance
- Free from wetting disturbing substances
- Low push-in forces

Recommended Fluids

Air, dry air, water, water-oil-emulsions and water-glycol-emulsions.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | Vacuum* kPa | min. bend radius mm | weight kg |
|-----------------|-----------|------|------|------|-----------------|-----------------------|-----|---------------------|-----|----------------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure | | min. burst pressure | | | | |
| | | | | | | MPa | psi | MPa | psi | | | |
| 837BM-4-XXX-RL | 6 | 1/4 | -4 | 6.4 | 12.7 | 1.6 | 235 | 6.4 | 940 | 95 | 65 | 0.13 |
| 837BM-6-XXX-RL | 10 | 3/8 | -6 | 9.5 | 15.9 | 1.6 | 235 | 6.4 | 940 | 95 | 75 | 0.16 |
| 837BM-8-XXX-RL | 12 | 1/2 | -8 | 12.7 | 19.8 | 1.6 | 235 | 6.4 | 940 | 95 | 130 | 0.27 |
| 837BM-10-XXX-RL | 16 | 5/8 | -10 | 15.9 | 23.0 | 1.6 | 235 | 6.4 | 940 | 51 | 150 | 0.28 |
| 837BM-12-XXX-RL | 19 | 3/4 | -12 | 19.1 | 26.2 | 1.6 | 235 | 6.4 | 940 | 51 | 180 | 0.36 |
| 837BM-16-XXX-RL | 25 | 1 | -16 | 25.4 | 32.5 | 1.4 | 200 | 5.6 | 800 | 51 | 250 | 0.55 |

* the vacuum values listed in the table are vacuum pressure values in kPa. For an absolute value subtract the table value from 101 kPa
Note: when ordering, specify Push-Lok hose part number, followed by size, followed by colour. Example: 837BM-4-XXX-RL

XXX = BLK = black
BLU = blue
RED = red
GRN = green
GRA = grey



Example: 837BM-4-GRN-RL (green)
RL = only available on reels

Hose layline example



837PU-Plus

Hybrid Push-Lok

For a variety of applications including automotive

Primary Applications

- All Markets: For high demand applications
For energy chain systems
- Robot and Automotive market:
For hose bundle systems

Restrictions

- Not permitted for use in air brake systems
Not suitable for high dynamic pulsation systems
Not recommended for fuels (petrol, diesel etc.)
Not recommended for mineral based hydraulic and lubricating oils

Construction

- Tube: Synthetic rubber
Reinforcement: High-tensile fibre braid
Cover: High performance polyurethane material in different colours

Temperature Range -40 °C up to +100 °C

- Exception: Air max. +70 °C
Water max. +85 °C



- High level of hose flexibility
- High abrasion resistance
- High torsion resistance
- Free from wetting disturbing substances
- Low push-in forces

Recommended Fluids

Air, dry air, water, water-oil-emulsions and water-glycol-emulsions.
Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | Vacuum* kPa | min. bend radius mm | weight kg |
|-----------------|-----------|------|------|------|-----------------|------------------------------|-----|----------------------------|-----|----------------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | | |
| 837PU-4-xxx-RL | 6 | 1/4 | -4 | 6.4 | 12.7 | 1.6 | 235 | 6.4 | 940 | 95 | 30 | 0.11 |
| 837PU-6-xxx-RL | 10 | 3/8 | -6 | 9.5 | 15.9 | 1.6 | 235 | 6.4 | 940 | 95 | 50 | 0.15 |
| 837PU-8-xxx-RL | 12 | 1/2 | -8 | 12.7 | 19.8 | 1.6 | 235 | 6.4 | 940 | 95 | 70 | 0.26 |
| 837PU-10-xxx-RL | 16 | 5/8 | -10 | 15.9 | 23.0 | 1.6 | 235 | 6.4 | 940 | 51 | 90 | 0.27 |
| 837PU-12-xxx-RL | 19 | 3/4 | -12 | 19.1 | 26.2 | 1.6 | 235 | 6.4 | 940 | 51 | 110 | 0.33 |
| 837PU-16-xxx-RL | 25 | 1 | -16 | 25.4 | 32.5 | 1.6 | 235 | 6.4 | 940 | 51 | 180 | 0.52 |

* the vacuum values listed in the table are vacuum pressure values in kPa. For an absolute value subtract the table value from 101 kPa
Note: when ordering, specify Push-Lok hose part number, followed by size, followed by colour. Example: 837PU-4-XXX-RL

- XXX = BLK = black
BLU = blue
RED = red
GRN = green
GRA = grey



Example: 837PU-4-GRN-RL (green)
RL = only available on reels

Hose layline example



838M

Push-Lok

For non-conductive applications

Primary Applications

Special Market: For special electrical requirements,
e.g. cooling lines with de-ionized water

Restrictions

Not permitted for use in air brake systems.
Not suitable for high dynamic pulsation systems.
Not recommended for fuels (petrol, diesel etc.)

Construction

Tube: Polyurethane material
Reinforcement: High-tensile fibre braid
Cover: Orange coloured polyurethane material

Temperature Range -40 °C up to +80 °C



- Non conductive hose
- High level of hose flexibility

Recommended Fluids

Mineral based hydraulic and lubricating oils, coolant, antifreeze, water, water-oil emulsions.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series

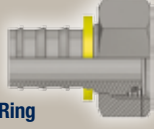



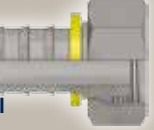


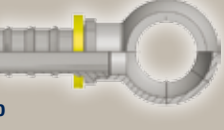




| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | Vacuum* kPa | min. bend radius mm | weight kg |
|-------------|-----------|------|------|------|-----------------|------------------------------|-----|----------------------------|-----|----------------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | | |
| 838M-4-RL | 6 | 1/4 | -4 | 6.4 | 11.2 | 1.6 | 232 | 6.4 | 928 | 10 | 30 | 0.08 |
| 838M-6-RL | 10 | 3/8 | -6 | 9.5 | 15.0 | 1.6 | 232 | 6.4 | 928 | 10 | 50 | 0.13 |
| 838M-8-RL | 12 | 1/2 | -8 | 12.7 | 19.1 | 1.6 | 232 | 6.4 | 928 | 10 | 70 | 0.20 |
| 838M-10-RL | 16 | 5/8 | -10 | 15.9 | 23.0 | 1.6 | 232 | 6.4 | 928 | 10 | 90 | 0.26 |
| 838M-12-RL | 19 | 3/4 | -12 | 19.1 | 26.0 | 1.6 | 232 | 6.4 | 928 | 10 | 110 | 0.31 |

* the vacuum values listed in the table are vacuum pressure values in kPa. For an absolute value subtract the table value from 101 kPa
RL = only available on reels

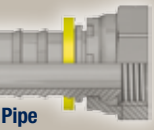
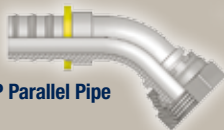

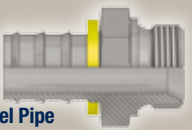
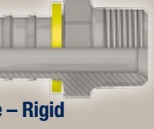
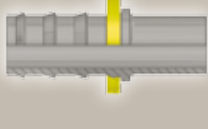
DIN – Metric

Page B1b-1 – B1b-7

| | | | |
|--|---|--|--|
| <p>CA B1b-1 Female Metric 24° Light Series with O-Ring Swivel – Straight ISO 12151-2-SWS-L – DKOL</p>  | <p>CE B1b-1 Female Metric 24° Light Series with O-Ring Swivel – 45° Elbow ISO 12151-2-SWE 45°-L – DKOL 45°</p>  | <p>CF B1b-2 Female Metric 24° Light Series with O-Ring Swivel – 90° Elbow ISO 12151-2-SWE-L – DKOL 90°</p>  | <p>D0 B1b-2 Male Metric 24° Light Series – Rigid Straight ISO 12151-2-S-L – CEL</p>  |
| <p>C3 B1b-3 Female Metric Light Series – Swivel Straight (Ball Nose for 24° or 60° Cone) DKL</p>  | <p>C4 B1b-4 Female Metric Light Series – Swivel 45° Elbow (Ball Nose for 24° or 60° Cone) DKL 45°</p>  | <p>C5 B1b-5 Female Metric Light Series – Swivel 90° Elbow (Ball Nose for 24° or 60° Cone) DKL 90°</p>  | <p>49 B1b-6 Metric Banjo Straight DIN 7642</p>  |
| <p>9B B1b-6 Female Metric Swivel Light Series 45° Elbow (Ball Nose for 24° or 60° Cone)</p>  | <p>9C B1b-7 Female Metric Swivel Light Series 90° Elbow (Ball Nose for 24° or 60° Cone)</p>  | | |

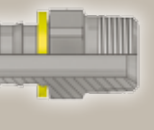
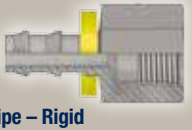
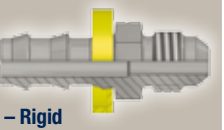
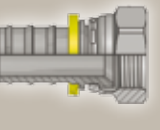
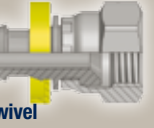
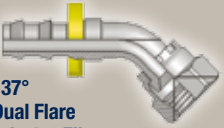

BSP

Page B1b-8 – B1b-10

| | | | |
|---|---|--|--|
| <p>92 B1b-8 Female BSP Parallel Pipe Swivel – Straight (60° Cone) BS5200-A – DKR</p>  | <p>B1 B1b-8 Female BSP Parallel Pipe Swivel 45° Elbow (60° Cone) BS 5200-D – DKR 45°</p>  | <p>B2 B1b-9 Female BSP Parallel Pipe Swivel 90° Elbow (60° Cone) BS 5200-B – DKR 90°</p>  | <p>D9 B1b-9 Male BSP Parallel Pipe Rigid – Straight (60° Cone) BS5200 – AGR</p>  |
| <p>91 B1b-10 Male BSP Taper Pipe – Rigid Straight BS5200 – AGR-K</p>  | <p>34 B1b-10 Inch Standpipe (Brass)</p>  | | |

SAE

Page B1b-11 – B1b-14

| | | | |
|--|--|--|---|
| <p>01 B1b-11 Male NPTF Pipe Rigid – Straight SAE J476A / J516 – AGN</p>  | <p>02 B1b-11 Female NPTF Pipe – Rigid Straight SAE J476A / J516</p>  | <p>03 B1b-12 Male JIC 37° – Rigid Straight ISO12151-5-S – AGJ</p>  | <p>06/68 B1b-12 Female – JIC 37° SAE 45° Dual Flare Swivel – Straight ISO12151-5-SWS – DKJ</p>  |
| <p>08 B1b-13 Female SAE 45° – Swivel Straight SAE J516</p>  | <p>37/3V B1b-13 Female JIC 37° SAE 45° – Dual Flare Swivel Female 45° Elbow ISO 12151-5-SWE 45° – DKJ 45°</p>  | <p>39/3W B1b-14 Female JIC 37° SAE 45° – Dual Flare Swivel Female 90° Elbow ISO 12151-5-SWES – DKJ 90°</p>  | |

ORFS

Page B1b-15

JC

B1b-15

Female ORFS
Swivel – Straight
Short

ISO 12151-1 – SWSA SAE J516 – ORFS



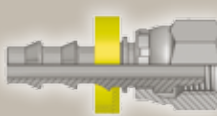
Others

Page B1b-16 – B1b-18

FF

B1b-16

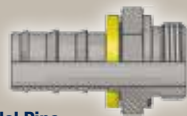
Metru-Lok Swivel Female



AF

B1b-16

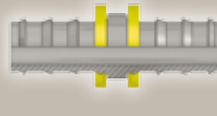
Male BSP Parallel Pipe
Rigid – Straight
(with O-ring Seal)



82

B1b-17

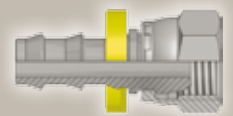
Push-Lok® Union



5C

B1b-17

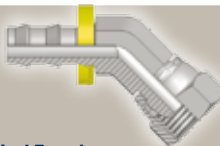
60° Cone Swivel Female



6C

B1b-18

60° Cone Swivel Female
45° Elbow



7C

B1b-18

60° Cone Swivel Female
90° Elbow



82 Series

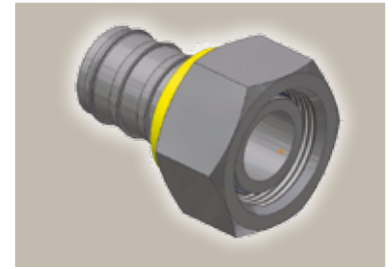
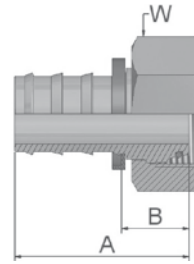
Assembly Instructions / Tools

Page B1b-19

CA

Female Metric 24° Light Series with O-Ring Swivel – Straight

ISO 12151-2-SWS-L – DKOL



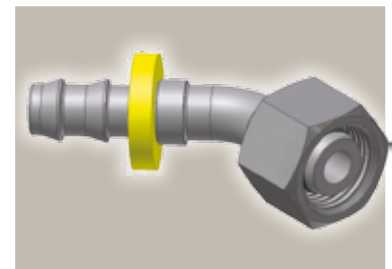
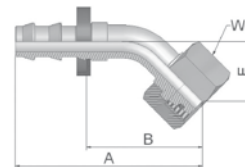
| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | W mm |
|--------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 3CA82-6-4B | 6 | 1/4 | -4 | 6.4 | M12x1.5 | 6 | 40 | 21 | 14 |
| 3CA82-6-4 | 6 | 1/4 | -4 | 6.4 | M12x1.5 | 6 | 40 | 21 | 14 |
| 3CA82-8-4 | 6 | 1/4 | -4 | 6.4 | M14x1.5 | 8 | 36 | 17 | 17 |
| 3CA82-8-4B | 6 | 1/4 | -4 | 6.4 | M14x1.5 | 8 | 36 | 17 | 17 |
| 3CA82-10-4 | 6 | 1/4 | -4 | 6.4 | M16x1.5 | 10 | 36 | 17 | 19 |
| 3CA82-10-6 | 10 | 3/8 | -6 | 9.5 | M16x1.5 | 10 | 40 | 17 | 19 |
| 3CA82-10-6B | 10 | 3/8 | -6 | 9.5 | M16x1.5 | 10 | 39 | 17 | 19 |
| 3CA82-12-6 | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 12 | 40 | 17 | 22 |
| 3CA82-12-6B | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 12 | 39 | 17 | 22 |
| 3CA82-15-8 | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 44 | 18 | 27 |
| 3CA82-15-8B | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 44 | 17 | 27 |
| 3CA82-15-10B | 16 | 5/8 | -10 | 15.9 | M22x1.5 | 15 | 60 | 23 | 27 |
| 3CA82-18-10 | 16 | 5/8 | -10 | 15.9 | M26x1.5 | 18 | 56 | 19 | 32 |
| 3CA82-22-12B | 19 | 3/4 | -12 | 19.1 | M30x2 | 22 | 58 | 21 | 36 |
| 3CA82-22-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 22 | 58 | 21 | 36 |

82 Series

CE

Female Metric 24° Light Series with O-Ring Swivel – 45° Elbow

ISO 12151-2-SWE 45°-L – DKOL 45°



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | E mm | W mm |
|-------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | | |
| 3CE82-6-4 | 6 | 1/4 | -4 | 6.4 | M12x1.5 | 6 | 56 | 37 | 21 | 14 |
| 3CE82-8-4 | 6 | 1/4 | -4 | 6.4 | M14x1.5 | 8 | 51 | 31 | 16 | 17 |
| 3CE82-10-6 | 10 | 3/8 | -6 | 9.5 | M16x1.5 | 10 | 59 | 37 | 19 | 19 |
| 3CE82-12-6 | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 12 | 60 | 37 | 19 | 22 |
| 3CE82-15-8 | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 69 | 43 | 21 | 27 |
| 3CE82-18-10 | 16 | 5/8 | -10 | 15.9 | M26x1.5 | 18 | 83 | 46 | 23 | 32 |
| 3CE82-22-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 22 | 97 | 60 | 26 | 36 |

Also available in stainless steel. Details can be found in CAT 4400.1/UK

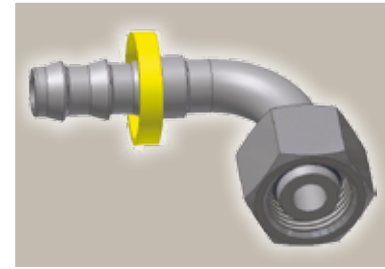
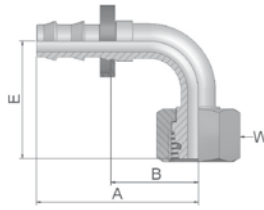
Approved **fitting series** for hose types:

B: Brass; **SM:** Metric Hexagon

82 801 804 821FR 830M 831 836 837BM 837PU 838M

CF Female Metric 24° Light Series with O-Ring Swivel – 90° Elbow

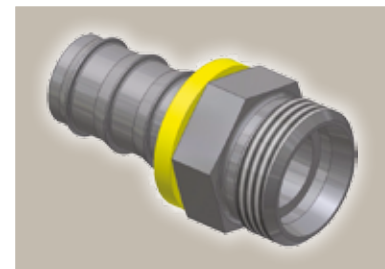
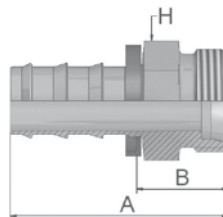
ISO 12151-2-SWE-L – DKOL 90°



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | E mm | W mm |
|-------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | | |
| 3CF82-6-4 | 6 | 1/4 | -4 | 6.4 | M12x1.5 | 6 | 42 | 23 | 36 | 14 |
| 3CF82-8-4 | 6 | 1/4 | -4 | 6.4 | M14x1.5 | 8 | 41 | 23 | 29 | 17 |
| 3CF82-10-4 | 6 | 1/4 | -4 | 6.4 | M16x1.5 | 10 | 42 | 23 | 31 | 19 |
| 3CF82-10-6 | 10 | 3/8 | -6 | 9.5 | M16x1.5 | 10 | 49 | 27 | 35 | 19 |
| 3CF82-10-6B | 10 | 3/8 | -6 | 9.5 | M16x1.5 | 10 | 49 | 27 | 35 | 19 |
| 3CF82-12-6B | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 12 | 49 | 27 | 35 | 22 |
| 3CF82-12-6 | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 12 | 49 | 27 | 35 | 22 |
| 3CF82-15-8B | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 60 | 34 | 41 | 27 |
| 3CF82-15-8 | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 60 | 34 | 41 | 27 |
| 3CF82-18-10 | 16 | 5/8 | -10 | 15.9 | M26x1.5 | 18 | 74 | 37 | 45 | 32 |
| 3CF82-22-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 22 | 88 | 52 | 55 | 36 |

DO Male Metric 24° Light Series – Rigid Straight

ISO 12151-2-S-L – CEL



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | H mm |
|---------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 3D082-6-4 | 6 | 1/4 | -4 | 6.4 | M12x1.5 | 6 | 35 | 16 | 12 |
| 3D082-8-4 | 6 | 1/4 | -4 | 6.4 | M14x1.5 | 8 | 36 | 17 | 14 |
| 3D082-10-6B | 10 | 3/8 | -6 | 9.5 | M16x1.5 | 10 | 41 | 18 | 17 |
| 3D082-10-6 | 10 | 3/8 | -6 | 9.5 | M16x1.5 | 10 | 41 | 18 | 17 |
| 3D082-12-6B | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 12 | 41 | 18 | 19 |
| 3D082-12-6 | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 12 | 41 | 18 | 19 |
| 3D082-15-8BK | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 49 | 22 | 22 |
| 3D082-15-8B | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 49 | 22 | 22 |
| 3D082-15-8 | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 49 | 23 | 22 |
| 3D082-18-8 | 12 | 1/2 | -8 | 12.7 | M26x1.5 | 18 | 48 | 21 | 27 |
| 3D082-18-10 | 16 | 5/8 | -10 | 15.9 | M26x1.5 | 18 | 58 | 21 | 27 |
| 3D082-22-12B | 19 | 3/4 | -12 | 19.1 | M30x2 | 22 | 63 | 27 | 30 |
| 3D082-22-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 22 | 63 | 27 | 30 |
| 3D082-22-12BK | 19 | 3/4 | -12 | 19.1 | M30x2 | 22 | 63 | 27 | 30 |

Also available in stainless steel. Details can be found in CAT 4400.1/UK

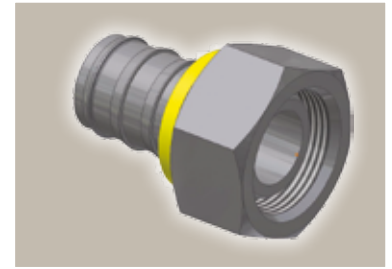
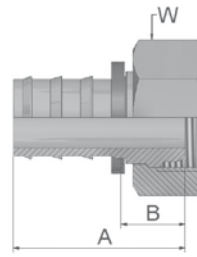
Approved **fitting series** for hose types:

B: Brass; **SM:** Metric Hexagon

82 801 804 821FR 830M 831 836 837BM 837PU 838M

C3 Female Metric Light Series – Swivel Straight (Ball Nose for 24° or 60° Cone)

DKL



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | W mm |
|---------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 3C382-6-4 | 6 | 1/4 | -4 | 6.4 | M12x1.5 | 6 | 33 | 14 | 14 |
| 3C382-6-4BK | 6 | 1/4 | -4 | 6.4 | M12x1.5 | 6 | 33 | 14 | 14 |
| 3C382-6-4B | 6 | 1/4 | -4 | 6.4 | M12x1.5 | 6 | 33 | 14 | 14 |
| 3C382-8-4 | 6 | 1/4 | -4 | 6.4 | M14x1.5 | 8 | 33 | 14 | 17 |
| 3C382-8-4BK | 6 | 1/4 | -4 | 6.4 | M14x1.5 | 8 | 36 | 17 | 19 |
| 3C382-8-4B | 6 | 1/4 | -4 | 6.4 | M14x1.5 | 8 | 36 | 17 | 19 |
| 3C382-10-4 | 6 | 1/4 | -4 | 6.4 | M16x1.5 | 10 | 34 | 15 | 19 |
| 3C382-10-4BK | 6 | 1/4 | -4 | 6.4 | M16x1.5 | 10 | 34 | 15 | 19 |
| 3C382-10-6 | 10 | 3/8 | -6 | 9.5 | M16x1.5 | 10 | 37 | 15 | 19 |
| 3C382-10-6BK | 10 | 3/8 | -6 | 9.5 | M16x1.5 | 10 | 40 | 17 | 19 |
| 3C382-10-6B | 10 | 3/8 | -6 | 9.5 | M16x1.5 | 10 | 40 | 17 | 19 |
| 3C382-12-6BK | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 12 | 40 | 17 | 22 |
| 3C382-12-6 | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 12 | 38 | 16 | 22 |
| 3C382-15-8 | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 42 | 15 | 27 |
| 3C382-15-8B | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 46 | 19 | 27 |
| 3C382-15-8BK | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 46 | 19 | 27 |
| 3C382-15-10 | 16 | 5/8 | -10 | 15.9 | M22x1.5 | 15 | 56 | 19 | 27 |
| 3C382-18-10B | 16 | 5/8 | -10 | 15.9 | M26x1.5 | 18 | 58 | 22 | 32 |
| 3C382-18-10 | 16 | 5/8 | -10 | 15.9 | M26x1.5 | 18 | 53 | 17 | 32 |
| 3C382-18-10BK | 16 | 5/8 | -10 | 15.9 | M26x1.5 | 18 | 58 | 22 | 32 |
| 3C382-22-12B | 19 | 3/4 | -12 | 19.1 | M30x2 | 22 | 58 | 22 | 36 |
| 3C382-22-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 22 | 53 | 17 | 36 |
| 3C382-22-12BK | 19 | 3/4 | -12 | 19.1 | M30x2 | 22 | 58 | 22 | 36 |
| 3C382-28-16 | 25 | 1 | -16 | 25.4 | M36x2 | 28 | 58 | 22 | 41 |
| 3C382-28-16-K | 25 | 1 | -16 | 25.4 | M36x2 | 28 | 58 | 22 | 41 |
| 3C382-28-16BK | 25 | 1 | -16 | 25.4 | M36x2 | 28 | 58 | 22 | 41 |

82 Series

Also available in stainless steel. Details can be found in CAT 4400.1/UK

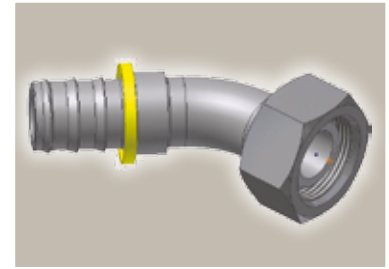
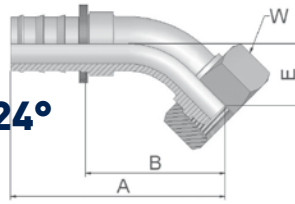
Approved **fitting series** for hose types:

B: Brass; **SM:** Metric Hexagon

82 801 804 821FR 830M 831 836 837BM 837PU 838M

C4 **Female Metric
Light Series – Swivel
45° Elbow (Ball Nose for 24°
or 60° Cone)**

DKL 45°



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | E mm | W mm |
|---------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | | |
| 3C482-6-4 | 6 | 1/4 | -4 | 6.4 | M12x1.5 | 6 | 51 | 32 | 16 | 14 |
| 3C482-6-4B | 6 | 1/4 | -4 | 6.4 | M12x1.5 | 6 | 51 | 32 | 16 | 14 |
| 3C482-8-4 | 6 | 1/4 | -4 | 6.4 | M14x1.5 | 8 | 51 | 32 | 16 | 17 |
| 3C482-8-4B | 6 | 1/4 | -4 | 6.4 | M14x1.5 | 8 | 51 | 32 | 16 | 17 |
| 3C482-10-6 | 10 | 3/8 | -6 | 9.5 | M16x1.5 | 10 | 58 | 35 | 18 | 19 |
| 3C482-10-6B | 10 | 3/8 | -6 | 9.5 | M16x1.5 | 10 | 58 | 35 | 17 | 19 |
| 3C482-12-6 | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 12 | 59 | 36 | 18 | 22 |
| 3C482-12-6B | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 12 | 58 | 36 | 18 | 22 |
| 3C482-15-8B | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 67 | 41 | 19 | 27 |
| 3C482-15-8 | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 68 | 41 | 19 | 27 |
| 3C482-15-10 | 16 | 5/8 | -10 | 15.9 | M22x1.5 | 15 | 82 | 45 | 21 | 27 |
| 3C482-15-10B | 16 | 5/8 | -10 | 15.9 | M22x1.5 | 15 | 82 | 45 | 21 | 27 |
| 3C482-18-10 | 16 | 5/8 | -10 | 15.9 | M26x1.5 | 18 | 81 | 45 | 21 | 32 |
| 3C482-18-10B | 16 | 5/8 | -10 | 15.9 | M26x1.5 | 18 | 81 | 45 | 21 | 32 |
| 3C482-18-12 | 19 | 3/4 | -12 | 19.1 | M26x1.5 | 18 | 96 | 60 | 26 | 32 |
| 3C482-22-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 22 | 88 | 52 | 23 | 36 |
| 3C482-22-12B | 19 | 3/4 | -12 | 19.1 | M30x2 | 22 | 88 | 52 | 23 | 36 |
| 3C482-28-16-K | 25 | 1 | -16 | 25.4 | M36x2 | 28 | 110 | 73 | 31 | 41 |

Also available in stainless steel. Details can be found in CAT 4400.1/UK

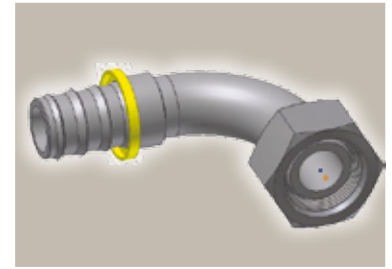
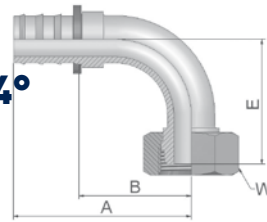
Approved **fitting series** for hose types:

B: Brass; **SM:** Metric Hexagon

82 801 804 821FR 830M 831 836 837BM 837PU 838M

C5 Female Metric Light Series – Swivel 90° Elbow (Ball Nose for 24° or 60° Cone)

DKL 90°



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | E mm | W mm |
|---------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | | |
| 3C582-6-4 | 6 | 1/4 | -4 | 6.4 | M12x1.5 | 6 | 42 | 23 | 29 | 14 |
| 3C582-8-4 | 6 | 1/4 | -4 | 6.4 | M14x1.5 | 8 | 42 | 23 | 29 | 17 |
| 3C582-8-4B | 6 | 1/4 | -4 | 6.4 | M14x1.5 | 8 | 41 | 23 | 29 | 17 |
| 3C582-10-4 | 6 | 1/4 | -4 | 6.4 | M16x1.5 | 10 | 42 | 23 | 29 | 19 |
| 3C582-10-6 | 10 | 3/8 | -6 | 9.5 | M16x1.5 | 10 | 49 | 27 | 33 | 19 |
| 3C582-12-6B | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 12 | 49 | 27 | 34 | 22 |
| 3C582-12-6 | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 12 | 49 | 27 | 34 | 22 |
| 3C582-15-8 | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 65 | 38 | 39 | 27 |
| 3C582-15-8B | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 65 | 38 | 39 | 27 |
| 3C582-18-10B | 16 | 5/8 | -10 | 15.9 | M26x1.5 | 18 | 74 | 37 | 43 | 32 |
| 3C582-18-10 | 16 | 5/8 | -10 | 15.9 | M26x1.5 | 18 | 74 | 37 | 43 | 32 |
| 3C582-22-12B | 19 | 3/4 | -12 | 19.1 | M30x2 | 22 | 88 | 52 | 50 | 36 |
| 3C582-22-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 22 | 88 | 51 | 50 | 36 |
| 3C582-28-16B | 25 | 1 | -16 | 25.4 | M36x2 | 28 | 101 | 64 | 66 | 41 |
| 3C582-28-16-K | 25 | 1 | -16 | 25.4 | M36x2 | 28 | 99 | 61 | 70 | 41 |

82 Series

Also available in stainless steel. Details can be found in CAT 4400.1/UK

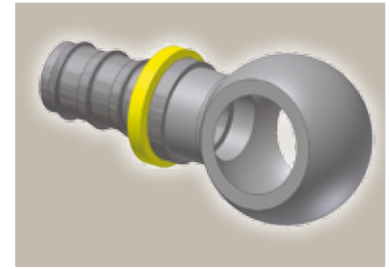
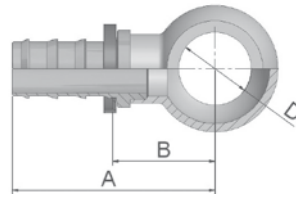
Approved **fitting series** for hose types:

B: Brass; **SM:** Metric Hexagon

82 801 804 821FR 830M 831 836 837BM 837PU 838M

49 Metric Banjo Straight

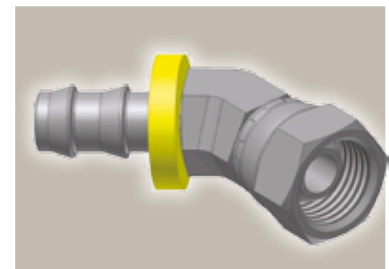
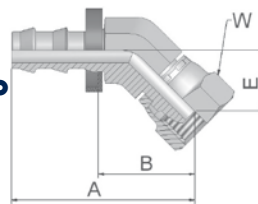
DIN 7642



| Part Number | Hose I.D. | | | | A mm | B mm | D mm |
|-------------|-----------|------|------|------|---------|---------|---------|
| | DN | Inch | Size | mm | | | |
| 34982-8-4 | 6 | 1/4 | -4 | 6.4 | 36 | 17 | 8 |
| 34982-10-4 | 6 | 1/4 | -4 | 6.4 | 38 | 19 | 10 |
| 34982-12-4 | 6 | 1/4 | -4 | 6.4 | 40 | 21 | 12 |
| 34982-14-4 | 6 | 1/4 | -4 | 6.4 | 42 | 23 | 14 |
| 34982-10-6 | 10 | 3/8 | -6 | 9.5 | 42 | 19 | 10 |
| 34982-12-6 | 10 | 3/8 | -6 | 9.5 | 44 | 21 | 12 |
| 34982-14-6 | 10 | 3/8 | -6 | 9.5 | 47 | 24 | 14 |
| 34982-16-6 | 10 | 3/8 | -6 | 9.5 | 49 | 26 | 16 |
| 34982-17-6 | 10 | 3/8 | -6 | 9.5 | 49 | 26 | 17 |
| 34982-14-8 | 12 | 1/2 | -8 | 12.7 | 51 | 25 | 14 |
| 34982-18-8 | 12 | 1/2 | -8 | 12.7 | 55 | 28 | 18 |
| 34982-22-8 | 12 | 1/2 | -8 | 12.7 | 57 | 31 | 22 |
| 34982-22-10 | 16 | 5/8 | -10 | 15.9 | 68 | 32 | 22 |
| 34982-26-12 | 19 | 3/4 | -12 | 19.1 | 74 | 38 | 26 |

9B Female Metric Swivel Light Series

45° Elbow (Ball Nose for 24° or 60° Cone)



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | E mm | W mm |
|--------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | | |
| 39B82-6-4BK | 6 | 1/4 | -4 | 6.4 | M12x1.5 | 6 | 44 | 25 | 16 | 14 |
| 39B82-8-4BK | 6 | 1/4 | -4 | 6.4 | M14x1.5 | 8 | 43 | 24 | 15 | 19 |
| 39B82-10-6BK | 10 | 3/8 | -6 | 9.5 | M16x1.5 | 10 | 48 | 25 | 16 | 19 |
| 39B82-12-6BK | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 12 | 50 | 27 | 17 | 22 |
| 39B82-15-8BK | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 54 | 28 | 18 | 27 |

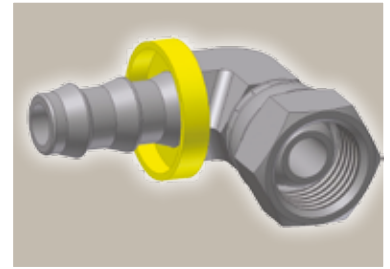
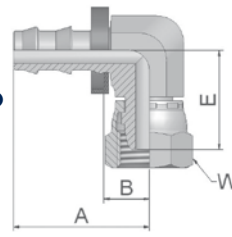
Also available in stainless steel. Details can be found in CAT 4400.1/UK

Approved **fitting series** for hose types:

B: Brass; **SM:** Metric Hexagon

82 801 804 821FR 830M 831 836 837BM 837PU 838M

9C **Female Metric Swivel
Light Series
90° Elbow (Ball Nose for 24°
or 60° Cone)**



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | E mm | W mm |
|--------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | | |
| 39C82-6-4BK | 6 | 1/4 | -4 | 6.4 | M12x1.5 | 6 | 30 | 11 | 22 | 14 |
| 39C82-8-4BK | 6 | 1/4 | -4 | 6.4 | M14x1.5 | 8 | 30 | 11 | 22 | 19 |
| 39C82-10-6BK | 10 | 3/8 | -6 | 9.5 | M16x1.5 | 10 | 34 | 12 | 25 | 19 |
| 39C82-12-6BK | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 12 | 34 | 11 | 25 | 22 |
| 39C82-15-8BK | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 42 | 16 | 32 | 27 |

82 Series

Also available in stainless steel. Details can be found in CAT 4400.1/UK

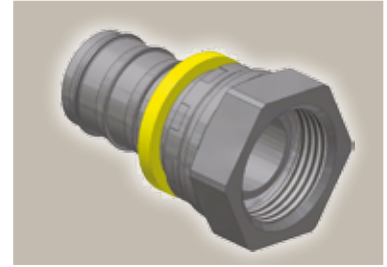
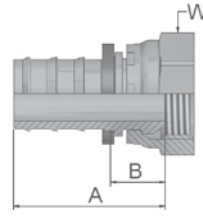
Approved **fitting series** for hose types:

B: Brass; **SM:** Metric Hexagon

82 | 801 | 804 | 821FR | 830M | 831 | 836 | 837BM | 837PU | 838M

92 Female BSP Parallel Pipe Swivel – Straight (60° Cone)

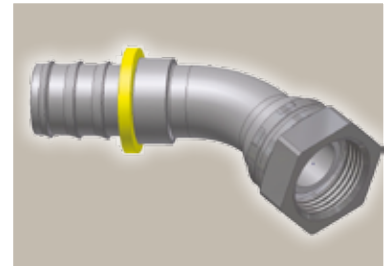
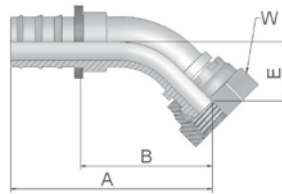
BS5200-A – DKR



| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | W mm |
|--------------|-----------|------|------|------|---------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 39282-4-4 | 6 | 1/4 | -4 | 6.4 | 1/4x19 | 33 | 14 | 17 |
| 39282-4-4B | 6 | 1/4 | -4 | 6.4 | 1/4x19 | 36 | 16 | 17 |
| 39282-6-4B | 6 | 1/4 | -4 | 6.4 | 3/8x19 | 37 | 18 | 22 |
| 39282-6-6 | 10 | 3/8 | -6 | 9.5 | 3/8x19 | 37 | 14 | 19 |
| 39282-8-8B | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 46 | 19 | 27 |
| 39282-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 42 | 15 | 27 |
| 39282-10-10 | 16 | 5/8 | -10 | 15.9 | 5/8x14 | 53 | 16 | 30 |
| 39282-10-10B | 16 | 5/8 | -10 | 15.9 | 5/8x14 | 55 | 18 | 30 |
| 39282-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 58 | 21 | 32 |
| 39282-16-16B | 25 | 1 | -16 | 25.4 | 1x11 | 57 | 21 | 41 |

B1 Female BSP Parallel Pipe Swivel 45° Elbow (60° Cone)

BS 5200-D – DKR 45°



| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | E mm | W mm |
|---------------|-----------|------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 3B182-4-4 | 6 | 1/4 | -4 | 6.4 | 1/4x19 | 51 | 32 | 16 | 17 |
| 3B182-6-6 | 10 | 3/8 | -6 | 9.5 | 3/8x19 | 58 | 35 | 17 | 19 |
| 3B182-6-6B | 10 | 3/8 | -6 | 9.5 | 3/8x19 | 58 | 35 | 17 | 19 |
| 3B182-8-8B | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 67 | 41 | 19 | 27 |
| 3B182-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 68 | 41 | 19 | 27 |
| 3B182-10-10 | 16 | 5/8 | -10 | 15.9 | 5/8x14 | 81 | 45 | 21 | 30 |
| 3B182-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 92 | 55 | 27 | 32 |
| 3B182-16-16-K | 25 | 1 | -16 | 25.4 | 1x11 | 107 | 70 | 33 | 41 |

Also available in stainless steel. Details can be found in CAT 4400.1/UK

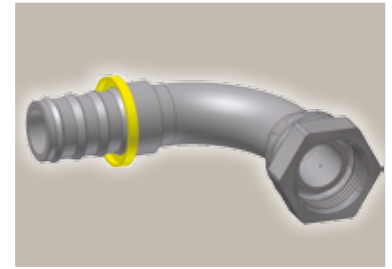
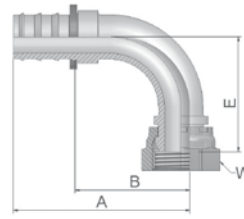
Approved **fitting series** for hose types:

B: Brass; **SM:** Metric Hexagon

82 801 804 821FR 830M 831 836 837BM 837PU 838M

B2 Female BSP Parallel Pipe Swivel 90° Elbow (60° Cone)

BS 5200-B – DKR 90°

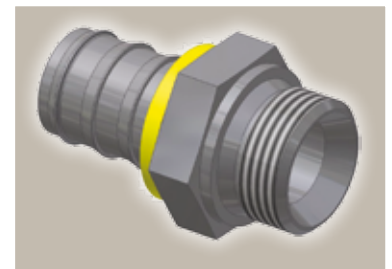
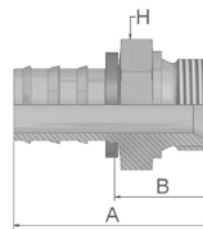


| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | E mm | W mm |
|---------------|-----------|------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 3B282-4-4 | 6 | 1/4 | -4 | 6.4 | 1/4x19 | 42 | 23 | 29 | 17 |
| 3B282-6-6 | 10 | 3/8 | -6 | 9.5 | 3/8x19 | 49 | 26 | 33 | 19 |
| 3B282-8-8B | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 60 | 34 | 39 | 27 |
| 3B282-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 60 | 34 | 39 | 27 |
| 3B282-10-8 | 12 | 1/2 | -8 | 12.7 | 5/8x14 | 58 | 32 | 40 | 30 |
| 3B282-10-10 | 16 | 5/8 | -10 | 15.9 | 5/8x14 | 74 | 37 | 43 | 30 |
| 3B282-10-10B | 16 | 5/8 | -10 | 15.9 | 5/8x14 | 74 | 37 | 44 | 30 |
| 3B282-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 83 | 46 | 53 | 32 |
| 3B282-12-12B | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 83 | 46 | 53 | 32 |
| 3B282-16-16-K | 25 | 1 | -16 | 25.4 | 1x11 | 99 | 61 | 68 | 41 |

82 Series

D9 Male BSP Parallel Pipe Rigid – Straight (60° Cone)

BS5200 – AGR



| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | H mm |
|-------------|-----------|------|------|------|---------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 3D982-2-4 | 6 | 1/4 | -4 | 6.4 | 1/8x28 | 36 | 17 | 14 |
| 3D982-4-4B | 6 | 1/4 | -4 | 6.4 | 1/4x19 | 41 | 23 | 19 |
| 3D982-4-4 | 6 | 1/4 | -4 | 6.4 | 1/4x19 | 41 | 23 | 19 |
| 3D982-4-6B | 10 | 3/8 | -6 | 9.5 | 1/4x19 | 44 | 21 | 19 |
| 3D982-4-6 | 10 | 3/8 | -6 | 9.5 | 1/4x19 | 44 | 21 | 19 |
| 3D982-6-6 | 10 | 3/8 | -6 | 9.5 | 3/8x19 | 45 | 23 | 22 |
| 3D982-8-8B | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 53 | 27 | 27 |
| 3D982-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 53 | 27 | 27 |
| 3D982-8-10 | 16 | 5/8 | -10 | 15.9 | 1/2x14 | 62 | 25 | 27 |
| 3D982-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 65 | 28 | 32 |

Also available in stainless steel. Details can be found in CAT 4400.1/UK

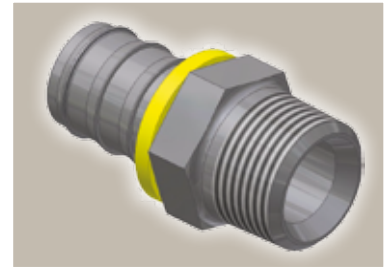
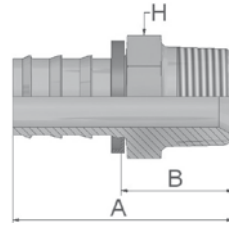
Approved fitting series for hose types:

B: Brass; SM: Metric Hexagon

82 801 804 821FR 830M 831 836 837BM 837PU 838M

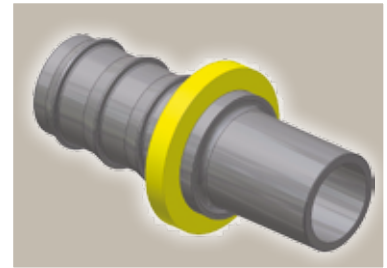
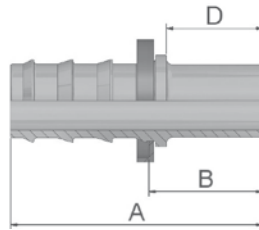
91 Male BSP Taper Pipe – Rigid Straight

BS5200 – AGR-K



| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | H mm |
|--------------|-----------|------|------|------|---------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 39182-2-4B | 6 | 1/4 | -4 | 6.4 | 1/8x28 | 37 | 18 | 12 |
| 39182-4-4B | 6 | 1/4 | -4 | 6.4 | 1/4x19 | 40 | 21 | 14 |
| 39182-4-6B | 10 | 3/8 | -6 | 9.5 | 1/4x19 | 44 | 21 | 14 |
| 39182-6-6B | 10 | 3/8 | -6 | 9.5 | 3/8x19 | 45 | 22 | 19 |
| 39182-6-8B | 12 | 1/2 | -8 | 12.7 | 3/8x19 | 49 | 22 | 19 |
| 39182-8-8B | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 55 | 29 | 22 |
| 39182-8-10B | 16 | 5/8 | -10 | 15.9 | 1/2x14 | 65 | 28 | 22 |
| 39182-12-10B | 16 | 5/8 | -10 | 15.9 | 3/4x14 | 69 | 32 | 30 |
| 39182-12-12B | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 69 | 32 | 30 |

34 Inch Standpipe (Brass)



| Part Number | Hose I.D. | | | | A mm | B mm | D mm |
|--------------|-----------|------|------|------|---------|---------|---------|
| | DN | Inch | Size | mm | | | |
| 33482-4-4B | 6 | 1/4 | -4 | 6.4 | 48 | 29 | 26 |
| 33482-6-6B | 10 | 3/8 | -6 | 9.5 | 57 | 34 | 31 |
| 33482-8-8B | 12 | 1/2 | -8 | 12.7 | 55 | 28 | 25 |
| 33482-10-10B | 16 | 5/8 | -10 | 15.9 | 67 | 30 | 25 |
| 33482-12-12B | 19 | 3/4 | -12 | 19.1 | 67 | 30 | 25 |

Also available in stainless steel. Details can be found in CAT 4400.1/UK

Approved **fitting series** for hose types:

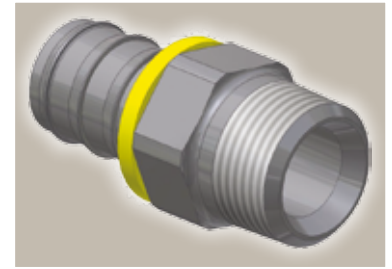
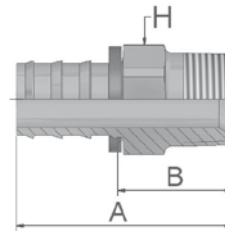
B: Brass; **SM:** Metric Hexagon

82 801 804 821FR 830M 831 836 837BM 837PU 838M

01

Male NPTF Pipe Rigid – Straight

SAE J476A/ J516 – AGN



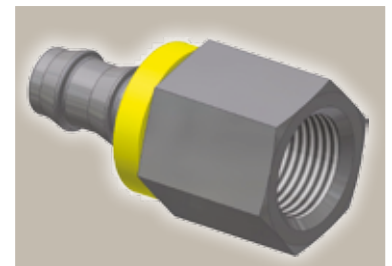
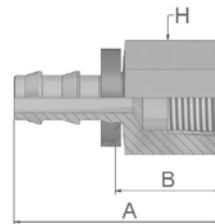
| Part Number | Hose I.D. | | | | Thread NPTF | A mm | B mm | H | |
|----------------|-----------|------|------|------|----------------|---------|---------|--------|------|
| | DN | Inch | Size | mm | | | | mm | Inch |
| 30182-2-4B | 6 | 1/4 | -4 | 6.4 | 1/8x27 | 35 | 16 | 7/16 | |
| 30182-2-4-SM | 6 | 1/4 | -4 | 6.4 | 1/8x27 | 35 | 16 | 12 | |
| 30182-4-4-SM | 6 | 1/4 | -4 | 6.4 | 1/4x18 | 40 | 21 | 14 | |
| 30182-4-4B | 6 | 1/4 | -4 | 6.4 | 1/4x18 | 40 | 21 | 9/16 | |
| 30182-6-4 | 6 | 1/4 | -4 | 6.4 | 3/8x18 | 42 | 22 | 11/16 | |
| 30182-6-4B | 6 | 1/4 | -4 | 6.4 | 3/8x18 | 42 | 22 | 11/16 | |
| 30182-4-6-SM | 10 | 3/8 | -6 | 9.5 | 1/4x18 | 45 | 23 | 14 | |
| 30182-4-6B | 10 | 3/8 | -6 | 9.5 | 1/4x18 | 45 | 22 | 9/16 | |
| 30182-6-6-SM | 10 | 3/8 | -6 | 9.5 | 3/8x18 | 45 | 23 | 19 | |
| 30182-8-6-SM | 10 | 3/8 | -6 | 9.5 | 1/2x14 | 52 | 29 | 22 | |
| 30182-8-6B-SM | 10 | 3/8 | -6 | 9.5 | 1/2x14 | 52 | 29 | 22 | |
| 30182-6-8B | 12 | 1/2 | -8 | 12.7 | 3/8x18 | 49 | 22 | 11/16 | |
| 30182-8-8B-SM | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 55 | 29 | 22 | |
| 30182-8-8-SM | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 55 | 29 | 22 | |
| 30182-8-10B | 16 | 5/8 | -10 | 15.9 | 1/2x14 | 66 | 29 | 7/8 | |
| 30182-8-10-SM | 16 | 5/8 | -10 | 15.9 | 1/2x14 | 66 | 29 | 22 | |
| 30182-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4x14 | 66 | 29 | 1 1/16 | |
| 30182-8-12-SM | 19 | 3/4 | -12 | 19.1 | 1/2x14 | 66 | 29 | 22 | |
| 30182-8-12B | 19 | 3/4 | -12 | 19.1 | 1/2x14 | 66 | 29 | 7/8 | |
| 30182-12-12-SM | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 66 | 30 | 27 | |
| 30182-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 66 | 29 | 1 1/16 | |
| 30182-12-12B | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 66 | 29 | 1 1/16 | |

82 Series

02

Female NPTF Pipe – Rigid Straight

SAE J476A/ J516



| Part Number | Hose I.D. | | | | Thread NPTF | A mm | B mm | H | |
|-------------|-----------|------|------|------|----------------|---------|---------|--------|------|
| | DN | Inch | Size | mm | | | | mm | Inch |
| 30282-4-4B | 6 | 1/4 | -4 | 6.4 | 1/4x18 | 40 | 21 | 3/4 | |
| 30282-6-6B | 10 | 3/8 | -6 | 9.5 | 3/8x18 | 46 | 23 | 7/8 | |
| 30282-8-8B | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 55 | 28 | 1 1/16 | |

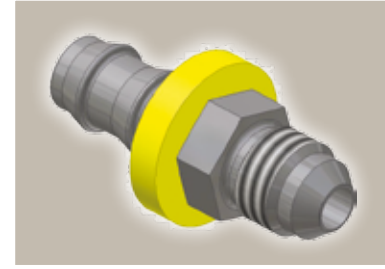
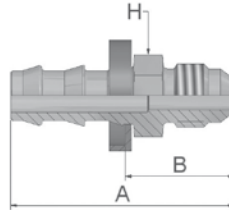
Also available in stainless steel. Details can be found in CAT 4400.1/UK

Approved **fitting series** for hose types:

B: Brass; **SM:** Metric Hexagon

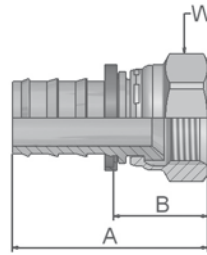
82 801 804 821FR 830M 831 836 837BM 837PU 838M

03 Male JIC 37° – Rigid Straight
ISO12151-5-S – AGJ



| Part Number | Hose I.D. | | | | Thread NPTF | A mm | B mm | H Inch |
|--------------|-----------|------|------|------|----------------|---------|---------|-----------|
| | DN | Inch | Size | mm | | | | |
| 30382-4-4 | 6 | 1/4 | -4 | 6.4 | 7/16x20 | 40 | 21 | 1/2 |
| 30382-6-6 | 10 | 3/8 | -6 | 9.5 | 9/16x18 | 45 | 22 | 5/8 |
| 30382-6-6B | 10 | 3/8 | -6 | 9.5 | 9/16x18 | 45 | 22 | 5/8 |
| 30382-8-8B | 12 | 1/2 | -8 | 12.7 | 3/4x16 | 52 | 26 | 3/4 |
| 30382-8-8 | 12 | 1/2 | -8 | 12.7 | 3/4x16 | 52 | 26 | 3/4 |
| 30382-12-12B | 19 | 3/4 | -12 | 19.1 | 1 1/16x12 | 69 | 32 | 1 1/8 |
| 30382-12-12 | 19 | 3/4 | -12 | 19.1 | 1 1/16x12 | 69 | 32 | 1 1/8 |

06/68 Female – JIC 37° SAE 45° Dual Flare Swivel – Straight
ISO12151-5-SWS – DKJ



| Part Number | Hose I.D. | | | | Thread NPTF | A mm | B mm | H | |
|-----------------|-----------|------|------|------|----------------|---------|---------|-------|------|
| | DN | Inch | Size | mm | | | | mm | Inch |
| 30682-4-4-SM | 6 | 1/4 | -4 | 6.4 | 7/16x20 | 40 | 21 | 14 | |
| 30682-4-4B | 6 | 1/4 | -4 | 6.4 | 7/16x20 | 39 | 19 | 9/16 | |
| 30682-5-4B | 6 | 1/4 | -4 | 6.4 | 1/2x20 | 40 | 21 | 5/8 | |
| 30682-6-4B | 6 | 1/4 | -4 | 6.4 | 9/16x18 | 42 | 22 | 11/16 | |
| 30682-5-6B | 10 | 3/8 | -6 | 9.5 | 1/2x20 | 44 | 21 | 5/8 | |
| 30682-6-6-SM | 10 | 3/8 | -6 | 9.5 | 9/16x18 | 45 | 22 | 19 | |
| 30682-6-6 | 10 | 3/8 | -6 | 9.5 | 9/16x18 | 46 | 22 | 11/16 | |
| 30682-6-6B-SM | 10 | 3/8 | -6 | 9.5 | 9/16x18 | 45 | 22 | 19 | |
| 36882-8-6-SM | 10 | 3/8 | -6 | 9.5 | 3/4x16 | 48 | 25 | 22 | |
| 30682-8-6B | 10 | 3/8 | -6 | 9.5 | 3/4x16 | 47 | 24 | 7/8 | |
| 36882-8-8B-SM | 12 | 1/2 | -8 | 12.7 | 3/4x16 | 51 | 25 | 22 | |
| 36882-8-8-SM | 12 | 1/2 | -8 | 12.7 | 3/4x16 | 51 | 25 | 22 | |
| 30682-10-8B | 12 | 1/2 | -8 | 12.7 | 7/8x14 | 52 | 25 | 1 | |
| 30682-10-10-SM | 16 | 5/8 | -10 | 15.9 | 7/8x14 | 65 | 28 | 27 | |
| 30682-10-10B | 16 | 5/8 | -10 | 15.9 | 7/8x14 | 62 | 25 | 1 | |
| 30682-12-12-SM | 19 | 3/4 | -12 | 19.1 | 1 1/16x12 | 67 | 30 | 32 | |
| 30682-12-12B-SM | 19 | 3/4 | -12 | 19.1 | 1 1/16x12 | 67 | 31 | 32 | |

Also available in stainless steel. Details can be found in CAT 4400.1/UK

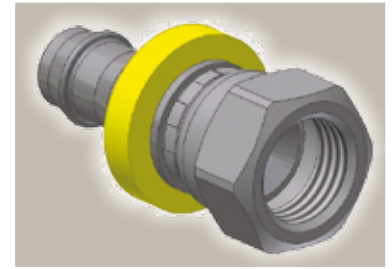
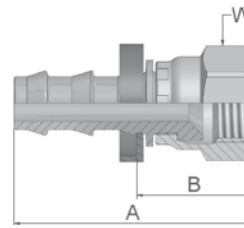
Approved **fitting series** for hose types:

B: Brass; **SM:** Metric Hexagon

82 801 804 821FR 830M 831 836 837BM 837PU 838M

08 Female SAE 45° – Swivel Straight

SAE J516

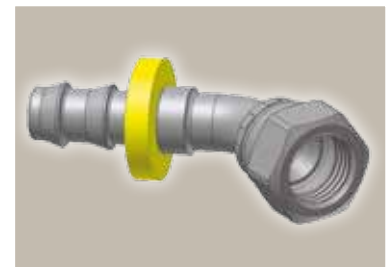
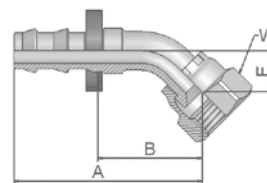


| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | W inch |
|--------------|-----------|------|------|------|---------------|---------|---------|-----------|
| | DN | Inch | Size | mm | | | | |
| 30882-4-4 | 6 | 1/4 | -4 | 6.4 | 7/16x20 | 39 | 19 | 9/16 |
| 30882-4-4B | 6 | 1/4 | -4 | 6.4 | 7/16x20 | 39 | 19 | 9/16 |
| 30882-5-4B | 6 | 1/4 | -4 | 6.4 | 1/2x20 | 40 | 21 | 5/8 |
| 30882-6-6-SM | 10 | 3/8 | -6 | 9.5 | 5/8x18 | 46 | 22 | 19 |
| 30882-6-6B | 10 | 3/8 | -6 | 9.5 | 5/8x18 | 46 | 23 | 3/4 |
| 30882-8-8B | 12 | 1/2 | -8 | 12.7 | 3/4x16 | 51 | 25 | 7/8 |
| 30882-8-8 | 12 | 1/2 | -8 | 12.7 | 3/4x16 | 51 | 25 | 7/8 |
| 30882-10-10B | 16 | 5/8 | -10 | 15.9 | 7/8x14 | 65 | 28 | 1 |
| 30882-10-10 | 16 | 5/8 | -10 | 15.9 | 7/8x14 | 65 | 28 | 1 |
| 30882-12-12 | 19 | 3/4 | -12 | 19.1 | 1 1/16x14 | 67 | 30 | 1 1/4 |
| 30882-12-12B | 19 | 3/4 | -12 | 19.1 | 1 1/16x14 | 67 | 30 | 1 1/4 |

82 Series

37/3V Female JIC 37° SAE 45° – Dual Flare Swivel Female 45° Elbow

ISO 12151-5-SWE 45° – DKJ 45°



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | E mm | W mm Inch |
|---------------|-----------|------|------|------|---------------|---------|---------|---------|--------------|
| | DN | Inch | Size | mm | | | | | |
| 33V82-4-4B-SM | 6 | 1/4 | -4 | 6.4 | 7/16x20 | 44 | 25 | 10 | 17 |
| 33782-4-4 | 6 | 1/4 | -4 | 6.4 | 7/16x20 | 39 | 20 | 8 | 9/16 |
| 33782-6-6-SM | 10 | 3/8 | -6 | 9.5 | 9/16x18 | 51 | 28 | 11 | 19 |
| 33782-8-8 | 12 | 1/2 | -8 | 12.7 | 3/4x16 | 54 | 35 | 14 | 7/8 |

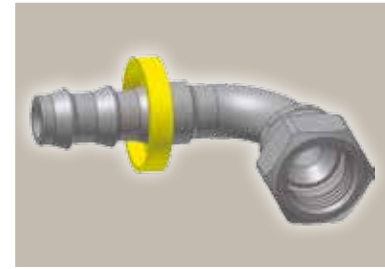
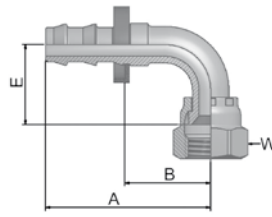
Also available in stainless steel. Details can be found in CAT 4400.1/UK

Approved fitting series for hose types:

B: Brass; SM: Metric Hexagon

82 801 804 821FR 830M 831 836 837BM 837PU 838M

**39/3W Female JIC 37°
SAE 45° – Dual Flare
Swivel Female 90° Elbow**
ISO 12151-5-SWES – DKJ 90°



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | E mm | W | |
|----------------|-----------|------|------|------|---------------|---------|---------|---------|-------|------|
| | DN | Inch | Size | mm | | | | | mm | Inch |
| 33W82-4-4-SM | 6 | 1/4 | -4 | 6.4 | 7/16x20 | 39 | 20 | 21 | 17 | |
| 33982-4-4 | 6 | 1/4 | -4 | 6.4 | 7/16x20 | 39 | 20 | 17 | 5/8 | |
| 33982-6-6 | 10 | 3/8 | -6 | 9.5 | 9/16x18 | 50 | 28 | 22 | 11/16 | |
| 33982-6-6-SM | 10 | 3/8 | -6 | 9.5 | 9/16x18 | 47 | 25 | 23 | 19 | |
| 33982-8-8 | 12 | 1/2 | -8 | 12.7 | 3/4x16 | 59 | 33 | 28 | 7/8 | |
| 33W82-8-8-SM | 12 | 1/2 | -8 | 12.7 | 3/4x16 | 55 | 29 | 28 | 22 | |
| 33982-10-10 | 16 | 5/8 | -10 | 15.9 | 7/8x14 | 74 | 37 | 31 | 1 | |
| 33982-12-12 | 19 | 3/4 | -12 | 19.1 | 1 1/16x12 | 84 | 46 | 46 | 1 1/4 | |
| 33982-12-12-SM | 19 | 3/4 | -12 | 19.1 | 1 1/16x12 | 88 | 52 | 48 | 32 | |

Also available in stainless steel. Details can be found in CAT 4400.1/UK

Approved **fitting series** for hose types:

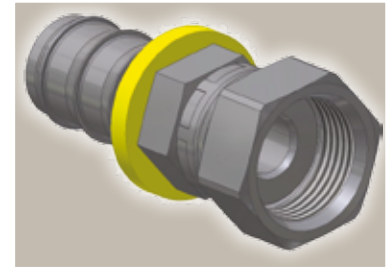
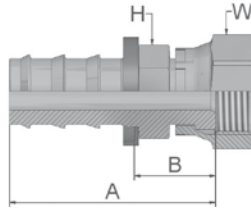
B: Brass; **SM:** Metric Hexagon

82 801 804 821FR 830M 831 836 837BM 837PU 838M

JC

**Female ORFS
Swivel – Straight
Short**

ISO 12151-1 – SWSA
SAE J516 – ORFS



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | H | | W | |
|--------------|-----------|------|------|------|---------------|---------|---------|-------|-------|----|------|
| | DN | Inch | Size | mm | | | | mm | Inch | mm | Inch |
| 3JC82-4-4 | 6 | 1/4 | -4 | 6.4 | 9/16x18 | 36 | 17 | 9/16 | 11/16 | | |
| 3JC82-6-6 | 10 | 3/8 | -6 | 9.5 | 11/16x16 | 40 | 18 | 11/16 | 13/16 | | |
| 3JC82-6-6-SM | 10 | 3/8 | -6 | 9.5 | 11/16x16 | 40 | 18 | 19 | 22 | | |
| 3JC82-8-6-SM | 10 | 3/8 | -6 | 9.5 | 13/16x16 | 43 | 21 | 22 | 24 | | |
| 3JC82-8-8-SM | 12 | 1/2 | -8 | 12.7 | 13/16x16 | 47 | 21 | 22 | 24 | | |
| 3JC82-8-10 | 16 | 5/8 | -10 | 15.9 | 13/16x16 | 57 | 21 | 3/4 | 15/16 | | |
| 3JC82-10-10 | 16 | 5/8 | -10 | 15.9 | 1x14 | 61 | 24 | 15/16 | 1 1/8 | | |
| 3JC82-10-12 | 19 | 3/4 | -12 | 19.1 | 1x14 | 61 | 24 | 1 | 1 1/8 | | |
| 3JC82-12-12 | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 67 | 30 | 1 1/8 | 1 3/8 | | |

82 Series

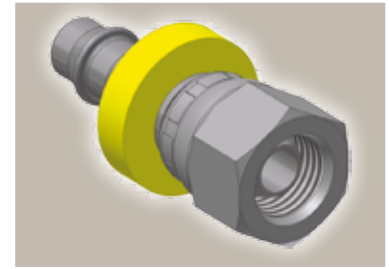
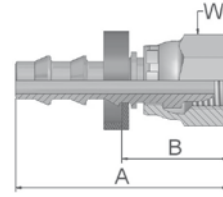
Also available in stainless steel. Details can be found in CAT 4400.1/UK

Approved **fitting series** for hose types:

B: Brass; **SM:** Metric Hexagon

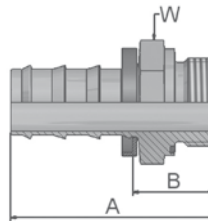
82 801 804 821FR 830M 831 836 837BM 837PU 838M

FF Metru-Lok Swivel Female



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | W mm |
|--------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 3FF82-6-4B | 6 | 1/4 | -4 | 6.4 | M10x1 | 6 | 36 | 16 | 14 |
| 3FF82-8-4B | 6 | 1/4 | -4 | 6.4 | M12x1 | 8 | 31 | 12 | 14 |
| 3FF82-10-6B | 10 | 3/8 | -6 | 9.5 | M14x1 | 10 | 35 | 12 | 17 |
| 3FF82-12-6B | 10 | 3/8 | -6 | 9.5 | M16x1 | 12 | 35 | 12 | 19 |
| 3FF82-14-8B | 12 | 1/2 | -8 | 12.7 | M18x1 | 14 | 38 | 12 | 22 |
| 3FF82-16-8B | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 16 | 38 | 12 | 27 |
| 3FF82-18-10B | 16 | 5/8 | -10 | 15.9 | M24x1.5 | 18 | 51 | 15 | 27 |
| 3FF82-22-12B | 19 | 3/4 | -12 | 19.1 | M28x1.5 | 22 | 51 | 15 | 32 |

AF Male BSP Parallel Pipe Rigid – Straight (with O-ring Seal)



| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | W mm |
|-------------|-----------|------|------|------|---------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 3AF82-2-4B | 6 | 1/4 | -4 | 6.4 | 1/8x28 | 34 | 15 | 17 |
| 3AF82-4-4B | 6 | 1/4 | -4 | 6.4 | 1/4x19 | 39 | 20 | 19 |
| 3AF82-4-6B | 10 | 3/8 | -6 | 9.5 | 1/4x19 | 43 | 20 | 19 |
| 3AF82-6-6B | 10 | 3/8 | -6 | 9.5 | 3/8x19 | 46 | 23 | 22 |
| 3AF82-6-8B | 12 | 1/2 | -8 | 12.7 | 3/8x19 | 49 | 22 | 22 |
| 3AF82-8-8B | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 53 | 26 | 27 |
| 3AF82-8-10B | 16 | 5/8 | -10 | 15.9 | 1/2x14 | 63 | 27 | 27 |

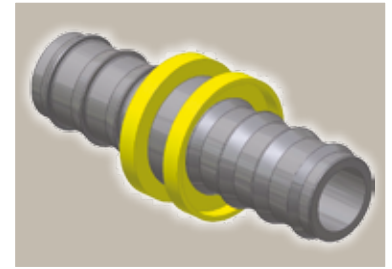
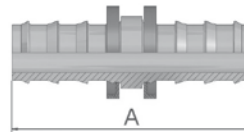
Also available in stainless steel. Details can be found in CAT 4400.1/UK

Approved **fitting series** for hose types:

B: Brass; **SM:** Metric Hexagon

82 801 804 821FR 830M 831 836 837BM 837PU 838M

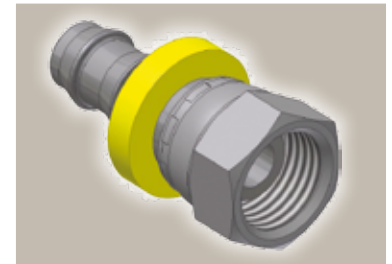
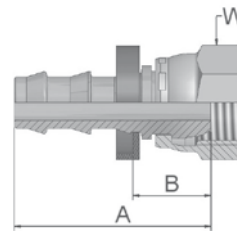
82 Push-Lok® Union



| Part Number | Hose I.D. | | | | A mm |
|--------------|-----------|------|------|------|---------|
| | DN | Inch | Size | mm | |
| 38282-4-4 | 6 | 1/4 | -4 | 6.4 | 45 |
| 38282-4-4B | 6 | 1/4 | -4 | 6.4 | 46 |
| 38282-6-6B | 10 | 3/8 | -6 | 9.5 | 54 |
| 38282-8-8B | 12 | 1/2 | -8 | 12.7 | 64 |
| 38282-8-8 | 12 | 1/2 | -8 | 12.7 | 64 |
| 38282-10-10 | 16 | 5/8 | -10 | 15.9 | 84 |
| 38282-10-10B | 16 | 5/8 | -10 | 15.9 | 84 |
| 38282-12-12 | 19 | 3/4 | -12 | 19.1 | 84 |
| 38282-12-12B | 19 | 3/4 | -12 | 19.1 | 84 |

82 Series

5C 60° Cone Swivel Female



| Part Number | Hose I.D. | | | | Thread metric | A mm | B mm | W mm |
|---------------|-----------|------|------|------|------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 35C82-6-4BK | 6 | 1/4 | -4 | 6.4 | M12x1.5 | 33 | 14 | 14 |
| 35C82-10-6BK | 10 | 3/8 | -6 | 9.5 | M16x1.5 | 38 | 15 | 19 |
| 35C82-10-6B | 10 | 3/8 | -6 | 9.5 | M16x1.5 | 38 | 15 | 19 |
| 35C82-15-8BK | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 44 | 18 | 27 |
| 35C82-18-10BK | 16 | 5/8 | -10 | 15.9 | M26x1.5 | 57 | 21 | 32 |

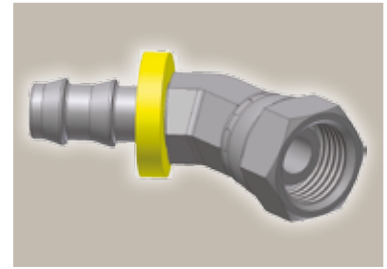
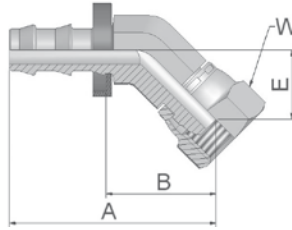
Also available in stainless steel. Details can be found in CAT 4400.1/UK

Approved **fitting series** for hose types:

B: Brass; **SM:** Metric Hexagon

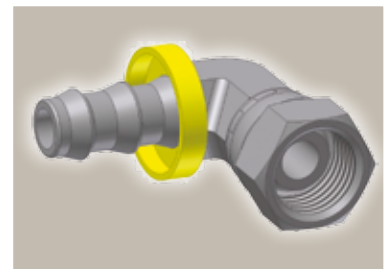
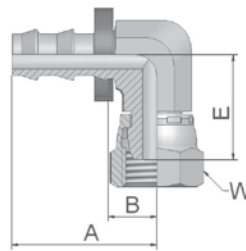
82 801 804 821FR 830M 831 836 837BM 837PU 838M

6C 60° Cone Swivel Female 45° Elbow



| Part Number | Hose I.D. | | | | Thread metric | A mm | B mm | E mm | W mm |
|--------------|-----------|------|------|------|------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 36C82-6-4BK | 6 | 1/4 | -4 | 6.4 | M12x1.5 | 44 | 25 | 16 | 14 |
| 36C82-10-6BK | 10 | 3/8 | -6 | 9.5 | M16x1.5 | 48 | 26 | 16 | 19 |
| 36C82-15-8BK | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 54 | 28 | 18 | 27 |

7C 60° Cone Swivel Female 90° Elbow



| Part Number | Hose I.D. | | | | Thread metric | A mm | B mm | E mm | W mm |
|--------------|-----------|------|------|------|------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 37C82-6-4BK | 6 | 1/4 | -4 | 6.4 | M12x1.5 | 30 | 11 | 22 | 14 |
| 37C82-10-6BK | 10 | 3/8 | -6 | 9.5 | M16x1.5 | 34 | 11 | 25 | 19 |
| 37C82-15-8BK | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 43 | 16 | 32 | 27 |

Also available in stainless steel. Details can be found in CAT 4400.1/UK

Approved **fitting series** for hose types:

B: Brass; **SM:** Metric Hexagon

82 801 804 821FR 830M 831 836 837BM 837PU 838M

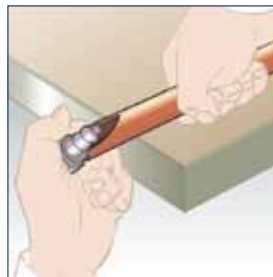


Assembly Instructions

1. Cut the hose right angled with a sharp knife. If necessary it is possible to use a lubricant (water/soap solution with 5 % soap fluid and 95 % water) for easy assembly.
2. Insert fitting into hose until first barb is in hose. Place end of fitting against a flat object (bench, door, wall) and grip hose approximately 1" from end and push with a steady force until end of hose is covered by yellow plastic collar. Alternatively please use the Parker Assembly Tool No. 611050G or 611050HV.

Attention!

During assembly, please keep in mind that Push-Lok fittings will provide an effective grip only when the Push-Lok hose is pushed fully on the insert, where the cropped end of the hose should be fully concealed by the plastic collar. **For easy assembly of hose 830M, 837BM and 837PU please use only Push-Lok Assembly Oil No. H896137.** Push-Lok Assembly Oil is free from wetting disturbing substances. Don't use oil, lubricant or soap fluids for this hose!



Disassembly Instructions

1. Cut lengthwise along a line at approximately a 20 angle from centre line of hose. The cut should be approximately 1" long. Be careful not to nick barbs when cutting the hose.
2. Grip hose and give a sharp down-ward tug to disengage from fitting.

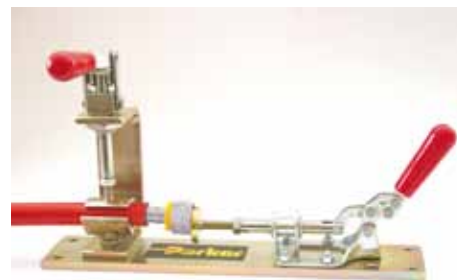
Attention!

Before re-use of the nipple please check nipple for damage. Damaged nipples can cause leakage.

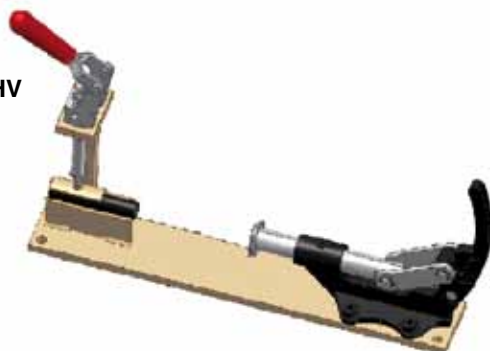
Assembly Tool

Tool designed for assembly of Push-Lok fittings and hose in all sizes. Toggle actions greatly reduce effort necessary to hold hose and press in fitting. Only a few pounds of force is needed on either handle to quickly assemble any size.

Light version
Part Number: 611050G



Heavy version
Part Number: 611050HV



Push-Lok Assembly Oil
1-litre bottle
Part Number: H896137



Low Pressure Transportation and Hydraulic Hose and Fittings

– the right solution for special applications and requirements



- A wide range of different hose types in rubber is available, with textile-braided or fire-retardant covers
- Proven, safe and easy self-assembly system
- Large bore sizes available
- High working temperatures
- One fitting series for all SAE 100 R5 and similar hoses



Applications

The definitive hose range for all special applications and requirements



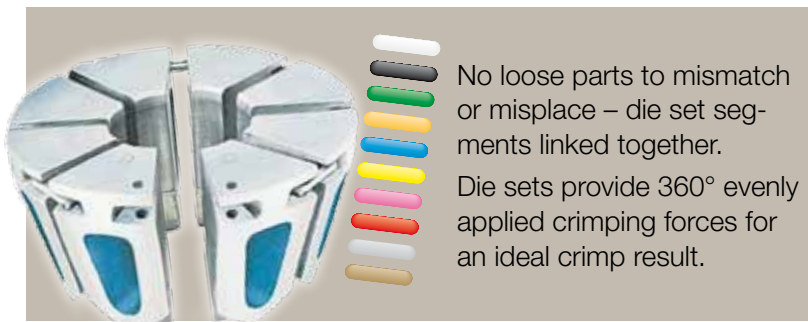
Parkrimp® *No-Skive*

The system for fast and leak-free assemblies

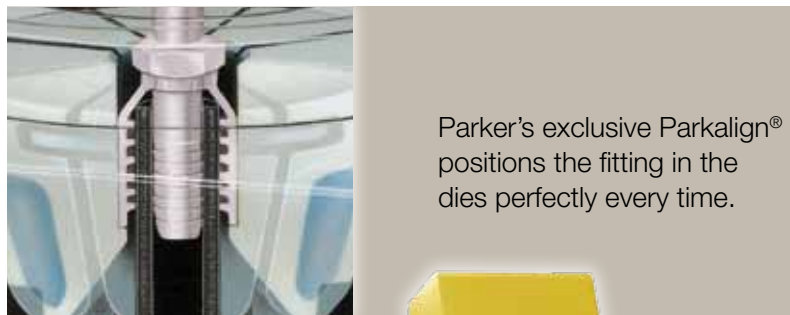
The perfect match



Parker's colour-coded die sets



Parkalign®



Parkrimp® *No-Skive*

- No skiving tool needed
- No need to remove the cover
- Crimps one-piece fittings
- Parkalign positions the fittings in the dies perfectly every time
- Quick and easy: no gauges to set on the machine
- Portable machines for field repair
- Meets EN safety regulations

Low Pressure Transportation and Hydraulic

| Hoses | | | Page |
|--------------|------------------|--|--------|
| 201 | Transportation | | B2a-1 |
| 206 | Transportation | | B2a-2 |
| 213 | Transportation | | B2a-3 |
| 221FR | Fire retardant | | B2a-4 |
| 285 | Refrigeration | | B2a-5 |
| 293 | Transportation | | B2a-6 |
| 601 | Standard | | B2a-7 |
| 611HT | High temperature | | B2a-8 |
| 681 | Standard | | B2a-9 |
| 681DB | Railway | | B2a-10 |

| Fittings – 26 Series | | | Page |
|----------------------|--|--|---------------|
| DIN – Metric | | | B2b-1 – B2b-2 |
| BSP | | | B2b-3 – B2b-4 |
| SAE | | | B2b-5 – B2b-7 |
| ORFS | | | B2b-8 |
| Others | | | B2b-9 |

Standard



High temperature



Railway



Transportation



Fire retardant



Refrigeration



201

No-Skive Airbrake

SAE 100R5 – SAE J1402AII

Primary Applications

Transportation: Air brake hose

General: Low pressure applications

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

SAE 100R5, SAE J1402AII, D. O. T. FMVSS 106-AII

Construction

Tube: Synthetic rubber

Reinforcement: One fibre inner braid,
one high-tensile steel wire braid

Cover: Rubber layer and textile braided cover

Temperature Range -40 °C up to +150 °C

Exception: Air max. +70 °C

Water max. +85 °C



- Textile braided cover
- **No-Skive** hose construction
- 150 °C working temperature

Recommended Fluids

Petroleum based hydraulic fluids, water-glycol and water-oil emulsion hydraulic fluids, grease, lubricants, crude and fuel oils, air and water.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | Hose O.D. | Pressure Rating | | | | Vacuum* | min. bend radius | weight |
|-------------|-----------|------|------|-----------|-----------------------|------|---------------------|-------|---------|------------------|--------|
| | Inch | Size | mm | mm | max. working pressure | | min. burst pressure | | | | |
| | | | | | MPa | psi | MPa | psi | | | |
| 201-4 | 3/16 | -4 | 5.0 | 12.2 | 20.7 | 3000 | 83.0 | 12000 | 95 | 75 | 0.22 |
| 201-5 | 1/4 | -5 | 6.3 | 14.8 | 20.7 | 3000 | 83.0 | 12000 | 95 | 85 | 0.27 |
| 201-6 | 5/16 | -6 | 8.0 | 17.2 | 15.5 | 2250 | 62.0 | 9000 | 95 | 100 | 0.34 |
| 201-8 | 13/32 | -8 | 10.0 | 19.5 | 13.8 | 2000 | 55.0 | 8000 | 95 | 120 | 0.40 |
| 201-10 | 1/2 | -10 | 12.5 | 23.4 | 12.0 | 1750 | 48.0 | 7000 | 95 | 140 | 0.55 |
| 201-12 | 5/8 | -12 | 16.0 | 27.4 | 10.3 | 1500 | 41.0 | 6000 | 95 | 165 | 0.68 |
| 201-16 | 7/8 | -16 | 22.0 | 31.4 | 5.5 | 800 | 22.0 | 3200 | 67 | 185 | 0.68 |
| 201-20 | 1 1/8 | -20 | 29.0 | 38.1 | 4.3 | 625 | 17.0 | 2500 | 67 | 230 | 0.76 |
| 201-24 | 1 3/8 | -24 | 35.0 | 44.5 | 3.5 | 500 | 14.0 | 2000 | 51 | 265 | 1.01 |
| 201-32 | 1 13/16 | -32 | 46.0 | 56.4 | 2.4 | 350 | 10.0 | 1400 | 37 | 335 | 1.32 |

* the vacuum values listed in the table are vacuum pressure values in kPa. For an absolute value subtract the table value from 101kPa.
The combination of high temperature and high pressure could reduce the hose life.
The maximum working pressures shown in the table are for service up to a maximum temperature of 100 °C.
For use at higher temperatures, consult the pressure/temperature curve in section A for the reduced maximum working pressure.

Hose layline example

Parker 201-6 AIR BRAKE DOT XXXXX AII 8 mm (5/16) SAE J1402 DOT XXXXX AII WP 15,7 MPa (2250 PSI) DOT XXXXX AII SA

206

No-Skive Airbrake

SAE 100R5 – SAE J1402All

Primary Applications

Transportation: Air brake hose
General: Low pressure applications

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

SAE 100R5, SAE J1402All, D. O. T. FMVSS 106-All

Construction

Tube: Parker PKR-elastomer tube
Reinforcement: One fibre inner braid,
one high-tensile steel wire braid
Cover: Rubber layer and
blue textile braided cover

Temperature Range -48 °C up to +150 °C

Exception: Air max. +100 °C
Water max. +85 °C



- Blue textile braided cover
- *No-Skive* hose construction
- For very low (-48 °C) working temperature

Recommended Fluids

Petroleum based hydraulic fluids, water-glycol and water-oil emulsion hydraulic fluids, grease, lubricants, crude and fuel oils, air and water.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

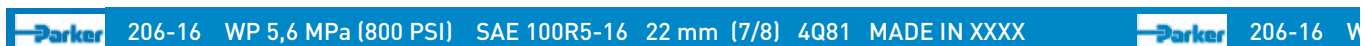
Fitting Series



| Part Number | Hose I.D. | | | Hose O.D. mm | Pressure Rating | | | | Vacuum* kPa | min. bend radius mm | weight kg |
|-------------|-----------|------|------|-----------------|-----------------------|------|---------------------|-------|----------------|------------------------|--------------|
| | Inch | Size | mm | | max. working pressure | | min. burst pressure | | | | |
| | | | | | MPa | psi | MPa | psi | | | |
| 206-4 | 3/16 | -4 | 5.0 | 13.2 | 20.7 | 3000 | 83.0 | 12000 | 95 | 75 | 0.22 |
| 206-5 | 1/4 | -5 | 6.3 | 14.8 | 20.7 | 3000 | 83.0 | 12000 | 95 | 85 | 0.27 |
| 206-6 | 5/16 | -6 | 8.0 | 17.1 | 15.5 | 2250 | 62.0 | 9000 | 95 | 90 | 0.34 |
| 206-8 | 13/32 | -8 | 10.0 | 19.5 | 13.8 | 2000 | 55.0 | 8000 | 95 | 90 | 0.40 |
| 206-10 | 1/2 | -10 | 12.5 | 23.4 | 12.0 | 1750 | 48.0 | 7000 | 95 | 100 | 0.55 |
| 206-12 | 5/8 | -12 | 16.0 | 27.4 | 10.3 | 1500 | 41.0 | 6000 | 95 | 100 | 0.68 |
| 206-16 | 7/8 | -16 | 22.0 | 31.4 | 5.5 | 800 | 22.0 | 3200 | 67 | 100 | 0.68 |
| 206-20 | 1 1/8 | -20 | 29.0 | 38.1 | 4.3 | 625 | 17.0 | 2500 | 67 | 140 | 0.76 |
| 206-24 | 1 3/8 | -24 | 35.0 | 44.5 | 3.5 | 500 | 14.0 | 2000 | 51 | 190 | 1.01 |
| 206-32 | 1 13/16 | -32 | 46.0 | 56.4 | 2.4 | 350 | 10.0 | 1400 | 37 | 335 | 1.32 |

* the vacuum values listed in the table are vacuum pressure values in kPa. For an absolute value subtract the table value from 101kPa.
The combination of high temperature and high pressure could reduce the hose life.
The maximum working pressures shown in the table are for service up to a maximum temperature of 100 °C.
For use at higher temperatures, consult the pressure/temperature curve in section A for the reduced maximum working pressure.

Hose layline example



213

No-Skive High Temperature

For engines and compressed air systems



- *No-Skive* hose construction
- Ideal for high-temperature and small bend radii applications
- Compatible with a large range of fluids

Primary Applications

Transportation: Air brake hose
Compressors: Compressed air hose

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

SAE J1402AI, D.O.T. FMVSS 106-AI

Construction

Tube: Parker PKR-elastomer tube
Reinforcement: One fibre inner braid, one high-tensile steel wire braid
Cover: Rubber layer and black textile braided cover include 2 green strips

Recommended Fluids

Petroleum based hydraulic fluids, water-glycol and water-oil emulsion hydraulic fluids, grease, lubricants, crude and fuel oils, air and water.
Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Temperature Range -45 °C up to +150 °C
Exception: Air max. +100 °C
Water max. +85 °C

Fitting Series



| Part Number | Hose I.D. | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|------|------|-----------------|-----------------------|------|---------------------|------|------------------------|--------------|
| | Inch | Size | mm | | max. working pressure | | min. burst pressure | | | |
| | | | | | MPa | psi | MPa | psi | | |
| 213-4 | 3/16 | -4 | 5.0 | 12.5 | 13.8 | 2000 | 55.0 | 8000 | 20 | 0.18 |
| 213-5 | 1/4 | -5 | 6.3 | 14.1 | 10.3 | 1500 | 41.0 | 6000 | 25 | 0.21 |
| 213-6 | 5/16 | -6 | 8.0 | 15.7 | 10.3 | 1500 | 41.0 | 6000 | 30 | 0.25 |
| 213-8 | 13/32 | -8 | 10.0 | 18.7 | 8.6 | 1250 | 34.0 | 5000 | 45 | 0.30 |
| 213-10 | 1/2 | -10 | 12.5 | 21.1 | 6.9 | 1000 | 28.0 | 4000 | 55 | 0.33 |
| 213-12 | 5/8 | -12 | 16.0 | 24.3 | 5.2 | 750 | 21.0 | 3000 | 70 | 0.36 |
| 213-16 | 7/8 | -16 | 22.0 | 30.6 | 2.8 | 400 | 11.0 | 1600 | 90 | 0.45 |
| 213-20 | 1 1/8 | -20 | 29.0 | 37.8 | 2.1 | 300 | 8.0 | 1200 | 115 | 0.65 |
| 213-24 | 1 3/8 | -24 | 35.0 | 44.0 | 1.7 | 300 | 8.0 | 1200 | 190 | 0.73 |
| 213-32 | 1 13/16 | -32 | 46.0 | 54.5 | 1.4 | 200 | 5.5 | 800 | 355 | 1.00 |

The combination of high temperature and high pressure could reduce the hose life.
The maximum working pressures shown in the table are for service up to a maximum temperature of 100 °C.
For use at higher temperatures, consult the pressure/temperature curve in section A for the reduced maximum working pressure.

Hose layline example

PARKER 213-16 WP 2,8 MPa (400 PSI) 22 mm [7/8] 3Q88 ————— PARKER 213-16 WP 2,8

221FR

No-Skive Fire Retardant

Marine fuel and engine hose

Primary Applications

Marine: Marine fuel hose
General: Where fire retardance is an issue

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

SAE J1527 R3, USCG Type AI, SAE J1942, ISO 7840

Construction

Tube: Fuel and oil-resistant rubber
Reinforcement: One high-tensile steel wire braid
Cover: Flame retardant special fibre outer cover

Temperature Range -20 °C up to +100 °C

Exception: Air max. +70 °C
Water max. +85 °C



- Fire retardant hose cover
- **No-Skive** hose construction
- Marine approvals

Recommended Fluids

Petroleum based hydraulic fluids, water-glycol and water-oil emulsion hydraulic fluids, grease, lubricants, crude, fuel oils and water.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | Hose O.D. mm | Pressure Rating | | | | Vacuum* kPa | min. bend radius mm | weight kg |
|-------------|-----------|------|------|-----------------|-----------------------|-----|---------------------|------|----------------|------------------------|--------------|
| | Inch | Size | mm | | max. working pressure | | min. burst pressure | | | | |
| | | | | | MPa | psi | MPa | psi | | | |
| 221FR-5 | 1/4 | -5 | 6.3 | 15 | 3.5 | 500 | 14.0 | 2000 | 81 | 25 | 0.28 |
| 221FR-6 | 5/16 | -6 | 8.0 | 17 | 3.5 | 500 | 14.0 | 2000 | 81 | 30 | 0.34 |
| 221FR-8 | 13/32 | -8 | 10.0 | 20 | 3.5 | 500 | 14.0 | 2000 | 81 | 45 | 0.42 |
| 221FR-10 | 1/2 | -10 | 12.5 | 23 | 3.5 | 500 | 14.0 | 2000 | 68 | 55 | 0.58 |
| 221FR-12 | 5/8 | -12 | 16.0 | 27 | 3.5 | 500 | 14.0 | 2000 | 68 | 70 | 0.61 |
| 221FR-16 | 7/8 | -16 | 22.0 | 31 | 3.5 | 500 | 14.0 | 2000 | 68 | 90 | 0.70 |

* the vacuum values listed in the table are vacuum pressure values in kPa. For an absolute value subtract the table value from 101kPa. The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



285

Air Conditioning and Refrigeration

SAE J2064 Type C, Class 1



- *No-Skive* hose construction
- Usable for main refrigerant fluids
- Compatible with modern refrigerants

Primary Applications

Air Conditioning: For industrial and mobile applications

Applicable Specifications

SAE J2064 Type C, Class 1

Construction

Tube: Nylon barrier between two elastomeric layers
 Reinforcement: One textile braid
 Cover: Heat, moisture and ozone resistant rubber

Recommended Fluids

For use with Freon refrigerants 12, 134a and 22. Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Temperature Range -30 °C up to +125 °C

Fitting Series



| Part Number | Hose I.D. | | | Hose O.D. mm | Pressure Rating | | | | Vacuum* kPa | min. bend radius mm | weight kg |
|-------------|-----------|------|------|-----------------|-----------------------|-----|---------------------|------|----------------|------------------------|--------------|
| | Inch | Size | mm | | max. working pressure | | min. burst pressure | | | | |
| | | | | | MPa | psi | MPa | psi | | | |
| 285-4-RL | 3/16 | -4 | 5.0 | 12.4 | 3.4 | 500 | 17.2 | 2500 | 95 | 25 | 0.14 |
| 285-6-RL | 5/16 | -6 | 8.0 | 15.7 | 3.4 | 500 | 17.2 | 2500 | 95 | 38 | 0.19 |
| 285-8-RL | 13/32 | -8 | 10.0 | 18.8 | 3.4 | 500 | 17.2 | 2500 | 95 | 51 | 0.25 |
| 285-10-RL | 1/2 | -10 | 12.5 | 21.1 | 3.4 | 500 | 17.2 | 2500 | 95 | 64 | 0.27 |
| 285-12-RL | 5/8 | -12 | 16.0 | 24.4 | 3.4 | 500 | 17.2 | 2500 | 95 | 76 | 0.34 |

* the vacuum values listed in the table are vacuum pressure values in kPa. For an absolute value subtract the table value from 101kPa.
 For size -16 a hose 285-16 is available on request.
 RL = only available on reels.

Hose layline example

PARKER 285-10 WP 3,4 MPa (500 PSI) SAE J2064 TYPE C CLASS I 12,5 mm (1/2) 10-4Q09



293

No-Skive High Temperature

Engine and air brake/truck hose

Primary Applications

Truck Market: Air brake hose
Engine cooling circuit

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

SAE J1402AI, D.O.T. FMVSS 106

Construction

Tube: Synthetic PKR rubber
Reinforcement: One fibre braid
Cover: Black nylon braid

Temperature Range -50 °C up to +150 °C

Exception: Air max. +100 °C

Water max. +85 °C



- High temperature – high flex hose performance
- **No-Skive** hose construction
- Wide temperature range

Recommended Fluids

Petroleum-based hydraulic fluids and lubrication oils, diesel fuels and antifreeze solutions; water-, water-oil- and water-glycol emulsion hydraulic fluids.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|------|------|-----------------|-----------------------|-----|---------------------|------|------------------------|--------------|
| | Inch | Size | mm | | max. working pressure | | min. burst pressure | | | |
| | | | | | MPa | psi | MPa | psi | | |
| 293-4-RL | 3/16 | -4 | 5.0 | 12.5 | 3.5 | 500 | 13.8 | 2000 | 15 | 0.15 |
| 293-6-RL | 5/16 | -6 | 8.0 | 15.7 | 3.5 | 500 | 13.8 | 2000 | 25 | 0.22 |
| 293-8-RL | 13/32 | -8 | 10.0 | 18.7 | 3.5 | 500 | 13.8 | 2000 | 40 | 0.27 |
| 293-10-RL | 1/2 | -10 | 12.5 | 21.1 | 3.1 | 450 | 12.4 | 1800 | 50 | 0.30 |
| 293-12-RL | 5/8 | -12 | 16.0 | 24.3 | 3.1 | 450 | 12.4 | 1800 | 65 | 0.33 |
| 293-16-RL | 7/8 | -16 | 22.0 | 30.6 | 3.1 | 450 | 12.4 | 1800 | 80 | 0.37 |

The combination of high temperature and high pressure could reduce the hose life.
RL = only available on reels.

Hose layline example

PARKER 293-6 AIR BRAKE 8 mm (5/16) SAE J1402 W.P. 3,5 MPa (500 PSI) ————— PARKER 293-6

601

No-Skive
SAE 100R3



- Textile braided reinforcement
- *No-Skive* hose construction
- Small bend radii
- Up to +125 °C working temperature

Primary Applications

General Market: Low pressure hydraulic applications

Applicable Specifications

SAE 100R3, EN 854-R3

Construction

Tube: Synthetic rubber
Reinforcement: Two fibre braids
Cover: MSHA accepted synthetic rubber

Temperature Range -40 °C up to +125 °C

Exception: Air max. +70 °C
Water max. +85 °C

Recommended Fluids

Petroleum based hydraulic fluids, water-glycol and water-oil emulsion hydraulic fluids, grease, lubricants, crude and fuel oils, air and water.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|------|------|------|-----------------|-----------------------|------|---------------------|------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure | | min. burst pressure | | | |
| | | | | | | MPa | psi | MPa | psi | | |
| 601-4 | 6 | 1/4 | -4 | 6.4 | 14.0 | 8.6 | 1250 | 35.0 | 5000 | 75 | 0.19 |
| 601-6 | 10 | 3/8 | -6 | 9.5 | 19.0 | 7.8 | 1125 | 31.0 | 4500 | 100 | 0.33 |
| 601-8 | 12 | 1/2 | -8 | 12.7 | 23.0 | 6.9 | 1000 | 28.0 | 4000 | 130 | 0.42 |
| 601-12 | 19 | 3/4 | -12 | 19.1 | 32.0 | 5.2 | 750 | 21.0 | 3000 | 150 | 0.64 |
| 601-16 | 25 | 1 | -16 | 25.4 | 38.0 | 3.9 | 565 | 16.0 | 2250 | 200 | 0.91 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example

PARKER 601-8 WP 6,9 MPa [1000 PSI] MSHA XXXX SAE100R3-8 12,5 mm [1/2] X 2F 7-3083

611HT

No-Skive

High-temperature textile hose

Primary Applications

General Market: Low pressure hydraulic applications/
high temperature applications

Engine Applications:

Diesel fuel lines, engine cooling circuits

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

EN 854-R6

Construction

Tube: Synthetic PKR rubber

Reinforcement: One fibre braid

Cover: MSHA accepted synthetic rubber

Temperature Range -40 °C up to +150 °C

Exception: Air max. +100 °C

Water max. +85 °C



- For high demand applications, such as diesel fuel lines, water cooling or high-temp lines up to +150 °C
- MSHA - accepted synthetic rubber cover
- According to EN 854-R6
- *No-Skive* hose construction for 2-piece fittings

Recommended Fluids

Petroleum-based hydraulic fluids and lubrication oils, diesel fuels and antifreeze solutions; water-glycol and water-oil emulsion, air and water.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series

- Available as complete hose assembly
- Compatible with 2-piece fittings for use with adjustable crimpers only (47 series nipple and 10064 series shell)

| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|------|------|------|-----------------|------------------------------|-----|----------------------------|------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| 611HT-4 | 6 | 1/4 | -4 | 6.4 | 12.8 | 2.8 | 400 | 11.2 | 1600 | 65 | 0.13 |
| 611HT-6 | 10 | 3/8 | -6 | 9.5 | 16.0 | 2.8 | 400 | 11.2 | 1600 | 75 | 0.16 |
| 611HT-8 | 12 | 1/2 | -8 | 12.7 | 20.0 | 2.8 | 400 | 11.2 | 1600 | 100 | 0.27 |
| 611HT-10 | 16 | 5/8 | -10 | 15.9 | 23.2 | 2.4 | 350 | 9.6 | 1400 | 125 | 0.28 |
| 611HT-12 | 19 | 3/4 | -12 | 19.1 | 26.2 | 2.1 | 300 | 8.4 | 1200 | 150 | 0.36 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example

PARKER 611HT-4 HI-TEMP WP 2,8 MPa (400 PSI) MSHA IC-40/10 | • • SAE 100R6-4 6,3 mm (1/4) X 1F EN854/R6/

681

No-Skive 2TE

EN 854-2TE



- Two layers of fabric braid
- *No-Skive* hose construction
- Small bend radii

Primary Applications

General Market: Low pressure hydraulic application

Applicable Specifications

EN 854-2TE

Construction

Tube: Synthetic rubber
Reinforcement: Two fibre braids
Cover: Synthetic rubber

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C
Water max. +85 °C

Recommended Fluids

Petroleum based hydraulic fluids, water-glycol and water-oil emulsion hydraulic fluids, grease, lubricants, crude and fuel oils, air and water.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series

- Available as complete hose assembly
- Compatible with 2-piece fittings for use with adjustable crimpers only (47 series nipple and 10064 series shell)

| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|------|------|------|-----------------|------------------------------|------|----------------------------|------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| 681-4 | 6 | 1/4 | -4 | 6.4 | 13.1 | 7.5 | 1090 | 30.0 | 4360 | 40 | 0.15 |
| 681-5 | 8 | 5/16 | -5 | 7.9 | 14.6 | 6.8 | 980 | 27.0 | 3920 | 50 | 0.16 |
| 681-6 | 10 | 3/8 | -6 | 9.5 | 16.2 | 6.3 | 910 | 25.0 | 3640 | 60 | 0.19 |
| 681-8 | 12 | 1/2 | -8 | 12.7 | 19.9 | 5.8 | 840 | 23.0 | 3360 | 70 | 0.24 |
| 681-10 | 16 | 5/8 | -10 | 15.9 | 23.4 | 5.0 | 725 | 20.0 | 2900 | 90 | 0.35 |
| 681-12 | 19 | 3/4 | -12 | 19.1 | 26.5 | 4.5 | 650 | 18.0 | 2600 | 110 | 0.39 |
| 681-16 | 25 | 1 | -16 | 25.4 | 33.4 | 4.0 | 580 | 16.0 | 2320 | 150 | 0.59 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example

PARKER 681-4 WP 7,5 MPa (1090 PSI) | • • 6,3 mm (1/4) EN854/2TE/6/DIN made in Italy

681DB

No-Skive 2TE

EN 854-2TE

(with approvals for rail transportation)

Primary Applications

General Market: Low pressure hydraulic application

Rail Transportation Market:

Hydraulic applications around
train vehicles

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

EN 854-2TE

Construction

Tube: Synthetic rubber

Reinforcement: Two fibre braids

Cover: Flame retardant synthetic rubber

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C

Water max. +85 °C



- Two layers of fabric braid
- **No-Skive** hose construction
- Small bend radii
- Flame retardant rubber cover
- Railway approved as follows:
European Standard EN45545 +
ISO15540: HL2
(hose need FS-F-Fire Sleeve)
FS-F on page Eb-13

Recommended Fluids

Petroleum based hydraulic fluids, water-glycol and water-oil emulsion hydraulic fluids, grease, lubricants, crude and fuel oils, air and water.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series

- Available as complete hose assembly
- Compatible with 2-piece fittings for use with adjustable crimpers only (47 series nipple and 10064 series shell)

| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|------|------|------|-----------------|------------------------------|------|----------------------------|------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| 681DB-4 | 6 | 1/4 | -4 | 6.4 | 13.1 | 7.5 | 1090 | 30.0 | 4360 | 40 | 0.15 |
| 681DB-5 | 8 | 5/16 | -5 | 7.9 | 14.6 | 6.8 | 980 | 27.0 | 3920 | 50 | 0.16 |
| 681DB-6 | 10 | 3/8 | -6 | 9.5 | 16.2 | 6.3 | 910 | 25.0 | 3640 | 60 | 0.19 |
| 681DB-8 | 12 | 1/2 | -8 | 12.7 | 19.9 | 5.8 | 840 | 23.0 | 3360 | 70 | 0.24 |
| 681DB-10 | 16 | 5/8 | -10 | 15.9 | 23.4 | 5.0 | 725 | 20.0 | 2900 | 90 | 0.35 |
| 681DB-12 | 19 | 3/4 | -12 | 19.1 | 26.5 | 4.5 | 650 | 18.0 | 2600 | 110 | 0.39 |
| 681DB-16 | 25 | 1 | -16 | 25.4 | 33.4 | 4.0 | 580 | 16.0 | 2320 | 150 | 0.59 |

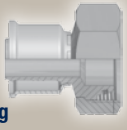


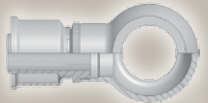
The combination of high temperature and high pressure could reduce the hose life.

Hose layline example

PARKER 681DB-6 WP 6,3 MPa (910 PSI) - - - • • 10 MM (3/8) EN854/2TE/10/DIN M/D/Y

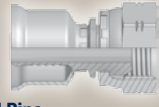

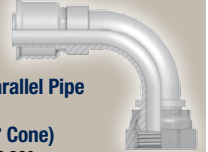
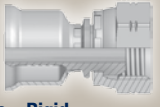
DIN – Metric

Page B2b-1 – B2b-2

| | | | |
|--|---|--|---|
| <p>CA B2b-1 Female Metric 24° Light Series with O-Ring Swivel – Straight ISO 12151-2-SWS-L – DKOL</p>  | <p>CE B2b-1 Female Metric 24° Light Series with O-Ring Swivel – 45° Elbow ISO 12151-2-SWE 45°-L – DKOL 45°</p>  | <p>CF B2b-2 Female Metric 24° Light Series with O-Ring Swivel – 90° Elbow ISO 12151-2-SWE-L – DKOL 90°</p>  | <p>49 B2b-2 Metric Banjo Straight DIN 7642</p>  |
|--|---|--|---|

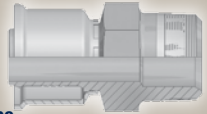
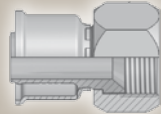
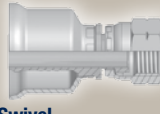


BSP

Page B2b-3 – B2b-4

| | | | |
|---|---|--|--|
| <p>92 B2b-3 Female BSP Parallel Pipe Swivel – Straight (60° Cone) BS5200-A – DKR</p>  | <p>B1 B2b-3 Female BSP Parallel Pipe Swivel 45° Elbow (60° Cone) BS 5200-D – DKR 45°</p>  | <p>B2 B2b-4 Female BSP Parallel Pipe Swivel 90° Elbow (60° Cone) BS 5200-B – DKR 90°</p>  | <p>91 B2b-4 Male BSP Taper Pipe – Rigid Straight BS5200 – AGR-K</p>  |
|---|---|--|--|

SAE

Page B2b-5 – B2b-7

| | | | |
|--|--|---|---|
| <p>01 B2b-5 Male NPTF Pipe Rigid – Straight SAE J476A / J516 – AGN</p>  | <p>06/68 B2b-5 Female – JIC 37° SAE 45° Dual Flare Swivel – Straight ISO12151-5-SWS – DKJ</p>  | <p>08 B2b-6 Female SAE 45° – Swivel Straight SAE J516</p>  | <p>37/3V B2b-6 Female JIC 37° SAE 45° – Dual Flare Swivel Female 45° Elbow ISO 12151-5-SWE 45° – DKJ 45°</p>  |
| <p>39/3W B2b-7 Female JIC 37° SAE 45° – Dual Flare Swivel Female 90° Elbow ISO 12151-5-SWES – DKJ 90°</p>  | | | |

ORFS

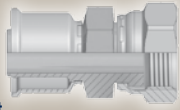
Page B2b-8

JC

B2b-8

Female ORFS
Swivel – Straight
Short

ISO 12151-1 – SWSA SAE J516 – ORFS



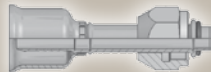
Others

Page B2b-9

5S

B2b-9

Female Tube O-ring Swivel
Short Pilot



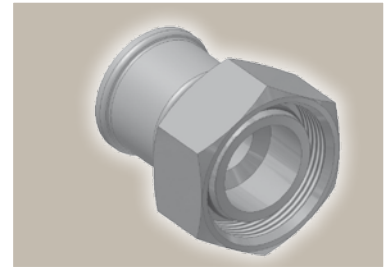
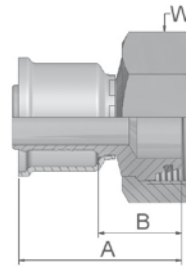
5T

B2b-9

Female Tube O-Ring Swivel
90° Elbow – Short Pilot



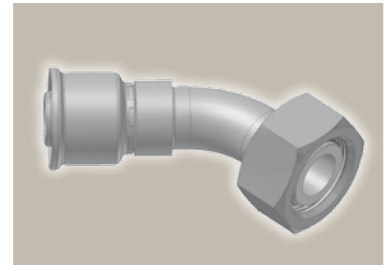
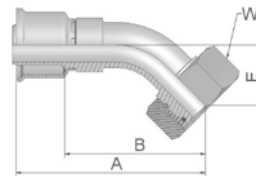
CA **Female Metric 24°
Light Series with O-Ring
Swivel – Straight**
ISO 12151-2-SWS-L – DKOL



| Part Number | Hose I.D. | | | Thread metric | Tube O.D. mm | A mm | B mm | W mm |
|-------------|-----------|------|------|------------------|--------------------|---------|---------|---------|
| | Inch | Size | mm | | | | | |
| 1CA26-6-4 | 3/16 | -4 | 5.0 | M12x1.5 | 6 | 40 | 20 | 14 |
| 1CA26-8-4 | 3/16 | -4 | 5.0 | M14x1.5 | 8 | 41 | 21 | 17 |
| 1CA26-10-5 | 1/4 | -5 | 6.3 | M16x1.5 | 10 | 41 | 20 | 19 |
| 1CA26-10-6 | 5/16 | -6 | 8.0 | M16x1.5 | 10 | 41 | 20 | 19 |
| 1CA26-12-6 | 5/16 | -6 | 8.0 | M18x1.5 | 12 | 41 | 21 | 22 |
| 1CA26-12-8 | 13/32 | -8 | 10.0 | M18x1.5 | 12 | 41 | 21 | 22 |
| 1CA26-15-8 | 13/32 | -8 | 10.0 | M22x1.5 | 15 | 42 | 21 | 27 |
| 1CA26-18-10 | 1/2 | -10 | 12.5 | M26x1.5 | 18 | 46 | 23 | 32 |
| 1CA26-18-12 | 5/8 | -12 | 16.0 | M26x1.5 | 18 | 46 | 23 | 32 |
| 1CA26-22-12 | 5/8 | -12 | 16.0 | M30x2 | 22 | 48 | 25 | 36 |
| 1CA26-28-16 | 7/8 | -16 | 22.0 | M36x2 | 28 | 54 | 28 | 41 |
| 1CA26-28-20 | 1 1/8 | -20 | 29.0 | M36x2 | 28 | 60 | 33 | 41 |
| 1CA26-35-20 | 1 1/8 | -20 | 29.0 | M45x2 | 35 | 56 | 29 | 50 |
| 1CA26-35-24 | 1 3/8 | -24 | 35.0 | M45x2 | 35 | 62 | 34 | 50 |
| 1CA26-42-24 | 1 3/8 | -24 | 35.0 | M52x2 | 42 | 59 | 31 | 60 |

Hose fittings are delivered with ozone resistant Nitrile (NBR) O-ring as a standard version. Working temperature from -40 °C up to +105 °C.
Hose fittings with special O-rings (Viton or EPDM) available on request. O-ring dimensions and part-numbers see in section Eb.

CE **Female Metric 24°
Light Series with O-Ring
Swivel – 45° Elbow**
ISO 12151-2-SWE 45°-L – DKOL 45°



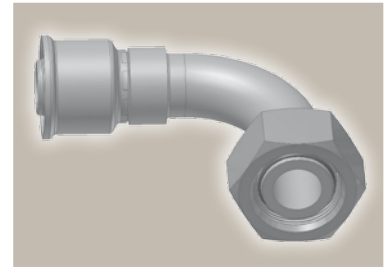
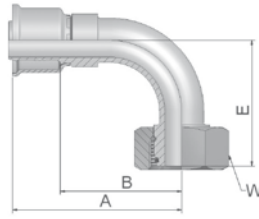
| Part Number | Hose I.D. | | | Thread metric | Tube O.D. mm | A mm | B mm | E mm | W mm |
|-------------|-----------|------|------|------------------|--------------------|---------|---------|---------|---------|
| | Inch | Size | mm | | | | | | |
| 1CE26-10-6 | 5/16 | -6 | 8.0 | M16x1.5 | 10 | 66 | 45 | 17 | 19 |
| 1CE26-12-6 | 5/16 | -6 | 8.0 | M18x1.5 | 12 | 66 | 45 | 17 | 22 |
| 1CE26-12-8 | 13/32 | -8 | 10.0 | M18x1.5 | 12 | 59 | 39 | 17 | 22 |
| 1CE26-15-8 | 13/32 | -8 | 10.0 | M22x1.5 | 15 | 60 | 39 | 17 | 27 |
| 1CE26-18-10 | 1/2 | -10 | 12.5 | M26x1.5 | 18 | 68 | 46 | 20 | 32 |
| 1CE26-18-12 | 5/8 | -12 | 16.0 | M26x1.5 | 18 | 73 | 50 | 22 | 32 |
| 1CE26-22-12 | 5/8 | -12 | 16.0 | M30x2 | 22 | 77 | 55 | 26 | 36 |
| 1CE26-28-16 | 7/8 | -16 | 22.0 | M36x2 | 28 | 105 | 78 | 33 | 41 |

Hose fittings are delivered with ozone resistant Nitrile (NBR) O-ring as a standard version. Working temperature from -40 °C up to +105 °C.
Hose fittings with special O-rings (Viton or EPDM) available on request. O-ring dimensions and part-numbers see in section Eb.

Approved **fitting series** for hose types: **BA**: Nipple: Brass, Nut and Shell: Steel; **BS**: Nipple and Nut: Brass, Shell: Steel; **SM**: Metric Hexagon

26 201 206 213 221FR 285 293

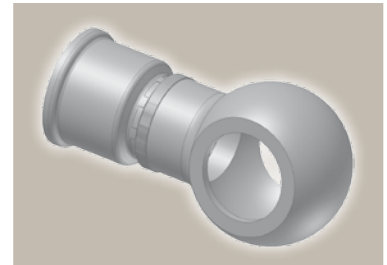
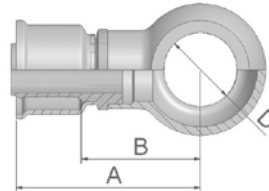
CF **Female Metric 24°
Light Series with O-Ring
Swivel – 90° Elbow**
ISO 12151-2-SWE-L – DKOL 90°



| Part Number | Hose I.D. | | | Thread metric | Tube O.D. mm | A mm | B mm | E mm | W mm |
|-------------|-----------|------|------|------------------|--------------------|---------|---------|---------|---------|
| | Inch | Size | mm | | | | | | |
| 1CF26-8-4 | 3/16 | -4 | 5.0 | M14x1.5 | 8 | 48 | 28 | 29 | 17 |
| 1CF26-10-5 | 1/4 | -5 | 6.3 | M16x1.5 | 10 | 55 | 36 | 29 | 19 |
| 1CF26-10-6 | 5/16 | -6 | 8.0 | M16x1.5 | 10 | 55 | 34 | 31 | 19 |
| 1CF26-12-6 | 5/16 | -6 | 8.0 | M18x1.5 | 12 | 56 | 35 | 35 | 22 |
| 1CF26-12-8 | 13/32 | -8 | 10.0 | M18x1.5 | 12 | 50 | 30 | 31 | 22 |
| 1CF26-15-8 | 13/32 | -8 | 10.0 | M22x1.5 | 15 | 58 | 38 | 41 | 27 |
| 1CF26-18-10 | 1/2 | -10 | 12.5 | M26x1.5 | 18 | 57 | 34 | 38 | 32 |
| 1CF26-18-12 | 5/8 | -12 | 16.0 | M26x1.5 | 18 | 69 | 46 | 45 | 32 |
| 1CF26-22-12 | 5/8 | -12 | 16.0 | M30x2 | 22 | 78 | 55 | 47 | 36 |
| 1CF26-18-16 | 7/8 | -16 | 22.0 | M26x1.5 | 18 | 92 | 65 | 70 | 32 |
| 1CF26-28-16 | 7/8 | -16 | 22.0 | M36x2 | 28 | 96 | 70 | 71 | 41 |
| 1CF26-28-20 | 1 1/8 | -20 | 29.0 | M36x2 | 28 | 117 | 90 | 81 | 41 |
| 1CF26-35-20 | 1 1/8 | -20 | 29.0 | M45x2 | 35 | 117 | 90 | 77 | 50 |
| 1CF26-35-24 | 1 3/8 | -24 | 35.0 | M45x2 | 35 | 117 | 89 | 79 | 50 |

Hose fittings are delivered with ozone resistant Nitrile (NBR) O-ring as a standard version. Working temperature from -40 °C up to +105 °C.
Hose fittings with special O-rings (Viton or EPDM) available on request. O-ring dimensions and part-numbers see in section Eb.

49 **Metric Banjo
Straight**
DIN 7642



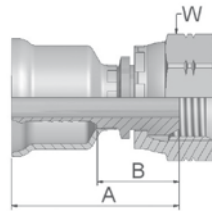
| Part Number | Hose I.D. | | | A mm | B mm | D mm |
|-------------|-----------|------|------|---------|---------|---------|
| | Inch | Size | mm | | | |
| 14926-12-6 | 5/16 | -6 | 8.0 | 47 | 26 | 12 |
| 14926-14-6 | 5/16 | -6 | 8.0 | 49 | 28 | 14 |
| 14926-14-8 | 13/32 | -8 | 10.0 | 48 | 28 | 14 |
| 14926-16-8 | 13/32 | -8 | 10.0 | 50 | 30 | 16 |

Approved **fitting series** for hose types: **BA**: Nipple: Brass, Nut and Shell: Steel; **BS**: Nipple and Nut: Brass, Shell: Steel; **SM**: Metric Hexagon

26 201 206 213 221FR 285 293

92 Female BSP Parallel Pipe Swivel – Straight (60° Cone)

BS5200-A – DKR

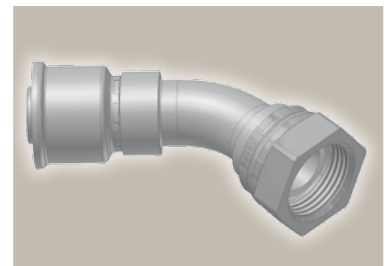
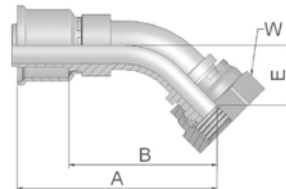


| Part Number | Hose I.D. | | | Thread BSP | A mm | B mm | W mm |
|-------------|-----------|------|------|---------------|---------|---------|---------|
| | Inch | Size | mm | | | | |
| 19226-4-4 | 3/16 | -4 | 5.0 | 1/4x19 | 41 | 20 | 19 |
| 19226-6-6 | 5/16 | -6 | 8.0 | 3/8x19 | 42 | 21 | 22 |
| 19226-6-8 | 13/32 | -8 | 10.0 | 3/8x19 | 41 | 21 | 22 |
| 19226-8-8 | 13/32 | -8 | 10.0 | 1/2x14 | 44 | 23 | 27 |
| 19226-8-10 | 1/2 | -10 | 12.5 | 1/2x14 | 45 | 22 | 27 |
| 19226-12-12 | 5/8 | -12 | 16.0 | 3/4x14 | 45 | 24 | 32 |
| 19226-16-16 | 7/8 | -16 | 22.0 | 1x11 | 52 | 25 | 41 |
| 19226-20-20 | 1 1/8 | -20 | 29.0 | 1 1/4x11 | 58 | 31 | 50 |

26 Series

B1 Female BSP Parallel Pipe Swivel 45° Elbow (60° Cone)

BS 5200-D – DKR 45°



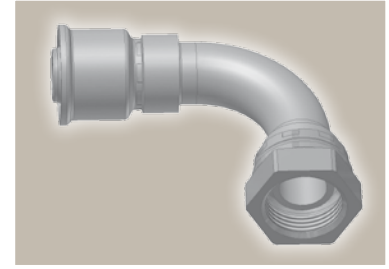
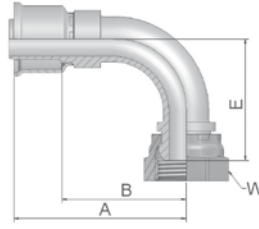
| Part Number | Hose I.D. | | | Thread BSP | A mm | B mm | E mm | W mm |
|-------------|-----------|------|------|---------------|---------|---------|---------|---------|
| | Inch | Size | mm | | | | | |
| 1B126-4-4 | 3/16 | -4 | 5.0 | 1/4x19 | 53 | 33 | 15 | 19 |
| 1B126-6-6 | 5/16 | -6 | 8.0 | 3/8x19 | 56 | 36 | 16 | 22 |
| 1B126-8-8 | 13/32 | -8 | 10.0 | 1/2x14 | 62 | 42 | 16 | 27 |
| 1B126-10-10 | 1/2 | -10 | 12.5 | 5/8x14 | 67 | 44 | 20 | 30 |
| 1B126-12-12 | 5/8 | -12 | 16.0 | 3/4x14 | 70 | 47 | 18 | 32 |

Approved fitting series for hose types: BA: Nipple: Brass, Nut and Shell: Steel; BS: Nipple and Nut: Brass, Shell: Steel; SM: Metric Hexagon

26 201 206 213 221FR 285 293

B2 Female BSP Parallel Pipe Swivel 90° Elbow (60° Cone)

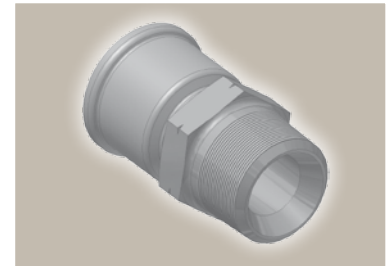
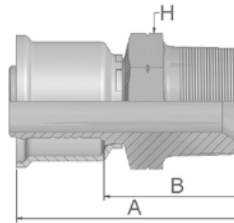
BS 5200-B – DKR 90°



| Part Number | Hose I.D. | | | Thread BSP | A mm | B mm | E mm | W mm |
|-------------|-----------|------|------|---------------|---------|---------|---------|---------|
| | Inch | Size | mm | | | | | |
| 1B226-4-4 | 3/16 | -4 | 5.0 | 1/4x19 | 44 | 24 | 26 | 19 |
| 1B226-6-6 | 5/16 | -6 | 8.0 | 3/8x19 | 47 | 26 | 29 | 22 |
| 1B226-8-8 | 13/32 | -8 | 10.0 | 1/2x14 | 54 | 34 | 31 | 27 |
| 1B226-10-10 | 1/2 | -10 | 12.5 | 5/8x14 | 57 | 34 | 36 | 30 |
| 1B226-12-12 | 5/8 | -12 | 16.0 | 3/4x14 | 62 | 40 | 37 | 32 |
| 1B226-16-16 | 7/8 | -16 | 22.0 | 1x11 | 96 | 69 | 69 | 41 |
| 1B226-20-20 | 1 1/8 | -20 | 29.0 | 1 1/4x11 | 117 | 90 | 76 | 50 |

91 Male BSP Taper Pipe – Rigid Straight

BS5200 – AGR-K



| Part Number | Hose I.D. | | | Thread BSP | A mm | B mm | H mm |
|-------------|-----------|------|------|---------------|---------|---------|---------|
| | Inch | Size | mm | | | | |
| 19126-6-6 | 5/16 | -6 | 8.0 | 3/8x19 | 47 | 26 | 19 |
| 19126-8-8 | 13/32 | -8 | 10.0 | 1/2x14 | 53 | 32 | 22 |
| 19126-12-12 | 5/8 | -12 | 16.0 | 3/4x14 | 58 | 36 | 30 |
| 19126-16-16 | 7/8 | -16 | 22.0 | 1x11 | 69 | 43 | 36 |

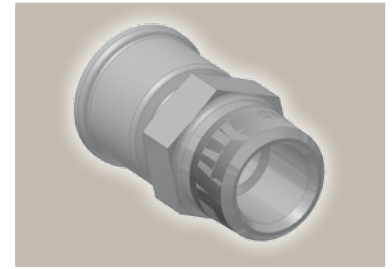
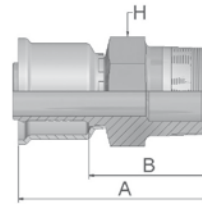
Approved **fitting series** for hose types: **BA**: Nipple: Brass, Nut and Shell: Steel; **BS**: Nipple and Nut: Brass, Shell: Steel; **SM**: Metric Hexagon

26 201 206 213 221FR 285 293

01

Male NPTF Pipe Rigid – Straight

SAE J476A/ J516 – AGN



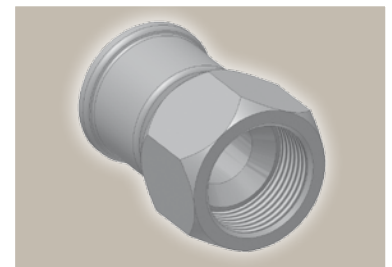
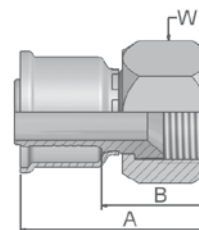
| Part Number | Hose I.D. | | | Thread NPTF | A mm | B mm | H Inch |
|-------------|-----------|------|------|----------------|---------|---------|-----------|
| | Inch | Size | mm | | | | |
| 10126-4-5 | 1/4 | -5 | 6.3 | 1/4x18 | 48 | 26 | 9/16 |
| 10126-4-6 | 5/16 | -6 | 8.0 | 1/4x18 | 48 | 26 | 3/4 |
| 10126-6-6 | 5/16 | -6 | 8.0 | 3/8x18 | 48 | 26 | 11/16 |
| 10126-6-8 | 13/32 | -8 | 10.0 | 3/8x18 | 48 | 26 | 11/16 |
| 10126-8-8 | 13/32 | -8 | 10.0 | 1/2x14 | 54 | 33 | 7/8 |
| 10126-8-10 | 1/2 | -10 | 12.5 | 1/2x14 | 57 | 33 | 7/8 |
| 10126-12-12 | 5/8 | -12 | 16.0 | 3/4x14 | 59 | 35 | 1 1/16 |

26 Series

06/68

Female – JIC 37° SAE 45° Dual Flare Swivel – Straight

ISO12151-5-SWS – DKJ



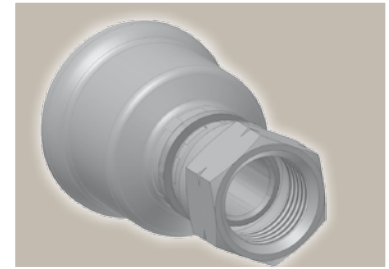
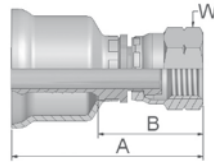
| Part Number | Hose I.D. | | | Thread UNF | Tube mm | A mm | B mm | W mm Inch |
|----------------|-----------|------|------|---------------|------------|---------|---------|--------------|
| | Inch | Size | mm | | | | | |
| 16826-4-4-SM | 3/16 | -4 | 5.0 | 7/16x20 | 1/4 | 43 | 24 | 14 |
| 16826-5-5-SM | 1/4 | -5 | 6.3 | 1/2x20 | 5/16 | 44 | 23 | 17 |
| 16826-5-5BA | 1/4 | -5 | 6.3 | 1/2x20 | 5/16 | 45 | 23 | 5/8 |
| 10626-6-6-SM | 5/16 | -6 | 8.0 | 9/16x18 | 3/8 | 45 | 25 | 19 |
| 10626-6-6BS | 5/16 | -6 | 8.0 | 9/16x18 | 3/8 | 45 | 23 | 11/16 |
| 10626-6-6 | 5/16 | -6 | 8.0 | 9/16x18 | 3/8 | 45 | 23 | 11/16 |
| 16826-8-8-SM | 13/32 | -8 | 10.0 | 3/4x16 | 1/2 | 48 | 27 | 22 |
| 16826-8-10 | 1/2 | -10 | 12.5 | 3/4x16 | 1/2 | 60 | 36 | 7/8 |
| 16826-10-10BA | 1/2 | -10 | 12.5 | 7/8x14 | 5/8 | 55 | 31 | 1 |
| 16826-10-10-SM | 1/2 | -10 | 12.5 | 7/8x14 | 5/8 | 54 | 32 | 27 |
| 16826-10-12-SM | 5/8 | -12 | 16.0 | 7/8x14 | 5/8 | 61 | 33 | 27 |
| 16826-10-12 | 5/8 | -12 | 16.0 | 7/8x14 | 5/8 | 61 | 37 | 1 |
| 10626-12-12-SM | 5/8 | -12 | 16.0 | 1 1/16x12 | 3/4 | 56 | 34 | 32 |
| 10626-16-16-SM | 7/8 | -16 | 22.0 | 1 5/16x12 | 1 | 62 | 35 | 41 |
| 10626-20-20-SM | 1 1/8 | -20 | 29.0 | 1 5/8x12 | 1 1/4 | 66 | 39 | 50 |
| 10626-24-24-SM | 1 3/8 | -24 | 35.0 | 1 7/8x12 | 1 1/2 | 71 | 44 | 60 |
| 10626-32-32 | 1 13/16 | -32 | 46.0 | 2 1/2x12 | 2 | 84 | 52 | 2 7/8 |

Approved fitting series for hose types: BA: Nipple: Brass, Nut and Shell: Steel; BS: Nipple and Nut: Brass, Shell: Steel; SM: Metric Hexagon

26 201 206 213 221FR 285 293

08 Female SAE 45° – Swivel Straight

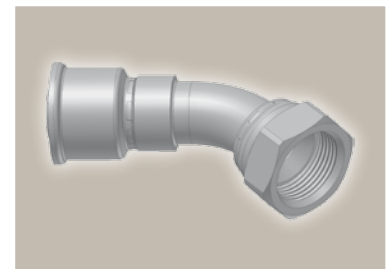
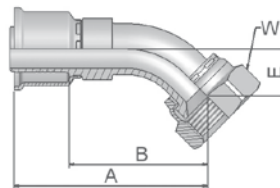
SAE J516



| Part Number | Hose I.D. | | | Thread UNF | Tube mm | A mm | B mm | W Inch |
|-------------|-----------|------|------|---------------|------------|---------|---------|-----------|
| | Inch | Size | mm | | | | | |
| 10826-6-6BA | 5/16 | -6 | 8.0 | 5/8x18 | 3/8 | 47 | 25 | 3/4 |
| 10826-6-6 | 5/16 | -6 | 8.0 | 5/8x18 | 3/8 | 47 | 25 | 3/4 |
| 10826-12-12 | 5/8 | -12 | 16.0 | 1 1/16x14 | 3/4 | 56 | 32 | 1 1/4 |

37/3V Female JIC 37° SAE 45° – Dual Flare Swivel Female 45° Elbow

ISO 12151-5-SWE 45° – DKJ 45°

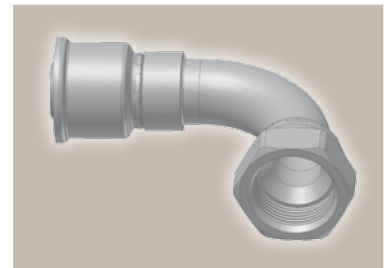
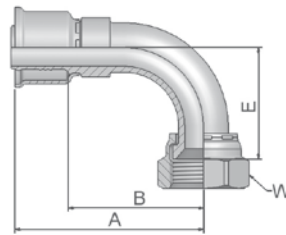


| Part Number | Hose I.D. | | | Thread UNF | Tube mm | A mm | B mm | E mm | W mm Inch |
|----------------|-----------|------|------|---------------|------------|---------|---------|---------|-----------------|
| | Inch | Size | mm | | | | | | |
| 13V26-4-4-SM | 3/16 | -4 | 5.0 | 7/16x20 | 1/4 | 50 | 24 | 10 | 14 |
| 13726-6-6-SM | 5/16 | -6 | 8.0 | 9/16x18 | 3/8 | 54 | 33 | 11 | 19 |
| 13V26-8-8-SM | 13/32 | -8 | 10.0 | 3/4x16 | 1/2 | 59 | 38 | 15 | 22 |
| 13V26-10-10 | 1/2 | -10 | 12.5 | 7/8x14 | 5/8 | 69 | 44 | 17 | 1 |
| 13726-12-12-SM | 5/8 | -12 | 16.0 | 1 1/16x12 | 3/4 | 75 | 53 | 20 | 32 |
| 13726-16-16-SM | 7/8 | -16 | 22.0 | 1 5/16x12 | 1 | 102 | 76 | 24 | 41 |

Approved fitting series for hose types: BA: Nipple: Brass, Nut and Shell: Steel; BS: Nipple and Nut: Brass, Shell: Steel; SM: Metric Hexagon

26 201 206 213 221FR 285 293

**39/3W Female JIC 37°
SAE 45° – Dual Flare
Swivel Female 90° Elbow**
ISO 12151-5-SWES – DKJ 90°



| Part Number | Hose I.D. | | | Thread UNF | Tube mm | A mm | B mm | E mm | W mm |
|----------------|-----------|------|------|---------------|------------|---------|---------|---------|---------|
| | Inch | Size | mm | | | | | | |
| 13W26-4-4-SM | 3/16 | -4 | 5.0 | 7/16x20 | 1/4 | 45 | 20 | 21 | 14 |
| 13W26-5-5-SM | 1/4 | -5 | 6.3 | 1/2x20 | 5/16 | 50 | 30 | 20 | 17 |
| 13926-6-6-SM | 5/16 | -6 | 8.0 | 9/16x18 | 3/8 | 49 | 29 | 22 | 19 |
| 13W26-8-6-SM | 5/16 | -6 | 8.0 | 3/4x16 | 3/8 | 53 | 32 | 29 | 22 |
| 13W26-8-8-SM | 13/32 | -8 | 10.0 | 3/4x16 | 1/2 | 53 | 32 | 29 | 22 |
| 13W26-8-10-SM | 1/2 | -10 | 12.5 | 3/4x16 | 5/8 | 56 | 34 | 29 | 22 |
| 13W26-10-10-SM | 1/2 | -10 | 12.5 | 7/8x14 | 5/8 | 62 | 39 | 33 | 27 |
| 13W26-10-12-SM | 5/8 | -12 | 16.0 | 7/8x14 | 5/8 | 63 | 41 | 33 | 27 |
| 13926-12-12-SM | 5/8 | -12 | 16.0 | 1 1/16x12 | 3/4 | 73 | 51 | 46 | 32 |
| 13926-16-16-SM | 7/8 | -16 | 22.0 | 1 5/16x12 | 1 | 102 | 75 | 59 | 41 |
| 13926-20-20-SM | 1 1/8 | -20 | 29.0 | 1 5/8x12 | 1 1/4 | 109 | 81 | 70 | 50 |

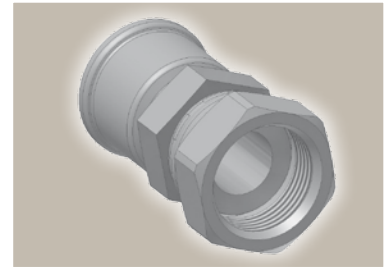
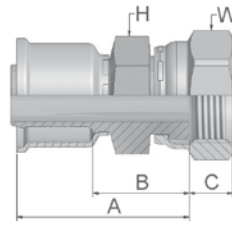
26 Series

Approved fitting series for hose types: BA: Nipple: Brass, Nut and Shell: Steel; BS: Nipple and Nut: Brass, Shell: Steel; SM: Metric Hexagon

26 201 206 213 221FR 285 293

JC **Female ORFS**
Swivel – Straight
Short

ISO 12151-1 – SWSA
SAE J516 – ORFS

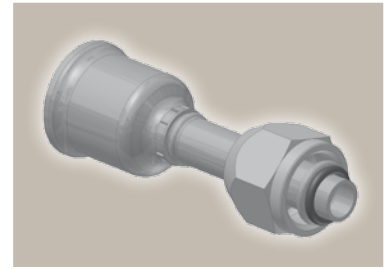
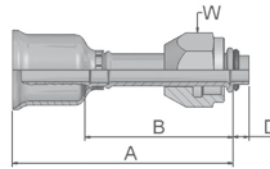


| Part Number | Hose I.D. | | | Thread UNF | A mm | B mm | C mm | H mm | W mm |
|----------------|-----------|------|------|---------------|---------|---------|---------|---------|---------|
| | Inch | Size | mm | | | | | | |
| 1JC26-4-4-SM | 3/16 | -4 | 5.0 | 9/16x18 | 35 | 14 | 8 | – | 17 |
| 1JC26-6-6-SM | 5/16 | -6 | 8.0 | 11/16x16 | 36 | 15 | 9 | – | 22 |
| 1JC26-8-6-SM | 5/16 | -6 | 8.0 | 13/16x16 | 44 | 23 | 11 | 19 | 24 |
| 1JC26-8-8-SM | 13/32 | -8 | 10.0 | 13/16x16 | 37 | 17 | 11 | – | 24 |
| 1JC26-10-10-SM | 1/2 | -10 | 12.5 | 1x14 | 49 | 27 | 12 | 24 | 30 |
| 1JC26-12-12-SM | 5/8 | -12 | 16.0 | 1 3/16x12 | 43 | 21 | 14 | – | 36 |
| 1JC26-16-16-SM | 7/8 | -16 | 22.0 | 1 7/16x12 | 61 | 34 | 14 | 36 | 41 |
| 1JC26-20-20-SM | 1 1/8 | -20 | 29.0 | 1 11/16x12 | 62 | 35 | 15 | 50 | 50 |

Approved **fitting series** for hose types: **BA**: Nipple: Brass, Nut and Shell: Steel; **BS**: Nipple and Nut: Brass, Shell: Steel; **SM**: Metric Hexagon

26 201 206 213 221FR 285 293

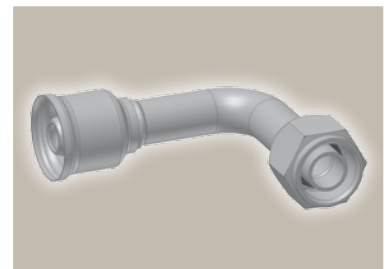
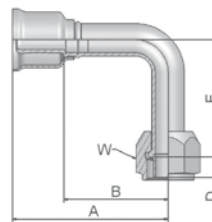
5S Female Tube O-ring Swivel Short Pilot



| Part Number | Hose I.D. | | | Thread UNF | A mm | B mm | D mm | W Inch |
|-------------|-----------|------|------|---------------|---------|---------|---------|-----------|
| | Inch | Size | mm | | | | | |
| 15S26-6-6 | 5/16 | -6 | 8.0 | 5/8x18 | 66 | 44 | 4.7 | 3/4 |
| 15S26-8-8 | 13/32 | -8 | 10.0 | 3/4x16 | 67 | 45 | 4.7 | 7/8 |
| 15S26-10-10 | 1/2 | -10 | 12.5 | 7/8x14 | 71 | 47 | 4.7 | 1 1/16 |
| 15S26-10-12 | 5/8 | -12 | 16.0 | 7/8x14 | 71 | 47 | 4.7 | 1 1/16 |

26 Series

5T Female Tube O-Ring Swivel 90° Elbow – Short Pilot



| Part Number | Hose I.D. | | | Thread UNF | A mm | B mm | D mm | E mm | W Inch |
|-------------|-----------|------|------|---------------|---------|---------|---------|---------|-----------|
| | Inch | Size | mm | | | | | | |
| 15T26-6-6 | 5/16 | -6 | 8.0 | 5/8x18 | 56 | 34 | 4.7 | 36 | 3/4 |
| 15T26-8-8 | 13/32 | -8 | 10.0 | 3/4x16 | 63 | 41 | 4.7 | 37 | 7/8 |
| 15T26-10-10 | 1/2 | -10 | 12.5 | 7/8x14 | 73 | 49 | 4.7 | 44 | 1 1/16 |

Approved fitting series for hose types: BA: Nipple: Brass, Nut and Shell: Steel; BS: Nipple and Nut: Brass, Shell: Steel; SM: Metric Hexagon

26 201 206 213 221FR 285 293



aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding



Hydraulic Hoses and Fittings

Medium Pressure



ENGINEERING YOUR SUCCESS.

Medium Pressure Hoses and Fittings

The perfect range for the more demanding market requirements

This medium pressure hose range contains the Elite No-Skive compact hydraulic hoses exceeding ISO and EN specifications and the classic No-Skive hydraulic hoses according to ISO, EN and SAE specifications. This hose range is complemented by a full selection of compatible No-Skive fittings in steel and stainless steel.

- **Extended range** of working temperatures:
-50 °C up to +150 °C
- Selected hoses feature **nitrile inner tubes** suitable for mineral and bio-degradable oils
- Full range of **fluid compatibility**; oil, water, phosphate ester etc.



- Using **high quality compounds** allows thin covers – less weight – long service life still assured
- **High flexibility** for easier installation and increased service life
- **Small bend radii** and **light weight** for applications where space and weight are determining factors
- High **abrasion resistance** hose covers superior to ISO 6945 requirements, extending service life
- High **ozone-resistant** cover compounds extending weathering and ageing resistance
- **Parkrimp** machines, portable or bench mount for easy assembly operation – hose assemblies meet CE directives
- Complete **No-Skive fitting technology** across the full range of medium pressure hoses providing simpler, quicker and safer hose assembly



Applications

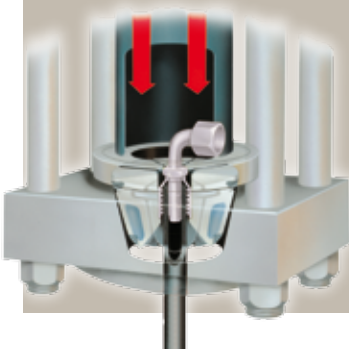
The definitive hose range for all medium-pressure applications



Parkrimp® *No-Skive*

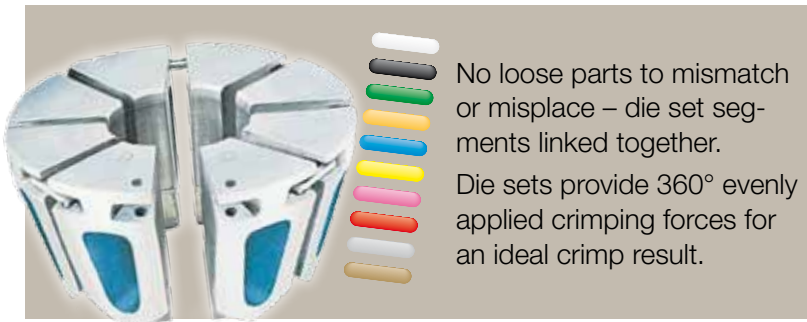
The system for fast and leak-free assemblies

The perfect match



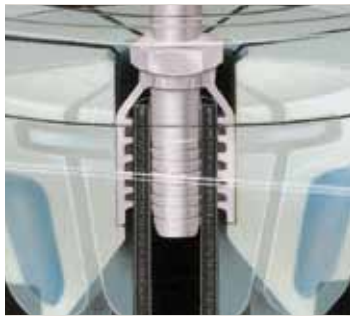
The complete system from one source. No-Skive hose, No-Skive fitting and crimping machine with world-wide guarantee and availability.

Parker's colour-coded die sets



No loose parts to mismatch or misplace – die set segments linked together. Die sets provide 360° evenly applied crimping forces for an ideal crimp result.

Parkalign®



Parker's exclusive Parkalign® positions the fitting in the dies perfectly every time.



Parkrimp® *No-Skive*

- No skiving tool needed
- No need to remove the cover
- Crimps one-piece fittings
- Parkalign positions the fittings in the dies perfectly every time
- Quick and easy: no gauges to set on the machine
- Portable machines for field repair
- Meets EN safety regulations

Elite No-Skive Hoses

for reliability, performance, sustainability and prevention

Designers of hydraulic machinery are increasingly defining new products that require hydraulic circuits with tighter curves, higher pressures and less space in which to route flexible connections and achieve a solution.

The option to use flexible connections that are tested over and above the generally accepted norms and specifications and, that offer reliability and performance to the highest market standards, give peace of mind and the possibility to enhance the reputation and dependability of products developed by engineering and design departments. To meet hydraulic application demands for reliability and performance, engineers typically look at medium pressure braided hose ranges with a compact design and no-skive fittings. They often tend towards well known and established names on the market, where real-world long life and dependability have been proven.

Reliability

One of the most important factors engineers look for is reliability. In the case of a hydraulic hose line that primarily means the integrity of its connection. Hoses that use the Parker®

No-Skive technology, such as the Elite range from Parker, are the preferred choice for all medium pressure mobile and industrial applications.



Leakfree No-Skive hose assembly

Performance

Particularly challenging are applications in earth-moving and construction machinery that require higher performance from the hoses they use in terms of flexibility, a tight bending radius and resistance to very low temperatures. The Elite low temperature hose 461LT can be used in applications with an ambient temperature of down to -50 °C.



Low temperature hose 461LT

Sustainability

Sustainability is a strategy that underlines many initiatives, integrating life cycles assessment into the product development process for leading, responsible manufacturers. Transparency in the use of chemicals, processes and materials and utilising technical know-how and engineering skills are key to meet this increasingly important and globally relevant requirements. Therefore the development of the new 462CLF with pure chlorine-free tube and cover compound is our contribution for ensuring the sustainability of our planet.

This hose type is environmental friendly from production to disposal.



Chlorine-free hose 462CLF



Elite No-Skive Hoses

with outstanding technical properties



Chrome6-free fittings

Prevention

High performance most often goes hand-in-hand with long life and reliability which translates into reduced machine downtime caused by hose assembly failure.

However, through a preventive maintenance program, unexpected, unscheduled and costly downtime can be largely avoided. A Preventive Maintenance Program may comprise regular checks of the hydraulic circuit and of all the flexible parts that compose it.

Identification systems such as the Parker Tracking System (PTS) are designed to help customers reduce vehicle or asset downtime through increases in speed, timing and accuracy of necessary repairs.

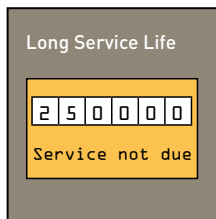
The wire braided Elite No-Skive hose range with outstanding technical properties such as superior flexibility, tighter bend radii and tough or super tough hose cover exceeds the EN specifications and meets the OEM and MRO requirements of today and tomorrow!

The range also includes a new chlorine-free hose type with a smooth pure nitrile inner tube – a hose which is environmentally friendly from production to disposal and that with an excellent chemical resistance.



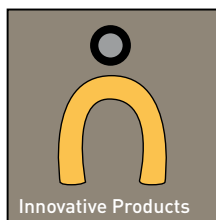
Exceeds European specifications

- higher abrasion resistance
- higher pressure ratings



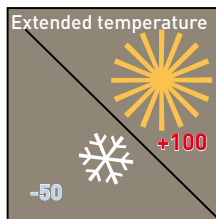
Long service life achieved through implementing

- nitrile inner tubes for better fluid compatibility
- tested and approved hose and fitting combinations



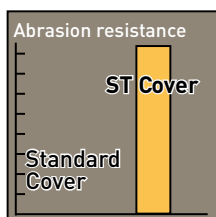
innovative product line with excellent technical characteristics

- high flexibility
- tight bending radii
- compact thin cover hoses
- No-Skive technology



temperature range

- up to +125 °C
- down to -50 °C for low temperature (LT) hoses

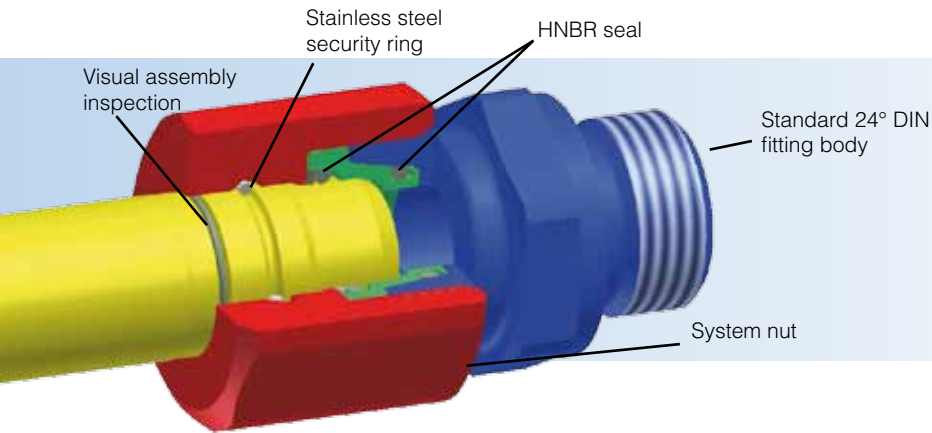


extreme abrasion resistance

- > 1 Mio cycles with ST cover according to ISO 6945 (which represents 450 times the standard cover)

Universal Push-to-Connect (UPTC)

The unique push-in system for tubes and hoses

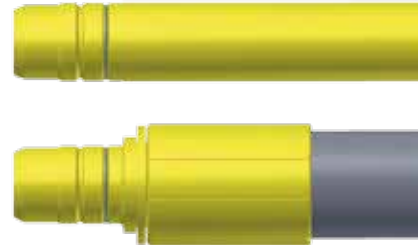


As a standard solution it's a stroke of genius

Parker's UPTC is the standardised push-in system for Parker 24° DIN fitting bodies.

In use with tube and hose

Because of its flexibility, UPTC is a unique push-in system for tube and hose terminations.



Assembly

- Simply introduce the hose or tube into the works-assembled fitting and push in.



Assembled connector

Simple

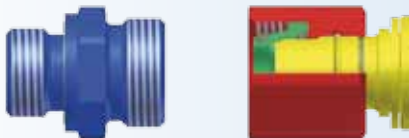
- Visual assembly inspection
- Marker inside the nut = unambiguous assembly results

Safe

- Security ring locks in place
- Termination is held in the connector

Leak-proof

- Elastomeric seal
- 100 % leak-proof

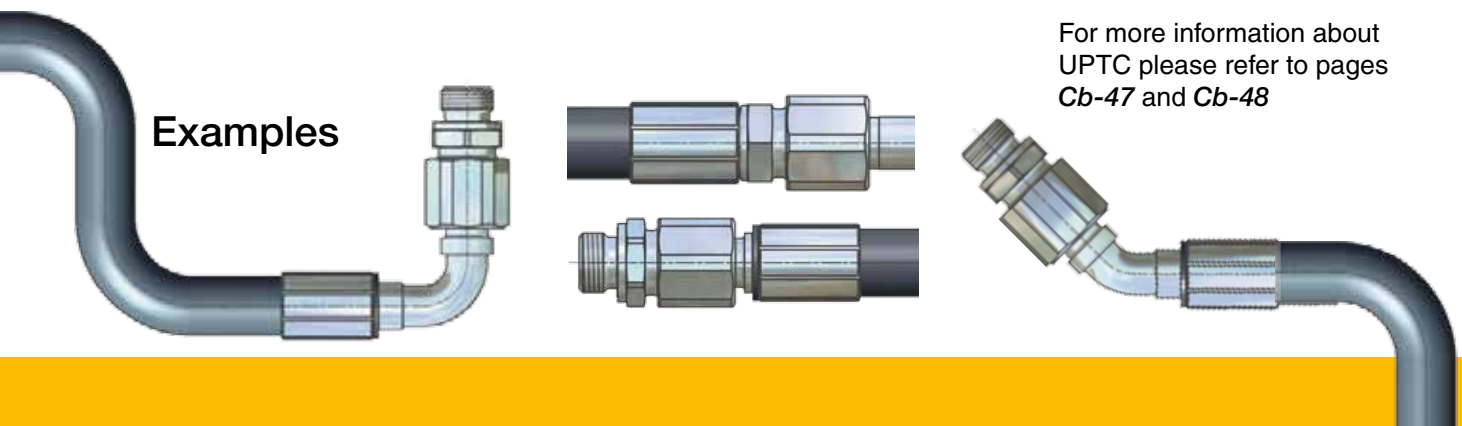


Disassembly

- Removable and fit for reassembly just like conventional screw fittings – possible even in very dirty conditions

- Repair-friendly
- No special tools required

Examples



For more information about UPTC please refer to pages Cb-47 and Cb-48

Medium Pressure

| Hoses | | Page |
|-------|--------------------------------------|-----------------------------------|
| | 301SN <i>No-Skive</i> | Standard Ca-1 |
| | 301TC <i>No-Skive</i> | High abrasion resistance Ca-2 |
| | 302 <i>No-Skive</i> | Standard Ca-3 |
| | 304 <i>No-Skive</i> | Phosphate Ester Ca-4 |
| | 351TC <i>No-Skive</i> | High abrasion resistance Ca-5 |
| | 402 <i>Elite No-Skive</i> | Pilot Ca-6 |
| | 412 <i>Elite No-Skive</i> | Pilot Ca-7 |
| | 412ST <i>Elite No-Skive</i> | Pilot Ca-8 |
| | 421RH <i>No-Skive</i> | Railway Ca-9 |
| | 421SN <i>No-Skive</i> | Standard Ca-10 |
| | 421WC <i>No-Skive</i> | Wire cover Ca-11 |
| | 422 <i>No-Skive</i> | Standard Ca-12 |
| | 424 <i>No-Skive</i> | Phosphate Ester Ca-13 |
| | 426 <i>No-Skive</i> | Low / High temperature Ca-14 |
| | 436 <i>No-Skive</i> | Low / High temperature Ca-15 |
| | 441 <i>Elite No-Skive</i> | Standard Ca-16 |
| | 441RH <i>No-Skive</i> | Railway Ca-17 |
| | 451 <i>No-Skive</i> | Standard Ca-18 |
| | 451TC <i>No-Skive</i> | High abrasion resistance Ca-19 |
| | 461LT <i>Elite No-Skive</i> | Low / High temperature Ca-20 |
| | 462 <i>Elite No-Skive</i> | Standard Ca-21 |
| | 462CIF <i>Elite No-Skive</i> | Chlorine Free Ca-22 |
| | 462ST <i>Elite No-Skive</i> | Extreme abrasion resistance Ca-23 |
| | 462TC <i>Elite No-Skive</i> | High abrasion resistance Ca-24 |
| | 463 <i>No-Skive</i> | Water cleaning Ca-25 |
| | 471TC / 472TC <i>No-Skive</i> | High abrasion resistance Ca-26 |
| | 477 <i>Elite No-Skive</i> | Powerlift Ca-27 |
| | 477ST <i>Elite No-Skive</i> | Powerlift Ca-28 |
| | 492 <i>Elite No-Skive</i> | Standard Ca-29 |
| | 492ST <i>Elite No-Skive</i> | Extreme abrasion resistance Ca-30 |
| | 493 <i>No-Skive</i> | Water cleaning Ca-31 |
| | 692 <i>No-Skive</i> | Extremely flexible Ca-32 |
| | 692Twin <i>No-Skive</i> | Extremely flexible Ca-33 |
| | 811 <i>No-Skive</i> | Suction Ca-34 |
| | 811S <i>No-Skive</i> | Suction Ca-35 |
| | 881 <i>No-Skive</i> | Suction Ca-36 |

| Fittings | 43 Series | 46/48 Series |
|-------------------------------|---------------|---------------|
| DIN – Metric | Cb-1 – Cb-4 | Cc-1 – Cc-11 |
| BSP | Cb-5 – Cb-8 | Cc-12 – Cc-20 |
| SAE | Cb-9 – Cb-11 | Cc-21 – Cc-28 |
| Flange | Cb-12 – Cb-14 | Cc-29 – Cc-33 |
| ORFS | Cb-15 – Cb-17 | Cc-34 – Cc-39 |
| JIS | | Cc-40 – Cc-41 |
| French Standard | | Cc-42 – Cc-44 |
| High Pressure Cleaning | | Cc-45 – Cc-46 |
| Others | | Cc-47 – Cc-48 |
| UPTC | | Cc-49 – Cc-50 |

Standard

421SN

Ca-10



No-Skive

EN 853 1SN – ISO 1436 Type 1

422

Ca-12



WORLDWIDE *No-Skive*

ISO 1436 1SN

301SN

Ca-1



No-Skive

EN 853 2SN – ISO 1436 Type 2

302

Ca-3



WORLDWIDE *No-Skive*

EN 853 2SN – ISO S 1436

441

Ca-16



Elite No-Skive

ISO 11237 Type R16 – SAE 100R16

451

Ca-18

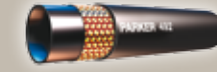


No-Skive

ISO 11237 Type R17 – SAE 100R17

492

Ca-29



Elite No-Skive Compact

EN 857 1SC – ISO 11237 Type 1SC

462

Ca-21



Elite No-Skive Compact

Exceeds EN 857-2SC – ISO 11237 Type 2SC

Chlorine Free

462CIF

Ca-22



Elite No-Skive Chlorine Free

Exceeds EN 857-2SC – ISO 11237 Type 2SC

High abrasion resistance

301TC

Ca-2



No-Skive Tough Cover

EN 853 2SN – ISO 1436 Type 2

351TC

Ca-5



No-Skive Tough Cover

ISO 11237 Type R19 – SAE 100R19

451TC

Ca-19



No-Skive Tough Cover

ISO 11237 Type R17 – SAE 100R17

462TC

Ca-24



Elite No-Skive Compact

Tough Cover

Exceeds EN 857-2SC – ISO 11237 Type 2SC

471TC / 472TC

Ca-26



No-Skive

EN 857 2SC – ISO 11237 Type 2SC

Extreme abrasion resistance

492ST

Ca-30



Elite No-Skive Super Tough

Compact

EN 857 1SC – ISO 11237 Type 1SC

462ST

Ca-23



Elite No-Skive Super Tough

Compact

EN 857 2SC – ISO 11237 Type 2SC

Low / High temperature

426

Ca-14



No-Skive

SAE 100R1AT high temperature

436

Ca-15



No-Skive Compact

SAE 100R16 high temperature

461LT

Ca-20



Elite No-Skive Compact

EN 857 2SC low temperature

Phosphate Ester

424

Ca-13



No-Skive
Phosphate ester resistant hose

304

Ca-4



No-Skive
Phosphate ester resistant hose

Railway

441RH

Ca-17



No-Skive Compact
Fire-retardant cover

421RH

Ca-9



No-Skive
Fire-retardant cover

Water cleaning

493

Ca-31



No-Skive Compact
High pressure water cleaning applications

463

Ca-25



No-Skive Compact
High pressure water cleaning applications

Pilot

402

Ca-6



Elite No-Skive Compact
Pilot line applications

412

Ca-7



Elite No-Skive RemoFlex
1 wire braided hose for pilot lines

412ST

Ca-8

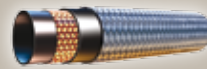


Elite No-Skive RemoFlex
1 wire braided hose for pilot lines

Wire cover

421WC

Ca-11



No-Skive
Galvanised steel wire cover

Powerlift



Extremely flexible



Suction



301SN

No-Skive

EN 853 2SN – ISO 1436 Type 2



- *No-Skive* thin cover hose construction
- Nitrile (NBR) inner tube
– extended fluid compatibility
- Suitable with 48 series fittings

Primary Applications

General medium pressure hydraulic applications

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

EN 853 2SN – ISO 1436 Type 2 – SAE 100R2AT

Construction

Tube: Nitrile (NBR)
Reinforcement: Two high-tensile steel wire braids
Cover: Synthetic rubber

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C
Water max. +85 °C

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|-----------------------|------|---------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure | | min. burst pressure | | | |
| | | | | | | MPa | psi | MPa | psi | | |
| 301SN-4 | 6 | 1/4 | -4 | 6.4 | 15.0 | 40.0 | 5800 | 160.0 | 23200 | 100 | 0.39 |
| 301SN-5 | 8 | 5/16 | -5 | 7.9 | 16.6 | 35.0 | 5075 | 140.0 | 20300 | 115 | 0.42 |
| 301SN-6 | 10 | 3/8 | -6 | 9.5 | 19.0 | 33.0 | 4775 | 132.0 | 19100 | 130 | 0.55 |
| 301SN-8 | 12 | 1/2 | -8 | 12.7 | 22.2 | 27.5 | 4000 | 110.0 | 16000 | 180 | 0.67 |
| 301SN-10 | 16 | 5/8 | -10 | 15.9 | 25.4 | 25.0 | 3600 | 100.0 | 14500 | 200 | 0.77 |
| 301SN-12 | 19 | 3/4 | -12 | 19.1 | 29.3 | 21.5 | 3100 | 86.0 | 12400 | 240 | 1.00 |
| 301SN-16 | 25 | 1 | -16 | 25.4 | 38.1 | 16.5 | 2400 | 66.0 | 9600 | 300 | 1.49 |
| 301SN-20 | 31 | 1 1/4 | -20 | 31.8 | 47.5 | 12.5 | 1800 | 50.0 | 7200 | 420 | 1.73 |
| 301SN-24 | 38 | 1 1/2 | -24 | 38.1 | 55.0 | 9.0 | 1300 | 36.0 | 5200 | 500 | 2.14 |
| 301SN-32 | 51 | 2 | -32 | 50.8 | 67.0 | 8.0 | 1150 | 32.0 | 4600 | 630 | 2.96 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example

PARKER NO-SKIVE 301SN-4 WP 40,0 MPa (400 BAR) L · · SAE100R2AT-4 6,3MM (1/4") X 2W EN853/2SN/6/DIN

301TC

No-Skive Tough Cover

EN 853 2SN – ISO 1436 Type 2

Primary Applications

General medium pressure hydraulic applications where high abrasion is required

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

EN 853 2SN – ISO 1436 Type 2 – SAE 100R2AT

Construction

Tube: Nitrile (NBR)
Reinforcement: Two high-tensile steel wire braids
Cover: MSHA approved synthetic rubber

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C

Water max. +85 °C



- *No-Skive* thin cover hose construction
- Nitrile (NBR) inner tube – extended fluid compatibility
- Highly abrasion resistant **TOUGH COVER**
- MSHA approved
- Hose is suitable for temporary immersion in mineral oil up to 70 °C with frequent inspections

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|-----------------------|------|---------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure | | min. burst pressure | | | |
| | | | | | | MPa | psi | MPa | psi | | |
| 301TC-4 | 6 | 1/4 | -4 | 6.4 | 15.0 | 40.0 | 5800 | 160.0 | 23200 | 100 | 0.39 |
| 301TC-5 | 8 | 5/16 | -5 | 7.9 | 16.6 | 35.0 | 5075 | 140.0 | 20300 | 115 | 0.42 |
| 301TC-6 | 10 | 3/8 | -6 | 9.5 | 19.0 | 33.0 | 4775 | 132.0 | 19100 | 130 | 0.55 |
| 301TC-8 | 12 | 1/2 | -8 | 12.7 | 22.2 | 27.5 | 4000 | 110.0 | 16000 | 180 | 0.67 |
| 301TC-10 | 16 | 5/8 | -10 | 15.9 | 25.4 | 25.0 | 3600 | 100.0 | 14500 | 200 | 0.77 |
| 301TC-12 | 19 | 3/4 | -12 | 19.1 | 29.3 | 21.5 | 3100 | 86.0 | 12400 | 240 | 1.00 |
| 301TC-16 | 25 | 1 | -16 | 25.4 | 38.1 | 16.5 | 2400 | 66.0 | 9600 | 300 | 1.49 |
| 301TC-20 | 31 | 1 1/4 | -20 | 31.8 | 47.5 | 12.5 | 1800 | 50.0 | 7200 | 420 | 1.73 |
| 301TC-24 | 38 | 1 1/2 | -24 | 38.1 | 55.0 | 9.0 | 1300 | 36.0 | 5200 | 500 | 2.14 |
| 301TC-32 | 51 | 2 | -32 | 50.8 | 67.0 | 8.0 | 1150 | 32.0 | 4600 | 630 | 2.96 |

Replace the hose when any deformation or damage on the hose cover are visible. The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



302

WORLDWIDE *No-Skive*
EN 853 2SN – ISO S 1436



- Meets ISO 1436
- Worldwide availability
- Worldwide consistent appearance, part number and functionality
- *No-Skive* thin cover hose construction
- Extended fluid compatibility (including biodegradable oils)

Primary Applications

General medium pressure hydraulic applications

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

EN 853 2SN – ISO S 1436 – SAE 100R2AT

Construction

Tube: Nitrile (NBR)
Reinforcement: Two high-tensile steel wire braids
Cover: Synthetic rubber

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C
Water max. +85 °C

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| 302-4 | 6 | 1/4 | -4 | 6.4 | 15.0 | 40.0 | 5800 | 160.0 | 23200 | 100 | 0.39 |
| 302-5 | 8 | 5/16 | -5 | 7.9 | 16.6 | 35.0 | 5075 | 140.0 | 20300 | 115 | 0.42 |
| 302-6 | 10 | 3/8 | -6 | 9.5 | 19.0 | 33.0 | 4775 | 132.0 | 19100 | 130 | 0.55 |
| 302-8 | 12 | 1/2 | -8 | 12.7 | 22.2 | 27.5 | 4000 | 110.0 | 16000 | 180 | 0.67 |
| 302-10 | 16 | 5/8 | -10 | 15.9 | 25.4 | 25.0 | 3600 | 100.0 | 14500 | 200 | 0.77 |
| 302-12 | 19 | 3/4 | -12 | 19.1 | 29.3 | 21.5 | 3100 | 86.0 | 12400 | 240 | 1.00 |
| 302-16 | 25 | 1 | -16 | 25.4 | 38.1 | 16.5 | 2400 | 66.0 | 9600 | 300 | 1.49 |
| 302-20 | 31 | 1 1/4 | -20 | 31.8 | 47.5 | 12.5 | 1800 | 50.0 | 7200 | 420 | 1.73 |
| 302-24 | 38 | 1 1/2 | -24 | 38.1 | 55.0 | 9.0 | 1300 | 36.0 | 5200 | 500 | 2.14 |
| 302-32 | 51 | 2 | -32 | 50.8 | 67.0 | 8.0 | 1150 | 32.0 | 4600 | 630 | 2.96 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example

Parker 302/301-8 Worldwide WP 28,0 MPa (4000 PSI) ISO 1436-1/2SN / SAE 100R2 12,5 mm (1/2) X 2W 2Q05 MADE IN



304

No-Skive

Phosphate ester resistant hose

Primary Applications

Aerospace, foundries, steel mills:
Medium pressure hydraulic applications with phosphate ester fluids

Applicable Specifications

Parker specification

Restrictions

Do not allow tube to contact any petroleum base fluids.
Use liquid soap as hose lubricant.

Construction

Tube: EPDM synthetic rubber
Reinforcement: Two high-tensile steel wire braids
Cover: Phosphate ester and weather resistant, green, EPDM synthetic rubber cover

Temperature Range -40 °C up to +80 °C

Exception: Air max. +70 °C
Water, water glycol fluids .. max. +85 °C



- *No-Skive* thin cover hose construction
- Phosphate ester and weather resistant, green, EPDM synthetic rubber cover
- SAE 100R2 pressure rating

Recommended Fluids

Phosphate ester based hydraulic fluids, water-glycol based fluids, air and water.
Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series

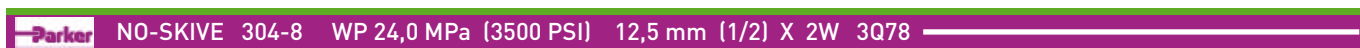
Series 43 for sizes -4 to -32
Series 48 for sizes -20 to -32



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| 304-4 | 6 | 1/4 | -4 | 6.4 | 15.0 | 34.5 | 5000 | 138.0 | 20000 | 100 | 0.39 |
| 304-6 | 10 | 3/8 | -6 | 9.5 | 19.0 | 27.5 | 4000 | 110.0 | 16000 | 130 | 0.55 |
| 304-8 | 12 | 1/2 | -8 | 12.7 | 22.0 | 24.0 | 3500 | 96.0 | 14000 | 180 | 0.67 |
| 304-12 | 19 | 3/4 | -12 | 19.1 | 30.0 | 15.5 | 2250 | 62.0 | 9000 | 240 | 1.00 |
| 304-16 | 25 | 1 | -16 | 25.4 | 38.0 | 13.8 | 2000 | 55.0 | 8000 | 300 | 1.49 |
| 304-20 | 31 | 1 1/4 | -20 | 31.8 | 48.0 | 11.2 | 1625 | 45.0 | 6500 | 420 | 1.73 |
| 304-24 | 38 | 1 1/2 | -24 | 38.1 | 55.0 | 8.6 | 1250 | 35.0 | 5075 | 500 | 2.14 |
| 304-32 | 51 | 2 | -32 | 50.8 | 68.0 | 7.8 | 1125 | 31.0 | 4500 | 630 | 2.96 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



351TC

No-Skive Tough Cover

ISO 11237 Type R19 – SAE 100R19

Primary Applications

General medium pressure hydraulic applications where higher abrasion resistance is required

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

ISO 11237 Type R19 – SAE 100R19

Construction

- Tube: Synthetic rubber
- Reinforcement: Two high-tensile steel wire braids
- Cover: MSHA approved synthetic rubber

Temperature Range -40 °C up to +100 °C

- Exception: Air max. +70 °C
- Water max. +85 °C



- **No-Skive** thin cover hose construction
- Constant working pressure of 28.0 MPa
- Highly abrasion resistant **'TOUGH COVER'**
- MSHA approved
- Hose is suitable for temporary immersion in mineral oil up to 70 °C with frequent inspections

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|------|------|------|-----------------|-----------------------|------|---------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure | | min. burst pressure | | | |
| | | | | | | MPa | psi | MPa | psi | | |
| 351TC-4 | 6 | 1/4 | -4 | 6.4 | 13.0 | 28.0 | 4000 | 112.0 | 16000 | 50 | 0.30 |
| 351TC-6 | 10 | 3/8 | -6 | 9.5 | 17.0 | 28.0 | 4000 | 112.0 | 16000 | 65 | 0.42 |
| 351TC-8 | 12 | 1/2 | -8 | 12.7 | 20.0 | 28.0 | 4000 | 112.0 | 16000 | 90 | 0.52 |
| 351TC-10 | 16 | 5/8 | -10 | 15.9 | 24.0 | 28.0 | 4000 | 112.0 | 16000 | 100 | 0.66 |
| 351TC-12 | 19 | 3/4 | -12 | 19.1 | 28.0 | 28.0 | 4000 | 112.0 | 16000 | 120 | 0.86 |

Replace the hose when any deformation or damage on the hose cover are visible. The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



402

Elite No-Skive Compact

Pilot line applications



- *No-Skive* thin cover Compact hose
- Constant working pressure of 10.0 MPa

Primary Applications

Mobile hydraulic: Pilot lines

Construction

Tube: Nitrile (NBR)
 Reinforcement: One high-tensile steel wire braid
 Cover: Synthetic rubber

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C

Water max. +85 °C

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series

- Available as complete hose assembly
- Compatible with 2-piece fittings for use with adjustable crimpers only (47 series nipple and 10049 series shell)

| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|------|------|------|-----------------|-----------------------|------|---------------------|------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure | | min. burst pressure | | | |
| | | | | | | MPa | psi | MPa | psi | | |
| 402-4 | 6 | 1/4 | -4 | 6.4 | 11.6 | 10.0 | 1450 | 40.0 | 5800 | 50 | 0.15 |
| 402-5 | 8 | 5/16 | -5 | 7.9 | 13.2 | 10.0 | 1450 | 40.0 | 5800 | 60 | 0.18 |
| 402-6 | 10 | 3/8 | -6 | 9.5 | 14.8 | 10.0 | 1450 | 40.0 | 5800 | 65 | 0.21 |
| 402-8 | 12 | 1/2 | -8 | 12.7 | 18.6 | 10.0 | 1450 | 40.0 | 5800 | 75 | 0.29 |

The combination of high temperature and high pressure could reduce the hose life.

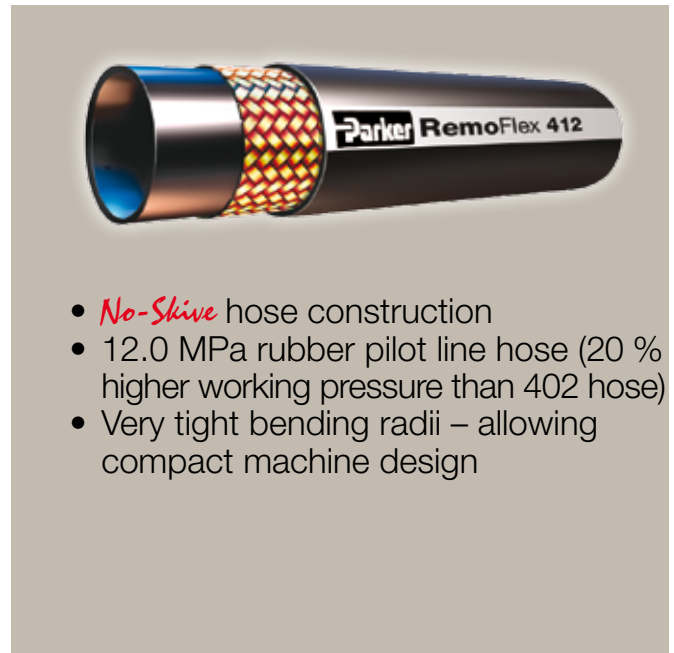
Hose layline example



412

Elite No-Skive RemoFlex

1 wire braided hose for pilot lines



- *No-Skive* hose construction
- 12.0 MPa rubber pilot line hose (20 % higher working pressure than 402 hose)
- Very tight bending radii – allowing compact machine design

Primary Applications

Mobile hydraulic equipment: Pilot lines

Construction

Tube: Nitrile (NBR)
 Reinforcement: One high-tensile steel wire braid
 Cover: Synthetic rubber

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C
 Water max. +85 °C

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

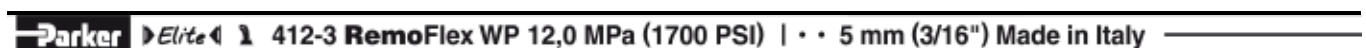
Fitting Series

- Available as complete hose assembly
- Compatible with 2-piece fittings for use with adjustable crimpers only (47 series nipple and 10049 series shell)

| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|------|------|-----|-----------------|------------------------------|------|----------------------------|------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| 412-3 | 5 | 3/16 | -3 | 4.8 | 9.1 | 12.0 | 1700 | 48.0 | 6800 | 20 | 0.08 |
| 412-4 | 6 | 1/4 | -4 | 6.4 | 11.0 | 12.0 | 1700 | 48.0 | 6800 | 25 | 0.14 |
| 412-5 | 8 | 5/16 | -5 | 7.9 | 13.0 | 12.0 | 1700 | 48.0 | 6800 | 30 | 0.18 |
| 412-6 | 10 | 3/8 | -6 | 9.5 | 14.0 | 12.0 | 1700 | 48.0 | 6800 | 40 | 0.23 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



412ST

Elite No-Skive RemoFlex

1 wire braided hose for pilot lines



- *No-Skive* hose construction
- 12.0 MPa rubber pilot line hose (20 % higher working pressure than 402 hose)
- Very tight bending radii – allowing compact machine design
- Extreme abrasion resistant
SUPER TOUGH cover

Primary Applications

Mobile hydraulic equipment: Pilot lines

Construction

Tube: Nitrile (NBR)
 Reinforcement: One high-tensile steel wire braid
 Cover: Synthetic rubber
 with a special polyethylene coating

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C
 Water max. +85 °C

Fitting Series

- Available as complete hose assembly
- Compatible with 2-piece fittings for use with adjustable crimpers only (47 series nipple and 10049 series shell)

| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|------|------|-----|-----------------|------------------------------|------|----------------------------|------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| 412ST-3 | 5 | 3/16 | -3 | 4.8 | 9.6 | 12.0 | 1700 | 48.0 | 6800 | 20 | 0.08 |
| 412ST-4 | 6 | 1/4 | -4 | 6.4 | 11.6 | 12.0 | 1700 | 48.0 | 6800 | 25 | 0.14 |
| 412ST-5 | 8 | 5/16 | -5 | 7.9 | 13.0 | 12.0 | 1700 | 48.0 | 6800 | 30 | 0.18 |
| 412ST-6 | 10 | 3/8 | -6 | 9.5 | 14.0 | 12.0 | 1700 | 48.0 | 6800 | 40 | 0.23 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example

Parker Elite **1 SUPER TOUGH 412ST-6 RemoFlex WP 12,0 MPa (1700 PSI) | • • 9,5 mm (3/8") Made in Italy**

421RH

No-Skive

Fire-retardant cover

Primary Applications

General medium-pressure hydraulic and pneumatic systems as well as water and oil cooling circuits

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

EN 853 1SN – ISO 1436 Typ 1 – SAE 100R1AT

Construction

Tube: Nitrile (NBR)
Reinforcement: One high-tensile steel wire braid
Cover: Fire retardant synthetic rubber

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C
Water max. +85 °C



- *No-Skive* thin cover hose construction
- Nitrile (NBR) inner tube
– extended fluid compatibility
- Suitable with 48 series fittings
- Fire-retardant cover
- Railway approved as follow:
European Standard EN45545 +
ISO15540: HL2
(without the need of FS-F-Fire Sleeve)

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air and gas above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|------------------------------|-----|----------------------------|------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| 421RH-20 | 31 | 1 1/4 | -20 | 31.8 | 44.8 | 6.3 | 900 | 25.0 | 3600 | 420 | 1.19 |
| 421RH-24 | 38 | 1 1/2 | -24 | 38.1 | 51.1 | 5.0 | 725 | 20.0 | 2900 | 500 | 1.49 |
| 421RH-32 | 51 | 2 | -32 | 50.8 | 64.7 | 4.0 | 575 | 16.0 | 2300 | 630 | 2.23 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



421SN

No-Skive

EN 853 1SN – ISO 1436 Type 1

Primary Applications

General medium pressure hydraulic applications

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

EN 853 1SN – ISO 1436 Type 1 – SAE 100R1AT

Construction

Tube: Nitrile (NBR)
Reinforcement: One high-tensile steel wire braid
Cover: Synthetic rubber

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C

Water max. +85 °C



- *No-Skive* thin cover hose construction
- Nitrile (NBR) inner tube
– extended fluid compatibility

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|-----------------------|------|---------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure | | min. burst pressure | | | |
| | | | | | | MPa | psi | MPa | psi | | |
| 421SN-4 | 6 | 1/4 | -4 | 6.4 | 13.4 | 22.5 | 3250 | 90.0 | 13000 | 100 | 0.24 |
| 421SN-5 | 8 | 5/16 | -5 | 7.9 | 15.0 | 21.5 | 3125 | 86.0 | 12500 | 115 | 0.27 |
| 421SN-6 | 10 | 3/8 | -6 | 9.5 | 17.4 | 18.0 | 2600 | 72.0 | 10400 | 130 | 0.34 |
| 421SN-8 | 12 | 1/2 | -8 | 12.7 | 20.7 | 16.0 | 2325 | 64.0 | 9300 | 180 | 0.43 |
| 421SN-10 | 16 | 5/8 | -10 | 15.9 | 23.9 | 13.0 | 1875 | 52.0 | 7500 | 200 | 0.49 |
| 421SN-12 | 19 | 3/4 | -12 | 19.1 | 27.8 | 10.5 | 1525 | 42.0 | 6100 | 240 | 0.63 |
| 421SN-16 | 25 | 1 | -16 | 25.4 | 35.8 | 8.8 | 1275 | 35.0 | 5075 | 300 | 0.94 |
| 421SN-20 | 31 | 1 1/4 | -20 | 31.8 | 44.8 | 6.3 | 900 | 25.2 | 3600 | 420 | 1.19 |
| 421SN-24 | 38 | 1 1/2 | -24 | 38.1 | 51.1 | 5.0 | 725 | 20.0 | 2900 | 500 | 1.49 |
| 421SN-32 | 51 | 2 | -32 | 50.8 | 64.7 | 4.0 | 575 | 16.0 | 2300 | 630 | 2.23 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example

PARKER NO-SKIVE 421SN-8 WP 16,0 MPa (160 BAR) l * * SAE 100R1AT-8 12,5 MM (1/2) X1W EN 853/1SN/12/DIN

421WC

No-Skive

Galvanised steel wire cover



- *No-Skive* thin cover hose construction
- Metal and glass hot-spot resistance

Primary Applications

Machine tool and glass industry

Applicable Specifications

SAE 100 R1AT

Construction

- Tube: Synthetic rubber
- Reinforcement: One high-tensile steel wire braid
- Cover: Galvanized steel wire

Temperature Range -40 °C up to +125 °C

- Exception: Air max. +70 °C
- Water max. +85 °C

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|------|------|------|-----------------|-----------------------|------|---------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure | | min. burst pressure | | | |
| | | | | | | MPa | psi | MPa | psi | | |
| 421WC-4 | 6 | 1/4 | -4 | 6.4 | 15.0 | 19.0 | 2750 | 76.0 | 11000 | 100 | 0.38 |
| 421WC-6 | 10 | 3/8 | -6 | 9.5 | 19.0 | 15.5 | 2250 | 62.0 | 9000 | 130 | 0.54 |
| 421WC-8 | 12 | 1/2 | -8 | 12.7 | 22.0 | 13.8 | 2000 | 55.0 | 8000 | 180 | 0.67 |
| 421WC-12 | 19 | 3/4 | -12 | 19.1 | 29.0 | 8.6 | 1250 | 35.0 | 5075 | 240 | 0.95 |
| 421WC-16 | 25 | 1 | -16 | 25.4 | 37.0 | 6.9 | 1000 | 28.0 | 4000 | 300 | 1.31 |

The combination of high temperature and high pressure could reduce the hose life.

422

WORLDWIDE *No-Skive*
ISO 1436 1SN

Primary Applications

General medium pressure hydraulic applications

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

ISO 1436 – EN 853 1SN – SAE 100R1AT

Construction

Tube: Nitrile (NBR)
Reinforcement: One high-tensile steel wire braid
Cover: Synthetic rubber

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C
Water max. +85 °C



- Meets ISO 1436
- Worldwide availability
- Worldwide consistent appearance, part number and functionality
- *No-Skive* thin cover hose construction
- Nitrile (NBR) inner tube
– extended fluid compatibility

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|-----------------------|------|---------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure | | min. burst pressure | | | |
| | | | | | | MPa | psi | MPa | psi | | |
| 422-4 | 6 | 1/4 | -4 | 6.4 | 13.4 | 22.5 | 3250 | 90.0 | 13000 | 100 | 0.24 |
| 422-5 | 8 | 5/16 | -5 | 7.9 | 15.0 | 21.5 | 3125 | 86.0 | 12500 | 115 | 0.27 |
| 422-6 | 10 | 3/8 | -6 | 9.5 | 17.4 | 18.0 | 2600 | 72.0 | 10400 | 130 | 0.34 |
| 422-8 | 12 | 1/2 | -8 | 12.7 | 20.7 | 16.0 | 2325 | 64.0 | 9300 | 180 | 0.43 |
| 422-10 | 16 | 5/8 | -10 | 15.9 | 23.9 | 13.0 | 1875 | 52.0 | 7500 | 200 | 0.49 |
| 422-12 | 19 | 3/4 | -12 | 19.1 | 27.8 | 10.5 | 1525 | 42.0 | 6100 | 240 | 0.63 |
| 422-16 | 25 | 1 | -16 | 25.4 | 35.8 | 8.8 | 1275 | 35.0 | 5075 | 300 | 0.94 |
| 422-20 | 31 | 1 1/4 | -20 | 31.8 | 44.8 | 6.3 | 900 | 25.2 | 3600 | 420 | 1.19 |
| 422-24 | 38 | 1 1/2 | -24 | 38.1 | 51.1 | 5.0 | 725 | 20.0 | 2900 | 500 | 1.49 |
| 422-32 | 51 | 2 | -32 | 50.8 | 64.7 | 4.0 | 575 | 16.0 | 2300 | 630 | 2.23 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example

Parker 422/421-8 Worldwide WP 16,0 MPa (2325 PSI) ISO 1436-1/1SN / SAE 100R1 12,5 mm (1/2) X 1W 2Q05 MADE

424

No-Skive

Phosphate ester resistant hose

Primary Applications

Aerospace, foundries, steel mills:
Medium pressure hydraulic applications with phosphate ester fluids

Applicable Specifications

Parker specification

Restrictions

Do not allow tube to contact any petroleum base fluids.
Use liquid soap as hose lubricant.

Construction

Tube: EPDM synthetic rubber
Reinforcement: One high-tensile steel wire braid
Cover: Phosphate ester and weather resistant, green, EPDM synthetic rubber cover

Temperature Range -40 °C up to +80 °C

Exception: Air max. +70 °C
Water, water glycol fluids .. max. +85 °C



- *No-Skive* thin cover hose construction
- SAE 100R1 pressure rating
- Phosphate ester and weather resistant, green, EPDM synthetic rubber cover

Recommended Fluids

Phosphate ester based hydraulic fluids, water-glycol based fluids, air and water.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

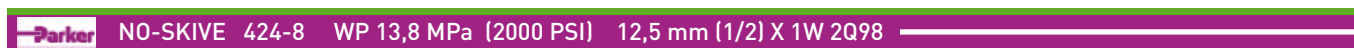
Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|------------------------------|------|----------------------------|------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| 424-16 | 25 | 1 | -16 | 25.4 | 36.0 | 6.9 | 1000 | 28.0 | 4000 | 300 | 0.94 |
| 424-20 | 31 | 1 1/4 | -20 | 31.8 | 45.0 | 4.3 | 625 | 17.0 | 2500 | 420 | 1.19 |
| 424-24 | 38 | 1 1/2 | -24 | 38.1 | 51.0 | 3.5 | 500 | 14.0 | 2000 | 500 | 1.49 |
| 424-32 | 51 | 2 | -32 | 50.8 | 64.6 | 2.4 | 375 | 10.0 | 1500 | 630 | 2.23 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



426

No-Skive

SAE 100R1AT high temperature

Primary Applications

Medium pressure hydraulic applications at high temperature

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

SAE 100 R1AT

Construction

Tube: PKR synthetic rubber
Reinforcement: One high-tensile steel wire braid
Cover: Blue synthetic rubber

Temperature Range -46 °C up to +150 °C

Exception: Air max. +70 °C
Water, water glycol fluids .. max. +85 °C



- *No-Skive* thin cover hose construction
- SAE 100R1 pressure rating
- Ideal for high temperature applications

Recommended Fluids

Petroleum hydraulic fluids, lubricating oils, water-glycol based fluids, air and water.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|-----------------------|------|---------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure | | min. burst pressure | | | |
| | | | | | | MPa | psi | MPa | psi | | |
| 426-4-RL | 6 | 1/4 | -4 | 6.4 | 13.4 | 19.2 | 2750 | 77.0 | 11000 | 100 | 0.24 |
| 426-6-RL | 10 | 3/8 | -6 | 9.5 | 17.4 | 15.7 | 2250 | 63.0 | 9000 | 125 | 0.34 |
| 426-8-RL | 12 | 1/2 | -8 | 12.7 | 20.7 | 14.0 | 2000 | 56.0 | 8000 | 180 | 0.43 |
| 426-10-RL | 16 | 5/8 | -10 | 15.9 | 23.9 | 10.5 | 1500 | 42.0 | 6000 | 200 | 0.49 |
| 426-12-RL | 19 | 3/4 | -12 | 19.1 | 27.8 | 8.7 | 1250 | 35.0 | 5075 | 240 | 0.65 |
| 426-16-RL | 25 | 1 | -16 | 25.4 | 35.8 | 7.0 | 1000 | 28.0 | 4000 | 300 | 0.98 |
| 426-20 | 31 | 1 1/4 | -20 | 31.8 | 45.0 | 4.3 | 625 | 17.2 | 2500 | 420 | 1.40 |
| 426-24 | 38 | 1 1/2 | -24 | 38.1 | 51.0 | 3.5 | 500 | 14.0 | 2000 | 500 | 1.46 |
| 426-32 | 51 | 2 | -32 | 50.8 | 64.0 | 2.6 | 375 | 10.4 | 1500 | 630 | 2.18 |

The combination of high temperature and high pressure could reduce the hose life.
RL = only available on reels.

Hose layline example



436

No-Skive Compact

SAE 100R16 high temperature

Primary Applications

Medium pressure hydraulic applications at high temperature

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

SAE 100R16

Construction

- Tube: PKR synthetic rubber
- Reinforcement: Two high-tensile steel wire braids
- Cover: MSHA approved blue synthetic rubber

Temperature Range -48 °C up to +150 °C

- Exception: Air max. +70 °C
- Water, water glycol fluids .. max. +85 °C



- **No-Skive** thin cover hose construction
- Compact hose construction with tight bend radius
- MSHA approved
- Ideal for high temperature applications

Recommended Fluids

Petroleum hydraulic fluids, lubricating oils, water-glycol based fluids, air and water.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|---------------|-----------|------|------|------|-----------------|-----------------------|------|---------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure | | min. burst pressure | | | |
| | | | | | | MPa | psi | MPa | psi | | |
| 436-6-BLU-RL | 10 | 3/8 | -6 | 9.5 | 17.0 | 27.5 | 4000 | 110.0 | 16000 | 65 | 0.42 |
| 436-8-BLU-RL | 12 | 1/2 | -8 | 12.7 | 20.0 | 24.0 | 3500 | 96.0 | 14000 | 90 | 0.51 |
| 436-10-BLU-RL | 16 | 5/8 | -10 | 15.9 | 24.0 | 19.0 | 2750 | 76.0 | 11000 | 100 | 0.66 |
| 436-12-BLU-RL | 19 | 3/4 | -12 | 19.1 | 28.0 | 15.5 | 2250 | 62.0 | 9000 | 120 | 0.80 |
| 436-16-BLU-RL | 25 | 1 | -16 | 25.4 | 36.0 | 13.8 | 2000 | 55.0 | 8000 | 150 | 1.22 |

The combination of high temperature and high pressure could reduce the hose life.
RL = only available on reels.

Hose layline example



441

Elite No-Skive

ISO 11237 Type R16 – SAE 100R16

Primary Applications

Many industrial and mobile applications, with typical usage seen on agricultural machines or in power steering circuits

Applicable Specifications

ISO 11237 Type R16 – SAE 100R16

Construction

Tube: Synthetic rubber
Reinforcement: One high-tensile steel wire braid
Cover: Synthetic rubber

Temperature Range -40 °C up to +125 °C

Exception: Air max. +70 °C
Water max. +85 °C



- *No-Skive* hose construction
- One wire braid construction – two wire braid performance
- +125 °C working temperature
- Suitable with both 46 & 48 series fittings

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|------|------|------|-----------------|-----------------------|------|---------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure | | min. burst pressure | | | |
| | | | | | | MPa | psi | MPa | psi | | |
| 441-4 | 6 | 1/4 | -4 | 6.4 | 13.4 | 35.0 | 5000 | 140.0 | 20000 | 50 | 0.27 |
| 441-5 | 8 | 5/16 | -5 | 7.9 | 15.0 | 29.7 | 4250 | 118.8 | 17000 | 55 | 0.32 |
| 441-6 | 10 | 3/8 | -6 | 9.5 | 17.4 | 28.0 | 4000 | 112.0 | 16000 | 65 | 0.42 |
| 441-8 | 12 | 1/2 | -8 | 12.7 | 20.7 | 24.5 | 3500 | 98.0 | 14000 | 90 | 0.50 |
| 441-10 | 16 | 5/8 | -10 | 15.9 | 23.8 | 19.2 | 2750 | 76.8 | 11000 | 100 | 0.65 |
| 441-12 | 19 | 3/4 | -12 | 19.1 | 27.8 | 15.7 | 2250 | 62.8 | 9000 | 120 | 0.80 |
| 441-16 | 25 | 1 | -16 | 25.4 | 35.8 | 14.0 | 2000 | 56.0 | 8000 | 150 | 1.22 |

The combination of high temperature and high pressure could reduce the hose life.
Also available on reels up to size -12 under part number 441-xx-RL

Hose layline example



441RH

No-Skive Compact

Fire-retardant cover

Primary Applications

General medium-pressure hydraulic and pneumatic systems as well as water and oil cooling circuits

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

Parker specification; Working pressure to SAE 100R2;
Bend radius to SAE 100R16

Construction

Tube: Synthetic rubber
Reinforcement: One high-tensile steel wire braid
Cover: Fire retardant synthetic rubber

Temperature Range -40 °C up to +125 °C

Exception: Air max. +70 °C
Water max. +85 °C



- *No-Skive* hose construction
- One wire braid construction – two wire braid performance
- +125 °C working temperature
- Suitable with 46 & 48 series fittings
- Fire-retardant cover
- Railway approved as follow:
European Standard EN45545 + ISO15540: HL2
(without the need of FS-F-Fire Sleeve)

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air and gas above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| 441RH-4 | 6 | 1/4 | -4 | 6.4 | 13.4 | 35.0 | 5000 | 140.0 | 20000 | 50 | 0.27 |
| 441RH-5 | 8 | 5/16 | -5 | 7.9 | 15.0 | 29.7 | 4250 | 118.8 | 17000 | 55 | 0.32 |
| 441RH-6 | 10 | 3/8 | -6 | 9.5 | 17.4 | 28.0 | 4000 | 112.0 | 16000 | 65 | 0.42 |
| 441RH-8 | 12 | 1/2 | -8 | 12.7 | 20.7 | 24.5 | 3500 | 98.0 | 14000 | 90 | 0.50 |
| 441RH-10 | 16 | 5/8 | -10 | 15.9 | 23.8 | 19.2 | 2750 | 76.8 | 11000 | 100 | 0.65 |
| 441RH-12 | 19 | 3/4 | -12 | 19.1 | 27.8 | 15.7 | 2250 | 62.8 | 9000 | 120 | 0.80 |
| 441RH-16 | 25 | 1 | -16 | 25.4 | 35.8 | 14.0 | 2000 | 56.0 | 8000 | 150 | 1.22 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



451

No-Skive

ISO 11237 Type R17 – SAE 100R17



- *No-Skive* thin cover hose construction
- Constant working pressure of 21.0 Mpa
- Nitrile (NBR) inner tube – extended fluid compatibility

Primary Applications

General medium pressure hydraulic applications

Applicable Specifications

ISO 11237 Type R17 – SAE 100R17

Construction

Tube: Nitrile (NBR)
Reinforcement: One or two high-tensile steel wire braids
Cover: Synthetic rubber

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C
Water max. +85 °C

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| 451-4 | 6 | 1/4 | -4 | 6.4 | 13.4 | 21.0 | 3000 | 84.0 | 12000 | 50 | 0.24 |
| 451-6 | 10 | 3/8 | -6 | 9.5 | 17.2 | 21.0 | 3000 | 84.0 | 12000 | 65 | 0.34 |
| 451-8 | 12 | 1/2 | -8 | 12.7 | 20.4 | 21.0 | 3000 | 84.0 | 12000 | 90 | 0.52 |
| 451-10 | 16 | 5/8 | -10 | 15.9 | 23.8 | 21.0 | 3000 | 84.0 | 12000 | 100 | 0.66 |
| 451-12 | 19 | 3/4 | -12 | 19.1 | 27.8 | 21.0 | 3000 | 84.0 | 12000 | 120 | 0.86 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



451TC

No-Skive Tough Cover

ISO 11237 Type R17 – SAE 100R17

Primary Applications

General medium pressure hydraulic applications where higher abrasion resistance is required.

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

ISO 11237 Type R17 – SAE 100R17

Construction

Tube: Nitrile (NBR)
Reinforcement: One or two high-tensile steel wire braids
Cover: MSHA approved synthetic rubber

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C
Water max. +85 °C



- **No-Skive** thin cover hose construction
- Constant working pressure of 21.0 MPa
- Highly abrasion resistant **TOUGH COVER**
- MSHA approved
- Hose is suitable for temporary immersion in mineral oil up to 70 °C with frequent inspections
- Nitrile (NBR) inner tube – extended fluid compatibility

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| 451TC-4 | 6 | 1/4 | -4 | 6.4 | 13.4 | 21.0 | 3000 | 84.0 | 12000 | 50 | 0.24 |
| 451TC-6 | 10 | 3/8 | -6 | 9.5 | 17.2 | 21.0 | 3000 | 84.0 | 12000 | 65 | 0.34 |
| 451TC-8 | 12 | 1/2 | -8 | 12.7 | 20.4 | 21.0 | 3000 | 84.0 | 12000 | 90 | 0.52 |
| 451TC-10 | 16 | 5/8 | -10 | 15.9 | 23.8 | 21.0 | 3000 | 84.0 | 12000 | 100 | 0.66 |
| 451TC-12 | 19 | 3/4 | -12 | 19.1 | 27.8 | 21.0 | 3000 | 84.0 | 12000 | 120 | 0.86 |
| 451TC-16 | 25 | 1 | -16 | 25.4 | 35.4 | 21.0 | 3000 | 84.0 | 12000 | 150 | 1.17 |

Replace the hose when any deformation or damage on the hose cover are visible.
The combination of high temperature and high pressure could reduce the hose life.
Also available on reels under part number 451-xx-RL

Hose layline example

Parker TOUGH COVER 451TC-10 WP 21,0 MPa (3000 PSI) MSHA IC-40/26 | • SAE100R17-10 16 mm

461LT

Elite No-Skive Compact

EN 857 2SC low temperature



- *No-Skive* thin cover hose construction
- Excellent ozone resistance
- Ideal for low temperature working conditions (-50 °C)

Primary Applications

Mobile applications in low temperature environments:
Forestry machines, refrigerated warehouses

Applicable Specifications

EN 857 2SC

Construction

Tube: Synthetic rubber
Reinforcement: Two high-tensile steel wire braids
Cover: Synthetic rubber

Temperature Range -50 °C up to +100 °C

Exception: Air max. +70 °C
Water max. +85 °C

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| 461LT-4 | 6 | 1/4 | -4 | 6.4 | 13 | 42.5 | 6160 | 170.0 | 24640 | 75 | 0.30 |
| 461LT-5 | 8 | 5/16 | -5 | 7.9 | 15 | 40.0 | 5800 | 160.0 | 23200 | 85 | 0.35 |
| 461LT-6 | 10 | 3/8 | -6 | 9.5 | 17 | 35.0 | 5075 | 140.0 | 20300 | 90 | 0.42 |
| 461LT-8 | 12 | 1/2 | -8 | 12.7 | 21 | 31.0 | 4495 | 124.0 | 17980 | 130 | 0.52 |
| 461LT-10 | 16 | 5/8 | -10 | 15.9 | 24 | 28.0 | 4060 | 112.0 | 16240 | 160 | 0.66 |
| 461LT-12 | 19 | 3/4 | -12 | 19.1 | 28 | 28.0 | 4060 | 112.0 | 16240 | 195 | 0.86 |
| 461LT-16 | 25 | 1 | -16 | 25.4 | 35 | 21.0 | 3045 | 84.0 | 12180 | 250 | 1.17 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



462

Elite No-Skive Compact

Exceeds EN 857-2SC – ISO 11237 Type 2SC

Primary Applications

Demanding medium pressure hydraulic applications in all markets

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

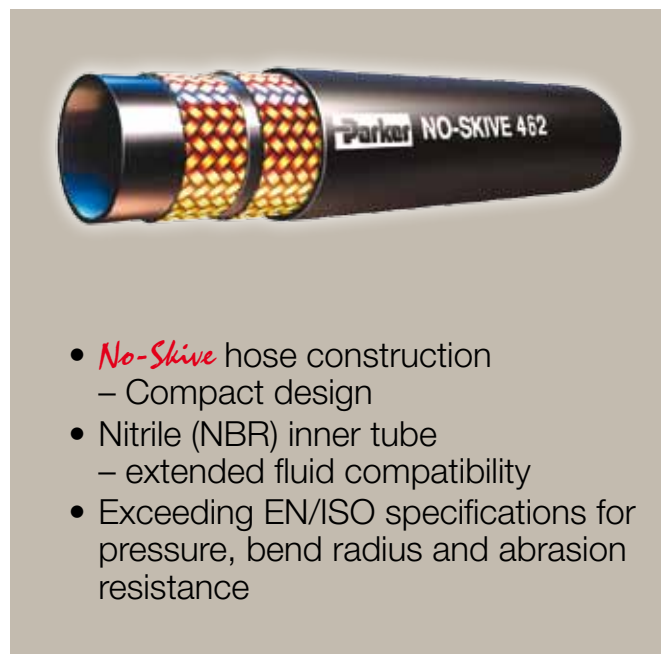
Exceeds EN 857-2SC – ISO 11237 Type 2SC

Construction

- Tube: Nitrile (NBR)
- Reinforcement: Two high-tensile steel wire braids
- Cover: Synthetic rubber

Temperature Range -40 °C up to +100 °C

- Exception: Air max. +70 °C
- Water max. +85 °C



- **No-Skive** hose construction – Compact design
- Nitrile (NBR) inner tube – extended fluid compatibility
- Exceeding EN/ISO specifications for pressure, bend radius and abrasion resistance

Recommended Fluids

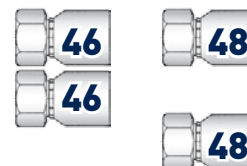
Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked. Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series

Size -4 up to -16

462-20-WR

462-20



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|-----------------------|------|---------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure | | min. burst pressure | | | |
| | | | | | | MPa | psi | MPa | psi | | |
| 462-4 | 6 | 1/4 | -4 | 6.4 | 13.4 | 42.5 | 6160 | 170.0 | 24640 | 75 | 0.30 |
| 462-5 | 8 | 5/16 | -5 | 7.9 | 15.0 | 40.0 | 5800 | 160.0 | 23200 | 85 | 0.35 |
| 462-6 | 10 | 3/8 | -6 | 9.5 | 17.2 | 35.0 | 5075 | 140.0 | 20300 | 90 | 0.42 |
| 462-8 | 12 | 1/2 | -8 | 12.7 | 20.4 | 31.0 | 4495 | 124.0 | 17980 | 130 | 0.52 |
| 462-10 | 16 | 5/8 | -10 | 15.9 | 23.9 | 28.0 | 4060 | 112.0 | 16240 | 160 | 0.66 |
| 462-12 | 19 | 3/4 | -12 | 19.1 | 27.7 | 28.0 | 4060 | 112.0 | 16240 | 195 | 0.86 |
| 462-16 | 25 | 1 | -16 | 25.4 | 35.4 | 21.0 | 3045 | 84.0 | 12180 | 250 | 1.17 |
| 462-20-WR * | 31 | 1 1/4 | -20 | 31.8 | 45.1 | 17.2 | 2495 | 68.8 | 9980 | 335 | 1.80 |
| 462-20 ** | 31 | 1 1/4 | -20 | 31.8 | 45.1 | 17.2 | 2495 | 68.8 | 9980 | 335 | 1.80 |

The combination of high temperature and high pressure could reduce the hose life. From size -4 to -16, smooth cover, both 462-20-WR and 462-20 wrapped cover. Also available in reels up to size -12 under part number 462-xx-RL.

* 462-20-WR only with fitting series 46

** 462-20 only with fitting series 48

Hose layline example



462CLF

Elite No-Skive Chlorine Free

Exceeds EN 857-2SC – ISO 11237 Type 2SC

Primary Applications

Demanding medium pressure hydraulic applications in all markets

Applicable Specifications

Exceeds EN 857-2SC – ISO 11237 Type 2SC

Construction

Tube: Chlorine free synthetic rubber
Reinforcement: Two high-tensile steel wire braids
Cover: Chlorine free synthetic rubber

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C

Water max. +85 °C



- *No-Skive* hose construction – Compact design
- Exceeding EN/ISO specifications for pressure, bend radius and abrasion resistance
- Chlorine free compounds

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series

Size -4 up to -16

Size -20



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| 462CLF-4 | 6 | 1/4 | -4 | 6.4 | 13.4 | 42.5 | 6160 | 170.0 | 24640 | 75 | 0.30 |
| 462CLF-5 | 8 | 5/16 | -5 | 7.9 | 15.0 | 40.0 | 5800 | 160.0 | 23200 | 85 | 0.35 |
| 462CLF-6 | 10 | 3/8 | -6 | 9.5 | 17.2 | 35.0 | 5075 | 140.0 | 20300 | 90 | 0.42 |
| 462CLF-8 | 12 | 1/2 | -8 | 12.7 | 20.4 | 31.0 | 4495 | 124.0 | 17980 | 130 | 0.52 |
| 462CLF-10 | 16 | 5/8 | -10 | 15.9 | 23.9 | 28.0 | 4060 | 112.0 | 16240 | 160 | 0.66 |
| 462CLF-12 | 19 | 3/4 | -12 | 19.1 | 27.7 | 28.0 | 4060 | 112.0 | 16240 | 195 | 0.86 |
| 462CLF-16 | 25 | 1 | -16 | 25.4 | 35.4 | 21.0 | 3045 | 84.0 | 12180 | 250 | 1.17 |
| 462CLF-20 * | 31 | 1 1/4 | -20 | 31.8 | 45.1 | 17.2 | 2495 | 68.8 | 9980 | 335 | 1.80 |

The combination of high temperature and high pressure could reduce the hose life.

From size -4 to -16, smooth. For size -20, wrapped.

* 462CLF-20 only with 48 series

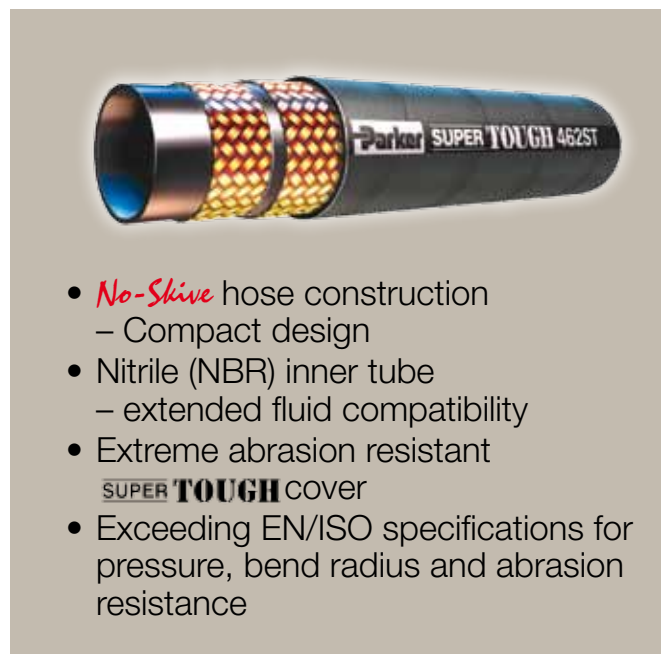
Hose layline example



462ST

Elite No-Skive Super Tough Compact

EN 857 2SC – ISO 11237 Type 2SC



- **No-Skive** hose construction – Compact design
- Nitrile (NBR) inner tube – extended fluid compatibility
- Extreme abrasion resistant **SUPER TOUGH** cover
- Exceeding EN/ISO specifications for pressure, bend radius and abrasion resistance

Primary Applications

Mobile market: Medium pressure hydraulic applications with extremely high abrasion risks

Applicable Specifications

EN 857 2SC – ISO 11237 Type 2SC

Construction

Tube: Nitrile (NBR)
Reinforcement: Two high-tensile steel wire braids
Cover: Synthetic rubber with a special polyethylene coating

Temperature Range

..... -40 °C up to +100 °C
Exception: Air max. +70 °C
Water max. +85 °C

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.
Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series

Size -4 up to -16
Size -20



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| 462ST-4 | 6 | 1/4 | -4 | 6.4 | 13.4 | 42.5 | 6160 | 170.0 | 24640 | 75 | 0.30 |
| 462ST-5 | 8 | 5/16 | -5 | 7.9 | 15.0 | 40.0 | 5800 | 160.0 | 23200 | 85 | 0.35 |
| 462ST-6 | 10 | 3/8 | -6 | 9.5 | 17.2 | 35.0 | 5075 | 140.0 | 20300 | 90 | 0.42 |
| 462ST-8 | 12 | 1/2 | -8 | 12.7 | 20.4 | 31.0 | 4495 | 124.0 | 17980 | 125 | 0.52 |
| 462ST-10 | 16 | 5/8 | -10 | 15.9 | 23.9 | 28.0 | 4060 | 112.0 | 16240 | 160 | 0.66 |
| 462ST-12 | 19 | 3/4 | -12 | 19.1 | 27.7 | 28.0 | 4060 | 112.0 | 16240 | 195 | 0.86 |
| 462ST-16 | 25 | 1 | -16 | 25.4 | 35.4 | 21.0 | 3045 | 84.0 | 12180 | 250 | 1.17 |
| 462ST-20 * | 31 | 1 1/4 | -20 | 31.8 | 45.1 | 17.2 | 2495 | 68.8 | 9980 | 335 | 1.80 |

The combination of high temperature and high pressure could reduce the hose life.
* 462ST-20 only with fitting series 48

Hose layline example

Parker Elite SUPER TOUGH 462ST-6 WP 35,0 MPa (5075 PSI) | • • 10 mm (3/8") ISO11237/EN857 2SC 10 Made

462TC

Elite No-Skive Compact Tough Cover

Exceeds EN 857-2SC – ISO 11237 Type 2SC

Primary Applications

Demanding medium pressure hydraulic applications in all markets

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

Exceeds EN 857-2SC – ISO 11237 Type 2SC

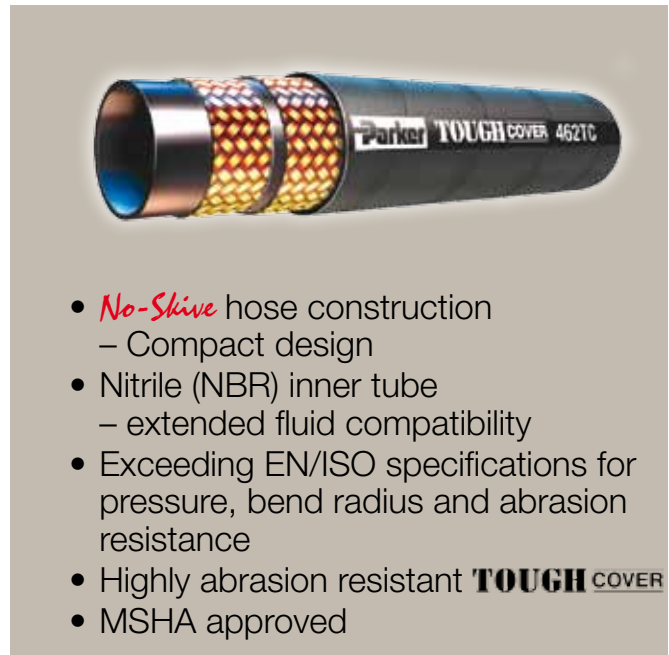
Construction

Tube: Nitrile (NBR)
Reinforcement: Two high-tensile steel wire braids
Cover: MSHA approved synthetic rubber

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C

Water max. +85 °C



- **No-Skive** hose construction – Compact design
- Nitrile (NBR) inner tube – extended fluid compatibility
- Exceeding EN/ISO specifications for pressure, bend radius and abrasion resistance
- Highly abrasion resistant **TOUGH COVER**
- MSHA approved

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series

Size -4 up to -16



Size -20 up to -32



Size -40 up to -48

2piece 48

| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| 462TC-4 | 6 | 1/4 | -4 | 6.4 | 13.4 | 42.5 | 6160 | 170.0 | 24640 | 75 | 0.30 |
| 462TC-5 | 8 | 5/16 | -5 | 7.9 | 15.0 | 40.0 | 5800 | 160.0 | 23200 | 85 | 0.35 |
| 462TC-6 | 10 | 3/8 | -6 | 9.5 | 17.2 | 35.0 | 5075 | 140.0 | 20300 | 90 | 0.42 |
| 462TC-8 | 12 | 1/2 | -8 | 12.7 | 20.4 | 31.0 | 4495 | 124.0 | 17980 | 130 | 0.52 |
| 462TC-10 | 16 | 5/8 | -10 | 15.9 | 23.9 | 28.0 | 4060 | 112.0 | 16240 | 160 | 0.66 |
| 462TC-12 | 19 | 3/4 | -12 | 19.1 | 27.7 | 28.0 | 4060 | 112.0 | 16240 | 195 | 0.86 |
| 462TC-16 | 25 | 1 | -16 | 25.4 | 35.4 | 21.0 | 3045 | 84.0 | 12180 | 250 | 1.17 |
| 462TC-20 * | 31 | 1 1/4 | -20 | 31.8 | 45.1 | 17.2 | 2495 | 68.8 | 9980 | 335 | 1.80 |
| 462TC-24 * | 38 | 1 1/2 | -24 | 38.1 | 52.0 | 14.6 | 2118 | 58.4 | 8472 | 400 | 2.20 |
| 462TC-32 * | 51 | 2 | -32 | 50.8 | 64.0 | 11.2 | 1624 | 44.8 | 6496 | 500 | 2.90 |
| 462TC-40 ** | 63 | 2 1/2 | -40 | 63.5 | 76.0 | 7.0 | 1015 | 28.0 | 4060 | 760 | 3.00 |
| 462TC-48 ** | 76 | 3 | -48 | 76.2 | 87.5 | 7.0 | 1015 | 28.0 | 4060 | 760 | 3.30 |

Part Number without a suffix: the hose cover has a smooth appearance. Part Number with a suffix (WR): the hose cover has a wrapped appearance. The combination of high temperature and high pressure could reduce the hose life.

* Size -20 up to -32 only with fitting series 48

** Size -40 up to -48 only with 2piece fitting series 48

Hose layline example



463

No-Skive Compact

High pressure water cleaning applications



- 2 wire *No-Skive* Compact design
- For water up to +120 °C constant temperature
- Suitable with *No-Skive* 46 series fittings

Primary Applications

High pressure water cleaners

Construction

- Tube: Synthetic rubber
- Reinforcement: Two high-tensile steel wire braids
- Cover: Synthetic rubber in black or blue colour

Temperature Rangewater max. +120 °C

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| 463-5 | 8 | 5/16 | -5 | 7.9 | 15.0 | 40.0 | 5800 | 120.0 | 17400 | 75 | 0.31 |
| 463-5-BLU | 8 | 5/16 | -5 | 7.9 | 15.0 | 40.0 | 5800 | 120.0 | 17400 | 75 | 0.31 |
| 463-6 | 10 | 3/8 | -6 | 9.5 | 17.4 | 40.0 | 5800 | 120.0 | 17400 | 90 | 0.38 |
| 463-6-BLU | 10 | 3/8 | -6 | 9.5 | 17.4 | 40.0 | 5800 | 120.0 | 17400 | 90 | 0.38 |
| 463-8 | 12 | 1/2 | -8 | 12.7 | 20.6 | 35.0 | 5075 | 105.0 | 15225 | 110 | 0.48 |
| 463-8-BLU | 12 | 1/2 | -8 | 12.7 | 20.6 | 35.0 | 5075 | 105.0 | 15225 | 110 | 0.48 |

WKS rubber hand grip for No-Skive high pressure water cleaning hoses can be found on page Eb-16.
The combination of high temperature and high pressure could reduce the hose life.
Also available on reels under part number 463-xx-RL

Hose layline example



471TC / 472TC

No-Skive

EN 857 2SC – ISO 11237 Type 2SC

Primary Applications

Small bending radii demanding medium pressure hydraulic applications

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

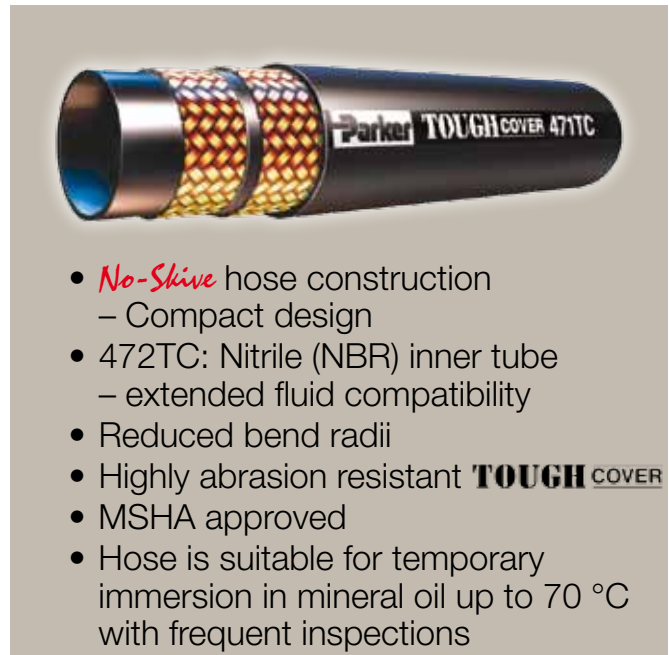
EN 857 2SC – ISO 11237 Type 2SC

Construction

Tube 471TC: Synthetic rubber
Tube 472TC: Nitrile (NBR)
Reinforcement: Two high-tensile steel wire braids
Cover: MSHA approved synthetic rubber

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C
Water max. +85 °C



- *No-Skive* hose construction – Compact design
- 472TC: Nitrile (NBR) inner tube – extended fluid compatibility
- Reduced bend radii
- Highly abrasion resistant **TOUGH COVER**
- MSHA approved
- Hose is suitable for temporary immersion in mineral oil up to 70 °C with frequent inspections

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

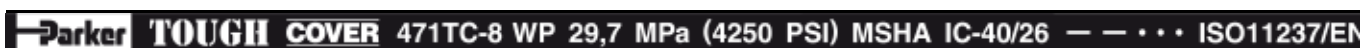
Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| 471TC-4 | 6 | 1/4 | -4 | 6.4 | 13 | 40.0 | 5800 | 160.0 | 23200 | 50 | 0.30 |
| 471TC-5 | 8 | 5/16 | -5 | 7.9 | 15 | 36.0 | 5250 | 144.0 | 21000 | 55 | 0.35 |
| 471TC-6 | 10 | 3/8 | -6 | 9.5 | 17 | 35.0 | 5075 | 140.0 | 20000 | 65 | 0.42 |
| 471TC-8 | 12 | 1/2 | -8 | 12.7 | 20 | 29.7 | 4250 | 119.0 | 17000 | 90 | 0.52 |
| 471TC-10 | 16 | 5/8 | -10 | 15.9 | 24 | 25.0 | 3625 | 100.0 | 14500 | 100 | 0.66 |
| 471TC-12 | 19 | 3/4 | -12 | 19.1 | 28 | 21.5 | 3125 | 86.0 | 12500 | 120 | 0.86 |
| 471TC-16 | 25 | 1 | -16 | 25.4 | 35 | 17.5 | 2500 | 70.0 | 10000 | 150 | 1.17 |
| 472TC-20 | 31 | 1 1/4 | -20 | 31.8 | 45 | 15.7 | 2250 | 63.0 | 9000 | 210 | 2.01 |
| 472TC-24 | 38 | 1 1/2 | -24 | 38.1 | 51 | 12.5 | 1800 | 50.0 | 7200 | 250 | 2.16 |
| 472TC-32 | 51 | 2 | -32 | 50.8 | 65 | 9.0 | 1300 | 36.0 | 5200 | 315 | 2.90 |

Replace the hose when any deformation or damages on the hose cover are visible. The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



477

Elite No-Skive PowerLift

2 wire braided

Primary Applications

For truck cranes and lifting equipment such as fork lift trucks, aerial lifts, cranes, telehandlers, lifting platforms.

Restrictions

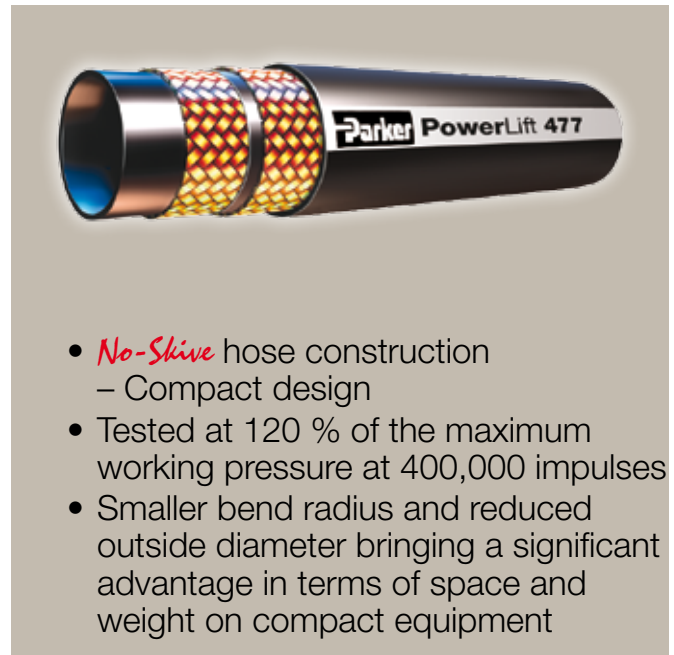
Should not be used for high impulse hydraulic applications to replace spiral construction hoses.

Construction

Tube: Nitrile (NBR)
Reinforcement: Two high-tensile steel wire braids
Cover: Synthetic rubber

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C
Water max. +85 °C



- **No-Skive** hose construction – Compact design
- Tested at 120 % of the maximum working pressure at 400,000 impulses
- Smaller bend radius and reduced outside diameter bringing a significant advantage in terms of space and weight on compact equipment

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| 477-4 | 6 | 1/4 | -4 | 6.4 | 13.1 | 45.0 | 6500 | 180.0 | 26000 | 65 | 0.32 |
| 477-5 | 8 | 5/16 | -5 | 7.9 | 14.9 | 42.5 | 6100 | 170.0 | 24400 | 70 | 0.35 |
| 477-6 | 10 | 3/8 | -6 | 9.5 | 17.2 | 40.0 | 5800 | 160.0 | 23200 | 75 | 0.42 |
| 477-8 | 12 | 1/2 | -8 | 12.7 | 20.4 | 38.0 | 5500 | 152.0 | 22000 | 105 | 0.55 |
| 477-10 | 16 | 5/8 | -10 | 15.9 | 23.4 | 35.0 | 5000 | 140.0 | 20000 | 160 | 0.65 |
| 477-12 | 19 | 3/4 | -12 | 19.1 | 27.2 | 35.0 | 5000 | 140.0 | 20000 | 200 | 1.10 |
| 477-16 | 25 | 1 | -16 | 25.4 | 34.8 | 25.0 | 3600 | 100.0 | 14400 | 250 | 1.30 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



477ST

Elite No-Skive PowerLift

2 wire braided

Primary Applications

For truck cranes and lifting equipment such as fork lift trucks, aerial lifts, cranes, telehandlers, lifting platforms.

Restrictions

Should not be used for high impulse hydraulic applications to replace spiral construction hoses.

Construction

Tube: Nitrile (NBR)
Reinforcement: Two high-tensile steel wire braids
Cover: Synthetic rubber with a special polyethylene coating

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C
Water max. +85 °C



- *No-Skive* hose construction – Compact design
- Extreme abrasion resistant **SUPER TOUGH** cover
- Tested at 120 % of the maximum working pressure at 400,000 impulses
- Smaller bend radius and reduced outside diameter

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|------|------|------|-----------------|-----------------------|------|---------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure | | min. burst pressure | | | |
| | | | | | | MPa | psi | MPa | psi | | |
| 477ST-4 | 6 | 1/4 | -4 | 6.4 | 13.1 | 45.0 | 6500 | 180.0 | 26000 | 75 | 0.30 |
| 477ST-5 | 8 | 5/16 | -5 | 7.9 | 14.9 | 42.5 | 6100 | 170.0 | 24400 | 85 | 0.35 |
| 477ST-6 | 10 | 3/8 | -6 | 9.5 | 17.2 | 40.0 | 5800 | 160.0 | 23200 | 90 | 0.42 |
| 477ST-8 | 12 | 1/2 | -8 | 12.7 | 20.4 | 38.0 | 5500 | 152.0 | 22000 | 130 | 0.55 |
| 477ST-10 | 16 | 5/8 | -10 | 15.9 | 23.4 | 35.0 | 5000 | 140.0 | 20000 | 250 | 0.65 |
| 477ST-12 | 19 | 3/4 | -12 | 19.1 | 27.2 | 35.0 | 5000 | 140.0 | 20000 | 310 | 1.20 |
| 477ST-16 | 25 | 1 | -16 | 25.4 | 34.8 | 25.0 | 3600 | 100.0 | 14400 | 250 | 1.30 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



492

Elite No-Skive Compact

EN 857 1SC – ISO 11237 Type 1SC



- **No-Skive** hose construction – Compact design
- Nitrile (NBR) inner tube – extended fluid compatibility
- Exceeding EN/ISO specifications for pressure, bend radius and abrasion resistance

Primary Applications

Demanding medium pressure hydraulic applications

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

EN 857 1SC – ISO 11237 Type 1SC

Construction

- Tube: Nitrile (NBR)
- Reinforcement: One high-tensile steel wire braid
- Cover: Synthetic rubber

Temperature Range -40 °C up to +100 °C

- Exception: Air max. +70 °C
- Water max. +85 °C

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| | | | | | | | | | | | |
| 492-4 | 6 | 1/4 | -4 | 6.4 | 11.5 | 28.0 | 4060 | 112.0 | 16240 | 75 | 0.18 |
| 492-5 | 8 | 5/16 | -5 | 7.9 | 13.6 | 25.0 | 3625 | 100.0 | 14500 | 85 | 0.21 |
| 492-6 | 10 | 3/8 | -6 | 9.5 | 15.5 | 22.5 | 3260 | 90.0 | 13050 | 90 | 0.25 |
| 492-8 | 12 | 1/2 | -8 | 12.7 | 18.9 | 19.0 | 2755 | 76.0 | 11020 | 130 | 0.33 |
| 492-10 | 16 | 5/8 | -10 | 15.9 | 22.2 | 15.0 | 2175 | 60.0 | 8700 | 150 | 0.41 |
| 492-12 | 19 | 3/4 | -12 | 19.1 | 26.0 | 15.0 | 2175 | 60.0 | 8700 | 180 | 0.56 |
| 492-16 | 25 | 1 | -16 | 25.4 | 33.3 | 11.0 | 1595 | 44.0 | 6380 | 230 | 0.75 |
| 492-20-WR | 31 | 1 1/4 | -20 | 31.8 | 40.0 | 7.5 | 1085 | 30.0 | 4350 | 335 | 0.93 |

Part Number without a suffix: the hose cover has a smooth appearance. Part Number with a suffix (WR): the hose cover has a wrapped appearance. The combination of high temperature and high pressure could reduce the hose life. Also available in reels up to size -16 under part number 492-xx-RL

Hose layline example



492ST

Elite No-Skive Super Tough Compact

EN 857 1SC – ISO 11237 Type 1SC



- *No-Skive* hose construction
– Compact design
- Nitrile (NBR) inner tube
– extended fluid compatibility
- Extreme abrasion resistant
SUPER TOUGH cover
- Exceeding EN/ISO specifications for pressure, bend radius and abrasion resistance

Primary Applications

Mobile market: Medium pressure hydraulic applications with extremely high abrasion risks

Applicable Specifications

EN 857 1SC – ISO 11237 Type 1SC

Construction

Tube: Nitrile (NBR)
Reinforcement: One high-tensile steel wire braid
Cover: Synthetic rubber with a special polyethylene coating

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C

Water max. +85 °C

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| 492ST-4 | 6 | 1/4 | -4 | 6.4 | 12.0 | 28.0 | 4000 | 112.0 | 16240 | 75 | 0.18 |
| 492ST-5 | 8 | 5/16 | -5 | 7.9 | 13.6 | 25.0 | 3625 | 100.0 | 14500 | 85 | 0.21 |
| 492ST-6 | 10 | 3/8 | -6 | 9.5 | 15.5 | 22.5 | 3260 | 90.0 | 13050 | 90 | 0.25 |
| 492ST-8 | 12 | 1/2 | -8 | 12.7 | 18.9 | 19.0 | 2755 | 76.0 | 11020 | 130 | 0.33 |
| 492ST-10 | 16 | 5/8 | -10 | 15.9 | 22.3 | 15.0 | 2175 | 60.0 | 8700 | 150 | 0.41 |
| 492ST-12 | 19 | 3/4 | -12 | 19.1 | 26.0 | 15.0 | 2175 | 60.0 | 8700 | 180 | 0.56 |
| 492ST-16 | 25 | 1 | -16 | 25.4 | 33.6 | 11.0 | 1595 | 44.0 | 6380 | 230 | 0.75 |
| 492ST-20 | 31 | 1 1/4 | -20 | 31.8 | 40.0 | 7.5 | 1085 | 30.0 | 4350 | 335 | 0.93 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



493

No-Skive Compact

High pressure water cleaning applications



- One wire *No-Skive* construction
- For water up to +120 °C constant temperature
- Suitable with 48 series *No-Skive* fittings

Primary Applications

High pressure water cleaners

Construction

Tube: Synthetic rubber

Reinforcement: One high-tensile steel wire braid

Cover: Synthetic rubber in black or blue colour

Temperature Rangewater max. +120 °C

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|------|------|------|-----------------|-----------------------|------|---------------------|------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure | | min. burst pressure | | | |
| | | | | | | MPa | psi | MPa | psi | | |
| 493-4 | 6 | 1/4 | -4 | 6.4 | 13.4 | 20.0 | 2898 | 60.0 | 8695 | 60 | 0.18 |
| 493-4-BLU | 6 | 1/4 | -4 | 6.4 | 13.4 | 20.0 | 2898 | 60.0 | 8695 | 60 | 0.18 |
| 493-5 | 8 | 5/16 | -5 | 7.9 | 15.0 | 20.0 | 2898 | 60.0 | 8695 | 75 | 0.21 |
| 493-5-BLU | 8 | 5/16 | -5 | 7.9 | 15.0 | 20.0 | 2898 | 60.0 | 8695 | 75 | 0.21 |
| 493-6 | 10 | 3/8 | -6 | 9.5 | 17.4 | 20.0 | 2898 | 60.0 | 8695 | 90 | 0.25 |
| 493-6-BLU | 10 | 3/8 | -6 | 9.5 | 17.4 | 20.0 | 2898 | 60.0 | 8695 | 90 | 0.25 |
| 493-8 | 12 | 1/2 | -8 | 12.7 | 20.6 | 17.5 | 2536 | 52.5 | 7608 | 110 | 0.33 |
| 493-8-BLU | 12 | 1/2 | -8 | 12.7 | 20.6 | 17.5 | 2536 | 52.5 | 7608 | 110 | 0.33 |

WKS rubber hand grip for No-Skive high pressure water cleaning hoses can be found on page Eb-16.
The combination of high temperature and high pressure cleaning could reduce the hose life.
Also available on reels under part number 493-xx-RL

Hose layline example



692

No-Skive Compact

Constant pressure, tight bend radius

Primary Applications

Material handling:
General small bending radii hydraulic applications, ideal for over the sheave or reel applications.

Applicable Specifications

Parker specification

Construction

Tube: Nitrile (NBR)
Reinforcement: One or two high-tensile steel wire braids
Cover: Synthetic rubber

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C



- *No-Skive* hose construction – Compact design
- Nitrile (NBR) inner tube – extended fluid compatibility
- Constant working pressure of 21.0 MPa

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

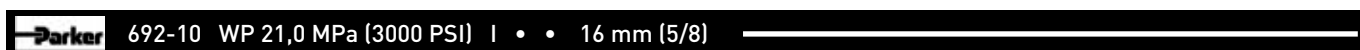
Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| 692-4 | 6 | 1/4 | -4 | 6.4 | 11.5 | 21.0 | 3045 | 84.0 | 12180 | 40 | 0.18 |
| 692-5 | 8 | 5/16 | -5 | 7.9 | 13.6 | 21.0 | 3045 | 84.0 | 12180 | 40 | 0.21 |
| 692-6 | 10 | 3/8 | -6 | 9.5 | 15.5 | 21.0 | 3045 | 84.0 | 12180 | 40 | 0.25 |
| 692-8 | 12 | 1/2 | -8 | 12.7 | 20.4 | 21.0 | 3045 | 84.0 | 12180 | 50 | 0.52 |
| 692-10 | 16 | 5/8 | -10 | 15.9 | 23.9 | 21.0 | 3045 | 84.0 | 12180 | 60 | 0.66 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



692Twin

No-Skive Compact

Twin constant pressure, tight bend radius

Primary Applications

Lifting and material handling equipment:
General small bending radii hydraulic applications, ideal over the sheave or reel applications

Applicable Specifications

Parker specification

Construction

Tube: Nitrile (NBR)
Reinforcement: One or two high-tensile steel wire braids
Cover: Synthetic rubber

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C



- **No-Skive** hose construction
– Compact design
- Nitrile (NBR) inner tube
– extended fluid compatibility
- Constant working pressure of 21.0 MPa

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

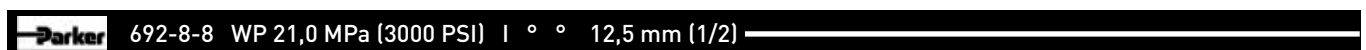
Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| 692-4-4 | 6 | 1/4 | -4 | 6.4 | 25.8 | 21.0 | 3045 | 84.0 | 12180 | 40 | 0.34 |
| 692-5-5 | 8 | 5/16 | -5 | 7.9 | 27.4 | 21.0 | 3045 | 84.0 | 12180 | 40 | 0.40 |
| 692-6-6 | 10 | 3/8 | -6 | 9.5 | 31.2 | 21.0 | 3045 | 84.0 | 12180 | 40 | 0.48 |
| 692-8-8 | 12 | 1/2 | -8 | 12.7 | 41.5 | 21.0 | 3045 | 84.0 | 12180 | 50 | 1.02 |
| 692-10-10 | 16 | 5/8 | -10 | 15.9 | 48.7 | 21.0 | 3045 | 84.0 | 12180 | 60 | 1.30 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



811

No-Skive Suction and Return Line SAE 100R4



- *No-Skive* hose construction
- Helical wire to prevent collapse under vacuum
- Small bend radii

Primary Applications

All Markets: General applications

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Construction

Tube: Synthetic rubber
 Reinforcement: Two fibre spiral, one helical wire
 Cover: Oil and weather resistant synthetic rubber

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water.
 Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C
 Water max. +85 °C

Fitting Series

Up to size - 32
 For size -40 and -48 fittings series on request



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | Vaccum* kPa | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|------------------------------|-----|----------------------------|------|----------------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | | |
| 811-12 | 19 | 3/4 | -12 | 19.1 | 30.0 | 2.1 | 300 | 8.3 | 1200 | 85 | 65 | 0.63 |
| 811-16 | 25 | 1 | -16 | 25.4 | 38.0 | 1.7 | 250 | 6.9 | 1000 | 85 | 75 | 0.96 |
| 811-20 | 31 | 1 1/4 | -20 | 31.8 | 45.0 | 1.4 | 200 | 5.5 | 800 | 85 | 100 | 1.22 |
| 811-24 | 38 | 1 1/2 | -24 | 38.1 | 52.0 | 1.0 | 150 | 4.1 | 600 | 85 | 130 | 1.55 |
| 811-32 | 51 | 2 | -32 | 50.8 | 64.0 | 0.7 | 100 | 2.8 | 400 | 85 | 150 | 1.87 |
| 811-40 | 63 | 2 1/2 | -40 | 63.5 | 75.0 | 0.4 | 62 | 1.6 | 248 | 85 | 180 | 2.45 |
| 811-48 | 76 | 3 | -48 | 76.2 | 90.0 | 0.4 | 62 | 1.6 | 248 | 85 | 230 | 3.20 |

*1 = the vacuum values listed in the table are vacuum pressure values in kPa. For an absolute value subtract the table value from 101 kPa.

** size -12 and size -16 = on Parkrimp 2 crimping press or adjustable crimpers only.
 The combination of high temperature and high pressure could reduce the hose life.

Hose layline example

PARKER 811-12 SUCTION HOSE SAE 100R4-12 19 mm (3/4) 3Q81 ————— PARKER 811-12 SUC

811S

No-Skive Suction and Return Line

Exceeds SAE 100R4



- *No-Skive* hose construction
- Helical wire to prevent collapse under vacuum
- Small bend radii
- Isobaric 1.0 MPa for all sizes

Primary Applications

All Markets: General applications

Type Approvals

For size -64 and -80, details please find on pages **Ab-16** to **Ab-19**

Construction

Tube: Synthetic rubber
 Reinforcement: Two fibre spiral, one helical wire
 Cover: Oil and weather resistant synthetic rubber

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Temperature Range -40 °C up to +100 °C

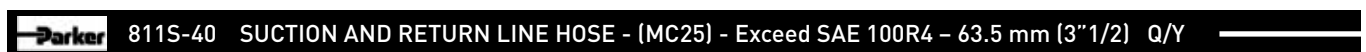
Exception: Air max. +70 °C
 Water max. +85 °C

Fitting Series

on request

| Part Number | Hose I.D. | | Hose O.D. | Pressure Rating | | | | min. bend radius mm |
|-------------|-----------|-------|-----------|-----------------------|-----|---------------------|-----|------------------------|
| | Size | mm | mm ± 1.6 | max. working pressure | | min. burst pressure | | |
| | | | | MPa | psi | MPa | psi | |
| 811S-32 | -32 | 50.8 | 64.0 | 1.0 | 145 | 4.0 | 580 | 200 |
| 811S-40 | -40 | 63.5 | 75.0 | 1.0 | 145 | 4.0 | 580 | 240 |
| 811S-48 | -48 | 76.2 | 90.0 | 1.0 | 145 | 4.0 | 580 | 300 |
| 811S-56 | -56 | 88.9 | 106.0 | 1.0 | 145 | 4.0 | 580 | 360 |
| 811S-64 | -64 | 101.6 | 116.0 | 1.0 | 145 | 4.0 | 580 | 400 |
| 811S-80 | -80 | 127.0 | 142.0 | 1.0 | 145 | 4.0 | 580 | 500 |
| 811S-96 | -96 | 152.4 | 172.0 | 1.0 | 145 | 4.0 | 580 | 600 |

Hose layline example



881

No-Skive Suction and Return Line

SAE 100R4



- *No-Skive* hose construction
- Helical wire to prevent collapse under vacuum
- Up to +121 °C working temperature
- MSHA approved

Primary Applications

All Markets: For high temperature applications
For general applications

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Construction

Tube: Synthetic rubber
Reinforcement: Two fibre spiral, one helical wire
Cover: Synthetic rubber MSHA approved

Temperature Range -40 °C up to +121 °C

Exception: Air max. +70 °C
Water max. +85 °C

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series

Series 43 for sizes -12, -16
Series 48 for sizes -20 up to -32
For size -40 fittings series on request



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | Vacuum* kPa | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|------------------------------|-----|----------------------------|------|----------------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | | |
| 881-12 | 19 | 3/4 | -12 | 19.1 | 30.0 | 2.1 | 300 | 8.3 | 1200 | 95 | 130 | 0.74 |
| 881-16 | 25 | 1 | -16 | 25.4 | 38.0 | 1.7 | 250 | 6.9 | 1000 | 95 | 150 | 0.89 |
| 881-20 | 31 | 1 1/4 | -20 | 31.8 | 45.0 | 1.4 | 200 | 5.5 | 800 | 95 | 200 | 1.32 |
| 881-24 | 38 | 1 1/2 | -24 | 38.1 | 52.0 | 1.0 | 150 | 4.1 | 600 | 95 | 250 | 1.65 |
| 881-32 | 51 | 2 | -32 | 50.8 | 63.0 | 0.7 | 100 | 2.8 | 400 | 95 | 300 | 1.89 |
| 881-40 | 63 | 2 1/2 | -40 | 63.5 | 75.0 | 0.4 | 62 | 1.6 | 248 | 95 | 355 | 2.71 |

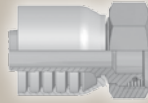
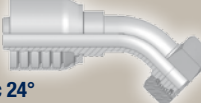
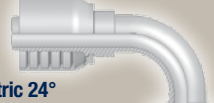
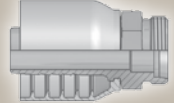
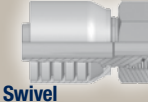


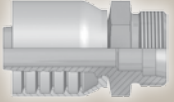
* the vacuum values listed in the table are vacuum pressure values in kPa. For an absolute value subtract the table value from 101kPa. The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



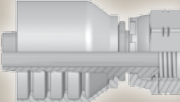

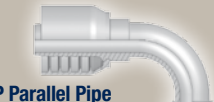

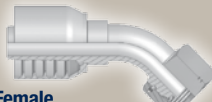
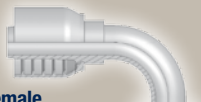
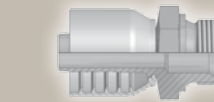
DIN – Metric

Page Cb-1 – Cb-4

| | | | |
|---|--|---|---|
| <p>CA Cb-1 Female Metric 24° Light Series with O-Ring Swivel – Straight ISO 12151-2-SWS-L – DKOL</p>  | <p>CE Cb-1 Female Metric 24° Light Series with O-Ring Swivel – 45° Elbow ISO 12151-2-SWE 45°-L – DKOL 45°</p>  | <p>CF Cb-2 Female Metric 24° Light Series with O-Ring Swivel – 90° Elbow ISO 12151-2-SWE-L – DKOL 90°</p>  | <p>D0 Cb-2 Male Metric 24° Light Series – Rigid Straight ISO 12151-2-S-L – CEL</p>  |
| <p>C9 Cb-3 Female Metric 24° – Swivel Heavy Series with O-Ring Straight ISO 12151-2-SWS-S – DKOS</p>  | <p>0C Cb-3 Female Metric 24° – Swivel Heavy Series with O-Ring 45° Elbow ISO 12151-2 – SWE 45°-S – DKOS 45°</p>  | <p>1C Cb-4 Female Metric 24° – Swivel Heavy Series with O-Ring 90° Elbow ISO 12151-2-SWE-S – DKOS 90°</p>  | <p>D2 Cb-4 Male Metric 24° – Rigid Heavy Series – Straight ISO 12151-2-S-S – CES</p>  |

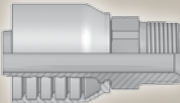
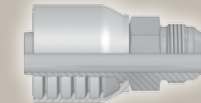
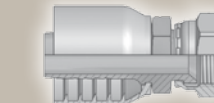
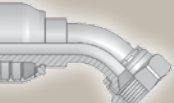
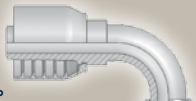
BSP

Page Cb-5 – Cb-8

| | | | |
|---|---|---|---|
| <p>92 Cb-5 Female BSP Parallel Pipe Swivel – Straight (60° Cone) BS5200-A – DKR</p>  | <p>B1 Cb-5 Female BSP Parallel Pipe Swivel 45° Elbow (60° Cone) BS 5200-D – DKR 45°</p>  | <p>B2 Cb-6 Female BSP Parallel Pipe Swivel 90° Elbow (60° Cone) BS 5200-B – DKR 90°</p>  | <p>EA Cb-6 BSP Swivel Female with O-Ring (60° Cone) BS 5200 – ISO 12151-6 – DKOR</p>  |
| <p>EB Cb-7 BSP Swivel Female with O-Ring 45° Elbow (60° Cone) BS 5200 – ISO 12151-6 – DKOR 45°</p>  | <p>EC Cb-7 BSP Swivel Female with O-Ring 90° Elbow (60° Cone) BS 5200 – ISO 12151-6 – DKOR 90°</p>  | <p>D9 Cb-8 Male BSP Parallel Pipe Rigid – Straight (60° Cone) BS5200 – AGR</p>  | |

SAE

Page Cb-9 – Cb-11

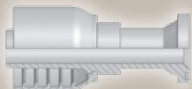
| | | | |
|--|--|---|--|
| <p>01 Cb-9 Male NPTF Pipe Rigid – Straight SAE J476A / J516 – AGN</p>  | <p>03 Cb-9 Male JIC 37° – Rigid Straight ISO12151-5-S – AGJ</p>  | <p>06 Cb-10 Female JIC 37° – Swivel Straight ISO12151-5-SWS – DKJ</p>  | <p>37 Cb-10 Female JIC 37° – Swivel 45° Elbow ISO 12151-5-SWE 45° – DKJ 45°</p>  |
| <p>39/3W Cb-11 Female JIC 37° SAE 45° – Dual Flare Swivel Female 90° Elbow ISO 12151-5-SWES – DKJ 90°</p>  | | | |

Flange

Page Cb-12 – Cb-14

15

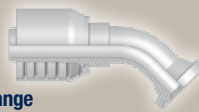
Cb-12



**ISO 6162-1 Flange
Straight**
ISO 12151-3-S-L – SFL
(21.0 MPa/ 3000 psi)

17

Cb-12



**ISO 6162-1 Flange
45° Elbow**
ISO 12151-3 – E45 – L – SFL 45°
(21.0 MPa/ 3000 psi)

19

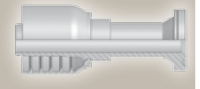
Cb-13



**ISO 6162-1 Flange
90° Elbow**
ISO 12151-3 – E – L – SFL 90°
(21.0 MPa/ 3000 psi)

6A

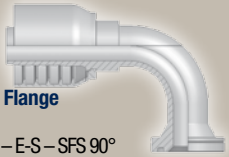
Cb-13



**ISO 6162-2 Flange
Straight**
ISO 12151-3-S-S – SFS
(42.0 MPa/ 6000 psi)

6N

Cb-14



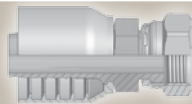
**ISO 6162-2 Flange
90° Elbow**
ISO 12151-3 – E-S – SFS 90°
(42.0 MPa/ 6000 psi)

ORFS

Page Cb-15 – Cb-17

JC

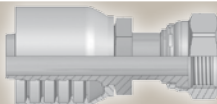
Cb-15



**Female ORFS
Swivel – Straight
Short**
ISO 12151-1 – SWSA SAE J516 – ORFS

JS

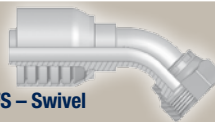
Cb-15



ORFS Swivel Female (Long)
ISO 12151-1-SWSB
SAE J516 – ORFS

J7

Cb-16



**Female ORFS – Swivel
45° Elbow**
ISO 12151-1 – SWE 45°
SAE J516 – ORFS 45°

J9

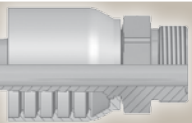
Cb-16



**Female ORFS – Swivel
90° Elbow – Short Drop**
ISO 12151-1 – SWES
SAE J516 – ORFS 90°

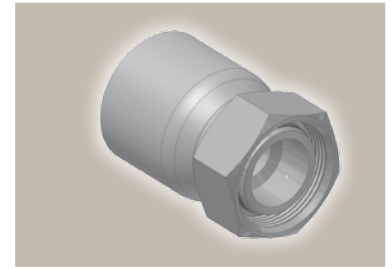
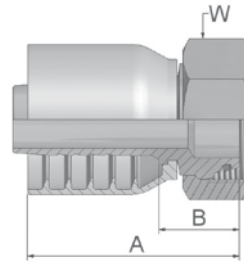
JM

Cb-17



ORFS Male
ISO 12151-1-S – SAE J516

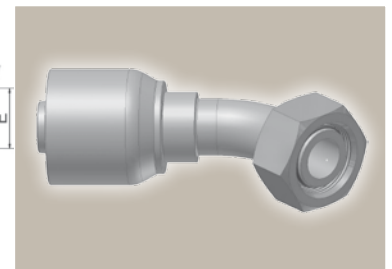
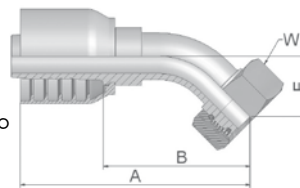
CA **Female Metric 24°
Light Series with O-Ring
Swivel – Straight**
ISO 12151-2-SWS-L – DKOL



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | W mm |
|-------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1CA43-10-6 | 10 | 3/8 | -6 | 9.5 | M16x1.5 | 10 | 53 | 24 | 19 |
| 1CA43-12-6 | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 12 | 49 | 19 | 22 |
| 1CA43-15-8 | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 56 | 21 | 27 |
| 1CA43-18-10 | 16 | 5/8 | -10 | 15.9 | M26x1.5 | 18 | 61 | 22 | 32 |
| 1CA43-22-10 | 16 | 5/8 | -10 | 15.9 | M30x2 | 22 | 64 | 24 | 36 |
| 1CA43-18-12 | 19 | 3/4 | -12 | 19.1 | M26x1.5 | 18 | 65 | 26 | 32 |
| 1CA43-22-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 22 | 63 | 24 | 36 |
| 1CA43-28-16 | 25 | 1 | -16 | 25.4 | M36x2 | 28 | 78 | 33 | 41 |
| 1CA43-35-16 | 25 | 1 | -16 | 25.4 | M45x2 | 35 | 76 | 31 | 50 |

Hose fittings are delivered with ozone resistant Nitrile (NBR) O-ring as a standard version. Working temperature from -40 °C up to +105 °C.
Hose fittings with special O-rings (Viton or EPDM) available on request. O-ring dimensions and part-numbers see in section Eb.

CE **Female Metric 24°
Light Series with O-Ring
Swivel – 45° Elbow**
ISO 12151-2-SWE 45°-L – DKOL 45°



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | E mm | W mm |
|-------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | | |
| 1CE43-12-6 | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 12 | 69 | 39 | 19 | 22 |
| 1CE43-15-8 | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 81 | 46 | 22 | 27 |
| 1CE43-18-10 | 16 | 5/8 | -10 | 15.9 | M26x1.5 | 18 | 89 | 49 | 23 | 32 |
| 1CE43-22-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 22 | 98 | 58 | 26 | 36 |
| 1CE43-28-16 | 25 | 1 | -16 | 25.4 | M36x2 | 28 | 127 | 80 | 34 | 41 |

Hose fittings are delivered with ozone resistant Nitrile (NBR) O-ring as a standard version. Working temperature from -40 °C up to +105 °C.
Hose fittings with special O-rings (Viton or EPDM) available on request. O-ring dimensions and part-numbers see in section Eb.

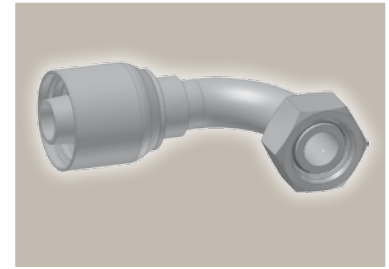
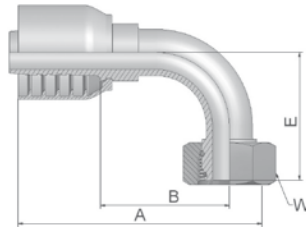
Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

43 304 351TC 421WC 424 601 722CLF 722TC 881

CF **Female Metric 24°
Light Series with O-Ring
Swivel – 90° Elbow**

ISO 12151-2-SWE-L – DKOL 90°

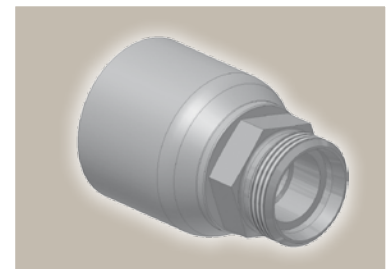
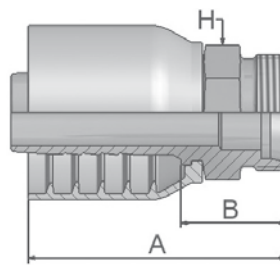


| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | E mm | W mm |
|-------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | | |
| 1CF43-12-6 | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 12 | 64 | 35 | 36 | 22 |
| 1CF43-15-8 | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 71 | 37 | 43 | 27 |
| 1CF43-18-10 | 16 | 5/8 | -10 | 15.9 | M26x1.5 | 18 | 81 | 41 | 45 | 32 |
| 1CF43-22-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 22 | 89 | 49 | 55 | 36 |
| 1CF43-28-16 | 25 | 1 | -16 | 25.4 | M36x2 | 28 | 114 | 68 | 73 | 41 |

Hose fittings are delivered with ozone resistant Nitrile (NBR) O-ring as a standard version. Working temperature from -40 °C up to +105 °C.
Hose fittings with special O-rings (Viton or EPDM) available on request. O-ring dimensions and part-numbers see in section Eb.

DO **Male Metric 24°
Light Series – Rigid
Straight**

ISO 12151-2-S-L – CEL



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | H mm |
|-------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1D043-15-8 | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 60 | 26 | 22 |
| 1D043-28-16 | 25 | 1 | -16 | 25.4 | M36x2 | 28 | 79 | 32 | 36 |

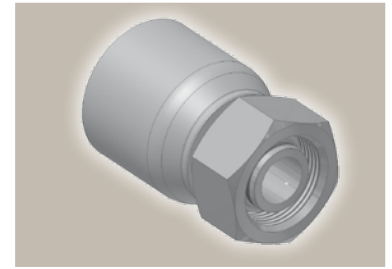
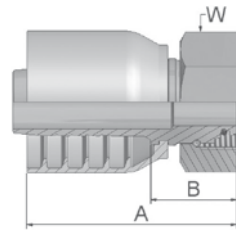
Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

43 **304** **351TC** **421WC** **424** **601** **722CLF** **722TC** **881**

C9 Female Metric 24° – Swivel Heavy Series with O-Ring Straight

ISO 12151-2-SWS-S – DKOS

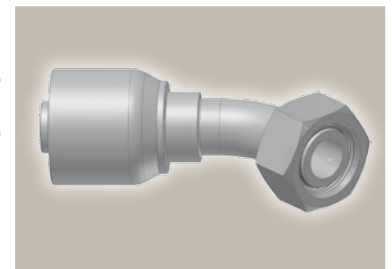
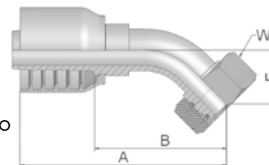


| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | W mm |
|-------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1C943-10-6 | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 10 | 50 | 21 | 22 |
| 1C943-12-6 | 10 | 3/8 | -6 | 9.5 | M20x1.5 | 12 | 52 | 22 | 24 |
| 1C943-14-6 | 10 | 3/8 | -6 | 9.5 | M22x1.5 | 14 | 50 | 21 | 27 |
| 1C943-12-8 | 12 | 1/2 | -8 | 12.7 | M20x1.5 | 12 | 60 | 25 | 24 |
| 1C943-16-8 | 12 | 1/2 | -8 | 12.7 | M24x1.5 | 16 | 59 | 24 | 30 |
| 1C943-16-10 | 16 | 5/8 | -10 | 15.9 | M24x1.5 | 16 | 66 | 27 | 30 |
| 1C943-20-10 | 16 | 5/8 | -10 | 15.9 | M30x2 | 20 | 66 | 27 | 36 |
| 1C943-20-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 20 | 66 | 27 | 36 |
| 1C943-25-12 | 19 | 3/4 | -12 | 19.1 | M36x2 | 25 | 68 | 28 | 46 |
| 1C943-25-16 | 25 | 1 | -16 | 25.4 | M36x2 | 25 | 78 | 33 | 46 |
| 1C943-30-16 | 25 | 1 | -16 | 25.4 | M42x2 | 30 | 80 | 33 | 50 |

Hose fittings are delivered with ozone resistant Nitrile (NBR) O-ring as a standard version. Working temperature from -40 °C up to +105 °C. Hose fittings with special O-rings (Viton or EPDM) available on request. O-ring dimensions and part-numbers see in section Eb.

OC Female Metric 24° – Swivel Heavy Series with O-Ring 45° Elbow

ISO 12151-2 – SWE 45°-S – DKOS 45°



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | E mm | W mm |
|-------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | | |
| 10C43-12-6 | 10 | 3/8 | -6 | 9.5 | M20x1.5 | 12 | 69 | 40 | 20 | 24 |
| 10C43-14-6 | 10 | 3/8 | -6 | 9.5 | M22x1.5 | 14 | 76 | 46 | 20 | 27 |
| 10C43-16-8 | 12 | 1/2 | -8 | 12.7 | M24x1.5 | 16 | 82 | 48 | 24 | 30 |
| 10C43-20-10 | 16 | 5/8 | -10 | 15.9 | M30x2 | 20 | 91 | 52 | 25 | 36 |
| 10C43-20-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 20 | 99 | 60 | 28 | 36 |
| 10C43-25-12 | 19 | 3/4 | -12 | 19.1 | M36x2 | 25 | 100 | 61 | 29 | 46 |
| 10C43-25-16 | 25 | 1 | -16 | 25.4 | M36x2 | 30 | 123 | 76 | 33 | 46 |
| 10C43-30-16 | 25 | 1 | -16 | 25.4 | M42x2 | 30 | 126 | 79 | 36 | 50 |

Hose fittings are delivered with ozone resistant Nitrile (NBR) O-ring as a standard version. Working temperature from -40 °C up to +105 °C. Hose fittings with special O-rings (Viton or EPDM) available on request. O-ring dimensions and part-numbers see in section Eb.

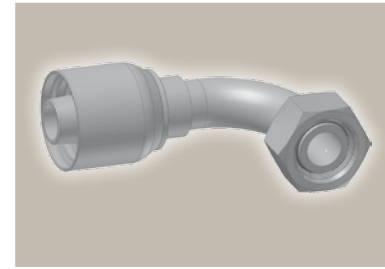
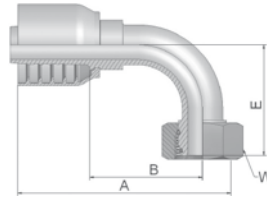
Approved fitting series for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

43 304 351TC 421WC 424 601 722CLF 722TC 881

1C Female Metric 24° – Swivel Heavy Series with O-Ring 90° Elbow

ISO 12151-2-SWE-S – DKOS 90°

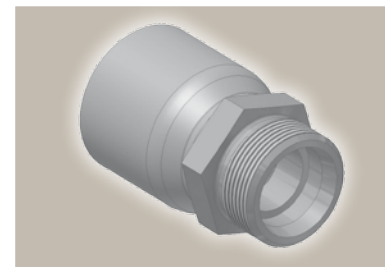
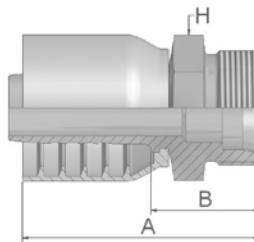


| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | E mm | W mm |
|-------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | | |
| 11C43-8-6 | 10 | 3/8 | -6 | 9.5 | M16x1.5 | 8 | 67 | 38 | 37 | 19 |
| 11C43-12-6 | 10 | 3/8 | -6 | 9.5 | M20x1.5 | 12 | 65 | 35 | 37 | 24 |
| 11C43-14-6 | 10 | 3/8 | -6 | 9.5 | M22x1.5 | 14 | 64 | 35 | 37 | 27 |
| 11C43-16-8 | 12 | 1/2 | -8 | 12.7 | M24x1.5 | 16 | 72 | 37 | 45 | 30 |
| 11C43-20-10 | 16 | 5/8 | -10 | 15.9 | M30x2 | 20 | 79 | 40 | 48 | 36 |
| 11C43-25-10 | 16 | 5/8 | -10 | 15.9 | M36x2 | 25 | 85 | 46 | 52 | 46 |
| 11C43-20-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 20 | 89 | 50 | 58 | 36 |
| 11C43-25-12 | 19 | 3/4 | -12 | 19.1 | M36x2 | 25 | 89 | 49 | 59 | 46 |
| 11C43-25-16 | 25 | 1 | -16 | 25.4 | M36x2 | 25 | 109 | 64 | 69 | 46 |
| 11C43-30-16 | 25 | 1 | -16 | 25.4 | M42x2 | 30 | 115 | 68 | 76 | 50 |

Hose fittings are delivered with ozone resistant Nitrile (NBR) O-ring as a standard version. Working temperature from -40 °C up to +105 °C. Hose fittings with special O-rings (Viton or EPDM) available on request. O-ring dimensions and part-numbers see in section Eb.

D2 Male Metric 24° – Rigid Heavy Series – Straight

ISO 12151-2-S-S – CES



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | H mm |
|-------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1D243-12-6 | 10 | 3/8 | -6 | 9.5 | M20x1.5 | 12 | 55 | 26 | 22 |
| 1D243-14-6 | 10 | 3/8 | -6 | 9.5 | M22x1.5 | 14 | 55 | 25 | 22 |
| 1D243-16-8 | 12 | 1/2 | -8 | 12.7 | M24x1.5 | 16 | 62 | 28 | 24 |
| 1D243-20-10 | 16 | 5/8 | -10 | 15.9 | M30x2 | 20 | 72 | 33 | 30 |
| 1D243-20-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 20 | 72 | 33 | 30 |
| 1D243-25-12 | 19 | 3/4 | -12 | 19.1 | M36x2 | 25 | 74 | 35 | 36 |
| 1D243-30-16 | 25 | 1 | -16 | 25.4 | M42x2 | 30 | 85 | 40 | 46 |

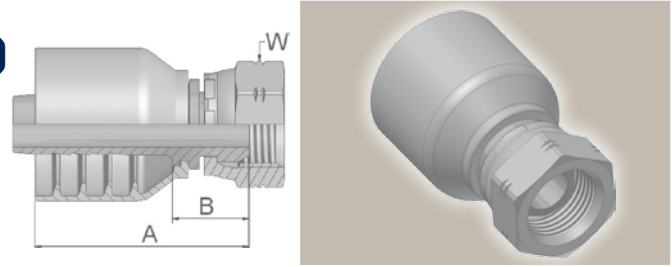
Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

43 304 351TC 421WC 424 601 722CLF 722TC 881

92 Female BSP Parallel Pipe Swivel – Straight (60° Cone)

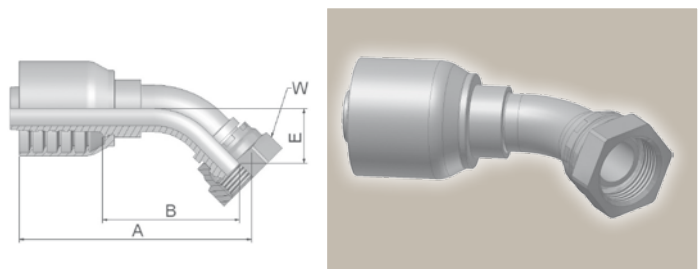
BS5200-A – DKR



| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | W mm |
|-------------|-----------|------|------|------|---------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 19243-6-6 | 10 | 3/8 | -6 | 9.5 | 3/8x19 | 49 | 20 | 22 |
| 19243-8-6 | 10 | 3/8 | -6 | 9.5 | 1/2x14 | 51 | 22 | 27 |
| 19243-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 57 | 22 | 27 |
| 19243-10-8 | 12 | 1/2 | -8 | 12.7 | 5/8x14 | 55 | 20 | 30 |
| 19243-10-10 | 16 | 5/8 | -10 | 15.9 | 5/8x14 | 57 | 21 | 30 |
| 19243-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4x14 | 61 | 22 | 32 |
| 19243-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 61 | 22 | 32 |
| 19243-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 72 | 25 | 41 |

B1 Female BSP Parallel Pipe Swivel 45° Elbow (60° Cone)

BS 5200-D – DKR 45°



| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | E mm | W mm |
|-------------|-----------|------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1B143-6-6 | 10 | 3/8 | -6 | 9.5 | 3/8x19 | 67 | 37 | 17 | 22 |
| 1B143-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 79 | 45 | 20 | 27 |
| 1B143-10-10 | 16 | 5/8 | -10 | 15.9 | 5/8x14 | 89 | 50 | 23 | 30 |
| 1B143-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 96 | 57 | 25 | 32 |
| 1B143-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 121 | 77 | 33 | 41 |

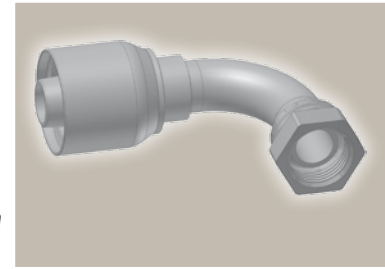
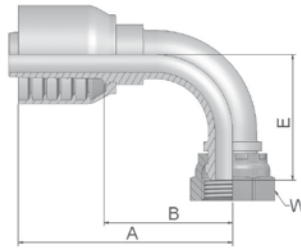
Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

43 304 351TC 421WC 424 601 722CLF 722TC 881

B2 Female BSP Parallel Pipe Swivel 90° Elbow (60° Cone)

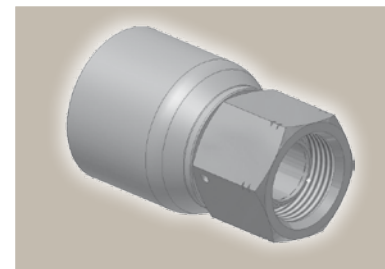
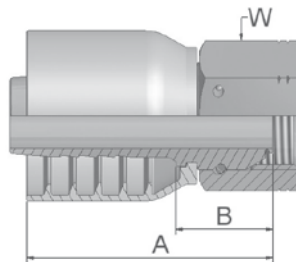
BS 5200-B – DKR 90°



| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | E mm | W mm |
|-------------|-----------|------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1B243-6-6 | 10 | 3/8 | -6 | 9.5 | 3/8x19 | 66 | 37 | 33 | 22 |
| 1B243-8-6 | 10 | 3/8 | -6 | 9.5 | 1/2x14 | 66 | 37 | 35 | 27 |
| 1B243-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 74 | 39 | 40 | 27 |
| 1B243-10-10 | 16 | 5/8 | -10 | 15.9 | 5/8x14 | 81 | 41 | 46 | 30 |
| 1B243-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4x14 | 82 | 43 | 45 | 32 |
| 1B243-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 89 | 50 | 53 | 32 |
| 1B243-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 116 | 69 | 69 | 41 |

EA BSP Swivel Female with O-Ring (60° Cone)

BS 5200 – ISO 12151-6 – DKOR



| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | W mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 1EA43-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 56 | 21 | 27 |
| 1EA43-10-10 | 16 | 5/8 | -10 | 15.9 | 5/8x14 | 61 | 21.5 | 30 |
| 1EA43-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 63 | 23 | 32 |
| 1EA43-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 77 | 31 | 41 |
| 1EA43-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 78 | 31 | 50 |

Hose fittings are delivered with ozone resistant Nitrile (NBR) O-ring as a standard version. Working temperature from -40 °C up to +105 °C.
Hose fittings with special O-rings (Viton or EPDM) available on request. O-ring dimensions and part-numbers see in section Eb.

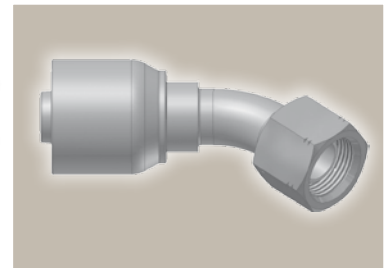
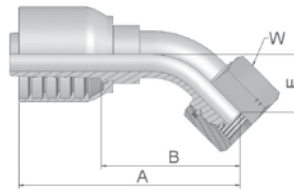
Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

43 304 351TC 421WC 424 601 722CLF 722TC 881

EB BSP Swivel Female with O-Ring 45° Elbow (60° Cone)

BS 5200 – ISO 12151-6 – DKOR 45°

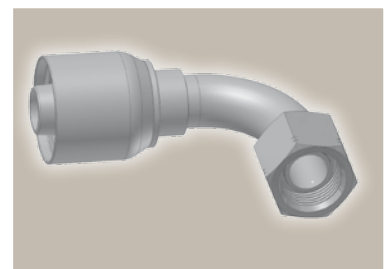
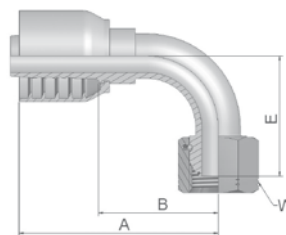


| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | E mm | W mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1EB43-4-4 | 6 | 1/4 | -4 | 6.4 | 1/4x19 | 59 | 36 | 16 | 19 |
| 1EB43-6-6 | 10 | 3/8 | -6 | 9.5 | 3/8x19 | 73 | 44 | 18 | 22 |
| 1EB43-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 79 | 44 | 20 | 27 |
| 1EB43-10-10 | 16 | 5/8 | -10 | 15.9 | 5/8 | 85 | 49 | 22 | 30 |
| 1EB43-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 138 | 91 | 35 | 50 |

Hose fittings are delivered with ozone resistant Nitrile (NBR) O-ring as a standard version. Working temperature from -40 °C up to +105 °C.
Hose fittings with special O-rings (Viton or EPDM) available on request. O-ring dimensions and part-numbers see in section Eb.

EC BSP Swivel Female with O-Ring 90° Elbow (60° Cone)

BS 5200 – ISO 12151-6 – DKOR 90°



| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | E mm | W mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1EC43-4-4 | 6 | 1/4 | -4 | 6.4 | 1/4x19 | 50 | 27 | 28 | 19 |
| 1EC43-6-4 | 6 | 1/4 | -4 | 6.4 | 3/8x19 | 51 | 28 | 27 | 22 |
| 1EC43-6-6 | 10 | 3/8 | -6 | 9.5 | 3/8x19 | 64 | 35 | 34 | 22 |
| 1EC43-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 71 | 36 | 40 | 27 |
| 1EC43-10-10 | 16 | 5/8 | -10 | 15.9 | 5/8 | 80 | 43 | 44 | 30 |
| 1EC43-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 89 | 49 | 55 | 32 |
| 1EC43-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 115 | 68 | 71 | 41 |
| 1EC43-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 129 | 82 | 75 | 50 |

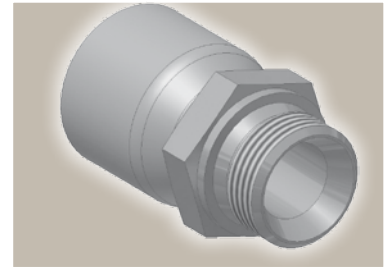
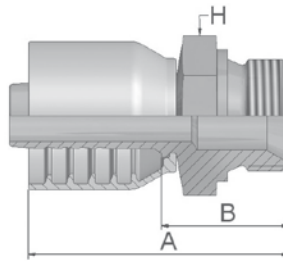
Hose fittings are delivered with ozone resistant Nitrile (NBR) O-ring as a standard version. Working temperature from -40 °C up to +105 °C.
Hose fittings with special O-rings (Viton or EPDM) available on request. O-ring dimensions and part-numbers see in section Eb.

Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

43 304 351TC 421WC 424 601 722CLF 722TC 881

D9 **Male BSP Parallel Pipe
Rigid – Straight (60° Cone)**
BS5200 – AGR



| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | H mm |
|-------------|-----------|------|------|------|---------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 1D943-2-4 | 6 | 1/4 | -4 | 6.4 | 1/8x28 | 46 | 22 | 14 |
| 1D943-4-4 | 6 | 1/4 | -4 | 6.4 | 1/4x19 | 49 | 27 | 19 |
| 1D943-6-6 | 10 | 3/8 | -6 | 9.5 | 3/8x19 | 57 | 28 | 22 |
| 1D943-8-6 | 10 | 3/8 | -6 | 9.5 | 1/2x14 | 60 | 31 | 27 |
| 1D943-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 64 | 30 | 27 |
| 1D943-10-10 | 16 | 5/8 | -10 | 15.9 | 5/8x14 | 75 | 36 | 30 |
| 1D943-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4x14 | 72 | 35 | 32 |
| 1D943-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 72 | 33 | 32 |
| 1D943-16-12 | 19 | 3/4 | -12 | 19.1 | 1x11 | 77 | 38 | 41 |
| 1D943-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 85 | 40 | 41 |

Approved **fitting series** for hose types:

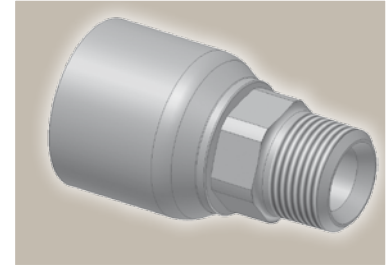
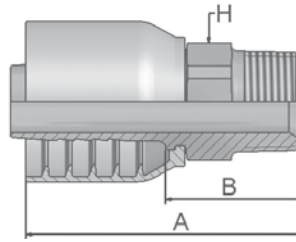
Also available in stainless steel. Details can be found in CAT 4400.1/UK

43 304 351TC 421WC 424 601 722CLF 722TC 881

01

Male NPTF Pipe Rigid – Straight

SAE J476A/ J516 – AGN

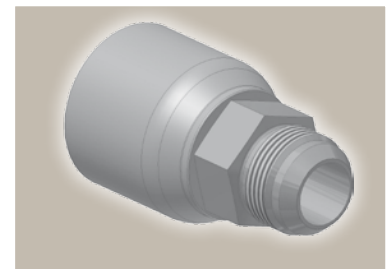
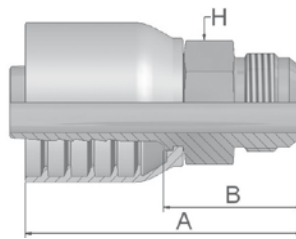


| Part Number | Hose I.D. | | | | Thread NPTF | A mm | B mm | H mm |
|----------------|-----------|------|------|------|----------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 10143-6-6-SM | 10 | 3/8 | -6 | 9.5 | 3/8x18 | 60 | 31 | 19 |
| 10143-8-6-SM | 10 | 3/8 | -6 | 9.5 | 1/2x14 | 61 | 32 | 22 |
| 10143-12-12-SM | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 79 | 39 | 27 |

03

Male JIC 37° – Rigid Straight

ISO12151-5-S – AGJ



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | H mm |
|----------------|-----------|------|------|------|---------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 10343-6-6-SM | 10 | 3/8 | -6 | 9.5 | 9/16x18 | 60 | 31 | 19 |
| 10343-8-6-SM | 10 | 3/8 | -6 | 9.5 | 3/4x16 | 59 | 29 | 19 |
| 10343-10-8-SM | 12 | 1/2 | -8 | 12.7 | 7/8x14 | 67 | 32 | 24 |
| 10343-12-8-SM | 12 | 1/2 | -8 | 12.7 | 1 1/16x12 | 71 | 36 | 27 |
| 10343-12-10-SM | 16 | 5/8 | -10 | 15.9 | 1 1/16x12 | 75 | 36 | 27 |
| 10343-16-16-SM | 25 | 1 | -16 | 25.4 | 1 5/16x12 | 94 | 47 | 36 |

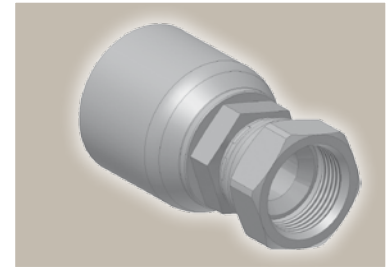
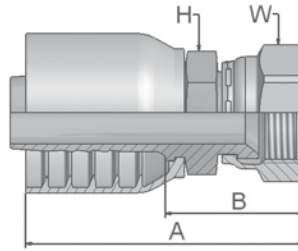
Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

43 304 351TC 421WC 424 601 722CLF 722TC 881

06 Female JIC 37° – Swivel Straight

ISO12151-5-SWS – DKJ

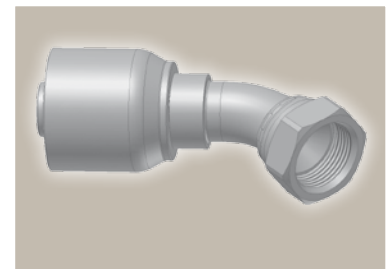
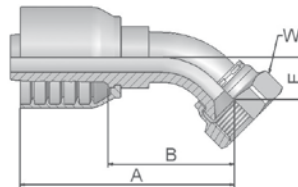


| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | H | | W | |
|----------------|-----------|------|------|------|---------------|---------|---------|-------|------|-----|------|
| | DN | Inch | Size | mm | | | | mm | Inch | mm | Inch |
| 10643-6-6-SM | 10 | 3/8 | -6 | 9.5 | 9/16x18 | 58 | 29 | 17 | | 19 | |
| 10643-8-6-SM | 10 | 3/8 | -6 | 9.5 | 3/4x16 | 61 | 32 | 19 | | 22 | |
| 10643-8-8* | 12 | 1/2 | -8 | 12.7 | 3/4x16 | 66 | 34 | 13/16 | | 7/8 | |
| 10643-10-8-SM | 12 | 1/2 | -8 | 12.7 | 7/8x14 | 72 | 38 | 22 | | 27 | |
| 10643-10-10* | 16 | 5/8 | -10 | 15.9 | 7/8x14 | 73 | 38 | 15/16 | | 1 | |
| 10643-12-10-SM | 16 | 5/8 | -10 | 15.9 | 1 1/16x12 | 78 | 41 | 27 | | 32 | |
| 10643-12-12-SM | 19 | 3/4 | -12 | 19.1 | 1 1/16x12 | 80 | 41 | 27 | | 32 | |
| 10643-14-12-SM | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 81 | 42 | 32 | | 36 | |
| 10643-16-12-SM | 19 | 3/4 | -12 | 19.1 | 1 5/16x12 | 84 | 45 | 32 | | 41 | |
| 10643-12-16-SM | 25 | 1 | -16 | 25.4 | 1 1/16x12 | 89 | 44 | 36 | | 32 | |
| 10643-16-16-SM | 25 | 1 | -16 | 25.4 | 1 5/16x12 | 94 | 47 | 36 | | 41 | |

* These fittings contain a dual seat that accepts both JIC (37°) and SAE (45°) male configurations.

37 Female JIC 37° – Swivel 45° Elbow

ISO 12151-5-SWE 45° – DKJ 45°



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | E mm | W mm |
|-----------------|-----------|------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 13743-6-6-SM | 10 | 3/8 | -6 | 9.5 | 9/16x18 | 60 | 31 | 10 | 19 |
| 13743-8-8-SM* | 12 | 1/2 | -8 | 12.7 | 3/4x16 | 73 | 38 | 14 | 22 |
| 13743-10-10-SM* | 16 | 5/8 | -10 | 15.9 | 7/8x14 | 83 | 44 | 17 | 27 |
| 13743-12-10-SM | 16 | 5/8 | -10 | 15.9 | 1 1/16x12 | 88 | 48 | 21 | 32 |
| 13743-12-12-SM | 19 | 3/4 | -12 | 19.1 | 1 1/16x12 | 93 | 54 | 22 | 32 |
| 13743-16-12-SM | 19 | 3/4 | -12 | 19.1 | 1 5/16x12 | 95 | 56 | 24 | 41 |
| 13743-16-16-SM | 25 | 1 | -16 | 25.4 | 1 5/16x12 | 111 | 66 | 24 | 41 |

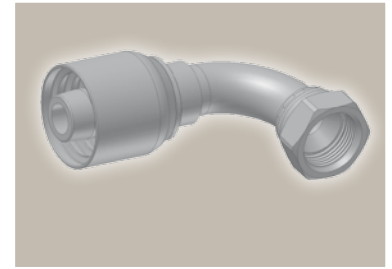
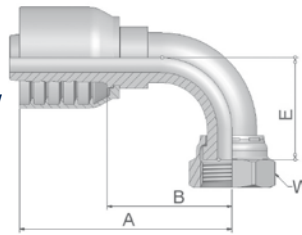
* These fittings contain a dual seat that accepts both JIC (37°) and SAE (45°) male configurations.

Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

43 304 351TC 421WC 424 601 722CLF 722TC 881

39/3W Female JIC 37°
SAE 45° – Dual Flare
Swivel Female 90° Elbow
ISO 12151-5-SWES – DKJ 90°



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | E mm | W | |
|-----------------|-----------|------|------|------|---------------|---------|---------|---------|----|------|
| | DN | Inch | Size | mm | | | | | mm | Inch |
| 13943-6-6-SM | 10 | 3/8 | -6 | 9.5 | 9/16x18 | 57 | 28 | 23 | 19 | |
| 13W43-8-6-SM | 10 | 3/8 | -6 | 9.5 | 3/4x16 | 64 | 35 | 29 | 22 | |
| 13943-10-8-SM* | 12 | 1/2 | -8 | 12.7 | 7/8x14 | 74 | 39 | 32 | 27 | |
| 13943-10-10* | 16 | 5/8 | -10 | 15.9 | 7/8x14 | 80 | 40 | 37 | 1 | |
| 13W43-10-10-SM* | 16 | 5/8 | -10 | 15.9 | 7/8x14 | 80 | 40 | 33 | 27 | |
| 13943-12-12-SM | 19 | 3/4 | -12 | 19.1 | 1 1/16x12 | 89 | 50 | 48 | 32 | |
| 13943-16-12-SM | 19 | 3/4 | -12 | 19.1 | 1 5/16x12 | 89 | 50 | 51 | 41 | |
| 13943-16-16-SM | 25 | 1 | -16 | 25.4 | 1 5/16x12 | 109 | 64 | 55 | 41 | |

* These fittings contain a dual seat that accepts both JIC (37°) and SAE (45°) male configurations.

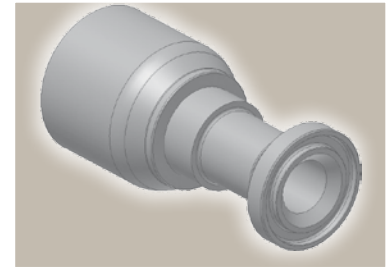
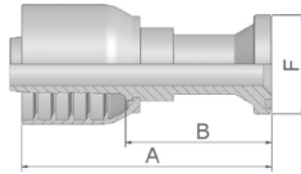
Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

43 304 351TC 421WC 424 601 722CLF 722TC 881

15 ISO 6162-1 Flange Straight

ISO 12151-3-S-L – SFL
(21.0 MPa/ 3000 psi)

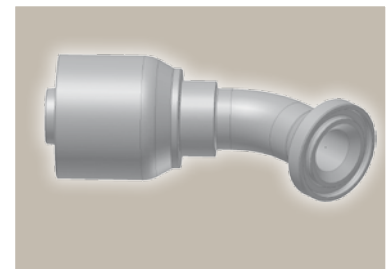
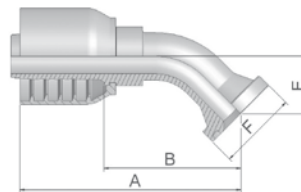


| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | F mm |
|-------------|-----------|------|------|------|----------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 11543-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2 | 89 | 54 | 30 |
| 11543-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4 | 69 | 30 | 38 |
| 11543-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 98 | 59 | 38 |
| 11543-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 70 | 31 | 45 |
| 11543-16-16 | 25 | 1 | -16 | 25.4 | 1 | 108 | 63 | 45 |
| 11543-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 82 | 36 | 51 |

To select corresponding half-flange and O-ring see section Eb.

17 ISO 6162-1 Flange 45° Elbow

ISO 12151-3 – E45 – L – SFL 45°
(21.0 MPa/ 3000 psi)



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 11743-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2 | 79 | 44 | 20 | 30 |
| 11743-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4 | 96 | 57 | 26 | 38 |
| 11743-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 98 | 58 | 26 | 38 |
| 11743-16-16 | 25 | 1 | -16 | 25.4 | 1 | 119 | 73 | 27 | 45 |
| 11743-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 121 | 76 | 32 | 51 |

To select corresponding half-flange and O-ring see section Eb.

Approved **fitting series** for hose types:

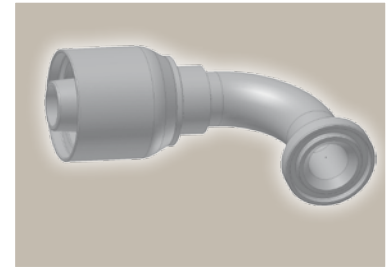
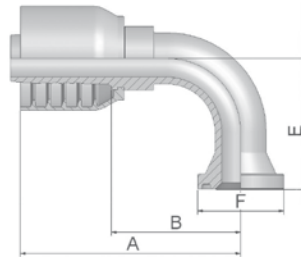
Also available in stainless steel. Details can be found in CAT 4400.1/UK

43 304 351TC 421WC 424 601 722CLF 722TC 881

19

ISO 6162-1 Flange 90° Elbow

ISO 12151-3 – E-L – SFL 90°
(21.0 MPa/ 3000 psi)



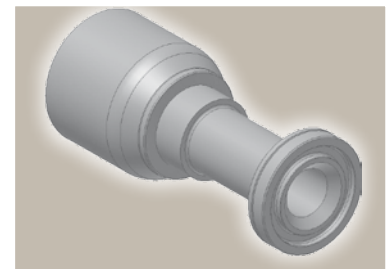
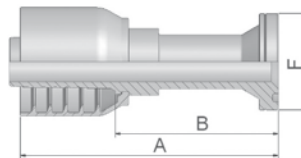
| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 11943-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2 | 75 | 40 | 41 | 30 |
| 11943-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 89 | 50 | 58 | 38 |
| 11943-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 90 | 50 | 58 | 45 |

To select corresponding half-flange and O-ring see section Eb.

6A

ISO 6162-2 Flange Straight

ISO 12151-3-S-S – SFS
(42.0 MPa/ 6000 psi)



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | F mm |
|-------------|-----------|------|------|------|----------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 16A43-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 105 | 66 | 41 |
| 16A43-16-16 | 25 | 1 | -16 | 25.4 | 1 | 127 | 82 | 48 |

To select corresponding half-flange and O-ring see section Eb.

Approved **fitting series** for hose types:

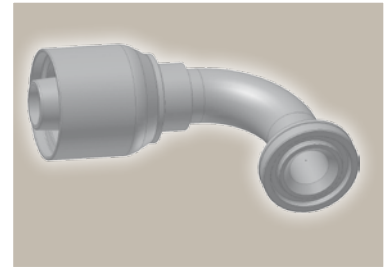
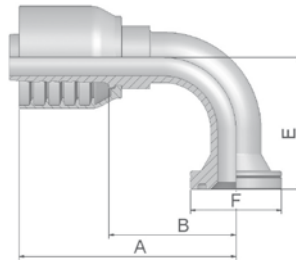
Also available in stainless steel. Details can be found in CAT 4400.1/UK

43 304 351TC 421WC 424 601 722CLF 722TC 881

6N

ISO 6162-2 Flange 90° Elbow

ISO 12151-3 – E-S – SFS 90°
(42.0 MPa/ 6000 psi)



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 16N43-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 98 | 58 | 54 | 41 |
| 16N43-16-16 | 25 | 1 | -16 | 25.4 | 1 | 111 | 64 | 70 | 48 |

To select corresponding half-flange and O-ring see section Eb.

Approved **fitting series** for hose types:

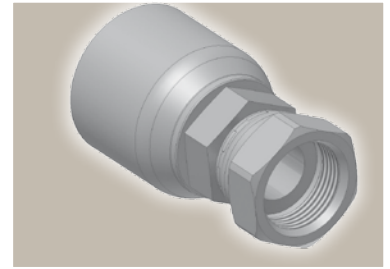
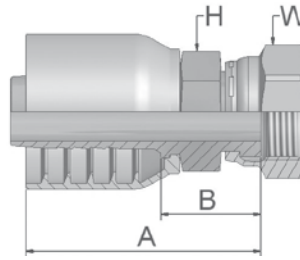
Also available in stainless steel. Details can be found in CAT 4400.1/UK

43 304 351TC 421WC 424 601 722CLF 722TC 881

JC

Female ORFS Swivel – Straight Short

ISO 12151-1 – SWSA
SAE J516 – ORFS

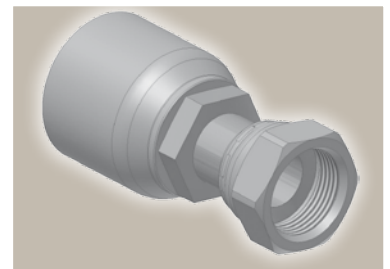
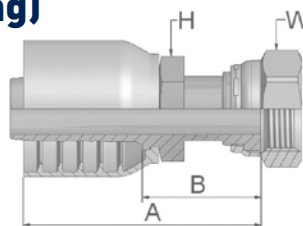


| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | H mm | W mm |
|----------------|-----------|------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1JC43-6-6-SM | 10 | 3/8 | -6 | 9.5 | 11/16x16 | 49 | 20 | 19 | 22 |
| 1JC43-8-8-SM | 12 | 1/2 | -8 | 12.7 | 13/16x16 | 56 | 22 | 22 | 24 |
| 1JC43-10-8-SM | 12 | 1/2 | -8 | 12.7 | 1x14 | 58 | 24 | 24 | 30 |
| 1JC43-10-10-SM | 16 | 5/8 | -10 | 15.9 | 1x14 | 64 | 24 | 24 | 30 |
| 1JC43-12-12-SM | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 68 | 29 | 32 | 36 |
| 1JC43-16-12-SM | 19 | 3/4 | -12 | 19.1 | 1 7/16x12 | 72 | 33 | 36 | 41 |
| 1JC43-16-16-SM | 25 | 1 | -16 | 25.4 | 1 7/16x12 | 80 | 35 | 36 | 41 |

JS

ORFS Swivel Female (Long)

ISO 12151-1-SWSB
SAE J516 – ORFS



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | H mm Inch | W mm Inch |
|----------------|-----------|------|------|------|---------------|---------|---------|--------------|--------------|
| | DN | Inch | Size | mm | | | | | |
| 1JS43-10-10-SM | 16 | 5/8 | -10 | 15.9 | 1x14 | 79 | 39 | 24 | 15/16 |

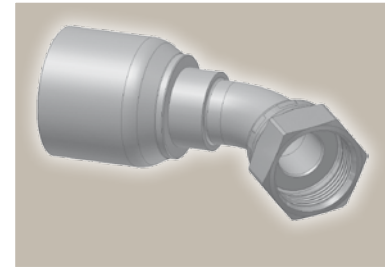
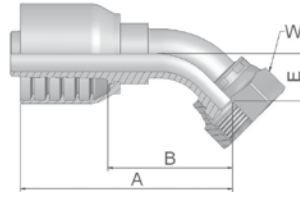
Approved fitting series for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

43 304 351TC 421WC 424 601 722CLF 722TC 881

J7 Female ORFS – Swivel 45° Elbow

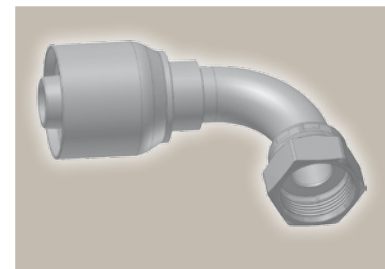
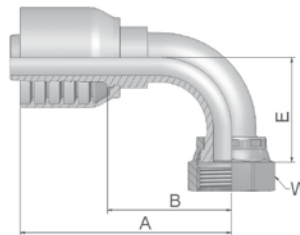
ISO 12151-1 – SWE 45°
SAE J516 – ORFS 45°



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | E mm | W mm |
|----------------|-----------|------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1J743-8-6-SM | 10 | 3/8 | -6 | 9.5 | 13/16x16 | 64 | 35 | 15 | 24 |
| 1J743-8-8-SM | 12 | 1/2 | -8 | 12.7 | 13/16x16 | 72 | 37 | 15 | 24 |
| 1J743-10-10-SM | 16 | 5/8 | -10 | 15.9 | 1x14 | 83 | 44 | 16 | 30 |
| 1J743-12-12-SM | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 92 | 53 | 21 | 36 |
| 1J743-16-16-SM | 25 | 1 | -16 | 25.4 | 1 7/16x12 | 113 | 66 | 24 | 41 |

J9 Female ORFS – Swivel 90° Elbow – Short Drop

ISO 12151-1 – SWES
SAE J516 – ORFS 90°



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | E mm | W mm |
|----------------|-----------|------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1J943-6-6-SM | 10 | 3/8 | -6 | 9.5 | 11/16x16 | 58 | 29 | 23 | 22 |
| 1J943-8-6-SM | 10 | 3/8 | -6 | 9.5 | 13/16x16 | 58 | 29 | 29 | 24 |
| 1J943-8-8-SM | 12 | 1/2 | -8 | 12.7 | 13/16x16 | 70 | 35 | 29 | 24 |
| 1J943-10-8-SM | 12 | 1/2 | -8 | 12.7 | 1x14 | 73 | 38 | 32 | 30 |
| 1J943-10-10-SM | 16 | 5/8 | -10 | 15.9 | 1x14 | 78 | 39 | 33 | 30 |
| 1J943-12-10-SM | 16 | 5/8 | -10 | 15.9 | 1 3/16x12 | 86 | 50 | 48 | 36 |
| 1J943-12-12-SM | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 89 | 49 | 48 | 36 |
| 1J943-16-16-SM | 25 | 1 | -16 | 25.4 | 1 7/16x12 | 111 | 64 | 56 | 41 |

Approved **fitting series** for hose types:

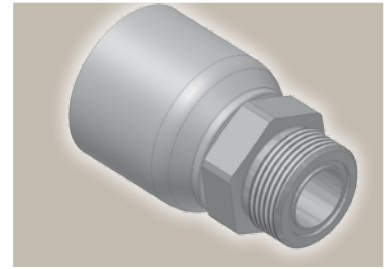
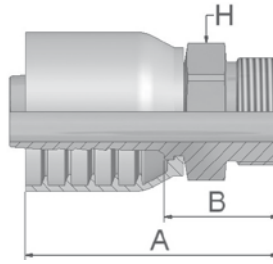
Also available in stainless steel. Details can be found in CAT 4400.1/UK

43 304 351TC 421WC 424 601 722CLF 722TC 881

JM

ORFS Male

ISO 12151-1-S – SAE J516



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | H mm |
|----------------|-----------|------|------|------|---------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 1JM43-8-6-SM | 10 | 3/8 | -6 | 9.5 | 13/16x16 | 56 | 27 | 22 |
| 1JM43-8-8-SM | 12 | 1/2 | -8 | 12.7 | 13/16x16 | 62 | 27 | 22 |
| 1JM43-10-8-SM | 12 | 1/2 | -8 | 12.7 | 1x14 | 67 | 32 | 27 |
| 1JM43-10-10-SM | 16 | 5/8 | -10 | 15.9 | 1x14 | 71 | 32 | 27 |
| 1JM43-16-16-SM | 25 | 1 | -16 | 25.4 | 1 7/16x12 | 84 | 39 | 41 |

To select corresponding O-ring see section Eb.

Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

43 304 351TC 421WC 424 601 722CLF 722TC 881

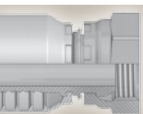



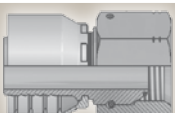
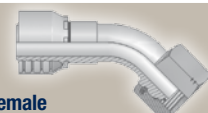
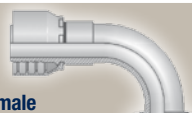
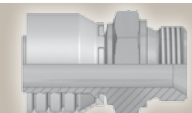
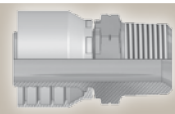
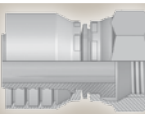
DIN – Metric

Page Cc-1 – Cc-11

| | | | |
|--|--|---|---|
| <p>CA Cc-1 Female Metric 24° Light Series with O-Ring Swivel – Straight ISO 12151-2-SWS-L – DKOL</p>  | <p>CE Cc-2 Female Metric 24° Light Series with O-Ring Swivel – 45° Elbow ISO 12151-2-SWE 45°-L – DKOL 45°</p>  | <p>CF Cc-3 Female Metric 24° Light Series with O-Ring Swivel – 90° Elbow ISO 12151-2-SWE-L – DKOL 90°</p>  | <p>DO Cc-4 Male Metric 24° Light Series – Rigid Straight ISO 12151-2-S-L – CEL</p>  |
| <p>C3 Cc-5 Female Metric Light Series – Swivel Straight (Ball Nose for 24° or 60° Cone) DKL</p>  | <p>C4 Cc-5 Female Metric Light Series – Swivel 45° Elbow (Ball Nose for 24° or 60° Cone) DKL 45°</p>  | <p>C5 Cc-6 Female Metric Light Series – Swivel 90° Elbow (Ball Nose for 24° or 60° Cone) DKL 90°</p>  | <p>C9 Cc-7 Female Metric 24° – Swivel Heavy Series with O-Ring Straight ISO 12151-2-SWS-S – DKOS</p>  |
| <p>OC Cc-8 Female Metric 24° – Swivel Heavy Series with O-Ring 45° Elbow ISO 12151-2 – SWE 45°-S – DKOS 45°</p>  | <p>1C Cc-9 Female Metric 24° – Swivel Heavy Series with O-Ring 90° Elbow ISO 12151-2-SWE-S – DKOS 90°</p>  | <p>D2 Cc-10 Male Metric 24° – Rigid Heavy Series – Straight ISO 12151-2-S-S – CES</p>  | <p>C6 Cc-11 Female Metric – Swivel Heavy Series – Straight (Ball Nose) DKS</p>  |
| <p>49 Cc-11 Metric Banjo Straight DIN 7642</p>  | | | |

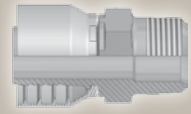
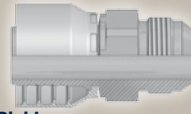
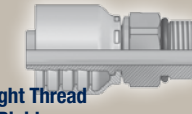
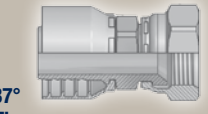
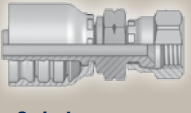
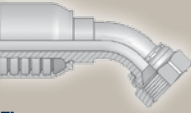
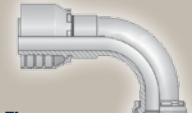

BSP

Page Cc-12 – Cc-20

| | | | |
|--|--|---|--|
| <p>92 Cc-12 Female BSP Parallel Pipe Swivel – Straight (60° Cone) BS5200-A – DKR</p>  | <p>B1 Cc-13 Female BSP Parallel Pipe Swivel 45° Elbow (60° Cone) BS 5200-D – DKR 45°</p>  | <p>B2 Cc-14 Female BSP Parallel Pipe Swivel 90° Elbow (60° Cone) BS 5200-B – DKR 90°</p>  | <p>B4 Cc-15 Female BSP Parallel Pipe Swivel – 90° Elbow Block Type (60° Cone) BS 5200-E – DKR 90°</p>  |
| <p>EA Cc-16 BSP Swivel Female with O-Ring (60° Cone) BS 5200 – ISO 12151-6 – DKOR</p>  | <p>EB Cc-17 BSP Swivel Female with O-Ring 45° Elbow (60° Cone) BS 5200 – ISO 12151-6 – DKOR 45°</p>  | <p>EC Cc-18 BSP Swivel Female with O-Ring 90° Elbow (60° Cone) BS 5200 – ISO 12151-6 – DKOR 90°</p>  | <p>D9 Cc-19 Male BSP Parallel Pipe Rigid – Straight (60° Cone) BS5200 – AGR</p>  |
| <p>91 Cc-20 Male BSP Taper Pipe – Rigid Straight BS5200 – AGR-K</p>  | <p>B5 Cc-20 Female BSP Parallel Pipe Swivel Straight (Flat Seat)</p>  | | |

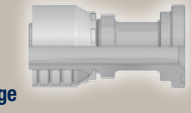
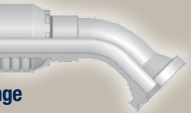

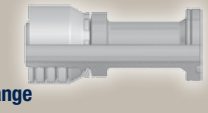

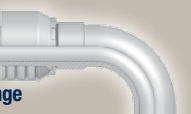
SAE

Page Cc-21 – Cc-28

| | | | |
|---|---|---|---|
| <p>01 Cc-21</p>  <p>Male NPTF Pipe Rigid – Straight SAE J476A / J516 – AGN</p> | <p>03 Cc-22</p>  <p>Male JIC 37° – Rigid Straight ISO12151-5-S – AGJ</p> | <p>05 Cc-23</p>  <p>Male SAE Straight Thread with O-Ring – Rigid Straight ISO 11926 – SAE J516</p> | <p>06/68 Cc-24</p>  <p>Female – JIC 37° SAE 45° Dual Flare Swivel – Straight ISO12151-5-SWS – DKJ</p> |
| <p>08 Cc-25</p>  <p>Female SAE 45° – Swivel Straight SAE J516</p> | <p>37/3V Cc-26</p>  <p>Female JIC 37° SAE 45° – Dual Flare Swivel Female 45° Elbow ISO 12151-5-SWE 45° – DKJ 45°</p> | <p>39/3W Cc-27</p>  <p>Female JIC 37° SAE 45° – Dual Flare Swivel Female 90° Elbow ISO 12151-5-SWES – DKJ 90°</p> | <p>41/3Y Cc-28</p>  <p>Female JIC 37° / 45° Swivel Female 90° Elbow (Long) ISO 12151-5-SWEL – DKJ 90°L</p> |

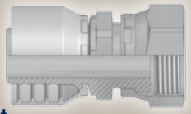




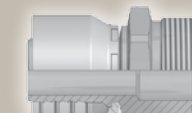
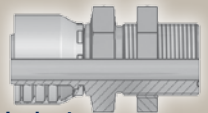
Flange

Page Cc-29 – Cc-33

| | | | |
|--|---|--|--|
| <p>15 Cc-29</p>  <p>ISO 6162-1 Flange Straight ISO 12151-3-S-L – SFL (21.0 MPa/ 3000 psi)</p> | <p>17 Cc-30</p>  <p>ISO 6162-1 Flange 45° Elbow ISO 12151-3 – E45 – L – SFL 45° (21.0 MPa/ 3000 psi)</p> | <p>19 Cc-31</p>  <p>ISO 6162-1 Flange 90° Elbow ISO 12151-3 – E – L – SFL 90° (21.0 MPa/ 3000 psi)</p> | <p>6A Cc-32</p>  <p>ISO 6162-2 Flange Straight ISO 12151-3-S-S – SFS (42.0 MPa/ 6000 psi)</p> |
| <p>6F Cc-32</p>  <p>ISO 6162-2 Flange 45° Elbow – Heavy Series ISO 12151-3 – E45-S – SFS 45° (42.0 MPa/ 6000 psi)</p> | <p>6N Cc-33</p>  <p>ISO 6162-2 Flange 90° Elbow ISO 12151-3 – E-S – SFS 90° (42.0 MPa/ 6000 psi)</p> | | |

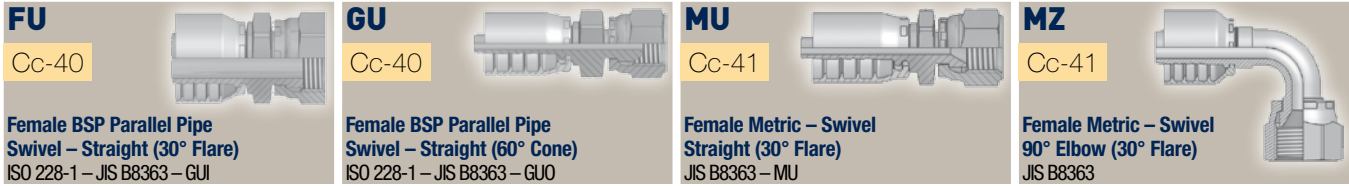
ORFS

Page Cc-34 – Cc-39

| | | | |
|--|---|--|---|
| <p>JC Cc-34</p>  <p>Female ORFS Swivel – Straight Short ISO 12151-1 – SWSA SAE J516 – ORFS</p> | <p>JS Cc-35</p>  <p>ORFS Swivel Female (Long) ISO 12151-1-SWSB SAE J516 – ORFS</p> | <p>J7 Cc-36</p>  <p>Female ORFS – Swivel 45° Elbow ISO 12151-1 – SWE 45° SAE J516 – ORFS 45°</p> | <p>J9 Cc-37</p>  <p>Female ORFS – Swivel 90° Elbow – Short Drop ISO 12151-1 – SWES SAE J516 – ORFS 90°</p> |
| <p>J1 Cc-38</p>  <p>Female ORFS – Swivel 90° Elbow – Long Drop ISO 12151-1 – SWEL SAE J516 – ORFS 90° L</p> | <p>J5 Cc-38</p>  <p>Female ORFS – Swivel 90° Elbow – Medium Drop ISO 12151-1 – SWEM – ORFS 90° M</p> | <p>JM Cc-39</p>  <p>ORFS Male ISO 12151-1-S – SAE J516</p> | <p>JD Cc-39</p>  <p>Male ORFS Bulkhead with Locknut Straight (with O-ring) ISO 12151-1 – SAE J516</p> |

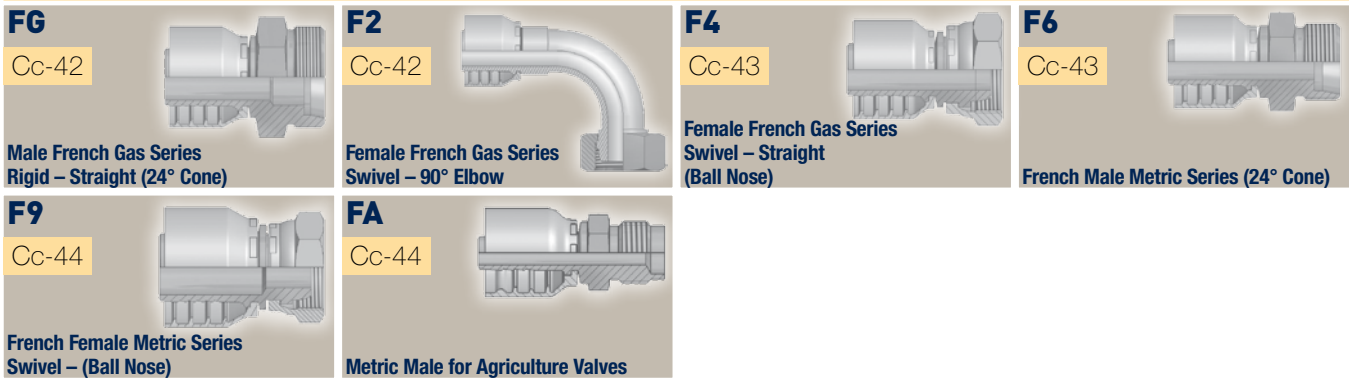
JIS

Page Cc-40 – Cc-41



French Standard

Page Cc-42 – Cc-44



High Pressure Cleaning

Page Cc-45 – Cc-46



Others

Page Cc-47 – Cc-48

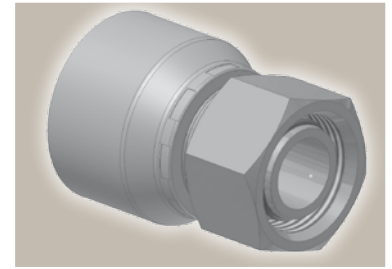
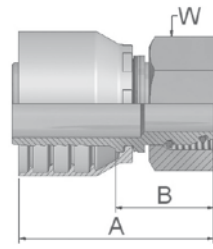


UPTC (Universal push-to-connect)

Page Cc-49 – Cc-50



CA **Female Metric 24°
Light Series with O-Ring
Swivel – Straight**
ISO 12151-2-SWS-L – DKOL



| Part Number | | Hose I.D. | | | | Thread | Tube O.D. | A | B | W |
|-------------|-------------|-----------|-------|------|-------|---------|-----------|----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | metric | mm | mm | mm | mm |
| 1CA46-6-4 | 1CA48-6-4 | 6 | 1/4 | -4 | 6.4 | M12x1.5 | 6 | 46 | 22 | 14 |
| 1CA46-8-4 | 1CA48-8-4 | 6 | 1/4 | -4 | 6.4 | M14x1.5 | 8 | 46 | 22 | 17 |
| 1CA46-10-4 | 1CA48-10-4 | 6 | 1/4 | -4 | 6.4 | M16x1.5 | 10 | 46 | 22 | 19 |
| 1CA46-12-4 | 1CA48-12-4 | 6 | 1/4 | -4 | 6.4 | M18x1.5 | 12 | 46 | 22 | 22 |
| 1CA46-8-5 | 1CA48-8-5 | 8 | 5/16 | -5 | 7.9 | M14x1.5 | 8 | 50 | 26 | 17 |
| 1CA46-10-5 | 1CA48-10-5 | 8 | 5/16 | -5 | 7.9 | M16x1.5 | 10 | 46 | 22 | 19 |
| 1CA46-12-5 | 1CA48-12-5 | 8 | 5/16 | -5 | 7.9 | M18x1.5 | 12 | 46 | 22 | 22 |
| 1CA46-8-6 | 1CA48-8-6 | 10 | 3/8 | -6 | 9.5 | M14x1.5 | 8 | 49 | 26 | 17 |
| 1CA46-10-6 | 1CA48-10-6 | 10 | 3/8 | -6 | 9.5 | M16x1.5 | 10 | 46 | 23 | 19 |
| 1CA46-12-6 | 1CA48-12-6 | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 12 | 46 | 23 | 22 |
| 1CA46-15-6 | 1CA48-15-6 | 10 | 3/8 | -6 | 9.5 | M22x1.5 | 15 | 47 | 24 | 27 |
| 1CA46-18-6 | 1CA48-18-6 | 10 | 3/8 | -6 | 9.5 | M26x1.5 | 18 | 50 | 28 | 32 |
| 1CA46-12-8 | 1CA48-12-8 | 12 | 1/2 | -8 | 12.7 | M18x1.5 | 12 | 50 | 26 | 22 |
| 1CA46-15-8 | 1CA48-15-8 | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 50 | 26 | 27 |
| 1CA46-18-8 | 1CA48-18-8 | 12 | 1/2 | -8 | 12.7 | M26x1.5 | 18 | 49 | 25 | 32 |
| 1CA46-15-10 | 1CA48-15-10 | 16 | 5/8 | -10 | 15.9 | M22x1.5 | 15 | 54 | 29 | 27 |
| 1CA46-18-10 | 1CA48-18-10 | 16 | 5/8 | -10 | 15.9 | M26x1.5 | 18 | 50 | 25 | 32 |
| 1CA46-22-10 | 1CA48-22-10 | 16 | 5/8 | -10 | 15.9 | M30x2 | 22 | 58 | 33 | 36 |
| 1CA46-18-12 | 1CA48-18-12 | 19 | 3/4 | -12 | 19.1 | M26x1.5 | 18 | 51 | 25 | 32 |
| 1CA46-22-12 | 1CA48-22-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 22 | 56 | 30 | 36 |
| 1CA46-28-12 | 1CA48-28-12 | 19 | 3/4 | -12 | 19.1 | M36x2 | 28 | 61 | 35 | 41 |
| 1CA46-22-16 | 1CA48-22-16 | 25 | 1 | -16 | 25.4 | M30x2 | 22 | 60 | 30 | 36 |
| 1CA46-28-16 | 1CA48-28-16 | 25 | 1 | -16 | 25.4 | M36x2 | 28 | 63 | 33 | 41 |
| 1CA46-35-16 | 1CA48-35-16 | 25 | 1 | -16 | 25.4 | M45x2 | 35 | 63 | 33 | 50 |
| 1CA46-35-20 | 1CA48-28-20 | 31 | 1 1/4 | -20 | 31.8 | M36x2 | 28 | 81 | 34 | 41 |
| | 1CA48-35-20 | 31 | 1 1/4 | -20 | 31.8 | M45x2 | 35 | 82 | 35 | 50 |
| 1CA46-35-20 | 1CA48-35-20 | 31 | 1 1/4 | -20 | 31.8 | M45x2 | 35 | 69 | 31 | 50 |
| | 1CA48-42-20 | 31 | 1 1/4 | -20 | 31.8 | M52x2 | 42 | 82 | 35 | 60 |
| | 1CA48-35-24 | 38 | 1 1/2 | -24 | 38.1 | M45x2 | 35 | 75 | 37 | 50 |
| 1CA48-42-24 | 38 | 1 1/2 | -24 | 38.1 | M52x2 | 42 | 77 | 39 | 60 | |

Hose fittings are delivered with ozone resistant Nitrile (NBR) O-ring as a standard version. Working temperature from -40 °C up to +105 °C. Hose fittings with special O-rings (Viton or EPDM) available on request. O-ring dimensions and part-numbers see in section Eb.

46/48 Series

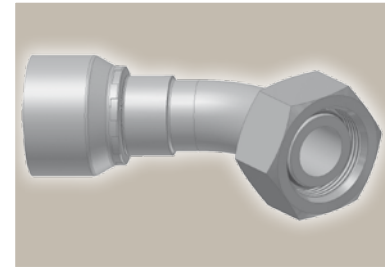
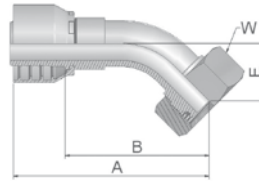
Approved fitting series for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | | | | | | | | | | | | | | | | | | | | |
|----|-------|-------|-------|-------|---------|-------|-------|-----|-----|-----|-------|--------|-------|-------|-------|-----|-------|-----|-----|-----|
| 46 | or | 48 | 441 | 441RH | 461LT | 462 | 462ST | | | | | | | | | | | | | |
| 46 | 463 | 492 | 492ST | 692 | 692TWIN | | | | | | | | | | | | | | | |
| 48 | 301SN | 301TC | 302 | 304 | 421RH | 421SN | 422 | 426 | 436 | 451 | 451TC | 462CLF | 462TC | 471TC | 472TC | 477 | 477ST | 493 | 811 | 881 |

CE **Female Metric 24°
Light Series with O-Ring
Swivel – 45° Elbow**

ISO 12151-2-SWE 45°-L – DKOL 45°



| Part Number | | Hose I.D. | | | | Thread | Tube | A | B | E | W |
|-------------|-------------|-----------|-------|------|------|---------|------------|-----|-----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | metric | O.D. mm | mm | mm | mm | mm |
| 1CE46-6-4 | 1CE48-6-4 | 6 | 1/4 | -4 | 6.4 | M12x1.5 | 6 | 70 | 45 | 19 | 14 |
| 1CE46-8-4 | 1CE48-8-4 | 6 | 1/4 | -4 | 6.4 | M14x1.5 | 8 | 59 | 35 | 16 | 17 |
| 1CE46-10-4 | 1CE48-10-4 | 6 | 1/4 | -4 | 6.4 | M16x1.5 | 10 | 59 | 35 | 16 | 19 |
| 1CE46-12-4 | 1CE48-12-4 | 6 | 1/4 | -4 | 6.4 | M18x1.5 | 12 | 59 | 36 | 16 | 22 |
| 1CE46-8-5 | 1CE48-8-5 | 8 | 5/16 | -5 | 7.9 | M14x1.5 | 8 | 64 | 40 | 19 | 17 |
| 1CE46-10-5 | 1CE48-10-5 | 8 | 5/16 | -5 | 7.9 | M16x1.5 | 10 | 67 | 43 | 15 | 19 |
| 1CE46-12-5 | 1CE48-12-5 | 8 | 5/16 | -5 | 7.9 | M18x1.5 | 12 | 61 | 37 | 16 | 22 |
| 1CE46-10-6 | 1CE48-10-6 | 10 | 3/8 | -6 | 9.5 | M16x1.5 | 10 | 68 | 45 | 20 | 19 |
| 1CE46-12-6 | 1CE48-12-6 | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 12 | 68 | 45 | 19 | 22 |
| 1CE46-15-6 | 1CE48-15-6 | 10 | 3/8 | -6 | 9.5 | M22x1.5 | 15 | 68 | 45 | 19 | 27 |
| 1CE46-12-8 | 1CE48-12-8 | 12 | 1/2 | -8 | 12.7 | M18x1.5 | 12 | 74 | 51 | 23 | 22 |
| 1CE46-15-8 | 1CE48-15-8 | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 71 | 47 | 22 | 27 |
| 1CE46-18-8 | 1CE48-18-8 | 12 | 1/2 | -8 | 12.7 | M26x1.5 | 18 | 71 | 47 | 22 | 32 |
| 1CE46-15-10 | 1CE48-15-10 | 16 | 5/8 | -10 | 15.9 | M22x1.5 | 15 | 79 | 54 | 26 | 27 |
| 1CE46-18-10 | 1CE48-18-10 | 16 | 5/8 | -10 | 15.9 | M26x1.5 | 18 | 75 | 50 | 23 | 32 |
| 1CE46-18-12 | 1CE48-18-12 | 19 | 3/4 | -12 | 19.1 | M26x1.5 | 18 | 90 | 64 | 27 | 32 |
| 1CE46-22-12 | 1CE48-22-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 22 | 88 | 62 | 26 | 36 |
| 1CE46-28-12 | 1CE48-28-12 | 19 | 3/4 | -12 | 19.1 | M36x2 | 28 | 90 | 64 | 28 | 41 |
| 1CE46-22-16 | 1CE48-22-16 | 25 | 1 | -16 | 25.4 | M30x2 | 22 | 112 | 82 | 35 | 36 |
| 1CE46-28-16 | | 25 | 1 | -16 | 25.4 | M36x 2 | 28 | 113 | 83 | 33 | 41 |
| | 1CE48-28-16 | 25 | 1 | -16 | 25.4 | M36x2 | 28 | 113 | 83 | 33 | 41 |
| | 1CE48-28-20 | 31 | 1 1/4 | -20 | 31.8 | M36x2 | 28 | 142 | 95 | 40 | 41 |
| | 1CE48-35-20 | 31 | 1 1/4 | -20 | 31.8 | M45x2 | 35 | 141 | 94 | 37 | 50 |
| 1CE46-35-20 | | 31 | 1 1/4 | -20 | 31.8 | M45x2 | 35 | 130 | 92 | 32 | 50 |
| | 1CE48-42-24 | 38 | 1 1/2 | -24 | 38.1 | M52x2 | 42 | 155 | 117 | 49 | 60 |

Hose fittings are delivered with ozone resistant Nitrile (NBR) O-ring as a standard version. Working temperature from -40 °C up to +105 °C.
Hose fittings with special O-rings (Viton or EPDM) available on request. O-ring dimensions and part-numbers see in section Eb.

Approved **fitting series** for hose types:

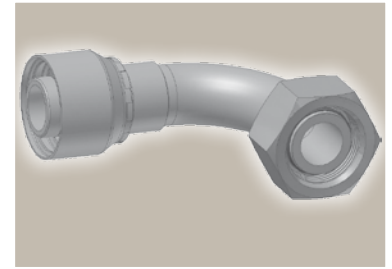
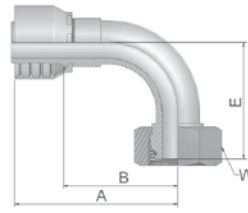
Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | | | | | | | | | | | | | | | | | | | | |
|------------------------|-------|-------|-------|-----|---------|-------|-----|-----|-----|-----|-------|--------|-------|-------|-------|-----|-------|-----|-----|-----|
| 46 or 48 | 441 | 441RH | 461LT | 462 | 462ST | | | | | | | | | | | | | | | |
| 46 | 463 | 492 | 492ST | 692 | 692TWIN | | | | | | | | | | | | | | | |
| 48 | 301SN | 301TC | 302 | 304 | 421RH | 421SN | 422 | 426 | 436 | 451 | 451TC | 462CLF | 462TC | 471TC | 472TC | 477 | 477ST | 493 | 811 | 881 |

CF

**Female Metric 24°
Light Series with O-Ring
Swivel – 90° Elbow**

ISO 12151-2-SWE-L – DKOL 90°



| Part Number | | Hose I.D. | | | | Thread | Tube | A | B | E | W |
|-------------|-------------|-----------|-------|------|------|---------|------------|-----|-----|-----|----|
| 46 series | 48 series | DN | Inch | Size | mm | metric | O.D. mm | mm | mm | mm | mm |
| 1CF46-6-4 | 1CF48-6-4 | 6 | 1/4 | -4 | 6.4 | M12x1.5 | 6 | 57 | 33 | 33 | 14 |
| 1CF46-8-4 | 1CF48-8-4 | 6 | 1/4 | -4 | 6.4 | M14x1.5 | 8 | 51 | 28 | 29 | 17 |
| 1CF46-10-4 | 1CF48-10-4 | 6 | 1/4 | -4 | 6.4 | M16x1.5 | 10 | 52 | 28 | 29 | 19 |
| 1CF46-12-4 | 1CF48-12-4 | 6 | 1/4 | -4 | 6.4 | M18x1.5 | 12 | 53 | 26 | 29 | 22 |
| 1CF46-8-5 | 1CF48-8-5 | 8 | 5/16 | -5 | 7.9 | M14x1.5 | 8 | 62 | 38 | 34 | 17 |
| 1CF46-10-5 | 1CF48-10-5 | 8 | 5/16 | -5 | 7.9 | M16x1.5 | 10 | 61 | 37 | 29 | 19 |
| 1CF46-12-5 | 1CF48-12-5 | 8 | 5/16 | -5 | 7.9 | M18x1.5 | 12 | 61 | 37 | 30 | 22 |
| 1CF46-10-6 | 1CF48-10-6 | 10 | 3/8 | -6 | 9.5 | M16x1.5 | 10 | 60 | 37 | 37 | 19 |
| 1CF46-12-6 | 1CF48-12-6 | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 12 | 58 | 35 | 36 | 22 |
| 1CF46-15-6 | 1CF48-15-6 | 10 | 3/8 | -6 | 9.5 | M22x1.5 | 15 | 58 | 35 | 36 | 27 |
| 1CF46-12-8 | 1CF48-12-8 | 12 | 1/2 | -8 | 12.7 | M18x1.5 | 12 | 63 | 39 | 45 | 22 |
| 1CF46-15-8 | 1CF48-15-8 | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 61 | 37 | 43 | 27 |
| 1CF46-18-8 | 1CF48-18-8 | 12 | 1/2 | -8 | 12.7 | M26x1.5 | 18 | 65 | 41 | 43 | 32 |
| 1CF46-15-10 | 1CF48-15-10 | 16 | 5/8 | -10 | 15.9 | M22x1.5 | 15 | 67 | 42 | 50 | 27 |
| 1CF46-18-10 | 1CF48-18-10 | 16 | 5/8 | -10 | 15.9 | M26x1.5 | 18 | 66 | 41 | 45 | 32 |
| 1CF46-22-10 | 1CF48-22-10 | 16 | 5/8 | -10 | 15.9 | M30x2 | 22 | 71 | 46 | 47 | 36 |
| 1CF46-18-12 | 1CF48-18-12 | 19 | 3/4 | -12 | 19.1 | M26x1.5 | 18 | 80 | 54 | 56 | 32 |
| 1CF46-22-12 | 1CF48-22-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 22 | 80 | 54 | 55 | 36 |
| 1CF46-28-12 | 1CF48-28-12 | 19 | 3/4 | -12 | 19.1 | M36x2 | 28 | 80 | 54 | 57 | 41 |
| 1CF46-22-16 | 1CF48-22-16 | 25 | 1 | -16 | 25.4 | M30x2 | 22 | 102 | 72 | 74 | 36 |
| 1CF46-28-16 | 1CF48-28-16 | 25 | 1 | -16 | 25.4 | M36x2 | 28 | 101 | 72 | 71 | 41 |
| | 1CF48-22-20 | 31 | 1 1/4 | -20 | 31.8 | M30x2 | 22 | 130 | 83 | 81 | 36 |
| | 1CF48-28-20 | 31 | 1 1/4 | -20 | 31.8 | M36x2 | 28 | 129 | 82 | 81 | 41 |
| 1CF46-28-20 | | 31 | 1 1/4 | -20 | 31.8 | M36x2 | 28 | 124 | 86 | 81 | 41 |
| | 1CF48-35-20 | 31 | 1 1/4 | -20 | 31.8 | M45x2 | 35 | 130 | 83 | 79 | 50 |
| 1CF46-35-20 | | 31 | 1 1/4 | -20 | 31.8 | M45x2 | 35 | 124 | 86 | 79 | 50 |
| | 1CF48-35-24 | 38 | 1 1/2 | -24 | 38.1 | M45x2 | 35 | 139 | 101 | 99 | 50 |
| | 1CF48-42-24 | 38 | 1 1/2 | -24 | 38.1 | M52x2 | 42 | 139 | 101 | 101 | 60 |

Hose fittings are delivered with ozone resistant Nitrile (NBR) O-ring as a standard version. Working temperature from -40 °C up to +105 °C.
Hose fittings with special O-rings (Viton or EPDM) available on request. O-ring dimensions and part-numbers see in section Eb.

46/48 Series

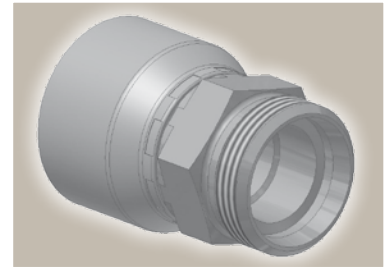
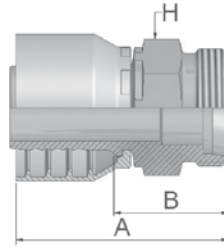
Approved fitting series for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | | | | | | | | | | | | | | | | | | | | |
|----|-------|-------|-------|-------|---------|-------|-------|-----|-----|-----|-------|--------|-------|-------|-------|-----|-------|-----|-----|-----|
| 46 | or | 48 | 441 | 441RH | 461LT | 462 | 462ST | | | | | | | | | | | | | |
| 46 | 463 | 492 | 492ST | 692 | 692TWIN | | | | | | | | | | | | | | | |
| 48 | 301SN | 301TC | 302 | 304 | 421RH | 421SN | 422 | 426 | 436 | 451 | 451TC | 462CLF | 462TC | 471TC | 472TC | 477 | 477ST | 493 | 811 | 881 |

D0 **Male Metric 24°
Light Series – Rigid
Straight**

ISO 12151-2-S-L – CEL



| Part Number | | Hose I.D. | | | | Thread | Tube O.D. | A | B | H |
|-------------|-------------|-----------|-------|------|------|---------|-----------|----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | metric | mm | mm | mm | |
| 1D046-6-4 | 1D048-6-4 | 6 | 1/4 | -4 | 6.4 | M12x1.5 | 6 | 44 | 20 | 12 |
| 1D046-8-4 | 1D048-8-4 | 6 | 1/4 | -4 | 6.4 | M14x1.5 | 8 | 46 | 22 | 14 |
| 1D046-10-4 | 1D048-10-4 | 6 | 1/4 | -4 | 6.4 | M16x1.5 | 10 | 48 | 24 | 17 |
| 1D046-12-4 | 1D048-12-4 | 6 | 1/4 | -4 | 6.4 | M18x1.5 | 12 | 48 | 24 | 19 |
| 1D046-8-5 | 1D048-8-5 | 8 | 5/16 | -5 | 7.9 | M14x1.5 | 8 | 44 | 20 | 14 |
| | 1D048-10-5 | 8 | 5/16 | -5 | 7.9 | M16x1.5 | 10 | 48 | 24 | 17 |
| 1D046-10-5 | | 8 | 5/16 | -5 | 7.9 | M16x1.5 | 10 | 47 | 24 | 17 |
| 1D046-12-5 | 1D048-12-5 | 8 | 5/16 | -5 | 7.9 | M18x1.5 | 12 | 48 | 24 | 19 |
| 1D046-10-6 | 1D048-10-6 | 10 | 3/8 | -6 | 9.5 | M16x1.5 | 10 | 47 | 24 | 17 |
| 1D046-12-6 | 1D048-12-6 | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 12 | 47 | 24 | 19 |
| 1D046-15-6 | 1D048-15-6 | 10 | 3/8 | -6 | 9.5 | M22x1.5 | 15 | 49 | 26 | 22 |
| 1D046-12-8 | | 12 | 1/2 | -8 | 12.7 | M18x1.5 | 12 | 47 | 23 | 19 |
| 1D046-15-8 | 1D048-15-8 | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 50 | 26 | 22 |
| 1D046-18-8 | 1D048-18-8 | 12 | 1/2 | -8 | 12.7 | M26x1.5 | 18 | 53 | 29 | 27 |
| 1D046-15-10 | 1D048-15-10 | 16 | 5/8 | -10 | 15.9 | M22x1.5 | 15 | 57 | 29 | 27 |
| 1D046-18-10 | 1D048-18-10 | 16 | 5/8 | -10 | 15.9 | M26x1.5 | 18 | 54 | 29 | 27 |
| 1D046-18-12 | 1D048-18-12 | 19 | 3/4 | -12 | 19.1 | M26x1.5 | 18 | 55 | 29 | 27 |
| 1D046-22-12 | 1D048-22-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 22 | 59 | 33 | 30 |
| 1D046-28-12 | 1D048-28-12 | 19 | 3/4 | -12 | 19.1 | M36x2 | 28 | 60 | 34 | 36 |
| 1D046-28-16 | 1D048-28-16 | 25 | 1 | -16 | 25.4 | M36x2 | 28 | 65 | 35 | 36 |
| 1D046-35-20 | | 31 | 1 1/4 | -20 | 31.8 | M45x2 | 35 | 78 | 40 | 46 |
| | 1D048-35-20 | 31 | 1 1/4 | -20 | 31.8 | M45x2 | 35 | 85 | 38 | 46 |
| | 1D048-42-24 | 38 | 1 1/2 | -24 | 38.1 | M52x2 | 42 | 77 | 39 | 55 |

Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

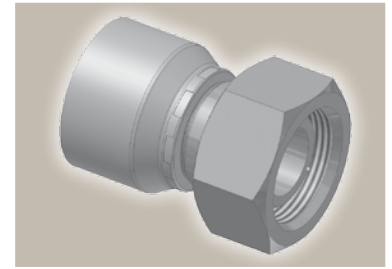
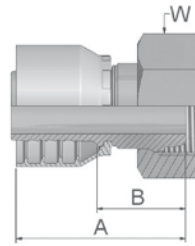
46 or **48** 441 441RH 461LT 462 462ST

46 463 492 492ST 692 692TWIN

48 301SN 301TC 302 304 421RH 421SN 422 426 436 451 451TC 462CLF 462TC 471TC 472TC 477 477ST 493 811 881

C3 Female Metric Light Series – Swivel Straight (Ball Nose for 24° or 60° Cone)

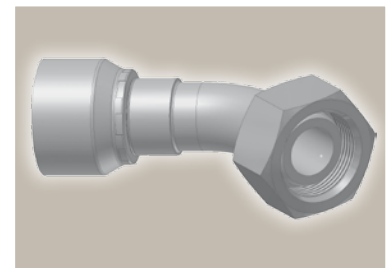
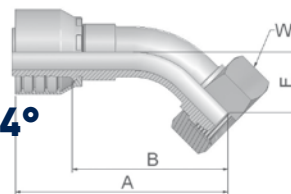
DKL



| Part Number | | Hose I.D. | | | | Thread | Tube | A | B | W |
|-------------|-------------|-----------|------|------|------|---------|------------|----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | metric | O.D. mm | mm | mm | mm |
| | 1C348-6-4 | 6 | 1/4 | -4 | 6.4 | M12x1.5 | 6 | 46 | 22 | 14 |
| | 1C348-8-4 | 6 | 1/4 | -4 | 6.4 | M14x1.5 | 8 | 45 | 21 | 17 |
| | 1C348-10-4 | 6 | 1/4 | -4 | 6.4 | M16x1.5 | 10 | 46 | 22 | 19 |
| | 1C348-10-5 | 8 | 5/16 | -5 | 7.9 | M16x1.5 | 10 | 46 | 22 | 19 |
| | 1C348-12-5 | 8 | 5/16 | -5 | 7.9 | M18x1.5 | 12 | 46 | 22 | 22 |
| | 1C348-10-6 | 10 | 3/8 | -6 | 9.5 | M16x1.5 | 10 | 46 | 24 | 19 |
| | 1C348-12-6 | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 12 | 45 | 22 | 22 |
| | 1C348-15-8 | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 48 | 24 | 27 |
| | 1C348-18-10 | 16 | 5/8 | -10 | 15.9 | M26x1.5 | 18 | 51 | 26 | 32 |
| | 1C348-22-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 22 | 56 | 30 | 36 |
| | 1C348-28-16 | 25 | 1 | -16 | 25.4 | M36x2 | 28 | 62 | 33 | 41 |

C4 Female Metric Light Series – Swivel 45° Elbow (Ball Nose for 24° or 60° Cone)

DKL 45°



| Part Number | | Hose I.D. | | | | Thread | Tube | A | B | E | W |
|-------------|------------|-----------|------|------|------|---------|------------|----|----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | metric | O.D. mm | mm | mm | mm | mm |
| | 1C448-8-4 | 6 | 1/4 | -4 | 6.4 | M14x1.5 | 8 | 56 | 33 | 14 | 17 |
| | 1C448-10-5 | 8 | 5/16 | -5 | 7.9 | M16x1.5 | 10 | 58 | 34 | 15 | 19 |
| | 1C448-12-6 | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 12 | 67 | 44 | 18 | 22 |
| | 1C448-15-8 | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 68 | 45 | 19 | 27 |

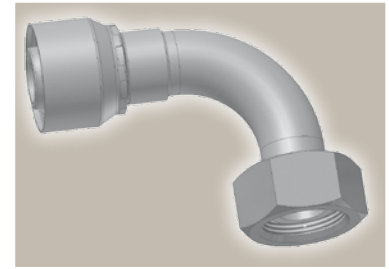
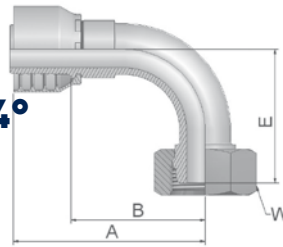
Approved fitting series for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

- 46 or 48 441 441RH 461LT 462 462ST
- 46 463 492 492ST 692 692TWIN
- 48 301SN 301TC 302 304 421RH 421SN 422 426 436 451 451TC 462CLF 462TC 471TC 472TC 477 477ST 493 811 881

C5 Female Metric Light Series – Swivel 90° Elbow (Ball Nose for 24° or 60° Cone)

DKL 90°



| Part Number | | Hose I.D. | | | | Thread | Tube | A | B | E | W |
|-------------|-------------|-----------|------|------|------|---------|------------|----|----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | metric | O.D. mm | mm | mm | mm | mm |
| | 1C548-6-4 | 6 | 1/4 | -4 | 6.4 | M12x1.5 | 6 | 49 | 26 | 29 | 14 |
| | 1C548-8-4 | 6 | 1/4 | -4 | 6.4 | M14x1.5 | 8 | 48 | 25 | 26 | 17 |
| | 1C548-10-5 | 8 | 5/16 | -5 | 7.9 | M16x1.5 | 10 | 61 | 37 | 33 | 19 |
| | 1C548-10-6 | 10 | 3/8 | -6 | 9.5 | M16x1.5 | 10 | 58 | 35 | 35 | 19 |
| | 1C548-12-6 | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 12 | 58 | 35 | 34 | 22 |
| | 1C548-15-8 | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 64 | 41 | 39 | 27 |
| | 1C548-18-10 | 16 | 5/8 | -10 | 15.9 | M26x1.5 | 18 | 66 | 41 | 43 | 32 |
| | 1C548-22-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 22 | 80 | 54 | 50 | 36 |

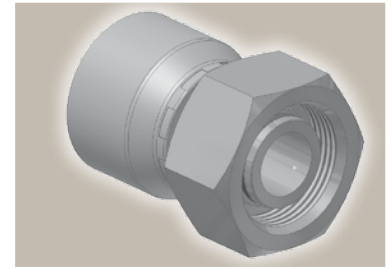
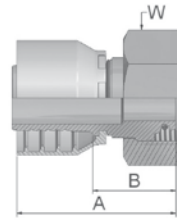
Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | | | | | | | | | | | | | | | | | | | | |
|------------------------|-------|-------|-------|-----|---------|-------|-----|-----|-----|-----|-------|--------|-------|-------|-------|-----|-------|-----|-----|-----|
| 46 or 48 | 441 | 441RH | 461LT | 462 | 462ST | | | | | | | | | | | | | | | |
| 46 | 463 | 492 | 492ST | 692 | 692TWIN | | | | | | | | | | | | | | | |
| 48 | 301SN | 301TC | 302 | 304 | 421RH | 421SN | 422 | 426 | 436 | 451 | 451TC | 462CLF | 462TC | 471TC | 472TC | 477 | 477ST | 493 | 811 | 881 |

C9 Female Metric 24° – Swivel Heavy Series with O-Ring Straight

ISO 12151-2-SWS-S – DKOS



| Part Number | | Hose I.D. | | | | Thread | Tube O.D. | A | B | W |
|-------------|-------------|-----------|-------|------|------|---------|-----------|----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | metric | mm | mm | mm | mm |
| 1C946-6-4 | 1C948-6-4 | 6 | 1/4 | -4 | 6.4 | M14x1.5 | 6 | 49 | 26 | 17 |
| 1C946-8-4 | 1C948-8-4 | 6 | 1/4 | -4 | 6.4 | M16x1.5 | 8 | 47 | 23 | 19 |
| 1C946-10-4 | 1C948-10-4 | 6 | 1/4 | -4 | 6.4 | M18x1.5 | 10 | 46 | 22 | 22 |
| 1C946-12-4 | 1C948-12-4 | 6 | 1/4 | -4 | 6.4 | M20x1.5 | 12 | 47 | 24 | 24 |
| 1C946-14-4 | 1C948-14-4 | 6 | 1/4 | -4 | 6.4 | M22x1.5 | 14 | 48 | 24 | 27 |
| 1C946-8-5 | 1C948-8-5 | 8 | 5/16 | -5 | 7.9 | M16x1.5 | 8 | 46 | 23 | 19 |
| 1C946-10-5 | 1C948-10-5 | 8 | 5/16 | -5 | 7.9 | M18x1.5 | 10 | 46 | 22 | 22 |
| 1C946-12-5 | 1C948-12-5 | 8 | 5/16 | -5 | 7.9 | M20x1.5 | 12 | 48 | 24 | 24 |
| 1C946-14-5 | 1C948-14-5 | 8 | 5/16 | -5 | 7.9 | M22x1.5 | 14 | 48 | 24 | 27 |
| 1C946-16-5 | 1C948-16-5 | 8 | 5/16 | -5 | 7.9 | M24x1.5 | 16 | 52 | 28 | 30 |
| 1C946-8-6 | 1C948-8-6 | 10 | 3/8 | -6 | 9.5 | M16x1.5 | 8 | 49 | 26 | 19 |
| 1C946-10-6 | 1C948-10-6 | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 10 | 45 | 22 | 22 |
| 1C946-12-6 | 1C948-12-6 | 10 | 3/8 | -6 | 9.5 | M20x1.5 | 12 | 47 | 24 | 24 |
| 1C946-14-6 | 1C948-14-6 | 10 | 3/8 | -6 | 9.5 | M22x1.5 | 14 | 47 | 24 | 27 |
| 1C946-16-6 | 1C948-16-6 | 10 | 3/8 | -6 | 9.5 | M24x1.5 | 16 | 50 | 28 | 30 |
| 1C946-12-8 | 1C948-12-8 | 12 | 1/2 | -8 | 12.7 | M20x1.5 | 12 | 51 | 28 | 24 |
| 1C946-14-8 | 1C948-14-8 | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 14 | 48 | 24 | 27 |
| 1C946-16-8 | 1C948-16-8 | 12 | 1/2 | -8 | 12.7 | M24x1.5 | 16 | 51 | 28 | 30 |
| 1C946-20-8 | 1C948-20-8 | 12 | 1/2 | -8 | 12.7 | M30x2 | 20 | 53 | 29 | 36 |
| 1C946-16-10 | 1C948-16-10 | 16 | 5/8 | -10 | 15.9 | M24x1.5 | 16 | 53 | 28 | 30 |
| 1C946-20-10 | 1C948-20-10 | 16 | 5/8 | -10 | 15.9 | M30x2 | 20 | 53 | 28 | 36 |
| | 1C948-12-12 | 19 | 3/4 | -12 | 19.1 | M20x1.5 | 12 | 53 | 28 | 24 |
| | 1C948-16-12 | 19 | 3/4 | -12 | 19.1 | M24x1.5 | 16 | 55 | 29 | 30 |
| 1C946-20-12 | 1C948-20-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 20 | 56 | 30 | 36 |
| 1C946-25-12 | 1C948-25-12 | 19 | 3/4 | -12 | 19.1 | M36x2 | 25 | 61 | 35 | 46 |
| 1C946-25-16 | 1C948-25-16 | 25 | 1 | -16 | 25.4 | M36x2 | 25 | 63 | 33 | 46 |
| 1C946-30-16 | 1C948-30-16 | 25 | 1 | -16 | 25.4 | M42x2 | 30 | 67 | 38 | 50 |
| | 1C948-25-20 | 31 | 1 1/4 | -20 | 31.8 | M36x2 | 25 | 81 | 34 | 46 |
| | 1C948-38-20 | 31 | 1 1/4 | -20 | 31.8 | M52x2 | 38 | 80 | 33 | 60 |
| 1C946-38-20 | | 31 | 1 1/4 | -20 | 31.8 | M52x2 | 38 | 74 | 36 | 60 |

Hose fittings are delivered with ozone resistant Nitrile (NBR) O-ring as a standard version. Working temperature from -40 °C up to +105 °C. Hose fittings with special O-rings (Viton or EPDM) available on request. O-ring dimensions and part-numbers see in section Eb.

46/48 Series

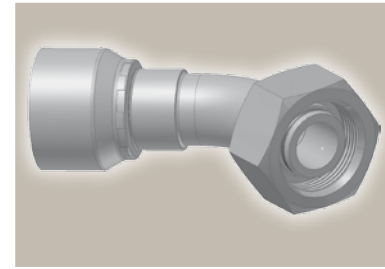
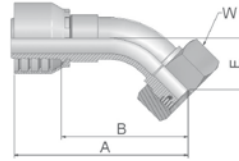
Approved fitting series for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | | | | | | | | | | | | | | | | | | | | |
|----|-------|-------|-------|-------|---------|-------|-------|-----|-----|-----|-------|--------|-------|-------|-------|-----|-------|-----|-----|-----|
| 46 | or | 48 | 441 | 441RH | 461LT | 462 | 462ST | | | | | | | | | | | | | |
| 46 | 463 | 492 | 492ST | 692 | 692TWIN | | | | | | | | | | | | | | | |
| 48 | 301SN | 301TC | 302 | 304 | 421RH | 421SN | 422 | 426 | 436 | 451 | 451TC | 462CLF | 462TC | 471TC | 472TC | 477 | 477ST | 493 | 811 | 881 |

OC Female Metric 24° – Swivel Heavy Series with O-Ring 45° Elbow

ISO 12151-2 – SWE 45°-S – DKOS 45°



| Part Number | | Hose I.D. | | | | Thread | Tube O.D. | A | B | E | W |
|-------------|-------------|-----------|-------|------|------|---------|-----------|-----|-----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | metric | mm | mm | mm | mm | mm |
| 10C46-6-4 | 10C48-6-4 | 6 | 1/4 | -4 | 6.4 | M14x1.5 | 6 | 61 | 38 | 16 | 17 |
| 10C46-8-4 | 10C48-8-4 | 6 | 1/4 | -4 | 6.4 | M16x1.5 | 8 | 59 | 35 | 16 | 19 |
| 10C46-10-4 | 10C48-10-4 | 6 | 1/4 | -4 | 6.4 | M18x1.5 | 10 | 59 | 36 | 16 | 22 |
| 10C46-12-4 | 10C48-12-4 | 6 | 1/4 | -4 | 6.4 | M20x1.5 | 12 | 71 | 48 | 17 | 24 |
| 10C46-10-5 | 10C48-10-5 | 8 | 5/16 | -5 | 7.9 | M18x1.5 | 10 | 62 | 38 | 17 | 22 |
| 10C46-12-5 | 10C48-12-5 | 8 | 5/16 | -5 | 7.9 | M20x1.5 | 12 | 70 | 47 | 17 | 24 |
| 10C46-10-6 | 10C48-10-6 | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 10 | 70 | 47 | 19 | 22 |
| 10C46-12-6 | 10C48-12-6 | 10 | 3/8 | -6 | 9.5 | M20x1.5 | 12 | 69 | 46 | 20 | 24 |
| 10C46-14-6 | 10C48-14-6 | 10 | 3/8 | -6 | 9.5 | M22x1.5 | 14 | 69 | 46 | 20 | 27 |
| 10C46-14-8 | 10C48-14-8 | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 14 | 70 | 46 | 22 | 27 |
| 10C46-16-8 | 10C48-16-8 | 12 | 1/2 | -8 | 12.7 | M24x1.5 | 16 | 72 | 49 | 23 | 30 |
| 10C46-16-10 | 10C48-16-10 | 16 | 5/8 | -10 | 15.9 | M24x1.5 | 16 | 77 | 52 | 24 | 30 |
| 10C46-20-10 | 10C48-20-10 | 16 | 5/8 | -10 | 15.9 | M30x2 | 20 | 76 | 51 | 25 | 36 |
| 10C46-20-12 | 10C48-20-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 20 | 90 | 64 | 28 | 36 |
| 10C46-25-12 | 10C48-25-12 | 19 | 3/4 | -12 | 19.1 | M36x2 | 25 | 91 | 65 | 29 | 46 |
| | 10C48-30-12 | 19 | 3/4 | -12 | 19.1 | M42x2 | 30 | 93 | 67 | 31 | 50 |
| | 10C48-25-16 | 25 | 1 | -16 | 25.4 | M36x2 | 30 | 109 | 80 | 33 | 46 |
| 10C46-25-16 | | 25 | 1 | -16 | 25.4 | M36x2 | 25 | 109 | 80 | 33 | 46 |
| 10C46-30-16 | 10C48-30-16 | 25 | 1 | -16 | 25.4 | M42x2 | 30 | 115 | 86 | 36 | 50 |
| 10C46-38-20 | | 31 | 1 1/4 | -20 | 31.8 | M52x2 | 38 | 136 | 98 | 38 | 60 |
| | 10C48-38-20 | 31 | 1 1/4 | -20 | 31.8 | M52x2 | 38 | 140 | 93 | 37 | 60 |
| | 10C48-38-24 | 38 | 1 1/2 | -24 | 38.1 | M52x2 | 38 | 155 | 117 | 49 | 60 |

Hose fittings are delivered with ozone resistant Nitrile (NBR) O-ring as a standard version. Working temperature from -40 °C up to +105 °C. Hose fittings with special O-rings (Viton or EPDM) available on request. O-ring dimensions and part-numbers see in section Eb.

Approved **fitting series** for hose types:

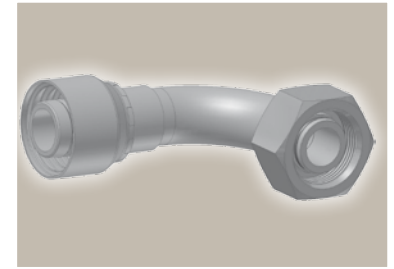
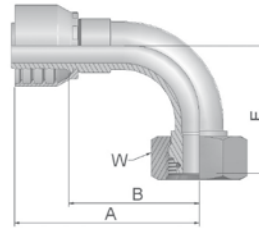
Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | | | | | | | | | | | | | | | | | | | | |
|----|-------|-------|-------|-------|---------|-------|-------|-----|-----|-----|-------|--------|-------|-------|-------|-----|-------|-----|-----|-----|
| 46 | or | 48 | 441 | 441RH | 461LT | 462 | 462ST | | | | | | | | | | | | | |
| 46 | 463 | 492 | 492ST | 692 | 692TWIN | | | | | | | | | | | | | | | |
| 48 | 301SN | 301TC | 302 | 304 | 421RH | 421SN | 422 | 426 | 436 | 451 | 451TC | 462CLF | 462TC | 471TC | 472TC | 477 | 477ST | 493 | 811 | 881 |

1C

Female Metric 24° – Swivel Heavy Series with O-Ring 90° Elbow

ISO 12151-2-SWE-S – DKOS 90°



| Part Number | | Hose I.D. | | | | Thread | Tube O.D. | A | B | E | W |
|-------------|-------------|-----------|-------|------|------|---------|-----------|-----|-----|-----|----|
| 46 series | 48 series | DN | Inch | Size | mm | metric | mm | mm | mm | mm | |
| 11C46-6-4 | 11C48-6-4 | 6 | 1/4 | -4 | 6.4 | M14x1.5 | 6 | 62 | 39 | 32 | 17 |
| 11C46-8-4 | 11C48-8-4 | 6 | 1/4 | -4 | 6.4 | M16x1.5 | 8 | 50 | 26 | 29 | 19 |
| 11C46-10-4 | 11C48-10-4 | 6 | 1/4 | -4 | 6.4 | M18x1.5 | 10 | 50 | 26 | 29 | 22 |
| 11C46-12-4 | 11C48-12-4 | 6 | 1/4 | -4 | 6.4 | M20x1.5 | 12 | 60 | 38 | 30 | 24 |
| 11C46-10-5 | 11C48-10-5 | 8 | 5/16 | -5 | 7.9 | M18x1.5 | 10 | 60 | 36 | 31 | 22 |
| 11C46-12-5 | 11C48-12-5 | 8 | 5/16 | -5 | 7.9 | M20x1.5 | 12 | 60 | 36 | 32 | 24 |
| 11C46-10-6 | 11C48-10-6 | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 10 | 59 | 37 | 36 | 22 |
| 11C46-12-6 | 11C48-12-6 | 10 | 3/8 | -6 | 9.5 | M20x1.5 | 12 | 58 | 35 | 37 | 24 |
| 11C46-14-6 | 11C48-14-6 | 10 | 3/8 | -6 | 9.5 | M22x1.5 | 14 | 58 | 35 | 37 | 27 |
| | 11C48-16-6 | 10 | 3/8 | -6 | 9.5 | M24x1.5 | | 63 | 38 | 40 | 30 |
| | 11C48-12-8 | 12 | 1/2 | -8 | 12.7 | M20x1.5 | 12 | 63 | 39 | 44 | 24 |
| 11C46-14-8 | 11C48-14-8 | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 14 | 62 | 38 | 42 | 27 |
| 11C46-16-8 | 11C48-16-8 | 12 | 1/2 | -8 | 12.7 | M24x1.5 | 16 | 61 | 37 | 45 | 30 |
| 11C46-20-8 | 11C48-20-8 | 12 | 1/2 | -8 | 12.7 | M30x2 | 20 | 61 | 37 | 46 | 36 |
| 11C46-16-10 | 11C48-16-10 | 16 | 5/8 | -10 | 15.9 | M24x1.5 | 16 | 66 | 41 | 48 | 30 |
| 11C46-20-10 | 11C48-20-10 | 16 | 5/8 | -10 | 15.9 | M30x2 | 20 | 65 | 40 | 48 | 36 |
| 11C46-25-10 | 11C48-25-10 | 16 | 5/8 | -10 | 15.9 | M36x2 | 25 | 76 | 51 | 52 | 46 |
| 11C46-20-12 | 11C48-20-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 20 | 79 | 54 | 58 | 36 |
| 11C46-25-12 | 11C48-25-12 | 19 | 3/4 | -12 | 19.1 | M36x2 | 25 | 80 | 54 | 59 | 46 |
| | 11C48-30-12 | 19 | 3/4 | -12 | 19.1 | M42x2 | 30 | 80 | 54 | 61 | 50 |
| 11C46-25-16 | 11C48-25-16 | 25 | 1 | -16 | 25.4 | M36x2 | 25 | 102 | 72 | 71 | 46 |
| 11C46-30-16 | 11C48-30-16 | 25 | 1 | -16 | 25.4 | M42x2 | 30 | 104 | 75 | 75 | 50 |
| | 11C48-38-16 | 25 | 1 | -16 | 25.4 | M52x2 | 38 | 105 | 75 | 75 | 60 |
| 11C46-38-16 | | 25 | 1 | -16 | 25.4 | M52x2 | 38 | 105 | 75 | 75 | 60 |
| | 11C48-30-20 | 31 | 1 1/4 | -20 | 31.8 | M42x2 | 30 | 130 | 83 | 86 | 50 |
| | 11C48-38-20 | 31 | 1 1/4 | -20 | 31.8 | M52x2 | 38 | 130 | 83 | 78 | 60 |
| 11C46-38-20 | | 31 | 1 1/4 | -20 | 31.8 | M52x2 | 38 | 124 | 86 | 80 | 60 |
| | 11C48-38-24 | 38 | 1 1/2 | -24 | 38.1 | M52x2 | 38 | 139 | 101 | 101 | 60 |

Hose fittings are delivered with ozone resistant Nitrile (NBR) O-ring as a standard version. Working temperature from -40 °C up to +105 °C. Hose fittings with special O-rings (Viton or EPDM) available on request. O-ring dimensions and part-numbers see in section Eb.

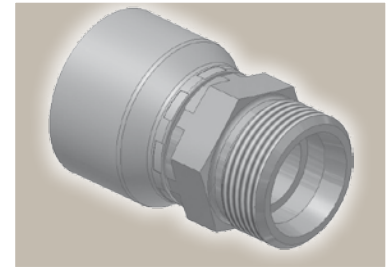
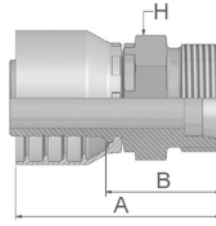
46/48 Series

Approved fitting series for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | | | | | | | | | | | | | | | | | | | | |
|----|-------|-------|-------|-------|---------|-------|-------|-----|-----|-----|-------|--------|-------|-------|-------|-----|-------|-----|-----|-----|
| 46 | or | 48 | 441 | 441RH | 461LT | 462 | 462ST | | | | | | | | | | | | | |
| 46 | 463 | 492 | 492ST | 692 | 692TWIN | | | | | | | | | | | | | | | |
| 48 | 301SN | 301TC | 302 | 304 | 421RH | 421SN | 422 | 426 | 436 | 451 | 451TC | 462CLF | 462TC | 471TC | 472TC | 477 | 477ST | 493 | 811 | 881 |

D2 **Male Metric 24° – Rigid
Heavy Series – Straight**
ISO 12151-2-S-S – CES



| Part Number | | Hose I.D. | | | | Thread | Tube O.D. | A | B | H |
|-------------|-------------|-----------|-------|------|------|---------|-----------|----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | metric | mm | mm | mm | mm |
| 1D246-6-4 | 1D248-6-4 | 6 | 1/4 | -4 | 6.4 | M14x1.5 | 6 | 48 | 24 | 14 |
| 1D246-8-4 | 1D248-8-4 | 6 | 1/4 | -4 | 6.4 | M16x1.5 | 8 | 48 | 24 | 17 |
| 1D246-10-4 | 1D248-10-4 | 6 | 1/4 | -4 | 6.4 | M18x1.5 | 10 | 50 | 26 | 19 |
| 1D246-12-4 | 1D248-12-4 | 6 | 1/4 | -4 | 6.4 | M20x1.5 | 12 | 48 | 26 | 22 |
| 1D246-8-5 | 1D248-8-5 | 8 | 5/16 | -5 | 7.9 | M16x1.5 | 8 | 48 | 24 | 17 |
| 1D246-10-5 | 1D248-10-5 | 8 | 5/16 | -5 | 7.9 | M18x1.5 | 10 | 50 | 26 | 19 |
| 1D246-12-5 | 1D248-12-5 | 8 | 5/16 | -5 | 7.9 | M20x1.5 | 12 | 50 | 26 | 22 |
| 1D246-14-5 | 1D248-14-5 | 8 | 5/16 | -5 | 7.9 | M22x1.5 | 14 | 51 | 28 | 22 |
| | 1D248-16-5 | 8 | 5/16 | -5 | 7.9 | M24x1.5 | 16 | 53 | 29 | 24 |
| 1D246-10-6 | 1D248-10-6 | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 10 | 50 | 27 | 19 |
| 1D246-12-6 | 1D248-12-6 | 10 | 3/8 | -6 | 9.5 | M20x1.5 | 12 | 49 | 26 | 22 |
| 1D246-14-6 | 1D248-14-6 | 10 | 3/8 | -6 | 9.5 | M22x1.5 | 14 | 51 | 28 | 22 |
| 1D246-12-8 | 1D248-12-8 | 12 | 1/2 | -8 | 12.7 | M20x1.5 | 12 | 49 | 26 | 22 |
| | 1D248-14-8 | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 14 | 52 | 28 | 22 |
| 1D246-16-8 | 1D248-16-8 | 12 | 1/2 | -8 | 12.7 | M24x1.5 | 16 | 52 | 29 | 24 |
| | 1D248-20-8 | 12 | 1/2 | -8 | 12.7 | M30x2 | 20 | 58 | 35 | 30 |
| 1D246-16-10 | 1D248-16-10 | 16 | 5/8 | -10 | 15.9 | M24x1.5 | 16 | 58 | 30 | 24 |
| 1D246-20-10 | 1D248-20-10 | 16 | 5/8 | -10 | 15.9 | M30x2 | 20 | 58 | 32 | 30 |
| | 1D248-16-12 | 19 | 3/4 | -12 | 19.1 | M24x1.5 | 16 | 56 | 31 | 27 |
| 1D246-20-12 | 1D248-20-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 20 | 61 | 35 | 30 |
| 1D246-25-12 | 1D248-25-12 | 19 | 3/4 | -12 | 19.1 | M36x2 | 25 | 64 | 38 | 36 |
| 1D246-25-16 | 1D248-25-16 | 25 | 1 | -16 | 25.4 | M36x2 | 25 | 68 | 39 | 36 |
| 1D246-30-16 | 1D248-30-16 | 25 | 1 | -16 | 25.4 | M42x2 | 30 | 71 | 42 | 46 |
| 1D246-38-20 | | 31 | 1 1/4 | -20 | 31.8 | M52x2 | 38 | 84 | 46 | 55 |
| | 1D248-38-20 | 31 | 1 1/4 | -20 | 31.8 | M52x2 | 38 | 91 | 44 | 55 |
| | 1D248-38-24 | 38 | 1 1/2 | -24 | 38.1 | M52x2 | 38 | 84 | 46 | 55 |

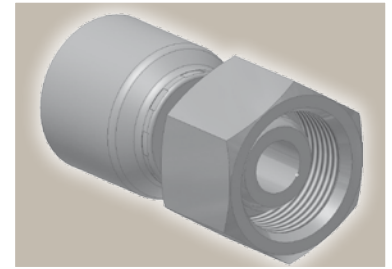
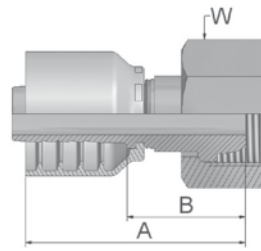
Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | | | | | | | | | | | | | | | | | | | | |
|------------------------|-------|-------|-------|-----|---------|-------|-----|-----|-----|-----|-------|--------|-------|-------|-------|-----|-------|-----|-----|-----|
| 46 or 48 | 441 | 441RH | 461LT | 462 | 462ST | | | | | | | | | | | | | | | |
| 46 | 463 | 492 | 492ST | 692 | 692TWIN | | | | | | | | | | | | | | | |
| 48 | 301SN | 301TC | 302 | 304 | 421RH | 421SN | 422 | 426 | 436 | 451 | 451TC | 462CLF | 462TC | 471TC | 472TC | 477 | 477ST | 493 | 811 | 881 |

C6 Female Metric – Swivel Heavy Series – Straight (Ball Nose)

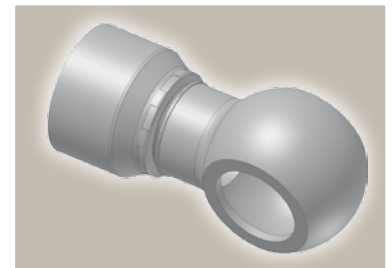
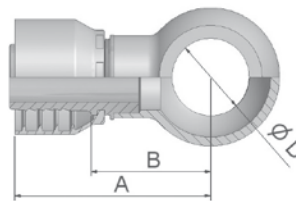
DKS



| Part Number | | Hose I.D. | | | | Thread | Tube O.D. | A | B | H |
|-------------|------------|-----------|------|------|------|---------|-----------|----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | metric | mm | mm | mm | mm |
| | 1C648-8-4 | 6 | 1/4 | -4 | 6.4 | M16x1.5 | 8 | 46 | 23 | 19 |
| | 1C648-12-6 | 10 | 3/8 | -6 | 9.5 | M20x1.5 | 12 | 47 | 25 | 24 |
| | 1C648-14-6 | 10 | 3/8 | -6 | 9.5 | M22x1.5 | 14 | 47 | 24 | 27 |
| | 1C648-16-8 | 12 | 1/2 | -8 | 12.7 | M24x1.5 | 16 | 51 | 28 | 30 |

49 Metric Banjo Straight

DIN 7642



| Part Number | | Hose I.D. | | | | A | B | D |
|-------------|-------------|-----------|------|------|------|------|----|------|
| 46 series | 48 series | DN | Inch | Size | mm | mm | mm | mm |
| 14946-10-4 | 14948-10-4 | 6 | 1/4 | -4 | 6.4 | 47 | 24 | 10 |
| 14946-12-4 | 14948-12-4 | 6 | 1/4 | -4 | 6.4 | 50 | 26 | 12 |
| 14946-14-4 | 14948-14-4 | 6 | 1/4 | -4 | 6.4 | 51 | 28 | 14 |
| | 14948-16-4 | 6 | 1/4 | -4 | 6.4 | 55.6 | 29 | 16.1 |
| 14946-14-5 | 14948-14-5 | 8 | 5/16 | -5 | 7.9 | 51 | 28 | 14 |
| 14946-16-5 | 14948-16-5 | 8 | 5/16 | -5 | 7.9 | 53 | 30 | 16 |
| 14946-16-6 | 14948-16-6 | 10 | 3/8 | -6 | 9.5 | 53 | 30 | 16 |
| 14946-17-6 | 14948-17-6 | 10 | 3/8 | -6 | 9.5 | 53 | 30 | 17 |
| 14946-18-6 | 14948-18-6 | 10 | 3/8 | -6 | 9.5 | 55 | 32 | 18 |
| 14946-22-6 | 14948-22-6 | 10 | 3/8 | -6 | 9.5 | 58 | 35 | 22 |
| 14946-18-8 | 14948-18-8 | 12 | 1/2 | -8 | 12.7 | 56 | 32 | 18 |
| 14946-22-8 | 14948-22-8 | 12 | 1/2 | -8 | 12.7 | 59 | 35 | 22 |
| 14946-22-10 | 14948-22-10 | 16 | 5/8 | -10 | 15.9 | 60 | 35 | 22 |
| 14946-26-12 | 14948-26-12 | 19 | 3/4 | -12 | 19.1 | 66 | 40 | 26 |
| 14946-27-12 | 14948-27-12 | 19 | 3/4 | -12 | 19.1 | 66 | 40 | 27 |

To select corresponding screw and seals see section Eb.

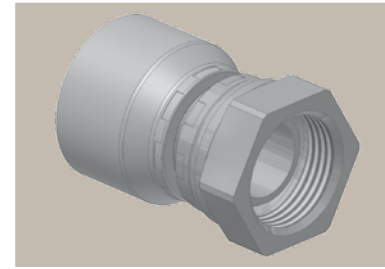
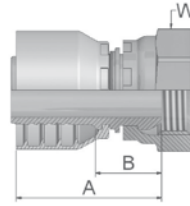
Approved fitting series for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

- 46 or 48 441 441RH 461LT 462 462ST
- 46 463 492 492ST 692 692TWIN
- 48 301SN 301TC 302 304 421RH 421SN 422 426 436 451 451TC 462CLF 462TC 471TC 472TC 477 477ST 493 811 881

92 Female BSP Parallel Pipe Swivel – Straight (60° Cone)

BS5200-A – DKR



| Part Number | | Hose I.D. | | | | Thread | A | B | W |
|-------------|-------------|-----------|-------|------|------|----------|----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | BSP | mm | mm | mm |
| 19246-2-4 | 19248-2-4 | 6 | 1/4 | -4 | 6.4 | 1/8x28 | 41 | 17 | 14 |
| | 19248-4-4 | 6 | 1/4 | -4 | 6.4 | 1/4x19 | 43 | 19 | 19 |
| 19246-4-4 | | 6 | 1/4 | -4 | 6.4 | 1/4x19 | 46 | 19 | 19 |
| 19246-6-4 | 19248-6-4 | 6 | 1/4 | -4 | 6.4 | 3/8x19 | 44 | 20 | 22 |
| 19246-8-4 | 19248-8-4 | 6 | 1/4 | -4 | 6.4 | 1/2x14 | 49 | 25 | 27 |
| 19246-4-5 | 19248-4-5 | 8 | 5/16 | -5 | 7.9 | 1/4x19 | 43 | 19 | 19 |
| 19246-6-5 | 19248-6-5 | 8 | 5/16 | -5 | 7.9 | 3/8x19 | 44 | 20 | 22 |
| 19246-4-6 | 19248-4-6 | 10 | 3/8 | -6 | 9.5 | 1/4x19 | 43 | 20 | 19 |
| 19246-6-6 | 19248-6-6 | 10 | 3/8 | -6 | 9.5 | 3/8x19 | 43 | 20 | 22 |
| 19246-8-6 | 19248-8-6 | 10 | 3/8 | -6 | 9.5 | 1/2x14 | 45 | 22 | 27 |
| 19246-6-8 | 19248-6-8 | 12 | 1/2 | -8 | 12.7 | 3/8x19 | 45 | 21 | 22 |
| 19246-8-8 | 19248-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 45 | 22 | 27 |
| 19246-10-8 | 19248-10-8 | 12 | 1/2 | -8 | 12.7 | 5/8x14 | 44 | 20 | 30 |
| 19246-12-8 | 19248-12-8 | 12 | 1/2 | -8 | 12.7 | 3/4x14 | 47 | 23 | 32 |
| 19246-8-10 | 19248-8-10 | 16 | 5/8 | -10 | 15.9 | 1/2x14 | 48 | 22 | 27 |
| 19246-10-10 | 19248-10-10 | 16 | 5/8 | -10 | 15.9 | 5/8x14 | 45 | 20 | 30 |
| 19246-12-10 | 19248-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4x14 | 47 | 22 | 32 |
| 19246-8-12 | 19248-8-12 | 19 | 3/4 | -12 | 19.1 | 1/2x14 | 49 | 23 | 27 |
| 19246-10-12 | 19248-10-12 | 19 | 3/4 | -12 | 19.1 | 5/8x14 | 47 | 22 | 30 |
| 19246-12-12 | 19248-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 49 | 23 | 32 |
| 19246-16-12 | 19248-16-12 | 19 | 3/4 | -12 | 19.1 | 1x11 | 51 | 25 | 41 |
| 19246-16-16 | 19248-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 55 | 25 | 41 |
| | 19248-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4x11 | 63 | 31 | 50 |
| 19246-20-16 | | 25 | 1 | -16 | 25.4 | 1 1/4x11 | 61 | 31 | 50 |
| | 19248-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 79 | 32 | 50 |
| 19246-20-20 | | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 68 | 31 | 50 |
| | 19248-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2x11 | 71 | 33 | 60 |
| | 19248-32-32 | 51 | 2 | -32 | 50.8 | 2x11 | 84 | 35 | 70 |

Approved fitting series for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

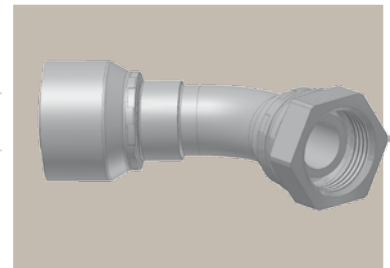
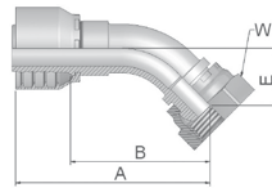
46 or 48 441 441RH 461LT 462 462ST

46 463 492 492ST 692 692TWIN

48 301SN 301TC 302 304 421RH 421SN 422 426 436 451 451TC 462CLF 462TC 471TC 472TC 477 477ST 493 811 881

B1 Female BSP Parallel Pipe Swivel 45° Elbow (60° Cone)

BS 5200-D – DKR 45°



| Part Number | | Hose I.D. | | | | Thread | A | B | E | W |
|-------------|-------------|-----------|-------|------|------|----------|-----|-----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | BSP | mm | mm | mm | mm |
| | 1B148-4-4 | 6 | 1/4 | -4 | 6.4 | 1/4x19 | 58 | 35 | 16 | 19 |
| 1B146-4-4 | | 6 | 1/4 | -4 | 6.4 | 1/4x19 | 59 | 35 | 16 | 19 |
| 1B146-6-4 | 1B148-6-4 | 6 | 1/4 | -4 | 6.4 | 3/8x19 | 59 | 35 | 14 | 22 |
| 1B146-6-5 | 1B148-6-5 | 8 | 5/16 | -5 | 7.9 | 3/8x19 | 60 | 36 | 15 | 22 |
| 1B146-6-6 | 1B148-6-6 | 10 | 3/8 | -6 | 9.5 | 3/8x19 | 69 | 46 | 17 | 22 |
| 1B146-8-6 | 1B148-8-6 | 10 | 3/8 | -6 | 9.5 | 1/2x14 | 63 | 40 | 17 | 27 |
| 1B146-6-8 | 1B148-6-8 | 12 | 1/2 | -8 | 12.7 | 3/8x19 | 72 | 49 | 21 | 22 |
| 1B146-8-8 | 1B148-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 72 | 48 | 20 | 27 |
| 1B146-10-8 | 1B148-10-8 | 12 | 1/2 | -8 | 12.7 | 5/8x14 | 69 | 46 | 19 | 30 |
| 1B146-10-10 | 1B148-10-10 | 16 | 5/8 | -10 | 15.9 | 5/8x14 | 77 | 52 | 22 | 30 |
| 1B146-12-10 | 1B148-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4x14 | 74 | 49 | 20 | 32 |
| 1B146-12-12 | 1B148-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 87 | 61 | 25 | 32 |
| 1B146-16-12 | 1B148-16-12 | 19 | 3/4 | -12 | 19.1 | 1x11 | 88 | 62 | 26 | 41 |
| 1B146-16-16 | 1B148-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 107 | 78 | 33 | 41 |
| | 1B148-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 141 | 94 | 38 | 50 |
| 1B146-20-20 | | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 136 | 98 | 38 | 50 |
| | 1B148-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2x11 | 160 | 122 | 52 | 55 |
| | 1B148-32-32 | 51 | 2 | -32 | 50.8 | 2x11 | 210 | 161 | 66 | 70 |

46/48 Series

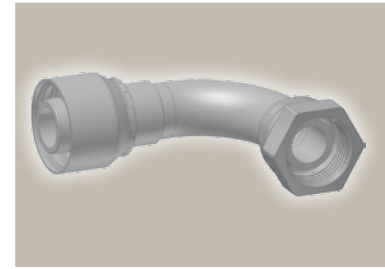
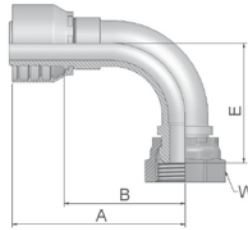
Approved fitting series for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | | | | | | | | | | | | | | | | | | | | |
|----|-------|-------|-------|-------|---------|-------|-------|-----|-----|-----|-------|--------|-------|-------|-------|-----|-------|-----|-----|-----|
| 46 | or | 48 | 441 | 441RH | 461LT | 462 | 462ST | | | | | | | | | | | | | |
| 46 | 463 | 492 | 492ST | 692 | 692TWIN | | | | | | | | | | | | | | | |
| 48 | 301SN | 301TC | 302 | 304 | 421RH | 421SN | 422 | 426 | 436 | 451 | 451TC | 462CLF | 462TC | 471TC | 472TC | 477 | 477ST | 493 | 811 | 881 |

B2 Female BSP Parallel Pipe Swivel 90° Elbow (60° Cone)

BS 5200-B – DKR 90°



| Part Number | | Hose I.D. | | | | Thread | A | B | E | W |
|-------------|-------------|-----------|-------|------|------|----------|-----|-----|-----|----|
| 46 series | 48 series | DN | Inch | Size | mm | BSP | mm | mm | mm | mm |
| 1B246-2-4 | 1B248-2-4 | 6 | 1/4 | -4 | 6.4 | 1/8x28 | 50 | 26 | 30 | 14 |
| 1B246-4-4 | 1B248-4-4 | 6 | 1/4 | -4 | 6.4 | 1/4x19 | 50 | 26 | 28 | 19 |
| | 1B248-6-4 | 6 | 1/4 | -4 | 6.4 | 3/8x19 | 51 | 27 | 27 | 22 |
| 1B246-6-4 | | 6 | 1/4 | -4 | 6.4 | 3/8x19 | 51 | 27 | 28 | 22 |
| 1B246-8-4 | 1B248-8-4 | 6 | 1/4 | -4 | 6.4 | 1/2x14 | 51 | 27 | 29 | 27 |
| 1B246-6-5 | 1B248-6-5 | 8 | 5/16 | -5 | 7.9 | 3/8x19 | 52 | 28 | 28 | 22 |
| 1B246-6-6 | 1B248-6-6 | 10 | 3/8 | -6 | 9.5 | 3/8x19 | 61 | 38 | 33 | 22 |
| 1B246-8-6 | 1B248-8-6 | 10 | 3/8 | -6 | 9.5 | 1/2x14 | 60 | 38 | 36 | 27 |
| 1B246-6-8 | 1B248-6-8 | 12 | 1/2 | -8 | 12.7 | 3/8x19 | 63 | 40 | 41 | 22 |
| 1B246-8-8 | 1B248-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 63 | 40 | 41 | 27 |
| 1B246-10-8 | 1B248-10-8 | 12 | 1/2 | -8 | 12.7 | 5/8x14 | 67 | 43 | 38 | 30 |
| 1B246-10-10 | 1B248-10-10 | 16 | 5/8 | -10 | 15.9 | 5/8x14 | 70 | 45 | 44 | 30 |
| 1B246-12-10 | 1B248-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4x14 | 70 | 45 | 42 | 32 |
| 1B246-12-12 | 1B248-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 80 | 54 | 53 | 32 |
| 1B246-16-12 | 1B248-16-12 | 19 | 3/4 | -12 | 19.1 | 1x11 | 80 | 54 | 54 | 41 |
| 1B246-16-16 | 1B248-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 104 | 75 | 69 | 41 |
| 1B246-20-20 | | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 124 | 86 | 80 | 50 |
| | 1B248-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 129 | 82 | 80 | 50 |
| | 1B248-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2x11 | 140 | 102 | 103 | 55 |
| | 1B248-32-32 | 51 | 2 | -32 | 50.8 | 2x11 | 185 | 137 | 134 | 70 |

Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

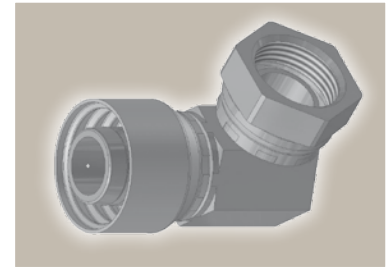
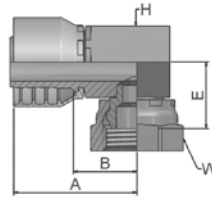
46 or **48** 441 441RH 461LT 462 462ST

46 463 492 492ST 692 692TWIN

48 301SN 301TC 302 304 421RH 421SN 422 426 436 451 451TC 462CLF 462TC 471TC 472TC 477 477ST 493 811 881

B4 Female BSP Parallel Pipe Swivel – 90° Elbow Block Type (60° Cone)

BS 5200-E – DKR 90°



| Part Number | | Hose I.D. | | | | Thread | A | B | E | H | W |
|-------------|-------------|-----------|------|------|------|--------|----|----|----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | BSP | mm | mm | mm | mm | mm |
| 1B446-4-4 | 1B448-4-4 | 6 | 1/4 | -4 | 6.4 | 1/4x19 | 58 | 34 | 22 | 17 | 19 |
| 1B446-6-4 | 1B448-6-4 | 6 | 1/4 | -4 | 6.4 | 3/8x19 | 43 | 20 | 22 | 17 | 22 |
| 1B446-6-6 | 1B448-6-6 | 10 | 3/8 | -6 | 9.5 | 3/8x19 | 68 | 45 | 23 | 19 | 22 |
| 1B446-8-6 | 1B448-8-6 | 10 | 3/8 | -6 | 9.5 | 1/2x14 | 67 | 44 | 27 | 22 | 27 |
| 1B446-8-8 | 1B448-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 67 | 43 | 27 | 22 | 27 |
| 1B446-10-10 | 1B448-10-10 | 16 | 5/8 | -10 | 15.9 | 5/8x14 | 69 | 44 | 27 | 27 | 30 |
| 1B446-12-12 | 1B448-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 72 | 47 | 33 | 32 | 32 |
| 1B446-16-16 | 1B448-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 82 | 52 | 34 | 36 | 41 |

Short version available upon request (swaging on universal crimpers only)

Approved **fitting series** for hose types:

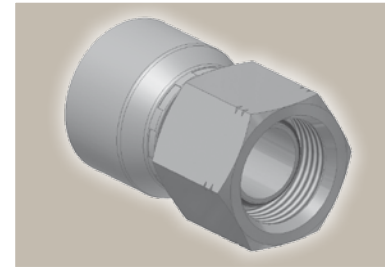
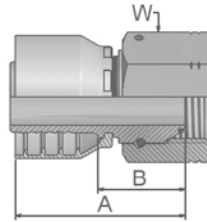
Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | | | | | | | | | | | | | | | | | | | | |
|-----------|-------|-----------|-------|-------|---------|-------|-------|-----|-----|-----|-------|--------|-------|-------|-------|-----|-------|-----|-----|-----|
| 46 | or | 48 | 441 | 441RH | 461LT | 462 | 462ST | | | | | | | | | | | | | |
| 46 | 463 | 492 | 492ST | 692 | 692TWIN | | | | | | | | | | | | | | | |
| 48 | 301SN | 301TC | 302 | 304 | 421RH | 421SN | 422 | 426 | 436 | 451 | 451TC | 462CLF | 462TC | 471TC | 472TC | 477 | 477ST | 493 | 811 | 881 |

EA

**BSP Swivel Female
with O-Ring (60° Cone)**

BS 5200 – ISO 12151-6 – DKOR



| Part Number | | Hose I.D. | | | | Thread | A | B | W |
|-------------|-------------|-----------|-------|------|------|----------|----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | BSP | mm | mm | mm |
| 1EA46-4-4 | 1EA48-4-4 | 6 | 1/4 | -4 | 6.4 | 1/4x19 | 40 | 17 | 19 |
| 1EA46-6-4 | 1EA48-6-4 | 6 | 1/4 | -4 | 6.4 | 3/8x19 | 49 | 26 | 22 |
| | 1EA48-6-5 | 8 | 5/16 | -5 | 7.9 | 3/8x19 | 50 | 25 | 22 |
| | 1EA48-4-6 | 10 | 3/8 | -6 | 9.5 | 1/4x19 | 44 | 21 | 19 |
| 1EA46-6-6 | 1EA48-6-6 | 10 | 3/8 | -6 | 9.5 | 3/8x19 | 43 | 20 | 22 |
| 1EA46-8-6 | 1EA48-8-6 | 10 | 3/8 | -6 | 9.5 | 1/2x14 | 51 | 28 | 27 |
| | 1EA48-6-8 | 12 | 1/2 | -8 | 12.7 | 3/8x19 | 46 | 22 | 22 |
| 1EA46-8-8 | 1EA48-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 45 | 22 | 27 |
| | 1EA48-10-8 | 12 | 1/2 | -8 | 12.7 | 5/8x14 | 43 | 20 | 30 |
| 1EA46-10-10 | 1EA48-10-10 | 16 | 5/8 | -10 | 15.9 | 5/8x14 | 46 | 21 | 30 |
| 1EA46-12-10 | 1EA48-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4x14 | 54 | 29 | 32 |
| 1EA46-12-12 | 1EA48-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 49 | 23 | 32 |
| 1EA46-16-12 | 1EA48-16-12 | 19 | 3/4 | -12 | 19.1 | 1x11 | 61 | 35 | 41 |
| 1EA46-16-16 | 1EA48-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 61 | 31 | 41 |
| | 1EA48-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 78 | 31 | 50 |
| | 1EA48-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2x11 | 72 | 34 | 55 |

Hose fittings are delivered with ozone resistant Nitrile (NBR) O-ring as a standard version. Working temperature from -40 °C up to +105 °C.
Hose fittings with special O-rings (Viton or EPDM) available on request. O-ring dimensions and part-numbers see in section Eb.

Approved **fitting series** for hose types:

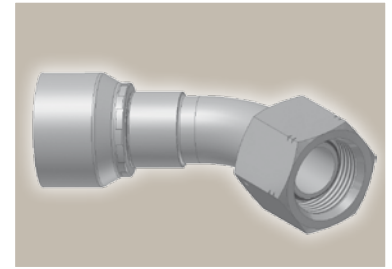
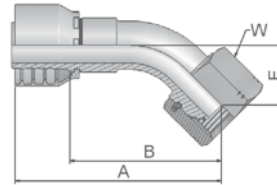
Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | | | | | | | | | | | | | | | | | | | | |
|-----------|-------|-----------|-------|-------|---------|-------|-------|-----|-----|-----|-------|--------|-------|-------|-------|-----|-------|-----|-----|-----|
| 46 | or | 48 | 441 | 441RH | 461LT | 462 | 462ST | | | | | | | | | | | | | |
| 46 | 463 | 492 | 492ST | 692 | 692TWIN | | | | | | | | | | | | | | | |
| 48 | 301SN | 301TC | 302 | 304 | 421RH | 421SN | 422 | 426 | 436 | 451 | 451TC | 462CLF | 462TC | 471TC | 472TC | 477 | 477ST | 493 | 811 | 881 |

EB

**BSP Swivel Female
with O-Ring
45° Elbow (60° Cone)**

BS 5200 – ISO 12151-6 – DKOR 45°



| Part Number | | Hose I.D. | | | | Thread | A | B | E | W |
|-------------|-------------|-----------|-------|------|------|----------|-----|-----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | BSP | mm | mm | mm | mm |
| 1EB46-4-4 | 1EB48-4-4 | 6 | 1/4 | -4 | 6.4 | 1/4x19 | 59 | 36 | 14 | 19 |
| 1EB46-6-6 | 1EB48-6-6 | 10 | 3/8 | -6 | 9.5 | 3/8x19 | 69 | 46 | 17 | 22 |
| 1EB46-8-8 | 1EB48-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 71 | 48 | 20 | 27 |
| 1EB46-12-10 | 1EB48-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4x14 | 78 | 52 | 21 | 32 |
| 1EB46-12-12 | 1EB48-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 89 | 63 | 27 | 32 |
| 1EB46-16-16 | 1EB48-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 112 | 82 | 33 | 41 |
| | 1EB48-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 138 | 91 | 35 | 50 |
| | 1EB48-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2x11 | 146 | 108 | 38 | 55 |

Hose fittings are delivered with ozone resistant Nitrile (NBR) O-ring as a standard version. Working temperature from -40 °C up to +105 °C.
Hose fittings with special O-rings (Viton or EPDM) available on request. O-ring dimensions and part-numbers see in section Eb.

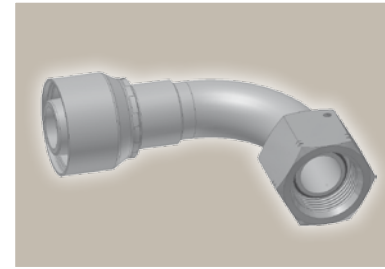
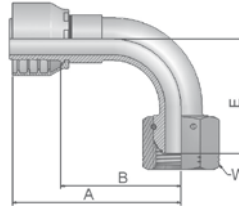
Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | | | | | | | | | | | | | | | | | | | | |
|-----------|-------|-----------|-------|-------|---------|-------|-------|-----|-----|-----|-------|--------|-------|-------|-------|-----|-------|-----|-----|-----|
| 46 | or | 48 | 441 | 441RH | 461LT | 462 | 462ST | | | | | | | | | | | | | |
| 46 | 463 | 492 | 492ST | 692 | 692TWIN | | | | | | | | | | | | | | | |
| 48 | 301SN | 301TC | 302 | 304 | 421RH | 421SN | 422 | 426 | 436 | 451 | 451TC | 462CLF | 462TC | 471TC | 472TC | 477 | 477ST | 493 | 811 | 881 |

EC **BSP Swivel Female
with O-Ring
90° Elbow (60° Cone)**

BS 5200 – ISO 12151-6 – DKOR 90°



| Part Number | | Hose I.D. | | | | Thread | A | B | E | W |
|-------------|-------------|-----------|-------|------|------|----------|-----|-----|-----|----|
| 46 series | 48 series | DN | Inch | Size | mm | BSP | mm | mm | mm | mm |
| 1EC46-4-4 | 1EC48-4-4 | 6 | 1/4 | -4 | 6.4 | 1/4x19 | 50 | 27 | 24 | 19 |
| 1EC46-6-4 | 1EC48-6-4 | 6 | 1/4 | -4 | 6.4 | 3/8x19 | 51 | 28 | 27 | 22 |
| 1EC46-6-6 | 1EC48-6-6 | 10 | 3/8 | -6 | 9.5 | 3/8x19 | 60 | 38 | 33 | 22 |
| 1EC46-8-6 | 1EC48-8-6 | 10 | 3/8 | -6 | 9.5 | 1/2x14 | 60 | 38 | 36 | 27 |
| | 1EC48-6-8 | 12 | 1/2 | -8 | 12.7 | 3/8x19 | 63 | 39 | 41 | 22 |
| 1EC46-8-8 | 1EC48-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 63 | 40 | 40 | 27 |
| 1EC46-10-8 | 1EC48-10-8 | 12 | 1/2 | -8 | 12.7 | 5/8x14 | 63 | 40 | 39 | 30 |
| 1EC46-10-10 | 1EC48-10-10 | 16 | 5/8 | -10 | 15.9 | 5/8x14 | 70 | 45 | 44 | 30 |
| 1EC46-12-10 | | 16 | 5/8 | -10 | 15.9 | 3/4x14 | 70 | 45 | 42 | 32 |
| | 1EC48-12-10 | 16 | 5/8 | -10 | 15.9 | 5/8x14 | 70 | 45 | 42 | 32 |
| 1EC46-12-12 | 1EC48-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 79 | 54 | 55 | 32 |
| 1EC46-16-12 | 1EC48-16-12 | 19 | 3/4 | -12 | 19.1 | 1x11 | 80 | 54 | 59 | 41 |
| 1EC46-16-16 | 1EC48-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 105 | 75 | 71 | 41 |
| | 1EC48-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 129 | 82 | 75 | 50 |
| | 1EC48-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2x11 | 140 | 102 | 103 | 55 |
| | 1EC48-32-32 | 51 | 2 | -32 | 50.8 | 2x11 | 185 | 137 | 132 | 70 |

Hose fittings are delivered with ozone resistant Nitrile (NBR) O-ring as a standard version. Working temperature from -40 °C up to +105 °C.
Hose fittings with special O-rings (Viton or EPDM) available on request. O-ring dimensions and part-numbers see in section Eb.

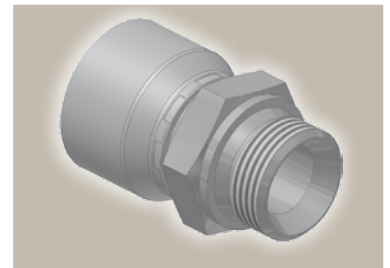
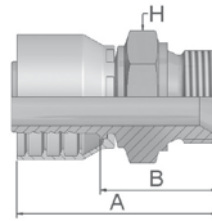
Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | | | | | | | | | | | | | | | | | | | | |
|-----------|-------|-----------|-------|-------|---------|-------|-------|-----|-----|-----|-------|--------|-------|-------|-------|-----|-------|-----|-----|-----|
| 46 | or | 48 | 441 | 441RH | 461LT | 462 | 462ST | | | | | | | | | | | | | |
| 46 | 463 | 492 | 492ST | 692 | 692TWIN | | | | | | | | | | | | | | | |
| 48 | 301SN | 301TC | 302 | 304 | 421RH | 421SN | 422 | 426 | 436 | 451 | 451TC | 462CLF | 462TC | 471TC | 472TC | 477 | 477ST | 493 | 811 | 881 |

D9 Male BSP Parallel Pipe Rigid – Straight (60° Cone)

BSP5200 – AGR



| Part Number | | Hose I.D. | | | | Thread | A | B | H |
|-------------|-------------|-----------|-------|------|------|----------|-----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | BSP | mm | mm | mm |
| 1D946-2-4 | 1D948-2-4 | 6 | 1/4 | -4 | 6.4 | 1/8x28 | 46 | 22 | 14 |
| 1D946-4-4 | 1D948-4-4 | 6 | 1/4 | -4 | 6.4 | 1/4x19 | 51 | 27 | 19 |
| 1D946-6-4 | 1D948-6-4 | 6 | 1/4 | -4 | 6.4 | 3/8x19 | 53 | 31 | 22 |
| 1D946-8-4 | 1D948-8-4 | 6 | 1/4 | -4 | 6.4 | 1/2x14 | 54 | 52 | 27 |
| 1D946-4-5 | | 8 | 5/16 | -5 | 7.9 | 1/4x19 | 50 | 27 | 19 |
| | 1D948-4-5 | 8 | 5/16 | -5 | 7.9 | 1/4x19 | 49 | 27 | 19 |
| 1D946-6-5 | 1D948-6-5 | 8 | 5/16 | -5 | 7.9 | 3/8x19 | 55 | 31 | 22 |
| 1D946-4-6 | | 10 | 3/8 | -6 | 9.5 | 1/4x19 | 49 | 27 | 19 |
| | 1D948-4-6 | 10 | 3/8 | -6 | 9.5 | 1/4x19 | 50 | 27 | 19 |
| 1D946-6-6 | 1D948-6-6 | 10 | 3/8 | -6 | 9.5 | 3/8x19 | 54 | 31 | 22 |
| 1D946-8-6 | 1D948-8-6 | 10 | 3/8 | -6 | 9.5 | 1/2x14 | 56 | 33 | 27 |
| 1D946-6-8 | 1D948-6-8 | 12 | 1/2 | -8 | 12.7 | 3/8x19 | 54 | 30 | 22 |
| 1D946-8-8 | 1D948-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 57 | 33 | 27 |
| 1D946-10-8 | 1D948-10-8 | 12 | 1/2 | -8 | 12.7 | 5/8x14 | 58 | 35 | 30 |
| 1D946-12-8 | 1D948-12-8 | 12 | 1/2 | -8 | 12.7 | 3/4x14 | 60 | 36 | 32 |
| 1D946-8-10 | 1D948-8-10 | 16 | 5/8 | -10 | 15.9 | 1/2x14 | 58 | 33 | 27 |
| 1D946-10-10 | 1D948-10-10 | 16 | 5/8 | -10 | 15.9 | 5/8x14 | 60 | 35 | 30 |
| 1D946-12-10 | 1D948-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4x14 | 62 | 37 | 32 |
| 1D946-12-12 | 1D948-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 62 | 36 | 32 |
| 1D946-16-12 | 1D948-16-12 | 19 | 3/4 | -12 | 19.1 | 1x11 | 67 | 41 | 41 |
| 1D946-16-16 | 1D948-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 72 | 42 | 41 |
| 1D946-20-16 | 1D948-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4x11 | 75 | 46 | 50 |
| 1D946-20-20 | | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 85 | 47 | 50 |
| | 1D948-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 92 | 45 | 50 |
| | 1D948-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2x11 | 87 | 49 | 60 |
| | 1D948-32-32 | 51 | 2 | -32 | 50.8 | 2x11 | 102 | 54 | 70 |

46/48 Series

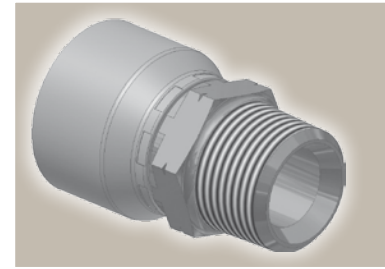
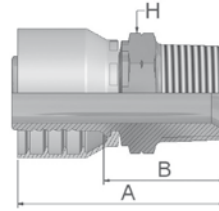
Approved fitting series for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

- 46 or 48 441 441RH 461LT 462 462ST
- 46 463 492 492ST 692 692TWIN
- 48 301SN 301TC 302 304 421RH 421SN 422 426 436 451 451TC 462CLF 462TC 471TC 472TC 477 477ST 493 811 881

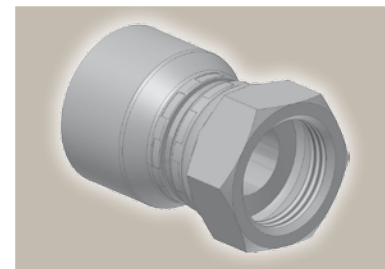
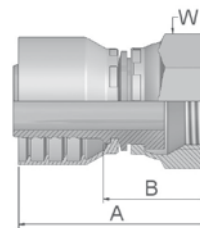
91 Male BSP Taper Pipe – Rigid Straight

BS5200 – AGR-K



| Part Number | | Hose I.D. | | | | Thread | A | B | H |
|-------------|-------------|-----------|------|------|------|--------|----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | BSP | mm | mm | mm |
| 19146-4-4 | 19148-4-4 | 6 | 1/4 | -4 | 6.4 | 1/4x19 | 49 | 26 | 14 |
| | 19148-6-4 | 6 | 1/4 | -4 | 6.4 | 3/8x19 | 51 | 28 | 17 |
| 19146-4-5 | 19148-4-5 | 8 | 5/16 | -5 | 7.9 | 1/4x19 | 49 | 25 | 14 |
| 19146-6-5 | 19148-6-5 | 8 | 5/16 | -5 | 7.9 | 3/8x19 | 48 | 24 | 19 |
| | 19148-4-6 | 10 | 3/8 | -6 | 9.5 | 1/4x19 | 46 | 24 | 14 |
| 19146-6-6 | 19148-6-6 | 10 | 3/8 | -6 | 9.5 | 3/8x19 | 52 | 27 | 19 |
| 19146-8-6 | 19148-8-6 | 10 | 3/8 | -6 | 9.5 | 1/2x14 | 57 | 34 | 22 |
| | 19148-6-8 | 12 | 1/2 | -8 | 12.7 | 3/8x19 | 48 | 25 | 19 |
| 19146-8-8 | 19148-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 57 | 33 | 22 |
| | 19148-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4x14 | 63 | 37 | 30 |
| 19146-12-12 | 19148-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 63 | 37 | 30 |
| 19146-16-16 | 19148-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 72 | 42 | 36 |

B5 Female BSP Parallel Pipe Swivel Straight (Flat Seat)



| Part Number | | Hose I.D. | | | | Thread | A | B | W |
|-------------|-------------|-----------|------|------|------|--------|----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | BSP | mm | mm | mm |
| 1B546-4-4 | 1B548-4-4 | 6 | 1/4 | -4 | 6.4 | 1/4x19 | 41 | 17 | 19 |
| 1B546-4-5 | 1B548-4-5 | 8 | 5/16 | -5 | 7.9 | 1/4x19 | 41 | 17 | 19 |
| 1B546-6-5 | 1B548-6-5 | 8 | 5/16 | -5 | 7.9 | 3/8x19 | 38 | 14 | 22 |
| 1B546-8-5 | 1B548-8-5 | 8 | 5/16 | -5 | 7.9 | 1/2x14 | 44 | 21 | 27 |
| 1B546-6-6 | 1B548-6-6 | 10 | 3/8 | -6 | 9.5 | 3/8x19 | 37 | 14 | 22 |
| 1B546-8-6 | 1B548-8-6 | 10 | 3/8 | -6 | 9.5 | 1/2x14 | 43 | 20 | 27 |
| 1B546-8-8 | 1B548-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 43 | 19 | 27 |
| 1B546-12-8 | 1B548-12-8 | 12 | 1/2 | -8 | 12.7 | 3/4x14 | 43 | 19 | 32 |
| 1B546-12-10 | 1B548-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4x14 | 43 | 18 | 32 |
| 1B546-12-12 | 1B548-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 44 | 18 | 32 |
| 1B546-16-16 | 1B548-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 51 | 21 | 41 |

Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

46 or **48** 441 441RH 461LT 462 462ST

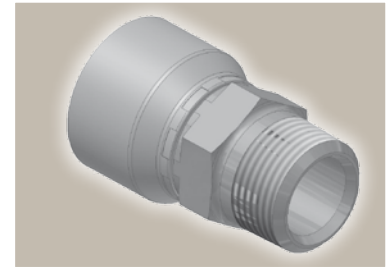
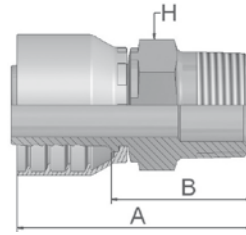
46 463 492 492ST 692 692TWIN

48 301SN 301TC 302 304 421RH 421SN 422 426 436 451 451TC 462CLF 462TC 471TC 472TC 477 477ST 493 811 881

01

Male NPTF Pipe Rigid – Straight

SAE J476A/ J516 – AGN



| Part Number | | Hose I.D. | | | | Thread | A | B | H |
|-------------|-------------|-----------|-------|------|------|--------------|-----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | UNF | mm | mm | mm |
| 10146-2-4 | 10148-2-4 | 6 | 1/4 | -4 | 6.4 | 1/8x27 | 48 | 24 | 12 |
| 10146-4-4 | 10148-4-4 | 6 | 1/4 | -4 | 6.4 | 1/4x18 | 53 | 29 | 14 |
| 10146-6-4 | 10148-6-4 | 6 | 1/4 | -4 | 6.4 | 3/8x18 | 55 | 31 | 19 |
| 10146-4-5 | 10148-4-5 | 8 | 5/16 | -5 | 7.9 | 1/4x18 | 53 | 29 | 14 |
| 10146-6-5 | 10148-6-5 | 8 | 5/16 | -5 | 7.9 | 3/8x18 | 55 | 31 | 19 |
| 10146-4-6 | 10148-4-6 | 10 | 3/8 | -6 | 9.5 | 1/4x18 | 52 | 29 | 14 |
| 10146-6-6 | 10148-6-6 | 10 | 3/8 | -6 | 9.5 | 3/8x18 | 54 | 31 | 19 |
| 10146-8-6 | 10148-8-6 | 10 | 3/8 | -6 | 9.5 | 1/2x14 | 55 | 32 | 22 |
| 10146-6-8 | 10148-6-8 | 12 | 1/2 | -8 | 12.7 | 3/8x18 | 55 | 32 | 19 |
| 10146-8-8 | 10148-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 61 | 38 | 22 |
| 10146-8-10 | 10148-8-10 | 16 | 5/8 | -10 | 15.9 | 1/2x14 | 63 | 38 | 22 |
| 10146-12-10 | 10148-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4x14 | 59 | 34 | 27 |
| 10146-12-12 | 10148-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 60 | 34 | 27 |
| 10146-16-16 | | 25 | 1 | -16 | 25.4 | 1x11 1/2 | 75 | 45 | 36 |
| | 10148-16-16 | 25 | 1 | -16 | 25.4 | 1x11 1/2 | 75 | 45 | 36 |
| | 10148-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 1/2 | 104 | 57 | 46 |
| 10146-20-20 | | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 1/2 | 86 | 48 | 46 |
| | 10148-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2x11 1/2 | 89 | 51 | 50 |
| | 10148-32-32 | 51 | 2 | -32 | 50.8 | 2x11 1/2 | 104 | 55 | 65 |

46/48 Series

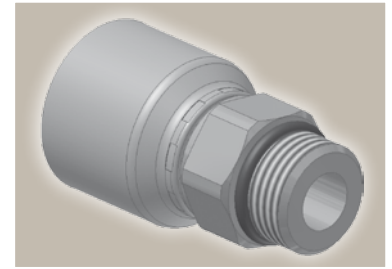
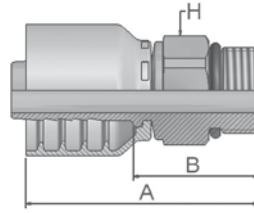
Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | | | | | | | | | | | | | | | | | | | | |
|-----------|-------|-----------|-------|-------|---------|-------|-------|-----|-----|-----|-------|--------|-------|-------|-------|-----|-------|-----|-----|-----|
| 46 | or | 48 | 441 | 441RH | 461LT | 462 | 462ST | | | | | | | | | | | | | |
| 46 | 463 | 492 | 492ST | 692 | 692TWIN | | | | | | | | | | | | | | | |
| 48 | 301SN | 301TC | 302 | 304 | 421RH | 421SN | 422 | 426 | 436 | 451 | 451TC | 462CLF | 462TC | 471TC | 472TC | 477 | 477ST | 493 | 811 | 881 |

05 Male SAE Straight Thread with O-Ring – Rigid Straight

ISO 11926 – SAE J516



| Part Number | | Hose I.D. | | | | Thread | A | B | H |
|-------------|------------|-----------|------|------|------|---------|----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | UNF | mm | mm | mm |
| | 10548-6-6 | 10 | 3/8 | -6 | 9.5 | 9/16 18 | 47 | 24 | 17 |
| 10546-8-6 | 10548-8-6 | 10 | 3/8 | -6 | 9.5 | 3/4x16 | 48 | 25 | 22 |
| 10546-8-8 | 10548-8-8 | 12 | 1/2 | -8 | 12.7 | 3/4x16 | 52 | 28 | 22 |
| 10546-10-8 | 10548-10-8 | 12 | 1/2 | -8 | 12.7 | 7/8x14 | 49 | 26 | 27 |

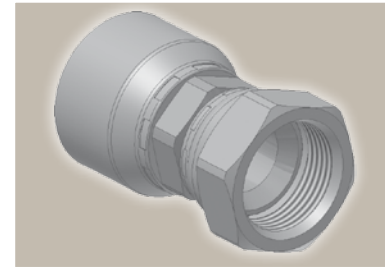
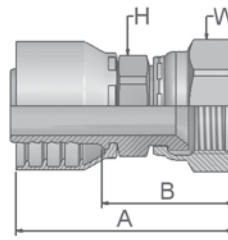
To select corresponding O-ring see section Eb.

Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | | | | | | | | | | | | | | | | | | | | |
|------------------------|-------|-------|-------|-----|---------|-------|-----|-----|-----|-----|-------|--------|-------|-------|-------|-----|-------|-----|-----|-----|
| 46 or 48 | 441 | 441RH | 461LT | 462 | 462ST | | | | | | | | | | | | | | | |
| 46 | 463 | 492 | 492ST | 692 | 692TWIN | | | | | | | | | | | | | | | |
| 48 | 301SN | 301TC | 302 | 304 | 421RH | 421SN | 422 | 426 | 436 | 451 | 451TC | 462CLF | 462TC | 471TC | 472TC | 477 | 477ST | 493 | 811 | 881 |

06/68 Female – JIC 37°
SAE 45° Dual Flare
Swivel – Straight
ISO12151-5-SWS – DKJ



| Part Number | | Hose I.D. | | | | Thread | A | B | H | W |
|-------------|-------------|-----------|-------|------|------|-----------|-----|----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | UNF | mm | mm | mm | mm |
| 16846-4-4 | 16848-4-4 | 6 | 1/4 | -4 | 6.4 | 7/16x20 | 52 | 29 | 14 | 17 |
| 16846-5-4 | | 6 | 1/4 | -4 | 6.4 | 1/2x20 | 53 | 30 | 14 | 17 |
| | 16848-5-4 | 6 | 1/4 | -4 | 6.4 | 1/2x20 | 54 | 30 | 14 | 17 |
| 10646-6-4 | 10648-6-4 | 6 | 1/4 | -4 | 6.4 | 9/16x18 | 55 | 31 | 14 | 19 |
| 16846-5-5 | | 8 | 5/16 | -5 | 7.9 | 1/2x20 | 54 | 31 | 14 | 17 |
| | 16848-5-5 | 8 | 5/16 | -5 | 7.9 | 1/2x20 | 54 | 30 | 14 | 17 |
| 10646-6-5 | 10648-6-5 | 8 | 5/16 | -5 | 7.9 | 9/16x18 | 53 | 29 | 14 | 19 |
| 16846-8-5 | 16848-8-5 | 8 | 5/16 | -5 | 7.9 | 3/4x16 | 57 | 34 | 17 | 22 |
| 16846-4-6 | 16848-4-6 | 10 | 3/8 | -6 | 9.5 | 7/16x20 | 50 | 27 | 14 | 17 |
| | 16848-5-6 | 10 | 3/8 | -6 | 9.5 | 1/2x20 | 52 | 29 | 14 | 17 |
| 16846-5-6 | | 10 | 3/8 | -6 | 9.5 | 1/2x20 | 51 | 29 | 14 | 17 |
| 10646-6-6 | 10648-6-6 | 10 | 3/8 | -6 | 9.5 | 9/16x18 | 52 | 30 | 17 | 19 |
| 16846-8-6 | 16848-8-6 | 10 | 3/8 | -6 | 9.5 | 3/4x16 | 56 | 34 | 17 | 22 |
| 16846-10-6 | 16848-10-6 | 10 | 3/8 | -6 | 9.5 | 7/8x14 | 59 | 36 | 22 | 27 |
| 10646-6-8 | 10648-6-8 | 12 | 1/2 | -8 | 12.7 | 9/16x18 | 55 | 32 | 22 | 19 |
| 16846-8-8 | 16848-8-8 | 12 | 1/2 | -8 | 12.7 | 3/4x16 | 56 | 32 | 22 | 22 |
| 16846-10-8 | 16848-10-8 | 12 | 1/2 | -8 | 12.7 | 7/8x14 | 62 | 38 | 22 | 27 |
| 10646-12-8 | 10648-12-8 | 12 | 1/2 | -8 | 12.7 | 1 1/16x12 | 62 | 39 | 27 | 32 |
| 16846-8-10 | 16848-8-10 | 16 | 5/8 | -10 | 15.9 | 3/4x16 | 57 | 32 | 22 | 22 |
| 16846-10-10 | 16848-10-10 | 16 | 5/8 | -10 | 15.9 | 7/8x14 | 60 | 35 | 22 | 27 |
| 10646-12-10 | 10648-12-10 | 16 | 5/8 | -10 | 15.9 | 1 1/16x12 | 64 | 39 | 27 | 32 |
| 16846-8-12 | 16848-8-12 | 19 | 3/4 | -12 | 19.1 | 3/4x16 | 58 | 32 | 24 | 22 |
| 16846-10-12 | 16848-10-12 | 19 | 3/4 | -12 | 19.1 | 7/8x14 | 61 | 35 | 24 | 27 |
| 10646-12-12 | 10648-12-12 | 19 | 3/4 | -12 | 19.1 | 1 1/16x12 | 67 | 41 | 27 | 32 |
| 10646-14-12 | 10648-14-12 | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 68 | 42 | 30 | 36 |
| 10646-16-12 | 10648-16-12 | 19 | 3/4 | -12 | 19.1 | 1 5/16x12 | 71 | 45 | 32 | 41 |
| 10646-12-16 | 10648-12-16 | 25 | 1 | -16 | 25.4 | 1 1/16x12 | 73 | 44 | 32 | 32 |
| 10646-16-16 | 10648-16-16 | 25 | 1 | -16 | 25.4 | 1 5/16x12 | 75 | 46 | 32 | 41 |
| 10646-20-16 | 10648-20-16 | 25 | 1 | -16 | 25.4 | 1 5/8x12 | 80 | 50 | 41 | 50 |
| | 10648-16-20 | 31 | 1 1/4 | -20 | 31.8 | 1 5/16x12 | 97 | 50 | 46 | 41 |
| 10646-16-20 | | 31 | 1 1/4 | -20 | 31.8 | 1 5/16x12 | 87 | 49 | 41 | 41 |
| | 10648-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 5/8x12 | 100 | 53 | 46 | 50 |
| 10646-20-20 | | 31 | 1 1/4 | -20 | 31.8 | 1 5/8x12 | 89 | 51 | 46 | 50 |
| | 10648-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 7/8x12 | 98 | 60 | 55 | 60 |
| | 10648-32-32 | 51 | 2 | -32 | 50.8 | 2 1/2x12 | 120 | 72 | 65 | 75 |

Approved fitting series for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

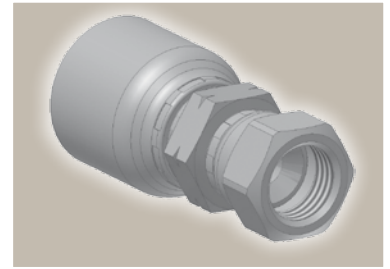
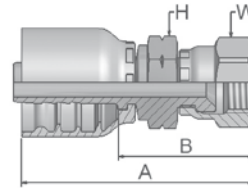
46 or 48 441 441RH 461LT 462 462ST

46 463 492 492ST 692 692TWIN

48 301SN 301TC 302 304 421RH 421SN 422 426 436 451 451TC 462CLF 462TC 471TC 472TC 477 477ST 493 811 881

08 Female SAE 45° – Swivel Straight

SAE J516



| Part Number | | Hose I.D. | | | | Thread | A | B | H | W |
|-------------|-----------|-----------|------|------|-----|--------|----|----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | UNF | mm | mm | mm | mm |
| 10846-6-6 | 10848-6-6 | 10 | 3/8 | -6 | 9.5 | 5/8x18 | 57 | 34 | 19 | 19 |

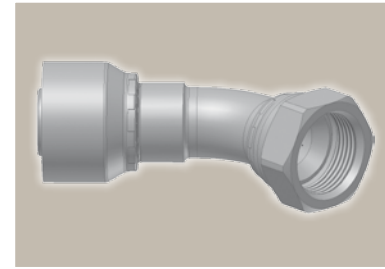
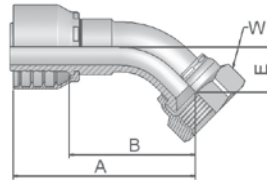
46/48 Series

Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

- 46** or **48** 441 441RH 461LT 462 462ST
- 46** 463 492 492ST 692 692TWIN
- 48** 301SN 301TC 302 304 421RH 421SN 422 426 436 451 451TC 462CLF 462TC 471TC 472TC 477 477ST 493 811 881

**37/3V Female JIC 37°
SAE 45° – Dual Flare
Swivel Female 45° Elbow**
ISO 12151-5-SWE 45° – DKJ 45°



| Part Number | | Hose I.D. | | | | Thread | A | B | E | W |
|-------------|-------------|-----------|-------|------|------|-----------|-----|-----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | UNF | mm | mm | mm | mm |
| 13V46-4-4 | 13V48-4-4 | 6 | 1/4 | -4 | 6.4 | 7/16x20 | 53 | 29 | 10 | 17 |
| 13V46-5-4 | 13V48-5-4 | 6 | 1/4 | -4 | 6.4 | 1/2x20 | 57 | 33 | 9 | 17 |
| 13746-6-4 | 13748-6-4 | 6 | 1/4 | -4 | 6.4 | 9/16x18 | 55 | 31 | 11 | 19 |
| 13V46-5-5 | 13V48-5-5 | 8 | 5/16 | -5 | 7.9 | 1/2x20 | 53 | 29 | 10 | 17 |
| 13746-6-5 | 13748-6-5 | 8 | 5/16 | -5 | 7.9 | 9/16x18 | 58 | 35 | 10 | 19 |
| 13746-6-6 | 13748-6-6 | 10 | 3/8 | -6 | 9.5 | 9/16x18 | 60 | 37 | 11 | 19 |
| 13V46-8-6 | 13V48-8-6 | 10 | 3/8 | -6 | 9.5 | 3/4x16 | 67 | 44 | 15 | 22 |
| 13V46-10-6 | 13V48-10-6 | 10 | 3/8 | -6 | 9.5 | 7/8 14 | 69 | 46 | 17 | 27 |
| 13V46-8-8 | 13V48-8-8 | 12 | 1/2 | -8 | 12.7 | 3/4x16 | 61 | 37 | 15 | 22 |
| 13V46-10-8 | 13V48-10-8 | 12 | 1/2 | -8 | 12.7 | 7/8x14 | 70 | 46 | 16 | 27 |
| 13V46-10-10 | 13V48-10-10 | 16 | 5/8 | -10 | 15.9 | 7/8x14 | 69 | 44 | 16 | 27 |
| 13746-12-10 | 13748-12-10 | 16 | 5/8 | -10 | 15.9 | 1 1/16x12 | 74 | 49 | 21 | 32 |
| 13746-12-12 | 13748-12-12 | 19 | 3/4 | -12 | 19.1 | 1 1/16x12 | 83 | 58 | 22 | 32 |
| 13746-14-12 | 13748-14-12 | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 84 | 58 | 22 | 36 |
| 13746-16-12 | 13748-16-12 | 19 | 3/4 | -12 | 19.1 | 1 5/16x12 | 84 | 58 | 24 | 41 |
| 13746-12-16 | 13748-12-16 | 25 | 1 | -16 | 25.4 | 1 1/16x12 | 91 | 61 | 21 | 32 |
| 13746-16-16 | 13748-16-16 | 25 | 1 | -16 | 25.4 | 1 5/16x12 | 99 | 70 | 24 | 41 |
| 13746-20-16 | 13748-20-16 | 25 | 1 | -16 | 25.4 | 1 5/8x12 | 101 | 71 | 26 | 50 |
| | 13748-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 5/8x12 | 134 | 87 | 30 | 50 |
| 13746-20-20 | | 31 | 1 1/4 | -20 | 31.8 | 1 5/8x12 | 129 | 91 | 31 | 50 |
| | 13748-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 7/8x12 | 165 | 127 | 58 | 60 |

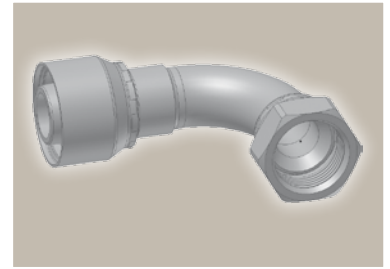
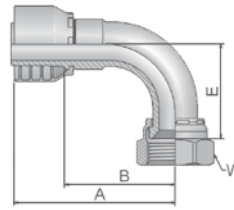
Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | | | | | | | | | | | | | | | | | | | | |
|------------------------|-------|-------|-------|-----|---------|-------|-----|-----|-----|-----|-------|--------|-------|-------|-------|-----|-------|-----|-----|-----|
| 46 or 48 | 441 | 441RH | 461LT | 462 | 462ST | | | | | | | | | | | | | | | |
| 46 | 463 | 492 | 492ST | 692 | 692TWIN | | | | | | | | | | | | | | | |
| 48 | 301SN | 301TC | 302 | 304 | 421RH | 421SN | 422 | 426 | 436 | 451 | 451TC | 462CLF | 462TC | 471TC | 472TC | 477 | 477ST | 493 | 811 | 881 |

39/3W Female JIC 37° SAE 45° – Dual Flare Swivel Female 90° Elbow

ISO 12151-5-SWES – DKJ 90°



| Part Number | | Hose I.D. | | | | Thread | A | B | E | W |
|-------------|-------------|-----------|-------|------|------|-----------|-----|-----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | UNF | mm | mm | mm | mm |
| 13W46-4-4 | 13W48-4-4 | 6 | 1/4 | -4 | 6.4 | 7/16x20 | 48 | 24 | 21 | 17 |
| 13W46-5-4 | 13W48-5-4 | 6 | 1/4 | -4 | 6.4 | 1/2x20 | 57 | 34 | 21 | 17 |
| 13946-6-4 | 13948-6-4 | 6 | 1/4 | -4 | 6.4 | 9/16x18 | 49 | 25 | 23 | 19 |
| 13W46-5-5 | 13W48-5-5 | 8 | 5/16 | -5 | 7.9 | 1/2x20 | 49 | 25 | 21 | 17 |
| 13946-6-5 | 13948-6-5 | 8 | 5/16 | -5 | 7.9 | 9/16x18 | 51 | 28 | 23 | 19 |
| 13W46-4-6 | 13W48-4-6 | 10 | 3/8 | -6 | 9.5 | 7/16x20 | 46 | 23 | 21 | 17 |
| 13946-6-6 | 13948-6-6 | 10 | 3/8 | -6 | 9.5 | 9/16x18 | 51 | 28 | 23 | 19 |
| 13W46-8-6 | 13W48-8-6 | 10 | 3/8 | -6 | 9.5 | 3/4x16 | 59 | 36 | 29 | 22 |
| 13W46-10-6 | 13W48-10-6 | 10 | 3/8 | -6 | 9.5 | 7/8x14 | 61 | 38 | 32 | 27 |
| 13946-6-8 | 13948-6-8 | 12 | 1/2 | -8 | 12.7 | 9/16x18 | 54 | 30 | 23 | 19 |
| 13W46-8-8 | 13W48-8-8 | 12 | 1/2 | -8 | 12.7 | 3/4x16 | 55 | 31 | 29 | 22 |
| 13W46-10-8 | 13W48-10-8 | 12 | 1/2 | -8 | 12.7 | 7/8x14 | 63 | 39 | 32 | 27 |
| 13W46-10-10 | 13W48-10-10 | 16 | 5/8 | -10 | 15.9 | 7/8x14 | 64 | 39 | 33 | 27 |
| 13946-12-10 | 13948-12-10 | 16 | 5/8 | -10 | 15.9 | 1 1/16x12 | 74 | 49 | 48 | 32 |
| 13946-12-12 | 13948-12-12 | 19 | 3/4 | -12 | 19.1 | 1 1/16x12 | 80 | 54 | 48 | 32 |
| 13946-14-12 | 13948-14-12 | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 80 | 54 | 51 | 36 |
| 13946-16-12 | 13948-16-12 | 19 | 3/4 | -12 | 19.1 | 1 5/16x12 | 80 | 54 | 56 | 41 |
| 13946-12-16 | 13948-12-16 | 25 | 1 | -16 | 25.4 | 1 1/16x12 | 87 | 58 | 48 | 32 |
| 13946-16-16 | 13948-16-16 | 25 | 1 | -16 | 25.4 | 1 5/16x12 | 98 | 68 | 56 | 41 |
| 13946-20-16 | 13948-20-16 | 25 | 1 | -16 | 25.4 | 1 5/8x12 | 98 | 68 | 62 | 50 |
| | 13948-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 5/8x12 | 129 | 82 | 70 | 50 |
| 13946-20-20 | | 31 | 1 1/4 | -20 | 31.8 | 1 5/8x12 | 124 | 86 | 70 | 50 |
| | 13948-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 7/8x12 | 140 | 102 | 91 | 60 |

46/48 Series

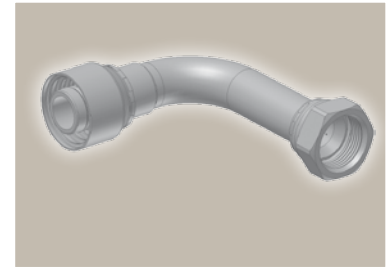
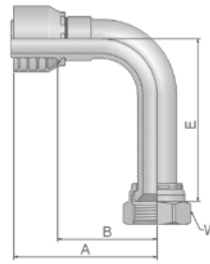
Approved fitting series for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | | | | | | | | | | | | | | | | | | | | |
|-----------|-------|-----------|-------|-------|---------|-------|-------|-----|-----|-----|-------|--------|-------|-------|-------|-----|-------|-----|-----|-----|
| 46 | or | 48 | 441 | 441RH | 461LT | 462 | 462ST | | | | | | | | | | | | | |
| 46 | 463 | 492 | 492ST | 692 | 692TWIN | | | | | | | | | | | | | | | |
| 48 | 301SN | 301TC | 302 | 304 | 421RH | 421SN | 422 | 426 | 436 | 451 | 451TC | 462CLF | 462TC | 471TC | 472TC | 477 | 477ST | 493 | 811 | 881 |

41/3Y Female JIC 37° / 45° Swivel Female 90° Elbow (Long)

ISO 12151-5-SWEL – DKJ 90°L



| Part Number | | Hose I.D. | | | | Thread | A | B | E | W |
|-------------|-------------|-----------|------|------|------|-----------|----|----|-----|----|
| 46 series | 48 series | DN | Inch | Size | mm | UNF | mm | mm | mm | mm |
| 13Y46-4-4 | 13Y48-4-4 | 6 | 1/4 | -4 | 6.4 | 7/16x20 | 61 | 37 | 46 | 17 |
| 14146-6-4 | 14148-6-4 | 6 | 1/4 | -4 | 6.4 | 9/16x18 | 57 | 34 | 55 | 19 |
| 14146-6-6 | 14148-6-6 | 10 | 3/8 | -6 | 9.5 | 9/16x18 | 57 | 34 | 54 | 19 |
| 13Y46-8-6 | 13Y48-8-6 | 10 | 3/8 | -6 | 9.5 | 3/4x16 | 55 | 32 | 62 | 22 |
| 13Y46-8-8 | 13Y48-8-8 | 12 | 1/2 | -8 | 12.7 | 3/4x16 | 59 | 36 | 64 | 22 |
| 13Y46-10-10 | 13Y48-10-10 | 16 | 5/8 | -10 | 15.9 | 7/8x14 | 61 | 36 | 70 | 27 |
| 14146-12-12 | 14148-12-12 | 19 | 3/4 | -12 | 19.1 | 1 1/16x12 | 80 | 54 | 96 | 32 |
| 14146-16-16 | 14148-16-16 | 25 | 1 | -16 | 25.4 | 1 5/16x12 | 98 | 68 | 110 | 41 |

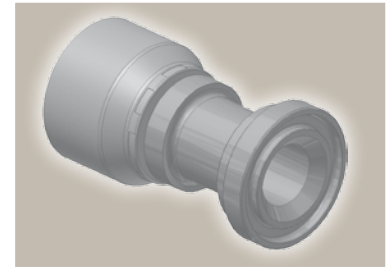
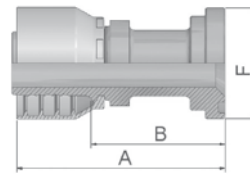
Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | | | | | | | | | | | | | | | | | | | | |
|------------------------|-------|-------|-------|-----|---------|-------|-----|-----|-----|-----|-------|--------|-------|-------|-------|-----|-------|-----|-----|-----|
| 46 or 48 | 441 | 441RH | 461LT | 462 | 462ST | | | | | | | | | | | | | | | |
| 46 | 463 | 492 | 492ST | 692 | 692TWIN | | | | | | | | | | | | | | | |
| 48 | 301SN | 301TC | 302 | 304 | 421RH | 421SN | 422 | 426 | 436 | 451 | 451TC | 462CLF | 462TC | 471TC | 472TC | 477 | 477ST | 493 | 811 | 881 |

15 ISO 6162-1 Flange Straight

ISO 12151-3-S-L – SFL
(21.0 MPa/ 3000 psi)



| Part Number | | Hose I.D. | | | | Flange | A | B | F |
|-------------|-------------|-----------|-------|------|------|--------|-----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | Inch | mm | mm | mm |
| 11546-8-8 | 11548-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2 | 74 | 50 | 30 |
| 11546-12-8 | 11548-12-8 | 12 | 1/2 | -8 | 12.7 | 3/4 | 51 | 27 | 38 |
| 11546-12-10 | 11548-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4 | 55 | 30 | 38 |
| 11546-12-12 | 11548-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 81 | 55 | 38 |
| 11546-16-12 | 11548-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 56 | 30 | 45 |
| 11546-20-12 | 11548-20-12 | 19 | 3/4 | -12 | 19.1 | 1 1/4 | 77 | 51 | 51 |
| 11546-16-16 | 11548-16-16 | 25 | 1 | -16 | 25.4 | 1 | 84 | 54 | 45 |
| 11546-20-16 | 11548-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 65 | 35 | 51 |
| 11546-24-16 | 11548-24-16 | 25 | 1 | -16 | 25.4 | 1 1/2 | 97 | 67 | 60 |
| | 11548-16-20 | 31 | 1 1/4 | -20 | 31.8 | 1 | 111 | 64 | 45 |
| | 11548-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 119 | 72 | 51 |
| 11546-20-20 | | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 114 | 76 | 51 |
| | 11548-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 82 | 35 | 60 |
| 11546-24-20 | | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 72 | 35 | 60 |
| | 11548-32-20 | 31 | 1 1/4 | -20 | 31.8 | 2 | 123 | 76 | 71 |
| | 11548-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 117 | 79 | 60 |
| | 11548-32-24 | 38 | 1 1/2 | -24 | 38.1 | 2 | 80 | 42 | 71 |
| | 11548-24-32 | 51 | 2 | -32 | 50.8 | 1 1/2 | 129 | 81 | 60 |
| | 11548-32-32 | 51 | 2 | -32 | 50.8 | 2 | 127 | 79 | 71 |

To select corresponding half-flange and O-ring see section Eb.

46/48 Series

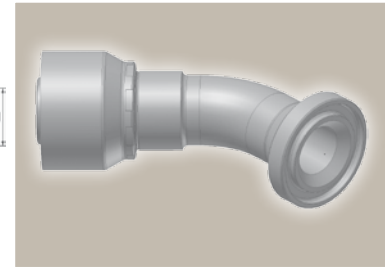
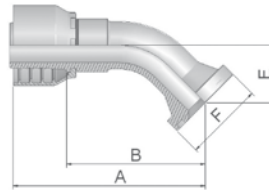
Approved fitting series for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | | | | | | | | | | | | | | | | | | | | |
|----|-------|-------|-------|-------|---------|-------|-------|-----|-----|-----|-------|--------|-------|-------|-------|-----|-------|-----|-----|-----|
| 46 | or | 48 | 441 | 441RH | 461LT | 462 | 462ST | | | | | | | | | | | | | |
| 46 | 463 | 492 | 492ST | 692 | 692TWIN | | | | | | | | | | | | | | | |
| 48 | 301SN | 301TC | 302 | 304 | 421RH | 421SN | 422 | 426 | 436 | 451 | 451TC | 462CLF | 462TC | 471TC | 472TC | 477 | 477ST | 493 | 811 | 881 |

17 ISO 6162-1 Flange 45° Elbow

ISO 12151-3 – E45 – L – SFL 45°
(21.0 MPa/ 3000 psi)



| Part Number | | Hose I.D. | | | | Flange | A | B | E | F |
|-------------|-------------|-----------|-------|------|------|--------|-----|-----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | Inch | mm | mm | mm | mm |
| 11746-8-8 | 11748-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2 | 72 | 48 | 20 | 30 |
| 11746-12-8 | 11748-12-8 | 12 | 1/2 | -8 | 12.7 | 3/4 | 70 | 47 | 21 | 38 |
| 11746-12-10 | 11748-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4 | 75 | 50 | 24 | 38 |
| 11746-12-12 | 11748-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 88 | 62 | 26 | 38 |
| 11746-16-12 | 11748-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 88 | 62 | 26 | 45 |
| 11746-20-12 | 11748-20-12 | 19 | 3/4 | -12 | 19.1 | 1 1/4 | 87 | 61 | 25 | 51 |
| | 11748-16-16 | 25 | 1 | -16 | 25.4 | 1 | 107 | 78 | 32 | 45 |
| 11746-16-16 | | 25 | 1 | -16 | 25.4 | 1 | 109 | 78 | 32 | 45 |
| 11746-20-16 | 11748-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 109 | 79 | 32 | 51 |
| | 11748-16-20 | 31 | 1 1/4 | -20 | 31.8 | 1 | 141 | 94 | 38 | 45 |
| | 11748-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 141 | 94 | 38 | 51 |
| 11746-20-20 | | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 136 | 98 | 38 | 51 |
| | 11748-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 141 | 94 | 38 | 60 |
| 11746-24-20 | | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 136 | 98 | 38 | 60 |
| | 11748-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 151 | 113 | 44 | 60 |
| | 11748-32-24 | 38 | 1 1/2 | -24 | 38.1 | 2 | 150 | 112 | 44 | 71 |
| | 11748-24-32 | 51 | 2 | -32 | 50.8 | 1 1/2 | 153 | 105 | 36 | 60 |
| | 11748-32-32 | 51 | 2 | -32 | 50.8 | 2 | 202 | 153 | 56 | 71 |

To select corresponding half-flange and O-ring see section Eb.

Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

46 or **48** 441 441RH 461LT 462 462ST

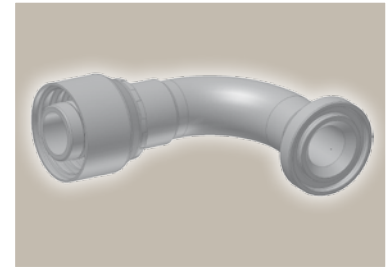
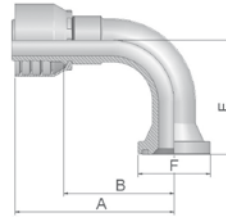
46 463 492 492ST 692 692TWIN

48 301SN 301TC 302 304 421RH 421SN 422 426 436 451 451TC 462CLF 462TC 471TC 472TC 477 477ST 493 811 881

19

ISO 6162-1 Flange 90° Elbow

ISO 12151-3 – E-L – SFL 90°
(21.0 MPa/ 3000 psi)



| Part Number | | Hose I.D. | | | | Flange | A | B | E | F |
|-------------|-------------|-----------|-------|------|------|--------|-----|-----|-----|----|
| 46 series | 48 series | DN | Inch | Size | mm | Inch | mm | mm | mm | mm |
| 11946-8-8 | 11948-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2 | 64 | 41 | 41 | 30 |
| 11946-12-8 | 11948-12-8 | 12 | 1/2 | -8 | 12.7 | 3/4 | 70 | 47 | 43 | 38 |
| 11946-12-10 | 11948-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4 | 78 | 53 | 52 | 38 |
| 11946-16-10 | 11948-16-10 | 16 | 5/8 | -10 | 15.9 | 1 | 78 | 53 | 53 | 45 |
| 11946-12-12 | 11948-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 80 | 54 | 58 | 38 |
| 11946-16-12 | 11948-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 80 | 54 | 58 | 45 |
| 11946-20-12 | 11948-20-12 | 19 | 3/4 | -12 | 19.1 | 1 1/4 | 80 | 54 | 54 | 51 |
| 11946-12-16 | 11948-12-16 | 25 | 1 | -16 | 25.4 | 3/4 | 98 | 68 | 70 | 38 |
| 11946-16-16 | 11948-16-16 | 25 | 1 | -16 | 25.4 | 1 | 98 | 68 | 70 | 45 |
| 11946-20-16 | 11948-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 102 | 72 | 70 | 51 |
| | 11948-24-16 | 25 | 1 | -16 | 25.4 | 1 1/2 | 100 | 70 | 62 | 60 |
| | 11948-16-20 | 31 | 1 1/4 | -20 | 31.8 | 1 | 129 | 82 | 90 | 45 |
| 11946-20-20 | | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 124 | 86 | 90 | 51 |
| | 11948-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 130 | 83 | 90 | 51 |
| | 11948-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 129 | 82 | 90 | 60 |
| 11946-24-20 | | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 124 | 86 | 90 | 60 |
| | 11948-32-20 | 31 | 1 1/4 | -20 | 31.8 | 2 | 130 | 83 | 67 | 71 |
| | 11948-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 149 | 111 | 104 | 60 |
| | 11948-32-24 | 38 | 1 1/2 | -24 | 38.1 | 2 | 139 | 101 | 104 | 71 |
| | 11948-24-32 | 51 | 2 | -32 | 50.8 | 1 1/2 | 154 | 106 | 104 | 60 |
| | 11948-32-32 | 51 | 2 | -32 | 50.8 | 2 | 180 | 132 | 138 | 71 |

To select corresponding half-flange and O-ring see section Eb.

46/48 Series

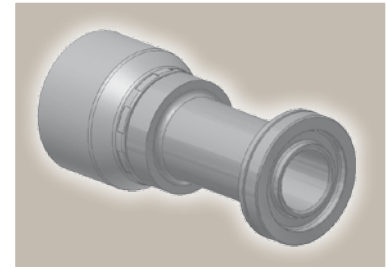
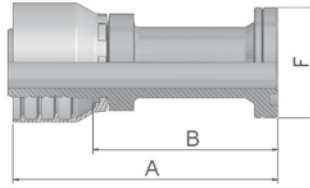
Approved fitting series for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | | | | | | | | | | | | | | | | | | | | |
|------------------------|-------|-------|-------|-----|---------|-------|-----|-----|-----|-----|-------|--------|-------|-------|-------|-----|-------|-----|-----|-----|
| 46 or 48 | 441 | 441RH | 461LT | 462 | 462ST | | | | | | | | | | | | | | | |
| 46 | 463 | 492 | 492ST | 692 | 692TWIN | | | | | | | | | | | | | | | |
| 48 | 301SN | 301TC | 302 | 304 | 421RH | 421SN | 422 | 426 | 436 | 451 | 451TC | 462CLF | 462TC | 471TC | 472TC | 477 | 477ST | 493 | 811 | 881 |

6A ISO 6162-2 Flange Straight

ISO 12151-3-S-S – SFS
(42.0 MPa/ 6000 psi)

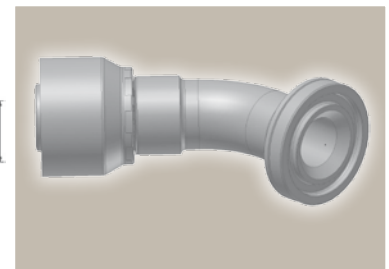
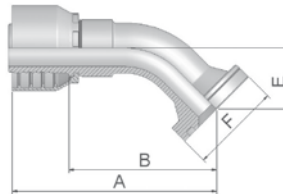


| Part Number | | Hose I.D. | | | | Flange | A | B | F |
|-------------|-------------|-----------|-------|------|------|--------|-----|-----|----|
| 46 series | 48 series | DN | Inch | Size | mm | Inch | mm | mm | mm |
| 16A46-8-8 | 16A48-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2 | 75 | 51 | 32 |
| | 16A48-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4 | 60 | 35 | 41 |
| 16A46-12-12 | 16A48-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 96 | 70 | 41 |
| 16A46-12-16 | 16A48-12-16 | 25 | 1 | -16 | 25.4 | 3/4 | 99 | 69 | 41 |
| 16A46-16-16 | 16A48-16-16 | 25 | 1 | -16 | 25.4 | 1 | 111 | 81 | 48 |
| 16A46-20-20 | | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 122 | 84 | 54 |
| | 16A48-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 130 | 83 | 54 |
| | 16A48-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 139 | 101 | 64 |
| | 16A48-32-32 | 51 | 2 | -32 | 50.8 | 2 | 172 | 124 | 79 |

To select corresponding half-flange and O-ring see section Eb.

6F ISO 6162-2 Flange 45° Elbow – Heavy Series

ISO 12151-3 – E45-S – SFS 45°
(42.0 MPa/ 6000 psi)



| Part Number | | Hose I.D. | | | | Flange | A | B | E | F |
|-------------|-------------|-----------|-------|------|------|--------|-----|-----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | Inch | mm | mm | mm | mm |
| 16F46-12-12 | 16F48-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 88 | 62 | 26 | 41 |
| 16F46-16-16 | 16F48-16-16 | 25 | 1 | -16 | 25.4 | 1 | 107 | 78 | 32 | 48 |
| | 16F48-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 141 | 94 | 38 | 54 |
| | 16F48-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 150 | 112 | 44 | 64 |
| | 16F48-32-32 | 51 | 2 | -32 | 50.8 | 2 | 200 | 152 | 56 | 79 |

To select corresponding half-flange and O-ring see section Eb.

Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

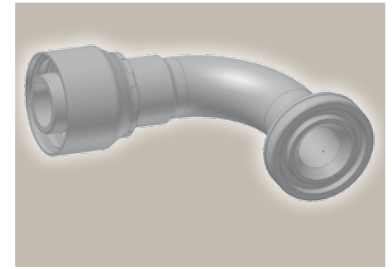
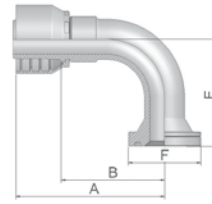
46 or **48** 441 441RH 461LT 462 462ST

46 463 492 492ST 692 692TWIN

48 301SN 301TC 302 304 421RH 421SN 422 426 436 451 451TC 462CLF 462TC 471TC 472TC 477 477ST 493 811 881

6N ISO 6162-2 Flange 90° Elbow

ISO 12151-3 – E-S – SFS 90°
(42.0 MPa/ 6000 psi)



| Part Number | | Hose I.D. | | | | Flange | A | B | E | F |
|-------------|-------------|-----------|-------|------|------|--------|-----|-----|-----|----|
| 46 series | 48 series | DN | Inch | Size | mm | Inch | mm | mm | mm | mm |
| 16N46-8-12 | 16N48-8-12 | 19 | 3/4 | -12 | 19.1 | 1/2 | 70 | 44 | 40 | 32 |
| 16N46-12-12 | 16N48-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 80 | 54 | 54 | 41 |
| 16N46-16-12 | 16N48-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 80 | 54 | 53 | 48 |
| 16N46-12-16 | 16N48-12-16 | 25 | 1 | -16 | 25.4 | 3/4 | 88 | 58 | 70 | 41 |
| 16N46-16-16 | 16N48-16-16 | 25 | 1 | -16 | 25.4 | 1 | 98 | 68 | 70 | 48 |
| | 16N48-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 129 | 82 | 90 | 54 |
| 16N46-20-20 | | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 124 | 86 | 90 | 54 |
| | 16N48-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 139 | 101 | 104 | 64 |
| | 16N48-32-32 | 51 | 2 | -32 | 50.8 | 2 | 186 | 138 | 138 | 79 |

To select corresponding half-flange and O-ring see section Eb.

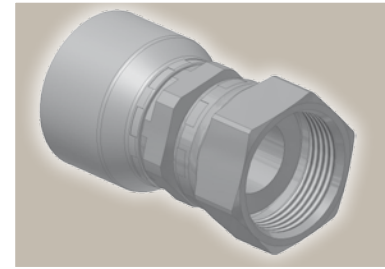
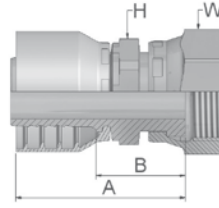
Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

- 46 or 48
441 441RH 461LT 462 462ST
- 46 463 492 492ST 692 692TWIN
- 48 301SN 301TC 302 304 421RH 421SN 422 426 436 451 451TC 462CLF 462TC 471TC 472TC 477 477ST 493 811 881

JC Female ORFS Swivel – Straight Short

ISO 12151-1 – SWSA
SAE J516 – ORFS



| Part Number | | Hose I.D. | | | | Thread | A | B | H | W |
|-------------|-------------|-----------|-------|------|------|------------|----|----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | UNF | mm | mm | mm | mm |
| 1JC46-4-4 | 1JC48-4-4 | 6 | 1/4 | -4 | 6.4 | 9/16x18 | 46 | 22 | 14 | 17 |
| 1JC46-6-4 | 1JC48-6-4 | 6 | 1/4 | -4 | 6.4 | 11/16x16 | 45 | 23 | 17 | 22 |
| 1JC46-8-4 | 1JC48-8-4 | 6 | 1/4 | -4 | 6.4 | 13/16x16 | 45 | 22 | 19 | 24 |
| 1JC46-6-5 | 1JC48-6-5 | 8 | 5/16 | -5 | 7.9 | 11/16x16 | 47 | 23 | 17 | 22 |
| 1JC46-4-6 | 1JC48-4-6 | 10 | 3/8 | -6 | 9.5 | 9/16x18 | 42 | 19 | 17 | 17 |
| 1JC46-6-6 | 1JC48-6-6 | 10 | 3/8 | -6 | 9.5 | 11/16x16 | 43 | 21 | 17 | 22 |
| 1JC46-8-6 | 1JC48-8-6 | 10 | 3/8 | -6 | 9.5 | 13/16x16 | 45 | 22 | 19 | 24 |
| 1JC46-6-8 | 1JC48-6-8 | 12 | 1/2 | -8 | 12.7 | 11/16x16 | 44 | 20 | 17 | 22 |
| 1JC46-8-8 | 1JC48-8-8 | 12 | 1/2 | -8 | 12.7 | 13/16x16 | 46 | 22 | 22 | 24 |
| 1JC46-10-8 | 1JC48-10-8 | 12 | 1/2 | -8 | 12.7 | 1x14 | 48 | 24 | 24 | 30 |
| 1JC46-12-8 | 1JC48-12-8 | 12 | 1/2 | -8 | 12.7 | 1 3/16x12 | 52 | 29 | 30 | 36 |
| 1JC46-8-10 | 1JC48-8-10 | 16 | 5/8 | -10 | 15.9 | 13/16x16 | 47 | 22 | 22 | 24 |
| 1JC46-10-10 | 1JC48-10-10 | 16 | 5/8 | -10 | 15.9 | 1x14 | 51 | 26 | 24 | 30 |
| 1JC46-12-10 | 1JC48-12-10 | 16 | 5/8 | -10 | 15.9 | 1 3/16x12 | 54 | 28 | 30 | 36 |
| 1JC46-10-12 | 1JC48-10-12 | 19 | 3/4 | -12 | 19.1 | 1x14 | 54 | 28 | 24 | 30 |
| 1JC46-12-12 | 1JC48-12-12 | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 55 | 29 | 30 | 36 |
| 1JC46-16-12 | 1JC48-16-12 | 19 | 3/4 | -12 | 19.1 | 1 7/16x12 | 59 | 33 | 36 | 41 |
| | 1JC48-12-16 | 25 | 1 | -16 | 25.4 | 1 3/16x12 | 60 | 30 | 32 | 36 |
| 1JC46-16-16 | 1JC48-16-16 | 25 | 1 | -16 | 25.4 | 1 7/16x12 | 63 | 33 | 36 | 41 |
| 1JC46-20-16 | 1JC48-20-16 | 25 | 1 | -16 | 25.4 | 1 11/16x12 | 62 | 32 | 41 | 50 |
| 1JC46-20-20 | | 31 | 1 1/4 | -20 | 31.8 | 1 11/16x12 | 71 | 33 | 41 | 50 |
| | 1JC48-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 11/16x12 | 85 | 36 | 50 | 50 |

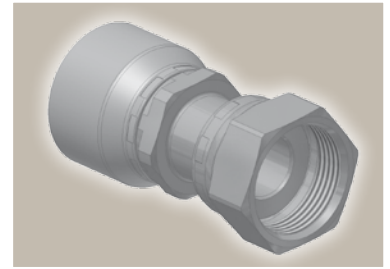
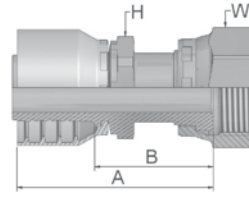
Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | | | | | | | | | | | | | | | | | | | | |
|------------------------|-------|-------|-------|-----|---------|-------|-----|-----|-----|-----|-------|--------|-------|-------|-------|-----|-------|-----|-----|-----|
| 46 or 48 | 441 | 441RH | 461LT | 462 | 462ST | | | | | | | | | | | | | | | |
| 46 | 463 | 492 | 492ST | 692 | 692TWIN | | | | | | | | | | | | | | | |
| 48 | 301SN | 301TC | 302 | 304 | 421RH | 421SN | 422 | 426 | 436 | 451 | 451TC | 462CLF | 462TC | 471TC | 472TC | 477 | 477ST | 493 | 811 | 881 |

JS ORFS Swivel Female (Long)

ISO 12151-1-SWSB
SAE J516 – ORFS



| Part Number | | Hose I.D. | | | | Thread | A | B | H | W |
|-------------|-------------|-----------|-------|------|------|------------|-----|----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | UNF | mm | mm | mm | mm |
| 1JS46-4-4 | 1JS48-4-4 | 6 | 1/4 | -4 | 6.4 | 9/16x18 | 51 | 29 | 14 | 17 |
| | | 6 | 1/4 | -4 | 6.4 | 9/16x18 | 53 | 29 | 14 | 17 |
| | 1JS48-6-4 | 6 | 1/4 | -4 | 6.4 | 11/16x16 | 54 | 31 | 17 | 22 |
| 1JS46-6-4 | | 6 | 1/4 | -4 | 6.4 | 11/16x16 | 56 | 31 | 17 | 22 |
| 1JS46-6-5 | 1JS48-6-5 | 8 | 5/16 | -5 | 7.9 | 11/16x16 | 55 | 31 | 17 | 22 |
| | 1JS48-4-6 | 10 | 3/8 | -6 | 9.5 | 9/16x18 | 53 | 31 | 14 | 17 |
| 1JS46-6-6 | 1JS48-6-6 | 10 | 3/8 | -6 | 9.5 | 11/16x16 | 52 | 29 | 17 | 22 |
| 1JS46-8-6 | 1JS48-8-6 | 10 | 3/8 | -6 | 9.5 | 13/16x16 | 58 | 35 | 19 | 24 |
| 1JS46-6-8 | 1JS48-6-8 | 12 | 1/2 | -8 | 12.7 | 11/16x16 | 52 | 29 | 17 | 22 |
| 1JS46-8-8 | 1JS48-8-8 | 12 | 1/2 | -8 | 12.7 | 13/16x16 | 57 | 33 | 22 | 24 |
| 1JS46-10-8 | 1JS48-10-8 | 12 | 1/2 | -8 | 12.7 | 1x14 | 63 | 39 | 24 | 30 |
| 1JS46-10-10 | 1JS48-10-10 | 16 | 5/8 | -10 | 15.9 | 1x14 | 65 | 39 | 24 | 30 |
| 1JS46-12-10 | 1JS48-12-10 | 16 | 5/8 | -10 | 15.9 | 1 3/16x12 | 70 | 45 | 30 | 36 |
| | 1JS48-10-12 | 19 | 3/4 | -12 | 19.1 | 1x14 | 65 | 39 | 24 | 30 |
| 1JS46-12-12 | 1JS48-12-12 | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 71 | 45 | 30 | 36 |
| 1JS46-16-12 | 1JS48-16-12 | 19 | 3/4 | -12 | 19.1 | 1 7/16x12 | 73 | 47 | 36 | 41 |
| 1JS46-16-16 | 1JS48-16-16 | 25 | 1 | -16 | 25.4 | 1 7/16x12 | 76 | 46 | 36 | 41 |
| | 1JS48-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 11/16x12 | 102 | 54 | 46 | 50 |
| 1JS46-20-20 | | 31 | 1 1/4 | -20 | 31.8 | 1 11/16x12 | 88 | 50 | 41 | 50 |
| | 1JS48-24-24 | 38 | 1 1/2 | -24 | 38.1 | 2x12 | 99 | 62 | 50 | 60 |

46/48 Series

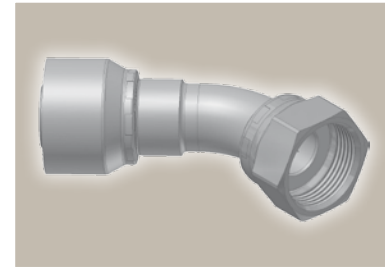
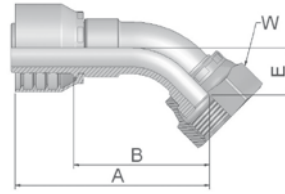
Approved fitting series for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | | | | | | | | | | | | | | | | | | | | |
|----|-------|-------|-------|-------|---------|-------|-------|-----|-----|-----|-------|--------|-------|-------|-------|-----|-------|-----|-----|-----|
| 46 | or | 48 | 441 | 441RH | 461LT | 462 | 462ST | | | | | | | | | | | | | |
| 46 | 463 | 492 | 492ST | 692 | 692TWIN | | | | | | | | | | | | | | | |
| 48 | 301SN | 301TC | 302 | 304 | 421RH | 421SN | 422 | 426 | 436 | 451 | 451TC | 462CLF | 462TC | 471TC | 472TC | 477 | 477ST | 493 | 811 | 881 |

J7 Female ORFS – Swivel 45° Elbow

ISO 12151-1 – SWE 45°
SAE J516 – ORFS 45°



| Part Number | | Hose I.D. | | | | Thread | A | B | E | W |
|-------------|-------------|-----------|-------|------|------|------------|-----|-----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | UNF | mm | mm | mm | mm |
| 1J746-4-4 | 1J748-4-4 | 6 | 1/4 | -4 | 6.4 | 9/16x18 | 52 | 28 | 10 | 17 |
| 1J746-6-4 | 1J748-6-4 | 6 | 1/4 | -4 | 6.4 | 11/16x16 | 53 | 30 | 11 | 22 |
| 1J746-8-4 | 1J748-8-4 | 6 | 1/4 | -4 | 6.4 | 13/16x16 | 59 | 34 | 15 | 24 |
| 1J746-6-5 | 1J748-6-5 | 8 | 5/16 | -5 | 7.9 | 11/16x16 | 56 | 32 | 11 | 22 |
| 1J746-6-6 | 1J748-6-6 | 10 | 3/8 | -6 | 9.5 | 11/16x16 | 54 | 31 | 11 | 22 |
| 1J746-8-6 | 1J748-8-6 | 10 | 3/8 | -6 | 9.5 | 13/16x16 | 59 | 36 | 15 | 24 |
| | 1J748-6-8 | 12 | 1/2 | -8 | 12.7 | 11/16 | 57 | 33 | 11 | 22 |
| 1J746-6-8 | | 12 | 1/2 | -8 | 12.7 | 11/16x16 | 57 | 33 | 11 | 22 |
| 1J746-8-8 | 1J748-8-8 | 12 | 1/2 | -8 | 12.7 | 13/16x16 | 61 | 38 | 15 | 24 |
| 1J746-10-8 | 1J748-10-8 | 12 | 1/2 | -8 | 12.7 | 1x14 | 65 | 41 | 16 | 30 |
| 1J746-12-8 | 1J748-12-8 | 12 | 1/2 | -8 | 12.7 | 1 3/16x12 | 77 | 53 | 21 | 36 |
| 1J746-10-10 | 1J748-10-10 | 16 | 5/8 | -10 | 15.9 | 1x14 | 67 | 42 | 16 | 30 |
| 1J746-12-10 | 1J748-12-10 | 16 | 5/8 | -10 | 15.9 | 1 3/16x12 | 80 | 55 | 21 | 36 |
| 1J746-10-12 | 1J748-10-12 | 19 | 3/4 | -12 | 19.1 | 1x14 | 73 | 47 | 16 | 30 |
| 1J746-12-12 | 1J748-12-12 | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 83 | 57 | 21 | 36 |
| 1J746-16-12 | 1J748-16-12 | 19 | 3/4 | -12 | 19.1 | 1 7/16x12 | 94 | 68 | 24 | 41 |
| 1J746-12-16 | 1J748-12-16 | 25 | 1 | -16 | 25.4 | 1 3/16x12 | 91 | 61 | 21 | 36 |
| 1J746-16-16 | 1J748-16-16 | 25 | 1 | -16 | 25.4 | 1 7/16x12 | 99 | 69 | 24 | 41 |
| 1J746-20-16 | 1J748-20-16 | 25 | 1 | -16 | 25.4 | 1 11/16x12 | 101 | 71 | 25 | 50 |
| 1J746-20-20 | | 31 | 1 1/4 | -20 | 31.8 | 1 11/16x12 | 124 | 86 | 26 | 50 |
| | 1J748-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 11/16x12 | 130 | 82 | 27 | 50 |
| | 1J748-24-24 | 38 | 1 1/2 | -24 | 38.1 | 2x12 | 148 | 110 | 40 | 60 |

Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

46 or 48 441 441RH 461LT 462 462ST

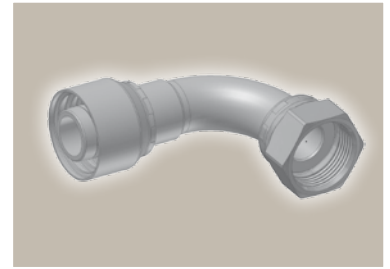
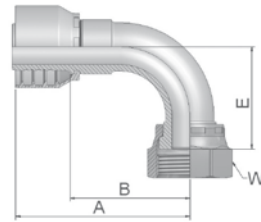
46 463 492 492ST 692 692TWIN

48 301SN 301TC 302 304 421RH 421SN 422 426 436 451 451TC 462CLF 462TC 471TC 472TC 477 477ST 493 811 881

J9

Female ORFS – Swivel 90° Elbow – Short Drop

ISO 12151-1 – SWES
SAE J516 – ORFS 90°



| Part Number | | Hose I.D. | | | | Thread | A | B | E | W |
|-------------|-------------|-----------|-------|------|------|------------|-----|-----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | UNF | mm | mm | mm | mm |
| 1J946-4-4 | 1J948-4-4 | 6 | 1/4 | -4 | 6.4 | 9/16x18 | 52 | 29 | 21 | 17 |
| 1J946-6-4 | 1J948-6-4 | 6 | 1/4 | -4 | 6.4 | 11/16x16 | 51 | 27 | 23 | 22 |
| | 1J948-8-4 | 6 | 1/4 | -4 | 6.4 | 13/16x16 | 50 | 26 | 29 | 24 |
| 1J946-6-5 | 1J948-6-5 | 8 | 5/16 | -5 | 7.9 | 11/16x16 | 53 | 29 | 23 | 22 |
| 1J946-4-6 | 1J948-4-6 | 10 | 3/8 | -6 | 9.5 | 9/16x18 | 47 | 24 | 21 | 17 |
| 1J946-6-6 | 1J948-6-6 | 10 | 3/8 | -6 | 9.5 | 11/16x16 | 52 | 29 | 23 | 22 |
| 1J946-8-6 | 1J948-8-6 | 10 | 3/8 | -6 | 9.5 | 13/16x16 | 53 | 30 | 29 | 24 |
| 1J946-6-8 | 1J948-6-8 | 12 | 1/2 | -8 | 12.7 | 11/16x16 | 53 | 29 | 23 | 22 |
| 1J946-8-8 | 1J948-8-8 | 12 | 1/2 | -8 | 12.7 | 13/16x16 | 55 | 32 | 29 | 24 |
| 1J946-10-8 | 1J948-10-8 | 12 | 1/2 | -8 | 12.7 | 1x14 | 66 | 42 | 32 | 30 |
| 1J946-12-8 | 1J948-12-8 | 12 | 1/2 | -8 | 12.7 | 1 3/16x12 | 58 | 34 | 48 | 36 |
| 1J946-10-10 | 1J948-10-10 | 16 | 5/8 | -10 | 15.9 | 1x14 | 65 | 39 | 32 | 30 |
| 1J946-12-10 | 1J948-12-10 | 16 | 5/8 | -10 | 15.9 | 1 3/16x12 | 71 | 45 | 48 | 36 |
| 1J946-10-12 | 1J948-10-12 | 19 | 3/4 | -12 | 19.1 | 1x14 | 69 | 43 | 32 | 30 |
| 1J946-12-12 | 1J948-12-12 | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 82 | 54 | 48 | 36 |
| 1J946-16-12 | | 19 | 3/4 | -12 | 19.1 | 1 7/16x12 | 88 | 62 | 56 | 41 |
| | 1J948-12-16 | 25 | 1 | -16 | 25.4 | 1 3/16 12 | 88 | 58 | 48 | 36 |
| 1J946-12-16 | | 25 | 1 | -16 | 25.4 | 1 3/16x12 | 88 | 58 | 48 | 36 |
| 1J946-16-16 | 1J948-16-16 | 25 | 1 | -16 | 25.4 | 1 7/16x12 | 98 | 68 | 56 | 41 |
| 1J946-20-16 | 1J948-20-16 | 25 | 1 | -16 | 25.4 | 1 11/16x12 | 104 | 74 | 64 | 50 |
| 1J946-20-20 | | 31 | 1 1/4 | -20 | 31.8 | 1 11/16x12 | 124 | 86 | 64 | 50 |
| | 1J948-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 11/16x12 | 129 | 82 | 64 | 50 |
| | 1J948-24-24 | 38 | 1 1/2 | -24 | 38.1 | 2x12 | 140 | 102 | 82 | 60 |

46/48 Series

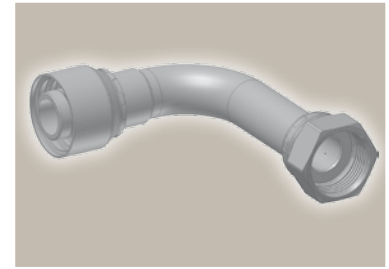
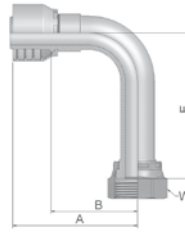
Approved fitting series for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | | | | | | | | | | | | | | | | | | | | |
|----|-------|-------|-------|-------|---------|-------|-------|-----|-----|-----|-------|--------|-------|-------|-------|-----|-------|-----|-----|-----|
| 46 | or | 48 | 441 | 441RH | 461LT | 462 | 462ST | | | | | | | | | | | | | |
| 46 | 463 | 492 | 492ST | 692 | 692TWIN | | | | | | | | | | | | | | | |
| 48 | 301SN | 301TC | 302 | 304 | 421RH | 421SN | 422 | 426 | 436 | 451 | 451TC | 462CLF | 462TC | 471TC | 472TC | 477 | 477ST | 493 | 811 | 881 |

J1 Female ORFS – Swivel 90° Elbow – Long Drop

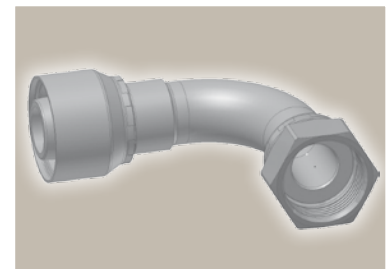
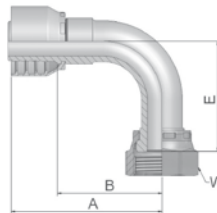
ISO 12151-1 – SWEL
SAE J 516 – ORFS 90° L



| Part Number | | Hose I.D. | | | | Thread | A | B | E | W |
|-------------|-------------|-----------|------|------|------|-----------|----|----|-----|----|
| 46 series | 48 series | DN | Inch | Size | mm | UNF | mm | mm | mm | mm |
| 1J146-4-4 | 1J148-4-4 | 6 | 1/4 | -4 | 6.4 | 9/16x18 | 58 | 35 | 46 | 17 |
| | 1J148-6-4 | 6 | 1/4 | -4 | 6.4 | 11/16x16 | 59 | 36 | 54 | 22 |
| 1J146-6-6 | 1J148-6-6 | 10 | 3/8 | -6 | 9.5 | 11/16x16 | 58 | 35 | 54 | 22 |
| 1J146-8-6 | 1J148-8-6 | 10 | 3/8 | -6 | 9.5 | 13/16x16 | 59 | 37 | 64 | 24 |
| 1J146-8-8 | 1J148-8-8 | 12 | 1/2 | -8 | 12.7 | 13/16x16 | 61 | 37 | 64 | 24 |
| | 1J148-10-8 | 12 | 1/2 | -8 | 12.7 | 1x14 | 66 | 42 | 70 | 30 |
| 1J146-10-10 | 1J148-10-10 | 16 | 5/8 | -10 | 15.9 | 1x14 | 65 | 40 | 70 | 30 |
| 1J146-12-12 | 1J148-12-12 | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 80 | 54 | 96 | 36 |
| | 1J148-16-16 | 25 | 1 | -16 | 25.4 | 1 7/16x12 | 98 | 68 | 114 | 41 |

J5 Female ORFS – Swivel 90° Elbow – Medium Drop

ISO 12151-1 – SWEM – ORFS 90° M



| Part Number | | Hose I.D. | | | | Thread | A | B | E | W |
|-------------|-------------|-----------|------|------|------|-----------|----|----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | UNF | mm | mm | mm | mm |
| 1J546-4-4 | 1J548-4-4 | 6 | 1/4 | -4 | 6.4 | 9/16x18 | 59 | 35 | 32 | 17 |
| 1J546-6-4 | 1J548-6-4 | 6 | 1/4 | -4 | 6.4 | 11/16x16 | 62 | 39 | 38 | 22 |
| 1J546-6-6 | 1J548-6-6 | 10 | 3/8 | -6 | 9.5 | 11/16x16 | 58 | 35 | 38 | 22 |
| 1J546-8-6 | 1J548-8-6 | 10 | 3/8 | -6 | 9.5 | 13/16x16 | 60 | 37 | 41 | 24 |
| 1J546-8-8 | 1J548-8-8 | 12 | 1/2 | -8 | 12.7 | 13/16x16 | 60 | 37 | 41 | 24 |
| | 1J548-10-8 | 12 | 1/2 | -8 | 12.7 | 1x14 | 66 | 43 | 47 | 30 |
| 1J546-10-10 | 1J548-10-10 | 16 | 5/8 | -10 | 15.9 | 1x14 | 65 | 39 | 47 | 30 |
| 1J546-12-12 | 1J548-12-12 | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 80 | 54 | 58 | 36 |

Approved **fitting series** for hose types:

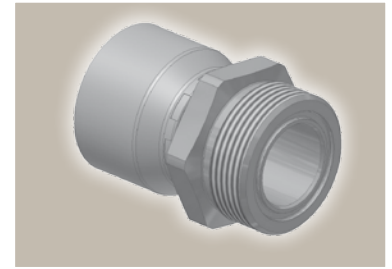
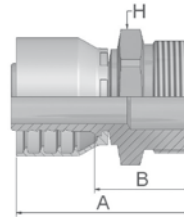
Also available in stainless steel. Details can be found in CAT 4400.1/UK

46 or **48** 441 441RH 461LT 462 462ST

46 463 492 492ST 692 692TWIN

48 301SN 301TC 302 304 421RH 421SN 422 426 436 451 451TC 462CLF 462TC 471TC 472TC 477 477ST 493 811 881

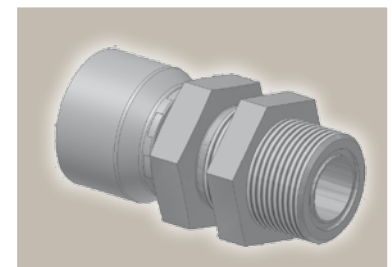
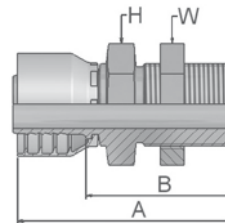
JM **ORFS Male**
ISO 12151-1-S – SAE J516



| Part Number | | Hose I.D. | | | | Thread | A | B | H |
|-------------|-------------|-----------|-------|------|------|------------|----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | UNF | mm | mm | mm |
| 1JM46-4-4 | 1JM48-4-4 | 6 | 1/4 | -4 | 6.4 | 9/16x18 | 44 | 22 | 17 |
| | | 6 | 1/4 | -4 | 6.4 | 9/16x18 | 46 | 22 | 17 |
| | 1JM48-6-4 | 6 | 1/4 | -4 | 6.4 | 11/16x16 | 46 | 24 | 19 |
| 1JM46-6-4 | | 6 | 1/4 | -4 | 6.4 | 11/16x16 | 48 | 24 | 19 |
| 1JM46-6-5 | 1JM48-6-5 | 8 | 5/16 | -5 | 7.9 | 11/16x16 | 53 | 26 | 19 |
| 1JM46-6-6 | 1JM48-6-6 | 10 | 3/8 | -6 | 9.5 | 11/16x16 | 47 | 24 | 19 |
| 1JM46-8-6 | 1JM48-8-6 | 10 | 3/8 | -6 | 9.5 | 13/16x16 | 50 | 27 | 22 |
| 1JM46-8-8 | 1JM48-8-8 | 12 | 1/2 | -8 | 12.7 | 13/16x16 | 51 | 27 | 22 |
| 1JM46-10-8 | 1JM48-10-8 | 12 | 1/2 | -8 | 12.7 | 1x14 | 55 | 32 | 27 |
| 1JM46-10-10 | 1JM48-10-10 | 16 | 5/8 | -10 | 15.9 | 1x14 | 57 | 32 | 27 |
| 1JM46-12-10 | 1JM48-12-10 | 16 | 5/8 | -10 | 15.9 | 1 3/16x12 | 59 | 34 | 32 |
| 1JM46-12-12 | 1JM48-12-12 | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 61 | 35 | 32 |
| 1JM46-16-12 | 1JM48-16-12 | 19 | 3/4 | -12 | 19.1 | 1 7/16x12 | 64 | 38 | 41 |
| 1JM46-16-16 | 1JM48-16-16 | 25 | 1 | -16 | 25.4 | 1 7/16x12 | 67 | 37 | 41 |
| 1JM46-20-16 | 1JM48-20-16 | 25 | 1 | -16 | 25.4 | 1 11/16x12 | 66 | 36 | 46 |
| | 1JM48-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 11/16x12 | 85 | 37 | 46 |

To select corresponding O-ring see section Eb.

JD **Male ORFS**
Bulkhead with Locknut
Straight (with O-ring)
ISO 12151-1 – SAE J516



| Part Number | | Hose I.D. | | | | Thread | A | B | H | W |
|-------------|-------------|-----------|------|------|------|-----------|----|----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | UNF | mm | mm | mm | mm |
| 1JD46-4-4 | 1JD48-4-4 | 6 | 1/4 | -4 | 6.4 | 9/16x18 | 72 | 48 | 22 | 22 |
| 1JD46-6-6 | 1JD48-6-6 | 10 | 3/8 | -6 | 9.5 | 11/16x16 | 73 | 51 | 27 | 27 |
| 1JD46-8-8 | 1JD48-8-8 | 12 | 1/2 | -8 | 12.7 | 13/16x16 | 79 | 56 | 30 | 30 |
| 1JD46-10-10 | 1JD48-10-10 | 16 | 5/8 | -10 | 15.9 | 1x14 | 86 | 60 | 32 | 36 |
| 1JD46-12-12 | 1JD48-12-12 | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 88 | 63 | 36 | 38 |
| | 1JD48-16-16 | 25 | 1 | -16 | 25.4 | 1 7/16x12 | 94 | 64 | 46 | 46 |

To select corresponding O-ring see section Eb.

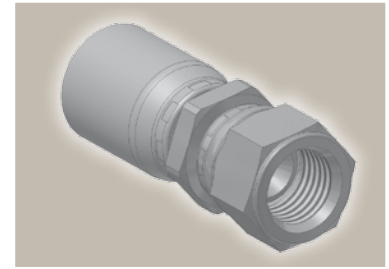
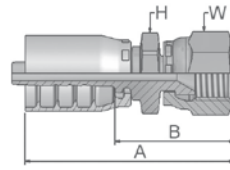
Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

- 46 or 48 441 441RH 461LT 462 462ST
- 46 463 492 492ST 692 692TWIN
- 48 301SN 301TC 302 304 421RH 421SN 422 426 436 451 451TC 462CLF 462TC 471TC 472TC 477 477ST 493 811 881

FU Female BSP Parallel Pipe Swivel – Straight (30° Flare)

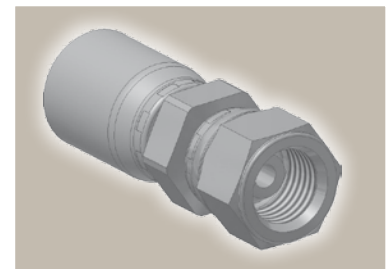
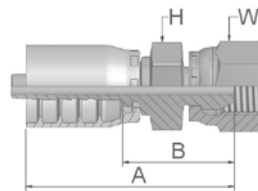
ISO 228-1 – JIS B8363 – GUI



| Part Number | | Hose I.D. | | | | Thread | A | B | H | W |
|-------------|-------------|-----------|------|------|------|--------|----|----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | BSP | mm | mm | mm | mm |
| 1FU46-4-4 | 1FU48-4-4 | 6 | 1/4 | -4 | 6.4 | 1/4x19 | 50 | 32 | 19 | 19 |
| 1FU46-6-6 | 1FU48-6-6 | 10 | 3/8 | -6 | 9.5 | 3/8x19 | 58 | 35 | 24 | 22 |
| 1FU46-12-12 | 1FU48-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 71 | 45 | 36 | 36 |
| 1FU46-16-16 | 1FU48-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 76 | 46 | 41 | 41 |

GU Female BSP Parallel Pipe Swivel – Straight (60° Cone)

ISO 228-1 – JIS B8363 – GUO



| Part Number | | Hose I.D. | | | | Thread | A | B | H | W |
|-------------|-----------|-----------|------|------|------|--------|----|----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | BSP | mm | mm | mm | mm |
| 1GU46-4-4 | 1GU48-4-4 | 6 | 1/4 | -4 | 6.4 | 1/4x19 | 51 | 27 | 19 | 19 |
| 1GU46-6-6 | 1GU48-6-6 | 10 | 3/8 | -6 | 9.5 | 3/8x19 | 58 | 35 | 22 | 22 |
| 1GU46-8-8 | 1GU48-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 55 | 32 | 27 | 27 |

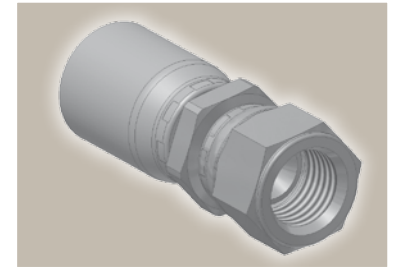
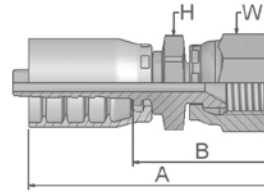
Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | | | | | | | | | | | | | | | | | | | | |
|------------------------|-------|-------|-------|-----|---------|-------|-----|-----|-----|-----|-------|--------|-------|-------|-------|-----|-------|-----|-----|-----|
| 46 or 48 | 441 | 441RH | 461LT | 462 | 462ST | | | | | | | | | | | | | | | |
| 46 | 463 | 492 | 492ST | 692 | 692TWIN | | | | | | | | | | | | | | | |
| 48 | 301SN | 301TC | 302 | 304 | 421RH | 421SN | 422 | 426 | 436 | 451 | 451TC | 462CLF | 462TC | 471TC | 472TC | 477 | 477ST | 493 | 811 | 881 |

MU Female Metric – Swivel Straight (30° Flare)

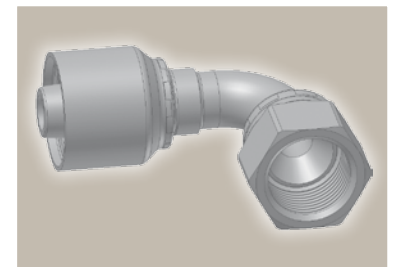
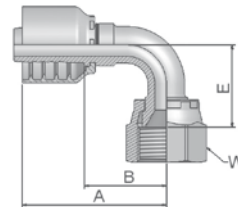
JIS B8363 – MU



| Part Number | | Hose I.D. | | | | Thread | A | B | H | W |
|-------------|-----------|-----------|------|------|------|---------|----|----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | metric | mm | mm | mm | mm |
| 1MU46-4-4 | 1MU48-4-4 | 6 | 1/4 | -4 | 6.4 | M14x1.5 | 45 | 21 | 19 | 19 |
| 1MU46-6-6 | 1MU48-6-6 | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 59 | 36 | 24 | 24 |
| 1MU46-8-8 | 1MU48-8-8 | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 64 | 40 | 27 | 27 |

MZ Female Metric – Swivel 90° Elbow (30° Flare)

JIS B8363



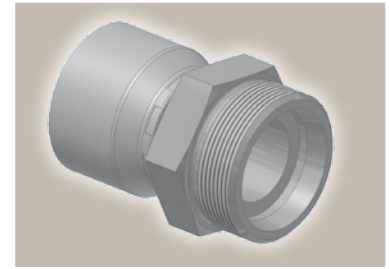
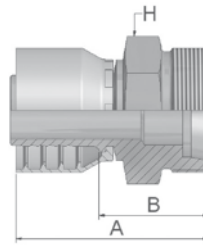
| Part Number | | Hose I.D. | | | | Thread | A | B | E | W |
|-------------|-----------|-----------|------|------|------|---------|----|----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | metric | mm | mm | mm | mm |
| 1MZ46-4-4 | 1MZ48-4-4 | 6 | 1/4 | -4 | 6.4 | M14x1.5 | 48 | 24 | 23 | 19 |
| 1MZ46-6-6 | 1MZ48-6-6 | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 51 | 28 | 29 | 24 |
| 1MZ46-8-8 | 1MZ48-8-8 | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 55 | 31 | 31 | 27 |

Approved fitting series for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

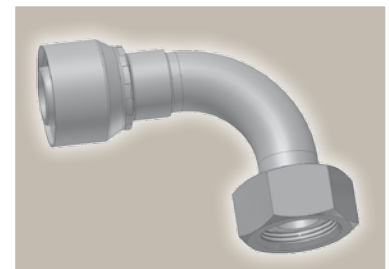
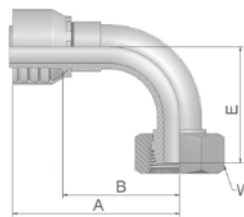
- 46 or 48 441 441RH 461LT 462 462ST
- 46 463 492 492ST 692 692TWIN
- 48 301SN 301TC 302 304 421RH 421SN 422 426 436 451 451TC 462CLF 462TC 471TC 472TC 477 477ST 493 811 881

FG Male French Gas Series Rigid – Straight (24° Cone)



| Part Number | | Hose I.D. | | | | Thread | Tube O.D. | A | B | H |
|-------------|-------------|-----------|------|------|------|---------|-----------|----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | metric | mm | mm | mm | mm |
| 1FG46-13-5 | 1FG48-13-5 | 8 | 5/16 | -5 | 7.9 | M20x1.5 | 13 | 53 | 29 | 22 |
| 1FG46-13-6 | 1FG48-13-6 | 10 | 3/8 | -6 | 9.5 | M20x1.5 | 13 | 52 | 29 | 22 |
| 1FG46-17-8 | 1FG48-17-8 | 12 | 1/2 | -8 | 12.7 | M24x1.5 | 17 | 51 | 27 | 24 |
| 1FG46-21-10 | 1FG48-21-10 | 16 | 5/8 | -10 | 15.9 | M30x1.5 | 21 | 57 | 32 | 30 |
| 1FG46-27-12 | 1FG48-27-12 | 19 | 3/4 | -12 | 19.1 | M36x1.5 | 27 | 59 | 34 | 36 |
| 1FG46-33-16 | 1FG48-33-16 | 25 | 1 | -16 | 25.4 | M45x1.5 | 33 | 69 | 40 | 46 |

F2 Female French Gas Series Swivel – 90° Elbow



| Part Number | | Hose I.D. | | | | Thread | Tube O.D. | A | B | E | W |
|-------------|-------------|-----------|------|------|------|---------|-----------|----|----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | metric | mm | mm | mm | mm | mm |
| 1F246-13-5 | 1F248-13-5 | 8 | 5/16 | -5 | 7.9 | M20x1.5 | 13 | 59 | 35 | 30 | 24 |
| 1F246-13-6 | 1F248-13-6 | 10 | 3/8 | -6 | 9.5 | M20x1.5 | 13 | 60 | 38 | 33 | 24 |
| 1F246-17-8 | 1F248-17-8 | 12 | 1/2 | -8 | 12.7 | M24x1.5 | 17 | 63 | 39 | 43 | 30 |
| 1F246-21-10 | 1F248-21-10 | 16 | 5/8 | -10 | 15.9 | M30x1.5 | 21 | 71 | 46 | 45 | 36 |

Approved **fitting series** for hose types:

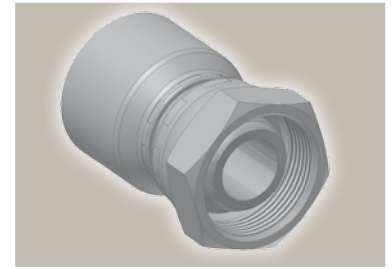
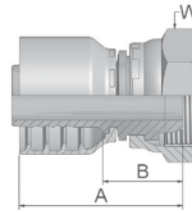
Also available in stainless steel. Details can be found in CAT 4400.1/UK

46 or **48** 441 441RH 461LT 462 462ST

46 463 492 492ST 692 692TWIN

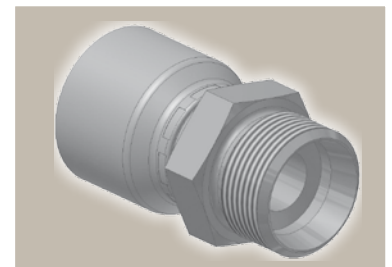
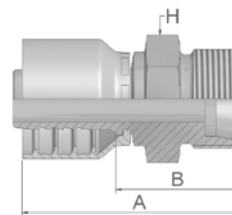
48 301SN 301TC 302 304 421RH 421SN 422 426 436 451 451TC 462CLF 462TC 471TC 472TC 477 477ST 493 811 881

F4 Female French Gas Series Swivel – Straight (Ball Nose)



| Part Number | | Hose I.D. | | | | Thread metric | Tube | A mm | B mm | W mm |
|-------------|-------------|-----------|------|------|------|------------------|------------|---------|---------|---------|
| 46 series | 48 series | DN | Inch | Size | mm | | O.D. mm | | | |
| 1F446-13-4 | 1F448-13-4 | 6 | 1/4 | -4 | 6.4 | M20x1.5 | 13 | 48 | 24 | 24 |
| 1F446-13-5 | 1F448-13-5 | 8 | 5/16 | -5 | 7.9 | M20x1.5 | 13 | 48 | 24 | 24 |
| 1F446-13-6 | 1F448-13-6 | 10 | 3/8 | -6 | 9.5 | M20x1.5 | 13 | 45 | 22 | 24 |
| 1F446-17-8 | 1F448-17-8 | 12 | 1/2 | -8 | 12.7 | M24x1.5 | 17 | 49 | 25 | 30 |
| 1F446-21-10 | 1F448-21-10 | 16 | 5/8 | -10 | 15.9 | M30x1.5 | 21 | 50 | 25 | 36 |
| 1F446-27-12 | 1F448-27-12 | 19 | 3/4 | -12 | 19.1 | M36x1.5 | 26 | 59 | 33 | 46 |
| 1F446-33-16 | 1F448-33-16 | 25 | 1 | -16 | 25.4 | M45x1.5 | 33 | 63 | 33 | 55 |

F6 French Male Metric Series (24° Cone)



| Part Number | | Hose I.D. | | | | Thread metric | Tube | A mm | B mm | H mm |
|-------------|-------------|-----------|------|------|------|------------------|------------|---------|---------|---------|
| 46 series | 48 series | DN | Inch | Size | mm | | O.D. mm | | | |
| 1F646-14-6 | 1F648-14-6 | 10 | 3/8 | -6 | 9.5 | M20x1.5 | 14 | 50 | 27 | 22 |
| 1F646-20-10 | 1F648-20-10 | 16 | 5/8 | -10 | 15.9 | M27x1.5 | 20 | 59 | 33 | 30 |

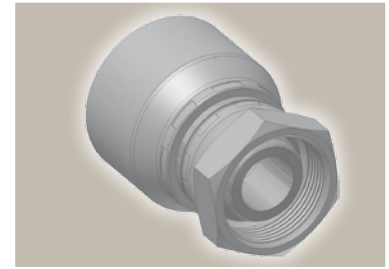
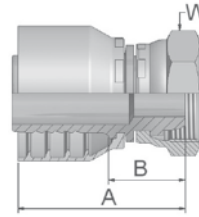
46/48 Series

Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

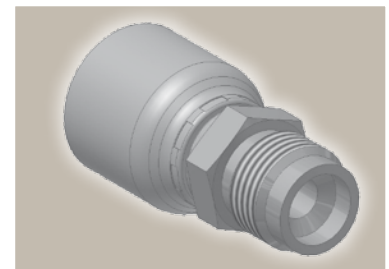
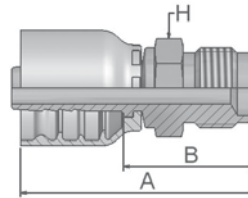
| | | | | | | | | | | | | | | | | | | | | |
|------------------------|-------|-------|-------|-----|---------|-------|-----|-----|-----|-----|-------|--------|-------|-------|-------|-----|-------|-----|-----|-----|
| 46 or 48 | 441 | 441RH | 461LT | 462 | 462ST | | | | | | | | | | | | | | | |
| 46 | 463 | 492 | 492ST | 692 | 692TWIN | | | | | | | | | | | | | | | |
| 48 | 301SN | 301TC | 302 | 304 | 421RH | 421SN | 422 | 426 | 436 | 451 | 451TC | 462CLF | 462TC | 471TC | 472TC | 477 | 477ST | 493 | 811 | 881 |

F9 French Female Metric Series Swivel – (Ball Nose)



| Part Number | | Hose I.D. | | | | Thread | Tube O.D. | A | B | W |
|-------------|-------------|-----------|------|------|------|---------|-----------|----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | metric | mm | mm | mm | mm |
| 1F946-6-4 | 1F948-6-4 | 6 | 1/4 | -4 | 6.4 | M12x1 | 6 | 43 | 20 | 14 |
| 1F946-10-4 | 1F948-10-4 | 6 | 1/4 | -4 | 6.4 | M16x1.5 | 10 | 45 | 22 | 19 |
| 1F946-14-6 | 1F948-14-6 | 10 | 3/8 | -6 | 9.5 | M20x1.5 | 14 | 44 | 22 | 24 |
| 1F946-20-10 | 1F948-20-10 | 16 | 5/8 | -10 | 15.9 | M27x1.5 | 20 | 50 | 25 | 32 |
| 1F946-22-12 | 1F948-22-12 | 19 | 3/4 | -12 | 19.1 | M30x1.5 | 22 | 53 | 27 | 36 |
| 1F946-25-12 | 1F948-25-12 | 19 | 3/4 | -12 | 19.1 | M33x1.5 | 25 | 55 | 29 | 41 |
| 1F946-30-16 | 1F948-30-16 | 25 | 1 | -16 | 25.4 | M39x1.5 | 30 | 61 | 32 | 50 |

FA Metric Male for Agriculture Valves



| Part Number | | Hose I.D. | | | | Thread | A | B | H |
|-------------|------------|-----------|------|------|------|---------|----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | metric | mm | mm | mm |
| 1FA46-12-5 | 1FA48-12-5 | 8 | 5/16 | -5 | 7.9 | M18x1.5 | 53 | 29 | 19 |
| 1FA46-12-6 | 1FA48-12-6 | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 52 | 30 | 19 |
| 1FA46-12-8 | 1FA48-12-8 | 12 | 1/2 | -8 | 12.7 | M18x1.5 | 53 | 30 | 19 |

Approved **fitting series** for hose types:

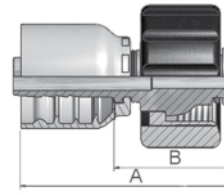
Also available in stainless steel. Details can be found in CAT 4400.1/UK

46 or **48** 441 441RH 461LT 462 462ST

46 463 492 492ST 692 692TWIN

48 301SN 301TC 302 304 421RH 421SN 422 426 436 451 451TC 462CLF 462TC 471TC 472TC 477 477ST 493 811 881

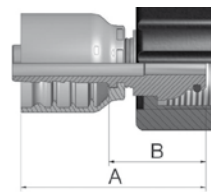
CW Power Cleaner Connection



| Part Number | | Hose I.D. | | | | Thread | Tube O.D. | A | B |
|-------------|------------|-----------|------|------|------|---------|-----------|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | metric | mm | mm | mm |
| 1CW46-15-4 | 1CW48-15-4 | 6 | 1/4 | -4 | 6.4 | M22x1.5 | 15 | 53 | 29 |
| 1CW46-15-5 | 1CW48-15-5 | 8 | 5/16 | -5 | 7.9 | M22x1.5 | 15 | 53 | 29 |
| 1CW46-15-6 | 1CW48-15-6 | 10 | 3/8 | -6 | 9.5 | M22x1.5 | 15 | 52 | 29 |
| 1CW46-15-8 | 1CW48-15-8 | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 53 | 29 |

Rubber hand grip Part-No. WKS-X-XXX in black or blue please find on page Eb-17.

NW Female Kärcher Metric Cleaning Hose Fitting Swivel – Straight



| Part Number | | Hose I.D. | | | | Thread | A | B |
|-------------|------------|-----------|------|------|-----|---------|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | metric | mm | mm |
| 1NW46-15-4 | 1NW48-15-4 | 6 | 1/4 | -4 | 6.4 | M22x1.5 | 52 | 29 |
| 1NW46-15-5 | 1NW48-15-5 | 8 | 5/16 | -5 | 7.9 | M22x1.5 | 52 | 29 |
| 1NW46-15-6 | 1NW48-15-6 | 10 | 3/8 | -6 | 9.5 | M22x1.5 | 48 | 25 |

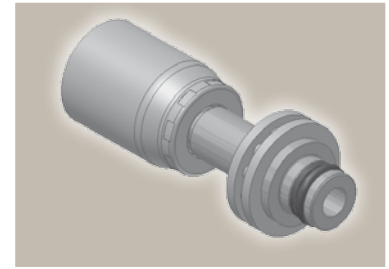
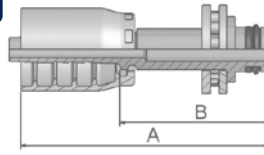
Rubber hand grip Part-No. WKS-X-XXX in black or blue please find on page Eb-17.

Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | | | | | | | | | | | | | | | | | | | | |
|------------------------|-------|-------|-------|-----|---------|-------|-----|-----|-----|-----|-------|--------|-------|-------|-------|-----|-------|-----|-----|-----|
| 46 or 48 | 441 | 441RH | 461LT | 462 | 462ST | | | | | | | | | | | | | | | |
| 46 | 463 | 492 | 492ST | 692 | 692TWIN | | | | | | | | | | | | | | | |
| 48 | 301SN | 301TC | 302 | 304 | 421RH | 421SN | 422 | 426 | 436 | 451 | 451TC | 462CLF | 462TC | 471TC | 472TC | 477 | 477ST | 493 | 811 | 881 |

PW **Male Kärcher
Metric Cleaning Hose Fitting
Rigid – Straight**



| Part Number | | Hose I.D. | | | | Thread | A | B |
|-------------|------------|-----------|------|------|-----|--------|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | metric | mm | mm |
| 1PW46-10-4 | 1PW48-10-4 | 6 | 1/4 | -4 | 6.4 | 10 | 60 | 36 |
| 1PW46-11-4 | 1PW48-11-4 | 6 | 1/4 | -4 | 6.4 | 11 | 60 | 37 |
| 1PW46-10-5 | 1PW48-10-5 | 8 | 5/16 | -5 | 7.9 | 10 | 60 | 36 |
| 1PW46-11-5 | 1PW48-11-5 | 8 | 5/16 | -5 | 7.9 | 11 | 61 | 37 |
| 1PW46-10-6 | 1PW48-10-6 | 10 | 3/8 | -6 | 9.5 | 10 | 60 | 37 |

Rubber hand grip Part-No. WKS-X-XXX in black or blue please find on page Eb-17.

1PWxx-11-x = with ball bearing as shown above

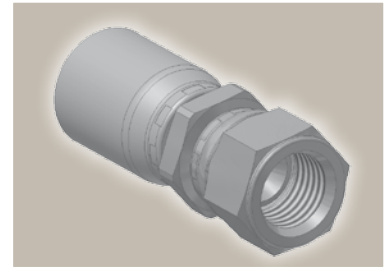
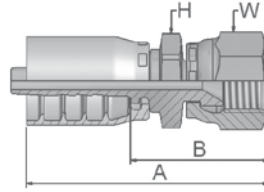
1PWxx-10-x = without ball bearing

Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

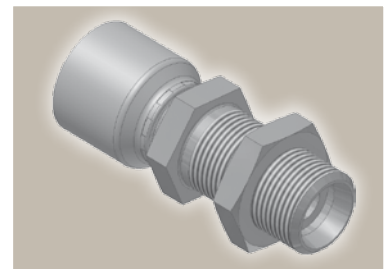
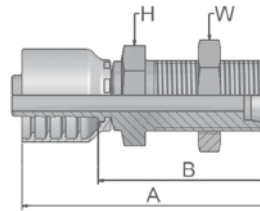
| | | | | | | | | | | | | | | | | | | | | |
|------------------------|-------|-------|-------|-----|---------|-------|-----|-----|-----|-----|-------|--------|-------|-------|-------|-----|-------|-----|-----|-----|
| 46 or 48 | 441 | 441RH | 461LT | 462 | 462ST | | | | | | | | | | | | | | | |
| 46 | 463 | 492 | 492ST | 692 | 692TWIN | | | | | | | | | | | | | | | |
| 48 | 301SN | 301TC | 302 | 304 | 421RH | 421SN | 422 | 426 | 436 | 451 | 451TC | 462CLF | 462TC | 471TC | 472TC | 477 | 477ST | 493 | 811 | 881 |

XU Female Metric – Swivel Straight (30° Flare) JIS B8363



| Part Number | | Hose I.D. | | | | Thread | A | B | H | W |
|-------------|-------------|-----------|------|------|------|---------|----|----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | UNF | mm | mm | mm | mm |
| | 1XU48-10-10 | 16 | 5/8 | -10 | 15.9 | M24x1.5 | 69 | 44 | 30 | 32 |
| | 1XU48-12-12 | 19 | 3/4 | -12 | 19.1 | M30x1.5 | 73 | 47 | 32 | 36 |

DK Male Metric L – Rigid Bulkhead with Locknut (24° Cone)



| Part Number | | Hose I.D. | | | | Thread | A | B | H | W |
|-------------|-------------|-----------|------|------|------|---------|----|----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | metric | mm | mm | mm | mm |
| 1DK46-10-5 | 1DK48-10-5 | 8 | 5/16 | -5 | 7.9 | M16x1.5 | 71 | 48 | 22 | 22 |
| 1DK46-15-10 | 1DK48-15-10 | 16 | 5/8 | -10 | 15.9 | M22x1.5 | 81 | 56 | 27 | 30 |
| | 1DK48-18-10 | 16 | 5/8 | -10 | 15.9 | M26x1.5 | 85 | 60 | 36 | 36 |
| 1DK46-18-10 | | 16 | 5/8 | -10 | 15.9 | M26x1.5 | 85 | 60 | 32 | 36 |

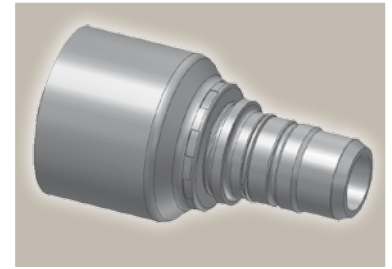
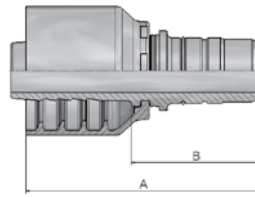
46/48 Series


Approved fitting series for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

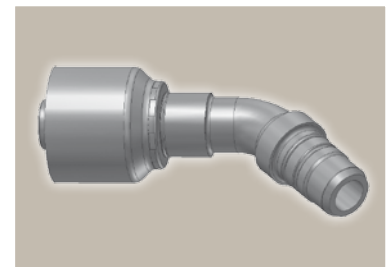
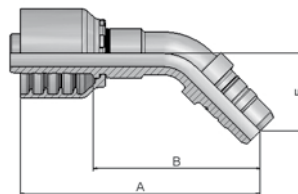
- 46 or 48 441 441RH 461LT 462 462ST
- 46 463 492 492ST 692 692TWIN
- 48 301SN 301TC 302 304 421RH 421SN 422 426 436 451 451TC 462CLF 462TC 471TC 472TC 477 477ST 493 811 881


EN UPTC – Male Straight



| Part Number | |  Hose I.D. | | | | Tube | A | B |
|-------------|-------------|--|------|------|------|------------|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | O.D. mm | mm | mm |
| 1EN46-8-4 | 1EN48-8-4 | 6 | 1/4 | -4 | 6.4 | 8 | 49 | 26 |
| 1EN46-10-5 | 1EN48-10-5 | 8 | 5/16 | -5 | 7.9 | 10 | 50 | 26 |
| 1EN46-12-6 | 1EN48-12-6 | 10 | 3/8 | -6 | 9.5 | 12 | 50 | 27 |
| 1EN46-15-8 | 1EN48-15-8 | 12 | 1/2 | -8 | 12.7 | 15 | 53 | 29 |
| 1EN46-18-10 | 1EN48-18-10 | 16 | 5/8 | -10 | 15.9 | 18 | 56 | 31 |
| 1EN46-22-12 | 1EN48-22-12 | 19 | 3/4 | -12 | 19.1 | 22 | 57 | 32 |

EU UPTC – Male 45° Elbow



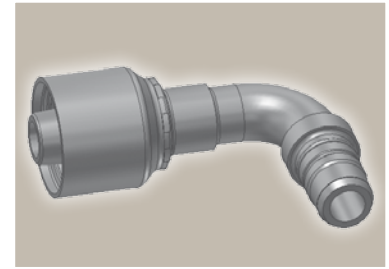
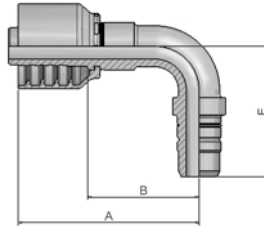
| Part Number | |  Hose I.D. | | | | Tube | A | B | E |
|-------------|-------------|--|------|------|------|------------|----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | O.D. mm | mm | mm | mm |
| 1EU46-8-4 | 1EU48-8-4 | 6 | 1/4 | -4 | 6.4 | 8 | 66 | 43 | 23 |
| 1EU46-10-5 | 1EU48-10-5 | 8 | 5/16 | -5 | 7.9 | 10 | 68 | 45 | 23 |
| 1EU46-12-6 | 1EU48-12-6 | 10 | 3/8 | -6 | 9.5 | 12 | 71 | 48 | 23 |
| 1EU46-15-8 | 1EU48-15-8 | 12 | 1/2 | -8 | 12.7 | 15 | 78 | 54 | 25 |
| 1EU46-18-10 | 1EU48-18-10 | 16 | 5/8 | -10 | 15.9 | 18 | 84 | 59 | 32 |
| 1EU46-22-12 | 1EU48-22-12 | 19 | 3/4 | -12 | 19.1 | 22 | 95 | 69 | 33 |

Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

- 46 or 48
441 441RH 461LT 462 462ST
- 46 463 492 492ST 692 692TWIN
- 48 301SN 301TC 302 304 421RH 421SN 422 426 436 451 451TC 462CLF 462TC 471TC 472TC 477 477ST 493 811 881

ET **UPTC – Male**
90° Elbow



| Part Number | | Hose I.D. | | | | Tube | A | B | E |
|-------------|-------------|-----------|------|------|------|------------|----|----|----|
| 46 series | 48 series | DN | Inch | Size | mm | O.D. mm | mm | mm | mm |
| 1ET46-8-4 | 1ET48-8-4 | 6 | 1/4 | -4 | 6.4 | 8 | 59 | 36 | 39 |
| 1ET46-10-5 | 1ET48-10-5 | 8 | 5/16 | -5 | 7.9 | 10 | 58 | 35 | 39 |
| 1ET46-12-6 | 1ET48-12-6 | 10 | 3/8 | -6 | 9.5 | 12 | 57 | 34 | 40 |
| 1ET46-15-8 | 1ET48-15-8 | 12 | 1/2 | -8 | 12.7 | 15 | 61 | 38 | 45 |
| 1ET46-18-10 | 1ET48-18-10 | 16 | 5/8 | -10 | 15.9 | 18 | 65 | 39 | 57 |
| 1ET46-22-12 | 1ET48-22-12 | 19 | 3/4 | -12 | 19.1 | 22 | 80 | 54 | 64 |

Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | | | | | | | | | | | | | | | | | | | | |
|------------------------|-------|-------|-------|-----|---------|-------|-----|-----|-----|-----|-------|--------|-------|-------|-------|-----|-------|-----|-----|-----|
| 46 or 48 | 441 | 441RH | 461LT | 462 | 462ST | | | | | | | | | | | | | | | |
| 46 | 463 | 492 | 492ST | 692 | 692TWIN | | | | | | | | | | | | | | | |
| 48 | 301SN | 301TC | 302 | 304 | 421RH | 421SN | 422 | 426 | 436 | 451 | 451TC | 462CLF | 462TC | 471TC | 472TC | 477 | 477ST | 493 | 811 | 881 |



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Parkrimp System



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adjustable crimpers



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Parkrimp crimpers for *No-Skive* one-piece fittings



KarryKrimp® 2

KarryKrimp® 2
Bench Mount

Parkrimp®

Adjustable crimpers for two-piece ParLock fittings



TH8E-530

TH 8E-380-BM

TH 8E-480-BM



Parkrimp *No-Skive*
one-piece fittings



ParLock
two-piece skive fittings

Full Flange System

Provides full flange mounting option for ISO 6162-1 (35.0 MPa/5000 psi) and ISO 6162-2 (42.0 MPa/ 6000 psi) flanges – system flexibility reduces inventory investment.

The full flange system addresses the needs of customers by:

- Being easier to assemble
- Providing one-piece integrity
- Being easier to handle
- Being easier to route in tight spaces
- Enabling assemblies to be sent to customers with the flange in place
- Easing bent tube installation (displacement angle) with a freely rotating flange



The full flange system can be used repeatedly because of its patent-pending attachment system – the flange is not permanently locked onto the fitting.

- This is not a captive flange – it can easily be removed
- Flange can be reused if necessary
- Flange is not scrapped on a mis-crimp

Fitting Configuration

This fitting configuration is specifically designed for Parker's full flange system, and will accept either a ISO 6162-1 or ISO 6162-2 flange. The X5, X7 and X9 fittings are designed to work with all Parkrimp crimpers. These fittings can replace multiple existing fittings and help to reduce inventory.

Reduction of Inventory

Parker's full flange system requires less inventory than the existing split flange system.

By using the new X5, X7 and X9 fittings, distributors can streamline inventory and can still respond to customer needs. Before the introduction of the full flange system, distributors needed to stock both ISO 6162 fittings to be prepared.



1X577-20-20

Straight
ISO 6162-1 or ISO 6162-2 fitting
Alternative to 15, 4A and 6A

1X777-20-20

45°
ISO 6162-1 or ISO 6162-2 fitting
Alternative to 17, 4F and 6F

1X977-20-20

90°
ISO 6162-1 or ISO 6162-2 fitting
Alternative to 19, 4N and 6N

For more information about Full Flange System please refer to pages *Df-9 – Df-10, Dk-19 – Dk-20* and *Eb-2*

High Pressure

| Hoses | | | Page |
|----------|-------------------------------|-----------------------------------|-------|
| Parkrimp | 371LT <i>No-Skive</i> | 3-braids low temperature | Da-1 |
| | 372 <i>No-Skive</i> | 3-braids standard | Da-2 |
| | 372RH <i>No-Skive</i> | 3-braids railway | Da-3 |
| | 372TC <i>No-Skive</i> | 3-braids high abrasion resistance | Da-4 |
| | 701 <i>No-Skive</i> | Standard | Da-5 |
| | 721TC <i>No-Skive</i> | High abrasion resistance | Da-6 |
| | 722CLF <i>No-Skive</i> | Chlorine Free | Da-7 |
| | 722TC <i>No-Skive</i> | High abrasion resistance | Da-8 |
| | 731 <i>No-Skive</i> | Standard | Da-9 |
| | 731TC <i>No-Skive</i> | High abrasion resistance | Da-10 |
| | 761 <i>No-Skive</i> | Extreme pressure | Da-11 |
| | 772LT <i>No-Skive</i> | Low temperature | Da-12 |
| | 774 <i>No-Skive</i> | Phosphate Ester | Da-13 |
| | 781 <i>No-Skive</i> | Standard | Da-14 |
| | 782TC <i>No-Skive</i> | High abrasion resistance | Da-15 |
| | 787TC <i>No-Skive</i> | Compact Spiral | Da-16 |
| | 791TC <i>No-Skive</i> | High abrasion resistance | Da-17 |
| | 792TC <i>No-Skive</i> | High abrasion resistance | Da-18 |
| | 797TC <i>No-Skive</i> | Compact Spiral | Da-19 |
| | F42 <i>No-Skive</i> | Phosphate Ester | Da-20 |
| | P35 <i>No-Skive</i> | Standard | Da-21 |
| ParLock | H29 | Standard | Da-22 |
| | H29RH | Railway | Da-23 |
| | H29ST | Extreme abrasion resistance | Da-24 |
| | H29TC | High abrasion resistance | Da-25 |
| | H31 | Standard | Da-26 |
| | H31ST | Extreme abrasion resistance | Da-27 |
| | H31TC | High abrasion resistance | Da-28 |
| | R35 | Standard | Da-29 |
| | R35TC/RS35TC-48 | High abrasion resistance | Da-30 |
| | R42 | Standard | Da-31 |
| | R42ST | Extreme abrasion resistance | Da-32 |
| | R42TC | High abrasion resistance | Da-33 |
| | R50TC/R56TC | High abrasion resistance | Da-34 |

| Fittings Series | Parkrimp | | | | | | | | ParLock | | |
|------------------------|----------|-------|-------|----|-------|-------|-----|-----|---------|-------|-----|
| | 70 | 71 | 73 | 76 | 77 | 78 | 79 | S6 | VS | V4/V6 | V5 |
| Chapter | Db | Dc | Dd | De | Df | Dg | Dh | Di | Dj | Dk | DI |
| Shell | | | | | | | | | 1 | 1 | 1 |
| DIN – Metric | 1–4 | 1–4 | 1–2 | | 1–4 | 1–2 | 1–2 | | 2–5 | 2–5 | 2–3 |
| BSP | 5–7 | 5–6 | 3–4 | | 5–8 | 3–4 | | | 6–7 | 6–8 | |
| SAE | 8–10 | 7–9 | 5–7 | | 9–11 | 5–7 | | 1 | 8–10 | 9–11 | |
| Flange | 11–14 | 10–13 | 8–12 | 1 | 12–22 | 8–12 | 3–4 | 2–4 | 11–13 | 12–22 | |
| ORFS | 15–17 | 14–15 | 13–15 | | 23–25 | 13–15 | 5–6 | | 14–15 | 23–25 | |
| JIS | 18 | | | | | | | | | | |
| French Standard | 19 | | 16–17 | | 26 | | | | 16 | 26 | |
| Others | 20 | 16 | | | | | | | | | |

Parker Hannifin assumes no liability for typographical errors or other errors

Parkrimp

3-braids standard



3-braids low temperature



3-braids high abrasion resistance



3-braids railway



Parkrimp

Standard

| | | | |
|---|---|--|---|
| <p>701 Da-5</p>  <p>No-Skive Multispiral ISO 3862 Type 4SP – EN 856 Type 4SP</p> | <p>731 Da-9</p>  <p>No-Skive Multispiral ISO 3862 Type 4SH – EN 856 Type 4SH</p> | <p>781 Da-14</p>  <p>No-Skive Multispiral SAE 100R13 – ISO 3862 Type R13 – EN 856 Type R13</p> | <p>P35 Da-21</p>  <p>No-Skive Multispiral SAE 100R13 – ISO 3862 Type R13 – EN 856 Type R13</p> |
|---|---|--|---|

Chlorine Free

722CIF
Da-7



No-Skive Chlorine Free
SAE 100R12 - EN 856 Type R12 - ISO 3862
Type R12

Low temperature

772LT
Da-12



No-Skive Multispiral
Low-temperature spiral hose
for extremely cold conditions

Phosphate Ester

| | |
|---|---|
| <p>774 Da-13</p>  <p>No-Skive Multispiral For phosphate ester base fluids</p> | <p>F42 Da-20</p>  <p>No-Skive Multispiral For phosphate ester base fluids</p> |
|---|---|

Extreme pressure

761
Da-11



No-Skive Multispiral
Ultra high pressure

Compact Spiral

| | |
|--|--|
| <p>787TC Da-16</p>  <p>No-Skive Compact Spiral™ Exceeds ISO 18752-DC</p> | <p>797TC Da-19</p>  <p>No-Skive Compact Spiral™ Sizes -8 to -20 exceed ISO 18752-DC Sizes -24 and -32 exceed ISO 18752-CC</p> |
|--|--|

High abrasion resistance

| | | | |
|--|--|---|---|
| <p>721TC Da-6</p>  <p>No-Skive Multispiral SAE 100R12 – EN 856 Type R12 – ISO 3862 Type R12</p> | <p>722TC Da-8</p>  <p>No-Skive Tough Cover SAE 100R12 - EN 856 Type R12 - ISO 3862 Type R12</p> | <p>731TC Da-10</p>  <p>No-Skive Multispiral ISO 3862 Type 4SH – EN 856 Type 4SH</p> | <p>782TC Da-15</p>  <p>No-Skive Multispiral SAE 100R13 – ISO 3862 Type R13 – EN 856 Type R13</p> |
| <p>791TC Da-17</p>  <p>No-Skive Multispiral SAE 100R15 – ISO 3862 Type R15</p> | <p>792TC Da-18</p>  <p>No-Skive Multispiral SAE 100R15 – ISO 3862 Type R15</p> | | |

ParLock

Standard

| | | | |
|--|--|---|--|
| H31 Da-28  ParLock Multispiral Exceeds ISO 3862 Type 4SP – EN 856 Type 4SP | H29 Da-25  ParLock Multispiral Exceeds ISO 3862 Type 4SH – EN 856 Type 4SH | R35 Da-30  ParLock Multispiral Exceeds ISO 3862 Type R13 – Parker Specifications | R42 Da-33  ParLock Multispiral Exceeds ISO 3862 Type R15 – Parker Specifications |
|--|--|---|--|

High abrasion resistance

| | | | |
|---|--|---|--|
| H31TC Da-28  ParLock Multispiral Exceeds ISO 3862 Type 4SP – EN 856 Type 4SP | H29TC Da-25  ParLock Multispiral Exceeds ISO 3862 Type 4SH – EN 856 Type 4SH | R35TC/RS35TC-48 Da-30  ParLock Multispiral Exceeds ISO 3862 Type R13 – Parker Specifications | R42TC Da-33  ParLock Multispiral Exceeds ISO 3862 Type R15 – Parker Specifications |
| R50TC/R56TC Da-34  ParLock Multispiral Exceeds ISO 3862 Type R15 – Parker Specifications | | | |

Extreme abrasion resistance

| | | |
|--|--|---|
| H31ST Da-27  ParLock Multispiral Exceeds ISO 3862 Type 4SP – EN 856 Type 4SP | H29ST Da-24  ParLock Multispiral Exceeds ISO 3862 Type 4SH – EN 856 Type 4SH | R42ST Da-32  ParLock Multispiral Exceeds ISO 3862 Type R15 – Parker Specifications |
|--|--|---|

Railway

| |
|---|
| H29RH Da-23  ParLock Multispiral Fire-retardant cover – exceeds ISO 3862 Type 4SH – EN 856 Type 4SH |
|---|

371LT

No-Skive Compact

3-wire braid low-temperature compact hose with 4SP working pressures

Primary Applications

Mobile applications in low temperature environments:
Forestry machines, refrigerated warehouses

Applicable Specifications

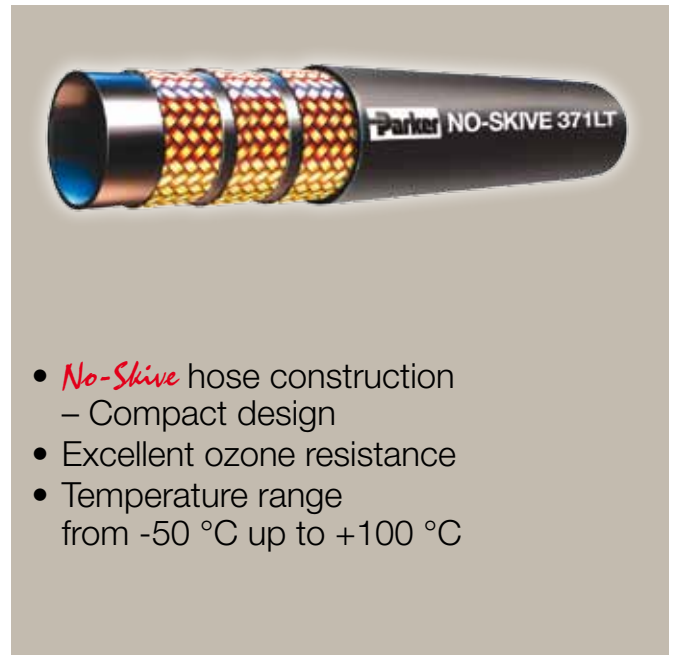
Parker Specifications

Construction

Tube: Synthetic rubber
Reinforcement: Three high-tensile steel wire braids
Cover: Synthetic rubber

Temperature Range -50 °C up to +100 °C

Exception: Air max. +70 °C
Water max. +85 °C



- *No-Skive* hose construction – Compact design
- Excellent ozone resistance
- Temperature range from -50 °C up to +100 °C

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| 371LT-6 | 10 | 3/8 | -6 | 9.5 | 21.4 | 44.5 | 6500 | 178.0 | 26000 | 120 | 0.73 |
| 371LT-8 | 12 | 1/2 | -8 | 12.7 | 24.6 | 41.5 | 6000 | 166.0 | 24000 | 160 | 0.90 |
| 371LT-10 | 16 | 5/8 | -10 | 15.9 | 28.2 | 35.0 | 5000 | 140.0 | 20000 | 210 | 1.09 |
| 371LT-12 | 19 | 3/4 | -12 | 19.1 | 32.2 | 35.0 | 5000 | 140.0 | 20000 | 260 | 1.36 |
| 371LT-16 | 25 | 1 | -16 | 25.4 | 39.7 | 28.0 | 4000 | 112.0 | 16000 | 310 | 1.78 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



372

No-Skive Compact

3-wire braid compact hose with 4SP working pressures

Primary Applications

General high pressure small bending radii hydraulic applications

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

Parker Specifications

Construction

Tube: Nitrile (NBR)
Reinforcement: Three high-tensile steel wire braids
Cover: Synthetic rubber

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C
Water max. +85 °C



- *No-Skive* hose construction – Compact design
- Nitrile (NBR) inner tube for extended fluid compatibility

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|------|------|------|-----------------|-----------------------|------|---------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure | | min. burst pressure | | | |
| | | | | | | MPa | psi | MPa | psi | | |
| 372-6 | 10 | 3/8 | -6 | 9.5 | 21.4 | 44.5 | 6500 | 180.0 | 25800 | 120 | 0.73 |
| 372-8 | 12 | 1/2 | -8 | 12.7 | 24.6 | 41.5 | 6000 | 166.0 | 24000 | 160 | 0.90 |
| 372-10 | 16 | 5/8 | -10 | 15.9 | 28.2 | 35.0 | 5000 | 140.0 | 20000 | 210 | 1.09 |
| 372-12 | 19 | 3/4 | -12 | 19.1 | 32.2 | 35.0 | 5000 | 140.0 | 20000 | 260 | 1.36 |
| 372-16 | 25 | 1 | -16 | 25.4 | 39.7 | 28.0 | 4000 | 112.0 | 16000 | 310 | 1.78 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



372RH

No-Skive Compact

3-wire braid with fire-retardant cover

Primary Applications

Dynamic and static high-pressure hydraulic systems

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

Parker specifications

Working pressure and O.D. to EN 856-4SP

Construction

Tube: Nitrile (NBR)

Reinforcement: Three high-tensile steel wire braids

Cover: Fire retardant synthetic rubber

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C

Water max. +85 °C



- **No-Skive** hose construction
- Nitrile (NBR) inner tube – high chemical resistance
- Small bend radii
- Fire-retardant cover
- German Standard: **DIN 5510-2**
- French Standard: **NF F16-101/102 I2/F3**
- British Standard: **BS 6853 - Table 4**

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

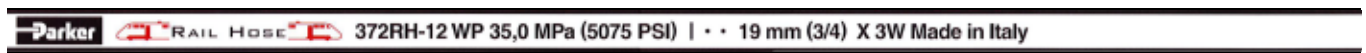
Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| 372RH-6 | 10 | 3/8 | -6 | 9.5 | 21.4 | 44.5 | 6500 | 180.0 | 25800 | 120 | 0.73 |
| 372RH-8 | 12 | 1/2 | -8 | 12.7 | 24.6 | 41.5 | 6000 | 166.0 | 24000 | 160 | 0.90 |
| 372RH-10 | 16 | 5/8 | -10 | 15.9 | 28.2 | 35.0 | 5000 | 140.0 | 20000 | 210 | 1.09 |
| 372RH-12 | 19 | 3/4 | -12 | 19.1 | 32.2 | 35.0 | 5000 | 140.0 | 20000 | 260 | 1.36 |
| 372RH-16 | 25 | 1 | -16 | 25.4 | 39.7 | 28.0 | 4000 | 112.0 | 16000 | 310 | 1.78 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



372TC

No-Skive Compact

3-wire braid compact hose with 4SP working pressures

Primary Applications

General high pressure hydraulic applications (typically in the mobile industry)

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

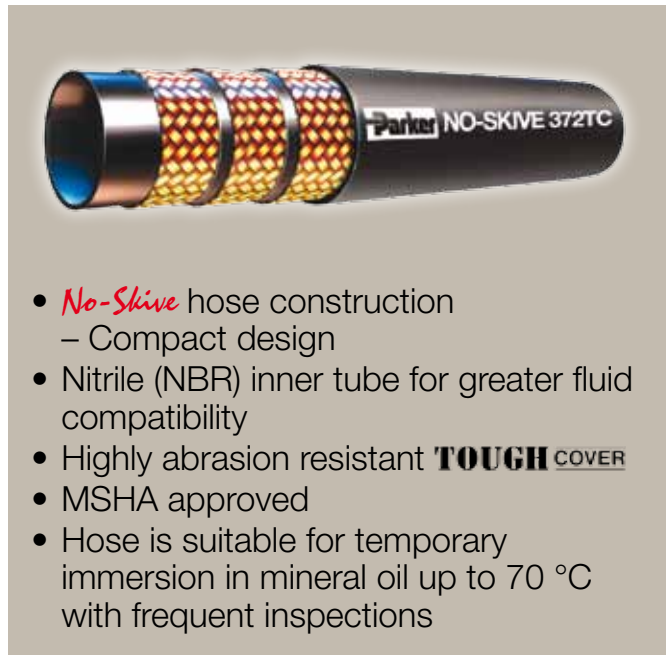
Parker specifications – working pressures and outside diameters according to EN 856-4SP

Construction

Tube: Nitrile (NBR)
Reinforcement: Three high-tensile steel wire braids
Cover: Highly abrasion resistant
MSHA approved synthetic rubber

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C
Water max. +85 °C



- **No-Skive** hose construction – Compact design
- Nitrile (NBR) inner tube for greater fluid compatibility
- Highly abrasion resistant **TOUGH COVER**
- MSHA approved
- Hose is suitable for temporary immersion in mineral oil up to 70 °C with frequent inspections

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| 372TC-6 | 10 | 3/8 | -6 | 9.5 | 21.4 | 44.5 | 6500 | 180.0 | 25800 | 120 | 0.73 |
| 372TC-8 | 12 | 1/2 | -8 | 12.7 | 24.6 | 41.5 | 6000 | 166.0 | 24000 | 160 | 0.90 |
| 372TC-10 | 16 | 5/8 | -10 | 15.9 | 28.2 | 35.0 | 5000 | 140.0 | 20000 | 210 | 1.09 |
| 372TC-12 | 19 | 3/4 | -12 | 19.1 | 32.2 | 35.0 | 5000 | 140.0 | 20000 | 260 | 1.36 |
| 372TC-16 | 25 | 1 | -16 | 25.4 | 39.7 | 28.0 | 4000 | 112.0 | 16000 | 310 | 1.78 |

Replace the hose when any deformation or damage on the hose cover are visible. The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



701

No-Skive Multispiral

ISO 3862 Type 4SP – EN 856 Type 4SP

Primary Applications

General high pressure hydraulic applications

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

ISO 3862 Type 4SP – EN 856 Type 4SP

Construction

Tube: Synthetic rubber
Reinforcement: Four spirals high-tensile steel wire
Cover: Synthetic rubber

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C
Water max. +85 °C



- **No-Skive** hose construction
- Reinforcement of four high tensile steel wires

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| 701-6 | 10 | 3/8 | -6 | 9.5 | 21.4 | 45.0 | 6500 | 180.0 | 26000 | 180 | 0.78 |
| 701-8 | 12 | 1/2 | -8 | 12.7 | 24.6 | 41.5 | 6000 | 166.0 | 24000 | 230 | 0.93 |
| 701-10 | 16 | 5/8 | -10 | 15.9 | 28.2 | 35.0 | 5000 | 140.0 | 20000 | 250 | 1.15 |
| 701-12 | 19 | 3/4 | -12 | 19.1 | 32.2 | 35.0 | 5000 | 140.0 | 20000 | 300 | 1.58 |
| 701-16 | 25 | 1 | -16 | 25.4 | 39.7 | 28.0 | 4000 | 112.0 | 16000 | 340 | 2.04 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



721TC

No-Skive Multispiral

SAE 100R12 – EN 856 Type R12 –
ISO 3862 Type R12

Primary Applications

High-pressure extremely small bending radii applications

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

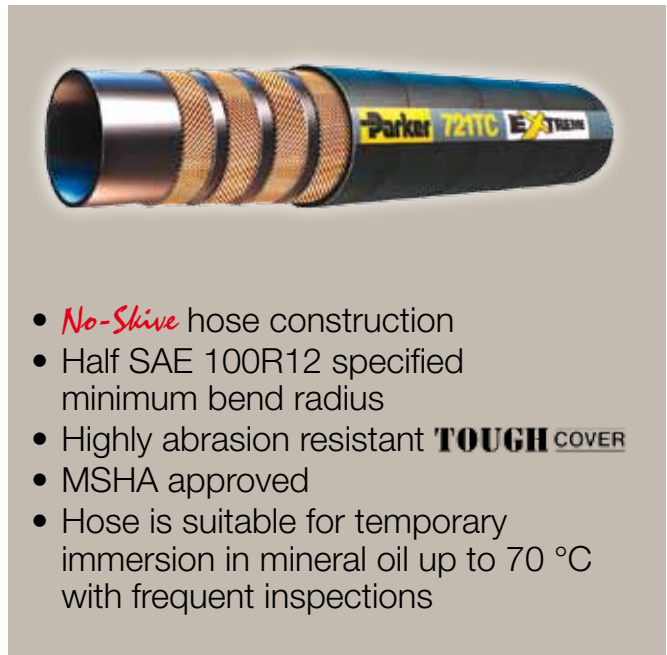
SAE 100R12 – EN 856 Type R12 –
ISO 3862 Type R12

Construction

Tube: Synthetic rubber
Reinforcement: Four spirals of high-tensile steel wire
Cover: High abrasion resistance
MSHA approved synthetic rubber

Temperature Range -40 °C up to +125 °C

Exception: Air max. +70 °C
Water max. +85 °C



- **No-Skive** hose construction
- Half SAE 100R12 specified minimum bend radius
- Highly abrasion resistant **TOUGH COVER**
- MSHA approved
- Hose is suitable for temporary immersion in mineral oil up to 70 °C with frequent inspections

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| 721TC-20 | 31 | 1 1/4 | -20 | 31.8 | 47.0 | 21.0 | 3000 | 84.0 | 12000 | 210 | 2.59 |
| 721TC-24 | 38 | 1 1/2 | -24 | 38.1 | 53.0 | 17.5 | 2500 | 70.0 | 10000 | 250 | 2.99 |
| 721TC-32 | 51 | 2 | -32 | 50.8 | 67.0 | 17.5 | 2500 | 70.0 | 10000 | 320 | 4.09 |

Replace the hose when any deformation or damage on the hose cover are visible.
The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



722CLF

No-Skive Chlorine Free

SAE 100R12 - EN 856 Type R12 -
ISO 3862 Type R12

Primary Applications

Transportation, construction, forestry

Applicable Specifications

SAE 100R12 – EN 856 Type R12 –
ISO 3862Type R12

Construction

Tube: Chlorine free Nitril (NBR)
Reinforcement: Four spirals high-tensile steel wire
Cover: Chlorine free synthetic rubber

Temperature Range -40 °C up to +125 °C

Exception: Air max. +70 °C
Water max. +85 °C



- **No-Skive** hose construction
– Compact design
- 1/2 the bend radius of SAE 100R12
- Constant working pressure of 28.0 MPa
- Chlorine free compounds

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| 722CLF-6 | 10 | 3/8 | -6 | 9.5 | 20.0 | 28.0 | 4000 | 112 | 16000 | 65 | 0.60 |
| 722CLF-8 | 12 | 1/2 | -8 | 12.7 | 24.0 | 28.0 | 4000 | 112 | 16000 | 90 | 0.80 |
| 722CLF-10 | 16 | 5/8 | -10 | 15.9 | 27.0 | 28.0 | 4000 | 112 | 16000 | 100 | 1.10 |
| 722CLF-12 | 19 | 3/4 | -12 | 19.1 | 31.0 | 28.0 | 4000 | 112 | 16000 | 120 | 1.40 |
| 722CLF-16 | 25 | 1 | -16 | 25.4 | 38.0 | 28.0 | 4000 | 112 | 16000 | 150 | 1.99 |

Replace the hose when any deformation or damage on the hose cover are visible.
The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



722TC

No-Skive Tough Cover

SAE 100R12 - EN 856 Type R12 -
ISO 3862 Type R12

Primary Applications

Transportation, construction, forestry

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

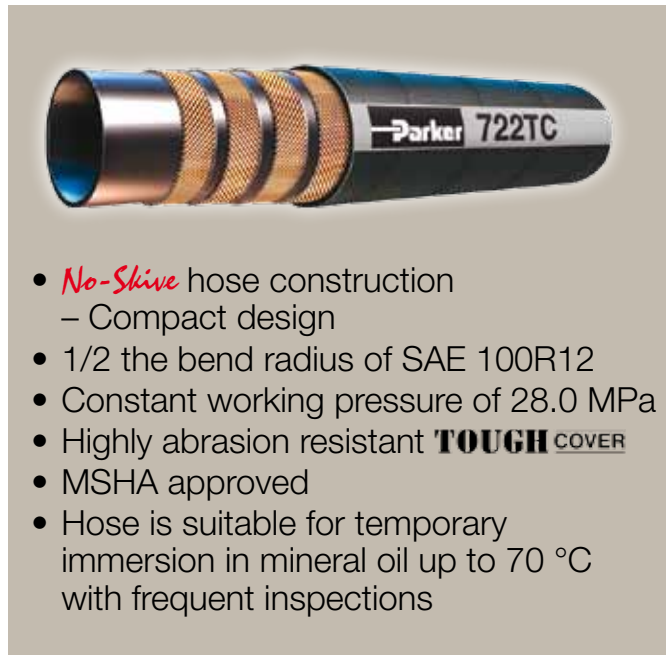
SAE 100R12 – EN 856 Type R12 –
ISO 3862 Type R12

Construction

Tube: Nitril (NBR)
Reinforcement: Four spirals high-tensile steel wire
Cover: High abrasion resistance
MSHA approved synthetic rubber

Temperature Range -40 °C up to +125 °C

Exception: Air max. +70 °C
Water max. +85 °C



- **No-Skive** hose construction
– Compact design
- 1/2 the bend radius of SAE 100R12
- Constant working pressure of 28.0 MPa
- Highly abrasion resistant **TOUGH COVER**
- MSHA approved
- Hose is suitable for temporary immersion in mineral oil up to 70 °C with frequent inspections

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

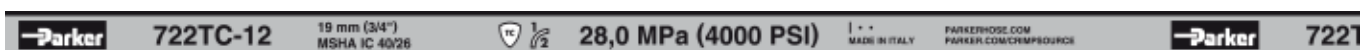
Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| 722TC-6 | 10 | 3/8 | -6 | 9.5 | 20.0 | 28.0 | 4000 | 112 | 16000 | 65 | 0.60 |
| 722TC-8 | 12 | 1/2 | -8 | 12.7 | 24.0 | 28.0 | 4000 | 112 | 16000 | 90 | 0.80 |
| 722TC-10 | 16 | 5/8 | -10 | 15.9 | 27.0 | 28.0 | 4000 | 112 | 16000 | 100 | 1.10 |
| 722TC-12 | 19 | 3/4 | -12 | 19.1 | 31.0 | 28.0 | 4000 | 112 | 16000 | 120 | 1.40 |
| 722TC-16 | 25 | 1 | -16 | 25.4 | 38.0 | 28.0 | 4000 | 112 | 16000 | 150 | 1.99 |

Replace the hose when any deformation or damage on the hose cover are visible.
The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



731

No-Skive Multispiral

ISO 3862 Type 4SH – EN 856 Type 4SH



- *No-Skive* hose construction
- Reinforcement of four high tensile steel wires

Primary Applications

General high pressure hydraulic applications

Applicable Specifications

ISO 3862 Type 4SH – EN 856 Type 4SH

Construction

Tube: Synthetic rubber
 Reinforcement: Four spirals high-tensile steel wire
 Cover: Synthetic rubber

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C
 Water max. +85 °C

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| 731-12 | 19 | 3/4 | -12 | 19.1 | 32.0 | 42.0 | 6000 | 168.0 | 24000 | 280 | 1.72 |
| 731-16 | 25 | 1 | -16 | 25.4 | 39.0 | 38.0 | 5500 | 152.0 | 22000 | 340 | 2.14 |
| 731-20 | 31 | 1 1/4 | -20 | 31.8 | 45.0 | 32.0 | 4700 | 130.0 | 18800 | 460 | 2.96 |
| 731-24 | 38 | 1 1/2 | -24 | 38.1 | 53.0 | 29.0 | 4200 | 116.0 | 16800 | 560 | 3.20 |
| 731-32 | 51 | 2 | -32 | 50.8 | 68.0 | 25.0 | 3600 | 100.0 | 14400 | 700 | 5.30 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



731TC

No-Skive Multispiral

ISO 3862 Type 4SH – EN 856 Type 4SH

Primary Applications

General high pressure hydraulic applications

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

ISO 3862 Type 4SH – EN 856 Type 4SH

Construction

Tube: Synthetic rubber
Reinforcement: Four spirals high-tensile steel wire
Cover: High abrasion resistance
MSHA approved synthetic rubber

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C
Water max. +85 °C



- **No-Skive** hose construction
- Reinforcement of four high tensile steel wires
- Highly abrasion resistant **TOUGH COVER**
- MSHA approved
- Hose is suitable for temporary immersion in mineral oil up to 70 °C with frequent inspections

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|-----------------------|------|---------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure | | min. burst pressure | | | |
| | | | | | | MPa | psi | MPa | psi | | |
| 731TC-12 | 19 | 3/4 | -12 | 19.1 | 32.0 | 42.0 | 6000 | 168.0 | 24000 | 280 | 1.72 |
| 731TC-16 | 25 | 1 | -16 | 25.4 | 39.0 | 38.0 | 5500 | 152.0 | 22000 | 340 | 2.14 |
| 731TC-20 | 31 | 1 1/4 | -20 | 31.8 | 45.0 | 32.0 | 4700 | 130.0 | 18800 | 460 | 2.96 |
| 731TC-24 | 38 | 1 1/2 | -24 | 38.1 | 53.0 | 29.0 | 4200 | 116.0 | 16800 | 560 | 3.20 |
| 731TC-32 | 51 | 2 | -32 | 50.8 | 68.0 | 25.0 | 3600 | 100.0 | 14400 | 700 | 5.30 |

Replace the hose when any deformation or damage on the hose cover are visible.
The combination of high temperature and high pressure could reduce the hose life.

Hose layline example

Parker TOUGH COVER 731TC-12 WP 42.0 MPa (6000 PSI) MSHA IC 40/26 | • • 19 mm (3/4) X 4S EN856-4SH

761

No-Skive Multispiral

Ultra high pressure



- Creates new design possibilities for high pressure applications
- *No-Skive* design eliminates the need to remove the cover before crimping
- Durable, colour layline for easy and longer lasting identification
- Flexibility is comparable to SAE 100R15
- Constant working pressure of 56.0 MPa

Primary Applications

High performance/high pressure applications such as construction, hydrostatic drive lines, agriculture, mining, test stands

Construction

Tube: Synthetic rubber
Reinforcement: Six spirals high-tensile steel wire
Cover: Abrasion resistant black synthetic rubber

Recommended Fluids

Petroleum-based hydraulic fluids and lubricating oils. Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Temperature Range -40 °C up to +125 °C

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| 761-12 | 19 | 3/4 | -12 | 19.1 | 34.8 | 56.0 | 8000 | 224.0 | 32000 | 260 | 2.32 |
| 761-16 | 25 | 1 | -16 | 25.4 | 41.9 | 56.0 | 8000 | 224.0 | 32000 | 330 | 3.00 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



772LT

No-Skive Multispiral

Low-temperature spiral hose for extremely cold conditions

Primary Applications

Snow grooming equipment, heavy construction equipment, sidebooms

Applicable Specifications

Exceeds SAE 100R12 – ISO 3862 Type R12 – EN 856 Type R12

Construction

Tube: Nitrile (NBR)
Reinforcement: Four spirals high-tensile steel wire
Cover: Synthetic rubber

Temperature Range -57 °C up to +100 °C

Exception: Air max. +70 °C
Water max. +85 °C



- *No-Skive* hose construction
- Exceeds SAE 100R12 / ISO 3862-1 Type R12 / EN 856 Type R12
- Temperature range from -57 °C to 100 °C

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| 772LT-8 | 12 | 1/2 | -8 | 12.7 | 24.0 | 28.0 | 4000 | 112.0 | 16000 | 180 | 0.93 |
| 772LT-10 | 16 | 5/8 | -10 | 15.9 | 27.0 | 28.0 | 4000 | 112.0 | 16000 | 200 | 1.10 |
| 772LT-12 | 19 | 3/4 | -12 | 19.1 | 31.0 | 28.0 | 4000 | 112.0 | 16000 | 240 | 1.40 |
| 772LT-16 | 25 | 1 | -16 | 25.4 | 38.0 | 28.0 | 4000 | 112.0 | 16000 | 300 | 1.99 |
| 772LT-20 | 31 | 1 1/4 | -20 | 31.8 | 46.0 | 21.0 | 3000 | 84.0 | 12000 | 420 | 2.59 |
| 772LT-24 | 38 | 1 1/2 | -24 | 38.1 | 53.0 | 17.5 | 2500 | 70.0 | 10000 | 500 | 2.99 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



774

No-Skive Multispiral

For phosphate ester base fluids

Primary Applications

Test stands for aerospace, foundries, steel mills
High pressure hydraulic applications with phosphate ester fluids

Restrictions

Do not allow tube to contact any petroleum base fluids.
Use liquid soap as hose lubricant.

Applicable Specifications

Parker specifications

Construction

Tube: Phosphate ester resistant EPDM synthetic rubber
Reinforcement: Four spirals high-tensile steel wire
Cover: Phosphate ester and weather resistant, green, EPDM synthetic rubber cover

Temperature Range -40 °C up to +80 °C



- *No-Skive* hose construction
- Phosphate ester and weather resistant, green, EPDM synthetic rubber cover

Recommended Fluids

Phosphate ester base hydraulic fluids.
Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

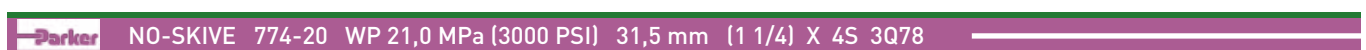
Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| 774-12 | 19 | 3/4 | -12 | 19.1 | 31.0 | 28.0 | 4000 | 112.0 | 16000 | 240 | 1.40 |
| 774-16 | 25 | 1 | -16 | 25.4 | 38.0 | 28.0 | 4000 | 112.0 | 16000 | 300 | 1.99 |
| 774-20 | 31 | 1 1/4 | -20 | 31.8 | 47.0 | 21.0 | 3000 | 84.0 | 12000 | 420 | 2.59 |
| 774-24 | 38 | 1 1/2 | -24 | 38.1 | 53.0 | 17.5 | 2500 | 70.0 | 10000 | 500 | 2.99 |
| 774-32 | 51 | 2 | -32 | 50.8 | 67.0 | 17.5 | 2500 | 70.0 | 10000 | 630 | 4.09 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



781

No-Skive Multispiral

SAE 100R13 – ISO 3862 Type R13 –
EN 856 Type R13

Primary Applications

General extremely high pressure hydraulic applications

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

SAE 100R13 – ISO 3862 Type R13 –
EN 856 Type R13

Construction

Tube: Synthetic rubber
Reinforcement: Four or six spirals high-tensile steel wire
Cover: MSHA approved synthetic rubber

Temperature Range -40 °C up to +125 °C

Exception: Air max. +70 °C
Water max. +85 °C



- **No-Skive** hose construction
- Reinforcement of four or six high tensile steel wires
- Constant working pressure of 35.0 Mpa
- MSHA approved

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|-----------------------|------|---------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure | | min. burst pressure | | | |
| | | | | | | MPa | psi | MPa | psi | | |
| 781-12 | 19 | 3/4 | -12 | 19.1 | 32.0 | 35.0 | 5000 | 140.0 | 20000 | 240 | 1.59 |
| 781-16 | 25 | 1 | -16 | 25.4 | 39.0 | 35.0 | 5000 | 140.0 | 20000 | 300 | 2.20 |
| 781-20 | 31 | 1 1/4 | -20 | 31.8 | 50.0 | 35.0 | 5000 | 140.0 | 20000 | 420 | 3.69 |
| 781-24 | 38 | 1 1/2 | -24 | 38.1 | 57.0 | 35.0 | 5000 | 140.0 | 20000 | 500 | 4.79 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



782TC

No-Skive Multispiral

SAE 100R13 – ISO 3862 Type R13 –
EN 856 Type R13

Primary Applications

Generally extremely high pressure hydraulic applications

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

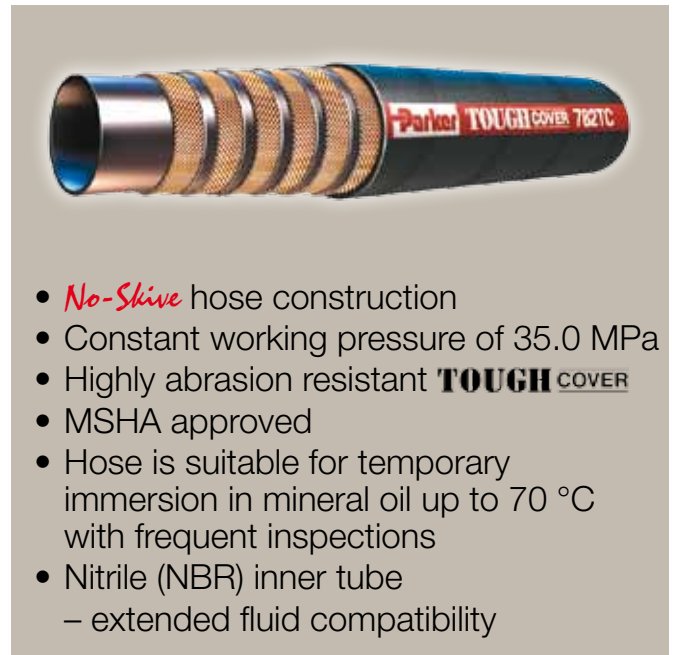
SAE 100R13 – ISO 3862 Type R13 –
EN 856 Type R13

Construction

Tube: Nitrile (NBR)
Reinforcement: Four spirals high-tensile steel wire
Cover: High abrasion resistance
MSHA approved synthetic rubber

Temperature Range -40 °C up to +125 °C

Exception: Air max. +70 °C
Water max. +85 °C



- **No-Skive** hose construction
- Constant working pressure of 35.0 MPa
- Highly abrasion resistant **TOUGH COVER**
- MSHA approved
- Hose is suitable for temporary immersion in mineral oil up to 70 °C with frequent inspections
- Nitrile (NBR) inner tube – extended fluid compatibility

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| 782TC-12 | 19 | 3/4 | -12 | 19.1 | 32.0 | 35.0 | 5000 | 140.0 | 20000 | 240 | 1.59 |
| 782TC-16 | 25 | 1 | -16 | 25.4 | 39.0 | 35.0 | 5000 | 140.0 | 20000 | 300 | 2.20 |
| 782TC-20 | 31 | 1 1/4 | -20 | 31.8 | 50.0 | 35.0 | 5000 | 140.0 | 20000 | 420 | 3.69 |
| 782TC-24 | 38 | 1 1/2 | -24 | 38.1 | 57.0 | 35.0 | 5000 | 140.0 | 20000 | 500 | 4.79 |

Replace the hose when any deformation or damage on the hose cover are visible.
The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



787TC

No-Skive Compact Spiral™

Exceeds ISO 18752-DC

Primary Applications

On- & offshore, construction, injection moulding, mining

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications


Exceeds SAE 100R13 – ISO 3862 Type R13 –
EN 856 Type R13 – ISO 18752-DC

Construction

Tube: Proprietary synthetic rubber
Reinforcement: Four or six spirals high-tensile steel wire
Cover: High abrasion resistance
MSHA approved synthetic rubber

Temperature Range -40 °C up to +125 °C

Exception: Air max. +70 °C
Water max. +85 °C



- 1/2 the bend radius of SAE 100R13
- Constant working pressure of 35.0 MPa
- Reduced O.D. and new construction lead to superior flexibility
- 1/3 less effort to bend
- Weight reduction – up to 26 %
- Highly abrasion resistant **TOUGH COVER**
- MSHA approved
- Hose is suitable for temporary immersion in mineral oil up to 70 °C with frequent inspections

Recommended Fluids

Petroleum based hydraulic fluids and lubricating oils.
Wide Compatibility exceeding Column III, with additional chemical resistance, especially for diesel and biodiesel.
For chemical compatibility please contact
HPDE_helpdesk@parker.com

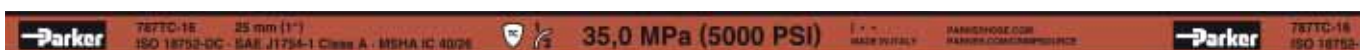
Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| 787TC-8 | 12 | 1/2 | -8 | 12.7 | 21.1 | 35.0 | 5000 | 140.0 | 20000 | 90 | 0.67 |
| 787TC-10 | 16 | 5/8 | -10 | 15.9 | 23.9 | 35.0 | 5000 | 140.0 | 20000 | 100 | 0.80 |
| 787TC-12 | 19 | 3/4 | -12 | 19.1 | 27.9 | 35.0 | 5000 | 140.0 | 20000 | 120 | 1.16 |
| 787TC-16 | 25 | 1 | -16 | 25.4 | 35.7 | 35.0 | 5000 | 140.0 | 20000 | 150 | 1.74 |
| 787TC-20 | 31 | 1 1/4 | -20 | 31.8 | 44.9 | 35.0 | 5000 | 140.0 | 20000 | 210 | 2.89 |
| 787TC-24 | 38 | 1 1/2 | -24 | 38.1 | 52.8 | 35.0 | 5000 | 140.0 | 20000 | 255 | 3.96 |
| 787TC-32 | 51 | 2 | -32 | 50.8 | 67.6 | 35.0 | 5000 | 140.0 | 20000 | 318 | 6.50 |

Replace the hose when any deformation or damage on the hose cover are visible.
The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



791TC

No-Skive Multispiral

SAE 100R15 – ISO 3862 Type R15

Primary Applications

Mobile hydraulics: Hydrostatic drives
General industrial hydraulics: Injection moulding machines
Test stands

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

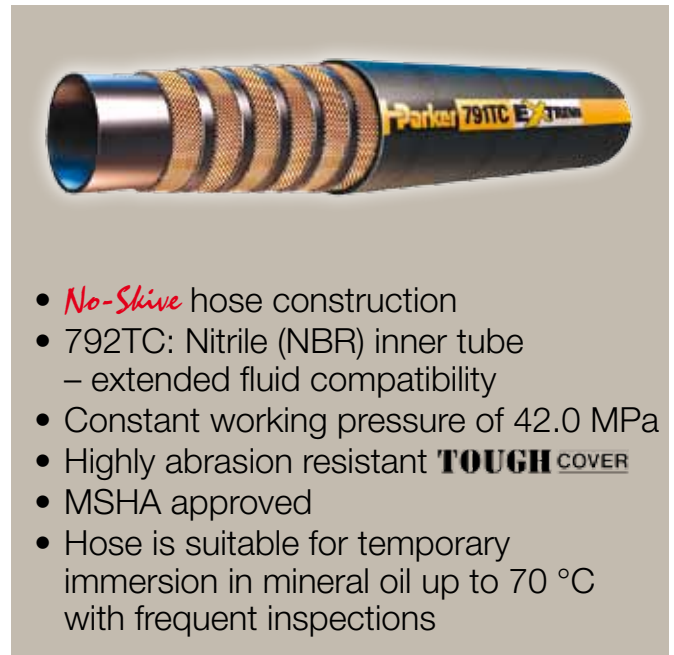
SAE 100R15 – ISO 3862 Type R15

Construction

Tube: Synthetic rubber
Reinforcement: Four or six spirals high-tensile steel wire
Cover: High abrasion resistance
MSHA approved synthetic rubber

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C
Water max. +85 °C



- **No-Skive** hose construction
- 792TC: Nitrile (NBR) inner tube – extended fluid compatibility
- Constant working pressure of 42.0 MPa
- Highly abrasion resistant **TOUGH COVER**
- MSHA approved
- Hose is suitable for temporary immersion in mineral oil up to 70 °C with frequent inspections

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.
Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| 791TC-20 | 31 | 1 1/4 | -20 | 31.8 | 50.0 | 42.0 | 6000 | 168.0 | 24000 | 250 | 3.69 |
| 791TC-24 | 38 | 1 1/2 | -24 | 38.1 | 57.0 | 42.0 | 6000 | 168.0 | 24000 | 305 | 4.79 |

Replace the hose when any deformation or damage on the hose cover are visible.
The combination of high temperature and high pressure could reduce the hose life.

Hose layline example

Parker 791TC-20 **EXTREME** WP 42,0 MPa (6000 PSI) MSHA XXXX SAE100R15-20 31,5 mm (1 1/4) ISO3862-1/R15/31,5/2

792TC

No-Skive Multispiral

SAE 100R15 – ISO 3862 Type R15

Primary Applications

Mobile hydraulics: Hydrostatic drives
General industrial hydraulics: Injection moulding machines
Test stands

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

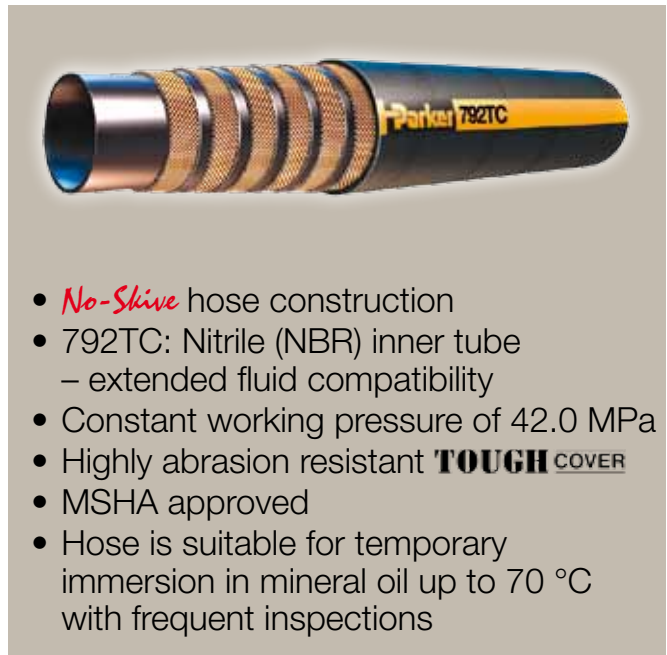
SAE 100R15 – ISO 3862 Type R15

Construction

Tube: Nitrile (NBR)
Reinforcement: Four or six spirals high-tensile steel wire
Cover: High abrasion resistance
MSHA approved synthetic rubber

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C
Water max. +85 °C



- **No-Skive** hose construction
- 792TC: Nitrile (NBR) inner tube – extended fluid compatibility
- Constant working pressure of 42.0 MPa
- Highly abrasion resistant **TOUGH COVER**
- MSHA approved
- Hose is suitable for temporary immersion in mineral oil up to 70 °C with frequent inspections

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|------|------|------|-----------------|-----------------------|------|---------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure | | min. burst pressure | | | |
| | | | | | | MPa | psi | MPa | psi | | |
| 792TC-12 | 19 | 3/4 | -12 | 19.1 | 32.0 | 42.0 | 6000 | 168.0 | 24000 | 265 | 1.59 |
| 792TC-16 | 25 | 1 | -16 | 25.4 | 39.0 | 42.0 | 6000 | 168.0 | 24000 | 330 | 2.20 |

Replace the hose when any deformation or damage on the hose cover are visible.
The combination of high temperature and high pressure could reduce the hose life.

Hose layline example

Parker TOUGH COVER 792TC-20 WP 42,0 MPa (6000 PSI) MSHA XXXX SAE100R15-20 31,5 mm (1 1/4) ISO 3862-1/

797TC

No-Skive Compact Spiral™

Sizes -8 to -20 exceed ISO 18752-DC
Sizes -24 and -32 exceed ISO 18752-CC

Primary Applications

On- & offshore, construction, injection moulding, mining

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

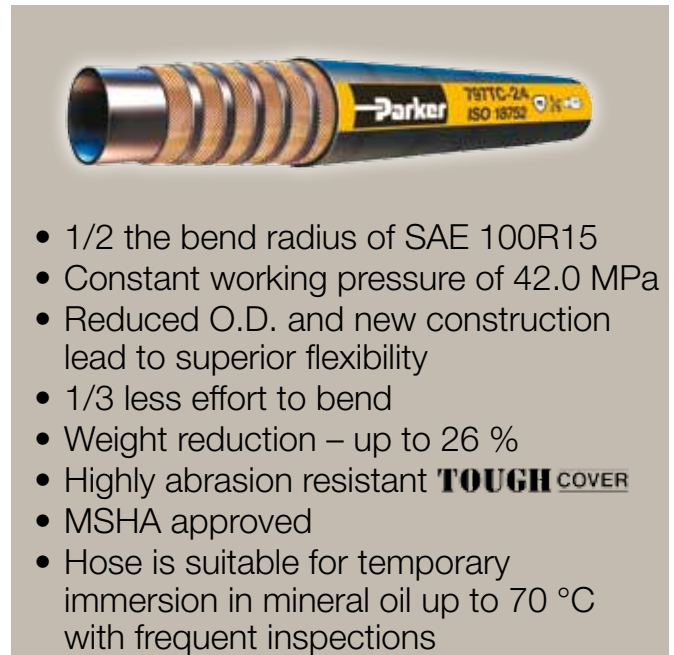
Exceeds SAE 100R15 – ISO 3862 Type R15 –
ISO 18752-DC and CC

Construction

Tube: Proprietary synthetic rubber
Reinforcement: Four or six spirals high-tensile steel wire
Cover: High abrasion resistance
MSHA approved synthetic rubber

Temperature Range -40 °C up to +125 °C

Exception: Air max. +70 °C
Water max. +85 °C



- 1/2 the bend radius of SAE 100R15
- Constant working pressure of 42.0 MPa
- Reduced O.D. and new construction lead to superior flexibility
- 1/3 less effort to bend
- Weight reduction – up to 26 %
- Highly abrasion resistant **TOUGH COVER**
- MSHA approved
- Hose is suitable for temporary immersion in mineral oil up to 70 °C with frequent inspections

Recommended Fluids

Petroleum base hydraulic fluids and lubricating oils.
Wide Compatibility exceeding Column III, with additional chemical resistance, especially for diesel and biodiesel.
For chemical compatibility please contact
HPDE_helpdesk@parker.com

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| 797TC-8 | 12 | 1/2 | -8 | 12.7 | 21.1 | 42.0 | 6000 | 168.0 | 24000 | 100 | 0.67 |
| 797TC-10 | 16 | 5/8 | -10 | 15.9 | 23.9 | 42.0 | 6000 | 168.0 | 24000 | 115 | 0.80 |
| 797TC-12 | 19 | 3/4 | -12 | 19.1 | 27.9 | 42.0 | 6000 | 168.0 | 24000 | 135 | 1.16 |
| 797TC-16 | 25 | 1 | -16 | 25.4 | 35.7 | 42.0 | 6000 | 168.0 | 24000 | 165 | 1.74 |
| 797TC-20 | 31 | 1 1/4 | -20 | 31.8 | 44.9 | 42.0 | 6000 | 168.0 | 24000 | 225 | 2.89 |
| 797TC-24 | 38 | 1 1/2 | -24 | 38.1 | 52.8 | 42.0 | 6000 | 168.0 | 24000 | 305 | 3.96 |
| 797TC-32 | 51 | 2 | -32 | 50.8 | 67.6 | 42.0 | 6000 | 168.0 | 24000 | 380 | 6.50 |

Replace the hose when any deformation or damage on the hose cover are visible.
The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



F42

No-Skive Multispiral

For phosphate ester base fluids

Primary Applications

Test stands for aerospace, foundries, steel mills
High pressure hydraulic applications with phosphate ester fluids

Applicable Specifications

Parker Specification

Restrictions

Do not allow tube to contact any petroleum base fluids.
Use liquid soap as hose lubricant.

Construction

Tube: Phosphate ester resistant EPDM synthetic rubber
Reinforcement: Four or six spirals high-tensile steel wire
Cover: Phosphate ester and weather resistant, green, EPDM synthetic rubber cover

Temperature Range -40 °C up to +80 °C
Exception: Air max. +70 °C
Water max. +85 °C



- *No-Skive* hose construction
- Phosphate ester and weather resistant, green, EPDM synthetic rubber cover
- Constant working pressure of 42.0 MPa

Recommended Fluids

Phosphate ester based hydraulic fluids, water-glycol based fluids, air and water.
Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series

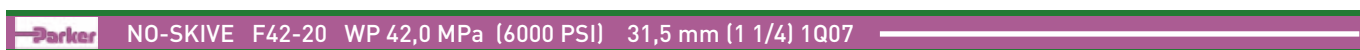
* series 70 only for size -8



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| F42-8 | 12 | 1/2 | -8 | 12.7 | 25.0 | 42.0 | 6000 | 168.0 | 24000 | 200 | 0.83 |
| F42-12 | 19 | 3/4 | -12 | 19.1 | 31.9 | 42.0 | 6000 | 168.0 | 24000 | 265 | 1.53 |
| F42-16 | 25 | 1 | -16 | 25.4 | 38.5 | 42.0 | 6000 | 168.0 | 24000 | 330 | 2.08 |
| F42-20 | 31 | 1 1/4 | -20 | 31.8 | 50 | 42.0 | 6000 | 168.0 | 24000 | 445 | 3.96 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



P35

No-Skive Multispiral

SAE 100R13 – ISO 3862 Type R13 –
EN 856 Type R13

Primary Applications

Mobile/ industrial hydraulics:
Generally extremely high pressure large flow hydraulic applications

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

SAE 100R13 – ISO 3862 Type R13 –
EN 856 Type R13

Construction

Tube: Synthetic rubber
Reinforcement: Six spirals high-tensile steel wire
Cover: Synthetic rubber

Temperature Range -40 °C up to +125 °C

Exception: Air max. +70 °C
Water max. +85 °C



- *No-Skive* hose construction
- Reinforcement of six high tensile steel wires

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| P35-32 | 51 | 2 | -32 | 50.8 | 71.0 | 35.0 | 5000 | 140.0 | 20000 | 630 | 7.48 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example


P35-32 71mm (2")
 ISO 3862 • J1942 • USCG HF Type B • DNV • ABS **35,0 MPa (5000 PSI)**

plant code
MADE IN USA
state code

PARKERHOSE.COM
PARKER.COM/CRIMPSOURCE



H29

ParLock Multispiral

Exceeds ISO 3862 Type 4SH –
EN 856 Type 4SH

Primary Applications

General high pressure hydraulic applications

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

Exceeds ISO 3862 Type 4SH – EN 856 Type 4SH

Construction

Tube: Synthetic rubber
Reinforcement: Four spirals high-tensile steel wire
Cover: Synthetic rubber

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C
Water max. +85 °C



- Interlock technology
- Reinforcement of four high tensile steel wires

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series

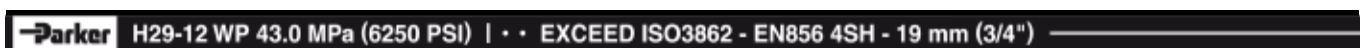
Internal and external skiving



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|-----------------------|------|---------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure | | min. burst pressure | | | |
| | | | | | | MPa | psi | MPa | psi | | |
| H29-12 | 19 | 3/4 | -12 | 19.1 | 32.2 | 43.0 | 6250 | 172.0 | 25000 | 280 | 1.7 |
| H29-16 | 25 | 1 | -16 | 25.4 | 38.7 | 40.0 | 5800 | 160.0 | 23200 | 340 | 2.2 |
| H29-20 | 31 | 1 1/4 | -20 | 31.8 | 45.5 | 35.0 | 5000 | 140.0 | 20000 | 460 | 2.6 |
| H29-24 | 38 | 1 1/2 | -24 | 38.1 | 53.5 | 31.0 | 4500 | 124.0 | 18000 | 560 | 3.4 |
| H29-32 | 51 | 2 | -32 | 50.8 | 68.1 | 28.0 | 4050 | 112.0 | 16200 | 700 | 4.8 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



H29RH

ParLock Multispiral

Fire-retardant cover – exceeds
ISO 3862 Type 4SH – EN 856 Type 4SH

Primary Applications

General high pressure hydraulic applications

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

Exceeds ISO 3862 Type 4SH – EN 856 Type 4SH

Construction

Tube: Synthetic rubber
Reinforcement: Four spirals high-tensile steel wire
Cover: Fire retardant synthetic rubber

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C
Water max. +85 °C



- Interlock technology
- Reinforcement of four high tensile steel wires
- Fire-retardant cover
- French Standard: **NF F16-101/102 I2/F3**
- British Standard: **BS 6853 - Table 4**

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series

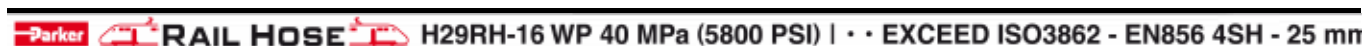
Internal and external skiving



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| H29RH-16 | 25 | 1 | -16 | 25.4 | 38.7 | 40.0 | 5800 | 160.0 | 23200 | 340 | 2.2 |
| H29RH-20 | 31 | 1 1/4 | -20 | 31.8 | 45.5 | 35.0 | 5000 | 140.0 | 20000 | 460 | 2.6 |
| H29RH-24 | 38 | 1 1/2 | -24 | 38.1 | 53.5 | 31.0 | 4500 | 124.0 | 18000 | 560 | 3.4 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



H29ST

ParLock Multispiral

Exceeds ISO 3862 Type 4SH –
EN 856 Type 4SH

Primary Applications

General high pressure hydraulic applications

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

Exceeds ISO 3862 Type 4SH – EN 856 Type 4SH

Construction

Tube: Synthetic rubber
Reinforcement: Four spirals high-tensile steel wire
Cover: Synthetic rubber
with a special polyethylene coating

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C

Water max. +85 °C



- Interlock technology
- Extreme abrasion resistant
SUPER TOUGH cover
- Reinforcement of four high tensile steel wires

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series

Internal and external skiving



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| H29ST-12 | 19 | 3/4 | -12 | 19.1 | 32.2 | 43.0 | 6250 | 172.0 | 25000 | 280 | 1.7 |
| H29ST-16 | 25 | 1 | -16 | 25.4 | 38.7 | 40.0 | 5800 | 160.0 | 23200 | 340 | 2.2 |
| H29ST-20 | 31 | 1 1/4 | -20 | 31.8 | 45.5 | 35.0 | 5000 | 140.0 | 20000 | 460 | 2.6 |
| H29ST-24 | 38 | 1 1/2 | -24 | 38.1 | 53.5 | 31.0 | 4500 | 124.0 | 18000 | 560 | 3.4 |
| H29ST-32 | 51 | 2 | -32 | 50.8 | 68.1 | 28.0 | 4050 | 112.0 | 16200 | 700 | 4.8 |

Replace the hose when any deformation or damage on the hose cover are visible.
The combination of high temperature and high pressure could reduce the hose life.

Hose layline example

Parker SUPER TOUGH H29ST-12 WP 43,0 MPa (6250 PSI) | · · EXCEED ISO3862 - EN856 4SH

H29TC

ParLock Multispiral

Exceeds ISO 3862 Type 4SH – EN 856 Type 4SH

Primary Applications

General high pressure hydraulic applications

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

Exceeds ISO 3862 Type 4SH – EN 856 Type 4SH

Construction

- Tube: Synthetic rubber
- Reinforcement: Four spirals high-tensile steel wire
- Cover: High abrasion resistance
MSHA approved synthetic rubber

Temperature Range -40 °C up to +100 °C

- Exception: Air max. +70 °C
- Water max. +85 °C



- Interlock technology
- Reinforcement of four high tensile steel wires
- Highly abrasion resistant **'TOUGH COVER'**
- MSHA approved
- Hose is suitable for temporary immersion in mineral oil up to 70 °C with frequent inspections

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series

Internal and external skiving



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| H29TC-12 | 19 | 3/4 | -12 | 19.1 | 32.2 | 43.0 | 6250 | 172.0 | 25000 | 280 | 1.7 |
| H29TC-16 | 25 | 1 | -16 | 25.4 | 38.7 | 40.0 | 5800 | 160.0 | 23200 | 340 | 2.2 |
| H29TC-20 | 31 | 1 1/4 | -20 | 31.8 | 45.5 | 35.0 | 5000 | 140.0 | 20000 | 460 | 2.6 |
| H29TC-24 | 38 | 1 1/2 | -24 | 38.1 | 53.5 | 31.0 | 4500 | 124.0 | 18000 | 560 | 3.4 |
| H29TC-32 | 51 | 2 | -32 | 50.8 | 68.1 | 28.0 | 4050 | 112.0 | 16200 | 700 | 4.8 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example

Parker TOUGH COVER H29TC-12 WP 43,0 MPa (6250 PSI) MSHA IC 40/26 | • EXCEED ISO3862 - EN856



H31

ParLock Multispiral

Exceeds ISO 3862 Type 4SP –
EN 856 Type 4SP

Primary Applications

General high pressure hydraulic applications

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

Exceeds ISO 3862 Type 4SP – EN 856 Type 4SP

Construction

Tube: Synthetic rubber
Reinforcement: Four spirals high-tensile steel wire
Cover: Synthetic rubber

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C
Water max. +85 °C



- Interlock technology
- Reinforcement of four high tensile steel wires

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series

External skiving (size -4 up to -8)

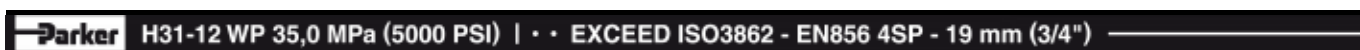
Internal and external skiving (size -10 up to -16)



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|------|------|------|-----------------|-----------------------|------|---------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure | | min. burst pressure | | | |
| | | | | | | MPa | psi | MPa | psi | | |
| H31-4 | 6 | 1/4 | -4 | 6.4 | 17.8 | 50.0 | 7250 | 200.0 | 29000 | 120 | 0.73 |
| H31-6 | 10 | 3/8 | -6 | 9.5 | 21.4 | 44.5 | 6450 | 178.0 | 25800 | 130 | 0.91 |
| H31-8 | 12 | 1/2 | -8 | 12.7 | 24.6 | 41.5 | 6000 | 166.0 | 24000 | 180 | 1.08 |
| H31-10 | 16 | 5/8 | -10 | 15.9 | 28.5 | 39.0 | 5650 | 156.0 | 22600 | 225 | 1.39 |
| H31-12 | 19 | 3/4 | -12 | 19.1 | 32.0 | 35.0 | 5000 | 140.0 | 20300 | 280 | 1.73 |
| H31-16 | 25 | 1 | -16 | 25.4 | 39.7 | 31.0 | 4500 | 124.0 | 18000 | 355 | 2.31 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



H31ST

ParLock Multispiral

Exceeds ISO 3862 Type 4SP – EN 856 Type 4SP

Primary Applications

General high pressure hydraulic applications

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

Exceeds ISO 3862 Type 4SP – EN 856 Type 4SP

Construction

- Tube: Synthetic rubber
- Reinforcement: Four spirals high-tensile steel wire
- Cover: Synthetic rubber
with a special polyethylene coating

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C

Water max. +85 °C



- Interlock technology
- Extreme abrasion resistant
SUPER TOUGH cover
- Reinforcement of four high tensile steel wires

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series

External skiving (size -4 up to -8)

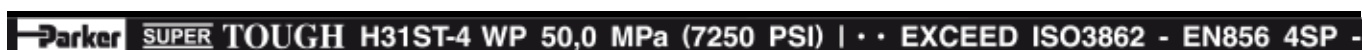
Internal and external skiving (size -10 up to -16)



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| H31ST-4 | 6 | 1/4 | -4 | 6.4 | 17.8 | 50.0 | 7250 | 200.0 | 29000 | 120 | 0.73 |
| H31ST-6 | 10 | 3/8 | -6 | 9.5 | 21.4 | 44.5 | 6450 | 178.0 | 25800 | 130 | 0.91 |
| H31ST-8 | 12 | 1/2 | -8 | 12.7 | 24.6 | 41.5 | 6000 | 166.0 | 24000 | 180 | 1.08 |
| H31ST-10 | 16 | 5/8 | -10 | 15.9 | 28.5 | 39.0 | 5650 | 156.0 | 22600 | 225 | 1.39 |
| H31ST-12 | 19 | 3/4 | -12 | 19.1 | 32.0 | 35.0 | 5000 | 140.0 | 20300 | 280 | 1.73 |
| H31ST-16 | 25 | 1 | -16 | 25.4 | 39.7 | 31.0 | 4500 | 124.0 | 18000 | 355 | 2.31 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



H31TC

ParLock Multispiral

Exceeds ISO 3862 Type 4SP – EN 856 Type 4SP

Primary Applications

General high pressure hydraulic applications

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

Exceeds ISO 3862 Type 4SP – EN 856 Type 4SP

Construction

Tube: Synthetic rubber
Reinforcement: Four spirals high-tensile steel wire
Cover: High abrasion resistance
MSHA approved synthetic rubber

Temperature Range -40 °C up to +100 °C

Exception: Air max. +70 °C

Water max. +85 °C



- Interlock technology
- Reinforcement of four high tensile steel wires
- Highly abrasion resistant **TOUGH COVER**
- MSHA approved
- Hose is suitable for temporary immersion in mineral oil up to 70 °C with frequent inspections

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series

External skiving (size -4 up to -8)



Internal and external skiving (size -10 up to -16)

| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| H31TC-4 | 6 | 1/4 | -4 | 6.4 | 17.8 | 50.0 | 7250 | 200.0 | 29000 | 120 | 0.73 |
| H31TC-6 | 10 | 3/8 | -6 | 9.5 | 21.4 | 44.5 | 6450 | 178.0 | 25800 | 130 | 0.91 |
| H31TC-8 | 12 | 1/2 | -8 | 12.7 | 24.6 | 41.5 | 6000 | 166.0 | 24000 | 180 | 1.08 |
| H31TC-10 | 16 | 5/8 | -10 | 15.9 | 28.5 | 39.0 | 5650 | 156.0 | 22600 | 225 | 1.39 |
| H31TC-12 | 19 | 3/4 | -12 | 19.1 | 32.0 | 35.0 | 5000 | 140.0 | 20300 | 280 | 1.73 |
| H31TC-16 | 25 | 1 | -16 | 25.4 | 39.7 | 31.0 | 4500 | 124.0 | 18000 | 355 | 2.31 |

Replace the hose when any deformation or damage on the hose cover are visible.
The combination of high temperature and high pressure could reduce the hose life.

Hose layline example

Parker TOUGH COVER H31TC-6 WP 44,5 MPa (6450 PSI) MSHA IC 40/26 | • • EXCEED ISO3862 - EN856 45

R35

ParLock Multispiral

Exceeds ISO 3862 Type R13 – Parker Specifications

Primary Applications

General high pressure hydraulic applications

Applicable Specifications

Exceeds ISO 3862 Type R13 – Parker Specifications

Construction

- Tube: Synthetic rubber
- Reinforcement: Four or six spirals high-tensile steel wire
- Cover: Synthetic rubber

Temperature Range -40 °C up to +125 °C

- Exception: Air max. +70 °C
- Water max. +85 °C



- Interlock technology
- Reinforcement of four or six high tensile steel wires
- Constant working pressure of 35.0 MPa

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series

Internal and external skiving (size -12, -16, -20)



Internal and external skiving (size -24, -32)



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| R35-12 | 19 | 3/4 | -12 | 19.1 | 32.00 | 35.0 | 5000 | 140.0 | 20000 | 220 | 1.5 |
| R35-16 | 25 | 1 | -16 | 25.4 | 39.35 | 35.0 | 5000 | 140.0 | 20000 | 280 | 2.2 |
| R35-20 | 31 | 1 1/4 | -20 | 31.8 | 45.50 | 35.0 | 5000 | 140.0 | 20000 | 380 | 2.6 |
| R35-24 | 38 | 1 1/2 | -24 | 38.1 | 57.30 | 35.0 | 5000 | 140.0 | 20000 | 480 | 4.8 |
| R35-32 | 51 | 2 | -32 | 50.8 | 71.10 | 35.0 | 5000 | 140.0 | 20000 | 600 | 6.7 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



R35TC/RS35TC-48

ParLock Multispiral

Exceeds ISO 3862 Type R13 – Parker Specifications

Primary Applications

General high pressure hydraulic applications

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

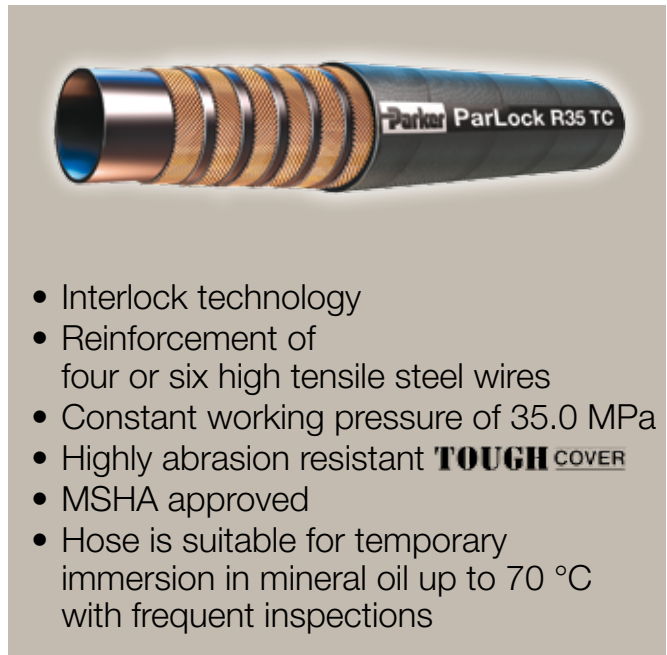
Exceeds ISO 3862 Type R13 – Parker Specifications

Construction

- Tube: Synthetic rubber
- Reinforcement: Four or six spirals high-tensile steel wire
- Cover: High abrasion resistance
MSHA approved synthetic rubber

Temperature Range -40 °C up to +125 °C

- Exception: Air max. +70 °C
- Water max. +85 °C



- Interlock technology
- Reinforcement of four or six high tensile steel wires
- Constant working pressure of 35.0 MPa
- Highly abrasion resistant **TOUGH COVER**
- MSHA approved
- Hose is suitable for temporary immersion in mineral oil up to 70 °C with frequent inspections

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series

Internal and external skiving (size -12, -16, -20)

Internal and external skiving (size -24, -32, -40)

| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|------------------------------|--------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| R35TC-12 | 19 | 3/4 | -12 | 19.1 | 32.00 | 35.0 | 5000 | 140.0 | 20000 | 220 | 1.5 |
| R35TC-16 | 25 | 1 | -16 | 25.4 | 39.35 | 35.0 | 5000 | 140.0 | 20000 | 280 | 2.2 |
| R35TC-20 | 31 | 1 1/4 | -20 | 31.8 | 45.50 | 35.0 | 5000 | 140.0 | 20000 | 380 | 2.6 |
| R35TC-24 | 38 | 1 1/2 | -24 | 38.1 | 57.30 | 35.0 | 5000 | 140.0 | 20000 | 480 | 4.8 |
| R35TC-32 | 51 | 2 | -32 | 50.8 | 71.10 | 35.0 | 5000 | 140.0 | 20000 | 600 | 6.7 |
| R35TC-40 | 63 | 2 1/2 | -40 | 63.5 | 84.50 | 35.0 | 5000 | 140.0 | 20000 | 800 | 9.0 |
| R35TC-48 | 76 | 3 | -48 | 76.2 | 96.00 | 35.0* | 5000* | 88.0 | 12750 | 900 | 10.0 |
| RS35TC-48 | 76 | 3 | -48 | 76.2 | 96.00 | 21.0** | 3040** | 88.0 | 12750 | 900 | 10.0 |

Replace the hose when any deformation or damage on the hose cover are visible. The combination of high temperature and high pressure could reduce the hose life.

* 35 MPa: Static applications according to ISO 6807-D
* 21 MPa: Dynamic hydraulic application safety factor > 4:1

Hose layline example



R42

ParLock Multispiral

Exceeds ISO 3862 Type R15 – Parker Specifications

Primary Applications

General high pressure hydraulic applications

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

Exceeds ISO 3862 Type R15 – Parker Specifications

Construction

- Tube: Synthetic rubber
- Reinforcement: Four or six spirals high-tensile steel wire
- Cover: Synthetic rubber

Temperature Range -40 °C up to +125 °C

- Exception: Air max. +70 °C
- Water max. +85 °C



- Interlock technology
- Reinforcement of four or six high tensile steel wires
- Constant working pressure of 42.0 MPa

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series

Internal and external skiving (size -10, -12, -16)



Internal and external skiving (size -20, -24, -32)



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| R42-10 | 16 | 5/8 | -10 | 15.9 | 28.50 | 42.0 | 6000 | 168.0 | 24000 | 225 | 1.39 |
| R42-12 | 19 | 3/4 | -12 | 19.1 | 32.00 | 42.0 | 6000 | 168.0 | 24000 | 280 | 1.70 |
| R42-16 | 25 | 1 | -16 | 25.4 | 39.00 | 42.0 | 6000 | 168.0 | 24000 | 300 | 2.30 |
| R42-20 | 31 | 1 1/4 | -20 | 31.8 | 50.75 | 42.0 | 6000 | 168.0 | 24000 | 400 | 3.80 |
| R42-24 | 38 | 1 1/2 | -24 | 38.1 | 57.00 | 42.0 | 6000 | 168.0 | 24000 | 500 | 4.80 |
| R42-32 | 51 | 2 | -32 | 50.8 | 71.50 | 42.0 | 6000 | 168.0 | 24000 | 700 | 7.00 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



R42ST

ParLock Multispiral

Exceeds ISO 3862 Type R15 – Parker Specifications

Primary Applications

General high pressure hydraulic applications

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

Exceeds ISO 3862 Type R15 – Parker Specifications

Construction

Tube: Synthetic rubber
Reinforcement: Four or six spirals high-tensile steel wire
Cover: Synthetic rubber with a special polyethylene coating

Temperature Range -40 °C up to +125 °C

Exception: Air max. +70 °C
Water max. +85 °C




- Interlock technology
- Extreme abrasion resistant **SUPER TOUGH** cover
- Reinforcement of four or six high tensile steel wires
- Constant working pressure of 42.0 MPa


Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series

Internal and external skiving (size -10, -12, -16) 

Internal and external skiving (size -20, -24, -32) 

| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|-----------------------|------|---------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure | | min. burst pressure | | | |
| | | | | | | MPa | psi | MPa | psi | | |
| R42ST-10 | 16 | 5/8 | -10 | 15.9 | 28.50 | 42.0 | 6000 | 168.0 | 24000 | 225 | 1.39 |
| R42ST-12 | 19 | 3/4 | -12 | 19.1 | 32.00 | 42.0 | 6000 | 168.0 | 24000 | 280 | 1.70 |
| R42ST-16 | 25 | 1 | -16 | 25.4 | 39.00 | 42.0 | 6000 | 168.0 | 24000 | 300 | 2.30 |
| R42ST-20 | 31 | 1 1/4 | -20 | 31.8 | 50.75 | 42.0 | 6000 | 168.0 | 24000 | 400 | 3.80 |
| R42ST-24 | 38 | 1 1/2 | -24 | 38.1 | 57.00 | 42.0 | 6000 | 168.0 | 24000 | 500 | 4.80 |
| R42ST-32 | 51 | 2 | -32 | 50.8 | 71.50 | 42.0 | 6000 | 168.0 | 24000 | 700 | 7.00 |

The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



R42TC

ParLock Multispiral

Exceeds ISO 3862 Type R15 – Parker Specifications

Primary Applications

General high pressure hydraulic applications

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

Exceeds ISO 3862 Type R15 – Parker Specifications

Construction

- Tube: Synthetic rubber
- Reinforcement: Four or six spirals high-tensile steel wire
- Cover: High abrasion resistance
MSHA approved synthetic rubber

Temperature Range -40 °C up to +125 °C

- Exception: Air max. +70 °C
- Water max. +85 °C



- Interlock technology
- Reinforcement of four or six high tensile steel wires
- Constant working pressure of 42.0 MPa
- Highly abrasion resistant **TOUGH COVER**
- MSHA approved
- Hose is suitable for temporary immersion in mineral oil up to 70 °C with frequent inspections

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series

Internal and external skiving (size -10, -12, -16)



Internal and external skiving (size -20, -24, -32)



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| R42TC-10 | 16 | 5/8 | -10 | 15.9 | 28.50 | 42.0 | 6000 | 168.0 | 24000 | 225 | 1.39 |
| R42TC-12 | 19 | 3/4 | -12 | 19.1 | 32.00 | 42.0 | 6000 | 168.0 | 24000 | 280 | 1.70 |
| R42TC-16 | 25 | 1 | -16 | 25.4 | 39.00 | 42.0 | 6000 | 168.0 | 24000 | 300 | 2.30 |
| R42TC-20 | 31 | 1 1/4 | -20 | 31.8 | 50.75 | 42.0 | 6000 | 168.0 | 24000 | 400 | 3.80 |
| R42TC-24 | 38 | 1 1/2 | -24 | 38.1 | 57.00 | 42.0 | 6000 | 168.0 | 24000 | 500 | 4.80 |
| R42TC-32 | 51 | 2 | -32 | 50.8 | 71.50 | 42.0 | 6000 | 168.0 | 24000 | 700 | 7.00 |

Replace the hose when any deformation or damage on the hose cover are visible. The combination of high temperature and high pressure could reduce the hose life.

Hose layline example

Parker TOUGH COVER R42TC-32 WP 42.0 MPa (6000 PSI) MSHA IC 40/26 | · · ISO 3862 - SAE100R

R50TC/R56TC

ParLock Multispiral

Exceeds ISO 3862 Type R15 – Parker Specifications

Primary Applications

Mobile hydraulic equipment and agricultural machines with typically large constructions.

Type Approvals

Details please find on pages **Ab-16** to **Ab-19**

Applicable Specifications

Exceeds ISO 3862 Type R15 – Parker Specifications

Construction

- Tube: Synthetic rubber
- Reinforcement: Four or six spirals high-tensile steel wire
- Cover: High abrasion resistance
MSHA approved synthetic rubber

Temperature Range -40 °C up to +100 °C

- Exception: Air max. +70 °C
- Water max. +85 °C



- Interlock technology
- Reinforcement of four or six high tensile steel wires
- Constant working pressure of 50.0 MPa (R50TC) and 56.0 MPa (R56TC)
- Highly abrasion resistant **TOUGH COVER**
- MSHA approved
- Hose is suitable for temporary immersion in mineral oil up to 70 °C with frequent inspections

Recommended Fluids

Petroleum and water-glycol based fluids, lubricating oils, air and water. For air above 1.7 MPa, the hose cover must be pin-pricked.

Consult the chemical compatibility section on pages **Ab-22** to **Ab-30** for more detailed information.

Fitting Series Internal and external skiving

R56TC-6 and R56TC-8

R50TC-10 up to -16

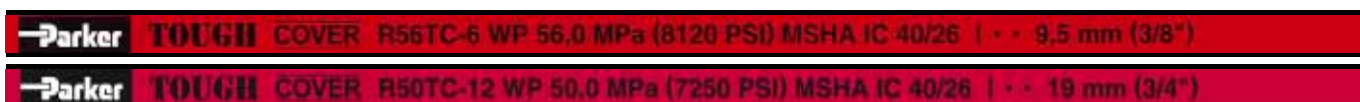
R50TC-20



| Part Number | Hose I.D. | | | | Hose O.D. mm | Pressure Rating | | | | min. bend radius mm | weight kg |
|-------------|-----------|-------|------|------|-----------------|------------------------------|------|----------------------------|-------|------------------------|--------------|
| | DN | Inch | Size | mm | | max. working pressure MPa | psi | min. burst pressure MPa | psi | | |
| R56TC-6 | 10 | 3/8 | -6 | 9.5 | 21.8 | 56.0 | 8100 | 224.0 | 32400 | 130 | 0.95 |
| R56TC-8 | 12 | 1/2 | -8 | 12.7 | 25.5 | 56.0 | 8100 | 224.0 | 32400 | 180 | 1.25 |
| R50TC-10 | 16 | 5/8 | -10 | 15.9 | 28.50 | 50.0 | 7250 | 200.0 | 29000 | 225 | 1.48 |
| R50TC-12 | 19 | 3/4 | -12 | 19.1 | 32.00 | 50.0 | 7250 | 200.0 | 29000 | 270 | 1.85 |
| R50TC-16 | 25 | 1 | -16 | 25.4 | 38.40 | 50.0 | 7250 | 200.0 | 29000 | 300 | 2.70 |
| R50TC-20 | 31 | 1 1/4 | -20 | 31.8 | 52.60 | 50.0 | 7250 | 200.0 | 29000 | 450 | 5.00 |

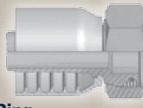


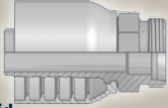



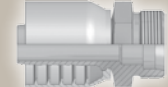
Replace the hose when any deformation or damage on the hose cover are visible. The combination of high temperature and high pressure could reduce the hose life.

Hose layline example



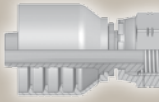


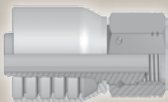
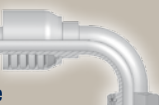
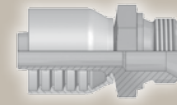
DIN – Metric

Page Db-1 – Db-4

| | | | |
|--|---|--|--|
| <p>CA</p> <p>Db-1</p>  <p>Female Metric 24° Light Series with O-Ring Swivel – Straight ISO 12151-2-SWS-L – DKOL</p> | <p>CE</p> <p>Db-1</p>  <p>Female Metric 24° Light Series with O-Ring Swivel – 45° Elbow ISO 12151-2-SWE 45°-L – DKOL 45°</p> | <p>CF</p> <p>Db-2</p>  <p>Female Metric 24° Light Series with O-Ring Swivel – 90° Elbow ISO 12151-2-SWE-L – DKOL 90°</p> | <p>DO</p> <p>Db-2</p>  <p>Male Metric 24° Light Series – Rigid Straight ISO 12151-2-S-L – CEL</p> |
| <p>C9</p> <p>Db-3</p>  <p>Female Metric 24° – Swivel Heavy Series with O-Ring Straight ISO 12151-2-SWS-S – DKOS</p> | <p>OC</p> <p>Db-3</p>  <p>Female Metric 24° – Swivel Heavy Series with O-Ring 45° Elbow ISO 12151-2 – SWE 45°-S – DKOS 45°</p> | <p>1C</p> <p>Db-4</p>  <p>Female Metric 24° – Swivel Heavy Series with O-Ring 90° Elbow ISO 12151-2-SWE-S – DKOS 90°</p> | <p>D2</p> <p>Db-4</p>  <p>Male Metric 24° – Rigid Heavy Series – Straight ISO 12151-2-S-S – CES</p> |

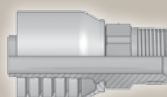
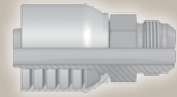
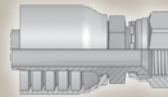
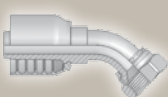
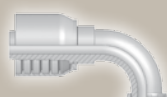
BSP

Page Db-5 – Db-7

| | | | |
|--|---|--|--|
| <p>92</p> <p>Db-5</p>  <p>Female BSP Parallel Pipe Swivel – Straight (60° Cone) BS5200-A – DKR</p> | <p>B1</p> <p>Db-5</p>  <p>Female BSP Parallel Pipe Swivel 45° Elbow (60° Cone) BS 5200-D – DKR 45°</p> | <p>B2</p> <p>Db-6</p>  <p>Female BSP Parallel Pipe Swivel 90° Elbow (60° Cone) BS 5200-B – DKR 90°</p> | <p>EA</p> <p>Db-6</p>  <p>BSP Swivel Female with O-Ring (60° Cone) BS 5200 – ISO 12151-6 – DKOR</p> |
| <p>EC</p> <p>Db-7</p>  <p>BSP Swivel Female with O-Ring 90° Elbow (60° Cone) BS 5200 – ISO 12151-6 – DKOR 90°</p> | <p>D9</p> <p>Db-7</p>  <p>Male BSP Parallel Pipe Rigid – Straight (60° Cone) BS5200 – AGR</p> | | |

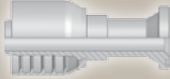
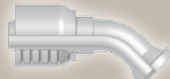
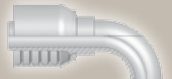
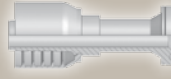
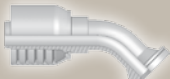
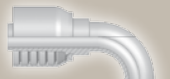

SAE

Page Db-8 – Db-10

| | | | |
|---|---|---|---|
| <p>01</p> <p>Db-8</p>  <p>Male NPTF Pipe Rigid – Straight SAE J476A / J516 – AGN</p> | <p>03</p> <p>Db-8</p>  <p>Male JIC 37° – Rigid Straight ISO12151-5-S – AGJ</p> | <p>06</p> <p>Db-9</p>  <p>Female JIC 37° – Swivel Straight ISO12151-5-SWS – DKJ</p> | <p>37</p> <p>Db-10</p>  <p>Female JIC 37° – Swivel 45° Elbow ISO 12151-5-SWE 45° – DKJ 45°</p> |
| <p>39/3W</p> <p>Db-10</p>  <p>Female JIC 37° SAE 45° – Dual Flare Swivel Female 90° Elbow ISO 12151-5-SWES – DKJ 90°</p> | | | |

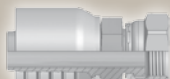
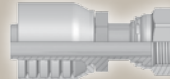
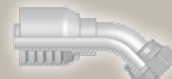
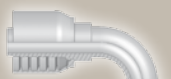
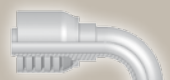

Flange

Page Db-11 – Db-14

| | | | |
|---|--|---|---|
| <p>15 Db-11 ISO 6162-1 Flange Straight ISO 12151-3-S-L – SFL (21.0 MPa/ 3000 psi)</p>  | <p>17 Db-11 ISO 6162-1 Flange 45° Elbow ISO 12151-3 – E45 – L – SFL 45° (21.0 MPa/ 3000 psi)</p>  | <p>19 Db-12 ISO 6162-1 Flange 90° Elbow ISO 12151-3 – E – L – SFL 90° (21.0 MPa/ 3000 psi)</p>  | <p>6A Db-12 ISO 6162-2 Flange Straight ISO 12151-3-S-S – SFS (42.0 MPa/ 6000 psi)</p>  |
| <p>6F Db-13 ISO 6162-2 Flange 45° Elbow – Heavy Series ISO 12151-3 – E45-S – SFS 45° (42.0 MPa/ 6000 psi)</p>  | <p>6N Db-13 ISO 6162-2 Flange 90° Elbow ISO 12151-3 – E-S – SFS 90° (42.0 MPa/ 6000 psi)</p>  | <p>PY Db-14 Flange – 24° Male French Gas Straight</p>  | |

ORFS

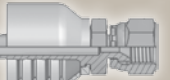
Page Db-15 – Db-17

| | | | |
|--|--|---|--|
| <p>JC Db-15 Female ORFS Swivel – Straight Short ISO 12151-1 – SWSA SAE J516 – ORFS</p>  | <p>JS Db-15 ORFS Swivel Female (Long) ISO 12151-1-SWSB SAE J516 – ORFS</p>  | <p>J7 Db-16 Female ORFS – Swivel 45° Elbow ISO 12151-1 – SWE 45° SAE J516 – ORFS 45°</p>  | <p>J9 Db-16 Female ORFS – Swivel 90° Elbow – Short Drop ISO 12151-1 – SWES SAE J516 – ORFS 90°</p>  |
| <p>J1 Db-17 Female ORFS – Swivel 90° Elbow – Long Drop ISO 12151-1 – SWEL SAE J 516 – ORFS 90° L</p>  | <p>JM Db-17 ORFS Male ISO 12151-1-S – SAE J516</p>  | | |

JIS



Page Db-18

MU
Db-18
Female Metric – Swivel Straight (30° Flare)
JIS B8363 – MU



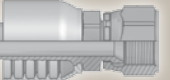
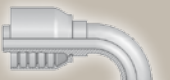
French Standard

Page Db-19

| | |
|---|--|
| <p>FG Db-19 Male French Gas Series Rigid – Straight (24° Cone)</p>  | <p>F4 Db-19 Female French Gas Series Swivel – Straight (Ball Nose)</p>  |
|---|--|

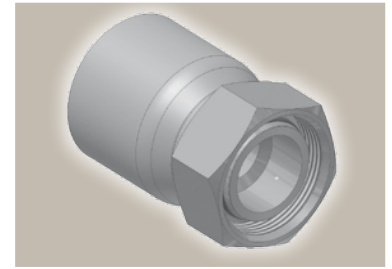
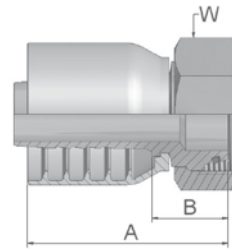
Others

Page Db-20

| | |
|---|--|
| <p>XU Db-20 Female Metric – Swivel Straight (30° Flare) JIS B8363</p>  | <p>XY Db-20 Female Metric – Swivel 90° Elbow (30° Flare) JIS B8363</p>  |
|---|--|

CA Female Metric 24° Light Series with O-Ring Swivel – Straight

ISO 12151-2-SWS-L – DKOL

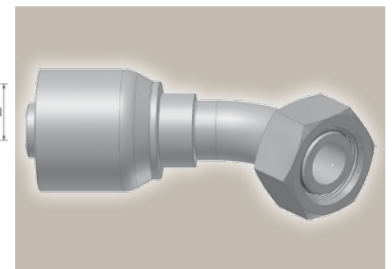
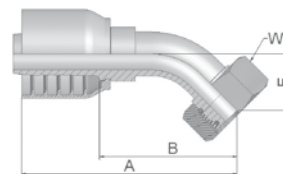


| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | W mm |
|-------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1CA70-10-6 | 10 | 3/8 | -6 | 9.5 | M16x1.5 | 10 | 53 | 24 | 19 |
| 1CA70-12-6 | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 12 | 53 | 24 | 22 |
| 1CA70-15-8 | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 62 | 27 | 27 |
| 1CA70-18-8 | 12 | 1/2 | -8 | 12.7 | M26x1.5 | 18 | 57 | 22 | 32 |
| 1CA70-15-10 | 16 | 5/8 | -10 | 15.9 | M22x1.5 | 15 | 66 | 27 | 27 |
| 1CA70-18-10 | 16 | 5/8 | -10 | 15.9 | M26x1.5 | 18 | 62 | 25 | 32 |
| 1CA70-22-10 | 16 | 5/8 | -10 | 15.9 | M30x2 | 22 | 64 | 24 | 36 |
| 1CA70-18-12 | 19 | 3/4 | -12 | 19.1 | M26x1.5 | 18 | 65 | 26 | 32 |
| 1CA70-22-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 22 | 63 | 24 | 36 |
| 1CA70-28-12 | 19 | 3/4 | -12 | 19.1 | M36x2 | 28 | 66 | 26 | 41 |
| 1CA70-28-16 | 25 | 1 | -16 | 25.4 | M36x2 | 28 | 78 | 33 | 41 |
| 1CA70-35-16 | 25 | 1 | -16 | 25.4 | M45x2 | 35 | 76 | 31 | 50 |

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.
Attention: Hose assembly pressure is reduced; see page Ab-8

CE Female Metric 24° Light Series with O-Ring Swivel – 45° Elbow

ISO 12151-2-SWE 45°-L – DKOL 45°



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | E mm | W mm |
|-------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | | |
| 1CE70-12-6 | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 12 | 69 | 40 | 20 | 22 |
| 1CE70-15-8 | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 85 | 50 | 24 | 27 |
| 1CE70-18-10 | 16 | 5/8 | -10 | 15.9 | M26x1.5 | 18 | 89 | 49 | 23 | 32 |
| 1CE70-22-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 22 | 98 | 58 | 26 | 36 |
| 1CE70-28-16 | 25 | 1 | -16 | 25.4 | M36x2 | 28 | 127 | 80 | 34 | 41 |

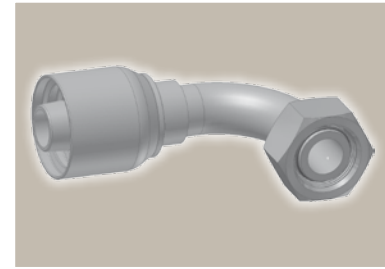
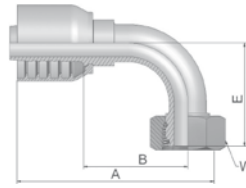
Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.
Attention: Hose assembly pressure is reduced; see page Ab-8

Approved **fitting series** for hose types:

70 | 371LT | 372 | 372RH | 372TC | 701 | F42-8

CF Female Metric 24° Light Series with O-Ring Swivel – 90° Elbow

ISO 12151-2-SWE-L – DKOL 90°

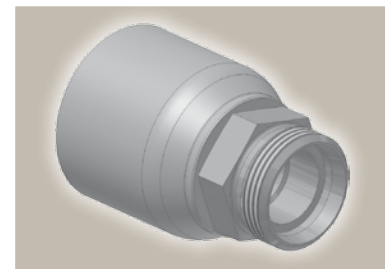
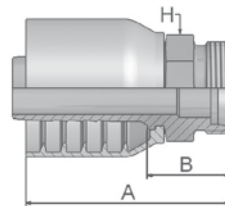


| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | E mm | W mm |
|-------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | | |
| 1CF70-10-6 | 10 | 3/8 | -6 | 9.5 | M16x1.5 | 10 | 67 | 38 | 38 | 19 |
| 1CF70-12-6 | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 12 | 67 | 38 | 37 | 22 |
| 1CF70-15-8 | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 74 | 39 | 45 | 27 |
| 1CF70-18-8 | 12 | 1/2 | -8 | 12.7 | M26x1.5 | 18 | 71 | 36 | 40 | 32 |
| 1CF70-15-10 | 16 | 5/8 | -10 | 15.9 | M22x1.5 | 15 | 79 | 42 | 50 | 27 |
| 1CF70-18-10 | 16 | 5/8 | -10 | 15.9 | M26x1.5 | 18 | 79 | 42 | 49 | 32 |
| 1CF70-18-12 | 19 | 3/4 | -12 | 19.1 | M26x1.5 | 18 | 89 | 49 | 56 | 32 |
| 1CF70-22-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 22 | 89 | 49 | 55 | 36 |
| 1CF70-28-16 | 25 | 1 | -16 | 25.4 | M36x2 | 28 | 114 | 68 | 73 | 41 |
| 1CF70-35-16 | 25 | 1 | -16 | 25.4 | M45x2 | 35 | 115 | 68 | 69 | 50 |

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

DO Male Metric 24° Light Series – Rigid Straight

ISO 12151-2-S-L – CEL



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | H mm |
|-------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1D070-15-8 | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 60 | 26 | 22 |
| 1D070-18-10 | 16 | 5/8 | -10 | 15.9 | M26x1.5 | 18 | 65 | 28 | 27 |
| 1D070-22-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 22 | 69 | 30 | 30 |
| 1D070-28-16 | 25 | 1 | -16 | 25.4 | M36x2 | 28 | 79 | 32 | 36 |

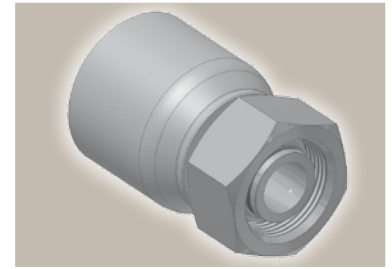
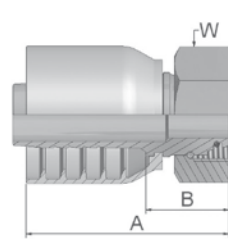
Attention: Hose assembly pressure is reduced; see page Ab-8

Approved **fitting series** for hose types:

70 371LT 372 372RH 372TC 701 F42-8

C9 Female Metric 24° – Swivel Heavy Series with O-Ring Straight

ISO 12151-2-SWS-S – DKOS

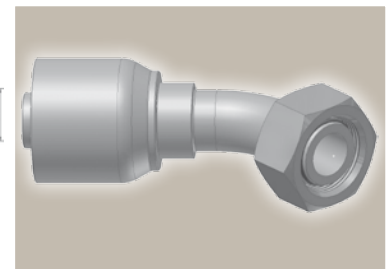
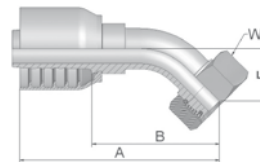


| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | W mm |
|-------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1C970-8-6 | 10 | 3/8 | -6 | 9.5 | M16x1.5 | 8 | 53 | 24 | 19 |
| 1C970-12-6 | 10 | 3/8 | -6 | 9.5 | M20x1.5 | 12 | 52 | 22 | 24 |
| 1C970-14-6 | 10 | 3/8 | -6 | 9.5 | M22x1.5 | 14 | 53 | 24 | 27 |
| 1C970-12-8 | 12 | 1/2 | -8 | 12.7 | M20x1.5 | 12 | 60 | 25 | 24 |
| 1C970-16-8 | 12 | 1/2 | -8 | 12.7 | M24x1.5 | 16 | 59 | 24 | 30 |
| 1C970-20-8 | 12 | 1/2 | -8 | 12.7 | M30x2 | 20 | 59 | 24 | 36 |
| 1C970-16-10 | 16 | 5/8 | -10 | 15.9 | M24x1.5 | 16 | 66 | 27 | 30 |
| 1C970-20-10 | 16 | 5/8 | -10 | 15.9 | M30x2 | 20 | 64 | 27 | 36 |
| 1C970-25-10 | 16 | 5/8 | -10 | 15.9 | M36x2 | 25 | 65 | 29 | 46 |
| 1C970-20-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 20 | 66 | 27 | 36 |
| 1C970-25-12 | 19 | 3/4 | -12 | 19.1 | M36x2 | 25 | 68 | 28 | 46 |
| 1C970-25-16 | 25 | 1 | -16 | 25.4 | M36x2 | 25 | 78 | 33 | 46 |
| 1C970-30-16 | 25 | 1 | -16 | 25.4 | M42x2 | 30 | 80 | 33 | 50 |

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

OC Female Metric 24° – Swivel Heavy Series with O-Ring 45° Elbow

ISO 12151-2 – SWE 45°-S – DKOS 45°



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | E mm | W mm |
|-------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | | |
| 10C70-12-6 | 10 | 3/8 | -6 | 9.5 | M20x1.5 | 12 | 69 | 40 | 20 | 24 |
| 10C70-14-6 | 10 | 3/8 | -6 | 9.5 | M22x1.5 | 14 | 76 | 46 | 20 | 27 |
| 10C70-16-8 | 12 | 1/2 | -8 | 12.7 | M24x1.5 | 16 | 83 | 48 | 24 | 30 |
| 10C70-16-10 | 16 | 5/8 | -10 | 15.9 | M24x1.5 | 16 | 88 | 49 | 22 | 30 |
| 10C70-20-10 | 16 | 5/8 | -10 | 15.9 | M30x2 | 20 | 91 | 52 | 25 | 36 |
| 10C70-25-10 | 16 | 5/8 | -10 | 15.9 | M36x2 | 25 | 92 | 56 | 27 | 46 |
| 10C70-20-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 20 | 99 | 60 | 28 | 36 |
| 10C70-25-12 | 19 | 3/4 | -12 | 19.1 | M36x2 | 25 | 100 | 61 | 29 | 46 |
| 10C70-25-16 | 25 | 1 | -16 | 25.4 | M36x2 | 25 | 123 | 76 | 33 | 46 |
| 10C70-30-16 | 25 | 1 | -16 | 25.4 | M42x2 | 30 | 126 | 79 | 36 | 50 |

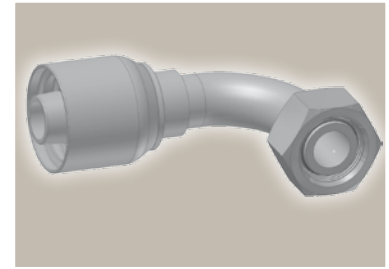
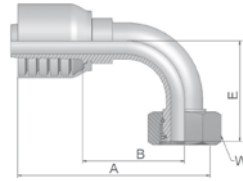
Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

Approved **fitting series** for hose types:

70 | 371LT | 372 | 372RH | 372TC | 701 | F42-8

1C Female Metric 24° – Swivel Heavy Series with O-Ring 90° Elbow

ISO 12151-2-SWE-S – DKOS 90°

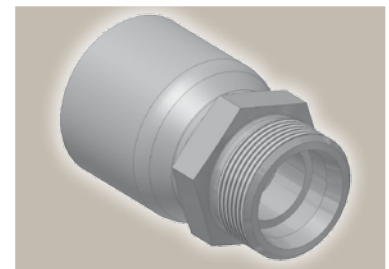
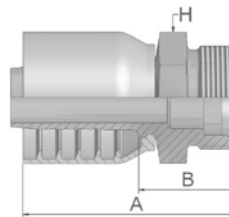


| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | E mm | W mm |
|-------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | | |
| 11C70-8-6 | 10 | 3/8 | -6 | 9.5 | M16x1.5 | 8 | 67 | 38 | 37 | 19 |
| 11C70-12-6 | 10 | 3/8 | -6 | 9.5 | M20x1.5 | 12 | 67 | 38 | 37 | 24 |
| 11C70-14-6 | 10 | 3/8 | -6 | 9.5 | M22x1.5 | 14 | 64 | 35 | 37 | 27 |
| 11C70-16-8 | 12 | 1/2 | -8 | 12.7 | M24x1.5 | 16 | 72 | 37 | 45 | 30 |
| 11C70-20-8 | 12 | 1/2 | -8 | 12.7 | M30x2 | 20 | 75 | 40 | 46 | 36 |
| 11C70-16-10 | 16 | 5/8 | -10 | 15.9 | M24x1.5 | 16 | 79 | 40 | 45 | 30 |
| 11C70-20-10 | 16 | 5/8 | -10 | 15.9 | M30x2 | 20 | 79 | 40 | 48 | 36 |
| 11C70-25-10 | 16 | 5/8 | -10 | 15.9 | M36x2 | 25 | 85 | 46 | 52 | 46 |
| 11C70-20-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 20 | 89 | 50 | 58 | 36 |
| 11C70-25-12 | 19 | 3/4 | -12 | 19.1 | M36x2 | 25 | 89 | 49 | 59 | 46 |
| 11C70-30-12 | 19 | 3/4 | -12 | 19.1 | M42x2 | 30 | 89 | 50 | 60 | 50 |
| 11C70-25-16 | 25 | 1 | -16 | 25.4 | M36x2 | 25 | 109 | 64 | 69 | 46 |
| 11C70-30-16 | 25 | 1 | -16 | 25.4 | M42x2 | 30 | 115 | 68 | 76 | 50 |

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

D2 Male Metric 24° – Rigid Heavy Series – Straight

ISO 12151-2-S-S – CES



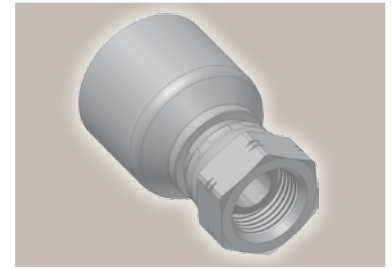
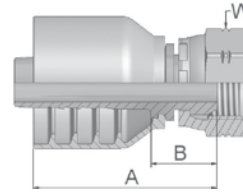
| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | H mm |
|-------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1D270-12-6 | 10 | 3/8 | -6 | 9.5 | M20x1.5 | 12 | 53 | 24 | 22 |
| 1D270-14-6 | 10 | 3/8 | -6 | 9.5 | M22x1.5 | 14 | 55 | 25 | 22 |
| 1D270-16-8 | 12 | 1/2 | -8 | 12.7 | M24x1.5 | 16 | 62 | 28 | 24 |
| 1D270-20-8 | 12 | 1/2 | -8 | 12.7 | M30x2 | 20 | 67 | 32 | 30 |
| 1D270-20-10 | 16 | 5/8 | -10 | 15.9 | M30x2 | 20 | 75 | 32 | 30 |
| 1D270-20-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 20 | 72 | 33 | 30 |
| 1D270-25-12 | 19 | 3/4 | -12 | 19.1 | M36x2 | 25 | 74 | 35 | 36 |
| 1D270-25-16 | 25 | 1 | -16 | 25.4 | M36x2 | 25 | 84 | 37 | 36 |
| 1D270-30-16 | 25 | 1 | -16 | 25.4 | M42x2 | 30 | 85 | 40 | 46 |

Approved **fitting series** for hose types:

70 371LT 372 372RH 372TC 701 F42-8

92 Female BSP Parallel Pipe Swivel – Straight (60° Cone)

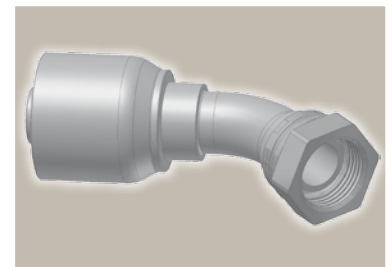
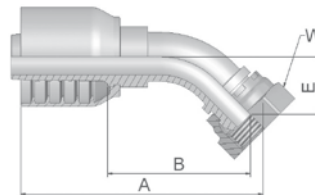
BS5200-A – DKR



| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | W mm |
|-------------|-----------|------|------|------|---------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 19270-6-6 | 10 | 3/8 | -6 | 9.5 | 3/8x19 | 49 | 20 | 22 |
| 19270-8-6 | 10 | 3/8 | -6 | 9.5 | 1/2x14 | 51 | 22 | 27 |
| 19270-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 57 | 22 | 27 |
| 19270-10-8 | 12 | 1/2 | -8 | 12.7 | 5/8x14 | 55 | 20 | 30 |
| 19270-10-10 | 16 | 5/8 | -10 | 15.9 | 5/8x14 | 57 | 21 | 30 |
| 19270-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4x14 | 61 | 22 | 32 |
| 19270-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 61 | 22 | 32 |
| 19270-16-12 | 19 | 3/4 | -12 | 19.1 | 1x11 | 63 | 24 | 41 |
| 19270-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 72 | 25 | 41 |

B1 Female BSP Parallel Pipe Swivel 45° Elbow (60° Cone)

BS 5200-D – DKR 45°



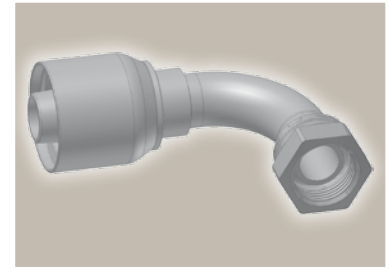
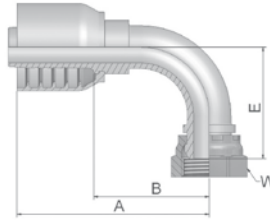
| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | E mm | W mm |
|-------------|-----------|------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1B170-4-6 | 10 | 3/8 | -6 | 9.5 | 1/4x19 | 68 | 39 | 19 | 19 |
| 1B170-6-6 | 10 | 3/8 | -6 | 9.5 | 3/8x19 | 67 | 37 | 17 | 22 |
| 1B170-8-6 | 10 | 3/8 | -6 | 9.5 | 1/2x14 | 68 | 39 | 19 | 27 |
| 1B170-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 79 | 45 | 20 | 27 |
| 1B170-10-8 | 12 | 1/2 | -8 | 12.7 | 5/8x14 | 78 | 43 | 19 | 30 |
| 1B170-10-10 | 16 | 5/8 | -10 | 15.9 | 5/8x14 | 89 | 50 | 23 | 30 |
| 1B170-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4x14 | 88 | 49 | 22 | 32 |
| 1B170-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 96 | 57 | 25 | 32 |
| 1B170-16-12 | 19 | 3/4 | -12 | 19.1 | 1x11 | 95 | 56 | 24 | 41 |
| 1B170-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 121 | 77 | 33 | 41 |

Approved fitting series for hose types:

70 371LT 372 372RH 372TC 701 F42-8

B2 Female BSP Parallel Pipe Swivel 90° Elbow (60° Cone)

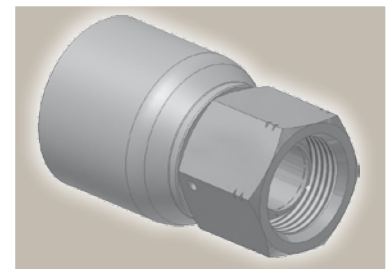
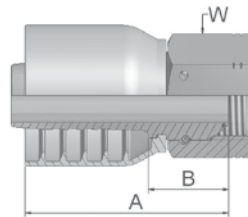
BS 5200-B – DKR 90°



| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | E mm | W mm |
|-------------|-----------|------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1B270-6-6 | 10 | 3/8 | -6 | 9.5 | 3/8x19 | 66 | 37 | 33 | 22 |
| 1B270-8-6 | 10 | 3/8 | -6 | 9.5 | 1/2x14 | 66 | 37 | 35 | 27 |
| 1B270-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 70 | 35 | 39 | 27 |
| 1B270-10-8 | 12 | 1/2 | -8 | 12.7 | 5/8x14 | 74 | 39 | 38 | 30 |
| 1B270-10-10 | 16 | 5/8 | -10 | 15.9 | 5/8x14 | 81 | 41 | 46 | 30 |
| 1B270-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4x14 | 92 | 52 | 59 | 32 |
| 1B270-16-10 | 16 | 5/8 | -10 | 15.9 | 1x11 | 86 | 46 | 44 | 41 |
| 1B270-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 89 | 50 | 53 | 32 |
| 1B270-16-12 | 19 | 3/4 | -12 | 19.1 | 1x11 | 89 | 49 | 51 | 41 |
| 1B270-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 116 | 69 | 69 | 41 |

EA BSP Swivel Female with O-Ring (60° Cone)

BS 5200 – ISO 12151-6 – DKOR



| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | W mm |
|-------------|-----------|------|------|------|---------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 1EA70-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 56 | 21 | 27 |
| 1EA70-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 63 | 23 | 32 |
| 1EA70-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 77 | 31 | 41 |

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

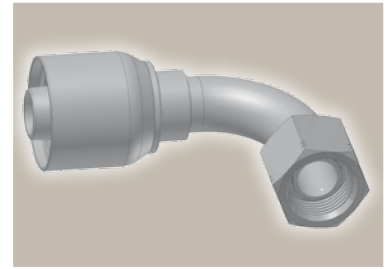
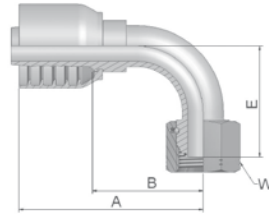
Approved **fitting series** for hose types:

70 371LT 372 372RH 372TC 701 F42-8

EC

**BSP Swivel Female
with O-Ring
90° Elbow (60° Cone)**

BS 5200 – ISO 12151-6 – DKOR 90°



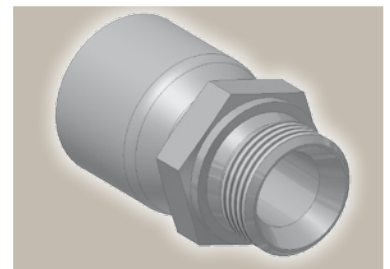
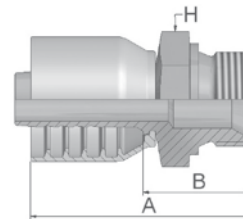
| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | E mm | W mm |
|-------------|-----------|------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1EC70-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 71 | 36 | 40 | 27 |
| 1EC70-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 89 | 49 | 55 | 32 |
| 1EC70-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 115 | 68 | 71 | 41 |

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

D9

**Male BSP Parallel Pipe
Rigid – Straight (60° Cone)**

BS5200 – AGR



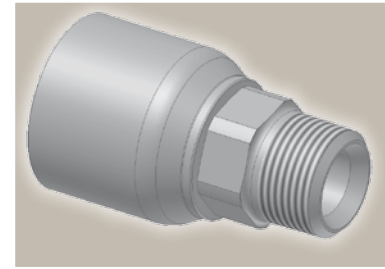
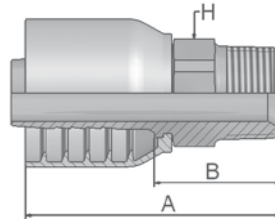
| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | H mm |
|-------------|-----------|------|------|------|---------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 1D970-6-6 | 10 | 3/8 | -6 | 9.5 | 3/8x19 | 57 | 28 | 22 |
| 1D970-8-6 | 10 | 3/8 | -6 | 9.5 | 1/2x14 | 60 | 31 | 27 |
| 1D970-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 62 | 28 | 27 |
| 1D970-10-8 | 12 | 1/2 | -8 | 12.7 | 5/8x14 | 70 | 36 | 30 |
| 1D970-12-8 | 12 | 1/2 | -8 | 12.7 | 3/4x14 | 69 | 35 | 32 |
| 1D970-10-10 | 16 | 5/8 | -10 | 15.9 | 5/8x14 | 75 | 36 | 30 |
| 1D970-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4x14 | 72 | 35 | 32 |
| 1D970-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 72 | 33 | 32 |
| 1D970-16-12 | 19 | 3/4 | -12 | 19.1 | 1x11 | 77 | 38 | 41 |
| 1D970-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 85 | 40 | 41 |

Approved **fitting series** for hose types:

70 371LT 372 372RH 372TC 701 F42-8

01 Male NPTF Pipe Rigid – Straight

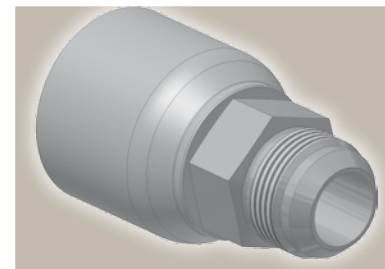
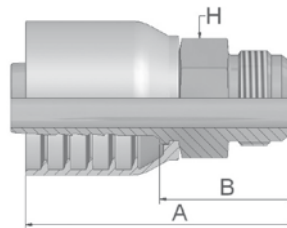
SAE J476A / J516 – AGN



| Part Number | Hose I.D. | | | | Thread NPTF | A mm | B mm | H mm |
|----------------|-----------|------|------|------|----------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 10170-6-6-SM | 10 | 3/8 | -6 | 9.5 | 3/8x18 | 60 | 31 | 19 |
| 10170-12-8-SM | 12 | 1/2 | -8 | 12.7 | 3/4x14 | 68 | 33 | 27 |
| 10170-8-10-SM | 16 | 5/8 | -10 | 15.9 | 1/2x14 | 75 | 38 | 24 |
| 10170-12-10-SM | 16 | 5/8 | -10 | 15.9 | 3/4x14 | 71 | 34 | 27 |
| 10170-12-12-SM | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 79 | 39 | 27 |
| 10170-16-12-SM | 19 | 3/4 | -12 | 19.1 | 1x11 1/2 | 79 | 39 | 36 |
| 10170-16-16-SM | 25 | 1 | -16 | 25.4 | 1x11 1/2 | 93 | 46 | 36 |

03 Male JIC 37° – Rigid Straight

ISO12151-5-S – AGJ



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | H mm |
|----------------|-----------|------|------|------|---------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 10370-6-6-SM | 10 | 3/8 | -6 | 9.5 | 9/16x18 | 60 | 31 | 19 |
| 10370-8-6-SM | 10 | 3/8 | -6 | 9.5 | 3/4x16 | 59 | 29 | 19 |
| 10370-8-8-SM | 12 | 1/2 | -8 | 12.7 | 3/4x16 | 68 | 33 | 22 |
| 10370-10-8-SM | 12 | 1/2 | -8 | 12.7 | 7/8x14 | 67 | 32 | 24 |
| 10370-12-8-SM | 12 | 1/2 | -8 | 12.7 | 1 1/16x12 | 71 | 36 | 27 |
| 10370-10-10-SM | 16 | 5/8 | -10 | 15.9 | 7/8x14 | 75 | 38 | 24 |
| 10370-12-10-SM | 16 | 5/8 | -10 | 15.9 | 1 1/16x12 | 75 | 36 | 27 |
| 10370-12-12-SM | 19 | 3/4 | -12 | 19.1 | 1 1/16x12 | 82 | 42 | 27 |
| 10370-16-12-SM | 19 | 3/4 | -12 | 19.1 | 1 5/16x12 | 77 | 38 | 36 |
| 10370-16-16-SM | 25 | 1 | -16 | 25.4 | 1 5/16x12 | 94 | 47 | 36 |

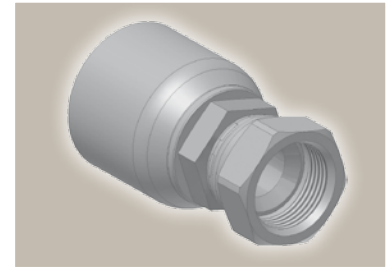
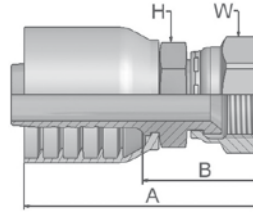
Approved **fitting series** for hose types:

70 371LT 372 372RH 372TC 701 F42-8

06

**Female JIC 37° – Swivel
Straight**

ISO12151-5-SWS – DKJ



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | H mm | W mm |
|----------------|-----------|------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 10670-6-6-SM | 10 | 3/8 | -6 | 9.5 | 9/16x18 | 58 | 29 | 17 | 19 |
| 10670-8-6-SM | 10 | 3/8 | -6 | 9.5 | 3/4x16 | 61 | 32 | 19 | 22 |
| 10670-8-8-SM* | 12 | 1/2 | -8 | 12.7 | 3/4x16 | 67 | 32 | 22 | 22 |
| 10670-12-8-SM | 12 | 1/2 | -8 | 12.7 | 1 1/16x12 | 71 | 36 | 27 | 32 |
| 10670-10-10-SM | 16 | 5/8 | -10 | 15.9 | 7/8x14 | 75 | 35 | 24 | 27 |
| 10670-12-10-SM | 16 | 5/8 | -10 | 15.9 | 1 1/16x12 | 79 | 39 | 27 | 32 |
| 10670-12-12-SM | 19 | 3/4 | -12 | 19.1 | 1 1/16x12 | 80 | 41 | 27 | 32 |
| 10670-14-12-SM | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 81 | 42 | 32 | 36 |
| 10670-16-12-SM | 19 | 3/4 | -12 | 19.1 | 1 5/16x12 | 84 | 45 | 32 | 41 |
| 10670-12-16-SM | 25 | 1 | -16 | 25.4 | 1 1/16x12 | 89 | 44 | 36 | 32 |
| 10670-16-16-SM | 25 | 1 | -16 | 25.4 | 1 5/16x12 | 94 | 47 | 36 | 41 |
| 10670-20-16-SM | 25 | 1 | -16 | 25.4 | 1 5/8x12 | 98 | 52 | 41 | 50 |

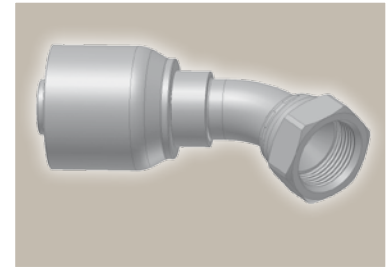
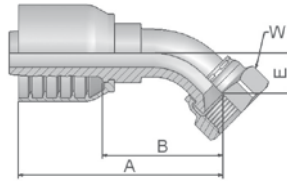
* These fittings contain a dual seat that accepts both JIC (37°) and SAE (45°) male configurations.

Approved **fitting series** for hose types:

70 371LT | 372 | 372RH | 372TC | 701 | F42-8

37 Female JIC 37° – Swivel 45° Elbow

ISO 12151-5-SWE 45° – DKJ 45°

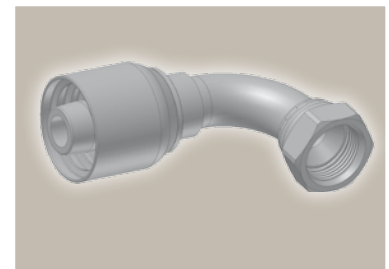
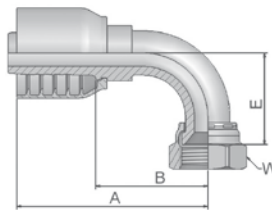


| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | E mm | W mm |
|-----------------|-----------|------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 13770-6-6-SM | 10 | 3/8 | -6 | 9.5 | 9/16x18 | 61 | 32 | 11 | 19 |
| 13770-8-6-SM* | 10 | 3/8 | -6 | 9.5 | 3/4x16 | 70 | 41 | 14 | 22 |
| 13770-8-8-SM* | 12 | 1/2 | -8 | 12.7 | 3/4x16 | 73 | 38 | 14 | 22 |
| 13770-10-8-SM* | 12 | 1/2 | -8 | 12.7 | 7/8x14 | 78 | 43 | 17 | 27 |
| 13770-8-10-SM* | 16 | 5/8 | -10 | 15.9 | 3/4x16 | 78 | 39 | 15 | 22 |
| 13770-10-10-SM* | 16 | 5/8 | -10 | 15.9 | 7/8x14 | 83 | 42 | 16 | 27 |
| 13770-12-10-SM | 16 | 5/8 | -10 | 15.9 | 1 1/16x12 | 88 | 48 | 21 | 32 |
| 13770-12-12-SM | 19 | 3/4 | -12 | 19.1 | 1 1/16x12 | 91 | 52 | 20 | 32 |
| 13770-16-16-SM | 25 | 1 | -16 | 25.4 | 1 5/16x12 | 111 | 66 | 24 | 41 |
| 13770-20-16-SM | 25 | 1 | -16 | 25.4 | 1 5/8x12 | 114 | 67 | 26 | 50 |

* These fittings contain a dual seat that accepts both JIC (37°) and SAE (45°) male configurations.

39/3W Female JIC 37° SAE 45° – Dual Flare Swivel Female 90° Elbow

ISO 12151-5-SWES – DKJ 90°



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | E mm | W mm |
|----------------|-----------|------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 13970-6-6-SM | 10 | 3/8 | -6 | 9.5 | 9/16x18 | 57 | 28 | 23 | 19 |
| 13W70-8-6-SM | 10 | 3/8 | -6 | 9.5 | 3/4x16 | 64 | 35 | 29 | 22 |
| 13970-6-8-SM | 12 | 1/2 | -8 | 12.7 | 9/16x18 | 64 | 29 | 22 | 19 |
| 13970-12-10-SM | 16 | 5/8 | -10 | 15.9 | 1 1/16x12 | 87 | 48 | 48 | 32 |
| 13970-12-12-SM | 19 | 3/4 | -12 | 19.1 | 1 1/16x12 | 89 | 50 | 48 | 32 |
| 13970-16-12-SM | 19 | 3/4 | -12 | 19.1 | 1 5/16x12 | 89 | 50 | 51 | 41 |
| 13970-12-16-SM | 25 | 1 | -16 | 25.4 | 1 1/16x12 | 99 | 54 | 46 | 32 |
| 13970-16-16-SM | 25 | 1 | -16 | 25.4 | 1 5/16x12 | 109 | 64 | 56 | 41 |
| 13970-20-16-SM | 25 | 1 | -16 | 25.4 | 1 5/8x12 | 111 | 64 | 62 | 50 |

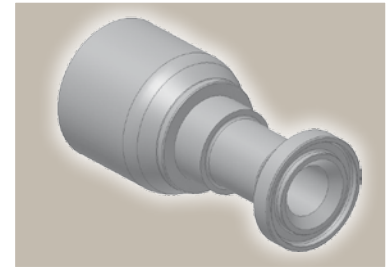
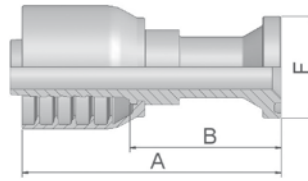
* These fittings contain a dual seat that accepts both JIC (37°) and SAE (45°) male configurations.

Approved **fitting series** for hose types:

70 371LT 372 372RH 372TC 701 F42-8

15 ISO 6162-1 Flange Straight

ISO 12151-3-S-L – SFL
(21.0 MPa/ 3000 psi)



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | F mm |
|-------------|-----------|------|------|------|----------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 11570-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2 | 89 | 54 | 30 |
| 11570-10-10 | 16 | 5/8 | -10 | 15.9 | 5/8 | 116 | 79 | 34 |
| 11570-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4 | 69 | 30 | 38 |
| 11570-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 98 | 59 | 38 |
| 11570-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 70 | 31 | 45 |
| 11570-20-12 | 19 | 3/4 | -12 | 19.1 | 1 1/4 | 75 | 36 | 51 |
| 11570-12-16 | 25 | 1 | -16 | 25.4 | 3/4 | 111 | 66 | 38 |
| 11570-16-16 | 25 | 1 | -16 | 25.4 | 1 | 108 | 63 | 45 |
| 11570-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 82 | 36 | 51 |

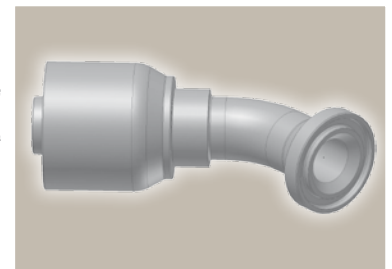
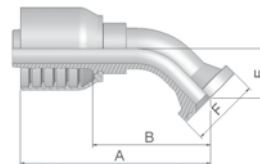
SAE flange halves see in section Eb.

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.

O-rings see section Eb. Special O-rings are available on request.

17 ISO 6162-1 Flange 45° Elbow

ISO 12151-3 – E45 – L – SFL 45°
(21.0 MPa/ 3000 psi)



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 11770-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2 | 79 | 44 | 20 | 30 |
| 11770-10-10 | 16 | 5/8 | -10 | 15.9 | 5/8 | 104 | 67 | 24 | 34 |
| 11770-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4 | 96 | 57 | 26 | 38 |
| 11770-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 98 | 58 | 26 | 38 |
| 11770-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 97 | 57 | 25 | 45 |
| 11770-16-16 | 25 | 1 | -16 | 25.4 | 1 | 119 | 73 | 27 | 45 |
| 11770-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 121 | 76 | 32 | 51 |

SAE flange halves see in section Eb.

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.

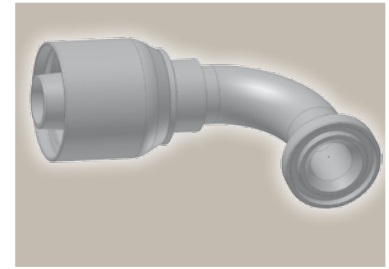
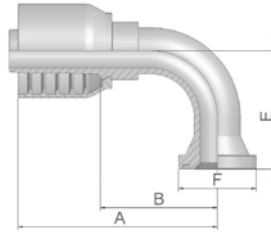
O-rings see section Eb. Special O-rings are available on request.

Approved **fitting series** for hose types:

70 371LT 372 372RH 372TC 701 F42-8

19 ISO 6162-1 Flange 90° Elbow

ISO 12151-3 – E- L – SFL 90°
(21.0 MPa/ 3000 psi)



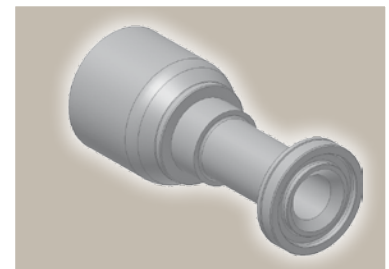
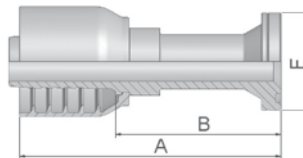
| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 11970-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2 | 75 | 40 | 41 | 30 |
| 11970-12-8 | 12 | 1/2 | -8 | 12.7 | 3/4 | 77 | 42 | 42 | 38 |
| 11970-10-10 | 16 | 5/8 | -10 | 15.9 | 5/8 | 92 | 55 | 55 | 34 |
| 11970-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4 | 95 | 65 | 54 | 38 |
| 11970-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 89 | 50 | 58 | 38 |
| 11970-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 90 | 50 | 58 | 45 |
| 11970-16-16 | 25 | 1 | -16 | 25.4 | 1 | 105 | 55 | 61 | 45 |
| 11970-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 113 | 68 | 70 | 51 |

SAE flange halves see in section Eb.

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

6A ISO 6162-2 Flange Straight

ISO 12151-3-S-S – SFS
(42.0 MPa/ 6000 psi)



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | F mm |
|-------------|-----------|------|------|------|----------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 16A70-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2 | 103 | 68 | 32 |
| 16A70-12-8 | 12 | 1/2 | -8 | 12.7 | 3/4 | 105 | 70 | 41 |
| 16A70-8-10 | 16 | 5/8 | -10 | 15.9 | 1/2 | 107 | 68 | 32 |
| 16A70-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4 | 117 | 78 | 41 |
| 16A70-8-12 | 19 | 3/4 | -12 | 19.1 | 1/2 | 107 | 67 | 32 |
| 16A70-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 105 | 66 | 41 |
| 16A70-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 110 | 70 | 48 |
| 16A70-12-16 | 25 | 1 | -16 | 25.4 | 3/4 | 127 | 82 | 41 |
| 16A70-16-16 | 25 | 1 | -16 | 25.4 | 1 | 127 | 82 | 48 |
| 16A70-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 127 | 82 | 54 |

SAE flange halves see in section Eb.

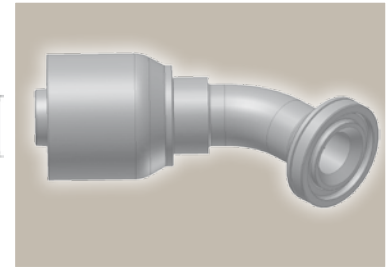
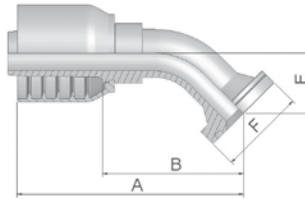
Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

Approved **fitting series** for hose types:

70 371LT 372 372RH 372TC 701 F42-8

6F ISO 6162-2 Flange 45° Elbow – Heavy Series

ISO 12151-3 – E45-S – SFS 45°
(42.0 MPa/ 6000 psi)



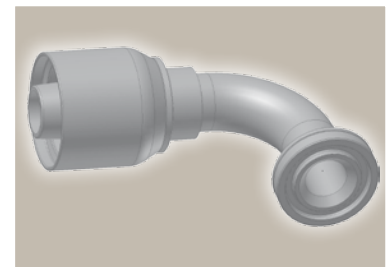
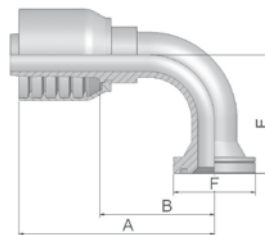
| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 16F70-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2 | 81 | 46 | 19 | 32 |
| 16F70-12-8 | 12 | 1/2 | -8 | 12.7 | 3/4 | 90 | 55 | 26 | 41 |
| 16F70-8-10 | 16 | 5/8 | -10 | 15.9 | 1/2 | 92 | 53 | 26 | 32 |
| 16F70-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4 | 92 | 55 | 26 | 41 |
| 16F70-8-12 | 19 | 3/4 | -12 | 19.1 | 1/2 | 94 | 54 | 26 | 32 |
| 16F70-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 105 | 66 | 26 | 41 |
| 16F70-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 101 | 62 | 26 | 48 |
| 16F70-12-16 | 25 | 1 | -16 | 25.4 | 3/4 | 118 | 73 | 27 | 41 |
| 16F70-16-16 | 25 | 1 | -16 | 25.4 | 1 | 117 | 77 | 27 | 48 |
| 16F70-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 117 | 70 | 31 | 54 |

SAE flange halves see in section Eb.

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

6N ISO 6162-2 Flange 90° Elbow

ISO 12151-3 – E-S – SFS 90°
(42.0 MPa/ 6000 psi)



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 16N70-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2 | 74 | 39 | 41 | 32 |
| 16N70-12-8 | 12 | 1/2 | -8 | 12.7 | 3/4 | 79 | 44 | 45 | 41 |
| 16N70-8-10 | 16 | 5/8 | -10 | 15.9 | 1/2 | 95 | 56 | 54 | 32 |
| 16N70-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4 | 92 | 55 | 54 | 41 |
| 16N70-16-10 | 16 | 5/8 | -10 | 15.9 | 1 | 86 | 46 | 54 | 48 |
| 16N70-8-12 | 19 | 3/4 | -12 | 19.1 | 1/2 | 81 | 42 | 54 | 32 |
| 16N70-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 98 | 58 | 54 | 41 |
| 16N70-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 92 | 53 | 53 | 48 |
| 16N70-12-16 | 25 | 1 | -16 | 25.4 | 3/4 | 113 | 66 | 57 | 41 |
| 16N70-16-16 | 25 | 1 | -16 | 25.4 | 1 | 111 | 64 | 70 | 48 |
| 16N70-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 115 | 68 | 68 | 54 |

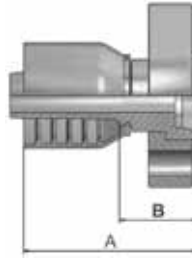
SAE flange halves see in section Eb.


Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

Approved **fitting series** for hose types:

70 371LT 372 372RH 372TC 701 F42-8

PY **Flange – 24° Male
French Gas
Straight**



| Part Number |  Hose I.D. | | | | A mm | B mm |
|-------------|--|------|------|------|---------|---------|
| | DN | Inch | Size | mm | | |
| 1PY70-10-10 | 16 | 5/8 | -10 | 15.9 | 63 | 24 |
| 1PY70-12-12 | 19 | 3/4 | -12 | 19.1 | 69 | 30 |
| 1PY70-16-16 | 25 | 1 | -16 | 25.4 | 87 | 41 |

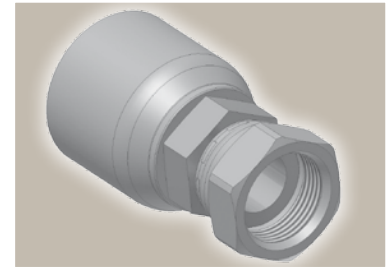
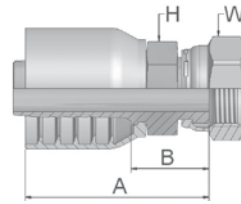
Approved **fitting series** for hose types:

70 371LT 372 372RH 372TC 701 F42-8

JC

Female ORFS Swivel – Straight Short

ISO 12151-1 – SWSA
SAE J516 – ORFS

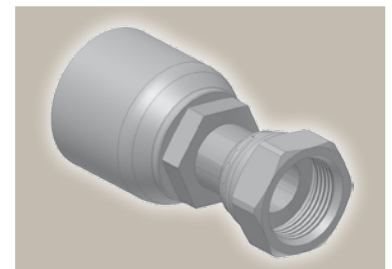
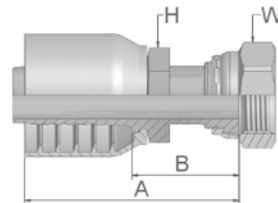


| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | H mm | W mm |
|----------------|-----------|------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1JC70-6-6-SM | 10 | 3/8 | -6 | 9.5 | 11/16x16 | 49 | 20 | 19 | 22 |
| 1JC70-8-6-SM | 10 | 3/8 | -6 | 9.5 | 13/16x16 | 51 | 22 | 19 | 24 |
| 1JC70-8-8-SM | 12 | 1/2 | -8 | 12.7 | 13/16x16 | 56 | 24 | 13/16 | 15/16 |
| 1JC70-10-8-SM | 12 | 1/2 | -8 | 12.7 | 1x14 | 58 | 24 | 24 | 30 |
| 1JC70-12-8-SM | 12 | 1/2 | -8 | 12.7 | 1 3/16x12 | 63 | 28 | 32 | 36 |
| 1JC70-8-10-SM | 16 | 5/8 | -10 | 15.9 | 13/16x16 | 59 | 22 | 22 | 24 |
| 1JC70-10-10-SM | 16 | 5/8 | -10 | 15.9 | 1x14 | 64 | 24 | 24 | 30 |
| 1JC70-12-10-SM | 16 | 5/8 | -10 | 15.9 | 1 3/16x12 | 68 | 29 | 32 | 36 |
| 1JC70-8-12-SM | 19 | 3/4 | -12 | 19.1 | 13/16x16 | 61 | 22 | 27 | 24 |
| 1JC70-12-12-SM | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 68 | 29 | 32 | 36 |
| 1JC70-16-12-SM | 19 | 3/4 | -12 | 19.1 | 1 7/16x12 | 72 | 33 | 36 | 41 |
| 1JC70-12-16-SM | 25 | 1 | -16 | 25.4 | 13/16x12 | 76 | 31 | 36 | 36 |
| 1JC70-16-16-SM | 25 | 1 | -16 | 25.4 | 1 7/16x12 | 80 | 35 | 36 | 41 |
| 1JC70-20-16-SM | 25 | 1 | -16 | 25.4 | 1 11/16x12 | 79 | 34 | 41 | 50 |

JS

ORFS Swivel Female (Long)

ISO 12151-1-SWSB
SAE J516 – ORFS



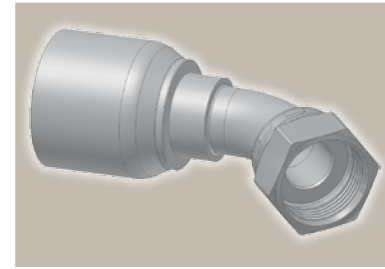
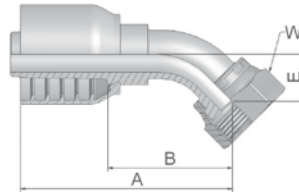
| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | H mm | W mm |
|----------------|-----------|------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1JS70-6-6-SM | 10 | 3/8 | -6 | 9.5 | 11/16x16 | 58 | 29 | 17 | 22 |
| 1JS70-8-6-SM | 10 | 3/8 | -6 | 9.5 | 13/16x16 | 64 | 35 | 19 | 24 |
| 1JS70-8-8-SM | 12 | 1/2 | -8 | 12.7 | 13/16x16 | 67 | 33 | 22 | 24 |
| 1JS70-10-8-SM | 12 | 1/2 | -8 | 12.7 | 1x14 | 73.5 | 38.5 | 24 | 30 |
| 1JS70-10-10-SM | 16 | 5/8 | -10 | 15.9 | 1x14 | 79 | 39 | 24 | 30 |
| 1JS70-12-12-SM | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 84 | 45 | 30 | 36 |
| 1JS70-16-12-SM | 19 | 3/4 | -12 | 19.1 | 1 7/16x12 | 86 | 47 | 36 | 41 |
| 1JS70-16-16-SM | 25 | 1 | -16 | 25.4 | 1 7/16x12 | 98 | 53 | 36 | 41 |
| 1JS70-20-16-SM | 25 | 1 | -16 | 25.4 | 1 11/16x12 | 94 | 47 | 41 | 50 |

Approved fitting series for hose types:

70 371LT 372 372RH 372TC 701 F42-8

J7 Female ORFS – Swivel 45° Elbow

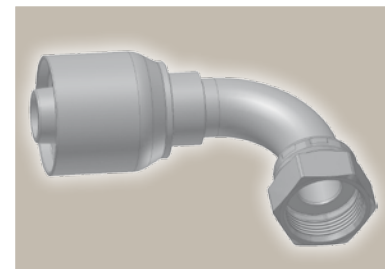
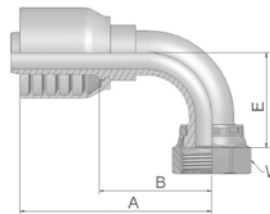
ISO 12151-1 – SWE 45°
SAE J516 – ORFS 45°



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | E mm | W mm |
|----------------|-----------|------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1J770-6-6-SM | 10 | 3/8 | -6 | 9.5 | 11/16x16 | 62 | 33 | 11 | 22 |
| 1J770-8-6-SM | 10 | 3/8 | -6 | 9.5 | 13/16x16 | 64 | 35 | 15 | 24 |
| 1J770-6-8-SM | 12 | 1/2 | -8 | 12.7 | 11/16x16 | 68 | 33 | 11 | 22 |
| 1J770-8-8-SM | 12 | 1/2 | -8 | 12.7 | 13/16x16 | 72 | 37 | 15 | 24 |
| 1J770-10-8-SM | 12 | 1/2 | -8 | 12.7 | 1x14 | 80 | 46 | 17 | 30 |
| 1J770-10-10-SM | 16 | 5/8 | -10 | 15.9 | 1x14 | 83 | 44 | 16 | 30 |
| 1J770-12-10-SM | 16 | 5/8 | -10 | 15.9 | 1 3/16x12 | 90 | 53 | 21 | 36 |
| 1J770-12-12-SM | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 92 | 53 | 21 | 36 |
| 1J770-16-12-SM | 19 | 3/4 | -12 | 19.1 | 1 7/16x12 | 95 | 56 | 24 | 41 |
| 1J770-16-16-SM | 25 | 1 | -16 | 25.4 | 1 7/16x12 | 113 | 66 | 24 | 41 |

J9 Female ORFS – Swivel 90° Elbow – Short Drop

ISO 12151-1 – SWES
SAE J516 – ORFS 90°



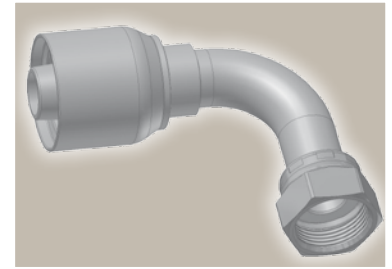
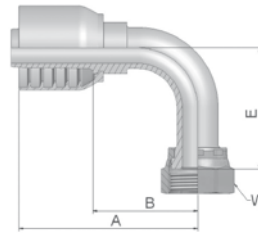
| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | E mm | W mm |
|----------------|-----------|------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1J970-6-6-SM | 10 | 3/8 | -6 | 9.5 | 11/16x16 | 58 | 29 | 23 | 22 |
| 1J970-8-6-SM | 10 | 3/8 | -6 | 9.5 | 13/16x16 | 58 | 29 | 29 | 24 |
| 1J970-8-8-SM | 12 | 1/2 | -8 | 12.7 | 13/16x16 | 70 | 35 | 29 | 24 |
| 1J970-10-8-SM | 12 | 1/2 | -8 | 12.7 | 1x14 | 73 | 38 | 32 | 30 |
| 1J970-12-8-SM | 12 | 1/2 | -8 | 12.7 | 1 3/16x12 | 76 | 41 | 48 | 36 |
| 1J970-10-10-SM | 16 | 5/8 | -10 | 15.9 | 1x14 | 78 | 39 | 33 | 30 |
| 1J970-12-10-SM | 16 | 5/8 | -10 | 15.9 | 1 3/16x12 | 86 | 50 | 48 | 36 |
| 1J970-12-12-SM | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 89 | 49 | 48 | 36 |
| 1J970-16-12-SM | 19 | 3/4 | -12 | 19.1 | 1 7/16x12 | 89 | 49 | 56 | 41 |
| 1J970-16-16-SM | 25 | 1 | -16 | 25.4 | 1 7/16x12 | 111 | 64 | 56 | 41 |
| 1J970-20-16-SM | 25 | 1 | -16 | 25.4 | 1 11/16x12 | 111 | 64 | 64 | 50 |

Approved **fitting series** for hose types:

70 371LT 372 372RH 372TC 701 F42-8

J1 Female ORFS – Swivel 90° Elbow – Long Drop

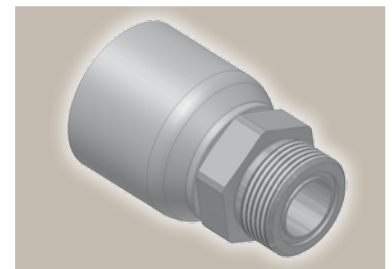
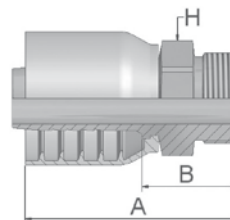
ISO 12151-1 – SWEL
SAE J 516 – ORFS 90° L



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | E mm | W mm |
|----------------|-----------|------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1J170-8-8-SM | 12 | 1/2 | -8 | 12.7 | 13/16x16 | 71 | 36 | 64 | 24 |
| 1J170-10-8-SM | 12 | 1/2 | -8 | 12.7 | 1x14 | 73 | 38 | 70 | 30 |
| 1J170-10-10-SM | 16 | 5/8 | -10 | 15.9 | 1x14 | 78 | 39 | 70 | 30 |
| 1J170-12-10-SM | 16 | 5/8 | -10 | 15.9 | 1 3/16x12 | 76 | 40 | 96 | 36 |
| 1J170-12-12-SM | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 89 | 49 | 96 | 36 |
| 1J170-16-16-SM | 25 | 1 | -16 | 25.4 | 1 7/16x12 | 109 | 64 | 114 | 41 |

JM ORFS Male

ISO 12151-1-S – SAE J516



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | H mm |
|----------------|-----------|------|------|------|---------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 1JM70-6-6-SM | 10 | 3/8 | -6 | 9.5 | 11/16x16 | 53 | 24 | 19 |
| 1JM70-8-6-SM | 10 | 3/8 | -6 | 9.5 | 13/16x16 | 56 | 27 | 22 |
| 1JM70-8-8-SM | 12 | 1/2 | -8 | 12.7 | 13/16x16 | 62 | 27 | 22 |
| 1JM70-10-8-SM | 12 | 1/2 | -8 | 12.7 | 1x14 | 66 | 32 | 27 |
| 1JM70-10-10-SM | 16 | 5/8 | -10 | 15.9 | 1x14 | 68 | 32 | 27 |
| 1JM70-12-10-SM | 16 | 5/8 | -10 | 15.9 | 1 3/16x12 | 71 | 34 | 32 |
| 1JM70-12-12-SM | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 74 | 34 | 32 |
| 1JM70-16-12-SM | 19 | 3/4 | -12 | 19.1 | 1 7/16x12 | 74 | 35 | 41 |
| 1JM70-16-16-SM | 25 | 1 | -16 | 25.4 | 1 7/16x12 | 84 | 39 | 41 |
| 1JM70-20-16-SM | 25 | 1 | -16 | 25.4 | 1 11/16x12 | 82 | 37 | 46 |

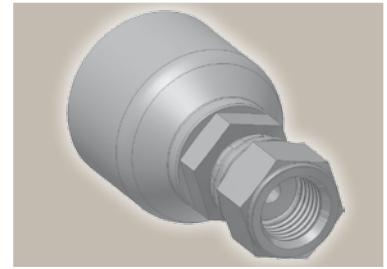
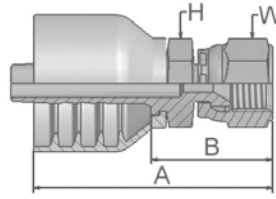
JM fittings are supplied without O-ring.
O-rings see section Eb. Special O-rings are available on request.





Approved **fitting series** for hose types:

70 371LT | 372 | 372RH | 372TC | 701 | F42-8

MU Female Metric – Swivel Straight (30° Flare)

JIS B8363 – MU

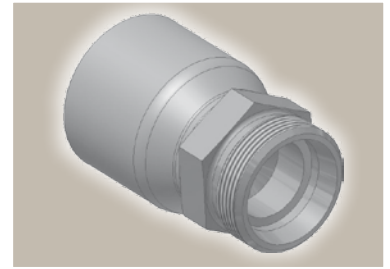
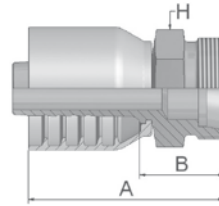


| Part Number |  Hose I.D. | | | |  Thread metric | A mm | B mm |  H mm |  W mm |
|-------------|--|------|------|------|---|---------|---------|--|--|
| | DN | Inch | Size | mm | | | | | |
| 1MU70-6-6 | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 62 | 33 | 24 | 24 |
| 1MU70-8-8 | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 72 | 37 | 27 | 27 |
| 1MU70-12-12 | 19 | 3/4 | -12 | 19.1 | M27x2 | 81 | 41 | 36 | 36 |

Approved **fitting series** for hose types:

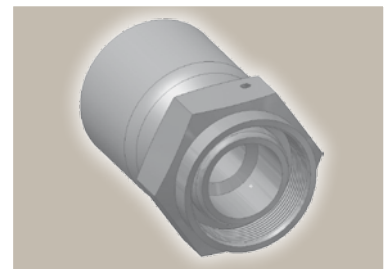
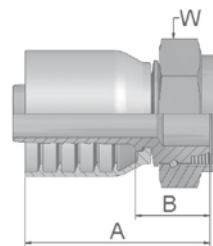
70 371LT 372 372RH 372TC 701 F42-8

FG Male French Gas Series Rigid – Straight (24° Cone)



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | H mm |
|-------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1FG70-13-6 | 10 | 3/8 | -6 | 9.5 | M20x1.5 | 13.25 | 46 | 24 | 22 |
| 1FG70-17-8 | 12 | 1/2 | -8 | 12.7 | M24x1.5 | 16.75 | 62 | 27 | 24 |
| 1FG70-21-10 | 16 | 5/8 | -10 | 15.9 | M30x1.5 | 21.25 | 70 | 30 | 30 |
| 1FG70-27-12 | 19 | 3/4 | -12 | 19.1 | M36x1.5 | 26.75 | 70 | 30 | 36 |
| 1FG70-33-16 | 25 | 1 | -16 | 25.4 | M45x1.5 | 33.50 | 82 | 36 | 46 |

F4 Female French Gas Series Swivel – Straight (Ball Nose)



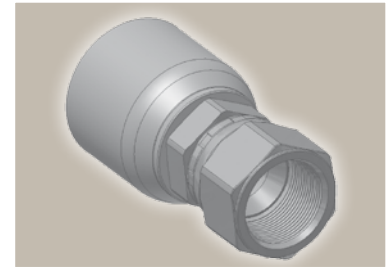
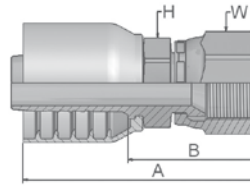
| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | W mm |
|-------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1F470-13-6 | 10 | 3/8 | -6 | 9.5 | M20x1.5 | 13 | 52 | 22 | 24 |
| 1F470-17-8 | 12 | 1/2 | -8 | 12.7 | M24x1.5 | 17 | 60 | 25 | 30 |
| 1F470-21-10 | 16 | 5/8 | -10 | 15.9 | M30x1.5 | 21 | 62 | 25 | 36 |
| 1F470-27-12 | 19 | 3/4 | -12 | 19.1 | M36x1.5 | 27 | 70 | 31 | 46 |

Approved **fitting series** for hose types:

70 371LT 372 372RH 372TC 701 F42-8

XU Female Metric – Swivel Straight (30° Flare)

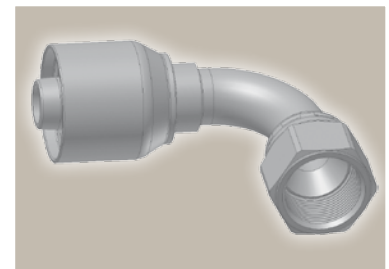
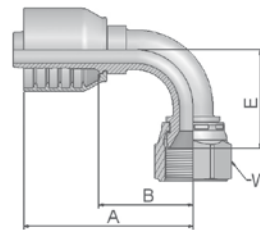
JIS B8363



| Part Number | Hose I.D. | | | | Thread metric | A mm | B mm | H mm | W mm |
|-------------|-----------|------|------|------|------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1XU70-10-10 | 16 | 5/8 | -10 | 15.9 | M24x1.5 | 67 | 28 | 30 | 32 |
| 1XU70-12-12 | 19 | 3/4 | -12 | 19.1 | M30x1.5 | 68 | 28 | 32 | 36 |
| 1XU70-16-16 | 25 | 1 | -16 | 25.4 | M33x1.5 | 82 | 35 | 36 | 41 |

XY Female Metric – Swivel 90° Elbow (30° Flare)

JIS B8363



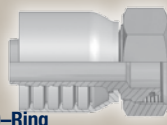


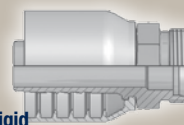


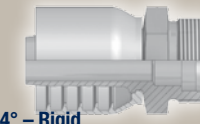
| Part Number | Hose I.D. | | | | Thread metric | A mm | B mm | E mm | W mm |
|-------------|-----------|------|------|------|------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1XY70-10-10 | 16 | 5/8 | -10 | 15.9 | M24x1.5 | 77 | 41 | 41 | 32 |
| 1XY70-12-12 | 19 | 3/4 | -12 | 19.1 | M24x1.5 | 89 | 49 | 52 | 36 |

Approved **fitting series** for hose types:

70 371LT 372 372RH 372TC 701 F42-8

DIN – Metric

Page Dc-1 – Dc-4

| | | | |
|---|--|---|---|
| <p>CA Dc-1 Female Metric 24° Light Series with O-Ring Swivel – Straight ISO 12151-2-SWS-L – DKOL</p>  | <p>CE Dc-1 Female Metric 24° Light Series with O-Ring Swivel – 45° Elbow ISO 12151-2-SWE 45°-L – DKOL 45°</p>  | <p>CF Dc-2 Female Metric 24° Light Series with O-Ring Swivel – 90° Elbow ISO 12151-2-SWE-L – DKOL 90°</p>  | <p>D0 Dc-2 Male Metric 24° Light Series – Rigid Straight ISO 12151-2-S-L – CEL</p>  |
| <p>C9 Dc-3 Female Metric 24° – Swivel Heavy Series with O-Ring Straight ISO 12151-2-SWS-S – DKOS</p>  | <p>OC Dc-3 Female Metric 24° – Swivel Heavy Series with O-Ring 45° Elbow ISO 12151-2 – SWE 45°-S – DKOS 45°</p>  | <p>D2 Dc-4 Male Metric 24° – Rigid Heavy Series – Straight ISO 12151-2-S-S – CES</p>  | |

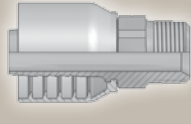
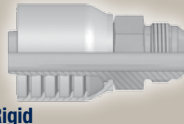
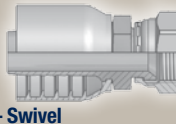
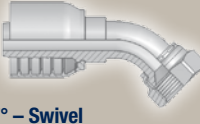
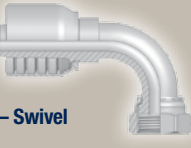
BSP

Page Dc-5 – Dc-6

| | | | |
|--|--|---|---|
| <p>92 Dc-5 Female BSP Parallel Pipe Swivel – Straight (60° Cone) BS5200-A – DKR</p>  | <p>B1 Dc-5 Female BSP Parallel Pipe Swivel 45° Elbow (60° Cone) BS 5200-D – DKR 45°</p>  | <p>B2 Dc-6 Female BSP Parallel Pipe Swivel 90° Elbow (60° Cone) BS 5200-B – DKR 90°</p>  | <p>D9 Dc-6 Male BSP Parallel Pipe Rigid – Straight (60° Cone) BS5200 – AGR</p>  |
|--|--|---|---|

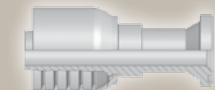
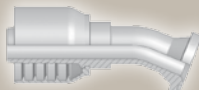
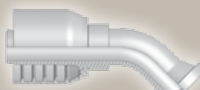
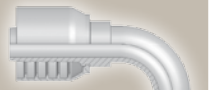
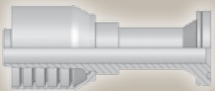
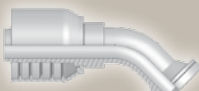
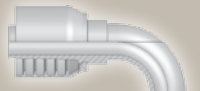
SAE

Page Dc-7 – Dc-9

| | | | |
|--|--|--|---|
| <p>01 Dc-7 Male NPTF Pipe Rigid – Straight SAE J476A / J516 – AGN</p>  | <p>03 Dc-7 Male JIC 37° – Rigid Straight ISO12151-5-S – AGJ</p>  | <p>06 Dc-8 Female JIC 37° – Swivel Straight ISO12151-5-SWS – DKJ</p>  | <p>37 Dc-9 Female JIC 37° – Swivel 45° Elbow ISO 12151-5-SWE 45° – DKJ 45°</p>  |
| <p>39 Dc-9 Female JIC 37° – Swivel 90° Elbow ISO 12151-5-SWES – DKJ 90°</p>  | | | |

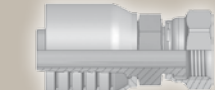
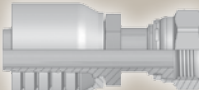


Flange

Page Dc-10 – Dc-13

| | | | |
|---|---|---|--|
| <p>15</p> <p>Dc-10</p> <p>ISO 6162-1 Flange Straight ISO 12151-3-S-L – SFL (21.0 MPa/ 3000 psi)</p>  | <p>16</p> <p>Dc-10</p> <p>ISO 6162-1 Flange 22.5° Elbow ISO 12151-3-E22ML – SFL 22.5° (21.0 MPa/ 3000 psi)</p>  | <p>17</p> <p>Dc-11</p> <p>ISO 6162-1 Flange 45° Elbow ISO 12151-3-E45 – L – SFL 45° (21.0 MPa/ 3000 psi)</p>  | <p>19</p> <p>Dc-11</p> <p>ISO 6162-1 Flange 90° Elbow ISO 12151-3-E-L – SFL 90° (21.0 MPa/ 3000 psi)</p>  |
| <p>6A</p> <p>Dc-12</p> <p>ISO 6162-2 Flange Straight ISO 12151-3-S-S – SFS (42.0 MPa/ 6000 psi)</p>  | <p>6F</p> <p>Dc-12</p> <p>ISO 6162-2 Flange 45° Elbow – Heavy Series ISO 12151-3-E45-S – SFS 45° (42.0 MPa/ 6000 psi)</p>  | <p>6N</p> <p>Dc-13</p> <p>ISO 6162-2 Flange 90° Elbow ISO 12151-3-E-S – SFS 90° (42.0 MPa/ 6000 psi)</p>  | |

ORFS

Page Dc-14 – Dc-15

| | | | |
|--|--|---|--|
| <p>JC</p> <p>Dc-14</p> <p>Female ORFS Swivel – Straight Short ISO 12151-1 – SWSA SAE J516 – ORFS</p>  | <p>JS</p> <p>Dc-14</p> <p>ORFS Swivel Female (Long) ISO 12151-1-SWSB SAE J516 – ORFS</p>  | <p>J7</p> <p>Dc-15</p> <p>Female ORFS – Swivel 45° Elbow ISO 12151-1 – SWE 45° SAE J516 – ORFS 45°</p>  | <p>J9</p> <p>Dc-15</p> <p>Female ORFS – Swivel 90° Elbow – Short Drop ISO 12151-1 – SWES SAE J516 – ORFS 90°</p>  |
|--|--|---|--|

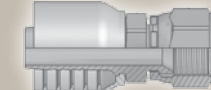
Others

Page Dc-16

XU

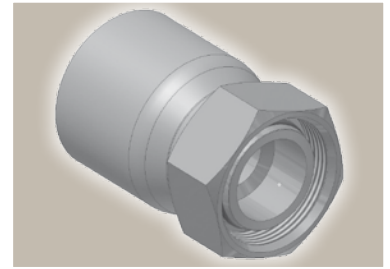
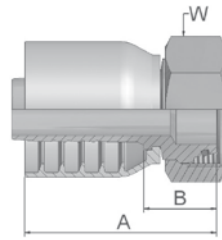
Dc-16

**Female Metric – Swivel
Straight (30° Flare)**
JIS B8363



CA **Female Metric 24°
Light Series with O-Ring
Swivel – Straight**

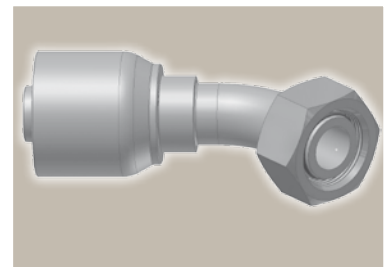
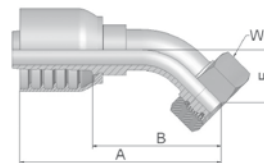
ISO 12151-2-SWS-L – DKOL



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | W mm |
|-------------|-----------|-------|------|------|------------------|--------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1CA71-35-20 | 31 | 1 1/4 | -20 | 31.8 | M45x2 | 35 | 82 | 35 | 50 |
| 1CA71-42-24 | 38 | 1 1/2 | -24 | 38.1 | M52x2 | 42 | 99 | 39 | 60 |

CE **Female Metric 24°
Light Series with O-Ring
Swivel – 45° Elbow**

ISO 12151-2-SWE 45°-L – DKOL 45°



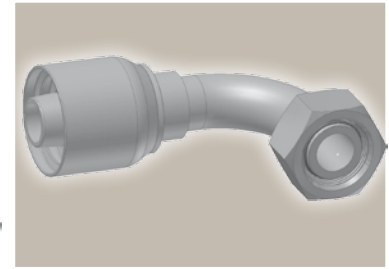
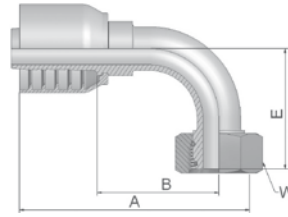
| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | E mm | W mm |
|-------------|-----------|-------|------|------|------------------|--------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | | |
| 1CE71-35-20 | 31 | 1 1/4 | -20 | 31.8 | M45x2 | 35 | 141 | 94 | 37 | 50 |
| 1CE71-42-24 | 38 | 1 1/2 | -24 | 38.1 | M52x2 | 42 | 178 | 117 | 49 | 60 |

Approved **fitting series** for hose types:

71 774 721TC 772LT

CF **Female Metric 24°
Light Series with O-Ring
Swivel – 90° Elbow**

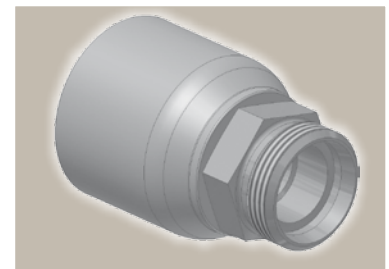
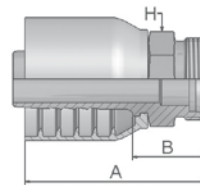
ISO 12151-2-SWE-L – DKOL 90°



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | E mm | W mm |
|-------------|-----------|-------|------|------|------------------|--------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | | |
| 1CF71-35-20 | 31 | 1 1/4 | -20 | 31.8 | M45x2 | 35 | 130 | 83 | 79 | 50 |
| 1CF71-42-24 | 38 | 1 1/2 | -24 | 38.1 | M52x2 | 42 | 161 | 101 | 101 | 60 |

DO **Male Metric 24°
Light Series – Rigid
Straight**

ISO 12151-2-S-L – CEL



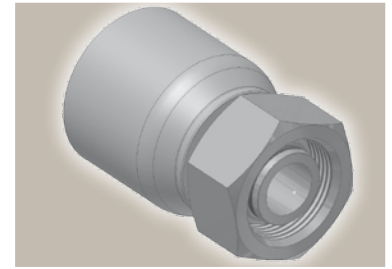
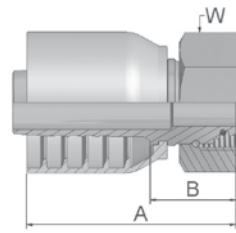
| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | H mm |
|-------------|-----------|-------|------|------|------------------|--------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1D071-42-24 | 38 | 1 1/2 | -24 | 38.1 | M52x2 | 42 | 99 | 39 | 55 |

Approved **fitting series** for hose types:

71 | 774 | 721TC | 772LT

C9 Female Metric 24° – Swivel Heavy Series with O-Ring Straight

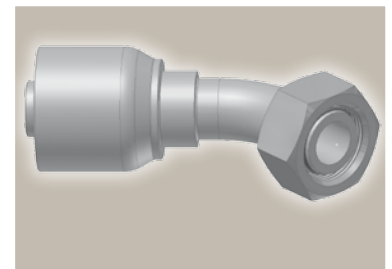
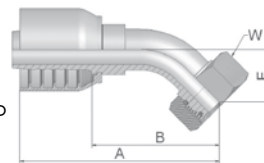
ISO 12151-2-SWS-S – DKOS



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | W mm |
|-------------|-----------|-------|------|------|------------------|--------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1C971-38-24 | 38 | 1 1/2 | -24 | 38.1 | M52x2 | 38 | 99 | 39 | 60 |

OC Female Metric 24° – Swivel Heavy Series with O-Ring 45° Elbow

ISO 12151-2 – SWE 45°-S – DKOS 45°

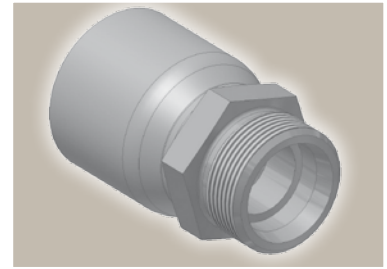
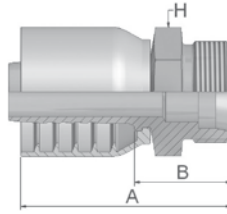





| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | E mm | W mm |
|-------------|-----------|-------|------|------|------------------|--------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | | |
| 10C71-38-24 | 38 | 1 1/2 | -24 | 38.1 | M52x2 | 38 | 178 | 117 | 49 | 60 |

Approved **fitting series** for hose types:

71 774 721TC 772LT

D2 **Male Metric 24° – Rigid
Heavy Series – Straight**
ISO 12151-2-S-S – CES



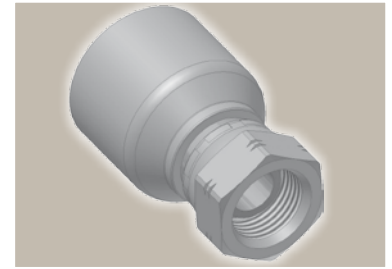
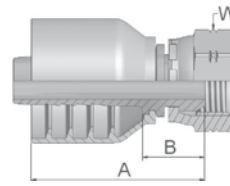
| Part Number |  Hose I.D. | | | |  Thread | Tube | A mm | B mm |  H |
|-------------|--|-------|------|------|---|------------|---------|---------|--|
| | DN | Inch | Size | mm | metric | O.D. mm | | | H mm |
| 1D271-38-20 | 31 | 1 1/4 | -20 | 31.8 | M52x2 | 38 | 43 | 44 | 55 |

Approved **fitting series** for hose types:

71 | 774 | 721TC | 772LT

92 Female BSP Parallel Pipe Swivel – Straight (60° Cone)

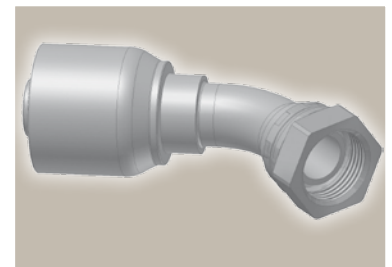
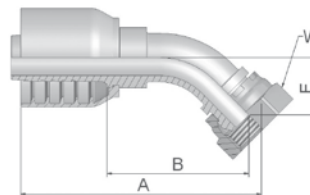
BS5200-A – DKR



| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | W mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 19271-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 79 | 32 | 50 |
| 19271-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2x11 | 93 | 33 | 60 |
| 19271-32-32 | 51 | 2 | -32 | 50.8 | 2x11 | 100 | 35 | 70 |

B1 Female BSP Parallel Pipe Swivel 45° Elbow (60° Cone)

BS 5200-D – DKR 45°



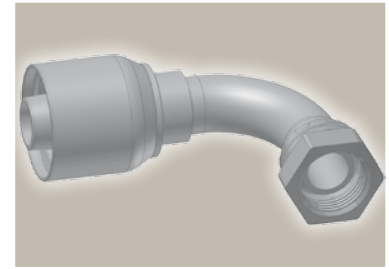
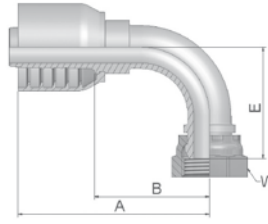
| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | E mm | W mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1B171-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 141 | 94 | 38 | 50 |

Approved **fitting series** for hose types:

71 774 721TC 772LT

B2 Female BSP Parallel Pipe Swivel 90° Elbow (60° Cone)

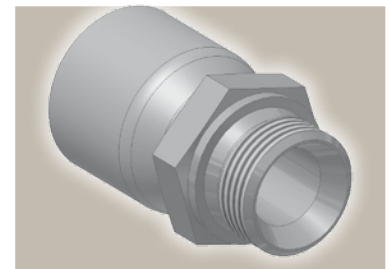
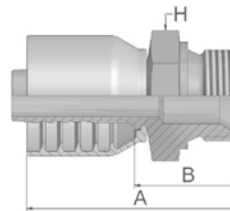
BS 5200-B – DKR 90°



| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | E mm | W mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1B271-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 129 | 82 | 80 | 50 |
| 1B271-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2x11 | 163 | 102 | 103 | 55 |
| 1B271-32-32 | 51 | 2 | -32 | 50.8 | 2x11 | 197 | 132 | 134 | 70 |

D9 Male BSP Parallel Pipe Rigid – Straight (60° Cone)

BS5200 – AGR



| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | H mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 1D971-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 92 | 45 | 50 |
| 1D971-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2x11 | 109 | 49 | 60 |

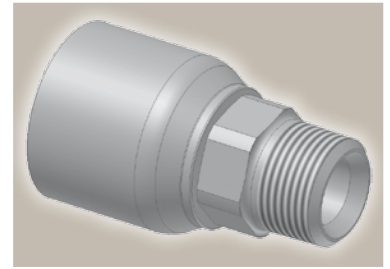
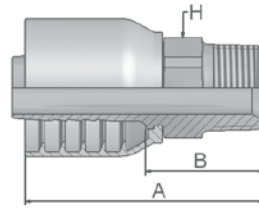
Approved **fitting series** for hose types:

71 774 721TC 772LT

01

Male NPTF Pipe Rigid – Straight

SAE J476A/ J516 – AGN

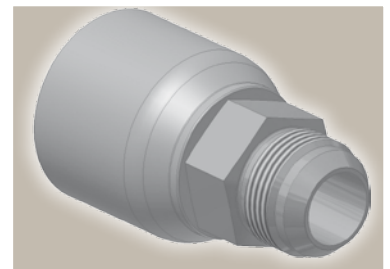
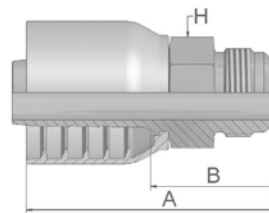


| Part Number | Hose I.D. | | | | Thread NPTF | A mm | B mm | H | |
|----------------|-----------|-------|------|------|----------------|---------|---------|-------|------|
| | DN | Inch | Size | mm | | | | mm | Inch |
| 10171-20-20-SM | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 1/2 | 104 | 57 | 46 | |
| 10171-24-24-SM | 38 | 1 1/2 | -24 | 38.1 | 1 1/2x11 1/2 | 112 | 51 | 50 | |
| 10171-32-32 | 51 | 2 | -32 | 50.8 | 2x11 1/2 | 118 | 64 | 2 1/2 | |

03

Male JIC 37° – Rigid Straight

ISO12151-5-S – AGJ



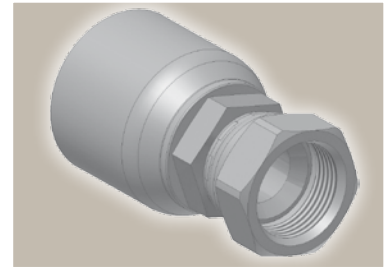
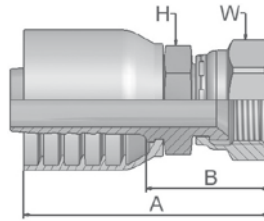
| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | H | |
|----------------|-----------|-------|------|------|---------------|---------|---------|----|------|
| | DN | Inch | Size | mm | | | | mm | Inch |
| 10371-20-20-SM | 31 | 1 1/4 | -20 | 31.8 | 1 5/8x12 | 101 | 53 | 46 | |
| 10371-24-24-SM | 38 | 1 1/2 | -24 | 38.1 | 1 7/8x12 | 110 | 49 | 50 | |





Approved **fitting series** for hose types:

71 774 721TC 772LT

06 Female JIC 37° – Swivel Straight

ISO12151-5-SWS – DKJ



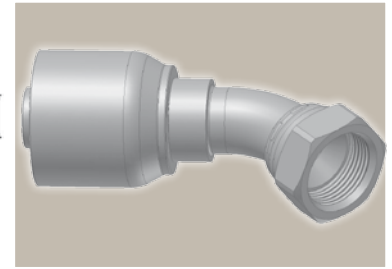
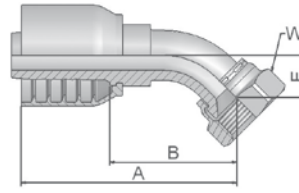
| Part Number |  Hose I.D. | | | |  Thread UNF | A mm | B mm |  H | |  W | |
|----------------|--|-------|------|------|--|---------|---------|--|------|--|------|
| | DN | Inch | Size | mm | | | | mm | Inch | mm | Inch |
| 10671-16-20-SM | 31 | 1 1/4 | -20 | 31.8 | 1 5/16x12 | 97 | 50 | 46 | | 41 | |
| 10671-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 5/8x12 | 100 | 57 | 1 7/8 | | 2 | |
| 10671-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 7/8x12 | 104 | 62 | 2 1/8 | | 2 1/4 | |
| 10671-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 7/8x12 | 119 | 64 | 2 1/8 | | 2 1/4 | |
| 10671-24-24-SM | 38 | 1 1/2 | -24 | 38.1 | 1 7/8x12 | 127 | 61 | 50 | | 60 | |

Approved **fitting series** for hose types:

71 | 774 | 721TC | 772LT

37 Female JIC 37° – Swivel 45° Elbow

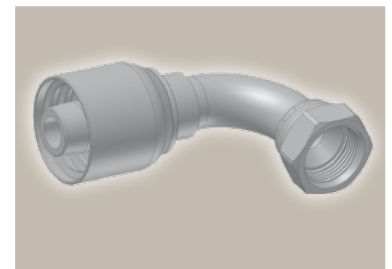
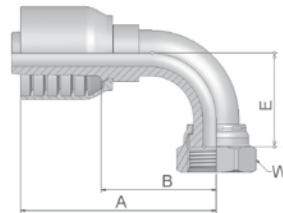
ISO 12151-5-SWE 45° – DKJ 45°



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | E mm | W mm |
|----------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 13771-20-20-SM | 31 | 1 1/4 | -20 | 31.8 | 1 5/8x12 | 134 | 87 | 30 | 50 |
| 13771-24-24-SM | 38 | 1 1/2 | -24 | 38.1 | 1 7/8x12 | 174 | 114 | 46 | 60 |

39 Female JIC 37° – Swivel 90° Elbow

ISO 12151-5-SWES – DKJ 90°



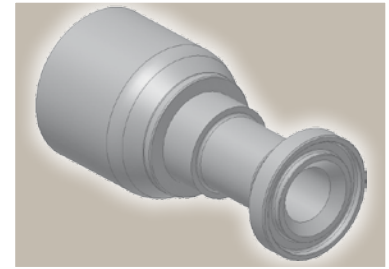
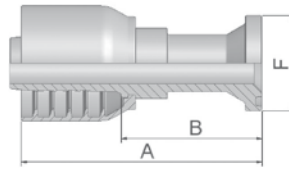
| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | E mm | W mm |
|----------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 13971-20-20-SM | 31 | 1 1/4 | -20 | 31.8 | 1 5/8x12 | 129 | 82 | 70 | 50 |
| 13971-24-20-SM | 31 | 1 1/4 | -20 | 31.8 | 1 7/8x12 | 129 | 82 | 80 | 60 |
| 13971-24-24-SM | 38 | 1 1/2 | -24 | 38.1 | 1 7/8x12 | 161 | 101 | 101.5 | 60 |

Approved **fitting series** for hose types:

71 774 721TC 772LT

15 ISO 6162-1 Flange Straight

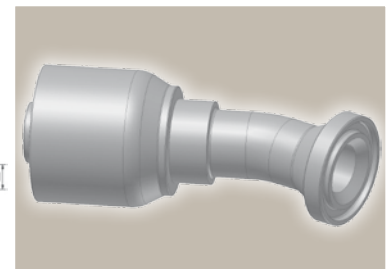
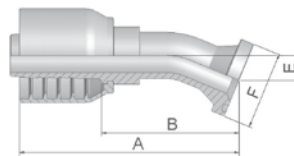
ISO 12151-3-S-L – SFL
(21.0 MPa/ 3000 psi)



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 11571-16-20 | 31 | 1 1/4 | -20 | 31.8 | 1 | 120 | 72 | 45 |
| 11571-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 120 | 78 | 51 |
| 11571-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 82 | 35 | 60 |
| 11571-32-20 | 31 | 1 1/4 | -20 | 31.8 | 2 | 123 | 76 | 71 |
| 11571-20-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/4 | 138 | 77 | 51 |
| 11571-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 140 | 80 | 60 |
| 11571-32-24 | 38 | 1 1/2 | -24 | 38.1 | 2 | 102 | 42 | 71 |
| 11571-32-32 | 51 | 2 | -32 | 50.8 | 2 | 144 | 79 | 71 |
| 11571-40-32 | 51 | 2 | -32 | 50.8 | 2 1/2 | 148 | 94 | 84 |

16 ISO 6162-1 Flange 22.5° Elbow

ISO 12151-3-E22ML – SFL 22.5°
(21.0 MPa/ 3000 psi)



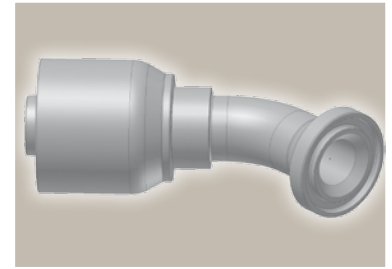
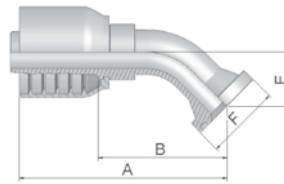
| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 11671-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 139 | 92 | 13 | 51 |
| 11671-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 149 | 94 | 16 | 60 |
| 11671-32-32 | 51 | 2 | -32 | 50.8 | 2 | 185 | 131 | 22 | 71 |

Approved **fitting series** for hose types:

71 774 721TC 772LT

17 ISO 6162-1 Flange 45° Elbow

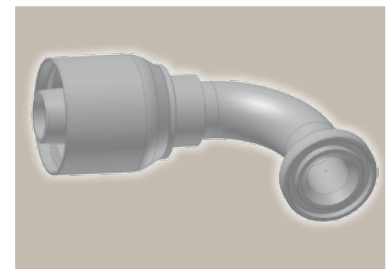
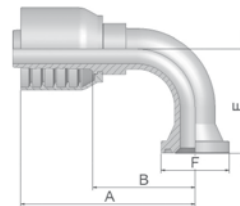
ISO 12151-3 – E45 – L – SFL 45°
(21.0 MPa/ 3000 psi)



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 11771-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 132 | 85 | 29 | 51 |
| 11771-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 141 | 94 | 38 | 60 |
| 11771-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 166 | 106 | 37 | 60 |
| 11771-32-32 | 51 | 2 | -32 | 50.8 | 2 | 200 | 135 | 52 | 71 |

19 ISO 6162-1 Flange 90° Elbow

ISO 12151-3 – E-L – SFL 90°
(21.0 MPa/ 3000 psi)



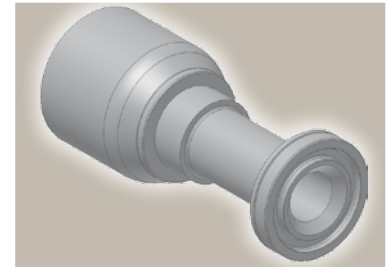
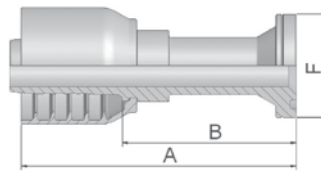
| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 11971-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 130 | 82 | 90 | 51 |
| 11971-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 121 | 79 | 67 | 60 |
| 11971-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 161 | 101 | 79 | 60 |
| 11971-32-32 | 51 | 2 | -32 | 50.8 | 2 | 203 | 138 | 115 | 71 |
| 11971-40-32 | 51 | 2 | -32 | 50.8 | 2 1/2 | 187 | 133 | 114 | 84 |

Approved **fitting series** for hose types:

71 774 721TC 772LT

6A ISO 6162-2 Flange Straight

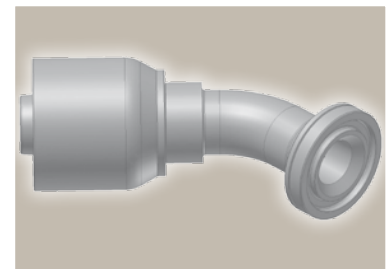
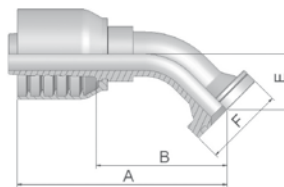
ISO 12151-3-S-S – SFS
(42.0 MPa/ 6000 psi)



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 16A71-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 130 | 83 | 54 |
| 16A71-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 131 | 84 | 64 |
| 16A71-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 163 | 107 | 64 |
| 16A71-32-32 | 51 | 2 | -32 | 50.8 | 2 | 187 | 133 | 79 |

6F ISO 6162-2 Flange 45° Elbow – Heavy Series

ISO 12151-3 – E45-S – SFS 45°
(42.0 MPa/ 6000 psi)



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 16F71-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 141 | 94 | 38 | 54 |
| 16F71-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 141 | 94 | 38 | 64 |
| 16F71-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 173 | 113 | 44 | 64 |
| 16F71-32-32 | 51 | 2 | -32 | 50.8 | 2 | 198 | 144 | 52 | 79 |

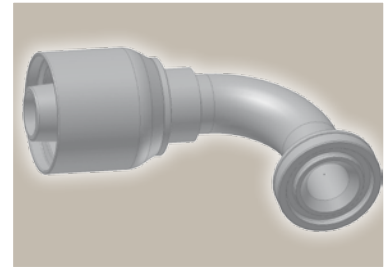
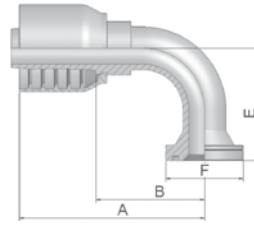
Approved **fitting series** for hose types:



71 774 721TC 772LT

6N

ISO 6162-2 Flange 90° Elbow

ISO 12151-3 – E-S – SFS 90°
(42.0 MPa/ 6000 psi)



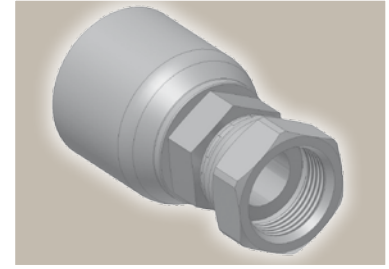
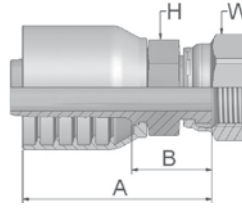
| Part Number |  Hose I.D. | | | |  Flange | A | B | E | F |
|-------------|--|-------|------|------|---|-----|-----|-----|----|
| | DN | Inch | Size | mm | Inch | mm | mm | mm | mm |
| 16N71-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 130 | 82 | 70 | 54 |
| 16N71-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 130 | 82 | 70 | 64 |
| 16N71-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 161 | 101 | 81 | 64 |
| 16N71-32-32 | 51 | 2 | -32 | 50.8 | 2 | 188 | 134 | 114 | 79 |

Approved **fitting series** for hose types:

71 774 721TC 772LT

JC **Female ORFS**
Swivel – Straight
Short

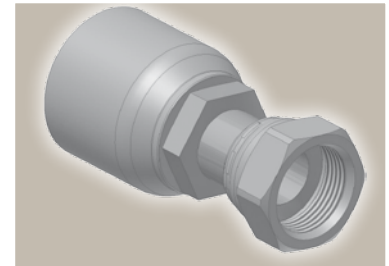
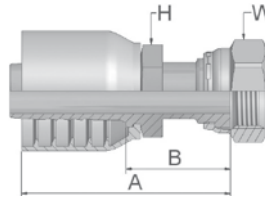
ISO 12151-1 – SWSA
SAE J516 – ORFS



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | H mm | W mm |
|----------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1JC71-20-20-SM | 31 | 1 1/4 | -20 | 31.8 | 1 11/16x12 | 85 | 36 | 50 | 50 |
| 1JC71-24-24-SM | 38 | 1 1/2 | -24 | 38.1 | 2x12 | 102 | 42 | 50 | 60 |

JS **ORFS Swivel Female (Long)**

ISO 12151-1-SWSB
SAE J516 – ORFS



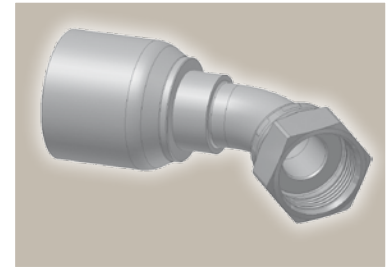
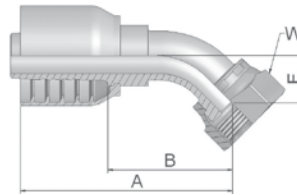
| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | H mm | W mm |
|----------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1JS71-24-24-SM | 38 | 1 1/2 | -24 | 38.1 | 2x12 | 118 | 58 | 50 | 60 |

Approved **fitting series** for hose types:

71 | **774** | **721TC** | **772LT**

J7 Female ORFS – Swivel 45° Elbow

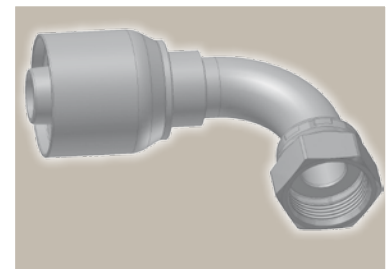
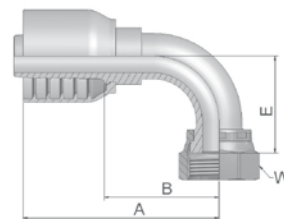
ISO 12151-1 – SWE 45°
SAE J516 – ORFS 45°



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | E mm | W mm |
|----------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1J771-24-24-SM | 38 | 1 1/2 | -24 | 38.1 | 2x12 | 169 | 109 | 40 | 60 |

J9 Female ORFS – Swivel 90° Elbow – Short Drop

ISO 12151-1 – SWES
SAE J516 – ORFS 90°



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | E mm | W mm |
|----------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1J971-20-20-SM | 31 | 1 1/4 | -20 | 31.8 | 1 11/16x12 | 129 | 82 | 64 | 50 |

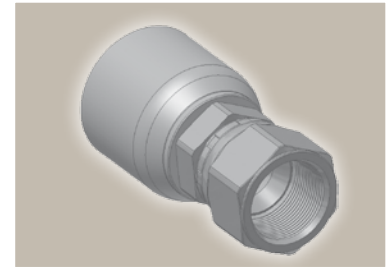
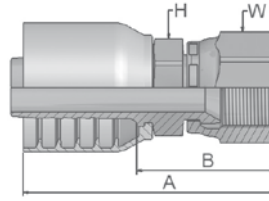
Approved **fitting series** for hose types:





71 774 721TC 772LT

XU

**Female Metric – Swivel
Straight (30° Flare)**

JIS B8363



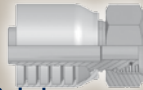



| Part Number |  Hose I.D. | | | |  Thread | A mm | B mm |  H |  W |
|-------------|--|-------|------|------|---|---------|---------|--|--|
| | DN | Inch | Size | mm | metric | | | mm | mm |
| 1XU71-20-20 | 31 | 1 1/4 | -20 | 31.8 | M36x1.5 | 106 | 64 | 46 | 46 |
| 1XU71-24-24 | 38 | 1 1/2 | -24 | 38.1 | M42x1.5 | 125 | 71 | 55 | 55 |

Approved **fitting series** for hose types:

71 | 774 | 721TC | 772LT

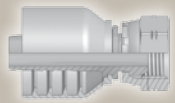


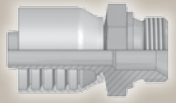
DIN – Metric

Page Dd-1 – Dd-2

| | | | |
|--|---|--|--|
| <p>C9</p> <p>Dd-1</p>  <p>Female Metric 24° – Swivel Heavy Series with O-Ring Straight ISO 12151-2-SWS-S – DKOS</p> | <p>0C</p> <p>Dd-1</p>  <p>Female Metric 24° – Swivel Heavy Series with O-Ring 45° Elbow ISO 12151-2-SWE 45°-S – DKOS 45°</p> | <p>1C</p> <p>Dd-2</p>  <p>Female Metric 24° – Swivel Heavy Series with O-Ring 90° Elbow ISO 12151-2-SWE-S – DKOS 90°</p> | <p>D2</p> <p>Dd-2</p>  <p>Male Metric 24° – Rigid Heavy Series – Straight ISO 12151-2-S-S – CES</p> |
|--|---|--|--|

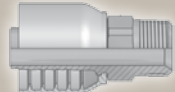
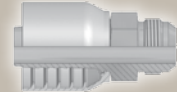
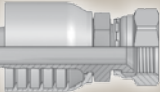
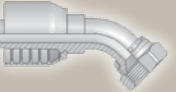

BSP

Page Dd-3 – Dd-4

| | | | |
|---|---|--|--|
| <p>92</p> <p>Dd-3</p>  <p>Female BSP Parallel Pipe Swivel – Straight (60° Cone) BS5200-A – DKR</p> | <p>B1</p> <p>Dd-3</p>  <p>Female BSP Parallel Pipe Swivel 45° Elbow (60° Cone) BS 5200-D – DKR 45°</p> | <p>B2</p> <p>Dd-4</p>  <p>Female BSP Parallel Pipe Swivel 90° Elbow (60° Cone) BS 5200-B – DKR 90°</p> | <p>D9</p> <p>Dd-4</p>  <p>Male BSP Parallel Pipe Rigid – Straight (60° Cone) BS5200 – AGR</p> |
|---|---|--|--|

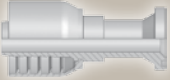
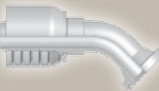
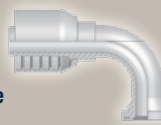
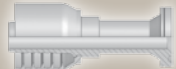
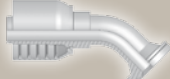
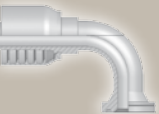
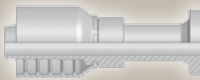
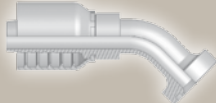
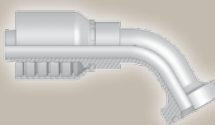
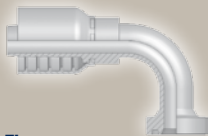
SAE

Page Dd-5 – Dd-7

| | | | |
|---|---|---|--|
| <p>01</p> <p>Dd-5</p>  <p>Male NPTF Pipe Rigid – Straight SAE J476A / J516 – AGN</p> | <p>03</p> <p>Dd-5</p>  <p>Male JIC 37° – Rigid Straight ISO12151-5-S – AGJ</p> | <p>06</p> <p>Dd-6</p>  <p>Female JIC 37° – Swivel Straight ISO12151-5-SWS – DKJ</p> | <p>37</p> <p>Dd-6</p>  <p>Female JIC 37° – Swivel 45° Elbow ISO 12151-5-SWE 45° – DKJ 45°</p> |
| <p>39</p> <p>Dd-7</p>  <p>Female JIC 37° – Swivel 90° Elbow ISO 12151-5-SWES – DKJ 90°</p> | | | |

Flange

Page Dd-8 – Dd-12

| | | | |
|--|--|--|---|
| <p>15/4A Dd-8 ISO 6162-1 Flange Straight ISO 12151-3-S-L – SFL (35.0 MPa/ 5000 psi)</p>  | <p>17/4F Dd-8 ISO 6162-1 Flange 45° Elbow ISO 12151-3 – E45S – L – SFL 45° (35.0 MPa/ 5000 psi)</p>  | <p>19/4N Dd-9 ISO 6162-1 Flange 90° Elbow ISO 12151-3-E-L – SFL 90° (35.0 MPa/ 5000 psi)</p>  | <p>6A Dd-9 ISO 6162-2 Flange Straight ISO 12151-3-S-S – SFS (42.0 MPa/ 6000 psi)</p>  |
| <p>6F Dd-10 ISO 6162-2 Flange 45° Elbow – Heavy Series ISO 12151-3 – E45-S – SFS 45° (42.0 MPa/ 6000 psi)</p>  | <p>6N Dd-10 ISO 6162-2 Flange 90° Elbow ISO 12151-3 – E-S – SFS 90° (42.0 MPa/ 6000 psi)</p>  | <p>XA Dd-11 Caterpillar® Flange Straight</p>  | <p>XF Dd-11 Caterpillar® Flange 45° Elbow</p>  |
| <p>XG Dd-12 Caterpillar® Flange 60° Elbow</p>  | <p>XN Dd-12 Caterpillar® Flange 90° Elbow</p>  | | |

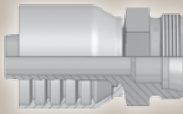


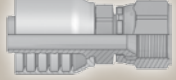
ORFS

Page Dd-13 – Dd-15

| | | | |
|---|---|--|---|
| <p>JC Dd-13 Female ORFS Swivel – Straight Short ISO 12151-1 – SWSA SAE J516 – ORFS</p>  | <p>JS Dd-13 ORFS Swivel Female (Long) ISO 12151-1-SWSB SAE J516 – ORFS</p>  | <p>J7 Dd-14 Female ORFS – Swivel 45° Elbow ISO 12151-1 – SWE 45° SAE J516 – ORFS 45°</p>  | <p>J9 Dd-14 Female ORFS – Swivel 90° Elbow – Short Drop ISO 12151-1 – SWES SAE J516 – ORFS 90°</p>  |
| <p>JM Dd-15 ORFS Male ISO 12151-1-S – SAE J516</p>  | | | |

French Standard

Page Dd-16 – Dd-17

| | | | |
|---|--|--|--|
| <p>FG Dd-16 Male French Gas Series Rigid – Straight (24° Cone)</p>  | <p>F2 Dd-16 Female French Gas Series Swivel – 90° Elbow</p>  | <p>F4 Dd-17 Female French Gas Series Swivel – Straight (Ball Nose)</p>  | <p>XU Dd-18 Female Metric – Swivel Straight (30° Flare) JIS B8363</p>  |
|---|--|--|--|

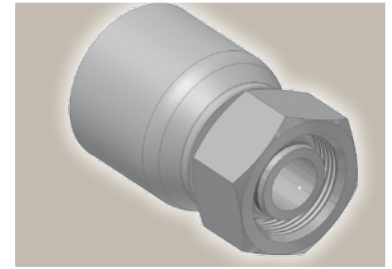
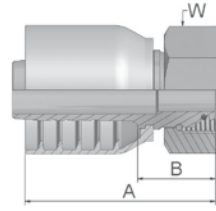
Others

Page Dd-18

73 Series

C9 Female Metric 24° – Swivel Heavy Series with O-Ring Straight

ISO 12151-2-SWS-S – DKOS

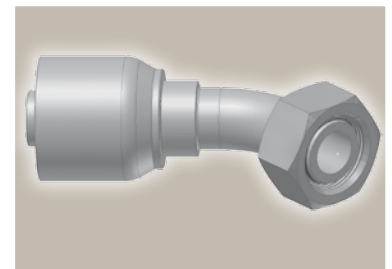
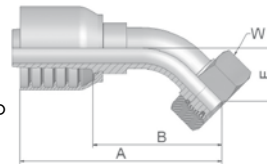


| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | W mm |
|-------------|-----------|-------|------|------|------------------|--------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1C973-20-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 20 | 81 | 33 | 36 |
| 1C973-25-12 | 19 | 3/4 | -12 | 19.1 | M36x2 | 25 | 79 | 31 | 46 |
| 1C973-25-16 | 25 | 1 | -16 | 25.4 | M36x2 | 25 | 87 | 36 | 46 |
| 1C973-30-16 | 25 | 1 | -16 | 25.4 | M42x2 | 30 | 87 | 36 | 50 |
| 1C973-30-20 | 31 | 1 1/4 | -20 | 31.8 | M42x2 | 30 | 106 | 42 | 50 |
| 1C973-38-20 | 31 | 1 1/4 | -20 | 31.8 | M52x2 | 38 | 101 | 37 | 60 |
| 1C973-38-24 | 38 | 1 1/2 | -24 | 38.1 | M52x2 | 38 | 105 | 42 | 60 |

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

OC Female Metric 24° – Swivel Heavy Series with O-Ring 45° Elbow

ISO 12151-2 – SWE 45°-S – DKOS 45°



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | E mm | W mm |
|-------------|-----------|-------|------|------|------------------|--------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | | |
| 10C73-20-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 20 | 113 | 65 | 30 | 36 |
| 10C73-25-12 | 19 | 3/4 | -12 | 19.1 | M36x2 | 25 | 112 | 64 | 29 | 46 |
| 10C73-30-16 | 25 | 1 | -16 | 25.4 | M42x2 | 30 | 131 | 81 | 34 | 50 |
| 10C73-38-20 | 31 | 1 1/4 | -20 | 31.8 | M52x2 | 38 | 161 | 97 | 37 | 60 |

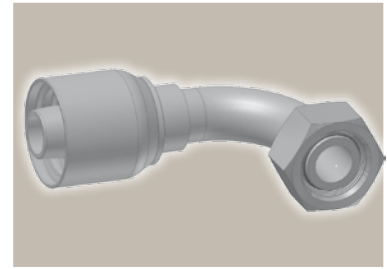
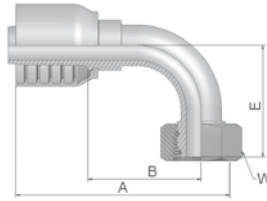
Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

Approved **fitting series** for hose types:

73 731

1C Female Metric 24° – Swivel Heavy Series with O-Ring 90° Elbow

ISO 12151-2-SWE-S – DKOS 90°

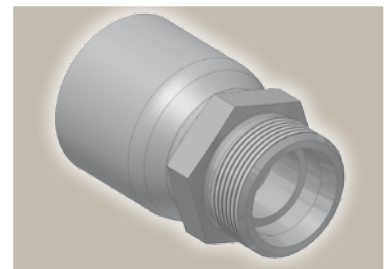
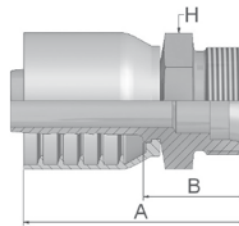


| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | E mm | W mm |
|-------------|-----------|-------|------|------|------------------|--------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | | |
| 11C73-20-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 20 | 101 | 53 | 60 | 36 |
| 11C73-25-12 | 19 | 3/4 | -12 | 19.1 | M36x2 | 25 | 101 | 53 | 59 | 46 |
| 11C73-25-16 | 25 | 1 | -16 | 25.4 | M36x2 | 25 | 117 | 67 | 69 | 46 |
| 11C73-30-16 | 25 | 1 | -16 | 25.4 | M42x2 | 30 | 122 | 71 | 73 | 50 |
| 11C73-30-20 | 31 | 1 1/4 | -20 | 31.8 | M42x2 | 30 | 137 | 73 | 73 | 50 |
| 11C73-38-20 | 31 | 1 1/4 | -20 | 31.8 | M52x2 | 38 | 151 | 87 | 78 | 60 |

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

D2 Male Metric 24° – Rigid Heavy Series – Straight

ISO 12151-2-S-S – CES



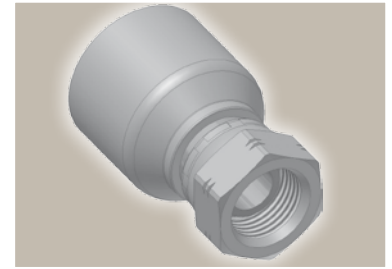
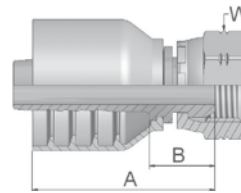
| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | H mm |
|-------------|-----------|-------|------|------|------------------|--------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1D273-20-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 20 | 84 | 35 | 30 |
| 1D273-25-12 | 19 | 3/4 | -12 | 19.1 | M36x2 | 25 | 86 | 38 | 36 |
| 1D273-30-16 | 25 | 1 | -16 | 25.4 | M42x2 | 30 | 94 | 42 | 46 |
| 1D273-38-20 | 31 | 1 1/4 | -20 | 31.8 | M52x2 | 38 | 112 | 46 | 55 |

Approved **fitting series** for hose types:

73 731

92 Female BSP Parallel Pipe Swivel – Straight (60° Cone)

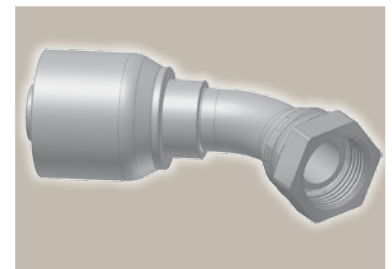
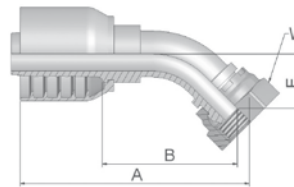
BS5200-A – DKR



| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | W mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 19273-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 75 | 27 | 32 |
| 19273-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 89 | 38 | 41 |
| 19273-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 101 | 37 | 50 |
| 19273-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2x11 | 100 | 37 | 55 |
| 19273-32-32 | 51 | 2 | -32 | 50.8 | 2x11 | 113 | 38 | 70 |

B1 Female BSP Parallel Pipe Swivel 45° Elbow (60° Cone)

BS 5200-D – DKR 45°



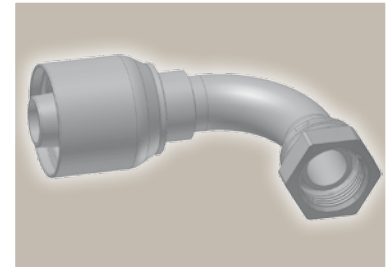
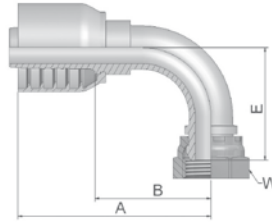
| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | E mm | W mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1B173-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 110 | 62 | 26 | 32 |
| 1B173-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 136 | 84 | 36 | 41 |
| 1B173-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 168 | 104 | 43 | 50 |
| 1B173-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2x11 | 186 | 123 | 52 | 55 |
| 1B173-32-32 | 51 | 2 | -32 | 50.8 | 2x11 | 249 | 177 | 70 | 70 |

Approved **fitting series** for hose types:



B2 Female BSP Parallel Pipe Swivel 90° Elbow (60° Cone)

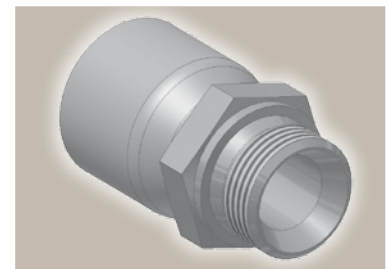
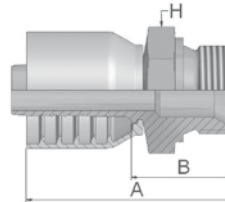
BS 5200-B – DKR 90°



| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | E mm | W mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1B273-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 106 | 58 | 55 | 32 |
| 1B273-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 120 | 70 | 74 | 41 |
| 1B273-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 151 | 87 | 80 | 50 |
| 1B273-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2x11 | 166 | 103 | 103 | 55 |
| 1B273-32-32 | 51 | 2 | -32 | 50.8 | 2x11 | 229 | 157 | 121 | 70 |

D9 Male BSP Parallel Pipe Rigid – Straight (60° Cone)

BS5200 – AGR



| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | H mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 1D973-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 87 | 39 | 32 |
| 1D973-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 96 | 43 | 41 |
| 1D973-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 113 | 49 | 50 |
| 1D973-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2x11 | 114 | 51 | 55 |
| 1D973-32-32 | 51 | 2 | -32 | 50.8 | 2x11 | 129 | 58 | 70 |

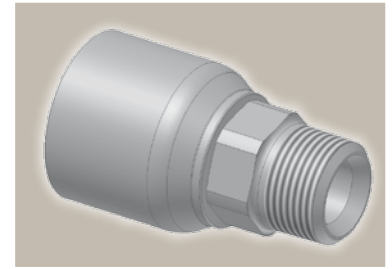
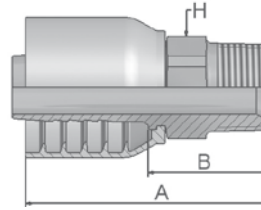
Approved **fitting series** for hose types:

73 731

01

Male NPTF Pipe Rigid – Straight

SAE J476A/ J516 – AGN

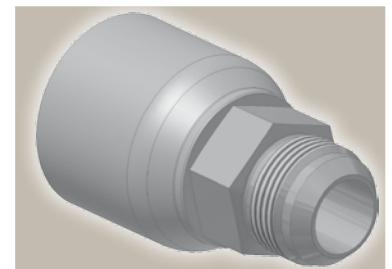
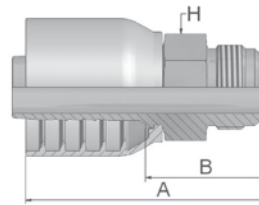


| Part Number | Hose I.D. | | | | Thread NPTF | A mm | B mm | H | |
|----------------|-----------|-------|------|------|----------------|---------|---------|-------|------|
| | DN | Inch | Size | mm | | | | mm | Inch |
| 10173-12-12-SM | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 90 | 42 | 30 | |
| 10173-16-16-SM | 25 | 1 | -16 | 25.4 | 1x11 1/2 | 100 | 50 | 36 | |
| 10173-20-20-SM | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 1/2 | 125 | 61 | 46 | |
| 10173-32-32 | 51 | 2 | -32 | 50.8 | 2x11 1/2 | 141 | 73 | 2 1/2 | |

03

Male JIC 37° – Rigid Straight

ISO12151-5-S – AGJ



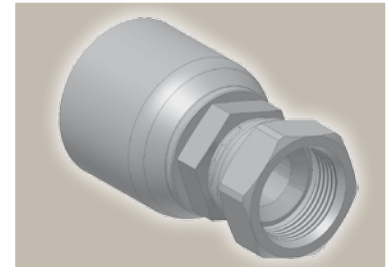
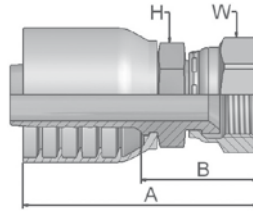
| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | H | |
|----------------|-----------|-------|------|------|---------------|---------|---------|----|----|
| | DN | Inch | Size | mm | | | | mm | mm |
| 10373-12-12-SM | 19 | 3/4 | -12 | 19.1 | 1 1/16x12 | 89 | 41 | 30 | |
| 10373-16-16-SM | 25 | 1 | -16 | 25.4 | 1 5/16x12 | 97 | 47 | 36 | |
| 10373-20-20-SM | 31 | 1 1/4 | -20 | 31.8 | 1 5/8x12 | 118 | 54 | 46 | |
| 10373-24-24-SM | 38 | 1 1/2 | -24 | 38.1 | 1 7/8x12 | 122 | 59 | 50 | |
| 10373-32-32-SM | 51 | 2 | -32 | 50.8 | 2 1/2x12 | 143 | 72 | 65 | |

Approved **fitting series** for hose types:

73 731

06 Female JIC 37° – Swivel Straight

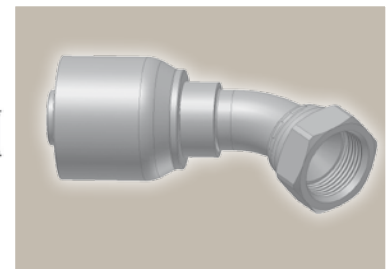
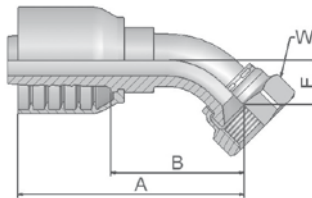
ISO12151-5-SWS – DKJ



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | H | | W | |
|----------------|-----------|-------|------|------|---------------|---------|---------|----|------|----|------|
| | DN | Inch | Size | mm | | | | mm | Inch | mm | Inch |
| 10673-12-12-SM | 19 | 3/4 | -12 | 19.1 | 1 1/16x12 | 93 | 45 | 30 | | 32 | |
| 10673-16-16-SM | 25 | 1 | -16 | 25.4 | 1 5/16x12 | 103 | 52 | 36 | | 41 | |
| 10673-16-20-SM | 31 | 1 1/4 | -20 | 31.8 | 1 5/16x12 | 116 | 52 | 46 | | 41 | |
| 10673-20-20-SM | 31 | 1 1/4 | -20 | 31.8 | 1 5/8x12 | 125 | 61 | 46 | | 50 | |
| 10673-24-20-SM | 31 | 1 1/4 | -20 | 31.8 | 1 7/8x12 | 130 | 66 | 50 | | 60 | |
| 10673-24-24-SM | 38 | 1 1/2 | -24 | 38.1 | 1 7/8x12 | 128 | 66 | 50 | | 60 | |

37 Female JIC 37° – Swivel 45° Elbow

ISO 12151-5-SWE 45° – DKJ 45°



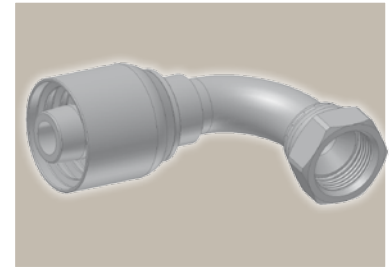
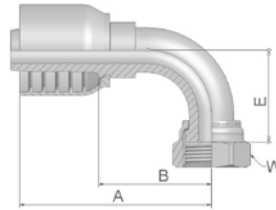
| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | E mm | W mm |
|----------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 13773-12-12-SM | 19 | 3/4 | -12 | 19.1 | 1 1/16x12 | 104 | 56 | 22 | 32 |
| 13773-16-16-SM | 25 | 1 | -16 | 25.4 | 1 5/16x12 | 119 | 69 | 24 | 41 |
| 13773-20-16-SM | 25 | 1 | -16 | 25.4 | 1 5/8x12 | 143 | 92 | 47 | 55 |
| 13773-20-20-SM | 31 | 1 1/4 | -20 | 31.8 | 1 5/8x12 | 171 | 107 | 47 | 50 |
| 13773-24-24-SM | 38 | 1 1/2 | -24 | 38.1 | 1 7/8x12 | 194 | 132 | 58 | 60 |
| 13773-32-32-SM | 51 | 2 | -32 | 50.8 | 2 1/2x12 | 251 | 179 | 72 | 75 |

Approved **fitting series** for hose types:

73 731

39 Female JIC 37° – Swivel 90° Elbow

ISO 12151-5-SWES – DKJ 90°



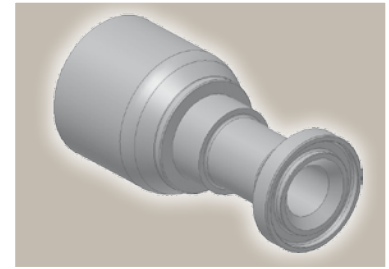
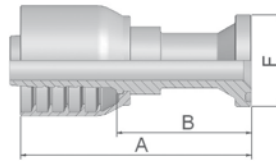
| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | E mm | W mm |
|----------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 13973-12-12-SM | 19 | 3/4 | -12 | 19.1 | 1 1/16x12 | 101 | 53 | 48 | 32 |
| 13973-16-12-SM | 19 | 3/4 | -12 | 19.1 | 1 5/16x12 | 101 | 53 | 56 | 41 |
| 13973-16-16-SM | 25 | 1 | -16 | 25.4 | 1 5/16x12 | 118 | 67 | 56 | 41 |
| 13973-20-20-SM | 31 | 1 1/4 | -20 | 31.8 | 1 5/8x12 | 150 | 87 | 85 | 50 |
| 13973-24-24-SM | 38 | 1 1/2 | -24 | 38.1 | 1 7/8x12 | 194 | 119 | 102 | 60 |
| 13973-32-32-SM | 51 | 2 | -32 | 50.8 | 2 1/2x12 | 229 | 157 | 152 | 75 |

Approved **fitting series** for hose types:



15/4A ISO 6162-1 Flange Straight

ISO 12151-3-S-L – SFL
(35.0 MPa/ 5000 psi)



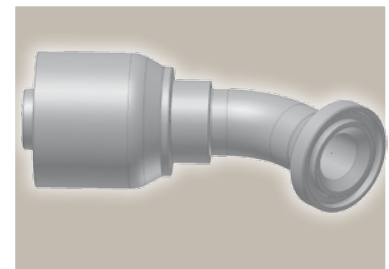
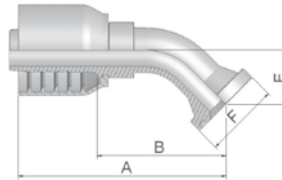
| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 11573-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 110 | 62 | 38 |
| 11573-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 110 | 62 | 45 |
| 11573-16-16 | 25 | 1 | -16 | 25.4 | 1 | 117 | 67 | 45 |
| 14A73-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 85 | 34 | 51 |
| 11573-16-20 | 31 | 1 1/4 | -20 | 31.8 | 1 | 133 | 69 | 45 |
| 14A73-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 141 | 77 | 51 |
| 14A73-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 104 | 40 | 60 |
| 14A73-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 166 | 103 | 60 |
| 14A73-32-24 | 38 | 1 1/2 | -24 | 38.1 | 2 | 113 | 50 | 71 |
| 14A73-32-32 | 51 | 2 | -32 | 50.8 | 2 | 220 | 148 | 71 |

SAE flange halves see in section Eb.

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

17/4F ISO 6162-1 Flange 45° Elbow

ISO 12151-3 – E45S – L – SFL 45°
(35.0 MPa/ 5000 psi)



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 11773-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 119 | 71 | 27 | 38 |
| 11773-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 109 | 64 | 26 | 44 |
| 11773-16-16 | 25 | 1 | -16 | 25.4 | 1 | 127 | 77 | 32 | 45 |
| 14F73-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 136 | 85 | 32 | 51 |
| 14F73-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 160 | 96 | 35 | 51 |
| 14F73-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 162 | 102 | 38 | 60 |
| 14F73-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 178 | 115 | 44 | 60 |
| 14F73-32-24 | 38 | 1 1/2 | -24 | 38.1 | 2 | 177 | 114 | 43 | 71 |
| 14F73-32-32 | 51 | 2 | -32 | 50.8 | 2 | 224 | 153 | 62 | 71 |

SAE flange halves see in section Eb.

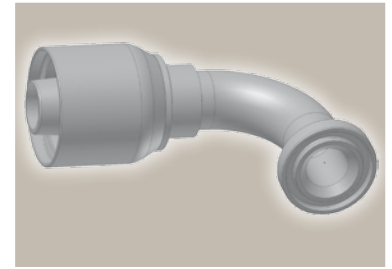
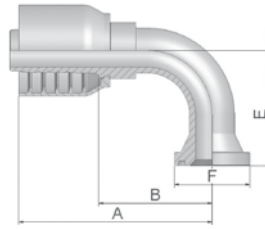
Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

Approved **fitting series** for hose types:

73 731

19/4N ISO 6162-1 Flange 90° Elbow

ISO 12151-3-E-L – SFL 90°
(35.0 MPa/ 5000 psi)



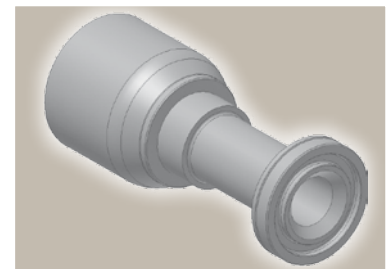
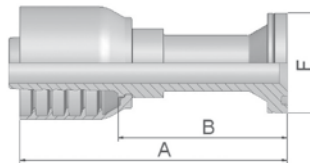
| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 11973-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 109 | 61 | 58 | 38 |
| 11973-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 102 | 54 | 58 | 45 |
| 11973-12-16 | 25 | 1 | -16 | 25.4 | 3/4 | 121 | 70 | 70 | 38 |
| 11973-16-16 | 25 | 1 | -16 | 25.4 | 1 | 118 | 67 | 70 | 45 |
| 14N73-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 128 | 78 | 68 | 51 |
| 14N73-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 155 | 91 | 90 | 51 |
| 14N73-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 155 | 91 | 90 | 60 |
| 14N73-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 166 | 103 | 93 | 60 |
| 14N73-32-24 | 38 | 1 1/2 | -24 | 38.1 | 2 | 166 | 103 | 92 | 71 |
| 14N73-32-32 | 51 | 2 | -32 | 50.8 | 2 | 220 | 148 | 133 | 71 |

SAE flange halves see in section Eb.

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

6A ISO 6162-2 Flange Straight

ISO 12151-3-S-S – SFS
(42.0 MPa/ 6000 psi)



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 16A73-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 130 | 82 | 41 |
| 16A73-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 135 | 87 | 48 |
| 16A73-12-16 | 25 | 1 | -16 | 25.4 | 3/4 | 124 | 73 | 41 |
| 16A73-16-16 | 25 | 1 | -16 | 25.4 | 1 | 131 | 81 | 48 |
| 16A73-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 142 | 91 | 54 |
| 16A73-16-20 | 31 | 1 1/4 | -20 | 31.8 | 1 | 147 | 83 | 48 |
| 16A73-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 149 | 85 | 54 |
| 16A73-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 121 | 57 | 64 |
| 16A73-20-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/4 | 158 | 96 | 54 |
| 16A73-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 166 | 104 | 64 |
| 16A73-32-24 | 38 | 1 1/2 | -24 | 38.1 | 2 | 129 | 66 | 79 |
| 16A73-32-32 | 51 | 2 | -32 | 50.8 | 2 | 194 | 122 | 79 |

SAE flange halves see in section Eb.

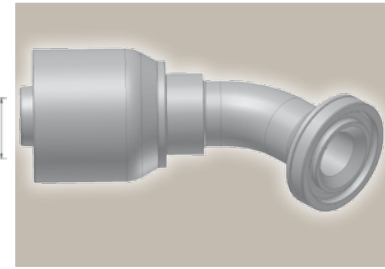
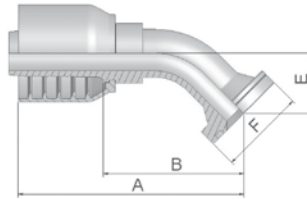
Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

Approved **fitting series** for hose types:

73 731

6F ISO 6162-2 Flange 45° Elbow – Heavy Series

ISO 12151-3 – E45-S – SFS 45°
(42.0 MPa/ 6000 psi)



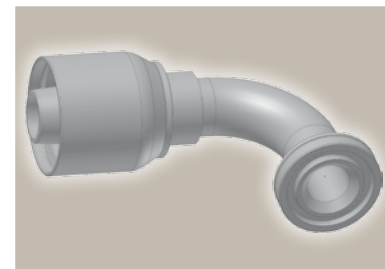
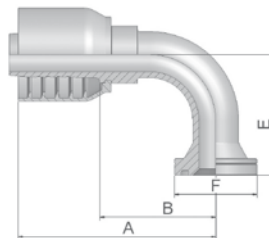
| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 16F73-8-12 | 19 | 3/4 | -12 | 19.1 | 1/2 | 107 | 59 | 27 | 32 |
| 16F73-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 110 | 62 | 26 | 41 |
| 16F73-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 110 | 62 | 26 | 48 |
| 16F73-12-16 | 25 | 1 | -16 | 25.4 | 3/4 | 123 | 73 | 32 | 41 |
| 16F73-16-16 | 25 | 1 | -16 | 25.4 | 1 | 129 | 79 | 32 | 48 |
| 16F73-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 129 | 79 | 32 | 54 |
| 16F73-16-20 | 31 | 1 1/4 | -20 | 31.8 | 1 | 157 | 93 | 33 | 48 |
| 16F73-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 163 | 98 | 38 | 54 |
| 16F73-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 163 | 99 | 38 | 63 |
| 16F73-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 178 | 115 | 44 | 64 |
| 16F73-32-32 | 51 | 2 | -32 | 50.8 | 2 | 230 | 158 | 56 | 79 |

SAE flange halves see in section Eb.

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

6N ISO 6162-2 Flange 90° Elbow

ISO 12151-3 – E-S – SFS 90°
(42.0 MPa/ 6000 psi)



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 16N73-8-12 | 19 | 3/4 | -12 | 19.1 | 1/2 | 92 | 44 | 58 | 32 |
| 16N73-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 101 | 53 | 58 | 41 |
| 16N73-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 111 | 63 | 58 | 48 |
| 16N73-20-12 | 19 | 3/4 | -12 | 19.1 | 1 1/4 | 110 | 62 | 63 | 54 |
| 16N73-12-16 | 25 | 1 | -16 | 25.4 | 3/4 | 109 | 58 | 70 | 41 |
| 16N73-16-16 | 25 | 1 | -16 | 25.4 | 1 | 122 | 71 | 70 | 48 |
| 16N73-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 122 | 71 | 70 | 54 |
| 16N73-16-20 | 31 | 1 1/4 | -20 | 31.8 | 1 | 137 | 73 | 90 | 48 |
| 16N73-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 172 | 108 | 71 | 54 |
| 16N73-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 172 | 108 | 76 | 64 |
| 16N73-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 166 | 103 | 104 | 64 |
| 16N73-32-32 | 51 | 2 | -32 | 50.8 | 2 | 229 | 157 | 138 | 79 |

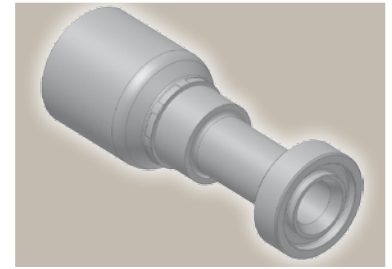
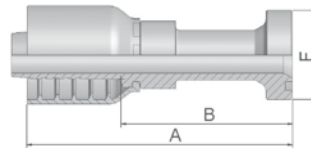
SAE flange halves see in section Eb.

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

Approved **fitting series** for hose types:

73 731

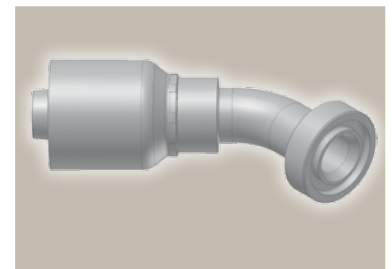
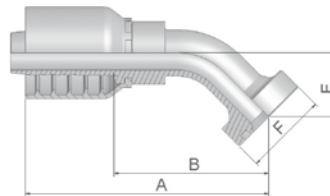
XA Caterpillar® Flange Straight



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | F mm |
|-------------|-----------|------|------|------|----------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 1XA73-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 123 | 75 | 41 |
| 1XA73-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 134 | 86 | 48 |
| 1XA73-16-16 | 25 | 1 | -16 | 25.4 | 1 | 138 | 88 | 48 |

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

XF Caterpillar® Flange 45° Elbow



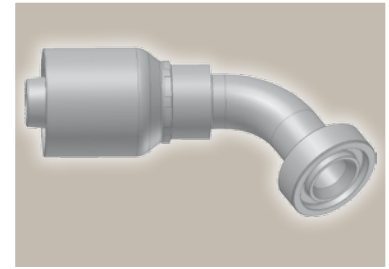
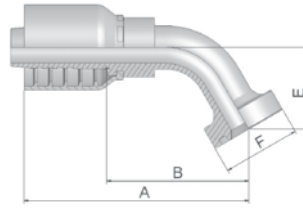
| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1XF73-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 123 | 75 | 31 | 41 |
| 1XF73-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 122 | 74 | 31 | 48 |
| 1XF73-16-16 | 25 | 1 | -16 | 25.4 | 1 | 139 | 88 | 36 | 48 |

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

Approved **fitting series** for hose types:



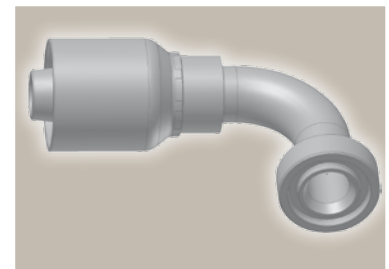
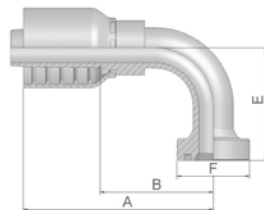
XG Caterpillar® Flange
60° Elbow



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1XG73-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 41 | 138 | 90 | 42 |
| 1XG73-16-16 | 25 | 1 | -16 | 25.4 | 1 | 48 | 160 | 109 | 50 |
| 1XG73-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 54 | 153 | 103 | 48 |

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

XN Caterpillar® Flange
90° Elbow



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1XN73-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 111 | 63 | 63 | 41 |
| 1XN73-16-16 | 25 | 1 | -16 | 25.4 | 1 | 128 | 78 | 74 | 48 |
| 1XN73-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 172 | 108 | 77 | 54 |

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

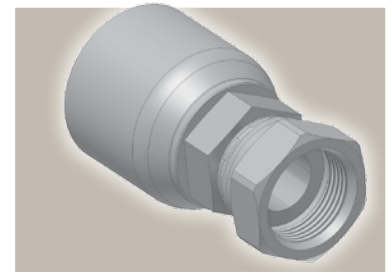
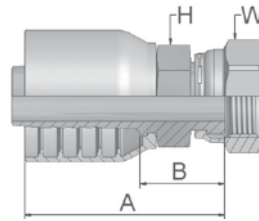
Approved **fitting series** for hose types:

73 731

JC

Female ORFS Swivel – Straight Short

ISO 12151-1 – SWSA
SAE J516 – ORFS

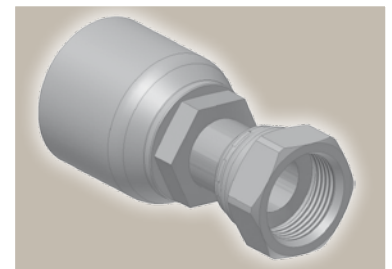
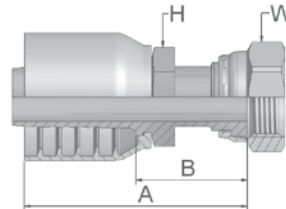


| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | H mm | W mm |
|----------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1JC73-12-12-SM | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 81 | 33 | 30 | 36 |
| 1JC73-20-20-SM | 31 | 1 1/4 | -20 | 31.8 | 1 11/16x12 | 106 | 42 | 46 | 50 |
| 1JC73-24-24-SM | 38 | 1 1/2 | -24 | 38.1 | 2x12 | 117 | 44 | 50 | 60 |

JS

ORFS Swivel Female (Long)

ISO 12151-1-SWSB
SAE J516 – ORFS



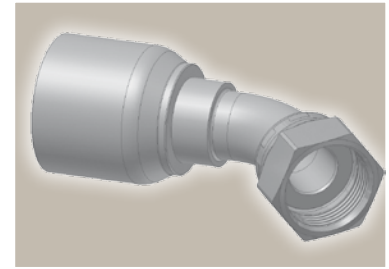
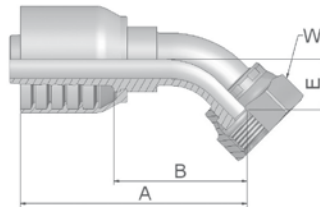
| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | H mm Inch | W mm Inch |
|----------------|-----------|-------|------|------|---------------|---------|---------|--------------|--------------|
| | DN | Inch | Size | mm | | | | | |
| 1JS73-12-12-SM | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 94 | 46 | 30 | 36 |
| 1JS73-16-16-SM | 25 | 1 | -16 | 25.4 | 1 7/16x12 | 103 | 52 | 36 | 41 |
| 1JS73-20-16-SM | 25 | 1 | -16 | 25.4 | 1 11/16x12 | 114 | 64 | 41 | 50 |
| 1JS73-20-20-SM | 31 | 1 1/4 | -20 | 31.8 | 1 11/16x12 | 117 | 54 | 46 | 50 |
| 1JS73-24-24-SM | 38 | 1 1/2 | -24 | 38.1 | 2x12 | 120 | 57 | 50 | 60 |

Approved **fitting series** for hose types:



J7 Female ORFS – Swivel 45° Elbow

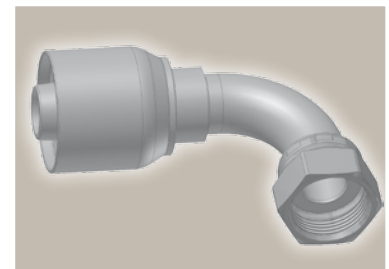
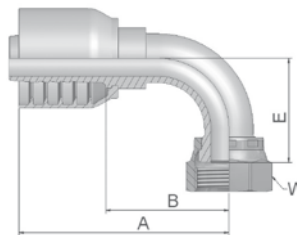
ISO 12151-1 – SWE 45°
SAE J516 – ORFS 45°



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | E mm | W mm |
|----------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1J773-12-12-SM | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 105 | 57 | 21 | 36 |
| 1J773-16-12-SM | 19 | 3/4 | -12 | 19.1 | 1 7/16x12 | 107 | 59 | 24 | 41 |
| 1J773-16-16-SM | 25 | 1 | -16 | 25.4 | 1 7/16x12 | 119 | 69 | 24 | 41 |
| 1J773-20-16-SM | 25 | 1 | -16 | 25.4 | 1 11/16x12 | 131 | 80 | 26 | 50 |
| 1J773-20-20-SM | 31 | 1 1/4 | -20 | 31.8 | 1 11/16x12 | 154 | 90 | 30 | 50 |

J9 Female ORFS – Swivel 90° Elbow – Short Drop

ISO 12151-1 – SWES
SAE J516 – ORFS 90°



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | E mm | W mm |
|----------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1J973-12-12-SM | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 101 | 53 | 48 | 36 |
| 1J973-16-12-SM | 19 | 3/4 | -12 | 19.1 | 1 7/16x12 | 114 | 66 | 56 | 41 |
| 1J973-16-16-SM | 25 | 1 | -16 | 25.4 | 1 7/16x12 | 120 | 70 | 56 | 41 |
| 1J973-20-16-SM | 25 | 1 | -16 | 25.4 | 1 11/16x12 | 127 | 77 | 64 | 50 |
| 1J973-20-20-SM | 31 | 1 1/4 | -20 | 31.8 | 1 11/16x12 | 151 | 87 | 69 | 50 |

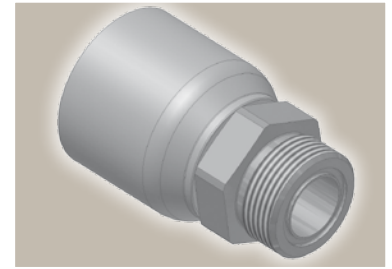
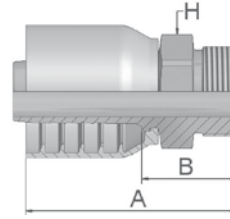
Approved **fitting series** for hose types:

73 731

JM

ORFS Male

ISO 12151-1-S – SAE J516



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | H mm |
|----------------|-----------|-------|------|------|---------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 1JM73-16-12-SM | 19 | 3/4 | -12 | 19.1 | 1 7/16x12 | 87 | 39 | 41 |
| 1JM73-16-16-SM | 25 | 1 | -16 | 25.4 | 1 7/16x12 | 93 | 42 | 41 |
| 1JM73-20-16-SM | 25 | 1 | -16 | 25.4 | 1 11/16x12 | 89 | 39 | 46 |
| 1JM73-20-20-SM | 31 | 1 1/4 | -20 | 31.8 | 1 11/16x12 | 106 | 42 | 46 |

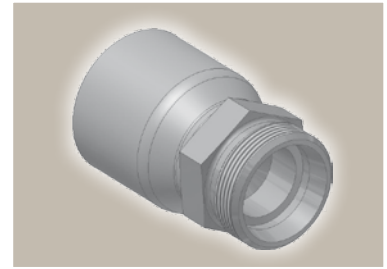
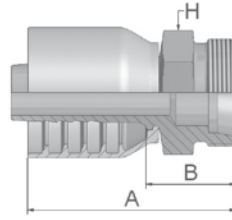
JM fittings are supplied without O-ring.
O-rings see section Eb. Special O-rings are available on request.

73 Series

Approved **fitting series** for hose types:

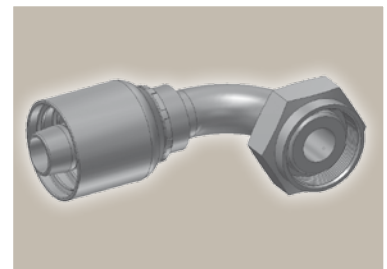
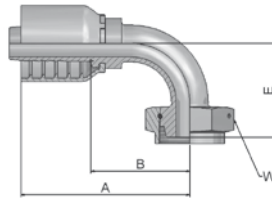


FG Male French Gas Series
Rigid – Straight (24° Cone)



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | H mm |
|-------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1FG73-33-16 | 25 | 1 | -16 | 25.4 | M45x1.5 | 33.50 | 91 | 39 | 46 |

F2 Female French Gas Series
Swivel – 90° Elbow

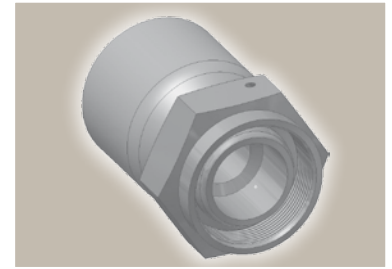
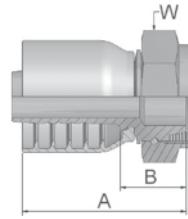


| Part Number | Hose I.D. | | | | Thread metric | A mm | B mm | E mm | W mm |
|-------------|-----------|------|------|------|------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1F273-33-16 | 25 | 1 | -16 | 25.4 | M45x1.5 | 122 | 71 | 68 | 55 |

Approved **fitting series** for hose types:

73 731

F4 Female French Gas Series Swivel – Straight (Ball Nose)



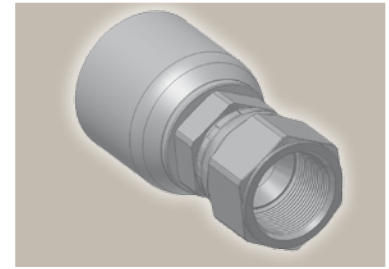
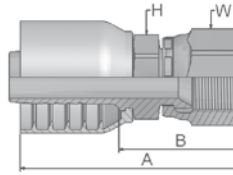
| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | W mm |
|-------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1F473-27-12 | 19 | 3/4 | -12 | 19.1 | M36x1.5 | 27 | 83 | 33 | 46 |
| 1F473-33-16 | 25 | 1 | -16 | 25.4 | M45x1.5 | 33 | 85 | 34 | 55 |





Approved **fitting series** for hose types:



XU Female Metric – Swivel Straight (30° Flare)

JIS B8363



| Part Number |  Hose I.D. | | | |  Thread | A mm | B mm |  H mm |  W mm |
|-------------|--|------|------|------|---|---------|---------|--|--|
| | DN | Inch | Size | mm | metric | | | | |
| 1XU73-12-12 | 19 | 3/4 | -12 | 19.1 | M30x1.5 | 76 | 28 | 32 | 36 |
| 1XU73-16-16 | 25 | 1 | -16 | 25.4 | M33x1.5 | 85 | 35 | 36 | 41 |

Approved **fitting series** for hose types:

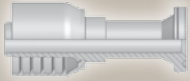
73 731

Flange

Page De-1

8A

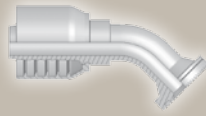
De-1



Flange – Straight
8000 psi

8F

De-1



Flange – 45° Elbow
8000 psi

8N

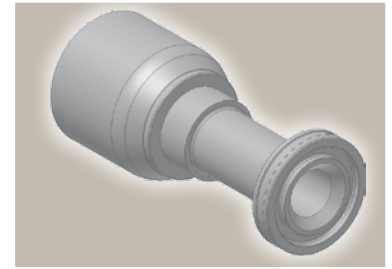
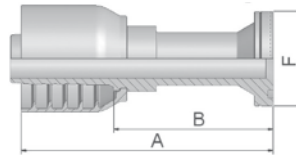
De-1



Flange – 90° Elbow
8000 psi

8A Flange – Straight

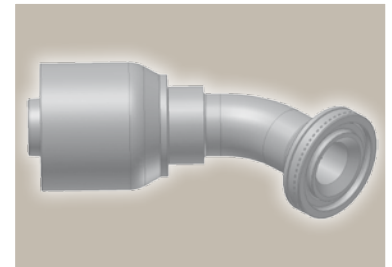
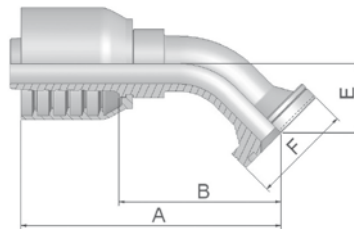
8000 psi



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | F mm |
|-------------|-----------|------|------|------|----------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 18A76-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 134 | 75 | 41 |
| 18A76-16-16 | 25 | 1 | -16 | 25.4 | 1 | 145 | 81 | 48 |

8F Flange – 45° Elbow

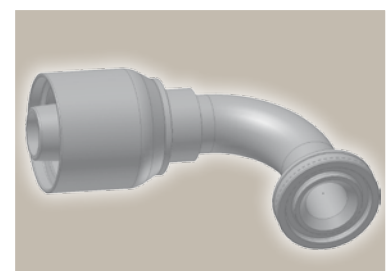
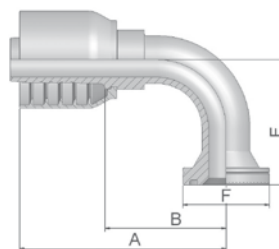
8000 psi



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 18F76-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 126 | 67 | 26 | 41 |
| 18F76-16-16 | 25 | 1 | -16 | 25.4 | 1 | 155 | 90 | 32 | 48 |

8N Flange – 90° Elbow

8000 psi











| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 18N76-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 122 | 63 | 70 | 41 |
| 18N76-16-16 | 25 | 1 | -16 | 25.4 | 1 | 150 | 85 | 70 | 48 |

Approved **fitting series** for hose types:








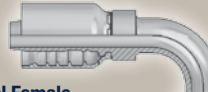

DIN – Metric

Page Df-1 – Df-4

| | | | |
|---|--|---|---|
| <p>CA</p> <p>Df-1</p>  <p>Female Metric 24° Light Series with O-Ring Swivel – Straight ISO 12151-2-SWS-L – DKOL</p> | <p>CE</p> <p>Df-1</p>  <p>Female Metric 24° Light Series with O-Ring Swivel – 45° Elbow ISO 12151-2-SWE 45°-L – DKOL 45°</p> | <p>CF</p> <p>Df-2</p>  <p>Female Metric 24° Light Series with O-Ring Swivel – 90° Elbow ISO 12151-2-SWE-L – DKOL 90°</p> | <p>D0</p> <p>Df-2</p>  <p>Male Metric 24° Light Series – Rigid Straight ISO 12151-2-S-L – CEL</p> |
| <p>C9</p> <p>Df-3</p>  <p>Female Metric 24° – Swivel Heavy Series with O-Ring Straight ISO 12151-2-SWS-S – DKOS</p> | <p>OC</p> <p>Df-3</p>  <p>Female Metric 24° – Swivel Heavy Series with O-Ring 45° Elbow ISO 12151-2 – SWE 45°-S – DKOS 45°</p> | <p>1C</p> <p>Df-4</p>  <p>Female Metric 24° – Swivel Heavy Series with O-Ring 90° Elbow ISO 12151-2-SWE-S – DKOS 90°</p> | <p>D2</p> <p>Df-4</p>  <p>Male Metric 24° – Rigid Heavy Series – Straight ISO 12151-2-S-S – CES</p> |





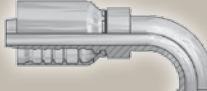
BSP

Page Df-5 – Df-8

| | | | |
|---|---|---|---|
| <p>92</p> <p>Df-5</p>  <p>Female BSP Parallel Pipe Swivel – Straight (60° Cone) BS5200-A – DKR</p> | <p>B1</p> <p>Df-5</p>  <p>Female BSP Parallel Pipe Swivel 45° Elbow (60° Cone) BS 5200-D – DKR 45°</p> | <p>B2</p> <p>Df-6</p>  <p>Female BSP Parallel Pipe Swivel 90° Elbow (60° Cone) BS 5200-B – DKR 90°</p> | <p>EA</p> <p>Df-6</p>  <p>BSP Swivel Female with O-Ring (60° Cone) BS 5200 – ISO 12151-6 – DKOR</p> |
| <p>EB</p> <p>Df-7</p>  <p>BSP Swivel Female with O-Ring 45° Elbow (60° Cone) BS 5200 – ISO 12151-6 – DKOR 45°</p> | <p>EC</p> <p>Df-7</p>  <p>BSP Swivel Female with O-Ring 90° Elbow (60° Cone) BS 5200 – ISO 12151-6 – DKOR 90°</p> | <p>D9</p> <p>Df-8</p>  <p>Male BSP Parallel Pipe Rigid – Straight (60° Cone) BS5200 – AGR</p> | |

SAE

Page Df-9 – Df-11

| | | | |
|---|--|---|--|
| <p>01</p> <p>Df-9</p>  <p>Male NPTF Pipe Rigid – Straight SAE J476A / J516 – AGN</p> | <p>03</p> <p>Df-9</p>  <p>Male JIC 37° – Rigid Straight ISO12151-5-S – AGJ</p> | <p>06</p> <p>Df-10</p>  <p>Female JIC 37° – Swivel Straight ISO12151-5-SWS – DKJ</p> | <p>37</p> <p>Df-11</p>  <p>Female JIC 37° – Swivel 45° Elbow ISO 12151-5-SWE 45° – DKJ 45°</p> |
| <p>39</p> <p>Df-11</p>  <p>Female JIC 37° – Swivel 90° Elbow ISO 12151-5-SWES – DKJ 90°</p> | | | |

Flange

Page Df-12 – Df-22

| | | | |
|---|--|---|--|
| <p>15/4A Df-12 ISO 6162-1 Flange Straight ISO 12151-3-S-L – SFL (35.0 MPa/ 5000 psi)</p>  | <p>17/4F Df-13 ISO 6162-1 Flange 45° Elbow ISO 12151-3 – E45S – L – SFL 45° (35.0 MPa/ 5000 psi)</p>  | <p>19/4N Df-14 ISO 6162-1 Flange 90° Elbow ISO 12151-3-E-L – SFL 90° (35.0 MPa/ 5000 psi)</p>  | <p>6A Df-15 ISO 6162-2 Flange Straight ISO 12151-3-S-S – SFS (42.0 MPa/ 6000 psi)</p>  |
| <p>6E Df-16 ISO 6162-2 Flange 30° Elbow SFS 30° (42.0 MPa/ 6000 psi)</p>  | <p>6F Df-16 ISO 6162-2 Flange 45° Elbow – Heavy Series ISO 12151-3 – E45-S – SFS 45° (42.0 MPa/ 6000 psi)</p>  | <p>6N Df-17 ISO 6162-2 Flange 90° Elbow ISO 12151-3 – E-S – SFS 90° (42.0 MPa/ 6000 psi)</p>  | <p>X5 Df-18 Flange – Straight Full flange system for ISO 6162-1 or ISO 6162-2</p>  |
| <p>X7 Df-18 Flange – 45° Elbow Full flange system for ISO 6162-1 or ISO 6162-2</p>  | <p>X9 Df-19 Flange – 90° Elbow Full flange system for ISO 6162-1 or ISO 6162-2</p>  | <p>XA Df-19 Caterpillar® Flange Straight</p>  | <p>XF Df-20 Caterpillar® Flange 45° Elbow</p>  |
| <p>XG Df-20 Caterpillar® Flange 60° Elbow</p>  | <p>XN Df-21 Caterpillar® Flange 90° Elbow</p>  | <p>K5 Df-21 Komatsu® Flange Straight</p>  | <p>K7 Df-22 Komatsu® Flange 45° Elbow</p>  |
| <p>K9 Df-22 Komatsu® Flange 90° Elbow</p>  | | | |

ORFS

Page Df-23 – Df-25

| | | | |
|---|---|--|--|
| <p>JC Df-23 Female ORFS Swivel – Straight Short ISO 12151-1 – SWSA</p>  | <p>J7 Df-23 Female ORFS – Swivel 45° Elbow ISO 12151-1 – SWE 45° SAE J516 – ORFS 45°</p>  | <p>J9 Df-24 Female ORFS – Swivel 90° Elbow – Short Drop ISO 12151-1 – SWES SAE J516 – ORFS 90°</p>  | <p>J1 Df-24 Female ORFS – Swivel 90° Elbow – Long Drop ISO 12151-1 – SWEL SAE J516 – ORFS 90° L</p>  |
| <p>JM Df-25 ORFS Male ISO 12151-1-S – SAE J516</p>  | | | |

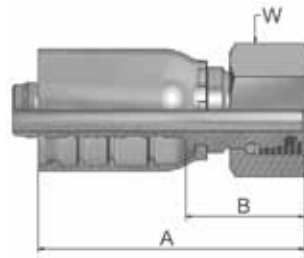
French Standard

Page Df-26

FG
Df-26
Male French Gas Series
Rigid – Straight (24° Cone)

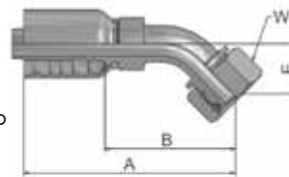


CA **Female Metric 24°
Light Series with O-Ring
Swivel – Straight**
ISO 12151-2-SWS-L – DKOL



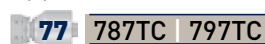
| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | W mm |
|-------------|-----------|-------|------|------|------------------|--------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1CA77-15-8 | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 63 | 28 | 27 |
| 1CA77-22-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 22 | 73 | 27 | 36 |
| 1CA77-22-16 | 25 | 1 | -16 | 25.4 | M30x2 | 22 | 88 | 33 | 36 |
| 1CA77-28-16 | 25 | 1 | -16 | 25.4 | M36x2 | 28 | 89 | 35 | 41 |
| 1CA77-35-20 | 31 | 1 1/4 | -20 | 31.8 | M45x2 | 35 | 100 | 37 | 50 |
| 1CA77-42-24 | 38 | 1 1/2 | -24 | 38.1 | M52x2 | 42 | 106 | 39 | 60 |

CE **Female Metric 24°
Light Series with O-Ring
Swivel – 45° Elbow**
ISO 12151-2-SWE 45°-L – DKOL 45°



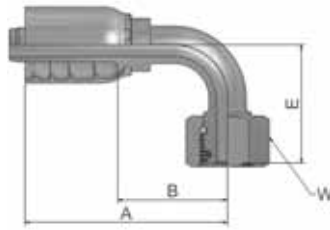
| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | E mm | W mm |
|-------------|-----------|-------|------|------|------------------|--------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | | |
| 1CE77-22-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 22 | 120 | 74 | 29 | 36 |
| 1CE77-28-16 | 25 | 1 | -16 | 25.4 | M36x2 | 28 | 142 | 88 | 33 | 41 |
| 1CE77-35-20 | 31 | 1 1/4 | -20 | 31.8 | M45x2 | 35 | 162 | 98 | 37 | 50 |

Approved **fitting series** for hose types:



CF **Female Metric 24°
Light Series with O-Ring
Swivel – 90° Elbow**

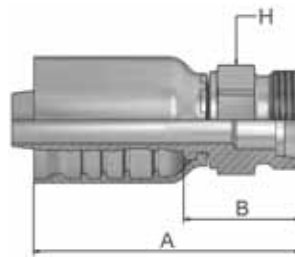
ISO 12151-2-SWE-L – DKOL 90°



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | E mm | W mm |
|-------------|-----------|-------|------|------|------------------|--------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | | |
| 1CF77-15-8 | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 76 | 41 | 44 | 27 |
| 1CF77-22-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 22 | 108 | 62 | 59 | 36 |
| 1CF77-42-24 | 38 | 1 1/2 | -24 | 38.1 | M52x2 | 42 | 179 | 112 | 101 | 60 |

DO **Male Metric 24°
Light Series – Rigid
Straight**

ISO 12151-2-S-L – CEL



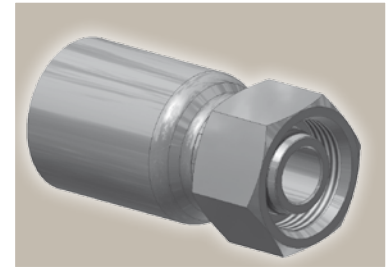
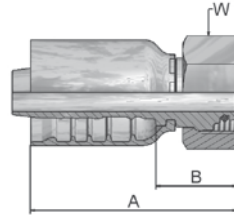
| Part Number | Hose I.D. | | | | Thread metric | A mm | B mm | H mm |
|-------------|-----------|------|------|------|------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 1D077-22-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 82 | 36 | 30 |

Approved **fitting series** for hose types:

77 787TC | 797TC

C9 Female Metric 24° – Swivel Heavy Series with O-Ring Straight

ISO 12151-2-SWS-S – DKOS

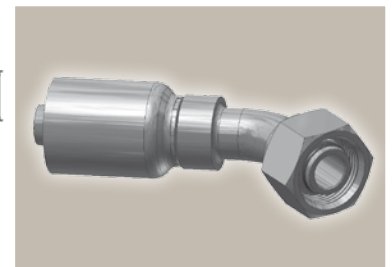
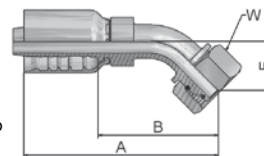


| Part Number | Hose I.D. | | | | Thread metric | A mm | B mm | W mm |
|-------------|-----------|-------|------|------|------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 1C977-16-8 | 12 | 1/2 | -8 | 12.7 | M24x1.5 | 60 | 25 | 30 |
| 1C977-16-10 | 16 | 5/8 | -10 | 15.9 | M24x1.5 | 67 | 28 | 30 |
| 1C977-20-10 | 16 | 5/8 | -10 | 15.9 | M30x2 | 67 | 28 | 36 |
| 1C977-20-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 76 | 30 | 36 |
| 1C977-25-12 | 19 | 3/4 | -12 | 19.1 | M36x2 | 76.6 | 30.6 | 46 |
| 1C977-30-16 | 25 | 1 | -16 | 25.4 | M42x2 | 89 | 35 | 50 |
| 1C977-30-20 | 31 | 1 1/4 | -20 | 31.8 | M42x2 | 102 | 39 | 50 |
| 1C977-38-20 | 31 | 1 1/4 | -20 | 31.8 | M52x2 | 100 | 36 | 60 |
| 1C977-38-24 | 38 | 1 1/2 | -24 | 38.1 | M52x2 | 106 | 39 | 60 |

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

OC Female Metric 24° – Swivel Heavy Series with O-Ring 45° Elbow

ISO 12151-2 – SWE 45°-S – DKOS 45°



| Part Number | Hose I.D. | | | | Thread metric | A mm | B mm | E mm | W mm |
|-------------|-----------|-------|------|------|------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 10C77-16-8 | 12 | 1/2 | -8 | 12.7 | M24x1.5 | 83 | 49 | 24 | 30 |
| 10C77-16-10 | 16 | 5/8 | -10 | 15.9 | M24x1.5 | 101 | 62 | 22 | 30 |
| 10C77-20-10 | 16 | 5/8 | -10 | 15.9 | M30x2 | 107 | 68 | 28 | 36 |
| 10C77-20-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 120 | 74 | 30 | 36 |
| 10C77-25-12 | 19 | 3/4 | -12 | 19.1 | M36x2 | 119 | 73 | 29 | 46 |
| 10C77-25-16 | 25 | 1 | -16 | 25.4 | M36x2 | 142 | 88 | 33 | 46 |
| 10C77-30-16 | 25 | 1 | -16 | 25.4 | M42x2 | 142 | 88 | 33 | 50 |
| 10C77-38-20 | 31 | 1 1/4 | -20 | 31.8 | M52x2 | 161 | 97 | 37 | 60 |
| 10C77-38-24 | 38 | 1 1/2 | -24 | 38.1 | M52x2 | 195 | 128 | 49 | 60 |

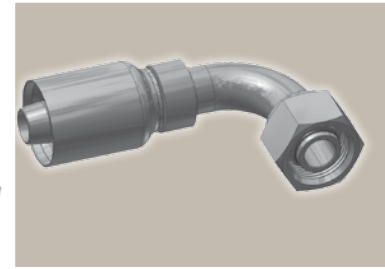
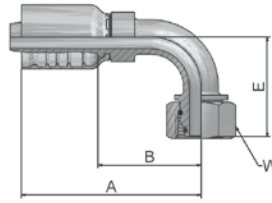
Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

Approved **fitting series** for hose types:

77 787TC | 797TC

1C Female Metric 24° – Swivel Heavy Series with O-Ring 90° Elbow

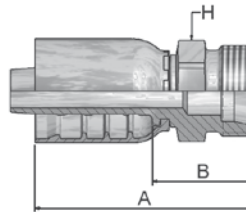
ISO 12151-2-SWE-S – DKOS 90°



| Part Number | Hose I.D. | | | | Thread metric | A mm | B mm | E mm | W mm |
|-------------------|-----------|-------|------|------|------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 11C77-16-8 | 12 | 1/2 | -8 | 12.7 | M24x1.5 | 77 | 42 | 45 | 30 |
| 11C77-16-10 | 16 | 5/8 | -10 | 15.9 | M24x1.5 | 92 | 53 | 45 | 30 |
| 11C77-20-10 | 16 | 5/8 | -10 | 15.9 | M30x2 | 92 | 53 | 53 | 36 |
| 11C77-20-10-STB60 | 16 | 5/8 | -10 | 15.9 | M30x2 | 115 | 76 | 37 | 36 |
| 11C77-20-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 108 | 62 | 60 | 36 |
| 11C77-20-12-STB60 | 19 | 3/4 | -12 | 19.1 | M30x2 | 134 | 88 | 41 | 36 |
| 11C77-25-12 | 19 | 3/4 | -12 | 19.1 | M36x2 | 108 | 62 | 58.5 | 46 |
| 11C77-25-12-STB60 | 19 | 3/4 | -12 | 19.1 | M36x2 | 133 | 87 | 40 | 46 |
| 11C77-25-16 | 25 | 1 | -16 | 25.4 | M36x2 | 131 | 77 | 69 | 46 |
| 11C77-30-16 | 25 | 1 | -16 | 25.4 | M42x2 | 131 | 77 | 69 | 50 |
| 11C77-30-16-SL120 | 25 | 1 | -16 | 25.4 | M42x2 | 131 | 77 | 120 | 50 |
| 11C77-30-20 | 31 | 1 1/4 | -20 | 31.8 | M42x2 | 145 | 82 | 73 | 50 |
| 11C77-38-20 | 31 | 1 1/4 | -20 | 31.8 | M52x2 | 151 | 87 | 78 | 60 |
| 11C77-38-24 | 38 | 1 1/2 | -24 | 38.1 | M52x2 | 179 | 112 | 101 | 60 |

D2 Male Metric 24° – Rigid Heavy Series – Straight

ISO 12151-2-S-S – CES



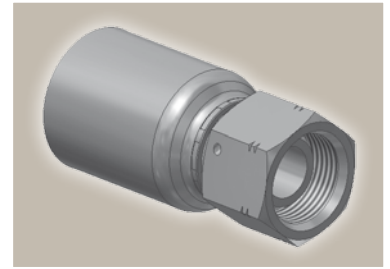
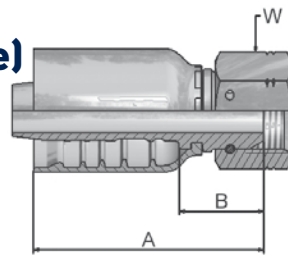
| Part Number | Hose I.D. | | | | Thread metric | A mm | B mm | H mm |
|-------------|-----------|-------|------|------|------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 1D277-16-8 | 12 | 1/2 | -8 | 12.7 | M24x1.5 | 64 | 30 | 24 |
| 1D277-16-10 | 16 | 5/8 | -10 | 15.9 | M24x1.5 | 69 | 30 | 24 |
| 1D277-20-10 | 16 | 5/8 | -10 | 15.9 | M30x2 | 72 | 34 | 30 |
| 1D277-20-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 84 | 38 | 30 |
| 1D277-25-12 | 19 | 3/4 | -12 | 19.1 | M36x2 | 86 | 40 | 36 |
| 1D277-25-16 | 25 | 1 | -16 | 25.4 | M36x2 | 96 | 42 | 36 |
| 1D277-30-16 | 25 | 1 | -16 | 25.4 | M42x2 | 99 | 45 | 46 |
| 1D277-30-20 | 31 | 1 1/4 | -20 | 31.8 | M42x2 | 110 | 47 | 46 |
| 1D277-38-20 | 31 | 1 1/4 | -20 | 31.8 | M52x2 | 114 | 51 | 55 |
| 1D277-38-24 | 38 | 1 1/2 | -24 | 38.1 | M52x2 | 120 | 53 | 55 |

Approved **fitting series** for hose types:

77 787TC | 797TC

92 Female BSP Parallel Pipe Swivel – Straight (60° Cone)

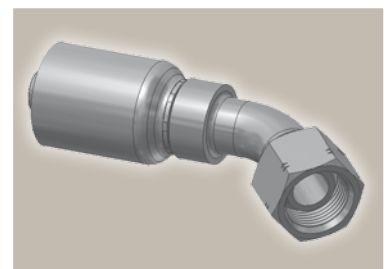
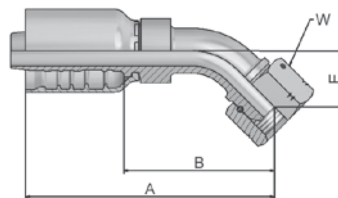
BS5200-A – DKR



| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | W mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 19277-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 57 | 23 | 27 |
| 19277-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 73 | 27 | 32 |
| 19277-16-12 | 19 | 3/4 | -12 | 19.1 | 1x11 | 85 | 39 | 41 |
| 19277-12-16 | 25 | 1 | -16 | 25.4 | 3/4x14 | 83 | 29 | 32 |
| 19277-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 91 | 37 | 41 |
| 19277-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 98 | 34 | 50 |

B1 Female BSP Parallel Pipe Swivel 45° Elbow (60° Cone)

BS 5200-D – DKR 45°



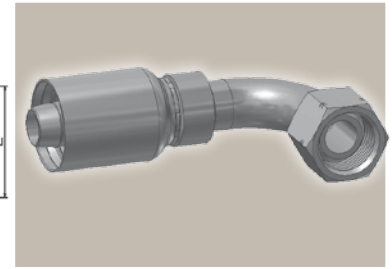
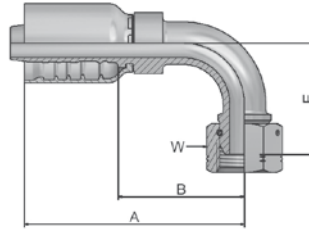
| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | E mm | W mm |
|-------------|-----------|------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1B177-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 84 | 49 | 20 | 27 |
| 1B177-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 116 | 70 | 26 | 32 |
| 1B177-16-12 | 19 | 3/4 | -12 | 19.1 | 1x11 | 124 | 78 | 34 | 41 |
| 1B177-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 145 | 91 | 36 | 41 |

Approved **fitting series** for hose types:

77 787TC | 797TC

B2 Female BSP Parallel Pipe Swivel 90° Elbow (60° Cone)

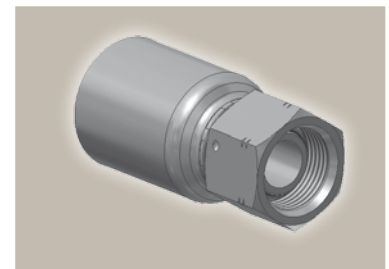
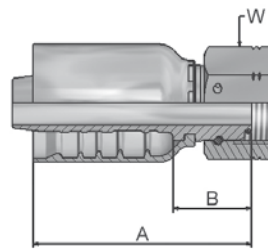
BS 5200-B – DKR 90°



| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | E mm | W mm |
|-------------|-----------|------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1B277-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 76 | 41 | 40 | 27 |
| 1B277-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 108 | 62 | 55 | 32 |
| 1B277-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 131 | 77 | 74 | 41 |

EA BSP Swivel Female with O-Ring (60° Cone)

BS 5200 – ISO 12151-6 – DKOR



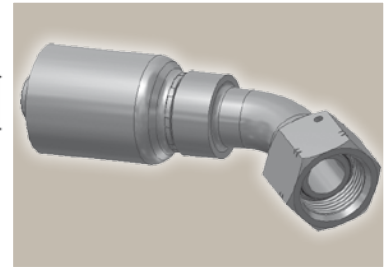
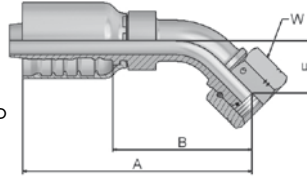
| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | W mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 1EA77-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 58 | 23 | 27 |
| 1EA77-10-10 | 16 | 5/8 | -10 | 15.9 | 5/8x14 | 62 | 23 | 30 |
| 1EA77-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4x14 | 63 | 24 | 32 |
| 1EA77-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 72 | 26 | 32 |
| 1EA77-16-12 | 19 | 3/4 | -12 | 19.1 | 1x11 | 82 | 36 | 41 |
| 1EA77-12-16 | 25 | 1 | -16 | 25.4 | 3/4x14 | 83 | 29 | 32 |
| 1EA77-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 90 | 36 | 41 |
| 1EA77-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 96 | 33 | 50 |
| 1EA77-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 103 | 36 | 55 |
| 1EA77-32-32 | 51 | 2 | -32 | 50.8 | 2 | 118 | 40 | 70 |

Approved **fitting series** for hose types:

77 787TC | 797TC

EB **BSP Swivel Female
with O-Ring
45° Elbow (60° Cone)**

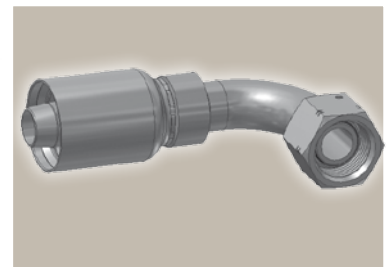
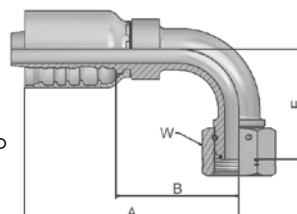
BS 5200 – ISO 12151-6 – DKOR 45°



| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | E mm | W mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1EB77-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 80 | 45 | 20 | 27 |
| 1EB77-10-10 | 16 | 5/8 | -10 | 15.9 | 5/8x14 | 101 | 62 | 22 | 30 |
| 1EB77-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4x14 | 103 | 64 | 24 | 32 |
| 1EB77-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 117 | 71 | 27 | 32 |
| 1EB77-16-12 | 19 | 3/4 | -12 | 19.1 | 1x11 | 120 | 74 | 29 | 41 |
| 1EB77-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 144 | 90 | 35 | 41 |
| 1EB77-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 159 | 95 | 35 | 50 |
| 1EB77-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 196 | 129 | 50 | 55 |
| 1EB77-32-32 | 51 | 2 | -32 | 50.8 | 2 | 255 | 178 | 86 | 70 |

EC **BSP Swivel Female
with O-Ring
90° Elbow (60° Cone)**

BS 5200 – ISO 12151-6 – DKOR 90°

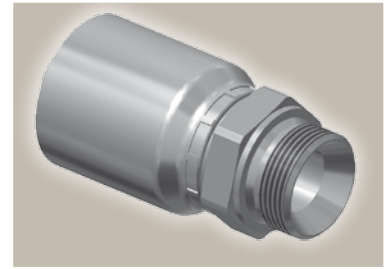
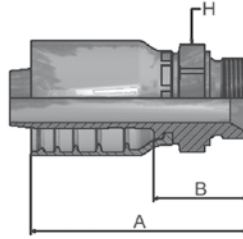





| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | E mm | W mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1EC77-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 76 | 41 | 40 | 27 |
| 1EC77-10-10 | 16 | 5/8 | -10 | 15.9 | 5/8x14 | 92 | 53 | 44 | 30 |
| 1EC77-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4x14 | 92 | 53 | 47 | 32 |
| 1EC77-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 108 | 62 | 55 | 32 |
| 1EC77-16-12 | 19 | 3/4 | -12 | 19.1 | 1x11 | 108 | 62 | 59 | 41 |
| 1EC77-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 131 | 77 | 72 | 41 |
| 1EC77-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 151 | 87 | 75 | 50 |
| 1EC77-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 179 | 112 | 103 | 55 |
| 1EC77-32-32 | 51 | 2 | -32 | 50.8 | 2 | 236 | 159 | 147 | 70 |

Approved **fitting series** for hose types:

77 787TC | 797TC

D9 **Male BSP Parallel Pipe
Rigid – Straight (60° Cone)**
BS5200 – AGR



| Part Number |  Hose I.D. | | | |  Thread BSP | A mm | B mm |  H mm |
|-------------|--|-------|------|------|--|---------|---------|--|
| | DN | Inch | Size | mm | | | | |
| 1D977-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 68 | 33 | 27 |
| 1D977-10-10 | 16 | 5/8 | -10 | 15.9 | 5/8x14 | 74 | 36 | 30 |
| 1D977-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 87 | 41 | 32 |
| 1D977-16-12 | 19 | 3/4 | -12 | 19.1 | 1x11 | 91 | 45 | 41 |
| 1D977-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 91 | 45 | 41 |
| 1D977-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4x11 | 103 | 49 | 50 |
| 1D977-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 113 | 50 | 50 |
| 1D977-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2x11 | 124 | 57 | 55 |

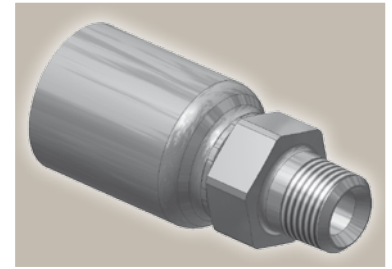
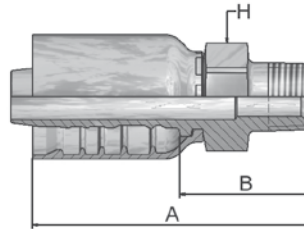
Approved **fitting series** for hose types:

77 787TC | 797TC

01

Male NPTF Pipe Rigid – Straight

SAE J476A / J516 – AGN

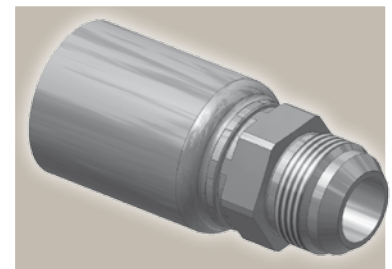
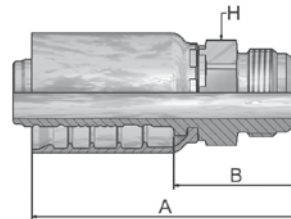


| Part Number | Hose I.D. | | | | Thread NPTF | A mm | B mm | H mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 10177-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 69 | 35 | 22 |
| 10177-8-12 | 19 | 3/4 | -12 | 19.1 | 1/2x14 | 87 | 41 | 30 |
| 10177-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 87 | 41 | 30 |
| 10177-16-16 | 25 | 1 | -16 | 25.4 | 1x11 1/2 | 103 | 49 | 36 |
| 10177-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 116 | 53 | 46 |
| 10177-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2x11 | 124 | 57 | 50 |
| 10177-32-32 | 51 | 2 | -32 | 50.8 | 2x11 | 143 | 66 | 65 |

03

Male JIC 37° – Rigid Straight

ISO12151-5-S – AGJ



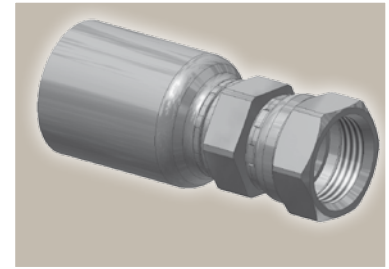
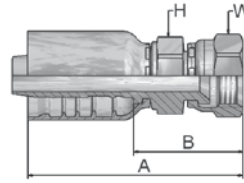
| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | H mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 10377-8-8 | 12 | 1/2 | -8 | 12.7 | 3/4x16 | 66.45 | 32 | 22 |
| 10377-10-8 | 12 | 1/2 | -8 | 12.7 | 7/8x14 | 69 | 34 | 24 |
| 10377-10-10 | 16 | 5/8 | -10 | 15.9 | 7/8x14 | 76 | 38 | 24 |
| 10377-12-10 | 16 | 5/8 | -10 | 15.9 | 1 1/16x12 | 82 | 43 | 30 |
| 10377-12-12 | 19 | 3/4 | -12 | 19.1 | 1 1/16x12 | 89 | 43 | 30 |
| 10377-16-12 | 19 | 3/4 | -12 | 19.1 | 1 5/16x12 | 92 | 46 | 36 |
| 10377-16-16 | 25 | 1 | -16 | 25.4 | 1 5/16x12 | 101.4 | 47 | 36 |
| 10377-20-16 | 25 | 1 | -16 | 25.4 | 1 5/8x12 | 110 | 56 | 50 |
| 10377-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 5/8x12 | 118 | 55 | 50 |
| 10377-32-32 | 51 | 2 | -32 | 50.8 | 2 1/2x12 | 148 | 71 | 65 |

Approved **fitting series** for hose types:

77 787TC | 797TC

06 Female JIC 37° – Swivel Straight

ISO12151-5-SWS – DKJ



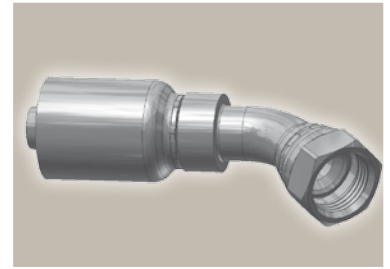
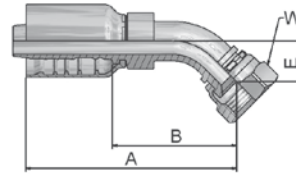
| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | H mm | W mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 10677-8-8 | 12 | 1/2 | -8 | 12.7 | 3/4x16 | 71 | 37 | 22 | 22 |
| 10677-10-8 | 12 | 1/2 | -8 | 12.7 | 7/8x14 | 74 | 39 | 22 | 27 |
| 10677-12-8 | 12 | 1/2 | -8 | 12.7 | 1 1/16x12 | 80 | 46 | 30 | 32 |
| 10677-10-10 | 16 | 5/8 | -10 | 15.9 | 7/8x14 | 81 | 42 | 24 | 27 |
| 10677-12-10 | 16 | 5/8 | -10 | 15.9 | 1 1/16x12 | 84 | 45 | 30 | 32 |
| 10677-10-12 | 19 | 3/4 | -12 | 19.1 | 7/8x14 | 92 | 46 | 30 | 27 |
| 10677-12-12 | 19 | 3/4 | -12 | 19.1 | 1 1/16x12 | 94 | 48 | 30 | 32 |
| 10677-16-12 | 19 | 3/4 | -12 | 19.1 | 1 5/16x12 | 99 | 53 | 36 | 41 |
| 10677-12-16 | 25 | 1 | -16 | 25.4 | 1 1/16x12 | 102 | 48 | 36 | 32 |
| 10677-16-16 | 25 | 1 | -16 | 25.4 | 1 5/16x12 | 106 | 52 | 36 | 41 |
| 10677-20-16 | 25 | 1 | -16 | 25.4 | 1 5/8x12 | 109 | 55 | 41 | 50 |
| 10677-16-20 | 31 | 1 1/4 | -20 | 31.8 | 1 5/16x12 | 120 | 57 | 46 | 41 |
| 10677-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 5/8 12 | 124 | 60 | 46 | 50 |
| 10677-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 7/8x12 | 108 | 44 | 50 | 60 |
| 10677-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 7/8x12 | 136 | 69 | 50 | 60 |
| 10677-32-32 | 51 | 2 | -32 | 50.8 | 2 1/2x12 | | | 65 | 75 |

Approved **fitting series** for hose types:

77 787TC | 797TC

37 Female JIC 37° – Swivel 45° Elbow

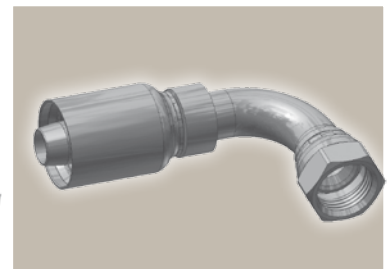
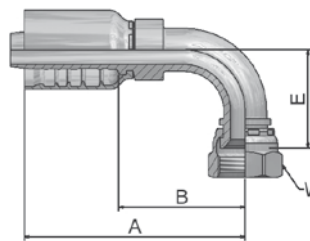
ISO 12151-5-SWE 45° – DKJ 45°



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | E mm | W mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 13777-8-8 | 12 | 1/2 | -8 | 12.7 | 3/4x16 | 73 | 38 | 15 | 22 |
| 13777-10-8 | 12 | 1/2 | -8 | 12.7 | 7/8x14 | 76 | 41 | 16 | 27 |
| 13777-12-8 | 12 | 1/2 | -8 | 12.7 | 1 1/16x12 | 79 | 44 | 21 | 32 |
| 13777-10-10 | 16 | 5/8 | -10 | 15.9 | 7/8x14 | 93 | 54 | 16 | 27 |
| 13777-12-10 | 16 | 5/8 | -10 | 15.9 | 1 1/16x12 | 100 | 61 | 21 | 32 |
| 13777-10-12 | 19 | 3/4 | -12 | 19.1 | 7/8x14 | 102 | 56 | 16 | 27 |
| 13777-12-12 | 19 | 3/4 | -12 | 19.1 | 1 1/16x12 | 111 | 65 | 21 | 32 |
| 13777-16-12 | 19 | 3/4 | -12 | 19.1 | 1 5/16x12 | 114 | 68 | 24 | 41 |
| 13777-16-16 | 25 | 1 | -16 | 25.4 | 1 5/16x12 | 133 | 79 | 24 | 41 |
| 13777-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 5/8x12 | 153 | 90 | 32 | 50 |
| 13777-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 7/8x12 | 201 | 134 | 58 | 60 |
| 13777-32-32 | 51 | 2 | -32 | 50.8 | 2 1/2x12 | 258 | 181 | 72 | 75 |

39 Female JIC 37° – Swivel 90° Elbow

ISO 12151-5-SWES – DKJ 90°



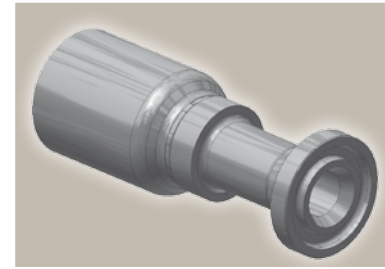
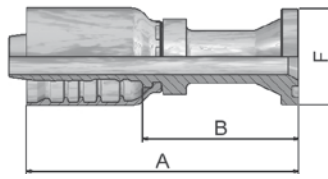
| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | E mm | W mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 13977-8-8 | 12 | 1/2 | -8 | 12.7 | 3/4x16 | 71 | 36 | 29 | 22 |
| 13977-10-8 | 12 | 1/2 | -8 | 12.7 | 7/8x14 | 76 | 41 | 32 | 27 |
| 13977-12-8 | 12 | 1/2 | -8 | 12.7 | 1 1/16x12 | 76 | 41 | 48 | 32 |
| 13977-10-10 | 16 | 5/8 | -10 | 15.9 | 7/8x14 | 88 | 50 | 33 | 27 |
| 13977-12-10 | 16 | 5/8 | -10 | 15.9 | 1 1/16x12 | 92 | 53 | 48 | 32 |
| 13977-10-12 | 19 | 3/4 | -12 | 19.1 | 7/8x14 | 97 | 51 | 33 | 27 |
| 13977-12-12 | 19 | 3/4 | -12 | 19.1 | 1 1/16x12 | 108 | 62 | 48 | 32 |
| 13977-16-12 | 19 | 3/4 | -12 | 19.1 | 1 5/16x12 | 108 | 62 | 56 | 41 |
| 13977-16-16 | 25 | 1 | -16 | 25.4 | 1 5/16x12 | 131 | 77 | 74 | 41 |
| 13977-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 5/8x12 | 148 | 84 | 78 | 50 |
| 13977-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 7/8x12 | 175 | 108 | 102 | 60 |
| 13977-32-32 | 51 | 2 | -32 | 50.8 | 2 1/2x12 | 236 | 159 | 152 | 75 |

Approved fitting series for hose types:

77 787TC | 797TC

15/4A ISO 6162-1 Flange Straight

ISO 12151-3-S-L – SFL
(35.0 MPa/ 5000 psi)



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 11577-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2 | 90 | 55 | 30 |
| 11577-12-8 | 12 | 1/2 | -8 | 12.7 | 3/4 | 67 | 33 | 38 |
| 11577-10-10 | 16 | 5/8 | -10 | 15.9 | 5/8 | 99 | 60 | 34 |
| 11577-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4 | 75 | 36 | 38 |
| 11577-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 107 | 62 | 38 |
| 11577-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 88 | 42 | 45 |
| 11577-16-16 | 25 | 1 | -16 | 25.4 | 1 | 119 | 65 | 45 |
| 14A77-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 87 | 33 | 51 |
| 11577-16-20 | 31 | 1 1/4 | -20 | 31.8 | 1 | 130 | 66 | 45 |
| 14A77-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 138 | 74 | 51 |
| 14A77-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 100 | 37 | 60 |
| 14A77-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 140 | 73 | 60 |
| 14A77-32-24 | 38 | 1 1/2 | -24 | 38.1 | 2 | 117 | 50 | 71 |
| 14A77-32-32 | 51 | 2 | -32 | 50.8 | 2 | 163 | 86 | 71 |

SAE flange halves see in section Eb.

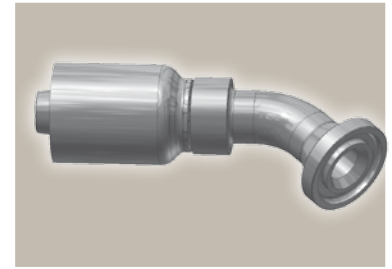
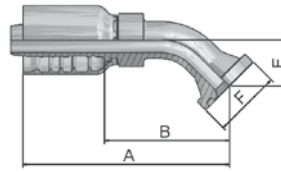
Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

Approved **fitting series** for hose types:

77 787TC | 797TC

17/4F ISO 6162-1 Flange 45° Elbow

ISO 12151-3 – E45S – L – SFL 45°
(35.0 MPa/ 5000 psi)



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 11777-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2 | 79 | 45 | 20 | 30 |
| 11777-12-8 | 12 | 1/2 | -8 | 12.7 | 3/4 | 81 | 47 | 22 | 38 |
| 11777-10-10 | 16 | 5/8 | -10 | 15.9 | 5/8 | 103 | 64 | 24 | 34 |
| 11777-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 116 | 70 | 26 | 38 |
| 11777-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 116 | 70 | 26 | 45 |
| 11777-16-16 | 25 | 1 | -16 | 25.4 | 1 | 141 | 87 | 32 | 45 |
| 14F77-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 141 | 87 | 32 | 51 |
| 14F77-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 162 | 99 | 38 | 51 |
| 14F77-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 162 | 99 | 38 | 60 |
| 14F77-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 187 | 120 | 44 | 60 |
| 14F77-32-24 | 38 | 1 1/2 | -24 | 38.1 | 2 | 182 | 115 | 44 | 71 |
| 14F77-32-32 | 51 | 2 | -32 | 50.8 | 2 | 211 | 134 | 56 | 71 |

SAE flange halves see in section Eb.

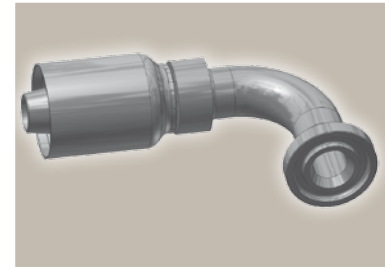
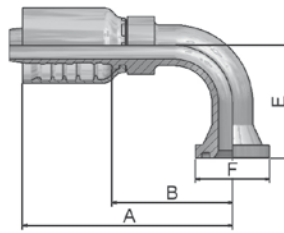
Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

Approved **fitting series** for hose types:

77 787TC | 797TC

19/4N ISO 6162-1 Flange 90° Elbow

ISO 12151-3-E-L – SFL 90°
(35.0 MPa/ 5000 psi)



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 11977-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2 | 76 | 41 | 41 | 30 |
| 11977-12-8 | 12 | 1/2 | -8 | 12.7 | 3/4 | 80 | 45 | 42 | 38 |
| 11977-10-10 | 16 | 5/8 | -10 | 15.9 | 5/8 | 92 | 53 | 53 | 34 |
| 11977-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 108 | 62 | 58 | 38 |
| 11977-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 108 | 62 | 58 | 45 |
| 11977-16-16 | 25 | 1 | -16 | 25.4 | 1 | 131 | 77 | 70 | 45 |
| 14N77-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 131 | 77 | 69 | 51 |
| 11977-16-20 | 31 | 1 1/4 | -20 | 31.8 | 1 | 151 | 87 | 90 | 45 |
| 14N77-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 151 | 87 | 90 | 51 |
| 14N77-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 151 | 87 | 90 | 60 |
| 14N77-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 175 | 108 | 104 | 60 |
| 14N77-32-24 | 38 | 1 1/2 | -24 | 38.1 | 2 | 170 | 103 | 104 | 71 |
| 14N77-32-32 | 51 | 2 | -32 | 50.8 | 2 | 206 | 129 | 138 | 71 |

SAE flange halves see in section Eb.

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.

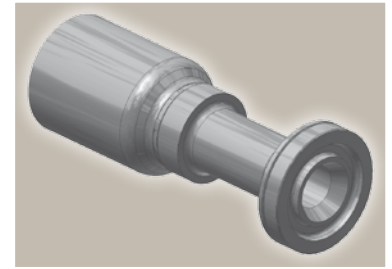
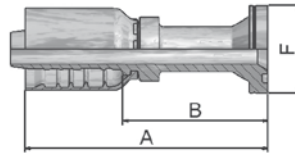
O-rings see section Eb. Special O-rings are available on request.

Approved **fitting series** for hose types:

77 787TC | 797TC

6A ISO 6162-2 Flange Straight

ISO 12151-3-S-S – SFS
(42.0 MPa/ 6000 psi)



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 16A77-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2 | 89.85 | 55.2 | 32 |
| 16A77-12-8 | 12 | 1/2 | -8 | 12.7 | 3/4 | 69.4 | 34.75 | 41 |
| 16A77-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4 | 75 | 36 | 41 |
| 16A77-16-10 | 16 | 5/8 | -10 | 15.9 | 1 | 80 | 41 | 48 |
| 16A77-8-12 | 19 | 3/4 | -12 | 19.1 | 1/2 | 106 | 60 | 32 |
| 16A77-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 114.2 | 68.2 | 41 |
| 16A77-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 88.2 | 42 | 48 |
| 16A77-20-12 | 19 | 3/4 | -12 | 19.1 | 1 1/4 | 93 | 47 | 54 |
| 16A77-12-16 | 25 | 1 | -16 | 25.4 | 3/4 | 126 | 72 | 41 |
| 16A77-16-16 | 25 | 1 | -16 | 25.4 | 1 | 113 | 59 | 48 |
| 16A77-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 103 | 49 | 54 |
| 16A77-16-20 | 31 | 1 1/4 | -20 | 31.8 | 1 | 145 | 82 | 48 |
| 16A77-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 146 | 82 | 54 |
| 16A77-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 118 | 55 | 64 |
| 16A77-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 162 | 96 | 64 |
| 16A77-32-24 | 38 | 1 1/2 | -24 | 38.1 | 2 | 133 | 66 | 79 |
| 16A77-32-32 | 51 | 2 | -32 | 50.8 | 2 | 182 | 105 | 79 |

SAE flange halves see in section Eb.

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.

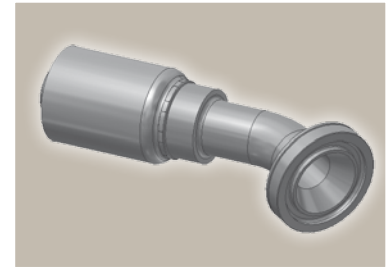
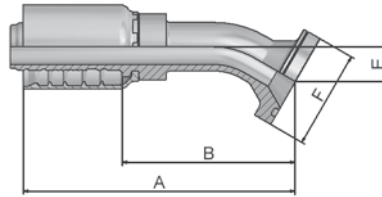
O-rings see section Eb. Special O-rings are available on request.

Approved **fitting series** for hose types:

77 787TC | 797TC

6E ISO 6162-2 Flange 30° Elbow

SFS 30°
(42.0 MPa/ 6000 psi)



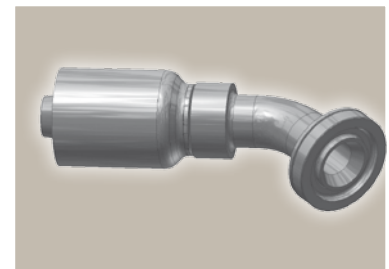
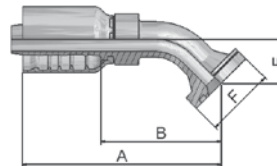
| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 16E77-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 121 | 75 | 16 | 41 |
| 16E77-16-16 | 25 | 1 | -16 | 25.4 | 1 | 136 | 82 | 19 | 48 |
| 16E77-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 149 | 95 | 19 | 54 |
| 16E77-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 167 | 104 | 22 | 54 |
| 16E77-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 190 | 123 | 30 | 64 |
| 16E77-32-32 | 51 | 2 | -32 | 50.8 | 2 | 223 | 145 | 32 | 79 |

SAE flange halves see in section Eb.

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

6F ISO 6162-2 Flange 45° Elbow – Heavy Series

ISO 12151-3 – E45-S – SFS 45°
(42.0 MPa/ 6000 psi)



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 16F77-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2 | 79 | 44 | 19 | 32 |
| 16F77-12-8 | 12 | 1/2 | -8 | 12.7 | 3/4 | 85.8 | 51 | 26 | 41 |
| 16F77-8-10 | 16 | 5/8 | -10 | 15.9 | 1/2 | 105 | 66 | 26 | 32 |
| 16F77-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4 | 104 | 66 | 26 | 41 |
| 16F77-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 116.2 | 70 | 26 | 41 |
| 16F77-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 116 | 70 | 26 | 48 |
| 16F77-12-16 | 25 | 1 | -16 | 25.4 | 3/4 | 132 | 78 | 32 | 41 |
| 16F77-16-16 | 25 | 1 | -16 | 25.4 | 1 | 141 | 87 | 32 | 48 |
| 16F77-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 142 | 88 | 32 | 54 |
| 16F77-16-20 | 31 | 1 1/4 | -20 | 31.8 | 1 | 159 | 95 | 38 | 48 |
| 16F77-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 162 | 99 | 38 | 54 |
| 16F77-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 162 | 99 | 38 | 64 |
| 16F77-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 182 | 115 | 44 | 64 |
| 16F77-32-32 | 51 | 2 | -32 | 50.8 | 2 | 211 | 134 | 56 | 79 |

SAE flange halves see in section Eb.

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

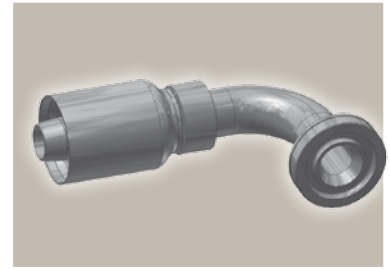
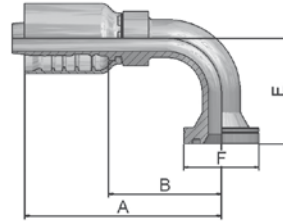
Approved **fitting series** for hose types:

77 787TC 797TC

6N

ISO 6162-2 Flange 90° Elbow

ISO 12151-3 – E-S – SFS 90°
(42.0 MPa/ 6000 psi)



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 16N77-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2 | 77.05 | 42 | 41 | 32 |
| 16N77-12-8 | 12 | 1/2 | -8 | 12.7 | 3/4 | 81.05 | 47 | 45 | 41 |
| 16N77-8-10 | 16 | 5/8 | -10 | 15.9 | 1/2 | 92 | 53 | 54 | 32 |
| 16N77-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4 | 92 | 53 | 54 | 41 |
| 16N77-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 108.2 | 62 | 58 | 41 |
| 16N77-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 108 | 62 | 58 | 48 |
| 16N77-12-16 | 25 | 1 | -16 | 25.4 | 3/4 | 118 | 64 | 70 | 41 |
| 16N77-16-16 | 25 | 1 | -16 | 25.4 | 1 | 131 | 77 | 70 | 48 |
| 16N77-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 135 | 81 | 70 | 54 |
| 16N77-16-20 | 31 | 1 1/4 | -20 | 31.8 | 1 | 145 | 82 | 90 | 48 |
| 16N77-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 151 | 87 | 90 | 54 |
| 16N77-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 151 | 87 | 90 | 64 |
| 16N77-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 175 | 108 | 104 | 64 |
| 16N77-32-24 | 38 | 1 1/2 | -24 | 38.1 | 2 | 175 | 108 | 104 | 79 |
| 16N77-32-32 | 51 | 2 | -32 | 50.8 | 2 | 206 | 129 | 138 | 79 |

SAE flange halves see in section Eb.

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.

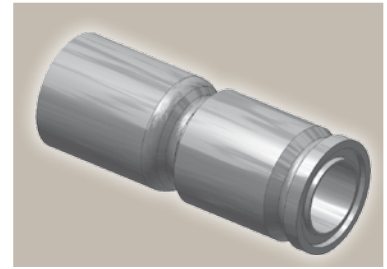
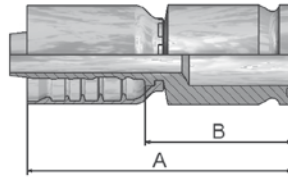
O-rings see section Eb. Special O-rings are available on request.


Approved **fitting series** for hose types:

77 787TC | 797TC

X5 Flange – Straight

Full flange system for
ISO 6162-1 or ISO 6162-2

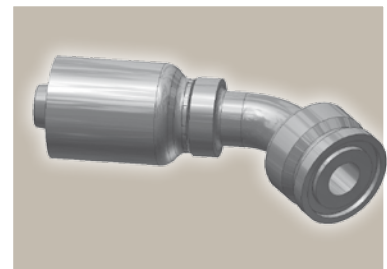
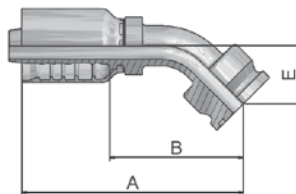



| Part Number |  Hose I.D. | | | | A mm | B mm |
|-------------|--|------|------|------|---------|---------|
| | DN | Inch | Size | mm | | |
| 1X577-12-12 | 19 | 3/4 | -12 | 19.1 | 103 | 57 |
| 1X577-16-12 | 19 | 3/4 | -12 | 19.1 | 103.2 | 57 |
| 1X577-16-16 | 25 | 1 | -16 | 25.4 | 113 | 59 |
| 1X577-20-16 | 25 | 1 | -16 | 25.4 | 113 | 59 |
| 1X577-24-16 | 25 | 1 | -16 | 25.4 | 113 | 59 |

Full flange system see Eb-2.

X7 Flange – 45° Elbow

Full flange system for
ISO 6162-1 or ISO 6162-2



| Part Number |  Hose I.D. | | | | A mm | B mm | E mm |
|-------------|--|-------|------|------|---------|---------|---------|
| | DN | Inch | Size | mm | | | |
| 1X777-12-12 | 19 | 3/4 | -12 | 19.1 | 118.4 | 72.6 | 28.5 |
| 1X777-16-12 | 19 | 3/4 | -12 | 19.1 | 118.4 | 72.4 | 28.5 |
| 1X777-16-16 | 25 | 1 | -16 | 25.4 | 141 | 87 | 32 |
| 1X777-20-16 | 25 | 1 | -16 | 25.4 | 147 | 93 | 38 |
| 1X777-16-20 | 31 | 1 1/4 | -20 | 31.8 | 146 | 82 | 38 |
| 1X777-20-20 | 31 | 1 1/4 | -20 | 31.8 | 159 | 96 | 38 |
| 1X777-24-20 | 31 | 1 1/4 | -20 | 31.8 | 165 | 102 | 44 |
| 1X777-24-24 | 38 | 1 1/2 | -24 | 38.1 | 183 | 116 | 45 |

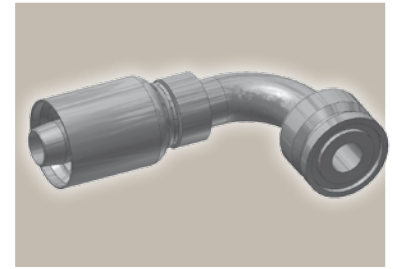
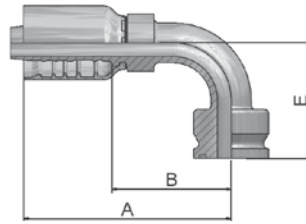
Full flange system see Eb-2.


Approved **fitting series** for hose types:

77 787TC | 797TC

X9 Flange – 90° Elbow

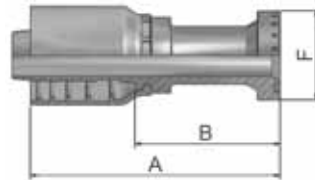
Full flange system for
ISO 6162-1 or ISO 6162-2





| Part Number |  Hose I.D. | | | | A mm | B mm | E mm |
|-------------|--|-------|------|------|---------|---------|---------|
| | DN | Inch | Size | mm | | | |
| 1X977-8-8 | 12 | 1/2 | -8 | 12.7 | 81 | 45 | 43 |
| 1X977-12-12 | 19 | 3/4 | -12 | 19.1 | 107.5 | 61.7 | 60.5 |
| 1X977-16-12 | 19 | 3/4 | -12 | 19.1 | 107.6 | 61.8 | 60.5 |
| 1X977-12-16 | 25 | 1 | -16 | 25.4 | 110 | 56 | 70 |
| 1X977-16-16 | 25 | 1 | -16 | 25.4 | 131 | 77 | 70 |
| 1X977-20-16 | 25 | 1 | -16 | 25.4 | 131 | 77 | 70 |
| 1X977-16-20 | 31 | 1 1/4 | -20 | 31.8 | 130 | 67 | 90 |
| 1X977-20-20 | 31 | 1 1/4 | -20 | 31.8 | 148 | 84 | 90 |
| 1X977-24-20 | 31 | 1 1/4 | -20 | 31.8 | 148 | 84 | 90 |
| 1X977-24-24 | 38 | 1 1/2 | -24 | 38.1 | 170 | 103 | 104 |

Full flange system see Eb-2.

XA Caterpillar® Flange Straight

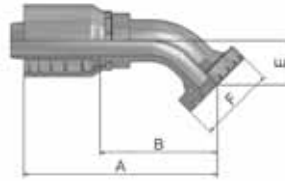




| Part Number |  Hose I.D. | | | |  Flange Inch | A mm | B mm | F mm |
|-------------|--|-------|------|------|---|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 1XA77-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 114 | 68 | 41 |
| 1XA77-16-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 88 | 42 | 48 |
| 1XA77-16-16 | 25 | 1 | -16 | 25.4 | 1 | 141 | 87 | 48 |
| 1XA77-20-16 | 25 | 1 | -16 | 25.4 | 1 | 104 | 50 | 54 |
| 1XA77-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 152 | 88 | 54 |
| 1XA77-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 121 | 57 | 64 |
| 1XA77-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 176 | 109 | 64 |
| 1XA77-32-24 | 38 | 1 1/2 | -24 | 38.1 | 2 | 133 | 66 | 79 |
| 1XA77-32-32 | 51 | 2 | -32 | 50.8 | 2 | 192 | 115 | 79 |

Approved **fitting series** for hose types:

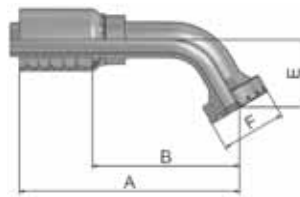
77 787TC | 797TC



XF Caterpillar® Flange
45° Elbow



| Part Number |  Hose I.D. | | | |  Flange | A | B | E | F |
|-------------|--|-------|------|------|---|-----|----|----|----|
| | DN | Inch | Size | mm | Inch | mm | mm | mm | mm |
| 1XF77-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 122 | 76 | 31 | 41 |
| 1XF77-16-16 | 25 | 1 | -16 | 25.4 | 1 | 145 | 91 | 36 | 48 |
| 1XF77-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 161 | 98 | 37 | 54 |
| 1XF77-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 161 | 98 | 37 | 64 |

XG Caterpillar® Flange
60° Elbow

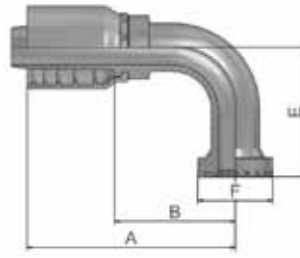


| Part Number |  Hose I.D. | | | |  Flange | A | B | E | F |
|-------------|--|-------|------|------|---|-----|-----|----|----|
| | DN | Inch | Size | mm | Inch | mm | mm | mm | mm |
| 1XG77-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 137 | 91 | 42 | 41 |
| 1XG77-16-16 | 25 | 1 | -16 | 25.4 | 1 | 163 | 109 | 50 | 48 |
| 1XG77-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 200 | 136 | 51 | 54 |

Approved **fitting series** for hose types:

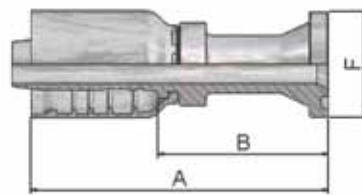
77 787TC | 797TC

XN Caterpillar® Flange
90° Elbow



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1XN77-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 108 | 62 | 63 | 41 |
| 1XN77-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 108 | 62 | 63 | 48 |
| 1XN77-16-16 | 25 | 1 | -16 | 25.4 | 1 | 131 | 77 | 74 | 48 |
| 1XN77-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 120 | 66 | 74 | 54 |
| 1XN77-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 151 | 87 | 94 | 54 |
| 1XN77-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 151 | 87 | 77 | 64 |
| 1XN77-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 160 | 103 | 106 | 79 |
| 1XN77-32-24 | 38 | 1 1/2 | -24 | 38.1 | 2 | 169 | 103 | 106 | 79 |

K5 Komatsu® Flange
Straight

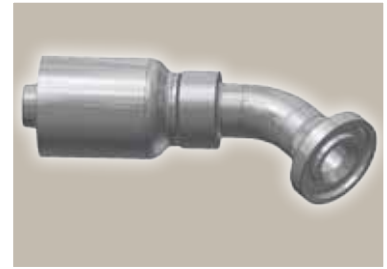
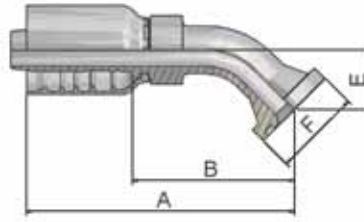



| Part Number | Hose I.D. | | | | A mm | B mm |
|-------------|-----------|------|------|------|---------|---------|
| | DN | Inch | Size | mm | | |
| 1K577-16-16 | 25 | 1 | -16 | 25.4 | 119 | 65 |

Approved **fitting series** for hose types:

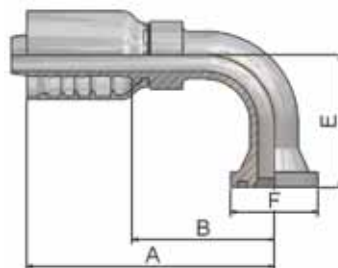
77 787TC | 797TC


K7 Komatsu® Flange 45° Elbow



| Part Number |  Hose I.D. | | | | A mm | B mm | E mm |
|-------------|--|-------|------|------|---------|---------|---------|
| | DN | Inch | Size | mm | | | |
| 1K777-12-12 | 19 | 3/4 | -12 | 19.1 | 116 | 70 | 26 |
| 1K777-20-20 | 31 | 1 1/4 | -20 | 31.8 | 159 | 96 | 38 |

K9 Komatsu® Flange 90° Elbow



| Part Number |  Hose I.D. | | | | A mm | B mm | E mm |
|-------------|--|-------|------|------|---------|---------|---------|
| | DN | Inch | Size | mm | | | |
| 1K977-12-12 | 19 | 3/4 | -12 | 19.1 | 108 | 62 | 58 |
| 1K977-16-16 | 25 | 1 | -16 | 25.4 | 127 | 73 | 70 |
| 1K977-20-20 | 31 | 1 1/4 | -20 | 31.8 | 148 | 84 | 90 |

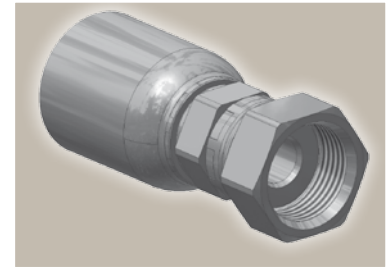
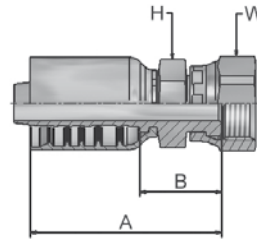
Approved **fitting series** for hose types:

77 787TC | 797TC

JC

Female ORFS Swivel – Straight Short

ISO 12151-1 – SWSA
SAE J516 – ORFS

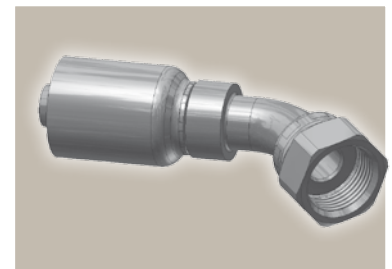
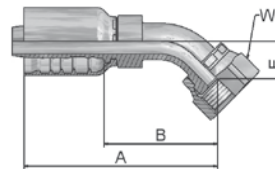


| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | H mm | W mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1JC77-8-8 | 12 | 1/2 | -8 | 12.7 | 13/16x16 | 60 | 25 | 22 | 24 |
| 1JC77-10-8 | 12 | 1/2 | -8 | 12.7 | 1x14 | 65 | 31 | 24 | 30 |
| 1JC77-12-8 | 12 | 1/2 | -8 | 12.7 | 1 3/16x12 | 64 | 29 | 30 | 36 |
| 1JC77-10-10 | 16 | 5/8 | -10 | 15.9 | 1x14 | 70 | 31 | 24 | 30 |
| 1JC77-12-10 | 16 | 5/8 | -10 | 15.9 | 13/16x16 | 69 | 30 | 30 | 36 |
| 1JC77-10-12 | 19 | 3/4 | -12 | 19.1 | 1x14 | 79 | 33 | 30 | 30 |
| 1JC77-12-12 | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 78.5 | 32.5 | 30 | 36 |
| 1JC77-16-12 | 19 | 3/4 | -12 | 19.1 | 1 7/16x12 | 81 | 35.3 | 36 | 41 |
| 1JC77-12-16 | 25 | 1 | -16 | 25.4 | 1 3/16x12 | 92 | 38 | 36 | 36 |
| 1JC77-16-16 | 25 | 1 | -16 | 25.4 | 1 7/16x12 | 91 | 37.1 | 36 | 41 |
| 1JC77-20-16 | 25 | 1 | -16 | 25.4 | 1 11/16x12 | 90 | 36 | 41 | 50 |
| 1JC77-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 11/16x12 | 107 | 44 | 46 | 50 |
| 1JC77-24-24 | 38 | 1 1/2 | -24 | 38.1 | 2x12 | 109 | 43 | 50 | 60 |
| 1JC77-32-32 | 51 | 2 | -32 | 50.8 | 2 1/2x12 | 143 | 66 | 65 | 75 |

J7

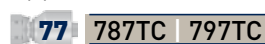
Female ORFS – Swivel 45° Elbow

ISO 12151-1 – SWE 45°
SAE J516 – ORFS 45°



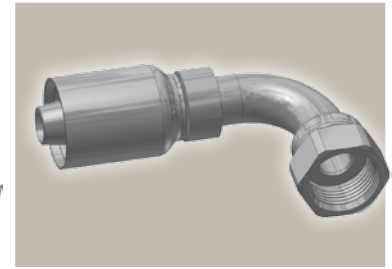
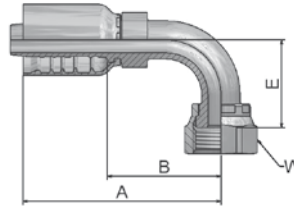
| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | E mm | W mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1J777-8-8 | 12 | 1/2 | -8 | 12.7 | 13/16x16 | 72.7 | 38 | 15 | 24 |
| 1J777-10-10 | 16 | 5/8 | -10 | 15.9 | 1x14 | 93 | 54 | 16 | 30 |
| 1J777-12-10 | 16 | 5/8 | -10 | 15.9 | 1 3/16x12 | 98 | 59 | 21 | 36 |
| 1J777-12-12 | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 111 | 65 | 21 | 36 |
| 1J777-16-16 | 25 | 1 | -16 | 25.4 | 1 7/16x12 | 133 | 79 | 24 | 41 |
| 1J777-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 11/16x12 | 145 | 81 | 25 | 50 |
| 1J777-24-20 | 31 | 1 1/4 | -20 | 31.8 | 2x12 | 148 | 84 | 27 | 60 |
| 1J777-24-24 | 38 | 1 1/2 | -24 | 38.1 | 2x12 | 176 | 109 | 42 | 60 |

Approved **fitting series** for hose types:



J9 Female ORFS – Swivel 90° Elbow – Short Drop

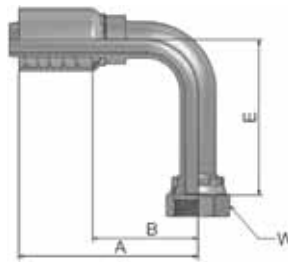
ISO 12151-1 – SWES
SAE J516 – ORFS 90°



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | E mm | W mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1J977-8-8 | 12 | 1/2 | -8 | 12.7 | 13/16x16 | 70.65 | 36 | 29 | 24 |
| 1J977-10-10 | 16 | 5/8 | -10 | 15.9 | 1x14 | 97 | 50 | 32 | 30 |
| 1J977-10-12 | 19 | 3/4 | -12 | 19.1 | 1x14 | 97 | 51 | 32 | 30 |
| 1J977-12-12 | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 108 | 62 | 48 | 36 |
| 1J977-16-12 | 19 | 3/4 | -12 | 19.1 | 1 7/16x12 | 108 | 62 | 56 | 41 |
| 1J977-16-16 | 25 | 1 | -16 | 25.4 | 1 7/16x12 | 131 | 77 | 56 | 41 |
| 1J977-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 11/16x12 | 146 | 82 | 64 | 50 |
| 1J977-24-24 | 38 | 1 1/2 | -24 | 38.1 | 2x12 | 163 | 96 | 69 | 60 |

J1 Female ORFS – Swivel 90° Elbow – Long Drop

ISO 12151-1 – SWEL
SAE J 516 – ORFS 90° L



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | E mm | W mm |
|-------------|-----------|------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1J177-16-16 | 25 | 1 | -16 | 25.4 | 1 7/16x12 | 131 | 77 | 114 | 41 |

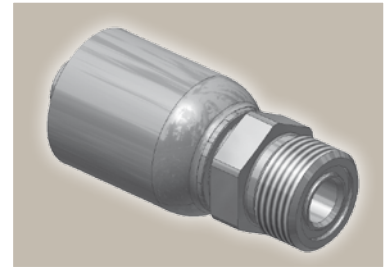
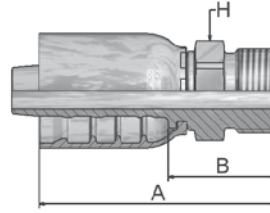
Approved **fitting series** for hose types:

77 787TC | 797TC

JM

ORFS Male

ISO 12151-1-S – SAE J516



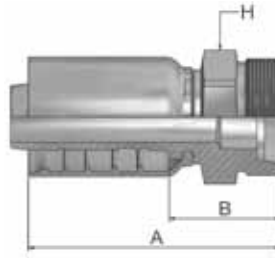
| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | H mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 1JM77-8-8 | 12 | 1/2 | -8 | 12.7 | 13/16x16 | 62.5 | 27.85 | 22 |
| 1JM77-12-8 | 12 | 1/2 | -8 | 12.7 | 1 3/16x12 | 69.6 | 34.95 | 32 |
| 1JM77-10-10 | 16 | 5/8 | -10 | 15.9 | 1x14 | 71.65 | 33 | 27 |
| 1JM77-12-10 | 16 | 5/8 | -10 | 15.9 | 1 3/16x12 | 76 | 37 | 30 |
| 1JM77-12-12 | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 83 | 37 | 32 |
| 1JM77-16-12 | 19 | 3/4 | -12 | 19.1 | 1 7/16x12 | 83.6 | 37.8 | 41 |
| 1JM77-16-16 | 25 | 1 | -16 | 25.4 | 1 7/16x12 | 96 | 40.9 | 41 |
| 1JM77-20-16 | 25 | 1 | -16 | 25.4 | 1 11/16x12 | 93 | 39.2 | 46 |
| 1JM77-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 11/16x12 | 110 | 46 | 50 |
| 1JM77-24-20 | 31 | 1 1/4 | -20 | 31.8 | 2 12 | 116 | 52 | 60 |




JM fittings are supplied without O-ring.
Find O-rings in section E. Special O-rings are available on request.

Approved **fitting series** for hose types:

77 787TC | 797TC

FG Male French Gas Series
Rigid – Straight (24° Cone)



| Part Number |  Hose I.D. | | | |  Thread metric | A mm | B mm |  H mm |
|-------------|--|------|------|------|---|---------|---------|--|
| | DN | Inch | Size | mm | | | | |
| 1FG77-27-12 | 19 | 3/4 | -12 | 19.1 | M36x1.5 | 82 | 36 | 36 |
| 1FG77-33-16 | 25 | 1 | -16 | 25.4 | M45x1.5 | 97 | 43 | 46 |

Approved **fitting series** for hose types:

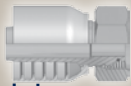
77 787TC | 797TC

DIN – Metric

Page Dg-1 – Dg-2

C9

Dg-1



Female Metric 24° – Swivel
Heavy Series with O-Ring
Straight

ISO 12151-2-SWS-S – DKOS

0C

Dg-1

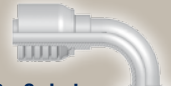


Female Metric 24° – Swivel
Heavy Series with O-Ring
45° Elbow

ISO 12151-2-SWE 45°-S – DKOS 45°

1C

Dg-2



Female Metric 24° – Swivel
Heavy Series with O-Ring
90° Elbow

ISO 12151-2-SWE-S – DKOS 90°

D2

Dg-2



Male Metric 24° – Rigid
Heavy Series – Straight

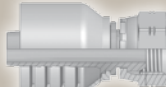
ISO 12151-2-S-S – CES

BSP

Page Dg-3 – Dg-4

92

Dg-3

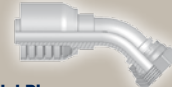


Female BSP Parallel Pipe
Swivel – Straight (60° Cone)

BS5200-A – DKR

B1

Dg-3

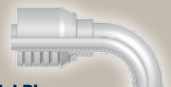


Female BSP Parallel Pipe
Swivel
45° Elbow (60° Cone)

BS 5200-D – DKR 45°

B2

Dg-4



Female BSP Parallel Pipe
Swivel
90° Elbow (60° Cone)

BS 5200-B – DKR 90°

D9

Dg-4



Male BSP Parallel Pipe
Rigid – Straight (60° Cone)

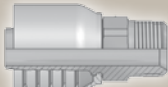
BS5200 – AGR

SAE

Page Dg-5 – Dg-7

01

Dg-5



Male NPTF Pipe
Rigid – Straight

SAE J476A / J516 – AGN

03

Dg-5

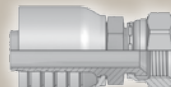


Male JIC 37° – Rigid
Straight

ISO12151-5-S – AGJ

06

Dg-6

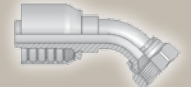


Female JIC 37° – Swivel
Straight

ISO12151-5-SWS – DKJ

37

Dg-6

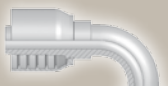


Female JIC 37° – Swivel
45° Elbow

ISO 12151-5-SWE 45° – DKJ 45°

39

Dg-7

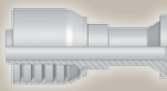
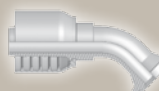
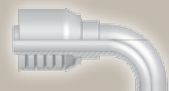
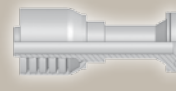
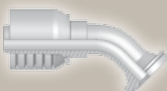
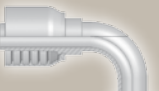
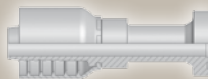
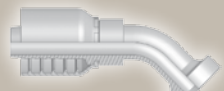
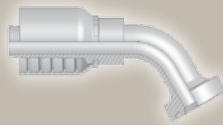
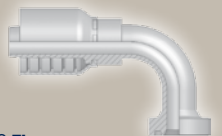


Female JIC 37° – Swivel
90° Elbow

ISO 12151-5-SWES – DKJ 90°

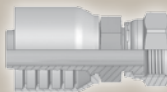
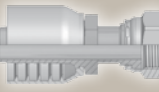

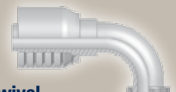
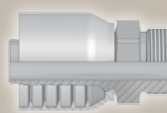
Flange

Page Dg-8 – Dg-12

| | | | |
|--|--|--|---|
| <p>15/4A Dg-8 ISO 6162-1 Flange Straight ISO 12151-3-S-L – SFL (35.0 MPa/ 5000 psi)</p>  | <p>17/4F Dg-8 ISO 6162-1 Flange 45° Elbow ISO 12151-3 – E45S – L – SFL 45° (35.0 MPa/ 5000 psi)</p>  | <p>19/4N Dg-9 ISO 6162-1 Flange 90° Elbow ISO 12151-3-E-L – SFL 90° (35.0 MPa/ 5000 psi)</p>  | <p>6A Dg-9 ISO 6162-2 Flange Straight ISO 12151-3-S-S – SFS (42.0 MPa/ 6000 psi)</p>  |
| <p>6F Dg-10 ISO 6162-2 Flange 45° Elbow – Heavy Series ISO 12151-3 – E45-S – SFS 45° (42.0 MPa/ 6000 psi)</p>  | <p>6N Dg-10 ISO 6162-2 Flange 90° Elbow ISO 12151-3 – E-S – SFS 90° (42.0 MPa/ 6000 psi)</p>  | <p>XA Dg-11 Caterpillar® Flange Straight</p>  | <p>XF Dg-11 Caterpillar® Flange 45° Elbow</p>  |
| <p>XG Dg-12 Caterpillar® Flange 60° Elbow</p>  | <p>XN Dg-12 Caterpillar® Flange 90° Elbow</p>  | | |

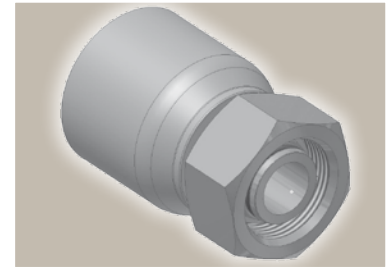
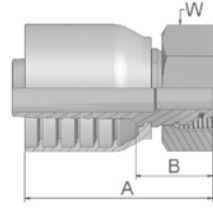
ORFS

Page Dg-13 – Dg-15

| | | | |
|---|---|--|---|
| <p>JC Dg-13 Female ORFS Swivel – Straight Short ISO 12151-1 – SWSA SAE J516 – ORFS</p>  | <p>JS Dg-13 ORFS Swivel Female (Long) ISO 12151-1-SWSB SAE J516 – ORFS</p>  | <p>J7 Dg-14 Female ORFS – Swivel 45° Elbow ISO 12151-1 – SWE 45° SAE J516 – ORFS 45°</p>  | <p>J9 Dg-14 Female ORFS – Swivel 90° Elbow – Short Drop ISO 12151-1 – SWES SAE J516 – ORFS 90°</p>  |
| <p>JM Dg-15 ORFS Male ISO 12151-1-S – SAE J516</p>  | | | |

C9 Female Metric 24° – Swivel Heavy Series with O-Ring Straight

ISO 12151-2-SWS-S – DKOS

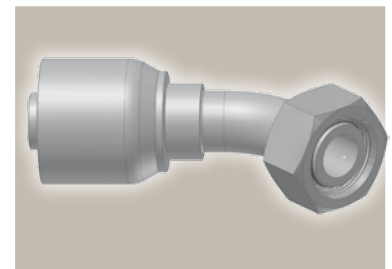
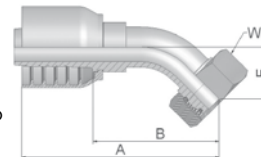


| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | W mm |
|-------------|-----------|-------|------|------|------------------|--------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1C978-20-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 20 | 86 | 35 | 36 |
| 1C978-25-12 | 19 | 3/4 | -12 | 19.1 | M36x2 | 25 | 79 | 31 | 46 |
| 1C978-30-16 | 25 | 1 | -16 | 25.4 | M42x2 | 30 | 87 | 36 | 50 |
| 1C978-30-20 | 31 | 1 1/4 | -20 | 31.8 | M42x2 | 30 | 106 | 42 | 50 |
| 1C978-38-20 | 31 | 1 1/4 | -20 | 31.8 | M52x2 | 38 | 101 | 37 | 60 |
| 1C978-38-24 | 38 | 1 1/2 | -24 | 38.1 | M52x2 | 38 | 105 | 42 | 60 |

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

OC Female Metric 24° – Swivel Heavy Series with O-Ring 45° Elbow

ISO 12151-2 – SWE 45°-S – DKOS 45°



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | E mm | W mm |
|-------------|-----------|-------|------|------|------------------|--------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | | |
| 10C78-25-12 | 19 | 3/4 | -12 | 19.1 | M36x2 | 25 | 112 | 64 | 29 | 46 |
| 10C78-30-16 | 25 | 1 | -16 | 25.4 | M42x2 | 30 | 131 | 81 | 34 | 50 |
| 10C78-38-20 | 31 | 1 1/4 | -20 | 31.8 | M52x2 | 38 | 161 | 97 | 37 | 60 |
| 10C78-38-24 | 38 | 1 1/2 | -24 | 38.1 | M52x2 | 38 | 182 | 120 | 49 | 60 |

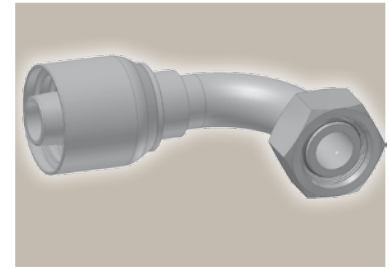
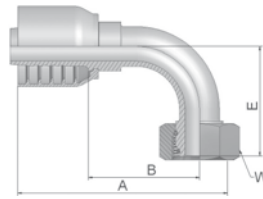
Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

Approved **fitting series** for hose types:

78 781 782TC

1C Female Metric 24° – Swivel Heavy Series with O-Ring 90° Elbow

ISO 12151-2-SWE-S – DKOS 90°

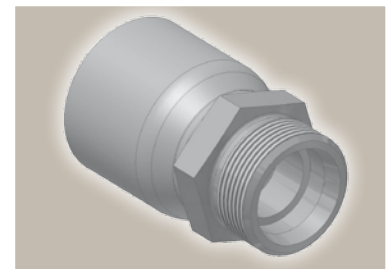
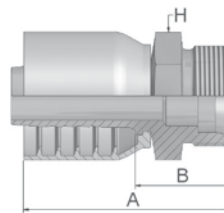


| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | E mm | W mm |
|-------------|-----------|-------|------|------|------------------|--------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | | |
| 11C78-20-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 20 | 101 | 53 | 60 | 36 |
| 11C78-25-12 | 19 | 3/4 | -12 | 19.1 | M36x2 | 25 | 101 | 53 | 59 | 46 |
| 11C78-30-16 | 25 | 1 | -16 | 25.4 | M42x2 | 30 | 122 | 71 | 73 | 50 |
| 11C78-38-20 | 31 | 1 1/4 | -20 | 31.8 | M52x2 | 38 | 151 | 87 | 78 | 60 |

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

D2 Male Metric 24° – Rigid Heavy Series – Straight

ISO 12151-2-S-S – CES



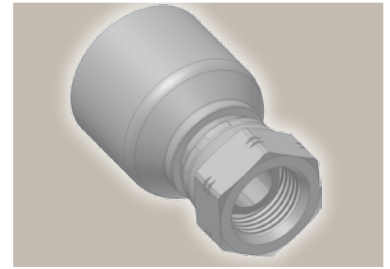
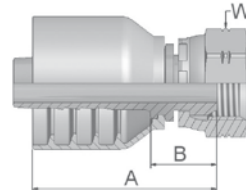
| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | H mm |
|-------------|-----------|-------|------|------|------------------|--------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1D278-25-12 | 19 | 3/4 | -12 | 19.1 | M36x2 | 25 | 86 | 38 | 36 |
| 1D278-30-16 | 25 | 1 | -16 | 25.4 | M42x2 | 30 | 95 | 42 | 46 |
| 1D278-38-20 | 31 | 1 1/4 | -20 | 31.8 | M52x2 | 38 | 112 | 48 | 55 |

Approved **fitting series** for hose types:

78 781 782TC

92 Female BSP Parallel Pipe Swivel – Straight (60° Cone)

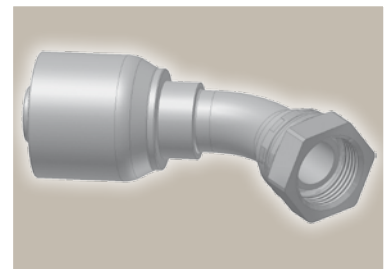
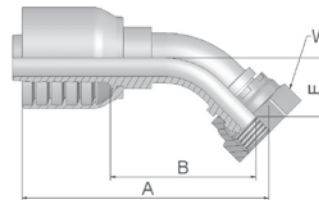
BS5200-A – DKR



| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | W mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 19278-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 75 | 27 | 32 |
| 19278-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 89 | 39 | 41 |
| 19278-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 101 | 37 | 50 |
| 19278-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2x11 | 100 | 37 | 55 |

B1 Female BSP Parallel Pipe Swivel 45° Elbow (60° Cone)

BS 5200-D – DKR 45°



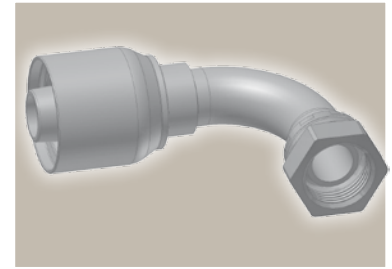
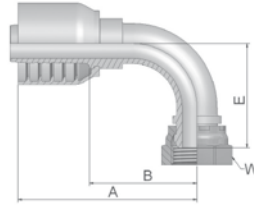
| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | E mm | W mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1B178-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 110 | 62 | 26 | 32 |
| 1B178-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 134 | 84 | 36 | 41 |
| 1B178-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 168 | 104 | 43 | 50 |
| 1B178-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2x11 | 186 | 123 | 52 | 55 |

Approved **fitting series** for hose types:

78 781 782TC

B2 Female BSP Parallel Pipe Swivel 90° Elbow (60° Cone)

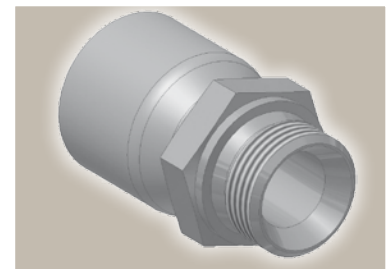
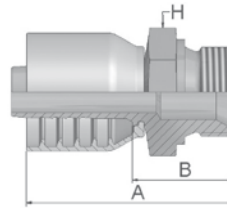
BS 5200-B – DKR 90°



| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | E mm | W mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1B278-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 106 | 58 | 55 | 32 |
| 1B278-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 120 | 70 | 74 | 41 |
| 1B278-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 151 | 87 | 80 | 50 |
| 1B278-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2x11 | 166 | 103 | 103 | 55 |

D9 Male BSP Parallel Pipe Rigid – Straight (60° Cone)

BS5200 – AGR



| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | H mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 1D978-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 87 | 39 | 32 |
| 1D978-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 96 | 45 | 41 |
| 1D978-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 113 | 49 | 50 |
| 1D978-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2x11 | 114 | 51 | 55 |

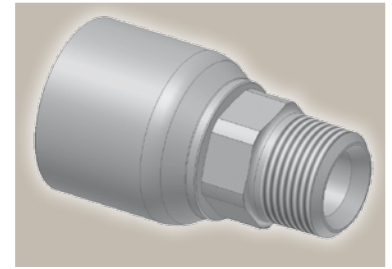
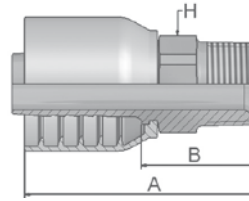
Approved **fitting series** for hose types:

78 781 782TC

01

Male NPTF Pipe Rigid – Straight

SAE J476A/ J516 – AGN

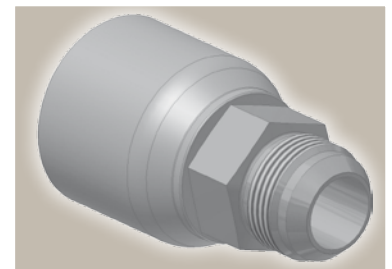
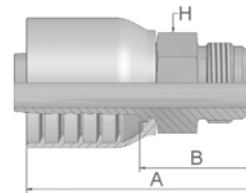


| Part Number | Hose I.D. | | | | Thread NPTF | A mm | B mm | H mm |
|----------------|-----------|-------|------|------|----------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 10178-12-12-SM | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 90 | 42 | 30 |
| 10178-16-16-SM | 25 | 1 | -16 | 25.4 | 1x11 1/2 | 100 | 50 | 36 |
| 10178-20-20-SM | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 1/2 | 125 | 61 | 46 |
| 10178-24-24-SM | 38 | 1 1/2 | -24 | 38.1 | 1 1/2x11 1/2 | 124 | 62 | 50 |

03

Male JIC 37° – Rigid Straight

ISO12151-5-S – AGJ



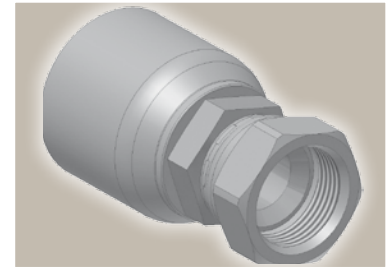
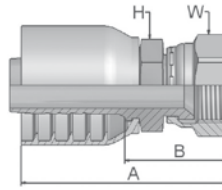
| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | H mm |
|----------------|-----------|-------|------|------|---------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 10378-12-12-SM | 19 | 3/4 | -12 | 19.1 | 1 1/16x12 | 89 | 41 | 30 |
| 10378-16-16-SM | 25 | 1 | -16 | 25.4 | 1 5/16x12 | 97 | 47 | 36 |
| 10378-20-20-SM | 31 | 1 1/4 | -20 | 31.8 | 1 5/8x12 | 118 | 54 | 46 |
| 10378-24-24-SM | 38 | 1 1/2 | -24 | 38.1 | 1 7/8x12 | 122 | 59 | 50 |

Approved **fitting series** for hose types:

78 781 782TC

06 Female JIC 37° – Swivel Straight

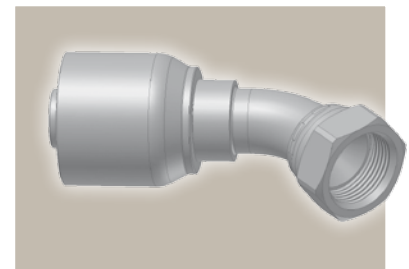
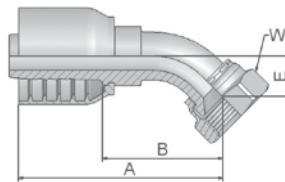
ISO12151-5-SWS – DKJ



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | H mm | W mm |
|----------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 10678-12-12-SM | 19 | 3/4 | -12 | 19.1 | 1 1/16x12 | 93 | 45 | 30 | 32 |
| 10678-16-12-SM | 19 | 3/4 | -12 | 19.1 | 1 5/16x12 | 99 | 51 | 36 | 41 |
| 10678-16-16-SM | 25 | 1 | -16 | 25.4 | 1 5/16x12 | 103 | 52 | 36 | 41 |
| 10678-16-20-SM | 31 | 1 1/4 | -20 | 31.8 | 1 5/16x12 | 116 | 52 | 46 | 41 |
| 10678-20-20-SM | 31 | 1 1/4 | -20 | 31.8 | 1 5/8x12 | 125 | 61 | 46 | 50 |
| 10678-24-24-SM | 38 | 1 1/2 | -24 | 38.1 | 1 7/8x12 | 128 | 66 | 50 | 60 |

37 Female JIC 37° – Swivel 45° Elbow

ISO 12151-5-SWE 45° – DKJ 45°



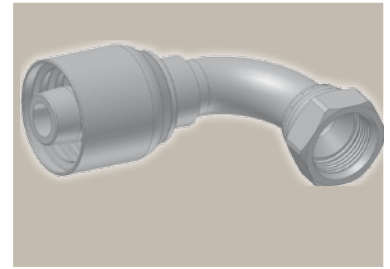
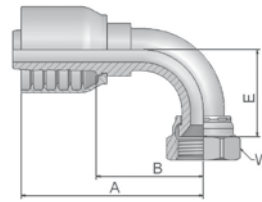
| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | E mm | W mm |
|----------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 13778-12-12-SM | 19 | 3/4 | -12 | 19.1 | 1 1/16x12 | 104 | 56 | 22 | 32 |
| 13778-16-16-SM | 25 | 1 | -16 | 25.4 | 1 5/16x12 | 119 | 69 | 24 | 41 |
| 13778-20-20-SM | 31 | 1 1/4 | -20 | 31.8 | 1 5/8x12 | 171 | 107 | 47 | 50 |
| 13778-24-24-SM | 38 | 1 1/2 | -24 | 38.1 | 1 7/8x12 | 194 | 132 | 58 | 60 |




Approved **fitting series** for hose types:

78 781 782TC

39 Female JIC 37° – Swivel 90° Elbow

ISO 12151-5-SWES – DKJ 90°



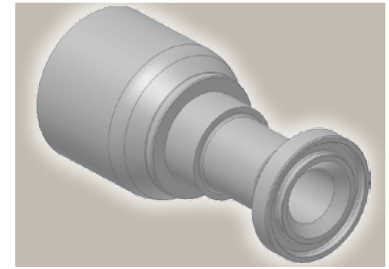
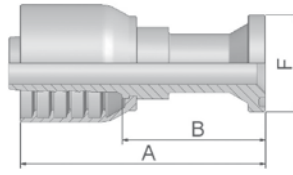
| Part Number |  Hose I.D. | | | |  Thread UNF | A mm | B mm | E mm |  W mm |
|----------------|--|-------|------|------|--|---------|---------|---------|--|
| | DN | Inch | Size | mm | | | | | |
| 13978-12-12-SM | 19 | 3/4 | -12 | 19.1 | 1 1/16x12 | 101 | 53 | 48 | 32 |
| 13978-16-16-SM | 25 | 1 | -16 | 25.4 | 1 5/16x12 | 118 | 67 | 56 | 41 |
| 13978-20-20-SM | 31 | 1 1/4 | -20 | 31.8 | 1 5/8x12 | 150 | 87 | 85 | 50 |
| 13978-24-24-SM | 38 | 1 1/2 | -24 | 38.1 | 1 7/8x12 | 194 | 119 | 102 | 60 |

Approved **fitting series** for hose types:

78 781 782TC

15/4A ISO 6162-1 Flange Straight

ISO 12151-3-S-L – SFL
(35.0 MPa/ 5000 psi)



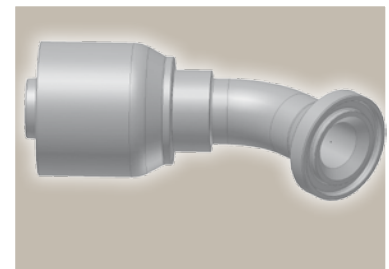
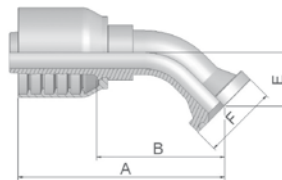
| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 11578-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 110 | 62 | 38 |
| 11578-16-16 | 25 | 1 | -16 | 25.4 | 1 | 117 | 66 | 45 |
| 14A78-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 85 | 34 | 51 |
| 11578-16-20 | 31 | 1 1/4 | -20 | 31.8 | 1 | 133 | 69 | 45 |
| 14A78-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 141 | 77 | 51 |
| 14A78-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 104 | 40 | 60 |
| 14A78-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 166 | 103 | 60 |

SAE flange halves see in section Eb.

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

17/4F ISO 6162-1 Flange 45° Elbow

ISO 12151-3 – E45S – L – SFL 45°
(35.0 MPa/ 5000 psi)



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 11778-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 119 | 71 | 27 | 38 |
| 11778-16-16 | 25 | 1 | -16 | 25.4 | 1 | 127 | 77 | 32 | 45 |
| 14F78-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 136 | 85 | 32 | 51 |
| 14F78-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 160 | 96 | 35 | 51 |
| 14F78-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 162 | 102 | 38 | 60 |
| 14F78-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 178 | 115 | 44 | 60 |
| 14F78-32-24 | 38 | 1 1/2 | -24 | 38.1 | 2 | 177 | 114 | 43 | 71 |

SAE flange halves see in section Eb.

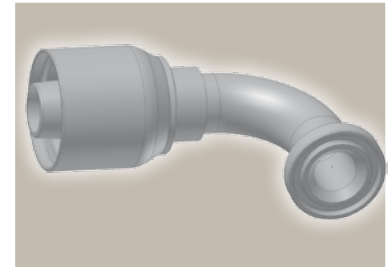
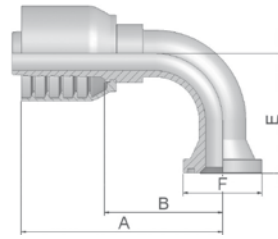
Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

Approved **fitting series** for hose types:

78 781 782TC

19/4N ISO 6162-1 Flange 90° Elbow

ISO 12151-3-E-L – SFL 90°
(35.0 MPa/ 5000 psi)



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 11978-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 109 | 61 | 58 | 38 |
| 11978-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 102 | 54 | 58 | 45 |
| 14N78-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 128 | 78 | 68 | 51 |
| 14N78-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 155 | 91 | 90 | 51 |
| 14N78-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 166 | 103 | 93 | 60 |

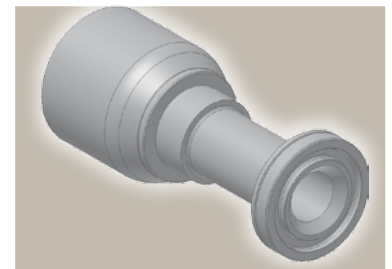
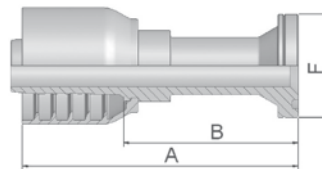
SAE flange halves see in section Eb.

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.

O-rings see section Eb. Special O-rings are available on request.

6A ISO 6162-2 Flange Straight

ISO 12151-3-S-S – SFS
(42.0 MPa/ 6000 psi)



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 16A78-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 130 | 82 | 41 |
| 16A78-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 135 | 87 | 48 |
| 16A78-16-16 | 25 | 1 | -16 | 25.4 | 1 | 131 | 81 | 48 |
| 16A78-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 142 | 91 | 54 |
| 16A78-16-20 | 31 | 1 1/4 | -20 | 31.8 | 1 | 149 | 85 | 48 |
| 16A78-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 149 | 85 | 54 |
| 16A78-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 121 | 57 | 64 |
| 16A78-20-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/4 | 158 | 96 | 54 |
| 16A78-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 166 | 104 | 64 |
| 16A78-32-24 | 38 | 1 1/2 | -24 | 38.1 | 2 | 129 | 66 | 79 |

SAE flange halves see in section Eb.

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.

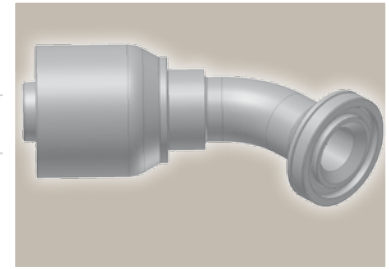
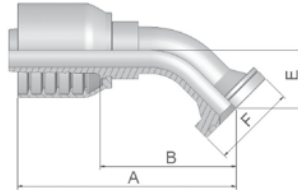
O-rings see section Eb. Special O-rings are available on request.

Approved **fitting series** for hose types:

78 781 782TC

6F ISO 6162-2 Flange 45° Elbow – Heavy Series

ISO 12151-3 – E45-S – SFS 45°
(42.0 MPa/ 6000 psi)



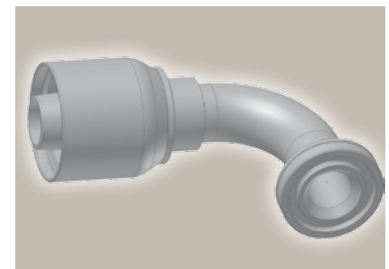
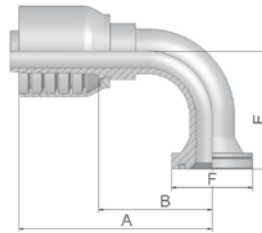
| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 16F78-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 109 | 61 | 26 | 41 |
| 16F78-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 110 | 62 | 26 | 48 |
| 16F78-16-16 | 25 | 1 | -16 | 25.4 | 1 | 129 | 79 | 32 | 48 |
| 16F78-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 129 | 79 | 32 | 54 |
| 16F78-16-20 | 31 | 1 1/4 | -20 | 31.8 | 1 | 157 | 93 | 33 | 48 |
| 16F78-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 163 | 98 | 38 | 54 |
| 16F78-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 163 | 99 | 38 | 63 |
| 16F78-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 178 | 115 | 44 | 64 |

SAE flange halves see in section Eb.

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

6N ISO 6162-2 Flange 90° Elbow

ISO 12151-3 – E-S – SFS 90°
(42.0 MPa/ 6000 psi)



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 16N78-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 101 | 53 | 58 | 41 |
| 16N78-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 109 | 65 | 62 | 48 |
| 16N78-12-16 | 25 | 1 | -16 | 25.4 | 3/4 | 109 | 58 | 70 | 41 |
| 16N78-16-16 | 25 | 1 | -16 | 25.4 | 1 | 122 | 71 | 70 | 48 |
| 16N78-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 122 | 71 | 70 | 54 |
| 16N78-16-20 | 31 | 1 1/4 | -20 | 31.8 | 1 | 137 | 73 | 90 | 48 |
| 16N78-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 172 | 108 | 71 | 54 |
| 16N78-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 172 | 108 | 76 | 64 |
| 16N78-20-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/4 | 170 | 113 | 76 | 54 |
| 16N78-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 166 | 103 | 104 | 64 |
| 16N78-32-24 | 38 | 1 1/2 | -24 | 38.1 | 2 | 166 | 103 | 104 | 79 |

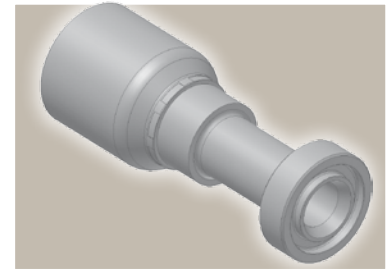
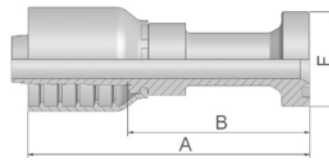
SAE flange halves see in section Eb.

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

Approved **fitting series** for hose types:

78 781 782TC

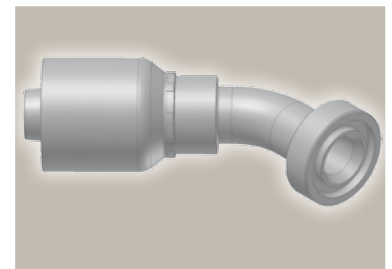
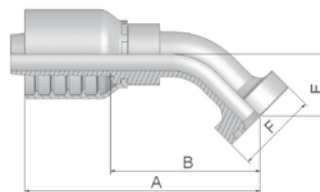
XA Caterpillar® Flange Straight



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 1XA78-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 123 | 75 | 41 |
| 1XA78-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 134 | 86 | 48 |
| 1XA78-16-16 | 25 | 1 | -16 | 25.4 | 1 | 138 | 88 | 48 |
| 1XA78-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 144 | 93 | 54 |
| 1XA78-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 155 | 96 | 54 |
| 1XA78-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 162 | 97 | 64 |
| 1XA78-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 172 | 110 | 64 |

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

XF Caterpillar® Flange 45° Elbow



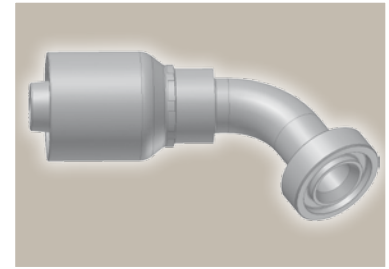
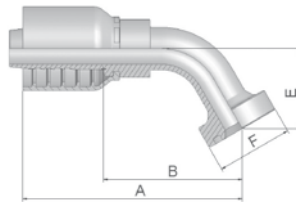
| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1XF78-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 123 | 75 | 31 | 41 |
| 1XF78-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 122 | 74 | 30 | 48 |
| 1XF78-16-16 | 25 | 1 | -16 | 25.4 | 1 | 138 | 88 | 36 | 48 |
| 1XF78-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 132 | 81 | 35 | 54 |
| 1XF78-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 162 | 98 | 37 | 54 |
| 1XF78-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 182 | 117 | 36 | 64 |
| 1XF78-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 174 | 116 | 39 | 63 |

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

Approved **fitting series** for hose types:

78 781 782TC

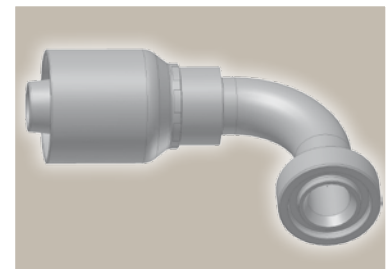
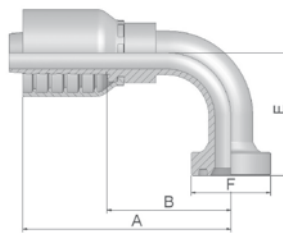
XG Caterpillar® Flange
60° Elbow



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1XG78-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 138 | 90 | 42 | 41 |
| 1XG78-16-16 | 25 | 1 | -16 | 25.4 | 1 | 160 | 109 | 50 | 48 |
| 1XG78-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 153 | 103 | 48 | 54 |
| 1XG78-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 170 | 107 | 52 | 54 |
| 1XG78-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 212 | 149 | 52 | 64 |

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

XN Caterpillar® Flange
90° Elbow



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1XN78-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 111 | 63 | 63 | 41 |
| 1XN78-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 111 | 63 | 62 | 48 |
| 1XN78-16-16 | 25 | 1 | -16 | 25.4 | 1 | 128 | 78 | 74 | 48 |
| 1XN78-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 122 | 71 | 74 | 54 |
| 1XN78-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 172 | 108 | 77 | 54 |
| 1XN78-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 172 | 107 | 77 | 64 |
| 1XN78-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 166 | 103 | 106 | 64 |

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

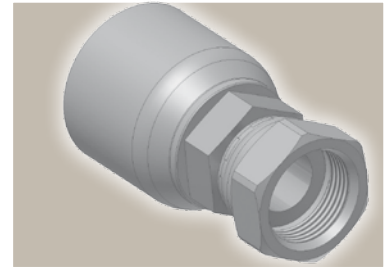
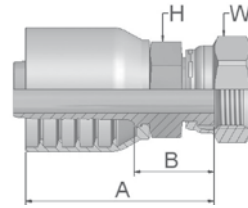
Approved **fitting series** for hose types:

78 781 782TC

JC

Female ORFS Swivel – Straight Short

ISO 12151-1 – SWSA
SAE J516 – ORFS

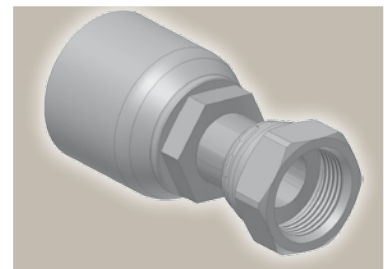
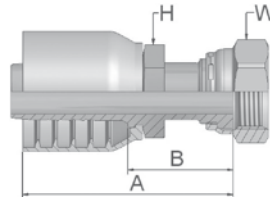


| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | H mm | W mm |
|----------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1JC78-12-12-SM | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 81 | 33 | 30 | 36 |
| 1JC78-20-20-SM | 31 | 1 1/4 | -20 | 31.8 | 1 11/16x12 | 106 | 42 | 46 | 50 |

JS

ORFS Swivel Female (Long)

ISO 12151-1-SWSB
SAE J516 – ORFS



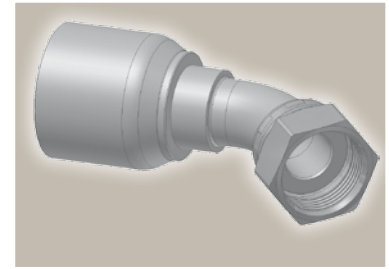
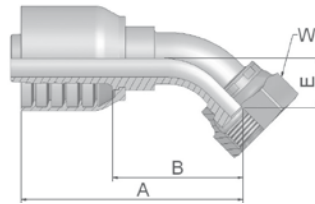
| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | H mm | W mm |
|----------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1JS78-12-12-SM | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 94 | 46 | 30 | 36 |
| 1JS78-16-16-SM | 25 | 1 | -16 | 25.4 | 1 7/16x12 | 103 | 52 | 36 | 41 |
| 1JS78-20-16-SM | 25 | 1 | -16 | 25.4 | 1 11/16x12 | 114 | 64 | 41 | 50 |
| 1JS78-20-20-SM | 31 | 1 1/4 | -20 | 31.8 | 1 11/16x12 | 117 | 54 | 46 | 50 |
| 1JS78-24-24-SM | 38 | 1 1/2 | -24 | 38.1 | 2x12 | 120 | 57 | 50 | 60 |

Approved **fitting series** for hose types:

78 781 782TC

J7 Female ORFS – Swivel 45° Elbow

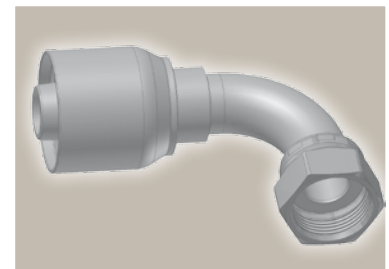
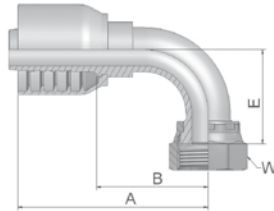
ISO 12151-1 – SWE 45°
SAE J516 – ORFS 45°



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | E mm | W mm |
|----------------|-----------|------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1J778-12-12-SM | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 105 | 57 | 21 | 36 |
| 1J778-16-16-SM | 25 | 1 | -16 | 25.4 | 1 7/16x12 | 119 | 69 | 24 | 41 |
| 1J778-20-16-SM | 25 | 1 | -16 | 25.4 | 1 11/16x12 | 131 | 80 | 26 | 50 |

J9 Female ORFS – Swivel 90° Elbow – Short Drop

ISO 12151-1 – SWES
SAE J516 – ORFS 90°



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | E mm | W mm |
|----------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 1J978-12-12-SM | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 101 | 53 | 48 | 36 |
| 1J978-16-12-SM | 19 | 3/4 | -12 | 19.1 | 1 7/16x12 | 114 | 66 | 56 | 41 |
| 1J978-16-16-SM | 25 | 1 | -16 | 25.4 | 1 7/16x12 | 120 | 70 | 56 | 41 |
| 1J978-20-16-SM | 25 | 1 | -16 | 25.4 | 1 11/16x12 | 127 | 77 | 64 | 50 |
| 1J978-20-20-SM | 31 | 1 1/4 | -20 | 31.8 | 1 11/16 12 | 151 | 87 | 69 | 50 |

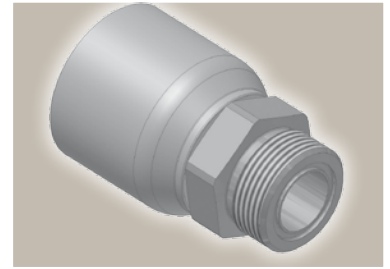
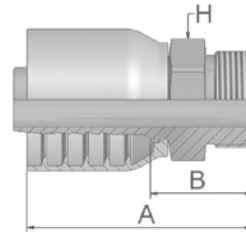
Approved **fitting series** for hose types:

78 781 782TC

JM

ORFS Male

ISO 12151-1-S – SAE J516



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | H mm |
|----------------|-----------|-------|------|------|---------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 1JM78-16-16-SM | 25 | 1 | -16 | 25.4 | 1 7/16x12 | 93 | 42 | 41 |
| 1JM78-20-16-SM | 25 | 1 | -16 | 25.4 | 1 11/16x12 | 89 | 39 | 46 |
| 1JM78-24-20-SM | 31 | 1 1/4 | -20 | 31.8 | 2x12 | 108 | 44 | 55 |

JM fittings are supplied without O-ring.
Find O-rings in section E. Special O-rings are available on request.

Approved **fitting series** for hose types:

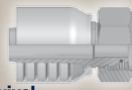
78 781 782TC

DIN – Metric

Page Dh-1 – Dh-2

C9

Dh-1



Female Metric 24° – Swivel
Heavy Series with O-Ring
Straight

ISO 12151-2-SWS-S – DKOS

0C

Dh-1



Female Metric 24° – Swivel
Heavy Series with O-Ring
45° Elbow

ISO 12151-2-SWE 45°-S – DKOS 45°

1C

Dh-2



Female Metric 24° – Swivel
Heavy Series with O-Ring
90° Elbow

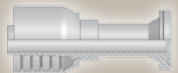
ISO 12151-2-SWE-S – DKOS 90°

Flange

Page Dh-3 – Dh-4

6A

Dh-3



ISO 6162-2 Flange
Straight

ISO 12151-3-S-S – SFS
(42.0 MPa/ 6000 psi)

6F

Dh-3

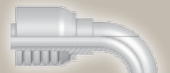


ISO 6162-2 Flange
45° Elbow – Heavy Series

ISO 12151-3-E45-S – SFS 45°
(42.0 MPa/ 6000 psi)

6N

Dh-4



ISO 6162-2 Flange
90° Elbow

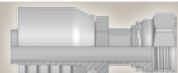
ISO 12151-3-E-S – SFS 90°
(42.0 MPa/ 6000 psi)

ORFS

Page Dh-5 – Dh-6

JS

Dh-5



ORFS Swivel Female (Long)

ISO 12151-1-SWSB
SAE J516 – ORFS

J7

Dh-5

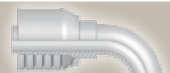


Female ORFS – Swivel
45° Elbow

ISO 12151-1-SWE 45°
SAE J516 – ORFS 45°

J9

Dh-6

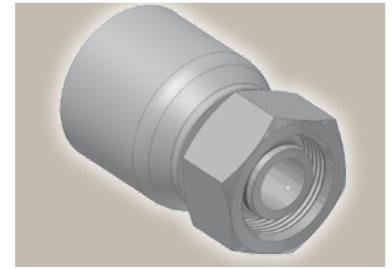
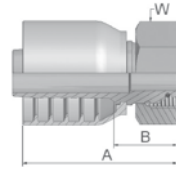


Female ORFS – Swivel
90° Elbow – Short Drop

ISO 12151-1-SWES
SAE J516 – ORFS 90°

C9 Female Metric 24° – Swivel Heavy Series with O-Ring Straight

ISO 12151-2-SWS-S – DKOS

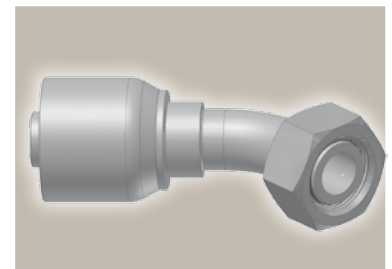
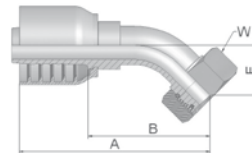


| Part Number | Hose I.D. | | | | Thread metric | A mm | B mm | W mm |
|-------------|-----------|-------|------|------|------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 1C979-25-12 | 19 | 3/4 | -12 | 19.1 | M36x2 | 87 | 32 | 46 |
| 1C979-30-16 | 25 | 1 | -16 | 25.4 | M42x2 | 95 | 36 | 50 |
| 1C979-38-20 | 31 | 1 1/4 | -20 | 31.8 | M52x2 | 112 | 41 | 60 |

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

OC Female Metric 24° – Swivel Heavy Series with O-Ring 45° Elbow

ISO 12151-2 – SWE 45°-S – DKOS 45°



| Part Number | Hose I.D. | | | | Thread metric | A mm | B mm | E mm | W mm |
|-------------|-----------|-------|------|------|------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 10C79-25-12 | 19 | 3/4 | -12 | 19.1 | M36x2 | 125 | 69 | 29 | 46 |
| 10C79-30-16 | 25 | 1 | -16 | 25.4 | M42x2 | 140 | 81 | 34 | 50 |
| 10C79-38-20 | 31 | 1 1/4 | -20 | 31.8 | M52x2 | 176 | 105 | 37 | 60 |

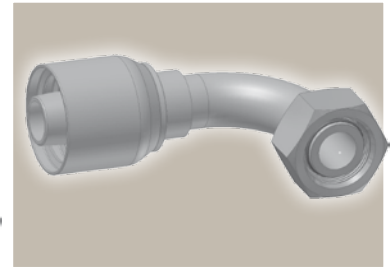
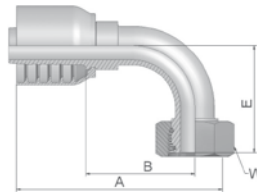
Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

Approved **fitting series** for hose types:

79 791TC | 792TC | F42

1C Female Metric 24° – Swivel Heavy Series with O-Ring 90° Elbow

ISO 12151-2-SWE-S – DKOS 90°



| Part Number | Hose I.D. | | | | Thread metric | A mm | B mm | E mm | W mm |
|-------------|-----------|-------|------|------|------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 11C79-25-12 | 19 | 3/4 | -12 | 19.1 | M36x2 | 114 | 58 | 59 | 46 |
| 11C79-30-16 | 25 | 1 | -16 | 25.4 | M42x2 | 130 | 72 | 73 | 50 |
| 11C79-38-20 | 31 | 1 1/4 | -20 | 31.8 | M52x2 | 166 | 95 | 78 | 60 |

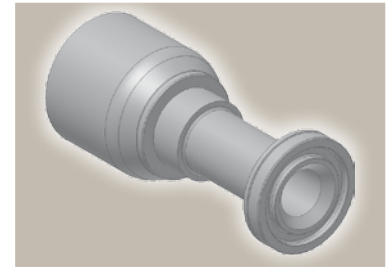
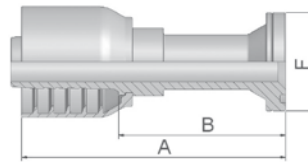
Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

Approved **fitting series** for hose types:

79 791TC 792TC F42

6A ISO 6162-2 Flange Straight

ISO 12151-3-S-S – SFS
(42.0 MPa/ 6000 psi)



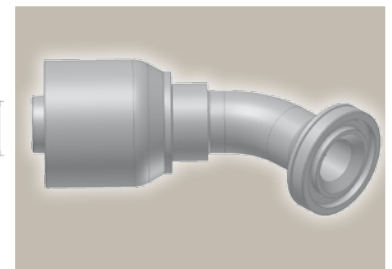
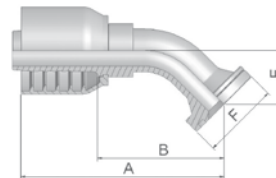
| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 16A79-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 124 | 72 | 41 |
| 16A79-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 99 | 43 | 48 |
| 16A79-12-16 | 25 | 1 | -16 | 25.4 | 3/4 | 132 | 73 | 41 |
| 16A79-16-16 | 25 | 1 | -16 | 25.4 | 1 | 139 | 81 | 48 |
| 16A79-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 109 | 50 | 54 |
| 16A79-16-20 | 31 | 1 1/4 | -20 | 31.8 | 1 | 152 | 81 | 48 |
| 16A79-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 158 | 87 | 54 |
| 16A79-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 132 | 61 | 64 |

SAE flange halves see in section Eb.

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

6F ISO 6162-2 Flange 45° Elbow – Heavy Series

ISO 12151-3 – E45-S – SFS 45°
(42.0 MPa/ 6000 psi)



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 16F79-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 117 | 65 | 26 | 41 |
| 16F79-12-16 | 25 | 1 | -16 | 25.4 | 3/4 | 128 | 70 | 32 | 41 |
| 16F79-16-16 | 25 | 1 | -16 | 25.4 | 1 | 136 | 77 | 32 | 48 |
| 16F79-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 137 | 79 | 32 | 54 |
| 16F79-16-20 | 31 | 1 1/4 | -20 | 31.8 | 1 | 161 | 89 | 38 | 48 |
| 16F79-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 172 | 104 | 38 | 54 |
| 16F79-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 172 | 101 | 38 | 64 |

SAE flange halves see in section Eb.

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

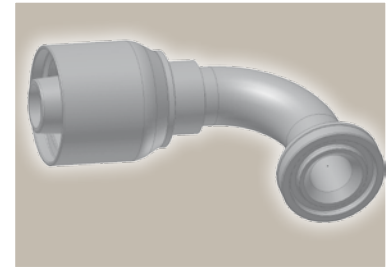
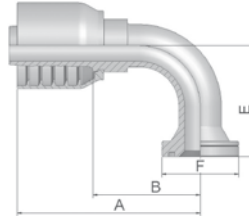
Approved **fitting series** for hose types:

79 791TC | 792TC | F42

6N

ISO 6162-2 Flange 90° Elbow

ISO 12151-3 – E-S – SFS 90°
(42.0 MPa/ 6000 psi)



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 16N79-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 109 | 53 | 58 | 41 |
| 16N79-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 109 | 53 | 58 | 48 |
| 16N79-12-16 | 25 | 1 | -16 | 25.4 | 3/4 | 116 | 57 | 70 | 41 |
| 16N79-16-16 | 25 | 1 | -16 | 25.4 | 1 | 126 | 68 | 70 | 48 |
| 16N79-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 126 | 71 | 70 | 54 |
| 16N79-16-20 | 31 | 1 1/4 | -20 | 31.8 | 1 | 148 | 76 | 90 | 48 |
| 16N79-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 161 | 89 | 90 | 54 |
| 16N79-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 160 | 89 | 90 | 64 |
| 16N79-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 190 | 113 | 104 | 64 |

SAE flange halves see in section Eb.

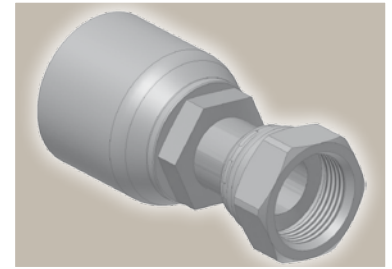
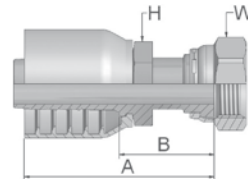
Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

Approved **fitting series** for hose types:

79 791TC 792TC F42

JS ORFS Swivel Female (Long)

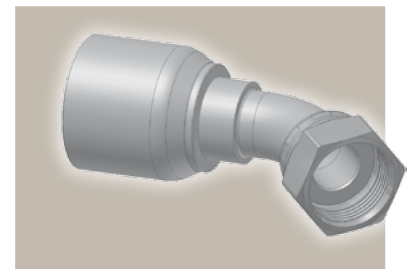
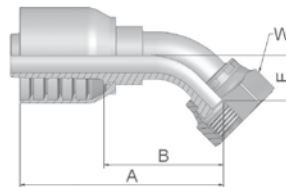
ISO 12151-1-SWSB
SAE J516 – ORFS



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | H | | W | |
|----------------|-----------|-------|------|------|---------------|---------|---------|-------|-------|----|------|
| | DN | Inch | Size | mm | | | | mm | Inch | mm | Inch |
| 1JS79-12-12 | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 101 | 49 | 1 1/8 | 1 3/8 | | |
| 1JS79-16-16-SM | 25 | 1 | -16 | 25.4 | 1 7/16x12 | 113 | 55 | 36 | 41 | | |
| 1JS79-20-16-SM | 25 | 1 | -16 | 25.4 | 1 11/16x12 | 109 | 51 | 41 | 50 | | |
| 1JS79-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 11/16x12 | 127 | 59 | 1 3/4 | 1 7/8 | | |

J7 Female ORFS – Swivel 45° Elbow

ISO 12151-1 – SWE 45°
SAE J516 – ORFS 45°



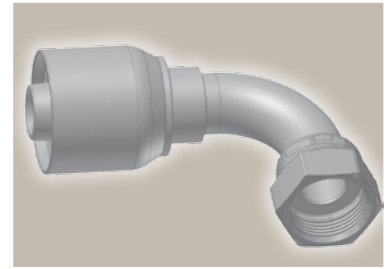
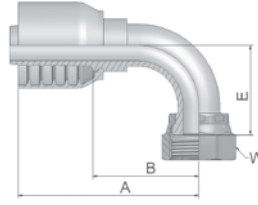
| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | E mm | W | |
|----------------|-----------|-------|------|------|---------------|---------|---------|---------|-------|------|
| | DN | Inch | Size | mm | | | | | mm | Inch |
| 1J779-12-12-SM | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 113 | 57 | 21 | 36 | |
| 1J779-16-16-SM | 25 | 1 | -16 | 25.4 | 1 7/16x12 | 135 | 76 | 24 | 41 | |
| 1J779-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 11/16x12 | 156 | 89 | 25 | 1 7/8 | |

Approved **fitting series** for hose types:

79 791TC | 792TC | F42

J9 Female ORFS – Swivel 90° Elbow – Short Drop

ISO 12151-1 – SWES
SAE J516 – ORFS 90°



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | E mm | W | |
|----------------|-----------|-------|------|------|---------------|---------|---------|---------|----|------|
| | DN | Inch | Size | mm | | | | | mm | Inch |
| 1J979-12-12-SM | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 109 | 53 | 48 | 36 | |
| 1J979-20-20-SM | 31 | 1 1/4 | -20 | 31.8 | 1 11/16x12 | 160 | 89 | 69 | 50 | |

Approved **fitting series** for hose types:

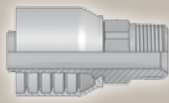
79 791TC 792TC F42

SAE

Page Di-1

01

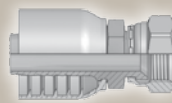
Di-1



**Male NPTF Pipe
Rigid – Straight**
SAE J476A / J516 –AGN

06

Di-1



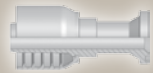
**Female JIC 37° – Swivel
Straight**
ISO12151-5-SWS – DKJ

Flange

Page Di-2 – Di-4

4A

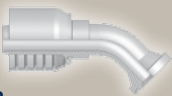
Di-2



**ISO 6162-1 Flange
Straight**
ISO 12151-3-S-L – SFL
(35.0 MPa/ 5000 psi)

4F

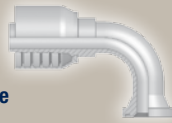
Di-2



**ISO 6162-1 Flange
45° Elbow**
ISO 12151-3 – E45S – L – SFL 45°
(35.0 MPa/ 5000 psi)

4N

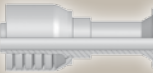
Di-3



**ISO 6162-1 Flange
90° Elbow**
ISO 12151-3-E-L – SFL 90°
(35.0 MPa/ 5000 psi)

6A

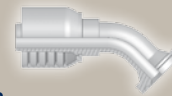
Di-3



**ISO 6162-2 Flange
Straight**
ISO 12151-3-S-S – SFS
(42.0 MPa/ 6000 psi)

6F

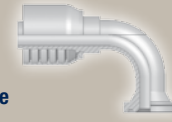
Di-4



**ISO 6162-2 Flange
45° Elbow – Heavy Series**
ISO 12151-3 – E45-S – SFS 45°
(42.0 MPa/ 6000 psi)

6N

Di-4

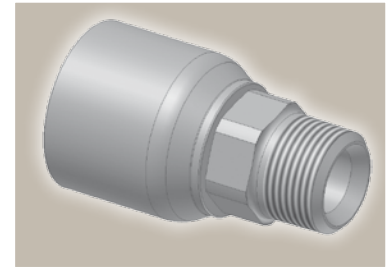
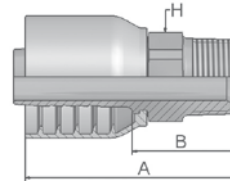


**ISO 6162-2 Flange
90° Elbow**
ISO 12151-3 – E-S – SFS 90°
(42.0 MPa/ 6000 psi)

01

Male NPTF Pipe Rigid – Straight

SAE J476A/ J516 – AGN

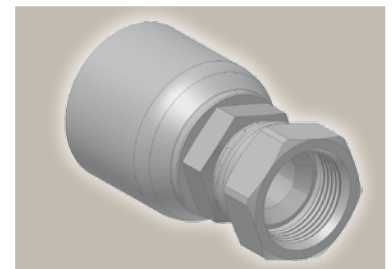
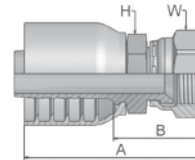


| Part Number | Hose I.D. | | | | Thread | A mm | B mm | H | |
|-------------|-----------|------|------|------|----------|---------|---------|-------|------|
| | DN | Inch | Size | mm | | | | mm | Inch |
| 101S6-32-32 | 51 | 2 | -32 | 50.8 | 2x11 1/2 | 150 | 62 | 2 1/2 | |

06

Female JIC 37° – Swivel Straight

ISO12151-5-SWS – DKJ



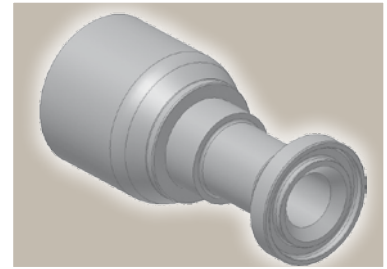
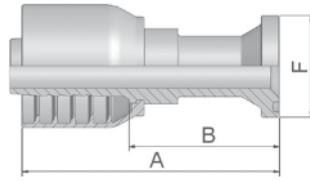
| Part Number | Hose I.D. | | | | Thread | A mm | B mm | H | | W |
|-------------|-----------|------|------|------|----------|---------|---------|-------|------|-------|
| | DN | Inch | Size | mm | | | | mm | Inch | mm |
| 106S6-32-32 | 51 | 2 | -32 | 50.8 | 2 1/2x12 | 166 | 78 | 2 1/2 | | 2 7/8 |

Approved **fitting series** for hose types:



4A ISO 6162-1 Flange Straight

ISO 12151-3-S-L – SFL
(35.0 MPa/ 5000 psi)



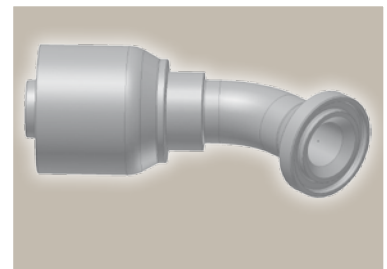
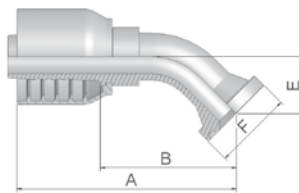
| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | F mm |
|-------------|-----------|------|------|------|----------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 14AS6-32-32 | 51 | 2 | -32 | 50.8 | 2 | 171 | 83 | 71 |

SAE flange halves see in section Eb.

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

4F ISO 6162-1 Flange 45° Elbow

ISO 12151-3 – E45S – L – SFL 45°
(35.0 MPa/ 5000 psi)



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 14FS6-32-32 | 51 | 2 | -32 | 50.8 | 2 | 229 | 141 | 56 | 71 |

SAE flange halves see in section Eb.

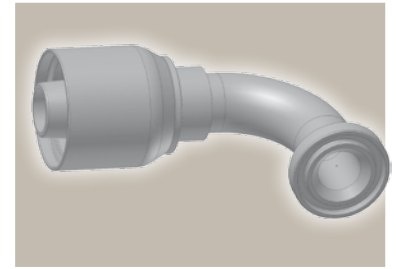
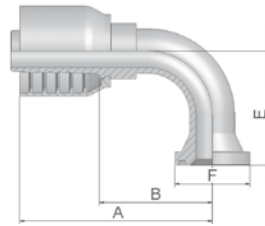
Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

Approved **fitting series** for hose types:

S6 P35

4N ISO 6162-1 Flange 90° Elbow

ISO 12151-3-E-L – SFL 90°
(35.0 MPa/ 5000 psi)



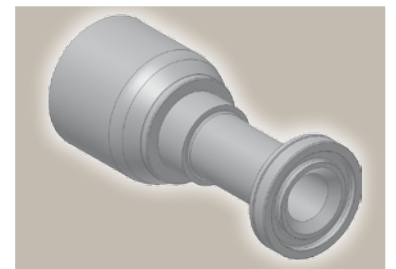
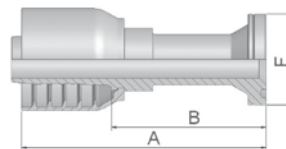
| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 14NS6-32-32 | 51 | 2 | -32 | 50.8 | 2 | 214 | 126 | 138 | 71 |

SAE flange halves see in section Eb.

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

6A ISO 6162-2 Flange Straight

ISO 12151-3-S-S – SFS
(42.0 MPa/ 6000 psi)



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | F mm |
|-------------|-----------|------|------|------|----------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| 16AS6-32-32 | 51 | 2 | -32 | 50.8 | 2 | 209 | 121 | 79 |

SAE flange halves see in section Eb.

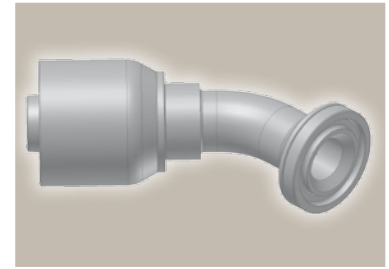
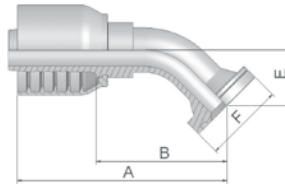
Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

Approved **fitting series** for hose types:



6F ISO 6162-2 Flange 45° Elbow – Heavy Series

ISO 12151-3 – E45-S – SFS 45°
(42.0 MPa/ 6000 psi)



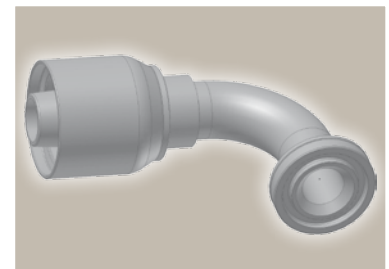
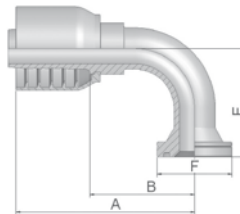
| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 16FS6-32-32 | 51 | 2 | -32 | 50.8 | 2 | 229 | 141 | 56 | 79 |

SAE flange halves see in section Eb.

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

6N ISO 6162-2 Flange 90° Elbow

ISO 12151-3 – E-S – SFS 90°
(42.0 MPa/ 6000 psi)



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| 16NS6-32-32 | 51 | 2 | -32 | 50.8 | 2 | 214 | 126 | 138 | 79 |

SAE flange halves see in section Eb.

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

Approved **fitting series** for hose types:

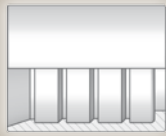
S6 P35

Shell

Page Dj-1

VS

Dj-1



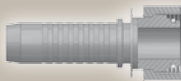
Interlock
Outside Skive

DIN – Metric

Page Dj-2 – Dj-5

CA

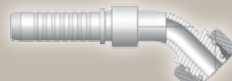
Dj-2



Female Metric 24°
Light Series with O-Ring
Swivel – Straight
ISO 12151-2-SWS-L – DKOL

CE

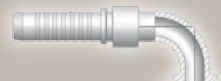
Dj-2



Female Metric 24°
Light Series with O-Ring
Swivel – 45° Elbow
ISO 12151-2-SWE 45°-L – DKOL 45°

CF

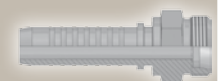
Dj-3



Female Metric 24°
Light Series with O-Ring
Swivel – 90° Elbow
ISO 12151-2-SWE-L – DKOL 90°

D0

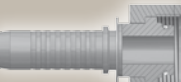
Dj-3



Male Metric 24°
Light Series – Rigid
Straight
ISO 12151-2-S-L – CEL

C9

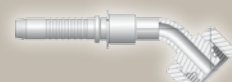
Dj-4



Female Metric 24° – Swivel
Heavy Series with O-Ring
Straight
ISO 12151-2-SWS-S – DKOS

OC

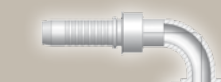
Dj-4



Female Metric 24° – Swivel
Heavy Series with O-Ring
45° Elbow
ISO 12151-2 – SWE 45°-S – DKOS 45°

1C

Dj-5



Female Metric 24° – Swivel
Heavy Series with O-Ring
90° Elbow
ISO 12151-2-SWE-S – DKOS 90°

D2

Dj-5



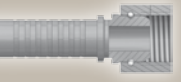
Male Metric 24° – Rigid
Heavy Series – Straight
ISO 12151-2-S-S – CES

BSP

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92

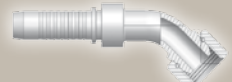
Dj-6



Female BSP Parallel Pipe
Swivel – Straight (60° Cone)
BS5200-A – DKR

B1

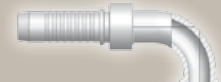
Dj-6



Female BSP Parallel Pipe
Swivel
45° Elbow (60° Cone)
BS 5200-D – DKR 45°

B2

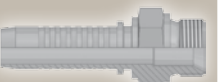
Dj-7



Female BSP Parallel Pipe
Swivel
90° Elbow (60° Cone)
BS 5200-B – DKR 90°

D9

Dj-7



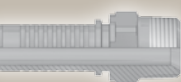
Male BSP Parallel Pipe
Rigid – Straight (60° Cone)
BS5200 – AGR

SAE

Page Dj-8 – Dj-10

01

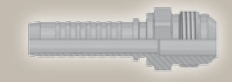
Dj-8



Male NPTF Pipe
Rigid – Straight
SAE J476A / J516 – AGN

03

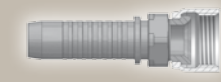
Dj-8



Male JIC 37° – Rigid
Straight
ISO12151-5-S – AGJ

06/68

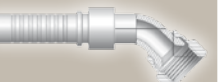
Dj-9



Female – JIC 37°
SAE 45° Dual Flare
Swivel – Straight
ISO12151-5-SWS – DKJ

37/3V

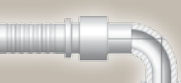
Dj-9



Female JIC 37°
SAE 45° – Dual Flare
Swivel Female 45° Elbow
ISO 12151-5-SWE 45° – DKJ 45°

39/3W

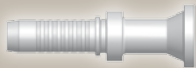
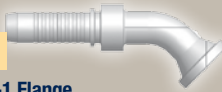

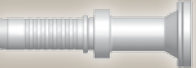
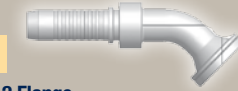

Dj-10



Female JIC 37°
SAE 45° – Dual Flare
Swivel Female 90° Elbow
ISO 12151-5-SWES – DKJ 90°

Flange

Page Dj-11 – Dj-13

| | | |
|---|---|---|
| <p>15 Dj-11 ISO 6162-1 Flange Straight ISO 12151-3-S-L – SFL (21.0 MPa/ 3000 psi)</p>  | <p>17 Dj-11 ISO 6162-1 Flange 45° Elbow ISO 12151-3 – E45 – L – SFL 45° (21.0 MPa/ 3000 psi)</p>  | <p>19 Dj-12 ISO 6162-1 Flange 90° Elbow ISO 12151-3 – E – L – SFL 90° (21.0 MPa/ 3000 psi)</p>  |
| <p>6A Dj-12 ISO 6162-2 Flange Straight ISO 12151-3-S-S – SFS (42.0 MPa/ 6000 psi)</p>  | <p>6F Dj-13 ISO 6162-2 Flange 45° Elbow – Heavy Series ISO 12151-3 – E45-S – SFS 45° (42.0 MPa/ 6000 psi)</p>  | <p>6N Dj-13 ISO 6162-2 Flange 90° Elbow ISO 12151-3 – E-S – SFS 90° (42.0 MPa/ 6000 psi)</p>  |

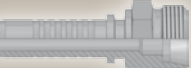
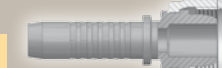
ORFS

Page Dj-14 – Dj-15

| | | |
|--|--|---|
| <p>JC Dj-14 Female ORFS Swivel – Straight Short ISO 12151-1 – SWSA SAE J516 – ORFS</p>  | <p>J7 Dj-14 Female ORFS – Swivel 45° Elbow ISO 12151-1 – SWE 45° SAE J516 – ORFS 45°</p>  | <p>J9 Dj-15 Female ORFS – Swivel 90° Elbow – Short Drop ISO 12151-1 – SWES SAE J516 – ORFS 90°</p>  |
|--|--|---|

French Standard

Page Dj-16

| | |
|--|--|
| <p>FG Dj-16 Male French Gas Series Rigid – Straight (24° Cone)</p>  | <p>F4 Dj-16 Female French Gas Series Swivel – Straight (Ball Nose)</p>  |
|--|--|

VS

**Interlock
Outside Skive**



**Only for use with
adjustable crimpers.**

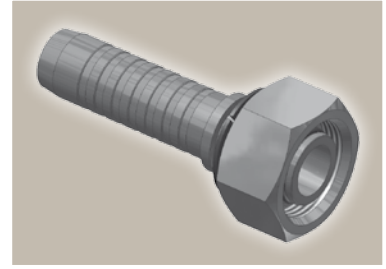
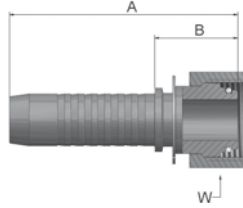
| Part Number | Hose I.D. | | | | B mm |
|-------------|---------------|------|------|------|---------|
| | DN | Inch | Size | mm | |
| 100VS-4 | 6 | 1/4 | -4 | 6.4 | 38 |
| 100VS-6 | 10 | 3/8 | -6 | 9.5 | 36 |
| 100VS-8 | 12 | 1/2 | -8 | 12.7 | 41 |

VS Series

Approved **fitting series** for hose types:

VS | -4 to -8 | H31 | H31TC | H31ST |

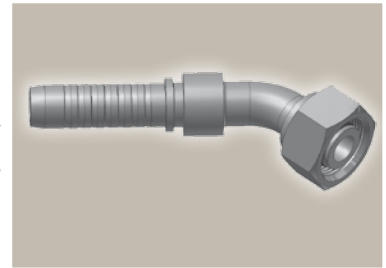
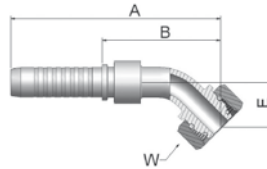
CA **Female Metric 24°
Light Series with O-Ring
Swivel – Straight**
ISO 12151-2-SWS-L – DKOL



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | W mm |
|-------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| KCAVS-10-6 | 10 | 3/8 | -6 | 9.5 | M16x1.5 | 10 | 64 | 25 | 19 |
| KCAVS-12-6 | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 12 | 61 | 23 | 22 |
| KCAVS-15-8 | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 70 | 27 | 27 |

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

CE **Female Metric 24°
Light Series with O-Ring
Swivel – 45° Elbow**
ISO 12151-2-SWE 45°-L – DKOL 45°



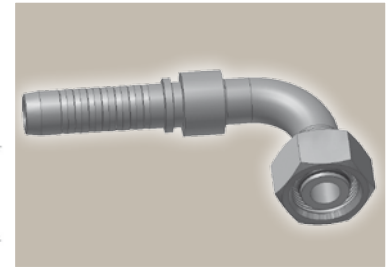
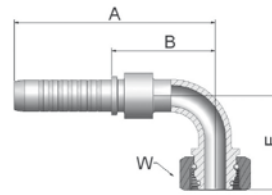
| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | E mm | W mm |
|-------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | | |
| KCEVS-12-6 | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 12 | 93 | 55 | 19 | 22 |
| KCEVS-15-8 | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 103 | 61 | 23 | 27 |

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

Approved **fitting series** for hose types:

VS | -4 to -8 | H31 | H31TC | H31ST |

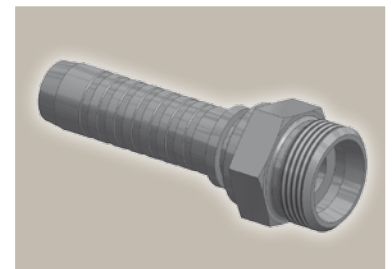
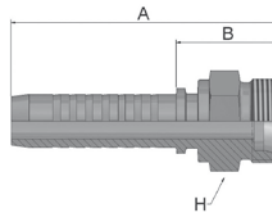
CF **Female Metric 24°
Light Series with O-Ring
Swivel – 90° Elbow**
ISO 12151-2-SWE-L – DKOL 90°



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | E mm | W mm |
|-------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | | |
| KCFVS-12-6 | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 12 | 83 | 45 | 36 | 22 |
| KCFVS-15-8 | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 92 | 50 | 44 | 27 |

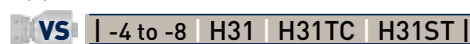
Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

DO **Male Metric 24°
Light Series – Rigid
Straight**
ISO 12151-2-S-L – CEL



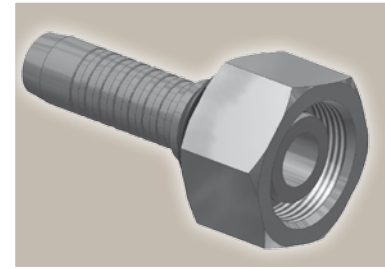
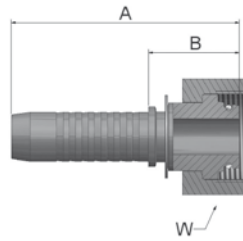
| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | H mm |
|-------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| KDOVS-12-6 | 10 | 3/8 | -6 | 9.5 | M18x1.5 | 12 | 64 | 25 | 19 |
| KDOVS-15-8 | 12 | 1/2 | -8 | 12.7 | M22x1.5 | 15 | 71 | 28 | 22 |

Approved **fitting series** for hose types:



C9 Female Metric 24° – Swivel Heavy Series with O-Ring Straight

ISO 12151-2-SWS-S – DKOS

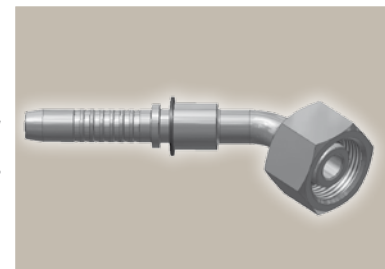
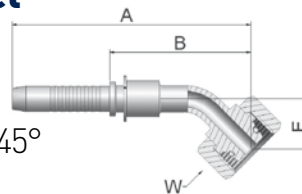


| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | W mm |
|-------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| KC9VS-8-4 | 6 | 1/4 | -4 | 6.4 | M16x1.5 | 8 | 61 | 23 | 19 |
| KC9VS-10-4 | 6 | 1/4 | -4 | 6.4 | M18x1.5 | 10 | 62 | 24 | 22 |
| KC9VS-8-6 | 10 | 3/8 | -6 | 9.5 | M16x1.5 | 8 | 64 | 25 | 19 |
| KC9VS-12-6 | 10 | 3/8 | -6 | 9.5 | M20x1.5 | 12 | 63 | 25 | 24 |
| KC9VS-14-6 | 10 | 3/8 | -6 | 9.5 | M22x1.5 | 14 | 63 | 24 | 27 |
| KC9VS-16-8 | 12 | 1/2 | -8 | 12.7 | M24x1.5 | 16 | 71 | 29 | 30 |
| KC9VS-20-8 | 12 | 1/2 | -8 | 12.7 | M30x2 | 20 | 71 | 29 | 36 |

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

OC Female Metric 24° – Swivel Heavy Series with O-Ring 45° Elbow

ISO 12151-2 – SWE 45°-S – DKOS 45°



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | E mm | W mm |
|-------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | | |
| KOCVS-8-4 | 6 | 1/4 | -4 | 6.4 | M16x1.5 | 8 | 88 | 50 | 16 | 19 |
| KOCVS-10-4 | 6 | 1/4 | -4 | 6.4 | M18x1.5 | 10 | 88 | 50 | 16 | 22 |
| KOCVS-12-6 | 10 | 3/8 | -6 | 9.5 | M20x1.5 | 12 | 94 | 56 | 20 | 24 |
| KOCVS-14-6 | 10 | 3/8 | -6 | 9.5 | M22x1.5 | 14 | 94 | 56 | 20 | 27 |
| KOCVS-16-8 | 12 | 1/2 | -8 | 12.7 | M24x1.5 | 16 | 105 | 62 | 24 | 30 |

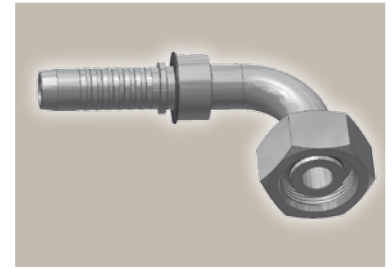
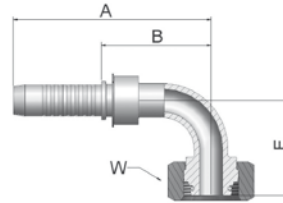
Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C.
O-rings see section Eb. Special O-rings are available on request.

Approved **fitting series** for hose types:

VS | -4 to -8 | H31 | H31TC | H31ST |

1C Female Metric 24° – Swivel Heavy Series with O-Ring 90° Elbow

ISO 12151-2-SWE-S – DKOS 90°

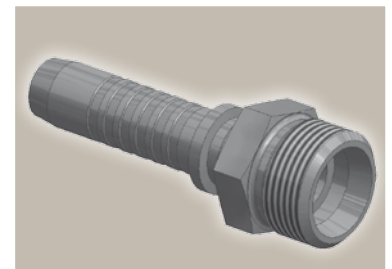
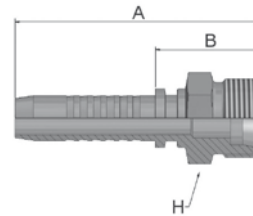


| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | E mm | W mm |
|-------------|-----------|------|------|------|---------------|--------------|------|------|------|------|
| | DN | Inch | Size | mm | | | | | | |
| K1CVS-8-4 | 6 | 1/4 | -4 | 6.4 | M16x1.5 | 8 | 79 | 41 | 29 | 19 |
| K1CVS-10-4 | 6 | 1/4 | -4 | 6.4 | M18x1.5 | 10 | 79 | 41 | 29 | 22 |
| K1CVS-12-6 | 10 | 3/8 | -6 | 9.5 | M20x1.5 | 12 | 83 | 45 | 37 | 24 |
| K1CVS-14-6 | 10 | 3/8 | -6 | 9.5 | M22x1.5 | 12 | 83 | 45 | 37 | 27 |
| K1CVS-16-8 | 12 | 1/2 | -8 | 12.7 | M24x1.5 | 16 | 93 | 51 | 45 | 30 |

Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C. O-rings see section Eb. Special O-rings are available on request.

D2 Male Metric 24° – Rigid Heavy Series – Straight

ISO 12151-2-S-S – CES



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | H mm |
|-------------|-----------|------|------|------|---------------|--------------|------|------|------|
| | DN | Inch | Size | mm | | | | | |
| KD2VS-12-6 | 10 | 3/8 | -6 | 9.5 | M20x1.5 | 12 | 66 | 27 | 22 |
| KD2VS-14-6 | 10 | 3/8 | -6 | 9.5 | M22x1.5 | 14 | 68 | 30 | 22 |
| KD2VS-16-8 | 12 | 1/2 | -8 | 12.7 | M24x1.5 | 16 | 74 | 31 | 24 |

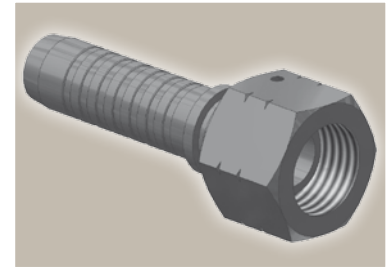
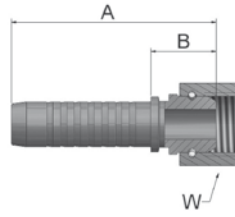
Fittings with standard O-ring seals can be used for temperatures from -40 °C up to +105 °C. O-rings see section Eb. Special O-rings are available on request.

Approved fitting series for hose types:

VS | -4 to -8 | H31 | H31TC | H31ST |

92 Female BSP Parallel Pipe Swivel – Straight (60° Cone)

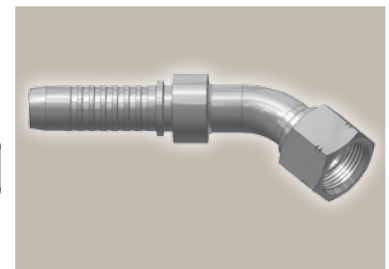
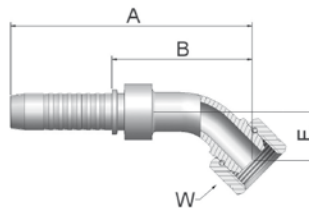
BS5200-A – DKR



| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | W mm |
|-------------|-----------|------|------|------|---------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| K92VS-6-6 | 10 | 3/8 | -6 | 9.5 | 3/8x19 | 60 | 22 | 22 |
| K92VS-8-6 | 10 | 3/8 | -6 | 9.5 | 1/2x14 | 62 | 23 | 27 |
| K92VS-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 67 | 24 | 27 |
| K92VS-10-8 | 12 | 1/2 | -8 | 12.7 | 5/8x14 | 65 | 23 | 30 |

B1 Female BSP Parallel Pipe Swivel 45° Elbow (60° Cone)

BS 5200-D – DKR 45°



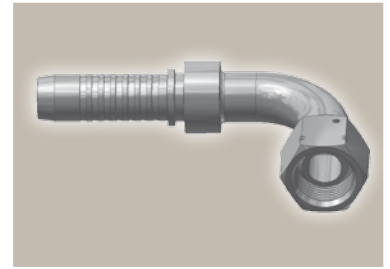
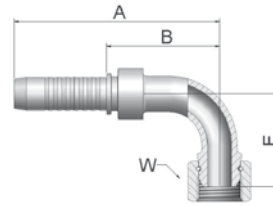
| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | E mm | W mm |
|-------------|-----------|------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| KB1VS-6-6 | 10 | 3/8 | -6 | 9.5 | 3/8x19 | 90 | 52 | 17 | 22 |
| KB1VS-8-6 | 10 | 3/8 | -6 | 9.5 | 1/2x14 | 91 | 53 | 17 | 27 |
| KB1VS-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 100 | 58 | 20 | 27 |
| KB1VS-10-8 | 12 | 1/2 | -8 | 12.7 | 5/8x14 | 99 | 57 | 19 | 30 |

Approved **fitting series** for hose types:

VS | -4 to -8 | H31 | H31TC | H31ST |

B2 Female BSP Parallel Pipe Swivel 90° Elbow (60° Cone)

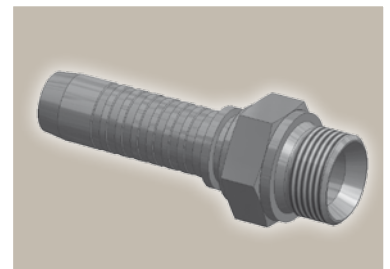
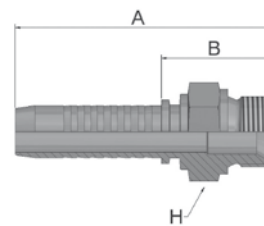
BS 5200-B – DKR 90°



| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | E mm | W mm |
|-------------|-----------|------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| KB2VS-6-6 | 10 | 3/8 | -6 | 9.5 | 3/8x19 | 82 | 44 | 33 | 22 |
| KB2VS-8-6 | 10 | 3/8 | -6 | 9.5 | 1/2x14 | 83 | 45 | 36 | 27 |
| KB2VS-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 92 | 50 | 40 | 27 |
| KB2VS-10-8 | 12 | 1/2 | -8 | 12.7 | 5/8x14 | 92 | 50 | 38 | 30 |

D9 Male BSP Parallel Pipe Rigid – Straight (60° Cone)

BS5200 – AGR

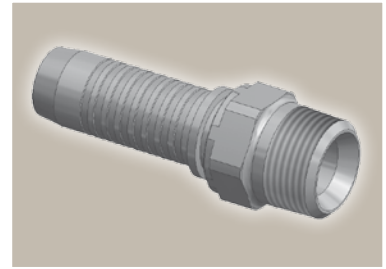
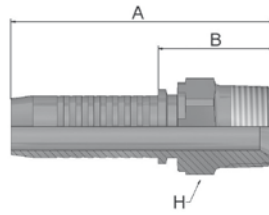





| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | H mm |
|-------------|-----------|------|------|------|---------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| KD9VS-4-4 | 6 | 1/4 | -4 | 6.4 | 1/4x19 | 67 | 28 | 19 |
| KD9VS-6-6 | 10 | 3/8 | -6 | 9.5 | 3/8x19 | 71 | 33 | 22 |
| KD9VS-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 78 | 36 | 27 |

Approved **fitting series** for hose types:

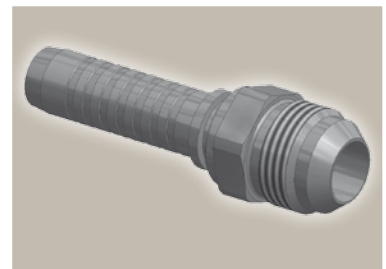
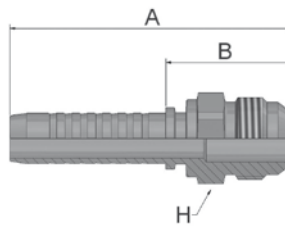
VS | -4 to -8 | H31 | H31TC | H31ST |




01 **Male NPTF Pipe
Rigid – Straight**
SAE J476A / J516 – AGN



| Part Number |  Hose I.D. | | | |  Thread NPTF | A mm | B mm |  H mm |
|-------------|--|------|------|------|---|---------|---------|--|
| | DN | Inch | Size | mm | | | | |
| K01VS-6-6 | 10 | 3/8 | -6 | 9.5 | 3/8x18 | 71 | 33 | 19 |
| K01VS-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2x14 | 83 | 40 | 22 |

03 **Male JIC 37° – Rigid
Straight**
ISO12151-5-S – AGJ

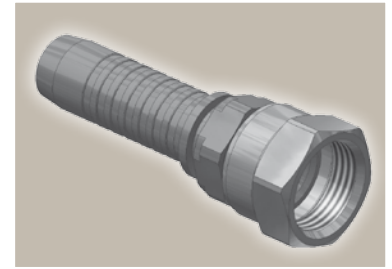
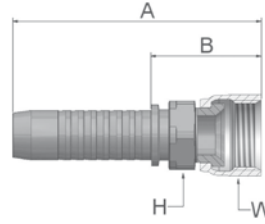


| Part Number |  Hose I.D. | | | |  Thread UNF | A mm | B mm |  H mm |
|-------------|--|------|------|------|--|---------|---------|--|
| | DN | Inch | Size | mm | | | | |
| K03VS-6-6 | 10 | 3/8 | -6 | 9.5 | 9/16x18 | 71 | 32 | 19 |
| K03VS-8-6 | 10 | 3/8 | -6 | 9.5 | 3/4x16 | 69 | 31 | 22 |
| K03VS-8-8 | 12 | 1/2 | -8 | 12.7 | 3/4x16 | 79 | 36 | 22 |
| K03VS-10-8 | 12 | 1/2 | -8 | 12.7 | 7/8x14 | 77 | 35 | 24 |

Approved **fitting series** for hose types:

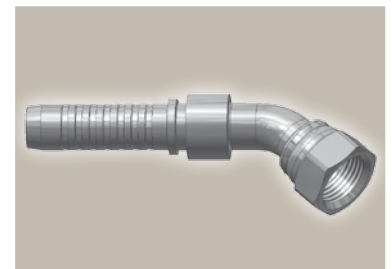
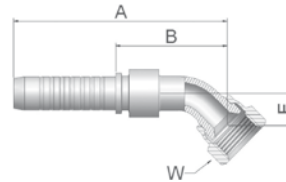
VS | -4 to -8 | H31 | H31TC | H31ST |

06/68 Female – JIC 37°
SAE 45° Dual Flare
Swivel – Straight
ISO12151-5-SWS – DKJ



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | H mm | W mm |
|-------------|-----------|------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| K68VS-4-4 | 6 | 1/4 | -4 | 6.4 | 7/16 20 | 66 | 28 | 14 | 17 |
| K06VS-6-6 | 10 | 3/8 | -6 | 9.5 | 9/16x18 | 69 | 31 | 17 | 19 |
| K68VS-8-6 | 10 | 3/8 | -6 | 9.5 | 3/4x16 | 74 | 35 | 17 | 22 |
| K06VS-12-6 | 10 | 3/8 | -6 | 9.5 | 1 1/16x12 | 78 | 40 | 27 | 32 |
| K68VS-8-8 | 12 | 1/2 | -8 | 12.7 | 3/4x16 | 77 | 35 | 22 | 22 |
| K68VS-10-8 | 12 | 1/2 | -8 | 12.7 | 7/8x14 | 83 | 41 | 22 | 27 |
| K06VS-12-8 | 12 | 1/2 | -8 | 12.7 | 1 1/16x12 | 83 | 41 | 27 | 32 |

37/3V Female JIC 37°
SAE 45° – Dual Flare
Swivel Female 45° Elbow
ISO 12151-5-SWE 45° – DKJ 45°

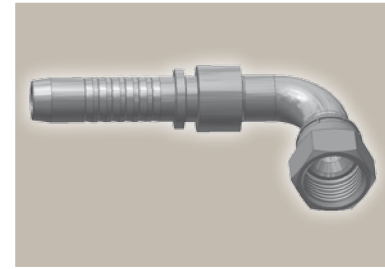
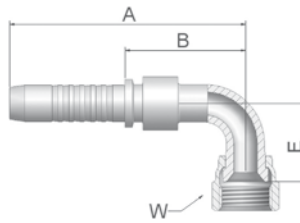





| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | E mm | W mm |
|-------------|-----------|------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| K37VS-6-6 | 10 | 3/8 | -6 | 9.5 | 9/16x18 | 83 | 45 | 11 | 19 |
| K3VS-8-6 | 10 | 3/8 | -6 | 9.5 | 3/4x16 | 87 | 49 | 15 | 22 |
| K3VS-8-8 | 12 | 1/2 | -8 | 12.7 | 3/4x16 | 93 | 51 | 15 | 22 |
| K3VS-10-8 | 12 | 1/2 | -8 | 12.7 | 7/8x14 | 94 | 52 | 16 | 27 |
| K37VS-12-8 | 12 | 1/2 | -8 | 12.7 | 1 1/16x12 | 99 | 57 | 21 | 32 |

Approved fitting series for hose types:

VS | -4 to -8 | H31 | H31TC | H31ST |

39/3W Female JIC 37°
SAE 45° – Dual Flare
Swivel Female 90° Elbow
 ISO 12151-5-SWES – DKJ 90°



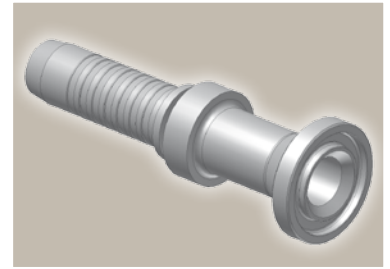
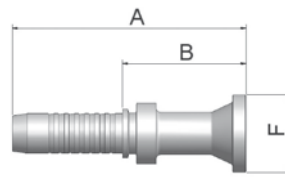
| Part Number |  Hose I.D. | | | |  Thread UNF | A mm | B mm | E mm |  W mm |
|-------------|--|------|------|------|--|---------|---------|---------|--|
| | DN | Inch | Size | mm | | | | | |
| K39VS-6-6 | 10 | 3/8 | -6 | 9.5 | 9/16x18 | 80 | 42 | 23 | 19 |
| K3WVS-8-6 | 10 | 3/8 | -6 | 9.5 | 3/4x16 | 80 | 42 | 29 | 22 |
| K3WVS-8-8 | 12 | 1/2 | -8 | 12.7 | 3/4x16 | 87 | 45 | 29 | 22 |
| K3WVS-10-8 | 12 | 1/2 | -8 | 12.7 | 7/8x14 | 87 | 45 | 32 | 27 |

Approved **fitting series** for hose types:

VS | -4 to -8 | H31 | H31TC | H31ST |

15 ISO 6162-1 Flange Straight

ISO 12151-3-S-L – SFL
(21.0 MPa/ 3000 psi)

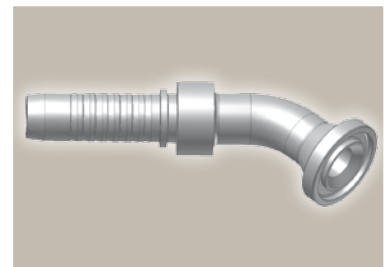
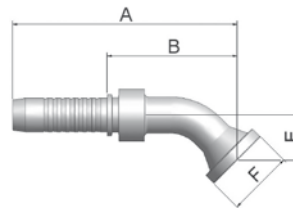


| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | F mm |
|-------------|-----------|------|------|------|----------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| K15VS-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2 | 102 | 59 | 30 |
| K15VS-12-8 | 12 | 1/2 | -8 | 12.7 | 3/4 | 77 | 34 | 38 |

SAE flange halves see in section Eb.

17 ISO 6162-1 Flange 45° Elbow

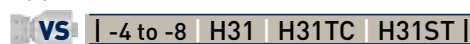
ISO 12151-3 – E45 – L – SFL 45°
(21.0 MPa/ 3000 psi)



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| K17VS-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2 | 100 | 57 | 20 | 30 |
| K17VS-12-8 | 12 | 1/2 | -8 | 12.7 | 3/4 | 101 | 58 | 21 | 38 |

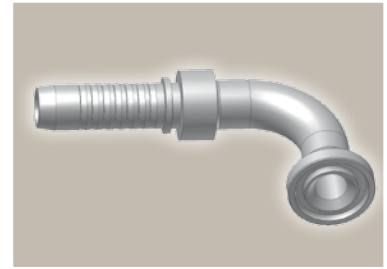
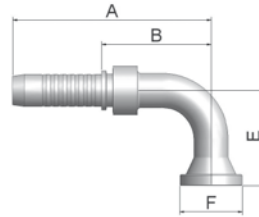
SAE flange halves see in section Eb.

Approved **fitting series** for hose types:



19 ISO 6162-1 Flange 90° Elbow

ISO 12151-3 – E– L – SFL 90°
(21.0 MPa/ 3000 psi)

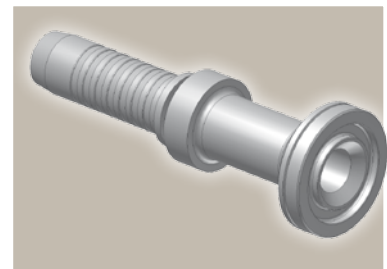
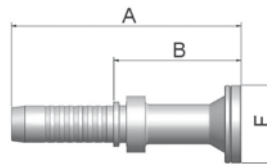


| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| K19VS-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2 | 92 | 50 | 41 | 30 |
| K19VS-12-8 | 12 | 1/2 | -8 | 12.7 | 3/4 | 92 | 50 | 42 | 38 |

SAE flange halves see in section Eb.

6A ISO 6162-2 Flange Straight

ISO 12151-3-S-S – SFS
(42.0 MPa/ 6000 psi)



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | F mm |
|-------------|-----------|------|------|------|----------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| K6AVS-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2 | 105 | 63 | 32 |
| K6AVS-12-8 | 12 | 1/2 | -8 | 12.7 | 3/4 | 79 | 36 | 41 |

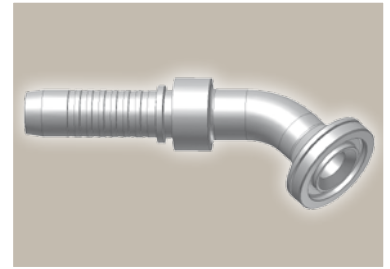
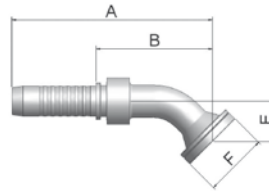
SAE flange halves see in section Eb.

Approved **fitting series** for hose types:

VS | -4 to -8 | H31 | H31TC | H31ST |

6F ISO 6162-2 Flange 45° Elbow – Heavy Series

ISO 12151-3 – E45-S – SFS 45°
(42.0 MPa/ 6000 psi)

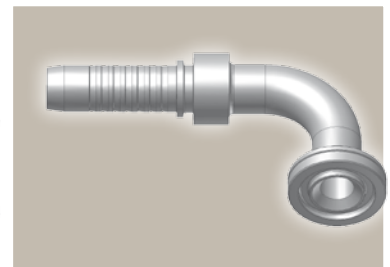
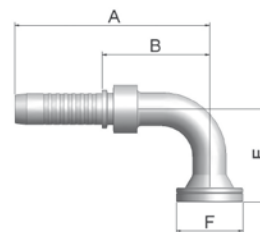


| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| K6FVS-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2 | 94 | 52 | 19 | 32 |
| K6FVS-12-8 | 12 | 1/2 | -8 | 12.7 | 3/4 | 106 | 64 | 26 | 41 |

SAE flange halves see in section Eb.

6N ISO 6162-2 Flange 90° Elbow

ISO 12151-3 – E-S – SFS 90°
(42.0 MPa/ 6000 psi)



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| K6NVS-8-8 | 12 | 1/2 | -8 | 12.7 | 1/2 | 87 | 45 | 41 | 32 |
| K6NVS-12-8 | 12 | 1/2 | -8 | 12.7 | 3/4 | 92 | 50 | 45 | 41 |

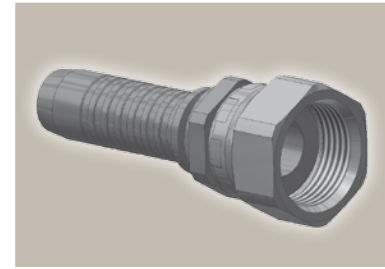
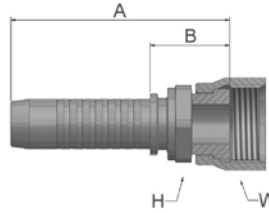
SAE flange halves see in section Eb.

Approved **fitting series** for hose types:

VS | -4 to -8 | H31 | H31TC | H31ST |

JC Female ORFS Swivel – Straight Short

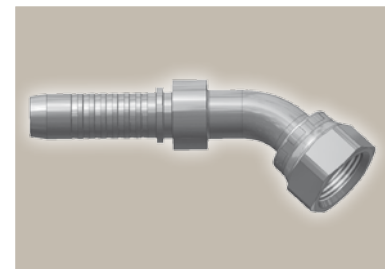
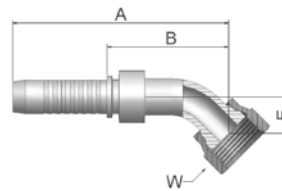
ISO 12151-1 – SWSA
SAE J516 – ORFS



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | H mm | W mm |
|-------------|-----------|------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| KJCVS-6-6 | 10 | 3/8 | -6 | 9.5 | 11/16x16 | 60 | 22 | 17 | 22 |
| KJCVS-8-6 | 10 | 3/8 | -6 | 9.5 | 13/16x16 | 62 | 23 | 19 | 24 |
| KJCVS-8-8 | 12 | 1/2 | -8 | 12.7 | 13/16x16 | 67 | 24 | 22 | 24 |
| KJCVS-10-8 | 12 | 1/2 | -8 | 12.7 | 1x14 | 69 | 26 | 24 | 30 |

J7 Female ORFS – Swivel 45° Elbow

ISO 12151-1 – SWE 45°
SAE J516 – ORFS 45°



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | E mm | W mm |
|-------------|-----------|------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| KJ7VS-6-6 | 10 | 3/8 | -6 | 9.5 | 11/16x16 | 83 | 45 | 11 | 22 |
| KJ7VS-8-6 | 10 | 3/8 | -6 | 9.5 | 13/16x16 | 89 | 51 | 15 | 24 |
| KJ7VS-8-8 | 12 | 1/2 | -8 | 12.7 | 13/16x16 | 93 | 51 | 15 | 24 |
| KJ7VS-10-8 | 12 | 1/2 | -8 | 12.7 | 1x14 | 96 | 53 | 16 | 30 |

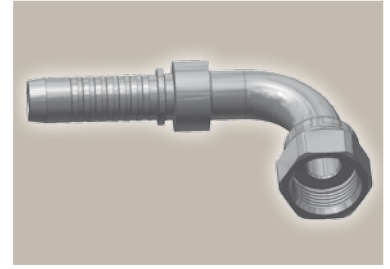
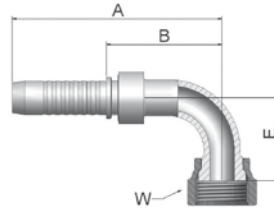
Approved **fitting series** for hose types:

VS | -4 to -8 | H31 | H31TC | H31ST |

J9

Female ORFS – Swivel 90° Elbow – Short Drop

ISO 12151-1 – SWES
SAE J516 – ORFS 90°

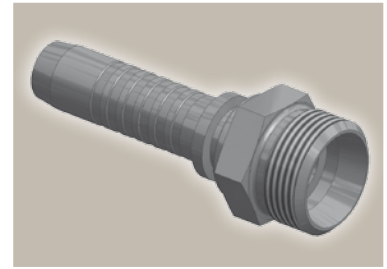
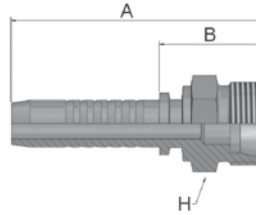


| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | E mm | W mm |
|-------------|-----------|------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| KJ9VS-6-6 | 10 | 3/8 | -6 | 9.5 | 11/16x16 | 80 | 42 | 23 | 22 |
| KJ9VS-8-6 | 10 | 3/8 | -6 | 9.5 | 13/16x16 | 83 | 45 | 29 | 24 |
| KJ9VS-8-8 | 12 | 1/2 | -8 | 12.7 | 13/16x16 | 87 | 45 | 29 | 24 |
| KJ9VS-10-8 | 12 | 1/2 | -8 | 12.7 | 1x14 | 88 | 46 | 30 | 30 |

Approved **fitting series** for hose types:

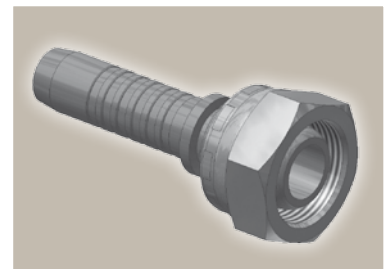
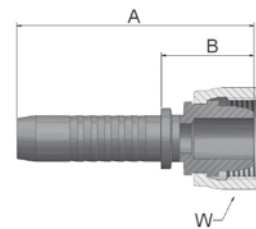
| | | | | |
|-----------|----------|-----|-------|-------|
| VS | -4 to -8 | H31 | H31TC | H31ST |
|-----------|----------|-----|-------|-------|

FG Male French Gas Series
Rigid – Straight (24° Cone)



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | H mm |
|-------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| KFGVS-13-6 | 10 | 3/8 | -6 | 9.5 | M20x1.5 | 13.25 | 69 | 31 | 22 |
| KFGVS-17-8 | 12 | 1/2 | -8 | 12.7 | M24x1.5 | 16.75 | 72 | 30 | 24 |

F4 Female French Gas Series
Swivel – Straight
(Ball Nose)



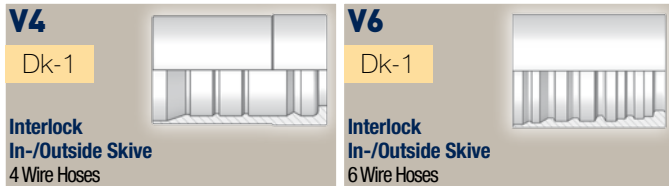
| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | W mm |
|-------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| KF4VS-13-6 | 10 | 3/8 | -6 | 9.5 | M20x1.5 | 13.25 | 62 | 24 | 24 |
| KF4VS-17-8 | 12 | 1/2 | -8 | 12.7 | M24x1.5 | 16.75 | 70 | 27 | 30 |

Approved **fitting series** for hose types:

VS | -4 to -8 | H31 | H31TC | H31ST |

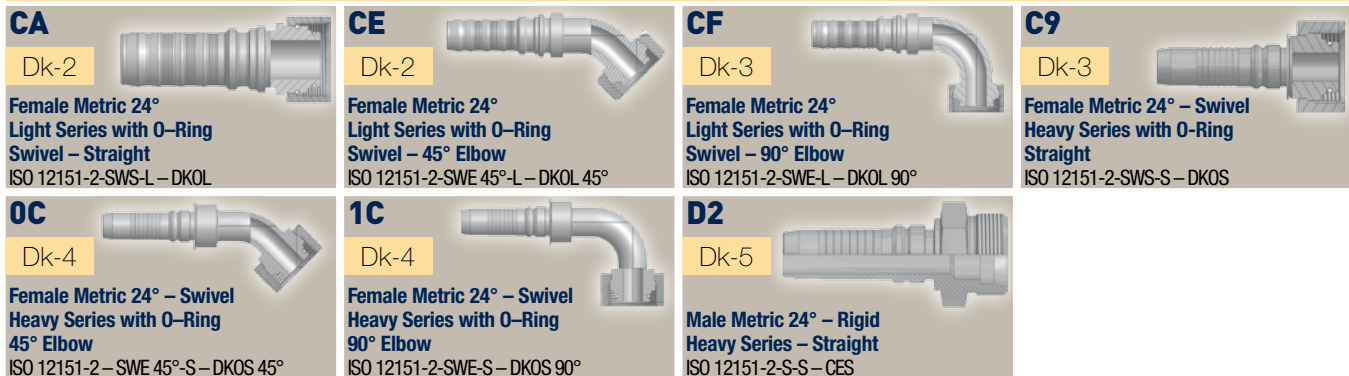
Shell

Page Dk-1



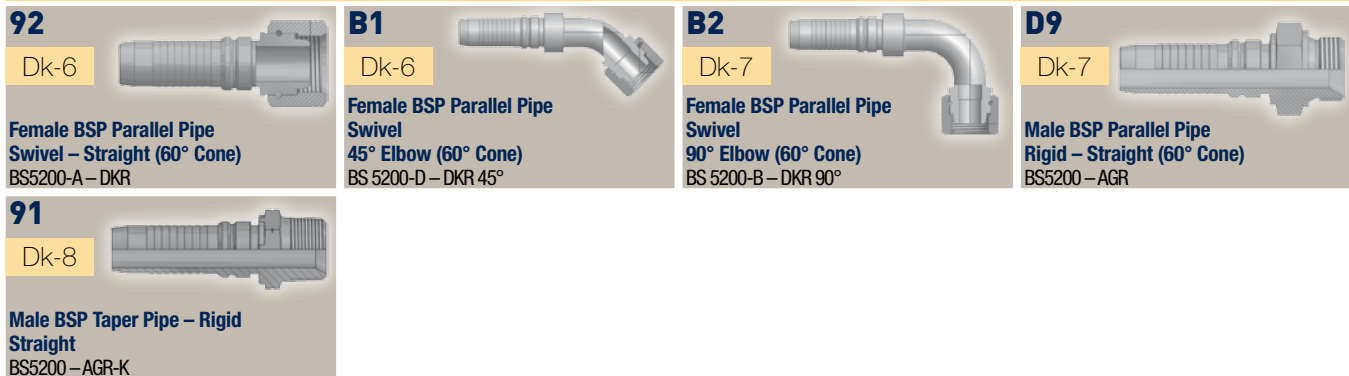
DIN – Metric

Page Dk-2 – Dk-5



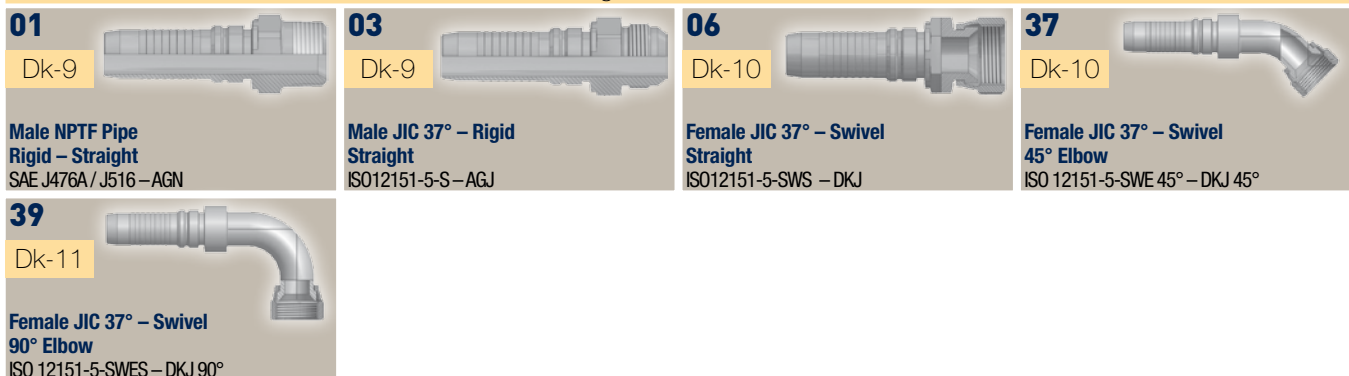
BSP

Page Dk-6 – Dk-8



SAE

Page Dk-9 – Dk-11





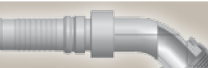
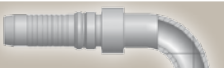

Flange

Page Dk-12 – Dk-22

| | | | |
|---|--|--|---|
| <p>15/4A</p> <p>Dk-12</p> <p>ISO 6162-1 Flange Straight ISO 12151-3-S-L – SFL (35.0 MPa/ 5000 psi)</p>  | <p>17/4F</p> <p>Dk-13</p> <p>ISO 6162-1 Flange 45° Elbow ISO 12151-3 – E45S – L – SFL 45° (35.0 MPa/ 5000 psi)</p>  | <p>19/4N</p> <p>Dk-14</p> <p>ISO 6162-1 Flange 90° Elbow ISO 12151-3-E-L – SFL 90° (35.0 MPa/ 5000 psi)</p>  | <p>6A</p> <p>Dk-15</p> <p>ISO 6162-2 Flange Straight ISO 12151-3-S-S – SFS (42.0 MPa/ 6000 psi)</p>  |
| <p>6F</p> <p>Dk-16</p> <p>ISO 6162-2 Flange 45° Elbow – Heavy Series ISO 12151-3 – E45-S – SFS 45° (42.0 MPa/ 6000 psi)</p>  | <p>6N</p> <p>Dk-17</p> <p>ISO 6162-2 Flange 90° Elbow ISO 12151-3 – E-S – SFS 90° (42.0 MPa/ 6000 psi)</p>  | <p>8A</p> <p>Dk-18</p> <p>Flange – Straight 8000 psi</p>  | <p>8F</p> <p>Dk-18</p> <p>Flange – 45° Elbow 8000 psi</p>  |
| <p>8N</p> <p>Dk-19</p> <p>Flange – 90° Elbow 8000 psi</p>  | <p>X5</p> <p>Dk-19</p> <p>Flange – Straight Full flange system for ISO 6162-1 or ISO 6162-2</p>  | <p>X7</p> <p>Dk-20</p> <p>Flange – 45° Elbow Full flange system for ISO 6162-1 or ISO 6162-2</p>  | <p>X9</p> <p>Dk-20</p> <p>Flange – 90° Elbow Full flange system for ISO 6162-1 or ISO 6162-2</p>  |
| <p>PY</p> <p>Dk-21</p> <p>Flange – 24° Male French Gas Straight</p>  | <p>XA</p> <p>Dk-21</p> <p>Caterpillar® Flange Straight</p>  | <p>XF</p> <p>Dk-22</p> <p>Caterpillar® Flange 45° Elbow</p>  | <p>XG</p> <p>Dk-22</p> <p>Caterpillar® Flange 60° Elbow</p>  |
| <p>XN</p> <p>Dk-23</p> <p>Caterpillar® Flange 90° Elbow</p>  | | | |

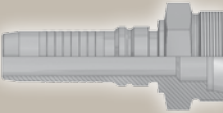

ORFS

Page Dk-23 – Dk-25

| | | | |
|--|--|---|--|
| <p>JC</p> <p>Dk-24</p> <p>Female ORFS Swivel – Straight Short ISO 12151-1 – SWSA</p>  | <p>JS</p> <p>Dk-24</p> <p>ORFS Swivel Female (Long) ISO 12151-1-SWSB SAE J516 – ORFS</p>  | <p>J7</p> <p>Dk-25</p> <p>Female ORFS – Swivel 45° Elbow ISO 12151-1 – SWE 45° SAE J516 – ORFS 45°</p>  | <p>J9</p> <p>Dk-25</p> <p>Female ORFS – Swivel 90° Elbow – Short Drop ISO 12151-1 – SWES SAE J516 – ORFS 90°</p>  |
| <p>JM</p> <p>Dk-26</p> <p>ORFS Male ISO 12151-1-S – SAE J516</p>  | | | |

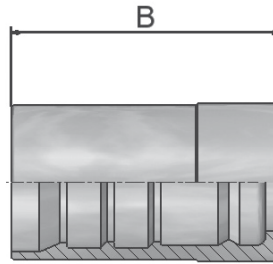
French Standard

Page Dk-26


| | |
|--|--|
| <p>FG</p> <p>Dk-27</p> <p>Male French Gas Series Rigid – Straight (24° Cone)</p>  | <p>F4</p> <p>Dk-27</p> <p>Female French Gas Series Swivel – Straight (Ball Nose)</p>  |
|--|--|

V4 Interlock In-/Outside Skive

4 Wire Hoses



Only for use with adjustable crimpers.
Minimum of 320 tons crimping force recommended.


| Part Number |  Hose I.D. | | | | B mm |
|-------------|--|-------|------|------|---------|
| | DN | Inch | Size | mm | |
| 100V4-10 | 16 | 5/8 | -10 | 15.9 | 49 |
| 100V4-12 | 19 | 3/4 | -12 | 19.1 | 60 |
| 100V4-16 | 25 | 1 | -16 | 25.4 | 75 |
| 100V4-20 | 31 | 1 1/4 | -20 | 31.8 | 88 |
| 100V4-24 | 38 | 1 1/2 | -24 | 38.1 | 94 |
| 100V4-32 | 51 | 2 | -32 | 50.8 | 99 |

V6 Interlock In-/Outside Skive

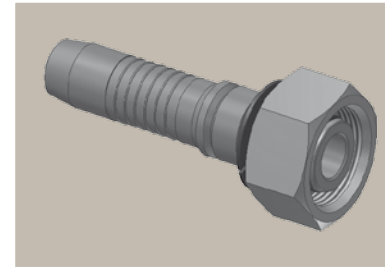
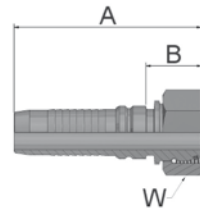
6 Wire Hoses



Only for use with adjustable crimpers.
Minimum of 340 tons crimping force required.

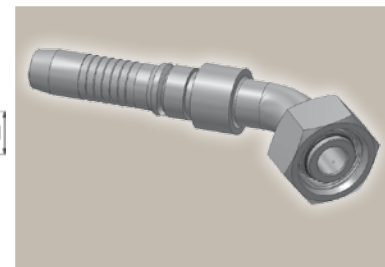
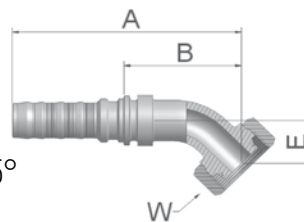
| Part Number |  Hose I.D. | | | | B mm |
|-------------|--|-------|------|------|---------|
| | DN | Inch | Size | mm | |
| 100V6-20 | 31 | 1 1/4 | -20 | 31.8 | 90 |
| 100V6-24 | 38 | 1 1/2 | -24 | 38.1 | 96 |
| 100V6-32 | 51 | 2 | -32 | 50.8 | 110 |
| 100V6-40 | 63 | 2 1/2 | -40 | 63.5 | 134 |

CA **Female Metric 24°
Light Series with O-Ring
Swivel – Straight**
ISO 12151-2-SWS-L – DKOL



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | W mm |
|-------------|-----------|-------|------|------|------------------|--------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| KCAV4-22-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 22 | 89 | 28 | 36 |
| KCAV4-28-16 | 25 | 1 | -16 | 25.4 | M36x2 | 28 | 103 | 31 | 41 |
| KCAV6-35-20 | 31 | 1 1/4 | -20 | 31.8 | M45x2 | 35 | 130 | 39 | 50 |
| KCAV4-35-20 | 31 | 1 1/4 | -20 | 31.8 | M45x2 | 35 | 120 | 32 | 50 |
| KCAV4-42-24 | 38 | 1 1/2 | -24 | 38.1 | M52x2 | 42 | 128 | 35 | 60 |
| KCAV6-42-24 | 38 | 1 1/2 | -24 | 38.1 | M52x2 | 42 | 138 | 42 | 60 |

CE **Female Metric 24°
Light Series with O-Ring
Swivel – 45° Elbow**
ISO 12151-2-SWE 45°-L – DKOL 45°



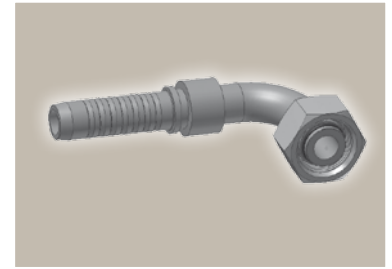
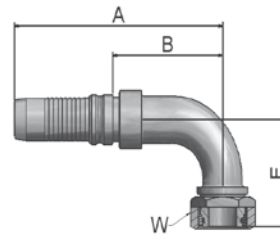
| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | E mm | W mm |
|-------------|-----------|-------|------|------|------------------|--------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | | |
| KCEV4-22-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 22 | 137 | 75 | 29 | 36 |
| KCEV4-35-20 | 31 | 1 1/4 | -20 | 31.8 | M45x2 | 35 | 197 | 109 | 37 | 50 |
| KCEV6-35-20 | 31 | 1 1/4 | -20 | 31.8 | M45x2 | 35 | 188 | 97 | 37 | 50 |
| KCEV6-42-24 | 38 | 1 1/2 | -24 | 38.1 | M52x2 | 42 | 226 | 130 | 49 | 60 |

Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

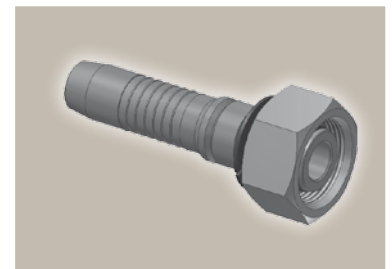
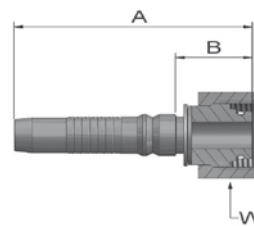
| | | | | | | | | | | | | | | | | |
|-----------|---------------|-------|---------------|-------|-----|-------|-------|---------------|-----|-------|-----|-----------|-------|-------|-------|--|
| V4 | -10 up to -16 | H31 | H31TC | H31ST | R42 | R42TC | R42ST | -12 up to -20 | R35 | R35TC | H29 | all sizes | H29TC | H29ST | H29RH | |
| V6 | -24 up to -32 | | | | | | | | | | | | | | | |
| | R35 | R35TC | -20 up to -32 | | | R42 | R42ST | R42TC | | | | | | | | |

CF **Female Metric 24°
Light Series with O-Ring
Swivel – 90° Elbow**
ISO 12151-2-SWE-L – DKOL 90°



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | E mm | W mm |
|-------------|-----------|-------|------|------|------------------|--------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | | |
| KCFV4-22-16 | 25 | 1 | -16 | 25.4 | M30x2 | 22 | 150 | 77 | 70 | 36 |
| KCFV4-35-20 | 31 | 1 1/4 | -20 | 31.8 | M45x2 | 35 | 186 | 98 | 79 | 50 |
| KCFV6-35-20 | 31 | 1 1/4 | -20 | 31.8 | M45x2 | 35 | 177 | 86 | 79 | 50 |
| KCFV6-42-24 | 38 | 1 1/2 | -24 | 38.1 | M52x2 | 42 | 209 | 113 | 101 | 60 |

C9 **Female Metric 24° – Swivel
Heavy Series with O-Ring
Straight**
ISO 12151-2-SWS-S – DKOS



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | W mm |
|-------------|-----------|-------|------|------|------------------|--------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| KC9V4-20-10 | 16 | 5/8 | -10 | 15.9 | M30x2 | 20 | 87 | 27 | 36 |
| KC9V4-20-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 20 | 88 | 26 | 36 |
| KC9V4-25-12 | 19 | 3/4 | -12 | 19.1 | M36x2 | 25 | 91 | 30.3 | 46 |
| KC9V4-30-12 | 19 | 3/4 | -12 | 19.1 | M42x2 | 30 | 95 | 33 | 50 |
| KC9V4-25-16 | 25 | 1 | -16 | 25.4 | M36x2 | 25 | 103 | 30 | 46 |
| KC9V4-30-16 | 25 | 1 | -16 | 25.4 | M42x2 | 30 | 108 | 35 | 50 |
| KC9V4-38-16 | 25 | 1 | -16 | 25.4 | M52x2 | 38 | 110 | 37 | 60 |
| KC9V6-30-20 | 31 | 1 1/4 | -20 | 31.8 | M42x2 | 30 | 131.5 | 41.5 | 50 |
| KC9V4-30-20 | 31 | 1 1/4 | -20 | 31.8 | M42x2 | 30 | 123 | 35 | 50 |
| KC9V6-38-20 | 31 | 1 1/4 | -20 | 31.8 | M52x2 | 38 | 135 | 44 | 60 |
| KC9V4-38-20 | 31 | 1 1/4 | -20 | 31.8 | M52x2 | 38 | 126 | 38 | 60 |
| KC9V6-38-24 | 38 | 1 1/2 | -24 | 38.1 | M52x2 | 38 | 139 | 43 | 60 |
| KC9V4-38-24 | 38 | 1 1/2 | -24 | 38.1 | M52x2 | 38 | 129 | 36 | 60 |
| KC9V6-54-32 | 51 | 2 | -32 | 50.8 | M68x2 | 54 | 175 | 65 | 80 |

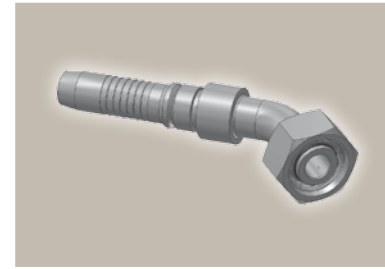
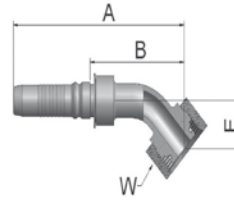
Approved fitting series for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | |
|-----------|---|
| V4 | -10 up to -16 H31 H31TC H31ST R42 R42TC R42ST -12 up to -20 R35 R35TC H29 all sizes H29TC H29ST H29RH |
| V6 | -24 up to -32 R35 R35TC -20 up to -32 R42 R42ST R42TC |

0C Female Metric 24° – Swivel Heavy Series with O-Ring 45° Elbow

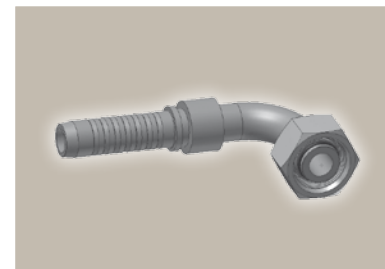
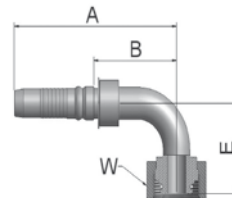
ISO 12151-2 – SWE 45°-S – DKOS 45°



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | E mm | W mm |
|-------------|-----------|-------|------|------|------------------|--------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | | |
| K0CV4-20-10 | 16 | 5/8 | -10 | 15.9 | M30x2 | 20 | 124 | 65 | 26 | 36 |
| K0CV4-20-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 20 | 138 | 76 | 30 | 36 |
| K0CV4-25-12 | 19 | 3/4 | -12 | 19.1 | M36x2 | 25 | 137 | 76 | 29 | 46 |
| K0CV4-25-16 | 25 | 1 | -16 | 25.4 | M36x2 | 25 | 161 | 88 | 33 | 46 |
| K0CV4-30-16 | 25 | 1 | -16 | 25.4 | M42x2 | 30 | 162 | 88.7 | 33 | 50 |
| K0CV6-30-20 | 31 | 1 1/4 | -20 | 31.8 | M42x2 | 30 | 184 | 93 | 34 | 50 |
| K0CV4-30-20 | 31 | 1 1/4 | -20 | 31.8 | M42x2 | 30 | 193 | 105 | 34 | 50 |
| K0CV6-38-20 | 31 | 1 1/4 | -20 | 31.8 | M52x2 | 38 | 187 | 96.3 | 37 | 60 |
| K0CV4-38-20 | 31 | 1 1/4 | -20 | 31.8 | M52x2 | 38 | 197 | 108.7 | 37 | 60 |
| K0CV6-38-24 | 38 | 1 1/2 | -24 | 38.1 | M52x2 | 38 | 226 | 130 | 49 | 60 |
| K0CV4-38-24 | 38 | 1 1/2 | -24 | 38.1 | M52x2 | 38 | 227 | 133 | 49 | 60 |

1C Female Metric 24° – Swivel Heavy Series with O-Ring 90° Elbow

ISO 12151-2-SWE-S – DKOS 90°



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | E mm | W mm |
|-------------|-----------|-------|------|------|------------------|--------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | | |
| K1CV4-20-10 | 16 | 5/8 | -10 | 15.9 | M30x2 | 20 | 112 | 52.3 | 50 | 36 |
| K1CV4-20-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 20 | 125 | 63 | 60 | 36 |
| K1CV4-25-12 | 19 | 3/4 | -12 | 19.1 | M36x2 | 25 | 126 | 65 | 59 | 46 |
| K1CV4-25-16 | 25 | 1 | -16 | 25.4 | M36x2 | 25 | 150 | 77 | 69 | 46 |
| K1CV4-30-16 | 25 | 1 | -16 | 25.4 | M42x2 | 30 | 151 | 77.7 | 69 | 50 |
| K1CV4-38-16 | 25 | 1 | -16 | 25.4 | M52x2 | 38 | 150 | 77 | 68 | 60 |
| K1CV6-30-20 | 31 | 1 1/4 | -20 | 31.8 | M42x2 | 30 | 169 | 78 | 69 | 50 |
| K1CV4-30-20 | 31 | 1 1/4 | -20 | 31.8 | M42x2 | 30 | 183 | 95 | 73 | 50 |
| K1CV6-38-20 | 31 | 1 1/4 | -20 | 31.8 | M52x2 | 38 | 177 | 86.3 | 78 | 60 |
| K1CV4-38-20 | 31 | 1 1/4 | -20 | 31.8 | M52x2 | 38 | 187 | 98.7 | 78 | 60 |
| K1CV6-38-24 | 38 | 1 1/2 | -24 | 38.1 | M52x2 | 38 | 209 | 113 | 101 | 60 |
| K1CV4-38-24 | 38 | 1 1/2 | -24 | 38.1 | M52x2 | 38 | 210 | 117 | 101 | 60 |

Approved **fitting series** for hose types:

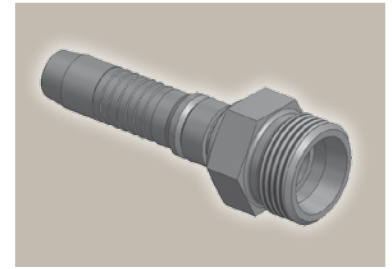
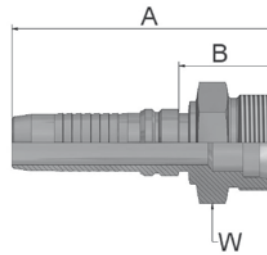
Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | | | | | | | | | | | | | | | | |
|-----------|---------------|-------|---------------|-------|-----|-------|-------|---------------|-----|-------|-----|-----------|-------|-------|-------|--|
| V4 | -10 up to -16 | H31 | H31TC | H31ST | R42 | R42TC | R42ST | -12 up to -20 | R35 | R35TC | H29 | all sizes | H29TC | H29ST | H29RH | |
| V6 | -24 up to -32 | | | | | | | | | | | | | | | |
| | R35 | R35TC | -20 up to -32 | | | R42 | R42ST | R42TC | | | | | | | | |

D2

Male Metric 24° – Rigid Heavy Series – Straight

ISO 12151-2-S-S – CES



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | H mm |
|-------------|-----------|-------|------|------|------------------|--------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| KD2V4-20-12 | 19 | 3/4 | -12 | 19.1 | M30x2 | 20 | 93 | 31 | 30 |
| KD2V4-25-12 | 19 | 3/4 | -12 | 19.1 | M36x2 | 25 | 98 | 36.3 | 36 |
| KD2V4-25-16 | 25 | 1 | -16 | 25.4 | M36x2 | 25 | 110.3 | 37.7 | 46 |
| KD2V4-30-16 | 25 | 1 | -16 | 25.4 | M42x2 | 30 | 115 | 41.7 | 46 |
| KD2V6-30-20 | 31 | 1 1/4 | -20 | 31.8 | M42x2 | 30 | 140 | 59 | 46 |
| KD2V6-38-20 | 31 | 1 1/4 | -20 | 31.8 | M52x2 | 38 | 142 | 51 | 55 |
| KD2V4-38-20 | 31 | 1 1/4 | -20 | 31.8 | M52x2 | 38 | 135 | 46.7 | 55 |
| KD2V6-38-24 | 38 | 1 1/2 | -24 | 38.1 | M52x2 | 38 | 151 | 55 | 55 |
| KD2V4-38-24 | 38 | 1 1/2 | -24 | 38.1 | M52x2 | 38 | 139 | 46 | 55 |

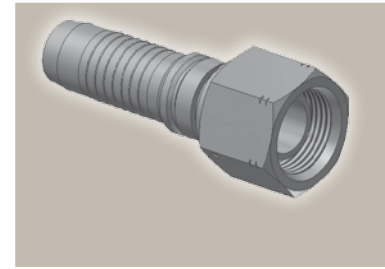
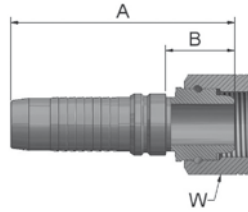
Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | |
|-----------|---|
| V4 | -10 up to -16 H31 H31TC H31ST R42 R42TC R42ST -12 up to -20 R35 R35TC H29 all sizes H29TC H29ST H29RH |
| V6 | -24 up to -32 R35 R35TC -20 up to -32 R42 R42ST R42TC |

92 Female BSP Parallel Pipe Swivel – Straight (60° Cone)

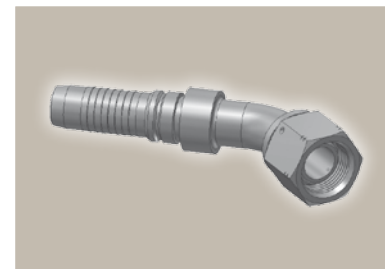
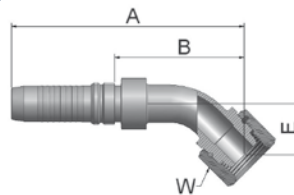
BS5200-A – DKR



| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | W mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| K92V4-10-10 | 16 | 5/8 | -10 | 15.9 | 5/8x14 | 80 | 20.3 | 30 |
| K92V4-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 85 | 23.3 | 32 |
| K92V4-16-12 | 19 | 3/4 | -12 | 19.1 | 1x11 | 93 | 31.3 | 41 |
| K92V4-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 105 | 32 | 41 |
| K92V6-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 127 | 36 | 50 |
| K92V4-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 118 | 30 | 50 |
| K92V6-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2x11 | 134 | 38 | 55 |
| K92V4-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2x11 | 124 | 30.9 | 55 |
| K92V6-32-32 | 51 | 2 | -32 | 50.8 | 2x11 | 151 | 41 | 70 |
| K92V4-32-32 | 51 | 2 | -32 | 50.8 | 2x11 | 131 | 34.2 | 70 |

B1 Female BSP Parallel Pipe Swivel 45° Elbow (60° Cone)

BS 5200-D – DKR 45°



| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | E mm | W mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| KB1V4-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 134 | 72.3 | 26 | 32 |
| KB1V4-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 164 | 91 | 36 | 41 |
| KB1V6-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 194 | 103 | 43 | 50 |
| KB1V4-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 198 | 109.7 | 38 | 50 |
| KB1V6-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2x11 | 229 | 133 | 52 | 55 |
| KB1V4-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2x11 | 230 | 137 | 52 | 55 |
| KB1V6-32-32 | 51 | 2 | -32 | 50.8 | 2x11 | 288 | 178 | 70 | 70 |
| KB1V4-32-32 | 51 | 2 | -32 | 50.8 | 2x11 | 277 | 180 | 70 | 70 |

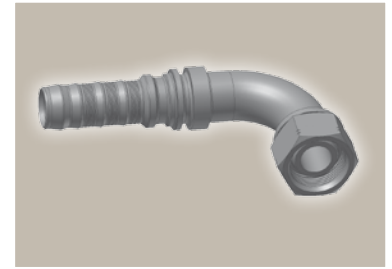
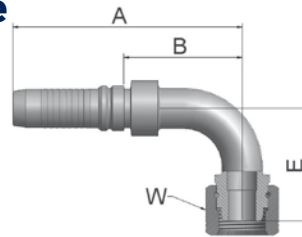
Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | | | | | | | | | | | | | | | |
|-----------|---------------------------|-----|-------|-------|-----|-------|-------|---------------|-----|-------|-----|-----------|-------|-------|-------|
| V4 | -10 up to -16 | H31 | H31TC | H31ST | R42 | R42TC | R42ST | -12 up to -20 | R35 | R35TC | H29 | all sizes | H29TC | H29ST | H29RH |
| V6 | -24 up to -32 | | | | | | | | | | | | | | |
| | R35 R35TC -20 up to -32 | | | | | | | | | | | | | | |
| | R42 R42ST R42TC | | | | | | | | | | | | | | |

B2 Female BSP Parallel Pipe Swivel 90° Elbow (60° Cone)

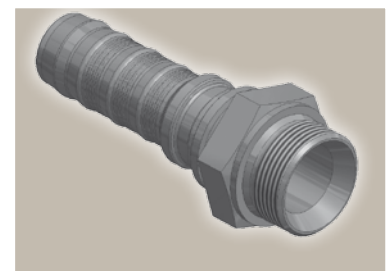
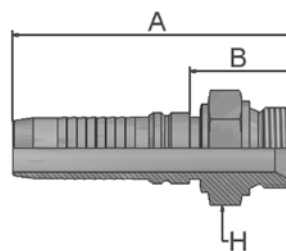
BS 5200-B – DKR 90°



| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | E mm | W mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| KB2V4-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 125 | 63.3 | 55 | 32 |
| KB2V4-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 150 | 77 | 74 | 41 |
| KB2V6-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 177 | 86 | 80 | 50 |
| KB2V4-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 186 | 98.7 | 80 | 50 |
| KB2V6-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2x11 | 209 | 113 | 103 | 55 |
| KB2V4-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2x11 | 210 | 116.9 | 103 | 55 |
| KB2V6-32-32 | 51 | 2 | -32 | 50.8 | 2x11 | 268 | 157 | 149 | 70 |
| KB2V4-32-32 | 51 | 2 | -32 | 50.8 | 2x11 | 257 | 160 | 149 | 70 |

D9 Male BSP Parallel Pipe Rigid – Straight (60° Cone)

BS5200 – AGR



| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | H mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| KD9V4-10-10 | 16 | 5/8 | -10 | 15.9 | 5/8x14 | 94 | 35 | 30 |
| KD9V4-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 99 | 37.3 | 32 |
| KD9V4-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 115 | 42.7 | 41 |
| KD9V6-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 139 | 48 | 50 |
| KD9V4-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 134 | 46.2 | 50 |
| KD9V6-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2x11 | 155 | 58 | 55 |
| KD9V4-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2x11 | 142 | 48.4 | 55 |
| KD9V6-32-32 | 51 | 2 | -32 | 50.8 | 2x11 | 168 | 58 | 70 |
| KD9V4-32-32 | 51 | 2 | -32 | 50.8 | 2x11 | 148 | 50 | 70 |

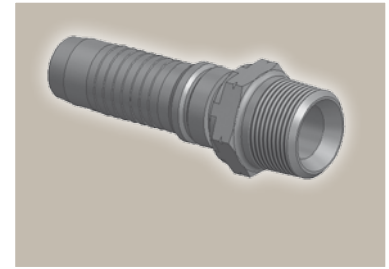
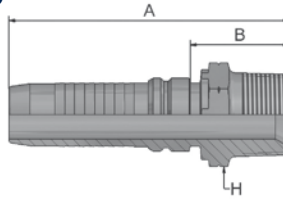
Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | | | | | | | | | | | | | | | |
|-----------|---------------|-------|---------------|-------|-----|-------|-------|---------------|-----|-------|-----|-----------|-------|-------|-------|
| V4 | -10 up to -16 | H31 | H31TC | H31ST | R42 | R42TC | R42ST | -12 up to -20 | R35 | R35TC | H29 | all sizes | H29TC | H29ST | H29RH |
| V6 | -24 up to -32 | | | | | | | | | | | | | | |
| | R35 | R35TC | -20 up to -32 | | R42 | R42ST | R42TC | | | | | | | | |

91 Male BSP Taper Pipe – Rigid Straight

BS5200 – AGR-K



| Part Number | Hose I.D. | | | | Thread BSP | A mm | B mm | H mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| K91V4-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 99 | 37 | 30 |
| K91V4-16-16 | 25 | 1 | -16 | 25.4 | 1x11 | 113 | 40 | 36 |
| K91V4-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 | 138 | 50 | 46 |
| K91V4-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2x11 | 144 | 59 | 55 |
| K91V4-32-32 | 51 | 2 | -32 | 50.8 | 2x11 | 154 | 56 | 65 |

Approved **fitting series** for hose types:

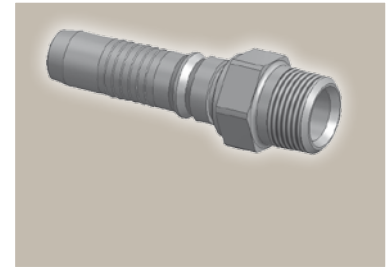
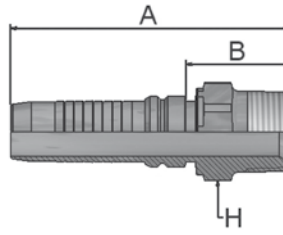
Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | | | | | | | | | | | | | | | | |
|-----------|---------------|-------|---------------|-------|-----|-------|-------|---------------|-----|-------|-----|-----------|-------|-------|-------|--|
| V4 | -10 up to -16 | H31 | H31TC | H31ST | R42 | R42TC | R42ST | -12 up to -20 | R35 | R35TC | H29 | all sizes | H29TC | H29ST | H29RH | |
| V6 | -24 up to -32 | | | | | | | | | | | | | | | |
| | R35 | R35TC | -20 up to -32 | | | R42 | R42ST | R42TC | | | | | | | | |

01

Male NPTF Pipe Rigid – Straight

SAE J476A / J516 – AGN

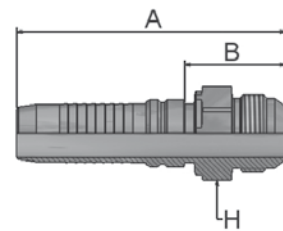


| Part Number | Hose I.D. | | | | Thread NPTF | A mm | B mm | H mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| K01V4-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4x14 | 100 | 38.3 | 30 |
| K01V4-16-16 | 25 | 1 | -16 | 25.4 | 1x11 1/2 | 116.5 | 43.9 | 36 |
| K01V6-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 1/2 | 151 | 60.2 | 46 |
| K01V4-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4x11 1/2 | 146 | 58.2 | 46 |
| K01V6-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2x11 1/2 | 159 | 62.7 | 50 |
| K01V4-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2x11 1/2 | 148.4 | 55.3 | 50 |
| K01V6-32-32 | 51 | 2 | -32 | 50.8 | 2x11 1/2 | 181 | 70 | 65 |
| K01V4-32-32 | 51 | 2 | -32 | 50.8 | 2x11 1/2 | 159.8 | 62.3 | 65 |

03

Male JIC 37° – Rigid Straight

ISO12151-5-S – AGJ



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | H mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| K03V4-12-12 | 19 | 3/4 | -12 | 19.1 | 1 1/16x12 | 101 | 39.3 | 30 |
| K03V4-16-12 | 19 | 3/4 | -12 | 19.1 | 1 5/16x12 | 103 | 41.3 | 36 |
| K03V4-16-16 | 25 | 1 | -16 | 25.4 | 1 5/16x12 | 117 | 44.1 | 36 |
| K03V4-20-16 | 25 | 1 | -16 | 25.4 | 1 5/8x12 | 122 | 49.5 | 46 |
| K03V6-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 5/8x12 | 147 | 56 | 46 |
| K03V4-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 5/8x12 | 139 | 50.7 | 46 |
| K03V4-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 7/8x12 | 139 | 51 | 50 |
| K03V6-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 7/8x12 | 156 | 60 | 50 |
| K03V4-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 7/8x12 | 146 | 52.6 | 50 |
| K03V6-32-32 | 51 | 2 | -32 | 50.8 | 2 1/2x12 | 182 | 72 | 65 |
| K03V4-32-32 | 51 | 2 | -32 | 50.8 | 2 1/2x12 | 161 | 64 | 65 |

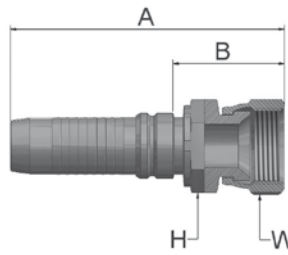
Approved fitting series for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | |
|-----------|---|
| V4 | -10 up to -16 H31 H31TC H31ST R42 R42TC R42ST -12 up to -20 R35 R35TC H29 all sizes H29TC H29ST H29RH |
| V6 | -24 up to -32 R35 R35TC -20 up to -32 R42 R42ST R42TC |

06 Female JIC 37° – Swivel Straight

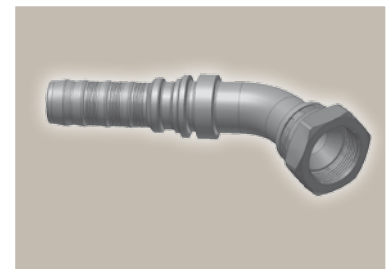
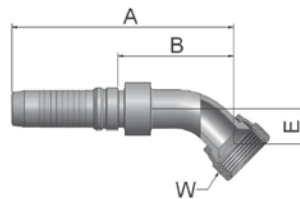
ISO12151-5-SWS – DKJ



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | H mm | W mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| K06V4-12-12 | 19 | 3/4 | -12 | 19.1 | 1 1/16x12 | 105 | 43 | 30 | 32 |
| K06V4-16-12 | 19 | 3/4 | -12 | 19.1 | 1 5/16x12 | 109 | 48 | 36 | 41 |
| K06V4-16-16 | 25 | 1 | -16 | 25.4 | 1 5/16x12 | 122 | 50 | 36 | 41 |
| K06V4-20-16 | 25 | 1 | -16 | 25.4 | 1 5/8x12 | 125 | 52 | 41 | 50 |
| K06V4-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 5/8x12 | 146 | 58 | 46 | 50 |
| K06V6-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 5/8x12 | 154 | 63 | 46 | 50 |
| K06V6-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 7/8x12 | 159 | 68 | 50 | 60 |
| K06V4-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 7/8x12 | 150 | 63 | 50 | 60 |
| K06V6-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 7/8x12 | 163 | 67 | 50 | 60 |
| K06V4-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 7/8x12 | 152 | 59 | 50 | 60 |
| K06V4-32-32 | 51 | 2 | -32 | 50.8 | 2 1/2x12 | 168 | 70 | 65 | 75 |
| K06V6-32-32 | 51 | 2 | -32 | 50.8 | 2 1/2x12 | 188 | 77 | 65 | 75 |

37 Female JIC 37° – Swivel 45° Elbow

ISO 12151-5-SWE 45° – DKJ 45°



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | E mm | W mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| K37V4-12-12 | 19 | 3/4 | -12 | 19.1 | 1 1/16x12 | 129 | 67 | 22 | 32 |
| K37V4-16-16 | 25 | 1 | -16 | 25.4 | 1 5/16x12 | 152 | 79.7 | 24 | 41 |
| K37V6-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 5/8x12 | 192 | 101 | 42 | 50 |
| K37V4-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 5/8x12 | 201 | 113 | 42 | 50 |
| K37V6-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 7/8x12 | 235 | 139 | 58 | 60 |
| K37V4-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 7/8x12 | 227 | 133.9 | 49 | 60 |
| K37V6-32-32 | 51 | 2 | -32 | 50.8 | 2 1/2x12 | 290 | 180 | 72 | 75 |
| K37V4-32-32 | 51 | 2 | -32 | 50.8 | 2 1/2x12 | 279 | 182 | 72 | 75 |

Approved **fitting series** for hose types:

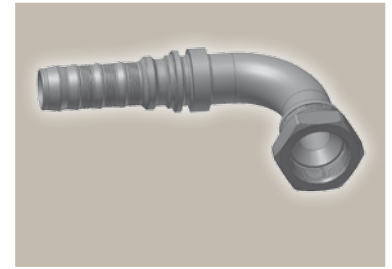
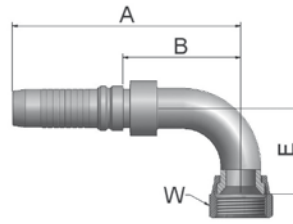
Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | | | | | | | | | | | | | | | | |
|-----------|---------------|-------|---------------|-------|-----|-------|-------|---------------|-----|-------|-----|-----------|-------|-------|-------|--|
| V4 | -10 up to -16 | H31 | H31TC | H31ST | R42 | R42TC | R42ST | -12 up to -20 | R35 | R35TC | H29 | all sizes | H29TC | H29ST | H29RH | |
| V6 | -24 up to -32 | | | | | | | | | | | | | | | |
| | R35 | R35TC | -20 up to -32 | | | R42 | R42ST | R42TC | | | | | | | | |

39

Female JIC 37° - Swivel 90° Elbow

ISO 12151-5-SWES - DKJ 90°



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | E mm | W mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| K39V4-12-12 | 19 | 3/4 | -12 | 19.1 | 1 1/16x12 | 125 | 63.3 | 48 | 32 |
| K39V4-16-12 | 19 | 3/4 | -12 | 19.1 | 1 5/16x12 | 125 | 63.3 | 56 | 41 |
| K39V4-16-16 | 25 | 1 | -16 | 25.4 | 1 5/16x12 | 150 | 77.7 | 56 | 41 |
| K39V4-20-16 | 25 | 1 | -16 | 25.4 | 1 5/8x12 | 150 | 77 | 62 | 50 |
| K39V4-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 5/8x12 | 186 | 98 | 85 | 50 |
| K39V6-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 5/8x12 | 177 | 86 | 85 | 50 |
| K39V4-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 7/8x12 | 186 | 98 | 80 | 60 |
| K39V6-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 7/8x12 | 209 | 113 | 102 | 60 |
| K39V4-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 7/8x12 | 210 | 116.9 | 102 | 60 |
| K39V6-32-32 | 51 | 2 | -32 | 50.8 | 2 1/2x12 | 268 | 157 | 152 | 75 |
| K39V4-32-32 | 51 | 2 | -32 | 50.8 | 2 1/2x12 | 257 | 160 | 152 | 75 |

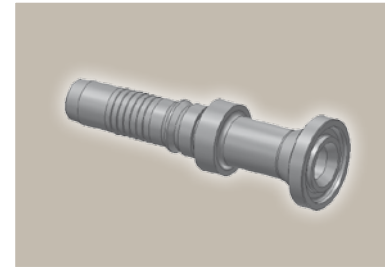
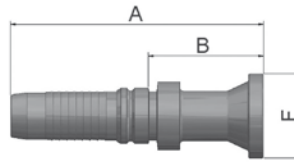
Approved fitting series for hose types:



Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | |
|-----------|---|
| V4 | -10 up to -16 H31 H31TC H31ST R42 R42TC R42ST -12 up to -20 R35 R35TC H29 all sizes H29TC H29ST H29RH |
| V6 | -24 up to -32 R35 R35TC -20 up to -32 R42 R42ST R42TC |

15/4A ISO 6162-1 Flange Straight

ISO 12151-3-S-L – SFL
(35.0 MPa/ 5000 psi)



| Part Number |  Hose I.D. | | | |  Flange | A mm | B mm | F mm |
|-------------|--|-------|------|------|---|---------|---------|---------|
| | DN | Inch | Size | mm | Inch | | | |
| K15V4-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 119 | 58 | 38 |
| K15V4-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 100 | 38.3 | 45 |
| K15V4-12-16 | 25 | 1 | -16 | 25.4 | 3/4 | 134.8 | 62.2 | 38 |
| K15V4-16-16 | 25 | 1 | -16 | 25.4 | 1 | 133 | 61 | 45 |
| K4AV4-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 101 | 28 | 51 |
| K15V6-16-20 | 31 | 1 1/4 | -20 | 31.8 | 1 | 161 | 70 | 44 |
| K15V4-16-20 | 31 | 1 1/4 | -20 | 31.8 | 1 | 152 | 64 | 45 |
| K4AV6-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 167 | 76 | 51 |
| K4AV4-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 160 | 72 | 51 |
| K4AV4-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 126 | 38.7 | 60 |
| K4AV6-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 165 | 74 | 60 |
| K4AV4-20-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/4 | 167 | 73 | 51 |
| K4AV6-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 201 | 105 | 60 |
| K4AV4-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 190 | 97 | 60 |
| K4AV6-32-24 | 38 | 1 1/2 | -24 | 38.1 | 2 | 159 | 63 | 71 |
| K4AV4-32-24 | 38 | 1 1/2 | -24 | 38.1 | 2 | 149 | 56 | 71 |
| K4AV6-32-32 | 51 | 2 | -32 | 50.8 | 2 | 210 | 100 | 71 |
| K4AV4-32-32 | 51 | 2 | -32 | 50.8 | 2 | 189 | 92 | 71 |

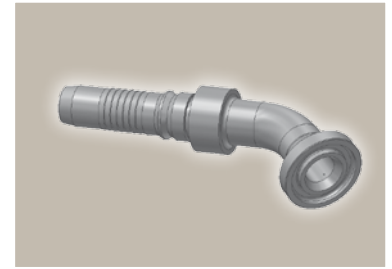
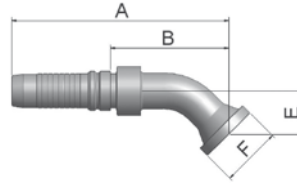
Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | | | | | | | | | | | | | | | |
|-----------|---------------------------|-----|-------|-------|-----|-------|-------|---------------|-----|-------|-----|-----------|-------|-------|-------|
| V4 | -10 up to -16 | H31 | H31TC | H31ST | R42 | R42TC | R42ST | -12 up to -20 | R35 | R35TC | H29 | all sizes | H29TC | H29ST | H29RH |
| V6 | -24 up to -32 | | | | | | | | | | | | | | |
| | R35 R35TC -20 up to -32 | | | | | | | | | | | | | | |
| | R42 R42ST R42TC | | | | | | | | | | | | | | |

17/4F ISO 6162-1 Flange 45° Elbow

ISO 12151-3 – E45S – L – SFL 45°
(35.0 MPa/ 5000 psi)



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| K17V4-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 133 | 72 | 26 | 38 |
| K17V4-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 133 | 72 | 26 | 45 |
| K4FV4-20-12 | 19 | 3/4 | -12 | 19.1 | 1 1/4 | 133 | 71 | 25 | 51 |
| K17V4-16-16 | 25 | 1 | -16 | 25.4 | 1 | 160 | 87 | 32 | 45 |
| K4FV4-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 160 | 87 | 32 | 51 |
| K17V6-16-20 | 31 | 1 1/4 | -20 | 31.8 | 1 | 188 | 97 | 38 | 44 |
| K17V4-16-20 | 31 | 1 1/4 | -20 | 31.8 | 1 | 198 | 109.7 | 38 | 45 |
| K4FV6-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 188 | 97 | 38 | 51 |
| K4FV4-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 198 | 109.7 | 38 | 51 |
| K4FV6-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 188 | 97 | 38 | 60 |
| K4FV4-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 198 | 109.7 | 38 | 60 |
| K4FV6-20-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/4 | 201 | 105 | 44 | 51 |
| K4FV6-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 221 | 125 | 44 | 60 |
| K4FV4-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 222 | 128.9 | 44 | 60 |
| K4FV6-32-24 | 38 | 1 1/2 | -24 | 38.1 | 2 | 221 | 125 | 44 | 71 |
| K4FV4-32-24 | 38 | 1 1/2 | -24 | 38.1 | 2 | 222 | 128.9 | 44 | 71 |
| K4FV4-32-32 | 51 | 2 | -32 | 50.8 | 2 | 269 | 171 | 62 | 71 |
| K4FV6-32-32 | 51 | 2 | -32 | 50.8 | 2 | 280 | 169 | 62 | 71 |

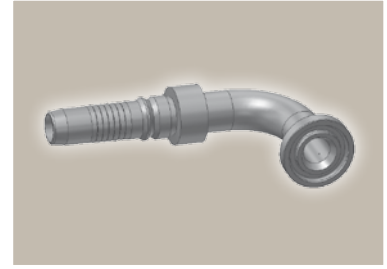
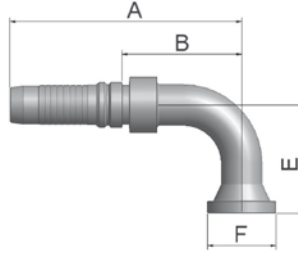
Approved fitting series for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | |
|-----------|---|
| V4 | -10 up to -16 H31 H31TC H31ST R42 R42TC R42ST -12 up to -20 R35 R35TC H29 all sizes H29TC H29ST H29RH |
| V6 | -24 up to -32 R35 R35TC -20 up to -32 R42 R42ST R42TC |

19/4N ISO 6162-1 Flange 90° Elbow

ISO 12151-3-E-L – SFL 90°
(35.0 MPa/ 5000 psi)



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------------|-----------|-------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| K19V4-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 125 | 63.3 | 58 | 38 |
| K19V4-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 125 | 63.3 | 58 | 45 |
| K19V4-16-16 | 25 | 1 | -16 | 25.4 | 1 | 150 | 77.7 | 70 | 45 |
| K4NV4-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 150 | 77 | 69 | 51 |
| K19V4-16-20 | 31 | 1 1/4 | -20 | 31.8 | 1 | 186 | 98 | 90 | 45 |
| K19V6-16-20 | 31 | 1 1/4 | -20 | 31.8 | 1 | 177 | 86 | 90 | 44 |
| K4NV6-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 177 | 86 | 90 | 51 |
| K4NV4-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 186 | 98.2 | 90 | 51 |
| K4NV4-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 186 | 98 | 90 | 60 |
| K4NV4-24-20-SL110 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 186 | 98 | 110 | 60 |
| K4NV6-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 177 | 86 | 90 | 60 |
| K4NV6-20-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/4 | 184 | 88 | 104 | 51 |
| K4NV4-20-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/4 | 197 | 103 | 104 | 51 |
| K4NV6-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 209 | 113 | 104 | 60 |
| K4NV4-24-24-SL200 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 210 | 116.9 | 200 | 60 |
| K4NV4-24-24-SL150 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 210 | 116.9 | 150 | 60 |
| K4NV4-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 210 | 116.9 | 104 | 60 |
| K4NV4-32-24 | 38 | 1 1/2 | -24 | 38.1 | 2 | 210 | 116.9 | 104 | 71 |
| K4NV6-32-24 | 38 | 1 1/2 | -24 | 38.1 | 2 | 209 | 113 | 104 | 71 |
| K4NV4-24-32 | 51 | 2 | -32 | 50.8 | 1 1/2 | 227 | 130 | 138 | 60 |
| K4NV6-32-32 | 51 | 2 | -32 | 50.8 | 2 | 268 | 157 | 138 | 71 |
| K4NV4-32-32 | 51 | 2 | -32 | 50.8 | 2 | 257 | 160.2 | 138 | 71 |

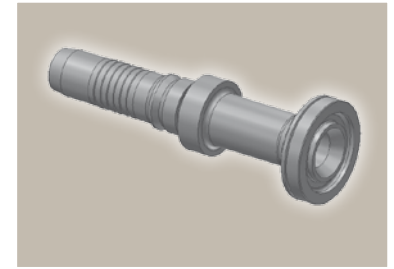
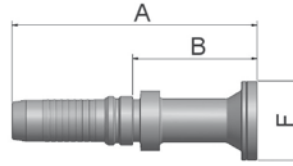
Approved fitting series for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | | | | | | | | | | | | | | | | | |
|-----------|---------------|-------|---------------|-------|-----|-------|-------|---------------|-----|-------|-----|-----------|-------|-------|-------|-------|-------|
| V4 | -10 up to -16 | H31 | H31TC | H31ST | R42 | R42TC | R42ST | -12 up to -20 | R35 | R35TC | H29 | all sizes | H29TC | H29ST | H29RH | | |
| V6 | -24 up to -32 | | | | | | | | | | | | | | | | |
| | R35 | R35TC | -20 up to -32 | | | | | | | | | | | | R42 | R42ST | R42TC |

6A ISO 6162-2 Flange Straight

ISO 12151-3-S-S – SFS
(42.0 MPa/ 6000 psi)



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| K6AV4-8-10 | 16 | 5/8 | -10 | 15.9 | 1/2 | 121 | 62 | 32 |
| K6AV4-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4 | 94 | 33.8 | 41 |
| K6AV4-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 126 | 64.4 | 41 |
| K6AV4-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 100 | 38 | 48 |
| K6AV4-12-16 | 25 | 1 | -16 | 25.4 | 3/4 | 150 | 77 | 41 |
| K6AV4-16-16 | 25 | 1 | -16 | 25.4 | 1 | 148 | 75 | 48 |
| K6AV4-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 116 | 44 | 54 |
| K6AV4-24-16 | 25 | 1 | -16 | 25.4 | 1 1/2 | 118 | 45 | 64 |
| K6AV6-16-20 | 31 | 1 1/4 | -20 | 31.8 | 1 | 175 | 84 | 48 |
| K6AV4-16-20 | 31 | 1 1/4 | -20 | 31.8 | 1 | 166 | 78 | 48 |
| K6AV4-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 166 | 78 | 54 |
| K6AV6-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 175 | 83 | 54 |
| K6AV4-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 139 | 51 | 64 |
| K6AV6-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 147 | 56 | 64 |
| K6AV6-20-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/4 | 185 | 89 | 54 |
| K6AV4-20-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/4 | 174 | 81 | 54 |
| K6AV4-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 192 | 99 | 64 |
| K6AV6-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 202 | 106 | 64 |
| K6AV4-32-24 | 38 | 1 1/2 | -24 | 38.1 | 2 | 184 | 91 | 79 |
| K6AV6-32-24 | 38 | 1 1/2 | -24 | 38.1 | 2 | 194 | 98 | 79 |
| K6AV6-24-32 | 51 | 2 | -32 | 50.8 | 1 1/2 | 219 | 108.3 | 64 |
| K6AV4-24-32 | 51 | 2 | -32 | 50.8 | 1 1/2 | 198 | 101 | 64 |
| K6AV4-32-32 | 51 | 2 | -32 | 50.8 | 2 | 212 | 115 | 79 |
| K6AV6-32-32 | 51 | 2 | -32 | 50.8 | 2 | 233 | 122 | 79 |
| K6AV6-32-40 | 63 | 2 1/2 | -40 | 63.5 | 2 | 252 | 117 | 79 |
| K6AV6-40-40 | 63 | 2 1/2 | -40 | 63.5 | 2 1/2 | 253 | 118 | 108 |
| K6AV6-48-40 | 63 | 2 1/2 | -40 | 63.5 | 3 | 250 | 115 | 132 |
| K6AV6-48-48 | 76 | 3 | -48 | 76.2 | 3 | 240 | 133 | 132 |

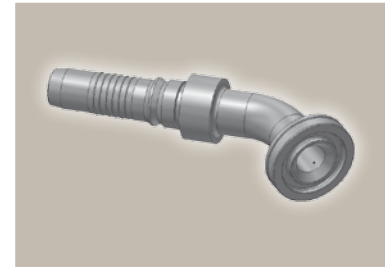
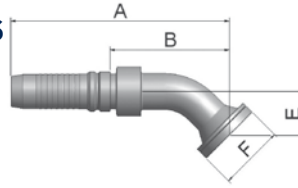
Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | |
|-----------|---|
| V4 | -10 up to -16 H31 H31TC H31ST R42 R42TC R42ST -12 up to -20 R35 R35TC H29 all sizes H29TC H29ST H29RH |
| V6 | -24 up to -32 R35 R35TC -20 up to -32 R42 R42ST R42TC |

6F ISO 6162-2 Flange 45° Elbow – Heavy Series

ISO 12151-3 – E45-S – SFS 45°
(42.0 MPa/ 6000 psi)



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|------------------|-----------|-------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| K6FV4-8-10 | 16 | 5/8 | -10 | 15.9 | 1/2 | 123 | 63.3 | 26 | 32 |
| K6FV4-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4 | 123 | 63.3 | 26 | 41 |
| K6FV4-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 133 | 72 | 26 | 41 |
| K6FV4-12-12-SL55 | 19 | 3/4 | -12 | 19.1 | 3/4 | 162 | 101 | 55 | 41 |
| K6FV4-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 133 | 71.3 | 26 | 48 |
| K6FV4-16-12-SL55 | 19 | 3/4 | -12 | 19.1 | 1 | 162 | 101 | 55 | 48 |
| K6FV4-12-16 | 25 | 1 | -16 | 25.4 | 3/4 | 155 | 78 | 32 | 41 |
| K6FV4-16-16-SL55 | 25 | 1 | -16 | 25.4 | 1 | 183 | 110 | 55 | 48 |
| K6FV4-16-16 | 25 | 1 | -16 | 25.4 | 1 | 160 | 87 | 32 | 48 |
| K6FV4-20-16-SL55 | 25 | 1 | -16 | 25.4 | 1 1/4 | 184 | 112 | 55 | 54 |
| K6FV4-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 161 | 88.7 | 32 | 54 |
| K6FV6-16-20 | 31 | 1 1/4 | -20 | 31.8 | 1 | 188 | 97 | 38 | 48 |
| K6FV4-16-20 | 31 | 1 1/4 | -20 | 31.8 | 1 | 198 | 109.7 | 38 | 48 |
| K6FV6-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 189 | 97.3 | 38 | 54 |
| K6FV4-20-20-SL60 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 220 | 132 | 60 | 54 |
| K6FV4-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 198 | 109.7 | 38 | 54 |
| K6FV6-20-20-SL60 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 210 | 119 | 60 | 54 |
| K6FV6-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 189 | 97.3 | 38 | 64 |
| K6FV4-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 198 | 109.7 | 38 | 64 |
| K6FV4-24-20-SL60 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 220 | 132 | 60 | 64 |
| K6FV6-20-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/4 | 209 | 113.3 | 44 | 54 |
| K6FV4-24-24-SL70 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 248 | 155 | 70 | 64 |
| K6FV6-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 221 | 125.3 | 44 | 64 |
| K6FV6-24-24-SL70 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 247 | 151 | 70 | 64 |
| K6FV4-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 222 | 128.9 | 44 | 64 |
| K6FV6-32-24 | 38 | 1 1/2 | -24 | 38.1 | 2 | 221 | 125.3 | 44 | 79 |
| K6FV4-32-24 | 38 | 1 1/2 | -24 | 38.1 | 2 | 222 | 128.9 | 44 | 79 |
| K6FV6-24-32 | 51 | 2 | -32 | 50.8 | 1 1/2 | 260 | 149.3 | 56 | 64 |
| K6FV4-32-32 | 51 | 2 | -32 | 50.8 | 2 | 263 | 166 | 56 | 79 |
| K6FV6-32-32 | 51 | 2 | -32 | 50.8 | 2 | 274 | 163.3 | 56 | 79 |
| K6FV4-32-32-SL70 | 51 | 2 | -32 | 50.8 | 2 | 277 | 180 | 70 | 79 |

Approved **fitting series** for hose types:

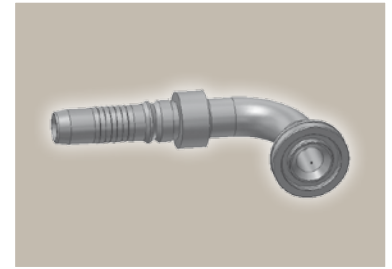
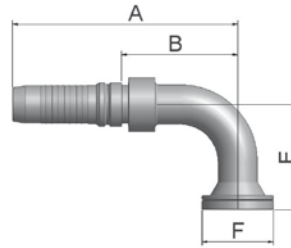
Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | | | | | | | | | | | | | | | | |
|-----------|---------------|-------|---------------|-------|-----|-------|-------|---------------|-----|-------|-----|-----------|-------|-------|-------|--|
| V4 | -10 up to -16 | H31 | H31TC | H31ST | R42 | R42TC | R42ST | -12 up to -20 | R35 | R35TC | H29 | all sizes | H29TC | H29ST | H29RH | |
| V6 | -24 up to -32 | | | | | | | | | | | | | | | |
| | R35 | R35TC | -20 up to -32 | | | R42 | R42ST | R42TC | | | | | | | | |

6N

ISO 6162-2 Flange 90° Elbow

ISO 12151-3 – E-S – SFS 90°
(42.0 MPa/ 6000 psi)



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------------|-----------|-------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| K6NV4-8-10 | 16 | 5/8 | -10 | 15.9 | 1/2 | 111 | 51 | 54 | 32 |
| K6NV4-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4 | 111 | 50.3 | 54 | 41 |
| K6NV4-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 125 | 63.3 | 58 | 41 |
| K6NV4-12-12-SL100 | 19 | 3/4 | -12 | 19.1 | 3/4 | 125 | 63 | 100 | 41 |
| K6NV4-16-12-SL100 | 19 | 3/4 | -12 | 19.1 | 1 | 125 | 63 | 100 | 48 |
| K6NV4-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 125 | 63.3 | 58 | 48 |
| K6NV4-12-16-SL55 | 25 | 1 | -16 | 25.4 | 3/4 | 140 | 67 | 55 | 41 |
| K6NV4-12-16 | 25 | 1 | -16 | 25.4 | 3/4 | 140 | 67 | 70 | 41 |
| K6NV4-16-16-SL100 | 25 | 1 | -16 | 25.4 | 1 | 150 | 77 | 100 | 48 |
| K6NV4-16-16 | 25 | 1 | -16 | 25.4 | 1 | 150 | 77.7 | 70 | 48 |
| K6NV4-20-16-SL115 | 25 | 1 | -16 | 25.4 | 1 1/4 | 154 | 81 | 115 | 54 |
| K6NV4-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 154 | 81 | 70 | 54 |
| K6NV4-16-20 | 31 | 1 1/4 | -20 | 31.8 | 1 | 186 | 98.7 | 90 | 48 |
| K6NV6-16-20 | 31 | 1 1/4 | -20 | 31.8 | 1 | 177 | 86 | 90 | 48 |
| K6NV6-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 177 | 86.3 | 90 | 54 |
| K6NV4-20-20-SL120 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 186 | 98 | 120 | 54 |
| K6NV6-20-20-SL120 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 177 | 86 | 120 | 54 |
| K6NV4-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 186 | 98.7 | 90 | 54 |
| K6NV4-20-20-SL330 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 186 | 98 | 330 | 54 |
| K6NV4-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 186 | 98.7 | 90 | 64 |
| K6NV6-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 177 | 86.3 | 90 | 64 |
| K6NV4-24-20-SL135 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 186 | 98 | 135 | 64 |
| K6NV6-20-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/4 | 192 | 96.3 | 104 | 54 |
| K6NV4-20-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/4 | 197 | 103.9 | 104 | 54 |
| K6NV4-24-24-SL140 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 210 | 117 | 140 | 64 |
| K6NV4-24-24-SL160 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 210 | 117 | 160 | 64 |
| K6NV4-24-24-SL200 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 210 | 117 | 200 | 64 |
| K6NV4-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 210 | 116.9 | 104 | 64 |
| K6NV6-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 210 | 113.3 | 104 | 64 |
| K6NV6-32-24 | 38 | 1 1/2 | -24 | 38.1 | 2 | 209 | 113.3 | 104 | 79 |
| K6NV4-32-24 | 38 | 1 1/2 | -24 | 38.1 | 2 | 210 | 116.9 | 104 | 79 |
| K6NV6-24-32 | 51 | 2 | -32 | 50.8 | 1 1/2 | 236 | 125.3 | 104 | 64 |
| K6NV4-24-32 | 51 | 2 | -32 | 50.8 | 1 1/2 | 221 | 124 | 104 | 64 |
| K6NV4-32-32 | 51 | 2 | -32 | 50.8 | 2 | 257 | 160 | 138 | 79 |
| K6NV6-32-32 | 51 | 2 | -32 | 50.8 | 2 | 268 | 157.3 | 138 | 79 |

V4/V6 Series

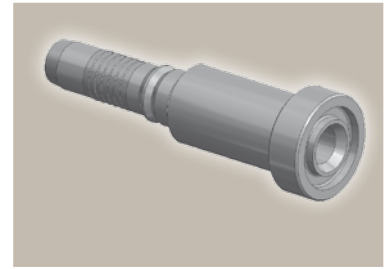
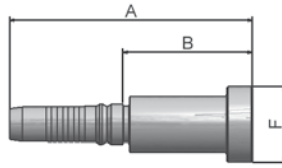
Approved fitting series for hose types:



Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | |
|-----------|---|
| V4 | -10 up to -16 H31 H31TC H31ST R42 R42TC R42ST -12 up to -20 R35 R35TC H29 all sizes H29TC H29ST H29RH |
| V6 | -24 up to -32 R35 R35TC -20 up to -32 R42 R42ST R42TC |

8A Flange – Straight

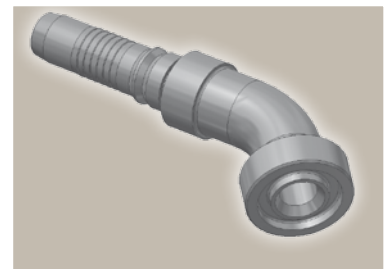
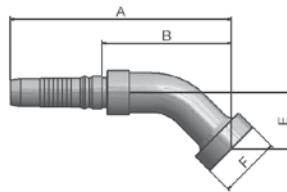
8000 psi





| Part Number |  Hose I.D. | | | |  Flange | A | B | F |
|-------------|--|-------|------|------|---|-----|----|----|
| | DN | Inch | Size | mm | Inch | mm | mm | mm |
| K8AV4-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4 | 130 | 71 | 41 |
| K8AV4-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 132 | 71 | 41 |
| K8AV4-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 143 | 82 | 48 |
| K8AV4-16-16 | 25 | 1 | -16 | 25.4 | 1 | 148 | 75 | 48 |
| K8AV4-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 111 | 39 | 54 |
| K8AV6-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 190 | 88 | 54 |

8F Flange – 45° Elbow

8000 psi



| Part Number |  Hose I.D. | | | |  Flange | A | B | E | F |
|-------------|--|-------|------|------|---|-----|-----|----|----|
| | DN | Inch | Size | mm | Inch | mm | mm | mm | mm |
| K8FV4-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4 | 123 | 64 | 26 | 41 |
| K8FV4-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 138 | 76 | 26 | 41 |
| K8FV4-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 143 | 81 | 32 | 48 |
| K8FV4-16-16 | 25 | 1 | -16 | 25.4 | 1 | 178 | 105 | 35 | 48 |
| K8FV4-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 178 | 105 | 35 | 54 |
| K8FV6-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 194 | 103 | 38 | 54 |

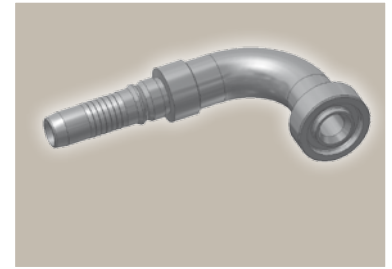
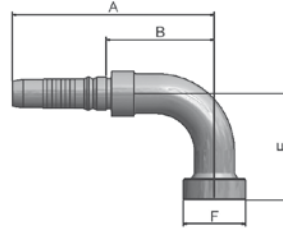
Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | | | | | | | | | | | | | | | |
|-----------|---------------------------|-----|-------|-------|-----|-------|-------|---------------|-----|-------|-----|-----------|-------|-------|-------|
| V4 | -10 up to -16 | H31 | H31TC | H31ST | R42 | R42TC | R42ST | -12 up to -20 | R35 | R35TC | H29 | all sizes | H29TC | H29ST | H29RH |
| V6 | -24 up to -32 | | | | | | | | | | | | | | |
| | R35 R35TC -20 up to -32 | | | | | | | | | | | | | | |
| | R42 R42ST R42TC | | | | | | | | | | | | | | |

8N Flange – 90° Elbow

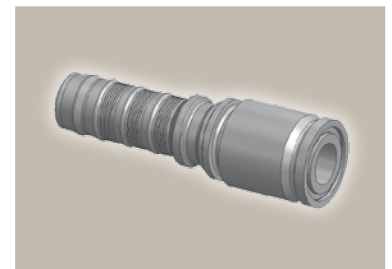
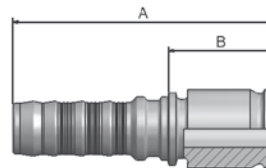
8000 psi



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| K8NV4-12-10 | 16 | 5/8 | -10 | 15.9 | 3/4 | 111 | 51 | 58 | 41 |
| K8NV4-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 133 | 71 | 70 | 41 |
| K8NV4-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 133 | 71 | 70 | 48 |
| K8NV4-16-16 | 25 | 1 | -16 | 25.4 | 1 | 170 | 97 | 75 | 48 |
| K8NV4-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 170 | 97 | 90 | 54 |
| K8NV6-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 182 | 91 | 90 | 54 |

X5 Flange – Straight

Full flange system for
ISO 6162-1 or ISO 6162-2



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|
| | DN | Inch | Size | mm | | | |
| KX5V6-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 152.3 | 61.3 |
| KX5V6-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 159.3 | 63.3 |
| KX5V6-32-32 | 51 | 2 | -32 | 50.8 | 2 | 188 | 78 |
| KX5V6-40-40 | 63 | 2 1/2 | -40 | 63.5 | 2 1/2 | 233 | 83 |
| KX5V6-48-40 | 63 | 2 1/2 | -40 | 63.5 | 3 | 233 | 98 |

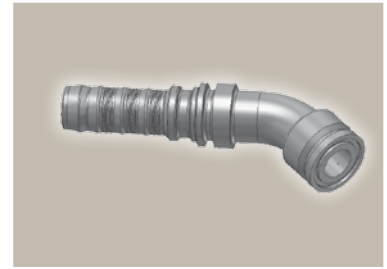
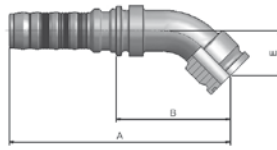
Approved fitting series for hose types:



Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | |
|-----------|---|
| V4 | -10 up to -16 H31 H31TC H31ST R42 R42TC R42ST -12 up to -20 R35 R35TC H29 all sizes H29TC H29ST H29RH |
| V6 | -24 up to -32 R35 R35TC -20 up to -32 R42 R42ST R42TC |

X7 Flange – 45° Elbow

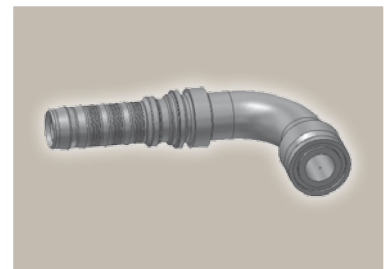
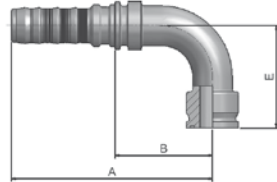
Full flange system for
ISO 6162-1 or ISO 6162-2





| Part Number |  Hose I.D. | | | |  Flange | A | B | E |
|-------------|--|-------|------|------|---|-----|-------|----|
| | DN | Inch | Size | mm | Inch | mm | mm | mm |
| KX7V6-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 190 | 99 | 39 |
| KX7V6-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 221 | 125 | 44 |
| KX7V6-32-32 | 51 | 2 | -32 | 50.8 | 2 | 275 | 164.5 | 57 |

X9 Flange – 90° Elbow

Full flange system for
ISO 6162-1 or ISO 6162-2



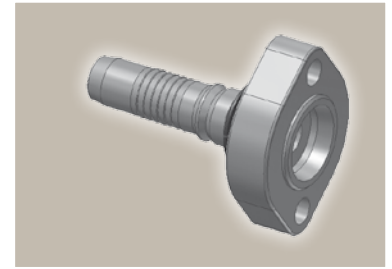
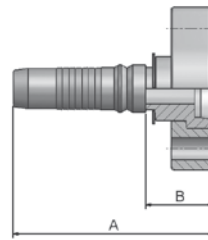
| Part Number |  Hose I.D. | | | |  Flange | A | B | E |
|-------------|--|-------|------|------|---|-------|------|-----|
| | DN | Inch | Size | mm | Inch | mm | mm | mm |
| KX9V6-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 176.8 | 85.5 | 90 |
| KX9V6-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 209.3 | 113 | 104 |
| KX9V6-32-32 | 51 | 2 | -32 | 50.8 | 2 | 268 | 157 | 138 |


Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

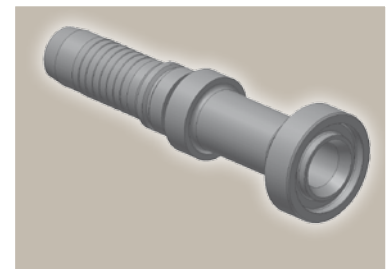
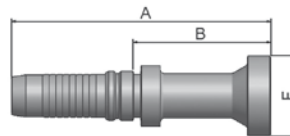
| | | | | | | | | | | | | | | | |
|-----------|---------------------------|-----|-------|-------|-----|-------|-------|---------------|-----|-------|-----|-----------|-------|-------|-------|
| V4 | -10 up to -16 | H31 | H31TC | H31ST | R42 | R42TC | R42ST | -12 up to -20 | R35 | R35TC | H29 | all sizes | H29TC | H29ST | H29RH |
| V6 | -24 up to -32 | | | | | | | | | | | | | | |
| | R35 R35TC -20 up to -32 | | | | | | | | | | | | | | |
| | R42 R42ST R42TC | | | | | | | | | | | | | | |



PY Flange – 24° Male
French Gas
Straight



| Part Number |  Hose I.D. | | | | A mm | B mm |
|-------------|--|------|------|------|---------|---------|
| | DN | Inch | Size | mm | | |
| KPYV4-12-12 | 19 | 3/4 | -12 | 19.1 | 92 | 30 |
| KPYV4-16-16 | 25 | 1 | -16 | 25.4 | 112 | 39 |

XA Caterpillar® Flange
Straight



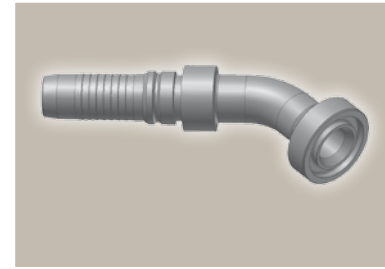
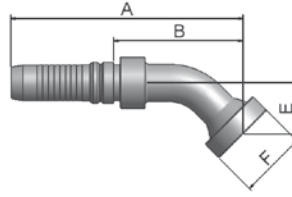
| Part Number |  Hose I.D. | | | |  Flange Inch | A mm | B mm | F mm |
|-------------|--|-------|------|------|---|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| KXAV4-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 132 | 71 | 41 |
| KXAV4-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 144 | 82 | 48 |
| KXAV4-16-16 | 25 | 1 | -16 | 25.4 | 1 | 155 | 82 | 48 |
| KXAV4-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 160 | 88 | 54 |
| KXAV6-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 181 | 90 | 54 |
| KXAV6-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 188 | 97 | 64 |
| KXAV6-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 207 | 111 | 64 |

Approved fitting series for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

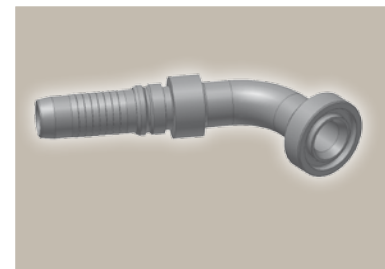
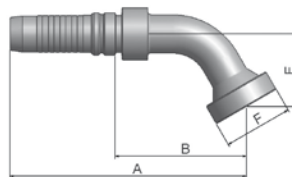
| | |
|-----------|---|
| V4 | -10 up to -16 H31 H31TC H31ST R42 R42TC R42ST -12 up to -20 R35 R35TC H29 all sizes H29TC H29ST H29RH |
| V6 | -24 up to -32 R35 R35TC -20 up to -32 R42 R42ST R42TC |

XF Caterpillar® Flange
45° Elbow



| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| KXFV4-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 138 | 76 | 31 | 41 |
| KXFV4-16-16 | 25 | 1 | -16 | 25.4 | 1 | 164 | 91 | 36 | 48 |
| KXFV4-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 164 | 92 | 35 | 54 |
| KXFV6-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 187 | 96 | 37 | 54 |
| KXFV6-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 187 | 96 | 36 | 64 |
| KXFV6-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 216 | 120 | 39 | 64 |

XG Caterpillar® Flange
60° Elbow



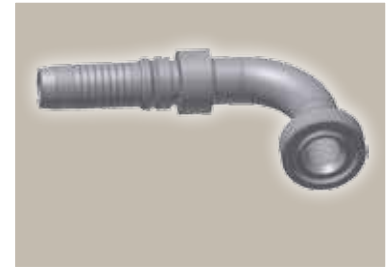
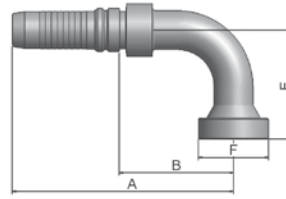
| Part Number | Hose I.D. | | | | Flange Inch | A mm | B mm | E mm | F mm |
|-------------|-----------|-------|------|------|----------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| KXGV4-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 152 | 91 | 42 | 48 |
| KXGV4-16-16 | 25 | 1 | -16 | 25.4 | 1 | 182 | 109 | 50 | 48 |
| KXGV4-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 184 | 112 | 50 | 54 |
| KXGV6-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 206 | 115 | 55 | 54 |
| KXGV6-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 208 | 117 | 52 | 64 |
| KXGV6-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 266 | 170 | 52 | 64 |



Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | | | | | | | | | | | | | | | |
|-----------|---------------------------|-----|-------|-------|-----|-------|-------|---------------|-----|-------|-----|-----------|-------|-------|-------|
| V4 | -10 up to -16 | H31 | H31TC | H31ST | R42 | R42TC | R42ST | -12 up to -20 | R35 | R35TC | H29 | all sizes | H29TC | H29ST | H29RH |
| V6 | -24 up to -32 | | | | | | | | | | | | | | |
| | R35 R35TC -20 up to -32 | | | | | | | | | | | | | | |
| | R42 R42ST R42TC | | | | | | | | | | | | | | |

XN Caterpillar® Flange
90° Elbow



| Part Number |  Hose I.D. | | | |  Flange | A mm | B mm | E mm | F mm |
|-------------|--|-------|------|------|---|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| KXNV4-12-12 | 19 | 3/4 | -12 | 19.1 | 3/4 | 125 | 63 | 63 | 41 |
| KXNV4-16-12 | 19 | 3/4 | -12 | 19.1 | 1 | 125 | 63 | 62 | 48 |
| KXNV4-16-16 | 25 | 1 | -16 | 25.4 | 1 | 150 | 77 | 74 | 48 |
| KXNV4-20-16 | 25 | 1 | -16 | 25.4 | 1 1/4 | 154 | 81 | 74 | 54 |
| KXNV6-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/4 | 177 | 86 | 77 | 54 |
| KXNV6-24-20 | 31 | 1 1/4 | -20 | 31.8 | 1 1/2 | 177 | 86 | 77 | 64 |
| KXNV6-24-24 | 38 | 1 1/2 | -24 | 38.1 | 1 1/2 | 209 | 113 | 106 | 64 |

Approved **fitting series** for hose types:

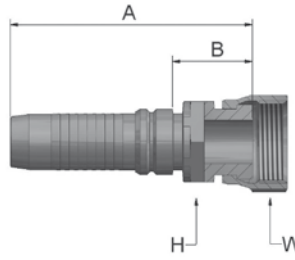
Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | |
|-----------|---|
| V4 | -10 up to -16 H31 H31TC H31ST R42 R42TC R42ST -12 up to -20 R35 R35TC H29 all sizes H29TC H29ST H29RH |
| V6 | -24 up to -32 R35 R35TC -20 up to -32 R42 R42ST R42TC |

JC

Female ORFS Swivel – Straight Short

ISO 12151-1 – SWSA
SAE J516 – ORFS

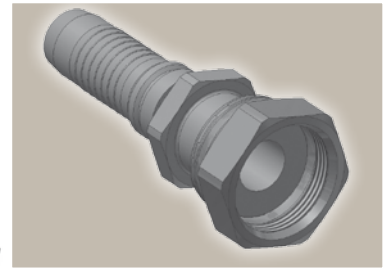
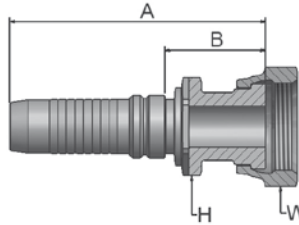


| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | H mm | W mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| KJCV4-12-12 | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 93 | 31.3 | 30 | 36 |
| KJCV4-16-12 | 19 | 3/4 | -12 | 19.1 | 1 7/16x12 | 93 | 31 | 36 | 41 |
| KJCV4-12-16 | 25 | 1 | -16 | 25.4 | 1 3/16x12 | 101 | 29 | 36 | 36 |
| KJCV4-16-16 | 25 | 1 | -16 | 25.4 | 1 7/16x12 | 108 | 36 | 36 | 41 |
| KJCV4-20-16 | 25 | 1 | -16 | 25.4 | 1 11/16x12 | 120 | 47 | 41 | 50 |
| KJCV6-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 11/16x12 | 132 | 41 | 46 | 50 |
| KJCV4-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 11/16x12 | 127 | 39 | 46 | 50 |
| KJCV6-24-20 | 31 | 1 1/4 | -20 | 31.8 | 2x12 | 133 | 42 | 50 | 60 |
| KJCV6-24-24 | 38 | 1 1/2 | -24 | 38.1 | 2x12 | 140 | 44 | 50 | 60 |
| KJCV4-24-24 | 38 | 1 1/2 | -24 | 38.1 | 2x12 | 131 | 37.9 | 50 | 60 |

JS

ORFS Swivel Female (Long)

ISO 12151-1-SWSB
SAE J516 – ORFS



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | H mm | W mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| KJSV4-16-16 | 25 | 1 | -16 | 25.4 | 1 7/16x12 | 121 | 49 | 36 | 41 |
| KJSV4-20-16 | 25 | 1 | -16 | 25.4 | 1 11/16x12 | 120 | 47.7 | 41 | 50 |
| KJSV4-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 11/16x12 | 137 | 49.7 | 41 | 50 |

Approved fitting series for hose types:

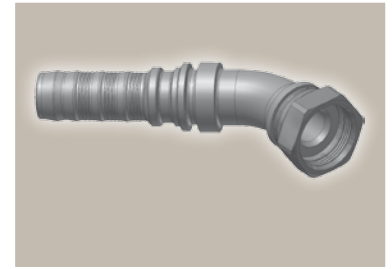
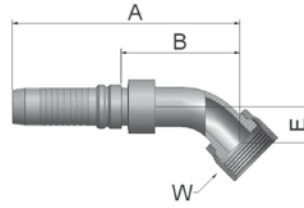
Also available in stainless steel. Details can be found in CAT 4400.1/UK

- V4** | -10 up to -16 H31 H31TC H31ST R42 R42TC R42ST | -12 up to -20 R35 R35TC H29 | all sizes H29TC H29ST H29RH |
- V6** | -24 up to -32 R35 R35TC | -20 up to -32 R42 R42ST R42TC |

J7

Female ORFS – Swivel 45° Elbow

ISO 12151-1 – SWE 45°
SAE J516 – ORFS 45°

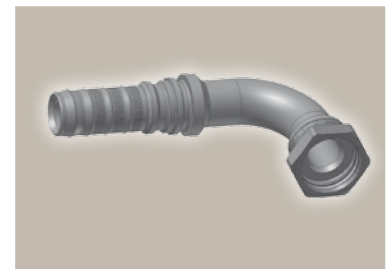
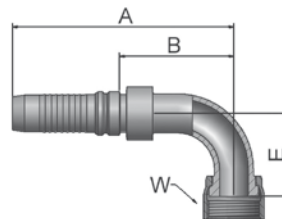


| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | E mm | W mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| KJ7V4-12-12 | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 128 | 66.3 | 21 | 36 |
| KJ7V4-16-12 | 19 | 3/4 | -12 | 19.1 | 1 7/16x12 | 131 | 70 | 24 | 41 |
| KJ7V4-16-16 | 25 | 1 | -16 | 25.4 | 1 7/16x12 | 152 | 79 | 24 | 41 |
| KJ7V4-20-16 | 25 | 1 | -16 | 25.4 | 1 11/16x12 | 154 | 81 | 26 | 50 |
| KJ7V4-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 11/16x12 | 189 | 101.7 | 30 | 50 |
| KJ7V6-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 11/16x12 | 179 | 87.8 | 33 | 50 |
| KJ7V6-24-20 | 31 | 1 1/4 | -20 | 31.8 | 2x12 | 190 | 99 | 40 | 60 |
| KJ7V6-24-24 | 38 | 1 1/2 | -24 | 38.1 | 2x12 | 216 | 120 | 40 | 60 |
| KJ7V4-24-24 | 38 | 1 1/2 | -24 | 38.1 | 2x12 | 218 | 124.9 | 40 | 60 |

J9

Female ORFS – Swivel 90° Elbow – Short Drop

ISO 12151-1 – SWES
SAE J516 – ORFS 90°



| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | E mm | W mm |
|-------------|-----------|-------|------|------|---------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| KJ9V4-12-12 | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 125 | 63.3 | 48 | 36 |
| KJ9V4-16-12 | 19 | 3/4 | -12 | 19.1 | 1 7/16x12 | 125 | 63 | 56 | 41 |
| KJ9V4-16-16 | 25 | 1 | -16 | 25.4 | 1 7/16x12 | 150 | 77.7 | 56 | 41 |
| KJ9V4-20-16 | 25 | 1 | -16 | 25.4 | 1 11/16x12 | 150 | 77 | 64 | 50 |
| KJ9V4-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 11/16x12 | 186 | 98 | 69 | 50 |
| KJ9V6-20-20 | 31 | 1 1/4 | -20 | 31.8 | 1 11/16x12 | 177 | 86 | 79 | 50 |
| KJ9V6-24-20 | 31 | 1 1/4 | -20 | 31.8 | 2x12 | 177 | 86 | 70 | 60 |
| KJ9V6-24-24 | 38 | 1 1/2 | -24 | 38.1 | 2x12 | 202 | 106 | 87 | 60 |
| KJ9V4-24-24 | 38 | 1 1/2 | -24 | 38.1 | 2x12 | 210 | 116.9 | 82 | 60 |

Approved fitting series for hose types:

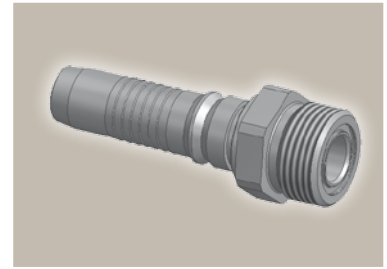
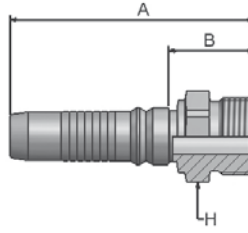
Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | |
|-----------|---|
| V4 | -10 up to -16 H31 H31TC H31ST R42 R42TC R42ST -12 up to -20 R35 R35TC H29 all sizes H29TC H29ST H29RH |
| V6 | -24 up to -32 R35 R35TC -20 up to -32 R42 R42ST R42TC |

JM

ORFS Male

ISO 12151-1-S – SAE J516



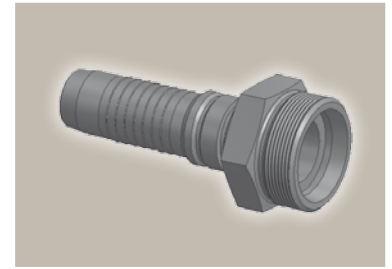
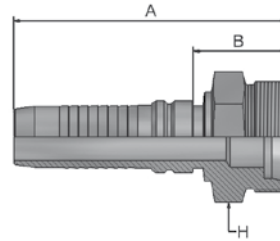
| Part Number | Hose I.D. | | | | Thread UNF | A mm | B mm | H mm |
|-------------|-----------|------|------|------|---------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | |
| KJMV4-12-12 | 19 | 3/4 | -12 | 19.1 | 1 3/16x12 | 95 | 33.3 | 32 |
| KJMV4-16-12 | 19 | 3/4 | -12 | 19.1 | 1 7/16x12 | 98.7 | 37 | 41 |

Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

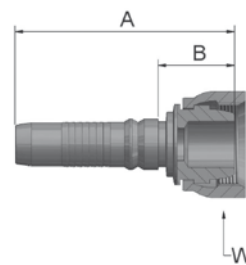
| | | | | | | | | | | | | | | | |
|-----------|---------------|-----|-------|---------------|-----|-------|-------|---------------|-----|-------|-----|-----------|-------|-------|-------|
| V4 | -10 up to -16 | H31 | H31TC | H31ST | R42 | R42TC | R42ST | -12 up to -20 | R35 | R35TC | H29 | all sizes | H29TC | H29ST | H29RH |
| V6 | -24 up to -32 | R35 | R35TC | -20 up to -32 | R42 | R42ST | R42TC | | | | | | | | |

FG Male French Gas Series Rigid – Straight (24° Cone)



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | H mm |
|-------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| KFGV4-27-12 | 19 | 3/4 | -12 | 19.1 | M36x1.5 | 26.75 | 94 | 32.3 | 36 |
| KFGV4-33-16 | 25 | 1 | -16 | 25.4 | M45x1.5 | 33.5 | 111 | 38.7 | 46 |

F4 Female French Gas Series Swivel – Straight (Ball Nose)



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | W mm |
|-------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| KF4V4-27-12 | 19 | 3/4 | -12 | 19.1 | M36x1.5 | 26.75 | 95 | 33 | 46 |

Approved **fitting series** for hose types:

Also available in stainless steel. Details can be found in CAT 4400.1/UK

| | | | | | | | | | | | | | | | |
|-----------|---------------|-------|---------------|-------|-----|-------|-------|---------------|-----|-------|-----|-----------|-------|-------|-------|
| V4 | -10 up to -16 | H31 | H31TC | H31ST | R42 | R42TC | R42ST | -12 up to -20 | R35 | R35TC | H29 | all sizes | H29TC | H29ST | H29RH |
| V6 | -24 up to -32 | | | | | | | | | | | | | | |
| | R35 | R35TC | -20 up to -32 | | R42 | R42ST | R42TC | | | | | | | | |

Shell

Page DI-1



DIN – Metric

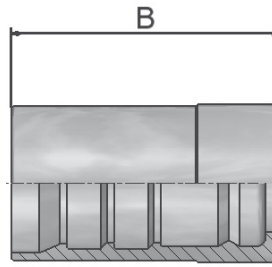
Page DI-2 – DI-3



V5

Interlock In-/Outside Skive

R56TC Hose



**Only for use with
adjustable crimpers.**

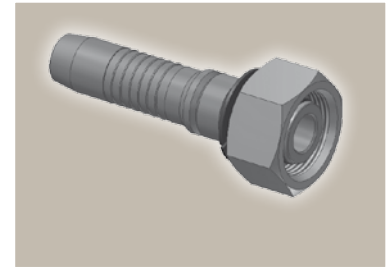
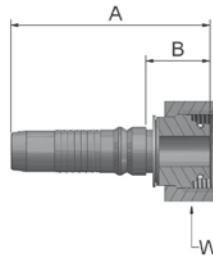
| Part Number | Hose I.D. | | | | B mm |
|-------------|---------------|------|------|------|---------|
| | DN | Inch | Size | mm | |
| 100V5-6 | 10 | 3/8 | -6 | 9.5 | 47 |
| 100V5-8 | 12 | 1/2 | -8 | 12.7 | 53 |

Approved **fitting series** for hose types:



C9 Female Metric 24° – Swivel Heavy Series with O-Ring Straight

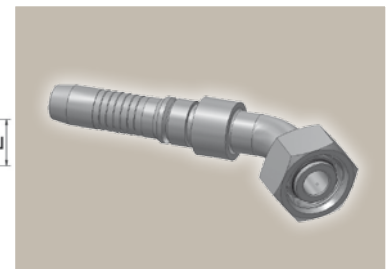
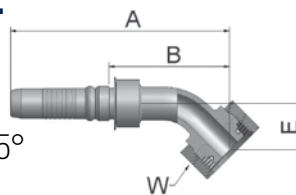
ISO 12151-2-SWS-S – DKOS



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | W mm |
|-------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | |
| KC9V5-14-6 | 10 | 3/8 | -6 | 9.5 | M22x1.5 | 14 | 72 | 23 | 27 |
| KC9V5-16-8 | 12 | 1/2 | -8 | 12.7 | M24x1.5 | 16 | 79 | 26 | 30 |

OC Female Metric 24° – Swivel Heavy Series with O-Ring 45° Elbow

ISO 12151-2 – SWE 45°-S – DKOS 45°



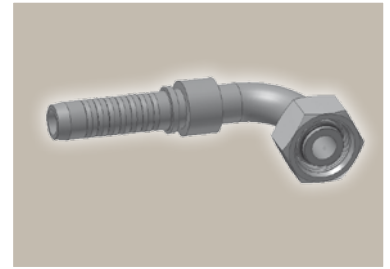
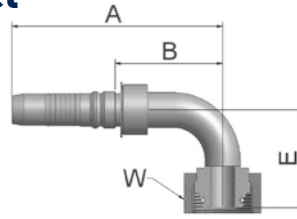
| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | E mm | W mm |
|-------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | | |
| KOCV5-14-6 | 10 | 3/8 | -6 | 9.5 | M22x1.5 | 14 | 102 | 53 | 20 | 27 |
| KOCV5-16-8 | 12 | 1/2 | -8 | 12.7 | M24x1.5 | 16 | 112 | 60 | 24 | 30 |

Approved **fitting series** for hose types:

V5 | R56TC |

1C Female Metric 24° – Swivel Heavy Series with O-Ring 90° Elbow

ISO 12151-2-SWE-S – DKOS 90°



| Part Number | Hose I.D. | | | | Thread metric | Tube O.D. mm | A mm | B mm | E mm | W mm |
|-------------|-----------|------|------|------|------------------|--------------------|---------|---------|---------|---------|
| | DN | Inch | Size | mm | | | | | | |
| K1CV5-14-6 | 10 | 3/8 | -6 | 9.5 | M22x1.5 | 14 | 91 | 42 | 37 | 27 |
| K1CV5-16-8 | 12 | 1/2 | -8 | 12.7 | M24x1.5 | 16 | 101 | 48 | 45 | 30 |

Approved **fitting series** for hose types:





aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding



Hydraulic Hoses, Fittings and Equipment

Machines, Tooling, Accessories

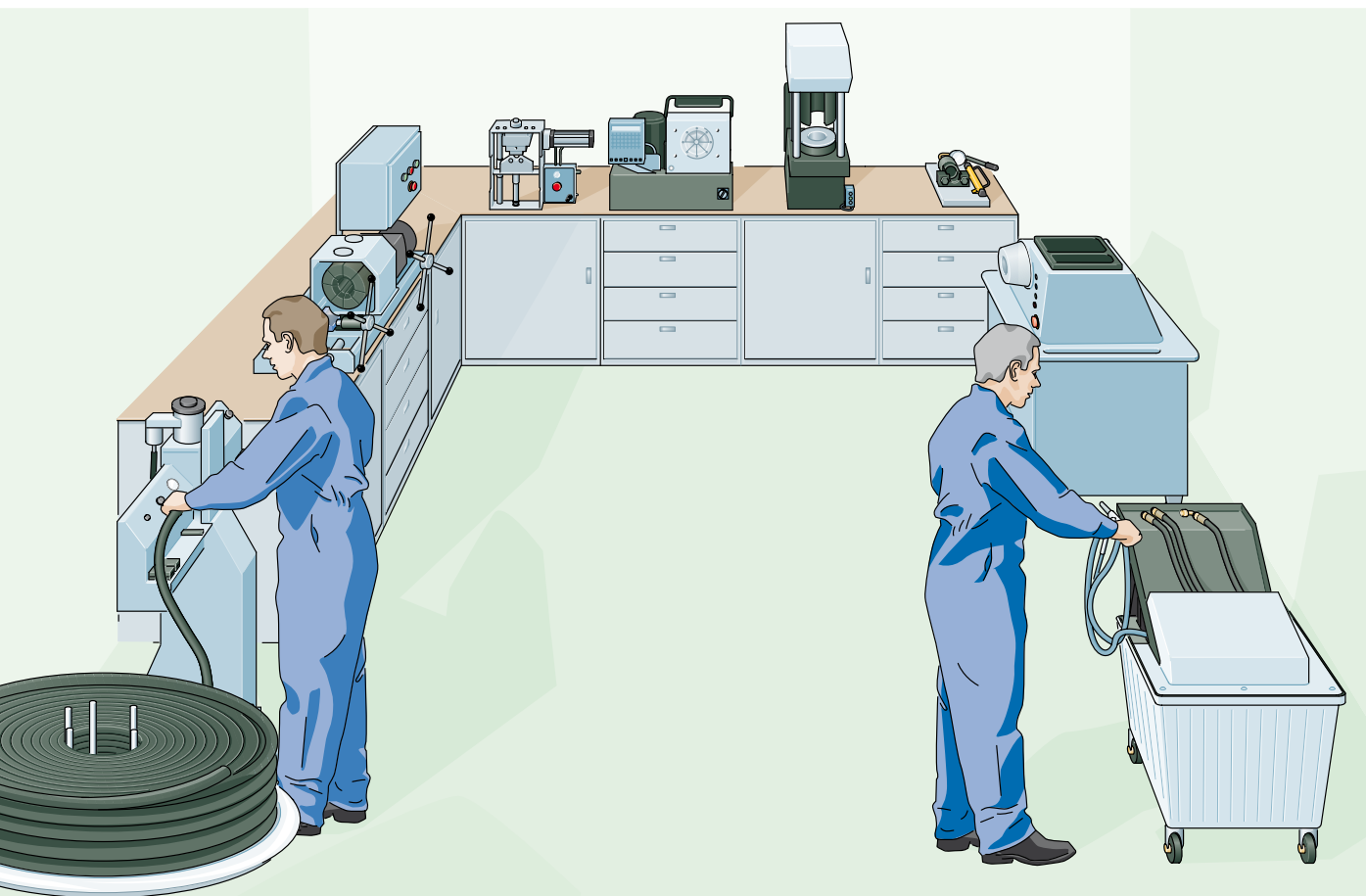


ENGINEERING YOUR SUCCESS.

Hydraulic Hose Assembly Workshop Equipment

– meeting the demands of professional
hose assembly manufacture

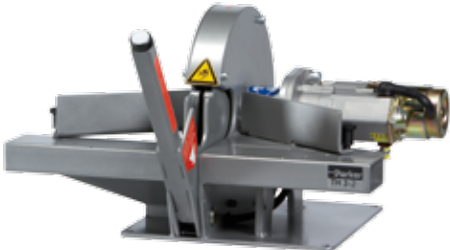
Hose assemblies must be manufactured in conformity with all the relevant EN/ISO standards and with the requirements of various work safety and trade associations. Hose Products Division Europe has selected and developed a complete range of machines and tooling to ensure effective and safe production of hose assemblies. This can be achieved only when equipment designed for the purpose is used.



**The programme includes the right tools for
ready-to-install Parkrimp No-Skive
and ParLock hose assemblies:**

- Cutting hoses
- Crimping hoses
- Marking hose assemblies
- Cleaning hose assemblies
- Testing hose assemblies

Hydraulic Hose Assembly Workshop Equipment



TH 3-2-12VDC
Hose Cutting Machine



TH 3E-115
Hose Cutting Machine



TH 5-3
Hose Assembly Test Bench



TH 6-6
Cleaning System



TH 7-12
7-stage hose reel

Parkrimp® *No-Skive*

The system for fast and leak-free assemblies

Hose fittings have an impact on the overall efficiency and safety of a hydraulic system.

The No-Skive concept was launched by Parker Hannifin some 30 years ago but continuous development and the use of modern materials and production techniques have resulted in a state-of-the-art hose to fitting connection. Much easier handling and a high level of safety are available with No-Skive crimp fittings. Parker offers No-Skive fittings in one and two pieces as part of a package consisting of quality hose, No-Skive fittings, hose crimpers and tooling.



Parkrimp *No-Skive* one-piece fittings



Modular Design = Portable + Bench Mount Parkrimp crimpers for *No-Skive* one-piece fittings

The modular design enables the customer to choose between the portability that Parker KarryKrimp crimpers have always offered, and the option to make these same crimpers bench mount units.

The modular design gives users the flexibility of a portable crimper with the advantage of increased productivity when connected to the Bench Power Unit 85CE-1PE.



Parkrimp® *No-Skive*

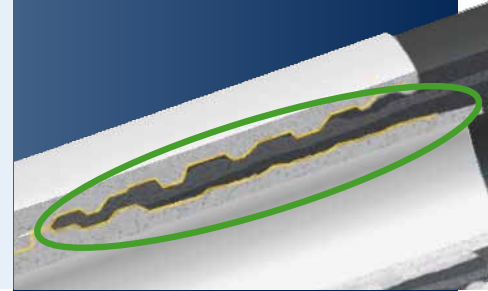
- No skiving tool needed
- No need to remove the cover
- Crimps one-piece fittings
- Parkalign positions the fittings in the dies perfectly every time
- Quick and easy: no gauges to set on the machine
- Portable machines for field repair
- Meets EN safety regulations

ParLock Hose and Fittings

The high-performance skiving system

Certain customers and applications stipulate the usage of multispiral hose assemblies with external/internal skive-type fittings. With the ParLock hose and fitting range, Parker meets this demanding market requirement. Parker adjustable crimpers for two-piece fittings ensure precise, leak-free and tear-proof assembly of hose and fitting.

- High flex-impulse applications
- High vibration applications
- The ParLock design is approved by the German Accident Prevention & Insurance Association (Berufsgenossenschaft) conforming to EN 201 (approved for injection-moulding machine applications)



ParLock two-piece skive fittings



TH2-13-3PH
Hose skiving machine

Adjustable crimpers for two-piece ParLock fittings



TH8E-530



TH 8E-380-BM



TH 8E-480-BM

ParLock System

- A full range of multispiral hoses to ISO 3862 (4SP to R15)
- Field-tested, proven reliability
- Hose and fitting combinations giving performance that exceeds ISO/EN requirements
- Approved hose and fitting compatibility “one manufacturer, one source”

Hose Whip Restraint

Safety Restraining System for Pressure Hoses

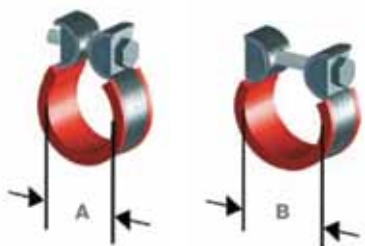
- Prevents whipping of a pressurized hose in the event of the hose separating from its fitting
- The system consists of two parts – a hose collar and a cable assembly



Parker's Hose Whip Restraint System is designed to prevent whipping of a pressurized hose in the event of the hose separating from its fitting. The Hose Whip Restraint System provides an additional level of safety and helps prevent damage to nearby equipment or injury to operators near the failed hose by limiting the whip or travel of the pressurized hose after it breaks free from its hose fitting. Serious damage or injury can occur from whipping hoses, especially at higher pressures.

The system consists of two parts – a hose collar and a cable assembly. The hose collar (WRCxx) is selected based on the outside diameter of the hose, and the cable assembly is selected based on the type of hose connection. Two types of cable assemblies are available – one for flange-type connections (WRFxxx), and the other for port adapters (WRAxxx).

The Hose Whip Restraint is not to be used in place of proper hose crimping procedures. Exceeding the maximum operating pressure of the hose jeopardizes the proper operation of the Hose Whip Restraint System.



Hose collars
for Hose Whip Restraint System



Cable Assemblies
for hoses attached with port adapters



Cable Assemblies
for hoses using flange-style connections
ISO 6162-1 (35.0 MPa/5000 psi) and
ISO 6162-2 (42.0 MPa/ 6000 psi)

For more information about hose whip restraint please refer to page ***Eb-19***.

Machines, Tooling, Accessories

Machines

| | |
|--|---------------|
| Parkrimp® Crimping Presses | Ea-1 – Ea-4 |
| Accessories for Parkrimp® Crimping Presses | Ea-5 |
| Parkrimp® Die Sets | Ea-6 |
| Hose Cutting Machines | Ea-7 – Ea-13 |
| Marking Machines | Ea-14 – Ea-15 |
| Cleaning Systems | Ea-16 – Ea-19 |
| Hose Assembly Test Bench | Ea-20 |
| Hose Reels | Ea-21 – Ea-22 |
| Adjustable Crimping Presses | Ea-23 – Ea-25 |
| Hose Skiving Machines | Ea-26 – Ea-28 |
| Skiving Tools for Hose Skiving Machines | Ea-29 |

Accessories

| | |
|---------------------------|--------------|
| Flange Half | Eb-1 |
| Full Flange System | Eb-2 |
| Banjo Bolt | Eb-3 |
| O-Rings | Eb-4 – Eb-5 |
| Worm Drive Hose Clamps | Eb-6 – Eb-7 |
| Hose Protection | Eb-8 – Eb-17 |
| Hose Whip Restraint | Eb-18 |
| Containment Grips | Eb-19 |
| Thread Identification Kit | Eb-19 |
| Parker „Hoze-Oil“ | Eb-20 |
| OilOn | Eb-20 |
| Push-Lok® Assembly Oil | Eb-20 |
| Push-Lok® Assembly Tool | Eb-20 |

Assembly Instructions

| | |
|-------------------------------|------|
| KarryKrimp® 1 / KarryKrimp® 2 | Ec-1 |
| Parkrimp® 2 | Ec-2 |

Crimp Charts

| | |
|--------------------|---------------|
| KarryKrimp® 1 | Ed-1 – Ed-4 |
| KarryKrimp® 2 | Ed-5 – Ed-9 |
| Parkrimp® 2 | Ed-10 – Ed-14 |
| Adjustable Crimper | Ed-15 – Ed-16 |

KarryKrimp® 1

Modular portable crimper for braided hoses

- Crimps
 - 1 and 2 steel wire or textile braided hoses..... size -4 up to size -20
- Available in modular design with all Parkrimp system advantages
- The same unit offers portability and bench mountability
- Easily portable for outside work
- Used for service with hand pump or airhydraulic and electrical pump
- Portable, compact rugged design
- Pivoting pusher design for easy die change out
- Increased height enables longer bent tube fittings to be crimped

Primary Applications

Small workshops, repair shops, mobile service vehicles.



Fittings Series

26, 43, 46, 48

Restrictions

Not suitable for multispiral hoses, 2-piece fittings, stainless steel fittings and serial production of hose assemblies in size -12 and above.

Technical / Order Data

| | | |
|------------------------------------|-------------|--------------------------|
| KarryKrimp 1 | Dimensions | H 760 x W 335 x D 330 mm |
| | Weight | 28 kg |
| | Part Number | 82CE-061L |
| Included standard equipment | | |
| <i>Crimp head</i> | Part Number | 82CE-CHD |
| <i>Stand assembly</i> | Part Number | 85C-STD |
| <i>Hose assembly</i> | Part Number | 85C-00L |
| <i>Die rings</i> | silver | Part Number 82C-R01 |
| | black | Part Number 82C-R02 |

Accessories see page **Ea-5**

KarryKrimp® 2

Modular portable crimper
for braided and multispiral hoses

- Crimps
 - 1 and 2 steel wire
or textile braided hoses up to size -20
 - 3 steel wire braided hoses up to size -16
 - 4 layer multispiral hoses up to size -16
 - compact spiral hoses up to size -12
- Available in modular design with
all Parkrimp system advantages
- The same unit offers portability and
bench mountability
- Easily portable for outside work
- Portable, compact rugged design
- Pivoting pusher design for easy die change out

Primary Applications

Small workshops, repair shops, mobile service vehicles.
Crimps both steel and stainless steel fittings.



Fittings Series

26, 43, 46, 48, 70, 71, 73, 77, 78

Restrictions

Not suitable for 2-piece fittings.

Technical / Order Data

| | | |
|------------------------------------|-------------|--------------------------|
| KarryKrimp 2 | Dimensions | H 805 x W 340 x D 350 mm |
| | Weight | 46 kg |
| | Part Number | 85CE-061L |
| Included standard equipment | | |
| <i>Crimp head</i> | Part Number | 85CE-CHD |
| <i>Stand assembly</i> | Part Number | 85C-STD |
| <i>Hose assembly</i> | Part Number | 85C-00L |
| <i>Die rings</i> | silver | Part Number 85C-R01 |
| | black | Part Number 85C-R02 |

Accessories see page **Ea-5**

KarryKrimp Bench Mount

Modular crimpers with
Bench Power Unit for workshops

- In addition to the portable versions, the sole crimping units can be used with the Bench Power Unit for workshop versions
- Faster cycle times for increased productivity
- Increased height for longer elbows or bent tube fittings
- The crimpers and the Bench Power Unit are supplied separately



Modular Design = Portable + Bench Mount

The modular design enables the customer to choose between the portability that Parker KarryKrimp crimpers have always offered, and the option to make these same crimpers bench mount units.

The modular design gives users the flexibility of a portable crimper with the advantage of increased productivity when connected to the Bench Power Unit 85CE-1PE.



Technical / Order Data

**Bench Power Unit
85CE-1PE**



| | |
|---------------------|--------------------------|
| Working pressure | 70 MPa |
| Dimensions | L 425 x W 525 x H 460 mm |
| Weight | 62 kg |
| Usable oil capacity | 8000 ccm |
| Electrical power | 230 V / 50/60 Hz / 10 A |
| Part Number | 85CE-1PE |

Parkrimp® 2

Bench-mounted crimper for all Parkrimp *No-Sliver* hose types from size -4 up to size -32, including 4 and 6 layer multispiral hoses

- Crimps
 - 1 and 2 steel wire or textile braided hoses up to size -32
 - 3 steel wire braided compact up to size -16
 - 4 and 6 layer multispiral hoses up to size -32
 - Compact Spiral hoses up to size -32
- Used for service with 400 V hydraulic power unit



Primary Applications

Workshops and repair shops (for small series).
Crimps both steel and stainless steel fittings.

Fittings Series

26, 43, 46, 48, 70, 71, 73, 76, 77, 78, 79, S6

Restrictions

Not suitable for 2-piece fittings.

Technical / Order Data

Parkrimp 2 with power unit, bench-mounted, but without die sets, connector plug and oil

| | | |
|--------------------|--------------------------------|--------|
| Electrical power | 400 V / 4.4 kW / 8.9 A / 50 Hz | |
| Dimensions | H 1170 x W 530 x D 985 mm | |
| Weight | without packaging | 370 kg |
| | with packaging | 430 kg |
| Part Number | 83CE-083U | |

Included standard equipment

| | | |
|---------------------|--------------------|-----------------|
| <i>Adaptor bowl</i> | Part Number | 83C-0CB |
| <i>Die ring</i> | Part Number | 83C-R02 |
| <i>Die plate</i> | Part Number | 83C-R02H |

Accessories for KarryKrimp® 1 and KarryKrimp® 2

For use with Karrykrimp 1 crimping press

Hand pump
82C-2HP



| | |
|---------------------|--------------------------|
| Working pressure | max. 70 MPa |
| Dimensions | L 530 x W 121 x H 178 mm |
| Weight | 4.1 kg |
| Usable oil capacity | 900 ccm |
| Lever force | 42 kg |
| Part Number | 82C-2HP |

For use with KarryKrimp 1 and KarryKrimp 2 crimping presses

Hand pump
85CE-0HP



| | |
|---------------------|--------------------------|
| Working pressure | max. 70 MPa |
| Dimensions | L 580 x W 150 x H 195 mm |
| Weight | 10.7 kg |
| Usable oil capacity | 2200 ccm |
| Lever force | 35 kg |
| Part Number | 85CE-0HP |

Turbo air pump
85C-0AP



| | |
|---------------------|--------------------------|
| Working pressure | 70 MPa |
| Dimensions | L 350 x W 170 x H 210 mm |
| Weight | 8.2 kg |
| Usable oil capacity | 2080 ccm |
| Connection | air 1/4-18 NPTF thread |
| Part Number | 85C-0AP |

Power pump
82CE-0EP



| | |
|---------------------|----------------------------|
| Working pressure | 70 MPa with 3/2 hand valve |
| Dimensions | L 244 x W 244 x H 362 mm |
| Weight | 10.0 kg |
| Usable oil capacity | 1900 ccm |
| Connection | 230 V / 50/60 Hz / 10 A |
| Part Number | 82CE-0EP |

Air Hydraulic pump
85CE-XAM

Optional: Manual lever
Part Number
85CE-XA-LK1



| | |
|---------------------|--|
| Working pressure | 70 MPa |
| Dimensions | L 351 x W 260 x H 152 mm |
| Weight | 8.8 kg |
| Usable oil capacity | 1000 ccm |
| Connection | air: 1/4-18 NPTF female oil: 3/8-18 NPTF female; 90° swivel |
| Part Number | 85CE-XAM |

Bench Power Unit
85CE-1PE



| | |
|---------------------|--------------------------|
| Working pressure | 70 MPa |
| Dimensions | L 425 x W 525 x H 460 mm |
| Weight | 62 kg |
| Usable oil capacity | 8000 ccm |
| Electrical power | 230 V / 50/60 Hz / 10 A |
| Part Number | 85CE-1PE |

Hose Assembly 85C-00L
Hose assembly to connect
pump to the press



| | |
|--------------------|--------------------------------|
| Working pressure | max. 70 MPa |
| Length | 1830 mm |
| Port size | 3/8-18 NPT male, coupling 3/8" |
| Part Number | 85C-00L |

Parkrimp® Die Sets

Parker`s Colour-Coded Die Sets

- Chain link keeps segments together
- No loose parts to mismatch or misplace
- The crimp die provides 360-degree gripping power for greater impulse life



Note: *Please consult the pages **Ec** for assembly instructions.
Die sets with the "H" suffix are used for jump sizes and certain metric fittings to permit insertion and removal of fittings. Die sets 80C-XX 8 segments are chained together. Die sets 83C-XX consist of two chained halves. Exceptions 83C-D06, -D08, -D10, -D12, -D16

| Hose I.D. size DN | | Die sets | Part Number | | | | | | | | | |
|-------------------|----|----------|-------------|----------------------|-----------|----------------------|---------------------|----------------------|--------------------|-----------|-----------|-----------|
| | | | 26 series | 43 series | 46 series | 48 series | 70 series | 71 series | 73/78/79 series | 76 series | 77 series | S6 series |
| -4 | 6 | red | 80C-E04 | 80C-A04 | 80C-B04 | 80C-C04 | | | | | | |
| -5 | 8 | violet | 80C-E05 | 80C-A05 | 80C-B05 | 80C-C05 | | | | | | |
| -6 | 10 | yellow | 80C-E06 | 80C-A06 | 80C-B06 | 80C-C06 | 83C-D06 | 83C-D06 | | | | |
| -8 | 12 | blue | 80C-E08 | 80C-A08 | 80C-B08 | 80C-C08 | 83C-D08 | 83C-D08 | | | 80C-CS08 | |
| -10 | 16 | orange | 80C-E10 | 80C-A10 | 80C-B10 | 80C-C10 | 83C-D10 | 83C-D10 | | | 80C-CS10 | |
| -12 | 20 | green | 80C-E12 | 80C-A12 | 80C-B12 | 80C-C12 | 83C-D12 | 83C-D12 | 83C-L12 or 80C-L12 | 83C-U12 | 80C-CS12 | |
| -16 | 25 | black | 80C-E16 | 80C-A16 or 83C-A16H | 80C-B16 | 80C-C16 | 83C-D16 or 83C-D16H | 83C-D16 or 83C-D16H | 83C-L16 or 80C-L16 | 83C-U16 | 83C-CS16 | |
| -20 | 32 | white | 83C-E20 | 80C-A20 or 83C-A20H* | 80C-B20 | 80C-C20 or 83C-C20H* | | 83C-D20 or 83C-D20H* | 83C-L20 | | 83C-CS20 | |
| -24 | 40 | red | 83C-E24 | 83C-A24 | | 83C-C24 | | 83C-D24 | 83C-L24 | | 83C-CS24 | |
| -32 | 50 | green | 83C-E32 | 83C-A32 | | 83C-C32 | | 83C-D32 | 83C-L32 | | 83C-CS32 | 83C-L32 |

EM 10.P

Hose Cutting Machine

- Cuts
 - 1 steel wire or textile braided hoses up to size -16
 - 2 steel wire braided hoses up to size -12
- Can be used on a workbench or in a vice bench
- Cutting blade covered during use
- Equipped with an electrical safety switch



Primary Applications

Repair shops or mobile service vehicles, preferably in combination with KarryKrimp 1

Restrictions

Not suitable for multispiral hoses or large bore industrial hoses.

Technical / Order Data

Hose Cutting Machine EM 10.P

with cutting blade, smooth TM 160 x 2,5 x 20

| | |
|-----------------------|------------------------------|
| Electric motor | circular saw motor 230 V |
| Electric power | 50/60 Hz / 1200 W / 6100 rpm |
| Electrical insulation | according VDE KI.II 0740 |
| Radioshielding | according VDE 0875 |
| Cutting blade | 160 x 2.5 x 20 mm (HSS) |
| Dimensions | L 360 x W 340 x H 310 mm |
| Weight | 8 kg |
| Part Number | EM 10.P |
| Part Number | TM 160 x 2,5 x 20 |

Cutting blade, smooth

TH 3-2-12VDC

Hose Cutting Machine

- Cuts
 - 1 and 2 steel wire or textile braided hoses up to size -20
 - 4 steel wire multispiral hoses up to size -16
- For mobile service vehicles with 12 V connection



Primary Applications

Mobile service vehicles

Restrictions

Not suitable for large bore hoses.

Technical / Order Data

Hose Cutting Machine TH 3-2-12VDC
with cutting blade, serrated

| | |
|--|---------------------------------------|
| Electric motor | 12 V / 2.4 kW |
| Cutting blade | 250 x 2 x 40 mm |
| Dimensions | W 567 x D 470 x H 365 mm |
| Weight | 30 kg |
| Part Number | TH3-2-12VDC |
| Cutting blade, serrated 250 x 2 x 40 mm | Part Number TM250x2x40Z |

TH 3E-EM3

Hose Cutting Machine

- Cuts
 - 1 and 2 steel wire or textile braided hoses up to size -20
 - 4 steel wire multispiral hoses up to size -20
 - Industrial hoses up to size -32
- According to the CE safety standards the blade stops within 10 seconds after switching off the brake motor
- Faster and safer cut using less energy, cutting motor with a larger shaft oversize bearing to guarantee less vibration created by radial forces
- Cutting blades approved on considered material

Primary Applications

Repair shops or mobile service vehicles



Restrictions

Not suitable for large bore industrial hoses.

Technical / Order Data

Hose Cutting Machine TH 3E-EM3

with cutting blade, serrated TM275x3x30Z

Cutting blade, serrated 275 x 3 x 30 mm

| | |
|--------------------|--------------------------|
| Electrical power | 3 kW |
| Cutting blade | 275 x 3 x 30 mm |
| Dimensions | W 540 x D 440 x H 300 mm |
| Weight | 50 kg |
| Part Number | TH 3E-EM3 |
| Part Number | TM275x3x30Z |

TH 3E-EM6-M

Hose Cutting Machine

- Cuts
 - 1 and 2 steel wire or textile braided hoses up to size -32
 - Compact Spiral hoses up to size -20
 - 6 steel wire multispiral hoses up to size -32
- Cutting blade covered during use
- Motor with surface brake and thermo protection



Primary Applications

Service in hose workshops and for small series production

Restrictions

Cutting 6 layer multispiral hoses will reduce the service life of the blade.

Technical / Order Data

Hose Cutting Machine TH 3E-EM6-M
with cutting blade, serrated TMG350x3x30

Cutting blade, serrated 350 x 3 x 30 mm

| | |
|--------------------|--------------------------|
| Electrical power | 400 V / 4.4 kW / 50 Hz |
| Exhaust system Ø | 60 mm |
| Cutting blade | 350 x 3 x 30 mm |
| Dimensions | L 745 x W 690 x H 430 mm |
| Weight | 75 kg |
| Part Number | TH3E-EM6-M |
| Part Number | TMG350x3x30 |

TH 3E-115

Hose Cutting Machine

- Cuts
 - all industrial hose types up to 75 mm O.D.
 - 1, 2 and 3 steel wire or textile braided hoses..... up to size -40
 - 4/6 steel wire multispiral hoses up to size -32
- According to the CE safety standards the blade stops within 10 seconds after switching off the brake motor
- Faster and safer cut using less energy, cutting motor with a larger shaft oversize bearing to guarantee less vibration created by radial forces
- Cutting blades approved on considered material
- Easiest cutting of big dimensioned hoses with more energy efficient machines



Primary Applications

Service and series production at workshops.

Technical / Order Data

| | | |
|--|--------------------|-----------------------------------|
| Hose Cutting Machine TH 3E-115 3-phase, 400 Volt | Electrical power | 230/400 V / 7.5 kW / 25 A / 50 Hz |
| | Exhaust system Ø | 108 mm |
| | Cutting blade | 520 x 4 x 40 mm |
| | Dimensions | L 1210 x W 650 x H 1650 mm |
| | Weight | 245 kg |
| | Part Number | TH3E-115 |
| Cutting blade , serrated 520 x 4 x 40 mm | Part Number | TMG520 x 4 x 40 |

TH 3E-110

Hose Cutting Machine

- Cuts
 - 1 and 2 steel wire or textile braided hoses up to size -48
 - 4 steel wire multispiral hoses up to size -48
 - 6 steel wire multispiral hoses up to size -48
 - Industrial hoses up to size -64
- According to the CE safety standards the blade stops within 10 seconds after switching off the brake motor
- Faster and safer cut using less energy, cutting motor with a larger shaft oversize bearing to guarantee less vibration created by radial forces
- Cutting blades approved on considered material
- Easiest cutting of big dimensioned hoses with more energy efficient machines



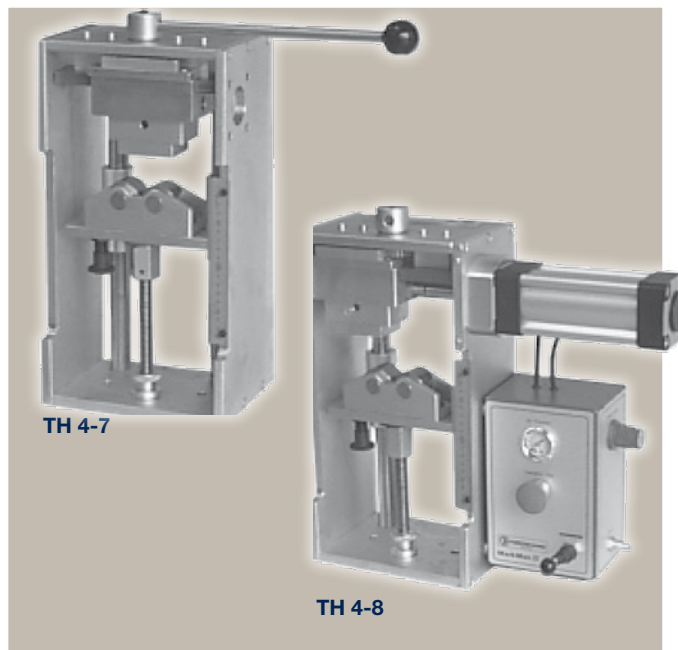
Technical / Order Data

| | | |
|--|--------------------|---------------------------|
| | Electrical power | 7.5 kW |
| | Exhaust system Ø | 100 mm |
| | Cutting blade | 520 x 4 x 120 |
| | Dimensions | W 800 x D 780 x H 1700 mm |
| | Weight | 280 kg |
| | Part Number | TH3E-110 |
| Hose Cutting Machine TH 3E-110 with cutting blade, serrated TMG520x4x120 | Part Number | TMG520x4x120 |
| Cutting blade, serrated 520 x 4 x 120 mm | | |

TH 4-7, TH 4-8

Marking Machines

- Manually or pneumatically driven
- Suitable for marking all 1- and 2-piece fittings series up to size -32



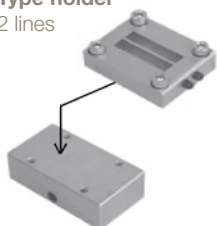
Primary Applications

Smaller workshops and mobile service vehicles

Technical / Order Data

| | | |
|--|--------------------|--------------------------|
| Marking Machine TH 4-8 manual excl. QC-adapter, type case and type holder | Colour | zinc plated |
| | Dimensions | L 500 x W 200 x H 500 mm |
| | Weight | 28 kg |
| Part Number | | TH4-8 |
| Marking Machine TH 4-7 pneumatic excl. QC-adapter, type case and type holder | Colour | zinc plated |
| | Air pressure | min. 0.6 MPa |
| | Dimensions | L 500 x W 380 x H 500 mm |
| | Weight | 35 kg |
| Part Number | | TH4-7 |
| Type case 3 mm | Part Number | TH4-9 |
| Type print holder 2 lines | Part Number | TH4-9-1 |
| QC-adapter for type print holder | Part Number | TH4-10 |

Type holder
2 lines



QC-adapter



Type case

Type case TH 4-9 content

AAABBCCDDEEEFFGGHHIIJJKK
LLLMMNNNOOOOPPQQRRSSSTT
UUUVVWXYZ//...,11112222333344
445566667778889990000 and 20 pcs of blanks
+ mirror

TH 4-4 U, TH 4E-11

Hand Marking Tools

- Hand marking tool for marking the crimp shells of 1- and 2-piece fittings up to size -32
- Permanent and easy marking in hose assembling workshops
- Type holder with two lines makes it possible to print additional information on the shell or fittings

TH 4E-11

- The cost efficient alternative



Primary Applications

Workshops and mobile service vehicles

Technical / Order Data

| | | |
|---|--------------------|--------------------------|
| Hand Marking Tool TH 4-4 U including type case and quick-change stamping tool | Marking area | Ø O.D. 11.5 mm - 100 mm |
| | Dimensions | L 250 x W 340 x H 450 mm |
| | Type holder | 2 lines |
| | Weight | 35 kg |
| | Part Number | TH4-4U |
| Type case for TH 4-4 U | Part Number | UPTS 100 |
| Quick-change stamping tool for TH 4-4 U single line | Part Number | UPTH-11b-PW3 |
| Type holder for TH 4-4 U 2 lines | Part Number | UPTH-22b |
| Hand Marking Tool TH 4E-11 including type case and type holder | Marking area | Ø O.D. 8 mm - 80 mm |
| | Dimensions | L 285 x W 265 x H 410 mm |
| | Type holder | 1 line |
| | Weight | 12 kg |
| | Part Number | TH4E-11 |
| Type case for TH 4E-11 | Part Number | TH4E-11-TC |
| Type holder for TH 4E-11 | Part Number | TH4E-11-TH |



Stamping tool
UPTH-11b-PW3

Type case UPTS 100 content

Letters: 1x P, 1x N, 3x letters empty
Numbers: 6 x 1; 5 x 2,3,4,5; 4 x 6; 3 x 7,8,9; 4 x 0
Neutral: 1x 15 mm, 1x 30 mm + brush, tweezers, key

Type case TH4E-11-TC content

Letters: 1x P, 1x N, 3x letters empty
Numbers: 6 x 1; 5 x 2,3,4,5; 4 x 6; 3 x 7,8,9; 4 x 0
Neutral: 1x 15 mm, 1x 30 mm + brush, tweezers, key

TH 6-6

Cleaning System

- Cleaning device for hose and hose assemblies for hoses up to size -20
- Assemblies flushed with fluid and blown out with air
- Defined cleanliness levels can be achieved
- Air connection min. 0.7 MPa required



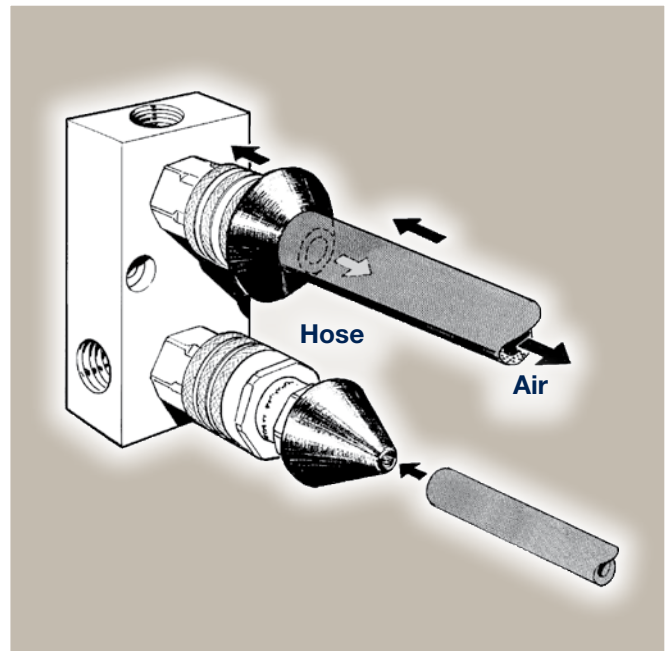
Technical / Order Data

| | | | |
|--|--------------------------------------|--------------------------------|----------------|
| Cleaning Machine TH 6-6 | Air pressure | min. 0.7 MPa | |
| | Flow | 8 l/min | |
| | Air consumption | max. 100 NI/min | |
| | Length | (depending on I.D.) max. 2.5 m | |
| | Dimensions | L 960 x W 435 x H 940 mm | |
| | Weight | 55 kg | |
| | with cleaning fluid | 93 kg | |
| | Part Number | TH6-6 | |
| | Filter set without cartridges | Part Number | H899959 |
| | Filter cartridges 5 µm | Part Number | 600.4 |
| Neutral cleaning fluid additive (30 litre drum) | Part Number | H899771 | |

TH 6-7

Cleaning System

- Quick and simple system using compressed air to clean hoses
- Delivered with two plastic nozzles for hoses fromsize -4 up to -32



Primary Applications

The hose is pressed against the nozzle and thereby opens a valve to allow the compressed air to blow through the hose and blow out loose particles.

Technical / Order Data

Cleaning System TH 6-7

with two plastic nozzles in 30 and 55 mm

| | |
|---------------------|-----------------------------|
| Air pressure | min. 0.6 MPa |
| Air connection | 1/2" BSP |
| Dimensions | L 120 x W 50 x H 100 mm |
| Weight | 0.3 kg |
| Part Number | TH6-7 |
| Nozzle 30 mm | Part Number TH6-7-30 |
| Nozzle 55 mm | Part Number TH6-7-55 |

TH 6-10-EL-7

Ultra Clean Kit

- Cleaning of hoses from size -4 up to -20
- Reduces downtime and risk of hose failure
- Has a quarter-turn locking ring for easy nozzle change and projectile loading
- Durable brass and aluminium internals, strong plastic handle, and anodized aluminium firing head and locking ring



Primary Applications

Workshops and mobile service vehicles

Restrictions

5 micron filter and regulator with gauge are strongly suggested

Technical / Order Data

Ultra Clean Kit TH 6-10-EL-7 with case, launcher in size -20, nozzles in size -4, -6, -8, -10, -12, -16 and -20 (1 each)

| | |
|--------------------|--------------------------------|
| Air pressure | min. 0.55 MPa max. 0.75 MPa |
| Air connection | 1/2" I.D. air hose |
| Dimensions | L 407 x W 134 x H 343 mm |
| Weight | 4 kg |
| Part Number | TH6-10-EL-7 |

Nozzles and Projectiles for Ultra Clean Kit TH6-10-EL-7

| Hose Size | Nozzle Part Number | Projectile Part Number |
|-----------|--------------------|------------------------|
| -4 | TH6-10-H06 | TH6-10-P10 |
| -5 | TH6-10-H08 | TH6-10-P12 |
| -6 | TH6-10-H10 | TH6-10-P14 |
| -8 | TH6-10-H13 | TH6-10-P18 |
| -10 | TH6-10-H16 | TH6-10-P22 |
| -12 | TH6-10-H19 | TH6-10-P26 |
| -16 | TH6-10-H25 | TH6-10-P33 |
| -20 | TH6-10-H32 | TH6-10-P40 |

TH 6-10-HL-9-2

Ultra Clean Kit

- Cleaning of hoses from size -4 up to -32
- Reduces downtime and risk of hose failure
- Full-flow quick release coupling and unique 360° rotary plug for proper air flow and non-fatigue operator use
- Aluminium, fully anodized for harsh environments and heavy use
- Unique safety release bar that locks the faceplate into a closed position for firing Ultra Clean projectiles



Primary Applications

Workshops and mobile service vehicles

Restrictions

5 micron filter and regulator with gauge are strongly suggested

Technical / Order Data

Ultra Clean Kit TH 6-10-HL-9-2 with case, launcher in size -32, nozzles in size -4, -6, -8, -10, -12, -16, -20, -24 and -32 (1 each)

| | |
|--------------------|--------------------------------|
| Air pressure | min. 0.55 MPa max. 0.75 MPa |
| Air connection | 1/2" I.D. air hose |
| Dimensions | L 407 x W 134 x H 343 mm |
| Weight | 5 kg |
| Part Number | TH6-10-HL-9-2 |

Nozzles and Projectiles for Ultra Clean Kit TH6-10-HL-9-2

| Hose Size | Nozzle Part Number | Projectile Part Number |
|-----------|--------------------|------------------------|
| -4 | TH6-10-H06 | TH6-10-P10 |
| -5 | TH6-10-H08 | TH6-10-P12 |
| -6 | TH6-10-H10 | TH6-10-P14 |
| -8 | TH6-10-H13 | TH6-10-P18 |
| -10 | TH6-10-H16 | TH6-10-P22 |
| -12 | TH6-10-H19 | TH6-10-P26 |
| -16 | TH6-10-H25 | TH6-10-P33 |
| -20 | TH6-10-H32 | TH6-10-P40 |
| -24 | TH6-10-H38 | TH6-10-P50 |
| -32 | TH6-10-H50 | TH6-10-P60 |

TH 5-3

Hose Assembly Test Bench up to 145.0 MPa

- Totally sealed test chamber
- Safety interlock – pressure automatically decreases within 1/10 sec. when the test chamber is opened
- Rapid fill and automatic air bleeding of the test piece
- Weight-compensated protection cover with safety windows
- Bio-degradable water-oil emulsion as test medium
- Simple operation



Primary Applications

Service and series production in workshops.

The hose assembly test bench makes the efficient and safe final inspection of hose assemblies practical and fast. Static pressure testing of other hydraulic components is also possible.

Restrictions

This test bench is not designed for burst pressure testing. Due to the limited flexibility of large bore multispiral hoses it is not ideal for size -24 and size -32 pressure testing.

Technical / Order Data

Hose Assembly Test Bench TH 5-3

incl. HD adapter set

| | | |
|-----------------------|---------------------------------|--------|
| Test pressure | 12.0 - 145.0 MPa | |
| Drive | intensifier | |
| Compressed air rating | 0.7 MPa, 20 NI/min | |
| Pressure regulator | manual | |
| Test medium | water-oil emulsion | |
| Safety control unit | yes | |
| Tank capacity | 100 l | |
| Colour | black / silver | |
| Dimensions | L 2210 x W 840 x H 1260 mm | |
| Weight | empty | 210 kg |
| | with medium | 310 kg |
| Accessories | filter 100 µm, air service unit | |
| Part Number | TH5-3 | |

Hose Assembly Test Bench TH 5-3

with result recording unit

Part Number TH5-3-BM

HD adapter set

Part Number 405.906

Corrosion protection, 10 l

Part Number H899770

TH 7-12

7-stage hose reel

- Seven-stage reel for hoses from size -4 up to -20
- Every stage (except bottom stage) can be swung out horizontally so that new rolls can easily be inserted



Technical / Order Data

Hose Reel TH 7-12

for service and series production in workshops

| | |
|--------------------|-----------------------------|
| Reel dimensions | |
| Int. Ø min. / max. | 250 mm / 1010 mm |
| Height max. | 300 mm |
| Max. load per reel | 80 kg |
| Colour | zinc plated |
| Dimensions | L 1270 x W 1000 x H 2230 mm |
| Weight | 148 kg |
| Part Number | TH7-12 |

TH 7-13

1-stage hose reel

- One-stage reel for hoses from size -4 up to -32
- Table adjustable to fit the center of the coil



Technical / Order Data

Hose Reel TH 7-13

for service and series production in workshops

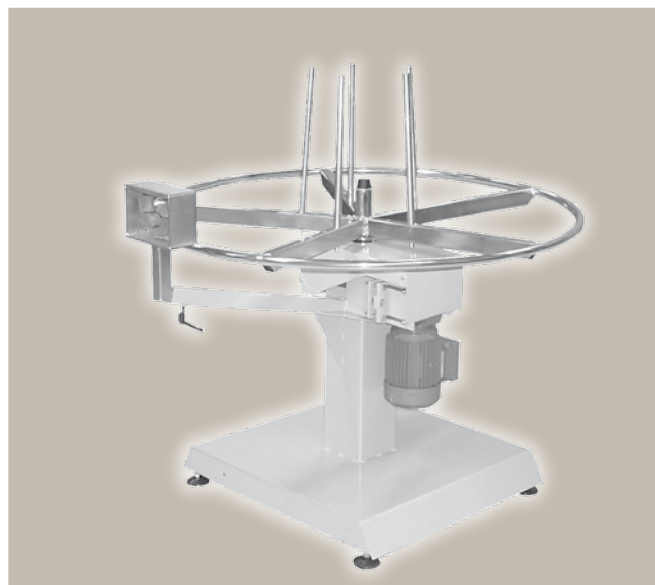
| | |
|--------------------|----------------------------|
| Reel dimensions | |
| Int. Ø min. / max. | adjustable 150 - 500 mm |
| Max. load of reel | 500 kg |
| Colour | zinc plated / grey |
| Dimensions | L 1200 x W 1200 x H 830 mm |
| Weight | 40 kg |
| Part Number | TH7-13 |

TH 7-14

Horizontal motorized hose reel

- Motorized reel for hoses from size -4 up to -32
- Variable speed control in both directions
- Ideal for cutting long lengths where coiling is necessary

Technical / Order Data



Hose Reel TH 7-14

for service and series production in workshops

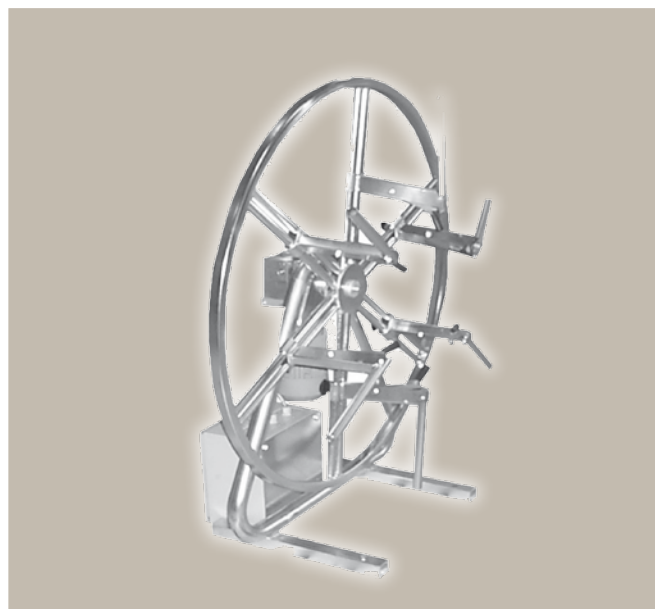
| | |
|--------------------|--------------------------|
| Reel dimensions | |
| Int. Ø min. / max. | adjustable 150 - 500 mm |
| Max. load of reel | 500 kg |
| Electric power | 230 V / 10 A / 50 Hz |
| Colour | zinc plated / light grey |
| Dimensions | W 1200 x H 830 mm |
| Weight | 65 kg |
| Part Number | TH7-14 |

TH 7-15

Vertical motorized hose reel

- Motorized reel for hoses from size -4 up to -20
- Variable speed control in both directions
- Ideal for cutting long lengths where coiling is necessary
- Very easy to unload

Technical / Order Data



Hose Reel TH 7-15

for service and series production in workshops

| | |
|--------------------|-------------------------|
| Reel dimensions | |
| Int. Ø min. / max. | adjustable 250 - 800 mm |
| Max. load of reel | 100 kg |
| Electric power | 230 V / 10 A / 50 Hz |
| Colour | zinc plated |
| Dimensions | W 600 x H 1400 mm |
| Weight | 75 kg |
| Part Number | TH7-15 |

TH 8E-530, TH 8E-535-BM

Strong Crimping Press

- Crimps
 - all Parker *No-Sliver* fittings up to size -32
- Easy installation on the workbench in the workshop area or in the van
- For die sets series 239L and 266 (adapter die set PB266.239L required)

Primary Applications

Hose assembly workshops with small series production and services at certified distributors, ParkerStores and hose workshops in the maintenance areas at OEM customers



Restrictions

Not for ParLock hose fittings in size -20, -24 and -32 (fittings series V4 and V6).

| | | |
|--|--------------------|-------------------------------|
| All TH 8E-530 and TH 8E-535 with | Crimp force | 200 t |
| | Crimp range | 94 mm |
| – adapter die set PB266.239L | Noise level | 69 dBA |
| – die set packet (14 mm – 74 mm) PBSET-TH8E-53X | Colour | black/silver |
| – quick change tool QDC239.3 | Electrical power | 400 V / 50 Hz / 3 PH / 4 kW |
| | Control system | micrometer |
| TH 8E-530 | Dimensions | L 700 x W 600 x H 735 mm |
| | Oil quantity | 50 l |
| | Weight | 248 kg |
| | Part Number | TH8E-530 |
| | Electrical power | 400 V / 50 Hz / 3 PH / 4 kW |
| | Control system | B-Touch |
| TH 8E-530-BM | Dimensions | L 700 x W 600 x H 735 mm |
| | Oil quantity | 50 l |
| | Weight | 255 kg |
| | Part Number | TH8E-530-BM |
| | Electrical power | 12 V DC |
| TH 8E-530-12VDC | Control system | micrometer |
| | Part Number | TH8E-530-12VDC |
| | Electrical power | 400 V / 50 Hz / 3 PH / 5.5 kW |
| | Control system | B-Touch |
| TH 8E-535-BM | Dimensions | L 690 x W 600 x H 1053 mm |
| | Oil quantity | 55 l |
| | Weight | 375 kg |
| | Part Number | TH8E-535-BM |
| Adapter die set | Part Number | PB266.239L |
| Die rack | Part Number | QDS239S |
| Die set packet , diameter from 14 – 74 mm | Part Number | PBSET-TH8E-53X |
| Quick change tool | Part Number | QDC239.3 |

TH 8-800-BM

Strong Crimping Press

- Crimps
 - all Parker *No-Skive* fittings up to size -32
 - Industrial hose up to 4" (DN 100)
 - SAE 100 R13 / SAE 100 R15 hose
with Parker *No-Skive* fittings up to size -32
 - SAE 100 R15 hose
with ParLock fittings V4 and V6 ... up to size -20
- Adjustable crimper electronic system B and 3 different crimp programs, manual opening and closing, semi-automatic opening and closing, semi-automatic opening and closing with foot switch or depth stop
- It is possible to crimp small diameters with an adapter die set

Primary Applications

Hose assembly workshops with small series production and services at certified distributors, ParkerStores and hose workshops in the maintenance areas at OEM customers



Restrictions

Not for ParLock hose fittings in size -24 and size-32 (fittings series V4 and V6).

There could be interference with long drop elbow fittings.

Technical / Order Data

Crimping Press TH 8-800-BM with

- adapter die set PB237.239.2L2
- quick change tool QDC239.3
- die set packet (12 mm – 74 mm) PBSET-TH8-800

Attention: Delivery without oil or connecting plug

| | |
|---|---------------------------------------|
| Electrical power | 400 V / 50 Hz / 3 PH / 4 kW |
| Crimp force | 220 t |
| Control system | B-Touch |
| Crimp range | 139 mm |
| Noise level | 69 dB (A) |
| Colour | black/silver |
| Dimensions | L 690 x W 600 x H 1400 mm |
| Oil tank capacity | 55 l |
| Weight | without oil 390 kg with oil 445 kg |
| Part Number | TH8-800-BM |
| Part Number | PB237.239.2L2 |
| Part Number | TA800/A |
| Part Number | QDS239S |
| Part Number | PBSET-TH8-800 |
| Part Number | FU-HMX |
| Part Number | SHS-800 |
| Part Number | QDC239.3 |
| Adapter die set | |
| Depth stop | |
| Die rack | |
| Die set packet, diameter from 12 – 74 mm | |
| Foot switch | |
| Mirror set | |
| Quick change tool | |

TH 8E-380-BM

Heavy-Duty Crimping Press

- Crimps
 - all Parkrimp and ParLock hose types including 4 and 6 spiral steel wire
 - DIN 4SP/4SH, SAE 100 R13 / R15 Multispiral hoses up to size -32
 - all Parker industrial hoses up to 4" (DN 100)



Primary Applications

Heavy-duty crimper for crimping multispiral hoses in workshops for series production. Suitable for all standard Parker hoses.

Restrictions

Special hose assemblies with 2 elbows in extremely long version.

Technical / Order Data

TH 8E-380-BM with

- Adapter die set package PB237.239.2L2
- Quick change tool QDC239.3
- Die set package PBSET-TH8-380

For V4 and V6 fittings above size -16 long die sets are required (e.g. PB 237L-57)

Attention: Delivery without oil and connecting plug

| | |
|-------------------------------|-------------------------------|
| Electrical power | 400 V / 50 Hz / 3 PH / 5.5 kW |
| Crimp force | 340 t |
| Control system | Control B + Touch |
| Crimp range | 161 mm |
| Type of dies | 237L / 239L |
| Open / Close speed | 23 mm/s |
| Noise level | 69 dB (A) |
| Dimensions | L 1600 x W 600 x H 1600 mm |
| Weight without oil / with oil | 750 kg / 840 kg |
| Part Number | TH8E-380-BM |
| Part Number | PB237.239.2L2 |
| Part Number | TA380/A |
| Part Number | QDS239S |
| Part Number | PBSET-TH8E-380 |
| Part Number | PBSET-237L-IH |
| Part Number | FU-HMX |
| Part Number | SHS310/370 |
| Part Number | QDC239.3 |
| Part Number | TH8-LUS |

Adapter die set package 237/239L

Depth Stop Automatic

Die rack

Die set package

PB 239L Ø 14, 17, 20, 24, 28, 32, 36, 40, 44, 50

PB 237L Ø 54, 57, 62, 67, 71, 74, 78

Die set package optional

PB 237L Ø 84, 86, 90, 96, 103, 106, 111, 116, 121, 126, 131

Foot switch

Mirror set

Quick change tool

Workplace lamp

TH 8E-480-BM

Heavy-Duty Crimping Press

- Crimps
 - all Parkrimp and ParLock hose types including 4 and 6 spiral steel wire
 - DIN 4SP/4SH, SAE 100 R13 / R15 Multispiral hoses up to size -48
 - all Parker industrial hoses up to 8"
- Compact design
- Safe positioning on the fixed 6 o'clock die
- Slide bearings on the crimp tool, no service and 20% less friction



Technical / Order Data

TH 8E-480-BM with

- Quick change tool QDC239.3

Attention: Delivery without oil and connecting plug

| | |
|--------------------------------------|--------------------------------------|
| Electrical power | 220-480 V / 50/60 Hz / 3 PH / 5.5 kW |
| Crimp force | 450 t |
| Control system | B-Touch |
| Crimp range | 310 mm |
| Open speed | 20 mm/s |
| Crimp speed | 1.5 mm/s |
| Close speed | 23 mm/s |
| Noise level | 62 dB (A) |
| Dimensions | L 730 x W 1590 x H 2015 mm |
| Weight without oil | 2600 kg |
| Oil capacity | 300 l |
| Part Number | TH8E-480-BM |
| Adapter die set PB245.237L | Part Number PB245.237L |
| Adapter die set PB237.239.2L2 | Part Number PB237.239.2L2 |
| Quick change tool | Part Number QDC239.3 |
| Workplace lamp | Part Number TH8-LUS |

TH 2-9

Hose Skiving Machine

- Efficient skiving of hydraulic hoses (external and internal) from size -4 up to -32
- Easily controlled by a footpedal
- Waste collection bin



Primary Applications

For small series and service application.

Restrictions

Not recommended for series production.

Technical / Order Data

| | | | |
|---|---|---------------------------------------|---------------------------------------|
| Hose Skiving Machine TH 2-9 without skiving tools | Hose capacity, external skiving | 4 and 6 layer | size -4 up to -32 |
| | Hose capacity, internal skiving | 4 and 6 layer | size -6 up to -32 |
| | Speed | 125 rpm | |
| | Colour | light grey | |
| | Dimensions | L 600 x W 410 x H 390 mm | |
| | Weight | 35 kg | |
| | Hose Skiving Machine TH 2-9-3PH 3 phases, 400 V | Electrical power | 3 PH / 400 V / 50 Hz / 16 A / 0.37 kW |
| | Part Number | TH2-9-3PH | |
| Hose Skiving Machine TH 2-9-1PE 1 phase, 230 V | Electrical power | 1 PH / 230 V / 50 Hz / 10 A / 0.37 kW | |
| | Part Number | TH2-9-1PE | |



Internal
skiving tool



External
skiving tool
with one external tool

Skiving tools see page **Ea-29**

TH 2-10-3PH

Hose Skiving Machine

- Efficient skiving of hydraulic hoses (external and internal) from size -4 up to -32
- Semi-automatic electro-pneumatic control-system
- Adjustable pressure and speed
- Automatic self-centering system
- Waste collection bin



Primary Applications

Mainly for hose assembly workshop production for medium and large series.

Restrictions

Work cycle for internal and external skiving takes place separately, not in one step.

Technical / Order Data

Hose Skiving Machine TH 2-10-3PH without skiving tools

| | |
|---------------------------------|--------------------------------------|
| Hose capacity, external skiving | |
| 4 and 6 layer | size -4 up to -32 |
| Hose capacity, internal skiving | |
| 4 and 6 layer | size -6 up to -32 |
| Speed | 315 rpm |
| Air pressure | min. 0.7 MPa |
| Colour | light grey |
| Electrical power | 3 PH / 400 V / 50 Hz / 16 A / 1.2 kW |
| Dimensions | L 680 x W 1200 x H 1080 mm |
| Weight | 132 kg |
| Part Number | TH2-10-3PH |



Internal
skiving tool



External
skiving tool
with two external tools

Skiving tools see page **Ea-29**

TH 2-13-3PH

Twin-Skive Machine

- Twin-skiving of hydraulic hoses (external and internal) from size -4 up to -32 in one operation
- Semi-automatic electro-pneumatic control-system
- Automatic self-centring system
- Adjustable pressure and speed
- Waste collection bin
- Eliminates work-related injuries



Primary Applications

For hose assembly workshops for series production.

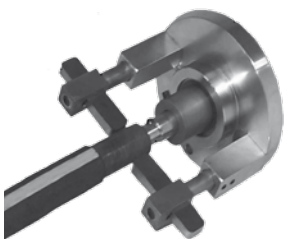
Restrictions

Max. hose outside diameter 75 mm for external skiving.

Technical / Order Data

Hose Skiving Machine TH 2-13-3PH without skiving tools

| | |
|---------------------------------|--|
| Hose capacity, external skiving | |
| 4 and 6 layer | size -4 up to -32 |
| Hose capacity, internal skiving | |
| 4 and 6 layer | size -6 up to -32 |
| Speed | 400 / 315 rpm |
| Air pressure | min. 0.7 MPa |
| Colour | light grey |
| Electrical power | 3 PH / 400 V / 50 Hz / 16 A / 2 x 0.75 |
| Dimensions | L 680 x W 1200 x H 1080 mm |
| Weight | 150 kg |
| Part Number | TH2-13-3PH |




Skiving tool

Skiving tools see page **Ea-29**

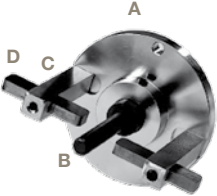
Skiving Tools for TH 2-9, TH 2-10-3PH and TH 2-13-3PH

Internal skiving tool for TH 2-9 and TH 2-10-3PH

| Internal skiving tool TH 2-9 and TH 2-10-3PH | Size | Internal skiving tool (without knife) Part Number | Internal skiving knife Part Number |
|---|------|---|---------------------------------------|
| | |  | -10 |
| | -12 | TH2-12NT-12 | |
| | -16 | TH2-12NT-16 | TH2-12NK-1620 |
| | -20 | TH2-12NT-20 | |
| | -24 | TH2-12NT-24 | TH2-12NK-2432 |
| | -32 | TH2-12NT-32 | |

A: Internal skiving knife

External skiving tool for TH 2-9 and TH 2-10-3PH

| External skiving tool TH 2-9 and TH 2-10-3PH | Size | Mandrel Size Part Number | External skiving tool (without knife) Part Number | Additional arm Part Number | External skiving knife Part Number |
|---|------|-----------------------------|--|---|--|
| | | |  | -4 | TH2-11M-4 |
| | -6 | TH2-11M-6 | | | |
| | -8 | TH2-11M-8 | | | |
| | -10 | TH2-11M-10 | | | |
| | -12 | TH2-11M-12 | | | |
| | -16 | TH2-11M-16 | long arm TH2-11EL | long arm TH2-11EL-1 TH2-10-3PH only | TH2-11EK |
| | -20 | TH2-11M-20 | | | |
| | -24 | TH2-11M-24 | | | |
| | -32 | TH2-11M-32 | | | |

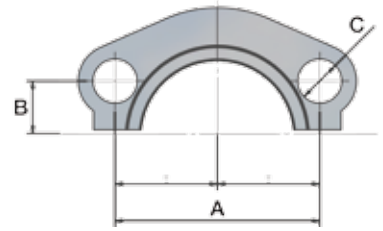
A: External skiving tool holder
B: Mandrel for external skiving
C: Holder for skiving tool
D: External skiving knife

Internal and external skiving tool for TH 2-13-3PH



| Internal and external skiving tool TH 2-13-3PH | Size | Mandrel Size Part Number | Internal skiving knife Part Number | External skiving toolholder Part Number | Additional arm Part Number | External skiving knife Part Number |
|---|------|-----------------------------|--|---|-------------------------------|--|
| | | | | | -8 | TH2-13M-8 |
| | -10 | TH2-13M-10 | TH2-12NK-1012 | | | |
| | -12 | TH2-13M-12 | | | | |
| | -16 | TH2-13M-16 | TH2-12NK-1620 | | | |
| | -20 | TH2-13M-20 | | | | |
| | -24 | TH2-13M-24 | TH2-12NK-2432 | long arm TH2-13EL-1 | | |
| | -32 | TH2-13M-32 | | | | |

Flange Halves



M1H / 51H – ISO 6162-1 Flange Half – Standard Series

ISO 6162

| Part Number | Flange | | | A mm | B mm | C mm | max. dynamic working pressure | |
|-------------|--------|-------|------|---------|---------|---------|-------------------------------|------|
| | DN | Inch | Size | | | | MPa | psi |
| M1H-8 | 13 | 1/2 | -8 | 38.1 | 8.8 | 9.0 | 34.5 | 5000 |
| M1H-12 | 19 | 3/4 | -12 | 47.6 | 11.1 | 11.0 | 34.5 | 5000 |
| M1H-16 | 25 | 1 | -16 | 52.4 | 13.1 | 11.0 | 34.5 | 5000 |
| 51H-20 | 32 | 1-1/4 | -20 | 58.7 | 15.1 | 12.0 | 27.5 | 4000 |
| 51H-24 | 38 | 1-1/2 | -24 | 69.9 | 17.9 | 13.5 | 21.0 | 3000 |
| 51H-32 | 51 | 2 | -32 | 77.8 | 21.5 | 13.5 | 21.0 | 3000 |

50H – ISO 6162-1 Flange Half 5000 psi

ISO 6162 (For use with 4A, 4F and 4N flanges)

| Part Number | Flange | | | A mm | B mm | C mm | max. dynamic working pressure | |
|-------------|--------|-------|------|---------|---------|---------|-------------------------------|------|
| | DN | Inch | Size | | | | MPa | psi |
| 50H-20 | 32 | 1-1/4 | -20 | 58.7 | 15.1 | 12.0 | 34.5 | 5000 |
| 50H-24 | 38 | 1-1/2 | -24 | 69.9 | 17.9 | 13.5 | 34.5 | 5000 |
| 50H-32 | 51 | 2 | -32 | 77.8 | 21.5 | 13.5 | 34.5 | 5000 |

M2H – ISO 6162-2 Flange Half 6000 psi

ISO 6162

| Part Number | Flange | | | A mm | B mm | C mm | max. dynamic working pressure | |
|-------------|--------|-------|------|---------|---------|---------|-------------------------------|------|
| | DN | Inch | Size | | | | MPa | psi |
| M2H-8 | 13 | 1/2 | -8 | 40.5 | 9.1 | 9.0 | 41.0 | 6000 |
| M2H-12 | 19 | 3/4 | -12 | 50.8 | 11.9 | 11.0 | 41.0 | 6000 |
| M2H-16 | 25 | 1 | -16 | 57.2 | 13.9 | 13.0 | 41.0 | 6000 |
| M2H-20 | 32 | 1-1/4 | -20 | 66.7 | 15.9 | 15.0 | 41.0 | 6000 |
| M2H-24 | 38 | 1-1/2 | -24 | 79.4 | 18.2 | 17.0 | 41.0 | 6000 |
| M2H-32 | 51 | 2 | -32 | 96.8 | 22.2 | 22.0 | 41.0 | 6000 |

8FH – Flange Half 8000 psi

| Part Number | Flange | | | A mm | B mm | C mm | max. dynamic working pressure | |
|---------------|--------|-------|------|---------|---------|---------|-------------------------------|------|
| | DN | Inch | Size | | | | MPa | psi |
| 8FH-12-SM | 19 | 3/4 | -12 | 50.8 | 11.9 | 11.0 | 56.0 | 8000 |
| 8FH-16-SM | 25 | 1 | -16 | 57.2 | 13.9 | 13.0 | 56.0 | 8000 |
| 8FH-20-SM | 32 | 1-1/4 | -20 | 66.7 | 15.9 | 13.0 | 56.0 | 8000 |
| 8FH-20-SM-M14 | 32 | 1-1/4 | -20 | 66.7 | 15.9 | 15.0 | 56.0 | 8000 |

Full Flange System

Provides full flange mounting option for ISO 6162-1 (35.0 MPa/5000 psi) and ISO 6162-2 (42.0 MPa/ 6000 psi) flanges – system flexibility reduces inventory investment.



Once the hose fitting is crimped to the hose, the flange is placed over the fitting end and then is held in place with the retaining ring. When the flange engages the retaining ring, the flange is held securely and is ready to be bolted to the port. Installation to the port is easy – there is no fumbling with the flange halves, and the flange can be rotated for ease of assembly to the port. The full flange system can be used repeatedly because of its patent-pending attachment system – the flange is not permanently locked onto the fitting.

Flange System

ISO 6162-1 (35.0 MPa/ 5000 psi)*

| SAE Flanges Size | max. working pressure | Flange | Seal | Retaining Ring |
|------------------|-----------------------|-------------|-------------|----------------|
| Inch | psi | Part Number | Part Number | Part Number |
| 3/4 | 5000 | R-312-CFX | XRG-12 | R12X |
| 1 | 5000 | R-316-CFX | XRG-16 | R16X |
| 1 1/4 | 5000 | R-320-CFX | XRG-20 | R20X |
| 1 1/2 | 5000 | R-324-CFX | XRG-24 | R24X |
| 2 | 5000 | R-332-CFX | XRG-32 | R32X |
| 2 1/2 | 5000 | R-340-CFX | XRG-40 | R40X |
| 3 | 3000 | R-348-CFX | XRG-48 | R48X |

Flange System

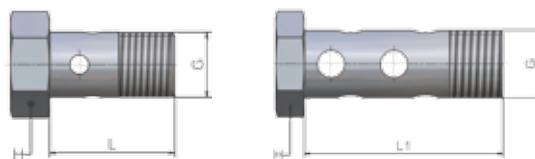
ISO 6162-2 (42.0 MPa/ 6000 psi)*

| SAE Flanges Size | max. working pressure | Flange | Seal | Retaining Ring |
|------------------|-----------------------|-------------|-------------|----------------|
| Inch | psi | Part Number | Part Number | Part Number |
| 3/4 | 6000 | R-612-CFX | XRG-12 | R12X |
| 1 | 6000 | R-616-CFX | XRG-16 | R16X |
| 1 1/4 | 6000 | R-620-CFX | XRG-20 | R20X |
| 1 1/2 | 6000 | R-624-CFX | XRG-24 | R24X |
| 2 | 6000 | R-632-CFX | XRG-32 | R32X |
| 2 1/2 | 5000 | R-640-CFX | XRG-40 | R40X |
| 3 | 3000 | R-648-CFX | XRG-48 | R48X |

* 2 1/2 inch max. 35.0 MPa/ 5000 psi
3 inch max. 21.0 MPa/ 3000 psi

The stainless steel retaining rings and O-rings are recommended for one-time use.

Banjo Bolt



AM/AR – Banjo Bolt (DIN 7643)

| Single | Double | I.D. Banjo | G Thread | L1 Single | L2 Double | H |
|-------------|-------------|------------|-------------|-----------|-----------|----|
| Part Number | Part Number | mm | metric Inch | mm | mm | mm |
| AM-03 | A2M3 | 8 | M8x1 | 17 | 26 | 12 |
| AM-04 | A2M4 | 10 | M10x1 | 19 | 30 | 14 |
| AR-04 | | 10 | 1/8 | 19 | | 14 |
| AM-06 | A2M6 | 12 | M12x1.5 | 24 | 38 | 17 |
| AM-08 | A2M8 | 14 | M14x1.5 | 26 | 41 | 19 |
| AR-08 | | 14 | 1/4 | 26 | | 19 |
| AR-08C | | 14 | 1/4 | 26 | | 19 |
| AM-10 | A2M10 | 16 | M16x1.5 | 28 | 46 | 22 |
| AR-10 | | 17 | 3/8 | 29 | | 22 |
| AM-13 | | 18 | M18x1.5 | 32 | | 24 |
| AM-16 | | 22 | M22x1.5 | 39 | | 27 |
| AR-16 | | 22 | 1/2 | 39 | | 27 |
| AM-20 | | 26 | M26x1.5 | 45 | | 32 |
| AR-20 | | 27 | 3/4 | 45 | | 32 |

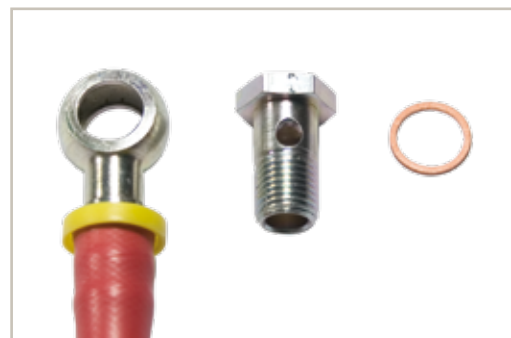


Complete banjo fitting

853009 – Copper Ring (Form A DIN 7603)

| Copper Ring | I.D. Banjo | G Thread |
|-------------|------------|-------------|
| Part Number | mm | metric Inch |
| 853009-8 | 8 | M8x1 |
| 853009-10 | 10 | M10x1 |
| 853009-10 | 10 | 1/8 |
| 853009-12 | 12 | M12x1.5 |
| 853009-14 | 14 | M14x1.5 |
| 853009-14 | 14 | 1/4 |
| 853009-16 | 16 | M16x1.5 |
| 853009-17 | 17 | 3/8 |
| 853009-18 | 18 | M18x1.5 |
| 853009-21 | 21 | 1/2 |
| 853009-22 | 22 | M22x1.5 |
| 853009-26 | 26 | M26x1.5 |

Banjo fitting, bolt, double bolt, copper ring



O-Rings

Fittings are supplied with O-rings made from ozone-resistant Nitrile (NBR) rubber compound suitable for temperatures




On request: Viton® (FPM) compound
Ethylene-Propylene (EPDM) compound

from -40 °C up to +120 °C




from -25 °C up to +200 °C

from -55 °C up to +150 °C




711509 – O-rings for SAE fittings (05 end configuration)

| O-Ring |  |  |  | |
|-------------|---|---|---|------|
| Part Number | mm | mm | UNF | Size |
| 711509-1 | 8.92 | 1.83 | 7/16x20 | -4 |
| 711509-2 | 10.52 | 1.83 | 1/2x20 | -5 |
| 711509-3 | 11.89 | 1.98 | 9/16x18 | -6 |
| 711509-4 | 16.36 | 2.21 | 3/4x16 | -8 |
| 711509-5 | 19.18 | 2.45 | 7/8x14 | -10 |
| 711509-6 | 23.47 | 2.95 | 1-1/16x12 | -12 |
| 711509-7 | 29.74 | 2.95 | 1-5/16x12 | -16 |
| 711509-8 | 37.47 | 3.00 | 1-5/8x12 | -20 |

2-0 – O-rings for ORFS male (JD and JM end configuration)




| O-Ring |  |  |  | |
|--------------|---|---|---|------|
| Part Number | mm | mm | UNF | Size |
| 2-011N552-90 | 7.65 | 1.78 | 9/16x18 | -4 |
| 2-012N552-90 | 9.25 | 1.78 | 11/16x16 | -6 |
| 2-014N552-90 | 12.42 | 1.78 | 13/16x16 | -8 |
| 2-016N552-90 | 15.60 | 1.78 | 1x14 | -10 |
| 2-018N552-90 | 18.77 | 1.78 | 1-3/16x12 | -12 |
| 2-021N552-90 | 23.52 | 1.78 | 1-7/16x12 | -16 |
| 2-025N552-90 | 29.87 | 1.78 | 1-11/16x12 | -20 |
| 2-029N552-90 | 37.82 | 1.78 | 2x12 | -24 |

EARG/VURG/VERG – O-rings for BSP fittings




| O-Ring |  |  |  | |
|-------------|---|---|---|------|
| Part Number | mm | mm | BSP | Size |
| EARG-4 | 6.0 | 1.0 | 1/4x19 | -4 |
| C9RG-10 | 8.5 | 1.5 | 3/8x19 | -6 |
| VURG-4 | 12.0 | 1.5 | 1/2x14 | -8 |
| EARG-10 | 13.1 | 1.6 | 5/8x14 | -10 |
| VERG-14 | 17.0 | 1.5 | 3/4x14 | -12 |
| VERG-19 | 21.0 | 1.5 | 1x11 | -16 |
| EARG-20 | 29.5 | 1.5 | 1-1/4x11 | -20 |

O-Rings




2-2 – O-rings for SAE flanges

| O-Ring |  |  |  | |
|--------------|---|---|---|------|
| Part Number | mm | mm | Inch | Size |
| 2-210N552-90 | 18.64 | 3.53 | 1/2 | -8 |
| 2-214N552-90 | 24.99 | 3.53 | 3/4 | -12 |
| 2-219N552-90 | 32.92 | 3.53 | 1 | -16 |
| 2-222N552-90 | 37.69 | 3.53 | 1 1/4 | -20 |
| 2-225N552-90 | 47.22 | 3.53 | 1 1/2 | -24 |
| 2-228N552-90 | 56.74 | 3.53 | 2 | -32 |
| 2-232N552-90 | 69.44 | 3.53 | 2 1/2 | -40 |
| 2-237N552-90 | 85.32 | 3.53 | 3 | -48 |

CARG – O-rings for metric 24° female swivel hose-end fittings

| O-Ring |  |  |  | | Tube O.D. mm |
|-------------|--|--|--|---------------------|--------------|
| Part Number | mm | mm | Light series metric | Heavy series metric | |
| CARG-6 | 4.5 | 1.5 | M12x1.5 | M14x1.5 | 6 |
| C9RG-8 | 6.5 | 1.5 | M14x1.5 | M16x1.5 | 8 |
| C9RG-10 | 8.5 | 1.5 | M16x1.5 | M18x1.5 | 10 |
| C9RG-12 | 10.5 | 1.5 | M18x1.5 | M20x1.5 | 12 |
| C9RG-14 | 12.0 | 2.0 | | M22x1.5 | 14 |
| CARG-15 | 12.5 | 2.0 | M22x1.5 | | 15 |
| C9RG-16 | 14.0 | 2.0 | | M24x1.5 | 16 |
| CARG-18 | 16.0 | 2.0 | M26x1.5 | | 18 |
| C9RG-20 | 17.0 | 2.5 | | M30x2 | 20 |
| CARG-22 | 20.0 | 2.0 | M30x2 | | 22 |
| C9RG-25 | 22.0 | 2.5 | | M36x2 | 25 |
| CARG-28 | 26.0 | 2.0 | M36x2 | | 28 |
| C9RG-30 | 27.0 | 2.5 | | M42x2 | 30 |
| CARG-35 | 32.0 | 2.5 | M45x2 | | 35 |
| C9RG-38 | 35.0 | 2.5 | | M52x2 | 38 |
| CARG-42 | 39.0 | 2.5 | M52x2 | | 42 |

XARG – Flange “D” rings Caterpillar® and 8000 psi style flanges

| O-Ring |  |  |  | |
|-------------|---|---|---|------|
| Part Number | mm | mm | Inch | Size |
| XARG-12 | 25.4 | 5.0 | 3/4 | -12 |
| XARG-16 | 31.9 | 5.0 | 1 | -16 |
| XARG-20 | 38.2 | 5.0 | 1 1/4 | -20 |
| XARG-24 | 44.7 | 5.0 | 1 1/2 | -24 |
| XARG-32 | 63.9 | 5.0 | 2 | -32 |

Accessories

Worm Drive Hose Clamps

Worm Drive Hose Clamps

With cross slotted hex head screw (DIN 3017) for all applications

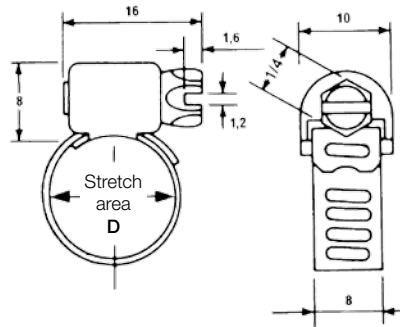
- Bands and housings of AISI 300 series stainless steel
- Unique interlock construction locks directly into band which tightens under tension
- Shouldered hex head, slotted screw
No spot welds to rupture under stress or corrode
- Rounded band edges
- High efficiency giving high pressure sealing
- Wide clamping range, giving more flexibility to the user



Miniature Worm Drive Hose Clamps

These small, tough, precision-engineered hose clamps provide:

- Low profile
- Narrow housing
- No protrusions
- Highest sealing
- High working pressure at low torque
- Easy to install in confined areas



Band width 5/16" - 8 mm

Miniature Standard "M" Series

For all clamping applications meeting normal environmental conditions. Hex head screw made of zinc plated carbon steel.

Miniature Stainless "MS-N" Series

Preferred for those environmental conditions which require the extra protection provided by this 100% stainless steel hose clamp. Hex head screw of AISI 305 series made of stainless steel.

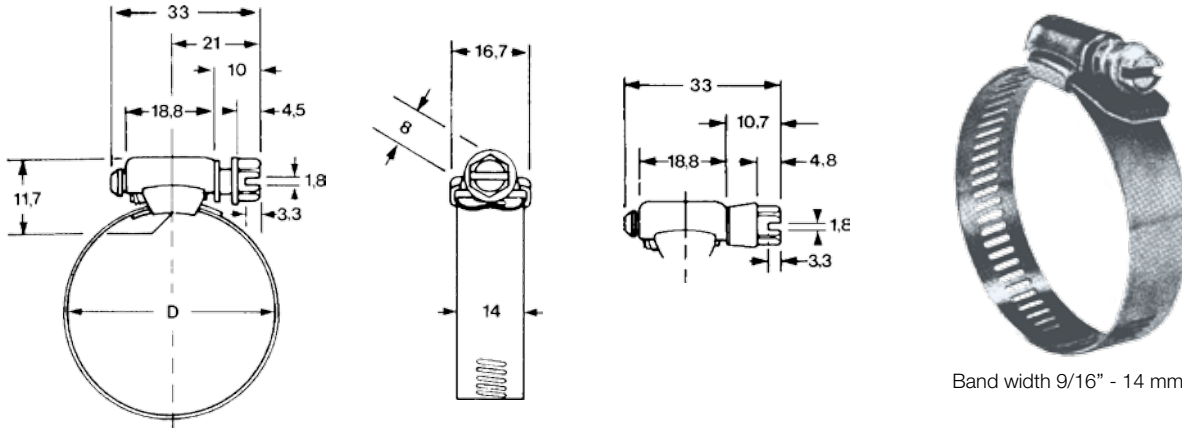
| "M" series Part Number | D Stretch area | | "MS" series Part Number |
|---------------------------|-------------------|-------------|----------------------------|
| | mm | Inch | |
| M 0200 | 6 - 16 | 0.25 - 0.62 | MS 0200 N |
| M 0300 | 8 - 22 | 0.30 - 0.87 | MS 0300 N |
| M 0400 | 16 - 32 | 0.66 - 1.25 | MS 0400 N |
| M 0500 | 16 - 38 | 0.66 - 1.50 | MS 0500 N |
| M 0600 | 19 - 45 | 0.66 - 1.75 | MS 0600 N |
| M 0700 | 25 - 50 | 1.00 - 2.00 | MS 0700 N |
| M 0800 | 35 - 60 | 1.38 - 2.38 | MS 0800 N |
| M 0900 | 45 - 70 | 1.75 - 2.75 | MS 0900 N |
| M 1000 | 58 - 82 | 2.25 - 3.25 | MS 1000 N |
| M 1100 | 64 - 90 | 2.50 - 3.50 | MS 1100 N |
| M 1200 | 77 - 100 | 3.00 - 4.00 | MS 1200 N |

For your safety

Hose clamps are intended to ensure the sealing of flexible hoses carrying fluids under pressure; we therefore recommend that you choose the appropriate hose clamp, adhere to the assembly torques indicated and correctly position the hose clamp onto the fitting. Any deformation of the hose requires tightening of the clamp. We disclaim all responsibility for any product failure that might ensue should these recommendations be ignored.

Worm Drive Hose Clamps

With cross slotted hex head screw (DIN 3017) for all applications



Band width 9/16" - 14 mm

Standard "S" Series

Band and housing of stainless steel for all clamping applications, meeting normal environmental conditions. Hex head screw made of zinc plated carbon steel.

Stainless "SS-N" Series

Preferred for those environmental conditions which require the extra protection provided by this 100% stainless steel hose clamp. Hex head screw of AISI 305 series made of stainless steel.

| "S" series Part Number | D Stretch area | | "SS" series Part Number |
|---------------------------|-------------------|-------------|----------------------------|
| | mm | Inch | |
| S 0600 | 10 - 22 | 0.38 - 0.87 | SS 0600 N |
| S 0800 | 11 - 25 | 0.44 - 1.00 | SS 0800 N |
| S 1000 | 13 - 28 | 0.50 - 1.12 | SS 1000 N |
| S 1040 | 102 - 178 | 5.00 - 7.00 | SS 1040 N |
| S 1200 | 13 - 32 | 0.50 - 1.25 | SS 1200 N |
| S 1600 | 13 - 38 | 0.50 - 1.50 | SS 1600 N |
| S 2000 | 19 - 44 | 0.75 - 1.75 | SS 2000 N |
| S 2400 | 26 - 50 | 1.00 - 2.00 | SS 2400 N |
| S 2800 | 34 - 57 | 1.32 - 2.25 | SS 2800 N |
| S 3200 | 40 - 64 | 1.57 - 2.50 | SS 3200 N |
| S 3600 | 23 - 70 | 0.88 - 2.75 | SS 3600 N |
| S 4000 | 29 - 76 | 1.13 - 3.00 | SS 4000 N |
| S 4400 | 34 - 82 | 1.32 - 3.25 | SS 4400 N |
| S 4800 | 42 - 90 | 1.63 - 3.50 | SS 4800 N |
| S 5200 | 48 - 95 | 1.88 - 3.75 | SS 5200 N |
| S 5600 | 54 - 100 | 2.13 - 4.00 | SS 5600 N |
| S 6400 | 67 - 114 | 2.63 - 4.50 | SS 6400 N |
| S 7200 | 80 - 130 | 3.13 - 5.00 | SS 7200 N |
| S 8000 | 92 - 140 | 3.63 - 5.50 | SS 8000 N |
| S 8800 | 108 - 150 | 4.25 - 6.00 | SS 8800 N |
| S 9600 | 121 - 165 | 4.75 - 6.50 | SS 9600 N |

Numerous applications in all fields

Automobile industry, ship building, automation systems, agricultural machinery, packaging machines, machine tools, mechanical handling equipment, welding equipment, construction equipment, petrochemical industry, mining, metallurgy.

Protected hose assemblies live longer

In places where the hose assembly is exposed to severe mechanical strain, additional hose protectors such as guards, sleeves etc. have proven to be a good solution. The spring guards or armor guards, for example, prevent kinking of the hose and are the ideal protection against extreme abrasion or possible damage from the outside. Before the fitting is crimped to the hose, the guard needs to be pushed onto the hose – so please remember to order the guards together with your order of hose assembly components.

For some applications it is an advantage to bundle hose assemblies with plastic hose protector coils or sleeves so that they make compact units. For this purpose we recommend using PolyGuard protectors, ParKoil hose protectors and Partek Wraps. Partek Wraps hose sleeves are designed for bundling hose assemblies after installation.

Parker offers a broad range of accessories to work smarter, faster and better!

Spring Guard & Armour Guard (SG & AG)

Parker spring guard and armour guard are two products that prolong the life of your hose lines that are exposed to rugged operating conditions. They distribute bending radii to avoid kinking in hose lines and protect hose from abrasion and deep cuts. Guards are constructed of steel wire and plated to resist rust. See page **Eb-9** and **Eb-10**

PolyGuard & Parkoil (HG & PG)

Protect and bundle your hoses with these spiral guards that minimize kinking and cannot rust. Both the PolyGuard and Parkoil install without removing the hose. See page **Eb-15** and **Eb-16**

Partek (AS & PS)

Nylon woven protective sleeving gives you tough hose abrasion resistance with two versions of coverage – standard “AS” and a lighter “PS” – both providing protection and bundling capability. See page **Eb-11** and **Eb-12**

Minesleeve (DMS)

Best abrasion resistance without adding stiffness to hose assemblies and exceeds the MSHA specifications for flame resistance and flame propagation. See page **Eb-13**

Firesleeve (FS-F)

A flame-resistant sheath that protects your hose from extremely high temperature conditions. See page **Eb-14**

Partek Wrap (PS-BV)

The need for a protective hose sleeve is not always considered while designing for a hose's application. Many hose assembly installations would benefit from a sleeve, but it is not obvious until all the other hoses and components are in place. Partek Wrap enables the hose sleeve to be installed after the hose assemblies have been positioned and secured in place. The Partek Wrap can be used as extra abrasion protection or to wrap multiple hoses or cables together. See page **Eb-17**

Hose Shields (HP-B)

Hose protection shields extend hose life by protecting the hose from abrasion that occurs when hose rubs against other hose, metal or concrete. Parker hose shields are resistant to oil, lubricants, gasoline, most solvents and can withstand ambient temperatures from -40 °C to +150 °C. Easily installed and secured by cable ties without disconnecting any hose lines. See page **Eb-18**



SG – Spring Guard

Spring Guards protect the hose cover against abrasion and are constructed of steel wire and plated to resist rust.



| Hose \ I.D. Part mm Number | SG-060 | SG-066 | SG-072 | SG-084 | SG-097 | SG-106 | SG-113 | SG-122 | SG-131 | SG-155 | SG-166 | SG-182 | SG-209 | SG-220 | SG-232 | SG-270 | SG-292 | SG-369 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 201, 206, 221FR, 225, 235 | -4 | -5 | -6 | -8 | -10 | | -12 | | -16 | -20 | | -24 | | | -32 | | -40 | -48 |
| 213, 285, 293 | -4/-5 | -6 | | -8 | -10 | -12 | | | -16 | -20 | | -24 | | -32 | | | -40 | -48 |
| 301SN, 301TC, 302, 304 | | -4 | -5 | -6 | -8 | -10 | | -12 | | -16 | | | -20 | | -24 | | -32 | |
| 351TC, 402, 421RH, 421SN, 422, 424, 426, 436, 441, 441RH, 451TC, 451, 461LT, 462, 462TC, 463, 471TC, 472TC, 492, 493, 611, 611HT, 681, 681DB, 692 | -4 | -5 | -6 | -8 | -10 | | -12 | | | -16 | | -20 | -24 | | | -32 | -40 | -48 |
| 372, 372RH, 371LT, 701 | | | | | -6 | -8 | | -10 | -12 | -16 | | | -20 | | -24 | | | |
| 601 | -4 | | -5 | -6 | -8 | | | | -12 | -16 | | -20 | | | | | | |
| 774, 721TC, 772LT | | | | -6 | -8 | | -10 | | -12 | -16 | | | -20 | -24 | | -32 | | |
| 731, 781, 782TC, P35, 791TC, 792TC | | | | | | | | | -12 | | -16 | | -20 | | -24 | | -32 | |
| 801, 804, 821FR, 831, 836, 837BM | -4/-5 | | -6 | -8 | -10 | | -12 | | -16 | | | | | | | | | |
| 811, 881, H29, H29ST, H29TC, H29RH | | | | | | | | | -12 | -16 | | -20 | | -24 | | -32 | -40 | -48 |
| H31, H31ST, H31TC | | | -4 | | -6 | -8 | | -10 | -12 | | -16 | | | | | | | |
| R35, R35TC | | | | | | | | | -12 | | -16 | -20 | | | -24 | | -32 | -40 |
| R42, R42ST, R42TC | | | | | | | | -10 | -12 | | -16 | | -20 | | -24 | | -32 | |
| R50TC / R56TC | | | | | -6 | -8 | | -10 | -12 | | -16 | | -20 | | | | | |
| 787TC, 797TC | | | -6 | -8 | | -10 | | -12 | | -16 | | -20 | | -24 | | -32 | | |
| 412 | -4/-6 | | | | | | | | | | | | | | | | | |
| 477 | -4 | -5 | -6 | -8 | | -10 | | | -12 | -16 | | | | | | | | |

AG – Armour Guard

For extreme abrasion or possible damage from the outside, the corrosion-protected steel flat coil sleeve is recommended.



| Hose | Part Number | | | | | | | | | | | | | | | | | |
|---|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | AG-060 | AG-066 | AG-072 | AG-084 | AG-097 | AG-106 | AG-113 | AG-122 | AG-131 | AG-155 | AG-161 | AG-166 | AG-182 | AG-209 | AG-232 | AG-270 | AG-292 | AG-319 |
| i.D. mm | 15.20 | 16.75 | 18.25 | 21.30 | 24.60 | 26.90 | 28.70 | 30.95 | 33.25 | 39.35 | 40.85 | 42.15 | 46.20 | 53.05 | 58.90 | 68.55 | 74.20 | 81.00 |
| 201, 206, 221FR, 225, 235 | -4 | -5 | -6 | -8 | -10 | | -12 | | -16 | -20 | | | -24 | | -32 | | -40 | |
| 213, 285, 293 | -4/-5 | -6 | | -8 | -10 | -12 | | | -16 | -20 | | | -24 | | | | -40 | |
| 301SN, 301TC, 302, 304 | | -4 | -5 | -6 | -8 | -10 | | -12 | | -16 | | | | -20 | -24 | | -32 | |
| 351TC, 402, 421RH, 421SN, 422, 424, 426, 436, 441, 441RH, 451TC, 451, 461LT, 462, 462TC, 463, 471TC, 472TC, 492, 493, 611, 611HT, 681, 681DB, 692 | -4 | -5 | -6 | -8 | -10 | | -12 | | | -16 | | | -20 | -24 | | -32 | | -40 |
| 372, 372RH, 371LT, 701 | | | | | -6 | -8 | | -10 | -12 | -16 | | | | -20 | -24 | | | |
| 601 | -4 | | -5 | -6 | -8 | | | | -12 | -16 | | | -20 | | | | | |
| 774, 721TC, 772LT | | | | -6 | -8 | | -10 | | -12 | -16 | | | | -20 | | -32 | | |
| 731, 781, 782TC, P35, 791TC, 792TC | | | | | | | | | -12 | | | -16 | | -20 | -24 | | -32 | |
| 801, 804, 821FR, 831, 836, 837BM | -4/-5 | | -6 | -8 | -10 | | -12 | | -16 | | | | | | | | | |
| 811, 881, H29, H29ST, H29TC, H29RH | | | | | | | | | -12 | -16 | | | -20 | | | -32 | | -40 |
| H31, H31ST, H31TC | | | -4 | | -6 | -8 | | -10 | -12 | | -16 | | | | | | | |
| R35, R35TC | | | | | | | | | -12 | | -16 | | -20 | | -24 | | -32 | |
| R42, R42ST, R42TC | | | | | | | | -10 | -12 | | -16 | | | -20 | -24 | | -32 | |
| R50TC, R56TC | | | | | -6 | -8 | | -10 | -12 | | -16 | | | -20 | | | | |
| 787TC, 797TC | | | -6 | -8 | | -10 | | -12 | | -16 | | | -20 | | -24 | -32 | | |
| 412 | -4/-6 | | | | | | | | | | | | | | | | | |
| 477 | -4 | -5 | -6 | -8 | | -10 | | | -12 | -16 | | | | | | | | |

AS – Partek® Nylon Protective Sleeve

Parker's Partek Nylon Protective Sleevings gives you tough hose abrasion protection two ways. First, per the ISO 6945 specification, Partek has a unique tubular weave nylon construction, Partek "AS" is strong enough to withstand greater than 200,000 abrasion cycles without wearing through the fabric at any location.

In addition, this weave also gives an exceptionally smooth interior wall, allowing rubber hose to move freely inside the sleeve. This provides easy installation and prevents any internal abrasion problems. Partek sleeving is available in either black or yellow and in sizes to fit most hydraulic hose. Partek, the quick and easy solution to hose protection in high-abrasion areas.



Temperature Range -55 °C up to +120 °C

| Part Number | | I.D. round | | I.D. flat | |
|-------------|---------|------------|------|-----------|------|
| | | mm | Inch | mm | Inch |
| AS-B-11 | AS-Y-11 | 19 | 0.75 | 27 | 1.07 |
| AS-B-13 | AS-Y-13 | 24 | 0.93 | 34 | 1.34 |
| AS-B-15 | AS-Y-15 | 29 | 1.13 | 42 | 1.66 |
| AS-B-17 | AS-Y-17 | 31 | 1.22 | 46 | 1.82 |
| AS-B-19 | AS-Y-19 | 34 | 1.35 | 51 | 2.02 |
| AS-B-22 | AS-Y-22 | 36 | 1.43 | 54 | 2.13 |
| AS-B-27 | AS-Y-27 | 41 | 1.63 | 62 | 2.45 |
| AS-B-33 | AS-Y-33 | 46 | 1.81 | 70 | 2.75 |
| AS-B-35 | AS-Y-35 | 56 | 2.19 | 85 | 3.33 |
| AS-B-37 | AS-Y-37 | 60 | 2.38 | 92 | 3.63 |
| AS-B-39 | AS-Y-39 | 67 | 2.63 | 102 | 4.02 |
| AS-B-45 | AS-Y-45 | 73 | 2.88 | 113 | 4.43 |
| AS-B-47 | AS-Y-47 | 80 | 3.13 | 122 | 4.80 |
| AS-B-53 | AS-Y-53 | 86 | 3.38 | 132 | 5.20 |
| AS-B-58 | AS-Y-58 | 92 | 3.63 | 142 | 5.59 |
| AS-B-64 | AS-Y-64 | 102 | 4.00 | 157 | 6.18 |

PS – Partek® Nylon Protective Sleeve

Parker’s Partek Nylon Protective Sleaving gives you tough hose abrasion protection two ways. First, per the ISO 6945 specification, Partek has a unique tubular weave nylon construction, Partek “PS” is strong enough to withstand greater than 50,000 abrasion cycles without wearing through the fabric at any location. In addition, this weave also gives an exceptionally smooth interior wall, allowing rubber hose to move freely inside the sleeve. This provides easy installation and prevents any internal abrasion problems. Partek sleeving is available in either black or yellow and in sizes to fit most hydraulic hose. Partek, the quick and easy solution to hose protection in high-abrasion areas.



Temperature Range -55 °C up to +120 °C

| Part Number | I.D. round | | I.D. flat | |
|-------------|------------|------|-----------|------|
| | mm | Inch | mm | Inch |
| PS-B-12 | 19 | 0.75 | 27 | 1.08 |
| PS-B-13 | 23 | 0.91 | 34 | 1.32 |
| PS-B-15 | 27 | 1.06 | 40 | 1.56 |
| PS-B-17 | 31 | 1.22 | 46 | 1.82 |
| PS-B-22 | 36 | 1.42 | 54 | 2.14 |
| PS-B-33 | 46 | 1.81 | 70 | 2.75 |
| PS-B-35 | 56 | 2.19 | 85 | 3.33 |
| PS-B-37 | 60 | 2.38 | 92 | 3.63 |
| PS-B-39 | 67 | 2.63 | 102 | 4.02 |
| PS-B-45 | 73 | 2.88 | 113 | 4.43 |
| PS-B-47 | 80 | 3.13 | 122 | 4.8 |
| PS-B-80 | 127 | 5.00 | 197 | 7.75 |
| PS-B-88 | 140 | 5.50 | 217 | 8.54 |

DMS – Minesleeve

Parker Minesleeve offers the best abrasion resistance without adding stiffness to hose assemblies and exceeds the MSHA specifications for flame resistance and flame propagation. Burst tests performed according to SAE J343 on hose assemblies covered with Minesleeve (DMS) show an oil spill retention capability of 7 times greater than similar products. Also suitable for bundling small hose assemblies, tubing or wires.



- Abrasion resistance
 - offers the best abrasion resistance without adding stiffness to hose assemblies
- Fire & flame resistance
 - exceeds US MSHA specifications for flame resistance & flame propagation
- Electrical conductivity
 - tests performed to ISO 8031 on hose assemblies covered with minesleeve show electrical conductivity values well below the specification requirements
- Oil spill retention
 - burst tests performed according to SAE J343 on hose assemblies covered with minesleeve show an oil spill retention capability of 7 times greater than similar products, also suitable for bundling small hose assemblies, tubing or wires
- Approvals: MSHA & UK COAL

Temperature Range -50 °C up to +120 °C

| Part Number | I.D. round | | I.D. flat | |
|-------------|------------|------|-----------|------|
| | mm | Inch | mm | Inch |
| DMS-23 | 23 | 0.91 | 39 | 1.54 |
| DMS-27 | 27 | 1.06 | 45 | 1.77 |
| DMS-31 | 31 | 1.22 | 52 | 2.05 |
| DMS-36 | 36 | 1.42 | 57 | 2.24 |
| DMS-47 | 47 | 1.85 | 77 | 3.03 |
| DMS-55 | 55 | 2.17 | 89 | 3.5 |
| DMS-66 | 66 | 2.60 | 107 | 4.21 |
| DMS-85 | 85 | 3.35 | 136 | 5.35 |
| DMS-93 | 93 | 3.66 | 149 | 5.87 |
| DMS-127 | 127 | 5.00 | 197 | 7.75 |

FS-F – Fire Sleeves

Parker Firesleeve is a flame resistant sheath that protects the hose from extreme temperature conditions. Firesleeve easily slides over hoses and readily expands over fitting. When fitting the fire sleeve to hose assemblies with reusable or crimped fittings, a fire sleeve clamp must be used.



- Certification:
 - UL 1441 Certified
 - VW1 Flame Test Certified
 - MSHA Certified for use in underground mines
 - SAE AS1072E
 - GL-Germanischer Lloyd Certified for 800 °C for 30 min.
 - BS EN 373 Molten Splash Tested
 - BS EN 388 Abrasion Tested
 - BS EN ISO 6940 Flame Resistance Tested
 - BS EN ISO 6530 Oil Resistance Tested
 - BS 2576 Tensile Strength Tested
 - DIN 54837/5510-2 Rail Vehicle Certified for Resistance to Combustibility
 - DIN 5659-2/5510-2 Rail Vehicle Certified for Toxicity
 - MIL-C-24576A
 - PJA and P96 Thermal Conductivity

- Braided fiberglass sleeve with orange, bonded and seamless silicone rubber cover
- Conforms to SAE Aerospace Standard 1072A Type 2A

Temperature Range -54 °C up to +260 °C

| Part Number | min. I.D. | | max. O.D. | | Suction Hose (R4) | | | 1-/2-Wire Braided | | | Multispiral | | |
|-------------|-----------|------|-----------|------|-------------------|----|------|-------------------|----|------|-------------|----|------|
| | mm | Inch | mm | Inch | inch | mm | size | inch | mm | size | inch | mm | size |
| FS-F-10 | 15 | 0.58 | 25 | 0.97 | | | | 1/4 | 6 | -4 | | | |
| FS-F-11 | 17 | 0.65 | 26 | 1.03 | | | | 1/4 | 6 | -4 | | | |
| FS-F-12 | 18 | 0.71 | 28 | 1.09 | | | | 5/16 | 8 | -5 | | | |
| FS-F-14 | 21 | 0.84 | 31 | 1.22 | | | | 3/8 | 10 | -6 | | | |
| FS-F-16 | 24 | 0.96 | 35 | 1.38 | | | | 1/2 | 13 | -8 | 1/4 | 6 | -4 |
| FS-F-18 | 27 | 1.08 | 38 | 1.50 | | | | 1/2 | 13 | -8 | 3/8 | 10 | -6 |
| FS-F-20 | 31 | 1.21 | 40 | 1.59 | | | | 5/8 | 16 | -10 | 1/2 | 13 | -8 |
| FS-F-22 | 34 | 1.34 | 44 | 1.75 | 3/4 | 19 | -12 | | | | 5/8 | 16 | -10 |
| FS-F-24 | 37 | 1.46 | 48 | 1.90 | | | | 3/4 | 19 | -12 | 3/4 | 19 | -12 |
| FS-F-28 | 43 | 1.71 | 52 | 2.06 | 1 | 25 | -16 | 1 | 25 | -16 | 1 | 25 | -16 |
| FS-F-30 | 47 | 1.84 | 56 | 2.19 | | | | | | | | | |
| FS-F-32 | 50 | 1.96 | 59 | 2.32 | 1 1/4 | 32 | -20 | 1 1/4 | 32 | -20 | | | |
| FS-F-38 | 59 | 2.34 | 70 | 2.74 | | | -24 | 1 1/4 | 32 | -20 | 1 1/4 | 32 | -20 |
| FS-F-40 | 63 | 2.46 | 71 | 2.79 | | | | 1 1/2 | 38 | -24 | 1 1/2 | 38 | -24 |
| FS-F-48 | 75 | 2.96 | 86 | 3.40 | 2 | 51 | -32 | | | | | | |
| FS-F-60 | 94 | 3.71 | 105 | 4.15 | 2 1/2 | 65 | -40 | 2 1/2 | 65 | -40 | 2 1/2 | 65 | -40 |
| | | | | | 3 | 76 | -48 | 3 | 76 | -48 | | | |

HG – PolyGuard Hose Protector

Heavy duty polyethylene provides protection in rugged operating conditions, great for bundling high-pressure hose lines



- Shields hose from abrasion and cuts
- Easy to install without removing hose lines: no clamps needed
- Minimises risk of kinking
- Resistant to air, water, oil, gasoline, hydraulic fluid and most solvents
- Ideal for bundling plastic tubing or hose lines
- Cannot rust or corrode
- Color: black

Caution: This material will support combustion

Temperature Range -40 °C up to +93 °C

| Part Number | min. I.D. | | 1-/2-wire braided | | | Multispiral | | | Suction hose (R4) | | |
|-------------|--------------|-------------|---------------------|----------------|-------------------|---------------------|----------------|-------------------|---------------------|----------------|-------------------|
| | mm | Inch | Inch | mm | Size | Inch | mm | Size | Inch | mm | Size |
| HG-075 | 18.3 - 19.8 | 0.72 - 0.78 | 1/2 5/8 | 13 16 | -8 -10 | 1/4 3/8 | 6 10 | -4 -6 | - | - | - |
| HG-100 | 24.6 - 26.2 | 0.97 - 1.03 | 3/4 | 19 | -12 | 1/2 5/8 | 13 16 | -8 -10 | 3/4 | 19 | -12 |
| HG-125 | 31.0 - 32.5 | 1.22 - 1.28 | 1 | 25 | -16 | 3/4 | 19 | -12 | - | - | - |
| HG-150 | 37.30 - 38.9 | 1.47 - 1.53 | 1 1/4 | 32 | -20 | 1 | 25 | -16 | 1 1 1/4 | 25 32 | -16 -20 |
| HG-200 | 50.0 - 51.6 | 1.97 - 2.03 | 1 1/2 2 2 1/2 | 32 38 51 | -24 -32 -40 | 1 1/4 1 1/2 2 | 32 38 51 | -20 -24 -32 | 1 1/2 2 2 1/2 | 32 38 51 | -24 -32 -40 |
| HG-350 | 88.1 - 89.7 | 3.47 - 3.53 | 3 | 76 | -48 | 2 1/2 3 | 65 76 | -40 -48 | 3 | 76 | -48 |

PG – ParKoil Hose Protector

Lower-cost protection for applications that call for a tighter bend radius and are less demanding



- Shields hose from abrasion and cuts
- Easy to install without removing hose lines: no clamps needed
- Minimises risk of kinking
- Resistant to air, water, oil, gasoline, hydraulic fluid and most solvents
- Ideal for bundling plastic tubing or hose lines
- Cannot rust or corrode
- Color: black

Caution: This material will support combustion

Temperature Range -17 °C up to +93 °C

| Part Number | min. I.D. | | 1-1/2-wire braided | | | Multispiral | | | Suction hose (R4) | | |
|-------------|-------------|---------------|--------------------|----------|------------|-------------|----------|------------|-------------------|----------|------------|
| | mm (± 1.25) | Inch (± 0.05) | Inch | mm | Size | Inch | mm | Size | Inch | mm | Size |
| PG-038 | 9.65 | 0.38 | 3/16 | 5 | -3 | - | - | - | - | - | - |
| PG-050 | 12.70 | 0.50 | 1/4 5/16 | 6 8 | -4 -5 | - | - | - | - | - | - |
| PG-062 | 15.75 | 0.62 | 3/8 | 10 | -6 | 1/4 | 6 | -4 | - | - | - |
| PG-075 | 19.05 | 0.75 | 1/2 | 13 | -8 | 3/8 | 10 | -6 | - | - | - |
| PG-088 | 22.35 | 0.88 | 5/8 | 16 | -10 | 1/2 | 13 | -8 | - | - | - |
| PG-100 | 25.40 | 1.00 | 3/4 | 19 | -12 | 5/8 | 16 | -10 | - | - | - |
| PG-119 | 30.25 | 1.19 | - | - | - | 3/4 | 19 | -12 | 3/4 | 19 | -12 |
| PG-138 | 35.05 | 1.38 | 1 1 1/4 | 25 32 | -16 -20 | 1 1 1/4 | 25 32 | -16 -20 | 1 | 25 | -16 |
| PG-188 | 47.75 | 1.88 | 1 1/2 2 | 38 51 | -24 -32 | 1 1/2 2 | 38 51 | -24 -32 | 1 1/2 2 | 38 51 | -24 -32 |

PS – Partek Wrap

Nylon hose sleeve designed for bundling hose assemblies after installation

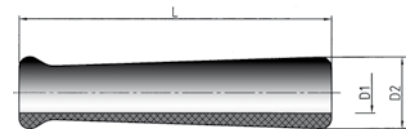
- Post-assembly installation
- Light weight and high flexibility
- Urethane-coated 1050 ballistic Nylon
- Ambient temperature range of -51 °C to 93 °C
- Fast and easy installation
- Designed for added abrasion resistance or bundling of multiple hoses
- Can be cut to size with household scissors




| Part Number | Hose Bundle O.D. | | Circumference mm | Roll Length m | Color |
|-------------|------------------|-------|---------------------|------------------|-------|
| | Inch | mm | | | |
| PS-BV-300 | 3 | 76.2 | 238.8 | 15.24 | black |
| PS-BV-400 | 4 | 101.6 | 317.5 | 15.24 | black |
| PS-BV-500 | 5 | 127.0 | 400.0 | 15.24 | black |
| PS-BV-700 | 7 | 177.8 | 558.8 | 15.24 | black |

WKS Rubber hand grip

For *No-Skive* high pressure water cleaning hoses



| Hand Grip | |  Hose I.D. | | | | L mm | D1 mm | D2 mm |
|-------------|--------|--|------|------|------|---------|----------|----------|
| Part Number | Colour | DN | Inch | Size | mm | | | |
| WKS-4-BLK | black | 6 | 1/4 | -4 | 6.4 | 120 | 15.0 | 24 |
| WKS-4-BLU | blue | 6 | 1/4 | -4 | 6.4 | 120 | 15.0 | 24 |
| WKS-5-BLK | black | 8 | 5/16 | -5 | 7.9 | 150 | 17.0 | 34 |
| WKS-5-BLU | blue | 8 | 5/16 | -5 | 7.9 | 150 | 17.0 | 34 |
| WKS-6-BLK | black | 10 | 3/8 | -6 | 9.5 | 150 | 19.5 | 34 |
| WKS-6-BLU | blue | 10 | 3/8 | -6 | 9.5 | 150 | 19.5 | 34 |
| WKS-8-BLK | black | 12 | 1/2 | -8 | 12.7 | 150 | 22.5 | 34 |
| WKS-8-BLU | blue | 12 | 1/2 | -8 | 12.7 | 150 | 22.5 | 34 |
| WKS-8-GRA | grey | 12 | 1/2 | -8 | 12.7 | 150 | 22.5 | 34 |

HP-B – Hose Shield

Hose protection shields extend hose life by protecting the hose from abrasion that occurs when hose rubs against other hose, metal or concrete. Parker hose shields are resistant to oil, lubricants, gasoline, most solvents and can withstand ambient temperatures from -40 °C to +150 °C. Easily installed and secured by cable ties without disconnecting any hose lines.



- Use with hose from size -4 up to size -32
- Eliminate hose abrasion on concrete, metal or any rough surface
- Guard against hose deterioration on mobile hydraulic equipment
- Let Parker fill all your hydraulic and pneumatic hose product needs

Hose Shields KIT HP-B-13X18-KIT with

- 2 x HP-13 RFL Hose Protectors, length 101 mm (4")
- 2 x HP-15 RFL Hose Protectors, length 152 mm (6")
- 4 x HP-18 RFL Hose Protectors, length 203 mm (8")
- 30 x HT-12 Tie Wraps
- 30 x HT-16 Tie Wraps
- 15 x HT-22 Tie Wraps

Part Number

HP-B-13X18-KIT

Counter Display HP-B-13-RFL with

- 10 x HP-B-13 Hose Protectors, length 101 mm (4")
- 30 x HT-12 Tie Wraps

Part Number

HP-B-13-RFL

Counter Display HP-B-15-RFL with

- 10 x HP-B-15 Hose Protectors, length 152 mm (6")
- 30 x HT-16 Tie Wraps

Part Number

HP-B-15-RFL

Counter Display HP-B-18-RFL with

- 5 x HP-B-18 Hose Protectors, length 203 mm (8")
- 15 x HT-18 Tie Wraps

Part Number

HP-B-18-RFL

Hose Protector, length 101 mm (4")

Part Number

HP-B-13

Hose Protector, length 152 mm (6")

Part Number

HP-B-15

Hose Protector, length 203 mm (8")

Part Number

HP-B-18

Hose Whip Restraint

Safety Restraining System for Pressure Hoses

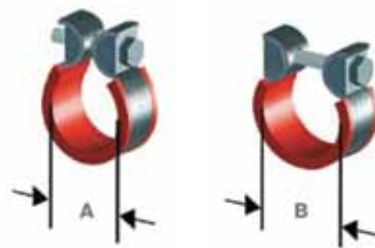
- Prevents whipping of a pressurized hose in the event of the hose separating from its fitting
- The system consists of two parts
 - a hose collar and a cable assembly



| Part Number | A | | B | |
|-------------|------|----|-------|------|
| | Inch | mm | Inch | mm |
| WRC1212 | 0.47 | 12 | 0.492 | 12.5 |
| WRC1313 | 0.51 | 13 | 0.531 | 13.5 |
| WRC1415 | 0.55 | 14 | 0.591 | 15 |
| WRC1718 | 0.67 | 17 | 0.709 | 18 |
| WRC1819 | 0.71 | 18 | 0.748 | 19 |
| WRC2021 | 0.79 | 20 | 0.827 | 21 |
| WRC2223 | 0.87 | 22 | 0.906 | 23 |
| WRC2425 | 0.95 | 24 | 0.984 | 25 |
| WRC2526 | 0.98 | 25 | 1.024 | 26 |
| WRC2728 | 1.06 | 27 | 1.102 | 28 |
| WRC2829 | 1.10 | 28 | 1.142 | 29 |
| WRC3031 | 1.18 | 30 | 1.220 | 31 |
| WRC3435 | 1.34 | 34 | 1.378 | 35 |
| WRC3637 | 1.42 | 36 | 1.457 | 37 |
| WRC3839 | 1.50 | 38 | 1.535 | 39 |
| WRC4445 | 1.73 | 44 | 1.772 | 45 |
| WRC4547 | 1.77 | 45 | 1.850 | 47 |
| WRC4850 | 1.89 | 48 | 1.969 | 50 |
| WRC5153 | 2.01 | 51 | 2.087 | 53 |
| WRC5456 | 2.13 | 54 | 2.205 | 56 |
| WRC6365 | 2.48 | 63 | 2.559 | 65 |
| WRC6971 | 2.72 | 69 | 2.795 | 71 |
| WRC7577 | 3.00 | 75 | 3.030 | 77 |
| WRC8486 | 3.30 | 84 | 3.380 | 86 |
| WRC8789 | 3.42 | 87 | 3.500 | 89 |

Hose collars

for Hose Whip Restraint System



Cable Assemblies

for hoses attached with port adapters



Cable Assemblies

for hoses using flange-style connections
(code 61 and code 62 flanges)

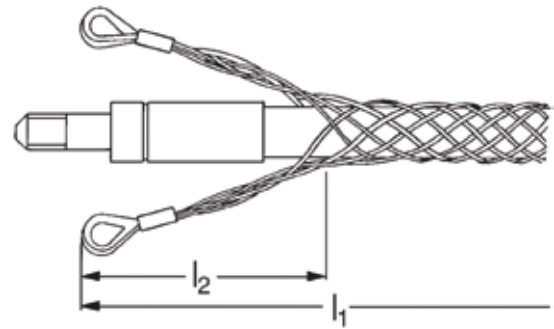


| Part Number | A | | C | |
|-------------|------|------|-------|-----|
| | Inch | mm | Inch | mm |
| WRF085 | 0.33 | 8.5 | 11.81 | 300 |
| WRF105 | 0.41 | 10.5 | 17.72 | 450 |
| WRF125 | 0.49 | 12.5 | 17.72 | 450 |
| WRF145 | 0.57 | 14.5 | 17.72 | 450 |
| WRF165 | 0.65 | 16.5 | 17.72 | 450 |
| WRF205 | 0.81 | 20.5 | 17.72 | 450 |

| Part Number | A | | C | |
|-------------|------|------|-------|-----|
| | Inch | mm | Inch | mm |
| WRA145 | 0.57 | 14.5 | 11.81 | 300 |
| WRA170 | 0.67 | 17.0 | 11.81 | 300 |
| WRA185 | 0.73 | 18.5 | 11.81 | 300 |
| WRA205 | 0.81 | 20.5 | 11.81 | 300 |
| WRA225 | 0.89 | 22.5 | 11.81 | 300 |
| WRA245 | 0.96 | 24.5 | 11.81 | 300 |
| WRA265 | 1.04 | 26.5 | 11.81 | 300 |
| WRA305 | 1.20 | 30.5 | 11.81 | 300 |
| WRA340 | 1.34 | 34.0 | 17.72 | 450 |
| WRA365 | 1.44 | 36.5 | 17.72 | 450 |
| WRA425 | 1.67 | 42.5 | 17.72 | 450 |
| WRA455 | 1.79 | 45.5 | 17.72 | 450 |
| WRA490 | 1.93 | 49.0 | 17.72 | 450 |
| WRA525 | 2.07 | 52.5 | 17.72 | 450 |
| WRA600 | 2.36 | 60.0 | 17.72 | 450 |

HS – Containment Grips

- Material: electrogalvanized steel wire



| Part Number | Hose I.D. | | | | Ø mm | Working load kN | Breaking load kN | Total length l1 mm | Length of loops l2 mm |
|-------------|-----------|------|------|------|---------|--------------------|---------------------|--------------------------|-----------------------------|
| | DN | Inch | Size | mm | | | | | |
| HS-03 | 5 | 3/16 | -3 | 4.8 | 9 - 15 | 3 | 9 | 600 | 200 |
| HS-05 | 8 | 5/16 | -5 | 7.9 | 12 - 20 | 6 | 18 | 600 | 200 |
| HS-08 | 12 | 1/2 | -8 | 12.7 | 20 - 30 | 11 | 33 | 600 | 200 |
| HS-12 | 20 | 3/4 | -12 | 19.0 | 30 - 40 | 11 | 33 | 600 | 200 |
| HS-16 | 25 | 1 | -16 | 25.4 | 40 - 50 | 16 | 48 | 600 | 200 |

Thread Identification Kit

The thread identification tools are useful to help you identify international threads such as:

- European threads (Metric, BSPP, BSPT threads) and
- U.S. threads (NPT and SAE straight threads UNF)



Technical / Order Data

Thread identification kit

with thread gauges, a set of callipers, thread profiles and instruction booklet

| | | |
|-------------|---------|------------|
| Part Number | English | H905375-GB |
| Part Number | German | H905375-DE |
| Part Number | French | H905375-FR |

The components of the thread ID Kit are not high-precision gauges but simple instruments for workshop use.

Parker „Hoze-Oil“

Parker's hose assembly lubricant is pressure and temperature resistant. The lubrication effect will help to insert Parker No-Skive hose and fittings. If necessary simply wet the fitting end with a drop of hoze oil.

Volume 1 l
Part Number Hoze-Oil

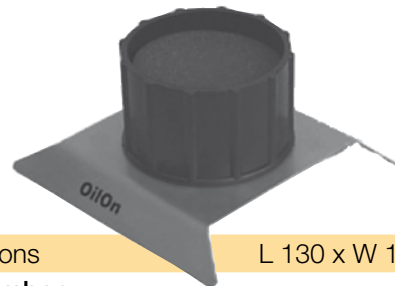


OilOn TH 11-3

Oiling pad for lubrication of fittings

The perfect way to lubricate the fitting, making it easier to insert into the hose. A foam rubber sponge that evenly disperses the oil onto the fitting, in an effective and easy manner.

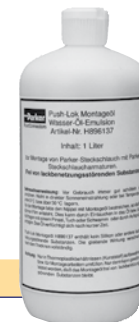
Material steel/plastic
 Dimensions L 130 x W 130 x H 70 mm
Part Number TH11-3



Push-Lok® Assembly Oil H896137

Water-oil emulsion for easier assembly of Parker Push-Lok® fittings. This product is very useful in combination with 830M, 837BM and 837PU hoses as the Push-Lok® assembly oil is free from wetting disturbing substances, e.g. silicone (Labs-free).

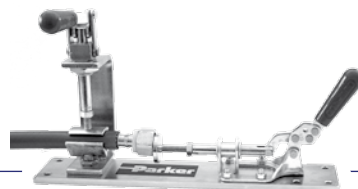
Volume 1 l
Part Number H896137



Push-Lok® Assembly Tool

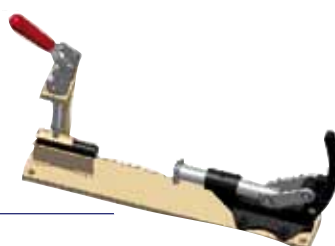
Tool designed for assembly of Push-Lok® fittings and hoses in all sizes. Toggle actions greatly reduce effort necessary to hold hose and press in fitting. Only a few pounds of force is needed on either handle to quickly assemble any size.

Assembly Tool 611050G



Overall length 320 mm
 Weight 2.2 kg
Part Number 611050G

Assembly Tool 611050HV
 "Rigid version"

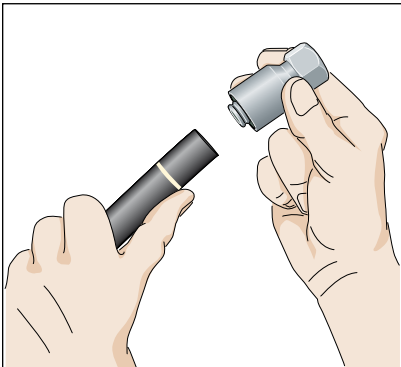


Dimensions L 500 x W 90 x H 300 mm
 Weight 7.5 kg
Part Number 611050HV

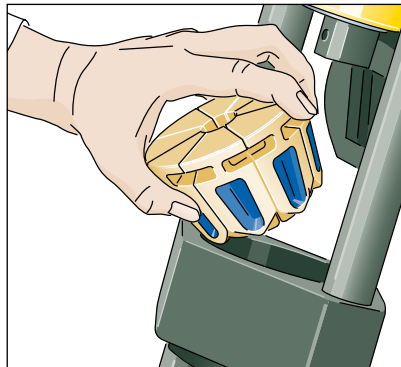
KarryKrimp® 1 / KarryKrimp® 2

KarryKrimp 1 crimps Parkrimp® fittings 26, 43, 46, 48 series size -4 up to -20

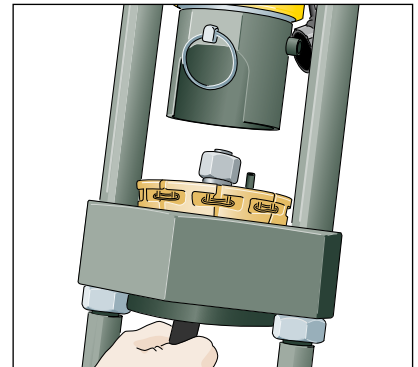
KarryKrimp 2 crimps Parkrimp® fittings 26, 43, 46, 48, 70, 71, 73, 77 and 78 series



1. Mark the hose insertion depth acc. crimpable with a marker and push hose into fitting until the mark on the hose is even with the end of the shell. If necessary simply wet the fitting end with a drop of hose oil. Do not lubricate if using spiral hose.



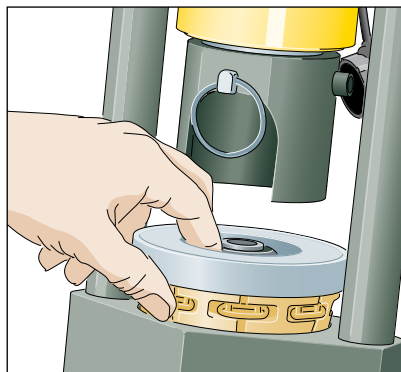
2. Pull pin and drop hinged die-train in place. Pay attention to die segment location.



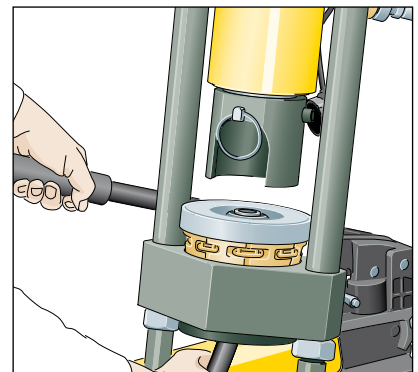
3. Insert fitting into the dies. Release, fitting will self position.



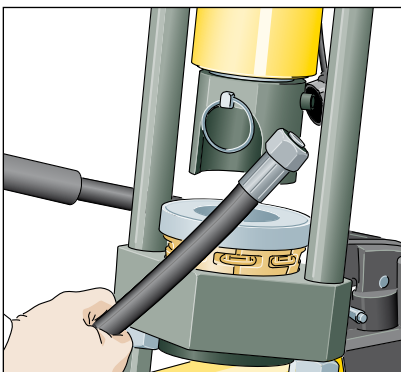
3. (a) Position the fitting on the die step.



4. Place die ring on top of the dies.



5. Position cylinder and replace pin. Pump until die ring contacts base plate.



6. Release pressure
– remove finished assembly.

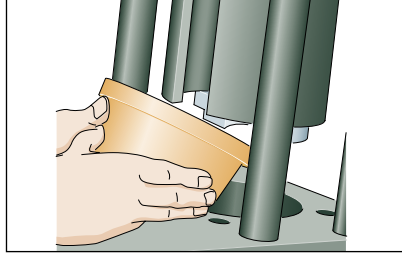
Parkrimp® 2

Parkrimp® fittings 26, 43, 46, 48, 70, 71, 73, 76, 77, 78, 79 and S6 series size -4 up to -32

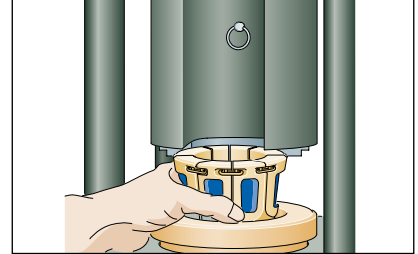
For one-piece die sets 80C- ... and 83C- ... size -4 to -16



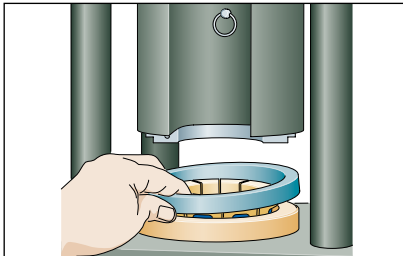
With the pusher in the full up position, lift the back half of the split die ring. Lock it in the up position by pushing the slide pin in (the slide pin is located inside the pusher at the back).



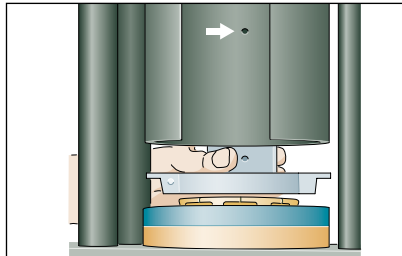
Carefully insert the adapter bowl into the base plate. The adapter bowl must be tilted toward the back of the crimper during insertion.



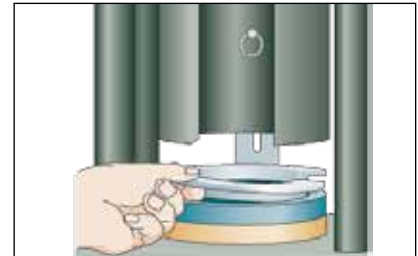
Insert the proper size and series die set into the adapter bowl.
Note: die sets are colour coded by size and have the fitting series and dash size stamped on the top.
Pay attention to die segment location.



When swaging 43 series fittings on 100R2, 100R3, 100R4 and 100R9 type hose, the black spacer ring must be placed.

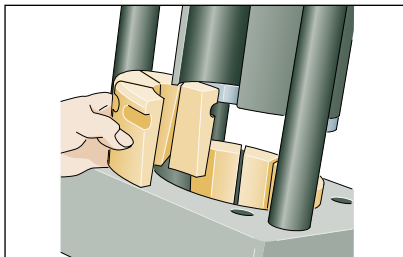


Lower the back half of the split die ring onto the dies by pulling the slide pin forward.

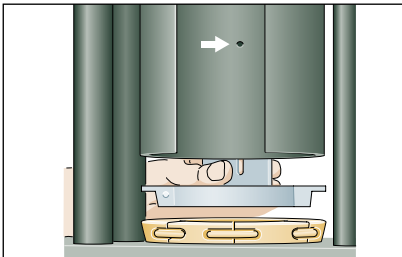


Insert the front half of the split die ring aligning the pin in the half with the hole in the front half.

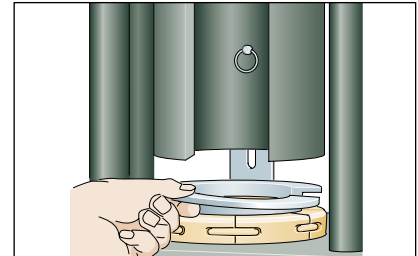
For two-piece die sets 83C-... size -20 to -32



Insert the proper size die set into the die bowl (the die sets are in two halves of four dies each; Place one half in the back and one half in the front to facilitate removal of bent tube fittings).



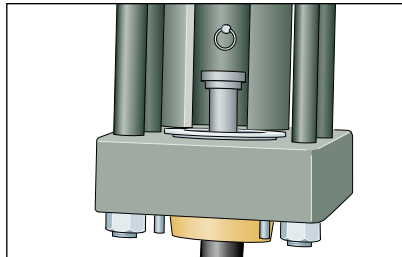
Lower the back half of the split die ring onto the dies by pulling the slide pin forward.



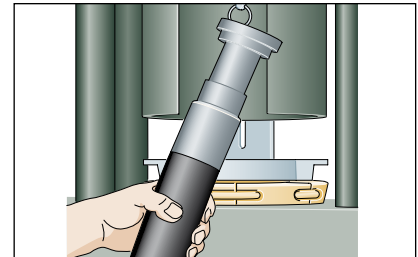
Insert the front half of the split die ring aligning the pin in the half with the hole in the front half.



Parkalign® feature
Position hose from below in dies.
Rest bottom of coupling on die step.



Turn on the pump by pressing the button on the left hand switch box. Lower the pusher by pressing the lower button on the right hand switch box. When the die ring contacts the base plate, the swaging is complete.



Push the black button at the top of the switch box to open dies and remove the finished assembly.
You do not have to remove any tooling to remove or insert straight fittings. The front half of the split die ring and the front die train must be removed to insert and remove bent tube fittings.

KarryKrimp® 1

26 Series

| Hose I.D. | | | Hose type | Fitting series | E Insertion length mm | A Length ±0.50 mm | Crimp diameter | | | | Die set | R01 silver | R02 black |
|-----------|------|------|-------------------|----------------|--------------------------------|----------------------------|----------------|---------------|---------------|---------------|---------|---------------|--------------|
| Inch | Size | mm | | | | | ∅ B min mm | ∅ B max mm | ∅ C min mm | ∅ C max mm | | | |
| 3/16 | -4 | 5.0 | 213 / 285 / 293 | 26 | 21 | 12.20 | 11.70 | 12.20 | 11.30 | 11.80 | 80C-E04 | X | |
| 3/16 | -4 | 5.0 | 201 / 206 | 26 | 21 | 12.20 | 12.70 | 13.20 | 12.30 | 12.80 | 80C-E04 | | X |
| 1/4 | -5 | 6.3 | 213 | 26 | 21 | 12.20 | 13.20 | 13.70 | 12.85 | 13.35 | 80C-E05 | X | |
| 1/4 | -5 | 6.3 | 201 / 206 / 221FR | 26 | 21 | 12.20 | 14.25 | 14.75 | 13.85 | 14.35 | 80C-E05 | | X |
| 5/16 | -6 | 8.0 | 213 / 285 / 293 | 26 | 21 | 12.20 | 14.60 | 15.10 | 14.25 | 14.75 | 80C-E06 | X | |
| 5/16 | -6 | 8.0 | 201 / 206 / 221FR | 26 | 21 | 12.20 | 15.65 | 16.15 | 15.25 | 15.75 | 80C-E06 | | X |
| 13/32 | -8 | 10.0 | 213 / 285 / 293 | 26 | 21 | 12.20 | 17.05 | 17.55 | 16.65 | 17.15 | 80C-E08 | X | |
| 13/32 | -8 | 10.0 | 201 / 206 / 221FR | 26 | 21 | 12.20 | 18.05 | 18.55 | 17.65 | 18.15 | 80C-E08 | | X |
| 1/2 | -10 | 12.5 | 213 / 285 / 293 | 26 | 22 | 14.70 | 20.45 | 20.95 | 20.05 | 20.55 | 80C-E10 | X | |
| 1/2 | -10 | 12.5 | 201 / 206 / 221FR | 26 | 22 | 14.70 | 21.45 | 21.95 | 21.10 | 21.60 | 80C-E10 | | X |
| 5/8 | -12 | 16.0 | 213 / 285 / 293 | 26 | 22 | 14.70 | 23.25 | 23.75 | 22.85 | 23.35 | 80C-E12 | X | |
| 5/8 | -12 | 16.0 | 201 / 206 / 221FR | 26 | 22 | 14.70 | 24.25 | 24.75 | 23.90 | 24.40 | 80C-E12 | | X |
| 7/8 | -16 | 22.0 | 213 / 285 / 293 | 26 | 25 | 15.50 | 29.85 | 30.35 | 29.45 | 29.95 | 80C-E16 | X | |
| 7/8 | -16 | 22.0 | 201 / 206 / 221FR | 26 | 25 | 15.50 | 30.85 | 31.35 | 30.50 | 31.00 | 80C-E16 | | X |

KarryKrimp 1 is not suitable for crimping stainless steel fittings.

Dimensions shown may be changed at any time without prior notice. These crimping tables are intended as a guide. Before crimping hoses and fittings it must be ensured that you have the most recent crimping dimensions. Please contact your local Parker sales office or HPDE_Helpdesk@parker.com
Crimp Charts Status: 2014-02-01

KarryKrimp® 1

43 Series

| Hose I.D. | | | | Hose type | Fitting series | Die set | Die ring | | Insert depth mm | Crimp diameter | |
|-----------|------|------|------|-----------|----------------|---------|---------------|--------------|--------------------|----------------|-------|
| DN | Inch | Size | mm | | | | R01 silver | R02 black | | mm | mm |
| 10 | 3/8 | -6 | 9.5 | 722TC | 43 | 80C-A06 | | X | 29 | 21.95 | 22.45 |
| 12 | 1/2 | -8 | 12.7 | 722TC | 43 | 80C-A08 | | X | 33 | 25.00 | 25.50 |
| 16 | 5/8 | -10 | 15.9 | 722TC | 43 | 80C-A10 | | X | 40 | 27.95 | 28.45 |
| 19 | 3/4 | -12 | 19.1 | 722TC | 43 | 80C-A12 | | X | 38 | 32.65 | 33.15 |
| 25 | 1 | -16 | 25.4 | 722TC | 43 | 80C-A16 | | X | 44 | 41.40 | 41.90 |

KarryKrimp 1 is not suitable for crimping stainless steel fittings.

Dimensions shown may be changed at any time without prior notice. These crimping tables are intended as a guide. Before crimping hoses and fittings it must be ensured that you have the most recent crimping dimensions. Please contact your local Parker sales office or HPDE_Helpdesk@parker.com
Crimp Charts Status: 2014-02-01

KarryKrimp® 1

46 Series

| Hose I.D. | | | | Hose type | Fitting series | Die set | Die ring | | Insert depth | Crimp diameter | |
|-----------|-------|------|------|---|----------------|---------|------------|-----------|--------------|----------------|-------|
| DN | Inch | Size | mm | | | | R01 silver | R02 black | | mm | mm |
| 6 | 1/4 | -4 | 6.4 | 492 / 492ST / 692 | 46 | 80C-B04 | X | | 23 | 14.35 | 14.85 |
| 6 | 1/4 | -4 | 6.4 | 441 / 441RH / 461LT / 462 / 462ST | 46 | 80C-B04 | | X | 23 | 15.35 | 15.85 |
| 8 | 5/16 | -5 | 7.9 | 492 / 492ST / 692 | 46 | 80C-B05 | X | | 23 | 16.15 | 16.65 |
| 8 | 5/16 | -5 | 7.9 | 441 / 441RH / 461LT / 462 / 462ST / 463 | 46 | 80C-B05 | | X | 23 | 17.15 | 17.65 |
| 10 | 3/8 | -6 | 9.5 | 492 / 492ST / 692 | 46 | 80C-B06 | X | | 22 | 19.30 | 19.80 |
| 10 | 3/8 | -6 | 9.5 | 441 / 441RH / 461LT / 462 / 462ST / 463 | 46 | 80C-B06 | | X | 22 | 20.35 | 20.85 |
| 12 | 1/2 | -8 | 12.7 | 492 / 492ST | 46 | 80C-B08 | X | | 24 | 22.35 | 22.85 |
| 12 | 1/2 | -8 | 12.7 | 441 / 441RH / 461LT / 462 / 462ST / 463 / 692 | 46 | 80C-B08 | | X | 24 | 23.35 | 23.85 |
| 16 | 5/8 | -10 | 15.9 | 492 / 492ST | 46 | 80C-B10 | X | | 25 | 25.65 | 26.15 |
| 16 | 5/8 | -10 | 15.9 | 441 / 441RH / 461LT / 462 / 462ST / 692 | 46 | 80C-B10 | | X | 25 | 26.65 | 27.15 |
| 19 | 3/4 | -12 | 19.1 | 492 / 492ST | 46 | 80C-B12 | X | | 25 | 29.45 | 29.95 |
| 19 | 3/4 | -12 | 19.1 | 441 / 441RH / 461LT / 462 / 462ST | 46 | 80C-B12 | | X | 25 | 30.50 | 31.00 |
| 25 | 1 | -16 | 25.4 | 492 / 492ST | 46 | 80C-B16 | X | | 29 | 37.10 | 37.60 |
| 25 | 1 | -16 | 25.4 | 441 / 441RH / 461LT / 462 / 462ST | 46 | 80C-B16 | | X | 29 | 38.10 | 38.60 |
| 31 | 1 1/4 | -20 | 31.8 | 492 / 492ST | 46 | 80C-B20 | X | | 35 | 43.95 | 44.45 |
| 31 | 1 1/4 | -20 | 31.8 | 461LT / 462 / 462ST | 46 | 80C-B20 | | X | 35 | 44.95 | 45.45 |

KarryKrimp 1 is not suitable for crimping stainless steel fittings.

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Crimp Charts Status: 2014-02-01

KarryKrimp® 1

48 Series

| Hose I.D. | | | | Hose type | Fitting series | Die set | Die ring | | Insert depth | Crimp diameter | |
|-----------|-------|------|------|--|----------------|---------|------------|-----------|--------------|----------------|-------|
| DN | Inch | Size | mm | | | | R01 silver | R02 black | | mm | mm |
| 6 | 1/4 | -4 | 6.4 | 421SN / 422 / 441 / 441RH / 451TC / 461LT / 462 / 462TC / 462ST / 462CLF / 471TC / 477 / 477ST / 493 | 48 | 80C-C04 | X | | 22 | 16.40 | 16.90 |
| 6 | 1/4 | -4 | 6.4 | 301SN / 302 / 304 / 421WC / 601 | 48 | 80C-C04 | | X | 22 | 17.40 | 17.90 |
| 8 | 5/16 | -5 | 7.9 | 421SN / 422 / 441 / 461LT / 462 / 462TC / 462ST / 462CLF / 471TC / 477 / 477ST / 493 | 48 | 80C-C05 | X | | 24 | 18.05 | 18.55 |
| 8 | 5/16 | -5 | 7.9 | 301SN / 302 | 48 | 80C-C05 | | X | 24 | 19.05 | 19.55 |
| 10 | 3/8 | -6 | 9.5 | 421SN / 422 / 436 / 441 / 441RH / 451 / 451TC / 461LT / 462 / 462TC / 462ST / 462CLF / 471TC / 477 / 477ST / 493 | 48 | 80C-C06 | X | | 22 | 20.35 | 20.85 |
| 10 | 3/8 | -6 | 9.5 | 301SN / 302 | 48 | 80C-C06 | | X | 22 | 21.35 | 21.85 |
| 12 | 1/2 | -8 | 12.7 | 421SN / 422 / 426 / 436 / 441 / 441RH / 451 / 451TC / 461LT / 462 / 462TC / 462ST / 462CLF / 471TC / 477 / 477ST / 493 | 48 | 80C-C08 | X | | 24 | 23.35 | 23.85 |
| 12 | 1/2 | -8 | 12.7 | 301SN / 302 | 48 | 80C-C08 | | X | 24 | 24.40 | 24.90 |
| 16 | 5/8 | -10 | 15.9 | 421SN / 422 / 426 / 436 / 441 / 441RH / 451 / 451TC / 461LT / 462 / 462TC / 462ST / 462CLF / 471TC / 477 / 477ST | 48 | 80C-C10 | X | | 25 | 26.65 | 27.15 |
| 16 | 5/8 | -10 | 15.9 | 301SN / 302 | 48 | 80C-C10 | | X | 25 | 27.70 | 28.20 |
| 19 | 3/4 | -12 | 19.1 | 421SN / 422 / 426 / 436 / 441 / 441RH / 451 / 451TC / 461LT / 462 / 462TC / 462ST / 462CLF / 471TC / 477 / 477ST | 48 | 80C-C12 | X | | 25 | 30.50 | 31.00 |
| 19 | 3/4 | -12 | 19.1 | 301SN / 302 | 48 | 80C-C12 | | X | 25 | 31.50 | 32.00 |
| 25 | 1 | -16 | 25.4 | 421SN / 422 / 426 / 436 / 441 / 441RH / 451TC / 461LT / 462 / 462TC / 462ST / 462CLF / 477 / 477ST / 471TC | 48 | 80C-C16 | X | | 30 | 38.10 | 38.60 |
| 25 | 1 | -16 | 25.4 | 301SN / 302 | 48 | 80C-C16 | | X | 30 | 39.05 | 39.55 |
| 31 | 1 1/4 | -20 | 31.8 | 421RH / 421SN / 422 / 426 / 472TC | 48 | 80C-C20 | X | | 46 | 50.05 | 50.55 |
| 31 | 1 1/4 | -20 | 31.8 | 301SN / 302 / 304 / 811 / 881 | 48 | 80C-C20 | | X | 46 | 51.05 | 51.55 |

KarryKrimp 1 is not suitable for crimping stainless steel fittings.

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Crimp Charts Status: 2014-02-01

KarryKrimp® 2

26 Series

| Hose I.D. | | | Hose type | Fitting series | E Insertion length mm | A Length ±0.50 mm | Crimp diameter | | | | Die set | R01 silver | R02 black |
|-----------|------|------|-------------------|----------------|--------------------------------|----------------------------|----------------|---------------|---------------|---------------|---------|---------------|--------------|
| Inch | Size | mm | | | | | ∅ B min mm | ∅ B max mm | ∅ C min mm | ∅ C max mm | | | |
| 3/16 | -4 | 5.0 | 213 / 285 / 293 | 26 | 21 | 12.20 | 11.70 | 12.20 | 11.30 | 11.80 | 80C-E04 | X | |
| 3/16 | -4 | 5.0 | 201 / 206 | 26 | 21 | 12.20 | 12.70 | 13.20 | 12.30 | 12.80 | 80C-E04 | | X |
| 1/4 | -5 | 6.3 | 213 | 26 | 21 | 12.20 | 13.20 | 13.70 | 12.85 | 13.35 | 80C-E05 | X | |
| 1/4 | -5 | 6.3 | 201 / 206 / 221FR | 26 | 21 | 12.20 | 14.25 | 14.75 | 13.85 | 14.35 | 80C-E05 | | X |
| 5/16 | -6 | 8.0 | 213 / 285 / 293 | 26 | 21 | 12.20 | 14.60 | 15.10 | 14.25 | 14.75 | 80C-E06 | X | |
| 5/16 | -6 | 8.0 | 201 / 206 / 221FR | 26 | 21 | 12.20 | 15.65 | 16.15 | 15.25 | 15.75 | 80C-E06 | | X |
| 13/32 | -8 | 10.0 | 213 / 285 / 293 | 26 | 21 | 12.20 | 17.05 | 17.55 | 16.65 | 17.15 | 80C-E08 | X | |
| 13/32 | -8 | 10.0 | 201 / 206 / 221FR | 26 | 21 | 12.20 | 18.05 | 18.55 | 17.65 | 18.15 | 80C-E08 | | X |
| 1/2 | -10 | 12.5 | 213 / 285 / 293 | 26 | 22 | 14.70 | 20.45 | 20.95 | 20.05 | 20.55 | 80C-E10 | X | |
| 1/2 | -10 | 12.5 | 201 / 206 / 221FR | 26 | 22 | 14.70 | 21.45 | 21.95 | 21.10 | 21.60 | 80C-E10 | | X |
| 5/8 | -12 | 16.0 | 213 / 285 / 293 | 26 | 22 | 14.70 | 23.25 | 23.75 | 22.85 | 23.35 | 80C-E12 | X | |
| 5/8 | -12 | 16.0 | 201 / 206 / 221FR | 26 | 22 | 14.70 | 24.25 | 24.75 | 23.90 | 24.40 | 80C-E12 | | X |
| 7/8 | -16 | 22.0 | 213 / 285 / 293 | 26 | 25 | 15.50 | 29.85 | 30.35 | 29.45 | 29.95 | 80C-E16 | X | |
| 7/8 | -16 | 22.0 | 201 / 206 / 221FR | 26 | 25 | 15.50 | 30.85 | 31.35 | 30.50 | 31.00 | 80C-E16 | | X |

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Crimp Charts Status: 2014-02-01

KarryKrimp® 2

43 Series

| Hose I.D. | | | | Hose type | Fitting series | Die set | Die ring | | Insert depth | Crimp diameter | |
|-----------|------|------|------|-----------|----------------|---------|---------------|--------------|--------------|----------------|-------|
| DN | Inch | Size | mm | | | | R01 silver | R02 black | | mm | mm |
| 10 | 3/8 | -6 | 9.5 | 722TC | 43 | 80C-A06 | | X | 29 | 21.95 | 22.45 |
| 12 | 1/2 | -8 | 12.7 | 722TC | 43 | 80C-A08 | | X | 33 | 25.00 | 25.50 |
| 16 | 5/8 | -10 | 15.9 | 722TC | 43 | 80C-A10 | | X | 40 | 27.95 | 28.45 |
| 19 | 3/4 | -12 | 19.1 | 722TC | 43 | 80C-A12 | | X | 38 | 32.65 | 33.15 |
| 25 | 1 | -16 | 25.4 | 722TC | 43 | 80C-A16 | | X | 44 | 41.40 | 41.90 |

Dimensions shown may be changed at any time without prior notice. These crimping tables are intended as a guide. Before crimping hoses and fittings it must be ensured that you have the most recent crimping dimensions. Please contact your local Parker sales office or HPDE_Helpdesk@parker.com
Crimp Charts Status: 2014-02-01

KarryKrimp® 2

46 Series

| Hose I.D. | | | | Hose type | Fitting series | Die set | Die ring | | Insert depth | Crimp diameter | |
|-----------|-------|------|------|---|----------------|---------|---------------|--------------|--------------|----------------|-------|
| DN | Inch | Size | mm | | | | R01 silver | R02 black | | mm | mm |
| 6 | 1/4 | -4 | 6.4 | 492 / 492ST / 692 | 46 | 80C-B04 | X | | 23 | 14.35 | 14.85 |
| 6 | 1/4 | -4 | 6.4 | 441 / 441RH / 461LT / 462 / 462ST | 46 | 80C-B04 | | X | 23 | 15.35 | 15.85 |
| 8 | 5/16 | -5 | 7.9 | 492 / 492ST / 692 | 46 | 80C-B05 | X | | 23 | 16.15 | 16.65 |
| 8 | 5/16 | -5 | 7.9 | 441 / 441RH / 461LT / 462 / 462ST / 463 | 46 | 80C-B05 | | X | 23 | 17.15 | 17.65 |
| 10 | 3/8 | -6 | 9.5 | 492 / 492ST / 692 | 46 | 80C-B06 | X | | 22 | 19.30 | 19.80 |
| 10 | 3/8 | -6 | 9.5 | 441 / 441RH / 461LT / 462 / 462ST / 463 | 46 | 80C-B06 | | X | 22 | 20.35 | 20.85 |
| 12 | 1/2 | -8 | 12.7 | 492 / 492ST | 46 | 80C-B08 | X | | 24 | 22.35 | 22.85 |
| 12 | 1/2 | -8 | 12.7 | 441 / 441RH / 461LT / 462 / 462ST / 463 / 692 | 46 | 80C-B08 | | X | 24 | 23.35 | 23.85 |
| 16 | 5/8 | -10 | 15.9 | 492 / 492ST | 46 | 80C-B10 | X | | 25 | 25.65 | 26.15 |
| 16 | 5/8 | -10 | 15.9 | 441 / 441RH / 461LT / 462 / 462ST / 692 | 46 | 80C-B10 | | X | 25 | 26.65 | 27.15 |
| 19 | 3/4 | -12 | 19.1 | 492 / 492ST | 46 | 80C-B12 | X | | 25 | 29.45 | 29.95 |
| 19 | 3/4 | -12 | 19.1 | 441 / 441RH / 461LT / 462 / 462ST | 46 | 80C-B12 | | X | 25 | 30.50 | 31.00 |
| 25 | 1 | -16 | 25.4 | 492 / 492ST | 46 | 80C-B16 | X | | 29 | 37.10 | 37.60 |
| 25 | 1 | -16 | 25.4 | 441 / 441RH / 461LT / 462 / 462ST | 46 | 80C-B16 | | X | 29 | 38.10 | 38.60 |
| 31 | 1 1/4 | -20 | 31.8 | 492 / 492ST | 46 | 80C-B20 | X | | 35 | 43.95 | 44.45 |
| 31 | 1 1/4 | -20 | 31.8 | 461LT / 462 / 462ST | 46 | 80C-B20 | | X | 35 | 44.95 | 45.45 |

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Crimp Charts Status: 2014-02-01

KarryKrimp® 2

48 Series

| Hose I.D. | | | | Hose type | Fitting series | Die set | Die ring | | Insert depth | Crimp diameter | |
|-----------|-------|------|------|--|----------------|---------|------------|-----------|--------------|----------------|-------|
| DN | Inch | Size | mm | | | | R01 silver | R02 black | | mm | mm |
| 6 | 1/4 | -4 | 6.4 | 421SN / 422 / 441 / 441RH / 451TC / 461LT / 462 / 462TC / 462ST / 462CLF / 471TC / 477 / 477ST / 493 | 48 | 80C-C04 | X | | 22 | 16.40 | 16.90 |
| 6 | 1/4 | -4 | 6.4 | 301SN / 302 / 304 / 421WC / 601 | 48 | 80C-C04 | | X | 22 | 17.40 | 17.90 |
| 8 | 5/16 | -5 | 7.9 | 421SN / 422 / 441 / 461LT / 462 / 462TC / 462ST / 462CLF / 471TC / 477 / 477ST / 493 | 48 | 80C-C05 | X | | 24 | 18.05 | 18.55 |
| 8 | 5/16 | -5 | 7.9 | 301SN / 302 | 48 | 80C-C05 | | X | 24 | 19.05 | 19.55 |
| 10 | 3/8 | -6 | 9.5 | 421SN / 422 / 436 / 441 / 441RH / 451 / 451TC / 461LT / 462 / 462TC / 462ST / 462CLF / 471TC / 477 / 477ST / 493 | 48 | 80C-C06 | X | | 22 | 20.35 | 20.85 |
| 10 | 3/8 | -6 | 9.5 | 301SN / 302 | 48 | 80C-C06 | | X | 22 | 21.35 | 21.85 |
| 12 | 1/2 | -8 | 12.7 | 421SN / 422 / 426 / 436 / 441 / 441RH / 451 / 451TC / 461LT / 462 / 462TC / 462ST / 462CLF / 471TC / 477 / 477ST / 493 | 48 | 80C-C08 | X | | 24 | 23.35 | 23.85 |
| 12 | 1/2 | -8 | 12.7 | 301SN / 302 | 48 | 80C-C08 | | X | 24 | 24.40 | 24.90 |
| 16 | 5/8 | -10 | 15.9 | 421SN / 422 / 426 / 436 / 441 / 441RH / 451 / 451TC / 461LT / 462 / 462TC / 462ST / 462CLF / 471TC / 477 / 477ST | 48 | 80C-C10 | X | | 25 | 26.65 | 27.15 |
| 16 | 5/8 | -10 | 15.9 | 301SN / 302 | 48 | 80C-C10 | | X | 25 | 27.70 | 28.20 |
| 19 | 3/4 | -12 | 19.1 | 421SN / 422 / 426 / 436 / 441 / 441RH / 451 / 451TC / 461LT / 462 / 462TC / 462ST / 462CLF / 471TC / 477 / 477ST | 48 | 80C-C12 | X | | 25 | 30.50 | 31.00 |
| 19 | 3/4 | -12 | 19.1 | 301SN / 302 | 48 | 80C-C12 | | X | 25 | 31.50 | 32.00 |
| 25 | 1 | -16 | 25.4 | 421SN / 422 / 426 / 436 / 441 / 441RH / 451TC / 461LT / 462 / 462TC / 462ST / 462CLF / 477 / 477ST / 471TC | 48 | 80C-C16 | X | | 30 | 38.10 | 38.60 |
| 25 | 1 | -16 | 25.4 | 301SN / 302 | 48 | 80C-C16 | | X | 30 | 39.05 | 39.55 |
| 31 | 1 1/4 | -20 | 31.8 | 421RH / 421SN / 422 / 426 / 472TC | 48 | 80C-C20 | X | | 46 | 50.05 | 50.55 |
| 31 | 1 1/4 | -20 | 31.8 | 301SN / 302 / 304 / 811 / 881 | 48 | 80C-C20 | | X | 46 | 51.05 | 51.55 |

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Crimp Charts Status: 2014-02-01

KarryKrimp® 2

70, 71, 73, 77, 78 Series

| Hose I.D. | | | | Hose type | Fitting series | Die set | Die ring | | Insert depth | Crimp diameter | | 1) Stainless Steel |
|-----------|-------|------|------|---|----------------|----------|------------|-----------|--------------|----------------|-------|--------------------|
| DN | Inch | Size | mm | | | | R01 silver | R02 black | | mm | mm | |
| 10 | 3/8 | -6 | 9.5 | 371LT / 372 / 372RH / 372TC / 701 | 70 | 83C-D06 | | X | 27 | 25.15 | 25.65 | ◆ |
| 12 | 1/2 | -8 | 12.7 | 371LT / 372 / 372RH / 372TC / 701 / F42 | 70 | 83C-D08 | | X | 33 | 28.95 | 29.45 | ◆ |
| 12 | 1/2 | -8 | 12.7 | 772LT | 71 | 83C-D08 | X | | 33 | 27.95 | 28.45 | ◆ |
| 12 | 1/2 | -8 | 12.7 | 787TC / 797TC | 77 | 80C-CS08 | | X | 35 | 23.65 | 24.15 | ◆ |
| 16 | 5/8 | -10 | 15.9 | 371LT / 372 / 372RH / 372TC / 701 | 70 | 83C-D10 | | X | 35 | 32.00 | 32.50 | ◆ |
| 16 | 5/8 | -10 | 15.9 | 772LT | 71 | 83C-D10 | X | | 36 | 31.00 | 31.50 | ◆ |
| 16 | 5/8 | -10 | 15.9 | 787TC / 797TC | 77 | 80C-CS10 | | X | 39 | 26.85 | 27.35 | ◆ |
| 19 | 3/4 | -12 | 19.1 | 371LT / 372 / 372RH / 372TC / 701 | 70 | 83C-D12 | | X | 38 | 35.40 | 35.90 | ◆ |
| 19 | 3/4 | -12 | 19.1 | 774 / 772LT | 71 | 83C-D12 | X | | 37 | 34.40 | 34.90 | ◆ |
| 19 | 3/4 | -12 | 19.1 | 731 | 73 | 80C-L12 | X | | 48 | 36.05 | 36.55 | ◆ |
| 19 | 3/4 | -12 | 19.1 | 787TC / 797TC | 77 | 80C-CS12 | | X | 45 | 31.65 | 32.15 | ◆ |
| 19 | 3/4 | -12 | 19.1 | 781 / 782TC | 78 | 80C-L12 | X | | 48 | 36.05 | 36.55 | ◆ |
| 25 | 1 | -16 | 25.4 | 371LT / 372 / 372RH / 372TC / 701 | 70 | 83C-D16 | | X | 46 | 44.05 | 44.55 | ◆ |
| 25 | 1 | -16 | 25.4 | 774 / 772LT | 71 | 83C-D16 | X | | 45 | 43.05 | 43.55 | ◆ |
| 25 | 1 | -16 | 25.4 | 731 | 73 | 80C-L16 | X | | 51 | 43.95 | 44.45 | ◆ |
| 25 | 1 | -16 | 25.4 | 781 / 782TC | 78 | 80C-L16 | X | | 51 | 43.95 | 44.45 | ◆ |
| 31 | 1 1/4 | -20 | 31.8 | 774 / 772LT / 721TC | 71 | 83C-D20 | X | | 46 | 51.45 | 51.95 | ◆ |

1) Crimp diameters for stainless steel fittings can be up to 0.25 mm larger than for standard steel fittings.

Dimensions shown may be changed at any time without prior notice. These crimping tables are intended as a guide. Before crimping hoses and fittings it must be ensured that you have the most recent crimping dimensions. Please contact your local Parker sales office or HPDE_Helpdesk@parker.com
Crimp Charts Status: 2014-02-01

Parkrimp® 2

26 Series

| Hose I.D. | | | Hose type | Fitting series | E Insertion length mm | A Length ±0.50 mm | Crimp diameter | | | | Die set | Die ring 83C-R02 | Base plate 83C-R02H | Adapter bowl/ 83C-0CB |
|-----------|------|------|-------------------|----------------|--------------------------------|----------------------------|----------------|---------------|---------------|---------------|---------|---------------------|------------------------|-----------------------------|
| Inch | Size | mm | | | | | Ø B min mm | Ø B max mm | Ø C min mm | Ø C max mm | | | | |
| 3/16 | -4 | 5.0 | 213 / 285 / 293 | 26 | 21 | 12.20 | 11.70 | 12.20 | 11.30 | 11.80 | 80C-E04 | | | X |
| 3/16 | -4 | 5.0 | 201 / 206 | 26 | 21 | 12.20 | 12.70 | 13.20 | 12.30 | 12.80 | 80C-E04 | X | | X |
| 1/4 | -5 | 6.3 | 213 | 26 | 21 | 12.20 | 13.20 | 13.70 | 12.85 | 13.35 | 80C-E05 | | | X |
| 1/4 | -5 | 6.3 | 201 / 206 / 221FR | 26 | 21 | 12.20 | 14.25 | 14.75 | 13.85 | 14.35 | 80C-E05 | X | | X |
| 5/16 | -6 | 8.0 | 213 / 285 / 293 | 26 | 21 | 12.20 | 14.60 | 15.10 | 14.25 | 14.75 | 80C-E06 | | | X |
| 5/16 | -6 | 8.0 | 201 / 206 / 221FR | 26 | 21 | 12.20 | 15.65 | 16.15 | 15.25 | 15.75 | 80C-E06 | X | | X |
| 13/32 | -8 | 10.0 | 213 / 285 / 293 | 26 | 21 | 12.20 | 17.05 | 17.55 | 16.65 | 17.15 | 80C-E08 | | | X |
| 13/32 | -8 | 10.0 | 201 / 206 / 221FR | 26 | 21 | 12.20 | 18.05 | 18.55 | 17.65 | 18.15 | 80C-E08 | X | | X |
| 1/2 | -10 | 12.5 | 213 / 285 / 293 | 26 | 22 | 14.70 | 20.45 | 20.95 | 20.05 | 20.55 | 80C-E10 | | | X |
| 1/2 | -10 | 12.5 | 201 / 206 / 221FR | 26 | 22 | 14.70 | 21.45 | 21.95 | 21.10 | 21.60 | 80C-E10 | X | | X |
| 5/8 | -12 | 16.0 | 213 / 285 / 293 | 26 | 22 | 14.70 | 23.25 | 23.75 | 22.85 | 23.35 | 80C-E12 | | | X |
| 5/8 | -12 | 16.0 | 201 / 206 / 221FR | 26 | 22 | 14.70 | 24.25 | 24.75 | 23.90 | 24.40 | 80C-E12 | X | | X |
| 7/8 | -16 | 22.0 | 213 / 285 / 293 | 26 | 25 | 15.50 | 29.85 | 30.35 | 29.45 | 29.95 | 80C-E16 | | | X |
| 7/8 | -16 | 22.0 | 201 / 206 / 221FR | 26 | 25 | 15.50 | 30.85 | 31.35 | 30.50 | 31.00 | 80C-E16 | X | | X |
| 1 1/8 | -20 | 29.0 | 213 | 26 | 25 | 16.50 | 36.05 | 36.55 | 35.70 | 36.20 | 83C-E20 | | | |
| 1 1/8 | -20 | 29.0 | 201 / 206 | 26 | 25 | 16.50 | 37.10 | 37.60 | 36.70 | 37.20 | 83C-E20 | | X | |
| 1 3/8 | -24 | 35.0 | 213 | 26 | 27 | 16.50 | 42.40 | 42.90 | 42.05 | 42.55 | 83C-E24 | | | |
| 1 3/8 | -24 | 35.0 | 201 / 206 | 26 | 27 | 16.50 | 43.45 | 43.95 | 43.05 | 43.55 | 83C-E24 | | X | |
| 1 13/16 | -32 | 46.0 | 213 | 26 | 32 | 22.90 | 54.85 | 55.35 | 54.50 | 55.00 | 83C-E32 | | | |
| 1 13/16 | -32 | 46.0 | 201 / 206 | 26 | 32 | 22.90 | 55.90 | 56.40 | 55.50 | 56.00 | 83C-E32 | | X | |

Dimensions shown may be changed at any time without prior notice. These crimping tables are intended as a guide. Before crimping hoses and fittings it must be ensured that you have the most recent crimping dimensions. Please contact your local Parker sales office or HPDE_Helpdesk@parker.com
Crimp Charts Status: 2014-02-01

Parkrimp® 2

43 Series

| Hose I.D. | | | | Hose type | Fitting series | Die set | 1) | 2) | 3) | Insert depth | Crimp diameter | |
|-----------|------|------|------|-----------|----------------|---------|----|----|----|--------------|----------------|-------|
| DN | Inch | Size | mm | | | | | | | | mm | mm |
| 10 | 3/8 | -6 | 9.5 | 722TC | 43 | 80C-A06 | X | | X | 29 | 21.95 | 22.45 |
| 12 | 1/2 | -8 | 12.7 | 722TC | 43 | 80C-A08 | X | | X | 33 | 25.00 | 25.50 |
| 16 | 5/8 | -10 | 15.9 | 722TC | 43 | 80C-A10 | X | | X | 40 | 27.95 | 28.45 |
| 19 | 3/4 | -12 | 19.1 | 722TC | 43 | 80C-A12 | X | | X | 38 | 32.65 | 33.15 |
| 25 | 1 | -16 | 25.4 | 722TC | 43 | 80C-A16 | X | | X | 44 | 41.40 | 41.90 |

1) die ring

2) base plate

3) adapter bowl

Dimensions shown may be changed at any time without prior notice. These crimping tables are intended as a guide. Before crimping hoses and fittings it must be ensured that you have the most recent crimping dimensions. Please contact your local Parker sales office or HPDE_Helpdesk@parker.com
Crimp Charts Status: 2014-02-01

Parkrimp® 2

46 Series

| Hose I.D. | | | | Hose type | Fitting series | Die set | 1) 83C-R02 | 2) 83C-R02H | 3) 83C-0CB | Insert depth | Crimp diameter | |
|-----------|-------|------|------|---|----------------|---------|---------------|----------------|---------------|--------------|----------------|-------|
| DN | Inch | Size | mm | | | | | | | | mm | mm |
| 6 | 1/4 | -4 | 6.4 | 492 / 492ST / 692 | 46 | 80C-B04 | | | X | 23 | 14.35 | 14.85 |
| 6 | 1/4 | -4 | 6.4 | 441 / 441RH / 461LT / 462 / 462ST | 46 | 80C-B04 | X | | X | 23 | 15.35 | 15.85 |
| 8 | 5/16 | -5 | 7.9 | 492 / 492ST / 692 | 46 | 80C-B05 | | | X | 23 | 16.15 | 16.65 |
| 8 | 5/16 | -5 | 7.9 | 441 / 441RH / 461LT / 462 / 462ST / 463 | 46 | 80C-B05 | X | | X | 23 | 17.15 | 17.65 |
| 10 | 3/8 | -6 | 9.5 | 492 / 492ST / 692 | 46 | 80C-B06 | | | X | 22 | 19.30 | 19.80 |
| 10 | 3/8 | -6 | 9.5 | 441 / 441RH / 461LT / 462 / 462ST / 463 | 46 | 80C-B06 | X | | X | 22 | 20.35 | 20.85 |
| 12 | 1/2 | -8 | 12.7 | 492 / 492ST | 46 | 80C-B08 | | | X | 24 | 22.35 | 22.85 |
| 12 | 1/2 | -8 | 12.7 | 441 / 441RH / 461LT / 462 / 462ST / 463 / 692 | 46 | 80C-B08 | X | | X | 24 | 23.35 | 23.85 |
| 16 | 5/8 | -10 | 15.9 | 492 / 492ST | 46 | 80C-B10 | | | X | 25 | 25.65 | 26.15 |
| 16 | 5/8 | -10 | 15.9 | 441 / 441RH / 461LT / 462 / 462ST / 692 | 46 | 80C-B10 | X | | X | 25 | 26.65 | 27.15 |
| 19 | 3/4 | -12 | 19.1 | 492 / 492ST | 46 | 80C-B12 | | | X | 25 | 29.45 | 29.95 |
| 19 | 3/4 | -12 | 19.1 | 441 / 441RH / 461LT / 462 / 462ST | 46 | 80C-B12 | X | | X | 25 | 30.50 | 31.00 |
| 25 | 1 | -16 | 25.4 | 492 / 492ST | 46 | 80C-B16 | | | X | 29 | 37.10 | 37.60 |
| 25 | 1 | -16 | 25.4 | 441 / 441RH / 461LT / 462 / 462ST | 46 | 80C-B16 | X | | X | 29 | 38.10 | 38.60 |
| 31 | 1 1/4 | -20 | 31.8 | 492 / 492ST | 46 | 80C-B20 | | | X | 35 | 43.95 | 44.45 |
| 31 | 1 1/4 | -20 | 31.8 | 461LT / 462 / 462ST | 46 | 80C-B20 | X | | X | 35 | 44.95 | 45.45 |

- 1) die ring
2) base plate
3) adapter bowl

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Crimp Charts Status: 2014-02-01

Parkrimp® 2

48 Series

| Hose I.D. | | | | Hose type | Fitting series | Die set | 1) 83C-R02 | 2) 83C-R02H | 3) 83C-0CB | Insert depth mm | Crimp diameter | | 5) Stainless Steel |
|-----------|-------|------|------|--|----------------|----------|---------------|----------------|---------------|--------------------|----------------|-------|--------------------|
| DN | Inch | Size | mm | | | | | | | | mm | mm | |
| 6 | 1/4 | -4 | 6.4 | 421SN / 422 / 441 / 441RH / 451TC / 461LT / 462 / 462TC / 462ST / 462CLF / 471TC / 477 / 477ST / 493 | 48 | 80C-C04 | | | X | 22 | 16.40 | 16.90 | |
| 6 | 1/4 | -4 | 6.4 | 301SN / 302 / 304 / 421WC / 601 | 48 | 80C-C04 | X | | X | 22 | 17.40 | 17.90 | |
| 8 | 5/16 | -5 | 7.9 | 421SN / 422 / 441 / 461LT / 462 / 462TC / 462ST / 462CLF / 471TC / 477 / 477ST / 493 | 48 | 80C-C05 | | | X | 24 | 18.05 | 18.55 | |
| 8 | 5/16 | -5 | 7.9 | 301SN / 302 | 48 | 80C-C05 | X | | X | 24 | 19.05 | 19.55 | |
| 10 | 3/8 | -6 | 9.5 | 421SN / 422 / 436 / 441 / 441RH / 451 / 451TC / 461LT / 462 / 462TC / 462ST / 462CLF / 471TC / 477 / 477ST / 493 | 48 | 80C-C06 | | | X | 22 | 20.35 | 20.85 | |
| 10 | 3/8 | -6 | 9.5 | 301SN / 302 | 48 | 80C-C06 | X | | X | 22 | 21.35 | 21.85 | |
| 12 | 1/2 | -8 | 12.7 | 421SN / 422 / 426 / 436 / 441 / 441RH / 451 / 451TC / 461LT / 462 / 462TC / 462ST / 462CLF / 471TC / 477 / 477ST / 493 | 48 | 80C-C08 | | | X | 24 | 23.35 | 23.85 | |
| 12 | 1/2 | -8 | 12.7 | 301SN / 302 | 48 | 80C-C08 | X | | X | 24 | 24.40 | 24.90 | |
| 16 | 5/8 | -10 | 15.9 | 421SN / 422 / 426 / 436 / 441 / 441RH / 451 / 451TC / 461LT / 462 / 462TC / 462ST / 462CLF / 471TC / 477 / 477ST | 48 | 80C-C10 | | | X | 25 | 26.65 | 27.15 | |
| 16 | 5/8 | -10 | 15.9 | 301SN / 302 | 48 | 80C-C10 | X | | X | 25 | 27.70 | 28.20 | |
| 19 | 3/4 | -12 | 19.1 | 421SN / 422 / 426 / 436 / 441 / 441RH / 451 / 451TC / 461LT / 462 / 462TC / 462ST / 462CLF / 471TC / 477 / 477ST | 48 | 80C-C12 | | | X | 25 | 30.50 | 31.00 | |
| 19 | 3/4 | -12 | 19.1 | 301SN / 302 | 48 | 80C-C12 | X | | X | 25 | 31.50 | 32.00 | |
| 19 | 3/4 | -12 | 19.1 | 811 | 48 | 80C-C12 | X | X (4) | X | 25 | 32.50 | 33.00 | |
| 25 | 1 | -16 | 25.4 | 421SN / 422 / 426 / 436 / 441 / 441RH / 451TC / 461LT / 462 / 462TC / 462ST / 462CLF / 477 / 477ST / 471TC | 48 | 80C-C16 | | | X | 30 | 38.10 | 38.60 | |
| 25 | 1 | -16 | 25.4 | 301SN / 302 | 48 | 80C-C16 | X | | X | 30 | 39.05 | 39.55 | |
| 25 | 1 | -16 | 25.4 | 811 | 48 | 80C-C16 | X | X (4) | X | 30 | 40.05 | 40.55 | |
| 31 | 1 1/4 | -20 | 31.8 | 421RH / 421SN / 422 / 426 / 472TC | 48 | 80C-C20 | | | X | 46 | 50.05 | 50.55 | |
| 31 | 1 1/4 | -20 | 31.8 | 421RH / 421SN / 422 / 426 / 472TC | 48 | 83C-C20H | | | | 46 | 50.05 | 50.55 | |
| 31 | 1 1/4 | -20 | 31.8 | 301SN / 302 / 304 / 811 / 881 | 48 | 80C-C20 | X | | X | 46 | 51.05 | 51.55 | |
| 31 | 1 1/4 | -20 | 31.8 | 301SN / 302 / 304 / 811 / 881 | 48 | 83C-C20H | | X | | 46 | 51.05 | 51.55 | |
| 38 | 1 1/2 | -24 | 38.1 | 421RH / 421SN / 422 / 426 / 472TC | 48 | 83C-C24 | | | | 37 | 58.15 | 58.65 | ◆ |
| 38 | 1 1/2 | -24 | 38.1 | 301SN / 302 / 304 / 811 / 881 | 48 | 83C-C24 | | X | | 37 | 59.15 | 59.65 | ◆ |
| 51 | 2 | -32 | 50.8 | 421RH / 421SN / 422 / 426 / 472TC | 48 | 83C-C32 | | | | 47 | 69.45 | 69.95 | ◆ |
| 51 | 2 | -32 | 50.8 | 301SN / 302 / 304 / 811 / 881 | 48 | 83C-C32 | | X | | 47 | 70.45 | 70.95 | ◆ |

1) die ring

2) base plate

3) adapter bowl

4) put plate 83C-R02H between adaptor bowl 83C-0CB and ring 83C-R02

5) Crimp diameters for stainless steel fittings can be up to 0.25 mm larger than for standard steel fittings.

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Crimp Charts Status: 2014-02-01

Parkrimp® 2

70, 71, 73, 76, 77, 76, 79, S6 Series

| Hose I.D. | | | | Hose type | Fitting series | Die set | 1) | 2) | 3) | Insert depth | min. crimp length | Crimp diameter | | 4) Stainless Steel |
|-----------|-------|------|------|---|----------------|----------|----|----|----|--------------|-------------------|----------------|-------|--------------------|
| DN | Inch | Size | mm | | | | | | | | | mm | mm | |
| 10 | 3/8 | -6 | 9.5 | 371LT / 372 / 372RH / 372TC / 701 | 70 | 83C-D06 | X | | X | 27 | | 25.15 | 25.65 | ◆ |
| 12 | 1/2 | -8 | 12.7 | 371LT / 372 / 372RH / 372TC / 701 / F42 | 70 | 83C-D08 | X | | X | 33 | | 28.95 | 29.45 | ◆ |
| 12 | 1/2 | -8 | 12.7 | 772LT | 71 | 83C-D08 | | | X | 33 | | 27.95 | 28.45 | ◆ |
| 12 | 1/2 | -8 | 12.7 | 787TC / 797TC | 77 | 80C-CS08 | X | | X | 35 | | 23.65 | 24.15 | |
| 16 | 5/8 | -10 | 15.9 | 371LT / 372 / 372RH / 372TC / 701 | 70 | 83C-D10 | X | | X | 35 | | 32.00 | 32.50 | ◆ |
| 16 | 5/8 | -10 | 15.9 | 772LT | 71 | 83C-D10 | | | X | 36 | | 31.00 | 31.50 | ◆ |
| 16 | 5/8 | -10 | 15.9 | 787TC / 797TC | 77 | 80C-CS10 | X | | X | 39 | | 26.85 | 27.35 | |
| 19 | 3/4 | -12 | 19.1 | 371LT / 372 / 372RH / 372TC / 701 | 70 | 83C-D12 | X | | X | 38 | | 35.40 | 35.90 | ◆ |
| 19 | 3/4 | -12 | 19.1 | 774 / 772LT | 71 | 83C-D12 | | | X | 37 | | 34.40 | 34.90 | ◆ |
| 19 | 3/4 | -12 | 19.1 | 731 | 73 | 80C-L12 | | | X | 48 | | 36.05 | 36.55 | |
| 19 | 3/4 | -12 | 19.1 | 731 | 73 | 83C-L12 | | | | 48 | | 36.05 | 36.55 | |
| 19 | 3/4 | -12 | 19.1 | 761 | 76 | 83C-U12 | | | | 59 | | 39.15 | 39.65 | |
| 19 | 3/4 | -12 | 19.1 | 787TC / 797TC | 77 | 80C-CS12 | X | | X | 45 | | 31.65 | 32.15 | |
| 19 | 3/4 | -12 | 19.1 | 781 / 782TC | 78 | 80C-L12 | | | X | 48 | | 36.05 | 36.55 | ◆ |
| 19 | 3/4 | -12 | 19.1 | 781 / 782TC | 78 | 83C-L12 | | | | 48 | | 36.05 | 36.55 | ◆ |
| 19 | 3/4 | -12 | 19.1 | 791TC / 792TC / F42 | 79 | 80C-L12 | | | X | 56 | 54.0 Φ | 36.05 | 36.55 | |
| 19 | 3/4 | -12 | 19.1 | 791TC / 792TC / F42 | 79 | 83C-L12 | | | | 56 | 54.0 Φ | 36.05 | 36.55 | |
| 25 | 1 | -16 | 25.4 | 371LT / 372 / 372RH / 372TC / 701 | 70 | 83C-D16 | X | | X | 46 | | 44.05 | 44.55 | ◆ |
| 25 | 1 | -16 | 25.4 | 371LT / 372 / 372RH / 372TC / 701 | 70 | 83C-D16H | | X | | 46 | | 44.05 | 44.55 | ◆ |
| 25 | 1 | -16 | 25.4 | 774 / 772LT | 71 | 83C-D16 | | | X | 45 | | 43.05 | 43.55 | ◆ |
| 25 | 1 | -16 | 25.4 | 774 / 772LT | 71 | 83C-D16H | | | | 45 | | 43.05 | 43.55 | ◆ |
| 25 | 1 | -16 | 25.4 | 731 | 73 | 80C-L16 | | | X | 51 | | 43.95 | 44.45 | |
| 25 | 1 | -16 | 25.4 | 731 | 73 | 83C-L16 | | | | 51 | | 43.95 | 44.45 | |
| 25 | 1 | -16 | 25.4 | 761 | 76 | 83C-U16 | | | | 65 | | 47.40 | 47.90 | |
| 25 | 1 | -16 | 25.4 | 787TC / 797TC | 77 | 83C-CS16 | | X | | 54 | | 39.15 | 39.65 | |
| 25 | 1 | -16 | 25.4 | 781 / 782TC | 78 | 80C-L16 | | | X | 51 | | 43.95 | 44.45 | ◆ |
| 25 | 1 | -16 | 25.4 | 781 / 782TC | 78 | 83C-L16 | | | | 51 | | 43.95 | 44.45 | ◆ |
| 25 | 1 | -16 | 25.4 | 791TC / 792TC / F42 | 79 | 80C-L16 | | | X | 59 | 57.0 Φ | 43.95 | 44.45 | |
| 25 | 1 | -16 | 25.4 | 791TC / 792TC / F42 | 79 | 83C-L16 | | | | 59 | 57.0 Φ | 43.95 | 44.45 | |
| 31 | 1 1/4 | -20 | 31.8 | 774 / 772LT / 721TC | 71 | 83C-D20 | | | X | 46 | | 51.45 | 51.95 | ◆ |
| 31 | 1 1/4 | -20 | 31.8 | 774 / 772LT / 721TC | 71 | 83C-D20H | | | | 46 | | 51.45 | 51.95 | ◆ |
| 31 | 1 1/4 | -20 | 31.8 | 731 | 73 | 83C-L20 | | | | 64 | | 54.35 | 54.85 | |
| 31 | 1 1/4 | -20 | 31.8 | 787TC / 797TC | 77 | 83C-CS20 | | X | | 64 | | 50.05 | 50.55 | |
| 31 | 1 1/4 | -20 | 31.8 | 781 / 782TC | 78 | 83C-L20 | | | | 64 | | 54.35 | 54.85 | ◆ |
| 31 | 1 1/4 | -20 | 31.8 | 791TC / F42 | 79 | 83C-L20 | | | | 71 | 70.0 Φ | 54.35 | 54.85 | |
| 38 | 1 1/2 | -24 | 38.1 | 774 / 772LT / 721TC | 71 | 83C-D24 | | | | 59 | | 58.15 | 58.65 | ◆ |
| 38 | 1 1/2 | -24 | 38.1 | 731 | 73 | 83C-L24 | | | | 63 | | 61.95 | 62.45 | |
| 38 | 1 1/2 | -24 | 38.1 | 787TC / 797TC | 77 | 83C-CS24 | | X | | 67.7 | | 58.95 | 59.45 | |
| 38 | 1 1/2 | -24 | 38.1 | 781 / 782TC | 78 | 83C-L24 | | | | 62 | | 61.95 | 62.45 | ◆ |
| 38 | 1 1/2 | -24 | 38.1 | 791TC | 79 | 83C-L24 | | | | 76 | 73.0 Φ | 61.95 | 62.45 | |
| 51 | 2 | -32 | 50.8 | 774 / 721TC | 71 | 83C-D32 | | | | 63 | | 70.50 | 71.00 | ◆ |
| 51 | 2 | -32 | 50.8 | 731 | 73 | 83C-L32 | | | | 72 | | 76.85 | 77.35 | |
| 51 | 2 | -32 | 50.8 | 787TC / 797TC | 77 | 83C-CS32 | | X | | 77.5 | 69.85 * | 72.80 | 73.30 | |
| 51 | 2 | -32 | 50.8 | P35 | S6 | 83C-L32 | | | | 88 | 86.4 Φ | 76.85 | 77.35 | |

1) die ring

2) base plate

3) adapter bowl

4) Crimp diameters for stainless steel fittings can be up to 0.25 mm larger than for standard steel fittings.

Φ When crimped on adjustable crimpers the shell may be crimped over the entire length.

* bubble crimp style is approved for parkrimp 2 machine only! With TH8E-380: shell crimped over the entire length

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Crimp Charts Status: 2014-02-01

Adjustable Crimper

V4/V5/V6 Series

| Hose I.D. | | | | Hose type | Fitting series | Skiving length | | Crimp diameter ± 0.2 mm | Shell ovalization | Shell conicity | Die set | Length min. mm |
|-----------|-------|------|------|---|----------------|-----------------------|-----------------------|-------------------------------|-------------------|----------------|------------|-------------------|
| DN | Inch | Size | mm | | | internal ± 1 mm | external ± 1 mm | | | | | |
| 10 | 3/8 | -6 | 9,5 | R56TC | V5 | 12,0 | 36,0 | 24,20 | 0,2 | 0,3 | PB239 24 | 60 |
| 12 | 1/2 | -8 | 12,7 | R56TC | V5 | 13,0 | 43,0 | 30,00 | 0,2 | 0,3 | PB239 28 | 70 |
| 16 | 5/8 | -10 | 15,9 | R42TC / R42 / R42ST | V4 | 14,5 | 50,0 | 30,40 *) | 0,2 | 0,6 | PB239 28 | 70 |
| 16 | 5/8 | -10 | 15,9 | H31TC / H31 / H31ST | V4 | 14,5 | 50,0 | 30,40 | 0,2 | 0,6 | PB239 28 | 70 |
| 16 | 5/8 | -10 | 15,9 | R50TC | V4 | 14,5 | 50,0 | 30,10 | 0,2 | 0,6 | PB239 28 | 70 |
| 19 | 3/4 | -12 | 19,1 | H31TC / R35TC / H31 / R35 / H31ST | V4 | 15,0 | 52,0 | 33,90 | 0,2 | 0,6 | PB239 32 | 70 |
| 19 | 3/4 | -12 | 19,1 | R50TC | V4 | 15,0 | 52,0 | 34,40 | 0,2 | 0,6 | PB239 32 | 70 |
| 19 | 3/4 | -12 | 19,1 | H29TC / R42TC / H29 / R42 / H29ST / R42ST | V4 | 15,0 | 52,0 | 33,90 *) | 0,2 | 0,6 | PB239 32 | 70 |
| 25 | 1 | -16 | 25,4 | H31TC / H31 / H31ST | V4 | 17,0 | 65,0 | 41,60 | 0,2 | 0,6 | PB239L 40 | 85 |
| 25 | 1 | -16 | 25,4 | R50TC | V4 | 17,0 | 65,0 | 42,20 | 0,2 | 0,6 | PB239L 40 | 85 |
| 25 | 1 | -16 | 25,4 | H29TC / R42TC / H29 / R42 / H29ST / R42ST | V4 | 17,0 | 65,0 | 42,50 *) | 0,2 | 0,6 | PB239L 40 | 85 |
| 25 | 1 | -16 | 25,4 | R35TC / R35 | V4 | 17,0 | 65,0 | 42,50 | 0,2 | 0,6 | PB239L 40 | 85 |
| 31 | 1 1/4 | -20 | 31,8 | R35TC / R35 | V4 | 21,5 | 74,0 | 50,20 | 0,3 | 1,0 | PB239L 50 | 100 |
| 31 | 1 1/4 | -20 | 31,8 | H29TC / H29 / H29ST | V4 | 21,5 | 74,0 | 50,20 *) | 0,3 | 1,0 | PB239L 50 | 100 |
| 31 | 1 1/4 | -20 | 31,8 | R50TC | V6 | 22,0 | 58,0 | 57,00 | 0,2 | 0,6 | PB232L 54 | 100 |
| 31 | 1 1/4 | -20 | 31,8 | R42TC / R42 / R42ST | V6 | 22,0 | 58,0 | 55,50 *) | 0,3 | 1,0 | PB232L 54 | 100 |
| 38 | 1 1/2 | -24 | 38,1 | H29ST / H29 / H29ST | V4 | 22,0 | 81,0 | 57,30 *) | 0,3 | 1,0 | PB232L 57 | 110 |
| 38 | 1 1/2 | -24 | 38,1 | R42TC / R42 / R42ST | V6 | 22,0 | 65,0 | 63,20 *) | 0,3 | 1,0 | PB232L 62 | 110 |
| 38 | 1 1/2 | -24 | 38,1 | R35TC / R35 | V6 | 22,0 | 65,0 | 63,20 | 0,3 | 1,0 | PB232L 62 | 110 |
| 51 | 2 | -32 | 50,8 | H29ST / H29 / H29ST | V4 | 29,0 | 85,0 | 73,50 *) | 0,3 | 1,0 | PB232L 71 | 110 |
| 51 | 2 | -32 | 50,8 | R42TC / R42 / R42ST | V6 | 22,0 | 75,0 | 78,00 *) | 0,3 | 1,0 | PB232L 78 | 118 |
| 51 | 2 | -32 | 50,8 | R35TC / R35 | V6 | 22,0 | 75,0 | 77,30 | 0,3 | 1,0 | PB232L 74 | 118 |
| 63 | 2 1/2 | -40 | 63,5 | R35TC | V6 | 30,0 | 99,0 | 94,00 | 0,3 | 1,0 | SPPB554 92 | 150 |
| 76 | 3 | -48 | 76,2 | RS35TC | V6 | 22,0 | 75,0 | 99,60 | 0,3 | 1,0 | PB232L 96 | 118 |

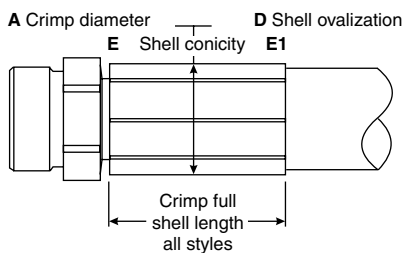
*) Stainless Steel

Double swaging of shells should be avoided as it detrimentally influences the functionality and reduces the service life of the hose assembly.

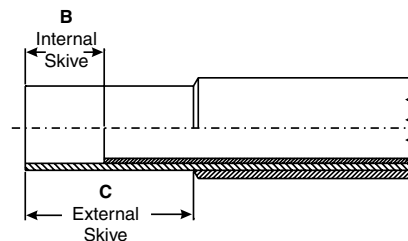
It must be ensured that the crimper has enough crimping force to crimp the fitting and that the swage-dies are of sufficient length to cover the entire length of the shell.

Only for use with adjustable crimpers – Minimum of 340 tons crimping force required for size -32 – Minimum of 400 tons crimping force for size -40

Crimp Information



Skive Information



1. Use a vernier calliper to carry out two measurements at 90° in the middle of the shell (D). The ovaling is the difference between the min and the max measured diameters.
2. Use a vernier calliper to carry out two 90° opposed measurements on the shell surfaces as indicated (E - E1). The conicity is the difference between the medium diameter value E minus the medium diameter value E1, (E1 should not be greater than E)

Dimensions shown may be changed at any time without prior notice. These crimping tables are intended as a guide. Before crimping hoses and fittings it must be ensured that you have the most recent crimping dimensions. Please contact your local Parker sales office or HPDE_Helpdesk@parker.com

Crimp Charts Status: 2014-02-01

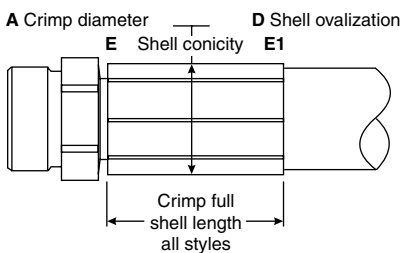
Adjustable Crimper

VS Series

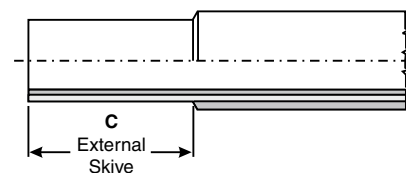
| Hose I.D. | | | | Hose type | Fitting series | Skiving length | | Crimp diameter ± 0.2 mm | Shell ovalization | Shell conicity | Die set | Length min. mm |
|-----------|------|------|------|---------------------|----------------|-----------------------|-----------------------|-------------------------------|-------------------|----------------|----------|-------------------|
| DN | Inch | Size | mm | | | internal ± 1 mm | external ± 1 mm | | | | | |
| 6 | 1/4 | -4 | 6.4 | H31TC / H31 / H31ST | VS | | 29.0 | 19.80 | 0.2 | 0.6 | PB239 20 | 50 |
| 10 | 3/8 | -6 | 9.5 | H31TC / H31 / H31ST | VS | | 28.0 | 23.50 | 0.2 | 0.6 | PB239 20 | 60 |
| 12 | 1/2 | -8 | 12.7 | H31TC / H31 / H31ST | VS | | 32.0 | 26.50 | 0.2 | 0.6 | PB239 24 | 60 |

Only for use with adjustable crimpers

Crimp Information



Skive Information



1. Use a vernier calliper to carry out two measurements at 90° in the middle of the shell (D). The ovaling is the difference between the min and the max measured diameters.
2. Use a vernier calliper to carry out two 90° opposed measurements on the shell surfaces as indicated (E - E1). The conicity is the difference between the medium diameter value E minus the medium diameter value E1, (E1 should not be greater than E)

Dimensions shown may be changed at any time without prior notice. These crimping tables are intended as a guide. Before crimping hoses and fittings it must be ensured that you have the most recent crimping dimensions. Please contact your local Parker sales office or HPDE_Helpdesk@parker.com
Crimp Charts Status: 2014-02-01

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| 412 | Ca-7 | 10670 | Db-9 | 13977 | Df-11 | 10C71 | Dc-3 |
| 422 | Ca-12 | 10671 | Dc-8 | 13978 | Dg-7 | 10C73 | Dd-1 |
| 424 | Ca-13 | 10673 | Dd-6 | 14146 | Cc-28 | 10C77 | Df-3 |
| 426 | Ca-14 | 10677 | Df-10 | 14148 | Cc-28 | 10C78 | Dg-1 |
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| 441 | Ca-16 | 10826 | B2b-6 | 14946 | Cc-11 | 11C43 | Cb-4 |
| 451 | Ca-18 | 10846 | Cc-25 | 14948 | Cc-11 | 11C46 | Cc-9 |
| 462 | Ca-21 | 10848 | Cc-25 | 16826 | B2b-5 | 11C48 | Cc-9 |
| 463 | Ca-25 | 11543 | Cb-12 | 16846 | Cc-24 | 11C70 | Db-4 |
| 477 | Ca-27 | 11546 | Cc-29 | 16848 | Cc-24 | 11C73 | Dd-2 |
| 492 | Ca-29 | 11548 | Cc-29 | 19126 | B2b-4 | 11C77 | Df-4 |
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AEROSPACE

Key Markets

- Aircraft engines
- Business & general aviation
- Commercial transports
- Land-based weapons systems
- Military aircraft
- Missiles & launch vehicles
- Regional transports
- Unmanned aerial vehicles

Key Products

- Flight control systems & components
- Fluid conveyance systems
- Fluid metering delivery & atomization devices
- Fuel systems & components
- Hydraulic systems & components
- Inert nitrogen generating systems
- Pneumatic systems & components
- Wheels & brakes



CLIMATE CONTROL

Key Markets

- Agriculture
- Air conditioning
- Food, beverage & dairy
- Life sciences & medical
- Precision cooling
- Processing
- Transportation

Key Products

- CO² controls
- Electronic controllers
- Filter driers
- Hand shut-off valves
- Hose & fittings
- Pressure regulating valves
- Refrigerant distributors
- Safety relief valves
- Solenoid valves
- Thermostatic expansion valves



HYDRAULICS

Key Markets

- Aerospace
- Aerial lift
- Agriculture
- Construction machinery
- Forestry
- Industrial machinery
- Mining
- Oil & gas
- Power generation & energy
- Truck hydraulics

Key Products

- Diagnostic equipment
- Hydraulic cylinders & accumulators
- Hydraulic motors & pumps
- Hydraulic systems
- Hydraulic valves & controls
- Power take-offs
- Rubber & thermoplastic hose & couplings
- Tube fittings & adapters
- Quick disconnects



PNEUMATICS

Key Markets

- Aerospace
- Conveyor & material handling
- Factory automation
- Life science & medical
- Machine tools
- Packaging machinery
- Transportation & automotive

Key Products

- Air preparation
- Brass fittings & valves
- Manifolds
- Pneumatic accessories
- Pneumatic actuators & grippers
- Pneumatic valves & controls
- Quick disconnects
- Rotary actuators
- Rubber & thermoplastic hose & couplings
- Structural extrusions
- Thermoplastic tubing & fittings
- Vacuum generators, cups & sensors





PROCESS CONTROL

Key Markets

- Chemical & refining
- Food, beverage & dairy
- Medical & dental
- Microelectronics
- Oil & gas
- Power generation

Key Products

- Analytical sample conditioning products & systems
- Fluoropolymer chemical delivery fittings, valves & pumps
- High purity gas delivery fittings, valves & regulators
- Instrumentation fittings, valves & regulators
- Medium pressure fittings & valves
- Process control manifolds



ELECTROMECHANICAL

Key Markets

- Aerospace
- Factory automation
- Life science & medical
- Machine tools
- Packaging machinery
- Paper machinery
- Plastics machinery & converting
- Primary metals
- Semiconductor & electronics
- Textile
- Wire & cable

Key Products

- AC/DC drives & systems
- Electric actuators
- Controllers
- Gantry robots
- Gearheads
- Human machine interfaces
- Industrial PCs
- Inverters
- Linear motors, slides and stages
- Precision stages
- Stepper motors
- Servo motors, drives & controls
- Structural extrusions



FILTRATION

Key Markets

- Food & beverage
- Industrial machinery
- Life sciences
- Marine
- Mobile equipment
- Oil & gas
- Power generation
- Process
- Transportation

Key Products

- Analytical gas generators
- Compressed air & gas filters
- Condition monitoring
- Engine air, fuel & oil filtration & systems
- Hydraulic, lubrication & coolant filters
- Process, chemical, water & microfiltration filters
- Nitrogen, hydrogen & zero air generators



SEALING & SHIELDING

Key Markets

- Aerospace
- Chemical processing
- Consumer
- Energy, oil & gas
- Fluid power
- General industrial
- Information technology
- Life sciences
- Military
- Semiconductor
- Telecommunications
- Transportation

Key Products

- Dynamic seals
- Elastomeric o-rings
- EMI shielding
- Extruded & precision-cut, fabricated elastomeric seals
- Homogeneous & inserted elastomeric shapes
- High temperature metal seals
- Metal & plastic retained composite seals
- Thermal management



FLUID & GAS HANDLING

Key Markets

- Aerospace
- Agriculture
- Bulk chemical handling
- Construction machinery
- Food & beverage
- Fuel & gas delivery
- Industrial machinery
- Mobile
- Oil & gas
- Transportation
- Welding

Key Products

- Brass fittings & valves
- Diagnostic equipment
- Fluid conveyance systems
- Industrial hose
- PTFE & PFA hose, tubing & plastic fittings
- Rubber & thermoplastic hose & couplings
- Tube fittings & adapters
- Quick disconnects

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