



HYDRAULIC HOSE

PRODUCT GUIDE



JASON[®]
INDUSTRIAL



For 6 decades, **Jason Industrial®** has become the go-to source throughout the Americas for industrial hose products serving a broad range of industries while offering a wide portfolio of hose products, couplings and hose accessories. We are now pleased to present our newest product addition, Hydraulic Hose. Within this catalog you will find our range of hydraulic hose products, couplings and crimping equipment.

The cornerstone of Jason Industrial's success has been product quality, outstanding customer service, well stocked inventories, strong B2B tools and smooth logistical planning for partner companies. This will be the same commitment we extend to our hydraulic hose business. Jason Industrial is supported by our central warehouse just outside of Chicago as well as satellite distribution centers in West Caldwell, NJ; Tampa, FL; Dallas, TX; and Bell (LA), CA. Additional stocking centers in the Americas include Montreal Canada, Mexico City, Mexico, Cartagena and Bogota Colombia, Sorocaba Brazil and Lima, Peru.


MyCrimp

Jason Industrial is pleased to provide an easy to use downloadable Mobile App enabling users a quick up to date source showing the right coupling specifications for the hose products we offer. Our App, Jason MyCrimp provides a fast, easy to use tool for obtaining important information to ensure safety by using the right coupling and hose together.

Our App, enables you to search by Hose, Coupling type or crimping equipment to obtain the right specification to ensure you are safely following the right procedures.

More information on our MyCrimp app on pages 190-191.



 **WARNING:** This document is recognized as a Product Brochure with its main intent to be product information. We recognize some items include chemicals that are on the California Prop 65 list effective August 30, 2018. The chemical identified within the hose and couplings included in this document are carbon black, lead and phthalates. For more information visit www.P65WARNINGS.ca.gov



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GUIDELINES - LIABILITY

Jason Industrial Disclaims Any Responsibility or Liability for Any Crimped Hose Assemblies That Have Not Been Made Exclusively from Genuine Jason Hose, Hose Fittings and Approved Equipment. This Is in Conformance with Current Jason Guidelines for Each Specific Hose Assembly.

Jason products are part of an engineered system which must be assembled and used in accordance with Jason instructions and limitations. Jason hose, couplings and crimping machines are a reliable assembly system designed by our engineering group. The use of other than Jason components (hose, couplings, equipment) may produce assemblies that will not meet the rated performance. Failure to follow Jason guidelines could lead to premature hose failures resulting in property damage, serious injury or death.

Jason's limited warranty shall only apply if the customer uses the hose, hose fittings and crimping equipment specifically approved by Jason's engineers.

Jason will not be responsible when interchanging hose and/or couplings with hose and/or couplings with any other manufacturer. Jason's liability ends and customer's begins when data is ignored or altered and products, other than Jason's are assembled together.

Product Liability Responsibility for Such Hose Assemblies Become the Personal Responsibility of the Assembler or the Company Endorsing These Practices.

There is the argument that hoses branded with the same SAE specification are the same and can be interchanged and used with our couplings. That is false! Hose can only be expected to perform to the requirements of SAE when they are assembled with manufacturer approved couplings. This fact is recognized by SAE in their SAE J1273 handbook:

Proper End Fitting – Care must be taken to ensure proper compatibility exists between the hose and coupling selected based on the manufacture's recommendation substantiated by testing to industry standards such as SAE J517.

All Jason customers need to recognize the following critical points:

1. The data supplied with the Jason crimper was developed after extensive testing with Jason hose and couplings.
2. The data that Jason supplies is only good with products bearing the Jason name and catalog part number.
3. Jason couplings, used with other manufacturer's hose, will not necessarily produce an acceptable assembly. Hose styles with identical SAE specs, for instance, are not necessarily the same when come to performance with Jason couplings.
4. Hose compatibility with various materials is a reference only. The purchaser is responsible for the verification of suitability. Consult Jason if there is any doubt.
5. Jason crimpers can only be used to crimp approved Jason hose and couplings.
6. Minimum burst pressure ratings listed in our catalog, are for reference and design purposes only.

Minimum burst pressure ratings give no indication that the product should be used above the indicated rated working pressure.

AIRCRAFT APPLICATION GUIDELINES

There are **no** Jason products that we would endorse to be used in any aircraft applications. Our hose and coupling (includes belts) product lines are not designed for any types of aircraft, including helicopters, commercial or private airplanes, ultra-light planes and lighter-than-air craft.

If the user violates the above policy by using Jason product on an aircraft application, that user assumes the sole and exclusive responsibility and liability and Jason assumes no responsibility or liability regarding same.

AIR BRAKE ASSEMBLY GUIDELINES

Federal law requires registration with the Department of Transportation (DOT) for anyone producing air brake hose assemblies with swaged or crimp fittings. The Jason 5050 series hose has been tested and meets SAE 100R5 and J1402 Type AII/FMVSS 106 requirements with Jason provided 75 Series field attachable (reusable) couplings. Sizes 16 (7/8" bore) and larger are not included in the SAE J1402/FMVSS 106 standards.

Anyone wishing to produce any permanently crimped or swaged assembly used in airbrake systems, is required to perform all required testing to meet the federal standards, including labeling and registering their own unique manufacturing mark with DOT.

SAE J1273 HYDRAULIC GUIDELINES

Foreword - This SAE Recommended Practice is intended as a guide to consider when selecting, routing, fabricating, installing, replacing, maintaining, and storing hose force fluid power systems. It is subject to change to keep pace with experience and technical advances. For those new to hose use in a fluid-power system, this guide outlines practices to note during each phase of system design and use. Experienced designers and users skilled in achieving proper results, as well as the less experienced, can use this outline as a list of considerations to keep in mind.

Fluid power systems are complex and require extensive knowledge of both system requirements and the various types of hose. Therefore, all-inclusive, detailed, step-by-step instructions are not practical and are beyond the scope of this document. Less experienced designers and users who need more information can consult specialists such as hose suppliers and manufacturers. This guide can improve the communication process.

Safety Considerations - These recommended practices involve safety considerations; note these carefully during all phases of design and use of hose systems. Improper selection, fabrication, installation, or maintenance of hose and hose assemblies for fluid-power systems, may result in serious personal injury or property damage. These recommended practices can reduce the likelihood of component or system failure, thereby reducing the risk of injury or damage.

1. Scope - SAE J1273 provides guidelines for selection, routing, fabrication, installation, replacement, maintenance and storage of hose and hose assemblies for fluid-power systems. Many of these SAE Recommended Practices also may be suitable for other hoses and systems.

2. References

2.1 Application Documents - The following publications form a part of this specification to the extent specified herein. Unless otherwise specified, the latest issue of SAE publications shall apply.

- a. SAE J343 - Test and Procedures for SAE 100R Series Hydraulic Hose and Hose Assemblies
- b. SAE J514 - Hydraulic Tube Fittings
- c. SAE J517 - Hydraulic Hose
- d. SAE J1927 - Cumulative Damage Analysis for Hydraulic Hose Assemblies.

2.1.2 ISO Publication - Available from ANSI, 25 W. 43rd St. New York, NY 10036-8002

3. Definitions - These explanations serve only to clarify this document and are not intended to stand alone. They are presented sequentially, with the former helping to explain the latter.

3.1 Fluid Power - Energy transmitted and controlled using pressurized hydraulic fluids or compressed air.

3.2 Hose - Flexible conductor. In this document, the term hose also may refer to a hose assembly with related accessories used in fluid power applications.

3.3 Hose Fitting or Fitting - Connector which can be attached to the end of the hose.

3.4 Hose Assembly - Hose with hose fittings attached.

3.5 Hose Failure - Occurrence in which a hose stops meeting system requirements.

3.6 Hose Service Life - Length of time a hose meets system requirements without needing replacement.

4. Safety Considerations - Listed in 4.1 to 4.7 are some potential conditions and situations that may lead to personal injury and/or property damage. This list is not necessarily all inclusive. Consider reasonable and feasible means, including those described in this section, to reduce the risk of injuries or property damage.

4.1 Fluid Injections - Fine streams of escaping pressurized fluid can penetrate skin and enter a

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human body. These fluid injections may cause severe tissue damage and loss of limb. Consider various means to reduce the risk of fluid injections, particularly in areas normally occupied by operators. Consider careful routing, adjacent components, warnings, guards, shields and training programs. Relieve pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure. Avoid contact with escaping fluids. Treat all leaks as though pressurized and hot enough to burn skin. Never use any part of your body to check for leaks. If a fluid-injection accident occurs, see a doctor immediately. **DO NOT DELAY OR TREAT AS A SIMPLE CUT!** Any fluid injected into the skin must be surgically removed within a few hours, or gangrene may result. Doctors unfamiliar with this type of injury should consult a knowledgeable medical source.

4.2 Whipping Hose - If a pressurized hose assembly blows apart, the fittings can be thrown off at high speed, and the loose hose can flail or whip with great force. This particularly true in compressible fluid systems. When the risk exists, consider guards and restraints to protect against injury.

4.3 Burns from Conveyed Fluids - Most fluid-power media may reach temperatures that can burn the human skin. If there is a risk of burns from escaping fluids, consider guards and shields to prevent injury to prevent injury, particularly in areas normally occupied by operators.

4.4 Fire and Explosions from Conveyed Fluids - Most fluid-power media, including fire-resistant hydraulic fluids, will burn under certain conditions. Fluids which escape from pressurized systems may form a mist or fine spray which can flash or explode upon contact with an ignition source. Consider selecting, guarding and routing hose to minimize the risk of combustion. (See section 5 and ISO 3457).

4.5 Fire and Explosions from Static-Electric Discharge - Fluid passing through hose can

generate static electricity, resulting in static-electric discharge. This may create sparks that can ignite system fluids in the surrounding atmosphere. When this potential exists, select hose specifically designed to carry the static-electric charge to the ground.

4.6 Electrical Shock – Electrocutation could occur if hose conducts electricity through a person. Most hoses are conductive. Many contain metal or have metal fittings. Even non-conductive hoses can be conduits for electricity if they carry conductive fluids. Be aware of routing or using hose near electrical sources. When this cannot be avoided, select appropriate hose. Non-conductive hoses should be considered. SAE J517 – 100R7 and 100R8, with orange covers marked “Non-conductive” are available for applications requiring non-conductive hose.

4.7 Mechanisms Controlled by Fluid Power – Mechanisms controlled by fluids in hoses can become hazardous when a hose fails. For example, when a hose bursts, objects supported by fluid pressure may fall, or vehicles or machines may lose their brakes or steering. If mechanisms are controlled by fluid power, consider safe modes of failure that minimize risks of injury or damage.

5.0 Hose Selection and Routing – A wide variety of interacting factors influence hose service life and the ability of each fluid-power system to operate satisfactorily, and the combined effects of these factors on service life are often unpredictable. Therefore, these documents should not be construed as design standards. For applications outside the specification in SAE J517, SAE J514 or other relevant design standards, performance of hose assemblies should be determined by appropriate testing. Carefully analyze each system. Then design routings and select hose and related components to meet the system-performance and hose-service-life requirements, and to minimize the risks of personal injury and/or property damage.

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Consider the following factors:

5.1 – System Pressures – Excessive pressure can accelerate hose assembly failure. Analyze the steady-state pressure, and the frequency and amplitude of pressure surges, such as pulses and spikes. These are rapid and transient rises in pressure which may not be indicated on many common pressure gauges and can be identified best on high-frequency-response electronic measuring instruments. For maximum hose service life, hose selection should be based on system pressure. Hose may be used above its maximum working pressure where reduced life expectancy is acceptable. SAE J1927 provides one method to help predict wore-reinforced hose service life for a given hydraulic application, where the surge pressure peaks vary, and/or the highest pressure peaks occur infrequently.

5.2 – Suction – For suction applications, such as inlet flow to pumps, select hose to withstand both the negative and positive pressures the system imposes on the hose.

5.3 – External Pressure – In certain applications, such as in autoclaves or under water, the external environment pressures may exceed the fluid pressure inside the hose. In these applications, consider the external pressures, and, if necessary, consult the manufacturers.

5.4 – Temperature – Exceeding hose temperature ratings may significantly reduce hose life. Select hose so the fluid and ambient temperatures, both static and transient, fall within the hose ratings. The effects of external heat sources should not raise the temperature of the hose above its operating maximum temperature. Select hose, heat shields, sleeving and other methods for these requirements, and route or shield hose to avoid hose damage from external heat sources.

5.5 – Permeation – Permeation, or effusion, is seepage of fluid through the hose. Certain materials in hose construction are more permeable

than others. Consider the effects of permeation when selecting hose, especially with gaseous fluid. Consult the hose and fluid manufacturers for permeability information.

5.6 – Hose-Material Compatibility – Variables that can affect compatibility of system fluids with hose materials include, but are not limited to: a) Fluid Pressure, b) Temperature, c) Concentration and d) Duration of Exposure. Because of permeation (see 5.5), consider compatibility of system fluids with the hose, tube, cover, reinforcement and fittings. Consult the fluid and hose manufacturers for compatibility information. NOTE – Many fluid/elastomer compatibility tables in manufacturer's catalogs show ratings based at room temperature (69.8°F / 21°C). These ratings may change at other temperatures. Carefully read the notes on the compatibility tables, and if in doubt, consult the manufacturer.

5.7 – Environment – Environmental conditions can cause hose and fitting degradation. Conditions to evaluate include, but are not limited to: a) Ultraviolet Light, b) Salt Water, c) Air Pollutants, d) Temperature (see 5.4), e) Ozone, f) Chemicals, g) Electricity and h) Abrasion. If necessary, consult the manufacturer for more information.

5.8 – Static-Electric Discharge – Fluid passing through the hose can generate static electricity resulting in static-electric discharge. This may create sparks that can puncture hose. If this potential exists, select hose with sufficient conductivity to carry the static-electric charge to the ground.

5.9 – Sizing – The power transmitted by pressurized fluid varies with pressure and rate of flow. Select hose with adequate size to minimize pressure loss, and to avoid hose damage from heat generation or excessive velocity. Conduct calculations, or consult the manufacturer for sizing at flow velocities.

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5.10 – Unintended Uses – Hose assemblies are designed for the internal forces of conducted fluids. Do not pull hose or use it for purposes that may apply external forces for which the hose or fittings were not designed.

5.11 – Specifications and Standards – When selecting hose and fittings for specific applications, refer to applicable government, industry and manufacturer's specifications and standards.

5.12 – Unusual Applications – Applications not addressed by the manufacturer or by industry standards, may require special testing prior to selecting a hose.

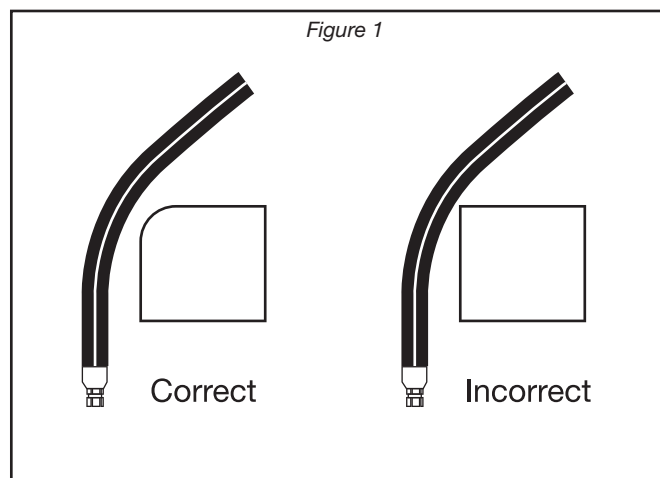
5.13 – Hose Cleanliness – The cleanliness requirements of system components, other than hose, will determine the cleanliness requirements of the application. Consult the components manufacturer's cleanliness information for all components in the system. Hose assemblies vary in cleanliness levels; therefore, specify hose assemblies with adequate cleanliness for the system.

5.14 – Hose Fittings – Selection of the proper hose fittings for the hose and application is essential for proper operation and safe use of hose and related assembly equipment. Hose fittings are qualified with the hose. Therefore, select only hose fittings compatible with the hose for the applications. Improper selection of hose fittings or related assembly equipment for the application can result in injury or damage from leaks, or from hose assemblies blowing apart. (See 4.2, 6.2, 6.3 and 6.4).

5.15 – Vibration – Vibration can reduce hose service life. If required, conduct tests to evaluate the frequency and amplitude of system vibration. Clamps or other means may be used to reduce the effects of vibration. Consider the vibration requirements when selecting hose and predicting service life.

5.16 – Hose Cover Protection – Protect the hose cover from abrasion, erosion, snagging and cutting. Special abrasion-resistant hoses and hose guards

are available for additional protection. Route hose to reduce abrasion from hose rubbing other hose or objects that may abrade it. (See Figure 1).



5.17 – Physical Abuse – Route hose to avoid: a) Tensile Loads, b) Side Loads, c) Flattening, d) Thread Damage, e) Kinking, f) Damage to Sealing Surfaces, g) Abrasion and h) Twisting.

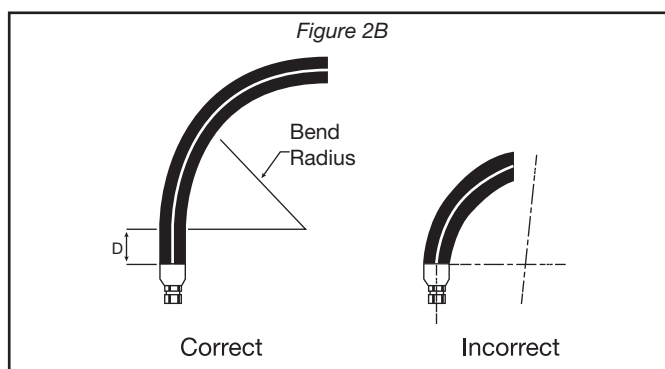
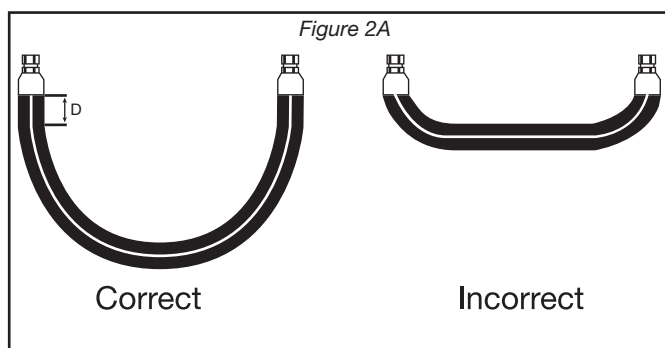
5.18 – Swivel-Type Adapters – Swivel-type fittings or adapters do not transfer torque to hose while being tightened. Use these as needed to prevent twisting during installation.

5.19 – Live Swivels – If two components in the system are rotating in relation to each other, live swivels may be necessary. These connectors reduce the torque transmitted to the hose.

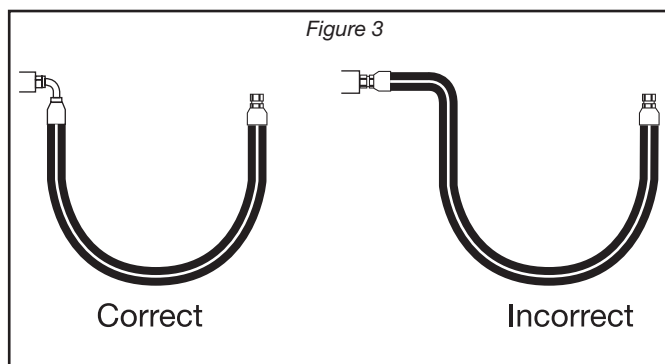
5.20 – Slings and Clamps – Use slings and clamps to support heavy or long hose and to keep it away from moving parts. Use clamps that prevent hose movement that will cause abrasion.

5.21 – Minimum Bend Radius – The minimum bend radius is defined in SAE J343 and is specified in other SAE standards and hose manufacturer's product literature. Routing at less than minimum bend radius may reduce hose life. Sharp bending at the hose/fitting juncture may result in leaking, hose rupturing or in the hose assembly blowing apart. (See 4.2 and Figures 2A and 2B).

SAE J1273 HYDRAULIC GUIDELINES

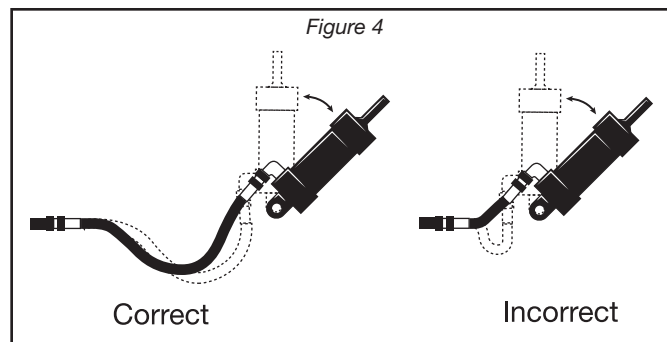


5.22 – Elbows and Adapters – In special cases, use elbows or adapters to relieve hose strain. (See Figure 3).

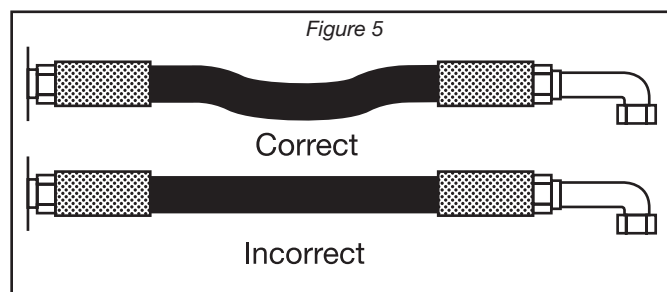


5.23 – Lengths – Unnecessarily long hose can increase pressure drop and affect system performance. When pressurized, hose that is too short may pull loose from its fittings, or stress the fitting connections, causing premature metallic or seal failures. When establishing hose length, refer to Figures 4, 5 and 6. Use the following practices:

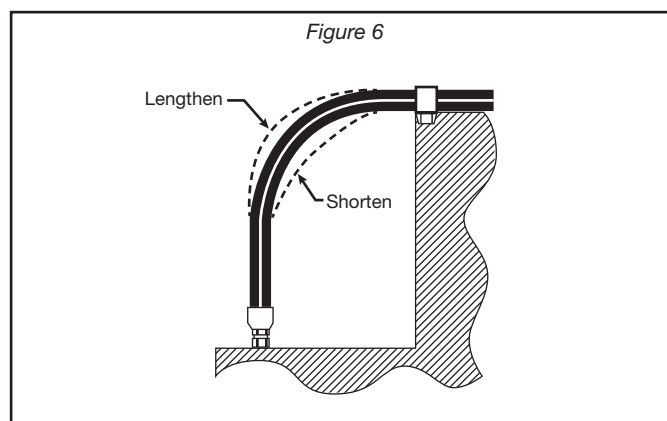
5.23.1 – Motion Absorption – Provide adequate hose length to distribute movement and prevent bends smaller than the minimum bend radius.



5.23.2 – Hose and Machine Tolerances – Design hose to allow for changes in length due to machine motion and tolerances.



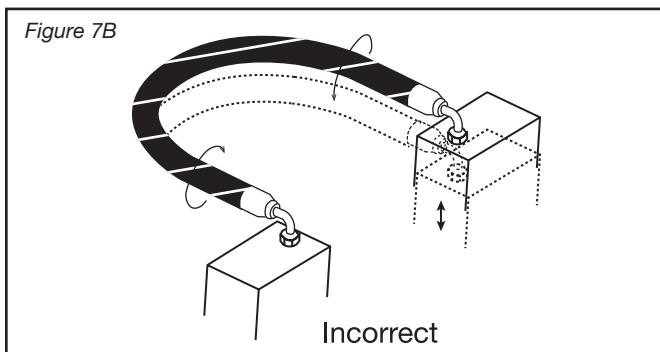
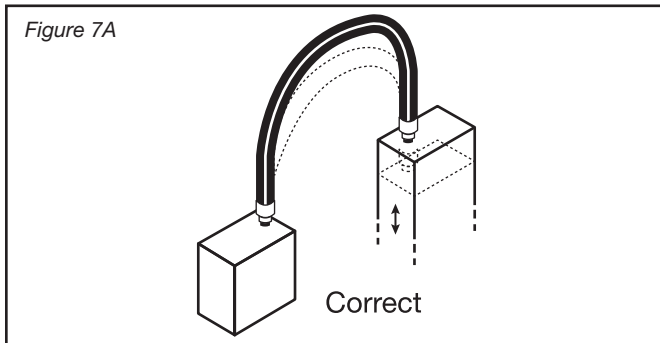
5.23.3 – Hose Length Change Due to Pressure – Design hose to accommodate length changes from changing pressures. DO NOT cross or clamp together high and low pressure hoses. The difference in length changes could wear the hose covers.



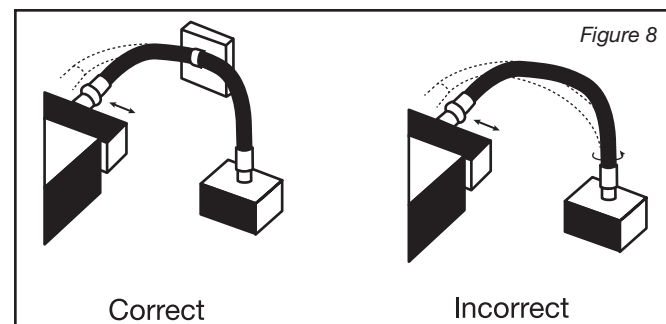
SAE J1273 HYDRAULIC GUIDELINES

5.24 – Hose Movement and Bending – Hose allows relative motion between system components. Analyze this motion when designing hose systems. The number of cycles may significantly affect hose life. Also avoid multiple planes of motion and twisting motion. Consider the motion of the hose when selecting hose and predictable service life. In applications that require hose to move or bend, refer to Figures 7A, 7B and 8, and use these practices:

5.24.1 – Bend in Only One Plane to Avoid Twisting.



5.24.2 – Prevent Hose Bending in More Than One Plane – if the hose follows a compound bend, couple it into separate segments that flex only in one place.



6. Hose-Assembly Fabrication – Persons fabricating hose assemblies should be trained in the proper use of equipment and materials. The

manufacturers' instructions and the practices listed as follows must be followed. Properly assembled fittings are vital to the integrity of a hose assembly. Improperly assembled fittings can separate from the hose and may cause serious injury or property damage from whipping hose, or from fire or explosion of vapor expelled from the hose.

6.1 – Component Inspection – Prior to assembly, examine components for:

- | | |
|------------------------|--------------------|
| a) Style or type | g) Visible defects |
| b) Cleanliness | h) Damage |
| c) Loose covers | i) Length |
| d) Nicks | j) Blisters |
| e) Inside obstructions | k) Burrs |
| f) Size | |

6.2 – Hose Fittings – Hose fitting components from one manufacturer are not usually compatible with fitting components supplied by another manufacturer. For example, do not use a hose fitting nipple from one manufacturer with a hose socket from another manufacturer. It is the responsibility of the fabricator to consult the manufacturer's written instructions or the manufacturer directly for information on proper fitting components.

6.3 – Hose and Fitting Compatibility – Care must be taken to determine proper compatibility between the hose and the fitting. Base selection on the manufacturer's recommendations substantiated by testing to industry standards, such as SAE J517. Hose from one manufacturer is not usually compatible with fittings from another. Do not intermix hose and fittings from two manufacturers without approval from both manufacturers.

6.4 – Hose Assembly Equipment –

Assembly equipment from one manufacturer is usually not interchangeable with that from another manufacturer. Hose and fittings from one manufacturer should not generally be assembled with the equipment of another manufacturer.

6.5 – Safety Equipment – During fabrication, use proper safety equipment, including eye protection, breathing apparatus and adequate ventilation.

SAE J1273 HYDRAULIC GUIDELINES

6.6 – Reuse of Hose and Fittings – When fabricating hose assemblies, do not reuse:

- Field-attachable (reusable) fittings that have blown or pulled off the hose.
- Any part of hose fittings that were permanently crimped or swaged to hose.
- Hose that has been in service after system checkout (see 7.7)

6.7 – Cleanliness of Hose Assemblies –

Hose assemblies may be contaminated during fabrication. Clean hoses to specified cleanliness levels (see 5.13).

7. Hose Installation and Replacement – Use the following practices when installing hose assemblies in new systems or replacing hose assemblies in existing systems:

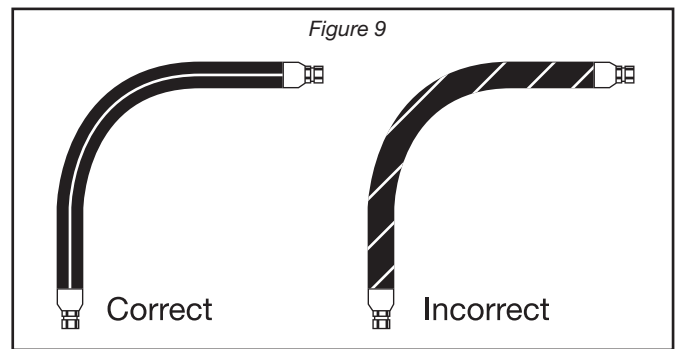
7.1 – Pre-Installation Inspection – Before installing hose assemblies, examine:

- Hose length and routing for compliance with original design.
- Assemblies for correct style, size, length and visible non-conformities.
- Fitting sealing surfaces for burrs, nicks or other damage.

NOTE: When replacing hose assemblies in existing systems, verify that the replacement is of equal quality to the original assembly.

7.2 – Handling During Installation – Handle hose with care during installation. Kinking hose, or bending at less than minimum bend radius may reduce hose life. Avoid sharp bending at the hose/fitting juncture. (See 5.21).

7.3 – Twist Angle and Orientation – Pressure applied to a twisted hose may shorten the life of the hose or loosen the connections. To avoid twisting, use the lay line or marking as a reference (see Figure 9).



7.4 – Securement and Protection – Install necessary restraints and protective devices. Determine that such devices do not create additional stress or wear points.

7.5 – Routing – Review proper routing practices provided in Section 5 and make appropriate corrections to obtain optimum performance.

7.6 – Assembly Torque – The connection end of a hose fitting is normally threaded to obtain tight pressure seal when attached to a port, an adapter or another fitting. Sometimes bolts or screws provide the threaded connection. Each size and type of connection requires different torque values, and these may vary due to type of material or exterior coating. Follow appropriate torqueing instructions to obtain a proper pressure seal without over-torqueing. A properly calibrated torque wrench should be used to tighten each connection, except when the manufacturer specifies tightening a specified number of hex flat turns beyond finger tight to obtain a seal.

7.7 – System Checkouts – In hydraulic or other liquid systems, eliminate all air entrapment after completing the installation. Follow manufacturers' instructions to test the system for possible malfunctions and leaks.

7.7.1 – To avoid injury during system checkouts:

- Do not touch any part of the system when checking for leaks (see 4.1).
- Stay out of potentially hazardous areas while testing hose systems (see Section 4).
- Relieve system pressure before tightening connections.

8. Maintenance Inspection – A hose and fitting maintenance program may reduce equipment downtime, maintain peak operating performance, and reduce the risk of personal injury and/or property damage. The user should design and implement a maintenance program that suits a specific application and each specific hose in that application.

8.1 – Inspection Frequency – Evaluate factors such as the nature and severity of the application, past history and manufacturers' information to establish the frequency of visual inspections and functional tests.

8.2 – Visual Inspection (Hose & Fittings) –

Visually inspect hose and fittings for:

- a. Leaks at the hose fitting or in the hose
- b. Damaged, cut or abraded cover
- c. Exposed reinforcement
- d. Kinked, crushed, flattened or twisted hose
- e. Hard, stiff, heat cracked or charred hose
- f. Blistered, soft, degraded or loose cover
- g. Cracked, damaged or badly corroded fittings
- h. Fitting slippage on hose
- i. Other signs of significant deterioration

If any of these conditions exist, evaluate those hose assemblies for correction or replacement.

8.3 – Visual Inspection (All Other Components)

– When visually inspecting hose and fittings, inspect for related items including:

- a. Leaking ports
- b. Damaged or missing hose clamps, guards or shields
- c. Excessive dirt and debris around hose.
- d. System fluid: level, type, contamination, condition and air entrainment.

If any of these are found, address them appropriately.

8.4 – Functional Test – Functional tests determine if systems with hose are leak free and operating properly. Carry out functional tests per information from equipment manufacturers.

9. Hose Storage – Age control and the manner of storage can affect hose life. Use the following practices when storing hose.

9.1 – Age Control – Maintain a system of age control to determine that hose is used before its shelf life has expired. Shelf life is the period of time when it is reasonable to expect the hose to retain full capabilities for rendering the intended service. Store in a manner that facilitates age control and first-in, first-out usage based on manufacturing date on the hose or hose assembly. Per SAE J517:

- a. Shelf life of rubber hose in bulk form, or in hose assemblies passing visual inspection and proof test, is forty quarters (ten years) from the date of manufacture.
- b. Shelf life of thermoplastic and PTFE hose is considered to be unlimited.

9.2 – Storage – Store hose and hose assemblies in a cool, dark, dry area with ends capped. When storing hose, take care to avoid damage that could reduce hose life, and follow the manufacturers' information for storage and shelf life. Examples of factors that can adversely affect hose products in storage are:

- | | |
|--------------------------------|--------------------------|
| a. Temperature | f. Humidity |
| b. Ozone | g. Ultraviolet light |
| c. Oils | h. Solvents |
| d. Corrosive liquids and fumes | i. Insects |
| e. Rodents | j. Radioactive materials |

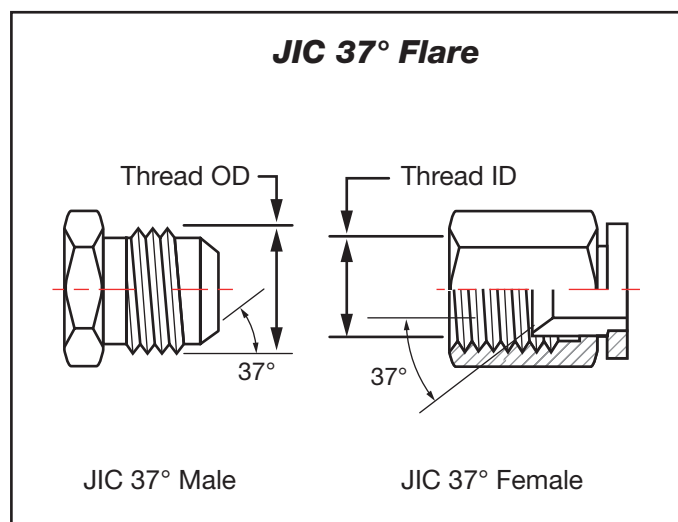
If there are any questions regarding the quality or usability of hose or hose assemblies, evaluate appropriately:

- a. Flex the hose to the minimum bend radius and compare it with new hose. After flexing, examine the cover and tube for cracks. If any appear, no matter how small, reject the hose.
- b. If the hose is wire reinforced, and the hose is unusually stiff, or a cracking sound is heard during flexing, check for rust by cutting away a section of the cover from a sample. Rust would be another reason for rejection.
- c. If doubt still persists, contact hose assembler to conduct proof-pressure tests or any other tests needed to verify hose quality.

Prepared by the SAE Fluid Conductors and Connectors Technical Committee SC3-Training and Education Committee

SAE J514, 37° Flare

This connection is widely used in many hydraulic systems. It is commonly referred to as a JIC 37° Flare. When the straight threads are engaged, the 37° male seats on the 37° female flare seat.

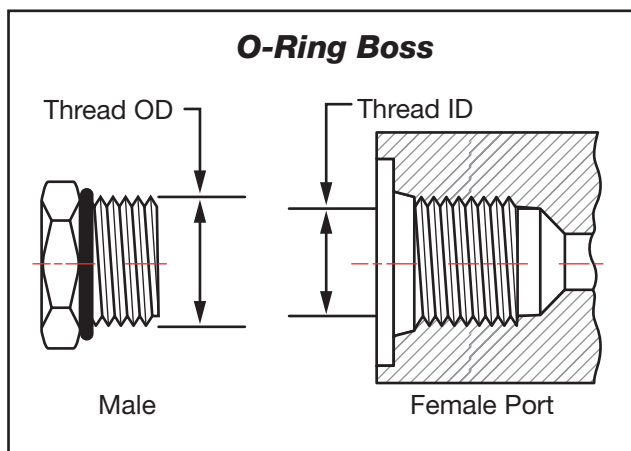


SAE J514 37° JIC Flare Thread Size and Maximum Working Pressure

SAE Dash Size	Tube Outside Diameter		Thread Size	Male Thread Outside Diameter		Female Thread Inside Diameter		Threads, Unions & Bulkheads		Threads and Female Swivels	
	inch	mm		inch	mm	inch	mm	PSI	BAR	PSI	BAR
-02	0.125	3.18	5/16-24	0.31	7.9	0.27	6.9	5000	344.8	5000	344.8
-03	0.188	4.76	3/8-24	0.38	9.6	0.34	8.6	5000	344.8	5000	344.8
-04	0.250	6.35	7/16-20	0.44	11.2	0.39	9.9	5000	344.8	4500	310.3
-05	0.313	7.94	1/2-20	0.50	12.7	0.45	11.4	5000	344.8	4000	275.8
-06	0.375	9.52	9/16-18	0.56	14.2	0.51	12.9	5000	344.8	4000	275.8
-08	0.500	12.70	3/4-16	0.75	19.0	0.67	17.0	4500	310.3	4000	275.8
-10	0.625	15.88	7/8-14	0.88	22.3	0.80	20.3	3500	241.3	3000	206.9
-12	0.750	19.05	1-1/16-12	1.06	26.9	0.98	24.9	3500	241.3	3000	206.9
-14	0.875	22.22	1-3/16-12	1.18	30.0	1.09	27.7	3000	206.9	2500	172.4
-16	1.000	25.40	1-5/16-12	1.31	33.3	1.22	31.0	3000	206.9	2500	172.4
-20	1.250	31.75	1-5/8-12	1.63	41.4	1.54	39.1	2500	172.4	2000	137.9
-24	1.500	38.10	1-7/8-12	1.88	47.7	1.79	45.5	2000	137.9	1500	103.4
-32	2.000	50.80	2-1/2-12	2.50	63.5	2.41	61.2	1500	103.4	1125	77.6

SAE J514 Straight Thread O-Ring Boss

The Straight thread connection uses the same threads as the JIC 37° flare. Instead, the 37° flare has been removed and an o-ring added. When mated to a female o-ring boss port, the o-ring is trapped in a special tapered counterbore to effect the seal.

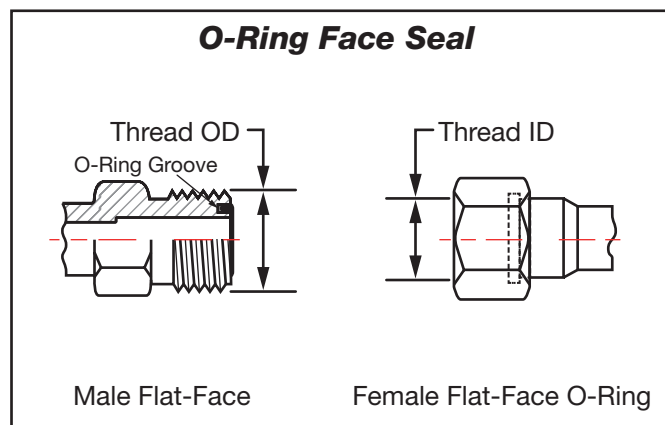


SAE J514 O-Ring Boss Thread Size and Maximum Working Pressure

SAE Dash Size	Tube Outside Diameter		Thread Size	Male Thread Outside Diameter		Female Thread Inside Diameter		Threads, Unions & Bulkheads		Threads and Female Swivels	
	inch	mm		inch	mm	inch	mm	PSI	BAR	PSI	BAR
-02	0.125	3.18	5/16-24	0.31	7.9	0.27	6.9	5000	344.8	5000	344.8
-03	0.188	4.76	3/8-24	0.38	9.6	0.34	8.6	5000	344.8	5000	344.8
-04	0.250	6.35	7/16-20	0.44	11.2	0.39	9.9	5000	344.8	4500	310.3
-05	0.313	7.94	1/2-20	0.50	12.7	0.45	11.4	5000	344.8	4000	275.8
-06	0.375	9.52	9/16-18	0.56	14.2	0.51	12.9	5000	344.8	4000	275.8
-08	0.500	12.70	3/4-16	0.75	19.0	0.67	17.0	4500	310.3	4000	275.8
-10	0.625	15.88	7/8-14	0.88	22.3	0.80	20.3	3500	241.3	3000	206.9
-12	0.750	19.05	1-1/16-12	1.06	26.9	0.98	24.9	3500	241.3	3000	206.9
-14	0.875	22.22	1-3/16-12	1.18	30.0	1.09	27.7	3000	206.9	2500	172.4
-16	1.000	25.40	1-5/16-12	1.31	33.3	1.22	31.0	3000	206.9	2500	172.4
-20	1.250	31.75	1-5/8-12	1.63	41.4	1.54	39.1	2500	172.4	2000	137.9
-24	1.500	38.10	1-7/8-12	1.88	47.7	1.79	45.5	2000	137.9	1500	103.4
-32	2.000	50.80	2-1/2-12	2.50	63.5	2.41	61.2	1500	103.4	1125	77.6

SAE J1453 O-Ring Face Seal

This connection can handle up to 6,000 PSI and is designed to be leak-free. The O-Ring in the face of the straight thread male end seals against the flat face female seat and is mechanically held in place by a swivel female nut.



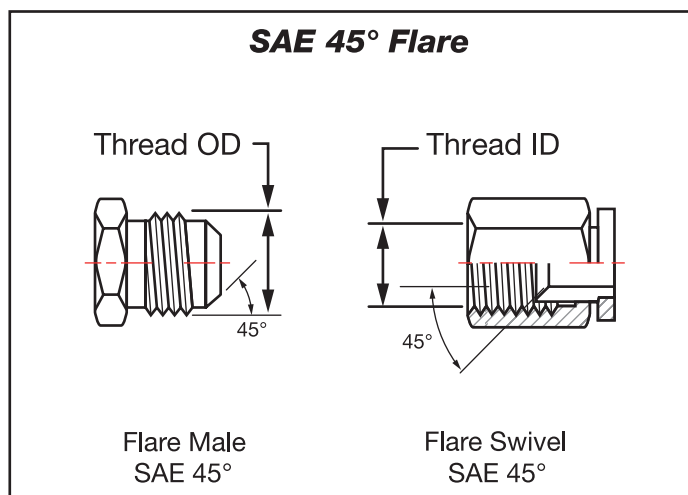
SAE J1453 O-Ring Face Seal Thread Size and Maximum Working Pressure

SAE Dash Size	Tube Outside Diameter		Thread Size	Male Thread Outside Diameter		Female Thread Inside Diameter		Threads, Unions & Bulkheads		Threads and Female Swivels	
	inch	mm		inch	mm	inch	mm	PSI	BAR	PSI	BAR
-04	0.250	6.35	9/16-20	0.56	14.2	0.51	12.9	6000	413.7	6000	413.7
-06	0.375	9.52	11/16-16	0.68	17.3	0.63	16.0	6000	413.7	6000	413.7
-08	0.500	12.70	13/16-16	0.81	20.6	0.75	19.0	6000	413.7	6000	413.7
-10	0.625	15.88	1-14	1.00	25.4	0.93	23.6	6000	413.7	6000	413.7
-12	0.750	19.05	1-3/16-12	1.18	30.0	1.10	27.8	6000	413.7	6000	413.7
-16	1.000	25.40	1-7/16-12	1.44	36.6	1.36	34.5	6000	413.7	5000	344.8
-20	1.250	31.75	1-11/16-12	1.68	42.7	1.60	40.6	4000	275.8	4000	275.8
-24	1.500	38.10	2-12	2.00	50.8	1.92	48.8	4000	275.8	3000	206.9

SAE J512, 45° Flare

The SAE 45° flare connectors seat in the same manner and are similar to the 37° connectors except for the flare angle the 45° connectors are commonly found in automotive applications, on brass adapters,

and are generally used at lower pressures than the 37° flare fittings. Many sizes have threads identical to those on JIC 37° connectors. Check the threads and flares carefully to make positive identification.



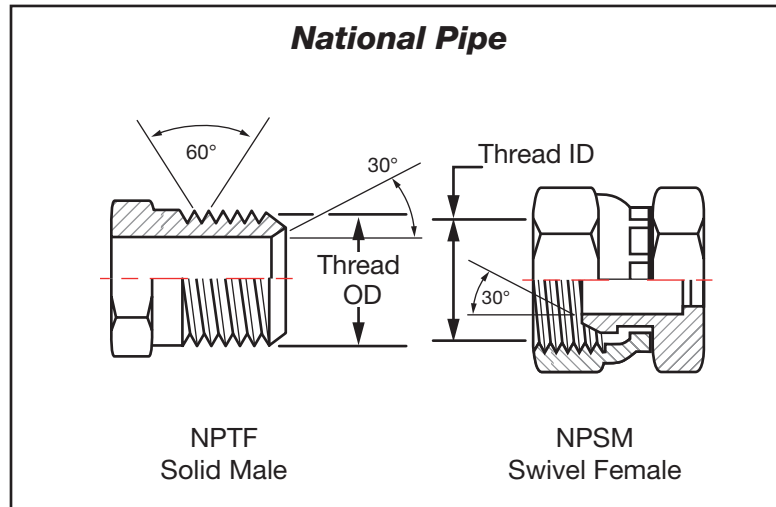
SAE J514 O-Ring Boss Thread Size and Maximum Working Pressure

SAE Dash Size	Tube Outside Diameter		Thread Size	Male Thread Outside Diameter		Female Thread Inside Diameter		Threads, Unions & Bulkheads		Threads and Female Swivels	
	inch	mm		inch	mm	inch	mm	PSI	BAR	PSI	BAR
-02	0.125	3.18	5/16-24	0.31	7.9	0.27	6.9	5000	344.8	5000	344.8
-03	0.188	4.76	3/8-24	0.38	9.6	0.34	8.6	5000	344.8	5000	344.8
-04	0.250	6.35	7/16-20	0.44	11.2	0.39	9.9	5000	344.8	4500	310.3
-05	0.313	7.94	1/2-20	0.50	12.7	0.45	11.4	4250	293.0	4000	275.8
-06	0.375	9.52	5/8-18	0.62	15.7	0.56	14.2	4000	275.8	4000	275.8
-08	0.500	12.70	3/4-16	0.75	19.0	0.68	17.0	3500	241.3	3500	241.3
-10	0.625	15.88	7/8-14	0.88	22.3	0.80	20.3	2750	189.6	2750	189.6
-12	0.750	19.05	1-1/16-14	1.06	26.9	0.99	25.1	2250	155.1	2250	155.1
-14	0.875	22.22	1-1/4-12	1.25	31.7	1.16	29.5	2000	137.9	2000	137.9
-16	1.000	25.40	1-3/8-12	1.38	35.0	1.28	32.5	2000	137.9	2000	137.9

American Pipe Threads (NPTF & NPSM)

One of the most commonly used connections, this coupling incorporates 2 methods of sealing. The male NPTF (Dryseal) tapered thread will mate with the NPTF tapered female, which is usually a port. They seal when the special threads are crushed together. Male PTF (short Dryseal) are identical to male NPTF threads except that the thread length has been shortened by one full thread from the small end

of the taper. Additional sealing aids such as thread sealant and PTFE tape are often used with these threads. If the male has a 30° seat, it will mate with a 30° cone seat in the NPSM straight thread swivel female, usually found on adapters. It is mechanically held together by the threads. NPTF and NPSM threads are not interchangeable with British pipe threads.



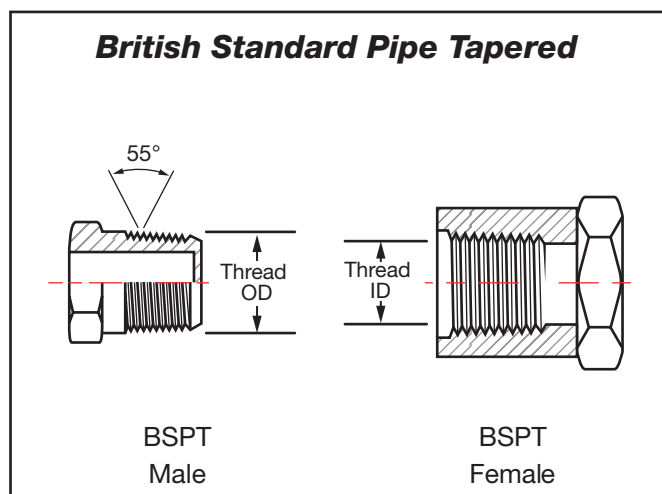
American Dryseal Pipe Threads Seal Thread Size and Maximum Working Pressure

SAE Dash Size	Tube Outside Diameter		Thread Size	Male Thread Outside Diameter		Female Thread Inside Diameter		Couplings With Pipe Threads	
	inch	mm		inch	mm	inch	mm	PSI	BAR
-02	0.125	3.18	1/8-27	0.41	10.3	0.37	9.4	5000	344.8
-04	0.250	6.35	1/4-18	0.54	13.7	0.49	12.4	4000	275.8
-06	0.375	9.52	3/8-18	0.68	17.3	0.62	15.7	3000	206.9
-08	0.500	12.70	1/2-14	0.84	21.3	0.76	19.3	3000	206.9
-12	0.750	19.05	3/4-14	1.06	26.9	0.98	24.9	2500	172.4
-16	1.000	25.40	1-11-1/2	1.31	33.3	1.24	31.5	2000	137.9
-20	1.250	31.75	1-1/4-11-1/2	1.66	42.2	1.58	40.1	1150	79.3
-24	1.500	38.10	1-1/2-11-1/2	1.90	48.3	1.82	46.2	1000	69.0
-32	2.000	50.80	2-11-1/2	2.38	60.4	2.28	57.9	1000	69.0

British Standard Pipe - BSP

The British BSP connections include two types of threads, BSPP, which are straight (or parallel) and BSPT, which are tapered. The BSPT tapered male will mate with a BSPT tapered female (usually a port) and seals on the threads. The BSPP parallel male has a 30° chamfered seat which seals with a BSPP

swivel female on its 30° cone seat. This is similar to the American NPSM-NPTF connection. However, the BSPP swivel female end is commonly found on couplings. The BSP threads are similar to, but not interchangeable with the American NPTF pipe threads.

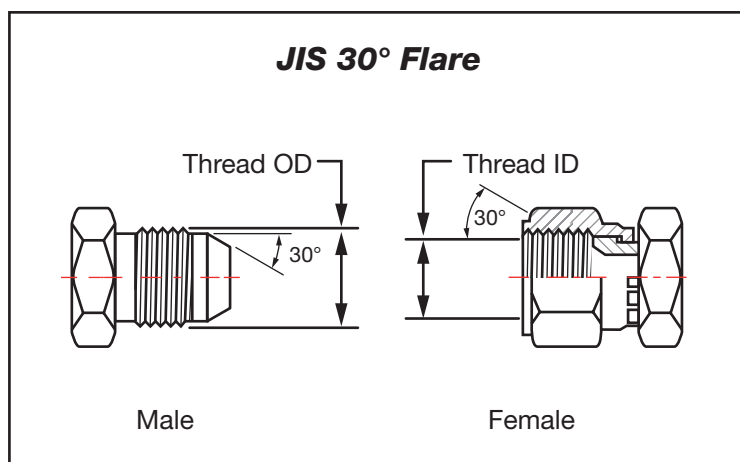


British Standard Pipe Thread

SAE Dash Size	Tube Outside Diameter		Thread Size	Male Thread Outside Diameter		Female Thread Inside Diameter	
	inch	mm		inch	mm	inch	mm
-02	0.125	3.18	1/8-28	0.41	10.3	0.37	9.4
-04	0.250	6.35	1/4-19	0.54	13.7	0.49	12.4
-06	0.375	9.52	3/8-19	0.68	17.3	0.62	15.7
-08	0.500	12.70	1/2-14	0.84	21.3	0.76	19.3
-10	0.625	15.90	5/8-14	0.90	22.9	0.83	21.1
-12	0.750	19.05	3/4-14	1.06	26.9	0.98	24.9
-16	1.000	25.40	1-11	1.31	33.3	1.24	31.5
-20	1.250	31.75	1-1/4-11	1.66	42.2	1.58	40.1
-24	1.500	38.10	1-1/2-11	1.90	48.3	1.82	46.2
-32	2.000	50.80	2-11	2.38	60.4	2.28	57.9

JIS 30° Flare with Parallel Pipe Threads

With the exception of the 30° seat, this connector is similar to the American JIC 37° flare. The straight parallel pipe threads are the same as BSPP.

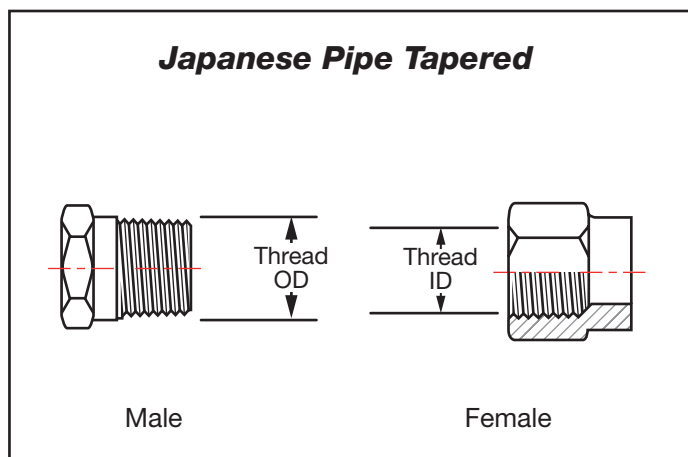


JIS 30° Flare with Parallel Pipe Threads Size

SAE Dash Size	Tube Outside Diameter		JIS/BSPP Thread Size	Male Thread Outside Diameter		Female Thread Inside Diameter	
	inch	mm		inch	mm	inch	mm
-02	0.125	3.18	1/8-28	0.37	9.4	0.32	8.1
-04	0.250	6.35	1/4-19	0.53	13.7	0.49	12.4
-06	0.375	9.52	3/8-19	0.68	17.2	0.62	16.0
-08	0.500	12.70	1/2-14	0.84	21.5	0.77	19.8
-10	0.625	15.88	5/8-14	0.91	23.1	0.81	20.6
-12	0.750	19.05	3/4-14	1.06	26.9	1.00	25.4
-16	1.000	25.40	1-11	1.34	34.0	1.25	31.8
-20	1.250	31.75	1-1/4-11	1.68	42.6	1.59	40.4
-24	1.500	38.10	1-1/2-11	1.90	48.5	1.81	46.2
-32	2.000	50.80	2-11	2.37	60.4	2.29	58.2

JIS Tapered Pipe Thread

The JIS tapered pipe thread is identical and interchangeable with the British BSPT tapered pipe thread. However, the male end does not have a 60° chamfer and will only seal when the threads are crushed together in an appropriate JIS or BSP port.



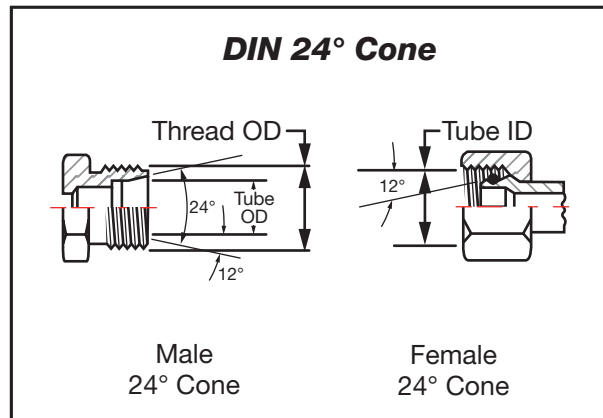
JIS Tapered Pipe Threads Size

SAE Dash Size	Tube Outside Diameter		JIS/BSPP Thread Size	Male Thread Outside Diameter		Female Thread Inside Diameter	
	inch	mm		inch	mm	inch	mm
-02	0.125	3.18	1/8-28	0.37	9.4	0.32	8.1
-04	0.250	6.35	1/4-19	0.53	13.7	0.49	12.4
-06	0.375	9.52	3/8-19	0.68	17.2	0.62	16.0
-08	0.500	12.70	1/2-14	0.84	21.5	0.77	19.8
-10	0.625	15.88	5/8-14	0.91	23.1	0.81	20.6
-12	0.750	19.05	3/4-14	1.06	26.9	1.00	25.4
-16	1.000	25.40	1-11	1.34	34.0	1.25	31.8
-20	1.250	31.75	1-1/4-11	1.68	42.6	1.59	40.4
-24	1.500	38.10	1-1/2-11	1.90	48.5	1.81	46.2
-32	2.000	50.80	2-11	2.37	60.4	2.29	58.2

DIN 24° Cone

The DIN 24° Cone male will mate with any of the females shown. The male has a 24° seat, straight, metric threads. It has a recessed counterbore which matches the tube O.D. of the coupling used with it. The mating female is a 24° cone with an O-Ring, a metric tube fitting or a universal 24°/60° cone. There is a light (L) and heavy (S) series DIN coupling. Proper

identification is made by measuring both the thread size and the tube O.D. The heavy series has a smaller tube O.D. but a thicker wall section than the light. When measuring the flare angle with the seat angle gauge, use the 12° gauge. The seat angle gauge measures the angle from the connector centerline.



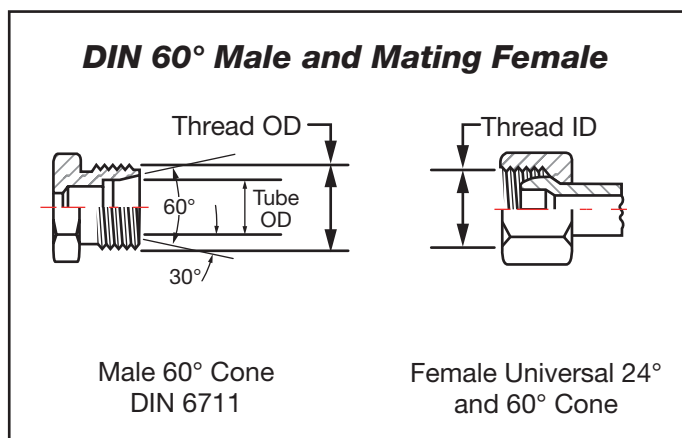
DIN 24° Cone Threads Size

Metric Thread Size	Female Thread Inside Diameter	Male Thread Tube Outside Diameter	Tube Outside Diameter		Torque Recommendations Foot Pounds	
			Light Series	Heavy Series	minimum	maximum
	mm	mm	mm	mm		
M12-1.5	10.5	12.0	6	-	7	15
M14-1.5	12.5	14.0	8	-	15	26
M16-1.5	14.5	16.0	10	8	18	30
M18-1.5	16.5	18.0	12	10	22	33
M20-1.5	18.5	20.0	14	12	26	37
M22-1.5	20.5	22.0	15	14	30	52
M24-1.5	22.5	24.0	-	16	30	52
M26-1.5	24.5	26.0	18	-	44	74
M30-2.0	28.0	30.0	22	20	59	89
M36-2.0	34.0	36.0	28	25	74	111
M42-2.0	40.0	42.0	-	30	74	162
M45-2.0	43.0	45.0	35	-	133	184
M52-2.0	50.0	52.0	42	38	148	221

DIN 60° Cone

The DIN 60° cone male will mate with the female universal 24° or 60° cone connector only. The male has a 60° seat and straight metric threads. The female has a 24° and 60° universal seat and straight

metric threads. When measuring the flare angle with the seat angle gauge, use the 30° gauge. The seat angle gauge measures the angle from connector centerline.



DIN 60° Cone Threads Size

Metric Thread Size	Female Thread Inside Diameter	Male Thread Outside Diameter	Tube Outside Diameter		Torque Recommendations Foot Pounds	
			Light Series	Heavy Series	Minimum	Maximum
			mm	mm		
M12-1.5	10.5	12.0	6	-	7	15
M14-1.5	12.5	14.0	8	-	15	26
M16-1.5	14.5	16.0	10	8	18	30
M18-1.5	16.5	18.0	12	10	22	33
M20-1.5	18.5	20.0	14	12	26	37
M22-1.5	20.5	22.0	15	14	30	52
M24-1.5	22.5	24.0	-	16	30	52
M26-1.5	24.5	26.0	18	-	44	74
M30-2.0	28.0	30.0	22	20	59	89
M36-2.0	34.0	36.0	28	25	74	111
M42-2.0	40.0	42.0	-	30	74	162
M45-2.0	43.0	45.0	35	-	133	184
M52-2.0	50.0	52.0	42	38	148	221

S.T.A.M.P.E.D. PROCESS

We encourage using the STAMPED process to assist in determining the correct hose, coupling, and attachment method. It is critical in order to realize a safe hydraulic system.

S.T.A.M.P.E.D. is an acronym. It stands for the 7 major information areas required to provide a quality hose assembly for the customer, as follows:

S stands for **Size**; I.D. and length; any O.D. constraints

- Overall length should be specified to include fittings
- **Inside Diameter** - the I.D. of the hose must be adequate to keep pressure loss to a minimum and avoid damage to the hose due to heat generation or excessive turbulence.
- **Flow Rate/Fluid Velocity** - The flow rate of the system in conjunction with the inside diameter of the hose will dictate the fluid velocity through the hose. Typical fluid velocities can be seen in the nomographic chart on page 30. Please note that suction line recommendations are different than pressure lines.

T stands for **Temperature**: Temperature of both the fluid conveyed and the environmental conditions.

Two areas of temperature must be considered: fluid temperature and ambient temperature. The hose selected must be capable of withstanding the minimum and maximum temperature seen by the system. Care must be taken when routing near hot manifolds, and in extreme cases, a heat shield may be advisable.

- **Maximum Intermittent Ambient Temperature**: Hose constructions which use a rubber inner tube and/or cover, can have significant change in properties when exposed to extreme heat or cold. This may

require some hoses to be rated to a lower operating pressure when exposed to such conditions.

- **Fluid Temperature**: The fluid temperature is the temperature of the fluid being conveyed inside the hose during operation.
- **Ambient Temperature**: The ambient temperature is the temperature of the environment to which the hose assembly is exposed.
- **Maximum Temperature**: The maximum temperature is the highest temperature to which the fluid or the environment may reach. The temperature is typically short in duration and occurs under extreme operating conditions. The hose selected for an application should be rated at or above the maximum ambient and maximum fluid temperature.
- **Minimum Temperature**: This is the lowest temperature to which the hose assembly will be exposed. For a hydraulic system, this is based on the minimum ambient temperature. A hose should be rated at or below the minimum ambient temperature to which the assembly may be exposed.

A stands for **Application**: The conditions under which the hose assembly will be used.

The type of application in which a hose assembly will be used is very important in determining

what type of hose should be selected. The most common types of applications are listed below:

- **High Impulse:** Hydraulic system is subjected to frequent pressure spikes.
- **Low Impulse:** Hydraulic system is seldom subjected to pressure spikes.
- **Non-Flexing Applications:** Hose assemblies are not subjected to bending or flexing from articulation of the equipment.
- **Flexing Applications:** Hose assemblies are subjected to bending or flexing due to articulation or movement of the equipment.

Static discharge can become an issue when non-polar liquids or mixtures including non-polar liquids are conveyed in non-conductive hose. A static charge will build, and on discharge, perforate the hose tube. To avoid this, use conductive tube products when conveying non-polar, or mixtures of non-polar liquids.

Electrical conductivity of hydraulic hoses or conveyed fluids is an issue with equipment used to work around electrical lines. If hydraulic equipment is to be used around electrical lines, always use hydraulic hoses rated as non-conductive.

Be sure to select products that will meet any regulatory standards required in the application. Examples of these standards would include: SAE, USCG, EN/DIN, ABS, etc.

Never place hoses in a position where they will be pulled on. Hoses are designed to hold pressure and convey fluids, exposing them to axial loads will cause premature failure. Any special or unusual applications should always be approved by the hose manufacturer, otherwise, additional independent testing may be required.

The following questions may need to be answered, such as:

- Where will the hose be used?
- Fluid and/or ambient temperature?

- Hose construction?
- Equipment type?
- Fluid compatibility?
- Thread end connection type?
- Working and surge pressures?
- Environmental conditions?
- Permanent or field attachable (reusable) couplings?
- Suction applications?
- Routing requirements?
- Thread type?
- Government and industry standards being met?
- Unusual mechanical loads?
- Minimum bend radius?
- Non-conductive hose required?
- Excessive abrasion?

M stands for **Material:** Fluid being conveyed, type and concentration.

Some applications require specialized oils or chemicals to be conveyed through the system. Hose selections must assume compatibility of the inner hose tube and cover material. In addition to the hose materials, all other components, which make up the hose assembly (hose ends, o-rings, etc.) must also be compatible with the fluid being used. Permeation or effusion is the movement of a substance through the hose tube walls which may degrade the hose tube, cause cover blistering, or other undesired effects, and must be considered especially when conveying compressed gases.

Be sure to select a hose that is compatible and approved by the manufacturer for the fluid conveyed. Concentration, pressure, temperature and other factors may impact the compatibility of the hose

S.T.A.M.P.E.D. PROCESS

and fluid. Depending on the fluid, the maximum temperature and pressure rating of the assembly, may be lowered.

Additional caution must be exercised in hose selection for gaseous applications such as refrigerants and LP Gas.

NOTE: All block type couplings contain nitrile O-rings which must be compatible with the fluids being used.

P stands for **Pressure:** Pressure to which the assembly will be exposed. The most important step in the hose selection process is knowing the system pressure, including pressure spikes.

- **Maximum Operating Pressure:** This is the maximum pressure that the system should be exposed to in normal operating conditions. This pressure should be dictated by the relief setting of the system. Both the hose and hose end should not be rated to a pressure less than the maximum operating pressure of the system.
- **Pressure Spikes:** When a hydraulic system is subjected to a large load in a short period of time, the system pressure can overshoot the relief setting and exceed the maximum operating pressure. Frequent pressure spikes can reduce the life of hydraulic hose assemblies.

Hose assembly working pressures must be equal to or greater than the system pressure. Pressure spikes greater than the maximum working pressure will shorten hose life and must be taken into consideration.

Any time a hose assembly is to be exposed to external pressures, which may exceed the internal hose pressures, be sure to consult with the hose manufacturer for recommendations.

E stands for **ENDS:** Termination end style, type, orientation, attachment methods, etc. Always use manufacturer approved couplings for hose assemblies. Be sure to select the appropriate end termination for a system working pressure and other requirements, such as, vibration resistance.

D stands for **DELIVERY:** Testing, quality, cleanliness, packaging and delivery requirements. Define any special requirements needed. Always follow manufacturer recommendations for maximum fluid velocity within a hose. Excessive fluid velocity may cause pressure loss, heat generation, hose movement or whipping, system noise and hammer effects.

S.T.A.M.P.E.D. INFORMATION REQUEST FORM

COMPANY:	FAX:
CONTACT:	EMAIL:
ADDRESS:	P.O.#:
PHONE:	TERMS:

SIZE	INSIDE DIAMETER	OUTSIDE DIAMETER	OVERALL LENGTH	TOLERANCE
------	-----------------	------------------	----------------	-----------

TEMPERATURE	MATERIAL CONVEYED		ENVIRONMENTAL TEMPERATURE	
	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM
	°F /°C	°F /°C	°F /°C	°F /°C

APPLICATION	Type and Flow Rate
-------------	--------------------

MATERIAL/ MEDIA	MATERIAL CONVEYED	
	INTERNAL MEDIA:	EXTERNAL ENVIRONMENT:

PRESSURE	MAXIMUM WORKING PRESSURE	SPIKES	VACUUM
	PSI/BAR	PSI/BAR	Inches of Hg/BAR

ENDS	END	STYLE/ MATERIAL	SIZE	THREADS/BOLTS HOLE ALIGNMENT	ORIENTATION	ATTACHMENT METHODS	CAPPED	
	1						Y	N
	2						Y	N

DELIVERY	QUANTITY REQUIRED:	DATE REQUIRED:
	PACKAGE TYPE:	
	PICK UP DATE:	SHIP VIA:
	TESTING REQUIRED: Y N	TYPE:
	CERTIFICATION REQUIRED: Y N	TYPE:

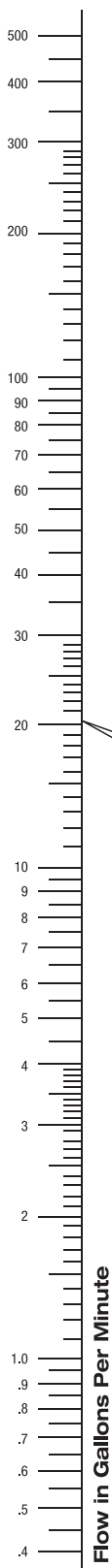
SPECIAL REQUIREMENTS:

JASON REPRESENTATIVE DATE

CUSTOMER DATE

NOMOGRAPHIC CHART

Flow Capacity of Hose Assemblies at Recommended Flow Velocities

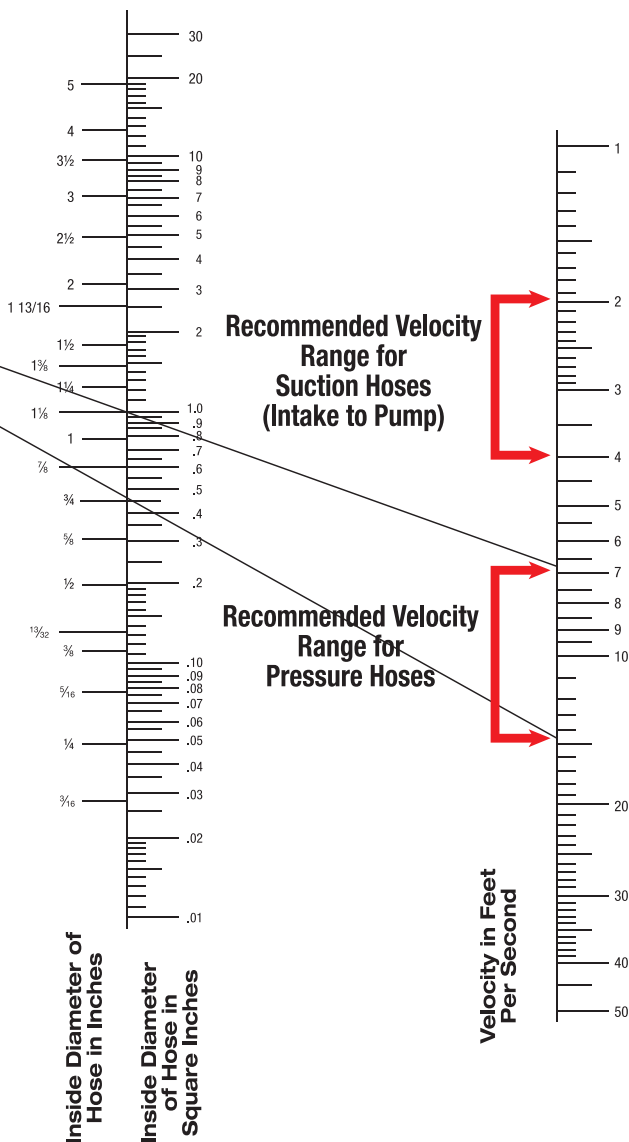


Based on Formula:
$$\text{Area (Sq. in.)} = \frac{0.321 \times (\text{GPM})}{\text{Velocity (Ft./Sec.)}}$$

Example: To determine the I.D. needed to transport 20 Gallons Per Minute (GPM) fluid volume.

Draw a straight line from 20 GPM on the left to maximum recommended velocity for pressure lines. The line intersects with the middle vertical column indicating a 3/4" I.D. (-12) hose. This is the smallest hose that should be used.

Recommendations are for oils having a maximum viscosity of 315 S.S.U. at 100°F (37.8°C), operating at temperatures between 65°F (18.3°C) and 155°F (68.3°C).

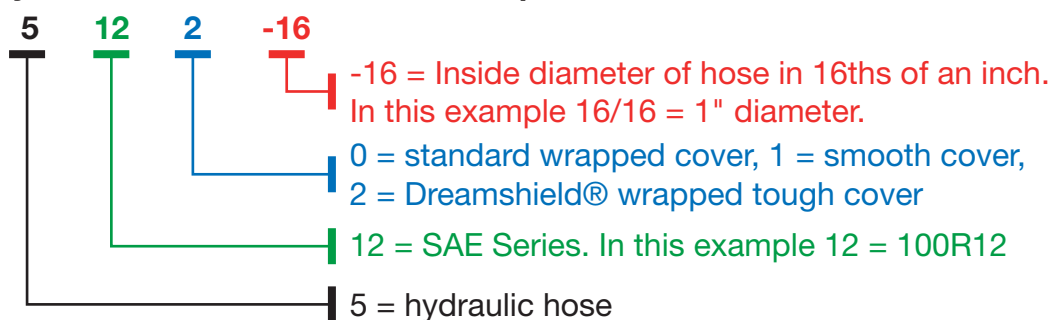


DASH NUMBER MEASURING SYSTEM

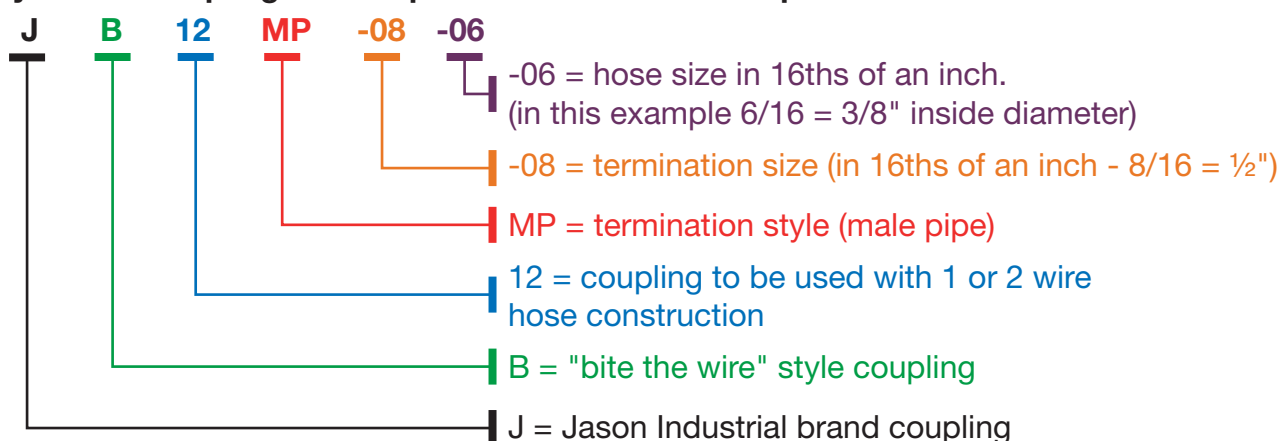
HOSE I.D.				
Dash Number	All Except SAE 100R5, SAE 100R14, SAE J51 & SAE J2064		SAE 100R5, SAE J51, SAE 100R14 & SAE J2064	
	inch	mm	inch	mm
-02	1/8	3.2	-	-
-03	3/16	4.8	-	-
-04	1/4	6.4	3/16	4.8
-05	5/16	7.9	1/4	6.4
-06	3/8	9.5	5/16	7.9
-08	1/2	12.7	13/32	10.3
-10	5/8	15.9	1/2	12.7
-12	3/4	19.0	5/8	15.9
-14	7/8	22.2	-	-
-16	1	25.4	7/8	22.2
-20	1-1/4	31.8	1-1/8	28.6
-24	1-1/2	38.1	1-3/8	34.9
-32	2	50.8	1-13/16	46.0
-36	2-1/4	57.6	-	-
-40	2-1/2	63.5	2-3/8	60.3
-48	3	76.2	-	-

HOW TO READ HOSE & COUPLING PART NUMBERS

Hydraulic Hose Part Number Example: 5122-16



Hydraulic Coupling - Descriptive Part Number Example: JB12MP-08-06



SAE HOSE WORKING PRESSURE CHART FOR HYDRAULIC HOSE (psi)
NOMINAL HOSE INSIDE DIAMETER IN INCHES & DASH SIZE

SAE Hose Spec	ISO Hose Spec	Description	3/16	1/4	5/16	3/8	1/2	5/8	3/4	1	1-1/4	1-1/2	2
			(-3)	(-4)	(-5)	(-6)	(-8)	(-10)	(-12)	(-16)	(-20)	(-24)	(-32)
100R1 Type S	1436 Type 1SN	High Pressure 1 Wire Braid	3630	3260	3120	2610	2320	1890	1520	1280	900	725	600
100R2 Type S	1436 Type 2SN	High Pressure 2 Wire Braid	6020	5800	5080	4790	3990	3630	3120	2390	1800	1300	1150
100R3		2 Fabric Braid	1500	1250	1200	1125	1000	875	750	565	400		
100R4		Suction							300	250	200	150	100
100R6		1 Fabric (Braid or Spiral)	500	400	400	400	400	350	300				
100R7		Thermoplastic	3000	2750	2500	2250	2000	1500	1250	1000			
100R8		High Pressure Thermoplastic	5000	5000		4000	3500	2750	2250	2000			
100R12		4 Wire Spiral				4000	4000	4000	4000	4000	3050	2500	2500
100R13		5000 PSI Wire Spiral							5000	5000	5000	5000	5000
100R15		6000 PSI Wire Spiral				6000	6000		6000	6000	6000	6000	
100R16 Type S	11237 2SC	High Pressure Compact Wire Braid	6020	5800	5080	4790	3990	3630	3120	2390	1800		
100R17		3000 PSI Wire Braid		3000	3000	3000	3000	3000	3000	3000			
100R18		3000 PSI Thermoplastic	3000	3000	3000	3000	3000	3000	3000	3000			
100R19		4000 PSI Wire Braid		4000	4000	4000	4000	4000	4000	4000			

***The 100R9, 100R10 and 100R11 hoses are discontinued due to lack of demand.**

100R9*		4 Wire Spiral				4500	4000		3000	3000			
100R10*		High Pressure 4 Wire Spiral	10000	8750		7500	6250		5000	4000			
100R11*		High Pressure 6 Wire Spiral	12500	11250		10000	7500		6250	5000			

CHEMICAL RESISTANCE CHART

HOSE TYPES (TUBE)

GROUP 1	5122, 5132, 5152
GROUP 2	5011, 5012, 5021, 5040, 5122, 5161, 5162, 5171, 5172, 5220
GROUP 3	5050

RATING KEY

E	Good to excellent with little or no change to physical properties
G	Good, moderate change to physical properties
C	Marginal with noticeable effects on physical properties
U	Unsatisfactory
N	No Data

Warning: The following data has been compiled from generally available sources and should not be relied upon without consulting and following the manufacturers' specific chemical recommendations. Neglecting to do so might result in failure of the hose to fulfill its intended purpose and may result in possible damage to property and serious bodily injury.

	GROUP 1	GROUP 2	GROUP 3
A			
ASTM Refined, Fuel B	U	N	C
ASTM Refined, Fuel C	U	N	C
B			
Biodiesel	U	U	G
C			
Carbon Dioxide	G	G	E
Castor Oil	E	E	E
Coal Oil	G	E	E
D			
Dexron	C	G	E
Diesel Fuel (Non-Biodiesel)	U	E	E
E			
Ethylene Glycol (70°F)	E	E	E
F			
Freon 12	C	N	C
Freon 22	E	N	C
Freon 113	E	N	N
Freon 502	E	N	N
Fuel Oils	G	E	E
G			
Gas, High Octane	U	N	C
Gasoline (Non-Oxygenated)	U	N	G
Greases	U	U	C
H			
Hydraulic Fluid (Petroleum)	G	G	E
Hydraulic Fluid (Biodegradable Liquids)	N	E	N
Hydraulic Fluid (Glycol-Water Mixture)	G	E	N
Hydraulic Fluid (Mineral Oil Based)	N	E	N
Hydraulic Fluid (Phosphate Ester Fluids)	U	U	G
Hydraulic Fluid (Water-Oil Emulsions)	N	E	N

CHEMICAL RESISTANCE CHART

HOSE TYPES

GROUP 1	5122, 5132, 5152
GROUP 2	5011, 5012, 5021, 5040, 5122, 5161, 5162, 5171, 5172, 5220
GROUP 3	5050

RATING KEY

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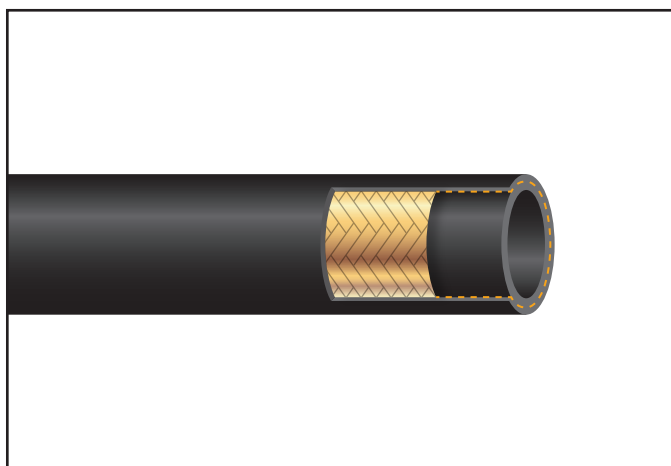
	GROUP 1	GROUP 2	GROUP 3
J			
JP-4 Fuel	U	C	G
K			
Kerosene	C	C	G
L			
Lubrication Oils (Petroleum)	G	G	E
M			
Methanol	G	E	E
Mineral Oil	G	C	G
P			
Petroleum	G	E	E
Phosphate Esters (72°F)	U	U	E
S			
SAE No. 10 Oil	C	C	E
Sea Water	E	E	E
Silicate Esters	E	U	G
Silicone Grease	E	E	E
Silicone Oil	E	E	E
Soap Solution	G	G	E
T			
Transmission Fluid, Type A	G	C	G
Trisodium Phosphate	E	E	E
Turpentine	U	C	C
V, W			
Vinegar	G	G	E
Water (72°F)	E	E	E
Water (140°F)	E	E	E
Water (212°F)	U	U	E
Water/Glycol Solutions (72°F)	E	G	E
Water/Glycol Solutions (125°F)	E	G	E
Water/Glycol Solutions (180°F)	E	G	E

HYDRAULIC HOSE - 1 & 2 WIRE BRAID

<u>SERIES</u>	<u>DESCRIPTION</u>	<u>PAGE</u>
5011	SAE 100R1AT, 1SN DIN EN 853 - MSHA Cover, 1-Wire Braid Hose, Smooth Cover	38
5012	SAE 100R1AT, 1SN, DIN EN853 - MSHA Cover, Ⓢ Dreamshield® Extra Abrasion-Resistant Wrapped Cover, 1-Wire Braid Hose	39
5021	SAE 100R2AT, 2SN DIN EN 853 - MSHA Cover, 2-Wire Braid Hose, Smooth Cover	42
5022	SAE 100R2AT, 2SN, DIN EN 853 - MSHA Cover, Ⓢ Dreamshield® Extra Abrasion Resistant Wrapped, 2-Wire Braid Hose	43
5161	SAE 100R16 - MSHA Cover, 2-Wire Braid Hose, Smooth Cover	44
5162	SAE 100R16 - MSHA Cover, 2-Wire Braid Hose, Ⓢ Dreamshield® Extra Abrasion Resistant Wrapped Cover	45
5171	SAE 100R17 - MSHA Cover - 3,000 PSI Constant Pressure, 1 or 2-Wire Braid Hose, Smooth Cover	40
5172	SAE 100R17 - MSHA Cover - 3,000 PSI Constant Pressure, Ⓢ Dreamshield® Extra Abrasion Resistant Wrapped Cover, 1 or 2 - Wire Braid Hose	41
5192	SAE 100R19 - MSHA Cover - 4,000 PSI Constant Pressure, 2 Wire Braid Hose, Ⓢ Dreamshield® Extra Abrasion Resistant Wrapped Cover	46

5011 SERIES

SAE 100R1AT, 1SN, DIN EN 853 MSHA Cover 1-Wire Braid Hose, Smooth Cover



APPLICATIONS: Used for medium pressure hydraulic lines on mobile equipment, machine tools and farm equipment. Meets or exceeds SAE 100R1 and EN 853 1SN.

CONSTRUCTION:	Tube: Synthetic Rubber
	Cover: Oil, weather and abrasion resistant synthetic rubber, MSHA approved
	Reinforcement: One wire braid of high tensile steel with protective coating

TEMPERATURE RANGE: -40°F (-40°C) to +212°F (+100°C)

COUPLINGS: 12/JB12 Series - see pages 55 thru 97

Part Number	Inside Diameter		Outside Diameter		Working Pressure		Burst Pressure		Minimum Bend Radius		Weight		Standard Pack	
	inch	mm	inch	mm	PSI	BAR	PSI	BAR	inch	mm	lbs./ft.	kg/m	feet	meter
5011-04	1/4	6.4	0.53	13.4	3,263	225	13054	900	3.9	100	0.15	0.22	500	152.4
5011-05	5/16	7.9	0.59	15.0	3,118	215	12473	860	4.5	115	0.17	0.26	500	152.4
5011-06	3/8	9.5	0.69	17.4	2,611	180	10443	720	5.1	130	0.22	0.33	500	152.4
5011-08	1/2	12.7	0.81	20.6	2,321	160	9283	640	7.1	180	0.27	0.40	400	122.0
5011-12	3/4	19.1	1.09	27.7	1,523	105	6092	420	9.4	240	0.42	0.63	250	76.2
5011-16	1	25.4	1.40	35.6	1,276	88	5105	352	11.8	300	0.57	0.85	200	61.0

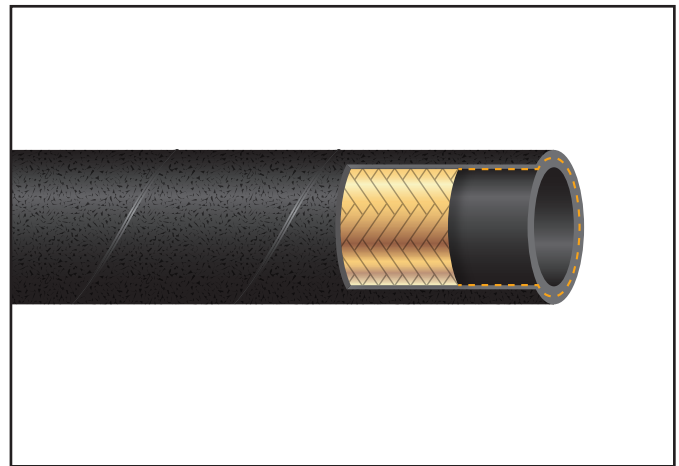
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SAE 100R1AT, 1SN, DIN EN853

Ⓜ Dreamshield[®] Extra Abrasion-Resistant
Wrapped MSHA Cover - 1-Wire Braid Hose

5012 SERIES



APPLICATIONS: Used for medium pressure hydraulic lines on mobile equipment, machine tools and farm equipment. Meets or exceeds SAE 100R1 and EN 853 1SN.

CONSTRUCTION:	Tube: Synthetic Rubber
	Cover: Oil, weather and extra abrasion resistant Ⓜ Dreamshield [®] synthetic rubber, MSHA approved
	Reinforcement: One wire braid of high tensile steel with protective coating

TEMPERATURE RANGE: -40°F (-40°C) to +212°F (+100°C)

COUPLINGS: 12/JB12 Series - see pages 55 thru 97

Part Number	Inside Diameter		Outside Diameter		Working Pressure		Burst Pressure		Minimum Bend Radius		Weight		Standard Pack	
	inch	mm	inch	mm	PSI	BAR	PSI	BAR	inch	mm	lbs./ft.	kg/m	feet	meter
5012-03	3/16	4.8	0.46	11.6	3,625	250	14500	1000	3.5	89	0.15	0.22	700	213.2
5012-04	1/4	6.4	0.53	13.4	3,263	225	13054	900	3.9	100	0.15	0.22	500	152.4
5012-05	5/16	7.9	0.59	15.0	3,118	215	12473	860	4.5	115	0.17	0.26	500	152.4
5012-06	3/8	9.5	0.69	17.4	2,611	180	10443	720	5.1	130	0.22	0.33	500	152.4
5012-08	1/2	12.7	0.81	20.6	2,321	160	9283	640	7.1	180	0.27	0.40	400	122.0
5012-10	5/8	15.9	0.93	23.7	1,886	130	7542	520	7.9	200	0.30	0.45	250	76.2
5012-12	3/4	19.1	1.09	27.7	1,523	105	6092	420	9.4	240	0.42	0.63	250	76.2
5012-16	1	25.4	1.40	35.6	1,276	88	5105	352	11.8	300	0.57	0.85	200	61.0
5012-20	1-1/4	31.8	1.71	43.5	914	63	3655	252	16.5	420	0.83	1.23	150	45.7
5012-24	1-1/2	38.1	1.99	50.6	725	50	2901	100	19.7	500	1.00	1.49	150	45.7
5012-32	2	50.8	2.52	64.0	580	40	2321	160	24.8	630	1.38	2.06	150	45.7

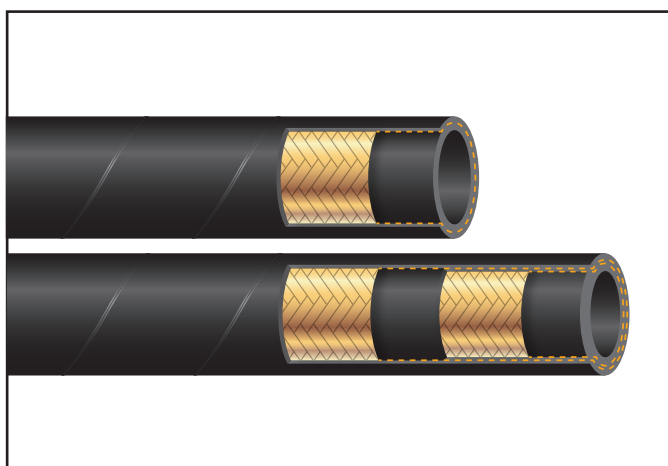
Contact Customer Service for availability.

We disclaim any liability for use of our products in applications other than which they are designed.

 **WARNING:** This product can expose you to chemicals including carbon black, which is known to the State of California to cause cancer, birth defects or other reproductive harm. For more information visit www.P65WARNINGS.ca.gov

5171 SERIES SAE 100R17 - 3,000 PSI Constant Pressure

1 or 2-Wire Braid Hose, MSHA Cover
Smooth Cover



APPLICATIONS: Used for medium pressure hydraulic lines on mobile equipment, machine tools and farm equipment. Meets or exceeds SAE 100R17.

CONSTRUCTION:	Tube: Synthetic Rubber
	Cover: Oil, weather and abrasion resistant synthetic rubber, MSHA approved
	Reinforcement: 1/4" to 5/8" - one wire braid of high tensile steel with protective coating 3/4" to 1" - two wire braids of high tensile steel with protective coating

TEMPERATURE RANGE: -40°F (-40°C) to +212°F (+100°C)

COUPLINGS: 12/JB12 Series - see pages 55 thru 97

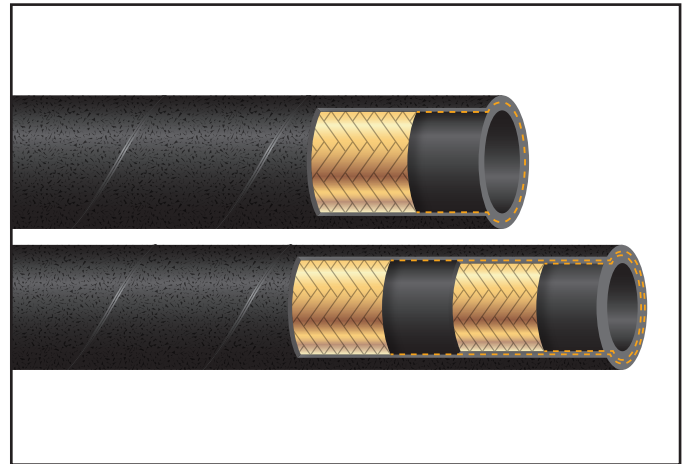
Part Number	Inside Diameter		Outside Diameter		Working Pressure		Burst Pressure		Minimum Bend Radius		Weight		Standard Pack	
	inch	mm	inch	mm	PSI	BAR	PSI	BAR	inch	mm	lbs./ft.	kg/m	feet	meter
5171-04	1/4	6.4	0.5	13.0	3000	210	12000	840	2.0	50	0.15	0.22	500	152.4
5171-05	5/16	7.9	0.6	14.3	3000	210	12000	840	2.2	55	0.17	0.26	500	152.4
5171-06	3/8	9.5	0.6	16.5	3000	210	12000	840	2.6	65	0.22	0.33	500	152.4
5171-08	1/2	12.7	0.8	19.7	3000	210	12000	840	3.5	90	0.27	0.40	400	122.0
5171-12	3/4	19.1	1.10	28.0	3000	210	12000	840	4.7	120	0.62	0.92	250	76.2
5171-16	1	25.4	1.43	36.2	3000	210	12000	840	5.9	150	0.91	1.35	200	61.0

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SAE 100R17 - 3,000 PSI Constant Pressure 5172 Series

1 or 2-Wire Braid Hose, Wrapped MSHA Cover
 Dreamshield[®] Extra Abrasion Resistant Cover



APPLICATIONS: Used for medium pressure hydraulic lines on mobile equipment, machine tools and farm equipment. Meets or exceeds SAE 100R17

CONSTRUCTION:	Tube: Synthetic Rubber
	Cover: Oil, weather and extra abrasion resistant  Dreamshield [®] synthetic rubber, MSHA approved
	Reinforcement: 1/4" to 5/8" - one wire braid of high tensile steel with protective coating 3/4" to 1" - two wire braids of high tensile steel with protective coating

TEMPERATURE RANGE: -40°F (-40°C) to +212°F (+100°C)

COUPLINGS: 12/JB12 Series - see pages 55 thru 97

Part Number	Inside Diameter		Outside Diameter		Working Pressure		Burst Pressure		Minimum Bend Radius		Weight		Standard Pack	
	inch	mm	inch	mm	PSI	BAR	PSI	BAR	inch	mm	lbs./ft.	kg/m	feet	meter
5172-04	1/4	6.4	0.49	12.5	3000	210	12000	840	2.0	50	0.15	0.22	500	152.4
5172-05	5/16	7.9	0.56	14.3	3000	210	12000	840	2.2	55	0.17	0.26	500	152.4
5172-06	3/8	9.5	0.65	16.5	3000	210	12000	840	2.6	65	0.22	0.33	500	152.4
5172-08	1/2	12.7	0.78	19.7	3000	210	12000	840	3.5	90	0.27	0.40	400	122.0
5172-10	5/8	15.9	0.94	24.0	3000	210	12000	840	3.9	100	0.48	0.71	250	76.2
5172-12	3/4	19.1	1.10	28.0	3000	210	12000	840	4.7	120	0.62	0.92	250	76.2
5172-16	1	25.4	1.43	36.2	3000	210	12000	840	5.9	150	0.91	1.35	200	61.0

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5021 SERIES

SAE 100R2AT, 2SN, DIN EN 853

MSHA Cover
2-Wire Braid Hose, Smooth Cover



APPLICATIONS: Used for high pressure hydraulic lines on off-road construction equipment, machine tools, farm and marine equipment. Meets or exceeds SAE 100R2 and EN 853 2SN.

CONSTRUCTION:	Tube: Synthetic Rubber
	Cover: Oil, weather and abrasion resistant synthetic rubber, MSHA approved
	Reinforcement: Two wire braids of high tensile steel with protective coating

TEMPERATURE RANGE: -40°F (-40°C) to +212°F (+100°C)

COUPLINGS: 12/JB12 Series - see pages 55 thru 97

Part Number	Inside Diameter		Outside Diameter		Working Pressure		Burst Pressure		Minimum Bend Radius		Weight		Standard Pack	
	inch	mm	inch	mm	PSI	BAR	PSI	BAR	inch	mm	lbs./ft.	kg/m	feet	meter
5021-04	1/4	6.4	0.59	15.0	5802	400	23206	1600	3.9	100	0.24	0.35	500	152.4
5021-05	5/16	7.9	0.65	16.6	5076	350	20306	1400	4.5	115	0.28	0.41	500	152.4
5021-06	3/8	9.5	0.75	19.0	4786	330	19145	1320	5.1	130	0.34	0.51	500	152.4
5021-08	1/2	12.7	0.87	22.2	3989	275	15954	1100	7.1	180	0.43	0.64	400	122.0
5021-12	3/4	19.1	1.15	29.3	3118	215	12473	860	9.4	240	0.62	0.92	250	76.2
5021-16	1	25.4	1.50	38.1	2393	165	9573	660	11.8	300	0.91	1.35	200	61.0

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SAE 100R2AT, 2SN, DIN EN 853

MSHA Cover,  Dreamshield[®] Extra Abrasion Resistant,
2-Wire Braid Hose, Wrapped Cover

5022 SERIES



APPLICATIONS: Used for high pressure hydraulic lines on off-road construction equipment, machine tools, farm and marine equipment. Meets or exceeds SAE 100R2 and EN 853 2SN.

CONSTRUCTION:	Tube: Synthetic Rubber
	Cover: Oil, weather and extra abrasion resistant  Dreamshield [®] synthetic rubber, MSHA approved
	Reinforcement: Two wire braids of high tensile steel with protective coating

TEMPERATURE RANGE: -40°F (-40°C) to +212°F (+100°C)

COUPLINGS: 12/JB12 Series - see pages 55 thru 97

Part Number	Inside Diameter		Outside Diameter		Working Pressure		Burst Pressure		Minimum Bend Radius		Weight		Standard Pack	
	inch	mm	inch	mm	PSI	BAR	PSI	BAR	inch	mm	lbs./ft.	kg/m	feet	meter
5022-04	1/4	6.4	0.59	15.0	5,802	400	23206	1600	3.9	100	0.24	0.35	500	152.4
5022-05	5/16	7.9	0.65	16.6	5,076	350	20306	1400	4.5	115	0.28	0.41	500	152.4
5022-06	3/8	9.5	0.75	19.0	4,786	330	19145	1320	5.1	130	0.34	0.51	500	152.4
5022-08	1/2	12.7	0.87	22.2	3,989	275	15954	1100	7.1	180	0.43	0.64	400	122.0
5022-10	5/8	15.9	1.00	25.4	3,626	250	14504	1000	7.9	200	0.48	0.71	250	76.2
5022-12	3/4	19.1	1.15	29.3	3,118	215	12473	860	9.4	240	0.62	0.92	250	76.2
5022-16	1	25.4	1.50	38.1	2,393	165	9573	660	11.8	300	0.91	1.35	200	61.0
5022-20	1-1/4	31.8	1.90	48.3	1,813	125	7252	500	16.5	420	1.23	1.83	150	45.7
5022-24	1-1/2	38.1	2.15	54.6	1,305	90	5221	360	19.7	500	1.52	2.25	150	45.7
5022-32	2	50.8	2.65	67.3	1,160	80	4641	320	24.8	630	1.95	2.90	150	45.7

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5161 SERIES

SAE 100R16 - MSHA Cover

2-Wire Braid Hose, Smooth Cover, ISO Spec 11237 Type 2SC



APPLICATIONS: Used for high pressure hydraulic lines on off-road construction equipment, machine tools and farm equipment. Meets or exceeds SAE 100R16 (Type 2SC).

CONSTRUCTION:

- Tube:** Synthetic Rubber
- Cover:** Oil, weather and abrasion resistant synthetic rubber, MSHA approved
- Reinforcement:** Two wire braids of high tensile steel with protective coating

TEMPERATURE RANGE: -40°F (-40°C) to +212°F (+100°C)

COUPLINGS: 12/JB12 Series - see pages 55 thru 97

Part Number	Inside Diameter		Outside Diameter		Working Pressure		Burst Pressure		Minimum Bend Radius		Weight		Standard Pack	
	inch	mm	inch	mm	PSI	BAR	PSI	BAR	inch	mm	lbs./ft.	kg/m	feet	meter
5161-04	1/4	6.4	0.53	13.5	5800	400	23200	1600	2.0	50	0.19	0.29	500	152.4
5161-05	5/16	7.9	0.59	15.0	5080	350	20320	1400	2.2	55	0.22	0.32	500	152.4
5161-06	3/8	9.5	0.69	17.4	4790	330	19160	1320	2.6	65	0.28	0.41	500	152.4
5161-08	1/2	12.7	0.81	20.6	3990	275	15960	1100	3.5	90	0.34	0.51	400	122.0
5161-12	3/4	19.1	1.09	27.7	3120	215	12480	860	4.7	120	0.56	0.83	250	76.2
5161-16	1	25.4	1.40	35.5	2390	165	9560	660	5.9	150	0.81	1.20	200	61.0

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SAE 100R16 - MSHA Cover

Ⓢ Dreamshield® Extra Abrasion Resistant Cover

2-Wire Braid Hose, Wrapped Cover, ISO Spec 11237 Type 2SC

5162 SERIES



APPLICATIONS: Used for high pressure hydraulic lines on off-road construction equipment, machine tools, farm and marine equipment. Meets or exceeds SAE 100R16.

CONSTRUCTION:	Tube: Synthetic Rubber
	Cover: Oil, weather and extra abrasion resistant Ⓢ Dreamshield® synthetic rubber, MSHA approved
	Reinforcement: Two wire braids of high tensile steel with protective coating

TEMPERATURE RANGE: -40°F (-40°C) to +212°F (+100°C)

COUPLINGS: 12/JB12 Series - see pages 55 thru 97

Part Number	Inside Diameter		Outside Diameter		Working Pressure		Burst Pressure		Minimum Bend Radius		Weight		Standard Pack	
	inch	mm	inch	mm	PSI	BAR	PSI	BAR	inch	mm	lbs./ft.	kg/m	feet	meter
5162-04	1/4	6.4	0.57	14.4	5,800	400	23200	1600	2.0	50	0.24	0.35	500	152.4
5162-05	5/16	7.9	0.62	15.7	5,080	350	20320	1400	2.2	55	0.28	0.41	500	152.4
5162-06	3/8	9.5	0.74	18.8	4,790	330	19160	1320	2.6	65	0.34	0.51	500	152.4
5162-08	1/2	12.7	0.86	21.9	3,990	275	15960	1100	3.5	90	0.43	0.64	400	122.0
5162-10	5/8	15.9	1.00	25.4	3,630	250	14520	1000	3.9	100	0.48	0.71	250	76.2
5162-12	3/4	19.1	1.14	28.9	3,120	215	12480	860	4.7	120	0.62	0.92	250	76.2
5162-16	1	25.4	1.44	36.5	2,390	165	9560	660	5.9	150	0.91	1.35	200	61.0

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5192 SERIES

SAE 100R19 - MSHA Cover

Ⓢ Dreamshield[®] Extra Abrasion Resistant Cover
2-Wire Braid Hose, Wrapped Cover, 4,000 PSI Constant Pressure



APPLICATIONS: Used for high pressure hydraulic lines on off-road construction equipment, machine tools, farm and marine equipment. Meets or exceeds SAE 100R19.

CONSTRUCTION:	Tube: Synthetic Rubber
	Cover: Oil, weather and extra abrasion resistant Ⓢ Dreamshield [®] synthetic rubber, MSHA approved
	Reinforcement: Two wire braids of high tensile steel with protective coating

TEMPERATURE RANGE: -40°F (-40°C) to +212°F (+100°C)




COUPLINGS: 12/JB12 Series - see pages 55 thru 97

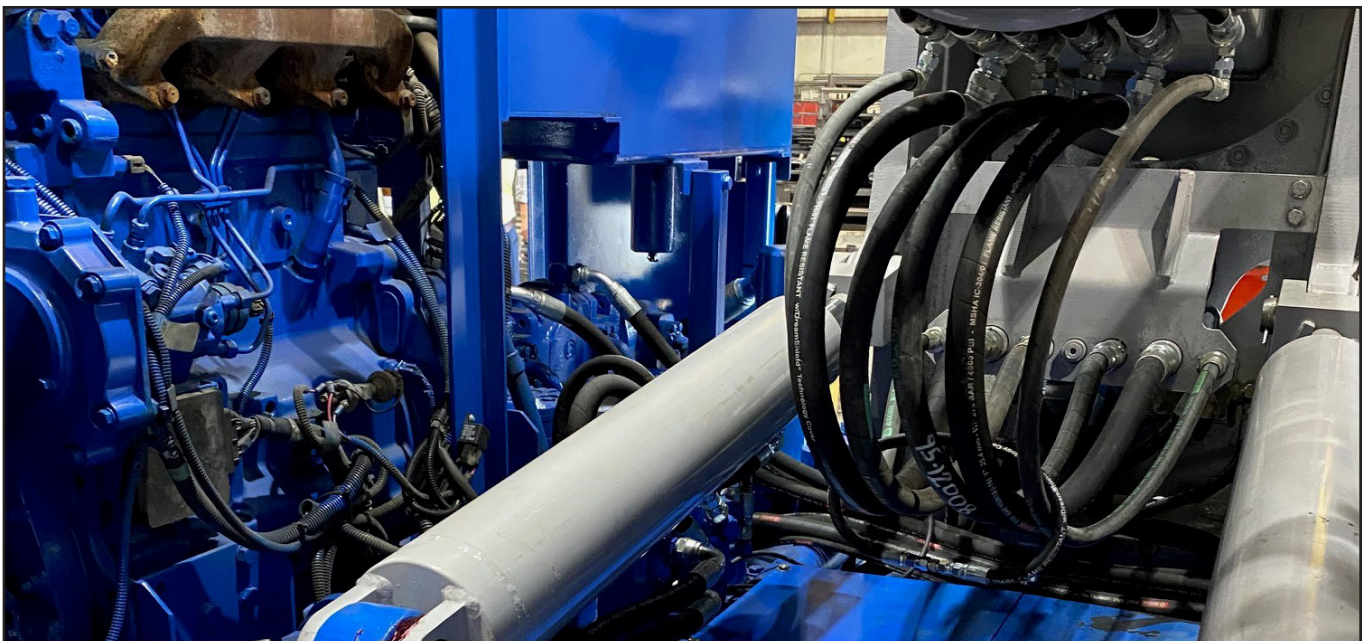
Part Number	Inside Diameter		Outside Diameter		Working Pressure		Burst Pressure		Minimum Bend Radius		Weight		Standard Pack	
	inch	mm	inch	mm	PSI	BAR	PSI	BAR	inch	mm	lbs./ft.	kg/m	feet	meter
5192-04	1/4	6.4	0.54	13.6	4,000	280	16000	1120	2.0	50	0.19	0.29	500	152.4
5192-06	3/8	9.5	0.69	17.5	4,000	280	16000	1120	2.6	65	0.27	0.41	500	152.4
5192-08	1/2	12.7	0.81	20.6	4,000	280	16000	1120	3.5	90	0.34	0.51	400	122.0
5192-10	5/8	15.9	0.94	24.0	4,000	280	16000	1120	3.9	100	0.43	0.64	250	76.2
5192-12	3/4	19.1	1.07	27.2	4,000	280	16000	1120	4.7	120	0.55	0.83	250	76.2
5192-16	1	25.4	1.40	35.5	4,000	280	16000	1120	5.9	150	0.80	1.20	200	61.0

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HYDRAULIC HOSE - 4 OR 6-SPIRAL HOSE

<u>SERIES</u>	<u>DESCRIPTION</u>	<u>PAGE</u>
5122	SAE 100R12, DIN EN 856 R12  Dreamshield [®] , Extra Abrasion Resistant Wrapped MSHA Cover - 4-Spiral Hose	48
5132	SAE 100R13, DIN EN 853 R13,  Dreamshield [®] Extra Abrasion Resistant Wrapped MSHA Cover 4 or 6-Spiral Hose, 5,000 PSI- Constant Pressure	49
5152	SAE 100R15, DIN EN 856 R15,  Dreamshield [®] Extra Abrasion Resistant Wrapped MSHA Cover 4 or 6-Spiral Hose, 6,000 PSI Constant Pressure	50



5122 SERIES

SAE 100R12, DIN EN 856 R12

☪ Dreamshield[®] Extra Abrasion Resistant Cover
Wrapped MSHA Cover - 4-Spiral Hose



APPLICATIONS: Used for very high pressure hydraulic service.
Meets or exceeds SAE 100R12 and EN 856 R12.

CONSTRUCTION:

Tube: Special Synthetic Rubber
Cover: Oil, weather and extra abrasion resistant ☪ Dreamshield [®] synthetic rubber, wrapped, MSHA approved
Reinforcement: 4-spirals of high tensile steel

TEMPERATURE RANGE: -40°F (-40°C) to +250°F (+120°C)

COUPLINGS: 40/JB40 Series - see pages 98 thru 135

Part Number	Inside Diameter		Outside Diameter		Working Pressure		Burst Pressure		Minimum Bend Radius		Weight		Standard Pack	
	inch	mm	inch	mm	PSI	BAR	PSI	BAR	inch	mm	lbs./ft.	kg/m	feet	meter
5122-06	3/8	9.5	0.79	20.0	4,000	280	16000	1120	4.9	125	0.42	0.62	150	45.7
5122-08	1/2	12.7	0.93	23.5	4,000	280	16000	1120	7.1	180	0.52	0.78	150	45.7
5122-10	5/8	15.9	1.09	27.6	4,000	280	16000	1120	7.9	200	0.71	1.06	150	45.7
5122-12	3/4	19.1	1.20	30.5	4,000	280	16000	1120	9.4	240	0.81	1.20	150	45.7
5122-16	1	25.4	1.50	38.1	4,000	280	16000	1120	11.8	300	1.22	1.82	150	45.7
5122-20	1-1/4	31.8	1.83	46.6	3,000	210	12000	840	16.5	420	1.71	2.55	150	45.7
5122-24	1-1/2	38.1	2.09	53.2	2,500	175	10000	700	19.7	500	2.00	2.98	150	45.7
5122-32	2	50.8	2.63	66.8	2,500	175	10000	700	24.8	630	2.80	4.17	150	45.7

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SAE 100R13, DIN EN 856 R13


Wrapped MSHA Cover,  Dreamshield® Extra Abrasion Resistant Cover

4 or 6-Spiral Hose - 5,000 PSI- Constant Pressure

5132 SERIES



APPLICATIONS: Used for very high pressure hydraulic service.
Meets or exceeds SAE 100R13 and EN 856 R13

CONSTRUCTION:	Tube: Special Synthetic Rubber
	Cover: Oil, weather and extra abrasion resistant  Dreamshield® synthetic rubber, wrapped, MSHA approved
	Reinforcement: 4-spirals of high tensile steel for 3/4" and 1" ID's 6 spirals of high tensile steel for 1-1/4", 1-1/2" and 2" ID's

TEMPERATURE RANGE: -40°F (-40°C) to +250°F (+120°C)

COUPLINGS: 60/JB60 Series - see pages 98 thru 135

Part Number	Inside Diameter		Outside Diameter		Working Pressure		Burst Pressure		Minimum Bend Radius		Weight		Standard Pack	
	inch	mm	inch	mm	PSI	BAR	PSI	BAR	inch	mm	lbs./ft.	kg/m	feet	meter
5132-12	3/4	19.1	1.26	32.0	5,000	345	20000	1380	9.4	240	1.09	1.63	150	45.7
5132-16	1	25.4	1.51	38.4	5,000	345	20000	1380	11.8	300	1.39	2.07	150	45.7
5132-20	1-1/4	31.8	1.94	49.3	5,000	345	20000	1380	16.5	420	2.60	3.87	150	45.7
5132-24	1-1/2	38.1	2.26	57.3	5,000	345	20000	1380	19.7	500	3.25	4.85	150	45.7
5132-32	2	50.8	2.82	71.6	5,000	345	20000	1380	24.8	630	4.31	6.42	150	45.7

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5152 Series

SAE 100R15, DIN EN 856 R15

Wrapped MSHA Cover

☞ Dreamshield[®] Extra Abrasion Resistant Cover
4 or 6-Spiral Hose, 6,000 PSI Constant Pressure



APPLICATIONS: Used for very high pressure hydraulic service.
Meets or exceeds SAE 100R15 and EN 856 R15

CONSTRUCTION:	Tube: Special Synthetic Rubber
	Cover: Oil, weather and extra abrasion resistant ☞ Dreamshield [®] synthetic rubber, wrapped, MSHA approved
	Reinforcement: 4 spirals of high tensile steel for 3/8" through 1" ID's 6 spirals of high tensile steel for 1-1/4" through 2" ID's

TEMPERATURE RANGE: -40°F (-40°C) to +250°F (+120°C)

COUPLINGS: 40/JB40 Series for size 06 through 10 - pages 98 thru 135,
60/JB60 Series for all larger sizes- pages 136 thru 161

Part Number	Inside Diameter		Outside Diameter		Working Pressure		Burst Pressure		Minimum Bend Radius		Weight		Standard Pack	
	inch	mm	inch	mm	PSI	BAR	PSI	BAR	inch	mm	lbs./ft.	kg/m	feet	meter
5152-06	3/8	9.5	0.84	21.4	6,000	420	24000	1680	7.0	180	0.53	0.79	150	45.7
5152-08	1/2	12.7	0.97	24.6	6,000	420	24000	1680	9.0	230	0.65	0.97	150	45.7
5152-10	5/8	15.9	1.11	28.2	6,000	420	24000	1680	9.8	250	0.77	1.15	150	45.7
5152-12	3/4	19.1	1.26	32.0	6,000	420	24000	1680	10.4	265	1.09	1.63	150	45.7
5152-16	1	25.4	1.51	38.4	6,000	420	24000	1680	13.0	330	1.39	2.07	150	45.7
5152-20	1-1/4	31.8	1.94	49.3	6,000	420	24000	1680	17.5	445	2.60	3.87	150	45.7
5152-24	1-1/2	38.1	2.26	57.3	6,000	420	24000	1680	20.9	530	3.25	4.85	150	45.7
5152-32	2	50.8	2.83	72.0	6,000	420	24000	1680	26.4	670	4.31	6.42	150	45.7

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HYDRAULIC HOSE - SAE 100R4, Oil Return Lines

<u>SERIES</u>	<u>DESCRIPTION</u>	<u>PAGE</u>
5040	SAE 100R4, Oil Return Lines Replaces Industrial Series 4415	52

HYDRAULIC HOSE - TRANSPORTATION, AIR BRAKE

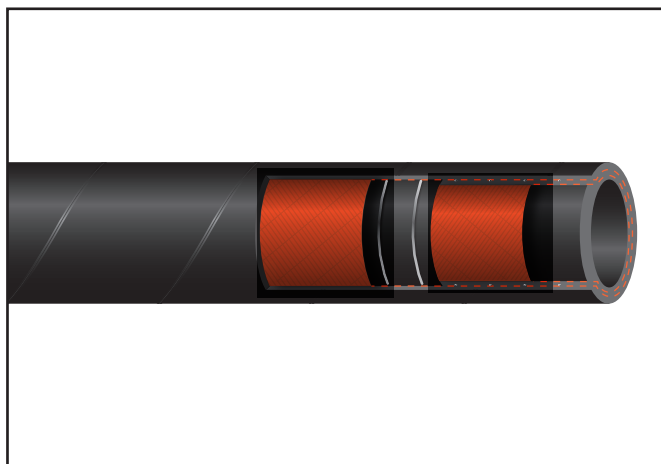
<u>SERIES</u>	<u>DESCRIPTION</u>	<u>PAGE</u>
5050	SAE 100R5, SAE J1402 Type All DOT FMVSS 106-74 Type All	53

HYDRAULIC HOSE - 2-WIRE BRAID JACK HOSE

<u>SERIES</u>	<u>DESCRIPTION</u>	<u>PAGE</u>
5220 <i>NEW!</i>	2-Wire Braid Jack Hose <i>For 10,150 psi. static pressure only</i>	54



Federal law requires registration with the Department of Transportation (DOT) for anyone producing air brake hose assemblies with swaged or crimp fittings. The Jason 5050 Series hoses have been tested and meet SAE 100R5 and J1402 Type All/FMVSS 106 requirements with the Jason 75 Series field attachable (reusable) couplings. Sizes 16 (7/8" bore) and larger are not included in the SAE J1402/FMVSS 102 standards.



NOTE: Series 5040 will replace the 4415 industrial hose. The 4415 series will be phased out as inventories are depleted and replaced by the Series 5040 hose. This will be a running change.

APPLICATIONS: Used for oil return lines of hydraulic systems in industrial and agricultural systems.

CONSTRUCTION:	Tube: Nitrile, black, ARPM Class A
	Cover: CR, black ARPM Class B
	Reinforcement: Two ply synthetic fabric with a wire helix

TEMPERATURE RANGE: -40°F (-40°C) to +212°F (+100°C)

COUPLINGS: 12/JB12 Series - see pages 55 thru 97

Part Number	Inside Diameter		Outside Diameter		Working Pressure		Burst Pressure		Minimum Bend Radius		Weight		Standard Pack	
	inch	mm	inch	mm	PSI	BAR	PSI	BAR	inch	mm	lbs./ft.	kg/m	feet	meter
5040-12	3/4	19.1	1.14	29.0	300	20.7	1200	82.8	2.0	50.8	0.45	0.67	100	30.5
5040-16	1	25.4	1.38	35.0	250	17.2	1000	68.8	2.6	66.0	0.50	0.74	100	30.5
5040-20	1-1/4	31.8	1.65	42.0	200	13.8	800	55.2	3.3	83.8	0.64	0.95	100	30.5
5040-24	1-1/2	38.1	1.93	49.0	150	10.4	600	41.6	3.8	95.3	0.80	1.19	100	30.5
5040-32	2	50.8	2.44	62.0	100	6.9	400	27.6	5.3	134.6	0.99	1.47	100	30.5
5040-40	2-1/2	63.5	2.97	75.5	60	4.0	240	16.0	7.0	180.0	1.36	2.02	100	30.5
5040-48	3	76.2	3.46	88.0	60	4.0	240	16.0	9.0	225.0	1.68	2.51	100	30.5

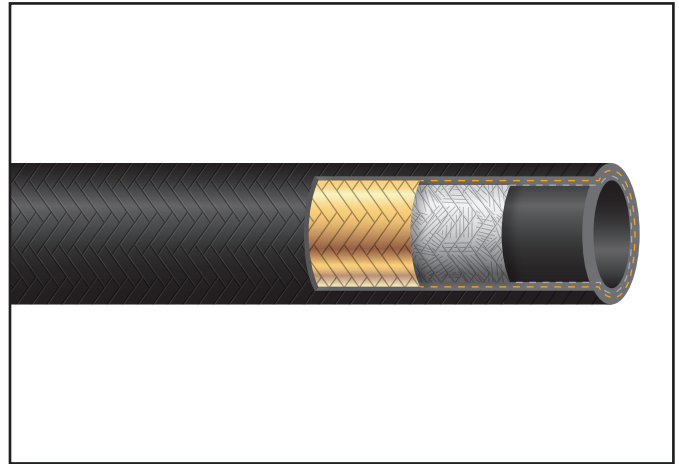
Note: Check with customer service for availability of these part numbers.

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SAE 100R5, SAE J1402 Type All DOT FMVSS 106-74 Type All

5050 SERIES



APPLICATIONS: Used for general purpose truck and hydraulic hose. For use in air brake, oil lines and medium pressure hydraulic applications.

CONSTRUCTION:	Tube: CPE Rubber
	Cover: Oil and weather resistant rubber impregnated synthetic braid
	Reinforcement: Synthetic textile and one wire braid of high tensile steel

TEMPERATURE RANGE: -40°F (-40°C) to +300°F (+125°C)
Continuous use at maximum temperature will reduce service duration.

COUPLINGS: 75/JFR5 Series - see pages 162 thru 167

Part Number	Inside Diameter		Outside Diameter		Working Pressure		Burst Pressure		Minimum Bend Radius		Weight		Standard Pack	
	inch	mm	inch	mm	PSI	BAR	PSI	BAR	inch	mm	lbs./ft.	kg/m	feet	meter
5050-04	3/16	4.8	0.51	12.9	3046	210	12183	840	3.0	75	0.17	0.25	300	91.5
5050-05	1/4	6.4	0.57	14.5	3046	210	12183	840	3.4	85	0.20	0.30	300	91.5
5050-06	5/16	8.0	0.66	16.8	2277	157	9109	628	4.0	100	0.25	0.37	250	76.2
5050-08	13/32	10.3	0.75	19.1	2031	140	8122	560	4.6	115	0.29	0.43	250	76.2
5050-10	1/2	12.7	0.90	22.9	1769	122	7078	488	5.5	140	0.40	0.59	200	61.0
5050-12	5/8	16.0	1.07	27.1	1523	105	6092	420	6.5	165	0.50	0.74	200	61.0
5050-16	7/8	22.2	1.21	30.73	812	56	3249	236	7.4	188	0.50	0.75	150	45.7

NOTE: Only approved field attachable (reusable) screw together couplings can be used on this hose for compliance with DOT FMVSS 106 requirements. No crimp couplings may be used on any airbrake hose without the end assembler testing, registering and complying with DOT.

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2-Wire Braid Jack Hose

For 10,150 psi. static pressure only



APPLICATIONS: 10,150 psi. static jack line use. **DO NOT** use on any dynamic application

CONSTRUCTION:	Tube: Synthetic Rubber
	Cover: Oil, weather and abrasion resistant synthetic rubber, MSHA approved
	Reinforcement: Two wire braids of high tensile steel with protective coating

TEMPERATURE RANGE: -40°F (-40°C) to +212°F (+100°C)

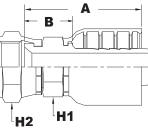
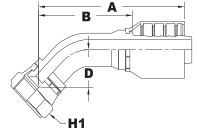
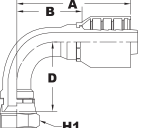
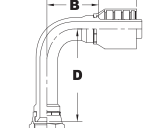
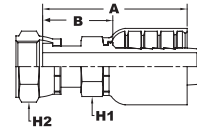
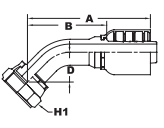
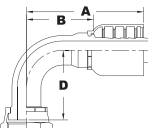
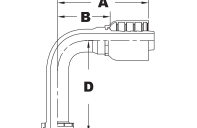
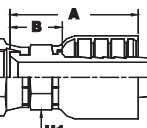
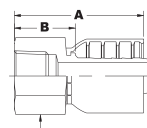
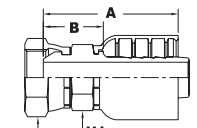
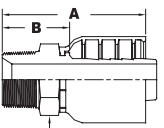
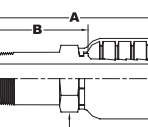
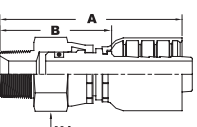
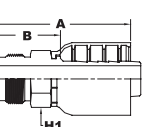
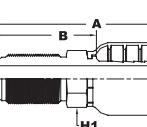
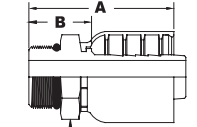
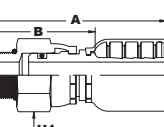
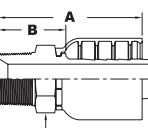
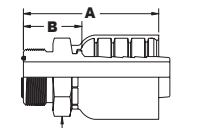
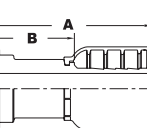
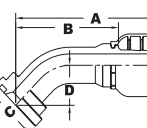
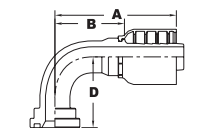
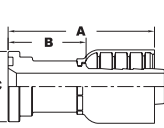
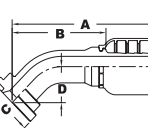
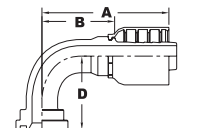
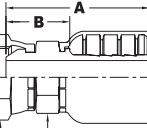
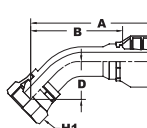
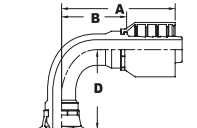
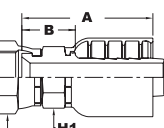
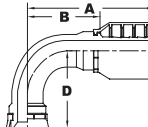
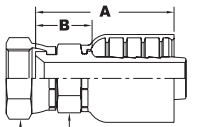
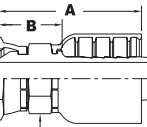
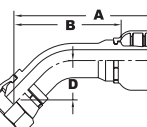
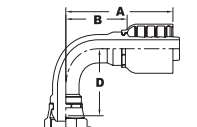
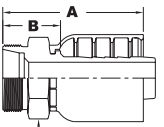
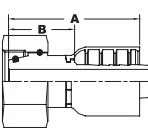
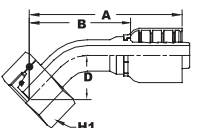
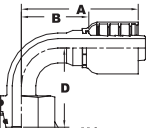
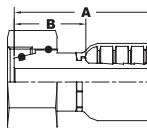
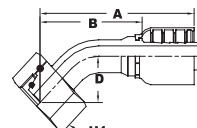
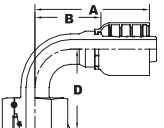
COUPLINGS: 1220L Couplings - page 68

Part Number	Inside Diameter		Outside Diameter		Working Pressure		Burst Pressure		Minimum Bend Radius		Weight		Standard Pack	
	inch	mm	inch	mm	PSI	BAR	PSI	BAR	inch	mm	lbs./ft.	kg/m	feet	meter
5220-04	1/4	6.4	0.59	15.0	10150	700	20300	1400	3.9	100	0.24	0.35	500	152.4
5220-06	3/8	9.5	0.75	19.0	10150	700	20300	1400	5.1	130	0.34	0.51	500	152.4

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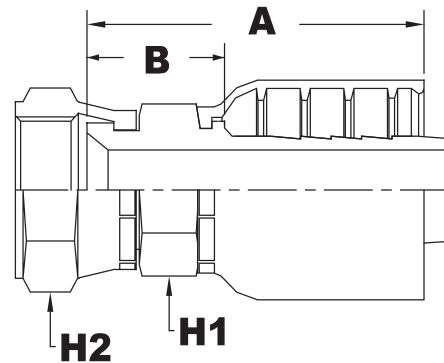
12/JB12 SERIES COUPLINGS - FOR 1 & 2-WIRE BRAID HOSES

1200 JB12FS  Female JIC 37° Flared Swivel	1202 JB12FS45  Female JIC 37° Flared Swivel 45° Elbow	1204 JB12FS90  Female JIC 37° Flared Swivel 90° Elbow	1204L JB12FS90L  Female JIC 37° Flared Swivel 90° Elbow (Long)	1205 JB12OFS  Female O-Ring Face Seal Straight	1207 JB12OFS45  Female O-Ring Face Seal 45° Elbow
1209 JB12OFS90  Female O-Ring Face Seal 90° Elbow	1209L JB12OFS90L  Female O-Ring Face Seal 90° Elbow - Long Drop	1210 JB12FA  Female Swivel - SAE 45° Flare	1215 JB12FP  Female Pipe Rigid NPTF	1216 JB12FBS  Female Pipe Swivel NPTF	1220 JB12MP  Male Pipe Rigid NPTF
1220L JB12MPL  Extended Nose Male Pipe Rigid NPTF	1223 JB12MS  Male Pipe Swivel NPTF	1225 JB12MJ  Male JIC - 37°	1226 JB12MJBH  Male JIC - 37° Bulkhead	1227 JB12OB  Male O-Ring Boss	1228 JB12OBS  Male O-Ring Boss Swivel
1230 JB12JISMP  Male BSP/JIS Taper Rigid Pipe - Metric	1232 JB12MOFS  SAE Male O-Ring Face Seal	1234 JB12C61S  SAE Code 61 Flange - Straight	1236 JB12C6145  SAE Code 61 Flange - 45° Elbow	1239 JB12C6190  SAE Code 61 Flange - 90° Elbow	1241 JB12C62S  SAE Code 62 Flange - Straight
1243 JB12C6245  SAE Code 62 Flange - 45° Elbow	1245 JB12C6290  SAE Code 62 Flange - 90° Elbow	1248 JB12FSPPBSP  Female Swivel - BSP Parallel Pipe 30° Cone - Metric	1249 JB12FSPPBSP45  Female Swivel - BSP Parallel Pipe 30° Cone - 45° Elbow - Metric	1250 JB12FSPPBSP90  Female Swivel - BSP Parallel Pipe 30° Cone - 90° Elbow - Metric	1258 JB12FSJISF  Female Swivel - JIS, 30° Flare
1259 JB12FSJISF90  Female Swivel - JIS Parallel Pipe, 30° Flare - 90° Elbow	1270 JB12KFSM  Female Swivel - Komatsu 30° Flare Metric	1271 JB12FSM  Female Swivel - 60° Cone DIN Metric	1272 JB12FSM45  Female Swivel - 60° Cone 45° Elbow - Metric	1273 JB12FS90M  Female Swivel - 60° Cone - DIN 90° Elbow - Metric	1275 JB12MM  Male 24° DIN - Metric L Series (Light)
1277 JB12LFSORM  Female Swivel O-Ring - 24° Cone L Series (Light) DIN 3865 - Metric	1278 JB12LFSORM45  Female Swivel O-Ring - 24° Cone Series (Light) DIN 3865 45° Elbow - Metric	1279 JB12LFSORM90  Female Swivel O-Ring - 24° Cone L Series (Light) DIN 3865 90° Elbow - Metric	1280 JB12SFSORM  Female Swivel O-Ring - 24° Cone Series (Standard) DIN 3865 - Metric	1281 JB12SFSORM45  Female Swivel O-Ring - 24° Cone S (Standard) DIN 3865 - 45° Elbow Metric	1282 JB12SFSORM90  Female Swivel O-Ring - 24° Cone S (Standard) DIN 3865 - 90° Elbow Metric

1200 SERIES

JB12FS SERIES

Female Swivel 37° Flare



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Sizes				Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	H1		H2		lbs	kg	
1200-0404	JB12FS-04-04	7/16-20	1/4	6.4	1.61	41.0	0.83	21.0	0.56	14.2	0.56	14.2	0.12	0.05	250
1200-0504	JB12FS-05-04	1/2-20	1/4	6.4	1.65	42.0	0.87	22.0	0.56	14.2	0.56	14.2	0.13	0.06	250
1200-0604	JB12FS-06-04	9/16-18	1/4	6.4	1.65	42.0	0.87	22.0	0.56	14.2	0.69	17.4	0.14	0.06	250
1200-0406	JB12FS-04-06	7/16-20	3/8	9.5	1.97	50.0	0.91	23.0	0.69	17.4	0.56	14.2	0.18	0.08	130
1200-0506	JB12FS-05-06	1/2-20	3/8	9.5	1.92	48.8	1.07	29.0	0.69	17.4	0.56	14.2	0.19	0.09	130
1200-0606	JB12FS-06-06	9/16-18	3/8	9.5	1.97	50.0	0.91	23.0	0.69	17.4	0.69	17.4	0.21	0.10	130
1200-0806	JB12FS-08-06	3/4-16	3/8	9.5	1.97	50.0	0.91	23.0	0.69	17.4	0.87	22.2	0.26	0.12	130
1200-0808	JB12FS-08-08	3/4-16	1/2	12.7	2.13	54.0	0.91	23.0	0.87	22.2	0.87	22.2	0.30	0.14	100
1200-1008	JB12FS-10-08	7/8-14	1/2	12.7	2.17	55.0	0.94	24.0	0.87	22.2	1.00	25.4	0.32	0.14	80
1200-1208	JB12FS-12-08	1-1/16-12	1/2	12.7	2.17	55.0	0.94	24.0	0.87	22.2	1.00	25.4	0.42	0.19	80
1200-0810	JB12FS-08-10	3/4-16	5/8	15.9	2.59	65.8	1.06	27.0	1.06	27	0.87	22.2	0.33	0.15	70
1200-1010	JB12FS-10-10	7/8-14	5/8	15.9	2.48	63.0	0.98	25.0	0.87	22.2	1.00	25.4	0.39	0.18	70
1200-1210	JB12FS-12-10	1-1/16-12	5/8	15.9	2.60	66.0	1.06	27.0	1.06	26.9	1.25	31.7	0.46	0.21	70
1200-1212	JB12FS-12-12	1-1/16-12	3/4	19.1	2.60	66.0	1.06	27.0	1.06	26.9	1.25	31.7	0.53	0.24	50
1200-1412	JB12FS-14-12	1-3/16-12	3/4	19.1	2.65	67.3	1.07	29.0	1.06	26.9	1.31	33.3	0.68	0.31	50
1200-1612	JB12FS-16-12	1-5/16-12	3/4	19.1	2.60	66.0	1.06	27.0	1.06	26.9	1.37	34.9	0.72	0.33	50
1200-1616	JB12FS-16-16	1-5/16-12	1	25.4	3.07	78.0	1.30	33.0	1.50	38.1	1.37	34.9	1.07	0.48	36
1200-2016	JB12FS-20-16	1-5/8-12	1	25.4	3.15	80.0	1.34	34.0	2.00	50.8	2.00	50.8	1.34	0.61	15
1200-2020	JB12FS-20-20	1-5/8-12	1-1/4	31.8	3.23	82.0	1.38	35.0	2.00	50.8	2.00	50.8	1.74	0.79	15
1200-2424	JB12FS-24-24	1-7/8-12	1-1/2	38.1	4.02	102.0	1.69	43.0	2.25	57.1	2.12	53.9	2.41	1.09	12
1200-3232	JB12FS-32-32	2-1/2-12	2	50.8	4.96	126.0	2.17	55.0	2.50	63.5	2.87	73.0	4.24	1.92	8

*Standard Pack is 1.

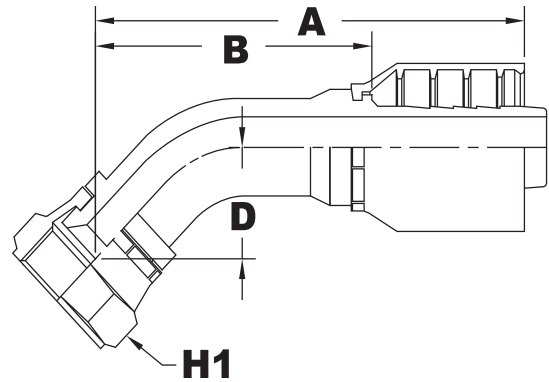
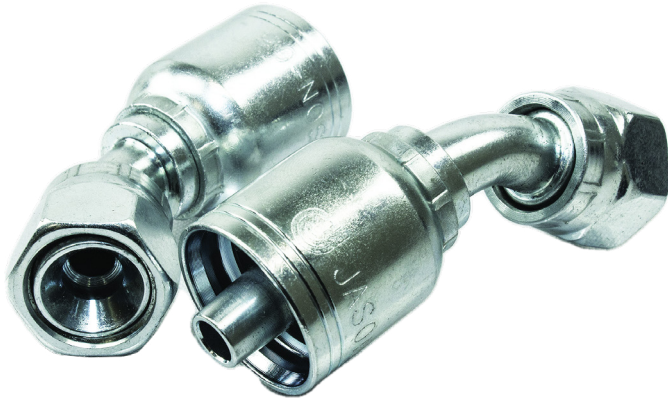
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JB12FS45 SERIES

Female Swivel 37° Flare - 45° Elbow

1202 SERIES



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Hex Size		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs	kg	
1202-0404	JB12FS45-04-04	7/16-20	1/4	6.4	2.17	55.0	1.34	34.0	0.51	13.0	0.56	14.2	0.12	0.05	250
1202-0504	JB12FS45-05-04	1/2-20	1/4	6.4	2.17	55.0	1.34	34.0	0.51	13.0	0.69	17.4	0.13	0.06	250
1202-0604	JB12FS45-06-04	9/16-18	1/4	6.4	2.20	56.0	1.38	35.0	0.55	14.0	0.69	17.4	0.14	0.06	250
1202-0606	JB12FS45-06-06	9/16-18	3/8	9.5	2.68	68.0	1.61	41.0	0.63	16.0	0.69	17.4	0.21	0.10	130
1202-0806	JB12FS45-08-06	3/4-16	3/8	9.5	2.68	68.0	1.61	41.0	0.63	16.0	0.87	22.2	0.25	0.11	130
1202-0808	JB12FS45-08-08	3/4-16	1/2	12.7	3.15	80.0	1.89	48.0	0.75	19.0	0.87	22.2	0.31	0.14	100
1202-1008	JB12FS45-10-08	7/8-14	1/2	12.7	3.15	80.0	1.89	48.0	0.75	19.0	1.00	25.4	0.35	0.16	80
1202-1010	JB12FS45-10-10	7/8-14	5/8	15.9	3.54	90.0	2.01	51.0	0.75	19.0	1.00	25.4	0.41	0.19	70
1202-1212	JB12FS45-12-12	1-1/16-12	3/4	19.1	4.45	113.0	2.87	73.0	1.02	26.0	1.25	31.7	0.77	0.35	50
1202-1616	JB12FS45-16-16	1-5/16-12	1	25.4	4.80	122.0	3.03	77.0	1.22	31.0	1.50	38.1	1.31	0.60	36
1202-2020	JB12FS45-20-20	1-5/8-12	1-1/4	31.8	5.91	150.0	4.06	103.0	1.57	40.0	2.00	50.8	2.20	1.00	15
1202-2424	JB12FS45-24-24	1-7/8-12	1-1/2	38.1	6.89	175.0	4.53	115.0	1.81	46.0	2.12	53.9	2.41	1.09	12
1202-3232	JB12FS45-32-32	2-1/2-12	2	50.8	8.31	211.0	5.51	140.0	2.44	62.0	2.87	73.0	4.23	1.92	8

*Standard Pack is 1.

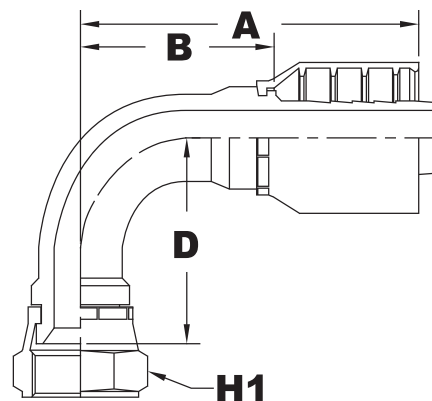
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1204 SERIES

JB12FS90 SERIES

Female Swivel 37° Flare - 90° Elbow



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Hex Size		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
1204-0404	JB12FS90-04-04	7/16-20	1/4	6.4	2.01	51.0	1.18	30.0	0.94	24.0	0.56	14.2	0.12	0.05	200
1204-0504	JB12FS90-05-04	1/2-20	1/4	6.4	2.01	51.0	1.18	30.0	0.94	24.0	0.69	17.4	0.15	0.07	200
1204-0604	JB12FS90-06-04	9/16-18	1/4	6.4	2.01	51.0	1.18	30.0	0.98	25.0	0.69	17.4	0.14	0.06	200
1204-0406	JB12FS90-04-06	7/16-20	3/8	9.5	2.72	69.0	1.65	42.0	1.10	28.0	0.56	14.2	0.21	0.10	200
1204-0606	JB12FS90-06-06	9/16-18	3/8	9.5	2.72	69.0	1.65	42.0	1.14	29.0	0.69	17.4	0.21	0.10	110
1204-0806	JB12FS90-08-06	3/4-16	3/8	9.5	2.72	69.0	1.65	42.0	1.14	29.0	0.87	22.2	0.26	0.12	110
1204-0608	JB12FS90-06-08	9/16-18	1/2	12.7	2.76	70.0	1.50	38.0	1.22	31.0	0.69	17.4	0.25	0.11	70
1204-0808	JB12FS90-08-08	3/4-16	1/2	12.7	2.76	70.0	1.50	38.0	1.22	31.0	0.87	22.2	0.33	0.15	70
1204-1008	JB12FS90-10-08	7/8-14	1/2	12.7	2.76	70.0	1.50	38.0	1.22	31.0	1.00	25.4	0.35	0.16	70
1204-1208	JB12FS90-12-08	1-1/16-12	1/2	12.7	2.76	70.0	1.50	38.0	1.22	31.0	1.25	31.7	0.41	0.19	70
1204-1010	JB12FS90-10-10	7/8-14	5/8	15.9	2.80	71.0	1.65	42.0	1.38	35.0	1.00	25.4	0.44	0.20	70
1204-1210	JB12FS90-12-10	1-1/16-12	5/8	15.9	2.80	71.0	1.65	42.0	1.50	38.0	1.25	31.7	0.49	0.22	32
1204-1212	JB12FS90-12-12	1-1/16-12	3/4	19.1	3.98	101.0	2.40	61.0	1.97	50.0	1.25	31.7	0.83	0.38	32
1204-1612	JB12FS90-16-12	1-5/16-12	3/4	19.1	3.98	101.0	2.40	61.0	1.97	50.0	1.25	31.7	0.81	0.37	32
1204-1616	JB12FS90-16-16	1-5/16-12	1	25.4	4.96	126.0	3.19	81.0	2.44	62.0	1.50	38.1	1.49	0.68	15
1204-2020	JB12FS90-20-20	1-5/8-12	1-1/4	31.8	5.51	140.0	3.66	93.0	3.23	82.0	1.98	50.4	2.47	1.12	10
1204-2424	JB12FS90-24-24	1-7/8-12	1-1/2	38.1	5.94	151.0	3.58	91.0	3.39	86.0	2.12	53.9	3.23	1.46	7
1204-3232	JB12FS90-32-32	2-1/2-12	2	50.8	8.11	206.0	5.31	135.0	5.28	134.0	2.87	73.0	6.99	3.17	3

*Standard Pack is 1.

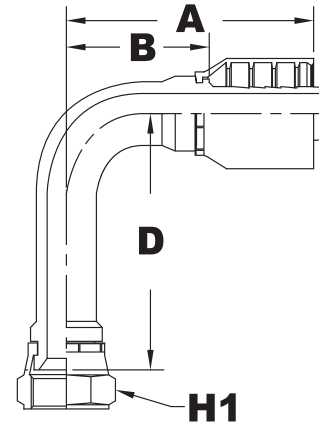
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JB12FS90L SERIES

Female Swivel 37° Flare - 90° Elbow Long Drop

1204L SERIES



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Hex Size H1		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
1204L-0404	JB12FS90L-04-04	7/16-20	1/4	6.4	2.01	51.0	1.18	30.0	1.81	46.0	0.56	14.2	0.13	0.06	200
1204L-0504	JB12FS90L-05-04	1/2-20	1/4	6.4	2.01	51.0	1.18	30.0	1.81	46.0	0.69	17.4	0.15	0.07	200
1204L-0604	JB12FS90L-06-04	9/16-18	1/4	6.4	1.89	48.0	1.07	27.2	2.17	55	0.69	17.46	0.15	0.07	200
1204L-0606	JB12FS90L-06-06	9/16-18	3/8	9.5	2.72	69.0	1.65	42.0	2.17	55.0	0.69	17.4	0.24	0.11	110
1204L-0806	JB12FS90L-08-06	3/4-16	3/8	9.5	2.72	69.0	1.65	42.0	2.44	62.0	0.87	22.2	0.26	0.12	110
1204L-0808	JB12FS90L-08-08	3/4-16	1/2	12.7	2.76	70.0	1.50	38.0	2.44	62.0	0.87	22.2	0.35	0.16	70
1204L-1008	JB12FS90L-10-08	7/8-14	1/2	12.7	2.76	70.0	1.50	38.0	2.56	65.0	1.00	25.4	0.37	0.17	70
1204L-1010	JB12FS90L-10-10	7/8-14	5/8	15.9	2.80	71.0	1.65	42.0	2.56	65.0	1.00	25.4	0.57	0.26	50
1204L-1212	JB12FS90L-12-12	1-1/16-12	3/4	19.1	3.98	101.0	2.40	61.0	3.74	95.0	1.25	31.7	1.01	0.46	28
1204L-1412	JB12FS90L-14-12	1-3/16-12	3/4	19.1	3.67	93.3	2.13	54.0	3.78	96	1.38	35	0.88	0.4	28
1204L-1616	JB12FS90L-16-16	1-5/16-12	1	25.4	4.96	126.0	3.19	81.0	4.33	110.0	1.50	38.1	1.68	0.76	12
1204L-2020	JB12FS90L-20-20	1-5/8-12	1-1/4	31.8	5.51	140.0	3.66	93.0	5.28	134.0	2.00	50.8	2.91	1.32	8
1204L-2424	JB12FS90L-24-24	1-7/8-12	1-1/2	38.1	6.34	161.1	4.00	101.6	5.55	141.0	2.17	55	3.92	1.78	5

*Standard Pack is 1.

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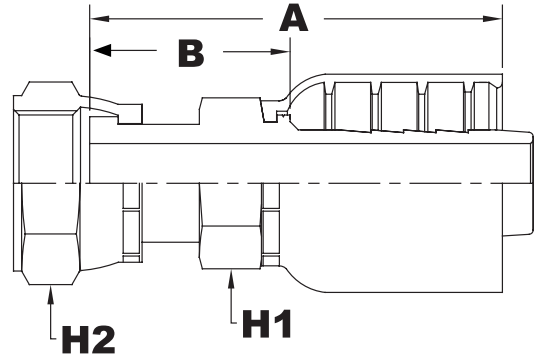


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1205 SERIES

JB12OFS SERIES

Female O-Ring Face Seal Straight



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Sizes				Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	H1		H2		lbs.	kg	
1205-0404	JB12OFS-04-04	9/16-18	1/4	6.4	1.89	48.0	1.10	28.0	0.56	14.2	0.69	17.4	0.07	0.03	250
1205-0604	JB12OFS-06-04	11/16-16	1/4	6.4	1.97	50.0	1.18	30.0	0.69	17.4	0.81	20.6	0.07	0.03	250
1205-0804	JB12OFS-08-04	13/16-16	1/4	6.4	2.09	53.0	1.30	33.0	0.69	17.4	0.94	23.8	0.05	0.02	250
1205-0606	JB12OFS-06-06	11/16-16	3/8	9.5	2.20	56.0	1.14	29.0	0.69	17.4	0.81	20.6	0.10	0.04	130
1205-0806	JB12OFS-08-06	13/16-16	3/8	9.5	2.32	59.0	1.26	32.0	0.69	17.4	0.94	23.8	0.11	0.05	130
1205-0608	JB12OFS-06-08	11/16-16	1/2	12.7	2.36	60.0	1.14	29.0	0.81	20.6	0.81	20.6	0.07	0.03	80
1205-0808	JB12OFS-08-08	13/16-16	1/2	12.7	2.48	63.0	1.26	32.0	0.81	20.6	0.94	23.8	0.16	0.07	80
1205-1008	JB12OFS-10-08	1-14	1/2	12.7	2.76	70.0	1.54	39.0	0.81	20.6	1.12	28.5	0.16	0.07	80
1205-1208	JB12OFS-12-08	1-3/16-12	1/2	12.7	2.87	73.0	1.65	42.0	0.94	23.8	1.37	34.9	0.30	0.14	50
1205-0810	JB12OFS-08-10	13/16-16	5/8	15.9	2.76	70.0	1.26	32.0	0.94	23.8	0.94	23.8	0.14	0.06	70
1205-1010	JB12OFS-10-10	1-14	5/8	15.9	2.76	70.0	1.54	39.0	0.81	20.6	1.12	28.5	0.23	0.10	60
1205-1210	JB12OFS-12-10	1-3/16-12	5/8	15.9	3.15	80.0	1.65	42.0	1.00	25.4	1.37	34.9	0.34	0.15	70
1205-1012	JB12OFS-10-12	1-14	3/4	19.1	3.07	78.0	1.54	39.0	1.06	26.9	1.12	28.5	0.12	0.05	50
1205-1212	JB12OFS-12-12	1-3/16-12	3/4	19.1	3.15	80.0	1.61	41.0	1.12	28.5	1.37	34.9	0.32	0.15	50
1205-1612	JB12OFS-16-12	1-7/16-12	3/4	19.1	3.23	82.0	1.69	43.0	1.25	31.7	1.62	41.2	0.38	0.17	50
1205-1216	JB12OFS-12-16	1-3/16-12	3/4	19.1	3.39	86.0	1.61	41.0	1.62	41.2	1.37	34.9	0.35	0.16	36
1205-1616	JB12OFS-16-16	1-7/16-12	1	25.4	3.54	90.0	1.77	45.0	1.37	34.9	1.62	41.2	0.49	0.22	36
1205-2016	JB12OFS-20-16	1-11/16-12	1	25.4	3.07	78.0	1.30	33.0	1.37	34.9	1.87	47.6	0.62	0.28	15
1205-1620	JB12OFS-16-20	1-7/16-12	1-1/4	31.8	3.58	91.0	1.73	44.0	1.75	44.4	1.62	41.2	0.78	0.35	15
1205-2020	JB12OFS-20-20	1-11/16-12	1-1/4	31.8	3.39	86.0	1.54	39.0	1.75	44.4	1.87	47.6	0.84	0.38	15
1205-2420	JB12OFS-24-20	2-12	1-1/4	31.8	3.46	88.0	1.61	41.0	1.75	44.4	2.25	57.1	0.98	0.44	12
1205-2424	JB12OFS-24-24	2-12	1-1/2	38.1	3.94	100.0	1.61	41.0	1.87	47.6	2.25	57.1	1.15	0.52	12

*Standard Pack is 1.

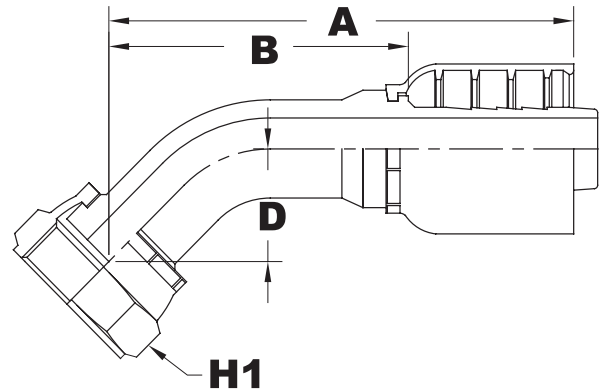
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JB12OFS45 SERIES

Female O-Ring Face Seal - 45° Elbow

1207 SERIES



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Hex Sizes		Weight		Bulk Pack
					inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
1207-0404	JB12OFS45-04-04	9/16-18	1/4	6.4	2.17	55.0	1.34	34.0	0.51	13.0	0.69	17.4	0.14	0.06	250
1207-0604	JB12OFS45-06-04	11/16-16	1/4	6.4	2.20	56.0	1.38	35.0	0.55	14.0	0.81	20.6	0.15	0.07	130
1207-0804	JB12OFS45-08-04	13/16-16	1/4	6.4	2.28	58.0	1.46	37.0	0.63	16.0	0.94	23.8	0.11	0.05	250
1207-0605	JB12OFS45-06-05	11/16-16	5/16	7.9	2.20	56.0	1.38	35.0	0.55	14.0	0.81	20.6	0.11	0.05	200
1207-0406	JB12OFS45-04-06	9/16-18	3/8	9.5	2.64	67.0	1.57	40.0	0.59	15.0	0.69	17.4	0.11	0.05	130
1207-0606	JB12OFS45-06-06	11/16-16	3/8	9.5	2.68	68.0	1.61	41.0	0.63	16.0	0.81	20.6	0.22	0.10	130
1207-0806	JB12OFS45-08-06	13/16-16	3/8	9.5	2.76	70.0	1.61	41.0	0.67	17.0	0.81	20.6	0.25	0.11	130
1207-0608	JB12OFS45-06-08	11/16-16	1/2	12.7	3.23	82.0	1.77	45.0	0.83	21.0	0.94	23.8	0.15	0.07	130
1207-0808	JB12OFS45-08-08	13/16-16	1/2	12.7	3.27	83.0	1.97	50.0	0.83	21.0	0.94	23.8	0.36	0.16	80
1207-1008	JB12OFS45-10-08	1-14	1/2	12.7	3.23	82.0	2.01	51.0	0.79	20.0	1.12	28.5	0.39	0.18	80
1207-1208	JB12OFS45-12-08	1-3/16-12	1/2	12.7	3.23	82.0	1.97	50.0	0.79	20.0	1.37	34.9	0.26	0.12	80
1207-0810	JB12OFS45-08-10	13/16-16	5/8	15.9	3.62	92.0	2.09	53.0	0.79	20.0	1.29	32.8	0.18	0.08	70
1207-1010	JB12OFS45-10-10	1-14	5/8	15.9	3.66	93.0	2.13	54.0	0.83	21.0	1.12	28.5	0.52	0.24	70
1207-1210	JB12OFS45-12-10	1-3/16-12	5/8	15.9	3.62	92.0	2.09	53.0	0.79	20.0	1.37	34.9	0.28	0.13	50
1207-1012	JB12OFS45-10-12	1-14	3/4	19.1	4.57	116.0	2.99	76.0	1.14	29.0	1.12	28.5	0.26	0.12	32
1207-1212	JB12OFS45-12-12	1-3/16-12	3/4	19.1	4.53	115.0	2.95	75.0	1.10	28.0	1.37	34.9	0.91	0.41	32
1207-1612	JB12OFS45-16-12	1-7/16-12	3/4	19.1	4.76	121.0	2.99	76.0	1.18	30.0	1.62	41.2	0.77	0.35	32
1207-1216	JB12OFS45-12-16	1-3/16-12	1	25.4	4.76	121.0	2.99	76.0	1.18	30.0	1.37	34.9	0.46	0.21	18
1207-1616	JB12OFS45-16-16	1-7/16-12	1	25.4	4.76	121.0	2.99	76.0	1.14	29.0	1.62	41.2	1.29	0.58	18
1207-2016	JB12OFS45-20-16	1-11/16-12	1	25.4	4.88	124.0	3.11	79.0	1.30	33.0	1.87	47.6	1.62	0.74	10
1207-1620	JB12OFS45-16-20	1-7/16-12	1-1/4	31.8	5.79	147.0	3.94	100.0	1.46	37.0	1.87	47.6	1.72	0.78	12
1207-2020	JB12OFS45-20-20	1-11/16-12	1-1/4	31.8	5.91	150.0	4.06	103.0	1.57	40.0	1.62	41.2	2.24	1.02	10
1207-2420	JB12OFS45-24-20	2-12	1-1/4	31.8	5.94	151.0	4.09	104.0	1.61	41.0	2.25	57.1	2.38	1.08	10
1207-2424	JB12OFS45-24-24	2-12	1-1/2	38.1	6.85	174.0	4.49	114.0	1.77	45.0	2.25	57.1	2.50	1.14	7

*Standard Pack is 1.

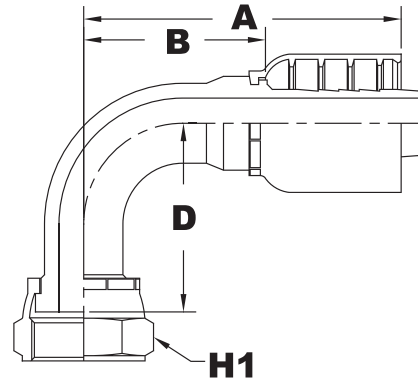
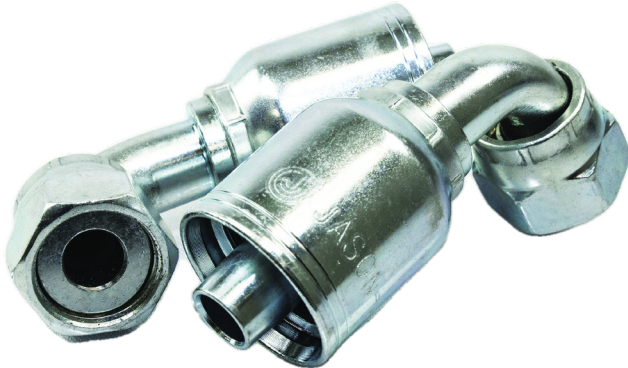
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1209 SERIES

JB12OFS90 SERIES

Female O-Ring Face Seal - 90° Elbow



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Hex Size		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	H1		lbs.	kg	
1209-0404	JB12OFS90-04-04	9/16-18	1/4	6.4	2.01	51.0	1.18	30.0	0.94	24.0	0.69	17.4	0.15	0.07	200
1209-0604	JB12OFS90-06-04	11/16-16	1/4	6.4	2.01	51.0	1.18	30.0	1.02	26.0	0.81	20.6	0.17	0.08	250
1209-0804	JB12OFS90-08-04	13/16-16	1/4	6.4	2.01	51.0	1.18	30.0	1.10	28.0	0.94	23.8	0.11	0.05	70
1209-0605	JB12OFS90-06-05	11/16-16	5/16	7.9	2.01	51.0	1.18	30.0	1.02	26.0	0.81	20.6	0.11	0.05	110
1209-0406	JB12OFS90-04-06	9/16-18	3/8	9.5	2.72	69.0	1.65	42.0	0.98	25.0	0.69	17.4	0.11	0.05	110
1209-0606	JB12OFS90-06-06	11/16-16	3/8	9.5	2.72	69.0	1.65	42.0	1.02	26.0	0.81	20.6	0.23	0.11	110
1209-0806	JB12OFS90-08-06	13/16-16	3/8	9.5	2.72	69.0	1.65	42.0	1.10	28.0	0.94	23.8	0.31	0.14	100
1209-0608	JB12OFS90-06-08	11/16-16	1/2	12.7	2.76	70.0	1.50	38.0	1.10	28.0	0.81	20.6	0.15	0.07	110
1209-0808	JB12OFS90-08-08	13/16-16	1/2	12.7	2.76	70.0	1.50	38.0	1.18	30.0	0.94	23.8	0.36	0.16	70
1209-1008	JB12OFS90-10-08	1-14	1/2	12.7	2.76	70.0	1.50	38.0	1.22	31.0	1.12	28.5	0.39	0.18	70
1209-1208	JB12OFS90-12-08	1-3/16-12	1/2	12.7	2.76	70.0	1.50	38.0	1.18	30.0	1.37	34.9	0.56	0.26	50
1209-0810	JB12OFS90-08-10	13/16-16	5/8	15.9	2.80	71.0	1.65	42.0	1.46	37.0	0.94	23.8	0.40	0.18	70
1209-1010	JB12OFS90-10-10	1-14	5/8	15.9	2.80	71.0	1.65	42.0	1.50	38.0	1.12	28.5	0.47	0.22	70
1209-1210	JB12OFS90-12-10	1-3/16-12	5/8	15.9	2.80	71.0	1.65	42.0	1.46	37.0	1.37	34.9	0.57	0.26	50
1209-1012	JB12OFS90-10-12	1-14	3/4	19.1	3.98	101.0	2.40	61.0	1.97	50.0	1.37	34.9	0.26	0.12	32
1209-1212	JB12OFS90-12-12	1-3/16-12	3/4	19.1	3.98	101.0	2.40	61.0	1.93	49.0	1.62	41.2	0.99	0.45	32
1209-1612	JB12OFS90-16-12	1-7/16-12	3/4	19.1	3.98	101.0	2.40	61.0	1.93	49.0	1.37	34.9	0.87	0.40	32
1209-1216	JB12OFS90-12-16	1-3/16-12	1	25.4	4.96	126.0	3.19	81.0	2.24	57.0	1.37	34.9	0.93	0.42	15
1209-1616	JB12OFS90-16-16	1-7/16-12	1	25.4	4.96	126.0	3.19	81.0	2.24	57.0	1.62	41.2	1.51	0.68	10
1209-2016	JB12OFS90-20-16	1-11/16-12	1	25.4	4.96	126.0	3.19	81.0	2.36	60.0	1.87	47.6	0.63	0.29	10
1209-1620	JB12OFS90-16-20	1-7/16-12	1-1/4	31.8	5.51	140.0	3.66	93.0	2.91	74.0	1.62	41.2	0.62	0.28	10
1209-2020	JB12OFS90-20-20	1-11/16-12	1-1/4	31.8	5.51	140.0	3.66	93.0	3.03	77.0	1.87	47.6	2.48	1.13	10
1209-2420	JB12OFS90-24-20	2-12	1-1/4	31.8	5.51	140.0	3.66	93.0	3.03	77.0	2.25	57.1	2.54	1.15	7
1209-2424	JB12OFS90-24-24	2-12	1-1/2	38.1	5.94	151.0	3.58	91.0	3.15	80.0	2.25	57.1	3.42	1.55	7

*Standard Pack is 1.

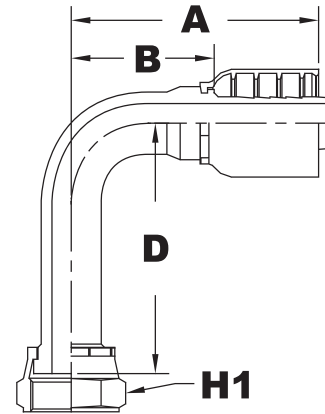
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JB12OFS90L SERIES

Female O-Ring Face Seal - 90° Elbow - Long Drop

1209L SERIES



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Hex Size H1		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
1209L-0404	JB12OFS90L-04-04	9/16-18	1/4	6.4	2.01	51.0	1.18	30.0	1.81	46.0	0.56	14.2	0.15	0.07	200
1209L-0606	JB12OFS90L-06-06	11/16-16	3/8	9.5	2.72	69.0	1.65	42.0	2.17	55.0	0.69	17.4	0.26	0.12	110
1209L-0808	JB12OFS90L-08-08	13/16-16	1/2	12.7	2.76	70.0	1.50	38.0	2.44	62.0	0.87	22.3	0.35	0.16	70
1209L-1010	JB12OFS90L-10-10	1-14	5/8	15.9	2.80	71.0	1.65	42.0	2.56	65.0	1.00	25.4	0.62	0.28	50
1209L-1212	JB12OFS90L-12-12	1-3/16-12	3/4	19.1	3.98	101.0	2.40	61.0	3.74	95.0	1.25	21.7	0.86	0.39	28
1209L-1616	JB12OFS90L-16-16	1-7/16-12	1	25.4	4.96	126.0	3.19	81.0	4.33	110.0	1.50	38.1	1.72	0.78	12

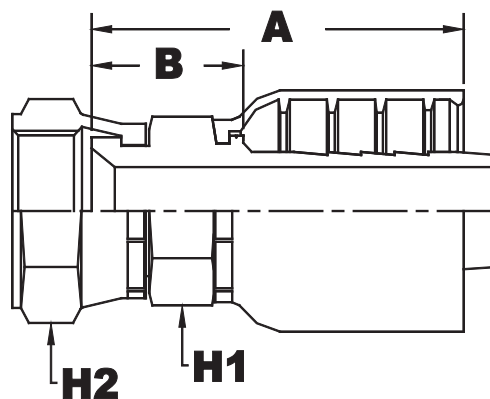
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1210 SERIES

JB12FA SERIES Female Swivel - SAE 45° Flare



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Sizes				Weight		Bulk Pack
									H1		H2				
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	qty
1210-0404	JB12FA-04-04	7/16-20	1/4	6.4	1.61	41.0	0.83	21.0	0.56	14.2	0.56	14.2	0.12	.05	250
1210-0606	JB12FA-06-06	5/8-18	3/8	9.5	1.97	50.0	0.91	23.0	0.69	17.4	0.69	17.4	0.19	.09	130
1210-0808	JB12FA-08-08	3/4-16	1/2	12.7	2.13	54.0	0.91	23.0	0.87	22.2	0.87	22.2	0.29	.13	100
1210-1212	JB12FA-12-12	1-1/16-14	3/4	19.1	2.60	66.0	1.06	27.0	1.06	26.9	1.25	31.7	0.54	.25	50
1210-1616	JB12FA-16-16	1-5/16-12	1	25.4	3.07	78.0	1.30	33.0	1.50	38.1	1.34	34.0	0.93	.42	36

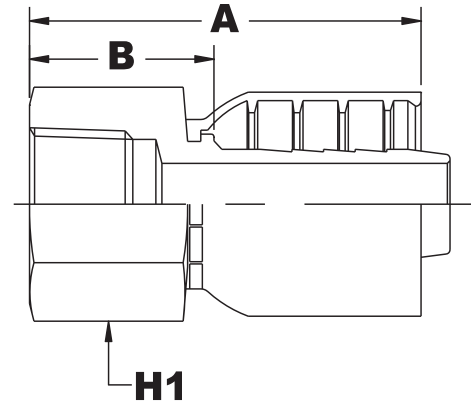
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JB12FP SERIES

Female Pipe Rigid NPTF

1215 SERIES



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Sizes		Weight		Bulk Pack
									H1				
			inch	mm	inch	mm	inch	mm	inch	mm	lbs	kg	qty
1215-0404	JB12FP-04-04	1/4-18	1/4	6.4	1.74	44.3	0.93	23.5	0.75	19.0	0.14	.06	250
1215-0604	JB12FP-06-04	3/8-18	1/4	6.4	1.90	48.3	1.08	27.5	0.87	22.0	0.13	.06	200
1215-0406	JB12FP-04-06	1/4-18	3/8	9.5	1.90	48.3	1.08	27.5	0.87	22.0	0.19	.09	180
1215-0606	JB12FP-06-06	3/8-18	3/8	9.5	2.17	55.0	1.10	28.0	0.87	22.0	0.21	.10	130
1215-0808	JB12FP-08-08	1/2-14	1/2	12.7	2.50	63.5	1.24	31.5	1.06	27.0	0.32	.15	100
1215-1212	JB12FP-12-12	3/4-14	3/4	19.1	2.93	74.3	1.38	35.0	1.42	36.0	0.65	.30	50
1215-1616	JB12FP-16-16	1-11.5	1	25.4	3.48	88.5	1.73	44.0	1.61	41.0	1.01	.46	36

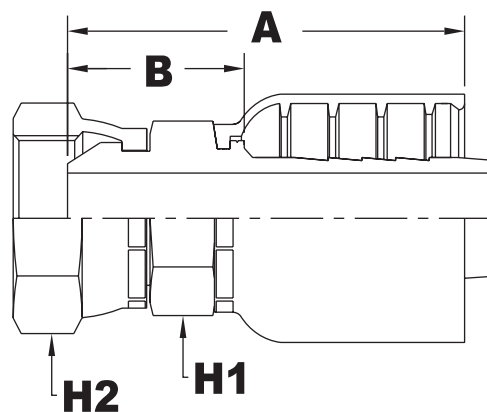
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1216 SERIES

JB12FPS SERIES

Female Pipe Swivel NPTF



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Sizes				Weight		Bulk Pack
									H1		H2				
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	qty
1216-0404	JB12FPS-04-04	1/4-18	1/4	6.4	1.77	44.9	0.95	24.1	0.75	19	0.56	14.2	0.15	0.07	250
1216-0606	JB12FPS-06-06	3/8-18	3/8	9.5	2.06	52.2	0.99	25.2	0.87	22	0.69	17.4	0.24	0.11	130
1216-0808	JB12FPS-08-08	1/2-14	1/2	12.7	2.30	58.5	1.04	26.5	1.06	27	0.87	22.2	0.37	0.17	80
1216-1212	JB12FPS-12-12	3/4-14	3/4	19.1	2.79	70.9	1.24	31.6	1.26	32	1.06	26.9	0.62	0.28	50
1216-1616	JB12FPS-16-16	1-11.5	1	25.4	3.17	80.6	1.42	36.1	1.42	36	1.38	34.9	1.06	0.48	36

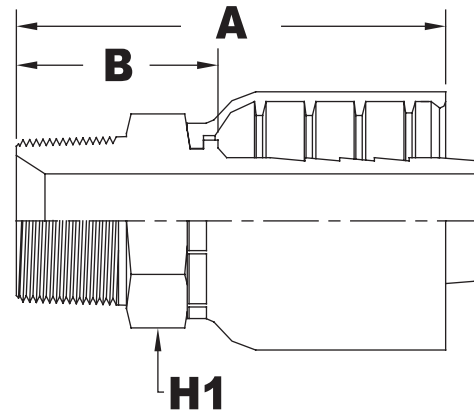
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JB12MP SERIES

Male Pipe Rigid NPTF

1220 SERIES



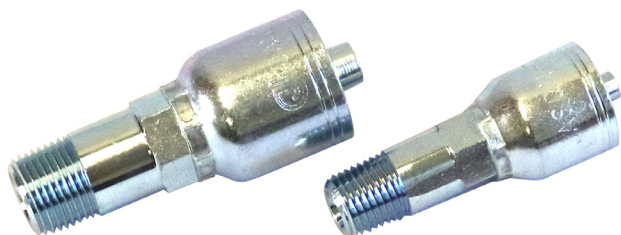
Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Sizes		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	H1		lbs.	kg	
1220-0203	JB12MP-02-03	1/8-27	3/16	4.8	1.8	45.6	0.81	20.6	0.56	14.2	0.09	0.04	500
1220-0403	JB12MP-04-03	1/4-18	3/16	4.8	1.97	50	0.98	25	0.56	14.2	0.11	0.05	250
1220-0204	JB12MP-02-04	1/8-27	1/4	6.4	1.81	46	1.02	26	0.56	14.2	0.1	0.04	250
1220-0404	JB12MP-04-04	1/4-18	1/4	6.4	1.81	46	1.02	26	0.56	14.2	0.11	0.05	250
1220-0604	JB12MP-06-04	3/8-18	1/4	6.4	1.93	49	1.14	29	0.75	19	0.14	0.06	200
1220-0804	JB12MP-08-04	1/2-14	1/4	6.4	2.05	52	1.26	32	0.87	22.2	0.19	0.08	200
1220-0405	JB12MP-04-05	1/4-18	5/16	7.9	1.93	49	1.06	27	0.69	17.4	0.11	0.05	250
1220-0605	JB12MP-06-05	3/8-18	5/16	7.9	2.01	51	1.14	29	0.69	17.4	0.11	0.05	130
1220-0406	JB12MP-04-06	1/4-18	3/8	9.5	2.13	54	1.06	27	0.69	17.4	0.17	0.08	180
1220-0606	JB12MP-06-06	3/8-18	3/8	9.5	2.2	56	1.14	29	0.69	17.4	0.18	0.08	180
1220-0806	JB12MP-08-06	1/2-14	3/8	9.5	2.32	59	1.26	32	0.87	22.2	0.23	0.11	100
1220-0608	JB12MP-06-08	3/8-18	1/2	12.7	2.13	54	1.06	27	0.87	22.2	0.22	0.1	100
1220-0808	JB12MP-08-08	1/2-14	1/2	12.7	2.48	63	1.3	33	0.87	22.2	0.28	0.13	100
1220-1208	JB12MP-12-08	3/4-14	1/2	12.7	2.48	63	1.26	32	1.06	26.9	0.36	0.17	100
1220-0610	JB12MP-06-10	3/8-18	5/8	15.9	2.64	67	1.06	27	0.94	23.8	0.26	0.12	100
1220-0810	JB12MP-08-10	1/2-14	5/8	15.9	2.76	70	1.3	33	0.94	23.8	0.35	0.16	80
1220-1210	JB12MP-12-10	3/4-14	5/8	15.9	2.76	70	1.26	32	1.06	26.9	0.43	0.19	60
1220-0812	JB12MP-08-12	1/2-14	3/4	19.1	2.8	71	1.26	32	1.06	26.9	0.43	0.2	80
1220-1212	JB12MP-12-12	3/4-14	3/4	19.1	2.91	74	1.38	35	1.06	26.9	0.5	0.23	50
1220-1612	JB12MP-16-12	1-11.5	3/4	19.1	3.11	79	1.57	40	1.37	34.9	0.63	0.28	50
1220-1216	JB12MP-12-16	3/4-14	1	25.4	3.19	81	1.42	36	1.37	34.9	0.81	0.37	50
1220-1616	JB12MP-16-16	1-11.5	1	25.4	3.43	87	1.61	41	1.37	34.9	0.88	0.4	36
1220-2016	JB12MP-20-16	1-1/4-11.5	1-1/4	25.4	3.57	90.6	1.81	46.1	1.81	46	1.21	0.55	30
1220-2020	JB12MP-20-20	1-1/4-11.5	1-1/4	31.8	3.78	96	1.93	49	1.69	42.8	1.14	0.52	15
1220-2424	JB12MP-24-24	1-1/2-11.5	1-1/2	38.1	4.29	109	1.97	50	2	50.8	2.08	0.95	15
1220-3232	JB12MP-32-32	2-11.5	2	50.8	5.42	137.7	2.2	56	2.5	63.5	3.48	1.58	8

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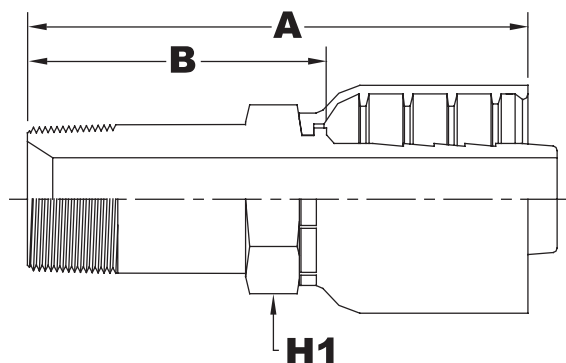
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1220L SERIES



JB12MPL SERIES

Extended Nose Male Pipe Rigid NPTF



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Sizes		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	H1		lbs.	kg	
1220L-0404	JB12MPL-04-04	1/4-18	1/4	6.4	2.20	56.0	1.42	36.0	0.56	14.2	0.13	0.06	250
1220L-0606	JB12MPL-06-06	3/8-18	3/8	9.5	2.60	66.0	1.54	39.0	0.69	17.4	0.19	0.09	180

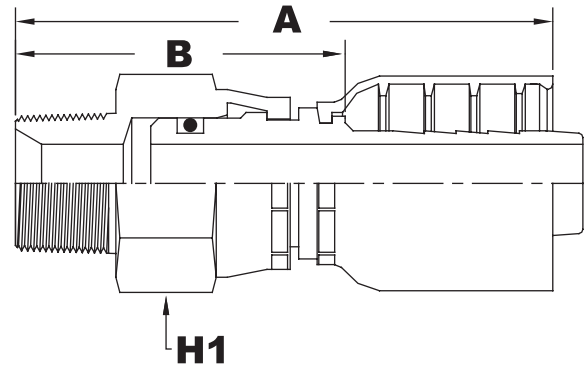
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JB12MS SERIES
Male Pipe Swivel NPTF

1223 SERIES



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Sizes		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	H1		lbs.	kg	
1223-0404	JB12MS-04-04	1/4-18	1/4	6.4	2.28	58.0	1.46	37.0	0.69	17.4	0.16	0.074	250
1223-0606	JB12MS-06-06	3/8-18	3/8	9.5	2.80	71.0	1.73	44.0	0.87	22.2	0.28	0.127	130
1223-0806	JB12MS-08-06	1/2-14	3/8	9.5	2.99	76.0	1.93	49.0	1.00	25.4	0.35	0.157	100
1223-0608	JB12MS-06-08	3/8-18	1/2	12.7	2.99	76.0	1.73	44.0	0.87	22.2	0.33	0.149	80
1223-0808	JB12MS-08-08	1/2-14	1/2	12.7	3.15	80.0	1.93	49.0	1.00	25.4	0.39	0.175	100
1223-1212	JB12MS-12-12	3/4-14	3/4	19.1	3.94	100.0	2.40	61.0	1.37	34.9	0.94	0.426	50
1223-1616	JB12MS-16-16	1-11.5	1	25.4	4.65	118.1	2.87	72.8	1.50	38.1	1.21	0.548	36

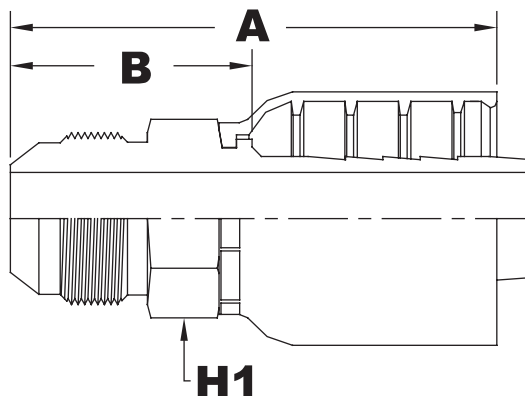
Note: Not for use as a live swivel. For installation only.

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1225 SERIES

JB12MJ SERIES

Male JIC - 37°


Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Sizes		Weight		Bulk Pack
									H1				
			in.	mm	in.	mm	in.	mm	inch	mm	lbs.	kg	qty.
1225-0404	JB12MJ-04-04	7/16-20	1/4	6.4	1.81	46.0	1.02	26.0	0.56	14.2	0.10	0.04	250
1225-0504	JB12MJ-05-04	1/2-20	1/4	6.4	1.81	46.0	1.02	26.0	0.56	14.2	0.12	0.05	250
1225-0604	JB12MJ-06-04	9/16-18	1/4	6.4	1.85	47.0	1.06	27.0	0.69	17.4	0.12	0.05	250
1225-0506	JB12MJ-05-06	1/2-20	3/8	9.5	2.13	54.0	1.06	27.0	0.75	19.0	0.17	0.08	200
1225-0606	JB12MJ-06-06	9/16-18	3/8	9.5	2.13	54.0	1.06	27.0	0.75	19.0	0.19	0.09	130
1225-0806	JB12MJ-08-06	3/4-16	3/8	9.5	2.24	57.0	1.18	30.0	0.87	22.2	0.21	0.10	130
1225-1006	JB12MJ-10-06	7/8-14	3/8	9.5	2.32	59.0	1.26	32.0	0.94	23.8	0.26	0.12	130
1225-0808	JB12MJ-08-08	3/4-16	1/2	12.7	2.40	61.0	1.18	30.0	0.87	22.2	0.28	0.13	100
1225-1008	JB12MJ-10-08	7/8-14	1/2	12.7	2.48	63.0	1.26	32.0	0.94	23.8	0.28	0.13	80
1225-1208	JB12MJ-12-08	1-1/16-12	1/2	12.7	2.72	69.0	1.50	38.0	1.12	28.5	0.38	0.17	80
1225-1010	JB12MJ-10-10	7/8-14	5/8	15.9	2.80	71.0	1.30	33.0	0.94	23.8	0.33	0.19	70
1225-1210	JB12MJ-12-10	1-1/16-12	5/8	15.9	2.99	76.0	1.50	38.0	1.12	28.5	0.45	0.21	70
1225-1212	JB12MJ-12-12	1-1/16-12	3/4	19.1	3.07	78.0	1.54	39.0	1.12	28.5	0.50	0.23	50
1225-1412	JB12MJ-14-12	1-3/16-12	3/4	19.1	3.10	78.7	1.52	38.6	1.25	32.0	0.56	0.26	50
1225-1612	JB12MJ-16-12	1-5/16-12	3/4	25.4	3.11	79.0	1.57	40.0	1.37	34.9	0.60	0.27	50
1225-1616	JB12MJ-16-16	1-5/16-12	1	25.4	3.35	85.0	1.57	40.0	1.37	34.9	0.88	0.40	36
1225-2016	JB12MJ-20-16	1-5/8-12	1	25.4	3.35	85.0	1.57	40.0	1.37	34.9	1.14	0.52	15
1225-2020	JB12MJ-20-20	1-5/8-12	1-1/4	31.8	3.58	91.0	1.73	44.0	1.87	47.6	1.41	0.64	15
1225-2420	JB12MJ-24-20	1-7/8-12	1-1/4	31.8	4.02	102.0	1.89	48.0	2.00	50.8	2.64	1.20	15
1225-2424	JB12MJ-24-24	1-7/8-12	1-1/2	38.1	4.37	111.0	2.03	51.5	2.00	50.8	2.07	0.94	12

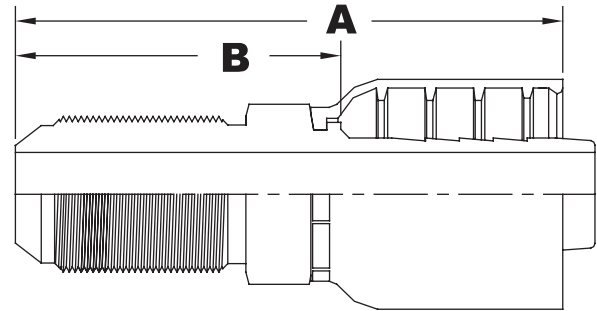
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JB12MJBH SERIES

Male JIC - 37° - Bulkhead

1226 SERIES



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	lbs.	kg	
1226-1208	JB12MJBH-12-08	1-1/16-12	1/2	12.7	4.82	122.4	3.34	84.9	0.64	0.29	45
1226-1612	JB12MJBH-16-12	1-5/16-12	1	25.4	4.45	113.0	2.90	73.7	0.88	0.40	40

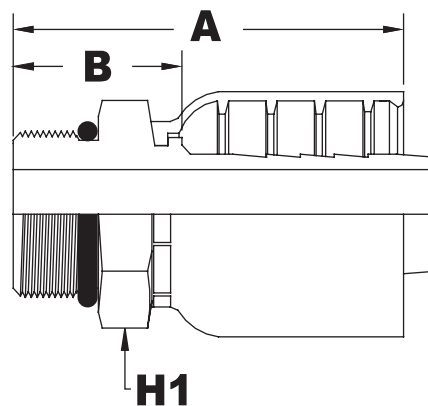
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1227 SERIES

JB12OB SERIES

Male O-Ring Boss



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Sizes		Weight		Bulk Pack
									H1				
			inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	qty
1227-0404	JB12OB-04-04	7/16-20	1/4	6.4	1.69	43.0	0.87	22.0	0.56	14.2	0.10	0.05	250
1227-0504	JB12OB-0504	1/2-20	1/4	6.4	1.67	42.4	0.85	21.6	0.62	15.8	0.13	0.06	250
1227-0604	JB12OB-06-04	9/16-18	1/4	6.4	1.81	46.0	0.98	25.0	0.69	17.4	0.14	0.06	250
1227-0606	JB12OB-06-06	9/16-18	3/8	9.5	2.05	52.0	0.98	25.0	0.69	17.4	0.17	0.08	130
1227-0806	JB12OB-08-06	3/4-16	3/8	9.5	2.05	52.0	0.98	25.0	0.87	22.0	0.21	0.10	130
1227-0808	JB12OB-08-08	3/4-16	1/2	12.7	2.24	57.0	0.98	25.0	0.87	22.0	0.24	0.11	100
1227-1008	JB12OB-10-08	7/8-14	1/2	12.7	2.28	58.0	1.02	26.0	1.00	25.4	0.30	0.14	80
1227-1010	JB12OB-10-10	7/8-14	5/8	15.9	2.56	65.0	1.02	26.0	1.00	25.4	0.33	0.15	70
1227-1212	JB12OB-12-12	1-1/16-12	3/4	19.1	2.76	70.0	1.18	30.0	1.25	32.0	0.48	0.22	36
1227-1616	JB12OB-16-16	1-5/16-12	1	25.4	3.07	78.0	1.30	33.0	1.50	38.1	0.85	0.39	36

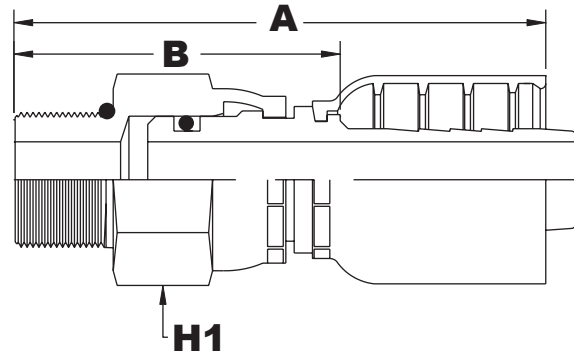
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JB12OBS SERIES

Male O-Ring Boss Swivel

1228 SERIES



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Sizes		Weight		Bulk Pack
			in.	mm	in.	mm	in.	mm	H1		lbs.	kg	
1228-0404	JB12OBS-04-04	7/16-20	1/4	6.4	2.24	56.8	1.42	36.0	0.69	17.5	0.15	0.07	250
1228-0604	JB12OBS-06-04	9/16-18	1/4	6.4	2.38	60.4	1.56	39.6	0.87	22.0	0.22	0.10	250
1228-0406	JB12OBS-04-06	7/16-20	3/8	9.5	2.50	63.5	1.44	36.5	0.69	17.5	0.20	0.09	200
1228-0606	JB12OBS-06-06	9/16-18	3/8	9.5	2.64	67.1	1.58	40.1	1.06	26.9	0.26	0.12	100
1228-0806	JB12OBS-08-06	3/4-16	3/8	9.5	2.74	69.6	1.68	42.6	0.87	22.0	0.32	0.15	130
1228-0808	JB12OBS-08-08	3/4-16	1/2	12.7	2.96	75.1	1.70	43.1	1.00	25.4	0.36	0.17	100
1228-1212	JB12OBS-12-12	1-1/16-12	3/4	19.1	3.80	96.4	2.25	57.1	1.38	35.0	0.77	0.35	36
1228-1616	JB12OBS-16-16	1-5/16-12	1	25.4	4.65	118.0	2.89	73.5	1.61	41.0	0.94	0.43	36

Note: Not for use as a live swivel. For installation only.

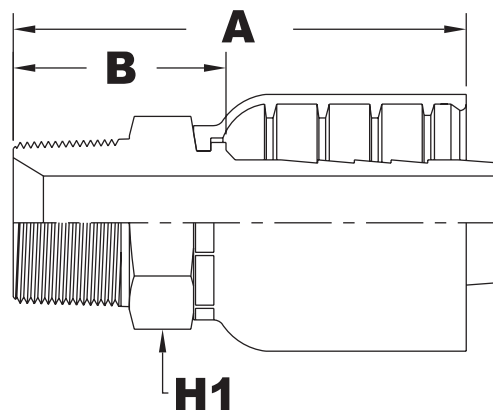
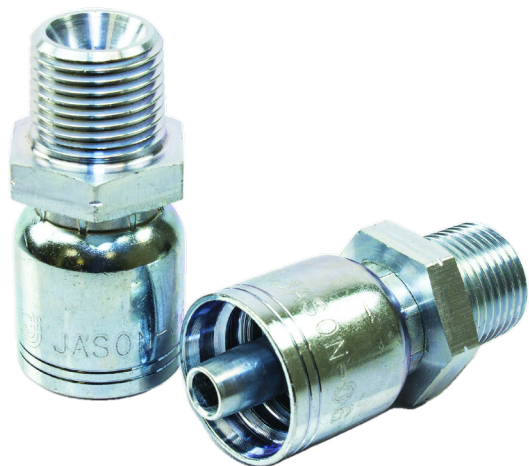
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1230 SERIES

JB12JISMP SERIES

Male BSP/JIS Taper Rigid Pipe - Metric



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Sizes		Weight		Bulk Pack
									H1				
		inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	qty	
1230-0404	JB12JISMP-04-04	1/4-19	1/4	6.4	1.65	42.0	0.87	22.0	0.75	19.0	0.11	0.05	250
1230-0604	JB12JISMP-06-04	3/8-19	1/4	6.4	1.85	47.0	1.06	27.0	0.87	22.0	0.16	0.07	250
1230-0605	JB12JISMP-06-05	3/8-19	5/16	7.9	1.85	47.0	1.06	27.0	0.87	22.0	0.18	0.08	130
1230-0606	JB12JISMP-06-06	3/8-19	3/8	9.5	2.13	54.0	1.06	27.0	0.87	22.0	0.21	0.09	130
1230-0806	JB12JISMP-08-06	1/2-14	3/8	9.5	2.28	58.0	1.22	31.0	1.06	27.0	0.26	0.12	100
1230-0808	JB12JISMP-08-08	1/2-14	1/2	12.7	2.44	62.0	1.22	31.0	1.06	27.0	0.30	0.14	80
1230-1208	JB12JISMP-12-08	3/4-14	1/2	12.7	2.52	64.0	1.30	33.0	1.26	32.0	0.57	0.26	100
1230-0810	JB12JISMP-08-10	1/2-14	5/8	15.9	2.70	68.5	1.17	29.7	1.06	27	0.33	0.15	70
1230-1210	JB12JISMP-12-10	3/4-14	5/8	15.9	2.52	64.0	1.30	33.0	1.26	32.0	0.60	0.27	60
1230-1212	JB12JISMP-12-12	3/4-14	3/4	19.1	2.95	75.0	1.42	36.0	1.26	32.0	0.67	0.31	50
1230-1612	JB12JISMP-16-12	1-11	3/4	19.1	3.07	78.0	1.54	39.0	1.42	36.0	0.84	0.38	50
1230-1616	JB12JISMP-16-16	1-11	1	25.4	3.35	85.0	1.57	40.0	1.42	36.0	0.88	0.40	36
1230-2020	JB12JISMP-20-20	1-1/4-11	1-1/4	31.8	3.70	94.0	1.85	47.0	1.81	46.0	1.58	0.72	15

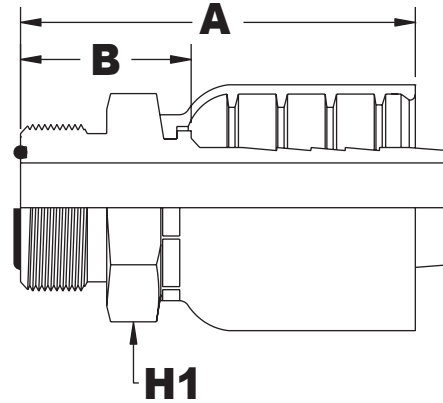
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JB12MOFS SERIES

SAE Male O-Ring Face Seal

1232 SERIES



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Size		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	lbs	kg	
1232-0404	JB12MOFS-04-04	9/16-18	1/4	6.4	1.70	43.1	0.88	22.3	0.63	15.9	0.11	0.05	250
1232-0604	JB12MOFS-06-04	11/16-16	1/4	6.4	1.75	44.5	0.93	23.7	0.75	19.0	0.15	0.07	250
1232-0606	JB12MOFS-06-06	11/16-16	3/8	9.5	2.02	51.2	0.95	24.2	0.75	19.0	0.20	0.10	130
1232-0806	JB12MOFS-08-06	13/16-16	3/8	9.5	2.08	52.8	0.82	20.8	0.87	22.2	0.20	0.10	130
1232-0808	JB12MOFS-08-08	13/16-16	1/2	12.7	2.30	58.3	1.04	26.3	0.87	22.2	0.23	0.11	80
1232-1008	JB12MOFS-10-08	1-14	1/2	12.7	2.40	61.0	1.14	29.0	1.06	27.0	0.30	0.14	80
1232-1010	JB12MOFS-10-10	1-14	5/8	15.9	2.64	67.0	1.11	28.2	1.06	27.0	0.37	0.18	70
1232-1208	JB12MOFS-12-08	1-3/16-12	1/2	12.7	2.54	64.5	1.28	32.5	1.26	32	0.42	0.19	60
1232-1210	JB12MOFS-12-10	1-3/16-12	5/8	15.9	2.78	70.5	1.25	31.7	1.26	32	0.49	0.22	50
1232-1212	JB12MOFS-12-12	1-3/16-12	3/4	19.1	2.81	71.3	1.26	32.0	1.26	32.0	0.50	0.25	36
1232-1612	JB12MOFS-16-12	1-7/16-12	3/4	19.1	2.91	73.8	1.36	34.5	1.50	38.0	0.63	0.31	36
1232-1616	JB12MOFS-16-16	1-7/16-12	1	25.4	3.21	81.5	1.46	37.0	1.50	38.0	0.89	0.43	36

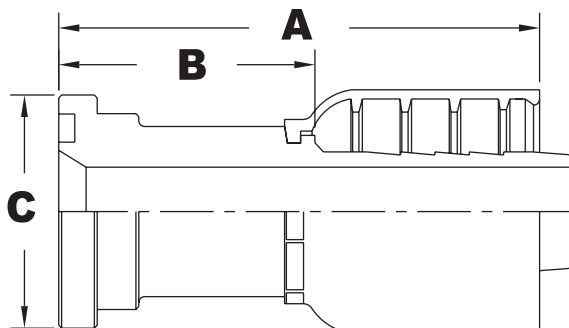
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1234 SERIES

JB12C61S SERIES

SAE Code 61 Flange - Straight



Catalog Part Number	Descriptive Part Number	Flange Size		Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Flange Diameter -C-		Weight		Bulk Pack
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs	kg	
1234-0808	JB12C61S-08-08	1/2	12.7	1/2	12.7	2.99	76.0	1.77	45.0	1.19	30.1	0.37	0.17	80
1234-1208	JB12C61S-12-08	3/4	19.1	1/2	12.7	2.99	76.0	1.77	45.0	1.50	38.1	0.35	0.16	100
1234-1212	JB12C61S-12-12	3/4	19.1	3/4	19.1	3.31	84.0	1.77	45.0	1.50	38.1	0.63	0.29	50
1234-1612	JB12C61S-16-12	1	25.4	3/4	19.1	3.15	80.0	1.61	41.0	1.75	44.4	0.85	0.39	50
1234-1616	JB12C61S-16-16	1	25.4	1	25.4	3.98	101.0	2.20	56.0	1.75	44.4	1.10	0.50	36
1234-2016	JB12C61S-20-16	1-1/4	31.8	1	25.4	3.90	99.0	2.13	54.0	2.00	50.8	1.63	0.74	36
1234-2020	JB12C61S-20-20	1-1/4	31.8	1-1/4	31.8	4.33	110.0	2.48	63.0	2.00	50.8	1.72	0.78	15
1234-2420	JB12C61S-24-20	1-1/2	38.1	1-1/4	31.8	4.57	116.0	2.72	69.0	2.37	60.3	1.91	0.87	15
1234-3220	JB12C61S-32-20	2	50.8	1-1/4	31.8	4.57	116.0	2.72	69.0	2.81	71.4	3.11	1.41	12
1234-2424	JB12C61S-24-24	1-1/2	38.1	1-1/2	38.1	5.16	131.0	2.83	72.0	2.37	60.3	2.37	1.08	15
1234-3224	JB12C61S-32-24	2	50.8	1-1/2	38.1	5.43	138.0	3.11	79.0	2.81	71.4	3.51	1.59	12
1234-2432	JB12C61S-24-32	1-1/2	38.1	2	50.8	5.43	138.0	3.11	79.0	2.37	60.3	3.55	1.61	15
1234-3232	JB12C61S-32-32	2	50.8	2	50.8	5.91	150.0	3.11	79.0	2.81	71.4	3.88	1.76	8

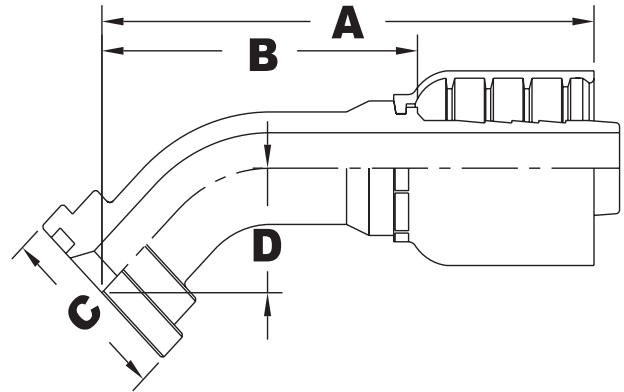
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JB12C6145 SERIES

SAE Code 61 Flange - 45° Elbow

1236 SERIES



Catalog Part Number	Descriptive Part Number	Flange Size		Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Flange Diameter -C-		Weight		Bulk Pack
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
1236-0808	JB12C6145-08-08	1/2	12.7	1/2	12.7	3.15	80.0	1.89	48.0	0.75	19.0	1.19	30.1	0.32	0.15	80
1236-1208	JB12C6145-12-08	3/4	19.1	1/2	12.7	3.27	83.0	2.01	51.0	0.87	22.0	1.50	38.1	0.48	0.22	80
1236-1212	JB12C6145-12-12	3/4	19.1	3/4	19.1	4.57	116.0	2.99	76.0	1.14	29.0	1.50	38.1	0.74	0.34	32
1236-1612	JB12C6145-16-12	1	25.4	3/4	19.1	4.57	116.0	2.99	76.0	1.14	29.0	1.75	44.4	0.76	0.35	32
1236-1616	JB12C6145-16-16	1	25.4	1	25.4	4.41	112.0	3.03	77.0	1.22	31.0	1.75	44.4	1.08	0.49	18
1236-2016	JB12C6145-20-16	1-1/4	31.8	1	25.4	4.41	112.0	3.03	77.0	1.22	31.0	2.00	50.8	1.24	0.56	18
1236-2020	JB12C6145-20-20	1-1/4	31.8	1-1/4	31.8	5.83	148.0	3.98	101.0	1.50	38.0	2.00	50.8	1.80	0.82	12
1236-2420	JB12C6145-24-20	1-1/2	38.1	1-1/4	31.8	5.91	150.0	4.06	103.0	1.57	40.0	2.37	60.3	1.95	0.88	12
1236-2424	JB12C6145-24-24	1-1/2	38.1	1-1/2	38.1	6.81	173.0	4.45	113.0	1.73	44.0	2.37	60.3	2.37	1.08	12
1236-3224	JB12C6145-32-24	2	50.8	1-1/2	38.1	6.81	173.0	4.45	113.0	1.73	44.0	2.81	71.4	2.41	1.10	10
1236-3232	JB12C6145-32-32	2	50.8	2	50.8	8.23	209.0	5.43	138.0	2.36	60.0	2.81	71.4	5.12	2.32	6

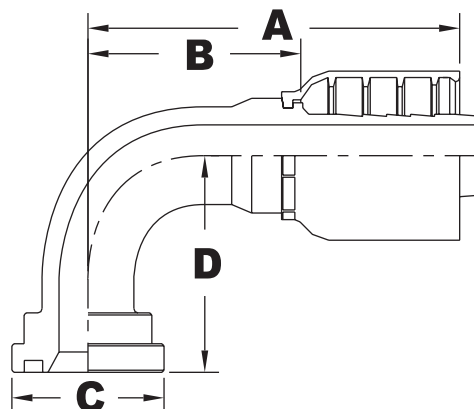
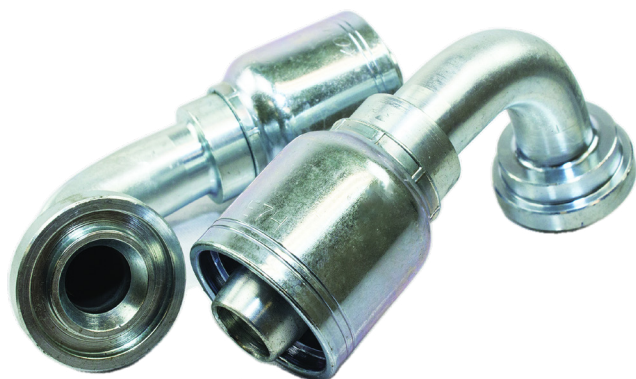
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1239 SERIES

JB12C6190 SERIES

SAE Code 61 Flange - 90° Elbow



Catalog Part Number	Descriptive Part Number	Flange Size		Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Flange Diameter -C-		Weight		Bulk Pack
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
1239-0808	JB12C6190-08-08	1/2	12.7	1/2	12.7	2.76	70.0	1.50	38.0	1.34	34.0	0.81	20.6	0.33	0.15	50
1239-1208	JB12C6190-12-08	3/4	19.1	1/2	12.7	2.76	70.0	1.50	38.0	1.38	35.0	1.50	38.1	0.78	0.35	50
1239-1212	JB12C6190-12-12	3/4	19.1	3/4	19.1	3.98	101.0	2.40	61.0	2.13	54.0	1.50	38.1	0.87	0.40	50
1239-1612	JB12C6190-16-12	1	25.4	3/4	19.1	3.98	101.0	2.40	61.0	2.13	54.0	1.75	44.4	0.85	0.39	50
1239-1616	JB12C6190-16-16	1	25.4	1	25.4	4.96	126.0	3.19	81.0	2.44	62.0	1.75	44.4	1.36	0.62	50
1239-2016	JB12C6190-20-16	1-1/4	31.8	1	25.4	4.96	126.0	3.19	81.0	2.44	62.0	2.00	50.8	1.31	0.59	50
1239-2416	JB12C6190-24-16	1-1/2	38.1	1	25.4	4.96	126.0	3.19	81.0	2.44	62.0	2.37	60.3	1.67	0.76	24
1239-2020	JB12C6190-20-20	1-1/4	31.8	1-1/4	31.8	5.51	140.0	3.66	93.0	3.11	79.0	2.00	50.8	2.02	0.92	24
1239-2420	JB12C6190-24-20	1-1/2	38.1	1-1/4	31.8	5.51	140.0	3.66	93.0	3.19	81.0	2.37	60.3	2.33	1.06	24
1239-2424	JB12C6190-24-24	1-1/2	38.1	1-1/2	38.1	5.94	151.0	3.58	91.0	3.27	83.0	2.37	60.3	2.55	1.16	24
1239-3224	JB12C6190-32-24	2	50.8	1-1/2	38.1	5.94	151.0	3.58	91.0	3.27	83.0	2.81	71.4	3.08	1.40	24
1239-3232	JB12C6190-32-32	2	50.8	2	50.8	8.11	206.0	5.31	135.0	5.16	131.0	2.81	71.4	6.02	2.73	24

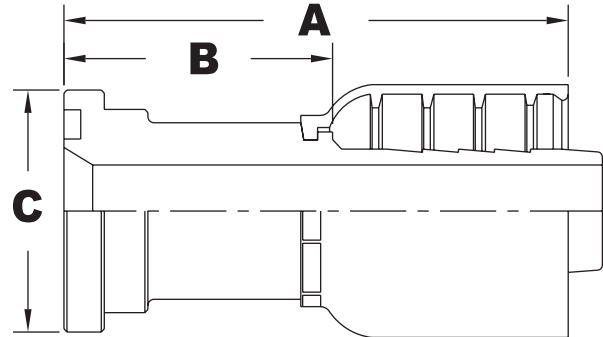
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JB12C62S SERIES

SAE Code 62 Flange - Straight

1241 SERIES



Catalog Part Number	Descriptive Part Number	Flange Size		Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Flange Diameter -C-		Weight		Bulk Pack
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
1241-1212	JB12C62S-12-12	3/4	19.1	3/4	19.1	3.46	88.0	1.93	49.0	1.62	41.2	0.63	0.29	50
1241-1612	JB12C62S-16-12	1	25.4	3/4	19.1	3.90	99.0	2.36	60.0	1.87	47.6	0.99	0.45	50
1241-1616	JB12C62S-16-16	1	25.4	1	25.4	4.21	107.0	2.44	62.0	1.87	47.6	1.32	0.60	36
1241-2016	JB12C62S-20-16	1-1/4	31.8	1	25.4	4.37	111.0	2.91	74.0	2.12	53.9	1.65	0.75	36
1241-2020	JB12C62S-20-20	1-1/4	31.8	1-1/4	31.8	4.41	112.0	2.95	75.0	2.12	53.9	1.96	0.89	15
1241-2420	JB12C62S-24-20	1-1/2	38.1	1-1/4	31.8	4.41	112.0	2.95	75.0	2.50	63.5	2.43	1.10	15
1241-2424	JB12C62S-24-24	1-1/2	38.1	1-1/2	38.1	5.51	140.0	3.19	81.0	2.50	63.5	2.79	1.27	15
1241-3224	JB12C62S-32-24	2	50.8	1-1/2	38.1	6.30	160.0	3.98	101.0	3.12	79.3	4.45	2.02	12
1241-3232	JB12C62S-32-32	2	50.8	2	50.8	6.77	172.0	3.98	101.0	3.12	79.3	5.01	2.27	8

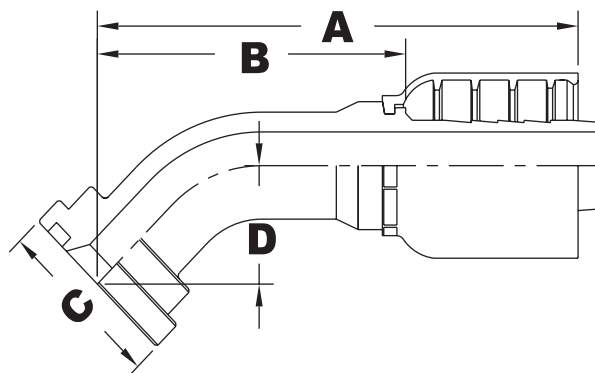
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1243 SERIES

JB12C6245 SERIES

SAE Code 62 Flange - 45° Elbow



Catalog Part Number	Descriptive Part Number	Flange Size		Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Flange Diameter -C-		Weight		Bulk Pack
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
1243-1212	JB12C6245-12-12	3/4	19.1	3/4	19.1	4.69	119.0	3.11	79.0	1.26	32.0	1.62	41.2	0.83	0.38	32
1243-1616	JB12C6245-16-16	1	25.4	1	25.4	4.61	117.0	3.23	82.0	1.42	36.0	1.87	47.6	1.34	0.61	18
1243-2020	JB12C6245-20-20	1-1/4	31.8	1-1/4	31.8	6.14	156.0	4.29	109.0	1.81	46.0	2.12	53.9	2.09	0.95	12
1243-2424	JB12C6245-24-24	1-1/2	38.1	1-1/2	38.1	7.05	179.0	4.69	119.0	1.97	50.0	2.50	63.5	2.89	1.31	12
1243-3232	JB12C6245-32-32	2	50.8	2	50.8	8.82	224.0	6.02	153.0	2.95	75.0	3.12	79.3	5.18	2.35	6

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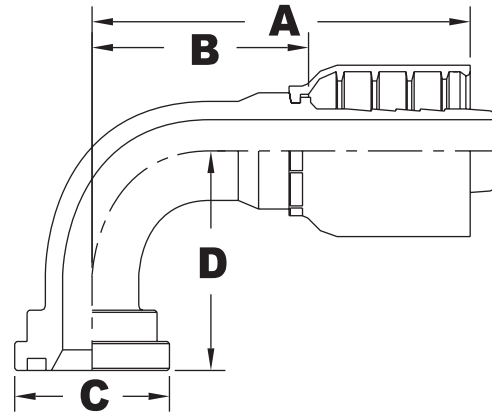


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JB12C6290 SERIES

SAE Code 62 Flange - 90° Elbow

1245 SERIES



Catalog Part Number	Descriptive Part Number	Flange Size		Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Flange Diameter -C-		Weight		Bulk Pack
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
1245-1212	JB12C6290-12-12	3/4	19.1	3/4	19.1	3.98	101.0	3.11	79.0	2.28	58.0	1.62	41.2	0.85	0.39	32
1245-1616	JB12C6290-16-16	1	25.4	1	25.4	4.96	126.0	3.23	82.0	2.72	69.0	1.87	47.6	1.36	0.62	15
1245-2020	JB12C6290-20-20	1-1/4	31.8	1-1/4	31.8	5.51	140.0	4.29	109.0	3.54	90.0	2.12	53.9	2.29	1.04	15
1245-2424	JB12C6290-24-24	1-1/2	38.1	1-1/2	38.1	5.94	151.0	4.69	119.0	3.62	92.0	2.50	63.5	3.18	1.44	10
1245-3232	JB12C6290-32-32	2	50.8	2	50.8	8.11	206.0	6.02	153.0	6.02	153.0	3.12	79.3	7.08	3.21	7

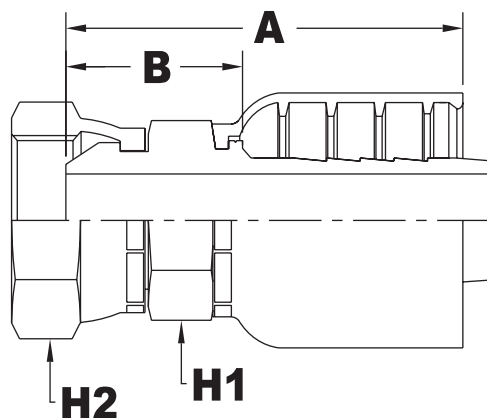
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1248 SERIES

JB12FSPPBSP SERIES

Female Swivel - BSP Parallel Pipe, 30° Cone - Metric



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Sizes				Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	H1		H2		lbs.	kg	
1248-0404	JB12FSPPBSP-04-04	1/4-19	1/4	6.4	1.77	45.0	0.98	25.0	0.67	17.0	0.75	19.0	0.17	0.08	250
1248-0606	JB12FSPPBSP-06-06	3/8-19	3/8	9.5	2.17	55.0	1.10	28.0	0.75	19.0	0.87	22.0	0.25	0.11	130
1248-0808	JB12FSPPBSP-08-08	1/2-14	1/2	12.7	2.36	60.0	1.14	29.0	0.87	22.0	1.06	27.0	0.36	0.16	80
1248-1010	JB12FSPPBSP-10-10	5/8-14	5/8	15.9	2.64	67.0	1.14	29.0	1.06	27.0	1.06	27.0	0.25	0.20	70
1248-1210	JB12FSPPBSP-12-10	3/4-14	5/8	15.9	2.76	70.1	1.23	31.3	1.26	32.0	1.26	32.0	0.36	0.24	60
1248-1212	JB12FSPPBSP-12-12	3/4-14	3/4	19.1	2.80	71.0	1.26	32.0	1.06	27.0	1.26	32.0	0.44	0.27	50
1248-1616	JB12FSPPBSP-16-16	1-11	1	25.4	3.19	81.0	1.42	36.0	1.42	36.0	1.61	41.0	1.05	0.48	36
1248-2020	JB12FSPPBSP-20-20	1-1/4-11	1-1/4	31.8	3.66	93.0	1.81	46.0	1.81	46.0	1.97	50.0	1.48	0.67	15
1248-2424	JB12FSPPBSP-24-24	1-1/2-11	1-1/2	38.1	4.12	104.7	1.78	45.2	2.17	55.0	2.17	55.0	2.38	1.08	15
1248-3232	JB12FSPPBSP-32-32	2-11	2	50.8	5.13	130.3	2.35	59.8	2.36	60.0	2.76	70.0	4.50	2.04	8

Please note that 1248 Series replaces the 1252 Series

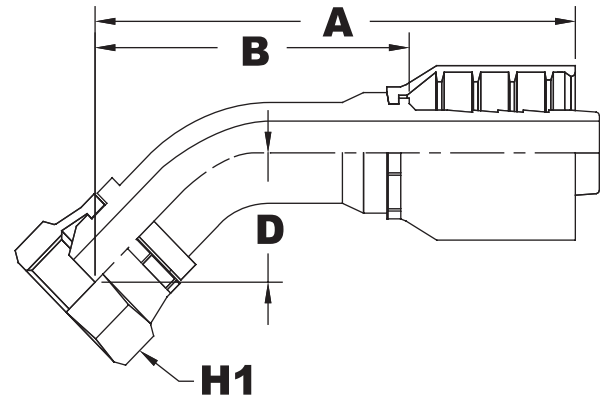
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JB12FSPPBSP45 SERIES

Female Swivel - BSP Parallel Pipe, 30° Cone - 45° Elbow - Metric

1249 SERIES



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Hex Size		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
1249-0404	JB12FSPPBSP45-04-04	1/4-19	1/4	6.4	2.28	58.0	1.50	38.0	0.67	17.0	0.75	19.0	0.15	0.07	250
1249-0606	JB12FSPPBSP45-06-06	3/8-19	3/8	9.5	2.80	71.0	1.73	44.0	0.75	19.0	0.87	22.0	0.24	0.11	130
1249-0808	JB12FSPPBSP45-08-08	1/2-14	1/2	12.7	3.31	84.0	2.05	52.0	0.91	23.0	1.06	27.0	0.34	0.15	80
1249-1010	JB12FSPPBSP45-10-10	5/8-14	5/8	15.9	3.62	92.0	2.09	53.0	0.83	21.0	1.06	27.0	0.49	0.22	70
1249-1212	JB12FSPPBSP45-12-12	3/4-14	3/4	19.1	4.61	117.0	3.03	77.0	1.18	30.0	1.26	32.0	0.82	0.37	32
1249-1616	JB12FSPPBSP45-16-16	1-11	1	25.4	4.92	125.0	3.15	80.0	1.73	44.0	1.61	41.0	1.34	0.61	18
1249-2020	JB12FSPPBSP45-20-20	1-1/4-11	1-1/4	31.8	6.02	153.0	4.17	106.0	1.65	42.0	1.97	50.0	1.72	0.78	12
1249-2424	JB12FSPPBSP45-24-24	1-1/2-11	1-1/2	38.1	6.93	176.0	4.57	116.0	1.89	48.0	2.17	55.0	3.40	1.54	12
1249-3232	JB12FSPPBSP45-32-32	2-11	2	50.8	8.46	215.0	5.67	144.0	2.60	66.0	2.76	70.0	6.37	2.89	6

Please note that 1249 Series replaces 1254 Series

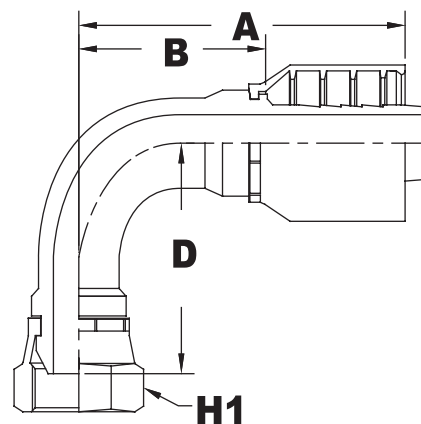
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1250 SERIES

JB12FSPPBSP90 SERIES

Female Swivel - BSP Parallel Pipe, 30° Cone - 90° Elbow - Metric



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Hex Sizes H1		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
1250-0404	JB12FSPPBSP90-04-04	1/4-19	1/4	6.4	2.01	51.0	1.18	30.0	1.10	28.0	0.75	19.0	0.15	0.07	250
1250-0606	JB12FSPPBSP90-06-06	3/8-19	3/8	9.5	2.72	69.0	1.65	42.0	1.26	32.0	0.87	22.0	0.25	0.11	100
1250-0808	JB12FSPPBSP90-08-08	1/2-14	1/2	12.7	2.76	70.0	1.50	38.0	1.38	35.0	1.06	27.0	0.38	0.17	70
1250-1212	JB12FSPPBSP90-12-12	3/4-14	3/4	19.1	3.98	101.0	2.40	61.0	2.13	54.0	1.26	32.0	0.81	0.37	32
1250-1616	JB12FSPPBSP90-16-16	1-11	1	25.4	4.96	126.0	3.19	81.0	2.56	65.0	1.61	41.0	0.88	0.40	15
1250-2020	JB12FSPPBSP90-20-20	1-1/4-11	1-1/4	31.8	5.51	140.0	3.66	93.0	3.39	86.0	1.97	50.0	1.54	0.70	15
1250-2424	JB12FSPPBSP90-24-24	1-1/2-11	1-1/2	38.1	5.94	151.0	3.58	91.0	3.46	88.0	2.17	55.0	2.09	0.95	10
1250-3232	JB12FSPPBSP90-32-32	2-11	2	50.8	8.11	206.0	5.31	135.0	5.51	140.0	2.76	70.0	7.30	3.31	6

Please note that 1250 Series replaces 1256 Series

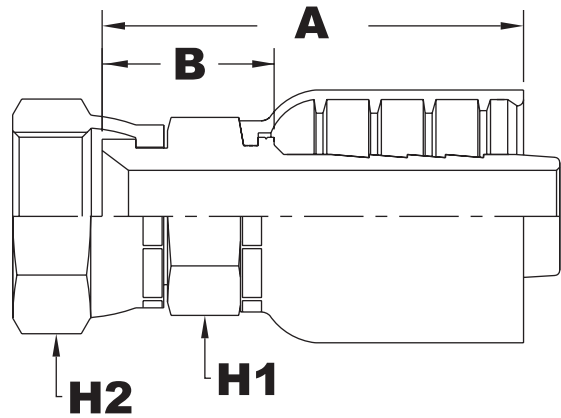
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JB12FSJISF SERIES

Female Swivel - JIS Parallel Pipe, 30° Flare

1258 SERIES



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Sizes				Weight		Bulk Pack
									H1		H2				
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs	kg	qty
1258-0404	JB12FSJISF-04-04	1/4-19	1/4	6.4	1.61	41.0	0.82	21.0	0.68	17.2	0.75	19.0	0.15	0.07	250
1258-0606	JB12FSJISF-06-06	3/8-19	3/8	9.5	1.93	49.0	0.87	22.0	0.87	22.0	0.87	22.0	0.24	0.11	130
1258-0808	JB12FSJISF-08-08	1/2-14	1/2	12.7	2.17	55.0	0.94	24.0	1.06	27.0	1.06	27.0	0.35	0.16	80
1258-1212	JB12FSJISF-12-12	3/4-14	3/4	19.1	2.60	66.0	1.06	27.0	1.26	32.0	1.42	36.0	0.64	0.29	50
1258-1616	JB12FSJISF-16-16	1-11.5	1	25.4	3.03	77.0	1.26	32.0	1.42	36.0	1.61	41.0	1.08	0.49	36

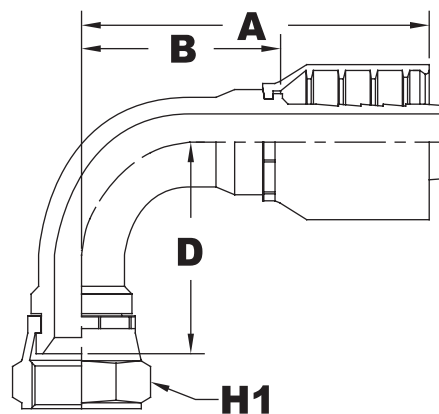
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1259 SERIES

JB12FSJISF90 SERIES

Female Swivel - JIS Parallel Pipe, 30° Flare - 90° Elbow



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Hex Size		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	H1		lbs.	kg	
1259-0606	JB12FSJIS90-0606	3/8-19	3/8	9.5	2.2	56.0	1.14	10.0	1.06	27.0	0.87	22.0	0.21	0.10	100

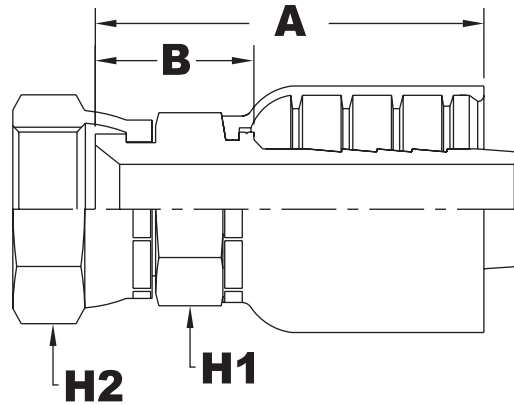
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JB12KFSM SERIES

Female Swivel - Komatsu 30° Flare - Metric

1270 SERIES



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Sizes				Weight		Bulk Pack
									H1		H2				
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	qty
1270-1404	JB12KFSM-14-04	M14-1.5	1/4	6.4	1.61	41.0	0.83	21.0	0.67	17.0	0.75	19.1	0.15	0.07	250
1270-1806	JB12KFSM-18-06	M18-1.5	3/8	9.5	1.97	50.0	0.91	23.0	0.87	22.0	0.94	24.0	0.26	0.12	100
1270-2208	JB12KFSM-22-08	M22-1.5	1/2	12.7	2.17	55.0	0.94	24.0	1.06	27.0	1.06	27.0	0.35	0.16	70
1270-2410	JB12KFSM-24-10	M24-1.5	5/8	15.9	2.72	69.0	1.22	31.0	1.06	27.0	1.26	32.0	0.51	0.23	32
1270-3012	JB12KFSM-30-12	M30-1.5	3/4	19.1	2.99	76.0	1.46	37.0	1.26	32.0	1.42	36.0	0.66	0.30	15
1270-3316	JB12KFSM-33-16	M33-1.5	1	25.4	3.11	79.0	1.34	34.0	1.42	36.0	1.61	41.0	1.16	0.53	15

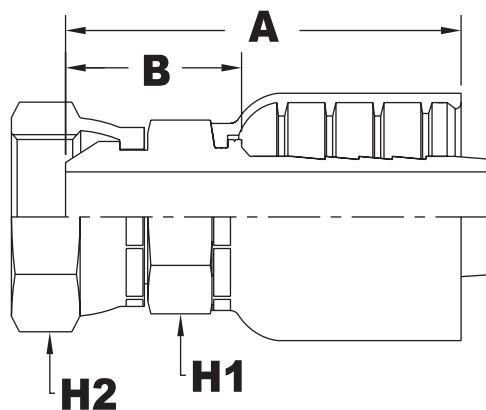
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1271 SERIES

JB12FSM SERIES

Female Swivel - 60° Cone DIN - Metric



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Sizes				Weight		Bulk Pack
									H1		H2				
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	qty	
1271-1604	JB12FSM-16-04	M16-1.5	1/4	6.4	1.77	45.0	0.98	25.0	0.75	19.0	0.75	19.0	0.20	0.09	200
1271-1804	JB12FSM-18-04	M18-1.5	1/4	6.4	1.77	45.0	0.98	25.0	0.87	22.0	0.87	22.0	0.22	0.10	150
1271-2005	JB12FSM-20-05	M20-1.5	5/16	7.9	1.89	48.0	1.02	26.0	0.94	24.0	0.94	24.0	0.26	0.12	100
1271-2006	JB12FSM-20-06	M20-1.5	3/8	9.5	2.17	55.0	1.10	28.0	0.94	24.0	0.94	24.0	0.26	0.12	130
1271-2206	JB12FSM-22-06	M22-1.5	3/8	9.5	2.17	55.0	1.10	28.0	1.02	26.0	1.02	26.0	0.31	0.14	100
1271-2408	JB12FSM-24-08	M24-1.5	1/2	12.7	2.36	60.0	1.14	29.0	1.18	30.0	1.18	30.0	0.44	0.20	80
1271-3012	JB12FSM-30-12	M30-1.5	3/4	19.1	2.80	71.0	1.26	32.0	1.42	36.0	1.42	36.0	0.70	0.32	50
1271-4216	JB12FSM-42-16	M42-1.5	1	19.1	3.19	81.0	1.42	36.0	1.97	50.0	1.97	50.0	1.21	0.55	8

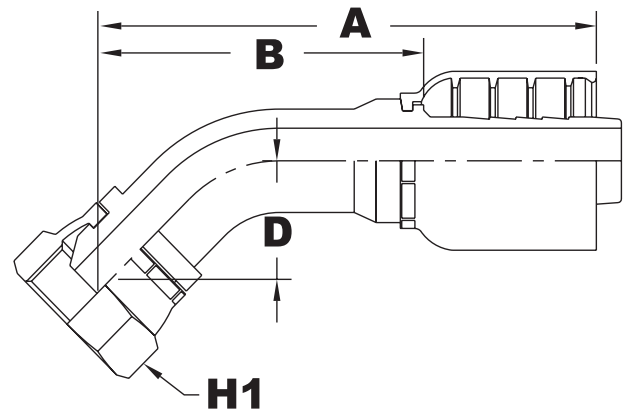
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JB12FSM45 SERIES

Female Swivel - 60° Cone, 45° Elbow - Metric

1272 SERIES



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Hex Size H1		Tube Outside Diameter		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
1272-1604	JB12FSM45-16-04	M16-1.5	1/4	6.4	2.24	57.0	1.46	37.0	0.63	16.0	1.42	36.0	0.39	10.0	0.11	0.05	100
1272-1804	JB12FSM45-18-04	M18-1.5	1/4	6.4	2.32	59.0	1.54	39.0	0.71	18.0	1.42	36.0	0.47	12.0	0.22	0.10	100
1272-2006	JB12FSM45-20-06	M20-1.5	3/8	9.5	2.80	71.0	1.73	44.0	0.71	18.0	1.42	36.0	0.47	12.0	0.33	0.15	100
1272-2206	JB12FSM45-22-06	M22-1.5	3/8	9.5	2.87	73.0	1.81	46.0	0.79	20.0	1.42	36.0	0.59	15.0	0.35	0.16	100
1272-2408	JB12FSM45-24-08	M24-1.5	1/2	12.7	3.27	83.0	2.01	51.0	0.79	20.0	1.42	36.0	0.63	16.0	0.35	0.16	50
1272-3012	JB12FSM45-30-12	M30-1.5	3/4	19.1	4.69	119.0	3.11	79.0	1.18	30.0	1.42	36.0	0.87	22.0	0.86	0.39	32
1272-3816	JB12FSM45-38-16	M38-1.5	1	25.4	4.88	124.0	3.11	79.0	1.30	33.0	1.61	41.0	1.10	28.0	1.46	0.66	6
1272-4520	JB12FSM45-45-20	M45-1.5	1-1/4	31.8	6.02	153.0	4.17	106.0	1.65	42.0	1.97	41.0	1.38	35.0	2.65	1.20	6

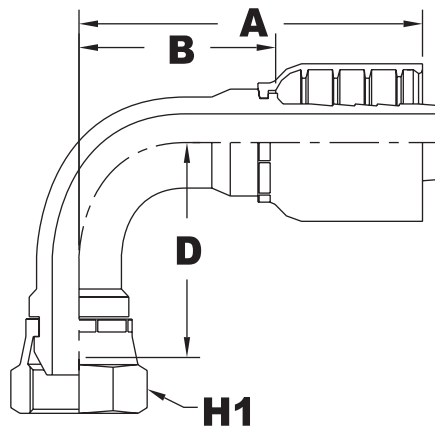
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1273 SERIES

JB12FS90M SERIES

Female Swivel - 60° Cone - DIN, 90° Elbow - Metric



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Hex Size H1		Tube Outside Diameter		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs	kg	
1273-1604	JB12FS90M-16-04	M16-1.5	1/4	6.4	2.01	51.0	1.18	30.0	1.06	27.0	1.42	36.0	0.39	10	0.15	0.07	70
1273-1804	JB12FS90M-18-04	M18-1.5	1/4	6.4	2.01	51.0	1.18	30.0	1.14	29.0	1.42	36.0	0.47	12	0.22	0.10	70
1273-2006	JB12FS90M-20-06	M20-1.5	3/8	9.5	2.72	69.0	1.65	42.0	1.22	31.0	1.42	36.0	0.47	12	0.26	0.12	100
1273-2206	JB12FS90M-22-06	M22-1.5	3/8	9.5	2.72	69.0	1.65	42.0	1.30	33.0	1.42	36.0	0.59	15	0.29	0.13	50
1273-2408	JB12FS90M-24-08	M24-1.5	1/2	12.7	2.76	70.0	1.50	38.0	1.30	33.0	1.42	36.0	0.63	16	0.31	0.14	50
1273-3012	JB12FS90M-30-12	M30-1.5	3/4	19.1	3.98	101.0	2.40	61.0	2.09	53.0	1.42	36.0	0.87	22	0.86	0.39	32
1273-3816	JB12FS90M-38-16	M38-1.5	1	25.4	4.96	126.0	3.19	81.0	2.48	63.0	1.61	41.0	1.10	28	1.65	0.75	3
1273-4520	JB12FS90M-45-20	M45-1.5	1	25.4	5.51	140.0	3.66	93.0	3.35	85.0	1.97	50.0	1.38	35	2.21	1.00	3

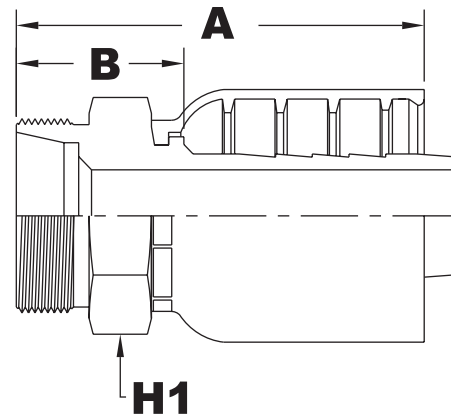
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JB12MM SERIES

Male 24° DIN - Metric, L Series (Light)

1275 SERIES



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Size		Tube Outside Diameter		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	H1		inch	mm	lbs.	kg	qty
1275-1404	JB12MM-14-04	M14-1.5	1/4	6.4	1.65	42.0	0.87	22.0	0.67	17.0	0.31	8	0.10	0.05	250
1275-1606	JB12MM-16-06	M16-1.5	3/8	9.5	1.97	50.0	0.91	23.0	0.67	17.0	0.39	10	0.19	0.09	130
1275-1806	JB12MM-18-06	M18-1.5	3/8	9.5	2.01	51.0	0.94	24.0	0.75	19.0	0.47	12	0.19	0.09	130
1275-2208	JB12MM-22-08	M22-1.5	1/2	12.7	2.20	56.0	0.98	25.0	0.87	22.0	0.59	15	0.26	0.12	80
1275-2610	JB12MM-26-10	M26-1.5	5/8	15.9	2.52	64.0	1.02	26.0	1.06	27.0	0.71	18	0.34	0.16	60
1275-3012	JB12MM-30-12	M30-2.0	3/4	19.1	2.68	68.0	1.14	29.0	1.18	30.0	0.87	22	0.51	0.23	50
1275-3616	JB12MM-36-16	M36-2.0	1	25.4	2.99	76.0	1.22	31.0	1.42	36.0	1.10	28	0.87	0.39	8
1275-4520	JB12MM-45-20	M45-2.0	1-1/4	31.8	3.46	88.0	1.61	41.0	1.81	46.0	1.38	35	1.32	0.60	8

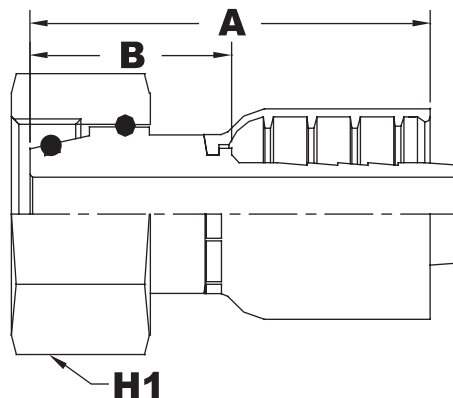
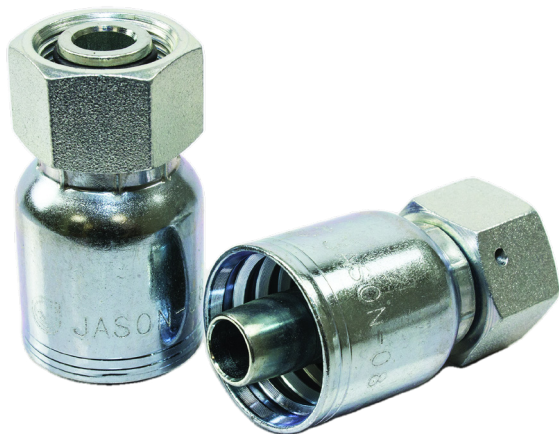
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1277 SERIES

JB12LFSORM SERIES

Female Swivel O-Ring - 24° Cone, L Series (Light) DIN 3865 - Metric



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Size		Tube Outside Diameter		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	H1		inch	mm	lbs.	kg	
1277-1204	JB12LFSORM-12-04	M12-1.5	1/4	6.4	1.68	42.7	0.86	21.9	0.55	14.0	0.24	6.0	0.13	0.06	80
1277-1404	JB12LFSORM-14-04	M14-1.5	1/4	6.4	1.89	48.0	1.10	28.0	0.67	17.0	0.31	8.0	0.14	0.06	150
1277-1605	JB12LFSORM-16-05	M16-1.5	5/16	7.9	1.81	45.9	0.94	23.9	0.75	19.0	0.39	10.0	0.19	0.09	150
1277-1606	JB12LFSORM-16-06	M16-1.5	3/8	9.5	2.32	59.0	1.26	32.0	0.75	19.0	0.39	10.0	0.22	0.10	130
1277-1806	JB12LFSORM-18-06	M18-1.5	3/8	9.5	2.28	58.0	1.22	31.0	0.87	22.0	0.47	12.0	0.25	0.11	130
1277-2208	JB12LFSORM-22-08	M22-1.5	1/2	12.7	2.60	66.0	1.38	35.0	1.06	27.0	0.59	15.0	0.35	0.16	80
1277-2610	JB12LFSORM-26-10	M26-1.5	5/8	15.9	3.03	77.0	1.54	39.0	1.26	32.0	0.71	18.0	0.58	0.26	60
1277-3012	JB12LFSORM-30-12	M30-2.0	3/4	19.1	3.15	80.0	1.61	41.0	1.42	36.0	0.87	22.0	0.68	0.31	50
1277-3616	JB12LFSORM-36-16	M36-2.0	1	25.4	3.58	91.0	1.81	46.0	1.61	40.8	1.10	28.0	1.17	0.53	8
1277-4520	JB12LFSORM-45-20	M45-2.0	1-1/4	31.8	4.02	102.0	2.17	55.0	1.97	50.0	1.38	35.0	1.76	0.80	8
1277-5224	JB12LFSORM-52-24	M52-2.0	1-1/2	38.1	4.17	105.9	1.82	46.2	2.36	59.9	1.65	42.0	3.02	1.37	8

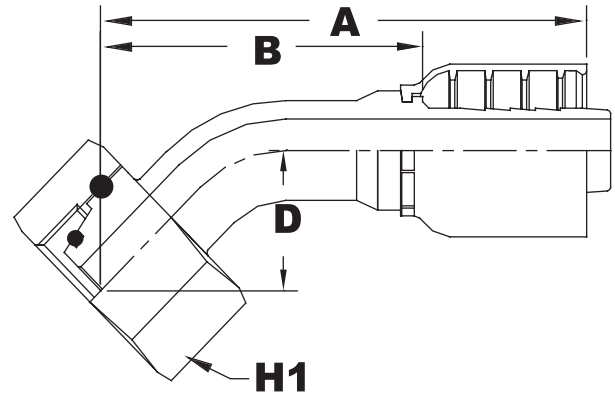
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JB12LFSORM45 SERIES

1278 SERIES

Female Swivel O-Ring - 24° Cone, Series (Light) DIN 3865 - 45° Elbow - Metric



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Hex Size H1		Tube Outside Diameter		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
1278-1204	JB12LFSORM45-12-04	M12-1.5	1/4	6.4	2.24	57.0	1.42	36.0	0.59	15.0	0.55	14.0	0.24	6.0	0.14	0.06	130
1278-1404	JB12LFSORM45-14-04	M14-1.5	1/4	6.4	2.36	60.0	1.54	39.0	0.71	18.0	0.67	17.0	0.31	8.0	0.14	0.06	250
1278-1604	JB12LFSORM45-16-04	M16-1.5	1/4	6.4	2.44	62.0	1.61	41.0	0.75	19.0	0.75	19.0	0.39	10.0	0.17	0.08	100
1278-1605	JB12LFSORM45-16-05	M16-1.5	5/16	7.9	1.72	43.8	0.86	21.8	0.82	20.8	0.55	14.0	0.39	10.0	0.21	0.10	100
1278-1805	JB12LFSORM45-18-05	M18-1.5	5/16	7.9	2.01	51.0	1.14	29.0	1.48	37.6	0.87	22.0	0.47	12.0	0.22	0.10	100
1278-1606	JB12LFSORM45-16-06	M16-1.5	3/8	9.5	2.87	73.0	1.81	46.0	0.83	21.0	0.75	19.0	0.39	10.0	0.25	0.11	100
1278-1806	JB12LFSORM45-18-06	M18-1.5	3/8	9.5	2.87	73.0	1.81	46.0	0.83	21.0	0.87	22.0	0.47	12.0	0.24	0.11	100
1278-2208	JB12LFSORM45-22-08	M22-1.5	1/2	12.7	3.43	87.0	2.17	55.0	1.10	28.0	1.06	27.0	0.59	15.0	0.35	0.16	50
1278-2610	JB12LFSORM45-26-10	M26-1.5	5/8	15.9	4.02	102.0	2.48	63.0	1.18	30.0	1.26	32.0	0.71	18.0	0.54	0.24	50
1278-3010	JB12LFSORM45-30-10	M30-2.0	5/8	15.9	4.29	108.9	2.77	70.4	1.42	36.0	1.42	36.0	0.87	22.0	0.68	0.31	50
1278-2612	JB12LFSORM45-26-12	M26-1.5	3/4	19.1	4.92	125.0	3.35	85.0	1.50	38.0	1.26	32.0	0.71	18.0	0.75	0.34	32
1278-3012	JB12LFSORM45-30-12	M30-2.0	3/4	19.1	4.84	123.0	3.27	83.0	1.42	36.0	1.42	36.0	0.87	22.0	0.86	0.39	32
1278-3612	JB12LFSORM45-36-12	M36-2.0	3/4	19.1	4.84	123.0	3.27	83.0	1.42	36.0	1.61	41.0	1.10	28.0	0.90	0.41	36
1278-3616	JB12LFSORM45-36-16	M36-2.0	1	25.4	5.08	129.0	3.31	84.0	1.46	37.0	1.61	41.0	1.10	28.0	1.52	0.69	6
1278-4520	JB12LFSORM45-45-20	M45-2.0	1-1/4	31.8	6.18	157.0	4.33	110.0	1.85	47.0	1.97	50.0	1.38	35.0	3.33	1.51	6
1278-5224	JB12LFSORM45-5224	M52-2.0	1-1/2	38.1	7.09	180.0	4.72	120.0	2.48	63.0	2.36	60.0	1.77	45.0	8.16	3.70	6

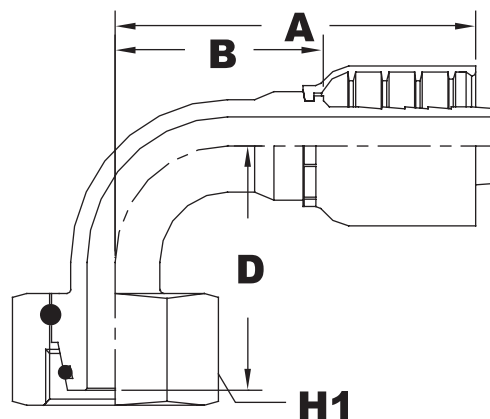
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1279 SERIES

JB12LFSORM90 SERIES

Female Swivel O-Ring - 24° Cone
L Series (Light) DIN 3865 - 90° Elbow - Metric



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Hex Size H1		Tube Outside Diameter		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	qty
1279-1204	JB12LFSORM90-12-04	M12-1.5	1/4	6.4	2.01	51.0	1.18	30.0	1.02	26.0	0.55	14.0	0.24	6.0	0.14	0.06	110
1279-1404	JB12LFSORM90-14-04	M14-1.5	1/4	6.4	2.01	51.0	1.18	30.0	1.18	30.0	0.67	17.0	0.31	8.0	0.16	0.07	70
1279-1604	JB12LFSORM90-16-04	M16-1.5	1/4	6.4	2.01	51.0	1.18	30.0	1.22	31.0	0.75	19.0	0.39	10.0	0.18	0.08	70
1279-1605	JB12LFSORM90-16-05	M16-1.5	5/16	7.9	2.01	51.0	1.14	29.0	1.48	37.6	0.75	19.0	0.39	10.0	0.21	0.10	70
1279-1805	JB12LFSORM90-18-05	M18-1.5	5/16	7.9	2.01	51.0	1.14	29.0	1.30	33.0	0.87	22.0	0.47	12.0	0.24	0.11	70
1279-1606	JB12LFSORM90-16-06	M16-1.5	3/8	9.5	2.72	69.0	1.65	42.0	1.26	32.0	0.87	22.0	0.39	10.0	0.24	0.11	100
1279-1806	JB12LFSORM90-18-06	M18-1.5	3/8	9.5	2.72	69.0	1.65	42.0	1.30	33.0	0.87	22.0	0.47	12.0	0.26	0.12	100
1279-2208	JB12LFSORM90-22-08	M22-1.5	1/2	12.7	2.76	70.0	1.50	38.0	1.46	37.0	1.06	27.0	0.59	15.0	0.39	0.18	50
1279-2610	JB12LFSORM90-26-10	M26-1.5	5/8	15.9	2.80	71.0	1.65	42.0	2.01	51.0	1.26	32.0	0.71	18.0	0.82	0.37	50
1279-3010	JB12LFSORM90-30-10	M30-2.0	5/8	15.9	3.64	92.5	2.11	53.7	2.32	59.0	1.42	36.0	0.87	22.0	0.82	0.37	50
1279-2612	JB12LFSORM90-26-12	M26-1.5	3/4	19.1	3.98	101.0	2.40	61.0	2.48	63.0	1.26	32.0	0.71	18.0	0.68	0.31	32
1279-3012	JB12LFSORM90-30-12	M30-2.0	3/4	19.1	3.98	101.0	2.40	61.0	2.40	61.0	1.42	36.0	0.87	22.0	0.97	0.44	32
1279-3612	JB12LFSORM90-36-12	M36-2.0	3/4	19.1	3.98	101.0	2.40	61.0	2.40	61.0	1.61	41.0	1.10	28.0	0.86	0.39	36
1279-3616	JB12LFSORM90-36-16	M36-2.0	1	25.4	4.96	126.0	3.19	81.0	2.68	68.0	1.61	41.0	1.10	28.0	1.66	0.75	3
1279-4520	JB12LFSORM90-45-20	M45-2.0	1-1/4	31.8	5.51	140.0	3.66	93.0	3.43	87.0	1.97	50.0	1.38	35.0	2.21	1.00	3
1279-5224	JB12LFSORM90-5224	M52-2.0	1-1/2	38.1	5.94	151.0	3.58	91.0	3.58	91.0	2.36	60.0	1.65	42.0	2.47	1.12	3

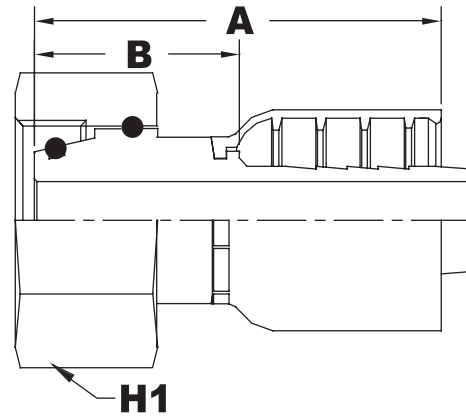
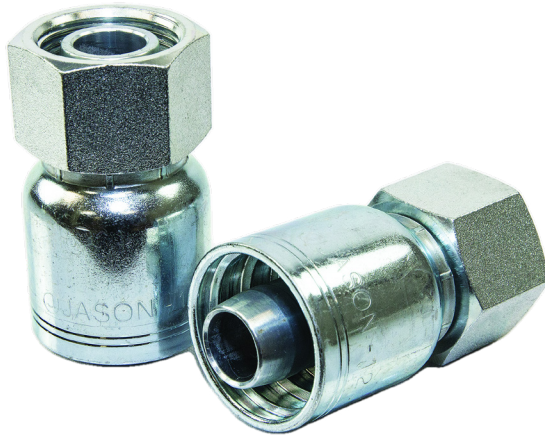
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JB12SFSORM SERIES

**Female Swivel O-Ring - 24° Cone
Series (Standard) DIN 3865 - Metric**

1280 SERIES



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Size H1		Tube Outside Diameter		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
1280-1604	JB12SFSORM-16-04	M16-1.5	1/4	6.4	1.62	41.1	0.80	20.3	0.55	14.0	0.31	8.0	0.18	0.08	200
1280-1804	JB12SFSORM-18-04	M18-1.5	1/4	6.4	1.89	48.0	1.10	28.0	0.87	22.0	0.39	10.0	0.18	0.08	150
1280-1805	JB12SFSORM-18-05	M18-1.5	5/16	7.9	1.74	44.2	0.87	22.0	0.87	22.0	0.39	10.0	0.18	0.08	150
1280-2005	JB12SFSORM-20-05	M20-1.5	5/16	7.9	1.81	45.9	0.44	23.9	0.94	24.0	0.47	12.0	0.24	0.11	100
1280-1806	JB12SFSORM-18-06	M18-1.5	3/8	9.5	2.32	59.0	1.26	32.0	0.87	22.0	0.39	10.0	0.22	0.10	130
1280-2006	JB12SFSORM-20-06	M20-1.5	3/8	9.5	2.32	59.0	1.26	32.0	0.94	24.0	0.47	12.0	0.26	0.12	130
1280-2206	JB12SFSORM-22-06	M22-1.5	3/8	9.5	2.32	59.0	1.26	32.0	1.06	27.0	0.55	14.0	0.41	0.19	100
1280-2408	JB12SFSORM-24-08	M24-1.5	1/2	12.7	2.60	66.0	1.38	35.0	1.18	30.0	0.63	16.0	0.42	0.19	80
1280-3010	JB12SFSORM-30-10	M30-2.0	5/8	15.9	3.03	77.0	1.54	39.0	1.42	36.0	0.79	20.0	0.95	0.43	60
1280-3012	JB12SFSORM-30-12	M30-2.0	3/4	19.1	2.63	66.7	1.08	27.4	1.42	36.0	0.79	20.0	0.97	0.44	50
1280-3612	JB12SFSORM-36-12	M36-2.0	3/4	19.1	3.15	80.0	1.61	41.0	1.61	41.0	0.98	25.0	0.97	0.44	36
1280-3616	JB12SFSORM-36-16	M36-2.0	1	25.4	3.58	91.0	1.81	46.0	1.61	41.0	0.98	25.0	1.15	0.52	8
1280-4216	JB12SFSORM-42-16	M42-2.0	1	25.4	3.58	91.0	1.81	46.0	1.97	50.0	1.18	30.0	1.45	0.66	8
1280-5220	JB12SFSORM-52-20	M52-2.0	1-1/4	31.8	4.02	102.0	2.17	55.0	2.36	60.0	1.50	38.0	1.93	0.88	8
1280-5224	JB12SFSORM-52-24	M52-2.0	1-1/2	38.1	4.76	121.0	2.44	62.0	2.36	60.0	1.50	38.0	2.38	1.08	8

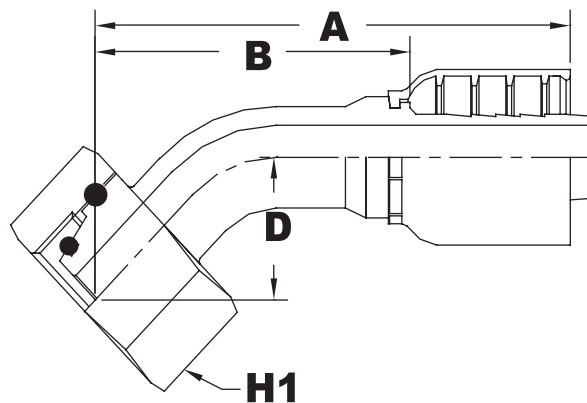
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1281 SERIES

JB12SFSORM45 SERIES

Female Swivel O-Ring - 24° Cone
S (Standard) DIN 3865 - 45° Elbow - Metric



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Hex Sizes		Tube Outside Diameter		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
1281-1604	JB12SFSORM45-16-04	M16-1.5	1/4	6.4	2.31	58.8	1.50	38.0	0.79	20.0	0.75	19.0	0.31	8.0	0.17	0.08	100
1281-1804	JB12SFSORM45-18-04	M18-1.5	1/4	6.4	2.52	64.0	1.69	43.0	0.83	21.0	0.87	22.0	0.39	10.0	0.10	0.05	100
1281-2005	JB12SFSORM45-20-05	M20-1.5	5/16	7.9	2.83	72.0	1.97	50.0	0.94	24.0	0.94	24.0	0.47	12.0	0.26	0.12	80
1281-1806	JB12SFSORM45-18-06	M18-1.5	3/8	9.5	2.95	75.0	1.89	48.0	0.91	23.0	0.87	22.0	0.39	10.0	0.20	0.09	100
1281-2006	JB12SFSORM45-20-06	M20-1.5	3/8	9.5	2.95	75.0	1.89	48.0	0.91	23.0	0.94	24.0	0.47	12.0	0.28	0.13	100
1281-2206	JB12SFSORM45-22-06	M22-1.5	3/8	9.5	2.95	75.0	1.89	48.0	0.91	23.0	1.06	27.0	0.55	14.0	0.17	0.08	100
1281-2408	JB12SFSORM45-24-08	M24-1.5	1/2	12.7	3.50	89.0	2.24	57.0	1.18	30.0	1.26	32.0	0.63	16.0	0.46	0.21	50
1281-3010	JB12SFSORM45-30-10	M30-2.0	5/8	15.9	3.94	100.0	2.40	61.0	1.10	28.0	1.42	36.0	0.79	20.0	0.29	0.13	50
1281-3012	JB12SFSORM45-30-12	M30-2.0	3/4	19.1	4.84	123.0	3.27	83.0	1.42	36.0	1.42	36.0	0.79	20.0	0.84	0.38	32
1281-3612	JB12SFSORM45-36-12	M36-2.0	3/4	19.1	4.88	124.0	3.31	84.0	1.46	37.0	1.81	46.0	0.98	25.0	1.13	0.51	36
1281-3616	JB12SFSORM45-36-16	M36-2.0	1	25.4	5.12	130.0	3.35	85.0	1.50	38.0	1.81	46.0	0.98	25.0	1.52	0.69	6
1281-4216	JB12SFSORM45-42-16	M42-2.0	1	25.4	5.12	130.0	3.35	85.0	1.50	38.0	1.97	50.0	1.18	30.0	1.41	0.64	6
1281-5220	JB12SFSORM45-52-20	M52-2.0	1-1/4	31.8	6.22	158.0	4.37	111.0	1.89	48.0	2.36	60.0	1.50	38.0	2.23	1.01	6
1281-5224	JB12SFSORM45-52-24	M52-2.0	1-1/2	38.1	7.05	179.0	4.69	119.0	2.44	62.0	2.36	60.0	1.50	38.0	3.33	1.51	6

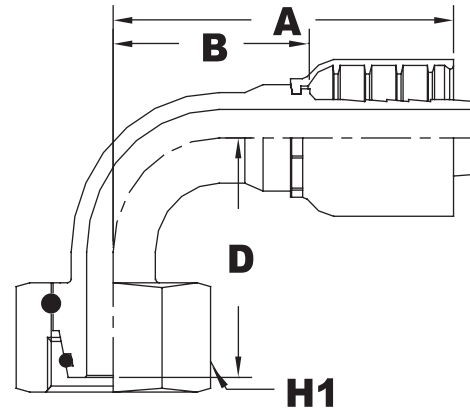
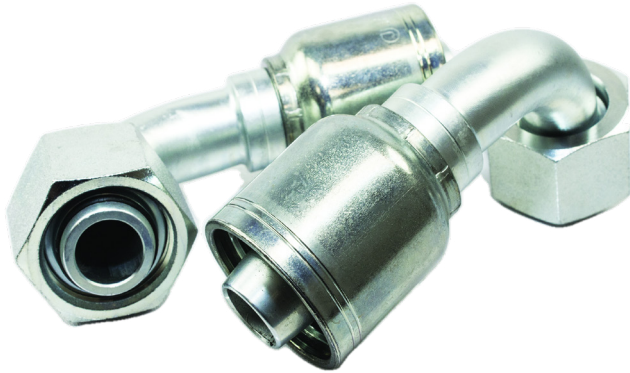
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JB12SFSORM90 SERIES

Female Swivel O-Ring - 24° Cone
S (Standard) DIN 3865 - 90° Elbow - Metric

1282 SERIES



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Hex Size H1		Tube Outside Diameter		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
1282-1804	JB12SFSORM90-18-04	M18-1.5	1/4	6.4	2.01	51.0	1.18	30.0	1.34	34.0	0.87	22.0	0.39	10.0	0.19	0.09	70
1282-2005	JB12SFSORM90-20-05	M20-1.5	5/16	7.9	2.01	51.0	1.14	29.0	1.46	37.0	0.94	24.0	0.47	12.0	0.29	0.13	70
1282-1806	JB12SFSORM90-18-06	M18-1.5	3/8	9.5	2.72	69.0	1.65	42.0	1.38	35.0	0.87	22.0	0.39	10.0	0.25	0.12	100
1282-2006	JB12SFSORM90-20-06	M20-1.5	3/8	9.5	2.72	69.0	1.65	42.0	1.38	35.0	0.94	24.0	0.47	12.0	0.32	0.15	100
1282-2206	JB12SFSORM90-22-06	M22-1.5	3/8	9.5	2.72	69.0	1.65	42.0	1.42	36.0	1.06	27.0	0.55	14.0	0.17	0.08	50
1282-2408	JB12SFSORM90-24-08	M24-1.5	1/2	12.7	2.76	70.0	1.50	38.0	1.57	40.0	1.18	30.0	0.63	16.0	0.48	0.22	50
1282-3010	JB12SFSORM90-30-10	M30-2.0	5/8	15.9	2.80	71.0	1.65	42.0	1.93	49.0	1.42	36.0	0.79	20.0	1.15	0.52	50
1282-3012	JB12SFSORM90-30-12	M30-2.0	3/4	19.1	3.98	101.0	2.40	61.0	2.40	61.0	1.42	36.0	0.79	20.0	0.97	0.44	32
1282-3612	JB12SFSORM90-36-12	M36-2.0	3/4	19.1	3.98	101.0	2.40	61.0	2.44	62.0	1.61	41.0	0.98	25.0	1.25	0.57	36
1282-3616	JB12SFSORM90-36-16	M36-2.0	1	25.4	4.96	126.0	3.19	81.0	2.72	69.0	1.61	41.0	0.98	25.0	1.57	0.71	3
1282-4216	JB12SFSORM90-42-16	M42-2.0	1	25.4	4.96	126.0	3.19	81.0	2.76	70.0	1.97	50.0	1.18	30.0	1.77	0.80	3
1282-5220	JB12SFSORM90-52-20	M52-2.0	1-1/4	31.8	5.51	140.0	3.66	93.0	3.39	86.0	2.36	60.0	1.50	38.0	2.47	1.22	3
1282-5224	JB12SFSORM90-52-24	M52-2.0	1-1/2	38.1	5.94	151.0	3.58	91.0	3.54	90.0	2.36	60.0	1.50	38.0	2.47	1.22	3

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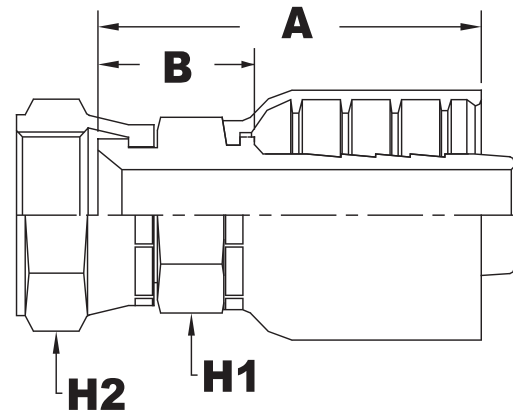
40/JB40 SERIES COUPLINGS - FOR 4-SPIRAL HOSES

4000 JB40FS Female Swivel JIC 37° Flare	4002 JB40FS45 Female Swivel - JIC 37° Flare 45° Elbow	4004 JB40FS90 Female Swivel - JIC 37° Flare 90° Elbow	4004L JB40FS90L Female Swivel JIC 37° Flare 90° Elbow - Long Drop	4005 JB40OFS Female O-Ring Face Seal - Straight	4007 JB40OFS45 Female O-Ring Face Seal 45° Elbow
4009 JB40OFS90 Female O-Ring Face Seal 90° Elbow	4010 JB40FA Female Swivel SAE 45° Flare	4020 JB40MP Male Pipe Rigid NPTF	4023 JB40MS Male Pipe Swivel NPTF	4025 JB40MJ Male JIC 37°	4027 JB40OB Male O-Ring Boss
4030 JB40JISMP Male JIS/BSP Taper Rigid Pipe	4032 JB40MOFS SAE MALE O-RING FACE SEAL	4034 JB40C61S SAE Code 61 Flange - Straight	4036 JB40C6145 SAE Code 61 Flange - 45° Elbow	4039 JB40C6190 SAE Code 61 Flange - 90° Elbow	4039L JB40C6190L SAE Code 61 Flange 90° Elbow - Long Drop
4041 JB40C62S SAE Code 62 Flange - Straight	4043 JB40C6245 SAE Code 62 Flange - 45° Elbow	4045 JB40C6290 SAE Code 62 Flange - 90° Elbow	4048 JB40FSPBSP Female Swivel BSP Parallel Pipe - 30° Cone	4049 JB40FSPBSP45 Female Swivel BSP Parallel Pipe - 45° Elbow - Metric	4050 JB40FSPBSP90 Female Swivel BSP Parallel Pipe 30° Cone - 90° Elbow - Metric
4060 JB40CATS Caterpillar Style Flange - Straight	4064 JB40CATS90 Caterpillar Style Flange 90° Elbow	4070 JB40KFSM Komatsu Female Swivel 30° Flare - Metric	4071 JB40FSM Female Swivel 60° Cone - Metric DIN 3863	4072 JB40FSM45 Female Swivel 30° Cone 45° Elbow - Metric - DIN 3863	4073 JB40FSM90 Female Swivel 60° Cone 90° Elbow - Metric - DIN 3863
4075 JB40MM Male DIN 3853 - Metric	4077 JB40LFSORM Female Swivel O-Ring 24° Cone - DIN 3865 L (Light)	4078 JB40LFSORM45 Female Swivel O-Ring - 24° Cone DIN 3865 L (Light) - 45° Elbow	4079 JB40LFSORM90 Female Swivel O-Ring - 24° Cone DIN 3865 L (Light) - 90° Elbow	4080 JB40FSORM Female Swivel O-Ring - 24° Cone DIN 3865 S (Standard)	4081 JB40FSORM45 Female Swivel O-Ring - 24° Cone DIN 3865 S (Standard) - 45° Elbow
4082 JB40FSORM Female Swivel O-Ring - 24° Cone DIN 3865 S (Standard) - 90° Elbow					

JB40FS SERIES

Female Swivel JIC 37° Flare

4000 SERIES



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Sizes				Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	H1		H2		lbs.	kg	
4000-0606	JB40FS-06-06	9/16-18	3/8	9.5	2.01	51.0	0.91	23.0	0.69	17.4	0.69	17.4	0.24	0.11	130
4000-0806	JB40FS-08-06	3/4-16	3/8	9.5	2.01	51.0	0.91	23.0	0.69	17.4	0.87	22.2	0.29	0.13	130
4000-1006	JB40FS-10-06	7/8-14	3/8	9.5	2.01	51.0	0.91	23.0	0.87	22.2	1.00	25.4	0.29	0.13	100
4000-0808	JB40FS-08-08	3/4-16	1/2	12.7	2.13	54.0	0.91	23.0	0.87	22.2	0.87	22.2	0.34	0.15	100
4000-1008	JB40FS-10-08	7/8-14	1/2	12.7	2.20	56.0	0.94	24.0	0.87	22.2	1.00	25.4	0.35	0.16	80
4000-1010	JB40FS-10-10	7/8-14	5/8	15.9	2.48	63.0	0.98	25.0	0.94	24.0	1	25.4	0.4	0.18	70
4000-1208	JB40FS-12-08	1-1/16-12	1/2	12.7	2.41	61.2	1.11	28.2	0.87	22.2	1.00	25.4	0.46	0.21	50
4000-1212	JB40FS-12-12	1-1/16-12	3/4	19.1	2.64	67.0	1.06	27.0	1.06	26.9	1.25	31.7	0.58	0.27	50
4000-1412	JB40FS-14-12	1-3/16-12	3/4	19.1	2.70	68.6	1.13	28.8	1.26	32.0	1.38	35.0	0.68	0.31	50
4000-1612	JB40FS-16-12	1-5/16-12	3/4	19.1	2.81	71.3	1.24	31.5	1.26	32.0	1.25	31.8	0.85	0.39	50
4000-1216	JB40FS-12-16	1-1/16-12	1	25.4	3.01	76.5	1.18	30.0	1.81	46.0	1.97	50.0	0.95	0.43	36
4000-1616	JB40FS-16-16	1-5/16-12	1	25.4	3.11	79.0	1.30	33.0	1.50	38.1	1.37	34.9	1.15	0.52	36
4000-2016	JB40FS-20-16	1-5/8-12	1	25.4	3.23	82.0	1.34	34.0	1.62	41.2	2.00	50.8	1.43	0.65	15
4000-2020	JB40FS-20-20	1-5/8-12	1-1/4	31.8	3.23	82.0	1.38	35.0	1.87	47.6	2.00	50.8	1.94	0.88	15
4000-2424	JB40FS-24-24	1-7/8-12	1-1/2	38.1	4.02	102.0	1.69	43.0	2.12	53.9	2.12	53.9	2.49	1.13	12
4000-3232	JB40FS-32-32	2-1/2-12	2	50.8	4.96	126.0	2.17	55.0	2.50	73.0	2.87	73.0	4.55	2.07	8

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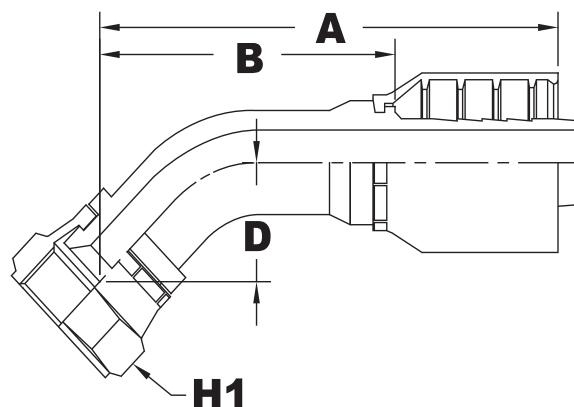


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4002 SERIES

JB40FS45 SERIES

Female Swivel - JIC 37° Flare - 45° Elbow



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Hex Size		Weight		Bulk Pack
											H1				
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	qty
4002-0606	JB40FS45-06-06	9/16-18	3/8	9.5	2.72	69.0	1.65	42.0	0.63	16.0	0.69	17.4	0.24	0.11	130
4002-0806	JB40FS45-08-06	3/4-16	3/8	9.5	2.72	69.0	1.65	42.0	0.63	16.0	0.87	22.2	0.26	0.12	130
4002-1006	JB40FS45-10-06	7/8-14	3/8	9.5	2.93	74.5	1.87	47.5	0.75	19.0	1.06	27.0	0.29	0.13	80
4002-0808	JB40FS45-08-08	3/4-16	1/2	12.7	3.19	81.0	1.93	49.0	0.75	19.0	0.87	22.2	0.35	0.16	80
4002-1008	JB40FS45-10-08	7/8-14	1/2	12.7	3.19	81.0	1.93	49.0	0.75	19.0	1.00	25.4	0.42	0.19	80
4002-1010	JB40FS45-10-10	7/8-14	5/8	15.9	3.46	88.0	1.93	49.0	0.68	17.3	1	25.4	0.45	0.2	50
4002-1212	JB40FS45-12-12	1-1/16-12	3/4	19.1	4.53	115.0	2.95	75.0	1.02	26.0	1.25	31.7	0.82	0.37	32
4002-1616	JB40FS45-16-16	1-5/16-12	1	25.4	4.80	122.0	3.03	77.0	1.22	31.0	1.50	38.1	1.39	0.63	18
4002-2020	JB40FS45-20-20	1-5/8-12	1-1/4	31.8	5.91	150.0	4.06	103.0	1.57	40.0	2.00	50.8	2.40	1.09	12
4002-2424	JB40FS45-24-24	1-7/8-12	1-1/2	38.1	6.89	175.0	4.53	115.0	1.81	46.0	2.12	53.9	2.49	1.13	10
4002-3232	JB40FS45-32-32	2-1/2-12	2	50.8	8.31	211.0	5.51	140.0	2.44	62.0	2.87	73.0	6.65	3.02	6

*Standard Pack is 1.

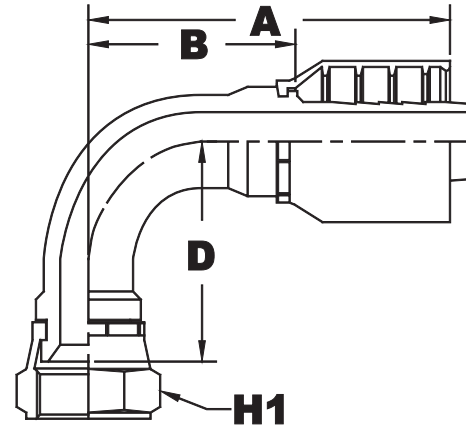
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JB40FS90 SERIES

Female Swivel, JIC 37° Flare - 90° Elbow

4004 SERIES



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Hex Size		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
4004-0606	JB40FS90-06-06	9/16-18	3/8	9.5	2.76	70.0	1.65	42.0	1.14	29.0	0.69	17.4	0.24	0.11	110
4004-0806	JB40FS90-08-06	3/4-16	3/8	9.5	2.76	70.0	1.65	42.0	1.14	29.0	0.87	22.2	0.29	0.13	110
4004-0808	JB40FS90-08-08	3/4-16	1/2	12.7	2.80	71.0	1.50	38.0	1.22	31.0	0.87	22.2	0.37	0.17	70
4004-1008	JB40FS90-10-08	7/8-14	1/2	12.7	2.80	71.0	1.50	38.0	1.22	31.0	1.00	25.4	0.38	0.17	70
4004-1010	JB40FS90-10-10	7/8-14	5/8	15.9	3.11	79.0	1.65	42.0	1.33	33.8	1	25.4	0.45	0.2	50
4004-1208	JB40FS90-12-08	1-1/16-12	1/2	12.7	2.80	71.0	1.50	38.0	1.22	31.0	1.25	31.7	0.44	0.20	50
4004-1212	JB40FS90-12-12	1-1/16-12	3/4	19.1	4.02	102.0	2.40	61.0	1.97	50.0	1.25	31.7	0.88	0.40	32
4004-1616	JB40FS90-16-16	1-5/16-12	1	25.4	5.04	128.0	3.19	81.0	2.44	62.0	1.50	38.1	1.57	0.71	15
4004-2020	JB40FS90-20-20	1-5/8-12	1-1/4	31.8	5.51	140.0	3.66	93.0	3.23	82.0	1.98	50.4	2.67	1.21	10
4004-2424	JB40FS90-24-24	1-7/8-12	1-1/2	38.1	5.94	151.0	3.58	91.0	3.39	86.0	2.12	53.9	3.30	1.50	7
4004-3232	JB40FS90-32-32	2-1/2-12	2	50.8	8.11	206.0	5.31	135.0	5.35	136.0	2.87	73.0	7.30	3.31	3

*Standard Pack is 1.

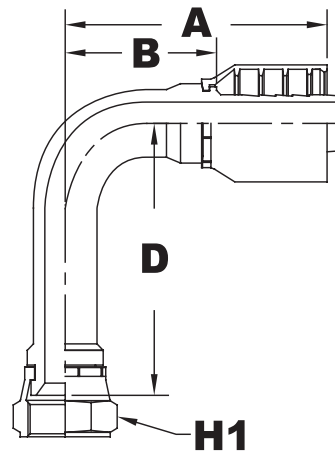
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4004L SERIES

JB40FS90L SERIES

Female Swivel JIC 37° Flare, 90° Elbow - Long Drop



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Hex Size		Weight		Bulk Pack
											H1				
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	qty
4004L-0606	JB40FS90L-06-06	9/16-18	3/8	9.5	2.76	70.0	1.65	42.0	2.17	55.0	0.69	17.4	0.22	0.1	130
4004L-0806	JB40FS90L-08-06	3/4-16	3/8	9.5	2.76	70.0	1.65	42.0	2.44	62.0	0.87	22.2	0.26	0.12	130
4004L-0808	JB40FS90L-08-08	3/4-16	1/2	12.7	2.80	71.0	1.50	38.0	2.44	62.0	0.87	22.2	0.33	0.15	80
4004L-1008	JB40FS90L-10-08	7/8-14	1/2	12.7	2.80	71.0	1.50	38.0	2.56	65.0	1.00	25.4	0.35	0.16	80
4004L-1212	JB40FS90L-12-12	1-1/16-12	3/4	19.1	4.02	102.0	2.40	61.0	3.74	95.0	1.25	31.8	0.62	0.28	50
4004L-1616	JB40FS90L-16-16	1-5/16-12	1	25.4	5.04	128.0	2.40	61.0	4.33	110.0	1.50	38.1	1.06	0.48	36
4004L-2020	JB40FS90L-20-20	1-5/8-12	1-1/4	31.8	3.65	92.6	1.58	40.1	3.23	82	1.81	46	1.94	0.88	15
4004L-2424	JB40FS90L-24-24	1-7/8-12	1-1/2	38.1	4.43	112.4	1.69	42.9	3.39	86	2.17	55	2.47	1.12	12

*Standard Pack is 1.

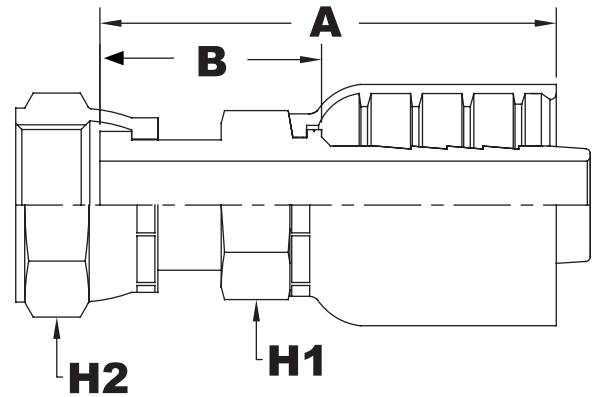
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JB40OFS SERIES

Female O-Ring Face Seal - Straight

4005 SERIES



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Sizes				Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	H1		H2		lbs.	kg	
4005-0606	JB40OFS-06-06	11/16-16	3/8	9.5	1.90	48.2	0.80	20.2	0.69	17.4	0.81	20.6	0.25	0.11	130
4005-0806	JB40OFS-08-06	13/16-16	3/8	9.5	2.24	57.0	1.14	29.0	0.69	17.4	0.94	23.8	0.31	0.14	130
4005-0608	JB40OFS-06-08	11/16-16	1/2	12.7	2.40	61.0	1.14	29.0	0.81	20.6	0.81	20.6	0.31	0.14	80
4005-0808	JB40OFS-08-08	13/16-16	1/2	12.7	2.52	64.0	1.26	32.0	0.81	20.6	0.94	23.8	0.35	0.16	80
4005-1010	JB40OFS-10-10	1-14	5/8	15.9	2.91	74.0	1.38	35.0	0.95	24.1	1.12	28.4	0.5	0.23	60
4005-1012	JB40OFS-10-12	1-14	3/4	19.1	3.11	79.0	1.54	39.0	1.06	26.9	1.12	28.5	0.62	0.28	50
4005-1212	JB40OFS-12-12	1-3/16-12	3/4	19.1	3.19	81.0	1.61	41.0	1.12	28.5	1.37	34.9	0.76	0.35	50
4005-1612	JB40OFS-16-12	1-7/16-12	3/4	19.1	3.27	83.0	1.69	43.0	1.25	31.7	1.62	41.2	0.90	0.41	50
4005-1616	JB40OFS-16-16	1-7/16-12	1	25.4	3.62	92.0	1.77	45.0	1.37	34.9	1.62	41.2	1.17	0.53	36
4005-2016	JB40OFS-20-16	1-11/16-12	1	25.4	3.15	80.0	1.30	33.0	1.37	34.9	1.87	47.6	1.65	0.75	15
4005-1620	JB40OFS-16-20	1-7/16-12	1-1/4	31.8	3.58	91.0	1.73	44.0	1.75	44.4	1.62	41.2	1.92	0.87	15
4005-2020	JB40OFS-20-20	1-11/16-12	1-1/4	31.8	3.39	86.0	1.54	39.0	1.75	44.4	1.87	47.6	2.05	0.93	15
4005-2420	JB40OFS-24-20	2-12	1-1/4	31.8	3.46	88.0	1.61	41.0	1.75	44.4	2.25	57.1	2.40	1.09	12
4005-2424	JB40OFS-24-24	2-12	1-1/2	38.1	3.94	100.0	1.61	41.0	1.87	47.6	2.25	57.1	2.61	1.18	12

*Standard Pack is 1.

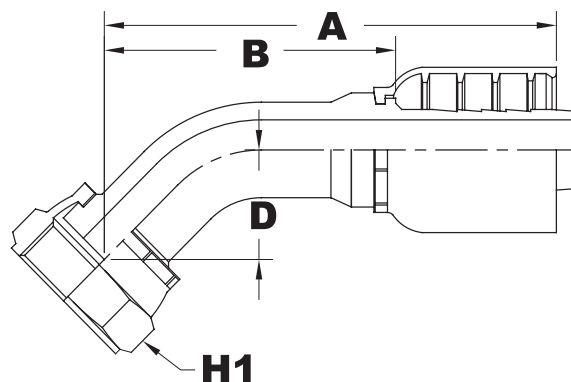
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4007 SERIES

JB40OFS45 SERIES

Female O-Ring Face Seal, 45° Elbow



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Hex Size		Weight		Bulk Pack
											H1				
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
4007-0606	JB40OFS45-06-06	11/16-16	3/8	9.5	2.72	69.0	1.61	41.0	0.63	16.0	0.81	20.6	0.24	0.11	110
4007-0806	JB40OFS45-08-06	13/16-16	3/8	9.5	2.76	70.0	1.69	43.0	0.71	18.0	0.94	23.8	0.29	0.13	100
4007-0608	JB40OFS45-06-08	11/16-16	1/2	12.7	3.15	80.0	1.89	48.0	0.71	18.0	0.81	20.6	0.31	0.14	110
4007-0808	JB40OFS45-08-08	13/16-16	1/2	12.7	3.66	93.0	1.97	50.0	0.79	20.0	0.94	23.8	0.39	0.18	70
4007-1010	JB40OFS45-10-10	1-14	5/8	15.9	3.58	91.0	2.05	52.0	0.83	21.1	1.12	28.4	0.45	0.2	50
4007-1012	JB40OFS45-10-12	1-14	3/4	19.1	4.61	117.0	2.99	76.0	1.14	29.0	1.12	28.5	0.68	0.31	32
4007-1212	JB40OFS45-12-12	1-3/16-12	3/4	19.1	4.57	116.0	2.95	75.0	1.10	28.0	1.37	34.9	0.96	0.44	32
4007-1612	JB40OFS45-16-12	1-7/16-12	3/4	19.1	4.57	116.0	2.95	75.0	1.10	28.0	1.62	41.2	1.06	0.48	32
4007-1616	JB40OFS45-16-16	1-7/16-12	1	25.4	4.84	123.0	2.99	76.0	1.18	30.0	1.62	41.2	1.37	0.62	10
4007-2016	JB40OFS45-20-16	1-11/16-12	1	25.4	4.96	126.0	3.11	79.0	1.30	33.0	1.87	47.6	2.09	0.95	10
4007-1620	JB40OFS45-16-20	1-7/16-12	1-1/4	31.8	5.79	147.0	3.94	100.0	1.46	37.0	1.87	47.6	2.23	1.01	10
4007-2020	JB40OFS45-20-20	1-11/16-12	1-1/4	31.8	5.91	150.0	4.06	103.0	1.57	40.0	1.87	47.6	2.44	1.11	10
4007-2420	JB40OFS45-24-20	2-12	1-1/4	31.8	5.94	151.0	4.09	104.0	1.61	41.0	2.25	57.1	2.32	1.05	7
4007-2424	JB40OFS45-24-24	2-12	1-1/2	38.1	6.85	174.0	4.49	114.0	1.77	45.0	2.25	57.1	2.58	1.17	7

*Standard Pack is 1.

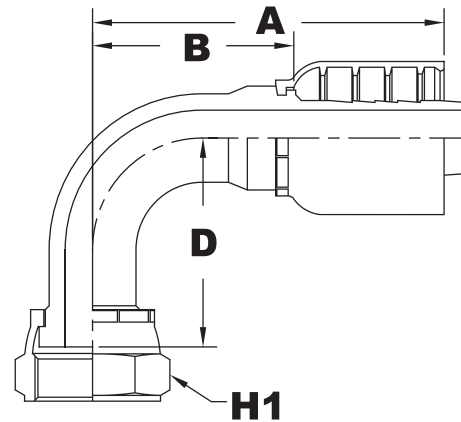
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JB40OFS90 SERIES

Female O-Ring Face Seal, 90° Elbow

4009 SERIES



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Hex Size H1		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
4009-0606	JB40OFS90-06-06	11/16-18	3/8	9.5	2.76	70.0	1.65	42.0	1.02	26.0	0.81	20.6	0.24	0.11	110
4009-0806	JB40OFS90-08-06	13/16-16	3/8	9.5	2.76	70.0	1.65	42.0	1.10	28.0	0.94	23.8	0.31	0.14	100
4009-0608	JB40OFS90-06-08	11/16-16	1/2	12.7	2.80	71.0	1.50	38.0	1.10	28.0	0.81	20.6	0.29	0.13	110
4009-0808	JB40OFS90-08-08	13/16-16	1/2	12.7	2.80	71.0	1.50	38.0	1.18	30.0	0.94	23.8	0.39	0.18	70
4009-1010	JB40OFS90-10-10	1-14	5/8	15.9	3.15	80.0	1.7	43.0	1.38	35.0	1.12	28.4	0.5	0.23	50
4009-1012	JB40OFS90-10-12	1-14	3/4	19.1	4.02	102.0	2.40	61.0	1.97	50.0	1.12	28.5	0.46	0.21	32
4009-1212	JB40OFS90-12-12	1-3/16-12	3/4	19.1	4.02	102.0	2.40	61.0	1.93	49.0	1.37	34.9	1.05	0.48	32
4009-1616	JB40OFS90-16-16	1-7/16-12	1	25.4	5.04	128.0	3.19	81.0	2.24	57.0	1.62	41.2	1.59	0.72	10
4009-2016	JB40OFS90-20-16	1-11/16-12	1	25.4	5.04	128.0	3.19	81.0	2.36	60.0	1.87	47.6	2.58	1.17	10
4009-1620	JB40OFS90-16-20	1-7/16-12	1-1/4	31.8	5.51	140.0	3.66	93.0	2.91	74.0	1.62	41.2	2.54	1.15	10
4009-2020	JB40OFS90-20-20	1-11/16-12	1-1/4	31.8	5.51	140.0	3.66	93.0	3.03	77.0	1.87	47.6	2.69	1.22	10
4009-2420	JB40OFS90-24-20	2-12	1-1/4	31.8	5.51	140.0	3.66	93.0	3.03	77.0	2.25	57.1	3.20	1.45	7
4009-2424	JB40OFS90-24-24	2-12	1-1/2	38.1	5.94	151.0	3.58	91.0	3.15	80.0	2.25	57.1	3.48	1.58	7

Standard Pack is 1.

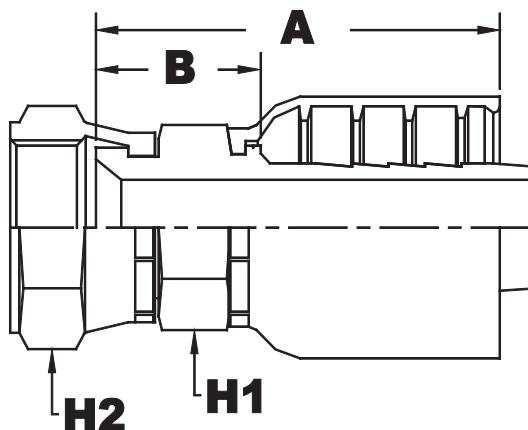
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4010 SERIES

JB40FA SERIES

Female Swivel SAE 45° Flare



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Sizes				Weight		Bulk Pack
									H1		H2				
			inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	qty		
4010-0606	JB40FA-06-06	5/8-18	3/8	9.5	2.01	51.0	0.91	23.0	0.69	17.4	0.69	17.4	0.24	0.11	130
4010-0808	JB40FA-08-08	3/4-16	1/2	12.7	2.17	55.0	0.91	23.0	0.87	22.2	0.87	22.2	0.33	0.15	100
4010-1010	JB40FA-10-10	7/8-16	5/8	15.9	2.52	64.0	0.98	25.0	0.87	22.2	1.00	25.4	0.44	0.20	70
4010-1212	JB40FA-12-12	1-1/16-14	3/4	19.1	2.64	67.0	1.06	27.0	1.06	26.9	1.25	31.7	0.60	0.27	50
4010-1616	JB40FA-16-16	1-5/16-12	1	25.4	3.15	80.0	1.30	33.0	1.50	38.1	1.37	34.9	1.06	0.48	36

*Standard Pack is 1.

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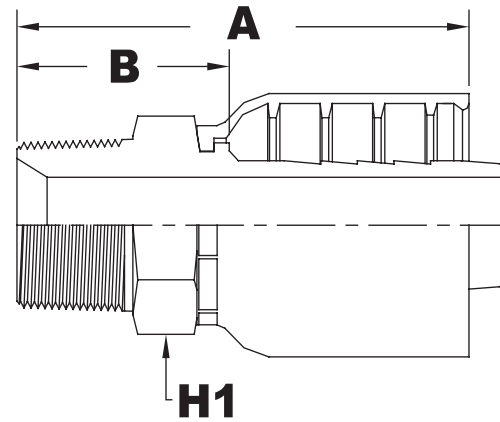


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JB40MP SERIES

Male Pipe Rigid NPTF

4020 SERIES



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Size		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	H1				
									inch	mm	lbs.	kg	qty
4020-0606	JB40MP-06-06	3/8-18	3/8	9.5	2.20	56.0	1.14	29.0	0.69	17.4	0.21	0.10	130
4020-0806	JB40MP-08-06	1/2-14	3/8	9.5	2.38	60.5	1.28	32.5	0.87	22.2	0.27	0.12	100
4020-0608	JB40MP-06-08	3/8-18	1/2	12.7	2.35	59.8	1.06	26.8	0.87	22.2	0.24	0.11	100
4020-0808	JB40MP-08-08	1/2-14	1/2	12.7	2.52	64.0	1.30	33.0	0.87	22.2	0.32	0.15	100
4020-1208	JB40MP-12-08	3/4-14	1/2	12.7	2.48	63.0	1.26	32.0	1.06	26.9	0.40	0.18	100
4020-1210	JB40MP-12-10	3/4-14	5/8	15.9	2.85	72.5	1.36	34.5	1.12	28.4	0.5	0.23	50
4020-1212	JB40MP-12-12	3/4-14	3/4	19.1	2.91	74.0	1.26	35.0	1.06	26.9	0.55	0.25	50
4020-1612	JB40MP-16-12	1-11.5	3/4	19.1	3.11	79.0	1.38	40.0	1.37	34.9	0.68	0.31	50
4020-1616	JB40MP-16-16	1-11.5	1	25.4	3.43	87.0	1.57	41.0	1.37	34.9	0.96	0.44	36
4020-2016	JB40MP-20-16	1-1/4-11.5	1	25.4	3.78	96.0	1.61	49.0	1.69	42.8	1.21	0.55	36
4020-2020	JB40MP-20-20	1-1/4-11.5	1-1/4	31.8	3.78	96.0	1.93	49.0	1.69	42.8	1.35	0.61	15
4020-2424	JB40MP-24-24	1-1/2-11.5	1-1/2	38.1	4.29	109.0	1.93	50.0	2.00	50.8	2.16	0.98	15
4020-3232	JB40MP-32-32	2-11.5	2	50.8	5.42	137.7	2.28	58.0	2.50	63.5	3.79	1.72	8

*Standard Pack is 1.

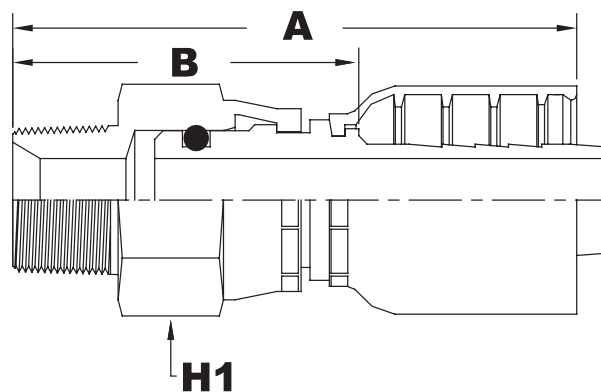
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4023 SERIES

JB40MS SERIES

Male Pipe Swivel NPTF



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Size		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	H1		lbs.	kg	
4023-0606	JB40MS-06-06	3/8-18	3/8	9.5	2.64	67.0	1.73	44.0	0.87	22.2	0.31	0.14	130
4023-0808	JB40MS-08-08	1/2-14	1/2	12.7	3.15	80.0	1.93	49.0	1.00	25.4	0.42	0.19	100
4023-1208	JB40MS-12-08	3/4-14	1/2	12.7	3.62	92.0	2.40	61.0	1.37	34.9	0.86	0.39	100
4023-1212	JB40MS-12-12	3/4-14	3/4	19.1	3.94	100.0	2.40	61.0	1.37	34.9	0.99	0.45	50
4023-1612	JB40MS-16-12	1-11.5	3/4	19.1	4.41	112.0	2.40	73.0	1.50	38.1	1.21	0.55	50
4023-1616	JB40MS-16-16	1-11.5	1	25.4	4.65	118.0	2.87	73.0	1.50	38.1	1.28	0.58	36

Note: Not for use as a live swivel. For installation only.

*Standard Pack is 1.

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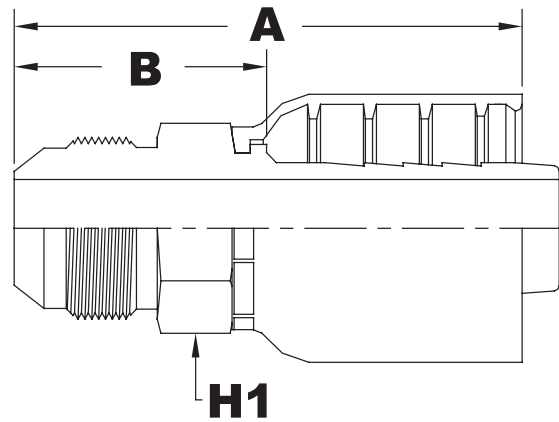


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JB40MJ SERIES

Male JIC 37°

4025 SERIES



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Size		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
4025-0606	JB40MJ-06-06	9/16-18	3/8	9.5	2.13	54.0	1.06	27.0	0.75	19.0	0.23	0.10	130
4025-0806	JB40MJ-08-06	3/4-16	3/8	9.5	2.28	58.0	1.18	30.0	0.87	22.2	0.24	0.11	130
4025-0808	JB40MJ-08-08	3/4-16	1/2	12.7	2.40	61.0	1.18	30.0	0.87	22.2	0.32	0.15	100
4025-1008	JB40MJ-10-08	7/8-14	1/2	12.7	2.48	63.0	1.26	32.0	1.00	25.4	0.32	0.15	80
4025-1208	JB40MJ-12-08	1-1/16-12	1/2	12.7	2.72	69.0	1.50	38.0	1.12	28.5	0.42	0.19	50
4025-1212	JB40MJ-12-12	1-1/16-12	3/4	19.1	3.11	79.0	1.54	39.0	1.12	28.5	0.55	0.25	50
4025-1412	JB40MJ-14-12	1-3/16-12	3/4	19.1	3.11	79.0	1.57	40.0	1.25	31.7	0.60	0.27	50
4025-1616	JB40MJ-16-16	1-5/16-12	1	25.4	3.43	87.0	1.57	40.0	1.37	34.9	0.96	0.44	36
4025-2016	JB40MJ-20-16	1-5/8-12	1	25.4	3.37	85.6	1.73	44.0	1.87	47.6	1.21	0.55	15
4025-2020	JB40MJ-20-20	1-5/8-12	1-1/4	31.8	3.86	98.0	1.89	48.0	2.00	50.8	1.61	0.73	15

*Standard Pack is 1.

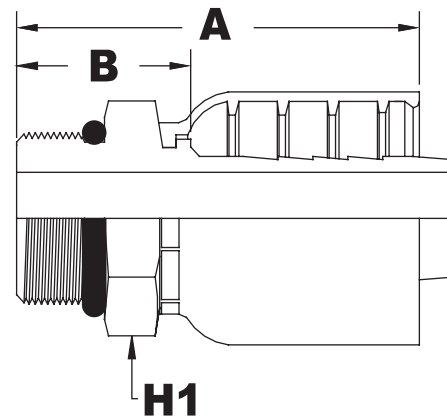
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4027 SERIES

JB400B SERIES

Male O-Ring Boss



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Size		Weight		Bulk Pack
									H1				
			inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	qty
4027-0606	JB400B-06-06	9/16-18	3/8	9.5	2.09	53.0	0.91	23.0	0.87	22.2	0.20	0.09	130
4027-0806	JB400B-08-06	3/4-16	3/8	9.5	2.09	53.0	0.98	25.0	0.87	22.2	0.24	0.11	130
4027-0808	JB400B-08-08	3/4-16	1/2	12.7	2.28	58.0	1.06	27.0	1.06	26.9	0.28	0.13	100
4027-1008	JB400B-10-08	7/8-14	1/2	12.7	2.32	59.0	0.91	23.0	1.50	38.1	0.35	0.16	80
4027-1010	JB400B-10-10	7/8-14	5/8	15.9	2.60	66.0	0.91	23.0	0.87	22.2	0.39	0.18	70
4027-1210	JB400B-12-10	1-1/16-12	5/8	15.9	2.76	70.0	0.98	25.0	0.87	22.2	0.51	0.23	36
4027-1212	JB400B-12-12	1-1/16-12	3/4	19.1	2.80	71.0	1.06	27.0	1.06	26.9	0.53	0.24	36
4027-1412	JB400B-14-12	1-3/16-12	3/4	19.1	2.91	74.0	1.30	33.0	1.50	38.1	0.55	0.25	36
4027-1616	JB400B-16-16	1-5/16-12	1	25.4	3.15	80.0	1.30	33.0	1.50	38.1	0.93	0.42	36

*Standard Pack is 1.

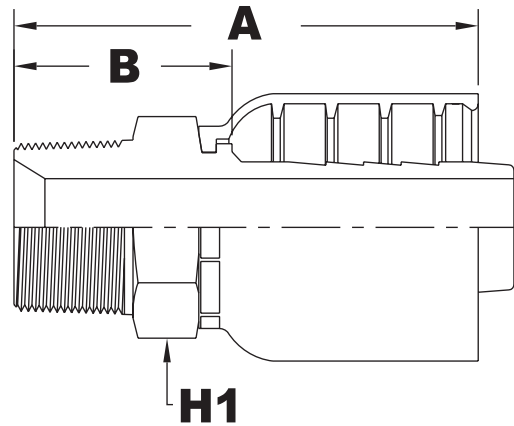
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JB40JISMP SERIES

Male JIS/BSP Taper Rigid Pipe

4030 SERIES



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Size		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
4030-0606	JB40JISMP-06-06	3/8-19	3/8	9.5	2.17	55.0	1.06	27.0	0.87	22.0	0.24	0.11	130
4030-0806	JB40JISMP-08-06	1/2-14	3/8	9.5	2.32	59.0	1.22	31.0	1.06	27.0	0.29	0.13	100
4030-0608	JB40JISMP-06-08	3/8-19	1/2	12.7	2.36	60.0	1.10	28.0	1.06	27.0	0.31	0.14	100
4030-0808	JB40JISMP-08-08	1/2-14	1/2	12.7	2.48	63.0	1.22	31.0	1.06	27.0	0.33	0.15	80
4030-1208	JB40JISMP-12-08	3/4-14	1/2	12.7	2.56	65.0	1.30	33.0	1.26	32.0	0.60	0.27	100
4030-0812	JB40JISMP-08-12	1/2-14	3/4	19.1	2.76	70.0	1.22	31.0	1.26	32.0	0.55	0.25	80
4030-1212	JB40JISMP-12-12	3/4-14	3/4	19.1	2.99	76.0	1.42	36.0	1.26	32.0	0.73	0.33	50
4030-1612	JB40JISMP-16-12	1-11	3/4	19.1	3.07	78.0	1.54	39.0	1.42	36.0	0.90	0.41	50
4030-1216	JB40JISMP-12-16	3/4-14	1	25.4	3.74	95.0	1.50	38.0	1.42	36.0	0.88	0.40	50
4030-1616	JB40JISMP-16-16	1-11	1	25.4	3.35	85.0	1.57	40.0	1.42	36.0	0.95	0.43	36
4030-1620	JB40JISMP-16-20	1-11	1-1/4	31.8	3.46	88.0	1.61	41.0	1.81	46.0	1.63	0.74	36
4030-2020	JB40JISMP-20-20	1-1/4-11	1-1/4	31.8	3.70	94.0	1.85	47.0	1.81	46.0	1.79	0.81	15
4030-2424	JB40JISMP-24-24	1-1/2-11	1-1/2	38.1	3.98	101.0	2.09	53.0	2.36	60.0	2.23	1.01	15

*Standard Pack is 1.

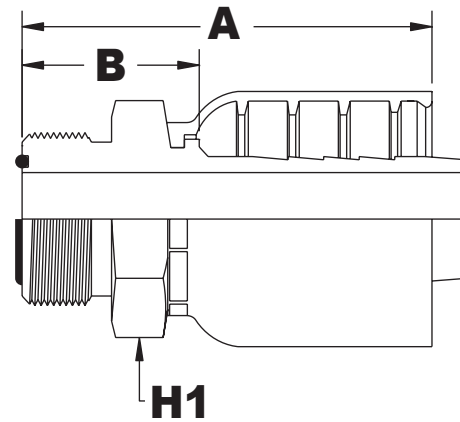
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4032 SERIES

JB40MOFS SERIES

Sae Male O-Ring Face Seal



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Size		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
4032-0606	JB40MOFS-06-06	11/16-16	3/8	9.5	2.01	51.0	0.94	24.0	0.75	19.0	0.25	0.11	130
4032-0808	JB40MOFS-08-08	13/16-16	1/2	12.7	2.30	58.4	1.02	26.0	0.86	21.8	0.3	0.14	80
4032-1010	JB40MOFS-10-10	1-14	5/8	15.9	2.58	65.5	1.11	28.2	1.06	27.0	0.43	0.19	70
4032-1212	JB40MOFS-12-12	1-3/16-12	3/4	19.1	2.83	71.8	1.26	32.0	1.26	32	0.62	0.28	50
4032-1612	JB40MOFS-16-12	1-7/16-12	3/4	19.1	2.93	74.3	1.36	34.5	1.50	38	0.75	0.34	42
4032-1616	JB40MOFS-16-16	1-7/16-12	1	25.4	3.29	83.5	1.46	37.0	1.50	38	1.08	0.49	36

*Standard Pack is 1.

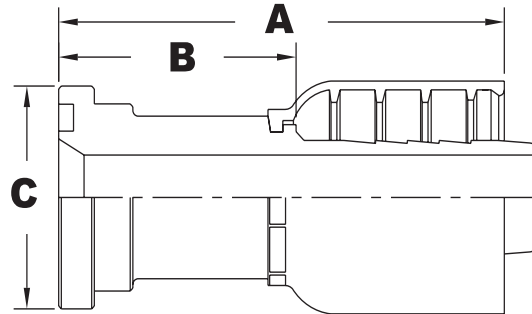
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JB40C61S SERIES

SAE Code 61 Flange - Straight

4034 SERIES



Catalog Part Number	Descriptive Part Number	Flange Size		Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Flange Diameter -C-		Weight		Bulk Pack
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
4034-0808	JB40C61S-08-08	1/2	12.7	1/2	12.7	2.79	71.0	1.54	39.1	1.19	30.1	0.4	0.18	80
4034-1208	JB40C61S-12-08	3/4	19.1	1/2	12.7	2.83	72.0	1.57	40.0	1.50	38.0	0.55	0.25	50
4034-1210	JB40C61S-12-10	3/4	19.1	5/8	15.9	3.00	76.0	1.52	38.6	1.50	38.0	0.6	0.27	40
4034-1212	JB40C61S-12-12	3/4	19.1	3/4	19.1	3.35	85.0	1.77	45.0	1.50	38.1	0.68	0.31	50
4034-1612	JB40C61S-16-12	1	25.4	3/4	19.1	3.19	81.0	1.61	41.0	1.75	44.4	0.90	0.41	50
4034-1616	JB40C61S-16-16	1	25.4	1	25.4	4.06	103.0	2.20	56.0	1.75	44.4	1.18	0.54	36
4034-2016	JB40C61S-20-16	1-1/4	31.8	1	25.4	3.98	101.0	2.13	54.0	2.00	50.8	1.71	0.76	36
4034-2020	JB40C61S-20-20	1-1/4	31.8	1-1/4	31.8	4.33	110.0	2.48	63.0	2.00	50.8	1.92	0.87	15
4034-2420	JB40C61S-24-20	1-1/2	38.1	1-1/4	31.8	4.57	116.0	2.72	69.0	2.37	60.3	2.11	0.96	15
4034-2424	JB40C61S-24-24	1-1/2	38.1	1-1/2	38.1	5.16	131.0	2.83	72.0	2.37	60.3	2.45	1.11	15
4034-3224	JB40C61S-32-24	2	50.8	1-1/2	38.1	5.43	138.0	3.11	79.0	2.81	71.4	3.59	1.63	12
4034-3232	JB40C61S-32-32	2	50.8	2	50.8	5.91	150.0	3.11	79.0	2.81	71.4	4.19	1.90	8

*Standard Pack is 1.

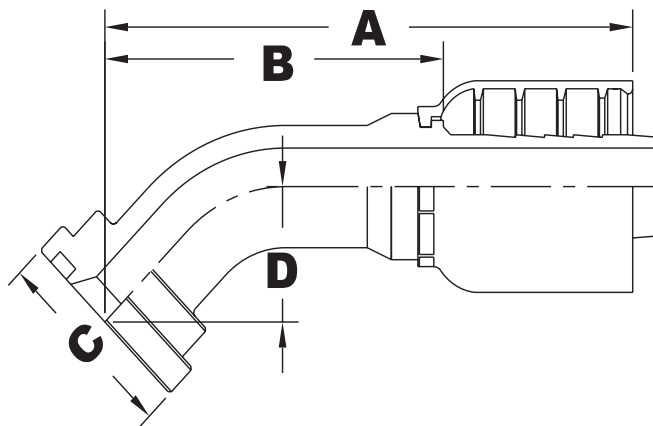
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4036 SERIES

JB40C6145 SERIES

SAE Code 61 Flange - 45° Elbow



Catalog Part Number	Descriptive Part Number	Flange Size		Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Flange Diameter -C-		Weight		Bulk Pack
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
4036-0808	JB40C6145-08-08	1/2	12.7	1/2	12.7	3.19	81.0	1.89	48.0	0.75	19.0	1.19	30.1	0.36	0.16	80
4036-1208	JB40C6145-12-08	3/4	19.1	1/2	12.7	3.31	84.0	2.01	51.0	0.87	22.0	1.50	38.1	0.52	0.24	80
4036-1212	JB40C6145-12-12	3/4	19.1	3/4	19.1	4.61	117.0	2.99	76.0	1.14	29.0	1.50	38.1	0.79	0.36	32
4036-1612	JB40C6145-16-12	1	25.4	3/4	19.1	4.61	117.0	2.99	76.0	1.14	29.0	1.75	44.4	0.82	0.37	32
4036-1616	JB40C6145-16-16	1	25.4	1	25.4	4.49	114.0	3.03	77.0	1.22	31.0	1.75	44.4	1.16	0.53	18
4036-2016	JB40C6145-20-16	1-1/4	31.8	1	25.4	4.49	114.0	3.03	77.0	1.22	31.0	2.00	50.8	1.33	0.60	18
4036-2020	JB40C6145-20-20	1-1/4	31.8	1-1/4	31.8	5.83	148.0	3.98	101.0	1.50	38.0	2.00	50.8	2.01	0.91	12
4036-2420	JB40C6145-24-20	1-1/2	38.1	1-1/4	31.8	5.91	150.0	4.06	103.0	1.57	40.0	2.37	60.3	2.15	0.98	12
4036-2424	JB40C6145-24-24	1-1/2	38.1	1-1/2	38.1	6.81	173.0	4.45	113.0	1.73	44.0	2.37	60.3	2.45	1.11	12
4036-3224	JB40C6145-32-24	2	50.8	1-1/2	38.1	6.81	173.0	4.45	113.0	1.73	44.0	2.81	71.4	2.49	1.13	10
4036-3232	JB40C6145-32-32	2	50.8	2	50.8	8.23	209.0	5.43	138.0	2.36	60.0	2.81	71.4	5.43	2.46	6

*Standard Pack is 1.

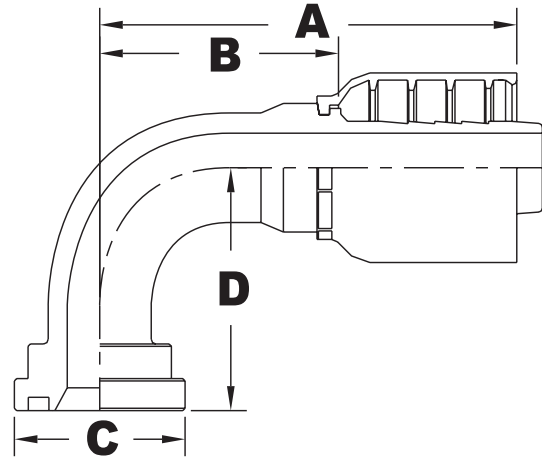
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JB40C6190 SERIES

SAE Code 61 Flange - 90° Elbow

4039 SERIES



Catalog Part Number	Descriptive Part Number	Flange Size		Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Flange Diameter -C-		Weight		Bulk Pack
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
4039-0808	JB40C6190-08-08	1/2	12.7	1/2	12.7	2.80	71.0	1.50	38.0	1.34	34.0	0.81	20.6	0.36	0.17	70
4039-1208	JB40C6190-12-08	3/4	19.1	1/2	12.7	2.80	71.0	1.50	38.0	1.38	35.0	1.50	38.1	0.81	0.37	70
4039-1608	JB40C6190-16-08	1	25.4	1/2	12.7	2.80	71.0	1.50	38.0	1.38	35.0	1.75	44.4	0.82	0.37	70
4039-1210	JB40C6190-12-10	3/4	19.1	5/8	15.9	2.83	72.0	1.65	42.0	1.65	42.0	1.50	38.1	0.85	0.39	32
4039-1212	JB40C6190-12-12	3/4	19.1	3/4	19.1	4.02	102.0	2.40	61.0	2.13	54.0	1.50	38.1	0.93	0.42	32
4039-1612	JB40C6190-16-12	1	25.4	3/4	19.1	4.02	102.0	2.40	61.0	2.13	54.0	1.75	44.4	0.90	0.41	32
4039-1616	JB40C6190-16-16	1	25.4	1	25.4	5.04	128.0	3.19	81.0	2.44	62.0	1.75	44.4	1.44	0.66	15
4039-2016	JB40C6190-20-16	1-1/4	31.8	1	25.4	5.04	128.0	3.19	81.0	2.44	62.0	2.00	50.8	1.48	0.67	15
4039-2020	JB40C6190-20-20	1-1/4	31.8	1-1/4	31.8	5.51	140.0	3.66	93.0	3.11	79.0	2.00	50.8	2.23	1.01	15
4039-2424	JB40C6190-24-24	1-1/2	38.1	1-1/2	38.1	5.94	151.0	3.58	91.0	3.27	83.0	2.37	60.3	2.62	1.19	10
4039-3224	JB40C6190-32-24	2	50.8	1-1/2	38.1	5.94	151.0	3.58	91.0	3.27	83.0	2.81	71.4	3.16	1.43	7
4039-3232	JB40C6190-32-32	2	50.8	2	50.8	8.11	206.0	5.31	135.0	5.16	131.0	2.81	71.4	6.33	2.87	6

*Standard Pack is 1.

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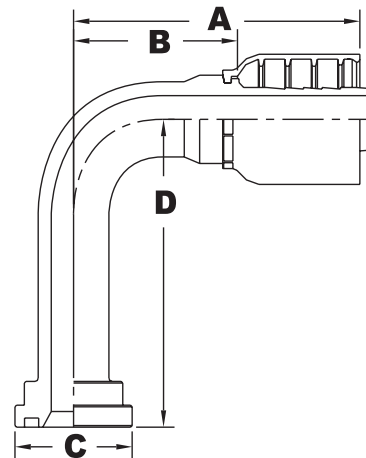
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4039L SERIES



JB40C6190L SERIES

SAE Code 61 Flange, 90° Elbow - Long Drop



Catalog Part Number	Descriptive Part Number	Flange Size		Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length			"D" Dimension Drop		Flange Diameter -C-		Weight		Bulk Pack
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	qty	
4039L-1212	JB40C6190L-12-12	3/4	19.1	3/4	19.1	4.02	102.0	2.40	61.0	61.0	5.1	130.0	1.50	38.1	1.13	0.51	20
4039L-1612	JB40C6190L-16-12	1	25.4	3/4	19.1	4.02	102.0	2.40	61.0	61.0	6.1	155.0	1.75	44.4	1.28	0.58	10
4039L-1616	JB40C6190L-16-16	1	25.4	1	25.4	5.04	128.0	3.19	81.0	81.0	6.1	155.0	1.75	44.4	1.61	0.73	10
4039L-2016	JB40C6190L-20-16	1-1/4	31.8	1	25.4	4.82	122.5	3.19	81.0	81.0	4.7	120.0	2.00	50.8	1.70	0.77	10
4039L-2020	JB40C6190L-20-20	1-1/4	31.8	1-1/4	31.8	5.51	140.0	3.66	93.0	93.0	6.6	168.0	2.00	50.8	2.54	1.15	7

*Standard Pack is 1.

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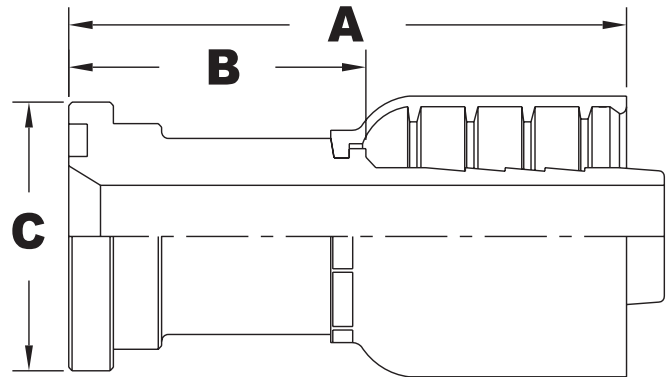


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JB40C62S SERIES

SAE Code 62 Flange - Straight

4041 SERIES



Catalog Part Number	Descriptive Part Number	Flange Size		Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Flange Diameter -C-		Weight		Bulk Pack
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
4041-0808	JB40C62S-08-08	1/2	12.7	1/2	12.7	2.78	70.6	1.31	33.3	1.25	31.8	0.4	0.18	80
4041-1212	JB40C62S-12-12	3/4	19.1	3/4	19.1	3.50	89.0	1.93	49.0	1.62	41.2	0.68	0.31	32
4041-1612	JB40C62S-16-12	1	25.4	3/4	19.1	3.94	100.0	2.36	60.0	1.87	47.6	1.05	0.47	32
4041-1616	JB40C62S-16-16	1	25.4	1	25.4	4.29	109.0	2.44	62.0	1.87	47.6	1.40	0.64	15
4041-2016	JB40C62S-20-16	1-1/4	31.8	1	25.4	4.37	111.0	2.91	74.0	2.12	53.9	1.73	0.79	10
4041-2020	JB40C62S-20-20	1-1/4	31.8	1-1/4	31.8	4.41	112.0	2.95	75.0	2.12	53.9	2.16	0.98	15
4041-2420	JB40C62S-24-20	1-1/2	38.1	1-1/4	31.8	4.41	112.0	2.95	75.0	2.50	63.5	2.62	1.19	15
4041-2424	JB40C62S-24-24	1-1/2	38.1	1-1/2	38.1	5.51	140.0	3.19	81.0	2.50	63.5	2.87	1.30	10
4041-3224	JB40C62S-32-24	2	50.8	1-1/2	38.1	6.30	160.0	3.98	101.0	3.12	79.3	5.84	2.65	7
4041-3232	JB40C62S-32-32	2	50.8	2	50.8	6.77	172.0	3.98	101.0	3.12	79.3	5.32	2.41	6

*Standard Pack is 1.

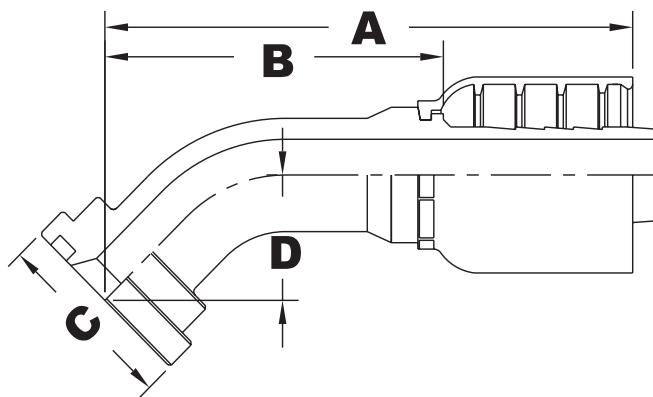
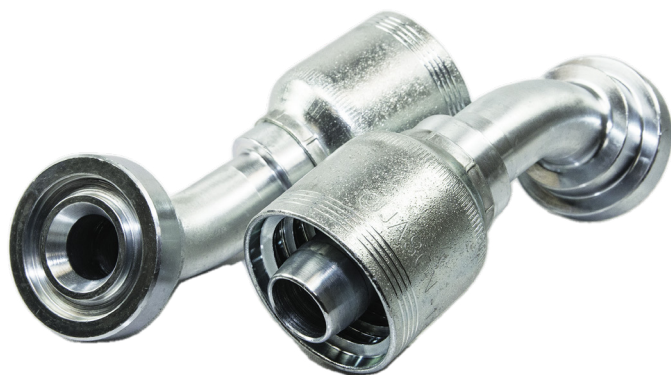
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4043 SERIES

JB40C6245 SERIES

SAE Code 62 Flange - 45° Elbow



Catalog Part Number	Descriptive Part Number	Flange Size		Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Flange Diameter -C-		Weight		Bulk Pack
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
4043-0808	JB40C6245-08-08	1/2	12.7	1/2	12.7	3.27	83.0	2	51.0	0.95	24.1	1.25	31.8	0.4	0.18	80
4043-1212	JB40C6245-12-12	3/4	19.1	3/4	19.1	4.72	120.0	3.11	79.0	1.26	32.0	1.62	41.2	0.88	0.40	32
4043-1616	JB40C6245-16-16	1	25.4	1	25.4	4.69	119.0	3.23	82.0	1.42	36.0	1.87	47.6	1.42	0.65	18
4043-2020	JB40C6245-20-20	1-1/4	31.8	1-1/4	31.8	6.14	156.0	4.29	109.0	1.81	46.0	2.12	53.9	2.29	1.04	12
4043-2424	JB40C6245-24-24	1-1/2	38.1	1-1/2	38.1	7.05	179.0	4.69	119.0	1.97	50.0	2.50	63.5	2.95	1.34	12
4043-3232	JB40C6245-32-32	2	50.8	2	50.8	8.82	224.0	6.02	153.0	2.95	75.0	3.12	79.3	6.54	2.97	6

*Standard Pack is 1.

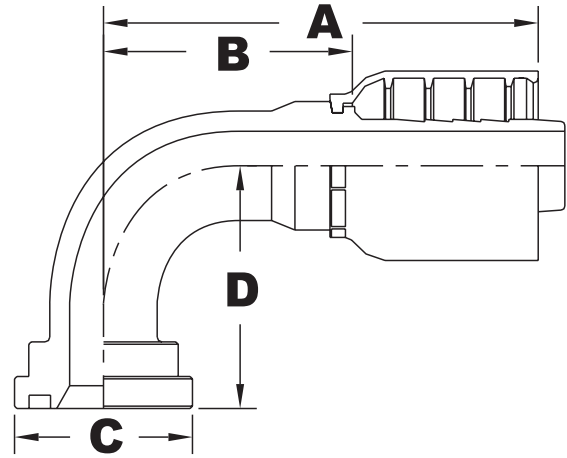
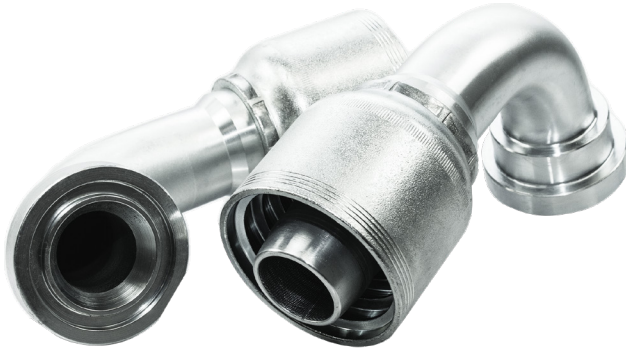
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JB40C6290 SERIES

SAE Code 62 Flange - 90° Elbow

4045 SERIES



Catalog Part Number	Descriptive Part Number	Flange Size		Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Flange Diameter -C-		Weight		Bulk Pack
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
4045-0808	JB40C6290-08-08	1/2	12.7	1/2	12.7	2.72	69.0	1.46	37.0	1.64	41.6	1.25	31.8	0.4	0.18	80
4045-1212	JB40C6290-12-12	3/4	19.1	3/4	19.1	3.98	101.0	3.11	79.0	2.28	58.0	1.62	41.2	0.90	0.41	32
4045-1616	JB40C6290-16-16	1	25.4	1	25.4	4.96	126.0	3.23	82.0	2.72	69.0	1.87	47.6	1.44	0.66	15
4045-2020	JB40C6290-20-20	1-1/4	31.8	1-1/4	31.8	5.51	140.0	4.29	109.0	3.54	90.0	2.12	53.9	2.49	1.13	15
4045-2424	JB40C6290-24-24	1-1/2	38.1	1-1/2	38.1	5.94	151.0	4.69	119.0	3.62	92.0	2.50	63.5	3.25	1.48	10
4045-3232	JB40C6290-32-32	2	50.8	2	50.8	8.11	206.0	6.02	153.0	6.02	153.0	3.12	79.3	7.52	3.41	6

*Standard Pack is 1.

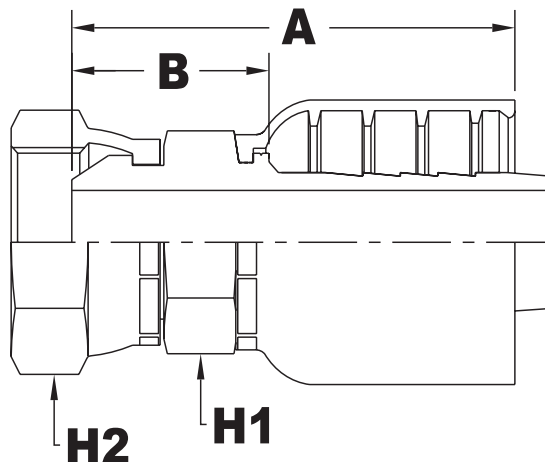
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4048 SERIES

JB40FSPPBSP SERIES

Female Swivel BSP, Parallel Pipe - 30° Cone



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Sizes				Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	H1		H2		lbs.	kg	
4048-0606	JB40FSPPBSP-06-06	3/8-19	3/8	9.5	2.20	56.0	1.10	28.0	0.75	19.0	0.87	22.0	0.28	0.13	130
4048-0806	JB40FSPPBSP-08-06	1/2-14	3/8	9.5	2.09	53.1	1.04	26.4	0.87	22.0	1.06	27.0	0.32	0.15	100
4048-0808	JB40FSPPBSP-08-08	1/2-14	1/2	12.7	2.40	61.0	1.14	29.0	0.87	22.0	1.06	27.0	0.39	0.18	80
4048-1010	JB40FSPPBSP-10-10	5/8-14	5/8	15.9	2.68	68.0	1.14	29.0	1.06	27.0	1.06	27.0	0.50	0.23	70
4048-1212	JB40FSPPBSP-12-12	3/4-14	3/4	19.1	2.83	72.0	1.26	32.0	1.06	27.0	1.26	32.0	0.65	0.30	50
4048-1616	JB40FSPPBSP-16-16	1-11	1	25.4	3.27	83.0	1.42	36.0	1.42	36.0	1.61	41.0	1.13	0.51	36
4048-2020	JB40FSPPBSP-20-20	1-1/4-11	1-1/4	31.8	3.66	93.0	1.81	46.0	1.81	46.0	1.97	50.0	1.68	0.76	15
4048-2424	JB40FSPPBSP-24-24	1-1/2-11	1-1/2	38.1	4.09	104.0	1.77	45.0	2.17	55.0	2.17	55.0	2.47	1.12	15
4048-3232	JB40FSPPBSP-32-32	2-11	2	50.8	5.12	130.0	2.32	59.0	2.50	63.5	2.76	70.0	4.70	2.13	8

Please note that 4048 Series replaces 4052 Series

*Standard Pack is 1.

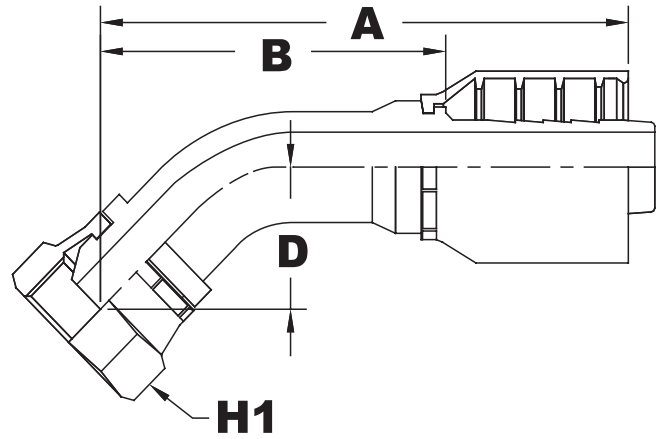
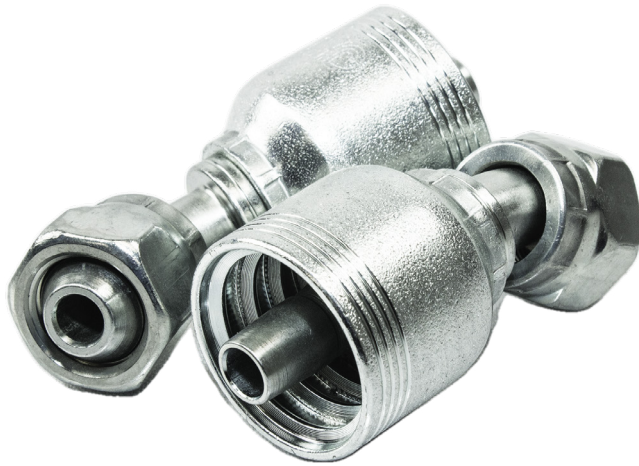
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JB40FSPPBSP45 SERIES

Female Swivel BSP, Parallel Pipe - 45° Elbow - Metric

4049 SERIES



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Hex Size H1		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
4049-0606	JB40FSPPBSP45-06-06	3/8-19	3/8	9.5	2.83	72.0	1.73	44.0	0.75	19.0	0.87	22.0	0.26	0.12	130
4049-0808	JB40FSPPBSP45-08-08	1/2-14	1/2	12.7	3.35	85.0	2.05	52.0	0.91	23.0	1.06	27.0	0.37	0.17	80
4049-1010	JB40FSPPBSP45-10-10	5/8-14	5/8	15.9	3.66	93.0	2.09	53.0	0.83	21.0	1.06	27.0	0.55	0.25	70
4049-1212	JB40FSPPBSP45-12-12	3/4-14	3/4	19.1	4.65	118.0	3.03	77.0	1.18	30.0	1.26	32.0	0.93	0.42	32
4049-1616	JB40FSPPBSP45-16-16	1-11	1	25.4	5.00	127.0	3.15	80.0	1.73	44.0	1.61	41.0	1.51	0.68	18
4049-2020	JB40FSPPBSP45-20-20	1-1/4-11	1-1/4	31.8	6.02	153.0	4.17	106.0	1.65	42.0	1.97	50.0	1.92	0.87	12
4049-2424	JB40FSPPBSP45-24-24	1-1/2-11	1-1/2	38.1	6.93	176.0	4.57	116.0	1.89	48.0	2.17	55.0	3.48	1.58	12
4049-3232	JB40FSPPBSP45-32-32	2-11	2	50.8	8.46	215.0	5.67	144.0	2.60	66.0	2.76	70.0	6.68	3.03	6

Please note that 4049 Series replaces 4054 Series

*Standard Pack is 1.

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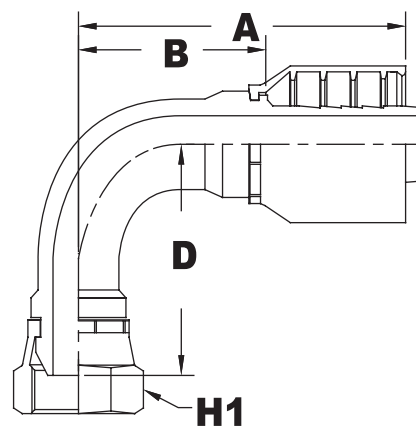


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4050 SERIES

JB40FSPPBSP90 SERIES

Female Swivel BSP Parallel Pipe, 30° Cone - 90° Elbow - Metric



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Hex Size		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm			
4050-0606	JB40FSPPBSP90-06-06	3/8-19	3/8	9.5	2.76	70.0	1.65	42.0	1.26	32.0	0.87	22.0	0.29	0.13	100
4050-0808	JB40FSPPBSP90-08-08	1/2-14	1/2	12.7	2.80	71.0	1.50	38.0	1.38	35.0	1.06	27.0	0.41	0.19	70
4050-1212	JB40FSPPBSP90-12-12	3/4-14	3/4	19.1	4.02	102.0	2.40	61.0	2.13	54.0	1.26	32.0	0.94	0.43	32
4050-1616	JB40FSPPBSP90-16-16	1-11	1	25.4	5.04	128.0	3.19	81.0	2.56	65.0	1.61	41.0	1.73	0.78	15
4050-2020	JB40FSPPBSP90-20-20	1-1/4-11	1-1/4	31.8	5.51	140.0	3.66	93.0	3.39	86.0	1.97	50.0	2.76	1.25	15
4050-2424	JB40FSPPBSP90-24-24	1-1/2-11	1-1/2	38.1	6.02	153.0	3.69	93.7	3.46	88.0	2.16	54.9	3.35	1.52	7
4050-3232	JB40FSPPBSP90-32-32	2-11	2	50.8	8.11	206.0	5.43	138.0	5.51	140.0	2.75	69.9	7.35	3.33	3

Please note that 4050 Series replaces 4056 Series

*Standard Pack is 1.

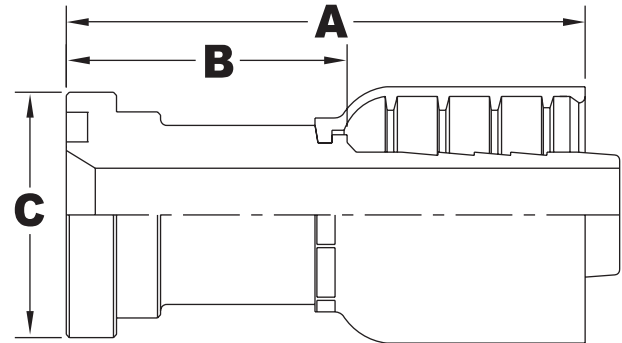
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JB40CATS SERIES

Caterpillar Style Flange - Straight

4060 SERIES



Catalog Part Number	Descriptive Part Number	Flange Size		Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Flange Diameter -C-		Weight		Bulk Pack
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
4060-1212	JB40CATS-12-12	3/4	19.1	3/4	19.1	3.46	87.9	2.03	51.6	1.62	41.2	0.90	0.41	32
4060-1616	JB40CATS-16-16	1	25.4	1	25.4	4.33	110.0	2.63	66.8	1.87	47.6	1.46	0.66	15
4060-2020	JB40CATS-20-20	1-1/4	31.8	1-1/4	31.8	4.96	126.0	2.94	74.7	2.12	53.9	2.22	1.00	15

*Standard Pack is 1.

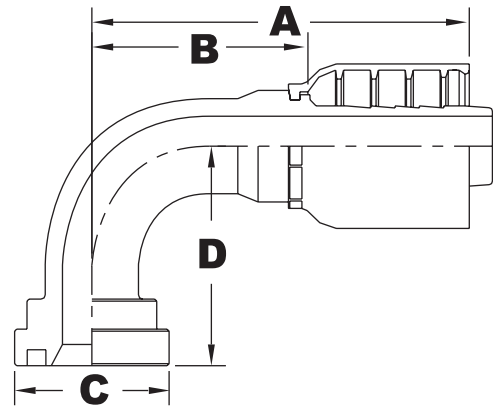
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4064 SERIES

JB40CAT90 SERIES

Caterpillar Style Flange - 90° Elbow



Catalog Part Number	Descriptive Part Number	Flange Size		Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Flange Diameter -C-		Weight		Bulk Pack
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
4064-1212	JB40CAT90-12-12	3/4	19.1	3/4	19.1	4.02	102.1	2.59	65.8	2.41	61.2	1.62	41.2	1.09	0.50	32
4064-1616	JB40CAT90-16-16	1	25.4	1	25.4	4.97	126.2	3.25	82.6	2.97	75.4	1.87	47.6	1.70	0.77	15
4064-2020	JB40CAT90-20-20	1-1/4	31.8	1-1/4	31.8	5.82	147.8	3.80	96.5	3.40	86.4	2.12	53.9	2.57	1.16	15

*Standard Pack is 1.

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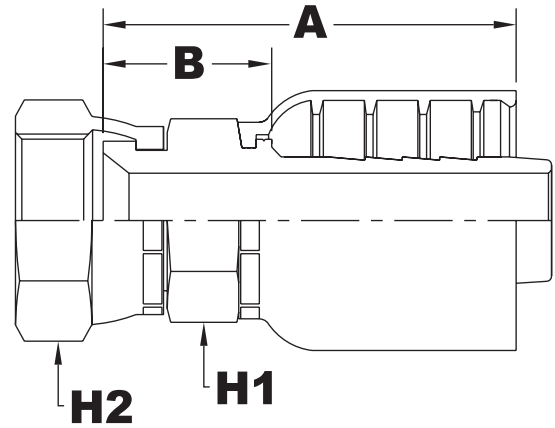


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JB40KFSM SERIES

Komatsu Female Swivel, 30° Flare - Metric

4070 SERIES



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Sizes				Weight		Bulk Pack
									H1		H2				
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	qty
4070-1806	JB40KFSM-18-06	M18-1.5	3/8	9.5	2.01	51.0	0.91	23.0	0.87	22	0.94	24	0.31	0.14	130
4070-2208	JB40KFSM-22-08	M22-1.5	1/2	12.7	2.20	56.0	0.94	24.0	1.06	27	1.06	27	0.39	0.18	80
4070-2410	JB40KFSM-24-10	M24-1.5	5/8	15.9	2.76	70.0	1.22	31.0	1.06	27	1.26	32	0.57	0.26	60
4070-3012	JB40KFSM-30-12	M30-1.5	3/4	19.1	3.03	77.0	1.46	37.0	1.26	32	1.42	36	0.71	0.32	50
4070-3316	JB40KFSM-33-16	M33-1.5	1	25.4	3.19	81.0	1.34	34.0	1.42	36	1.61	41	1.25	0.57	8

*Standard Pack is 1.

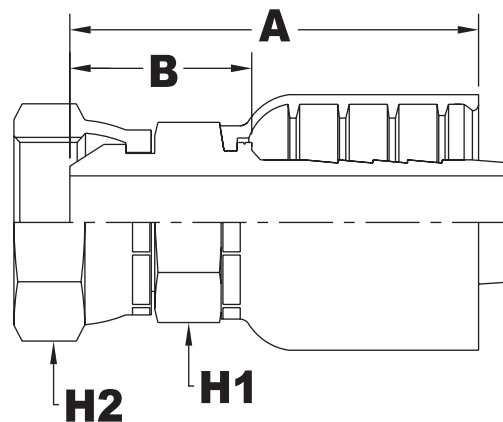
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4071 SERIES

JB40FSM SERIES

Female Swivel 60° Cone - Metric, DIN 3863



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Sizes				Weight		Bulk Pack
									H1		H2				
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	qty
4071-2006	JB40FSM-20-06	M20-1.5	3/8	9.5	2.13	54.0	1.02	26.0	0.94	24	0.94	24	0.26	0.12	130
4071-2206	JB40FSM-22-06	M22-1.5	3/8	9.5	2.20	56.0	1.10	28.0	1.02	26	1.02	26	0.26	0.12	100
4071-2408	JB40FSM-24-08	M24-1.5	1/2	12.7	2.36	60.0	1.14	29.0	1.18	30	1.18	30	0.31	0.14	80
4071-3012	JB40FSM-30-12	M30-1.5	3/4	19.1	2.83	72.0	1.26	32.0	1.42	36	1.42	36	0.77	0.35	50
4071-3816	JB40FSM-38-16	M38-1.5	1	25.4	2.87	73.0	1.26	32.0	1.81	46	1.81	46	1.23	0.56	8
4071-4520	JB40FSM-45-20	M45-1.5	1-1/4	31.8	3.23	82.0	1.38	35.0	1.97	50	1.97	50	1.76	0.80	8

*Standard Pack is 1.

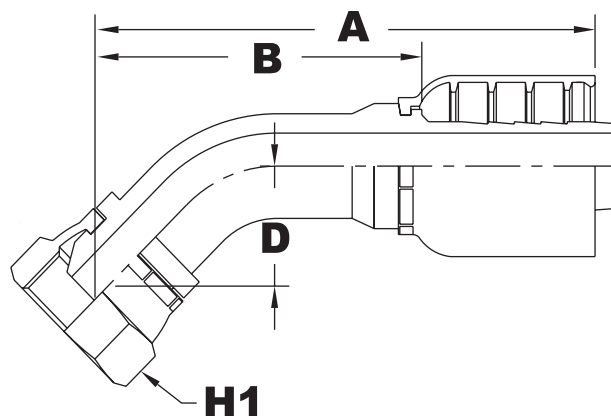
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JB40FSM45 SERIES

Female Swivel 30° Cone, 45° Elbow - Metric - DIN 3863

4072 SERIES



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Hex Size		Weight		Bulk Pack
											H1				
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	qty
4072-2006	JB40FSM45-20-06	M20-1.5	3/8	9.5	2.83	72.0	1.77	45.0	0.71	18.0	1.42	36.0	0.37	0.17	100
4072-2206	JB40FSM45-22-06	M22-1.5	3/8	9.5	2.91	74.0	1.85	47.0	0.79	20.0	1.42	36.0	0.37	0.17	100
4072-2408	JB40FSM45-24-08	M24-1.5	1/2	12.7	3.31	84.0	2.05	52.0	0.79	20.0	1.42	36.0	0.40	0.18	50
4072-3012	JB40FSM45-30-12	M30-1.5	3/4	19.1	4.72	120.0	3.15	80.0	1.18	30.0	1.42	36.0	0.95	0.43	32
4072-3816	JB40FSM45-38-16	M38-1.5	1	25.4	4.96	126.0	3.19	81.0	1.30	33.0	1.61	41.0	1.61	0.73	6
4072-4520	JB40FSM45-45-20	M45-1.5	1-1/4	31.8	6.02	153.0	4.17	106.0	1.65	42.0	1.97	50.0	2.76	1.25	6

*Standard Pack is 1.

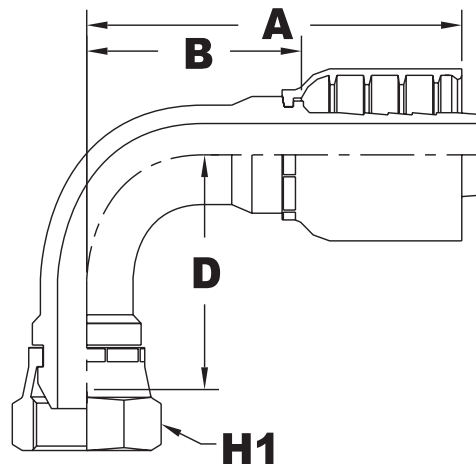
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4073 SERIES

JB40FSM90 SERIES

Female Swivel 60° Cone, 90° Elbow - Metric - DIN 3863



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Hex Size		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	qty
4073-2006	JB40FSM90-20-06	M20-1.5	3/8	9.5	2.76	70.0	1.69	43.0	1.22	31.0	1.42	36.0	0.20	0.09	100
4073-2206	JB40FSM90-22-06	M22-1.5	3/8	9.5	2.76	70.0	1.69	43.0	1.30	33.0	1.42	36.0	0.22	0.10	100
4073-2408	JB40FSM90-24-08	M24-1.5	1/2	12.7	2.80	71.0	1.54	39.0	1.30	33.0	1.42	36.0	0.26	0.12	50
4073-3012	JB40FSM90-30-12	M30-1.5	3/4	19.1	4.02	102.0	2.44	62.0	2.09	53.0	1.42	36.0	0.97	0.44	32
4073-3816	JB40FSM90-38-16	M38-1.5	1	25.4	5.04	128.0	3.27	83.0	2.48	63.0	1.61	41.0	1.87	0.85	6
4073-4520	JB40FSM90-45-20	M45-1.5	1-1/4	31.8	5.51	140.0	3.66	93.0	3.35	85.0	1.97	50.0	2.65	1.20	6

*Standard Pack is 1.

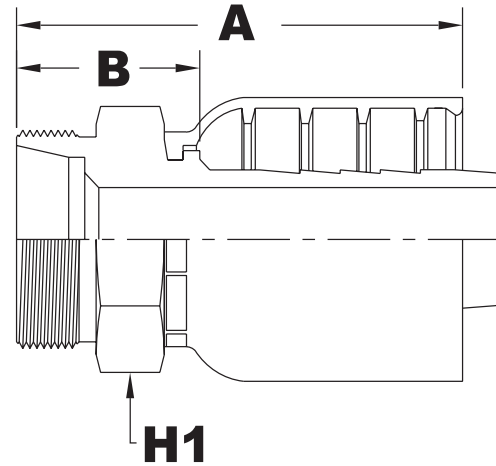
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JB40MM SERIES

Male DIN 3853 - Metric

4075 SERIES



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Size		Tube Outside Diameter		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	H1		inch	mm	lbs.	kg	qty
4075-1806	JB40MM-18-06	M18-1.5	3/8	9.5	2.01	51.0	0.91	23.0	0.75	19.0	0.39	10	0.22	0.10	130
4075-2006	JB40MM-20-06	M20-1.5	3/8	9.5	2.01	51.0	0.91	23.0	0.87	22.0	0.47	12	0.24	0.11	130
4075-2206	JB40MM-22-06	M22-1.5	3/8	9.5	2.20	56.0	0.94	24.0	0.87	22.0	0.55	14	0.31	0.14	100
4075-2408	JB40MM-24-08	M24-1.5	1/2	12.7	2.24	57.0	0.98	25.0	1.18	30.0	0.63	16	0.33	0.15	80
4075-3010	JB40MM-30-10	M30-2.0	5/8	15.9	2.56	65.0	1.02	26.0	1.18	30.0	0.79	20	0.51	0.23	60
4075-3612	JB40MM-36-12	M36-2.0	3/4	19.1	2.72	69.0	1.14	29.0	1.42	36.0	0.98	25	0.73	0.33	36
4075-4216	JB40MM-42-16	M42-2.0	1	25.4	3.07	78.0	1.22	31.0	1.65	42.0	1.18	30	0.79	0.36	8
4075-5220	JB40MM-52-20	M52-2.0	1-1/4	31.8	3.46	88.0	1.61	41.0	2.17	55.0	1.50	38	1.08	0.49	8

*Standard Pack is 1.

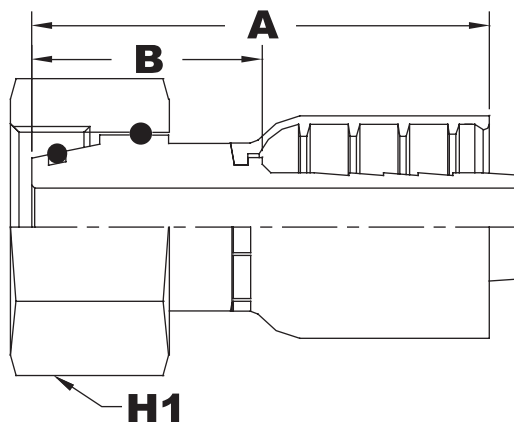
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4077 SERIES

JB40LFSORM SERIES

Female Swivel O-Ring, 24° Cone - DIN 3865 L (Light)



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Size		Tube Outside Diameter		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	H1		inch	mm	lbs.	kg	
4077-1606	JB40LFSORM-16-06	M16-1.5	3/8	9.5	2.36	60.0	1.26	32.0	0.75	19.0	0.39	10.0	0.29	0.13	130
4077-1806	JB40LFSORM-18-06	M18-1.5	3/8	9.5	2.32	59.0	1.22	31.0	0.87	22.0	0.47	12.0	0.31	0.14	130
4077-2208	JB40LFSORM-22-08	M22-1.5	1/2	12.7	2.64	67.0	1.38	35.0	1.06	27.0	0.59	15.0	0.35	0.16	80
4077-2610	JB40LFSORM-26-10	M26-1.5	5/8	15.9	3.07	78.0	1.54	39.0	1.26	32.0	0.71	18.0	0.42	0.19	60
4077-3012	JB40LFSORM-30-12	M30-2.0	3/4	19.1	3.19	81.0	1.61	41.0	1.42	36.0	0.87	22.0	0.73	0.33	50
4077-3616	JB40LFSORM-36-16	M36-2.0	1	25.4	3.66	93.0	1.81	46.0	1.61	41.0	1.10	28.0	1.26	0.57	8
4077-4520	JB40LFSORM-45-20	M45-2.0	1-1/4	31.8	4.02	102.0	2.17	55.0	1.97	50.0	1.38	35.0	1.76	0.80	8

*Standard Pack is 1.

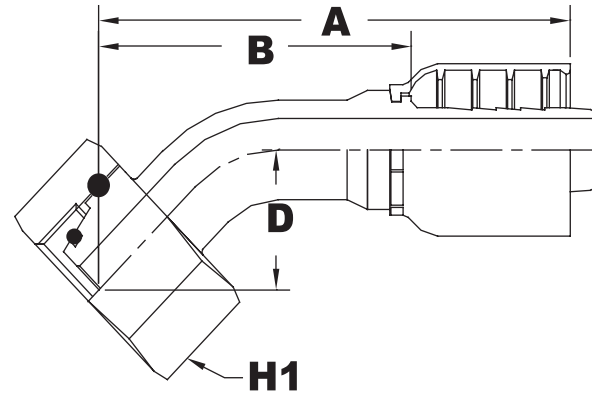
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JB40LFSORM45 SERIES

Female Swivel O-Ring - 24° Cone, DIN 3865 L (Light) - 45° Elbow

4078 SERIES



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Hex Size H1		Tube Outside Diameter		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
4078-1606	JB40LFSORM45-16-06	M16-1.5	3/8	9.5	2.91	74.0	1.81	46.0	0.83	21.0	0.75	19.0	0.39	10.0	0.29	0.13	100
4078-1806	JB40LFSORM45-18-06	M18-1.5	3/8	9.5	29.1	74.0	1.81	46.0	0.83	21.0	0.87	22.0	0.47	12.0	0.31	0.14	100
4078-2208	JB40LFSORM45-22-08	M22-1.5	1/2	12.7	3.46	88.0	2.17	55.0	1.10	28.0	1.06	27.0	0.59	15.0	0.33	0.15	50
4078-2610	JB40LFSORM45-26-10	M26-1.5	5/8	15.9	4.06	103.0	2.48	63.0	1.18	30.0	1.26	32.0	0.71	18.0	0.57	0.26	50
4078-2612	JB40LFSORM45-26-12	M26-1.5	3/4	19.1	4.96	126.0	3.35	85.0	1.50	38.0	1.26	32.0	0.71	18.0	0.60	0.27	32
4078-3012	JB40LFSORM45-30-12	M30-2.0	3/4	19.1	4.88	124.0	3.27	83.0	1.42	36.0	1.42	36.0	0.87	22.0	0.95	0.43	32
4078-3612	JB40LFSORM45-36-12	M36-2.0	3/4	19.1	4.88	124.0	3.27	83.0	1.42	36.0	1.61	41.0	1.10	28.0	1.04	0.47	36
4078-3616	JB40LFSORM45-36-16	M36-2.0	1	25.4	5.16	131.0	3.31	84.0	1.46	37.0	1.61	41.0	1.10	28.0	1.57	0.71	6
4078-4520	JB40LFSORM45-45-20	M45-2.0	1-1/4	31.8	6.18	157.0	4.33	110.0	1.85	47.0	1.97	50.0	1.38	35.0	2.80	1.27	6
4078-5224	JB40LFSORM45-52-24	M52-2.0	1-1/2	38.1	7.09	180.0	4.72	120.0	2.48	63.0	2.36	60.0	1.65	42.0	3.20	1.45	6

*Standard Pack is 1.

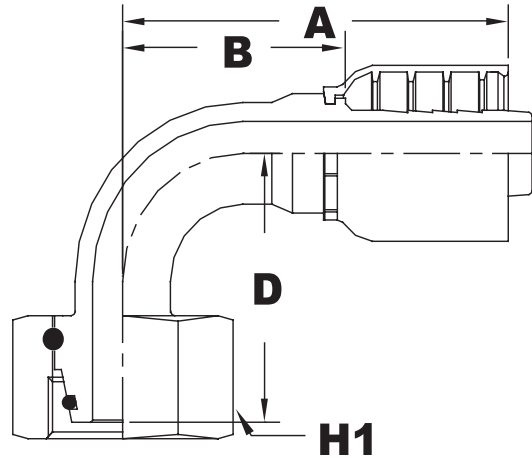
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4079 SERIES

JB40LFSORM90 SERIES

Female Swivel O-Ring, 24° Cone - DIN 3865 L (Light) - 90° Elbow



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Hex Size H1		Tube Outside Diameter		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
4079-1606	JB40LFSORM90-16-06	M16-1.5	3/8	9.5	2.76	70.0	1.65	42.0	1.26	32.0	0.75	19.0	0.39	10.0	0.18	0.08	100
4079-1806	JB40LFSORM90-18-06	M18-1.5	3/8	9.5	2.76	70.0	1.65	42.0	1.30	33.0	0.87	22.0	0.47	12.0	0.20	0.09	100
4079-2208	JB40LFSORM90-22-08	M22-1.5	1/2	12.7	2.80	71.0	1.50	38.0	1.46	37.0	1.06	27.0	0.59	15.0	0.24	0.11	50
4079-2610	JB40LFSORM90-26-10	M26-1.5	5/8	15.9	2.83	72.0	1.65	42.0	2.01	51.0	1.26	32.0	0.71	18.0	0.84	0.38	50
4079-2612	JB40LFSORM90-26-12	M26-1.5	3/4	19.1	4.02	102.0	2.40	61.0	2.48	63.0	1.26	32.0	0.71	18.0	0.99	0.45	32
4079-3012	JB40LFSORM90-30-12	M30-2.0	3/4	19.1	4.02	102.0	2.40	61.0	2.40	61.0	1.42	36.0	0.87	22.0	1.10	0.50	32
4079-3612	JB40LFSORM90-36-12	M36-2.0	3/4	19.1	4.02	102.0	2.40	61.0	2.40	61.0	1.61	41.0	1.10	28.0	1.74	0.79	36
4079-3616	JB40LFSORM90-36-16	M36-2.0	1	25.4	5.04	128.0	3.19	81.0	2.68	68.0	1.61	41.0	1.10	28.0	1.92	0.87	3
4079-4520	JB40LFSORM90-45-20	M45-2.0	1-1/4	31.8	5.51	140.0	3.66	93.0	3.43	87.0	1.97	50.0	1.38	35.0	2.65	1.20	3
4079-5224	JB40LFSORM90-52-24	M52-2.0	1-1/2	38.1	5.94	151.0	3.58	91.0	3.58	91.0	2.36	60.0	1.65	42.0	3.66	1.66	3

*Standard Pack is 1.

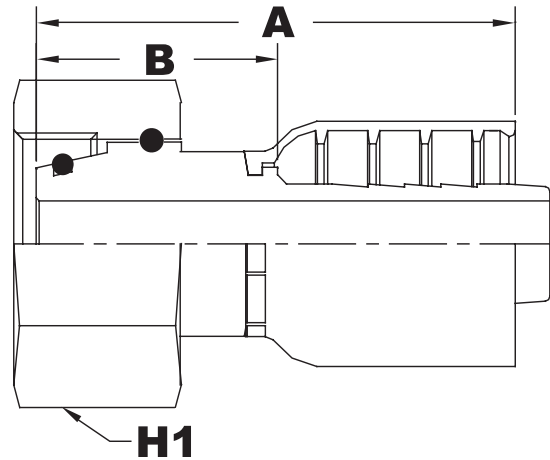
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JB40FSORM SERIES

Female Swivel O-Ring - 24° Cone, DIN 3865 S (Standard)

4080 SERIES



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Size		Tube Outside Diameter		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
4080-1806	JB40FSORM-18-06	M18-1.5	3/8	9.5	2.36	60.0	1.26	32.0	0.87	22.0	0.39	10.0	0.26	0.12	130
4080-2006	JB40FSORM-20-06	M20-1.5	3/8	9.5	2.36	60.0	1.26	32.0	0.94	24.0	0.47	12.0	0.31	0.14	100
4080-2206	JB40FSORM-22-06	M22-1.5	3/8	9.5	2.36	60.0	1.26	32.0	1.06	27.0	0.55	14.0	0.44	0.20	100
4080-2408	JB40FSORM-24-08	M24-1.5	1/2	12.7	2.64	67.0	1.38	35.0	1.18	30.0	0.63	16.0	0.45	0.21	80
4080-3010	JB40FSORM-30-10	M30-2.0	5/8	15.9	3.03	77.0	1.54	39.0	1.42	36.0	0.79	20.0	1.01	0.46	60
4080-3012	JB40FSORM-30-12	M30-2.0	3/4	19.1	3.31	84.0	1.81	46.0	1.42	36.0	0.79	20.0	1.01	0.46	8
4080-3612	JB40FSORM-36-12	M36-2.0	3/4	19.1	3.15	80.0	1.61	41.0	1.61	41.0	0.98	25.0	1.02	0.46	36
4080-3616	JB40FSORM-36-16	M36-2.0	1	25.4	3.58	91.0	1.81	46.0	1.97	50.0	1.18	30.0	1.45	0.66	8
4080-4216	JB40FSORM-42-16	M42-2.0	1	25.4	3.66	93.0	1.81	46.0	1.97	50.0	1.18	30.0	1.53	0.70	8
4080-5220	JB40FSORM-52-20	M52-2.0	1-1/4	31.8	4.02	102.0	2.17	55.0	2.36	60.0	1.50	38.0	2.13	0.97	8
4080-5224	JB40FSORM-52-24	M52-2.0	1-1/2	38.1	4.76	121.0	2.44	62.0	2.36	60.0	1.50	38.0	2.36	1.07	8

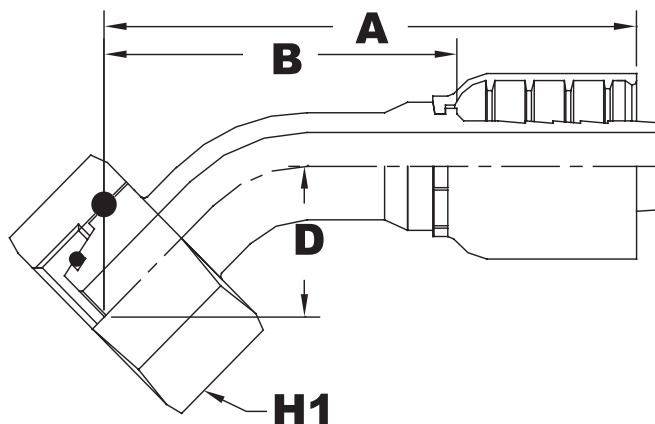
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4081 SERIES

JB40FSORM45 SERIES
Female Swivel O-Ring - 24° Cone, DIN 3865 - S (Standard) - 45° Elbow



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Hex Size H1		Tube Outside Diameter		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	qty
4081-1806	JB40FSORM45-18-06	M18-1.5	3/8	9.5	2.99	76.0	1.89	48.0	0.91	23.0	0.87	22.0	0.39	10.0	0.33	0.15	100
4081-2006	JB40FSORM45-20-06	M20-1.5	3/8	9.5	2.99	76.0	1.89	48.0	0.91	23.0	0.94	24.0	0.47	12.0	0.37	0.17	100
4081-2206	JB40FSORM45-22-06	M22-1.5	3/8	9.5	2.99	76.0	1.89	48.0	0.91	23.0	1.06	27.0	0.55	14.0	0.40	0.18	100
4081-2408	JB40FSORM45-24-08	M24-1.5	1/2	12.7	3.54	90.0	2.24	57.0	1.18	30.0	1.26	32.0	0.63	16.0	0.50	0.23	50
4081-3010	JB40FSORM45-30-10	M30-2.0	5/8	15.9	3.98	101.0	2.40	61.0	1.10	28.0	1.42	36.0	0.79	20.0	0.86	0.39	50
4081-3012	JB40FSORM45-30-12	M30-2.0	3/4	19.1	4.88	124.0	3.27	83.0	1.42	36.0	1.42	36.0	0.79	20.0	0.90	0.41	32
4081-3612	JB40FSORM45-36-12	M36-2.0	3/4	19.1	4.92	125.0	3.31	84.0	1.46	37.0	1.81	46.0	0.98	25.0	1.19	0.54	36
4081-3616	JB40FSORM45-36-16	M36-2.0	1	25.4	5.20	132.0	3.35	85.0	1.50	38.0	1.81	46.0	0.98	25.0	1.43	0.65	6
4081-4216	JB40FSORM45-42-16	M42-2.0	1	25.4	5.20	132.0	3.35	85.0	1.50	38.0	1.97	50.0	1.18	30.0	1.57	0.71	6
4081-5220	JB40FSORM45-52-20	M52-2.0	1-1/4	31.8	6.22	158.0	4.37	111.0	1.89	48.0	2.36	60.0	1.50	38.0	1.85	0.84	6
4081-5224	JB40FSORM45-52-24	M52-2.0	1-1/2	38.1	7.05	179.0	4.69	119.0	2.44	62.0	2.36	60.0	1.50	38.0	3.20	1.45	6

*Standard Pack is 1.

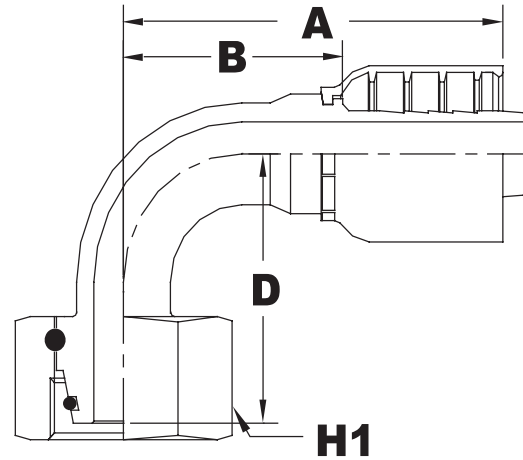
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JB40FSORM SERIES

4082 SERIES

Female Swivel O-Ring - 24° Cone, DIN 3865 S (Standard) - 90° Elbow



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Hex Size H1		Tube Outside Diameter		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
4082-1806	JB40FSORM90-18-06	M18-1.5	3/8	9.5	2.76	70.0	1.65	42.0	1.38	35.0	0.87	22.0	0.39	10.0	0.24	0.11	100
4082-2006	JB40FSORM90-20-06	M20-1.5	3/8	9.5	2.76	70.0	1.65	42.0	1.38	35.0	0.94	24.0	0.47	12.0	0.26	0.12	100
4082-2206	JB40FSORM90-22-06	M22-1.5	3/8	9.5	2.76	70.0	1.65	42.0	1.42	36.0	1.06	27.0	0.55	14.0	0.29	0.13	50
4082-2408	JB40FSORM90-24-08	M24-1.5	1/2	12.7	2.80	71.0	1.50	38.0	1.57	40.0	1.18	30.0	0.63	16.0	0.52	0.24	50
4082-3010	JB40FSORM90-30-10	M30-2.0	5/8	15.9	2.83	72.0	1.65	42.0	1.93	49.0	1.42	36.0	0.79	20.0	0.88	0.40	50
4082-3012	JB40FSORM90-30-12	M30-2.0	3/4	19.1	4.02	102.0	2.40	61.0	2.40	61.0	1.42	36.0	0.79	20.0	1.02	0.46	32
4082-3612	JB40FSORM90-36-12	M36-2.0	3/4	19.1	4.02	102.0	2.40	61.0	2.44	62.0	1.61	41.0	0.98	25.0	1.31	0.59	36
4082-3616	JB40FSORM90-36-16	M36-2.0	1	25.4	5.04	128.0	3.19	81.0	2.72	69.0	1.61	41.0	0.98	25.0	1.66	0.75	3
4082-4216	JB40FSORM90-42-16	M42-2.0	1	25.4	5.04	128.0	3.19	81.0	2.76	70.0	1.97	50.0	1.18	30.0	1.85	0.84	3
4082-5220	JB40FSORM90-52-20	M52-2.0	1-1/4	31.8	5.51	140.0	3.66	93.0	3.39	86.0	2.36	60.0	1.50	38.0	2.45	1.11	3
4082-5224	JB40FSORM90-52-24	M52-2.0	1-1/2	38.1	5.94	151.0	3.58	91.0	3.54	90.0	2.36	60.0	1.50	38.0	3.46	1.57	3

*Standard Pack is 1.

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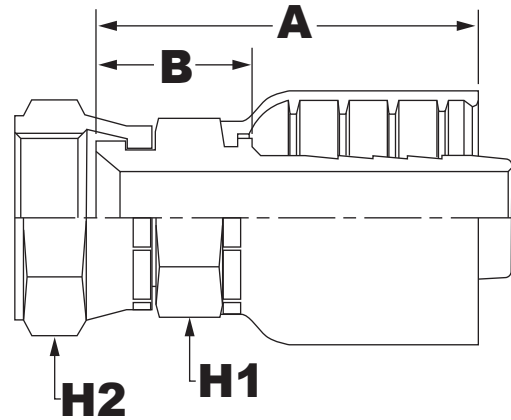
60/JB60 SERIES COUPLINGS - FOR 4 & 6-SPIRAL HOSES

6000 - JB60FS Female Swivel JIC 37° Flare	6002 - JB60FS45 Female Swivel JIC 37° Flare 45° Elbow	6004 - JB60FS90 Female Swivel JIC 37° Flare 90° Elbow	6005 - JB60OFS Female O-Ring Face Seal - Straight	6007 - JB60OFS45 Female O-Ring Face Seal 45° Elbow	6009 - JB60OFS90 Female O-Ring Face Seal 90° Elbow
6020 - JB60MP Male Pipe Rigid NPTF	6024 - JB60MPAPI Male Pipe API	6032 - JB60MOFS SAE Male O-Ring Face Seal	6034 - JB60C61S SAE Code 61 Flange - Straight	6036 - JB60C6145 SAE Code 61 Flange - 45° Elbow	6039 - JB60C6190 SAE Code 61 Flange - 90° Elbow
6041 - JB60C62S SAE Code 62 Flange - Straight	6043 - JB60C6245 SAE Code 62 Flange - 45° Elbow	6045 - JB60C6290 SAE Code 62 Flange - 90° Elbow	6048 - JB60FSPBSP Female Swivel Parallel Pipe BSP - 30° Cone - Metric	6049 - JB60FSPBSP4 Female Swivel Parallel Pipe BSP - 30° Cone - 45° Elbow - Metric	6050 - JB60FSPBSP90 Female Swivel Parallel Pipe BSP - 30° Cone - 90° Elbow - Metric
6060 - JB60CATS Caterpillar Style Flange Straight	6061 - JB60CAT22.5 Caterpillar Style Flange 22½° Elbow	6062 - JB60CAT45 Caterpillar Style Flange 45° Elbow	6063 - JB60CAT30 Caterpillar Style Flange 30° Elbow	6064 - JB60CAT90 Caterpillar Style Flange 90° Elbow	6066 - JB60CAT60 Caterpillar Style Flange 60° Elbow
6067 - JB60CAT67.5 Caterpillar Style Flange 67½° Elbow					

JB60FS SERIES

Female Swivel JIC 37° Flare

6000 SERIES



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Sizes				Weight		Bulk Pack
									H1		H2				
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	qty
6000-1212	JB60FS-12-12	1-1/16-12	3/4	19.1	2.68	68.0	1.14	29.0	1.06	26.9	1.25	31.7	0.77	0.35	50
6000-1612	JB60FS-16-12	1-5/16-12	3/4	19.1	3.24	82.3	1.31	33.2	1.41	36.0	1.50	38.0	0.88	0.40	40
6000-1616	JB60FS-16-16	1-5/16-12	1	25.4	3.39	86.0	1.34	34.0	1.41	36.0	1.50	38.0	1.21	0.55	36
6000-2016	JB60FS-20-16	1-5/8-12	1	25.4	3.64	92.5	1.64	41.6	1.81	46.0	1.97	50.0	1.65	0.75	20
6000-2020	JB60FS-20-20	1-5/8-12	1-1/4	31.8	4.06	103.0	1.57	40.0	1.87	47.6	2.00	50.8	2.24	1.01	15
6000-2420	JB60FS-24-20	1-7/8-12	1-1/4	31.8	4.23	107.5	1.76	44.7	2.17	55.0	2.17	55.0	2.4	1.09	12
6000-2424	JB60FS-24-24	1-7/8-12	1-1/2	38.1	4.21	107.0	1.69	43.0	2.12	53.9	2.12	53.9	3.27	1.48	12
6000-3232	JB60FS-32-32	2-1/2-12	2	50.8	5.16	131.0	2.17	55.0	2.50	63.5	2.87	73.0	4.92	2.23	8

*Standard Pack is 1.

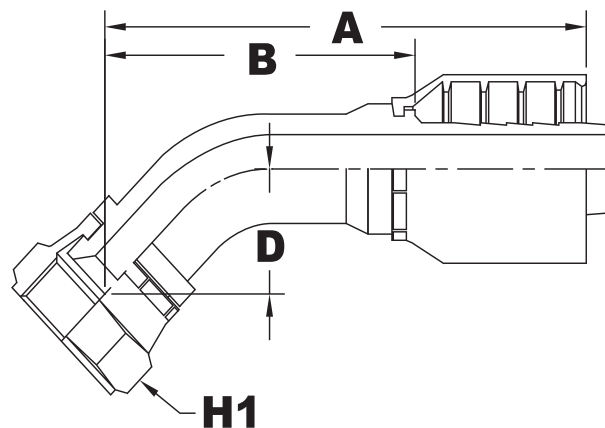
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6002 SERIES

JB60FS45 SERIES

Female Swivel JIC 37° Flare - 45° Elbow



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Hex Size		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
6002-1212	JB60FS45-12-12	1-1/16-12	3/4	19.1	4.96	126.0	2.95	75.0	1.02	26.0	1.25	31.7	0.79	0.36	32
6002-1616	JB60FS45-16-16	1-5/16-12	1	25.4	5.08	129.0	3.03	77.0	1.22	31.0	1.50	38.1	1.41	0.64	18
6002-2020	JB60FS45-20-20	1-5/8-12	1-1/4	31.8	6.46	164.0	4.06	103.0	1.57	40.0	2.00	50.8	2.24	1.01	12
6002-2424	JB60FS45-24-24	1-7/8-12	1-1/2	38.1	7.09	180.0	4.53	115.0	1.81	46.0	2.12	53.9	3.27	1.48	10
6002-3232	JB60FS45-32-32	2-1/2-12	2	50.8	8.50	216.0	5.51	140.0	2.44	62.0	2.87	73.0	4.92	2.23	6

*Standard Pack is 1.

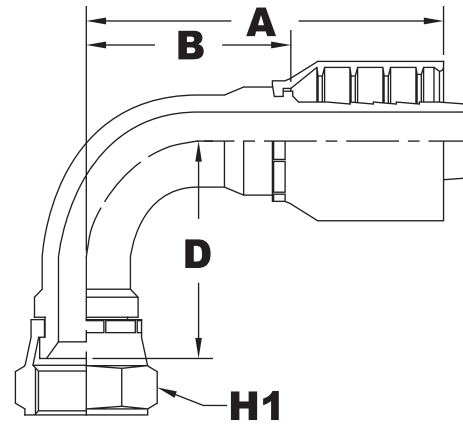
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JB60FS90 SERIES

Female Swivel JIC 37° Flare - 90° Elbow

6004 SERIES



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Hex Sizes		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm			
6004-1212	JB60FS90-12-12	1-1/16-12	3/4	19.1	4.45	113.0	2.40	61.0	1.97	50.0	1.25	31.7	0.86	0.39	32
6004-1616	JB60FS90-16-16	1-5/16-12	1	25.4	5.31	135.0	3.19	81.0	2.44	62.0	1.50	38.1	1.30	0.59	15
6004-2020	JB60FS90-20-20	1-5/8-12	1-1/4	31.8	6.06	154.0	3.66	93.0	3.23	82.0	2.00	50.8	2.90	1.31	10
6004-2424	JB60FS90-24-24	1-7/8-12	1-1/2	38.1	6.14	156.0	3.58	91.0	3.39	86.0	2.12	53.9	3.51	1.59	7
6004-3232	JB60FS90-32-32	2-1/2-12	2	50.8	8.31	211.0	5.31	135.0	5.28	134.0	2.87	73.0	7.76	3.52	3

*Standard Pack is 1.

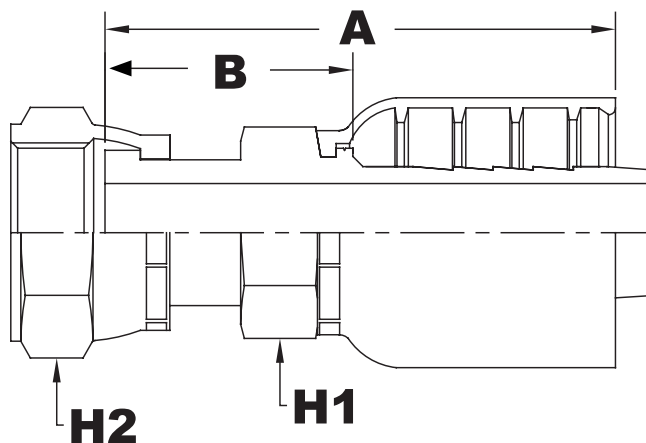
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6005 SERIES

JB60OFS SERIES

Female O-Ring Face Seal - Straight



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Sizes				Weight		Bulk Pack
									H1		H2				
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	qty
6005-1212	JB60OFS-12-12	1-3/16-12	3/4	19.1	3.62	92.0	1.61	41.0	1.12	28.5	1.37	34.9	0.49	0.22	50
6005-1616	JB60OFS-16-16	1-7/16-12	1	25.4	3.90	99.0	1.77	45.0	1.31	33.3	1.62	41.2	0.66	0.30	36
6005-2020	JB60OFS-20-20	1-11/16-12	1-1/4	31.8	3.94	100.0	1.54	39.0	1.37	34.9	1.87	47.6	2.38	1.08	12
6005-2424	JB60OFS-24-24	2-12	1-1/2	38.1	4.13	105.0	1.61	41.0	1.87	47.6	2.26	57.3	2.99	1.36	12

*Standard Pack is 1.

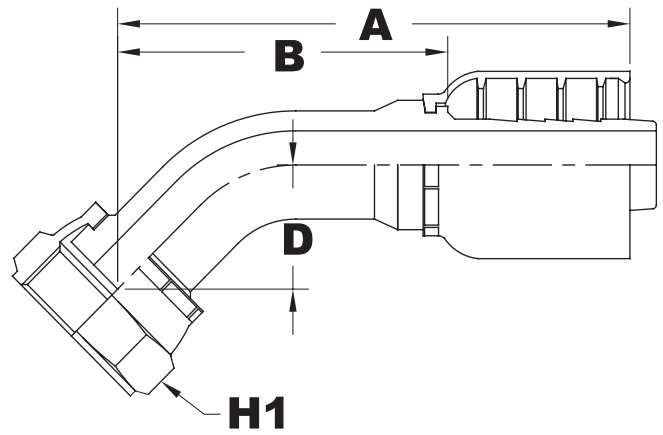
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JB60OFS45 SERIES

Female O-Ring Face Seal, 45° Elbow

6007 SERIES



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Hex Size		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm			
6007-1212	JB60OFS45-12-12	1-3/16-12	3/4	19.1	5.00	127.0	2.95	75.0	1.10	28.0	1.37	34.9	0.88	0.40	32
6007-1616	JB60OFS45-16-16	1-7/16-12	1	25.4	5.12	130.0	2.99	76.0	1.18	30.0	1.62	41.2	1.37	0.62	18
6007-2020	JB60OFS45-20-20	1-11/16-12	1-1/4	31.8	6.46	164.0	4.06	103.0	1.57	40.0	1.87	47.6	2.78	1.26	10
6007-2424	JB60OFS45-24-24	2-12	1-1/2	38.1	7.05	179.0	4.49	114.0	1.77	45.0	2.25	57.1	3.00	1.36	10

*Standard Pack is 1.

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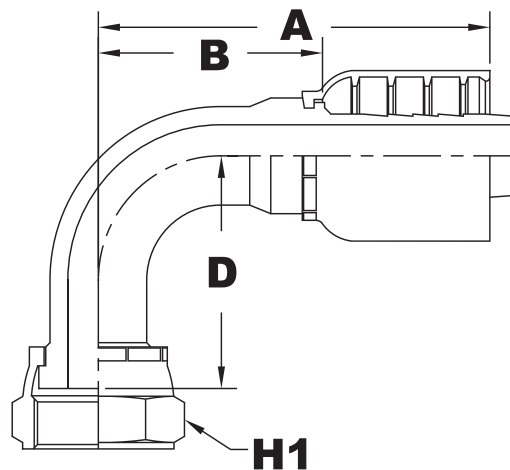
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6009 SERIES



JB60OFS90 SERIES

Female O-Ring Face Seal, 90° Elbow



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Hex Size		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm			
6009-1212	JB60OFS90-12-12	1-3/16-12	3/4	19.1	4.45	113.0	2.40	61.0	1.93	49.0	1.37	34.9	0.93	0.42	32
6009-1616	JB60OFS90-16-16	1-7/16-12	1	25.4	5.31	135.0	3.19	81.0	2.24	57.0	1.62	41.2	1.94	0.88	10
6009-2020	JB60OFS90-20-20	1-11/16-12	1-1/4	31.8	6.06	154.0	3.66	93.0	3.03	77.0	1.87	47.6	2.87	1.30	10
6009-2424	JB60OFS90-24-24	2-12	1-1/2	38.1	6.14	156.0	3.58	91.0	3.15	80.0	2.25	57.1	3.99	1.81	7

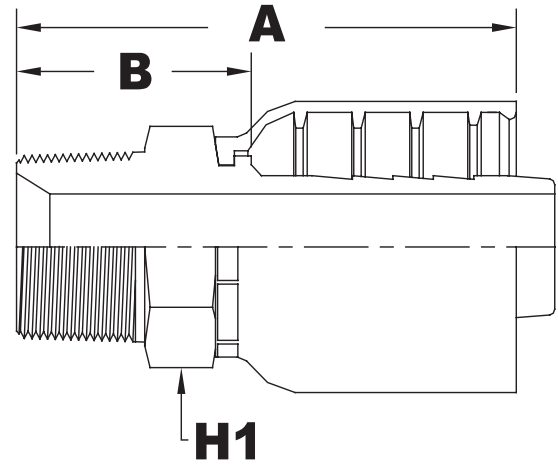
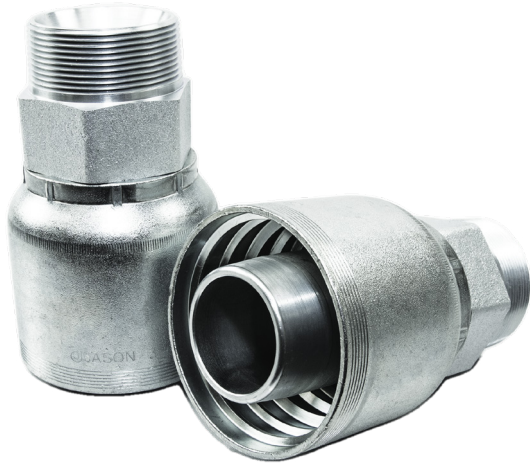
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JB60MP SERIES
Male Pipe Rigid NPTF

6020 SERIES



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter in. mm			"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Size		Weight		Bulk Pack
										H1				
			inch	mm		inch	mm	inch	mm	inch	mm	lbs.	kg	qty
6020-1212	JB60MP-12-12	3/4-14	3/4	19.1	19.1	3.35	85.0	1.46	37.0	1.06	27.0	0.69	0.31	50
6020-1616	JB60MP-16-16	1-11.5	1	25.4	25.4	4.13	105.0	1.69	43.0	1.42	36.0	1.09	0.50	36
6020-2020	JB60MP-20-20	1-1/4-11.5	1-1/4	31.8	31.8	4.61	117.0	2.05	52.0	1.81	46.0	2.02	0.92	15
6020-2424	JB60MP-24-24	1-1/2-11.5	1-1/2	38.1	38.1	4.49	114.0	2.05	52.0	1.97	50.0	2.47	1.12	15
6020-3232	JB60MP-32-32	2-11.5	2	50.8	50.8	5.28	134.0	2.28	58.0	2.36	60.0	4.06	1.84	8

*Standard Pack is 1.

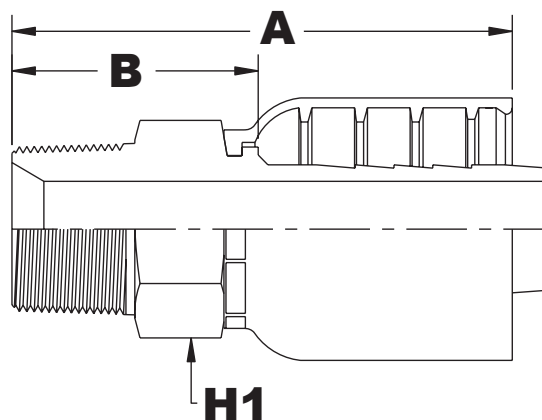
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6024 SERIES

JB60MPAPI SERIES

Male Pipe API



Catalog Part Number	Descriptive Part Number	API Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Size H1		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
6024-2424	JB60MPAPI-24-24	1-1/2 - 11.5	1-1/2	38.1	4.49	114.0	2.45	62.2	2.0	50.8	2.45	1.11	12
6024-3232	JB60MPAPI-32-32	2 - 11.5	2	50.8	5.63	142.9	2.85	72.4	2.5	63.5	4.06	1.84	6

*Standard Pack is 1.

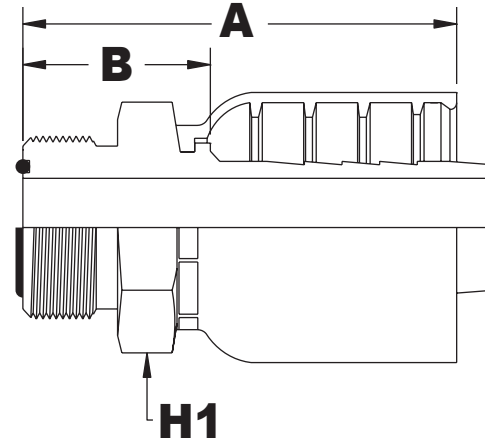
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JB60MOFS SERIES

SAE Male O-Ring Face Seal

6032 SERIES



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Sizes		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	H1		lbs.	kg	
6032-1212	JB60MOFS-12-12	3/4-14	3/4	19.1	3.25	82.5	1.26	32.0	1.26	32	0.99	0.45	48
6032-1616	JB60MOFS-16-16	1-11.5	1.0	25.4	3.56	90.5	1.46	37.0	1.50	38	1.08	0.49	30

*Standard Pack is 1.

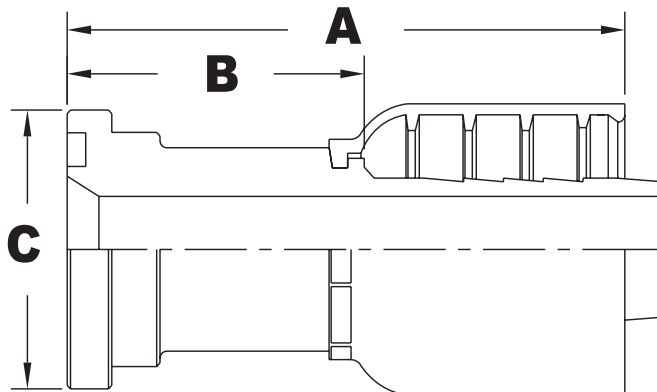
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6034 SERIES

JB60C61S SERIES

SAE Code 61 Flange - Straight



Catalog Part Number	Descriptive Part Number	Flange Size		Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Flange Diameter -C-		Weight		Bulk Pack
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
6034-1212	JB60C61S-12-12	3/4	19.1	3/4	19.1	3.35	85.0	1.89	48.0	1.50	38.1	0.81	0.37	50
6034-1612	JB60C61S-16-12	1	25.4	3/4	19.1	3.98	101.0	2.05	52.1	1.75	44.4	1.02	0.46	36
6034-1616	JB60C61S-16-16	1	25.4	1	25.4	3.66	93.0	2.05	52.0	1.75	44.4	1.33	0.60	36
6034-2016	JB60C61S-20-16	1-1/4	31.8	1	25.4	4.37	111.0	2.38	60.5	2.00	50.8	1.73	0.79	15
6034-2020	JB60C61S-20-20	1-1/4	31.8	1-1/4	31.8	4.69	119.0	3.03	77.0	2.00	50.8	2.00	0.91	15
6034-2420	JB60C61S-24-20	1-1/2	38.1	1-1/4	31.8	4.72	120.0	2.24	57.0	2.37	60.3	2.31	1.05	15
6034-2424	JB60C61S-24-24	1-1/2	38.1	1-1/2	38.1	4.49	114.0	3.11	79.0	2.37	60.3	2.54	1.15	15
6034-3232	JB60C61S-32-32	2	50.8	2	50.8	4.72	120.0	3.19	81.0	2.81	71.4	4.60	2.08	8

*Standard Pack is 1.

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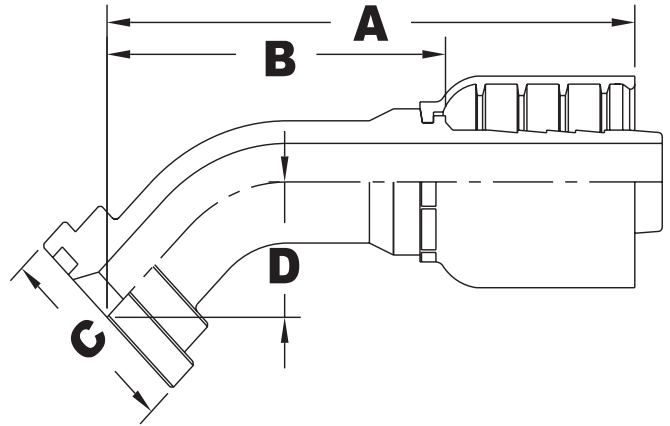


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JB60C6145 SERIES

SAE Code 61 Flange - 45° Elbow

6036 SERIES



Catalog Part Number	Descriptive Part Number	Flange Size		Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Flange Diameter -C-		Weight		Bulk Pack
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
6036-1212	JB60C6145-12-12	3/4	19.1	3/4	19.1	5.04	128.0	2.99	76.0	1.14	29.0	1.50	38.1	0.89	0.40	32
6036-1612	JB60C6145-16-12	1	25.4	3/4	19.1	4.40	111.7	2.47	62.8	1.06	27.0	1.75	44.4	1.19	0.54	18
6036-1616	JB60C6145-16-16	1	25.4	1	25.4	4.46	121.0	3.03	77.0	1.22	31.0	1.75	44.4	1.42	0.65	18
6036-2016	JB60C6145-20-16	1-1/4	31.8	1	25.4	5.34	135.6	3.35	85.1	1.26	32.0	2.00	50.8	1.78	0.81	12
6036-2020	JB60C6145-20-20	1-1/4	31.8	1-1/4	31.8	6.38	162.0	3.98	101.0	1.50	38.0	2.00	50.8	2.31	1.05	12
6036-2420	JB60C6145-24-20	1-1/2	38.1	1-1/4	31.8	6.29	159.8	3.81	96.8	1.61	41.0	2.37	60.3	2.47	1.12	12
6036-2424	JB60C6145-24-24	1-1/2	38.1	1-1/2	38.1	7.01	178.0	4.45	113.0	1.57	40.0	2.37	60.3	2.70	1.23	12
6036-3232	JB60C6145-32-32	2	50.8	2	50.8	8.43	214.0	5.43	138.0	2.36	60.0	2.81	71.4	6.04	2.74	6

*Standard Pack is 1.

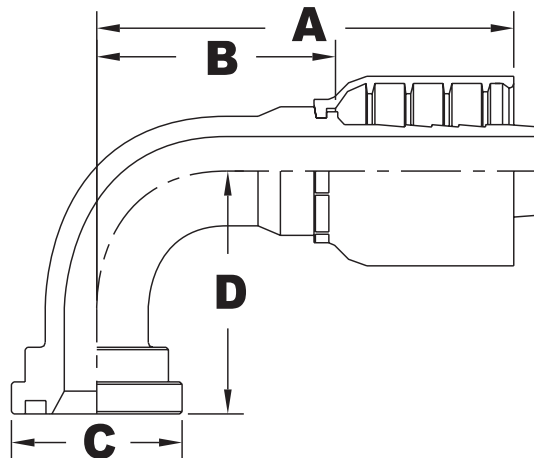
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6039 SERIES

JB60C6190 SERIES

SAE Code 61 Flange - 90° Elbow



Catalog Part Number	Descriptive Part Number	Flange Size		Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Flange Diameter -C-		Weight		Bulk Pack
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
6039-1212	JB60C6190-12-12	3/4	19.1	3/4	19.1	4.45	113.0	2.40	61.0	2.13	54.0	1.50	38.1	0.96	0.44	32
6039-1612	JB60C6190-16-12	1	25.4	3/4	19.1	4.04	102.5	2.11	53.6	2.13	54.0	1.75	44.4	1.28	0.58	15
6039-1616	JB60C6190-16-16	1	25.4	1	25.4	5.31	135.0	3.19	81.0	2.44	62.0	1.75	44.4	1.63	0.74	15
6039-2016	JB60C6190-20-16	1-1/4	31.8	1	25.4	5.04	128.0	3.05	77.5	2.44	62.0	2.00	50.8	1.98	0.90	15
6039-2020	JB60C6190-20-20	1-1/4	31.8	1-1/4	31.8	6.06	154.0	3.66	93.0	3.11	79.0	2.00	50.8	2.76	1.25	15
6039-2420	JB60C6190-24-20	1-1/2	38.1	1-1/4	31.8	6.02	153.0	3.54	90.0	3.27	83.0	2.37	60.3	2.81	1.28	10
6039-2424	JB60C6190-24-24	1-1/2	38.1	1-1/2	38.1	6.14	156.0	3.58	91.0	3.27	83.0	2.37	60.3	2.83	1.29	10
6039-3232	JB60C6190-32-32	2	50.8	2	50.8	8.31	211.0	5.31	135.0	5.16	131.0	2.81	71.4	6.92	3.14	6

*Standard Pack is 1.

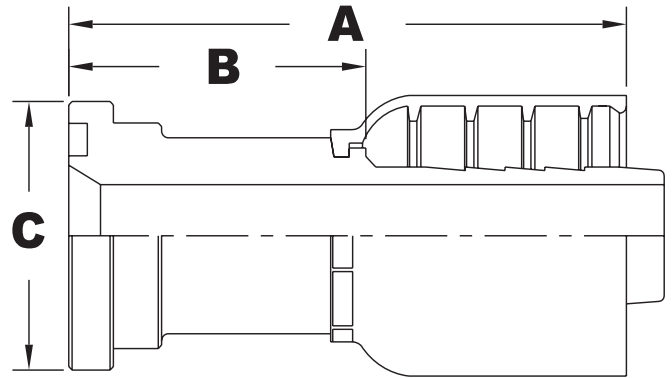
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JB60C62S SERIES

SAE Code 62 Flange - Straight

6041 SERIES



Catalog Part Number	Descriptive Part Number	Flange Size		Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Flange Diameter -C-		Weight		Bulk Pack
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
6041-1212	JB60C62S-12-12	3/4	19.1	3/4	19.1	3.82	97.0	2.05	52.0	1.62	41.2	0.89	0.40	50
6041-1612	JB60C62S-16-12	1	25.4	3/4	19.1	4.49	114.0	2.56	65.1	1.87	47.6	1.10	0.50	36
6041-1616	JB60C62S-16-16	1	25.4	1	25.4	4.09	104.0	2.36	60.0	1.87	47.6	1.55	0.70	36
6041-2016	JB60C62S-20-16	1-1/4	31.8	1	25.4	4.45	138.5	3.05	77.5	2.12	53.9	2.02	0.92	15
6041-2020	JB60C62S-20-20	1-1/4	31.8	1-1/4	31.8	5.91	150.0	3.54	90.0	2.12	53.9	2.43	1.10	15
6041-2420	JB60C62S-24-20	1-1/2	38.1	1-1/4	31.8	5.75	146.0	3.27	83.0	2.50	63.5	2.72	1.23	15
6041-2424	JB60C62S-24-24	1-1/2	38.1	1-1/2	38.1	7.05	179.0	4.29	109.0	2.50	63.5	3.12	1.42	15
6041-3232	JB60C62S-32-32	2	50.8	2	50.8	7.56	192.0	5.35	136.0	3.12	79.3	5.71	2.59	8

*Standard Pack is 1.

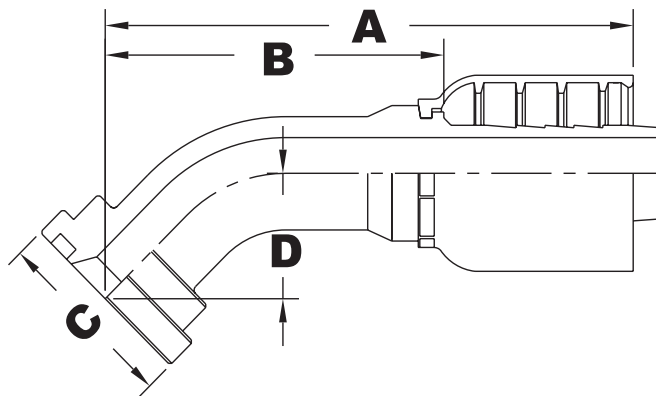
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6043 SERIES

JB60C6245 SERIES

SAE Code 62 Flange - 45° Elbow



Catalog Part Number	Descriptive Part Number	Flange Size		Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Flange Diameter -C-		Weight		Bulk Pack
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
6043-1212	JB60C6245-12-12	3/4	19.1	3/4	19.1	5.16	131.0	3.11	79.0	1.26	32.0	1.62	41.2	0.93	0.42	32
6043-1612	JB60C6245-16-12	1	25.4	3/4	19.1	4.48	113.7	2.55	64.8	1.87	29.0	1.87	47.6	1.12	0.51	18
6043-1616	JB60C6245-16-16	1	25.4	1	25.4	4.96	126.0	3.23	82.0	1.42	36.0	1.87	47.6	1.45	0.66	18
6043-2016	JB60C6245-20-16	1-1/4	31.8	1	25.4	4.96	126.0	3.47	88.1	1.42	36.0	2.12	53.9	1.93	0.88	15
6043-2020	JB60C6245-20-20	1-1/4	31.8	1-1/4	31.8	6.69	170.0	4.29	109.0	1.81	46.0	2.12	53.9	2.58	1.17	12
6043-2420	JB60C6245-24-20	1-1/2	38.1	1-1/4	31.8	6.68	169.6	4.20	106.6	1.54	39.0	2.50	63.5	2.90	1.32	12
6043-2424	JB60C6245-24-24	1-1/2	38.1	1-1/2	38.1	7.24	184.0	4.69	119.0	1.97	50.0	2.50	63.5	3.16	1.44	12
6043-3232	JB60C6245-32-32	2	50.8	2	50.8	9.02	229.0	6.02	153.0	2.95	75.0	3.12	79.3	7.85	3.56	6

*Standard Pack is 1.

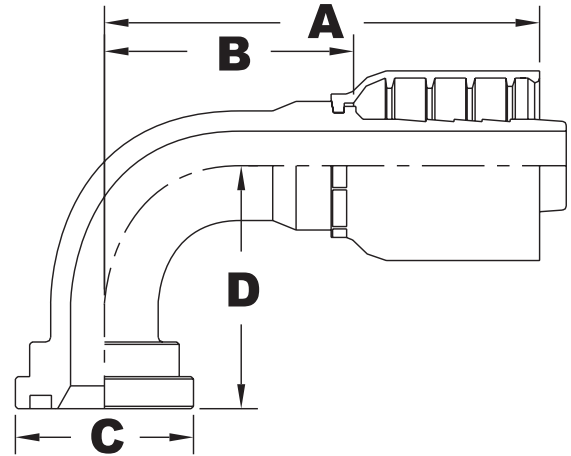
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JB60C6290 SERIES

SAE Code 62 Flange - 90° Elbow

6045 SERIES



Catalog Part Number	Descriptive Part Number	Flange Size		Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Flange Diameter -C-		Weight		Bulk Pack
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
6045-1212	JB60C6290-12-12	3/4	19.1	3/4	19.1	4.41	112.0	3.11	79.0	2.28	58.0	1.62	41.2	1.00	0.45	32
6045-1612	JB60C6290-16-12	1	25.4	3/4	19.1	4.04	102.5	2.11	53.6	2.13	54.0	1.87	47.6	1.28	0.58	15
6045-1616	JB60C6290-16-16	1	25.4	1	25.4	5.24	133.0	3.23	82.0	2.72	69.0	1.87	47.6	1.79	0.81	15
6045-2016	JB60C6290-20-16	1-1/4	31.8	1	25.4	4.96	126.0	2.97	75.5	2.87	73.0	2.12	53.9	1.98	0.90	15
6045-2020	JB60C6290-20-20	1-1/4	31.8	1-1/4	31.8	6.06	154.0	4.29	109.0	3.54	90.0	2.12	53.9	2.79	1.26	15
6045-2420	JB60C6290-24-20	1-1/2	38.1	1-1/4	31.8	6.02	153.0	3.54	90.0	3.15	80.0	2.50	63.5	2.81	1.28	10
6045-2424	JB60C6290-24-24	1-1/2	38.1	1-1/2	38.1	6.14	156.0	4.69	119.0	3.62	92.0	2.50	63.5	3.30	1.50	10
6045-3232	JB60C6290-32-32	2	50.8	2	50.8	8.31	211.0	6.02	153.0	6.02	153.0	3.12	79.3	7.76	3.52	6

*Standard Pack is 1.

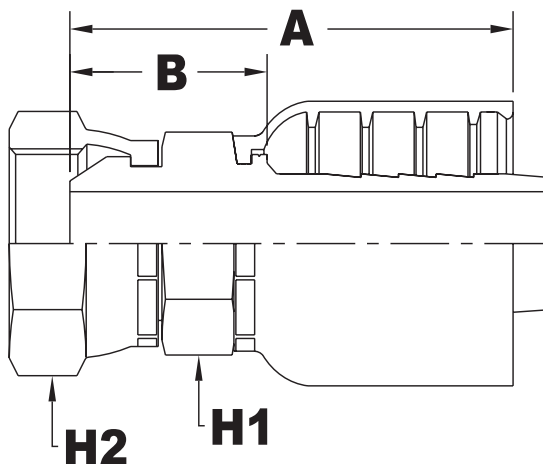
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6048 SERIES

JB60FSPPBSP SERIES

Female Swivel Parallel Pipe, BSP - 30° Cone - Metric



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Sizes				Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	H1		H2		lbs.	kg	
6048-1212	JB60FSPPBSP-12-12	3/4-14	3/4	19.1	3.23	82.0	1.34	34.0	1.26	32.0	1.42	36.0	0.79	0.36	50
6048-1616	JB60FSPPBSP-16-16	1-11	1	25.4	3.90	99.0	1.50	38.0	1.42	36.0	1.61	41.0	1.32	0.60	36
6048-2020	JB60FSPPBSP-20-20	1-1/4-11	1-1/4	31.8	4.49	114.0	1.93	49.0	1.81	46.0	1.97	50.0	2.28	1.03	15
6048-2424	JB60FSPPBSP-24-24	1-1/2-11	1-1/2	38.1	4.69	119.0	2.09	53.0	2.17	55.0	2.17	55.0	2.68	1.21	15
6048-3232	JB60FSPPBSP-32-32	2-11	2	50.8	5.31	135.0	2.32	59.0	2.50	63.5	2.87	73.0	5.18	2.35	8

*Standard Pack is 1.

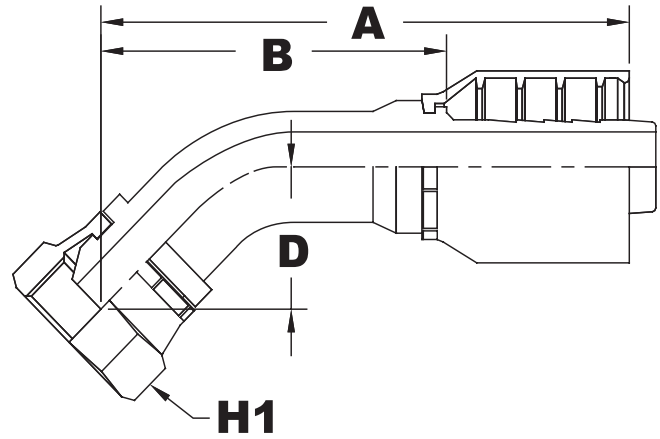
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JB60FSPPBSP45 SERIES

6049 SERIES

Female Swivel Parallel Pipe, BSP - 30° Cone - 45° Elbow - Metric



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Hex Size		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
6049-1212	JB60FSPPBSP45-12-12	3/4-14	3/4	19.1	5.16	131.0	3.11	79.0	1.18	30.0	1.42	36.0	0.77	0.35	32
6049-1616	JB60FSPPBSP45-16-16	1-11	1	25.4	5.24	133.0	3.11	79.0	1.30	33.0	1.61	41.0	1.21	0.55	18
6049-2020	JB60FSPPBSP45-20-20	1-1/4-11	1-1/4	31.8	6.57	167.0	4.17	106.0	1.65	42.0	1.97	50.0	2.23	1.01	12
6049-2424	JB60FSPPBSP45-24-24	1-1/2-11	1-1/2	38.1	7.13	181.0	4.57	116.0	1.89	48.0	2.17	55.0	3.26	1.48	12
6049-3232	JB60FSPPBSP45-32-32	2-11	2	50.8	8.66	220.0	5.67	144.0	2.60	66.0	2.87	73.0	4.92	2.23	6

*Standard Pack is 1.

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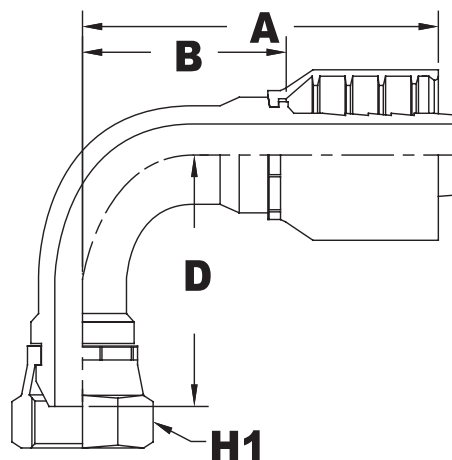


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6050 SERIES

JB60FSPPBSP90 SERIES

Female Swivel Parallel Pipe, BSP - 30° Cone - 90° Cone - Metric



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Hex Size H1		Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
6050-1212	JB60FSPPBSP90-12-12	3/4-14	3/4	19.1	4.45	113.0	2.40	61.0	2.09	53.0	1.42	36.0	0.93	0.42	32
6050-1616	JB60FSPPBSP90-16-16	1-11	1	25.4	5.31	135.0	3.19	81.0	2.48	63.0	1.61	41.0	0.73	0.33	15
6050-2020	JB60FSPPBSP90-20-20	1-1/4-11	1-1/4	31.8	6.06	154.0	3.66	93.0	3.35	85.0	1.97	50.0	3.03	1.37	15
6050-2424	JB60FSPPBSP90-24-24	1-1/2-11	1-1/2	38.1	6.14	156.0	3.58	91.0	3.46	88.0	2.17	55.0	3.68	1.67	10
6050-3232	JB60FSPPBSP90-32-32	2-11	2	50.8	8.31	211.0	5.31	135.0	5.51	140.0	2.87	73.0	8.05	3.65	6

*Standard Pack is 1.

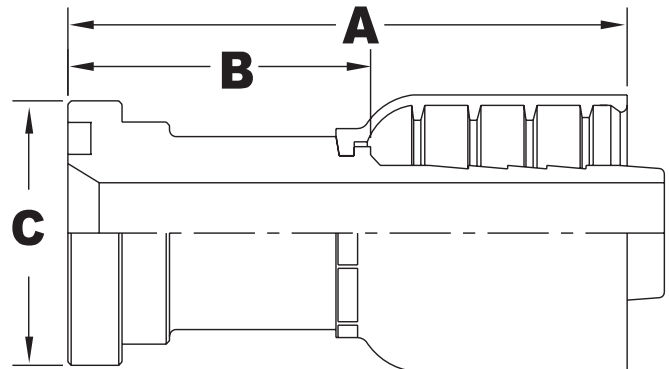
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JB60CATS SERIES

Caterpillar Style Flange - Straight

6060 SERIES



Catalog Part Number	Descriptive Part Number	Flange Size		Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Flange Diameter -C-		Weight		Bulk Pack
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
6060-1212	JB60CATS-12-12	3/4	19.1	3/4	19.1	3.82	97.0	2.05	52.0	1.62	41.2	1.00	0.45	50
6060-1612	JB60CATS-16-12	1	25.4	3/4	19.1	4.44	112.7	2.51	63.8	1.87	47.6	1.28	0.58	30
6060-1616	JB60CATS-16-16	1	25.4	1	25.4	4.09	104.0	2.36	60.0	1.87	47.6	1.54	0.70	36
6060-2016	JB60CATS-20-16	1-1/4	31.8	1	25.4	5.19	131.9	3.20	81.4	2.13	54.0	1.92	0.87	18
6060-2020	JB60CATS-20-20	1-1/4	31.8	1-1/4	31.8	5.91	150.0	3.54	90.0	2.12	53.9	2.59	1.17	15
6060-2420	JB60CATS-24-20	1-1/2	38.1	1-1/4	31.8	5.81	147.6	3.33	84.6	2.50	63.5	2.84	1.29	10
6060-2424	JB60CATS-24-24	1-1/2	38.1	1-1/2	38.1	7.05	179.0	4.29	109.0	2.50	63.5	3.05	1.39	15
6060-3232	JB60CATS-32-32	2	50.8	2	50.8	7.56	192.0	5.35	136.0	3.12	79.3	5.80	2.63	8

*Standard Pack is 1.

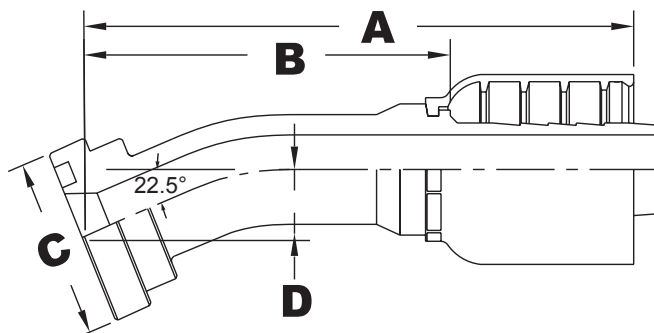
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6061 SERIES

JB60CAT22 SERIES

Caterpillar Style Flange - 22½° Elbow



Catalog Part Number	Descriptive Part Number	Flange Size		Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Flange Diameter -C-		Weight		Bulk Pack
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
6061-1212	JB60CAT22-12-12	3/4	19.1	3/4	19.1	5.19	131.9	3.27	83.0	0.59	15.0	1.62	41.2	1.04	0.47	25
6061-1616	JB60CAT22-16-16	1	25.4	1	25.4	5.83	149.7	3.91	99.2	0.63	16.0	1.87	47.6	1.70	0.77	15

*Standard Pack is 1.

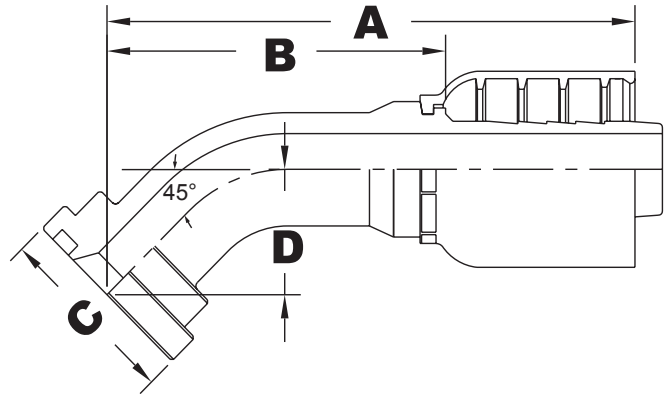
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JB60CAT45 SERIES

Caterpillar Style Flange - 45° Elbow

6062 SERIES



Catalog Part Number	Descriptive Part Number	Flange Size		Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Flange Diameter -C-		Weight		Bulk Pack
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
6062-1212	JB60CAT45-12-12	3/4	19.1	3/4	19.1	5.16	131.0	3.11	79.0	1.26	32.0	1.62	41.2	1.04	0.47	32
6062-1616	JB60CAT45-16-16	1	25.4	1	25.4	4.96	126.0	3.23	82.0	1.42	36.0	1.87	47.6	1.70	0.77	18
6062-2016	JB60CAT45-20-16	1-1/4	31.8	1	25.4	5.35	136.0	3.39	86.0	1.27	32.3	2.12	53.9	1.75	0.79	12
6062-2020	JB60CAT45-20-20	1-1/4	31.8	1-1/4	31.8	6.69	170.0	4.29	109.0	1.81	46.0	2.12	53.9	2.77	1.25	12
6062-2424	JB60CAT45-24-24	1-1/2	38.1	1-1/2	38.1	7.24	184.0	4.69	119.0	1.97	50.0	2.50	63.5	3.36	1.53	12
6062-3232	JB60CAT45-32-32	2	50.8	2	50.8	9.02	229.0	6.02	153.0	2.95	75.0	3.12	79.3	6.88	3.12	6

*Standard Pack is 1.

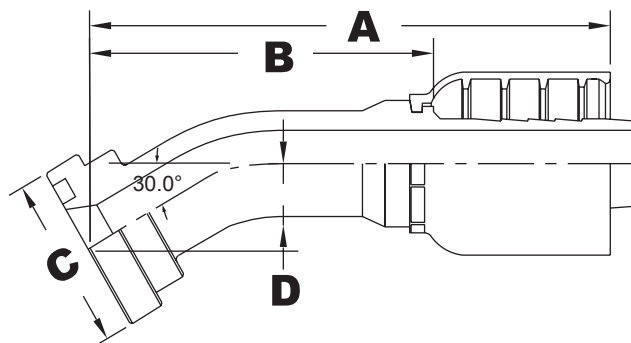
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6063 SERIES

JB60CAT30 SERIES

Caterpillar Style Flange - 30° Elbow



Catalog Part Number	Descriptive Part Number	Flange Size		Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Flange Diameter -C-		Weight		Bulk Pack
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
6063-1212	JB60CAT30-12-12	3/4	19.1	3/4	19.1	4.96	126.0	3.11	79.0	0.87	22.1	1.62	41.2	1.04	0.47	25
6063-1616	JB60CAT30-16-16	1	25.4	1	25.4	5.20	132.0	3.66	93.0	0.91	23.1	1.87	47.6	1.70	0.77	15

*Standard Pack is 1.

We disclaim any liability for use of our products in applications other than which they are designed.

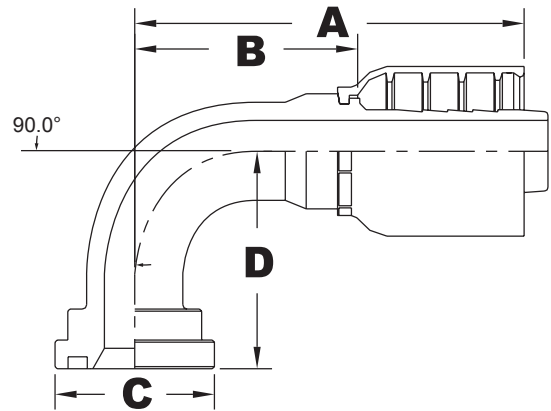


WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer, birth defects or other reproductive harm. For more information visit www.P65WARNINGS.ca.gov

JB60CAT90 SERIES

Caterpillar Style Flange - 90° Elbow

6064 SERIES



Catalog Part Number	Descriptive Part Number	Flange Size		Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Flange Diameter -C-		Weight		Bulk Pack
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	qty
6064-1212	JB60CAT90-12-12	3/4	19.1	3/4	19.1	4.41	112.0	3.11	79.0	2.28	58.0	1.62	41.2	1.08	0.49	32
6064-1612	JB60CAT90-16-12	1	25.4	3/4	19.1	4.33	109.9	2.40	61.0	2.59	65.7	1.87	47.6	1.28	0.58	20
6064-1616	JB60CAT90-16-16	1	25.4	1	25.4	5.24	133.0	3.23	82.0	2.72	69.0	1.87	47.6	1.90	0.86	15
6064-2016	JB60CAT90-20-16	1-1/4	31.8	1	25.4	5.18	131.5	3.19	81.0	2.91	74	2.12	53.9	1.98	0.90	15
6064-2020	JB60CAT90-20-20	1-1/4	31.8	1-1/4	31.8	6.06	154.0	4.29	109.0	3.54	90.0	2.12	53.9	2.94	1.33	15
6064-2420	JB60CAT90-24-20	1-1/2	38.1	1-1/4	31.8	6.14	156.0	3.66	93.0	3.61	91.6	2.50	63.5	3.18	1.44	7
6064-2424	JB60CAT90-24-24	1-1/2	38.1	1-1/2	38.1	6.14	156.0	4.69	119.0	3.62	92.0	2.50	63.5	3.69	1.68	10
6064-3232	JB60CAT90-32-32	2	50.8	2	50.8	8.31	211.0	6.02	153.0	6.02	153.0	3.12	79.3	7.63	3.46	6

*Standard Pack is 1.

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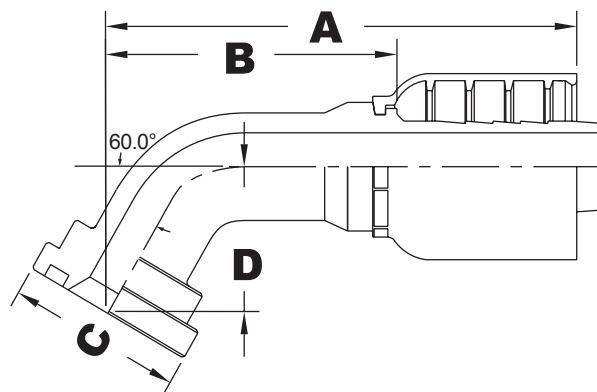


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6066 SERIES

JB60CAT66 SERIES

Caterpillar Style Flange - 60° Elbow



Catalog Part Number	Descriptive Part Number	Flange Size		Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Flange Diameter -C-		Weight		Bulk Pack
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
6066-1616	JB60CAT66-16-16	1	25.4	1	25.4	5.43	138.0	3.44	87.5	1.85	47.0	1.87	47.6	1.67	0.76	15

*Standard Pack is 1.

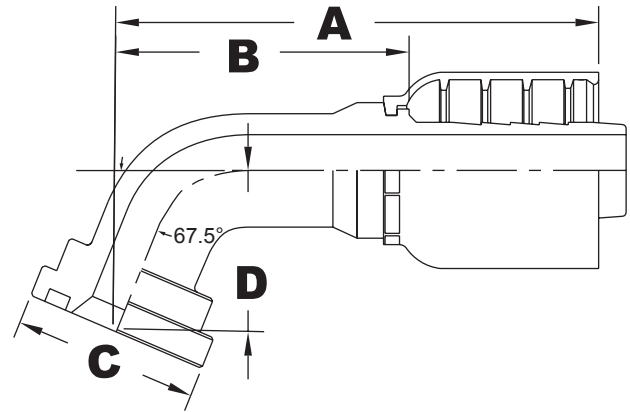
We disclaim any liability for use of our products in applications other than which they are designed.

WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer, birth defects or other reproductive harm. For more information visit www.P65WARNINGS.ca.gov

JB60CAT67 SERIES

Caterpillar Style Flange - 67½° Elbow

6067 SERIES



Catalog Part Number	Descriptive Part Number	Flange Size		Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Flange Diameter -C-		Weight		Bulk Pack
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs.	kg	
6067-1616	JB60CAT67-16-16	1	25.4	1	25.4	5.24	133.0	3.24	82.2	2.09	53.0	1.87	47.6	1.67	0.76	15

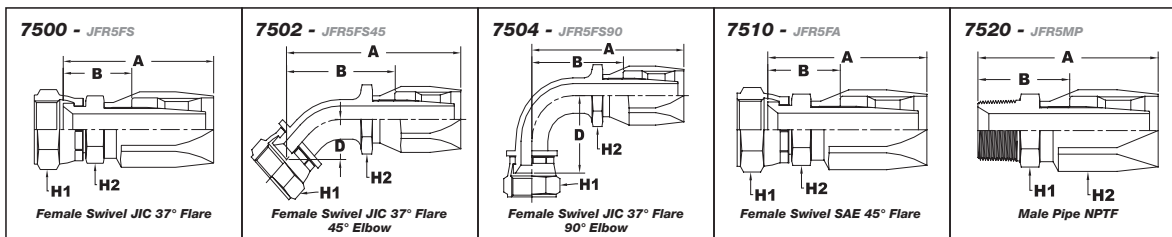
*Standard Pack is 1.

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FIELD ATTACHABLE (REUSABLE) COUPLINGS - FOR SAE 100R5, J1402 TYPE AII, FMVSS 106 HOSES



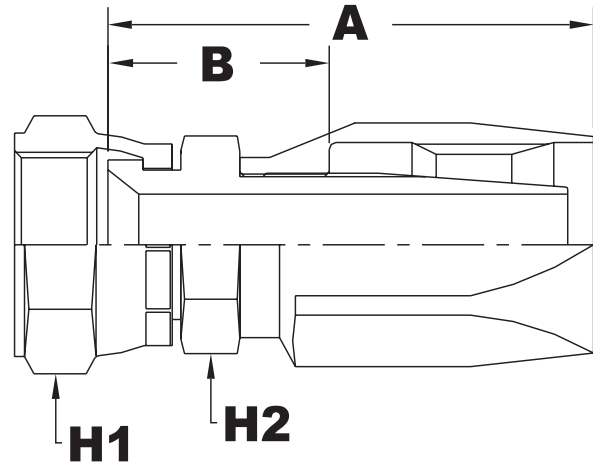
*Federal law requires registration with the Department of Transportation (DOT) for anyone producing air brake hose assemblies with swaged or crimp fittings. The Jason 5050 Series hoses have been tested and meet SAE 100R5 and J1402 Type AII/FMVSS 106 requirements with the Jason 75 Series field attachable (reusable) couplings. Sizes 16 (7/8" bore) and larger are not included in the SAE J1402/FMVSS 106 standards.



JFR5FS SERIES

Female Swivel JIC 37° Flare

7500 SERIES



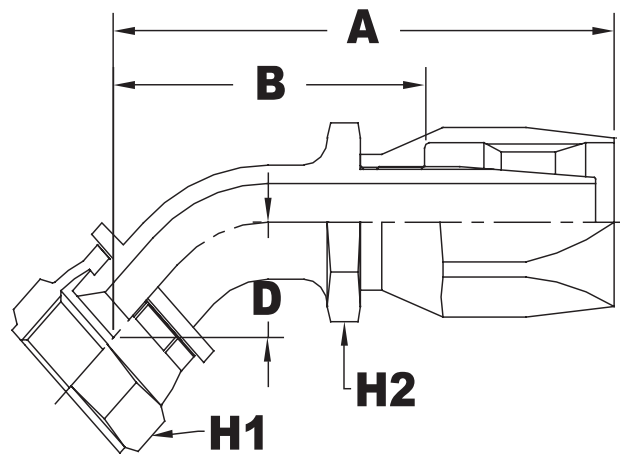
Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Sizes				Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	H1		H2		lbs.	kg	
7500-0404	JFR5FS-04-04	7/16-20	3/16	4.8	1.94	49.3	1.19	30.2	0.56	14.2	0.56	14.2	0.10	0.05	N/A
7500-0405	JFRSFS-04-05	7/16-20	1/4	6.4	2.01	51	0.89	22.6	0.56	14.2	0.63	16.0	0.11	0.05	N/A
7500-0505	JFR5FS-05-05	1/2-20	1/4	6.4	2.08	52.8	1.30	33.0	0.63	16.0	0.63	16.0	0.12	0.05	N/A
7500-0606	JFR5FS-06-06	9/16-18	5/16	7.9	2.31	58.7	1.41	35.8	0.69	17.4	0.69	17.4	0.17	0.08	N/A
7500-0808	JFR5FS-08-08	3/4-16	13/32	10.3	2.84	72.1	1.58	40.1	0.87	22.2	0.87	22.2	0.27	0.12	N/A
7500-1010	JFR5FS-10-10	7/8-14	1/2	12.7	3.06	77.7	1.67	42.4	1.00	25.4	1.00	25.4	0.41	0.19	N/A
7500-1212	JFR5FS-12-12	1-1/16-12	5/8	15.9	3.50	88.9	1.92	48.8	1.25	31.7	1.25	31.7	0.57	0.26	N/A
7500-1616	JFR5FS-16-16	1-5/16-12	7/8	22.2	3.19	81.0	1.92	48.8	1.50	38.1	1.50	38.1	0.70	0.32	N/A
7500-2020	JFR5FS-20-20	1-5/8-12	1-1/8	28.6	3.38	85.9	2.03	51.6	2.00	50.8	2.00	50.8	1.35	0.61	N/A

*Standard Pack is 1.

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NOTE: Only approved field attachable (reusable) screw together couplings can be used on this hose for compliance with DOT FMVSS 106 requirements. No crimp couplings may be used on any airbrake hose without the end assembler testing, registering and complying with DOT.

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7502 SERIES
JFR5FS45 SERIES
Female Swivel JIC 37° Flare, 45° Elbow


Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Hex Sizes				Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	H1		H2		lbs.	kg	
7502-0404	JFR5FS45-04-04	7/16-20	3/16	4.8	0.84	21.3	1.10	27.9	0.33	8.4	0.56	14.2	0.56	14.2	0.09	0.04	N/A
7502-0505	JFR5FS45-05-05	1/2-20	1/4	6.4	1.06	26.9	1.28	32.5	0.36	9.1	0.63	16.0	0.63	16.0	0.12	0.05	N/A
7502-0606	JFR5FS45-06-06	9/16-18	5/16	7.9	2.23	56.6	1.33	33.8	0.39	9.9	0.69	17.4	0.69	17.4	0.17	0.08	N/A
7502-0808	JFR5FS45-08-08	3/4-16	13/32	10.3	2.98	75.7	1.84	46.7	0.55	14.0	0.87	22.2	0.87	19.0	0.23	0.10	N/A
7502-1010	JFR5FS45-10-10	7/8-14	1/2	12.7	3.23	82.0	1.64	41.7	0.63	16.0	1.00	25.4	1.00	22.2	0.45	0.20	N/A
7502-1212	JFR5FS45-12-12	1-1/16-12	5/8	15.9	3.78	96.0	2.22	56.4	0.77	19.6	1.25	31.7	1.25	28.5	0.64	0.29	N/A
7502-1616	JFR5FS45-16-16	1-5/16-12	7/8	22.2	3.56	90.4	2.23	56.6	0.89	22.6	1.50	38.1	1.50	35.0	0.84	0.38	N/A

*Standard Pack is 1.

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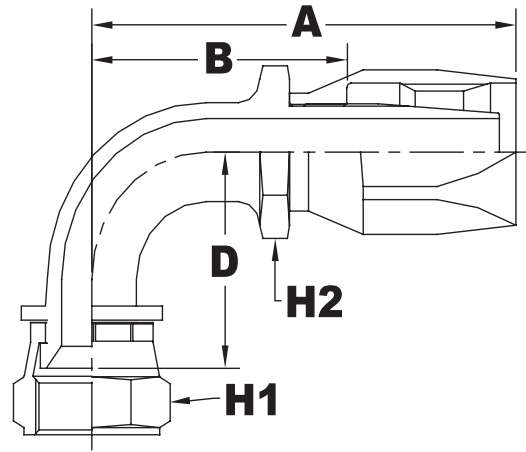
NOTE: Only approved field attachable (reusable) screw together couplings can be used on this hose for compliance with DOT FMVSS 106 requirements. No crimp couplings may be used on any airbrake hose without the end assembler testing, registering and complying with DOT.

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JFR5FS90 SERIES

Female Swivel JIC 37° Flare - 90° Elbow

7504 SERIES



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		"D" Dimension Drop		Hex Sizes				Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	inch	mm	H1		H2		lbs.	kg	
7504-0404	JFR5FS90-04-04	7/16-20	3/16	4.8	1.75	44.5	1.00	25.4	0.69	17.5	0.56	14.2	0.56	14.2	0.11	0.05	N/A
7504-0505	JFR5FS90-05-05	1/2-20	1/4	6.4	1.97	50.0	1.19	30.2	0.77	19.6	0.63	16.0	0.63	16.0	0.12	0.05	N/A
7504-0606	JFR5FS90-06-06	9/16-18	5/16	7.9	2.13	54.1	1.23	31.2	0.84	21.3	0.69	17.4	0.69	17.4	0.17	0.08	N/A
7504-0808	JFR5FS90-08-08	3/4-16	13/32	10.3	2.75	69.9	1.61	40.9	1.09	27.7	0.87	22.2	0.87	22.2	0.26	0.12	N/A
7504-1010	JFR5FS90-10-10	7/8-14	1/2	12.7	2.94	74.7	1.66	42.2	1.23	31.2	1.00	25.4	1.00	25.4	0.47	0.21	N/A
7504-1212	JFR5FS90-12-12	1-1/16-12	5/8	15.9	3.75	95.3	2.17	55.1	1.81	46.0	1.25	31.7	1.25	31.7	0.66	0.30	N/A
7504-1616	JFR5FS90-16-16	1-5/16-12	7/8	22.2	3.55	90.2	2.28	57.9	2.14	54.4	1.50	38.1	1.50	38.1	0.90	0.41	N/A

*Standard Pack is 1.

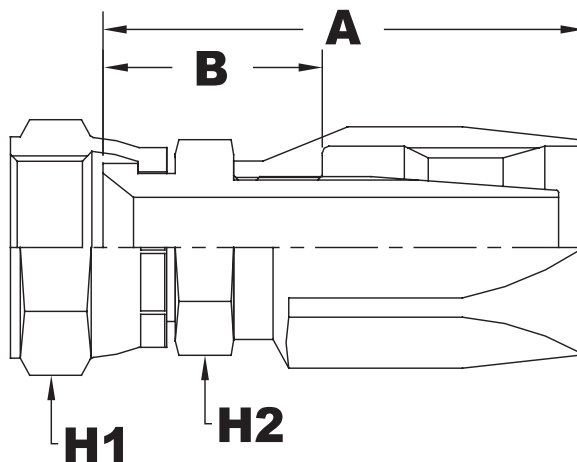
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NOTE: Only approved field attachable (reusable) screw together couplings can be used on this hose for compliance with DOT FMVSS 106 requirements. No crimp couplings may be used on any airbrake hose without the end assembler testing, registering and complying with DOT.

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7510 SERIES

JFR5FA SERIES Female Swivel SAE 45° Flare



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Sizes				Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	H1		H2		lbs.	kg	
7510-0404	JFR5FA-04-04	7/16-20	3/16	4.8	1.94	49.3	0.83	21.1	0.56	14.2	0.56	14.2	0.09	0.04	N/A
7510-0505	JFR5FA-05-05	1/2-20	1/4	6.4	2.08	52.8	0.94	23.9	0.63	16.0	0.63	16.0	0.12	0.05	N/A
7510-0606	JFR5FA-06-06	5/8-18	5/16	7.9	2.34	59.4	1.02	25.9	0.75	19.1	0.75	19.1	0.18	0.08	N/A
7510-0808	JFR5FA-08-08	3/4-16	13/32	10.3	2.84	72.1	1.14	29.0	0.87	22.2	0.87	22.2	0.27	0.12	N/A
7510-1010	JFR5FA-10-10	7/8-14	1/2	12.7	3.06	77.7	1.17	29.7	1.00	25.4	1.00	25.4	0.41	0.19	N/A
7510-1212	JFR5FA-12-12	1-1/16-14	5/8	15.9	3.50	88.9	1.34	34.0	1.25	31.7	1.25	31.7	0.60	0.27	N/A

*Standard Pack is 1.

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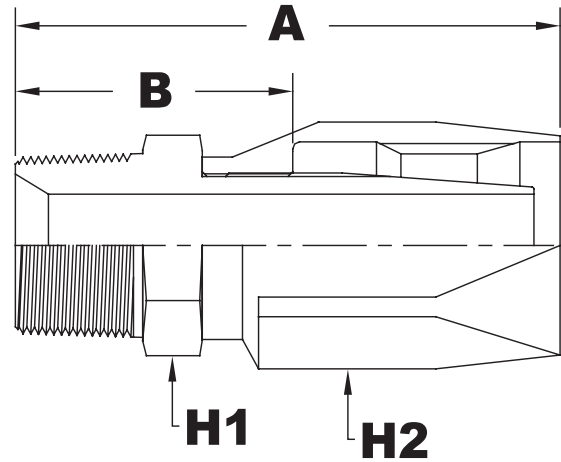
NOTE: Only approved field attachable (reusable) screw together couplings can be used on this hose for compliance with DOT FMVSS 106 requirements. No crimp couplings may be used on any airbrake hose without the end assembler testing, registering and complying with DOT.

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JFR5MP SERIES

Male Pipe NPTF

7520 SERIES



Catalog Part Number	Descriptive Part Number	Thread	Hose Inside Diameter		"A" Dimension Overall Length		"B" Dimension Cut-Off Length		Hex Sizes				Weight		Bulk Pack
			inch	mm	inch	mm	inch	mm	H1		H2		lbs.	kg	
7520-0404	JFR5MP-04-04	1/4-18	3/16	4.8	1.86	47.2	1.11	28.2	0.56	14.2	0.63	15.9	0.10	0.05	N/A
7520-0405	JFR5MP-04-05	1/4-18	1/4	6.4	1.97	50.0	1.19	30.2	0.56	14.2	0.69	17.4	0.11	0.05	N/A
7520-0406	JFR5MP-04-06	1/4-18	5/16	7.9	2.78	70.6	1.31	33.3	0.69	17.5	1	25.4	0.31	0.14	N/A
7520-0606	JFR5MP-06-06	3/8-18	5/16	7.9	2.20	55.9	1.27	32.3	0.69	17.4	0.81	20.6	0.15	0.07	N/A
7520-0608	JFR5MP-06-08	3/8-18	13/32	10.3	2.94	74.7	1.38	35.1	0.87	22.0	1.13	28.7	0.45	0.20	N/A
7520-0808	JFR5MP-08-08	1/2-14	13/32	10.3	2.72	69.1	1.56	39.6	0.87	19.1	0.94	23.8	0.26	0.12	N/A
7520-0810	JFR5MP-08-10	1/2-14	1/2	12.7	2.86	72.6	1.59	40.4	0.87	19.1	1.12	28.4	0.36	0.16	N/A
7520-1210	JFR5MP-12-10	3/4-14	1/2	12.7	3.19	81.0	1.75	44.5	1.06	26.9	1.12	28.4	0.8	0.36	N/A
7520-1212	JFR5MP-12-12	3/4-14	5/8	15.9	3.20	81.3	1.67	42.4	1.06	26.9	1.25	31.7	0.49	0.22	N/A
7520-1616	JFR5MP-16-16	1-11.5	7/8	22.2	2.98	75.7	1.72	43.7	1.38	35.1	1.44	36.5	0.63	0.29	N/A
7520-2020	JFR5MP-20-20	1-1/4-11.5	1-1/8	28.6	3.19	81.0	1.83	46.5	1.75	44.5	1.75	44.4	1.08	0.49	N/A

*Standard Pack is 1.

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NOTE: Only approved field attachable (reusable) screw together couplings can be used on this hose for compliance with DOT FMVSS 106 requirements. No crimp couplings may be used on any airbrake hose without the end assembler testing, registering and complying with DOT.

WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer, birth defects or other reproductive harm. For more information visit www.P65WARNINGS.ca.gov

FIELD ATTACHABLE (REUSABLE) COUPLING ASSEMBLY PROCEDURE

- 1.** Place socket only (removing insert if it is already screwed into socket) securely in vise to allow insertion into the hose.
- 2.** The hose to be assembled should be cleanly cut square with minimal burrs on the outside and clean on the inside. A slight chamfering of the hose's inner tube is good practice to make installation easier.
- 3.** Do not oil the socket during this stage. The hose tube can be lubed with suitable oil or it can be lubed after inserted in socket. **(Figure 1)**
- 4.** Turn the hose into the socket restrained in the vise counter-clockwise until fully bottomed out **(Figure 2)**. Then turn the hose clockwise 1/4-to-1/2 turn.
- 5.** Generously lubricate the inside of the hose (if not done earlier), including the threads that engage the insert. Likewise, lube the insert mating threads with the same suitable oil. **(Figures 3 & 4)**
- 6.** Carefully push the insert into the socket/hose assembly while turning the insert clockwise to engage the threads. **(Figure 5)**
- 7.** Using a suitable wrench on the insert hex, turn until completely threaded. Do not overtighten the threads past fully engaged. Damage to the components can occur if over-torqued, especially on smaller sizes. **(Figure 6)**



CRIMPING EQUIPMENT & ACCESSORIES



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JCD100S-T420

PORTABLE SERVICE HOSE CRIMPER

The JCD100S-T420 Portable Series hose crimper with the T420 Micrometer Style Adjustment and 35 tons of crimping force has the capability to crimp hoses up to 1" 2 wire and 3/4" 4SP.



T420 Flex Caged Die Sets & Flex Cages

- Flex caged dies sets for heavy duty environments.
- Eliminates need to replace broken screws and springs.



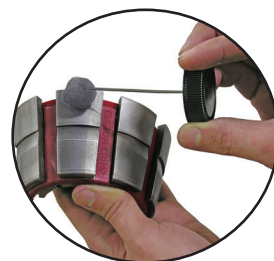
Accurate and Repeatable

The "MicroSite" indicator on the T420 micrometer allows the operator to make accurate and fast repeatable crimps.



Light Weight Portable Unit

Truly "portable" crimper can be carried to almost any location where service is required.



CRIMPX Die Lubricant Oil

- Extends die life and performance.
- Easy to use and hands stay clean.

ENGINEERED TO ACCOMMODATE YOUR NEEDS

- Hose capacity up to 1" 2 wire and 3/4" 4SP.
- T420 micrometer is fully adjustable for a precise crimp.
- Available Hand Pump, Pneumatic Pump 10,000 psi or Multi-Electric Pump.
- Crimper position can be adjusted for optimum crimping position or dropped to vertical position for better balance when the crimper is being carried.
- Removable Pusher and 2 piece T420 rubber caged die set make accurate fitting positioning easy.
- JCD100S-T420 Portable Crimper weights only 47 lbs.
- Optional Die Storage Shelf keeps dies organized and readily available.
- Base mounting holes allow the crimper to be bench or truck bed mounted if required.

DURABLE, RELIABLE DESIGN = PROFITABILITY

- 35 Tons of crimping force.
- Open design to provide excellent operator visibility.
- Complete range of dies and accessories available.

WARNING: This product can expose you to chemicals including DINP, which is known to the State of California to cause cancer, birth defects or other reproductive harm. For more information visit www.P65WARNINGS.ca.gov

The JCD100S-T420 Portable Series hose crimper paired with either a Hand Pump, Pneumatic Pump or Multi-Electric Pump make the perfect combination for portable crimping requirements.



T420 Micrometer (Included)
P/N: 103085



Hand Pump (Optional) P/N: VHP-10-25



Pneumatic Pump (Optional) P/N: VAP-10-100



Multi-Electric Pump (Optional)



T420/D Series Die Removal Magnet (Included) P/N: 104679



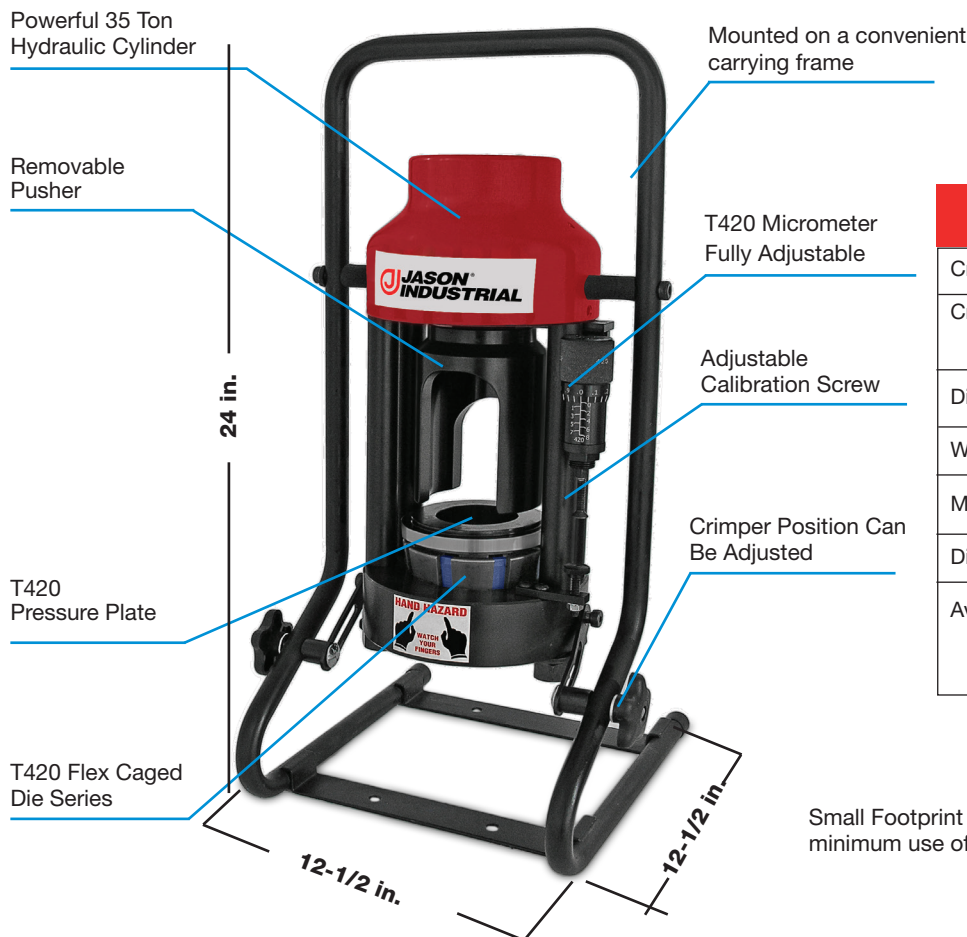
CRIMPX Die Lubricant: Oil 4 oz bottle with dauber cap (Included) P/N: 103886



CRIMPX Die Lubricant: Grease 4 oz can with brush (Optional) P/N: 104162



Die Storage Shelf (Optional) P/N: 101431



Small Footprint for minimum use of space

TECHNICAL DATA

Crimping Force: 35 Ton
Crimping Capacity: 1" - 2 Wire 3/4" 4SP
Dimensions - L: 12-1/2" x W: 12-1/2" x H: 24"
Weight: 47 lbs.
Micrometer Style Adjustment: T420
Die Series: JCD160-T420 Flex Caged
Available Pumps: Hand Pump Pneumatic Pump Multi-Electric Pump

WARNING: This product can expose you to chemicals including DINP, which is known to the State of California to cause cancer, birth defects or other reproductive harm. For more information visit www.P65WARNINGS.ca.gov

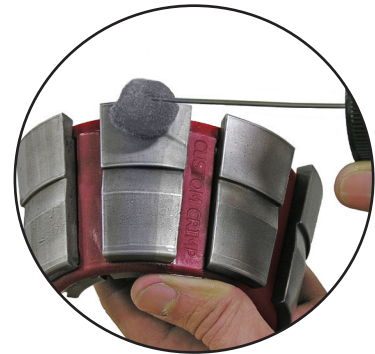
JCD165M-T420

SERVICE HOSE CRIMPER



Micrometer Automatic Shut-off

- Easy to use and calibrate.
- Ideal for repeatable crimps.



Crimp X Die Lubricant Oil

- To extend die life and performance.
- Easy to use and hands stay clean.

The JCD165M-T420 Series crimper with micrometer style adjustment and 62 tons of crimping force has the capability to crimp 4 spiral hoses up to 1-1/4".

ENGINEERED TO ACCOMMODATE YOUR NEEDS

- Hose capacity up to 1-1/4" 4 spiral.
- Automatic Shut-off for precise crimps.
- Removable pusher and two piece rubber cage crimp die set make accurate fitting positioning easy.
- Built-in adjustable retraction stop limits ram retraction to only the amount require to remove the hose and coupling saving time on multiple crimps.
- Optional die storage shelf keeps dies organized and readily available.
- Optional flexible built-in work lamp to illuminate work area for better visibility.
- Base mounting holes allow crimper to bench or truck bed mounted if required.

DURABLE RELIABLE DESIGN = PROFITABILITY

- 62 tons of crimping force.
- Open design to provide excellent operator visibility.
- Complete range of dies and accessories available.



T-420 Flex Caged Die Sets & Flex Cages

- For heavy duty applications.
- Eliminates need to replace broken screws and springs.
- Minimum maintenance.



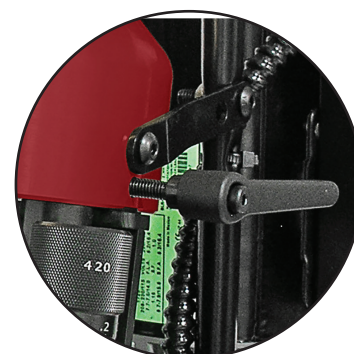
WARNING: This product can expose you to chemicals including DINP, which is known to the State of California to cause cancer, birth defects or other reproductive harm. For more information visit www.P65WARNINGS.ca.gov



TECHNICAL DATA

DIES	T420 Flex Cage
Maximum Crimping Force	62 Tons
Crimping Capacity	Up to 1-1/4" 4 Spiral
Power	1HP / 110V / 1phz (Standard) 2HP / 220V / 1phz (Optional)
Adjustment	T-420 Adjustable Micrometer
Dimensions	L: 24" x W: 12.5" x H: 22.5"
Weight	140 lbs.
Reservoir Capacity	1 US Gallon
Oil Type	ISO 46 Hydraulic Oil
Built-In Lamp	Optional
Die Storage Shelf	P/N:101431 (Optional)
Coupling Stop	P/N:100954 (Included)
Crimp X Die Lubricant 4 Oz.	P/N: 103886 (Included)

WARNING: This product can expose you to chemicals including DINP, which is known to the State of California to cause cancer, birth defects or other reproductive harm. For more information visit www.P65WARNINGS.ca.gov



Adjustable Retraction Stop



Coupling Stop (Included)



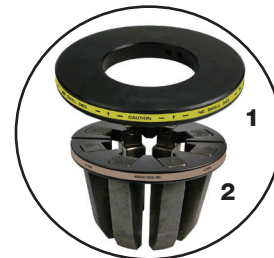
Die Storage Shelf (Optional)



Built-In Lamp (Optional)

JCD205M-WB

SERVICE HOSE CRIMPER



Die Stack with EN98-032 Die Series

1. Large Pusher Plate.
2. EN98-032 Die Series (Not included).



Die Stack with EN98-020 Die Series

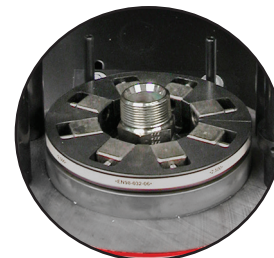
1. Bent Tube Pusher Plate.
2. Standard Pusher Plate.
3. EN98-020 Die Series (Not included).
4. Cone Insert.

ENGINEERED TO ACCOMMODATE YOUR NEEDS

- Hose capacity up to 1-1/4" 6SP (with standard dies EN98-020, and up to 2" 6-wire hose (with optional EN98-032 die series).
- An infinitely adjustable micrometer and electronic shut off switch make accurate crimps.
- Inverted die positioning gives good visibility allowing the operator to accurately position the fitting prior to making the final crimp.
- Removable pusher and inverted die position make accurate fitting positioning easy.
- Built-in adjustable retraction stop limits ram retraction to only the amount required to remove the hose and coupling saving time on multiple crimps.
- Flexible built-in work lamp to illuminate work area for better visibility.
- Pneumatic remote switch can be operated with hand or foot.
- Base mounting holes allow the crimper to be bench or truck bed mounted if required.

DURABLE, RELIABLE DESIGN = PROFITABILITY

- 80 Tons of crimping force.
- Open design to provide excellent operator visibility.
- Complete range of dies and accessories available.



High Visibility

Inverted die position allows operator to accurately position the fitting prior to crimping.



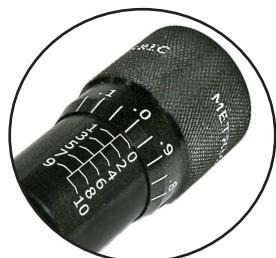
Save Time

Adjustable retraction stop limits ram retraction.



WARNING: This product can expose you to chemicals including DINP, which is known to the State of California to cause cancer, birth defects or other reproductive harm. For more information visit www.P65WARNINGS.ca.gov

The JCD205M-WB is a unique vertical crimper with its powerful 80 ton hydraulic cylinder comes packed with functions and features that enable you to quickly and accurately crimp all of your hose assemblies up to 2" 6 wire hose (with EN98-032 Die Series).



Metric Micrometer (Included)
P/N: 101587



Pneumatic Pendent Switch (Included) P/N: 101349



D205/D206 Coupling Stop (Included) P/N: 101631



CRIMPX Die Lubricant (Included)
Grease 4 oz can with brush
P/N: 104162



Built-in flexible 24" Work Lamp (Included) P/N: 1668-02



(5) Screws for die series EN98-020 (Included) P/N: EN84-115

(5) Springs for die series EN98-020 (Included) P/N: LL 022D 01



D205/D206 Die Storage Shelf (Optional) P/N: 101625
(BLACK)



D205/D206 Mobile Cart (Optional) P/N: 101956

Powerful 80 Ton Hydraulic Cylinder

Built-in Work Lamp

Removable Pusher

Easy Adjustable Micrometer for an accurate crimp

Electronic Shut Off

Small Footprint for minimum use of space

Adjustable Retraction Stop

2HP/220V/Single Phase Pump For Fast Crimps

Main Power Switch

Electrical Enclosure

Reservoir

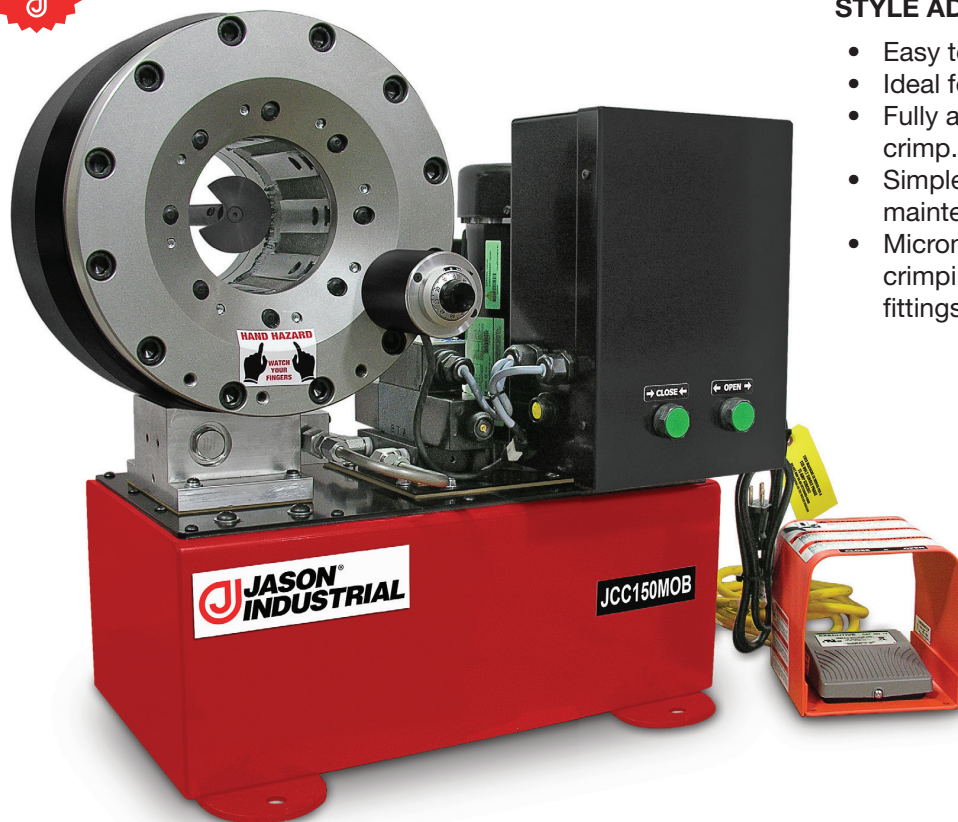
Pneumatic Remote Switch

TECHNICAL DATA

80 Ton	160 Ton
EN98-020 dies	EN98-032 dies
1-1/4" - 1-2 Wire	2" - 1-2 Wire
1-1/4" - 4 SP	2" - 4 SP
1-1/4" - 6 SP	2" - 6 SP
Dimensions - L: 32" x W: 17" x H: 29"	
Weight: 305 lbs.	
Power: 2HP/220V/1 Phase (Standard) 1HP/110V/1 Phase (Optional)	
Micrometer Style Adjustment	
Die Series: EN98-020 / EN98-032	
Reservoir Capacity: 1 US Gallon	
Oil Type: ISO 46 Hydraulic Oil	

WARNING: This product can expose you to chemicals including DINP, which is known to the State of California to cause cancer, birth defects or other reproductive harm. For more information visit www.P65WARNINGS.ca.gov

JCC-150MOB



SERVICE HOSE CRIMPER

UNIQUE USER FRIENDLY MICROMETER STYLE ADJUSTMENT

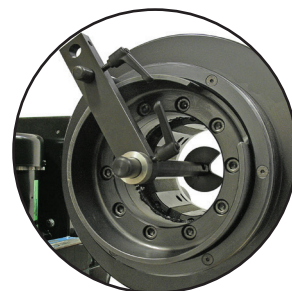
- Easy to use and read.
- Ideal for repetitive crimps.
- Fully adjustable micrometer for a precise crimp.
- Simple to calibrate and minimum maintenance.
- Micrometer style adjustment permits crimping a wide variety of hose and fittings.



Metric Dial Micrometer



Quick Change Tool



Manual Back Stop



Available in 12VDC/24VDC

ENGINEERED TO ACCOMMODATE YOUR NEEDS

- Hose capacity up to 1-1/4" multi-spiral hydraulic and up to 2" industrial hose.
- Dial Metric Micrometer makes precise settings of crimp diameters simple.
- Foot Switch permits dies to be "jogged" into position and keeps both hands free.
- Quick Change Tool makes die changes a quick and simple process.
- Manual Back Stop speeds multiple crimps of the same hose and fitting.
- Easy grease maintenance through the 8 grease fittings.
- Protective Master Die Foam Pads between the die fingers prevent debris from dropping into the critical surfaces and causing permanent damage.
- Reservoir mounting holes allow the crimper to be bench or truck bed mounted if required.
- JCC150MOB series crimpers is also available in 12VDC or 24VDC for mobile applications.

DURABLE, RELIABLE DESIGN = PROFITABILITY

- 240 Tons of crimping force.
- 1.5 HP motor wired at 220 volts single phase (Standard).
- Multiple electrical configurations available.
- Complete range of dies and accessories available.

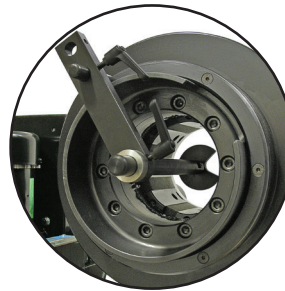
The features found on the JCC150MOB Series hose crimper and the accessories included make it the best value of any crimper in its class.



84mm Quick Change Tool
(Included) P/N:102572



Foot Pedal Assembly
(Included) P/N:104118



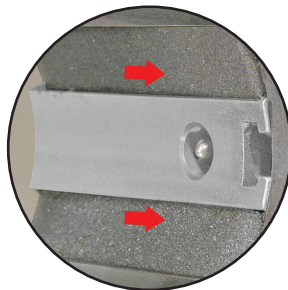
Manual Back Stop (Included)
P/N:MBS-60



Die Rack9 StationDie Holders
(Included) P/N:102616-84mm



Mini Grease Gun w/ CRIMPX Die
Lubricant 3 oz mini grease tube
(Included) P/N:103889



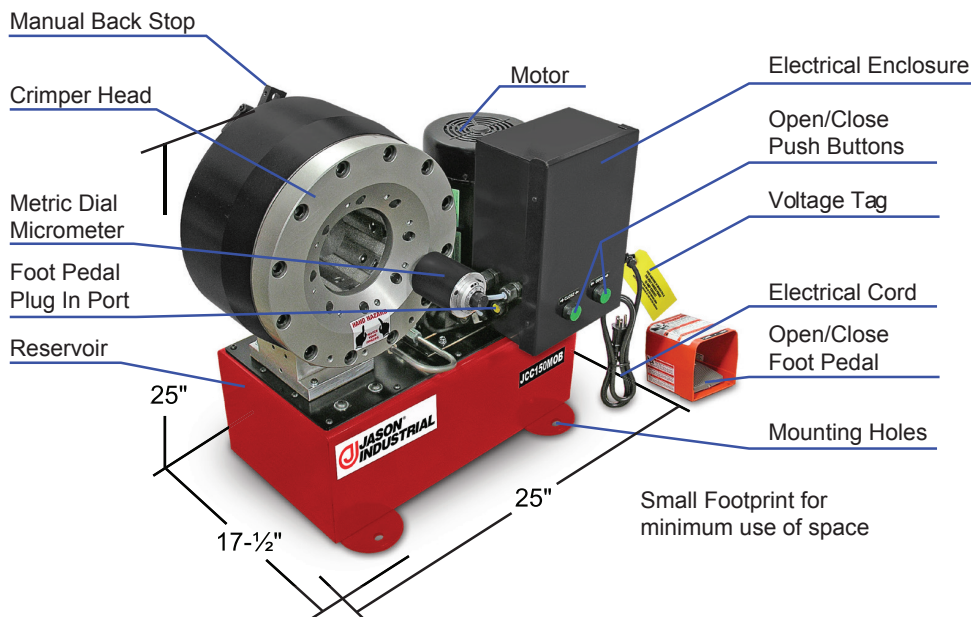
8 Protective Master Die
Foam Pads (Included)
P/N:102531 (each)



Available: CRIMPX Die Lubricant
3 oz mini grease tube P/N:103887



Available: Crimper Stand 16
Station Die Holders
P/N:101247-84



JCC150MOB Technical Data

Crimping Force: 240 Ton	
Max. Crimping Capacity:	2SP: 2" 4SP: 1-1/2" 6SP: 1-1/4"
Max. Industrial Crimping Capacity: 2"	
Dimensions: L: 17 1/2" x W: 25" x H: 25"	
Weight: 400 lbs.	
Power:	1.5HP / 230V / 1Phase (Standard) 1.5HP / 110V / 1Phase (Optional) 1.5HP / 12VDC (Optional) 1.5HP / 24VDC (Optional)
Die Series: 84S	
Adjustability: Metric	
Opening Without Dies: 120mm / 4.72"	
Master Die Inside Diameter: 84mm / 3.31"	
Master Die Travel: 38mm / 1.5"	
Reservoir Capacity: 6 US Gallons	
Oil Type: ISO 46 Hydraulic Oil	
Adapter dies: N/A	

WARNING: This product can expose you to chemicals including DINP, which is known to the State of California to cause cancer, birth defects or other reproductive harm. For more information visit www.P65WARNINGS.ca.gov



MICROMETER ADJUSTABLE AND EASY TO USE!

ENGINEERED TO ACCOMMODATE YOUR NEEDS

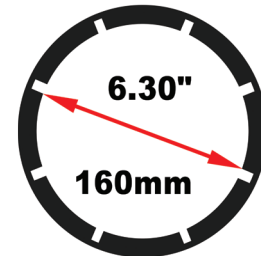
- Hose capacity up to 2-½" 6 wire hydraulic and up to 3" industrial hose.
- Maximum head opening without dies 6.30" (160mm).
- Micrometer Style Adjustment makes precise settings of crimp diameters simple.
- Foot Switch permits dies to be "jogged" into position and keeps both hands free.
- Easy grease maintenance through 8 grease fittings.
- Protective Master Die Foam Pads between the die fingers prevent debris from dropping into the critical surfaces and causing permanent damage.
- Reservoir mounting holes allow the crimper to be bench or truck bed mounted if required.

DURABLE, RELIABLE DESIGN = PROFITABILITY

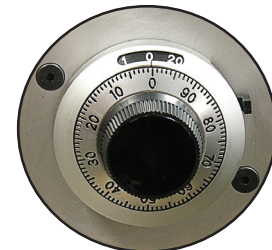
- 340 Tons of crimping force.
- 55 HP motor wired at 230 volts 3 phase with gear pump for fast crimps (standard).
- Complete range of dies and accessories available.

WARNING: This product can expose you to chemicals including DINP, which is known to the State of California to cause cancer, birth defects or other reproductive harm. For more information visit www.P65WARNINGS.ca.gov

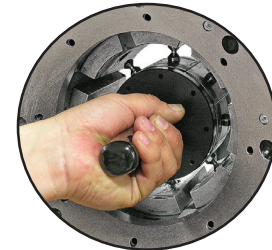
GENERAL PRODUCTION HOSE CRIMPER



**Max Head Opening
W/O Dies**



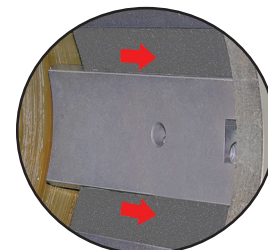
Micrometer Style Adjustment
Provides speed, precision
and repeatability.



Quick Change Tool
Makes die changes a quick
and simple process.



Save Time
Removable back stop for multiple
crimps of the same hose and fitting.



Protective Master Die Foam Pads
to prevent debris from dropping
into the critical surfaces.

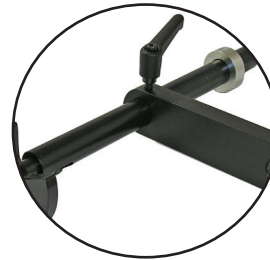
The features found on the JCC200 Series hose crimper and the accessories included make it the best value of any crimper in its class.



**99mm Quick Change Tool
(Included) P/N: 102571**



**Foot Pedal Assembly
(Included) P/N: 104118**



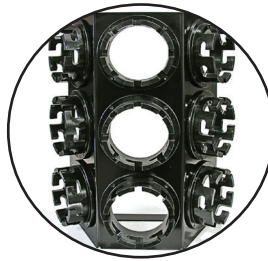
**Manual Back Stop (Included)
P/N: MBS-60**



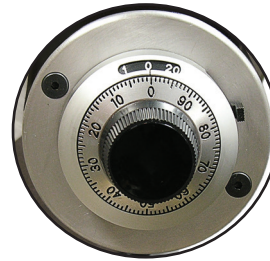
**Adapter Die Set 130mm OD to
99mm ID (Included) P/N: 101575**



**Mini Grease Gun w/ CRIMPX Die
Lubricant 3 oz mini grease tube
(Included) P/N: 103889**



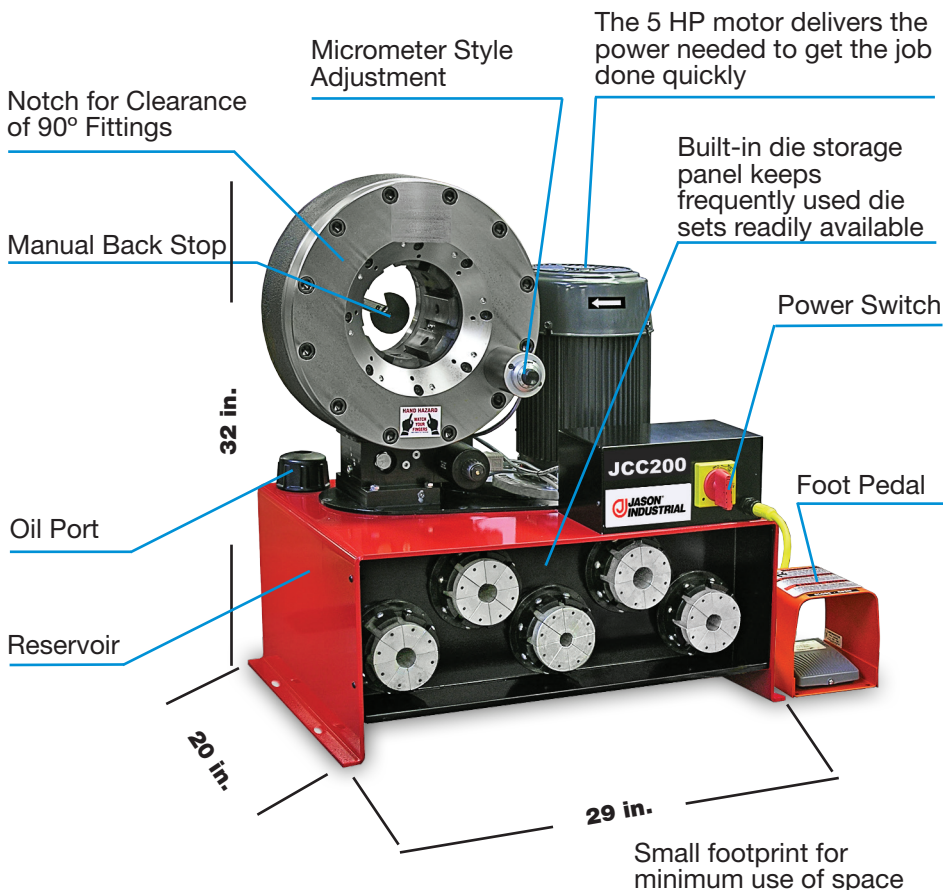
**Die Rack 9 Station Die Holders
(Included) P/N: 102616-99mm**



Micrometer Style Adjustment



**Crimper Stand 16 Station
Die Holders (Optional)
P/N: 101247-99**



TECHNICAL DATA

Crimping Force: 340 Ton	
Max. Crimping Capacity:	2SP: 2-½" 4SP: 2-½" 6SP: 2-½"
Max. Industrial Crimping Capacity: 3"	
Dimensions: L: 20" x W: 29" x H: 32"	
Weight: 635 lbs.	
Power:	5HP / 230V / 3 Phase (Standard) 5HP / 440V / 3 Phase (Optional) 5HP / 230V / 1 Phase (Optional) 1HP / 12VDC (Optional) 1HP / 24VDC (Optional)
Die Series: 99S / 130S	
Adjustability: Micrometer	
Opening Without Dies: 160mm / 6.30"	
Master Die Inside Diameter: 130mm / 5.12"	
Master Die Travel: 38mm / 1.5"	
Reservoir Capacity: 8 US Gallons	
Oil Type: ISO 46 Hydraulic Oil	

WARNING: This product can expose you to chemicals including DINP, which is known to the State of California to cause cancer, birth defects or other reproductive harm. For more information visit www.P65WARNINGS.ca.gov

GENERAL PRODUCTION HOSE CRIMPER WITH InfoCrimp™ CONTROLLER



FUNCTIONALITY:

- Easy to use interface, on a 10-inch color capacitive touch screen.
- Daily reports*.
- Remote downloading of updated crimp specifications*.
- Save thousands of favorite crimp details.
- Security - end-to-end data encryption from tablet to cloud.
- Operators only have access to essential crimp applications.

OPERATIONALLY:

- Bluetooth calipers provided with each crimper.
- User accounts track operations to individual team members.
- Remote troubleshooting*.
- In-depth training and tutorial guides.
- Video support*.

LONGEVITY:

- Preventative maintenance alerts.
- Full controller backup to the cloud*.
- Future enhancements through cloud updates*.

*Needs connection to Wi-Fi.

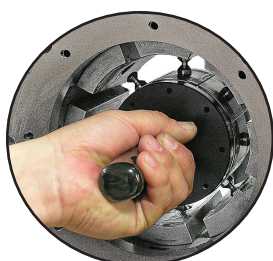
TECHNICAL DATA

Crimping Force: 340 Ton	
Max. Crimping Capacity:	2SP: 2-½" 4SP: 2-½" 6SP: 2-½"
Max. Industrial Crimping Capacity: 3"	
Weight: 635 lbs.	
Power:	7.5HP / 230V / 3 Phase (Standard) 7.5HP / 440V / 3 Phase (Optional) 5HP / 230V / 1 Phase (Optional)
Die Series: 99S / 130S	
Adjustability: Inch / Metric	
Opening Without Dies: 160mm / 6.30"	
Master Die Inside Diameter: 130mm / 5.12"	
Master Die Travel: 38mm / 1.5"	
Reservoir Capacity: 8 US Gallons	
Oil Type: ISO 46 Hydraulic Oil	

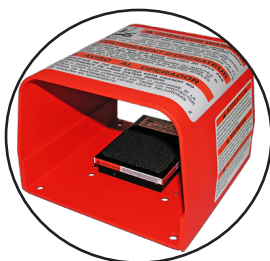


WARNING: This product can expose you to chemicals including DINP, which is known to the State of California to cause cancer, birth defects or other reproductive harm. For more information visit www.P65WARNINGS.ca.gov

The features found on the JIC340 Series hose crimper and the accessories included make it the best value of any crimper in its class.



99mm Quick Change Tool (Included) P/N: 102571



CC-Foot Switch (Included) P/N: CC-FOOTSWITCH



Manual Back Stop (Included) P/N: MBS-60



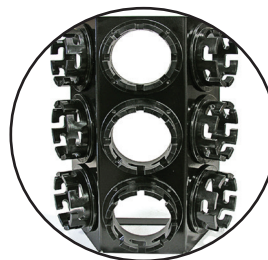
Electronic Back Stop (Optional) P/N: EBS-60



Adapter Die Set 130mm OD to 99mm ID (Included) P/N: 101575



Mini Grease Gun w/ CRIMPX Die Lubricant 3 oz mini grease tube (Included) P/N: 103889



Die Rack 9 Station Die Holders (Optional) P/N: 102616-99mm



Crimper Stand 16 Station Die Holders (Optional) P/N: 101247-99

Machine Information			
REPORTING	CRIMPER SETTINGS	OPERATIONS STATUS	MAINTENANCE HISTORY
Time	Action	Details	
8:47 AM	Crimp	Crimp Mode : Manual, Target: 0.984 inches, Result: success	
8:47 AM	Crimp	Crimp Mode : Full Auto, Target: 0.984 inches, Result: success	
8:47 AM	Crimp	Crimp Mode : Full Auto, Target: 0.984 inches, Result: success	
8:47 AM	Crimp Diameter Measurement	Target: 0.984 inches, Measurement: 0.984 inches	
8:46 AM	Crimp	Crimp Mode : Manual, Target: 0.984 inches, Result: success	
8:46 AM	Die Changed	23 mm Yellow	
8:46 AM	Crimp	Crimp Mode : Full Auto, Target: 0.984 inches, Result: success	

View Operation History

Crimp Operations			
Die Name:	16 mm Blue	Hose Type:	ACP3
Target Diameter:	0.650 in 16.50 mm	Coupling Type:	B2-04
Current Position:	0.650 in	Hose Size:	1/4 in

Crimp Complete

Crimp Target Reached

Verified Crimp Accuracy

Favorite Crimps			
RECENT	NAME	HOSE SIZE	
Favorite Name: 3/4" 100R17			
Hose Type: 3/4" 100R17		Hose Size: 12	
Coupling: 1 piece		Die Set: 31.00 mm	
Notes: Insertion length is 1.275"		Target Diameter: 1.311 in	
		CRIMP	
		EDIT	
Favorite Name: 1/2" 100R17			
Hose Type: 1/2" 100R17		Hose Size: 08	
Coupling: 1 piece		Die Set: 23.00 mm	
Notes: Orientate 90 degree fitting with bend radius		Target Diameter: 0.956 in	
		CRIMP	
		EDIT	
Favorite Name: 3/8" 100R17			
Hose Type: 3/8" 100R17		Hose Size: 06	
Coupling: 1 piece		Die Set: 19.00 mm	
Notes: No active hose		Target Diameter: 0.807 in	
		CRIMP	
		EDIT	

Save Thousands of Favorite Crimp Details

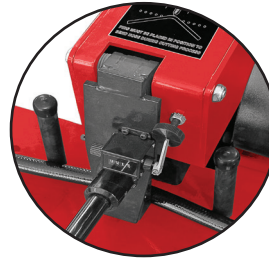
Maintenance Mode			
Below is a list of maintenance events that must occur for the proper upkeep of the machine. Periodic maintenance is required to ensure this machine remains under warranty. For information on how to perform this maintenance, visit http://jicrimp.com/support .			
Overall Crimp Count: 615			
Maintenance Task	Last Performed	Next Performance	Actions
Check Hydraulic Oil Frequency: 75 Days	Apr 17, 2018	Jul 1, 2018	RECORD
Data Synchronization Frequency: 75 Days	Apr 17, 2018	Jul 1, 2018	PERFORM
Grease Frequency: 400 Operations	600 crimps	1000 crimps	RECORD
Self-Calibration Frequency: 75 Days	Apr 17, 2018	Jul 1, 2018	RECORD

Be Alerted to Preventative Maintenance

WARNING: This product can expose you to chemicals including DINP, which is known to the State of California to cause cancer, birth defects or other reproductive harm. For more information visit www.P65WARNINGS.ca.gov

JHS-150/JHS-500

These rugged, JHS-150/JHS-500 dependable saws offer features not found on other saws. Choose the one with the capacity and features which meet your individual requirements.



Hose Bending Pins



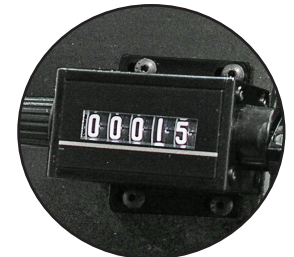
Mister Hose Assembly



Hose Channel System

OPTIONS FOR JHS-500: ENGINEERED TO ACCOMMODATE YOUR NEEDS

- **Mister Hose Assembly (Optional) (P/N: 103172)**
The Mister sprays a fine mist of air tool oil on the saw blade for longer blade life and cleaner cuts. (JHS-500 Only)
- **Hose Channel System (Optional) (P/N: 103073)**
Available in 5 foot sections only for the JHS-500 Hose Saws. The Hose Channel System both measures and supports the hoses up to 2 inch diameter as they are being cut. (JHS-500 Only)
- **Counter (Included) (P/N: 1895T42)**
The Counter makes it easy to keep track of the number of cuts made and is easily reset to zero. (JHS-500 Only)
- **Hose Helper (Included) (P/N: 103297)**
The Hose Helper attachment prevents the hose from being drawn back during a cut and gives the operator the ability to more precisely control the cut length. (JHS-500 Only)



Counter



Hose Helper

DURABLE, RELIABLE DESIGN = PROFITABILITY

- Powerful motors (Available different configurations) to make cutting fast.
- Available different types of blades to meet your requirements and it is easy to change blades.
- Vacuum Port available. (JHS-500 Only)
- Hose Bending Pins prevent the blade from binding during a cut (included in all models).
- Base mounting holes allow the hose saws to be bench or truck bed-mounted if required.



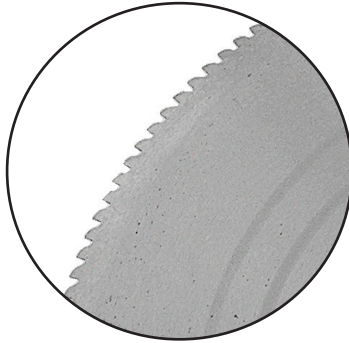
Available Vacuum Port



NOTE: The edges of the blade may appear to be dull. This does not mean that the blade is not effective. As long as the blade is still giving clean cuts, do not replace the blade.

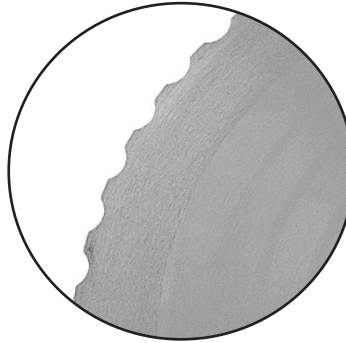
NOTE: New blades must be properly conditioned to assure long life and clean cuts. For the first ten cuts, feed the blade slowly through a medium size hose. This will properly break in and condition the blade for long life.

***NOTE:** Pay close attention to the direction of rotation marked on the blade - it is the opposite of most blades of this type.



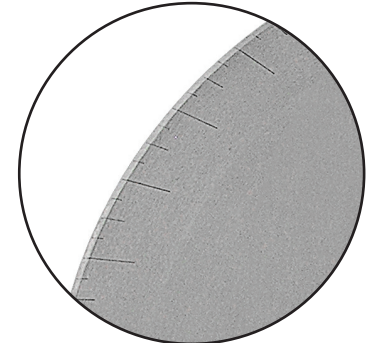
***Serrated Blade (General Purpose):**

Is recommended to cut multi-spiral hose.



Scalloped Blade (General Purpose):

Is recommended to cut multi-spiral hose.



Double Bevel Blade with SS Slots:

Is recommended for braided hose with minimum debris during the cut.

Hose Saw Model	Blade Type	Blade Size Durometer	Arbor Size	Part Number
JHS-150	Serrated (Included)	10 inch	1 inch	103502
	Scalloped (Available)	10 inch	1 inch	104034
	Double Bevel w/ SS Slots (Available)	10 inch	1 inch	104050
JHS-500	Serrated (Included)	12 inch	1 inch	103187
	Scalloped (Available)	12 inch	1 inch	104033
	Double Bevel w/ SS Slots (Available)	12 inch	1 inch	102210



TECHNICAL DATA

JHS-150		JHS-500	
Cutting Capacity: 1-1/4" 4SP		Cutting Capacity: 2" 6SP	
Dimensions:	L: 28-3/4" x W: 21" x H: 12-1/4"	Dimensions:	L: 29-3/4" x W: 26-3/4" x H: 16"
Weight: 70 lbs.		Weight: 120 lbs.	
Power:	1HP/110V/1 Phase (Standard) 1HP/230V/1 Phase (Optional)	Power:	5HP/230V/3 Phase (Standard) 5HP/480V/3 Phase (Optional) 5HP/230V/1 Phase (Optional)

WARNING: This product can expose you to chemicals including DINP, which is known to the State of California to cause cancer, birth defects or other reproductive harm. For more information visit www.P65WARNINGS.ca.gov

POLYETHYLENE ARMOR GUARD



Application: Used to protect hose assemblies from external mechanical damage

Construction Material: Polyethylene (black)

Catalog Part Number	Hose Inside Diameter		Armor Guard Inside Diameter		Length Per Carton	
	inch	mm	inch	mm	feet	meter
PAG-04	1/4	6.4	0.55	14.0	328	100
PAG-06	3/8	9.5	0.63	16.0	328	100
PAG-08	1/2	12.7	0.83	21.0	164	50
PAG-12	3/4	19.1	1.06	27.0	98.4	30
PAG-16	1	25.4	1.22	31.0	82	25
PAG-20	1-1/4	31.8	1.69	43.0	65.6	20

***Order in carton quantities only. No cut lengths**

We disclaim any liability for use of our products in applications other than which they are designed.

WARNING: This product can expose you to chemicals including carbon black, which is known to the State of California to cause cancer, birth defects or other reproductive harm. For more information visit www.P65WARNINGS.ca.gov

DECIMAL & MILLIMETER EQUIVALENTS OF FRACTIONS

inch = 25.4 millimeters												
Fractional Inch				Decimal			Fractional Inch				Decimal	
1/64	1/32	1/16	1/8	inch	mm		1/64	1/32	1/16	1/8	inch	mm
1	-	-	-	0.016	0.40		33	-	-	-	0.516	13.10
2	1	-	-	0.031	0.79		34	17	-	-	0.531	13.50
3	-	-	-	0.047	1.19		35	-	-	-	0.547	13.90
4	2	1	-	0.063	1.59		36	18	9	-	0.563	14.30
5	-	-	-	0.078	1.98		37	-	-	-	0.578	14.70
6	3	-	-	0.094	2.38		38	19	-	-	0.594	15.10
7	-	-	-	0.109	2.78		39	-	-	-	0.609	15.50
8	4	2	1	0.125	3.18		40	20	10	5	0.625	15.90
9	-	-	-	0.141	3.57		41	-	-	-	0.641	16.30
10	5	-	-	0.156	4.00		42	21	-	-	0.656	16.70
11	-	-	-	0.172	4.40		43	-	-	-	0.672	17.10
12	6	3	-	0.188	4.80		44	22	11	-	0.688	17.50
13	-	-	-	0.203	5.20		45	-	-	-	0.703	17.90
14	7	-	-	0.219	5.60		46	23	-	-	0.719	18.30
15	-	-	-	0.234	6.00		47	-	-	-	0.734	18.70
16	8	4	2	0.250	6.40		48	24	12	6	0.750	19.10
17	-	-	-	0.266	6.70		49	-	-	-	0.766	19.50
18	9	-	-	0.281	7.10		50	25	-	-	0.781	19.80
19	-	-	-	0.297	7.50		51	-	-	-	0.797	20.30
20	10	5	-	0.313	7.90		52	26	13	-	0.813	20.60
21	-	-	-	0.328	8.30		53	-	-	-	0.828	21.00
22	11	-	-	0.344	8.70		54	27	-	-	0.844	21.40
23	-	-	-	0.359	9.10		55	-	-	-	0.859	21.80
24	12	6	3	0.375	9.50		56	28	14	7	0.875	22.20
25	-	-	-	0.391	9.90		57	-	-	-	0.891	22.60
26	13	-	-	0.406	10.30		58	29	-	-	0.906	23.00
27	-	-	-	0.422	10.70		59	-	-	-	0.922	23.40
28	14	7	-	0.438	11.10		60	30	15	-	0.938	23.80
29	-	-	-	0.453	11.50		61	-	-	-	0.953	24.20
30	15	-	-	0.469	11.90		62	31	-	-	0.969	24.60
31	-	-	-	0.484	12.30		63	-	-	-	0.984	25.00
32	16	8	4	0.500	12.70		64	32	16	8	1.000	25.40

VACUUM CONVERSION TABLE FOR WATER (SUCTION)

ATM	PSI	Meter	Feet		mm	in Hg	%
0.1	1.40	1	3ft.	3-3/8 in.	73.60	2.90	10
0.2	2.80	2	6 ft.	6-3/4 in.	147.10	5.80	20
0.3	4.20	3	9 ft.	10-1/8 in.	220.70	8.70	30
0.4	5.70	4	13 ft.	1-1/2 in.	294.20	11.60	40
0.5	7.10	5	16 ft.	4-13/16 in.	367.80	14.50	50
0.6	8.50	6	19 ft.	8-3/16 in.	441.30	17.40	60
0.7	10.00	7	22 ft.	11-9/16 in.	514.90	20.30	70
0.8	11.40	8	26 ft.	2-5/16 in.	588.40	23.20	80
0.9	12.80	9	29 ft.	6-3/8 in.	662.00	26.00	90
1.0	14.20	10	32 ft.	9-11/16 in.	735.50	29.00	100

TEMPERATURE CONVERSION

Look up reading in middle column (shaded). If in degrees Centigrade, read Fahrenheit equivalent in right-hand column; if in Fahrenheit degrees, read Centigrade equivalent in left-hand column.

$$^{\circ}\text{F} = (^{\circ}\text{C} \times 1.8) + 32 \quad ^{\circ}\text{C} = (^{\circ}\text{F} - 32) \times .5556$$

C	F ^C	F	C	F ^C	F	C	F ^C	F
-51	-60	-76	.6	33	91.4	22.2	72	161.6
-46	-50	-58	1.1	34	93.2	22.8	73	163.4
-40	-40	-40	1.7	35	95.0	23.3	74	165.2
-24	-30	-22	2.2	36	96.8	23.9	75	167.0
-29	-20	-4	2.8	37	98.6	24.4	76	168.8
-23	-10	14	3.3	38	100.4	25.0	77	170.6
-17.8	0	32	3.9	39	102.2	25.6	78	172.4
-17.2	1	33.8	4.4	40	104.0	26.1	79	174.2
-16.7	2	35.6	5.0	41	105.8	26.7	80	176.0
-16.1	3	37.4	5.6	42	107.6	27.2	81	177.8
-15.6	4	39.2	6.1	43	109.4	27.8	82	179.6
-15.0	5	41.0	6.7	44	111.2	28.3	83	181.4
-14.4	6	42.8	7.2	45	113.0	28.9	84	183.2
-13.9	7	44.6	7.8	46	114.8	29.4	85	185.0
-13.3	8	46.4	8.3	47	116.6	30.0	86	186.8
-12.8	9	48.2	8.9	48	118.4	30.6	87	188.6
-12.2	10	50.0	9.4	49	120.2	31.1	88	190.4
-11.7	11	51.8	10.0	50	122.0	31.7	89	192.2
-11.1	12	53.6	10.6	51	123.8	32.2	90	194.0
-10.6	13	55.4	11.1	52	125.6	32.8	91	195.8
-10.0	14	57.2	11.7	53	127.4	33.3	92	197.6
-9.4	15	59.0	12.2	54	129.2	3.9	93	199.4
-8.9	16	60.8	12.8	55	131.0	34.4	94	201.2
-8.3	17	62.6	13.3	56	132.8	35.0	95	203.0
-7.8	18	64.4	13.9	57	134.6	35.6	96	204.8
-7.2	19	66.2	14.4	58	136.4	36.1	97	206.6
-6.7	20	68.0	15.0	59	138.2	36.7	98	208.4
-6.1	21	69.8	15.6	60	140.0	37.2	99	210.2
-5.6	22	71.6	16.1	61	141.8	37.8	100	212.0
-5.0	23	73.4	16.7	62	143.6	-	-	-
-4.4	24	75.2	17.2	63	145.4	-	-	-
-3.9	25	77.0	17.8	64	147.2	43	110	230
-3.3	26	78.8	18.3	65	149.0	49	120	248
-2.8	27	80.6	18.9	66	150.8	54	130	266
-2.2	28	82.4	19.4	67	152.6	60	140	284
-1.7	29	84.2	20.0	68	154.4	66	150	302
-1.1	30	86.0	20.6	69	156.2	71	160	320
-0.6	31	87.7	21.1	70	158.0	77	170	338
0	32	89.6	21.7	71	159.8	82	180	356

PRESSURE RATING CONVERSION

TABLE 1: PSI TO BAR CONVERSION

PSI	BAR	PSI	BAR
1	0.07	95	6.55
2	0.14	100	6.89
3	0.21	110	7.58
4	0.28	120	8.27
5	0.34	130	8.96
6	0.41	140	9.65
7	0.48	150	10.34
8	0.55	160	11.03
9	0.62	170	11.72
10	0.69	180	12.41
11	0.76	190	13.10
12	0.83	200	13.79
13	0.90	210	14.48
14	0.97	220	15.17
15	1.03	230	15.86
16	1.10	240	16.55
17	1.17	250	17.24
18	1.24	275	18.96
19	1.31	300	20.68
20	1.38	325	22.41
21	1.45	650	24.13
22	1.52	375	25.86
23	1.59	400	27.58
24	1.66	425	29.30
25	1.72	450	31.03
30	2.07	475	32.75
35	2.41	500	34.47
40	2.76	550	37.92
45	3.10	600	41.37
50	3.45	650	44.82
55	3.79	700	48.26
60	4.14	750	51.71
65	4.48	800	55.16
70	4.83	850	58.61
75	5.17	900	62.05
80	5.52	950	65.90
85	5.86	1000	68.95
90	6.21	-	-

TABLE 2: BAR TO PSI CONVERSION

BAR	PSI	BAR	PSI
1	14.50	95	1378.0
2	29.01	100	1450.0
3	43.51	110	1595.0
4	58.02	120	1740.0
5	72.52	130	1885.0
6	87.02	140	2031.0
7	101.50	150	2176.0
8	116.00	160	2321.0
9	130.50	170	2466.0
10	145.00	180	2611.0
11	159.50	190	2756.0
12	174.00	200	2901.0
13	188.50	210	3046.0
14	203.10	220	3191.0
15	217.60	230	3336.0
16	323.10	240	3481.0
17	246.60	250	3626.0
18	261.10	275	3989.0
19	275.60	300	4351.0
20	290.10	325	4714.0
21	304.60	350	5076.0
22	319.10	375	5439.0
23	333.60	400	5802.0
24	348.10	425	6164.0
25	362.60	450	6527.0
30	435.10	475	6889.0
35	507.60	500	7252.0
40	280.20	550	7977.0
45	652.70	600	8702.0
50	725.20	650	9427.0
55	797.70	700	10153.0
60	870.20	750	10878.0
65	942.70	800	11603.0
70	1015.0	850	12328.0
75	1088.0	900	13053.0
80	1160.0	950	13779.0
85	1233.0	1000	14504.0
90	1305.0	-	-



Jason Industrial is pleased to provide an easy to use downloadable Mobile App enabling users a quick up to date source showing the right coupling specifications for the hose products we offer. Our App, Jason MyCrimp provides a fast, easy to use tool for obtaining important information to ensure safety by using the right coupling and hose together.

Our App, enables you to search by Hose, Coupling type or crimping equipment to obtain the right specification to ensure you are safely following the right procedures.

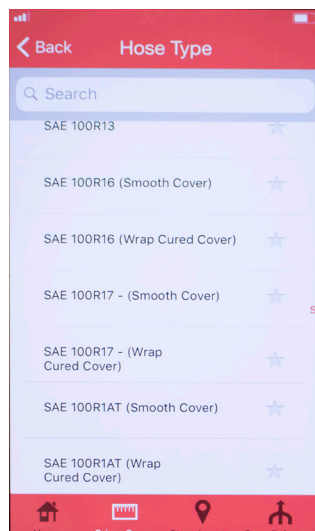
Our Application features include:

- Online/Offline Functionality-however, when online, the application downloads the most current information
- Complete up to date specifications on your smart phone (iOS and Android)
- Search by Hose, Coupling Type, Hose Size or Crimper

Jason Industrial Hydraulic Hose, Couplings and Crimping Equipment is now available in the Americas in:

- 1 & 2 Wire Braid Hose and 42 Series of Couplings
- 4 Spiral Hose and 37 Series of Couplings
- 4 and 6 Spiral Hose and 25 Series of Couplings





Guidelines - Liability

Jason Industrial® products are part of an engineered system which must be assembled and used in accordance with Jason instructions and limitations. Jason hose, couplings and crimping machines are a reliable assembly system designed by our engineering group. The use of non-Jason components (hose, couplings, equipment) may produce assemblies that will not meet the rated performance. Failure to follow Jason guidelines could lead to premature hose failures resulting in property damage, serious injury or death.

Jason's limited warranty shall only apply if the customer uses the hose, hose fittings and crimping equipment specifically approved by Jason's engineers.

Jason will not be responsible when interchanging hose and/or couplings with hose and/or couplings with any other manufacturer. Jason's liability ends and customer's begins when data is ignored or altered and products, other than Jason's are assembled together.

Jason Industrial disclaims any responsibility or liability for any crimped hose assemblies that have NOT been made exclusively from genuine Jason hose, hose fittings and approved equipment. *This is in conformance with current Jason Industrial guidelines for each specific hose assembly.*

Product liability responsibility for such hose assemblies become the personal responsibility of the assembler or the company endorsing these practices.

Proper End Fitting - Care must be taken to ensure proper compatibility exists between the hose and coupling selected based on the manufacturers' recommendation substantiated by testing to industry standards such as SAE J517.

Current Crimp Specifications:

Jason Industrial's recommended crimping specifications are available online at www.jasonindustrial.com or you can scan the Q.R. code below to be taken directly to them.



Critical Points

- The data supplied with the Jason crimper was developed after extensive testing with Jason hose and couplings.
- The data that Jason supplies only pertains to products bearing the Jason name and catalog part number.
- Jason couplings, used with other manufacturer's hose, will not necessarily produce an acceptable assembly. Hose styles with identical SAE specs, for instance, are not necessarily the same when it comes to performance with Jason couplings.
- Hose compatibility with various materials is a reference only. The purchaser is responsible for the verification of sustainability. Consult Jason if there is any doubt.
- Jason crimpers can only be used to crimp approved Jason hose and couplings.
- Minimum burst pressure ratings listed in our catalog are for reference and design purpose only. Minimum burst pressure ratings give no indication that the product should be used above the indicated rated working pressure.

HOSE CARE, MAINTENANCE & STORAGE

Hose has a limited life and the user must be alert to signs of impending failure, particularly when the conditions of service include high working pressures and/or the conveyance or containment of hazardous materials. The periodic inspection and testing procedures described here provide a schedule of specific measures which constitute a minimum level of user action to detect signs indicating hose deterioration or loss of performance before conditions leading to malfunction or failure are reached.

General instructions are also described for the proper storage of hose to minimize deterioration from exposure to elements or environments which are known to be deleterious to rubber products. Proper storage conditions can enhance and extend substantially the ultimate life of hose products.

SAFETY WARNING: Failure to properly follow the manufacturer's recommended procedures for the care, maintenance and storage of a particular hose might result in the failure to perform in the manner intended and might result in possible damage to property and serious bodily harm.

General Care and Maintenance of Hose

Hose should not be subjected to any form of abuse in service. It should be handled with reasonable care. Hose should not be dragged over sharp or abrasive surfaces unless specifically designed for such service. Care should be taken to protect hose from severe end loads for which the hose or hose assembly were not designed. Hose should be used at or below its rated working pressure; any changes in pressure should be made gradually so as not to subject the hose to excessive surge pressures. Hose should not be kinked or be run over by equipment. In handling the large size hose, dollies should be used whenever possible; slings or handling rigs, properly placed, should be used to support heavy hose used in oil suction and discharge service.

General Test & Inspection Procedures

An inspection and hydrostatic test should be made at periodic intervals to determine if a hose is suitable for continued service. A visual inspection of the hose should be made for loose covers, kinks, bulges, or soft spots which might indicate broken or displaced reinforcement. The couplings or fittings should be closely examined and, if there is any sign of movement of the hose from the couplings, the hose should be removed from service. The periodic inspection should include a hydrostatic test for one minute at 150% of the recommended working pressure of the hose. An exception to this would be the woven jacketed fire hose.* During the hydrostatic test, the hose should be straight, not coiled or in a kinked position. Water is the usual test medium and, following the test, the hose may be flushed with alcohol to remove traces of moisture. A regular schedule for testing should be followed and inspection records maintained.

Safety Warning: Before conducting any pressure tests on hose, provision must be made to ensure the safety of the personnel performing the tests and to prevent any possible damage to property. Only trained personnel using proper tools and procedures should conduct any pressure tests.

1. Air or any other compressible gas must never be used as the test media because of the explosive action of the gas should a failure occur. Such a failure might result in possible damage to property and serious bodily injury.
2. Air should be removed from the hose by bleeding it through an outlet valve while the hose is being filled with the test medium.
3. Hose to be pressure tested must be restrained by placing steel rods or straps close to each end and at approximate 10' (3m) intervals along its length to keep the hose from "whipping" if failure occurs; the steel rods or straps are to be anchored firmly to the test structure but in a manner that they do not contact the hose which must be free to move.
4. The outlet end of hose is to be bulwarked so that a blown-out fitting will be stopped.

5. Provisions must be made to protect testing personnel from the forces of the pressure media if a failure occurs.

6. Testing personnel must never stand in front of or in back of the ends of a hose being pressure tested.

7. If liquids such as gasoline, oil, solvent, or other hazardous fluids are used as a test fluid, precautions must be taken to protect against fire or other damage should a hose assembly fail and the test liquid be sprayed over the surrounding area.

Storage

Rubber hose products in storage can be affected adversely by temperature, humidity, ozone, sunlight, oils, solvents, corrosive liquids and fumes, insects, rodents and radioactive materials.

The appropriate method for storing hose depends to a great extent on the size (diameter and length), the quantity to be stored, and the way in which it is packaged. Hose should not be piled or stacked to such an extent that the weight of the stack creates distortions on the lengths stored at the bottom.

Since hose products vary considerably in size, weight and length, it is not practical to establish definite recommendations on this point. Hose having a very light wall will not support as much load as could a hose having a heavier wall or hose having a wire reinforcement. Hose which is shipped in coils or bales should be stored so that the coils are in a horizontal plane.

Whenever feasible, rubber hose products should be stored in their original shipping containers, especially when such containers are wooden crates or cardboard cartons which provide some protection against the deteriorating effects of oils, solvents, and corrosive liquids; shipping containers also afford some protection against ozone and sunlight.

Certain rodents and insects will damage rubber hose products and adequate protection from them should be provided.

Cotton jacketed hose should be protected against fungal growths if the hose is to be stored for prolonged periods in humidity conditions in excess of 70%

The ideal temperature for storage of rubber product ranges from 50° to 70°F (10-21°C) with a maximum limit of 100°F (38°C). If stored below 32°F (0°C), some rubber products become stiff and would require warming before being placed in service. Rubber products should not be stored near sources of heat, such as radiators, base heaters, etc., nor should they be stored under conditions of high or low humidity.

To avoid adverse effects of high ozone concentration, rubber hose products should not be stored near electrical equipment that may generate ozone or be stored for any lengthy period in geographical areas of known high ozone concentration.

Hose should not be stored in locations where the ozone level exceeds the National Institute of Occupational Safety and Health's upper limit of 0.10 ppm. Exposure to direct or reflected sunlight-even through windows should also be avoided. Uncovered hose should not be stored under fluorescent or mercury lamps which generate light waves harmful to rubber.

Storage areas should be relatively cool and dark, and free from dampness and mildew. Items should be stored on a first-in, first-out basis, since even under the best of conditions, an unusually long shelf life could deteriorate certain rubber products.

*Woven jacket fire hose should be tested in accordance with the service test provisions contained in the current edition of the National Fire Protection Association Bulletin No. 1962 - Standard for the Care, Use and Service Testing of Fire Hose.

- Reprinted with permission from the Association of Rubber Products Manufacturers (ARPM), Hose Handbook, RMA/IP-2/2003 (ARPM has replaced RMA)

TERMS, CONDITIONS AND LIMITED WARRANTY OF SALE

All prices, terms and conditions of sale are subject to change without prior notice. Buyer agrees to all terms and conditions of seller upon the placement of any and all purchase orders.

GENERAL

- All orders are subject to a minimum charge of \$100.00
- All claims must be made within seven (7) days of receipt of merchandise.
- The company reserves the right at all times to reject any and all orders for any reason.

PAYMENT TERMS

- Net 30 days (to approved and qualified accounts)
- We reserve the right to hold shipments against past due accounts.
- Seller may require full or partial payment in advance if, in its sole judgement, the financial condition of the buyer does not justify the terms specified.
- All past due accounts are subject to a late payment charge of 1.5% per month, or maximum allowed by law if different, along with the expenses incidental to collection including reasonable attorney's fees
- Returned checks are subject to a minimum \$50.00 charge.

ACCEPTANCE, ALTERATION AND CANCELLATION OF ORDERS

Orders for other than standard items or standard lengths may not be cancelled after purchase has been committed, production scheduled or any costs incurred.

RETURN OF DEFECTIVE MERCHANDISE

Defective or failed material to be held at the buyer's premises until authorization has been granted by seller to return or dispose of merchandise. Merchandise to be returned for final inspection must be returned Freight Prepaid in the most economical way. Credit will be issued for material found to be defective upon our inspection based on prices at time of purchase.

MERCHANDISE SHIPPED IN ERROR

Buyer must notify seller immediately on any merchandise shipped in error. Upon notification, merchandise is to be returned to seller either via truck on a Freight Collect basis, via carrier of our choice, or via UPS on a Freight Prepaid basis. Buyer will be reimbursed for cost of merchandise, plus any additional freight which may have been incurred due to shipping error.

MERCHANDISE ORDERED IN ERROR

Standard packaged merchandise only may be returned, provided that the merchandise is in the original buyer's possession not more than 30 days. If merchandise is accepted for return, merchandise must be returned Freight Prepaid, and buyer will be charged a minimum of 15% rehandling charge, plus a chargeback for outbound freight charges if the original order was shipped prepaid. Returns are not accepted for any merchandise that is specifically manufactured to meet the buyer's requirement of either specifications or large quantity.

DELIVERY, DAMAGES, SHORTAGES

Delivery to the initial common carrier shall constitute the delivery to the buyer. Our responsibility, insofar as transportation risks are concerned, ceases upon the delivery of the merchandise in good condition to such a carrier, and all the merchandise shall be shipped at the buyer's risk.

GOODS DAMAGED IN SHIPMENT

Upon receipt of shipment, any evidence of damage to original shipping package must be reported by the receiving party and a claim made with the delivering carrier upon receipt of shipment.

CONCEALED DAMAGE

Any evidence of damage to material shipped, upon the opening of the original shipping package, must be reported by the receiving party to and a claim made with the delivering carrier without delay.

LIMITED WARRANTY

The merchandise or products sold or distributed by Jason Industrial are warranted to our customers to be free from defects in material and workmanship at the time of shipment by us. All warranty claims shall be made within 90 days after we have shipped the merchandise. Our liability hereunder is limited to the purchase price of any merchandise proved defective, or, at our option, to the replacement of such merchandise upon its authorized return to us.

THIS WARRANTY IS IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES, EXPRESSED, IMPLIED, STATUTORY, OR OTHERWISE CREATED UNDER APPLICABLE LAW INCLUDING, BUT NOT LIMITED TO, THE WARRANTY OF MERCHANTABILITY AND THE WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL WE BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING LOSS OF PROFITS.



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