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3rd Edition

Hose & Fitting Catalog

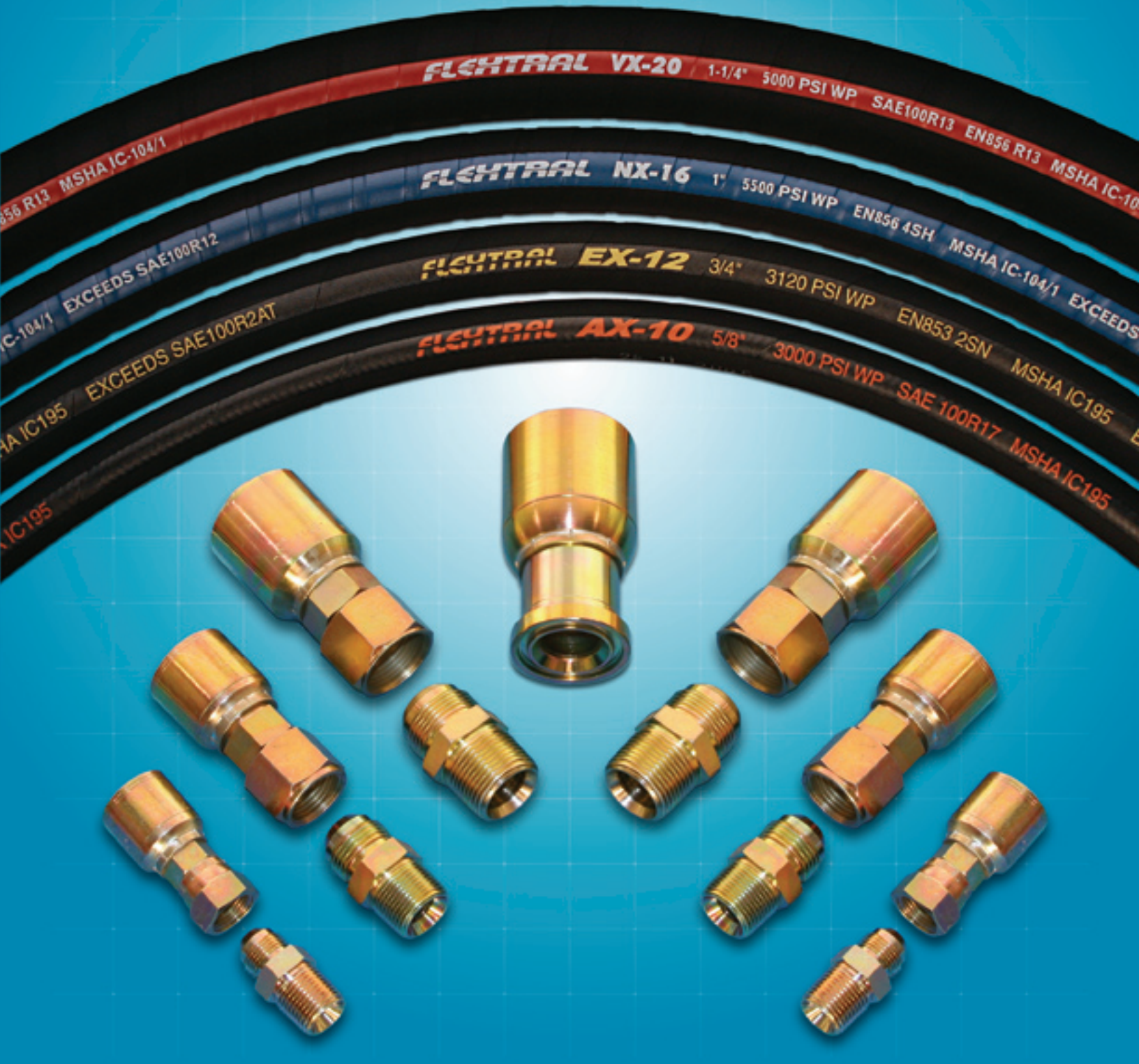


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TECHNICAL DATA



Recommended Practices for Hydraulic Hose Assemblies - SAE J1273 1996

Foreword

The SAE Recommended Practices is intended as a guide to consider when selecting, routing, fabricating, installing, replacing, maintaining, and storing hose for fluid-power systems. It is subject to change to keep pace with experience and technical advances. For those new to hose use in fluid power systems, 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 the 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 - SAEJ1273 provides guidelines for selection, routing, fabrication, installation, replacement, maintenance, and storage of hose and hose assemblies for fluid-power systems. Many of these SAI Recommended Practices also may be suitable for other hoses and systems.

2. Reference

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

2.1.1 SAE publications - Available for SAE, 400 Commonwealth Drive, Warrendale, PA 15096-000

SAEJ343 - Test and Procedures for SAE 100 R Series Hydraulic Hose and Hose Assemblies SAEJ514 - Hydraulic Tube Fittings

SAEJ517 - Hydraulic Hose SAEJ 1927 - Cumulative Damage Analysis for Hydraulic Hose Assemblies

2.1.2 ISO publications - Available from ANSI, 11 West 42nd Street, New York, NY 10036-8002

ISO 3457 - Earth moving machinery - Guards and shields definitions and specifications.

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 a 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.

Training, including the information in this document, for operators, maintenance personnel, and other individuals working with hoses under pressure is encouraged.

4.1 Fluid injections - fine streams of escaping pressurized fluid can penetrate skin and enter a 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 a hose 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 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 is particularly true in compressible-fluid systems. When the risk exists, consider guards and restraints to protect against injury.

4~3 Burns from conveyed fluids - fluid-power media may reach temperatures that can burn human skin. If there is risk of burns from escaping fluid, consider guards and shields 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 or gases in the surrounding atmosphere.

When this potential exists, select hose specifically designed to carry the static-electric charge to ground.



(R) Test and Test procedures for SAE 100R Series Hydraulic Hose and Hose Assemblies - SAE J343 1995

This document is technically equivalent to ISO 6605 except as noted in the foreword.

Foreword - this document has not changed other than to put it into the new SAE technical standards board format.

SAE J343 has been revised to be technically equivalent to ISO 6605, except that additional tests in paragraphs 4.9 to 4.14 were included.

1. Scope - this SAE standard gives methods for testing and evaluation performance of the SAE 100R series of hydraulic hose and hose assemblies (hose and attached end fittings) used in hydraulic fluid power systems.

Specific tests and performance criteria for evaluating hose assemblies used in hydraulic service are in accordance with the requirements for hose in the respective specifications of SAE J51 7. This document further establishes a uniform means of testing and evaluating performance of hydraulic hose assemblies.

2. Reference

2.1 Applicable publications - The following publications form a part of the specification to the extent specified herein. Unless otherwise indicated the latest revision of SAE publications shall apply.

2.1.1 SAE Publications - available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001

SAE J51 7 Hydraulic hose. 2- 1.2. ASTM publications - available from ASTM, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

ASTM D 380 - standard methods of testing rubber hose.

2.1.3 ISO publications - available from ANSI, 11 West 42nd Street, New York, NY 10036-8002,

ISO 3448 - industrial liquid lubricants-ISO viscosity classification

ISO 6605 - hydraulic fluid-power hose assemblies - method of test.

3. Test procedures

The test procedures described in the current issue of ASTM D 380 shall be followed. However, in cases of conflict between the ASTM specifications and those described as follows, the latter shall take precedence.

4. Standard test warning - water or another liquid suitable for the hose under test shall be used as the test medium. The use of air and other gaseous materials as testing media should be avoided because of the risk to operators. In special cases where such media are required for the tests, strict safety measures are imperative. Furthermore, it is stressed that when a liquid is used as the test medium, it is essential that all air is expelled from the test piece because of the risk of injury to the operator due to the sudden expansion of trapped air released when the hose bursts.

4.1. Dimensions check test - The hose shall be inspected for conformity to all dimensions tabulated in the applicable specification. Determine finished outside diameters and reinforcement

diameters, where required, by calculation from measurement of the respective circumference. As an alternative, use a flexible tape graduated to read the diameter directly. Measure the inside diameter by means of a suitable expanding ball or telescoping gauge.

Measure concentricity over both the reinforcement and the finished outside diameters using either a dial indicator gauge or a micrometer.

Round the foot of the measuring instrument to conform to the inside diameter of the hose. Take reading at 90 degree intervals around the hose. NOTE: Acceptability is based on the total variation between the high and low readings.

Take inside and outside diameter measurements at a minimum of 25mm from the hose ends and concentricity measurements at a minimum of 13 mm from the hose ends.

4.2 Proof test

Test the hose assemblies hydrostatically to the specified proof pressure for a period of not less than 30 s nor more than 60 s.

There shall be no indication of failure or leakage.

4.3 Change in length test - Conduct measurements for the determination of elongation or contraction on a previously untested, unaged hose assembly having at least 600 mm length of free hose between hose fittings. Attach the hose assembly to the pressure source in an unrestricted straight position. If the hose is not straight due to its natural curvature, it may be fastened laterally to achieve a straight position. Pressurize to the specified operating pressure for a period of 30 s, then release the pressure. Place accurate reference marks 500 mm apart on the outer cover of the hose, midway between fittings, after allowing the hose assembly to restabilise for a period of 30 s, following pressure release. Repressurize the hose assembly to the specified operating pressure for a periods of 30 s. Measure the final length while the hose is pressurized. The final length is the distance between reference marks while the hose is pressurized.

Complete the determination of the change in length using Equation 1:

$$\Delta l = \frac{l_1 - l_0}{l_0} \times 100 \quad (\text{Eq. 1})$$

where:

l is the distance between the reference marks when the hose was not pressurized following the initial pressurization;

l_1 is the distance between the reference marks under pressure;

Δl is the percentage change in length, which will be position (+) in the case of an increase in length and negative (-) in the case of a decrease in length.

4.4 Burst test - Subject unaged hose assemblies, on which the end fittings have been attached for not more than 30 days, to a hydrostatic pressure, increased at a constant rate so as to attain the specified minimum burst pressure within a period of not less than 15 s more than 60 s. Reject hose assemblies showing leakage, hose burst or indication of failure below the specified minimum burst pressure, NOTE: This is a destructive test, Assemblies which have been subjected to this test shall be destroyed.

4.5 Cold bend test - subject hose assemblies to the specified temperature in a straight position for 24 h. Then, while still at the specified temperature, the samples shall be evenly and uniformly bent once over a mandrel having a diameter equal to twice the specified minimum bend radius. Bending shall be accomplished within a period of not less than 8 s nor more than 12 s. In the case of hose sizes up to and including 22 mm nominal inside diameter, bend them through 180 degrees over the mandrel; in the case of hose sizes larger than 22 mm nominal inside diameter, bend them through 90 degrees over the mandrel. After bending, allow the sample to warm to room temperature, visually examine it for cover cracks and subject it to the proof test. There shall be no cover cracks or leakage. (In lieu of the bending test, hoses larger than 22 mm nominal inside diameter may be considered acceptable if samples of tube and cover pass the Low Temperature Test on Tube and Cover of ASTM D 380). Reject any samples with visible cracks or leakage. NOTE: This is a destructive test. Assemblies which have been subjected to this test shall be destroyed.

4.6 Impulse test - test for unaged hose assemblies with end fittings which have been attached for not more than 30 days. Where the individual standard requires, also test aged hose assemblies. Apply a pulsating pressure internally to the hose assemblies at a rate between 0.5 and 1.34 Hz; record the frequency used. The pressure cycle shall fall within the shaded areas of Figure 1 and conform as closely as possible to the curve shown. Select a test fluid which complies with the requirements of ISO VG 46± 4.6 at 40°C per ISO 3448, and circulate it at a rate sufficient to maintain a uniform fluid temperature within the hose assemblies. Other fluids may be used as agreed upon between the customer and the manufacturer. Calculate the free (exposed) length of hose under test, shown on Figure 2, as follows:

a. Hose sizes up to and including 22 mm nominal inside diameter (see Equation 3):

$$180 \text{ degrees bend free length} = \pi r + 2d \quad (\text{Eq. 3})$$

b. Hose sizes larger than 22 mm nominal inside diameter (see Equation 4):

$$90 \text{ degrees bend free length} = \frac{\pi}{2} r + 2d \quad (\text{Eq. 3})$$

where: r = minimum bend radius
d = hose outside diameter

Connect the test pieces to the apparatus. The test pieces shall be installed according to Figure 2. Test pieces of hose of nominal inside diameter up and including 22 mm shall be bent through 180 degrees and hoses of nominal inside diameter larger than 22 mm shall be bent through 90 degrees. Test the hose at the impulse test pressure indicated in the individual specification. The test fluid shall be circulated through the assemblies at the specified temperature with a tolerance of 3°C. Cooling or heating of the test chamber shall not be permitted, except when individual standards require testing with synthetic base test fluids at a temperature higher than 150°C. When such higher temperatures are required, the impulse test fluid need not be circulated if both the fluid and the assemblies are externally heated in the test chamber, at the specified temperature with a tolerance of 5°C. Determine the duration of the impulse test in total number of cycles by the individual standard for the hose assemblies. Where aged samples are required, refer to the individual standards. It is recommended the test fluid be changed frequently to prevent breakdown. NOTE: This is a destructive test. Assemblies which have been subjected to this test should be destroyed.

4.7 Leakage test - Subject unaged hose assemblies, on which the end fitting have been attached for not more than 30 days, to a hydrostatic pressure of 70% of the specified minimum burst pressure for a period of between 5.0 to 5.5 minute. Reduce the fluid pressure to 0 MPa. Re-apply the 70% of minimum burst hydrostatic pressure for another 5.0 to 5.5 minute period. Reject assemblies showing leakage or failure. NOTE: This is a destructive test. Assemblies which have been subjected to this test shall be destroyed. A mercury or salt water solution electrode shall be provided at the upper end as shown, by inserting a non-metallic plug with an O-ring seal to distance of 75 mm from the end of the tubing, thus providing an average test length of 255 mm. Mercury or salt water solution shall then be added to a level 25 mm above the plug. Any suitable conductor to this electrode may be used, including a threaded end attached to the plug if so desired. Concentration of salt water, if used, shall be 450 g NaCl per liter of H₂O. 1000 V DC shall be applied between the upper electrode and the lower electrode (adaptor or male fitting hex). The current shall be measured with an instrument with a sensitivity of at least 1 µA(1 x 10⁻⁶ A).

4.13 Resistance to vacuum test - The hose shall neither blister nor show any other indication of failure when subjected to the specified vacuum for a period of 5 min. Where practicable, one end of the hose shall be equipped with a transparent cap and electric light to permit visual examination for failure. Where the length or size of the hose precludes visual examination, failure shall be determined by inability to pass through the hose a ball or cylinder 6.5 mm less in diameter than the bore or hoses of 12.5 mm nominal inside diameter and larger, For hoses under 12.5 mm nominal inside diameter, a ball or cylinder 3.0 mm smaller in diameter than the bore shall be used.

Hose and Fitting Compatibility

Flextral strongly recommends that only Flextral hose and fittings are used in an assembly. We do not condone the use of other brand hose used with our fittings, or other fittings used with our hose. Any fabrication of a hose assembly outside this is deemed to be the fabricators risk and is not recommended.

The SAE specification for Hydraulic Hose, J517, paragraph 5 reads:

Hose Assemblies--Hose assemblies may be fabricated by the manufacturer, an agent for, or customer of, the manufacturer or by the user. Fabrication of permanently attached fittings to hydraulic hose requires specialised assembly equipment. Field attachable fittings (screw style and segment clamp style) can usually be assembled without specialised equipment although many manufacturers provide equipment to assist in this operation.

SAE J517 hose from one manufacturer is usually not compatible with SAE J516 fittings supplied by another manufacturer. It is the responsibility of the fabricator to consult the manufacturer's written assembly instructions or the manufacturer directly before intermixing hose and fittings from two manufacturers. Similarly, assembly equipment from one manufacturer is usually not interchangeable with that of another manufacturer. It is the responsibility of the fabricator to consult the manufacturer's written instructions or the manufacturer directly for proper assembly equipment. Always follow the manufacturer's instructions for proper preparation and fabrication of hose assemblies.



Selection of Hose

System type

The selection and installation of hoses must be in relation to pump pressure, operating cycle, inner diameters of pipes, and type of fluid.

Operating pressure

Hose lines are rated for continuous operation at the maximum operating pressures specified for the hose.

Generally, the operating pressure is one fourth the hose minimum burst pressure, thus meeting the SAE recommended safety factor of 4 to 1.

Pressure surges

Almost all hydraulic systems develop pressure surges which may exceed relief valve settings and affect the service life of hose and system components. In systems where surges are severe, select a hose that will increase the safety factor.

Conversely, in systems where surges are slight or non-existent, a smaller safety factor may be used.

Operating temperatures

Operating temperatures specified refer to maximum temperature of the fluid or gases being conveyed (with peaks up to 300°F or 149°C). Continuous operation at or near maximum rated temperatures will materially reduce the service life of the hose.

Ambient temperatures

Very high or low ambient (outside of hose) temperatures will affect cover and reinforcement materials, thus influencing the life of the hose.

Bend radius

Recommended minimum bend radii are based on maximum operating pressures with no flexing of the hose.

Vibration and flexing

Hose lines are designed to withstand maximum vibration and flexing.

Volumetric expansion

Hose is normally manufactured with a neutral braid angle to reduce volumetric expansion.

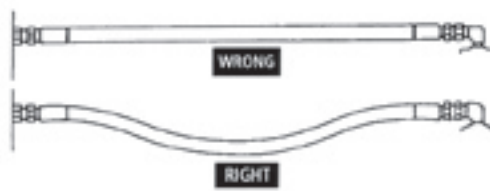

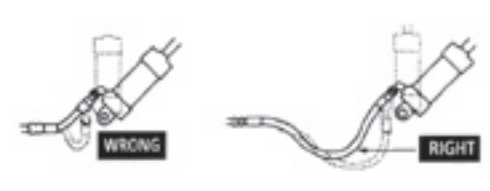
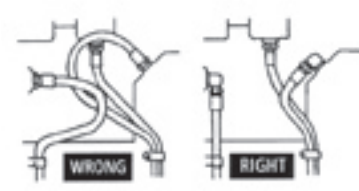
Gaseous fluid systems

High pressure gaseous systems are very hazardous. Hose lines should be adequately protected from external shock and mechanical or chemical damage.


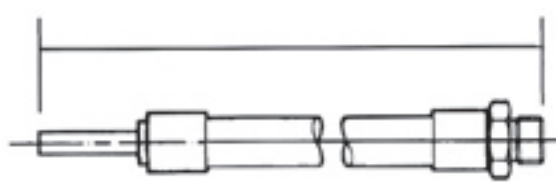
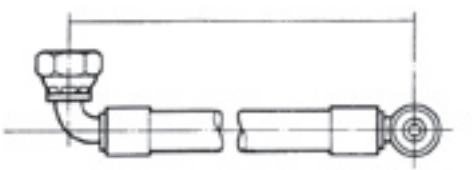
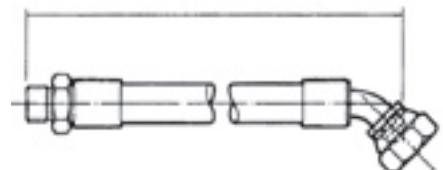
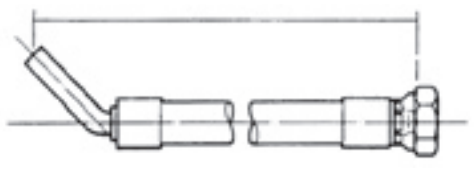
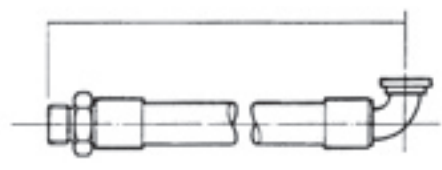
They should also be suitably protected to prevent whip-lash action in the event of failure for any reasons.

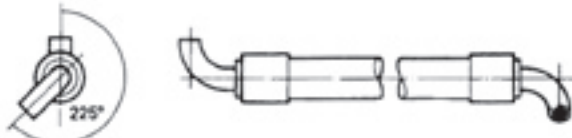
It is recommended to increase safety factor.

Hose Installation Guide

 <p>Be sure to leave some slack to allow for changes in length under surge pressures (estimated at +2% to -4%)</p>	 <p>Use angle adaptors to avoid sharp twists or bends</p>
 <p>Allow for movement on flexing or vibrating installations to minimise flex failure and abrasion</p>	 <p>Use 45° and 90° adaptors and fittings to improve routing</p>

How to Measure Flextral Assemblies

<p>Length over nipples</p>  <p>Swivel female and male union</p>		<p>Length between S.P. and nipple ends</p>  <p>Straight standpipe Male union</p>	
<p>Length between center lines of angle and banjo</p>  <p>Swivel female 90° swept union Banjo coupling</p>		<p>Length between male nipple and center of female nipple</p>  <p>Male union Swivel female 45° swept union</p>	
<p>Length between center line of S.P. and end of nipple</p>  <p>45° standpipe Swivel female union</p>		<p>Length between centre of angle and end of nipple</p>  <p>Male union 90° SAE flange</p>	
<p>Assembly Length</p>	<p>Tolerances (decimal inch)</p>	<p>Tolerances (fraction inch)</p>	<p>Tolerances (mm)</p>
<p>Up through 12" (304.8 mm)</p>	<p>0.13</p>	<p>1/8</p>	<p>3.2</p>
<p>Over 12" through 18" (304.8 through 457.2 mm)</p>	<p>0.19</p>	<p>3/16</p>	<p>4.8</p>
<p>Over 18" through 36" (457.2 through 914.4 mm)</p>	<p>0.25</p>	<p>1/4</p>	<p>6.4</p>
<p>Over 36" (914.4 mm)</p>	<p>1%</p>	<p>1%</p>	<p>1%</p>

<p>How To Measure Twist Angle</p>  <p>Twist angle is determined by the number of degrees measured in a counterclockwise direction between the fitting nearest the viewer and the farthest fitting.</p>	
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Angular Relationships

Hold the assembly so that you can look along the length of the hose and with the fitting furthest away from you in the vertical position. Measure the angle between the vertical fitting and the one nearest to you in a clockwise direction. Relationship can then be expressed from 0° to 360°.



Formulas and Conversion Factors for Fluid Power Use

Quantity	Metric Units	U.S. Customary Units	From Metric to U.S. Units	From U.S. to Metric Units
Area	Square centimeters (<i>cm²</i>)	Square inches (<i>ln²</i>)	$cm^2 \times 0.155 = ln^2$	$ln^2 \times 6.452 = cm^2$
Length	Meters (<i>mt.</i>)	Feet (<i>ft.</i>)	$mt. \times 3.281 = ft.$	$ft. \times 0.305 = mt.$
Weight	Kilograms (<i>kg.</i>)	Pounds (<i>p</i>)	$kg. \times 2.2046 = p$	$p \times 0.4535 = kg.$
Volume	Cubic centimeters (<i>cm³</i>)	Cubic feet (<i>Cu.Ft.</i>)	$cm^3 \times 0.061 = Cu.Ft.$	$Cu.Ft. \times 16.39 = cm^3$
	Litres (<i>lt.</i>)	Gallons (<i>gal</i>)	$lt. \times 0.2541 = gal$	$gal \times 3.7 = 8 lt.$
Power	Kilowatts (<i>Kwh</i>)	Horsepower (<i>HP</i>)	$HP \times 0.7457 = Kwh$	$Kwh \times 1.3410 = HP$
Frequency	Hertz (<i>Hz</i>)	Cycles/second (<i>cps</i>)	$Hz = cps$	$cps = Hz$
Load	Meter kilograms (<i>Kgm.</i>)	Feet-pounds (<i>lbf</i>)	$Kgm. \times 7.233 = lbf$	$lbf \times 0.1383 = Kgm$
Pressure	Bar (<i>Bar</i>)	Pounds/sq.inches (<i>P.S.I.</i>)	$Bar \times 14.50 = P.S.I.$	$P.S.I. \times 0.0689 = Bar$
	Pascal (<i>Pa</i>)	Pounds/sq.inches (<i>P.S.I.</i>)	$Pa \times 0.145 = P.S.I.$	$P.S.I. \times 6.8948 = Pa$
	Atmospheres (<i>Atm.</i>)	Pounds/sq.inches (<i>P.S.I.</i>)	$Atm. \times 14.70 = P.S.I.$	$P.S.I. \times 0.0680 = Atm.$
Density	Gram/cubic centimeters (<i>gr./cm³</i>)	Pounds/cu.inches (<i>pci</i>)	$gr./cm^3 \times 0.03613 = pci$	$pci \times 27.68 = gr./cm^3$
Temperature	Degrees celsius °C	Degrees fahrenheit °F	$\frac{°C = °F - 32}{1.8}$	$°F = °C \times 1.8 + 32$

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Pressure Conversion Factors

BAR to P.S.I.			
Bar	K/pascals	Kg/cm ²	PSI
1	100	1.02	14.5
2	200	2.04	29.0
3	300	3.06	43.5
4	400	4.08	58.0
5	500	5.10	72.5
6	600	6.12	87.0
7	700	7.14	101.5
8	800	8.16	116.0
9	900	9.18	130.5
10	1,000	10.20	145.0
20	2,000	20.40	290.1
30	3,000	30.60	435.1
40	4,000	40.80	580.2
50	5,000	51.00	725.2

BAR to P.S.I.			
Bar	K/pascals	Kg/cm ²	PSI
60	6,000	61.20	870.2
70	7,000	71.40	1,015.3
80	8,000	81.60	1,160.3
90	9,000	91.80	1,305.3
100	10,000	102.00	1,450
200	20,000	204.00	2,901
300	30,000	306.00	4,351
400	40,000	408.00	5,802
600	60,000	612.00	8,702
700	70,000	714.00	10,153
800	80,000	816.00	11,603
900	90,000	918.00	13,053
1.000	100,000	1,020.00	14,504
2.000	200,000	2,040.00	29,008
3.000	300,000	3,060.00	43,511

PSI to BAR			
PSI	K/pascals	Kg/cm ²	BAR
10	68.9	0.71	0.7
20	137.9	1.41	1.4
30	206.8	2.11	2.1
40	275.8	2.82	2.8
50	344.7	3.52	3.4
60	413.7	4.22	4.1
70	482.6	4.93	4.8
80	551.6	5.63	5.5
90	620.5	6.33	6.2
100	689	7.04	6.9
200	1,379	14.07	13.8
300	2,068	21.10	20.7
400	2,758	28.13	27.6
500	3,447	35.16	34.5
600	4,137	42.19	41.4

PSI to BAR			
PSI	K/pascals	Kg/cm ²	BAR
700	4,826	49.22	48.3
800	5,516	56.25	55.2
900	6,205	63.28	62.1
1,000	6,895	70.31	68.9
2,000	13,790	140.62	137.9
3,000	20,684	210.93	206.8
4,000	27,579	281.23	275.8
5,000	34,474	351.54	344.7
6,000	41,369	421.85	413.7
7,000	48,263	492.15	482.6
8,000	55,158	562.46	551.6
9,000	62,053	632.77	620.5
10,000	68,948	703.07	689
20,000	137,895	1,406.14	1,379
30,000	206,843	2,109.21	2,068
40,000	275,790	2,812.28	2,758



Thread Identification

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How to Identify a Thread

Foreword

There are many different threads by which fluid connectors are attached to a system. These come under a variety of standards, some of which are set out below. It is obviously crucial to know what standard/style the thread or attachment is so the appropriate fluid connector components can be selected to complete or repair a circuit.

For easy identification there are four main points to look for.

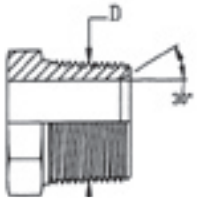
1. The general appearance of the fitting, or how it is laid out. Is the thread tapered or straight? Is the seat concave or convex? Obviously the complementary or matching fitting will be an opposite of the other.
2. The pitch of the thread. Some thread styles look very similar to each other, only the thread pitch differs. This is an important check to make, as if the incorrect fitting is screwed in, damage to the other thread may occur, weakening it or causing irreparable damage.
3. The angle of the sealing area. As above, some styles will look very much alike. Some even have the same thread dimension and pitch, but the seal angle is different. This is an important thing to check as the sealing of the connection is reliant on this area.
4. The thread diameter or the size of the connection. The tables of sizes for the various styles will have a dimension as per the standard. Often threads will not match this dimension exactly as there are matching tolerances, but the correct size will be obvious.
5. Pressures indicated are relative to the appropriate standard for the thread indicated. There are two parts to any connection and the pressure can only be as good as the weaker one. Any hose, tube or other item in the circuit which is one of a lower working pressure will dictate the maximum pressure of the circuit.

With these points in mind, and by following the steps, the correct style and standard will be easily determined. But be careful, by missing one you may get it wrong.


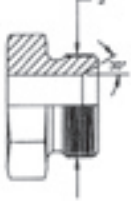
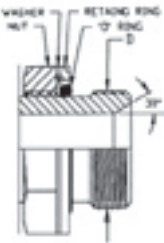


Thread Identification

British Standard Pipe Taper Male (BSPT)

 <p>Applicable Standards Thread Form: AS 1722.1-1975, ISO 7 Materials Available: S12L14 (Mild Steel) 316 (Stainless Steel) GB12361-12362 Part 11 (Drop Forged)</p>	Pipe Size	Dash Size	Nominal Thread Size & Pitch	Max Working Pressure		Thread OD 'D' on Diagram	
				Bar	PSI	mm	in
	1/8	02	1/8 - 28	420	6,092	9.73	.383
	1/4	04	1/4 - 19	350	5,076	13.16	.518
	3/8	06	3/8 - 19	350	5,076	16.67	.656
	1/2	08	1/2 - 14	350	5,076	20.96	.825
	5/8*	10	5/8 - 14	280	4,061	22.91	.902
	3/4	12	3/4 - 14	280	4,061	26.45	1.041
	1	16	1 - 11	210	3,045	33.25	1.309
	1 1/4	20	1 1/4 - 11	175	2,538	41.91	1.650
1 1/2	24	1 1/2 - 11	105	1,523	47.81	1.882	
2	32	2 - 11	105	1,523	59.62	2.347	

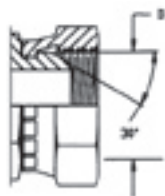
British Standard Pipe Parallel Male - (BSPP)

 <p>Applicable Standards Thread Form: AS 1722.2-1992, ISO 228 Seal: DIN 3852 Part 2 Form E Materials Available: S12L14 (Mild Steel) 316 Stainless Steel GB12361-12362 Part II (Drop Forged)</p>	 <p>Applicable Standards Thread Form: AS 1722.2-1992, ISO 228 Seal: DIN 3852 Part 2 Form D Materials Available: S12L14 (Mild Steel) GB12361-12362 Part II (Drop Forged)</p>	 <p>Applicable Standards Thread Form: AS 1722.2-1992, ISO 228 Seal: DIN 3852 Part 2 Form H Materials Available: S12L14 (Mild Steel) GB12361-12362 Part II (Drop Forged)</p>	Pipe Size	Dash Size	Correct Torque (Nm)	Nominal Thread Size & Pitch	Max Working Pressure				Thread OD 'D' on Diagram	
							Bar Fixed	Bar Adj	PSI Fixed	PSI Adj	mm	in
1/8	02	20	1/8 - 28	400	350	5,802	5,076	9.73	.383			
1/4	04	50	1/4 - 19	400	350	5,802	5,076	13.16	.518			
3/8	06	80	3/8 - 19	400	310	5,802	4,496	16.67	.656			
1/2	08	100	1/2 - 14	400	275	5,802	3,989	20.96	.825			
5/8*	10	120	5/8 - 14	400	275	5,802	3,989	22.91	.902			
3/4	12	200	3/4 - 14	400	210	5,802	3,046	26.45	1.041			
1	16	380	1 - 11	400	170	5,802	2,466	33.25	1.309			
1 1/4	20	500	1 1/4 - 11	250	140	3,626	2,031	41.91	1.650			
1 1/2	24	600	1 1/2 - 11	250	105	3,626	1,523	47.81	1.882			
2	32	750	2 - 11	250	80	3,626	1,160	59.62	2.347			

*5/8 Size is not subject to Standards

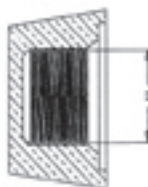
Thread Identification

British Standard Pipe Parallel Female - (BSPP) Taper Female - (BSPT)



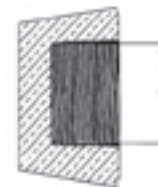
Applicable Standards

Thread Form: AS 1722.2-1992, ISO 228
 Materials Available: S12L14 (MildSteel)
 GB12361-12362 Part II (Drop Forged) 316
 Stainless Steel



Applicable Standards

Thread Form: AS 1722.2-1992, ISO 228
 Sealing Area: DIN 3852 Part 2 Form X



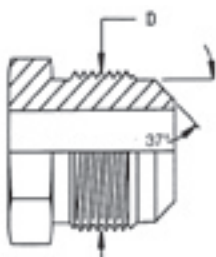
Applicable Standards

Thread Form: AS 1722.2-1992, ISO 228
 Materials Available: S12L14 (MildSteel)
 GB12361-12362 Part II (Drop Forged) 316
 Stainless Steel

Pipe Size	Dash Size	Correct Torque (Nm)	Nominal Thread Size & Pitch	Max Working Pressure		Thread ID 'D' on Diagram	
				Bar	PSI	mm	in
1/8	02	20	1/8 - 28	400	5,802	8.59	.338
1/4	04	50	1/4 - 19	400	5,802	11.46	.451
3/8	06	80	3/8 - 19	400	5,802	14.96	.589
1/2	08	100	1/2 - 14	400	5,802	18.65	.734
5/8*	10	120	5/8 - 14	400	5,802	20.60	.811
3/4	12	200	3/4 - 14	400	5,802	24.13	.950
1	16	380	1 - 11	400	5,802	30.30	1.193
1 1/4	20	500	1 1/4 - 11	250	3,626	38.97	1.534
1 1/2	24	600	1 1/2 - 11	250	3,626	44.86	1.766
2	32	750	2 - 11	250	3,626	56.67	2.231

*5/8" Size is not subject to Standards

Joint Industry Council - (JIC) - Male



Applicable Standards


Thread Form: SAE J514
 Materials Available: S12L14 (MildSteel) 316 (Stainless Steel)
 GB 12361 - 12362 Part II (Drop Forged)

Dash Size	Nominal Tube Size in	Correct Torque Nm	Nominal Thread Size & Pitch	Max Working Pressure		Thread OD 'D' on Diagram	
				Bar	PSI	mm	in
02	1/8	15	5/16 - 24	350	5,076	7.87	.310
03	3/16	15	3/8 - 24	350	5,076	9.65	.380
04	1/4	15	7/16 - 20	350	5,076	11.07	.436
05	5/16	25	1/2 - 20	350	5,076	12.70	.500
06	3/8	35	9/16 - 18	350	5,076	14.25	.561
08	1/2	60	3/4 - 16	310	4,496	19.00	.748
10	5/8	80	7/8 - 14	240	3,481	22.17	.873
12	3/4	120	1 1/16 - 12	240	3,481	26.95	1.061
16	1	150	1 5/16 - 12	210	3,046	33.30	1.311
20	1 1/4	180	1 5/8 - 12	170	2,466	41.22	1.623
24	1 1/2	225	1 7/8 - 12	140	2,031	47.57	1.873
32	2	350	2 1/2 - 12	105	1,523	63.45	2.498



Thread Identification


Joint Industry Council - (JIC) - Female



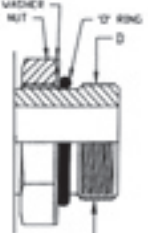
Applicable Standards
 Thread Form: SAE J514
 Materials Available: S12L14 (Mild Steel) 316 (Stainless Steel) GB 12361 - 12362 Part II (Drop Forged)

Dash Size	Nominal Tube Size in	Correct Torque Nm	Nominal Thread Size & Pitch	Max Working Pressure		Thread OD 'D' on Diagram	
				Bar	PSI	mm	in
02	1/8	15	5/16 - 24	350	5,076	6.85	.270
03	3/16	15	3/8 - 24	350	5,076	8.63	.340
04	1/4	15	7/16 - 20	350	5,076	10.00	.394
05	5/16	25	1/2 - 20	350	5,076	11.60	.457
06	3/8	35	9/16 - 18	350	5,076	13.00	.512
08	1/2	60	3/4 - 16	310	4,496	17.60	.693
10	5/8	80	7/8 - 14	240	3,481	20.50	.807
12	3/4	120	1 1/16 - 12	240	3,481	25.00	.985
16	1	150	1 5/16 - 12	210	3,046	31.30	1.233
20	1 1/4	180	1 5/8 - 12	170	2,466	39.20	1.544
24	1 1/2	225	1 7/8 - 12	140	2,031	45.60	1.796
32	2	350	2 1/2 - 12	105	1,523	61.50	2.422

Unified National O Ring - (UNO)



Applicable Standards
 Thread Form: SAE J514
 Materials Available: S12L14 (Mild Steel)

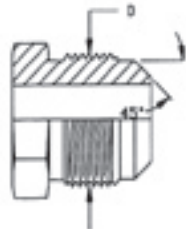


Applicable Standards
 Thread Form: SAE J514
 Materials Available: S12L14 (Mild Steel)

Dash Size	Nominal Tube Size in	Correct Torque Nm	Nominal Thread Size & Pitch	Max Working Pressure				Thread OD 'D' on Diagram	
				Bar Fixed	Bar Adj	PSI Fixed	PSI Adj	mm	in
05	1/8	15	5/16 - 24	350	350	5,076	5,076	7.87	.310
06	3/16	15	3/8 - 24	350	350	5,076	5,076	9.65	.380
07	1/4	15	7/16 - 20	350	310	5,076	4,496	11.07	.436
08	5/16	25	1/2 - 20	350	275	5,076	3,989	12.70	.500
09	3/8	35	9/16 - 18	350	275	5,076	3,989	14.25	.561
12	1/2	60	3/4 - 16	310	275	4,496	3,989	19.00	.748
14	5/8	80	7/8 - 14	240	210	3,481	3,046	22.17	.873
17	3/4	120	1 1/16 - 12	240	170	3,481	2,466	26.95	1.061
21	1	150	1 5/16 - 12	210	170	3,046	2,466	33.30	1.311
26	1 1/4	180	1 5/8 - 12	170	140	2,466	2,031	41.22	1.623
30	1 1/2	225	1 7/8 - 12	140	105	2,031	1,523	47.57	1.873
40	2	350	2 1/2 - 12	105	80	1,523	1,160	63.45	2.498

Thread Identification

Society of Automotive Engineers- (SAE) - Male

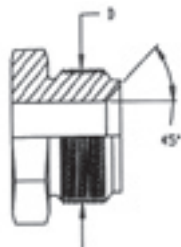


Applicable Standards

Thread Form: SAE J512
 Materials Available: S12L14 (Mild Steel)
 352 DR Brass Alloy GB 12361-12362
 Part II (Drop Forged)

Dash Size	Nominal Tube Size (Inches)	Nominal Thread Size & Pitch	Max Working Press				Thread OD 'D' on Diagram	
			Steel Bar	Brass Bar	Steel PSI	Brass PSI	mm	in
02	1/8	5/16 - 24	345	237	5,004	3,437	7.87	.310
03	3/16	3/8 - 24	345	221	5,004	3,205	9.65	.380
04	1/4	7/16 - 20	310	162	4,496	2,350	11.07	.436
05	5/16	1/2 - 20	275	126	3,989	1,827	12.70	.500
06	3/8	5/8 - 18	275	102	3,989	1,479	15.85	.624
08	1/2	3/4 - 16	275	74	3,989	1,073	19.00	.748
10	5/8	7/8 - 14	210	48	3,046	696	22.17	.873
12	3/4	1 1/16 - 12	210	-	3,046	-	26.95	1.061
14	7/8	1 1/4 - 12	170	-	2,466	-	29.46	1.160
16	1	1 3/8 - 12	170	-	2,466	-	35.05	1.290

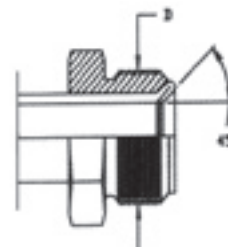
Society of Automotive Engineers- (SAE) - Inverted Flare Male



Applicable Standards

Thread Form: SAE J512
 Materials Available: S12L14 (Mild Steel)
 352 DR Brass Alloy

Adaptor Version



Applicable Standards

Thread Form: SAE J512
 Materials Available: S12L14 (Mild Steel)
 352 DR Brass Alloy

Tube Version

Dash Size	Nominal Tube Size (inches)	Nominal Thread Size & Pitch	Max Working Pressure				Thread OD 'D' on Diagram	
			Bar Fixed	Bar Adj	PSI Fixed	PSI Adj	mm	in
02	1/8	5/16 - 28	320	237	4,641	3,437	7.87	.310
03	3/16	3/8 - 24	340	221	4,931	3,205	9.65	.380
04	1/4	7/16 - 24	270	162	3,916	2,350	11.07	.436
05	5/16	1/2 - 20	225	126	3,263	1,827	12.70	.500
06	3/8	5/8 - 18	225	102	3,263	1,479	15.85	.624
07	7/16	1 1/16 - 18	230	74	3,335	1,073	17.46	.687
08	1/2	3/4 - 18	215	48	3,118	696	19.00	.748
10	5/8	7/8 - 18	215	-	3,118	-	22.17	.873
12	3/4	1 1/16 - 16	215	-	3,118	-	26.95	1.061



Thread Identification

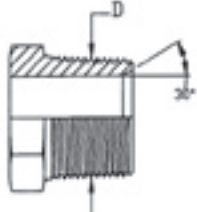
Society of Automotive Engineers - (SAE) - Inverted Flare Female



Dash Size	Nominal Tube Size (Inches)	Nominal Thread Size & Pitch	Max Working Pressure				Thread ID 'D' on Diagram	
			Steel (Bar)	Brass Bar	Steel PSI	Brass (PSI)	mm	in
02	1/8	5/16 - 28	320	237	4,641	3,437	6.85	.270
03	3/16	3/8 - 24	340	221	4,931	3,205	8.63	.340
04	1/4	7/16 - 24	270	162	3,916	2,350	10.00	.394
05	5/16	1/2 20	225	126	3,263	1,827	11.60	.457
06	3/8	5/8 - 18	225	102	3,263	1,479	14.70	.579
07	7/16	1 1/16 - 18	230	74	3,335	1,073	15.70	.618
08	1/2	3/4 - 18	215	48	3,118	696	17.60	.693
10	5/8	7/8 - 18	215	-	3,118	-	22.10	.870
12	3/4	1 1/16 - 16	215	-	3,118	-	25.30	.996

Applicable Standards
Thread Form: SAE J512
Materials Available: 352 DR
Brass Alloy

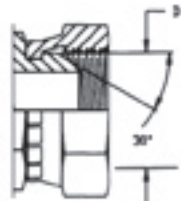
National Pipe Taper Fuel - (NPTF)



Pipe Size	Dash Size	Nominal Thread Size & Pitch	Max Working Pressure SAE J514		Thread ID 'D' on Diagram	
			Bar	PSI	mm	in
1/8	02	1/8 - 27	350	5,076	10.32	.406
1/4	04	1/4 - 18	275	3,989	13.89	.546
3/8	06	3/8 - 18	210	3,046	17.06	.671
1/2	08	1/2 - 14	210	3,046	21.43	.843
3/4	12	3/4 - 14	170	2,466	26.98	1.062
1	16	1 - 11 1/2	140	2,031	33.33	1.312
1 1/4	20	1 1/4 - 11 1/2	80	1,160	42.46	1.671
1 1/2	24	1 1/2 - 11 1/2	70	1,015	48.42	1.906
2	32	2 - 11 1/2	70	1,015	60.32	2.375

Applicable Standards
Thread Form: SAE J476
Materials Available: S12LI4
(Mild Steel) 316 (Stainless Steel) GB12361-12362
Part II (Drop Forged)

National Pipe Straight Mechanical - (NPSM)

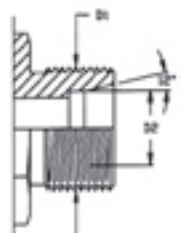


Pipe Size	Dash Size	Nominal Thread Size & Pitch	Max Working Pressure SAE J514		Thread ID 'D' on Diagram	
			Bar	PSI	mm	in
1/8	02	1/8 - 27	350	5,076	9.12	.359
1/4	04	1/4 - 18	275	3,989	11.91	.468
3/8	06	3/8 - 18	210	3,046	15.08	.593
1/2	08	1/2 - 14	210	3,046	19.05	.750
3/4	12	3/4 - 14	170	2,466	24.21	.953
1	16	1 - 11 1/2	140	2,031	30.56	1.203
1 1/4	20	1 1/4 - 11 1/2	80	1,160	38.89	1.531
1 1/2	24	1 1/2 - 11 1/2	70	1,015	45.24	1.781
2	32	2 - 11 1/2	70	1,015	57.15	2.250


Applicable Standards
Thread Form: SAE J476
Materials Available: S12LI4
(Mild Steel) 316 (Stainless Steel) GB12361-12362
Part II (Drop Forged)

Thread Identification

Metric Male 'DKL' Light Series

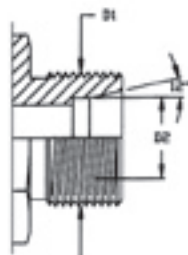
 <p>Applicable Standards Thread Form: DIN 2353, DIN 3861, DIN 3901, DIN 3902 Materials Available: SI 2LI4 (Mild Steel) 316 (Stainless Steel) GB 12361 - 12362 Part II (Drop Forged)</p>	Dash Size	Nominal Tube Size 'D2' mm	Correct Torque (Nm)	Nominal Thread Size & Pitch	Max Working Pressure DIN 2401 pt I		Thread ID 'D1' on Diagram mm
					Bar	PSI	
					-12	6	
-14	8	35	M14 - 1.5	315	4,569	14	
-16	10	40	M16 - 1.5	315	4,569	16	
-18	12	45	M18 - 1.5	315	4,569	18	
-22	15	60	M22 - 1.5	160	2,321	22	
-26	18	90	M26 - 1.5	160	2,321	26	
-30	22	120	M30 - 2.0	160	2,321	30	
-36	28	160	M36 - 2.0	160	2,321	36	
-45	35	230	M45 - 1.5	160	2,321	45	
-52	42	280	M52 - 1.5	160	2,321	52	

Metric Female 'DKL' Light Series



 <p>Applicable Standards Thread Form: DIN 2353 DIN 3861 DIN 3901 DIN 3902 Materials Available: SI 2LI 4 (Mild Steel) 316 (Stainless Steel) GB 12361 - 12362 Part II (Drop Forged)</p>	Dash Size	Nominal Tube Size 'D2' mm	Correct Torque (Nm)	Nominal Thread Size & Pitch	Max Working Pressure DIN 2401 pt I		Thread ID 'D1' on Diagram mm
					Bar	PSI	
					-12	6	
-14	8	35	M14 - 1.5	315	4,569	12.5	
-16	10	40	M16 - 1.5	315	4,569	14.5	
-18	12	45	M18 - 1.5	315	4,569	16.5	
-22	15	60	M22 - 1.5	160	2,321	20.5	
-26	18	90	M26 - 1.5	160	2,321	24.5	
-30	22	120	M30 - 2.0	160	2,321	28.0	
-36	28	160	M36 - 2.0	160	2,321	34.0	
-45	35	230	M45 - 2.0	160	2,321	43.0	
-52	42	280	M52 - 2.0	160	2,321	50.0	

Thread Identification

Metric Male 'DKS' Heavy Series

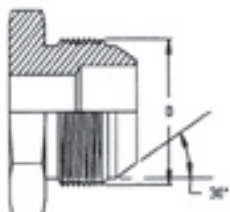
 <p>Applicable Standards Thread Form: DIN 2353, DIN 3861, DIN 3901, DIN 3902 Materials Available: S1 2LI 4 (Mild Steel) 316 (Stainless Steel) GB 12361 - 12362 Part II (Drop Forged)</p>	Dash Size	Nominal Tube Size 'D2' mm	Correct Torque (Nm)	Nominal Thread Size & Pitch	Max Working Pressure DIN 2401		Thread OD 'D1' on Diagram m
					Bar	PSI	
	-14	6	45	M14 - 1.5	630	9,137	14
	-16	8	55	M16 - 1.5	630	9,137	16
	-18	10	70	M18 - 1.5	630	9,137	18
	-20	12	80	M20 - 1.5	630	9,137	20
	-22	14	100	M22 - 1.5	630	9,137	22
	-24	16	120	M24 - 1.5	400	5,802	24
	-30	20	170	M30 - 2.0	400	5,802	30
	-36	25	310	M36 - 2.0	400	5,802	36
-42	30	330	M42 - 2.0	400	5,802	45	
-52	38	450	M52 - 2.0	315	4,569	52	

Metric Female 'DKS' Heavy Series


 <p>Applicable Standards Thread Form: DIN 2353 DIN 3861 DIN 3901 DIN 3902 Materials Available: S12LI 4 (Mild Steel) 316 (Stainless Steel) GB12361 - 12362 Part II (Drop Forged)</p>	 <p>Applicable Standards Thread Form: DIN 2353 DIN 3861 DIN 3901 DIN 3902 Materials Available: S12L14 (Mild Steel) 316 (Stainless Steel) GB 12361 - 12362 Part II (Drop Forged)</p>	Dash Size	Nominal Tube Size 'D2'(mm)	Correct Torque	Nominal Thread Size & Pitch	Max Working Pressure DIN 2401 Part 1		Thread ID 'DI' on Diagram (mm)
						Bar	PSI	
		-14	6	45	M14 - 1.5	630	9,137	12.5
		-16	8	55	M16 - 1.5	630	9,137	14.5
		-18	10	70	M18 - 1.5	630	9,137	16.5
		-20	12	80	M20 - 1.5	630	9,137	18.5
		-22	14	100	M22 - 1.5	630	9,137	20.5
		-24	16	120	M24 - 1.5	400	5,802	22.5
		-30	20	170	M30 - 2.0	400	5,802	28.0
		-36	25	310	M36 - 2.0	400	5,802	34.0
-42	30	330	M42 - 2.0	400	5,802	40.0		
-52	38	450	M52 - 2.0	315	4,569	50.0		

Thread Identification

Japanese Industrial Standard Male Metric

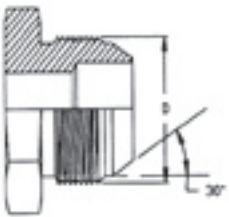
 <p>Applicable Standards Thread Form: Materials Available: S12L14 (Mild Steel) GB12361-12362 Part II (Drop Forged)</p>	Dash Size	Nominal Tube Size		Thread Size & Pitch	Thread OD 'D'on Diagram	
		in	mm		mm	in
		12			12 - 1.5	12
	14	¼	6.4	14 - 1.5	14	0.551
	16			16 - 1.5	16	0.629
	18	⅜	10	18 - 1.5	18	0.708
	20			20 - 1.5	20	0.787
	22	½	12	22 - 1.5	22	0.866
	24			24 - 1.5	24	0.944
	30	¾	19	30 - 1.5	30	1.181
	33	1	25	33 - 1.5	33	1.299
	36			36 - 1.5	36	1.417
	42			42 - 1.5	42	1.653

Japanese Industrial Standard Female Metric


 <p>Applicable Standards Thread Form: Materials Available: S12L14 (Mild Steel) GB12361-12362 Part II (Drop Forged)</p>	Dash Size	Nominal Tube Size		Tread Size & Pitch	Thread ID 'D'on Diagram	
		in	mm		mm	in
		12			12 - 1.5	10.5
	14	¼	6.4	14 - 1.5	12.5	0.492
	16			16 - 1.5	14.5	0.571
	18	⅜	10	18 - 1.5	16.5	0.649
	20			20 - 1.5	18.5	0.728
	22	½	12	22 - 1.5	20.5	0.807
	24			24 - 1.5	22.5	0.886
	30	¾	19	30 - 1.5	28.5	1.122
	33	1	25	33 - 1.5	31.5	1.240
	36			36 - 1.5	36.5	1.437
	42			42 - 1.5	40.5	1.594

Thread Identification

Japanese Industrial Standard Male - BSPP

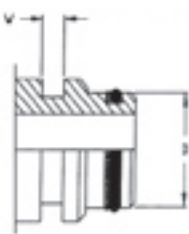
 <p>Applicable Standards Thread Form: JIS B8363 Materials Available: S12L14 (Mild Steel) GB12361-12362 Part II (Drop Forged)</p>	Dash Size	Nominal Tube Size		Thread Size & Pitch	Max Working Pressure		Thread OD 'D'on Diagram	
		in	mm		Bar	PSI	mm	in
	02	1/8	3.2	1/8 - 28	350	5,076	9.73	.383
	04	1/4	6.4	1/4 - 19	350	5,076	13.16	.518
	06	3/8	10	3/8 - 19	275	3,989	16.67	.656
	08	1/2	12	1/2 - 14	210	3,046	20.96	.825
	12	3/4	19	3/4 - 14	170	2,466	26.45	1.041
	16	1	25	1 - 11	140	2,031	33.25	1.309
	20	1 1/4	32	1 1/4 - 11	80	1,160	41.91	1.650
	24	1 1/2	38	1 1/2 - 11	70	1,015	47.81	1.882
32	2	50	2 - 11	70	1,015	59.62	2.347	

Japanese Industrial Standard Female - BSPP

 <p>Applicable Standards Thread Form: JIS B8363 Materials Available: S12L14 (Mild Steel) GB12361-12362 Part II (Drop Forged)</p>	Dash Size	Nominal Tube Size		Thread Size & Pitch	Max Working Pressure		Thread OD 'D'on Diagram	
		in	mm		Bar	PSI	mm	in
	02	1/8	3.2	1/8 - 28	350	5,076	8.59	.338
	04	1/4	6.4	1/4 - 19	350	5,076	11.46	.451
	06	3/8	10	3/8 - 19	275	3,989	14.96	.589
	08	1/2	12	1/2 - 14	210	3,046	18.65	.734
	12	3/4	19	3/4 - 14	170	2,466	24.13	.950
	16	1	25	1 - 11	140	2,031	30.30	1.193
	20	1 1/4	32	1 1/4 - 11	80	1,160	38.97	1.534
	24	1 1/2	38	1 1/2 - 11	70	1,015	44.86	1.766
32	2	50	2 - 11	70	1,015	56.67	2.231	

Thread Identification

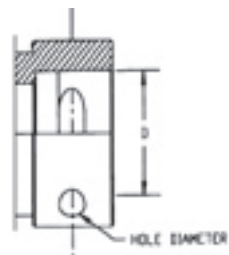
Staple Lock Male



Dash Size	Max Working Pressure DIN20 043		Nominal Tube Size		'W' on Diagram		'D' on Diagram	
	Bar	PSI	in	mm	mm	in	mm	in
04	640	9,282	¼	6	5.1	0.201	9.90	0.390
06	530	7,687	⅜	10	5.1	0.201	13.90	0.547
08	500	7,252	½	13	5.1	0.201	17.90	0.705
12	450	6,527	¾	20	5.1	0.201	23.90	0.941
16	400	5,802	1	25	7.1	0.280	30.90	1.216
20	300	4,351	1¼	32	7.1	0.280	37.90	1,492
24	-	-	1½	40	7.1	0.280	46.90	1.846
32	-	-	2	50	7.1	0.280	55.90	2.200

Applicable Standards
 Thread Form: DIN 20 043 + SAE J1467
 Materials Available: S 12L14 (Mild Steel)
 GB12361-12362 Part II (Drop Forged)

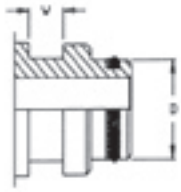
Staple Lock Female



Dash Size	Max Working Pressure DIN20 043		Nominal Tube Size		'W' on Diagram		'D' on Diagram	
	Bar	PSI	in	mm	mm	in	mm	in
04	640	9,282	¼	6	6	0.235	15.16	0.597
06	530	7,687	⅜	10	6	0,235	20.17	0.794
08	500	7,252	½	13	6	0.235	24.16	0.951
12	450	6,527	¾	20	6	0.235	29.16	1.148
16	400	5,802	1	25	8.4	0.330	39.12	1,540
20	300	4,351	1¼	32	8.4	0.330	46.15	1.817
24	-	-	1½	40	8.75	0.345	55.22	2.174
32	-	-	2	50	8.75	0.345	64.21	2.528

Applicable Standards
 Thread Form: DIN 20 043 + SAE J1467
 Materials Available: S 12L14 (Mild Steel)
 GB12361-12362 Part II (Drop Forged)

High Pressure Staple Lock Male



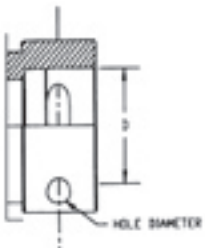
Dash Size	Nominal Tube Size		'W' on Diagram		'D' on Diagram	
	in	mm	mm	in	mm	in
12	¾	20	9	0.354	21.9	0.862
16	1	25	13	0.511	27.0	1.062
20	1¼	32	13	0.511	37.8	1.488
24	1½	40	13	0.511	43.9	1.728
32	2	50	13	0.511	49.9	1.964

Applicable Standards
 Thread Form:
 Materials Available: S 12L14
 (Mild Steel) GB12361-12362
 Part II (Drop Forged)

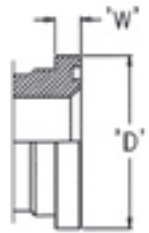


Thread Identification

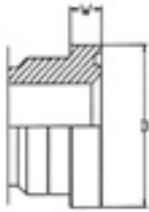
High Pressure Staple Lock Female

 <p>Applicable Standards Thread Form: Materials Available: S 12L14 (Mild Steel) GB12361-12362 Part II (Drop Forged)</p>	Dash Size	Nominal Tube Size		'W' on Diagram		'D' on Diagram	
		in	mm	mm	in	mm	in
	12	¾	20	9.5	0.374	30.2	1.189
	16	1	25	13.5	0.531	40.4	1.590
	20	1¼	32	13.5	0.531	46.6	1.834
	24	1½	40	13.5	0.531	56.6	2.230
32	2	50	13.5	0.531	65.4	2.574	

SAE J518 Code 61 Flange

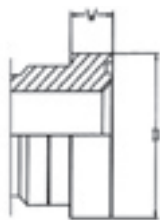
 <p>Applicable Standards Thread Form: SAE J518 Materials Available: S12L14 (Mild Steel) GB12361-12362 Part II (Drop Forged)</p>	Dash Size	Nominal Tube Size		'W' on Diagram		Max Working Pressure		Flange O.D. 'D' on Diagram	
		in	mm	mm	in	Bar	PSI	mm	in
	08	½	12.7	6.73	0.265	350	5,076	30.18	1.188
	10	⅝	16	6.73	0.265	350	5,076	34.00	1.340
	12	¾	19	6.73	0.265	350	5,076	38.10	1.500
	16	1	25.4	8.00	0.315	350	5,076	44.45	1.750
	20	1¼	32	8.00	0.315	280	4,061	50.80	2.000
	24	1½	38	8.00	0.315	210	3,046	60.33	2.375
	32	2	51	9.53	0.375	210	3,046	71.42	2.812
40	2½	63.5	9.53	0.375	190	2,756	84.12	3.312	

SAE J518 Code 62 Flange

 <p>Applicable Standards Thread Form: SAE J518 Materials Available: S12L14 (Mild Steel) GB12361-12362 Part II (Drop Forged)</p>	Dash Size	Nominal Tube Size		'W' on Diagram		Max Working Pressure		Flange O.D. 'D' on Diagram	
		in	mm	mm	in	Bar	PSI	mm	in
	08	½	12.7	7.75	0.305	420	6,092	31.75	1.250
	12	¾	19	8.76	0.345	420	6,092	41.28	1.625
	16	1	25.4	9.53	0.375	420	6,092	47.63	1.875
	20	1¼	32	10.29	0.405	420	6,092	53.98	2.125
24	1½	38	12.57	0.495	420	6,092	63.50	2.500	
32	2	51	12.57	0.495	420	6,092	79.38	3.125	

Thread Identification

Caterpillar® Type Flange



Applicable Standards

Thread Form: SAE J518
 Materials Available: S12L14 (Mild Steel)
 GB12361-12362 Part II (Drop Forged)

Dash Size	Nominal Tube Size		'W' on Diagram		Max Working Pressure		Flange O.D. 'D' on Diagram	
	in	mm	mm	in	Bar	PSI	mm	in
12	¾	19	14.2	0.560	420	6,092	41.28	1.625
16	1	25.4	14.2	0.560	420	6,092	47.63	1.875
20	1¼	32	14.2	0.560	420	6,092	53.98	2.125
24	1½	38	14.2	0.560	420	6,092	63.50	2.500
32	2	51	14.2	0.560	420	6,092	79.38	13.125

'O' Ring Face Seal Male

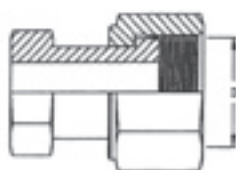


Applicable Standards

Thread Form: SAE J1453
 Materials Available: S12LI4
 (Mild Steel) GB12361-12362 Part II
 (Drop Forged)

Dash Size	Nominal Tube Size		Nominal Thread Size & Pitch	Correct Torque (Nm)	Max Working Pressure SAE J1453		Thread OD 'D' on Diagram	
	in	mm			Bar	PSI	mm	in
04	¼	6.4	9/16 - 18	15	420	6,092	14.22	0.56
06	3/8	10	1 1/16 - 16	25	420	6,092	17.52	0.69
08	½	12	1 3/16 - 16	45	420	6,092	20.82	0.82
10	5/8	16	1 - 14	65	420	6,092	25.4	1.00
12	¾	19	1 3/16 - 12	95	420	6,092	30.22	1.19
16	1	25	1 7/16 - 12	130	420	6,092	36.57	1.44
20	1¼	32	1 11/16 - 12	190	280	4,061	42.92	1.69
24	1½	38	2 - 12	220	220	3,191	50.80	2.00

'O' Ring Face Seal Female



Applicable Standards

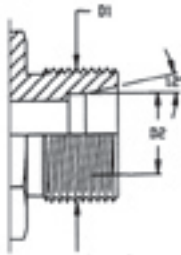
Thread Form: SAE J1453
 Materials Available: S12LI4
 (Mild Steel) GB12361-12362 Part II
 (Drop Forged)

Dash Size	Nominal Tube Size		Nominal Thread Size & Pitch	Correct Torque (Nm)	Max Working Pressure SAE J1453		Thread OD 'D' on Diagram	
	in	mm			Bar	PSI	mm	in
04	¼	6.4	9/16 - 18	15	420	6,092	12.95	0.51
06	3/8	10	1 1/16 - 16	25	420	6,092	16.00	0.63
08	½	12	1 3/16 - 16	45	420	6,092	19.05	0.75
10	5/8	16	1 - 14	65	420	6,092	23.62	0.93
12	¾	19	1 3/16 - 12	95	420	6,092	28.19	1.11
16	1	25	1 7/16 - 12	130	420	6,092	34.54	1.36
20	1¼	32	1 11/16 - 12	190	280	4,061	40.89	1.61
24	1½	38	2 - 12	220	220	3,191	48.76	1.92

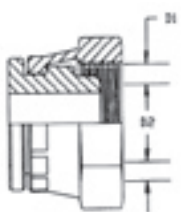


Thread Identification

GAZ French Metric Male

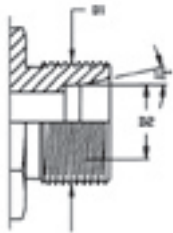
 <p>Applicable Standards Thread Form: Materials Available: S12L14 (Mild Steel)</p>	Dash Size	Nominal Tube Size 'D2'	Nominal Thread Size and Pitch	Thread O.D. 'D' on Diagram	
		mm		mm	in
	20	13.25	M20 - 1.5	20	0.787
	24	16.75	M24 - 1.5	24	0.944
	30	21.25	M30 - 1.5	30	1.181
	36	26.75	M36 - 1.5	36	1.417
	45	33.50	M45 - 1.5	45	1.771
	52	42.25	M52 - 1.5	52	2.047
58	48.25	M58 - 2.0	58	2.283	

GAZ French Metric Female

 <p>Applicable Standards Thread Form: Materials Available: S12L14 (Mild Steel)</p>	Dash Size	Nominal Tube Size 'D2'	Nominal Thread Size and Pitch	Thread O.D. 'D' on Diagram	
		mm		mm	in
	20	13.25	M20 - 1.5	18.5	0.728
	24	16.75	M24 - 1.5	22.5	0.885
	30	21.25	M30 - 1.5	28.5	1.122
	36	26.75	M36 - 1.5	34.5	1.358
	45	33.50	M45 - 1.5	43.5	1.712
	52	42.25	M52 - 1.5	50.5	1.988
58	48.25	M58 - 2.0	55.0	2.165	

Thread Identification

Kobelco Metric Male



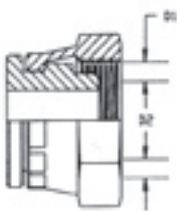
Applicable Standards

Thread Form:

Materials Available: S12L14 (Mild Steel)

Dash Size	Nominal Tube Size 'D2'	Nominal Thread Size and Pitch	Thread O.D. 'D'on Diagram	
	mm		mm	in
30	22.30	M30 - 1.5	30	1.181
36	28.20	M36 - 1.5	36	1.417
45	35.20	M45 - 1.5	45	1.771

Kobelco Metric Female



Applicable Standards

Thread Form:

Materials Available: S12L14 (Mild Steel)

Dash Size	Nominal Tube Size 'D2'	Nominal Thread Size and Pitch	Thread O.D. 'D'on Diagram	
	mm		mm	in
30	22.30	M30 - 1.5	28.5	1.122
36	28.20	M36 - 1.5	34.5	1.358
45	35.20	M45 - 1.5	43.5	1.712

FLEUTRAL NX-16 1" 5500

**H
O
S
E**



Hose

J3 Rubber Cover Push-On 300 PSI

- Tube: High oil resistant synthetic rubber
 Reinforcement: Synthetic Fiber
 Cover: Black, oil, abrasion and weather resistant synthetic rubber
 Temperature: -40°C to +88°C (-40°F to + 190°F)
 Packaging: Reels
 Application: Petroleum based hydraulic fluids, gasoline, water, diesel fuels and lubricating oils



PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE	MINIMUM BURST PRESSURE	MINIMUM BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)		
J3-04BK*	1/4	0.54	13.7	300	1,200	2.5	64	.09	J04-	
J3-05BK*	5/16	0.62	15.7	300	1,200	3.0	76	.14	J05-	
J3-06BK*	3/8	0.69	17.5	300	1,200	3.0	76	.14	J06-	
J3-08BK*	1/2	0.81	20.6	300	1,200	5.0	127	.16	J08-	
J3-10BK*	5/8	0.93	23.6	300	1,200	6.0	152	.20	J10-	
J3-12BK*	3/4	1.07	27.2	300	1,200	7.0	178	.25	J12-	

* BK indicates the color black, for other colors change the suffix to the following: BL - Blue, GY - Grey, GN - Green, RD - Red, BN - Brown, YW - Yellow or WH - White.

YK Rubber DOT Air Brake Hose

- Tube: Black Nitrile
 Reinforcement: Synthetic Fiber
 Cover: Black, oil, abrasion and weather resistant synthetic rubber
 Temperature: -29°C to +88°C (-20°F to +190°F)
 Packaging: Reels
 Application: Air brake hose lines



PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE	MINIMUM BURST PRESSURE	MINIMUM BEND RADIUS		WEIGHT (lbs/ft)	REUSABLE COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)		
YK-06	3/8	0.75	19.05	225	900	3.5	89	0.24	Y06-	
YK-08	1/2	0.88	22.23	225	900	4.0	102	0.29	Y08-	



Hose

ZX Air Conditioning

Meets or exceeds J2064 "Type C Class II" Hose Performance

Tube: Neoprene
 Reinforcement: Two Layers of synthetic fabric
 Cover: EPDM
 Temperature: -30°C to +125°C (-20°F to +257°F)
 Packaging: Reels
 Application: R12 / R134a refrigerants



PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE	MINIMUM BURST PRESSURE	MINIMUM BEND RADIUS		WEIGHT	ONE PIECE	
	(in)	(mm)	(in)	(mm)			(in)	(mm)		(lbs/ft)	COUPLINGS
ZX-06	5/16	0.75	19.1	400	2,000	4.0	102	0.20	Z06-		
ZX-08	13/32	0.91	23.0	400	2,000	4.5	114	0.28	Z08-		
ZX-10	1/2	1.00	25.4	400	2,000	5.0	127	0.33	Z10-		
ZX-12	5/8	1.13	28.6	400	2,000	6.5	165	0.38	Z12-		

TBR Smooth Bore Teflon / Stainless Steel Wire

Meets or exceeds the requirements of SAE 100R14

Tube: Smooth bore teflon (.030 wall)
 Cover: One braid of 304 stainless steel wire
 Temperature: -54°C to 232°C (-65°F to +450°F) Continuous service
 -73°C to +260°C (-100°F to +500°F) Intermittent service
 Packaging: Random coils
 Application: Steam, chemical, automotive, food processing, pharmaceutical and petroleum based hydraulic fluids



PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE	MINIMUM BURST PRESSURE	MINIMUM BEND RADIUS		WEIGHT	ONE PIECE	
	(in)	(mm)	(in)	(mm)			(in)	(mm)		(lbs/ft)	COUPLINGS
TBR-03	3/16	0.32	8.1	3,000	12,000	2.0	51	0.07	TS03-		
TBR-04	1/4	0.38	9.7	3,000	12,000	3.0	76	0.10	TS04-		
TBR-06	3/8	0.50	12.7	2,250	9,000	4.5	114	0.12	TS06-		
TBR-08	1/2	0.65	16.5	1,500	6,000	6.5	165	0.15	TS08-		
TBR-10	5/8	0.78	19.8	1,200	4,800	7.7	196	0.17	TS10-		
TBR-12	3/4	0.89	22.6	1,100	4,400	8.2	208	0.20	TS12-		
TBR-16	1	1.14	28.9	900	3,600	10	254	0.30	TS16-		

Note: TBR-03 thru -08 sizes are rated for full vacuum.

Hose

PW3000BU 3000 PSI Blue Pressure Wash

Tube: Seamless, black synthetic rubber
Reinforcement: One braid of high tensile steel wire
Cover: Blue, non-marking, smooth abrasion & weather resistant synthetic rubber
Temperature: -29°C to +121°C (-20°F to +250°F)
Packaging: Coils



PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE (psi)	MINIMUM BURST PRESSURE (psi)	MINIMUM BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)		
PW3000BU-04	¼	13.5	0.53	13.5	3,000	12,000	1.90	48	0.16	E04-
PW3000BU-06	⅜	17.6	0.69	17.6	3,000	12,000	2.24	57	0.24	E06-
PW3000BU-08	½	20.0	0.82	20.0	3,000	12,000	3.27	84	0.32	E08-

PW4000BU 4000 PSI Blue Pressure Wash

Tube: Seamless, black synthetic rubber
Reinforcement: One braid of high tensile steel wire
Cover: Blue, non-marking, smooth abrasion & weather resistant synthetic rubber
Temperature: -29°C to +121°C (-20°F to +250°F)
Packaging: Coils
Application: Pressure wash equipment and agricultural spraying



PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE (psi)	MINIMUM BURST PRESSURE (psi)	MINIMUM BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)		
PW4000BU-04	¼	13.5	0.53	13.5	4,000	16,000	1.90	48	0.16	E04-
PW4000BU-06	⅜	17.6	0.69	17.6	4,000	16,000	2.24	57	0.24	E06-
PW4000BU-08	½	20.0	0.82	20.0	4,000	16,000	3.27	84	0.32	E08-

PW4500BU 4500 PSI Blue Pressure Wash

Tube: Seamless, black synthetic rubber
Reinforcement: Two braids of high tensile steel wire
Cover: Blue, non-marking, smooth abrasion & weather resistant synthetic rubber
Temperature: -29°C to +121°C (-20°F to +250°F)
Packaging: Coils
Application: Pressure wash equipment and agricultural spraying



PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE (psi)	MINIMUM BURST PRESSURE (psi)	MINIMUM BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)		
PW4500BU-04	¼	13.5	0.53	13.5	4,500	18,000	2.35	60	0.21	E04-
PW4500BU-06	⅜	17.6	0.69	17.6	4,500	18,000	2.58	66	0.27	E06-
PW4500BU-08	½	20.0	0.82	20.0	4,500	18,000	4.10	104	0.36	E08-



Hose

PW3000BK 3000 PSI Black Pressure Wash

Tube: Seamless, black synthetic rubber
Reinforcement: One braid of high tensile steel wire
Cover: Black, smooth abrasion & weather resistant synthetic rubber
Temperature: -29°C to +121°C (-20°F to +250°F)
Packaging: Coils
Application: Pressure wash equipment and agricultural spraying



PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE (psi)	MINIMUM BURST PRESSURE (psi)	MINIMUM BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)		
PW3000BK-04	1/4	13.5	0.53	13.5	3,000	12,000	1.90	48	0.16	E04-
PW3000BK-06	3/8	17.6	0.69	17.6	3,000	12,000	2.24	57	0.12	E06-
PW3000BK-08	1/2	20.0	0.82	20.0	3,000	12,000	3.29	84	0.17	E08-

PW4000BK 4000 PSI Black Pressure Wash

Tube: Seamless, black synthetic rubber
Reinforcement: One braid of high tensile steel wire
Cover: Black, smooth abrasion & weather resistant synthetic rubber
Temperature: -29°C to +121°C (-20°F to +250°F)
Packaging: Coils
Application: Pressure wash equipment and agricultural spraying



PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE (psi)	MINIMUM BURST PRESSURE (psi)	MINIMUM BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)		
PW4000BK-04	1/4	13.5	0.53	13.5	4,000	16,000	1.90	48	0.16	E04-
PW4000BK-06	3/8	17.6	0.69	17.6	4,000	16,000	2.24	57	0.24	E06-
PW4000BK-08	1/2	20.0	0.82	20.0	4,000	16,000	3.27	84	0.32	E08-

PW4500BK 4500 PSI Black Pressure Wash

Tube: Seamless, black synthetic rubber
Reinforcement: Two braids of high tensile steel wire
Cover: Black, smooth abrasion & weather resistant synthetic rubber
Temperature: -29°C to +121°C (-20°F to +250°F)
Packaging: Coils
Application: Pressure wash equipment and agricultural spraying



PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE (psi)	MINIMUM BURST PRESSURE (psi)	MINIMUM BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)		
PW4500BK-04	1/4	13.5	0.53	13.5	4,500	18,000	2.35	60	0.21	E04-
PW4500BK-06	3/8	17.6	0.69	17.6	4,500	18,000	2.58	66	0.27	E06-
PW4500BK-08	1/2	20.0	0.82	20.0	4,500	18,000	4.10	104	0.36	E08-

Hose

701 100R7 Thermoplastic

Meets or exceeds the requirements of SAE 100R7



- Tube: Polyester
- Reinforcement: One braid, synthetic fiber
- Cover: Black polyurethane
- Temperature: -40°C to +100°C (-40°F to +212°F)
- Packaging: Reels
- Application: Petroleum based hydraulic fluids, water, and a wide range of chemicals

PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE	MINIMUM BURST PRESSURE	MINIMUM BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE	COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)			
701-02	1/8	0.34	8.6	3,000	12,000	0.5	13	0.03			
701-03	3/16	0.43	10.9	3,000	12,000	0.8	19	0.05	T03-		
701-04	1/4	0.51	13.0	3,300	13,200	1.3	32	0.06	T04-		
701-05	5/16	0.60	15.1	3,000	12,000	1.8	44	0.07	T05-		
701-06	3/8	0.66	16.8	3,000	12,000	2.0	51	0.09	T06-		
701-08	1/2	0.82	20.8	2,000	8,000	3.0	76	0.14	T08-		
701-12	3/4	1.07	27.2	1,500	6,000	5.0	127	0.19	T12-		
701-16	1	1.34	34.1	1,000	4,000	8.0	203	0.26	T16-		

703 100R7 Non-conductive Thermoplastic

Meets or exceeds the requirements of SAE 100R7 / ANSI 92.2 standard for aerial lift equipment



- Tube: Polyester
- Reinforcement: One braid of synthetic fiber
- Cover: Orange non-conductive polyurethane
- Temperature: -40°C to +100°C (-40°F to +212°F)
- Packaging: Reels
- Application: Petroleum based hydraulic fluids for telephone and power line serving vehicles. Final testing at 75kw per foot (AC) assures that microampere leakage will not exceed 50

PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE	MINIMUM BURST PRESSURE	MINIMUM BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE	COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)			
703-04	1/4	0.51	12.4	3,300	13,200	1.3	33	0.06	T04-		
703-05	5/16	0.60	14.7	3,000	10,000	1.8	46	0.08	T05-		
703-06	3/8	0.66	16.3	3,000	9,000	2.0	51	0.10	T06-		
703-08	1/2	0.82	14.7	2,000	8,000	3.0	76	0.14	T08-		



Hose

721 100R7 Twin Line Thermoplastic

Meets or exceeds the requirements of SAE 100R7

Tube: Polyester
 Reinforcement: Synthetic Fiber
 Cover: Black polyurethane
 Temperature: -40°C to +100°C (-40°F to +212°F)
 Packaging: Bundles
 Application: Petroleum based hydraulic fluids, water, diesel fuels and lubricating oils



PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE (psi)	MINIMUM BURST PRESSURE (psi)	MINIMUM BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE	COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)			
721-04	1/4	0.51	13.0	3,300	13,200	1.3	31	0.06	T04-		
721-05	5/16	0.60	15.1	3,000	12,000	1.8	44	0.08	T05-		
721-06	3/8	0.66	16.8	3,000	12,000	2.0	51	0.10	T06-		
721-08	1/2	0.82	20.8	2,000	8,000	3.0	76	0.14	T08-		

801 100R8 Thermoplastic

Meets or exceeds the requirements of SAE 100R8

Tube: Polyester
 Reinforcement: Braided high tensile Aramid fiber
 Cover: Black polyurethane
 Temperature: -40°C to +100°C (-40°F to +212°F)
 Packaging: Bundles
 Application: Petroleum based hydraulic fluids, water, diesel fuels and lubricating oils.



PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE (psi)	MINIMUM BURST PRESSURE (psi)	MINIMUM BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE	COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)			
801-03	3/16	0.43	13.1	5,000	20,000	1.5	38	0.08			
801-04	1/4	0.51	15.9	5,000	20,000	2.0	51	0.12			
801-06	3/8	0.66	19.5	4,000	16,000	2.5	64	0.15			
801-08	1/2	0.82	22.7	3,500	14,000	4.0	102	0.19			
801-12	3/4	1.07	28.9	2,250	9,000	6.5	165	0.26			
801-16	1	1.34	37.4	2,000	8,000	10.0	254	0.39			

Hose

714 Thermoplastic Paint One Wire Braid



- Tube: Nylon
- Reinforcement: One braid of high tensile steel wire
- Cover: Blue Polyurethane
- Temperature: -40°C to +100°C (-40°F to +212°F)
- Packaging: Reels
- Application: Hydraulic fluids, water, airless paint spray equipment, and a wide range of chemicals

PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE (psi)	MINIMUM BURST PRESSURE (psi)	MINIMUM BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE		
	(in)	(in)	(in)	(mm)			(in)	(mm)		COUPLINGS		
714-04	1/4	0.51	11.7		4,500	18,000	1.5	37	0.11			
714-06	3/8	0.60	15.1		3,250	13,000	2.0	50	0.15			
714-08	1/2	0.72	18.3		3,000	12,000	3.0	75	0.20			



Hose

LX 100R3 Rubber Cover Fabric Braid

Meets or exceeds the requirements of SAE 100R3

- Tube: Black, oil and heat-resistant synthetic rubber
- Reinforcement: Two braid of synthetic yarn
- Cover: Black, oil abrasion and weather resistant synthetic rubber
- Temperature: -40°C to +100°C (-40°F to +212°F)
- Packaging: Reels
- Application: Petroleum based hydraulic fluids and pneumatic service



PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE (psi)	MINIMUM BURST PRESSURE (psi)	MINIMUM BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)		
LX-04	1/4	6.35	0.56	14.3	1,250	5,000	3.0	76	0.13	E04-
LX-06	3/8	9.53	0.75	19.0	1,125	4,500	4.0	102	0.20	E06-
LX-08	1/2	12.70	0.94	23.8	1,000	4,000	5.0	127	0.28	E08-

HX 100R4 Suction / Return Hose

Meets or exceeds the requirements of SAE 100R4

- Tube: Seamless, black, oil and heat resistant synthetic rubber
- Reinforcement: Textile braided with spiral wire to prevent collapsing
- Cover: Black synthetic oil and heat resistant rubber, MSHA approved
- Temperature: -40°C to +100°C (-40°F to +212°F)
- Packaging: 100' coils
- Application: Petroleum and water base hydraulic fluids in suction lines or in low pressure return lines



PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE (psi)	MINIMUM BURST PRESSURE (psi)	MINIMUM BEND RADIUS		WEIGHT (lbs/ft)	VACUUM HG (in)	ONE PIECE COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)			
HX-12	3/4	19.05	1.14	29.0	300	1,200	5.0	127	.39	28	E12-, N12-
HX-16	1	25.40	1.50	38.1	250	1,000	6.0	152	.65	28	E16-, N16-
HX-20	1 1/4	31.75	1.77	45.0	200	800	8.0	203	.98	28	E20-, N20-
HX-24	1 1/2	38.10	2.09	53.0	150	600	10.0	254	1.11	28	E24-, N24-
HX-32	2	50.80	2.45	62.2	100	400	12.0	305	1.08	28	E32-, N32-
HX-40	2 1/2	63.50	3.13	79.5	100	400	14.0	356	1.88	28	
HX-48	3	76.20	3.63	92.2	100	400	18.0	457	2.02	28	

Hose

HH 100R4 High-Temp Suction / Return Hose

Meets or exceeds the requirements of SAE 100R4



- Tube: Seamless, black, oil and heat resistant synthetic rubber
- Reinforcement: Textile braided with spiral wire to prevent collapsing
- Cover: Black synthetic oil and heat resistant rubber, MSHA approved
- Temperature: -40°C to +121°C (-40°F to +250°F)
- Packaging: 100' coils
- Application: Petroleum and water base hydraulic fluids in suction lines or in low pressure return lines

PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE (psi)	MINIMUM BURST PRESSURE (psi)	MINIMUM BEND RADIUS		WEIGHT (lbs/ft)	VACUUM HG (in)	ONE PIECE COUPLINGS
	(in)	(in)	(mm)	(in)			(mm)				
HH-12	3/4	1.15	29.2	300	1,200	5.0	127	.49	28	E12-, N12-	
HH-16	1	1.48	37.6	250	1,000	6.0	152	.60	28	E16-, N16-	
HH-20	1 1/4	1.80	45.7	200	800	8.0	203	.80	28	E20-, N20-	
HH-24	1 1/2	2.08	52.8	150	600	10.0	254	.96	28	E24-, N24-	
HH-32	2	2.51	63.8	100	400	12.0	305	1.25	28	E32-, N32-	
HH-40	2 1/2	3.13	79.5	62	250	14.0	356	1.48	28		
HH-48	3	3.63	92.2	56	225	18.0	457	1.81	28		
HH-56	3 1/2	4.17	105.9	50	200	21.0	533	2.18	28		
HH-64	4	4.61	117.1	50	200	24.0	610	2.62	28		

FX 100R5 Textile Cover

Meets or exceeds performance requirements of SAE 100R5 and D.O.T. FMUSS 106



- Tube: Seamless, black, oil and heat resistant synthetic rubber
- Reinforcement: One braid of synthetic yarn and one braid of steel wire
- Cover: Black, impregnated textile braid, oil and mildew resistant, MSHA approved
- Temperature: -40°C to +135°C (-65°F to +275°F), intermittent use up to +149°C (+300°F)
- Packaging: 3/16" - 5/8" Reels, 7/8" and higher 50' Coils
- Application: Used for high temperature, medium pressure hydraulic applications.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE (psi)	MINIMUM BURST PRESSURE (psi)	MINIMUM BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS	REUSABLES COUPLINGS
	(in)	(in)	(mm)	(in)			(mm)				
FX-04	3/16	0.52	13.2	3,000	12,000	3.0	76	0.15	F04-	5R04-	
FX-05	1/4	0.58	14.8	3,000	12,000	3.4	86	0.18	F05-	5R05-	
FX-06	5/16	0.68	17.2	2,250	10,000	4.0	102	0.22	F06-	5R06-	
FX-08	13/32	0.77	19.5	2,000	8,000	4.6	117	0.30	F08-	5R08-	
FX-10	1/2	0.92	23.4	1,750	7,000	5.5	140	0.37	F10-	5R10-	
FX-12	5/8	1.08	27.4	1,500	6,000	6.5	165	0.45	F12-	5R12-	
FX-16	7/8	1.24	31.4	800	3,200	7.4	188	0.47	F16-	5R16-	
FX-20	1 1/8	1.50	38.3	625	2,500	9.0	229	0.58	F20-	5R20-	
FX-24	1 3/8	1.75	44.4	500	2,000	10.5	267	0.73	F24-	5R24-	
FX-32	1 13/16	2.22	56.4	350	1,400	13.3	338	0.90		5R32-	



Hose

FH 100R5 Textile Cover - Hi-Temp

Meets or exceeds performance requirements of SAE 100R5 and D.O.T. FMUSS 106



- Tube: Seamless, black, oil and heat resistant synthetic rubber
- Reinforcement: One braid of synthetic yarn and one braid of steel wire
- Cover: Blue, impregnated textile braid, oil and mildew resistant, MSHA approved
- Temperature: -40°C to +149°C (-40°F to +300°F) - petroleum bases fluids
-40°C to +107°C (-40°F to +225°F) - water/oil emulsions or water glycol solutions
-40°C to +42°C (-40°F to +180°F) - phosphate ester fluids
- Packaging: 3/16" - 5/8" Reels, 7/8" and higher 50' Coils
- Application: Used for high temperature, medium pressure hydraulic applications.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE (psi)	MINIMUM BURST PRESSURE (psi)	MINIMUM BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE	REUSABLE
	(in)	(mm)	(in)	(mm)			(in)	(mm)		COUPLINGS	COUPLINGS
FH-04	3/16	13.2	0.52	13.2	3,000	12,000	3.0	76	0.15	F04-	5R04-
FH-05	1/4	14.8	0.58	14.8	3,000	12,000	3.4	86	0.18	F05-	5R05-
FH-06	5/16	17.2	0.68	17.2	2,250	10,000	4.0	102	0.22	F06-	5R06-
FH-08	13/32	19.5	0.77	19.5	2,000	8,000	4.6	117	0.30	F08-	5R08-
FH-10	1/2	23.4	0.92	23.4	1,750	7,000	5.5	140	0.37	F10-	5R10-
FH-12	5/8	27.4	1.08	27.4	1,500	6,000	6.5	165	0.45	F12-	5R12-
FH-16	7/8	31.4	1.24	31.4	800	3,200	7.4	188	0.47	F16-	5R16-
FH-20	1 1/8	38.3	1.50	38.3	625	2,500	9.0	229	0.58	F20-	5R20-
FH-24	1 3/8	44.4	1.75	44.4	500	2,000	10.5	267	0.73	F24-	5R24-
FH-32	1 13/16	56.4	2.22	56.4	350	1,400	13.3	338	0.90		5R32-

AX 100R17

Meets or exceeds the requirements of SAE 100R17



- Tube: Seamless, black, oil and heat resistant synthetic rubber
- Reinforcement: 1/4" thru 1/2" One wire braid, 5/8" thru 1" Two wire braids
- Cover: Black, oil, abrasion and weather resistant synthetic rubber, MSHA approved
- Temperature: -40°C to +100°C (-40°F to +212°F), intermittent use up to +125°C (+257°F)
- Packaging: Reels
- Application: Petroleum based hydraulic fluids, gasoline, water, diesel fuels and lubricating oils

PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE (psi)	MINIMUM BURST PRESSURE (psi)	MINIMUM BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE	
	(in)	(mm)	(in)	(mm)			(in)	(mm)		COUPLINGS	
AX-04	1/4	13.2	0.52	13.2	3,000	12,000	2.0	50	0.11	E04-,T04-	
AX-06	3/8	17.0	0.67	17.0	3,000	12,000	2.5	65	0.17	E06-,T06-	
AX-08	1/2	21.1	0.83	21.1	3,000	12,000	3.5	90	0.28	E08-,T08-	
AX-10	5/8	25.9	1.02	25.9	3,000	12,000	4.0	105	0.41	E10-	
AX-12	3/4	30.3	1.19	30.3	3,000	12,000	5.0	125	0.55	E12-	
AX-16	1	38.6	1.52	38.6	3,000	12,000	6.0	150	0.82	E16-	

Hose

AXT 100R17

Meets or exceeds the requirements of SAE 100R17



- Tube: Seamless, black, oil and heat resistant synthetic rubber
- Reinforcement: 1/4" thru 1/2" One wire braid, 5/8" thru 1" Two wire braids
- Cover: Black, oil, abrasion and weather resistant synthetic rubber, MSHA approved
- Temperature: -40°C to +100°C (-40°F to +212°F), intermittent use up to +125°C (+257°F)
- Packaging: Reels
- Application: Petroleum based hydraulic fluids, gasoline, water, diesel fuels and lubricating oils

PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE	MINIMUM BURST PRESSURE	MINIMUM BEND RADIUS		WEIGHT	ONE PIECE	
	(in)	(in)	(mm)	(psi)			(psi)	(in)		(mm)	(lbs/ft)
AXT-04	1/4	.50	12.4	3,000	12,000	1.8	45	0.12	E04-,T04-		
AXT-06	3/8	.64	16.1	3,000	12,000	2.6	65	0.19	E06-,T06-		
AXT-08	1/2	.76	19.3	3,000	12,000	3.5	90	0.24	E08-,T08-		
AXT-10	5/8	.96	24.3	3,000	12,000	3.9	100	0.48	E10-		
AXT-12	3/4	1.10	28.0	3,000	12,000	4.7	120	0.56	E12-		
AXT-16	1	1.36	34.6	3,000	12,000	5.9	150	0.76	E16-		

DX 100R16

Meets or exceeds the requirements of SAE 100R16



- Tube: Seamless, black, oil and heat resistant synthetic rubber
- Reinforcement: Two braids of high tensile steel wire
- Cover: Black, oil, abrasion and weather resistant synthetic rubber, MSHA approved
- Temperature: -40°C to +100°C (-40°F to +212°F), intermittent use up to +125°C (+257°F)
- Packaging: 1/4" - 5/8" Reels, 3/4" and higher Coils
- Application: Petroleum based hydraulic fluids, gasoline, water, diesel fuels and lubricating oils

PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE	MINIMUM BURST PRESSURE	MINIMUM BEND RADIUS		WEIGHT	ONE PIECE	
	(in)	(in)	(mm)	(psi)			(psi)	(in)		(mm)	(lbs/ft)
DX-04	1/4	0.56	14.2	5,800	23,200	3.0	76	0.17	E04-		
DX-06	3/8	0.72	18.3	5,000	20,000	3.5	89	0.26	E06-		
DX-08	1/2	0.85	21.5	4,500	18,000	5.0	127	0.35	E08-		
DX-10	5/8	0.97	24.7	4,000	16,000	6.3	159	0.40	E10-		
DX-12	3/4	1.13	28.6	3,500	14,000	8.0	203	0.54	E12-		
DX-16	1	1.44	36.6	2,700	10,800	10.0	254	0.77	E16-		
DX-20	1 1/4	1.78	45.2	1,625	6,500	8.3	211	1.83	N20-		



Hose

GX 1SN One Wire Braid Hose

Meets or exceeds the requirements of SAE 100R1AT-EN853
DIN 20022 1SN-ISO 1436 Type 1



- Tube: Seamless, black, oil and heat resistant synthetic rubber
- Reinforcement: One braid of high tensile steel wire
- Cover: Black, oil, abrasion and weather resistant synthetic rubber, MSHA approved
- Temperature: -40°C to +100°C (-40°F to +212°F), intermittent use up to +125°C (+257°F)
- Packaging: 3/16" - 1" Reels, 1 1/4" - 2" Coils
- Application: Petroleum based hydraulic fluids, gasoline, water, diesel fuels and lubricating oils

PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE (psi)	MINIMUM BURST PRESSURE (psi)	MINIMUM BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)		
GX-03	3/16	11.8	0.47	11.8	3,625	14,500	3.5	90	0.13	E03-
GX-04	1/4	13.4	0.53	13.4	3,265	13,060	4.0	100	0.15	E04-
GX-05	5/16	15.0	0.59	15.0	3,120	12,480	4.5	115	0.17	E05-
GX-06	3/8	17.4	0.69	17.4	2,610	10,440	5.0	130	0.22	E06-, N06-
GX-08	1/2	20.6	0.81	20.6	2,320	9,280	7.0	180	0.28	E08-, N08-
GX-10	5/8	23.7	0.93	23.7	1,885	7,540	8.0	200	0.34	E10-, N10-
GX-12	3/4	27.7	1.09	27.7	1,525	6,100	9.5	240	0.44	E12-, N12-
GX-16	1	35.6	1.40	35.6	1,275	5,100	12.0	300	0.70	E16-, N16-
GX-20	1 1/4	43.5	1.71	43.5	915	3,660	16.5	420	0.80	E20-, N20-
GX-24	1 1/2	50.6	1.99	50.6	725	2,900	20.0	500	1.08	E24-, N24-
GX-32	2	64.0	2.52	64.0	580	2,320	25.0	630	1.38	E32-, N32-

GU 1SN One Wire Braid Hose

Meets or exceeds the requirements of SAE 100R1AT-EN853
DIN 20022 1SN-ISO 1436 Type 1
Made in the US



- Tube: Seamless, black, oil and heat resistant synthetic rubber
- Reinforcement: One braid of high tensile steel wire
- Cover: Black, oil, abrasion and weather resistant synthetic rubber, MSHA approved
- Temperature: -40°C to +100°C (-40°F to +212°F), intermittent use up to +125°C (+257°F)
- Packaging: 3/16" - 1" Reels, 1 1/4" - 2" Coils
- Application: Petroleum based hydraulic fluids, gasoline, water, diesel fuels and lubricating oils

PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE (psi)	MINIMUM BURST PRESSURE (psi)	MINIMUM BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)		
GU-03	3/16	11.9	0.47	11.9	3,630	14,520	3.5	90	0.12	E03-
GU-04	1/4	13.6	0.53	13.6	3,270	13,080	4.0	100	0.15	E04-
GU-05	5/16	15.1	0.59	15.1	3,120	12,480	4.5	115	0.17	E05-
GU-06	3/8	17.5	0.69	17.5	2,615	10,460	5.0	130	0.22	E06-, N06-
GU-08	1/2	20.7	0.81	20.7	2,320	9,280	7.0	180	0.28	E08-, N08-
GU-10	5/8	23.8	0.94	23.8	1,890	7,560	8.0	200	0.33	E10-, N10-
GU-12	3/4	27.8	1.09	27.8	1,530	6,120	9.5	240	0.41	E12-, N12-
GU-16	1	35.8	1.41	35.8	1,280	5,120	12.0	300	0.62	E16-, N16-
GU-20	1 1/4	43.1	1.70	43.1	920	3,680	16.5	420	0.84	E20-, N20-
GU-24	1 1/2	50.1	1.97	50.1	730	2,920	20.0	500	1.09	E24-, N24-
GU-32	2	63.6	2.50	63.6	580	2,320	25.0	630	1.34	E32-, N32-

Hose

EX 2SN Two Wire Braid Hose

Meets or exceeds the requirements of SAE 100R2AT-EN853
DIN 20022 2SN-ISO 1436 Type 2



- Tube: Seamless, black, oil and heat resistant synthetic rubber
- Reinforcement: Two braids of high tensile steel wire
- Cover: Black, oil, abrasion and weather resistant synthetic rubber, MSHA approved
- Temperature: -40°C to +100°C (-40°F to +212°F), intermittent use up to +125°C (+257°F)
- Packaging: ¼" - 1" Reels, 1¼" - 2" Coils
- Application: Petroleum based hydraulic fluids, gasoline, water, diesel fuels and lubricating oils

PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE (psi)	MINIMUM BURST PRESSURE (psi)	MINIMUM BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)		
EX-03	3/16	0.53	13.4	6,020	24,080	3.5	90	0.26	E03-	
EX-04	1/4	0.59	15.1	5,805	23,220	3.9	100	0.26	E04-	
EX-05	5/16	0.65	16.6	5,080	20,320	4.5	115	0.26	E05-	
EX-06	3/8	0.75	19.1	5,000	20,000	5.0	130	0.37	E06-, N06-	
EX-08	1/2	0.87	22.2	4,000	16,000	7.1	180	0.45	E08-, N08-	
EX-10	5/8	1.00	25.4	3,625	14,500	7.9	200	0.54	E10-, N10-	
EX-12	3/4	1.15	29.3	3,120	12,480	9.5	240	0.67	E12-, N12-	
EX-16	1	1.50	38.1	2,395	9,580	11.8	300	0.98	E16-, N16-	
EX-20	1¼	1.90	48.3	1,815	7,260	16.5	420	1.43	E20-,N20-	
EX-24	1½	2.14	54.3	1,305	5,220	19.7	500	1.61	E24-,N24-	
EX-32	2	2.65	67.3	1,160	4,640	24.8	630	2.24	E32-,N32-	

EU 2SN Two Wire Braid Hose

Meets or exceeds the requirements of SAE 100R2AT-EN853
DIN 20022 2SN-ISO 1436 Type 2
Made in the US



- Tube: Seamless, black, oil and heat resistant synthetic rubber
- Reinforcement: Two braids of high tensile steel wire
- Cover: Black, oil, abrasion and weather resistant synthetic rubber, MSHA approved
- Temperature: -40°C to +100°C (-40°F to +212°F), intermittent use up to +125°C (+257°F)
- Packaging: ¼" - 1" Reels, 1¼" - 2" Coils
- Application: Petroleum based hydraulic fluids, gasoline, water, diesel fuels and lubricating oils

PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE (psi)	MINIMUM BURST PRESSURE (psi)	MINIMUM BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)		
EU-03	3/16	0.48	12.3	6,000	24,000	3.5	89	0.20	E03-	
EU-04	1/4	0.59	15.1	5,800	23,200	4.0	102	0.24	E04-	
EU-06	3/8	0.75	19.1	4,800	19,200	5.0	127	0.34	E06-, N06-	
EU-08	1/2	0.88	22.2	4,000	16,000	7.0	178	0.43	E08-, N08-	
EU-10	5/8	1.00	25.4	3,630	14,520	8.0	203	0.50	E10-, N10-	
EU-12	3/4	1.16	29.4	3,120	12,480	9.5	241	0.61	E12-, N12-	
EU-16	1	1.50	38.1	2,400	9,600	12.0	305	0.88	E16-, N16-	
EU-20	1¼	1.88	47.7	1,820	7,280	16.5	419	1.29	E20-,N20-	
EU-24	1½	2.13	54.1	1,310	5,240	20.0	508	1.61	E24-,N24-	
EU-32	2	2.63	66.7	1,160	4,640	25.0	635	1.98	E32-,N32-	



Hose

EA 2SN - HARC Rubber Cover

Meets or exceeds the requirements of SAE 100R2AT-EN853
DIN 20022 2SN-ISO 1436 Type 2



- Tube: Black; oil resistant synthetic rubber
- Reinforcement: Two braids of high tensile steel wire
- Cover: HARC (high abrasion resistant cover) - rubber compound
- Temperature: -40°C to +100°C (-40°F to +212°F), intermittent use up to +125°C (+257°F)
- Packaging: ¼" - 1" Reels, 1¼" - 2" Coils
- Application: Hydraulic systems with petroleum or water/glycol based fluids and for fuel and lubricating oils

* The special cover material, when tested to International Standards, (ISO) achieves 1000 times the abrasion resistance of standard hydraulic hoses.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE (psi)	MINIMUM BURST PRESSURE (psi)	MINIMUM BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(in)	(mm)	(in)			(mm)			
EA-04	¼	0.58	14.7	5,800	23,200	4.0	102	0.24	E04-	
EA-06	⅜	0.74	18.7	4,800	19,200	5.0	127	0.34	E06-, N06-	
EA-08	½	0.86	21.8	4,000	16,000	7.0	178	0.42	E08-, N08-	
EA-12	¾	1.14	29.0	3,120	12,480	9.5	241	0.60	E12-, N12-	
EA-16	1	1.48	37.6	2,400	9,600	12.0	305	0.89	E16-, N16-	
EA-20	1¼	1.88	47.7	1,820	7,280	16.5	419	1.29	E20-, N20-	
EA-24	1½	2.13	54.1	1,310	5,240	20.0	508	1.61	E24-, N24-	
EA-32	2	2.63	66.7	1,160	4,640	25.0	635	1.98	E32-, N32-	

EH 2SN - High Temp.

Meets or exceeds the requirements of SAE 100R2AT-EN853
DIN 20022 2SN-ISO 1436 Type 2



- Tube: Seamless, black, oil and heat resistant synthetic rubber
- Reinforcement: Two braids of high tensile steel wire
- Cover: Black, oil, abrasion and weather resistant synthetic rubber, MSHA approved
- Temperature: -40°C to +135°C (-40°F to +275°F)
- Packaging: ¼" - 1" Reels, 1¼" - 2" Coils
- Application: Petroleum based hydraulic fluids, gasoline, water, diesel fuels and lubricating oils

PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE (psi)	MINIMUM BURST PRESSURE (psi)	MINIMUM BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(in)	(mm)	(in)			(mm)			
EH-04	¼	0.58	14.7	5,800	23,200	4.0	102	0.24	E04-	
EH-06	⅜	0.74	18.7	4,800	19,200	5.0	127	0.34	E06-, N06-	
EH-08	½	0.86	21.8	4,000	16,000	7.0	178	0.43	E08-, N08-	
EH-10	⅝	0.99	25.0	3,630	14,520	8.0	203	0.50	E10-, N10-	
EH-12	¾	1.14	29.0	3,120	12,480	9.5	241	0.61	E12-, N12-	
EH-16	1	1.48	37.6	2,400	9,600	12.0	305	0.88	E16-, N16-	
EH-20	1¼	1.88	47.7	1,820	7,280	16.5	419	1.29	E20-, N20-	
EH-24	1½	2.13	54.1	1,310	5,240	20.0	508	1.61	E24-, N24-	
EH-32	2	2.63	66.7	1,160	4,640	25.0	635	1.98	E32-, N32-	

Hose

PX250

Meets or exceeds the requirements of SAE 100R2AT-EN857
DIN 20022 2SN-ISO 1436 Type 2



- Tube: Seamless, black, oil and heat resistant synthetic rubber
- Reinforcement: Two braids of high tensile steel wire
- Cover: Black, oil, abrasion and weather resistant synthetic rubber, MSHA approved
- Temperature: -40°C to +120°C (-40°F to +250°F)
- Packaging: ¼" - 1" Reels, 1¼" - 2" Coils
- Application: Petroleum based hydraulic fluids, gasoline, water, diesel fuels and lubricating oils

PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE (psi)	MINIMUM BURST PRESSURE (psi)	MINIMUM BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS		
	(in)	(mm)	(in)	(mm)			(in)	(mm)				
PX250-04	¼	13.8	.54	13.8	5,805	23,220	2.0	50	0.20	E04-		
PX250-05	5/16	15.6	.61	15.6	5,080	20,320	2.2	55	0.24	E05-		
PX250-06	3/8	17.7	.70	17.7	5,000	20,000	2.6	65	0.30	E06-, N06-		
PX250-08	½	21.0	.83	21.0	4,250	17,000	3.5	90	0.37	E08-, N08-		
PX250-10	5/8	24.3	.96	24.3	3,625	14,500	3.9	100	0.48	E10-, N10-		
PX250-12	¾	28.0	1.10	28.0	3,125	12,500	4.7	120	0.56	E12-, N12-		
PX250-16	1	34.6	1.36	34.6	3,000	12,000	5.9	150	0.76	E16-, N16-		



Hose

RX2

Meets or exceeds the requirements of SAE 100R2AT-EN857
DIN 20022 2SN-ISO 1436 Type 2



- Tube: Seamless, black, oil and heat resistant synthetic rubber
- Reinforcement: Two braids of high tensile steel wire
- Cover: Black, oil, abrasion and weather resistant synthetic rubber, MSHA approved
- Temperature: -40°C to +120°C (-40°F to +248°F)
- Packaging: ¾" - 1" Reels
- Application: Petroleum based hydraulic fluids, gasoline, water, diesel fuels and lubricating oils

PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE (psi)	MINIMUM BURST PRESSURE (psi)	MINIMUM BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE		
	(in)	(mm)	(in)	(mm)			(in)	(mm)		COUPLINGS		
RX2-12	¾		1.09	27.7	4,000	16,000	7.09	180	0.84	E12-,N12-		
RX2-16	1		1.41	35.6	3,500	14,000	8.66	220	1.14	N16-		

3X Forest Power Three Wire Braid Hose

- Tube: Seamless, black, oil and heat resistant synthetic rubber
- Reinforcement: Three braids of high tensile steel wire
- Cover: Black, oil, abrasion and weather resistant synthetic rubber
- Temperature: -40°C to +100°C (-40°F to +212°F), intermittent use up to +125°C (+257°F)
- Packaging: Coils
- Application: Petroleum based hydraulic fluids, gasoline, water, diesel fuels and lubricating oils & delimeter equipment.



PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE (psi)	MINIMUM BURST PRESSURE (psi)	MINIMUM BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE		
	(in)	(mm)	(in)	(mm)			(in)	(mm)		COUPLINGS		
3X-06	⅜		.787	20.0	7,200	28,800	4.7	120	0.45	N06-		
3X-08	½		.913	23.2	6,800	27,200	6.3	160	0.57	N08-		
3X-12	¾		1.22	31.0	5,400	21,600	10.2	260	0.89	N12-		
3X-16	1		1.48	37.5	4,500	18,000	12.2	310	1.41	N16-		

Hose

NX Four Spiral Hose - Ultra Flexible

Exceeds the requirements of SAE 100R12 - EN856



- Tube: Nitrile
- Reinforcement: Four spirals of high tensile wire
- Cover: Black neoprene, MSHA approved
- Temperature: 40°C to +121°C (-40°F to +250°F)
- Packaging: Coils
- Application: Hydraulic systems with petroleum or water/glycol based fluids and for fuel and lubricating oils.
Available in a "Greenline" environmental version suitable for use with biodegradable hydraulic oils based on rapeseed and synthetic esters.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE (psi)	MINIMUM BURST PRESSURE (psi)	MINIMUM BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE Non-Skive	ONE PIECE Skive
	(in)	(in)	(mm)	(mm)			(in)	(mm)		COUPLINGS	COUPLINGS
NX-06	3/8	0.79	20	20	5,000	20,000	5.0	127	0.40	N06-	
NX-08	1/2	0.94	24	24	5,000	20,000	7.0	178	0.54	N08-	
NX-10	5/8	1.06	27	27	5,000	20,000	8.0	203	0.74	N10-	
NX-12	3/4	1.26	32	32	5,000	20,000	9.5	241	0.89	N12-	X12-
NX-16	1	1.50	38	38	5,500	22,000	12.0	305	1.30	N16-	X16-
NX-20	1 1/4	1.81	46	46	5,000	20,000	16.5	419	1.79	N20-	X20-
NX-24	1 1/2	2.13	54	54	4,300	17,200	20.0	508	2.06	N24-	X24-
NX-32	2	2.68	68	68	3,600	14,400	25.0	635	2.78	N32-	X32-

QC Grey Bobcat - Four Spiral Hose

Meets or exceeds the requirements of SAE 100R12 - EN856



- Tube: Seamless, black, oil and heat resistant synthetic rubber
- Reinforcement: Four spirals of high tensile wire
- Cover: Grey, oil, abrasion and weather resistant synthetic rubber, MSHA approved
- Temperature: -40°C to +121°C (-40°F to +250°F)
- Packaging: Coils
- Application: Petroleum based hydraulic fluids, gasoline, water, diesel fuels and lubricating oils.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE (psi)	MINIMUM BURST PRESSURE (psi)	MINIMUM BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE Non-Skive	ONE PIECE Skive
	(in)	(in)	(mm)	(mm)			(in)	(mm)		COUPLINGS	COUPLINGS
QC-06	3/8	0.80	20	20	4,000	16,000	5.0	127	.40	N06-	
QC-08	1/2	0.94	24	24	4,000	16,000	7.0	178	.54	N08-	
QC-10	5/8	1.08	27	27	4,000	16,000	8.0	203	.74	N10-	
QC-12	3/4	1.21	31	31	4,000	16,000	9.5	241	.94	N12-	X12-
QC-16	1	1.50	38	38	4,000	16,000	12.0	305	1.34	N16-	X16-
QC-20	1 1/4	1.85	47	47	3,000	12,000	16.5	419	1.74	N20-	X20-
QC-24	1 1/2	2.10	53	53	2,500	10,000	20.0	508	2.01	N24-	X24-
QC-32	2	2.63	67	67	2,500	10,000	25.0	635	2.75	N32-	X32-

This hose is approved for use with OEM reuseables.



Hose

SX Four Spiral Wire Hose

Meets or exceeds the requirements of DIN 20023-4SH/4SP
(3/8" - 5/8" DIN 4SP) (3/4" - 2" DIN 4SH)



- Tube: Nitrile
- Reinforcement: Four spirals of high tensile steel wire
- Cover: Black neoprene, MSHA approved
- Temperature: -40°C to +100°C (-40°F to +212°F), intermittent use up to +125°C (+257°F)
- Packaging: Coils
- Application: Petroleum based hydraulic fluids, gasoline, water, diesel fuels and lubricating oils.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE	MINIMUM BURST PRESSURE	MINIMUM BEND RADIUS		WEIGHT	ONE PIECE Non-Skive	ONE PIECE Skive
	(in)	(in)	(mm)	(psi)			(psi)	(in)		(mm)	(lbs/ft)
SX-04	1/4	.71	17.9	6,550	26,200	6.0	152	0.39			
SX-06	3/8	.84	21.4	6,450	25,800	7.0	178	0.50	N06-		
SX-08	1/2	.97	24.6	6,000	24,000	9.0	229	0.59	N08-		
SX-10	5/8	1.11	28.2	5,000	20,000	10.0	254	0.73	N10-		
SX-12	3/4	1.27	32.2	6,000	24,000	11.0	279	1.06	N12-	X12-	
SX-16	1	1.52	38.7	5,500	22,000	13.5	343	1.30	N16-	X16-	
SX-20	1 1/4	1.79	45.5	4,700	18,800	18.5	470	1.65	N20-	X20-	
SX-24	1 1/2	2.11	53.5	4,200	16,800	22.5	572	2.19	N24-	X24-	
SX-32	2	2.68	68.0	3,650	14,600	28.0	711	3.13	N32-	X32-	

VX 100R13 Six Spiral Wire Hose

Meets or exceeds the requirements of SAE 100R13



- Tube: Nitrile
- Reinforcement: 3/4" & 1" 4 spirals, 1 1/4" thru 2" 6 spirals of high tensile steel
- Cover: Black neoprene, MSHA approved
- Temperature: -40°C to +121°C (-40°F to +250°F)
- Packaging: Coils
- Application: Hydraulic systems with petroleum or water/glycol based fluids and for fuel and lubricating oils. Available in a "Greenline" environmental version suitable for use with biodegradable hydraulic oils based on rapeseed and synthetic esters.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE	MINIMUM BURST PRESSURE	MINIMUM BEND RADIUS		WEIGHT	ONE PIECE Skive
	(in)	(in)	(mm)	(psi)			(psi)	(in)		(mm)
VX-12	3/4	1.26	32	5,000	20,000	9.5	240	1.07	X12-	
VX-16	1	1.52	39	5,000	20,000	12.0	300	1.40	X16-	
VX-20	1 1/4	1.96	50	5,000	20,000	16.5	419	2.48	X20-	
VX-24	1 1/2	2.26	57	5,000	20,000	20.0	508	3.22	X24-	
VX-32	2	2.80	71	5,000	20,000	25.0	635	5.03	X32-	

Hose

VC Red Lion - Six Spiral Wire Hose

Meets or exceeds the requirements of SAE 100R13



- Tube: Seamless, black, oil and heat resistant synthetic rubber
- Reinforcement: $\frac{3}{4}$ & 1" 4 spirals, 1 $\frac{1}{4}$ thru 2" 6 spirals of high tensile steel
- Cover: Red, oil, abrasion and weather resistant synthetic rubber, MSHA approved
- Temperature: -40°C to +121°C (-40°F to +250°F)
- Packaging: Coils
- Application: Petroleum based hydraulic fluids, gasoline, water, diesel fuels and lubricating oils

PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE (psi)	MINIMUM BURST PRESSURE (psi)	MINIMUM BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE Skive
	(in)	(mm)	(in)	(mm)			(in)	(mm)		COUPLINGS
VC-12	$\frac{3}{4}$	1.26	32.0	5,000	20,000	9.5	240	1.07	X12-	
VC-16	1	1.52	39.0	5,000	20,000	12.0	300	1.40	X16-	
VC-20	1 $\frac{1}{4}$	1.96	50.0	5,000	20,000	16.5	420	2.48	X20-	
VC-24	1 $\frac{1}{2}$	2.26	57.0	5,000	20,000	20.0	500	3.22	X24-	
VC-32	2	2.80	71.0	5,000	20,000	25.0	630	5.03	X32-	

CX Six Spiral Wire Hose

Meets or exceeds the requirements of SAE 100R15



- Tube: Nitrile
- Reinforcement: Six spiral layers of high tensile steel wire
- Cover: Black neoprene, MSHA approved
- Temperature: -40°C to +121°C (-40°F to +250°F)
- Packaging: Coils
- Application: Hydraulic systems with petroleum or water/glycol based fluids and for fuel and lubricating oils. Available in a "Greenline" environmental version suitable for use with biodegradable hydraulic oils based on rapeseed and synthetic esters.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE (psi)	MINIMUM BURST PRESSURE (psi)	MINIMUM BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE Skive
	(in)	(mm)	(in)	(mm)			(in)	(mm)		COUPLINGS
CX-06	$\frac{3}{8}$	0.69	17.5	6,000	24,000	6.0	150	0.51		
CX-08	$\frac{1}{2}$	0.80	20.2	6,000	24,000	8.0	200	0.59		
CX-12	$\frac{3}{4}$	1.20	30.7	6,000	24,000	11.0	280	1.09	X12-	
CX-16	1	1.52	38.7	6,000	24,000	11.8	300	1.46	X16-	
CX-20	1 $\frac{1}{4}$	1.97	50.0	6,000	24,000	15.7	400	2.40	X20-	
CX-24	1 $\frac{1}{2}$	2.27	57.6	6,000	24,000	19.7	500	3.02	X24-	
CX-32	2	2.95	75.0	6,000	24,000	23.6	600			



Hose

CC Black Panther - Six Spiral Wire Hose

Meets or exceeds the requirements of SAE 100R15

- Tube: Black; oil resistant synthetic rubber
- Reinforcement: Six spiral layers of high tensile steel wire
- Cover: Black; oil, water, ozone & flame resistant synthetic rubber
- Temperature: -40°C to +121°C (-40°F to +250°F)
- Packaging: Coils
- Application: Hydraulic systems with petroleum or water/glycol based fluids and for fuel and lubricating oils. Available in a "Greenline" environmental version suitable for use with biodegradable hydraulic oils based on rapeseed and synthetic esters. Also available in a Tuflex® cover version.



PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE (psi)	MINIMUM BURST PRESSURE (psi)	MINIMUM BEND RADIUS		WEIGHT (lbs/ft)	COUPLINGS		
	(in)	(in)	(mm)	(in)			(mm)					
CC-06	3/8	0.69	17.5	6,000	24,000	6.0	150	0.51	OEM reusables only			
CC-08	1/2	0.80	20.2	6,000	24,000	8.0	200	0.59				
CC-12	3/4	1.13	28.7	6,000	24,000	10.5	270	1.09				
CC-16	1	1.39	35.3	6,000	24,000	13.0	330	1.46				
CC-20	1 1/4	1.77	45.0	6,000	24,000	17.5	440	2.40				
CC-24	1 1/2	2.03	51.6	6,000	24,000	21.0	530	3.02				

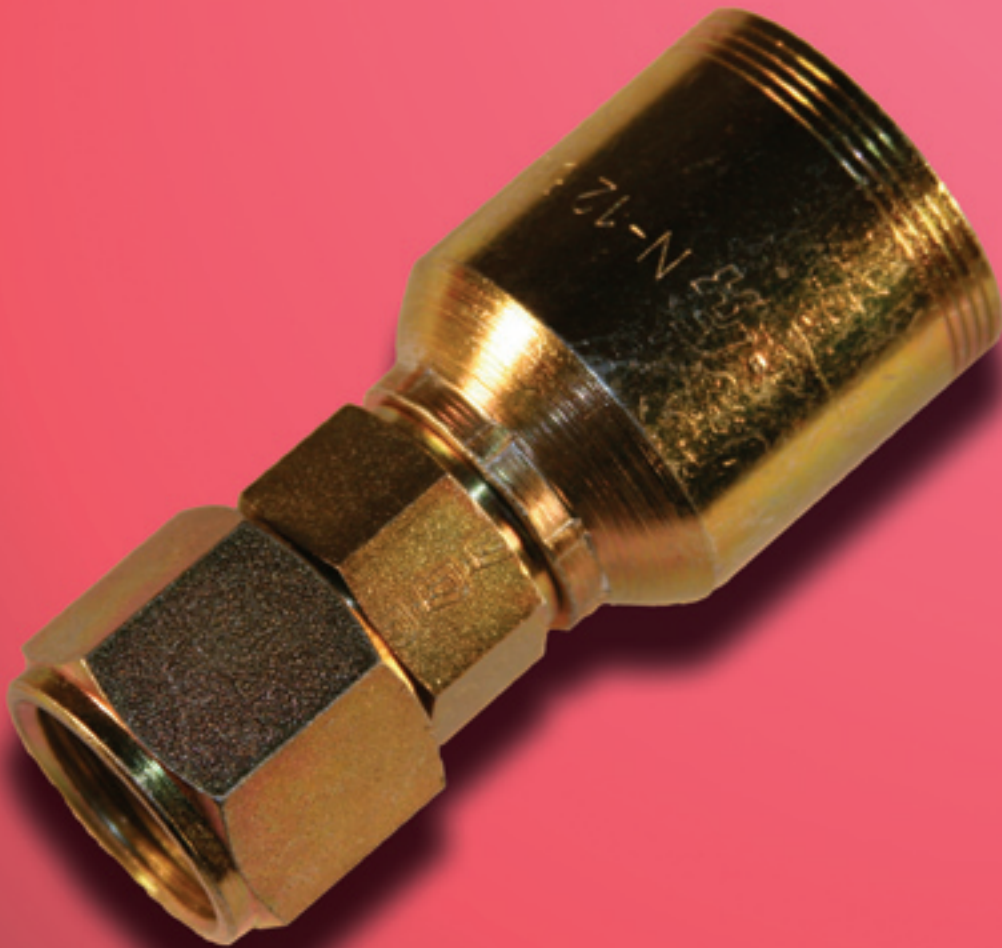
HJ Hydraulic Jack Hose

Meets Material Handling Institute Specification IJ 100 for hydraulic hose and assemblies used with jacking systems.

- Tube: Seamless, black, oil and heat resistant synthetic rubber
- Reinforcement: Two braids of high tensile steel wire
- Cover: Black, oil, abrasion and weather resistant synthetic rubber
- Temperature: -40°C to +100°C (-40°F to +212°F), intermittent use up to +125°C (+257°F)
- Packaging: Reels
- Application: High pressure jack lines



PART NUMBER	HOSE I.D.		HOSE O.D.		MAXIMUM WORKING PRESSURE (psi)	MINIMUM BURST PRESSURE (psi)	MINIMUM BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE	COUPLINGS		
	(in)	(in)	(mm)	(in)			(mm)						
HJ-04	1/4	0.59	15.0	10,000	20,000	1.8	45	0.20	E04-				
HJ-06	3/8	0.75	19.0	10,000	20,000	2.6	66	0.29	E06-				



COUPLINGS



FLEXTRAL HOSE END INDEX

STYLE	SERIES	DESCRIPTION
NPTF - NPSM	MP	NPT MALE
	MPL	NPT MALE LONG
	MP90	NPT MALE - 90° ELBOW
	MPX	NPT MALE SWIVEL
	MPX90	NPT MALE SWIVEL - 90° ELBOW
	MPX90B	NPT MALE SWIVEL - 90° BLOCK ELBOW
	FP	NPT FEMALE RIGID
	FPX	NPSM FEMALE SWIVEL (60° CONE SEAT)
	FPXT	FPT FEMALE PIPE SWIVEL (DRY SEAL)
JIC	MJ	JIC 37° MALE
	FJ	JIC 37° FEMALE SWIVEL
	FJ45	JIC 37° FEMALE SWIVEL - 45° ELBOW
	FJ90	JIC 37° FEMALE SWIVEL - 90° ELBOW STANDARD DROP
	FJ90L	JIC 37° FEMALE SWIVEL - 90° ELBOW LONG DROP
	FJ90B	JIC 37° FEMALE SWIVEL - 90° ELBOW BLOCK
	ORFS	MF
FF		ORFS FEMALE SWIVEL
FF45		ORFS FEMALE SWIVEL - 45° ELBOW
FF90		ORFS FEMALE SWIVEL - 90° ELBOW STANDARD DROP
FF90M		ORFS FEMALE SWIVEL - 90° ELBOW MEDIUM DROP
FF90L		ORFS FEMALE SWIVEL - 90° ELBOW LONG DROP
SAE		MA
	FA	SAE 45° FEMALE SWIVEL
	FA45	SAE 45° FEMALE SWIVEL - 45° ELBOW
	FA90	SAE 45° FEMALE SWIVEL - 90° ELBOW
	MOB	O-RING BOSS MALE
	MOBX	O-RING BOSS MALE SWIVEL
	MOBX90	O-RING BOSS MALE SWIVEL - 90° ELBOW
	MOBX90B	O-RING BOSS MALE SWIVEL - 90° BLOCK ELBOW
	MIX	SAE INVERTED FLARE MALE SWIVEL
	MIX45	SAE INVERTED FLARE MALE SWIVEL - 45° ELBOW
	MIX90	SAE INVERTED FLARE MALE SWIVEL - 90° ELBOW
	FIX	SAE INVERTED FLARE FEMALE RIGID
	MRNS	SAE FLARLESS MALE ASSEMBLY
GREASE	FG	FEMALE GREASE



FLEXTRAL HOSE END INDEX

STYLE	SERIES	DESCRIPTION
JIS	FJIS	JIS FEMALE SWIVEL (TOYOTA)
	FK	KOMATSU FEMALE SWIVEL
	FK45	KOMATSU FEMALE SWIVEL - 45° ELBOW
	FK90	KOMATSU FEMALE SWIVEL - 90° ELBOW
	FLK	KOMATSU FLANGE
	FLK45	KOMATSU FLANGE - 45° ELBOW
	FLK90	KOMATSU FLANGE - 90° ELBOW
	MKBC	KOBELCO MALE
BSP	MBSPT	BSPT MALE
	MBSPP	BSPP MALE
	FBSPP	BSPP FEMALE SWIVEL
	FBSPP45	BSPP FEMALE SWIVEL - 45° ELBOW
	FBSPP90	BSPP FEMALE SWIVEL - 90° ELBOW
	FBSPP90B	BSPP FEMALE SWIVEL - 90° ELBOW BLOCK
	FBSPPFF	BSP FLAT FACE FEMALE SWIVEL
	BJBSP	BSP BANJO
	BJBSPBT	BSP BANJO BOLT
METRIC	FPWK	JET WASH FEMALE SWIVEL "K" TYPE
	SPML	METRIC STANDPIPE (LIGHT)
	SPML45	METRIC STANDPIPE (LIGHT) - 45° ELBOW
	SPML90	METRIC STANDPIPE (LIGHT) - 90° ELBOW
	BJM	METRIC BANJO
	BJMBT	METRIC BANJO BOLT
	MML	METRIC LIGHT MALE (24° CONE SEAT) - CEL
	FML	METRIC LIGHT FEMALE SWIVEL (24° CONE SEAT) - DKOL
	FML45	METRIC LIGHT FEMALE SWIVEL - 45° ELBOW (24° CONE SEAT) - DKOL
	FML90	METRIC LIGHT FEMALE SWIVEL - 90° ELBOW (24° CONE SEAT) - DKOL
	MMS	METRIC HEAVY MALE (24° CONE SEAT) - CES
	FMS	METRIC HEAVY FEMALE SWIVEL (24° CONE SEAT) - DKOS
	FMS45	METRIC HEAVY FEMALE SWIVEL - 45° ELBOW (24° CONE SEAT) - DKOS
	FMS90	METRIC HEAVY FEMALE SWIVEL - 90° ELBOW (24° CONE SEAT) - DKOS
SAE CODE 61	FL	SAE CODE 61 FLANGE
	FL22.5	SAE CODE 61 FLANGE - 22.5° ELBOW
	FL30	SAE CODE 61 FLANGE - 30° ELBOW
	FL45	SAE CODE 61 FLANGE - 45° ELBOW
	FL60	SAE CODE 61 FLANGE - 60° ELBOW
	FL67.5	SAE CODE 61 FLANGE - 67.5° ELBOW
	FL90	SAE CODE 61 FLANGE - 90° ELBOW
	FL90L	SAE CODE 61 FLANGE - 90° ELBOW LONG DROP
	FL100	SAE CODE 61 FLANGE - 100° ELBOW
	FL110	SAE CODE 61 FLANGE - 110° ELBOW



FLEXTRAL HOSE END INDEX

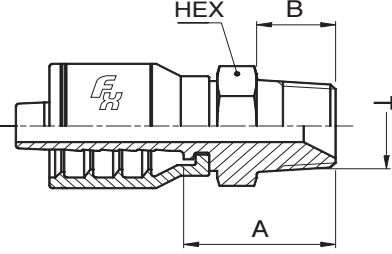
STYLE	SERIES	DESCRIPTION
SAE CODE 62	FLH	SAE CODE 62 FLANGE
	FLH30	SAE CODE 62 FLANGE - 30° ELBOW
	FLH45	SAE CODE 62 FLANGE - 45° ELBOW
	FLH60	SAE CODE 62 FLANGE - 60° ELBOW
	FLH90	SAE CODE 62 FLANGE - 90° ELBOW
CATERPILLAR® FLANGE	FLC	CATERPILLAR® FLANGE
	FLC22.5	CATERPILLAR® FLANGE - 22.5° ELBOW
	FLC30	CATERPILLAR® FLANGE - 30° ELBOW
	FLC45	CATERPILLAR® FLANGE - 45° ELBOW
	FLC60	CATERPILLAR® FLANGE - 60° ELBOW
	FLC67.5	CATERPILLAR® FLANGE - 67.5° ELBOW
	FLC90	CATERPILLAR® FLANGE - 90° ELBOW
AIR CONDITIONING	BTF	BUMPED TUBE O-RING FEMALE SWIVEL
	BTF-P	BUMPED TUBE O-RING FEMALE SWIVEL (R134a SERVICE PORT)
	BTF45	BUMPED TUBE O-RING FEMALE SWIVEL - 45° ELBOW
	BTF45-P	BUMPED TUBE O-RING FEMALE SWIVEL - 45° ELBOW (R134a SERVICE PORT)
	BTF90	BUMPED TUBE O-RING FEMALE SWIVEL - 90° ELBOW
	BTF90-P	BUMPED TUBE O-RING FEMALE SWIVEL - 90° ELBOW (R134a SERVICE PORT)
	BTM	BUMPED TUBE O-RING MALE SWIVEL
	BTM45	BUMPED TUBE O-RING MALE SWIVEL - 45° ELBOW
	BTM90	BUMPED TUBE O-RING MALE SWIVEL - 90° ELBOW
	BTM90-P	BUMPED TUBE O-RING MALE SWIVEL - 90° ELBOW (R134a SERVICE PORT)
	IOM	INSERT O-RING MALE
	IOM90	INSERT O-RING MALE - 90° ELBOW
	HS	HOSE SPLICER
	HS-P	HOSE SPLICER (R134a SERVICE PORT)
	BS	BRAZE SOCKET




E Series

MP

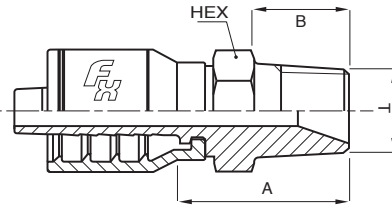
NPT MALE




PART NUMBER	Hose Bore	T	A		B		HEX	
	INCH		[mm]	[in]	[mm]	[in]		
E03-02MP	3/16	1/8 - 27	22	0.87	9.5	0.37	9/16	
E04-02MP	1/4	1/8 - 27	22	0.87	9.5	0.37	9/16	
E04-04MP	1/4	1/4 - 18	26.5	1.04	14	0.55	9/16	
E04-06MP	1/4	3/8 - 18	28	1.10	14	0.55	3/4	
E04-08MP	1/4	1/2 - 14	33	1.30	19	0.75	7/8	
E05-04MP	5/16	1/4 - 18	24.8	.98	13.6	0.54	5/8	
E05-06MP	5/16	3/8 - 18	28	1.10	14	0.55	3/4	
E06-04MP	3/8	1/4 - 18	26.5	1.04	14	0.55	11/16	
E06-06MP	3/8	3/8 - 18	28	1.10	14	0.55	3/4	
E06-08MP	3/8	1/2 - 14	33	1.30	19	0.75	7/8	
E08-04MP	1/2	1/4 - 18	28.5	1.12	14	0.55	7/8	
E08-06MP	1/2	3/8 - 18	28.5	1.12	14	0.55	3/4	
E08-08MP	1/2	1/2 - 14	33.5	1.32	19	0.75	7/8	
E08-12MP	1/2	3/4 - 14	34	1.34	19	0.75	1 1/8	
E10-06MP	5/8	3/8 - 18						
E10-08MP	5/8	1/2 - 14	34	1.34	19	0.75	7/8	
E10-12MP	5/8	3/4 - 14	36	1.42	19	0.75	1 1/8	
E12-08MP	3/4	1/2 - 14	34.5	1.36	19	0.75	1 1/8	
E12-12MP	3/4	3/4 - 14	41.5	1.63	19	0.75	1 1/8	
E12-16MP	3/4	1 - 11 1/2	46.5	1.83	24	0.94	1 7/16	
E16-12MP	1	3/4 - 14	42.5	1.67	19	0.75	1 1/4	
E16-16MP	1	1 - 11 1/2	47.5	1.87	24	0.94	1 7/16	
E20-20MP	1 1/4	1 1/4 - 11 1/2	42.8	1.68	24.4	0.96	1 13/16	
E24-24MP	1 1/2	1 1/2 - 11 1/2	64	2.52	25.5	1.00	2	
E32-32MP	2	2 - 11 1/2	76.7	3.02	26	1.02	2 9/16	

MPL

NPT MALE LONG



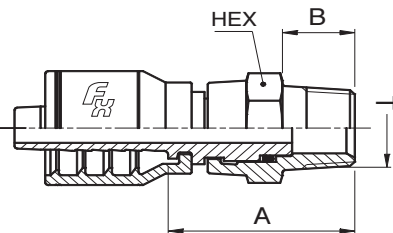
PART NUMBER	Hose Bore	T	A		B		HEX	
	INCH		[mm]	[in]	[mm]	[in]		
E04-04MPL	1/4	1/4 - 18						
E04-06MPL	1/4	3/8 - 18						
E06-04MPL	3/8	1/4 - 18						
E06-06MPL	3/8	3/8 - 18						

E-Series Couplings For Use With Braided Hoses:

AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HJ, HX, LX, PW, PX250, RX2

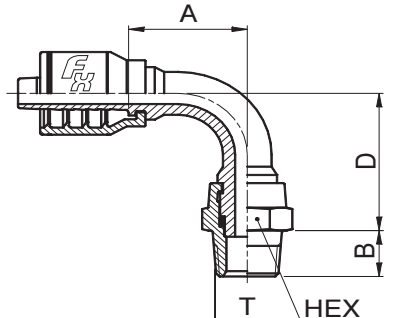
E Series

MPX NPT MALE SWIVEL



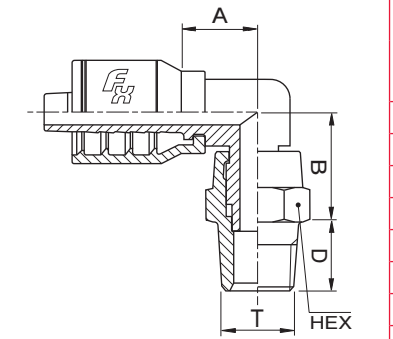
PART NUMBER	Hose Bore	T	A		B		HEX	
	INCH		[mm]	[in]	[mm]	[in]		
E04-04MPX	1/4	1/4 - 18	33.5	1.32	14	0.55	1 1/16	
E04-06MPX	1/4	3/8 - 18	36	1.42	14	0.55	7/8	
E06-04MPX	3/8	1/4 - 18	33.5	1.32	14	0.55	1 1/16	
E06-06MPX	3/8	3/8 - 18	36	1.42	14	0.55	7/8	
E06-08MPX	3/8	1/2 - 14	41.5	1.63	19	0.75	1 1/8	
E08-06MPX	1/2	3/8 - 18	36.5	1.44	14	0.55	7/8	
E08-08MPX	1/2	1/2 - 14	42	1.65	19	0.75	1 1/8	
E10-12MPX	5/8	3/4 - 14	54.5	2.15	19.4	0.76	1 7/16	
E12-08MPX	3/4	1/2 - 14	56.5	2.22	19	0.75	1 1/16	
E12-12MPX	3/4	3/4 - 14	55.0	2.17	19.4	0.76	1 7/16	
E16-16MPX	1	1 - 11 1/2	62.5	2.46	24.2	0.95	1 1/2	

MPX90 NPT MALE SWIVEL - 90° ELBOW



PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
E04-04MPX90	1/4	1/4 - 18	28	1.10	14	0.55	37	1.46	1 1/16
E04-06MPX90	1/4	3/8 - 18	28	1.10	14.3	0.56	43.2	1.70	7/8
E06-06MPX90	3/8	3/8 - 18	34.5	1.36	14.3	0.56	44.7	1.76	7/8
E06-08MPX90	3/8	1/2 - 14	34.5	1.36	19	0.75	54.5	2.15	1 1/16
E08-08MPX90	1/2	1/2 - 14	44.5	1.75	19	0.75	59.5	2.34	1 1/16

MPX90B NPT MALE SWIVEL - 90° BLOCK ELBOW



PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
E04-04MPX90B	1/4	1/4 - 18							1 1/16
E06-06MPX90B	3/8	3/8 - 18							7/8
E08-08MPX90B	1/2	1/2 - 14							1 1/8

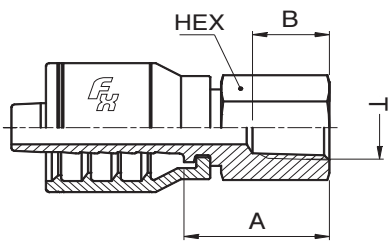
E-Series Couplings For Use With Braided Hoses:


AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HJ, HX, LX, PW, PX250, RX2



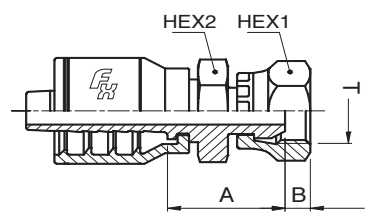
E Series



FP NPT FEMALE RIDGID



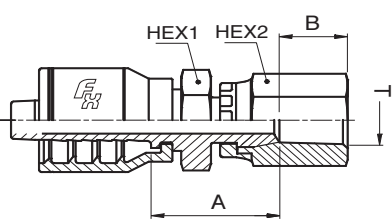
PART NUMBER	Hose Bore	T	A		B		HEX	
	INCH		[mm]	[in]	[mm]	[in]		
E04-02FP	1/4	1/8 - 27	21.5	0.85	7.87	0.31	1 1/16	
E04-04FP	1/4	1/4 - 18	26.5	1.04	11.94	0.47	3/4	
E04-06FP	1/4	3/8 - 18	28	1.10	12.7	0.50	7/8	
E06-04FP	3/8	1/4 - 18	26.5	1.04	11.94	0.47	3/4	
E06-06FP	3/8	3/8 - 18	28	1.10	12.7	0.50	7/8	
E06-08FP	3/8	1/2 - 14	33	1.30	16.76	0.66	1 1/16	
E08-08FP	1/2	1/2 - 14	33.5	1.32	16.76	0.66	1 1/16	
E12-12FP	3/4	3/4 - 14	35.5	1.40	16.76	0.66	1 1/4	



FPX NPSM FEMALE SWIVEL (60° CONE SEAT)



PART NUMBER	Hose Bore	T	A		B		HEX 1	HEX 2
	INCH		[mm]	[in]	[mm]	[in]		
E04-04FPX	1/4	1/4 - 18	24	0.94	4.2	0.17	3/4	3/4
E06-06FPX	3/8	3/8 - 18	26.5	1.04	5.7	0.22	7/8	7/8
E08-08FPX	1/2	1/2 - 14	29	1.14	6.9	0.27	1 1/8	7/8
E12-12FPX	3/4	3/4 - 14	36.8	1.45	8.7	0.34	1 5/16	1 1/8
E16-16FPX	1	1 - 11 1/2	40	1.57	10.5	0.41	1 1/4	1 1/2

FPXT FPT FEMALE PIPE SWIVEL (DRY SEAL)



PART NUMBER	Hose Bore	T	A		B		HEX 1	HEX 2
	INCH		[mm]	[in]	[mm]	[in]		
E04-04FPXT	1/4	1/4 - 18						
E06-06FPXT	3/8	3/8 - 18						
E08-08FPXT	1/2	1/2 - 14						


E-Series Couplings For Use With Braided Hoses:

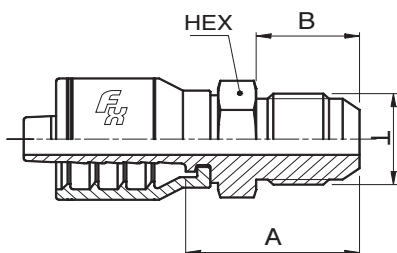
AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HJ, HX, LX, PW, PX250, RX2

E Series

MJ

JIC 37° MALE

PART NUMBER	Hose Bore	T	A		B		HEX	
	INCH		[mm]	[in]	[mm]	[in]		
	E04-04MJ		1/4	7/16 - 20	26.5	1.04	14	
E04-05MJ	1/4	1/2 - 20	26.5	1.04	14	0.55	9/16	
E04-06MJ	1/4	9/16 - 18	27.5	1.08	14	0.55	11/16	
E05-05MJ	5/16	1/2 - 20	26.5	1.04	14	0.55	9/16	
E05-06MJ	5/16	9/16 - 18	27.5	1.08	14	0.55	11/16	
E06-06MJ	3/8	9/16 - 18	27.5	1.08	14	0.55	11/16	
E06-08MJ	3/8	3/4 - 16	30.2	1.19	16.7	0.66	3/4	
E06-10MJ	3/8	7/8 - 14	34.8	1.37	19.3	0.76	1	
E08-08MJ	1/2	3/4 - 16	30.7	1.21	16.7	0.66	3/4	
E08-10MJ	1/2	7/8 - 14	34.9	1.37	19.3	0.76	1	
E08-12MJ	1/2	1 1/16 - 12	38.9	1.53	21.9	0.86	1 1/8	
E10-08MJ	5/8	3/4 - 16	33.7	1.33	16.7	0.66	15/16	
E10-10MJ	5/8	7/8 - 14	35.3	1.39	19.3	0.76	1	
E10-12MJ	5/8	1 1/16 - 12	38.9	1.53	21.9	0.86	1 1/8	
E12-10MJ	3/4	7/8 - 14	36.8	1.45	19.3	0.76	1 1/16	
E12-12MJ	3/4	1 1/16 - 12	39.4	1.55	21.9	0.86	1 1/8	
E12-14MJ	3/4	1 3/16 - 12	40.1	1.58	22.6	0.89	1 5/16	
E12-16MJ	3/4	1 5/16 - 12	45.6	1.80	23.1	0.91	1 7/16	
E16-16MJ	1	1 5/16 - 12	46.6	1.83	23.1	0.91	1 7/16	
E16-20MJ	1	1 5/16 - 12	45.9	1.80	24.5	0.96	1 7/8	





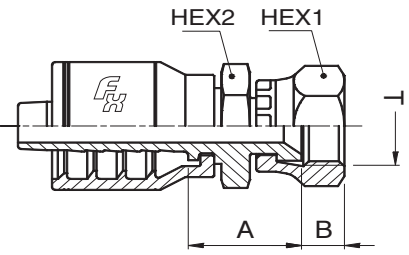
E-Series Couplings For Use With Braided Hoses:

AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HJ, HX, LX, PW, PX250, RX2



E Series

FJ
JIC 37° FEMALE SWIVEL

	PART NUMBER	Hose Bore	T	A		B		HEX 1	HEX 2
		INCH		[mm]	[in]	[mm]	[in]		
	E03-04FJ	3/16	7/16 - 20	19.6	0.77	8.5	0.33	9/16	7/16
	E04-04FJ	1/4	7/16 - 20	19.3	0.76	8.7	0.34	9/16	9/16
	E04-05FJ	1/4	1/2 - 20	20	0.79	9.5	0.37	1 1/16	9/16
	E04-06FJ	1/4	9/16 - 18	21.5	0.85	9.5	0.37	1 1/16	9/16
	E05-05FJ	5/16	1/2 - 20	15.5	0.61	9.5	0.37	1 1/16	9/16
	E05-06FJ	5/16	9/16 - 18	21.5	0.85	9.5	0.37	3/4	9/16
	E06-04FJ	3/8	7/16 - 20	21.8	0.86	8.5	0.33	9/16	1 1/16
	E06-05FJ	3/8	1/2 - 20	20.6	0.81	11.2	0.44	5/8	1 1/16
	E06-06FJ	3/8	9/16 - 18	24	0.94	9.5	0.37	1 1/16	1 1/16
	E06-08FJ	3/8	3/4 - 16	25.9	1.02	10.9	0.43	7/8	3/4
	E06-10FJ	3/8	7/8 - 14	29.3	1.15	12.7	0.50	1 1/8	7/8
	E06-12FJ	3/8	1 1/16 - 12	35	1.38	13.8	0.54	1 5/16	1 1/8
	E08-06FJ	1/2	9/16 - 18	24.5	0.96	9.5	0.37	1 1/16	3/4
	E08-08FJ	1/2	3/4 - 16	25.4	1.00	10.9	0.43	7/8	3/4
	E08-10FJ	1/2	7/8 - 14	29.8	1.17	12.7	0.50	1 1/8	7/8
	E08-12FJ	1/2	1 1/16 - 12	35.5	1.40	13.8	0.54	1 5/16	1 1/8
	E08-16FJ	1/2	1 5/16 - 12	35.5	1.40	16	0.63	1 1/2	1 5/16
	E10-08FJ	5/8	3/4 - 16	27.4	1.08	10.7	0.42	1 5/16	7/8
	E10-10FJ	5/8	7/8 - 14	27.8	1.09	12.7	0.50	1 1/8	7/8
	E10-12FJ	5/8	1 1/16 - 12	35.5	1.40	13.8	0.54	1 5/16	1 1/8
	E12-10FJ	3/4	7/8 - 14	27.8	1.09	12.7	0.50	1 1/8	7/8
	E12-12FJ	3/4	1 1/16 - 12	36	1.42	13.8	0.54	1 5/16	1 1/8
	E12-14FJ	3/4	1 3/16 - 12	31	1.22	14.5	0.57	1 7/16	1 3/16
	E12-16FJ	3/4	1 5/16 - 12	32	1.26	16.0	0.63	1 1/2	1 5/16
	E16-12FJ	1	1 1/16 - 12	35	1.38	13.8	0.54	1 1/4	1 1/4
	E16-14FJ	1	1 1/16 - 12	35	1.38	14.5	0.57	1 7/16	1 1/4
	E16-16FJ	1	1 5/16 - 12	35.0	1.38	16.3	0.64	1 5/16	1 1/2
	E16-20FJ	1	1 5/8 - 12	29.6	1.17	16	0.63	2	1 5/8
	E20-20FJ	1 1/4	1 5/8 - 12	33.6	1.32	15.9	0.63	2	1 7/8
	E24-24FJ	1 1/2	1 7/8 - 12	56.9	2.24	18.5	0.73	2	2 3/16
	E32-32FJ	2	2 1/2 - 12	71.7	2.82	24	0.94	2 9/16	2 13/16

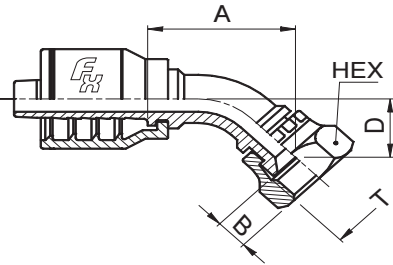
E-Series Couplings For Use With Braided Hoses:

AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HJ, HX, LX, PW, PX250, RX2

E Series

FJ45

JIC 37° FEMALE SWIVEL - 45° ELBOW



PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
E03-04FJ45	3/16	7/16 - 20	36	1.42	8.5	0.33	14	0.55	9/16
E04-04FJ45	1/4	7/16 - 20	36	1.42	8.5	0.33	14	0.55	5/8
E04-05FJ45	1/4	1/2 - 20	38.5	1.52	9.5	0.37	15	0.59	11/16
E04-06FJ45	1/4	9/16 - 18	35	1.38	9.5	0.37	16	0.63	11/16
E05-05FJ45	5/16	1/2 - 20	42.5	1.67	10.5	0.41	15	0.59	11/16
E05-06FJ45	5/16	9/16 - 18	42.5	1.67	9.5	0.37	11.5	0.45	11/16
E06-04FJ45	3/8	7/16 - 20	51.0	2.01	8.8	0.35	21.3	0.84	9/16
E06-06FJ45	3/8	9/16 - 18	44.5	1.75	9.5	0.37	11.5	0.45	11/16
E06-08FJ45	3/8	3/4 - 16	49.4	1.94	10.7	0.42	15	0.59	7/8
E08-08FJ45	1/2	3/4 - 16	43.2	1.70	10.7	0.42	13.8	0.54	7/8
E08-10FJ45	1/2	7/8 - 14	54.5	2.15	12.7	0.50	23	0.91	1 1/8
E08-12FJ45	1/2	1 1/16 - 12	65	2.56	14.4	0.57	25.5	1.00	1 1/4
E10-10FJ45	5/8	7/8 - 14	62.5	2.46	12.7	0.50	24	0.94	1 1/8
E10-12FJ45	5/8	1 1/16 - 12	60.5	2.38	13.5	0.53	29	1.14	1 5/16
E12-12FJ45	3/4	1 1/16 - 12	66.5	2.62	13.5	0.53	29	1.14	1 5/16
E12-16FJ45	3/4	1 5/16 - 12	67	2.64	16	0.63	30	1.18	1 1/2
E16-16FJ45	1	1 5/16 - 12	83	3.27	16	0.63	35	1.38	1 1/2
E20-20FJ45	1 1/4	1 5/8 - 12	94.5	3.72	16	0.63	40	1.57	2
E24-24FJ45	1 1/2	1 7/8 - 12	118	4.65	19	0.75	49.5	1.95	
E32-32FJ45	2	2 1/2 - 12	149	5.87	24	0.94	64	2.52	2 13/16

E-Series Couplings For Use With Braided Hoses:

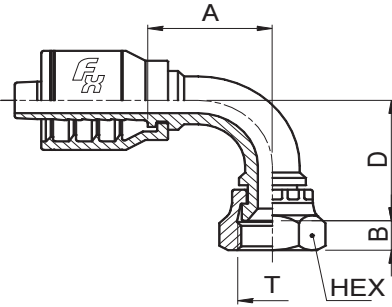
AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HJ, HX, LX, PW, PX250, RX2



E Series

FJ90

JIC 37° FEMALE SWIVEL - 90° ELBOW STANDARD DROP



PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
E03-04FJ90	3/16	7/16 - 20	23.7	0.93	8.3	0.33	26.5	1.04	5/8
E04-04FJ90	1/4	7/16 - 20	28.5	1.12	8.7	0.34	26.5	1.04	9/16
E04-05FJ90	1/4	1/2 - 20	26.5	1.04	9.5	0.37	26.5	1.04	11/16
E04-06FJ90	1/4	9/16 - 18	28.5	1.12	9.5	0.37	28	1.10	11/16
E05-05FJ90	5/16	1/2 - 20	26.5	1.04	9.5	0.37	26.5	1.04	11/16
E05-06FJ90	5/16	9/16 - 18	30	1.18	9.5	0.37	22	0.87	11/16
E06-04FJ90	3/8	7/16 - 20			9.5	0.37			11/16
E06-06FJ90	3/8	9/16 - 18	31	1.22	9.5	0.37	22	0.87	11/16
E06-08FJ90	3/8	3/4 - 16	37	1.46	10.6	0.42	36	1.42	7/8
E08-08FJ90	1/2	3/4 - 16	41	1.61	10.9	0.43	30	1.18	7/8
E08-10FJ90	1/2	7/8 - 14	43.5	1.71	12.5	0.49	46	1.81	1 1/8
E08-12FJ90	1/2	1 1/16 - 12	48.5	1.91	13.8	0.54	52	2.05	1 5/16
E10-10FJ90	5/8	7/8 - 14	47.5	1.87	12.7	0.50	49	1.93	1 1/8
E10-12FJ90	5/8	1 1/16 - 12	48.5	1.91	13.8	0.54	47.5	1.87	1 5/16
E12-10FJ90	3/4	7/8 - 14	46	1.81	12.5	0.49	55	2.17	1 1/16
E12-12FJ90	3/4	1 1/16 - 12	50.5	1.99	13.8	0.54	55	2.17	1 5/16
E12-16FJ90	3/4	1 5/16 - 12	55.5	2.19	16	0.63	61	2.40	1 1/2
E16-16FJ90	1	1 5/16 - 12	62.5	2.46	16	0.63	65	2.56	1 1/2
E16-20FJ90	1	1 5/16 - 12	64.7	2.55	16.1	0.63	65	2.56	2
E20-20FJ90	1 1/4	1 5/8 - 12	86	3.39	16	0.63	80	3.15	2
E24-24FJ90	1 1/2	1 7/8 - 12	111	4.37	18.6	0.73	102	4.02	2 3/16
E32-32FJ90	2	2 1/2 - 12	107.5	4.23	18.6	0.73	129	5.08	2 3/16

E-Series Couplings For Use With Braided Hoses:

AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HJ, HX, LX, PW, PX250, RX2

E Series

FJ90L JIC 37° FEMALE SWIVEL - 90° ELBOW LONG DROP

PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
E04-04FJ90L	1/4	7/16 - 20	32	1.26	8.7	0.34	46	1.81	5/8
E04-06FJ90L	1/4	9/16 - 18	32	1.26	9.5	0.37	56	2.20	3/4
E06-04FJ90L	3/8	7/16 - 20							
E06-06FJ90L	3/8	9/16 - 18	35.5	1.40	9.5	0.37	56	2.20	3/4
E06-08FJ90L	3/8	3/4 - 16	37.1	1.46	10.6	0.42	62	2.44	1
E08-08FJ90L	1/2	3/4 - 16	47.5	1.87	10.9	0.43	62	2.44	1
E08-10FJ90L	1/2	7/8 - 14	48.5	1.91	12.5	0.49	65	2.56	1 1/8
E10-10FJ90L	5/8	7/8 - 14	55.5	2.19	12.7	0.50	65	2.56	1 1/8
E10-12FJ90L	5/8	1 1/16 - 12	55.5	2.19	13.8	0.54	95	3.74	1 5/16
E12-12FJ90L	3/4	1 1/16 - 12	61.5	2.42	13.8	0.54	95	3.74	1 1/4
E16-16FJ90L	1	1 5/16 - 12	79.5	3.13	16	0.63	110	4.33	1 1/2

FJ90B JIC 37° FEMALE SWIVEL - 90° BLOCK ELBOW

PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
E04-04FJ90B	1/4	7/16 - 20	17.5	0.69	8.5	0.33	20.5	0.81	9/16
E04-06FJ90B	1/4	9/16 - 18	17.5	0.69	8.5	0.33	25.5	1.00	3/4
E06-06FJ90B	3/8	9/16 - 18	21.5	0.85	8.5	0.33	25.5	1.00	3/4
E06-08FJ90B	3/8	3/4 - 16	21.5	0.85	10.5	0.41	26.5	1.04	1
E08-08FJ90B	1/2	3/4 - 16	25.5	1.00	9.5	0.37	29.5	1.16	1
E08-10FJ90B	1/2	7/8 - 14	25.5	1.00	13	0.51	28	1.10	1 1/8
E12-12FJ90B	3/4	1 1/16 - 12	26.5	1.04	14.5	0.57	30.5	1.20	1 5/16
E16-16FJ90B	1	1 5/16 - 12	30.5	1.20	14.5	0.57	33.5	1.32	1 1/2


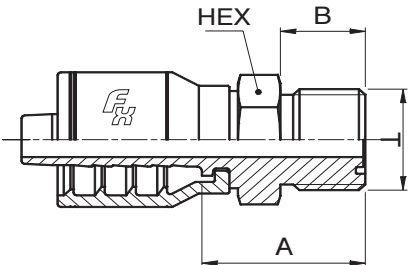
E-Series Couplings For Use With Braided Hoses:

AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HJ, HX, LX, PW, PX250, RX2



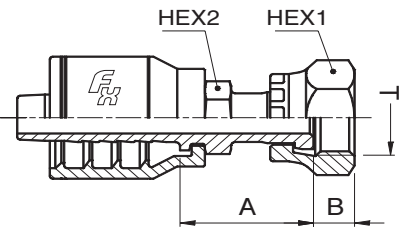


E Series

MF ORFS MALE

	PART NUMBER	Hose Bore	T	A		B		HEX	
		INCH		[mm]	[in]	[mm]	[in]		
	E04-04MF	1/4	9/16 - 18	24.3	0.96	9.8	0.39	5/8	
	E04-06MF	1/4	11/16 - 16	26.7	1.05	11.2	0.44	3/4	
	E06-06MF	3/8	11/16 - 16	26.7	1.05	11.2	0.44	3/4	
	E06-08MF	3/8	13/16 - 16	29.1	1.15	12.8	0.50	7/8	
	E08-08MF	1/2	13/16 - 16	29.6	1.17	12.8	0.50	7/8	
	E08-10MF	1/2	1 - 14	34.1	1.34	15.5	0.61	1 1/16	
	E08-12MF	1/2	1 3/16 - 12	37.1	1.46	17	0.67	1 1/4	
	E10-10MF	5/8	1 - 14	31.4	1.24	15.5	0.61	1 1/16	
	E10-12MF	5/8	1 3/16 - 12	37.1	1.46	17.0	0.67	1 1/4	
	E12-12MF	3/4	1 3/16 - 12	37.6	1.48	17	0.67	1 1/4	
	E12-16MF	3/4	1 7/16 - 12	40	1.57	17.5	0.69	1 5/8	
	E16-16MF	1	1 7/16 - 12	41	16.1	17.5	0.69	1 5/8	

FF ORFS FEMALE SWIVEL

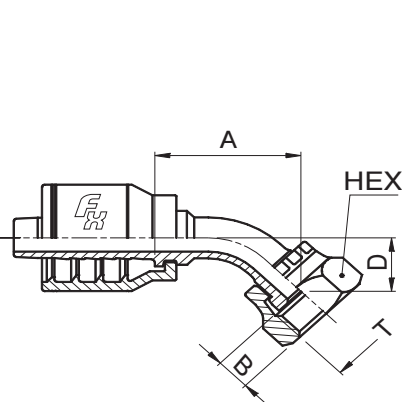
	PART NUMBER	Hose Bore	T	A		B		HEX 1	HEX 2
		INCH		[mm]	[in]	[mm]	[in]		
	E04-04FF	1/4	9/16 - 18	28	1.10	8	0.31	3/4	9/16
	E04-06FF	1/4	11/16 - 16	31.5	1.24	9.5	0.37	7/8	11/16
	E04-08FF	1/4	13/16 - 16			9.4	0.37	7/8	11/16
	E05-06FF	5/16	11/16 - 16	31.5	1.24	9.5	0.37	7/8	11/16
	E06-04FF	3/8	9/16 - 18	30.5	1.20	8	0.31	3/4	11/16
	E06-06FF	3/8	11/16 - 16	31.5	1.24	9.5	0.37	7/8	11/16
	E06-08FF	3/8	13/16 - 16	36.5	1.44	11	0.43	1	3/4
	E08-06FF	1/2	11/16 - 16	31.5	1.24	9.5	0.37	7/8	3/4
	E08-08FF	1/2	13/16 - 16	35	1.38	11	0.43	1	3/4
	E08-10FF	1/2	1 - 14	39.1	1.54	13.5	0.53	1 3/16	1
	E08-12FF	1/2	1 3/16 - 12	44	1.73	14.5	0.57	1 7/16	1 3/16
	E10-10FF	5/8	1 - 14	39.1	1.54	13.5	0.53	1 3/16	1
	E10-12FF	5/8	1 3/16 - 12	44.13	1.74	14.5	0.57	1 7/16	1 3/16
	E12-10FF	3/4	1 - 14	40.3	1.59	13	0.51	1 1/8	1 1/16
	E12-12FF	3/4	1 3/16 - 12	44.63	1.76	14.5	0.57	1 7/16	1 3/16
	E12-16FF	3/4	1 7/16 - 12	46.5	1.83	14.8	0.58	1 5/8	1 7/16
	E16-12FF	1	1 3/16 - 12			14.5	0.57	1 1/2	1 1/4
	E16-16FF	1	1 7/16 - 12	52.5	2.07	14.8	0.58	1 5/8	1 7/16
E16-20FF	1	1 7/16 - 12	52.4	2.06	15	0.59	2	1 7/16	

E-Series Couplings For Use With Braided Hoses:

AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HJ, HX, LX, PW, PX250, RX2

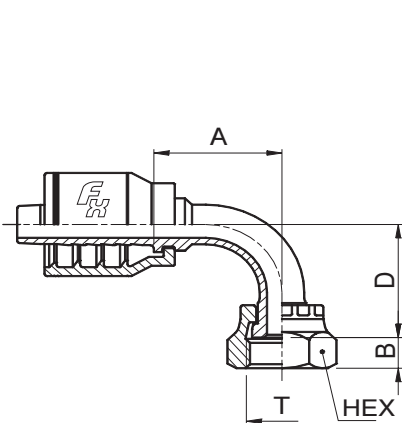
E Series

FF45 ORFS FEMALE SWIVEL - 45° ELBOW



PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
E04-04FF45	1/4	9/16 - 18	35	1.38	8	0.31	14	0.55	3/4
E04-06FF45	1/4	11/16 - 16	34	1.34	9.5	0.37	15	0.59	7/8
E05-06FF45	5/16	11/16 - 16	39	1.54	9.5	0.37	15	0.59	7/8
E06-06FF45	3/8	11/16 - 16	42.5	1.67	9.5	0.37	14	0.55	7/8
E06-08FF45	3/8	13/16 - 16	43.5	1.71	11	0.43	15	0.59	1
E08-06FF45	1/2	11/16 - 16			9.5	0.37			7/8
E08-08FF45	1/2	13/16 - 16	51.5	2.03	11	0.43	14	0.55	1
E08-10FF45	1/2	1 - 14	51.5	2.03	13.5	0.53	22	0.87	1 3/16
E10-10FF45	5/8	1 - 14	51.5	2.03	13.5	0.53	22	0.87	1 3/16
E10-12FF45	5/8	1 3/16 - 12	63	2.48	14.5	0.57	24	0.94	1 7/16
E12-10FF45	3/4	1 - 14	58.7	2.31	13.5	0.53	8	0.32	1 3/16
E12-12FF45	3/4	1 3/16 - 12	70.5	2.78	14.5	0.57	27	1.06	1 7/16
E12-16FF45	3/4	1 7/16 - 12	81	3.19	14.8	0.58	31	1.22	1 5/8
E16-16FF45	1	1 7/16 - 12	82	3.23	14.8	0.58	31	1.22	1 5/8

FF90 ORFS FEMALE SWIVEL - 90° ELBOW STANDARD DROP



PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
E04-04FF90	1/4	9/16 - 18	29	1.14	8	0.31	29	1.14	3/4
E04-06FF90	1/4	11/16 - 16	29	1.14	9.5	0.37	30	1.18	7/8
E05-06FF90	5/16	11/16 - 16	33	1.30	9.5	0.37	33.5	1.32	7/8
E06-04FF90	3/8	9/16 - 18	29.5	1.16	8	0.31	25	0.98	3/4
E06-06FF90	3/8	11/16 - 16	32.5	1.28	9.5	0.37	28	1.10	7/8
E06-08FF90	3/8	13/16 - 16	33	1.30	11	0.43	30	1.18	1
E08-06FF90	1/2	11/16 - 16	42.3	1.67	9.1	0.36	36.6	1.44	7/8
E08-08FF90	1/2	13/16 - 16	42.5	1.67	11	0.43	30	1.18	1
E08-10FF90	1/2	1 - 14	55	2.17	13.5	0.53	52.5	2.07	1 3/16
E08-12FF90	1/2	1 3/16 - 12	42.2	1.66	14.4	0.57	40	1.58	1 3/16
E10-10FF90	5/8	1 - 14	55	2.17	13.5	0.53	52.5	2.07	1 3/16
E10-12FF90	5/8	1 3/16 - 12	56.5	2.22	14.5	0.57	51.5	2.03	1 7/16
E12-10FF90	3/4	1 - 14	53.1	2.09	13.4	0.53	33.1	1.30	1 1/4
E12-12FF90	3/4	1 3/16 - 12	69.5	2.74	14.5	0.57	61.5	2.42	1 7/16
E12-16FF90	3/4	1 7/16 - 12	77.5	3.05	14.8	0.58	67.5	2.66	1 5/8
E16-16FF90	1	1 7/16 - 12	78.5	3.09	14.8	0.58	67.5	2.66	1 5/8

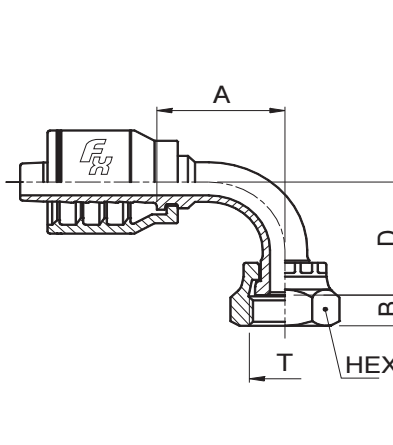
E-Series Couplings For Use With Braided Hoses:


AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HJ, HX, LX, PW, PX250, RX2



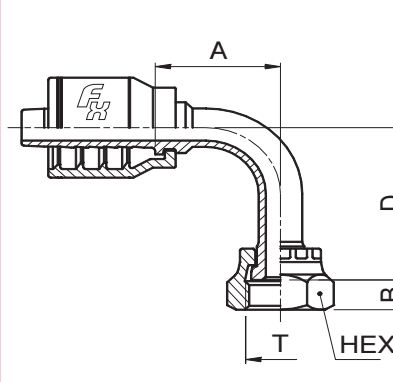
E Series


FF90M ORFS FEMALE SWIVEL - 90° ELBOW MEDIUM DROP



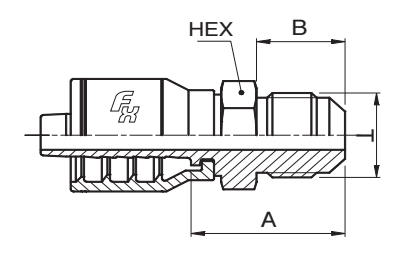
PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
E04-04FF90M	1/4	9/16 - 18	30.8	1.21	7.6	0.30			11/16
E04-06FF90M	1/4	11/16 - 16	32.3	1.27	9.3	0.37			7/8
E04-08FF90M	1/4	13/16 - 16							
E06-06FF90M	3/8	11/16 - 16	37.5	1.48	9.3	0.37			7/8
E06-08FF90M	3/8	13/16 - 16	33	1.30	11	0.43			15/16
E08-08FF90M	1/2	13/16 - 16	43.1	1.70	10.3	0.41			15/16
E08-12FF90M	1/2	1 - 14	55	2.17	13.5	0.53			13/16
E10-10FF90M	5/8	1 - 14	55	2.17	13.5	0.53			13/16
E12-10FF90M	3/4	1 - 14							
E12-12FF90M	3/4	13/16 - 12	63.3	2.50	14.2	0.56			17/16
E16-16FF90M	1	17/16 - 12	74.4	2.93	14.6	0.58			15/8


FF90L ORFS FEMALE SWIVEL - 90° ELBOW LONG DROP



PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
E04-04FF90L	1/4	9/16 - 18	29	1.14	8	0.31	46	1.81	3/4
E04-06FF90L	1/4	11/16 - 16	29	1.14	9.5	0.37	54	2.13	7/8
E06-06FF90L	3/8	11/16 - 16	32.5	1.28	9.5	0.37	54	2.13	7/8
E06-08FF90L	3/8	13/16 - 16	33	1.30	11	0.43	64	2.52	1
E08-08FF90L	1/2	13/16 - 16	41.5	1.63	11	0.43	64	2.52	1
E08-10FF90L	1/2	1 - 14	55	2.17	13.5	0.53	70	2.76	13/16
E10-10FF90L	5/8	1 - 14	55	2.17	13.5	0.53	70	2.76	13/16
E12-12FF90L	3/4	13/16 - 12	63.3	2.50	14.5	0.57	96	3.78	17/16
E16-16FF90L	1	17/16 - 12	78.5	3.09	14.6	0.58	114	4.49	15/8

MA SAE 45° MALE



PART NUMBER	Hose Bore	T	A		B		HEX
	INCH		[mm]	[in]	[mm]	[in]	
E06-06MA	3/8	5/8 - 18	29.2	1.15	15.7	0.62	11/16
E12-12MA	3/4	11/16 - 14	42.9	1.69	25.4	1.00	1 1/8

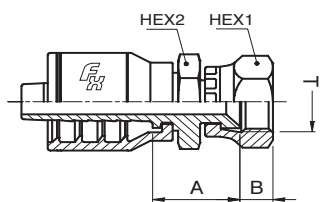
E-Series Couplings For Use With Braided Hoses:

AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HJ, HX, LX, PW, PX250, RX2

E Series

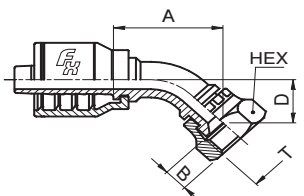
FA SAE 45° FEMALE SWIVEL

PART NUMBER	Hose Bore	T	A		B		HEX 1	HEX 2
	INCH		[mm]	[in]	[mm]	[in]		
E04-06FA	1/4	5/8 - 18	23.9	0.94	10.8	0.43	7/8	3/4
E06-06FA	3/8	5/8 - 18	23.9	0.94	10.8	0.43	7/8	3/4
E10-12FA	5/8	1 1/16 - 14	31.2	1.23	14.4	0.57	1 5/16	1 1/8
E12-12FA	3/4	1 1/16 - 14	31.2	1.23	14.4	0.57	1 5/16	1 1/8



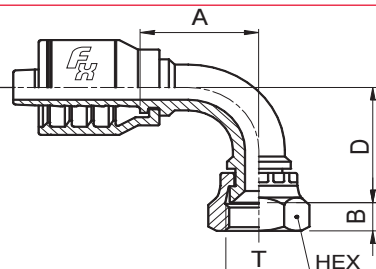
FA45 SAE 45° FEMALE SWIVEL - 45° ELBOW

PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
E06-06FA45	3/8	5/8 - 18	53.3	2.10	10.4	0.41	10.2	.40	7/8



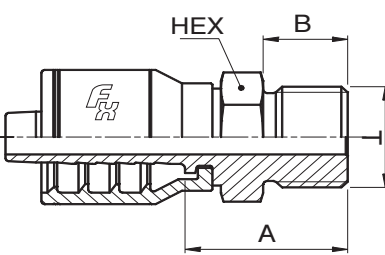
FA90 SAE 45° FEMALE SWIVEL - 90° ELBOW

PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
E06-06FA90	3/8	5/8 - 18	31	1.22	10.8	0.43	22	0.87	7/8
E12-12FA90	3/4	1 1/16 - 14	50.5	1.99	14.4	0.57	55	2.17	1 5/16



MOB O-RING BOSS MALE

PART NUMBER	Hose Bore	T	A		B		HEX
	INCH		[mm]	[in]	[mm]	[in]	
E04-04MOB	1/4	7/16 - 20	23.5	0.93	11	0.43	9/16
E04-05MOB	1/4	1/2 - 20	23.5	0.93	9.15	0.36	1 1/16
E04-06MOB	1/4	9/16 - 18	25	0.98	12	0.47	1 1/16
E06-06MOB	3/8	9/16 - 18	25.5	1.00	12	0.47	1 1/16
E06-08MOB	3/8	3/4 - 16	28	1.10	14	0.55	7/8
E08-08MOB	1/2	3/4 - 16	28.5	1.12	14	0.55	7/8
E08-10MOB	1/2	7/8 - 14	32	1.26	16	0.63	1 1/8
E08-12MOB	1/2	1 1/16 - 12	32	1.26	15	0.59	1 1/4
E10-10MOB	5/8	7/8 - 14	32	1.26	16	0.63	1 1/8
E10-12MOB	5/8	1 1/16 - 12	34.5	1.36	18.5	0.73	1 5/16
E12-12MOB	3/4	1 1/16 - 12	35	1.38	18.5	0.73	1 5/16
E12-16MOB	3/4	1 5/16 - 12	38.5	1.52	15.1	0.59	1 7/16
E16-16MOB	1	1 5/16 - 12	42	1.65	18.5	0.73	1 7/16



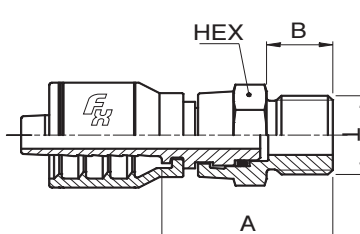
E-Series Couplings For Use With Braided Hoses:

AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HJ, HX, LX, PW, PX250, RX2



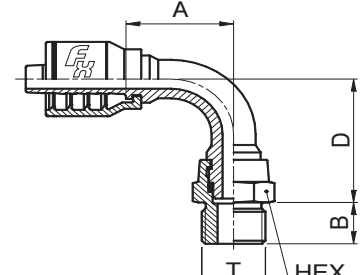
E Series

MOBX O-RING BOSS MALE SWIVEL



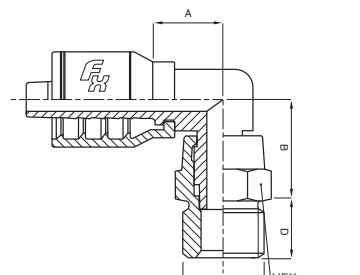
PART NUMBER	Hose Bore	T	A		B		HEX	
	INCH		[mm]	[in]	[mm]	[in]		
E04-04MOBX	1/4	7/16 - 20	36.5	1.44	9.15	0.36	11/16	
E04-06MOBX	1/4	9/16 - 18	40.5	1.59	9.95	0.39	7/8	
E06-06MOBX	3/8	9/16 - 18	40.5	1.59	9.95	0.39	7/8	
E06-08MOBX	3/8	3/4 - 16	47.5	1.87	11.1	0.44	1 1/16	
E08-08MOBX	1/2	3/4 - 16	48	1.89	11.1	0.44	1 1/16	
E08-10MOBX	1/2	7/8 - 14	51	2.01	12.7	0.50	1 1/16	
E08-12MOBX	1/2	1 1/16 - 12	57.5	2.26	15.1	0.59	1 7/16	
E10-10MOBX	5/8	7/8 - 14	51	2.01	12.7	0.50	1 1/16	
E12-12MOBX	3/4	1 1/16 - 12	57.5	2.26	15.1	0.59	1 7/16	

MOBX90 O-RING BOSS MALE SWIVEL - 90° ELBOW



PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
E04-04MOBX90	1/4	7/16 - 20	90	3.54	9.15	0.36	38.85	1.53	1 1/16
E04-06MOBX90	1/4	9/16 - 18	28	1.10	9.95	0.39	56.2	2.21	7/8
E06-06MOBX90	3/8	9/16 - 18	34.5	1.36	9.95	0.39	43.25	1.70	7/8
E06-08MOBX90	3/8	3/4 - 16	34.5	1.36	11.1	0.44	52.4	2.06	1 1/16
E06-10MOBX90	3/8	7/8 - 14	34.5	1.36	12.7	0.50	53.8	2.12	1 1/16
E08-08MOBX90	1/2	3/4 - 16	44.5	1.75	11.1	0.44	57.4	2.26	1 1/16
E08-10MOBX90	1/2	7/8 - 14	44.5	1.75	12.7	0.50	58.8	2.31	1 1/16
E12-12MOBX90	3/4	1 1/16 - 12	61.5	2.42	15.1	0.59	94	3.70	1 7/16

MOBX90B O-RING BOSS MALE SWIVEL - 90° BLOCK ELBOW




PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
E04-06MOBX90B	1/4	9/16 - 18							7/8
E06-06MOBX90B	3/8	9/16 - 18							7/8
E06-08MOBX90B	3/8	3/4 - 16							1 1/16
E06-10MOBX90B	3/8	7/8 - 14							
E08-08MOBX90B	1/2	3/4 - 16							1 1/16
E08-10MOBX90B	1/2	7/8 - 14							1 1/16
E12-12MOBX90B	3/4	1 1/16 - 12							

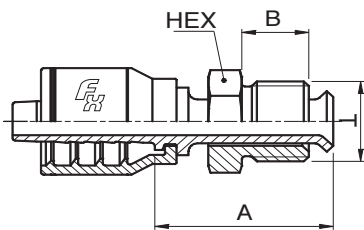
E-Series Couplings For Use With Braided Hoses:

AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HJ, HX, LX, PW, PX250, RX2


E Series

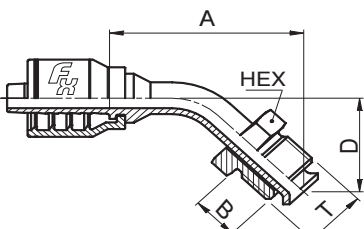
MIX SAE INVERTED FLARE MALE SWIVEL

PART NUMBER	Hose Bore	T	A		B		HEX
	INCH		[mm]	[in]	[mm]	[in]	
E04-03MIX	1/4	3/8 - 24					3/8
E04-04MIX	1/4	7/16 - 24					7/16
E04-05MIX	1/4	1/2 - 20					1/2
E06-05MIX	3/8	1/2 - 20					1/2
E06-06MIX	3/8	5/8 - 18					5/8
E06-07MIX	3/8	1 1/16 - 18					1 1/16
E08-08MIX	1/2	3/4 - 18					3/4
E08-10MIX	1/2	7/8 - 18					7/8




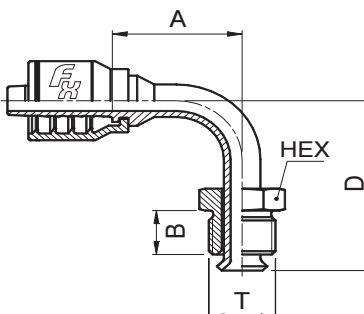
MIX45 SAE INVERTED FLARE MALE SWIVEL - 45° ELBOW

PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
E04-03MIX45	1/4	3/8 - 24							3/8
E04-04MIX45	1/4	7/16 - 24	37	1.46			15.5	.61	7/16
E04-05MIX45	1/4	1/2 - 20	39.5	1.56			17.0	.67	1/2
E06-05MIX45	3/8	1/2 - 20	42.5	1.67			19.0	.75	1/2
E06-06MIX45	3/8	5/8 - 18							5/8
E06-07MIX45	3/8	1 1/16 - 18							1 1/16
E08-08MIX45	1/2	3/4 - 18	47.5	1.87			21.5	.85	3/4



MIX90 SAE INVERTED FLARE MALE SWIVEL - 90° ELBOW

PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
E04-03MIX90	1/4	3/8 - 24							3/8
E04-04MIX90	1/4	7/16 - 24	27.0	1.06			27.0	1.06	7/16
E04-05MIX90	1/4	1/4 - 20							1/2
E06-05MIX90	3/8	1/2 - 20	29.5	1.16			30.5	1.20	1/2
E06-06MIX90	3/8	5/8 - 18	32.0	1.26			35.0	1.38	5/8
E06-07MIX90	3/8	1 1/16 - 18							1 1/16
E08-08MIX90	1/2	3/4 - 18	37.0	1.46			41.5	1.63	3/4



E-Series Couplings For Use With Braided Hoses:

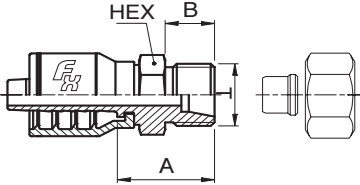
AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HJ, HX, LX, PW, PX250, RX2




E Series

MRNS

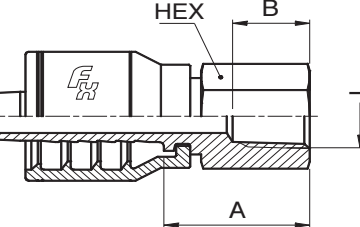
SAE FLARELESS MALE ASSEMBLY




PART NUMBER	Hose Bore	T	A		B		HEX	
	INCH		[mm]	[in]	[mm]	[in]		
E04-04MRNS	1/4	7/16 - 20	23.8	0.94	11.5	0.45	9/16	
E04-05MRNS	1/4	1/2 - 20					1 1/16	
E06-04MRNS	3/8	7/16 - 20					9/16	
E06-05MRNS	3/8	1/2 - 20	25	0.98	11.5	0.45	1 1/16	
E06-06MRNS	3/8	9/16 - 18	25.4	1.00	11.9	0.47	1 1/16	
E06-08MRNS	3/8	3/4 - 16	27.8	1.09	14.3	0.56	3/4	
E08-08MRNS	1/2	3/4 - 16	28.3	1.11	14.3	0.56	3/4	
E08-10MRNS	1/2	7/8 - 14	31.9	1.26	15.9	0.63	15/16	
E12-12MRNS	3/4	1 1/16 - 12	35	1.38	17.5	0.69	1 1/16	
E16-16MRNS	1	1 1/16 - 12	41	1.61	17.5	0.69	1 7/16	

FG

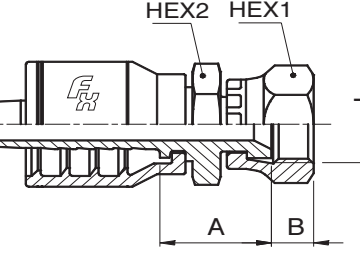
FEMALE GREASE





PART NUMBER	Hose Bore	T	A		B		HEX	
	INCH		[mm]	[in]	[mm]	[in]		
E04-08FG	1/4	1/2 - 27	22.5	0.89	7.72	0.30	1 1/16	
E06-08FG	3/8	1/2 - 27	22.5	0.89	7.72	0.30	1 1/16	

FJIS

JIS FEMALE SWIVEL (TOYOTA)



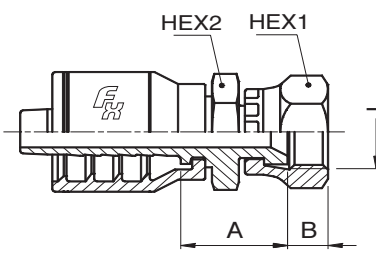
PART NUMBER	Hose Bore	T	A		B		HEX 1	HEX 2
	INCH		[mm]	[in]	[mm]	[in]		
E04-04FJIS	1/4	1/4 - 19	21	0.83	8	0.31	3/4	3/4
E06-06FJIS	3/8	3/8 - 19	22	0.87	9.5	0.37	7/8	3/4
E08-08FJIS	1/2	1/2 - 14	24.9	0.98	11	0.43	1 1/8	7/8
E12-12FJIS	3/4	3/4 - 14	25	0.98	12.5	0.49	1 5/16	1 3/16
E16-16FJIS	1	1 - 11	29	1.14	14	0.55	1 1/2	1 5/16



E-Series Couplings For Use With Braided Hoses:

AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HJ, HX, LX, PW, PX250, RX2

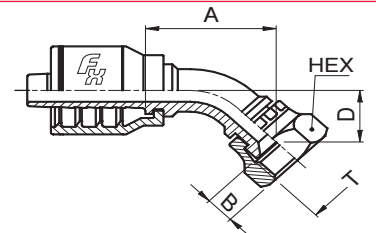
E Series


FK KOMATSU FEMALE SWIVEL



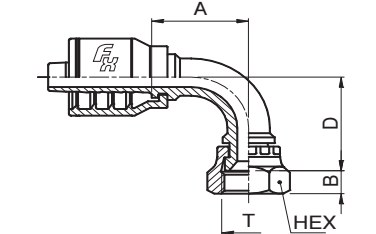
PART NUMBER	Hose Bore	T	A		B		HEX 1	HEX 2
	INCH		[mm]	[in]	[mm]	[in]		
E04-14FK	1/4	M14 x 1.5	24	0.94	10	0.39	3/4	3/4
E06-14FK	3/8	M14 x 1.5	25	0.98	10.5	0.41	3/4	3/4
E06-16FK	3/8	M16 x 1.5	23.2	0.91	9.3	0.37	7/8	3/4
E06-18FK	3/8	M18 x 1.5	24	0.94	11.5	0.45	1	3/4
E06-22FK	3/8	M22 x 1.5	25.5	1.00	14	0.55	1 1/8	3/4
E08-22FK	1/2	M22 x 1.5	27	1.06	14	0.55	1 1/8	7/8
E08-24FK	1/2	M24 x 1.5	28.4	1.12	15.1	0.59	1 15/16	1
E10-24FK	5/8	M24 x 1.5	28.4	1.12	15.1	0.59	1 15/16	1
E12-30FK	3/4	M30 x 1.5	33.2	1.31	18.3	0.72	1 7/16	1 3/16
E16-33FK	1	M33 x 1.5	30.5	1.20	21.3	0.84	1 5/8	1 5/16
E16-36FK	1	M36 x 1.5	35.7	1.41	20	0.79	1 13/16	1 5/8


FK45 KOMATSU FEMALE SWIVEL- 45° ELBOW



PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
E04-14FK45	1/2	M14 x 1.5	42.5	1.67	10	0.39	16	0.63	3/4
E06-18FK45	3/8	M16 x 1.5	51.5	2.03	11.5	0.45	19.5	0.77	15/16
E08-22FK45	1/2	M22 x 1.5	54	2.13	14	0.55	20	0.79	1 1/16
E10-24FK45	5/8	M24 x 1.5	69	2.72	15.1	0.59	27	1.06	1 1/4
E12-30FK45	3/4	M30 x 1.5	81.5	3.21	18.3	0.72	28.3	1.11	1 7/16

FK90 KOMATSU FEMALE SWIVEL- 90° ELBOW



PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
E04-14FK90	1/2	M14 x 1.5	29	1.14	10	0.39	31.5	1.24	3/4
E06-18FK90	3/8	M16 x 1.5	35.5	1.40	11.8	0.45	38	1.50	15/16
E08-22FK90	1/2	M22 x 1.5	47.5	1.87	14	0.55	43	1.69	1 1/16
E12-30FK90	3/4	M30 x 1.5	61.5	2.42	18.3	0.72	58.8	2.31	1 7/16

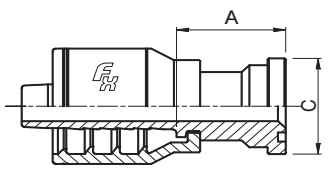
E-Series Couplings For Use With Braided Hoses:

AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HJ, HX, LX, PW, PX250, RX2

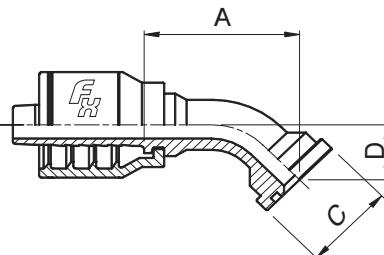


E Series

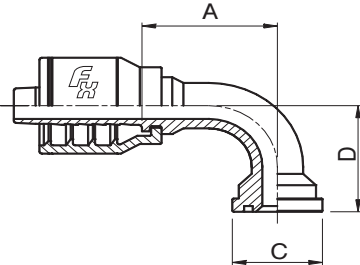
FLK KOMATSU FLANGE

	PART NUMBER	Hose Bore	FLANGE	A		C			
		INCH		[mm]	[in]	[mm]	[in]		
	E10-10FLK	5/8	34mm x .265	65	2.56	34.2	1.35		

FLK45 KOMATSU FLANGE - 45° ELBOW

	PART NUMBER	Hose Bore	FLANGE	A		C		D	
		INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
	E10-10FLK45	5/8	34mm x .265	66.5	2.62	34.2	1.35	25	0.98

FLK90 KOMATSU FLANGE - 90° ELBOW

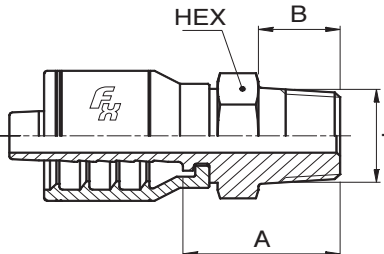
	PART NUMBER	Hose Bore	FLANGE	A		C		D	
		INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
	E10-10FLK90	5/8	34mm x .265	60.5	2.38	34.2	1.35	55	2.17


E-Series Couplings For Use With Braided Hoses:

AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HJ, HX, LX, PW, PX250, RX2

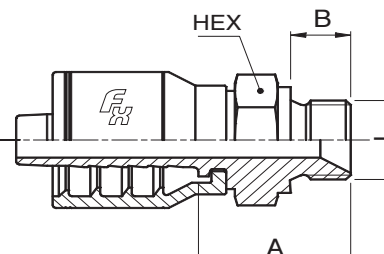
E Series


MBSPT BSPT MALE



PART NUMBER	Hose Bore	T	A		B		HEX	
	INCH		[mm]	[in]	[mm]	[in]		
E04-02MBSPT	1/4	1/8 - 28	20.2	0.80	9.7	0.38	1/2	
E04-04MBSPT	1/4	1/4 - 19	26.5	1.04	14	0.55	11/16	
E04-06MBSPT	1/4	3/8 - 19	29	1.14	15	0.59	3/4	
E05-06MBSPT	5/16	3/8 - 19	29	1.14	15	0.59	3/4	
E06-04MBSPT	3/8	1/4 - 19	24.5	0.96	14	0.55	9/16	
E06-06MBSPT	3/8	3/8 - 19	29	1.14	15	0.59	3/4	
E06-08MBSPT	3/8	1/2 - 14	32	1.26	18	0.71	7/8	
E08-06MBSPT	1/2	3/8 - 19	27.5	1.08	15	0.59	3/4	
E08-08MBSPT	1/2	1/2 - 14	32.5	1.28	18	0.71	7/8	
E10-10MBSPT	5/8	5/8 - 14	33	1.30	16	0.63	1	
E10-12MBSPT	5/8	3/4 - 14	42	1.65	20	0.79	1 1/8	
E12-12MBSPT	3/4	3/4 - 14	42.5	1.67	20	0.79	1 1/8	
E16-16MBSPT	1	1 - 11	46.5	1.83	23	0.91	1 7/16	

MBSPP BSPP MALE



PART NUMBER	Hose Bore	T	A		B		HEX	
	INCH		[mm]	[in]	[mm]	[in]		
E04-02MBSPP	1/4	1/8 - 28	22	0.87	8	0.32	9/16	
E04-04MBSPP	1/4	1/4 - 19	26.5	1.04	11	0.43	3/4	
E04-06MBSPP	1/4	3/8 - 19	28	1.10	12	0.47	7/8	
E05-06MBSPP	5/16	3/8 - 19	28.5	1.12	12	0.47	7/8	
E06-06MBSPP	3/8	3/8 - 19	28.5	1.12	12	0.47	7/8	
E06-08MBSPP	3/8	1/2 - 14	33.5	1.32	14	0.55	1 1/8	
E08-06MBSPP	1/2	3/8 - 19	28	1.10	12	0.47	7/8	
E08-08MBSPP	1/2	1/2 - 14	34	1.34	14	0.55	1 1/8	
E08-10MBSPP	1/2	5/8 - 14	33.5	1.32	16	0.63	1 1/8	
E08-12MBSPP	1/2	3/4 - 14	36	1.42	16	0.63	1 5/16	
E10-10MBSPP	5/8	5/8 - 14	31	1.22	16	0.63	1 3/16	
E10-12MBSPP	5/8	3/4 - 14	36	1.42	16	0.63	1 5/16	
E12-12MBSPP	3/4	3/4 - 14	39.5	1.56	16	0.63	1 5/16	
E12-16MBSPP	3/4	1 - 11	40.5	1.59	19	0.75	1 5/8	
E16-16MBSPP	1	1 - 11	41.5	1.63	19	0.75	1 5/8	

E-Series Couplings For Use With Braided Hoses:

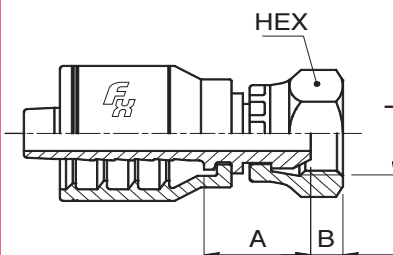
AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HJ, HX, LX, PW, PX250, RX2



E Series

FBSPP

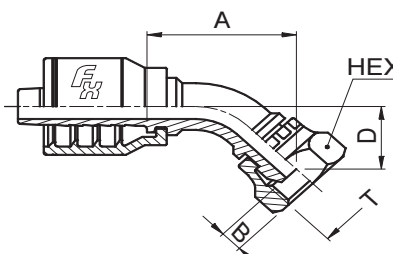
BSPF FEMALE SWIVEL



PART NUMBER	Hose Bore	T	A		B		HEX	
	INCH		[mm]	[in]	[mm]	[in]		
E04-02FBSPP	1/4	1/8 - 28	14.8	0.58	3.7	0.15	9/16	
E04-04FBSPP	1/4	1/4 - 19	16.5	0.65	5	0.20	3/4	
E04-06FBSPP	1/4	3/8 - 19	18.5	0.73	6	0.24	7/8	
E05-06FBSPP	5/16	3/8 - 19	18.5	0.65	6	0.24	7/8	
E05-08FBSPP	5/16	1/2 - 14	20.5	0.81	7	0.28	1 1/8	
E06-04FBSPP	3/8	1/4 - 19	16.1	0.63	4.2	0.17	3/4	
E06-06FBSPP	3/8	3/8 - 19	17.5	0.69	6	0.24	7/8	
E06-08FBSPP	3/8	1/2 - 14	20.5	0.81	6.5	0.26	1 1/16	
E08-06FBSPP	1/2	3/8 - 19	19	0.75	6	0.24	7/8	
E08-08FBSPP	1/2	1/2 - 14	21	0.83	7	0.28	1 1/8	
E08-10FBSPP	1/2	5/8 - 14	18	0.71	9.5	0.37	1 1/8	
E08-12FBSPP	1/2	3/4 - 14	23.3	0.92	9	0.35	1 5/16	
E10-10FBSPP	5/8	5/8 - 14	18	0.71	9.5	0.37	1 1/8	
E10-12FBSPP	5/8	3/4 - 14	21.3	0.84	9	0.35	1 5/16	
E12-12FBSPP	3/4	3/4 - 14	21.8	0.86	9	0.35	1 5/16	
E12-16FBSPP	3/4	1 - 11	27	1.06	10.5	0.41	1 1/2	
E16-16FBSPP	1	1 - 11	28	1.10	10.5	0.41	1 1/2	
E16-20FBSPP	1	1 1/4 - 11	36.4	1.43	10	0.39	2	

FBSPP45

BSPF FEMALE SWIVEL - 45° ELBOW



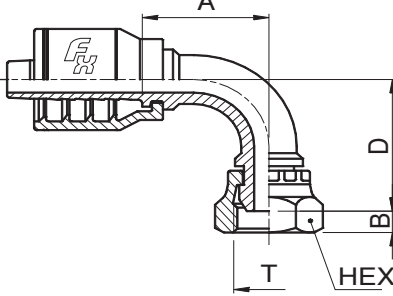
PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
E04-04FBSPP45	1/4	1/4 - 19	39.5	1.56	4	0.16	17	0.67	3/4
E04-06FBSPP45	1/4	3/8 - 19	42.5	1.67	6	0.24	19	0.75	7/8
E05-06FBSPP45	5/16	3/8 - 19	42.5	1.67	6	0.24	19	0.75	7/8
E06-06FBSPP45	3/8	3/8 - 19	46.5	1.83	6	0.24	19	0.75	7/8
E06-08FBSPP45	3/8	1/2 - 14	49.5	1.95	7	0.28	19	0.75	1 1/8
E08-08FBSPP45	1/2	1/2 - 14	52.5	2.07	7	0.28	25	0.98	1 1/8
E10-10FBSPP45	5/8	5/8 - 14	62.5	2.46	9.5	0.37	26	1.02	1 1/8
E10-12FBSPP45	5/8	3/4 - 14	62.5	2.46	9	0.35	29	1.14	1 5/16
E12-12FBSPP45	3/4	3/4 - 14	68.5	2.70	9	0.35	31	1.22	1 5/16
E16-16FBSPP45	1	1 - 11	86.5	3.41	10.5	0.41	37	1.46	1 1/2

E-Series Couplings For Use With Braided Hoses:

AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HJ, HX, LX, PW, PX250, RX2

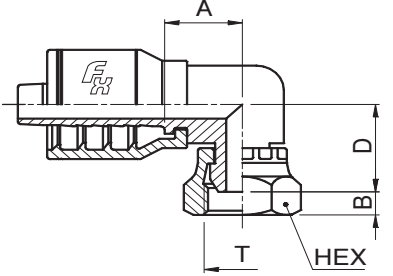
E Series

FBSP90 BSPP FEMALE SWIVEL - 90° ELBOW



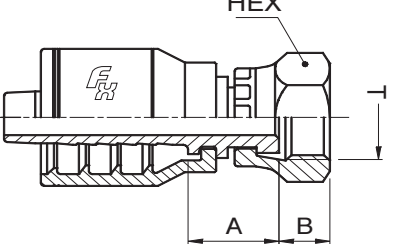
PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
E04-04FBSP90	1/4	1/4 - 19	26.5	1.04	5	0.20	27	1.06	3/4
E04-06FBSP90	1/4	3/8 - 19	27.5	1.08	6	0.24	29.5	1.16	7/8
E05-06FBSP90	5/16	3/8 - 19	32.5	1.28	6	0.24	30	1.18	7/8
E06-06FBSP90	3/8	3/8 - 19	32.5	1.28	6	0.24	30	1.18	7/8
E06-08FBSP90	3/8	1/2 - 14	32.5	1.28	6.5	0.26	32	1.26	1 1/16
E08-08FBSP90	1/2	1/2 - 14	41.5	1.63	7	0.28	40.5	1.59	1 1/8
E08-10FBSP90	1/2	5/8 - 14			9.5	0.37			1 1/16
E10-10FBSP90	5/8	5/8 - 14	46.5	1.83	9.5	0.37	49	1.93	1 1/8
E10-12FBSP90	5/8	3/4 - 14	49.5	1.95	9	0.35	51	2.01	1 5/16
E12-12FBSP90	3/4	3/4 - 14	50	1.97	9	0.35	57	2.24	1 5/16
E12-16FBSP90	3/4	1 - 11	60	2.36	10.5	0.41	62	2.44	1 1/2
E16-16FBSP90	1	1 - 11	66	2.60	10.5	0.41	68	2.68	1 1/2

FBSP90B BSPP FEMALE SWIVEL - 90° BLOCK ELBOW



PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
E04-04FBSP90B	1/4	1/4 - 19	17.5	0.69	6.5	0.26	23.5	0.93	3/4
E06-06FBSP90B	3/8	3/8 - 19	21.5	0.85	6.5	0.26	25.5	1.00	7/8
E08-08FBSP90B	1/2	1/2 - 14	25.5	1.00	9	0.35	28	1.10	1 1/8
E10-10FBSP90B	5/8	5/8 - 14	22.5	0.89	9	0.35	27	1.06	1 1/8
E12-12FBSP90B	3/4	3/4 - 14	26.5	1.04	9	0.35	36	1.42	1 5/16
E16-16FBSP90B	1	1 - 11	30.5	1.20	10.5	0.41	34.5	1.36	1 1/2

FBSPFF BSP FLAT FACE FEMALE SWIVEL



PART NUMBER	Hose Bore	T	A		B		HEX
	INCH		[mm]	[in]	[mm]	[in]	
E06-06FBSPFF	3/8	3/8 - 19	15.7	0.62	9	0.35	7/8
E06-08FBSPFF	3/8	1/2 - 14	16	0.63	10.5	0.41	1 1/16
E08-08FBSPFF	1/2	1/2 - 14	16.5	0.65	10.5	0.41	1 1/16
E08-12FBSPFF	1/2	3/4 - 14	21.5	0.85	11.5	0.45	1 1/4
E12-12FBSPFF	3/4	3/4 - 14	19	0.75	12.5	0.49	1 1/4

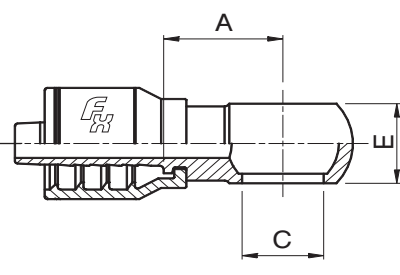
E-Series Couplings For Use With Braided Hoses:

AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HJ, HX, LX, PW, PX250, RX2

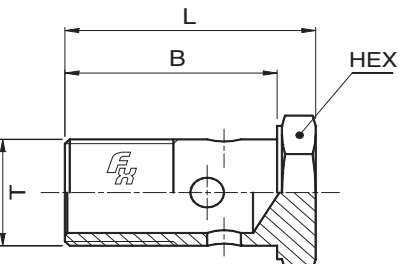


E Series

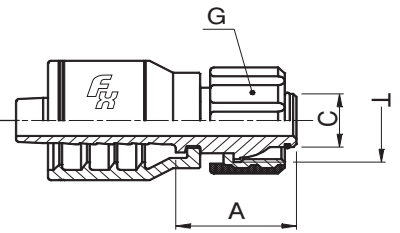
BJBSP BSP BANJO

	PART NUMBER	Hose Bore	T	A		C		E	
		INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
		E04-04BJBSP		1/4	1/4 - 19	22	0.87	6.35	0.25
E04-06BJBSP	1/4	3/8 - 19	23	0.91	9.53	0.38	18	0.71	
E06-06BJBSP	3/8	3/8 - 19	24	0.94	9.53	0.38	18	0.71	
E08-08BJBSP	1/2	1/2 - 14	27	1.06	12.7	0.50	22	0.87	
E12-12BJBSP	3/4	3/4 - 14	36.5	1.44	19.05	0.75	29	1.14	
E16-16BJBSP	1	1 - 11	44.5	1.75	25.4	1.00	37	1.46	

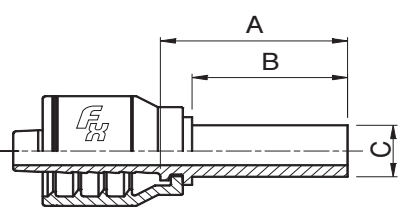
BJBSPBT BSP BANJO BOLT

	PART NUMBER	T	B		L		HEX
			[mm]	[in]	[mm]	[in]	
			04BJBSPBT	1/4 - 19	25	0.98	32
06BJBSPBT	3/8 - 19	31	1.22	38	1.50	7/8	
08BJBSPBT	1/2 - 14	38	1.50	46	1.81	1 1/8	
10BJBSPBT	5/8 - 14	41	1.61	49	1.93	1 3/16	
12BJBSPBT	3/4 - 14	46	1.81	56	2.20	1 5/16	
16BJBSPBT	1 - 11	58	2.28	69	2.72	1 5/8	

FPWK JET WASH FEMALE SWIVEL "K" TYPE

	PART NUMBER	Hose Bore	T	A		C		G	
		INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
		E04-22FPWK		1/4	M22 x 1.5	31	1.22	14	0.55
E05-22FPWK	5/16	M22 x 1.5	31	1.22	14	0.55	36	1.42	
E06-22FPWK	3/8	M22 x 1.5	31	1.22	14	0.55	36	1.42	

SP IMPERIAL STANDPIPE

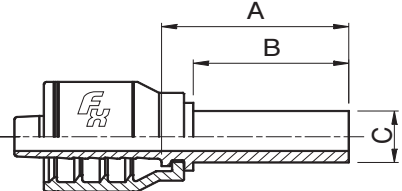
	PART NUMBER	Hose Bore	C		A		B	
		INCH	[mm]	[in]	[mm]	[in]	[mm]	[in]
		E04-04SP	1/4	6.26	0.25	31.75	1.25	23.35
E06-06SP	3/8	9.5	0.37	33.95	1.36	25.84	1.02	
E08-08SP	1/2	12.6	0.50	33.45	1.32	24.8	0.98	
E10-10SP	5/8	14.8	0.58	33.60	1.32	25.12	0.99	
E12-12SP	3/4	19.0	0.75	46.45	1.83	36.00	1.42	
E16-16SP	1	25.3	1.00	51.5	2.03	39.88	1.57	

E-Series Couplings For Use With Braided Hoses:

AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HJ, HX, LX, PW, PX250, RX2

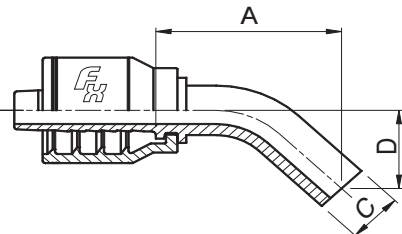
E Series

SPML METRIC STANDPIPE LIGHT



PART NUMBER	Hose Bore	C		A		B	
	INCH	[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-06SPML	1/4	6	0.24	28	1.10	22	0.87
E04-08SPML	1/4	6	0.24	29	1.14	23	0.91
E04-10SPML	1/4	10	0.39	33	1.30	27	1.06
E05-10SPML	5/16	10	0.39	30.5	1.20	24	0.94
E06-10SPML	3/8	10	0.39	30.5	1.20	24	0.94
E06-12SPML	3/8	12	0.47	30.5	1.20	24	0.94
E08-15SPML	1/2	15	0.59	33	1.30	26	1.02
E08-16SPML	1/2	16	0.63	37	1.46	30	1.18
E10-18SPML	5/8	18	0.71	34	1.34	27	1.06
E10-20SPML	5/8	20	0.79	44	1.73	37	1.46
E12-20SPML	3/4	20	0.79	44.5	1.75	37	1.46
E12-22SPML	3/4	22	0.87	36.5	1.44	29	1.14
E12-25SPML	3/4	25	0.98	48.5	1.91	41	1.61
E16-25SPML	1	25	0.98	50.5	1.99	41	1.61
E16-28SPML	1	28	1.10	39.5	1.56	30	1.18
E16-30SPML	1	30	1.18	53.5	2.11	44	1.73

SPML45 METRIC STANDPIPE LIGHT - 45° ELBOW



PART NUMBER	Hose Bore	C		A		D	
	INCH	[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-06SPML45	1/4	6	0.24	47.5	1.87	22	0.87
E04-08SPML45	1/4	8	0.32	53	2.09	24.5	0.96
E04-10SPML45	1/4	10	0.39	57.5	2.26	24.5	0.96
E05-10SPML45	5/16	10	0.39	57	2.24	24.5	0.96
E05-12SPML45	5/16	12	0.47	56	2.20	29	1.14
E06-10SPML45	3/8	10	0.39	45.5	1.79	22	0.87
E06-12SPML45	3/8	12	0.47	56	2.20	29	1.14
E08-15SPML45	1/2	15	0.59	60.5	2.38	28	1.10
E08-16SPML45	1/2	16	0.63	53	2.09	34	1.34
E10-18SPML45	5/8	18	0.71	86	3.39	39	1.54
E10-20SPML45	5/8	20	0.79	86	3.39	46	1.81
E12-22SPML45	3/4	22	0.87	79.5	3.13	39	1.54
E12-25SPML45	3/4	25	0.98	88.5	3.48	47	1.85
E16-28SPML45	1	28	1.10	95	3.74	45.5	1.79
E16-30SPML45	1	30	1.18	89	3.50	43	1.69

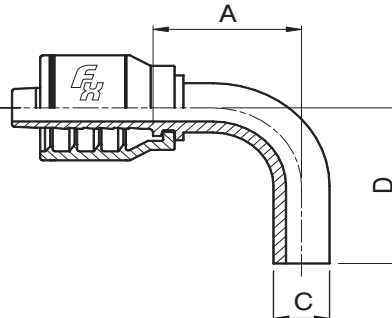
E-Series Couplings For Use With Braided Hoses:

AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HJ, HX, LX, PW, PX250, RX2



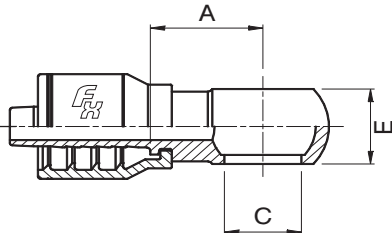
E Series

SPML90 METRIC STANDPIPE LIGHT - 90° ELBOW



PART NUMBER	Hose Bore	C		A		D	
	INCH	[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-06SPML90	1/4	6	0.24	27.5	1.08	36	1.42
E04-08SPML90	1/4	8	0.32	31.5	1.24	38	1.50
E04-10SPML90	1/4	10	0.39	36	1.42	39	1.54
E05-10SPML90	5/16	10	0.39	36	1.42	39	1.54
E06-10SPML90	3/8	10	0.39	36	1.42	39	1.54
E06-12SPML90	3/8	12	0.47	33.5	1.32	47	1.85
E08-15SPML90	1/2	15	0.59	43.5	1.71	54	2.13
E08-16SPML90	1/2	16	0.63	42.5	1.67	53.5	2.11
E10-18SPML90	5/8	18	0.71	58.5	2.30	63	2.48
E10-20SPML90	5/8	20	0.79	59.5	2.34	68	2.68
E12-20SPML20	3/4	20	0.79	53.5	2.11	78	3.07
E12-22SPML90	3/4	22	0.87	53	2.09	70.5	2.78
E12-25SPML90	3/4	25	0.98	53	2.09	82	3.23
E16-25SPML90	1	25	0.98	68.5	2.70	89	3.50
E16-28SPML90	1	28	1.10	67.5	2.66	78.5	3.09

BJM METRIC BANJO



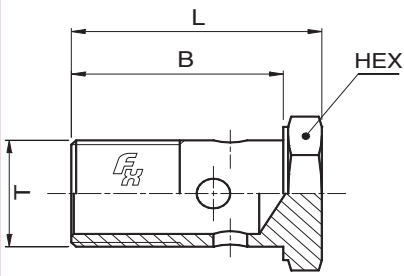
PART NUMBER	Hose Bore	T	A		C		E	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-12BJM	1/4	M12 x 1.5	21	0.83	12	0.47	12	0.47
E04-14BJM	1/4	M14 x 1.5	21	0.83	14	0.55	14	0.55
E05-14BJM	5/16	M14 x 1.5	22.5	0.89	14	0.55	14	0.55
E05-16BJM	5/16	M16 x 1.5	23	0.91	16	0.63	18	0.71
E06-14BJM	3/8	M14 x 1.5	24	0.94	14	0.55	14	0.55
E06-16BJM	3/8	M16 x 1.5	24	0.94	16	0.63	18	0.71
E06-18BJM	3/8	M18 x 1.5	27.5	1.08	18	0.71	20	0.79
E08-18BJM	1/2	M18 x 1.5	28.1	1.11	18	0.71	20	0.79
E08-22BJM	1/2	M22 x 1.5	27	1.06	22	0.87	22	0.87
E08-24BJM	1/2	M24 x 1.5						
E10-22BJM	5/8	M22 x 1.5	28	1.10	22	0.87	22	0.87


E-Series Couplings For Use With Braided Hoses:

AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HJ, HX, LX, PW, PX250, RX2

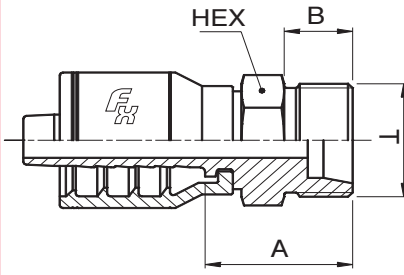
E Series


BJMBT METRIC BANJO BOLT



PART NUMBER	T	B		L		HEX	
		[mm]	[in]	[mm]	[in]		
12BJMBT	M12 x 1.5	23	0.91	28	1.10	1 ¹ / ₁₆	
14BJMBT	M14 x 1.5	25	0.98	32	1.26	3 ⁴ / ₁₆	
16BJMBT	M16 x 1.5	31	1.22	37	1.46	7 ⁸ / ₁₆	
18BJMBT	M18 x 1.5	36	1.42	44	1.73	1	
22BJMBT	M22 x 1.5	38	1.50	46	1.81	1 ¹ / ₈	
24BJMBT	M24 x 1.5	41	1.61	49	1.93	1 ³ / ₁₆	

MML METRIC LIGHT MALE (24° CONE SEAT) - CEL



PART NUMBER	Hose Bore	T	Tube	A		B		HEX
	INCH			[mm]	[in]	[mm]	[in]	
E04-12MML	1/4	M12 x 1.5	L6	22.5	0.89	10	0.39	9/16
E04-14MML	1/4	M14 x 1.5	L8	22.5	0.89	10	0.39	9/16
E04-16MML	1/4	M16 x 1.5	L10	24.5	0.96	11	0.43	1 ¹ / ₁₆
E04-18MML	1/4	M18 x 1.5	L12	25	0.98			
E05-16MML	5/16	M16 x 1.5	L10	24.5	0.96	11	0.43	1 ¹ / ₁₆
E05-18MML	5/16	M18 x 1.5	L12	25	0.98	11	0.43	3/4
E06-16MML	3/8	M16 x 1.5	L10	24.5	0.96	11	0.43	1 ¹ / ₁₆
E06-18MML	3/8	M18 x 1.5	L12	25	0.98	11	0.43	3/4
E06-22MML	3/8	M22 x 1.5	L15	26	1.02	12	0.47	7/8
E08-18MML	1/2	M18 x 1.5	L12	23.5	0.93	11	0.43	3/4
E08-22MML	1/2	M22 x 1.5	L15	26.5	1.04	12	0.47	7/8
E08-26MML	1/2	M26 x 1.5	L18	29	1.14			
E10-26MML	5/8	M26 x 1.5	L18	29	1.14	12	0.47	1 ¹ / ₈
E10-30MML	5/8	M30 x 2.0	L22	31	1.22			
E12-26MML	3/4	M26 x 1.5	L18	30	1.18			
E12-30MML	3/4	M30 x 2.0	L22	31.5	1.24	14	0.55	1 ³ / ₁₆
E16-36MML	1	M36 x 2.0	L28	33.5	1.32	14	0.55	1 ⁷ / ₁₆

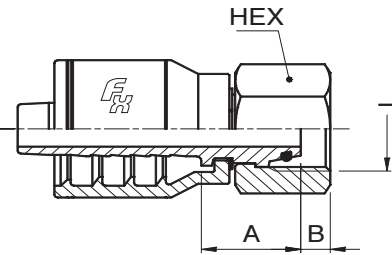
E-Series Couplings For Use With Braided Hoses:


AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HJ, HX, LX, PW, PX250, RX2



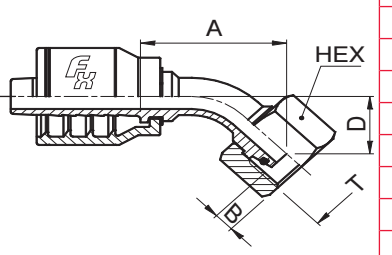
E Series


FML FEMALE METRIC LIGHT SWIVEL (24° SEAT) - DKOL



PART NUMBER	Hose Bore	T	Tube	A		B		HEX
	INCH			[mm]	[in]	[mm]	[in]	
E04-12FML	1/4	M12 x 1.5	L6	20.9	0.82	2.6	0.10	1 1/16
E04-14FML	1/4	M14 x 1.5	L8	24	0.94	1.5	0.06	1 1/16
E04-16FML	1/4	M16 x 1.5	L10	26.5	1.04	1.5	0.06	3/4
E04-18FML	1/4	M16 x 1.5	L12	25	0.98	2.1	0.08	7/8
E05-16FML	5/16	M16 x 1.5	L10	26.5	1.04	1.5	0.06	3/4
E05-18FML	5/16	M18 x 1.5	L12	26	1.02	1.5	0.06	7/8
E06-16FML	3/8	M16 x 1.5	L10	27.5	1.08	1.5	0.06	7/8
E06-18FML	3/8	M18 x 1.5	L12	26	1.02	1.5	0.06	7/8
E06-22FML	3/8	M22 x 1.5	L15	27.5	1.08	2.5	0.10	1 1/8
E08-22FML	1/2	M22 x 1.5	L15	28	1.10	2.5	0.10	1 1/8
E08-26FML	1/2	M26 x 1.5	L18	29	1.14	2	0.08	1 5/16
E10-26FML	5/8	M26 x 1.5	L18	29	1.14	2	0.08	1 5/16
E10-30FML	5/8	M30 x 2.0	L22	31	1.22			
E12-26FML	3/4	M26 x 1.5	L18	29	1.14			
E12-30FML	3/4	M30 x 2.0	L22	29.5	1.16	3.5	0.14	1 7/16
E16-36FML	1	M36 x 2.0	L28	30.5	1.20	4.5	0.18	1 5/8

FML45 FEMALE METRIC LIGHT SWIVEL - 45° ELBOW (24° SEAT) - DKOL



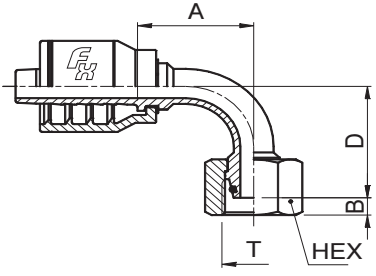
PART NUMBER	Hose Bore	T	Tube	A		B		D		HEX
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]	
E04-12FML45	1/4	M12 x 1.5	L6	43	1.69					
E04-14FML45	1/4	M14 x 1.5	L8	38.5	1.52	1.5	0.06	17.5	0.69	1 1/16
E04-16FML45	1/4	M16 x 1.5	L10	41	1.61	1.5	0.06	19	0.69	3/4
E04-18FML45	1/4	M18 x 1.5	L12	42	1.65					
E05-16FML45	5/16	M16 x 1.5	L10	41.5	1.63	1.5	0.06	19	0.75	3/4
E05-18FML45	5/16	M18 x 1.5	L12	49	1.93					
E06-16FML45	3/8	M16 x 1.5	L10	50.5	1.99	1.5	0.06	19	0.75	7/8
E06-18FML45	3/8	M18 x 1.5	L12	46.5	1.83	1.5	0.06	19	0.75	7/8
E06-22FML45	3/8	M22 x 1.5	L15	55	2.17					
E08-22FML45	1/2	M22 x 1.5	L15	51.5	2.03	2.5	1.10	21.5	0.85	1 1/8
E08-26FML45	1/2	M26 x 1.5	L18	63.5	2.5					
E10-26FML45	5/8	M26 x 1.5	L18	59.5	2.34	2	0.08	27.5	1.08	1 5/16
E10-30FML45	5/8	M30 x 2.0	L22	80	3.15					
E12-26FML45	3/4	M26 x 1.5	L18	90	3.54					
E12-30FML45	3/4	M30 x 2.0	L22	63.5	2.50	3.5	0.14	28	1.10	1 7/16
E16-36FML45	1	M36 x 2.0	L28	90	3.54	3.5	0.14	35.5	1.40	1 5/8


E-Series Couplings For Use With Braided Hoses:

AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HJ, HX, LX, PW, PX250, RX2

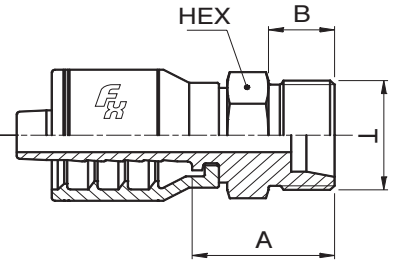
E Series


FML90 FEMALE METRIC LIGHT SWIVEL - 90° ELBOW (24° SEAT) - DKOL



PART NUMBER	Hose Bore	T	Tube	A		B		D		HEX
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]	
E04-12FML90	1/4	M12 x 1.5	L6	24	.95					
E04-14FML90	1/4	M14 x 1.5	L8	28.5	1.12	1.5	0.06	32	1.26	11/16
E04-16FML90	1/4	M16 x 1.5	L10	31.5	1.24	1.5	0.06	32	1.26	3/4
E04-18FML90	1/4	M18 x 1.5	L12	24						
E05-16FML90	5/16	M16 x 1.5	L10	31.5	1.24	1.5	0.06	35.5	1.40	3/4
E05-18FML90	5/16	M18 x 1.5	L12	32.5	1.28	1.5	0.06	37	1.46	7/8
E06-16FML90	3/8	M16 x 1.5	L10	65	2.56	1.5	0.06	37	1.46	7/8
E06-18FML90	3/8	M18 x 1.5	L12	32	1.26	1.5	0.06	39	1.54	7/8
E06-22FML90	3/8	M22 x 1.5	L15	34						
E08-22FML90	1/2	M22 x 1.5	L15	45.5	1.79	2.5	0.10	45	1.77	1 1/8
E08-26FML90	1/2	M26 x 1.5	L18	41						
E10-26FML90	5/8	M26 x 1.5	L18	57.5	2.26	2	0.08	56	2.20	1 5/16
E10-30FML90	5/8	M30 x 2.0	L22	49		2.3	0.09			1 1/4
E12-30FML90	3/4	M30 x 2.0	L22	71.2	2.80	3.5	0.14	67.5	2.66	1 7/16
E12-36FML90	3/4	M36 x 2.0	L18	58						
E16-36FML90	1	M36 x 2.0	L28	78	3.07	3.5	0.14	75	2.95	1 5/8

MMS MALE METRIC HEAVY (24° SEAT) - CES



PART NUMBER	Hose Bore	T	Tube	A		B		HEX
	INCH			[mm]	[in]	[mm]	[in]	
E04-14MMS	1/4	M14 x 1.5	S6	24.5	0.96	12	0.47	9/16
E04-16MMS	1/4	M16 x 1.5	S8	26	1.02	12	0.47	11/16
E04-18MMS	1/4	M18 x 1.5	S10	26	1.02	12	0.47	3/4
E04-20MMS	1/4	M20 x 1.5	S12	26	1.02	12	0.47	7/8
E05-18MMS	5/16	M18 x 1.5	S10	26	1.02	12	0.47	3/4
E05-20MMS	5/16	M20 x 1.5	S12	26	1.02	12	0.47	7/8
E06-18MMS	3/8	M18 x 1.5	S10	26	1.02	12	0.47	3/4
E06-20MMS	3/8	M20 x 1.5	S12	26	1.02	12	0.47	7/8
E06-22MMS	3/8	M22 x 1.5	S14	28	1.10	14	0.55	7/8
E06-24MMS	3/8	M24 x 1.5	S16	28	1.10	14	0.55	1
E08-24MMS	1/2	M24 x 1.5	S16	28.5	1.12	14	0.55	1
E10-30MMS	5/8	M30 x 2.0	S20	33	1.30	16	0.63	1 3/16
E12-30MMS	3/4	M30 x 2.0	S20	33.5	1.32	16	0.63	1 3/16
E12-36MMS	3/4	M36 x 2.0	S25	36.5	1.44	18	0.71	1 7/16
E16-36MMS	1	M36 x 2.0	S25	37.5	1.48	18	0.71	1 7/16
E16-42MMS	1	M42 x 2.0	S30	40.5	1.59	20	0.79	1 9/16

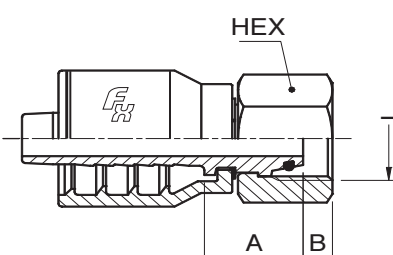
E-Series Couplings For Use With Braided Hoses:

AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HJ, HX, LX, PW, PX250, RX2



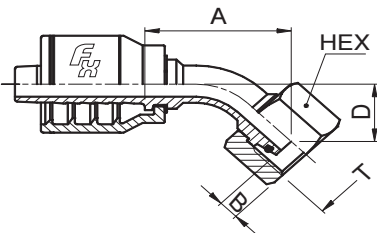
E Series

FMS FEMALE METRIC HEAVY SWIVEL (24° SEAT) - DKOS



PART NUMBER	Hose Bore	T	Tube	A		B		HEX	
	INCH			[mm]	[in]	[mm]	[in]		
E04-14FMS	1/4	M14 x 1.5	S6	22	0.87	2.5	0.10	1 1/16	
E04-16FMS	1/4	M16 x 1.5	S8	25.5	1.00	2.5	0.10	3/4	
E04-18FMS	1/4	M18 x 1.5	S10	28	1.10	2	0.08	7/8	
E04-20FMS	1/4	M20 x 1.5	S12	25	.98				
E05-18FMS	5/16	M18 x 1.5	S10	25	.98				
E05-20FMS	5/16	M20 x 1.5	S12	28.5	1.12	2	0.08	1	
E06-18FMS	3/8	M18 x 1.5	S10	25	.98				
E06-20FMS	3/8	M20 x 1.5	S12	25.5	1.00	2	0.08	1	
E06-22FMS	3/8	M22 x 1.5	S14	28.5	1.12	4	0.16	1 1/8	
E08-22FMS	1/2	M22 x 1.5	S14	31	1.22				
E08-24FMS	1/2	M24 x 1.5	S16	32	1.26	3	0.12	1 3/16	
E10-30FMS	5/8	M30 x 2.0	S20	34	1.34	3.50	.014	1 7/16	
E12-30FMS	3/4	M30 x 2.0	S20	36.5	1.44	3.5	0.14	1 7/16	
E12-36FMS	3/4	M36 x 2.0	S25	39.5	1.56	3	0.12	1 13/16	
E16-36FMS	1	M36 x 2.0	S25	40.5	1.59	3	0.12	1 13/16	
E16-42FMS	1	M42 x 2.0	S30	43	1.69	6	0.24	2	

FMS45 FEMALE METRIC HEAVY SWIVEL - 45° ELBOW (24° SEAT) - DKOS



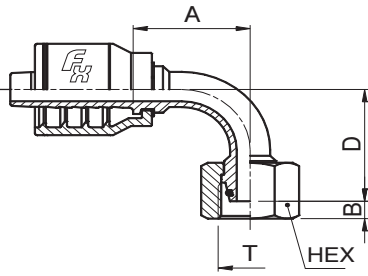
PART NUMBER	Hose Bore	T	Tube	A		B		D		HEX
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]	
E04-14FMS45	1/4	M14 x 1.5	S6	40.5	1.59	2.5	0.10	20	0.79	1 1/16
E04-16FMS45	1/4	M16 x 1.5	S8	40.5	1.59	2.5	0.10	16.5	0.65	3/4
E04-18FMS45	1/4	M18 x 1.5	S10	42.5	1.67	2	0.08	17	0.67	7/8
E04-20FMS45	1/4	M20 x 1.5	S12	42	1.65					
E05-18FMS45	5/16	M18 x 1.5	S10	48	1.89					
E05-20FMS45	5/16	M20 x 1.5	S12	44	1.73	2	0.08	21.5	0.85	1
E06-18FMS45	3/8	M18 x 1.5	S10	59	2.32					
E06-20FMS45	3/8	M20 x 1.5	S12	46	1.81	2	0.08	21.5	0.85	1
E06-22FMS45	3/8	M22 x 1.5	S14	53	2.09	4	0.16	22	0.87	1 1/8
E08-22FMS45	1/2	M22 x 1.5	S14	63.5	2.5					
E08-24FMS45	1/2	M24 x 1.5	S16	61	2.40	3	0.12	26	1.02	1 3/8
E10-30FMS45	5/8	M30 x 2.0	S20	59	2.32	3.5	0.14	26	1.02	1 7/16
E12-30FMS45	3/4	M30 x 2.0	S20	79	3.11	3.5	0.14	33.5	1.32	1 7/16
E12-36FMS45	3/4	M36 x 2.0	S25	79	3.11	3	0.12	33.5	1.32	1 13/16
E16-36FMS45	1	M36 x 2.0	S25	89	3.50	3	0.12	33.5	1.32	1 13/16
E16-42FMS45	1	M42 x 2.0	S30	91.5	3.60	6	0.24	35	1.38	2

E-Series Couplings For Use With Braided Hoses:

AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HJ, HX, LX, PW, PX250, RX2

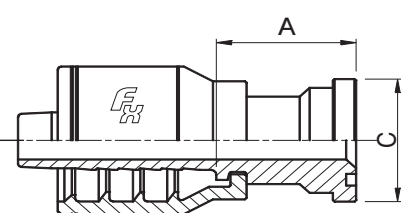
E Series

FMS90 FEMALE METRIC HEAVY SWIVEL - 90° ELBOW (24° SEAT) - DKOS



PART NUMBER	Hose Bore	T	Tube	A		B		D		HEX
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]	
E04-14FMS90	1/4	M14 x 1.5	S6	27.5	1.08	2.5	0.10	37.5	1.48	1 1/16
E04-16FMS90	1/4	M16 x 1.5	S8	28.5	1.12	2.5	0.10	32	1.26	3/4
E04-18FMS90	1/4	M18 x 1.5	S10	33	1.30	2	0.08	33.5	1.32	7/8
E04-20FMS45	1/4	M20 x 1.5	S12	24	.95					
E05-18FMS45	5/16	M18 x 1.5	S10	31	1.22					
E05-20FMS90	5/16	M20 x 1.5	S12	35	1.38	2	0.08	36.5	1.44	1
E06-18FMS45	3/8	M18 x 1.5	S10	34	1.34					
E06-20FMS90	3/8	M20 x 1.5	S12	37	1.46	2	0.08	36	1.42	1
E06-22FMS90	3/8	M22 x 1.5	S14	34	1.34	4	0.16	41	1.61	1 1/8
E08-22FMS45	1/2	M22 x 1.5	S14	41	1.61					
E08-24FMS90	1/2	M24 x 1.5	S16	43.5	1.71	3	0.12	46	1.81	1 3/16
E10-30FMS90	5/8	M30 x 2.0	S20	52	2.05	3.5	0.14	53.5	2.11	1 7/16
E12-30FMS90	3/4	M30 x 2.0	S20	65	2.56	3.5	0.14	65	2.56	1 7/16
E12-36FMS90	3/4	M36 x 2.0	S25	73.5	2.89	3	0.12	72.5	2.85	1 13/16
E16-36FMS90	1	M36 x 2.0	S25	78.5	3.09	3	0.12	73	2.87	1 13/16
E16-42FMS90	1	M42 x 2.0	S30	81	3.19	6	0.24	77	3.03	2

FL SAE CODE 61 FLANGE



PART NUMBER	Hose Bore	FLANGE	A		C	
	INCH		[mm]	[in]	[mm]	[in]
E08-08FL	1/2	1/2 x .265	38	1.50	30	1.18
E08-12FL	1/2	3/4 x .265	39	1.54	38	1.50
E10-12FL	5/8	3/4 x .265	39	1.54	38	1.50
E12-12FL	3/4	3/4 x .265	39.5	1.56	38	1.50
E12-16FL	3/4	1 x .315	46	1.81	44.5	1.75
E16-16FL	1	1 x .315	47	1.85	44.5	1.75
E16-20FL	1	1 1/4 x .315	47	1.85	51	2.00
E20-20FL	1 1/4	1 1/4 x .315	45.2	1.78	50.8	2.00
E24-24FL	1 1/2	1 1/2 x .315	53	2.09	60.3	2.37
E32-32FL	2	2 x .375	70	2.76	71.4	2.81

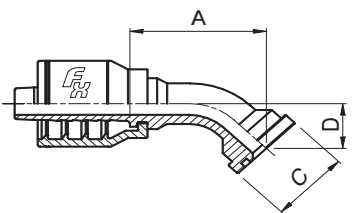
E-Series Couplings For Use With Braided Hoses:

AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HJ, HX, LX, PW, PX250, RX2



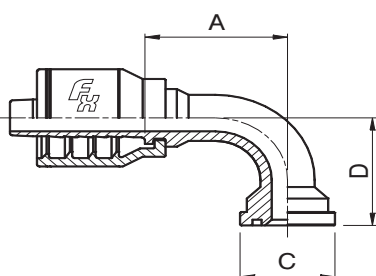
E Series

FL45 SAE CODE 61 FLANGE - 45° ELBOW



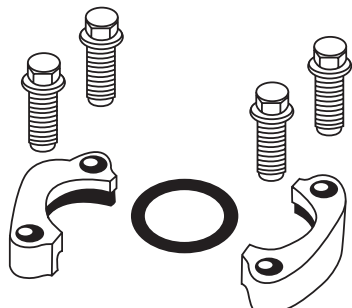
PART NUMBER	Hose Bore	FLANGE	A		C		D	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
E08-08FL45	1/2	1/2 x .265	55.2	2.17	30	1.18	22.6	0.89
E08-12FL45	1/2	3/4 x .265	60.5	2.38	38	1.50	26	1.02
E10-12FL45	5/8	3/4 x .265	67	2.64	38	1.50	26	1.02
E12-12FL45	3/4	3/4 x .265	68.5	2.70	38	1.50	27	1.06
E12-16FL45	3/4	1 x .315	70.5	2.78	44.5	1.75	31	1.22
E16-16FL45	1	1 x .315	74	2.91	44.5	1.75	27	1.06
E16-20FL45	1	1 1/4 x .315	75.5	2.97	51	2.00	31	1.22
E20-20FL45	1 1/4	1 1/4 x .315	78.6	3.09	50.8	2.00	31	1.22
E24-24FL45	1 1/2	1 1/2 x .315	94.1	3.70	60.3	2.37	36.5	1.44
E32-32FL45	2	2 x .375	131.7	5.19	71.4	2.81	52.5	2.07

FL90 SAE CODE 61 FLANGE - 90° ELBOW



PART NUMBER	Hose Bore	FLANGE	A		C		D	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
E08-08FL90	1/2	1/2 x .265	50	1.97	30	1.18	45	1.77
E08-12FL90	1/2	3/4 x .265	49.5	1.95	38	1.50	49	1.93
E10-12FL90	5/8	3/4 x .265	55.5	2.19	38	1.50	55	2.17
E12-12FL90	3/4	3/4 x .265	62	2.44	38	1.50	56.5	2.22
E12-16FL90	3/4	1 x .315	61	2.40	44.5	1.75	59.5	2.34
E16-16FL90	1	1 x .315	69.5	2.74	44.5	1.75	61	2.40
E16-20FL90	1	1 1/4 x .315	66.3	2.61	51	2.00	65.9	2.59
E20-20FL90	1 1/4	1 1/4 x .315	78.6	3.09	50.8	2.00	69.2	2.72
E24-24FL90	1 1/2	1 1/2 x .315	99	3.90	60.3	2.37	81	3.19
E32-32FL90	2	2 x .375	124.3	4.89	71.4	2.81	125	4.92

7795 SPLIT FLANGE KIT (CODE 61)



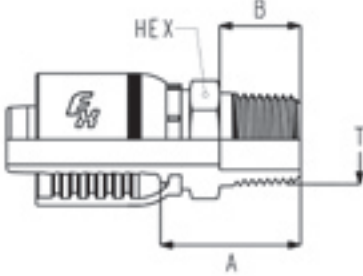
PART NUMBER	T1		
7795-08	1/2		
7795-12	3/4		
7795-16	1		
7795-20	1 1/4		
7795-24	1 1/2		
7795-32	2		

E-Series Couplings For Use With Braided Hoses:

AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HJ, HX, LX, PW, PX250, RX2

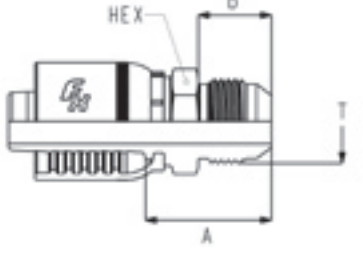
F Series

MP NPT MALE



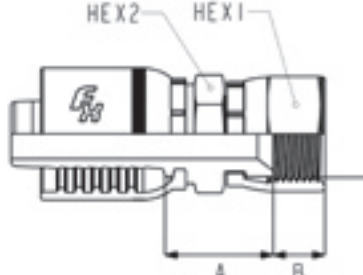
PART NUMBER	Hose Bore	T	A		B		HEX	
	INCH		[mm]	[in]	[mm]	[in]		
F04-02MP	3/16	1/8 - 27	21	0.83	9.5	0.37	9/16	
F04-04MP	3/16	1/4 - 18	25.9	1.02	14.4	0.57	9/16	
F06-04MP	5/16	1/4 - 18	28.1	1.11	14.4	0.57	11/16	
F06-06MP	5/16	3/8 - 18	28.2	1.11	14.6	0.57	3/4	
F08-06MP	13/32	3/8 - 18	28.8	1.13	14.6	0.57	3/4	
F08-08MP	13/32	1/2 - 14	33.2	1.31	19.0	0.75	7/8	
F10-08MP	1/2	1/2 - 14	33.2	1.31	19.0	0.75	15/16	
F10-12MP	1/2	3/4 - 14	34.5	1.36	19.1	0.75	11/16	
F12-12MP	5/8	3/4 - 14	35.8	1.41	19.3	0.76	11/8	

MJ JIC 37° MALE



PART NUMBER	Hose Bore	T	A		B		HEX	
	INCH		[mm]	[in]	[mm]	[in]		
F04-04MJ	3/16	7/16 - 20	25.5	1.00	14.0	0.55	9/16	
F05-05MJ	1/4	1/2 - 20	26.5	1.04	14.0	0.55	9/16	
F05-06MJ	1/4	9/16 - 18	27.5	1.08	14.0	0.55	11/16	
F06-06MJ	5/16	9/16 - 18	26.0	1.02	14.0	0.55	11/16	
F08-08MJ	13/32	3/4 - 16	27.6	1.09	16.8	0.66	3/4	
F10-08MJ	1/2	3/4 - 16	31	1.22	16.7	0.66	15/16	
F10-10MJ	1/2	7/8 - 14	33.6	1.32	19.2	0.76	15/16	
F12-12MJ	5/8	11/16 - 12	38.4	1.51	22.3	0.88	11/4	

FJ JIC 37° FEMALE SWIVEL



PART NUMBER	Hose Bore	T	A		B		HEX 1	HEX 2
	INCH		[mm]	[in]	[mm]	[in]		
F04-04FJ	3/16	7/16 - 20	19.5	0.77	9.0	0.35	5/8	9/16
F05-04FJ	1/4	7/16 - 20	19.7	0.78	9.0	0.35	11/16	9/16
F05-05FJ	1/4	1/2 - 20						
F05-06FJ	1/4	9/16 - 18	21.7	0.85	9.6	.38	3/4	11/16
F06-06FJ	5/16	9/16 - 18	22.7	0.89	9.5	0.37	3/4	11/16
F06-08FJ	5/16	3/4 - 16	24.8	0.98	10.9	0.43	15/16	3/4
F08-08FJ	13/32	3/4 - 16	24.8	0.98	10.5	0.41	15/16	13/16
F10-08FJ	1/2	3/4 - 16	24.8	0.98	10.5	0.41	15/16	7/8
F10-10FJ	1/2	7/8 - 14	25.8	1.02	12.5	0.49	11/16	7/8
F10-12FJ	1/2	11/16 - 12	33.8	1.33	13.4	0.53	11/4	11/16
F12-12FJ	5/8	11/16 - 12	29	1.14	14.5	0.57	11/4	11/16
F16-16FJ	7/8	15/16 - 12	32	1.26	15.1	0.59	15/16	11/2
F20-20FJ	11/8	15/8 - 12			15.9	0.63	2	17/8

F-Series Couplings For Use With Braided Hoses:

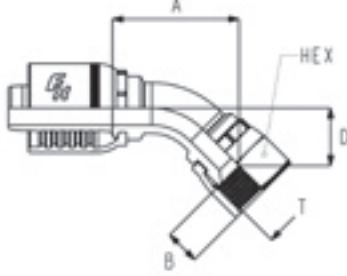
FX, FH



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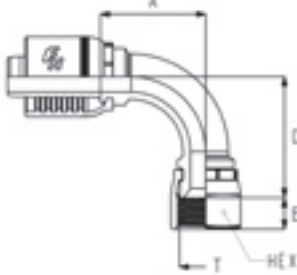
F Series

FJ45 JIC 37° FEMALE SWIVEL - 45° ELBOW



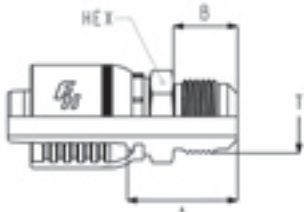
PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
F04-04FJ45	3/16	7/16 - 20	32.4	1.28	9.0	0.35	10	0.39	5/8
F05-05FJ45	1/4	1/2 - 20	38.5	1.52	9.5	0.37	15	0.59	11/16
F06-06FJ45	5/16	9/16 - 18	40.7	1.60	9.5	0.37	11	0.43	3/4
F08-08FJ45	13/32	3/4 - 16	42.7	1.68	10.8	0.43	13.8	0.54	15/16
F10-10FJ45	1/2	7/8 - 14	66.3	2.61	12.5	0.49	16	0.63	1 1/16
F12-12FJ45	5/8	1 1/16 - 12	66.5	2.62	14.5	0.57	21	0.83	1 1/4

FJ90 JIC 37° FEMALE SWIVEL - 90° ELBOW




PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
F04-04FJ90	3/16	7/16 - 20	40.6	1.60	9.0	0.35	21.0	.83	5/8
F05-05FJ90	1/4	1/2 - 20	26.5	1.04	9.5	0.37	26.5	1.04	11/16
F05-06FJ90	1/4	9/16 - 18	26.3	1.04	9.5	0.37	28.0	1.10	3/4
F06-06FJ90	5/16	9/16 - 18	51.1	2.01	9.5	0.37	23.0	0.91	3/4
F08-08FJ90	13/32	3/4 - 16	50.0	1.97	10.5	0.41	29.0	1.14	15/16
F10-10FJ90	1/2	7/8 - 14	56.0	2.20	12.5	0.49	32.0	1.26	1 1/16
F10-12FJ90	1/2	1 1/16 - 12	46.2	1.82	13.5	0.53	52.0	2.05	1 1/4
F12-12FJ90	5/8	1 1/16 - 12	60.3	2.37	14.5	0.57	48.0	1.89	1 1/4

MA SAE 45° MALE



PART NUMBER	Hose Bore	T	A		B		HEX
	INCH		[mm]	[in]	[mm]	[in]	
F06-06MA	5/16	9/16 - 18	27.8	1.09	14.1	0.56	1 1/16

FA SAE 45° FEMALE SWIVEL



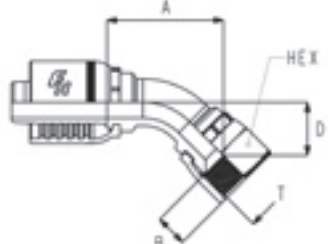

PART NUMBER	Hose Bore	T	A		B		HEX 1	HEX 2
	INCH		[mm]	[in]	[mm]	[in]		
F06-06FA	5/16	9/16 - 18	22.7	0.89	9.5	0.37	7/8	3/4
F12-12FA	5/8	1 1/16 - 14	30	1.18	14.2	0.56	1 1/4	1 1/16

F-Series Couplings For Use With Braided Hoses:

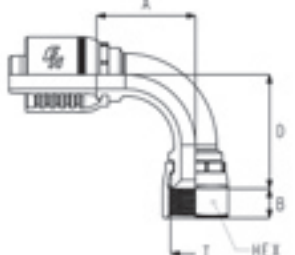

FX, FH

F Series

FA45 SAE 45° FEMALE SWIVEL - 45° ELBOW

	PART NUMBER	Hose Bore	T	A		B		D		HEX
		INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
	F06-06FA45	5/16	9/16 - 18			9.5	.37	11	.43	7/8

FA90 SAE 45° FEMALE SWIVEL - 90° ELBOW

	PART NUMBER	Hose Bore	T	A		B		D		HEX
		INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
	F06-06FA90	5/16	9/16 - 18	51.1	2.01	9.5	0.37	23	0.91	7/8

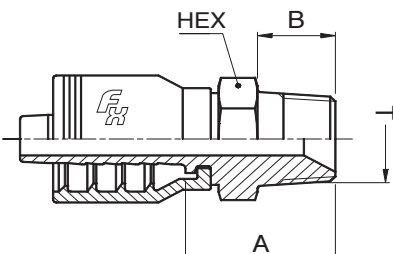
F-Series Couplings For Use With Braided Hoses:


FX, FH



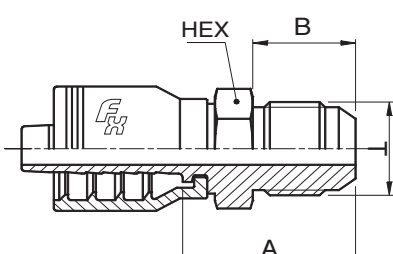
N Series


MP NPT MALE



PART NUMBER	Hose Bore	T	A		B		HEX	
	INCH		[mm]	[in]	[mm]	[in]		
N06-06MP	3/8	3/8 - 18	26.4	1.04	14.2	0.56	3/4	
N06-08MP	3/8	1/2 - 14	33	1.30	19	0.75	7/8	
N08-06MP	1/2	3/8 - 18	26.6	1.05	14.3	0.56	3/4	
N08-08MP	1/2	1/2 - 14	33.5	1.32	19.2	0.76	7/8	
N08-12MP	1/2	3/4 - 14	32	1.26	19.3	0.76	1 1/8	
N10-12MP	5/8	3/4 - 14	35.7	1.41	19	0.75	1 1/8	
N12-12MP	3/4	3/4 - 14	40.4	1.59	17.4	0.69	1 1/8	
N12-16MP	3/4	1 - 11 1/2	45.8	1.80	24.2	0.95	1 7/16	
N16-16MP	1	1 - 11 1/2	45.3	1.78	24	0.94	1 7/16	
N16-20MP	1	1 1/4 - 11 1/2	56.6	2.23	24.5	0.96	1 13/16	
N20-20MP	1 1/4	1 1/4 - 11 1/2	56.6	2.23	25.6	1.00	1 13/16	
N20-24MP	1 1/4	1 1/2 - 11 1/2	52.8	2.08	25.5	1.00	2	
N24-24MP	1 1/2	1 1/2 - 11 1/2	61	2.40	25.8	1.01	2	
N32-32MP	2	2 - 11 1/2	71.9	2.83	26	1.02	2 9/16	

MJ JIC 37° MALE

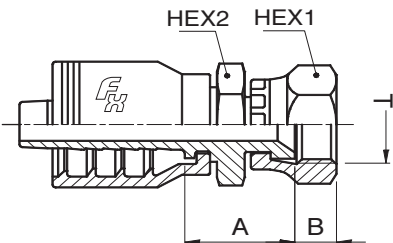


PART NUMBER	Hose Bore	T	A		B		HEX	
	INCH		[mm]	[in]	[mm]	[in]		
N06-06MJ	3/8	9/16 - 18	25.8	1.02	13.9	0.55	1 1/16	
N06-08MJ	3/8	3/4 - 16	28.8	1.13	16.8	0.66	3/4	
N08-08MJ	1/2	3/4 - 16	32.8	1.29	19.5	0.77	3/4	
N08-10MJ	1/2	7/8 - 14	32.8	1.29	19.5	0.77	15/16	
N10-10MJ	5/8	7/8 - 14	32.8	1.29	19.2	0.76	15/16	
N10-12MJ	5/8	1 1/16 - 12	37.4	1.47	22.5	0.89	1 1/16	
N12-10MJ	3/4	7/8 - 14	38.1	1.5	22.5	0.89	1 1/16	
N12-12MJ	3/4	1 1/16 - 12	43.8	1.72	22.5	0.89	1 1/16	
N12-14MJ	3/4	1 3/16 - 12	44.4	1.75	23.1	0.91	15/16	
N12-16MJ	3/4	1 5/16 - 12	44.4	1.75	23.1	0.91	1 7/16	
N16-16MJ	1	1 5/16 - 12	44.3	1.74	23.6	0.93	1 7/16	
N16-20MJ	1	1 5/8 - 12	59.9	2.36	24.3	0.96	1 13/16	
N20-20MJ	1 1/4	1 5/8 - 12	56.7	2.23	24.3	0.96	1 7/8	
N24-24MJ	1 1/2	1 7/8 - 12	62.4	2.46	27.5	1.08	2	
N32-32MJ	2	2 1/2 - 12	79	3.11	34	1.39	2 9/16	

N-Series Non-Skive Couplings For Use With Braided and Spiral Hoses:
AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HX, NX, PX250, QC, RX2, SX, 3X

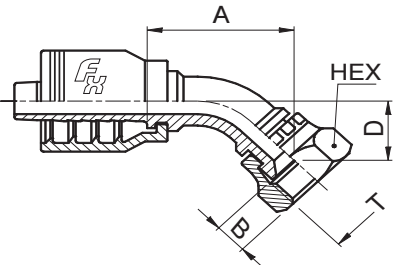
N Series

FJ JIC 37° FEMALE SWIVEL



PART NUMBER	Hose Bore	T	A		B		HEX 1	HEX 2
	INCH		[mm]	[in]	[mm]	[in]		
N06-06FJ	3/8	9/16 - 18	22	0.87	8.8	0.35	3/4	1 1/16
N06-08FJ	3/8	3/4 - 16	24.4	0.96	10.5	0.41	15/16	3/4
N08-06FJ	1/2	9/16 - 18	22.5	0.89	9.2	0.36	3/4	3/4
N08-08FJ	1/2	3/4 - 16	23.8	0.94	9.3	0.37	3/4	3/4
N08-10FJ	1/2	7/8 - 14	28.3	1.11	13	0.51	1 1/16	7/8
N08-12FJ	1/2	1 1/16 - 12	34.2	1.35	13.8	0.54	1 1/4	1 1/16
N10-10FJ	5/8	7/8 - 14	26	1.02	13	0.51	1 1/16	7/8
N10-12FJ	5/8	1 1/16 - 12	33.5	1.32	14	0.55	1 1/4	1 1/16
N12-10FJ	3/4	7/8 - 14	35	1.38	12.6	0.50	1 1/16	1 1/16
N12-12FJ	3/4	1 1/16 - 12	34.8	1.37	13.8	0.54	1 1/4	1 1/16
N12-14FJ	3/4	1 3/16 - 12	27.7	1.09	14.5	0.57	1 5/16	1 1/8
N12-16FJ	3/4	1 5/16 - 12	37.5	1.48	16	0.63	1 5/16	1 1/2
N16-12FJ	1	1 1/16 - 12	19	0.75	14.4	0.57	1 1/4	1 1/4
N16-16FJ	1	1 5/16 - 12	33	1.30	16	0.63	1 1/2	1 1/4
N16-20FJ	1	1 5/8 - 12	47	1.85	16	0.63	2	1 5/8
N20-16FJ	1 1/4	1 5/16 - 12	51.9	2.04	16	0.63	1 1/2	1 5/8
N20-20FJ	1 1/4	1 5/8 - 12	45	1.77	16	0.63	2	1 5/8
N20-24FJ	1 1/4	1 7/8 - 12	51.2	2.01	18.2	0.72	2	2
N24-24FJ	1 1/2	1 7/8 - 12	53.5	2.11	18.7	0.74	2 1/8	2
N32-32FJ	2	2 1/2 - 12	67.1	2.64	24.2	0.95	2 3/4	2 9/16

FJ45 JIC 37° FEMALE SWIVEL - 45° ELBOW



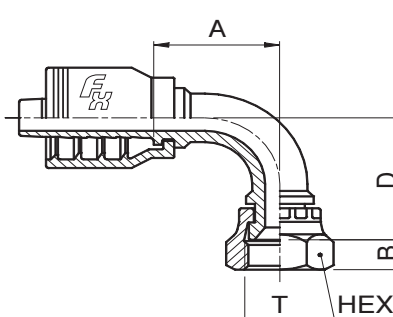
PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
N06-06FJ45	3/8	9/16 - 18	44.5	1.75	9.5	0.37	11.5	0.45	3/4
N06-08FJ45	3/8	3/4 - 16	49.4	1.94	10.7	0.42	15	0.59	1
N08-08FJ45	1/2	3/4 - 16	50.8	2	10.8	0.43	22	0.87	15/16
N08-10FJ45	1/2	7/8 - 14	50	1.97	13	0.51	23	0.91	1 1/16
N10-10FJ45	5/8	7/8 - 14							1 1/16
N10-12FJ45	5/8	1 1/16 - 12							1 1/4
N12-12FJ45	3/4	1 1/16 - 12	63.6	2.50	14	0.55	29	1.14	1 1/4
N12-16FJ45	3/4	1 5/16 - 12	69.6	2.74	16.3	0.64	29.5	1.16	1 1/2
N16-16FJ45	1	1 5/16 - 12	76	2.99	16.5	0.65	35	1.38	1 1/2
N16-20FJ45	1	1 5/8 - 12	92.5	3.64	16	0.63	37.5	1.48	2
N20-20FJ45	1 1/4	1 5/8 - 12	94.5	3.72	16	0.63	40	1.57	2
N24-24FJ45	1 1/2	1 7/8 - 12	118	4.65	19	0.75	49.5	1.95	2 3/16
N32-32FJ45	2	2 1/2 - 12	149	5.87	24	0.94	64	2.52	2 13/16

N-Series Non-Skive Couplings For Use With Braided and Spiral Hoses:
 AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HX, NX, PX250, QC, RX2, SX, 3X



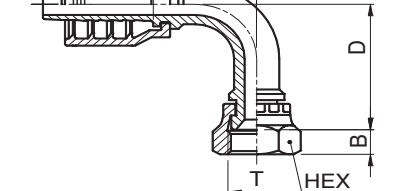
N Series

FJ90 JIC 37° FEMALE SWIVEL - 90° ELBOW STANDARD DROP



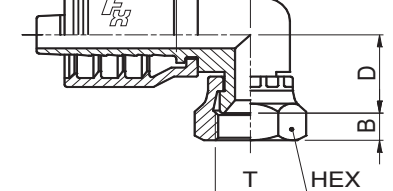
PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
N06-06FJ90	3/8	9/16 - 18	31	1.22	9.5	0.37	22	0.87	3/4
N06-08FJ90	3/8	3/4 - 16	32.2	1.27	10.8	0.43	30	1.18	15/16
N08-08FJ90	1/2	3/4 - 16	41	1.61	10.8	0.43	42	1.65	15/16
N08-10FJ90	1/2	7/8 - 14	42	1.65	12.6	0.50	40	1.57	1 1/16
N08-12FJ90	1/2	1 1/16 - 12	48	1.89	14.3	0.56			1 1/4
N10-10FJ90	5/8	7/8 - 14	47.6	1.87	12.8	0.50			1 1/16
N10-12FJ90	5/8	1 1/16 - 12	49.8	1.96	14.2	0.56			1 1/4
N12-12FJ90	3/4	1 1/16 - 12	50.8	2	14.7	0.58	55	2.17	1 1/4
N12-16FJ90	3/4	1 5/16 - 12	55.6	2.19	16.6	0.65	61	2.40	1 1/2
N16-16FJ90	1	1 5/16 - 12	64	2.52	16.5	0.65	65	2.56	1 1/2
N16-20FJ90	1	1 5/8 - 12	76.8	3.02	16	0.63	79.5	3.13	2
N20-20FJ90	1 1/4	1 5/8 - 12	86	3.39	16	0.63	80	3.15	2
N24-24FJ90	1 1/2	1 7/8 - 12	111	1.37	18.6	0.73	102	4.02	2 3/16
N32-32FJ90	2	2 1/2 - 12	107.5	4.23	18.6	0.73	129	5.08	2 3/16

FJ90L JIC 37° FEMALE SWIVEL - 90° ELBOW LONG DROP



PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
N06-06FJ90L	3/8	9/16 - 18	31	1.22	9.5	0.37	22	0.87	3/4
N08-08FJ90L	3/8	1 1/16 - 12	45	1.97	10.5	0.41			15/16
N08-10FJ90L	1/2	7/8 - 14	43.2	1.70	12.5	0.49	40	1.57	1 1/16
N12-12FJ90L	3/4	1 1/16 - 12	59.8	2.35	13.8	0.54	95	3.74	1 1/4
N16-16FJ90L	1	1 5/16 - 12	80	3.15	16.3	0.64	110	4.33	1 1/2

FJ90B JIC 37° FEMALE SWIVEL - 90° ELBOW BLOCK

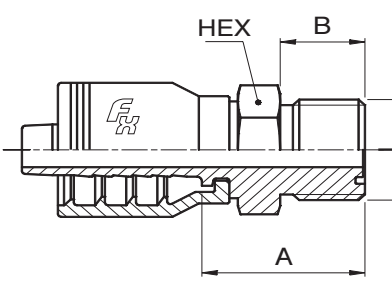



PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
N12-12FJ90B	3/4	1 1/16 - 12	36	1.42	14.5	0.57	30.5	1.20	1 5/16
N16-16FJ90B	1	1 5/16 - 12	32	1.26	14.5	0.57	33.5	1.32	1 1/2

N-Series Non-Skive Couplings For Use With Braided and Spiral Hoses:
AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HX, NX, PX250, QC, RX2, SX, 3X

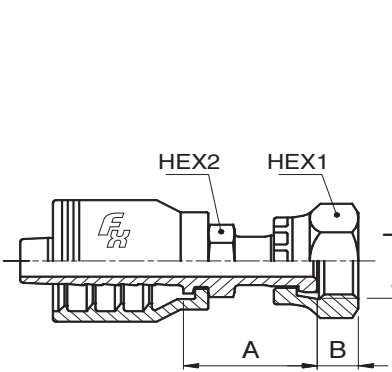
N Series



MF ORFS MALE



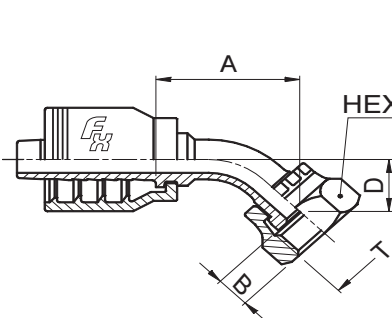
PART NUMBER	Hose Bore	T	A		B		HEX	
	INCH		[mm]	[in]	[mm]	[in]		
N06-06MF	3/8	11/16 - 16	25.2	0.99	11.2	0.44	3/4	
N06-08MF	3/8	13/16 - 16	29.9	1.18	12.8	0.50	7/8	
N08-08MF	1/2	13/16 - 16	30.4	1.20	12.8	0.50	7/8	
N12-12MF	3/4	13/16 - 12	36.7	1.44	17	0.67	1 1/4	
N16-16MF	1	17/16 - 12	38	1.50	17.5	0.69	1 5/8	
N20-20MF	1 1/4	1 11/16 - 12	39.1	1.54	18.8	0.74	1 13/16	


FF ORFS FEMALE SWIVEL



PART NUMBER	Hose Bore	T	A		B		HEX 1	HEX 2
	INCH		[mm]	[in]	[mm]	[in]		
N06-06FF	3/8	11/16 - 16	30.8	1.21	9.3	0.37	7/8	1 1/16
N06-08FF	3/8	13/16 - 16	35.2	1.39	11	0.43	15/16	3/4
N08-08FF	1/2	13/16 - 16	34.4	1.35	11	0.43	15/16	3/4
N08-10FF	1/2	1 - 14	38.1	1.5	13.2	0.53	1 3/16	15/16
N08-12FF	1/2	1 3/16 - 12	43	1.69	14.2	0.56	1 7/16	1 3/16
N10-10FF	5/8	1 - 14	37.3	1.47	13.2	0.52	1 3/16	15/16
N10-12FF	5/8	1 3/16 - 12	44.13	1.74	14.5	0.57	1 7/16	1 3/16
N12-10FF	3/4	1 - 14	38.4	1.51	13.2	0.52	1 3/16	15/16
N12-12FF	3/4	1 3/16 - 12	43.1	1.70	14.2	0.56	1 7/16	1 3/16
N12-16FF	3/4	1 7/16 - 12	50	1.97	13.8	0.54	1 5/8	1 7/16
N16-16FF	1	1 7/16 - 12	51	2	14.4	0.57	2	1 7/16
N16-20FF	1	1 11/16 - 12	51.8	2.04	14.5	0.57	2	1 5/8
N20-20FF	1 1/4	1 11/16 - 12	50.6	1.99	15	0.59	2	1 5/8
N20-24FF	1 1/4	2 - 12	63.1	2.48	15	0.59	2 3/8	2
N24-24FF	1 1/2	2 - 12	59	2.32	14.5	0.57	2 3/8	2

FF45 ORFS FEMALE SWIVEL - 45° ELBOW



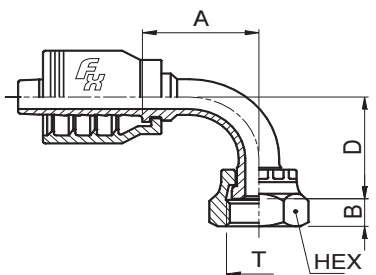
PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
N06-06FF45	3/8	11/16 - 16	36	1.42	9.5	0.37	14	0.55	7/8
N06-08FF45	3/8	13/16 - 16	43.5	1.71	11	0.43	15	0.59	1
N08-08FF45	1/2	13/16 - 16	48.4	1.91	10.8	0.43	14	0.55	15/16
N08-10FF45	1/2	1 - 14	52.3	2.06	13.5	0.53	22	0.87	1 3/16
N10-10FF45	5/8	1 - 14	48.7	1.92	13.6	.054	22	0.87	1 3/16
N12-12FF45	3/4	1 3/16 - 12	56.9	2.24	13.9	0.55	27	1.06	1 7/16
N16-16FF45	1	1 7/16 - 12	78.6	3.09	14.4	0.57	31	1.22	1 5/8
N20-20FF45	1 1/4	1 11/16 - 12	91	3.58	15	0.59	37.5	1.48	2
N24-24FF45	1 1/2	2 - 12	124.6	4.91	14.8	0.58	47.2	1.86	2 3/8

N-Series Non-Skive Couplings For Use With Braided and Spiral Hoses:
AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HX, NX, PX250, QC, RX2, SX, 3X



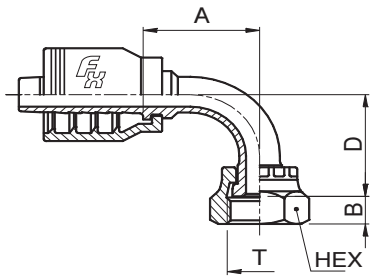
N Series

FF90 ORFS FEMALE SWIVEL - 90° ELBOW STANDARD DROP



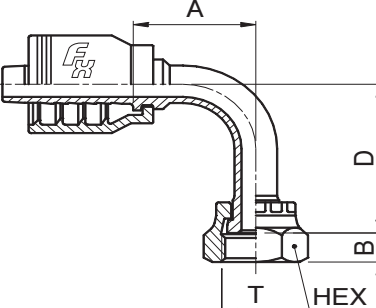
PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
N06-06FF90	3/8	1 1/16 - 16	30	1.18	9.5	0.37	28	1.10	7/8
N06-08FF90	3/8	1 3/16 - 16	33	1.30	11	0.43	30	1.18	1
N08-08FF90	1/2	1 3/16 - 16	40.8	1.60	10.6	0.42	30	1.18	1 5/16
N08-10FF90	1/2	1 - 14	55.8	2.20	13.5	0.53	52.5	2.07	1 3/16
N10-10FF90	5/8	1 - 14	47.2	1.86	13.5	0.53	42.2	1.66	1 3/16
N10-12FF90	5/8	1 3/16 - 12			13.5	0.53			1 3/16
N12-10FF90	3/4	1 - 14	48.3	1.90	13.5	0.53	30.9	1.22	1 3/16
N12-12FF90	3/4	1 3/16 - 12	56.8	2.24	14	0.55	61.5	2.42	1 7/16
N12-16FF90	3/4	1 7/16 - 12	58.3	2.30	14.3	0.56	67.5	2.66	1 5/8
N16-16FF90	1	1 7/16 - 12	71	2.80	14.8	0.58	72.5	2.85	1 5/8
N16-20FF90	1	1 1/16 - 12	83	3.27	14.8	0.58			2
N20-20FF90	1 1/4	1 1/16 - 12	81.5	3.21	15	0.59	76	2.99	2
N24-24FF90	1 1/2	2 - 12	112.5	4.43	14.8	0.58	102	4.02	2 3/8

FF90M ORFS FEMALE SWIVEL - 90° ELBOW MEDIUM DROP



PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
N16-16FF90M	1	1 7/16 - 12	74.3	2.93	14.4	0.57			1 5/8

FF90L ORFS FEMALE SWIVEL - 90° ELBOW LONG DROP



PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
N06-06FF90L	3/8	1 1/16 - 16	32.5	1.28	9.2	0.36	53.7	2.12	7/8
N08-08FF90L	1/2	1 3/16 - 16	46.5	1.83	11	0.43	62.5	2.46	1 5/16
N10-10FF90L	5/8	1 - 14	47.2	1.86	13.5	0.53			
N12-12FF90L	3/4	1 3/16 - 12	70.5	2.78	14.5	0.57	93.6	3.69	1 7/16
N16-16FF90L	1	1 7/16 - 12	74.3	2.93	14.4	0.57	114	4.49	1 5/8
N20-20FF90L	1 1/4	1 1/16 - 12	90	3.54	14.8	0.58	129	5.08	2

N-Series Non-Skive Couplings For Use With Braided and Spiral Hoses:
AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HX, NX, PX250, QC, RX2, SX, 3X

N Series

MOB O-RING BOSS MALE

	PART NUMBER	Hose Bore	T	A		B		HEX
		INCH		[mm]	[in]	[mm]	[in]	
	N12-12MOB	3/4	1 1/16 - 12	30.8	1.21	15	0.59	9/16

FJIS JIS FEMALE SWIVEL (TOYOTA)

	PART NUMBER	Hose Bore	T	A		B		HEX 1	HEX 2
		INCH		[mm]	[in]	[mm]	[in]		
	N06-06FJIS	3/8	3/8 - 19	22	0.87	9.5	0.37	3/4	7/8
	N08-08FJIS	1/2	1/2 - 14	24.8	0.98	11	0.43	3/4	1 1/8
	N12-12FJIS	3/4	3/4 - 14	26.3	1.04	12.3	0.48	1 3/16	1 1/4
N16-16FJIS	1	1 - 11	26.3	1.03	13.7	0.54	1 1/2	1 1/4	

FK KOMATSU FEMALE SWIVEL

	PART NUMBER	Hose Bore	T	A		B		HEX 1	HEX 2
		INCH		[mm]	[in]	[mm]	[in]		
	N06-18FK	3/8	M18 x 1.5	22.3	0.88	11.7	0.46	15/16	3/4
	N06-22FK	3/8	M22 x 1.5	25.5	1.00	14	0.55	3/4	1 1/8
	N08-22FK	1/2	M22 x 1.5	26.3	1.04	13.7	0.54	1 1/16	7/8
	N08-24FK	1/2	M24 x 1.5	30.2	1.19	15.1	0.59	1	1 5/16
	N10-24FK	5/8	M24 x 1.5	27.2	1.07	15	0.59	1 1/4	1 5/16
	N12-24FK	3/4	M24 x 1.5	29	1.14	14.9	0.59	1 1/4	1 5/16
	N12-30FK	3/4	M30 x 1.5	31.1	1.22	18.4	0.72	1 3/16	1 7/16
	N16-33FK	1	M33 x 1.5	31.7	1.25	21	0.83	1 5/16	1 5/8
	N16-36FK	1	M36 x 1.5						
	N20-36FK	1 1/4	M36 x 1.5	41	1.61	20	0.79	1 11/16	1 13/16
N24-42FK	1 1/2	M42 x 1.5	40.3	1.59	18.7	0.74	1 13/16	2 3/16	

FLK KOMATSU FLANGE

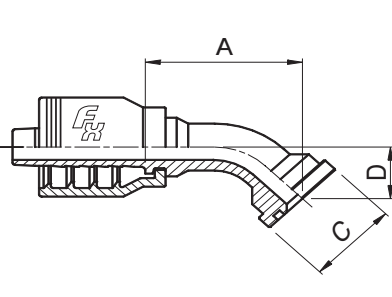
	PART NUMBER	Hose Bore	FLANGE	A		C	
		INCH		[mm]	[in]	[mm]	[in]
	N10-10FLK	5/8	34mm x .265	63.1	2.48	34.2	1.35

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 AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HX, NX, PX250, QC, RX2, SX, 3X

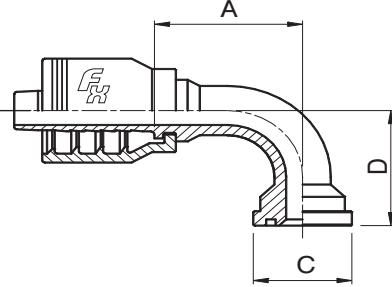


N Series

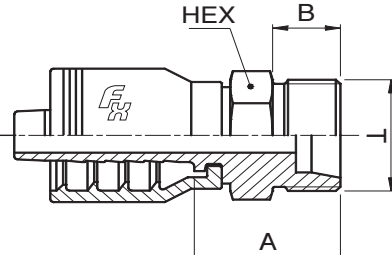

FLK45 KOMATSU FLANGE - 45° ELBOW

	PART NUMBER	Hose Bore	FLANGE	A		C		D	
		INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
		N10-10FLK45		5/8	34mm x .265	66.5	2.62	34.2	1.35

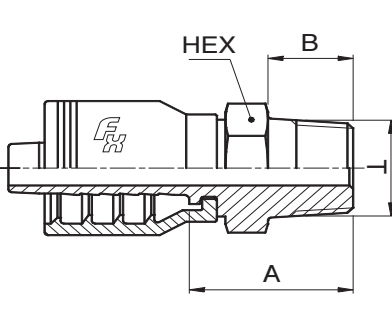

FLK90 KOMATSU FLANGE - 90° ELBOW

	PART NUMBER	Hose Bore	FLANGE	A		C		D	
		INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
		N10-10FLK90		5/8	34mm x .265	60.5	2.38	34.2	1.35

MKBC KOBELCO MALE

	PART NUMBER	Hose Bore	T	A		B		HEX
		INCH		[mm]	[in]	[mm]	[in]	
		N12-30MKBC		3/4	M30 x 1.5	31.3	1.23	13.8
N12-36MKBC	3/4	M36 x 1.5	34.8	1.37	16	0.63		
N16-36MKBC	1	M36 x 1.5	35.2	1.39	16	0.63		
N16-45MKBC	1	M45 x 1.5	37.4	1.47	16.3	0.64	2	

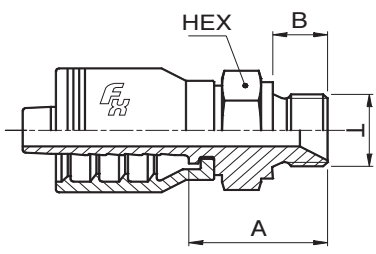
MBSPT BSPT MALE

	PART NUMBER	Hose Bore	T	A		B		HEX
		INCH		[mm]	[in]	[mm]	[in]	
		N06-06MBSPT		3/8	3/8 - 19	29	1.14	15
N08-08MBSPT	1/2	1/2 - 14	33.3	1.31	18	0.71	7/8	
N12-12MBSPT	3/4	3/4 - 14	35.1	1.38	16	0.63	1 1/4	
N16-16MBSPT	1	1 - 11	38.9	1.53	19	0.75	1 7/16	
N20-20MBSPT	1 1/4	1 1/4 - 11	45.1	1.78	20	0.79	1 1/2	
N24-24MBSPT	1 1/2	1 1/2 - 11	53	2.09	28	1.10	1 7/8	
N32-32MBSPT	2	2 - 11	56.7	2.23	28	1.10	2 3/8	

N-Series Non-Skive Couplings For Use With Braided and Spiral Hoses:
 AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HX, NX, PX250, QC, RX2, SX, 3X

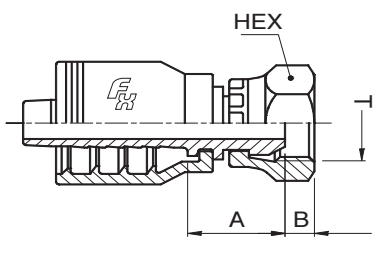
N Series

MBSPP BSPP MALE



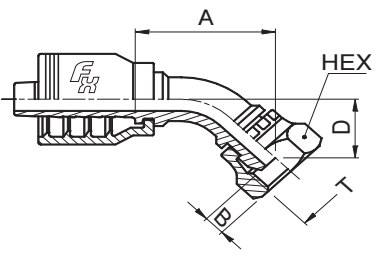
PART NUMBER	Hose Bore	T	A		B		HEX	
	INCH		[mm]	[in]	[mm]	[in]		
N06-06MBSPP	3/8	3/8 - 19	28.5	1.12	12	0.47	7/8	
N06-08MBSPP	3/8	1/2 - 14	33.5	1.32	14	0.55	1 1/8	
N08-08MBSPP	1/2	1/2 - 14	34.8	1.37	14	0.55	1 1/8	
N10-10MBSPP	5/8	5/8 - 14						
N10-12MBSPP	5/8	3/4 - 14						
N12-12MBSPP	3/4	3/4 - 14	38	1.50	16	0.63	1 5/16	
N16-16MBSPP	1	1 - 11	43	1.69	19	0.75	1 5/8	
N20-20MBSPP	1 1/4	1 1/4 - 11	46.9	1.85	20	0.79	2	
N24-24MBSPP	1 1/2	1 1/2 - 11	50	1.97	22	0.87	2 3/16	
N32-32MBSPP	2	2 - 11	61.2	2.41	25	0.98	2 13/16	

FBSP BSPP FEMALE SWIVEL



PART NUMBER	Hose Bore	T	A		B		HEX	
	INCH		[mm]	[in]	[mm]	[in]		
N06-06FBSP	3/8	3/8 - 19	18.5	0.73	6	0.24	7/8	
N06-08FBSP	3/8	1/2 - 14	19.5	0.77	7	0.28	1 1/8	
N08-08FBSP	1/2	1/2 - 14	19	0.75	7	0.28	1 1/8	
N10-10FBSP	5/8	5/8 - 14						
N10-12FBSP	5/8	3/4 - 14						
N12-12FBSP	3/4	3/4 - 14	20	0.79	8.7	0.34	1 1/4	
N12-16FBSP	3/4	1 - 11			10.5	0.41		
N16-16FBSP	1	1 - 11	26	1.02	10.5	0.41	1 1/2	
N16-20FBSP	1	1 1/4 - 11			10	0.39	2	
N20-20FBSP	1 1/4	1 1/4 - 11	31.5	1.24	10.5	0.41	2	
N24-24FBSP	1 1/2	1 1/2 - 11	35.8	1.41	12	0.47	2 3/16	
N32-32FBSP	2	2 - 11	37.6	1.48	16	0.63	2 13/16	

FBSP45 BSPP FEMALE SWIVEL - 45° ELBOW



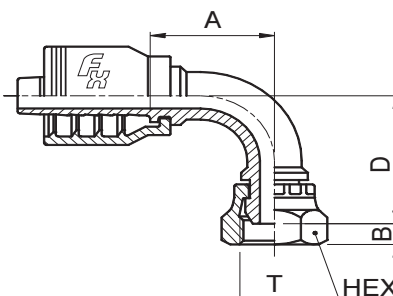
PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
N06-06FBSP45	3/8	3/8 - 19	44	1.73	6	0.24	19	0.75	7/8
N08-08FBSP45	1/2	1/2 - 14	53.3	2.01	7	0.28	25	0.98	1 1/8
N10-10FBSP45	5/8	5/8 - 14							
N10-12FBSP45	5/8	3/4 - 14							
N12-12FBSP45	3/4	3/4 - 14	67.4	2.65	8.5	0.33	31	1.22	1 1/4
N16-16FBSP45	1	1 - 11	83	3.27	10.5	0.41	37	1.46	1 1/2
N20-20FBSP45	1 1/4	1 1/4 - 11	105	4.13	10	0.39	49	1.93	2
N24-24FBSP45	1 1/2	1 1/2 - 11	122	4.80	12	0.47	54	2.13	2 3/16
N32-32FBSP45	2	2 - 11	158	6.22	16	0.63	59	2.32	2 13/16

N-Series Non-Skive Couplings For Use With Braided and Spiral Hoses:
 AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HX, NX, PX250, QC, RX2, SX, 3X



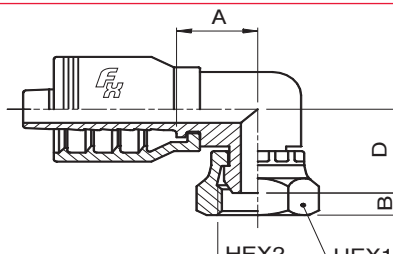
N Series

FBSP90 BSPP FEMALE SWIVEL - 90° ELBOW



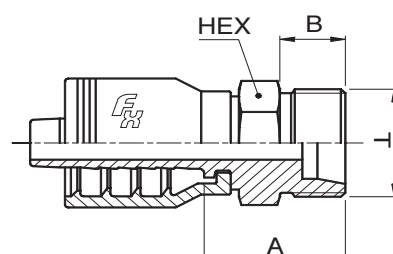
PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
N06-06FBSP90	3/8	3/8 - 19	32.5	1.28	6	0.24	33	1.30	7/8
N08-08FBSP90	1/2	1/2 - 14	41.3	1.63	7	0.28	44	1.73	1 1/8
N10-10FBSP90	5/8	5/8 - 14							
N10-12FBSP90	5/8	3/4 - 14							
N12-12FBSP90	3/4	3/4 - 14	51.8	2.03	8.6	0.34	57	2.24	1 1/4
N16-16FBSP90	1	1 - 11	64	2.52	10.5	0.41	68	2.68	1 1/2
N20-20FBSP90	1 1/4	1 1/4 - 11	86	3.39	10	0.39	88	3.46	2
N24-24FBSP90	1 1/2	1 1/2 - 11	101	3.98	12	0.47	108	4.25	2 3/16
N32-32FBSP90	2	2 - 11	135	5.32	16	0.63	128	5.04	2 13/16

FBSP90B BSPP FEMALE SWIVEL - 90° ELBOW BLOCK



PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
N12-12FBSPPB	3/4	3/4 - 14	35.7	1.41	9	0.35	36	1.42	1 5/16
N16-16FBSPPB	1	1 - 11	32	1.26	10.5	0.41	34.5	1.36	1 1/2

MML MALE METRIC LIGHT (24° SEAT) - CEL

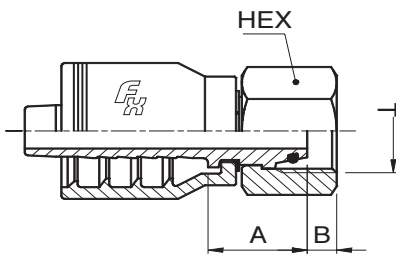



PART NUMBER	Hose Bore	T	Tube	A		B		HEX
	INCH			[mm]	[in]	[mm]	[in]	
N08-22MML	1/2	M22 x 1.5	L15	27.8	1.09	12	0.47	7/8
N10-26MML	5/8	M26 x 1.5	L18					
N12-30MML	3/4	M30 x 2.0	L22	35	1.38	14	0.55	1 3/16
N16-36MML	1	M36 x 2.0	L28	35.1	1.38	14	0.55	1 7/16
N20-45MML	1 1/4	M45 x 2.0	L35					
N24-52MML	1 1/2	M52 x 2.0	L42	44	1.73	16	0.63	2 3/16

N-Series Non-Skive Couplings For Use With Braided and Spiral Hoses:
AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HX, NX, PX250, QC, RX2, SX, 3X

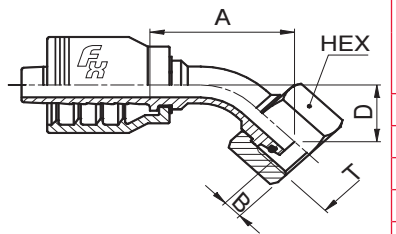
N Series


FML FEMALE SWIVEL METRIC LIGHT (24° SEAT) - DKOL



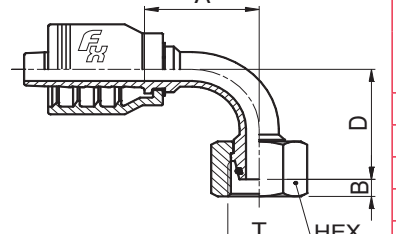
PART NUMBER	Hose Bore	T	Tube	A		B		HEX
	INCH			[mm]	[in]	[mm]	[in]	
N06-18FML				24.7	0.97	2.2	.09	7/8
N08-22FML	1/2	M22 x 1.5	L15	28.8	1.13	2.5	0.01	1 1/8
N10-26FML	5/8	M26 x 1.5	L18	26.6	1.05	2.5	0.10	1 1/4
N12-30FML	3/4	M30 x 2.0	L22	28.3	1.11	4	0.16	1 7/16
N16-36FML	1	M36 x 2.0	L28	26.4	1.04	7.1	0.28	1 5/8
N20-45FML	1 1/4	M42 x 2.0	L35	35.4	1.39	3	0.12	2
N24-52FML	1 1/2	M52 x 2.0	L42	39.5	1.56	3	0.12	2 3/16


FML45 FEMALE METRIC LIGHT SWIVEL - 45° ELBOW (24° SEAT) - DKOL



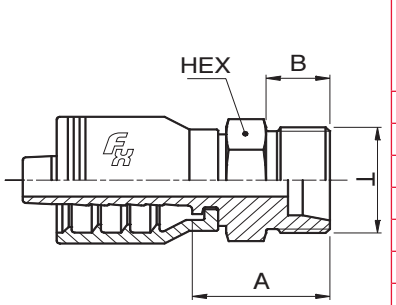
PART NUMBER	Hose Bore	T	Tube	A		B		D		HEX
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]	
N10-26FML45	5/8	M26 x 1.5	L18							
N12-30FML45	3/4	M30 x 2.0	L22	76.7	3.02	3.5	0.14	32	1.26	1 7/16
N16-36FML45	1	M36 x 2.0	L28	91.6	3.61	3.5	0.14	35.5	1.40	1 5/8
N20-45FML45	1 1/4	M42 x 2.0	L35	103	4.06	2	0.08	45	1.77	2
N24-52FML45	1 1/2	M52 x 2.0	L42	122	4.80	3	0.12	59	2.32	2 3/16


FML90 FEMALE METRIC LIGHT SWIVEL - 90° ELBOW (24° SEAT) - DKOL



PART NUMBER	Hose Bore	T	Tube	A		B		D		HEX
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]	
N10-26FML90	5/8	M26 x 1.5	L18							
N12-30FML90	3/4	M30 x 2.0	L22	72.7	2.86	3.5	0.14	67.5	2.66	1 7/16
N16-36FML90	1	M36 x 2.0	L28	79.6	3.13	3.5	0.14	75	2.95	1 5/8
N20-45FML90	1 1/4	M42 x 2.0	L35	104.5	4.11	2	0.08	89.5	3.52	2
N24-52FML90	1 1/2	M52 x 2.0	L42			3	0.12			2 3/8

MMS MALE METRIC HEAVY (24° SEAT) - CES



PART NUMBER	Hose Bore	T	Tube	A		B		HEX
	INCH			[mm]	[in]	[mm]	[in]	
N06-20MMS	3/8	M20 x 1.5	S12	26	1.02	12	0.47	7/8
N06-22MMS	3/8	M22 x 1.5	S14	28	1.10	14	0.55	7/8
N08-24MMS	1/2	M24 x 1.5	S16	29.8	1.17	14	0.55	1
N10-30MMS	5/8	M30 x 2.0	S20					
N12-30MMS	3/4	M30 x 2.0	S20	35	1.38	16	0.63	1 3/16
N12-36MMS	3/4	M36 x 2.0	S25	35.3	1.39	17.7	0.70	1 7/16
N16-36MMS	1	M36 x 2.0	S25	39.1	1.54	18	0.71	1 7/16
N16-42MMS	1	M42 x 2.0	S30	40.1	1.58	20	0.79	1 3/16
N20-52MMS	1 1/4	M52 x 2.0	S38	44	1.73	21.8	0.86	2 3/16
N24-52MMS	1 1/2	M52 x 2.0	S38	50	1.97	22	0.87	2 3/16

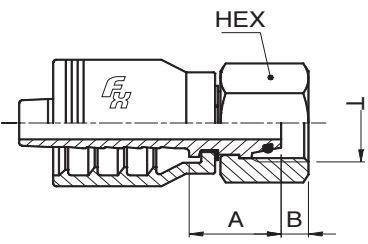
N-Series Non-Skive Couplings For Use With Braided and Spiral Hoses:


AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HX, NX, PX250, QC, RX2, SX, 3X



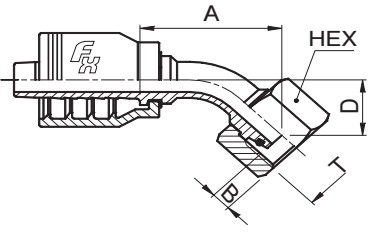
N Series


FMS FEMALE METRIC HEAVY SWIVEL (24° SEAT) - DKOS



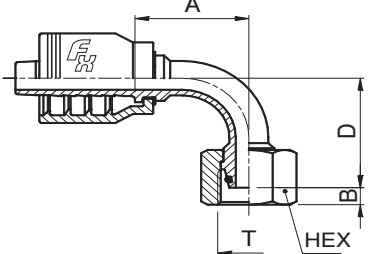
PART NUMBER	Hose Bore	T	Tube	A		B		HEX	
	INCH			[mm]	[in]	[mm]	[in]		
N06-20FMS	3/8	M20 x 1.5	S12	25.5	1.00	2	0.08	1	
N06-22FMS	3/8	M22 x 1.5	S14	27.2	1.07	4.6	0.18	1 1/16	
N08-24FMS	1/2	M24 x 1.5	S16	29.7	1.17	3.6	0.14	1 3/16	
N10-30FMS	5/8	M30 x 2.0	S20	33.2	1.31	4.2	0.17	1 7/16	
N12-30FMS	3/4	M30 x 2.0	S20	33.8	1.33	3.8	0.15	1 7/16	
N12-36FMS	3/4	M36 x 2.0	S25	38	1.50	2.8	0.11	1 13/16	
N16-36FMS	1	M36 x 2.0	S25	39.3	1.55	3.8	0.15	1 13/16	
N16-42FMS	1	M42 x 2.0	S30	40.2	1.58	6.4	0.25	2	
N20-52FMS	1 1/4	M52 x 2.0	S38	43.9	1.73	6.0	0.24	2 3/8	
N24-52FMS	1 1/2	M52 x 2.0	S38	48	1.89	6.5	0.26	2 3/8	


FMS45 FEMALE METRIC HEAVY SWIVEL - 45° ELBOW (24° SEAT) - DKOS



PART NUMBER	Hose Bore	T	Tube	A		B		D		HEX
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]	
N06-20FMS45	3/8	M20 x 1.5	S12	46	1.81	2	0.08	21.5	0.85	1
N06-24FMS45	3/8	M24 x 1.5	S16			3	0.12			1 3/16
N08-24FMS45	1/2	M24 x 1.5	S16	48.8	1.92	3.4	0.13	23	0.91	1 3/16
N10-30FMS45	5/8	M30 x 2.0	S20							
N12-30FMS45	3/4	M30 x 2.0	S20							
N12-36FMS45	3/4	M36 x 2.0	S25	77	3.03	2.9	0.12	34.5	1.36	1 13/16
N16-42FMS45	1	M42 x 2.0	S30	93	3.66	6	0.24	35	1.38	2
N20-52FMS45	1 1/4	M52 x 2.0	S38	117	4.6	6.3	0.25	44.6	1.76	2 3/8
N24-52FMS45	1 1/2	M52 x 2.0	S38	122	4.80	6.5	0.26	50	1.97	2 3/8

FMS90 FEMALE METRIC HEAVY SWIVEL - 90° ELBOW (24° SEAT) - DKOS

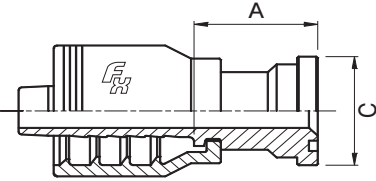


PART NUMBER	Hose Bore	T	Tube	A		B		D		HEX
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]	
N06-20FMS90	3/8	M20 x 1.5	S12	32	1.26	2	0.08	39	1.54	1
N06-22FMS90	3/8	M22 x 1.5	S14	34	1.34	4	0.16	41	1.61	1 1/8
N08-24FMS90	1/2	M24 x 1.5	S16	41.4	1.63	3.2	0.13	46	1.81	1 3/16
N10-30FMS90	5/8	M30 x 2.0	S20	54.3	2.14	3.2	0.13	54	2.13	1 7/16
N12-30FMS90	3/4	M30 x 2.0	S20	57.7	2.27	3.7	0.15	65	2.56	1 7/16
N12-36FMS90	3/4	M36 x 2.0	S25	66.4	2.61	3	0.12	72.5	2.85	1 13/16
N16-42FMS90	1	M42 x 2.0	S30	80	3.15	6	0.24	77	3.03	2
N20-52FMS90	1 1/4	M52 x 2.0	S38	98.5	3.88	6.6	0.26	95.6	3.76	2 3/8
N24-52FMS90	1 1/2	M52 x 2.0	S38	104	4.09	6.5	0.26	94	3.70	2 3/8

N-Series Non-Skive Couplings For Use With Braided and Spiral Hoses:
AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HX, NX, PX250, QC, RX2, SX, 3X

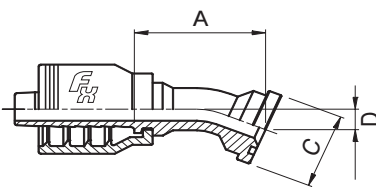
N Series

FL SAE CODE 61 FLANGE



PART NUMBER	Hose Bore	FLANGE	A		C	
	INCH		[mm]	[in]	[mm]	[in]
N06-08FL		1/2 x .265				
N08-08FL	1/2	1/2 x .265	36.4	1.43	30	1.18
N08-12FL	1/2	3/4 x .265	36.7	1.44	38	1.50
N10-12FL	5/8	3/4 x .265			38	1.50
N12-12FL	3/4	3/4 x .265	37.6	1.48	38	1.50
N12-16FL	3/4	1 x .315	44.3	1.74	44.45	1.75
N12-20FL	3/4	1 x .315	48.5	1.91	50.8	2.00
N16-16FL	1	1 x .315	45.2	1.78	44.45	1.75
N16-20FL	1	1 1/4 x .315	45.8	1.80	50.8	2.00
N16-24FL	1	1 1/4 x .315	48.8	1.92	60.4	2.38
N20-16FL	1 1/4	1 x .315	51.4	2.02	44.5	1.75
N20-20FL	1 1/4	1 1/4 x .315	45.2	1.78	50.8	2.00
N20-24FL	1 1/4	1 1/2 x .315	49.5	1.95	60.3	2.37
N20-32FL	1 1/4	2 x .375	76.4	3.01	71.4	2.81
N24-24FL	1 1/2	1 1/2 x .315	53	2.09	60.3	2.37
N24-32FL	1 1/2	2 x .375	74.5	2.93	71.4	2.81
N32-24FL	2	1 1/2 x .315			60.3	2.37
N32-32FL	2	2 x .375	70	2.76	71.4	2.81
N32-40FL	2		78.5	3.09	84.12	3.31

FL22.5 SAE CODE 61 FLANGE - 22.5° ELBOW



PART NUMBER	Hose Bore	FLANGE	A		C		D	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
N08-08FL22.5	1/2	1/2 x .265	61.7	2.43	30	1.18	12.5	0.49
N08-12FL22.5	1/2	3/4 x .265	68.4	2.70	38	1.50	14.9	0.58
N12-12FL22.5	3/4	3/4 x .265	66.7	2.63	38	1.50	11.8	0.46
N12-16FL22.5	3/4	1 x .315	65.2	2.57	44.5	1.75	13	0.51
N16-16FL22.5	1	1 x .315	83	3.27	44.5	1.75	11.5	0.45
N16-20FL22.5	1	1 1/4 x .315	88.2	3.47	50.8	2.00	12.5	0.49
N20-20FL22.5	1 1/4	1 1/4 x .315	73	2.87	50.8	2.00	13.5	0.53
N20-24FL22.5	1 1/4	1 1/2 x .315	115.3	4.54	60.3	2.37	13.5	0.53
N24-24FL22.5	1 1/2	1 1/2 x .315	92.2	3.63	60.3	2.37	16	0.63
N24-32FL22.5	1 1/2	2 x .375	117.5	4.63	71.4	2.81	15.5	0.61
N32-32FL22.5	2	2 x .375	120.6	4.75	71.4	2.81	22	0.87

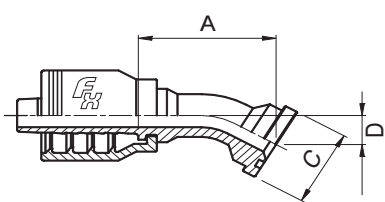
N-Series Non-Skive Couplings For Use With Braided and Spiral Hoses:
AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HX, NX, PX250, QC, RX2, SX, 3X



N Series

FL30

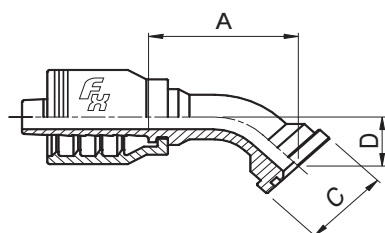
SAE CODE 61 FLANGE - 30° ELBOW



PART NUMBER	Hose Bore	FLANGE	A		C		D	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
N08-08FL30	1/2	1/2 x .265	60	2.36	30	1.18	16.4	0.65
N08-12FL30	1/2	3/4 x .265	66.9	2.64	38	1.50	17.7	0.69
N12-12FL30	3/4	3/4 x .265	68.1	2.68	38	1.50	16.6	0.65
N12-16FL30	3/4	1 x .315	67.2	2.65	44.5	1.75	18	0.71
N16-16FL30	1	1 x .315	75.6	2.98	44.5	1.75	16.5	0.65
N16-20FL30	1	1 1/4 x .315	93	3.66	50.8	2.00	18	0.71
N20-20FL30	1 1/4	1 1/4 x .315	83.3	3.28	50.8	2.00	19	0.75
N20-24FL30	1 1/4	1 1/2 x .315	117.8	4.64	60.3	2.37	19	0.75
N24-24FL30	1 1/2	1 1/2 x .315	98.7	3.89	60.3	2.37	22.5	0.89
N24-32FL30	1 1/2	2 x .375	97.2	3.84	71.4	2.81	22.5	0.89
N32-32FL30	2	2 x .375	136.7	5.38	71.4	2.81	31.5	1.24

FL45

SAE CODE 61 FLANGE - 45° ELBOW



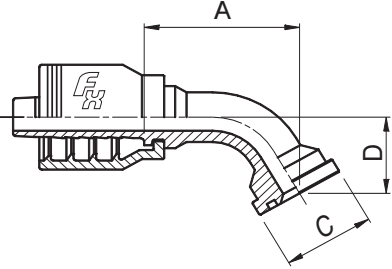
PART NUMBER	Hose Bore	FLANGE	A		C		D	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
N08-08FL45	1/2	1/2 x .265	56	2.20	30	1.18	22.6	0.89
N08-12FL45	1/2	3/4 x .265	56.3	2.22	38	1.50	26.1	1.03
N10-12FL45	5/8	3/4 x .265	66.5	2.62	38	1.50		
N12-12FL45	3/4	3/4 x .265	67	2.64	38	1.50	26.7	1.05
N12-16FL45	3/4	1 x .315	74	2.91	44.5	1.75	28.8	1.13
N16-16FL45	1	1 x .315	68.2	2.69	44.5	1.75	27	1.06
N16-20FL45	1	1 1/4 x .315	74.9	2.95	50.8	2.00	29	1.14
N20-16FL45	1 1/4	1 x .315	115.5	4.55	44.5	1.75	43.5	1.71
N20-20FL45	1 1/4	1 1/4 x .315	78.6	3.09	50.8	2.00	31	1.22
N20-24FL45	1 1/4	1 1/2 x .315	81	3.19	60.3	2.37	31	1.22
N24-24FL45	1 1/2	1 1/2 x .315	94.1	3.70	60.3	2.37	36.5	1.44
N24-32FL45	1 1/2	2 x .375	97.8	3.85	71.4	2.81	43	1.69
N32-24FL45	2	1 1/2 x .315	122.3	4.81	60.3	2.37	36.6	1.44
N32-32FL45	2	2 x .375	131.7	5.19	71.4	2.81	52.5	2.07

N-Series Non-Skive Couplings For Use With Braided and Spiral Hoses:
AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HX, NX, PX250, QC, RX2, SX, 3X

N Series

FL60

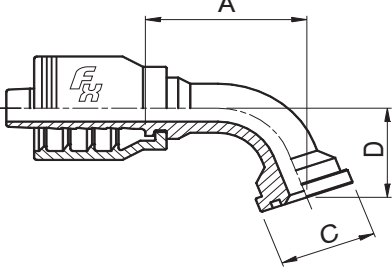
SAE CODE 61 FLANGE - 60° ELBOW



PART NUMBER	Hose Bore	FLANGE	A		C		D	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
N08-08FL60	1/2	1/2 x .265	69.7	2.75	30	1.18	37.2	1.46
N08-12FL60	1/2	3/4 x .265			38	1.50		
N12-12FL60	3/4	3/4 x .265	65.6	2.58	38	1.50	37.2	1.46
N12-16FL60	3/4	1 x .315	65	2.56	44.5	1.75	39.8	1.57
N16-16FL60	1	1 x .315	93	3.66	44.5	1.75	40	1.57
N16-20FL60	1	1 1/4 x .315	93	3.66	50.8	2.00	40	1.57
N20-20FL60	1 1/4	1 1/4 x .315	90.7	3.57	50.8	2.00	44	1.73
N20-24FL60	1 1/4	1 1/2 x .315	113.3	4.46	60.3	2.37	44	1.73
N24-24FL60	1 1/2	1 1/2 x .315	110	4.33	60.3	2.37	52	2.05
N24-32FL60	1 1/2	2 x .375	110	4.33	71.4	2.81	64.9	2.55
N32-32FL60	2	2 x .375	193.7	7.63	71.4	2.81	75	2.95

FL67.5

SAE CODE 61 FLANGE - 67.5° ELBOW



PART NUMBER	Hose Bore	FLANGE	A		C		D	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
N08-08FL67.5	1/2	1/2 x .265	63.2	2.49	30	1.18	37.9	1.49
N08-12FL67.5	1/2	3/4 x .265			38	1.50		
N08-16FL67.5	1/2	1 x .315			44.5	1.75		
N12-12FL67.5	3/4	3/4 x .265	64.6	2.54	38	1.50	42.4	1.67
N12-16FL67.5	3/4	1 x .315	63	2.48	44.5	1.75	45.2	1.78
N12-20FL67.5	3/4	1 1/4 x .315			50.8	2.00		
N16-16FL67.5	1	1 x .315	83.5	3.29	44.5	1.75	46	1.81
N16-20FL67.5	1	1 1/4 x .315	84.2	3.31	50.8	2.00	45.5	1.79
N20-20FL67.5	1 1/4	1 1/4 x .315	88.1	3.47	50.8	2.00	50	1.97
N20-24FL67.5	1 1/4	1 1/2 x .315	106.5	4.19	60.3	2.37	51.3	2.02
N24-24FL67.5	1 1/2	1 1/2 x .315	125	4.92	60.3	2.37	59.5	2.34
N24-32FL67.5	1 1/2	2 x .375	119.3	4.70	71.4	2.81	59.5	2.34
N32-32FL67.5	2	2 x .375	183.2	7.21	71.4	2.81	87	3.43

N-Series Non-Skive Couplings For Use With Braided and Spiral Hoses:
AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HX, NX, PX250, QC, RX2, SX, 3X

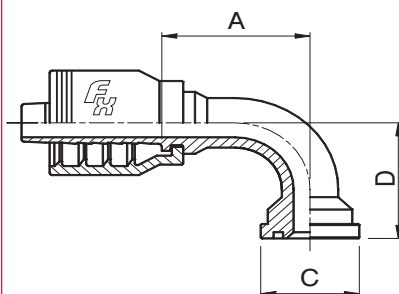


N Series

FL90

SAE CODE 61 FLANGE - 90° ELBOW

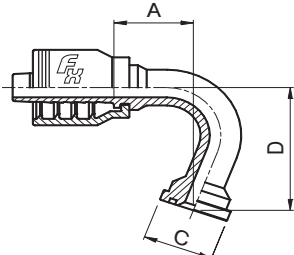
PART NUMBER	Hose Bore	FLANGE	A		C		D	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
N08-08FL90	½	½ x .265	47	1.85	30.0	1.18	45	1.77
N08-08FL90-083	½	½ x .265	50.8	2.00	30.0	1.18	83	3.27
N08-12FL90	½	¾ x .265	47.4	1.87	38.0	1.50	49.5	1.95
N08-16FL90	½	1 x .315			44.5	1.75		
N10-12FL90	⅝	¾ x .265	51.5	2.03	38.0	1.50		
N12-12FL90	¾	¾ x .265	60	2.36	38.0	1.50	56.5	2.22
N12-12FL90-100	¾	¾ x .265	59.5	2.34	38.0	1.50	100	3.94
N12-12FL90-125	¾	¾ x .265	60	2.36	38.0	1.50	125	4.92
N12-16FL90	¾	1 x .315	60	2.36	44.5	1.75	59.5	2.34
N12-16FL90-100	¾	1 x .315	61.3	2.41	44.5	1.75	100	3.11
N12-20FL90	¾	1½ x .315	63.7	2.51	50.8	2.00	60	2.36
N16-16FL90	1	1 x .315	65.7	2.59	44.5	1.75	61	2.40
N16-16FL90-120	1	1 x .315	74.7	2.94	44.5	1.75	120	4.72
N16-20FL90	1	1½ x .315	63.8	2.51	50.8	2.00	61	2.40
N16-20FL90-120	1	1½ x .315	71	2.80	50.8	2.00	120	4.72
N16-24FL90	1	1½ x .315	80	3.15	60.3	2.37	73	2.87
N20-20FL90	1¼	1½ x .315	78.6	3.09	50.8	2.00	69.2	2.72
N20-20FL90-120	1¼	1½ x .315	78.6	3.09	50.8	2.00	120	4.72
N20-20FL90-170	1¼	1½ x .315	88.7	3.49	50.8	2.00	170	6.70
N20-24FL90	1¼	1½ x .315	79.5	3.13	60.3	2.37	69.2	2.72
N20-24FL90-104	1¼	1½ x .315	79.5	3.13	60.3	2.37	104	4.09
N24-24FL90	1½	1½ x .315	99	3.90	60.3	2.37	81	3.19
N24-24FL90-150	1½	1½ x .315	104	4.09	60.3	2.37	150	5.90
N24-32FL90	1½	2 x .375	97	3.82	71.4	2.81	85	3.35
N24-32FL90-172	1½	2 x .375	102	4.02	71.4	2.81	172	6.77
N32-24FL90	2	1½ x .315	121.3	4.78	60.3	2.37	81	3.19
N32-32FL90	2	2 x .375	124.3	4.89	71.4	2.81	125	4.92
N32-32FL90-203	2	2 x .375	142.2	5.60	71.4	2.81	203	7.99
N32-40FL90	2	2½ x .375	142	5.59	84.1	3.31	132	5.20



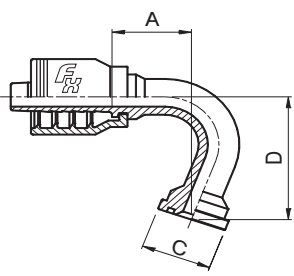
N-Series Non-Skive Couplings For Use With Braided and Spiral Hoses:
AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HX, NX, PX250, QC, RX2, SX, 3X

N Series

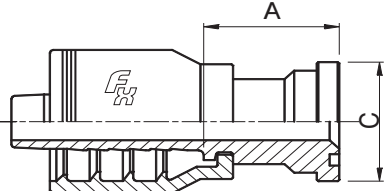
FL100 SAE CODE 61 FLANGE - 100° ELBOW

	PART NUMBER	Hose Bore	FLANGE	A		C		D	
		INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
	N12-12FL100	1	1 x .315	59.2	2.33	38	1.50	61.6	2.43
	N12-16FL100	1	1 x .315	57.4	2.26	44.5	1.75	64.7	2.55

FL110 SAE CODE 61 FLANGE - 110° ELBOW

	PART NUMBER	Hose Bore	FLANGE	A		C		D	
		INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
	N12-12FL110	1	1 x .315	48.8	1.92	44.5	1.75	78	3.07
	N16-16FL110	1	1 x .315	83.7	3.30	44.5	1.75	78	3.07
	N20-20FL110	1¼	1¼ x .315	69.2	2.72	50.8	2.00	109	4.29
	N20-24FL110	1¼	1½ x .315			60.3	2.37		
	N24-24FL110	1½	1½ x .315	94.4	3.72	60.3	2.37	97.4	3.83
	N32-32FL110	2	2 x .375	116.5	4.59	71.4	2.81	145	5.71

FLH SAE CODE 62 FLANGE

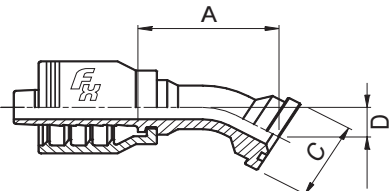
	PART NUMBER	Hose Bore	FLANGE	A		C	
		INCH		[mm]	[in]	[mm]	[in]
	N08-08FLH	½	½ x .345	38.1	1.5	31.7	1.25
	N08-12FLH	½	¾ x .345			41.3	1.63
	N10-12FLH	5/8	¾ x .345	40.5	1.59		
	N12-12FLH	¾	¾ x .345	41.5	1.63	41.3	1.63
	N12-16FLH	¾	1 x .375	57	2.24	47.6	1.87
	N16-16FLH	1	1 x .375	57.3	2.26	47.6	1.87
	N16-20FLH	1	1¼ x .405	65.9	2.59	54	2.13
	N20-16FLH	1¼	1 x .375	67.4	2.65	47.6	1.87
	N20-20FLH	1¼	1¼ x .405	64.8	2.55	54	2.13
	N20-24FLH	1¼	1½ x .495	74.8	2.94	63.5	2.50
	N24-24FLH	1½	1½ x .495	76	2.99	63.5	2.50
	N24-32FLH	1½	2 x .495			79.4	3.13
	N32-32FLH	2	2 x .495	79.8	3.14	79.4	3.13

N-Series Non-Skive Couplings For Use With Braided and Spiral Hoses:
AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HX, NX, PX250, QC, RX2, SX, 3X

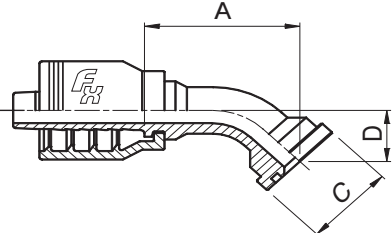


N Series

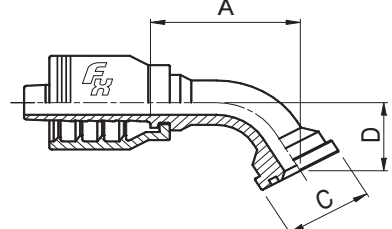
FLH30 SAE CODE 62 FLANGE - 30° ELBOW

	PART NUMBER	Hose Bore	FLANGE	A		C		D	
		INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
		N16-16FLH30		1	1 x .375	76	2.99		
N20-20FLH30	1¼	1¼ x .405	124.5	4.90	54	2.13	27	1.06	

FLH45 SAE CODE 62 FLANGE - 45° ELBOW

	PART NUMBER	Hose Bore	FLANGE	A		C		D	
		INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
		N08-08FLH45		½	½ x .345	49.8	1.96	31.7	1.25
N08-12FLH45	½	¾ x .345			41.3	1.63			
N10-12FLH45	5/8	¾ x .345							
N12-12FLH45	¾	¾ x .345	63.7	2.51	41.3	1.63	29.5	1.16	
N12-16FLH45	¾	1 x .375	68	2.68	47.6	1.87	34	1.34	
N16-16FLH45	1	1 x .375	69.6	2.74	47.6	1.87	34.5	1.36	
N16-20FLH45	1	1¼ x .405	83	3.27	54	2.13	39	1.54	
N20-20FLH45	1¼	1¼ x .405	104.2	4.10	54	2.13	43.5	1.71	
N20-24FLH45	1¼	1½ x .495	104.8	4.13	63.5	2.50	48	1.89	
N24-24FLH45	1½	1½ x .495	126	4.96	63.5	2.50	47	1.85	
N24-32FLH45	1½	2 x .495	130	5.12	79.4	3.13	60	2.36	
N32-32FLH45	2	2 x .495	145	5.71	79.4	3.13	60	2.36	

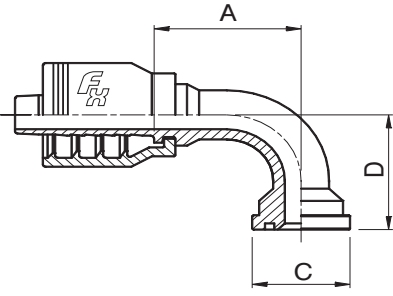
FLH60 SAE CODE 62 FLANGE - 60° ELBOW

	PART NUMBER	Hose Bore	FLANGE	A		C		D	
		INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
		N20-20FLH60		1¼	1¼ x .405	127.8	5.03	54	2.13

N-Series Non-Skive Couplings For Use With Braided and Spiral Hoses:
AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HX, NX, PX250, QC, RX2, SX, 3X

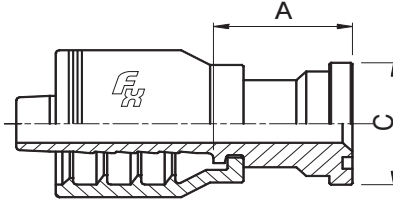
N Series

FLH90 SAE CODE 62 FLANGE - 90° ELBOW



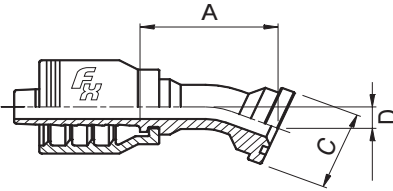
PART NUMBER	Hose Bore	FLANGE	A		C		D	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
N08-08FLH90	1/2	1/2 x .345	45.4	1.79	31.7	1.25	47	1.85
N08-12FLH90	1/2	3/4 x .345			41.3	1.63		
N10-12FLH90	5/8	3/4 x .345						
N12-12FLH90	3/4	3/4 x .345	58.7	2.31	41.3	1.63	60.5	2.38
N12-16FLH90	3/4	1 x .375	57.5	2.26	47.6	1.87	65	2.56
N16-16FLH90	1	1 x .375	73.2	2.88	47.6	1.87	66	2.60
N16-20FLH90	1	1 1/4 x .405	76.1	3.00	54	2.13	79.5	3.13
N20-16FLH90	1 1/4	1 x .375	104	4.09	47.6	1.87	87	3.43
N20-20FLH90	1 1/4	1 1/4 x .405	96.3	3.79	54	2.13	86	3.39
N20-24FLH90	1 1/4	1 1/2 x .495	96.7	3.81	63.5	2.50	98	3.86
N24-24FLH90	1 1/2	1 1/2 x .495	111	4.37	63.5	2.50	104	4.09
N24-32FLH90	1 1/2	2 x .495	107	4.22	79.4	3.13	120	4.72
N32-32FLH90	2	2 x .495	144	5.67	79.4	3.13	134	5.28

FLC CATERPILLAR® FLANGE



PART NUMBER	Hose Bore	FLANGE	A		C	
	INCH		[mm]	[in]	[mm]	[in]
N12-12FLC	3/4	3/4 x .570	56.7	2.23	41.3	1.63
N12-16FLC	3/4	1 x .570	62.5	2.46	47.6	1.87
N16-16FLC	1	1 x .570	61.5	2.42	47.6	1.87
N16-20FLC	1	1 1/4 x .570	70	2.76	54	2.13
N20-20FLC	1 1/4	1 1/4 x .570	69.3	2.73	54	2.13
N20-24FLC	1 1/4	1 1/2 x .570	77.4	3.05	63.5	2.50
N24-24FLC	1 1/2	1 1/2 x .570	76	2.99	63.5	2.50
N24-32FLC	1 1/2	2 x .570			79.4	3.13
N32-32FLC	2	2 x .570	86.2	3.39	79.4	3.13

FLC22.5 CATERPILLAR® FLANGE - 22.5° ELBOW



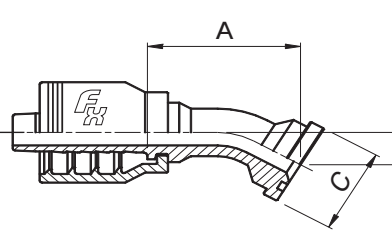
PART NUMBER	Hose Bore	FLANGE	A		C		D	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
N12-12FLC22.5	3/4	3/4 x .570	86.7	3.41	41.3	1.63	15.5	0.61
N16-16FLC22.5	1	1 x .570	96.5	3.80	47.6	1.87	15.5	0.61
N16-20FLC22.5	1	1 1/4 x .570	111	4.37	54	2.13	19.5	0.77
N20-20FLC22.5	1 1/4	1 1/4 x .570	131.5	5.18	54	2.13	21	0.83
N20-24FLC22.5	1 1/4	1 1/2 x .570	133	5.24	63.5	2.50	22.5	0.89

N-Series Non-Skive Couplings For Use With Braided and Spiral Hoses:
AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HX, NX, PX250, QC, RX2, SX, 3X



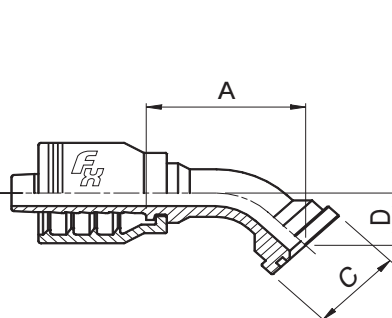
N Series

FLC30 CATERPILLAR® FLANGE - 30° ELBOW



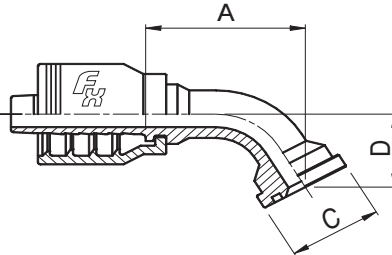
PART NUMBER	Hose Bore	FLANGE	A		C		D	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
N12-12FLC30	3/4	3/4 x .570	84.2	3.31	41.3	1.63	21.5	0.85
N12-16FLC30	3/4	1 x .570	88.7	3.49	47.6	1.87	24	0.94
N16-16FLC30	1	1 x .570	94	3.70	47.6	1.87	22	0.87
N16-20FLC30	1	1 1/4 x .570	108	4.25	54	2.13	27	1.06
N20-20FLC30	1 1/4	1 1/4 x .570	128.5	5.06	54	2.13	29	1.14
N20-24FLC30	1 1/4	1 1/2 x .570	129.5	5.10	63.5	2.50	31	1.22

FLC45 CATERPILLAR® FLANGE - 45° ELBOW



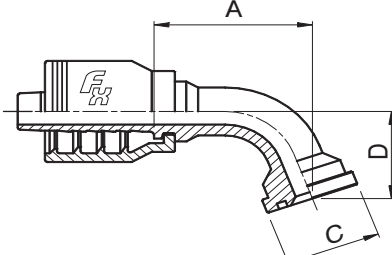
PART NUMBER	Hose Bore	FLANGE	A		C		D	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
N12-12FLC45	3/4	3/4 x .570	64.6	2.54	41.3	1.63	29.5	1.16
N12-16FLC45	3/4	1 x .570	68.5	2.70	47.6	1.87	34	1.34
N16-16FLC45	1	1 x .570	72.2	2.84	47.6	1.87	34.5	1.36
N16-20FLC45	1	1 1/4 x .570	82.5	3.25	54	2.13	39	1.54
N20-20FLC45	1 1/4	1 1/4 x .570	101.7	4.00	54	2.13	43.5	1.71
N20-24FLC45	1 1/4	1 1/2 x .570	104.7	4.12	63.5	2.50	48	1.89
N24-24FLC45	1 1/2	1 1/2 x .570	126	4.96	63.5	2.50	47	1.85
N24-32FLC45	1 1/2	2 x .570	130	5.12	79.4	3.13	60	2.36
N32-32FLC45	2	2 x .570	145	5.71	79.4	3.13	60	2.36

FLC60 CATERPILLAR® FLANGE - 60° ELBOW



PART NUMBER	Hose Bore	FLANGE	A		C		D	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
N12-12FLC60	3/4	3/4 x .570	91	3.58	47.6	1.87	51	2.01
N16-16FLC60	1	1 x .570	108	4.25	47.6	1.87	48	1.89
N16-20FLC60	1	1 1/4 x .570	118	4.65	54	2.13	57.5	2.26
N20-20FLC60	1 1/4	1 1/4 x .570	132	5.20	54	2.13	59	2.32
N20-24FLC60	1 1/4	1 1/2 x .570	137	5.39	63.5	2.50	65.5	2.58

FLC67.5 CATERPILLAR® FLANGE - 67.5° ELBOW

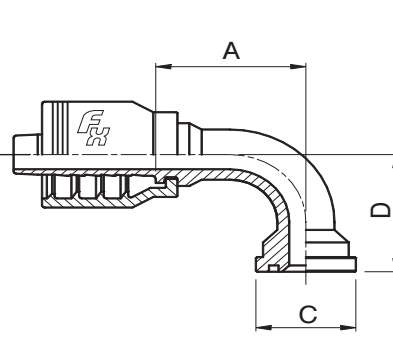


PART NUMBER	Hose Bore	FLANGE	A		C		D	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
N16-16FLC67.5	1	1 x .570	102	4.02	47.6	1.87	54	2.13
N20-20FLC67.5	1 1/4	1 1/4 x .570	124	4.88	54	2.13	67	2.64

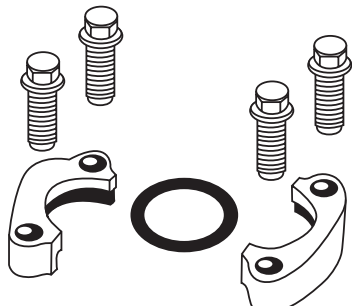
N-Series Non-Skive Couplings For Use With Braided and Spiral Hoses:
AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HX, NX, PX250, QC, RX2, SX, 3X

N Series

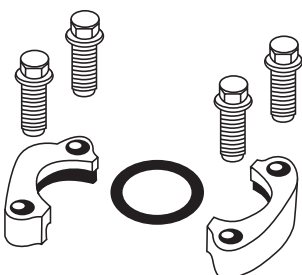
FLC90 CATERPILLAR® FLANGE - 90° ELBOW

	PART NUMBER	Hose Bore	FLANGE	A		C		D	
		INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
	N12-12FLC90	3/4	3/4 x .570	58.6	2.31	41.3	1.63	60.5	2.38
	N12-16FLC90	3/4	1 x .570	72	2.83	47.6	1.87	65	2.56
	N16-16FLC90	1	1 x .570	75.5	2.97	47.6	1.87	66	2.60
	N16-20FLC90	1	1 1/4 x .570	96.6	3.80	54	2.13	79.5	3.13
	N20-20FLC90	1 1/4	1 1/4 x .570	97	3.82	54	2.13	86	3.39
	N20-24FLC90	1 1/4	1 1/2 x .570	104.2	4.10	63.5	2.50	98	3.86
	N24-24FLC90	1 1/2	1 1/2 x .570	111	4.37	63.5	2.50	104	4.09
	N24-32FLC90	1 1/2	2 x .570	111	4.37	79.4	3.13	120	4.72
	N32-32FLC90	2	2 x .570	148	5.83	79.4	3.13	134	5.28

7795 SPLIT FLANGE KIT (CODE 61)

	PART NUMBER	T1		
	7795-08	1/2		
	7795-12	3/4		
	7795-16	1		
	7795-20	1 1/4		
	7795-24	1 1/2		
	7795-32	2		

7895 SPLIT FLANGE KIT (CODE 62)

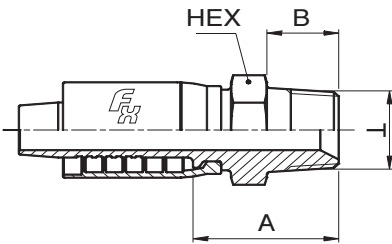
	PART NUMBER	T1		
	7895-08	1/2		
	7895-12	3/4		
	7895-16	1		
	7895-20	1 1/4		
	7895-24	1 1/2		
	7895-32	2		


N-Series Non-Skive Couplings For Use With Braided and Spiral Hoses:
AX, AXT, DX, EA, EH, EX, EU, GX, GU, HH, HX, NX, PX250, QC, RX2, SX, 3X



X Series

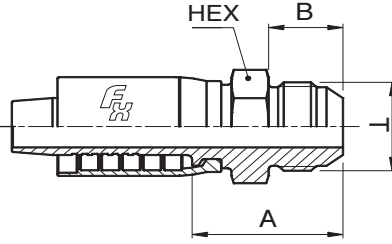
MP NPT MALE




PART NUMBER	Hose Bore	T	A		B		HEX	
	INCH		[mm]	[in]	[mm]	[in]		
X12-12MP	3/4	3/4 - 14	42.6	1.68	19	0.75	1 1/4	
X16-16MP	1	1 - 11 1/2	48.6	1.91	23.7	0.93	1 7/16	
X20-20MP	1 1/4	1 1/4 - 11 1/2	63.1	2.48	24.4	0.96	1 13/16	
X24-24MP	1 1/2	1 1/2 - 11 1/2	61.3	2.41	26	1.02	2	
X24-32MP*	1 1/2	2 - 11 1/2	109.5	4.31	51	2.01	2 9/16	
X32-32MP	2	2 - 11 1/2	76.8	3.02	26.1	1.03	2 9/16	
X32-32MPA*	2	2 - 11 1/2	108.4	4.27	51	2.01	2 9/16	

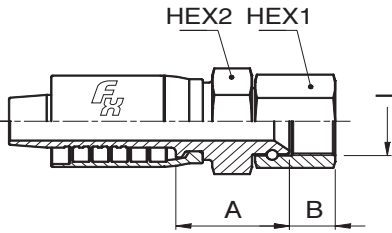
* API VERSION



MJ JIC 37° MALE



PART NUMBER	Hose Bore	T	A		B		HEX	
	INCH		[mm]	[in]	[mm]	[in]		
X12-12MJ	3/4	1 1/16 - 12	45.5	1.79	21.9	0.86	1 1/8	
X16-16MJ	1	1 5/16 - 12	46.9	1.85	23.1	0.91	1 7/16	
X20-20MJ	1 1/4	1 5/8 - 12	59.7	2.35	24.3	0.96	1 13/16	
X24-24MJ	1 1/2	1 7/8 - 12	64	2.52	27.6	1.09	2	
X32-32MJ	2	2 1/2 - 12	85.1	3.35	34.1	1.34	2 9/16	

FJ JIC 37° FEMALE SWIVEL



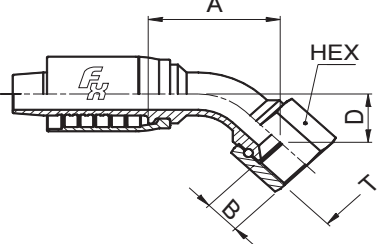

PART NUMBER	Hose Bore	T	A		B		HEX 1	HEX 2	
	INCH		[mm]	[in]	[mm]	[in]			
X12-12FJ	3/4	1 1/16 - 12	36.8	1.45	13.9	0.55	1 1/8	1 5/16	
X12-16FJ	3/4	1 5/16 - 12							
X16-16FJ	1	1 5/16 - 12	37.2	1.47	16.3	0.64	1 7/16	1 1/2	
X16-20FJ	1	1 5/8 - 12	52.4	2.06	16	0.63	2	1 13/16	
X20-20FJ	1 1/4	1 5/8 - 12	51	2.01	16.3	0.64	1 13/16	2	
X24-24FJ	1 1/2	1 7/8 - 12	53.7	2.11	18.7	0.74	2	2 3/16	
X32-32FJ	2	2 1/2 - 12	73	2.87	24	0.95	2 9/16	2 13/16	

X-Series Skive-Type Couplings For Use With Spiral Hoses:

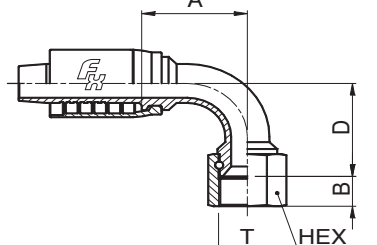

CX, NX, QC, SX, VC, VX

X Series

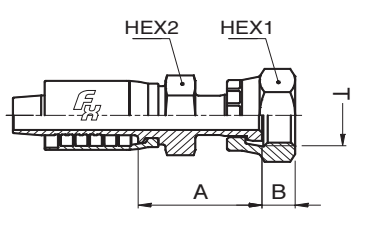


FJ45 JIC 37° FEMALE SWIVEL - 45° ELBOW

	PART NUMBER	Hose Bore	T	A		B		D		HEX
		INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
		X12-12FJ45		3/4	1 1/16 - 12	79.3	3.12	13.5	0.53	30.5
X16-16FJ45	1	1 5/16 - 12	110.3	4.34	16	0.63	42	1.65	1 1/2	
X20-20FJ45	1 1/4	1 5/8 - 12	107.8	4.24	16	0.63	48	1.89	2	
X24-24FJ45	1 1/2	1 7/8 - 12	163.7	6.44	18.3	0.72	50	1.97	2 3/16	
X32-32FJ45	2	2 1/2 - 12	198	7.80	24	0.95	65.5	2.58	2 13/16	

FJ90 JIC 37° FEMALE SWIVEL - 90° ELBOW

	PART NUMBER	Hose Bore	T	A		B		D		HEX
		INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
		X12-12FJ90		3/4	1 1/16 - 12	64.3	2.53	13.5	0.53	60.5
X16-16FJ90	1	1 5/16 - 12	86.8	3.42	16	0.63	81.5	3.21	1 1/2	
X20-20FJ90	1 1/4	1 5/8 - 12	91.6	3.61	16	0.63	101	3.98	2	
X24-24FJ90	1 1/2	1 7/8 - 12	134.7	5.30	18.4	0.72	105	4.13	2 3/16	
X32-32FJ90	2	2 1/2 - 12	154	6.06	24	0.94	140	5.51	2 13/16	

FF ORFS FEMALE SWIVEL

	PART NUMBER	Hose Bore	T	A		B		HEX 1	HEX 2
		INCH		[mm]	[in]	[mm]	[in]		
		X12-12FF		3/4	1 3/16 - 12	45.7	1.80	14.5	0.57
X16-16FF	1	1 7/16 - 12	44	1.73	15	0.59	1 7/16	1 5/8	
X16-20FF	1	1 11/16 - 12							
X20-20FF	1 1/4	1 11/16 - 12	55.7	2.19	15	0.59	1 13/16	2	
X24-24FF	1 1/2	2 - 12	58.9	2.32	14.8	0.58	2	2 3/8	

X-Series Skive-Type Couplings For Use With Spiral Hoses:

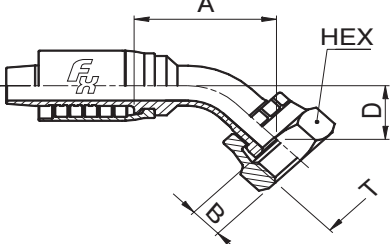
CX, NX, QC, SX, VC, VX




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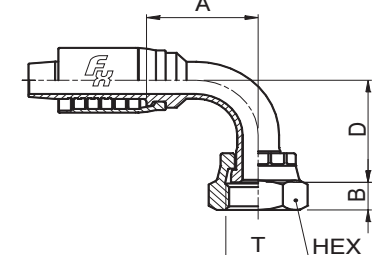
X Series


FF45 ORFS FEMALE SWIVEL - 45° ELBOW



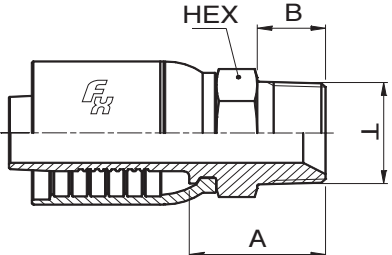
PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
X12-12FF45	3/4	1 3/16 - 12			14.5	0.57			1 7/16
X16-16FF45	1	1 7/16 - 12	90.8	3.57	14.8	0.58	31	1.22	1 5/8
X20-20FF45	1 1/4	1 11/16 - 12	105	4.13	14.8	0.58	37.5	1.48	2
X24-24FF45	1 1/2	2 - 12	129.4	5.09	14.7	0.58	47.2	1.86	2 3/8


FF90 ORFS FEMALE SWIVEL - 90° ELBOW



PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
X12-12FF90	3/4	1 3/16 - 12	74	2.91	14.5	0.57	61.5	2.42	1 7/16
X16-16FF90	1	1 7/16 - 12	83.8	3.30	14.8	0.58	72.5	2.85	1 5/8
X20-20FF90	1 1/4	1 11/16 - 12	90	3.54	14.7	0.58	83	3.27	2
X24-24FF90	1 1/2	2 - 12	115	4.53	14.6	0.58	102	4.02	2 3/8

MBSPT BSPT MALE



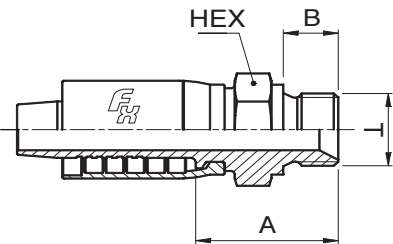

PART NUMBER	Hose Bore	T	A		B		HEX
	INCH		[mm]	[in]	[mm]	[in]	
X12-12MBSPT	3/4	3/4 - 14			19	0.75	
X16-16MBSPT	1	1 - 11			23	0.91	
X20-20MBSPT	1 1/4	1 1/4 - 11	52	2.05	25	0.98	1 13/16
X24-24MBSPT	1 1/2	1 1/2 - 11	53	2.09	28	1.10	2
X32-32MBSPT	2	2 - 11	60.5	2.38	28	1.10	2 9/16

X-Series Skive-Type Couplings For Use With Spiral Hoses:

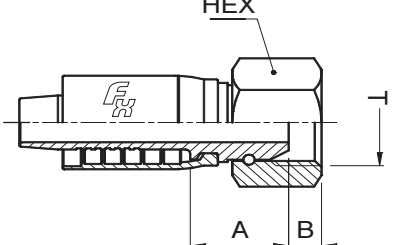

CX, NX, QC, SX, VC, VX

X Series

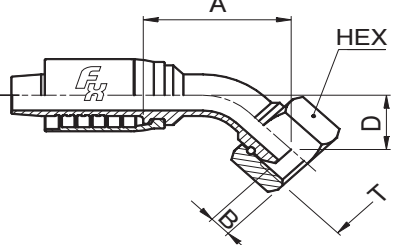
MBSPP BSPP MALE (60° SEAT)

	PART NUMBER	Hose Bore	T	A		B		HEX	
		INCH		[mm]	[in]	[mm]	[in]		
		X12-12MBSPP		3/4	3/4 - 14	39.6	1.56	16	
X16-16MBSPP	1	1 - 11	43.8	1.72	19	0.75	1 5/8		
X20-20MBSPP	1 1/4	1 1/4 - 11	51	2.00	20	0.79	2		
X24-24MBSPP	1 1/2	1 1/2 - 11	52.7	2.07	21.5	0.85	2 3/16		
X32-32MBSPP	2	2 - 11	64.6	2.54	25	0.98	2 13/16		

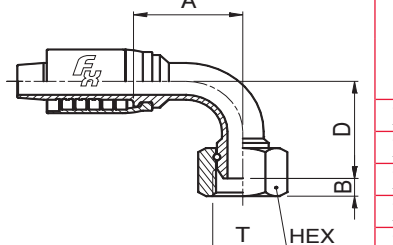
FBSP BSPP FEMALE SWIVEL (60° SEAT)

	PART NUMBER	Hose Bore	T	A		B		HEX	
		INCH		[mm]	[in]	[mm]	[in]		
		X12-12FBSP		3/4	3/4 - 14	27.9	1.01	8,7	
X16-16FBSP	1	1 - 11	31.3	1.23	10.5	0.41	1 1/2		
X20-20FBSP	1 1/4	1 1/4 - 11	25.6	1.00	10	0.39	2		
X24-24FBSP	1 1/2	1 1/2 - 11	38.3	1.51	12	0.47	2 3/16		
X32-32FBSP	2	2 - 11	41.5	1.63	16	0.63	2 13/16		

FBSP45 BSPP FEMALE SWIVEL - 45° ELBOW

	PART NUMBER	Hose Bore	T	A		B		D		HEX
		INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
		X20-20FBSP45		1 1/4	1 1/4 - 11	103.6	4.08	10.6	0.42	48
X24-24FBSP45	1 1/2	1 1/2 - 11	162	6.38	12	0.47	51	2.01	2 3/16	
X32-32FBSP45	2	2 - 11	196	7.72	15.5	0.61	65.5	2.58	2 13/16	

FBSP90 BSPP FEMALE SWIVEL - 90° ELBOW

	PART NUMBER	Hose Bore	T	A		B		D		HEX
		INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
		X12-12FBSP90		3/4	3/4 - 14	66.8	2.63	8,7	0.34	58.8
X16-16FBSP90	1	1 - 11	86.8	3.42	10.5	0.41	81.5	3.21	1 1/2	
X20-20FBSP90	1 1/4	1 1/4 - 11	91.5	3.60	10	0.39	83	3.27	2	
X24-24FBSP90	1 1/2	1 1/2 - 11	132	5.20	12	0.47	108	4.25	2 3/16	
X32-32FBSP90	2	2 - 11	154.5	6.08	16	0.63	140	5.51	2 13/16	

X-Series Skive-Type Couplings For Use With Spiral Hoses:

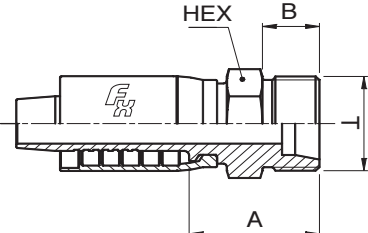

CX, NX, QC, SX, VC, VX



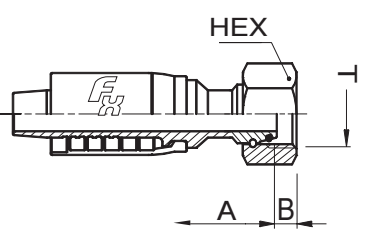

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X Series

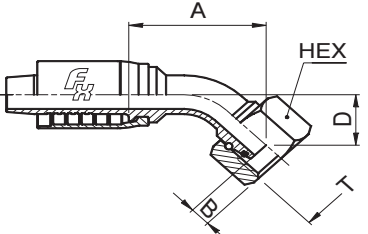

MMS MALE METRIC HEAVY (24° SEAT) - CES

	PART NUMBER	Hose Bore	T	Tube	A		B		HEX
		INCH			[mm]	[in]	[mm]	[in]	
		X12-36MMS			3/4	M36 x 2.0	S25	40.6	1.60
X16-42MMS	1	M42 x 2.0	S30	45.8	1.80	20	0.79	1 13/16	
X20-52MMS	1 1/4	M52 x 2.0	S38	48.9	1.93	22	0.87	2 3/16	
X24-52MMS	1 1/2	M52 x 2.0	S38	47.5	1.87	22	0.87	2 3/16	

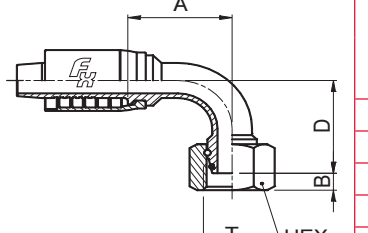

FMS FEMALE METRIC HEAVY SWIVEL (24° SEAT) - DKOS

	PART NUMBER	Hose Bore	T	Tube	A		B		HEX
		INCH			[mm]	[in]	[mm]	[in]	
		X12-36FMS			3/4	M36 x 2.0	S25	41.6	1.64
X16-42FMS	1	M42 x 2.0	S30	36.8	1.45	6	0.24	2	
X20-52FMS	1 1/4	M52 x 2.0	S38	48	1.89	6.7	0.26	2 3/8	
X24-52FMS	1 1/2	M52 x 2.0	S38	43.2	1.70	6.7	0.26	2 3/8	

FMS45 FEMALE METRIC HEAVY SWIVEL (24° SEAT) - 45° ELBOW - DKOS

	PART NUMBER	Hose Bore	T	Tube	A		B		D		HEX
		INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]	
		X12-36FMS45			3/4	M36 x 2.0	S25	84.8	3.34	3	0.12
X16-42FMS45	1	M42 x 2.0	S30	103.3	4.07	6	0.24	42	1.65	2	
X20-52FMS45	1 1/4	M52 x 2.0	S38	122	4.80	6.9	0.27	48.5	1.91	2 3/8	
X24-52FMS45	1 1/2	M52 x 2.0	S38			6.5	0.26			2 3/8	

FMS90 FEMALE METRIC HEAVY SWIVEL (24° SEAT) - 90° ELBOW - DKOS

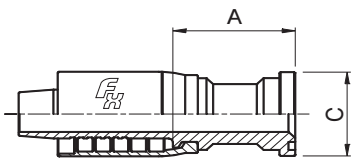
	PART NUMBER	Hose Bore	T	Tube	A		B		D		HEX
		INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]	
		X12-36FMS90			3/4	M36 x 2.0	S25	76.8	3.02	3	0.12
X16-42FMS90	1	M42 x 2.0	S30	86.8	3.42	6	0.24	81.5	3.21	2	
X20-52FMS90	1 1/4	M52 x 2.0	S38	103	4.06	6.5	0.26	101	3.98	2 3/8	
X24-52FMS90	1 1/2	M52 x 2.0	S38	112	4.41	6.3	0.25			2 3/8	

X-Series Skive-Type Couplings For Use With Spiral Hoses:

CX, NX, QC, SX, VC, VX

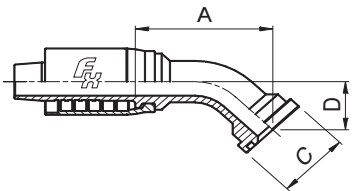
X Series

FL SAE CODE 61 FLANGE



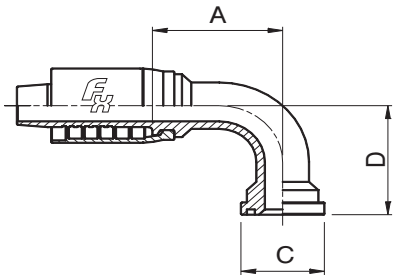
PART NUMBER	Hose Bore	FLANGE	A		C		
	INCH		[mm]	[in]	[mm]	[in]	
X12-12FL	3/4	3/4 x .265	47.6	1.87	38.1	1.50	
X12-16FL	3/4	1 x .315					
X16-16FL	1	1 x .315	53.8	2.12	44.5	1.75	
X20-20FL	1 1/4	1 1/4 x .315	51	2.01	50.8	2.00	
X20-24FL	1 1/4	1 1/4 x .315	61.4	2.42	60.3	2.37	
X24-24FL	1 1/2	1 1/2 x .315	62	2.44	60.3	2.37	
X24-32FL	1 1/2	1 1/2 x .315	77	3.03	71.4	2.81	
X32-24FL	2	1 1/2 x .315	95.7	3.77	60.3	2.37	
X32-32FL	2	2 x .375	93	3.66	71.4	2.81	

FL45 SAE CODE 61 FLANGE - 45° ELBOW



PART NUMBER	Hose Bore	FLANGE	A		C		D		
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
X12-12FL45	3/4	3/4 x .265	80.5	3.17	38.1	1.50	30.7	1.20	
X12-16FL45	3/4	3/4 x .265	80.5	3.17	38.1	1.50			
X16-16FL45	1	1 x .315	81.3	3.2	44.5	1.75	35.12	1.38	
X20-20FL45	1 1/4	1 1/4 x .315	97.8	3.85	50.8	2.00	43.5	1.71	
X20-24FL45	1 1/4	1 1/2 x .315	133.5	5.26	60.3	2.37	38	1.50	
X24-24FL45	1 1/2	1 1/2 x .315	154	6.06	60.3	2.37	47	1.85	
X24-32FL45	1 1/2	2 x .375	143	5.63	71.4	2.81	47.5	1.87	
X32-32FL45	2	2 x .375	158	6.22	71.4	2.81	57	2.24	

FL90 SAE CODE 61 FLANGE - 90° ELBOW



PART NUMBER	Hose Bore	FLANGE	A		C		D		
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
X12-12FL90	3/4	3/4 x .265	68.8	2.71	38.1	1.50	56.5	2.22	
X16-16FL90	1	1 x .315	81.8	3.22	44.5	1.75	67.5	2.66	
X20-20FL90	1 1/4	1 1/4 x .315	102.3	4.03	50.8	2.00	93.5	3.68	
X20-24FL90	1 1/4	1 1/2 x .315	85.3	3.36	60.3	2.37	90	3.54	
X24-24FL90	1 1/2	1 1/2 x .315	131	5.16	60.3	2.37	103.5	4.07	
X24-32FL90	1 1/2	2 x .375	115	4.53	71.4	2.81	95	3.74	
X32-32FL90	2	2 x .375	145	5.71	71.4	2.81	117.5	4.63	

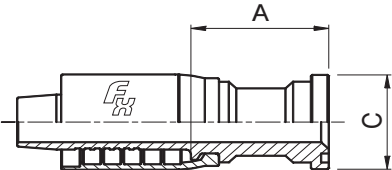
X-Series Skive-Type Couplings For Use With Spiral Hoses:

CX, NX, QC, SX, VC, VX



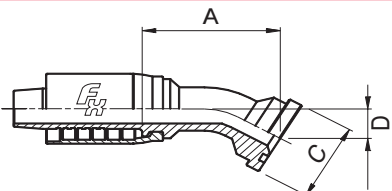
X Series

FLH SAE CODE 62 FLANGE



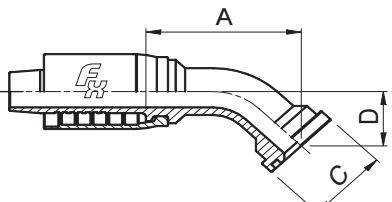
PART NUMBER	Hose Bore	FLANGE	A		C	
	INCH		[mm]	[in]	[mm]	[in]
X12-12FLH	3/4	3/4 x .345	55.6	2.19	41.3	1.63
X12-16FLH	3/4	1 x .375	66.5	2.62	47.6	1.87
X16-16FLH	1	1 x .375	66.3	2.61	47.6	1.87
X16-20FLH	1	1 1/4 x .405	75.4	2.97	54	2.13
X20-20FLH	1 1/4	1 1/4 x .405	71.5	2.82	54	2.13
X20-24FLH	1 1/4	1 1/2 x .495	81	3.19	63.5	2.50
X24-20FLH	1 1/2	1 1/4 x .405	72.5	2.85	54	2.13
X24-24FLH	1 1/2	1 1/2 x .495	82	3.23	63.5	2.50
X24-32FLH	1 1/2	2 x .495	110.7	4.36	79.4	3.13
X32-32FLH	2	2 x .495	113	4.45	79.4	3.13

FLH30 SAE CODE 62 FLANGE - 30° ELBOW



PART NUMBER	Hose Bore	FLANGE	A		C		D	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
X24-24FLH45	1 1/2	1 1/2 x .495	147.5	5.81	63.5	2.50	29	1.14
X32-32FLH45	2	2 x .495	187	7.36	79.4	3.13	37	1.46

FLH45 SAE CODE 62 FLANGE - 45° ELBOW



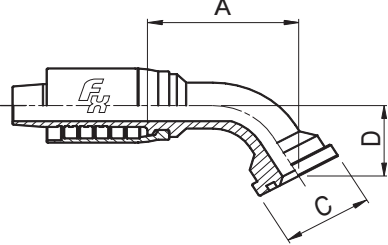
PART NUMBER	Hose Bore	FLANGE	A		C		D	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
X12-12FLH45	3/4	3/4 x .345	78.8	3.10	41.3	1.63	29.5	1.16
X12-16FLH45	3/4	1 x .375	79.2	3.11	47.6	1.87	35.0	1.38
X16-16FLH45	1	1 x .375	95.8	3.77	47.6	1.87	34.5	1.36
X16-20FLH45	1	1 1/4 x .405	97.8	3.85	54	2.13	39	1.54
X20-16FLH45	1 1/4	1 x .375	114.4	4.51	47.6	1.87	43.1	1.69
X20-20FLH45	1 1/4	1 1/4 x .405	112.3	4.42	54	2.13	43.5	1.71
X20-24FLH45	1 1/4	1 1/2 x .495	126	4.96	63.5	2.50	45	1.77
X24-24FLH45	1 1/2	1 1/2 x .495	149	5.87	63.5	2.50	47	1.85
X24-32FLH45	1 1/2	2 x .495	163	6.42	79.4	3.13	57	2.24
X32-32FLH45	2	2 x .495	170	6.69	79.4	3.13	61	2.40

X-Series Skive-Type Couplings For Use With Spiral Hoses:

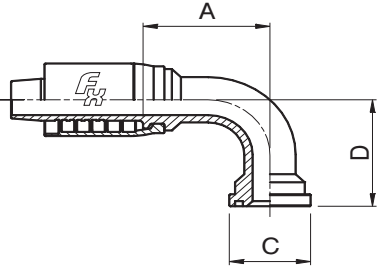
CX, NX, QC, SX, VC, VX

X Series

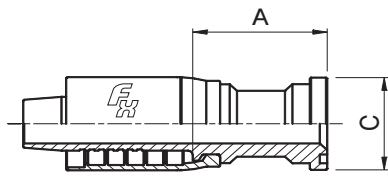
FLH60 SAE CODE 62 FLANGE - 60° ELBOW

	PART NUMBER	Hose Bore	FLANGE	A		C		D	
		INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
		X20-20FLH60		1¼	1¼ x .405	113	4.45	54	2.13
X32-32FLH60	2	2 x .495	170	6.69	79.4	3.13			

FLH90 SAE CODE 62 FLANGE - 90° ELBOW

	PART NUMBER	Hose Bore	FLANGE	A		C		D	
		INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
		X12-12FLH90		¾	¾ x .345	68.8	2.71	41.3	1.63
X12-16FLH90	¾	1 x .375	62.9	2.48	47.6	1.87	69.2	2.72	
X16-16FLH90	1	1 x .375	83.6	3.29	47.6	1.87	72.5	2.85	
X16-20FLH90	1	1¼ x .405	81.6	3.21	54	2.13	80	3.15	
X20-16FLH90	1¼	1 x .375	109.5	4.31	47.6	1.87	87	3.43	
X20-20FLH90	1¼	1¼ x .405	104.2	4.10	54	2.13	86	3.39	
X20-24FLH90	1¼	1½ x .495	109.5	4.31	63.5	2.50	97	3.82	
X24-24FLH90	1½	1½ x .495	131	5.16	63.5	2.50	107	4.21	
X24-32FLH90	1½	2 x .495	125.8	4.95	79.4	3.13	113	4.45	
X32-32FLH90	2	2 x .495	141	5.55	79.4	3.13	134	5.28	

FLC CATERPILLAR® FLANGE

	PART NUMBER	Hose Bore	FLANGE	A		C	
		INCH		[mm]	[in]	[mm]	[in]
		X12-12FLC		¾	¾ x .570	61.4	2.42
X12-16FLC	¾	1 x .570	70.8	2.79	47.6	1.87	
X16-16FLC	1	1 x .570	71	2.80	47.6	1.87	
X16-20FLC	1	1¼ x .570	75.8	2.98	54	2.13	
X20-20FLC	1¼	1¼ x .570	75.8	2.98	54	2.13	
X20-24FLC	1¼	1½ x .570	83.4	3.28	63.5	2.50	
X24-24FLC	1½	1½ x .570	83	3.27	63.5	2.50	
X24-32FLC	1½	2 x .570	112	4.41	79.4	3.13	
X32-32FLC	2	2 x .570	114	4.49	79.4	3.13	

X-Series Skive-Type Couplings For Use With Spiral Hoses:

CX, NX, QC, SX, VC, VX

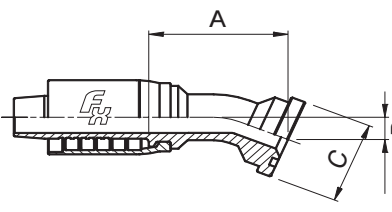


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X Series

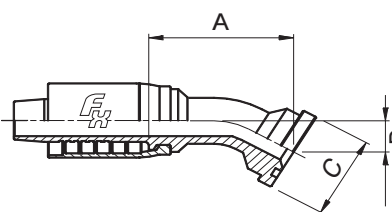
FLC22.5

CATERPILLAR® FLANGE - 22.5° ELBOW

	PART NUMBER	Hose Bore	FLANGE	A		C		D	
		INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
		X20-20FLC22.5		1¼	1¼ x .570	131.5	5.18	54	2.13
X20-24FLC22.5	1¼	1½ x .570	133	5.24	63.5	2.50	22.5	0.89	
X24-24FLC22.5	1½	1½ x .570	153	6.02	63.5	2.50			

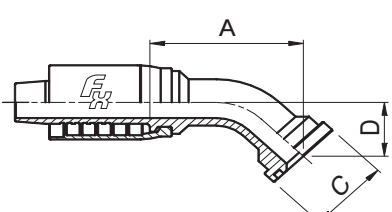
FLC30

CATERPILLAR® FLANGE - 30° ELBOW

	PART NUMBER	Hose Bore	FLANGE	A		C		D	
		INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
		X20-20FLC30		1¼	1¼ x .570	128.5	5.06	54	2.13
X20-24FLC30	1¼	1½ x .570	129.5	5.10	63.5	2.50	31	1.22	
X24-24FLC30	1½	1½ x .570	147	5.79	63.5	2.50	29.5	1.16	

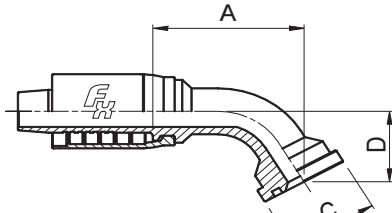
FLC45

CATERPILLAR® FLANGE - 45° ELBOW

	PART NUMBER	Hose Bore	FLANGE	A		C		D	
		INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
		X12-12FLC45		¾	¾ x .570	68.9	2.71	41.3	1.63
X12-16FLC45	¾	1 x .570	82.3	3.23	47.6	1.87	41.14	1.62	
X16-16FLC45	1	1 x .570	79.6	3.13	47.6	1.87	34.5	1.36	
X16-20FLC45	1	1¼ x .570	95.8	3.77	54	2.13	39	1.54	
X20-16FLC45	1¼	1 x .570	99	3.90	47.6	1.87	47.15	1.86	
X20-20FLC45	1¼	1¼ x .570	102.8	4.05	54	2.13	43.5	1.71	
X20-24FLC45	1¼	1½ x .570	103.4	4.07	63.5	2.50	45	1.77	
X24-24FLC45	1½	1½ x .570	153	6.02	63.5	2.50	47	1.85	
X24-32FLC45	1½	2 x .570	167	6.57	79.4	3.13	57	2.24	
X32-32FLC45	2	2 x .570	171	6.73	79.4	3.13	61	2.40	

FLC60

CATERPILLAR® FLANGE - 60° ELBOW

	PART NUMBER	Hose Bore	FLANGE	A		C		D	
		INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
		X20-20FLC60		1¼	1¼ x .570	132	5.20	54	2.13
X20-24FLC60	1¼	1½ x .570	137	5.39	63.5	2.50	65.5	2.58	
X24-24FLC60	1½	1½ x .570	153.5	6.04	63.5	2.50	71.5	2.81	

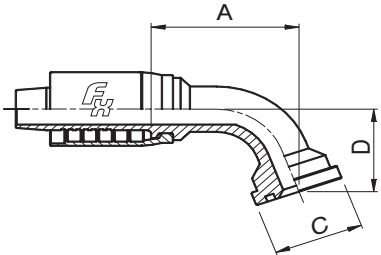
X-Series Skive-Type Couplings For Use With Spiral Hoses:

CX, NX, QC, SX, VC, VX

X Series

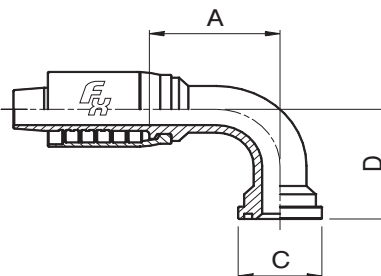
FLC67.5

CATERPILLAR® FLANGE - 67.5° ELBOW

	PART NUMBER	Hose Bore	FLANGE	A		C		D	
		INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
		X20-20FLC67.5		1¼	1¼ x .570	102.8	4.05	54	2.13
X20-24FLC67.5	1¼	1½ x .570	103.4	4.07	63.5	2.50			
X24-24FLC67.5	1½	1½ x .570	153	6.02	63.5	2.50			

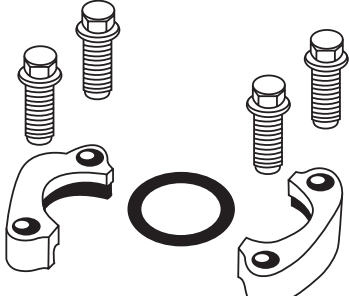
FLC90

CATERPILLAR® FLANGE - 90° ELBOW

	PART NUMBER	Hose Bore	FLANGE	A		C		D	
		INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
		X12-12FLC90		¾	¾ x .570	68.8	2.71	41.3	1.63
X12-16FLC90	¾	1 x .570	61.73	2.43	47.6	1.87	72.5	2.85	
X16-16FLC90	1	1 x .570	86.5	3.41	47.6	1.87	72.5	2.85	
X16-20FLC90	1	1¼ x .570	84.8	3.34	54	2.13	80	3.15	
X20-20FLC90	1¼	1¼ x .570	109.5	4.31	54	2.13	86	3.39	
X20-24FLC90	1¼	1½ x .570	109.5	4.31	63.5	2.50	97	3.82	
X24-24FLC90	1½	1½ x .570	129	5.08	63.5	2.50	107	4.21	
X24-32FLC90	1½	2 x .570	120	4.72	79.4	3.13	113	4.45	
X32-32FLC90	2	2 x .570	159	6.26	79.4	3.13	134	5.28	

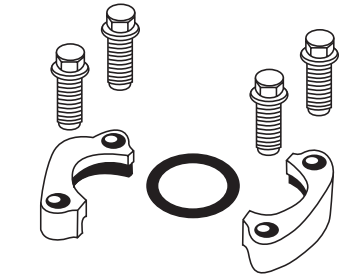
7795

SPLIT FLANGE KIT (CODE 61)

	PART NUMBER	T1		
	7795-08	½		
	7795-12	¾		
	7795-16	1		
	7795-20	1¼		
	7795-24	1½		
	7795-32	2		

7895

SPLIT FLANGE KIT (CODE 62)

	PART NUMBER	T1		
	7895-08	½		
	7895-12	¾		
	7895-16	1		
	7895-20	1¼		
	7895-24	1½		
	7895-32	2		

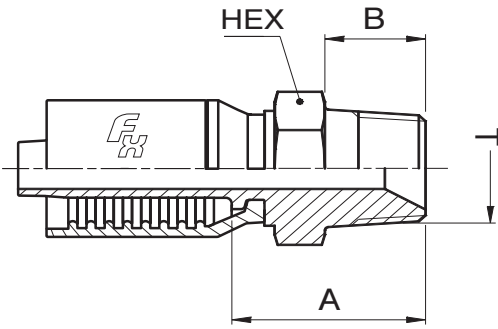
X-Series Skive-Type Couplings For Use With Spiral Hoses:

CX, NX, QC, SX, VC, VX



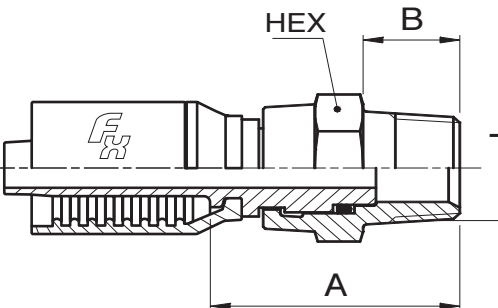
T Series

MP NPT MALE



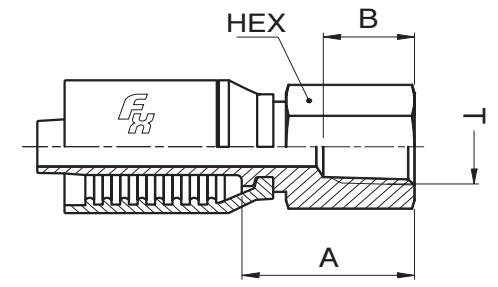
PART NUMBER	Hose Bore	T	A		B		HEX
	INCH		[mm]	[in]	[mm]	[in]	
T03-02MP	3/16	1/8 - 27	20	0.79	9.8	0.39	7/16
T03-04MP	3/16	1/4 - 18	25.8	1.02	14	0.55	9/16
T04-02MP	1/4	1/8 - 27	20.6	0.81	9.7	0.38	9/16
T04-04MP	1/4	1/4 - 18	25.5	1.00	12.4	0.49	9/16
T04-06MP	1/4	3/8 - 18	28	1.10	14	0.55	3/4
T05-04MP	5/16	1/4 - 18	24.8	.98	13.6	0.54	5/8
T05-06MP	5/16	3/8 - 18	27.4	1.08	14	0.55	3/4
T06-04MP	3/8	1/4 - 18	25	0.98	13.8	0.54	11/16
T06-06MP	3/8	3/8 - 18	27	1.06	13.9	0.55	3/4
T06-08MP	3/8	1/2 - 14	33	1.30	19	0.75	7/8
T08-06MP	1/2	3/8 - 18	28.5	1.12	14	0.55	3/4
T08-08MP	1/2	1/2 - 14	31.8	1.25	19	0.75	7/8
T08-12MP	1/2	3/4 - 14	34	1.34	19	0.75	1 1/8
T12-08MP	3/4	1/2 - 14	34.5	1.36	19	0.75	1 1/8
T12-12MP	3/4	3/4 - 14	40.2	1.58	19.4	0.76	1 1/8
T12-16MP	3/4	1 - 11 1/2	46.5	1.83	24	0.94	1 7/16
T16-16MP	1	1 - 11 1/2	45.7	1.80	24	0.94	1 7/16

MPX NPT MALE SWIVEL



PART NUMBER	Hose Bore	T	A		B		HEX
	INCH		[mm]	[in]	[mm]	[in]	
T04-04MPX	1/4	1/4 - 18	34.8	1.37	14	0.55	1 1/16
T06-04MPX	3/8	1/4 - 18	34.4	1.35	14	0.55	1 1/16
T06-06MPX	3/8	3/8 - 18	41	1.61	14.2	0.56	7/8
T08-08MPX	1/2	1/2 - 14	52.4	2.06	19.1	0.75	1 1/8

FP NPT FEMALE RIGID (DRY SEAL)





PART NUMBER	Hose Bore	T	A		B		HEX
	INCH		[mm]	[in]	[mm]	[in]	
T04-04FP	1/4	1/4 - 18	25	0.98	15.3	0.60	1 1/16
T06-06FP	3/8	3/8 - 18	26.3	1.03	15.5	0.61	7/8
T08-08FP	1/2	1/2 - 14	31.1	1.22	21.5	0.85	1 1/16

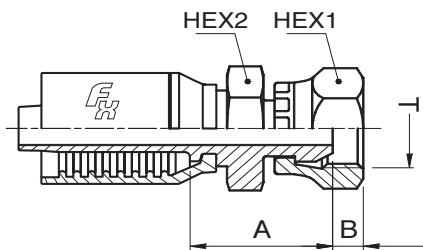
T-Series Couplings For Use With Teflon and Thermoplastic Hoses:

AX, AXT, TBR, 701, 703, 721, 801


T Series

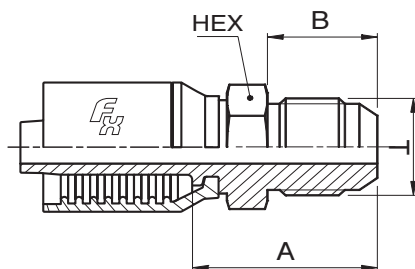
FPX NPSM FEMALE SWIVEL (60° CONE SEAT)

PART NUMBER	Hose Bore	T	A		B		HEX 1	HEX 2
	INCH		[mm]	[in]	[mm]	[in]		
T03-04FPX	3/16	1/4-18						
T04-04FPX	1/4	1/4-18	24	0.94	4.2	0.17	3/4	3/4
T06-06FPX	3/8	3/8-18	25.3	1.00	5.5	0.22	7/8	7/8
T08-08FPX	1/2	1/2-14	29	1.14	6.9	0.27	1 1/8	7/8





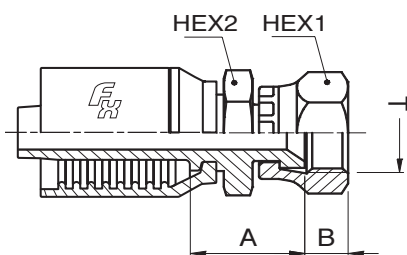
MJ JIC 37° MALE

PART NUMBER	Hose Bore	T	A		B		HEX
	INCH		[mm]	[in]	[mm]	[in]	
T03-04MJ	3/16	7/16 - 20	24.6	0.97	13.8	0.54	9/16
T04-04MJ	1/4	7/16 - 20	25.7	1.01	13.8	0.54	9/16
T04-05MJ	1/4	1/2 - 20	26.5	1.04	14	0.55	9/16
T04-06MJ	1/4	9/16 - 18	27.5	1.08	14	0.55	11/16
T05-05MJ	5/16	1/2 - 20	26.5	1.04	14	0.55	9/16
T05-06MJ	5/16	9/16 - 18	27.5	1.08	14	0.55	11/16
T06-06MJ	3/8	9/16 - 18	25.8	1.02	13.8	0.54	11/16
T06-08MJ	3/8	3/4 - 16	30.2	1.19	16.7	0.66	3/4
T08-08MJ	1/2	3/4 - 16	29.3	1.15	16.7	0.66	3/4
T08-10MJ	1/2	7/8 - 14	34.9	1.37	19.3	0.76	1
T08-12MJ	1/2	1 1/16 - 12	38.9	1.53	21.9	0.86	1 1/8
T12-12MJ	3/4	1 1/16 - 12	39.4	1.55	21.9	0.86	1 1/8
T16-16MJ	1	1 5/16 - 12	46.6	1.83	23.1	0.91	1 7/16



FJ JIC 37° FEMALE SWIVEL

PART NUMBER	Hose Bore	T	A		B		HEX1	HEX2
	INCH		[mm]	[in]	[mm]	[in]		
T03-04FJ	3/16	7/16 - 20	18.7	0.74	8.6	0.34	5/8	1/2
T04-04FJ	1/4	7/16 - 20	18.6	0.73	8.6	0.34	5/8	9/16
T04-05FJ	1/4	1/2 - 20	20	0.79	9.5	0.37	11/16	9/16
T04-06FJ	1/4	9/16 - 18	19.9	0.78	9.9	0.39	3/4	9/16
T05-05FJ	5/16	1/2 - 20	15.5	0.61	9.5	0.37	11/16	11/16
T05-06FJ	5/16	9/16 - 18	18.7	0.74	9.8	0.39	3/4	9/16
T06-06FJ	3/8	9/16 - 18	22.4	0.88	9.6	0.38	3/4	11/16
T06-08FJ	3/8	3/4 - 16	24.7	0.97	10.7	0.42	15/16	3/4
T08-08FJ	1/2	3/4 - 16	24.1	0.95	10.6	0.42	15/16	3/4
T08-10FJ	1/2	7/8 - 14	29.8	1.17	12.7	0.50	1 1/8	7/8
T08-12FJ	1/2	1 1/16 - 12	35.5	1.40	13.8	0.54	1 5/16	1 1/8
T12-12FJ	3/4	1 1/16 - 12	33.7	1.33	14.3	0.56	1 1/4	1 1/16
T12-16FJ	3/4	1 5/16 - 12	32	1.26	16	0.63	1 1/2	1 5/16
T16-16FJ	1	1 5/16 - 12	32.6	1.28	16.6	0.65	1 1/2	1 1/4



T-Series Couplings For Use With Teflon and Thermoplastic Hoses:

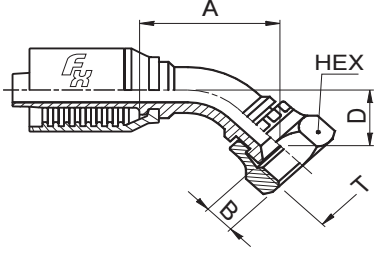
AX, AXT, TBR, 701, 703, 721, 801



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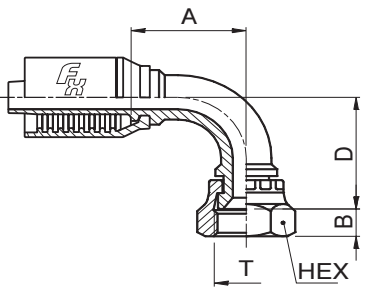
T Series

FJ45 JIC 37° FEMALE SWIVEL - 45° ELBOW



PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
T04-04FJ45	1/4	7/16 - 20	36	1.42	8.5	0.33	14	0.55	9/16
T04-05FJ45	1/4	1/2 - 20	38.5	1.52	9.5	0.37	15	0.59	11/16
T05-05FJ45	5/16	1/2 - 20	35.3	1.39	8.5	0.33	15	0.59	11/16
T05-06FJ45	5/16	9/16 - 18	42.5	1.67	9.5	0.37	11.5	0.45	11/16
T06-06FJ45	3/8	9/16 - 18	44.5	1.75	9.5	0.37	11.5	0.45	11/16
T06-08FJ45	3/8	3/4 - 16	49.4	1.94	10.7	0.42	15	0.59	7/8
T08-08FJ45	1/2	3/4 - 16	43.2	1.70	10.7	0.42	13.8	0.54	7/8
T08-10FJ45	1/2	7/8 - 14	54.5	2.15	12.7	0.50	23	0.91	1 1/8
T12-12FJ45	3/4	1 1/16 - 12	66.5	2.58	14	0.55	29	1.14	1 5/16
T16-16FJ45	1	1 5/16 - 12	83	3.27	16	0.63	35	1.38	1 1/2

FJ90 JIC 37° FEMALE SWIVEL - 90° ELBOW STANDARD DROP



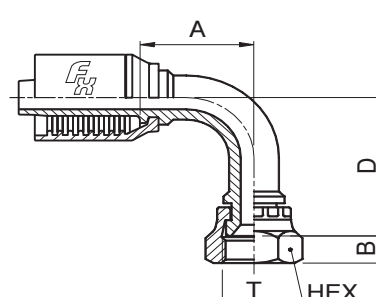
PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
T04-04FJ90	1/4	7/16 - 20	24.1	0.95	8.2	0.32	26.5	1.04	9/16
T04-05FJ90	1/4	1/2 - 20	26.5	1.04	9.5	0.37	26.5	1.04	11/16
T04-06FJ90	1/4	9/16 - 18	28.5	1.12	9.5	0.37	28	1.10	11/16
T05-05FJ90	5/16	1/2 - 20	26.5	1.04	9.5	0.37	26.5	1.04	11/16
T05-06FJ90	5/16	9/16 - 18	30	1.18	9.5	0.37	22	0.87	11/16
T06-06FJ90	3/8	9/16 - 18	31	1.22	9.5	0.37	22	0.87	11/16
T06-08FJ90	3/8	3/4 - 16	37	1.46	10.6	0.42	36	1.42	7/8
T08-08FJ90	1/2	3/4 - 16	41	1.61	10.9	0.43	30	1.18	7/8
T08-10FJ90	1/2	7/8 - 14	43.5	1.71	12.5	0.49	46	1.81	1 1/8
T08-12FJ90	1/2	1 1/16 - 12	48.5	1.91	13.8	0.54	52	2.05	1 5/16
T12-12FJ90	3/4	1 1/16 - 12	50.5	1.99	13.8	0.54	55	2.17	1 5/16
T16-16FJ90	1	1 5/16 - 12	62.5	2.46	16	0.63	65	2.56	1 1/2

T-Series Couplings For Use With Teflon and Thermoplastic Hoses:

AX, AXT, TBR, 701, 703, 721, 801

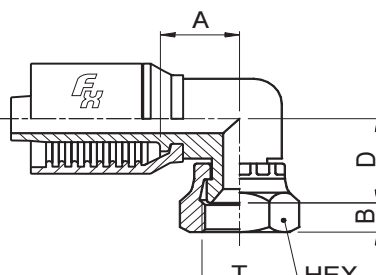
T Series

FJ90L JIC 37° FEMALE SWIVEL - 90° ELBOW LONG DROP



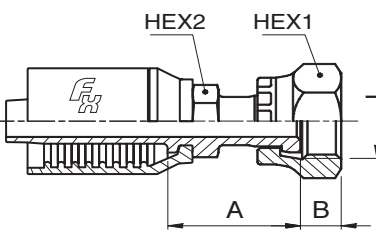
PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
T04-04FJ90L	1/4	7/16 - 20	32	1.26	8.7	0.34	46	1.81	5/8
T04-05FJ90L	1/4	1/2 - 20	32	1.26	7.5	0.30	56	2.20	3/4
T04-06FJ90L	1/4	9/16 - 18	32	1.26	9.5	0.37	56	2.20	3/4
T06-06FJ90L	3/8	9/16 - 18	35.5	1.40	9.5	0.37	56	2.20	3/4
T06-08FJ90L	3/8	3/4 - 16	37.1	1.46	10.6	0.42	62	2.44	1
T08-08FJ90L	1/2	3/4 - 16	47.5	1.87	10.9	0.43	62	2.44	1
T08-10FJ90L	1/2	7/8 - 14	48.5	1.91	12.5	0.49	65	2.56	1 1/8
T12-12FJ90L	3/4	1 1/16 - 12	64.5	2.54	13.8	0.54	95	3.74	1 5/16
T16-16FJ90L	1	1 5/16 - 12	81.8	3.22	16	0.63	110	4.33	1 1/2

FJ90B JIC 37° FEMALE SWIVEL - 90° BLOCK ELBOW



PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
T04-04FJ90B	1/4	7/16 - 20	17.5	0.69	8.5	0.33	20.5	0.81	9/16
T06-06FJ90B	3/8	9/16 - 18	21.5	0.85	8.5	0.33	25.5	1.00	3/4
T08-08FJ90B	1/2	3/4 - 16	25.5	1.00	9.5	0.37	29.5	1.16	1

FF ORFS FEMALE SWIVEL



PART NUMBER	Hose Bore	T	A		B		HEX1	HEX2
	INCH		[mm]	[in]	[mm]	[in]		
T04-04FF	1/4	9/16 - 18	28	1.10	8	0.31	3/4	9/16
T04-06FF	1/4	1 1/16 - 16	31.5	1.24	9.5	0.37	7/8	1 1/16
T05-06FF	5/16	1 1/16 - 16	31.5	1.24	9.5	0.37	7/8	1 1/16
T06-06FF	3/8	1 1/16 - 16	30.6	1.20	9.5	0.37	7/8	1 1/16
T06-08FF	3/8	1 3/16 - 16	35.3	1.39	10.5	0.41	7/8	1 1/16
T08-08FF	1/2	1 3/16 - 16	35	1.38	11	0.43	1	3/4
T08-10FF	1/2	1 - 14	36.7	1.44	13.3	0.52	1 1/4	1 5/16
T12-12FF	3/4	1 3/16 - 12	44.6	1.76	14.5	0.57	1 7/16	1 3/16
T16-16FF	1	1 7/16 - 12	52.5	2.07	14.8	0.58	1 5/8	1 7/16

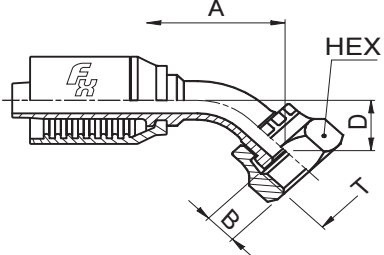
T-Series Couplings For Use With Teflon and Thermoplastic Hoses:


AX, AXT, TBR, 701, 703, 721, 801



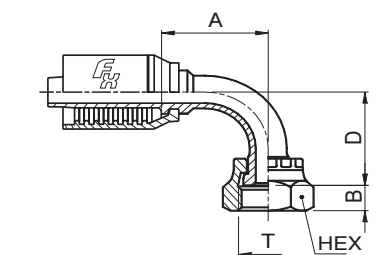
T Series


FF45 ORFS FEMALE SWIVEL - 45° ELBOW



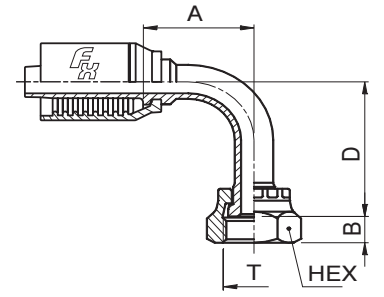
PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
T04-04FF45	1/4	9/16 - 18	35	1.38	8	0.31	14	0.55	3/4
T06-06FF45	3/8	11/16 - 16	42.5	1.67	9.5	0.37	14	0.55	7/8
T08-08FF45	1/2	13/16 - 16	51.5	2.03	11	0.43	14	0.55	1
T12-12FF45	3/4	1 3/16 - 12	70.5	2.78	14.5	0.57	27	1.06	1 7/16
T16-16FF45	1	1 7/16 - 12	82	3.23	14.8	0.58	31	1.22	1 5/8


FF90 ORFS FEMALE SWIVEL - 90° ELBOW STANDARD DROP



PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
T04-04FF90	1/4	9/16 - 18	29	1.14	8	0.31	29	1.14	3/4
T06-06FF90	3/8	11/16 - 16	32.5	1.28	9.5	0.37	28	1.10	7/8
T08-08FF90	1/2	13/16 - 16	42.5	1.67	11	0.43	30	1.18	1
T12-12FF90	3/4	1 3/16 - 12	69.5	2.74	14.5	0.57	61.5	2.42	1 7/16
T16-16FF90	1	1 7/16 - 12	78.5	3.09	14.8	0.58	67.5	2.66	1 5/8

FF90L ORFS FEMALE SWIVEL - 90° ELBOW LONG DROP



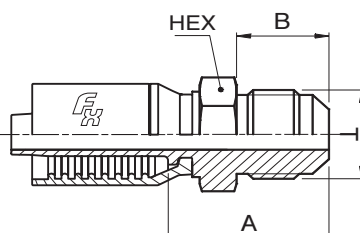

PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
T04-04FF90L	1/4	9/16 - 18	29	1.14	8	0.31	46	1.81	3/4
T06-06FF90L	3/8	11/16 - 16	32.5	1.28	9.5	0.37	54	2.13	7/8
T08-08FF90L	1/2	13/16 - 16	41.5	1.63	11	0.43	64	2.52	1
T12-12FF90L	3/4	1 3/16 - 12	31	1.22	14.5	0.57	96	3.78	1 7/16

T-Series Couplings For Use With Teflon and Thermoplastic Hoses:

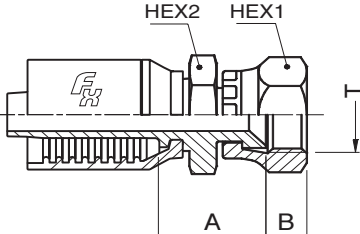


AX, AXT, TBR, 701, 703, 721, 801

T Series

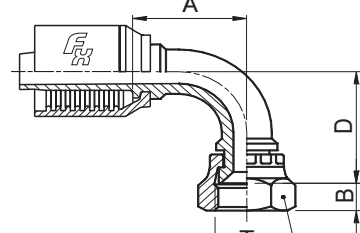

MA SAE 45° MALE

	PART NUMBER	Hose Bore	T	A		B		HEX
		INCH		[mm]	[in]	[mm]	[in]	
	T06-06MA	3/8	5/8 - 18	29.2	1.15	15.7	0.62	1/16
	T12-12MA	3/4	1 1/16 - 14	42.9	1.69	25.4	1.00	1 1/8

FA SAE 45° FEMALE SWIVEL

	PART NUMBER	Hose Bore	T	A		B		HEX1	HEX2
		INCH		[mm]	[in]	[mm]	[in]		
	T04-06FA	1/4	5/8 - 18	23.9	0.94	10.8	0.43	7/8	3/4
	T05-06FA	5/16	5/8 - 18	23.9	0.94	10.8	0.43	7/8	3/4
	T06-06FA	3/8	5/8 - 18	23	0.91	10.4	0.41	7/8	3/4
	T12-12FA	3/4	1 1/16 - 14	31.2	1.23	14.4	0.57	1 5/16	1 1/8

FA90 SAE 45° FEMALE SWIVEL - 90° ELBOW

	PART NUMBER	Hose Bore	T	A		B		D		HEX
		INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
	T06-06FA90	3/8	5/8 - 18	31	1.22	10.8	0.43	22	0.87	7/8
	T12-12FA90	3/4	1 1/16 - 14	50.5	1.99	14.4	0.57	55	2.17	1 5/16


T-Series Couplings For Use With Teflon and Thermoplastic Hoses:

AX, AXT, TBR, 701, 703, 721, 801




T Series


MOB O-RING BOSS MALE

PART NUMBER	Hose Bore	T	A		B		HEX	
	INCH		[mm]	[in]	[mm]	[in]		
T04-04MOB	1/4	7/16 - 20	23.5	0.93	11	0.43	9/16	
T05-05MOB	5/16	1/2 - 20						
T06-06MOB	3/8	9/16 - 18	25.5	1.00	12	0.47	11/16	
T08-08MOB	1/2	3/4 - 16	28.5	1.12	14	0.55	7/8	
T12-12MOB	3/4	1 1/16 - 12	35	1.38	18.5	0.73	1 5/16	

MIX SAE INVERTED FLARE MALE SWIVEL

PART NUMBER	Hose Bore	T	A		B		HEX	
	INCH		[mm]	[in]	[mm]	[in]		
T04-03MIX	1/4	3/8 - 24	38.8	1.53			3/8	
T04-04MIX	1/4	7/16 - 24	48	1.89			7/16	
T04-05MIX	1/4	1/2 - 20	48	1.89			1/2	
T06-05MIX	3/8	1/2 - 20	48	1.89			1/2	
T06-06MIX	3/8	5/8 - 18	48	1.89			5/8	
T08-08MIX	1/2	3/4 - 18	48	1.89			3/4	

MIX45 SAE INVERTED FLARE MALE SWIVEL - 45° ELBOW

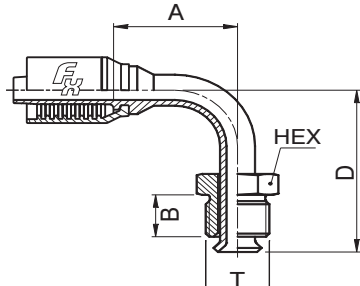
PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
T04-03MIX45	1/4	3/8 - 24							
T04-04MIX45	1/4	7/16 - 24	37	1.46			15.5	.61	7/16
T06-05MIX45	3/8	1/2 - 20	39.5	1.56			17.0	.67	1/2
T06-06MIX45	3/8	5/8 - 18	42.5	1.67			19.0	.75	5/8
T08-08MIX45	1/2	3/4 - 18	47.5	1.87			21.5	.85	3/4


T-Series Couplings For Use With Teflon and Thermoplastic Hoses:

AX, AXT, TBR, 701, 703, 721, 801

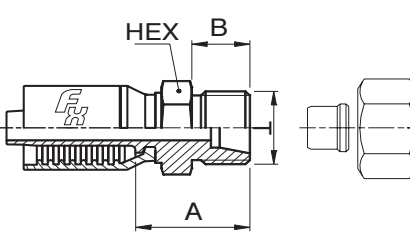
T Series


MIX90 SAE INVERTED FLARE MALE SWIVEL - 90° ELBOW



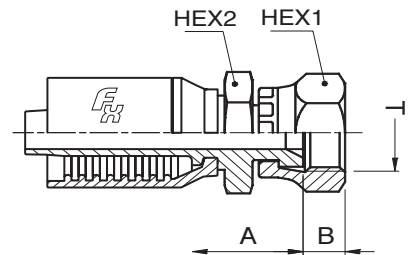
PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
T04-03MIX90	1/4	3/8 - 24							
T04-04MIX90	1/4	7/16 - 24	27.0	1.06			27.0	1.06	7/16
T06-05MIX90	3/8	1/2 - 20	29.5	1.16			30.5	1.20	1/2
T06-06MIX90	3/8	5/8 - 18	32.0	1.26			35.0	1.38	5/8
T08-08MIX90	1/2	3/4 - 18	37.0	1.46			41.5	1.63	3/4



MRNS SAE FLARELESS MALE ASSEMBLY



PART NUMBER	Hose Bore	T	A		B		HEX
	INCH		[mm]	[in]	[mm]	[in]	
T04-04MRNS	1/4	7/16 - 20					9/16
T06-06MRNS	3/8	9/16 - 18	26.6	1.05	11.9	0.47	11/16
T08-08MRNS	1/2	3/4 - 16					7/8

FJIS JIS FEMALE SWIVEL (TOYOTA)



PART NUMBER	Hose Bore	T	A		B		HEX1	HEX2
	INCH		[mm]	[in]	[mm]	[in]		
T04-04FJIS	1/4	1/4 - 19	21	0.83	8	0.31	3/4	3/4
T06-06FJIS	3/8	3/8 - 19	22	0.87	9.5	0.37	7/8	3/4
T08-08FJIS	1/2	1/2 - 14	24.9	0.98	11	0.43	1 1/8	7/8

T-Series Couplings For Use With Teflon and Thermoplastic Hoses:

AX, AXT, TBR, 701, 703, 721, 801

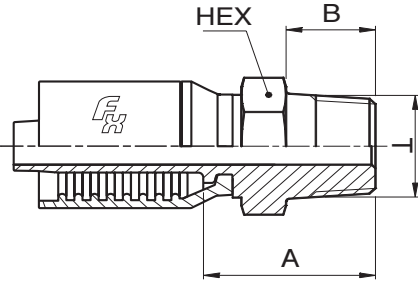


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T Series

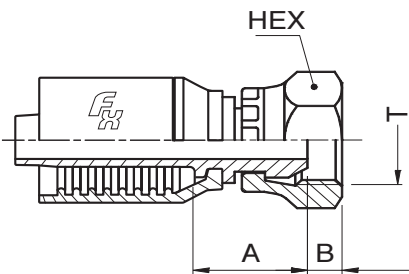
MBSPT BSPT MALE

PART NUMBER	Hose Bore	T	A		B		HEX
	INCH		[mm]	[in]	[mm]	[in]	
	T04-04MBSPT		1/4	1/4 - 19	26.5	1.04	
T06-06MBSPT	3/8	3/8 - 19	29	1.14	15	0.59	3/4
T08-08MBSPT	1/2	1/2 - 14	32.5	1.28	18	0.71	7/8



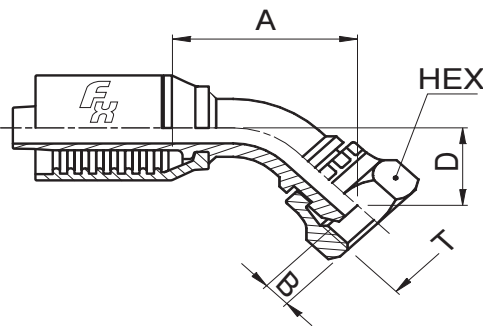
FBSPP BSPP FEMALE SWIVEL

PART NUMBER	Hose Bore	T	A		B		HEX
	INCH		[mm]	[in]	[mm]	[in]	
	T04-04FBSPP		1/4	1/4 - 19	16.5	0.65	
T06-06FBSPP	3/8	3/8 - 19	17.5	0.69	6	0.24	7/8
T08-08FBSPP	1/2	1/2 - 14	21	0.83	7	0.28	1 1/8
T12-12FBSPP	3/4	3/4 - 14	21.8	0.86	9	0.35	1 15/16



FBSPP45 BSPP FEMALE SWIVEL - 45° ELBOW

PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
	T04-04FBSPP45		1/4	1/4 - 19	39.5	1.56	4	0.16	
T06-06FBSPP45	3/8	3/8 - 19	46.5	1.83	6	0.24	19	0.75	7/8
T08-08FBSPP45	1/2	1/2 - 14	52.5	2.07	7	0.28	25	0.98	1 1/8

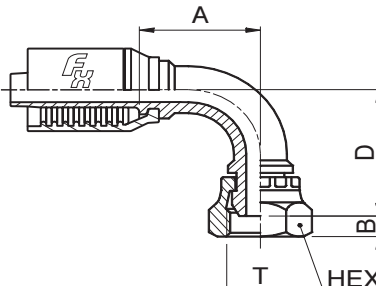



T-Series Couplings For Use With Teflon and Thermoplastic Hoses:

AX, AXT, TBR, 701, 703, 721, 801

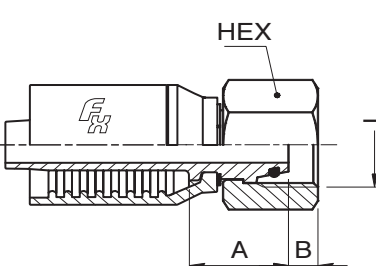
T Series


FBSP90 BSPP FEMALE SWIVEL - 90° ELBOW



PART NUMBER	Hose Bore	T	A		B		D		HEX
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	
T04-04FBSP90	1/4	1/4 - 19	26.5	1.04	5	0.20	27	1.06	3/4
T06-06FBSP90	3/8	3/8 - 19	32.5	1.28	6	0.24	33	1.30	7/8
T08-08FBSP90	1/2	1/2 - 14	41.5	1.63	7	0.28	40.5	1.59	1 1/8

FML FEMALE METRIC LIGHT SWIVEL (24° CONE SEAT) - DKOL



PART NUMBER	Hose Bore	T	TUBE	A		B		HEX
	INCH			[mm]	[in]	[mm]	[in]	
T04-14FML	1/4	M14 x 1.5	L8	24	0.94	1.5	0.06	1 1/16
T06-18FML	3/8	M18 x 1.5	L12	26	1.02	1.5	0.06	7/8
T08-22FML	1/2	M22 x 1.5	L15	28	1.10	2.5	0.10	1 1/8

T-Series Couplings For Use With Teflon and Thermoplastic Hoses:

AX, AXT, TBR, 701, 703, 721, 801



TS Series

MP NPT MALE

PART NUMBER	Hose Bore	T	A		B		HEX	
	INCH		[mm]	[in]	[mm]	[in]		
TS03-02MP*	3/16	1/8 - 27	23.4	0.92	9.5	0.37	9/16	
TS04-02MP*	1/4	1/8 - 27	23.4	0.92	9.5	0.37	9/16	
TS04-04MP*	1/4	1/4 - 18	29.3	1.15	14.4	0.57	9/16	
TS04-06MP*	1/4	3/8 - 18	29.5	1.16	14.6	0.57	3/4	
TS05-04MP*	5/16	1/4 - 18	29.3	1.15	14.4	0.57	5/8	
TS06-04MP*	3/8	1/4 - 18	29.4	1.16	14.4	0.57	11/16	
TS06-06MP*	3/8	3/8 - 18	29.6	1.17	14.6	0.57	3/4	
TS08-06MP*	1/2	3/8 - 18	31.1	1.22	14.6	0.57	3/4	
TS08-08MP*	1/2	1/2 - 14	36.5	1.44	19	0.75	7/8	
TS10-08MP*	5/8	1/2 - 14	36.5	1.44	19	0.75	15/16	
TS12-12MP*	3/4	3/4 - 14	39.8	1.57	19.3	0.76	1 1/8	
TS16-16MP*	1	1 - 11 1/2	45.5	1.79	24	0.94	1 7/8	

* Add the appropriate suffix for material - BR (brass) - SS (316) stainless steel - CS (carbon steel).

FJ JIC 37° FEMALE SWIVEL

PART NUMBER	Hose Bore	T	A		B		HEX 1	HEX 2
	INCH		[mm]	[in]	[mm]	[in]		
TS03-03FJ*	3/16	3/8 - 24					5/8	1/2
TS03-04FJ*	3/16	7/16 - 20	21.9	0.86	9	0.35	5/8	9/16
TS04-04FJ*	1/4	7/16 - 20	21.9	0.86	9	0.35	5/8	9/16
TS04-05FJ*	1/4	1/2 - 20	22.9	0.90	9.5	0.37	11/16	9/16
TS04-06FJ*	1/4	9/16 - 18	23.9	0.94	9.5	0.37	3/4	9/16
TS05-06FJ*	5/16	9/16 - 18	23.9	0.94	9.5	0.37	3/4	9/16
TS06-06FJ*	3/8	9/16 - 18	24	0.94	9.5	0.37	3/4	11/16
TS06-08FJ*	3/8	3/4 - 16	25.5	1.00	10.5	0.41	15/16	3/4
TS08-08FJ*	1/2	3/4 - 16	27	1.06	10.5	0.41	15/16	13/16
TS08-10FJ*	1/2	7/8 - 14	29	1.14	12.5	0.49	15/16	7/8
TS12-12FJ*	3/4	1 1/16 - 12	33	1.30	14.5	0.57	1 1/4	1 1/16
TS16-16FJ*	1	1 5/16 - 12	36	1.42	15.1	0.59	1 5/16	1 1/2

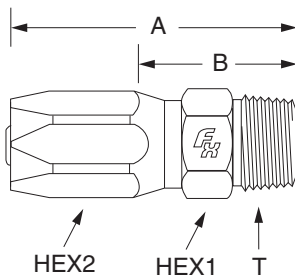


* Add the appropriate suffix for material - BR (brass) - SS (316) stainless steel - CS (carbon steel).

TS-Series Couplings For Use With Braided Hoses:

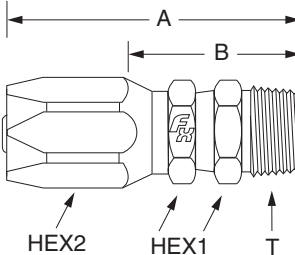


TBR

1R Series

MP NPT MALE

	PART NUMBER	Hose Bore	T	A	B	HEX 1	HEX 2
		INCH		[in]	[in]		
	1R04-02MP	1/4	1/8 - 27	1 ³¹ / ₃₂	1	9/16	3/4
	1R04-04MP	1/4	1/4 - 18	2 ⁵ / ₃₂	1 ³ / ₁₆	9/16	3/4
	1R06-04MP	3/8	1/4 - 18	2 ¹⁹ / ₆₄	1 ¹⁵ / ₆₄	11/16	7/8
	1R06-06MP	3/8	3/8 - 18	2 ⁵ / ₁₆	1 1/4	11/16	7/8
	1R08-06MP	1/2	3/8 - 18	2 ⁹ / ₁₆	1 ²¹ / ₆₄	7/8	1 1/16
	1R08-08MP	1/2	1/2 - 14	2 ³ / ₄	1 ³³ / ₆₄	7/8	1 1/16
	1R12-08MP	3/4	1/2 - 14	3	1 ¹⁷ / ₃₂	1 1/8	1 3/8
	1R12-12MP	3/4	3/4 - 14	3	1 ¹⁷ / ₃₂	1 1/8	1 3/8
	1R16-12MP	1	3/4 - 14	3 ⁵ / ₁₆	1 ⁵ / ₈	1 3/8	1 3/4
	1R16-16MP	1	1 - 11 1/2	3 1/2	1 ¹³ / ₁₆	1 3/8	1 3/4

MPX NPT MALE SWIVEL

	PART NUMBER	Hose Bore	T	A	B	HEX 1	HEX 2
		INCH		[in]	[in]		
	1R04-04MPX	1/4	1/4 - 18	2 ¹¹ / ₁₆	1 ²³ / ₃₂	5/8	3/4
	1R06-06MPX	3/8	3/8 - 18	3	1 ¹⁵ / ₁₆	13/16	7/8
	1R08-08MPX	1/2	1/2 - 14	3 ³⁹ / ₆₄	2 ³ / ₈	1	1 1/16
	1R12-12MPX	3/4	3/4 - 14	3 ²⁷ / ₃₂	2 ³ / ₈	1 1/4	1 3/8
	1R16-16MPX	1	1 - 11 1/2	4 ¹⁵ / ₃₂	2 ²⁵ / ₃₂	1 1/2	1 3/4

1R-Series Couplings For Use With Hoses:

SAE 100R1AT





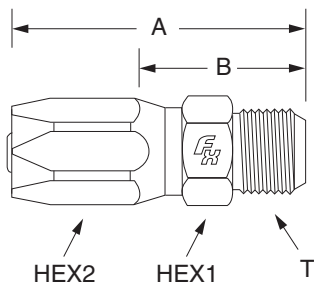
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1R Series

MJ



JIC 37° MALE

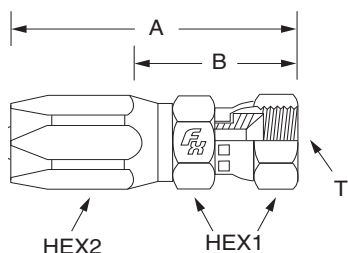
PART NUMBER	Hose Bore	T	A	B	HEX 1	HEX 2
	INCH		[in]	[in]		
1R04-04MJ	1/4	7/16 - 20	2 ⁹ / ₆₄	1 ¹¹ / ₆₄	9/16	3/4
1R04-05MJ	1/4	1/2 - 20	2 ⁹ / ₆₄	1 ¹¹ / ₆₄	9/16	3/4
1R04-06MJ	1/4	9/16 - 18	2 ⁵ / ₃₂	1 ³ / ₁₆	9/16	3/4
1R06-06MJ	3/8	9/16 - 18	2 ¹⁹ / ₆₄	1 ¹⁵ / ₆₄	1 ¹ / ₁₆	7/8
1R06-08MJ	3/8	3/4 - 16	2 ²⁷ / ₆₄	1 ²³ / ₆₄	7/8	7/8
1R08-08MJ	1/2	3/4 - 16	2 ⁴¹ / ₆₄	1 ¹³ / ₃₂	7/8	1 ¹ / ₁₆
1R08-10MJ	1/2	7/8 - 14	2 ⁴⁹ / ₆₄	1 ¹⁷ / ₃₂	7/8	1 ¹ / ₁₆
1R12-12MJ	3/4	1 ¹ / ₁₆ - 12	3 ⁷ / ₆₄	1 ⁴¹ / ₆₄	1 ¹ / ₈	1 ³ / ₈
1R16-16MJ	1	1 ⁵ / ₁₆ - 12	3 ²⁹ / ₆₄	1 ⁴⁹ / ₆₄	1 ³ / ₈	1 ³ / ₄



FJ

JIC 37° FEMALE SWIVEL

PART NUMBER	Hose Bore	T	A	B	HEX 1	HEX 2
	INCH		[in]	[in]		
1R04-04FJ	1/4	7/16 - 20	2 ³ / ₁₆	1 ⁷ / ₃₂	9/16	3/4
1R04-05FJ	1/4	1/2 - 20	2 ¹³ / ₆₄	1 ¹⁵ / ₁₆	5/8	3/4
1R04-06FJ	1/4	9/16 - 18	2 ¹⁹ / ₆₄	1 ²¹ / ₆₄	1 ¹ / ₁₆	3/4
1R06-06FJ	3/8	9/16 - 18	2 ²⁹ / ₆₄	1 ²⁵ / ₆₄	1 ¹ / ₁₆	7/8
1R06-08FJ	3/8	3/4 - 16	2 ⁹ / ₁₆	1 ¹ / ₂	7/8	7/8
1R08-08FJ	1/2	3/4 - 16	2 ¹³ / ₁₆	1 ³⁷ / ₆₄	7/8	1 ¹ / ₁₆
1R08-10FJ	1/2	7/8 - 14	2 ⁵⁹ / ₆₄	1 ¹¹ / ₁₆	1	1 ¹ / ₁₆
1R12-12FJ	3/4	1 ¹ / ₁₆ - 12	3 ¹⁵ / ₆₄	1 ⁴⁹ / ₆₄	1 ¹ / ₄	1 ³ / ₈
1R16-16FJ	1	1 ⁵ / ₁₆ - 12	3 ²¹ / ₃₂	1 ³¹ / ₃₂	1 ¹ / ₂	1 ³ / ₄

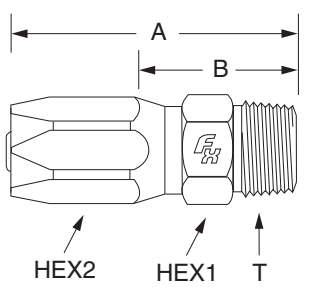




1R-Series Couplings For Use With Hoses:

SAE 100R1AT

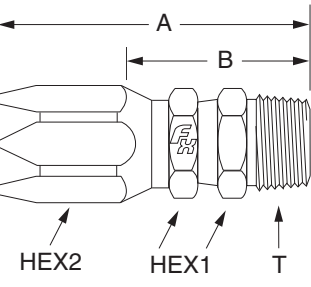
2R Series



MP NPT MALE



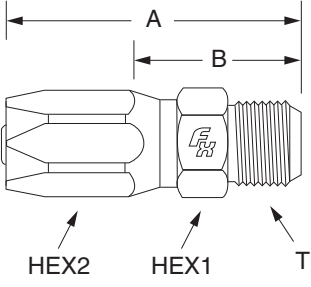
PART NUMBER	Hose Bore	T	A	B	HEX 1	HEX 2
	INCH		[in]	[in]		
2R04-02MP	1/4	1/8 - 27	2 1/32	1 1/8	9/16	13/16
2R04-04MP	1/4	1/4 - 18	2 9/16	1 11/32	9/16	13/16
2R06-04MP	3/8	1/4 - 18	2 25/32	1 5/16	11/16	1
2R06-06MP	3/8	3/8 - 18	2 25/32	1 5/16	11/16	1
2R08-06MP	1/2	3/8 - 18	2 15/16	1 3/8	7/8	1 1/8
2R08-08MP	1/2	1/2 - 14	3 1/8	1 9/16	7/8	1 1/8
2R12-12MP	3/4	3/4 - 14	3 21/32	1 3/4	1 1/16	1 1/2
2R16-16MP	1	1 - 11 1/2	4 11/32	2 9/32	1 3/8	1 3/4
2R20-20MP	1 1/4	1 1/4 - 11 1/2	4 15/16	2 19/32	1 3/4	2 1/4
2R24-24MP	1 1/2	1 1/2 - 11 1/2	5	2 11/16	2	2 1/2
2R32-32MP	2	2 - 11 1/2	5 11/32	2 27/32	2 1/2	3



MPX NPT MALE SWIVEL



PART NUMBER	Hose Bore	T	A	B	HEX 1	HEX 2
	INCH		[in]	[in]		
2R04-04MPX	1/4	1/4 - 18	3 1/32	1 61/64	5/8	13/16
2R06-06MPX	3/8	3/8 - 18	3 7/16	1 63/64	13/16	1
2R08-08MPX	1/2	1/2 - 14	3 3/4	2 15/64	1	1 1/8
2R12-12MPX	3/4	3/4 - 14	4 15/32	2 19/32	1 1/4	1 1/2
2R16-16MPX	1	1 - 11 1/2	5 1/4	3 13/64	1 1/2	1 3/4

MJ JIC 37° MALE



PART NUMBER	Hose Bore	T	A	B	HEX 1	HEX 2
	INCH		[in]	[in]		
2R04-04MJ	1/4	7/16 - 20	2 17/32	1 19/64	9/16	13/16
2R04-05MJ	1/4	1/2 - 20	2 17/32	1 19/64	9/16	13/16
2R04-06MJ	1/4	9/16 - 18	2 35/64	1 5/16	9/16	13/16
2R06-06MJ	3/8	9/16 - 18	2 3/4	1 9/32	11/16	1
2R06-08MJ	3/8	3/4 - 16	2 57/64	1 7/16	7/8	1
2R08-08MJ	1/2	3/4 - 16	3 1/32	1 15/32	7/8	1 1/8
2R08-10MJ	1/2	7/8 - 14	3 9/64	1 19/32	7/8	1 1/8
2R12-12MJ	3/4	1 1/16 - 12	3 25/32	1 7/8	1 1/8	1 1/2
2R16-16MJ	1	1 5/16 - 12	4 11/32	2 9/32	1 3/8	1 3/4
2R20-20MJ	1 1/4	1 5/8 - 12	4 7/8	2 9/16	1 3/4	2 1/4
2R20-24MJ	1 1/4	1 7/8 - 12	4 7/8	2 9/16	2	2 1/4
2R24-24MJ	1 1/2	1 7/8 - 12	5 1/8	2 13/16	2	2 1/2
2R32-32MJ	2	2 1/2 - 12	5 21/32	3 5/32	2 5/8	3

2R-Series Couplings For Use With Hoses:

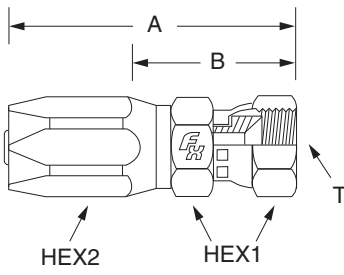
SAE 100R2AT



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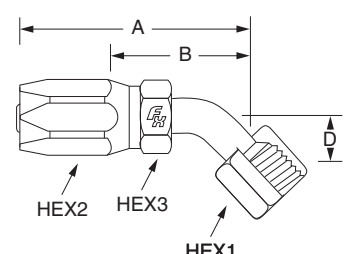
2R Series

FJ JIC 37° FEMALE SWIVEL



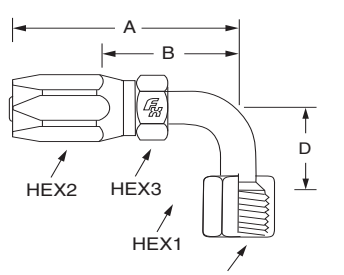
PART NUMBER	Hose Bore	T	A	B	HEX 1	HEX 2
	INCH		[in]	[in]		
2R04-04FJ	1/4	7/16 - 20	2 5/8	1 3/8	9/16	13/16
2R04-05FJ	1/4	1/2 - 20	2 43/64	1 27/64	5/8	13/16
2R06-04FJ	3/8	9/16 - 18	2 35/64	1 35/64	1 1/16	13/16
2R06-06FJ	3/8	9/16 - 18	2 61/64	1 1/2	1 1/16	1
2R08-06FJ	1/2	3/4 - 16	3 3/32	1 5/8	7/8	1
2R08-08FJ	1/2	3/4 - 16	3 15/64	1 43/64	7/8	1 1/8
2R10-08FJ	5/8	7/8 - 14	3 21/64	1 49/64	1	1 1/8
2R12-12FJ	3/4	1 1/16 - 12	3 57/64	2	1 1/4	1 1/2
2R12-14FJ	3/4	1 5/16 - 12	3 31/32	2 5/64	1 3/8	1 1/2
2R16-16FJ	1	1 5/8 - 12	4 29/64	2 7/16	1 1/2	1 3/4
2R20-20FJ	1 1/4	1 7/8 - 12	5 5/64	2 25/32	2"	2 1/4
2R24-24FJ	1 1/2	1 7/8 - 12	5 7/32	2 31/32	2 1/4	2 1/2
2R32-32FJ	2	2 1/2 - 12	5 29/32	3 7/16	2 7/8	3

FJ45 JIC 37° FEMALE SWIVEL - 45° ELBOW



PART NUMBER	Hose Bore	T	A	B	D	HEX 1	HEX 2	HEX 3
	INCH		[in]	[in]	[in]			
2R04-04FJ45	1/4	7/16 - 20	1 27/32	1 7/64	2 1/64	9/16	5/8	9/16
2R06-06FJ45	3/8	9/16 - 18	2 15/64	1 21/64	2 5/64	1 1/16	13/16	9/16
2R08-08FJ45	1/2	3/4 - 16	2 63/64	1 27/32	3 5/64	7/8	1 5/16	1 1/16
2R10-10FJ45	5/8	7/8 - 14	3 15/64	1 61/64	5/8	1	1 1/8	7/8
2R12-12FJ45	3/4	1 1/16 - 12	3 25/32	2 7/32	4 9/64	1 1/4	1 1/4	1 1/8
2R16-16FJ45	1	1 5/16 - 12	3 9/16	2 15/64	5 7/64	1 1/2	1 7/16	1 3/8

FJ90 JIC 37° FEMALE SWIVEL - 90° ELBOW STANDARD DROP



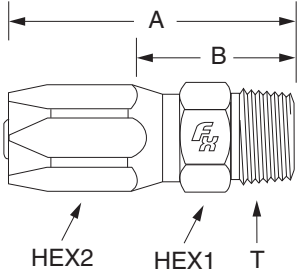
PART NUMBER	Hose Bore	T	A	B	D	HEX 1	HEX 2	HEX 3
	INCH		[in]	[in]	[in]			
2R04-04FJ90	1/4	7/16 - 20	1 3/4	1	1 1/16	9/16	5/8	9/16
2R06-06FJ90	3/8	9/16 - 18	2 1/8	1 15/64	2 7/32	1 1/16	13/16	1 1/16
2R08-08FJ90	1/2	3/4 - 16	2 3/4	1 39/64	1 3/32	7/8	1 5/16	7/8
2R10-10FJ90	5/8	7/8 - 14	2 15/16	1 21/32	1 15/64	1	1 1/8	1 1/16
2R12-12FJ90	3/4	1 1/16 - 12	3 3/4	2 11/64	1 13/16	1 1/4	1 1/4	1 1/4
2R16-16FJ90	1	1 5/16 - 12	3 35/64	2 9/32	2 9/64	1 1/2	1 7/16	1 1/2



2R-Series Couplings For Use With Hoses:

SAE 100R2AT

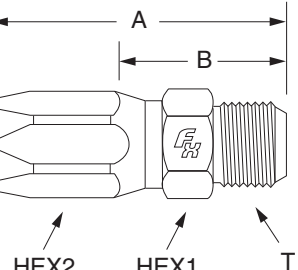
5R Series



MP NPT MALE



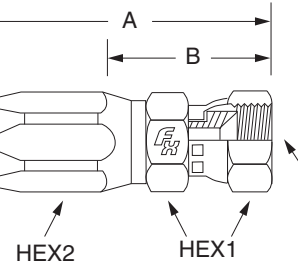
PART NUMBER	Hose Bore	T	A	B	HEX 1	HEX 2
	INCH		[in]	[in]		
5R04-02MP	3/16	1/8 - 27	1 ⁴³ / ₆₄	59/64	9/16	5/8
5R04-04MP	3/16	1/4 - 18	1 ⁵⁵ / ₆₄	17/64	9/16	5/8
5R05-04MP	1/4	1/4 - 18	1 ³¹ / ₃₂	13/16	9/16	11/16
5R06-04MP	5/16	1/4 - 18	2 ¹¹ / ₆₄	1 ¹⁵ / ₆₄	9/16	13/16
5R06-06MP	5/16	3/8 - 18	2 ¹³ / ₆₄	1 ¹⁷ / ₆₄	11/16	13/16
5R08-06MP	13/32	3/8 - 18	2 ³¹ / ₆₄	1 ²¹ / ₆₄	11/16	15/16
5R08-08MP	13/32	1/2 - 14	2 ²³ / ₃₂	1 ⁹ / ₁₆	7/8	15/16
5R10-08MP	1/2	1/2 - 14	2 ⁵⁵ / ₆₄	1 ¹⁹ / ₃₂	7/8	1 1/8
5R10-12MP	1/2	3/4 - 14	2 ²⁹ / ₃₂	1 ²¹ / ₃₂	1 1/16	1 1/8
5R12-12MP	5/8	3/4 - 14	3 ¹³ / ₆₄	1 ⁴³ / ₆₄	1 1/16	1 1/4
5R16-16MP	1	1 - 11 1/2	2 ⁶³ / ₆₄	1 ²³ / ₃₂	1 3/8	1 7/16
5R20-20MP	1 1/4	1 1/4 - 11 1/2	3 3/16	1 ⁵³ / ₆₄	1 3/4	1 3/4
5R24-24MP	1 1/2	1 1/2 - 11 1/2	3 ²³ / ₆₄	1 ⁵⁹ / ₆₄	2	2
5R32-32MP	2	2 - 11 1/2	3 ²⁹ / ₃₂	2 1/16	2 1/2	2 1/2



MJ JIC 37° MALE



PART NUMBER	Hose Bore	T	A	B	HEX 1	HEX 2
	INCH		[in]	[in]		
5R04-04MJ	3/16	7/16 - 20	1 ²⁷ / ₃₂	13/32	1/2	5/8
5R05-05MJ	1/4	1/2 - 20	1 ⁶¹ / ₆₄	1 ¹¹ / ₆₄	9/16	11/16
5R06-06MJ	5/16	9/16 - 18	2 1/8	1 ⁷ / ₃₂	5/8	13/16
5R08-08MJ	13/32	3/4 - 16	2 ⁹ / ₁₆	1 ⁵ / ₁₆	13/16	15/16
5R10-10MJ	1/2	7/8 - 14	2 ⁵⁷ / ₆₄	1 1/2	15/16	1 1/8
5R12-12MJ	5/8	1 1/16 - 12	3 ¹ / ₃₂	1 ²⁵ / ₃₂	1 1/8	1 1/4
5R16-16MJ	7/8	1 5/16 - 12	2 ¹⁵ / ₁₆	1 ¹¹ / ₁₆	1 3/8	1 7/16
5R20-20MJ	1 1/8	1 5/8 - 12	3 1/8	1 ⁴⁹ / ₆₄	1 3/4	1 3/4
5R24-24MJ	1 3/8	1 7/8 - 12	3 ²⁷ / ₆₄	1 ³¹ / ₃₂	2	2

FJ JIC 37° FEMALE SWIVEL



PART NUMBER	Hose Bore	T	A	B	HEX 1	HEX 2
	INCH		[in]	[in]		
5R04-04FJ	3/16	7/16 - 20	1 ¹⁵ / ₁₆	13/16	9/16	5/8
5R05-05FJ	1/4	1/2 - 20	2 ⁵ / ₆₄	1 ¹⁹ / ₆₄	5/8	11/16
5R06-06FJ	5/16	9/16 - 18	2 ⁵ / ₁₆	1 ¹³ / ₃₂	11/16	13/16
5R08-08FJ	13/32	3/4 - 16	2 ²⁷ / ₃₂	1 ³⁷ / ₆₄	7/8	15/16
5R10-10FJ	1/2	7/8 - 14	3 1/16	1 ⁴³ / ₆₄	1	1 1/8
5R12-12FJ	5/8	1 1/16 - 12	3 1/2	1 ⁵⁹ / ₆₄	1 1/4	1 1/4
5R16-16FJ	7/8	1 5/16 - 12	3 3/16	1 ⁵⁹ / ₆₄	1 1/2	1 7/16
5R20-20FJ	1 1/8	1 5/8 - 12	3 3/8	2 1/32	2	1 3/4
5R24-24FJ	1 3/8	1 7/8 - 12	3 ²¹ / ₃₂	2 ¹⁵ / ₆₄	2 1/4	2
5R32-32FJ	1 13/16	2 1/2 - 12	4 ⁷ / ₁₆	2 ³⁷ / ₆₄	2 7/8	2 1/2

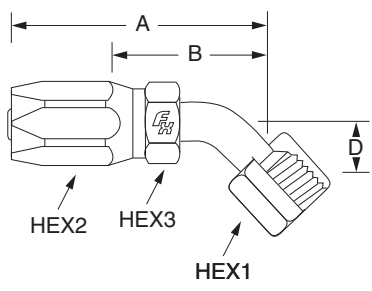
5R-Series Couplings For Use With Hoses:

FH, FX



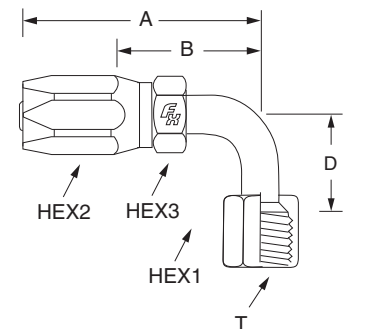
5R Series

FJ45 JIC 37° FEMALE SWIVEL - 45° ELBOW



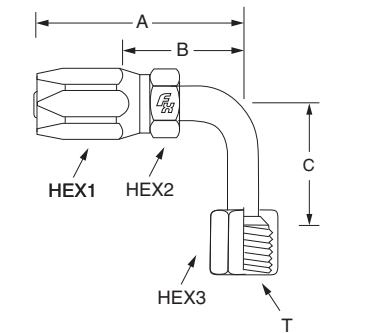
PART NUMBER	Hose Bore	T	A	B	D	HEX 1	HEX 2	HEX 3
	INCH		[in]	[in]	[in]			
5R04-04FJ45	3/16	7/16 - 20	1 ²⁷ / ₃₂	1 ⁷ / ₆₄	2 ¹ / ₆₄	9/16	5/8	9/16
5R05-05FJ45	1/4	1/2 - 20	1 ¹ / ₁₆	1 ⁹ / ₃₂	2 ³ / ₆₄	5/8	1 ¹ / ₁₆	9/16
5R06-06FJ45	5/16	9/16 - 18	2 ¹⁵ / ₆₄	1 ²¹ / ₆₄	2 ⁵ / ₆₄	1 ¹ / ₁₆	1 ³ / ₁₆	9/16
5R08-08FJ45	13/32	3/4 - 16	2 ⁶³ / ₆₄	1 ²⁷ / ₃₂	3 ⁵ / ₆₄	7/8	1 ⁵ / ₁₆	1 ¹ / ₁₆
5R10-10FJ45	1/2	7/8 - 14	3 ¹⁵ / ₆₄	1 ⁶ / ₆₄	5/8	1	1 ¹ / ₈	7/8
5R12-12FJ45	5/8	1 ¹ / ₁₆ - 12	3 ²⁵ / ₃₂	2 ⁷ / ₃₂	4 ⁹ / ₆₄	1 ¹ / ₄	1 ¹ / ₄	1 ¹ / ₈
5R16-16FJ45	7/8	1 ⁵ / ₁₆ - 12	3 ⁹ / ₁₆	2 ¹⁵ / ₆₄	5 ⁷ / ₆₄	1 ¹ / ₂	1 ⁷ / ₁₆	1 ³ / ₈

FJ90 JIC 37° FEMALE SWIVEL - 90° ELBOW STANDARD DROP



PART NUMBER	Hose Bore	T	A	B	D	HEX 1	HEX 2	HEX 3
	INCH		[in]	[in]	[in]			
5R04-04FJ90	3/16	7/16 - 20	1 ³ / ₄	1	1 ¹ / ₁₆	9/16	5/8	9/16
5R05-05FJ90	1/4	1/2 - 20	1 ³¹ / ₃₂	1 ³ / ₁₆	4 ⁹ / ₆₄	5/8	1 ¹ / ₁₆	9/16
5R06-06FJ90	5/16	9/16 - 18	2 ¹ / ₈	1 ¹⁵ / ₆₄	2 ⁷ / ₃₂	1 ¹ / ₁₆	1 ³ / ₁₆	1 ¹ / ₁₆
5R08-08FJ90	13/32	3/4 - 16	2 ³ / ₄	1 ³⁹ / ₆₄	1 ³ / ₃₂	7/8	1 ⁵ / ₁₆	7/8
5R10-10FJ90	1/2	7/8 - 14	2 ¹⁵ / ₁₆	1 ²¹ / ₃₂	1 ¹⁵ / ₆₄	1	1 ¹ / ₈	1 ¹ / ₁₆
5R12-12FJ90	5/8	1 ¹ / ₁₆ - 12	3 ³ / ₄	2 ¹¹ / ₆₄	1 ¹³ / ₁₆	1 ¹ / ₄	1 ¹ / ₄	1 ¹ / ₄
5R16-16FJ90	7/8	1 ⁵ / ₁₆ - 12	3 ³⁵ / ₆₄	2 ⁹ / ₃₂	2 ⁹ / ₆₄	1 ¹ / ₂	1 ⁷ / ₁₆	1 ¹ / ₂

FJ90L JIC 37° FEMALE SWIVEL - 90° ELBOW LONG DROP



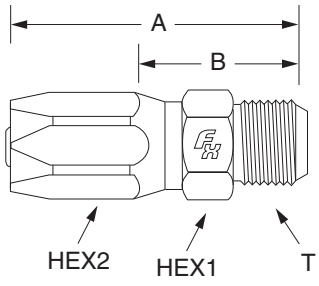


PART NUMBER	Hose Bore	T	A	B	C	HEX 1	HEX 2	HEX 3
	INCH		[in]	[in]	[in]			
5R04-04FJ90L	3/16	7/16 - 20	1 ³ / ₄	1	1 ⁵¹ / ₆₄	9/16	5/8	9/16
5R05-05FJ90L	1/4	1/2 - 20	1 ³¹ / ₃₂	1 ³ / ₁₆	1 ²⁵ / ₃₂	5/8	1 ¹ / ₁₆	9/16
5R06-06FJ90L	5/16	9/16 - 18	2 ¹ / ₈	1 ¹⁵ / ₆₄	2 ³ / ₁₆	1 ¹ / ₁₆	1 ³ / ₁₆	1 ¹ / ₁₆
5R08-08FJ90L	13/32	3/4 - 16	2 ³ / ₄	1 ³⁹ / ₆₄	2 ⁷ / ₁₆	7/8	1 ⁵ / ₁₆	7/8
5R10-10FJ90L	1/2	7/8 - 14	2 ¹⁵ / ₁₆	1 ²¹ / ₃₂	2 ⁹ / ₁₆	1	1 ¹ / ₈	1 ¹ / ₁₆
5R12-12FJ90L	5/8	1 ¹ / ₁₆ - 12	3 ³ / ₄	2 ¹¹ / ₆₄	3 ⁴⁷ / ₆₄	1 ¹ / ₄	1 ¹ / ₄	1 ¹ / ₄
5R16-16FJ90L	7/8	1 ⁵ / ₁₆ - 12	3 ³⁵ / ₆₄	2 ⁹ / ₃₂	4 ²¹ / ₆₄	1 ¹ / ₂	1 ⁷ / ₁₆	1 ¹ / ₂

5R-Series Couplings For Use With Hoses:

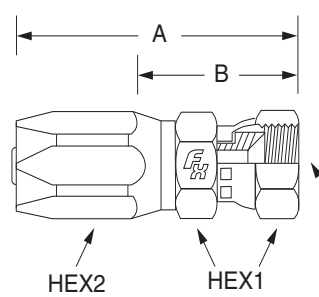


FH, FX

5R Series

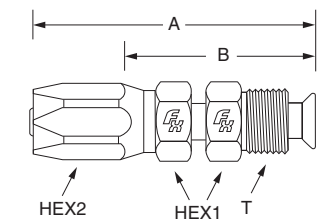


MA SAE 45° MALE

	PART NUMBER	Hose Bore	T	A	B	HEX 1	HEX 2
		INCH		[in]	[in]		
	5R04-04MA	3/16	7/16 - 20	1 ⁵¹ / ₆₄	1 ¹ / ₃₂	1/2	5/8
	5R05-05MA	1/4	1/2 - 20	1 ³¹ / ₃₂	1 ³ / ₁₆	9/16	1 ¹ / ₁₆
	5R06-06MA	5/16	9/16 - 18	2 ³ / ₁₆	1 ⁹ / ₃₂	1 ¹ / ₁₆	1 ³ / ₁₆
	5R08-08MA	13/32	3/4 - 16	2 ²¹ / ₃₂	1 ¹³ / ₃₂	1 ³ / ₁₆	1 ⁵ / ₁₆
	5R10-10MA	1/2	7/8 - 14	3	1 ¹⁹ / ₃₂	1 ⁵ / ₁₆	1 ¹ / ₈
	5R12-12MA	5/8	1 ¹ / ₁₆ - 14	3 ¹ / ₂	1 ¹⁵ / ₁₆	1 ¹ / ₈	1 ¹ / ₄

FA SAE 45° FEMALE SWIVEL

	PART NUMBER	Hose Bore	T	A	B	HEX 1	HEX 2
		INCH		[in]	[in]		
	5R04-04FA	3/16	7/16 - 20	1 ¹⁵ / ₁₆	1 ³ / ₁₆	9/16	5/8
	5R05-05FA	1/4	1/2 - 20	2 ⁵ / ₆₄	1 ¹⁹ / ₆₄	5/8	1 ¹ / ₁₆
	5R06-06FA	5/16	9/16 - 18	2 ¹¹ / ₃	1 ⁷ / ₁₆	3/4	1 ³ / ₁₆
	5R08-08FA	13/32	3/4 - 16	2 ²⁷ / ₃₂	1 ³⁷ / ₆₄	7/8	1 ⁵ / ₁₆
	5R10-10FA	1/2	7/8 - 14	3 ¹ / ₁₆	1 ⁴³ / ₆₄	1	1 ¹ / ₈
	5R12-12FA	5/8	1 ¹ / ₁₆ - 14	3 ¹ / ₂	1 ⁵⁹ / ₆₄	1 ¹ / ₄	1 ¹ / ₄

MIX SAE INVERTED FLARE MALE SWIVEL

	PART NUMBER	Hose Bore	T	A	B	HEX 1	HEX 2
		INCH		[in]	[in]		
	5R04-04MIX	3/16	7/16 - 24	2 ¹⁵ / ₃₂	1 ²³ / ₃₂	3/8	5/8
	5R05-05MIX	1/4	1/2 - 20	2 ⁵ / ₈	1 ²⁷ / ₃₂	7/16	1 ¹ / ₁₆
	5R06-06MIX	5/16	9/16 - 18	2 ²³ / ₃₂	1 ¹³ / ₁₆	1/2	1 ³ / ₁₆
	5R08-08MIX	13/32	3/4 - 18	3 ¹ / ₈	1 ⁶³ / ₆₄	5/8	1 ⁵ / ₁₆

5R-Series Couplings For Use With Hoses:


FH, FX



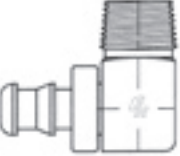
www.flextral.com

J Series


MP NPT MALE

	PART NUMBER	Hose Bore	T				
		INCH					
	J04-02MP	1/4	1/8 - 27				
	J04-04MP	1/4	1/4 - 18				
	J05-02MP	5/16	1/8 - 27				
	J05-04MP	5/16	1/4 - 18				
	J06-02MP	3/8	1/8 - 27				
	J06-04MP	3/8	1/4 - 18				
	J06-06MP	3/8	3/8 - 18				
	J08-06MP	1/2	3/8 - 18				
	J08-08MP	1/2	1/2 - 14				
	J10-08MP	5/8	1/2 - 14				
	J12-12MP	3/4	3/4 - 14				

MP90 NPT MALE - 90° ELBOW

	PART NUMBER	Hose Bore	T				
		INCH					
	J05-02MP90	5/16	1/8 - 27				
	J05-04MP90	5/16	1/4 - 18				
	J06-02MP90	3/8	1/8 - 27				
	J06-04MP90	3/8	1/4 - 18				

FPXT NPT FEMALE SWIVEL


	PART NUMBER	Hose Bore	T				
		INCH					
	J04-04FPXT	1/4	1/4 - 18				
	J06-06FPXT	3/8	3/8 - 18				
	J08-08FPXT	1/2	1/2 - 14				

J-Series Couplings For Use With Push-On Hose:


J3

J Series


FJ JIC 37° FEMALE SWIVEL

	PART NUMBER	Hose Bore	T			
		INCH				
	J04-04FJ	1/4	7/16 - 20			
	J04-05FJ	1/4	1/2 - 20			
	J05-05FJ	5/16	1/2 - 20			
	J06-05FJ	3/8	1/2 - 20			
	J06-06FJ	3/8	9/16 - 18			
	J08-08FJ	1/2	3/4 - 16			
	J10-10FJ	5/8	7/8 - 14			
	J12-10FJ	3/4	7/8 - 14			
J12-12FJ	3/4	1 1/16 - 12				

MA SAE 45° MALE

	PART NUMBER	Hose Bore	T			
		INCH				
	J04-04MA	1/4	7/16 - 20			
	J04-05MA	1/4	1/2 - 20			
	J05-05MA	5/16	1/2 - 20			
J06-06MA	3/8	5/8 - 18				

FA SAE 45° MALE

	PART NUMBER	Hose Bore	T			
		INCH				
	J06-06FA	3/8	5/8 - 18			
J12-12FA	3/4	1 1/16 - 14				


J-Series Couplings For Use With Push-On Hose:



J Series


MIX

SAE INVERTED FLARE MALE SWIVEL

	PART NUMBER	Hose Bore	T			
		INCH				
	J04-03MIX	1/4	3/8 - 24			
	J04-04MIX	1/4	7/16 - 24			
	J04-05MIX	1/4	1/2 - 20			
	J05-04MIX	5/16	7/16 - 24			
	J05-05MIX	5/16	1/2 - 20			
	J05-06MIX	5/16	5/8 - 18			
	J06-05MIX	3/8	1/2 - 20			
J06-06MIX	3/8	5/8 - 18				
J08-08MIX	1/2	3/4 - 18				

FIX

SAE INVERTED FLARE FEMALE RIDGID

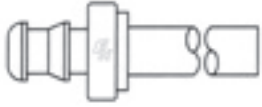
	PART NUMBER	Hose Bore	T			
		INCH				
	J04-03FIX	1/4	3/8 - 24			
	J04-04FIX	1/4	7/16 - 24			
	J04-05FIX	1/4	1/2 - 20			
	J05-05FIX	5/16	1/2 - 20			
	J06-05FIX	3/8	1/2 - 20			
	J06-06FIX	3/8	5/8 - 18			
	J08-08FIX	1/2	3/4 - 18			

J-Series Couplings For Use With Push-On Hose:


J3

J Series

SP STANDPIPE STRAIGHT

	PART NUMBER	Hose Bore	TUBE O.D.		
		INCH			
	J04-03SP	1/4	3/16		
	J04-04SP	1/4	1/4		
	J04-05SP	1/4	5/16		
	J05-05SP	5/16	5/16		
J06-06SP	3/8	3/8			

HM HOSE MENDER

	PART NUMBER	Hose Bore			
		INCH			
	J04-04HM	1/4			
	J05-05HM	5/16			
	J06-06HM	3/8			
	J08-08HM	1/2			

J-Series Couplings For Use With Push-On Hose:

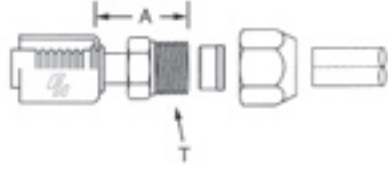
J3



Z Series

MRNS

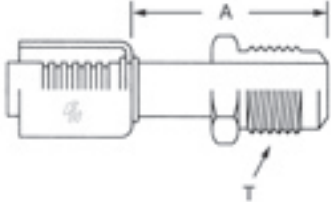
SAE FLARELESS MALE ASSEMBLY



PART NUMBER	Hose Bore	T	TUBE O.D.		A	
	INCH		[mm]	[in]	[mm]	[in]
Z06-06MRNS	5/16	5/8 - 18	9.53	.375	30	1.17
Z08-08MRNS	13/32	3/4 - 16	12.70	.500	35	1.36
Z08-10MRNS	13/32	7/8 - 14	15.88	.625	38	1.48
Z10-08MRNS	1/2	3/4 - 16	12.70	.500	38	1.48
Z10-10MRNS	1/2	7/8 - 14	15.88	.625	38	1.48
Z12-10MRNS	5/8	7/8 - 14	15.88	.625	43	1.71
Z12-12MRNS	5/8	1 1/16 - 14	19.05	.750	46	1.83

MA

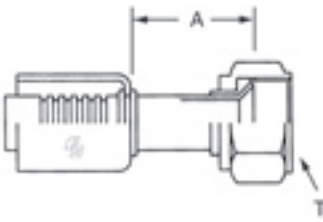
SAE 45° MALE



PART NUMBER	Hose Bore	T	A	
	INCH		[mm]	[in]
Z06-06MA	5/16	5/8 - 18	48	1.89
Z08-08MA	13/32	3/4 - 16	51	2.01
Z10-10MA	1/2	7/8 - 14	59	2.32
Z12-12MA	5/8	1 1/16 - 14	64	2.52

FA

SAE 45° FEMALE SWIVEL



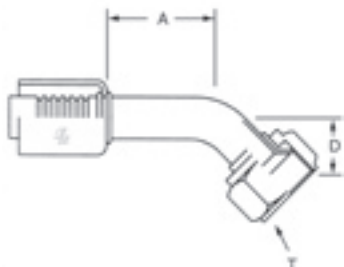
PART NUMBER	Hose Bore	T	A	
	INCH		[mm]	[in]
Z06-06FA	5/16	5/8 - 18	35	1.38
Z06-08FA	5/16	3/4 - 16	30	1.18
Z08-08FA	13/32	3/4 - 16	30	1.18
Z10-10FA	1/2	7/8 - 14	38	1.50
Z12-10FA	5/8	7/8 - 14	44	1.73
Z12-12FA	5/8	1 1/16 - 14	44	1.73

Z-Series Couplings For Use With Air Conditioning Hose:

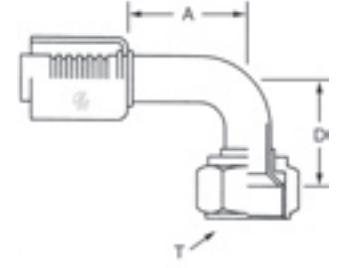
ZX

Z Series

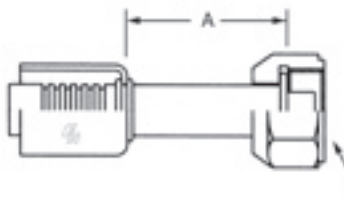
FA45 SAE 45° FEMALE SWIVEL - 45° ELBOW

	PART NUMBER	Hose Bore	T	A		D	
		INCH		[mm]	[in]	[mm]	[in]
	Z06-06FA45	5/16	5/8 - 18	21	.83	14	.55
Z08-08FA45	13/32	3/4 - 16	24	.94	16	.63	
Z10-10FA45	1/2	7/8 - 14	32	1.26	22	.87	
Z12-10FA45	5/8	7/8 - 14	38	1.50	25	.98	
Z12-12FA45	5/8	1 1/16 - 14	38	1.50	25	.98	

FA90 SAE 45° FEMALE SWIVEL - 90° ELBOW

	PART NUMBER	Hose Bore	T	A		D	
		INCH		[mm]	[in]	[mm]	[in]
	Z06-06FA90	5/16	5/8 - 18	27	1.06	27	1.06
Z08-08FA90	13/32	3/4 - 16	32	1.26	32	1.26	
Z10-10FA90	1/2	7/8 - 14	38	1.50	38	1.50	
Z12-10FA90	5/8	7/8 - 14	44	1.73	38	1.50	
Z12-12FA90	5/8	1 1/16 - 14	44	1.73	38	1.50	

BTF BUMPED TUBE O-RING FEMALE SWIVEL

	PART NUMBER	Hose Bore	T	A			
		INCH		[mm]	[in]		
	Z06-06BTF	5/16	5/8 - 18	35	1.38		
Z06-08BTF	5/16	3/4 - 16	38	1.50			
Z08-08BTF	13/32	3/4 - 16	38	1.50			
Z10-08BTF	1/2	7/8 - 14	43	1.69			
Z10-10BTF	1/2	1 1/16 - 14	43	1.69			
Z12-10BTF	5/8	7/8 - 14	46	1.81			
Z12-12BTF	5/8	1 1/16 - 14	46	1.81			

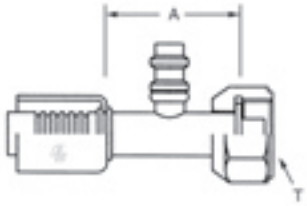
Z-Series Couplings For Use With Air Conditioning Hose:

ZX

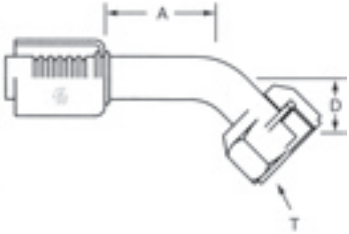


Z Series

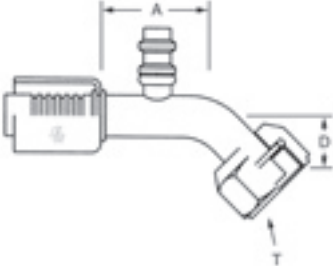
BTF-P BUMPED TUBE O-RING FEMALE SWIVEL (R134a SERVICE PORT)

	PART NUMBER	Hose Bore	T	A			
		INCH		[mm]	[in]		
	Z06-06BTF-P	5/16	5/8 - 18	48	1.89		
	Z08-08BTF-P	13/32	3/4 - 16	48	1.89		
	Z10-10BTF-P	1/2	7/8 - 14	54	2.13		
	Z12-12BTF-P	5/8	1 1/16 - 14	57	2.24		

BTF45 BUMPED TUBE O-RING FEMALE SWIVEL - 45° ELBOW

	PART NUMBER	Hose Bore	T	A		D	
		INCH		[mm]	[in]	[mm]	[in]
	Z06-06BTF45	5/16	5/8 - 18	21	.83	14	.55
	Z08-08BTF45	13/32	3/4 - 16	24	.94	16	.63
	Z10-10BTF45	1/2	7/8 - 14	32	1.26	22	.87
	Z12-10BTF45	5/8	7/8 - 14	38	1.50	24	.94
	Z12-12BTF45	5/8	1 1/16 - 14	38	1.50	24	.94

BTF45-P BUMPED TUBE O-RING FEMALE SWIVEL - 45° ELBOW (R134a SERVICE PORT)

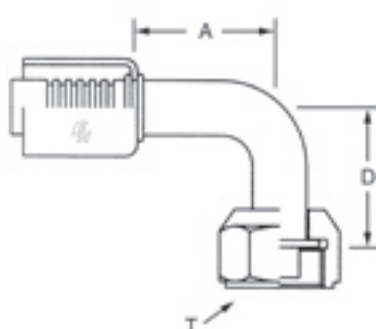
	PART NUMBER	Hose Bore	T	A		D	
		INCH		[mm]	[in]	[mm]	[in]
	Z06-06BTF45-P	5/16	5/8 - 18	41	1.61	14	.55
	Z08-08BTF45-P	13/32	3/4 - 16	41	1.61	16	.63
	Z10-10BTF45-P	1/2	7/8 - 14	44	1.73	22	.87
	Z12-10BTF45-P	5/8	7/8 - 14	48	1.89	24	.94
	Z12-12BTF45-P	5/8	1 1/16 - 14	48	1.89	24	.94

Z-Series Couplings For Use With Air Conditioning Hose:

ZX

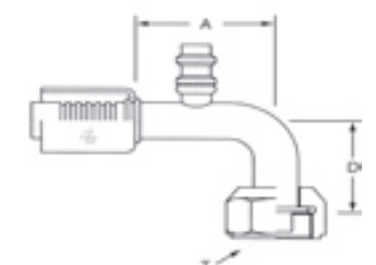
Z Series

BTF90 BUMPED TUBE O-RING FEMALE SWIVEL - 90° ELBOW



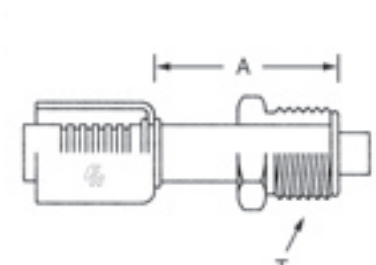
PART NUMBER	Hose Bore	T	A		D	
	INCH		[mm]	[in]	[mm]	[in]
Z06-06BTF90	5/16	5/8 - 18	27	1.06	28	1.10
Z06-08BTF90	5/16	3/4 - 16	32	1.26	33	1.30
Z08-06BTF90	13/32	5/8 - 18	32	1.26	33	1.30
Z08-08BTF90	13/32	3/4 - 16	32	1.26	33	1.30
Z10-10BTF90	1/2	7/8 - 14	38	1.50	38	1.50
Z12-10BTF90	5/8	7/8 - 14	45	1.77	45	1.77
Z12-12BTF90	5/8	1 1/16 - 14	45	1.77	45	1.77

BTF90-P BUMPED TUBE O-RING FEMALE SWIVEL - 90° ELBOW (R134a SERVICE PORT)



PART NUMBER	Hose Bore	T	A		D	
	INCH		[mm]	[in]	[mm]	[in]
Z06-06BTF90-P	5/16	5/8 - 18	54	2.13	28	1.10
Z08-08BTF90-P	13/32	3/4 - 16	54	2.13	33	1.30
Z10-10BTF90-P	1/2	7/8 - 14	60	2.36	38	1.50
Z12-10BTF90-P	5/8	7/8 - 14	68	2.68	44	1.73
Z12-12BTF90-P	5/8	1 1/16 - 14	68	2.68	44	1.73

BTM BUMPED TUBE O-RING MALE SWIVEL



PART NUMBER	Hose Bore	T	A			
	INCH		[mm]	[in]		
Z06-06BTM	5/16	5/8 - 18	43	1.69		
Z08-08BTM	13/32	3/4 - 18	45	1.77		
Z10-10BTM	1/2	7/8 - 18	48	1.89		
Z10-12BTM	1/2	1 1/16 - 16	60	2.36		
Z12-10BTM	5/8	7/8 - 18	60	2.36		
Z12-12BTM	5/8	1 1/16 - 16	60	2.36		

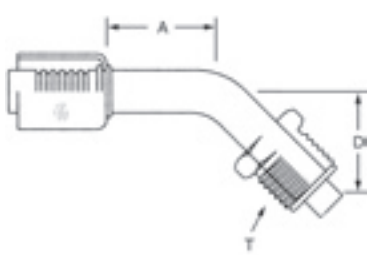
Z-Series Couplings For Use With Air Conditioning Hose:

ZX



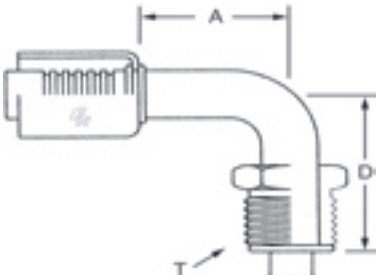
Z Series

BTM45 BUMPED TUBE O-RING MALE SWIVEL - 45° ELBOW



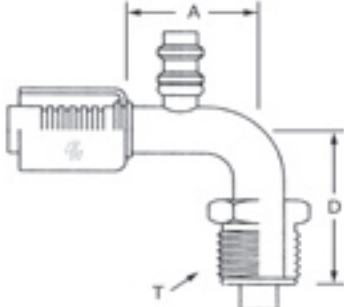
PART NUMBER	Hose Bore	T	A		D	
	INCH		[mm]	[in]	[mm]	[in]
Z06-06BTM45	5/16	5/8 - 18	21	.83	22	.87
Z08-08BTM45	13/32	3/4 - 18	24	.95	25	.98
Z10-10BTM45	5/8	7/8 - 18	32	1.26	27	1.06
Z12-12BTM45	5/8	1 1/16 - 16	38	1.50	30	1.18

BTM90 BUMPED TUBE O-RING MALE SWIVEL - 90° ELBOW



PART NUMBER	Hose Bore	T	A		D	
	INCH		[mm]	[in]	[mm]	[in]
Z06-06BTM90	5/16	5/8 - 18	27	1.06	41	1.61
Z08-08BTM90	13/32	3/4 - 18	32	1.26	48	1.89
Z10-10BTM90	1/2	7/8 - 18	38	1.50	54	2.13
Z12-10BTM90	5/8	7/8 - 18	45	1.77	57	2.24
Z12-12BTM90	5/8	1 1/16 - 16	45	1.77	57	2.24

BTM90-P BUMPED TUBE O-RING MALE SWIVEL - 90° ELBOW (R134a SERVICE PORT)



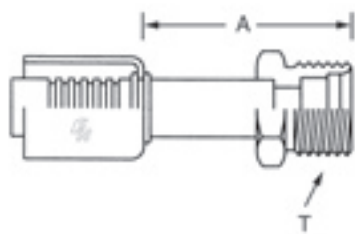
PART NUMBER	Hose Bore	T	A		D	
	INCH		[mm]	[in]	[mm]	[in]
Z06-06BTM90-P	5/16	5/8 - 18	54	2.13	41	1.16
Z08-08BTM90-P	5/16	3/4 - 18	54	2.13	48	1.89
Z10-10BTM90-P	13/32	7/8 - 18	60	2.36	54	2.13
Z12-12BTM90-P	13/32	1 1/16 - 16	68	2.68	55	2.17

Z-Series Couplings For Use With Air Conditioning Hose:

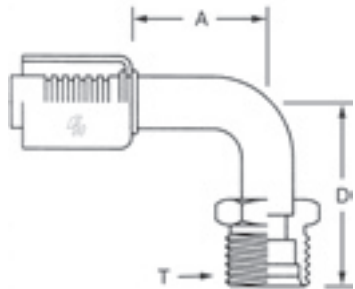
ZX

Z Series

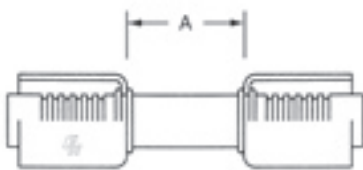
IOM INSERT O-RING MALE

	PART NUMBER	Hose Bore	T	A			
		INCH		[mm]	[in]		
	Z06-06IOM	5/16	5/8 - 18	37	1.46		
	Z08-08IOM	13/32	3/4 - 16	41	1.61		
	Z10-10IOM	1/2	7/8 - 14	54	2.13		
	Z12-10IOM	5/8	7/8 - 14	43	1.69		
Z12-12IOM	5/8	1 1/16 - 14	60	2.36			

IOM90 INSERT O-RING MALE - 90° ELBOW

	PART NUMBER	Hose Bore	T	A		D	
		INCH		[mm]	[in]	[mm]	[in]
	Z06-06IOM90	5/16	5/8 - 18	27	1.06	38	1.50
	Z08-08IOM90	13/32	3/4 - 16	32	1.26	44	1.73
	Z10-10IOM90	1/2	7/8 - 14	38	1.50	51	2.00
	Z12-12IOM90	5/8	1 1/16 - 14	60	2.36	64	2.52

HS HOSE SPLICER

	PART NUMBER	Hose Bore	Hose Bore	A			
		INCH	INCH	[mm]	[in]		
	Z06-06HS	5/16	5/16	38	1.50		
	Z06-08HS	5/16	13/32	38	1.50		
	Z08-08HS	13/32	13/32	38	1.50		
	Z08-10HS	13/32	1/2	41	1.61		
	Z10-10HS	1/2	1/2	41	1.61		
	Z12-12HS	5/8	5/8	44	1.73		

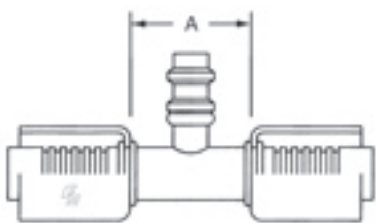
Z-Series Couplings For Use With Air Conditioning Hose:

ZX




Z Series

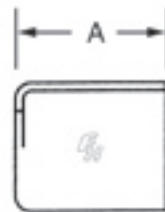
HS-P HOSE SPLICER (R134a SERVICE PORT)

	PART NUMBER	Hose Bore	Hose Bore	A			
		INCH	INCH	[mm]	[in]		
	Z06-06HS-P	5/16	5/16	38	1.50		
Z08-08HS-P	13/32	13/32	38	1.50			
Z10-10HS-P	1/2	1/2	41	1.61			
Z12-12HS-P	5/8	5/8	44	1.73			


BS BRAZE SOCKET

	PART NUMBER	Hose Bore	T	A			
		INCH		[mm]	[in]		
	Z06-06BS	5/16	3/8	15	.59		
Z08-08BS	13/32	1/2	15	.59			
Z10-10BS	1/2	5/8	15	.59			
Z12-12BS	5/8	3/4	15	.59			

ACF AIR CONDITIONING FERRULE

	PART NUMBER	Hose Bore	T	A			
		INCH		[mm]	[in]		
	Z06ACF	5/16		36	1.42		
Z08ACF	13/32		36	1.42			
Z10ACF	1/2		36	1.42			
Z12ACF	5/8		36	1.42			

ACO AIR CONDITIONING O-RINGS

	PART NUMBER	TUBE O.D.	I.D.		WIDTH	
			[mm]	[in]	[mm]	[in]
	Z06ACO		3/8	7.65	.30	1.78
Z08ACO		1/2	10.82	.43	1.78	
Z10ACO		5/8	14.00	.55	1.78	
Z12ACO		3/4	17.17	.68	1.78	

Z-Series Couplings For Use With Air Conditioning Hose:

ZX

ADAPTERS

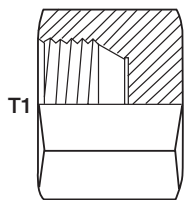


Tube and Pipe

0304C

JIC CAP

SAE# 070112

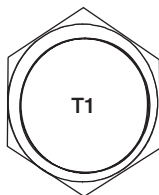


PART NUMBER	T1		
0304C-02	5/16 - 24		
0304C-03	3/8 - 24		
0304C-04	7/16 - 20		
0304C-05	1/2 - 20		
0304C-06	9/16 - 18		
0304C-08	3/4 - 16		
0304C-10	7/8 - 14		
0304C-12	1 1/16 - 12		
0304C-14	1 3/16 - 12		
0304C-16	1 5/16 - 12		
0304C-20	1 5/8 - 12		
0304C-24	1 7/8 - 12		
0304C-32	2 1/2 - 12		

0306

JIC BULKHEAD LOCKNUT

SAE# 51860

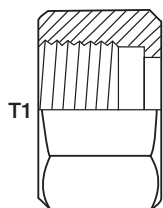


PART NUMBER	T1		
0306-04	7/16 - 20		
0306-05	1/2 - 20		
0306-06	9/16 - 18		
0306-08	3/4 - 16		
0306-10	7/8 - 14		
0306-12	1 1/16 - 12		
0306-16	1 5/16 - 12		
0306-20	1 5/8 - 12		
0306-24	1 7/8 - 12		
0306-32	2 1/2 - 12		

0318

JIC TUBE NUT

SAE# 070110



PART NUMBER	T1	TUBE OD	
0318-04	7/16 - 20	1/4	
0318-05	1/2 - 20	5/16	
0318-06	9/16 - 18	3/8	
0318-08	3/4 - 16	1/2	
0318-10	7/8 - 14	5/8	
0318-12	1 1/16 - 12	3/4	
0318-14	1 3/16 - 12	3/4	
0318-16	1 5/16 - 12	7/8	
0318-20	1 5/8 - 12	1	
0318-24	1 7/8 - 12	1 1/2	
0318-32	2 1/2 - 12	2	

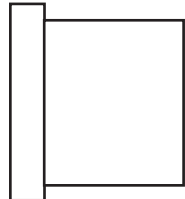


Tube and Pipe

0319

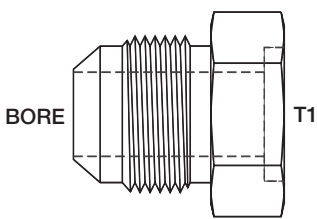
JIC TUBE SLEEVE 3 PIECE

SAE# 070115

	PART NUMBER	TUBE OD		
	0319-04	1/4		
	0319-05	5/16		
	0319-06	3/8		
	0319-08	1/2		
	0319-10	5/8		
	0319-12	3/4		
	0319-14	7/8		
	0319-16	1		
	0319-20	1 1/4		
	0319-24	1 1/2		
	0319-32	2		

0403

BORE / M-JIC BRAZE ON (UNPLATED)

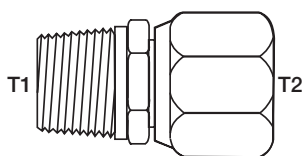
	PART NUMBER	BORE	T1	
	0403-0404	1/4	7/16 - 20	
	0403-0505	5/16	1/2 - 20	
	0403-0606	3/8	9/16 - 18	
	0403-0808	1/2	3/4 - 16	
	0403-1010	5/8	7/8 - 14	
	0403-1212	3/4	1 1/16 - 12	
	0403-1414	7/8	1 3/16 - 12	
	0403-1616	1	1 5/16 - 12	
	0403-2020	1 1/4	1 5/8 - 12	
	0403-2424	1 1/2	1 7/8 - 12	
	0403-3232	2	2 1/2 - 12	

Tube and Pipe

1404

M-NPT / F-NPSM

SAE# 140130

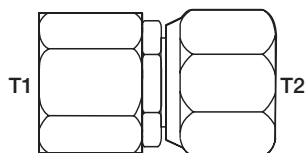


PART NUMBER	T1	T2	
1404-0202	1/8 - 27	1/8 - 27	
1404-0204	1/8 - 27	1/4 - 18	
1404-0402	1/4 - 18	1/8 - 27	
1404-0404	1/4 - 18	1/4 - 18	
1404-0406	1/4 - 18	3/8 - 18	
1404-0604	3/8 - 18	1/4 - 18	
1404-0606	3/8 - 18	3/8 - 18	
1404-0608	3/8 - 18	1/2 - 14	
1404-0804	1/2 - 14	1/4 - 18	
1404-0806	1/2 - 14	3/8 - 18	
1404-0808	1/2 - 14	1/2 - 14	
1404-0812	1/2 - 14	3/4 - 14	
1404-1208	3/4 - 14	1/2 - 14	
1404-1212	3/4 - 14	3/4 - 14	
1404-1216	3/4 - 14	1 - 11 1/2	
1404-1612	1 - 11 1/2	3/4 - 14	
1404-1616	1 - 11 1/2	1 - 11 1/2	
1404-1620	1 - 11 1/2	1 1/4 - 11 1/2	
1404-2020	1 1/4 - 11 1/2	1 1/4 - 11 1/2	
1404-2024	1 1/4 - 11 1/2	1 1/2 - 11 1/2	
1404-2420	1 1/2 - 11 1/2	1 1/4 - 11 1/2	
1404-2424	1 1/2 - 11 1/2	1 1/2 - 11 1/2	
1404-3232	2 - 11 1/2	2 - 11 1/2	

1405

F-NPT / F-NPSM

SAE# 140131



PART NUMBER	T1	T2	
1405-0202	1/8 - 27	1/8 - 27	
1405-0204	1/8 - 27	1/4 - 18	
1405-0404	1/4 - 18	1/4 - 18	
1405-0406	1/4 - 18	3/8 - 18	
1405-0604	3/8 - 18	1/4 - 18	
1405-0606	3/8 - 18	3/8 - 18	
1405-0608	3/8 - 18	1/2 - 14	
1405-0806	1/2 - 14	3/8 - 18	
1405-0808	1/2 - 14	1/2 - 14	
1405-1208	3/4 - 14	1/2 - 14	
1405-1212	3/4 - 14	3/4 - 14	
1405-1612	1 - 11 1/2	3/4 - 14	
1405-1616	1 - 11 1/2	1 - 11 1/2	
1405-2020	1 1/4 - 11 1/2	1 1/4 - 11 1/2	
1405-2424	1 1/2 - 11 1/2	1 1/2 - 11 1/2	
1405-3232	2 - 11 1/2	2 - 11 1/2	

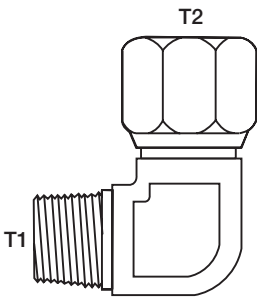


Tube and Pipe

1501

90° M-NPT / F-NPSM

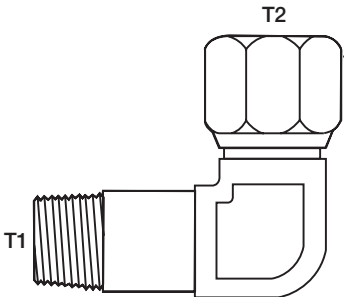
SAE# 140230



PART NUMBER	T1	T2	
1501-0202	1/8 - 27	1/8 - 27	
1501-0404	1/4 - 18	1/4 - 18	
1501-0406	1/4 - 18	3/8 - 18	
1501-0604	3/8 - 18	1/4 - 18	
1501-0606	3/8 - 18	3/8 - 18	
1501-0608	3/8 - 18	1/2 - 14	
1501-0804	1/2 - 14	1/4 - 18	
1501-0806	1/2 - 14	3/8 - 18	
1501-0808	1/2 - 14	1/2 - 14	
1501-0812	1/2 - 14	3/4 - 14	
1501-1206	3/4 - 14	3/8 - 18	
1501-1208	3/4 - 14	1/2 - 14	
1501-1212	3/4 - 14	3/4 - 14	
1501-1216	3/4 - 14	1 - 11 1/2	
1501-1612	1 - 11 1/2	3/4 - 14	
1501-1616	1 - 11 1/2	1 - 11 1/2	
1501-2016	1 1/4 - 11 1/2	1 - 11 1/2	
1501-2020	1 1/4 - 11 1/2	1 1/4 - 11 1/2	
1501-2420	1 1/2 - 11 1/2	1 1/4 - 11 1/2	
1501-2424	1 1/2 - 11 1/2	1 1/2 - 11 1/2	
1501-3232	2 - 11 1/2	2 - 11 1/2	

1501L

90° M-NPT / F-NPSM LONG



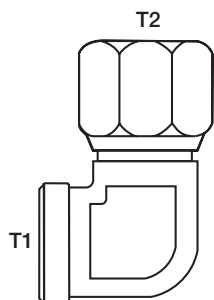
PART NUMBER	T1	T2	
1501-L-0202	1/8 - 27	1/8 - 27	
1501-L-0404	1/4 - 18	1/4 - 18	
1501-L-0606	3/8 - 18	3/8 - 18	
1501-L-0808	1/2 - 14	1/2 - 14	
1501-L-1212	3/4 - 14	3/4 - 14	
1501-L-1616	1 - 11 1/2	1 - 11 1/2	

Tube and Pipe

1502

90° F-NPT / F-NPSM

SAE# 140231

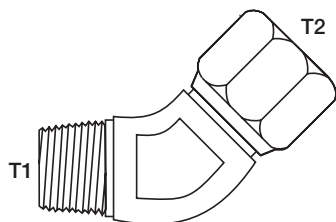


PART NUMBER	T1	T2	
1502-0202	1/8 - 27	1/8 - 27	
1502-0402	1/4 - 18	1/8 - 27	
1502-0404	1/4 - 18	1/4 - 18	
1502-0604	3/8 - 18	1/4 - 18	
1502-0606	3/8 - 18	3/8 - 18	
1502-0608	3/8 - 18	1/2 - 14	
1502-0806	1/2 - 14	3/8 - 18	
1502-0808	1/2 - 14	1/2 - 14	
1502-0812	1/2 - 14	3/4 - 14	
1502-1208	3/4 - 14	1/2 - 14	
1502-1212	3/4 - 14	3/4 - 14	
1502-1612	1 - 11 1/2	3/4 - 14	
1502-1616	1 - 11 1/2	1 - 11 1/2	
1502-2020	1 1/4 - 11 1/2	1 1/4 - 11 1/2	
1502-2424	1 1/2 - 11 1/2	1 1/2 - 11 1/2	
1502-3232	2 - 11 1/2	2 - 11 1/2	

1503

45° M-NPT / F-NPSM

SAE# 140330



PART NUMBER	T1	T2	
1503-0202	1/8 - 27	1/8 - 27	
1503-0204	1/8 - 27	1/4 - 18	
1503-0404	1/4 - 18	1/4 - 18	
1503-0604	3/8 - 18	1/4 - 18	
1503-0606	3/8 - 18	3/8 - 18	
1503-0608	3/8 - 18	1/2 - 14	
1503-0806	1/2 - 14	3/8 - 18	
1503-0808	1/2 - 14	1/2 - 14	
1503-1212	3/4 - 14	3/4 - 14	
1503-1612	1 - 11 1/2	3/4 - 14	
1503-1616	1 - 11 1/2	1 - 11 1/2	
1503-2016	1 1/4 - 11 1/2	1 - 11 1/2	
1503-2020	1 1/4 - 11 1/2	1 1/4 - 11 1/2	
1503-2424	1 1/2 - 11 1/2	1 1/2 - 11 1/2	
1503-3232	2 - 11 1/2	2 - 11 1/2	

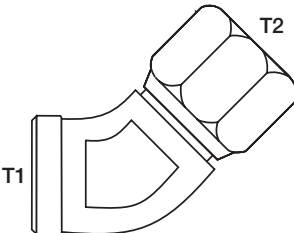


Tube and Pipe

1504

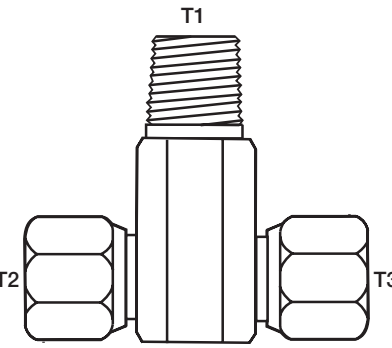
45° F-NPT / F-NPSM

SAE# 140331

	PART NUMBER	T1	T2	
	1504-0404	1/4 - 18	1/4 - 18	
	1504-0604	3/8 - 18	1/4 - 18	
	1504-0606	3/8 - 18	3/8 - 18	
	1504-0806	1/2 - 14	3/8 - 18	
	1504-0808	1/2 - 14	1/2 - 14	
	1504-1212	3/4 - 14	3/4 - 14	
	1504-1616	1 - 11 1/2	1 - 11 1/2	
	1504-2020	1 1/4 - 11 1/2	1 1/4 - 11 1/2	
	1504-2424	1 1/2 - 11 1/2	1 1/2 - 11 1/2	

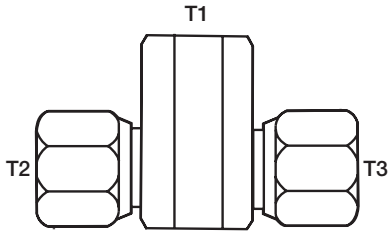
1601

BRANCH TEE F-NPSM / F-NPSM / M-NPT

	PART NUMBER	T1	T2	T3
	1601-020202	1/8 - 27	1/8 - 27	1/8 - 27
	1601-040404	1/4 - 18	1/4 - 18	1/4 - 18
	1601-060404	3/8 - 18	1/4 - 18	1/4 - 18
	1601-060606	3/8 - 18	3/8 - 18	3/8 - 18
	1601-080404	1/2 - 14	1/4 - 18	1/4 - 18
	1601-080606	1/2 - 14	3/8 - 18	3/8 - 18
	1601-080808	1/2 - 14	1/2 - 14	1/2 - 14
	1601-120808	3/4 - 14	1/2 - 14	1/2 - 14
	1601-121212	3/4 - 14	3/4 - 14	3/4 - 14
	1601-161212	1 - 11 1/2	3/4 - 14	3/4 - 14
	1601-161616	1 - 11 1/2	1 - 11 1/2	1 - 11 1/2
	1601-202020	1 1/4 - 11 1/2	1 1/4 - 11 1/2	1 1/4 - 11 1/2
	1601-242424	1 1/2 - 11 1/2	1 1/2 - 11 1/2	1 1/2 - 11 1/2

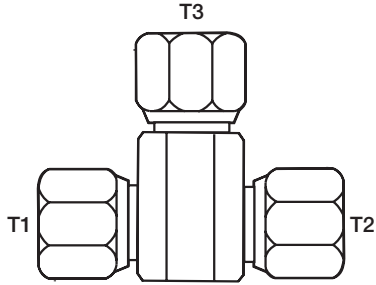
1602

BRANCH TEE F-NPSM / F-NPSM / F-NPT

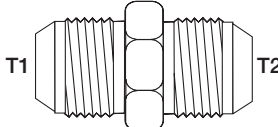
	PART NUMBER	T1	T2	T3
	1602-020202	1/8 - 27	1/8 - 27	1/8 - 27
	1602-040404	1/4 - 18	1/4 - 18	1/4 - 18
	1602-060606	3/8 - 18	3/8 - 18	3/8 - 18
	1602-080606	1/2 - 14	3/8 - 18	3/8 - 18
	1602-080808	1/2 - 14	1/2 - 14	1/2 - 14
	1602-121212	3/4 - 14	3/4 - 14	3/4 - 14
	1602-202020	1 1/4 - 11 1/2	1 1/4 - 11 1/2	1 1/4 - 11 1/2

Tube and Pipe

1603 TEE F-NPSM

	PART NUMBER	T1	T2	T3
	1603-020202	1/8 - 27	1/8 - 27	1/8 - 27
	1603-040404	1/4 - 18	1/4 - 18	1/4 - 18
	1603-060606	3/8 - 18	3/8 - 18	3/8 - 18
	1603-080808	1/2 - 14	1/2 - 14	1/2 - 14
	1603-121212	3/4 - 14	3/4 - 14	3/4 - 14
	1603-161616	1 - 11 1/2	1 - 11 1/2	1 - 11 1/2
	1603-202020	1 1/4 - 11 1/2	1 1/4 - 11 1/2	1 1/4 - 11 1/2

2403 M-JIC / M-JIC

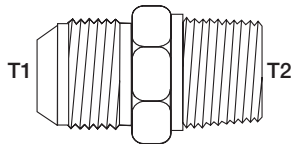
	PART NUMBER	T1	T2	
	2403-0404	7/16 - 20	7/16 - 20	
	2403-0505	1/2 - 20	1/2 - 20	
	2403-0604	9/16 - 18	7/16 - 20	
	2403-0606	9/16 - 18	9/16 - 18	
	2403-0806	3/4 - 16	9/16 - 18	
	2403-0808	3/4 - 16	3/4 - 16	
	2403-1008	7/8 - 14	3/4 - 16	
	2403-1010	7/8 - 14	7/8 - 14	
	2403-1208	1 1/16 - 12	3/4 - 16	
	2403-1210	1 1/16 - 12	7/8 - 14	
	2403-1212	1 1/16 - 12	1 1/16 - 12	
	2403-1612	1 5/16 - 12	1 1/16 - 12	
	2403-1616	1 5/16 - 12	1 5/16 - 12	
	2403-2016	1 5/8 - 12	1 5/16 - 12	
	2403-2020	1 5/8 - 12	1 5/8 - 12	
	2403-2424	1 7/8 - 12	1 7/8 - 12	
	2403-3232	2 1/2 - 12	2 1/2 - 12	

Tube and Pipe

2404

M-JIC / M-NPT

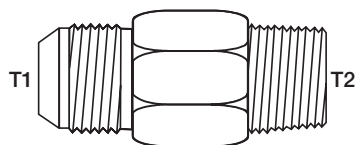
SAE# 070102



PART NUMBER	T1	T2	
2404-0202	5/16 - 24	1/8 - 27	
2404-0402	7/16 - 20	1/8 - 27	
2404-0404	7/16 - 20	1/4 - 18	
2404-0406	7/16 - 20	3/8 - 18	
2404-0408	7/16 - 20	1/2 - 14	
2404-0502	1/2 - 20	1/8 - 27	
2404-0504	1/2 - 20	1/4 - 18	
2404-0506	1/2 - 20	3/8 - 18	
2404-0602	9/16 - 18	1/8 - 27	
2404-0604	9/16 - 18	1/4 - 18	
2404-0606	9/16 - 18	3/8 - 18	
2404-0608	9/16 - 18	1/2 - 14	
2404-0612	9/16 - 18	3/4 - 14	
2404-0804	3/4 - 16	1/4 - 18	
2404-0806	3/4 - 16	3/8 - 18	
2404-0808	3/4 - 16	1/2 - 14	
2404-0812	3/4 - 16	3/4 - 14	
2404-0816	3/4 - 16	1 - 11 1/2	
2404-1006	7/8 - 14	3/8 - 18	
2404-1008	7/8 - 14	1/2 - 14	
2404-1012	7/8 - 14	3/4 - 14	
2404-1206	1 1/16 - 12	3/8 - 18	
2404-1208	1 1/16 - 12	1/2 - 14	
2404-1212	1 1/16 - 12	3/4 - 14	
2404-1216	1 1/16 - 12	1 - 11 1/2	
2404-1220	1 1/16 - 12	1 1/4 - 11 1/2	
2404-1412	1 3/16 - 12	3/4 - 14	
2404-1612	1 5/16 - 12	3/4 - 14	
2404-1616	1 5/16 - 12	1 - 11 1/2	
2404-1620	1 5/16 - 12	1 1/4 - 11 1/2	
2404-2012	1 5/8 - 12	3/4 - 14	
2404-2016	1 5/8 - 12	1 - 11 1/2	
2404-2020	1 5/8 - 12	1 1/4 - 11 1/2	
2404-2024	1 5/8 - 12	1 1/2 - 11 1/2	
2404-2420	1 7/8 - 12	1 1/4 - 11 1/2	
2404-2424	1 7/8 - 12	1 1/2 - 11 1/2	
2404-3224	2 1/2 - 12	1 1/2 - 11 1/2	
2404-3232	2 1/2 - 12	2 - 11 1/2	

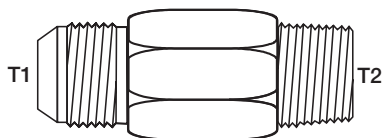
Tube and Pipe

2404-L M-JIC / M-NPT LONG



PART NUMBER	T1	T2	
2404-L-0402	7/16 - 20	1/8 - 27	
2404-L-0404	7/16 - 20	1/4 - 18	
2404-L-0502	1/2 - 20	1/8 - 27	
2404-L-0504	1/2 - 20	1/4 - 18	
2404-L-0602	9/16 - 18	1/8 - 27	
2404-L-0604	9/16 - 18	1/4 - 18	
2404-L-0606	9/16 - 18	3/8 - 18	
2404-L-0608	9/16 - 18	1/2 - 14	
2404-L-0804	3/4 - 16	1/4 - 18	
2404-L-0806	3/4 - 16	3/8 - 18	
2404-L-0808	3/4 - 16	1/2 - 14	
2404-L-1008	7/8 - 14	1/2 - 14	
2404-L-1212	1 1/16 - 12	3/4 - 14	
2404-L-1612	1 5/16 - 12	3/4 - 14	
2404-L-1616	1 5/16 - 12	1 - 11 1/2	
2404-L-2020	1 5/8 - 12	1 1/4 - 11 1/2	
2404-L-2424	1 7/8 - 12	1 1/2 - 11 1/2	
2404-L-3232	2 1/2 - 12	2 - 11 1/2	

2404-LL M-JIC / M-NPT EXTRA LONG



PART NUMBER	T1	T2	
2404-LL-0402	7/16 - 20	1/8 - 27	
2404-LL-0404	7/16 - 20	1/4 - 18	
2404-LL-0502	1/2 - 20	1/8 - 27	
2404-LL-0604	9/16 - 18	1/4 - 18	
2404-LL-0606	9/16 - 18	3/8 - 18	
2404-LL-0806	3/4 - 16	3/8 - 18	
2404-LL-0808	3/4 - 16	1/2 - 14	
2404-LL-1008	7/8 - 14	1/2 - 14	
2404-LL-1212	1 1/16 - 12	3/4 - 14	
2404-LL-1616	1 5/16 - 12	1 - 11 1/2	

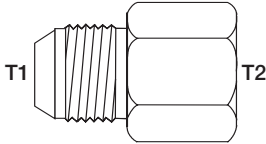


Tube and Pipe

2405

M-JIC / F-NPT

SAE# 070103

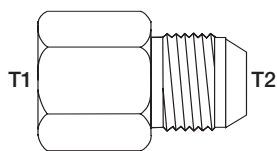


PART NUMBER	T1	T2	
2405-0402	7/16 - 20	1/8 - 27	
2405-0404	7/16 - 20	1/4 - 18	
2405-0406	7/16 - 20	3/8 - 18	
2405-0504	1/2 - 20	1/4 - 18	
2405-0604	9/16 - 18	1/4 - 18	
2405-0606	9/16 - 18	3/8 - 18	
2405-0608	9/16 - 18	1/2 - 14	
2405-0806	3/4 - 16	3/8 - 18	
2405-0808	3/4 - 16	1/2 - 14	
2405-1006	7/8 - 14	3/8 - 18	
2405-1008	7/8 - 14	1/2 - 14	
2405-1208	1 1/16 - 12	1/2 - 14	
2405-1212	1 1/16 - 12	3/4 - 14	
2405-1412	1 3/16 - 12	3/4 - 14	
2405-1612	1 5/16 - 12	3/4 - 14	
2405-1616	1 5/16 - 12	1 - 11 1/2	
2405-2020	1 5/8 - 12	1 1/4 - 11 1/2	
2405-2424	1 7/8 - 12	1 1/2 - 11 1/2	
2405-3232	2 1/2 - 12	2 - 11 1/2	

Tube and Pipe

2406

F-JIC / M-JIC

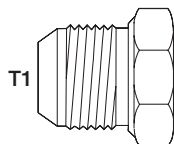


PART NUMBER	T1	T2	
2406-0406	7/16 - 20	9/16 - 18	
2406-0604	9/16 - 18	7/16 - 20	
2406-0608	9/16 - 18	3/4 - 16	
2406-0804	3/4 - 16	7/16 - 20	
2406-0806	3/4 - 16	9/16 - 18	
2406-0810	3/4 - 16	7/8 - 14	
2406-0812	3/4 - 16	1 1/16 - 12	
2406-1004	7/8 - 14	7/16 - 20	
2406-1006	7/8 - 14	9/16 - 18	
2406-1008	7/8 - 14	3/4 - 16	
2406-1012	7/8 - 14	1 1/16 - 12	
2406-1204	1 1/16 - 12	7/16 - 20	
2406-1206	1 1/16 - 12	9/16 - 18	
2406-1208	1 1/16 - 12	3/4 - 16	
2406-1210	1 1/16 - 12	7/8 - 14	
2406-1216	1 1/16 - 12	1 5/16 - 12	
2406-1412	1 3/16 - 12	1 1/16 - 12	
2406-1606	1 5/16 - 12	9/16 - 18	
2406-1608	1 5/16 - 12	3/4 - 16	
2406-1610	1 5/16 - 12	7/8 - 14	
2406-1612	1 5/16 - 12	1 1/16 - 12	
2406-2012	1 5/8 - 12	1 1/16 - 12	
2406-2016	1 5/8 - 12	1 5/16 - 12	
2406-2416	1 7/8 - 12	1 5/16 - 12	
2406-2420	1 7/8 - 12	1 5/8 - 12	
2406-3224	2 1/2 - 12	1 7/8 - 12	

2408

JIC PLUG

SAE# 070109



PART NUMBER	T1		
2408-04	7/16 - 20		
2408-05	1/2 - 20		
2408-06	9/16 - 18		
2408-08	3/4 - 16		
2408-10	7/8 - 14		
2408-12	1 1/16 - 12		
2408-14	1 3/16 - 12		
2408-16	1 5/16 - 12		
2408-20	1 5/8 - 12		
2408-24	1 7/8 - 12		
2408-32	2 1/2 - 12		

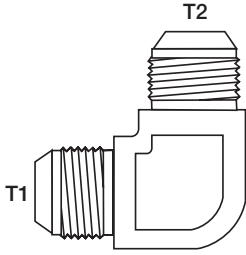


Tube and Pipe

2500

90° M-JIC / M-JIC

SAE# 070201

	PART NUMBER	T1	T2	
		2500-0404	7/16 - 20	7/16 - 20
	2500-0505	1/2 - 20	1/2 - 20	
	2500-0606	9/16 - 18	9/16 - 18	
	2500-0808	3/4 - 16	3/4 - 16	
	2500-1010	7/8 - 14	7/8 - 14	
	2500-1212	1 1/16 - 12	1 1/16 - 12	
	2500-1616	1 5/16 - 12	1 5/16 - 12	
	2500-2020	1 5/8 - 12	1 5/8 - 12	
	2500-2424	1 7/8 - 12	1 7/8 - 12	
	2500-3232	2 1/2 - 12	2 1/2 - 12	

Technical
Data

Hose

Couplings

Adapters
Tube and Pipe

Quick
Couplings

Accessories

Equipment

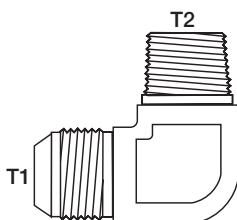
Index

Tube and Pipe

2501

90° M-JIC / M-NPT

SAE# 51504



PART NUMBER	T1	T2	
2501-0402	7/16 - 20	1/8 - 27	
2501-0404	7/16 - 20	1/4 - 18	
2501-0406	7/16 - 20	3/8 - 18	
2501-0408	7/16 - 20	1/2 - 14	
2501-0502	1/2 - 20	1/8 - 27	
2501-0504	1/2 - 20	1/4 - 18	
2501-0506	1/2 - 20	3/8 - 18	
2501-0602	9/16 - 18	1/8 - 27	
2501-0604	9/16 - 18	1/4 - 18	
2501-0606	9/16 - 18	3/8 - 18	
2501-0608	9/16 - 18	1/2 - 14	
2501-0612	9/16 - 18	3/4 - 14	
2501-0804	3/4 - 16	1/4 - 18	
2501-0806	3/4 - 16	3/8 - 18	
2501-0808	3/4 - 16	1/2 - 14	
2501-0812	3/4 - 16	3/4 - 14	
2501-1006	7/8 - 14	3/8 - 18	
2501-1008	7/8 - 14	1/2 - 14	
2501-1012	7/8 - 14	3/4 - 14	
2501-1016	7/8 - 14	1/4 - 18	
2501-1206	1 1/16 - 12	3/8 - 18	
2501-1208	1 1/16 - 12	1/2 - 14	
2501-1212	1 1/16 - 12	3/4 - 14	
2501-1216	1 1/16 - 12	1 - 11 1/2	
2501-1612	1 5/16 - 12	3/4 - 14	
2501-1616	1 5/16 - 12	1 - 11 1/2	
2501-1620	1 5/16 - 12	1 1/4 - 11 1/2	
2501-2016	1 5/8 - 12	1 - 11 1/2	
2501-2020	1 5/8 - 12	1 1/4 - 11 1/2	
2501-2024	1 5/8 - 12	1 1/2 - 11 1/2	
2501-2420	1 7/8 - 12	1 1/4 - 11 1/2	
2501-2424	1 7/8 - 12	1 1/2 - 11 1/2	
2501-3232	2 1/2 - 12	2 - 11 1/2	



Tube and Pipe

2501-L

90° M-JIC / M-NPT LONG

SAE# 071502

	PART NUMBER	T1	T2	
	2501-L-0404	7/16 - 20	1/4 - 18	
	2501-L-0604	9/16 - 18	1/4 - 18	
	2501-L-0606	9/16 - 18	3/8 - 18	
	2501-L-0806	3/4 - 16	3/8 - 18	
	2501-L-0808	3/4 - 16	1/2 - 14	
	2501-L-1008	7/8 - 14	1/2 - 14	
	2501-L-1212	1 1/16 - 12	3/4 - 14	
	2501-L-1616	1 5/16 - 12	1 - 11 1/2	
	2501-L-2020	1 5/8 - 12	1 1/4 - 11 1/2	
2501-L-2424	1 7/8 - 12	1 1/2 - 11 1/2		

2501-LL

90° M-JIC / M-NPT EXTRA LONG

SAE# 071602

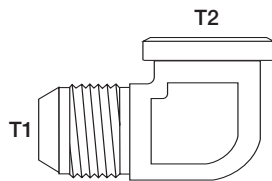
	PART NUMBER	T1	T2	
	2501-LL-0404	7/16 - 20	1/4 - 18	
	2501-LL-0406	7/16 - 20	3/8 - 18	
	2501-LL-0606	9/16 - 18	3/8 - 18	
	2501-LL-0608	9/16 - 18	1/2 - 14	
	2501-LL-0806	3/4 - 16	3/8 - 18	
	2501-LL-0808	3/4 - 16	1/2 - 14	
	2501-LL-1008	7/8 - 14	1/2 - 14	
	2501-LL-1212	1 1/16 - 12	3/4 - 14	
	2501-LL-1616	1 5/16 - 12	1 - 11 1/2	
2501-LL-2020	1 5/8 - 12	1 1/4 - 11 1/2		

Tube and Pipe

2502

90° M-JIC / F-NPT

SAE# 070203

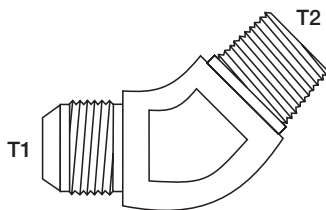


PART NUMBER	T1	T2	
2502-0402	7/16 - 20	1/8 - 27	
2502-0404	7/16 - 20	1/4 - 18	
2502-0406	7/16 - 20	3/8 - 18	
2502-0502	1/2 - 20	1/8 - 27	
2502-0504	1/2 - 20	1/4 - 18	
2502-0604	9/16 - 18	1/4 - 18	
2502-0606	9/16 - 18	3/8 - 18	
2502-0608	9/16 - 18	1/2 - 14	
2502-0806	3/4 - 16	3/8 - 18	
2502-0808	3/4 - 16	1/2 - 14	
2502-1008	7/8 - 14	1/2 - 14	
2502-1212	1 1/16 - 12	3/4 - 14	
2502-1616	1 5/16 - 12	1 - 11 1/2	
2502-2020	1 5/8 - 12	1 1/4 - 11 1/2	
2502-2424	1 7/8 - 12	1 1/2 - 11 1/2	
2502-3232	2 1/2 - 12	2 - 11 1/2	

2503

45° M-JIC / M-NPT

SAE# 070302

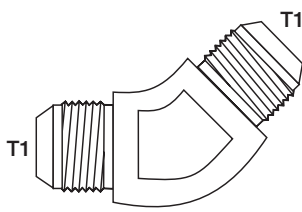


PART NUMBER	T1	T2	
2503-0402	7/16 - 20	1/8 - 27	
2503-0404	7/16 - 20	1/4 - 18	
2503-0502	1/2 - 20	1/8 - 27	
2503-0504	1/2 - 20	1/4 - 18	
2503-0602	9/16 - 18	1/8 - 27	
2503-0604	9/16 - 18	1/4 - 18	
2503-0606	9/16 - 18	3/8 - 18	
2503-0608	9/16 - 18	1/2 - 14	
2503-0804	3/4 - 16	1/4 - 18	
2503-0806	3/4 - 16	3/8 - 18	
2503-0808	3/4 - 16	1/2 - 14	
2503-0812	3/4 - 16	3/4 - 14	
2503-1006	7/8 - 14	3/8 - 18	
2503-1008	7/8 - 14	1/2 - 14	
2503-1012	7/8 - 14	3/4 - 14	
2503-1208	1 1/16 - 12	1/2 - 14	
2503-1212	1 1/16 - 12	3/4 - 14	
2503-1216	1 1/16 - 12	1 - 11 1/2	
2503-1612	1 5/16 - 12	3/4 - 14	
2503-1616	1 5/16 - 12	1 - 11 1/2	
2503-2020	1 5/8 - 12	1 1/4 - 11 1/2	
2503-2424	1 7/8 - 12	1 1/2 - 11 1/2	
2503-3232	2 1/2 - 12	2 - 11 1/2	



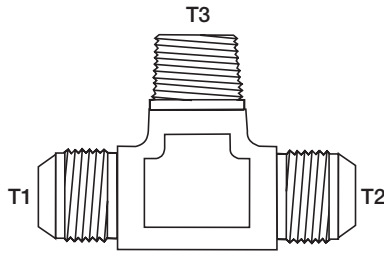
Tube and Pipe

2504 45° M-JIC / M-JIC

	PART NUMBER	T1		
	2504-0404	7/16 - 20		
	2504-0606	9/16 - 18		
	2504-0808	3/4 - 16		
	2504-1010	7/8 - 14		
	2504-1212	1 1/16 - 12		
	2504-1616	1 1/16 - 12		

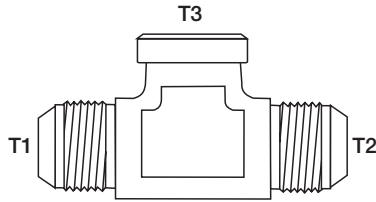
2601 BRANCH TEE M-JIC / M-JIC / M-NPT

SAE# 070425

	PART NUMBER	T1	T2	T3
	2601-040402	7/16 - 20	7/16 - 20	1/8 - 27
	2601-040404	7/16 - 20	7/16 - 20	1/4 - 18
	2601-050504	1/2 - 20	1/2 - 20	1/4 - 18
	2601-060604	9/16 - 18	9/16 - 18	1/4 - 18
	2601-060606	9/16 - 18	9/16 - 18	3/8 - 18
	2601-080806	3/4 - 16	3/4 - 16	3/8 - 18
	2601-080808	3/4 - 16	3/4 - 16	1/2 - 14
	2601-101008	7/8 - 14	7/8 - 14	1/2 - 14
	2601-121212	1 1/16 - 12	1 1/16 - 12	3/4 - 14
	2601-161616	1 5/16 - 12	1 5/16 - 12	1 - 11 1/2
	2601-202020	1 5/8 - 12	1 5/8 - 12	1 1/4 - 11 1/2
	2601-242424	1 7/8 - 12	1 7/8 - 12	1 1/2 - 11 1/2
	2601-323232	2 1/2 - 12	2 1/2 - 12	2 - 11 1/2

2602 BRANCH TEE M-JIC / M-JIC / F-NPT

SAE# 070427

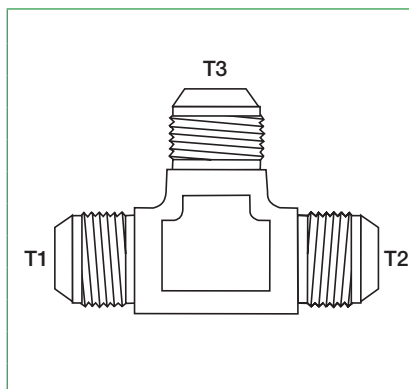
	PART NUMBER	T1	T2	T3
	2602-040402	7/16 - 20	7/16 - 20	1/8 - 27
	2602-040404	7/16 - 20	7/16 - 20	1/4 - 18
	2602-060604	9/16 - 18	9/16 - 18	1/4 - 18
	2602-060606	9/16 - 18	9/16 - 18	3/8 - 18
	2602-080806	3/4 - 16	3/4 - 16	3/8 - 18
	2602-080808	3/4 - 16	3/4 - 16	1/2 - 14
	2602-101008	7/8 - 14	7/8 - 14	1/2 - 14
	2602-121212	1 1/16 - 12	1 1/16 - 12	3/4 - 14
	2602-161616	1 5/16 - 12	1 5/16 - 12	1 - 11 1/2
	2602-202020	1 5/8 - 12	1 5/8 - 12	1 1/4 - 11 1/2
	2602-242424	1 7/8 - 12	1 7/8 - 12	1 1/2 - 11 1/2
	2602-323232	2 1/2 - 12	2 1/2 - 12	2 - 11 1/2

Tube and Pipe

2603

TEE M-JIC

SAE# 070401

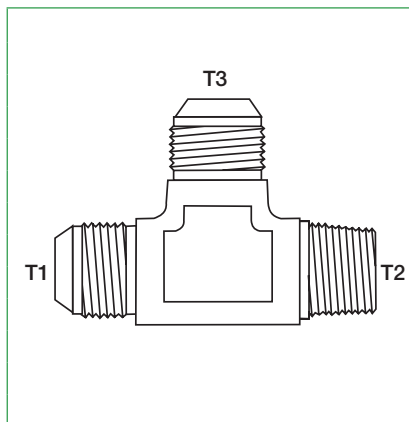


PART NUMBER	T1	T2	T3
2603-030303	3/8 - 24	3/8 - 24	3/8 - 24
2603-040404	7/16 - 20	7/16 - 20	7/16 - 20
2603-060606	9/16 - 18	9/16 - 18	9/16 - 18
2603-080808	3/4 - 16	3/4 - 16	3/4 - 16
2603-080812	3/4 - 16	3/4 - 16	1 1/16 - 12
2603-121212	1 1/16 - 12	1 1/16 - 12	1 1/16 - 12
2603-121216	1 1/16 - 12	1 1/16 - 12	1 5/16 - 12
2603-161616	1 5/16 - 12	1 5/16 - 12	1 5/16 - 12
2603-202020	1 5/8 - 12	1 5/8 - 12	1 5/8 - 12
2603-242424	1 7/8 - 12	1 7/8 - 12	1 7/8 - 12
2603-323232	2 1/2 - 12	2 1/2 - 12	2 1/2 - 12

2605

RUN TEE M-JIC / M-NPT / M-JIC

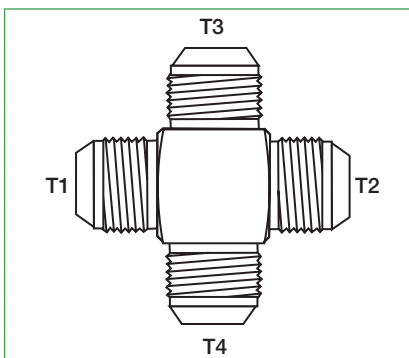
SAE# 070424



PART NUMBER	T1	T2	T3
2605-040204	7/16 - 20	1/8 - 27	7/16 - 20
2605-040404	7/16 - 20	1/4 - 18	7/16 - 20
2605-060406	9/16 - 18	1/4 - 18	9/16 - 18
2605-060606	9/16 - 18	3/8 - 18	9/16 - 18
2605-080608	3/4 - 16	3/8 - 18	3/4 - 16
2605-080808	3/4 - 16	1/2 - 14	3/4 - 16
2605-100810	7/8 - 14	1/2 - 14	7/8 - 14
2605-121212	1 1/16 - 12	3/4 - 14	1 1/16 - 12
2605-161616	1 5/16 - 12	1 - 11 1/2	1 5/16 - 12
2605-202020	1 5/8 - 12	1 1/4 - 11 1/2	1 5/8 - 12
2605-242424	1 7/8 - 12	1 1/2 - 11 1/2	1 7/8 - 12
2605-323232	2 1/2 - 12	2 - 11 1/2	2 1/2 - 12

2650

CROSS M-JIC



PART NUMBER	T1	T2	T3	T4
2650-04040404	7/16 - 2	7/16 - 2	7/16 - 2	7/16 - 2
2650-05050505	1/2 - 20	1/2 - 20	1/2 - 20	1/2 - 20
2650-06060606	9/16 - 18	9/16 - 18	9/16 - 18	9/16 - 18
2650-08080808	3/4 - 16	3/4 - 16	3/4 - 16	3/4 - 16
2650-10101010	7/8 - 14	7/8 - 14	7/8 - 14	7/8 - 14
2650-12121212	1 1/16 - 12	1 1/16 - 12	1 1/16 - 12	1 1/16 - 12
2650-16161616	1 5/16 - 12	1 5/16 - 12	1 5/16 - 12	1 5/16 - 12
2650-20202020	1 5/8 - 12	1 5/8 - 12	1 5/8 - 12	1 5/8 - 12
2650-24242424	1 7/8 - 12	1 7/8 - 12	1 7/8 - 12	1 7/8 - 12

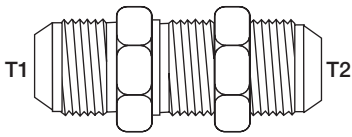


Tube and Pipe

2700LN

M-JIC BULKHEAD

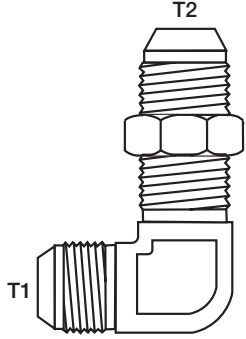
SAE# 070601

	PART NUMBER	T1	T2	
	2700LN-0404	7/16 - 20	7/16 - 20	
	2700LN-0505	1/2 - 20	1/2 - 20	
	2700LN-0606	9/16 - 18	9/16 - 18	
	2700LN-0808	3/4 - 16	3/4 - 16	
	2700LN-1010	7/8 - 14	7/8 - 14	
	2700LN-1212	1 1/16 - 12	1 1/16 - 12	
	2700LN-1616	1 5/16 - 12	1 5/16 - 12	
	2700LN-2020	1 5/8 - 12	1 5/8 - 12	
	2700LN-2424	1 7/8 - 12	1 7/8 - 12	

2701LN

90° M-JIC BULKHEAD

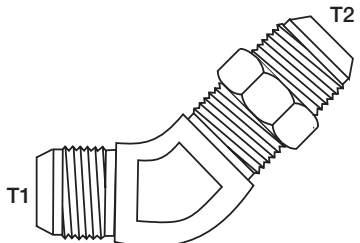
SAE# 070701

	PART NUMBER	T1	T2	
	2701LN-0404	7/16 - 20	7/16 - 20	
	2701LN-0505	1/2 - 20	1/2 - 20	
	2701LN-0606	9/16 - 18	9/16 - 18	
	2701LN-0808	3/4 - 16	3/4 - 16	
	2701LN-1010	7/8 - 14	7/8 - 14	
	2701LN-1212	1 1/16 - 12	1 1/16 - 12	
	2701LN-1616	1 5/16 - 12	1 5/16 - 12	
	2701LN-2020	1 5/8 - 12	1 5/8 - 12	

2702LN

45° M-JIC BULKHEAD

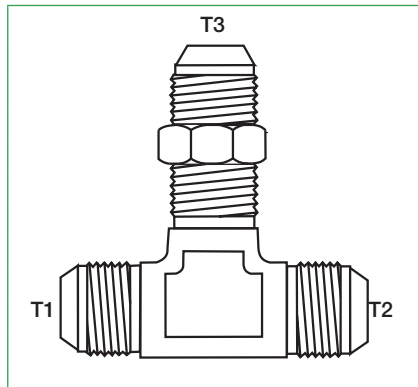
SAE# 070801

	PART NUMBER	T1	T2	
	2702LN-0404	7/16 - 20	7/16 - 20	
	2702LN-0505	1/2 - 20	1/2 - 20	
	2702LN-0606	9/16 - 18	9/16 - 18	
	2702LN-0808	3/4 - 16	3/4 - 16	
	2702LN-1010	7/8 - 14	7/8 - 14	
	2702LN-1212	1 1/16 - 12	1 1/16 - 12	
	2702LN-1616	1 5/16 - 12	1 5/16 - 12	
	2702LN-2020	1 5/8 - 12	1 5/8 - 12	

Tube and Pipe

2703LN BRANCH TEE M-JIC BULKHEAD

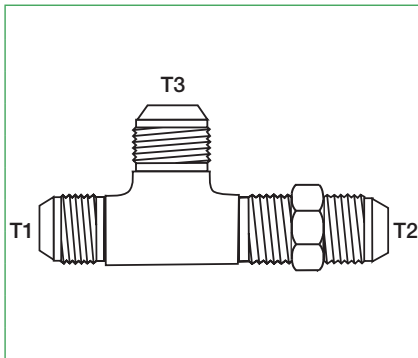
SAE# 070959



PART NUMBER	T1	T2	T3
2703LN-040404	7/16 - 20	7/16 - 20	7/16 - 20
2703LN-060606	9/16 - 18	9/16 - 18	9/16 - 18
2703LN-080808	3/4 - 16	3/4 - 16	3/4 - 16
2703LN-101010	7/8 - 14	7/8 - 14	7/8 - 14
2703LN-121212	1 1/16 - 12	1 1/16 - 12	1 1/16 - 12
2703LN-161616	1 5/16 - 12	1 5/16 - 12	1 5/16 - 12

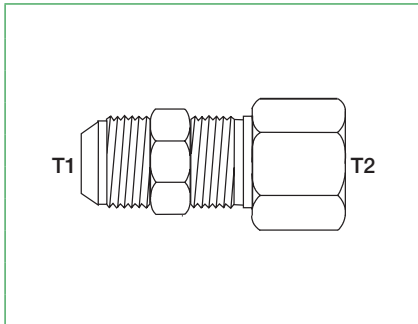
2704LN RUN TEE M-JIC BULKHEAD

SAE# 070958



PART NUMBER	T1	T2	T3
2704LN-030303	3/8 - 24	3/8 - 24	3/8 - 24
2704LN-040404	7/16 - 20	7/16 - 20	7/16 - 20
2704LN-050505	1/2 - 20	1/2 - 20	1/2 - 20
2704LN-060606	9/16 - 18	9/16 - 18	9/16 - 18
2704LN-080808	3/4 - 16	3/4 - 16	3/4 - 16
2704LN-101010	7/8 - 14	7/8 - 14	7/8 - 14
2704LN-121212	1 1/16 - 12	1 1/16 - 12	1 1/16 - 12
2704LN-161616	1 5/16 - 12	1 5/16 - 12	1 5/16 - 12
2704LN-202020	1 5/8 - 12	1 5/8 - 12	1 5/8 - 12
2704LN-242424	1 7/8 - 12	1 7/8 - 12	1 7/8 - 12

2705LN F-NPT / M-JIC BULKHEAD

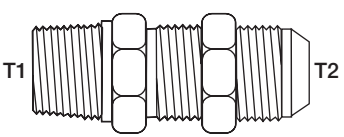


PART NUMBER	T1	T2	
2705LN-0204	1/8 - 27	7/16 - 20	
2705LN-0404	1/4 - 18	7/16 - 20	
2705LN-0406	1/4 - 18	9/16 - 18	
2705LN-0606	3/8 - 18	9/16 - 18	
2705LN-0608	3/8 - 18	3/4 - 16	
2705LN-0808	1/2 - 14	3/4 - 16	
2705LN-0810	1/2 - 14	7/8 - 14	
2705LN-1212	3/4 - 14	1 1/16 - 12	
2705LN-1616	1 - 11 1/2	1 5/16 - 12	



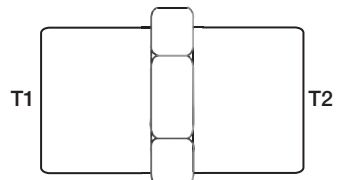
Tube and Pipe

2706LN M-NPT / M-JIC BULKHEAD

	PART NUMBER	T1	T2	
	2706LN-0204	1/8 - 27	7/16 - 20	
	2706LN-0404	1/4 - 18	7/16 - 20	
	2706LN-0406	1/4 - 18	9/16 - 18	
	2706LN-0606	3/8 - 18	9/16 - 18	
	2706LN-0608	3/8 - 18	3/4 - 16	
	2706LN-0808	1/2 - 14	3/4 - 16	
	2706LN-0810	1/2 - 14	7/8 - 14	
	2706LN-1212	3/4 - 14	1 1/16 - 12	
2706LN-1616	1 - 11 1/2	1 5/16 - 12		

5000 F-NPT / F-NPT

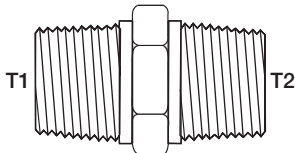
SAE# 140138

	PART NUMBER	T1	T2	
	5000-0202	1/8 - 27	1/8 - 27	
	5000-0402	1/4 - 18	1/8 - 27	
	5000-0404	1/4 - 18	1/4 - 18	
	5000-0604	3/8 - 18	1/4 - 18	
	5000-0606	3/8 - 18	3/8 - 18	
	5000-0804	1/2 - 14	1/4 - 18	
	5000-0806	1/2 - 14	3/8 - 18	
	5000-0808	1/2 - 14	1/2 - 14	
	5000-1208	3/4 - 14	1/2 - 14	
	5000-1212	3/4 - 14	3/4 - 14	
	5000-1612	1 - 11 1/2	3/4 - 14	
	5000-1616	1 - 11 1/2	1 - 11 1/2	
	5000-2020	1 1/4 - 11 1/2	1 1/4 - 11 1/2	
	5000-2424	1 1/2 - 11 1/2	1 1/2 - 11 1/2	
	5000-3232	2 - 11 1/2	2 - 11 1/2	

Tube and Pipe

5404
M-NPT / M-NPT

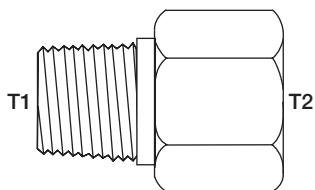
SAE# 140137



PART NUMBER	T1	T2	
5404-0202	1/8 - 27	1/8 - 27	
5404-0402	1/4 - 18	1/8 - 27	
5404-0404	1/4 - 18	1/4 - 18	
5404-0602	3/8 - 18	1/8 - 27	
5404-0604	3/8 - 18	1/4 - 18	
5404-0606	3/8 - 18	3/8 - 18	
5404-0804	1/2 - 14	1/4 - 18	
5404-0806	1/2 - 14	3/8 - 18	
5404-0808	1/2 - 14	1/2 - 14	
5404-1208	3/4 - 14	1/2 - 14	
5404-1212	3/4 - 14	3/4 - 14	
5404-1612	1 - 11 1/2	3/4 - 14	
5404-1616	1 - 11 1/2	1 - 11 1/2	
5404-2016	1 1/4 - 11 1/2	1 - 11 1/2	
5404-2020	1 1/4 - 11 1/2	1 1/4 - 11 1/2	
5404-2420	1 1/2 - 11 1/2	1 1/4 - 11 1/2	
5404-2424	1 1/2 - 11 1/2	1 1/2 - 11 1/2	
5404-3232	2 - 11 1/2	2 - 11 1/2	

5405
M-NPT / F-NPT

SAE# 140139



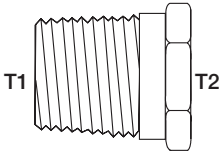
PART NUMBER	T1	T2	
5405-0202	1/8 - 27	1/8 - 27	
5405-0204	1/8 - 27	1/4 - 18	
5405-0404	1/4 - 18	1/4 - 18	
5405-0406	1/4 - 18	3/8 - 18	
5405-0408	1/4 - 18	1/2 - 14	
5405-0604	3/8 - 18	1/4 - 18	
5405-0606	3/8 - 18	3/8 - 18	
5405-0608	3/8 - 18	1/2 - 14	
5405-0806	1/2 - 14	3/8 - 18	
5405-0808	1/2 - 14	1/2 - 14	
5405-0812	1/2 - 14	3/4 - 14	
5405-1212	3/4 - 14	3/4 - 14	
5405-1216	3/4 - 14	1 - 11 1/2	
5405-1616	1 - 11 1/2	1 - 11 1/2	
5405-1620	1 - 11 1/2	1 1/4 - 11 1/2	

Tube and Pipe

5406

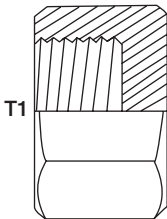
M-NPT / F-NPT

SAE# 140140

	PART NUMBER	T1	T2	
	5406-0402	1/4 - 18	1/8 - 27	
5406-0602	3/8 - 18	1/8 - 27		
5406-0604	3/8 - 18	1/4 - 18		
5406-0802	1/2 - 14	1/8 - 27		
5406-0804	1/2 - 14	1/4 - 18		
5406-0806	1/2 - 14	3/8 - 18		
5406-1204	3/4 - 14	1/4 - 18		
5406-1206	3/4 - 14	3/8 - 18		
5406-1208	3/4 - 14	1/2 - 14		
5406-1606	1 - 11 1/2	3/8 - 18		
5406-1608	1 - 11 1/2	1/2 - 14		
5406-1612	1 - 11 1/2	3/4 - 14		
5406-2012	1 1/4 - 11 1/2	3/4 - 14		
5406-2016	1 1/4 - 11 1/2	1 - 11 1/2		
5406-2412	1 1/2 - 11 1/2	3/4 - 14		
5406-2416	1 1/2 - 11 1/2	1 - 11 1/2		
5406-2420	1 1/2 - 11 1/2	1 1/4 - 11 1/2		
5406-3220	2 - 11 1/2	1 1/4 - 11 1/2		
5406-3224	2 - 11 1/2	1 1/2 - 11 1/2		

5406C

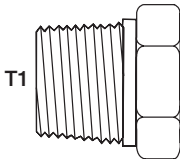
NPT CAP

	PART NUMBER	T1		
	5406C-02	1/8 - 27		
5406C-04	1/4 - 18			
5406C-06	3/8 - 18			
5406C-08	1/2 - 14			
5406C-12	3/4 - 14			
5406C-16	1 - 11 1/2			

5406P

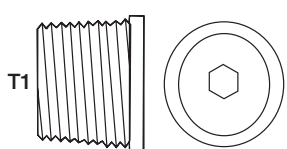
NPT PLUG

SAE# 130109E

	PART NUMBER	T1		
	5406P-02	1/8 - 27		
5406P-04	1/4 - 18			
5406P-06	3/8 - 18			
5406P-08	1/2 - 14			
5406P-12	3/4 - 14			
5406P-16	1 - 11 1/2			
5406P-20	1 1/4 - 11 1/2			
5406P-24	1 1/2 - 11 1/2			
5406P-32	2 - 11 1/2			

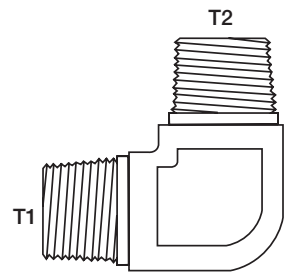
Tube and Pipe

5409 NPT HOLLOW HEX PLUG

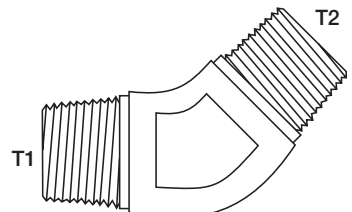
	PART NUMBER	T1		
	5409-04	1/4 - 18		
	5409-06	3/8 - 18		
	5409-08	1/2 - 14		
	5409-12	3/4 - 14		
	5409-16	1 - 11 1/2		

5500 90° M-NPT / M-NPT

SAE# 140237

	PART NUMBER	T1	T2	
	5500-0202	1/8 - 27	1/8 - 27	
	5500-0402	1/4 - 18	1/8 - 27	
	5500-0404	1/4 - 18	1/4 - 18	
	5500-0604	3/8 - 18	1/4 - 18	
	5500-0606	3/8 - 18	3/8 - 18	
	5500-0806	1/2 - 14	3/8 - 18	
	5500-0808	1/2 - 14	1/2 - 14	
	5500-1208	3/4 - 14	1/2 - 14	
	5500-1212	3/4 - 14	3/4 - 14	
	5500-1612	1 - 11 1/2	3/4 - 14	
	5500-1616	1 - 11 1/2	1 - 11 1/2	
	5500-2020	1 1/4 - 11 1/2	1 1/4 - 11 1/2	
	5500-2424	1 1/2 - 11 1/2	1 1/2 - 11 1/2	
	5500-3232	2 - 11 1/2	2 - 11 1/2	

5501 45° M-NPT / M-NPT

	PART NUMBER	T1	T2	
	5501-0404	1/4 - 18	1/4 - 18	
	5501-0606	3/8 - 18	3/8 - 18	
	5501-0808	1/2 - 14	1/2 - 14	
	5501-1212	3/4 - 14	3/4 - 14	
	5501-1616	1 - 11 1/2	1 - 11 1/2	

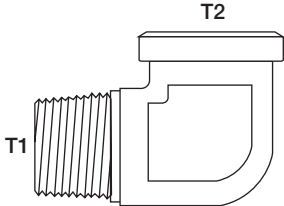


Tube and Pipe

5502

90° M-NPT / F-NPT

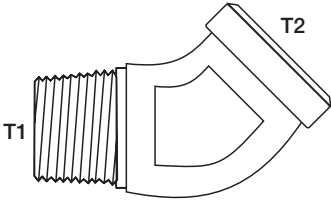
SAE# 140239

	PART NUMBER	T1	T2	
		5502-0202	1/8 - 27	1/8 - 27
	5502-0204	1/8 - 27	1/4 - 18	
	5502-0402	1/4 - 18	1/8 - 27	
	5502-0404	1/4 - 18	1/4 - 18	
	5502-0406	1/4 - 18	3/8 - 18	
	5502-0604	3/8 - 18	1/4 - 18	
	5502-0606	3/8 - 18	3/8 - 18	
	5502-0608	3/8 - 18	1/2 - 14	
	5502-0806	1/2 - 14	3/8 - 18	
	5502-0808	1/2 - 14	1/2 - 14	
	5502-0812	1/2 - 14	3/4 - 14	
	5502-1208	3/4 - 14	1/2 - 14	
	5502-1212	3/4 - 14	3/4 - 14	
	5502-1616	1 - 11 1/2	1 - 11 1/2	
	5502-2020	1 1/4 - 11 1/2	1 1/4 - 11 1/2	
	5502-2424	1 1/2 - 11 1/2	1 1/2 - 11 1/2	
	5502-3232	2 - 11 1/2	2 - 11 1/2	

5503

45° M-NPT / F-NPT

SAE# 140339

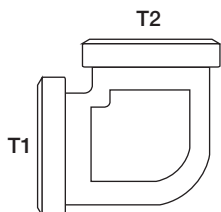
	PART NUMBER	T1	T2	
		5503-0202	1/8 - 27	1/8 - 27
	5503-0404	1/4 - 18	1/4 - 18	
	5503-0606	3/8 - 18	3/8 - 18	
	5503-0808	1/2 - 14	1/2 - 14	
	5503-1212	3/4 - 14	3/4 - 14	
	5503-1616	1 - 11 1/2	1 - 11 1/2	
	5503-2020	1 1/4 - 11 1/2	1 1/4 - 11 1/2	
	5503-2424	1 1/2 - 11 1/2	1 1/2 - 11 1/2	

Tube and Pipe

5504

90° F-NPT / F-NPT

SAE# 140238

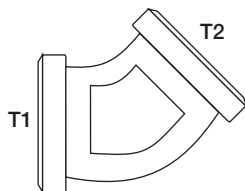


PART NUMBER	T1	T2	
5504-0202	1/8 - 27	1/8 - 27	
5504-0402	1/4 - 18	1/8 - 27	
5504-0404	1/4 - 18	1/4 - 18	
5504-0604	3/8 - 18	1/4 - 18	
5504-0606	3/8 - 18	3/8 - 18	
5504-0806	1/2 - 14	3/8 - 18	
5504-0808	1/2 - 14	1/2 - 14	
5504-1212	3/4 - 14	3/4 - 14	
5504-1616	1 - 11 1/2	1 - 11 1/2	
5504-2020	1 1/4 - 11 1/2	1 1/4 - 11 1/2	
5504-2424	1 1/2 - 11 1/2	1 1/2 - 11 1/2	
5504-3232	2 - 11 1/2	2 - 11 1/2	

5505

45° F-NPT / F-NPT

SAE# 140338

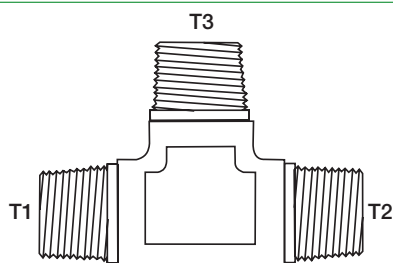


PART NUMBER	T1	T2	
5505-0202	1/8 - 27	1/8 - 27	
5505-0404	1/4 - 18	1/4 - 18	
5505-0606	3/8 - 18	3/8 - 18	
5505-0808	1/2 - 14	1/2 - 14	
5505-1212	3/4 - 14	3/4 - 14	
5505-1616	1 - 11 1/2	1 - 11 1/2	

5600

TEE M-NPT

SAE# 140437
(As coded per SAE J846)



PART NUMBER	T1	T2	T3
5600-020202	1/8 - 27	1/8 - 27	1/8 - 27
5600-040404	1/4 - 18	1/4 - 18	1/4 - 18
5600-060606	3/8 - 18	3/8 - 18	3/8 - 18
5600-080808	1/2 - 14	1/2 - 14	1/2 - 14
5600-121212	3/4 - 14	3/4 - 14	3/4 - 14
5600-161616	1 - 11 1/2	1 - 11 1/2	1 - 11 1/2

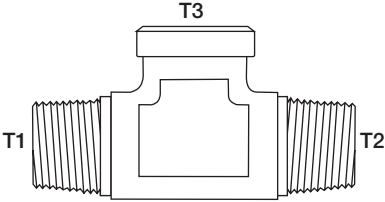


Tube and Pipe

5601

BRANCH TEE M-NPT / M-NPT / F-NPT

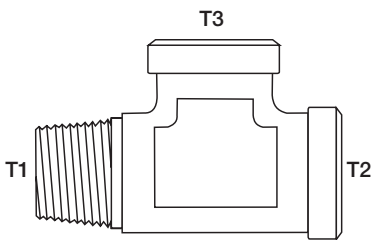
SAE# 140427
(As coded per SAE J846)

	PART NUMBER	T1	T2	T3
	5601-020202	1/8 - 27	1/8 - 27	1/8 - 27
	5601-040404	1/4 - 18	1/4 - 18	1/4 - 18
	5601-060606	3/8 - 18	3/8 - 18	3/8 - 18
	5601-080808	1/2 - 14	1/2 - 14	1/2 - 14
	5601-121212	3/4 - 14	3/4 - 14	3/4 - 14
	5601-161616	1 - 11 1/2	1 - 11 1/2	1 - 11 1/2

5602

RUN TEE M-NPT / F-NPT / F-NPT

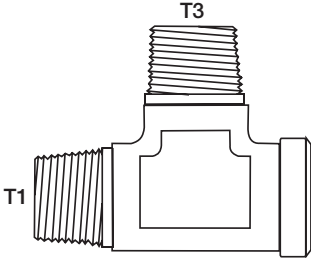
SAE# 140424

	PART NUMBER	T1	T2	T3
	5602-020202	1/8 - 27	1/8 - 27	1/8 - 27
	5602-040404	1/4 - 18	1/4 - 18	1/4 - 18
	5602-060606	3/8 - 18	3/8 - 18	3/8 - 18
	5602-080808	1/2 - 14	1/2 - 14	1/2 - 14
	5602-121212	3/4 - 14	3/4 - 14	3/4 - 14
	5602-161616	1 - 11 1/2	1 - 11 1/2	1 - 11 1/2
	5602-202020	1 1/4 - 11 1/2	1 1/4 - 11 1/2	1 1/4 - 11 1/2
	5602-242424	1 1/2 - 11 1/2	1 1/2 - 11 1/2	1 1/2 - 11 1/2
	5602-323232	2 - 11 1/2	2 - 11 1/2	2 - 11 1/2

5603

RUN TEE M-NPT / F-NPT / M-NPT

SAE# 140426
(As coded per SAE J846)

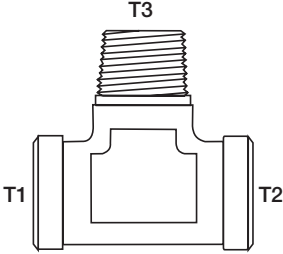
	PART NUMBER	T1	T2	T3
	5603-020202	1/8 - 27	1/8 - 27	1/8 - 27
	5603-040404	1/4 - 18	1/4 - 18	1/4 - 18
	5603-060606	3/8 - 18	3/8 - 18	3/8 - 18
	5603-080808	1/2 - 14	1/2 - 14	1/2 - 14
	5603-121212	3/4 - 14	3/4 - 14	3/4 - 14
	5603-161616	1 - 11 1/2	1 - 11 1/2	1 - 11 1/2

Tube and Pipe

5604

BRANCH TEE F-NPT / F-NPT / M-NPT

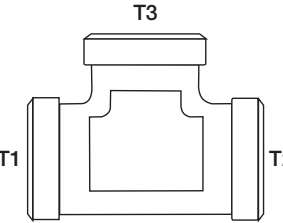
SAE# 140425

	PART NUMBER	T1	T2	T3
	5604-020202	1/8 - 27	1/8 - 27	1/8 - 27
	5604-040404	1/4 - 18	1/4 - 18	1/4 - 18
	5604-060606	3/8 - 18	3/8 - 18	3/8 - 18
	5604-080808	1/2 - 14	1/2 - 14	1/2 - 14
	5604-121212	3/4 - 14	3/4 - 14	3/4 - 14
	5604-161616	1 - 11 1/2	1 - 11 1/2	1 - 11 1/2
	5604-202020	1 1/4 - 11 1/2	1 1/4 - 11 1/2	1 1/4 - 11 1/2
	5604-242424	1 1/2 - 11 1/2	1 1/2 - 11 1/2	1 1/2 - 11 1/2

5605

TEE F-NPT

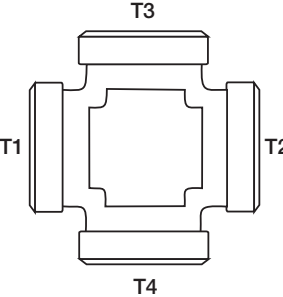
SAE# 140438

	PART NUMBER	T1	T2	T3
	5605-020202	1/8 - 27	1/8 - 27	1/8 - 27
	5605-040404	1/4 - 18	1/4 - 18	1/4 - 18
	5605-060606	3/8 - 18	3/8 - 18	3/8 - 18
	5605-080808	1/2 - 14	1/2 - 14	1/2 - 14
	5605-121212	3/4 - 14	3/4 - 14	3/4 - 14
	5605-161616	1 - 11 1/2	1 - 11 1/2	1 - 11 1/2
	5605-202020	1 1/4 - 11 1/2	1 1/4 - 11 1/2	1 1/4 - 11 1/2
	5605-242424	1 1/2 - 11 1/2	1 1/2 - 11 1/2	1 1/2 - 11 1/2
5605-323232	2 - 11 1/2	2 - 11 1/2	2 - 11 1/2	

5652

CROSS F-NPT

SAE# 140538
(As coded per SAE J846)

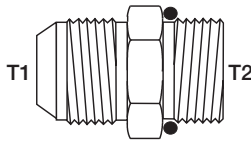
	PART NUMBER	T1	T2	T3	T4
	5652-04040404	1/4 - 18	1/4 - 18	1/4 - 18	1/4 - 18
	5652-06060606	3/8 - 18	3/8 - 18	3/8 - 18	3/8 - 18
	5652-08080808	1/2 - 14	1/2 - 14	1/2 - 14	1/2 - 14
	5652-12121212	3/4 - 14	3/4 - 14	3/4 - 14	3/4 - 14
	5652-16161616	1 - 11 1/2	1 - 11 1/2	1 - 11 1/2	1 - 11 1/2
	5652-20202020	1 1/4 - 11 1/2	1 1/4 - 11 1/2	1 1/4 - 11 1/2	1 1/4 - 11 1/2
	5652-24242424	1 1/2 - 11 1/2	1 1/2 - 11 1/2	1 1/2 - 11 1/2	1 1/2 - 11 1/2
	5652-32323232	2 - 11 1/2	2 - 11 1/2	2 - 11 1/2	2 - 11 1/2

Tube and Pipe

6400

M-JIC / M-ORB

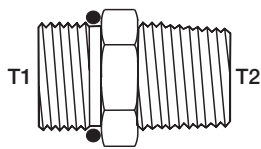
SAE# 070120



PART NUMBER	T1	T2	
6400-0202	5/16 - 24	5/16 - 24	
6400-0402	7/16 - 20	5/16 - 24	
6400-0403	7/16 - 20	3/8 - 24	
6400-0404	7/16 - 20	7/16 - 20	
6400-0405	7/16 - 20	1/2 - 20	
6400-0406	7/16 - 20	9/16 - 18	
6400-0408	7/16 - 20	3/4 - 16	
6400-0410	7/16 - 20	7/8 - 14	
6400-0504	1/2 - 20	7/16 - 20	
6400-0505	1/2 - 20	1/2 - 20	
6400-0506	1/2 - 20	9/16 - 18	
6400-0604	9/16 - 18	7/16 - 20	
6400-0605	9/16 - 18	1/2 - 20	
6400-0606	9/16 - 18	9/16 - 18	
6400-0608	9/16 - 18	3/4 - 16	
6400-0610	9/16 - 18	7/8 - 14	
6400-0612	9/16 - 18	1 3/16 - 12	
6400-0804	3/4 - 16	7/16 - 24	
6400-0806	3/4 - 16	9/16 - 18	
6400-0808	3/4 - 16	3/4 - 16	
6400-0810	3/4 - 16	7/8 - 14	
6400-0812	3/4 - 16	1 3/16 - 12	
6400-0816	3/4 - 16	1 5/16 - 12	
6400-1006	7/8 - 14	9/16 - 18	
6400-1008	7/8 - 14	3/4 - 16	
6400-1010	7/8 - 14	7/8 - 14	
6400-1012	7/8 - 14	1 1/16 - 12	
6400-1016	7/8 - 14	1 5/16 - 12	
6400-1208	1 1/16 - 12	3/4 - 16	
6400-1210	1 1/16 - 12	7/8 - 14	
6400-1212	1 1/16 - 12	1 1/16 - 12	
6400-1214	1 1/16 - 12	1 3/16 - 12	
6400-1216	1 1/16 - 12	1 5/16 - 12	
6400-1216	1 1/16 - 12	1 5/16 - 12	
6400-1220	1 1/16 - 12	1 5/8 - 12	
6400-1414	1 3/16 - 12	1 3/16 - 12	
6400-1610	1 5/16 - 12	7/8 - 14	
6400-1612	1 5/16 - 12	1 1/16 - 12	
6400-1614	1 5/16 - 12	1 3/16 - 12	
6400-1616	1 5/16 - 12	1 5/16 - 12	
6400-1620	1 5/16 - 12	1 5/8 - 12	
6400-2016	1 5/8 - 12	1 5/16 - 12	
6400-2020	1 5/8 - 12	1 5/8 - 12	
6400-2024	1 5/8 - 12	1 7/8 - 12	
6400-2420	1 7/8 - 12	1 5/8 - 12	
6400-2424	1 7/8 - 12	1 7/8 - 12	
6400-3232	2 1/2 - 12	2 1/2 - 12	

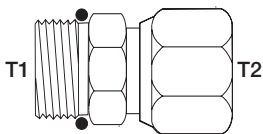
Tube and Pipe

6401 M-ORB / M-NPT



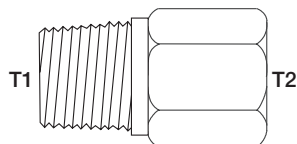
PART NUMBER	T1	T2	
6401-0402	7/16 - 20	1/8 - 27	
6401-0404	7/16 - 20	1/4 - 18	
6401-0604	9/16 - 18	1/4 - 18	
6401-0606	9/16 - 18	3/8 - 18	
6401-0806	3/4 - 16	3/8 - 18	
6401-0808	3/4 - 16	1/2 - 14	
6401-1008	7/8 - 14	1/2 - 14	
6401-1212	1 1/16 - 12	3/4 - 14	
6401-1616	1 5/16 - 12	1 - 11 1/2	
6401-2020	1 5/8 - 12	1 1/4 - 11 1/2	
6401-2424	1 7/8 - 12	1 1/2 - 11 1/2	
6401-3232	2 1/2 - 12	2 - 11 1/2	

6402 M-ORB / F-JIC



PART NUMBER	T1	T2	
6402-0606	9/16 - 18	9/16 - 18	
6402-0808	3/4 - 16	3/4 - 16	
6402-1212	1 1/16 - 12	1 1/16 - 12	
6402-1616	1 5/16 - 12	1 5/16 - 12	

6404 M-NPT / F-ORB

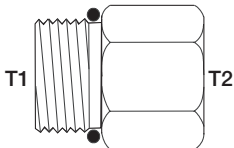


PART NUMBER	T1	T2	
6404-0402	1/8 - 27	7/16 - 20	
6404-0404	1/4 - 18	7/16 - 20	
6404-0604	1/4 - 18	9/16 - 18	
6404-0606	3/8 - 18	9/16 - 18	
6404-0608	1/2 - 14	9/16 - 18	
6404-0806	3/8 - 18	3/4 - 16	
6404-0808	1/2 - 14	3/4 - 16	
6404-1008	1/2 - 14	7/8 - 14	
6404-1212	3/4 - 14	1 1/16 - 12	
6404-1616	1 - 11 1/2	1 5/16 - 12	

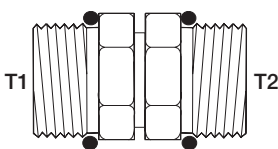


Tube and Pipe

6405
M-ORB / F-NPT

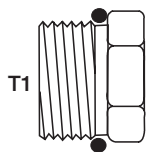
	PART NUMBER	T1	T2	
	6405-0402	7/16 - 20	1/8 - 27	
6405-0404	7/16 - 20	1/4 - 18		
6405-0502	1/2 - 20	1/8 - 27		
6405-0504	1/2 - 20	1/4 - 18		
6405-0604	9/16 - 18	1/4 - 18		
6405-0606	9/16 - 18	3/8 - 18		
6405-0804	3/4 - 16	1/4 - 18		
6405-0806	3/4 - 16	3/8 - 18		
6405-0808	3/4 - 16	1/2 - 14		
6405-1004	7/8 - 14	1/4 - 18		
6405-1006	7/8 - 14	3/8 - 18		
6405-1008	7/8 - 14	1/2 - 14		
6405-1208	1 1/16 - 12	1/2 - 14		
6405-1212	1 1/16 - 12	3/4 - 14		
6405-1608	1 5/16 - 12	1/2 - 14		
6405-1612	1 5/16 - 12	3/4 - 14		
6405-1616	1 5/16 - 12	1 - 1 1/2		
6405-2016	1 5/8 - 12	1 - 1 1/2		
6405-2020	1 5/8 - 12	1 1/4 - 1 1/2		
6405-2420	1 7/8 - 12	1 1/4 - 1 1/2		
6405-2424	1 7/8 - 12	1 1/2 - 1 1/2		
6405-3232	2 1/2 - 12	2 - 1 1/2		

6407
M-ORB / ADJ M-ORB

	PART NUMBER	T1	T2	
	6407-0404	7/16 - 20	7/16 - 20	
6407-0606	1/2 - 20	1/2 - 20		
6407-0808	3/4 - 16	3/4 - 16		
6407-1010	7/8 - 14	7/8 - 14		
6407-1212	1 1/16 - 12	1 1/16 - 12		
6407-1616	1 5/16 - 12	1 5/16 - 12		
6407-2020	1 5/8 - 12	1 5/8 - 12		

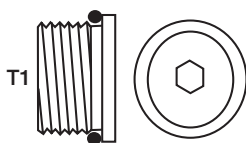
Tube and Pipe

6408 ORB PLUG



PART NUMBER	T1		
6408-04	7/16 - 20		
6408-05	1/2 - 20		
6408-06	9/16 - 18		
6408-08	3/4 - 16		
6408-10	7/8 - 14		
6408-12	1 1/16 - 12		
6408-14	1 3/16 - 12		
6408-16	1 5/16 - 12		
6408-20	1 5/8 - 12		
6408-24	1 7/8 - 12		
6408-32	2 1/2 - 12		

6409 ORB HOLLOW HEX PLUG

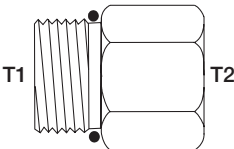


PART NUMBER	T1		
6409-02	5/16 - 24		
6409-04	7/16 - 20		
6409-05	1/2 - 20		
6409-06	9/16 - 18		
6409-08	3/4 - 16		
6409-10	7/8 - 14		
6409-12	1 1/16 - 12		
6409-16	1 5/16 - 12		
6409-20	1 5/8 - 12		
6409-24	1 7/8 - 12		
6409-32	2 1/2 - 12		



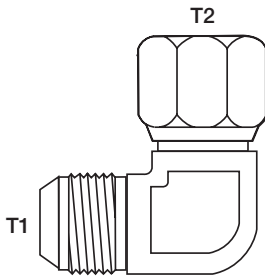
Tube and Pipe

6410 M-ORB / F-ORB

	PART NUMBER	T1	T2	
	6410-0406	7/16 - 20	9/16 - 18	
6410-0604	9/16 - 18	7/16 - 20		
6410-0608	9/16 - 18	3/4 - 16		
6410-0806	3/4 - 16	9/16 - 18		
6410-0810	3/4 - 16	7/8 - 14		
6410-1006	7/8 - 14	9/16 - 18		
6410-1008	7/8 - 14	3/4 - 16		
6410-1012	7/8 - 14	1 1/16 - 12		
6410-1208	1 1/16 - 12	3/4 - 16		
6410-1210	1 1/16 - 12	7/8 - 14		
6410-1216	1 1/16 - 12	1 5/16 - 12		
6410-1608	1 5/16 - 12	3/4 - 16		
6410-1612	1 5/16 - 12	1 1/16 - 12		
6410-1620	1 5/16 - 12	1 5/8 - 12		
6410-2012	1 5/8 - 12	1 1/16 - 12		
6410-2016	1 5/8 - 12	1 5/16 - 12		
6410-2024	1 5/8 - 12	1 7/8 - 12		
6410-2412	1 7/8 - 12	1 1/16 - 12		
6410-2416	1 7/8 - 12	1 5/16 - 12		
6410-2420	1 7/8 - 12	1 5/8 - 12		
6410-3224	2 1/2 - 12	1 7/8 - 12		

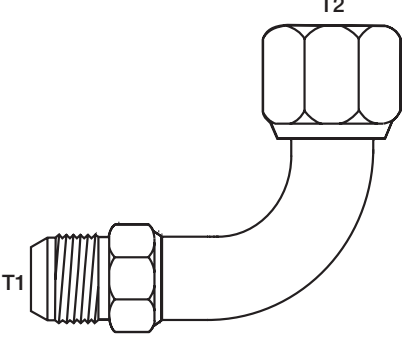
6500 90° M-JIC / F-JIC

SAE# 070221

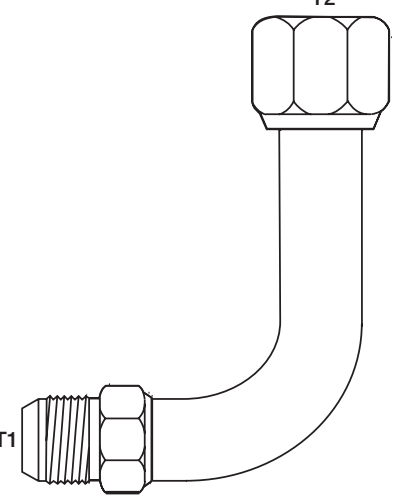
	PART NUMBER	T1	T2	
	6500-0404	7/16 - 20	7/16 - 20	
6500-0505	1/2 - 20	1/2 - 20		
6500-0606	9/16 - 18	9/16 - 18		
6500-0608	9/16 - 18	3/4 - 16		
6500-0806	3/4 - 16	9/16 - 18		
6500-0808	3/4 - 16	3/4 - 16		
6500-0810	3/4 - 16	7/8 - 14		
6500-1010	7/8 - 14	7/8 - 14		
6500-1212	1 1/16 - 12	1 1/16 - 12		
6500-1616	1 5/16 - 12	1 5/16 - 12		
6500-2020	1 5/8 - 12	1 5/8 - 12		
6500-2424	1 7/8 - 12	1 7/8 - 12		
6500-3232	2 1/2 - 12	2 1/2 - 12		

Tube and Pipe

6500BT 90° M-JIC / F-JIC BENT TUBE

	PART NUMBER	T1	T2	
	6500BT-0606	9/16 - 18	9/16 - 18	
	6500BT-0808	3/4 - 16	3/4 - 16	
	6500BT-1010	7/8 - 14	7/8 - 14	
	6500BT-1212	1 1/16 - 12	1 1/16 - 12	
	6500BT-1616	1 5/16 - 12	1 5/16 - 12	
	6500BT-2020	1 5/8 - 12	1 5/8 - 12	

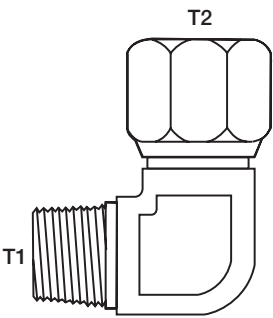
6500LBT 90° M-JIC / F-JIC BENT TUBE LONG

	PART NUMBER	T1	T2	
	6500LBT-0606	9/16 - 18	9/16 - 18	
	6500LBT-0808	3/4 - 16	3/4 - 16	
	6500LBT-1212	1 1/16 - 12	1 1/16 - 12	
	6500LBT-1616	1 5/16 - 12	1 5/16 - 12	
	6500LBT-2020	1 5/8 - 12	1 5/8 - 12	



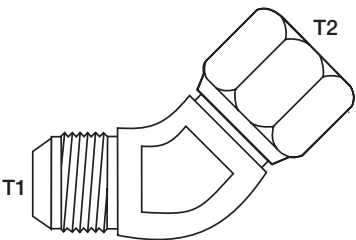
Tube and Pipe

6501 90° M-NPT / F-JIC

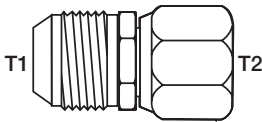
	PART NUMBER	T1	T2	
	6501-0204	1/8 - 27	7/16 - 20	
	6501-0404	1/4 - 18	7/16 - 20	
	6501-0406	1/4 - 18	9/16 - 18	
	6501-0606	3/8 - 18	9/16 - 18	
	6501-0608	3/8 - 18	3/4 - 16	
	6501-0808	1/2 - 14	3/4 - 16	
	6501-0810	1/2 - 14	7/8 - 14	
	6501-1212	3/4 - 14	1 1/16 - 12	
	6501-1616	1 - 11 1/2	1 5/16 - 12	
	6501-2020	1 1/4 - 11 1/2	1 5/8 - 12	
	6501-2424	1 1/2 - 11 1/2	1 7/8 - 12	
	6501-3232	2 - 11 1/2	2 1/2 - 12	

6502 45° M-JIC / F-JIC

SAE# 070321

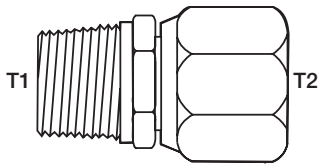
	PART NUMBER	T1	T2	
	6502-0404	7/16 - 20	7/16 - 20	
	6502-0505	1/2 - 20	1/2 - 20	
	6502-0606	9/16 - 18	9/16 - 18	
	6502-0808	3/4 - 16	3/4 - 16	
	6502-1010	7/8 - 14	7/8 - 14	
	6502-1212	1 1/16 - 12	1 1/16 - 12	
	6502-1616	1 5/16 - 12	1 5/16 - 12	
	6502-2020	1 5/8 - 12	1 5/8 - 12	
	6502-2424	1 7/8 - 12	1 7/8 - 12	
	6502-3232	2 1/2 - 12	2 1/2 - 12	

6504 M-JIC / F-JIC

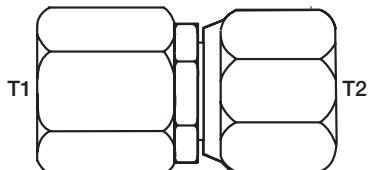
	PART NUMBER	T1	T2	
	6504-0404	7/16 - 20	7/16 - 20	
	6504-0606	9/16 - 18	9/16 - 18	
	6504-0808	3/4 - 16	3/4 - 16	
	6504-1010	7/8 - 14	7/8 - 14	
	6504-1212	1 1/16 - 12	1 1/16 - 12	
	6504-1616	1 5/16 - 12	1 5/16 - 12	
	6504-2020	1 5/8 - 12	1 5/8 - 12	

Tube and Pipe

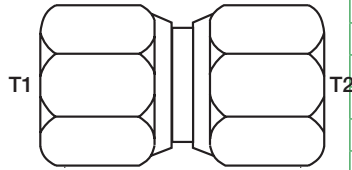
6505 M-NPT / F-JIC

	PART NUMBER	T1	T2	
	6505-0404	1/4 - 18	7/16 - 20	
	6505-0406	1/4 - 18	9/16 - 18	
	6505-0606	3/8 - 18	9/16 - 18	
	6505-0608	3/8 - 18	3/4 - 16	
	6505-0808	1/2 - 14	3/4 - 16	
	6505-0810	1/2 - 14	7/8 - 14	
	6505-1212	3/4 - 14	1 1/16 - 12	
	6505-1616	1 - 11 1/2	1 5/16 - 12	

6506 F-NPT / F-JIC

	PART NUMBER	T1	T2	
	6506-0404	1/4 - 18	7/16 - 20	
	6506-0406	1/4 - 18	9/16 - 18	
	6506-0606	3/8 - 18	9/16 - 18	
	6506-0608	3/8 - 18	3/4 - 16	
	6506-0808	1/2 - 14	3/4 - 16	
	6506-0810	1/2 - 14	7/8 - 14	
	6506-1212	3/4 - 14	1 1/16 - 12	
	6506-1616	1 - 11 1/2	1 5/16 - 12	
6506-2020	1 1/4 - 11 1/2	1 5/8 - 12		

6565 F-JIC / F-JIC

	PART NUMBER	T1	T2	
	6565-0404	7/16 - 20	7/16 - 20	
	6565-0505	1/2 - 20	1/2 - 20	
	6565-0604	9/16 - 18	7/16 - 20	
	6565-0606	9/16 - 18	9/16 - 18	
	6565-0806	3/4 - 16	9/16 - 18	
	6565-0808	3/4 - 16	3/4 - 16	
	6565-1008	7/8 - 14	3/4 - 16	
	6565-1010	7/8 - 14	7/8 - 14	
	6565-1212	1 1/16 - 12	1 1/16 - 12	
	6565-1612	1 5/16 - 12	1 1/16 - 12	
	6565-1616	1 5/16 - 12	1 5/16 - 12	
	6565-2020	1 5/8 - 12	1 5/8 - 12	
	6565-2424	1 7/8 - 12	1 7/8 - 12	



Tube and Pipe

6600

BRANCH TEE M-JIC / M-JIC / F-JIC

SAE# 070433

	PART NUMBER	T1	T2	T3
	6600-040404	7/16 - 24	7/16 - 24	7/16 - 24
	6600-050505	1/2 - 20	1/2 - 20	1/2 - 20
	6600-060606	9/16 - 18	9/16 - 18	9/16 - 18
	6600-080808	3/4 - 16	3/4 - 16	3/4 - 16
	6600-101010	7/8 - 14	7/8 - 14	7/8 - 14
	6600-121212	1 1/16 - 12	1 1/16 - 12	1 1/16 - 12
	6600-161616	1 5/16 - 12	1 5/16 - 12	1 5/16 - 12
	6600-202020	1 5/8 - 12	1 5/8 - 12	1 5/8 - 12
	6600-242424	1 7/8 - 12	1 7/8 - 12	1 7/8 - 12
6600-323232	2 1/2 - 12	2 1/2 - 12	2 1/2 - 12	

6602

RUN TEE M-JIC / F-JIC / M-JIC

SAE# 070432

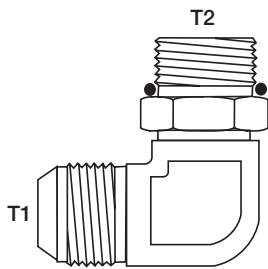
	PART NUMBER	T1	T2	T3
	6602-040404	7/16 - 24	7/16 - 24	7/16 - 24
	6602-050505	1/2 - 20	1/2 - 20	1/2 - 20
	6602-060606	9/16 - 18	9/16 - 18	9/16 - 18
	6602-080808	3/4 - 16	3/4 - 16	3/4 - 16
	6602-101010	7/8 - 14	7/8 - 14	7/8 - 14
	6602-121212	1 1/16 - 12	1 1/16 - 12	1 1/16 - 12
	6602-161616	1 5/16 - 12	1 5/16 - 12	1 5/16 - 12
	6602-202020	1 5/8 - 12	1 5/8 - 12	1 5/8 - 12
	6602-242424	1 7/8 - 12	1 7/8 - 12	1 7/8 - 12
6602-323232	2 1/2 - 12	2 1/2 - 12	2 1/2 - 12	

O-Ring Boss

6801

90° M-JIC / M-ORB

SAE# 070220



PART NUMBER	T1	T2	
6801-0303	3/8 - 24	3/8 - 24	
6801-0404	7/16 - 24	7/16 - 24	
6801-0406	7/16 - 24	9/16 - 18	
6801-0408	7/16 - 24	3/4 - 16	
6801-0504	1/2 - 20	7/16 - 24	
6801-0505	1/2 - 20	1/2 - 20	
6801-0506	1/2 - 20	9/16 - 18	
6801-0604	9/16 - 18	7/16 - 24	
6801-0606	9/16 - 18	9/16 - 18	
6801-0608	9/16 - 18	3/4 - 16	
6801-0610	9/16 - 18	7/8 - 14	
6801-0806	3/4 - 16	9/16 - 18	
6801-0808	3/4 - 16	3/4 - 16	
6801-0810	3/4 - 16	7/8 - 14	
6801-0812	3/4 - 16	1 1/16 - 12	
6801-0816	3/4 - 16	1 5/16 - 12	
6801-1008	7/8 - 14	3/4 - 16	
6801-1010	7/8 - 14	7/8 - 14	
6801-1012	7/8 - 14	1 1/16 - 12	
6801-1206	1 1/16 - 12	9/16 - 18	
6801-1208	1 1/16 - 12	3/4 - 16	
6801-1210	1 1/16 - 12	7/8 - 14	
6801-1212	1 1/16 - 12	1 1/16 - 12	
6801-1216	1 1/16 - 12	1 5/16 - 12	
6801-1610	1 5/16 - 12	7/8 - 14	
6801-1612	1 5/16 - 12	1 1/16 - 12	
6801-1616	1 5/16 - 12	1 5/16 - 12	
6801-1620	1 5/16 - 12	1 5/8 - 12	
6801-2016	1 5/8 - 12	1 5/16 - 12	
6801-2020	1 5/8 - 12	1 5/8 - 12	
6801-2024	1 5/8 - 12	1 7/8 - 12	
6801-2416	1 7/8 - 12	1 5/16 - 12	
6801-2420	1 7/8 - 12	1 5/8 - 12	
6801-2424	1 7/8 - 12	1 7/8 - 12	
6801-3232	2 1/2 - 12	2 1/2 - 12	



O-Ring Boss

6801-L 90° M-JIC / M-ORB LONG

	PART NUMBER	T1	T2	
	6801-L-0404	7/16 - 20	7/16 - 20	
	6801-L-0606	9/16 - 18	9/16 - 18	
	6801-L-0808	3/4 - 16	3/4 - 16	
	6801-L-1010	7/8 - 14	7/8 - 14	
	6801-L-1212	1 1/16 - 12	1 1/16 - 12	
	6801-L-1616	1 5/16 - 12	1 5/16 - 12	

6801-LL 90° M-JIC / M-ORB EXTRA LONG

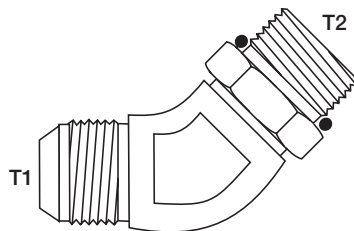
	PART NUMBER	T1	T2	
	6901-LL-0404	7/16 - 20	7/16 - 20	
	6801-LL-0606	9/16 - 18	9/16 - 18	
	6801-LL-0808	3/4 - 16	3/4 - 16	
	6801-LL-1010	7/8 - 14	7/8 - 14	
	6801-LL-1212	1 1/16 - 12	1 1/16 - 12	
	6801-LL-1616	1 5/16 - 12	1 5/16 - 12	

O-Ring Boss

6802

45° M-JIC / M-ORB

SAE#070320

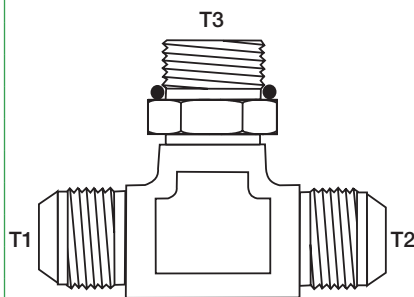


PART NUMBER	T1	T2	
6802-0404	7/16 - 20	7/16 - 20	
6802-0406	7/16 - 20	9/16 - 18	
6802-0505	1/2 - 20	1/2 - 20	
6802-0604	9/16 - 18	7/16 - 20	
6802-0606	9/16 - 18	9/16 - 18	
6802-0608	9/16 - 18	3/4 - 16	
6802-0804	3/4 - 16	7/16 - 20	
6802-0806	3/4 - 16	9/16 - 18	
6802-0808	3/4 - 16	3/4 - 16	
6802-0810	3/4 - 16	7/8 - 14	
6802-0812	3/4 - 16	1 1/16 - 12	
6802-1008	7/8 - 14	3/4 - 16	
6802-1010	7/8 - 14	7/8 - 14	
6802-1012	7/8 - 14	1 1/16 - 12	
6802-1210	1 1/16 - 12	7/8 - 14	
6802-1212	1 1/16 - 12	1 1/16 - 12	
6802-1216	1 1/16 - 12	1 5/16 - 12	
6802-1612	1 5/16 - 12	1 1/16 - 12	
6802-1616	1 5/16 - 12	1 5/16 - 12	
6802-2016	1 5/8 - 12	1 5/16 - 12	
6802-2020	1 5/8 - 12	1 5/8 - 12	
6802-2424	1 7/8 - 12	1 7/8 - 12	
6802-3232	2 1/2 - 12	2 1/2 - 12	

6803

BRANCH TEE M-JIC / M-JIC / M-ORB

SAE# 070429

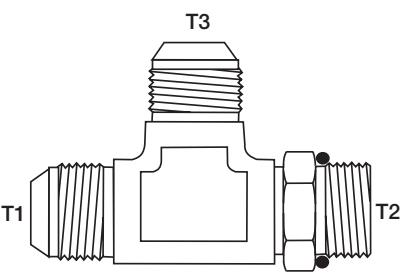


PART NUMBER	T1	T2	T3
6803-040404	7/16 - 20	7/16 - 20	7/16 - 20
6803-050505	1/2 - 20	1/2 - 20	1/2 - 20
6803-060606	9/16 - 18	9/16 - 18	9/16 - 18
6803-080808	3/4 - 16	3/4 - 16	3/4 - 16
6803-101010	7/8 - 14	7/8 - 14	7/8 - 14
6803-121212	1 1/16 - 12	1 1/16 - 12	1 1/16 - 12
6803-161616	1 5/16 - 12	1 5/16 - 12	1 5/16 - 12
6803-202020	1 5/8 - 12	1 5/8 - 12	1 5/8 - 12
6803-242424	1 7/8 - 12	1 7/8 - 12	1 7/8 - 12
6803-323232	2 1/2 - 12	2 1/2 - 12	2 1/2 - 12

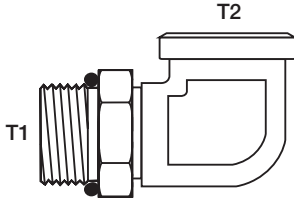


O-Ring Boss

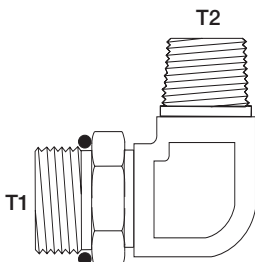
6804 RUN TEE M-JIC / M-ORB / M-JIC

	PART NUMBER	T1	T2	T3
	6804-040404	7/16 - 20	7/16 - 20	7/16 - 20
	6804-040604	7/16 - 20	7/16 - 20	7/16 - 20
	6804-050505	1/2 - 20	1/2 - 20	1/2 - 20
	6804-060606	9/16 - 18	9/16 - 18	9/16 - 18
	6804-080808	3/4 - 16	3/4 - 16	3/4 - 16
	6804-101010	7/8 - 14	7/8 - 14	7/8 - 14
	6804-121212	1 1/16 - 12	1 1/16 - 12	1 1/16 - 12
	6804-161616	1 5/16 - 12	1 5/16 - 12	1 5/16 - 12
	6804-202020	1 5/8 - 12	1 5/8 - 12	1 5/8 - 12
	6804-242424	1 7/8 - 12	1 7/8 - 12	1 7/8 - 12
	6804-323232	2 1/2 - 12	2 1/2 - 12	2 1/2 - 12

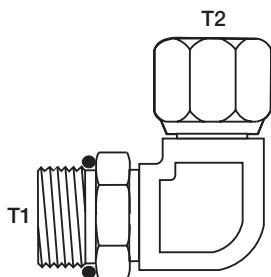
6805 90° M-ORB / F-NPT

	PART NUMBER	T1	T2	
	6805-0402	7/16 - 20	1/8 - 27	
	6805-0404	7/16 - 20	1/4 - 18	
	6805-0406	7/16 - 20	3/8 - 18	
	6805-0502	1/2 - 20	1/8 - 27	
	6805-0604	9/16 - 18	1/4 - 18	
	6805-0606	9/16 - 18	3/8 - 18	
	6805-0806	3/4 - 16	3/8 - 18	
	6805-0808	3/4 - 16	1/2 - 14	
	6805-1008	7/8 - 14	1/2 - 14	
	6805-1212	1 1/16 - 12	3/4 - 14	
	6805-1616	1 5/16 - 12	1 - 11 1/2	
	6805-2020	1 5/8 - 12	1 1/4 - 11 1/2	
	6805-2424	1 7/8 - 12	1 1/2 - 11 1/2	
	6805-3232	2 1/2 - 12	2 - 11 1/2	

O-Ring Boss

6806
90° M-ORB / M-NPT


PART NUMBER	T1	T2	
6806-0402	7/16 - 20	1/8 - 27	
6806-0404	7/16 - 20	1/4 - 18	
6806-0502	1/2 - 20	1/8 - 27	
6806-0604	9/16 - 18	1/4 - 18	
6806-0606	9/16 - 18	3/8 - 18	
6806-0806	3/4 - 16	3/8 - 18	
6806-0808	3/4 - 16	1/2 - 14	
6806-1008	7/8 - 14	1/2 - 14	
6806-1212	1 1/16 - 12	3/4 - 14	
6806-1616	1 5/16 - 12	1 - 11 1/2	
6806-2020	1 5/8 - 12	1 1/4 - 11 1/2	
6806-2424	1 7/8 - 12	1 1/2 - 11 1/2	
6806-3232	2 1/2 - 12	2 - 11 1/2	

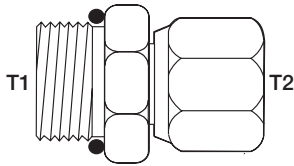
6809
90° M-ORB / F-JIC


PART NUMBER	T1	T2	
6809-0404	7/16 - 20	7/16 - 20	
6809-0604	9/16 - 18	7/16 - 20	
6809-0606	9/16 - 18	9/16 - 18	
6809-0806	3/4 - 16	9/16 - 18	
6809-0808	3/4 - 16	3/4 - 16	
6809-1010	7/8 - 14	7/8 - 14	
6809-1210	1 1/16 - 12	7/8 - 14	
6809-1212	1 1/16 - 12	1 1/16 - 12	
6809-1616	1 5/16 - 12	1 5/16 - 12	
6809-2020	1 5/8 - 12	1 5/8 - 12	

O-Ring Boss

6900

M-ORB / F-NPSM

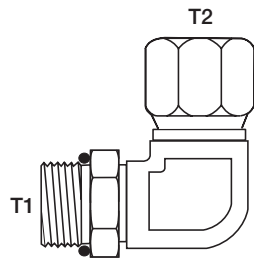


PART NUMBER	T1	T2	
6900-0404	7/16 - 20	1/4 - 18	
6900-0504	1/2 - 20	1/4 - 18	
6900-0604	9/16 - 18	1/4 - 18	
6900-0606	9/16 - 18	3/8 - 18	
6900-0608	9/16 - 18	1/2 - 14	
6900-0804	3/4 - 16	1/4 - 18	
6900-0806	3/4 - 16	3/8 - 18	
6900-0808	3/4 - 16	1/2 - 14	
6900-0812	3/4 - 16	3/4 - 14	
6900-1006	7/8 - 14	3/8 - 18	
6900-1008	7/8 - 14	1/2 - 14	
6900-1012	7/8 - 14	3/4 - 14	
6900-1208	1 1/16 - 12	1/2 - 14	
6900-1212	1 1/16 - 12	3/4 - 14	
6900-1612	1 5/16 - 12	3/4 - 14	
6900-1616	1 5/16 - 12	1 - 11 1/2	
6900-2016	1 5/8 - 12	1 - 11 1/2	
6900-2020	1 5/8 - 12	1 1/4 - 11 1/2	
6900-2424	1 7/8 - 12	1 1/2 - 11 1/2	
6900-3232	2 1/2 - 12	2 - 11 1/2	

6901

90° M-ORB / F-NPSM

SAE# 140257



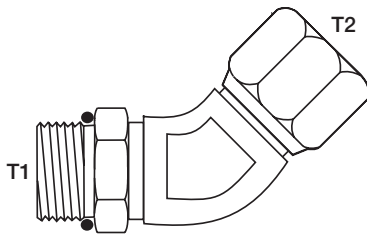
PART NUMBER	T1	T2	
6901-0404	7/16 - 20	1/4 - 18	
6901-0406	7/16 - 20	3/8 - 18	
6901-0604	9/16 - 18	1/4 - 18	
6901-0606	9/16 - 18	3/8 - 18	
6901-0608	9/16 - 18	1/2 - 14	
6901-0804	3/4 - 16	1/4 - 18	
6901-0806	3/4 - 16	3/8 - 18	
6901-0808	3/4 - 16	1/2 - 14	
6901-0812	3/4 - 16	3/4 - 14	
6901-1008	7/8 - 14	1/2 - 14	
6901-1012	7/8 - 14	3/4 - 14	
6901-1208	1 1/16 - 12	1/2 - 14	
6901-1212	1 1/16 - 12	3/4 - 14	
6901-1612	1 5/16 - 12	3/4 - 14	
6901-1616	1 5/16 - 12	1 - 11 1/2	
6901-2020	1 5/8 - 12	1 1/4 - 11 1/2	
6901-2424	1 7/8 - 12	1 1/2 - 11 1/2	
6901-3232	2 1/2 - 12	2 - 11 1/2	

O-Ring Boss

6902

45° M-ORB / F-NPSM

SAE# 140357

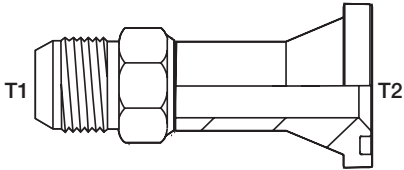


PART NUMBER	T1	T2	
6902-0404	7/16 - 20	1/4 - 18	
6902-0604	9/16 - 18	1/4 - 18	
6902-0606	9/16 - 18	3/8 - 18	
6902-0806	3/4 - 16	3/8 - 18	
6902-0808	3/4 - 16	1/2 - 14	
6902-1006	7/8 - 14	3/8 - 18	
6902-1008	7/8 - 14	1/2 - 14	
6902-1012	7/8 - 14	3/4 - 14	
6902-1212	1 1/16 - 12	3/4 - 14	
6902-1616	1 5/16 - 12	1 - 11 1/2	
6902-2020	1 5/8 - 12	1 1/4 - 11 1/2	
6902-2424	1 7/8 - 12	1 1/2 - 11 1/2	

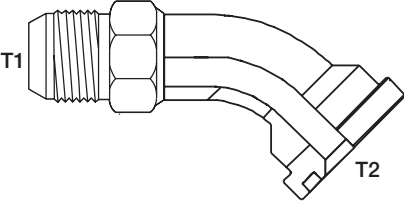


Flange Adapters

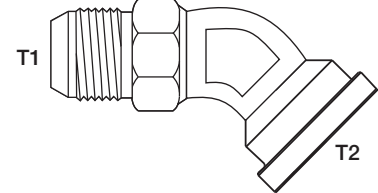
7700 M-JIC / FLANGE (CODE 61)

	PART NUMBER	T1	T2	
	7700-0808	3/4 - 16	1/2	
	7700-1212	1 1/16 - 12	3/4	
	7700-1216	1 1/16 - 12	1	
	7700-1616	1 5/16 - 12	1	
	7700-1620	1 5/16 - 12	1 1/4	
	7700-2020	1 5/8 - 12	1 1/4	
	7700-2024	1 5/8 - 12	1 1/2	
	7700-2424	1 7/8 - 12	1 1/2	
	7700-2432	1 7/8 - 12	2	
7700-3232	2 1/2 - 12	2		

7745 45° M-JIC / FLANGE (CODE 61)

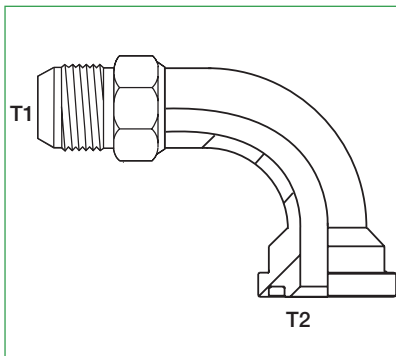
	PART NUMBER	T1	T2	
	7745-0808	3/4 - 16	1/2	
	7745-1212	1 1/16 - 12	3/4	
	7745-1216	1 1/16 - 12	1	
	7745-1616	1 5/16 - 12	1	
	7745-1620	1 5/16 - 12	1 1/4	
	7745-2020	1 5/8 - 12	1 1/4	
	7745-2024	1 5/8 - 12	1 1/2	
	7745-2424	1 7/8 - 12	1 1/2	
	7745-2432	1 7/8 - 12	2	
7745-3232	2 1/2 - 12	2		

7745FG FORGED 45° M-JIC / FLANGE (CODE 61)

	PART NUMBER	T1	T2	
	7745FG-1212	1 1/16 - 12	3/4	
	7745FG-1616	1 5/16 - 12	1	
	7745FG-2020	1 5/8 - 12	1 1/4	
	7745FG-2424	1 7/8 - 12	1 1/2	
7745FG-3232	2 1/2 - 12	2		

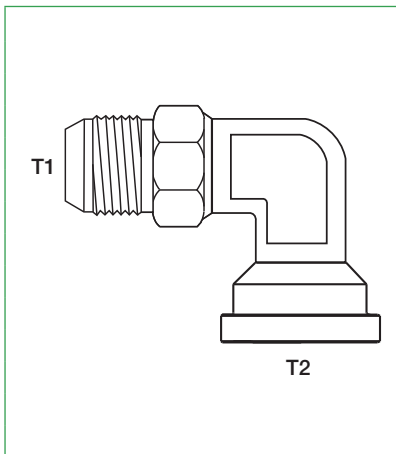
Flange Adapters

7790 90° M-JIC / FLANGE (CODE 61)



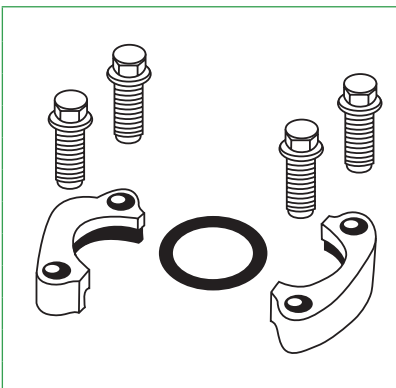
PART NUMBER	T1	T2	
7790-0808	3/4 - 16	1/2	
7790-1212	1 1/16 - 12	3/4	
7790-1216	1 1/16 - 12	1	
7790-1616	1 5/16 - 12	1	
7790-1620	1 5/16 - 12	1 1/4	
7790-2020	1 5/8 - 12	1 1/4	
7790-2024	1 5/8 - 12	1 1/2	
7790-2424	1 7/8 - 12	1 1/2	
7790-2432	1 7/8 - 12	2	
7790-3232	2 1/2 - 12	2	

7790FG FORGED 90° M-JIC / FLANGE (CODE 61)



PART NUMBER	T1	T2	
7790FG-0812	3/4 - 16	3/4	
7790FG-1212	1 1/16 - 12	3/4	
7790FG-1612	1 5/16 - 12	3/4	
7790FG-1216	1 1/16 - 12	1	
7790FG-1616	1 5/16 - 12	1	
7790FG-2016	1 5/8 - 12	1	
7790FG-1620	1 5/16 - 12	1 1/4	
7790FG-2020	1 5/8 - 12	1 1/4	
7790FG-2024	1 5/8 - 12	1 1/2	
7790FG-2424	1 7/8 - 12	1 1/2	
7790FG-3224	2 1/2 - 12	1 1/2	
7790FG-2432	1 7/8 - 12	2	
7790FG-3232	2 1/2 - 12	2	

7795 SPLIT FLANGE KIT (CODE 61)

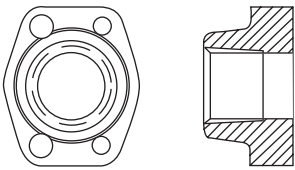


PART NUMBER	T1		
7795-08	1/2		
7795-12	3/4		
7795-16	1		
7795-20	1 1/4		
7795-24	1 1/2		
7795-32	2		

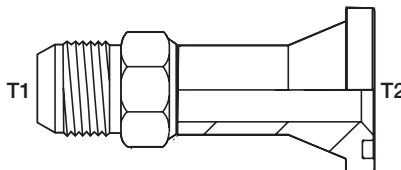


Flange Adapters

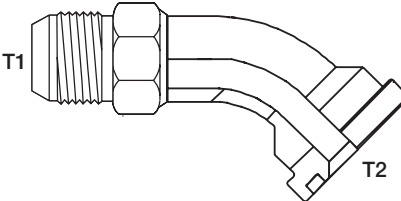
7798 F-NPT / FLANGE KIT (CODE 61)

	PART NUMBER	T1	T2	
	7798-1212	3/4 - 14	3/4	
	7798-1616	1 - 11 1/2	1	
	7798-2020	1 1/4 - 11 1/2	1 1/4	
	7798-2424	1 1/2 - 11 1/2	1 1/2	
	7798-3232	2 - 11 1/2	2	
	7798-4040	2 1/2 - 8	2 1/2	
	7798-4848	3 - 8	3	

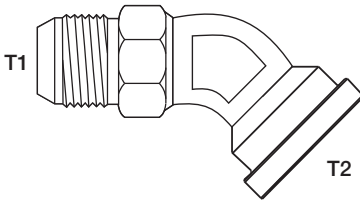
7800 M-JIC / FLANGE (CODE 62)

	PART NUMBER	T1	T2	
	7800-1212	1 1/16 - 12	3/4	
	7800-1216	1 1/16 - 12	1	
	7800-1616	1 5/16 - 12	1	
	7800-1620	1 5/16 - 12	1 1/4	
	7800-2020	1 5/8 - 12	1 1/4	
	7800-2024	1 5/8 - 12	1 1/2	
	7800-2424	1 7/8 - 12	1 1/2	
7800-3232	2 1/2 - 12	2		

7845 45° M-JIC / FLANGE (CODE 62)

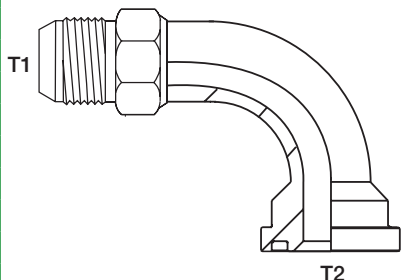
	PART NUMBER	T1	T2	
	7845-1212	1 1/16 - 12	3/4	
	7845-1616	1 5/16 - 12	1	
	7845-1620	1 5/16 - 12	1 1/4	
	7845-2020	1 5/8 - 12	1 1/4	
	7845-2024	1 5/8 - 12	1 1/2	
	7845-2424	1 7/8 - 12	1 1/2	
	7845-3232	2 1/2 - 12	2	

7845FG FORGED 45° M-JIC / FLANGE (CODE 62)

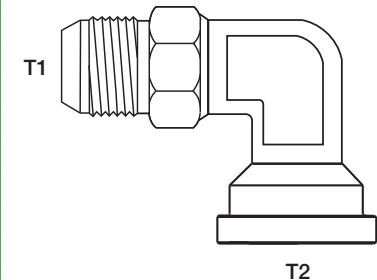
	PART NUMBER	T1	T2	
	7845FG-1212	1 1/16 - 12	3/4	
	7845FG-1616	1 5/16 - 12	1	
	7845FG-2020	1 5/8 - 12	1 1/4	
	7845FG-2424	1 7/8 - 12	1 1/2	
	7845FG-3232	2 1/2 - 12	2	

Flange Adapters

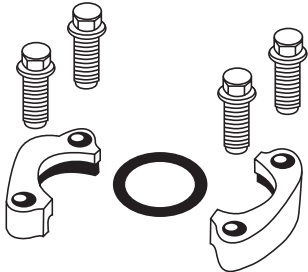
7890 90° M-JIC / FLANGE (CODE 62)

	PART NUMBER	T1	T2	
	7890-1212	1 ¹ / ₁₆ - 12	3/4	
	7890-1616	1 ⁵ / ₁₆ - 12	1	
	7890-1620	1 ⁵ / ₁₆ - 12	1 ¹ / ₄	
	7890-2020	1 ⁵ / ₈ - 12	1 ¹ / ₄	
	7890-2024	1 ⁵ / ₈ - 12	1 ¹ / ₂	
	7890-2424	1 ⁷ / ₈ - 12	1 ¹ / ₂	
	7890-3232	2 ¹ / ₂ - 12	2	

7890FG FORGED 90° M-JIC / FLANGE (CODE 62)

	PART NUMBER	T1	T2	
	7890FG-0808	3/4 - 16	1/2	
	7890FG-0812	3/4 - 16	3/4	
	7890FG-1212	1 ¹ / ₁₆ - 12	3/4	
	7890FG-1612	1 ⁵ / ₁₆ - 12	3/4	
	7890FG-1216	1 ¹ / ₁₆ - 12	1	
	7890FG-1616	1 ⁵ / ₁₆ - 12	1	
	7890FG-2016	1 ⁵ / ₈ - 12	1	
	7890FG-1620	1 ⁵ / ₁₆ - 12	1 ¹ / ₄	
	7890FG-2020	1 ⁵ / ₈ - 12	1 ¹ / ₄	
	7890FG-2420	1 ⁷ / ₈ - 12	1 ¹ / ₄	
	7890FG-2024	1 ⁵ / ₈ - 12	1 ¹ / ₂	
	7890FG-2424	1 ⁷ / ₈ - 12	1 ¹ / ₂	
	7890FG-3224	2 ¹ / ₂ - 12	1 ¹ / ₂	
	7890FG-2432	1 ⁷ / ₈ - 12	2	
7890FG-3232	2 ¹ / ₂ - 12	2		

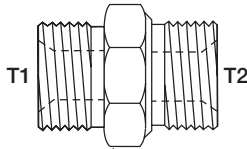
7895 SPLIT FLANGE KIT (CODE 62)

	PART NUMBER	T1		
	7895-08	1/2		
	7895-12	3/4		
	7895-16	1		
	7895-20	1 ¹ / ₄		
	7895-24	1 ¹ / ₂		
	7895-32	2		

BSP and Metric

9000

M-BSP / M-BSP



PART NUMBER	T1	T2	
9000-0202	1/8 - 28	1/8 - 28	
9000-0402	1/4 - 19	1/8 - 28	
9000-0404	1/4 - 19	1/4 - 19	
9000-0604	3/8 - 19	1/4 - 19	
9000-0606	3/8 - 19	3/8 - 19	
9000-0804	1/2 - 14	1/4 - 19	
9000-0806	1/2 - 14	3/8 - 19	
9000-0808	1/2 - 14	1/2 - 14	
9000-1010	5/8 - 14	5/8 - 14	
9000-1208	3/4 - 14	1/2 - 14	
9000-1212	3/4 - 14	3/4 - 14	
9000-1612	1 - 11	3/4 - 14	
9000-1616	1 - 11	1 - 11	
9000-2016	1 1/4 - 11	1 - 11	
9000-2020	1 1/4 - 11	1 1/4 - 11	
9000-2424	1 1/2 - 11	1 1/2 - 11	
9000-3232	2 - 11	2 - 11	

Technical
Data

Hose

Couplings

Adapters
BSP and Metric

Quick
Couplings

Accessories

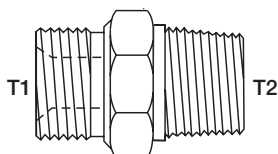
Equipment

Index

BSP and Metric

9003

M-BSPP / M-BSPT



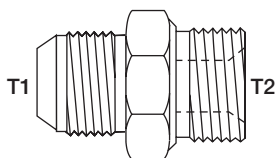
PART NUMBER	T1	T2	
9003-0202	1/8 - 28	1/8 - 28	
9003-0204	1/8 - 28	1/4 - 19	
9003-0206	1/8 - 28	3/8 - 19	
9003-0404	1/4 - 19	1/4 - 19	
9003-0406	1/4 - 19	3/8 - 19	
9003-0604	3/8 - 19	1/4 - 19	
9003-0606	3/8 - 19	3/8 - 19	
9003-0608	3/8 - 19	1/2 - 14	
9003-0804	1/2 - 14	1/4 - 19	
9003-0806	1/2 - 14	3/8 - 19	
9003-0808	1/2 - 14	1/2 - 14	
9003-0812	1/2 - 14	3/4 - 14	
9003-1008	5/8 - 14	1/2 - 14	
9003-1208	3/4 - 14	1/2 - 14	
9003-1212	3/4 - 14	3/4 - 14	
9003-1216	3/4 - 14	1 - 11	
9003-1612	1 - 11	3/4 - 14	
9003-1616	1 - 11	1 - 11	
9003-2020	1 1/4 - 11	1 1/4 - 11	

BSP and Metric

9005

M-JIC / M-BSP

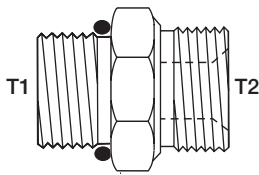
	PART NUMBER	T1	T2	
	9005-0402	7/16 - 20	1/8 - 28	
	9005-0404	7/16 - 20	1/4 - 19	
	9005-0406	7/16 - 20	3/8 - 19	
	9005-0408	7/16 - 20	1/2 - 14	
	9005-0602	9/16 - 18	1/8 - 28	
	9005-0604	9/16 - 18	1/4 - 19	
	9005-0606	9/16 - 18	3/8 - 19	
	9005-0608	9/16 - 18	1/2 - 14	
	9005-0610	9/16 - 18	5/8 - 14	
	9005-0804	3/4 - 16	1/4 - 19	
	9005-0806	3/4 - 16	3/8 - 19	
	9005-0808	3/4 - 16	1/2 - 14	
	9005-0810	3/4 - 16	5/8 - 14	
	9005-0812	3/4 - 16	3/4 - 14	
	9005-0816	3/4 - 16	1 - 11	
	9005-1006	7/8 - 14	3/8 - 19	
	9005-1008	7/8 - 14	1/2 - 14	
	9005-1010	7/8 - 14	5/8 - 14	
	9005-1012	7/8 - 14	3/4 - 14	
	9005-1208	1 1/16 - 12	1/2 - 14	
	9005-1210	1 1/16 - 12	5/8 - 14	
	9005-1212	1 1/16 - 12	3/4 - 14	
	9005-1216	1 1/16 - 12	1 - 11	
	9005-1220	1 1/16 - 12	1 1/4 - 11	
	9005-1608	1 5/16 - 12	1/2 - 14	
	9005-1612	1 5/16 - 12	3/4 - 14	
	9005-1616	1 5/16 - 12	1 - 11	
	9005-1620	1 5/16 - 12	1 1/4 - 11	
	9005-2016	1 5/8 - 12	1 - 11	
	9005-2020	1 5/8 - 12	1 1/4 - 11	
	9005-2024	1 5/8 - 12	1 1/2 - 11	
	9005-2424	1 7/8 - 12	1 1/2 - 11	



BSP and Metric

9006

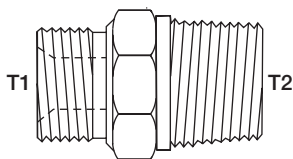
M-ORB / M-BSP



PART NUMBER	T1	T2	
9006-0404	7/16 - 20	1/4 - 19	
9006-0406	7/16 - 20	3/8 - 19	
9006-0604	9/16 - 18	1/4 - 19	
9006-0606	9/16 - 18	3/8 - 19	
9006-0608	9/16 - 18	1/2 - 14	
9006-0806	3/4 - 16	3/8 - 19	
9006-0808	3/4 - 16	1/2 - 14	
9006-1006	7/8 - 14	3/8 - 19	
9006-1008	7/8 - 14	1/2 - 14	
9006-1212	1 1/16 - 12	3/4 - 14	
9006-1616	1 5/16 - 12	1 - 11	

9007

M-BSP / M-NPT

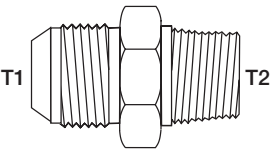


PART NUMBER	T1	T2	
9007-0202	1/8 - 28	1/8 - 27	
9007-0402	1/4 - 19	1/8 - 27	
9007-0404	1/4 - 19	1/4 - 18	
9007-0406	1/4 - 19	3/8 - 18	
9007-0408	1/4 - 19	1/2 - 14	
9007-0604	3/8 - 19	1/4 - 18	
9007-0606	3/8 - 19	3/8 - 18	
9007-0608	3/8 - 19	1/2 - 14	
9007-0804	1/2 - 14	1/4 - 18	
9007-0806	1/2 - 14	3/8 - 18	
9007-0808	1/2 - 14	1/2 - 14	
9007-0812	1/2 - 14	3/4 - 14	
9007-1008	5/8 - 14	1/2 - 14	
9007-1208	3/4 - 14	1/2 - 14	
9007-1212	3/4 - 14	3/4 - 14	
9007-1216	3/4 - 14	1 - 11 1/2	
9007-1612	1 - 11	3/4 - 14	
9007-1616	1 - 11	1 - 11 1/2	
9007-2020	1 1/4 - 11	1 1/4 - 11 1/2	
9007-2424	1 1/2 - 11	1 1/2 - 11 1/2	
9007-3232	2 - 11	2 - 11 1/2	

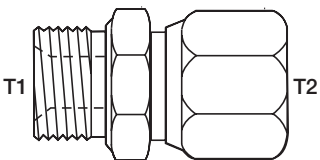


BSP and Metric

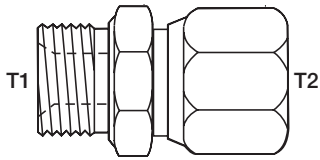
9011 M-JIC / M-BSPT

	PART NUMBER	T1	T2	
	9011-0402	7/16 - 20	1/8 - 28	
9011-0404	7/16 - 20	1/4 - 19		
9011-0406	7/16 - 20	3/8 - 19		
9011-0604	9/16 - 18	1/4 - 19		
9011-0606	9/16 - 18	3/8 - 19		
9011-0608	9/16 - 18	1/2 - 14		
9011-0806	3/4 - 16	3/8 - 19		
9011-0808	3/4 - 16	1/2 - 14		
9011-1006	7/8 - 14	3/8 - 19		
9011-1008	7/8 - 14	1/2 - 14		
9011-1212	1 1/16 - 12	3/4 - 14		
9011-1612	1 5/16 - 12	3/4 - 14		
9011-1616	1 5/16 - 12	1 - 11		

9015 M-BSPP / F-BSPP

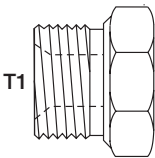
	PART NUMBER	T1	T2	
	9015-0202	1/8 - 28	1/8 - 28	
9015-0404	1/4 - 19	1/4 - 19		
9015-0606	3/8 - 19	3/8 - 19		
9015-0808	1/2 - 14	1/2 - 14		
9015-1010	5/8 - 14	5/8 - 14		
9015-1212	3/4 - 14	3/4 - 14		
9015-1616	1 - 11	1 - 11		

9021 M-BSPP / F-JIC SWIVEL

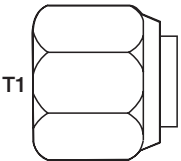
	PART NUMBER	T1	T2	
	9021-0404	1/4 - 19	7/16 - 20	
9021-0406	1/4 - 19	9/16 - 18		
9021-0606	3/8 - 19	9/16 - 18		
9021-0808	1/2 - 14	3/4 - 16		
9021-1212	3/4 - 14	1 1/16 - 12		
9021-1616	1 - 11	1 5/16 - 12		

BSP and Metric

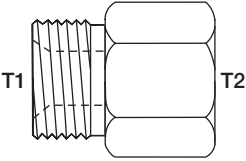
9030 M-BSP PLUG

	PART NUMBER	T1		
	9030-02	1/8 - 28		
	9030-04	1/4 - 19		
	9030-06	3/8 - 19		
	9030-08	1/2 - 14		
	9030-10	5/8 - 14		
	9030-12	3/4 - 14		
	9030-16	1 - 11		
	9030-20	1 1/4 - 11		

9033 F-BSP SWIVEL CAP

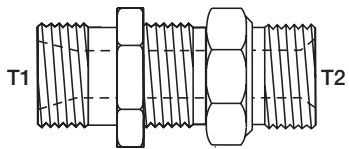
	PART NUMBER	T1		
	9033-02	1/8 - 28		
	9033-04	1/4 - 19		
	9033-06	3/8 - 19		
	9033-08	1/2 - 14		
	9033-10	5/8 - 14		
	9033-12	3/4 - 14		
	9033-16	1 - 11		
	9033-20	1 1/4 - 11		

9038 M-BSP / F-BSP

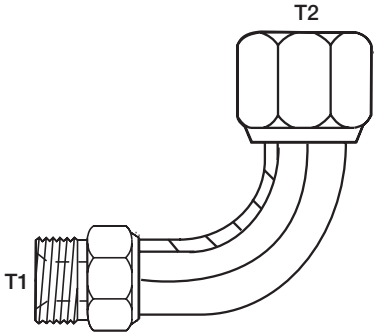
	PART NUMBER	T1	T2	
	9038-0602	3/8 - 19	1/8 - 28	
	9038-0804	1/2 - 14	1/4 - 19	
	9038-1204	3/4 - 14	1/4 - 19	
	9038-1206	3/4 - 14	3/8 - 19	
	9038-1606	1 - 11	3/8 - 19	
	9038-1608	1 - 11	1/2 - 14	
	9038-2012	1 1/4 - 11	3/4 - 14	
	9038-2016	1 1/4 - 11	1 - 11	

BSP and Metric

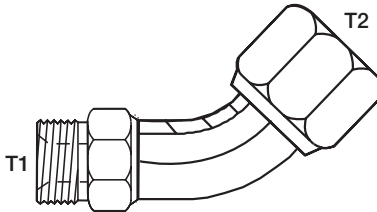
9040 M-BSP / M-BSP BULKHEAD

	PART NUMBER	T1	T2	
	9040-0404	1/4 - 19	1/4 - 19	
	9040-0606	3/8 - 19	3/8 - 19	
	9040-0808	1/2 - 14	1/2 - 14	
	9040-1212	3/4 - 14	3/4 - 14	
	9040-1616	1 - 11	1 - 11	
	9040-2020	1 1/4 - 11	1 1/4 - 11	

9045 90° M-BSP / F-BSP BENT TUBE

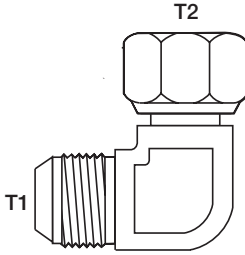
	PART NUMBER	T1	T2	
	9045-0404	1/4 - 19	1/4 - 19	
	9045-0606	3/8 - 19	3/8 - 19	
	9045-0808	1/2 - 14	1/2 - 14	
	9045-1212	3/4 - 14	3/4 - 14	
	9045-1616	1 - 11	1 - 11	

9047 45° M-BSP / F-BSP BENT TUBE

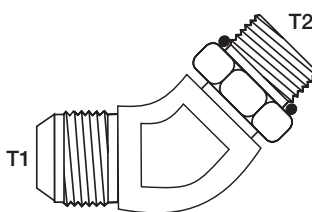
	PART NUMBER	T1	T2	
	9047-0404	1/4 - 19	1/4 - 19	
	9047-0606	3/8 - 19	3/8 - 19	
	9047-0808	1/2 - 14	1/2 - 14	
	9047-1212	3/4 - 14	3/4 - 14	
	9047-1616	1 - 11	1 - 11	

BSP and Metric

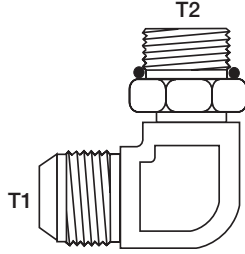
9056 90° M-JIC / F-BSP

	PART NUMBER	T1	T2	
	9056-0606	7/16 - 20	3/8 - 19	
	9056-0808	3/4 - 16	1/2 - 14	
	9056-1212	1 1/16 - 12	3/4 - 14	

9058 45° M-JIC / M-BSP

	PART NUMBER	T1	T2	
	9059-0404	7/16 - 20	1/4 - 19	
	9059-0606	9/16 - 18	3/8 - 19	
	9059-0808	3/4 - 16	1/2 - 14	
	9059-1212	1 1/16 - 12	3/4 - 14	
	9059-1616	1 5/16 - 12	1 - 11	

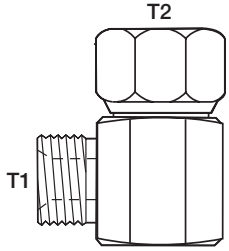
9059 90° M-JIC / M-BSP

	PART NUMBER	T1	T2	
	9059-0404	7/16 - 20	1/4 - 19	
	9059-0606	9/16 - 18	3/8 - 19	
	9059-0808	3/4 - 16	1/2 - 14	
	9059-1212	1 1/16 - 12	3/4 - 14	
	9059-1616	1 5/16 - 12	1 - 11	

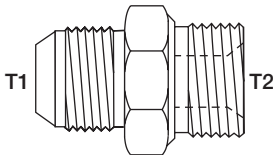


BSP and Metric

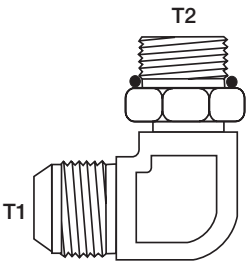
9061 90° M-BSP / F-BSP

	PART NUMBER	T1	T2	
	9061-0202	1/8 - 28	1/8 - 28	
	9061-0404	1/4 - 19	1/4 - 19	
	9601-0606	3/8 - 19	3/8 - 19	
	9601-0808	1/2 - 14	1/2 - 14	
	9601-1212	3/4 - 14	3/4 - 14	
	9601-1616	1 - 11	1 - 11	
	9601-2020	1 1/4 - 11	1 1/4 - 11	

9067 M-JIC / MALE METRIC PORT

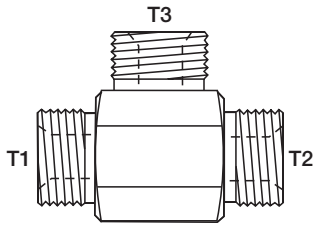
	PART NUMBER	T1	T2	
	9067-0412	7/16 - 20	M12 x 1.5	
	9067-0414	7/16 - 20	M14 x 1.5	
	9067-0614	9/16 - 18	M14 x 1.5	
	9067-0616	9/16 - 18	M16 x 1.5	
	9067-0618	9/16 - 18	M18 x 1.5	
	9067-0620	9/16 - 18	M20 x 1.5	
	9067-0820	3/4 - 16	M20 x 1.5	
	9067-0822	3/4 - 16	M22 x 1.5	
	9067-1226	1 1/16 - 12	M26 x 1.5	

9069 90° M-JIC / MALE METRIC PORT

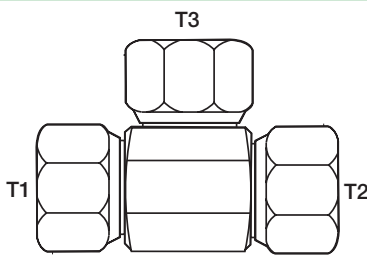
	PART NUMBER	T1	T2	
	9069-0412	7/16 - 24	M12 x 1.5	
	9069-0614	9/16 - 18	M14 x 1.5	
	9069-0818	3/4 - 16	M18 x 1.5	
	9069-1020	7/8 - 14	M20 x 1.5	
	9069-1222	1 1/16 - 12	M22 x 1.5	

BSP and Metric

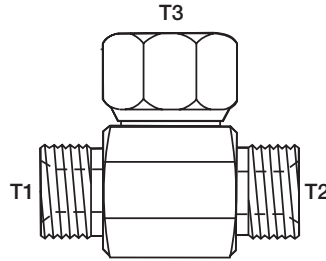
9080 TEE M-BSP

	PART NUMBER	T1	T2	T3
	9080-040404	1/4 - 19	1/4 - 19	1/4 - 19
	9080-060606	3/8 - 19	3/8 - 19	3/8 - 19
	9080-080808	1/2 - 14	1/2 - 14	1/2 - 14
	9080-121212	3/4 - 14	3/4 - 14	3/4 - 14
	9080-161616	1 - 11	1 - 11	1 - 11
	9080-202020	1 1/4 - 11	1 1/4 - 11	1 1/4 - 11

9085 TEE F-BSP

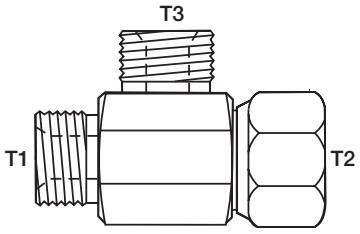
	PART NUMBER	T1	T2	T3
	9085-040404	1/4 - 19	1/4 - 19	1/4 - 19
	9085-060606	3/8 - 19	3/8 - 19	3/8 - 19
	9085-080808	1/2 - 14	1/2 - 14	1/2 - 14
	9085-121212	3/4 - 14	3/4 - 14	3/4 - 14
	9085-161616	1 - 11	1 - 11	1 - 11

9087 BRANCH TEE M-BSP / M-BSP / F-BSP

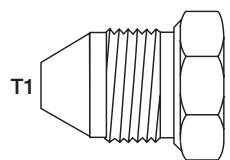
	PART NUMBER	T1	T2	T3
	9087-040404	1/4 - 19	1/4 - 19	1/4 - 19
	9087-060606	3/8 - 19	3/8 - 19	3/8 - 19
	9087-080808	1/2 - 14	1/2 - 14	1/2 - 14
	9087-121212	3/4 - 14	3/4 - 14	3/4 - 14
	9087-161616	1 - 11	1 - 11	1 - 11

BSP and Metric

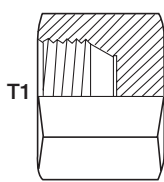
9090 RUN TEE M-BSP / F-BSP / M-BSP

	PART NUMBER	T1	T2	T3
	9090-040404	1/4 - 19	1/4 - 19	1/4 - 19
	9090-060606	3/8 - 19	3/8 - 19	3/8 - 19
	9090-080808	1/2 - 14	1/2 - 14	1/2 - 14
	9090-121212	3/4 - 14	3/4 - 14	3/4 - 14
	9090-161616	1 - 11	1 - 11	1 - 11

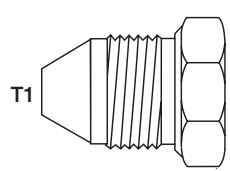
9221 JIS PLUG

	PART NUMBER	T1		
	9221-04	1/4 - 19		
	9221-06	3/8 - 19		
	9221-08	1/2 - 14		
	9221-12	3/4 - 14		
	9221-16	1 - 11		

9222 JIS CAP

	PART NUMBER	T1		
	9222-04	1/4 - 19		
	9222-06	3/8 - 19		
	9222-08	1/2 - 14		
	9222-12	3/4 - 14		
	9222-16	1 - 11		

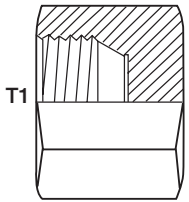
9231 KOMATSU PLUG

	PART NUMBER	T1		
	9231-14	M14 x 1.5		
	9231-18	M18 x 1.5		
	9231-22	M22 x 1.5		
	9231-24	M24 x 1.5		
	9231-30	M30 x 1.5		
	9231-33	M33 x 1.5		
	9231-42	M42 x 1.5		

BSP and Metric

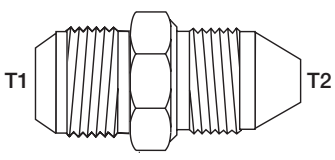
9232

KOMATSU CAP

	PART NUMBER	T1		
	9232-14	M14 x 1.5		
	9232-18	M18 x 1.5		
	9232-22	M22 x 1.5		
	9232-24	M24 x 1.5		
	9232-30	M30 x 1.5		
	9232-33	M33 x 1.5		

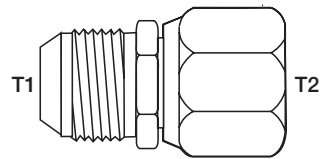
9237

M-JIC / M-KOMATSU

	PART NUMBER	T1	T2	
	9237-0414	$\frac{7}{16}$ - 24	M14 x 1.5	
	9237-0618	$\frac{9}{16}$ - 18	M18 x 1.5	
	9237-0822	$\frac{3}{4}$ - 16	M22 x 1.5	
	9237-1024	$\frac{7}{8}$ - 14	M24 x 1.5	
	9237-1230	$1\frac{1}{16}$ - 12	M30 x 1.5	
	9237-1633	$1\frac{5}{16}$ - 12	M33 x 1.5	

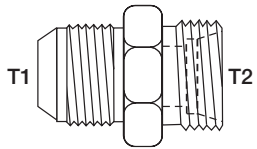
9240

M-JIC / F-BSP

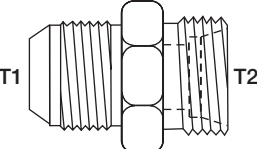
	PART NUMBER	T1	T2	
	9240-0402	$\frac{7}{16}$ - 20	$\frac{1}{8}$ - 28	
	9240-0404	$\frac{7}{16}$ - 20	$\frac{1}{4}$ - 19	
	9240-0406	$\frac{7}{16}$ - 20	$\frac{3}{8}$ - 19	
	9240-0408	$\frac{7}{16}$ - 20	$\frac{1}{2}$ - 14	
	9240-0604	$\frac{9}{16}$ - 18	$\frac{1}{4}$ - 19	
	9240-0606	$\frac{9}{16}$ - 18	$\frac{3}{8}$ - 19	
	9240-0608	$\frac{9}{16}$ - 18	$\frac{1}{2}$ - 14	
	9240-0806	$\frac{3}{4}$ - 16	$\frac{3}{8}$ - 19	
	9240-0808	$\frac{3}{4}$ - 16	$\frac{1}{2}$ - 14	
	9240-0810	$\frac{3}{4}$ - 16	$\frac{5}{8}$ - 14	
	9240-0812	$\frac{3}{4}$ - 16	$\frac{3}{4}$ - 14	
	9240-1008	$\frac{7}{8}$ - 14	$\frac{1}{2}$ - 14	
	9240-1012	$\frac{7}{8}$ - 14	$\frac{3}{4}$ - 14	
	9240-1212	$1\frac{1}{16}$ - 12	$\frac{3}{4}$ - 14	
	9240-1216	$1\frac{1}{16}$ - 12	1 - 11	
	9240-1616	$1\frac{5}{16}$ - 12	1 - 11	

BSP and Metric

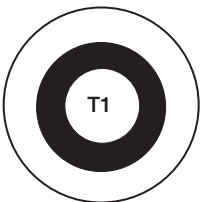
9245 M-JIC / M-JSW

	PART NUMBER	T1	T2	
	9245-12-34	1 ¹ / ₁₆ - 12	M34 x 1.5	
	9245-16-40	1 ⁵ / ₁₆ - 12	M40 x 1.5	
	9245-20-48	1 ⁵ / ₈ - 12	M48 x 1.5	

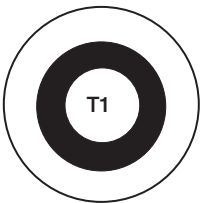
9247 M-JIC / M-KOBELCO

	PART NUMBER	T1	T2	
	9247-12-36	1 ¹ / ₁₆ - 12	M36 x 1.5	
	9247-16-36	1 ⁵ / ₁₆ - 12	M36 x 1.5	
	9247-16-45	1 ⁵ / ₁₆ - 12	M45 x 1.5	
	9247-20-45	1 ⁵ / ₈ - 12	M45 x 1.5	

9500 BSP BONDED SEAL

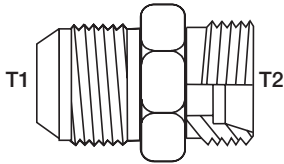
	PART NUMBER	T1		
	9500-02	1/8		
	9500-04	1/4		
	9500-06	3/8		
	9500-08	1/2		
	9500-10	5/8		
	9500-12	3/4		
	9500-16	1		
	9500-20	1 ¹ / ₄		
	9500-24	1 ¹ / ₂		
9500-32	2			

9500MM METRIC BONDED SEAL

	PART NUMBER	T1		
	9500MM-12	M12		
	9500MM-14	M14		
	9500MM-16	M16		
	9500MM-18	M18		
	9500MM-22	M22		
	9500MM-26	M26		
	9500MM-30	M30		

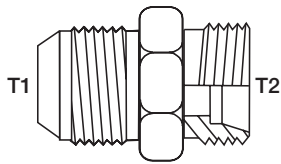
BSP and Metric

9605 M-JIC / M-METRIC LIGHT



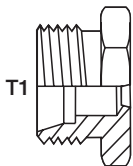
PART NUMBER	T1	T2	
9605-0412	7/16 - 24	M12 x 1.5	
9605-0414	7/16 - 24	M14 x 1.5	
9605-0616	9/16 - 18	M16 x 1.5	
9605-0618	9/16 - 18	M18 x 1.5	
9605-0816	3/4 - 16	M16 x 1.5	
9605-0818	3/4 - 16	M18 x 1.5	
9605-1022	7/8 - 14	M22 x 1.5	
9605-1222	1 1/16 - 12	M22 x 1.5	
9605-1226	1 1/16 - 12	M26 x 1.5	
9605-1230	1 1/16 - 12	M30 x 2.0	
9605-1636	1 5/16 - 12	M36 x 2.0	
9605-2045	1 5/8 - 12	M45 x 2.0	

9606 M-JIC / M-METRIC HEAVY



PART NUMBER	T1	T2	
9606-0416	7/16 - 24	M16 x 1.5	
9606-0416	7/16 - 24	M16 x 1.5	
9606-0618	9/16 - 18	M18 x 1.5	
9606-0620	9/16 - 18	M20 x 1.5	
9606-0818	3/4 - 16	M18 x 1.5	
9606-0820	3/4 - 16	M20 x 1.5	
9606-0822	3/4 - 16	M22 x 1.5	
9606-1024	7/8 - 14	M24 x 1.5	
9606-1230	1 1/16 - 12	M30 x 2.0	
9606-1236	1 1/16 - 12	M36 x 2.0	
9606-1642	1 5/16 - 12	M42 x 2.0	
9606-2052	1 5/8 - 12	M52 x 2.0	

9610 METRIC PLUG LIGHT

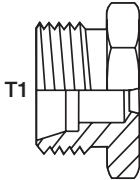


PART NUMBER	T1		
9610-12	M12 x 1.5		
9610-14	M14 x 1.5		
9610-16	M16 x 1.5		
9610-18	M18 x 1.5		
9610-22	M22 x 1.5		
9610-26	M26 x 1.5		
9610-30	M30 x 2.0		
9610-36	M36 x 2.0		
9610-45	M45 x 2.0		
9610-52	M52 x 2.0		

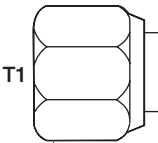


BSP and Metric

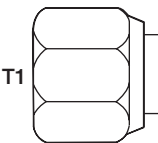
9611 METRIC PLUG HEAVY

	PART NUMBER	T1		
	9611-16	M16 x 1.5		
	9611-18	M18 x 1.5		
	9611-20	M20 x 1.5		
	9611-22	M22 x 1.5		
	9611-24	M24 x 1.5		
	9611-30	M30 x 2.0		
	9611-36	M36 x 2.0		
	9611-42	M42 x 2.0		
9611-52	M52 x 2.0			

9620 METRIC CAP LIGHT

	PART NUMBER	T1		
	9620-12	M12 x 1.5		
	9620-14	M14 x 1.5		
	9620-16	M16 x 1.5		
	9620-18	M18 x 1.5		
	9620-22	M22 x 1.5		
	9620-26	M26 x 1.5		
	9620-30	M30 x 2.0		
	9620-36	M36 x 2.0		
	9620-45	M45 x 2.0		
9620-52	M52 x 2.0			

9621 METRIC CAP HEAVY

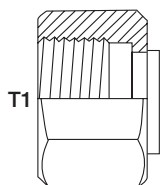
	PART NUMBER	T1		
	9621-16	M16 x 1.5		
	9621-18	M18 x 1.5		
	9621-20	M20 x 1.5		
	9621-22	M22 x 1.5		
	9621-24	M24 x 1.5		
	9621-30	M30 x 2.0		
	9621-36	M36 x 2.0		
	9621-42	M45 x 2.0		
9621-52	M52 x 2.0			

O-Ring Face Seal

FS0304

ORFS CAP

SAE # 520112

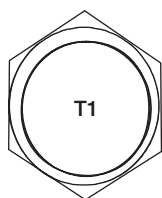


PART NUMBER	T1		
FS0304-04	9/16 - 18		
FS0304-06	11/16 - 16		
FS0304-08	13/16 - 16		
FS0304-10	1 - 14		
FS0306-12	13/16 - 12		
FS0304-16	17/16 - 12		
FS0304-20	111/16 - 12		
FS0304-24	2 - 12		

FS0306

ORFS BULKHEAD LOCKNUT

SAE # 520118



PART NUMBER	T1		
FS0306-04	9/16 - 18		
FS0306-06	11/16 - 16		
FS0306-08	13/16 - 16		
FS0306-10	1 - 14		
FS0306-12	13/16 - 12		
FS0306-16	17/16 - 12		
FS0306-20	111/16 - 12		
FS0306-24	2 - 12		

FS0318

ORFS TUBE NUT

SAE # 520110




PART NUMBER	T1		
FS0318-04	9/16 - 18		
FS0318-06	11/16 - 16		
FS0318-08	13/16 - 16		
FS0318-10	1 - 14		
FS0318-12	13/16 - 12		
FS0318-16	17/16 - 12		
FS0318-20	111/16 - 12		
FS0318-24	2 - 12		

O-Ring Face Seal

FS0319

ORFS TUBE SLEEVE

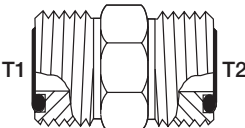
SAE # 520115

	PART NUMBER	TUBE O.D.		
	FS0319-04UNPL	1/4		
	FS0319-06UNPL	3/8		
	FS0319-08UNPL	1/2		
	FS0319-10UNPL	5/8		
	FS0319-12UNPL	3/4		
	FS0319-16UNPL	1		
	FS0319-20UNPL	1 1/4		

FS2403

M-ORFS / M-ORFS

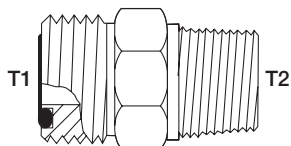
SAE # 520101

	PART NUMBER	T1	T2	
	FS2403-0404	9/16 - 18	9/16 - 18	
	FS2403-0604	1 1/16 - 16	9/16 - 18	
	FS2403-0606	1 1/16 - 16	1 1/16 - 16	
	FS2403-0806	1 3/16 - 16	1 1/16 - 16	
	FS2403-0808	1 3/16 - 16	1 3/16 - 16	
	FS2403-1008	1 - 14	1 3/16 - 16	
	FS2403-1010	1 - 14	1 - 14	
	FS2403-1210	1 3/16 - 12	1 - 14	
	FS2403-1212	1 3/16 - 12	1 3/16 - 12	
	FS2403-1612	1 7/16 - 12	1 3/16 - 12	
	FS2403-1616	1 7/16 - 12	1 7/16 - 12	
	FS2403-2020	1 11/16 - 12	1 11/16 - 12	
	FS2403-2424	2 - 12	2 - 12	

O-Ring Face Seal

FS2404

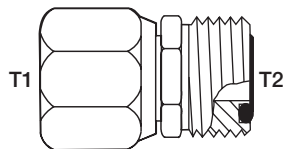
M-ORFS / M-NPT



PART NUMBER	T1	T2	
FS2404-0402	9/16 - 18	1/8 - 27	
FS2404-0404	9/16 - 18	1/4 - 18	
FS2404-0406	9/16 - 18	3/8 - 18	
FS2404-0602	1 1/16 - 16	1/8 - 27	
FS2404-0604	1 1/16 - 16	1/4 - 18	
FS2404-0606	1 1/16 - 16	3/8 - 18	
FS2404-0608	1 1/16 - 16	1/2 - 14	
FS2404-0806	1 3/16 - 16	3/8 - 18	
FS2404-0808	1 3/16 - 16	1/2 - 14	
FS2404-0812	1 3/16 - 16	3/4 - 14	
FS2404-1008	1 - 14	1/2 - 14	
FS2404-1012	1 - 14	3/4 - 14	
FS2404-1208	1 3/16 - 12	1/2 - 14	
FS2404-1212	1 3/16 - 12	3/4 - 14	
FS2404-1216	1 3/16 - 12	1 - 11 1/2	
FS2404-1612	1 7/16 - 12	3/4 - 14	
FS2404-1616	1 7/16 - 12	1 - 11 1/2	
FS2404-2020	1 11/16 - 12	1 1/4 - 11 1/2	
FS2404-2424	2 - 12	1 1/2 - 11 1/2	

FS2406

F-ORFS / M-ORFS



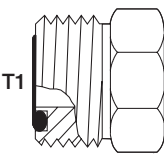
PART NUMBER	T1	T2	
FS2406-0404	9/16 - 18	9/16 - 18	
FS2406-0604	1 1/16 - 16	9/16 - 18	
FS2406-0606	1 1/16 - 16	1 1/16 - 16	
FS2406-0804	1 3/16 - 16	9/16 - 18	
FS2406-0806	1 3/16 - 16	1 1/16 - 16	
FS2406-0808	1 3/16 - 16	1 3/16 - 16	
FS2406-1006	1 - 14	1 1/16 - 16	
FS2406-1008	1 - 14	1 3/16 - 16	
FS2406-1206	1 3/16 - 12	1 1/16 - 16	
FS2406-1208	1 3/16 - 12	1 3/16 - 16	
FS2406-1210	1 3/16 - 12	1 - 14	
FS2406-1608	1 7/16 - 12	1 3/16 - 16	
FS2406-1610	1 7/16 - 12	1 - 14	
FS2406-1612	1 7/16 - 12	1 3/16 - 12	
FS2406-2016	1 11/16 - 12	1 7/16 - 12	

O-Ring Face Seal

FS2408

ORFS HEX PLUG

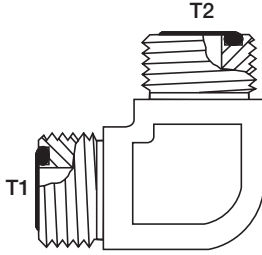
SAE # 520109

	PART NUMBER	T1		
	FS2408-04	9/16 - 18		
	FS2408-06	1 1/16 - 16		
	FS2408-08	1 3/16 - 16		
	FS2408-10	1 - 14		
	FS2408-12	1 3/16 - 12		
	FS2408-16	1 7/16 - 12		
	FS2408-20	1 11/16 - 12		
	FS2408-24	2 - 12		

FS2500

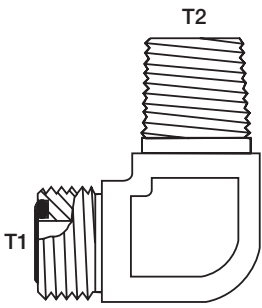
90° M-ORFS / M-ORFS

SAE # 520201

	PART NUMBER	T1	T2	
	FS2500-0404	9/16 - 18	9/16 - 18	
	FS2500-0606	1 1/16 - 16	1 1/16 - 16	
	FS2500-0808	1 3/16 - 16	1 3/16 - 16	
	FS2500-1010	1 - 14	1 - 14	
	FS2500-1212	1 3/16 - 12	1 3/16 - 12	
	FS2500-1616	1 7/16 - 12	1 7/16 - 12	
	FS2500-2020	1 11/16 - 12	1 11/16 - 12	
	FS2500-2424	2 - 12	2 - 12	

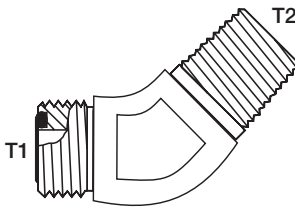
FS2501

90° M-ORFS / M-NPT

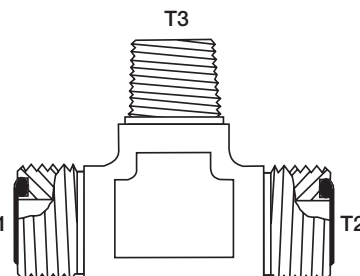
	PART NUMBER	T1	T2	
	FS2501-0402	9/16 - 18	1/8 - 27	
	FS2501-0404	9/16 - 18	1/4 - 19	
	FS2501-0604	1 1/16 - 16	1/4 - 18	
	FS2501-0606	1 1/16 - 16	3/8 - 18	
	FS2501-0806	1 3/16 - 16	3/8 - 18	
	FS2501-0808	1 3/16 - 16	1/2 - 14	
	FS2501-1008	1 - 14	1/2 - 14	
	FS2501-1212	1 3/16 - 12	3/4 - 14	
	FS2501-1616	1 7/16 - 12	1 - 11 1/2	
	FS2501-2020	1 11/16 - 12	1 1/4 - 11 1/2	
	FS2501-2424	2 - 12	1 1/2 - 11 1/2	

O-Ring Face Seal

FS2503 45° M-ORFS / M-NPT

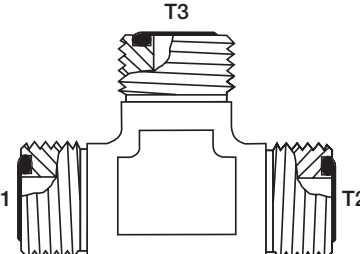
	PART NUMBER	T1	T2	
	FS2501-0404	9/16 - 18	1/4 - 18	
	FS2501-0604	1 1/16 - 16	1/4 - 18	
	FS2501-0606	1 1/16 - 16	3/8 - 18	
	FS2501-0806	1 3/16 - 16	3/8 - 18	
	FS2501-0808	1 3/16 - 16	1/2 - 14	
	FS2501-1008	1 - 14	1/2 - 14	
	FS2501-1208	1 3/16 - 12	1/2 - 14	
	FS2501-1212	1 3/16 - 12	3/4 - 14	
	FS2501-1616	1 7/16 - 12	1 - 11 1/2	
FS2501-2020	1 11/16 - 12	1 1/4 - 11 1/2		

FS2601 BRANCH TEE M-ORFS / M-ORFS / M-NPT

	PART NUMBER	T1	T2	T3
	FS2601-040404	9/16 - 18	9/16 - 18	1/4 - 18
	FS2601-060606	1 1/16 - 16	1 1/16 - 16	3/8 - 18
	FS2601-080808	1 3/16 - 16	1 3/16 - 16	1/2 - 14
	FS2601-121212	1 3/16 - 12	1 3/16 - 12	3/4 - 14
	FS2601-161616	1 7/16 - 12	1 7/16 - 12	1 - 11 1/2

FS2603 TEE M-ORFS

SAE # 520401

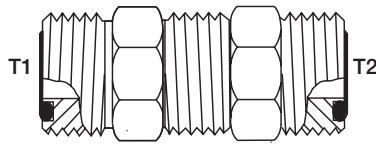
	PART NUMBER	T1	T2	T3
	FS2603-040404	9/16 - 18	9/16 - 18	9/16 - 18
	FS2603-060606	1 1/16 - 16	1 1/16 - 16	1 1/16 - 16
	FS2603-080808	1 3/16 - 16	1 3/16 - 16	1 3/16 - 16
	FS2603-101010	1 - 14	1 - 14	1 - 14
	FS2603-121212	1 3/16 - 12	1 3/16 - 12	1 3/16 - 12
	FS2603-161616	1 7/16 - 12	1 7/16 - 12	1 7/16 - 12
	FS2603-202020	1 11/16 - 12	1 11/16 - 12	1 11/16 - 12
	FS2603-242424	2 - 12	2 - 12	2 - 12



O-Ring Face Seal

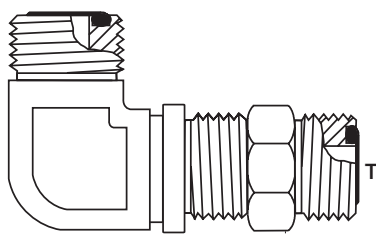
FS2700LN M-ORFS / M-ORFS BULKHEAD

SAE # 520601

	PART NUMBER	T1	T2	
	FS2700LN-0404	9/16 - 18	9/16 - 18	
	FS2700LN-0606	1 1/16 - 16	1 1/16 - 16	
	FS2700LN-0808	1 3/16 - 16	1 3/16 - 16	
	FS2700LN-1010	1 - 14	1 - 14	
	FS2700LN-1212	1 3/16 - 12	1 3/16 - 12	
	FS2700LN-1616	1 7/16 - 12	1 7/16 - 12	
	FS2700LN-2020	1 11/16 - 12	1 11/16 - 12	
	FS2700LN-2424	2 - 12	2 - 12	

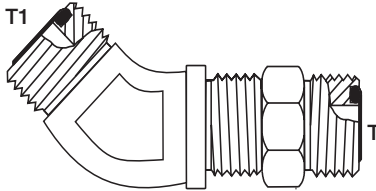
FS2701LN 90° M-ORFS / M-ORFS BULKHEAD

SAE # 520701

	PART NUMBER	T1	T2	
	FS2701LN-0404	9/16 - 18	9/16 - 18	
	FS2701LN-0606	1 1/16 - 16	1 1/16 - 16	
	FS2701LN-0808	1 3/16 - 16	1 3/16 - 16	
	FS2701LN-1010	1 - 14	1 - 14	
	FS2701LN-1212	1 3/16 - 12	1 3/16 - 12	
	FS2701LN-1616	1 7/16 - 12	1 7/16 - 12	
	FS2701LN-2020	1 11/16 - 12	1 11/16 - 12	
	FS2701LN-2424	2 - 12	2 - 12	

FS2702LN 45° M-ORFS / M-ORFS BULKHEAD

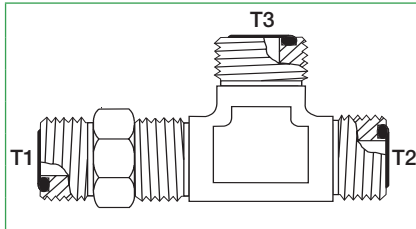
SAE # 520801

	PART NUMBER	T1	T2	
	FS2702LN-0404	9/16 - 18	9/16 - 18	
	FS2702LN-0606	1 1/16 - 16	1 1/16 - 16	
	FS2702LN-0808	1 3/16 - 16	1 3/16 - 16	
	FS2702LN-1010	1 - 14	1 - 14	
	FS2702LN-1212	1 3/16 - 12	1 3/16 - 12	
	FS2702LN-1616	1 7/16 - 12	1 7/16 - 12	
	FS2702LN-2020	1 11/16 - 12	1 11/16 - 12	
	FS2702LN-2424	2 - 12	2 - 12	

O-Ring Face Seal

FS2704LN RUN TEE M-ORFS BULKHEAD

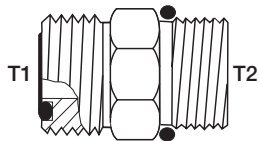
SAE # 520201



PART NUMBER	T1	T2	T3
FS2704LN-040404	9/16 - 18	9/16 - 18	9/16 - 18
FS2704LN-060606	1 1/16 - 16	1 1/16 - 16	1 1/16 - 16
FS2704LN-080808	1 3/16 - 16	1 3/16 - 16	1 3/16 - 16
FS2704LN-101010	1 - 14	1 - 14	1 - 14
FS2704LN-121212	1 3/16 - 12	1 3/16 - 12	1 3/16 - 12
FS2704LN-161616	1 7/16 - 12	1 7/16 - 12	1 7/16 - 12

FS6400 M-ORFS / M-ORB

SAE # 520122

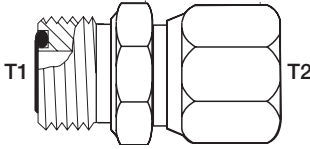


PART NUMBER	T1	T2	
FS6400-0404	9/16 - 18	7/16 - 20	
FS6400-0405	9/16 - 18	1/2 - 20	
FS6400-0406	9/16 - 18	9/16 - 18	
FS6400-0408	9/16 - 18	3/4 - 16	
FS6400-0604	1 1/16 - 16	7/16 - 20	
FS6400-0606	1 1/16 - 16	9/16 - 18	
FS6400-0608	1 1/16 - 16	3/4 - 16	
FS6400-0610	1 1/16 - 16	7/8 - 14	
FS6400-0806	1 3/16 - 16	9/16 - 18	
FS6400-0808	1 3/16 - 16	3/4 - 16	
FS6400-0810	1 3/16 - 16	7/8 - 14	
FS6400-0812	1 3/16 - 16	1 1/16 - 12	
FS6400-0816	1 3/16 - 16	1 5/16 - 12	
FS6400-1008	1 - 14	3/4 - 16	
FS6400-1010	1 - 14	7/8 - 14	
FS6400-1012	1 - 14	1 1/16 - 12	
FS6400-1208	1 3/16 - 12	3/4 - 16	
FS6400-1210	1 3/16 - 12	7/8 - 14	
FS6400-1212	1 3/16 - 12	1 1/16 - 12	
FS6400-1216	1 3/16 - 12	1 5/16 - 12	
FS6400-1612	1 7/16 - 12	1 1/16 - 12	
FS6400-1616	1 7/16 - 12	1 5/16 - 12	
FS6400-1620	1 7/16 - 12	1 5/8 - 12	
FS6400-2016	1 11/16 - 12	1 5/16 - 12	
FS6400-2020	1 11/16 - 12	1 5/8 - 12	
FS6400-2024	1 11/16 - 12	1 7/8 - 12	
FS6400-2420	2 - 12	1 5/8 - 12	
FS6400-2424	2 - 12	1 7/8 - 12	

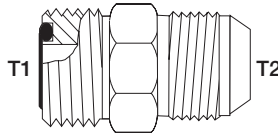


O-Ring Face Seal

FS6402 M-ORFS / F-JIC

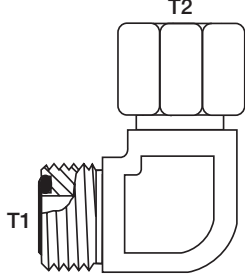
	PART NUMBER	T1	T2	
	FS6402-0404	9/16 - 18	7/16 - 20	
	FS6402-0606	1 1/16 - 16	9/16 - 18	
	FS6402-0808	1 3/16 - 16	3/4 - 16	
	FS6402-1010	1 - 14	7/8 - 14	
	FS6402-1212	1 3/16 - 12	1 1/16 - 12	
	FS6402-1616	1 7/16 - 12	1 5/16 - 12	

FS6403 M-ORFS / M-JIC

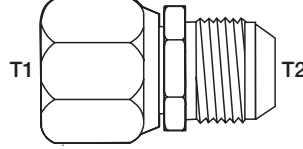
	PART NUMBER	T1	T2	
	FS6403-0404	9/16 - 18	7/16 - 20	
	FS6403-0606	1 1/16 - 16	9/16 - 18	
	FS6403-0808	1 3/16 - 16	3/4 - 16	
	FS6403-1010	1 - 14	7/8 - 14	
	FS6403-1212	1 3/16 - 12	1 1/16 - 12	
	FS6403-1616	1 7/16 - 12	1 5/16 - 12	

FS6500 90° M-ORFS / F-ORFS

SAE # 520221

	PART NUMBER	T1	T2	
	FS6500-0404	9/16 - 18	9/16 - 18	
	FS6500-0606	1 1/16 - 16	1 1/16 - 16	
	FS6500-0808	1 3/16 - 16	1 3/16 - 16	
	FS6500-1010	1 - 14	1 - 14	
	FS6500-1212	1 3/16 - 12	1 3/16 - 12	
	FS6500-1616	1 7/16 - 12	1 7/16 - 12	
	FS6500-2020	1 11/16 - 12	1 11/16 - 12	
	FS6500-2424	2 - 12	2 - 12	

FS6504 F-ORFS / M-JIC

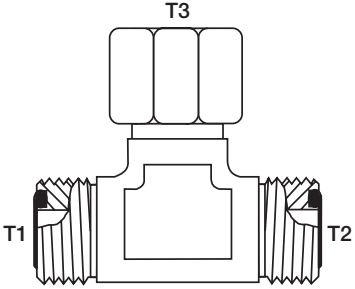
	PART NUMBER	T1	T2	
	FS6504-0404	9/16 - 18	7/16 - 20	
	FS6504-0606	1 1/16 - 16	9/16 - 18	
	FS6504-0808	1 3/16 - 16	3/4 - 16	
	FS6504-1010	1 - 14	7/8 - 14	
	FS6504-1212	1 3/16 - 12	1 1/16 - 12	
	FS6504-1616	1 7/16 - 12	1 5/16 - 12	

O-Ring Face Seal

FS6600

BRANCH TEE M-ORFS / M-ORFS / F-ORFS

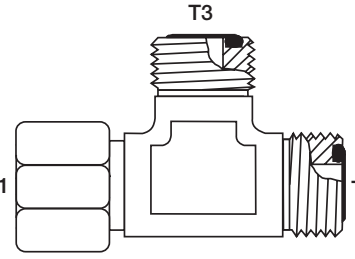
SAE # 520433

	PART NUMBER	T1	T2	T3
	FS6600-040404	9/16 - 18	9/16 - 18	9/16 - 18
	FS6600-060606	11/16 - 16	11/16 - 16	11/16 - 16
	FS6600-080808	13/16 - 16	13/16 - 16	13/16 - 16
	FS6600-101010	1 - 14	1 - 14	1 - 14
	FS6600-121212	1 3/16 - 12	1 3/16 - 12	1 3/16 - 12
	FS6600-161616	1 7/16 - 12	1 7/16 - 12	1 7/16 - 12
	FS6600-202020	1 11/16 - 12	1 11/16 - 12	1 11/16 - 12
	FS6600-242424	2 - 12	2 - 12	2 - 12

FS6602

RUN TEE F-ORFS / M-ORFS / M-ORFS

SAE # 520432

	PART NUMBER	T1	T2	T3
	FS6602-040404	9/16 - 18	9/16 - 18	9/16 - 18
	FS6602-060606	11/16 - 16	11/16 - 16	11/16 - 16
	FS6602-080808	13/16 - 16	13/16 - 16	13/16 - 16
	FS6602-101010	1 - 14	1 - 14	1 - 14
	FS6602-121212	1 3/16 - 12	1 3/16 - 12	1 3/16 - 12
	FS6602-161616	1 7/16 - 12	1 7/16 - 12	1 7/16 - 12
	FS6602-202020	1 11/16 - 12	1 11/16 - 12	1 11/16 - 12
	FS6602-242424	2 - 12	2 - 12	2 - 12

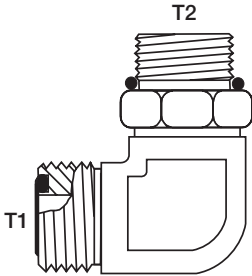


O-Ring Face Seal

FS6801

90° M-ORFS / M-ORB

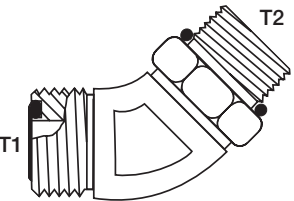
SAE # 520220

	PART NUMBER	T1	T2	
	FS6801-0404	9/16 - 18	7/16 - 20	
FS6801-0406	9/16 - 18	9/16 - 18		
FS6801-0408	9/16 - 18	3/4 - 16		
FS6801-0604	1 1/16 - 16	7/16 - 20		
FS6801-0606	1 1/16 - 16	9/16 - 18		
FS6801-0608	1 1/16 - 16	3/4 - 16		
FS6801-0610	1 1/16 - 16	7/8 - 14		
FS6801-0806	1 3/16 - 16	9/16 - 18		
FS6801-0808	1 3/16 - 16	3/4 - 16		
FS6801-0810	1 3/16 - 16	7/8 - 14		
FS6801-0812	1 3/16 - 16	1 1/16 - 12		
FS6801-1008	1 - 14	3/4 - 16		
FS6801-1010	1 - 14	7/8 - 14		
FS6801-1012	1 - 14	1 1/16 - 12		
FS6801-1210	1 3/16 - 12	7/8 - 14		
FS6801-1212	1 3/16 - 12	1 1/16 - 12		
FS6801-1216	1 3/16 - 12	1 5/16 - 12		
FS6801-1612	1 7/16 - 12	1 1/16 - 12		
FS6801-1616	1 7/16 - 12	1 5/16 - 12		
FS6801-1620	1 7/16 - 12	1 5/8 - 12		
FS6801-2016	1 11/16 - 12	1 5/16 - 12		
FS6801-2020	1 11/16 - 12	1 5/8 - 12		
FS6801-2424	2 - 12	1 7/8 - 12		

FS6802

45° M-ORFS / M-ORB

SAE # 520320

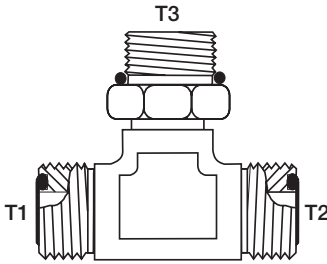
	PART NUMBER	T1	T2	
	FS6802-0404	1 1/16 - 16	7/16 - 20	
FS6802-0406	1 1/16 - 16	9/16 - 18		
FS6802-0604	1 1/16 - 16	7/16 - 20		
FS6802-0606	1 1/16 - 16	9/16 - 18		
FS6802-0608	1 1/16 - 16	3/4 - 16		
FS6802-0806	1 1/16 - 16	9/16 - 18		
FS6802-0808	1 1/16 - 16	3/4 - 16		
FS6802-0810	1 3/16 - 16	7/8 - 14		
FS6802-1008	1 - 14	3/4 - 16		
FS6802-1010	1 - 14	7/8 - 14		
FS6802-1012	1 - 14	1 1/16 - 12		
FS6802-1210	1 3/16 - 12	7/8 - 14		
FS6802-1212	1 3/16 - 12	1 1/16 - 12		
FS6802-1216	1 3/16 - 12	1 5/16 - 12		
FS6802-1612	1 7/16 - 12	1 1/16 - 12		
FS6802-1616	1 7/16 - 12	1 5/16 - 12		
FS6802-2020	1 11/16 - 12	1 5/8 - 12		
FS6802-2424	2 - 12	1 7/8 - 12		

O-Ring Face Seal

FS6803

BRANCH TEE M-ORFS / M-ORFS / M-ORB

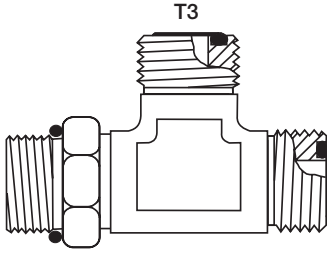
SAE # 520429

	PART NUMBER	T1	T2	T3
	FS6803-040404	9/16 - 18	9/16 - 18	7/16 - 20
	FS6803-060606	1 1/16 - 16	1 1/16 - 16	9/16 - 18
	FS6803-080808	1 3/16 - 16	1 3/16 - 16	3/4 - 16
	FS6803-101010	1 - 14	1 - 14	7/8 - 14
	FS6803-121212	1 3/16 - 12	1 3/16 - 12	1 1/16 - 12
	FS6803-161616	1 7/16 - 12	1 7/16 - 12	1 5/16 - 12
	FS6803-202020	1 11/16 - 12	1 11/16 - 12	1 5/8 - 12
	FS6803-242424	2 - 12	2 - 12	1 7/8 - 12

FS6804

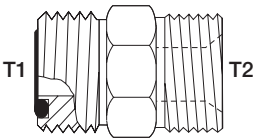
RUN TEE M-ORB / M-ORFS / M-ORFS

SAE # 520429

	PART NUMBER	T1	T2	T3
	FS6804-040404	9/16 - 18	7/16 - 20	7/16 - 20
	FS6804-060606	1 1/16 - 16	9/16 - 18	9/16 - 18
	FS6804-080808	1 3/16 - 16	3/4 - 16	3/4 - 16
	FS6804-101010	1 - 14	7/8 - 14	7/8 - 14
	FS6804-121212	1 3/16 - 12	1 1/16 - 12	1 1/16 - 12
	FS6804-161616	1 7/16 - 12	1 5/16 - 12	1 5/16 - 12
	FS6804-202020	1 11/16 - 12	1 5/8 - 12	1 5/8 - 12
	FS6804-242424	2 - 12	1 7/8 - 12	1 7/8 - 12

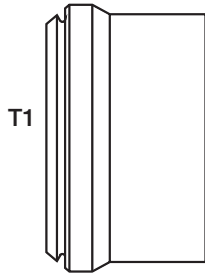
FS9005

M-ORFS / M-BSP

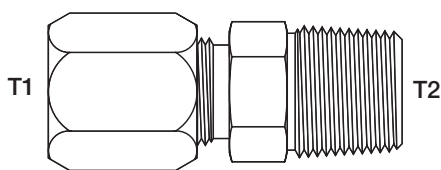
	PART NUMBER	T1	T2	
	FS9005-0404	1 1/16 - 16	1/8 - 28	
	FS9005-0404	1 1/16 - 16	1/4 - 19	
	FS9005-0604	1 1/16 - 16	1/4 - 19	
	FS9005-0606	1 1/16 - 16	3/8 - 19	
	FS9005-0608	1 1/16 - 16	1/2 - 14	
	FS9005-0806	1 1/16 - 16	3/8 - 19	
	FS9005-0808	1 1/16 - 16	1/2 - 14	
	FS9005-1008	1 - 14	1/2 - 14	
	FS9005-1208	1 3/16 - 12	1/2 - 14	
	FS9005-1212	1 3/16 - 12	3/4 - 14	
	FS9005-1216	1 3/16 - 12	1 - 11	
	FS9005-1612	1 7/16 - 12	3/4 - 14	
	FS9005-1616	1 7/16 - 12	1 - 11	
	FS9005-2020	1 11/16 - 12	1 1/4 - 11	
	FS9005-2424	2 - 12	1 1/2 - 11	

Flareless

7165A FLARELESS COMPRESSION SLEEVE

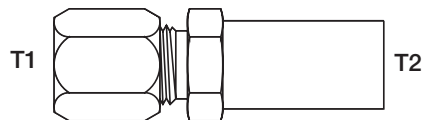
	Part Number	T1		
	7165A-02	1/8		
	7165A-03	3/16		
	7165A-04	1/4		
	7165A-05	5/16		
	7165A-06	3/8		
	7165A-08	1/2		
	7165A-10	5/8		
	7165A-12	3/4		
	7165A-14	7/8		
	7165A-16	1		
	7165A-20	1 1/4		
	7165A-24	1 1/2		
7165A-32	2			

7205 FLARELESS / M-NPT

	Part Number	T1	T2	
	7205-0202	1/8	1/8 - 27	
	7205-0204	1/8	1/4 - 18	
	7205-0302	3/16	1/8 - 27	
	7205-0402	1/4	1/8 - 27	
	7205-0404	1/4	1/4 - 18	
	7205-0406	1/4	3/8 - 18	
	7205-0408	1/4	1/2 - 14	
	7205-0502	5/16	1/8 - 27	
	7205-0504	5/16	1/4 - 18	
	7205-0604	3/8	1/4 - 18	
	7205-0602	3/8	1/8 - 27	
	7205-0606	3/8	3/8 - 18	
	7205-0608	3/8	1/2 - 14	
	7205-0806	1/2	3/8 - 18	
	7205-0804	1/2	1/4 - 18	
	7205-0808	1/2	1/2 - 14	
	7205-0812	1/2	3/4 - 14	
	7205-1008	5/8	1/2 - 14	
	7205-1006	5/8	3/8 - 18	
	7205-1212	3/4	3/4 - 14	
	7205-1208	3/4	1/2 - 14	
	7205-1412	7/8	3/4 - 14	
	7205-1616	1	1 - 11 1/2	
	7205-1612	1	3/4 - 14	
	7205-2020	1 1/4	1 1/4 - 11 1/2	
7205-2424	1 1/2	1 1/2 - 11 1/2		
7205-3232	2	2 - 11 1/2		

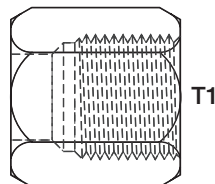
Flareless

7015 FLARELESS / STANDPIPE REDUCER



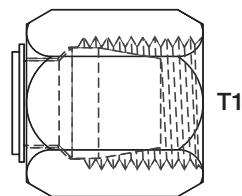
Part Number	T1	T2	
7015-0604	3/8	1/4	
7015-0804	1/2	1/4	
7015-0806	1/2	3/8	
7015-1008	5/8	1/2	
7015-1206	3/4	3/8	
7015-1208	3/4	1/2	
7015-1612	1	3/4	
7015-2016	1 1/4	1	
7015-2412	1 1/2	3/4	

7105 FLARELESS NUT



Part Number	T1		
7105-02	1/8		
7105-03	3/16		
7105-04	1/4		
7105-05	5/16		
7105-06	3/8		
7105-08	1/2		
7105-10	5/8		
7105-12	3/4		
7105-14	7/8		
7105-16	1		
7105-20	1 1/4		
7105-24	1 1/2		
7105-32	2		

7129 FLARELESS CAP

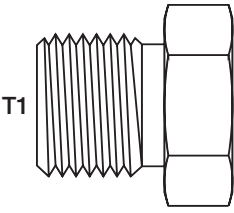


Part Number	T1		
7129-04	1/4		
7129-06	3/8		
7129-08	1/2		
7129-10	5/8		
7129-12	3/4		
7129-16	1		
7129-20	1 1/4		

Flareless

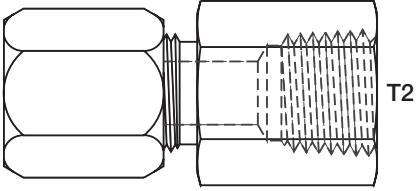
7229

FLARELESS PLUG

	Part Number	T1		
	7229-02	1/8		
	7229-04	1/4		
	7229-05	5/16		
	7229-06	3/8		
	7229-08	1/2		
	7229-10	5/8		
	7229-12	3/4		
	7229-16	1		

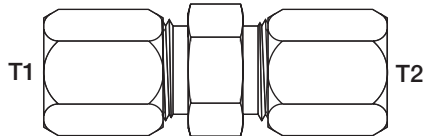
7255

FLARELESS / F-NPT

	Part Number	T1	T2	
	7255-0202	1/8	1/8 - 27	
	7255-0402	1/4	1/8 - 27	
	7255-0404	1/4	1/4 - 18	
	7255-0502	5/16	1/8 - 27	
	7255-0604	3/8	1/4 - 18	
	7255-0606	3/8	3/8 - 18	
	7255-0806	1/2	3/8 - 18	
	7255-0804	1/2	1/4 - 18	
	7255-0808	1/2	1/2 - 14	
	7255-1008	5/8	1/2 - 14	
	7255-1212	3/4	3/4 - 14	
	7255-1414	7/8	3/4 - 14	
	7255-1616	1	1 - 11 1/2	
	7255-2020	1 1/4	1 1/4 - 11 1/2	

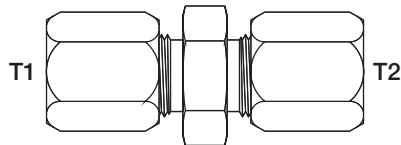
Flareless

7305 FLARELESS / FLARELESS



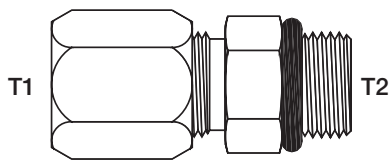
Part Number	T1	T2	
7305-0202	1/8	1/8	
7305-0303	3/16	3/16	
7305-0404	1/4	1/4	
7305-0505	5/16	5/16	
7305-0606	3/8	3/8	
7305-0604	3/8	1/4	
7305-0808	1/2	1/2	
7305-1010	5/8	5/8	
7305-1212	3/4	3/4	
7305-1414	7/8	7/8	
7305-1616	1	1	
7305-2020	1 1/4	1 1/4	
7305-2424	1 1/2	1 1/2	
7305-3232	2	2	

7306 FLARELESS / FLARELESS - LARGE HEX



Part Number	T1	T2	
7306-0404	1/4	1/4	
7306-0606	3/8	3/8	
7306-0808	1/2	1/2	

7315 FLARELESS / M-ORB

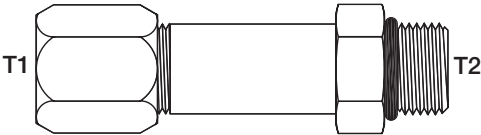


Part Number	T1	T2	
7315-0404	1/4	7/16 - 20	
7315-0405	1/4	1/2 - 20	
7315-0406	1/4	9/16 - 18	
7315-0505	5/16	1/2 - 20	
7315-0606	3/8	9/16 - 18	
7315-0608	3/8	3/4 - 16	
7315-0808	1/2	3/4 - 16	
7315-0810	1/2	7/8 - 14	
7315-0812	1/2	1 1/16 - 12	
7315-1010	5/8	7/8 - 14	
7315-1212	3/4	1 1/16 - 12	
7315-1216	3/4	1 5/16 - 12	
7315-1616	1	1 5/16 - 12	
7315-1612	1	1 1/16 - 12	
7315-2020	1 1/4	1 5/8 - 12	
7315-2424	1 1/2	1 7/8 - 12	
7315-3232	2	2 1/2 - 12	

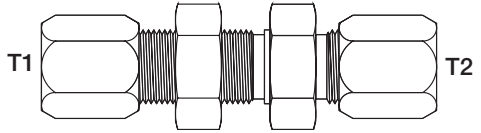


Flareless

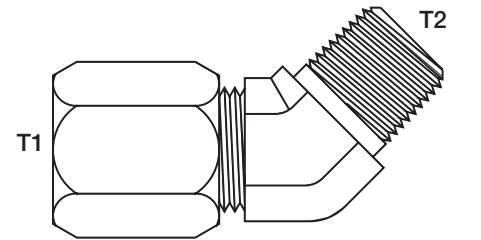
7316 FLARELESS / M-ORB LONG

	Part Number	T1	T2
	7316-0404	1/4	7/16 - 20
	7316-0606	3/8	9/16 - 18
	7316-0808	1/2	3/4 - 16

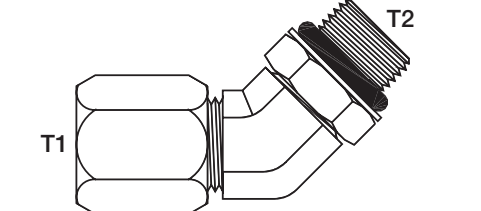
7325 FLARELESS / FLARELESS BULKHEAD

	Part Number	T1	T2
	7325-0303	3/16	3/16
	7325-0404	1/4	1/4
	7325-0606	3/8	3/8
	7325-0808	1/2	1/2
	7325-1212	3/4	3/4
	7325-1616	1	1

7355 45° FLARELESS / M-NPT

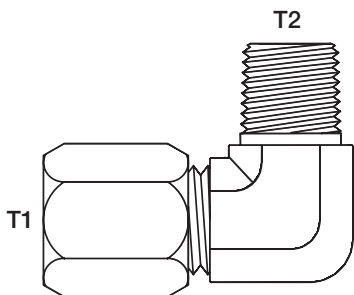
	Part Number	T1	T2
	7355-0402	1/4	1/8 - 27
	7355-0404	1/4	1/4 - 18
	7355-0502	5/16	1/8 - 27
	7355-0604	3/8	1/4 - 18
	7355-0806	1/2	3/8 - 18
	7355-1008	5/8	1/2 - 14
	7355-1212	3/4	3/4 - 14
	7355-1616	1	1 - 11 1/2

7365 45° FLARELESS / M-ORB

	Part Number	T1	T2
	7365-0808	1/2	3/4 - 16
	7365-1616	1	1 5/16 - 12

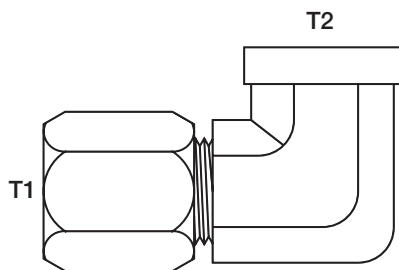
Flareless

7405 90° FLARELESS / M-NPT



Part Number	T1	T2	
7405-0202	1/8	1/8 - 27	
7405-0302	3/16	1/8 - 27	
7405-0402	1/4	1/8 - 27	
7405-0404	1/4	1/4 - 18	
7405-0502	5/16	1/8 - 27	
7405-0504	5/16	1/4 - 18	
7405-0604	3/8	1/4 - 18	
7405-0602	3/8	1/8 - 27	
7405-0606	3/8	3/8 - 18	
7405-0608	3/8	1/2 - 14	
7405-0806	1/2	3/8 - 18	
7405-0804	1/2	1/4 - 18	
7405-0808	1/2	1/2 - 14	
7405-1008	5/8	1/2 - 14	
7405-1006	5/8	3/8 - 18	
7405-1212	3/4	3/4 - 14	
7405-1208	3/4	1/2 - 14	
7405-1412	7/8	3/4 - 14	
7405-1616	1	1 - 11 1/2	
7405-1612	1	3/4 - 14	
7405-2020	1 1/4	1 1/4 - 11 1/2	
7405-2424	1 1/2	1 1/2 - 11 1/2	
7405-3232	2	2 - 11 1/2	

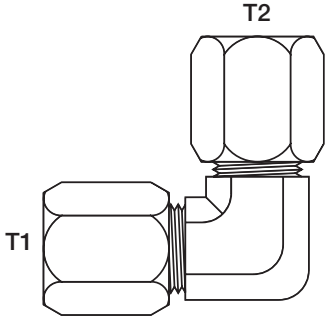
7455 90° FLARELESS / F-NPT



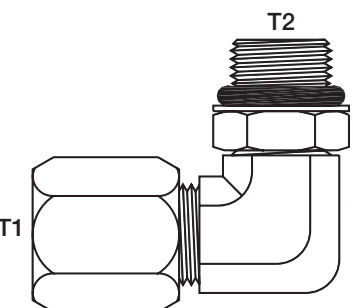
Part Number	T1	T2	
7455-0402	1/4	1/8 - 27	
7455-0404	1/4	1/4 - 18	
7455-0502	5/16	1/8 - 27	
7455-0604	3/8	1/4 - 18	
7455-0606	3/8	3/8 - 18	
7455-0806	1/2	3/8 - 18	
7455-0808	1/2	1/2 - 14	
7455-1008	5/8	1/2 - 14	
7455-1212	3/4	3/4 - 14	
7455-1414	7/8	3/4 - 14	
7455-1616	1	1 - 11 1/2	

Flareless

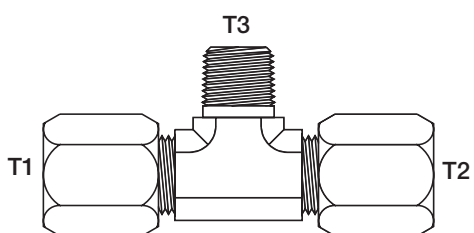
7505 90° FLARELESS / FLARELESS

	Part Number	T1	T2	
	7505-0404	1/4	1/4	
	7505-0505	5/16	5/16	
	7505-0606	3/8	3/8	
	7505-0808	1/2	1/2	
	7505-1010	5/8	5/8	
	7505-1212	3/4	3/4	
	7505-1414	7/8	7/8	
	7505-1616	1	1	
7505-2020	1 1/4	1 1/4		

7515 90° FLARELESS / M-ORB

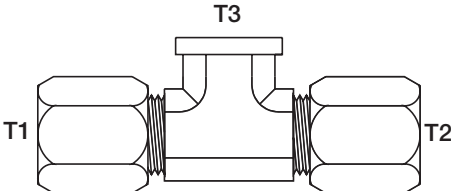
	Part Number	T1	T2	
	7515-0404	1/4	7/16 - 20	
	7515-0505	5/16	1/2 - 20	
	7515-0606	3/8	9/16 - 18	
	7515-0808	1/2	3/4 - 16	
	7515-1010	5/8	7/8 - 14	
	7515-1212	3/4	1 1/16 - 12	
	7515-1616	1	1 5/16 - 12	
	7515-2020	1 1/4	1 5/8 - 12	

7605 TEE FLARELESS / FLARELESS / M-NPT

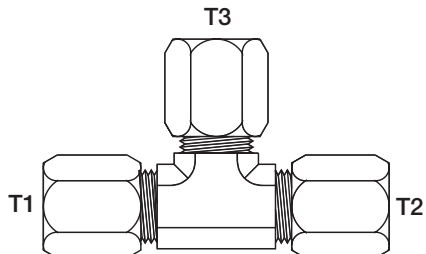
	Part Number	T1	T2	T3
	7605-040402	1/4	1/4	1/8 - 27
	7605-040404	1/4	1/4	1/4 - 18
	7605-050502	5/16	5/16	1/8 - 27
	7605-060604	3/8	3/8	1/4 - 18
	7605-080806	1/2	1/2	3/8 - 18
	7605-080808	1/2	1/2	1/2 - 14
	7605-101008	5/8	5/8	1/2 - 14
	7605-121212	3/4	3/4	3/4 - 14
	7605-161616	1	1	1 - 11 1/2

Flareless

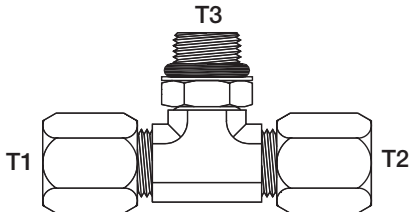
7655 TEE FLARELESS / FLARELESS / F-NPT

	Part Number	T1	T2	T3
	7655-040402	1/4	1/4	1/8 - 27
	7655-040404	1/4	1/4	1/4 - 18
	7655-060604	3/8	3/8	1/4 - 18
	7655-080806	1/2	1/2	3/8 - 18
	7655-101008	5/8	5/8	1/2 - 14
	7655-121212	3/4	3/4	3/4 - 14
	7655-161616	1	1	1 - 11 1/2
	7655-202020	1 1/4	1 1/4	1 1/4 - 11 1/2

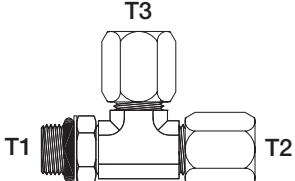
7705 TEE FLARELESS / FLARELESS / FLARELESS

	Part Number	T1	T2	T3
	7705-020202	1/8	1/8	1/8
	7705-030303	3/16	3/16	3/16
	7705-040404	1/4	1/4	1/4
	7705-050505	5/16	5/16	5/16
	7705-060606	3/8	3/8	3/8
	7705-080808	1/2	1/2	1/2
	7705-080806	1/2	1/2	3/8
	7705-101010	5/8	5/8	5/8
	7705-121212	3/4	3/4	3/4
	7705-141414	7/8	7/8	7/8
	7705-161616	1	1	1

7715 TEE FLARELESS / FLARELESS / M-ORB

	Part Number	T1	T2	T3
	7715-040404	1/4	1/4	7/16 - 20
	7715-060606	3/8	3/8	9/16 - 18
	7715-080808	1/2	1/2	3/4 - 16

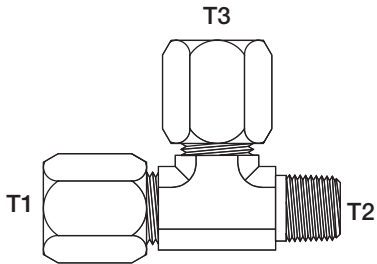
7716 TEE M-ORB / FLARELESS / FLARELESS

	Part Number	T1	T2	T3
	7716-04	7/16 - 20	1/4	1/4
	7716-06	9/16 - 18	3/8	3/8
	7716-08	3/4 - 16	1/2	1/2

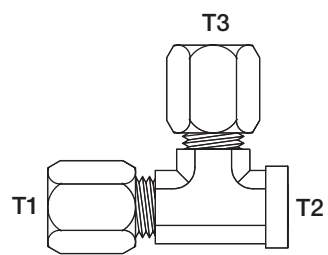


Flareless

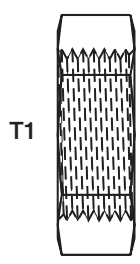
7755 TEE FLARELESS / M-NPT / FLARELESS

	Part Number	T1	T2	T3
	7755-040204	1/4	1/8 - 27	1/4
	7755-040404	1/4	1/4 - 18	1/4
	7755-060406	3/8	1/4 - 18	3/8
	7755-080608	1/2	3/8 - 18	1/2
	7755-080808	1/2	1/2 - 14	1/2
	7755-100810	5/8	1/2 - 14	5/8
	7755-121212	3/4	3/4 - 14	3/4
7755-161616	1	1 - 11 1/2	1	

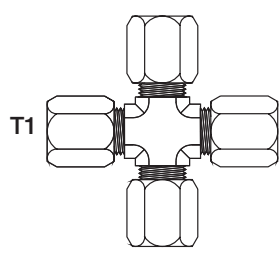
7805 TEE FLARELESS / F-NPT / FLARELESS

	Part Number	T1	T2	T3
	7805-040204	1/4	1/8 - 27	1/4
	7805-040404	1/4	1/4 - 18	1/4
	7805-060406	3/8	1/4 - 18	3/8
	7805-080608	1/2	3/8 - 18	1/2
	7805-100810	5/8	1/2 - 14	5/8
	7805-121212	3/4	3/4 - 14	3/4
	7805-141214	7/8	3/4 - 14	7/8

7924 FLARELESS BULKHEAD LOCKNUT

	Part Number	T1		
	7924-04	1/4		
	7924-06	3/8		
	7924-08	1/2		
	7924-10	5/8		
	7924-12	3/4		
	7924-16	1		
	7924-20	1 1/4		
	7924-24	1 1/2		
	7924-32	2		

7955 CROSS FLARELESS

	Part Number	T1		
	7955-04	1/4		
	7955-06	3/8		
	7955-08	1/2		
	7955-10	5/8		

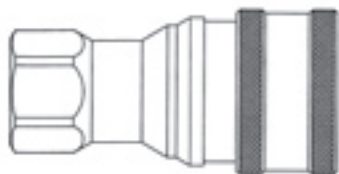


QUICK GOUPLINGS



ISO B

BF15 NPT STEEL COUPLER



- Conforms to the ISO 7241-B standard
- Interchanges with:
Snaptite 72, Hansen HK, Parker 60, Faster HNV,
& Aeroquip FD45

Part Number	Valve	Body Size	Female NPT	Pressure (PSI)
BF15-02	Poppet	1/8	1/8	5,500
BF15-04	Poppet	1/4	1/4	5,000
BF15-06	Poppet	3/8	3/8	5,000
BF15-08	Poppet	1/2	1/2	5,000
BF15-12	Poppet	3/4	3/4	4,500
BF15-16	Poppet	1	1	4,500
BF15-20	Poppet	1 1/4	1 1/4	1,500
BF15-24	Poppet	1 1/2	1 1/2	1,800

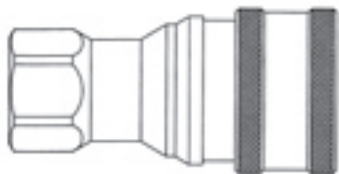
BM15 NPT STEEL NIPPLE



- Conforms to the ISO 7241-B standard
- Interchanges with:
Snaptite 72, Hansen HK, Parker 60, Faster HNV,
& Aeroquip FD45

Part Number	Valve	Body Size	Female NPT	Pressure (PSI)
BM15-02	Poppet	1/8	1/8	5,500
BM15-04	Poppet	1/4	1/4	5,000
BM15-06	Poppet	3/8	3/8	5,000
BM15-08	Poppet	1/2	1/2	5,000
BM15-12	Poppet	3/4	3/4	4,500
BM15-16	Poppet	1	1	4,500
BM16-20	Poppet	1 1/4	1 1/4	1,500
BM15-24	Poppet	1 1/2	1 1/2	1,800

BFB15 BRASS COUPLER (VITON SEALS)



- Conforms to the ISO 7241-B standard
- Interchanges with:
Snaptite 72, Hansen HK, Parker 60, Faster HNV,
& Aeroquip FD45

Part Number	Valve	Body Size	Female NPT	Pressure (PSI)
BF15B-02V	Poppet	1/8	1/8	3,000
BF15B-04V	Poppet	1/4	1/4	3,750
BF15B-06V	Poppet	3/8	3/8	3,500
BF15B-08V	Poppet	1/2	1/2	3,000
BF15B-12V	Poppet	3/4	3/4	2,250
BF15B-16V	Poppet	1	1	1,500



ISO B

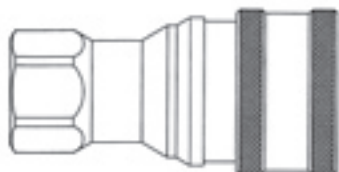
BM15B NPT BRASS NIPPLE (VITON SEALS)



- Conforms to the ISO 7241-B standard
- Interchanges with:
Snaptite 72, Hansen HK, Parker 60, Faster HNV,
& Aeroquip FD45

Part Number	Valve	Body Size	Female NPT	Pressure (PSI)
BM15B-02V	Poppet	1/8	1/8	3,000
BM15B-04V	Poppet	1/4	1/4	3,750
BM15B-06V	Poppet	3/8	3/8	3,500
BM15B-08V	Poppet	1/2	1/2	3,000
BM15B-12V	Poppet	3/4	3/4	2,250
BM15B-16V	Poppet	1	1	1,500

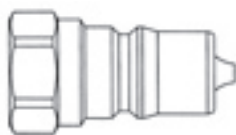
BF15SS NPT 303 STAINLESS STEEL COUPLER



- Conforms to the ISO 7241-B standard
- Interchanges with:
Snaptite 72, Hansen HK, Parker 60, Faster HNV,
& Aeroquip FD45

Part Number	Valve	Body Size	Female NPT	Pressure (PSI)
BF15SS-02	Poppet	1/8	1/8	3,300
BF15SS-04	Poppet	1/4	1/4	3,000
BF15SS-06	Poppet	3/8	3/8	3,000
BF15SS-08	Poppet	1/2	1/2	3,000
BF15SS-12	Poppet	3/4	3/4	2,700
BF15SS-16	Poppet	1	1	2,700

BM15SS NPT 303 STAINLESS STEEL NIPPLE




- Conforms to the ISO 7241-B standard
- Interchanges with:
Snaptite 72, Hansen HK, Parker 60, Faster HNV,
& Aeroquip FD45


Part Number	Valve	Body Size	Female NPT	Pressure (PSI)
BM15SS-02	Poppet	1/8	1/8	3,300
BM15SS-04	Poppet	1/4	1/4	3,000
BM15SS-06	Poppet	3/8	3/8	3,000
BM15SS-08	Poppet	1/2	1/2	3,000
BM15SS-12	Poppet	3/4	3/4	2,700
BM15SS-16	Poppet	1	1	2,700

ISO B

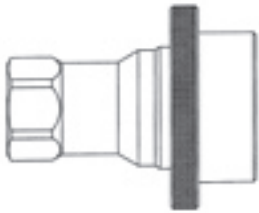
BP DUST PLUG (for Coupler)

	Part Number	Body Size	Material
	BP-04	1/4	Polyurethane
	BP-06	3/8	Polyurethane
	BP-08	1/2	Polyurethane
	BP-12	3/4	Polyurethane
	BP-16	1	Polyurethane

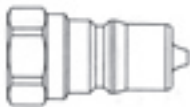
BC DUST CAP (for Nipple)

	Part Number	Body Size	Material
	BC-04	1/4	Polyurethane
	BC-06	3/8	Polyurethane
	BC-08	1/2	Polyurethane
	BC-12	3/4	Polyurethane
	BC-16	1	Polyurethane

BSF15 NPT BRASS STEAM COUPLER

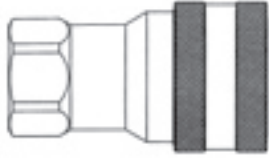
	<ul style="list-style-type: none"> • These couplers and nipples come equipped with special seals for steam service. • The coupler is also provided with a zinc plated steel flanged sleeve for ease of handling with gloved hands. • 100 psi at 338°F • Continuous operating temperature: 250°F • Maximum intermittent steam temperature: 400°F 				
	Part Number	Valve	Body Size	Female NPT	Pressure (PSI)
	BSF15-06	Poppet	3/8	3/8	100

BSM15 BRASS STEAM NIPPLE

	<ul style="list-style-type: none"> • These couplers and nipples come equipped with special seals for steam service. • The coupler is also provided with a zinc plated steel flanged sleeve for ease of handling with gloved hands. • 100 psi at 338°F • Continuous operating temperature: 250°F • Maximum intermittent steam temperature: 400°F 				
	Part Number	Valve	Body Size	Female NPT	Pressure (PSI)
	BSM15-06	Poppet	3/8	3/8	100

ISO A

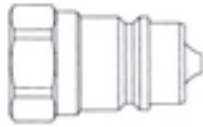
AF15 NPT STEEL COUPLER



- Conform to the ISO 7421-A standard.
- Interchanges with:
Snaptite 61, Hansen HA, Parker 6600
Faster ANV, & Aeroquip FD56

Part Number	Valve	Body Size	Female NPT	Pressure (PSI)
AF15-04	Poppet	1/4	1/4	5,075
AF15-06	Poppet	3/8	3/8	4,350
AF15-08	Poppet	1/2	1/2	4,350
AF15-12	Poppet	3/4	3/4	3,625
AF15-16	Poppet	1	1	3,335

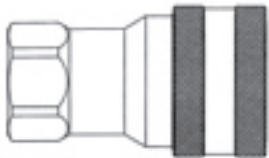
AM15 NPT STEEL NIPPLE



- Conform to the ISO 7421-A standard.
- Interchanges with:
Snaptite 61, Hansen HA, Parker 6600
Faster ANV, & Aeroquip FD56

Part Number	Valve	Body Size	Female NPT	Pressure (PSI)
AM15-04	Poppet	1/4	1/4	5,075
AM15-06	Poppet	3/8	3/8	4,350
AM15-08	Poppet	1/2	1/2	4,350
AM15-12	Poppet	3/4	3/4	3,625
AM15-16	Poppet	1	1	3,335

AF10 BSPP STEEL COUPLER

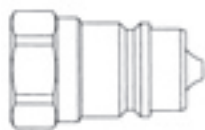


- Conform to the ISO 7421-A standard.
- Interchanges with:
Snaptite 61, Hansen HA, Parker 6600
Faster ANV, & Aeroquip FD56

Part Number	Valve	Body Size	Female NPT	Pressure (PSI)
AF10-04	Poppet	1/4	1/4	5,075
AF10-06	Poppet	3/8	3/8	4,350
AF10-08	Poppet	1/2	1/2	4,350
AF10-12	Poppet	3/4	3/4	3,625
AF10-16	Poppet	1	1	3,335

ISO A

AM10 BSPT STEEL NIPPLE



- Conform to the ISO 7421-A standard.
- Interchanges with:
Snaptite 61, Hansen HA, Parker 6600
Faster ANV, & Aeroquip FD56

Part Number	Valve	Body Size	Female NPT	Pressure (PSI)
AM10-04	Poppet	1/4	1/4	5,075
AM10-06	Poppet	3/8	3/8	4,350
AM10-08	Poppet	1/2	1/2	4,350
AM10-12	Poppet	3/4	3/4	3,625
AM10-16	Poppet	1	1	3,335

AP DUST PLUG (for Coupler)



Part Number	Body Size	Material
AP-04	1/4	Polyurethane
AP-06	3/8	Polyurethane
AP-08	1/2	Polyurethane
AP-12	3/4	Polyurethane
AP-16	1	Polyurethane

AC DUST CAP (for Nipple)

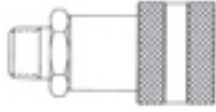


Part Number	Body Size	Material
AC-04	1/4	Polyurethane
AC-06	3/8	Polyurethane
AC-08	1/2	Polyurethane
AC-12	3/4	Polyurethane
AC-16	1	Polyurethane

Port-a-Power

JF25

STEEL COUPLER

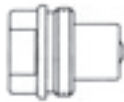


- Interchanges with:
Parker 3000, Enerpac C604, and Faster PVV

Part Number	Valve	Body Size	Female NPT	Pressure (PSI)
JF25-04	Ball	1/4	1/4	10,000
JF25-06	Ball	3/8	3/8	10,000

JM25

STEEL NIPPLE



- Interchanges with:
Parker 3000, Enerpac C604, and Faster PVV

Part Number	Valve	Body Size	Female NPT	Pressure (PSI)
JM25-04	Ball	1/4	1/4	10,000
JM25-06	Ball	3/8	3/8	10,000

JP

DUST PLUG (for Coupler)



Part Number	Body Size	Material
JP-04	1/4	Steel
JP-06	3/8	Steel

JC

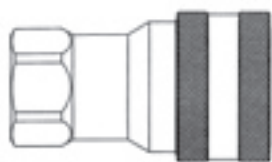
DUST CAP (for Nipple)



Part Number	Body Size	Material
JC-04	1/4	Steel
JC-06	3/8	Steel

Agricultural

NF / AF NPT STEEL COUPLER



- Interchanges with:
Parker/Pioneer 4000, Safeway S20
& Aeroquip FD76

Part Number	Valve	Body Size	Female NPT	Pressure (PSI)
NF25-04	Ball	1/4	1/4	5,075
NF25-06	Ball	3/8	3/8	4,350
AF25-08	Ball	1/2	1/2	4,350
AF15-08	Poppet	1/2	1/2	4,350
NF15-12	Poppet	3/4	3/4	3,625
NF15-16	Poppet	1	1	3,335

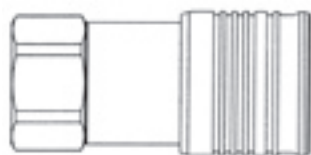
NM / AM NPT STEEL NIPPLE



- Interchanges with:
Parker/Pioneer 4000, Safeway S20
& Aeroquip FD76

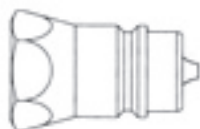
Part Number	Valve	Body Size	Female NPT	Pressure (PSI)
NM25-04	Ball	1/4	1/4	5,075
NM25-06	Ball	3/8	3/8	4,350
AM25-08	Ball	1/2	1/2	4,350
AM15-08	Poppet	1/2	1/2	4,350
NM15-12	Poppet	3/4	3/4	3,625
NM15-16	Poppet	1	1	3,000

PF25 / PF15 STEEL TWO-WAY COUPLER



Part Number	Valve	Body Size	Female NPT	Pressure (PSI)
PF25-08	Ball	1/2	1/2	4,350
PF15-08	Poppet	1/2	1/2	4,350


AM45 STEEL CONNECT UNDER PRESSURE NIPPLE




Part Number	Valve	Body Size	Female NPT	Pressure (PSI)
AM45-08	Poppet	1/2	1/2	4,350

Agricultural

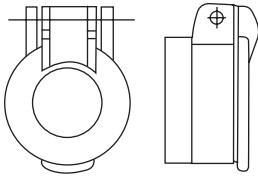
NP DUST PLUG (for Coupler)

	Part Number	Body Size	Material
	NP-04	1/4	Rubber
	NP-06	3/8	Rubber
	NP-08	1/2	Rubber
	NP-12	3/4	Rubber
	NP-16	1	Rubber

NC DUST CAP (for Nipple)

	Part Number	Body Size	Material
	NC-04	1/4	Rubber
	NC-06	3/8	Rubber
	NC-08	1/2	Rubber
	NC-12	3/4	Rubber
	NC-16	1	Rubber

NPA AUTOMATIC DUST PLUG

	Part Number	Body Size	Color
	NPA-08	1/2	Red

Wing Nut

WF15 NPT WING NUT COUPLER



- Connect under pressure with minimum spillage
- Used in dump trailer wet line hydraulic system and oil field equipment application
- Interchanges with:
Parker 6100, Faster FB, Aeroquip 5100
Snaptite 78, & Hansen 96

Part Number	Valve	Body Size	Female NPT	Pressure (PSI)
WF15-12	Poppet	¾	¾	3,000
WF15-16	Poppet	1	1	3,000
WF15-20	Poppet	1¼	1¼	2,750
WF15-24	Poppet	1½	1½	2,500

WM15 NPT WING NUT NIPPLE



- Connect under pressure with minimum spillage
- Used in dump trailer wet line hydraulic system and oil field equipment application
- Interchanges with:
Parker 6100, Faster FB, Aeroquip 5100
Snaptite 78, & Hansen 96

Part Number	Valve	Body Size	Female NPT	Pressure (PSI)
WM15-12	Poppet	¾	¾	3,000
WM15-16	Poppet	1	1	3,000
WM15-20	Poppet	1¼	1¼	2,750
WM15-24	Poppet	1½	1½	2,500

WP DUST PLUG (for Coupler)



Part Number	Body Size	Material
WP-12	¾	Steel
WP-16	1	Steel
WP-20	1¼	Steel
WP-24	1½	Steel

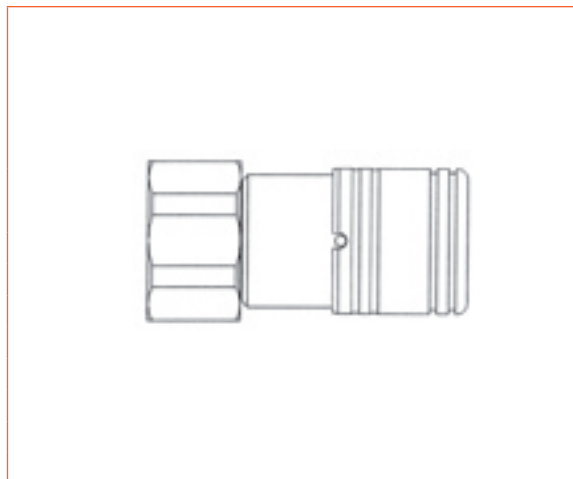
WC DUST CAP (for Nipple)



Part Number	Body Size	Material
WC-12	¾	Steel
WC-16	1	Steel
WC-20	1¼	Steel
WC-24	1½	Steel

Flat Face

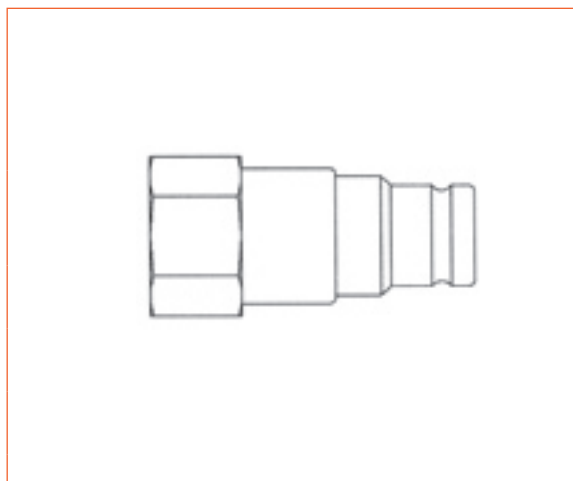
FF15 NPT STEEL COUPLER



- Conforms to ISO 16028 standard
- 3/8 body conforms to HTMA standard
- Interchanges with:
Faster 2FF1, Holmbury FIMC,
& Parker FEM

Part Number	ISO Size	Body Size	Female NPT	Pressure (PSI)
FF15-0404	6.5	1/4	1/4	5,625
FF15-0606	10	3/8	3/8	5,625
FF15-0608	10	3/8	1/2	5,625
FF15-0808	12.5	1/2	1/2	5,750
FF15-0812	12.5	1/2	3/4	5,750
FF15-1012	16	5/8	3/4	5,500
FF15-1216	19	3/4	1	5,075
FF15-1616	25	1	1	5,375

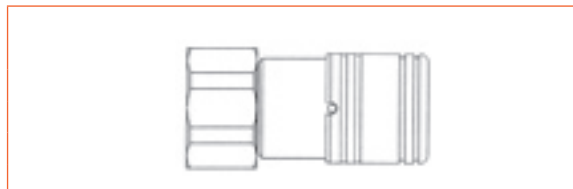
FM15 NPT STEEL NIPPLE



- Conforms to ISO 16028 standard
- 3/8 body conforms to HTMA standard
- Interchanges with:
Faster 2FF1, Holmbury FIMC,
& Parker FEM

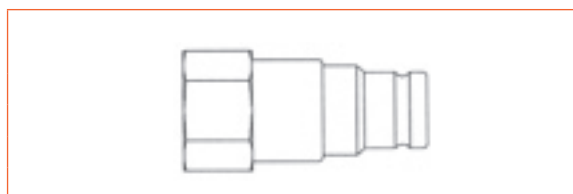
Part Number	ISO Size	Body Size	Female NPT	Pressure (PSI)
FM15-0404	6.3	1/4	1/4	5,625
FM15-0606	10	3/8	3/8	5,625
FM15-0608	10	3/8	1/2	5,625
FM15-0808	12.5	1/2	1/2	5,750
FM15-0812	12.5	1/2	3/4	5,750
FM15-1012	16	5/8	3/4	5,500
FM15-1216	19	3/4	1	5,000
FM15-1616	25	1	1	5,375

FF19 O-RING BOSS COUPLER



Part Number	ISO Size	Body Size	Female ORB	Pressure (PSI)
FF19-0608	10	3/8	9/16	5,625
FF19-0812	12.5	3/4	1 1/16	5,750

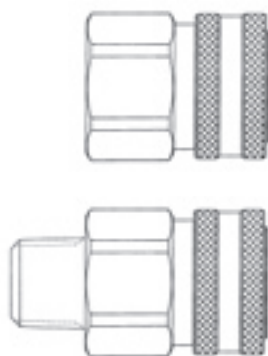
FM19 O-RING BOSS NIPPLE



Part Number	ISO Size	Body Size	Female ORB	Pressure (PSI)
FM19-0608	10	3/8	9/16	5,625
FM19-0812	12.5	1/2	1 1/16	5,750

Straight-Thru

PF15B/25B NPT COUPLER (BRASS)



- These couplers and plugs have no internal valve which provides with maximum flow with minimum pressure drop.
- Interchange with: Parker ST/BST.

Part Number (Female NPT)	Part Number (Male NPT)	Valve	Body Size	NPT	Pressure (PSI)
PF15B-04	PF25B-04	None	1/4	1/4	See corresponding nipple for PSI rating
PF15B-06	PF25B-06	None	3/8	3/8	
PF15B-08	PF25B-08	None	1/2	1/2	
PF15B-12	PF25B-12	None	3/4	3/4	
PF15B-16	PF25B-16	None	1	1	

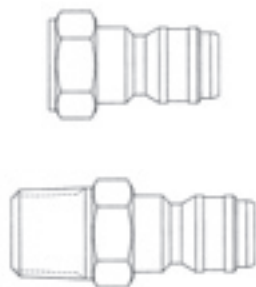
PM15B/25B NPT NIPPLE (BRASS)



- These couplers and plugs have no internal valve which provides with maximum flow with minimum pressure drop.
- Interchange with: Parker ST/BST.

Part Number (Female NPT)	Part Number (Male NPT)	Valve	Body Size	NPT	Pressure (PSI)
PM15B-04	PM25B-04	None	1/4	1/4	5,200
PM15B-06	PM25B-06	None	3/8	3/8	2,800
PM15B-08	PM25B-08	None	1/2	1/2	2,200
PM15B-12	PM25B-12	None	3/4	3/4	1,700
PM15B-16	PM25B-16	None	1	1	1,700

PM15S/25S NPT NIPPLE (STEEL)



- These couplers and plugs have no internal valve which provides with maximum flow with minimum pressure drop.
- Interchange with: Parker ST/BST.

Part Number (Female NPT)	Part Number (Male NPT)	Valve	Body Size	NPT	Pressure (PSI)
PM15S-04	PM25S-04	None	1/4	1/4	5,500
PM15S-06	PM25S-06	None	3/8	3/8	4,200
PM15S-08	PM25S-08	None	1/2	1/2	3,500
PM15S-12	PM25S-12	None	3/4	3/4	2,100
PM15S-16	PM25S-16	None	1	1	2,000



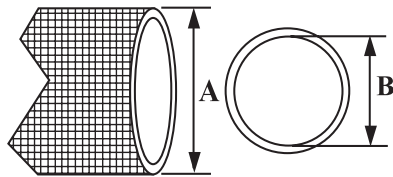
ACCESORIOS



Accessories

NYLON SLEEVING

- Ideal for abrasion protection or bundling hose assemblies
- MSHA approved
- Temperature range: -40°F to 250°F

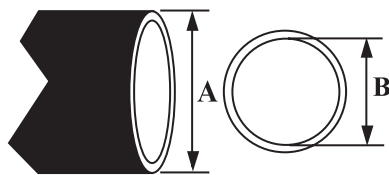


Part Number	Flat Width A (in)	Nominal ID B (in)	Standard Package (ft)
NS-077	1.25	0.77	100/300
NS-090	1.50	0.90	100/300
NS-100	1.66	1.00	100/300
NS-114	1.88	1.14	100/300
NS-122	2.03	1.25	100/300
NS-138	2.25	1.38	100/300
NS-159	2.56	1.59	100/300
NS-175	2.81	1.75	100/300
NS-181	3.00	1.85	100/300
NS-219	3.63	2.25	100/300
NS-238	3.81	2.38	100/300
NS-263	4.25	2.64	100/300
NS-288	4.56	2.86	100/300
NS-296	4.75	2.96	100/300
NS-366	5.81	3.66	100/300

NOTE: Other sizes are available upon request

POLYURETHANE SLEEVING

- Ideal for abrasion protection or bundling hose assemblies
- MSHA approved
- Temperature range: -40°F to 250°F




Black Part Number	Yellow Part Number	Wall Thickness (in)	B (in)	Standard Package (ft)
PS-0625B	PS-0625Y	.045	0.625	30
PS-0750B	PS-0750Y	.045	0.750	30
PS-0875B	PS-0875Y	.045	0.875	30
PS-1000B	PS-1000Y	.045	1.000	30
PS-1125B	PS-1125Y	.045	1.125	30
PS-1250B	PS-1250Y	.045	1.250	30
PS-1375B	PS-1375Y	.045	1.375	30
PS-1500B	PS-1500Y	.045	1.500	30
PS-1625B	PS-1625Y	.045	1.625	30
PS-1750B	PS-1750Y	.045	1.750	30
PS-2000B		.060	2.000	30
	PS-2125Y	.060	2.125	30

NOTE: Other sizes are available upon request




Accessories

PLASTIC WRAP

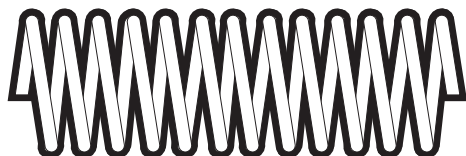
	Black	Yellow	ID	Length
	Part Number	Part Number	(in)	(ft)
	PW-025B	PW-025Y	0.25	40
	PW-037B	PW-037Y	0.37	40
	PW-050B	PW-050Y	0.50	40
	PW-062B	PW-062Y	0.62	40
	PW-075B	PW-075Y	0.75	40
	PW-100B	PW-100Y	1.00	40
	PW-110B	PW-110Y	1.10	40
	PW-138B	PW-138Y	1.38	40
	PW-175B	PW-175Y	1.75	40
	PW-256B	PW-256Y	2.56	40
	PW-315B	PW-315Y	3.15	40
	PW-400B	PW-400Y	4.00	40
	PW-600B	PW-600Y	6.00	40

PLASTIC WRAP - HEAVY DUTY

<ul style="list-style-type: none"> • Ideal for abrasion protection or bundling hose assemblies • Temperature range: -70°F to 250°F 	Black	Yellow	Wall	ID	Length
	Part Number	Part Number	Thickness	(in)	(ft)
	PWHD-0500B	PWHD-0500Y	0.069	0.50	100
	PWHD-0750B	PWHD-0750Y	0.122	0.75	100
	PWHD-1000B	PWHD-1000Y	0.118	1.00	100
	PWHD-1250B	PWHD-1250Y	0.132	1.25	100
	PWHD-1500B	PWHD-1500Y	0.140	1.50	100
	PWHD-2000B	PWHD-2000Y	0.160	2.00	100
	PWHD-2500B	PWHD-2500Y	0.209	2.50	50
	PWHD-3000B	PWHD-3000Y	0.218	3.00	35
	PWHD-3500B	PWHD-3500Y	0.250	3.50	25
	PWHD-4000B	PWHD-4000Y	0.250	4.00	20
	PWHD-6000B	PWHD-6000Y	0.250	6.00	15

Accessories

STEEL SPRING GUARD



Part Number	ID (in)	Length (ft)
SG-0515	0.515	20/100
SG-0550	0.550	20/100
SG-0610	0.610	20/100
SG-0650	0.650	20/100
SG-0750	0.750	20/100
SG-0835	0.835	20/100
SG-0900	0.900	20/100
SG-0990	0.990	20/100
SG-1055	1.055	20/100
SG-1110	1.110	20/100
SG-1240	1.240	20/100
SG-1300	1.300	20/100
SG-1380	1.380	20/100
SG-1630	1.630	20/100
SG-1810	1.810	20/100
SG-2000	2.000	20/100
SG-2125	2.125	20/100
SG-2300	2.300	20/100

FIRE SLEEVING

- Continuous exposure: 500°F (260°C)
- 2000°F (1090°C) for 15-20 minutes
- 3000°F (1650°C) for 15-20 seconds
- Fibreglass sleeve coated with red silicone rubber
- Protects hoses from molton metal, splash, intense heats and flame



Part Number	Nominal ID B (in)	Standard Package (ft)
FS-050	0.50	50
FS-063	0.63	50
FS-075	0.75	50
FS-088	0.88	50
FS-100	1.00	50
FS-113	1.13	50
FS-138	1.38	50
FS-163	1.63	50
FS-175	1.75	50
FS-200	2.00	50

NOTE: Other sizes are available upon request

Fire Sleeve Tape
 PST-16 1" WIDE
 PST-24 1½" WIDE

STRAIN RELIEVERS



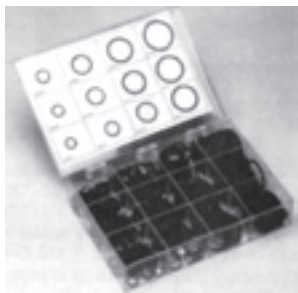
- Strain Relievers reduce bending stress near hose end for longer hose life.

Part Number	Hose Type
TPG-04A	¼" ONE WIRE
TPG-06A	⅜" ONE WIRE
TPG-08A	½" ONE WIRE



Accessories

OK O-RING KITS

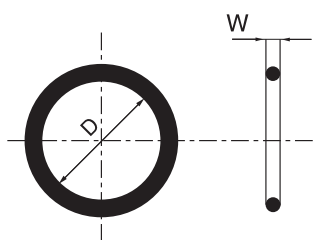


These kits contain the most popular size 90 durometer O-rings, individually boxed, which will supply your shop, service truck, or parts counter with the size you need.

O-RING KITS	Part Number	O-Rings Per Kit
O-Ring Boss Kit	OK-10	250
O-Ring Face Seal Kit	OK-20	150
SAE Flange Kit	OK-30	70
Catepillar Flange Kit	OK-40	60

These replacement O-rings are made from buna-N nitrile rubber and are resistant to gasoline, oil, grease, and petroleum base hydraulic fluids. Other O-ring materials can be special ordered. Match the O-ring dash size to the dash size of the fitting.

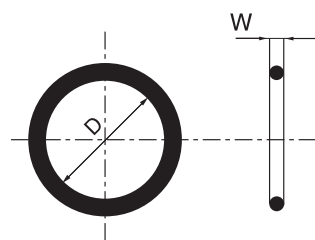
BOSS O-RINGS



Part Number	O-Ring ID	Wall Dia.
OB-02	0.239	0.064
OB-03	0.301	0.064
OB-04	0.351	0.072
OB-05	0.414	0.072
OB-06	0.468	0.078
OB-08	0.644	0.087
OB-10	0.755	0.097
OB-12	0.924	0.116
OB-14	1.048	0.116

NOTE: Other sizes are available upon request

FACE SEAL O-RINGS

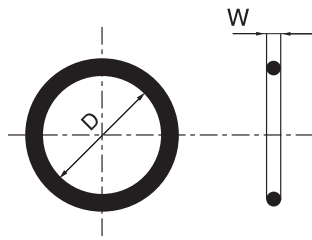


Part Number	O-Ring ID	Wall Dia.
OR-04	0.301	0.070
OR-06	0.364	0.070
OR-08	0.489	0.070
OR-10	0.614	0.070
OR-12	0.739	0.070
OR-16	0.926	0.070
OR-20	1.176	0.070
OR-24	1.489	0.070

NOTE: Other sizes are available upon request

Accessories

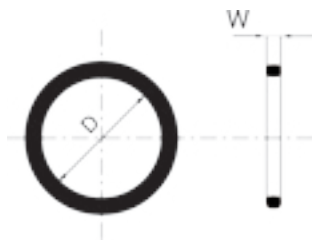
SAE FLANGE O-RINGS



Part Number	O-Ring ID	Wall Dia.
OF-08	0.734	0.139
OF-12	0.984	0.139
OF-16	1.296	0.139
OF-20	1.484	0.139
OF-24	1.859	0.139
OF-32	2.234	0.139

NOTE: Other sizes are available upon request

CATERPILLAR FLANGE D-RINGS



Part Number	O-Ring ID	Wall Dia.
OC-08	0.734	0.139
OC-12	0.984	0.139
OC-16	1.296	0.139
OC-20	1.484	0.139
OC-24	1.859	0.139
OC-32	2.234	0.139

NOTE: Other sizes are available upon request



EQUIPMENT



Equipment

FX17E

The **FX17E** is designed to be used as either a bench mount or as a portable crimping machine. This is a versatile and cost effective crimping machine with it's ability to crimp hoses thru 1" 6-Spiral.



Capacity:

Teflon Hose $\frac{3}{16}$ " thru 1"
Thermoplastic Hose $\frac{3}{16}$ " thru 1"
Air Conditioning Hose $\frac{5}{16}$ " thru $\frac{5}{8}$ "
1-Wire Braid Hose $\frac{3}{16}$ " thru 1"
2-Wire Braid Hose $\frac{1}{4}$ " thru 1"
4-Spiral Hose $\frac{3}{8}$ " thru 1"
6-Spiral Hose $\frac{3}{8}$ " thru 1"

The **FX17E** - supplied with a 1HP 110V pump.

Size: 11" wide, 20" deep, 19" high

Weight: Approx. 125 lbs.

FX17A / FX17H



The **FX17A** is supplied with a 10,000 PSI air over hydraulic pump.

The **FX17H** is supplied with a 10,000 PSI hand over hydraulic pump.

Size: 13.5" wide, 14" deep, 15" high

Weight: Approx. 66 lbs.

Dies & Spacer Rings:

The FX17 requires FX17 Series crimp dies and spacer rings.

Caution - All Flextral pumps produce 10,000 PSI. Safety and caution should always be used when operating hydraulic equipment.



FX17HD

The **FX17HD** has been designed for medium to high capacity shop use. The sliding die bowl makes hose and die loading easy. This crimper was also designed to mount on the FC40 fitting cabinet. Together they make a complete system.

**Capacity:**

Teflon Hose $\frac{3}{16}$ " thru 1"
Thermoplastic Hose $\frac{3}{16}$ " thru 1"
Air Conditioning Hose $\frac{5}{16}$ " thru $\frac{5}{8}$ "
1-Wire Braid Hose $\frac{3}{16}$ " thru 1 $\frac{1}{4}$ "
2-Wire Braid Hose $\frac{1}{4}$ " thru 1 $\frac{1}{4}$ "
4-Spiral Hose $\frac{3}{8}$ " thru 1"
6-Spiral Hose $\frac{1}{2}$ " thru 1"

The **FX17HD** - supplied with a 1HP 110V pump.

Size: 15.5" wide, 14" deep, 20" high
Weight: Approx. 112 lbs.

Dies & Spacer Rings:

The FX17HD requires FX17 Series crimp dies and spacer rings.

Caution - All Flextral pumps produce 10,000 PSI. Safety and caution should always be used when operating hydraulic equipment.

Equipment

FX21FBE *FAT BOY*

The **FX21FBE** is also known as the FAT BOY. It gets its name from its wide looking design. It is designed as a portable crimping machine but can just as easily be used as a bench mount unit. The FAT BOY touts a robust 1¼" 6-Spiral capacity.



Capacity:

Teflon Hose ¾" thru 1"
Thermoplastic Hose ¾" thru 1"
Air Conditioning Hose ¾" thru ⅝"
1-Wire Braid Hose ¾" thru 1¼"
2-Wire Braid Hose ¼" thru 1¼"
4-Spiral Hose ⅜" thru 1¼"
6-Spiral Hose ½" thru 1¼"

The **FX21FBE-1.0** - supplied with a 1HP 110V pump.

The **FX21FBE-2.0** - supplied with a 2HP 220V pump.

Size: 15.5" wide, 14" deep, 20" high

Weight: Approx. 112 lbs.

FX21FBA / FX21FBH



The **FX21FBA** is supplied with a 10,000 PSI air over hydraulic pump.

The **FX21FBH** is supplied with a 10,000 PSI hand over hydraulic pump.

Size: 15.5" wide, 14" deep, 20" high

Weight: Approx. 112 lbs.

Dies & Spacer Rings:

The FX21FB requires FX21 Series crimp dies and spacer rings.

Caution - All Flextral pumps produce 10,000 PSI. Safety and caution should always be used when operating hydraulic equipment.



FX21

The **FX21** is the staple crimper of any proficient hose shop. Not only is it perfectly engineered, but it is the most user friendly crimping system on the market today.

The **FX21** is designed as a “dead stop” crimping system. It has no electronics, requires no calibration and has no dials to set. Simply select the proper spacer ring and crimp away. This machine is the maintenance man’s best friend.



Capacity:

Teflon Hose $\frac{3}{16}$ " thru 1"
Thermoplastic Hose $\frac{3}{16}$ " thru 1"
Air Conditioning Hose $\frac{5}{16}$ " thru $\frac{5}{8}$ "
1-Wire Braid Hose $\frac{3}{16}$ " thru 1 $\frac{1}{4}$ "
2-Wire Braid Hose $\frac{1}{4}$ " thru 1 $\frac{1}{4}$ "
4-Spiral Hose $\frac{3}{8}$ " thru 1 $\frac{1}{4}$ "
6-Spiral Hose $\frac{1}{2}$ " thru 1 $\frac{1}{4}$ "

The **FX21** is available in two electric pump configurations:

FX21-1 - Press and pump assembly with a 1 H.P. 110 V electric over hydraulic pump.

FX21-2 - Press and pump assembly with a 2 H.P. 110 V electric over hydraulic pump.

Size: 16" wide, 32" deep, 33" high

Weight: Approx. 290 lbs.

Dies & Spacer Rings:

The FX21 requires FX21 Series crimp dies and spacer rings.

Caution - All Flextral pumps produce 10,000 PSI. Safety and caution should always be used when operating hydraulic equipment.

Equipment

FX41 THE BOSS

The FX41 is also known as THE BOSS. Like all Flextral crimping equipment, it is designed as a “dead stop” crimping system. It requires no calibration and has no dials to set. With it’s ability to crimp through 2” 6-Spiral, THE BOSS has the largest capabilities of all the Flextral crimpers. It’s front loading system allows the user convenient access and ease of use throughout the crimping process.



FX41-3.0RC - Press and pump assembly with a 3 HP 220V single phase pump mounted on a rolling bench.



FX41-3.0WB - Press and pump assembly with a 3 HP 220V single phase pump designed for bench mounting.

Capacity:

- Teflon Hose 3/16” thru 1”
- Thermoplastic Hose 3/16” thru 1”
- Air Conditioning Hose 5/16” thru 5/8”
- Suction & Return Hose thru 2 1/2”
- 1-Wire Braid Hose 3/16” thru 2”
- 2-Wire Braid Hose 1/4” thru 2”
- 4-Spiral Hose 3/8” thru 2”
- 6-Spiral Hose 1/2” thru 2”

Note: The FX41 is also available with a 2 H.P. single phase pump.

Caution - All Flextral pumps produce 10,000 PSI. Safety and caution should always be used when operating hydraulic equipment.



Equipment

Weatherhead Conversion Kits

FXT-400



The Weatherhead T-400 can be very simply converted to crimp Flextral products with this easy to use conversion kit.

The FXT-400 includes:

FXT-400PT Push tube
FXT-400DB Die Bowl
FXT-400SH Blue Flextral Shroud with crimp chart

Dies & Spacer Rings:

The FXT-400 requires FX17 Series crimp dies and spacer rings.

Capacity:

Teflon Hose $\frac{3}{16}$ " thru 1"
Thermoplastic Hose $\frac{3}{16}$ " thru 1"
Air Conditioning $\frac{5}{16}$ " thru $\frac{5}{8}$ "
1-Wire Braid Hose $\frac{3}{16}$ " thru 1"
2-Wire Braid Hose $\frac{1}{4}$ " thru 1"

FXT-420



The Weatherhead T-420 can be very simply converted to crimp Flextral products with this easy to use conversion kit.

The FXT-420 includes:

FX21DBI Die Bowl
FXT-420SH Blue Flextral Shroud with crimp chart

Dies & Spacer Rings:

The FXT-420 requires FX21 Series crimp dies and spacer rings.

Capacity:

Teflon Hose $\frac{3}{16}$ " thru 1"
Thermoplastic Hose $\frac{3}{16}$ " thru 1"
Air Conditioning Hose $\frac{5}{16}$ " thru $\frac{5}{8}$ "
1-Wire Braid Hose $\frac{3}{16}$ " thru 1 $\frac{1}{4}$ "
2-Wire Braid Hose $\frac{1}{4}$ " thru 1 $\frac{1}{4}$ "
4-Spiral Hose $\frac{3}{8}$ " thru 1 $\frac{1}{4}$ "
6-Spiral Hose $\frac{1}{2}$ " thru 1 $\frac{1}{4}$ "

Equipment

Weatherhead Conversion Kits

FXT-440

The FXT-440 conversion kit is currently under development. For more information please consult your local distributor.

The Weatherhead T-440 can be very simply converted to crimp Flextral products with this easy to use conversion kit.

Dies & Spacer Rings:

Thru 1" FX21 dies and spacer rings.

1¼" thru 2" FXT440 dies, spacer rings are not required

Capacity:

Teflon Hose ¾" thru 1"

Thermoplastic Hose ¾" thru 1"

Air Conditioning Hose ⅝" thru ⅝"

Suction & Return Hose thru 2½"

1-Wire Braid Hose ¾" thru 2"

2-Wire Braid Hose ¼" thru 2"

4-Spiral Hose ⅜" thru 2"

6-Spiral Hose ½" thru 2"

FXT-480



The Weatherhead T-480 can be very simply converted to crimp Flextral products with this easy to use conversion kit.

The FXT-480 includes:

FX21DBI Die Bowl

Dies & Spacer Rings:

The FXT-480 requires FX21 Series crimp dies and spacer rings.

Capacity:

Teflon Hose ¾" thru 1"

Thermoplastic Hose ¾" thru 1"

Air Conditioning Hose ⅝" thru ⅝"

1-Wire Braid Hose ¾" thru 1"

2-Wire Braid Hose ¼" thru 1"

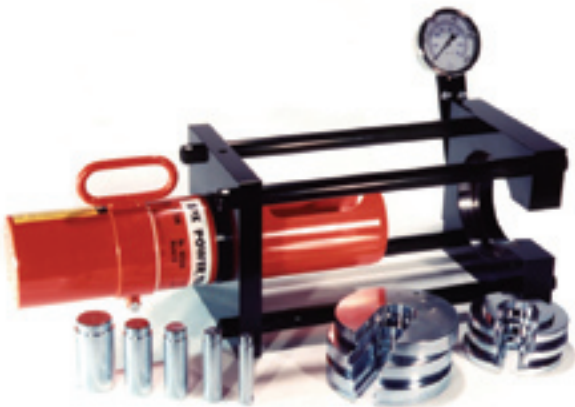
4-Spiral Hose ⅜" thru 1"

6-Spiral Hose ½" thru 1"



XT356

REUSABLE COUPLING PRESS - SPIRAL HOSE

**The XT356 includes:**

Press
1 H.P. electric pump
Tooling to assemble the following:
100R12 3/8" thru 2"
100R13 3/4" thru 1 1/2" (2" available)
100R15 1" thru 1 1/2" (2" available)

Features:

1 H.P. electric pump
7,500 PSI working pressure
55 ton cylinder
Press is portable or bench mount

HS200

HOSE CUTTING SAW



This saw is capable of cutting thru 4" one and two braid, 2" 4-Spiral and 1 1/2" 6-Spiral hoses.

The **HS200** comes standard with a 12" steel scalloped blade.

Available replacement blades:

HS200-SS - 12" steel scalloped blade for cutting braided and spiral hose.

HS200-SST - 12" steel scalloped toothed blade for cutting industrial transfer hose thru 4".

HS200-SSB - 12" steel smooth beveled for cutting hose with a wire braid cover.

Motor: 4.2 H.P. 110/115 V single phase

Size: 22" wide, 19" deep, 25" high

Weight: Approx. 65 lbs.

Equipment

SKIVE HEADS



PART NUMBERS

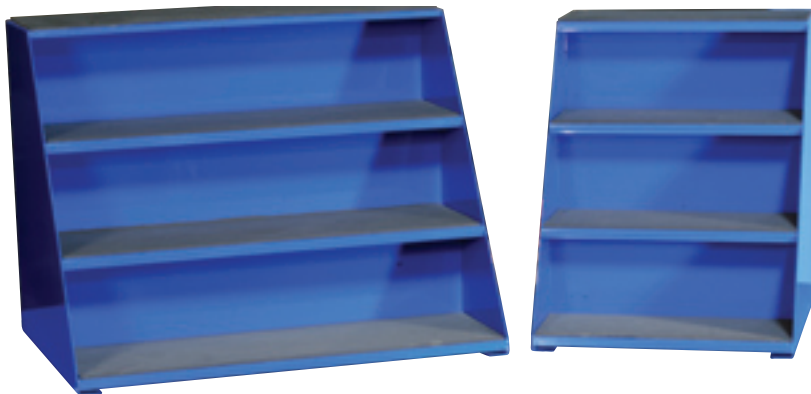
	100R13	100R15
3/4"	SHX13-12	SHX15-12
1"	SHX13-16	SHX15-16
1 1/4"	SHX13-20	SHX15-20
1 1/2"	SHX13-24	SHX15-24
2"	SHX13-32	SHX15-32
Skive Handle - SH100		

HC7 HOSE CABINET

7 SLOT VERTICAL HOSE CABINET



DIE RACKS

**SH2000**

Size: 20⁵/₈" wide, 15¹/₈" deep, 16¹/₈" high

SH1000

Size: 12³/₈" wide, 13" deep, 15¹/₈" high

FC40 CABINET 40 DRAWER FITTING CABINET



The **FC40** is designed for the following crimpers to mount on top:

FX17HD**FX17****FX21*****FX21FB****FXT400**

*When mounting an FX21, order the 4" riser - Part # FX4RISE.

Size: 40" wide, 24" deep, 46¹/₄" high

Equipment

CUSTOM HOSE CENTERS



INDEX



Flextral Parts Index

Hose	Pg	MPX90B	C6	MML	C28	MML	C45
		FP	C7	FML	C29	FML	C46
J3	B2	FPX	C7	FML45	C29	FML45	C46
YK	B2	FPXT	C7	FML90	C30	FML90	C46
ZX	B3	MJ	C8	MMS	C30	MMS	C46
TBR	B3	FJ	C9	FMS	C31	FMS	C47
PW3000BU	B4	FJ45	C10	FMS45	C31	FMS45	C47
PW4000BU	B4	FJ90	C11	FMS90	C32	FMS90	C47
PW4500BU	B4	FJ90L	C12	FL	C32	FL	C48
PW3000BK	B5	FJ90B	C12	FL45	C33	FL22.5	C48
PW4000BK	B5	MF	C13	FL90	C33	FL30	C49
PW4500BK	B5	FF	C13	7795	C33	FL45	C49
701	B6	FF45	C14			FL60	C50
703	B6	FF90	C14	F Series		FL67.5	C50
721	B7	FF90M	C15			FL90	C51
801	B7	FF90L	C15	MP	C34	FL100	C52
714	B8	MA	C15	MJ	C34	FL110	C52
LX	B9	FA	C16	FJ	C34	FLH	C52
HX	B9	FA45	C16	FJ45	C35	FLH30	C53
HH	B10	FA90	C16	FJ90	C35	FLH45	C53
FX	B10	MOB	C16	MA	C35	FLH60	C53
FH	B11	MOBX	C17	FA	C35	FLH90	C54
AX	B11	MOBX90	C17	FA45	C36	FLC	C54
AXT	B12	MOBX90B	C17	FA90	C36	FLC22.5	C54
DX	B12	MIX	C18			FLC30	C55
GX	B13	MIX45	C18	N Series		FLC45	C55
GU	B13	MIX90	C18			FLC60	C55
EX	B14	MRNS	C19	MP	C37	FLC67.5	C55
EU	B14	FG	C19	MJ	C37	FLC90	C56
EA	B15	FJIS	C19	FJ	C38	MOB	C56
EH	B15	FK	C20	FJ45	C38	7795	C56
PX250	B16	FK45	C20	FJ90	C39	7895	C56
RX2	B17	FK90	C20	FJ90L	C39		
3X	B17	FLK	C21	FJ90B	C39	X Series	
NX	B18	FLK45	C21	MF	C40		
QC	B18	FLK90	C21	FF	C40	MP	C57
SX	B19	MBSPT	C22	FF45	C40	MJ	C57
VX	B19	MBSPP	C22	FF90	C41	FJ	C57
VC	B20	FBSPP	C23	FF90M	C41	FJ45	C58
CX	B20	FBSPP45	C23	FF90L	C41	FJ90	C58
CC	B21	FBSPP90	C24	FJIS	C42	FF	C58
HJ	B21	FBSPP90B	C24	FK	C42	FF45	C59
		FBSPPFF	C24	FLK	C42	FF90	C59
Couplings	Pg	BJBSP	C25	FLK45	C43	MBSPT	C59
		BJBSPBT	C25	FLK90	C43	MBSPP	C60
E Series		FPWK	C25	MKBC	C43	FBSPP	C60
		SP	C25	MBSPT	C43	FBSPP45	C60
Hose End Index	C2	SPML	C26	MBSPP	C44	FBSPP90	C60
MP	C5	SPML45	C26	FBSPP	C44	MMS	C61
MPL	C5	SPML90	C27	FBSPP45	C44	FMS	C61
MPX	C6	BJM	C27	FBSPP90	C45	FMS45	C61
MPX90	C6	BJMBT	C28	FBSPP90B	C45	FMS90	C61



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FL	C62	FJ	C77	BTF45	C91	2700LN	D19
FL45	C62			BTF45-P	C91	2701LN	D19
FL90	C62	1R Series		BTF90	C92	2702LN	D19
FLH	C63			BTF90-P	C92	2703LN	D20
FLH30	C63	MP	C78	BTM	C92	2704LN	D20
FLH45	C63	MPX	C78	BTM45	C93	2705LN	D20
FLH60	C64	MJ	C79	BTM90	C93	2706LN	D21
FLH90	C64	FJ	C79	BTM90-P	C93	5000	D21
FLC	C64			IOM	C94	5404	D22
FLC22.5	C65	2R Series		IOM90	C94	5405	D22
FLC30	C65			HS	C94	5406	D23
FLC45	C65	MP	C80	HS-P	C95	5406C	D23
FLC60	C65	MPX	C80	BS	C95	5406P	D23
FLC67.5	C66	MJ	C80	ACF	C95	5409	D24
FLC90	C66	FJ	C81	ACO	C95	5500	D24
7795	C66	FJ45	C81			5501	D24
7895	C66	FJ90	C81	Adapters	Pg	5502	D25
						5503	D25
		5R Series		0304C	D2	5504	D26
				0306	D2	5505	D26
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MPX	C67	MJ	C82	0319	D3	5601	D27
FP	C67	FJ	C82	0403	D3	5602	D27
FPX	C68	FJ45	C83	1404	D4	5603	D27
MJ	C68	FJ90	C83	1405	D4	5604	D28
FJ	C68	FJ90L	C83	1501	D5	5605	D28
FJ45	C69	MA	C84	1501L	D5	5652	D28
FJ90	C69	FA	C84	1502	D6	6400	D29
FJ90L	C70	MIX	C84	1503	D6	6401	D30
FJ90B	C70			1504	D7	6402	D30
FF	C70	J Series		1601	D7	6404	D30
FF45	C71			1602	D7	6405	D31
FF90	C71	MP	C85	1603	D8	6407	D31
FF90L	C71	MP90	C85	2403	D8	6408	D32
MA	C72	FPXT	C85	2404	D9	6409	D32
FA	C72	FJ	C86	2404-L	D10	6410	D33
FA90	C72	MA	C86	2404-LL	D10	6500	D33
MOB	C73	FA	C86	2405	D11	6500BT	D34
MIX	C73	MIX	C87	2406	D12	6500LBT	D34
MIX45	C73	FIX	C87	2408	D12	6501	D35
MIX90	C74	SP	C88	2500	D13	6502	D35
MRNS	C74	HM	C88	2501	D14	6504	D35
FJIS	C74			2501-L	D15	6505	D36
MBSPT	C75	Z Series		2501-LL	D15	6506	D36
FBSPP	C75			2502	D16	6565	D36
FBSPP45	C75	MRNS	C89	2503	D16	6600	D37
FBSPP90	C76	MA	C89	2504	D17	6602	D37
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		FA45	C90	2602	D17	6801-L	D39
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7795	D46	FS2408	D67			FS	F4
7798	D47	FS2500	D67	BF15	E2	SR	F4
7800	D47	FS2501	D67	BM15	E2	OK	F5
7845	D47	FS2601	D68	BFB15	E2	OB	F5
7845FG	D47	FS2603	D68	BM15B	E3	OR	F5
7890	D48	FS2700LN	D69	BF15SS	E3	OF	F6
7890FG	D48	FS2701LN	D69	BM15SS	E3	OC	F6
7895	D48	FS2702LN	D69	BP	E4		
9000	D49	FS2704LN	D70	BC	E4	Equipment	Pg
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9005	D51	FS6402	D71	BSM15	E4	FX17E	G2
9006	D52	FS6403	D71	AF15	E5	FX17A/FX17H	G2
9007	D52	FS6500	D71	AM15	E5	FX17HD	G3
9011	D53	FS6504	D71	AF10	E5	FX21FBE FATBOY	G4
9015	D53	FS6600	D72	AM10	E6	FX21FBA/FBH	G4
9021	D53	FS6602	D72	AP	E6	FX21	G5
9030	D54	FS6801	D73	AC	E6	FX41 THE BOSS	G6
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9040	D55	FS6803	D74	JP	E7	FXT-440	G8
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9237	D60	7325	D79	WC	E10		
9240	D60	7355	D79	FF15	E11		
9245	D61	7365	D79	FM15	E11		
9247	D61	7405	D80	FF19	E11		
9500	D61	7455	D80	FM19	E11		
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