



HYDRAULIC HOSE PRODUCTS





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FLEXTRAL[®]

Limited Warranty

Bridgestone HosePower LLC. warrants that any new hose assemblies sold by Bridgestone HosePower shall be free from defects in material and/or workmanship at the time of manufacture.

Should any assembly covered by this limited warranty be defective with respect to material and/or workmanship under normal use and with proper installation and maintenance, during the period specified herein following the delivery of the product to the original purchaser, Bridgestone HosePower will replace or repair such defective part or assembly.

The obligation of this warranty shall be limited to replacement cost, not to exceed the standard cost from Bridgestone HosePower, plus service charge and/or labor to install such part. The warranty amount will be credited to your account only after it has been determined to be a defective assembly by a HosePower representative.

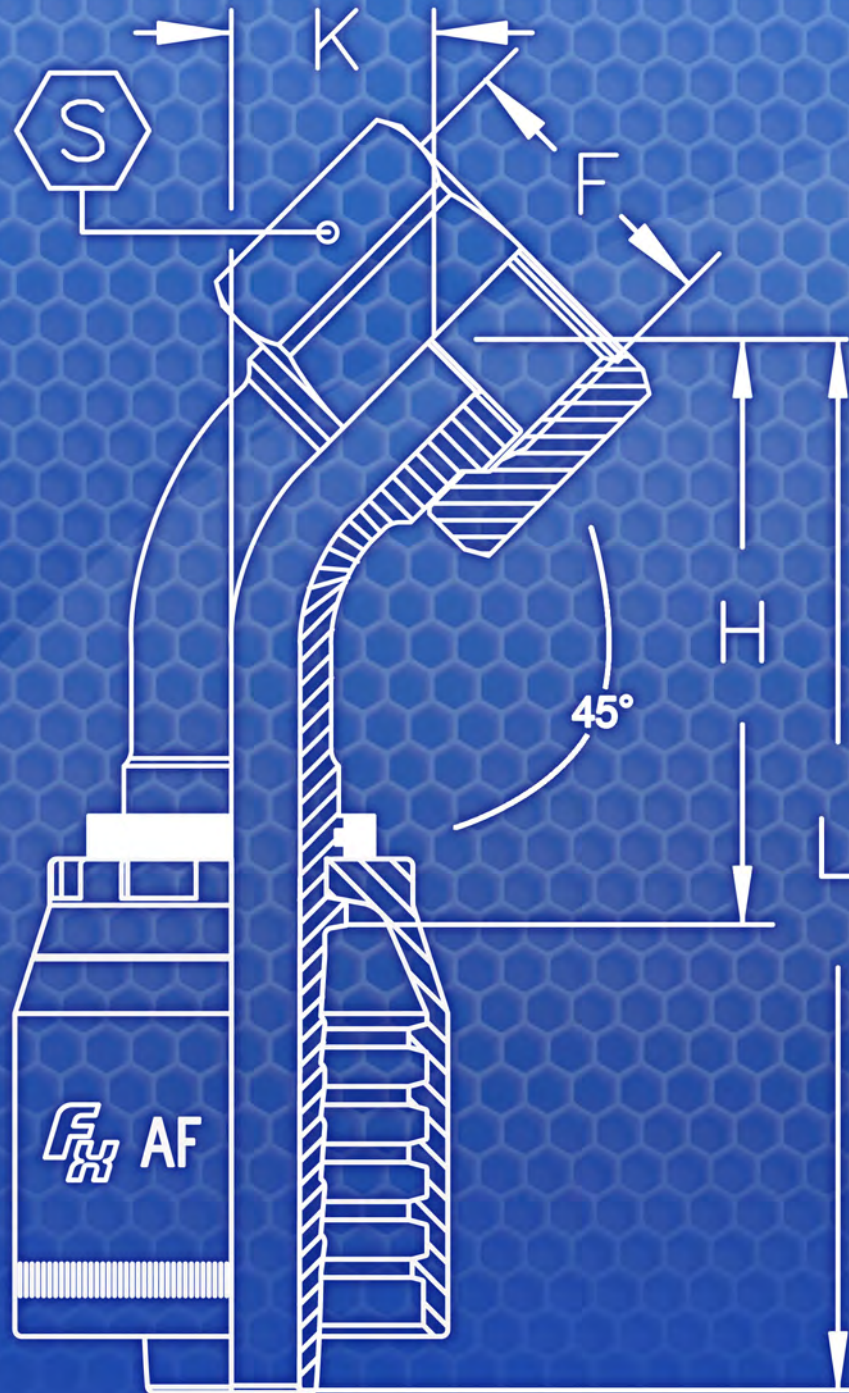
A letter to Bridgestone HosePower with your standard warranty report from the field must accompany the product in question. It is to be sent to Bridgestone HosePower, prepaid via UPS/ Ground (collect not accepted) within 60-days from the date the claim first arises. Note: Complete assembly to be sent (hose and fittings.)

This warranty specifically excludes all liabilities for damage arising from loss or use or profits or injury to business, credit, reputation or financial standing and all other consequential damages.

This warranty is in lieu of all other warranties. No implied or statutory warranties of merchantability or fitness for a particular purpose shall apply. There are no warranties, which extend beyond this document. This writing constitutes a complete, exclusive and final agreement of HosePower's warranty obligation.

1. Period: Bridgestone HosePower's obligation under this warranty shall continue only for one year from the date the product is delivered to the O.E.M.
2. Limitations and Exclusions: This warranty shall not apply to the malfunction of the HosePower assembly resulting from:
 - a) Failure to properly install product.
 - b) Improper specifications of product for application.
 - c) Lack of operating skill of the operator, including carelessness and abusive use, overloading and insufficient or improper maintenance.
 - d) Replacement of parts or assemblies which can be repaired by minor adjustments, such as tightening of all fittings, etc.
 - e) Any other kind of misuse or detrimental exposure, including collision and/or accident.

TECHNICAL DATA



FLYTRAL



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>

Hose and Fitting Compatibility

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.



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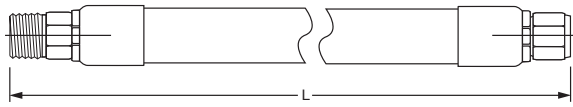
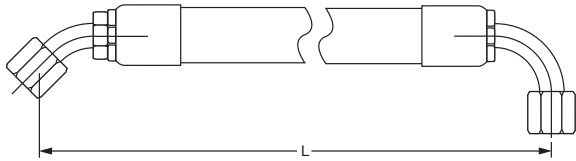
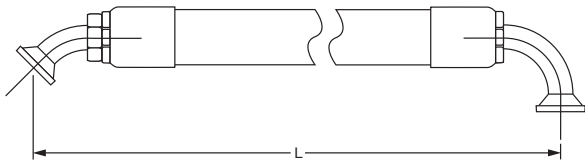
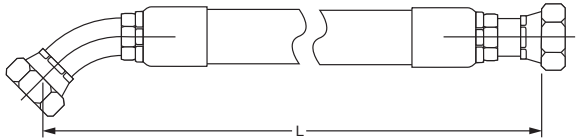
How to Measure Flextral Assemblies

Use to identify length of customer sample and for checking proper length of new hose assembly.

Unless otherwise specified, assembly length shall be the overall length measured from the extreme end of one connector to the extreme end of the other. O-ring face seal type connectors shall be measured from the sealing face. Where elbow connectors are used, measurement shall be to the centerline of the sealing surface of the elbow end (The sealing surface of female flared elbow connectors shall be the centerline of the outer end of the cone seat). See figures below.

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°.

Method of measurement should be specified. Tolerances on assembly length shall be as in table below.

 <p>Straight connectors (except O-ring face seal)</p>	 <p>Female swivel elbow connectors</p>		
 <p>Flange connectors</p>	 <p>O-ring face seal connectors</p>		
Assembly Length	Tolerances (decimal inch)	Tolerances (fraction inch)	Tolerances (mm)
Up through 12" (304.8 mm)	0.13	1/8	3.2
Over 12" through 18" (304.8 through 457.2 mm)	0.19	3/16	4.8
Over 18" through 36" (457.2 through 914.4 mm)	0.25	1/4	6.4
Over 36" (914.4 mm)	1%	1%	1%

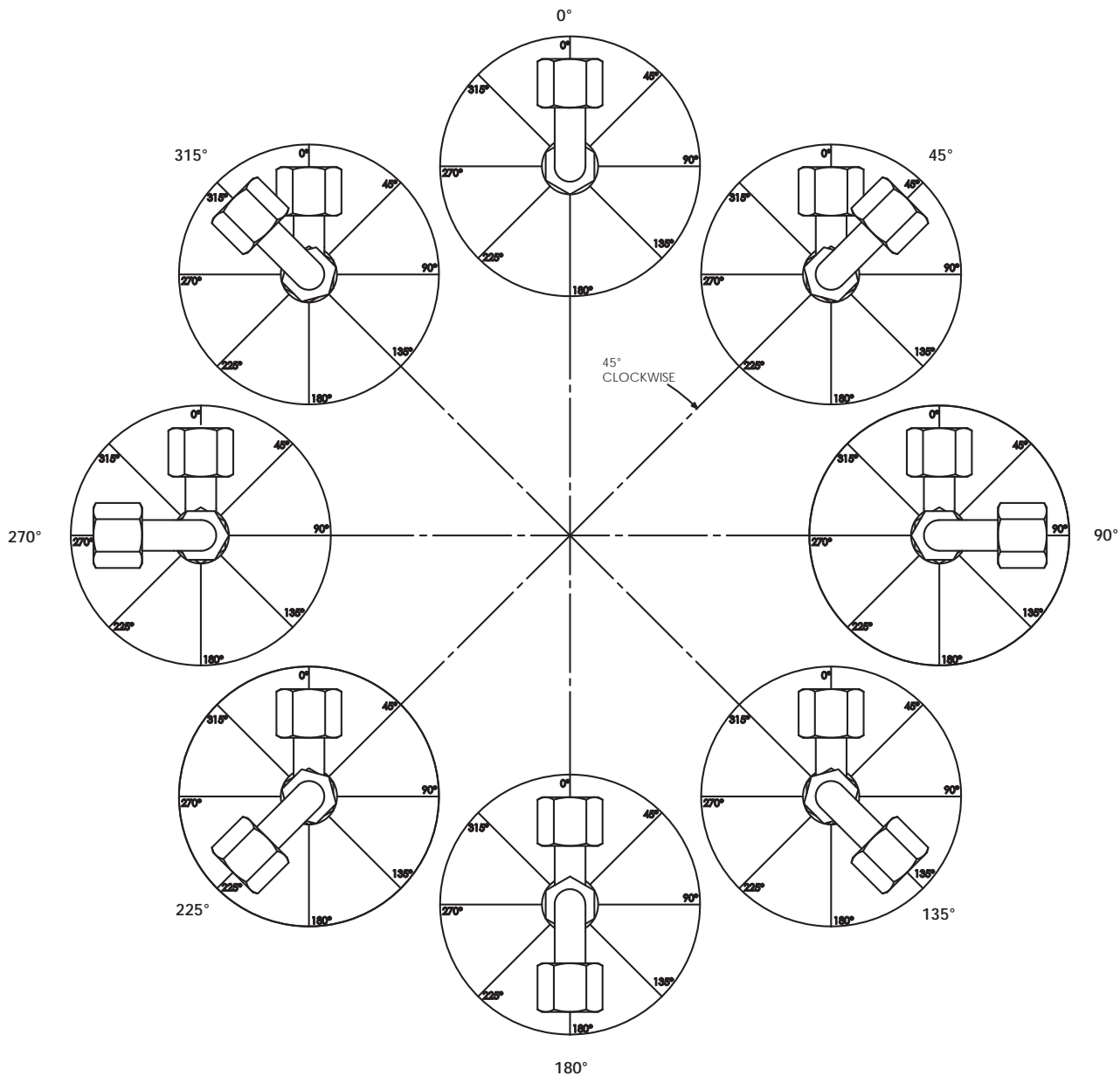
Angular Relationships

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°.

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How to Measure Fitting Orientation



Orientation is determined by the number of degrees measured in a clockwise direction between the farthest fitting and the nearest fitting.



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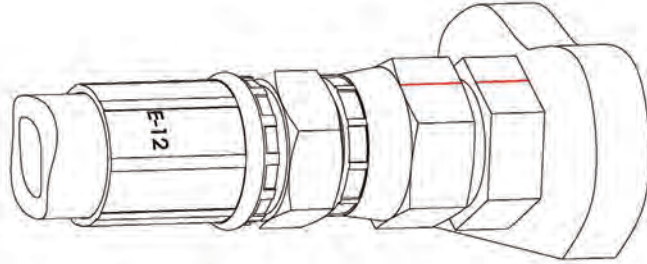


Assembly of SAE 37° Flare Fittings Using “Flats Method” To Achieve Proper Torque

The “Flats Method” is the assembly method recommended by Flextral Engineering for trivalent (silver color) plated components. By using this method, the user can be assured the proper clamp load is applied to the flare connection regardless of the plating type.

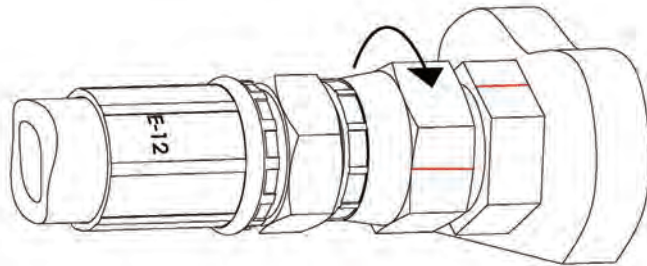
A. Hand tighten the swivel nut to the mating male flare adapter. “Hand Tight” is described as the point where the swivel nut will no longer thread onto the mating connector when moderate torque is applied with the hand or fingers. When this is complete wiggle the swivel nut back and forth to insure full engagement has taken place.

B. Mark a line on one of the swivel nut hex flats and extend that line onto the hex of the tube adapter as shown.



C. Using the proper wrench, turn the swivel nut to tighten. The nut is to be rotated clockwise the recommended number of hex flats as shown below and in the chart titled “Assembly Procedures – Flats Rotation”.

D. Note: a second wrench should be used to hold the coupling hex to prevent hose twist during assembly.



Assembly Procedures - Flats Rotation		
Size	Degrees of rotation	37° Machined Seat (hex flats)
-3	120	2
-4	120	2
-5	90	1-1/2
-6	90	1-1/2
-8	75	1-1/4
-10	60	1
-12	60	1
-16	60	1
-20	60	1
-24	60	1
-32	60	1

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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>)	<i>cm²</i> x 0.155 = <i>ln²</i>	<i>ln²</i> x 6.452 = <i>cm²</i>
Length	Meters (<i>mt.</i>)	Feet (<i>ft.</i>)	<i>mt.</i> x 3.281 = <i>ft.</i>	<i>ft.</i> x 0.305 = <i>mt.</i>
Weight	Kilograms (<i>kg.</i>)	Pounds (<i>p</i>)	<i>kg.</i> x 2.2046 = <i>p</i>	<i>p</i> x 0.4535 = <i>kg.</i>
Volume	Cubic centimeters (<i>cm³</i>)	Cubic feet (<i>Cu.Ft.</i>)	<i>cm³</i> x 0.061 = <i>Cu.Ft.</i>	<i>Cu.Ft.</i> x 16.39 = <i>cm³</i>
	Litres (<i>lt.</i>)	Gallons (<i>gal</i>)	<i>lt.</i> x 0.2541 = <i>gal</i>	<i>gal</i> x 3.7 = 8 <i>lt.</i>
Power	Kilowatts (<i>Kwh</i>)	Horsepower (<i>HP</i>)	<i>HP</i> x 0.7457 = <i>Kwh</i>	<i>Kwh</i> x 1.3410 = <i>HP</i>
Frequency	Hertz (<i>Hz</i>)	Cycles/second (<i>cps</i>)	<i>Hz</i> = <i>cps</i>	<i>cps</i> = <i>Hz</i>
Load	Meter kilograms (<i>Kgm.</i>)	Feet-pounds (<i>lbf</i>)	<i>Kgm.</i> x 7.233 = <i>lbf</i>	<i>lbf</i> x 0.1383 = <i>Kgm</i>
Pressure	Bar (<i>Bar</i>)	Pounds/sq.inches (<i>P.S.I.</i>)	<i>Bar</i> x 14.50 = <i>P.S.I.</i>	<i>P.S.I.</i> x 0.0689 = <i>Bar</i>
	Pascal (<i>Pa</i>)	Pounds/sq.inches (<i>P.S.I.</i>)	<i>Pa</i> x 0.145 = <i>P.S.I.</i>	<i>P.S.I.</i> x 6.8948 = <i>Pa</i>
	Mega Pascal (<i>MPa</i>)	Pounds/sq.inches (<i>P.S.I.</i>)	<i>MPa</i> x 145.0377 = <i>P.S.I.</i>	<i>P.S.I.</i> x .0068948 = <i>MPa</i>
	Atmospheres (<i>Atm.</i>)	Pounds/sq.inches (<i>P.S.I.</i>)	<i>Atm.</i> x 14.70 = <i>P.S.I.</i>	<i>P.S.I.</i> x 0.0680 = <i>Atm.</i>
Density	Gram/cubic centimeters (<i>gr./cm³</i>)	Pounds/cu.inches (<i>pci</i>)	<i>gr./cm³</i> x 0.03613 = <i>pci</i>	<i>pci</i> x 27.68 = <i>gr./cm³</i>
Temperature	Degrees celsius °C	Degrees fahrenheit °F	°C = (°F - 32)/1.8	°F = °C x 1.8 + 32



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Pressure Conversion Factors

BAR to P.S.I.			
Bar	kPa	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	20.39	290.1
30	3,000	30.59	435.1
40	4,000	40.79	580.2
50	5,000	51.99	725.2
60	6,000	61.18	870.2

BAR to P.S.I.			
Bar	kPa	kg/cm ²	PSI
70	7,000	71.38	1,015.3
80	8,000	81.57	1,160.3
90	9,000	91.77	1,305.3
100	10,000	101.9	1,450
200	20,000	203.9	2,901
300	30,000	305.9	4,351
400	40,000	407.9	5,802
500	50,000	509.9	7,252
600	60,000	611.9	8,702
700	70,000	713.8	10,153
800	80,000	815.8	11,603
900	90,000	917.7	13,053
1,000	100,000	1,020	14,504
2,000	200,000	2,039	29,008
3,000	300,000	3,059	43,511

PSI to BAR			
PSI	kPa	kg/cm ²	BAR
10	68.9	0.70	0.7
20	137.9	1.41	1.4
30	206.8	2.11	2.1
40	275.8	2.81	2.8
50	344.7	3.52	3.4
60	413.7	4.22	4.1
70	482.6	4.92	4.8
80	551.6	5.62	5.5
90	620.5	6.33	6.2
100	689.5	7.03	6.9
200	1,379	14.06	13.8
300	2,068	21.09	20.7
400	2,758	28.12	27.6
500	3,447	35.15	34.5
600	4,137	42.18	41.4

PSI to BAR			
PSI	kPa	kg/cm ²	BAR
700	4,826	49.21	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	140.6	137.9
3,000	20,684	210.9	206.8
4,000	27,579	281.2	275.8
5,000	34,474	351.5	344.7
6,000	41,369	421.8	413.7
7,000	48,263	492.2	482.6
8,000	55,158	562.4	551.6
9,000	62,053	632.8	620.5
10,000	68,948	703.1	689.5
20,000	137,895	1,406	1,379
30,000	206,843	2,109	2,068
40,000	275,790	2,812	2,758



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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.



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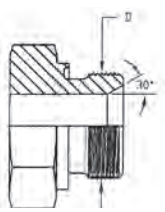
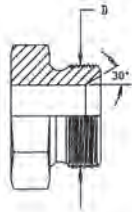
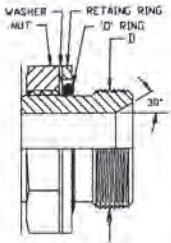


Thread Identification

British Standard Pipe Taper - (BSPT) - Male


 <p>Applicable Standards Thread Form: AS 1722.1-1975, ISO 7 Materials Available: Low Carbon 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	630	9,000	9.73	0.383
	1/4	04	1/4 - 19	630	9,000	13.16	0.518
	3/8	06	3/8 - 19	560	8,000	16.67	0.656
	1/2	08	1/2 - 14	430	6,250	20.96	0.825
	5/8*	10	5/8 - 14	350	5,000	22.91	0.902
	3/4	12	3/4 - 14	350	5,000	26.45	1.041
	1	16	1 - 11	280	4,000	33.25	1.309
	1 1/4	20	1 1/4 - 11	245	3,500	41.91	1.650
1 1/2	24	1 1/2 - 11	210	3,000	47.81	1.882	
2	32	2 - 11	210	3,000	59.62	2.347	

British Standard Pipe Parallel - (BSPP) - Male

 <p>Applicable Standards Thread Form: AS 1722.2-1992, ISO 228 Seal: DIN 3852 Part 2 Form E Materials Available: Low Carbon 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: Low Carbon 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: Low Carbon Steel GB12361-12362 Part II (Drop Forged)</p>
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Pipe Size	Dash Size	Correct Torque (Ft-Lb)	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	15	1/8 - 28	630	350	9,000	5,000	9.73	0.383
1/4	04	37	1/4 - 19	630	350	9,000	5,000	13.16	0.518
3/8	06	59	3/8 - 19	560	280	8,000	4,000	16.67	0.656
1/2	08	74	1/2 - 14	430	280	6,250	4,000	20.96	0.825
5/8*	10	89	5/8 - 14	350	280	5,000	4,000	22.91	0.902
3/4	12	148	3/4 - 14	350	245	5,000	3,500	26.45	1.041
1	16	280	1 - 11	280	245	4,000	2,500	33.25	1.309
1 1/4	20	369	1 1/4 - 11	245	140	3,500	2,000	41.91	1.650
1 1/2	24	443	1 1/2 - 11	210	140	3,000	2,000	47.81	1.882
2	32	553	2 - 11	210	105	3,000	1,500	59.62	2.347

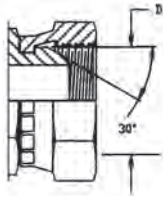
*5/8 Size is not subject to Standards

 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

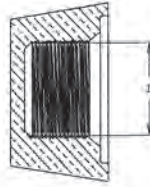
Thread Identification

British Standard Pipe Parallel - (BSPP) - Female

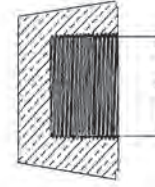
Taper - (BSPT) - Female



Applicable Standards
 Thread Form: AS 1722.2-1992, ISO 228
 Materials Available: Low Carbon Steel
 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

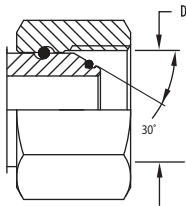


Applicable Standards
 Thread Form: AS 1722.2-1992, ISO 228
 Materials Available: Low Carbon Steel
 GB12361-12362 Part II (Drop Forged) 316
 Stainless Steel

Pipe Size	Dash Size	Correct Torque (Ft-Lb)	Nominal Thread Size & Pitch	Max Working Pressure		Thread ID 'D' on Diagram	
				Bar	PSI	mm	in
1/8	02	15	1/8 - 28	350	5,000	8.59	0.338
1/4	04	37	1/4 - 19	630	9,000	11.46	0.451
3/8	06	59	3/8 - 19	560	8,000	14.96	0.589
1/2	08	74	1/2 - 14	430	6,250	18.65	0.734
5/8*	10	89	5/8 - 14	380	5,500	20.60	0.811
3/4	12	148	3/4 - 14	350	5,000	24.13	0.950
1	16	280	1 - 11	280	4,000	30.30	1.193
1 1/4	20	369	1 1/4 - 11	245	3,500	38.97	1.534
1 1/2	24	443	1 1/2 - 11	210	3,000	44.86	1.766
2	32	553	2 - 11	210	3,000	56.67	2.231

*5/8" Size is not subject to Standards

British Pipe Parallel - (BSPP) - Female - (Flextral nut)



Applicable Standards
 Thread Form: AS 1722.2-1992, ISO 228
 Materials Available: Low Carbon Steel
 GB12361-12362 Part II (Drop Forged) 316
 Stainless Steel

Pipe Size	Dash Size	Correct Torque (Ft-Lb)	Nominal Thread Size & Pitch	Max Working Pressure		Thread OD 'D' on Diagram	
				Bar	PSI	mm	in
3/4	12	148	3/4 - 14	420	6,000	24.13	0.950
1	16	280	1 - 11	420	6,000	30.30	1.193
1 1/4	20	369	1 1/4 - 11	345	5,000	38.97	1.534
1 1/2	24	443	1 1/2 - 11	345	5,000	44.86	1.766
2	32	553	2 - 11	345	5,000	56.67	2.231

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



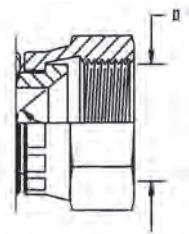


Thread Identification

Joint Industry Council - (JIC) - Male

	Dash Size	Nominal Tube Size in	Correct Torque (Ft-Lb)	Nominal Thread Size & Pitch	Max Working Pressure		Thread OD 'D' on Diagram	
					Bar	PSI	mm	in
 <p>Applicable Standards Thread Form: SAE J514 Materials Available: Low Carbon Steel 316 (Stainless Steel) GB 12361 - 12362 Part II (Drop Forged)</p>	02	1/8	11	5/16 - 24	-	-	7.87	0.310
	03	3/16	11	3/8 - 24	-	-	9.65	0.380
	04	1/4	11	7/16 - 20	595	8,500	11.07	0.436
	05	5/16	18	1/2 - 20	595	8,500	12.70	0.500
	06	3/8	26	9/16 - 18	490	7,000	14.25	0.561
	08	1/2	44	3/4 - 16	420	6,000	19.00	0.748
	10	5/8	59	7/8 - 14	385	5,500	22.17	0.873
	12	3/4	89	1 1/16 - 12	280	4,000	26.95	1.061
	16	1	111	1 5/16 - 12	245	3,500	33.30	1.311
	20	1 1/4	133	1 5/8 - 12	245	3,500	41.22	1.623
	24	1 1/2	166	1 7/8 - 12	140	2,000	47.57	1.873
	32	2	258	2 1/2 - 12	87	1,250	63.45	2.498

Joint Industry Council - (JIC) - Female (crimped nut)

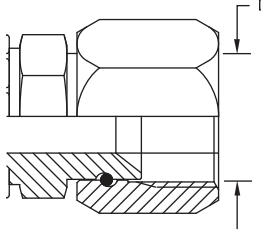
	Dash Size	Nominal Tube Size in	Correct Torque (Ft-Lb)	Nominal Thread Size & Pitch	Max Working Pressure		Thread OD 'D' on Diagram	
					Bar	PSI	mm	in
 <p>Applicable Standards Thread Form: SAE J514 Materials Available: Low Carbon Steel 316 (Stainless Steel) GB 12361 - 12362 Part II (Drop Forged)</p>	02	1/8	11	5/16 - 24	420	6,000	6.85	0.270
	03	3/16	11	3/8 - 24	420	6,000	8.63	0.340
	04	1/4	11	7/16 - 20	420	6,000	10.00	0.394
	05	5/16	18	1/2 - 20	420	6,000	11.60	0.457
	06	3/8	26	9/16 - 18	350	5,000	13.00	0.512
	08	1/2	44	3/4 - 16	315	4,500	17.60	0.693
	10	5/8	59	7/8 - 14	280	4,000	20.50	0.807
	12	3/4	89	1 1/16 - 12	280	4,000	25.00	0.985
	16	1	111	1 5/16 - 12	207	3,000	31.30	1.233
	20	1 1/4	133	1 5/8 - 12	140	2,000	39.20	1.544
	24	1 1/2	166	1 7/8 - 12	105	1,500	45.60	1.796
	32	2	258	2 1/2 - 12	80	1,250	61.50	2.422




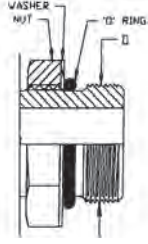
WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>


Thread Identification

Joint Industry Council - (JIC) - Female - (wire nut)

	Dash Size	Nominal Tube Size in	Correct Torque (Ft-Lb)	Nominal Thread Size & Pitch	Max Working Pressure		Thread OD 'D' on Diagram	
					Bar	PSI	mm	in
	12	3/4	89	1 1/16 - 12	350	6,000	25.00	0.985
	14	7/8	98	1 3/16 - 12	350	6,000	28.09	1.106
	16	1	111	1 5/16 - 12	280	5,400	31.30	1.233
	20	1 1/4	133	1 5/8 - 12	210	4,600	39.20	1.544
	24	1 1/2	166	1 7/8 - 12	190	4,100	45.60	1.796
	32	2	258	2 1/2 - 12	175	3,600	61.50	2.422
Applicable Standards Thread Form: SAE J514 Materials Available: Low Carbon Steel 316 (Stainless Steel) GB 12361 - 12362 Part II (Drop Forged)								

Unified National 'O' Ring - (UNO) - Male

		Dash Size	Nominal Tube Size in	Correct Torque (Ft-Lb)	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	11	5/16 - 24	525	315	7,500	4,500	7.87	0.310
		03	3/16	11	3/8 - 24	525	315	7,500	4,500	9.65	0.380
		04	1/4	11	7/16 - 20	525	315	7,500	4,500	11.07	0.436
		05	5/16	18	1/2 - 20	525	315	7,500	4,500	12.70	0.500
		06	3/8	26	9/16 - 18	525	280	7,500	4,000	14.25	0.561
		08	1/2	44	3/4 - 16	525	280	7,500	4,000	19.00	0.748
		10	5/8	59	7/8 - 14	525	280	7,500	4,000	22.17	0.873
		12	3/4	89	1 1/16 - 12	350	245	5,000	3,500	26.95	1.061
		16	1	111	1 5/16 - 12	315	175	4,500	2,500	33.30	1.311
		20	1 1/4	133	1 5/8 - 12	280	140	4,500	2,000	41.22	1.623
		24	1 1/2	166	1 7/8 - 12	245	140	3,500	2,000	47.57	1.873
		32	2	258	2 1/2 - 12	140	70	2,000	1,000	63.45	2.498
		Applicable Standards Thread Form: SAE J514 Materials Available: Low Carbon Steel									

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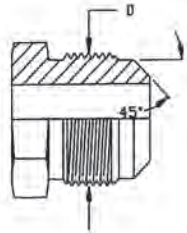




Thread Identification

Society of Automotive Engineers - (SAE) - Male

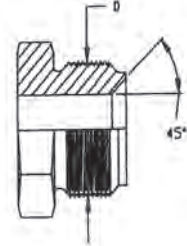
Dash Size	Nominal Tube Size (Inches)	Nominal Thread Size & Pitch	Max Working Press				Thread OD 'D' on Diagram	
			Steel Bar	Brass Bar	Steel PSI	Brass PSI	mm	in
02	1/8	5/16 - 24	280	245	4,000	3,500	7.87	0.310
03	3/16	3/8 - 24	280	225	4,000	3,250	9.65	0.380
04	1/4	7/16 - 20	245	210	3,500	3,000	11.07	0.436
05	5/16	1/2 - 20	245	210	3,500	3,000	12.70	0.500
06	3/8	5/8 - 18	245	210	3,500	3,000	15.85	0.624
08	1/2	3/4 - 16	245	210	3,500	3,000	19.00	0.748
10	5/8	7/8 - 14	210	190	3,000	2,750	22.17	0.873
12	3/4	1 1/16 - 12	175	-	2,500	-	26.95	1.061
14	7/8	1 1/4 - 12	175	-	2,500	-	29.46	1.160
16	1	1 3/8 - 12	175	-	2,500	-	35.05	1.290



Applicable Standards
 Thread Form: SAE J512
 Materials Available: Low Carbon Steel
 352 DR Brass Alloy GB 12361-12362
 Part II (Drop Forged)

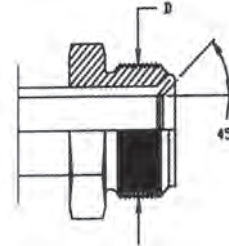
Society of Automotive Engineers - (SAE) - Inverted Flare Male

Dash Size	Nominal Tube Size (inches)	Nominal Thread Size & Pitch	Max Working Pressure		Thread OD 'D' on Diagram	
			Bar Fixed	PSI Fixed	mm	in
02	1/8	5/16 - 28	210	3,000	7.87	0.310
03	3/16	3/8 - 24	210	3,000	9.65	0.380
04	1/4	7/16 - 24	190	2,750	11.07	0.436
05	5/16	1/2 - 20	175	2,500	12.70	0.500
06	3/8	5/8 - 18	155	2,250	15.85	0.624
07	7/16	1 1/16 - 18	155	2,250	17.46	0.687
08	1/2	3/4 - 18	140	2,000	19.00	0.748
10	5/8	7/8 - 18	140	2,000	22.17	0.873
12	3/4	1 1/16 - 16	105	1,500	26.95	1.061



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

Adaptor Version



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

Tube Version



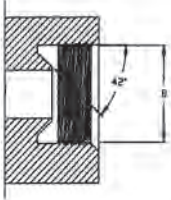
WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

Thread Identification



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

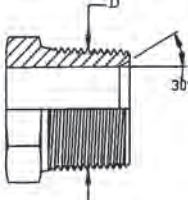
Dash Size	Nominal Tube Size (Inches)	Nominal Thread Size & Pitch	Max Working Pressure		Thread ID 'D' on Diagram	
			Brass Bar	Brass (PSI)	mm	in
02	1/8	5/16 - 28	210	3,000	6.85	0.270
03	3/16	3/8 - 24	210	3,000	8.63	0.340
04	1/4	7/16 - 24	190	2,750	10.00	0.394
05	5/16	1/2 - 20	175	2,500	11.60	0.457
06	3/8	5/8 - 18	155	2,250	14.70	0.579
07	7/16	11/16 - 18	155	2,250	15.70	0.618
08	1/2	3/4 - 18	140	2,000	17.60	0.693
10	5/8	7/8 - 18	140	2,000	22.10	0.870
12	3/4	1 1/16 - 16	105	1,500	25.30	0.996



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

National Pipe Taper Fuel - (NPTF)

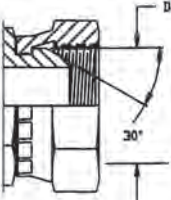
Pipe Size	Dash Size	Nominal Thread Size & Pitch	Max Working Pressure		Thread OD 'D' on Diagram	
			Bar	PSI	mm	in
1/8	02	1/8 - 27	830	12,000	10.32	0.406
1/4	04	1/4 - 18	830	12,000	13.89	0.546
3/8	06	3/8 - 18	690	10,000	17.06	0.671
1/2	08	1/2 - 14	690	10,000	21.43	0.843
3/4	12	3/4 - 14	520	7,500	26.98	1.062
1	16	1 - 11 1/2	450	6,500	33.33	1.312
1 1/4	20	1 1/4 - 11 1/2	350	5,000	42.46	1.671
1 1/2	24	1 1/2 - 11 1/2	210	3,000	48.42	1.906
2	32	2 - 11 1/2	175	2,500	60.32	2.375



Applicable Standards
 Thread Form: SAE J476
 Materials Available: Low Carbon 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		Thread ID 'D' on Diagram	
			Bar	PSI	mm	in
1/8	02	1/8 - 27	520	7,500	9.12	0.359
1/4	04	1/4 - 18	480	7,000	11.91	0.468
3/8	06	3/8 - 18	420	6,000	15.08	0.593
1/2	08	1/2 - 14	350	5,000	19.05	0.750
3/4	12	3/4 - 14	280	4,000	24.21	0.953
1	16	1 - 11 1/2	210	3,000	30.56	1.203
1 1/4	20	1 1/4 - 11 1/2	175	2,500	38.89	1.531
1 1/2	24	1 1/2 - 11 1/2	140	2,000	45.24	1.781
2	32	2 - 11 1/2	140	2,000	57.15	2.250



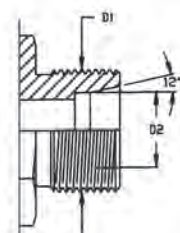
Applicable Standards
 Thread Form: SAE J476
 Materials Available: Low Carbon Steel 316 (Stainless Steel) GB12361-12362 Part II (Drop Forged)

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



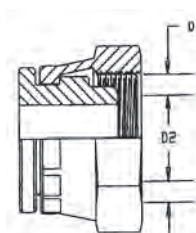
Thread Identification

Metric 'DKL' Light Series - Male

	Dash Size	Nominal Tube Size 'D2' mm	Correct Torque (Ft-Lb)	Nominal Thread Size & Pitch	Max Working Pressure DIN 2401 pt I		Thread OD 'D1' on Diagram	
					Bar	PSI	mm	inch
					-12	6	18	M12 - 1.5
-14	8	26	M14 - 1.5	315	4,500	13.8	0.54	
-16	10	30	M16 - 1.5	280	4,000	15.8	0.62	
-18	12	33	M18 - 1.5	280	4,000	17.8	0.70	
-22	15	44	M22 - 1.5	210	3,000	21.8	0.86	
-26	18	66	M26 - 1.5	210	3,000	25.8	1.02	
-30	22	89	M30 - 2.0	155	2,250	29.8	1.17	
-36	28	118	M36 - 2.0	155	2,250	35.8	1.41	
-45	35	170	M45 - 2.0	155	2,250	44.8	1.76	
-52	42	207	M52 - 2.0	100	1,450	51.8	2.04	

Applicable Standards
 Thread Form: DIN 2353, DIN 3861, DIN 3901, DIN 3902
Materials Available: Low Carbon Steel 316 (Stainless Steel) GB 12361 - 12362 Part II (Drop Forged)

Metric 'DKL' Light Series - Female (Globe Seal)

	Dash Size	Nominal Tube Size 'D2' mm	Correct Torque (Ft-Lb)	Nominal Thread Size & Pitch	Max Working Pressure DIN 2401 pt I		Thread OD 'D1' on Diagram	
					Bar	PSI	mm	inch
					-12	6	18	M12 - 1.5
-14	8	26	M14 - 1.5	245	3,500	12.5	0.49	
-16	10	30	M16 - 1.5	245	3,500	14.5	0.57	
-18	12	33	M18 - 1.5	245	3,500	16.5	0.65	
-22	15	44	M22 - 1.5	245	3,500	20.5	0.81	
-26	18	66	M26 - 1.5	155	2,250	24.5	0.96	
-30	22	89	M30 - 2.0	155	2,250	28.0	1.10	
-36	28	118	M36 - 2.0	100	1,450	34.0	1.34	
-45	35	170	M45 - 2.0	100	1,450	43.0	1.69	
-52	42	207	M52 - 2.0	100	1,450	50.0	1.97	

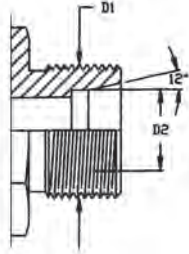
Applicable Standards
 Thread Form: DIN 2353 DIN 3861 DIN 3901 DIN 3902
Materials Available: Low Carbon Steel 316 (Stainless Steel) GB 12361 - 12362 Part II (Drop Forged)



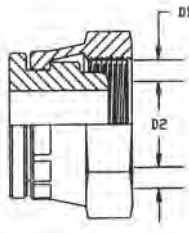
WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

Thread Identification

Metric 'DKS' Heavy Series - Male w/O'Ring

 <p>Applicable Standards Thread Form: DIN 2353, DIN 3861, DIN 3901, DIN 3902 Materials Available: Low Carbon Steel 316 (Stainless Steel) GB 12361 - 12362 Part II (Drop Forged)</p>	Dash Size	Nominal Tube Size 'D2' mm	Correct Torque (Ft-Lb)	Nominal Thread Size & Pitch	Max Working Pressure DIN 2401		Thread OD 'D1' on Diagram	
					Bar	PSI	mm	inch
					-14	6	33	M14 - 1.5
-16	8	41	M16 - 1.5	420	6,000	15.8	0.62	
-18	10	52	M18 - 1.5	420	6,000	17.8	0.70	
-20	12	59	M20 - 1.5	420	6,000	19.8	0.78	
-22	14	74	M22 - 1.5	420	6,000	21.8	0.86	
-24	16	89	M24 - 1.5	420	6,000	23.8	0.94	
-30	20	125	M30 - 2.0	420	6,000	29.8	1.17	
-36	25	229	M36 - 2.0	315	4,500	35.8	1.41	
-42	30	243	M42 - 2.0	315	4,500	44.8	1.76	
-52	38	332	M52 - 2.0	315	4,500	51.8	2.04	

Metric 'DKS' Heavy Series - Female (Globe and Ring Seal)

 <p>Applicable Standards Thread Form: DIN 2353 DIN 3861 DIN 3901 DIN 3902 Materials Available: Low Carbon Steel 316 (Stainless Steel) GB12361 - 12362 Part II (Drop Forged)</p>	Dash Size	Nominal Tube Size 'D2'(mm)	Correct Torque (Ft-Lb)	Nominal Thread Size & Pitch	Max Working Pressure DIN 2401 Part 1		Thread OD 'D1' on Diagram	
					Bar	PSI	mm	inch
					-14	6	33	M14 - 1.5
-16	8	41	M16 - 1.5	400	5,750	14.5	0.57	
-18	10	52	M18 - 1.5	400	5,750	16.5	0.65	
-20	12	59	M20 - 1.5	400	5,750	18.5	0.73	
-22	14	74	M22 - 1.5	400	5,750	20.5	0.81	
-24	16	89	M24 - 1.5	400	5,750	22.5	0.96	
-30	20	125	M30 - 2.0	245	3,500	28.0	1.10	
-36	25	229	M36 - 2.0	245	3,500	34.0	1.34	
-42	30	243	M42 - 2.0	245	3,500	40.0	1.69	
-52	38	332	M52 - 2.0	245	3,500	50.0	1.97	



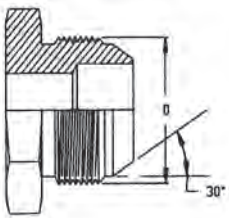
WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



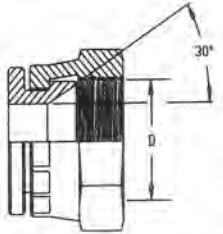


Thread Identification

Japanese Industrial Standard - Metric - Male (Komatsu)

 <p>Applicable Standards Thread Form: Materials Available: Low Carbon 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	0.472
	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	

Metric Japanese Industrial Standard - Metric - Female (Komatsu)

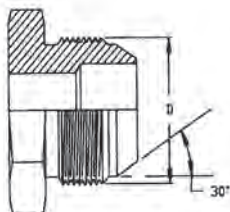
 <p>Applicable Standards Thread Form: Materials Available: Low Carbon Steel GB12361-12362 Part II (Drop Forged)</p>	Dash Size	Nominal Tube Size		Tread Size & Pitch	Thread ID 'D' on Diagram	
		in	mm		mm	in
	12			12 - 1.5	10.5	0.413
	14	¼	6.4	14 - 1.5	12.5	0.492
	16			16 - 1.5	14.5	0.571
	18	⅜	10	18 - 1.5	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	



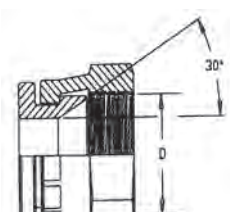
WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

Thread Identification

Japanese Industrial Standard - (BSPP) - Male

 <p>Applicable Standards Thread Form: JIS B8363 Materials Available: Low Carbon 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	5,000	9.73	0.383
04	1/4	6.4	1/4 - 19	350	5,000	13.16	0.518	
06	3/8	10	3/8 - 19	350	5,000	16.67	0.656	
08	1/2	12	1/2 - 14	350	5,000	20.96	0.825	
12	3/4	19	3/4 - 14	280	4,000	26.45	1.041	
16	1	25	1 - 11	210	3,000	33.25	1.309	
20	1 1/4	32	1 1/4 - 11	175	2,500	41.91	1.650	
24	1 1/2	38	1 1/2 - 11	105	1,500	47.81	1.882	
32	2	50	2 - 11	105	1,500	59.62	2.347	

Japanese Industrial Standard - (BSPP) - Female

 <p>Applicable Standards Thread Form: JIS B8363 Materials Available: Low Carbon 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	5,000	8.59	0.338
04	1/4	6.4	1/4 - 19	350	5,000	11.46	0.451	
06	3/8	10	3/8 - 19	350	5,000	14.96	0.589	
08	1/2	12	1/2 - 14	350	5,000	18.65	0.734	
12	3/4	19	3/4 - 14	280	4,000	24.13	0.950	
16	1	25	1 - 11	210	3,000	30.30	1.193	
20	1 1/4	32	1 1/4 - 11	175	2,500	38.97	1.534	
24	1 1/2	38	1 1/2 - 11	105	1,500	44.86	1.766	
32	2	50	2 - 11	105	1,500	56.67	2.231	



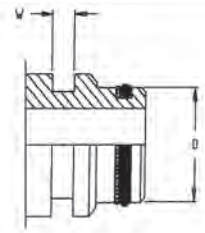
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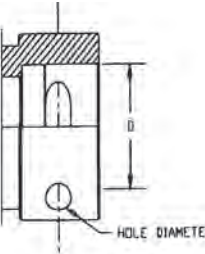


Thread Identification

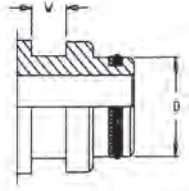
Staple Lock - Male

 <p>Applicable Standards Thread Form: DIN 20 043 + SAE J1467 Materials Available: Low Carbon Steel GB12361-12362 Part II (Drop Forged)</p>	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	9,280	¼	6	5.1	0.201	9.90	0.390
	06	530	7,690	⅜	10	5.1	0.201	13.90	0.547
	08	500	7,250	½	13	5.1	0.201	17.90	0.705
	12	450	6,530	¾	20	5.1	0.201	23.90	0.941
	16	400	5,800	1	25	7.1	0.280	30.90	1.216
	20	300	4,350	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

Staple Lock - Female

 <p>Applicable Standards Thread Form: DIN 20 043 + SAE J1467 Materials Available: Low Carbon Steel GB12361-12362 Part II (Drop Forged)</p>	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	9,280	¼	6	6	0.235	15.16	0.597
	06	530	7,690	⅜	10	6	0.235	20.17	0.794
	08	500	7,250	½	13	6	0.235	24.16	0.951
	12	450	6,530	¾	20	6	0.235	29.16	1.148
	16	400	5,800	1	25	8.4	0.330	39.12	1,540
	20	300	4,350	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

High Pressure Staple Lock - Male

 <p>Applicable Standards Thread Form: Materials Available: Low Carbon 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	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	

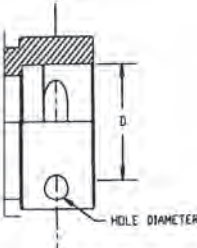


WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

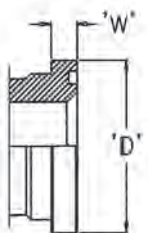


Thread Identification

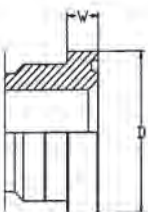
High Pressure Staple Lock - Female


 <p>Applicable Standards Thread Form: Materials Available: Low Carbon 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	

Code 61 Flange - SAE J518

 <p>Applicable Standards Thread Form: SAE J518 Materials Available: Low Carbon 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	5,000	30.18	1.188
	10	⅝	16	6.73	0.265	350	5,000	34.00	1.340
	12	¾	19	6.73	0.265	350	5,000	38.10	1.500
	16	1	25.4	8.00	0.315	350	5,000	44.45	1.750
	20	1¼	32	8.00	0.315	280	4,000	50.80	2.000
	24	1½	38	8.00	0.315	280	4,000	60.33	2.375
	32	2	51	9.53	0.375	210	3,000	71.42	2.812
	40	2½	63.5	9.53	0.375	190	2,750	84.12	3.312
	48	3	76	9.53	0.375	138	2,000	101.6	4.000
	56	3½	89	11.23	0.442	35	500	114.3	4.500
	64	4	102	11.23	0.442	35	500	127.0	5.000
80	5	127	11.23	0.442	35	500	152.4	6.00	

Code 62 Flange - SAE J518

 <p>Applicable Standards Thread Form: SAE J518 Materials Available: Low Carbon 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	6,000	31.75	1.250
	12	¾	19	8.76	0.345	420	6,000	41.28	1.625
	16	1	25.4	9.53	0.375	420	6,000	47.63	1.875
	20	1¼	32	10.29	0.405	420	6,000	53.98	2.125
	24	1½	38	12.57	0.495	420	6,000	63.50	2.500
32	2	51	12.57	0.495	420	6,000	79.38	3.125	

 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



Thread Identification

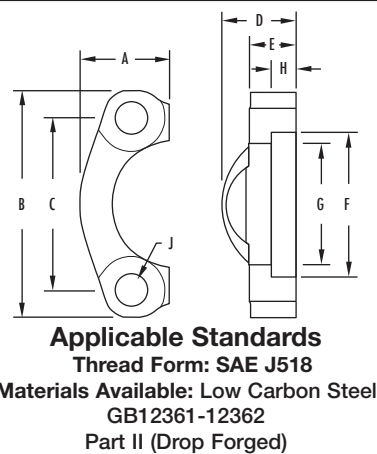
Caterpillar® Type Flange

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	6,000	41.28
16	1	25.4	14.2	0.560	420	6,000	47.63	1.875
20	1¼	32	14.2	0.560	420	6,000	53.98	2.125
24	1½	38	14.2	0.560	420	6,000	63.50	2.500
32	2	51	14.2	0.560	420	6,000	79.38	3.125



Code 61 Split Flange

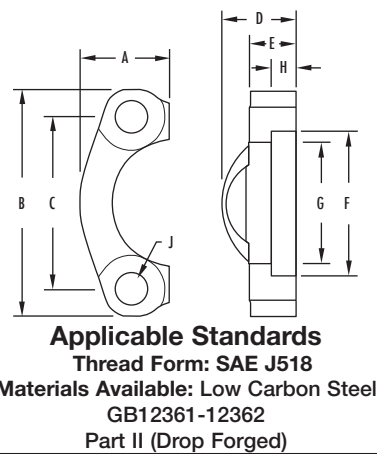
Flange Size	A	B	C	D	E	F	G	H	J	*Torque Range (Ft-Lb)
08	.86	2.12	1.500	0.75	0.50	1.219	0.955	0.245	0.344	24-26
12	.98	2.56	1.875	0.88	0.56	1.531	1.265	0.245	0.406	44-48
16	1.11	2.75	2.062	0.94	0.62	1.781	1.515	0.295	0.406	44-48
20	1.39	3.12	2.312	0.88	0.56	2.031	1.720	0.295	0.469	68-75
24	1.58	3.69	2.750	1.00	0.62	2.406	2.000	0.295	0.531	111-122
32	1.86	4.00	3.062	1.03	0.62	2.844	2.470	0.355	0.531	111-122
40	2.09	4.50	3.500	1.50	0.75	3.344	2.950	0.355	0.531	111-122
48	2.53	5.31	4.188	1.62	0.88	4.031	3.580	0.355	0.656	218-240
56	2.70	6.00	4.750	1.12	0.88	4.531	4.030	0.422	0.656	218-240
64	2.95	6.38	5.125	1.38	1.00	5.031	4.530	0.422	0.656	218-240



*Torque range applies to grade 8 bolts.

Code 62 Split Flange

Flange Size	A	B	C	D	E	F	G	H	J	*Torque Range (Ft-Lb)
08	0.89	2.22	1.594	0.88	0.62	1.281	0.970	0.285	0.344	24-26
12	1.14	2.81	2.000	1.12	0.75	1.656	1.280	0.325	0.406	44-48
16	1.33	3.19	2.250	1.31	0.94	1.906	1.530	0.355	0.489	68-75
20	1.48	3.75	2.625	1.50	1.06	2.156	1.750	0.385	0.531	111-122
24	1.83	4.44	3.125	1.69	1.19	2.531	2.030	0.475	0.656	218-240
32	2.20	5.25	3.812	2.06	1.44	3.156	2.660	0.475	0.781	332-365



*Torque range applies to grade 8 bolts.



WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

Thread Identification

Caterpillar® Split Flange

Flange Size	A	B	C	D	E	F	G	H	J	*Torque Range (Ft-Lb)
	12	2.95	2.000	0.446	1.210	0.406	1.270	1.632	1.102	0.530
16	3.19	2.250	0.507	1.335	0.469	1.550	1.884	1.102	0.530	42-50
20	3.75	2.625	0.585	1.490	0.531	1.705	2.134	1.102	0.530	63-75
24	4.44	3.125	0.679	1.335	0.656	2.080	2.509	1.258	0.530	117-133
32	5.240	3.812	0.834	2.205	0.827	2.640	3.130	1.457	0.530	200-217

Applicable Standards
Materials Available: Low Carbon Steel
 GB12361-12362
 Part II (Drop Forged)

*Torque range applies to grade 8 bolts.

'O' Ring Face Seal - Male


Dash Size	Nominal Tube Size		Nominal Thread Size & Pitch	Correct Torque (Ft-Lb)	Max Working Pressure SAE J1453		Thread OD 'D' on Diagram	
	in	mm			Bar	PSI	mm	in
04	¼	6.4	9/16 - 18	11	635	9,200	14.22	0.56
06	3/8	10	11/16 - 16	18	635	9,200	17.52	0.69
08	½	12	13/16 - 16	33	635	9,200	20.82	0.82
10	5/8	16	1 - 14	48	420	6,000	25.4	1.00
12	¾	19	13/16 - 12	70	420	6,000	30.22	1.19
16	1	25	17/16 - 12	96	420	6,000	36.57	1.44
20	1¼	32	111/16 - 12	140	280	4,000	42.92	1.69
24	1½	38	2 - 12	162	280	4,000	50.80	2.00

Applicable Standards
Thread Form: SAE J1453
Materials Available: Low Carbon Steel
 GB12361-12362 Part II
 (Drop Forged)

'O' Ring Face Seal - Female

Dash Size	Nominal Tube Size		Nominal Thread Size & Pitch	Correct Torque (Ft-Lb)	Max Working Pressure SAE J1453		Thread OD 'D' on Diagram	
	in	mm			Bar	PSI	mm	in
04	¼	6.4	9/16 - 18	11	635	9,200	12.95	0.51
06	3/8	10	11/16 - 16	18	635	9,200	16.00	0.63
08	½	12	13/16 - 16	33	635	9,200	19.05	0.75
10	5/8	16	1 - 14	48	420	6,000	23.62	0.93
12	¾	19	13/16 - 12	70	420	6,000	28.19	1.11
16	1	25	17/16 - 12	96	420	6,000	34.54	1.36
20	1¼	32	111/16 - 12	140	280	4,000	40.89	1.61
24	1½	38	2 - 12	162	280	4,000	48.76	1.92

Applicable Standards
Thread Form: SAE J1453
Materials Available: Low Carbon Steel
 GB12361-12362 Part II
 (Drop Forged)

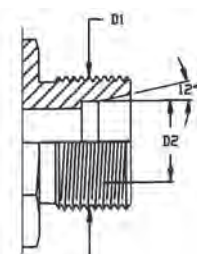
 **WARNING** This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



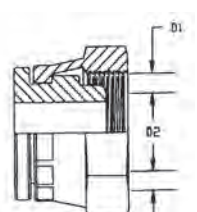


Thread Identification

GAZ French Metric - Male

 <p>Applicable Standards Thread Form: Materials Available: Low Carbon 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: Low Carbon 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	

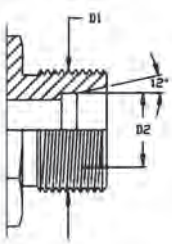


WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

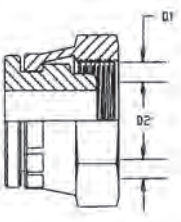
Thread Identification




Kobelco Metric - Male

 <p>Applicable Standards Thread Form: Materials Available: Low Carbon Steel</p>	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

 <p>Applicable Standards Thread Form: Materials Available: Low Carbon Steel</p>	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

 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

HOSE



FLEXTRAL

NT300-



GX 1SN One Wire Braid Hose

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



- Tube: Nitrile
- 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 +120°C (+248°F)
- Packaging: 3/16" - 1" Reels, 1 1/4" - 2" Coils
- Application: Petroleum based hydraulic fluids, gasoline, water, diesel fuels and lubricating oils, biodegradeable hydraulic oil, fire resistant synthetic polyesters.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)	MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(in)	(mm)	(in)			(mm)			
GX-03	3/16	0.46	11.8	3,625	14,500	3.5	90	0.11	E	
GX-04	1/4	0.52	13.3	3,265	13,060	4.0	100	0.13	E	
GX-05	5/16	0.58	14.7	3,120	12,480	4.5	115	0.15	E	
GX-06	3/8	0.69	17.5	2,610	10,440	5.0	130	0.19	E, N	
GX-08	1/2	0.81	20.6	2,320	9,280	7.0	180	0.24	E, N	
GX-10	5/8	0.93	23.7	1,885	7,540	8.0	200	0.30	E, N	
GX-12	3/4	1.09	27.7	1,525	6,100	9.5	240	0.38	E, N	
GX-16	1	1.41	35.8	1,275	5,100	12.0	300	0.56	E, N	
GX-20	1 1/4	1.71	43.5	915	3,660	16.5	420	0.72	E, N	
GX-24	1 1/2	1.97	50.1	725	2,900	20.0	500	0.95	E, N	
GX-32	2	2.52	64.1	580	2,320	25.0	630	1.35	E, N	

GH 1SN High-Temp. One Wire Braid Hose

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



- Tube: Specially formulated CSM compound
- Reinforcement: One braid of high-tensile steel wire
- Cover: Blue, perforated, oil, abrasion and weather resistant synthetic rubber, MSHA approved
- Temperature: -40°F to 302°F, except for air 250°F max
-40°C to 150°C, except for air 121°C max
- Packaging: 3/16" - 1" Reels, 1 1/4" - 2" Coils
- Application: High-temperature, medium pressure hydraulic and fuel applications. Suitable for passage of mineral and vegetable oils, *water-based solutions, air and inert gases. SAE J1942/1 USCG - HF Type B accepted.

**200°F or 100°C max for water-based solutions.*

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)	MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(in)	(mm)	(in)			(mm)			
GH-04	1/4	0.53	13.4	3,250	13,000	4.0	100	0.15	E	
GH-06	3/8	0.69	17.4	2,600	10,400	5.0	130	0.23	E	
GH-08	1/2	0.81	20.5	2,300	9,200	7.0	180	0.28	E	
GH-12	3/4	1.09	27.7	1,500	6,000	9.5	240	0.42	E	
GH-16	1	1.41	35.8	1,300	5,200	11.8	300	0.63	E	
GH-20	1 1/4	1.71	43.5	900	3,600	16.5	420	0.80	E	
GH-24	1 1/2	1.97	50.5	725	2,900	19.7	500	1.07	E	
GH-32	2	2.52	63.9	580	2,320	24.8	630	1.28	E, HA	

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

AXT 100R17 Leveline 3000 PSI



Meets or exceeds the requirements of SAE 100R17.

- Tube: Nitrile
- Reinforcement: ¼" thru ¾" One wire braid, ½" 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 +120°C (+248°F)
- Packaging: Reels
- Application: Petroleum based hydraulic fluids, gasoline, water, diesel fuels and lubricating oils, biodegradable hydraulic oil, fire resistant synthetic polyol esters, SAE J1942/1 USCG – H accepted.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)		MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(mm)	(in)	(mm)		(in)	(mm)				
AXT-04	¼	12.4	0.49	12.4	3,000	12,000	2.0	50	0.11	E	
AXT-06	⅜	16.0	0.63	16.0	3,000	12,000	2.6	65	0.18	E	
AXT-08	½	19.5	0.77	19.5	3,000	12,000	3.5	90	0.26	E	
AXT-10	⅝	23.8	0.94	23.8	3,000	12,000	3.9	100	0.41	E, N	
AXT-12	¾	27.6	1.09	27.6	3,000	12,000	4.7	120	0.51	E, N	
AXT-16	1	36.2	1.43	36.2	3,000	12,000	5.9	150	0.85	E, N	


AXT-PS 100R17 Leveline PRO-SHIELD®



Meets or exceeds the requirements of SAE 100R17.

- Tube: Nitrile
- Reinforcement: ¼" thru ½" One wire braid, ⅝" thru 1" Two wire braids
- Cover: Black, oil, high-abrasion and weather resistant synthetic rubber, MSHA approved. Flextral ProShield cover is designed and tested to achieve up to double the abrasion resistance of standard industry covers
- Temperature: -40°C to +100°C (-40°F to +212°F), intermittent use up to +120°C (+248°F)
- Packaging: Reels
- Application: High-abrasion applications for petroleum based hydraulic fluids, gasoline, water, diesel fuels and lubricating oils, biodegradable hydraulic oil, fire resistant synthetic polyol esters, SAE J1942/1 USCG – H accepted.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)		MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(mm)	(in)	(mm)		(in)	(mm)				
AXT-04PS	¼	12.4	0.49	12.4	3,000	12,000	2.0	50	0.11	E	
AXT-06PS	⅜	16.0	0.63	16.0	3,000	12,000	2.6	65	0.18	E	
AXT-08PS	½	19.5	0.77	19.5	3,000	12,000	3.5	90	0.26	E	
AXT-10PS	⅝	23.8	0.94	23.8	3,000	12,000	3.9	100	0.41	E, N	
AXT-12PS	¾	27.6	1.09	27.6	3,000	12,000	4.7	120	0.51	E, N	
AXT-16PS	1	36.2	1.43	36.2	3,000	12,000	5.9	150	0.85	E, N	

 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



AXT-HT 100R17 Leveline High-Temp.

Meets or exceeds the requirements of SAE 100R17.



- Tube: Nitrile
- Reinforcement: ¼" thru ¾" One wire braid, ½" thru 1" Two wire braids
- Cover: Blue, high-temperature synthetic rubber cover
- Temperature: -40°C to +150°C (-40°F to +302°F)
- Packaging: Reels
- Application: High-temperature applications for petroleum based hydraulic fluids, gasoline, water, diesel fuels and lubricating oils, biodegradable hydraulic oil, fire resistant synthetic polyesters, SAE J1942/1 USCG – H accepted.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)	MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(in)	(mm)	(in)			(mm)			
AXT-04HT	¼	0.48	12.3		3,000	12,000	2.0	50	0.13	E
AXT-06HT	⅜	0.63	15.9		3,000	12,000	2.6	65	0.20	E
AXT-08HT	½	0.75	19.1		3,000	12,000	3.5	90	0.26	E
AXT-10HT	⅝	0.94	23.9		3,000	12,000	3.9	100	0.42	E, N
AXT-12HT	¾	1.10	28.0		3,000	12,000	4.7	120	0.48	E, N
AXT-16HT	1	1.39	35.3		3,000	12,000	5.9	150	0.76	E, N

AXT-T 100R17 Leveline Tinline

Meets or exceeds the requirements of SAE 100R17.



- Tube: Nitrile
- Reinforcement: ¼" thru ¾" One wire braid, ½" thru 1" Two wire braids
- Cover: Smooth, 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, biodegradable hydraulic oil, fire resistant synthetic polyol esters, SAE J1942/1 USCG – H accepted.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)	MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(in)	(mm)	(in)			(mm)			
AXT-0404T	¼	0.48	12.2		3,000	12,000	2.0	51	0.24	E
AXT-0606T	⅜	0.61	15.5		3,000	12,000	2.6	65	0.38	E
AXT-0808T	½	0.81	20.7		3,000	12,000	3.5	90	0.48	E

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

EX 2SN Two Wire Braid Hose

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



- Tube: Nitrile
- 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: Coils
- Application: Petroleum based hydraulic fluids, gasoline, water, diesel fuels and lubricating oils, biodegradable hydraulic oil, fire resistant synthetic polyol esters, SAE J1942/1 USCG-H Accepted.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)	MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE OR TWO PIECE
	(in)	(in)	(in)	(mm)			(in)	(mm)		COUPLINGS
EX-40	2½	3.14	79.8	79.8	1,000	4,000	29.9	760	2.56	One-Piece HA
EX-48	3	3.61	91.9	91.9	725	2,900	35.4	900	2.71	Two-Piece HB


EH High-Temp Two Wire Braid Hose

Meets or exceeds the requirements of SAE 100R2AT and EN 853 2SN



- Tube: High Temperature Synthetic Rubber
- Reinforcement: Two braids of high tensile steel wire
- Cover: Blue, oil, abrasion and weather resistant synthetic rubber, MSHA approved
- Temperature: -50°C to +135°C (-58°F to +275°F)
- Packaging: Coils
- Application: High temperature, petroleum based hydraulic fluids, water, diesel fuel, and lubricating oils.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)	MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE
	(in)	(in)	(in)	(mm)			(in)	(mm)		COUPLINGS
EH-04	¼	0.59	15.0	15.0	5,805	23,200	3.9	100	0.26	E
EH-06	⅜	0.74	18.9	18.9	5,000	20,000	5.1	130	0.38	E
EH-08	½	0.87	22.2	22.2	4,000	16,000	7.1	180	0.45	E, N
EH-10	⅝	0.99	25.2	25.2	3,625	14,500	7.9	200	0.52	E, N
EH-12	¾	1.15	29.2	29.2	3,120	12,480	9.5	240	0.65	E, N
EH-16	1	1.46	37.2	37.2	2,395	9,580	11.8	300	0.93	E, N
EH-20	1¼	1.86	47.3	47.3	1,815	7,260	16.6	420	1.39	E, N
EH-24	1½	2.11	53.7	53.7	1,305	5,220	19.7	500	1.61	E, N
EH-32	2	2.63	66.7	66.7	1,160	4,640	24.8	630	2.06	E, N
EH-40	2½	3.14	79.8	79.8	1,000	4,000	29.9	760	2.67	HA

 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



PX250 100R16 Compact Two Wire Braid Hose

Meets or exceeds the requirements of SAE 100R16 and EN857 2SC
DIN 20022 2SN-ISO 1436 Type 2.



- Tube: Nitrile
- Reinforcement: Two braids of high-tensile steel wire
- Cover: Black, oil, high-abrasion and weather resistant synthetic rubber, MSHA approved
- Temperature: -40°C to +100°C (-40°F to +212°F)
intermittent use up to +120°C (+248°F)
- Packaging: ¼" - 1" Reels; 1¼" - 2" Coils
- Application: Petroleum based hydraulic fluids, gasoline, water, diesel fuels and lubricating oils, biodegradeable hydraulic oil, fire resistant synthetic polyol esters. SAE J1942/1 USCG – H accepted.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)	MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(in)	(mm)	(in)			(mm)			
PX250-04	¼	0.54	13.7	5,805	23,220	2.0	50	0.17	E	
PX250-05	⅜	0.59	15.0	5,080	20,320	2.2	55	0.22	E	
PX250-06	⅝	0.67	17.0	5,000	20,000	2.6	65	0.26	E	
PX250-08	¾	0.81	20.7	4,250	17,000	3.5	90	0.38	E, N	
PX250-10	⅞	0.94	23.8	3,625	14,500	3.9	100	0.42	E, N	
PX250-12	1	1.09	27.7	3,125	12,500	4.7	120	0.52	E, N	
PX250-16	1¼	1.43	36.2	3,000	12,000	5.9	150	0.87	E, N	
PX250-20	1½	1.71	43.4	2,250	9,000	8.25	210	1.05	E, N	
PX250-24	1¾	1.98	50.3	1,450	6,815	11.81	300	1.32	E	
PX250-32	2	2.50	63.6	1,305	5,510	15.75	400	1.67	E	

PX260 High Impulse Two Wire Braid Hose

Meets or exceeds the requirements of SAE 100R16 and EN857 2SC,
ISO 11237-1 2SC.



- Tube: Nitrile
- Reinforcement: Two braids of high-tensile steel wire
- Cover: Smooth black, oil, high-abrasion and weather resistant synthetic rubber, MSHA approved
- Temperature: -40°C to +100°C (-40°F to +212°F)
- Packaging: Reels
- Application: Petroleum based hydraulic fluids, gasoline, water, diesel fuels and lubricating oils, biodegradeable hydraulic oil, fire resistant synthetic polyol esters.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)	MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(in)	(mm)	(in)			(mm)			
PX260-04M	¼	0.52	13.1	6,525	28,275	1.8	45	0.19	E	
PX260-06M	⅜	0.67	17.1	5,500	22,000	2.8	70	0.30	E	
PX260-08M	½	0.80	20.3	5,000	20,000	3.5	90	0.38	E	

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

PX260-T High Impulse Two Wire Braid Twinline Hose

Meets or exceeds the requirements of SAE 100R16 and EN857 2SC, ISO 11237-1 2SC.

- Tube: Nitrile
- Reinforcement: Two braids of high-tensile steel wire
- Cover: Smooth black, oil, high-abrasion and weather resistant synthetic rubber, MSHA approved
- Temperature: -40°C to +100°C (-40°F to +212°F)
- Packaging: Reels
- Application: Petroleum based hydraulic fluids, gasoline, water, diesel fuels and lubricating oils, biodegradable hydraulic oil, fire resistant synthetic polyol esters.



PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P.	MIN. BURST PRESSURE	MIN. BEND RADIUS		WEIGHT	ONE PIECE COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)		
PX260-0404T	¼	6.35	0.52	13.1	6,525	28,275	1.8	45	0.38	E
PX260-0606T	⅜	9.52	0.67	17.1	5,500	22,000	2.8	70	0.60	E
PX260-0608T	⅜ x ½	19.05 x 12.7	0.67in x 0.80in	17.1 x 20.3	5,500 x 5,000	22,000 x 20,000	2.8in x 3.5in	70 x 90	0.69	E
PX260-0808T	½	12.7	0.80	20.3	5,000	20,000	3.5	90	0.78	E

PX275 Compact Wire Braid PRO-SHIELD®


- Tube: Proprietary Synthetic Rubber
- Reinforcement: Two braids of ultra high-tensile steel wire
- Cover: **Smooth**, black, high-abrasion, oil and weather resistant synthetic rubber, MSHA approved.
- Temperature: -40°C to +100°C (-40°F to +212°F)
- Packaging: ¼" - 1" Reels; 1¼" Coils
- Application: Petroleum based hydraulic fluids, water, lubricating oils, biodegradable hydraulic oils, fire resistant synthetic Polyol Esters. **Perfect for applications requiring extreme flexibility.** SAE J1942/1 USCG – H accepted.



PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P.	MIN. BURST PRESSURE	MIN. BEND RADIUS		WEIGHT	ONE PIECE COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)		
PX275-04PS	¼	6.35	0.53	13.4	5,800	23,200	2.0	50	0.20	E
PX275-06PS	⅜	9.52	0.68	17.2	5,000	20,000	2.6	65	0.30	E, N
PX275-08PS	½	12.7	0.80	20.2	4,400	17,600	3.3	84	0.36	E, N
PX275-10PS	⅝	15.88	0.98	24.9	3,700	14,800	3.9	100	0.48	E, N
PX275-12PS	¾	19.05	1.13	28.7	3,200	12,800	4.7	120	0.61	E, N
PX275-16PS	1	25.4	1.41	35.8	3,000	12,000	5.9	150	0.84	E, N
PX275-20PS	1¼	31.75	1.71	43.5	2,500	10,000	9.4	240	1.01	E, N

*PX275 has been tested and approved for 400,000 impulse cycles at 133% of working pressure at 212°F.

**PX275-20 reinforcement has four wire spirals.

 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



PX300 Premium Compact Wire Braid PRO-SHIELD®

Tube: Proprietary Synthetic Rubber
 Reinforcement: Two braids of ultra high-tensile steel wire
 Cover: **Smooth**, black, high-abrasion, oil and weather resistant synthetic rubber, MSHA approved.

Temperature: **-54°C to +121°C (-65°F to +250°F)**

Packaging: Reels

Application: Petroleum based hydraulic fluids, water, lubricating oils, biodegradable hydraulic oils, fire resistant synthetic Polyol Esters. **Perfect for applications requiring extreme flexibility.**
 SAE J1942/1 USCG - HF Type B.



PART NUMBER	HOSE I.D.	HOSE O.D.		MAX W.P.	MIN. BURST PRESSURE	MIN. BEND RADIUS		WEIGHT	ONE PIECE
	(in)	(in)	(mm)			(psi)	(in)		(mm)
PX300-04PS	¼	0.53	13.5	5,800	23,200	1.9	48	0.20	E
PX300-06PS	⅜	0.68	17.3	5,000	20,000	2.5	63	0.30	E, N
PX300-08PS	½	0.80	20.3	4,400	17,580	3.3	85	0.36	E, N
PX300-10PS	⅝	0.97	24.7	3,700	14,800	3.9	100	0.48	E, N
PX300-12PS	¾	1.12	28.5	3,200	12,800	4.5	115	0.61	E, N
PX300-16PS	1	1.41	35.8	3,000	12,000	5.7	145	0.84	E, N

***PX300 has been tested and approved for 1,000,000 impulse cycles at 133% of working pressure at 250°F.**

PX350 High-Temp. Two Wire Braid Hose

Meets or exceeds SAE 100R16 and EN857 2SC working pressures

Tube: CPE
 Reinforcement: Two-braid high-strength steel-wire reinforcement
 Cover: Blue, abrasion-resistant CPE MSHA approved cover
 Temperature: **-40°C to +150°C (-40°F to +302°F)**
 Packaging: Reels
 Application: Suitable for use with mineral and vegetable oil, water emulsions, compressed air and inert gases.



PART NUMBER	HOSE I.D.	HOSE O.D.		MAX W.P.	MIN. BURST PRESSURE	MIN. BEND RADIUS		WEIGHT	ONE PIECE
	(in)	(in)	(mm)			(psi)	(in)		(mm)
PX350-04	¼	0.54	13.7	5,000	20,000	2.0	50.8	0.23	E
PX350-06	⅜	0.70	17.8	5,000	20,000	2.5	63.5	0.33	E
PX350-08	½	0.82	20.9	4,500	18,000	3.5	88.9	0.41	E
PX350-10	⅝	0.93	23.7	4,000	16,000	4.0	102.0	0.43	E
PX350-12	¾	1.10	28.0	3,500	14,000	5.0	127.0	0.61	E
PX350-16	1	1.42	35.9	2,700	10,800	6.0	152.4	0.94	E

***Note:** PX350-04 does not meet SAE 100R16 or EN8572SC working pressures

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

NZ Exceeds 100R12

Meets or exceeds the requirements of SAE 100R12 - EN856, R9R/4SH.



- Tube: Nitrile
- Reinforcement: Four spirals of high-tensile wire
- Cover: Black, oil, abrasion and weather resistant synthetic rubber, MSHA approved
- Temperature: -40°C to +100°C (-40°F to +212°F)
- Packaging: Coils
- Application: Hydraulic systems with petroleum or water/glycol based fluids. For fuel and lubricating oils. SAE J1942/1 USCG – H accepted.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)		MIN. BEND RADIUS		WEIGHT (lb/ft)	ONE PIECE Non-Skive
	(in)	(mm)	(in)	(mm)		(in)	(mm)	COUPLINGS			
NZ-12	3/4	19.0	1.26	32.0	6,100	24,400	11.0	280	1.03	N	
NZ-16	1	25.4	1.51	38.4	5,500	22,000	13.3	340	1.44	N	
NZ-20	1 1/4	31.8	1.78	45.2	5,000	20,000	18.1	460	1.68	N	
NZ-24	1 1/2	38.1	2.09	53.0	4,300	17,200	22.0	560	2.24	N	
NZ-32	2	50.8	2.66	67.6	3,600	14,400	27.5	700	3.08	N	

NT300 Exceeds 100R12

Meets or exceeds the requirements of SAE 100R12 / EN856, R9R/4SH.



- Tube: Nitrile
- Reinforcement: Four spirals of high-tensile steel wire
- Cover: Synthetic rubber, high-abrasion resistant, meets requirements of MSHA fire resistance standards
- Temperature: -54°C to +121°C (-65°F to +250°F)
- Packaging: Coils
- Application: NT300 is ideal for hydraulic systems with petroleum, polyol ester, or water/glycol based fluids. The hose is very flexible with a bending radius less than standard spiral hose and a high-abrasion resistant cover. SAE J1942/1 USCG – H accepted.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)		MIN. BEND RADIUS		WEIGHT (lb/ft)	ONE PIECE Non-Skive	ONE PIECE Skive
	(in)	(mm)	(in)	(mm)		(in)	(mm)	COUPLINGS	COUPLINGS			
NT300-06	3/8	9.5	0.80	20.3	6,000	24,000	4.9	125	0.42	N		
NT300-08	1/2	12.7	0.87	22.2	5,000	20,000	4.3	110	0.46	N		
NT300-10	5/8	15.9	1.04	26.4	5,000	20,000	5.5	140	0.64	N		
NT300-12	3/4	19.0	1.14	29.0	5,000	20,000	6.7	170	0.68	N, V		
NT300-16	1	25.4	1.44	36.6	5,500	22,000	8.7	220	1.25	N, V		
NT300-20	1 1/4	31.8	1.74	44.3	5,000	20,000	15.0	380	1.55	N	VS	
NT300-24	1 1/2	38.1	2.01	51.1	4,300	17,200	17.7	450	1.86	N	VS	
NT300-32	2	50.8	2.60	66.0	3,600	14,400	19.7	500	2.97	N	VS	



WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



VZ Exceeds 100R13

Meets or exceeds the requirements of SAE 100R13.



- Tube: Nitrile
- Reinforcement: Six spirals of high-tensile steel wire
- Cover: Black, oil, abrasion and weather resistant synthetic rubber, 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. For fuel and lubricating oils. SAE J1942/1 USCG – H accepted.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)	MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE Skive COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)		
VZ-20	1¼	1.96	49.3	5,000	20,000	16.5	420	2.45	VS	
VZ-24	1½	2.26	57.6	5,000	20,000	19.6	500	3.35	VS	
VZ-32	2	2.82	71.6	5,000	20,000	24.8	630	4.37	VS	

VT300 Exceeds 100R13

Meets or exceeds the requirements of SAE 100R13.



- Tube: Nitrile
- Reinforcement: Six spirals of high-tensile steel wire
- Cover: Synthetic rubber, high-abrasion resistant, meets requirements of MSHA fire resistant standards
- Temperature: -48°C to +121°C (-55°F to +250°F)
- Packaging: Coils
- Application: VT300 is ideal for hydraulic systems with petroleum, polyolester, or water/glycol based fluids. The hose is very flexible with a bending radius less than standard spiral hose and a high-abrasion resistant cover. Hose is accepted for hydraulic service. SAE J1942/1 USCG – H accepted.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)	MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE Skive COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)		
VT300-20	1¼	1.92	48.8	5,000	20,000	11.0	280	2.44	VS	
VT300-24	1½	2.19	55.6	5,000	20,000	13.0	330	3.20	VS	
VT300-32	2	2.80	71.1	5,000	20,000	16.5	420	4.20	VS	

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CX Premium Six Spiral Wire Hose

Meets or exceeds the requirements of SAE 100R15.



- Tube: Nitrile
- Reinforcement: Four spiral layers of high-tensile steel wire ½" thru 1"
Six spiral layers of high-tensile steel wire 1¼" thru 2"
- Cover: Black, oil, abrasion and weather resistant synthetic rubber, 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 lubricating oils.
Suitable for use with biodegradable hydraulic oils.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)	MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE Non-Skive	ONE PIECE Skive
	(in)	(mm)	(in)	(mm)			(in)	(mm)		COUPLINGS	COUPLINGS
CX-08	½	12.7	0.80	20.2	6,000	24,000	4.72	120	0.59	N	
CX-10	5/8	15.9	0.96	24.4	6,000	24,000	5.51	140	0.67	N	
CX-12	¾	19.1	1.20	30.7	6,000	24,000	11.0	280	1.09	V	
CX-16	1	25.4	1.52	38.7	6,000	24,000	11.8	300	1.46	V	
CX-20	1¼	31.8	1.97	50.0	6,000	24,000	15.7	400	2.40		VS
CX-24	1½	38.1	2.27	57.6	6,000	24,000	19.7	500	3.02		VS
CX-32	2	50.8	2.95	75.0	6,000	24,000	23.6	600	5.00		C

* C32 is a two-piece external skive only coupling. Assembly by Key Hub Locations only

CZ Long Length Six Spiral Wire Hose

Meets or exceeds requirements of SAE 100R15.



- Tube: Seamless, black, oil, and heat resistant synthetic rubber
- Reinforcement: Six spirals of high-tensile wire
Six spiral layers of high-tensile steel wire 1" thru 2"
- Cover: Black, oil, weather, and high-abrasion resistant synthetic rubber, MSHA approved
- Temperature: -40°C to +120°C (-40°F to +248°F)
- Packaging: 200' Coils
- Application: Hydraulic systems with petroleum or water/glycol based fluids with high-working pressures.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)	MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE Skive
	(in)	(mm)	(in)	(mm)			(in)	(mm)		COUPLINGS
CZ-24	1½	38.1	2.26	57.3	6,000	24,000	20.9	530	3.21	VS



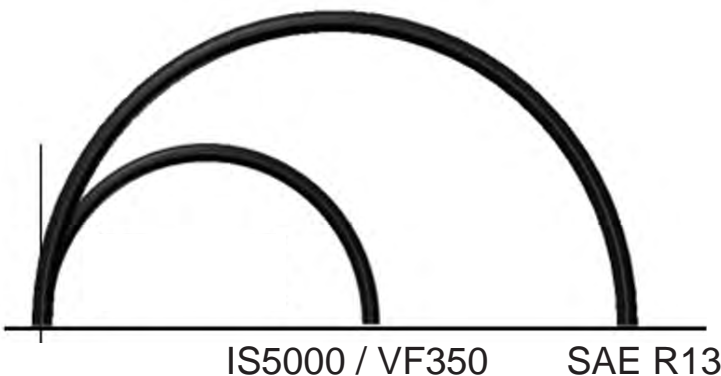
WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FLEXTRAL[®]

ISO 18752

RAISING STANDARDS ON PERFORMANCE AND VALUE

The industry preference is moving from using SAE specs toward ISO specs. ISO 18752 is the latest Global Standard aka "Level Line or Isobaric" as it calls out performance definitions and pressure classes for constant pressure hoses. The importance of high-quality, flexible, durable hose assemblies that won't fail has never been more critical.

**BENDING THE STANDARDS**

Compact spiral is less than $\frac{1}{2}$ the bend radius with significantly improved force to bend over comparable rubber hoses.

A key reason for Compact Spiral's is they are easier for handling and routing, this feature also enables bends to start sooner than with conventional spiral, resulting in hose savings and faster installation.

ADVANCED FEATURES:

- Meets or exceeds ISO 18752
- Simplifies hose selection with constant pressure ratings
- Bend radius improved for up to one-third of SAE bend radius specifications
- MSHA Approved, USCG-H accepted
- Facilitates easier routing in tight applications
- Higher flexibility with lower force-to-bend for easier installation
- Extends life in bending, flexing applications

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

VF340 / IS4000 Fury 4000 / Supremeflex



Meets or exceeds ISO 18752, MSHA Approved.

- Tube: Seamless, black, oil, and heat resistant synthetic rubber
- Reinforcement: High-tensile wire
- Cover: Black, oil, weather, and high-abrasion resistant synthetic rubber, MSHA approved
- Temperature: VF340: -40°C to +100°C (-40°F to +212°F)
IS4000: -40°C to +120°C (-40°F to +250°F)
- Packaging: 3/8" - 3/4" Reels; 1" - 1 1/4" Coils
- Application: Engineered for the harshest of conditions for service in hydraulic systems with petroleum or water/glycol based fluids and for fuel and lubricating oils where supreme flexibility and abrasion resistance is needed.

PART NUMBER	HOSE I.D.	HOSE O.D.		MAX W.P.	MIN. BURST PRESSURE	MIN. BEND RADIUS		WEIGHT	ONE PIECE
	(in)	(in)	(mm)			(psi)	(psi)		(in)
VF340-04	1/4	0.55	13.9	4,000	16,000	1.97	50	0.22	E
VF340-06	3/8	0.67	17.0	4,000	16,000	2.56	65	0.26	E
VF340-08	1/2	0.81	20.5	4,000	16,000	3.54	90	0.32	E
VF340-10	5/8	0.94	24.0	4,000	16,000	3.94	100	0.46	E
VF340-12	3/4	1.09	27.6	4,000	16,000	4.72	120	0.59	E

*Note: ISO 18752-AC is standard.

PART NUMBER	HOSE I.D.	HOSE O.D.		MAX W.P.	MIN. BURST PRESSURE	MIN. BEND RADIUS		WEIGHT	ONE PIECE
	(in)	(in)	(mm)			(psi)	(psi)		(in)
IS4000-16PS	1	1.41	35.9	4,000	16,000	5.12	130	1.63	N
IS4000-20PS	1 1/4	1.74	44.3	4,000	16,000	8.27	210	2.41	N

*Note: ISO 18752-CC is standard but hose is also available in DC.

HYDRAULIC HOSE



WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



VF350 Fury 5000



Meets or exceeds ISO 18752, MSHA Approved.

- Tube: Seamless, black, oil, and heat resistant synthetic rubber
- Reinforcement: Four spirals of high-tensile wire (-06 to -20)
Six spirals of high-tensile wire (-24 to -32)
- Cover: Black, oil, abrasion, and weather resistant synthetic rubber, MSHA approved
- Temperature: -40°C to +120°C (-40°F to +250°F)
- Packaging: Coils
- Application: Hydraulic systems with petroleum or water/glycol based fluids and for fuel and lubricating oils where supreme flexibility is needed. SAE J1942/1 USCG – H accepted.

PART NUMBER	HOSE I.D.	HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)	MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE Non-Skive	ONE PIECE Skive
	(in)	(in)	(mm)			(in)	(mm)		COUPLINGS	COUPLINGS
VF350-06	3/8	0.80	20.2	5,000	20,000	2.56	65	0.45	N	
VF350-08	1/2	0.90	22.9	5,000	20,000	3.54	90	0.52	N	
VF350-10	5/8	1.04	26.5	5,000	20,000	3.94	100	0.69	N	
VF350-12	3/4	1.20	30.5	5,000	20,000	4.75	120	0.88	N	
VF350-16	1	1.49	37.9	5,000	20,000	5.91	150	1.19	N	
VF350-20	1 1/4	1.81	45.9	5,000	20,000	11.02	280	1.71	N	
VF350-24	1 1/2	2.26	57.4	5,000	20,000	18.11	460	3.21		VS
VF350-32	2	2.81	71.5	5,000	20,000	21.26	540	4.54		VS

***Note:** ISO 18752-CC is standard but hose is also available in AC, BC and DC.

Hose is available in three cover options. Standard cover part numbers are listed above. For ordering alternative covers add the following suffix to the end of part number: **PS** for Pro-Shield or **PS2** for Pro-Shield2. (ex. VF350-16PS2)

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

IS5000PS Supremeflex 5K



Meets or exceeds ISO 18752, MSHA Approved.

- Tube: Seamless, black, oil, and heat resistant synthetic rubber
- Reinforcement: Four spirals of high-tensile wire (-08 to -20)
Six spirals of high-tensile wire (-24 to -32)
- Cover: Black, oil, weather, and high-abrasion resistant synthetic rubber, MSHA approved
- Temperature: -54°C to +121°C (-65°F to +250°F)
- Packaging: Coils
- Application: Engineered for the harshest of conditions for service in hydraulic systems with petroleum or water/glycol based fluids and for fuel and lubricating oils where supreme flexibility and abrasion resistance is needed. SAE J1942/1 USCG – H accepted.

PART NUMBER	HOSE I.D.	HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)	MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE Non-Skive	ONE PIECE Skive
	(in)	(in)	(mm)			(in)	(mm)		COUPLINGS	COUPLINGS
IS5000-08PS	½	0.86	21.9	5,000	20,000	3.54	90	0.47	N	
IS5000-10PS	5/8	1.04	26.4	5,000	20,000	3.94	100	0.66	N	
IS5000-12PS	¾	1.14	29.0	5,000	20,000	4.72	120	0.72	N	
IS5000-16PS	1	1.43	36.4	5,000	20,000	5.91	150	1.16	N	
IS5000-20PS	1¼	1.74	44.3	5,000	20,000	8.27	210	1.61	N	
IS5000-24PS	1½	2.16	54.8	5,000	20,000	9.45	240	2.59		VS
IS5000-32PS	2	2.80	71.1	5,000	20,000	12.40	315	4.53		VS

*Note: ISO 18752-CC is standard but hose is also available in AC, BC and DC.

HYDRAULIC HOSE



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HF 100R4 Suction / Return Hose

Meets or exceeds the requirements of SAE 100R4.

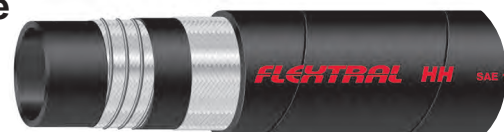


- Tube: Seamless, black, oil and heat resistant synthetic rubber
- Reinforcement: Textile braided with spiral wire to prevent collapsing
- Cover: Black synthetic oil and heat-resistant rubber, MSHA approved
- Temperature: -40°C to 100° (-40°F to +212°F)
- Packaging: 100' Coils
- Application: Petroleum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

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)		MIN. BEND RADIUS		WEIGHT (lbs/ft)	VACUUM HG (in)	ONE PIECE COUPLINGS
	(in)	(mm)	(in)	(mm)		(in)	(mm)					
HF-12	¾	1.14	29.0	300	1,200	1.97	50	0.36	28	E, N		
HF-16	1	1.38	35.0	250	1,000	2.56	65	0.46	28	E, N		
HF-20	1¼	1.65	42.0	200	800	3.35	85	0.57	28	E, N		
HF-24	1½	1.93	49.0	150	580	3.74	95	0.81	28	E, N		
HF-32	2	2.44	62.0	100	400	5.31	135	1.03	28	E, N, HA		
HF-40	2½	2.97	75.5	60	240	7.09	180	1.38	28	HA		


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: Two textile braids with spiral wire to prevent collapsing
- Cover: Black, synthetic oil, and heat resistant rubber, MSHA approved
- Temperature: -30°C to +135°C (-22°F to +275°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.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)		MIN. BEND RADIUS		WEIGHT (lbs/ft)	VACUUM HG (in)	ONE PIECE COUPLINGS
	(in)	(mm)	(in)	(mm)		(in)	(mm)					
HH-12	¾	1.20	30.0	300	1,200	2.4	60	0.44	28	E, N		
HH-16	1	1.46	37.0	250	1,000	3.2	80	0.56	28	E, N		
HH-20	1¼	1.73	44.0	200	800	3.9	100	0.68	28	E, N		
HH-24	1½	1.97	50.0	150	600	4.9	125	0.90	28	E, N, HA		
HH-32	2	2.48	63.0	100	400	5.9	150	1.15	28	E, N, HA		
HH-40	2½	3.13	79.5	200	800	7.9	200	1.82	28	HA		
HH-48	3	3.62	92.0	200	800	9.5	240	2.21	28	HA/HB		
HH-56	3½	4.26	108.0	200	800	11.0	280	2.88	28	HA/HB		
HH-64	4	4.73	120.0	200	800	12.6	320	3.23	28	HA/HB		

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FX 100R5 Textile Cover



Meets or exceeds performance requirements of SAE 100R5 and D.O.T. FMVSS 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 +100°C (-40°F to +212°F)
- Packaging: 3/16" - 1 1/8" reels, 1 3/8" and higher in coils
- Application: Used for high-temperature, hydraulic applications, diesel fuel and lubricating oils. SAE J1942/1 USCG - H accepted.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P.	MIN. BURST PRESSURE	MIN. BEND RADIUS		WEIGHT	ONE PIECE	RE-USABLE
	(in)	(mm)	(in)	(mm)			(in)	(mm)			
FX-04	3/16	4.8	0.52	13.2	3,000	12,000	3.0	76	0.15	F	5R
FX-05	1/4	6.4	0.58	14.8	3,000	12,000	3.4	86	0.18	F	5R
FX-06	5/16	7.9	0.68	17.1	2,250	9,000	4.0	102	0.22	F	5R
FX-08	13/32	10.3	0.77	19.5	2,000	8,000	4.6	117	0.30	F	5R
FX-10	1/2	12.7	0.92	23.4	1,750	7,000	5.5	140	0.37	F	5R
FX-12	5/8	15.9	1.08	27.4	1,500	6,000	6.5	165	0.45	F	5R
FX-16	7/8	22.1	1.24	31.4	800	3,200	7.4	187	0.47	F	5R
FX-20	1 1/8	25.4	1.50	38.1	625	2,500	9.0	229	0.58	F	5R
FX-24	1 3/8	34.9	1.75	44.4	500	2,000	10.5	267	0.73	F	5R
FX-32	1 13/16	44.8	2.22	56.4	350	1,400	13.3	337	0.90	F	5R

FH 100R5 Textile Cover - High-Temp.



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

- Tube: Seamless, black, oil and heat resistant synthetic rubber (CPE)
- 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 +150°C (-40°F to +302°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" - 1 1/8" reels, 1 3/8" and higher in coils
- Application: Used for high-temperature, hydraulic applications, and lubricating oils. SAE J1942/1 USCG - H accepted.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P.	MIN. BURST PRESSURE	MIN. BEND RADIUS		WEIGHT	ONE PIECE	RE-USABLE
	(in)	(mm)	(in)	(mm)			(in)	(mm)			
FH-04*	3/16	4.8	0.52	13.2	3,000	12,000	3.0	76	0.15	F	5R
FH-05*	1/4	6.4	0.58	14.8	3,000	12,000	3.4	86	0.18	F	5R
FH-06*	5/16	7.9	0.68	17.1	2,250	9,000	4.0	102	0.22	F	5R
FH-08*	13/32	10.3	0.77	19.5	2,000	8,000	4.5	117	0.30	F	5R
FH-10*	1/2	12.7	0.92	23.4	1,750	7,000	5.5	140	0.37	F	5R
FH-12*	5/8	15.9	1.08	27.4	1,500	6,000	6.5	165	0.45	F	5R
FH-16*	7/8	22.1	1.24	31.4	800	3,200	7.4	187	0.47	F	5R
FH-20*	1 1/8	25.4	1.50	38.1	625	2,500	9.0	229	0.58	F	5R
FH-24	1 3/8	34.9	1.75	44.4	500	2,000	10.5	267	0.73	F	5R
FH-32	1 13/16	44.8	2.22	56.4	350	1,400	13.3	337	0.90	F	5R

* USCG-H Coast Guard Accepted



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HT300 High-Temp. Textile Cover 500 PSI Multi-Purpose Hose

- Tube: Temperature and chemical resistant tube (CPE)
- Reinforcement: One braid high-tensile steel wire
- Cover: Black, oil and abrasion resistance polyester braid
- Temperature: -40°C to +150°C (-40°F to + 302°F)
- Packaging: Coils
- Application: Air brake, pressurized hot oil return lines and rotary oil/air compressor lines, high-temperature transmission and lube oil systems using petroleum based oils.



PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)	MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(in)	(mm)	(mm)			(in)	(mm)		
HT300-20	1¼	1.58	40.1	40.1	1,000	4,000	8.5	216	0.57	E
HT300-24	1½	1.89	48.0	48.0	500	2,000	15.0	381	0.86	E
HT300-32	2	2.51	63.8	63.8	500	2,000	18.0	457	1.23	E, N, HA
HT300-40	2½	2.97	75.4	75.4	500	2,000	22.0	559	1.56	HA
HT300-48	3	3.50	88.9	88.9	500	2,000	24.0	609	1.84	HA

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)
- Packaging: Reels
- Application: Extreme high-pressure hydraulic lines for jacking systems.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)	MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(in)	(mm)	(mm)			(in)	(mm)		
HJ-04	¼	0.59	15.0	15.0	10,000	20,000	4.0	100	0.21	E
HJ-06	¾	0.76	19.3	19.3	10,000	20,000	5.0	130	0.31	E

****Due to high-pressure application, we only recommend rigid Male NPT fittings.**

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FSH 100R1 Red Fire Suppression Hose

Meets or exceeds the requirements of SAE 100R1 AT / DIN-EN 853 1SN.



- Tube: Seamless, black, oil and heat resistant synthetic rubber
- Reinforcement: One wire braid of high-tensile steel wire
- Cover: Smooth, red, oil abrasion and weather resistant synthetic rubber, MSHA approved
- Temperature: -40°C to +100°C (-40°F to +212°F)
- Packaging: Reels
- Application: Medium pressure hydraulic applications and fire suppression actuation equipment where the red cover allows for easy identification.

PART NUMBER	HOSE I.D.	HOSE O.D.		MAX W.P.	MIN. BURST PRESSURE	MIN. BEND RADIUS		WEIGHT	ONE PIECE
	(in)	(in)	(mm)			(psi)	(psi)		(in)
FSH-04M	¼	0.52	13.2	3,265	13,060	4.0	100	0.15	E
FSH-06M	⅜	0.68	17.2	2,610	10,440	5.0	130	0.23	E
FSH-08M	½	0.80	20.4	2,320	9,280	7.0	180	0.28	E
FSH-12M	¾	1.08	27.5	1,525	6,100	9.5	240	0.40	E
FSH-16M	1	1.39	35.4	1,275	5,100	12.0	300	0.59	E


LX 100R3 Rubber Cover Fabric Braid

Meets or exceeds the requirements of SAE 100R3.



- Tube: Black, oil and heat-resistant synthetic rubber
- Reinforcement: Two braids 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.

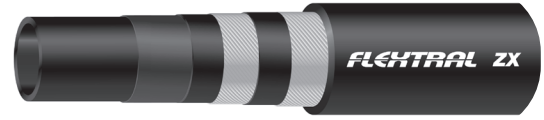
PART NUMBER	HOSE I.D.	HOSE O.D.		MAX W.P.	MIN. BURST PRESSURE	MIN. BEND RADIUS		WEIGHT	ONE PIECE
	(in)	(in)	(mm)			(psi)	(psi)		(in)
LX-04	¼	0.56	14.3	1,250	5,000	3.0	76	0.12	E
LX-06	⅜	0.75	19.0	1,125	4,500	4.0	102	0.17	E, N
LX-08	½	0.94	23.8	1,000	4,000	5.0	127	0.25	E, N

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ZX Air Conditioning (Standard Barrier)

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



- Tube: Chloroprene
- Reinforcement: Two-spiral polyester
- Barrier: Nylon
- Cover: Black EPDM
- Temperature: -40°C to +135°C (-40°F to +275°F)
- Packaging: Reels
- Application: R12 / R134a refrigerants.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P.	MIN. BURST PRESSURE	MIN. BEND RADIUS		WEIGHT	ONE PIECE
	(in)	(mm)	(in)	(mm)			(in)	(mm)		
ZX-06	5/16	19.1	0.75	19.1	500	2,000	0.6	16	0.20	Z
ZX-08	13/32	23.0	0.91	23.0	500	2,000	1.0	25	0.28	Z
ZX-10	1/2	25.4	1.00	25.4	500	2,000	1.3	32	0.33	Z
ZX-12	5/8	28.6	1.13	28.6	350	1,750	2.0	50	0.38	Z

ZXR Air Conditioning (Reduced Barrier)

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



- Tube: Chloroprene
- Reinforcement: Single-braid polyester
- Barrier: Nylon
- Cover: Black Chlorobutyl
- Temperature: -40°C to +135°C (-40°F to +275°F)
- Packaging: Reels
- Application: R12 / R134a refrigerants.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P.	MIN. BURST PRESSURE	MIN. BEND RADIUS		WEIGHT	ONE PIECE
	(in)	(mm)	(in)	(mm)			(in)	(mm)		
ZXR-06	5/16	14.7	0.56	14.7	500	2,000	1.0	25	0.09	ZR
ZXR-08	13/32	17.3	0.69	17.3	500	2,000	1.5	38	0.12	ZR
ZXR-10	1/2	19.4	0.75	19.4	500	2,000	2.5	63	0.13	ZR
ZXR-12	5/8	23.6	0.94	23.6	350	1,750	4.0	104	0.20	ZR

YK Rubber DOT Air Brake Hose

Meets DOT FMVSS - 106 requirements SAE J1402A dimensions.
Meets or exceeds SAE J1402A air brake hose.



- Tube: Black Nitrile, EPDM
- Reinforcement: Two-Spiral polyester reinforcement
- Cover: Black, oil, abrasion and weather resistant synthetic rubber, EPDM
- Temperature: -40°C to +93°C (-40°F to +200°F)
- Packaging: Reels
- Application: Air brake hose lines. Exceptional weathering and ozone resistance.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P.	MIN. BURST PRESSURE	MIN. BEND RADIUS		WEIGHT	REUSABLE
	(in)	(mm)	(in)	(mm)			(in)	(mm)		
YK-06	3/8	19.1	0.75	19.1	225	900	2.25	57.15	0.17	Y
YK-08	1/2	22.2	0.88	22.2	225	900	3.00	76.20	0.20	Y

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

RF2400B Slim Hole Rotary Drill



- Tube: Synthetic oil resistant rubber
- Reinforcement: Four braids of high-tensile steel wire
- Cover: Black, oil, abrasion, and weather resistant synthetic rubber
- Temperature: -40°C to +121°C (-40°F to +250°F)
- Packaging: Coils
- Application: Designed for rotary hole drilling on oil rigs and hydraulic applications. For use with air, oil, water, mud, and drilling fluids.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P.	MIN. BEND RADIUS		WEIGHT	ONE PIECE
	(in)	(in)	(mm)	(psi)		(in)	(mm)		(lbs/ft)
RF2400B-48	3	3.90	99.1	2,400	43.5	1,105	4.55	LM	

*Call for additional fittings, lengths and assemblies.

RF3000 Rig Flow Kelly



- Tube: Black, smooth nitrile rubber compound
- Reinforcement: Six spiral layers of high-tensile steel wire
- Cover: Black, oil, abrasion, and weather resistant synthetic rubber, MSHA approved
- Temperature: -40°C to +121°C (-40°F to +250°F)
- Packaging: Coils
- Application: High-pressure rotary hose for slim-hole, seismograph, work-over or portable drilling rigs. For use with small to medium-blast, water-well or shot-hole drilling applications. Used in hydraulic or mud drilling applications where pulsating pump is required.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P.	MIN. BEND RADIUS		WEIGHT	TWO PIECE Skive
	(in)	(in)	(mm)	(psi)		(in)	(mm)		(lbs/ft)
RF3000-40	2½	3.35	85.1	3,000	26.0	660	5.13	LM	
RF3000-48	3	3.91	99.3	3,000	29.5	750	6.07	LM	

*Call for additional fittings, lengths and assemblies.


RF5000 Rig Flow Slim Hole Rotary Drill



- Tube: Nitrile
- Reinforcement: Four spirals (2"), Six spirals (2½") of high-tensile steel wire
- Cover: Black, oil, abrasion, and weather resistant synthetic rubber, MSHA approved
- Temperature: -40°C to +121°C (-40°F to +250°F)
- Packaging: Coils
- Application: High-pressure rotary hose for slim-hole, seismograph, work-over or portable drilling rigs. For use with small to medium-blast, water-well or shot-hole drilling applications. Used in hydraulic oil, mud or where pulsating pump is required.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P.	MIN. BEND RADIUS		WEIGHT	TWO PIECE Skive
	(in)	(in)	(mm)	(psi)		(in)	(mm)		(lbs/ft)
RF5000-32	2	2.66	67.6	5,000	27.5	700	2.45	VS	
RF5000-40	2½	3.35	85.1	5,000	26.0	660	5.13	LM	

*Call for additional fittings, lengths and assemblies.

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DR40 10K Cementing & Mud Hose

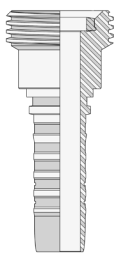
- Tube:** Nitrile
- Reinforcement:** Six spiral layers of high-tensile steel wire
- Cover:** Black, oil, abrasion, and weather resistant synthetic rubber
- Temperature:** -20°C to +100°C (-4°F to +212°F)
- Packaging:** Coils
- Application:** Used as a high-pressure connection between the cementing pump and head for conveyance of high-pressure cement slurries or drill mud.
- Branding:** FLEXTRAL DR40-200 2" Cementing and Mud Hose 10000 PSI MAX Test Pressure 15000 PSI Burst Ratio 2,25:1



PART NUMBER	HOSE I.D.	HOSE O.D.		MAX W.P.	MIN. BEND RADIUS		WEIGHT	TWO PIECE Skive
	(in)	(in)	(mm)	(psi)	(in)	(mm)	(lbs/ft)	COUPLINGS
DR40-200	2	2.95	74.9	10,000	23.6	600	5.05	C

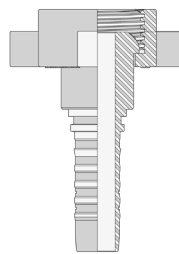
*Call for additional fittings, lengths and assemblies.
Note: Not to be used for high-pressure air.

INTEGRAL 1502 UNION FOR SPIRAL HOSE



C32-32FHU1502

Part No.	I.D. Inches
C32-32FHU1502	2



C32-32MHU1502-NUT

Part No.	I.D. Inches
C32-32MHU1502	2

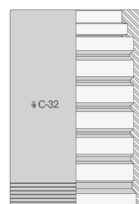
NPT MALE (API)



C-MPA


Part No.	I.D. Inches
C32-32MPA	2

FERRULE



C-32 Ferrule

Part No.	I.D. Inches
C-32	2

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SX High-Pressure Four Spiral



Meets or exceeds the requirements of DIN 20023-4SP.

- Tube: Nitrile
- Reinforcement: Four spirals 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: Coils
- Application: Petroleum based hydraulic fluids, gasoline, water, diesel fuels and lubricating oils.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)		MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(mm)	(in)	(mm)		(in)	(mm)				
SX-08	½	12.7	0.97	24.6	6,000	24,000	9.0	229	0.59	N	

* Hose must be skived with all couplings.

QC Four Spiral Hose (Half Bend)



Meets or exceeds the requirements of SAE 100R12 - EN856
(Half the bend radius of SAE100R12).

- Tube: Seamless, black, oil and heat resistant synthetic rubber
- Reinforcement: Four spirals of high-tensile wire
- Cover: Black, oil, abrasion and weather resistant synthetic rubber, 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.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)		MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE Non-Skive
	(in)	(mm)	(in)	(mm)		(in)	(mm)				
QC-06	¾	19.0	0.80	20.0	4,000	16,000	5.0	125	0.40	N, V	
QC-08	½	12.7	0.94	24.0	4,000	16,000	7.0	175	0.54	N, V	
QC-10	¾	19.0	1.08	27.0	4,000	16,000	8.0	205	0.74	N	
QC-12	¾	19.0	1.21	31.0	4,000	16,000	9.5	240	0.94	N, V	
QC-16	1	25.4	1.50	38.0	4,000	16,000	12.0	300	1.34	N, V	
QC-20	1¼	31.8	1.85	47.0	3,000	12,000	16.5	415	1.74	N	
QC-24	1½	38.1	2.10	53.0	2,500	10,000	20.0	500	2.01	N	
QC-32	2	50.8	2.63	67.0	2,500	10,000	25.0	635	2.75	N	

*Hose can also be used with OEM reusable couplings.



WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



PROJET® 4200 4200 PSI Pressure Washer Hose

- Tube: Seamless, black synthetic rubber
 - Reinforcement: One braid of high-tensile steel wire
 - Cover: Wrapped or Smooth abrasion and weather resistant synthetic rubber, Black, Blue or Gray
 - Temperature: -40°C to +121°C/149°C Intermittent (-40°F to +250°F/300° Intermittent)
 - Packaging: 50', 100', 150', 200' in Bulk Reels
 - Application: Pressure wash equipment. All of the hose assemblies shown here are factory made with male NPT end fittings and bend restrictors at each end. One male end is a swivel to prevent hose twisting.
- NOT FOR STEAM SERVICE.**



PART NUMBER	COVER	HOSE I.D.	HOSE O.D.		MAX W.P.	MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE
		(in)	(in)	(mm)		(in)	(mm)		COUPLINGS
PJ4-06BK	Wrapped	3/8	0.59	14.99	4,200	2.6	66.0	0.15	E
PJ4-06GY	Wrapped	3/8	0.59	14.99	4,200	2.6	66.0	0.15	E
PJ4-04BLM	Smooth	1/4	0.48	12.19	4,000	2.9	28.3	0.12	E
PJ4-06BLM	Smooth	3/8	0.59	14.99	4,200	2.6	66.0	0.15	E

*BK indicates the color Black. For other colors add the suffix to the part number as follows:
GY - Gray, BLM - Blue (Smooth Only).

PROJET® 4200 4200 PSI Assemblies

PART NUMBER	COLOR	COVER	HOSE SIZE & LENGTH	END 1	END 2	ATTACHING METHOD
PJ4-06BK-050C	Black	Wrapped	3/8" x 50'	3/8" M-NPT Rigid	3/8" M-NPT Swivel	Crimp
PJ4-06BK-100C	Black	Wrapped	3/8" x 100'	3/8" M-NPT Rigid	3/8" M-NPT Swivel	Crimp
PJ4-06GY-050C	Gray	Wrapped	3/8" x 50'	3/8" M-NPT Rigid	3/8" M-NPT Swivel	Crimp
PJ4-06GY-100C	Gray	Wrapped	3/8" x 100'	3/8" M-NPT Rigid	3/8" M-NPT Swivel	Crimp
PJ4-06BLM-050C	Blue	Smooth	3/8" x 50'	3/8" M-NPT Rigid	3/8" M-NPT Swivel	Crimp
PJ4-06BLM-100C	Blue	Smooth	3/8" x 100'	3/8" M-NPT Rigid	3/8" M-NPT Swivel	Crimp

*4,200 PSI assemblies come with Blue bend restrictors.

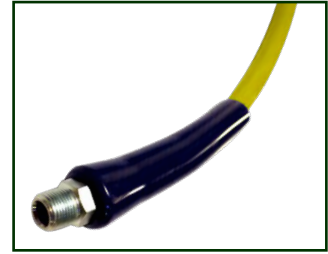
*Call for additional fittings, lengths and assemblies.



WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

ULTRAJET® 4000 4000 PSI Oil/Fat Resistant Pressure Washer Hose

- Tube: Seamless, black synthetic rubber
 - Reinforcement: One braid of high-tensile steel wire
 - Cover: Yellow, smooth ultra abrasion resistant synthetic rubber, ARPM Class A
 - Temperature: -40°C to +121°C/149°C Intermittent (-40°F to +250°F/300°F Intermittent)
 - Packaging: 50', 100', 150', 200' in Bulk Reels
 - Application: Pressure wash equipment where maximum abrasion or oil/fat resistance is required.
- NOT FOR STEAM SERVICE.**



PART NUMBER	COVER	HOSE I.D.	HOSE O.D.		MAX W.P.	MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE
		(in)	(in)	(mm)		(psi)	(in)		(mm)
UJ4-06YWM	Smooth	3/8"	0.61	15.49	4,000	3.5	88.90	0.24	E

*4,000 PSI assemblies come with Blue bend restrictors.

ULTRAJET® 4000 4000 PSI Oil/Fat Resistant Pressure Washer Hose

PART NUMBER	COLOR	COVER	HOSE SIZE & LENGTH	END 1	END 2	ATTACHING METHOD
UJ4-06YWM-050C	Yellow	Smooth	3/8" x 50'	3/8" M-NPT Rigid	3/8" M-NPT Swivel	Crimp
UJ4-06YWM-100C	Yellow	Smooth	3/8" x 100'	3/8" M-NPT Rigid	3/8" M-NPT Swivel	Crimp

*4,000 PSI assemblies come with Blue bend restrictors.

*Call for additional fittings, lengths and assemblies.



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SUPERJET® 6000 6000 PSI Pressure Washer Hose

- Tube: Seamless, black synthetic rubber
- Reinforcement: Two braids of high-tensile steel wire
- Cover: Wrapped or Smooth abrasion and weather resistant synthetic rubber, Black, Blue or Gray
- Temperature: -40°C to +121°C/149°C Intermittent (-40°F to +250°F/300°F Intermittent)
- Packaging: 50', 100', 150', 200' in Bulk Reels
- Application: Pressure wash equipment. All of the hose assemblies shown here are factory made with male NPT end fittings and bend restrictors at each end. One male end is a swivel to prevent hose twisting.



NOT FOR STEAM SERVICE.

PART NUMBER	COVER	HOSE I.D.	HOSE O.D.		MAX W.P.	MIN. BEND RADIUS		WEIGHT	ONE PIECE
		(in)	(in)	(mm)		(psi)	(in)		(mm)
SJ6-06BK	Wrapped	3/8	0.67	17.02	6,000	3.5	88.9	0.29	E
SJ6-06GY	Wrapped	3/8	0.67	17.02	6,000	3.5	88.9	0.29	E
SJ6-06BLM	Smooth	3/8	0.67	17.02	6,000	3.5	88.9	0.29	E

*BK indicates the color Black. For other colors add the suffix to the part number as follows:
 GY - Gray, BLM - Blue (Smooth Only).

*6,000 PSI assemblies come with Red bend restrictors.

SUPERJET® 6000 6000 PSI Assemblies

PART NUMBER	COLOR	COVER	HOSE SIZE & LENGTH	END 1	END 2	ATTACHING METHOD
SJ6-06BK-050C	Black	Wrapped	3/8" x 50'	3/8" M-NPT Rigid	3/8" M-NPT Swivel	Crimp
SJ6-06BK-100C	Black	Wrapped	3/8" x 100'	3/8" M-NPT Rigid	3/8" M-NPT Swivel	Crimp
SJ6-06GY-050C	Gray	Wrapped	3/8" x 50'	3/8" M-NPT Rigid	3/8" M-NPT Swivel	Crimp
SJ6-06GY-100C	Gray	Wrapped	3/8" x 100'	3/8" M-NPT Rigid	3/8" M-NPT Swivel	Crimp
SJ6-06BLM-050C	Blue	Smooth	3/8" x 50'	3/8" M-NPT Rigid	3/8" M-NPT Swivel	Crimp
SJ6-06BLM-100C	Blue	Smooth	3/8" x 100'	3/8" M-NPT Rigid	3/8" M-NPT Swivel	Crimp

*6,000 PSI assemblies come with Red bend restrictors.

*Call for additional fittings, lengths and assemblies.



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SUPERJET® 7400 7400 PSI Pressure Washer Hose

Tube: Seamless, black synthetic rubber
 Reinforcement: Two braids of high-tensile steel wire
 Cover: Wrapped and weather resistant synthetic rubber, Black
 Temperature: -40°C to +121°C/149°C Intermittent (-40°F to +250°F/300°F Intermittent)
 Packaging: 50', 100', 150', 200' in Bulk Reels
 Application: Pressure wash equipment. All of the hose assemblies shown here are factory made with male NPT end fittings and bend restrictors at each end. One male end is a swivel to prevent hose twisting.



NOT FOR STEAM SERVICE.

PART NUMBER	COVER	HOSE I.D.	HOSE O.D.		MAX W.P.	MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE
		(in)	(in)	(mm)		(psi)	(in)		(mm)
SJ7-06BK	Wrapped	3/8"	0.67	17.02	7,400	3.5	88.9	0.29	E

*7,400 PSI assemblies come with Red bend restrictors.

SUPERJET® 7400 7400 PSI Assemblies

PART NUMBER	COLOR	COVER	HOSE SIZE & LENGTH	END 1	END 2	ATTACHING METHOD
SJ7-06BK-025C	Black	Wrapped	3/8" x 25'	3/8" M-NPT Rigid	3/8" M-NPT Rigid	Crimp
SJ7-06BK-050C	Black	Wrapped	3/8" x 50'	3/8" M-NPT Rigid	3/8" M-NPT Rigid	Crimp
SJ7-06BK-075C	Black	Wrapped	3/8" x 75'	3/8" M-NPT Rigid	3/8" M-NPT Rigid	Crimp
SJ7-06BK-100C	Black	Wrapped	3/8" x 100'	3/8" M-NPT Rigid	3/8" M-NPT Rigid	Crimp
SJ7-06BK-150C	Black	Wrapped	3/8" x 150'	3/8" M-NPT Rigid	3/8" M-NPT Rigid	Crimp
SJ7-06BK-200C	Black	Wrapped	3/8" x 200'	3/8" M-NPT Rigid	3/8" M-NPT Rigid	Crimp

*7,400 PSI assemblies come with Red bend restrictors.

*Call for additional fittings, lengths and assemblies.



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WB40 Aqua-Boss Water Blast Hose



- Tube: Black, synthetic oil resistant rubber
- Reinforcement: Four spirals of high-tensile steel wire
- Cover: Black, abrasion, weather and oil resistant nitrile rubber
- Temperature: -40°C to +80°C (-40°F to +176°F)
- Packaging: Coils
- Application: A very high-constant pressure hose for water scaling systems and is suitable for passage of water and aqueous solutions.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P.	MIN. BEND RADIUS		WEIGHT	FERRULE	INSERT
	(in)	(mm)	(in)	(mm)		(in)	(mm)			
WB40-06	3/8	19.0	0.80	20.3	10,000	7.09	180.1	0.50	WB4-06F	WB06-06MP
WB40-08	1/2	25.4	0.91	23.1	10,000	8.61	218.7	0.63	WB4-08F	WB08-08MP
WB40-12	3/4	38.1	1.24	31.5	10,000	11.02	279.9	1.10	WB4-12F	WB12-12MP
WB40-16	1	25.4	1.50	38.1	10,000	14.00	355.6	1.46	WB4-16F	WB16-16MP

*Factory Assembly Only.

*Fully tested and certified per EN 1829-2.

WB50 Aqua-Boss XP Water Blast Hose



- Tube: Black, synthetic oil resistant rubber
- Reinforcement: Four spirals of high-tensile steel wire
- Cover: Black, abrasion, weather and oil resistant nitrile rubber
- Temperature: -40°C to +80°C (-40°F to +176°F)
- Packaging: Coils
- Application: An extra high-constant pressure hose for water scaling systems and is suitable for passage of water and aqueous solutions.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P.	MIN. BEND RADIUS		WEIGHT	FERRULE	INSERT
	(in)	(mm)	(in)	(mm)		(in)	(mm)			
WB50-04	1/4	6.3	0.67	17.0	18,000	4.92	125.7	0.41	WB4-04F	WB04-04MP
WB50-06	3/8	19.0	0.81	20.6	18,000	5.91	150.1	0.56	WB4-06F	WB06-06MP
WB50-08	1/2	25.4	0.95	24.1	16,000	10.50	266.7	0.65	WB4-08F	WB08-08MP
WB50-12	3/4	38.1	1.25	31.8	15,000	11.02	279.9	1.14	WB4-12F	WB12-12MP

*Factory Assembly Only.

*Fully tested and certified per EN 1829-2.

WB60 Aqua-Boss XP2 Water Blast Hose



- Tube: Black, synthetic oil resistant rubber
- Reinforcement: Six spirals of high-tensile steel wire
- Cover: Black, abrasion, weather and oil resistant nitrile rubber
- Temperature: -40°C to +80°C (-40°F to +176°F)
- Packaging: Coils
- Application: An extremely high-constant pressure hose for water scaling systems and is suitable for passage of water and aqueous solutions.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P.	MIN. BEND RADIUS		WEIGHT	FERRULE	INSERT
	(in)	(mm)	(in)	(mm)		(in)	(mm)			
WB60-08	1/2	12.7	1.13	28.7	20,000	9.84	249.9	1.26	WB6-08F	WB08-08TMF

*Factory Assembly Only.

*Fully tested and certified per EN 1829-2.

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

J2 Rubber Cover Push-On 300 PSI

- Tube: High-oil resistant synthetic rubber, ARPM Class A
- Reinforcement: Spiral synthetic fiber
- Cover: Synthetic rubber, ARPM Class A (High-Oil Resistance)
- Temperature: -20°C to +99°C (-4°F to +210°F)
- Packaging: Reels
- Application: For use with push-on fittings at working pressures of 300 psi for industrial service.

Non-conductive, minimum electrical resistance greater than one (1) megaohm per inch of hose lengths at 1,000 Volts DC. For use with petroleum based hydraulic fluids, water, and lubricating oils.



PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P.	MIN. BURST PRESSURE	WEIGHT	ONE PIECE
	(in)	(mm)	(in)	(mm)				
J2-04BK*	¼	0.51	13.0	300	1,200	0.13	J	
J2-06BK*	⅜	0.67	17.0	300	1,200	0.16	J	
J2-08BK*	½	0.79	20.0	300	1,200	0.30	J	
J2-12BK*	¾	1.08	27.5	300	1,200	0.45	J	

*BK indicates the color Black. For other colors change the suffix to the following: BL - Blue, GY - Gray, GN - Green, RD - Red, BN - Brown, YW - Yellow or WH - White. Some colors are non-stock and may require minimum runs.

*Call for additional fittings, lengths and assemblies.

J3 MSHA Premium Push-On 300 PSI

- Tube: High-oil and heat resistant synthetic rubber, ARPM Class A
- Reinforcement: Braided synthetic fiber
- Cover: Synthetic rubber, oil, abrasion, and UV resistant, MSHA approved, ARPM Class B
- Temperature: -40°C to +99°C (-40°F to +210°F)
- Packaging: Reels
- Application: For use with push-on fittings at working pressures of 300 psi for industrial service.

Non-conductive, minimum electrical resistance greater than one (1) megaohm per inch of hose lengths at 1,000 Volts DC. For use with petroleum based hydraulic fluids, water, and lubricating oils. Silicone is not used in the production of this hose.



PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P.	MIN. BURST PRESSURE	MIN. BEND RADIUS		WEIGHT	ONE PIECE
	(in)	(mm)	(in)	(mm)			(in)	(mm)		
J3-04BK*	¼	0.54	13.7	300	1,200	3.0	64.0	0.10	J	
J3-05BK*	⅝	0.62	15.7	300	1,200	3.0	76.0	0.12	J	
J3-06BK*	¾	0.69	17.5	300	1,200	3.0	76.0	0.14	J	
J3-08BK*	½	0.81	20.6	300	1,200	5.0	127.0	0.17	J	
J3-10BK*	⅝	0.93	23.6	300	1,200	6.0	152.0	0.20	J	
J3-12BK*	¾	1.07	27.2	300	1,200	7.0	178.0	0.26	J	
J3-16BK*	1	1.34	34.0	300	1,200	8.0	203.0	0.34	J	

*BK indicates the color Black. For other colors change the suffix to the following: BL - Blue, GY - Gray, GN - Green, RD - Red, BN - Brown, YW - Yellow or WH - White. Some colors are non-stock and may require minimum runs.

*Call for additional fittings, lengths and assemblies.



WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



J4 High-Temp. Rubber Cover Push-On 300 PSI

- Tube: Oil resistant synthetic rubber
- Reinforcement: One synthetic textile braid
- Cover: Black, oil resistant rubber
- Temperature: -40°C to +150°C (-40°F to + 300°F) petroleum-based fluids
-40°C to +85°C (-40°F to + 185°F) water and air
- Packaging: Reels
- Application: For use with push-on fittings at working pressures of 300 psi for industrial service. Petroleum based hydraulic fluid, lubricating oil, air, water, and antifreeze coolants.



PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)	MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)		
J4-04BK*	¼	6.35	0.51	12.8	300	1,200	2.5	64.0	0.09	J
J4-06BK*	⅜	9.52	0.67	17.0	300	1,200	3.0	76.0	0.14	J
J4-08BK*	½	12.70	0.76	19.3	300	1,200	5.0	127.0	0.16	J
J4-10BK*	⅝	15.87	0.93	23.6	300	1,200	6.0	152.0	0.20	J
J4-12BK*	¾	19.05	1.04	26.4	300	1,200	7.0	175.0	0.25	J

*BK indicates the color Black. For other colors change the suffix to the following: BL - Blue, GY - Gray, GN - Green, RD - Red, BN - Brown, YW - Yellow or WH - White. Some colors are non-stock and may require minimum runs.

*Call for additional fittings, lengths and assemblies.

J5 Textile Cover Push-On 300 PSI

- Tube: High-oil resistant synthetic rubber, ARPM Class A
- Reinforcement: Braided synthetic fiber
- Cover: Black, oil, resistant textile braid, ARPM Class B
- Temperature: -40°C to +99°C (-40°F to +210°F)
- Packaging: Reels
- Application: For use with push-on fittings at working pressures of 300 psi for industrial service. Non-conductive, minimum electrical resistance greater than one (1) megaohm per inch of hose lengths at 1,000 Volts DC. For use with petroleum based hydraulic fluids, water, and lubricating oils. Textile cover provides added abrasion resistance.



PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)	MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)		
J5-04	¼	6.35	0.50	12.7	300	1,200	3.0	76.2	0.08	J
J5-05	⅜	9.52	0.56	14.2	300	1,200	3.0	76.0	0.09	J
J5-06	½	12.70	0.64	16.3	300	1,200	3.0	76.2	0.11	J
J5-08	⅝	15.87	0.75	17.1	300	1,200	5.0	127.0	0.13	J
J5-10	¾	19.05	0.91	23.1	300	1,200	6.0	152.4	0.19	J
J5-12	1	25.40	1.03	26.2	300	1,200	7.0	177.8	0.21	J

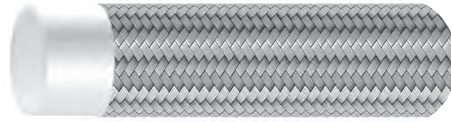
*Call for additional fittings, lengths and assemblies.

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TBR Smooth Bore Teflon™/Stainless Steel Wire

Meets or exceeds the requirements of SAE 100R14.



- Tube: Smooth, True Bore Teflon™ (0.030 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: Coils
- Application: Steam, chemical, automotive, food processing, pharmaceutical and petroleum based hydraulic fluids.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)	MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)		
TBR-03	3/16	4.8	0.29	7.4	2,900	11,600	1.38	35.0	0.05	T
TBR-04	1/4	6.4	0.35	9.0	2,500	10,000	1.78	45.0	0.06	T
TBR-05	5/16	8.0	0.43	10.8	2,100	8,400	1.97	50.0	0.08	T
TBR-06	3/8	9.6	0.49	12.4	1,900	7,600	2.36	60.0	0.10	T
TBR-08	1/2	12.8	0.62	15.7	1,700	6,800	3.54	90.0	0.14	T
TBR-10	5/8	16.0	0.75	19.1	1,450	5,800	4.72	120.0	0.18	T
TBR-12	3/4	19.2	0.87	22.2	1,300	5,200	7.48	190.0	0.22	T
TBR-16	1	25.4	1.15	29.3	940	3,760	10.63	270.0	0.31	T

TRS Smooth Bore Teflon™/Silicone Covered

Meets or exceeds the requirements of SAE 100R14 with a smooth silicone cover that protects stainless steel wire reinforcement against wear, fraying, hand cuts and burn exposure.



- Tube: Smooth, True Bore Teflon™ (0.030 wall) (Conductive)
- 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: Coils
- Application: Steam, chemical, automotive, food processing, pharmaceutical and petroleum based hydraulic fluids.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)	MIN. BEND RADIUS		ONE PIECE COUPLINGS	COVER Color Options
	(in)	(mm)	(in)	(mm)			(in)	(mm)		
TRS-04C	1/4	6.4	0.49	12.4	3,000	12,000	3.0	76.2	E	BL/RD/CL/WT
TRS-06C	3/8	9.6	0.62	15.7	2,250	9,000	4.5	114.3	E	BL/RD/CL/WT
TRS-08C	1/2	12.8	0.75	19.0	1,500	6,000	6.5	165.1	E	BL/RD/CL/WT
TRS-10C	5/8	16.0	0.88	22.4	1,200	4,800	7.7	195.6	E	BL/RD/CL/WT
TRS-12C	3/4	19.2	0.99	25.1	1,100	4,400	8.2	208.3	E	BL/RD/CL/WT

****Silicone cover prevents hand cuts and other injuries associated with traditional wire covered hose.**

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



TBSC Premium High-Abrasion Teflon™

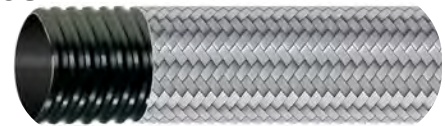


- Tube: Smooth, True Bore Teflon™ (Conductive)
- Reinforcement: One braid of 304 stainless steel wire
- Cover: Blue, abrasion resistant braided textile with silicone underlay
- Temperature: -54°C to +204°C (-65°F to +400°F)
- Packaging: Coils
- Application: Compensation, stretch rod, coolant, rotary unions, nozzles, oil and water lines. A proprietary construction that provides excellent life span, heat or cooling insulation isolation, plus excellent flex properties for all blow molding applications.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)	MIN. BEND RADIUS		ONE PIECE COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)	
TBSC-04C	¼	6.35	0.53	13.5	3,000	12,000	2.0	50.8	E
TBSC-06C	⅜	9.52	0.64	16.3	2,500	10,000	2.5	63.5	E
TBSC-08C	½	12.7	0.80	20.3	2,000	8,000	3.0	76.2	E
TBSC-10C	⅝	15.87	0.92	23.4	1,700	6,800	3.5	88.9	E
TBSC-12C	¾	19.05	1.04	26.4	1,500	6,000	4.0	101.6	E

****Silicone cover prevents hand cuts and other injuries associated with traditional wire covered hose.**

TBX Convoluted Smooth Bore Teflon™ Stainless



- Tube: Black, non-leaching FDA compliant static, True Bore Teflon™ (Conductive)
- 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.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)	MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)		
TBX-04C	¼	6.35	0.38	9.6	1,280	5,120	0.8	19.0	0.06	T
TBX-05C	⅜	9.52	0.42	10.6	1,220	4,880	0.8	19.0	0.08	T
TBX-06C	½	12.7	0.53	13.5	1,160	4,640	1.0	25.0	0.10	T
TBX-08C	¾	19.05	0.69	17.5	870	3,480	1.5	38.0	0.15	T
TBX-10C	1	25.4	0.83	21.1	730	2,920	2.0	50.0	0.23	T
TBX-12C	1½	38.1	0.95	24.2	610	2,440	2.5	63.0	0.26	T
TBX-16C	2	50.8	1.25	31.7	580	2,320	3.0	75.0	0.36	T

⚠ WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



TFEP Smooth Bore Low Effusion Teflon™



- Tube: Special True Bore FEP
- Reinforcement: One braid of 304 stainless steel wire
- Cover: Blue, Silicone cover
- Temperature: -54°C to +232°C (-65°F to +450°F) Continuous service
-73°C to +260°C (-200°F to +500°F) Intermittent service
- Packaging: Coils
- Application: A special low-effusion product good for cryogenic applications liquid nitrogen, freons, ammonia, and other refrigerants. 304 Stainless braided **PREMIUM** special FEP teflon product covered with a smooth silicone cover that protects stainless steel wire reinforcement against wear, fraying and burn exposure.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P.	MIN. BURST PRESSURE	MIN. BEND RADIUS		ONE PIECE COUPLINGS	COVER Color Options
	(in)	(mm)	(in)	(mm)			(in)	(mm)		
TFEP-06C	3/8	13.5	0.53	13.5	2,390	9,560	1.0	25.4	T, E	RD/CL/WT
TFEP-08C	1/2	17.5	0.69	17.5	1,740	6,960	1.5	38.1	T, E	RD/CL/WT
TFEP-10C	5/8	21.1	0.83	21.1	1,270	5,080	2.0	50.8	T, E	RD/CL/WT
TFEP-12C	3/4	24.1	0.95	24.1	1,010	4,040	2.5	63.5	T, E	RD/CL/WT

****Silicone cover prevents hand cuts and other injuries associated with traditional wire covered hose.**

*For other cover color options minimum run required (5,000' per size)

TUX Teflon™ - Ultimate Flex



- Tube: Corrugated, True Bore Teflon™
- Cover: Blue, high-temperature textile braid
- Temperature: -54°C to +149°C (-65°F to +300°F)
- Packaging: Coils
- Application: Blow molding coolant lines, oil lines, and nozzles. The uniquely designed PTFE helix convolutions with high-temperature braid results in a highly flexible hose with very low-force to bend which provides superior life span and temperature characteristics as compared to traditional thermoplastic or rubber hoses. Extreme flexibility allows for excellent performance in tight spaces in Sidel and Krones equipment.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P.	MIN. BURST PRESSURE	MIN. BEND RADIUS		ONE PIECE COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)	
TUX-06	3/8	15.5	0.61	15.5	500	2,000	1.0	25.4	T

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

607 100R7 Thermoplastic



Meets or exceeds the requirements of SAE 100R7 / JIS K6375 / ISO 3949.

- Tube: Polyamide
- Reinforcement: High-tensile polyester braid
- Cover: Black, micro-perforated, high-abrasion, and UV resistant polyurethane
- Temperature: -40°C to +100°C (-40°F to +212°F)
- Packaging: Coils/Reels
- Application: Hydraulic and pneumatic systems. Excellent chemical range, robotics, fire resistant fluid and hot water.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)	MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)		
607-02	1/8	8.3	0.33	8.3	3,000	12,000	0.59	15.0	0.03	P
607-03	3/16	10.4	0.41	10.4	3,000	12,000	0.79	20.0	0.04	P
607-04	1/4	12.7	0.50	12.7	3,000	12,000	1.57	40.0	0.07	P
607-05	5/16	14.7	0.58	14.7	2,500	10,000	1.77	45.0	0.09	P
607-06	3/8	16.4	0.66	16.4	2,250	9,000	1.96	50.0	0.10	P
607-08	1/2	20.3	0.80	20.3	2,000	8,000	2.95	75.0	0.14	P
607-12	3/4	26.6	1.05	26.6	1,250	5,000	5.12	130.0	0.20	P
607-16	1	33.4	1.31	33.4	1,000	4,000	6.50	165.0	0.27	T

Note: P couplings may be swaged or crimped.

While supplies last. 607 to be obsoleted and replaced by 627.

627 100R7 Thermoplastic - Ultimate Flex™



Meets or exceeds the requirements of SAE 100R7 / JIS K6375 / ISO3949 / MSHA.

- Tube: Polyamide
- Reinforcement: High-tensile polyester braid
- Cover: Black, low friction, high-abrasion, and UV resistant marine urethane, micro-perforated. MSHA approved
- Temperature: -40°C to +100°C (-40°F to +212°F),
- Packaging: Reels
- Application: Hydraulic and pneumatic systems requiring excellent fluid compatibility, car wash, car carriers, robotics, chemical and agriculture spray equipment.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)	MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)		
627-03	3/16	10.8	0.46	10.8	3,000	13,000	0.59	15.0	0.06	P
627-04	1/4	12.1	0.48	12.1	3,000	12,000	0.98	25.0	0.06	P
627-05	5/16	14.1	0.56	14.1	2,500	10,000	1.32	35.0	0.08	P
627-06	3/8	16.0	0.64	16.0	2,250	9,000	1.77	45.0	0.10	P, 7RP
627-08	1/2	20.6	0.81	20.6	2,000	9,000	2.56	65.0	0.16	P, 7RP
627-12	3/4	27.5	1.08	27.5	1,250	5,000	4.13	105.0	0.24	P

Note: 1) P couplings may be swaged or crimped, 7RP - Selfit®. 2) Vacuum Rating: 27.5in Hg.

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

727 100R7 Thermoplastic - Ultimate Flex™

Meets or exceeds the requirements of SAE 100R7 / JIS K6375 / ISO 3949 / MSHA.



- Tube: CoPolyester
- Reinforcement: High-tensile polyester braid
- Cover: Black, low friction, high-abrasion, and UV resistant marine urethane, micro-perforated. MSHA approved
- Temperature: -40°C to +100°C (-40°F to +212°F),
Max working pressure of air, water and fluids containing water 70°C/158°F
- Packaging: Reels
- Application: Hydraulic and pneumatics, forklift, lubrication, material handling, robotics, car carriers.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)		MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(mm)	(in)	(mm)		(in)	(mm)				
727-02	1/8	8.3	0.33	8.3	3,000	12,000	0.98	25.0	0.04	P, 7R	
727-03	3/16	10.8	0.46	10.8	3,250	13,000	0.59	15.0	0.06	P	
727-04	1/4	12.1	0.48	12.1	3,000	12,000	0.98	25.0	0.06	P	
727-05	5/16	14.1	0.56	14.1	2,500	10,000	1.32	35.0	0.08	P	
727-06	3/8	16.0	0.64	16.0	2,250	9,000	1.77	45.0	0.10	P, 7RP	
727-08	1/2	20.6	0.81	20.6	2,250	9,000	2.56	65.0	0.16	P, 7RP	
727-12	3/4	27.5	1.08	27.5	1,250	5,000	4.13	105.0	0.24	P	

Note: 1) P couplings may be swaged or crimped, 7RP - Selfit®. 2) Vacuum Rating: 27.5in Hg.

727N 100R7 Non-conductive Thermoplastic - Ultimate Flex™


Meets or exceeds the requirements of SAE 100R7 / ANSI 92.2 standard / MSHA for aerial lift equipment. SAEJ517 less than 50 Microamps leakage at 75,000v for 5 min.



- Tube: CoPolyester
- Reinforcement: High-tensile polyester braid
- Cover: Orange, low friction, high-abrasion, and UV resistant marine urethane, non-perforated. MSHA approved
- Temperature: -40°C to +100°C (-40°F to +212°F),
Max working pressure of water and fluids containing water 70°C/158°F
- Packaging: Reels
- Application: Hydraulic where high voltage exposure is possible, forklift, lubrication, material handling, robotics, car carriers.

PART NUMBER	HOSE I.D.		HOSE O.D.		ANSI A92.2 MAX W.P. (psi)	SAE100R7 MAX W.P. (psi)	MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)		
727N-02	1/8	8.3	0.33	8.3	4,000	3,000	0.98	25.0	0.04	P, 7R
727N-03	3/16	10.8	0.46	10.8	3,250	3,250	0.59	15.0	0.06	P
727N-04	1/4	12.1	0.48	12.1	3,250	3,000	0.98	25.0	0.06	P
727N-05	5/16	14.1	0.56	14.1	3,150	2,500	1.38	35.0	0.08	P
727N-06	3/8	16.0	0.64	16.0	3,000	2,250	1.77	45.0	0.10	P, 7RP
727N-08	1/2	20.6	0.81	20.6	3,000	2,250	2.56	65.0	0.16	P, 7RP
727N-12	3/4	27.5	1.08	27.5	1,660	1,250	4.13	105.0	0.24	P

Note: 1) P couplings may be swaged or crimped, 7RP - Selfit®. 2) Vacuum rating: 27.5in Hg.

 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



727W 100R7 Twinline Thermoplastic - Ultimate Flex™

Meets or exceeds the requirements of SAE 100R7 / JIS K6375 / ISO 3949 / MSHA.

- Tube: CoPolyester
- Reinforcement: High-tensile polyester braid
- Cover: Black, low friction, high-abrasion, and UV resistant marine urethane, micro-perforated. MSHA approved
- Temperature: -40°C to +100°C (-40°F to +212°F),
Max working pressure of air, water and fluids containing water 70°C/158°F
- Packaging: Reels
- Application: Hydraulic and pneumatics, forklift, lubrication, fire resistant fluids, material handling, robotics.



PART NUMBER	HOSE I.D.	HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)	MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(in)	(mm)			(in)	(mm)		
727W-0202	1/8	0.33	8.3	3,000	12,000	0.98	25.0	0.08	P, 7R
727W-0303	3/16	0.43	10.8	3,250	13,000	0.59	15.0	0.11	P
727W-0404	1/4	0.48	12.1	3,000	12,000	0.98	25.0	0.13	P
727W-0505	5/16	0.56	14.1	2,500	10,000	1.38	35.0	0.16	P
727W-0606	3/8	0.63	16.0	2,250	9,000	1.77	45.0	0.20	P, 7RP
727W-0808	1/2	0.81	20.6	2,250	9,000	2.56	65.0	0.32	P, 7RP

Note: 1) P couplings may be swaged or crimped, 7RP - Selfit®. 2) Vacuum Rating: 27.5in Hg.

727NW 100R7 Twinline Non-conductive Thermoplastic - Ultimate Flex™


Meets or exceeds the requirements of SAE 100R7 / ANSI 92.2 standard / MSHA. SAEJ517 less than 50 Microamps leakage at 75,000v for 5 min, for aerial lift equipment.

- Tube: CoPolyester
- Reinforcement: High-tensile polyester braid
- Cover: Orange, low friction, high-abrasion, and UV resistant marine urethane, non-perforated. MSHA approved
- Temperature: -40°C to +100°C (-40°F to +212°F),
Max working pressure of water and fluids containing water 70°C/158°F
- Packaging: Coils/Reels
- Application: Hydraulic where high-voltage exposure is possible, forklift, lubrication, material handling, robotics.



PART NUMBER	HOSE I.D.	HOSE O.D.		ANSI A92.2 MAX W.P.	SAE100R7 MAX W.P.	MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(in)	(mm)	(psi)	(psi)	(in)	(mm)		
727NW-0202	1/8	0.33	8.3	4,000	3,000	0.98	25.0	0.04	P, 7R
727NW-0303	3/16	0.43	10.8	3,250	3,250	0.59	15.0	0.11	P
727NW-0404	1/4	0.48	12.1	3,250	3,000	0.98	25.0	0.13	P
727NW-0505	5/16	0.56	14.1	3,150	2,500	1.38	35.0	0.16	P
727NW-0606	3/8	0.63	16.0	3,000	2,250	1.77	45.0	0.20	P, 7RP
727NW-0808	1/2	0.81	20.6	3,000	2,250	2.56	65.0	0.32	P, 7RP

Note: 1) P couplings may be swaged or crimped, 7RP - Selfit®. 2) Vacuum Rating: 27.5in Hg.

 **WARNING** This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

617 Wire Braided Thermoplastic Hose

Meets or exceeds the requirements of SAE 100R1 EN853-1ST.



- Tube: CoPolyester
- Reinforcement: 1 or 2 High-tensile steel braid
- Cover: Black, marine grade, high-abrasion urethane. Low friction, matte finish - non-perforated
- Temperature: -40°C to +100°C (-40°F to +212°F)
- Packaging: Reels
- Application: General hydraulics, lubrication, fork-lift, where extreme abrasion is present.

PART NUMBER	HOSE I.D.	HOSE O.D.		MAX W.P.	MIN. BURST PRESSURE	MIN. BEND RADIUS		WEIGHT	ONE PIECE
	(in)	(in)	(mm)			(psi)	(psi)		(in)
617-04	¼	0.47	12.0	4,300	17,200	1.60	40.0	0.11	P
617-06	⅜	0.63	16.0	3,200	12,800	2.25	57.0	0.18	P
617-08	½	0.76	19.2	2,700	10,800	1.95	75.0	0.22	P
617-12	¾	1.04	26.5	1,800	7,200	5.90	150.0	0.31	P

Note: Multiline available upon special order.

618 100R18 Thermoplastic


Meets or exceeds the requirements of SAE 100R18.



- Tube: CoPolyester
- Reinforcement: High-tensile polyester braid
- Cover: Black, marine grade, high-abrasion urethane. Low friction, matte finish - micro-perforated
- Temperature: -50°C to +100°C (-58°F to +212°F)
Max. working temp. of air and fluids containing water: +70°C(+158°F)
- Packaging: Reels
- Application: Low-temperature, forklift, construction, general hydraulics, chem/gas, lubrication, hydraulic tools, machine tools.

PART NUMBER	HOSE I.D.	HOSE O.D.		MAX W.P.	MIN. BURST PRESSURE	MIN. BEND RADIUS		WEIGHT	ONE PIECE
	(in)	(in)	(mm)			(psi)	(psi)		(in)
618-02	⅛	0.33	8.5	3,000	12,000	1.18	30.0	0.05	P
618-03	⅜	0.41	10.5	3,500	14,000	1.18	30.0	0.06	P
618-05	⅝	0.59	15.0	3,500	14,000	1.97	50.0	0.10	P

While supplies last. 618 to be obsoleted and replaced by 718. 618-02 to be replaced by 727-02.

 **WARNING** This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



618W 100R18 Twinline Thermoplastic

Meets or exceeds the requirements of SAE 100R18.

- Tube: CoPolyester
- Reinforcement: High-tensile polyester braid
- Cover: Black, marine grade, high-abrasion urethane.
Low friction, matte finish - micro-perforated
- Temperature: -50°C to +100°C (-58°F to +212°F)
Max. working temp. of air and fluids containing water: +70°C(+158°F)
- Packaging: Coils/Reels
- Application: Forklift, construction, general hydraulics, chem/gas, lubrication, hydraulic tools, machine tools.



PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)	MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)		
618W-0303	3/16	4.8	0.41	10.5	3,500	14,000	1.18	30.0	0.06	P
618W-0404	1/4	6.4	0.50	12.7	3,500	14,000	1.57	40.0	0.07	P
618W-0505	5/16	7.9	0.59	15.0	3,500	14,000	1.97	50.0	0.10	P
618W-0606	3/8	9.5	0.71	16.5	3,500	14,000	2.36	60.0	0.14	P
618W-0808	1/2	12.7	0.89	21.6	3,000	12,000	3.50	89.0	0.20	P

While supplies last. 618W to be obsoleted and replaced by 718W.

618N Non-Conductive Thermoplastic Pressure Hose

Meets or exceeds SAE100R18 EN855 / ISO3949 / ISO 3949 / SAEJ517 less than 50 Microamps leakage at 75,000v for 5 min. Complies with ANSI A92.2 for Vehicle Mounted Aerial Devices.



- Tube: CoPolyester
- Reinforcement: High-tensile polyester braid
- Cover: Orange, low friction, high-abrasion, and UV resistant urethane, non-perforated
- Temperature: -50°C to +100°C (-58°F to +212 °F)
Max. working temperature of air and fluids containing water: + 70°C (+158°F)
- Packaging: Coils/Reels
- Application: Electric utility truck hydraulic systems, rescue tools, aerial equipment.

PART NUMBER	HOSE I.D.		HOSE O.D.		SAE100R18 MAX W.P. (psi)	MIN. BURST PRESSURE (psi)	MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)		
618N-02	1/8	3.2	0.33	8.5	3,000	12,000	1.18	30.0	0.05	P
618N-03	3/16	4.8	0.41	10.5	3,500	14,000	1.18	30.0	0.06	P
618N-04	1/4	6.4	0.50	12.7	3,500	14,000	1.57	40.0	0.07	P
618N-05	5/16	7.9	0.59	15.0	3,500	14,000	1.97	50.0	0.10	P
618N-06	3/8	9.5	0.71	16.5	3,500	14,000	2.36	60.0	0.14	P
618N-08	1/2	12.7	0.89	21.6	3,000	12,000	3.50	89.0	0.20	P

While supplies last. 618N to be obsoleted and replaced by 727N.

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

618NW Non-Conductive Twinline Thermoplastic Pressure

Meets or exceeds SAE100R18 EN855 / ISO3949 / ISO 3949 / SAEJ517 less than 50 Microamps leakage at 75,000v for 5 min. Complies with ANSI A92.2 for Vehicle Mounted Aerial Devices.



- Tube: CoPolyester
- Reinforcement: High-tensile polyester braid
- Cover: Orange, low friction, high-abrasion, and UV resistant urethane, non-perforated
- Temperature: -50°C to +100°C (-58°F to +212°F)
Max. working temperature of air and fluids containing water: + 70°C (+158°F)
- Packaging: Reels
- Application: Electric utility truck hydraulic systems, rescue tools, aerial equipment.

PART NUMBER	HOSE I.D.		HOSE O.D.		SAE100R18 MAX W.P.	MIN. BURST PRESSURE	MIN. BEND RADIUS		WEIGHT	ONE PIECE COUPLINGS
	(in)	(in)	(in)	(mm)			(in)	(mm)		
618NW-0303	3/16	0.41	10.5	3,500	14,000	1.18	30.0	0.06	P	
618NW-0404	1/4	0.50	12.7	3,500	14,000	1.57	40.0	0.07	P	
618NW-0505	5/16	0.59	15.0	3,500	14,000	1.97	50.0	0.10	P	
618NW-0606	3/8	0.71	16.5	3,500	14,000	2.36	60.0	0.14	P	
618NW-0808	1/2	0.89	21.6	3,000	12,000	3.50	89.0	0.20	P	

While supplies last. 618NW to be obsoleted and replaced by 727NW.


718 100R18 Thermoplastic - Ultimate Flex™

Meets or exceeds requirements SAE 100R18 / ISO3949 / MSHA approved.



- Tube: CoPolyester
- Reinforcement: 1 or 2 High-tensile polyester braid
- Cover: Black, low friction, high-abrasion, UV resistant polyester - micro perforated
- Temperature: -54°C to +100°C (-65°F to +212°F) Max working temp. of air and fluids containing water (+70°C (+158°F))
- Packaging: Reels
- Application: Excellent flex life and low temperature range hose designed to excel in lift truck (over-the-sheave), general hydraulics, lubrication, machine tool, marine steer system, air/gas systems.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P.	MIN. BURST PRESSURE	MIN. BEND RADIUS		WEIGHT	ONE PIECE COUPLINGS
	(in)	(in)	(in)	(mm)			(in)	(mm)		
718-03	3/16	0.43	11.0	3,000	12,000	0.26	18.0	0.06	P	
718-04	1/4	0.49	12.4	3,000	12,000	0.98	25.0	0.08	P	
718-05	5/16	0.60	15.2	3,000	12,000	1.34	34.0	0.10	P	
718-06	3/8	0.67	17.0	3,000	12,000	1.77	45.0	0.12	P	
718-08	1/2	0.80	20.3	3,000	12,000	2.76	70.0	0.17	P	

 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

628 100R8 Thermoplastic

Meets or exceeds SAE100R8, EN-855, ISO3949 - 1/2 wt. of SAE100R2 Hose.



- Tube: Polyamide
- Reinforcement: One or Two high-tensile Aramid braids
- Cover: Black, abrasion resistant, UV stabilized, micro-perforated urethane
- Temperature: -40°C to +100°C (-40°F to +212°F)
- Packaging: Coils/Reels
- Application: General hydraulics, lubrication, water based fluids, PU foam spray

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)	MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)		
628-03	3/16	10.5	0.41	10.5	5,000	20,000	1.38	35.0	0.05	P
628-04	1/4	11.8	0.47	11.8	5,000	20,000	1.97	50.0	0.07	P
628-06	3/8	16.0	0.63	16.0	4,000	16,000	2.76	70.0	0.10	P
628-08	1/2	20.3	0.80	20.3	3,500	14,000	3.74	95.0	0.15	P
628-12	3/4	26.5	1.04	26.5	2,400	9,600	5.91	150.0	0.24	P

628N 100R8 Non-Conductive Thermoplastic

Meets or exceeds the requirements of SAE 100R8 / ANSI 92.2 standard for aerial lift equipment.



- Tube: Polyamide
- Reinforcement: One or Two high-tensile Aramid braids
- Cover: Orange, abrasion resistant, UV stabilized, non-perforated urethane
- Temperature: -40°C to +100°C (-40°F to +212°F)
- Packaging: Coils/Reels
- Application: Hydraulics requiring electrical isolation, utility, rescue tools, aerial equipment.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)	MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)		
628N-04	1/4	11.8	0.47	11.8	5,000	20,000	1.97	50.0	0.07	P
628N-06	3/8	16.0	0.63	16.0	4,000	18,000	2.76	70.0	0.10	P
628N-08	1/2	20.3	0.80	20.3	3,500	14,000	3.74	95.0	0.15	P
628N-12	3/4	26.5	1.04	26.5	2,400	9,600	5.91	150.0	0.24	P

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

908BA Thermoplastic Breathing Air Fill Hose

Meets or exceeds standard CGA G-7.1-2004 grade E breathing air, NFPA 1901, NFPA 1961 and European Directive 2002/72/EL.



- Tube: FDA/ED Thermoplastic polymer
- Reinforcement: Kevlar®
- Cover: Gray, abrasion resistant, perforated marine grade urethane (other colors available upon request)
- Temperature: -40°C to +100°C (-40°F to +212°F) and fire resistant fluids up to (+70°C/158°F)
- Packaging: Reels
- Application: Air compressor stations, SCUBA refilling station, mobile cascade systems.

PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)	MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(in)	(mm)	(in)			(mm)			
908BA-03	3/16	0.41	10.5	6,000	24,000	1.38	35.0	0.06	P	
908BA-04	1/4	0.50	12.7	6,000	24,000	1.97	50.0	0.07	P	
908BA-06	5/8	0.63	16.0	6,000	24,000	2.95	75.0	0.10	P	


Caution: Not for use as part of SCUBA systems or for use with pure oxygen and hydrogen transfer

912 Marine Steering Hose

- Tube: CoPolyester
- Reinforcement: High-tensile polyester braid
- Cover: Black marine grade urethane
- Temperature: -40°C to +100°C (-40°F to +212°F)
- Packaging: Reels
- Application: Hydraulic marine steering systems.



PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)	MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(in)	(mm)	(in)			(mm)			
912-04	1/4	0.43	10.8	2,100	8,400	1.77	45.0	0.05	Contact Flextral	
912-05	5/16	0.48	12.2	1,500	6,000	2.60	66.0	0.05	MS	

 **WARNING** This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



915 Quick Response Marine Steering Hose

Tube: CoPolyester
 Reinforcement: Kevlar® high-tensile braid
 Cover: Black marine grade urethane
 Temperature: -40°C to +100°C (-40°F to +212°F)
 Packaging: Reels
 Application: Hydraulic marine steering systems requiring very low volumetric expansion performance.



PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)	MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)		
915-05	5/16	12.2	0.48	12.2	1,750	7,000	2.60	66.0	0.05	MS

704 Sewer Jetting Hose

Tube: Thermoplastic compound
 Reinforcement: High-tensile polyester braid
 Cover: Green anti-abrasion polyurethane
 Temperature: -40°C to +71°C (-40°F to +160°F)
 Packaging: Coils
 Application: The 704 Sewer Jetting Hose series is designed for water applications in the commercial, industrial, and residential high-pressure cleaning field.



PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)	MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)		
704-06	3/8	16.5	0.65	16.5	4,000	10,000	2.17	55.0	0.11	Contact Flextral
704-08	1/2	22.4	0.88	22.4	4,000	10,000	2.95	75.0	0.19	AF

924 Jetter Hose

Tube: LDPE compound
 Reinforcement: Polyester-aramid fiber braid
 Cover: Black, high-abrasion, and UV resistant urethane
 Temperature: -40°C to +55°C (-40°F to +131°F)
 Packaging: Coils
 Application: Flextral 924 is designed for use in high-pressure water jetting and industrial and domestic lateral sewer cleaning applications.



PART NUMBER	HOSE I.D.		HOSE O.D.		MAX W.P. (psi)	MIN. BURST PRESSURE (psi)	MIN. BEND RADIUS		WEIGHT (lbs/ft)	ONE PIECE COUPLINGS
	(in)	(mm)	(in)	(mm)			(in)	(mm)		
924-02	1/8	7.5	0.30	7.5	5,000	12,500	0.98	25.0	0.03	P
924-04	1/4	12.2	0.48	12.2	5,000	12,500	1.97	50.0	0.06	P
924-06	3/8	16.8	0.66	16.8	5,000	12,500	2.95	75.0	0.11	P

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>


COUPLINGS



FLEXTRAL




STYLE	SERIES	DESCRIPTION
NPTF - NPSM	MP	NPT MALE
	MPA	NPT MALE (API)
	MPL	NPT MALE LONG
	MP90	NPT MALE - 90° ELBOW
	MPX	NPT MALE SWIVEL
	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)
	FPX90B	NPSM FEMALE SWIVEL (60° CONE SEAT) - 90° BLOCK ELBOW
JIC	MJ	JIC 37° MALE
	FJ	JIC 37° FEMALE SWIVEL
	FJ45	JIC 37° FEMALE SWIVEL - 45° ELBOW
	FJ90B	JIC 90° COMPACT FEMALE
	FJ90S	JIC 37° FEMALE SWIVEL - 90° ELBOW SHORT DROP
	FJ90M	JIC 37° FEMALE SWIVEL - 90° ELBOW MEDIUM DROP
	FJ90L	JIC 37° FEMALE SWIVEL - 90° ELBOW LONG DROP
ORFS	MF	ORFS MALE
	MFK	ORFS MALE BULKHEAD
	FF	ORFS FEMALE SWIVEL
	FF45	ORFS FEMALE SWIVEL - 45° ELBOW
	FF90S	ORFS FEMALE SWIVEL - 90° ELBOW SHORT DROP
	FF90M	ORFS FEMALE SWIVEL - 90° ELBOW MEDIUM DROP
	FF90L	ORFS FEMALE SWIVEL - 90° ELBOW LONG DROP
FFC	ORFS FEMALE SWIVEL - COMPACT	
SAE	MA	SAE 45° MALE
	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
	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

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STYLE	SERIES	DESCRIPTION
JIS	FJIS	JIS FEMALE SWIVEL (TOYOTA)
	FJIS90	JIS FEMALE SWIVEL (TOYOTA) - 90° ELBOW
	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	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
	MGAZ	FRENCH GAZ MALE
	FGAZ	FRENCH GAZ FEMALE
SAE CODE 61	FL	SAE CODE 61 FLANGE
	FL22	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	SAE CODE 61 FLANGE - 67.5° ELBOW
	FL90	SAE CODE 61 FLANGE - 90° ELBOW
	FL100	SAE CODE 61 FLANGE - 100° ELBOW
	FL110	SAE CODE 61 FLANGE - 110° ELBOW
	FL135	SAE CODE 61 FLANGE - 135° ELBOW
	LET	SAE CODE 61 CAPTIVE FLANGE
	LET45	SAE CODE 61 CAPTIVE FLANGE - 45° ELBOW
	LET90	SAE CODE 61 CAPTIVE FLANGE - 90° ELBOW

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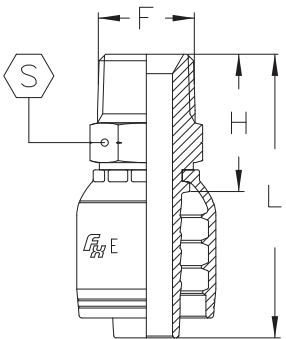


STYLE	SERIES	DESCRIPTION
SAE CODE 62	FLH	SAE CODE 62 FLANGE
	FLH22	SAE CODE 62 FLANGE - 22.5° ELBOW
	FLH30	SAE CODE 62 FLANGE - 30° ELBOW
	FLH45	SAE CODE 62 FLANGE - 45° ELBOW
	FLH60	SAE CODE 62 FLANGE - 60° ELBOW
	FLH67	SAE CODE 62 FLANGE - 67.5° ELBOW
	FLH90	SAE CODE 62 FLANGE - 90° ELBOW
CATERPILLAR® FLANGE	FLC	CATERPILLAR® FLANGE
	FLC22	CATERPILLAR® FLANGE - 22.5° ELBOW
	FLC30	CATERPILLAR® FLANGE - 30° ELBOW
	FLC45	CATERPILLAR® FLANGE - 45° ELBOW
	FLC60	CATERPILLAR® FLANGE - 60° ELBOW
	FLC67	CATERPILLAR® FLANGE - 67.5° ELBOW
	FLC90	CATERPILLAR® FLANGE - 90° ELBOW
ULTRA-HIGH PRESSURE CAPTIVE FLANGE	FLOKA	O&K® FLANGE
	FLOKA22	O&K® FLANGE - 22° ELBOW
	FLOKA45	O&K® FLANGE - 45° ELBOW
	FLOKA90	O&K® FLANGE - 90° ELBOW
	OKBR	FLOKA CRIMP STRAIN RELIEF
HAMMER UNION	MHU1502	FIGURE 1502 MALE HAMMER UNION
	FHU1502	FIGURE 1502 FEMALE HAMMER UNION
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
	HM-P	HOSE MENDER (R134a SERVICE PORT)
	BS	BRAZE SOCKET
	ACF	AIR CONDITIONING FERRULE
ACO	AIR CONDITIONING O-RINGS	
PRESSURE WASH	FPWK	PRESSURE WASH FEMALE SWIVEL TYPE - K
	STN	PRESSURE WASH ONE-PIECE STRAIGHT THROUGH NIPPLE
	STC	PRESSURE WASH ONE-PIECE STRAIGHT THROUGH COUPLER
OTHER	HM	HOSE MENDER
	SP	IMPERIAL STANDPIPE
	BS	BRAZE SOCKET

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MP

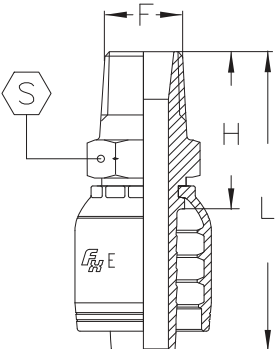
NPT MALE



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
E03-02MP	3/16	1/8 - 27	20.5	0.81	45.5	1.79	12	1/2
E03-04MP	3/16	1/4 - 18	26.5	1.04	51.5	2.03	14	9/16
E04-02MP	1/4	1/8 - 27	21.0	0.83	49.0	1.93	12	1/2
E04-04MP	1/4	1/4 - 18	27.0	1.06	55.0	2.16	14	9/16
E04-06MP	1/4	3/8 - 18	28.5	1.12	56.5	2.23	19	3/4
E04-08MP	1/4	1/2 - 14	34.0	1.34	62.0	2.44	22	7/8
E05-04MP	5/16	1/4 - 18	27.0	1.06	55.0	2.16	14	9/16
E05-06MP	5/16	3/8 - 18	28.5	1.12	56.5	2.23	19	3/4
E06-04MP	3/8	1/4 - 18	27.5	1.08	58.0	2.28	16	5/8
E06-06MP	3/8	3/8 - 18	28.5	1.12	59.0	2.33	19	3/4
E06-08MP	3/8	1/2 - 14	34.0	1.34	64.5	2.54	22	7/8
E08-04MP	1/2	1/4 - 18	28.0	1.10	61.0	2.40	22	7/8
E08-06MP	1/2	3/8 - 18	30.5	1.20	63.5	2.50	22	7/8
E08-08MP	1/2	1/2 - 14	35.0	1.38	68.0	2.68	22	7/8
E08-12MP	1/2	3/4 - 14	37.0	1.45	70.0	2.75	27	1 1/16
E10-06MP	5/8	3/8 - 18	30.0	1.18	65.8	2.59	25	1
E10-08MP	5/8	1/2 - 14	36.2	1.42	72.0	2.83	25	1
E10-12MP	5/8	3/4 - 14	37.1	1.46	72.9	2.87	27	1 1/16
E12-06MP	3/4	3/8 - 16	35.0	1.38	75.5	2.97	27	1 1/16
E12-08MP	3/4	1/2 - 14	37.5	1.48	78.0	3.07	27	1 1/16
E12-12MP	3/4	3/4 - 14	37.9	1.49	78.4	3.09	27	1 1/16
E12-16MP	3/4	1 - 11 1/2	45.5	1.79	86.0	3.38	35	1 7/16
E16-12MP	1	3/4 - 14	40.5	1.59	91.5	3.60	32	1 1/4
E16-16MP	1	1 - 11 1/2	47.0	1.85	98.0	3.86	35	1 7/16
E16-20MP	1	1 1/4 - 11 1/2	51.0	2.01	102.0	4.02	46	1 13/16
E20-20MP	1 1/4	1 1/4 - 11 1/2	52.0	2.04	109.7	4.31	46	1 13/16
E24-24MP	1 1/2	1 1/2 - 11 1/2	55.0	2.16	119.5	4.70	50	2
E32-32MP	2	2 - 11 1/2	64.0	2.52	134.0	5.27	65	2 9/16


MPL

NPT MALE LONG



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-04MPL	1/4	1/4 - 18	36.8	1.45	64.8	2.55	14	9/16
E04-06MPL	1/4	3/8 - 18	38.9	1.53	66.9	2.63	19	3/4
E06-04MPL	3/8	1/4 - 18	36.8	1.45	67.3	2.55	16	5/8
E06-06MPL	3/8	3/8 - 18	38.9	1.53	69.4	2.73	19	3/4

Reference Hose Section for Coupling Compatibility

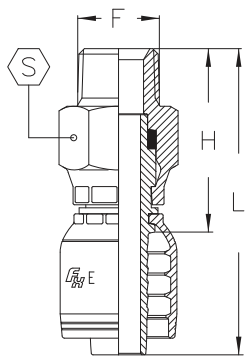
 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





MPX

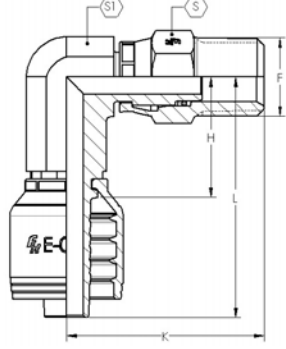
NPT MALE SWIVEL



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-02MPX	¼	⅛ - 27	32.5	1.28	60.5	2.38	13	½
E04-04MPX	¼	¼ - 18	41.0	1.61	69.0	2.72	16	⅝
E04-06MPX	¼	⅜ - 18	39.5	1.56	67.5	2.66	19	¾
E04-08MPX	¼	½ - 14	47.5	1.87	75.5	2.97	22	⅞
E06-04MPX	⅜	¼ - 18	40.0	1.57	70.0	2.76	16	⅝
E06-06MPX	⅜	⅜ - 18	39.5	1.56	70.0	2.76	19	¾
E06-08MPX	⅜	½ - 14	47.0	1.85	77.5	3.05	22	⅞
E08-04MPX	½	¼ - 18	42.0	1.65	75.0	2.95	16	⅝
E08-06MPX	½	⅜ - 18	42.0	1.65	75.0	2.95	19	¾
E08-08MPX	½	½ - 14	49.5	1.95	82.5	3.25	22	⅞
E12-08MPX	¾	½ - 14	48.0	1.89	89.0	3.50	22	⅞
E12-12MPX	¾	¾ - 14	59.5	2.34	100.0	3.94	32	1¼
E16-16MPX	1	1 - 11½	65.5	2.58	116.5	4.59	38	1½

MPX90B

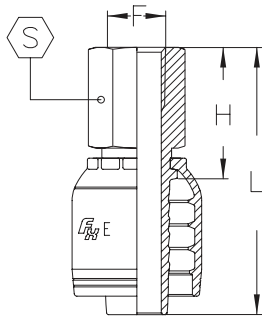
NPT MALE SWIVEL - 90° BLOCK ELBOW



PART NUMBER	Hose Bore	F	H		L		K		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-04MPX90B	¼	¼ - 18	32.0	1.26	60.0	2.36	44.5	1.75	16	⅝	17	11/16
E04-06MPX90B	¼	⅜ - 18	32.0	1.26	60.0	2.36	44.8	1.76	19	¾	17	11/16
E04-08MPX90B	¼	½ - 14	35.0	1.38	63.0	2.48	42.5	2.07	22	⅞	17	11/16
E06-04MPX90B	⅜	¼ - 18	32.0	1.26	62.5	2.46	44.5	1.75	16	⅝	17	11/16
E06-06MPX90B	⅜	⅜ - 18	32.5	1.28	63.0	2.48	45.0	1.77	19	¾	17	11/16
E06-08MPX90B	⅜	½ - 14	32.5	1.28	63.0	2.48	52.5	2.07	22	⅞	17	11/16
E08-08MPX90B	½	½ - 14	33.0	1.30	66.0	2.60	53.5	2.11	22	⅞	19	¾
E12-12MPX90B	¾	¾ - 14	43.5	1.71	84.0	3.31	69.0	2.72	32	1¼	27	11/16

FP

NPT FEMALE RIGID



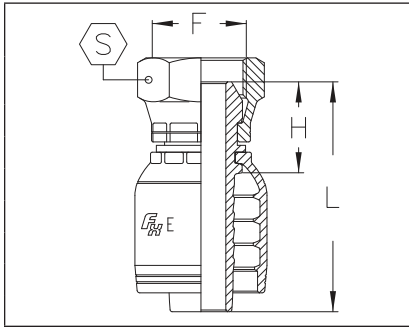
PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-02FP	¼	⅛ - 27	21.5	0.85	49.5	1.95	16	⅝
E04-04FP	¼	¼ - 18	26.0	1.02	54.0	2.13	19	¾
E04-06FP	¼	⅜ - 18	28.4	1.12	56.4	2.22	22	⅞
E06-04FP	⅜	¼ - 18	27.1	1.07	57.6	2.27	19	¾
E06-06FP	⅜	⅜ - 18	26.0	1.02	56.5	2.22	22	⅞
E06-08FP	⅜	½ - 14	34.5	1.36	65.0	2.56	29	1 3/16
E08-06FP	½	⅜ - 18	27.0	1.06	60.0	2.36	22	⅞
E08-08FP	½	½ - 14	35.5	1.40	68.5	2.70	29	1 3/16
E12-12FP	¾	¾ - 14	38.0	1.50	78.5	3.09	32	1¼
E16-16FP	1	1 - 11½	45.8	1.80	96.8	3.81	36	1 1/16

Reference Hose Section for Coupling Compatibility

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FPX

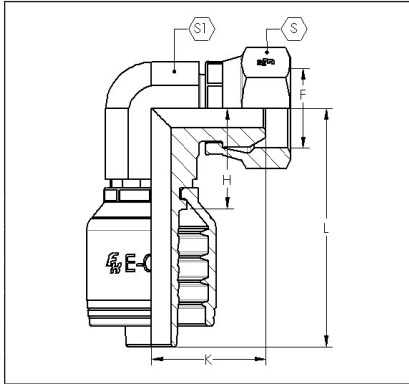
NPSM FEMALE SWIVEL (60° CONE SEAT)



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-04FPX	¼	¼ - 18	19.0	0.75	47.0	1.85	17	11/16
E04-06FPX	¼	¾ - 18	22.0	0.87	50.0	1.97	22	7/8
E06-04FPX	¾	¼ - 18	18.5	0.73	49.0	1.93	17	11/16
E06-06FPX	¾	¾ - 18	20.5	0.81	51.0	2.00	22	7/8
E08-08FPX	½	½ - 14	23.0	0.90	56.0	2.20	25	1
E12-12FPX	¾	¾ - 14	26.5	1.04	67.0	2.64	32	1¼
E16-16FPX	1	1 - 11½	30.0	1.18	81.0	3.19	38	1½

FPX90B

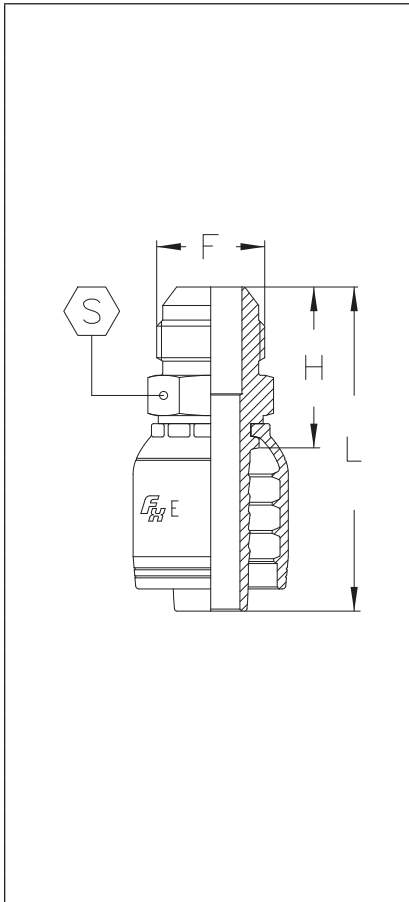
NPSM FEMALE SWIVEL - 90° ELBOW (60° CONE SEAT)



PART NUMBER	Hose Bore	F	H		L		K		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-04FPX90B	¼	¼ - 18	19.0	0.75	47.0	1.85	24.0	0.94	17	11/16	17	11/16
E06-06FPX90B	¾	¾ - 18	21.0	0.83	51.5	2.03	26.3	1.03	22	7/8	17	11/16
E08-08FPX90B	½	½ - 14	24.0	0.94	57.0	2.24	27.4	1.08	25	1	19	¾

MJ

JIC 37° MALE

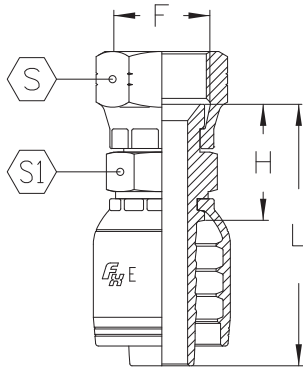


PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
E03-04MJ	3/16	7/16 - 20	25.0	0.98	50.0	1.97	12	1/2
E04-04MJ	¼	7/16 - 20	25.5	1.00	53.5	2.11	12	1/2
E04-05MJ	¼	1/2 - 20	25.5	1.00	53.5	2.11	14	9/16
E04-06MJ	¼	9/16 - 18	26.6	1.05	54.6	2.15	15	5/8
E05-05MJ	5/16	1/2 - 20	25.5	1.00	53.5	2.11	14	9/16
E05-06MJ	5/16	9/16 - 18	26.6	1.05	54.6	2.15	15	5/8
E06-06MJ	3/8	9/16 - 18	26.6	1.05	57.1	2.25	15	5/8
E06-08MJ	3/8	¾ - 16	29.7	1.17	60.2	2.37	19	¾
E06-10MJ	3/8	7/8 - 14	34.3	1.35	64.8	2.55	24	15/16
E08-06MJ	½	9/16 - 18	29.6	1.17	62.6	2.46	19	¾
E08-08MJ	½	¾ - 16	30.7	1.21	63.7	2.51	19	¾
E08-10MJ	½	7/8 - 14	35.3	1.39	68.3	2.69	24	15/16
E08-12MJ	½	1 1/16 - 12	38.9	1.53	71.9	2.83	27	1 1/16
E10-08MJ	5/8	¾ - 16	30.9	1.22	66.7	2.63	24	15/16
E10-10MJ	5/8	7/8 - 14	35.5	1.40	71.3	2.81	27	1 1/16
E10-12MJ	5/8	1 1/16 - 12	39.1	1.54	74.9	2.95	27	1 1/16
E12-10MJ	¾	7/8 - 14	37.3	1.47	77.8	3.06	27	1 1/16
E12-12MJ	¾	1 1/16 - 12	39.9	1.57	80.4	3.16	27	1 1/16
E12-14MJ	¾	1 3/16 - 12	41.5	1.63	82.0	3.23	32	1 ¼
E12-16MJ	¾	1 5/16 - 12	42.0	1.65	82.5	3.25	36	1 1/16
E16-16MJ	1	1 5/16 - 12	43.6	1.72	94.6	3.72	36	1 1/16
E16-20MJ	1	1 5/8 - 12	46.8	1.84	97.8	3.85	42	1 1/4
E20-20MJ	1 ¼	1 5/8 - 12	47.6	1.87	105.3	4.14	42	1 1/4
E24-24MJ	1 ½	1 7/8 - 12	47.0	1.85	111.5	4.39	55	1 5/32
E32-32MJ	2	2 ½ - 12	52.5	2.07	122.5	4.82	70	2 ¾

Reference Hose Section for Coupling Compatibility

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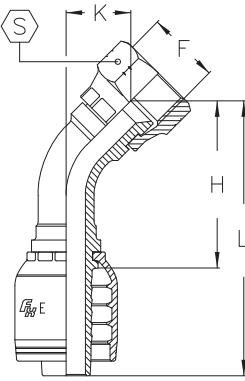
PART NUMBER	Hose Bore INCH	F	H		L		S		S1	
			[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E03-03FJ	3/16	3/8 - 24	19.0	0.75	44.0	1.73	14	9/16	12	1/2
E03-04FJ	3/16	7/16 - 20	19.0	0.75	44.0	1.73	14	9/16	12	1/2
E04-04FJ	1/4	7/16 - 20	20.5	0.81	48.5	1.91	14	9/16	14	9/16
E04-05FJ	1/4	1/2 - 20	21.5	0.85	49.5	1.95	17	11/16	14	9/16
E04-06FJ	1/4	9/16 - 18	22.0	0.87	50.0	1.97	19	3/4	14	9/16
E05-05FJ	5/16	1/2 - 20	21.0	0.83	49.0	1.93	17	11/16	14	9/16
E05-06FJ	5/16	9/16 - 18	21.5	0.85	49.5	1.95	19	3/4	16	5/8
E06-04FJ	3/8	7/16 - 20	21.0	0.83	51.5	2.03	14	9/16	16	5/8
E06-05FJ	3/8	1/2 - 20	21.5	0.85	52.0	2.05	17	11/16	16	5/8
E06-06FJ	3/8	9/16 - 18	22.5	0.89	53.0	2.09	19	3/4	16	5/8
E06-08FJ	3/8	3/4 - 16	24.5	0.96	55.0	2.17	22	7/8	19	3/4
E06-10FJ	3/8	7/8 - 14	26.5	1.04	57.0	2.24	27	1 1/16	22	7/8
E06-12FJ	3/8	1 1/16 - 12	30.0	1.18	60.5	2.38	32	1 1/4	27	1 1/16
E08-06FJ	1/2	9/16 - 18	24.5	0.96	57.5	2.26	19	3/4	19	3/4
E08-08FJ	1/2	1/2 - 16	25.5	1.00	58.5	2.30	22	7/8	19	3/4
E08-10FJ	1/2	7/8 - 14	27.5	1.08	60.5	2.38	27	1 1/16	22	7/8
E08-12FJ	1/2	1 1/16 - 12	30.3	1.19	63.3	2.49	32	1 1/4	25	1
E08-16FJ	1/2	1 5/16 - 12	30.0	1.18	67.0	2.64	38	1 1/2	32	1 1/4
E10-08FJ	5/8	3/4 - 16	26.7	1.05	62.5	2.46	22	7/8	22	7/8
E10-10FJ	5/8	7/8 - 14	27.7	1.09	63.5	2.50	27	1 1/16	22	7/8
E10-12FJ	5/8	1 1/16 - 12	30.5	1.20	66.3	2.61	32	1 1/4	25	1
E12-08FJ	3/4	3/4 - 16	29.0	1.14	69.5	2.74	22	7/8	27	1 1/16
E12-10FJ	3/4	7/8 - 14	30.0	1.18	70.5	2.78	27	1 1/16	27	1 1/16
E12-12FJ	3/4	1 1/16 - 12	31.8	1.25	72.3	2.85	32	1 1/4	27	1 1/16
E12-14FJ	3/4	1 3/16 - 12	34.5	1.36	75.0	2.95	36	1 7/16	30	1 3/16
E12-16FJ	3/4	1 5/16 - 12	35.5	1.40	76.0	2.99	38	1 1/2	32	1 1/4
E16-12FJ	1	1 1/16 - 12	34.3	1.35	85.3	3.36	32	1 1/4	32	1 1/4
E16-16FJ	1	1 5/16 - 12	37.0	1.46	88.0	3.46	38	1 1/2	32	1 1/4
E16-20FJ	1	1 5/8 - 12	42.0	1.65	93.0	3.66	50	2	41	1 5/8
E20-20FJ	1 1/4	1 5/8 - 12	42.8	1.69	100.5	3.97	50	2	41	1 5/8
E24-24FJ	1 1/2	1 7/8 - 12	47.0	1.85	111.5	4.39	55	2 3/16	46	1 13/16
E32-32FJ	2	2 1/2 - 12	52.5	2.07	125.5	4.82	70	2 3/4	60	2 3/8

Reference Hose Section for Coupling Compatibility

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FJ45

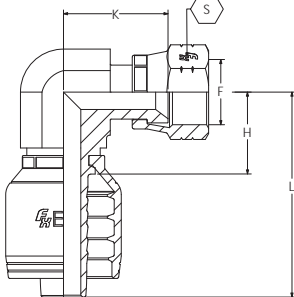
JIC 37° FEMALE SWIVEL - 45° ELBOW



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E03-04FJ45	3/16	7/16 - 20	29.0	1.14	54.0	2.13	12.0	0.47	14	9/16
E04-04FJ45	1/4	7/16 - 20	31.0	1.22	59.0	2.32	12.0	0.47	14	9/16
E04-05FJ45	1/4	1/2 - 20	32.0	1.26	60.0	2.36	12.5	0.49	17	11/16
E04-06FJ45	1/4	9/16 - 18	33.0	1.30	61.0	2.40	13.5	0.53	19	3/4
E05-05FJ45	5/16	1/2 - 20	33.0	1.30	61.0	2.40	12.5	0.49	17	11/16
E05-06FJ45	5/16	9/16 - 18	34.0	1.34	62.0	2.44	12.5	0.49	19	3/4
E06-04FJ45	3/8	7/16 - 20	31.0	1.22	61.5	2.42	12.0	0.47	14	9/16
E06-06FJ45	3/8	9/16 - 18	35.5	1.40	66.0	2.60	13.5	0.53	19	3/4
E06-08FJ45	3/8	3/4 - 16	37.5	1.48	68.0	2.68	15.0	0.59	22	7/8
E08-06FJ45	1/2	9/16 - 18	38.5	1.52	71.5	2.81	14.0	0.55	19	3/4
E08-08FJ45	1/2	3/4 - 16	41.0	1.61	74.0	2.91	16.0	0.63	22	7/8
E08-10FJ45	1/2	7/8 - 14	43.0	1.69	76.0	2.99	17.5	0.69	27	1 1/16
E08-12FJ45	1/2	1 1/16 - 12	46.0	1.81	79.0	3.09	19.5	0.77	32	1 1/4
E10-10FJ45	5/8	7/8 - 14	47.2	1.86	83.0	3.27	17.0	0.67	27	1 1/16
E10-12FJ45	5/8	1 1/16 - 12	50.2	1.98	86.0	3.38	19.5	0.77	32	1 1/4
E12-10FJ45	3/4	7/8 - 14	48.0	1.89	88.5	3.48	17.0	0.67	27	1 1/16
E12-12FJ45	3/4	1 1/16 - 12	57.0	2.24	97.5	3.84	20.0	0.79	32	1 1/4
E12-14FJ45	3/4	1 3/16 - 12	59.5	2.34	100.0	3.94	22.0	0.87	36	1 7/16
E12-16FJ45	3/4	1 5/16 - 12	61.0	2.40	101.5	4.00	24.0	0.95	38	1 1/2
E16-12FJ45	1	1 1/16 - 12	58.5	2.03	109.5	4.31	20.0	0.79	32	1 1/4
E16-16FJ45	1	1 5/16 - 12	72.0	2.83	123.0	4.84	24.0	0.95	38	1 1/2
E16-20FJ45	1	1 5/8 - 12	76.0	2.99	127.0	5.00	28.0	1.10	50	2
E20-20FJ45	1 1/4	1 5/8 - 12	85.3	3.36	143.0	5.63	28.0	1.10	50	2
E24-24FJ45	1 1/2	1 7/8 - 12	99.5	3.92	164.0	6.46	32.0	1.26	55	2 3/16
E32-32FJ45	2	2 1/2 - 12	132.0	5.20	202.0	7.95	43.0	1.70	70	2 3/4


FJ90B

JIC 90° COMPACT FEMALE



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-04FJ90B	1/4	7/16 - 20	19.0	0.75	47.0	1.85	20.5	0.81	14	9/16
E04-06FJ90B	1/4	9/16 - 18	35.0	1.38	63.0	2.48	22.6	0.89	19	3/4
E06-06FJ90B	3/8	9/16 - 18	19.5	0.77	50.0	1.97	22.6	0.89	19	3/4
E06-08FJ90B	3/8	3/4 - 16	21.0	0.83	51.5	2.03	23.3	0.92	22	7/8
E08-08FJ90B	1/2	3/4 - 16	21.0	0.83	54.0	2.13	23.3	0.92	22	7/8
E08-10FJ90B	1/2	7/8 - 14	27.0	1.06	60.0	2.36	26.9	1.06	27	1 1/16
E12-12FJ90B	3/4	1 1/16 - 12	31.5	1.24	72.0	2.83	31.0	1.22	32	1 1/4
E16-16FJ90B	1	1 5/16 - 12	38.0	1.50	89.0	3.50	36.0	1.42	38	1 1/2

Reference Hose Section for Coupling Compatibility

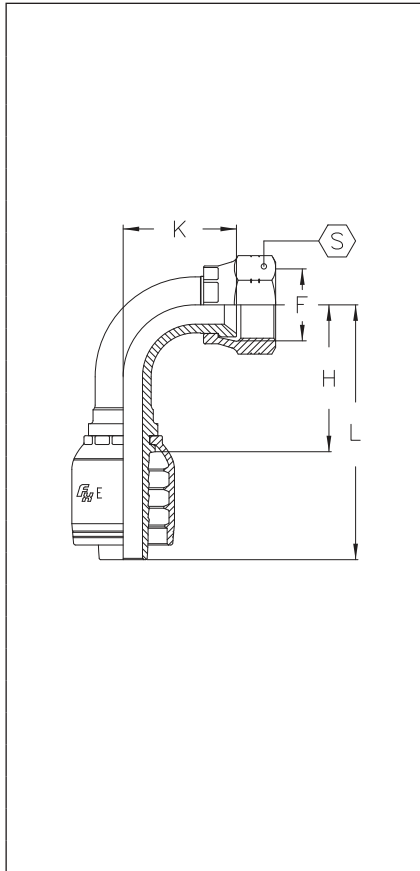
 **WARNING** This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





FJ90S

JIC 37° FEMALE SWIVEL - 90° ELBOW SHORT DROP



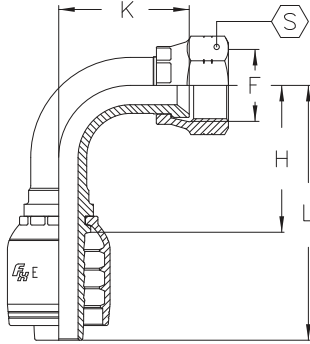
PART NUMBER	Hose Bore INCH	F	H		L		K		S	
			[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E03-04FJ90S	3/16	7/16 - 20	21.0	0.83	46.0	1.81	18.0	0.71	14	9/16
E04-04FJ90S	1/4	7/16 - 20	25.5	1.00	53.5	2.11	20.0	0.79	14	9/16
E04-05FJ90S	1/4	1/2 - 20	25.5	1.00	53.5	2.11	21.0	0.83	17	11/16
E04-06FJ90S	1/4	9/16 - 18	25.5	1.00	53.5	2.11	23.0	0.91	19	3/4
E05-05FJ90S	5/16	1/2 - 20	28.0	1.10	56.0	2.20	22.0	0.87	17	11/16
E05-06FJ90S	5/16	9/16 - 18	28.0	1.10	56.0	2.20	24.0	0.94	19	3/4
E06-04FJ90S	3/8	7/16 - 20	25.5	1.00	56.0	2.20	20.0	0.79	14	9/16
E06-06FJ90S	3/8	9/16 - 18	30.0	1.18	60.5	2.38	23.0	0.91	19	3/4
E06-08FJ90S	3/8	3/4 - 16	31.0	1.22	61.5	2.42	29.0	1.14	22	7/8
E08-06FJ90S	1/2	9/16 - 18	30.5	1.20	63.5	2.50	23.0	0.91	19	3/4
E08-08FJ90S	1/2	3/4 - 16	37.0	1.46	70.0	2.76	29.0	1.14	22	7/8
E08-10FJ90S	1/2	7/8 - 14	38.0	1.50	71.0	2.80	33.0	1.30	27	1 1/16
E08-12FJ90S	1/2	1 1/16 - 12	40.0	1.57	73.0	2.87	40.0	1.57	32	1 1/4
E10-10FJ90S	5/8	7/8 - 14	43.0	1.69	79.0	3.11	32.0	1.26	27	1 1/16
E10-12FJ90S	5/8	1 1/16 - 12	45.0	1.77	81.0	3.19	40.0	1.57	32	1 1/4
E12-10FJ90S	3/4	7/8 - 14	44.0	1.73	84.5	3.33	33.0	1.30	27	1 1/16
E12-12FJ90S	3/4	1 1/16 - 12	55.0	2.17	95.5	3.76	43.0	1.69	32	1 1/4
E12-14FJ90S	3/4	1 1/16 - 12	54.5	2.15	95.0	3.74	47.0	1.85	36	1 1/16
E12-16FJ90S	3/4	1 3/16 - 12	54.5	2.15	95.0	3.74	49.0	1.93	38	1 1/2
E16-16FJ90S	1	1 5/16 - 12	71.0	2.80	122.0	4.80	56.0	2.20	38	1 1/2
E16-20FJ90S	1	1 5/8 - 12	71.0	2.80	122.0	4.80	61.0	2.40	50	2
E20-20FJ90S	1 1/4	1 5/8 - 12	85.3	3.36	143.0	5.63	65.0	2.56	50	2
E24-24FJ90S	1 1/2	1 7/8 - 12	102.5	4.04	167.0	6.57	76.0	2.99	55	2 3/16
E32-32FJ90S	2	2 1/2 - 12	137.0	5.39	207.0	8.15	104.0	4.09	70	2 3/4

Reference Hose Section for Coupling Compatibility

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>


FJ90M

JIC 37° FEMALE SWIVEL - 90° ELBOW MEDIUM DROP



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E03-04FJ90M	3/16	7/16 - 20	21.0	0.83	46.0	1.81	21.0	0.83	14	9/16
E04-04FJ90M	1/4	7/16 - 20	25.5	1.00	53.5	2.11	26.0	1.02	14	9/16
E04-05FJ90M	1/4	1/2 - 20	25.5	1.00	53.5	2.11	26.0	1.02	17	11/16
E04-06FJ90M	1/4	9/16 - 18	25.5	1.00	53.5	2.11	27.0	1.06	19	3/4
E05-05FJ90M	5/16	1/2 - 20	28.0	1.10	56.0	2.20	29.0	1.14	17	11/16
E05-06FJ90M	5/16	9/16 - 18	28.0	1.10	56.0	2.20	29.0	1.14	19	3/4
E06-06FJ90M	3/8	9/16 - 18	31.0	1.22	61.5	2.42	33.0	1.30	19	3/4
E06-08FJ90M	3/8	3/4 - 16	31.0	1.22	61.5	2.42	33.0	1.30	22	7/8
E08-08FJ90M	1/2	3/4 - 16	37.0	1.46	70.0	2.75	39.0	1.53	22	7/8
E08-10FJ90M	1/2	7/8 - 14	37.0	1.46	70.0	2.75	40.0	1.57	27	1 1/16
E08-12FJ90M	1/2	1 1/16 - 12	37.0	1.46	70.0	2.75	45.0	1.77	32	1 1/4
E10-10FJ90M	5/8	7/8 - 14	45.0	1.77	81.0	3.19	45.0	1.77	27	1 1/16
E10-12FJ90M	5/8	1 1/16 - 12	45.0	1.77	81.0	3.19	47.0	1.85	32	1 1/4
E12-10FJ90M	3/4	7/8 - 14	46.0	1.81	86.5	3.41	55.0	2.17	27	1 1/16
E12-12FJ90M	3/4	1 1/16 - 12	55.0	2.16	95.0	3.74	53.0	2.09	32	1 1/4
E12-14FJ90M	3/4	1 3/16 - 12	55.0	2.16	95.0	3.74	54.0	2.12	36	1 7/16
E12-16FJ90M	3/4	1 5/16 - 12	55.0	2.16	95.0	3.74	56.0	2.20	38	1 1/2
E16-12FJ90M	1	1 1/16 - 12	71.0	2.79	122.0	4.80	71.0	2.79	32	1 1/4
E16-16FJ90M	1	1 5/16 - 12	71.0	2.79	122.0	4.80	70.0	2.75	38	1 1/2
E16-20FJ90M	1	1 5/8 - 12	71.0	2.79	122.0	4.80	70.0	2.75	50	2
E20-20FJ90M	1 1/4	1 5/8 - 12	86.0	3.38	143.0	5.63	82.0	3.23	50	2
E20-24FJ90M	1 1/4	1 7/8 - 12	86.0	3.38	143.0	5.63	82.0	3.23	55	2 3/16
E24-24FJ90M	1 1/2	1 7/8 - 12	102.0	4.01	167.0	6.57	96.0	3.78	55	2 3/16
E32-32FJ90M	2	2 1/2 - 12	137.0	5.39	207.0	8.15	134.0	5.27	70	2 3/4

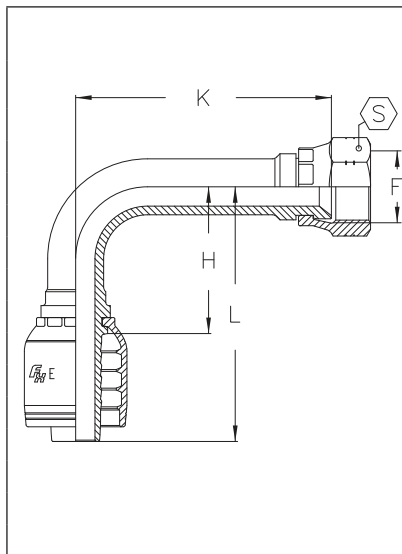
Reference Hose Section for Coupling Compatibility

 **WARNING** This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



FJ90L

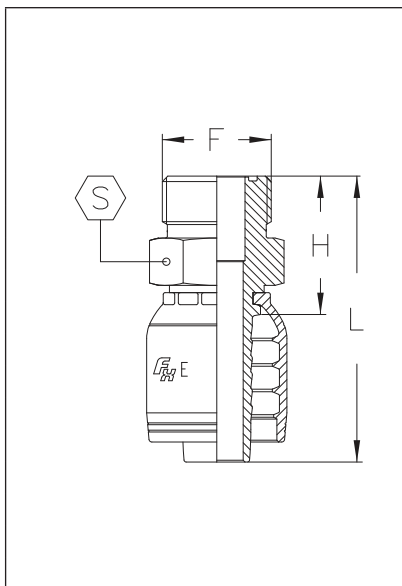
JIC 37° FEMALE SWIVEL - 90° ELBOW LONG DROP



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E03-04FJ90L	3/16	7/16 - 20	21.0	0.83	46.0	1.81	46.0	1.81	14	9/16
E04-04FJ90L	1/4	7/16 - 20	25.5	1.00	53.5	2.11	46.0	1.81	14	9/16
E04-05FJ90L	1/4	1/2 - 20	25.5	1.00	53.5	2.11	46.0	1.81	17	11/16
E04-06FJ90L	1/4	9/16 - 18	25.5	1.00	53.5	2.11	54.0	2.12	19	3/4
E06-04FJ90L	3/8	7/16 - 20	25.5	1.00	56.0	2.20	46.0	1.81	14	9/16
E06-06FJ90L	3/8	9/16 - 18	31.0	1.22	61.5	2.42	54.0	2.12	19	3/4
E06-08FJ90L	3/8	3/4 - 16	31.0	1.22	61.5	2.42	64.0	2.52	22	7/8
E08-08FJ90L	1/2	3/4 - 16	38.0	1.50	71.0	2.79	64.0	2.52	22	7/8
E08-10FJ90L	1/2	7/8 - 14	38.0	1.50	71.0	2.79	70.0	2.75	27	1 1/16
E10-10FJ90L	5/8	7/8 - 14	45.0	1.77	81.0	3.19	70.0	2.75	27	1 1/16
E10-12FJ90L	5/8	1 1/16 - 12	45.0	1.77	81.0	3.19	96.0	3.78	32	1 1/4
E12-12FJ90L	3/4	1 1/16 - 12	55.0	2.16	95.0	3.74	96.0	3.78	32	1 1/4
E16-16FJ90L	1	1 5/16 - 12	71.0	2.79	122.0	4.80	114.0	4.49	38	1 1/2
E20-20FJ90L	1 1/4	1 5/8 - 12	86.0	3.39	144.0	5.67	129.0	5.08	50	2

MF

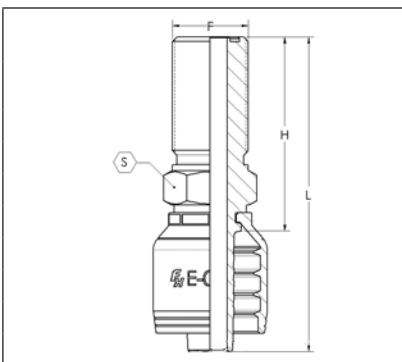
ORFS MALE



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-04MF	1/4	9/16 - 18	24.0	0.95	52.0	2.05	17	11/16
E04-06MF	1/4	11/16 - 16	26.5	1.04	54.5	2.15	19	3/4
E06-06MF	3/8	11/16 - 16	26.0	1.02	56.5	2.22	19	3/4
E06-08MF	3/8	13/16 - 16	28.0	1.10	58.5	2.30	22	7/8
E06-10MF	3/8	1 - 14	32.5	1.28	63.0	2.48	27	1 1/16
E08-08MF	1/2	13/16 - 16	29.0	1.14	62.0	2.44	22	7/8
E08-10MF	1/2	1 - 14	33.5	1.32	66.5	2.62	27	1 1/16
E08-12MF	1/2	13/16 - 12	35.0	1.38	68.0	2.68	32	1 1/4
E10-10MF	5/8	1 - 14	33.7	1.33	69.5	2.74	27	1 1/16
E10-12MF	5/8	13/16 - 12	35.2	1.39	71.0	2.80	32	1 1/4
E12-12MF	3/4	13/16 - 12	36.5	1.44	77.0	3.03	32	1 1/4
E12-16MF	3/4	1 7/16 - 12	37.0	1.46	77.5	3.05	41	1 5/8
E16-16MF	1	1 7/16 - 12	42.0	1.65	93.0	3.66	41	1 5/8
E20-20MF	1 1/4	1 11/16 - 12	43.0	1.69	101.0	3.98	46	1 13/16
E24-24MF	1 1/2	1 7/8 - 12	49.0	1.93	113.5	4.47	55	2 3/16

MFK

ORFS MALE BULKHEAD



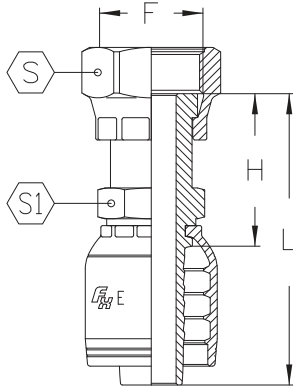
PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-04MFK	1/4	9/16 - 18	45.5	1.79	73.5	2.89	21	13/16
E04-06MFK	1/4	11/16 - 16	49.0	1.93	77.0	3.03	26	1
E06-06MFK	3/8	11/16 - 16	49.0	1.93	79.5	3.13	26	1
E06-08MFK	3/8	13/16 - 16	52.0	2.05	82.5	3.25	29	1 1/8
E08-06MFK	1/2	11/16 - 16	50.0	1.97	83.0	3.26	26	1
E08-08MFK	1/2	13/16 - 16	53.0	2.09	86.0	3.39	29	1 1/8
E10-10MFK	5/8	1 - 14	58.7	2.31	94.5	3.72	34	1 5/16
E12-12MFK	3/4	1 3/16 - 12	61.0	2.40	101.5	3.99	39	1 1/2

Reference Hose Section for Coupling Compatibility

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FF

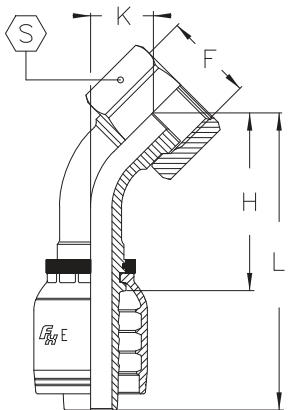
ORFS FEMALE SWIVEL



PART NUMBER	Hose Bore INCH	F	H		L		S		S1	
			[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-04FF	¼	9/16 - 18	26.5	1.04	54.5	2.14	17	11/16	14	9/16
E04-06FF	¼	11/16 - 16	28.5	1.12	56.5	2.22	22	7/8	16	5/8
E04-08FF	¼	13/16 - 16	32.5	1.27	60.5	2.38	24	1	19	3/4
E05-06FF	5/16	11/16 - 16	28.5	1.12	56.5	2.22	22	7/8	16	5/8
E06-04FF	3/8	9/16 - 18	26.5	1.04	57.0	2.24	17	11/16	16	5/8
E06-06FF	3/8	11/16 - 16	28.5	1.12	59.0	2.32	22	7/8	16	5/8
E06-08FF	3/8	13/16 - 16	32.5	1.27	63.0	2.48	24	1	19	3/4
E08-06FF	½	11/16 - 16	30.5	1.20	63.5	2.50	22	7/8	19	3/4
E08-08FF	½	13/16 - 16	33.5	1.31	66.5	2.61	24	1	19	3/4
E08-10FF	½	1 - 14	39.5	1.55	72.5	2.85	30	13/16	24	15/16
E08-12FF	½	13/16 - 12	43.5	1.71	76.5	3.01	36	17/16	27	11/16
E10-10FF	5/8	1 - 14	39.5	1.55	75.5	2.97	30	13/16	24	15/16
E10-12FF	5/8	13/16 - 12	43.5	1.71	79.5	3.12	36	17/16	27	11/16
E12-10FF	¾	1 - 14	41.5	1.63	82.0	3.22	30	13/16	27	11/16
E12-12FF	¾	13/16 - 12	44.5	1.75	85.0	3.34	36	17/16	27	11/16
E12-16FF	¾	17/16 - 12	47.5	1.87	88.0	3.46	41	15/8	36	17/16
E16-12FF	1	13/16 - 12	47.0	1.85	98.0	3.85	36	17/16	32	1¼
E16-16FF	1	17/16 - 12	49.0	1.92	100.0	3.93	41	15/8	36	17/16
E16-20FF	1	111/16 - 12	50.5	1.98	102.0	4.01	50	2	41	15/8
E20-20FF	1¼	111/16 - 12	51.0	2.00	109.0	4.29	50	2	41	15/8
E24-24FF	1½	2 - 12	54.5	2.14	119.0	4.68	60	23/8	50	2

FF45

ORFS FEMALE SWIVEL - 45° ELBOW



PART NUMBER	Hose Bore INCH	F	H		L		K		S	
			[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-04FF45	¼	9/16 - 18	32.5	1.27	60.5	2.38	10.5	0.41	17	11/16
E04-06FF45	¼	11/16 - 16	34.5	1.35	62.5	2.46	12.5	0.49	22	7/8
E05-06FF45	5/16	11/16 - 16	35.0	1.37	63.0	2.48	12.5	0.49	22	7/8
E06-04FF45	3/8	9/16 - 18	36.5	1.44	67.0	2.64	13.0	0.51	17	11/16
E06-06FF45	3/8	11/16 - 16	36.0	1.41	66.5	2.61	12.5	0.49	22	7/8
E06-08FF45	3/8	13/16 - 16	38.5	1.51	69.0	2.71	15.0	0.59	24	15/16
E08-06FF45	½	11/16 - 16	38.0	1.50	71.0	2.80	17.0	0.67	22	7/8
E08-08FF45	½	13/16 - 16	42.5	1.67	75.5	2.97	15.5	0.61	24	15/16
E08-10FF45	½	1 - 14	45.0	1.77	78.0	3.07	17.5	0.68	30	13/16
E08-12FF45	½	13/16 - 12	47.0	1.85	80.0	3.14	20.5	0.80	36	17/16
E10-10FF45	5/8	1 - 14	49.0	1.92	85.0	3.34	18.0	0.70	30	13/16
E10-12FF45	5/8	13/16 - 12	51.5	2.02	87.5	3.44	20.5	0.80	36	17/16
E12-10FF45	¾	1 - 14	63.5	2.50	104.0	4.09	25.5	1.00	30	13/16
E12-12FF45	¾	13/16 - 12	58.0	2.28	99.0	3.89	21.0	0.82	36	17/16
E12-16FF45	¾	17/16 - 12	60.5	2.38	101.0	3.97	23.5	0.92	41	15/8
E16-12FF45	1	13/16 - 12	59.0	2.32	110.0	4.33	21.0	0.82	36	17/16
E16-16FF45	1	17/16 - 12	73.0	2.87	124.0	4.88	24.0	0.94	41	15/8
E16-20FF45	1	111/16 - 12	76	2.99	127.0	5.00	28.0	1.10	50	2
E20-20FF45	1¼	111/16 - 12	84.0	3.30	142.0	5.59	27.0	1.06	50	2
E24-24FF45	1½	2 - 12	98.0	3.85	163.0	6.41	30.0	1.18	60	23/8

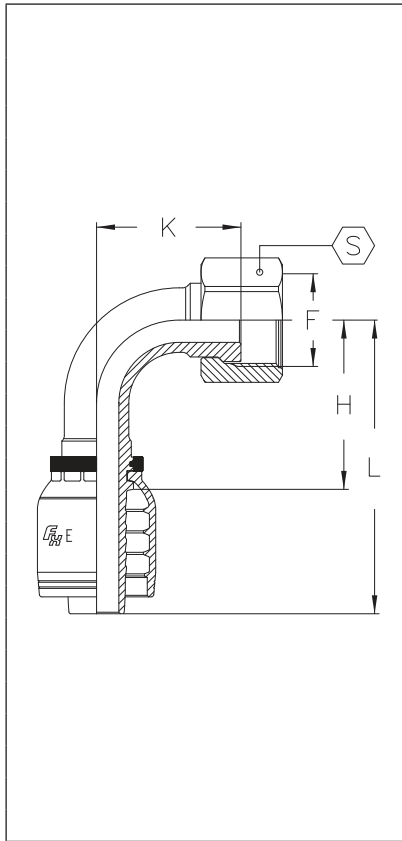
Reference Hose Section for Coupling Compatibility

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FF90S

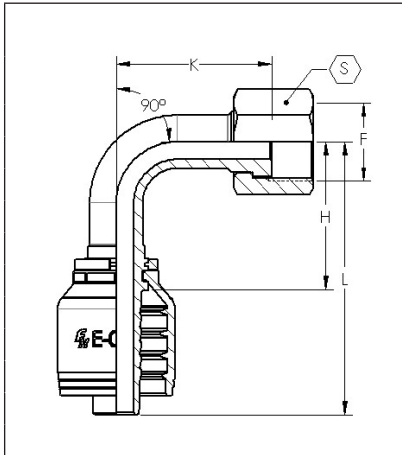
ORFS FEMALE SWIVEL - 90° ELBOW SHORT DROP



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E03-04FF90S	3/16	9/16 - 18	27.0	1.06	52.0	2.05	21.0	0.83	17	11/16
E04-04FF90S	1/4	9/16 - 18	27.0	1.06	55.0	2.17	21.0	0.83	17	11/16
E04-06FF90S	1/4	11/16 - 16	27.0	1.06	55.0	2.17	24.0	0.94	22	7/8
E04-08FF90S	1/4	13/16 - 16	38.5	1.52	66.5	2.62	31.0	1.22	24	15/16
E05-06FF90S	5/16	11/16 - 16	29.0	1.14	57.0	2.24	25.0	0.98	22	7/8
E06-04FF90S	3/8	9/16 - 18	30.0	1.18	60.5	2.38	22.0	0.87	17	11/16
E06-06FF90S	3/8	11/16 - 16	31.5	1.24	62.0	2.44	24.5	0.96	22	7/8
E06-08FF90S	3/8	13/16 - 16	30.5	1.20	61.0	2.40	30.0	1.18	24	15/16
E08-06FF90S	1/2	11/16 - 16	37.0	1.46	70.0	2.76	24.5	0.96	22	7/8
E08-08FF90S	1/2	13/16 - 16	39.0	1.54	72.0	2.83	31.0	1.22	24	15/16
E08-10FF90S	1/2	1 - 14	39.0	1.54	72.0	2.83	34.0	1.34	30	13/16
E08-12FF90S	1/2	13/16 - 12	39.0	1.54	72.0	2.83	42.0	1.65	36	17/16
E10-08FF90S	5/8	13/16 - 16	39.2	1.54	75.0	2.95	31.0	1.22	24	15/16
E10-10FF90S	5/8	1 - 14	45.0	1.77	81.0	3.19	35.0	1.38	30	13/16
E10-12FF90S	5/8	13/16 - 12	45.0	1.77	81.0	3.19	42.0	1.65	36	17/16
E12-10FF90S	3/4	1 - 14	43.0	1.69	83.5	3.29	35.0	1.38	30	13/16
E12-12FF90S	3/4	13/16 - 12	55.0	2.17	95.0	3.74	45.0	1.77	36	17/16
E12-16FF90S	3/4	17/16 - 12	55.0	2.17	95.0	3.74	49.0	1.93	41	15/8
E16-12FF90S	1	13/16 - 12	55.0	2.17	106.0	4.17	45.0	1.77	36	17/16
E16-16FF90S	1	17/16 - 12	71.0	2.79	122.0	4.80	55.0	2.17	41	15/8
E16-20FF90S	1	111/16 - 12	71.0	2.79	122.0	4.80	58.0	2.28	50	2
E20-20FF90S	1 1/4	111/16 - 12	86.0	3.39	143.0	5.63	63.0	2.48	50	2
E24-24FF90S	1 1/2	2 - 12	102.0	4.02	167.0	6.57	78.0	3.07	60	2 3/8

FF90M

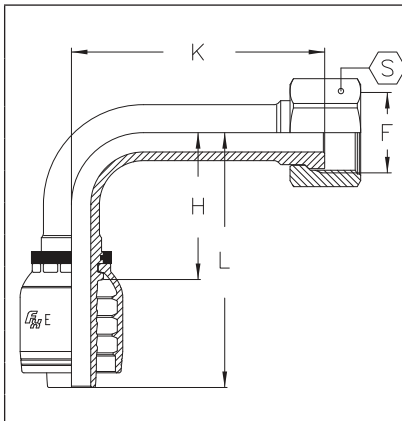
ORFS FEMALE SWIVEL - 90° ELBOW MEDIUM DROP



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-04FF90M	1/4	9/16 - 18	29.0	1.14	57.0	2.24	32.0	1.26	17	11/16
E04-06FF90M	1/4	11/16 - 16	27.0	1.06	55.0	2.17	38.0	1.50	22	7/8
E06-06FF90M	3/8	11/16 - 16	34.0	1.34	64.5	2.54	38.0	1.50	22	7/8
E06-08FF90M	3/8	13/16 - 16	34.0	1.34	64.5	2.54	41.0	1.61	24	15/16
E08-08FF90M	1/2	13/16 - 16	39.0	1.54	72.0	2.84	41.0	1.61	24	15/16
E08-10FF90M	1/2	1 - 14	39.0	1.54	72.0	2.84	47.0	1.85	30	13/16
E10-10FF90M	5/8	1 - 14	45.0	1.77	81.0	3.19	47.0	1.85	30	13/16
E12-10FF90M	3/4	1 - 14	54.0	2.13	94.0	3.70	52.0	2.05	30	13/16
E12-12FF90M	3/4	13/16 - 12	54.0	2.13	94.0	3.70	57.0	2.24	36	17/16
E16-12FF90M	1	13/16 - 12	55.0	2.17	106.0	4.17	57.0	2.24	36	17/16
E16-16FF90M	1	17/16 - 12	70.0	2.76	121.0	4.76	71.0	2.80	41	15/8

FF90L

ORFS FEMALE SWIVEL - 90° ELBOW LONG DROP



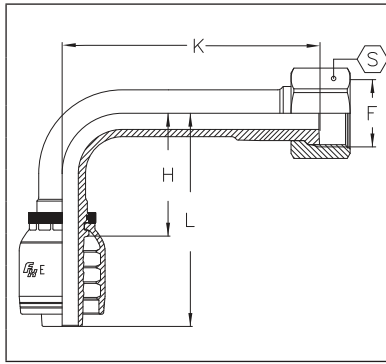
PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-04FF90L	1/4	9/16 - 18	29.0	1.14	57.0	2.24	46.0	1.81	17	11/16
E04-06FF90L	1/4	11/16 - 16	27.0	1.06	55.0	2.16	54.0	2.12	22	7/8
E06-06FF90L	3/8	11/16 - 16	34.0	1.33	64.5	2.53	54.0	2.12	22	7/8
E06-08FF90L	3/8	13/16 - 16	34.0	1.33	64.5	2.53	64.0	2.51	24	15/16
E08-08FF90L	1/2	13/16 - 16	39.0	1.53	72.0	2.83	64.0	2.51	24	15/16
E08-10FF90L	1/2	1 - 14	39.0	1.53	72.0	2.83	70.0	2.75	30	13/16
E10-10FF90L	5/8	1 - 14	45.0	1.77	81.0	3.18	70.0	2.75	30	13/16
E12-12FF90L	3/4	13/16 - 12	55.0	2.17	95.0	3.74	96.0	3.77	36	17/16
E16-16FF90L	1	17/16 - 12	71.0	2.79	122.0	4.80	114.0	4.48	41	15/8
E20-20FF90L	1 1/4	111/16 - 12	83.3	3.28	141.0	5.55	130.0	5.12	50	2

Reference Hose Section for Coupling Compatibility

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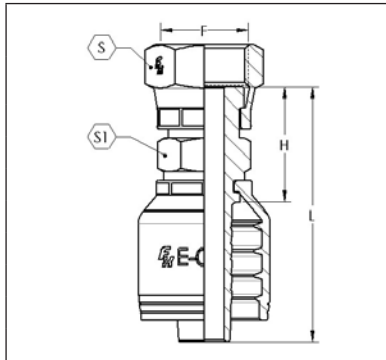


FF90LL ORFS FEMALE SWIVEL - 90° EXTRA LONG DROP



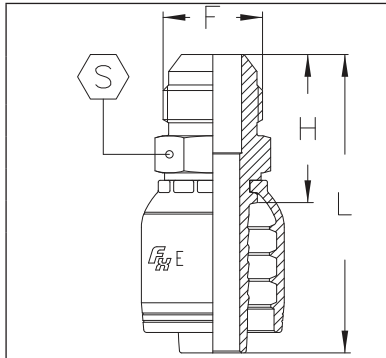
PART NUMBER	Hose Bore	F	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E08-08FF90LL	1/2	1 3/16 - 16	39.0	1.53	72.0	2.83	83.0	3.27	24	1 5/16

FFC ORFS FEMALE SWIVEL - COMPACT



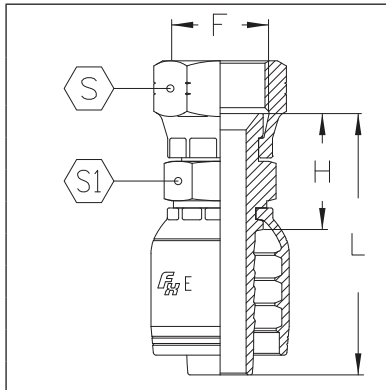
PART NUMBER	Hose Bore	F	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E06-06FFC	3/8	1 1/16 - 16	21.5	0.85	52.0	2.05	22	7/8	16	5/8
E06-08FFC	3/8	1 3/16 - 16	26.0	1.02	56.5	2.22	24	1	19	3/4
E08-08FFC	1/2	1 3/16 - 16	27.0	1.06	60.0	2.36	24	1	19	3/4
E10-10FFC	5/8	1 - 14	31.2	1.23	67.0	2.64	30	1 1/16	24	1 5/16
E10-12FFC	5/8	1 3/16 - 12	35.2	1.39	71.0	2.80	36	1 1/16	27	1 1/16

MA SAE 45° MALE



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-04MA	1/4	7/16 - 20	25.0	0.98	53.0	2.09	11	7/16
E05-06MA	5/16	5/8 - 18	28.2	1.11	56.2	2.21	16	5/8
E06-06MA	3/8	5/8 - 18	28.2	1.11	58.7	2.21	16	5/8
E08-08MA	1/2	3/4 - 16	34.0	1.34	67.0	2.63	19	3/4
E12-12MA	3/4	1 1/16 - 14	43.5	1.71	84.0	3.31	27	1 1/16

FA SAE 45° FEMALE SWIVEL



PART NUMBER	Hose Bore	F	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-06FA	1/4	5/8 - 18	23.0	0.90	51.0	2.01	22	7/8	16	5/8
E05-06FA	5/16	5/8 - 18	23.0	0.90	51.0	2.01	22	7/8	16	5/8
E06-06FA	3/8	5/8 - 18	23.0	0.90	53.5	2.11	22	7/8	16	5/8
E07-06FA	7/16	5/8 - 18	24.0	0.94	53.0	2.09	22	7/8	16	5/8
E10-12FA	5/8	1 1/16 - 14	31.0	1.22	66.8	2.63	32	1 1/4	25	1
E12-12FA	3/4	1 1/16 - 14	31.8	1.25	72.3	3.27	32	1 1/4	27	1 1/16

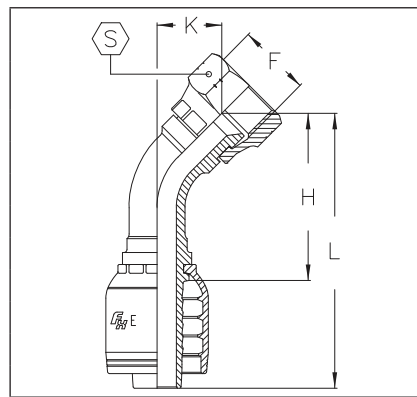
Reference Hose Section for Coupling Compatibility

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FA45

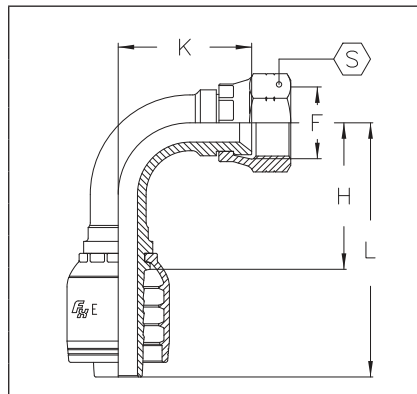
SAE 45° FEMALE SWIVEL - 45° ELBOW



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E05-06FA45	5/16	5/8 - 18	38.0	1.50	66.0	2.60	16.0	0.63	22	7/8
E06-06FA45	3/8	5/8 - 18	39.0	1.53	69.5	2.74	16.0	0.63	22	7/8
E12-12FA45	3/4	1 1/16 - 14	62.5	2.46	103.0	4.05	25.0	0.98	32	1 1/4

FA90

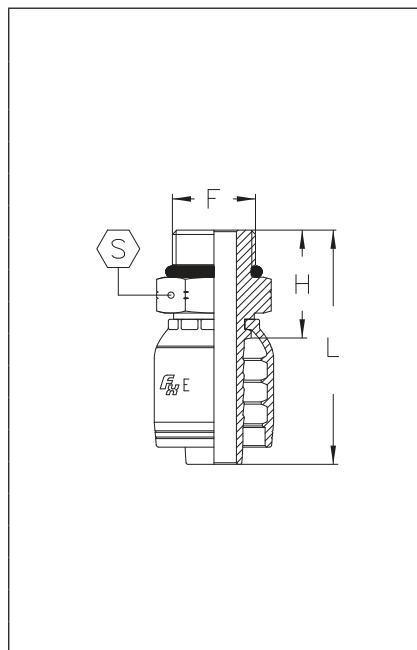
SAE 45° FEMALE SWIVEL - 90° ELBOW



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E05-06FA90	5/16	5/8 - 18	28.0	1.10	56.0	2.20	29.0	1.14	22	7/8
E06-06FA90	3/8	5/8 - 18	31.0	1.22	61.0	2.40	31.0	1.22	22	7/8
E12-12FA90	3/4	1 1/16 - 14	54.5	2.15	95.0	3.74	51.0	2.01	32	1 1/4

MOB

O-RING BOSS MALE



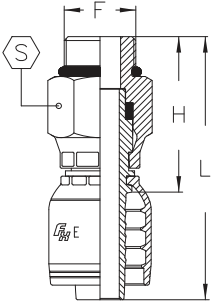
PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-04MOB	1/4	7/16 - 20	24.0	0.95	52.0	2.05	14	9/16
E04-05MOB	1/4	1/2 - 20	24.0	0.95	52.0	2.05	16	5/8
E04-06MOB	1/4	9/16 - 18	25.5	1.00	52.5	2.06	17	11/16
E04-08MOB	1/4	3/4 - 16	28.5	1.12	56.5	2.22	22	7/8
E05-05MOB	5/16	1/2 - 20	23.0	0.91	51.0	2.00	16	5/8
E05-06MOB	5/16	9/16 - 18	25.5	1.00	53.5	2.11	17	11/16
E06-06MOB	3/8	9/16 - 18	25.5	1.00	56.0	2.20	17	11/16
E06-08MOB	3/8	3/4 - 16	28.5	1.12	59.0	2.32	22	7/8
E06-10MOB	3/8	7/8 - 14	31.5	1.24	62.0	2.44	25	1
E08-08MOB	1/2	3/4 - 16	29.5	1.16	62.5	2.46	22	7/8
E08-10MOB	1/2	7/8 - 14	32.5	1.28	65.5	2.58	25	1
E08-12MOB	1/2	1 1/16 - 12	37.0	1.46	70.0	2.76	32	1 1/4
E10-10MOB	5/8	7/8 - 14	32.7	1.29	68.5	2.70	25	1
E10-12MOB	5/8	1 1/16 - 12	32.7	1.29	73.0	2.87	32	1 1/4
E12-12MOB	3/4	1 1/16 - 12	38.0	1.50	78.5	3.09	32	1 1/4
E12-16MOB	3/4	1 5/16 - 12	39.5	1.56	80.0	3.15	38	1 1/2
E16-16MOB	1	1 5/16 - 12	41.0	1.61	92.0	3.62	38	1 1/2

Reference Hose Section for Coupling Compatibility

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MOBX

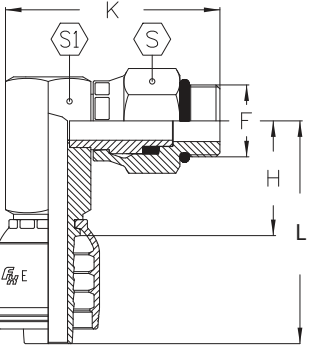
O-RING BOSS MALE SWIVEL



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-04MOBX	¼	7/16 - 20	43.8	1.72	71.8	2.83	16	5/8
E04-06MOBX	¼	9/16 - 18	44.0	1.73	72.0	2.83	19	¾
E04-08MOBX	¼	¾ - 16	46.5	1.83	74.5	2.93	22	7/8
E05-05MOBX	5/16	½ - 20	43.0	1.69	71.0	2.80	18	11/16
E05-06MOBX	5/16	9/16 - 18	43.5	1.71	71.5	2.81	19	¾
E06-04MOBX	3/8	7/16 - 20	42.8	1.69	73.3	2.89	16	5/8
E06-06MOBX	3/8	9/16 - 18	44.0	1.73	74.5	2.93	19	¾
E06-08MOBX	3/8	¾ - 16	46.0	1.81	76.5	3.01	22	7/8
E08-06MOBX	½	9/16 - 18	46.2	1.82	79.2	3.12	19	¾
E08-08MOBX	½	¾ - 16	48.5	1.91	81.5	3.21	22	7/8
E08-10MOBX	½	7/8 - 14	53.5	2.11	86.5	3.41	26	1½/32
E08-12MOBX	½	1¼ - 12	60.0	2.36	93.0	3.66	32	1¼
E10-10MOBX	5/8	7/8 - 14	53.7	2.11	89.5	3.52	26	1½/32
E12-08MOBX	¾	¾ - 16	49.5	1.95	90.0	3.54	22	7/8
E12-12MOBX	¾	1¼ - 12	60.5	2.38	101.0	3.98	32	1¼

MOBX90B

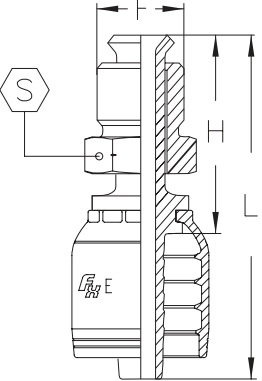
O-RING BOSS MALE SWIVEL - 90° BLOCK ELBOW



PART NUMBER	Hose Bore	F	H		L		K		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-04MOBX90B	¼	7/16 - 20	32.0	1.26	60.0	2.36	47.3	1.86	16	5/8	17	11/16
E04-06MOBX90B	¼	9/16 - 18	32.0	1.26	60.0	2.36	49.2	1.94	19	¾	17	11/16
E04-08MOBX90B	¼	¾ - 16	35.0	1.38	63.0	2.48	51.5	2.03	22	7/8	17	11/16
E06-04MOBX90B	3/8	7/16 - 20	32.0	1.26	62.5	2.46	47.3	1.86	16	5/8	17	11/16
E06-06MOBX90B	3/8	9/16 - 18	32.5	1.28	63.0	2.48	49.5	1.95	19	¾	17	11/16
E06-08MOBX90B	3/8	¾ - 16	32.5	1.28	63.0	2.48	51.5	2.03	22	7/8	17	11/16
E06-10MOBX90B	3/8	7/8 - 14	32.5	1.28	63.0	2.48	58.9	2.32	26	1½/32	19	¾
E08-08MOBX90B	½	¾ - 16	33.0	1.30	66.0	2.60	52.5	2.07	22	7/8	19	¾
E08-10MOBX90B	½	7/8 - 14	33.0	1.30	66.0	2.60	58.5	2.30	26	1½/32	19	¾
E10-10MOBX90B	5/8	7/8 - 14	33.2	1.31	69.0	2.72	60.2	2.37	26	1½/32	22	7/8
E12-12MOBX90B	¾	1¼ - 12	43.5	1.71	84.0	3.31	70.0	2.76	32	1¼	27	1¼

MIX

SAE INVERTED FLARE MALE SWIVEL



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-03MIX	¼	3/8 - 24	38.3	1.51	66.8	2.63	10	3/8
E04-04MIX	¼	7/16 - 24	39.1	1.54	67.8	2.67	11	7/16
E04-05MIX	¼	½ - 20	42.2	1.66	70.6	2.78	12	½
E06-04MIX	3/8	7/16 - 24	39.9	1.57	70.6	2.78	11	7/16
E06-05MIX	3/8	½ - 20	42.4	1.67	73.1	2.88	12	½
E06-06MIX	3/8	5/8 - 18	43.7	1.72	74.4	2.93	16	5/8
E06-07MIX	3/8	11/16 - 18	45.7	1.80	76.2	3.00	17	11/16
E06-08MIX	3/8	¾ - 18	48.5	1.91	79.2	3.12	19	¾
E08-08MIX	½	¾ - 18	49.0	1.93	82.3	3.24	19	¾
E08-10MIX	½	7/8 - 18	52.3	2.06	85.6	3.37	22	7/8

Reference Hose Section for Coupling Compatibility

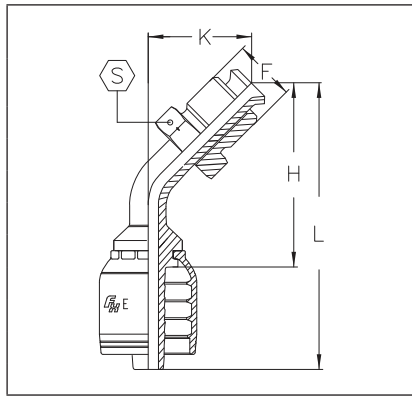
WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





MIX45

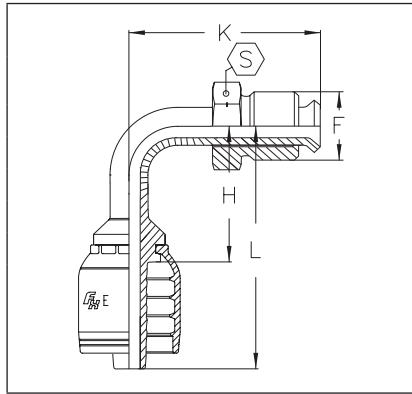
SAE INVERTED FLARE MALE SWIVEL - 45° ELBOW



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-03MIX45	1/4	3/8 - 24	41.6	1.64	70.1	2.76	13.5	0.53	10	3/8
E04-04MIX45	1/4	7/16 - 24	51.8	2.04	80.3	3.16	14.5	0.57	11	7/16
E04-05MIX45	1/4	1/4 - 20	52.1	2.05	81.5	3.21	16.5	0.65	12	1/2
E06-04MIX45	3/8	7/16 - 24	52.1	2.05	82.6	3.25	14.5	0.57	11	7/16
E06-05MIX45	3/8	1/2 - 20	50.0	1.97	80.5	3.17	16.5	0.65	12	1/2
E06-06MIX45	3/8	5/8 - 18	52.6	2.07	83.0	3.27	18.0	0.71	16	5/8
E06-07MIX45	3/8	11/16 - 18	57.4	2.26	87.9	3.46	19.3	0.76	17	11/16
E06-08MIX45	3/8	3/4 - 18	63.0	2.48	93.5	3.68	21.6	0.85	19	3/4
E08-08MIX45	1/2	3/4 - 18	64.8	2.55	97.8	3.85	21.6	0.85	19	3/4

MIX90

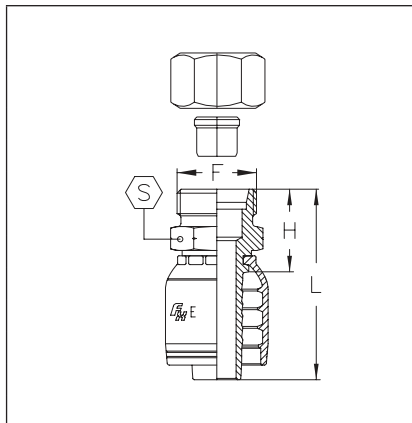
SAE INVERTED FLARE MALE SWIVEL - 90° ELBOW



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-03MIX90	1/4	3/8 - 24	32.5	1.28	61.0	2.40	24.6	0.97	10	3/8
E04-04MIX90	1/4	7/16 - 24	40.4	1.59	68.8	2.71	27.9	1.10	11	7/16
E04-05MIX90	1/4	1/4 - 20	42.7	1.68	71.1	2.80	32.5	1.28	12	1/2
E06-04MIX90	3/8	7/16 - 24	40.6	1.60	71.1	2.80	27.9	1.10	11	7/16
E06-05MIX90	3/8	1/2 - 20	43.4	1.71	73.9	2.91	32.5	1.28	12	1/2
E06-06MIX90	3/8	5/8 - 18	48.3	1.90	78.7	3.10	36.8	1.45	16	5/8
E06-07MIX90	3/8	11/16 - 18	53.3	2.10	83.8	3.30	40.6	1.60	17	11/16
E06-08MIX90	3/8	3/4 - 18	55.6	2.19	86.1	3.39	45.2	1.78	19	3/4
E08-08MIX90	1/2	3/4 - 18	56.1	2.21	89.1	3.51	45.2	1.78	19	3/4

MRNS

SAE FLARELESS MALE ASSEMBLY



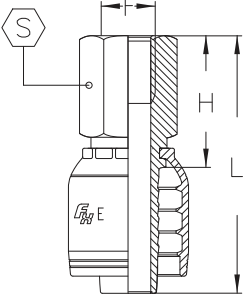
PART NUMBER	Hose Bore	F	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-04MRNS	1/4	7/16 - 20	24.0	0.94	51.0	2.01	14	9/16	14	9/16
E04-05MRNS	1/4	1/2 - 20	25.3	1.00	53.0	2.09	17	11/16	16	5/8
E06-05MRNS	3/8	1/2 - 20	26.0	1.02	55.6	2.19	17	11/16	16	5/8
E06-06MRNS	3/8	9/16 - 18	26.8	1.05	55.6	2.19	17	11/16	17	11/16
E06-08MRNS	3/8	3/4 - 16	30.0	1.18	58.5	2.30	19	3/4	22	7/8
E08-08MRNS	1/2	3/4 - 16	30.4	1.20	61.3	2.41	19	3/4	22	7/8
E08-10MRNS	1/2	7/8 - 14	32.3	1.27	63.4	2.50	24	15/16	25	1
E08-12MRNS	1/2	11/16 - 12	33.0	1.30	66.0	2.60	27	11/16	32	1 1/4
E12-12MRNS	3/4	11/16 - 12	35.7	1.40	74.7	2.94	27	11/16	32	1 1/4
E16-16MRNS	1	1 3/8 - 12	36.7	1.44	87.7	3.45	36	1 1/16	38	1 1/2

Reference Hose Section for Coupling Compatibility

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FG

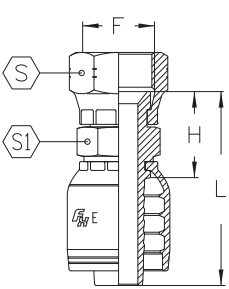
FEMALE GREASE



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-08FG	¼	½ - 27	23.5	0.92	44.0	1.73	19	¾
E06-08FG	⅜	½ - 27	23.5	0.92	48.0	1.89	19	¾

FJIS

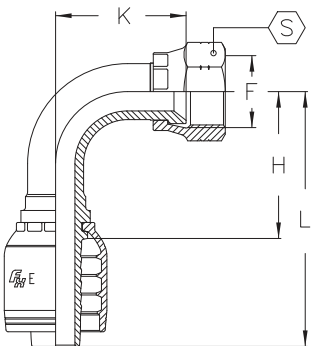
JIS FEMALE SWIVEL (TOYOTA)



PART NUMBER	Hose Bore	F	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-04FJIS	¼	¼ - 19	24.0	0.94	52.0	2.05	19	¾	14	⅑
E06-06FJIS	⅜	⅜ - 19	26.0	1.02	57.0	2.24	22	⅞	17	⅒
E08-08FJIS	½	½ - 14	30.0	1.18	63.0	2.48	27	1 ¼	22	⅞
E12-12FJIS	¾	¾ - 14	36.0	1.42	76.0	2.99	32	1 ¼	27	1 ¼
E16-16FJIS	1	1 - 11	40.0	1.57	91.0	3.58	41	1 ⅝	32	1 ¼


FJIS90

JIS FEMALE SWIVEL - 90° ELBOW



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-04FJIS90	¼	¼ - 19	27.0	1.06	53.0	2.08	27.0	1.06	19	¾
E06-06FJIS90	⅜	⅜ - 19	30.0	1.18	63.0	2.48	29.0	1.14	22	⅞
E08-08FJIS90	½	½ - 14	41.0	1.61	70.0	2.75	38.0	1.49	27	1 ¼

Reference Hose Section for Coupling Compatibility

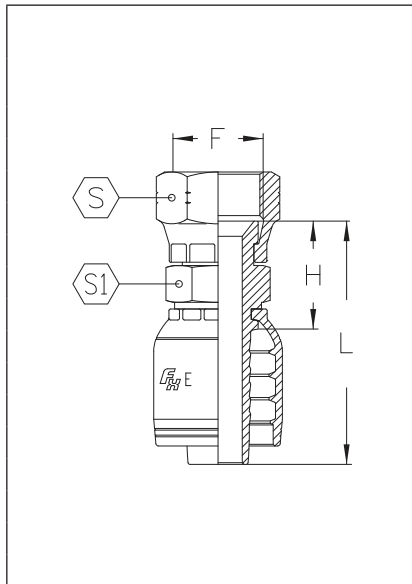
 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





FK

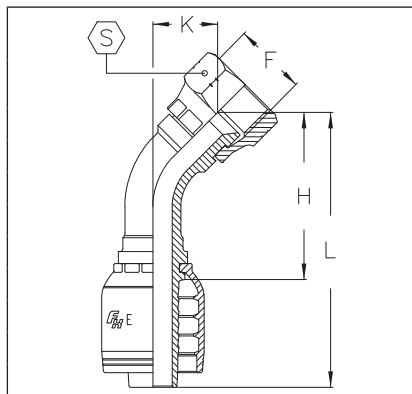
KOMATSU FEMALE SWIVEL



PART NUMBER	Hose Bore	F	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-14FK	1/4	M14 x 1.5	24.0	0.94	52.5	2.06	19	3/4	19	3/4
E04-18FK	1/4	M18 x 1.5	24.0	0.94	52.5	2.06	24	15/16	19	3/4
E06-14FK	3/8	M14 x 1.5	24.0	0.94	54.5	2.14	19	3/4	19	3/4
E06-16FK	3/8	M16 x 1.5	22.2	0.87	52.7	2.07	22	7/8	19	3/4
E06-18FK	3/8	M18 x 1.5	24.3	0.95	54.8	2.15	24	15/16	19	3/4
E06-20FK	3/8	M20 x 1.5	29.0	1.14	59.0	2.32	25	1	22	7/8
E06-22FK	3/8	M22 x 1.5	29.0	1.14	59.0	2.32	27	1 1/16	22	7/8
E08-18FK	1/2	M18 x 1.5	26.0	1.02	59.0	2.32	24	15/16	22	7/8
E08-22FK	1/2	M22 x 1.5	26.5	1.04	59.5	2.34	27	1 1/16	27	1 1/16
E08-24FK	1/2	M24 x 1.5	29.9	1.17	62.9	2.47	32	1 1/4	32	1 1/4
E10-24FK	5/8	M24 x 1.5	29.9	1.17	65.9	2.59	32	1 1/4	32	1 1/4
E12-30FK	3/4	M30 x 1.5	33.0	1.29	74.0	2.91	36	1 7/16	36	1 7/16
E12-33FK	3/4	M33 x 1.5	34.5	1.35	76.5	3.01	41	1 5/8	36	1 7/16
E16-33FK	1	M33 x 1.5	34.5	1.35	89.5	3.52	41	1 5/8	36	1 7/16
E16-36FK	1	M36 x 1.5	39.0	1.53	90.5	3.56	46	1 13/16	41	1 5/8

FK45

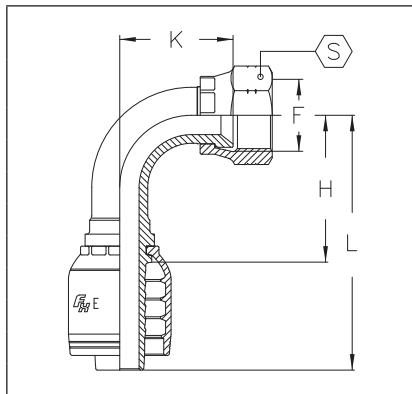
KOMATSU FEMALE SWIVEL- 45° ELBOW



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-14FK45	1/4	M14 x 1.5	34.0	1.33	62.0	2.44	16.0	0.62	19	3/4
E04-18FK45	1/4	M18 x 1.5	33.0	1.29	61.0	2.40	16.0	0.62	24	15/16
E06-18FK45	3/8	M18 x 1.5	41.0	1.61	71.5	2.81	19.0	0.74	24	15/16
E08-22FK45	1/2	M22 x 1.5	53.5	2.10	86.5	3.40	25.0	0.98	27	1 1/16
E10-24FK45	5/8	M24 x 1.5	54.0	2.12	89.8	3.53	26.0	1.02	32	1 1/4
E12-30FK45	3/4	M30 x 1.5	59.5	2.34	100.0	3.93	28.0	1.10	36	1 7/16

FK90

KOMATSU FEMALE SWIVEL- 90° ELBOW



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-14FK90	1/4	M14 x 1.5	25.0	0.98	53.0	2.08	28.0	1.10	19	3/4
E04-16FK90	1/4	M16 x 1.5	29.0	1.14	54.0	2.12	29.0	1.14	19	3/4
E04-18FK90	1/4	M18 x 1.5	24.0	0.94	52.0	2.04	30.0	1.18	24	15/16
E06-18FK90	3/8	M18 x 1.5	31.0	1.22	61.5	2.42	37.0	1.45	24	15/16
E08-22FK90	1/2	M22 x 1.5	41.0	1.61	74.0	2.91	48.0	1.88	27	1 1/16
E10-24FK90	5/8	M24 x 1.5	42.0	1.65	77.8	3.06	50.0	1.96	32	1 1/4
E12-30FK90	3/4	M30 x 1.5	48.5	1.90	89.0	3.50	57.0	2.24	36	1 7/16

Reference Hose Section for Coupling Compatibility

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FLK

KOMATSU FLANGE

PART NUMBER	Hose Bore	FLANGE	A		H		L	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
	E08-10FLK		1/2	34mm x .265	34.0	1.34	49.0	1.93
E10-10FLK	5/8	34mm x .265	34.0	1.34	49.2	1.94	85.0	3.35

FLK45

KOMATSU FLANGE - 45° ELBOW

PART NUMBER	Hose Bore	FLANGE	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
	E08-10FLK45		1/2	34mm x .265	34.0	1.34	71.0	2.79	104.0	4.09
E10-10FLK45	5/8	34mm x .265	34.0	1.34	74.2	2.92	110.0	4.33	30.0	1.18

FLK90

KOMATSU FLANGE - 90° ELBOW

PART NUMBER	Hose Bore	FLANGE	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
	E08-10FLK90-044		1/2	34mm x .265	34.0	1.34	38.0	1.50	71.0	2.80
E10-10FLK90-049	5/8	34mm x .265	34.0	1.34	45.0	1.77	85.0	3.35	44.0	1.73

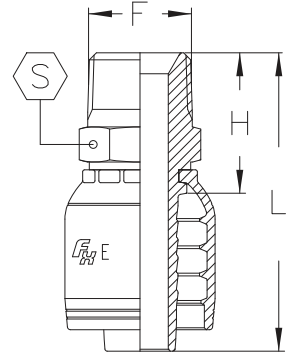
Reference Hose Section for Coupling Compatibility

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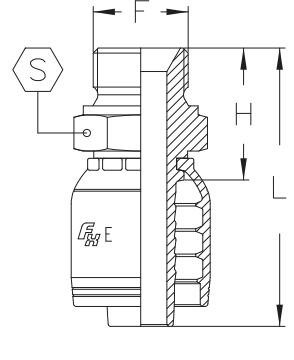


MBSPT BSPT MALE



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-02MBSPT	1/4	1/8 - 28	21.0	0.83	49.0	1.93	12	1/2
E04-04MBSPT	1/4	1/4 - 19	25.0	0.98	53.0	2.09	15	5/8
E04-06MBSPT	1/4	3/8 - 19	26.0	1.02	54.0	2.13	19	3/4
E05-06MBSPT	5/16	3/8 - 19	26.0	1.02	54.0	2.13	19	3/4
E06-04MBSPT	3/8	1/4 - 19	26.0	1.02	56.4	2.22	15	5/8
E06-06MBSPT	3/8	3/8 - 19	27.0	1.06	57.5	2.26	19	3/4
E06-08MBSPT	3/8	1/2 - 14	32.0	1.26	62.5	2.46	22	7/8
E08-06MBSPT	1/2	3/8 - 19	28.0	1.10	61.0	2.52	19	3/4
E08-08MBSPT	1/2	1/2 - 14	33.0	1.30	66.0	2.60	22	7/8
E10-12MBSPT	5/8	3/4 - 14	35.0	1.38	70.8	2.79	27	1 1/16
E12-12MBSPT	3/4	3/4 - 14	36.0	1.41	76.5	3.01	27	1 1/16
E16-16MBSPT	1	1 - 11	43.0	1.69	94.0	3.70	36	1 7/16

MBSPP BSPP MALE



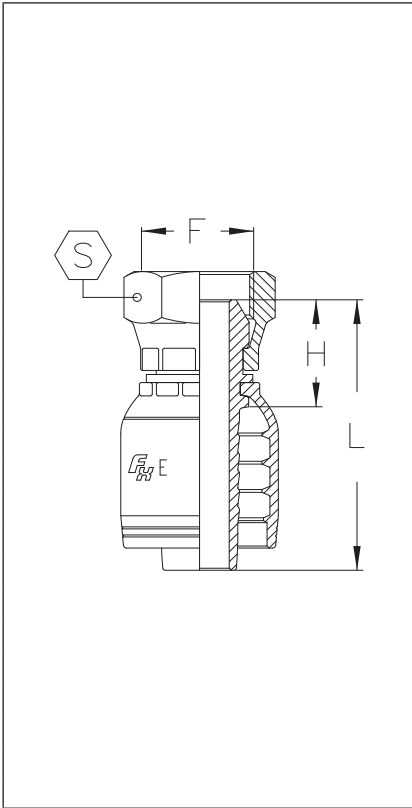
PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-04MBSPP	1/4	1/4 - 19	25.0	0.98	53.0	2.09	19	3/4
E04-06MBSPP	1/4	3/8 - 19	27.0	1.06	55.0	2.16	22	7/8
E04-08MBSPP	1/4	1/2 - 14	32.0	1.26	60.0	2.36	27	1 1/16
E06-04MBSPP	3/8	1/4 - 19	24.5	0.96	55.0	2.16	19	3/4
E06-06MBSPP	3/8	3/8 - 19	27.5	1.08	58.0	2.28	22	7/8
E06-08MBSPP	3/8	1/2 - 14	31.5	1.24	62.0	2.44	27	1 1/16
E08-06MBSPP	1/2	3/8 - 19	28.0	1.10	61.0	2.40	22	7/8
E08-08MBSPP	1/2	1/2 - 14	33.0	1.30	66.0	2.60	27	1 1/16
E08-10MBSPP	1/2	5/8 - 14	35.0	1.38	68.0	2.68	30	1 3/16
E08-12MBSPP	1/2	3/4 - 14	36.0	1.42	69.0	2.72	32	1 1/4
E10-08MBSPP	5/8	1/2 - 14	34.2	1.35	70.0	2.76	27	1 1/16
E10-10MBSPP	5/8	5/8 - 14	35.0	1.38	71.0	2.79	30	1 3/16
E10-12MBSPP	5/8	3/4 - 14	36.0	1.42	72.0	2.83	32	1 1/4
E12-12MBSPP	3/4	3/4 - 14	36.5	1.44	77.0	3.03	32	1 1/4
E12-16MBSPP	3/4	1 - 11	41.5	1.63	82.0	3.23	41	1 5/8
E16-16MBSPP	1	1 - 11	43.5	1.71	94.5	3.72	41	1 5/8
E16-20MBSPP	1	1 1/4 - 11	46.0	1.81	97.0	3.82	50	2
E20-20MBSPP	1 1/4	1 1/4 - 11	47.3	1.86	105.0	4.13	50	2
E20-24MBSPP	1 1/4	1 1/2 - 11	50.3	1.98	108.0	4.25	55	1 5/32
E24-24MBSPP	1 1/2	1 1/2 - 11	50.5	1.99	115.0	4.53	55	1 5/32
E24-32MBSPP	1 1/2	2 - 11	54.5	2.15	119.0	4.69	70	2 3/4
E32-32MBSPP	2	2 - 11	56.0	2.20	126.0	4.96	70	2 3/4

Reference Hose Section for Coupling Compatibility

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FBSP

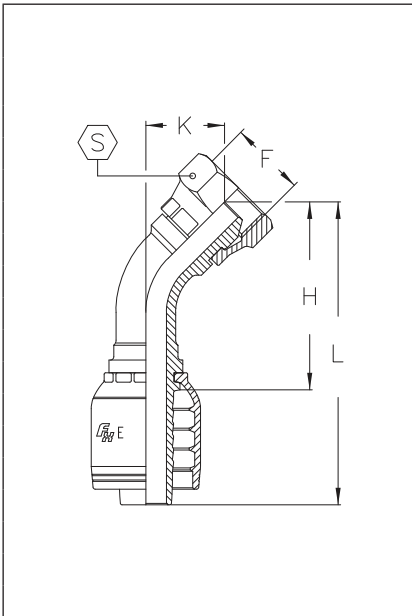
BSPP FEMALE SWIVEL



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-02FBSP	1/4	1/8 - 28	19.0	0.75	47.0	1.85	14	9/16
E04-04FBSP	1/4	1/4 - 19	19.0	0.75	47.0	1.85	19	3/4
E04-06FBSP	1/4	3/8 - 19	22.0	0.87	50.0	1.97	22	7/8
E05-06FBSP	5/16	3/8 - 19	22.0	0.87	50.0	1.97	22	7/8
E05-08FBSP	5/16	1/2 - 14	23.0	0.90	51.0	2.01	27	1 1/16
E06-04FBSP	3/8	1/4 - 19	18.5	0.73	49.0	1.93	19	3/4
E06-06FBSP	3/8	3/8 - 19	20.5	0.81	51.0	2.01	22	7/8
E06-08FBSP	3/8	1/2 - 14	23.5	0.93	54.0	2.12	27	1 1/16
E08-06FBSP	1/2	3/8 - 19	23.0	0.91	56.0	2.20	22	7/8
E08-08FBSP	1/2	1/2 - 14	23.0	0.90	56.0	2.20	27	1 1/16
E08-10FBSP	1/2	5/8 - 14	24.0	0.94	57.0	2.24	30	1 3/16
E08-12FBSP	1/2	3/4 - 14	27.0	1.06	60.0	2.36	32	1 1/4
E10-08FBSP	5/8	1/2 - 14	23.0	0.90	59.0	2.32	27	1 1/16
E10-10FBSP	5/8	5/8 - 14	23.0	0.90	59.0	2.32	30	1 3/16
E10-12FBSP	5/8	3/4 - 14	27.0	1.06	63.0	2.48	32	1 1/4
E12-12FBSP	3/4	3/4 - 14	26.5	1.04	67.0	2.64	32	1 1/4
E12-16FBSP	3/4	1 - 11	29.5	1.16	70.0	2.75	41	1 5/8
E16-12FBSP	1	3/4 - 14	28.0	1.10	79.0	3.11	32	1 1/4
E16-16FBSP	1	1 - 11	30.0	1.18	81.0	3.19	41	1 5/8
E16-20FBSP	1	1 1/4 - 11	35.0	1.38	86.0	3.38	50	2
E20-20FBSP	1 1/4	1 1/4 - 11	34.3	1.35	92.0	3.62	50	2
E24-24FBSP	1 1/2	1 1/2 - 11	34.5	1.36	99.0	3.90	55	2 1/4

FBSP45

BSPP FEMALE SWIVEL - 45° ELBOW



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-02FBSP45	1/4	1/8 - 28	36.0	1.42	64.0	2.52	16.0	0.63	14	9/16
E04-04FBSP45	1/4	1/4 - 19	37.0	1.46	65.0	2.56	15.3	0.60	19	3/4
E04-06FBSP45	1/4	3/8 - 19	40.0	1.57	68.0	2.68	19.0	0.75	22	7/8
E06-06FBSP45	3/8	3/8 - 19	42.0	1.65	73.0	2.87	19.0	0.75	22	7/8
E06-08FBSP45	3/8	1/2 - 14	44.0	1.73	75.0	2.95	21.0	0.83	27	1 1/16
E08-06FBSP45	1/2	3/8 - 19	49.0	1.93	82.0	3.23	22.0	0.87	22	7/8
E08-08FBSP45	1/2	1/2 - 14	49.0	1.93	82.0	3.23	22.0	0.87	27	1 1/16
E08-10FBSP45	1/2	5/8 - 14	49.0	1.93	82.0	3.23	22.0	0.87	30	1 3/16
E08-12FBSP45	1/2	3/4 - 14	53.0	2.09	86.0	3.39	26.0	1.02	32	1 1/4
E10-10FBSP45	5/8	5/8 - 14	54.0	2.12	89.8	3.54	24.0	0.94	30	1 3/16
E10-12FBSP45	5/8	3/4 - 14	57.0	2.24	93.0	3.66	26.0	1.02	32	1 1/4
E12-12FBSP45	3/4	3/4 - 14	65.5	2.58	106.0	4.17	28.0	1.10	32	1 1/4
E16-12FBSP45	1	3/4 - 14	87.0	3.43	138.0	5.43	38.0	1.50	32	1 1/4
E16-16FBSP45	1	1 - 11	84.0	3.31	135.0	5.31	36.0	1.42	41	1 5/8
E20-20FBSP45	1 1/4	1 1/4 - 11	99.3	3.91	157.0	6.18	43.0	1.69	50	2
E24-24FBSP45	1 1/4	1 1/2 - 11	115.5	4.55	180.0	7.09	49.0	1.93	55	2 1/4

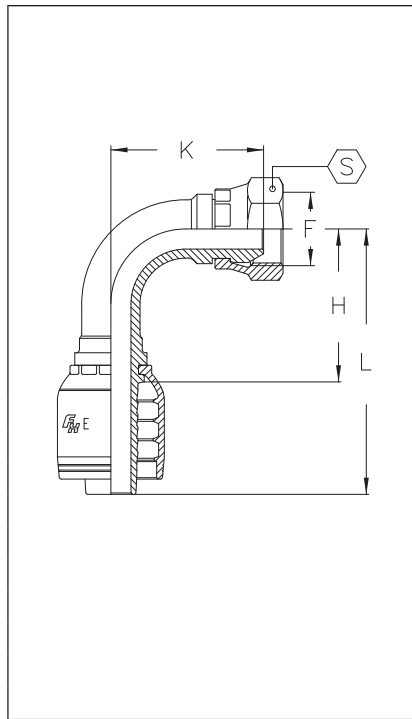
Reference Hose Section for Coupling Compatibility

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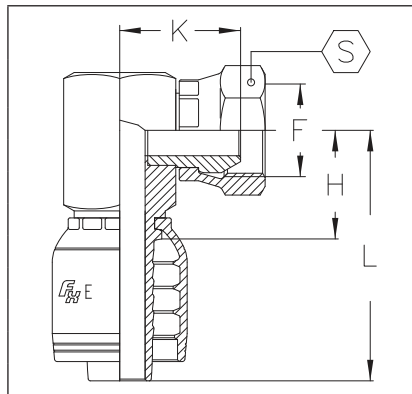


FBSPP90 BSPP FEMALE SWIVEL - 90° ELBOW



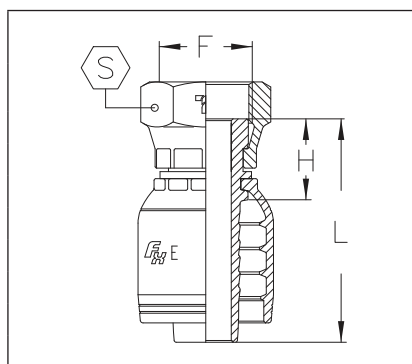
PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-02FBSPP90	¼	⅙ - 28	26.0	1.02	54.0	2.12	28.0	1.10	14	⅝
E04-04FBSPP90	¼	¼ - 19	26.0	1.02	54.0	2.12	28.0	1.10	19	¾
E04-06FBSPP90	¼	⅜ - 19	26.0	1.02	54.0	2.12	32.0	1.26	22	⅞
E05-06FBSPP90	⅝	⅜ - 19	28.0	1.10	56.0	2.20	34.0	1.34	22	⅞
E06-04FBSPP90	⅜	¼ - 19	31.0	1.22	61.0	2.40	34.0	1.34	19	¾
E06-06FBSPP90	⅜	⅜ - 19	31.0	1.22	61.0	2.40	35.0	1.38	22	⅞
E06-08FBSPP90	⅜	½ - 14	31.0	1.22	61.0	2.40	38.0	1.50	27	1 ⅙
E08-06FBSPP90	½	⅜ - 19	37.0	1.46	70.0	2.75	42.0	1.65	22	⅞
E08-08FBSPP90	½	½ - 14	37.0	1.46	70.0	2.75	42.0	1.65	27	1 ⅙
E08-10FBSPP90	½	⅝ - 14	37.0	1.46	70.0	2.75	43.0	1.69	30	1 ⅙
E08-12FBSPP90	½	¾ - 14	37.0	1.46	70.0	2.75	48.0	1.89	32	1 ¼
E10-10FBSPP90	⅝	⅝ - 14	45.0	1.77	80.0	3.15	46.0	1.81	30	1 ⅙
E10-12FBSPP90	⅝	¾ - 14	45.0	1.77	80.0	3.15	50.0	1.97	32	1 ¼
E12-12FBSPP90	¾	¾ - 14	54.0	2.12	95.0	3.74	56.0	2.20	32	1 ¼
E12-16FBSPP90	¾	1 - 11	54.0	2.12	95.0	3.74	59.0	2.32	41	1 ⅝
E16-12FBSPP90	1	¾ - 14	70.0	2.76	121.0	4.76	75.0	2.95	32	1 ¼
E16-16FBSPP90	1	1 - 11	70.0	2.76	121.0	4.76	72.0	2.83	41	1 ⅝
E20-20FBSPP90	1 ¼	1 ¼ - 11	84.3	3.32	142.0	5.59	87.0	3.43	50	2
E24-24FBSPP90	1 ½	1 ½ - 11	100.5	3.96	165.0	6.50	100.0	3.94	55	2 ¼

FBSPP90B BSPP FEMALE SWIVEL - 90° BLOCK ELBOW



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-04FBSPP90B	¼	¼ - 19	18.0	0.71	46.0	1.81	23.0	0.90	19	¾
E06-06FBSPP90B	⅜	⅜ - 19	21.0	0.83	52.0	2.05	26.0	1.02	22	⅞
E08-08FBSPP90B	½	½ - 14	24.0	0.94	57.0	2.24	28.0	1.10	27	1 ⅙
E12-12FBSPP90B	¾	¾ - 14	31.0	1.22	72.0	2.83	35.0	1.38	32	1 ¼
E16-16FBSPP90B	1	1 - 11	38.0	1.50	89.0	3.50	41.0	1.61	41	1 ⅝

FBSPPFF BSP FLAT FACE FEMALE SWIVEL



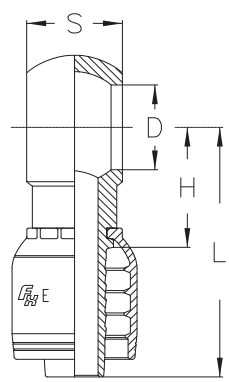
PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-04FBSPPFF	¼	¼ - 19	15.0	0.59	43.0	1.69	19	¾
E04-06FBSPPFF	¼	⅜ - 19	18.0	0.71	46.0	1.81	22	⅞
E06-06FBSPPFF	⅜	⅜ - 19	17.0	0.67	47.0	1.85	22	⅞
E06-08FBSPPFF	⅜	½ - 14	19.0	0.75	49.0	1.93	27	1 ⅙
E08-08FBSPPFF	½	½ - 14	19.0	0.75	52.0	2.05	27	1 ⅙
E08-12FBSPPFF	½	¾ - 14	23.0	0.90	56.0	2.20	32	1 ¼
E10-10FBSPPFF	⅝	⅝ - 14	20.0	0.79	56.0	2.20	30	1 ⅙
E12-12FBSPPFF	¾	¾ - 14	22.0	0.87	63.0	2.48	32	1 ¼

Reference Hose Section for Coupling Compatibility

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BJBSP

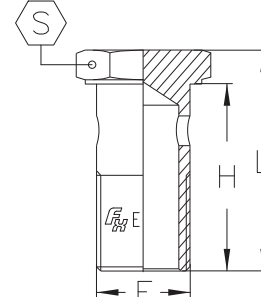
BSP BANJO



PART NUMBER	Hose Bore	F	D		H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-02BJBSP	1/4	1/8 - 28	10.2	0.40	23.0	0.90	51.0	2.01	10.0	0.39
E04-04BJBSP	1/4	1/4 - 19	13.3	0.52	23.0	0.90	51.0	2.01	14.0	0.55
E04-06BJBSP	1/4	3/8 - 19	16.8	0.66	26.5	1.04	54.5	2.14	17.5	0.69
E06-04BJBSP	3/8	1/4 - 19	13.3	0.52	24.0	0.94	54.5	2.14	14.0	0.55
E06-06BJBSP	3/8	3/8 - 19	16.8	0.66	24.0	0.94	54.5	2.14	17.5	0.69
E06-08BJBSP	3/8	1/2 - 14	21.0	0.83	32.0	1.26	62.5	2.46	23.0	0.91
E08-06BJBSP	1/2	3/8 - 19	16.8	0.66	26.5	1.04	59.5	2.34	17.5	0.69
E08-08BJBSP	1/2	1/2 - 14	21.0	0.83	28.5	1.12	61.5	2.42	23.0	0.91
E10-10BJBSP	5/8	5/8 - 14	23.1	0.91	28.2	1.11	64.0	2.52	23.5	0.93
E12-12BJBSP	3/4	3/4 - 14	26.5	1.04	37.5	1.48	78.0	3.07	29.5	1.16
E16-16BJBSP	1	1 - 11	33.5	1.32	49.0	1.93	100.0	3.94	37.5	1.48

BJBSPBT

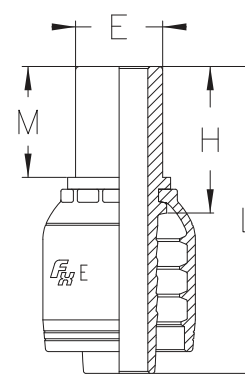
BSP BANJO BOLT



PART NUMBER	F	H		L		S	
		[mm]	[in]	[mm]	[in]	[mm]	[in]
02BJBSPBT	1/8 - 28	26.0	1.02	21.5	0.85	14	9/16
04BJBSPBT	1/4 - 19	34.3	1.35	29.5	1.16	19	3/4
06BJBSPBT	3/8 - 19	40.5	1.59	34.0	1.34	22	7/8
08BJBSPBT	1/2 - 14	46.0	1.81	36.0	1.42	27	1 1/16
10BJBSPBT	5/8 - 14	55.0	2.16	45.5	1.79	30	1 3/16
12BJBSPBT	3/4 - 14	56.0	2.20	48.0	1.89	32	1 1/4
16BJBSPBT	1 - 11	69.0	2.72	59.0	2.32	41	1 5/8

SPML

METRIC STANDPIPE LIGHT



PART NUMBER	Hose Bore	E		H		M		L	
	INCH	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-06SPML	1/4	6	3/8	27.5	1.08	21.0	0.83	55.5	2.19
E04-08SPML	1/4	8	1/2	29.5	1.16	23.0	0.90	57.5	2.26
E04-10SPML	1/4	10	5/8	31.5	1.24	25.0	0.98	59.5	2.34
E05-10SPML	5/16	10	5/8	31.5	1.24	25.0	0.98	59.5	2.34
E06-10SPML	3/8	10	5/8	28.5	1.12	22.0	0.87	59.0	2.32
E06-12SPML	3/8	12	3/4	31.5	1.24	25.0	0.98	62.0	2.44
E08-15SPML	1/2	15	19/32	31.5	1.24	24.0	0.94	64.5	2.54
E08-16SPML	1/2	16	41/64	36.5	1.44	29.0	1.14	69.5	2.74
E10-18SPML	5/8	18	23/32	33.5	1.32	26.0	1.02	69.5	2.74
E10-20SPML	5/8	20	51/64	42.5	1.67	35.0	1.38	78.5	3.09
E12-20SPML	3/4	20	51/64	44.0	1.73	35.0	1.38	84.5	3.33
E12-22SPML	3/4	22	7/8	37.0	1.46	28.0	1.10	77.5	3.05
E12-25SPML	3/4	25	63/64	48.0	1.89	39.0	1.53	88.5	3.48
E12-28SPML	3/4	28	1 1/8	37.0	1.46	31.0	1.22	77.5	3.05
E16-25SPML	1	25	63/64	49.5	1.95	39.0	1.53	100.5	3.96
E16-28SPML	1	28	1 1/8	39.5	1.56	29.0	1.14	90.5	3.56
E16-30SPML	1	30	1 3/16	53.5	2.11	43.0	1.69	104.5	4.11

Reference Hose Section for Coupling Compatibility

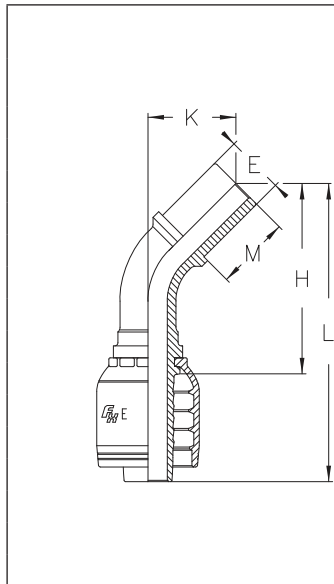
! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





SPML45

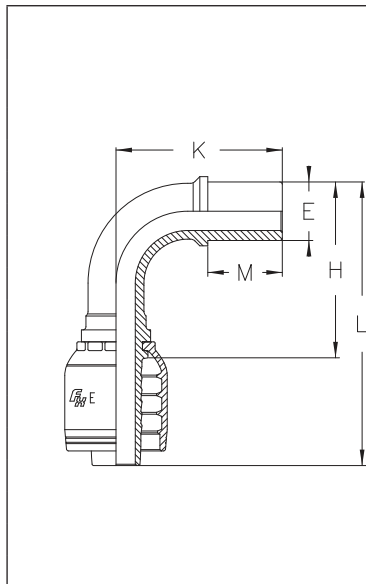
METRIC STANDPIPE LIGHT - 45° ELBOW



PART NUMBER	Hose Bore	E		H		M		L		K	
	INCH	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-06SPML45	¼	6	¾	44.0	1.73	21.0	0.83	72.0	2.83	24.0	0.94
E04-08SPML45	¼	8	½	44.0	1.73	23.0	0.90	72.0	2.83	24.0	0.94
E04-10SPML45	¼	10	⅝	46.0	1.81	25.0	0.98	74.0	2.91	25.0	0.98
E05-10SPML45	⅝ ₁₆	10	⅝	48.0	1.89	25.0	0.98	76.0	2.99	26.0	1.02
E05-12SPML45	⅝ ₁₆	12	¾	48.0	1.89	25.0	0.98	76.0	2.99	26.0	1.02
E06-10SPML45	¾	10	⅝	49.0	1.93	22.0	0.87	80.0	3.15	26.0	1.02
E06-12SPML45	¾	12	¾	50.0	1.97	25.0	0.98	80.0	3.15	27.0	1.06
E08-15SPML45	½	15	19 ₃₂	55.0	2.17	24.0	0.94	88.0	3.46	31.0	1.22
E08-16SPML45	½	16	41 ₆₄	58.0	2.28	29.0	1.14	91.0	3.58	32.0	1.26
E10-18SPML45	⅝	18	23 ₃₂	62.0	2.44	26.0	1.02	98.0	3.86	31.0	1.22
E10-20SPML45	⅝	20	51 ₆₄	68.0	2.68	35.0	1.38	104.0	4.09	37.0	1.46
E12-22SPML45	¾	22	7 ₈	71.0	2.80	28.0	1.10	112.0	4.41	34.0	1.34
E12-25SPML45	¾	25	63 ₆₄	79.0	3.11	39.0	1.53	119.0	4.69	41.0	1.61
E16-28SPML45	1	28	63 ₆₄	94.0	3.70	29.0	1.14	145.0	5.71	45.0	1.77
E16-30SPML45	1	30	13 ₁₆	97.0	3.82	43.0	1.69	148.0	5.83	48.0	1.89

SPML90

METRIC STANDPIPE LIGHT - 90° ELBOW



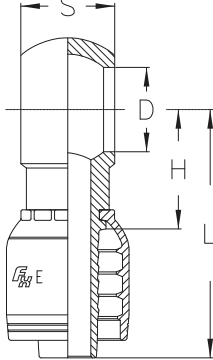
PART NUMBER	Hose Bore	E		H		M		L		K	
	INCH	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-06SPML90	¼	6.0	¾	26.0	1.02	21.0	0.83	54.0	2.13	39.0	1.53
E04-08SPML90	¼	8.0	½	26.0	1.02	23.0	0.90	54.0	2.13	39.0	1.53
E04-10SPML90	¼	10.0	⅝	26.0	1.02	25.0	0.98	54.0	2.13	41.0	1.61
E05-10SPML90	⅝ ₁₆	10.0	⅝	28.0	1.10	25.0	0.98	56.0	2.20	44.0	1.73
E06-10SPML90	¾	10.0	⅝	31.0	1.22	22.0	0.87	61.0	2.40	45.0	1.77
E06-12SPML90	¾	12.0	¾	31.0	1.22	25.0	0.98	61.0	2.40	46.0	1.81
E08-15SPML90	½	15.0	19 ₃₂	38.0	1.50	24.0	0.94	71.0	2.80	51.0	2.01
E08-16SPML90	½	16.0	41 ₆₄	38.0	1.50	29.0	1.14	71.0	2.80	56.0	2.20
E10-18SPML90	⅝	18.0	23 ₃₂	45.0	1.77	26.0	1.02	80.0	3.15	57.0	2.24
E10-20SPML90	⅝	20.0	51 ₆₄	45.0	1.77	35.0	1.38	80.0	3.15	66.0	2.60
E12-20SPML90	¾	20.0	51 ₆₄	54.0	2.13	35.0	1.38	95.0	3.74	70.0	2.76
E12-22SPML90	¾	22.0	7 ₈	54.0	2.13	28.0	1.10	95.0	3.74	64.0	2.52
E12-25SPML90	¾	25.0	63 ₆₄	54.0	2.13	39.0	1.53	95.0	3.74	75.0	2.95
E16-25SPML90	1	25.0	63 ₆₄	70.0	2.76	39.0	1.53	121.0	4.76	96.0	3.78
E16-28SPML90	1	28.0	63 ₆₄	70.0	2.76	29.0	1.14	121.0	4.76	86.0	3.39

Reference Hose Section for Coupling Compatibility

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

BJM

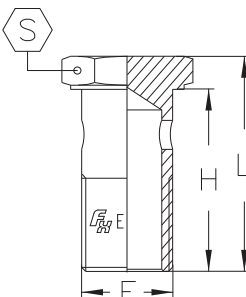
METRIC BANJO



PART NUMBER	Hose Bore	F	D		H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-12BJM	¼	M12 x 1.5	12.1	0.48	23.0	0.90	51.0	2.01	12.0	0.47
E04-14BJM	¼	M14 x 1.5	14.2	0.56	23.0	0.90	51.0	2.01	14.0	0.55
E05-12BJM	⅝	M12 x 1.5	12.1	0.48	24.0	0.94	52.0	2.05	12.0	0.47
E05-14BJM	⅝	M14 x 1.5	14.2	0.56	24.0	0.94	52.0	2.05	16.0	0.63
E05-16BJM	⅝	M16 x 1.5	16.2	0.64	26.5	1.04	54.5	2.14	16.0	0.63
E06-14BJM	¾	M14 x 1.5	14.2	0.56	24.0	0.94	54.5	2.14	14.0	0.55
E06-16BJM	¾	M16 x 1.5	16.2	0.64	24.0	0.94	54.5	2.14	16.0	0.63
E06-18BJM	¾	M18 x 1.5	18.1	0.71	31.0	1.22	61.5	2.42	20.0	0.79
E08-18BJM	½	M18 x 1.5	18.2	0.72	28.1	1.11	61.1	2.40	20.0	0.79
E08-22BJM	½	M22 x 1.5	22.2	0.87	28.5	1.12	61.5	2.42	25.0	0.98
E08-24BJM	½	M24 x 1.5	24.1	0.95	37.0	1.46	70.0	2.76	28.0	1.10
E10-22BJM	⅝	M22 x 1.5	22.2	0.87	27.2	1.07	63	2.48	25.0	0.98
E12-26BJM	¾	M26 x 1.5	26.1	1.03	40.0	1.57	80.5	3.17	30.0	1.18

BJMBT

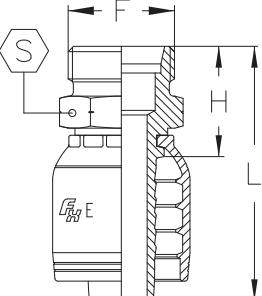
METRIC BANJO BOLT



PART NUMBER	F	H		L		S	
		[mm]	[in]	[mm]	[in]	[mm]	[in]
10BJMBT	M10 x 1.5	26.0	1.02	21.5	0.85	14	⅝
12BJMBT	M12 x 1.5	31.0	1.22	25.5	1.00	17	11/16
14BJMBT	M14 x 1.5	37.5	1.48	30.5	1.20	19	¾
16BJMBT	M16 x 1.5	40.0	1.57	32.5	1.28	22	7/8
18BJMBT	M18 x 1.5	44.0	1.73	36.5	1.44	24	15/16
20BJMBT	M20 x 1.5	48.0	1.89	39.5	1.55	27	1 1/16
22BJMBT	M22 x 1.5	50.0	1.97	41.5	1.63	28	1 1/8
26BJMBT	M26 x 1.5	58.0	2.28	48.5	1.91	32	1 1/4
30BJMBT	M30 x 1.5	64.0	2.52	53.0	2.09	36	1 1/2

MML

METRIC LIGHT MALE (24° CONE SEAT) - CEL



PART NUMBER	Hose Bore	F	Tube	H		L		S	
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-12MML	¼	M12 x 1.5	L6	21.0	0.83	49.0	1.93	12	½
E04-14MML	¼	M14 x 1.5	L8	21.0	0.83	49.0	1.93	14	⅝
E04-16MML	¼	M16 x 1.5	L10	23.0	0.90	51.0	2.01	17	11/16
E04-18MML	¼	M18 x 1.5	L12	23.0	0.90	51.0	2.01	19	¾
E05-16MML	⅝	M16 x 1.5	L10	23.0	0.90	51.0	2.01	17	11/16
E05-18MML	⅝	M18 x 1.5	L12	23.0	0.90	51.0	2.01	19	¾
E06-16MML	¾	M16 x 1.5	L10	23.0	0.90	53.5	2.11	17	11/16
E06-18MML	¾	M18 x 1.5	L12	23.0	0.90	53.5	2.11	19	¾
E06-22MML	¾	M22 x 1.5	L15	25.0	0.98	55.5	2.19	22	7/8
E08-18MML	½	M18 x 1.5	L12	25.0	0.98	58.0	2.28	20	19/16
E08-22MML	½	M22 x 1.5	L15	26.0	1.02	59.0	2.32	22	7/8
E08-26MML	½	M26 x 1.5	L18	28.0	1.10	61.0	2.40	27	1 1/16
E10-26MML	⅝	M26 x 1.5	L18	28.0	1.10	63.8	2.51	27	1 1/16
E10-30MML	⅝	M30 x 2.0	L22	30.0	1.18	65.8	2.59	30	1 3/16
E12-26MML	¾	M26 x 1.5	L18	29.0	1.14	69.5	2.74	27	1 1/16
E12-30MML	¾	M30 x 2.0	L22	31.0	1.22	71.5	2.81	30	1 3/16
E16-36MML	1	M36 x 2.0	L28	35.0	1.38	86.0	3.38	36	1 7/16
E20-45MML	1 ¼	M45 x 2.0	L35	36.3	1.43	94.0	3.70	46	1 13/16
E24-52MML	1 ½	M52 x 2.0	L42	38.5	1.52	103.0	4.06	52	2 1/16

Reference Hose Section for Coupling Compatibility

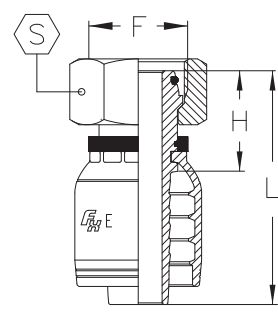
! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





FML

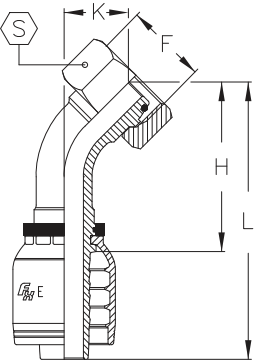
FEMALE METRIC LIGHT SWIVEL (24° SEAT) - DKOL



PART NUMBER	Hose Bore	F	Tube	H		L		S	
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-12FML	1/4	M12 x 1.5	L6	22.4	0.88	50.4	1.98	15	5/8
E04-14FML	1/4	M14 x 1.5	L8	22.0	0.87	50.0	1.97	17	11/16
E04-16FML	1/4	M16 x 1.5	L10	24.0	0.94	52.0	2.05	19	3/4
E04-18FML	1/4	M18 x 1.5	L12	24.0	0.94	52.0	2.05	22	7/8
E05-16FML	5/16	M16 x 1.5	L10	24.0	0.94	52.0	2.05	19	3/4
E05-18FML	5/16	M18 x 1.5	L12	24.0	0.94	52.0	2.05	22	7/8
E06-16FML	3/8	M16 x 1.5	L10	23.0	0.90	53.5	2.11	19	3/4
E06-18FML	3/8	M18 x 1.5	L12	23.5	0.93	54.0	2.12	22	7/8
E06-22FML	3/8	M22 x 1.5	L15	24.5	0.96	55.0	2.17	27	11/16
E08-22FML	1/2	M22 x 1.5	L15	25.0	0.98	58.0	2.28	27	11/16
E08-26FML	1/2	M26 x 1.5	L18	26.0	1.02	59.0	2.32	32	1 1/4
E10-22FML	5/8	M22 x 1.5	L15	26.2	1.03	62.0	2.44	27	11/16
E10-26FML	5/8	M26 x 1.5	L18	26.2	1.03	62.0	2.44	32	1 1/4
E10-30FML	5/8	M30 x 2.0	L22	27.2	1.07	63.0	2.48	36	1 7/16
E12-26FML	3/4	M26 x 1.5	L18	32.0	1.26	72.5	2.85	32	1 1/4
E12-30FML	3/4	M30 x 2.0	L22	29.5	1.61	70.0	2.76	36	1 7/16
E16-36FML	1	M36 x 2.0	L28	34.0	1.34	85.0	3.35	41	1 5/8
E20-45FML	1 1/4	M45 x 2.0	L35	36.8	1.45	94.5	3.72	50	1 15/16
E24-52FML	1 1/2	M52 x 2.0	L42	36.5	1.44	101.0	3.98	60	2 3/8

FML45

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



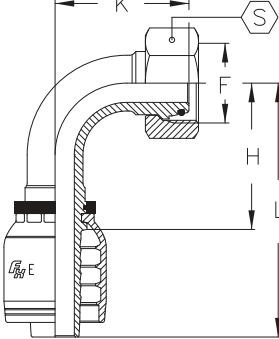
PART NUMBER	Hose Bore	F	Tube	H		L		K		S	
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-12FML45	1/4	M12 x 1.5	L6	35.0	1.38	63.0	2.48	14.0	0.55	15	5/8
E04-14FML45	1/4	M14 x 1.5	L8	36.0	1.42	64.0	2.52	14.0	0.55	17	11/16
E04-16FML45	1/4	M16 x 1.5	L10	38.0	1.50	66.0	2.60	16.0	0.63	19	3/4
E04-18FML45	1/4	M18 x 1.5	L12	39.0	1.53	67.0	2.64	17.0	0.67	22	7/8
E05-16FML45	5/16	M16 x 1.5	L10	39.0	1.53	67.0	2.64	17.0	0.67	19	3/4
E05-18FML45	5/16	M18 x 1.5	L12	39.0	1.53	67.0	2.64	17.0	0.67	22	7/8
E06-16FML45	3/8	M16 x 1.5	L10	38.0	1.50	68.5	2.70	16.0	0.63	19	3/4
E06-18FML45	3/8	M18 x 1.5	L12	40.0	1.57	70.5	2.78	18.0	0.71	22	7/8
E06-22FML45	3/8	M22 x 1.5	L15	42.0	1.65	72.5	2.85	19.0	0.75	27	11/16
E08-22FML45	1/2	M22 x 1.5	L15	46.0	1.81	79.0	3.11	19.0	0.75	27	11/16
E08-26FML45	1/2	M26 x 1.5	L18	47.0	1.85	80.0	3.15	21.8	0.86	32	1 1/4
E10-26FML45	5/8	M26 x 1.5	L18	53.6	2.11	89.4	3.52	22.0	0.87	32	1 1/4
E10-30FML45	5/8	M30 x 2.0	L22	52.6	2.07	88.4	3.48	23.0	0.90	36	1 7/16
E12-26FML45	3/4	M26 x 1.5	L18	68.5	2.70	109.0	4.29	29.0	1.14	32	1 1/4
E12-30FML45	3/4	M30 x 2.0	L22	62.0	2.44	102.5	4.04	25.0	0.98	36	1 7/16
E16-36FML45	1	M36 x 2.0	L28	80.0	3.15	131.0	5.16	31.0	1.22	41	1 5/8
E20-45FML45	1 1/4	M45 x 2.0	L35	96.3	3.79	154.0	6.06	40.0	1.57	50	2
E24-52FML45	1 1/2	M52 x 2.0	L42	115.0	4.53	179.5	7.07	48.0	1.89	60	2 3/8

Reference Hose Section for Coupling Compatibility

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FML90

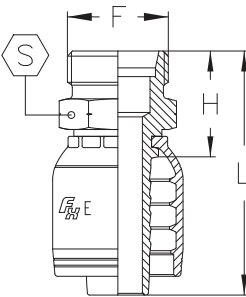
FEMALE METRIC LIGHT SWIVEL - 90° ELBOW (24° SEAT) - DKOL



PART NUMBER	Hose Bore	F	Tube	H		L		K		S	
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-12FML90	¼	M12 x 1.5	L6	23.5	0.93	51.5	2.03	26.0	1.02	15	5/8
E04-14FML90	¼	M14 x 1.5	L8	29.0	1.14	57.0	2.24	29.0	1.14	17	11/16
E04-16FML90	¼	M16 x 1.5	L10	29.0	1.14	57.0	2.24	30.2	1.19	19	¾
E04-18FML90	¼	M18 x 1.5	L12	29.0	1.14	57.0	2.24	32.0	1.26	22	7/8
E05-16FML90	5/16	M16 x 1.5	L10	31.0	1.22	59.0	2.32	33.0	1.30	19	¾
E05-18FML90	5/16	M18 x 1.5	L12	28.0	1.10	56.0	2.20	32.0	1.26	22	7/8
E06-16FML90	3/8	M16 x 1.5	L10	30.0	1.18	60.5	2.38	31.0	1.22	19	¾
E06-18FML90	3/8	M18 x 1.5	L12	30.5	1.20	61.0	2.40	33.0	1.30	22	7/8
E06-22FML90	3/8	M22 x 1.5	L15	31.0	1.22	61.5	2.42	35.0	1.38	27	1 1/16
E08-22FML90	½	M22 x 1.5	L15	37.2	1.46	70.2	2.76	38.0	1.50	27	1 1/16
E08-26FML90	½	M26 x 1.5	L18	37.2	1.46	70.2	2.76	40.0	1.57	32	1 ¼
E10-26FML90	5/8	M26 x 1.5	L18	44.8	1.76	80.6	3.17	45.0	1.77	32	1 ¼
E10-30FML90	5/8	M30 x 2.0	L22	42.6	1.68	78.4	3.09	47.0	1.85	36	1 7/16
E12-26FML90	¾	M26 x 1.5	L18	53.5	2.11	94.0	3.70	57.0	2.24	32	1 ¼
E12-30FML90	¾	M30 x 2.0	L22	53.5	2.11	94.0	3.70	52.0	2.05	36	1 7/16
E16-36FML90	1	M36 x 2.0	L28	70.0	2.75	121.0	4.76	66.0	2.60	41	1 5/8
E20-45FML90	1 ¼	M45 x 2.0	L35	84.0	3.31	141.7	5.58	83.0	3.27	50	1 15/16
E24-52FML90	1 ½	M52 x 2.0	L42	100.0	3.94	164.5	6.48	100.0	3.94	60	2 3/8
E24-52FML90-140	1 ½	M52 x 2.0	L42	100.0	3.94	164.5	6.48	140.0	5.51	60	2 3/8


MMS

MALE METRIC HEAVY (24° SEAT) - CES



PART NUMBER	Hose Bore	F	Tube	H		L		S	
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-14MMS	¼	M14 x 1.5	S6	23.0	0.90	51.0	2.01	14	9/16
E04-16MMS	¼	M16 x 1.5	S8	23.0	0.90	51.0	2.01	17	11/16
E04-18MMS	¼	M18 x 1.5	S10	24.0	0.94	52.0	2.05	19	¾
E04-20MMS	¼	M20 x 1.5	S12	25.0	0.98	53.0	2.09	22	7/8
E05-18MMS	5/16	M18 x 1.5	S10	24.0	0.94	52.0	2.05	19	¾
E05-20MMS	5/16	M20 x 1.5	S12	25.0	0.98	53.0	2.09	22	7/8
E06-18MMS	3/8	M18 x 1.5	S10	24.0	0.94	54.5	2.15	19	¾
E06-20MMS	3/8	M20 x 1.5	S12	25.0	0.98	55.5	2.19	22	7/8
E06-22MMS	3/8	M22 x 1.5	S14	27.0	1.06	58.0	2.28	22	7/8
E06-24MMS	3/8	M24 x 1.5	S16	28.0	1.10	58.5	2.30	24	15/16
E08-22MMS	½	M22 x 1.5	S14	28.0	1.10	61.0	2.40	22	7/8
E08-24MMS	½	M24 x 1.5	S16	29.0	1.14	62.0	2.44	24	15/16
E10-30MMS	5/8	M30 x 2.0	S20	32.0	1.26	67.8	2.67	30	1 3/16
E12-30MMS	¾	M30 x 2.0	S20	33.0	1.30	73.5	2.89	30	1 3/16
E12-36MMS	¾	M36 x 2.0	S25	37.0	1.46	77.5	3.05	36	1 7/16
E16-36MMS	1	M36 x 2.0	S25	39.0	1.53	90.0	3.54	36	1 7/16
E16-42MMS	1	M42 x 2.0	S30	43.0	1.69	94.0	3.70	46	1 13/16
E20-52MMS	1 ¼	M52 x 2.0	S38	47.3	1.86	105.0	4.13	55	2 3/16

Reference Hose Section for Coupling Compatibility

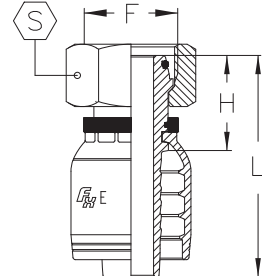
 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





FMS

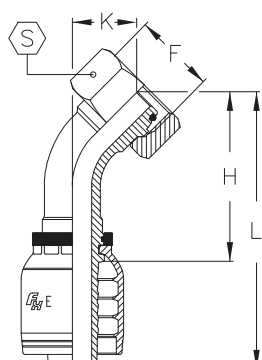
FEMALE METRIC HEAVY SWIVEL (24° SEAT) - DKOS



PART NUMBER	Hose Bore	F	Tube	H		L		S	
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-14FMS	¼	M14 x 1.5	S6	23.0	0.91	51.0	2.01	17	11/16
E04-16FMS	¼	M16 x 1.5	S8	22.0	0.87	50.0	1.97	19	¾
E04-18FMS	¼	M18 x 1.5	S10	23.5	0.93	51.5	2.02	22	7/8
E04-20FMS	¼	M20 x 1.5	S12	23.5	0.93	51.5	2.02	24	15/16
E05-18FMS	5/16	M18 x 1.5	S10	24.0	0.94	52.0	2.05	22	7/8
E05-20FMS	5/16	M20 x 1.5	S12	24.0	0.94	52.0	2.05	24	15/16
E06-16FMS	3/8	M16 x 1.5	S8	23.5	0.93	54.0	2.13	19	¾
E06-18FMS	3/8	M18 x 1.5	S10	24.5	0.96	55.0	2.17	22	7/8
E06-20FMS	3/8	M20 x 1.5	S12	23.5	0.93	54.0	2.13	24	15/16
E06-22FMS	3/8	M22 x 1.5	S14	27.0	1.06	58.0	2.28	27	1 1/16
E06-24FMS	3/8	M24 x 1.5	S16	29.0	1.14	60.0	2.36	30	1 3/16
E08-22FMS	½	M22 x 1.5	S14	28.0	1.10	61.0	2.40	27	1 1/16
E08-24FMS	½	M24 x 1.5	S16	29.0	1.14	62.0	2.44	30	1 3/16
E10-30FMS	5/8	M30 x 2.0	S20	33.2	1.31	69.0	2.72	36	1 7/16
E12-30FMS	¾	M30 x 2.0	S20	35.5	1.40	76.0	2.99	36	1 7/16
E12-36FMS	¾	M36 x 2.0	S25	37.5	1.48	78.0	3.07	46	1 13/16
E16-36FMS	1	M36 x 2.0	S25	40.0	1.57	91.0	3.58	46	1 13/16
E16-42FMS	1	M42 x 2.0	S30	40.0	1.57	91.0	3.58	50	2
E20-52FMS	1 ¼	M52 x 2.0	S38	45.0	1.77	102.7	4.04	60	2 3/8


FMS45

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



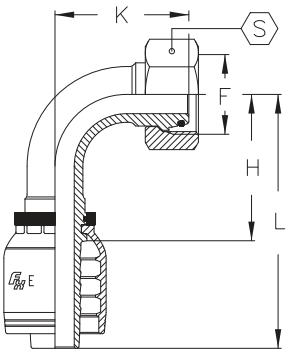
PART NUMBER	Hose Bore	F	Tube	H		L		K		S	
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-14FMS45	¼	M14 x 1.5	S6	35.0	1.38	63.0	2.48	14.0	0.55	17	11/16
E04-16FMS45	¼	M16 x 1.5	S8	36.0	1.42	64.0	2.52	14.0	0.55	19	¾
E04-18FMS45	¼	M18 x 1.5	S10	38.0	1.50	66.0	2.60	16.0	0.63	22	7/8
E04-20FMS45	¼	M20 x 1.5	S12	39.0	1.54	67.0	2.64	17.0	0.67	24	15/16
E05-18FMS45	5/16	M18 x 1.5	S10	39.0	1.54	67.0	2.64	17.0	0.67	22	7/8
E05-20FMS45	5/16	M20 x 1.5	S12	39.0	1.54	67.0	2.64	18.0	0.71	24	15/16
E06-18FMS45	3/8	M18 x 1.5	S10	39.5	1.56	70.0	2.76	17.0	0.67	22	7/8
E06-20FMS45	3/8	M20 x 1.5	S12	40.0	1.57	70.5	2.78	18.0	0.71	24	15/16
E06-22FMS45	3/8	M22 x 1.5	S14	41.5	1.63	72.0	2.83	19.0	0.75	27	1 1/16
E08-22FMS45	½	M22 x 1.5	S14	46.0	1.81	79.0	3.11	20.0	0.79	27	1 1/16
E08-24FMS45	½	M24 x 1.5	S16	47.0	1.85	80.0	3.15	21.0	0.83	30	1 3/16
E10-30FMS45	5/8	M30 x 2.0	S20	56.0	2.20	92.0	3.62	25.0	0.98	36	1 7/16
E12-30FMS45	¾	M30 x 2.0	S20	64.0	2.52	104.5	4.11	27.0	1.06	36	1 7/16
E12-36FMS45	¾	M36 x 2.0	S25	64.0	2.52	104.5	4.11	28.0	1.10	46	1 13/16
E16-36FMS45	1	M36 x 2.0	S25	82.0	3.23	133.0	5.24	34.0	1.34	46	1 13/16
E16-42FMS45	1	M42 x 2.0	S30	80.0	3.15	131.0	5.16	31.0	1.22	50	2
E20-52FMS45	1 ¼	M52 x 2.0	S38	94.0	3.70	151.7	5.97	40.3	1.59	60	2 3/8

Reference Hose Section for Coupling Compatibility

 **WARNING** This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FMS90

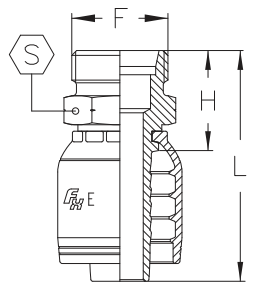
FEMALE METRIC HEAVY SWIVEL - 90° ELBOW (24° SEAT) -



PART NUMBER	Hose Bore	F	Tube	H		L		K		S	
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-14FMS90	¼	M14 x 1.5	S6	25.0	0.98	53.0	2.09	26.0	1.02	17	11/16
E04-16FMS90	¼	M16 x 1.5	S8	29.0	1.14	57.0	2.24	29.0	1.14	19	¾
E04-18FMS90	¼	M18 x 1.5	S10	29.0	1.14	57.0	2.24	30.0	1.18	22	7/8
E04-20FMS90	¼	M20 x 1.5	S12	29.0	1.14	57.0	2.24	32.0	1.26	24	15/16
E05-18FMS90	5/16	M18 x 1.5	S10	31.0	1.22	59.0	2.32	33.0	1.30	22	7/8
E05-20FMS90	5/16	M20 x 1.5	S12	28.0	1.10	56.0	2.20	32.0	1.26	24	15/16
E06-18FMS90	¾	M18 x 1.5	S10	30.0	1.18	61.0	2.40	33.0	1.30	22	7/8
E06-20FMS90	¾	M20 x 1.5	S12	31.0	1.22	61.5	2.42	33.0	1.30	24	15/16
E06-22FMS90	¾	M22 x 1.5	S14	33.5	1.32	64.0	2.52	37.0	1.46	27	1 1/16
E08-22FMS90	½	M22 x 1.5	S14	39.0	1.54	72.0	2.83	41.0	1.61	27	1 1/16
E08-24FMS90	½	M24 x 1.5	S16	39.0	1.54	72.0	2.83	42.0	1.65	30	1 3/16
E10-30FMS90	5/8	M30 x 2.0	S20	44.0	1.73	29.8	3.14	49.0	1.93	36	1 7/16
E12-30FMS90	¾	M30 x 2.0	S20	53.5	2.11	94.0	3.70	55.0	2.17	36	1 7/16
E12-36FMS90	¾	M36 x 2.0	S25	53.5	2.11	94.0	3.70	57.0	2.24	46	1 13/16
E16-36FMS90	1	M36 x 2.0	S25	70.0	2.76	121.0	4.76	70.0	2.76	46	1 13/16
E16-42FMS90	1	M42 x 2.0	S30	70.0	2.76	121.0	4.76	66.0	2.60	50	2
E20-52FMS90	1 ¼	M52 x 2.0	S38	83.5	3.29	141.2	5.56	80.0	3.15	60	2 3/8

MGAZ

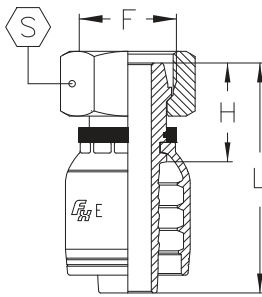
FRENCH GAZ MALE



PART NUMBER	Hose Bore	T	Tube	H		L		S	
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]
E06-20MGAZ	¾	M20 x 1.5	13.25	25.0	0.98	53.0	2.09	22	7/8
E08-24MGAZ	½	M24 x 1.5	16.75	27.0	1.06	60.0	2.36	24	15/16
E10-30MGAZ	5/8	M30 x 1.5	21.25	30.0	1.18	60.0	2.36	30	1 3/16
E12-30MGAZ	¾	M30 x 1.5	21.25	31.0	1.22	71.5	2.81	30	1 3/16
E12-36MGAZ	¾	M36 x 1.5	26.75	33.0	1.30	73.5	2.89	36	1 7/16
E16-45MGAZ	1	M45 x 1.5	33.50	38.5	1.52	89.5	3.52	46	1 13/16


FGAZ

FRENCH GAZ FEMALE



PART NUMBER	Hose Bore	T	Tube	H		L		S	
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-20FGAZ	¼	M20 x 1.5	13.25	22.0	0.87	50.0	1.97	24	15/16
E06-20FGAZ	¾	M20 x 1.5	13.25	21.5	0.85	52.0	2.05	24	15/16
E08-24FGAZ	½	M24 x 1.5	16.75	25.5	1.00	85.5	2.30	30	1 3/16
E08-30FGAZ	½	M30 x 1.5	21.25	26.5	1.04	59.5	2.34	36	1 7/16
E10-30FGAZ	5/8	M30 x 1.5	21.25	26.5	1.04	62.0	2.44	36	1 7/16
E12-30FGAZ	¾	M30 x 1.5	21.25	27.5	1.08	68.0	2.68	36	1 7/16
E12-36FGAZ	¾	M36 x 1.5	26.75	29.0	1.14	68.5	2.70	41	1 5/8
E16-45FGAZ	1	M45 x 1.5	33.50	31.5	1.24	82.5	3.25	50	2

Reference Hose Section for Coupling Compatibility

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FL SAE CODE 61 FLANGE

PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
E08-08FL	½	0.265	30.2	1.19	48.5	1.91	81.5	3.21
E08-12FL	½	0.265	38.1	1.50	52.5	2.07	85.5	3.37
E10-12FL	⅝	0.265	38.1	1.50	52.7	2.07	88.5	3.48
E12-12FL	¾	0.265	38.1	1.50	54.0	2.13	94.5	3.72
E12-16FL	¾	0.315	44.5	1.75	60.0	2.36	100.5	3.96
E16-12FL	1	0.265	38.1	1.50	55.0	2.17	106.0	4.17
E16-16FL	1	0.315	44.5	1.75	64.5	2.54	115.5	4.55
E16-20FL	1	0.315	50.8	2.00	69.0	2.72	120.0	4.72
E20-20FL	1¼	0.315	50.8	2.00	68.8	2.71	126.5	4.98
E20-24FL	1¼	0.315	60.4	2.38	72.3	2.85	130.0	5.12
E24-24FL	1½	0.315	60.4	2.38	46.5	3.01	141.0	5.55
E24-32FL	1½	0.375	71.4	2.81	83.0	3.27	147.5	5.81
E32-32FL	2	0.375	71.4	2.81	83.0	3.27	153.0	6.02
E32-40FL	2	0.375	84.1	3.31	83.5	3.29	153.5	6.04

FL45 SAE CODE 61 FLANGE - 45° ELBOW

PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E08-08FL45	½	0.265	30.2	1.19	47.0	1.85	80.0	3.15	20.0	0.79
E08-12FL45	½	0.265	38.1	1.50	51.0	2.01	84.0	3.31	24.0	0.94
E10-12FL45	⅝	0.265	38.1	1.50	55.2	2.17	91.0	3.58	24.0	0.94
E12-12FL45	¾	0.265	38.1	1.50	61.5	2.42	102.0	4.02	25.0	0.98
E12-16FL45	¾	0.315	44.5	1.75	63.5	2.50	104.0	4.09	27.0	1.06
E16-12FL45	1	0.265	38.1	1.50	80.0	3.15	131.0	5.16	30.0	1.18
E16-16FL45	1	0.315	44.5	1.75	77.0	3.03	128.0	5.04	28.0	1.10
E16-20FL45	1	0.315	50.8	2.00	77.0	3.03	128.0	5.04	28.0	1.10
E20-20FL45	1¼	0.315	50.8	2.00	88.3	3.48	146.0	5.75	32.0	1.26
E20-24FL45	1¼	0.315	60.4	2.38	88.3	3.48	146.0	5.75	32.0	1.26
E24-24FL45	1½	0.315	60.4	2.38	104.5	4.11	169.0	6.65	37.0	1.46
E24-32FL45	1½	0.375	71.4	2.81	104.5	4.11	169.0	6.65	37.0	1.46
E32-32FL45	2	0.375	71.4	2.81	142.3	5.60	212.3	8.36	53.0	2.09

FL90 SAE CODE 61 FLANGE - 90° ELBOW

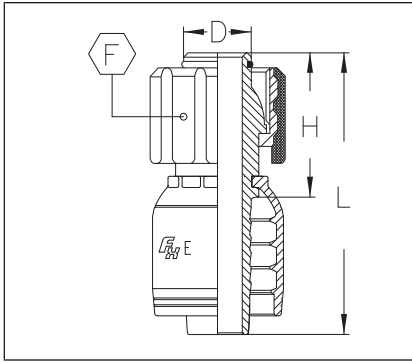
PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E08-08FL90-040	½	0.265	30.2	1.19	38.0	1.50	71.0	2.80	40.0	1.57
E08-12FL90-045	½	0.265	38.1	1.50	38.0	1.50	71.0	2.80	45.0	1.77
E10-12FL90-047	⅝	0.265	38.1	1.50	45.2	1.78	81.0	3.19	47.0	1.85
E12-12FL90-051	¾	0.265	38.1	1.50	54.5	2.15	95.0	3.74	51.0	2.01
E12-16FL90-054	¾	0.315	44.5	1.75	54.5	2.15	95.0	3.74	54.0	2.13
E16-12FL90-065	1	0.265	38.1	1.50	70.0	2.76	121.0	4.76	65.0	2.56
E16-16FL90-061	1	0.315	44.5	1.75	70.0	2.76	121.0	4.76	61.0	2.56
E16-20FL90-061	1	0.315	50.8	2.00	70.0	2.76	121.0	4.76	61.0	2.40
E20-20FL90-070	1¼	0.315	50.8	2.00	85.0	3.35	142.0	5.59	70.0	2.76
E20-24FL90-070	1¼	0.315	60.4	2.38	85.0	3.35	142.0	5.59	70.0	2.76
E24-24FL90-083	1½	0.315	60.4	2.38	105.5	4.15	170.0	6.69	83.0	3.27
E32-32FL90-122	2	0.375	71.4	2.81	140.0	5.51	210.0	8.27	122.0	4.80

Reference Hose Section for Coupling Compatibility

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FPWK

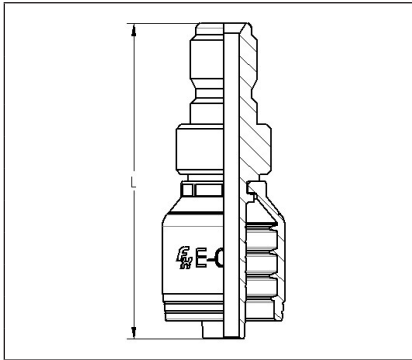
PRESSURE WASH FEMALE SWIVEL TYPE - K



PART NUMBER	Hose Bore	F	H		L		D	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-22FPWK	¼	M22 x 1.5	34.5	1.36	62.6	2.46	14.0	0.55
E06-22FPWK	¾	M22 x 1.5	34.6	1.36	65.1	2.56	14.0	0.55

E-STN

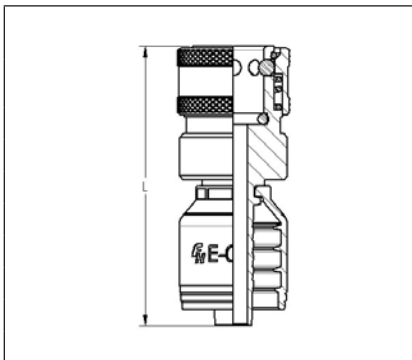
PRESSURE WASH ONE-PIECE STRAIGHT THROUGH NIP-



PART NUMBER	Hose Bore	L	
	INCH	[mm]	[in]
E06-06STN	¾	70.0	2.76

E-STC

PRESSURE WASH ONE-PIECE STRAIGHT THROUGH COU-



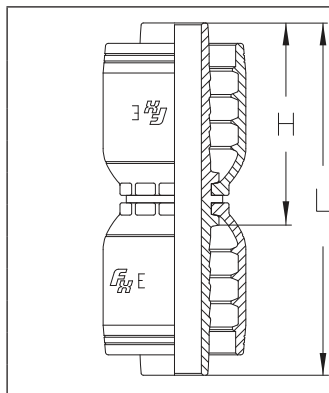
PART NUMBER	Hose Bore	L	
	INCH	[mm]	[in]
E06-06STC	¾	70.0	2.76

Reference Hose Section for Coupling Compatibility

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

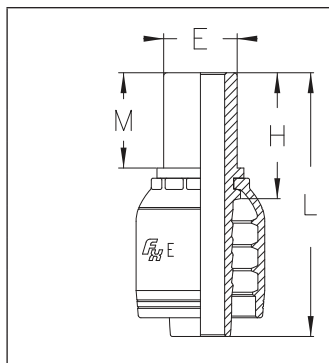


HM HOSE MENDER



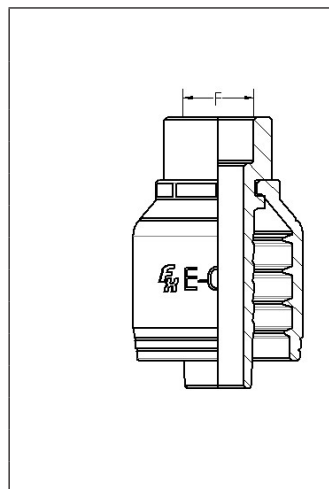
PART NUMBER	Hose Bore	H		L	
	INCH	[mm]	[in]	[mm]	[in]
E04-04HM	¼	42.0	1.65	70.0	2.75
E06-06HM	⅜	43.5	1.71	74.0	2.91
E08-08HM	½	48.0	1.89	81.0	3.18
E10-10HM	⅝	52.0	2.05	88.0	3.46
E12-12HM	¾	58.5	2.30	99.0	3.89
E16-16HM	1	72.0	2.83	123.0	4.84

SP IMPERIAL STANDPIPE



PART NUMBER	Hose Bore	E		H		M		L	
	INCH	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-04SP	¼	6.3	¼	30.5	1.20	24.5	0.96	58.5	2.30
E06-06SP	⅜	9.5	⅜	32.0	1.26	26.0	1.02	62.5	2.46
E08-08SP	½	12.7	½	32.5	1.28	25.5	1.00	65.5	2.58
E08-10SP	½	15.9	⅝	43.0	1.69	36.0	1.42	76.0	2.99
E12-12SP	¾	19.0	¾	44.5	1.75	36.5	1.44	85.0	3.35
E16-16SP	1	25.4	1	49.5	1.95	40.0	1.57	100.5	3.96

BS BRAZE SOCKET



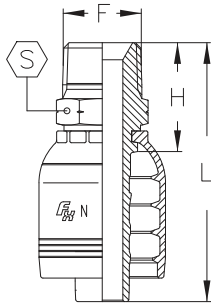
PART NUMBER	Hose Bore	F		H		L	
	INCH	[mm]	[in]	[mm]	[in]	[mm]	[in]
E04-04BS	¼	6.5	0.26	15.0	0.59	43.0	1.69
E04-06BS	¼	9.7	0.38	15.5	0.61	43.5	1.71
E06-06BS	⅜	9.7	0.38	15.5	0.61	46.0	1.81
E06-08BS	⅜	12.9	0.51	15.5	0.61	46.0	1.81
E08-08BS	½	12.9	0.51	16.5	0.65	49.5	1.95
E08-10BS	½	16.0	0.63	17.0	0.67	50.0	1.97
E10-10BS	⅝	16.0	0.63	17.2	0.68	53.0	2.09
E12-12BS	¾	19.2	0.76	23.0	0.91	63.5	2.50
E16-16BS	1	25.6	1.01	25.0	0.98	76.0	2.99
E20-20BS	1¼	32.0	1.26	25.3	1.00	83.0	3.27
E24-24BS	1½	38.3	1.51	25.5	1.00	90.0	3.54
E32-32BS	2	51.0	2.01	28.0	1.10	98.0	3.86

Reference Hose Section for Coupling Compatibility

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MP

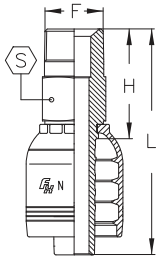
NPT MALE



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
N06-04MP	3/8	Z v - 18	27.5	1.08	58.0	2.28	16	B ,
N06-06MP	3/8	C , - 18	28.5	1.12	59.0	2.33	19	C v
N06-08MP	3/8	Z x - 14	34.0	1.34	64.5	2.54	22	M ,
N08-06MP	1/2	C , - 18	30.5	1.20	63.5	2.50	22	M ,
N08-08MP	1/2	Z x - 14	35.0	1.38	68.0	2.68	22	M ,
N08-12MP	1/2	3/4 - 14	37.0	1.45	70.0	2.75	27	1Z zn
N10-08MP	5/8	Z x - 14	36.2	1.43	72.0	2.83	25	1
N10-12MP	5/8	3/4 - 14	37.1	1.46	72.9	2.87	27	1Z zn
N12-12MP	3/4	3/4 - 14	39.0	1.53	90.0	3.54	27	1Z zn
N12-16MP	3/4	1 - 11 1/2	46.5	1.83	97.5	3.84	35	1M zn
N16-12MP	1	3/4 - 14	41.5	1.63	98.0	3.86	32	1Z v
N16-16MP	1	1 - 11 1/2	48.5	1.91	105.0	4.13	35	1M zn
N16-20MP	1	1 1/4 - 11 1/2	52.6	2.07	109.5	4.31	43	1ZC zn
N20-20MP	1 1/4	1 1/4 - 11 1/2	55.0	2.16	121.5	4.78	46	1ZC zn
N20-24MP	1 1/4	1 1/2 - 11 1/2	58.0	2.28	124.5	4.90	50	2
N24-24MP	1 1/2	1 1/2 - 11 1/2	61.0	2.40	143.5	5.65	50	2
N32-32MP	2	2 - 11 1/2	70.5	2.77	167.0	6.57	65	2 > zn

MPA

API MALE



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
N24-24MPA	1 1/2	1 1/2 - 11 1/2	88.0	3.46	170.5	6.71	50	2
N32-32MPA	2	2 - 11 1/2	112.3	4.42	208.7	8.22	65	2 > zn

Reference Hose Section for Coupling Compatibility

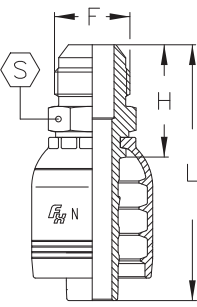
WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





MJ

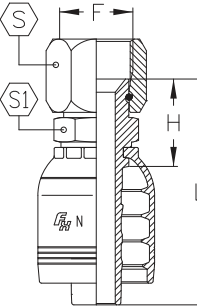
JIC 37° MALE



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
N06-06MJ	3/8	9/16 - 18	26.6	1.04	57.1	2.24	15	5/8
N06-08MJ	3/8	3/4 - 16	29.7	1.16	60.2	2.37	19	3/4
N08-08MJ	1/2	3/4 - 16	30.7	1.20	63.7	2.50	19	3/4
N08-10MJ	1/2	7/8 - 14	35.3	1.38	68.3	2.68	24	15/16
N08-12MJ	1/2	1 1/16 - 12	38.9	1.53	71.9	2.83	27	1 1/16
N10-08MJ	5/8	3/4 - 16	30.9	1.22	66.7	2.63	24	15/16
N10-10MJ	5/8	7/8 - 14	35.5	1.39	71.3	2.80	27	1 1/16
N10-12MJ	5/8	1 1/16 - 12	39.1	1.53	74.9	2.94	27	1 1/16
N12-10MJ	3/4	7/8 - 14	37.0	1.45	88.0	3.46	27	1 1/16
N12-12MJ	3/4	1 1/16 - 12	40.0	1.57	91.0	3.58	27	1 1/16
N12-14MJ	3/4	1 3/16 - 12	41.5	1.63	92.5	3.64	32	1 1/4
N12-16MJ	3/4	1 5/16 - 12	43.0	1.69	94.0	3.70	36	1 7/16
N16-12MJ	1	1 1/16 - 12	43.0	1.69	99.5	3.92	32	1 1/4
N16-16MJ	1	1 5/16 - 12	45.0	1.77	101.5	3.99	36	1 7/16
N16-20MJ	1	1 5/8 - 12	48.0	1.88	104.5	4.11	46	1 13/16
N20-20MJ	1 1/4	1 5/8 - 12	50.5	1.98	117.0	4.60	46	1 13/16
N24-24MJ	1 1/2	1 7/8 - 12	57.0	2.24	139.5	5.49	50	2
N32-32MJ	2	2 1/2 - 12	68.5	2.69	165.0	6.49	65	2 9/16

FJ

JIC 37° FEMALE SWIVEL



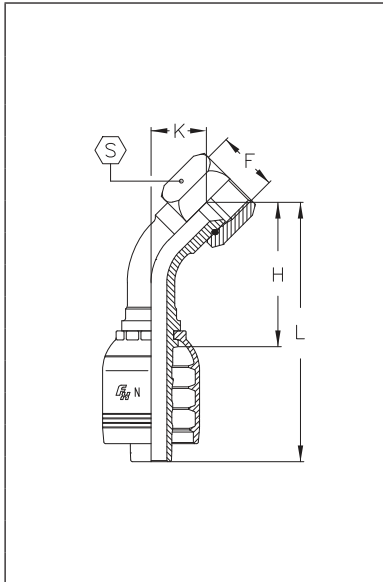
PART NUMBER	Hose Bore	F	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N06-06FJ	3/8	9/16 - 18	22.5	0.88	53.0	2.09	19	3/4	16	5/8
N06-08FJ	3/8	3/4 - 16	24.5	0.96	55.0	2.16	22	7/8	19	3/4
N08-06FJ	1/2	9/16 - 18	24.5	0.96	57.5	2.26	19	3/4	19	3/4
N08-08FJ	1/2	3/4 - 16	25.5	1.00	58.5	2.30	22	7/8	19	3/4
N08-10FJ	1/2	7/8 - 14	27.5	1.08	60.5	2.38	27	1 1/16	22	7/8
N08-12FJ	1/2	1 1/16 - 12	30.3	1.19	63.3	2.49	32	1 1/4	25	1
N10-08FJ	5/8	3/4 - 16	26.7	1.05	62.5	2.46	22	7/8	22	7/8
N10-10FJ	5/8	7/8 - 14	27.7	1.09	63.5	2.50	27	1 1/16	22	7/8
N10-12FJ	5/8	1 1/16 - 12	30.5	1.20	66.3	2.61	32	1 1/4	25	1
N12-10FJ	3/4	7/8 - 14	33.0	1.30	84.0	3.31	27	1 1/16	27	1 1/16
N12-12FJ	3/4	1 1/16 - 12	34.0	1.34	85.0	3.35	32	1 1/4	27	1 1/16
N12-14FJ	3/4	1 3/16 - 12	35.5	1.40	86.5	3.40	36	1 7/16	30	1 3/16
N12-16FJ	3/4	1 5/16 - 12	38.0	1.50	89.0	3.50	41	1 5/8	32	1 1/4
N16-12FJ	1	1 1/16 - 12	36.5	1.44	93.0	3.66	32	1 1/4	32	1 1/4
N16-16FJ	1	1 5/16 - 12	39.5	1.55	96.0	3.78	41	1 5/8	32	1 1/4
N16-20FJ	1	1 5/8 - 12	46.0	1.81	102.5	4.03	50	2	41	1 5/8
N20-16FJ	1 1/4	1 5/16 - 12	45.5	1.79	112.0	4.41	41	1 5/8	41	1 5/8
N20-20FJ	1 1/4	1 5/8 - 12	48.0	1.89	114.5	4.51	50	2	41	1 5/8
N20-24FJ	1 1/4	1 7/8 - 12	51.0	2.01	117.5	4.62	60	2 3/8	46	1 13/16
N24-24FJ	1 1/2	1 7/8 - 12	53.0	2.09	135.5	5.33	60	2 3/8	46	1 13/16
N32-32FJ	2	2 1/2 - 12	69.0	2.72	165.5	6.51	75	3	60	2 3/8

Reference Hose Section for Coupling Compatibility

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FJ45

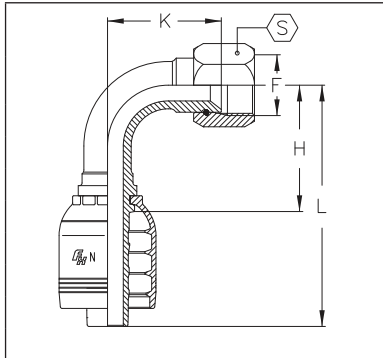
JIC 37° FEMALE SWIVEL - 45° ELBOW



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N06-06FJ45	3/8	9/16 - 18	35.5	1.40	66.0	2.60	12.0	0.47	19	3/4
N06-08FJ45	3/8	3/4 - 16	37.5	1.48	68.0	2.68	14.0	0.55	22	7/8
N08-08FJ45	1/2	3/4 - 16	41.0	1.61	74.0	2.91	14.5	0.57	22	7/8
N08-10FJ45	1/2	7/8 - 14	43.0	1.69	76.0	2.99	16.0	0.63	27	1 1/16
N08-12FJ45	1/2	1 1/16 - 12	45.5	1.79	78.5	3.09	19.0	0.75	32	1 1/4
N10-10FJ45	5/8	7/8 - 14	47.0	1.85	83.0	3.27	16.0	0.63	27	1 1/16
N10-12FJ45	5/8	1 1/16 - 12	50.0	1.97	86.0	3.38	19.0	0.75	32	1 1/4
N12-12FJ45	3/4	1 1/16 - 12	63.0	2.48	114.0	4.49	25.0	0.98	32	1 1/4
N12-16FJ45	3/4	1 5/16 - 12	63.0	2.48	114.0	4.49	25.0	0.98	41	1 5/8
N16-16FJ45	1	1 5/16 - 12	82.0	3.23	138.0	5.43	32.0	1.26	41	1 5/8
N16-20FJ45	1	1 - 12	82.0	3.23	138.0	5.43	32.0	1.26	50	2
N20-20FJ45	1 1/4	1 5/8 - 12	98.0	3.86	164.0	6.46	38.0	1.50	50	2
N20-24FJ45	1 1/4	1 7/8 - 12	98.0	3.86	164.0	6.46	38.0	1.50	60	2 3/8
N24-24FJ45	1 1/2	1 7/8 - 12	118.0	4.64	201.0	7.91	46.0	1.81	60	2 3/8
N32-32FJ45	2	2 1/2 - 12	157.0	6.18	253.0	9.96	62.0	2.44	75	3

FJ90S

JIC 37° FEMALE SWIVEL - 90° ELBOW SHORT DROP



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N06-06FJ90S	3/8	9/16 - 18	30.0	1.18	60.5	2.38	23.0	0.91	19	3/4
N06-08FJ90S	3/8	3/4 - 16	31.0	1.22	61.5	2.42	29.0	1.14	22	7/8
N08-08FJ90S	1/2	3/4 - 16	37.0	1.46	70.0	2.75	29.0	1.14	22	7/8
N08-10FJ90S	1/2	7/8 - 14	38.0	1.50	70.0	2.75	33.0	1.30	27	1 1/16
N08-12FJ90S	1/2	1 1/16 - 12	40.0	1.57	73.0	2.87	40.0	1.57	32	1 1/4
N10-10FJ90S	5/8	7/8 - 14	43.0	1.69	79.0	3.11	32.0	1.26	27	1 1/16
N10-12FJ90S	5/8	1 1/16 - 12	45.0	1.77	81.0	3.19	40.0	1.57	32	1 1/4

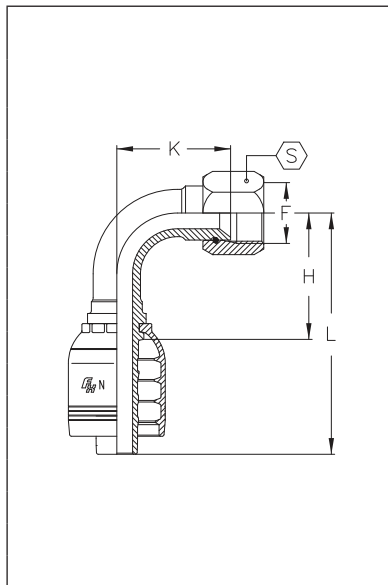
Reference Hose Section for Coupling Compatibility

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



FJ90M

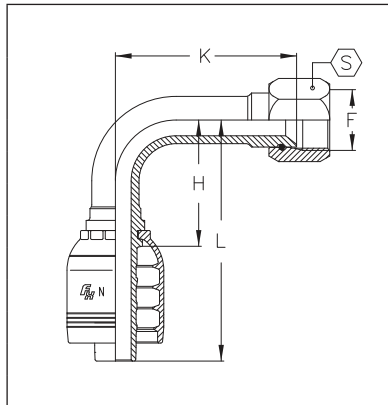
JIC 37° FEMALE SWIVEL - 90° ELBOW MEDIUM DROP



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N06-06FJ90M	3/8	9/16 - 18	31.0	1.22	61.5	2.42	33.0	1.30	19	3/4
N06-08FJ90M	3/8	3/4 - 16	31.0	1.22	61.5	2.42	33.0	1.30	22	7/8
N08-08FJ90M	1/2	3/4 - 16	37.0	1.46	70.0	2.75	39.0	1.54	22	7/8
N08-10FJ90M	1/2	7/8 - 14	37.0	1.46	70.0	2.75	40.0	1.57	27	1 1/16
N08-12FJ90M	1/2	1 1/16 - 12	37.0	1.46	70.0	2.75	45.0	1.77	32	1 1/4
N10-10FJ90M	5/8	7/8 - 14	45.0	1.77	81.0	3.19	45.0	1.77	27	1 1/16
N10-12FJ90M	5/8	1 1/16 - 12	45.0	1.77	81.0	3.19	47.0	1.85	32	1 1/4
N12-12FJ90M	3/4	1 1/16 - 12	55.0	2.16	106.0	4.17	52.0	2.05	32	1 1/4
N12-16FJ90M	3/4	1 5/16 - 12	55.0	2.16	106.0	4.17	56.0	2.20	41	1 5/8
N16-16FJ90M	1	1 5/16 - 12	71.0	2.79	128.0	5.04	67.0	2.64	41	1 5/8
N16-20FJ90M	1	1 5/8 - 12	71.0	2.79	128.0	5.04	69.0	2.72	50	2
N20-20FJ90M	1 1/4	1 5/8 - 12	87.0	3.42	154.0	6.06	81.0	3.19	50	2
N20-24FJ90M	1 1/4	1 7/8 - 12	87.0	3.42	154.0	6.06	82.0	3.23	60	2 3/8
N24-24FJ90M	1 1/2	1 7/8 - 12	105.0	4.13	188.0	7.40	97.0	3.82	60	2 3/8
N32-32FJ90M	2	2 1/2 - 12	140.0	5.51	237.0	9.33	132.0	5.20	75	3

FJ90L

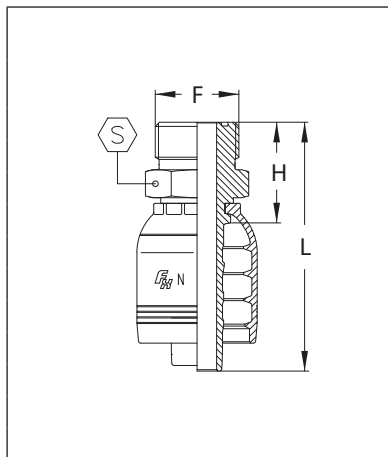
JIC 37° FEMALE SWIVEL - 90° ELBOW LONG DROP



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N06-06FJ90L	3/8	9/16 - 18	31.0	1.22	61.5	2.42	54.0	2.12	19	3/4
N06-08FJ90L	3/8	1 1/16 - 12	31.0	1.22	61.5	2.42	54.0	2.12	19	3/4
N08-08FJ90L	1/2	3/4 - 16	38.0	1.50	71.0	2.79	64.0	2.52	22	7/8
N08-10FJ90L	1/2	7/8 - 14	38.0	1.50	71.0	2.79	70.0	2.75	27	1 1/16
N10-10FJ90L	5/8	7/8 - 14	45.5	1.79	81.0	3.19	70.0	2.76	27	1 1/16
N12-12FJ90L	3/4	1 1/16 - 12	55.0	2.16	106.0	4.17	96.0	3.78	32	1 1/4
N16-16FJ90L	1	1 5/16 - 12	71.0	2.79	128.0	5.04	116.0	4.57	41	1 5/8
N16-20FJ90L	1	1 5/8 - 12	71.0	2.79	128.0	5.04	116.0	4.57	50	2
N20-20FJ90L	1 1/4	1 5/8 - 12	87.0	3.42	154.0	6.06	136.0	5.35	50	2

MF

ORFS MALE



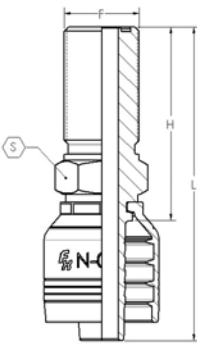
PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
N06-06MF	3/8	1 1/16 - 16	26.0	1.02	56.5	2.22	19	3/4
N06-08MF	3/8	1 3/16 - 16	28.0	1.10	58.5	2.30	22	7/8
N08-08MF	1/2	1 3/16 - 16	29.0	1.14	62.0	2.44	22	7/8
N08-10MF	1/2	1 - 14	33.5	1.32	66.5	2.62	27	1 1/16
N08-12MF	1/2	1 3/16 - 12	35.0	1.38	68.0	2.68	32	1 1/4
N10-10MF	5/8	1 - 14	33.7	1.33	69.5	2.74	27	1 1/16
N10-12MF	5/8	1 3/16 - 12	35.2	1.39	71.0	2.80	32	1 1/4
N12-12MF	3/4	1 3/16 - 12	36.0	1.42	87.0	3.42	32	1 1/4
N12-16MF	3/4	1 7/16 - 12	38.5	1.52	89.5	3.52	41	1 5/8
N16-16MF	1	1 7/16 - 12	41.0	1.61	97.0	3.82	41	1 5/8
N20-20MF	1 1/4	1 11/16 - 12	44.0	1.73	111.0	4.37	46	1 13/16

Reference Hose Section for Coupling Compatibility

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

MFK

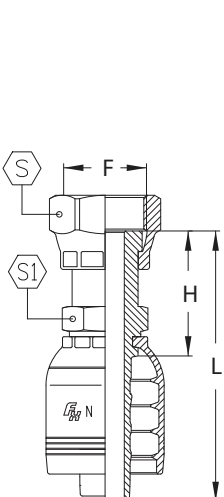
ORFS MALE BULKHEAD



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
N06-06MFK	3/8	1 1/16 - 16	49.0	1.93	79.5	3.13	26	1
N06-08MFK	3/8	1 3/16 - 16	52.0	2.05	82.5	3.25	29	1 1/8
N08-06MFK	1/2	1 1/16 - 16	50.0	1.97	83.0	3.26	26	1
N08-08MFK	1/2	1 3/16 - 16	53.0	2.09	86.0	3.39	29	1 1/8
N10-10MFK	5/8	1 - 14	58.7	2.31	94.5	3.72	34	1 5/16
N16-16MFK	1	1 7/16 - 12	65.0	2.56	121.5	4.78	45	1 3/4


FF

ORFS FEMALE SWIVEL



PART NUMBER	Hose Bore	F	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N06-04FF	3/8	9/16 - 18	26.5	1.04	57.0	2.24	17	1 1/16	16	5/8
N06-06FF	3/8	1 1/16 - 16	28.5	1.12	59.0	2.32	22	7/8	16	5/8
N06-08FF	3/8	1 3/16 - 16	32.5	1.27	63.0	2.48	24	15/16	19	3/4
N06-10FF	3/8	1 - 14	38.5	1.52	69.0	2.71	30	1 3/16	24	15/16
N08-06FF	1/2	1 1/16 - 16	30.5	1.20	63.5	2.50	22	7/8	19	3/4
N08-08FF	1/2	1 3/16 - 16	33.5	1.31	66.5	2.61	24	15/16	19	3/4
N08-10FF	1/2	1 - 14	39.5	1.55	72.5	2.85	30	1 3/16	24	15/16
N08-12FF	1/2	1 3/16 - 12	43.5	1.71	76.5	3.01	36	1 7/16	27	1 1/16
N10-08FF	5/8	1 3/16 - 16	35.7	1.41	71.5	2.81	24	15/16	24	15/16
N10-10FF	5/8	1 - 14	39.5	1.55	75.5	2.97	30	1 3/16	24	15/16
N10-12FF	5/8	1 3/16 - 12	43.7	1.72	79.5	3.12	36	1 7/16	27	1 1/16
N12-10FF	3/4	1 - 14	43.0	1.69	94.0	3.70	30	1 3/16	27	1 1/16
N12-12FF	3/4	1 3/16 - 12	46.0	1.81	97.0	3.82	36	1 7/16	30	1 3/16
N12-16FF	3/4	1 7/16 - 12	49.0	1.93	100.0	3.94	41	1 5/8	36	1 7/16
N16-12FF	1	1 3/16 - 12	48.0	1.89	104.5	4.11	36	1 7/16	36	1 7/16
N16-16FF	1	1 7/16 - 12	51.0	2.01	107.0	4.21	41	1 5/8	36	1 7/16
N16-20FF	1	1 11/16 - 12	52.0	2.05	109.0	4.29	50	2	41	1 5/8
N20-16FF	1 1/4	1 7/16 - 12	53.0	2.09	119.5	4.70	41	1 5/8	41	1 5/8
N20-20FF	1 1/4	1 11/16 - 12	55.0	2.16	121.0	4.76	50	2	41	1 5/8
N20-24FF	1 1/4	2 - 12	60.0	2.36	126.5	4.98	60	2 3/8	50	2
N24-24FF	1 1/2	2 - 12	60.0	2.36	142.0	5.59	60	2 3/8	50	2

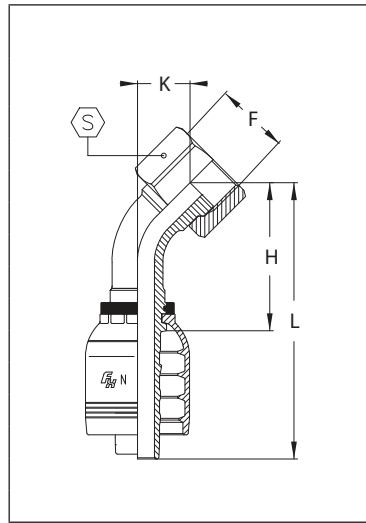
Reference Hose Section for Coupling Compatibility

 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



FF45

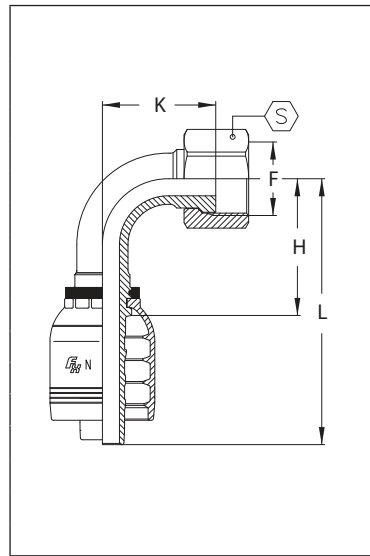
ORFS FEMALE SWIVEL - 45° ELBOW



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N06-06FF45	3/8	1 1/16 - 16	36.0	1.41	66.5	2.61	12.5	0.49	22	7/8
N06-08FF45	3/8	1 3/16 - 16	38.5	1.51	69.0	2.71	15.0	0.59	24	1 5/16
N08-08FF45	1/2	1 3/16 - 16	42.5	1.67	75.5	2.97	15.5	0.61	24	1 5/16
N08-10FF45	1/2	1 - 14	45.0	1.77	78.0	3.07	17.5	0.68	30	1 3/16
N08-12FF45	1/2	1 3/16 - 12	47.0	1.85	80.0	3.14	20.5	0.80	36	1 7/16
N10-10FF45	5/8	1 - 14	49.0	1.92	85.0	3.34	18.0	0.70	30	1 3/16
N10-12FF45	5/8	1 3/16 - 12	51.5	2.02	87.5	3.44	20.5	0.80	36	1 7/16
N12-12FF45	3/4	1 3/16 - 12	60.0	2.36	111.0	4.37	22.0	0.87	36	1 7/16
N12-16FF45	3/4	1 7/16 - 12	61.0	2.40	112.0	4.41	23.0	0.91	41	1 5/8
N16-16FF45	1	1 7/16 - 12	78.0	3.07	134.0	5.27	29.0	1.14	41	1 5/8
N16-20FF45	1	1 11/16 - 12	77.5	3.05	134.0	5.27	29.0	1.14	50	2
N20-20FF45	1 1/4	1 11/16 - 12	93.0	3.66	159.0	6.26	34.0	1.34	50	2
N24-24FF45	1 1/4	2 - 12	113.0	4.45	195.0	7.68	41.0	1.61	60	2 1/2

FF90S

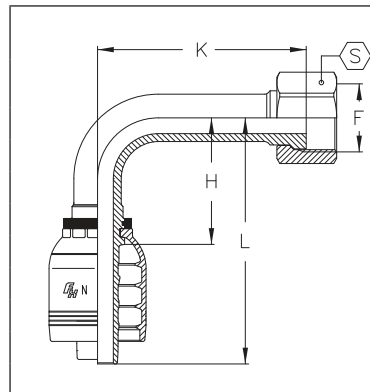
ORFS FEMALE SWIVEL - 90° ELBOW SHORT DROP



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N06-06FF90S	3/8	1 1/16 - 16	31.5	1.24	62.0	2.44	24.5	0.96	22	7/8
N06-08FF90S	3/8	1 3/16 - 16	30.5	1.20	61.0	2.40	30.0	1.18	24	1 5/16
N08-08FF90S	1/2	1 3/16 - 16	39.0	1.54	72.0	2.83	31.0	1.22	24	1 5/16
N08-10FF90S	1/2	1 - 14	39.0	1.54	72.0	2.83	34.0	1.34	30	1 3/16
N08-12FF90S	1/2	1 3/16 - 12	39.0	1.54	72.0	2.83	42.0	1.65	36	1 7/16
N10-10FF90S	5/8	1 - 14	45.0	1.77	81.0	3.19	35.0	1.38	30	1 3/16
N10-12FF90S	5/8	1 3/16 - 12	45.0	1.77	81.0	3.19	42.0	1.65	36	1 7/16
N12-10FF90S	3/4	1 - 14	47.0	1.85	98.0	3.86	52.0	2.05	30	1 3/16
N12-12FF90S	3/4	1 3/16 - 12	54.0	2.13	105.0	4.13	48.0	1.89	36	1 7/16
N12-16FF90S	3/4	1 7/16 - 12	54.0	2.13	105.0	4.13	49.0	1.93	41	1 5/8
N16-16FF90S	1	1 7/16 - 12	70.5	2.78	127.0	5.00	62.0	2.44	41	1 5/8
N16-20FF90S	1	1 11/16 - 12	71.0	2.80	127.0	5.00	62.0	2.44	50	1 15/16
N20-20FF90M	1 1/4	1 11/16 - 12	87.0	3.43	153.0	6.02	75.0	2.95	50	1 15/16
N24-24FF90M	1 1/2	2 - 12	105.0	4.13	187.0	7.36	90.0	3.54	60	2 3/8

FF90L

ORFS FEMALE SWIVEL - 90° ELBOW LONG DROP



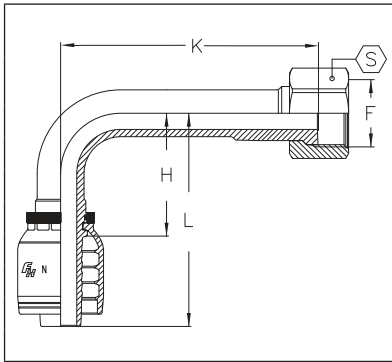
PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N06-06FF90L	3/8	1 1/16 - 16	34.0	1.33	64.5	2.53	54.0	2.12	22	7/8
N06-08FF90L	3/8	1 3/16 - 16	34.0	1.33	64.5	2.53	64.0	2.51	24	1 5/16
N08-08FF90L	1/2	1 3/16 - 16	39.0	1.53	72.0	2.83	64.0	2.51	24	1 5/16
N08-10FF90L	1/2	1 - 14	39.0	1.53	72.0	2.83	70.0	2.75	30	1 3/16
N10-10FF90L	5/8	1 - 14	45.0	1.77	81.0	3.18	70.0	2.75	30	1 3/16
N12-12FF90L	3/4	1 3/16 - 12	54.0	2.13	105.0	4.13	96.0	3.78	36	1 7/16
N16-16FF90L	1	1 7/16 - 12	71.0	2.79	127.0	5.00	114.0	4.49	41	1 5/8
N20-20FF90L	1 1/4	1 11/16 - 12	87.0	3.42	153.0	6.02	130.0	5.12	50	2
N24-24FF90L	1 1/2	2 - 12	105.0	4.13	187.0	7.36	155.0	6.10	60	2 1/2

Reference Hose Section for Coupling Compatibility

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FF90LL

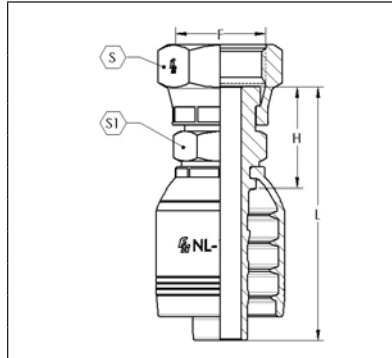
ORFS FEMALE SWIVEL - 90° EXTRA LONG DROP



PART NUMBER	Hose Bore	F	H		L		S		SI	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N08-08FF90LL	1/2	13/16 - 16	39.0	1.53	72.0	2.83	83.0	3.27	24	15/16

FFC

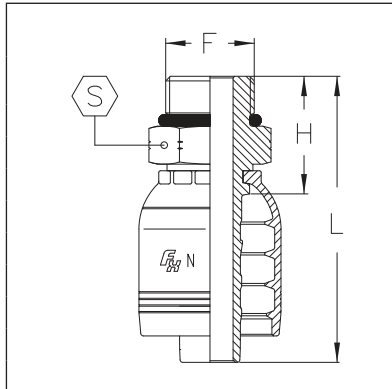
ORFS FEMALE SWIVEL - COMPACT



PART NUMBER	Hose Bore	F	H		L		S		SI	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N06-06FFC	3/8	1 1/16 - 16	21.5	0.85	52.0	2.05	22	7/8	16	5/8
N06-08FFC	3/8	13/16 - 16	26.0	1.02	56.5	2.22	24	15/16	19	3/4
N08-08FFC	1/2	13/16 - 16	27.0	1.06	60.0	2.36	24	15/16	19	3/4
N10-10FFC	5/8	1 - 14	31.2	1.23	67.0	2.64	30	1 3/16	24	15/16
N10-12FFC	5/8	1 3/16 - 12	35.2	1.39	71.0	2.80	36	1 7/16	27	1 1/16

MOB

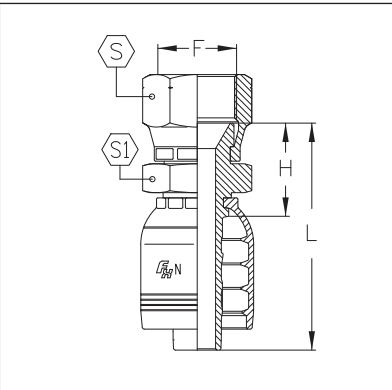
O-RING BOSS MALE



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
N06-06MOB	3/8	9/16 - 18	25.5	1.00	56.0	2.20	17	1 1/16
N08-08MOB	1/2	3/4 - 16	29.5	1.61	62.5	2.46	22	7/8

FJIS

JIS FEMALE SWIVEL (TOYOTA)



PART NUMBER	Hose Bore	F	H		L		S		SI	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N06-06FJIS	3/8	Cj, - 19	22.5	0.89	53.0	2.09	22	7/8	19	3/4
N08-08FJIS	1/2	Z x - 14	26.0	1.02	59.0	2.32	27	1 1/16	22	7/8
N12-12FJIS	3/4	C v - 14	32.0	1.26	83.0	3.27	32	1 5/8	27	1 1/16
N16-16FJIS	1	1 - 11	37.0	1.46	93.5	3.68	41	2	36	1 1/16
N20-20FJIS	1 1/4	1Z v - 11	44.0	1.73	110.5	4.35	50	2 3/16	41	1 5/8
N24-24FJIS	1 1/2	1Z x - 11	48.5	1.91	131.0	5.16	55	2 3/8	50	1 15/16

Reference Hose Section for Coupling Compatibility

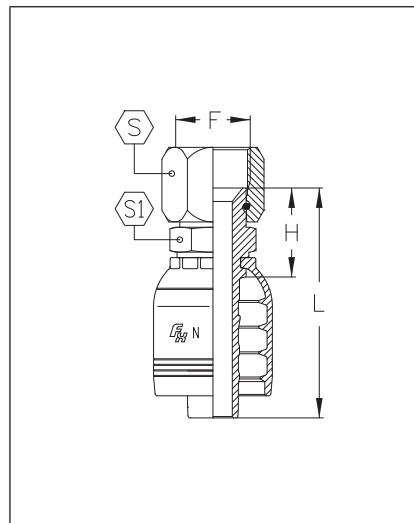
WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





FK

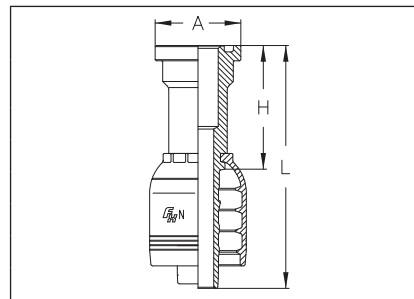
KOMATSU FEMALE SWIVEL



PART NUMBER	Hose Bore	F	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N06-18FK	3/8	M18 x 1.5	22.5	0.89	53.0	2.09	24	15/16	19	3/4
N06-20FK	3/8	M20 x 1.5	28.5	1.12	59.0	2.32	26	1 1/32	22	7/8
N06-22FK	3/8	M22 x 1.5	28.5	1.12	59.0	2.32	27	1 1/16	22	7/8
N08-18FK	1/2	M18 x 1.5	26.0	1.02	59.0	2.32	24	15/16	22	7/8
N08-22FK	1/2	M22 x 1.5	26.0	1.02	59.0	2.32	27	1 1/16	22	7/8
N08-24FK	1/2	M24 x 1.5	30.0	1.18	63.0	2.48	32	1 1/4	27	1 1/16
N10-24FK	5/8	M24 x 1.5	30.2	1.19	66.0	2.60	32	1 1/4	27	1 1/16
N12-24FK	3/4	M24 x 1.5	33.0	1.30	84.0	3.31	32	1 1/4	32	1 1/4
N12-30FK	3/4	M30 x 1.5	33.5	1.32	84.5	3.33	36	1 7/16	32	1 1/4
N16-33FK	1	M33 x 1.5	38.0	1.50	94.5	3.72	41	1 5/8	36	1 7/16
N16-36FK	1	M36 x 1.5	41.0	1.16	97.5	3.84	46	1 13/16	41	1 5/8
N20-36FK	1 1/4	M36 x 1.5	44.0	1.73	110.5	43.5	46	1 13/16	41	1 5/8
N24-42FK	1 1/2	M42 x 1.5	48.5	1.91	131.0	5.16	50	2	50	2

FLK

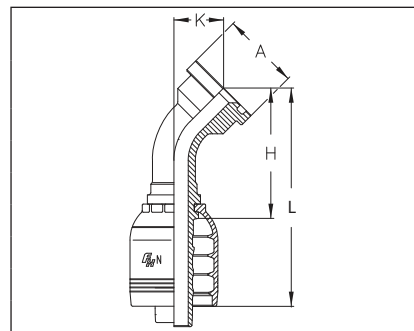
KOMATSU FLANGE



PART NUMBER	Hose Bore	FLANGE	A		H		L	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
N08-10FLK	1/2	34mm x .265	34.0	1.33	49.0	1.93	82.0	3.23
N10-10FLK	5/8	34mm x .265	34.0	1.33	49.2	1.94	85.0	3.35

FLK45

KOMATSU FLANGE - 45° ELBOW



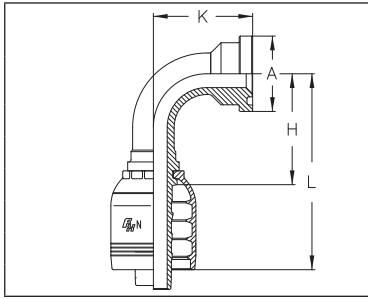
PART NUMBER	Hose Bore	FLANGE	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N08-10FLK45	1/2	34mm x .265	34.0	1.33	71.0	2.79	104.0	4.09	28.0	1.10
N10-10FLK45	5/8	34mm x .265	34.0	1.33	74.2	2.92	110.0	4.33	30.0	1.18

Reference Hose Section for Coupling Compatibility

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FLK90

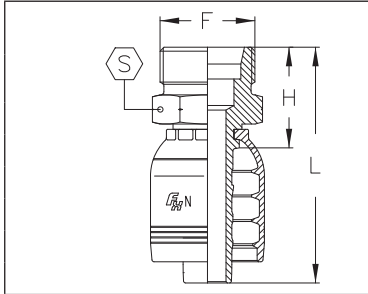
KOMATSU FLANGE - 90° ELBOW



PART NUMBER	Hose Bore	FLANGE	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N08-10FLK90-044	1/2	34mm x .265	34.0	1.33	38.0	1.50	71.0	2.80	42.0	1.65
N10-10FLK90-049	5/8	34mm x .265	34.0	1.33	45.0	1.77	81.0	3.20	44.0	1.73

MKBC

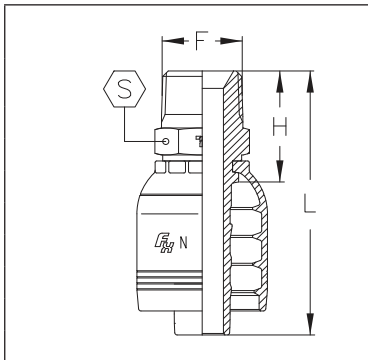
KOBELCO MALE



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
N12-30MKBC	3/4	M30 x 1.5	39.2	1.54	90.2	3.55	38	1 1/2
N12-36MKBC	3/4	M36 x 1.5	39.2	1.54	90.2	3.55	41	1 5/8
N16-36MKBC	1	M36 x 1.5	42.5	1.67	99.0	3.90	41	1 5/8
N16-45MKBC	1	M45 x 1.5	45.0	1.77	101.6	4.00	50	2

MBSPT

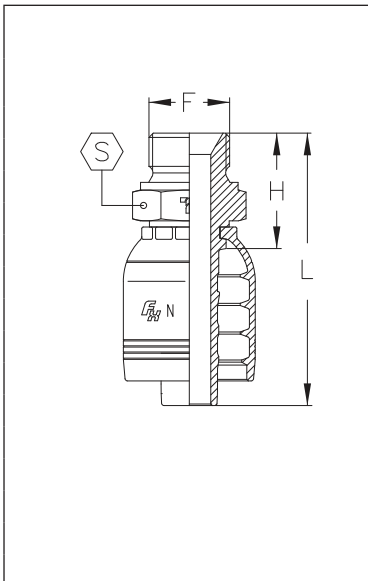
BSPT MALE



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
N06-06MBSPT	3/8	3/8 - 19	27.0	1.06	57.5	2.26	19	3/4
N06-08MBSPT	3/8	1/2 - 14	32.0	1.26	62.5	2.46	22	7/8
N08-08MBSPT	1/2	1/2 - 14	33.0	1.30	66.0	2.60	22	7/8
N12-12MBSPT	3/4	3/4 - 14	37.0	1.46	88.0	3.46	27	1 1/16
N16-16MBSPT	1	1 - 11	44.0	1.73	100.5	3.96	36	1 1/16
N20-20MBSPT	1 1/4	1 1/4 - 11	51.0	2.01	117.5	4.63	46	1 13/16
N24-24MBSPT	1 1/2	1 1/2 - 11	54.0	2.12	136.5	5.37	50	2
N32-32MBSPT	2	2 - 11	64.0	2.52	160.5	6.32	65	2 9/16

MBSP

BSPP MALE



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
N06-06MBSP	3/8	3/8 - 19	27.5	1.08	58.0	2.28	22	7/8
N06-08MBSP	3/8	1/2 - 14	31.5	1.24	62.0	2.44	27	1 1/16
N08-06MBSP	1/2	3/8 - 19	28.0	1.10	61.0	2.40	22	7/8
N08-08MBSP	1/2	1/2 - 14	33.0	1.30	66.0	2.60	27	1 1/16
N08-12MBSP	1/2	3/4 - 14	36.0	1.42	69.0	2.72	32	1 1/4
N10-08MBSP	5/8	1/2 - 14	34.2	1.35	70.0	2.76	27	1 1/16
N10-10MBSP	5/8	5/8 - 14	35.0	1.38	71.0	2.80	30	1 3/16
N10-12MBSP	5/8	3/4 - 14	36.0	1.42	72.0	2.83	32	1 1/4
N12-12MBSP	3/4	3/4 - 14	37.0	1.47	88.0	3.46	32	1 1/4
N12-16MBSP	3/4	1 - 11	43.0	1.69	94.0	3.70	41	1 5/8
N16-16MBSP	1	1 - 11	45.0	1.77	101.5	4.00	41	1 5/8
N16-20MBSP	1	1 1/4 - 11	48.0	1.89	104.5	4.11	50	2
N20-20MBSP	1 1/4	1 1/4 - 11	51.0	2.01	117.5	4.63	50	2
N24-24MBSP	1 1/2	1 1/2 - 11	54.0	2.13	136.5	5.37	55	2 3/16
N32-32MBSP	2	2 - 11	64.0	2.52	160.5	6.32	70	2 3/4

Reference Hose Section for Coupling Compatibility

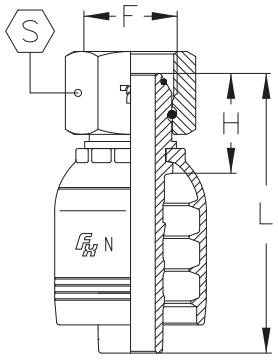
WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





FBSP

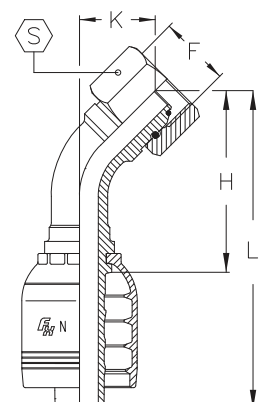
BSPP FEMALE SWIVEL



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
N06-06FBSP	3/8	C - 19	20.5	0.81	51.0	2.01	22	7/8
N06-08FBSP	3/8	Z x - 14	23.5	0.93	54.0	2.13	27	1 1/16
N08-06FBSP	1/2	C - 19	23.0	0.91	56.0	2.20	22	7/8
N08-08FBSP	1/2	Z x - 14	23.0	0.91	56.0	2.20	27	1 1/16
N08-10FBSP	1/2	B - 14	24.0	0.94	57.0	2.24	30	1 3/16
N08-12FBSP	1/2	C v - 14	27.0	1.06	60.0	2.36	32	1 1/4
N10-10FBSP	5/8	B - 14	23.0	0.91	59.0	2.32	30	1 3/16
N10-12FBSP	5/8	C v - 14	27.0	1.06	63.0	2.48	32	1 1/4
N12-12FBSP	3/4	C v - 14	29.0	1.14	80.0	3.15	32	1 1/4
N12-16FBSP	3/4	1 - 11	33.0	1.26	84.0	3.27	41	1 5/8
N16-16FBSP	1	1 - 11	24.0	1.34	90.0	3.54	41	1 5/8
N16-20FBSP	1	1Z v - 11	38.0	1.50	95.0	3.74	50	2
N20-20FBSP	1 1/4	1Z x - 11	39.0	1.54	106.0	4.17	50	2
N20-24FBSP	1 1/4	1Z x - 11	42.0	1.65	109.0	4.29	60	2 3/8
N24-24FBSP	1 1/2	1Z x - 11	43.0	1.69	125.0	4.92	60	2 3/8
N32-32FBSP	2	2 - 11	47.0	1.85	143.0	5.63	75	3

FBSP45

BSPP FEMALE SWIVEL - 45° ELBOW

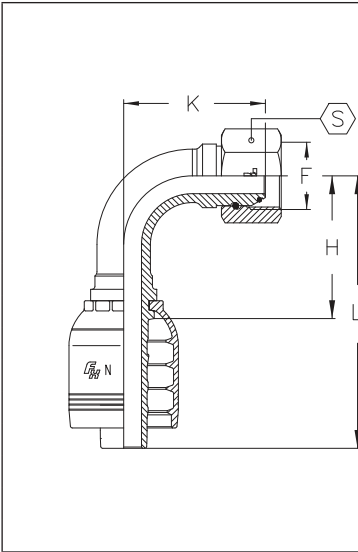


PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N06-06FBSP45	3/8	3/8 - 19	42.0	1.65	73.0	2.87	19.0	0.75	22	7/8
N06-08FBSP45	3/8	1/2 - 14	44.0	1.73	75.0	2.95	21.0	0.83	27	1 1/16
N08-08FBSP45	1/2	1/2 - 14	49.0	1.93	82.0	3.23	22.0	0.87	27	1 1/16
N08-10FBSP45	1/2	5/8 - 14	49.0	1.93	82.0	3.23	22.0	0.87	30	1 3/16
N10-10FBSP45	5/8	5/8 - 14	54.0	2.13	89.8	3.54	24.0	0.94	30	1 3/16
N10-12FBSP45	5/8	3/4 - 14	57.0	2.24	93.0	3.66	26.0	1.02	32	1 1/4
N12-12FBSP45	3/4	3/4 - 14	67.0	2.64	118.0	4.65	29.0	1.14	32	1 1/4
N12-16FBSP45	3/4	1 - 11	70.0	2.76	121.0	4.76	32.0	1.26	41	1 5/8
N16-16FBSP45	1	1 - 11	86.0	3.39	142.0	5.59	36.0	1.42	41	1 5/8
N16-20FBSP45	1	1 1/4 - 11	87.0	3.43	143.0	5.59	37.0	1.46	50	2
N20-20FBSP45	1 1/4	1 1/4 - 11	103.0	4.06	169.0	6.65	43.0	1.69	50	2
N20-24FBSP45	1 1/4	1 1/2 - 11	103.0	4.06	169.0	6.65	43.0	1.69	60	2 3/8
N24-24FBSP45	1 1/2	1 1/2 - 11	123.0	4.84	206.0	8.11	51.0	2.01	60	2 3/8
N32-32FBSP45	2	2 - 11	160.0	6.30	257.0	10.12	65.0	2.56	75	3

Reference Hose Section for Coupling Compatibility

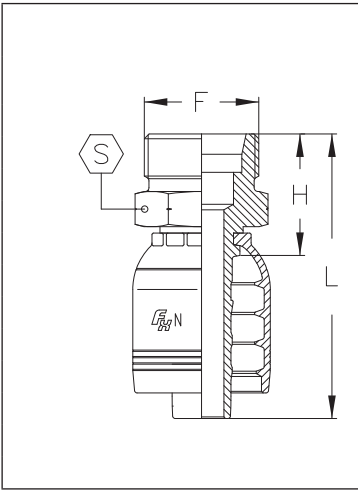
! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FBSP90 BSPP FEMALE SWIVEL - 90° ELBOW



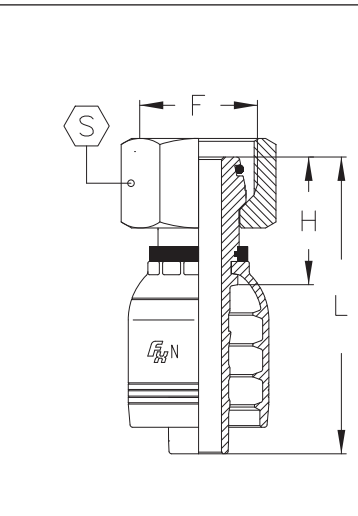
PART NUMBER	Hose Bore	F	H		L		K		⊕	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N06-06FBSP90	3/8	3/8 - 19	31.0	1.22	61.0	2.40	35.0	1.38	22	7/8
N06-08FBSP90	3/8	1/2 - 14	30.5	1.20	61.0	2.40	38.0	1.50	27	1 1/16
N08-08FBSP90	1/2	1/2 - 14	37.0	1.46	70.0	2.76	42.0	1.65	27	1 1/16
N08-10FBSP90	1/2	5/8 - 14	37.0	1.46	70.0	2.76	43.0	1.69	30	1 3/16
N10-10FBSP90	5/8	5/8 - 14	45.0	1.77	80.0	3.15	46.0	1.81	30	1 3/16
N10-12FBSP90	5/8	3/4 - 14	45.0	1.77	80.8	3.18	50.0	1.97	32	1 1/4
N12-12FBSP90	3/4	3/4 - 14	55.0	2.17	106.0	4.17	57.0	2.24	32	1 1/4
N12-16FBSP90	3/4	1 - 11	55.0	2.17	106.0	4.17	61.0	2.40	41	1 5/8
N16-16FBSP90	1	1 - 11	71.0	2.80	128.0	5.04	72.0	2.83	41	1 5/8
N16-20FBSP90	1	1 1/4 - 11	71.0	2.80	128.0	5.04	74.0	2.91	50	2
N20-20FBSP90	1 1/4	1 1/4 - 11	87.0	3.43	154.0	6.06	88.0	3.46	50	2
N20-24FBSP90	1 1/4	1 1/2 - 11	87.0	3.43	154.0	6.06	88.0	3.46	60	2 3/8
N24-24FBSP90	1 1/2	1 1/2 - 11	105.0	4.13	188.0	7.40	104.0	4.09	60	2 3/8
N32-32FBSP90	2	2 - 11	140.0	5.51	237.0	9.33	137.0	5.39	75	3

MML MALE METRIC LIGHT (24° SEAT) - CEL




PART NUMBER	Hose Bore	F	Tube	H		L		⊕	
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]
N06-16MML	3/8	M16 x 1.5	L10	23.0	0.91	53.5	2.11	17	1 1/16
N06-18MML	3/8	M18 x 1.5	L12	23.0	0.91	53.0	2.09	19	3/4
N06-22MML	3/8	M22 x 1.5	L15	25.0	0.98	55.5	2.19	22	7/8
N08-18MML	1/2	M18 x 1.5	L12	25.0	0.98	58.0	2.28	20	13/16
N08-22MML	1/2	M22 x 1.5	L15	26.0	1.02	59.0	2.32	22	7/8
N08-26MML	1/2	M26 x 1.5	L18	28.0	1.10	61.0	2.40	27	1 1/16
N10-26MML	5/8	M26 x 1.5	L18	28.0	1.10	63.8	2.51	27	1 1/16
N10-30MML	5/8	M30 x 2.0	L22	30.0	1.18	65.8	2.59	30	1 3/16
N12-30MML	3/4	M30 x 2.0	L22	32.0	1.26	83.0	3.27	30	1 3/16
N16-36MML	1	M36 x 2.0	L28	36.0	1.42	92.5	3.64	36	1 7/16
N20-45MML	1 1/4	M45 x 2.0	L35	42.5	1.67	109.0	4.29	46	1 13/16
N24-52MML	1 1/2	M52 x 2.0	L42	47.0	1.85	129.5	5.10	55	2 3/16

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



PART NUMBER	Hose Bore	F	Tube	H		L		⊕	
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]
N06-16FML	3/8	M16 x 1.5	L10	23.0	0.91	53.5	2.11	19	3/4
N06-18FML	3/8	M18 x 1.5	L12	23.5	0.93	54.0	2.13	22	7/8
N06-22FML	3/8	M22 x 1.5	L15	24.5	0.96	55.0	2.17	27	1 1/16
N08-22FML	1/2	M22 x 1.5	L15	25.0	0.98	58.0	2.28	27	1 1/16
N08-26FML	1/2	M26 x 1.5	L18	26.0	1.02	59.0	2.32	32	1 1/4
N10-22FML	5/8	M22 x 1.5	L15	26.2	1.03	62.0	2.44	27	1 1/16
N10-26FML	5/8	M26 x 1.5	L18	26.2	1.03	62.0	2.44	32	1 1/4
N10-30FML	5/8	M30 x 1.5	L22	27.2	1.07	63.0	2.48	36	1 1/16
N12-26FML	3/4	M26 x 1.5	L18	32.0	1.26	72.5	2.85	32	1 1/4
N12-30FML	3/4	M30 x 2.0	L22	30.0	1.18	81.0	3.19	36	1 1/16
N16-36FML	1	M36 x 2.0	L28	24.0	1.34	90.5	3.56	41	1 5/8
N20-45FML	1 1/4	M45 x 2.0	L35	29.3	1.55	105.8	4.17	50	2
N24-52FML	1 1/2	M52 x 2.0	L42	41.5	1.63	124.0	4.88	60	2 3/8

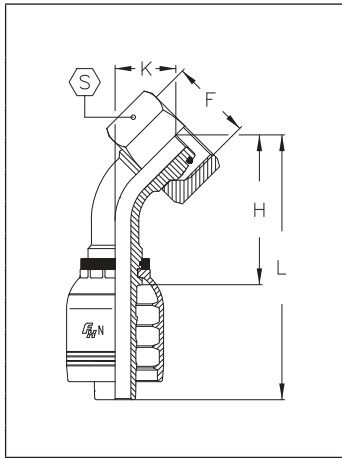
Reference Hose Section for Coupling Compatibility

 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



FML45

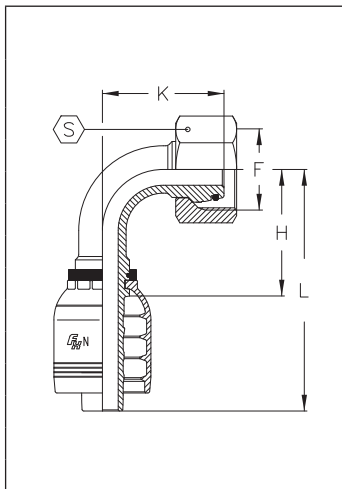
FEMALE METRIC LIGHT SWIVEL - 45° ELBOW (24° SEAT) - DKOL



PART NUMBER	Hose Bore	F	Tube	H		L		K		S	
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N06-16FML45	3/8	M16 x 1.5	L10	38.0	1.50	68.5	2.70	16.0	0.63	19	3/4
N06-18FML45	3/8	M18 x 1.5	L12	40.0	1.57	70.5	2.78	18.0	0.71	22	7/8
N06-22FML45	3/8	M22 x 1.5	L15	42.0	1.65	72.5	2.85	19.0	0.75	27	1 1/16
N08-22FML45	1/2	M22 x 1.5	L15	46.0	1.81	79.0	3.11	19.0	0.75	27	1 1/16
N08-26FML45	1/2	M26 x 1.5	L18	47.0	1.85	80.0	3.15	21.8	0.86	32	1 1/4
N10-26FML45	5/8	M26 x 1.5	L18	53.0	2.08	89.4	3.50	22.0	0.87	32	1 1/4
N10-30FML45	5/8	M30 x 2.0	L22	52.6	2.07	88.4	3.48	23.0	0.91	36	1 7/16
N12-30FML45	3/4	M30 x 2.0	L22	64.0	2.52	115.0	4.53	25.0	0.98	36	1 7/16
N16-36FML45	1	M36 x 2.0	L28	82.0	3.23	138.5	5.47	31.0	1.22	41	1 5/8
N20-45FML45	1 1/4	M45 x 2.0	L35	101.0	3.98	167.5	6.59	40.0	1.57	50	2
N20-52FML45	1 1/4	M52 x 2.0	L42	121.0	4.76	203.5	8.01	48.0	1.89	60	2 3/8

FML90

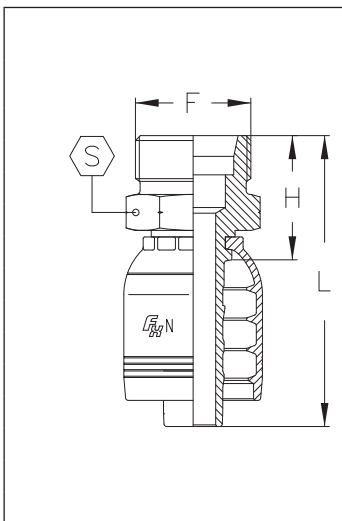
FEMALE METRIC LIGHT SWIVEL - 90° ELBOW (24° SEAT) - DKOL



PART NUMBER	Hose Bore	F	Tube	H		L		K		S	
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N06-16FML90	3/8	M16 x 1.5	L10	30.0	1.18	60.5	2.38	31.0	1.22	19	3/4
N06-18FML90	3/8	M18 x 1.5	L12	30.5	1.20	61.0	2.40	33.0	1.30	22	7/8
N06-22FML90	3/8	M22 x 1.5	L15	31.0	1.22	61.5	2.42	35.0	1.38	27	1 1/16
N08-22FML90	1/2	M22 x 1.5	L15	37.2	1.46	70.0	2.76	38.0	1.50	27	1 1/16
N08-26FML90	1/2	M26 x 1.5	L18	37.2	1.46	70.0	2.76	40.0	1.57	32	1 1/4
N10-26FML90	5/8	M26 x 1.5	L18	44.8	1.76	80.6	3.17	45.0	1.77	32	1 1/4
N10-30FML90	5/8	M30 x 2.0	L22	42.6	1.68	78.4	3.09	47.0	1.85	36	1 7/16
N12-30FML90	3/4	M30 x 2.0	L22	57.0	2.24	108.0	4.25	55.0	2.17	36	1 7/16
N16-36FML90	1	M36 x 2.0	L28	73.0	2.87	129.5	5.10	69.0	2.72	41	1 5/8
N20-45FML90	1 1/4	M45 x 2.0	L35	90.0	3.54	156.5	6.16	83.0	3.27	50	2
N24-52FML90	1 1/2	M52 x 2.0	L42	105.0	4.13	187.5	7.38	100.0	3.94	60	2 3/8
N24-52FML90-170	1 1/2	M52 x 2.0	L42	105.0	4.13	187.5	7.38	170.0	6.69	60	2 3/8

MMS

MALE METRIC HEAVY (24° SEAT) - CES



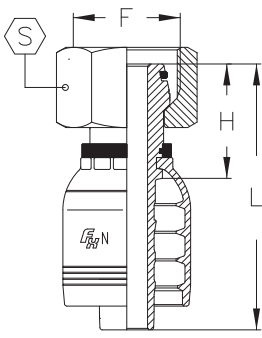
PART NUMBER	Hose Bore	F	Tube	H		L		S	
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]
N06-18MMS	3/8	M18 x 1.5	S10	24.0	0.94	54.5	2.15	19	3/4
N06-20MMS	3/8	M20 x 1.5	S12	25.0	0.98	55.5	2.19	22	7/8
N06-22MMS	3/8	M22 x 1.5	S14	27.0	1.06	57.5	2.26	22	7/8
N06-24MMS	3/8	M24 x 1.5	S16	28.0	1.10	58.5	2.30	24	1 5/16
N08-24MMS	1/2	M24 x 1.5	S16	29.0	1.14	92.0	2.44	24	1 5/16
N10-30MMS	5/8	M30 x 2.0	S20	32.0	1.26	67.8	2.67	30	1 3/16
N12-30MMS	3/4	M30 x 2.0	S20	34.0	1.34	85.0	3.35	30	1 3/16
N12-36MMS	3/4	M36 x 2.0	S25	38.0	1.50	89.0	3.50	36	1 7/16
N16-36MMS	1	M36 x 2.0	S25	40.0	1.57	96.5	3.80	36	1 7/16
N16-42MMS	1	M42 x 2.0	S30	44.0	1.73	100.5	3.96	46	1 13/16
N20-42MMS	1 1/4	M42 x 2.0	S30	47.0	1.85	113.5	4.47	46	1 13/16
N20-52MMS	1 1/4	M52 x 2.0	S38	51.0	2.01	117.5	4.63	55	2 3/16
N24-52MMS	1 1/2	M52 x 2.0	S38	53.0	2.09	135.5	5.33	55	2 3/16

Reference Hose Section for Coupling Compatibility

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FMS

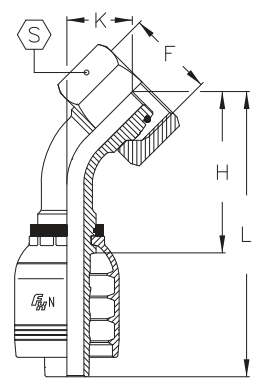
FEMALE METRIC HEAVY SWIVEL (24° SEAT) - DKOS



PART NUMBER	Hose Bore	F	Tube	H		L		S	
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]
N06-18FMS	3/8	M18 x 1.5	S10	24.5	0.96	55.0	2.17	22	7/8
N06-20FMS	3/8	M20 x 1.5	S12	23.5	0.93	54.0	2.13	24	15/16
N06-22FMS	3/8	M22 x 1.5	S14	27.0	1.06	58.0	2.28	27	1 1/16
N06-24FMS	3/8	M24 x 1.5	S16	29.0	1.14	60.0	2.36	30	1 3/16
N08-22FMS	1/2	M22 x 1.5	S14	28.0	1.10	61.0	2.40	27	1 1/16
N08-24FMS	1/2	M24 x 1.5	S16	29.0	1.14	62.0	2.44	30	1 3/16
N10-30FMS	5/8	M30 x 2.0	S20	33.2	1.31	69.0	2.72	36	1 7/16
N12-30FMS	3/4	M30 x 2.0	S20	37.0	1.46	88.0	3.46	36	1 7/16
N12-36FMS	3/4	M36 x 2.0	S25	39.0	1.54	90.0	3.54	46	1 13/16
N16-36FMS	1	M36 x 2.0	S25	41.0	1.61	97.5	3.82	46	1 13/16
N16-42FMS	1	M42 x 2.0	S30	42.0	1.65	98.5	3.86	50	2
N20-42FMS	1 1/4	M42 x 2.0	S30	43.0	1.69	109.5	4.29	50	2
N20-52FMS	1 1/4	M52 x 2.0	S38	48.0	1.89	114.5	4.53	60	2 3/16
N24-52FMS	1 1/2	M52 x 2.0	S38	51.0	2.01	133.5	5.24	60	2 3/16


FMS45

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



PART NUMBER	Hose Bore	F	Tube	H		L		K		S	
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N06-18FMS45	3/8	M18 x 1.5	S10	39.5	1.56	70.0	2.76	17.0	0.67	22	7/8
N06-20FMS45	3/8	M20 x 1.5	S12	40.0	1.57	70.5	2.78	18.0	0.71	24	15/16
N06-22FMS45	3/8	M22 x 1.5	S14	41.5	1.63	72.0	2.83	19.0	0.75	27	1 1/16
N08-22FMS45	1/2	M22 x 1.5	S14	46.0	1.81	29.0	3.11	20.0	0.79	27	1 1/16
N08-24FMS45	1/2	M24 x 1.5	S16	47.0	1.85	80.0	3.15	21.0	0.83	30	1 3/16
N10-30FMS45	5/8	M30 x 2.0	S20	56.0	2.20	92.0	3.62	25.0	0.98	36	1 7/16
N12-30FMS45	3/4	M30 x 2.0	S20	65.0	2.56	116.0	4.57	27.0	1.06	36	1 7/16
N12-36FMS45	3/4	M36 x 2.0	S25	66.0	2.60	117.0	4.61	28.0	1.10	46	1 13/16
N16-36FMS45	1	M36 x 2.0	S25	83.0	3.27	139.5	5.49	34.0	1.34	46	1 13/16
N16-42FMS45	1	M42 x 2.0	S30	82.0	3.23	138.5	5.45	32.0	1.26	50	2
N20-42FMS45	1 1/4	M42 x 2.0	S30	100.0	3.94	166.5	6.56	40.0	1.57	50	2
N20-52FMS45	1 1/4	M52 x 2.0	S38	97.0	3.82	163.5	6.44	38.0	1.50	60	2 3/8
N24-52FMS45	1 1/2	M52 x 2.0	S38	121.0	4.76	203.5	8.01	48.0	1.89	60	2 3/8

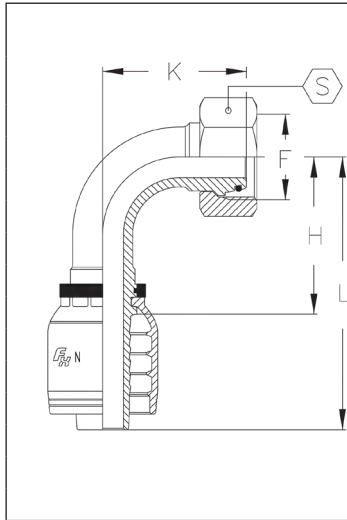
Reference Hose Section for Coupling Compatibility

 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



FMS90

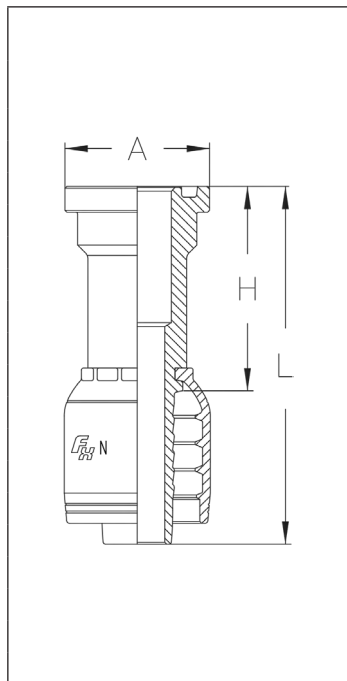
FEMALE METRIC HEAVY SWIVEL - 90° ELBOW (24° SEAT) - DKOS



PART NUMBER	Hose Bore	F	Tube	H		L		K		S	
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N06-18FMS90	3/8	M18 x 1.5	S10	30.0	1.18	60.5	2.38	33.0	1.30	22	7/8
N06-20FMS90	3/8	M20 x 1.5	S12	31.0	1.22	61.5	2.42	33.0	1.30	24	15/16
N06-22FMS90	3/8	M22 x 1.5	S14	33.5	1.32	64.0	2.52	37.0	1.46	27	1 1/16
N08-22FMS90	1/2	M22 x 1.5	S14	39.0	1.54	72.0	2.83	41.0	1.61	27	1 1/16
N08-24FMS90	1/2	M24 x 1.5	S16	39.0	1.54	72.0	2.83	42.0	1.65	30	1 3/16
N10-30FMS90	5/8	M30 x 2.0	S20	44.0	1.73	79.8	3.14	49.0	1.93	36	1 7/16
N12-30FMS90	3/4	M30 x 2.0	S20	55.0	2.17	106.0	4.17	55.0	2.16	36	1 7/16
N12-36FMS90	3/4	M36 x 2.0	S25	55.0	2.17	106.0	4.17	55.0	2.16	46	1 13/16
N16-36FMS90	1	M36 x 2.0	S25	71.0	2.80	127.5	5.02	69.0	2.72	46	1 13/16
N16-42FMS90	1	M42 x 2.0	S30	71.0	2.80	127.5	5.02	67.0	2.64	50	2
N20-42FMS90	1 1/4	M42 x 2.0	S30	87.0	3.43	153.5	6.04	83.0	3.27	50	2
N20-52FMS90	1 1/4	M52 x 2.0	S38	87.0	3.43	153.5	6.06	80.0	3.15	60	2 3/8
N24-52FMS90	1 1/2	M52 x 2.0	S38	105.0	4.13	187.5	7.38	100.0	3.94	60	2 3/8

FL

SAE CODE 61 FLANGE



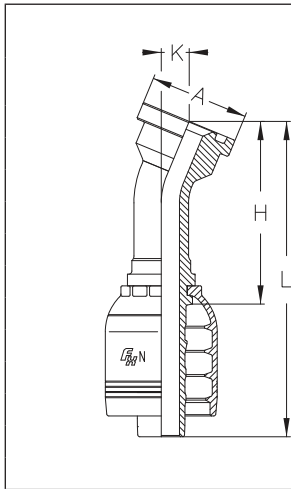
PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
N08-08FL	1/2	0.265	30.2	1.19	48.5	1.91	81.5	3.21
N08-12FL	1/2	0.265	38.1	1.50	52.5	2.07	85.5	3.37
N10-12FL	5/8	0.265	38.1	1.50	52.7	2.07	88.5	3.48
N12-12FL	3/4	0.265	38.1	1.50	55.0	2.17	106.0	4.17
N12-16FL	3/4	0.315	44.5	1.75	57.0	2.24	108.0	4.25
N12-20FL	3/4	0.315	50.8	2.00	55.0	2.17	106.0	4.17
N16-12FL	1	0.265	38.1	1.50	58.0	2.28	114.5	4.51
N16-16FL	1	0.315	44.5	1.75	58.0	2.28	114.5	4.51
N16-20FL	1	0.315	50.8	2.00	63.0	2.48	119.5	4.70
N16-24FL	1	0.315	60.4	2.38	59.0	2.32	115.5	4.55
N20-16FL	1 1/4	0.315	44.5	1.75	64.0	2.52	130.5	5.14
N20-20FL	1 1/4	0.315	50.8	2.00	64.0	2.52	130.5	5.14
N20-24FL	1 1/4	0.315	60.4	2.38	68.0	2.68	134.5	5.30
N20-32FL	1 1/4	0.375	71.4	2.81	75.0	2.95	141.5	5.57
N24-24FL	1 1/2	0.315	60.4	2.38	73.0	2.87	155.5	6.12
N24-32FL	1 1/2	0.375	71.4	2.81	76.0	2.99	158.5	6.24
N32-32FL	2	0.375	71.4	2.81	80.0	3.15	176.5	6.95
N32-40FL	2	0.375	84.1	3.31	90.0	3.54	186.5	7.34

Reference Hose Section for Coupling Compatibility

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FL22

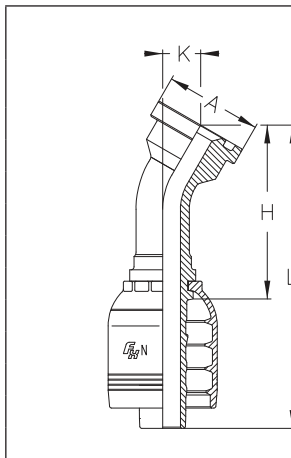
SAE CODE 61 FLANGE - 22.5° ELBOW



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N08-08FL22	1/2	0.265	30.2	1.19	53.0	2.09	86.0	3.39	10.0	0.39
N08-12FL22	1/2	0.265	38.1	1.50	58.0	2.28	91.0	3.58	11.0	0.43
N12-12FL22	3/4	0.265	38.1	1.50	70.0	2.76	121.0	4.76	11.0	0.43
N12-16FL22	3/4	0.315	44.5	1.75	73.0	2.87	124.0	4.88	12.0	0.47
N16-16FL22	1	0.315	44.5	1.75	86.0	3.39	142.0	5.59	12.0	0.47
N16-20FL22	1	0.315	50.8	2.00	86.0	3.39	142.0	5.59	12.0	0.47
N16-24FL22	1	0.315	60.4	2.38	106.5	4.19	163.0	6.42	15.0	0.59
N20-20FL22	1 1/4	0.315	50.8	2.00	100.0	3.94	166.0	6.54	13.0	0.51
N20-24FL22	1 1/4	0.315	60.4	2.38	100.0	3.94	166.0	6.54	13.0	0.51
N24-24FL22	1 1/2	0.315	60.4	2.38	118.0	4.65	201.0	7.91	15.0	0.59
N24-32FL22	1 1/2	0.375	71.4	2.81	116.0	4.57	199.0	7.83	14.0	0.55
N32-32FL22	2	0.375	71.4	2.81	165.0	6.50	262.0	10.30	22.0	0.87

FL30

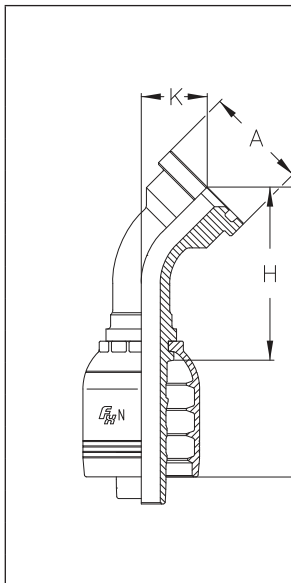
SAE CODE 61 FLANGE - 30° ELBOW



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N08-08FL30	1/2	0.265	30.2	1.19	51.0	2.01	84.0	3.31	13.0	0.51
N08-12FL30	1/2	0.265	38.1	1.50	56.0	2.20	89.0	3.50	16.0	0.63
N12-12FL30	3/4	0.265	38.1	1.50	68.0	2.68	119.0	4.68	16.0	0.63
N12-16FL30	3/4	0.315	44.5	1.75	71.0	2.80	122.0	4.80	17.0	0.67
N16-16FL30	1	0.315	44.5	1.75	84.0	3.31	140.0	5.51	17.0	0.67
N16-20FL30	1	0.315	50.8	2.00	84.0	3.31	140.0	5.51	17.0	0.67
N20-20FL30	1 1/4	0.315	50.8	2.00	98.0	3.86	164.0	6.46	19.0	0.75
N20-24FL30	1 1/4	0.315	60.4	2.38	98.0	3.86	164.0	6.46	19.0	0.75
N24-24FL30	1 1/2	0.315	60.4	2.38	116.0	4.57	199.3	7.85	22.0	0.87
N24-32FL30	1 1/2	0.375	71.4	2.81	114.0	4.49	197.0	7.76	21.0	0.83
N32-32FL30	2	0.375	71.4	2.81	162.0	6.38	258.0	10.16	31.0	1.22

FL45

SAE CODE 61 FLANGE - 45° ELBOW



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N08-08FL45	1/2	0.265	30.2	1.19	47.0	1.85	80.0	3.15	20.0	0.79
N08-12FL45	1/2	0.265	38.1	1.50	51.0	2.01	84.0	3.31	24.0	0.94
N10-12FL45	5/8	0.265	38.1	1.50	55.2	2.17	91.0	3.58	24.0	0.94
N12-12FL45	3/4	0.265	38.1	1.50	63.0	2.48	114.0	4.49	25.0	0.98
N12-16FL45	3/4	0.315	44.5	1.75	65.0	2.56	116.0	4.57	27.0	1.06
N16-16FL45	1	0.315	44.5	1.75	77.5	3.05	134.0	5.28	28.0	1.10
N16-20FL45	1	0.315	50.8	2.00	77.5	3.05	134.0	5.28	28.0	1.10
N20-16FL45	1 1/4	0.315	44.5	1.75	96.0	3.78	162.5	6.40	37.0	1.46
N20-20FL45	1 1/4	0.315	50.8	2.00	90.5	3.56	157.0	6.18	32.0	1.26
N20-24FL45	1 1/4	0.315	60.4	2.38	90.5	3.56	157.0	6.18	32.0	1.26
N24-20FL45	1 1/2	0.315	50.8	2.00	97.5	3.84	180.0	7.09	50.0	1.97
N24-24FL45	1 1/2	0.315	60.4	2.38	108.0	4.25	191.0	7.52	36.0	1.42
N24-32FL45	1 1/2	0.375	71.4	2.81	106.5	4.19	189.0	7.44	35.0	1.38
N32-32FL45	2	0.375	71.4	2.81	148.5	5.85	245.0	9.65	57.0	2.24
N32-40FL45	2	0.375	84.1	3.31	146.5	5.77	243.0	9.57	51.0	2.01

Reference Hose Section for Coupling Compatibility

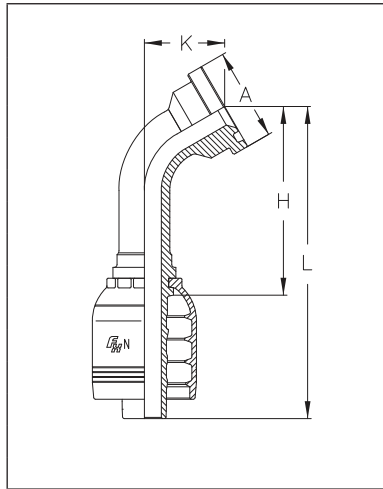
! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





FL60

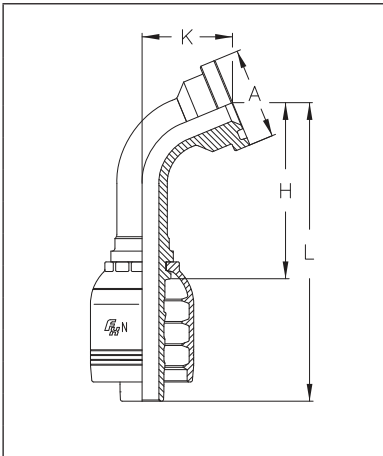
SAE CODE 61 FLANGE - 60° ELBOW



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N08-08FL60	½	0.265	30.2	1.19	55.0	2.17	88.0	3.46	27.0	1.06
N08-12FL60	½	0.265	38.1	1.50	58.0	2.28	91.0	3.58	32.0	1.26
N12-12FL60	¾	0.265	38.1	1.50	77.0	3.03	128.0	5.04	34.0	1.34
N12-16FL60	¾	0.315	44.5	1.75	79.0	3.11	130.0	5.12	37.0	1.46
N16-16FL60	1	0.315	44.5	1.75	97.5	3.84	154.0	6.06	40.0	1.57
N16-20FL60	1	0.315	50.8	2.00	97.5	3.84	154.0	6.06	40.0	1.57
N20-20FL60	1¼	0.315	50.8	2.00	98.5	3.88	165.0	6.50	45.0	1.77
N20-24FL60	1¼	0.315	60.4	2.38	98.5	3.88	165.0	6.50	45.0	1.77
N24-24FL60	1½	0.315	60.4	2.38	140.5	5.53	223.0	8.78	52.0	2.05
N24-32FL60	1½	0.375	71.4	2.81	139.5	5.49	222.0	8.74	50.0	1.97
N32-32FL60	2	0.375	71.4	2.81	192.5	7.58	289.0	11.38	73.0	2.87
N32-32FL60-368	2	0.375	71.4	2.81	328.5	12.93	425.0	16.73	368.0	14.49

FL67

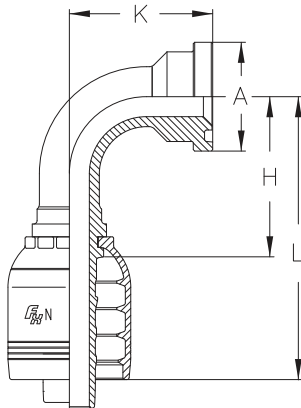
SAE CODE 61 FLANGE - 67.5° ELBOW



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N08-08FL67	½	0.265	30.2	1.19	51.0	2.01	84.0	3.31	30.0	1.18
N08-12FL67	½	0.265	38.1	1.50	54.0	2.13	87.0	3.43	33.0	1.30
N12-12FL67	¾	0.265	38.1	1.50	72.0	2.83	123.0	4.84	39.0	1.53
N12-16FL67	¾	0.315	44.5	1.75	73.0	2.87	124.0	4.88	41.0	1.61
N16-16FL67	1	0.315	44.5	1.75	91.5	3.60	148.0	5.83	45.0	1.77
N16-20FL67	1	0.315	50.8	2.00	91.5	3.60	148.0	5.83	45.0	1.77
N20-20FL67	1¼	0.315	50.8	2.00	111.5	4.39	178.0	7.01	52.0	2.05
N20-24FL67	1¼	0.315	60.4	2.38	111.5	4.39	178.0	7.01	52.0	2.05
N24-24FL67	1½	0.315	60.4	2.38	133.5	5.26	216.0	8.50	60.0	2.36
N24-32FL67	1½	0.375	71.4	2.81	132.5	5.22	215.0	8.46	58.0	2.28
N32-32FL67	2	0.375	71.4	2.81	181.5	7.12	278.0	10.94	84.0	3.31

Reference Hose Section for Coupling Compatibility

⚠ WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N08-08FL90-040	½	0.265	30.2	1.19	38.0	1.50	71.0	2.80	40.0	1.57
N08-08FL90-083	½	0.265	30.2	1.19	38.0	1.50	71.0	2.80	83.0	3.27
N08-12FL90-045	½	0.265	38.1	1.50	38.0	1.50	71.0	2.80	45.0	1.77
N10-12FL90-047	¾	0.265	38.1	1.50	45.2	1.78	81.0	3.19	47.0	1.85
N12-12FL90-051	¾	0.265	38.1	1.50	55.0	2.17	106.0	4.17	51.0	2.01
N12-12FL90-096	¾	0.265	38.1	1.50	55.0	2.17	106.0	4.17	96.0	3.78
N12-12FL90-127	¾	0.265	38.1	1.50	55.0	2.17	106.0	4.17	127.0	5.00
N12-12FL90-150	¾	0.265	38.1	1.50	55.0	2.17	106.0	4.17	150.0	5.91
N12-16FL90-055	¾	0.315	44.5	1.75	55.0	2.17	106.0	4.17	55.0	2.17
N12-16FL90-079	¾	0.315	44.5	1.75	55.0	2.17	106.0	4.17	79.0	3.11
N12-20FL90-060	¾	0.315	50.8	2.00	55.0	2.17	106.0	4.17	60.0	2.36
N16-16FL90-061	1	0.315	44.5	1.75	71.5	2.81	128.0	5.04	61.0	2.40
N16-16FL90-118	1	0.315	44.5	1.75	71.5	2.81	128.0	5.04	118.0	4.65
N16-16FL90-132	1	0.315	44.5	1.75	71.5	2.81	128.0	5.04	132.0	5.20
N16-16FL90-158	1	0.315	44.5	1.75	71.5	2.81	128.0	5.04	158.0	6.22
N16-20FL90-061	1	0.315	50.8	2.00	71.5	2.81	128.0	5.04	61.0	2.40
N16-20FL90-118	1	0.315	50.8	2.00	71.5	2.81	128.0	5.04	118.0	4.65
N16-24FL90-061	1	0.315	60.4	2.38	71.5	2.80	127.5	5.02	61.0	2.40
N20-16FL90-079	1¼	0.315	44.5	1.75	87.5	3.44	154.0	6.06	79.0	3.11
N20-20FL90-071	1¼	0.315	50.8	2.00	87.5	3.44	154.0	6.06	71.0	2.80
N20-20FL90-091	1¼	0.315	50.8	2.00	87.5	3.44	154.0	6.06	91.0	3.58
N20-20FL90-102	1¼	0.315	50.8	2.00	87.5	3.44	154.0	6.06	102.0	4.02
N20-20FL90-112	1¼	0.315	50.8	2.00	87.5	3.44	154.0	6.06	112.0	4.41
N20-20FL90-130	1¼	0.315	50.8	2.00	87.5	3.44	154.0	6.06	130.0	5.12
N20-20FL90-168	1¼	0.315	50.8	2.00	87.5	3.44	154.0	6.06	168.0	6.61
N20-24FL90-071	1¼	0.315	60.4	2.38	87.5	3.44	154.0	6.06	71.0	2.80
N20-24FL90-118	1¼	0.315	60.4	2.38	87.5	3.44	154.0	6.06	118.0	4.65
N20-24FL90-130	1¼	0.315	60.4	2.38	87.5	3.44	154.0	6.06	130.0	5.12
N20-32FL90-080	1¼	0.375	71.4	2.81	84.5	3.44	154.0	6.06	80.0	3.15
N24-20FL90-090	1½	0.315	50.8	2.00	98.0	3.86	180.5	7.11	90.0	3.54
N24-24FL90-083	1½	0.315	60.4	2.38	105.5	4.15	188.0	7.40	83.0	3.27
N24-24FL90-148	1½	0.315	60.4	2.38	105.5	4.15	188.0	7.40	148.0	5.83
N24-24FL90-172	1½	0.315	60.4	2.38	105.5	4.15	188.0	7.40	172.0	6.77
N24-32FL90-081	1½	0.375	71.4	2.81	105.5	4.15	188.0	7.40	81.0	3.19
N24-32FL90-115	1½	0.375	71.4	2.81	105.5	4.15	188.0	7.40	115.0	4.53
N24-32FL90-172	1½	0.375	71.4	2.81	105.5	4.15	188.0	7.40	172.0	6.77
N32-24FL90-081	2	0.375	60.3	2.37	137.0	5.39	233.5	9.19	81.0	3.19
N32-24FL90-105	2	0.375	60.3	2.37	136.8	5.39	233.3	9.19	105.0	4.13
N32-24FL90-152	2	0.375	60.3	2.37	136.8	5.39	233.3	9.19	152.0	5.98
N32-24FL90-156	2	0.375	60.3	2.37	136.8	5.39	233.3	9.19	156.0	6.14
N32-24FL90-228	2	0.375	60.3	2.37	136.8	5.39	233.3	9.19	228.0	8.98
N32-32FL90-095	2	0.375	71.4	2.81	140.5	5.53	237.0	9.33	95.0	3.74
N32-32FL90-109	2	0.375	71.4	2.81	140.5	5.53	237.0	9.33	109.0	4.29
N32-32FL90-122	2	0.375	71.4	2.81	140.5	5.53	237.0	9.33	122.0	4.80
N32-32FL90-165	2	0.375	71.4	2.81	140.5	5.53	237.0	9.33	165.0	6.50
N32-32FL90-203	2	0.375	71.4	2.81	140.5	5.53	237.0	9.33	203.0	7.99
N32-32FL90-228	2	0.375	71.4	2.81	140.5	5.53	237.0	9.33	228.0	8.98
N32-40FL90-117	2	0.375	84.1	3.31	140.5	5.53	237.0	9.33	117.0	4.61
N32-40FL90-132	2	0.375	84.1	3.31	140.5	5.53	237.0	9.33	132.0	4.61

Reference Hose Section for Coupling Compatibility

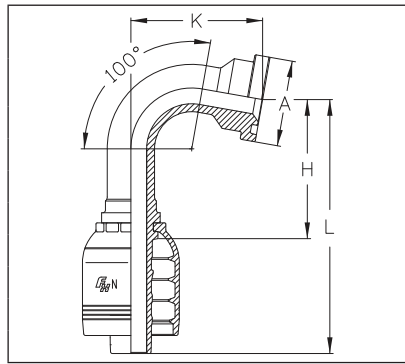
WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





FL100

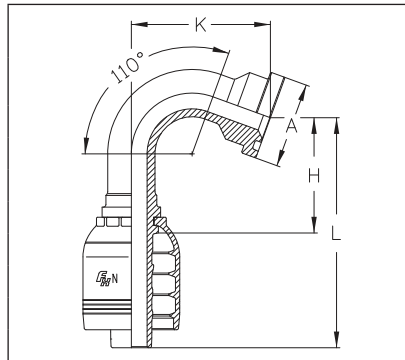
SAE CODE 61 FLANGE - 100° ELBOW



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N12-12FL100	3/4	0.265	38.1	1.50	61.0	2.40	112.0	4.41	59.0	2.32

FL110

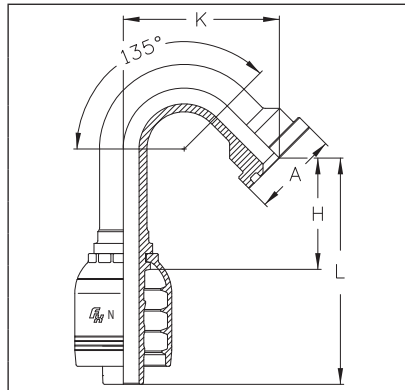
SAE CODE 61 FLANGE - 110° ELBOW



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N12-12FL110	3/4	0.265	38.1	1.50	51.0	2.01	102.0	4.01	62.0	2.44
N16-16FL110	1	0.315	44.5	1.75	64.5	2.54	121.0	4.76	73.0	2.87
N16-20FL110	1	0.315	50.8	2.00	64.5	2.54	121.0	4.76	73.0	2.87
N20-20FL110	1 1/4	0.315	50.8	2.00	81.5	3.21	148.0	5.83	83.0	3.27
N20-24FL110	1 1/4	0.315	60.4	2.38	81.5	3.21	148.0	5.83	83.0	3.27
N24-24FL110	1 1/2	0.315	60.4	2.38	95.5	3.76	178.0	7.01	97.0	3.82
N32-32FL110	2	0.375	71.4	2.81	123.5	4.86	220.0	8.66	142.0	5.59

FL135

SAE CODE 61 FLANGE - 135° ELBOW



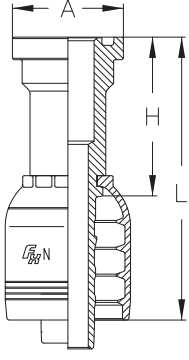
PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N12-12FL135	3/4	0.265	38.1	1.50	69.0	2.72	120.0	4.72	70.0	2.76
N12-16FL135	3/4	0.315	44.5	1.75	69.0	2.72	120.0	4.72	70.0	2.76
N16-16FL135	1	0.315	44.5	1.75	56.5	2.22	113.0	4.45	86.0	3.39

Reference Hose Section for Coupling Compatibility

⚠ WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FLH

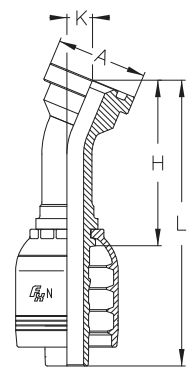
SAE CODE 62 FLANGE



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
N08-08FLH	½	0.305	31.8	1.25	47.0	1.85	80.0	3.15
N08-12FLH	½	0.345	41.3	1.62	47.0	1.85	80.0	3.15
N10-12FLH	⅝	0.345	41.3	1.62	48.2	1.90	84.0	3.31
N12-12FLH	¾	0.345	41.3	1.62	59.0	2.32	110.0	4.33
N12-16FLH	¾	0.375	47.6	1.87	61.0	2.40	112.0	4.41
N16-12FLH	1	0.345	41.3	1.62	65.0	2.56	121.5	4.78
N16-16FLH	1	0.375	47.6	1.87	65.0	2.56	121.5	4.78
N16-20FLH	1	0.405	54.0	2.12	69.0	2.72	125.5	4.94
N20-16FLH	1¼	0.375	47.6	1.87	70.0	2.75	136.5	5.37
N20-20FLH	1¼	0.405	54.0	2.12	70.0	2.75	136.5	5.37
N20-24FLH	1¼	0.495	63.5	2.50	80.0	3.15	146.5	5.77
N24-20FLH	1½	0.405	54.0	2.12	72.0	2.83	154.5	6.08
N24-24FLH	1½	0.495	63.5	2.50	84.0	3.31	166.5	6.56
N24-32FLH	1½	0.495	79.4	3.12	99.0	3.90	181.5	7.14
N32-32FLH	2	0.495	79.4	3.12	100.0	3.94	196.5	7.74

FLH22

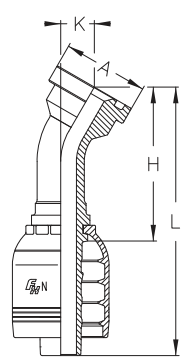
SAE CODE 62 FLANGE - 22.5° ELBOW



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N12-12FLH22	¾	0.345	41.3	1.62	74.0	2.91	125.0	4.92	13.0	0.51
N12-16FLH22	¾	0.375	47.6	1.87	76.0	2.99	127.0	5.00	14.0	0.55
N16-12FLH22	1	0.345	41.3	1.62	88.5	3.49	145.0	5.70	13.0	0.51
N16-16FLH22	1	0.375	47.6	1.87	89.0	3.50	145.0	5.70	13.0	0.51
N16-20FLH22	1	0.405	54.0	2.12	89.0	3.50	145.0	5.70	13.0	0.51
N20-20FLH22	1¼	0.405	54.0	2.12	103.0	4.05	169.0	6.65	15.0	0.59
N20-24FLH22	1¼	0.495	63.5	2.50	104.0	4.09	171.0	6.73	15.0	0.59
N24-24FLH22	1½	0.495	63.5	2.50	123.0	4.84	206.0	8.11	17.0	0.66
N24-32FLH22	1½	0.495	79.4	3.12	127.0	5.00	210.0	8.26	19.0	0.74
N32-32FLH22	2	0.495	79.4	3.12	166.0	6.53	263.0	10.35	24.0	0.94


FLH30

SAE CODE 62 FLANGE - 30° ELBOW



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N12-12FLH30	¾	0.345	41.3	1.62	72.0	2.83	123.0	4.84	18.0	0.70
N12-16FLH30	¾	0.375	47.6	1.87	74.0	2.91	125.0	4.92	19.0	0.74
N16-16FLH30	1	0.375	47.6	1.87	87.0	3.42	143.0	5.62	19.0	0.74
N16-20FLH30	1	0.405	54.0	2.12	87.0	3.42	143.0	5.62	19.0	0.74
N20-20FLH30	1¼	0.405	54.0	2.12	100.0	3.93	167.0	6.57	20.0	0.78
N20-24FLH30	1¼	0.495	63.5	2.50	102.0	4.01	168.0	6.61	25.0	0.98
N24-24FLH30	1½	0.495	63.5	2.50	121.0	4.76	203.0	7.99	24.0	0.94
N24-32FLH30	1½	0.495	79.4	3.12	124.0	4.88	207.0	8.14	26.0	1.02
N32-32FLH30	2	0.495	79.4	3.12	162.0	6.37	259.0	10.19	34.0	1.33

Reference Hose Section for Coupling Compatibility

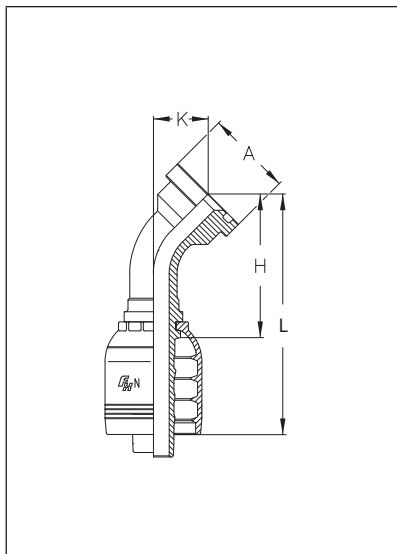
 **WARNING** This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





FLH45

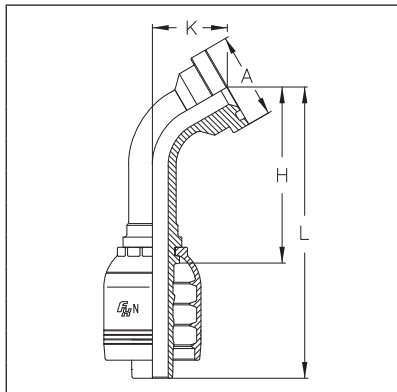
SAE CODE 62 FLANGE - 45° ELBOW



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N08-08FLH45	½	0.305	31.7	1.25	63.0	2.48	96.0	3.78	23.5	0.93
N08-12FLH45	½	0.345	41.3	1.62	68.5	2.70	101.5	4.00	29.0	1.14
N10-12FLH45	⅝	0.345	41.3	1.62	81.5	3.21	117.5	4.63	29.5	1.16
N12-12FLH45	¾	0.345	41.3	1.62	66.0	2.59	117.0	4.60	28.0	1.10
N12-16FLH45	¾	0.375	47.6	1.87	68.0	2.67	118.0	4.64	29.0	1.14
N16-12FLH45	1	0.345	41.3	1.62	81.0	3.18	137.0	5.39	31.0	1.22
N16-16FLH45	1	0.375	47.6	1.87	80.0	3.14	136.0	5.35	30.0	1.18
N16-20FLH45	1	0.405	54.0	2.12	76.5	3.14	133.0	5.35	34.0	1.18
N20-16FLH45	1¼	0.375	47.6	1.87	96.0	3.77	163.0	6.41	37.0	1.45
N20-20FLH45	1¼	0.405	54.0	2.12	93.0	3.66	160.0	6.29	34.0	1.33
N20-24FLH45	1¼	0.495	63.5	2.50	94.0	3.70	161.0	6.33	35.0	1.37
N24-24FLH45	1½	0.495	63.5	2.50	112.0	4.40	195.0	7.67	40.0	1.57
N24-32FLH45	1½	0.495	79.4	3.12	115.5	4.52	198.0	7.79	48.0	1.69
N32-32FLH45	2	0.495	79.4	3.12	150.0	5.90	247.0	9.72	56.0	2.20

FLH60

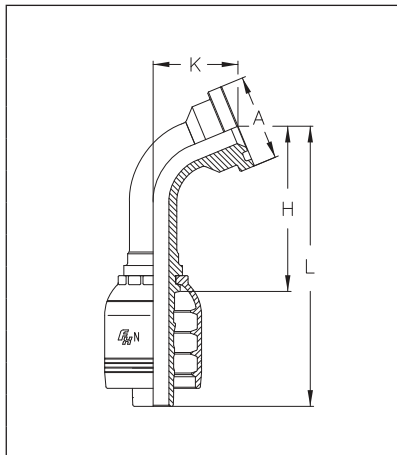
SAE CODE 62 FLANGE - 60° ELBOW



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N12-12FLH60	¾	0.345	41.3	1.62	79.0	3.11	130.0	5.12	38.0	1.50
N12-16FLH60	¾	0.375	47.6	1.87	80.0	3.14	131.0	5.16	40.0	1.57
N16-16FLH60	1	0.375	47.6	1.87	99.0	3.89	155.0	6.10	42.0	1.65
N20-20FLH60	1¼	0.405	54.0	2.12	119.0	4.68	185.0	7.28	47.0	1.85
N24-24FLH60	1½	0.495	63.5	2.50	143.0	5.62	225.0	8.85	56.0	2.20
N32-32FLH60	2	0.495	79.4	3.12	193.0	7.59	289.0	11.37	79.0	3.11

FLH67

SAE CODE 62 FLANGE - 67.5° ELBOW



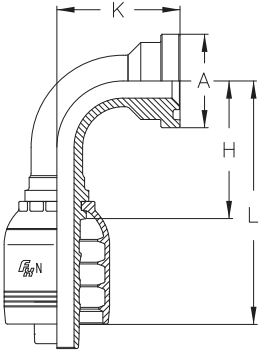
PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N12-12FLH67	¾	0.345	41.3	1.62	74.0	2.91	125.0	4.92	43.0	1.69
N12-16FLH67	¾	0.375	47.6	1.87	75.0	2.95	126.0	4.96	45.0	1.77
N16-16FLH67	1	0.375	47.6	1.87	93.0	3.66	150.0	5.90	48.0	1.88
N20-20FLH67	1¼	0.405	54.0	2.12	112.0	4.40	179.0	7.04	54.0	2.12
N24-24FLH67	1½	0.495	63.5	2.50	135.0	5.31	217.0	8.54	65.0	2.55
N32-32FLH67	2	0.495	79.4	3.12	182.0	7.16	278.0	10.94	90.0	3.54

Reference Hose Section for Coupling Compatibility

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FLH90

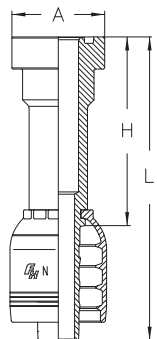
SAE CODE 62 FLANGE - 90° ELBOW



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N08-08FLH90-042	½	0.305	31.7	1.25	41.0	1.61	74.0	2.91	42.0	1.65
N08-12FLH90-050	½	0.345	41.3	1.62	41.0	1.61	74.0	2.91	50.0	1.97
N10-12FLH90-055	¾	0.345	41.3	1.62	49.0	1.93	85.0	3.35	55.0	2.17
N12-12FLH90-056	¾	0.345	41.3	1.62	55.0	2.16	106.0	4.17	56.0	2.20
N12-12FLH90-100	¾	0.345	41.3	1.62	55.0	2.16	106.0	4.17	100.0	3.93
N12-16FLH90-058	¾	0.375	47.6	1.87	55.0	2.16	106.0	4.17	58.0	2.28
N12-16FLH90-140	¾	0.375	47.6	1.87	55.0	2.16	106.0	4.17	140.0	5.51
N16-12FLH90-065	1	0.345	41.3	1.62	71.0	2.79	128.0	5.03	65.0	2.55
N16-16FLH90-064	1	0.375	47.6	1.87	71.0	2.79	128.0	5.03	64.0	2.51
N16-16FLH90-120	1	0.375	47.6	1.87	71.0	2.79	128.0	5.03	120.0	4.72
N16-16FLH90-180	1	0.375	47.6	1.87	71.0	2.79	128.0	5.03	180.0	7.09
N16-20FLH90-064	1	0.405	54.0	2.12	71.0	2.79	128.0	5.03	64.0	2.51
N20-16FLH90-079	1¼	0.375	47.6	1.87	87.0	3.42	154.0	6.06	79.0	3.11
N20-20FLH90-074	1¼	0.405	54.0	2.12	87.0	3.42	154.0	6.06	74.0	2.91
N20-20FLH90-120	1¼	0.405	54.0	2.12	87.0	3.42	154.0	6.06	120.0	4.72
N20-20FLH90-180	1¼	0.405	54.0	2.12	87.0	3.45	154.0	6.06	180.0	7.08
N20-24FLH90-076	1¼	0.495	63.5	2.50	87.0	3.42	154.0	6.06	76.0	2.99
N24-20FLH90-072	1½	0.405	54.0	2.12	97.0	3.82	180.0	7.08	72.0	2.83
N24-20FLH90-090	1½	0.405	54.0	2.12	97.0	3.82	180.0	7.08	90.0	3.54
N24-24FLH90-088	1½	0.495	63.5	2.50	105.0	4.13	188.0	7.40	88.0	3.46
N24-32FLH90-093	1½	0.495	79.4	3.12	105.0	4.13	188.0	7.40	93.0	3.66
N32-32FLH90-123	2	0.495	79.4	3.12	140.0	5.51	237.0	9.33	123.0	4.84

FLC

CATERPILLAR® FLANGE




PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
N12-12FLC	¾	0.560	41.3	1.62	84.0	3.30	135.0	5.31
N12-16FLC	¾	0.560	47.6	1.87	84.0	3.30	135.0	5.31
N16-16FLC	1	0.560	47.6	1.87	90.0	3.54	146.5	5.76
N16-20FLC	1	0.560	54.0	2.12	90.0	3.54	146.5	5.76
N20-20FLC	1¼	0.560	54.0	2.12	88.0	3.46	154.4	6.07
N20-24FLC	1¼	0.560	63.5	2.50	88.0	3.46	154.5	6.07
N24-24FLC	1½	0.560	63.5	2.50	84.0	3.31	166.5	6.56
N24-32FLC	1½	0.560	63.5	2.50	110.0	4.33	192.5	7.58
N32-32FLC	2	0.560	79.4	3.12	130.0	5.12	226.5	8.92

Use with D-Rings

Note: When using SAE 100R13 or 100R15 hose use V/V5 couplings.

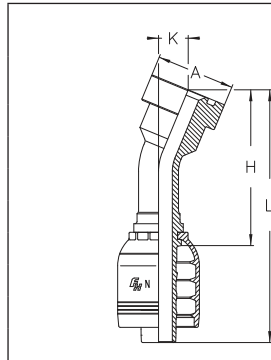
Reference Hose Section for Coupling Compatibility

 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



FLC22

CATERPILLAR® FLANGE - 22.5° ELBOW

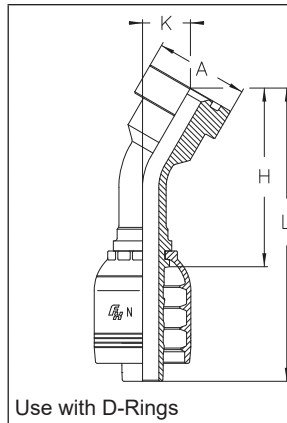


PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N12-12FLC22	3/4	0.560	41.3	1.62	82.0	3.22	133.0	5.23	16.0	0.62
N12-16FLC22	3/4	0.560	47.6	1.87	84.0	3.30	135.0	5.31	17.0	0.66
N16-16FLC22	1	0.560	47.6	1.87	97.0	3.81	153.0	6.02	17.0	0.66
N16-20FLC22	1	0.560	54.0	2.12	97.0	3.81	153.0	6.02	17.0	0.66
N20-20FLC22	1 1/4	0.560	54.0	2.12	106.0	4.17	172.0	6.77	16.0	0.62
N20-24FLC22	1 1/4	0.560	63.5	2.50	106.0	4.17	174.0	6.85	16.0	0.62

Note: When using SAE 100R13 or 100R15 hose use V/V/S couplings.

FLC30

CATERPILLAR® FLANGE - 30° ELBOW



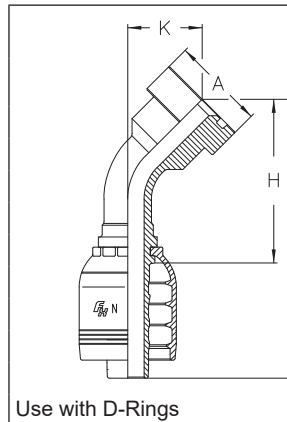
Use with D-Rings

PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N12-12FLC30	3/4	0.560	41.3	1.62	79.0	3.11	130.0	5.11	22.0	0.86
N12-16FLC30	3/4	0.560	47.6	1.87	82.0	3.22	133.0	5.23	23.0	0.90
N16-16FLC30	1	0.560	47.6	1.87	94.0	3.70	151.0	5.94	23.0	0.90
N16-20FLC30	1	0.560	54.0	2.12	94.0	3.70	151.0	5.94	23.0	0.90
N20-20FLC30	1 1/4	0.560	54.0	2.12	103.0	4.05	170.0	6.69	22.0	0.86
N20-24FLC30	1 1/4	0.560	63.5	2.50	104.0	4.09	170.0	6.69	27.0	1.06
N24-24FLC30	1 1/2	0.560	63.5	2.50	123.0	4.84	205.0	8.07	25.0	0.98
N24-32FLC30	1 1/2	0.560	79.4	3.13	125.5	4.94	208.0	8.19	32.0	1.26
N32-32FLC30	2	0.560	79.4	3.13	164.0	6.46	264.0	10.34	35.0	1.38

Note: When using SAE 100R13 or 100R15 hose use V/V/S couplings.

FLC45

CATERPILLAR® FLANGE - 45° ELBOW



Use with D-Rings

PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N12-12FLC45	3/4	0.560	41.3	1.62	72.0	2.83	123.0	4.84	34.0	1.33
N12-16FLC45	3/4	0.560	47.6	1.87	74.0	2.91	125.0	4.92	36.0	1.41
N16-16FLC45	1	0.560	47.6	1.87	86.0	3.38	143.0	5.62	36.0	1.41
N16-20FLC45	1	0.560	54.0	2.12	86.0	3.38	143.0	5.62	36.0	1.41
N20-20FLC45	1 1/4	0.560	54.0	2.12	96.0	3.77	162.0	6.37	36.0	1.41
N20-24FLC45	1 1/4	0.560	63.5	2.50	96.0	3.77	162.0	6.37	44.0	1.73
N24-24FLC45	1 1/2	0.560	63.5	2.50	114.0	4.46	196.0	7.72	41.0	1.61
N24-32FLC45	1 1/2	0.560	79.4	3.13	116.0	4.57	199.0	7.83	44.0	1.73
N32-32FLC45	2	0.560	79.4	3.13	152.0	5.98	250.0	9.84	57.0	2.24

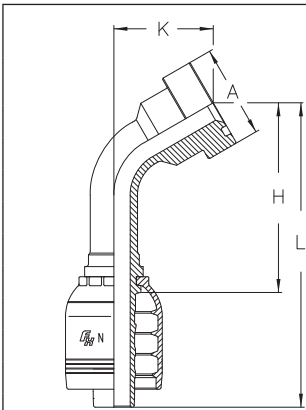
Note: When using SAE 100R13 or 100R15 hose use V/V/S couplings.

Reference Hose Section for Coupling Compatibility

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FLC60

CATERPILLAR® FLANGE - 60° ELBOW



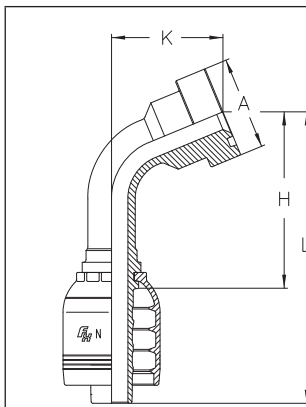
Use with D-Rings

PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N12-12FLC60	3/4	0.560	41.3	1.62	83.0	3.26	134.0	5.27	45.0	1.77
N12-16FLC60	3/4	0.560	47.6	1.87	85.0	3.34	136.0	5.35	48.0	1.88
N16-16FLC60	1	0.560	47.6	1.87	103.0	4.05	160.0	6.29	50.0	1.96
N16-20FLC60	1	0.560	54.0	2.12	103.0	4.05	160.0	6.29	50.0	1.96
N20-20FLC60	1 1/4	0.560	54.0	2.12	121.0	4.76	187.0	7.36	50.0	1.96
N20-24FLC60	1 1/4	0.560	63.5	2.50	121.0	4.76	187.0	7.36	51.0	2.00
N24-24FLC60	1 1/2	0.560	63.5	2.50	144.0	4.49	226.0	7.72	58.0	2.28
N24-32FLC60	1 1/2	0.560	79.4	3.13	146.0	4.57	228.0	7.83	61.0	2.40
N32-32FLC60	2	0.560	79.4	3.13	152.0	5.98	250.0	11.42	81.0	3.19

Note: When using SAE 100R13 or 100R15 hose use V/V/S couplings.

FLC67

CATERPILLAR® FLANGE - 67.5° ELBOW



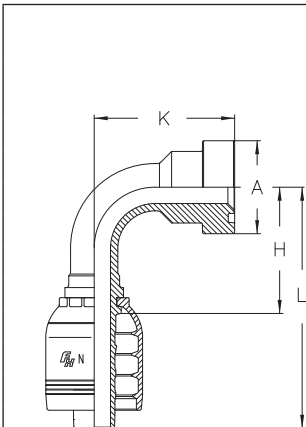
Use with D-Rings

PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N12-12FLC67	3/4	0.560	41.3	1.62	77.0	3.03	128.0	5.03	50.0	1.96
N12-16FLC67	3/4	0.560	47.6	1.87	79.0	3.11	130.0	5.11	53.0	2.08
N16-16FLC67	1	0.560	47.6	1.87	97.0	3.81	153.0	6.02	56.0	2.20
N20-20FLC67	1 1/4	0.560	54.0	2.12	114.0	4.48	181.0	7.12	57.0	2.24
N20-24FLC67	1 1/4	0.560	63.5	2.50	114.0	4.49	181.0	7.12	58.0	2.28
N24-24FLC67	1 1/2	0.560	63.5	2.50	137.0	5.39	219.0	8.62	66.0	2.60
N24-32FLC67	1 1/2	0.560	79.4	3.13	138.0	5.43	220.0	8.66	69.0	2.72
N32-32FLC67	2	0.560	79.4	3.13	184.0	7.24	280.0	11.02	92.0	3.62

Note: When using SAE 100R13 or 100R15 hose use V/V/S couplings.

FLC90

CATERPILLAR® FLANGE - 90° ELBOW



Use with D-Rings

PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
N12-12FLC90-064	3/4	0.560	41.3	1.62	55.0	2.16	106.0	4.17	64.0	2.52
N12-12FLC90-129	3/4	0.560	41.3	1.62	55.0	2.16	106.0	4.17	129.0	5.07
N12-16FLC90-064	3/4	0.560	47.6	1.87	55.0	2.16	106.0	4.17	64.0	2.51
N16-16FLC90-073	1	0.560	47.6	1.87	71.0	2.79	128.0	5.03	73.0	2.87
N16-16FLC90-132	1	0.560	47.6	1.87	71.0	2.79	128.0	5.03	132.0	5.19
N16-16FLC90-150	1	0.560	47.6	1.87	71.0	2.79	128.0	5.03	150.0	5.90
N16-20FLC90-073	1	0.560	54.0	2.12	71.0	2.79	128.0	5.03	73.0	2.87
N16-20FLC90-150	1	0.560	54.0	2.12	71.0	2.79	128.0	5.03	150.0	5.90
N20-20FLC90-077	1 1/4	0.560	54.0	2.12	87.0	3.42	154.0	6.06	77.0	3.03
N20-20FLC90-150	1 1/4	0.560	54.0	2.12	87.0	3.42	154.0	6.06	150.0	5.90
N20-24FLC90-078	1 1/4	0.560	63.5	2.50	87.0	3.42	154.0	6.06	78.0	3.07
N20-24FLC90-135	1 1/4	0.560	63.5	2.50	87.0	3.42	154.0	6.06	135.0	5.31
N24-24FLC90-090	1 1/2	0.560	63.5	2.50	105.0	4.13	188.0	7.40	90.0	3.54
N24-24FLC90-106	1 1/2	0.560	63.5	2.50	105.0	4.13	188.0	7.40	106.0	4.17
N24-32FLC90-094	1 1/2	0.560	79.4	3.13	105.0	4.13	188.0	7.40	94.0	3.70
N32-32FLC90-125	2	0.560	79.4	3.13	140.0	5.51	237.0	9.33	125.0	4.92

Note: When using SAE 100R13 or 100R15 hose use V/V/S couplings.

Reference Hose Section for Coupling Compatibility

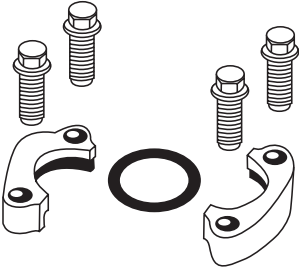
! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





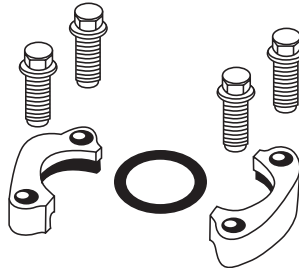
1901

SPLIT FLANGE KIT (CODE 61)

	PART NUMBER	SIZE
	1901-08-K	1/2
1901-12-K	3/4	
1901-16-K	1	
1901-20-K	1 1/4	
1901-24-K	1 1/2	
1901-32-K	2	

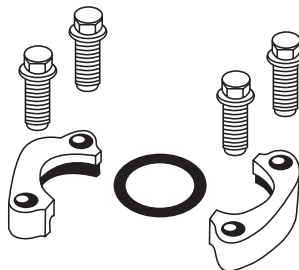
1902

SPLIT FLANGE KIT (CODE 62)

	PART NUMBER	SIZE
	1902-08-K	1/2
1902-12-K	3/4	
1902-16-K	1	
1902-20-K	1 1/4	
1902-24-K	1 1/2	
1902-32-K	2	

1903

CATERPILLAR® SPLIT FLANGE KIT

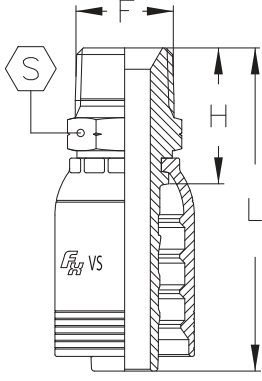
	PART NUMBER	SIZE
	1903-12-K	3/4
1903-16-K	1	
1903-20-K	1 1/4	
1903-24-K	1 1/2	
1903-32-K	2	

Reference Hose Section for Coupling Compatibility

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

MP

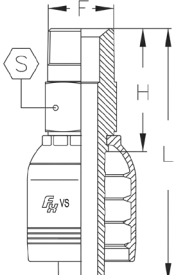
NPT MALE



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
V06-06MP	3/8	3/8 - 18	28.6	1.12	59.1	2.32	19	3/4
V06-08MP	3/8	1/2 - 14	34.0	1.33	64.5	2.53	22	7/8
V08-06MP	1/2	3/8 - 18	30.6	1.20	63.6	2.50	22	7/8
V08-08MP	1/2	1/2 - 14	35.0	1.37	68.0	2.67	22	7/8
V08-12MP	1/2	3/4 - 14	36.9	1.45	69.9	2.75	27	1 1/16
V10-12MP	5/8	3/4 - 14	37.1	1.46	72.9	2.87	27	1 1/16
V12-12MP	3/4	3/4 - 14	39.0	1.54	90.0	3.54	27	1 1/16
V12-16MP	3/4	1 - 11 1/2	47.0	1.85	97.5	3.84	35	1 7/16
V16-16MP	1	1 - 11 1/2	48.5	1.91	105.0	4.13	35	1 7/16
V16-20MP	1	1 1/4 - 11 1/2	53.0	2.09	109.1	4.30	43	1 13/16
VS20-20MP	1 1/4	1 1/4 - 11 1/2	55.0	2.17	121.5	4.78	46	1 13/16
VS20-24MP	1 1/4	1 1/2 - 11 1/2	59.0	2.32	124.5	4.90	50	2
VS24-24MP	1 1/2	1 1/2 - 11 1/2	61.0	2.40	143.5	5.65	50	2
VS32-32MP	2	2 - 11 1/2	70.5	2.78	167.0	6.57	65	2 9/16

MPA

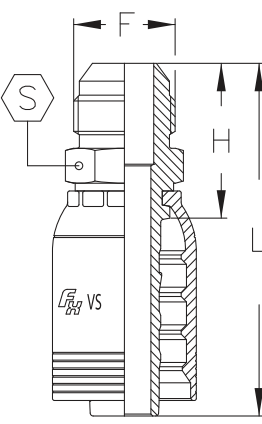
API MALE



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
VS24-24MPA	1 1/2	1 1/2 - 11 1/2	88.0	3.46	170.5	6.71	50	2
VS32-32MPA	2	2 - 11 1/2	112.2	4.42	208.7	8.23	65	2 9/16

MJ

JIC 37° MALE



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
V06-06MJ	3/8	9/16 - 18	26.6	1.04	57.1	2.24	15	5/8
V06-08MJ	3/8	3/4 - 16	29.7	1.16	60.2	2.37	19	3/4
V08-08MJ	1/2	3/4 - 16	30.7	1.20	63.7	2.50	19	3/4
V08-10MJ	1/2	7/8 - 14	35.3	1.38	68.3	2.68	24	15/16
V08-12MJ	1/2	1 1/16 - 12	38.9	1.53	71.9	2.83	27	1 1/16
V10-10MJ	5/8	7/8 - 14	35.5	1.39	71.3	2.80	24	15/16
V10-12MJ	5/8	1 1/16 - 12	39.1	1.53	74.9	2.94	27	1 1/16
V12-10MJ	3/4	7/8 - 14	37.0	1.46	88.0	3.46	27	1 1/16
V12-12MJ	3/4	1 1/16 - 12	40.0	1.57	91.0	3.58	27	1 1/16
V12-14MJ	3/4	1 3/16 - 12	41.5	1.63	92.5	3.64	32	1 1/4
V12-16MJ	3/4	1 5/16 - 12	43.0	1.69	94.0	3.70	36	1 7/16
V16-16MJ	1	1 5/16 - 12	45.0	1.77	101.5	3.99	36	1 7/16
V16-20MJ	1	1 5/8 - 12	48.0	1.88	104.5	4.11	46	1 13/16
VS20-20MJ	1 1/4	1 5/8 - 12	50.5	1.98	117.0	4.60	46	1 13/16
VS24-24MJ	1 1/2	1 7/8 - 12	57.0	2.24	139.5	5.49	50	2
VS32-32MJ	2	2 1/2 - 12	68.5	2.69	165.0	6.49	65	2 9/16

Reference Hose Section for Coupling Compatibility

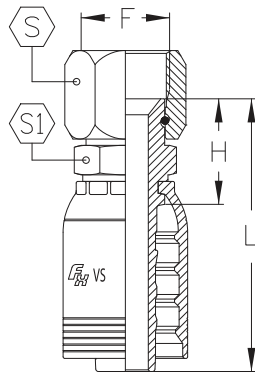
WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





FJ

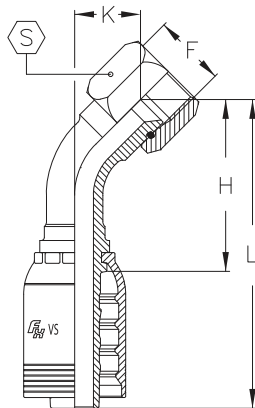
JIC 37° FEMALE SWIVEL



PART NUMBER	Hose Bore	F	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
V06-06FJ	3/8	9/16 - 18	22.5	0.88	53.0	2.08	19	3/4	16	5/8
V06-08FJ	3/8	3/4 - 16	24.5	0.96	55.0	2.16	22	7/8	19	3/4
V08-06FJ	1/2	9/16 - 18	24.5	0.96	57.5	2.26	19	3/4	19	3/4
V08-08FJ	1/2	3/4 - 16	25.5	1.00	58.5	2.30	22	7/8	19	3/4
V08-10FJ	1/2	7/8 - 14	27.5	1.08	60.5	2.38	27	1 1/16	22	7/8
V08-12FJ	1/2	1 1/16 - 12	30.3	1.19	63.3	2.49	32	1 1/4	25	1
V10-10FJ	5/8	7/8 - 14	27.7	1.09	63.5	2.50	27	1 1/16	22	7/8
V10-12FJ	5/8	1 1/16 - 12	30.5	1.20	66.3	2.61	32	1 1/4	25	1
V12-10FJ	3/4	7/8 - 14	33.0	1.29	84.0	3.30	27	1 1/16	27	1 1/16
V12-12FJ	3/4	1 1/16 - 12	34.0	1.33	85.0	3.34	32	1 1/4	27	1 1/16
V12-14FJ	3/4	1 3/16 - 12	35.5	1.39	86.5	3.40	36	1 1/16	30	1 3/16
V12-16FJ	3/4	1 5/16 - 12	38.0	1.49	89.0	3.50	41	1 5/8	32	1 1/4
V16-12FJ	1	1 1/16 - 12	36.5	1.43	93.0	3.66	32	1 1/4	32	1 1/4
V16-16FJ	1	1 5/16 - 12	39.5	1.55	96.0	3.77	41	1 5/8	32	1 1/4
V16-20FJ	1	1 5/8 - 12	46.0	1.81	102.5	4.03	50	2	41	1 5/8
VS20-16FJ	1 1/4	1 5/16 - 12	45.5	1.79	112.0	4.40	41	1 5/8	41	1 5/8
VS20-20FJ	1 1/4	1 5/8 - 12	48.0	1.88	114.5	4.50	50	2	41	1 5/8
VS20-24FJ	1 1/4	1 7/8 - 12	51.0	2.00	117.5	4.62	60	2 3/8	46	1 13/16
VS24-24FJ	1 1/2	1 7/8 - 12	53.0	2.08	135.5	5.33	60	2 3/8	46	1 13/16
VS32-32FJ	2	2 1/2 - 12	69.0	2.71	165.5	6.51	75	3	60	2 3/8

FJ45

JIC 37° FEMALE SWIVEL - 45° ELBOW



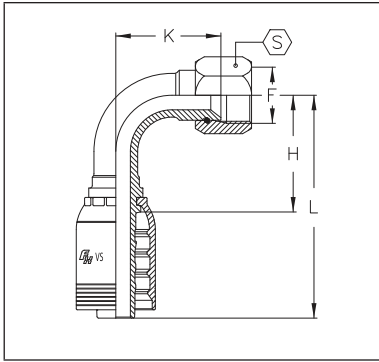
PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
V06-06FJ45	3/8	9/16 - 18	35.5	1.39	66.0	2.59	12.0	0.47	19	3/4
V06-08FJ45	3/8	3/4 - 16	37.5	1.47	68.0	2.67	14.0	0.55	22	7/8
V08-08FJ45	1/2	3/4 - 16	41.0	1.61	74.0	2.91	14.5	0.57	22	7/8
V08-10FJ45	1/2	7/8 - 14	43.0	1.69	76.0	2.99	16.0	0.62	27	1 1/16
V08-12FJ45	1/2	1 1/16 - 12	45.5	1.79	78.5	3.09	19.0	0.74	32	1 1/4
V10-10FJ45	5/8	7/8 - 14	47.0	1.85	83.0	3.27	16.0	0.63	27	1 1/16
V10-12FJ45	5/8	1 1/16 - 12	50.0	1.97	86.0	3.38	19.0	0.75	32	1 1/4
V12-12FJ45	3/4	1 1/16 - 12	63.0	2.48	114.0	4.48	25.0	0.98	32	1 1/4
V12-16FJ45	3/4	1 5/16 - 12	63.0	2.48	114.0	4.48	25.0	0.98	41	1 5/8
V16-16FJ45	1	1 5/16 - 12	82.0	3.22	138.0	5.43	32.0	1.25	41	1 5/8
V16-20FJ45	1	1 5/8 - 12	82.0	3.22	138.0	5.43	32.0	1.25	50	2
VS20-20FJ45	1 1/4	1 5/8 - 12	98.0	3.85	164.0	6.45	38.0	1.49	50	2
VS20-24FJ45	1 1/4	1 7/8 - 12	98.0	3.85	164.0	6.45	38.0	1.49	60	2 3/8
VS24-24FJ45	1 1/2	1 7/8 - 12	118.0	4.64	201.0	7.91	46.0	1.81	60	2 3/8
VS32-32FJ45	2	2 1/2 - 12	157.0	6.18	253.0	9.96	62.0	2.44	75	3

Reference Hose Section for Coupling Compatibility

⚠ WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FJ90S

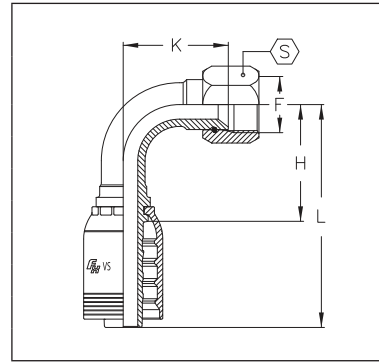
JIC 37° FEMALE SWIVEL - 90° ELBOW SHORT DROP



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
V06-06FJ90S	3/8	9/16 - 18	30.0	1.18	60.5	2.38	23.0	0.91	19	3/4
V06-08FJ90S	3/8	3/4 - 16	31.0	1.22	61.5	2.42	29.0	1.14	22	7/8
V08-08FJ90S	1/2	3/4 - 16	37.0	1.45	70.0	2.75	29.0	1.14	22	7/8
V08-10FJ90S	1/2	7/8 - 14	38.0	1.50	71.0	2.80	33.0	1.30	27	1 1/16
V08-12FJ90S	1/2	1 1/16 - 12	38.0	1.50	73.0	2.87	40.0	1.57	32	1 1/4
V10-10FJ90S	5/8	7/8 - 14	43.0	1.69	79.0	3.11	32.0	1.26	27	1 1/16
V10-12FJ90S	5/8	1 1/16 - 12	45.0	1.77	81.0	3.19	40.0	1.57	32	1 1/4

FJ90M

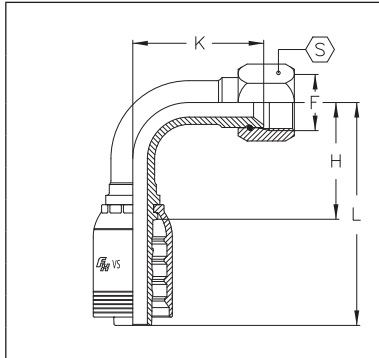
JIC 37° FEMALE SWIVEL - 90° ELBOW MEDIUM DROP



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
V12-12FJ90M	3/4	1 1/16 - 12	55.0	2.16	106.0	4.17	52.0	2.04	32	1 1/4
V12-16FJ90M	3/4	1 5/16 - 12	55.0	2.16	106.0	4.17	56.0	2.20	41	1 5/8
V16-16FJ90M	1	1 5/16 - 12	71.0	2.79	128.0	5.03	67.0	2.63	41	1 5/8
V16-20FJ90M	1	1 5/8 - 12	71.0	2.79	128.0	5.03	69.0	2.72	50	2
VS20-20FJ90M	1 1/4	1 5/8 - 12	87.0	3.42	154.0	6.06	81.0	3.18	50	2
VS20-24FJ90M	1 1/4	1 7/8 - 12	87.0	3.42	154.0	6.06	81.0	3.18	60	2 3/8
VS24-24FJ90M	1 1/2	1 7/8 - 12	105.0	4.13	188.0	7.40	97.0	3.81	60	2 3/8
VS32-32FJ90M	2	2 1/2 - 12	140.0	5.51	237.0	9.33	132.0	5.19	75	3

FJ90L

JIC 37° FEMALE SWIVEL - 90° ELBOW LONG DROP



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
V06-06FJ90L	3/8	9/16 - 18	31.0	1.22	61.5	2.42	54.0	2.12	19	3/4
V08-08FJ90L	1/2	3/4 - 16	38.0	1.49	71.0	2.79	64.0	2.51	22	7/8
V08-10FJ90L	1/2	7/8 - 14	38.0	1.49	71.0	2.79	70.0	2.75	27	1 1/16
V12-12FJ90L	3/4	1 1/16 - 12	55.0	2.16	106.0	4.17	96.0	3.77	32	1 1/4
V16-16FJ90L	1	1 5/16 - 12	71.0	2.79	128.0	5.03	116.0	4.56	41	1 5/8
VS20-20FJ90L	1 1/4	1 5/8 - 12	87.0	3.42	154.0	6.06	136.0	5.35	50	2

Reference Hose Section for Coupling Compatibility

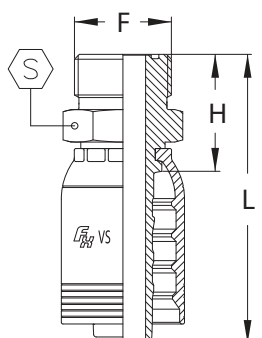
WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





MF

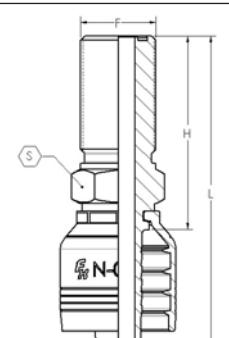
ORFS MALE O-RING FACE SEAL



PART NUMBER	Hose Bore	F	H		L		⊗	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
V06-06MF	3/8	1 1/16 - 16	25.5	1.00	56.0	2.20	19	3/4
V06-08MF	3/8	1 3/16 - 16	28.5	1.12	59.0	2.32	22	7/8
V08-08MF	1/2	1 3/16 - 16	29.5	1.16	62.5	2.46	22	7/8
V08-10MF	1/2	1 - 14	34.0	1.33	67.0	2.63	27	1 1/16
V08-12MF	1/2	1 3/16 - 12	37.0	1.45	70.0	2.75	32	1 1/4
V10-10MF	5/8	1 - 14	34.0	1.33	70.0	2.75	27	1 1/16
V10-12MF	5/8	1 3/16 - 12	37.0	1.45	73.0	2.87	32	1 1/4
V12-12MF	3/4	1 3/16 - 12	36.0	1.41	87.0	3.42	32	1 1/4
V16-16MF	1	1 7/16 - 12	41.0	1.61	97.0	3.81	41	1 5/8
VS20-20MF	1 1/4	1 11/16 - 12	44.0	1.73	111.0	4.37	46	1 13/16
VS24-24MF	1 1/2	2 - 12	48.0	1.88	131.0	5.15	55	2 1/4

MFK

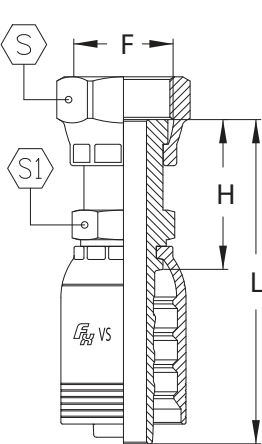
ORFS MALE BULKHEAD



PART NUMBER	Hose Bore	F	H		L		⊗	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
V06-06MFK	3/8	1 1/16 - 16	49.0	1.93	79.5	3.13	26	1
V06-08MFK	3/8	1 3/16 - 16	52.0	2.05	82.5	3.25	29	1 1/8
V08-06MFK	1/2	1 1/16 - 16	50.0	1.97	83.0	3.26	26	1
V08-08MFK	1/2	1 3/16 - 16	53.0	2.09	86.0	3.39	29	1 1/8
V10-10MFK	5/8	1 - 14	58.7	2.31	94.5	3.72	34	1 5/16
V16-16MFK	1	1 7/16 - 12	65.0	2.56	121.5	4.78	45	1 3/4

FF

ORFS FEMALE SWIVEL



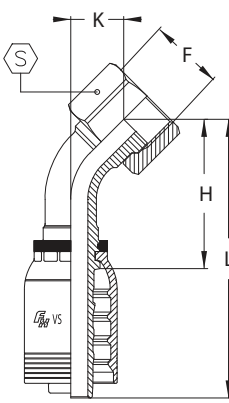
PART NUMBER	Hose Bore	F	H		L		⊗		⊗	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
V06-06FF	3/8	1 1/16 - 16	28.5	1.12	59.0	2.32	22	7/8	16	5/8
V06-08FF	3/8	1 3/16 - 16	32.5	1.27	63.0	2.48	24	1 5/16	19	3/4
V08-06FF	1/2	1 1/16 - 16	30.5	1.20	63.5	2.50	22	7/8	19	3/4
V08-08FF	1/2	1 3/16 - 16	33.5	1.31	66.5	2.61	24	1 5/16	19	3/4
V08-10FF	1/2	1 - 14	39.5	1.55	72.5	2.85	30	1 3/16	24	1 5/16
V08-12FF	1/2	1 3/16 - 12	43.5	1.71	76.5	3.01	36	1 7/16	27	1 1/16
V10-10FF	5/8	1 - 14	39.5	1.55	75.5	2.97	30	1 3/16	24	1 5/16
V10-12FF	5/8	1 3/16 - 12	43.5	1.71	79.5	3.12	36	1 7/16	27	1 1/16
V12-10FF	3/4	1 - 14	43.0	1.69	94.0	3.70	30	1 3/16	27	1 1/16
V12-12FF	3/4	1 3/16 - 12	46.0	1.81	97.0	3.81	36	1 7/16	30	1 3/16
V12-16FF	3/4	1 7/16 - 12	49.0	1.93	100.0	3.94	41	1 5/8	36	1 7/16
V16-12FF	1	1 3/16 - 12	48.0	1.89	104.5	4.11	36	1 7/16	36	1 7/16
V16-16FF	1	1 7/16 - 12	51.0	2.00	107.0	4.21	41	1 5/8	36	1 7/16
V16-20FF	1	1 11/16 - 12	52.0	2.04	109.0	4.29	50	2	41	1 5/8
VS20-20FF	1 1/4	1 11/16 - 12	55.0	2.16	121.0	4.76	50	2	41	1 5/8
VS24-24FF	1 1/2	2 - 12	60.0	2.36	142.0	5.59	60	2 3/8	50	2

Reference Hose Section for Coupling Compatibility

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FF45

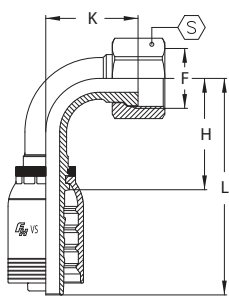
ORFS FEMALE SWIVEL - 45° ELBOW



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
V06-06FF45	3/8	1 1/16 - 16	36.0	1.41	66.5	2.61	12.5	0.49	22	7/8
V06-08FF45	3/8	1 3/16 - 16	38.5	1.51	69.0	2.71	15.0	0.59	24	1 5/16
V08-08FF45	1/2	1 3/16 - 16	42.5	1.67	75.5	2.97	15.5	0.61	24	1 5/16
V08-10FF45	1/2	1 - 14	45.0	1.77	78.0	3.07	17.5	0.68	30	1 3/16
V08-12FF45	1/2	1 3/16 - 12	47.0	1.85	80.0	3.14	20.5	0.80	36	1 7/16
V10-10FF45	5/8	1 - 14	49.0	1.92	85.0	3.34	18.0	0.70	30	1 3/16
V10-12FF45	5/8	1 3/16 - 12	51.5	2.02	87.5	3.44	20.5	0.80	36	1 7/16
V12-12FF45	3/4	1 3/16 - 12	60.0	2.36	111.0	4.37	22.0	0.86	36	1 7/16
V16-16FF45	1	1 7/16 - 12	78.0	3.07	134.0	5.27	29.0	1.14	41	1 5/8
V16-20FF45	1	1 11/16 - 12	78.0	3.07	134.0	5.27	29.0	1.14	50	2
VS20-20FF45	1 1/4	1 11/16 - 12	93.0	3.66	159.0	6.25	34.0	1.33	50	2
VS24-24FF45	1 1/2	2 - 12	113	4.44	195.0	7.67	41.0	1.61	60	2 3/8

FF90S

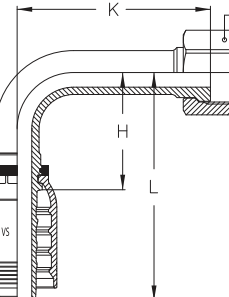
ORFS FEMALE SWIVEL - 90° ELBOW SHORT DROP



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
V08-12FF90S	1/2	1 3/16 - 12	39.0	1.54	72.0	2.83	42.0	1.65	36	1 7/16
V12-12FF90S	3/4	1 3/16 - 12	54.0	2.13	105.0	4.13	48.0	1.89	36	1 7/16
V12-16FF90S	3/4	1 7/16 - 12	54.0	2.13	105.0	4.13	49.0	1.93	41	1 5/8
V16-16FF90S	1	1 7/16 - 12	71.0	2.80	127.0	5.00	62.0	2.44	41	1 5/8
V16-20FF90S	1	1 7/16 - 12	71.0	2.80	127.0	5.00	62.0	2.44	50	2
VS20-20FF90M	1 1/4	1 11/16 - 12	87.0	3.42	153.0	6.02	75.0	2.95	50	2
VS24-24FF90M	1 1/2	2 - 12	105.0	4.13	187.0	7.36	90.0	3.54	60	2 3/8

FF90L

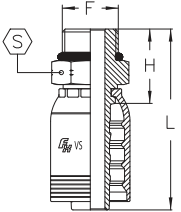
ORFS FEMALE SWIVEL - 90° ELBOW LONG DROP



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
V12-12FF90L	3/4	1 3/16 - 12	54.0	2.12	105.0	4.13	96.0	3.77	36	1 7/16
V16-16FF90L	1	1 7/16 - 12	71.0	2.79	127.0	5.00	114.0	4.48	41	1 5/8
VS20-20FF90L	1 1/4	1 11/16 - 12	87.0	3.42	153.0	6.02	130.0	5.11	50	2
VS24-24FF90L	1 1/2	2 - 12	105.0	4.13	187.0	7.36	155.0	6.10	60	2 3/8

MOB

O-RING BOSS MALE



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
V06-06MOB	3/8	3/16 - 18	23.5	0.92	54.0	2.12	17	1 1/16
V08-08MOB	1/2	3/4 - 16	27.2	1.07	60.2	2.37	22	7/8
V12-12MOB	3/4	1 1/16 - 12	39.0	1.54	90.0	3.54	32	1 1/4
V16-16MOB	1	1 5/16 - 12	42.5	1.67	99.0	3.90	38	1 1/2

Reference Hose Section for Coupling Compatibility

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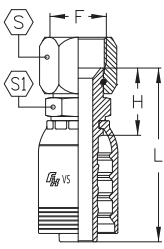




FJIS

JIS FEMALE SWIVEL (TOYOTA)

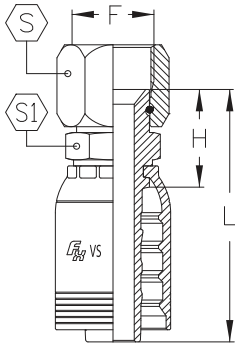
PART NUMBER	Hose Bore	F	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
	V06-06FJIS	3/8	3/8 - 19	22.5	0.89	53.0	2.09	22	7/8	19
V08-08FJIS	1/2	1/2 - 14	26.0	1.02	59.0	2.32	27	1 1/16	22	7/8



FK

KOMATSU FEMALE SWIVEL

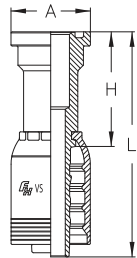
PART NUMBER	Hose Bore	F	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
	V06-18FK	3/8	M18 x 1.5	22.5	0.86	53.0	2.08	24	15/16	19
V06-20FK	3/8	M20 x 1.5	28.5	1.12	59.0	2.32	25	1	22	7/8
V06-22FK	3/8	M22 x 1.5	28.5	1.12	59.0	2.32	27	1 1/16	22	7/8
V08-18FK	1/2	M18 x 1.5	26.0	1.02	59.0	2.32	24	15/16	22	7/8
V08-22FK	1/2	M22 x 1.5	26.0	1.02	59.0	2.32	27	1 1/16	22	7/8
V08-24FK	1/2	M24 x 1.5	30.0	1.18	63.0	2.48	32	1 1/4	27	1 1/16
V10-24FK	5/8	M24 x 1.5	30.2	1.19	66.0	2.60	32	1 1/4	27	1 1/16
V12-24FK	3/4	M24 x 1.5	33.0	1.30	84.0	3.31	32	1 1/4	32	1 1/4
V12-30FK	3/4	M30 x 1.5	33.5	1.32	84.5	3.33	36	1 1/16	32	1 1/4
V16-33FK	1	M33 x 1.5	38.0	1.50	94.5	3.72	41	1 5/8	36	1 1/16
V16-36FK	1	M36 x 1.5	41.0	1.61	97.5	3.84	46	1 13/16	41	1 5/8
VS20-36FK	1 1/4	M36 x 1.5	44.0	1.73	110.5	4.35	46	1 13/16	41	1 5/8
VS24-42FK	1 1/2	M42 x 1.5	48.5	1.91	131.0	5.16	50	2	50	2



FLK

KOMATSU FLANGE

PART NUMBER	Hose Bore	FLANGE	A		H		L	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
	V08-10FLK	1/2	34mm x .265	34.0	1.34	49.0	1.93	82.0
V10-10FLK	5/8	34mm x .265	34.0	1.34	49.2	1.94	85.3	3.35

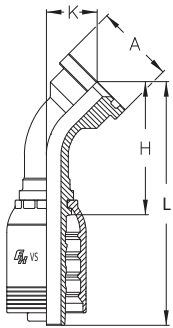


Reference Hose Section for Coupling Compatibility

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FLK45

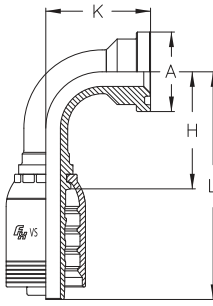
KOMATSU FLANGE - 45° ELBOW



PART NUMBER	Hose Bore	FLANGE	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
V08-10FLK45	1/2	34mm x .265	34.0	1.34	71.0	2.80	104.0	4.09	28.0	1.10
V10-10FLK45	5/8	34mm x .265	34.0	1.34	74.0	2.92	110.0	4.33	30.0	1.18

FLK90

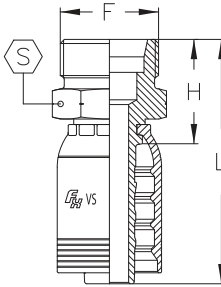
KOMATSU FLANGE - 90° ELBOW



PART NUMBER	Hose Bore	FLANGE	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
V08-10FLK90	1/2	34mm x .265	34.0	1.34	38.0	1.50	71.0	2.80	42.0	1.65
V10-10FLK90	5/8	34mm x .265	34.0	1.3	45.0	1.77	81.0	3.19	44.0	1.73

MKBC

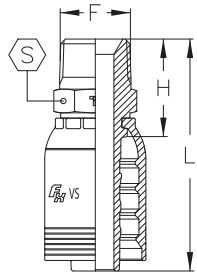
KOBELCO MALE



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
V12-30MKBC	3/4	M30 x 1.5	39.2	1.54	90.2	3.55	38	1 1/2
V12-36MKBC	3/4	M36 x 1.5	39.2	1.54	90.2	3.55	41	1 5/8
V16-36MKBC	1	M36 x 1.5	42.5	1.67	99.0	3.90	41	1 5/8
V16-45MKBC	1	M45 x 1.5	45.1	1.78	101.6	4.00	50	2

MBSPT

BSPT MALE



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
V06-06MBSPT	3/8	3/8 - 19	27.0	1.06	57.5	2.26	19	3/4
V06-08MBSPT	3/8	1/2 - 14	32.0	1.26	62.5	2.46	22	7/8
V08-08MBSPT	1/2	1/2 - 14	33.0	1.30	66.0	2.60	22	7/8
V10-12MBSPT	5/8	3/4 - 14	35.0	1.46	70.8	3.46	27	1 1/16
V12-12MBSPT	3/4	3/4 - 14	37.0	1.46	88.0	3.46	27	1 1/16
V16-16MBSPT	1	1 - 11	44.0	1.73	100.5	3.96	36	1 1/16
VS20-20MBSPT	1 1/4	1 1/4 - 11	51.0	2.00	117.5	4.64	46	1 13/16
VS24-24MBSPT	1 1/2	1 1/2 - 11	54.0	2.12	136.5	5.37	50	2
VS32-32MBSPT	2	2 - 11	64.0	2.51	160.5	6.32	65	2 9/16

Reference Hose Section for Coupling Compatibility

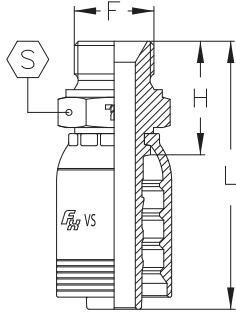
! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





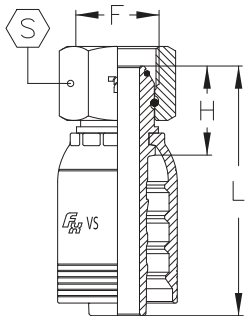
MBSPP BSPP MALE (60° SEAT)

PART NUMBER	Hose Bore	F	H		L		⊕	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
V06-06MBSPP	3/8	3/8 - 19	27.5	1.08	58.0	2.28	22	7/8
V06-08MBSPP	3/8	1/2 - 14	31.5	1.24	62.0	2.44	27	1 1/16
V08-06MBSPP	1/2	3/8 - 19	28.0	1.10	61.0	2.40	22	7/8
V08-08MBSPP	1/2	1/2 - 14	33.0	1.30	66.0	2.60	27	1 1/16
V08-12MBSPP	1/2	3/4 - 14	36.0	1.42	69.0	2.72	32	1 1/4
V10-08MBSPP	5/8	1/2 - 14	24.2	1.35	70.0	2.76	27	1 1/16
V10-10MBSPP	5/8	5/8 - 14	35.2	1.39	71.0	2.80	30	1 3/16
V10-12MBSPP	5/8	3/4 - 14	36.2	1.43	72.0	2.83	32	1 1/4
V12-12MBSPP	3/4	3/4 - 14	37.0	1.46	88.0	3.46	32	1 1/4
V16-16MBSPP	1	1 - 11	45.0	1.77	101.5	4.00	41	1 5/8
V16-20MBSPP	1	1 1/4 - 11	48.0	1.89	104.5	4.11	50	2
VS20-20MBSPP	1 1/4	1 1/4 - 11	51.0	2.01	117.5	4.63	50	2
VS24-24MBSPP	1 1/2	1 1/2 - 11	54.0	2.13	136.5	5.37	55	2 3/16
VS32-32MBSPP	2	2 - 11	64.0	2.52	160.5	6.32	70	2 3/4



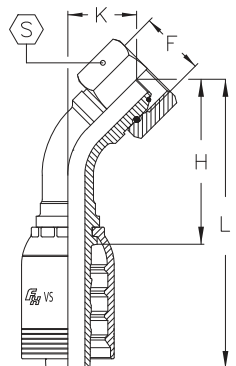
FBSP BSPP FEMALE SWIVEL (60° SEAT)

PART NUMBER	Hose Bore	F	H		L		⊕	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
V06-06FBSP	3/8	3/8 - 19	20.5	0.81	51.0	2.01	22	7/8
V06-08FBSP	3/8	1/2 - 14	23.5	0.93	54.0	2.13	27	1 1/16
V08-06FBSP	1/2	3/8 - 19	23.0	0.91	56.0	2.20	22	7/8
V08-08FBSP	1/2	1/2 - 14	23.0	0.91	56.0	2.20	27	1 1/16
V08-10FBSP	1/2	5/8 - 14	24.0	0.94	57.0	2.24	30	1 3/16
V08-12FBSP	1/2	3/4 - 14	27.0	1.06	60.0	2.36	32	1 1/4
V10-10FBSP	5/8	5/8 - 14	23.0	0.91	59.0	2.32	30	1 3/16
V10-12FBSP	5/8	3/4 - 14	27.0	1.06	63.0	2.48	32	1 1/4
V12-12FBSP	3/4	3/4 - 14	29.0	1.14	80.0	3.15	32	1 1/4
V12-16FBSP	3/4	1 - 11	33.0	1.30	84.0	3.31	41	1 5/8
V16-16FBSP	1	1 - 11	34.0	1.34	90.0	3.54	41	1 5/8
V16-20FBSP	1	1 1/4 - 11	38.0	1.50	95.0	3.74	50	2
VS20-20FBSP	1 1/4	1 1/4 - 11	39.0	1.54	106.0	4.17	50	2
VS24-24FBSP	1 1/2	1 1/2 - 11	43.0	1.69	125.0	4.92	60	2 3/8
VS32-32FBSP	2	2 - 11	47.0	1.85	143.0	5.63	75	3



FBSP45 BSPP FEMALE SWIVEL - 45° ELBOW

PART NUMBER	Hose Bore	F	H		L		K		⊕	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
V06-06FBSP45	3/8	3/8 - 19	42.0	1.65	73.0	2.87	19.0	0.75	22	7/8
V06-08FBSP45	3/8	1/2 - 14	44.0	1.73	75.0	2.95	21.0	0.83	27	1 1/16
V08-08FBSP45	1/2	1/2 - 14	49.0	1.93	82.0	3.23	22.0	0.87	27	1 1/16
V08-10FBSP45	1/2	5/8 - 14	49.0	1.93	82.0	3.23	22.0	0.87	30	1 3/16
V10-10FBSP45	5/8	5/8 - 14	54.0	2.13	89.8	3.54	24.0	0.94	30	1 3/16
V10-12FBSP45	5/8	3/4 - 14	57.0	2.24	93.0	3.66	26.0	1.02	32	1 1/4
V12-12FBSP45	3/4	3/4 - 14	67.0	2.64	118.0	4.65	29.0	1.14	32	1 1/4
V12-16FBSP45	3/4	1 - 11	70.0	2.76	121.0	2.76	32.0	1.26	41	1 5/8
V16-16FBSP45	1	1 - 11	86.0	3.39	142.0	5.59	36.0	1.42	41	1 5/8
V16-20FBSP45	1	1 1/4 - 11	87.0	3.46	143.0	5.63	37.0	1.46	50	2
V20-24FBSP45	1 1/4	1 1/2 - 11	103.0	4.06	169.0	6.65	43.0	1.69	60	2 3/8
VS20-20FBSP45	1 1/4	1 1/4 - 11	103.0	4.06	169.0	6.65	43.0	1.69	50	2
VS24-24FBSP45	1 1/2	1 1/2 - 11	123.0	4.84	206.0	8.11	51.0	2.01	60	2 3/8
VS32-32FBSP45	2	2 - 11	160.0	6.30	257.0	10.12	65.0	2.56	75	3

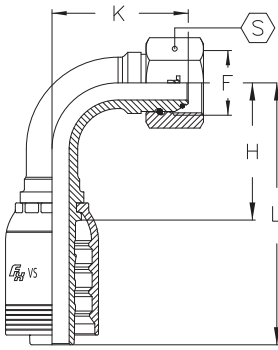


Reference Hose Section for Coupling Compatibility

⚠ WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FBSP90

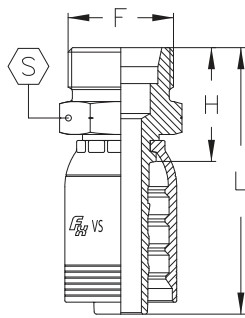
BSPP FEMALE SWIVEL - 90° ELBOW



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
V06-06FBSP90	3/8	3/8 - 19	31.0	1.22	61.0	2.40	35.0	1.37	22	7/8
V06-08FBSP90	3/8	1/2 - 14	30.5	1.20	61.0	2.40	38.0	1.50	27	1 1/16
V08-08FBSP90	1/2	1/2 - 14	37.0	1.46	70.0	2.76	42.0	1.65	27	1 1/16
V08-10FBSP90	1/2	5/8 - 14	37.0	1.46	70.0	2.76	43.0	1.69	30	1 3/16
V10-10FBSP90	5/8	5/8 - 14	45.0	1.77	80.0	3.15	46.0	1.81	30	1 3/16
V10-12FBSP90	5/8	3/4 - 14	45.0	1.77	80.8	3.18	50.0	1.97	32	1 1/4
V12-12FBSP90	3/4	3/4 - 14	55.0	2.17	106.0	4.17	57.0	2.24	32	1 1/4
V12-16FBSP90	3/4	1 - 11	55.0	2.17	106.0	4.17	61.0	2.40	41	1 5/8
V16-16FBSP90	1	1 - 11	71.0	2.80	128.0	5.03	72.0	2.83	41	1 5/8
V16-20FBSP90	1	1 1/4 - 11	71.0	2.80	128.0	5.03	74.0	2.91	50	2
V20-24FBSP90	1 1/4	1 1/2 - 11	87.0	3.43	154.0	6.06	88.0	3.46	60	2 3/8
VS20-20FBSP90	1 1/4	1 1/4 - 11	87.0	3.43	154.0	6.06	88.0	3.46	50	2
VS24-24FBSP90	1 1/2	1 1/2 - 11	105.0	4.13	188.0	7.40	104.0	4.09	60	2 3/8
VS32-32FBSP90	2	2 - 11	140.0	5.51	237.0	9.33	137.0	5.39	75	3

MMS

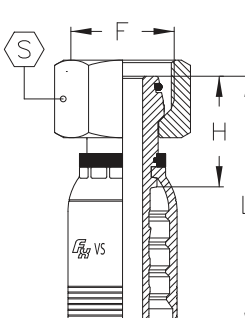
MALE METRIC HEAVY (24° SEAT) - CES



PART NUMBER	Hose Bore	F	Tube	H		L		S	
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]
V06-18MMS	3/8	M18 x 1.5	S10	24.0	0.94	54.5	2.15	19	3/4
V06-20MMS	3/8	M20 x 1.5	S12	25.0	0.98	55.5	2.19	22	7/8
V06-22MMS	3/8	M22 x 1.5	S14	27.0	1.06	57.5	2.26	22	7/8
V06-24MMS	3/8	M24 x 1.5	S16	28.0	1.10	58.5	2.30	24	15/16
V08-24MMS	1/2	M24 x 1.5	S16	29.0	1.14	62.0	2.44	24	15/16
V10-30MMS	5/8	M30 x 2.0	S20	32.0	1.26	67.8	2.67	30	1 3/16
V12-30MMS	3/4	M30 x 2.0	S20	34.0	1.34	85.0	3.35	30	1 3/16
V12-36MMS	3/4	M36 x 2.0	S25	38.0	1.49	89.0	3.50	36	1 7/16
V16-36MMS	1	M36 x 2.0	S25	40.0	1.57	96.5	3.80	36	1 7/16
V16-42MMS	1	M42 x 2.0	S30	44.0	1.73	100.5	3.96	46	1 13/16
VS20-42MMS	1 1/4	M42 x 2.0	S30	47.0	1.85	113.5	4.47	46	1 13/16
VS20-52MMS	1 1/4	M52 x 2.0	S38	51.0	2.00	117.5	4.63	55	2 3/16
VS24-52MMS	1 1/2	M52 x 2.0	S38	53.0	2.08	135.5	5.33	55	2 3/16

FMS

FEMALE METRIC HEAVY SWIVEL (24° SEAT) - DKOS



PART NUMBER	Hose Bore	F	Tube	H		L		S	
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]
V06-18FMS	3/8	M18 x 1.5	S10	24.5	0.96	55.0	2.17	22	7/8
V06-20FMS	3/8	M20 x 1.5	S12	23.5	0.93	54.0	2.13	24	15/16
V06-22FMS	3/8	M22 x 1.5	S14	27.0	1.06	58.0	2.28	27	1 1/16
V06-24FMS	3/8	M24 x 1.5	S16	29.0	1.14	60.0	2.36	30	1 3/16
V08-22FMS	1/2	M22 x 1.5	S14	28.0	1.10	61.0	2.40	27	1 1/16
V08-24FMS	1/2	M24 x 1.5	S16	29.0	1.14	62.0	2.44	30	1 3/16
V10-30FMS	5/8	M30 x 2.0	S20	33.2	1.31	69.0	2.72	36	1 7/16
V12-30FMS	3/4	M30 x 2.0	S20	37.0	1.46	88.0	3.46	36	1 7/16
V12-36FMS	3/4	M36 x 2.0	S25	39.0	1.54	90.0	3.54	46	1 13/16
V16-36FMS	1	M36 x 2.0	S25	41.0	1.61	97.5	3.84	46	1 13/16
V16-42FMS	1	M42 x 2.0	S30	42.0	1.65	98.5	3.88	50	2
VS20-42FMS	1 1/4	M42 x 2.0	S30	43.0	1.69	109.5	4.31	50	2
VS20-52FMS	1 1/4	M52 x 2.0	S38	48.0	1.88	114.5	4.51	60	2 3/8
VS24-52FMS	1 1/2	M52 x 2.0	S38	51.0	2.01	133.5	5.26	60	2 3/8

Reference Hose Section for Coupling Compatibility

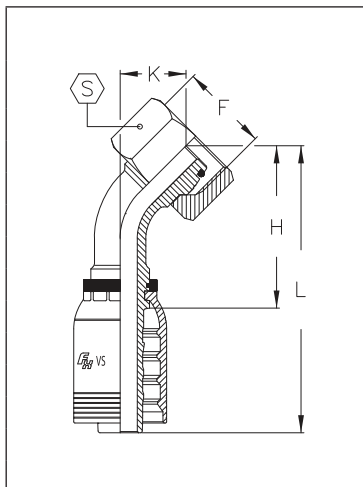
WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





FMS45

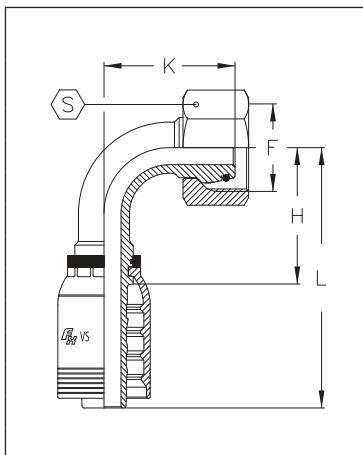
FEMALE METRIC HEAVY SWIVEL (24° SEAT) - 45° ELBOW - DKOS



PART NUMBER	Hose Bore	F	Tube	H		L		K		S	
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
V06-20FMS45	3/8	M20 x 1.5	S12	40.0	1.57	70.5	2.78	18.0	0.71	24	15/16
V06-22FMS45	3/8	M22 x 1.5	S14	41.5	1.63	72.0	2.83	19.0	0.75	27	1 1/16
V08-22FMS45	1/2	M22 x 1.5	S14	46.0	1.81	79.0	3.11	20.0	0.79	27	1 1/16
V08-24FMS45	1/2	M24 x 1.5	S16	47.0	1.85	80.0	3.15	21.0	0.83	30	1 3/16
V10-30FMS45	5/8	M30 x 2.0	S20	56.0	2.20	92.0	3.62	25.0	0.98	36	1 7/16
V12-30FMS45	3/4	M30 x 2.0	S20	65.0	2.56	116.0	4.57	27.0	1.06	36	1 7/16
V12-36FMS45	3/4	M36 x 2.0	S25	66.0	2.60	117.0	4.61	28.0	1.10	46	1 13/16
V16-36FMS45	1	M36 x 2.0	S25	83.0	3.27	139.5	5.49	34.0	1.34	46	1 13/16
V16-42FMS45	1	M42 x 2.0	S30	82.0	3.22	138.5	5.45	32.0	1.25	50	2
VS20-42FMS45	1 1/4	M42 x 2.0	S30	100.0	3.94	166.5	6.56	40.0	1.57	50	2
VS20-52FMS45	1 1/4	M52 x 2.0	S38	97.0	3.82	163.5	6.44	38.0	1.50	60	2 3/8
VS24-52FMS45	1 1/2	M52 x 2.0	S38	121.0	4.76	203.5	8.01	48.0	1.89	60	2 3/8

FMS90

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



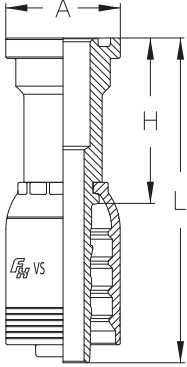
PART NUMBER	Hose Bore	F	Tube	H		L		K		S	
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
V06-20FMS90	3/8	M20 x 1.5	S12	31.0	1.22	61.5	2.42	33.0	1.30	24	15/16
V06-22FMS90	3/8	M22 x 1.5	S14	33.5	1.32	64.0	2.51	37.0	1.46	27	1 1/16
V08-24FMS90	1/2	M24 x 1.5	S16	39.0	1.54	72.0	2.83	42.0	1.65	30	1 3/16
V10-30FMS90	5/8	M30 x 2.0	S20	44.0	1.73	79.8	3.14	49.0	1.93	36	1 7/16
V12-30FMS90	3/4	M30 x 2.0	S20	55.0	2.17	106.0	4.17	55.0	2.17	36	1 7/16
V12-36FMS90	3/4	M36 x 2.0	S25	55.0	2.17	106.0	4.17	55.0	2.17	46	1 13/16
V16-36FMS90	1	M36 x 2.0	S25	71.0	2.80	127.5	5.02	69.0	2.72	46	1 13/16
V16-42FMS90	1	M42 x 2.0	S30	71.0	2.80	127.5	5.02	67.0	2.64	50	2
VS20-42FMS90	1 1/4	M42 x 2.0	S30	87.0	3.43	153.5	6.04	83.0	3.27	50	2
VS20-52FMS90	1 1/4	M52 x 2.0	S38	87.0	3.43	153.5	6.06	80.0	3.15	60	2 3/8
VS24-52FMS90	1 1/2	M52 x 2.0	S38	105.0	4.13	187.5	7.38	100.0	3.94	60	2 3/8

Reference Hose Section for Coupling Compatibility

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FL

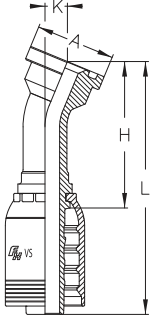
SAE CODE 61 FLANGE



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
V08-08FL	½	0.265	30.2	1.19	48.5	1.91	81.5	3.21
V08-12FL	½	0.265	38.1	1.50	52.5	2.07	85.5	3.37
V10-12FL	⅝	0.265	38.1	1.50	52.7	2.07	88.5	3.84
V12-12FL	¾	0.265	38.1	1.50	55.0	2.17	106.0	4.17
V12-16FL	¾	0.315	44.5	1.75	57.0	2.24	108.0	4.25
V12-20FL	¾	0.315	50.8	2.00	55.0	2.17	106.0	4.17
V16-12FL	1	0.265	38.1	1.50	58.0	2.28	114.5	4.50
V16-16FL	1	0.315	44.5	1.75	58.0	2.28	114.5	4.50
V16-20FL	1	0.315	50.8	2.00	63.0	2.48	119.5	4.70
V16-24FL	1	0.315	60.4	2.38	59.0	2.32	115.5	4.55
VS20-16FL	1¼	0.315	44.5	1.75	64.0	2.51	130.5	5.14
VS20-20FL	1¼	0.315	50.8	2.00	64.0	2.51	130.5	5.14
VS20-24FL	1¼	0.315	60.4	2.38	68.0	2.67	134.5	5.30
VS20-32FL	1¼	0.375	71.4	2.81	75.0	2.95	141.5	5.57
VS24-24FL	1½	0.315	60.4	2.38	73.0	2.87	155.5	6.12
VS24-32FL	1½	0.375	71.4	2.38	76.0	2.87	158.5	6.12
VS32-32FL	2	0.375	71.4	2.81	80.0	3.15	176.5	6.95
VS32-40FL	2	0.375	84.1	3.31	90.0	3.54	186.5	7.34

FL22

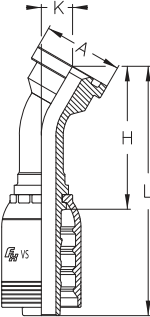
SAE CODE 61 FLANGE - 22.5° ELBOW



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
V12-12FL22	¾	0.265	38.1	1.50	70.0	2.76	121.0	4.76	11.0	0.43
V12-16FL22	¾	0.315	44.5	1.75	73.0	2.87	124.0	4.88	12.0	0.47
V16-16FL22	1	0.315	44.5	1.75	86.0	3.39	142.0	5.59	12.0	0.47
V16-20FL22	1	0.315	50.8	2.00	86.0	3.39	142.0	5.59	12.0	0.47
VS20-20FL22	1¼	0.315	50.8	2.00	100.0	3.94	166.0	6.54	13.0	0.51
VS20-24FL22	1¼	0.315	60.4	2.38	100.0	3.94	166.0	6.54	13.0	0.51
VS24-24FL22	1½	0.315	60.4	2.38	118.0	4.65	201.0	7.91	15.0	0.59
VS24-32FL22	1½	0.375	71.4	2.81	116.0	4.57	199.0	7.83	14.0	0.55
VS32-32FL22	2	0.375	71.4	2.81	165.0	6.50	261.5	10.30	22.0	0.87


FL30

SAE CODE 61 FLANGE - 30° ELBOW



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
V12-12FL30	¾	0.265	38.1	1.50	68.0	2.68	119.0	4.69	16.0	0.63
V12-16FL30	¾	0.315	44.5	1.75	71.0	2.80	122.0	4.80	17.0	0.67
V16-16FL30	1	0.315	44.5	1.75	84.0	3.31	140.0	5.51	17.0	0.67
V16-20FL30	1	0.315	50.8	2.00	84.0	3.31	140.0	5.51	17.0	0.67
VS20-20FL30	1¼	0.315	50.8	2.00	98.0	3.86	164.0	6.46	19.0	0.75
VS20-24FL30	1¼	0.315	60.4	2.38	98.0	3.86	164.0	6.46	19.0	0.75
VS24-24FL30	1½	0.315	60.4	2.38	116.0	4.57	199.3	7.85	22.0	0.87
VS24-32FL30	1½	0.375	71.4	2.81	114.0	4.49	197.0	7.76	21.0	0.83
VS32-32FL30	2	0.375	71.4	2.81	162.0	6.38	258.0	10.16	31.0	1.22

Reference Hose Section for Coupling Compatibility

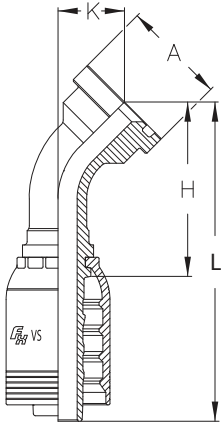
 **WARNING** This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





FL45

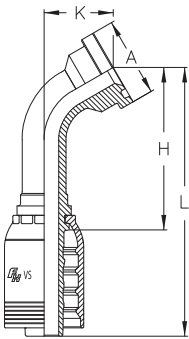
SAE CODE 61 FLANGE - 45° ELBOW



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
V08-08FL45	1/2	0.265	30.2	1.19	47.0	1.85	80.0	3.15	20.0	0.79
V08-12FL45	1/2	0.265	38.1	1.50	51.0	2.01	84.0	3.31	24.0	0.94
V10-12FL45	5/8	0.265	38.1	1.50	55.2	2.17	91.0	3.58	24.0	0.94
V12-12FL45	3/4	0.265	38.1	1.50	63.0	2.48	114.0	4.48	25.0	0.98
V12-16FL45	3/4	0.265	44.5	1.75	65.0	2.55	116.0	4.56	27.0	1.06
V16-16FL45	1	0.315	44.5	1.75	77.5	3.05	134.0	5.28	28.0	1.10
V16-20FL45	1	0.315	50.8	2.00	77.5	3.05	134.0	5.28	28.0	1.10
VS20-16FL45	1 1/4	0.315	44.5	1.75	96.0	3.78	162.5	6.40	37.0	1.46
VS20-20FL45	1 1/4	0.315	50.8	2.00	90.5	3.56	157.0	6.18	32.0	1.25
VS20-24FL45	1 1/4	0.315	60.4	2.38	90.5	3.56	157.0	6.18	32.0	1.25
VS24-20FL45	1 1/2	0.315	50.8	2.00	97.5	3.84	180.0	7.09	50.0	1.97
VS24-24FL45	1 1/2	0.315	60.4	2.38	108.0	4.25	191.0	7.51	36.0	1.41
VS24-32FL45	1 1/2	0.375	71.4	2.81	106.5	4.19	189.0	7.44	35.0	1.37
VS32-32FL45	2	0.375	71.4	2.81	148.5	5.85	245.0	9.65	57.0	2.24
VS32-40FL45	2	0.375	84.1	3.31	146.5	5.77	243.0	9.57	51.0	2.01

FL60

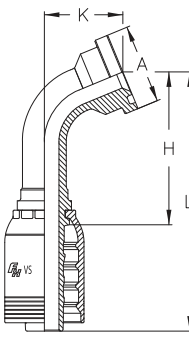
SAE CODE 61 FLANGE - 60° ELBOW



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
V12-12FL60	3/4	0.265	38.1	1.50	77.0	3.03	128.0	5.04	34.0	1.34
V12-16FL60	3/4	0.315	44.5	1.75	79.0	3.11	130.0	5.12	37.0	1.46
V16-16FL60	1	0.315	44.5	1.75	97.5	3.84	154.0	6.06	40.0	1.57
V16-20FL60	1	0.315	50.8	2.00	97.5	3.84	154.0	6.06	40.0	1.57
VS20-20FL60	1 1/4	0.315	50.8	2.00	98.5	3.88	165.0	6.50	45.0	1.77
VS20-24FL60	1 1/4	0.315	60.4	2.38	98.5	3.88	165.0	6.50	45.0	1.77
VS24-24FL60	1 1/2	0.315	60.4	2.38	140.5	5.53	223.0	8.78	52.0	2.05
VS24-32FL60	1 1/2	0.375	71.4	2.81	139.5	5.49	222.0	8.74	50.0	1.97
VS32-32FL60	2	0.375	71.4	2.81	192.5	7.58	289.0	11.38	73.0	2.87

FL67

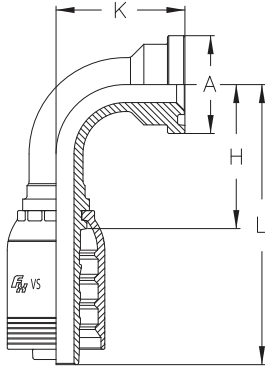
SAE CODE 61 FLANGE - 67.5° ELBOW



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
V12-12FL67	3/4	0.265	38.1	1.50	72.0	2.83	123.0	4.84	39.0	1.54
V12-16FL67	3/4	0.315	44.5	1.75	73.0	2.87	124.0	4.88	41.0	1.61
V16-16FL67	1	0.315	44.5	1.75	91.5	3.60	148.0	5.83	45.0	1.77
V16-20FL67	1	0.315	50.8	2.00	91.5	3.60	148.0	5.83	45.0	1.77
VS20-20FL67	1 1/4	0.315	50.8	2.00	111.5	4.39	178.0	7.01	52.0	2.05
VS20-24FL67	1 1/4	0.315	60.4	2.38	111.5	4.39	178.0	7.01	52.0	2.05
VS24-24FL67	1 1/2	0.315	60.4	2.38	133.5	5.26	216.0	8.50	60.0	2.36
VS24-32FL67	1 1/2	0.375	71.4	2.81	132.5	5.22	215.0	8.46	58.0	2.28
VS32-32FL67	2	0.375	71.4	2.81	181.5	7.12	278.0	10.94	84.0	3.31

Reference Hose Section for Coupling Compatibility

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
V08-08FL90-040	½	0.265	30.2	1.19	38.0	1.50	71.0	2.80	40.0	1.57
V08-08FL90-083	½	0.265	30.2	1.19	38.0	1.50	71.0	2.80	83.0	3.27
V08-12FL90-045	½	0.265	38.1	1.50	38.0	1.50	71.0	2.80	45.0	1.77
V10-12FL90-047	¾	0.265	38.1	1.50	45.2	1.78	81.0	3.19	47.0	1.85
V12-12FL90-051	¾	0.265	38.1	1.50	55.0	2.17	106.0	4.17	51.0	2.01
V12-12FL90-096	¾	0.265	38.1	1.50	55.0	2.17	106.0	4.17	96.0	3.78
V12-12FL90-127	¾	0.265	38.1	1.50	55.0	2.17	106.0	4.17	127.0	5.00
V12-16FL90-055	¾	0.315	44.5	1.75	55.0	2.17	106.0	4.17	55.0	2.17
V12-16FL90-079	¾	0.315	44.5	1.75	55.0	2.17	106.0	4.17	79.0	3.11
V12-20FL90-060	¾	0.315	50.8	2.00	55.0	2.17	106.0	4.17	60.0	2.36
V16-16FL90-061	1	0.315	44.5	1.75	71.5	2.81	128.0	5.04	61.0	2.40
V16-16FL90-118	1	0.315	44.5	1.75	71.5	2.81	128.0	5.04	118.0	4.65
V16-16FL90-132	1	0.315	44.5	1.75	71.5	2.81	128.0	5.04	132.0	5.20
V16-20FL90-061	1	0.315	50.8	2.00	71.5	2.81	128.0	5.04	61.0	2.40
V16-20FL90-118	1	0.315	50.8	2.00	71.5	2.81	128.0	5.04	118.0	4.65
V16-24FL90-061	1	0.315	60.4	2.38	71.0	2.80	127.5	5.02	61.0	2.40
VS20-16FL90-079	1¼	0.315	44.5	1.75	87.5	3.44	154.0	6.06	79.0	3.11
VS20-20FL90-071	1¼	0.315	50.8	2.00	87.5	3.44	154.0	6.06	71.0	2.80
VS20-20FL90-091	1¼	0.315	50.8	2.00	87.5	3.44	154.0	6.06	91.0	3.58
VS20-20FL90-102	1¼	0.315	50.8	2.00	87.5	3.44	154.0	6.06	102.0	4.02
VS20-20FL90-112	1¼	0.315	50.8	2.00	87.5	3.44	154.0	6.06	112.0	4.41
VS20-20FL90-130	1¼	0.315	50.8	2.00	87.5	3.44	154.0	6.06	130.0	5.12
VS20-20FL90-168	1¼	0.315	50.8	2.00	87.5	3.44	154.0	6.06	168.0	6.61
VS20-24FL90-071	1¼	0.315	60.4	2.38	87.5	3.44	154.0	6.06	71.0	2.80
VS20-24FL90-118	1¼	0.315	60.4	2.38	87.5	3.44	154.0	6.06	118.0	4.65
VS20-24FL90-130	1¼	0.315	60.4	2.38	87.5	3.44	154.0	6.06	130.0	5.12
VS24-20FL90-090	1½	0.315	50.8	2.00	98.0	3.86	180.5	7.11	90.0	3.54
VS24-24FL90-083	1½	0.315	60.4	2.38	105.5	4.15	188.0	7.40	83.0	3.27
VS24-24FL90-148	1½	0.315	60.4	2.38	105.5	4.15	188.0	7.40	148.0	5.83
VS24-24FL90-172	1½	0.315	60.4	2.38	105.5	4.15	188.0	7.40	172.0	6.77
VS24-32FL90-081	1½	0.375	71.4	2.81	105.5	4.15	188.0	7.40	81.0	3.19
VS24-32FL90-115	1½	0.375	71.4	2.81	105.5	4.15	188.0	7.40	115.0	4.53
VS24-32FL90-172	1½	0.375	71.4	2.81	105.5	4.15	188.0	7.40	172.0	6.77
VS32-32FL90-122	2	0.375	71.4	2.81	140.5	5.53	237.0	9.33	122.0	4.80
VS32-32FL90-165	2	0.375	71.4	2.81	140.5	5.53	237.0	9.33	165.0	6.50
VS32-32FL90-203	2	0.375	71.4	2.81	140.5	5.53	237.0	9.33	203.0	7.99
VS32-40FL90-117	2	0.375	84.1	3.31	140.5	5.53	237.0	9.33	117.0	4.61

Reference Hose Section for Coupling Compatibility

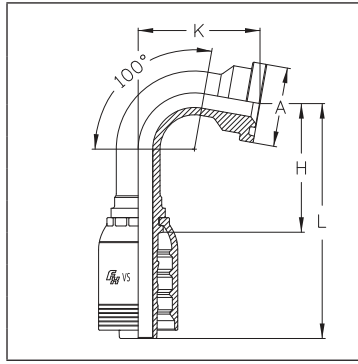
WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





FL100

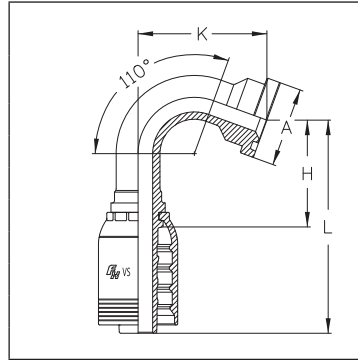
SAE CODE 61 FLANGE - 100° ELBOW



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
V12-12FL100	3/4	0.265	38.1	1.50	61.0	2.40	112.0	4.41	59.0	2.32

FL110

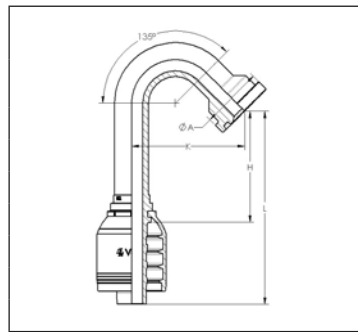
SAE CODE 61 FLANGE - 110° ELBOW



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
V12-12FL110	3/4	0.265	38.1	1.50	51.0	2.01	102.0	4.01	62.0	2.44
V16-16FL110	1	0.315	44.5	1.75	64.5	2.54	121.0	4.76	73.0	2.87
V16-20FL110	1	0.315	50.8	2.00	64.5	2.54	121.0	4.76	73.0	2.87
VS20-20FL110	1 1/4	0.315	50.8	2.00	81.5	3.21	148.0	5.83	83.0	3.27
VS20-24FL110	1 1/4	0.315	60.4	2.38	81.5	3.21	148.0	5.83	83.0	3.27
VS24-24FL110	1 1/2	0.315	60.4	2.38	95.5	3.76	178.0	7.01	97.0	3.82
VS32-32FL110	2	0.375	71.4	2.81	123.5	4.86	220.0	8.66	142.0	5.59

FL135

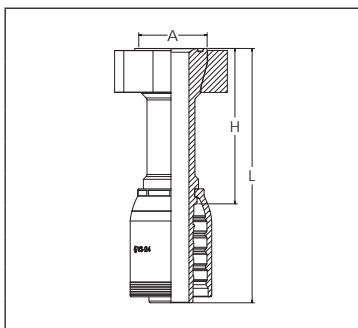
SAE CODE 61 FLANGE - 135° ELBOW



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
V12-12FL135	3/4	0.265	38.1	1.50	69.0	2.72	120.0	4.72	70.0	2.76
V16-16FL135	1	0.315	44.5	1.75	56.5	2.22	113.0	4.45	86.0	3.39

LET

SAE CODE 61 CAPTIVE FLANGE – 5000 PSI



PART NUMBER	Hose Bore	A		H		L	
	INCH	[mm]	[in]	[mm]	[in]	[mm]	[in]
VS20-20LET	1 1/4	50.8	2.00	112.1	4.41	178.6	7.03
VS24-24LET	1 1/2	60.3	2.37	129.6	5.10	212.1	8.35
VS32-32LET	2	71.4	2.81	139.5	5.49	236.0	9.29

Reference Hose Section for Coupling Compatibility

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LET45

SAE CODE 61 CAPTIVE FLANGE – 5000 PSI

PART NUMBER	Hose Bore	A		H		L		K	
	INCH	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
VS20-20LET45-063	1¼	50.8	2.00	122.5	4.82	189.0	7.44	63.0	2.48
VS24-24LET45-074	1½	60.3	2.37	146.5	5.77	229.0	9.02	74.0	2.91

LET90

SAE CODE 61 CAPTIVE FLANGE – 5000 PSI

PART NUMBER	Hose Bore	A		H		L		K	
	INCH	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
VS20-20LET90-102	1¼	50.8	2.00	87.5	3.44	154.0	6.06	102.0	4.02
VS24-24LET90-114	1½	60.3	2.37	105.1	4.13	187.6	7.39	114.0	4.49
VS32-32LET90-136	2	71.4	2.81	150.3	5.92	247.0	9.72	136.0	5.35

FLH

SAE CODE 62 FLANGE

PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
V08-08FLH	½	0.305	31.7	1.25	49.5	1.95	82.5	3.25
V08-12FLH	½	0.345	41.3	1.62	52.5	2.07	89.0	3.50
V10-12FLH	⅝	0.345	41.3	1.62	59.5	2.34	95.5	3.76
V12-12FLH	¾	0.345	41.3	1.62	59.0	2.32	110.0	4.33
V12-16FLH	¾	0.375	47.6	1.87	61.0	2.40	112.0	4.40
V16-12FLH	1	0.345	41.3	1.62	65.0	2.56	121.5	4.78
V16-16FLH	1	0.375	47.6	1.87	65.0	2.56	121.5	4.78
V16-20FLH	1	0.405	54.0	2.12	69.0	2.71	125.5	4.94
VS20-16FLH	1¼	0.375	47.6	1.87	70.0	2.75	136.5	5.37
VS20-20FLH	1¼	0.405	54.0	2.12	70.0	2.75	136.5	5.37
VS20-24FLH	1¼	0.495	63.5	2.50	80.0	3.14	146.5	5.76
VS24-20FLH	1½	0.405	54.0	2.12	72.0	2.83	154.5	6.08
VS24-24FLH	1½	0.495	63.5	2.50	84.0	3.31	166.5	6.56
VS24-32FLH	1½	0.495	79.4	3.12	99.0	3.89	181.5	7.14
VS32-32FLH	2	0.495	79.4	3.12	100.0	3.93	196.5	7.73

FLH22

SAE CODE 62 FLANGE - 22.5° ELBOW

PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
V12-12FLH22	¾	0.345	41.3	1.62	74.0	2.91	125.0	4.92	13.0	0.51
V12-16FLH22	¾	0.375	47.6	1.87	76.0	2.99	127.0	5.00	14.0	0.55
V16-16FLH22	1	0.375	47.6	1.87	89.0	3.50	145.0	5.70	13.0	0.51
V16-20FLH22	1	0.405	54.0	2.12	89.0	3.50	145.0	5.70	13.0	0.51
VS20-20FLH22	1¼	0.405	54.0	2.12	103.0	4.05	169.0	6.65	15.0	0.59
VS20-24FLH22	1¼	0.495	63.5	2.50	104.0	4.09	171.0	6.73	15.0	0.59
VS24-24FLH22	1½	0.495	63.5	2.50	123.0	4.84	206.0	8.11	17.0	0.66
VS24-32FLHLS	1½	0.495	79.4	3.12	127.0	5.00	210.0	8.26	19.0	0.74
VS32-32FLHLS	2	0.495	79.4	3.12	166.0	6.53	263.0	10.35	24.0	0.94

Reference Hose Section for Coupling Compatibility

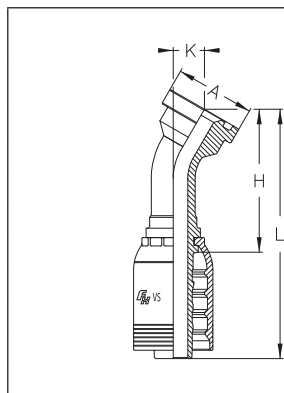
! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





FLH30

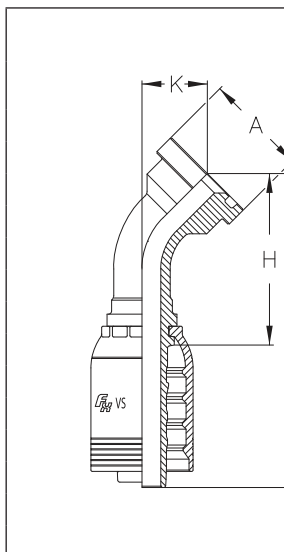
SAE CODE 62 FLANGE - 30° ELBOW



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
V12-12FLH30	3/4	0.345	41.3	1.62	72.0	2.83	123.0	4.84	18.0	0.70
V12-16FLH30	3/4	0.375	47.6	1.87	74.0	2.91	125.0	4.92	19.0	0.74
V16-16FLH30	1	0.375	47.6	1.87	87.0	3.42	143.0	5.62	19.0	0.74
V16-20FLH30	1	0.405	54.0	2.12	87.0	3.42	143.0	5.62	19.0	0.74
VS20-20FLH30	1 1/4	0.405	54.0	2.12	100.0	3.93	167.0	6.57	20.0	0.78
VS20-24FLH30	1 1/4	0.495	63.5	2.50	102.0	4.01	168.0	6.61	21.0	0.82
VS24-24FLH30	1 1/2	0.495	63.5	2.50	121.0	4.76	203.0	7.99	24.0	0.94
VS24-32FLH30	1 1/2	0.495	79.4	3.12	124.0	4.88	207.0	8.14	26.0	1.02
VS32-32FLH30	2	0.495	79.4	3.12	162.0	6.37	259.0	10.19	34.0	1.33

FLH45

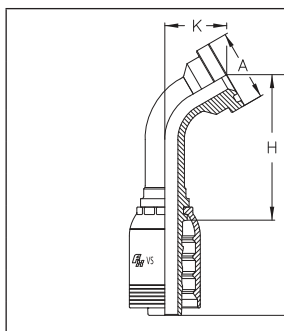
SAE CODE 62 FLANGE - 45° ELBOW



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
V08-08FLH45	1/2	0.305	31.7	1.25	63.0	2.48	96.0	3.78	23.5	0.93
V08-12FLH45	1/2	0.345	41.3	1.62	68.5	2.70	101.5	4.00	29.0	1.14
V10-12FLH45	5/8	0.345	41.3	1.62	81.5	3.21	117.5	4.63	29.5	1.16
V12-12FLH45	3/4	0.345	41.3	1.62	66.0	2.59	117.0	4.60	28.0	1.10
V12-16FLH45	3/4	0.375	47.6	1.87	68.0	2.67	118.0	4.64	29.0	1.14
V16-12FLH45	1	0.345	41.3	1.62	81.0	3.18	137.0	5.39	31.0	1.22
V16-16FLH45	1	0.375	47.6	1.87	80.0	3.14	136.0	5.35	30.0	1.18
V16-20FLH45	1	0.405	54.0	2.12	80.0	3.14	136.0	5.35	30.0	1.18
VS20-16FLH45	1 1/4	0.375	47.6	1.87	96.0	3.77	163.0	6.41	37.0	1.45
VS20-20FLH45	1 1/4	0.405	54.0	2.12	93.0	3.66	160.0	6.29	34.0	1.33
VS20-24FLH45	1 1/4	0.495	63.5	2.50	94.0	3.70	161.0	6.33	35.0	1.37
VS24-24FLH45	1 1/2	0.495	63.5	2.50	112.0	4.40	195.0	7.67	40.0	1.57
VS24-32FLH45	1 1/2	0.495	79.4	3.12	115.0	4.52	198.0	7.79	43.0	1.69
VS32-32FLH45	2	0.495	79.4	3.12	150.0	5.90	247.0	9.72	56.0	2.20

FLH60

SAE CODE 62 FLANGE - 60° ELBOW



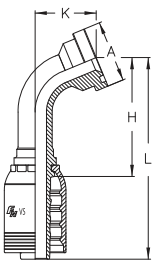
PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
V12-12FLH60	3/4	0.345	41.3	1.63	79.0	3.11	130.0	5.12	38.0	1.50
V16-20FLH60	1	0.405	54.0	2.12	99.0	3.89	155.0	6.10	42.0	1.65
V16-16FLH60	1	0.375	47.6	1.87	99.0	3.89	155.0	6.10	42.0	1.65
VS20-20FLH60	1 1/4	0.405	54.0	2.12	119.0	4.68	185.0	7.28	47.0	1.85
VS24-24FLH60	1 1/2	0.495	63.5	2.50	143.0	5.62	225.0	8.85	56.0	2.20
VS32-32FLH60	2	0.495	79.4	3.12	193.0	7.59	289.0	11.37	79.0	3.11

Reference Hose Section for Coupling Compatibility

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FLH67

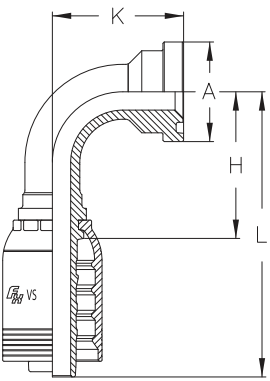
SAE CODE 62 FLANGE - 67.5° ELBOW



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
V16-16FLH67	1	0.375	47.6	1.87	93.0	3.66	150.0	5.90	48.0	1.88
VS20-20FLH67	1¼	0.405	54.0	2.12	112.0	4.40	179.0	7.04	54.0	2.12
VS24-24FLH67	1½	0.495	63.5	2.50	135.0	5.31	217.0	8.54	65.0	2.55
VS32-32FLH67	2	0.495	79.4	3.12	182.0	7.16	278.0	10.94	90.0	3.54


FLH90

SAE CODE 62 FLANGE - 90° ELBOW



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
V08-08FLH90-042	½	0.305	31.7	1.25	41.0	1.61	74.0	2.91	42.0	1.65
V08-12FLH90-050	½	0.345	41.3	1.62	41.0	1.61	74.0	2.91	50.0	1.97
V10-12FLH90-055	⅝	0.345	41.3	1.62	49.0	1.93	85.0	3.35	55.0	2.17
V12-12FLH90-056	¾	0.345	41.3	1.62	55.0	2.16	106.0	4.17	56.0	2.20
V12-12FLH90-100	¾	0.345	41.3	1.62	55.0	2.16	106.0	4.17	100.0	3.93
V12-12FLH90-175	¾	0.345	41.3	1.62	61.0	2.90	112.0	4.41	175.0	6.89
V12-16FLH90-058	¾	0.375	47.6	1.87	55.0	2.16	106.0	4.17	58.0	2.28
V12-16FLH90-120	¾	0.375	47.6	1.87	55.0	2.16	106.0	4.17	120.0	4.72
V12-16FLH90-140	¾	0.375	47.6	1.87	55.0	2.16	106.0	4.17	140.0	5.51
V16-12FLH90-065	1	0.345	41.3	1.62	71.0	2.79	128.0	5.03	65.0	2.55
V16-16FLH90-064	1	0.375	47.6	1.87	71.0	2.79	128.0	5.03	64.0	2.51
V16-16FLH90-090	1	0.375	47.6	1.87	71.8	2.81	128.0	5.03	90.0	3.54
V16-16FLH90-120	1	0.375	47.6	1.87	71.0	2.79	128.0	5.03	120.0	4.72
V16-16FLH90-180	1	0.375	47.6	1.87	71.5	2.81	128.0	5.03	180.0	7.09
V16-20FLH90-064	1	0.405	54.0	2.12	71.0	2.79	128.0	5.03	64.0	2.51
V16-20FLH90-090	1	0.405	54.0	2.12	71.8	2.81	128.0	5.03	90.0	3.54
VS20-16FLH90-079	1¼	0.375	47.6	1.87	87.0	3.42	154.0	6.06	79.0	3.11
VS20-20FLH90-074	1¼	0.405	54.0	2.12	87.0	3.42	154.0	6.06	74.0	2.91
VS20-20FLH90-120	1¼	0.405	54.0	2.12	87.0	3.42	154.0	6.06	120.0	4.72
VS20-20FLH90-140	1¼	0.405	54.0	2.12	87.5	3.44	154.0	6.06	140.0	5.51
VS20-20FLH90-155	1¼	0.405	54.0	2.12	87.5	3.44	154.0	6.06	155.0	6.10
VS20-20FLH90-180	1¼	0.405	54.0	2.12	87.5	3.44	154.0	6.06	180.0	7.09
VS20-24FLH90-076	1¼	0.495	63.5	2.50	87.0	3.42	154.0	6.06	76.0	2.99
VS24-20FLH90-064	1½	0.405	54.0	2.12	87.0	3.43	154.0	6.06	64.0	2.52
VS24-20FLH90-072	1½	0.405	54.0	2.12	97.5	3.87	180.0	7.09	72.0	2.83
VS24-20FLH90-090	1½	0.405	54.0	2.12	90.0	3.54	180.0	7.09	90.0	3.54
VS24-24FLH90-088	1½	0.495	63.5	2.50	105.0	4.13	188.0	7.40	88.0	3.46
VS24-24FLH90-108	1½	0.495	63.5	2.50	105.0	4.13	188.0	7.40	108.0	4.25
VS24-24FLH90-114	1½	0.495	63.5	2.50	105.0	4.13	187.5	7.38	114.0	4.49
VS24-24FLH90-198	1½	0.495	63.5	2.50	105.0	4.13	187.5	7.38	198.0	7.80
VS24-32FLH90-093	1½	0.495	79.4	3.12	105.0	4.13	188.0	7.40	93.0	3.66
VS32-32FLH90-123	2	0.495	79.4	3.12	140.0	5.51	237.0	9.33	123.0	4.84

Reference Hose Section for Coupling Compatibility

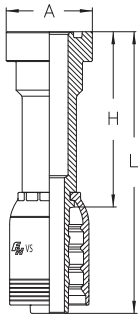
 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





FLC

CATERPILLAR® FLANGE

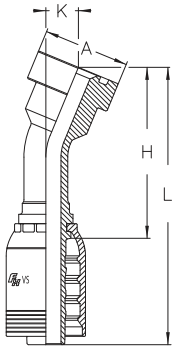


Use with D-Rings

PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
V12-12FLC	¾	0.560	41.3	1.63	84.0	3.31	135.0	5.31
V12-16FLC	¾	0.560	47.6	1.87	84.0	3.31	135.0	5.31
V16-16FLC	1	0.560	47.6	1.87	90.0	3.54	146.5	5.77
V16-20FLC	1	0.560	54.0	2.13	90.0	3.54	146.5	5.77
VS20-20FLC	1¼	0.560	54.0	2.13	88.0	3.46	154.5	6.08
VS20-24FLC	1¼	0.560	63.5	2.50	88.0	3.46	154.5	6.08
VS24-24FLC	1½	0.560	63.5	2.50	84.0	3.31	166.5	6.56
VS24-32FLC	1½	0.560	79.4	3.13	110.0	4.33	192.5	7.58
VS32-32FLC	2	0.560	79.4	3.13	130.0	5.12	226.5	8.92

FLC22

CATERPILLAR® FLANGE - 22.5° ELBOW

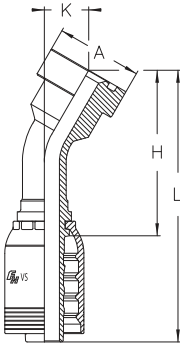


Use with D-Rings

PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
V12-12FLC22	¾	0.560	41.3	1.63	82.0	3.23	133.0	5.24	16.0	0.63
V12-16FLC22	¾	0.560	47.6	1.87	84.0	3.31	135.0	5.31	17.0	0.67
V16-16FLC22	1	0.560	47.6	1.87	96.5	3.80	153.0	6.02	17.0	0.67
V16-20FLC22	1	0.560	54.0	2.13	96.5	3.80	153.0	6.02	17.0	0.67
VS20-20FLC22	1¼	0.560	54.0	2.13	105.5	4.15	172.0	6.77	16.0	0.63
VS20-24FLC22	1¼	0.560	63.5	2.50	107.5	4.23	174.0	6.85	16.0	0.63
VS24-24FLC22	1½	0.560	63.5	2.50	125.5	4.94	208.0	8.19	18.0	0.71
VS24-32FLC22	1½	0.560	79.4	3.13	128.5	5.06	211.0	8.31	19.0	0.75
VS32-32FLC22	2	0.560	79.4	3.13	167.5	6.59	264.0	10.39	25.0	0.98

FLC30

CATERPILLAR® FLANGE - 30° ELBOW



Use with D-Rings

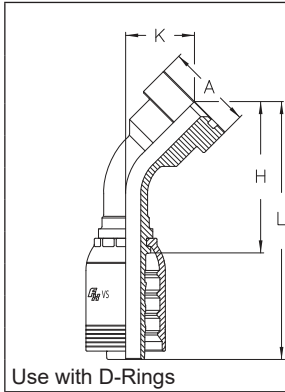
PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
V12-12FLC30	¾	0.560	41.3	1.63	79.0	3.11	130.0	5.12	22.0	0.87
V12-16FLC30	¾	0.560	47.6	1.87	82.0	3.23	133.0	5.24	23.0	0.91
V16-16FLC30	1	0.560	47.6	1.87	94.5	3.72	151.0	5.94	23.0	0.91
V16-20FLC30	1	0.560	54.0	2.13	94.5	3.72	151.0	5.94	23.0	0.91
VS20-20FLC30	1¼	0.560	54.0	2.13	103.5	4.07	170.0	6.69	22.0	0.87
VS20-24FLC30	1¼	0.560	63.5	2.50	103.5	4.07	170.0	6.69	27.0	1.06
VS24-24FLC30	1½	0.560	63.5	2.50	122.5	4.82	205.0	8.07	25.0	0.98
VS24-32FLC30	1½	0.560	79.4	3.13	125.5	4.94	208.0	8.19	32.0	1.26
VS32-32FLC30	2	0.560	79.4	3.13	167.5	6.59	264.0	10.39	35.0	1.38

Reference Hose Section for Coupling Compatibility

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FLC45

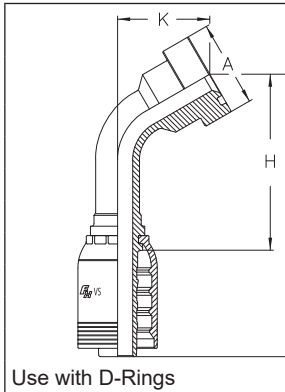
CATERPILLAR® FLANGE - 45° ELBOW



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
V12-12FLC45	¾	0.560	41.3	1.63	72.0	2.83	123.0	4.84	34.0	1.34
V12-16FLC45	¾	0.560	47.6	1.87	74.0	2.91	125.0	4.92	36.0	1.42
V16-16FLC45	1	0.560	47.6	1.87	86.5	3.41	143.0	5.63	36.0	1.42
V16-20FLC45	1	0.560	54.0	2.13	86.5	3.41	143.0	5.63	36.0	1.42
VS20-20FLC45	1¼	0.560	54.0	2.13	95.5	3.76	162.0	6.38	36.0	1.42
VS20-24FLC45	1¼	0.560	63.5	2.50	95.5	3.76	162.0	6.38	44.0	1.73
VS24-24FLC45	1½	0.560	63.5	2.50	113.5	4.47	196.0	7.72	41.0	1.61
VS24-32FLC45	1½	0.560	79.4	3.13	116.5	4.59	199.0	7.83	44.0	1.73
VS32-32FLC45	2	0.560	79.4	3.13	153.5	6.04	250.0	9.84	57.0	2.24

FLC60

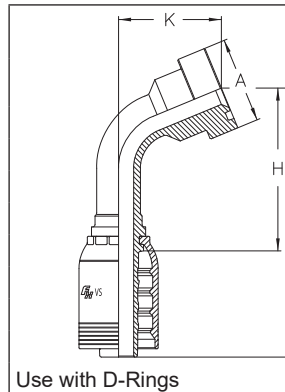
CATERPILLAR® FLANGE - 60° ELBOW



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
V12-12FLC60	¾	0.560	41.3	1.63	83.0	3.27	134.0	5.28	45.0	1.77
V12-16FLC60	¾	0.560	47.6	1.87	85.0	3.35	136.0	5.35	48.0	1.89
V16-16FLC60	1	0.560	47.6	1.87	103.5	4.07	160.0	6.30	50.0	1.97
V16-20FLC60	1	0.560	54.0	2.13	103.5	4.07	160.0	6.30	50.0	1.97
VS20-20FLC60	1¼	0.560	54.0	2.13	120.5	4.74	187.0	7.36	50.0	1.97
VS20-24FLC60	1¼	0.560	63.5	2.50	120.5	4.74	187.0	7.36	55.0	2.17
VS24-24FLC60	1½	0.560	63.5	2.50	143.5	5.65	226.0	8.90	58.0	2.28
VS24-32FLC60	1½	0.560	79.4	3.13	145.5	5.73	228.0	8.98	61.0	2.40
VS32-32FLC60	2	0.560	79.4	3.13	193.5	7.62	290.0	11.42	81.0	3.19

FLC67

CATERPILLAR® FLANGE - 67.5° ELBOW



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
V12-12FLC67	¾	0.560	41.3	1.63	77.0	3.03	128.0	5.04	50.0	1.97
V12-16FLC67	¾	0.560	47.6	1.87	79.0	3.11	130.0	5.12	53.0	2.09
V16-16FLC67	1	0.560	47.6	1.87	96.5	3.80	153.0	6.02	56.0	2.20
V16-20FLC67	1	0.560	54.0	2.13	96.5	3.80	153.0	6.02	56.0	2.20
VS20-20FLC67	1¼	0.560	54.0	2.13	114.5	4.51	181.0	7.13	57.0	2.24
VS20-24FLC67	1¼	0.560	63.5	2.50	114.5	4.51	181.0	7.13	58.0	2.28
VS24-24FLC67	1½	0.560	63.5	2.50	136.5	5.37	219.0	8.62	66.0	2.60
VS24-32FLC67	1½	0.560	79.4	3.13	137.5	5.41	220.0	8.66	69.0	2.72
VS32-32FLC67	2	0.560	79.4	3.13	183.5	7.22	280.0	11.02	92.0	3.62

Reference Hose Section for Coupling Compatibility

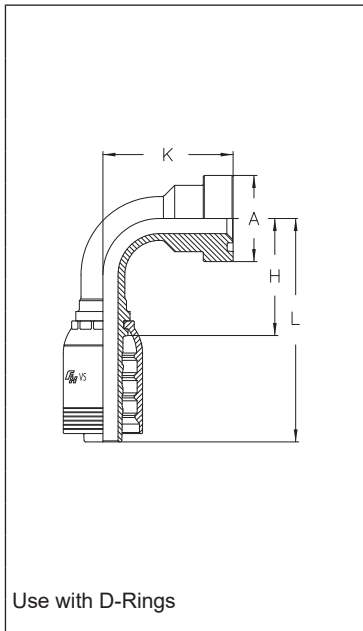
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FLC90

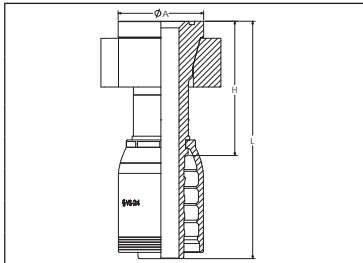
CATERPILLAR® FLANGE - 90° ELBOW



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
V12-12FLC90-064	3/4	0.560	41.3	1.63	55.0	2.17	106.0	4.17	64.0	2.52
V12-12FLC90-129	3/4	0.560	41.3	1.63	55.0	2.17	106.0	4.17	129.0	5.08
V12-16FLC90-064	3/4	0.560	47.6	1.87	55.0	2.17	106.0	4.17	64.0	2.52
V16-16FLC90-073	1	0.560	47.6	1.87	71.5	2.81	128.0	5.04	73.0	2.87
V16-16FLC90-132	1	0.560	47.6	1.87	71.5	2.81	128.0	5.04	132.0	5.20
V16-16FLC90-150	1	0.560	47.6	1.87	71.5	2.81	128.0	5.04	150.0	5.91
V16-20FLC90-073	1	0.560	54.0	2.13	71.5	2.81	128.0	5.04	73.0	2.87
V16-20FLC90-150	1	0.560	54.0	2.13	71.0	2.80	128.0	5.04	150.0	5.91
VS20-20FLC90-077	1 1/4	0.560	54.0	2.13	87.5	3.44	154.0	6.06	77.0	3.03
VS20-20FLC90-150	1 1/4	0.560	54.0	2.13	87.5	3.44	154.0	6.06	150.0	5.91
VS20-24FLC90-078	1 1/4	0.560	63.5	2.50	87.5	3.44	154.0	6.06	78.0	3.07
VS20-24FLC90-135	1 1/4	0.560	63.5	2.50	87.5	3.44	154.0	6.06	135.0	5.31
VS24-24FLC90-090	1 1/2	0.560	63.5	2.50	105.5	4.15	188.0	7.40	90.0	3.54
VS24-24FLC90-106	1 1/2	0.560	63.5	2.50	105.5	4.15	188.0	7.40	106.0	4.17
VS24-32FLC90-094	1 1/2	0.560	79.4	3.13	105.5	4.15	188.0	7.40	94.0	3.70
VS32-32FLC90-125	2	0.560	79.4	3.13	140.0	5.51	237.0	9.33	125.0	4.92

FLOKA

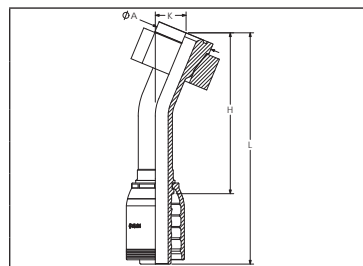
O&K® FLANGE



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
V16-20FLOKA	1	0.433	57.4	2.26	116.5	4.59	173.0	6.81
VS20-20FLOKA	1 1/4	0.433	57.4	2.26	118.5	4.67	185.0	7.28
VS24-24FLOKA	1 1/2	0.518	68.4	2.69	107.5	4.23	190.0	7.48

FLOKA22

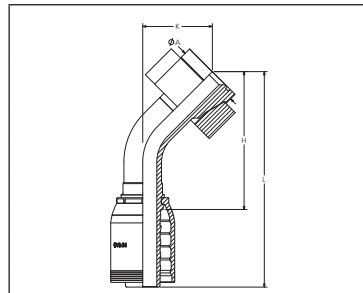
O&K® FLANGE - 22° ELBOW



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
VS24-24FLOKA22	1 1/2	0.518	68.4	2.69	188.5	7.42	271.0	10.67	36.0	1.42

FLOKA45

O&K® FLANGE - 45° ELBOW

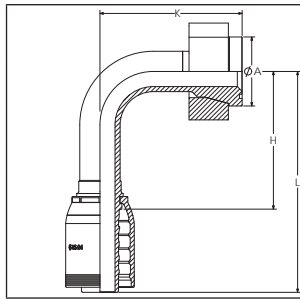


PART NUMBER	Hose Bore	A		H		L		K	
	INCH	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
VS20-20FLOKA45	1 1/4	57.4	2.26	138.0	5.43	204.5	8.05	63.0	2.48
VS20-24FLOKA45	1 1/4	68.4	2.69	125.0	4.92	191.5	7.54	66.5	2.62
VS24-24FLOKA45	1 1/2	68.4	2.69	162.5	6.40	245.0	9.65	74.0	2.91
VS24-32FLOKA45	1 1/2	83.4	3.28	150.0	5.91	232.5	9.15	80.0	3.15

Reference Hose Section for Coupling Compatibility

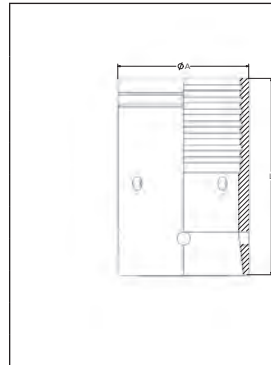
! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FLOKA90 O&K® FLANGE - 90° ELBOW



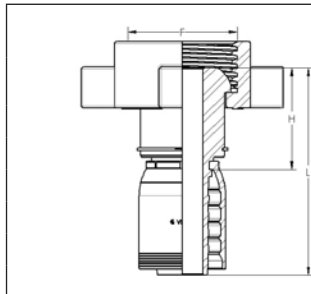
PART NUMBER	Hose Bore	A		H		L		K	
	INCH	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
VS16-20FLOKA90-122	1	57.4	2.26	97.5	3.84	154.0	6.06	122.0	4.80
VS20-20FLOKA90-122	1¼	57.4	2.26	122.5	4.82	189.0	7.44	122.0	4.80
VS24-24FLOKA90-141	1½	68.4	2.69	136.5	5.37	219.0	8.62	141.0	5.55
VS24-32FLOKA90-159	1½	83.4	3.28	126.5	4.98	209.0	8.23	160.0	6.30

OKBR FLOKA CRIMP STRAIN RELIEF SLEEVE



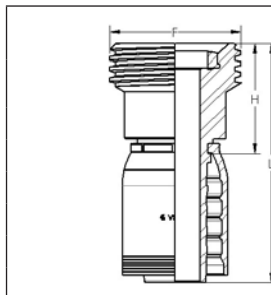
PART NUMBER	Hose Bore	A		L	
	INCH	[mm]	[in]	[mm]	[in]
20OKBR	1¼	60.0	2.36	90.0	3.54
24OKBR	1½	73.0	2.87	105.0	4.13
32OKBR	2	95.0	3.74	120.0	4.72

MHU1502 MALE HAMMER UNION FIG. 1502




PART NUMBER	Hose Bore	F	H		L	
	INCH		[mm]	[in]	[mm]	[in]
VS32-32MHU1502	2	4.125 x 3.0	105.0	4.13	201.5	7.93

FHU1502 FEMALE HAMMER UNION FIG. 1502



PART NUMBER	Hose Bore	F	H		L	
	INCH		[mm]	[in]	[mm]	[in]
VS32-32FHU1502	2	4.125 x 3.0	94.7	3.73	191.2	7.53

Reference Hose Section for Coupling Compatibility

 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



1901

SPLIT FLANGE KIT (CODE 61)

	PART NUMBER	SIZE
	1901-08-K	1/2
	1901-12-K	3/4
	1901-16-K	1
	1901-20-K	1 1/4
	1901-24-K	1 1/2
	1901-32-K	2

1902

SPLIT FLANGE KIT (CODE 62)

	PART NUMBER	SIZE
	1902-08-K	1/2
	1902-12-K	3/4
	1902-16-K	1
	1902-20-K	1 1/4
	1902-24-K	1 1/2
	1902-32-K	2

1903

CATERPILLAR® SPLIT FLANGE KIT

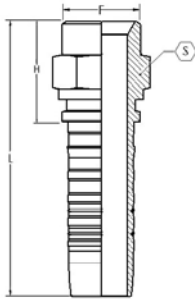
	PART NUMBER	SIZE
	1903-12-K	3/4
	1903-16-K	1
	1903-20-K	1 1/4
	1903-24-K	1 1/2
	1903-32-K	2

Reference Hose Section for Coupling Compatibility

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

MP

NPT MALE

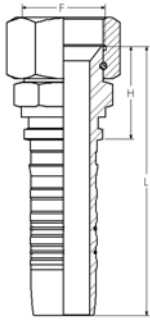


PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
C32-32MP	2	2 - 11½	75.5	2.97	211.0	8.31	75	3

Note: Stem must include 2/ea of PN: C32-OR o-rings for proper assembly.

FJ

JIC 37° FEMALE SWIVEL

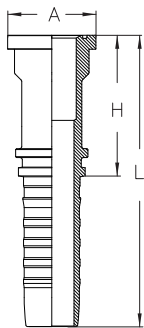


PART NUMBER	Hose Bore	F	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
C32-32FJ	2	2½ - 12	69.0	2.72	204.5	8.05	75	3	60	2C,

Note: Stem must include 2/ea of PN: C32-OR o-rings for proper assembly.

FLH

SAE CODE 62 FLANGE



PART NUMBER	Hose Bore	FLANGE THICKNESS		A		H		L	
	INCH	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
C32-32FLH	2	12.6	0.495	79.4	3.12	126.5	4.98	262.0	10.31

Note: C Series couplings are external skive only.

Note: Stem must include 2/ea of PN: C32-OR o-rings for proper assembly.

Reference Hose Section for Coupling Compatibility

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





FLH30 SAE CODE 62 FLANGE - 30° ELBOW

PART NUMBER	Hose Bore	FLANGE THICKNESS		A		H		L		K	
	INCH	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
C32-32FLH30	2	12.6	0.495	79.4	3.12	162.5	6.40	298.0	11.69	34.0	1.34

Note: Stem must include 2/ea of PN: C32-OR o-rings for proper assembly.

FLH45 SAE CODE 62 FLANGE - 45° ELBOW

PART NUMBER	Hose Bore	FLANGE THICKNESS		A		H		L		K	
	INCH	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
C32-32FLH45	2	12.6	0.495	79.4	3.12	163.5	6.48	299.0	11.77	56.0	2.20

Note: C Series couplings are external skive only.
 Note: Stem must include 2/ea of PN: C32-OR o-rings for proper assembly.

FLH90 SAE CODE 62 FLANGE - 90° ELBOW

PART NUMBER	Hose Bore	FLANGE THICKNESS		A		H		L		K	
	INCH	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
C32-32FLH90-164	2	12.6	0.495	79.4	3.12	192.5	7.58	328.0	12.91	164.0	6.45

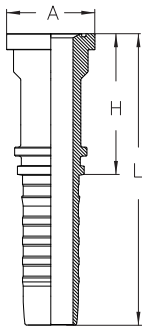
Note: C Series couplings are external skive only.
 Note: Stem must include 2/ea of PN: C32-OR o-rings for proper assembly.

Reference Hose Section for Coupling Compatibility

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FLC

CATERPILLAR® FLANGE



Use with D-Rings

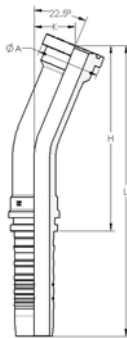
Note: C Series couplings are external skive only.

Note: Stem must include 2/ea of PN: C32-OR o-rings for proper assembly.

PART NUMBER	Hose Bore	FLANGE THICKNESS		A		H		L	
	INCH	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
C32-32FLC	2	14.3	0.56	79.4	3.12	126.0	4.96	262.0	10.31

FLC22

CATERPILLAR® FLANGE - 22.5° ELBOW



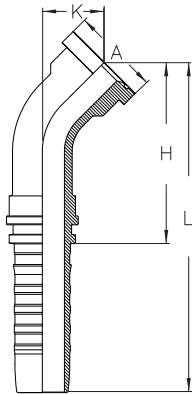
Use with D-Rings

Note: Stem must include 2/ea of PN: C32-OR o-rings for proper assembly.

PART NUMBER	Hose Bore	FLANGE THICKNESS		A		H		L	
	INCH	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
C32-32FLC22-053	2	14.3	0.56	79.4	3.12	239.5	9.43	375.0	14.76

FLC45

CATERPILLAR® FLANGE - 45° ELBOW



Use with D-Rings

Note: C Series couplings are external skive only.

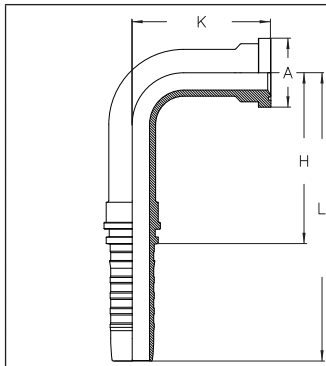
Note: Stem must include 2/ea of PN: C32-OR o-rings for proper assembly.

PART NUMBER	Hose Bore	FLANGE THICKNESS		A		H		L		K	
	INCH	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
C32-32FLC45	2	14.3	0.56	79.4	3.12	198.5	7.81	334.0	13.15	75.0	2.95

Reference Hose Section for Coupling Compatibility

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FLC90 CATERPILLAR® FLANGE - 90° ELBOW



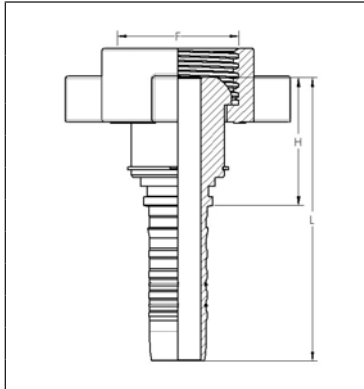
Use with D-Rings

PART NUMBER	Hose Bore	FLANGE THICKNESS		A		H		L		K	
	INCH	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
C32-32FLC90-160	2	14.3	0.56	79.4	3.12	197	7.75	332	13.07	160.0	6.30

Note: C Series couplings are external skive only.

Note: Stem must include 2/ea of PN: C32-OR o-rings for proper assembly.

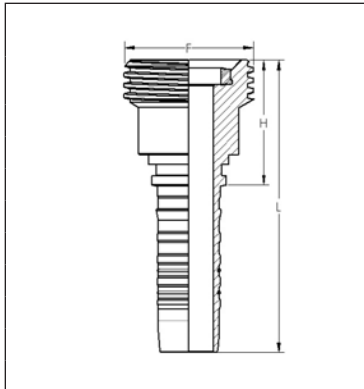
MHU1502 MALE HAMMER UNION FIG. 1502



PART NUMBER	Hose Bore	F	H		L	
	INCH		[mm]	[in]	[mm]	[in]
C32-32MHU1502	2	4.125 x 3.0	101.2	3.98	236.7	9.32

Note: Stem must include 2/ea of PN: C32-OR o-rings for proper assembly.

FHU1502 FEMALE HAMMER UNION FIG. 1502



PART NUMBER	Hose Bore	F	H		L	
	INCH		[mm]	[in]	[mm]	[in]
C32-32FHU1502	2	4.125 x 3.0	111.5	4.39	247.0	9.72

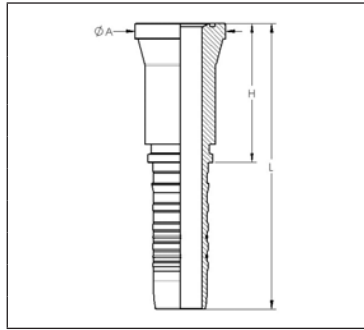
Note: Stem must include 2/ea of PN: C32-OR o-rings for proper assembly.

Reference Hose Section for Coupling Compatibility

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FLOKA

O&K® FLANGE

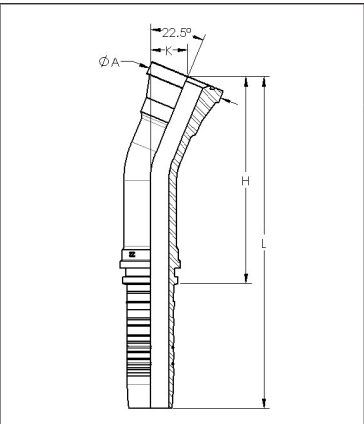


PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
C32-32FLOKA	2	0.551	83.4	3.28	127.5	5.02	263.0	10.35

Note: C Series couplings are external skive only.
 Note: Stem must include 2/ea of PN: C32-OR o-rings for proper assembly.

FLOKA22

O&K® FLANGE - 22° ELBOW

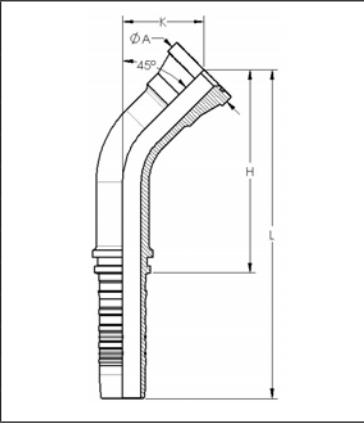


PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
C32-32FLOKA22	2	0.551	83.4	3.28	224.5	8.84	360.0	14.17	40.0	1.57

Note: C Series couplings are external skive only.
 Note: Stem must include 2/ea of PN: C32-OR o-rings for proper assembly.

FLOKA45

O&K® FLANGE - 45° ELBOW



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
C32-32FLOKA45	2	0.551	83.4	3.28	212.0	8.35	347.5	13.68	87.0	3.43

Note: C Series couplings are external skive only.
 Note: Stem must include 2/ea of PN: C32-OR o-rings for proper assembly.

Reference Hose Section for Coupling Compatibility

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



FLOKA90 O&K® FLANGE - 90° ELBOW

PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
C32-32FLOKA90	2	0.551	83.4	3.28	167.5	6.59	303.0	11.93	175.0	6.89

Note: C Series couplings are external skive only.

Note: Stem must include 2/ea of PN: C32-OR o-rings for proper assembly.

FLOKA O&K® CAPTIVE FLANGE

PART NUMBER	Description
32-OKACF	CAPTIVE FLANGE
OO-32	O & KA O-RING

Note: Stem must include 2/ea of PN: C32-OR o-rings for proper assembly.

OKBR FLOKA CRIMP STRAIN RELIEF SLEEVE

PART NUMBER	Hose Bore	A		L	
	INCH	[mm]	[in]	[mm]	[in]
20-OKABR	1¼	60.0	2.36	90.0	3.54
24-OKABR	1½	73.0	2.87	105.0	4.13
32-OKABR	2	95.0	3.74	120.0	4.72

FERRULE

PART NUMBER	Hose Bore	A		L	
	INCH	[mm]	[in]	[mm]	[in]
C32	2	88.0	3.46	130.0	5.12

Note: Stem must include 2/ea of PN: C32-OR o-rings for proper assembly.

Reference Hose Section for Coupling Compatibility

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FJ JIC 37° FEMALE SWIVEL

PART NUMBER	Hose Bore	F	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
	HA40-40FJ		2½	3 - 12	60.0	2.36	128.0	5.04	89	3½

FL SAE CODE 61 FLANGE

PART NUMBER	Hose Bore	FLANGE THICKNESS		A		H		L	
	INCH	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
HA32-40FL	2	9.6	0.38	84.1	3.31	76.0	2.99	126.0	4.96
HA40-40FL	2½	9.6	0.38	84.1	3.31	88.0	3.46	147.0	5.79
HA40-48FL	2½	9.6	0.38	101.6	4.00	82.0	3.23	148.0	5.83
HA40-64FL	2½	11.3	0.44	127.0	5.00	89.0	3.50	155.0	6.10
HA48-48FL	3	9.6	0.38	101.6	4.00	69.0	2.72	132.0	5.20
HA48-56FL	3	11.3	0.44	114.3	4.50	82.0	3.23	133.0	5.24
HA56-56FL	3½	11.3	0.44	114.3	4.50	69.0	2.72	149.0	5.87
HA64-64FL	4	11.3	0.44	127.0	5.00	88.0	3.46	183.5	7.22


FL22 SAE CODE 61 FLANGE - 22.5° ELBOW

PART NUMBER	Hose Bore	FLANGE THICKNESS		A		H		L		K	
	INCH	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
HA40-40FL22-023	2½	9.6	0.38	84.1	3.31	111.0	4.37	179.0	7.05	23.0	0.91

FL30 SAE CODE 61 FLANGE - 30° ELBOW

PART NUMBER	Hose Bore	FLANGE THICKNESS		A		H		L		K	
	INCH	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
HA40-40FL30-032	2½	9.6	0.38	84.1	3.31	119.0	4.69	187.0	7.36	32.0	1.26
HA48-48FL30	2½	9.6	0.38	101.6	4.00	170.0	6.69	233.0	9.17	39.0	1.54

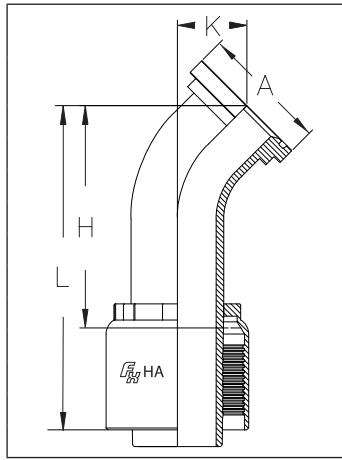
Reference Hose Section for Coupling Compatibility

 **WARNING** This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



FL45

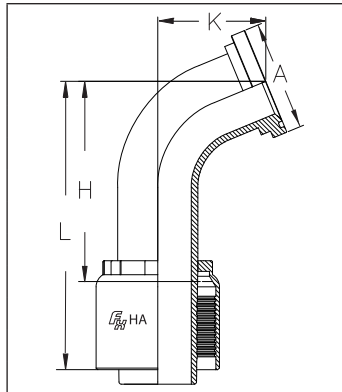
SAE CODE 61 FLANGE - 45° ELBOW



PART NUMBER	Hose Bore	FLANGE THICKNESS		A		H		L		K	
	INCH	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
HA32-40FL45	2	9.6	0.38	84.1	3.31	147.0	5.79	198.0	7.80	52.0	2.05
HA40-40FL45-054	2½	9.6	0.38	84.1	3.31	133.0	5.24	201.0	7.91	54.0	2.13
HA48-48FL45	3	9.6	0.38	101.6	4.00	182.0	7.17	247.0	9.72	65.0	2.56
HA48-56FL45	3	11.3	0.44	114.3	4.50	188.0	7.40	249.0	9.80	67.0	2.64
HA56-56FL45	3½	11.3	0.44	114.3	4.50	220.0	8.66	301.0	11.85	73.0	2.87

FL60

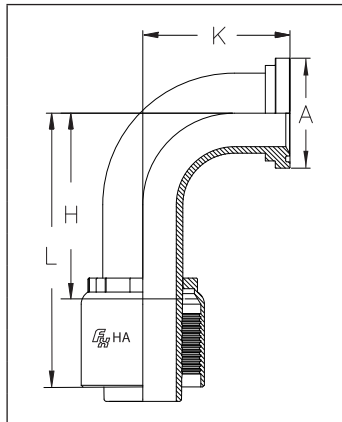
SAE CODE 61 FLANGE - 60° ELBOW



PART NUMBER	Hose Bore	FLANGE THICKNESS		A		H		L		K	
	INCH	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
HA40-40FL60-077	2½	9.6	0.38	84.1	3.31	161.0	6.34	229.0	9.02	77.0	3.03
HA40-48FL60	2½	9.5	0.38	101.6	4.00	167.0	6.57	233.0	9.17	73.0	2.87

FL90

SAE CODE 61 FLANGE - 90° ELBOW



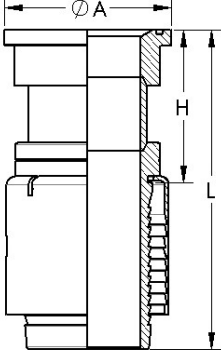
PART NUMBER	Hose Bore	FLANGE THICKNESS		A		H		L		K	
	INCH	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
HA32-40FL90	2	9.6	0.38	84.1	3.31	143.0	5.63	193.0	7.60	114.0	4.49
HA40-40FL90-129	2½	9.6	0.38	84.1	3.31	137.0	5.39	205.0	8.07	129.0	5.08
HA40-48FL90-150	2½	9.6	0.38	101.6	4.00	137.0	5.39	205.0	8.07	150.0	5.91
HA48-48FL90	3	9.6	0.38	101.6	4.00	201.0	7.91	262.0	10.31	162.0	6.38
HA48-56FL90	3	11.3	0.44	114.3	4.50	199.0	7.83	262.0	10.31	162.0	6.38
HA56-56FL90	3½	11.3	0.44	114.3	4.50	227.0	8.94	302.0	11.88	178.0	7.00
HA64-64FL90	4	11.3	0.44	127.0	5.00	193.0	7.60	288.5	11.36	187.5	7.38

Reference Hose Section for Coupling Compatibility

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FL

SAE CODE 61 FLANGE

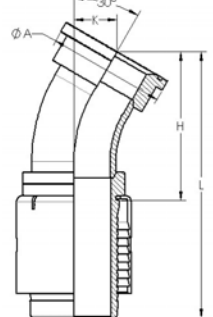


PART NUMBER	Hose Bore	FLANGE THICKNESS		A		H		L	
	INCH	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
HB40-40FL	2½	9.6	0.38	84.1	3.31	84.0	3.31	180.0	7.09
HB48-48FL	3	9.6	0.38	101.6	4.00	93.0	3.66	195.0	7.68
HB48-56FL	3	11.2	0.44	114.3	4.50	93.0	3.66	195.0	7.68
HB56-56FL	3½	11.3	0.44	114.3	4.50	100.0	3.94	202.0	7.95
HB64-64FL	4	11.3	0.44	127.0	5.00	96.0	3.78	208.0	8.19

*Note: HB series fittings do not include the ferrule, see table on pg. C90 for ferrule part numbers

FL30

SAE CODE 61 FLANGE - 30° ELBOW

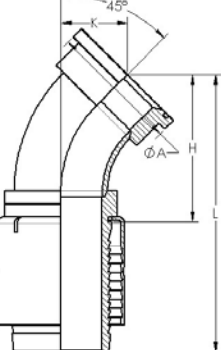


PART NUMBER	Hose Bore	FLANGE THICKNESS		A		H		L		K	
	INCH	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
HB48-48FL30-037	3	9.6	0.38	101.6	4.00	129.0	5.08	231.0	9.09	37.0	1.46

*Note: HB series fittings do not include the ferrule, see table on pg. C90 for ferrule part numbers

FL45

SAE CODE 61 FLANGE - 45° ELBOW

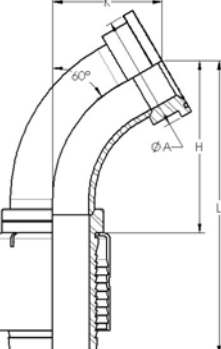


PART NUMBER	Hose Bore	FLANGE THICKNESS		A		H		L		K	
	INCH	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
HB40-40FL45	2½	9.6	0.38	84.1	3.31	94.0	3.70	190.0	7.48	38.0	1.50
HB48-48FL45	3	9.6	0.38	101.6	4.00	113.0	4.45	215.0	8.46	51.0	2.01
HB48-56FL45	3	11.2	0.44	114.3	4.50	118.0	4.65	220.0	8.66	53.0	2.09
HB56-56FL45	3½	11.3	0.44	114.3	4.50	127.0	5.00	229.0	9.02	56.0	2.20
HB64-64FL45	4	11.3	0.44	127.3	5.01	140.0	5.51	252.0	9.92	61.0	2.40

*Note: HB series fittings do not include the ferrule, see table on pg. C90 for ferrule part numbers

FL60


SAE CODE 61 FLANGE - 60° ELBOW



PART NUMBER	Hose Bore	FLANGE THICKNESS		A		H		L		K	
	INCH	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
HB48-48FL60-095	3	9.6	0.38	101.6	4.00	154.0	6.06	256.0	10.08	95.0	3.74

*Note: HB series fittings do not include the ferrule, see table on pg. C90 for ferrule part numbers

Reference Hose Section for Coupling Compatibility

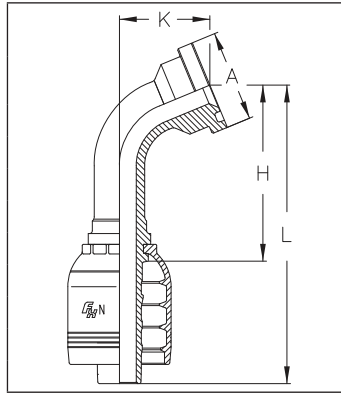
 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





FL67

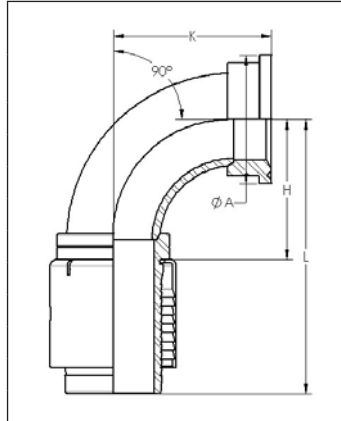
SAE CODE 61 FLANGE - 67.5° ELBOW



PART NUMBER	Hose Bore	FLANGE THICKNESS		A		H		L		K	
	INCH	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
HB64-64FL67-112	4	11.3	0.44	127.0	5.00	163.0	6.42	275.0	10.83	112.0	4.41

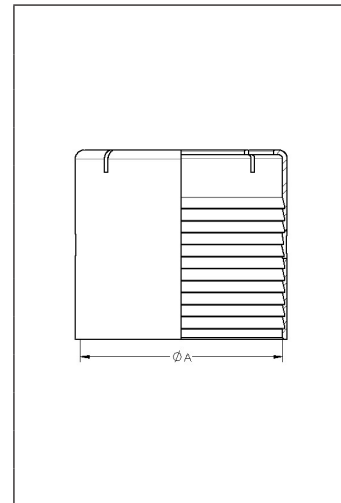
FL90

SAE CODE 61 FLANGE - 90° ELBOW



PART NUMBER	Hose Bore	FLANGE THICKNESS		A		H		L		K	
	INCH	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
HB40-40FL90	2½	9.6	0.38	84.1	3.31	96.0	3.78	192.0	7.56	95.0	3.74
HB48-48FL90	3	9.6	0.38	101.6	4.00	115.0	4.53	217.0	8.54	124.0	4.88
HB48-56FL90	3	11.2	0.44	114.3	4.50	115.0	4.53	217.0	8.54	124.0	4.88
HB56-56FL90	3½	11.3	0.44	114.3	4.50	135.0	5.31	237.0	9.33	142.0	5.59
HB64-64FL90	4	11.3	0.44	127.0	5.00	155.0	6.10	267.0	10.51	162.0	6.38

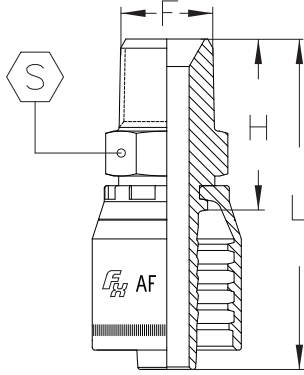
*Note: HB series fittings do not include the ferrule, see table on pg. C90 for ferrule part numbers



PART NUMBER	Hose Bore	FERRULE I.D.	
	INCH	[mm]	[in]
CFHB-250312-PS	2.5	81.0	3.19
CFHB-250316-PS	2.5	82.6	3.25
CFHB-300344-PS	3	93.7	3.69
CFHB-300348-PS	3	95.3	3.75
CFHB-300352-PS	3	96.9	3.81
CFHB-300356-PS	3	98.4	3.88
CFHB-350422-PS	3.5	110.3	4.34
CFHB-350428-PS	3.5	112.7	4.44
CFHB-400444-PS	4	119.1	4.69
CFHB-400456-PS	4	123.8	4.88
CFHB-400460-PS	4	125.4	4.94

Reference Hose Section for Coupling Compatibility

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
AF03-02MP	3/16	1/8 - 27	20.5	0.81	45.5	1.79	12	1/2
AF03-04MP	3/16	1/4 - 18	26.5	1.04	51.5	2.03	14	9/16
AF04-02MP	1/4	1/8 - 27	21.0	0.83	49.0	1.93	12	1/2
AF04-04MP	1/4	1/4 - 18	27.0	1.06	55.0	2.17	14	9/16
AF04-06MP	1/4	3/8 - 18	28.5	1.12	56.5	2.22	19	3/4
AF04-08MP	1/4	1/2 - 14	34.0	1.34	62.0	2.44	22	7/8
AF05-04MP	5/16	1/4 - 18	27.0	1.06	55.0	2.17	14	9/16
AF05-06MP	5/16	3/8 - 18	28.5	1.12	56.5	2.23	19	3/4
AF06-04MP	3/8	1/4 - 18	27.5	1.08	58.0	2.28	16	5/8
AF06-06MP	3/8	3/8 - 18	28.5	1.12	59.0	2.32	19	3/4
AF06-08MP	3/8	1/2 - 14	34.0	1.34	64.5	2.54	22	7/8
AF08-04MP	1/2	1/4 - 18	28.0	1.10	61.0	2.40	22	7/8
AF08-06MP	1/2	3/8 - 18	30.5	1.20	63.5	2.50	22	7/8
AF08-08MP	1/2	1/2 - 14	35.0	1.38	68.0	2.68	22	7/8
AF08-12MP	1/2	3/4 - 14	37.0	1.45	70.0	2.76	27	1 1/16
AF10-06MP	5/8	3/8 - 18	30.0	1.18	65.8	2.59	25	1
AF10-08MP	5/8	1/2 - 14	36.2	1.43	72.0	2.83	25	1
AF10-12MP	5/8	3/4 - 14	37.1	1.46	72.9	2.87	27	1 1/16
AF12-06MP	3/4	3/8 - 18	35.0	1.38	75.5	2.97	27	1 1/16
AF12-08MP	3/4	1/2 - 14	37.5	1.48	78.0	3.07	27	1 1/16
AF12-12MP	3/4	3/4 - 14	37.9	1.49	78.4	3.09	27	1 1/16
AF12-16MP	3/4	1 - 11 1/2	45.5	1.79	86.0	3.39	35	1 3/8
AF16-12MP	1	3/4 - 14	40.5	1.59	91.5	3.60	32	1 1/4
AF16-16MP	1	1 - 11 1/2	47.0	1.85	98.0	3.86	35	1 3/8
AF16-20MP	1	1 1/4 - 11 1/2	51.0	2.01	102.0	4.02	46	1 13/16

Reference Hose Section for Coupling Compatibility

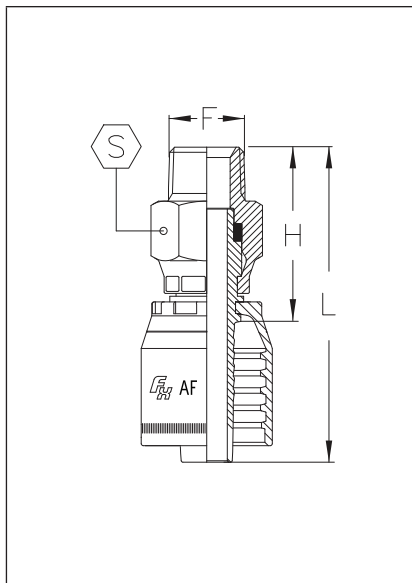
WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





MPX

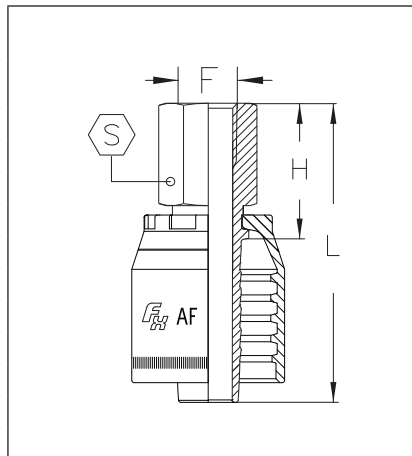
NPT MALE SWIVEL



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
AF03-04MPX	3/16	1/4 - 18	39.5	1.56	64.5	2.54	16	5/8
AF04-02MPX	1/4	1/8 - 27	32.5	1.28	60.5	2.38	12	1/2
AF04-04MPX	1/4	1/4 - 18	41.0	1.61	69.0	2.72	16	5/8
AF04-06MPX	1/4	3/8 - 18	39.5	1.56	67.5	2.66	19	3/4
AF04-08MPX	1/4	1/2 - 14	47.5	1.87	75.5	2.97	22	7/8
AF05-06MPX	5/16	3/8 - 18	39.0	1.54	67.0	2.64	19	3/4
AF06-04MPX	3/8	1/4 - 18	40.0	1.57	70.0	2.76	16	5/8
AF06-06MPX	3/8	3/8 - 18	39.5	1.56	70.0	2.76	19	3/4
AF06-08MPX	3/8	1/2 - 14	47.0	1.85	77.5	3.05	22	7/8
AF08-04MPX	1/2	1/4 - 18	42.0	1.65	75.0	2.95	16	5/8
AF08-06MPX	1/2	3/8 - 18	42.0	1.65	75.0	2.95	19	3/4
AF08-08MPX	1/2	1/2 - 14	49.5	1.95	82.5	3.25	22	7/8
AF12-08MPX	3/4	1/2 - 14	48.0	1.89	89.0	3.50	22	7/8
AF12-12MPX	3/4	3/4 - 14	59.5	2.34	100.0	3.94	32	1 1/4
AF16-16MPX	1	1 - 11 1/2	65.5	2.58	116.5	4.59	38	1 1/2

FP

NPT FEMALE RIGID



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
AF03-02FP	3/16	1/8 - 27	20.0	0.79	45.0	1.77	16	5/8
AF04-02FP	1/4	1/8 - 27	21.5	0.85	49.5	1.95	16	5/8
AF04-04FP	1/4	1/4 - 18	26.0	1.02	54.0	2.13	19	3/4
AF04-06FP	1/4	3/8 - 18	28.4	1.12	56.4	2.22	22	7/8
AF06-04FP	3/8	1/4 - 18	27.1	1.07	57.6	2.27	19	3/4
AF06-06FP	3/8	3/8 - 18	26.0	1.02	56.5	2.22	22	7/8
AF06-08FP	3/8	1/2 - 14	34.5	1.36	65.0	2.56	29	1 1/8
AF08-06FP	1/2	3/8 - 18	27.0	1.06	60.0	2.36	22	7/8
AF08-08FP	1/2	1/2 - 14	33.0	1.30	66.0	2.60	29	1 1/8
AF12-12FP	3/4	3/4 - 14	38.0	1.50	78.5	3.09	32	1 1/4
AF16-16FP	1	1 - 11 1/2	45.8	1.50	96.8	3.81	36	1 1/16

Reference Hose Section for Coupling Compatibility

⚠ WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FPX

NPSM FEMALE SWIVEL (60° CONE SEAT)


PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
	AF03-04FPX		3/16	1/4 - 18	18.5	0.73	43.5	1.71
AF04-04FPX	1/4	1/4 - 18	19.0	0.75	47.0	1.85	17	11/16
AF05-04FPX	5/16	1/4 - 18	19.0	0.75	47.0	1.85	17	11/16
AF06-04FPX	3/8	1/4 - 18	18.5	0.73	49.0	1.93	17	11/16
AF06-06FPX	3/8	3/8 - 18	20.5	0.83	51.0	2.01	22	7/8
AF08-08FPX	1/2	1/2 - 14	23.0	0.91	56.0	2.20	25	1
AF12-12FPX	3/4	3/4 - 14	26.5	1.04	67.0	2.64	32	1 1/4
AF16-16FPX	1	1 - 11 1/2	30.0	1.18	81.0	3.19	38	1 1/2

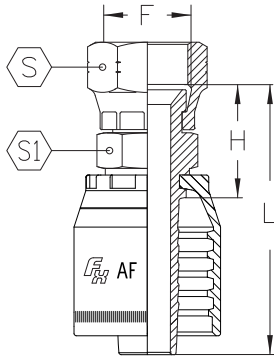
MJ

JIC 37° MALE

PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
	AF03-04MJ		3/16	7/16 - 20	25.0	0.98	50.0	1.97
AF04-04MJ	1/4	7/16 - 20	25.5	1.00	53.5	2.11	12	1/2
AF04-05MJ	1/4	1/2 - 20	25.5	1.00	53.5	2.11	14	9/16
AF04-06MJ	1/4	9/16 - 18	26.6	1.05	54.6	2.15	15	5/8
AF05-05MJ	5/16	1/2 - 20	25.5	1.00	53.5	2.11	14	9/16
AF05-06MJ	5/16	9/16 - 18	26.6	1.05	54.6	2.15	15	9/16
AF05-08MJ	5/16	3/4 - 16	29.7	1.17	57.7	2.27	19	3/4
AF06-06MJ	3/8	9/16 - 18	26.6	1.05	57.1	2.25	15	9/16
AF06-08MJ	3/8	3/4 - 16	29.7	1.17	60.2	2.37	19	3/4
AF06-10MJ	3/8	7/8 - 14	34.3	1.35	64.8	2.55	24	15/16
AF08-06MJ	1/2	9/16 - 18	29.6	1.17	62.6	2.46	19	3/4
AF08-08MJ	1/2	3/4 - 16	30.7	1.21	63.7	2.51	19	3/4
AF08-10MJ	1/2	7/8 - 14	35.3	1.39	68.3	2.69	24	15/16
AF08-12MJ	1/2	1 1/16 - 12	38.9	1.53	71.9	2.83	27	1 1/16
AF10-08MJ	5/8	3/4 - 16	30.9	1.22	66.7	2.63	24	15/16
AF10-10MJ	5/8	7/8 - 14	35.5	1.40	71.3	2.81	27	1 1/16
AF10-12MJ	5/8	1 1/16 - 12	39.1	1.54	74.9	2.95	27	1 1/16
AF12-10MJ	3/4	7/8 - 14	37.3	1.47	77.8	3.06	27	1 1/16
AF12-12MJ	3/4	1 1/16 - 12	39.9	1.57	80.4	3.16	27	1 1/16
AF12-14MJ	3/4	1 3/16 - 12	41.5	1.63	82.0	3.23	32	1 1/4
AF12-16MJ	3/4	1 5/16 - 12	42.0	1.65	82.5	3.25	36	1 1/16
AF16-16MJ	1	1 5/16 - 12	43.6	1.72	94.6	3.72	36	1 1/16
AF16-20MJ	1	1 5/8 - 12	42.0	1.65	93.0	3.66	42	1 1/16

Reference Hose Section for Coupling Compatibility

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PART NUMBER	Hose Bore	F	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
AF03-03FJ	3/16	3/8 - 24	19.0	0.75	44.0	1.73	14	9/16	12	1/2
AF03-04FJ	3/16	7/16 - 20	19.0	0.75	44.0	1.73	14	9/16	12	1/2
AF04-04FJ	1/4	7/16 - 20	20.5	0.81	48.5	1.91	14	9/16	14	9/16
AF04-05FJ	1/4	1/2 - 20	21.5	0.85	49.5	1.95	17	11/16	14	9/16
AF04-06FJ	1/4	9/16 - 18	22.0	0.87	50.0	1.97	19	3/4	14	9/16
AF05-05FJ	5/16	1/2 - 20	21.0	0.83	49.0	1.93	17	11/16	14	9/16
AF05-06FJ	5/16	9/16 - 18	21.5	0.85	49.5	1.95	19	3/4	16	5/8
AF05-08FJ	5/16	3/4 - 16	24.5	0.96	52.5	2.07	22	7/8	19	3/4
AF06-04FJ	3/8	7/16 - 20	21.0	0.83	51.5	2.03	14	9/16	16	5/8
AF06-05FJ	3/8	1/2 - 20	21.5	0.85	52.0	2.05	17	11/16	16	5/8
AF06-06FJ	3/8	9/16 - 18	22.5	0.89	53.0	2.09	19	3/4	16	5/8
AF06-08FJ	3/8	3/4 - 16	24.5	0.96	55.0	2.17	22	7/8	19	3/4
AF06-10FJ	3/8	7/8 - 14	26.5	1.04	57.0	2.24	27	1 1/16	22	7/8
AF06-12FJ	3/8	1 1/16 - 12	30.0	1.18	60.5	2.38	32	1 1/4	27	1 1/16
AF08-06FJ	1/2	9/16 - 18	24.5	0.96	57.5	2.26	19	3/4	19	3/4
AF08-08FJ	1/2	3/4 - 16	25.5	1.00	58.5	2.30	22	7/8	19	3/4
AF08-10FJ	1/2	7/8 - 14	27.5	1.08	60.5	2.38	27	1 1/16	22	7/8
AF08-12FJ	1/2	1 1/16 - 12	30.3	1.19	63.3	2.49	32	1 1/4	25	1
AF08-16FJ	1/2	1 5/16 - 12	30.0	1.18	67.0	2.64	38	1 1/2	32	1 1/4
AF10-08FJ	5/8	3/4 - 16	26.7	1.05	62.5	2.46	22	7/8	22	7/8
AF10-10FJ	5/8	7/8 - 14	27.7	1.09	63.5	2.50	27	1 1/16	22	7/8
AF10-12FJ	5/8	1 1/16 - 12	30.5	1.20	66.3	2.61	32	1 1/4	25	1
AF12-08FJ	3/4	3/4 - 16	29.0	1.14	69.5	2.74	22	7/8	27	1 1/16
AF12-10FJ	3/4	7/8 - 14	30.0	1.18	70.5	2.78	27	1 1/16	27	1 1/16
AF12-12FJ	3/4	1 1/16 - 12	31.8	1.25	72.3	2.85	32	1 1/4	27	1 1/16
AF12-14FJ	3/4	1 3/16 - 12	34.5	1.36	75.0	2.95	36	1 7/16	30	1 3/16
AF12-16FJ	3/4	1 5/16 - 12	35.5	1.40	76.0	2.99	38	1 1/2	32	1 1/4
AF16-12FJ	1	1 1/16 - 12	34.3	1.35	85.3	3.36	32	1 1/4	32	1 1/4
AF16-16FJ	1	1 5/16 - 12	37.0	1.46	88.0	3.46	38	1 1/2	32	1 1/4
AF16-20FJ	1	1 5/8 - 12	42.0	1.65	93.0	3.66	50	2	41	1 5/8

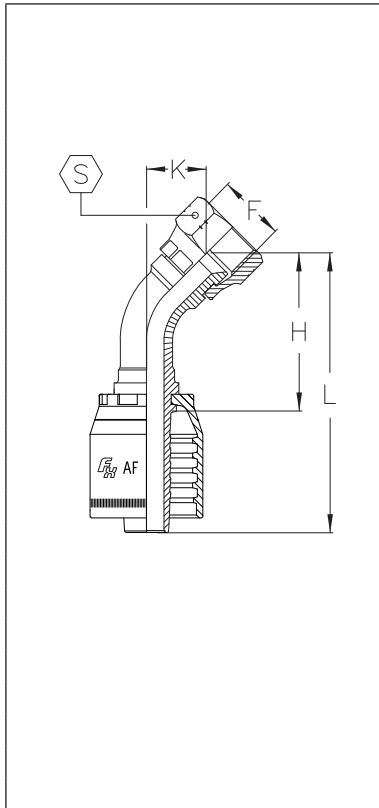
Reference Hose Section for Coupling Compatibility

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



FJ45

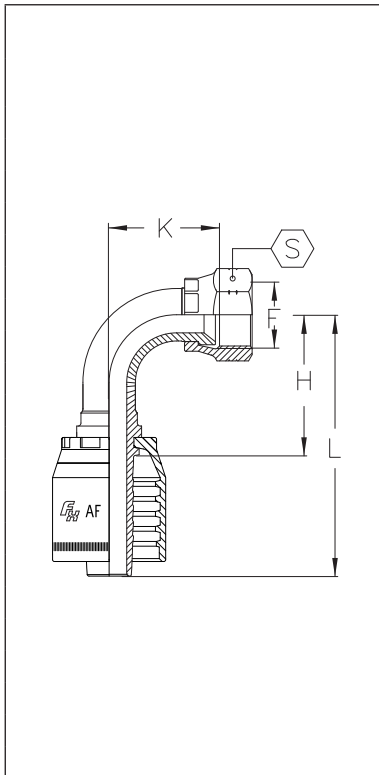
JIC 37° FEMALE SWIVEL - 45° ELBOW



PART NUMBER	Hose Bore INCH	F	H		L		K		S	
			[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
AF03-04FJ45	3/16	7/16 - 20	29.0	1.14	54.0	2.13	12.0	0.47	14	9/16
AF04-04FJ45	1/4	7/16 - 20	31.0	1.22	59.0	2.32	12.0	0.47	14	9/16
AF04-05FJ45	1/4	1/2 - 20	32.0	1.26	60.0	2.36	12.5	0.49	17	11/16
AF04-06FJ45	1/4	9/16 - 18	33.0	1.30	61.0	2.40	13.5	0.53	19	3/4
AF05-05FJ45	5/16	1/2 - 20	33.0	1.30	61.0	2.40	12.5	0.49	17	11/16
AF05-06FJ45	5/16	9/16 - 18	34.0	1.34	62.0	2.44	12.5	0.49	19	3/4
AF06-04FJ45	3/8	7/16 - 20	31.0	1.22	61.5	2.42	12.0	0.47	14	9/16
AF06-06FJ45	3/8	9/16 - 18	35.5	1.40	66.0	2.60	13.5	0.53	19	3/4
AF06-08FJ45	3/8	3/4 - 16	37.5	1.48	68.0	2.68	15.0	0.59	22	7/8
AF08-06FJ45	1/2	3/4 - 16	38.5	1.52	71.5	2.81	14.0	0.55	19	3/4
AF08-08FJ45	1/2	3/4 - 16	41.0	1.61	74.0	2.91	16.0	0.63	22	7/8
AF08-10FJ45	1/2	7/8 - 14	43.0	1.69	76.0	2.99	17.5	0.69	27	1 1/16
AF08-12FJ45	1/2	1 1/16 - 12	46.0	1.81	79.0	3.11	19.5	0.77	32	1 1/4
AF10-10FJ45	5/8	7/8 - 14	47.2	1.86	83.0	3.27	17.0	0.67	27	1 1/16
AF10-12FJ45	5/8	1 1/16 - 12	50.2	1.98	86.0	3.38	19.5	0.77	32	1 1/4
AF12-10FJ45	3/4	7/8 - 14	48.0	1.89	88.5	3.48	17.0	0.67	27	1 1/16
AF12-12FJ45	3/4	1 1/16 - 12	57.0	2.24	97.5	3.84	20.0	0.79	32	1 1/4
AF12-14FJ45	3/4	1 3/16 - 12	59.5	2.34	100.0	3.94	22.0	0.87	36	1 1/16
AF12-16FJ45	3/4	1 5/16 - 12	61.0	2.40	101.5	4.00	24.0	0.95	38	1 1/2
AF16-12FJ45	1	1 1/16 - 12	58.5	2.03	109.5	4.31	20.0	0.79	32	1 1/4
AF16-16FJ45	1	1 5/16 - 12	72.0	2.83	123.0	4.84	24.0	0.95	38	1 1/2
AF16-20FJ45	1	1 7/8 - 12	76.0	2.99	127.0	5.00	28.0	1.10	50	2

FJ90S

JIC 37° FEMALE SWIVEL - 90° ELBOW SHORT DROP



PART NUMBER	Hose Bore INCH	F	H		L		K		S	
			[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
AF03-04FJ90S	3/16	7/16 - 20	21.0	0.83	46.0	1.81	18.0	0.71	14	9/16
AF04-04FJ90S	1/4	7/16 - 20	25.5	1.00	53.5	2.11	20.0	0.79	14	9/16
AF04-05FJ90S	1/4	1/2 - 20	25.5	1.00	53.5	2.11	21.0	0.83	17	1 1/16
AF04-06FJ90S	1/4	9/16 - 18	25.5	1.00	53.5	2.11	23.0	0.91	19	3/4
AF05-05FJ90S	5/16	1/2 - 20	28.0	1.10	56.0	2.20	22.0	0.87	17	1 1/16
AF05-06FJ90S	5/16	9/16 - 18	28.0	1.10	56.0	2.20	24.0	0.94	19	3/4
AF06-04FJ90S	3/8	7/16 - 20	25.5	1.00	56.0	2.20	20.0	0.79	14	9/16
AF06-06FJ90S	3/8	9/16 - 18	30.0	1.18	60.5	2.38	23.0	0.91	19	3/4
AF06-08FJ90S	3/8	3/4 - 16	31.0	1.22	61.5	2.42	29.0	1.14	22	7/8
AF08-06FJ90S	1/2	9/16 - 18	30.5	1.20	63.5	2.50	23.0	0.91	19	3/4
AF08-08FJ90S	1/2	3/4 - 16	37.0	1.46	70.0	2.76	29.0	1.14	22	7/8
AF08-10FJ90S	1/2	7/8 - 14	38.0	1.50	71.0	2.80	33.0	1.30	27	1 1/16
AF08-12FJ90S	1/2	1 1/16 - 12	40.0	1.57	73.0	2.87	40.0	1.57	32	1 1/4
AF10-10FJ90S	5/8	7/8 - 14	43.0	1.69	79.0	3.11	32.0	1.26	27	1 1/16
AF10-12FJ90S	5/8	1 1/16 - 12	45.0	1.77	81.0	3.19	40.0	1.57	32	1 1/4
AF12-10FJ90S	3/4	7/8 - 14	44.0	1.73	84.5	3.33	33.0	1.30	27	1 1/16
AF12-12FJ90S	3/4	1 1/16 - 12	55.0	2.17	95.5	3.76	43.0	1.69	32	1 1/4
AF12-14FJ90S	3/4	1 3/16 - 12	54.5	2.15	95.0	3.74	47.0	1.85	36	1 1/16
AF12-16FJ90S	3/4	1 5/16 - 12	54.5	2.15	95.0	3.74	49.0	1.93	38	1 1/2
AF16-16FJ90S	1	1 5/16 - 12	71.0	2.80	122.0	4.80	56.0	2.20	38	1 1/2
AF16-20FJ90S	1	1 7/8 - 12	71.0	2.80	122.0	4.80	61.0	2.40	50	2

Reference Hose Section for Coupling Compatibility

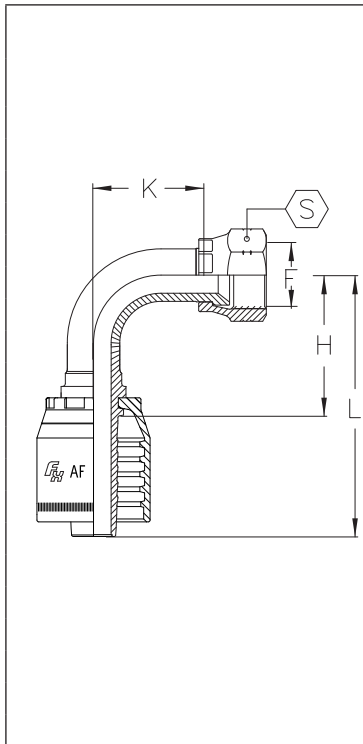
! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





FJ90M

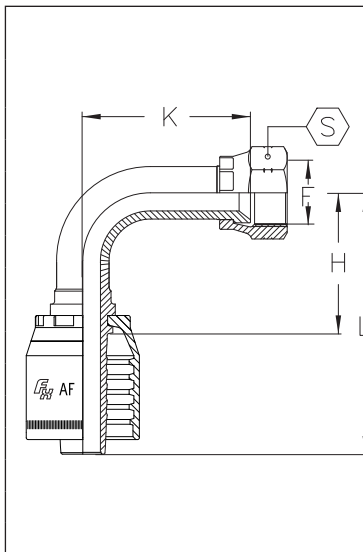
JIC 37° FEMALE SWIVEL - 90° ELBOW MEDIUM DROP



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
AF03-04FJ90M	3/16	7/16 - 20	21.0	0.83	46.0	1.81	21.0	0.83	14	9/16
AF04-04FJ90M	1/4	7/16 - 20	25.5	1.00	53.5	2.11	26.0	1.02	14	9/16
AF04-05FJ90M	1/4	1/2 - 20	25.5	1.00	53.5	2.11	26.0	1.02	17	1 1/16
AF04-06FJ90M	1/4	9/16 - 18	25.5	1.00	53.5	2.11	27.0	1.06	19	3/4
AF05-05FJ90M	5/16	1/2 - 20	28.0	1.10	56.0	2.20	29.0	1.14	17	1 1/16
AF05-06FJ90M	5/16	9/16 - 18	28.0	1.10	56.0	2.20	29.0	1.14	19	3/4
AF06-06FJ90M	3/8	9/16 - 18	31.0	1.22	61.5	2.42	33.0	1.30	19	3/4
AF06-08FJ90M	3/8	3/4 - 16	31.0	1.22	61.5	2.42	33.0	1.30	22	7/8
AF08-08FJ90M	1/2	3/4 - 16	37.0	1.46	70.0	2.75	39.0	1.53	22	7/8
AF08-10FJ90M	1/2	7/8 - 14	37.0	1.46	70.0	2.75	40.0	1.57	27	1 1/16
AF08-12FJ90M	1/2	1 1/16 - 12	37.0	1.46	70.0	2.76	45.0	1.77	32	1Z\lv
AF10-10FJ90M	5/8	7/8 - 14	45.0	1.77	81.0	3.19	45.0	1.77	27	1Z\zn
AF10-12FJ90M	5/8	1 1/16 - 12	45.0	1.77	81.0	3.19	47.0	1.85	32	1Z\lv
AF12-10FJ90M	3/4	7/8 - 14	46.0	1.81	86.5	3.41	55.0	2.16	27	1Z\zn
AF12-12FJ90M	3/4	1 1/16 - 12	55.0	2.16	95.0	3.74	53.0	2.09	32	1Z\lv
AF12-14FJ90M	3/4	1 3/16 - 12	55.0	2.16	95.0	3.74	54.0	2.12	36	1M\zn
AF12-16FJ90M	3/4	1 5/16 - 12	55.0	2.16	95.0	3.74	56.0	2.20	38	1Z\lx
AF16-12FJ90M	1	1 1/16 - 12	71.0	2.79	122.0	4.80	71.0	2.79	32	1Z\lv
AF16-16FJ90M	1	1 5/16 - 12	71.0	2.79	122.0	4.80	70.0	2.75	38	1Z\lx
AF16-20FJ90M	1	1 5/8 - 12	71.0	2.79	122.0	4.80	70.0	2.75	50	2

FJ90L

JIC 37° FEMALE SWIVEL - 90° ELBOW LONG DROP



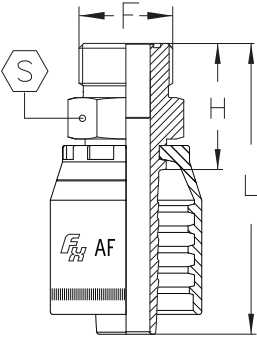
PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
AF03-04FJ90L	3/16	7/16 - 20	21.0	0.83	46.0	1.81	46.0	1.81	14	9/16
AF04-04FJ90L	1/4	7/16 - 20	25.5	1.00	53.5	2.11	46.0	1.81	14	9/16
AF04-05FJ90L	1/4	1/2 - 20	25.5	1.00	53.5	2.11	46.0	1.81	17	1 1/16
AF04-06FJ90L	1/4	9/16 - 18	25.5	1.00	53.5	2.11	54.0	2.12	19	3/4
AF06-04FJ90L	3/8	7/16 - 20	25.5	1.00	56.0	2.20	46.0	1.81	14	9/16
AF06-06FJ90L	3/8	9/16 - 18	31.0	1.22	61.5	2.42	54.0	2.12	19	3/4
AF06-08FJ90L	3/8	3/4 - 16	31.0	1.22	61.5	2.42	64.0	2.52	22	7/8
AF08-08FJ90L	1/2	3/4 - 16	38.0	1.50	71.0	2.79	64.0	2.52	22	7/8
AF08-10FJ90L	1/2	7/8 - 14	38.0	1.50	71.0	2.79	70.0	2.75	27	1 1/16
AF10-10FJ90L	5/8	7/8 - 14	45.0	1.77	81.0	3.19	70.0	2.75	27	1 1/16
AF10-12FJ90L	5/8	1 1/16 - 12	45.0	1.77	81.0	3.19	96.0	3.78	32	1 1/4
AF12-12FJ90L	3/4	1 1/16 - 12	55.0	2.16	95.0	3.74	96.0	3.78	32	1 1/4
AF12-16FJ90L	3/4	1 5/16 - 12	55.0	2.16	95.0	3.74	114.0	4.49	38	1 1/2
AF16-16FJ90L	1	1 5/16 - 12	71.0	2.79	122.0	4.80	114.0	4.49	38	1 1/2

Reference Hose Section for Coupling Compatibility

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

MF

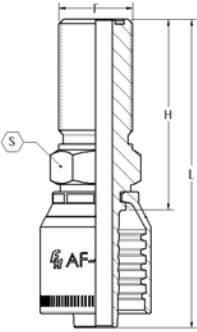
ORFS MALE



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
AF04-04MF	¼	9/16 - 18	24.0	0.94	52.0	2.05	17	1 1/16
AF04-06MF	¼	1 1/16 - 16	26.5	1.05	54.5	2.15	19	¾
AF06-06MF	3/8	1 1/16 - 16	26.0	1.02	56.5	2.22	19	¾
AF06-08MF	3/8	1 3/16 - 16	28.0	1.10	58.5	2.30	22	7/8
AF06-10MF	3/8	1 - 14	32.5	1.28	63.0	2.48	27	1 1/16
AF08-08MF	½	1 3/16 - 16	29.0	1.14	62.0	2.44	22	7/8
AF08-10MF	½	1 - 14	33.5	1.32	66.5	2.62	27	1 1/16
AF08-12MF	½	1 3/16 - 12	35.0	1.38	68.0	2.68	32	1 ¼
AF10-10MF	5/8	1 - 14	33.7	1.33	69.5	2.74	27	1 1/16
AF10-12MF	5/8	1 3/16 - 12	35.2	1.39	71.0	2.80	32	1 ¼
AF12-12MF	¾	1 3/16 - 12	36.5	1.48	77.0	3.03	32	1 ¼
AF12-16MF	¾	1 7/16 - 12	37.0	1.46	77.5	3.05	41	1 5/8
AF16-16MF	1	1 7/16 - 12	42.0	1.65	93.0	3.66	41	1 5/8

MFK

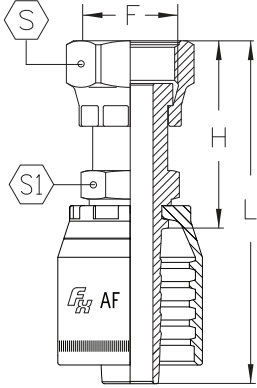
ORFS MALE BULKHEAD



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
AF06-06MFK	3/8	1 1/16 - 16	48.8	1.92	79.3	3.12	19	¾
AF08-06MFK	½	1 1/16 - 16	49.8	1.96	82.8	3.26	19	¾
AF08-08MFK	½	1 3/16 - 16	53.0	2.09	86.0	3.39	22	7/8

FF

ORFS FEMALE SWIVEL



PART NUMBER	Hose Bore	F	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
AF03-04FF	3/16	9/16 - 18	26.0	1.02	51.0	2.01	17	1 1/16	14	9/16
AF04-04FF	¼	9/16 - 18	26.5	1.04	54.5	2.14	17	1 1/16	14	9/16
AF04-06FF	¼	1 1/16 - 16	28.5	1.12	56.5	2.22	22	7/8	16	5/8
AF04-08FF	¼	1 3/16 - 16	32.5	1.27	60.5	2.38	24	15/16	19	¾
AF05-06FF	5/16	1 1/16 - 16	28.5	1.12	56.5	2.22	22	7/8	16	5/8
AF06-04FF	3/8	9/16 - 18	26.5	1.04	57.0	2.24	17	1 1/16	16	5/8
AF06-06FF	3/8	1 1/16 - 16	28.5	1.12	59.0	2.32	22	7/8	16	5/8
AF06-08FF	3/8	1 3/16 - 16	32.5	1.27	63.0	2.48	24	15/16	19	¾
AF06-10FF	3/8	1 - 14	38.5	1.52	69.0	2.72	30	1 3/16	24	7/8
AF08-06FF	½	1 1/16 - 16	30.5	1.20	63.5	2.50	22	7/8	19	¾
AF08-08FF	½	1 3/16 - 16	33.5	1.31	66.5	2.61	24	7/8	19	¾
AF08-10FF	½	1 - 14	39.5	1.55	72.5	2.85	30	1 3/16	24	7/8
AF08-12FF	½	1 3/16 - 12	43.5	1.71	76.5	3.01	36	1 7/16	27	1 1/16
AF10-10FF	5/8	1 - 14	39.5	1.55	75.5	2.97	30	1 3/16	24	7/8
AF10-12FF	5/8	1 3/16 - 12	43.7	1.72	79.5	3.12	36	1 7/16	27	1 1/16
AF12-10FF	¾	1 - 14	41.5	1.63	82.0	3.22	30	1 3/16	27	1 1/16
AF12-12FF	¾	1 3/16 - 12	44.5	1.75	85.0	3.34	36	1 7/16	27	1 1/16
AF12-16FF	¾	1 7/16 - 12	47.5	1.87	88.0	3.46	41	1 5/8	36	1 7/16
AF16-12FF	1	1 3/16 - 12	47.0	1.85	98.0	3.85	36	1 7/16	32	1 ¼
AF16-16FF	1	1 7/16 - 12	49.0	1.92	100.0	3.93	41	1 5/8	36	1 7/16
AF16-20FF	1	1 11/16 - 12	51.0	2.01	102.0	4.02	50	2	41	1 5/8

Reference Hose Section for Coupling Compatibility

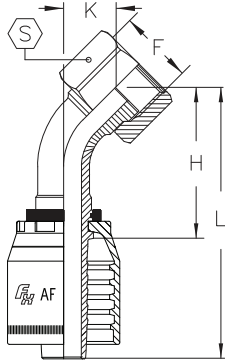
! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





FF45

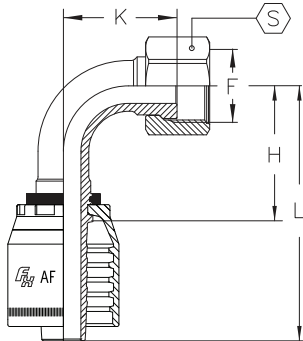
ORFS FEMALE SWIVEL - 45° ELBOW



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
AF03-04FF45	3/16	9/16 - 18	32.5	1.27	57.5	2.26	10.5	0.41	17	11/16
AF04-04FF45	1/4	9/16 - 18	32.5	1.27	60.5	2.38	10.5	0.41	17	11/16
AF04-06FF45	1/4	11/16 - 16	34.5	1.35	62.5	2.46	12.5	0.49	22	7/8
AF05-06FF45	5/16	11/16 - 16	35.0	1.37	63.0	2.48	12.5	0.49	22	7/8
AF06-04FF45	3/8	9/16 - 18	36.5	1.44	67.0	2.64	13.0	0.51	17	11/16
AF06-06FF45	3/8	11/16 - 16	36.0	1.41	67.0	2.64	12.5	0.49	22	7/8
AF06-08FF45	3/8	13/16 - 16	38.5	1.51	69.5	2.74	15.0	0.59	24	15/16
AF08-06FF45	1/2	11/16 - 16	38.0	1.50	71.0	2.80	17.0	0.67	22	7/8
AF08-08FF45	1/2	13/16 - 16	42.5	1.67	75.5	2.97	15.5	0.61	24	15/16
AF08-10FF45	1/2	1 - 14	45.0	1.77	78.0	3.07	17.5	0.68	30	13/16
AF08-12FF45	1/2	13/16 - 12	47.0	1.85	80.0	3.14	20.5	0.80	36	17/16
AF10-08FF45	5/8	13/16 - 16	42.7	1.68	78.5	3.09	15.5	0.61	24	15/16
AF10-10FF45	5/8	1 - 14	49.0	1.92	85.0	3.34	18.0	0.70	30	13/16
AF10-12FF45	5/8	13/16 - 12	51.5	2.02	87.5	3.44	20.5	0.80	36	17/16
AF12-10FF45	3/4	1 - 14	63.5	2.50	104.0	4.09	25.5	1.00	30	13/16
AF12-12FF45	3/4	13/16 - 12	58.0	2.28	99.0	3.89	21.0	0.82	36	17/16
AF12-16FF45	3/4	17/16 - 12	60.5	2.38	101.0	3.97	23.5	0.92	41	15/8
AF16-12FF45	1	9/16 - 18	59.0	2.32	110.0	4.33	21.0	0.82	36	17/16
AF16-16FF45	1	17/16 - 12	73.0	2.87	124.0	4.88	24.0	0.94	41	15/8

FF90S

ORFS FEMALE SWIVEL - 90° ELBOW SHORT DROP



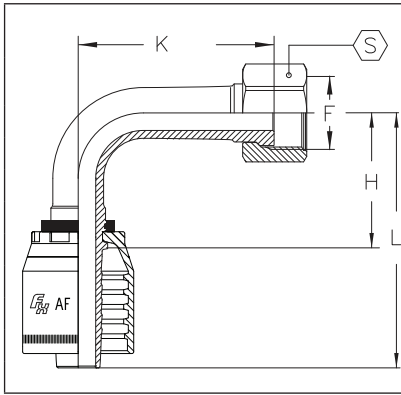
PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
AF03-04FF90S	3/16	9/16 - 18	27.0	1.06	52.0	2.05	21.0	0.82	17	11/16
AF04-04FF90S	1/4	9/16 - 18	27.0	1.06	55.0	2.17	21.0	0.83	17	11/16
AF04-06FF90S	1/4	11/16 - 16	27.0	1.06	55.0	2.17	24.0	0.94	22	7/8
AF04-08FF90S	1/4	13/16 - 16	38.5	1.52	66.5	2.62	31.0	1.22	24	15/16
AF05-06FF90S	5/16	11/16 - 16	29.0	1.14	57.0	2.24	25.0	0.98	22	7/8
AF06-04FF90S	3/8	9/16 - 18	30.0	1.18	60.5	2.38	22.0	0.87	17	11/16
AF06-06FF90S	3/8	11/16 - 16	31.5	1.24	62.0	2.44	24.5	0.96	22	7/8
AF06-08FF90S	3/8	13/16 - 16	30.5	1.20	61.0	2.40	30.0	1.18	24	15/16
AF08-06FF90S	1/2	11/16 - 16	37.0	1.46	70.0	2.76	24.5	0.96	22	7/8
AF08-08FF90S	1/2	13/16 - 16	39.0	1.54	72.0	2.83	31.0	1.22	24	15/16
AF08-10FF90S	1/2	1 - 14	39.0	1.54	72.0	2.83	34.0	1.34	30	13/16
AF08-12FF90S	1/2	13/16 - 12	39.0	1.54	72.0	2.83	42.0	1.65	36	17/16
AF10-08FF90S	5/8	13/16 - 16	39.2	1.54	75.0	2.95	31.0	1.22	24	15/16
AF10-10FF90S	5/8	1 - 14	45.0	1.77	81.0	3.19	35.0	1.38	30	13/16
AF10-12FF90S	5/8	13/16 - 12	45.0	1.77	81.0	3.19	42.0	1.65	36	17/16
AF12-10FF90S	3/4	1 - 14	43.0	1.69	83.5	3.29	35.0	1.38	30	13/16
AF12-12FF90S	3/4	13/16 - 12	55.0	2.17	95.0	3.74	45.0	1.77	36	17/16
AF12-16FF90S	3/4	17/16 - 12	55.0	2.17	95.0	3.74	49.0	1.93	41	15/8
AF16-12FF90S	1	13/16 - 12	55.0	2.17	106.0	4.17	45.0	1.77	36	17/16
AF16-16FF90S	1	17/16 - 12	71.0	2.79	122.0	4.80	55.0	2.17	41	15/8
AF16-20FF90S	1	11/16 - 12	71.0	2.79	122.0	4.80	58.0	2.28	50	2

Reference Hose Section for Coupling Compatibility

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FF90L

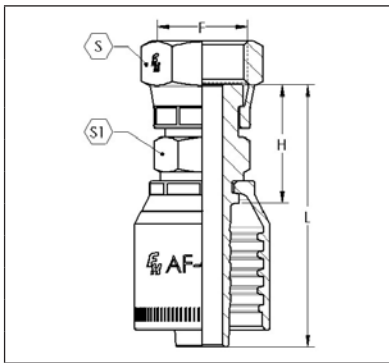
ORFS FEMALE SWIVEL - 90° ELBOW LONG DROP



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
AF04-04FF90L	¼	9/16 - 18	29.0	1.14	57.0	2.24	46.0	1.81	17	11/16
AF04-06FF90L	¼	11/16 - 16	27.0	1.06	55.0	2.16	54.0	2.12	22	7/8
AF06-06FF90L	3/8	11/16 - 16	34.0	1.33	64.5	2.53	54.0	2.12	22	7/8
AF06-08FF90L	3/8	13/16 - 16	34.0	1.33	64.5	2.53	64.0	2.51	24	15/16
AF08-08FF90L	½	13/16 - 16	39.0	1.53	72.0	2.83	64.0	2.51	24	15/16
AF08-10FF90L	½	1 - 14	39.0	1.53	72.0	2.83	70.0	2.75	30	13/16
AF10-10FF90L	5/8	1 - 14	45.0	1.77	81.0	3.18	70.0	2.75	30	13/16
AF12-12FF90L	¾	13/16 - 12	55.0	2.17	95.0	3.74	96.0	3.77	36	17/16
AF16-16FF90L	1	17/16 - 12	71.0	2.79	122.0	4.80	114.0	4.48	41	15/8

FFC

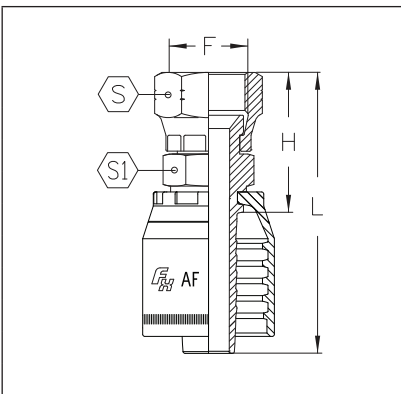
ORFS FEMALE SWIVEL - COMPACT



PART NUMBER	Hose Bore	F	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
AF06-06FFC	3/8	11/16 - 16	21.5	0.85	52.0	2.05	22	7/8	16	5/8
AF06-08FFC	3/8	13/16 - 16	26.0	1.02	56.5	2.22	24	15/16	19	3/4
AF08-08FFC	½	13/16 - 16	27.0	1.06	60.0	2.36	24	15/16	19	3/4
AF10-10FFC	5/8	1 - 14	31.2	1.23	67.0	2.64	30	13/16	24	15/16
AF10-12FFC	5/8	13/16 - 12	35.2	1.39	71.0	2.80	36	17/16	27	11/16

FJIS

JIS FEMALE SWIVEL (TOYOTA)



PART NUMBER	Hose Bore	F	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
AF04-04FJIS	¼	¼ - 19	21.5	0.85	49.5	1.95	19	¾	17	11/16
AF06-06FJIS	3/8	¾ - 19	22.5	0.86	53.0	2.09	22	7/8	19	¾
AF08-08FJIS	½	½ - 14	26.0	1.02	59.0	2.32	27	11/16	22	7/8
AF12-12FJIS	¾	¾ - 14	31.0	1.22	71.5	2.81	32	1¼	27	11/16
AF16-16FJIS	1	1 - 11	36.0	1.42	87.0	3.43	41	15/8	36	17/16

Reference Hose Section for Coupling Compatibility

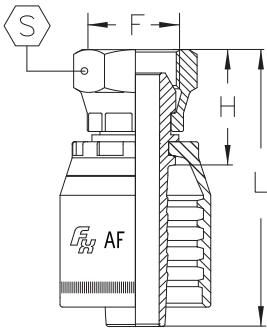
WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





FBSPP

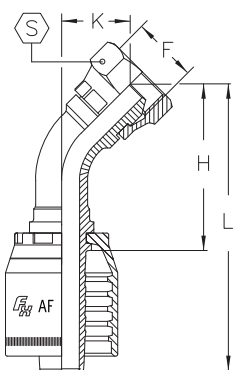
BSPP FEMALE SWIVEL



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
AF04-02FBSPP	¼	⅛ - 28	19.0	0.75	47.0	1.85	14	⅝
AF04-04FBSPP	¼	¼ - 19	19.0	0.75	47.0	1.85	19	¾
AF04-06FBSPP	¼	⅜ - 19	22.0	0.87	50.0	1.97	22	⅞
AF05-06FBSPP	⅝	⅜ - 19	22.0	0.87	50.0	1.97	22	⅞
AF05-08FBSPP	⅝	½ - 14	23.0	0.91	51.0	2.01	27	1 ⅛
AF06-04FBSPP	⅜	¼ - 19	18.5	0.73	49.0	1.93	19	¾
AF06-06FBSPP	⅜	⅜ - 19	20.5	0.81	51.0	2.01	22	⅞
AF06-08FBSPP	⅜	½ - 14	23.5	0.93	54.0	2.12	27	1 ⅛
AF08-06FBSPP	½	⅜ - 19	23.0	0.91	56.0	2.20	22	⅞
AF08-08FBSPP	½	½ - 14	23.0	0.91	56.0	2.20	27	1 ⅛
AF08-10FBSPP	½	⅝ - 14	24.0	0.94	57.0	2.24	30	1 ⅜
AF08-12FBSPP	½	¾ - 14	27.0	1.06	60.0	2.36	32	1 ¼
AF10-10FBSPP	⅝	⅝ - 14	23.0	0.91	59.0	2.32	30	1 ⅜
AF10-12FBSPP	⅝	¾ - 14	27.0	1.06	63.0	2.48	32	1 ¼
AF12-12FBSPP	¾	¾ - 14	26.5	1.04	67.0	2.64	32	1 ¼
AF12-16FBSPP	¾	1 - 11	39.5	1.16	70.0	2.75	41	1 ⅝
AF16-12FBSPP	1	¾ - 14	28.0	1.10	79.0	3.11	32	1 ¼
AF16-16FBSPP	1	1 - 11	30.0	1.18	81.0	3.19	41	1 ⅝
AF16-20FBSPP	1	1 ¼ - 11	35.0	1.38	86.0	3.38	50	2

FBSPP45

BSPP FEMALE SWIVEL - 45° ELBOW

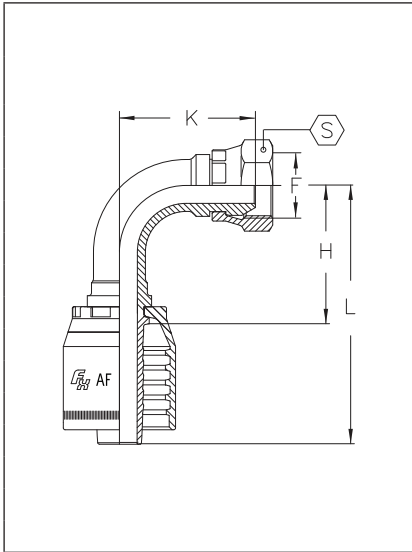


PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
AF04-02FBSPP45	¼	⅛ - 28	36.0	1.42	64.0	2.52	16.0	0.63	14	⅝
AF04-04FBSPP45	¼	¼ - 19	37.0	1.46	65.0	2.56	15.3	0.60	19	¾
AF04-06FBSPP45	¼	⅜ - 19	40.0	1.57	68.0	2.68	19.0	0.75	22	⅞
AF05-06FBSPP45	⅝	⅜ - 19	41.0	1.61	69.0	2.72	19.0	0.75	22	⅞
AF06-06FBSPP45	⅜	⅜ - 19	42.0	1.65	73.0	2.87	19.0	0.75	22	⅞
AF06-08FBSPP45	⅜	½ - 14	44.0	1.73	75.0	2.95	21.0	0.83	27	1 ⅛
AF08-08FBSPP45	½	½ - 14	49.0	1.93	82.0	3.23	22.0	0.87	27	1 ⅛
AF08-10FBSPP45	½	⅝ - 14	49.0	1.93	82.0	3.23	22.0	0.87	30	1 ⅜
AF10-10FBSPP45	⅝	⅝ - 14	54.0	2.12	89.8	3.54	24.0	0.94	30	1 ⅜
AF10-12FBSPP45	⅝	¾ - 14	57.0	2.24	93.0	3.66	26.0	1.02	32	1 ¼
AF12-12FBSPP45	¾	¾ - 14	65.5	2.58	106.0	4.17	28.0	1.10	32	1 ¼
AF16-16FBSPP45	1	1 - 11	84.0	3.31	135.0	5.31	36.0	1.42	41	1 ⅝

Reference Hose Section for Coupling Compatibility

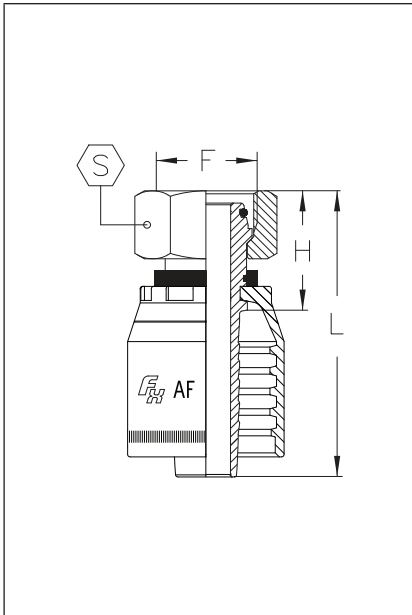
⚠ WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FBSPP90 BSPP FEMALE SWIVEL - 90° ELBOW



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
AF04-02FBSPP90	¼	½ - 28	26.0	1.02	54.0	2.12	28.0	1.10	14	⅝
AF04-04FBSPP90	¼	¼ - 19	26.0	1.02	54.0	2.12	28.0	1.10	19	¾
AF04-06FBSPP90	¼	⅜ - 19	26.0	1.02	54.0	2.12	32.0	1.26	22	⅞
AF05-06FBSPP90	⅝	⅜ - 19	28.0	1.10	56.0	2.20	34.0	1.34	22	⅞
AF06-06FBSPP90	⅜	⅜ - 19	31.0	1.22	61.0	2.40	35.0	1.38	22	⅞
AF06-08FBSPP90	⅜	½ - 14	31.0	1.22	61.0	2.40	38.0	1.50	27	1 ⅛
AF08-08FBSPP90	½	½ - 14	37.0	1.46	70.0	2.75	42.0	1.65	27	1 ⅛
AF08-10FBSPP90	½	⅝ - 14	37.0	1.46	70.0	2.75	43.0	1.69	30	1 ⅜
AF10-10FBSPP90	⅝	⅝ - 14	45.0	1.77	80.0	3.15	46.0	1.81	30	1 ⅜
AF10-12FBSPP90	⅝	¾ - 14	45.0	1.77	80.0	3.15	50.0	1.97	32	1 ¼
AF12-12FBSPP90	¾	¾ - 14	54.0	2.12	95.0	3.74	56.0	2.20	32	1 ¼
AF12-16FBSPP90	¾	1 - 11	54.0	2.12	95.0	3.74	59.0	2.32	41	1 ⅝
AF16-12FBSPP90	1	¾ - 14	70.0	2.76	121.0	4.76	75.0	2.95	32	1 ¼
AF16-16FBSPP90	1	1 - 11	70.0	2.76	121.0	4.76	72.0	2.83	41	1 ⅝

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



PART NUMBER	Hose Bore	F	Tube	H		L		S	
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]
AF04-12FML	¼	M12 x 1.5	L6	23.0	0.90	51.0	2.01	17	1 ⅛
AF04-14FML	¼	M14 x 1.5	L8	22.0	0.87	50.0	1.97	17	1 ⅛
AF04-16FML	¼	M16 x 1.5	L10	24.0	0.94	52.0	2.05	19	¾
AF04-18FML	¼	M18 x 1.5	L12	24.0	0.94	52.0	2.05	22	⅞
AF05-16FML	⅝	M16 x 1.5	L10	24.0	0.94	52.0	2.05	19	¾
AF05-18FML	⅝	M18 x 1.5	L12	24.0	0.94	52.0	2.05	22	⅞
AF06-16FML	⅜	M16 x 1.5	L10	23.0	0.90	54.0	2.12	19	¾
AF06-18FML	⅜	M18 x 1.5	L12	24.0	0.94	54.0	2.12	22	⅞
AF06-22FML	⅜	M22 x 1.5	L15	24.0	0.94	54.0	2.12	27	1 ⅛
AF08-22FML	½	M22 x 1.5	L15	24.0	0.94	57.0	2.24	27	1 ⅛
AF08-26FML	½	M26 x 1.5	L18	26.0	1.02	59.0	2.32	32	1 ¼
AF10-26FML	⅝	M26 x 1.5	L18	27.0	1.06	62.0	2.44	32	1 ¼
AF10-30FML	⅝	M30 x 2.0	L22	28.0	1.10	64.0	2.52	36	1 ⅜
AF12-26FML	¾	M26 x 1.5	L18	34.0	1.34	75.0	2.95	32	1 ¼
AF12-30FML	¾	M30 x 2.0	L22	31.0	1.22	71.0	2.79	36	1 ⅜
AF16-36FML	1	M36 x 2.0	L28	32.0	1.26	83.0	3.27	41	1 ⅝

Reference Hose Section for Coupling Compatibility

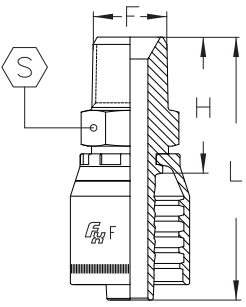
! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





MP

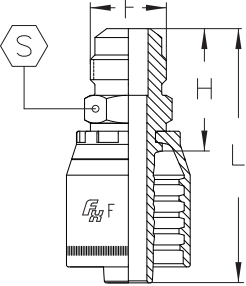
NPT MALE



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
F04-02MP	3/16	1/8 - 27	20.5	0.81	45.5	1.79	12	1/2
F04-04MP	3/16	1/4 - 18	26.5	1.04	51.5	2.02	14	9/16
F05-04MP	1/4	1/4 - 18	27.0	1.06	55.0	2.16	14	9/16
F06-04MP	5/16	1/4 - 18	27.0	1.06	55.0	2.16	14	9/16
F06-06MP	5/16	3/8 - 18	28.5	1.12	56.5	2.22	19	3/4
F08-06MP	13/32	3/8 - 18	29.5	1.16	58.5	2.30	19	3/4
F08-08MP	13/32	1/2 - 14	35.5	1.40	64.5	2.54	22	7/8
F10-08MP	1/2	1/2 - 14	35.0	1.37	68.0	2.67	22	7/8
F10-12MP	1/2	3/4 - 12	37.0	1.46	70.0	2.76	27	1 1/16
F12-12MP	5/8	3/4 - 12	37.1	1.46	72.9	2.87	27	1 1/16
F16-16MP	7/8	1 - 12	45.5	1.79	85.0	3.35	35	1 3/8
F20-20MP	1 1/8	1 1/4 - 11 1/2	50.3	1.98	103.6	4.08	43	1 3/4
F24-24MP	1 3/16	1 1/2 - 11 1/2	55.5	2.19	115.5	4.55	50	2
F32-32MP	2	2 - 11 1/2	63.0	2.50	123.0	4.84	65	2 9/16

MJ

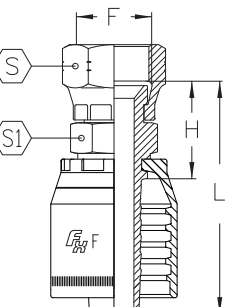
JIC 37° MALE



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
F04-04MJ	3/16	7/16 - 20	25.0	0.98	50.0	1.96	12	1/2
F05-05MJ	1/4	1/2 - 20	25.5	1.00	53.5	2.10	14	9/16
F05-06MJ	1/4	9/16 - 18	26.6	1.04	54.6	2.14	15	5/8
F06-06MJ	5/16	9/16 - 18	26.6	1.04	54.6	2.14	15	5/8
F08-08MJ	13/32	3/4 - 16	30.3	1.19	59.3	2.33	19	3/4
F10-08MJ	1/2	3/4 - 16	30.7	1.20	63.7	2.50	19	3/4
F10-10MJ	1/2	7/8 - 14	35.3	1.38	68.3	2.68	24	15/16
F12-12MJ	5/8	1 1/16 - 12	39.1	1.53	74.9	2.94	27	1 1/16

FJ

JIC 37° FEMALE SWIVEL



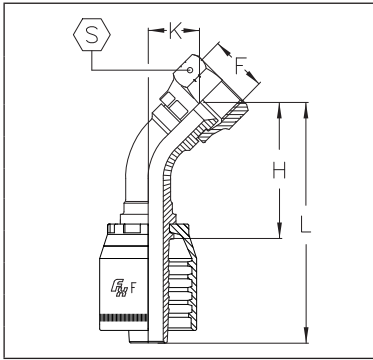
PART NUMBER	Hose Bore	F	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
F04-04FJ	3/16	7/16 - 20	19.0	0.74	44.0	1.73	14.3	9/16	12	1/2
F05-04FJ	1/4	7/16 - 20	20.5	0.80	48.5	1.90	14.3	9/16	14	9/16
F05-05FJ	1/4	1/2 - 20	21.5	0.85	49.5	1.95	17	1 1/16	14	9/16
F05-06FJ	1/4	9/16 - 18	22.0	0.87	50.0	1.97	19	3/4	14	9/16
F06-06FJ	5/16	9/16 - 18	21.5	0.85	49.5	1.95	19	3/4	16	5/8
F06-08FJ	5/16	3/4 - 16	24.5	0.96	52.5	2.07	22	7/8	19	3/4
F08-08FJ	13/32	3/4 - 16	25.0	0.98	54.0	2.13	22	7/8	19	3/4
F10-08FJ	1/2	3/4 - 16	25.5	1.00	58.5	2.30	22	7/8	19	3/4
F10-10FJ	1/2	7/8 - 14	27.5	1.08	60.5	2.38	27	1 1/16	22	7/8
F10-12FJ	1/2	1 1/16 - 12	30.3	1.19	63.3	2.49	32	1 1/4	25	1
F12-10FJ	5/8	7/8 - 14	27.7	1.09	63.5	2.50	27	1 1/16	22	7/8
F12-12FJ	5/8	1 1/16 - 12	30.5	1.20	66.3	2.61	32	1 1/4	25	1
F16-16FJ	7/8	1 5/8 - 12	35.5	1.39	76.0	2.99	38	1 1/2	32	1 1/4
F20-20FJ	1 1/8	1 5/8 - 12	41.7	1.64	95.0	3.74	50	2	41	1 5/8
F24-24FJ	1 3/8	1 7/8 - 12	44.5	1.75	104.5	4.11	55	2 3/16	46	1 13/16
F32-32FJ	2	2 1/2 - 12	51.5	2.03	111.5	4.39	70	2 3/4	60	2 3/8

Reference Hose Section for Coupling Compatibility

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FJ45

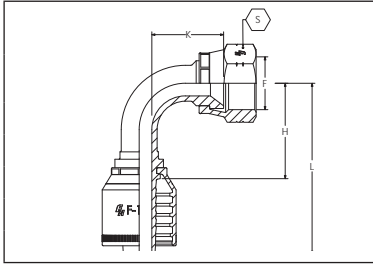
JIC 37° FEMALE SWIVEL - 45° ELBOW



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
F04-04FJ45	3/16	7/16 - 20	29.0	1.14	54.0	2.12	12.0	0.47	14	9/16
F05-05FJ45	1/4	1/2 - 20	32.0	1.25	60.0	2.36	12.5	0.49	17	11/16
F06-06FJ45	5/16	9/16 - 18	34.0	1.33	62.0	2.44	12.5	0.49	19	3/4
F08-08FJ45	13/32	3/4 - 16	41.0	1.61	70.0	2.76	15.0	0.59	22	7/8
F10-10FJ45	1/2	7/8 - 14	43.0	1.69	76.0	2.99	17.5	0.69	27	11/16
F12-10FJ45	5/8	7/8 - 14	47.2	1.86	83.0	3.27	17.0	0.67	27	11/16
F12-12FJ45	5/8	1 1/16 - 12	50.2	1.98	86.0	3.38	19.5	0.77	32	1 1/4
F16-16FJ45	7/8	1 5/16 - 16	98.0	3.87	140.0	5.49	36.0	1.41	38	1 1/2

FJ90S

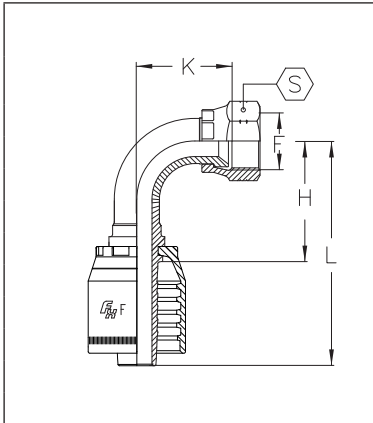
JIC 37° FEMALE SWIVEL - 90° ELBOW SHORT DROP



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
F10-10FJ90S	1/2	7/8 - 14	38.0	1.50	71.0	2.79	33.0	1.30	27	1 1/16
F10-12FJ90S	1/2	1 1/16 - 12	40.0	1.57	73.0	2.87	40.0	1.57	32	1 1/4
F12-12FJ90S	5/8	1 1/16 - 12	45.0	1.77	81.0	3.19	40.0	1.57	32	1 1/4

FJ90M

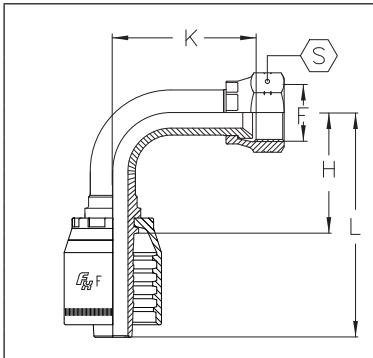
JIC 37° FEMALE SWIVEL - 90° ELBOW MEDIUM DROP



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
F04-04FJ90M	3/16	7/16 - 20	21.0	0.82	46.0	1.81	21.0	0.82	14.3	9/16
F05-05FJ90M	1/4	7/16 - 20	25.5	1.00	53.5	2.10	26.0	1.02	17	1 1/16
F05-06FJ90M	1/4	9/16 - 18	25.5	1.00	53.5	2.10	27.0	1.06	19	3/4
F06-06FJ90M	5/16	9/16 - 18	28.0	1.10	56.0	2.20	29.0	1.14	19	3/4
F08-08FJ90M	13/32	3/4 - 16	31.5	1.24	60.5	2.38	39.0	1.53	22	7/8
F10-10FJ90M	1/2	7/8 - 14	37.0	1.45	70.0	2.75	40.0	1.57	27	1 1/16
F10-12FJ90M	1/2	1 1/16 - 12	37.0	1.45	70.0	2.75	45.0	1.77	32	1 1/4
F12-12FJ90M	5/8	1 1/16 - 12	45.0	1.77	81.0	3.18	47.0	1.85	32	1 1/4
F16-16FJ90M	7/8	1 5/16 - 12	74.0	2.91	113.4	4.46	72.0	2.83	38	1 1/2
F20-20FJ90M	1 1/16	1 5/8 - 12	84.3	3.32	137.6	5.42	82.0	3.23	50	2

FJ90L

JIC 37° FEMALE SWIVEL - 90° ELBOW LONG DROP



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
F16-16FJ90L	7/8	1 5/16 - 12	71.0	2.80	110.4	4.35	114.0	4.49	38	1 1/2
F20-20FJ90L	1 1/16	1 5/8 - 12	86.0	3.39	144.0	5.67	129.0	5.08	50	2

Reference Hose Section for Coupling Compatibility

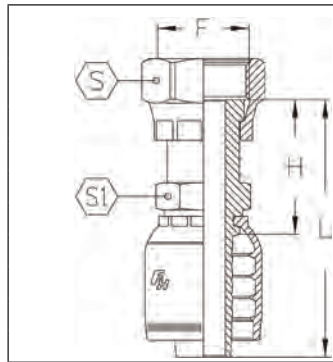
! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





FF

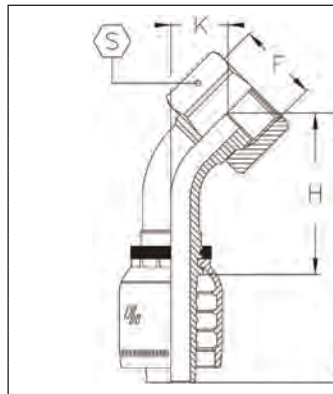
ORFS FEMALE SWIVEL



PART NUMBER	Hose Bore	F	H		L		S		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
F05-04FF	¼	9/16 - 18	26.5	1.04	54.5	2.15	14	9/16	17	11/16
F06-06FF	5/16	11/16 - 16	28.5	1.12	56.5	2.22	16	5/8	22	7/8
F12-12FF	5/8	1 - 14	43.7	1.72	79.5	3.13	27	1 1/16	36	1 1/16
F16-16FF	7/8	1 1/16 - 12	47.5	1.87	86.9	3.42	36	1 1/16	41	1 5/8
F20-20FF	1 1/8	1 11/16 - 12	49.7	1.96	103.0	4.06	41	1 5/8	50	2

FF45

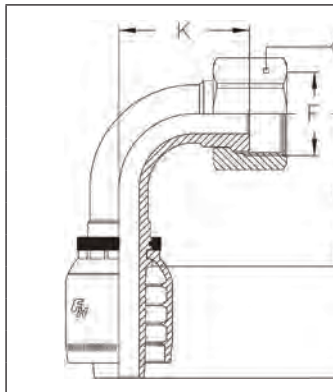
ORFS FEMALE SWIVEL - 45° ELBOW



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
F06-06FF45	5/16	1 1/16 - 16	35.0	1.38	63.0	2.48	12.5	0.49	22	7/8
F12-12FF45	5/8	1 - 14	51.5	2.03	87.5	3.44	20.5	0.81	36	1 1/16

FF90S

ORFS FEMALE SWIVEL - 90° ELBOW SHORT DROP



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
F05-04FF90S	¼	9/16 - 18	27.0	1.06	55.0	2.17	21.0	0.83	17	1 1/16
F06-06FF90S	5/16	1 1/16 - 16	29.0	1.14	57.0	2.24	25.0	0.98	22	7/8
F10-08FF90S	1/2	1 3/16 - 16	39.0	1.54	72.0	2.83	31.0	1.20	24	1 5/16
F10-10FF90S	1/2	1 - 14	39.0	1.54	72.0	2.83	34.0	1.34	30	1 3/16
F12-12FF90S	5/8	1 3/16 - 12	45.0	1.77	81.0	3.19	42.0	1.65	30	1 3/16

Reference Hose Section for Coupling Compatibility

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

MA

SAE 45° MALE

PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
F06-06MA	5/16	5/8 - 18	28.2	1.11	56.2	2.21	16	5/8

FA

SAE 45° FEMALE SWIVEL

PART NUMBER	Hose Bore	F	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
F06-06FA	5/16	5/8 - 18	23.0	0.91	51.0	2.01	22	7/8	16	5/8
F08-06FA	13/32	5/8 - 18	24.0	0.94	53.0	2.09	22	7/8	16	5/8
F12-12FA	5/8	1 1/16 - 14	31.0	1.22	66.8	2.63	32	1 1/4	25	1

FA45

SAE 45° FEMALE SWIVEL - 45° ELBOW

PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
F06-06FA45	5/8	5/8 - 18	38.0	1.49	66.0	2.59	16.0	0.62	22	7/8

FA90

SAE 45° FEMALE SWIVEL - 90° ELBOW

PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
F06-06FA90	5/16	5/8 - 18	28.0	1.10	56.0	2.20	29.0	1.14	22	7/8

Reference Hose Section for Coupling Compatibility

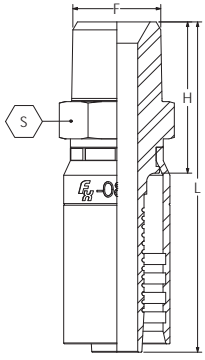
! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





MP

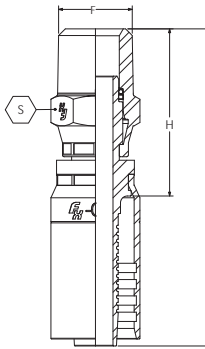
NPT MALE



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
P02-02MP	1/8	1/8 - 27	21.0	0.83	36.0	1.42	11	7/16
P02-04MP	1/8	1/4 - 18	27.5	1.08	42.5	1.67	14	9/16
P03-02MP	3/16	1/8 - 27	21.9	0.86	49.1	1.93	16	5/8
P03-04MP	3/16	1/4 - 18	28.2	1.11	55.2	2.17	14	9/16
P04-02MP	1/4	1/8 - 27	21.7	0.85	54.0	2.13	16	5/8
P04-04MP	1/4	1/4 - 18	26.5	1.04	58.8	2.31	18	11/16
P05-04MP	5/16	1/4 - 18	29.7	1.17	63.0	2.48	18	11/16
P06-06MP	3/8	3/8 - 18	30.8	1.21	68.9	2.71	19	3/4
P06-08MP	3/8	1/2 - 14	35.9	1.41	74.0	2.91	22	7/8
P08-08MP	1/2	1/2 - 14	36.2	1.43	79.0	3.11	24	15/16
P12-12MP	3/4	3/4 - 14	38.3	1.51	86.0	3.39	27	1 1/16
P16-16MP	1	1 - 11 1/2	47.7	1.88	106.0	4.17	36	1 1/16

MPX

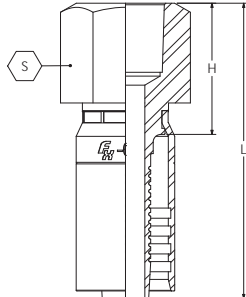
NPT MALE SWIVEL



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
P02-02MPX	1/8	1/8 - 27	33.0	1.30	48.0	1.89	13	1/2
P04-04MPX	1/4	1/4 - 18	40.9	1.61	73.2	2.88	16	5/8
P06-06MPX	3/8	3/8 - 18	41.2	1.62	79.3	3.12	19	3/4
P06-08MPX	3/8	1/2 - 14	49.2	1.94	87.3	3.44	22	7/8
P08-08MPX	1/2	1/2 - 14	48.7	1.92	91.5	3.60	22	7/8
P12-12MPX	3/4	3/4 - 14	59.4	2.34	107.1	4.22	32	1 1/4

FP

NPT FEMALE RIGID



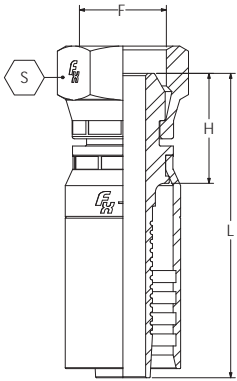
PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
P04-04FP	1/4	1/4 - 18	27.2	1.07	59.5	2.34	19	3/4
P04-06FP	1/4	3/8 - 18	27.5	1.08	59.8	2.35	22	7/8
P06-06FP	3/8	3/8 - 18	28.5	1.12	66.6	2.62	22	7/8
P08-08FP	1/2	1/2 - 14	32.5	1.28	75.3	2.96	29	1 1/8

Reference Hose Section for Coupling Compatibility

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FPX

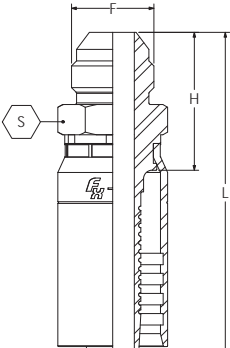
NPSM FEMALE SWIVEL (60° CONE SEAT)



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
P04-04FPX	¼	¼ - 18	20.7	0.81	53.0	2.09	17	11/16
P04-06FPX	¼	3/8 - 18	22.0	0.87	54.3	2.14	22	7/8
P05-04FPX	5/16	¼ - 18	20.0	0.79	53.3	2.10	17	11/16
P06-04FPX	3/8	¼ - 18	20.0	0.79	58.1	2.29	17	11/16
P06-06FPX	3/8	3/8 - 18	22.5	0.89	60.6	2.39	22	7/8
P08-08FPX	½	½ - 14	24.2	0.95	67.0	2.64	25	1
P12-12FPX	¾	¾ - 14	26.8	1.05	74.5	2.93	32	1¼

MJ

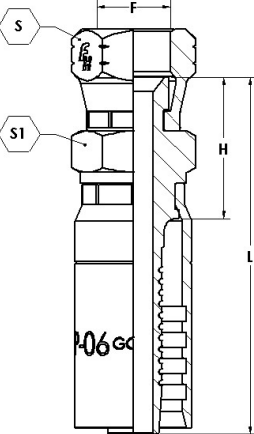
JIC 37° MALE



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
P04-04MJ	¼	7/16 - 20	27.2	1.07	59.5	2.34	16	5/8
P05-05MJ	5/16	½ - 20	30.0	1.18	63.3	2.49	16	5/8
P06-06MJ	9/16	9/16 - 18	28.8	1.13	66.9	2.63	19	¾
P08-08MJ	½	¾ - 16	31.9	1.25	74.7	2.94	22	7/8

FJ

JIC 37° FEMALE SWIVEL



PART NUMBER	Hose Bore	F	H		L		S		SI	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
P02-02FJ	1/8	5/16 - 24	20.0	0.78	35.0	1.37	11	7/16	10	3/8
P02-04FJ	1/8	7/16 - 20	20.0	0.78	35.0	1.37	14	9/16	14	9/16
P03-03FJ	3/16	3/8 - 24	21.1	0.83	48.1	1.89	14	9/16	14	9/16
P03-04FJ	3/16	7/16 - 20	24.0	0.94	51.0	2.00	14	9/16	14	9/16
P04-04FJ	¼	7/16 - 20	24.1	0.94	56.4	2.22	14	9/16	16	5/8
P04-05FJ	¼	½ - 20	25.0	0.98	57.3	2.25	17	11/16	16	5/8
P04-06FJ	¼	9/16 - 18	25.0	0.98	57.3	2.25	19	¾	16	5/8
P05-06FJ	5/16	9/16 - 18	24.7	0.97	58.0	2.28	19	¾	16	5/8
P06-04FJ	3/8	7/16 - 20	25.7	1.01	63.8	2.51	14	9/16	19	¾
P06-06FJ	3/8	9/16 - 18	26.7	1.05	64.8	2.55	19	¾	19	¾
P06-08FJ	3/8	¾ - 16	27.7	1.09	65.8	2.59	22	7/8	19	¾
P08-06FJ	½	9/16 - 18	30.0	1.18	82.2	3.23	19	¾	22	7/8
P08-08FJ	½	¾ - 16	31.0	1.22	73.8	2.90	22	7/8	22	7/8
P08-10FJ	½	7/8 - 14	25.2	0.99	68.0	2.67	27	11/16	22	7/8
P12-12FJ	¾	11/16 - 12	25.5	1.00	73.2	2.88	32	1¼	30	13/16
P16-16FJ	1	15/16 - 12	37.7	1.48	94.0	3.70	38	1½	36	17/16

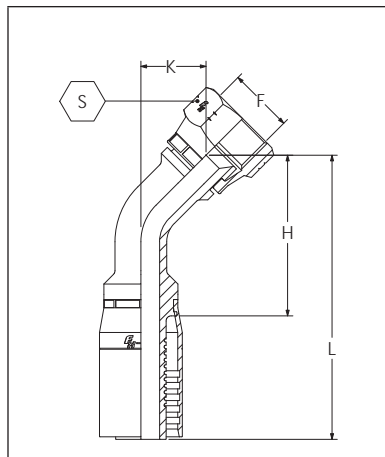
Reference Hose Section for Coupling Compatibility

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



FJ45

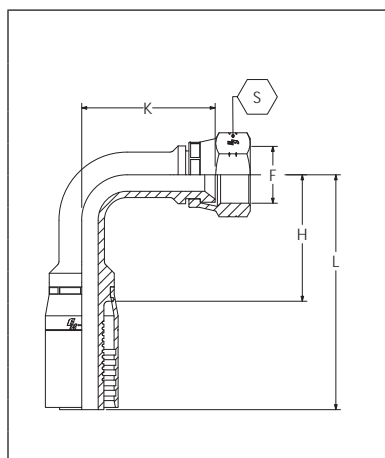
JIC 37° FEMALE SWIVEL - 45° ELBOW



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
P03-04FJ45	3/16	7/16 - 20	33.0	1.30	60.0	2.36	12.0	0.47	14	9/16
P04-04FJ45	1/4	7/16 - 20	32.2	1.26	64.5	2.53	12.0	0.47	14	9/16
P05-05FJ45	5/16	1/2 - 20	33.0	1.29	66.3	2.61	11.0	0.43	17	11/16
P05-06FJ45	5/16	9/16 - 18	34.0	1.33	67.3	2.64	12.0	0.47	19	3/4
P06-06FJ45	3/8	9/16 - 18	40.5	1.59	78.6	3.09	14.0	0.55	19	3/4
P08-08FJ45	1/2	3/4 - 16	42.2	1.66	85.0	3.34	15.5	0.61	22	7/8
P12-12FJ45	3/4	1 1/16 - 12	56.8	2.24	104.5	4.11	20.0	0.79	32	1 1/4

FJ90S

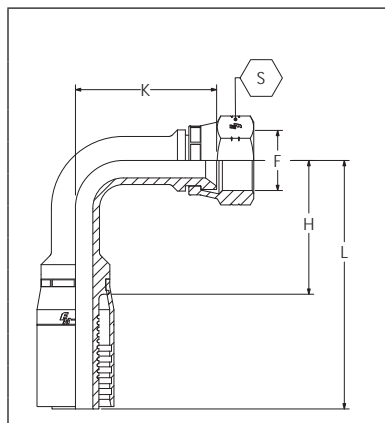
JIC 37° FEMALE SWIVEL - 90° ELBOW SHORT DROP



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
P02-04FJ90S	1/8	7/16 - 20	28.0	1.10	43.0	1.69	20.0	0.79	14	9/16
P03-04FJ90S	3/16	7/16 - 20	23.0	0.91	50.0	1.97	18.0	0.71	14	9/16
P04-04FJ90S	1/4	7/16 - 20	32.7	1.28	65.0	2.55	20.0	0.79	14	9/16
P05-05FJ90S	5/16	1/2 - 20	28.0	1.10	61.3	2.41	22.0	0.87	17	11/16
P05-06FJ90S	5/16	9/16 - 18	30.2	1.19	63.5	2.50	24.0	0.94	19	3/4
P06-06FJ90S	3/8	9/16 - 18	32.9	1.30	71.0	2.80	23.0	0.91	19	3/4
P06-08FJ90S	3/8	3/4 - 16	33.9	1.33	72.0	2.83	29.0	1.14	22	7/8
P08-08FJ90S	1/2	3/4 - 16	38.2	1.50	81.0	3.19	29.0	1.14	22	7/8
P12-12FJ90S	3/4	1 1/16 - 12	55.3	2.18	103.0	4.06	43.0	1.69	32	1 1/4
P16-16FJ90S	1	1 5/16 - 12	71.7	2.82	130.0	5.12	56.0	2.20	38	1 1/2

FJ90M

JIC 37° FEMALE SWIVEL - 90° ELBOW MEDIUM DROP



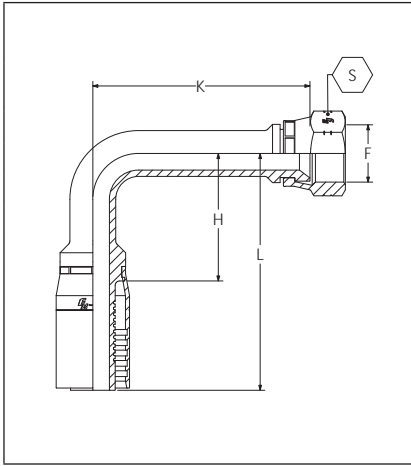
PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
P02-03FJ90M	1/8	3/8 - 24	22.7	0.89	37.7	1.48	19.0	0.74	14	9/16
P02-04FJ90M	1/8	7/16 - 20	28.0	1.10	43.0	1.69	22.2	0.87	14	9/16
P04-04FJ90M	1/4	7/16 - 20	26.7	1.05	59.0	2.32	26.0	1.02	14	9/16
P06-06FJ90M	3/8	9/16 - 18	32.7	1.28	70.8	2.78	33.0	1.29	19	3/4
P08-08FJ90M	1/2	3/4 - 16	38.2	1.50	81.0	3.18	39.0	1.53	22	7/8
P12-12FJ90M	3/4	1 1/16 - 12	55.3	2.18	103.0	4.06	53.0	2.09	32	1 1/4
P16-16FJ90M	1	1 5/16 - 12	71.7	2.82	130.0	5.12	70.0	2.76	38	1 1/2

Reference Hose Section for Coupling Compatibility

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FJ90L

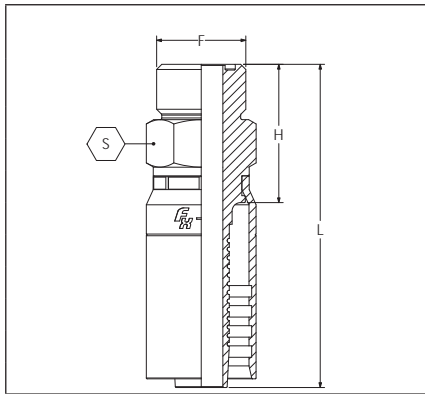
JIC 37° FEMALE SWIVEL - 90° ELBOW LONG DROP



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
P03-04FJ90L	3/16	7/16 - 20	31.8	1.25	52.3	2.06	45.7	1.80	14	9/16
P04-04FJ90L	1/4	7/16 - 20	31.8	1.25	58.6	2.31	45.7	1.80	14	9/16
P04-05FJ90L	1/4	1/2 - 20	49.3	1.94	60.2	2.37	45.0	1.77	16	5/8
P04-06FJ90L	1/4	9/16 - 18	35.1	1.38	62.4	2.46	55.4	2.18	17	11/16
P05-06FJ90L	5/16	9/16 - 18	49.3	1.94	61.8	2.43	55.4	2.18	17	11/16
P06-06FJ90L	3/8	9/16 - 18	35.1	1.38	66.5	2.62	55.4	2.18	17	11/16
P06-08FJ90L	3/8	3/4 - 16	38.1	1.50	69.9	2.75	61.7	2.43	22	7/8
P08-08FJ90L	1/2	3/4 - 16	36.6	1.44	74.5	2.93	61.7	2.43	22	7/8
P12-10FJ90L	3/4	7/8 - 14	39.6	1.56	77.6	3.06	65.3	2.57	25	1
P12-12FJ90L	3/4	1 1/16 - 12	55.6	2.19	98.3	3.87	94.7	3.73	32	1 1/4
P16-16FJ90L	1	1 5/16 - 12	66.8	2.63	119.0	4.69	110.0	4.33	38	1 1/2

MF

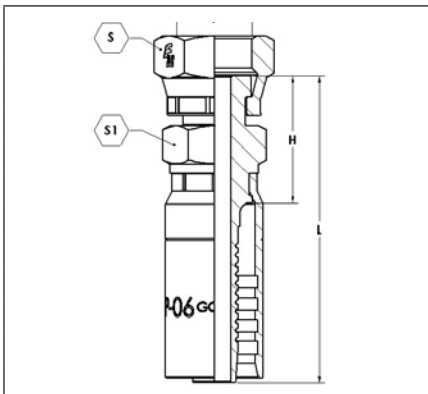
ORFS MALE



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
P04-04MF	1/4	9/16 - 18	26.0	1.02	58.3	2.29	17	11/16
P04-06MF	1/4	1 1/16 - 16	28.0	1.10	60.3	2.37	19	3/4
P06-06MF	3/8	1 1/16 - 16	28.2	1.11	66.3	2.61	19	3/4
P06-08MF	3/8	1 3/16 - 16	30.0	1.18	68.1	2.68	22	7/8
P08-08MF	1/2	1 3/16 - 16	30.0	1.18	72.8	2.86	22	7/8

FFC

ORFS FEMALE SWIVEL COMPACT



PART NUMBER	Hose Bore	F	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
P04-04FFC	1/4	9/16 - 18	21.2	0.83	53.5	2.11	17	1 1/16	14	9/16
P06-06FFC	3/8	1 1/16 - 16	26.9	1.06	65.0	2.56	22	7/8	19	3/4
P06-08FFC	3/8	1 3/16 - 16	28.4	1.12	66.5	2.62	24	1 5/16	19	3/4
P08-08FFC	1/2	1 3/16 - 16	28.2	1.11	71.0	2.80	24	1 5/16	22	7/8

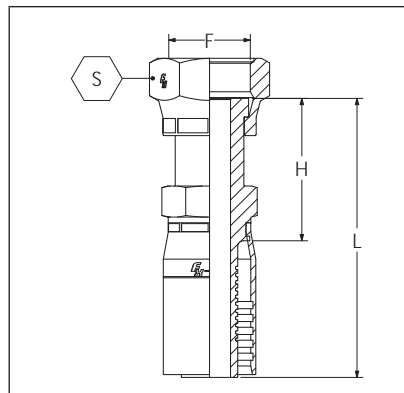
Reference Hose Section for Coupling Compatibility

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



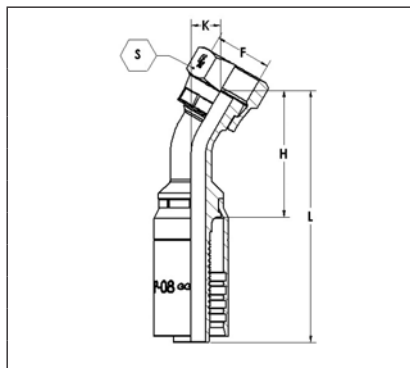


FF ORFS FEMALE SWIVEL



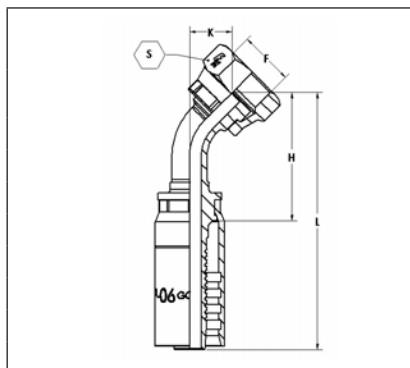
PART NUMBER	Hose Bore	F	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
P03-04FF	3/16	9/16 - 18	28.0	1.10	55.0	2.17	17	11/16	14	9/16
P04-04FF	1/4	9/16 - 18	27.7	1.09	60.0	2.36	17	11/16	16	5/8
P04-06FF	1/4	11/16 - 16	29.7	1.16	62.0	2.44	22	7/8	16	5/8
P05-06FF	5/16	11/16 - 16	30.7	1.21	64.0	2.52	22	7/8	16	5/8
P06-06FF	3/8	11/16 - 16	35.0	1.37	73.1	2.87	22	7/8	19	3/4
P06-08FF	3/8	13/16 - 16	34.7	1.36	72.8	2.86	24	15/16	19	3/4
P08-08FF	1/2	13/16 - 16	34.7	1.36	77.5	3.05	24	15/16	22	7/8
P12-12FF	3/4	13/16 - 12	44.8	1.76	92.5	3.64	36	17/16	30	13/16
P16-16FF	1	17/16 - 12	49.2	1.94	107.5	4.23	41	15/8	36	17/16

FF30 ORFS FEMALE SWIVEL - 30° ELBOW



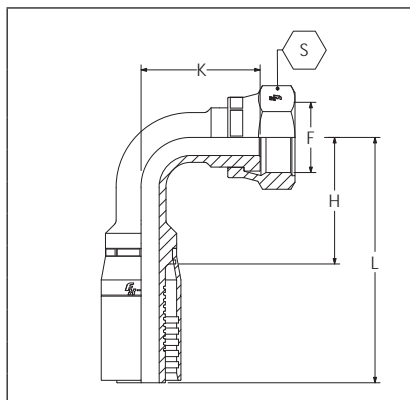
PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
P08-08FF30	1/2	13/16 - 16	43.2	1.70	86.0	3.38	10.0	0.39	24	15/16

FF45 ORFS FEMALE SWIVEL - 45° ELBOW



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
P03-04FF45	3/16	9/16 - 18	34.0	1.34	61.0	2.40	10.5	0.41	17	11/16
P04-04FF45	1/4	9/16 - 18	32.5	1.27	64.8	2.55	10.5	0.41	17	11/16
P05-06FF45	5/16	11/16 - 16	38.7	1.52	72.0	2.83	12.5	0.49	22	7/8
P06-06FF45	3/8	11/16 - 16	37.9	1.49	76.0	2.99	12.5	0.49	22	7/8
P08-08FF45	1/2	13/16 - 16	43.7	1.72	86.5	3.40	15.5	0.61	24	15/16
P12-12FF45	3/4	13/16 - 12	56.8	2.24	104.5	4.11	21.0	0.83	36	17/16

FF90S ORFS FEMALE SWIVEL - 90° ELBOW SHORT DROP



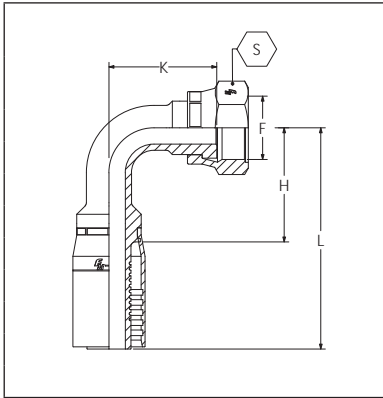
PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
P03-04FF90S	3/16	9/16 - 18	29.0	1.14	56.0	2.20	21.0	0.83	17	11/16
P04-04FF90S	1/4	9/16 - 18	28.2	1.11	60.5	2.38	21.0	0.83	17	11/16
P04-06FF90S	1/4	11/16 - 16	30.7	1.21	62.0	2.44	54.0	0.95	22	7/8
P05-06FF90S	5/16	11/16 - 16	31.2	1.23	64.5	2.54	25.0	0.98	22	7/8
P06-06FF90S	3/8	11/16 - 16	32.9	1.29	71.0	2.79	24.5	0.96	22	7/8
P06-08FF90S	3/8	13/16 - 16	32.9	1.29	71.0	2.79	30.0	1.18	24	15/16
P08-08FF90S	1/2	13/16 - 16	39.2	1.54	82.0	3.22	31.0	1.22	24	15/16
P12-12FF90S	3/4	13/16 - 12	55.3	2.18	103.0	4.06	45.0	1.77	36	17/16
P16-16FF90S	1	17/16 - 12	71.7	2.82	130.0	5.12	55.0	2.17	41	15/8

Reference Hose Section for Coupling Compatibility

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FF90M

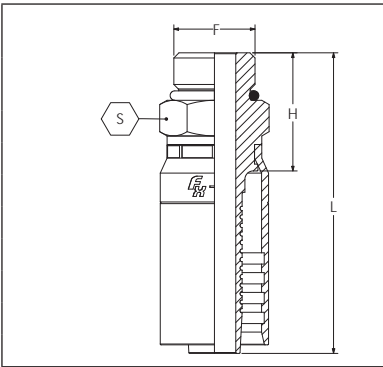
ORFS FEMALE SWIVEL - 90° ELBOW MEDIUM DROP



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
P02-04FF90M	1/8	7/16 - 20	28.7	1.13	42.6	1.68	19.8	0.78	17	11/16
P04-04FF90M	1/4	7/16 - 20	31.8	1.25	58.8	2.31	19.8	0.78	17	11/16
P05-04FF90M	5/16	7/16 - 20	30.2	1.19	58.8	2.31	19.8	0.78	17	11/16
P05-06FF90M	5/16	9/16 - 18	49.3	1.94	63.3	2.49	22.9	0.90	20	13/16
P06-06FF90M	3/8	9/16 - 18	36.6	1.44	68.1	2.68	22.9	0.90	20	13/16
P08-08FF90M	1/2	3/4 - 16	38.1	1.50	75.7	2.98	29.2	1.15	24	15/16
P12-12FF90M	3/4	1 1/16 - 12	50.8	2.00	94.2	3.71	47.8	1.88	36	1 1/16
P16-16FF90M	1	1 1/16 - 12	78.5	3.09	130.0	5.12	71.0	2.80	41	1 5/8

MOB

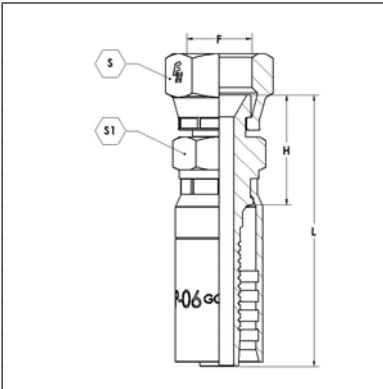
O-RING BOSS MALE



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
P03-04MOB	3/16	7/16 - 20	26.9	1.06	48.0	1.89	16	5/8
P04-04MOB	1/4	7/16 - 20	26.2	1.03	53.5	2.11	16	5/8
P04-05MOB	1/4	1/2 - 20	26.2	1.03	53.5	2.11	16	5/8
P04-06MOB	1/4	9/16 - 18	26.9	1.06	54.3	2.14	17	11/16
P05-05MOB	5/16	1/2 - 20	22.4	0.88	54.5	2.11	16	5/8
P06-06MOB	3/8	9/16 - 18	29.5	1.16	61.4	2.42	19	3/4
P06-08MOB	3/8	3/4 - 16	30.2	1.19	62.6	2.47	22	7/8
P08-08MOB	1/2	3/4 - 16	27.7	1.09	68.9	2.71	22	7/8

FJIS

JIC FEMALE SWIVEL (TOYOTA)



PART NUMBER	Hose Bore	F	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
P04-04FJIS	1/4	1/4 - 19	23.2	0.91	55.5	2.18	19	3/4	17	11/16
P06-06FJIS	3/8	3/8 - 19	26.0	1.02	64.1	2.52	22	7/8	19	3/4
P08-08FJIS	1/2	1/2 - 14	26.7	1.05	69.5	2.73	27	1 1/16	22	7/8

Reference Hose Section for Coupling Compatibility

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





FBSPB BSPP FEMALE SWIVEL

PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
	P04-04FBSPB		1/4	1/4 - 19	20.7	0.81	53.0	2.08
P06-06FBSPB	3/8	3/8 - 19	22.5	0.88	60.6	2.38	22	7/8
P08-08FBSPB	1/2	1/2 - 14	24.2	0.95	67.0	2.63	27	1 1/16

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

PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
	P04-12FML		1/4	M12x1.5	21.7	0.85	54.0	2.12
P04-14FML	1/4	M14x1.5	21.0	0.82	53.3	2.09	19	3/4
P04-16FML	1/4	M16x1.5	22.7	0.89	55.0	2.16	19	3/4
P04-18FML	1/4	M18x1.5	25.7	1.01	58.0	2.28	22	7/8
P06-18FML	3/8	M18x1.5	26.2	1.03	64.3	2.53	22	7/8
P06-22FML	3/8	M22x1.5	27.0	1.06	65.1	2.56	27	1 1/16
P08-22FML	1/2	M22x1.5	27.0	1.06	69.8	2.74	27	1 1/16
P08-26FML	1/2	M26x1.5	31.2	1.22	74.0	2.91	32	1 1/4
P12-26FML	3/4	M26x1.5	32.3	1.27	80.0	3.15	32	1 1/4
P12-30FML	3/4	M30x2.0	32.3	1.27	80.0	3.15	36	1 1/16

FMS FEMALE TUBE CONNECTIONS (BRASS)

PART NUMBER	Hose Bore	F	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
	MS05-06FMSHT-BRN2		5/16	9/16"-24 UNEF-2B	33.0	1.30	49.5	1.95	19	3/4

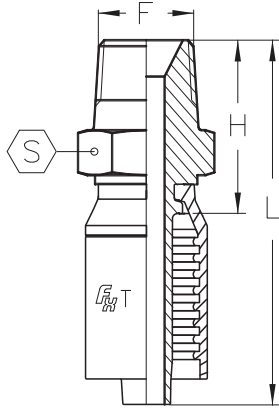
*Note: MS05 Couplings are used with 912 and 915 hoses.

Reference Hose Section for Coupling Compatibility

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MP

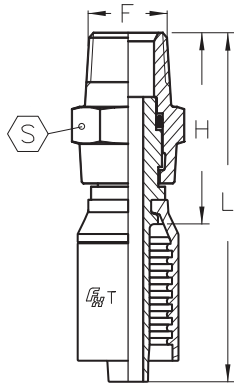
NPT MALE



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
T03-02MP	3/16	1/8 - 27	20.5	0.81	45.5	1.79	12	1/2
T03-04MP	3/16	1/4 - 18	26.5	1.04	51.5	2.03	14	9/16
T04-02MP	1/4	1/8 - 27	21.0	0.83	49.0	1.93	12	1/2
T04-04MP	1/4	1/4 - 18	27.0	1.06	55.0	2.17	14	9/16
T04-06MP	1/4	3/8 - 18	28.5	1.12	56.5	2.22	19	3/4
T04-08MP	1/4	1/2 - 14	34.0	1.34	62.0	2.44	22	7/8
T05-04MP	5/16	1/4 - 18	27.0	1.06	55.0	2.17	14	9/16
T05-06MP	5/16	3/8 - 18	28.5	1.12	56.5	2.23	19	3/4
T06-04MP	3/8	1/4 - 18	27.5	1.08	58.0	2.28	16	5/8
T06-06MP	3/8	3/8 - 18	28.5	1.12	59.0	2.32	19	3/4
T06-08MP	3/8	1/2 - 14	34.0	1.34	64.5	2.54	22	7/8
T08-04MP	1/2	1/4 - 18	28.0	1.10	61.0	2.40	22	7/8
T08-06MP	1/2	3/8 - 18	30.5	1.20	63.5	2.50	22	7/8
T08-08MP	1/2	1/2 - 14	35.0	1.38	68.0	2.68	22	7/8
T08-12MP	1/2	3/4 - 14	37.0	1.45	70.0	2.76	27	1 1/16
T10-06MP	5/8	3/8 - 18	30.0	1.18	65.8	2.59	25	1
T10-08MP	5/8	1/2 - 14	36.2	1.43	72.0	2.83	25	1
T10-12MP	5/8	3/4 - 14	37.1	1.46	72.9	2.87	27	1 1/16
T12-06MP	3/4	3/8 - 18	35.0	1.38	75.5	2.97	27	1 1/16
T12-08MP	3/4	1/2 - 14	37.5	1.48	78.0	3.07	27	1 1/16
T12-12MP	3/4	3/4 - 14	37.9	1.49	78.4	3.09	27	1 1/16
T12-16MP	3/4	1 - 11 1/2	45.5	1.79	86.0	3.39	35	1 3/8
T16-12MP	1	3/4 - 14	40.5	1.59	91.5	3.60	32	1 1/4
T16-16MP	1	1 - 11 1/2	47.0	1.85	98.0	3.86	35	1 3/8

MPX

NPT MALE SWIVEL



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
T03-04MPX	3/16	1/4 - 18	39.5	1.56	64.5	2.54	16	5/8
T04-02MPX	1/4	1/8 - 27	32.5	1.28	60.5	2.38	12	1/2
T04-04MPX	1/4	1/4 - 18	41.0	1.61	69.0	2.72	16	5/8
T04-06MPX	1/4	3/8 - 18	39.5	1.56	67.5	2.66	19	3/4
T04-08MPX	1/4	1/2 - 14	47.5	1.87	75.5	2.97	22	7/8
T05-06MPX	5/16	3/8 - 18	39.0	1.54	67.0	2.64	19	3/4
T06-04MPX	3/8	1/4 - 18	40.0	1.57	70.0	2.76	16	5/8
T06-06MPX	3/8	3/8 - 18	39.5	1.56	70.0	2.76	19	3/4
T06-08MPX	3/8	1/2 - 14	47.0	1.85	77.5	3.05	22	7/8
T08-04MPX	1/2	1/4 - 18	42.0	1.65	75.0	2.95	16	5/8
T08-06MPX	1/2	3/8 - 18	42.0	1.65	75.0	2.95	19	3/4
T08-08MPX	1/2	1/2 - 14	49.5	1.95	82.5	3.25	22	7/8
T12-08MPX	3/4	1/2 - 14	48.0	1.89	89.0	3.50	22	7/8
T12-12MPX	3/4	3/4 - 14	59.5	2.34	100.0	3.94	32	1 1/4
T16-16MPX	1	1 - 11 1/2	65.5	2.58	116.5	4.59	38	1 1/2

Reference Hose Section for Coupling Compatibility

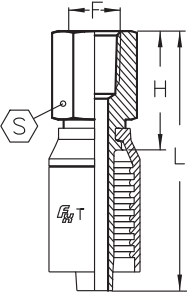
WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





FP

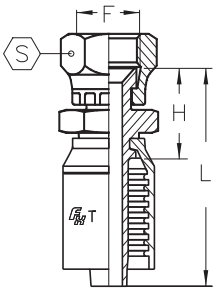
NPT FEMALE RIGID (DRY SEAL)



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
T03-02FP	3/16	1/8 - 27	20.0	0.79	45.0	1.77	16	5/8
T04-02FP	1/4	1/8 - 27	21.5	0.85	49.5	1.95	16	5/8
T04-04FP	1/4	1/4 - 18	26.0	1.02	54.0	2.13	19	3/4
T04-06FP	1/4	3/8 - 18	28.4	1.12	56.4	2.22	22	7/8
T06-04FP	3/8	1/4 - 18	27.1	1.07	57.6	2.27	19	3/4
T06-06FP	3/8	3/8 - 18	26.0	1.02	56.5	2.22	22	7/8
T06-08FP	3/8	1/2 - 14	34.5	1.36	65.0	2.56	29	1 1/8
T08-06FP	1/2	3/8 - 18	27.0	1.06	60.0	2.36	22	7/8
T08-08FP	1/2	1/2 - 14	33.0	1.30	66.0	2.60	29	1 1/8
T12-12FP	3/4	3/4 - 14	38.0	1.50	78.5	3.09	32	1 1/4
T16-16FP	1	1 - 11 1/2	45.8	1.50	96.8	3.81	36	1 7/16

FPX

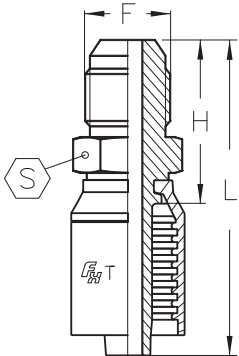
NPSM FEMALE SWIVEL (60° CONE SEAT)



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
T03-04FPX	3/16	1/4 - 18	18.5	0.73	43.5	1.71	17	1 1/16
T04-04FPX	1/4	1/4 - 18	19.0	0.75	47.0	1.85	17	1 1/16
T04-06FPX	1/4	3/8 - 18	22.0	0.87	50.0	1.97	22	7/8
T05-04FPX	5/16	1/4 - 18	19.0	0.75	47.0	1.85	17	1 1/16
T06-04FPX	3/8	1/4 - 18	18.5	0.73	49.0	1.93	17	1 1/16
T06-06FPX	3/8	3/8 - 18	20.5	0.83	51.0	2.01	22	7/8
T08-08FPX	1/2	1/2 - 14	23.0	0.91	56.0	2.20	25	1
T12-12FPX	3/4	3/4 - 14	26.5	1.04	67.0	2.64	32	1 1/4
T16-16FPX	1	1 - 11 1/2	30.0	1.18	81.0	3.19	38	1 1/2

MJ

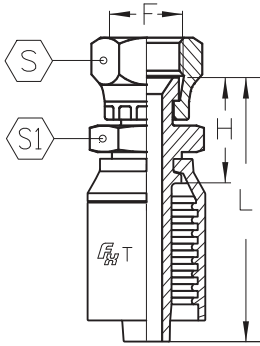
JIC 37° MALE



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
T03-04MJ	3/16	7/16 - 20	25.0	0.98	50.0	1.97	12	1/2
T04-04MJ	1/4	7/16 - 20	25.5	1.00	53.5	2.11	12	1/2
T04-05MJ	1/4	1/2 - 20	25.5	1.00	53.5	2.11	14	9/16
T04-06MJ	1/4	9/16 - 18	26.6	1.05	54.6	2.15	15	5/8
T05-05MJ	5/16	1/2 - 20	25.5	1.00	53.5	2.11	14	9/16
T05-06MJ	5/16	9/16 - 18	26.6	1.05	54.6	2.15	15	5/8
T05-08MJ	5/16	3/4 - 16	29.7	1.17	57.7	2.27	19	3/4
T06-06MJ	3/8	9/16 - 18	26.6	1.05	57.1	2.25	15	5/8
T06-08MJ	3/8	3/4 - 16	29.7	1.17	60.2	2.37	19	3/4
T06-10MJ	3/8	7/8 - 14	24.3	1.35	64.8	2.55	24	15/16
T08-06MJ	1/2	9/16 - 18	29.6	1.17	62.6	2.46	19	3/4
T08-08MJ	1/2	3/4 - 16	30.7	1.21	63.7	2.51	19	3/4
T08-10MJ	1/2	7/8 - 14	35.3	1.39	68.3	2.69	24	15/16
T08-12MJ	1/2	1 1/16 - 12	38.9	1.53	71.9	2.83	27	1 1/16
T10-08MJ	5/8	3/4 - 16	30.9	1.22	66.7	2.63	24	15/16
T10-10MJ	5/8	7/8 - 14	35.5	1.40	71.3	2.81	27	1 1/16
T10-12MJ	5/8	1 1/16 - 12	39.1	1.54	74.9	2.95	27	1 1/16
T12-10MJ	3/4	7/8 - 14	37.3	1.47	77.8	3.06	27	1 1/16
T12-12MJ	3/4	1 1/16 - 12	39.9	1.57	80.4	3.17	27	1 1/16
T12-14MJ	3/4	1 3/16 - 12	41.5	1.63	82.0	3.23	32	1 1/4
T12-16MJ	3/4	1 5/16 - 12	42.0	1.65	82.5	3.25	36	1 7/16
T16-12MJ	1	1 1/16 - 12	41.4	1.63	92.4	3.64	32	1 1/4
T16-16MJ	1	1 5/16 - 12	43.6	1.72	94.6	3.72	34	1 3/8
T16-20MJ	1	1 7/8 - 12	42.0	1.65	93.0	3.66	42	1 11/16

Reference Hose Section for Coupling Compatibility

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



PART NUMBER	Hose Bore INCH	F	H		L		S		S1	
			[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
T03-03FJ	3/16	3/16 - 24	19.0	0.75	44.0	1.73	14	9/16	12	1/2
T03-04FJ	3/16	7/16 - 20	19.0	0.75	44.0	1.73	14	9/16	12	1/2
T04-04FJ	1/4	7/16 - 20	20.5	0.81	48.5	1.91	14	9/16	14	9/16
T04-05FJ	1/4	1/2 - 20	21.5	0.85	49.5	1.95	17	11/16	14	9/16
T04-06FJ	1/4	9/16 - 18	22.0	0.87	50.0	1.97	19	3/4	14	9/16
T05-05FJ	5/16	1/2 - 20	21.0	0.83	49.0	1.93	17	11/16	14	9/16
T05-06FJ	5/16	9/16 - 18	21.5	0.85	49.5	1.95	19	3/4	16	5/8
T05-08FJ	5/16	3/4 - 16	24.5	0.96	52.5	2.07	22	7/8	19	3/4
T06-04FJ	3/8	7/16 - 20	21.0	0.83	51.5	2.03	14	9/16	16	5/8
T06-05FJ	3/8	1/2 - 20	21.5	0.85	52.0	2.05	17	11/16	16	5/8
T06-06FJ	3/8	9/16 - 18	22.5	0.89	53.0	2.09	19	3/4	16	5/8
T06-08FJ	3/8	3/4 - 16	24.5	0.96	55.0	2.17	22	7/8	19	3/4
T06-10FJ	3/8	7/8 - 14	26.5	1.04	57.0	2.24	27	1 1/16	22	7/8
T06-12FJ	3/8	1 1/16 - 12	30.0	1.18	60.5	2.38	32	1 1/4	27	1 1/16
T08-06FJ	1/2	9/16 - 18	24.5	0.96	57.5	2.26	19	3/4	19	3/4
T08-08FJ	1/2	3/4 - 16	25.5	1.00	58.5	2.30	22	7/8	19	3/4
T08-10FJ	1/2	7/8 - 14	27.5	1.08	60.5	2.38	27	1 1/16	22	7/8
T08-12FJ	1/2	1 1/16 - 12	30.3	1.19	63.3	2.49	32	1 1/4	25	1
T08-16FJ	1/2	1 5/16 - 12	30.0	1.18	67.0	2.64	38	1 1/2	32	1 1/4
T10-08FJ	5/8	3/4 - 16	26.7	1.05	62.5	2.46	22	7/8	22	7/8
T10-10FJ	5/8	7/8 - 14	27.7	1.09	63.5	2.50	27	1 1/16	22	7/8
T10-12FJ	5/8	1 1/16 - 12	30.5	1.20	66.3	2.61	32	1 1/4	25	1
T12-08FJ	3/4	3/4 - 16	29.0	1.14	69.5	2.74	22	7/8	27	1 1/16
T12-10FJ	3/4	7/8 - 14	30.0	1.18	70.5	2.78	27	1 1/16	27	1 1/16
T12-12FJ	3/4	1 1/16 - 12	31.8	1.25	72.3	2.85	32	1 1/4	27	1 1/16
T12-14FJ	3/4	1 3/16 - 12	34.5	1.36	75.0	2.95	36	1 7/16	30	1 3/16
T12-16FJ	3/4	1 5/16 - 12	35.5	1.40	76.0	2.99	38	1 1/2	32	1 1/4
T16-12FJ	1	1 1/16 - 12	34.3	1.35	85.3	3.36	32	1 1/4	32	1 1/4
T16-16FJ	1	1 5/16 - 12	37.0	1.46	88.0	3.46	38	1 1/2	32	1 1/4
T16-20FJ	1	1 5/8 - 12	42.0	1.65	93.0	3.66	50	2	41	1 5/8

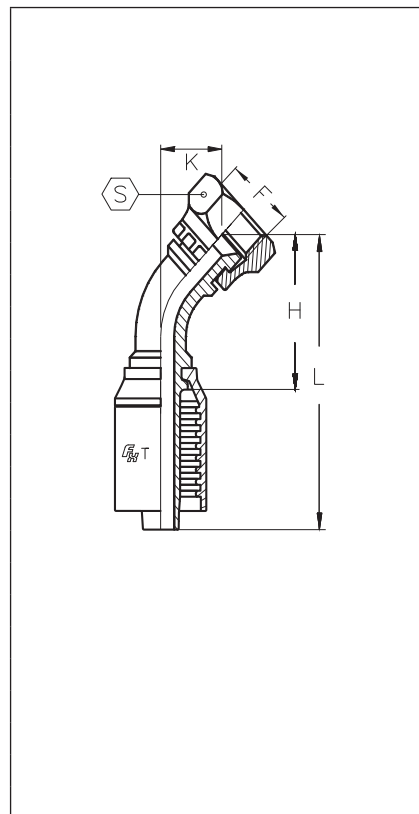
Reference Hose Section for Coupling Compatibility

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



FJ45

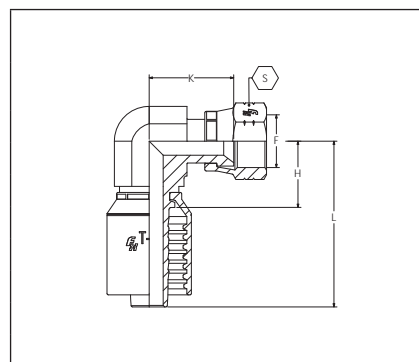
JIC 37° FEMALE SWIVEL - 45° ELBOW



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
T03-04FJ45	3/16	7/16 - 20	29.0	1.14	54.0	2.13	12.0	0.47	14	9/16
T04-04FJ45	1/4	7/16 - 20	31.0	1.22	59.0	2.32	12.0	0.47	14	9/16
T04-05FJ45	1/4	1/2 - 20	32.0	1.26	60.0	2.36	12.5	0.49	17	11/16
T04-06FJ45	1/4	9/16 - 18	33.0	1.30	61.0	2.40	13.5	0.53	19	3/4
T05-05FJ45	5/16	1/2 - 20	33.0	1.30	61.0	2.40	12.5	0.49	17	11/16
T05-06FJ45	5/16	9/16 - 18	34.0	1.34	62.0	2.44	12.5	0.49	19	3/4
T06-04FJ45	3/8	7/16 - 20	31.0	1.22	61.5	2.42	12.0	0.47	14	9/16
T06-06FJ45	3/8	9/16 - 18	35.5	1.40	66.0	2.60	13.5	0.53	19	3/4
T06-08FJ45	3/8	3/4 - 16	37.5	1.48	68.0	2.68	15.0	0.59	22	7/8
T08-06FJ45	1/2	9/16 - 18	38.5	1.52	71.5	2.81	14.0	0.55	19	3/4
T08-08FJ45	1/2	3/4 - 16	41.0	1.61	74.0	2.91	16.0	0.63	22	7/8
T08-10FJ45	1/2	7/8 - 14	43.0	1.69	76.0	2.99	17.5	0.69	27	11/16
T08-12FJ45	1/2	1 1/16 - 12	46.0	1.81	79.0	3.11	19.5	0.77	32	1 1/4
T10-10FJ45	5/8	7/8 - 14	47.2	1.86	83.0	3.27	17.0	0.67	27	11/16
T10-12FJ45	5/8	1 1/16 - 12	50.2	1.98	86.0	3.38	19.5	0.77	32	1 1/4
T12-10FJ45	3/4	7/8 - 14	48.0	1.89	88.5	3.48	17.0	0.67	27	11/16
T12-12FJ45	3/4	1 1/16 - 12	57.0	2.24	97.5	3.84	20.0	0.79	32	1 1/4
T12-14FJ45	3/4	1 3/16 - 12	59.5	2.34	100.0	3.94	22.0	0.87	36	1 1/2
T12-16FJ45	3/4	1 5/16 - 12	61.0	2.40	101.5	4.00	24.0	0.95	38	1 1/2
T16-12FJ45	1	1 1/16 - 12	58.5	2.03	109.5	4.31	4.31	20.0	32	1 1/4
T16-16FJ45	1	1 5/16 - 12	72.0	2.83	123.0	4.84	24.0	0.95	38	1 1/2
T16-20FJ45	1	1 5/8 - 12	76.0	2.99	127.0	5.00	28.0	1.10	50	2

FJ90B

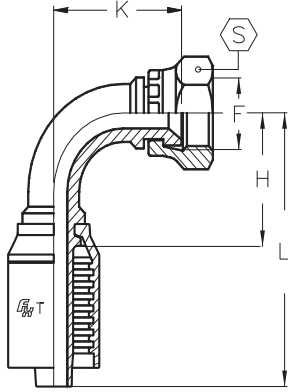
JIC 37° FEMALE SWIVEL - 90° COMPACT ELBOW



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
T04-04FJ90B	1/4	7/16 - 20	19.0	0.75	47.0	1.85	20.5	0.81	14	9/16
T04-06FJ90B	1/4	9/16 - 18	35.0	1.38	63.0	2.48	22.6	0.89	19	3/4
T06-06FJ90B	3/8	9/16 - 18	19.5	0.77	50.0	1.97	22.6	0.89	19	3/4
T06-08FJ90B	3/8	3/4 - 16	21.0	0.83	51.5	2.03	23.3	0.92	22	7/8
T08-08FJ90B	1/2	3/4 - 16	21.0	0.83	54.0	2.13	23.3	0.92	22	7/8
T08-10FJ90B	1/2	7/8 - 14	27.0	1.06	60.0	2.36	26.9	1.06	27	1 1/16
T12-12FJ90B	3/4	1 1/16 - 12	31.5	1.24	72.0	2.83	31.0	1.22	32	1 1/4
T16-16FJ90B	1	1 5/16 - 12	38.0	1.50	89.0	3.50	36.0	1.42	38	1 1/2


Reference Hose Section for Coupling Compatibility

⚠ WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
T03-04FJ90S	3/16	7/16 - 20	21.0	0.83	46.0	1.81	18.0	0.71	14	9/16
T04-04FJ90S	1/4	7/16 - 20	25.5	1.00	53.5	2.11	20.0	0.79	14	9/16
T04-05FJ90S	1/4	1/2 - 20	25.5	1.00	53.5	2.11	21.0	0.83	17	11/16
T04-06FJ90S	1/4	9/16 - 18	25.5	1.00	53.5	2.11	23.0	0.91	19	3/4
T05-05FJ90S	5/16	1/2 - 20	28.0	1.10	56.0	2.20	22.0	0.87	17	11/16
T05-06FJ90S	5/16	9/16 - 18	28.0	1.10	56.0	2.20	24.0	0.94	19	3/4
T06-04FJ90S	3/8	7/16 - 20	25.5	1.00	56.0	2.20	20.0	0.79	14	9/16
T06-06FJ90S	3/8	9/16 - 18	30.0	1.18	60.5	2.38	23.0	0.91	19	3/4
T06-08FJ90S	3/8	3/4 - 16	31.0	1.22	61.5	2.42	29.0	1.14	22	7/8
T08-08FJ90S	1/2	3/4 - 16	37.0	1.46	70.0	2.76	29.0	1.14	22	7/8
T08-06FJ90S	1/2	9/16 - 18	30.5	1.20	63.5	2.50	23.0	0.91	19	3/4
T08-10FJ90S	1/2	7/8 - 14	38.0	1.50	71.0	2.80	33.0	1.30	27	1 1/16
T08-12FJ90S	1/2	1 1/16 - 12	40.0	1.57	73.0	2.87	40.0	1.57	32	1 1/4
T10-10FJ90S	5/8	7/8 - 14	43.0	1.69	79.0	3.11	32.0	1.26	27	1 1/16
T10-12FJ90S	5/8	1 1/16 - 12	45.0	1.77	81.0	3.19	40.0	1.57	32	1 1/4
T12-10FJ90S	3/4	7/8 - 14	44.0	1.73	84.5	3.33	33.0	1.30	27	1 1/16
T12-12FJ90S	3/4	1 1/16 - 12	55.0	2.17	95.5	3.76	43.0	1.69	32	1 1/4
T12-14FJ90S	3/4	1 3/16 - 12	54.5	2.15	95.0	3.74	47.0	1.85	36	1 7/16
T12-16FJ90S	3/4	1 5/16 - 12	54.5	2.15	95.0	3.74	49.0	1.93	38	1 1/2
T16-16FJ90S	1	1 5/16 - 12	71.0	2.80	122.0	4.80	56.0	2.20	38	1 1/2
T16-20FJ90S	1	1 5/8 - 12	71.0	2.80	122.0	4.80	61.0	2.40	50	2

Reference Hose Section for Coupling Compatibility

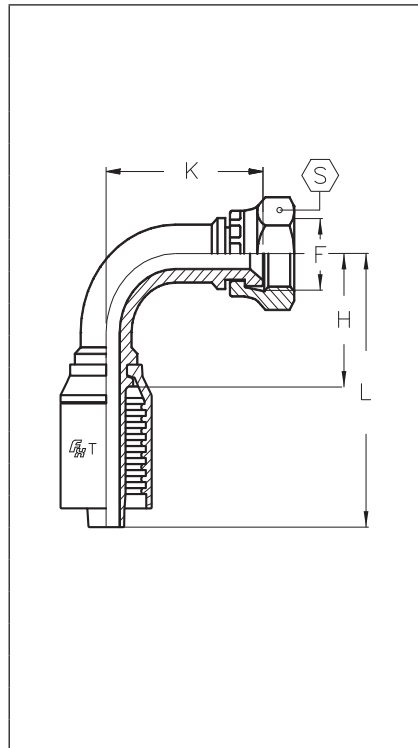
 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





FJ90M

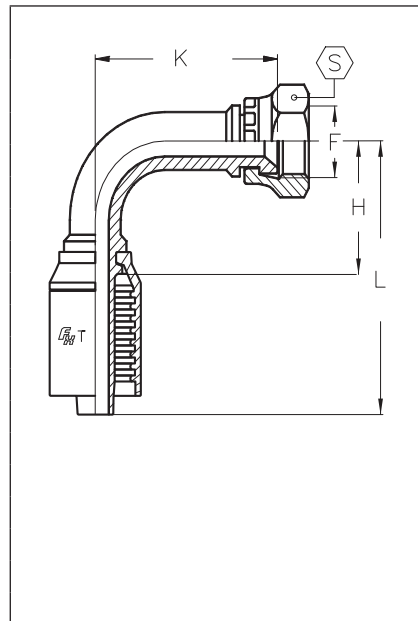
JIC 37° FEMALE SWIVEL - 90° ELBOW MEDIUM DROP



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
T03-04FJ90M	3/16	7/16 - 20	21.0	0.83	46.0	1.81	21.0	0.83	14	9/16
T04-04FJ90M	1/4	7/16 - 20	25.5	1.00	53.5	2.11	26.0	1.02	14	9/16
T04-05FJ90M	1/4	1/2 - 20	25.5	1.00	53.5	2.11	26.0	1.02	17	1 1/16
T04-06FJ90M	1/4	9/16 - 18	25.5	1.00	53.5	2.11	27.0	1.06	19	3/4
T05-05FJ90M	5/16	1/2 - 20	28.0	1.10	56.0	2.20	29.0	1.14	17	1 1/16
T05-06FJ90M	5/16	9/16 - 18	28.0	1.10	56.0	2.20	29.0	1.14	19	3/4
T06-06FJ90M	3/8	9/16 - 18	31.0	1.22	61.5	2.42	33.0	1.30	19	3/4
T06-08FJ90M	3/8	3/4 - 16	31.0	1.22	61.5	2.42	33.0	1.30	22	7/8
T08-08FJ90M	1/2	3/4 - 16	37.0	1.46	70.0	2.75	39.0	1.53	22	7/8
T08-10FJ90M	1/2	7/8 - 14	37.0	1.46	70.0	2.75	40.0	1.57	27	1 1/16
T08-12FJ90M	1/2	1 1/16 - 12	37.0	1.46	70.0	2.76	45.0	1.77	32	1 1/4
T10-10FJ90M	5/8	7/8 - 14	45.0	1.77	81.0	3.19	45.0	1.77	27	1 1/16
T10-12FJ90M	5/8	1 1/16 - 12	45.0	1.77	81.0	3.19	47.0	1.85	32	1 1/4
T12-10FJ90M	3/4	7/8 - 14	46.0	1.81	86.5	3.41	55.0	2.17	27	1 1/16
T12-12FJ90M	3/4	1 1/16 - 12	55.0	2.16	95.0	3.74	53.0	2.09	32	1 1/4
T12-14FJ90M	3/4	1 3/16 - 12	55.0	2.16	95.0	3.74	54.0	2.12	36	1 7/16
T12-16FJ90M	3/4	1 5/16 - 12	55.0	2.16	95.0	3.74	56.0	2.20	38	1 1/2
T16-12FJ90M	1	1 1/16 - 12	71.0	2.79	122.0	4.80	71.0	2.79	32	1 1/4
T16-16FJ90M	1	1 5/16 - 12	71.0	2.79	122.0	4.80	70.0	2.75	38	1 1/2
T16-20FJ90M	1	1 5/8 - 12	71.0	2.80	122.0	4.80	70.0	2.76	50	2

FJ90L

JIC 37° FEMALE SWIVEL - 90° ELBOW LONG DROP



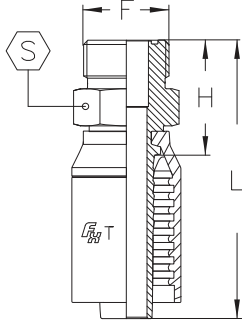
PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
T03-04FJ90L	3/16	7/16 - 20	21.0	0.83	46.0	1.81	46.0	1.81	14	9/16
T04-04FJ90L	1/4	7/16 - 20	25.5	1.00	53.5	2.11	46.0	1.81	14	9/16
T04-05FJ90L	1/4	1/2 - 20	25.5	1.00	53.5	2.11	46.0	1.81	17	1 1/16
T04-06FJ90L	1/4	9/16 - 18	25.5	1.00	53.5	2.11	54.0	2.12	19	3/4
T05-05FJ90L	5/16	1/2 - 20	28.0	1.10	56.0	2.20	46.0	1.81	17	1 1/16
T05-06FJ90L	5/16	9/16 - 18	28.0	1.10	56.0	2.20	24.0	2.13	19	3/4
T06-04FJ90L	3/8	7/16 - 20	25.5	1.00	56.0	1.23	46.0	1.81	14	9/16
T06-06FJ90L	3/8	9/16 - 18	31.0	1.22	61.5	2.42	54.0	2.12	19	3/4
T06-08FJ90L	3/8	3/4 - 16	31.0	1.22	61.5	2.42	64.0	2.52	22	7/8
T08-08FJ90L	1/2	3/4 - 16	38.0	1.50	71.0	2.79	64.0	2.52	22	7/8
T08-10FJ90L	1/2	7/8 - 14	38.0	1.50	71.0	2.79	70.0	2.75	27	1 1/16
T10-10FJ90L	5/8	7/8 - 14	45.0	1.77	81.0	3.19	70.0	2.75	27	1 1/16
T10-12FJ90L	5/8	1 1/16 - 12	45.0	1.77	81.0	3.19	96.0	3.78	32	1 1/4
T12-12FJ90L	3/4	1 1/16 - 12	55.0	2.16	95.0	3.74	96.0	3.78	32	1 1/4
T12-16FJ90L	3/4	1 5/16 - 12	55.0	2.16	95.0	3.74	114.0	4.49	38	1 1/2
T16-16FJ90L	1	1 5/16 - 12	71.0	2.79	122	4.80	114.0	4.49	38	1 1/2

Reference Hose Section for Coupling Compatibility

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

MF

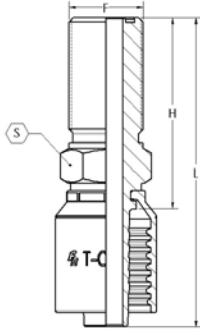
ORFS MALE



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
T04-04MF	¼	9/16 - 18	24.0	0.94	52.0	2.05	17	1 1/16
T04-06MF	¼	1 1/16 - 16	26.5	1.05	54.5	2.15	19	3/4
T06-06MF	3/8	1 1/16 - 16	26.0	1.02	56.5	2.22	19	3/4
T06-08MF	3/8	1 3/16 - 16	28.0	1.10	58.5	2.30	22	7/8
T08-10MF	3/8	1 - 14	32.5	1.28	63.0	2.48	27	1 1/16
T08-08MF	1/2	1 3/16 - 16	29.0	1.14	62.0	2.44	22	7/8
T08-10MF	1/2	1 - 14	33.5	1.32	66.5	2.62	27	1 1/16
T08-12MF	1/2	1 3/16 - 12	35.0	1.38	68.0	2.68	32	1 1/4
T10-10MF	5/8	1 - 14	33.7	1.33	69.5	2.74	27	1 1/16
T10-12MF	5/8	1 3/16 - 12	35.2	1.39	71.0	2.80	32	1 1/4
T12-12MF	3/4	1 3/16 - 12	26.5	1.48	77.0	3.03	32	1 1/4
T12-16MF	3/4	1 7/16 - 12	37.0	1.46	77.5	3.05	41	1 5/8
T16-16MF	1	1 7/16 - 12	42.0	1.65	93.0	3.66	41	1 5/8

MFK

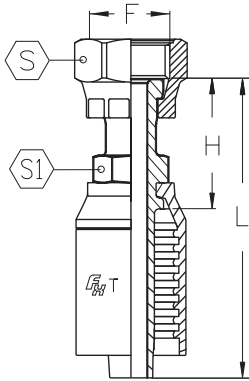
ORFS MALE BULKHEAD



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
T06-06MFK	3/8	1 1/16 - 16	48.8	1.92	79.3	3.12	19	3/4
T08-06MFK	1/2	1 1/16 - 16	49.8	1.96	82.8	3.26	19	3/4
T08-08MFK	1/2	1 3/16 - 16	53.0	2.09	86.0	3.39	22	7/8

FF

ORFS FEMALE SWIVEL



PART NUMBER	Hose Bore	F	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
T03-04FF	3/16	9/16 - 18	26.0	1.02	51.0	2.01	17	1 1/16	14	9/16
T04-04FF	¼	9/16 - 18	26.5	1.04	54.5	2.14	17	1 1/16	14	9/16
T04-06FF	¼	1 1/16 - 16	28.5	1.12	56.5	2.22	22	7/8	16	5/8
T04-08FF	¼	1 3/16 - 16	32.5	1.27	60.5	2.38	24	1 5/16	19	3/4
T05-06FF	5/16	1 1/16 - 16	28.5	1.12	56.5	2.22	22	7/8	16	5/8
T06-04FF	3/8	9/16 - 18	26.5	1.04	57.0	2.24	17	1 1/16	16	5/8
T06-06FF	3/8	1 1/16 - 16	28.5	1.12	59.0	2.32	22	7/8	16	5/8
T06-08FF	3/8	1 3/16 - 16	32.5	1.27	63.0	2.48	24	1 5/16	19	3/4
T06-10FF	3/8	1 - 14	38.5	1.52	69.0	2.71	30	1 3/16	24	1 5/16
T08-06FF	1/2	1 1/16 - 16	30.5	1.20	63.5	2.50	22	7/8	19	3/4
T08-08FF	1/2	1 3/16 - 16	33.5	1.31	66.5	2.61	24	1 5/16	19	3/4
T08-10FF	1/2	1 - 14	39.5	1.55	72.5	2.85	30	1 3/16	24	1 5/16
T08-12FF	1/2	1 3/16 - 12	43.5	1.71	76.5	3.01	36	1 7/16	27	1 1/16
T10-10FF	5/8	1 - 14	39.5	1.55	75.5	2.97	30	1 3/16	24	1 5/16
T10-12FF	5/8	1 3/16 - 12	43.7	1.72	79.5	3.12	36	1 7/16	27	1 1/16
T12-10FF	3/4	1 - 14	41.5	1.63	82.0	3.22	30	1 3/16	27	1 1/16
T12-12FF	3/4	1 3/16 - 12	44.5	1.75	85.0	3.34	36	1 7/16	27	1 1/16
T12-16FF	3/4	1 7/16 - 12	47.5	1.87	88.0	3.46	41	1 5/8	36	1 7/16
T16-12FF	1	1 3/16 - 12	47.0	1.85	98.0	3.85	36	1 7/16	32	1 1/4
T16-16FF	1	1 7/16 - 12	49.0	1.92	100.0	3.93	41	1 5/8	36	1 7/16
T16-20FF	1	1 11/16 - 16	51.0	2.01	102.0	4.02	50	2	41	1 5/8

Reference Hose Section for Coupling Compatibility

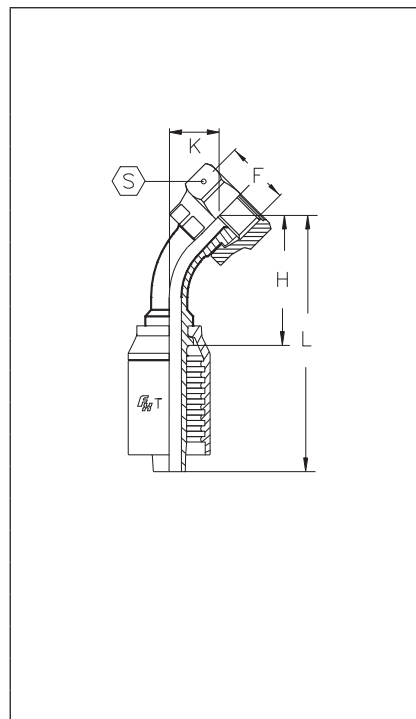
WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





FF45

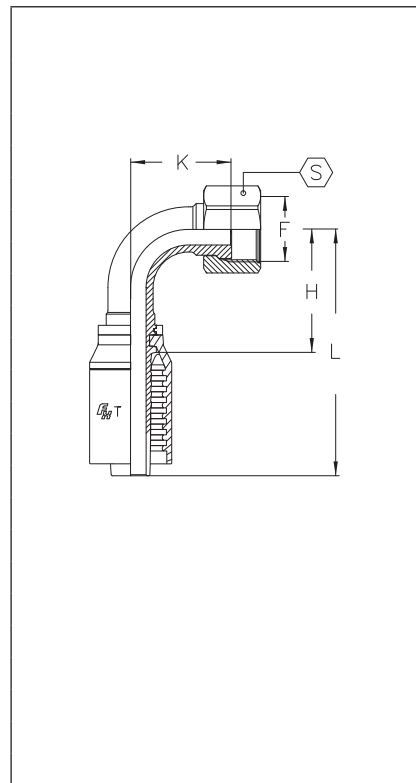
ORFS FEMALE SWIVEL - 45° ELBOW



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
T03-04FF45	3/16	9/16 - 18	32.5	1.27	57.5	2.26	10.5	0.41	17	11/16
T04-04FF45	1/4	9/16 - 18	32.5	1.27	60.5	2.38	10.5	0.41	17	11/16
T04-06FF45	1/4	11/16 - 16	34.5	1.35	62.5	2.46	12.5	0.49	22	7/8
T05-06FF45	5/16	11/16 - 16	35.0	1.37	63.0	2.48	12.5	0.49	22	7/8
T06-04FF45	3/8	9/16 - 18	36.5	1.44	67.0	2.64	13.0	0.51	17	11/16
T06-06FF45	3/8	11/16 - 16	36.0	1.41	67.0	2.64	12.5	0.49	22	7/8
T06-08FF45	3/8	13/16 - 16	38.5	1.51	69.5	2.74	15.0	0.59	24	15/16
T08-06FF45	1/2	11/16 - 16	38.0	1.50	71.0	2.80	17.0	0.67	22	7/8
T08-08FF45	1/2	13/16 - 16	42.5	1.67	75.5	2.97	15.5	0.61	24	15/16
T08-10FF45	1/2	1 - 14	45.0	1.77	78.0	3.07	17.5	0.68	30	13/16
T08-12FF45	1/2	13/16 - 12	47.0	1.85	80.0	3.14	20.5	0.80	36	17/16
T10-08FF45	5/8	13/16 - 16	42.7	1.68	78.5	3.09	15.5	0.61	24	15/16
T10-10FF45	5/8	1 - 14	49.0	1.92	85.0	3.34	18.0	0.70	30	13/16
T10-12FF45	5/8	13/16 - 12	51.5	2.02	87.5	3.44	20.5	0.80	36	17/16
T12-10FF45	3/4	1 - 14	63.5	2.50	104.0	4.09	25.5	1.00	30	13/16
T12-12FF45	3/4	13/16 - 12	58.0	2.28	99.0	3.89	21.0	0.82	36	17/16
T12-16FF45	3/4	17/16 - 12	60.5	2.38	101.0	3.97	23.5	0.92	41	15/8
T16-12FF45	1	13/16 - 12	59.0	2.32	110.0	4.33	21.0	0.82	36	17/16
T16-16FF45	1	17/16 - 12	73.0	2.87	124.0	4.88	24.0	0.94	41	15/8

FF90S

ORFS FEMALE SWIVEL - 90° ELBOW SHORT DROP



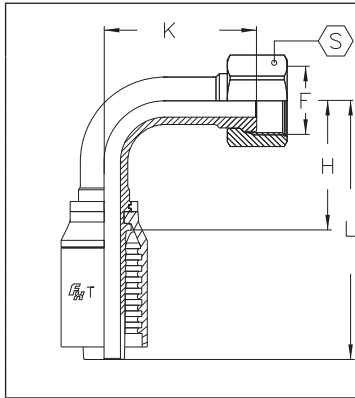
PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
T03-04FF90S	3/16	9/16 - 18	27.0	1.06	52.0	2.05	21.0	0.82	17	11/16
T04-04FF90S	1/4	9/16 - 18	27.0	1.06	55.0	2.17	21.0	0.82	17	11/16
T04-06FF90S	1/4	11/16 - 16	27.0	1.06	55.0	2.17	24.0	0.94	22	7/8
T04-08FF90S	1/4	13/16 - 16	38.5	1.52	66.5	2.62	31.0	1.22	24	15/16
T05-06FF90S	5/16	11/16 - 16	29.0	1.14	57.0	2.24	25.0	0.98	22	7/8
T06-04FF90S	3/8	9/16 - 18	30.0	1.18	60.5	2.38	22.0	0.87	17	11/16
T06-06FF90S	3/8	11/16 - 16	31.5	1.24	62.0	2.44	24.5	0.96	22	7/8
T06-08FF90S	3/8	13/16 - 16	30.5	1.20	61.0	2.40	30.0	1.18	24	15/16
T08-06FF90S	1/2	11/16 - 16	37.0	1.46	70.0	2.76	24.5	0.96	22	7/8
T08-08FF90S	1/2	13/16 - 16	39.0	1.54	72.0	2.83	31.0	1.22	24	15/16
T08-10FF90S	1/2	1 - 14	39.0	1.54	72.0	2.83	34.0	1.34	30	13/16
T08-12FF90S	1/2	13/16 - 12	39.0	1.54	72.0	2.83	42.0	1.65	36	17/16
T10-08FF90S	5/8	13/16 - 16	39.2	1.54	75.0	2.95	31.0	1.22	24	15/16
T10-10FF90S	5/8	1 - 14	45.0	1.77	81.0	3.19	35.0	1.38	30	13/16
T10-12FF90S	5/8	13/16 - 12	45.0	1.77	81.0	3.19	42.0	1.65	36	17/16
T12-10FF90S	3/4	1 - 14	43.0	1.69	83.5	3.29	35.0	1.38	30	13/16
T12-12FF90S	3/4	13/16 - 12	55.0	2.17	95.0	3.74	45.0	1.77	36	17/16
T12-16FF90S	3/4	17/16 - 12	55.0	2.17	95.0	3.74	49.0	1.93	41	15/8
T16-12FF90S	1	13/16 - 12	55.0	2.17	106.0	4.17	45.0	1.77	36	17/16
T16-16FF90S	1	17/16 - 12	71.0	2.79	122.0	4.80	55.0	2.17	41	15/8
T16-20FF90S	1	111/16 - 16	71.0	2.79	122.0	4.80	58.0	2.28	50	2

Reference Hose Section for Coupling Compatibility

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FF90L

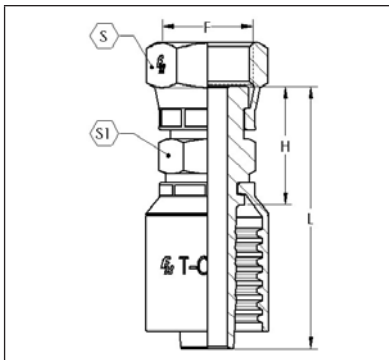
ORFS FEMALE SWIVEL - 90° ELBOW LONG DROP



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
T04-04FF90L	1/4	9/16 - 18	29.0	1.14	57.0	2.24	46.0	1.81	17	11/16
T04-06FF90L	1/4	11/16 - 16	27.0	1.06	55.0	2.16	54.0	2.12	22	7/8
T06-06FF90L	3/8	11/16 - 16	34.0	1.33	64.5	2.53	54.0	2.12	22	7/8
T06-08FF90L	3/8	13/16 - 16	34.0	1.33	64.5	2.53	64.0	2.51	24	15/16
T08-08FF90L	1/2	13/16 - 16	39.0	1.53	72.0	2.83	64.0	2.51	24	15/16
T08-10FF90L	1/2	1 - 14	39.0	1.53	72.0	2.83	70.0	2.75	30	13/16
T10-10FF90L	5/8	1 - 14	45.0	1.77	81.0	3.18	70.0	2.75	30	13/16
T12-12FF90L	3/4	13/16 - 12	55.0	2.17	95.0	3.70	96.0	3.77	36	17/16
T16-16FF90L	1	17/16 - 12	71.0	2.79	122.0	4.76	114.0	4.48	41	15/8

FFC

ORFS FEMALE SWIVEL - COMPACT



PART NUMBER	Hose Bore	F	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
T06-06FFC	3/8	11/16 - 16	21.5	0.85	52.0	2.05	22	7/8	16	5/8
T06-08FFC	3/8	13/16 - 16	26.0	1.02	56.5	2.22	24	15/16	19	3/4
T08-08FFC	1/2	13/16 - 16	27.0	1.06	60.0	2.36	24	15/16	19	3/4
T10-10FFC	5/8	1 - 14	31.2	1.23	67.0	2.64	30	13/16	24	15/16
T10-12FFC	5/8	13/16 - 12	35.2	1.39	71.0	2.80	36	17/16	27	11/16

Reference Hose Section for Coupling Compatibility

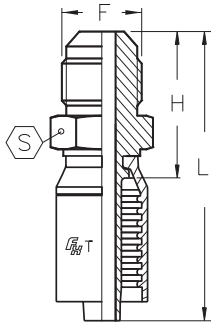
WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



MA

SAE 45° MALE

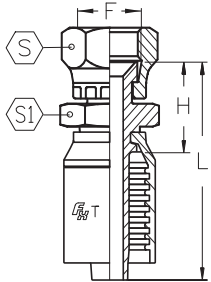
PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
T06-06MA	3/8	5/8 - 18	28.2	1.11	58.7	2.21	16	5/8
T12-12MA	3/4	1 1/16 - 14	43.5	1.71	84.0	3.31	27	1 1/16



FA

SAE 45° FEMALE SWIVEL

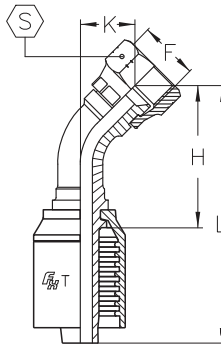
PART NUMBER	Hose Bore	F	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
T04-06FA	1/4	5/8 - 18	23.0	0.90	51.0	2.01	22	7/8	16	5/8
T05-06FA	5/16	5/8 - 18	23.0	0.90	51.0	2.01	22	7/8	16	5/8
T06-06FA	3/8	5/8 - 18	23.0	0.90	53.5	2.11	22	7/8	16	5/8
T10-12FA	5/8	1 1/16 - 14	31.0	1.22	66.8	2.63	32	1 1/4	25	1
T12-12FA	3/4	1 1/16 - 14	31.8	1.25	72.3	3.27	32	1 1/4	27	1 1/16



FA45

SAE 45° FEMALE SWIVEL - 45° ELBOW

PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
T06-06FA45	3/8	5/8 - 18	39.0	1.53	69.5	2.74	16.0	0.63	22	7/8
T12-12FA45	3/4	1 1/16 - 14	62.5	2.46	103.0	4.05	25.0	0.98	32	1 1/4

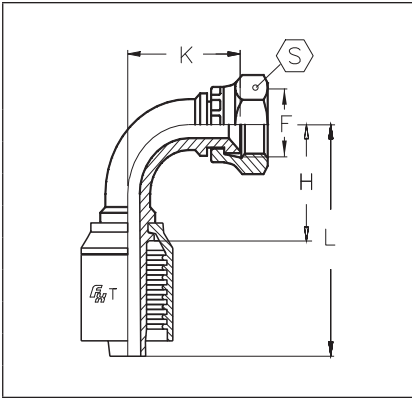


Reference Hose Section for Coupling Compatibility

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FA90

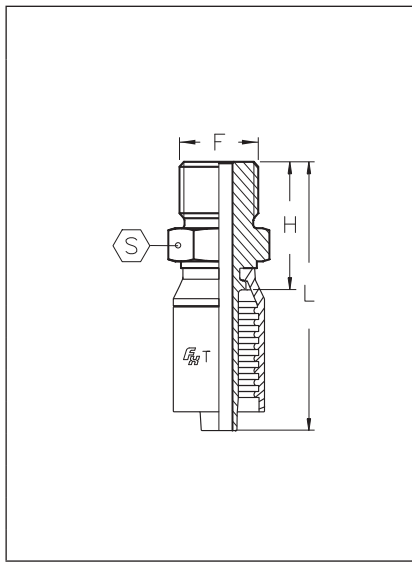
SAE 45° FEMALE SWIVEL - 90° ELBOW



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
T06-06FA90	3/8	5/8 - 18	31.0	1.22	61.0	2.40	31.0	1.22	22	7/8
T12-12FA90	3/4	1 1/16 - 14	54.5	2.15	95.0	3.74	51.0	2.01	32	1 1/4

MOB

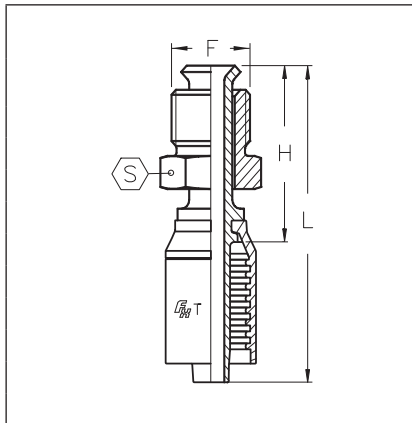
O-RING BOSS MALE



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
T04-04MOB	1/4	7/16 - 20	24.0	0.94	52.0	2.05	14	9/16
T04-05MOB	1/4	1/2 - 20	24.0	0.94	52.0	2.05	16	5/8
T04-06MOB	1/4	9/16 - 18	25.5	1.00	53.5	2.11	17	1 1/16
T06-06MOB	3/8	9/16 - 18	25.5	1.00	56.0	2.20	17	1 1/16
T06-08MOB	3/8	3/4 - 16	28.5	1.12	59.0	2.32	22	7/8
T06-10MOB	3/8	7/8 - 14	31.5	1.24	62.0	2.44	25	1
T08-08MOB	1/2	3/4 - 16	29.5	1.16	62.5	2.46	22	7/8
T08-10MOB	1/2	7/8 - 14	32.5	1.28	65.5	2.58	25	1
T08-12MOB	1/2	1 1/16 - 12	37.0	1.46	70.0	2.76	32	1 1/4
T10-10MOB	5/8	7/8 - 14	32.7	1.29	68.5	2.70	25	1
T10-12MOB	5/8	1 1/16 - 12	37.2	1.46	73.0	2.87	32	1 1/4
T12-12MOB	3/4	1 1/16 - 12	38.0	1.50	78.5	3.09	32	1 1/4
T12-16MOB	3/4	1 5/16 - 12	39.5	1.56	80.0	3.15	38	1 1/2
T16-16MOB	1	1 5/16 - 12	41.0	1.61	92.0	3.62	38	1 1/2

MIX

SAE INVERTED FLARE MALE SWIVEL



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
T04-03MIX	1/4	3/8 - 24	38.5	1.52	66.5	2.62	10	3/8
T04-04MIX	1/4	7/16 - 24	39.0	1.54	67.0	2.64	11	7/16
T04-05MIX	1/4	1/2 - 20	42.2	1.66	70.2	2.76	12	1/2
T06-04MIX	3/8	7/16 - 24	40.0	1.57	70.5	2.78	11	7/16
T06-05MIX	3/8	1/2 - 20	42.5	1.67	73.0	2.87	12	1/2
T06-06MIX	3/8	5/8 - 18	43.7	1.72	74.2	2.92	16	5/8
T06-07MIX	3/8	1 1/16 - 18	45.7	1.80	76.2	3.00	17	1 1/16
T06-08MIX	3/8	3/4 - 18	48.5	1.91	79.0	3.11	19	3/4
T08-08MIX	1/2	3/4 - 18	49.0	1.93	82.0	3.23	19	3/4
T08-10MIX	1/2	7/8 - 18	52.3	2.06	85.3	3.36	22	7/8

Reference Hose Section for Coupling Compatibility

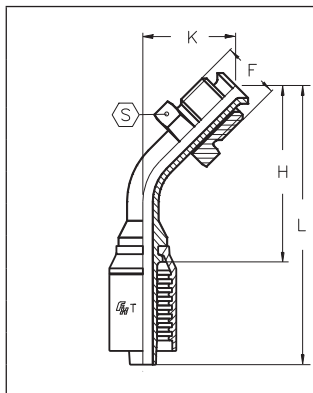
! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





MIX45

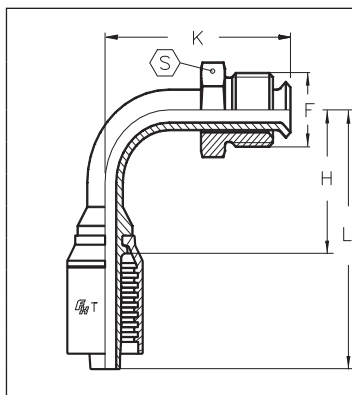
SAE INVERTED FLARE MALE SWIVEL - 45° ELBOW



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
T04-03MIX45	¼	⅜ - 24	41.5	1.63	69.5	2.74	13.5	0.53	10	⅜
T04-04MIX45	¼	7/16 - 24	52.0	2.05	80.0	3.15	14.5	0.57	11	7/16
T04-05MIX45	¼	½ - 20	52.0	2.05	80.0	3.15	16.5	0.65	12	½
T06-04MIX45	⅜	7/16 - 24	52.0	2.05	82.5	3.25	14.5	0.57	11	7/16
T06-05MIX45	⅜	½ - 20	50.0	1.97	80.5	3.17	16.5	0.65	12	½
T06-06MIX45	⅜	5/8 - 18	52.5	2.07	83.0	3.27	18.0	0.71	16	5/8
T06-07MIX45	⅜	11/16 - 18	57.5	2.26	88.0	3.46	19.3	0.76	17	11/16
T06-08MIX45	⅜	¾ - 18	63.0	2.48	93.5	3.68	21.6	0.85	19	¾
T08-08MIX45	½	¾ - 18	65.0	2.56	98.0	3.86	21.5	0.85	19	¾

MIX90

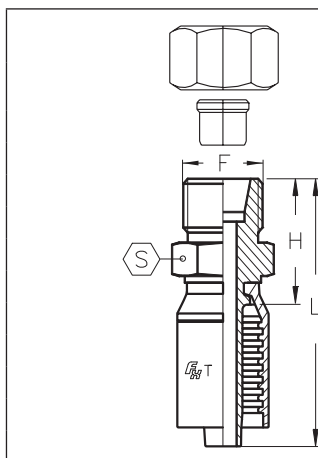
SAE INVERTED FLARE MALE SWIVEL - 90° ELBOW



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
T04-03MIX90	¼	⅜ - 24	32.5	1.28	60.5	2.38	24.5	0.96	10	⅜
T04-04MIX90	¼	7/16 - 24	40.5	1.59	68.5	2.70	28.0	1.10	11	7/16
T04-05MIX90	¼	½ - 20	42.7	1.68	70.7	2.78	32.5	1.28	12	½
T06-04MIX90	⅜	7/16 - 24	40.5	1.59	71.0	2.80	28.0	1.10	11	7/16
T06-05MIX90	⅜	½ - 20	43.5	1.71	74.0	2.91	32.5	1.28	12	½
T06-06MIX90	⅜	5/8 - 18	48.3	1.90	78.8	3.10	36.8	1.45	16	5/8
T06-07MIX90	⅜	11/16 - 18	53.3	2.10	83.8	3.30	40.5	1.59	17	11/16
T06-08MIX90	⅜	¾ - 18	55.5	2.19	86.0	3.39	45.2	1.78	19	¾
T08-08MIX90	½	¾ - 18	56.0	2.20	89.0	3.50	45.2	1.78	19	¾

MRNS

SAE FLARELESS MALE ASSEMBLY



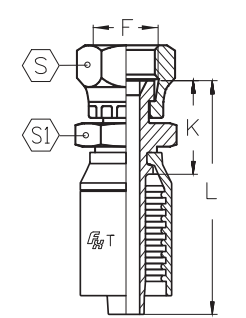
PART NUMBER	Hose Bore	F	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
T04-04MRNS	¼	7/16 - 20	23.0	0.91	51.0	2.01	14	9/16	14	9/16
T04-05MRNS	¼	½ - 20	25.0	0.98	53.0	2.09	17	11/16	16	5/8
T06-05MRNS	⅜	½ - 20	25.0	0.98	55.5	2.19	17	11/16	16	5/8
T06-06MRNS	⅜	9/16 - 18	25.0	0.98	55.5	2.19	17	11/16	17	11/16
T06-08MRNS	⅜	¾ - 16	28.0	1.10	58.5	2.30	19	¾	22	7/8
T08-08MRNS	½	¾ - 16	28.3	1.11	61.3	2.41	19	¾	22	7/8
T08-10MRNS	½	7/8 - 14	30.4	1.20	63.4	2.50	24	1	25	1
T08-12MRNS	½	1 1/16 - 12	33.0	1.30	66.0	2.60	27	1 1/16	32	1 1/4
T12-12MRNS	¾	1 1/16 - 12	34.2	1.35	74.7	2.94	27	1 1/16	32	1 1/4
T16-16MRNS	1	1 5/16 - 12	36.7	1.44	97.7	3.45	36	1 7/16	38	1 1/2

Reference Hose Section for Coupling Compatibility

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FJIS

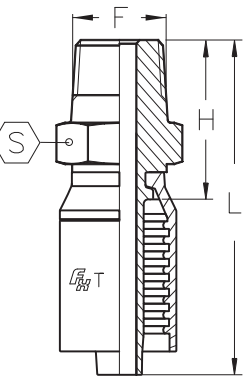
JIS FEMALE SWIVEL (TOYOTA)



PART NUMBER	Hose Bore	F	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
T04-04FJIS	¼	¼ - 19	21.5	0.85	49.5	1.95	19	¾	17	1¼ ₁₆
T06-06FJIS	¾	¾ - 19	22.5	0.89	53.0	2.09	22	7 ₈	19	¾
T08-08FJIS	½	½ - 14	26.0	1.02	59.0	2.32	27	1¼ ₁₆	22	7 ₈
T12-12FJIS	¾	¾ - 14	31.0	1.22	71.5	2.81	32	1¼	27	1¼ ₁₆
T16-16FJIS	1	1 - 11	36.0	1.42	87.0	3.43	41	1½ ₈	36	1¼ ₁₆

MBSPT

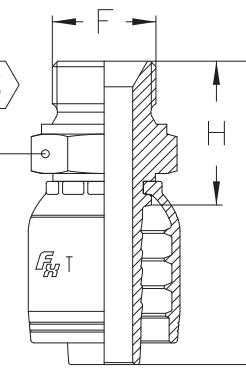
BSPT MALE



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
T04-02MBSPT	¼	1/8 - 28	21.0	0.83	49.0	1.93	12	½
T04-04MBSPT	¼	¼ - 19	25.0	0.98	53.0	2.09	15	5/8
T04-06MBSPT	¼	3/8 - 19	26.0	1.02	54.0	2.12	19	¾
T05-06MBSPT	5/16	3/8 - 19	26.0	1.02	54.0	2.12	19	¾
T06-04MBSPT	3/8	¼ - 19	26.0	1.02	56.5	2.22	15	5/8
T06-06MBSPT	3/8	3/8 - 19	27.0	1.06	57.5	2.26	19	¾
T06-08MBSPT	3/8	½ - 14	32.0	1.26	62.5	2.46	22	7/8
T08-06MBSPT	½	3/8 - 19	28.0	1.10	61.0	2.52	19	¾
T08-08MBSPT	½	½ - 14	33.0	1.30	66.0	2.60	22	7/8
T10-12MBSPT	5/8	¾ - 14	35.0	1.38	70.8	2.79	27	1¼ ₁₆
T12-12MBSPT	¾	¾ - 14	36.0	1.41	76.5	3.01	27	1¼ ₁₆
T16-16MBSPT	1	1 - 11	43.0	1.69	94.0	3.70	36	17/16

MBSPP

BSPP MALE



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
T04-02MBSPP	¼	1/8 - 28	20.0	0.79	48.0	1.89	14	9/16
T04-04MBSPP	¼	¼ - 19	25.0	0.98	53.0	2.09	19	¾
T04-06MBSPP	¼	3/8 - 19	27.0	1.06	55.0	2.16	22	7/8
T06-04MBSPP	3/8	¼ - 19	24.5	0.96	55.0	2.16	19	¾
T06-06MBSPP	3/8	3/8 - 19	27.5	1.08	58.0	2.28	22	7/8
T06-08MBSPP	3/8	½ - 14	31.5	1.24	62.0	2.44	27	1¼ ₁₆
T08-06MBSPP	½	3/8 - 19	28.0	1.10	61.0	2.40	22	7/8
T08-08MBSPP	½	½ - 14	33.0	1.30	66.0	2.60	27	1¼ ₁₆
T08-12MBSPP	½	¾ - 14	36.0	1.42	69.0	2.72	32	1¼
T12-12MBSPP	¾	¾ - 14	36.5	1.44	77.0	3.03	32	1¼
T12-16MBSPP	¾	1 - 11	41.5	1.63	82.0	3.23	41	1½ ₈
T16-16MBSPP	1	1 - 11	43.5	1.71	94.5	3.72	41	1½ ₈

Reference Hose Section for Coupling Compatibility

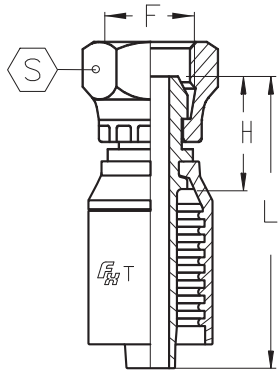
WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





FBSPP

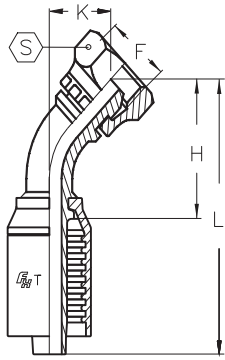
BSPP FEMALE SWIVEL



PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
T04-02FBSPP	¼	⅛ - 28	17.0	0.67	45.0	1.77	14	⅜
T04-04FBSPP	¼	¼ - 19	19.0	0.75	47.0	1.85	19	¾
T04-06FBSPP	¼	⅜ - 19	22.0	0.87	50.0	1.97	22	⅞
T05-06FBSPP	⅝	⅜ - 19	22.0	0.87	50.0	1.97	22	⅞
T05-08FBSPP	⅝	½ - 14	23.0	0.90	51.0	2.01	27	1 ⅛
T06-04FBSPP	⅝	¼ - 19	19.0	0.75	49.0	1.93	19	¾
T06-06FBSPP	⅝	⅜ - 19	21.0	0.83	51.0	2.01	22	⅞
T06-08FBSPP	⅝	½ - 14	23.0	0.90	54.0	2.12	27	1 ⅛
T08-06FBSPP	⅞	⅜ - 19	22.0	0.87	56.0	2.20	22	⅞
T08-08FBSPP	⅞	½ - 14	23.0	0.90	56.0	2.20	27	1 ⅛
T08-10FBSPP	⅞	⅝ - 14	24.0	0.94	57.0	2.24	30	1 ⅜
T08-12FBSPP	⅞	¾ - 14	27.0	1.06	60.0	2.36	32	1 ¼
T10-10FBSPP	⅞	⅝ - 14	23.0	0.90	59.0	2.32	30	1 ⅜
T10-12FBSPP	⅞	¾ - 14	27.0	1.06	63.0	2.48	32	1 ¼
T12-12FBSPP	⅞	¾ - 14	27.0	1.06	67.0	2.64	32	1 ¼
T12-16FBSPP	⅞	1 - 11	30.0	1.18	70.0	2.75	41	1 ⅝
T16-12FBSPP	1	¾ - 14	28.0	1.10	79.0	3.11	32	1 ¼
T16-16FBSPP	1	1 - 11	30.0	1.18	81.0	3.19	41	1 ⅝

FBSPP45

BSPP FEMALE SWIVEL - 45° ELBOW

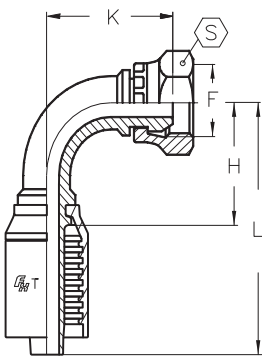


PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
T04-02FBSPP45	¼	⅛ - 28	36.0	1.42	64.0	2.52	16.0	0.63	14	⅜
T04-04FBSPP45	¼	¼ - 19	37.0	1.46	65.0	2.56	16.0	0.63	19	¾
T04-06FBSPP45	¼	⅜ - 19	40.0	1.57	68.0	2.68	19.0	0.75	22	⅞
T05-06FBSPP45	⅝	⅜ - 19	41.0	1.61	69.0	2.72	19.0	0.75	22	⅞
T06-06FBSPP45	⅝	⅜ - 19	42.0	1.65	73.0	2.87	19.0	0.75	22	⅞
T06-08FBSPP45	⅝	½ - 14	44.0	1.73	75.0	2.95	21.0	0.83	27	1 ⅛
T08-08FBSPP45	⅞	½ - 14	49.0	1.93	82.0	3.23	22.0	0.87	27	1 ⅛
T08-10FBSPP45	⅞	⅝ - 14	49.0	1.93	82.0	3.23	22.0	0.87	30	1 ⅜
T10-10FBSPP45	⅞	⅝ - 14	54.0	2.12	90.0	3.54	24.0	0.94	30	1 ⅜
T10-12FBSPP45	⅞	¾ - 14	57.0	2.24	93.0	3.66	26.0	1.02	32	1 ¼
T12-12FBSPP45	⅞	¾ - 14	66.0	2.60	106.0	4.17	28.0	1.10	32	1 ¼
T16-16FBSPP45	1	1 - 11	84.0	3.31	135.0	5.31	36.0	1.42	41	1 ⅝

Reference Hose Section for Coupling Compatibility

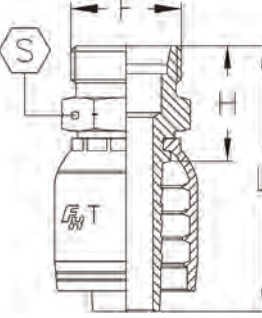
⚠ WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FBSPP90 BSPP FEMALE SWIVEL - 90° ELBOW



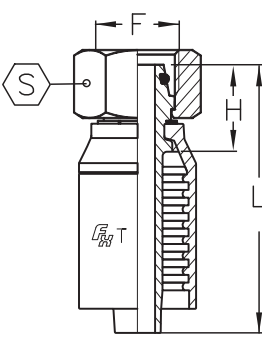
PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
T04-02FBSPP90	¼	⅝ - 28	26.0	1.02	54.0	2.12	28.0	1.10	14	⅝
T04-04FBSPP90	¼	¼ - 19	26.0	1.02	54.0	2.12	28.0	1.10	19	¾
T04-06FBSPP90	¼	⅜ - 19	26.0	1.02	54.0	2.12	32.0	1.26	22	⅞
T05-06FBSPP90	⅝	⅜ - 19	28.0	1.10	56.0	2.20	34.0	1.34	22	⅞
T06-06FBSPP90	⅝	⅜ - 19	31.0	1.22	61.0	2.40	35.0	1.38	22	⅞
T06-08FBSPP90	⅝	½ - 14	31.0	1.22	61.0	2.40	38.0	1.50	27	1 ⅛
T08-08FBSPP90	½	½ - 14	37.0	1.46	70.0	2.75	42.0	1.65	27	1 ⅛
T08-10FBSPP90	½	⅝ - 14	37.0	1.46	70.0	2.75	43.0	1.69	30	1 ⅜
T10-10FBSPP90	⅝	⅝ - 14	45.0	1.77	80.0	3.15	46.0	1.81	30	1 ⅜
T10-12FBSPP90	⅝	¾ - 14	45.0	1.77	80.0	3.15	50.0	1.97	32	1 ¼
T12-12FBSPP90	¾	¾ - 14	54.0	2.12	95.0	3.74	56.0	2.20	32	1 ¼
T12-16FBSPP90	¾	1 - 11	54.0	2.12	95.0	3.74	59.0	2.32	41	1 ⅝
T16-12FBSPP90	1	¾ - 14	70.0	2.76	121.0	4.76	75.0	2.95	32	1 ¼
T16-16FBSPP90	1	1 - 11	70.0	2.76	121.0	4.76	72.0	2.83	41	1 ⅝

MML MALE METRIC LIGHT (24° SEAT) - CEL



PART NUMBER	Hose Bore	F	Tube	H		L		S	
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]
T04-12MML	¼	M12 x 1.5	L6	21.0	0.83	49.0	1.93	12	½
T04-14MML	¼	M14 x 1.5	L8	21.0	0.83	49.0	1.93	14	⅝
T04-16MML	¼	M16 x 1.5	L10	23.0	0.91	51.0	2.01	17	1 ⅛
T06-16MML	⅜	M16 x 1.5	L10	23.0	0.91	53.5	2.11	17	1 ⅛

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



PART NUMBER	Hose Bore	F	Tube	H		L		S	
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]
T04-12FML	¼	M12 x 1.5	L6	23.0	0.90	51.0	2.01	17	1 ⅛
T04-14FML	¼	M14 x 1.5	L8	22.0	0.87	50.0	1.97	17	1 ⅛
T04-16FML	¼	M16 x 1.5	L10	24.0	0.94	52.0	2.05	19	¾
T04-18FML	¼	M18 x 1.5	L12	24.0	0.94	52.0	2.05	22	⅞
T05-16FML	⅝	M16 x 1.5	L10	24.0	0.94	52.0	2.05	19	¾
T05-18FML	⅝	M18 x 1.5	L12	24.0	0.94	52.0	2.05	22	⅞
T06-16FML	⅝	M16 x 1.5	L10	23.0	0.90	54.0	2.12	19	¾
T06-18FML	⅝	M18 x 1.5	L12	24.0	0.94	54.0	2.12	22	⅞
T06-22FML	⅝	M22 x 1.5	L15	24.0	0.94	54.0	2.12	27	1 ⅛
T08-22FML	½	M22 x 1.5	L15	24.0	0.94	57.0	2.24	27	1 ⅛
T08-26FML	½	M26 x 1.5	L18	26.0	1.02	59.0	2.32	32	1 ¼
T10-26FML	⅝	M26 x 1.5	L18	27.0	1.06	62.0	2.44	32	1 ¼
T10-30FML	⅝	M30 x 2.0	L22	28.0	1.10	64.0	2.52	36	1 ⅜
T12-26FML	¾	M26 x 1.5	L18	34.0	1.34	75.0	2.95	32	1 ¼
T12-30FML	¾	M30 x 2.0	L22	31.0	1.22	71.0	2.79	36	1 ⅜
T16-36FML	1	M36 x 2.0	L28	32.0	1.26	83.0	3.27	41	1 ⅝

Reference Hose Section for Coupling Compatibility

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





FML45

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

PART NUMBER	Hose Bore	F	Tube	H		L		K		S	
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
T04-12FML45	¼	M12 x 1.5	L6	35.0	1.38	63.0	2.48	14.0	0.55	15	5/8
T04-14FML45	¼	M14 x 1.5	L8	36.0	1.42	64.0	2.52	14.0	0.55	17	11/16
T04-16FML45	¼	M16 x 1.5	L10	38.0	1.50	66.0	2.60	16.0	0.63	19	¾
T06-16FML45	3/8	M16 x 1.5	L10	38.0	1.50	68.5	2.70	16.0	0.63	19	¾
T06-18FML45	3/8	M18 x 1.5	L12	40.0	1.57	70.5	2.78	18.0	0.71	22	7/8
T08-22FML45	½	M22 x 1.5	L15	46.0	1.81	79.0	3.11	19.0	0.75	27	1 1/16
T08-26FML45	½	M26 x 1.5	L18	47.0	1.85	80.0	3.15	21.8	0.86	32	1 ¼
T12-30FML45	¾	M30 x 2.0	L22	62.0	2.44	102.5	4.04	25.0	0.98	36	1 7/16
T16-36FML45	1	M36 x 2.0	L28	80.0	3.15	131.0	5.16	31.0	1.22	41	1 5/8

FML90

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

PART NUMBER	Hose Bore	F	Tube	H		L		K		S	
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
T04-12FML90	¼	M12 x 1.5	L6	23.5	0.93	51.5	2.03	26.0	1.02	15	5/8
T04-14FML90	¼	M14 x 1.5	L8	29.0	1.41	57.0	2.24	29.0	1.14	17	11/16
T04-16FML90	¼	M16 x 1.5	L10	29.0	1.41	57.0	2.21	30.2	1.19	19	¾
T06-16FML90	3/8	M16 x 1.5	L10	30.0	1.18	60.5	2.38	31.0	1.22	19	¾
T06-18FML90	3/8	M18 x 1.5	L12	30.5	1.20	61.0	2.40	33.0	1.30	22	7/8
T06-22FML90	3/8	M22 x 1.5	L15	31.0	1.22	61.5	2.42	35.0	1.38	27	1 1/16
T08-22FML90	½	M22 x 1.5	L15	37.2	1.46	70.2	2.76	38.0	1.50	27	1 1/16
T08-26FML90	½	M26 x 1.5	L18	37.2	1.46	70.2	2.76	40.0	1.57	32	1 ¼
T12-26FML90	¾	M26 x 1.5	L18	53.5	2.11	94.0	3.70	57.0	2.24	32	1 ¼
T12-30FML90	¾	M30 x 2.0	L28	53.5	2.11	94.0	3.70	52.0	2.05	36	1 7/16

FMS

FEMALE METRIC HEAVY SWIVEL (24° SEAT) - DKOS

PART NUMBER	Hose Bore	F	Tube	H		L		S	
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]
T04-14FMS	¼	M14 x 1.5	S6	23.0	0.91	51.0	2.01	17	11/16
T04-16FMS	¼	M16 x 1.5	S8	22.0	0.87	50.0	1.97	19	¾
T04-18FMS	¼	M18 x 1.5	S10	23.5	0.93	51.5	2.03	22	7/8
T06-20FMS	3/8	M20 x 1.5	S12	23.5	0.93	54.0	2.13	24	15/16
T08-24FMS	½	M24 x 1.5	S16	29.0	1.41	62.0	2.44	30	1 3/16
T12-30FMS	¾	M32 x 2.0	S20	35.5	1.40	76.0	3.00	36	1 7/16

SP

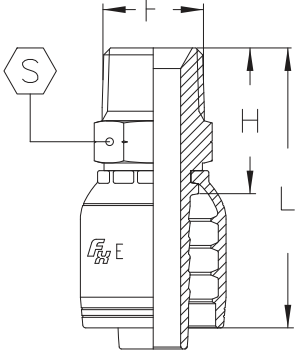
STANDPIPE STRAIGHT

PART NUMBER	Hose Bore	E		H		M		L	
	INCH	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
T04-04SP	¼	6.3	¼	30.5	1.20	24.5	0.96	58.5	2.30
T06-06SP	3/8	9.5	3/8	32.0	1.26	26.0	1.02	62.5	2.46
T06-08SP	3/8	12.7	½	31.5	1.24	25.5	1.00	62.0	2.44
T08-08SP	½	12.7	½	32.5	1.28	25.5	1.00	65.5	2.58
T08-10SP	½	15.9	5/8	43.0	1.69	36.0	1.42	76.0	2.99
T12-12SP	¾	19.0	¾	44.5	1.75	36.5	1.44	85.0	3.35
T16-16SP	1	25.4	1	49.5	1.95	40.0	1.57	100.5	3.96

Reference Hose Section for Coupling Compatibility

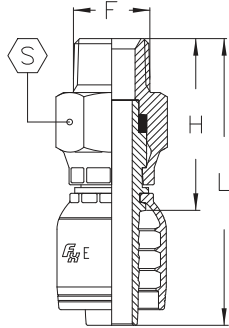
! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

MP-SS NPT MALE



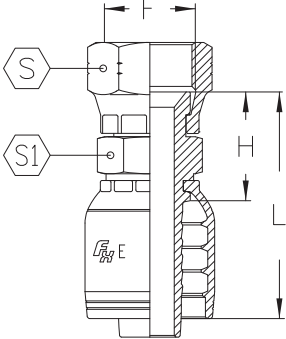
PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
ES04-04MP-SS	¼	¼ - 18	25.5	1.00	48.0	1.89	17	1 ¹ / ₁₆
ES04-06MP-SS	¼	⅜ - 18	27.0	1.06	49.5	1.95	19	¾
ES06-04MP-SS	⅜	¼ - 18	25.9	1.02	50.6	1.99	17	1 ¹ / ₁₆
ES06-06MP-SS	⅜	⅜ - 18	27.5	1.08	52.0	2.05	19	¾
ES06-08MP-SS	⅜	½ - 14	32.0	1.26	56.4	2.22	22	7 ⁷ / ₈
ES08-06MP-SS	½	⅜ - 18	28.0	1.10	54.6	2.15	19	¾
ES08-08MP-SS	½	½ - 14	32.5	1.28	59.2	2.33	22	7 ⁷ / ₈
ES12-12MP-SS	¾	¾ - 14	38.6	1.52	73.9	2.91	30	1 ³ / ₁₆
ES16-16MP-SS	1	1 - 11½	41.9	1.65	84.1	3.31	36	1 ¹ / ₁₆
ES20-20MP-SS	1¼	1¼ - 11½	50.6	1.99	100.1	3.94	46	1 ¹³ / ₁₆
ES24-24MP-SS	1¼	1½ - 11½	47.5	1.87	100.5	3.96	50	2
ES32-32MP-SS	2	2 - 11½	50.6	1.99	117.5	4.63	65	2 ⁹ / ₁₆

MPX-SS NPT MALE SWIVEL



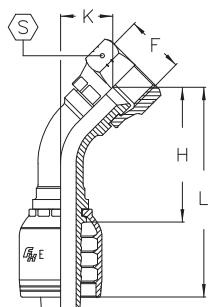
PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
ES04-04MPX-SS	¼	¼ - 18	38.4	1.51	60.7	2.39	17	1 ¹ / ₁₆
ES06-06MPX-SS	⅜	⅜ - 18	40.6	1.60	65.3	2.57	19	¾
ES08-08MPX-SS	½	½ - 14	50.0	1.97	76.7	3.02	22	7 ⁷ / ₈
ES12-12MPX-SS	¾	¾ - 14	61.5	2.42	97.0	3.82	32	1¼
ES16-16MPX-SS	1	1 - 11½	66.0	2.60	108.0	4.25	38	1½

FJ-SS JIC 37° FEMALE SWIVEL



PART NUMBER	Hose Bore	F	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
ES04-04FJ-SS	¼	7 ¹⁶ / ₁₆ - 20	30.0	1.18	52.5	2.07	14	9 ¹⁶ / ₁₆	14	9 ¹⁶ / ₁₆
ES04-06FJ-SS	¼	9 ¹⁶ / ₁₆ - 18	32.5	1.28	55.0	2.17	17	1 ¹ / ₁₆	17	1 ¹ / ₁₆
ES06-06FJ-SS	⅜	9 ¹⁶ / ₁₆ - 18	33.5	1.32	57.0	2.24	19	¾	19	¾
ES08-08FJ-SS	½	¾ - 16	36.6	1.44	63.0	2.48	24	1 ⁵ / ₁₆	22	7 ⁷ / ₈
ES12-12FJ-SS	¾	1 ¹ / ₁₆ - 12	46.2	1.82	81.0	3.19	32	1¼	27	1 ¹ / ₁₆
ES16-16FJ-SS	1	1 ⁵ / ₁₆ - 12	51.0	2.01	93.0	3.66	41	1 ⁵ / ₈	32	1¼
ES20-20FJ-SS	1¼	1 ⁵ / ₈ - 12	53.0	2.09	106.5	4.19	50	2	41	1 ⁵ / ₈
ES24-24FJ-SS	1½	1 ⁷ / ₈ - 12	60.5	2.38	114.0	4.49	55	2 ³ / ₁₆	50	2
ES32-32FJ-SS	2	2½ - 12	73.3	2.89	138.9	5.47	70	2¾	65	2 ⁹ / ₁₆

FJ45-SS JIC 37° FEMALE SWIVEL - 45° ELBOW



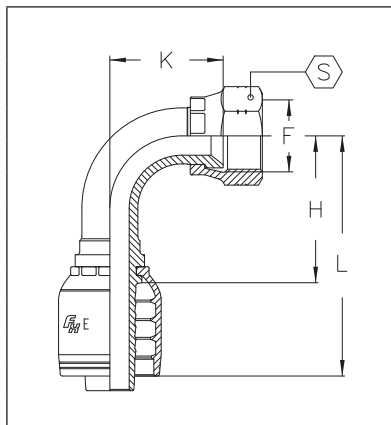
PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
ES04-04FJ45-SS	¼	7 ¹⁶ / ₁₆ - 20	49.7	1.96	72.2	2.84	25.9	1.02	14	9 ¹⁶ / ₁₆
ES04-06FJ45-SS	¼	9 ¹⁶ / ₁₆ - 18	51.9	2.04	74.4	2.93	28.2	1.11	19	¾
ES06-06FJ45-SS	⅜	9 ¹⁶ / ₁₆ - 18	65.2	2.57	89.7	3.53	33.4	1.32	19	¾
ES08-08FJ45-SS	½	¾ - 16	71.2	2.80	97.8	3.85	36.1	1.42	24	1 ⁵ / ₁₆
ES12-12FJ45-SS	¾	1 ¹ / ₁₆ - 12	103.5	4.08	139.0	5.47	51.0	2.01	32	1¼
ES16-16FJ45-SS	1	1 ⁵ / ₁₆ - 12	124.3	4.89	166.3	6.55	61.4	2.42	41	1 ⁵ / ₈
ES20-20FJ45-SS	1¼	1 ⁵ / ₈ - 12	151.4	5.96	200.9	7.91	73.3	2.89	50	2

Reference Hose Section for Coupling Compatibility

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

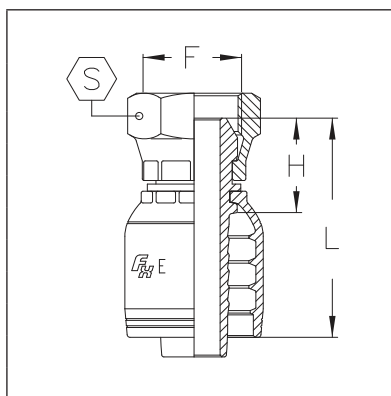


FJ90-SS JIC 37° FEMALE SWIVEL - 90° ELBOW



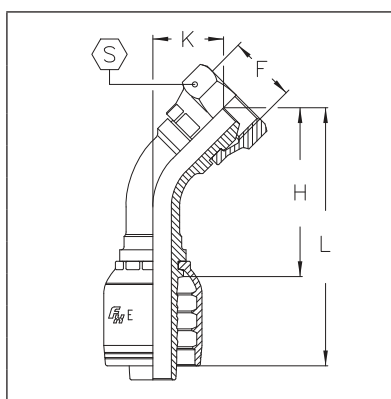
PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
ES04-04FJ90-SS	1/4	7/16 - 20	25.9	1.02	48.4	1.91	38.8	1.53	14	9/16
ES04-06FJ90-SS	1/4	9/16 - 18	25.9	1.02	48.4	1.91	41.8	1.65	19	3/4
ES06-06FJ90-SS	3/8	9/16 - 18	34.3	1.35	58.8	2.32	49.8	1.96	19	3/4
ES08-08FJ90-SS	1/2	3/4 - 16	39.9	1.57	66.6	2.62	55.8	2.20	24	15/16
ES12-12FJ90-SS	3/4	1 1/16 - 12	57.6	2.27	93.1	3.67	77.1	3.04	32	1 1/4
ES16-16FJ90-SS	1	1 5/16 - 12	70.4	2.77	112.5	4.43	94.3	3.71	41	1 5/8
ES20-20FJ90-SS	1 1/4	1 5/8 - 12	83.3	3.28	132.8	5.23	108.7	4.28	50	2

FBSPP-SS BSPP FEMALE SWIVEL



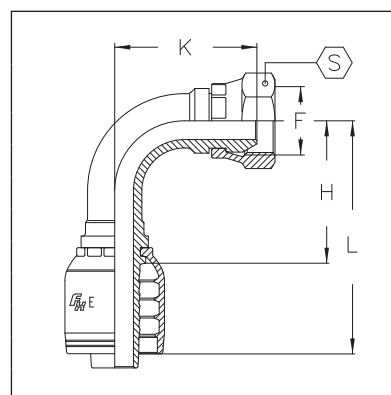
PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
ES04-04FBSPP-SS	1/4	1/4 - 19	26.0	1.02	48.5	1.91	19	3/4
ES06-06FBSPP-SS	3/8	3/8 - 19	31.5	1.24	56.0	2.21	22	7/8
ES08-08FBSPP-SS	1/2	1/2 - 14	35.1	1.38	61.7	2.43	27	1 1/16
ES12-12FBSPP-SS	3/4	3/4 - 14	41.3	1.63	79.8	3.02	32	1 1/4
ES16-16FBSPP-SS	1	1 - 11	49.5	1.95	91.5	3.60	41	1 5/8

FBSPP45-SS BSPP FEMALE SWIVEL - 45° ELBOW



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
ES04-04FBSPP45-SS	1/4	1/4 - 19	47.8	1.88	70.3	2.77	23.4	0.92	19	3/4
ES06-06FBSPP45-SS	3/8	3/8 - 19	63.2	2.49	87.6	3.45	31.0	1.22	22	7/8
ES08-08FBSPP45-SS	1/2	1/2 - 14	70.9	2.79	97.6	3.84	35.6	1.40	27	1 1/16
ES12-12FBSPP45-SS	3/4	3/4 - 14	101.5	4.00	136.9	5.39	48.1	1.89	32	1 1/4
ES16-16FBSPP45-SS	1	1 - 11	115.1	4.53	157.1	6.19	56.3	2.22	41	1 5/8

FBSPP90-SS BSPP FEMALE SWIVEL - 90° ELBOW



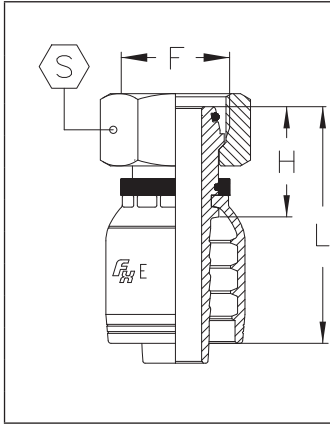
PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
ES04-04FBSPP90-SS	1/4	1/4 - 19	27.6	1.09	55.6	2.19	34.6	1.36	19	3/4
ES06-06FBSPP90-SS	3/8	3/8 - 19	34.6	1.36	59.1	2.33	46.5	1.83	22	7/8
ES08-08FBSPP90-SS	1/2	1/2 - 14	40.2	1.58	66.9	2.63	55.0	2.17	27	1 1/16
ES12-12FBSPP90-SS	3/4	3/4 - 14	58.2	2.29	93.7	3.69	73.4	2.89	32	1 1/4
ES16-16FBSPP90-SS	1	1 - 11	71.2	2.80	113.2	4.46	92.5	3.64	41	1 5/8

Reference Hose Section for Coupling Compatibility

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FML-SS

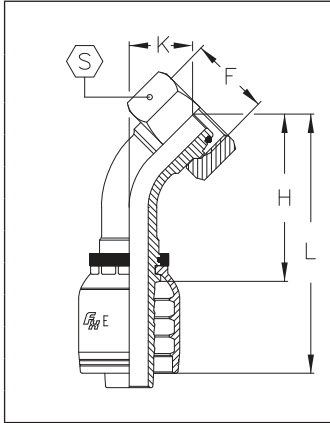
FEMALE METRIC LIGHT SWIVEL (24° SEAT) - DKOL



PART NUMBER	Hose Bore	F	Tube	H		L		S	
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]
ES04-14FML-SS	1/4	M14 x 1.5	L8	24.5	0.97	47.0	1.85	17	11/16
ES06-16FML-SS	3/8	M16 x 1.5	L10	22.5	0.89	47.0	1.85	19	3/4
ES06-18FML-SS	3/8	M18 x 1.5	L12	28.0	1.10	52.5	2.07	22	7/8
ES08-22FML-SS	1/2	M22 x 1.5	L15	30.5	1.20	57.2	2.25	27	1 1/16
ES08-26FML-SS	1/2	M26 x 1.5	L18	32.2	1.27	58.9	2.32	32	1 1/4
ES12-30FML-SS	3/4	M30 x 2.0	L22	37.0	1.46	72.5	2.85	36	1 7/16
ES16-36FML-SS	1	M36 x 2.0	L28	36.5	1.44	78.5	3.09	41	1 5/8

FML45-SS

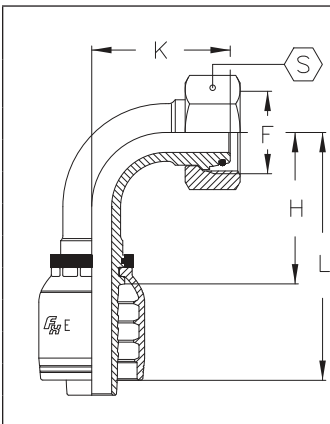
FEMALE METRIC LIGHT SWIVEL - 45° ELBOW (24° SEAT) - DKOL



PART NUMBER	Hose Bore	F	Tube	H		L		K		S	
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
ES04-14FML45-SS	1/4	M14 x 1.5	L8	42.5	1.67	65.0	2.56	20.5	0.81	17	11/16
ES06-16FML45-SS	3/8	M16 x 1.5	L10	55.1	2.17	79.6	3.13	26.5	1.04	19	3/4
ES06-18FML45-SS	3/8	M18 x 1.5	L12	51.6	2.03	76.1	3.00	22.9	0.90	22	7/8
ES08-22FML45-SS	1/2	M22 x 1.5	L15	58.3	2.30	85.0	3.35	27.0	1.06	27	1 1/16
ES12-30FML45-SS	3/4	M30 x 2.0	L22	79.6	3.13	115.1	4.53	31.8	1.25	36	1 7/16
ES16-36FML45-SS	1	M36 x 2.0	L28	104.7	4.12	146.7	5.78	47.3	1.86	41	1 5/8

FML90-SS

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



PART NUMBER	Hose Bore	F	Tube	H		L		K		S	
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
ES04-14FML90-SS	1/4	M14 x 1.5	L8	27.6	1.09	50.1	1.97	32.1	1.26	17	11/16
ES06-16FML90-SS	3/8	M16 x 1.5	L10	30.5	1.20	60.0	2.36	40.0	1.57	19	3/4
ES06-18FML90-SS	3/8	M18 x 1.5	L12	38.1	1.50	62.7	2.47	41.2	1.63	22	7/8
ES08-22FML90-SS	1/2	M22 x 1.5	L15	42.0	1.65	68.8	2.71	44.0	1.73	27	1 1/16
ES12-30FML90-SS	3/4	M30 x 2.0	L22	64.9	2.56	100.4	3.95	66.0	2.60	36	1 7/16
ES16-36FML90-SS	1	M36 x 2.0	L28	74.0	2.94	116.0	4.57	84.0	3.31	41	1 5/8

Reference Hose Section for Coupling Compatibility

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





MP-SS NPT MALE

PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
NC08-08MP-SS	1/2	1/2 - 14	32.4	1.28	66.9	2.63	22	7/8
NC12-12MP-SS	3/4	3/4 - 14	38.6	1.52	81.4	3.21	30	1 3/16
NC16-16MP-SS	1	1 - 11 1/2	42.5	1.67	91.0	3.58	36	1 7/16
NC20-20MP-SS	1 1/4	1 1/4 - 11 1/2	50.5	1.99	109.0	4.29	46	1 13/16
NC24-24MP-SS	1 1/2	1 1/2 - 11 1/2	49.0	1.93	109.0	4.29	50	2
NC32-32MP-SS	2	2 - 11 1/2	52.5	2.07	132.5	5.22	65	2 9/16

FJ-SS JIC 37° FEMALE SWIVEL

PART NUMBER	Hose Bore	F	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
NC08-08FJ-SS	1/2	3/4 - 16	36.5	1.44	71.0	2.80	24	1 5/16	22	7/8
NC12-12FJ-SS	3/4	1 1/16 - 12	45.7	1.80	88.5	3.48	32	1 1/4	27	1 1/16
NC16-16FJ-SS	1	1 5/16 - 12	51.6	2.03	100.0	3.94	41	1 5/8	32	1 1/4
NC20-20FJ-SS	1 1/4	1 5/8 - 12	57.0	2.24	115.5	4.55	50	2	41	1 5/8
NC24-24FJ-SS	1 1/2	1 7/8 - 12	62.5	2.46	122.5	4.82	55	2 3/16	50	2
NC32-32FJ-SS	2	2 1/2 - 12	74.3	2.93	154.3	6.08	70	2 3/4	65	2 9/16

FJ45-SS JIC 37° FEMALE SWIVEL - 45° ELBOW

PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
NC08-08FJ45-SS	1/2	3/4 - 16	74.0	2.91	108.5	4.27	28.5	1.12	22	7/8
NC12-12FJ45-SS	3/4	1 1/16 - 12	108.9	4.29	151.7	5.97	38.8	1.53	27	1 1/16
NC16-16FJ45-SS	1	1 5/16 - 12	130.6	5.14	179.1	7.05	47.8	1.88	32	1 1/4
NC20-20FJ45-SS	1 1/4	1 5/8 - 12	158.4	6.24	216.9	8.54	56.5	2.23	41	1 5/8
NC24-24FJ45-SS	1 1/2	1 7/8 - 12	182.2	7.17	242.2	9.54	66.7	2.63	50	2
NC32-32FJ45-SS	2	2 1/2 - 12	219.9	8.66	299.2	11.78	80.5	3.17	65	2 9/16

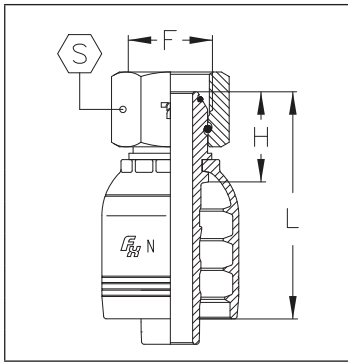
FJ90-SS JIC 37° FEMALE SWIVEL - 90° ELBOW SHORT DROP

PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
NC08-08FJ90-SS	1/2	3/4 - 16	42.0	1.65	76.5	3.01	50.5	1.99	22	7/8
NC12-12FJ90-SS	3/4	1 1/16 - 12	64.1	2.52	106.9	4.21	72.4	2.85	27	1 1/16
NC16-16FJ90-SS	1	1 5/16 - 12	74.4	2.93	123.0	4.84	92.0	3.62	32	1 1/4
NC20-20FJ90-SS	1 1/4	1 5/8 - 12	91.2	3.59	149.7	5.89	111.0	4.37	41	1 5/8
NC24-24FJ90-SS	1 1/2	1 7/8 - 12	104.7	4.12	164.7	6.48	126.0	4.96	50	2
NC32-32FJ90-SS	2	2 1/2 - 12	125.6	4.95	205.6	8.09	154.3	6.08	65	2 9/16

Reference Hose Section for Coupling Compatibility

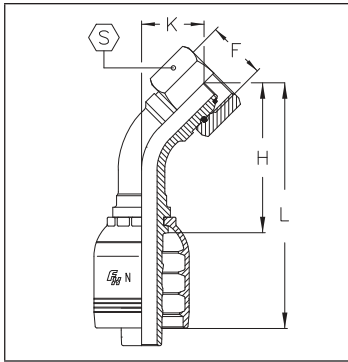
⚠ WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FBSP-SS BSPP FEMALE SWIVEL



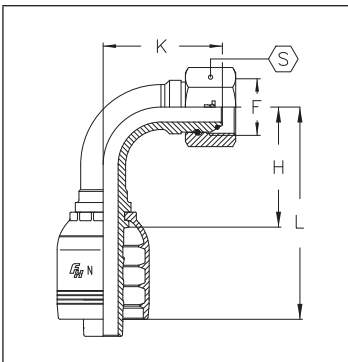
PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
NC08-08FBSP-SS	1/2	1/2 - 14	35.5	1.40	70.0	2.76	27	1 1/16
NC12-12FBSP-SS	3/4	3/4 - 14	42.0	1.65	84.8	3.34	32	1 1/4
NC16-16FBSP-SS	1	1 - 11	50.0	1.97	98.5	3.88	41	1 5/8
NC20-20FBSP-SS	1 1/4	1 1/4 - 11	54.0	2.13	112.5	4.43	50	2

FBSP45-SS BSPP FEMALE SWIVEL - 45° ELBOW



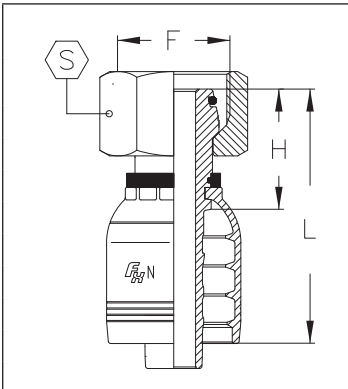
PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
NC08-08FBSP45-SS	1/2	1/2 - 14	73.6	2.90	108.1	4.26	27.2	1.11	27	1 1/16
NC12-12FBSP45-SS	3/4	3/4 - 14	106.7	4.20	149.5	5.88	36.6	1.44	32	1 1/4
NC16-16FBSP45-SS	1	1 - 11	129.5	5.10	178.0	7.01	46.6	1.84	41	1 5/8
NC20-20FBSP45-SS	1 1/4	1 1/4 - 11	117.3	4.62	215.8	8.50	55.5	2.18	50	2

FBSP90-SS BSPP FEMALE SWIVEL - 90° ELBOW



PART NUMBER	Hose Bore	F	H		L		K		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
NC08-08FBSP90-SS	1/2	1/2 - 14	42.0	1.65	76.5	3.01	50.0	1.97	27	1 1/16
NC12-12FBSP90-SS	3/4	3/4 - 14	64.1	2.53	107.0	4.21	69.2	2.72	32	1 1/4
NC16-16FBSP90-SS	1	1 - 11	74.4	2.93	123.0	4.84	90.5	3.56	41	1 5/8
NC20-20FBSP90-SS	1 1/4	1 1/4 - 11	91.3	3.59	149.8	5.90	109.5	4.31	50	2

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



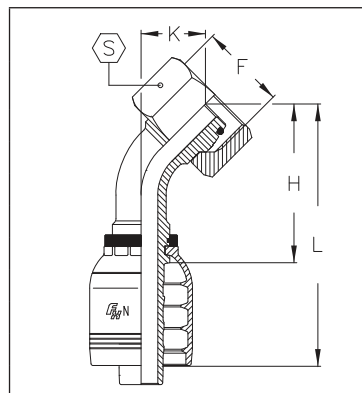
PART NUMBER	Hose Bore	F	Tube	H		L		S	
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]
NC08-24FMS-SS	1/2	M24 x 1.5	S16	35.0	1.38	69.6	2.74	30	1 1/16
NC12-30FMS-SS	3/4	M30 x 2.0	S20	41.7	1.64	84.5	3.33	36	1 1/16
NC12-36FMS-SS	3/4	M36 x 2.0	S25	40.2	1.58	91.3	3.59	41	1 5/8
NC16-42FMS-SS	1	M42 x 2.0	S30	57.0	2.24	105.5	4.15	50	2
NC20-52FMS-SS	1 1/4	M50 x 2.0	S38	57.9	2.28	116.4	4.58	60	2 3/8

Reference Hose Section for Coupling Compatibility

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

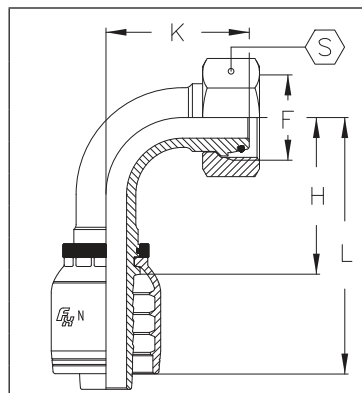


FMS45-SS FEMALE METRIC HEAVY SWIVEL - 45° ELBOW (24° SEAT) - DKOS



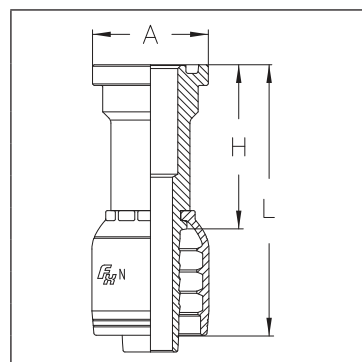
PART NUMBER	Hose Bore	F	Tube	H		L		K		S	
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
NC08-24FMS45-SS	1/2	M24 x 1.5	S16	74.9	2.95	116.9	4.60	28.7	1.13	30	1 1/16
NC12-30FMS45-SS	3/4	M30 x 2.0	S20	99.6	3.92	147.6	5.81	34.2	1.35	36	1 1/16
NC12-36FMS45-SS	3/4	M36 x 2.0	S25	102.1	4.02	158.2	6.23	41.1	1.62	41	1 5/8
NC16-42FMS45-SS	1	M42 x 2.0	S30	137.7	5.42	191.6	7.54	54.7	2.15	50	2
NC20-52FMS45-SS	1 1/4	M50 x 2.0	S38	175.6	6.91	239.3	9.42	57.9	2.28	60	2 3/8

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



PART NUMBER	Hose Bore	F	Tube	H		L		K		S	
	INCH			[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
NC08-24FMS90-SS	1/2	M24 x 1.5	S16	44.6	1.75	71.2	2.81	50.0	1.97	30	1 3/16
NC12-30FMS90-SS	3/4	M30 x 2.0	S20	59.4	2.34	102.2	4.02	69.0	2.72	36	1 7/16
NC12-36FMS90-SS	3/4	M36 x 2.0	S25	66.4	2.62	102.9	4.05	74.4	2.93	41	1 5/8
NC16-42FMS90-SS	1	M42 x 2.0	S30	74.5	2.93	123.0	4.84	84.5	3.72	50	2
NC20-52FMS90-SS	1 1/4	M50 x 2.0	S38	105.7	4.16	164.3	6.47	113.0	4.45	60	2 3/8

FL-SS SAE CODE 61 FLANGE



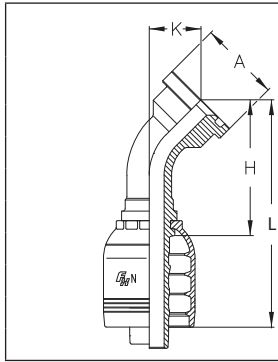
PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
NC08-08FL-SS	1/2	0.265	30.2	1.19	45.5	1.79	80.0	3.15
NC12-12FL-SS	3/4	0.265	38.1	1.50	60.2	2.37	103.0	4.06
NC16-16FL-SS	1	0.315	44.5	1.75	65.5	2.58	114.0	4.49
NC20-20FL-SS	1 1/4	0.315	50.8	2.00	79.5	3.13	138.0	5.43
NC24-24FL-SS	1 1/2	0.315	60.4	2.38	85.0	3.35	145.0	5.71
NC32-32FL-SS	2	0.375	71.4	2.81	90.0	3.54	170.0	6.69

Reference Hose Section for Coupling Compatibility

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FL45-SS

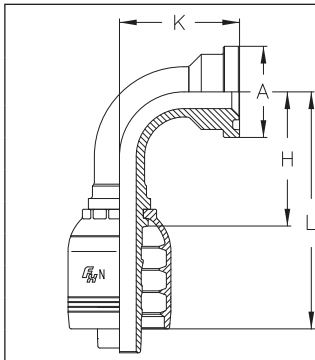
SAE CODE 61 FLANGE - 45° ELBOW



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
NC08-08FL45-SS	½	0.265	30.2	1.19	67.0	2.64	101.4	3.99	20.3	0.80
NC12-12FL45-SS	¾	0.265	38.1	1.50	99.1	3.90	141.9	5.59	30.0	1.18
NC16-16FL45-SS	1	0.315	44.5	1.75	118.9	4.68	167.5	6.59	37.1	1.46
NC20-20FL45-SS	1¼	0.315	50.8	2.00	143.9	5.67	202.4	7.97	43.1	1.70
NC24-24FL45-SS	1½	0.315	60.4	2.38	161.9	6.37	221.8	8.73	49.4	1.95
NC32-32FL45-SS	2	0.375	71.4	2.81	196.1	7.72	276.1	10.87	57.7	2.27

FL90-SS

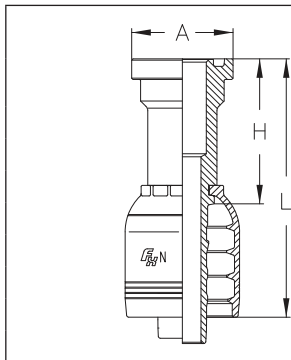
SAE CODE 61 FLANGE - 90° ELBOW



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
NC08-08FL90-SS	½	0.265	30.2	1.19	43.0	1.69	77.5	3.05	40.0	1.58
NC12-12FL90-SS	¾	0.265	38.1	1.50	63.1	2.49	105.9	4.17	57.9	2.28
NC16-16FL90-SS	1	0.315	44.5	1.75	73.5	2.90	122.0	4.80	76.0	2.99
NC20-20FL90-SS	1¼	0.315	50.8	2.00	90.2	3.55	148.7	5.86	91.0	3.58
NC24-24FL90-SS	1½	0.315	60.4	2.38	101.7	4.00	161.7	6.37	96.5	3.80
NC32-32FL90-SS	2	0.375	71.4	2.81	124.6	4.91	204.6	8.06	119.0	4.69

FLH-SS

SAE CODE 62 FLANGE



PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
NC08-08FLH-SS	½	0.305	31.7	1.25	45.5	1.79	80.0	3.15
NC12-12FLH-SS	¾	0.345	41.3	1.62	60.2	2.37	103.0	4.06
NC16-16FLH-SS	1	0.375	47.6	1.87	65.5	2.58	114.0	4.49
NC20-20FLH-SS	1¼	0.405	54.0	2.12	83.5	3.29	142.0	5.59
NC24-24FLH-SS	1½	0.495	63.5	2.50	90.0	3.54	150.0	5.91
NC32-32FLH-SS	2	0.495	79.4	3.12	103.0	4.06	183.0	7.21

Reference Hose Section for Coupling Compatibility

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



FLH45-SS SAE CODE 62 FLANGE - 45° ELBOW

PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
	NC08-08FLH45-SS		½	0.305	31.7	1.25	66.8	2.63	101.3	3.99
NC12-12FLH45-SS	¾	0.345	41.3	1.62	99.1	3.90	141.9	5.59	30.0	1.18
NC16-16FLH45-SS	1	0.375	47.6	1.87	118.9	4.68	167.5	6.59	37.1	1.46
NC20-20FLH45-SS	1¼	0.405	54.0	2.12	143.9	5.67	207.9	8.19	43.1	1.70
NC24-24FLH45-SS	1½	0.495	63.5	2.50	161.8	6.37	221.9	8.74	49.4	1.95
NC32-32FLH45-SS	2	0.495	79.4	3.12	196.1	7.72	276.1	10.87	57.7	2.27

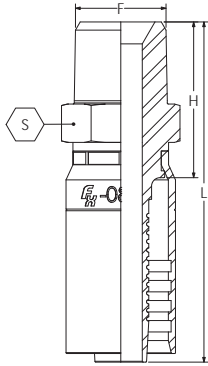
FLH90-SS SAE CODE 62 FLANGE - 90° ELBOW

PART NUMBER	Hose Bore	FLANGE Thickness	A		H		L		K	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
	NC08-08FLH90-SS		½	0.305	31.7	1.25	43.0	1.69	77.5	3.05
NC12-12FLH90-SS	¾	0.345	41.3	1.62	63.1	2.49	105.9	4.17	57.9	2.28
NC16-16FLH90-SS	1	0.375	47.6	1.87	73.5	2.90	122.0	4.80	76.0	2.99
NC20-20FLH90-SS	1¼	0.405	54.0	2.12	90.2	3.55	148.7	5.86	91.0	3.58
NC24-24FLH90-SS	1½	0.495	63.5	2.50	101.7	4.00	161.7	6.37	96.0	3.80
NC32-32FLH90-SS	2	0.495	79.4	3.12	124.6	4.91	204.6	8.06	119.0	4.69

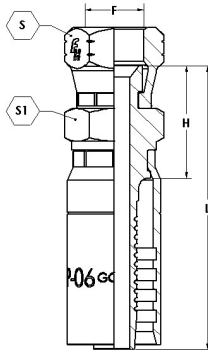
Reference Hose Section for Coupling Compatibility

⚠ WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>


MP-SS NPT MALE

	PART NUMBER	Hose Bore	F	H		L		S	
		INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
				PC03-04MP-SS	3/16	1/4 - 18	25.0	0.98	49.0
PC04-02MP-SS	1/4	1/8 - 27	21.0	0.83	49.0	1.93	14	9/16	
PC04-04MP-SS	1/4	1/4 - 18	25.5	1.00	53.5	2.11	17	11/16	
PC05-04MP-SS	5/16	1/4 - 18	25.8	1.02	53.8	2.12	17	11/16	
PC06-06MP-SS	3/8	3/8 - 18	27.5	1.08	57.0	2.24	19	3/4	
PC06-08MP-SS	3/8	1/2 - 14	32.0	1.26	61.5	2.42	22	7/8	
PC08-08MP-SS	1/2	1/2 - 14	32.5	1.28	63.0	2.48	22	7/8	
PC12-12MP-SS	3/4	3/4 - 14	38.5	1.52	77.5	3.05	30	1 3/16	
PC16-16MP-SS	1	1 - 1 1/2	42.0	1.65	89.0	3.50	36	1 7/16	

FJ-SS JIC 37° FEMALE SWIVEL

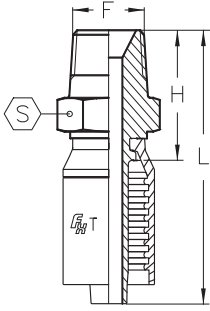
	PART NUMBER	Hose Bore	F	H		L		S		S1	
		INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
				PC03-04FJ-SS	3/16	7/16 - 20	20.5	0.81	44.5	1.75	14
PC04-04FJ-SS	1/4	7/16 - 20	21.0	0.83	49.0	1.93	14	9/16	14	9/16	
PC04-05FJ-SS	1/4	1/2 - 20	22.0	0.87	50.0	1.97	17	11/16	14	9/16	
PC05-06FJ-SS	5/16	9/16 - 18	22.8	0.90	50.8	2.00	19	3/4	16	5/8	
PC06-06FJ-SS	3/8	9/16 - 18	22.5	0.89	52.0	2.05	19	3/4	19	3/4	
PC06-08FJ-SS	3/8	3/4 - 16	26.0	1.02	55.5	2.19	24	15/16	19	3/4	
PC08-08FJ-SS	1/2	3/4 - 16	27.0	1.06	57.5	2.26	24	15/16	22	7/8	
PC08-10FJ-SS	1/2	7/8 - 14	28.5	1.12	59.0	2.32	27	1 1/16	22	7/8	
PC12-12FJ-SS	3/4	1 1/16 - 12	33.0	1.30	72.0	2.83	32	1 1/4	27	1 1/16	
PC16-16FJ-SS	1	1 5/16 - 12	35.0	1.38	82.0	3.23	41	1 5/8	32	1 1/4	

Reference Hose Section for Coupling Compatibility

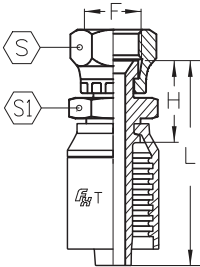
 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>




MP-SS NPT MALE

	PART NUMBER	Hose Bore	F	H		L		S	
		INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
	T04-04MP-SS	1/4	1/4 - 18	27.0	1.06	55.0	2.17	14	9/16
T06-06MP-SS	3/8	3/8 - 18	28.6	1.13	59.1	2.33	19	3/4	
T08-08MP-SS	1/2	1/2 - 14	35.0	1.38	68.0	2.68	22	7/8	
T12-12MP-SS	3/4	3/4 - 14	37.9	1.49	78.4	3.09	27	1 1/16	
T16-16MP-SS	1	1 - 11Zx	47.0	1.85	98.0	3.86	35	1 3/8	

FJ-SS JIC 37° FEMALE SWIVEL

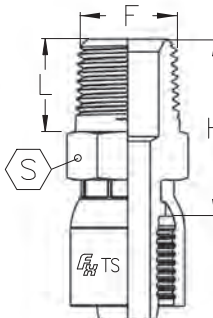
	PART NUMBER	Hose Bore	F	H		L		S		S1	
		INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
	T04-04FJ-SS	1/4	7/16 - 20	20.5	0.81	48.5	1.91	14	9/16	14	9/16
T06-06FJ-SS	3/8	9/16 - 18	22.5	0.89	53.0	2.09	19	3/4	16	5/8	
T08-08FJ-SS	1/2	3/4 - 16	25.5	1.00	58.5	2.30	22	7/8	19	3/4	
T10-10FJ-SS	5/8	7/8 - 14	27.7	1.09	63.5	2.50	26	1 1/16	22	7/8	
T12-12FJ-SS	3/4	1 1/16 - 12	32.0	1.26	72.5	2.85	32	1 1/4	27	1 1/16	
T16-16FJ-SS	1	1 5/16 - 12	37.0	1.46	88.0	3.46	38	1 1/2	32	1 1/4	

Reference Hose Section for Coupling Compatibility

 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

MP

NPT MALE

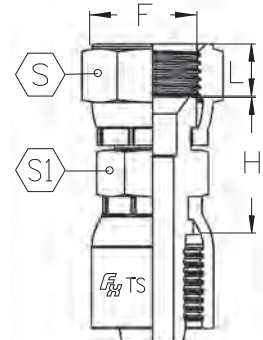


PART NUMBER	Hose Bore	F	H		L		S	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]
TS03-02MP*	3/16	1/8 - 27	23.4	0.92	9.5	0.37	14	9/16
TS04-02MP*	1/4	1/8 - 27	23.4	0.92	9.5	0.37	14	9/16
TS04-04MP*	1/4	1/4 - 18	29.3	1.15	14.4	0.57	14	9/16
TS04-06MP*	1/4	3/8 - 18	29.5	1.16	14.6	0.57	19	3/4
TS06-04MP*	3/8	1/4 - 18	29.4	1.16	14.4	0.57	17	11/16
TS06-06MP*	3/8	3/8 - 18	29.6	1.17	14.6	0.57	19	3/4
TS08-06MP*	1/2	3/8 - 18	31.1	1.22	14.6	0.57	19	3/4
TS08-08MP*	1/2	1/2 - 14	36.5	1.44	19.0	0.75	22	7/8
TS10-08MP*	5/8	1/2 - 14	36.5	1.44	19.0	0.75	24	1
TS12-12MP*	3/4	3/4 - 14	39.8	1.57	19.3	0.76	28	1 1/8
TS16-16MP*	1	1 - 11 1/2	45.5	1.79	24.0	0.94	35	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	F	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
TS03-04FJ*	3/16	7/16 - 20	21.9	0.86	9.0	0.35	15	5/8	14	9/16
TS04-04FJ*	1/4	7/16 - 20	21.9	0.86	9.0	0.35	15	5/8	14	9/16
TS04-06FJ*	1/4	9/16 - 18	23.9	0.94	9.5	0.37	19	3/4	14	9/16
TS05-06FJ*	5/16	9/16 - 18	23.9	0.94	9.5	0.37	19	3/4	14	9/16
TS06-06FJ*	3/8	9/16 - 18	24.0	0.94	9.5	0.37	19	3/4	17	11/16
TS06-08FJ*	3/8	3/4 - 16	25.5	1.00	10.5	0.41	25	1	19	3/4
TS08-08FJ*	1/2	3/4 - 16	27.0	1.06	10.5	0.41	25	1	19	3/4
TS08-10FJ*	1/2	7/8 - 14	29.0	1.14	12.5	0.49	25	1	22	7/8
TS12-12FJ*	3/4	1 1/16 - 12	33.0	1.30	14.5	0.57	32	1 1/4	27	1 1/16
TS16-16FJ*	1	1 5/16 - 12	36.0	1.42	15.1	0.59	35	1 3/8	38	1 1/2

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

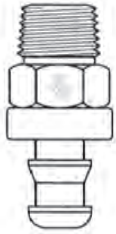
Reference Hose Section for Coupling Compatibility

 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



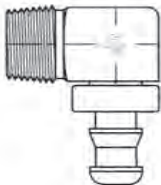
MP

NPT MALE

	PART NUMBER	Hose Bore	T
		INCH	
	J04-02MP	1/4	1/8 - 27
	J04-04MP	1/4	1/4 - 18
	J04-06MP	1/4	3/8 - 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
	J06-08MP	3/8	1/2 - 14
	J08-06MP	1/2	3/8 - 18
	J08-08MP	1/2	1/2 - 14
	J08-12MP	1/2	3/4 - 14
	J10-08MP	5/8	1/2 - 14
	J10-12MP	5/8	3/4 - 14
	J12-08MP	3/4	1/2 - 14
	J12-12MP	3/4	3/4 - 14
J16-16MP	1	1 - 11 1/2	

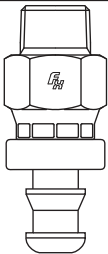
MP90

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

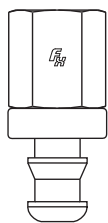
MPX

NPT MALE LIVE SWIVEL

	PART NUMBER	Hose Bore	T
		INCH	
	J04-04MPX	1/4	1/4 - 18
	J06-06MPX	3/8	3/8 - 18
	J08-08MPX	1/2	1/2 - 14
	J12-12MPX	3/4	3/4 - 14

FP

NPT FEMALE

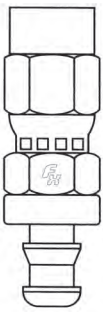
	PART NUMBER	Hose Bore	T
		INCH	
	J04-02FP	1/4	1/8 - 27
	J04-04FP	1/4	1/4 - 18
	J06-04FP	3/8	1/4 - 18
	J06-06FP	3/8	3/8 - 18
	J06-08FP	3/8	1/2 - 14
	J08-08FP	1/2	1/2 - 14
	J10-12FP	5/8	3/4 - 14

Reference Hose Section for Coupling Compatibility

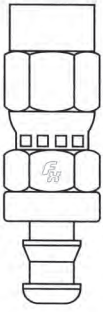
! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>




FPXBS NPT FEMALE SWIVEL BALL SEAT

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

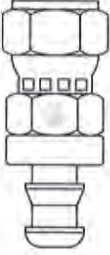
FPXG NPT FEMALE SWIVEL BALL SEAT

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


MJ JIC 37° MALE

	PART NUMBER	Hose Bore	T
		INCH	
	J04-04MJ	1/4	7/16 - 20
	J04-05MJ	1/4	1/2 - 20
	J05-05MJ	5/16	1/2 - 20
	J06-06MJ	3/8	9/16 - 18

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
	J06-08FJ	3/8	3/4 - 16
	J08-08FJ	1/2	3/4 - 16
	J08-10FJ	1/2	7/8 - 14
	J10-10FJ	5/8	7/8 - 14
	J12-10FJ	3/4	7/8 - 14
	J12-12FJ	3/4	1 1/16 - 12
	J16-16FJ	1	1 9/16 - 12


Reference Hose Section for Coupling Compatibility

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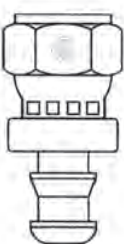
MA

SAE 45° MALE

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


FA

SAE 45° FEMALE SWIVEL


	PART NUMBER	Hose Bore	T
		INCH	
	J05-06FA	5/16	5/8 - 18
	J06-06FA	3/8	5/8 - 18
	J08-06FA	1/2	5/8 - 18
	J12-12FA	3/4	1 1/16 - 14

MIX

SAE INVERTED FLARE MALE SWIVEL

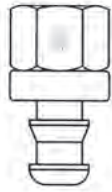
	PART NUMBER	Hose Bore	T
		INCH	
	J04-03MIX	1/4	3/8 - 24
	J04-04MIX	1/4	7/16 - 24
	J04-05MIX	1/4	1/2 - 20
	J05-04MIX	5/16	7/16 - 24
	J05-05MIX	5/16	1/2 - 20
	J05-06MIX	5/16	5/8 - 18
	J06-05MIX	3/8	1/2 - 20
	J06-06MIX	3/8	5/8 - 18
	J08-08MIX	1/2	3/4 - 18
J10-10MIX	5/8	7/8 - 18	

Reference Hose Section for Coupling Compatibility

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FIX

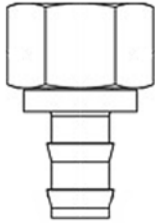
SAE INVERTED FLARE FEMALE RIGID



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

FML

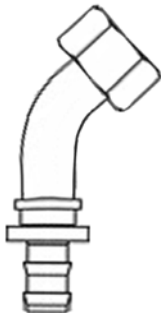
FEMALE METRIC LIGHT SWIVEL (24° SEAT) - DKOL



PART NUMBER	Hose Bore	T
	INCH	
J04-12FML	1/4	M12 x 1.5
J04-14FML	1/4	M14 x 1.5
J04-16FML	1/4	M16 x 1.5
J06-16FML	3/8	M16 x 1.5
J06-18FML	3/8	M18 x 1.5
J08-18FML	1/2	M18 x 1.5
J08-22FML	1/2	M22 x 1.5
J10-22FML	5/8	M22 x 1.5
J10-26FML	5/8	M26 x 1.5
J12-30FML	3/4	M30 x 2.0
J16-36FML	1	M36 x 2.0


FML45

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



PART NUMBER	Hose Bore	T
	INCH	
J04-12FML45	1/4	M12 x 1.5
J04-14FML45	1/4	M14 x 1.5
J04-16FML45	1/4	M16 x 1.5
J08-18FML45	1/2	M18 x 1.5
J08-22FML45	1/2	M22 x 1.5
J10-26FML45	5/8	M26 x 1.5
J12-30FML45	3/4	M30 x 2.0
J16-36FML45	1	M36 x 2.0

Reference Hose Section for Coupling Compatibility

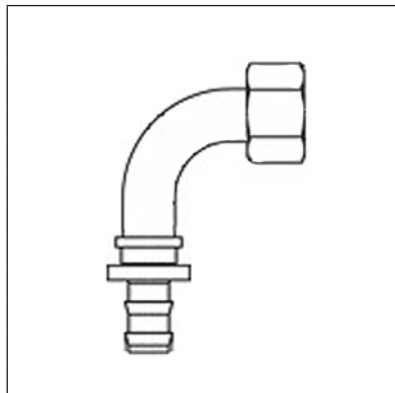
 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





FML90

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



PART NUMBER	Hose Bore	T
	INCH	
J04-12FML90	1/4	M12 x 1.5
J04-14FML90	1/4	M14 x 1.5
J04-16FML90	1/4	M16 x 1.5
J06-16FML90	3/8	M16 x 1.5
J06-18FML90	3/8	M18 x 1.5
J08-22FML90	1/2	M22 x 1.5
J10-26FML90	5/8	M26 x 1.5
J12-30FML90	3/4	M30 x 2.0
J16-36FML90	1	M36 x 2.0

HM

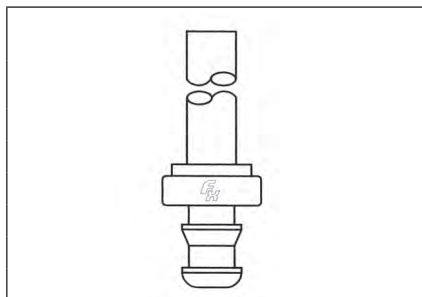
HOSE MENDER



PART NUMBER	Hose Bore
	INCH
J04-04HM	1/4
J05-05HM	5/16
J06-06HM	3/8
J08-08HM	1/2
J10-10HM	5/8
J12-12HM	3/4

SP

IMPERIAL STANDPIPE



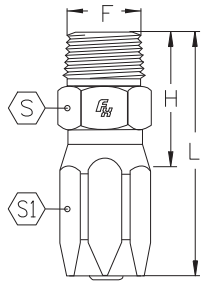
PART NUMBER	Hose Bore	TUBE O.D.
	INCH	
J04-03SP	1/4	3/16
J04-04SP	1/4	1/4
J04-05SP	1/4	5/16
J06-06SP	3/8	3/8
J08-08SP	1/2	1/2

Reference Hose Section for Coupling Compatibility

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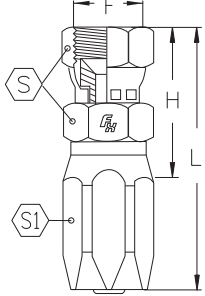
MP

NPT MALE


	PART NUMBER	Hose Bore	F	H		L		S		S1	
		INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
	1R04-04MP	¼	¼ - 18	30.2	1.19	54.9	2.16	14	9/16	19	¾
	1R06-06MP	⅜	⅜ - 18	31.7	1.25	58.7	2.31	17	1 1/16	22	7/8
	1R08-08MP	½	½ - 14	38.6	1.52	69.9	2.75	22	7/8	27	1 1/16

FJ

JIC 37° FEMALE SWIVEL

	PART NUMBER	Hose Bore	F	H		L		S		S1	
		INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
	1R04-04FJ	¼	7/16 - 20	31.0	1.22	55.6	2.19	14	9/16	19	¾
	1R06-06FJ	⅜	9/16 - 18	35.3	1.39	58.4	2.30	17	1 1/16	22	7/8
	1R08-08FJ	½	¾ - 16	54.4	2.14	71.4	2.81	22	7/8	27	1 1/16

Reference Hose Section for Coupling Compatibility

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MP NPT MALE

	PART NUMBER	Hose Bore	F	H		L		S		S1	
		INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
	2R04-04MP	1/4	1/4 - 18	34.0	1.34	65.0	2.56	14	9/16	21	13/16
	2R06-06MP	3/8	3/8 - 18	33.3	1.31	70.6	2.78	17	11/16	26	1
	2R08-06MP	1/2	3/8 - 18	35.1	1.38	74.7	2.94	22	7/8	28	1 1/8
	2R08-08MP	1/2	1/2 - 14	39.6	1.56	79.5	3.13	22	7/8	28	1 1/8
	2R12-12MP	3/4	3/4 - 14	44.4	1.75	93.0	3.66	27	1 1/16	38	1 1/2
	2R16-16MP	1	1 - 11 1/2	57.9	2.28	110.2	4.34	34	1 3/8	43	1 3/4

MJ JIC 37° MALE

	PART NUMBER	Hose Bore	F	H		L		S		S1	
		INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
	2R04-04MJ	1/4	7/16 - 20	33.0	1.30	64.3	2.53	14	9/16	21	13/16
	2R06-06MJ	3/8	9/16 - 18	32.5	1.28	69.9	2.75	17	11/16	26	1
	2R06-08MJ	3/8	3/4 - 16	36.6	1.44	65.5	2.58	22	7/8	26	1
	2R08-08MJ	1/2	3/4 - 16	35.6	1.40	77.0	3.03	22	7/8	28	1 1/8
	2R08-10MJ	1/2	7/8 - 14	40.4	1.59	79.8	3.14	22	7/8	28	1 1/8
	2R12-12MJ	3/4	1 1/16 - 12	47.8	1.88	96.0	3.78	28	1 1/8	38	1 1/2
	2R16-16MJ	1	1 5/8 - 12	57.9	2.28	110.2	4.34	35	1 3/8	43	1 3/4

FJ JIC 37° FEMALE SWIVEL

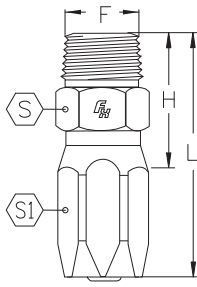
	PART NUMBER	Hose Bore	F	H		L		S		S1	
		INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
	2R04-04FJ	1/4	7/16 - 20	35.1	1.38	66.8	2.63	14	9/16	21	13/16
	2R06-06FJ	3/8	9/16 - 18	38.1	1.50	74.9	2.95	17	11/16	26	1
	2R06-08FJ	3/8	3/4 - 16	41.4	1.63	77.0	3.03	22	7/8	26	1
	2R08-08FJ	1/2	3/4 - 16	42.4	1.67	82.0	3.23	22	7/8	28	1 1/8
	2R08-10FJ	1/2	7/8 - 14	44.9	1.77	84.6	3.33	25	1	28	1 1/8
	2R12-12FJ	3/4	1 1/16 - 12	50.8	2.00	98.8	3.89	32	1 1/8	38	1 1/2
	2R16-16FJ	1	1 5/8 - 12	62.0	2.44	113.0	4.45	38	1 3/8	43	1 3/4

Reference Hose Section for Coupling Compatibility

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MP

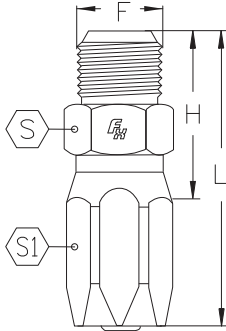
NPT MALE



PART NUMBER	Hose Bore	F	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
5R04-02MP	3/16	1/8 - 27	23.4	0.92	42.4	1.67	14	9/16	15	5/8
5R04-04MP	3/16	1/4 - 18	28.2	1.11	47.2	1.86	14	9/16	15	5/8
5R05-04MP	1/4	1/4 - 18	30.2	1.19	50.0	1.97	14	9/16	17	11/16
5R06-04MP	5/16	1/4 - 18	31.2	1.23	55.1	2.17	14	9/16	21	13/16
5R06-06MP	5/16	3/8 - 18	32.3	1.27	55.9	2.20	17	11/16	21	13/16
5R08-06MP	13/32	3/8 - 18	33.8	1.33	63.0	2.48	17	11/16	24	15/16
5R08-08MP	13/32	1/2 - 14	39.6	1.56	69.1	2.72	22	7/8	24	15/16
5R10-08MP	1/2	1/2 - 14	40.4	1.59	72.6	2.86	22	7/8	28	1 1/8
5R12-12MP	5/8	3/4 - 14	42.4	1.67	81.3	3.20	27	1 1/16	32	1 1/4
5R16-16MP	7/8	1 - 11 1/2	43.7	1.72	75.7	2.98	34	1 3/8	35	1 7/8

MJ

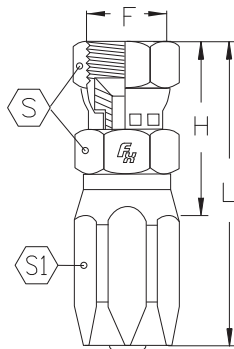
JIC 37° MALE



PART NUMBER	Hose Bore	F	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
5R04-04MJ	3/16	7/16 - 20	27.7	1.09	46.7	1.84	12	1/2	16	5/16
5R05-05MJ	1/4	1/2 - 20	29.7	1.17	49.5	1.95	14	9/16	17	11/16
5R06-06MJ	5/16	9/16 - 18	31.0	1.22	54.1	2.13	16	5/16	21	13/16
5R08-08MJ	13/16	3/4 - 16	33.3	1.31	65.0	2.56	21	13/16	24	15/16

FJ

JIC 37° FEMALE SWIVEL



PART NUMBER	Hose Bore	F	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
5R04-04FJ	3/16	7/16 - 20	30.2	1.19	49.3	1.94	14	9/16	16	5/8
5R05-05FJ	1/4	1/2 - 20	33.0	1.30	52.8	2.08	16	5/8	17	11/16
5R06-06FJ	5/16	9/16 - 18	35.8	1.41	58.7	2.31	17	11/16	21	13/16
5R08-08FJ	13/32	3/4 - 16	40.1	1.58	72.1	2.84	22	7/8	24	15/16
5R10-10FJ	1/2	7/8 - 14	42.4	1.67	77.7	3.06	24	1	28	1 1/8
5R12-12FJ	5/8	1 1/16 - 12	48.8	1.92	88.9	3.50	32	1 1/4	32	1 1/4
5R16-16FJ	7/8	1 5/16 - 12	48.8	1.92	81.0	3.19	38	1 1/2	35	1 3/8
5R20-20FJ	1 1/8	1 5/8 - 12	51.6	2.03	85.9	3.38	50	2	43	1 3/4
5R24-24FJ	1 3/8	1 7/8 - 12	56.6	2.23	97.5	3.84	57	2 1/4	50	2
5R32-32FJ	1 13/16	2 1/2 - 12	65.5	2.58	112.8	4.44	73	2 7/8	55	2 1/2

Reference Hose Section for Coupling Compatibility

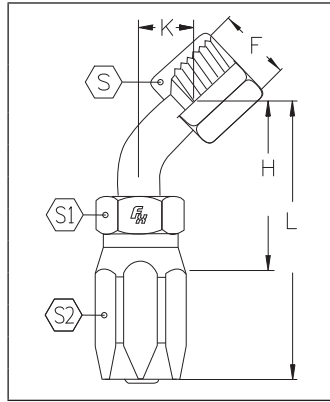
! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





FJ45

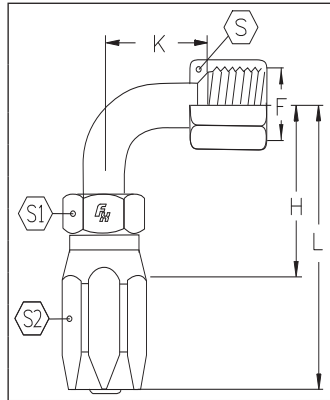
JIC 37° FEMALE SWIVEL - 45° ELBOW



PART NUMBER	Hose Bore	F	H		L		K		S		S1		S2	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
5R04-04FJ45	3/16	7/16 - 20	27.9	1.10	46.7	1.84	8.4	0.33	14	9/16	14	9/16	16	5/8
5R05-05FJ45	1/4	1/2 - 20	32.5	1.28	26.9	1.06	9.1	0.36	16	5/8	14	9/16	17	11/16
5R06-06FJ45	5/16	9/16 - 18	33.8	1.33	56.6	2.23	9.9	0.39	17	11/16	14	9/16	21	13/16
5R08-08FJ45	13/16	3/4 - 16	46.7	1.84	75.7	2.98	14.0	0.55	22	7/8	17	11/16	24	15/16
5R10-10FJ45	1/2	7/8 - 14	41.7	1.64	82.0	3.23	16.0	0.63	25	1	22	7/8	28	1 1/8
5R12-12FJ45	5/8	1 1/16 - 12	56.4	2.22	96.0	3.78	19.6	0.77	32	1 1/4	28	1 1/8	32	1 1/4
5R16-16FJ45	7/8	1 5/16 - 12	56.6	2.23	90.4	3.56	22.6	0.89	38	1 1/2	35	1 3/8	36	1 7/16

FJ90

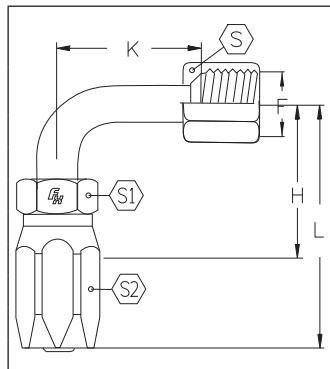
JIC 37° FEMALE SWIVEL - 90° ELBOW



PART NUMBER	Hose Bore	F	H		L		K		S		S1		S2	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
5R04-04FJ90	3/16	7/16 - 20	25.4	1.00	44.4	1.75	17.5	0.69	14	9/16	14	9/16	16	5/8
5R05-05FJ90	1/4	1/2 - 20	30.2	1.19	50.0	1.97	19.6	0.77	16	5/8	16	5/8	17	11/16
5R06-06FJ90	5/16	9/16 - 18	31.2	1.23	54.1	2.13	21.3	0.84	17	11/16	17	11/16	21	13/16
5R08-08FJ90	13/32	3/4 - 16	40.9	1.61	69.8	2.75	27.7	1.09	22	7/8	22	7/8	24	15/16
5R10-10FJ90	1/2	7/8 - 14	42.2	1.66	74.7	2.94	31.2	1.23	25	1	25	1	28	1 1/8
5R12-12FJ90	5/8	1 1/16 - 12	55.1	2.17	95.2	3.75	50.0	1.81	32	1 1/4	32	1 1/4	32	1 1/4
5R16-16FJ90	7/8	1 5/16 - 12	57.9	2.28	90.2	3.55	54.3	2.14	38	1 1/2	38	1 1/2	36	1 7/16

FJ90L

JIC 37° FEMALE SWIVEL - 90° ELBOW LONG DROP



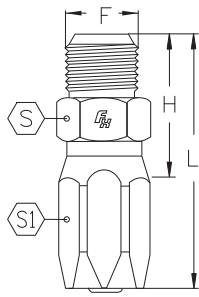
PART NUMBER	Hose Bore	F	H		L		K		S		S1		S2	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
5R04-04FJ90L	3/16	7/16 - 20	25.4	1.00	44.4	1.75	45.7	1.80	14	9/16	14	9/16	16	5/8
5R05-05FJ90L	1/4	1/2 - 20	30.2	1.19	50.0	1.97	45.2	1.78	16	5/8	16	5/8	17	11/16
5R06-06FJ90L	5/16	9/16 - 18	31.2	1.23	54.1	2.13	55.6	2.19	17	11/16	17	11/16	21	13/16
5R08-08FJ90L	13/32	3/4 - 16	36.8	1.45	69.8	2.75	62.0	2.44	22	7/8	22	7/8	24	15/16
5R10-10FJ90L	1/2	7/8 - 14	42.2	1.66	74.7	2.94	65.0	2.56	25	1	27	1 1/16	28	1 1/8
5R12-12FJ90L	5/8	1 1/16 - 12	55.1	2.17	95.2	3.75	94.7	3.73	32	1 1/4	32	1 1/4	32	1 1/4
5R16-16FJ90L	7/8	1 5/16 - 12	57.9	2.28	86.1	3.39	110.0	4.33	38	1 1/2	38	1 1/2	36	1 7/16

Reference Hose Section for Coupling Compatibility

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

MA

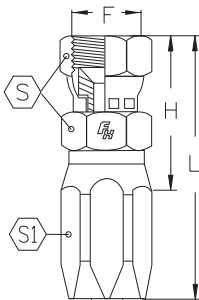
SAE 45° MALE



PART NUMBER	Hose Bore	F	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
5R06-06MA	5/16	9/16 - 18	32.5	1.28	55.6	2.19	17	1 1/16	21	1 3/16
5R12-12MA	5/8	1 1/16 - 14	49.3	1.94	88.9	3.50	28	1 1/8	32	1 1/4

FA

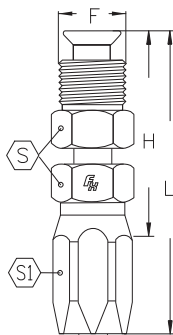
SAE 45° FEMALE SWIVEL



PART NUMBER	Hose Bore	F	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
5R06-06FA	5/16	9/16 - 18	36.6	1.44	59.4	2.34	19	3/4	21	1 3/16
5R12-12FA	5/8	1 1/16 - 14	48.8	1.92	88.9	3.50	32	1 1/4	32	1 1/4

MIX

SAE INVERTED FLARE MALE SWIVEL



PART NUMBER	Hose Bore	T	H		L		S		S1	
	INCH		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
5R04-04MIX	3/16	7/16 - 24	43.7	1.72	62.7	2.47	9	3/8	16	5/8
5R05-05MIX	1/4	1/2 - 20	46.7	1.84	66.8	2.63	11	7/16	17	1 1/16
5R06-06MIX	5/16	9/16 - 18	46.0	1.81	69.1	2.72	12	1/2	21	1 3/16
5R08-08MIX	13/32	3/4 - 18	50.3	1.98	79.5	3.13	16	5/8	24	1 5/16

Reference Hose Section for Coupling Compatibility

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MPX

NPT MALE LIVE SWIVEL

	PART NUMBER	Hose Bore	F
		INCH	
	7R02-02MPX	1/8	1/8 - 27

FJ

JIC 37° FEMALE SWIVEL

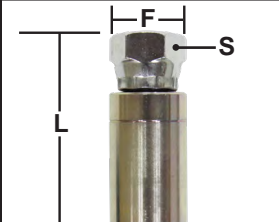
	PART NUMBER	Hose Bore	F
		INCH	
	7R03-04FJ	3/16	7/16 - 20
	7R04-04FJ	1/4	7/16 - 20
	7R06-06FJ	3/8	9/16 - 18
	7R08-08FJ	1/2	3/4 - 16

Reference Hose Section for Coupling Compatibility

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*7RP SERIES **SELFIT** COUPLING

JIC 37° FEMALE SWIVEL

	PART NUMBER	Hose Bore	F	L		S		Flextral Recommend
		INCH	Thread	[mm]	[in]	[mm]	[in]	Hose series
	7RP04-04FJ	1/4	7/16 - 20	47.0	1.85	19	3/4	Coming Soon
	7RP06-06FJ	3/8	9/16 - 18	58.0	2.64	27	1 1/16	SAE100R7
	7RP08-08FJ	1/2	3/4 - 16	67.0	2.86	22	7/8	SAE100R7

Note: Use Only Flextral Approved Hoses With Selfit

ASSEMBLY INSTRUCTIONS

1. Select Selfit Hose Coupling and Cut Hose

- Select Selfit coupling based on hose ID size and connection size needed.
- Cut hose to desired length being sure to cut hose perpendicular as image shows.

Caution!
If cutting angle is more than 10°, this may lead to leakage of oil.



2. Insertion Depth Marking

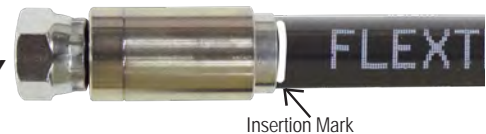
- Use "V-Notch" as shown to determine proper hose insertion depth, mark with white paint pen as shown.

Caution!

You cannot detach the hose from the coupling once it is inserted.



FINAL ASSEMBLY



- Insert hose into fitting until insertion mark reaches the end of the coupling as shown in photo

3. Installation on Equipment

- Before pressurization, firmly pull back on the hose by hand to help preset hose engagement.
- Under pressurization the hose insertion mark will move as shown in the photo. This is normal in this coupling series.



PART NUMBER	SIZE
SFK06-01	-6
SFK08-01	-8

*Kits contain hose, 4/ea 7RP fittings, 2/ea 2403 adapters, 1/ea hose cutter, 1/ea paint pen.

Reference Hose Section for Coupling Compatibility

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MA

SAE 45° MALE

	PART NUMBER	Hose Bore	F
		INCH	
	Z06-06MA*	5/16	5/8 - 18
	Z08-08MA*	13/32	3/4 - 16
	Z10-10MA*	1/2	7/8 - 14
	Z12-12MA*	5/8	1 1/16 - 14

*For reduced barrier change from Z to ZR part numbers.

FA

SAE 45° FEMALE SWIVEL

	PART NUMBER	Hose Bore	F
		INCH	
	Z06-06FA*	5/16	5/8 - 18
	Z06-08FA*	5/16	3/4 - 16
	Z08-08FA*	13/32	3/4 - 16
	Z10-10FA*	1/2	7/8 - 14
	Z12-10FA*	5/8	7/8 - 14
Z12-12FA*	5/8	1 1/16 - 14	

*For reduced barrier change from Z to ZR part numbers.

FA45

SAE 45° FEMALE SWIVEL - 45° ELBOW

	PART NUMBER	Hose Bore	F
		INCH	
	Z06-06FA45*	5/16	5/8 - 18
	Z08-08FA45*	13/32	3/4 - 16
	Z10-10FA45*	1/2	7/8 - 14
	Z12-10FA45*	5/8	7/8 - 14
	Z12-12FA45*	5/8	1 1/16 - 14

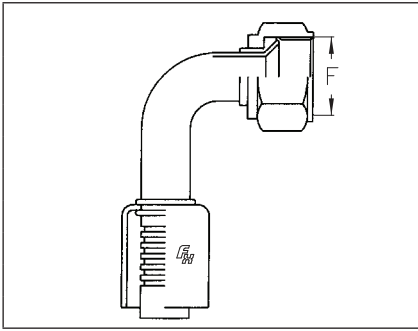
*For reduced barrier change from Z to ZR part numbers.

Reference Hose Section for Coupling Compatibility

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FA90

SAE 45° FEMALE SWIVEL - 90° ELBOW

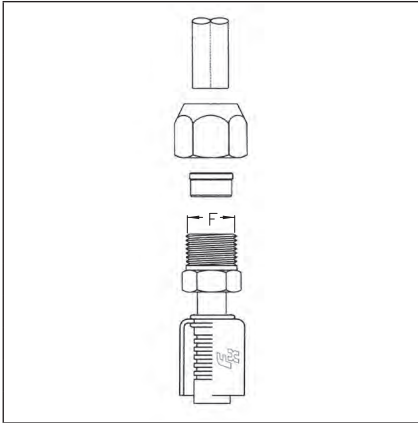


PART NUMBER	Hose Bore	F
	INCH	
Z06-06FA90*	5/16	5/8 - 18
Z08-08FA90*	13/32	3/4 - 16
Z10-10FA90*	1/2	7/8 - 14
Z12-10FA90*	5/8	7/8 - 14
Z12-12FA90*	5/8	1 1/16 - 14

*For reduced barrier change from Z to ZR part numbers.

MRNS

SAE FLARELESS MALE ASSEMBLY

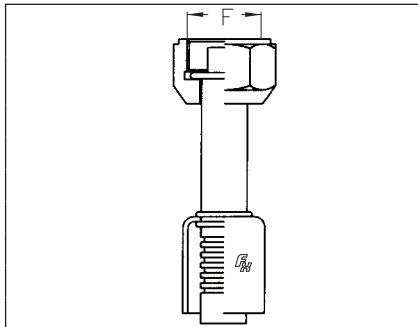


PART NUMBER	Hose Bore	F	TUBE O.D.	
	INCH		[mm]	[in]
Z06-06MRNS*	5/16	5/8 - 18	9.53	.375
Z08-08MRNS*	13/32	3/4 - 16	12.70	.500
Z08-10MRNS*	13/32	7/8 - 14	15.88	.625
Z10-08MRNS*	1/2	3/4 - 16	12.70	.500
Z10-10MRNS*	1/2	7/8 - 14	15.88	.625
Z12-10MRNS*	5/8	7/8 - 14	15.88	.625
Z12-12MRNS*	5/8	1 1/16 - 14	19.05	.750

*For reduced barrier change from Z to ZR part numbers.

BTF

BUMPED TUBE O-RING FEMALE SWIVEL



PART NUMBER	Hose Bore	F
	INCH	
Z06-06BTF*	5/16	5/8 - 18
Z06-08BTF*	5/16	3/4 - 16
Z08-08BTF*	13/32	3/4 - 16
Z10-08BTF*	1/2	3/4 - 16
Z10-10BTF*	1/2	7/8 - 14
Z12-10BTF*	5/8	7/8 - 14
Z12-12BTF*	5/8	1 1/16 - 14

*For reduced barrier change from Z to ZR part numbers.

Reference Hose Section for Coupling Compatibility

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

	PART NUMBER	Hose Bore	F
		INCH	
	Z06-06BTF-P*	5/16	5/8 - 18
	Z08-08BTF-P*	13/32	3/4 - 16
	Z10-10BTF-P*	1/2	7/8 - 14
	Z12-12BTF-P*	5/8	1 1/16 - 14

*For reduced barrier change from Z to ZR part numbers.

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

	PART NUMBER	Hose Bore	F
		INCH	
	Z06-06BTF45*	5/16	5/8 - 18
	Z08-08BTF45*	13/32	3/4 - 16
	Z10-10BTF45*	1/2	7/8 - 14
	Z12-10BTF45*	5/8	7/8 - 14
Z12-12BTF45*	5/8	1 1/16 - 14	

*For reduced barrier change from Z to ZR part numbers.

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

	PART NUMBER	Hose Bore	F
		INCH	
	Z06-06BTF45-P*	5/16	5/8 - 18
	Z08-08BTF45-P*	13/32	3/4 - 16
	Z10-10BTF45-P*	1/2	7/8 - 14
	Z12-10BTF45-P*	5/8	7/8 - 14
Z12-12BTF45-P*	5/8	1 1/16 - 14	

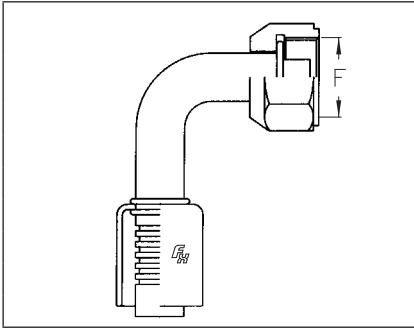
*For reduced barrier change from Z to ZR part numbers.

Reference Hose Section for Coupling Compatibility

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

BTF90

BUMPED TUBE O-RING FEMALE SWIVEL - 90° ELBOW

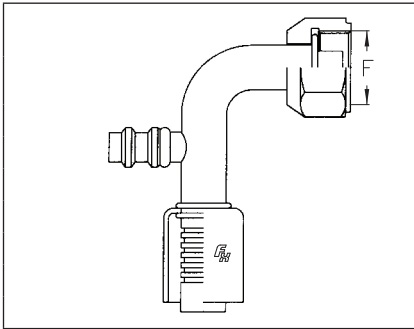


PART NUMBER	Hose Bore	F
	INCH	
Z06-06BTF90*	5/16	5/8 - 18
Z06-08BTF90*	5/16	3/4 - 16
Z08-06BTF90*	13/32	5/8 - 18
Z08-08BTF90*	13/32	3/4 - 16
Z10-10BTF90*	1/2	7/8 - 14
Z12-10BTF90*	5/8	7/8 - 14
Z12-12BTF90*	5/8	1 1/16 - 14

*For reduced barrier change from Z to ZR part numbers.

BTF90-P

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

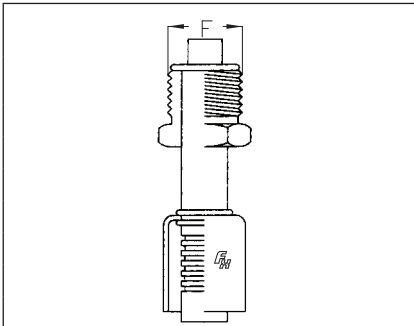


PART NUMBER	Hose Bore	F
	INCH	
Z06-06BTF90-P*	5/16	5/8 - 18
Z08-08BTF90-P*	13/32	3/4 - 16
Z10-10BTF90-P*	1/2	7/8 - 14
Z12-10BTF90-P*	5/8	7/8 - 14
Z12-12BTF90-P*	5/8	1 1/16 - 14

*For reduced barrier change from Z to ZR part numbers.

BTM

BUMPED TUBE O-RING MALE SWIVEL



PART NUMBER	Hose Bore	F
	INCH	
Z06-06BTM*	5/16	5/8 - 18
Z08-08BTM*	13/32	3/4 - 18
Z10-10BTM*	1/2	7/8 - 18
Z10-12BTM*	1/2	1 1/16 - 16
Z12-10BTM*	5/8	7/8 - 18
Z12-12BTM*	5/8	1 1/16 - 16

*For reduced barrier change from Z to ZR part numbers.

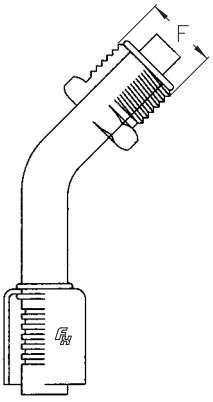
Reference Hose Section for Coupling Compatibility

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



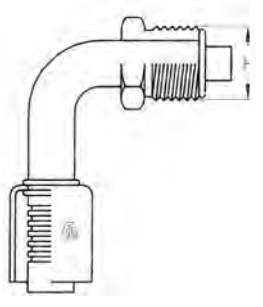


BTM45 BUMPED TUBE O-RING MALE SWIVEL - 45° ELBOW

	PART NUMBER	Hose Bore	F
		INCH	
	Z06-06BTM45*	5/16	5/8 - 18
	Z08-08BTM45*	13/32	3/4 - 18
	Z10-10BTM45*	5/8	7/8 - 18
Z12-12BTM45*	5/8	1 1/16 - 16	

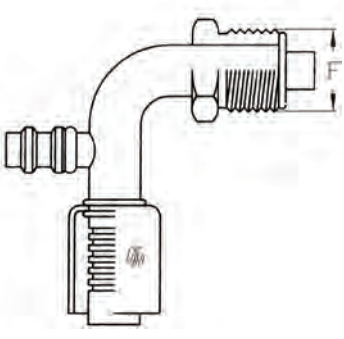
*For reduced barrier change from Z to ZR part numbers.

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

	PART NUMBER	Hose Bore	F
		INCH	
	Z06-06BTM90*	5/16	5/8 - 18
	Z08-08BTM90*	13/32	3/4 - 18
	Z10-10BTM90*	1/2	7/8 - 18
Z12-10BTM90*	5/8	7/8 - 18	
Z12-12BTM90*	5/8	1 1/16 - 16	

*For reduced barrier change from Z to ZR part numbers.

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

	PART NUMBER	Hose Bore	F
		INCH	
	Z06-06BTM90-P*	5/16	5/8 - 18
	Z08-08BTM90-P*	5/16	3/4 - 18
	Z10-10BTM90-P*	13/32	7/8 - 18
Z12-12BTM90-P*	13/32	1 1/16 - 16	

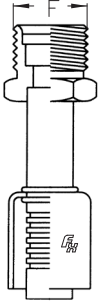
*For reduced barrier change from Z to ZR part numbers.

Reference Hose Section for Coupling Compatibility

⚠ WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

IOM

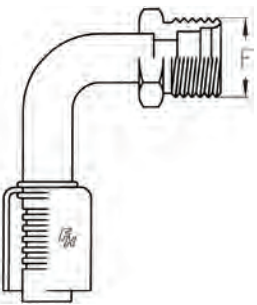
INSERT O-RING MALE

	PART NUMBER	Hose Bore	F
		INCH	
	Z06-06IOM*	5/16	5/8 - 18
	Z08-08IOM*	13/32	3/4 - 16
	Z10-10IOM*	1/2	7/8 - 14
	Z12-12IOM*	5/8	1 1/16 - 14

*For reduced barrier change from Z to ZR part numbers.

IOM90


INSERT O-RING MALE - 90° ELBOW

	PART NUMBER	Hose Bore	F
		INCH	
	Z06-06IOM90*	5/16	5/8 - 18
	Z08-08IOM90*	13/32	3/4 - 16
	Z10-10IOM90*	1/2	7/8 - 14
	Z12-12IOM90*	5/8	1 1/16 - 14

*For reduced barrier change from Z to ZR part numbers.


HM

HOSE MENDER

	PART NUMBER	Hose Bore	Hose Bore
		INCH	INCH
	Z06-06HM*	5/16	5/16
	Z06-08HM*	5/16	13/32
	Z08-08HM*	13/32	13/32
	Z08-10HM*	13/32	1/2
	Z10-10HM*	1/2	1/2
	Z10-12HM*	1/2	5/8
Z12-12HM*	5/8	5/8	

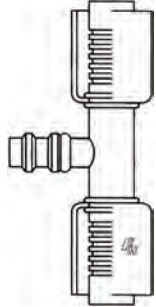
*For reduced barrier change from Z to ZR part numbers.

Reference Hose Section for Coupling Compatibility

 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>




HM-P HOSE MENDER (R134a SERVICE PORT)

	PART NUMBER	Hose Bore	Hose Bore
		INCH	INCH
	Z06-06HM-P*	5/16	5/16
	Z08-08HM-P*	13/32	13/32
	Z10-10HM-P*	1/2	1/2
Z12-12HM-P*	5/8	5/8	

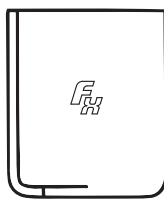
*For reduced barrier change from Z to ZR part numbers.

BS BRAZE SOCKET

	PART NUMBER	Hose Bore	F
		INCH	
	Z06-06BS*	5/16	3/8
	Z08-08BS*	13/32	1/2
	Z10-10BS*	1/2	5/8
Z12-12BS*	5/8	3/4	


*For reduced barrier change from Z to ZR part numbers.

ACF AIR CONDITIONING FERRULE

	PART NUMBER	Hose Bore
		INCH
	Z06-ACF*	5/16
	Z08-ACF*	13/32
	Z10-ACF*	1/2

*For reduced barrier change from Z to ZR part numbers.

ACO AIR CONDITIONING O-RINGS

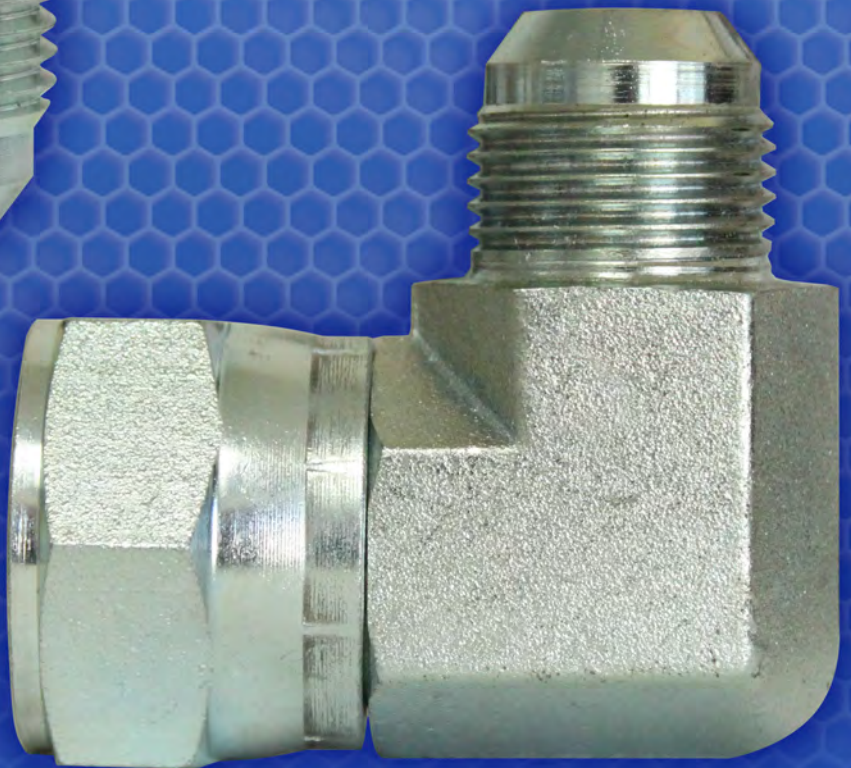
	PART NUMBER	TUBE O.D.	I.D.		WIDTH	
			[mm]	[in]	[mm]	[in]
	Z06-ACO*	3/8	7.65	0.30	1.78	0.07
	Z08-ACO*	1/2	10.82	0.43	1.78	0.07
	Z10-ACO*	5/8	14.00	0.55	1.78	0.07
Z12-ACO*	3/4	17.17	0.68	1.78	0.07	

*For reduced barrier change from Z to ZR part numbers.

Reference Hose Section for Coupling Compatibility

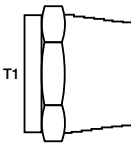
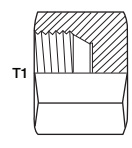
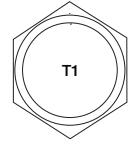
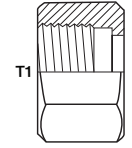
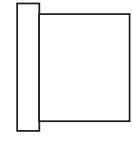
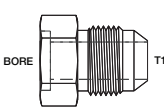
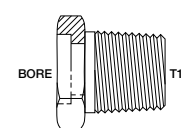
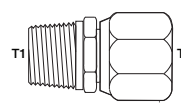
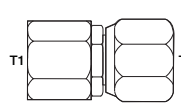
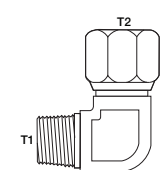
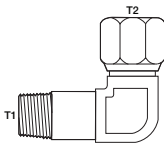
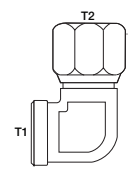
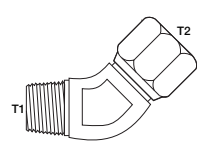
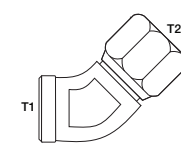
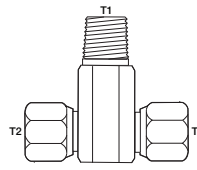
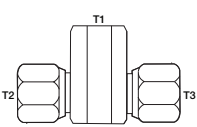
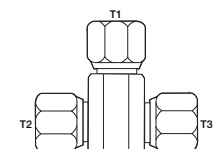
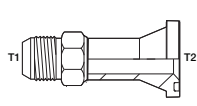
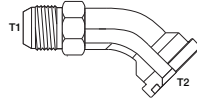
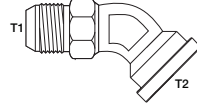
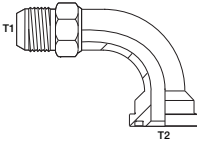
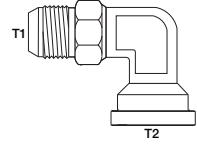
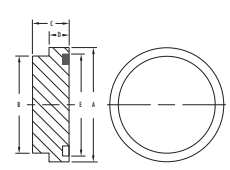
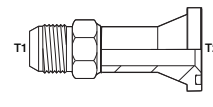
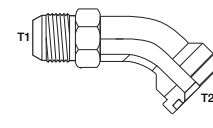
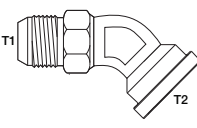
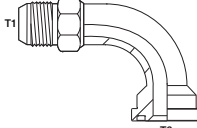
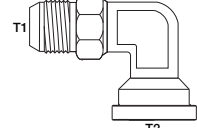
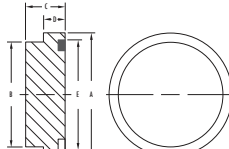
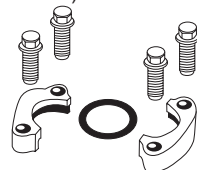
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ADAPTERS



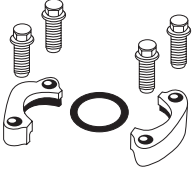
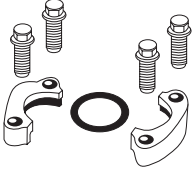
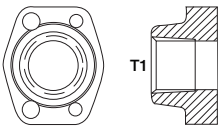
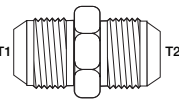
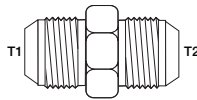
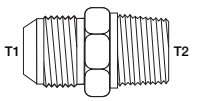
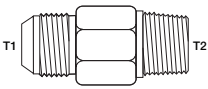
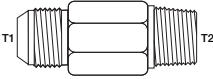
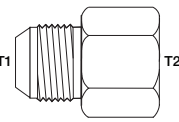
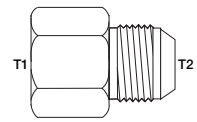
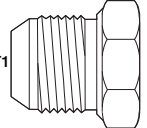
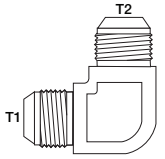
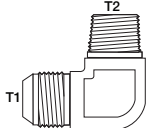
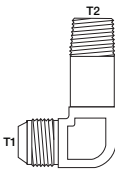
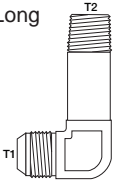
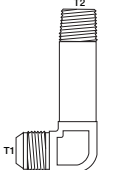
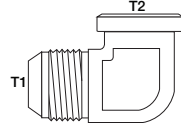
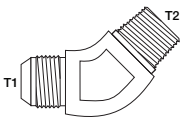
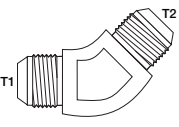
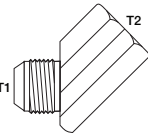
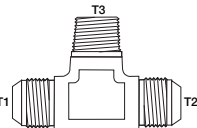
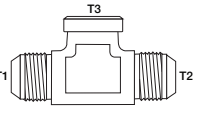
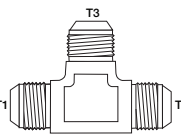
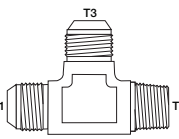
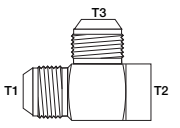
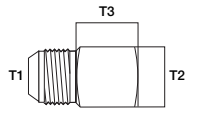
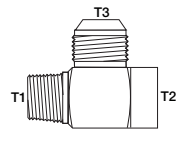
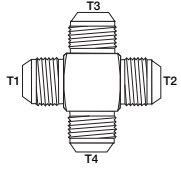
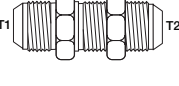
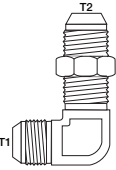
FLEUTRAL




<p>0304 Standard Nut</p>  <p>Page D22</p>	<p>0304C JIC Cap</p>  <p>Page D22</p>	<p>0306 JIC Bulkhead Locknut</p>  <p>Page D22</p>	<p>0318 JIC Tube Nut</p>  <p>Page D23</p>	<p>0319 JIC Tube Sleeve 3 Piece</p>  <p>Page D23</p>
<p>0403 Bore/M-JIC Braze On (Unplated)</p>  <p>Page D23</p>	<p>0404 MP Straight</p>  <p>Page D24</p>	<p>1404 M-NPT/F-NPSM</p>  <p>Page D24</p>	<p>1405 F-NPT/F-NPSM</p>  <p>Page D25</p>	<p>1501 90° M-NPT/F-NPSM</p>  <p>Page D25</p>
<p>1501L 90° M-NPT/F-NPSM LONG</p>  <p>Page D26</p>	<p>1502 90° F-NPT/F-NPSM</p>  <p>Page D26</p>	<p>1503 45° M-NPT/F-NPSM</p>  <p>Page D27</p>	<p>1504 45° F-NPT/F-NPSM</p>  <p>Page D27</p>	<p>1601 Branch Tee M-NPT/ F-NPSM/F-NPSM</p>  <p>Page D28</p>
<p>1602 Tee F-NPT/F-NPSM/ F-NPSM</p>  <p>Page D28</p>	<p>1603 Tee F-NPSM Swivel Nuts</p>  <p>Page D28</p>	<p>1700 M-JIC/Flange Straight (Code 61)</p>  <p>Page D29</p>	<p>1703 45° M-JIC/ Flange (Code 61)</p>  <p>Page D29</p>	<p>1703FG Forged 45° M-JIC/ Flange (Code 61)</p>  <p>Page D30</p>
<p>1704 90° M-JIC/ Flange (Code 61)</p>  <p>Page D30</p>	<p>1704FG Forged 90° M-JIC/ Flange (Code 61)</p>  <p>Page D30</p>	<p>1724 Flange Plug (Code 61)</p>  <p>Page D31</p>	<p>1800 M-JIC/Flange Straight (Code 62)</p>  <p>Page D31</p>	<p>1803 45° M-JIC/ Flange (Code 62)</p>  <p>Page D31</p>
<p>1803FG Forged 45° M-JIC/ Flange (Code 62)</p>  <p>Page D31</p>	<p>1804 90° M-JIC/ Flange (Code 62)</p>  <p>Page D32</p>	<p>1804FG Forged 90° M-JIC/ Flange (Code 62)</p>  <p>Page D32</p>	<p>1824 Flange Plug (Code 62)</p>  <p>Page D32</p>	<p>1901 Split Flange Kit (Code 61)</p>  <p>Page D33</p>

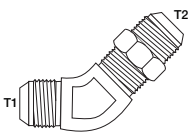
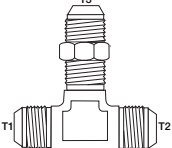
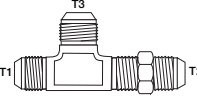
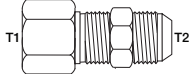
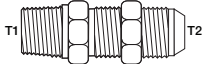
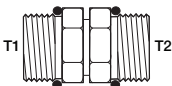
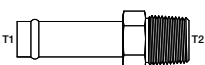
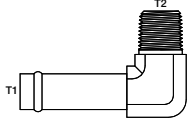
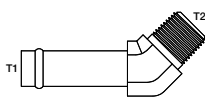
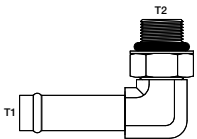
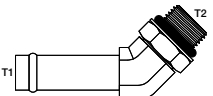
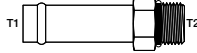
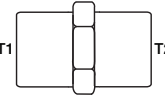
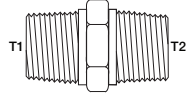
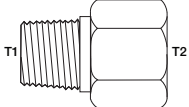
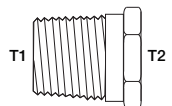
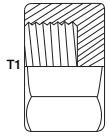
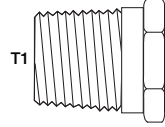
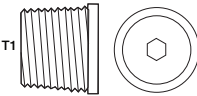
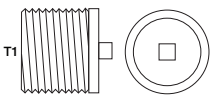
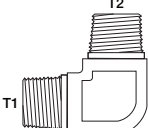
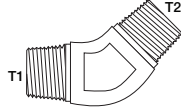
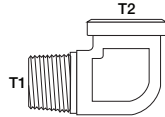
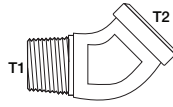
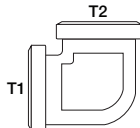
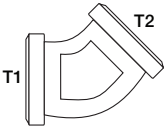
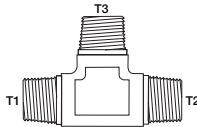
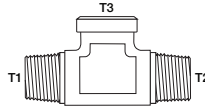
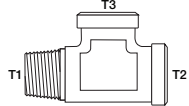
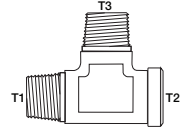
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<p>1902 Split Flange Kit (Code 62)</p>  <p>Page D33</p>	<p>1903 Caterpillar® Split Flange Kit (Code 62)</p>  <p>Page D33</p>	<p>1927-61 F-NPT/Flange Kit (Code 61)</p>  <p>Page D33</p>	<p>2403 M-JIC/M-JIC Straight</p>  <p>Page D34</p>	<p>2403LH M-JIC/M-JIC Large Hex Straight</p>  <p>Page D34</p>
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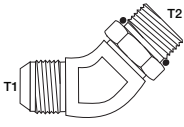
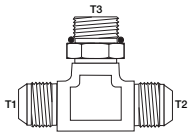
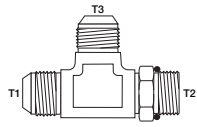
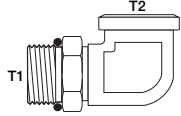
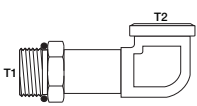
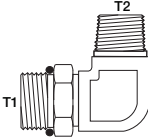
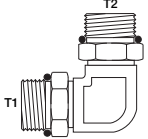
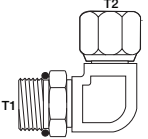
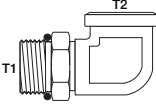
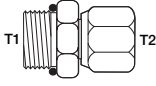
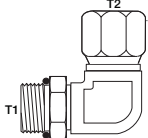
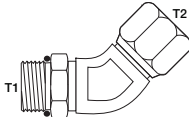
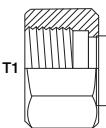
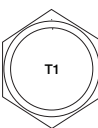

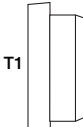
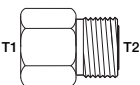
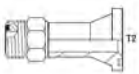
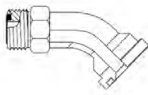
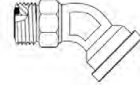
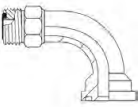

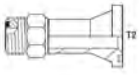
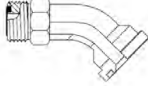
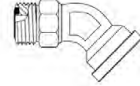
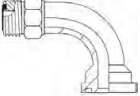

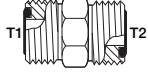
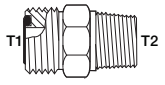
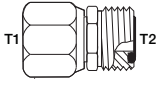
<p>5604 Branch Tee F-NPT/F-NPT/M-NPT</p> <p>Page D59</p>	<p>5605 Tee F-NPT</p> <p>Page D59</p>	<p>5652 Cross F-NPT</p> <p>Page D60</p>	<p>6400 M-JIC/M-ORB</p> <p>Page D60-61</p>	<p>6400L M-JIC/M-ORB Long</p> <p>Page D61</p>
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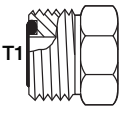
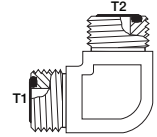
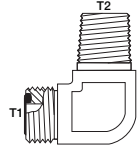
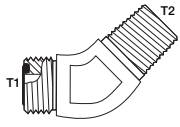
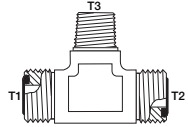
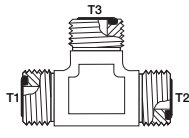
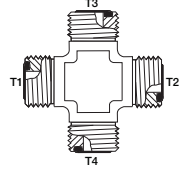
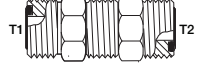
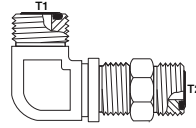
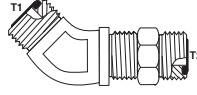
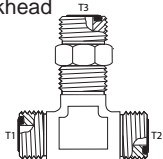
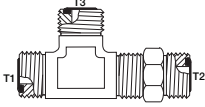
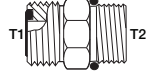
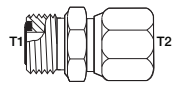
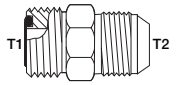
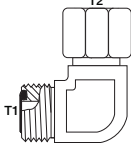
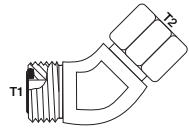
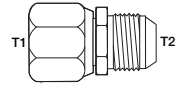
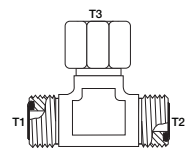
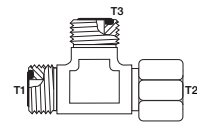
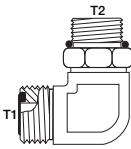
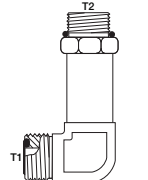
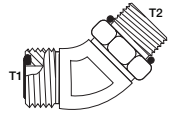
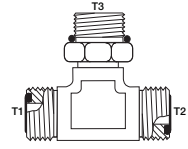
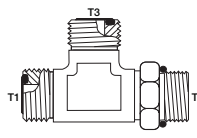
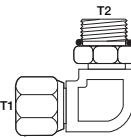
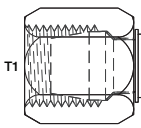
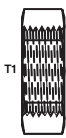
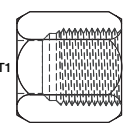
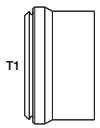
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QUICK REFERENCE CHART



<p>6802 45° M-JIC/M-ORB</p>  <p>Page D73</p>	<p>6803 Branch Tee M-JIC/M-JIC/M-ORB</p>  <p>Page D74</p>	<p>6804 Run Tee M-JIC/M-ORB/M-JIC</p>  <p>Page D74</p>	<p>6805 90° M-ORB/F-NPT</p>  <p>Page D75</p>	<p>6805L 90° M-ORB/F-NPT Long</p>  <p>Page D75</p>
<p>6806 90° M-ORB/M-NPT</p>  <p>Page D75</p>	<p>6807 90° M-ORB/M-ORB</p>  <p>Page D76</p>	<p>6809 90° M-ORB/F-JIC</p>  <p>Page D76</p>	<p>6815 90° M-ORB/F-ORB</p>  <p>Page D76</p>	<p>6900 M-ORB/F-NPSM</p>  <p>Page D77</p>
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<p>FS1804 90° M-ORFS / Flange (Code 62)</p>  <p>Page D82</p>	<p>FS1804FG Forged 90° M-ORFS / Flange (Code 62)</p>  <p>Page D82</p>	<p>FS2403 M-ORFS/M-ORFS Straight</p>  <p>Page D82</p>	<p>FS2404 M-ORFS/M-NPT Straight</p>  <p>Page D83</p>	<p>FS2406 F-ORFS/M-ORFS</p>  <p>Page D83</p>

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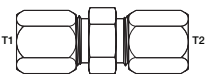

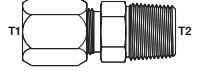
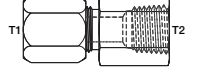
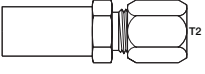
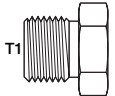
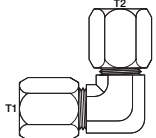
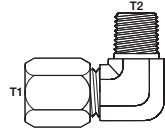
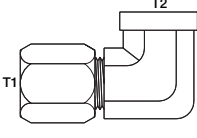
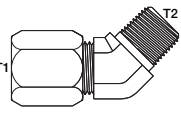
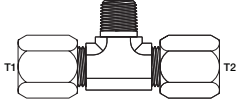
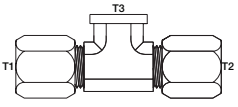
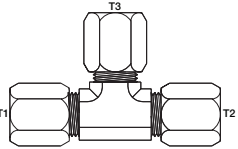
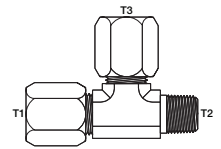
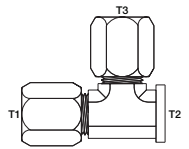
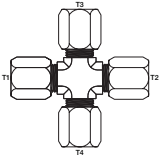
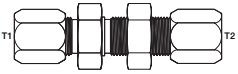
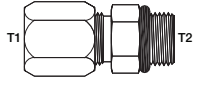

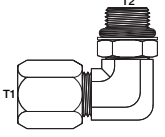
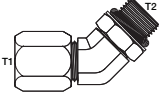
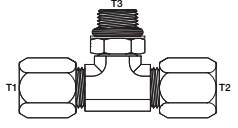
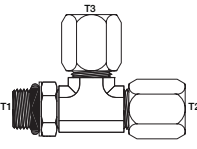
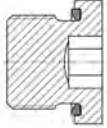

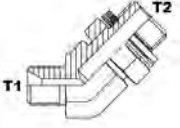
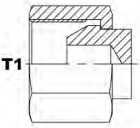
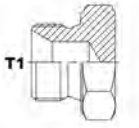
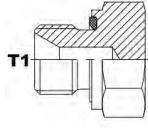
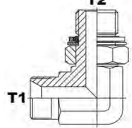
<p>FS2408 ORFS/Hex Plug</p>  <p>Page D84</p>	<p>FS2500 90° M-ORFS/M-ORFS</p>  <p>Page D84</p>	<p>FS2501 90° M-ORFS/M-NPT</p>  <p>Page D84</p>	<p>FS2503 45° M-ORFS/M-NPT</p>  <p>Page D85</p>	<p>FS2601 Branch Tee M-ORFS/ M-ORFS/M-NPT</p>  <p>Page D85</p>
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<p>FS6809 90° F-ORFS/M-ORB</p>  <p>Page D93</p>	<p>C0304C Flareless Cap</p>  <p>Page D94</p>	<p>C0306 Flareless Bulkhead Locknut</p>  <p>Page D94</p>	<p>C0318 Flareless Nut</p>  <p>Page D94</p>	<p>C0319 Flareless Compression Sleeve</p>  <p>Page D95</p>



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<p>C2408 Flareless Plug</p>  <p>Page D97</p>	<p>C2500 90° Flareless/Flareless</p>  <p>Page D97</p>	<p>C2501 90° Flareless/M-NPT</p>  <p>Page D98</p>	<p>C2502 90° Flareless/F-NPT</p>  <p>Page D98</p>	<p>C2503 45° Flareless/M-NPT</p>  <p>Page D99</p>
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<p>IA-14BG 60° BSPP Male x 45° BSPP Male Adj.</p>  <p>Page D103</p>	<p>IA-0CB BSPP Female Cap 60° Cone Seat</p>  <p>Page D104</p>	<p>IA-0PB BSPP Male Plug 60° Cone Seat</p>  <p>Page D104</p>	<p>IA-0PB-WD BSPP Male Plug Dual Purpose (Captive Seal)</p>  <p>Page D104</p>	<p>IA-19BG 60° BSPP Male x 90° BSPP Male Adj.</p>  <p>Page D105</p>

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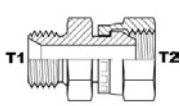
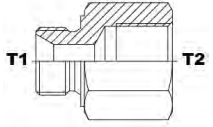

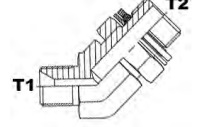
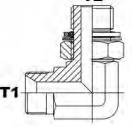
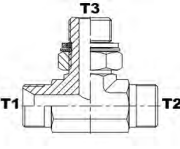
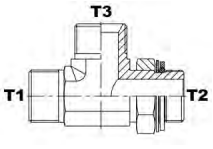
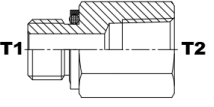
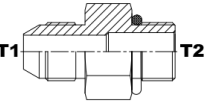
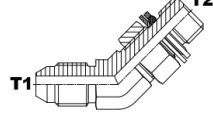
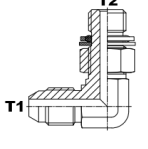
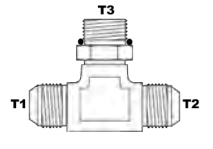
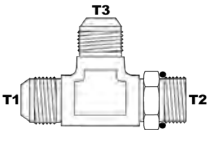
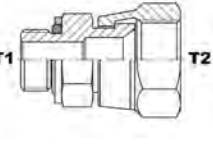
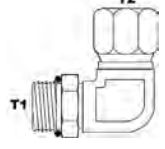
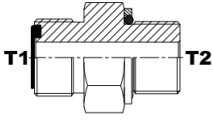
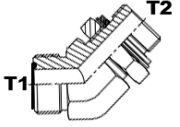
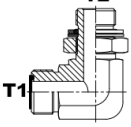
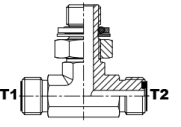
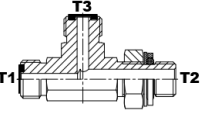
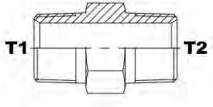
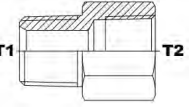
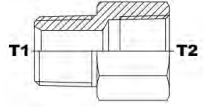
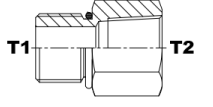
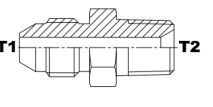
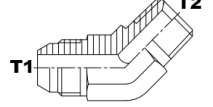

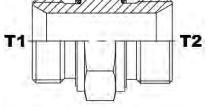
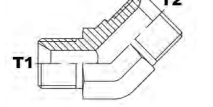
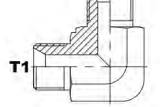


<p>IA-ABBG BSPP Male 60° x BSPP Male Adj. Br. Tee</p> <p>Page D105</p>	<p>IA-ABGB 60° BSPP Male x BSPP Male Adj. Run Tee</p> <p>Page D105</p>	<p>IA-20GB BSPP Male Port x BSPP Female Swivel</p> <p>Page D106</p>	<p>IA-24GB 45° BSPP Male Adj. x BSPP Female Swivel</p> <p>Page D106</p>	<p>IA-29GB 90° BSPP Male Adj. x BSPP Female Swivel</p> <p>Page D106</p>
<p>IA-50GB BSPP Port Male x Female Rigid</p> <p>Page D107</p>	<p>IA-59GB BSPP Port Adj. Male x 90° Female Rigid</p> <p>Page D107</p>	<p>IA-10BT BSPP Male x BSPT Male</p> <p>Page D108</p>	<p>IA-14BT BSPP Male x 45° BSPT Male</p> <p>Page D109</p>	<p>IA-19BT BSPP Male x 90° BSPT Male</p> <p>Page D109</p>
<p>IA-ABBT BSPP Male x BSPT Male Br. Tee</p> <p>Page D109</p>	<p>IA-ABTB BSPP Male x BSPT Male Run Tee</p> <p>Page D109</p>	<p>IA-20TB BSPT Male x BSPP Female Swivel</p> <p>Page D110</p>	<p>IA-24TB BSPT Male x 45° BSPP Female Swivel</p> <p>Page D110</p>	<p>IA-29TB 45° BSPT Male x BSPP Female Swivel</p> <p>Page D110</p>
<p>IA-50BT 60° BSPP Male x BSPT Female Rigid</p> <p>Page D110</p>	<p>IA-50TB BSPT Male x BSPP Female Rigid</p> <p>Page D111</p>	<p>IA-54TB BSPT Male x 45° BSPP Female Rigid</p> <p>Page D111</p>	<p>IA-59TB BSPT Male x 90° BSPP Female Rigid</p> <p>Page D111</p>	<p>IA-0PT BSPT Male Plug</p> <p>Page D112</p>
<p>IA-0PHT BSPT Male Plug Allen-Type</p> <p>Page D112</p>	<p>IA-10TT BSPT Male Nipple</p> <p>Page D112</p>	<p>IA-19TT 90° BSPT Male Union</p> <p>Page D113</p>	<p>IA-ATTT BSPT Male Tee</p> <p>Page D113</p>	<p>IA-50TT BSPT Male x Female Rigid</p> <p>Page D113</p>
<p>IA-59TT BSPT Male x 90° Female Rigid</p> <p>Page D114</p>	<p>IA-70TT BSPT Female Coupling</p> <p>Page D114</p>	<p>IA-30FB ORFS x BSPP Female Swivel Union</p> <p>Page D115</p>	<p>IA-10BM 60° BSPP Male x Metric Male</p> <p>Page D115</p>	<p>IA-10BM-WD 60° BSPP Male x Metric (Captive Seal)</p> <p>*Quoted Upon Request Page D116</p>



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<p>IA-20MB Metric Male x BSPP Female Swivel</p>  <p>Page D116</p>	<p>IA-50BM BSPP Male x Metric Female</p>  <p>Page D116</p>	<p>IA-10BH 60° BSPP Male x Metric Port Male</p>  <p>Page D117</p>	<p>IA-14BH 60° BSPP Male x 45° Metric Port Adj. Male</p>  <p>Page D117</p>	<p>IA-19BH BSPP Male x 90° Metric Port Adj. Male</p>  <p>Page D118</p>
<p>IA-ABBH BSPP Male x Metric Port Adj. Male Br. Tee</p>  <p>Page D118</p>	<p>IA-ABHB BSPP Male x Metric Port Adj. Male Run Tee</p>  <p>Page D118</p>	<p>IA-50GN BSPP Male Port x NPT Female Rigid</p>  <p>Page D119</p>	<p>IA-10JG JIC Male x BSPP Port Male</p>  <p>Page D119</p>	<p>IA-14JG JIC Male x 45° BSPP Port Adj. Male</p>  <p>Page D120</p>
<p>IA-19JG JIC Male x 90° BSPP Port Adj. Male</p>  <p>Page D120</p>	<p>IA-AJJG JIC Male x BSPP Port Adj. Male Br. Tee</p>  <p>Page D121</p>	<p>IA-AJGJ JIC Male x BSPP Port Adj. Male Run Tee</p>  <p>Page D121</p>	<p>IA-20GJ BSPP Male Port x JIC Female Swivel</p>  <p>Page D121</p>	<p>IA-29GJ 90° BSPP Male Port Adj. x JIC Female Swivel</p>  <p>Page D121</p>
<p>IA-10FG ORFS Male x BSPP Port Male</p>  <p>Page D122</p>	<p>IA-14FG ORFS Male x 45° BSPP Port Adj. Male</p>  <p>Page D122</p>	<p>IA-19FG ORFS Male x 90° BSPP Port Adj. Male</p>  <p>Page D123</p>	<p>IA-AFFG ORFS Male x BSPP Port Adj. Male Br. Tee</p>  <p>Page D123</p>	<p>IA-AFGF ORFS Male x BSPP Port Adj. Male Run Tee</p>  <p>Page D123</p>
<p>IA-10NT NPT Male x BSPT Male</p>  <p>Page D124</p>	<p>IA-50TN BSPT Male x NPT Female Rigid</p>  <p>Page D124</p>	<p>IA-50NT NPT Male x BSPT Female Rigid</p>  <p>Page D124</p>	<p>IA-50OT M-ORB x BSPT Female Rigid</p>  <p><i>*Quoted Upon Request</i> Page D125</p>	<p>IA-10JT JIC Male x BSPT Male</p>  <p>Page D125</p>
<p>IA-14JT JIC Male x 45° BSPT Male</p>  <p>Page D125</p>	<p>IA-10BB BSPP Male Union 60° Seats</p>  <p>Page D126</p>	<p>IA-10BB-WD BSPP Male Union 60° Seats + Captive Seal</p>  <p>Page D127</p>	<p>IA-14BB 45° BSPP Male Union</p>  <p>Page D127</p>	<p>IA-19BB 90° BSPP Male Union</p>  <p>Page D127</p>



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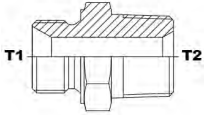
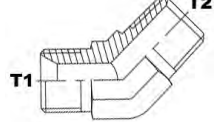
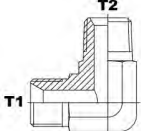
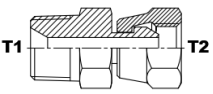
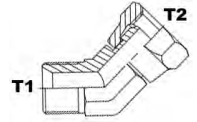
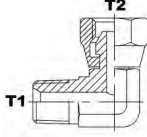
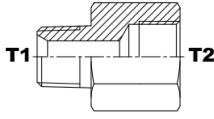
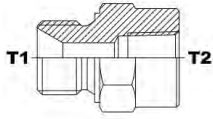
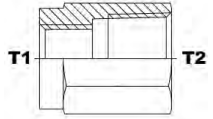
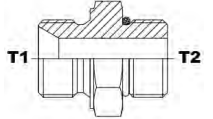
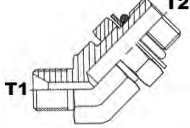
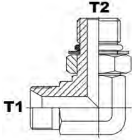
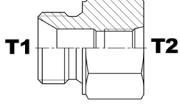
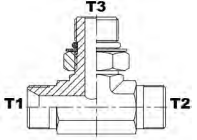
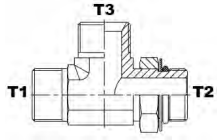
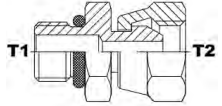
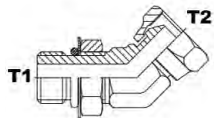
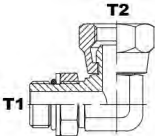
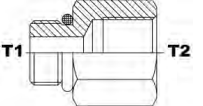
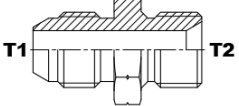


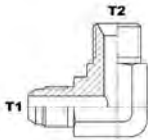
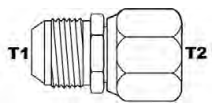
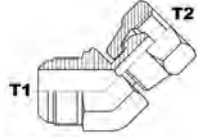
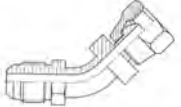
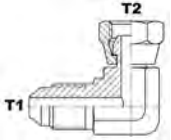
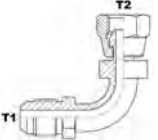
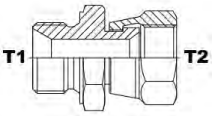
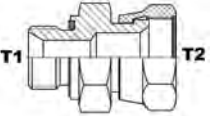



<p>IA-ABBB BSPP Male Union Tee</p> <p>Page D128</p>	<p>IA-XBBBB BSPP Male Union Cross</p> <p>Page D128</p>	<p>IA-20BB BSPP Male x Female Swivel</p> <p>Page D129</p>	<p>IA-24BB BSPP Male x 45° Female Swivel</p> <p>Page D129</p>	<p>IA-24BB-T BSPP Male x 45° Female Swivel Tube Type</p> <p>Page D130</p>
<p>IA-29BB BSPP Male x 90° Female Swivel</p> <p>Page D130</p>	<p>IA-29BB-T BSPP Male x 90° Female Swivel Tube Type</p> <p>Page D130</p>	<p>IA-BBBB BSPP Female Swivel Branch Tee</p> <p>Page D131</p>	<p>IA-CBBB BSPP Female Swivel Run Tee</p> <p>Page D131</p>	<p>IA-EBBB BSPP Male Branch Tee</p> <p>Page D131</p>
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<p>IA-50BB-SB-WD M-BSPP Captive Seal x F-BSPP - Short Body</p> <p>Page D136</p>	<p>IA-59BB BSPP Male x 90° Female Rigid</p> <p>Page D136</p>	<p>IA-70BB BSPP Female Rigid Coupling</p> <p>Page D136</p>	<p>IA-74BB 45° BSPP Female Rigid Coupling</p> <p>Page D137</p>	<p>IA-79BB 90° BSPP Female Rigid Coupling</p> <p>Page D137</p>
<p>IA-GBBB BSPP Female Rigid Union Tee</p> <p>Page D137</p>	<p>IA-40BB BSPP Female Rigid x BSPP Female Swivel</p> <p><i>*Quoted Upon Request</i></p> <p>Page D137</p>	<p>IA-60BB BSPP Male Bulkhead Union</p> <p>Page D138</p>	<p>IA-69BB 90° BSPP Male Bulkhead Union</p> <p>Page D138</p>	<p>IA-0LNB BSPP Male Bulkhead Locknut</p> <p>Page D138</p>



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IA-10BN BSPP Male x NPT Male  Page D139	IA-14BN BSPP Male x 45° NPT Male  <i>*Quoted Upon Request</i> Page D140	IA-19BN BSPP Male x 90° NPT Male  Page D140	IA-20NB NPT Male x BSPP Female Swivel  Page D140	IA-24NB NPT Male x 45° BSPP Female Swivel  <i>*Quoted Upon Request</i> Page D141
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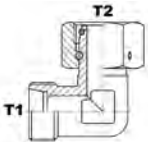
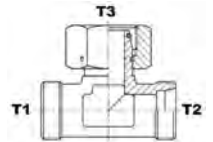
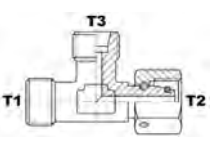
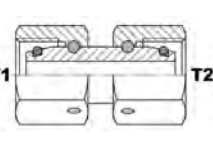
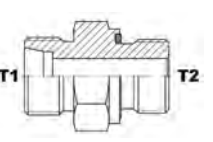
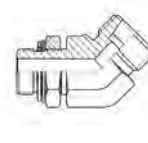
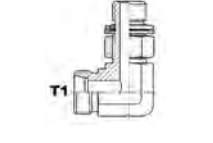
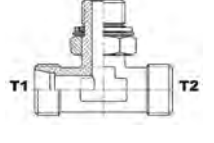
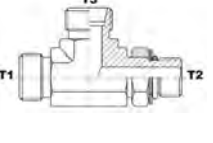
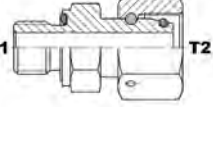
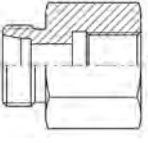

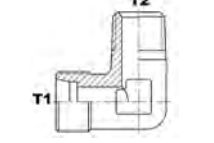
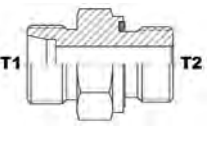
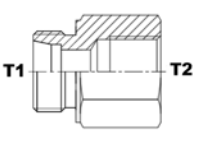
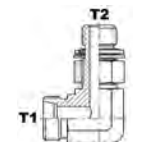
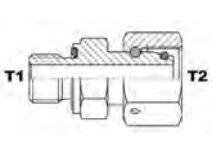
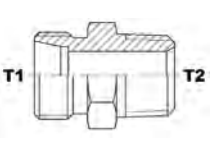
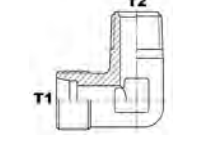
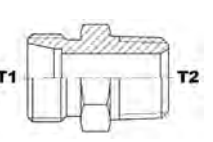
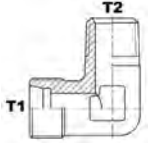
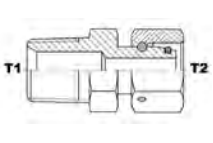
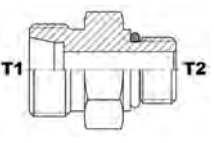
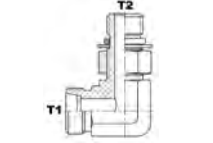
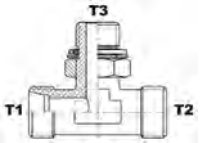
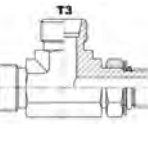

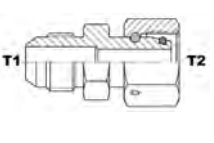

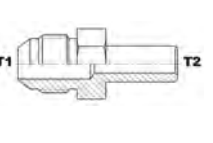
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<p>IA-24BJ BSPP Male x JIC Female Swivel 45°</p> <p>Page D150</p>	<p>IA-29BJ BSPP Male x 90° JIC Female Swivel</p> <p>Page D151</p>	<p>IA-30JB JIC Female x BSPP Swivel Union</p> <p>Page D151</p>	<p>IA-50JB JIC Male x BSPP Female Rigid</p> <p>Page D151</p>	<p>IA-59JB JIC Male x 90° BSPP Female Rigid</p> <p>Page D151</p>
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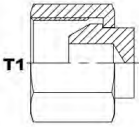
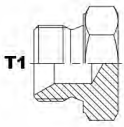
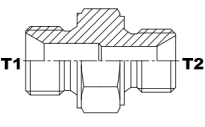
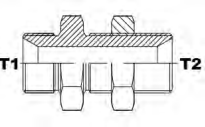
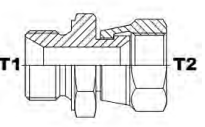
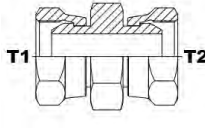
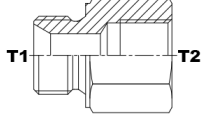
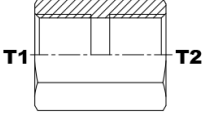
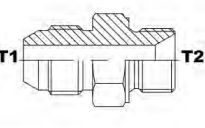
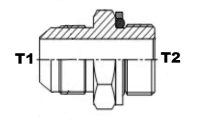
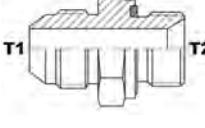

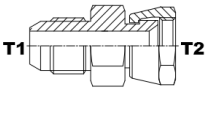
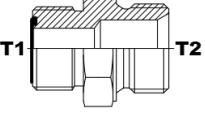

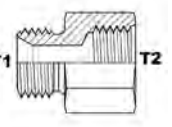
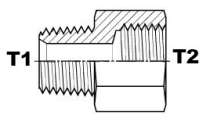
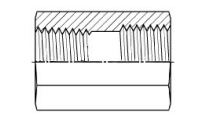
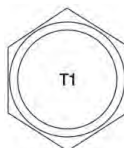
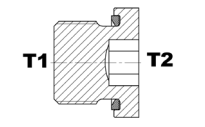
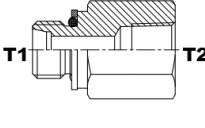
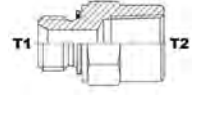
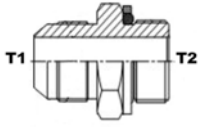


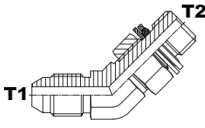
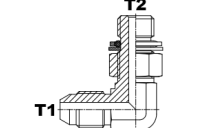
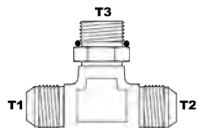
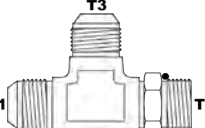
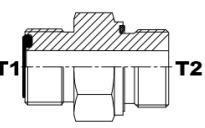


<p>IA-29CC, 29DD 90° Din L & S Female Swivel</p>  <p>Page D167</p>	<p>IA-BCCC, BDDD Din L & S Female Swivel Br. Tee</p>  <p>Page D167</p>	<p>IA-CCCC, CDDD Din L & S Female Swivel Run Tee</p>  <p>Page D168</p>	<p>IA-30CC, 30DD Din L & S Female Swivel Union</p>  <p>Page D168</p>	<p>IA-10AB, 10CB, 10DB-WD Din LL, L & S BSPP Male W/ Seal</p>  <p>Page D169</p>
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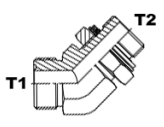
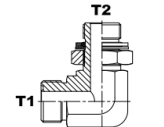
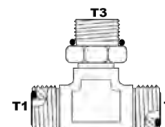
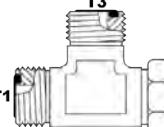
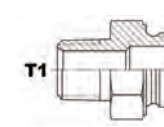
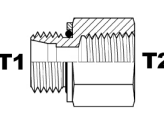
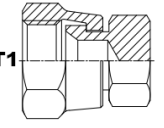
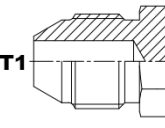
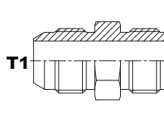
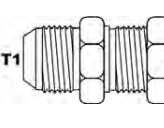
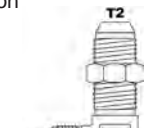
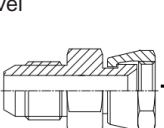

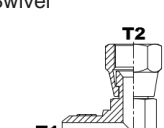
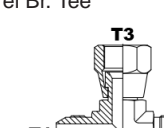
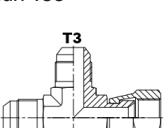
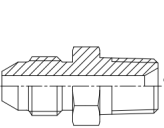

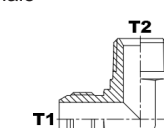
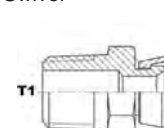
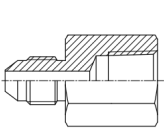
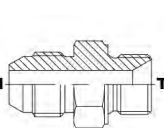
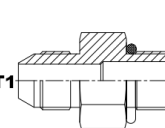
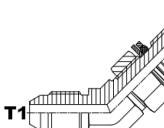
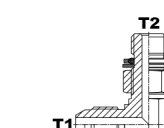
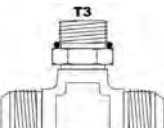
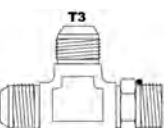
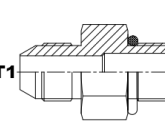
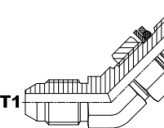
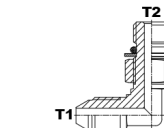


<p>IA-0CM Metric 60° Cone Seat Female Cap</p>  <p>Page D186</p>	<p>IA-0PM Metric 60° Cone Seat Male Plug</p>  <p>Page D186</p>	<p>IA-10MM Metric Male Union</p>  <p>Page D187</p>	<p>IA-60MM Metric Male Bulkhead Union</p>  <p>Page D187</p>	<p>IA-20MM Metric Male x Female Swivel</p>  <p>Page D187</p>
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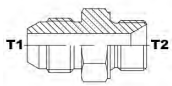
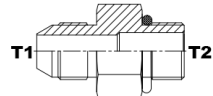
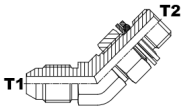
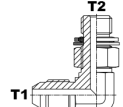

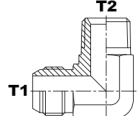
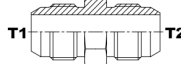


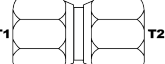
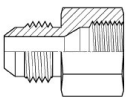
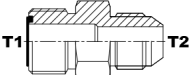
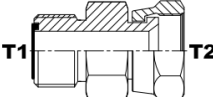

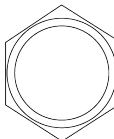
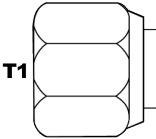
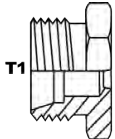
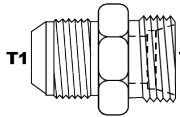
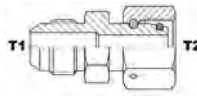
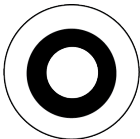
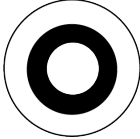








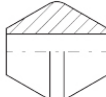



<p>IA-ASSO JIS Male x M-ORB Adj. Br. Tee</p> <p>Page D207</p>	<p>IA-ASOS JIS Male x M-ORB Adj. Run Tee</p> <p>Page D207</p>	<p>IA-20OS M-ORB x JIS Female Swivel</p> <p>Page D208</p>	<p>IA-10SN JIS Male x NPT Male</p> <p>Page D208</p>	<p>IA-19SN JIS Male x 90° NPT Male</p> <p>Page D208</p>
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<p>IA-10KB Komatsu® Male x BSPP Male</p>  <p>Page D215</p>	<p>IA-10KG Komatsu® Male x BSPP Male Port</p>  <p>Page D215</p>	<p>IA-14KG Komatsu® Male x 45° BSPP Male Port Adj.</p>  <p>Page D216</p>	<p>IA-19KG Komatsu® Male x 90° BSPP Male Port Adj.</p>  <p>Page D216</p>	<p>IA-10KN Komatsu® Male x NPT Male</p>  <p>Page D216</p>
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<p>IA-0XFS BSPP FF To JIS Conversion Seat</p>  <p>Page D225</p>				



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International Thread Chart

		DIN LL	DIN LIGHT	DIN HEAVY	JIS (TUBE)	JIS (PIPE)	Kobelco	French GAZ
Tube/Pipe			CEL	CES			French Millimétrique	(PIPE)
Size		DKLL-CELL	DKL,DKOL	DKS,DKOS			FKB - MKB	DKZ-CEZ
"mm"	Type Code	A	C	D	S	Z	X	Y
4		M 8X1.0			M10X1.25			
6		M10X1.0	M12X1.5	M14X1.5	M12X1.5	M12X1.5	M12X1.0	
8		M12X1.0	M14X1.5	M16X1.5	M14X1.5	M14X1.5	M14X1.5	
10		M14X1.0	M16X1.5	M18X1.5	M16X1.5	M16X1.5	M16X1.5	
10.5						M16X1.5		
12		M16X1.0	M18X1.5	M20X1.5	M18X1.5	M18X1.5	M18X1.5	
13.25								M20X1.5
13.8						M20X1.5		
14				M22X1.5			M20X1.5	
15			M22X1.5		M22X1.5	M22X1.5	M22X1.5	
16				M24X1.5	M24X1.5	M24X1.5	M24X1.5	
16.75								M24X1.5
17.3						M26X1.5		
18			M26X1.5		M26X1.5	M26X1.5	M27X1.5	
20				M30X2.0	M28X1.5	M28X1.5	M27X1.5	
21.25								M30X1.5
21.7						M30X1.5		
22			M30X2.0		M30X1.5	M30X1.5	**M30X1.5	
25				M36X2.0	M35X1.5	M35X1.5	M33X1.5	
26.75								M36X1.5
27.2						M38X1.5		
28			M36X2.0		M38X1.5	M38X1.5	**M36X1.5	
30				M42X2.0	M40X1.5	M40X1.5	M39X1.5	
32					M42X1.5	M42X1.5	M42X1.5	
33.5								M45X1.5
34						M45X1.5		
35			M45X2.0		M45X1.5	M45X1.5	**M45X1.5	
38				M52X2.0	M48X1.5	M48X1.5	M48X1.5	
40					M52X2.0	M52X2.0	M52X1.5	
42			M52X2.0		M52X2.0	M52X2.0		
42.25								M52X1.5
42.7						M56X2.0		
45							M54X2.0	
48							M58X2.0	
48.25								M58X2.0
48.6						M64X2.0		
50					M62X2.0	M64X2.0		

 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





Metric Thread Chart - 60° & Port

Dash Size	Thread Pitch	Male O.D. (mm)	Female I.D. (mm)
8	1.0	8	6.5
10	1.0	10	8.5
10A	1.25	10	8.5
10B	1.5	10	8.5
12A	1.0	12	10.5
12B	1.25	12	10.5
12	1.5	12	10.5
14	1.5	14	12.5
16	1.5	16	14.5
18	1.5	18	16.5
20	1.5	20	18.5
22	1.5	22	20.5
24	1.5	24	22.5
26	1.5	26	24.5
27D	1.5	27	25.5
27	2.0	27	25.5
30D	1.5	30	28
30	2.0	30	28
33D	1.5	33	31
33	2.0	33	31
36	2.0	36	34
39	2.0	39	37
42	2.0	42	40
45	2.0	45	43
48	2.0	48	46
52	2.0	52	50
60	2.0	60	58
64	2.0	64	62

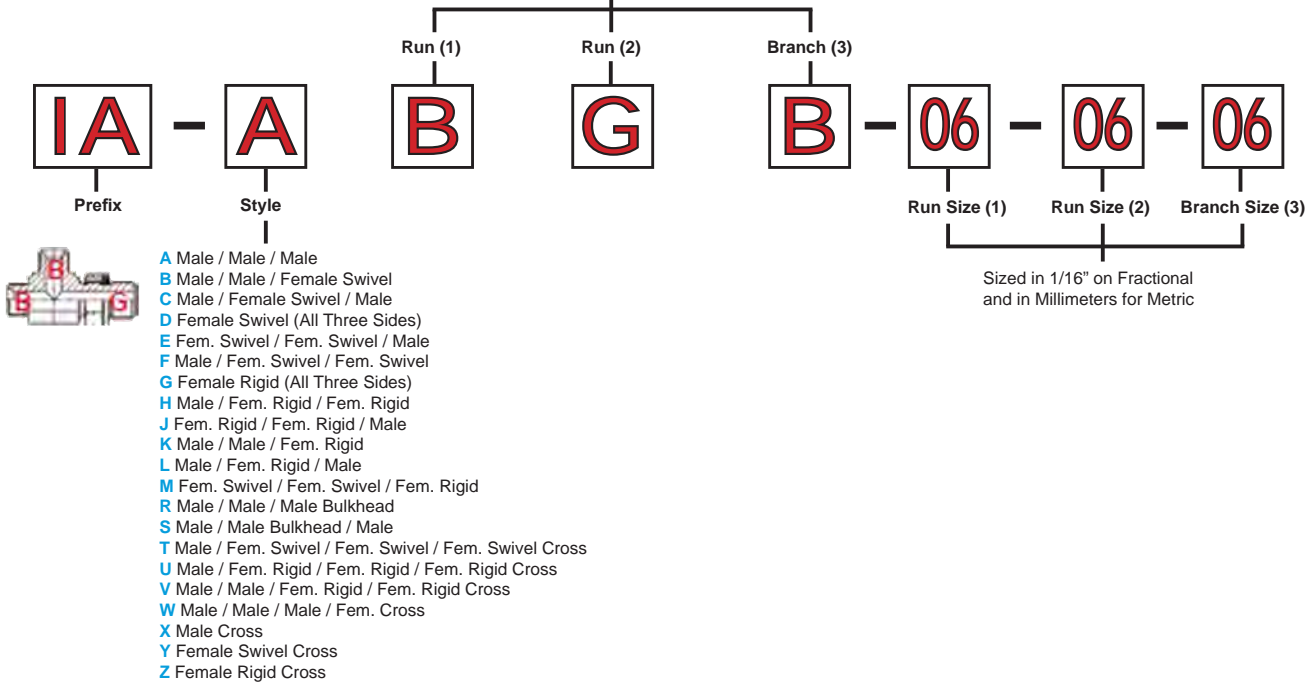
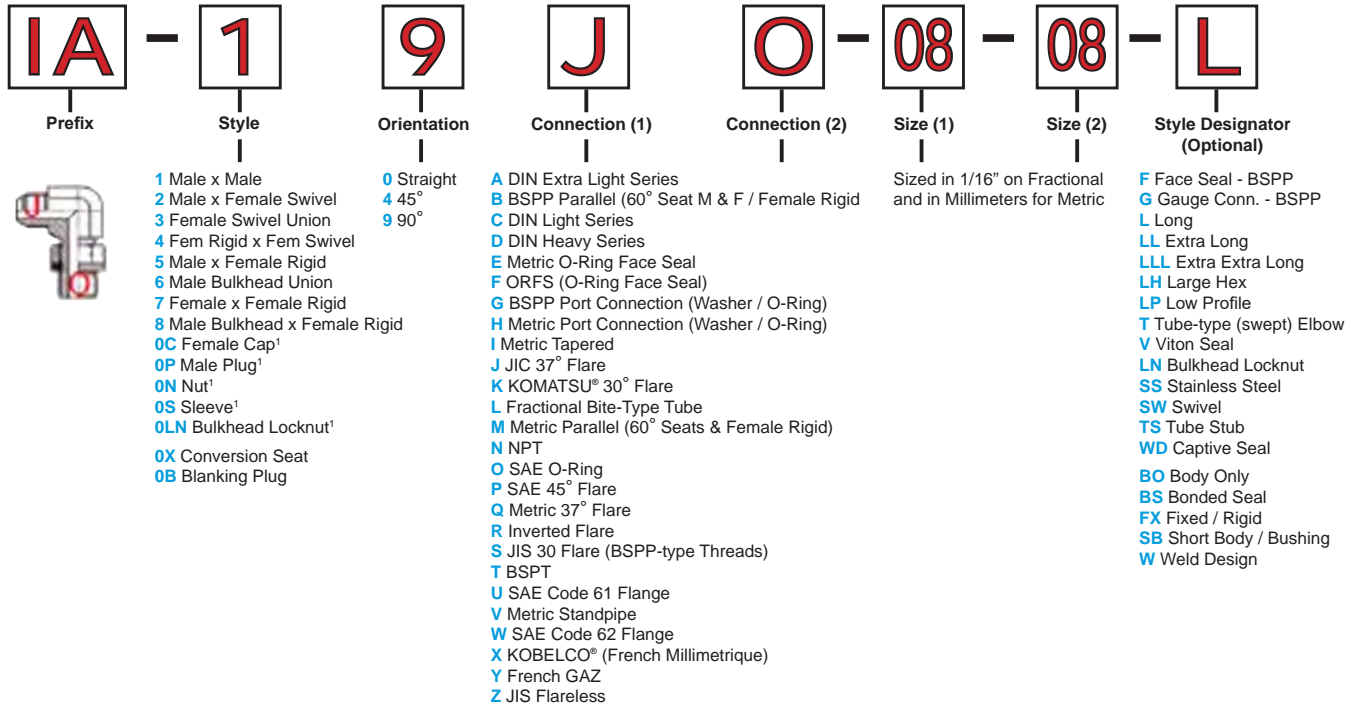
BSPP & BSPT Thread Chart

Inch Size	Dash Size	Nominal Thread Size	Male Thread O.D.	Female Thread O.D.
1/8	-02	1/8 - 28	3/8 (0.38")	11/32 (0.35")
1/4	-04	1/4 - 19	33/64 (0.52")	15/32 (0.47")
3/8	-06	3/8 - 19	21/32 (0.65")	19/32 (0.60")
1/2	-08	1/2 - 14	13/16 (0.82")	3/4 (0.75")
5/8	-10	5/8 - 14	7/8 (0.88")	13/16 (0.80")
3/4	-12	3/4 - 14	1 1/32 (1.04")	31/32 (0.97")
1	-16	1 - 11	1 5/16 (1.30")	1 7/32 (1.22")
1 1/4	-20	1 1/4 - 11	1 21/32 (1.65")	1 9/16 (1.56")
1 1/2	-24	1 1/2 - 11	1 7/8 (1.88")	1 25/32 (1.79")
2	-32	2 - 11	2 11/32 (2.35")	2 1/4 (2.26")



WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

British & Metric Part Number System

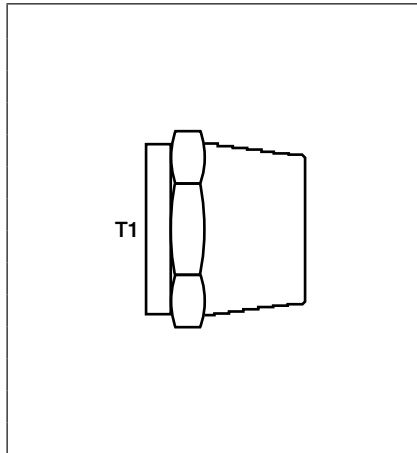


*All DIN Compression part numbers are called by tube size and not the threads.

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



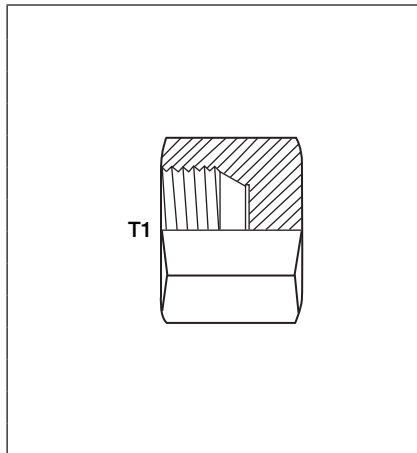
0304 STANDARD NUT



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

0304C JIC CAP

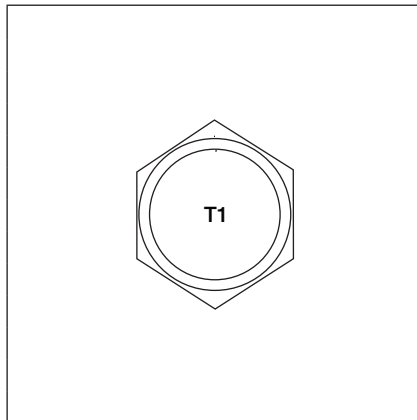
SAE# 070112



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
0306-03	3/8 - 24
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
0306-14	1 3/16 - 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

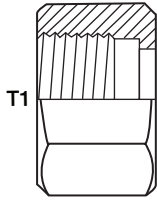


WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

0318

JIC TUBE NUT

SAE# 070110

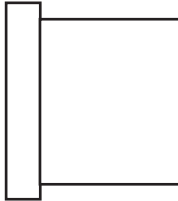


PART NUMBER	T1	TUBE OD
0318-04	7/16 - 20	1/4
0318-05	1/2 - 20	5/16
0318-06	9/16 - 18	3/8
0318-08	3/4 - 16	1/2
0318-10	7/8 - 14	5/8
0318-12	1 1/16 - 12	3/4
0318-14	1 3/16 - 12	3/4
0318-16	1 5/16 - 12	7/8
0318-20	1 5/8 - 12	1
0318-24	1 7/8 - 12	1 1/2
0316-32	2 1/2 - 12	2

0319

JIC TUBE SLEEVE 3 PIECE

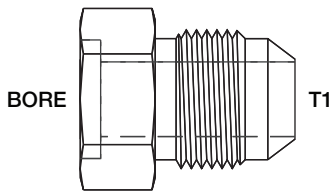
SAE# 070115



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)



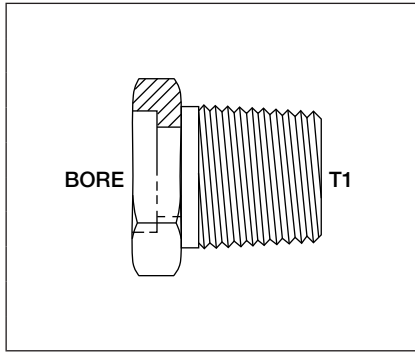
PART NUMBER	BORE	T1
0403-04-04	1/4	7/16 - 20
0403-05-05	5/16	1/2 - 20
0403-06-06	3/8	9/16 - 18
0403-06-08	3/8	3/4 - 16
0403-08-08	1/2	3/4 - 16
0403-10-10	5/8	7/8 - 14
0403-12-12	3/4	1 1/16 - 12
0403-14-14	7/8	1 3/16 - 12
0403-16-16	1	1 5/16 - 12
0403-16-20	1	1 5/8 - 12
0403-20-16	1 1/4	1 5/16 - 12
0403-20-20	1 1/4	1 5/8 - 12
0403-24-24	1 1/2	1 7/8 - 12
0403-32-32	2	2 1/2 - 12

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



0404

BORE / MP BRAZE ON

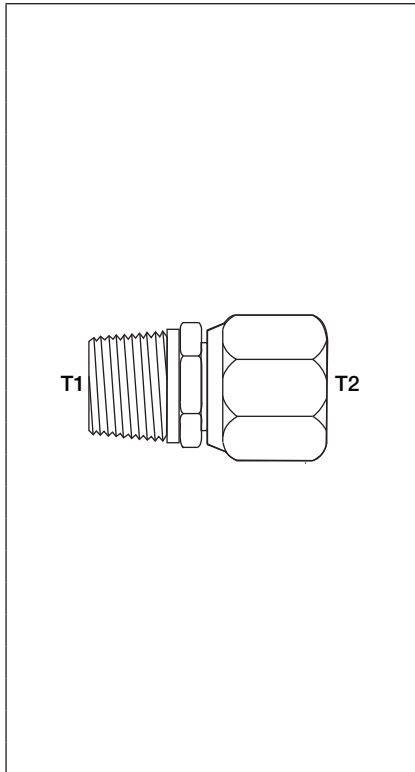


PART NUMBER	BORE	T1
0404-04-02	1/4	1/8 - 27
0404-06-04	3/8	1/4 - 18
0404-08-06	1/2	3/8 - 18
0404-10-08	5/8	1/2 - 14
0404-12-12	3/4	1 1/16 - 12
0404-16-16	1	1 5/16 - 12
0404-20-20	1 1/4	1 5/8 - 12
0404-24-24	1 1/2	1 7/8 - 12
0404-32-32	2	2 1/2 - 12

1404

M-NPT / F-NPSM

SAE# 140130



PART NUMBER	T1	T2
1404-02-04	1/8 - 27	1/4 - 18
1404-04-02	1/4 - 18	1/8 - 27
1404-04-04	1/4 - 18	1/4 - 18
1404-04-06	1/4 - 18	3/8 - 18
1404-06-04	3/8 - 18	1/4 - 18
1404-06-06	3/8 - 18	3/8 - 18
1404-06-08	3/8 - 18	1/2 - 14
1404-08-04	1/2 - 14	1/4 - 18
1404-08-06	1/2 - 14	3/8 - 18
1404-08-08	1/2 - 14	1/2 - 14
1404-08-12	1/2 - 14	3/4 - 14
1404-12-08	3/4 - 14	1/2 - 14
1404-12-12	3/4 - 14	3/4 - 14
1404-12-16	3/4 - 14	1 - 11 1/2
1404-16-12	1 - 11 1/2	3/4 - 14
1404-16-16	1 - 11 1/2	1 - 11 1/2
1404-16-20	1 - 11 1/2	1 1/4 - 11 1/2
1404-20-16	1 1/4 - 11 1/2	1 - 11 1/2
1404-20-20	1 1/4 - 11 1/2	1 1/4 - 11 1/2
1404-20-24	1 1/4 - 11 1/2	1 1/2 - 11 1/2
1404-24-20	1 1/2 - 11 1/2	1 1/4 - 11 1/2
1404-24-24	1 1/2 - 11 1/2	1 1/2 - 11 1/2
1404-32-32	2 - 11 1/2	2 - 11 1/2

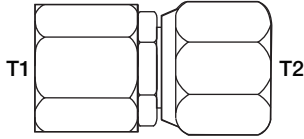


WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

1405

F-NPT / F-NPSM

SAE# 140131

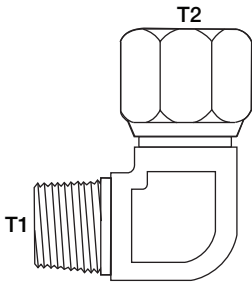


PART NUMBER	T1	T2
1405-02-02	1/8 - 27	1/8 - 27
1405-02-04	1/8 - 27	1/4 - 18
1405-04-04	1/4 - 18	1/4 - 18
1405-04-06	1/4 - 18	3/8 - 18
1405-06-04	3/8 - 18	1/4 - 18
1405-06-06	3/8 - 18	3/8 - 18
1405-06-08	3/8 - 18	1/2 - 14
1405-08-04	1/2 - 14	1/4 - 18
1405-08-06	1/2 - 14	3/8 - 18
1405-08-08	1/2 - 14	1/2 - 14
1405-12-08	3/4 - 14	1/2 - 14
1405-12-12	3/4 - 14	3/4 - 14
1405-16-12	1 - 11 1/2	3/4 - 14
1405-16-16	1 - 11 1/2	1 - 11 1/2
1405-20-20	1 1/4 - 11 1/2	1 1/4 - 11 1/2
1405-24-24	1 1/2 - 11 1/2	1 1/2 - 11 1/2
1405-32-32	2 - 11 1/2	2 - 11 1/2

1501

90° M-NPT / F-NPSM

SAE# 140230



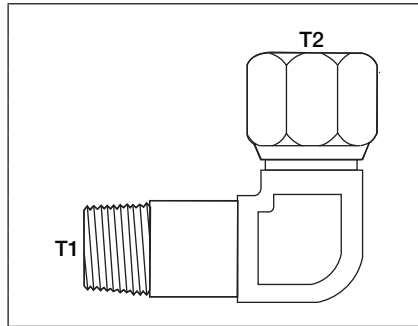
PART NUMBER	T1	T2
1501-02-02	1/8 - 27	1/8 - 27
1501-02-04	1/8 - 27	1/4 - 18
1501-04-02	1/4 - 18	1/8 - 27
1501-04-04	1/4 - 18	1/4 - 18
1501-04-06	1/4 - 18	3/8 - 18
1501-04-08	1/4 - 18	1/2 - 14
1501-06-04	3/8 - 18	1/4 - 18
1501-06-06	3/8 - 18	3/8 - 18
1501-06-08	3/8 - 18	1/2 - 14
1501-08-04	1/2 - 14	1/4 - 18
1501-08-06	1/2 - 14	3/8 - 18
1501-08-08	1/2 - 14	1/2 - 14
1501-08-12	1/2 - 14	3/4 - 14
1501-12-06	3/4 - 14	3/8 - 18
1501-12-08	3/4 - 14	1/2 - 14
1501-12-12	3/4 - 14	3/4 - 14
1501-12-16	3/4 - 14	1 - 11 1/2
1501-16-08	1 - 11 1/2	1/2 - 14
1501-16-12	1 - 11 1/2	3/4 - 14
1501-16-16	1 - 11 1/2	1 - 11 1/2
1501-16-20	1 - 11 1/2	1 1/4 - 11 1/2
1501-20-16	1 1/4 - 11 1/2	1 - 11 1/2
1501-20-20	1 1/4 - 11 1/2	1 1/4 - 11 1/2
1501-20-24	1 1/4 - 11 1/2	1 1/2 - 11 1/2
1501-24-20	1 1/2 - 11 1/2	1 1/4 - 11 1/2
1501-24-24	1 1/2 - 11 1/2	1 1/2 - 11 1/2
1501-32-32	2 - 11 1/2	2 - 11 1/2



WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



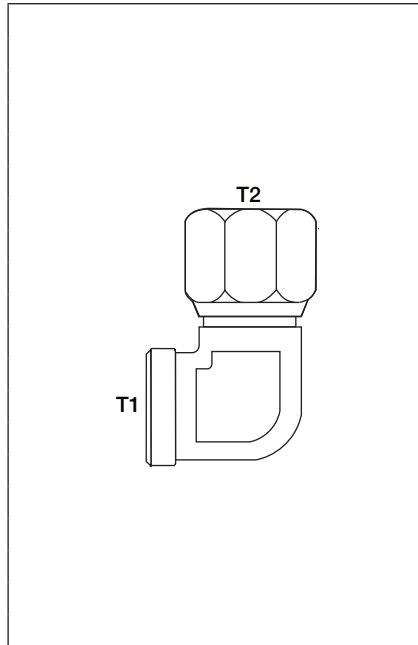
1501L 90° M-NPT / F-NPSM LONG



PART NUMBER	T1	T2
1501L-02-02	1/8 - 27	1/8 - 27
1501L-04-04	1/4 - 18	1/4 - 18
1501L-06-06	3/8 - 18	3/8 - 18
1501L-08-08	1/2 - 14	1/2 - 14
1501L-12-12	3/4 - 14	3/4 - 14
1501L-16-16	1 - 11½	1 - 11½

1502 90° F-NPT / F-NPSM

SAE# 140231



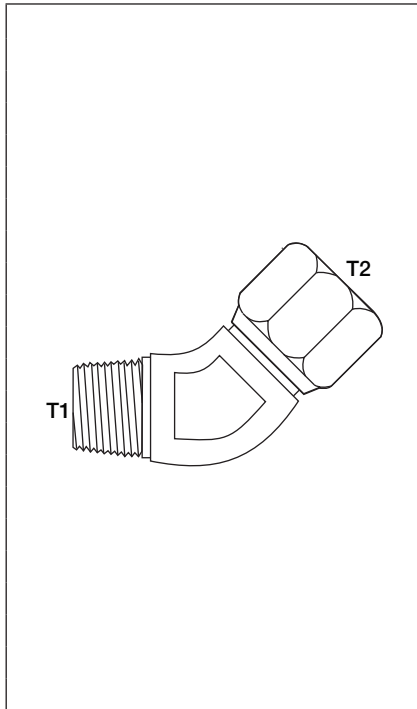
PART NUMBER	T1	T2
1502-02-02	1/8 - 27	1/8 - 27
1502-04-02	1/4 - 18	1/8 - 27
1502-04-04	1/4 - 18	1/4 - 18
1502-04-06	1/4 - 18	3/8 - 18
1502-06-04	3/8 - 18	1/4 - 18
1502-06-06	3/8 - 18	3/8 - 18
1502-06-08	3/8 - 18	1/2 - 14
1502-08-04	3/4 - 16	1/4 - 18
1502-08-06	1/2 - 14	3/8 - 18
1502-08-08	1/2 - 14	1/2 - 14
1502-08-12	1/2 - 14	3/4 - 14
1502-12-08	3/4 - 14	1/2 - 14
1502-12-12	3/4 - 14	3/4 - 14
1502-12-16	3/4 - 14	1 - 11½
1502-16-12	1 - 11½	3/4 - 14
1502-16-16	1 - 11½	1 - 11½
1502-20-20	1¼ - 11½	1¼ - 11½
1502-24-24	1½ - 11½	1½ - 11½
1502-32-32	2 - 11½	2 - 11½

⚠ WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

1503

45° M-NPT / F-NPSM

SAE# 140330

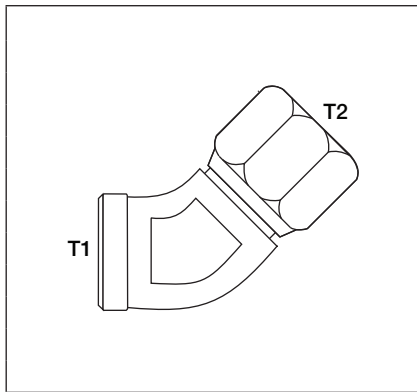


PART NUMBER	T1	T2
1503-02-02	1/8 - 27	1/8 - 27
1503-02-04	1/8 - 27	1/4 - 18
1503-04-04	1/4 - 18	1/4 - 18
1503-04-06	1/4 - 18	3/8 - 18
1503-06-04	3/8 - 18	1/4 - 18
1503-06-06	3/8 - 18	3/8 - 18
1503-06-08	3/8 - 18	1/2 - 14
1503-08-04	1/2 - 14	1/4 - 18
1503-08-06	1/2 - 14	3/8 - 18
1503-08-08	1/2 - 14	1/2 - 14
1503-08-12	1/2 - 14	3/4 - 14
1503-12-08	3/4 - 14	1/2 - 14
1503-12-12	3/4 - 14	3/4 - 14
1503-12-16	3/4 - 14	1 - 11 1/2
1503-16-12	1 - 11 1/2	3/4 - 14
1503-16-16	1 - 11 1/2	1 - 11 1/2
1503-16-20	1 - 11 1/2	1 1/4 - 11 1/2
1503-20-16	1 1/4 - 11 1/2	1 - 11 1/2
1503-20-20	1 1/4 - 11 1/2	1 1/4 - 11 1/2
1503-24-24	1 1/2 - 11 1/2	1 1/2 - 11 1/2
1503-32-32	2 - 11 1/2	2 - 11 1/2

1504

45° F-NPT / F-NPSM

SAE# 140331



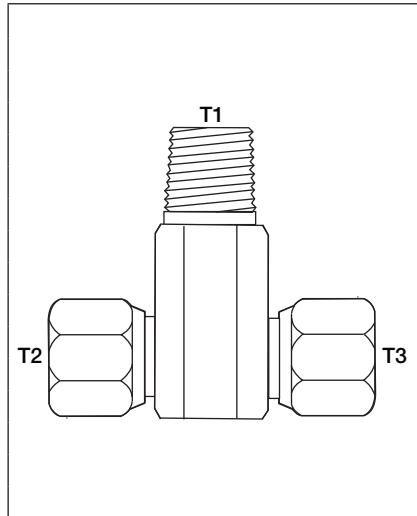
PART NUMBER	T1	T2
1504-02-02	1/8 - 27	1/8 - 27
1504-04-04	1/4 - 18	1/4 - 18
1504-06-04	3/8 - 18	1/4 - 18
1504-06-06	3/8 - 18	3/8 - 18
1504-08-06	1/2 - 14	3/8 - 18
1504-08-08	1/2 - 14	1/2 - 14
1504-12-12	3/4 - 14	3/4 - 14
1504-16-12	1 - 11 1/2	3/4 - 14
1504-16-16	1 - 11 1/2	1 - 11 1/2
1504-20-20	1 1/4 - 11 1/2	1 1/4 - 11 1/2
1504-24-24	1 1/2 - 11 1/2	1 1/2 - 11 1/2

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



1601

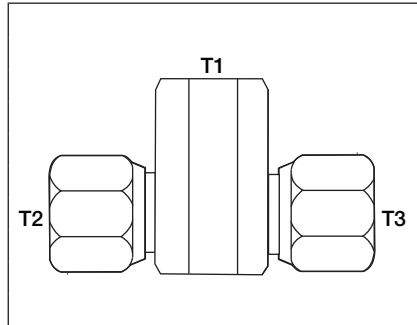
BRANCH TEE M-NPT / F-NPSM / F-NPSM



PART NUMBER	T1	T2	T3
1601-02-02-02	1/8 - 27	1/8 - 27	1/8 - 27
1601-04-04-04	1/4 - 18	1/4 - 18	1/4 - 18
1601-04-06-06	1/4 - 18	3/8 - 18	3/8 - 18
1601-06-04-04	3/8 - 18	1/4 - 18	1/4 - 18
1601-06-06-06	3/8 - 18	3/8 - 18	3/8 - 18
1601-08-04-04	1/2 - 14	1/4 - 18	1/4 - 18
1601-08-06-06	1/2 - 14	3/8 - 18	3/8 - 18
1601-08-08-08	1/2 - 14	1/2 - 14	1/2 - 14
1601-12-08-08	3/4 - 14	1/2 - 14	1/2 - 14
1601-12-12-12	3/4 - 14	3/4 - 14	3/4 - 14
1601-12-16-16	3/4 - 14	1 - 11 1/2	1 - 11 1/2
1601-16-12-12	1 - 11 1/2	3/4 - 14	3/4 - 14
1601-16-16-16	1 - 11 1/2	1 - 11 1/2	1 - 11 1/2
1601-20-20-20	1 1/4 - 11 1/2	1 1/4 - 11 1/2	1 1/4 - 11 1/2
1601-24-24-24	1 1/2 - 11 1/2	1 1/2 - 11 1/2	1 1/2 - 11 1/2

1602

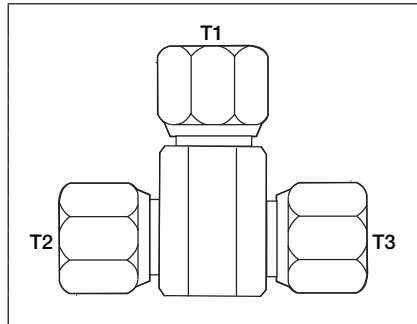
TEE F-NPT / F-NPSM / F-NPSM



PART NUMBER	T1	T2	T3
1602-02-02-02	1/8 - 27	1/8 - 27	1/8 - 27
1602-04-04-04	1/4 - 18	1/4 - 18	1/4 - 18
1602-06-06-06	3/8 - 18	3/8 - 18	3/8 - 18
1602-08-06-06	1/2 - 14	3/8 - 18	3/8 - 18
1602-08-08-08	1/2 - 14	1/2 - 14	1/2 - 14
1602-12-08-08	3/4 - 14	1/2 - 14	1/2 - 14
1602-12-12-12	3/4 - 14	3/4 - 14	3/4 - 14
1602-16-16-16	1 - 11 1/2	1 - 11 1/2	1 - 11 1/2
1602-20-20-20	1 1/4 - 11 1/2	1 1/4 - 11 1/2	1 1/4 - 11 1/2

1603

TEE F-NPSM SWIVEL NUTS

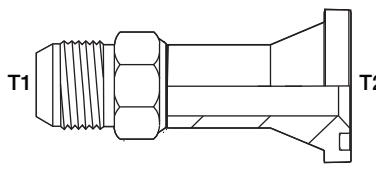


PART NUMBER	T1	T2	T3
1603-02-02-02	1/8 - 27	1/8 - 27	1/8 - 27
1603-04-04-04	1/4 - 18	1/4 - 18	1/4 - 18
1603-06-06-06	3/8 - 18	3/8 - 18	3/8 - 18
1603-08-08-08	1/2 - 14	1/2 - 14	3/4 - 14
1603-12-12-12	3/4 - 14	3/4 - 14	1 - 11 1/2
1603-16-16-16	1 - 11 1/2	1 - 11 1/2	1 1/4 - 11 1/2
1603-20-20-20	1 1/4 - 11 1/2	1 1/4 - 11 1/2	1 1/4 - 11 1/2

⚠ WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

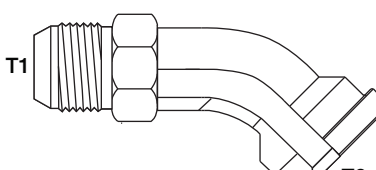
1700


M-JIC / FLANGE STRAIGHT (CODE 61)

	PART NUMBER		
	T1	T2	
1700-08-08	3/4 - 16	1/2	
1700-08-12	3/4 - 16	3/4	
1700-12-12	1 1/16 - 12	3/4	
1700-12-16	1 1/16 - 12	1	
1700-12-20	1 1/16 - 12	1 1/4	
1700-16-12	1 5/16 - 12	3/4	
1700-16-16	1 5/16 - 12	1	
1700-16-20	1 5/16 - 12	1 1/4	
1700-16-24	1 5/16 - 12	1 1/2	
1700-20-16	1 5/8 - 12	1	
1700-20-20	1 5/8 - 12	1 1/4	
1700-20-24	1 5/8 - 12	1 1/2	
1700-20-32	1 5/8 - 12	2	
1700-24-20	1 7/8 - 12	1 1/4	
1700-24-24	1 7/8 - 12	1 1/2	
1700-24-32	1 7/8 - 12	2	
1700-32-24	2 1/2 - 12	1 1/2	
1700-32-32	2 1/2 - 12	2	

1703

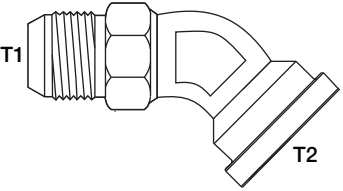
45° M-JIC / FLANGE (CODE 61)

	PART NUMBER		
	T1	T2	
1703-08-08	3/4 - 16	1/2	
1703-08-12	3/4 - 16	3/4	
1703-12-12	1 1/16 - 12	3/4	
1703-12-16	1 1/16 - 12	1	
1703-12-20	1 1/16 - 12	1 1/4	
1703-16-12	1 5/16 - 12	3/4	
1703-16-16	1 5/16 - 12	1	
1703-16-20	1 5/16 - 12	1 1/4	
1703-16-24	1 5/16 - 12	1 1/2	
1703-20-12	1 5/8 - 12	3/4	
1703-20-16	1 5/8 - 12	1	
1703-20-20	1 5/8 - 12	1 1/4	
1703-20-24	1 5/8 - 12	1 1/2	
1703-24-20	1 7/8 - 12	1 1/4	
1703-24-24	1 7/8 - 12	1 1/2	
1703-24-32	1 7/8 - 12	2	
1703-32-32	2 1/2 - 12	2	

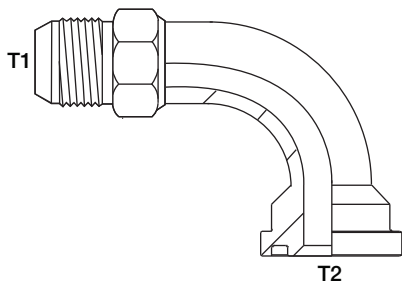
 **WARNING** This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



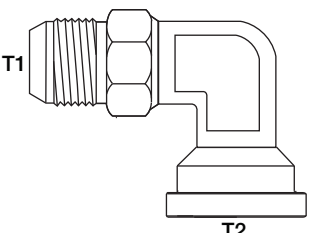
1703FG FORGED 45° M-JIC / FLANGE (CODE 61)


	PART NUMBER	T1	T2
	1703FG-12-12	1 ¹ / ₁₆ - 12	3/4
	1703FG-16-16	1 ⁵ / ₁₆ - 12	1
	1703FG-20-20	1 ⁵ / ₈ - 12	1 ¹ / ₄
	1703FG-24-24	1 ⁷ / ₈ - 12	1 ¹ / ₂
	1703FG-32-32	2 ¹ / ₂ - 12	2

1704 90° M-JIC / FLANGE (CODE 61)

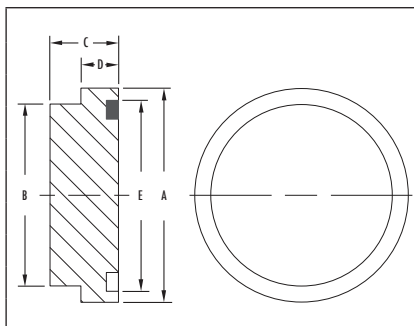
	PART NUMBER	T1	T2
	1704-08-08	3/4 - 16	1/2
	1704-08-12	3/4 - 16	3/4
	1704-12-12	1 ¹ / ₁₆ - 12	3/4
	1704-12-16	1 ¹ / ₁₆ - 12	1
	1704-12-20	1 ¹ / ₁₆ - 12	1 ¹ / ₄
	1704-16-12	1 ⁵ / ₁₆ - 12	3/4
	1704-16-16	1 ⁵ / ₁₆ - 12	1
	1704-16-20	1 ⁵ / ₁₆ - 12	1 ¹ / ₄
	1704-16-24	1 ⁵ / ₁₆ - 12	1 ¹ / ₂
	1704-20-16	1 ⁵ / ₈ - 12	1
	1704-20-20	1 ⁵ / ₈ - 12	1 ¹ / ₄
	1704-20-24	1 ⁵ / ₈ - 12	1 ¹ / ₂
	1704-24-20	1 ⁷ / ₈ - 12	1 ¹ / ₄
	1704-24-24	1 ⁷ / ₈ - 12	1 ¹ / ₂
	1704-24-32	1 ⁷ / ₈ - 12	2
	1704-32-24	2 ¹ / ₂ - 12	1 ¹ / ₂
	1704-32-32	2 ¹ / ₂ - 12	2

1704FG FORGED 90° M-JIC / FLANGE (CODE 61)

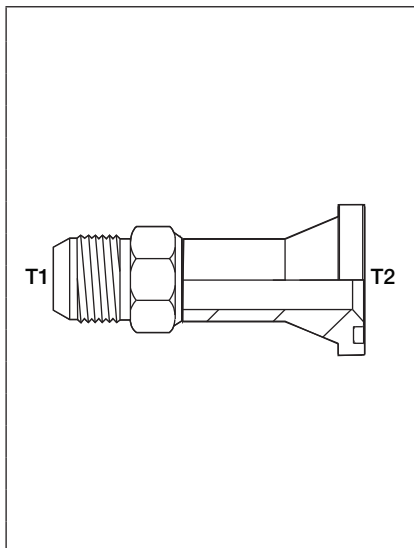
	PART NUMBER	T1	T2
	1704-08-12FG	3/4 - 16	3/4
	1704-12-12FG	1 ¹ / ₁₆ - 12	3/4
	1704-12-16FG	1 ¹ / ₁₆ - 12	1
	1704-16-12FG	1 ⁵ / ₁₆ - 12	3/4
	1704-16-16FG	1 ⁵ / ₁₆ - 12	1
	1704-16-20FG	1 ⁵ / ₁₆ - 12	1 ¹ / ₄
	1704-20-16FG	1 ⁵ / ₈ - 12	1
	1704-20-20FG	1 ⁵ / ₈ - 12	1 ¹ / ₄
	1704-20-24FG	1 ⁵ / ₈ - 12	1 ¹ / ₂
	1704-24-24FG	1 ⁷ / ₈ - 12	1 ¹ / ₂
	1704-24-32FG	1 ⁷ / ₈ - 12	2
	1704-32-24FG	2 ¹ / ₂ - 12	1 ¹ / ₂
	1704-32-32FG	2 ¹ / ₂ - 12	2

 **WARNING** This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

1724 FLANGE PLUG (CODE 61)

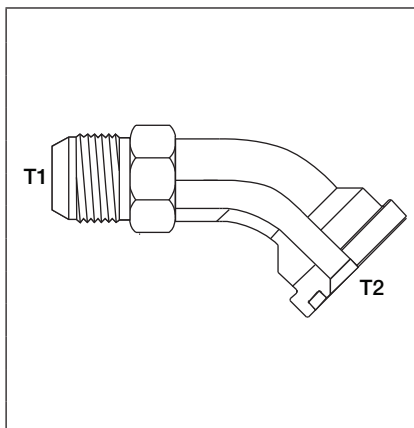
	PART NUMBER			
	A	B	D	
	1724-08	1.188	.924	.265
	1724-12	1.500	1.234	.265
	1724-16	1.750	1.484	.315
	1724-20	2.000	1.684	.315
	1724-24	2.375	1.964	.315
	1724-32	2.810	2.434	.375
	1724-40	3.312	2.904	.375
	1724-48	4.000	3.534	.375
	1724-56	4.500	3.984	.442

1800 M-JIC / FLANGE STRAIGHT (CODE 62)

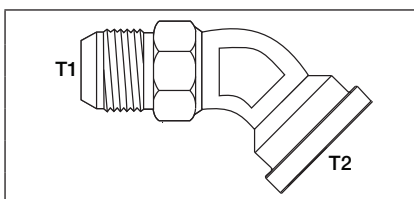
	PART NUMBER		
	T1	T2	
	1800-08-08	3/4 - 16	1/2
	1800-12-12	1 1/16 - 12	3/4
	1800-12-16	1 1/16 - 12	1
	1800-16-12	1 5/16 - 12	3/4
	1800-16-16	1 5/16 - 12	1
	1800-16-20	1 5/16 - 12	1 1/4
	1800-16-24	1 5/16 - 12	1 1/2
	1800-20-16	1 5/8 - 12	1
	1800-20-20	1 5/8 - 12	1 1/4
	1800-20-24	1 5/8 - 12	1 1/2
	1800-24-20	1 7/8 - 12	1 1/4
	1800-24-24	1 7/8 - 12	1 1/2
	1800-32-32	2 1/2 - 12	2
	1800C-12-12*	1 1/16 - 12	3/4
	1800C-16-16*	1 5/16 - 12	1
	1800C-20-20*	1 5/8 - 12	1 1/4


*Note: 1800C indicates CAT Flange.

1803 45° M-JIC / FLANGE (CODE 62)

	PART NUMBER		
	T1	T2	
	1803-08-08	3/4 - 16	1/2
	1803-12-12	1 1/16 - 12	3/4
	1803-12-16	1 1/16 - 12	1
	1803-16-12	1 5/16 - 12	3/4
	1803-16-16	1 5/16 - 12	1
	1803-16-20	1 5/16 - 12	1 1/4
	1803-16-24	1 5/16 - 12	1 1/2
	1803-20-16	1 5/8 - 12	1
	1803-20-20	1 5/8 - 12	1 1/4
	1803-20-24	1 5/8 - 12	1 1/2
	1803-24-24	1 7/8 - 12	1 1/2
	1803-32-32	2 1/2 - 12	2

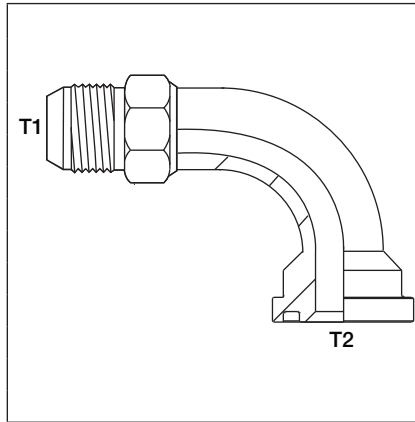
1803FG FORGED 45° M-JIC / FLANGE (CODE 62)

	PART NUMBER		
	T1	T2	
	1803-12-12FG	1 1/16 - 12	3/4
	1803-16-16FG	1 5/16 - 12	1
	1803-20-20FG	1 5/8 - 12	1 1/4
	1803-24-24FG	1 7/8 - 12	1 1/2
	1803-32-32FG	2 1/2 - 12	2

 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

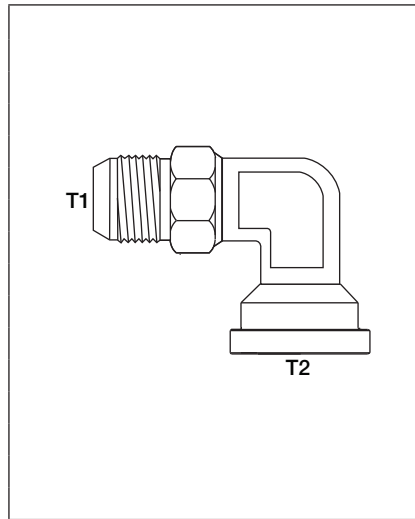


1804 90° M-JIC / FLANGE (CODE 62)



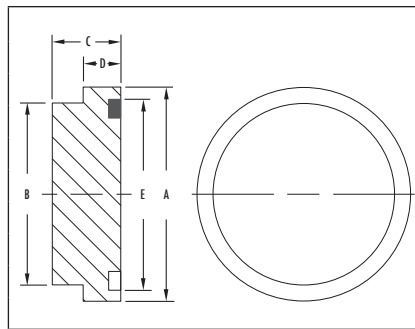
PART NUMBER	T1	T2
1804-08-08	3/4 - 16	1/2
1804-12-12	1 1/16 - 12	3/4
1804-16-16	1 5/16 - 12	1
1804-16-20	1 5/16 - 12	1 1/4
1804-16-24	1 5/16 - 12	1 1/2
1804-20-16	1 5/8 - 12	1
1804-20-20	1 5/8 - 12	1 1/4
1804-20-24	1 5/8 - 12	1 1/2
1804-24-16	1 7/8 - 12	1
1804-24-20	1 7/8 - 12	1 1/4
1804-24-24	1 7/8 - 12	1 1/2
1804-32-32	2 1/2 - 12	2

1804FG FORGED 90° M-JIC / FLANGE (CODE 62)



PART NUMBER	T1	T2
1804-08-08FG	3/4 - 16	1/2
1804-08-12FG	3/4 - 16	3/4
1804-12-12FG	1 1/16 - 12	3/4
1804-12-16FG	1 1/16 - 12	1
1804-16-12FG	1 5/16 - 12	3/4
1804-16-16FG	1 5/16 - 12	1
1804-16-20FG	1 5/16 - 12	1 1/4
1804-20-16FG	1 5/8 - 12	1
1804-20-20FG	1 5/8 - 12	1 1/4
1804-20-24FG	1 5/8 - 12	1 1/2
1804-24-20FG	1 7/8 - 12	1 1/4
1804-24-24FG	1 7/8 - 12	1 1/2
1804-24-32FG	1 7/8 - 12	2
1804-32-24FG	2 1/2 - 12	1 1/2
1804-32-32FG	2 1/2 - 12	2

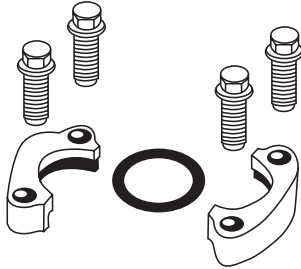
1824 FLANGE PLUG (CODE 62)



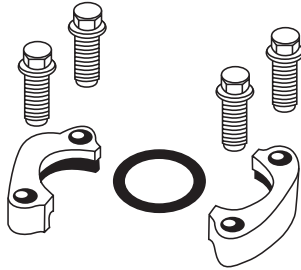
PART NUMBER	A	B	D
1824-12	1.625	1.234	.345
1824-16	1.875	1.484	.375
1824-20	2.125	1.704	.405
1824-24	2.500	1.984	.495
1824-32	3.125	2.604	.495

⚠ WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

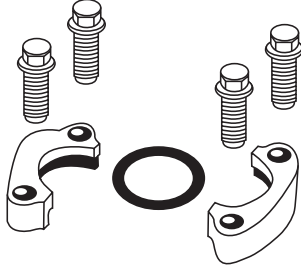
1901 SPLIT FLANGE KIT (CODE 61)

	PART NUMBER		SIZE
	1901-08-K		1/2
1901-12-K		3/4	
1901-16-K		1	
1901-20-K		1 1/4	
1901-24-K		1 1/2	
1901-32-K		2	
1901-40-K		2 1/2	
1901-48-K		3	
1901-56-K		3 1/2	
1901-64-K		4	

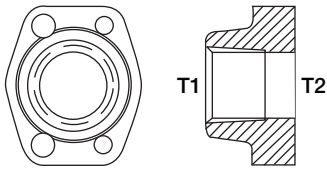
1902 SPLIT FLANGE KIT (CODE 62)


	PART NUMBER		SIZE
	1902-08-K		1/2
1902-12-K		3/4	
1902-16-K		1	
1902-20-K		1 1/4	
1902-24-K		1 1/2	
1902-32-K		2	

1903 CATERPILLAR® SPLIT FLANGE KIT (CODE 62)

	PART NUMBER		SIZE
	1903-08-K		1/2
1903-12-K		3/4	
1903-16-K		1	
1903-20-K		1 1/4	
1903-24-K		1 1/2	
1903-32-K		2	

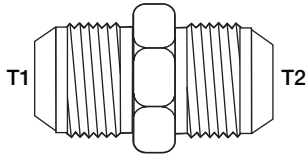
1927-61 F-NPT / FLANGE KIT (CODE 61)

	PART NUMBER		T1	T2
	1927-12-12-K		3/4 - 14	3/4
1927-16-16-K		1 - 11 1/2	1	
1927-20-20-K		1 1/4 - 11 1/2	1 1/4	
1927-24-24-K		1 1/2 - 11 1/2	1 1/2	
1927-32-32-K		2 - 11 1/2	2	
1927-40-40-K		2 1/2 - 8	2 1/2	
1927-48-48-K		3 - 8	3	

 **WARNING** This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

2403

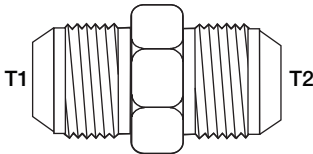
M-JIC / M-JIC STRAIGHT



PART NUMBER	T1	T2
2403-02-02	5/16 - 24	5/16 - 24
2403-03-03	3/8 - 24	3/8 - 24
2403-04-02	7/16 - 20	5/16 - 24
2403-04-04	7/16 - 20	7/16 - 20
2403-05-05	1/2 - 20	1/2 - 20
2403-06-04	9/16 - 18	7/16 - 20
2403-06-06	9/16 - 18	9/16 - 18
2403-08-04	3/4 - 16	7/16 - 20
2403-08-06	3/4 - 16	9/16 - 18
2403-08-08	3/4 - 16	3/4 - 16
2403-10-04	7/8 - 14	7/16 - 20
2403-10-06	7/8 - 14	9/16 - 18
2403-10-08	7/8 - 14	3/4 - 16
2403-10-10	7/8 - 14	7/8 - 14
2403-12-08	1 1/16 - 12	3/4 - 16
2403-12-10	1 1/16 - 12	7/8 - 14
2403-12-12	1 1/16 - 12	1 1/16 - 12
2403-14-14	1 3/16 - 12	1 3/16 - 12
2403-16-08	1 5/16 - 12	3/4 - 16
2403-16-10	1 5/16 - 12	7/8 - 14
2403-16-12	1 5/16 - 12	1 1/16 - 12
2403-16-16	1 5/16 - 12	1 5/16 - 12
2403-20-12	1 5/8 - 12	1 1/16 - 12
2403-20-16	1 5/8 - 12	1 5/16 - 12
2403-20-20	1 5/8 - 12	1 5/8 - 12
2403-24-12	1 7/8 - 12	1 1/16 - 12
2403-24-16	1 7/8 - 12	1 5/16 - 12
2403-24-20	1 7/8 - 12	1 5/8 - 12
2403-24-24	1 7/8 - 12	1 7/8 - 12
2403-32-32	2 1/2 - 12	2 1/2 - 12

2403LH

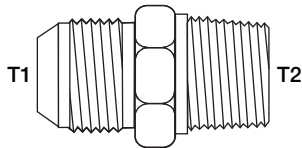
M-JIC / M-JIC - LARGE HEX STRAIGHT



PART NUMBER	T1	T2
2403LH-04-04	7/16 - 20	7/16 - 20
2403LH-05-05	1/2 - 20	1/2 - 20
2403LH-06-06	9/16 - 18	9/16 - 18
2403LH-08-08	3/4 - 16	3/4 - 16
2403LH-10-10	7/8 - 14	7/8 - 14
2403LH-12-12	1 1/16 - 12	1 1/16 - 12
2403LH-16-16	1 5/16 - 12	1 5/16 - 12
2403LH-20-20	1 5/8 - 12	1 5/8 - 12
2403LH-24-24	1 7/8 - 12	1 7/8 - 12



WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



PART NUMBER	T1	T2
2404-02-02	5/16 - 24	1/8 - 27
2404-02-04	5/16 - 24	1/4 - 18
2404-03-02	3/8 - 24	1/8 - 27
2404-04-02	7/16 - 20	1/8 - 27
2404-04-04	7/16 - 20	1/4 - 18
2404-04-06	7/16 - 20	3/8 - 18
2404-04-08	7/16 - 20	1/2 - 14
2404-05-02	1/2 - 20	1/8 - 27
2404-05-04	1/2 - 20	1/4 - 18
2404-05-06	1/2 - 20	3/8 - 18
2404-06-02	9/16 - 18	1/8 - 27
2404-06-04	9/16 - 18	1/4 - 18
2404-06-06	9/16 - 18	3/8 - 18
2404-06-08	9/16 - 18	1/2 - 14
2404-06-12	9/16 - 18	3/4 - 14
2404-08-02	3/4 - 16	1/8 - 27
2404-08-04	3/4 - 16	1/4 - 18
2404-08-06	3/4 - 16	3/8 - 18
2404-08-08	3/4 - 16	1/2 - 14
2404-08-12	3/4 - 16	3/4 - 14
2404-08-16	3/4 - 16	1 - 11 1/2
2404-10-04	7/8 - 14	1/4 - 18
2404-10-06	7/8 - 14	3/8 - 18
2404-10-08	7/8 - 14	1/2 - 14
2404-10-12	7/8 - 14	3/4 - 14
2404-12-06	1 1/16 - 12	3/8 - 18
2404-12-08	1 1/16 - 12	1/2 - 14
2404-12-12	1 1/16 - 12	3/4 - 14
2404-12-16	1 1/16 - 12	1 - 11 1/2
2404-12-20	1 1/16 - 12	1 1/4 - 11 1/2
2404-12-24	1 1/16 - 12	1 1/2 - 11 1/2
2404-14-08	1 3/16 - 12	1/2 - 14
2404-14-12	1 3/16 - 12	3/4 - 14
2404-16-08	1 5/16 - 12	1/2 - 14
2404-16-12	1 5/16 - 12	3/4 - 14
2404-16-16	1 5/16 - 12	1 - 11 1/2
2404-16-20	1 5/16 - 12	1 1/4 - 11 1/2
2404-16-24	1 5/16 - 12	1 1/2 - 11 1/2
2404-20-12	1 5/8 - 12	3/4 - 14
2404-20-16	1 5/8 - 12	1 - 11 1/2
2404-20-20	1 5/8 - 12	1 1/4 - 11 1/2
2404-20-24	1 5/8 - 12	1 1/2 - 11 1/2
2404-20-32	1 5/8 - 12	2 - 11 1/2
2404-24-16	1 7/8 - 12	1 - 11 1/2
2404-24-20	1 7/8 - 12	1 1/4 - 11 1/2
2404-24-24	1 7/8 - 12	1 1/2 - 11 1/2
2404-24-32	1 7/8 - 12	2 - 11 1/2
2404-32-20	2 1/2 - 12	1 1/4 - 11 1/2
2404-32-24	2 1/2 - 12	1 1/2 - 11 1/2
2404-32-32	2 1/2 - 12	2 - 11 1/2

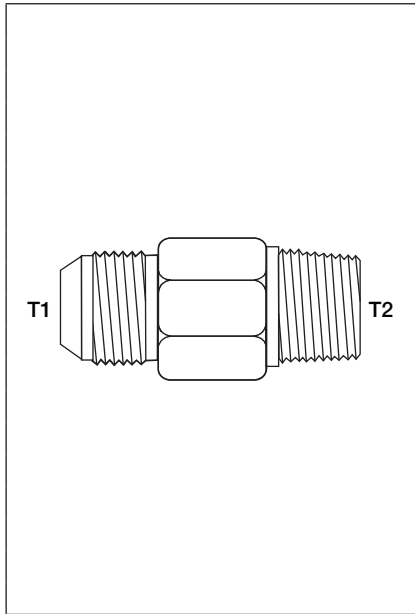
WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





2404L

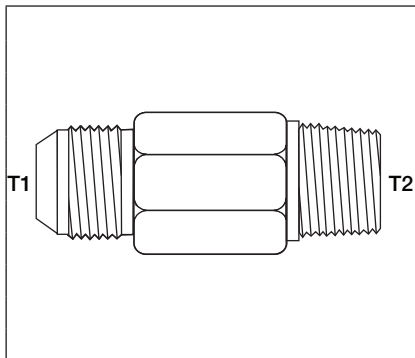
M-JIC / M-NPT LONG STRAIGHT



PART NUMBER	T1	T2
2404L-04-02	7/16 - 20	1/8 - 27
2404L-04-04	7/16 - 20	1/4 - 18
2404L-05-02	1/2 - 20	1/8 - 27
2404L-05-04	1/2 - 20	1/4 - 18
2404L-06-02	9/16 - 18	1/8 - 27
2404L-06-04	9/16 - 18	1/4 - 18
2404L-06-06	9/16 - 18	3/8 - 18
2404L-06-08	9/16 - 18	1/2 - 14
2404L-08-04	3/4 - 16	1/4 - 18
2404L-08-06	3/4 - 16	3/8 - 18
2404L-08-08	3/4 - 16	1/2 - 14
2404L-10-08	7/8 - 14	1/2 - 14
2404L-12-12	1 1/16 - 12	3/4 - 14
2404L-16-12	1 5/16 - 12	3/4 - 14
2404L-16-16	1 5/16 - 12	1 - 11 1/2
2404L-20-20	1 5/8 - 12	1 1/4 - 11 1/2
2404L-24-24	1 7/8 - 12	1 1/2 - 11 1/2
2404L-32-32	2 1/2 - 12	2 - 11 1/2

2404LL

M-JIC / M-NPT EXTRA LONG STRAIGHT



PART NUMBER	T1	T2
2404LL-04-02	7/16 - 20	1/8 - 27
2404LL-04-04	7/16 - 20	1/4 - 18
2404LL-05-02	1/2 - 20	1/8 - 27
2404LL-06-04	9/16 - 18	1/4 - 18
2404LL-06-06	9/16 - 18	3/8 - 18
2404LL-08-06	3/4 - 16	3/8 - 18
2404LL-08-08	3/4 - 16	1/2 - 14
2404LL-10-08	7/8 - 14	1/2 - 14
2404LL-12-12	1 1/16 - 12	3/4 - 14
2404LL-16-16	1 5/16 - 12	1 - 11 1/2

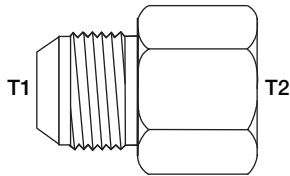


WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

2405


M-JIC / F-NPT STRAIGHT

SAE# 070103



PART NUMBER	T1	T2
2405-02-02	5/16 - 24	1/8 - 27
2405-03-02	3/8 - 24	1/8 - 27
2405-04-02	7/16 - 20	1/8 - 27
2405-04-04	7/16 - 20	1/4 - 18
2405-04-06	7/16 - 20	3/8 - 18
2405-04-08	7/16 - 20	1/2 - 14
2405-05-02	1/2 - 20	1/8 - 27
2405-05-04	1/2 - 20	1/4 - 18
2405-06-02	9/16 - 18	1/8 - 27
2405-06-04	9/16 - 18	1/4 - 18
2405-06-06	9/16 - 18	3/8 - 18
2405-06-08	9/16 - 18	1/2 - 14
2405-08-04	3/4 - 16	1/4 - 18
2405-08-06	3/4 - 16	3/8 - 18
2405-08-08	3/4 - 16	1/2 - 14
2405-08-12	3/4 - 16	3/4 - 14
2405-10-06	7/8 - 14	3/8 - 18
2405-10-08	7/8 - 14	1/2 - 14
2405-10-12	7/8 - 14	3/4 - 14
2405-10-16	7/8 - 14	1 - 11 1/2
2405-12-08	1 1/16 - 12	1/2 - 14
2405-12-12	1 1/16 - 12	3/4 - 14
2405-12-16	1 1/16 - 12	1 - 11 1/2
2405-14-12	1 3/16 - 12	3/4 - 14
2405-16-12	1 5/16 - 12	3/4 - 14
2405-16-16	1 5/16 - 12	1 - 11 1/2
2405-16-20	1 5/8 - 12	1 1/4 - 11 1/2
2405-20-16	1 5/8 - 12	1 - 11 1/2
2405-20-20	1 5/8 - 12	1 1/4 - 11 1/2
2405-20-24	1 5/8 - 12	1 1/2 - 11 1/2
2405-24-20	1 7/8 - 12	1 1/4 - 11 1/2
2405-24-24	1 7/8 - 12	1 1/2 - 11 1/2
2405-32-32	2 1/2 - 12	2 - 11 1/2

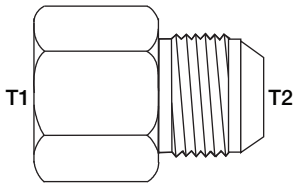


 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



2406

*F-JIC / M-JIC (*REDUCING MAY BE SUPPLIED WITH 2 PIECE ADAPTER)



PART NUMBER	T1	T2
2406-04-02	7/16 - 20	5/16 - 24
2406-04-06	7/16 - 20	9/16 - 18
2406-04-08	7/16 - 20	3/4 - 16
2406-06-04	9/16 - 18	7/16 - 20
2406-06-08	9/16 - 18	3/4 - 16
2406-08-04	3/4 - 16	7/16 - 20
2406-08-06	3/4 - 16	9/16 - 18
2406-08-10	3/4 - 16	7/8 - 14
2406-08-12	3/4 - 16	1 1/16 - 12
2406-10-04	7/8 - 14	7/16 - 20
2406-10-06	7/8 - 14	9/16 - 18
2406-10-08	7/8 - 14	3/4 - 16
2406-10-12	7/8 - 14	1 1/16 - 12
2406-12-04	1 1/16 - 12	7/16 - 20
2406-12-06	1 1/16 - 12	9/16 - 18
2406-12-08	1 1/16 - 12	3/4 - 16
2406-12-10	1 1/16 - 12	7/8 - 14
2406-12-16	1 1/16 - 12	1 5/16 - 12
2406-14-06	1 3/16 - 12	9/16 - 18
2406-14-08	1 3/16 - 12	3/4 - 16
2406-14-10	1 3/16 - 12	7/8 - 14
2406-14-12	1 3/16 - 12	1 1/16 - 12
2406-16-04	1 5/16 - 12	7/16 - 20
2406-16-06	1 5/16 - 12	9/16 - 18
2406-16-08	1 5/16 - 12	3/4 - 16
2406-16-10	1 5/16 - 12	7/8 - 14
2406-16-12	1 5/16 - 12	1 1/16 - 12
2406-16-20	1 5/16 - 12	1 5/8 - 12
2406-16-24	1 5/16 - 12	1 7/8 - 12
2406-20-12	1 5/8 - 12	1 1/16 - 12
2406-20-16	1 5/8 - 12	1 5/16 - 12
2406-20-24	1 5/8 - 12	1 7/8 - 12
2406-24-16	1 7/8 - 12	1 5/16 - 12
2406-24-20	1 7/8 - 12	1 5/8 - 12
2406-24-32	1 7/8 - 12	2 1/2 - 12
2406-32-24	2 1/2 - 12	1 7/8 - 12

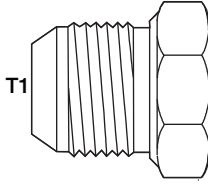


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2408

JIC PLUG

SAE# 070109

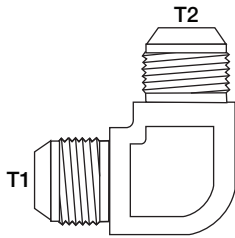


PART NUMBER	T1
2408-02	5/16 - 24
2408-03	3/8 - 24
2408-04	7/16 - 20
2408-05	1/2 - 20
2408-06	9/16 - 18
2408-08	3/4 - 16
2408-10	7/8 - 14
2408-12	1 1/16 - 12
2408-14	1 3/16 - 12
2408-16	1 5/16 - 12
2408-20	1 5/8 - 12
2408-24	1 7/8 - 12
2408-32	2 1/2 - 12

2500

90° M-JIC / M-JIC

SAE# 070201



PART NUMBER	T1	T2
2500-02-02	5/16 - 24	5/16 - 24
2500-03-03	3/8 - 24	3/8 - 24
2500-04-04	7/16 - 20	7/16 - 20
2500-05-04	1/2 - 20	7/16 - 20
2500-05-05	1/2 - 20	1/2 - 20
2500-06-04	9/16 - 18	7/16 - 20
2500-06-05	9/16 - 18	1/2 - 20
2500-06-06	9/16 - 18	9/16 - 18
2500-08-06	3/4 - 16	9/16 - 18
2500-08-08	3/4 - 16	3/4 - 16
2500-10-08	7/8 - 14	3/4 - 16
2500-10-10	7/8 - 14	7/8 - 14
2500-12-08	1 1/16 - 12	3/4 - 16
2500-12-10	1 1/16 - 12	7/8 - 14
2500-12-12	1 1/16 - 12	1 1/16 - 12
2500-14-14	1 3/16 - 12	1 3/16 - 12
2500-16-12	1 5/16 - 12	1 1/16 - 12
2500-16-16	1 5/16 - 12	1 5/16 - 12
2500-20-20	1 5/8 - 12	1 5/8 - 12
2500-24-24	1 7/8 - 12	1 7/8 - 12
2500-32-32	2 1/2 - 12	2 1/2 - 12



WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

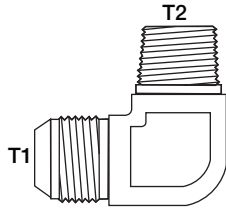




2501

90° M-JIC / M-NPT

SAE# 51504



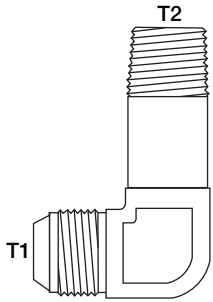
PART NUMBER	T1	T2
2501-02-02	5/16 - 24	1/8 - 27
2501-02-04	5/16 - 24	1/4 - 18
2501-03-02	3/8 - 24	1/8 - 27
2501-04-02	7/16 - 20	1/8 - 27
2501-04-04	7/16 - 20	1/4 - 18
2501-04-06	7/16 - 20	3/8 - 18
2501-04-08	7/16 - 20	1/2 - 14
2501-04-12	7/16 - 20	3/4 - 14
2501-05-02	1/2 - 20	1/8 - 27
2501-05-04	1/2 - 20	1/4 - 18
2501-05-06	1/2 - 20	3/8 - 18
2501-05-08	1/2 - 20	1/2 - 14
2501-06-02	9/16 - 18	1/8 - 27
2501-06-04	9/16 - 18	1/4 - 18
2501-06-06	9/16 - 18	3/8 - 18
2501-06-08	9/16 - 18	1/2 - 14
2501-06-12	9/16 - 18	3/4 - 14
2501-08-02	3/4 - 16	1/8 - 27
2501-08-04	3/4 - 16	1/4 - 18
2501-08-06	3/4 - 16	3/8 - 18
2501-08-08	3/4 - 16	1/2 - 14
2501-08-12	3/4 - 16	3/4 - 14
2501-08-16	3/4 - 16	1 - 11 1/2
2501-10-06	7/8 - 14	3/8 - 18
2501-10-08	7/8 - 14	1/2 - 14
2501-10-12	7/8 - 14	3/4 - 14
2501-10-16	7/8 - 14	1/4 - 18
2501-12-06	1 1/16 - 12	3/8 - 18
2501-12-08	1 1/16 - 12	1/2 - 14
2501-12-12	1 1/16 - 12	3/4 - 14
2501-12-16	1 1/16 - 12	1 - 11 1/2
2501-14-12	1 3/16 - 12	3/4 - 14
2501-16-08	1 5/16 - 12	1/2 - 14
2501-16-12	1 5/16 - 12	3/4 - 14
2501-16-16	1 5/16 - 12	1 - 11 1/2
2501-16-20	1 5/16 - 12	1 1/4 - 11 1/2
2501-16-24	1 5/16 - 12	1 1/2 - 11 1/2
2501-20-12	1 5/8 - 12	3/4 - 14
2501-20-16	1 5/8 - 12	1 - 11 1/2
2501-20-20	1 5/8 - 12	1 1/4 - 11 1/2
2501-20-24	1 5/8 - 12	1 1/2 - 11 1/2
2501-24-16	1 7/8 - 12	1 - 11 1/2
2501-24-20	1 7/8 - 12	1 1/4 - 11 1/2
2501-24-24	1 7/8 - 12	1 1/2 - 11 1/2
2501-24-32	1 7/8 - 12	2 - 11 1/2
2501-32-24	2 1/2 - 12	1 1/2 - 11 1/2
2501-32-32	2 1/2 - 12	2 - 11 1/2



WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

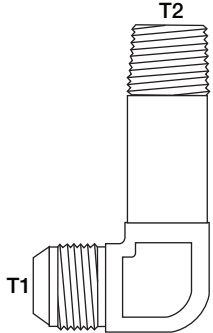
2501L

90° M-JIC / M-NPT LONG

	PART NUMBER	T1	T2
	2501L-04-02	$\frac{7}{16}$ - 20	$\frac{1}{8}$ - 27
2501L-04-04	$\frac{7}{16}$ - 20	$\frac{1}{4}$ - 18	
2501L-05-02	$\frac{1}{2}$ - 20	$\frac{1}{8}$ - 27	
2501L-05-04	$\frac{1}{2}$ - 20	$\frac{1}{4}$ - 18	
2501L-06-02	$\frac{9}{16}$ - 18	$\frac{1}{8}$ - 27	
2501L-06-04	$\frac{9}{16}$ - 18	$\frac{1}{4}$ - 18	
2501L-06-06	$\frac{9}{16}$ - 18	$\frac{3}{8}$ - 18	
2501L-06-08	$\frac{9}{16}$ - 18	$\frac{1}{2}$ - 14	
2501L-08-04	$\frac{3}{4}$ - 16	$\frac{1}{4}$ - 18	
2501L-08-06	$\frac{3}{4}$ - 16	$\frac{3}{8}$ - 18	
2501L-08-08	$\frac{3}{4}$ - 16	$\frac{1}{2}$ - 14	
2501L-08-12	$\frac{3}{4}$ - 16	$\frac{3}{4}$ - 14	
2501L-10-08	$\frac{7}{8}$ - 14	$\frac{1}{2}$ - 14	
2501L-12-12	$1\frac{1}{16}$ - 12	$\frac{3}{4}$ - 14	
2501L-12-16	$1\frac{1}{16}$ - 12	1 - 11 $\frac{1}{2}$	
2501L-14-12	$1\frac{3}{16}$ - 12	$\frac{3}{4}$ - 14	
2501L-16-16	$1\frac{5}{16}$ - 12	1 - 11 $\frac{1}{2}$	
2501L-20-20	$1\frac{5}{8}$ - 12	1 $\frac{1}{4}$ - 11 $\frac{1}{2}$	
2501L-24-24	$1\frac{7}{8}$ - 12	1 $\frac{1}{2}$ - 11 $\frac{1}{2}$	

2501LL

90° M-JIC / M-NPT EXTRA LONG

	PART NUMBER	T1	T2
	2501LL-04-02	$\frac{7}{16}$ - 20	$\frac{1}{8}$ - 27
2501LL-04-04	$\frac{7}{16}$ - 20	$\frac{1}{4}$ - 18	
2501LL-04-06	$\frac{7}{16}$ - 20	$\frac{3}{8}$ - 18	
2501LL-05-02	$\frac{1}{2}$ - 20	$\frac{1}{8}$ - 27	
2501LL-05-04	$\frac{1}{2}$ - 20	$\frac{1}{4}$ - 18	
2501LL-06-04	$\frac{9}{16}$ - 18	$\frac{1}{4}$ - 18	
2501LL-06-06	$\frac{9}{16}$ - 18	$\frac{3}{8}$ - 18	
2501LL-06-08	$\frac{9}{16}$ - 18	$\frac{1}{2}$ - 14	
2501LL-08-06	$\frac{3}{4}$ - 16	$\frac{3}{8}$ - 18	
2501LL-08-08	$\frac{3}{4}$ - 16	$\frac{1}{2}$ - 14	
2501LL-10-08	$\frac{7}{8}$ - 14	$\frac{1}{2}$ - 14	
2501LL-12-08	$1\frac{1}{16}$ - 12	$\frac{1}{2}$ - 14	
2501LL-12-12	$1\frac{1}{16}$ - 12	$\frac{3}{4}$ - 14	
2501LL-14-12	$1\frac{3}{16}$ - 12	$\frac{3}{4}$ - 14	
2501LL-16-16	$1\frac{5}{16}$ - 12	1 - 11 $\frac{1}{2}$	
2501LL-20-20	$1\frac{5}{8}$ - 12	1 $\frac{1}{4}$ - 11 $\frac{1}{2}$	

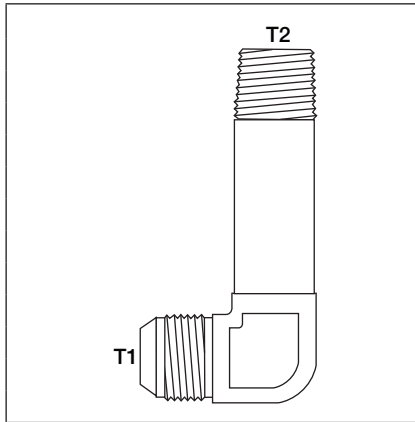


WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



2501LLL

90° M-JIC / M-NPT EXTRA EXTRA LONG

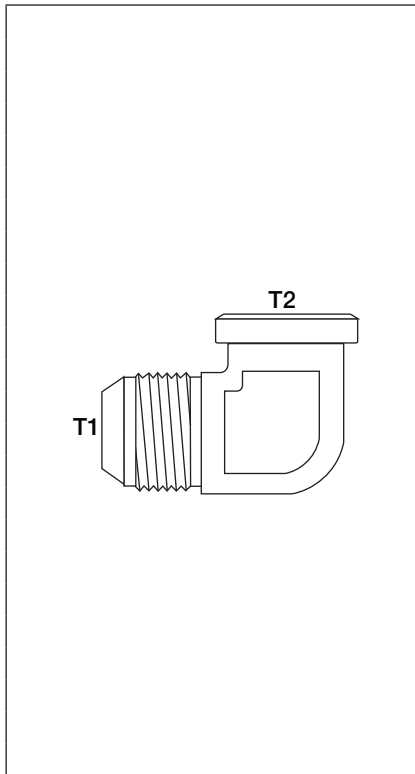


PART NUMBER	T1	T2
2501LLL-04-02	7/16 - 20	1/8 - 27
2501LLL-04-04	7/16 - 20	1/4 - 18
2501LLL-05-02	1/2 - 20	1/8 - 27
2501LLL-06-04	9/16 - 18	1/4 - 18
2501LLL-06-06	9/16 - 18	3/8 - 18
2501LLL-08-06	3/4 - 16	3/8 - 18
2501LLL-08-08	3/4 - 16	1/2 - 14
2501LLL-10-08	7/8 - 14	1/2 - 14
2501LLL-12-12	1 1/16 - 12	3/4 - 14
2501LLL-16-16	1 5/16 - 12	1 - 11 1/2

2502

90° M-JIC / F-NPT

SAE# 070203



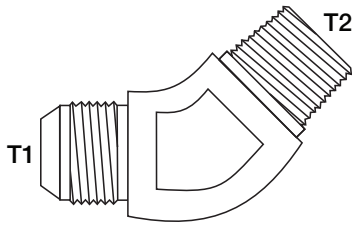
PART NUMBER	T1	T2
2502-02-02	5/16 - 24	1/8 - 27
2502-03-02	3/8 - 24	1/8 - 27
2502-04-02	7/16 - 20	1/8 - 27
2502-04-04	7/16 - 20	1/4 - 18
2502-04-06	7/16 - 20	3/8 - 18
2502-05-02	1/2 - 20	1/8 - 27
2502-05-04	1/2 - 20	1/4 - 18
2502-06-02	9/16 - 18	1/8 - 27
2502-06-04	9/16 - 18	1/4 - 18
2502-06-06	9/16 - 18	3/8 - 18
2502-06-08	9/16 - 18	1/2 - 14
2502-08-04	3/4 - 16	1/4 - 18
2502-08-06	3/4 - 16	3/8 - 18
2502-08-08	3/4 - 16	1/2 - 14
2502-10-08	7/8 - 14	1/2 - 14
2502-12-08	1 1/16 - 12	1/2 - 14
2502-12-12	1 1/16 - 12	3/4 - 14
2502-14-12	1 3/16 - 12	3/4 - 14
2502-16-12	1 5/16 - 12	3/4 - 14
2502-16-16	1 5/16 - 12	1 - 11 1/2
2502-20-20	1 5/8 - 12	1 1/4 - 11 1/2
2502-24-24	1 7/8 - 12	1 1/2 - 11 1/2
2502-32-32	2 1/2 - 12	2 - 11 1/2

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

2503

45° M-JIC / M-NPT

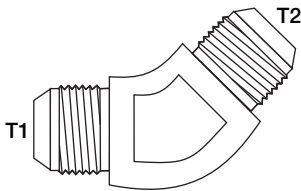
SAE# 070302



PART NUMBER	T1	T2
2503-02-02	5/16 - 24	1/8 - 27
2503-03-02	3/8 - 24	1/8 - 27
2503-04-02	7/16 - 20	1/8 - 27
2503-04-04	7/16 - 20	1/4 - 18
2503-04-06	7/16 - 20	3/8 - 18
2503-04-08	7/16 - 20	1/2 - 14
2503-05-02	1/2 - 20	1/8 - 27
2503-05-04	1/2 - 20	1/4 - 18
2503-06-02	9/16 - 18	1/8 - 27
2503-06-04	9/16 - 18	1/4 - 18
2503-06-06	9/16 - 18	3/8 - 18
2503-06-08	9/16 - 18	1/2 - 14
2503-06-12	9/16 - 18	3/4 - 14
2503-08-04	3/4 - 16	1/4 - 18
2503-08-06	3/4 - 16	3/8 - 18
2503-08-08	3/4 - 16	1/2 - 14
2503-08-12	3/4 - 16	3/4 - 14
2503-10-06	7/8 - 14	3/8 - 18
2503-10-08	7/8 - 14	1/2 - 14
2503-10-12	7/8 - 14	3/4 - 14
2503-12-08	1 1/16 - 12	1/2 - 14
2503-12-12	1 1/16 - 12	3/4 - 14
2503-12-16	1 1/16 - 12	1 - 11 1/2
2503-14-12	1 3/16 - 12	3/4 - 14
2503-16-08	1 5/16 - 12	1/2 - 14
2503-16-12	1 5/16 - 12	3/4 - 14
2503-16-16	1 5/16 - 12	1 - 11 1/2
2503-16-20	1 5/16 - 12	1 1/4 - 11 1/2
2503-20-16	1 5/8 - 12	1 - 11 1/2
2503-20-20	1 5/8 - 12	1 1/4 - 11 1/2
2503-20-24	1 5/8 - 12	1 1/2 - 11 1/2
2503-24-24	1 7/8 - 12	1 1/2 - 11 1/2
2503-32-32	2 1/2 - 12	2 - 11 1/2

2504

45° M-JIC / M-JIC



PART NUMBER	T1	T2
2504-04-04	7/16 - 20	7/16 - 20
2504-06-06	9/16 - 18	9/16 - 18
2504-08-08	3/4 - 16	3/4 - 16
2504-10-10	7/8 - 14	7/8 - 14
2504-12-12	1 1/16 - 12	1 1/16 - 12
2504-16-16	1 5/16 - 12	1 5/16 - 12



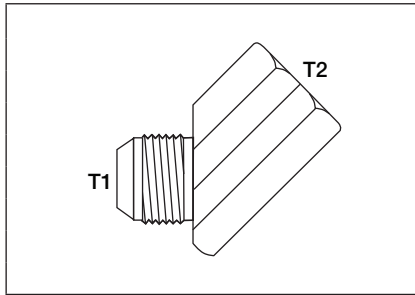
WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





2505

45° M-JIC / F-NPT

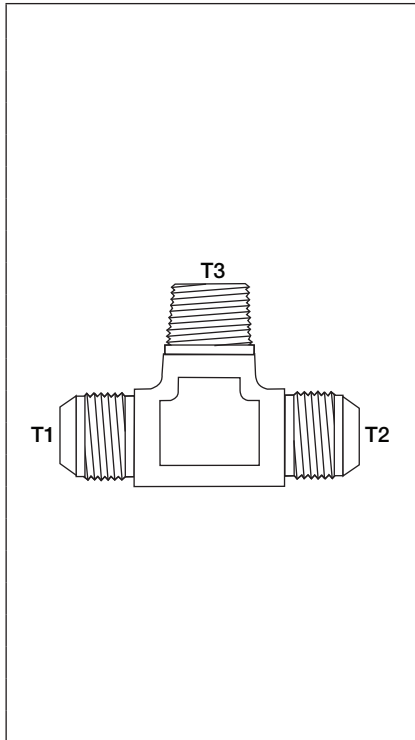


PART NUMBER	T1	T2
2505-04-04	7/16 - 20	1/4 - 18
2505-06-04	9/16 - 18	1/4 - 18
2505-06-06	9/16 - 18	3/8 - 18
2505-08-06	3/4 - 16	3/8 - 18
2505-08-08	3/4 - 16	1/2 - 14
2505-10-08	7/8 - 14	1/2 - 14
2505-12-12	1 1/16 - 12	3/4 - 14
2505-16-16	1 5/16 - 12	1 - 11 1/2

2601

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

SAE# 070425



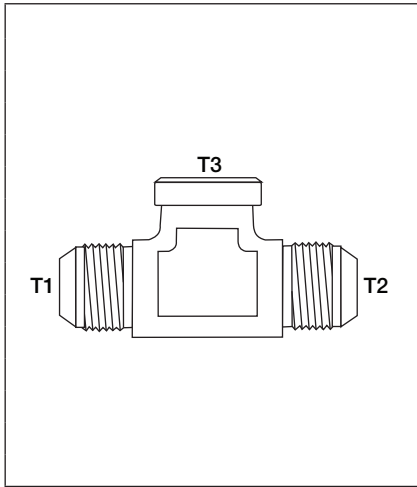
PART NUMBER	T1	T2	T3
2601-03-03-02	3/8 - 24	3/8 - 24	1/8 - 27
2601-04-04-02	7/16 - 20	7/16 - 20	1/8 - 27
2601-04-04-04	7/16 - 20	7/16 - 20	1/4 - 18
2601-04-04-06	7/16 - 20	7/16 - 20	3/8 - 18
2601-05-05-02	1/2 - 20	1/2 - 20	1/8 - 27
2601-05-05-04	1/2 - 20	1/2 - 20	1/4 - 18
2601-06-06-04	9/16 - 18	9/16 - 18	1/4 - 18
2601-06-06-06	9/16 - 18	9/16 - 18	3/8 - 18
2601-06-06-08	9/16 - 18	9/16 - 18	1/2 - 14
2601-08-08-04	3/4 - 16	3/4 - 16	1/4 - 18
2601-08-08-06	3/4 - 16	3/4 - 16	3/8 - 18
2601-08-08-08	3/4 - 16	3/4 - 16	1/2 - 14
2601-10-10-06	7/8 - 14	7/8 - 14	3/8 - 18
2601-10-10-08	7/8 - 14	7/8 - 14	1/2 - 14
2601-12-12-08	1 1/16 - 12	1 1/16 - 12	1/2 - 14
2601-12-12-12	1 1/16 - 12	1 1/16 - 12	3/4 - 14
2601-14-14-12	1 3/16 - 12	1 3/16 - 12	3/4 - 14
2601-16-16-12	1 5/16 - 12	1 5/16 - 12	3/4 - 14
2601-16-16-16	1 5/16 - 12	1 5/16 - 12	1 - 11 1/2
2601-20-20-20	1 5/8 - 12	1 5/8 - 12	1 1/4 - 11 1/2
2601-24-24-24	1 7/8 - 12	1 7/8 - 12	1 1/2 - 11 1/2
2601-32-32-32	2 1/2 - 12	2 1/2 - 12	2 - 11 1/2

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

2602

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

SAE# 070427

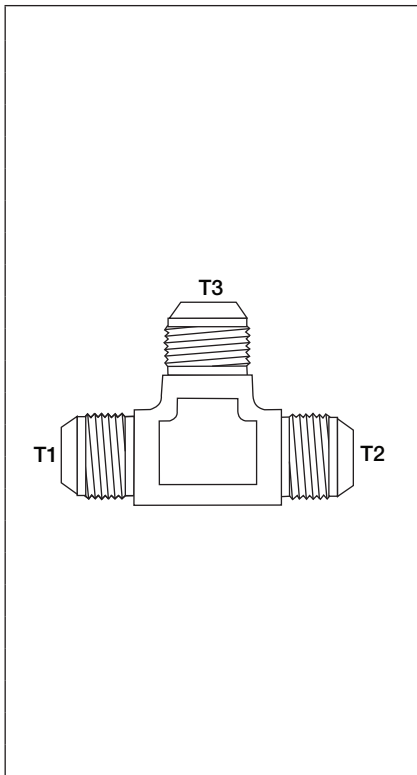


PART NUMBER	T1	T2	T3
2602-04-04-02	7/16 - 20	7/16 - 20	1/8 - 27
2602-04-04-04	7/16 - 20	7/16 - 20	1/4 - 18
2602-05-05-02	1/2 - 20	1/2 - 20	1/8 - 27
2602-06-06-04	9/16 - 18	9/16 - 18	1/4 - 18
2602-06-06-06	9/16 - 18	9/16 - 18	3/8 - 18
2602-08-08-06	3/4 - 16	3/4 - 16	3/8 - 18
2602-08-08-08	3/4 - 16	3/4 - 16	1/2 - 14
2602-10-10-08	7/8 - 14	7/8 - 14	1/2 - 14
2602-12-12-12	1 1/16 - 12	1 1/16 - 12	3/4 - 14
2602-14-14-12	1 3/16 - 12	1 3/16 - 12	3/4 - 14
2602-16-16-16	1 5/16 - 12	1 5/16 - 12	1 - 11 1/2
2602-20-20-20	1 5/8 - 12	1 5/8 - 12	1 1/4 - 11 1/2
2602-24-24-24	1 7/8 - 12	1 7/8 - 12	1 1/2 - 11 1/2
2602-32-32-32	2 1/2 - 12	2 1/2 - 12	2 - 11 1/2

2603

TEE M-JIC / M-JIC / M-JIC

SAE# 070401



PART NUMBER	T1	T2	T3
2603-02-02-02	5/16 - 24	5/16 - 24	5/16 - 24
2603-03-03-03	3/8 - 24	3/8 - 24	3/8 - 24
2603-04-04-04	7/16 - 20	7/16 - 20	7/16 - 20
2603-04-04-06	7/16 - 20	7/16 - 20	9/16 - 18
2603-05-05-05	1/2 - 20	1/2 - 20	1/2 - 20
2603-06-06-04	9/16 - 18	9/16 - 18	7/16 - 20
2603-06-06-06	9/16 - 18	9/16 - 18	9/16 - 18
2603-06-06-08	9/16 - 18	9/16 - 18	3/4 - 16
2603-08-08-08	3/4 - 16	3/4 - 16	3/4 - 16
2603-08-08-10	3/4 - 16	3/4 - 16	7/8 - 14
2603-08-08-12	3/4 - 16	3/4 - 16	1 1/16 - 12
2603-10-08-08	7/8 - 14	3/4 - 16	3/4 - 16
2603-10-10-08	7/8 - 14	7/8 - 14	3/4 - 16
2603-10-10-10	7/8 - 14	7/8 - 14	7/8 - 14
2603-12-12-08	1 1/16 - 12	1 1/16 - 12	3/4 - 16
2603-12-12-12	1 1/16 - 12	1 1/16 - 12	1 1/16 - 12
2603-12-12-16	1 1/16 - 12	1 1/16 - 12	1 5/16 - 12
2603-14-14-14	1 3/16 - 12	1 3/16 - 12	1 3/16 - 12
2603-16-16-12	1 5/16 - 12	1 5/16 - 12	1 1/16 - 12
2603-16-16-16	1 5/16 - 12	1 5/16 - 12	1 5/16 - 12
2603-20-20-20	1 5/8 - 12	1 5/8 - 12	1 5/8 - 12
2603-24-24-24	1 7/8 - 12	1 7/8 - 12	1 7/8 - 12
2603-32-32-32	2 1/2 - 12	2 1/2 - 12	2 1/2 - 12



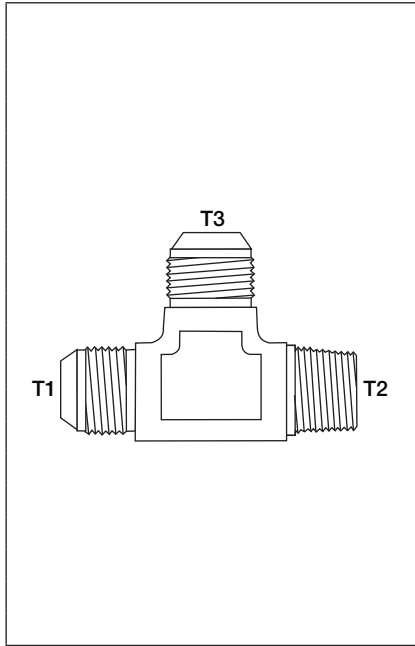
WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



2605

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

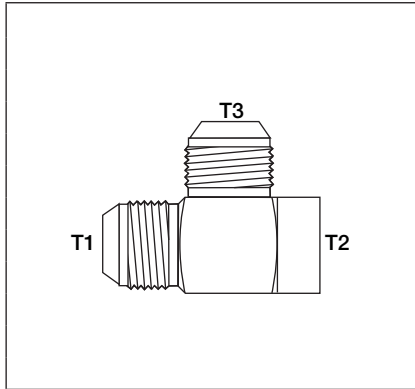
SAE# 070424



PART NUMBER	T1	T2	T3
2605-04-02-04	7/16 - 20	1/8 - 27	7/16 - 20
2605-04-04-04	7/16 - 20	1/4 - 18	7/16 - 20
2605-05-02-05	1/2 - 20	1/8 - 27	1/2 - 20
2605-06-02-06	9/16 - 18	1/8 - 27	9/16 - 18
2605-06-04-04	9/16 - 18	1/4 - 18	7/16 - 20
2605-06-04-06	9/16 - 18	1/4 - 18	9/16 - 18
2605-06-06-06	9/16 - 18	3/8 - 18	9/16 - 18
2605-06-08-06	9/16 - 18	1/2 - 14	9/16 - 18
2605-08-04-08	3/4 - 16	1/4 - 18	3/4 - 16
2605-08-06-08	3/4 - 16	3/8 - 18	3/4 - 16
2605-08-08-08	3/4 - 16	1/2 - 14	3/4 - 16
2605-10-08-10	7/8 - 14	1/2 - 14	7/8 - 14
2605-12-12-08	1 1/16 - 12	3/4 - 14	3/4 - 16
2605-12-12-12	1 1/16 - 12	3/4 - 14	1 1/16 - 12
2605-14-12-14	1 3/16 - 12	3/4 - 14	1 3/16 - 12
2605-16-16-16	1 5/16 - 12	1 - 11 1/2	1 5/16 - 12
2605-20-20-20	1 5/8 - 12	1 1/4 - 11 1/2	1 5/8 - 12
2605-24-24-24	1 7/8 - 12	1 1/2 - 11 1/2	1 7/8 - 12
2605-32-32-32	2 1/2 - 12	2 - 11 1/2	2 1/2 - 12

2606

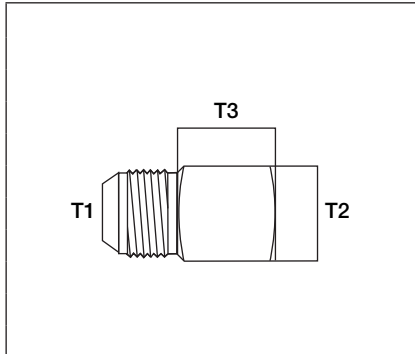
RUN TEE M-JIC / F-NPT / M-JIC



PART NUMBER	T1	T2	T3
2606-03-02-03	3/8 - 24	1/8 - 27	3/8 - 24
2606-04-02-04	7/16 - 20	1/8 - 27	7/16 - 20
2606-04-04-04	7/16 - 20	1/4 - 18	7/16 - 20
2606-06-04-06	9/16 - 18	1/4 - 18	9/16 - 18
2606-06-06-06	9/16 - 18	3/8 - 18	9/16 - 18
2606-08-06-08	3/4 - 16	3/8 - 18	3/4 - 16
2606-10-08-10	7/8 - 14	1/2 - 14	7/8 - 14
2606-12-12-12	1 1/16 - 12	3/4 - 14	1 1/16 - 12
2606-14-12-14	1 3/16 - 12	3/4 - 14	1 3/16 - 12
2606-16-16-16	1 5/16 - 12	1 - 11 1/2	1 5/16 - 12
2606-20-20-20	1 5/8 - 12	1 1/4 - 11 1/2	1 5/8 - 12

2609

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

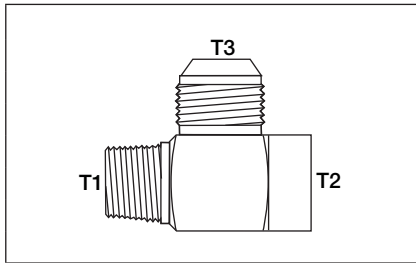


PART NUMBER	T1	T2	T3
2609-04-02-02	7/16 - 20	1/8 - 27	1/8 - 27
2609-04-04-04	7/16 - 20	1/4 - 18	1/4 - 18
2609-05-04-04	1/2 - 20	1/4 - 18	1/4 - 18
2609-06-04-04	9/16 - 18	1/4 - 18	1/4 - 18
2609-08-06-06	3/4 - 16	3/8 - 18	3/8 - 18
2609-08-08-08	3/4 - 16	1/2 - 14	1/2 - 14
2609-10-08-08	7/8 - 14	1/2 - 14	1/2 - 14
2609-12-12-12	1 1/16 - 12	3/4 - 14	3/4 - 14
2609-16-16-16	1 5/16 - 12	1 - 11 1/2	1 - 11 1/2
2609-20-20-20	1 5/8 - 12	1 1/4 - 11 1/2	1 1/4 - 11 1/2

⚠ WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

2613

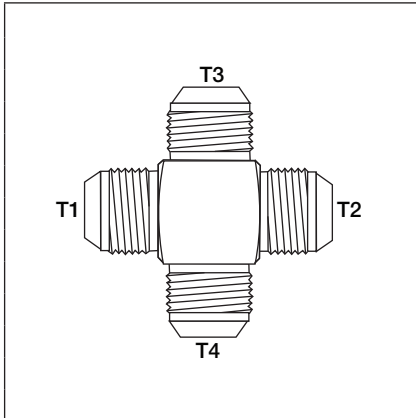
RUN TEE M-NPT / F-NPT / M-JIC



PART NUMBER	T1	T2	T3
2613-02-02-04	1/8 - 27	1/8 - 27	7/16 - 20
2613-04-04-06	1/4 - 18	1/4 - 18	9/16 - 18
2613-06-06-06	3/8 - 18	3/8 - 18	9/16 - 18
2613-06-06-08	3/8 - 18	3/8 - 18	3/4 - 16
2613-08-08-10	1/2 - 14	1/2 - 14	7/8 - 14
2613-12-12-12	3/4 - 14	3/4 - 14	1 1/16 - 12
2613-16-16-16	1 - 11 1/2	1 - 11 1/2	1 5/16 - 12

2650

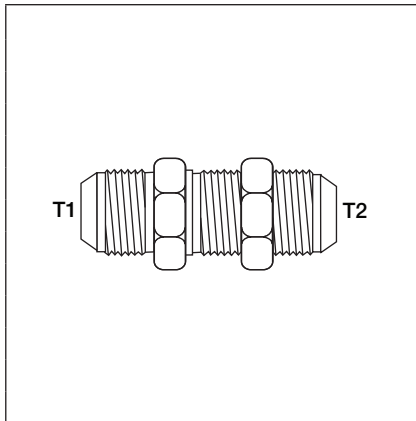
CROSS M-JIC




PART NUMBER	T1	T2	T3	T4
2650-02-02-02-02	5/16 - 24	5/16 - 24	5/16 - 24	5/16 - 24
2650-04-04-04-04	7/16 - 20	7/16 - 20	7/16 - 20	7/16 - 20
2650-05-05-05-05	1/2 - 20	1/2 - 20	1/2 - 20	1/2 - 20
2650-06-06-06-06	9/16 - 18	9/16 - 18	9/16 - 18	9/16 - 18
2650-06-08-06-08	9/16 - 18	3/4 - 16	9/16 - 18	3/4 - 16
2650-08-08-08-08	3/4 - 16	3/4 - 16	3/4 - 16	3/4 - 16
2650-10-10-10-10	7/8 - 14	7/8 - 14	7/8 - 14	7/8 - 14
2650-12-12-12-12	1 1/16 - 12	1 1/16 - 12	1 1/16 - 12	1 1/16 - 12
2650-14-14-14-14	1 3/16 - 12	1 3/16 - 12	1 3/16 - 12	1 3/16 - 12
2650-16-16-16-16	1 5/16 - 12	1 5/16 - 12	1 5/16 - 12	1 5/8 - 12
2650-20-20-20-20	1 5/8 - 12	1 5/8 - 12	1 5/8 - 12	1 5/8 - 12
2650-24-24-24-24	1 7/8 - 12	1 7/8 - 12	1 7/8 - 12	1 7/8 - 12

2700LN

M-JIC BULKHEAD STRAIGHT INCLUDES NUT



PART NUMBER	T1	T2
2700LN-04-04	7/16 - 20	7/16 - 20
2700LN-04-06	7/16 - 20	9/16 - 18
2700LN-05-05	1/2 - 20	1/2 - 20
2700LN-06-04	9/16 - 18	7/16 - 20
2700LN-06-06	9/16 - 18	9/16 - 18
2700LN-08-08	3/4 - 16	3/4 - 16
2700LN-10-10	7/8 - 14	7/8 - 14
2700LN-12-12	1 1/16 - 12	1 1/16 - 12
2700LN-14-14	1 3/16 - 12	1 3/16 - 12
2700LN-16-16	1 5/16 - 12	1 5/16 - 12
2700LN-20-20	1 5/8 - 12	1 5/8 - 12
2700LN-24-24	1 7/8 - 12	1 7/8 - 12

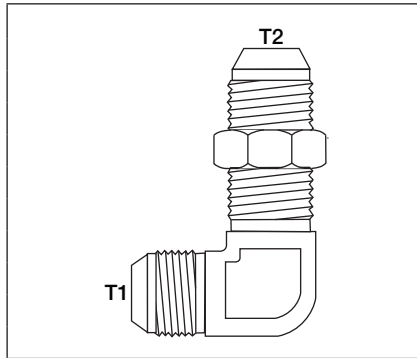
 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



2701LN

90° M-JIC BULKHEAD INCLUDES NUT

SAE# 070701

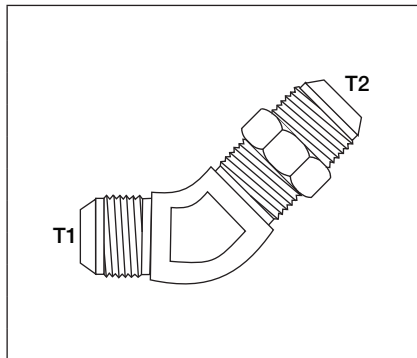


PART NUMBER	T1	T2
2701LN-03-03	3/8 - 24	3/8 - 24
2701LN-04-04	7/16 - 20	7/16 - 20
2701LN-05-05	1/2 - 20	1/2 - 20
2701LN-06-06	9/16 - 18	9/16 - 18
2701LN-08-08	3/4 - 16	3/4 - 16
2701LN-10-10	7/8 - 14	7/8 - 14
2701LN-12-12	1 1/16 - 12	1 1/16 - 12
2701LN-16-16	1 5/16 - 12	1 5/16 - 12
2701LN-20-20	1 7/8 - 12	1 7/8 - 12

2702LN

45° M-JIC BULKHEAD INCLUDES NUT

SAE# 070801

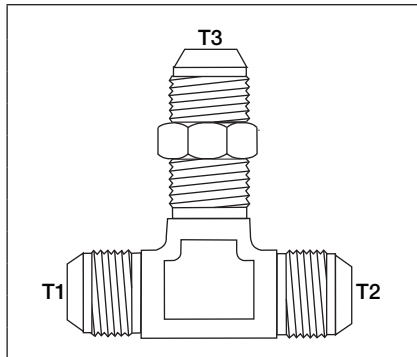


PART NUMBER	T1	T2
2702LN-03-03	3/8 - 24	3/8 - 24
2702LN-04-04	7/16 - 20	7/16 - 20
2702LN-05-05	1/2 - 20	1/2 - 20
2702LN-06-06	9/16 - 18	9/16 - 18
2702LN-08-08	3/4 - 16	3/4 - 16
2702LN-10-10	7/8 - 14	7/8 - 14
2702LN-12-12	1 1/16 - 12	1 1/16 - 12
2702LN-16-16	1 5/16 - 12	1 5/16 - 12
2702LN-20-20	1 7/8 - 12	1 7/8 - 12
2702LN-24-24	1 7/8 - 12	1 7/8 - 12

2703LN

BRANCH TEE M-JIC BULKHEAD INCLUDES NUT

SAE# 070959



PART NUMBER	T1	T2	T3
2703LN-03-03-03	3/8 - 24	3/8 - 24	3/8 - 24
2703LN-04-04-04	7/16 - 20	7/16 - 20	7/16 - 20
2703LN-04-04-06	7/16 - 20	7/16 - 20	9/16 - 18
2703LN-05-05-05	1/2 - 20	1/2 - 20	1/2 - 20
2703LN-06-06-06	9/16 - 18	9/16 - 18	9/16 - 18
2703LN-08-08-08	3/4 - 16	3/4 - 16	3/4 - 16
2703LN-10-10-10	7/8 - 14	7/8 - 14	7/8 - 14
2703LN-12-12-12	1 1/16 - 12	1 1/16 - 12	1 1/16 - 12
2703LN-16-16-16	1 5/16 - 12	1 5/16 - 12	1 5/16 - 12
2703LN-20-20-20	1 7/8 - 12	1 7/8 - 12	1 7/8 - 12

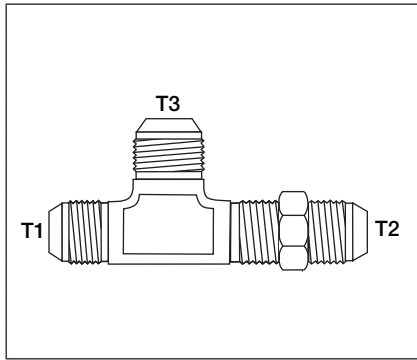


WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

2704LN

RUN TEE M-JIC BULKHEAD INCLUDES NUT

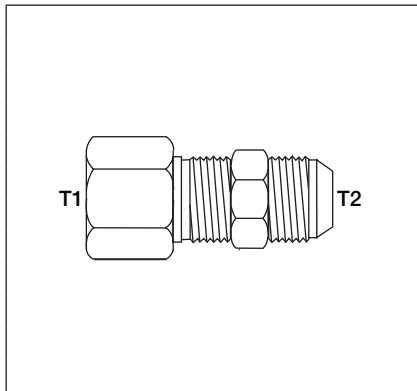
SAE# 070958



PART NUMBER	T1	T2	T3
2704LN-03-03-03	3/8 - 24	3/8 - 24	3/8 - 24
2704LN-04-04-04	7/16 - 20	7/16 - 20	7/16 - 20
2704LN-05-05-05	1/2 - 20	1/2 - 20	1/2 - 20
2704LN-06-06-06	9/16 - 18	9/16 - 18	9/16 - 18
2704LN-08-08-08	3/4 - 16	3/4 - 16	3/4 - 16
2704LN-10-10-10	7/8 - 14	7/8 - 14	7/8 - 14
2704LN-12-12-12	1 1/16 - 12	1 1/16 - 12	1 1/16 - 12
2704LN-16-16-16	1 5/16 - 12	1 5/16 - 12	1 5/16 - 12
2704LN-20-20-20	1 5/8 - 12	1 5/8 - 12	1 5/8 - 12
2704LN-24-24-24	1 7/8 - 12	1 7/8 - 12	1 7/8 - 12

2705LN

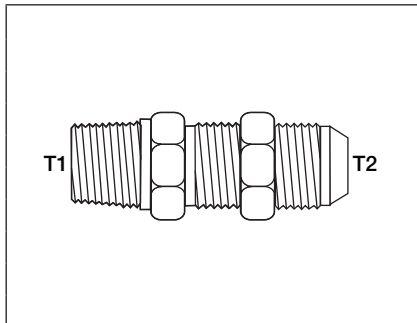
F-NPT / M-JIC BULKHEAD INCLUDES NUT



PART NUMBER	T1	T2
2705LN-02-04	1/8 - 27	7/16 - 20
2705LN-04-04	1/4 - 18	7/16 - 20
2705LN-04-06	1/4 - 18	9/16 - 18
2705LN-06-06	3/8 - 18	9/16 - 18
2705LN-06-08	3/8 - 18	3/4 - 16
2705LN-08-08	1/2 - 14	3/4 - 16
2705LN-08-10	1/2 - 14	7/8 - 14
2705LN-12-12	3/4 - 14	1 1/16 - 12
2705LN-16-16	1 - 11 1/2	1 5/16 - 12
2705LN-20-20	1 1/4 - 11 1/2	1 5/8 - 12
2705LN-24-24	1 1/2 - 11 1/2	1 7/8 - 12

2706LN

M-NPT / M-JIC BULKHEAD INCLUDES NUT



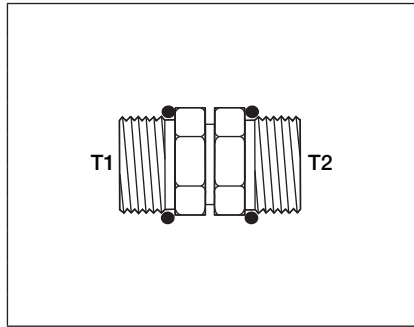
PART NUMBER	T1	T2
2706LN-02-04	1/8 - 27	7/16 - 20
2706LN-04-04	1/4 - 18	7/16 - 20
2706LN-04-06	1/4 - 18	9/16 - 18
2706LN-06-06	3/8 - 18	9/16 - 18
2706LN-06-08	3/8 - 18	3/4 - 16
2706LN-08-08	1/2 - 14	3/4 - 16
2706LN-08-10	1/2 - 14	7/8 - 14
2706LN-12-12	3/4 - 14	1 1/16 - 12
2706LN-16-16	1 - 11 1/2	1 5/16 - 12

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



3474

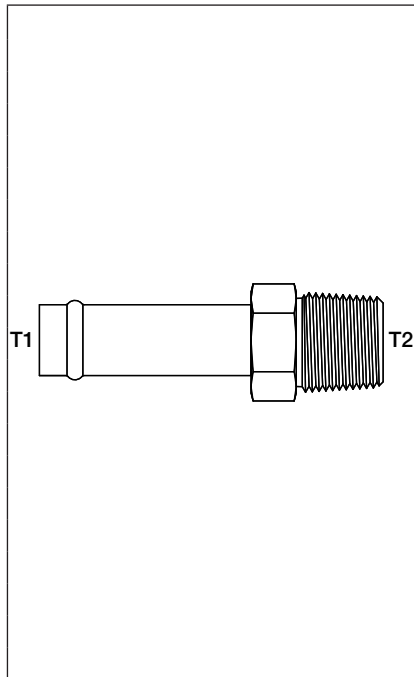
M-ORB / ADJ M-ORB



PART NUMBER	T1	T2
3474-04-04	7/16 - 20	7/16 - 20
3474-06-06	9/16 - 18	9/16 - 18
3474-08-08	3/4 - 16	3/4 - 16
3474-10-10	7/8 - 14	7/8 - 14
3474-12-12	1 1/16 - 12	1 1/16 - 12
3474-16-16	1 5/16 - 12	1 5/16 - 12
3474-20-20	1 5/8 - 12	1 5/8 - 12
3474-24-24	1 7/8 - 12	1 7/8 - 12
3474-32-32	2 1/2 - 12	2 1/2 - 12

4404

HB / M-NPT STRAIGHT



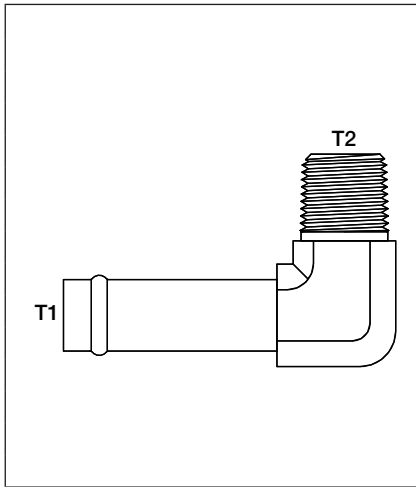
PART NUMBER	T1	T2
4404-04-02	1/4	1/8 - 27
4404-04-04	1/4	1/4 - 18
4404-06-02	3/8	1/8 - 27
4404-06-04	3/8	1/4 - 18
4404-06-06	3/8	3/8 - 18
4404-08-04	1/2	1/4 - 18
4404-08-06	1/2	3/8 - 18
4404-08-08	1/2	1/2 - 14
4404-08-12	1/2	3/4 - 14
4404-10-06	5/8	3/8 - 18
4404-10-08	5/8	1/2 - 14
4404-12-08	3/4	1/2 - 14
4404-12-12	3/4	3/4 - 14
4404-16-12	1	3/4 - 14
4404-16-16	1	1 - 11 1/2
4404-20-16	1 1/4	1 - 11 1/2
4404-20-20	1 1/4	1 1/4 - 11 1/2
4404-20-24	1 1/4	1 1/2 - 11 1/2
4404-24-20	1 1/2	1 1/4 - 11 1/2
4404-24-24	1 1/2	1 1/2 - 11 1/2



WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

4501

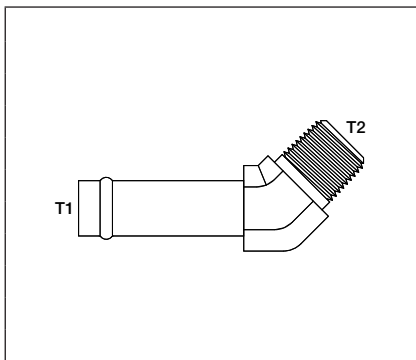
90° HB / M-NPT




PART NUMBER	T1	T2
4501-04-02	1/4	1/8 - 27
4501-04-04	1/4	1/4 - 18
4501-06-04	3/8	1/4 - 18
4501-06-06	3/8	3/8 - 18
4501-08-06	1/2	3/8 - 18
4501-08-08	1/2	1/2 - 14
4501-08-12	1/2	3/4 - 14
4501-10-08	5/8	1/2 - 14
4501-10-12	5/8	3/4 - 14
4501-12-08	3/4	1/2 - 14
4501-12-12	3/4	3/4 - 14
4501-12-16	3/4	1 - 11 1/2
4501-16-12	1	3/4 - 14
4501-16-16	1	1 - 11 1/2

4503

45° HB / M-NPT



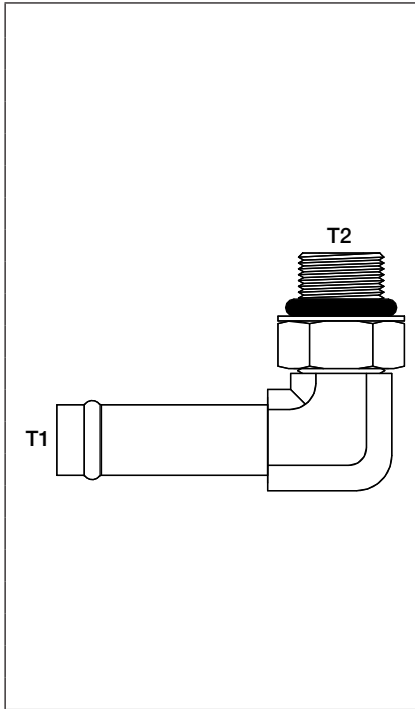
PART NUMBER	T1	T2
4503-04-02	1/4	1/8 - 27
4503-04-04	1/4	1/4 - 18
4503-06-04	3/8	1/4 - 18
4503-08-06	1/2	3/8 - 18
4503-08-08	1/2	1/2 - 14
4503-10-08	5/8	1/2 - 14
4503-12-12	3/4	3/4 - 14
4503-16-16	1	1 - 11 1/2
4503-20-20	1 1/4	1 1/4 - 11 1/2
4503-24-24	1 1/2	1 1/2 - 11 1/2

 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



4601

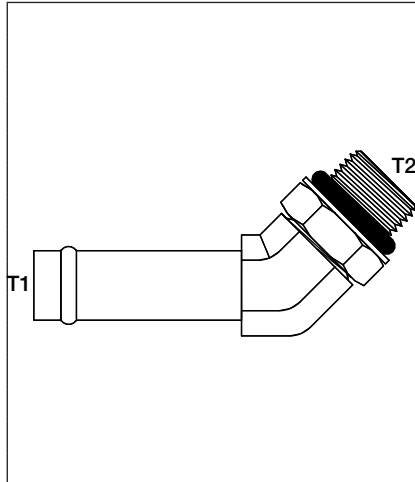
90° HB / M-ORB



PART NUMBER	T1	T2
4601-04-04	1/4	7/16 - 20
4601-04-06	1/4	9/16 - 18
4601-06-04	3/8	7/16 - 20
4601-06-06	3/8	9/16 - 18
4601-06-08	3/8	3/4 - 16
4601-08-06	1/2	9/16 - 18
4601-08-08	1/2	3/4 - 16
4601-10-08	5/8	3/4 - 16
4601-10-10	5/8	7/8 - 14
4601-10-12	5/8	1 1/16 - 12
4601-12-08	3/4	3/4 - 16
4601-12-10	3/4	7/8 - 14
4601-12-12	3/4	1 1/16 - 12
4601-12-16	3/4	1 5/16 - 12
4601-16-10	1	7/8 - 14
4601-16-12	1	1 1/16 - 12
4601-16-16	1	1 5/16 - 12
4601-16-20	1	1 5/8 - 12
4601-20-16	1 1/4	1 5/16 - 12
4601-20-20	1 1/4	1 5/8 - 12
4601-24-24	1 1/2	1 7/8 - 12

4603

45° HB / M-ORB



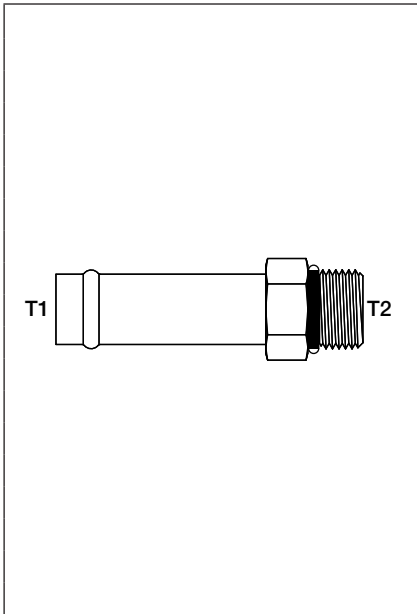
PART NUMBER	T1	T2
4603-04-04	1/4	7/16 - 20
4603-06-06	3/8	9/16 - 18
4603-08-08	1/2	3/4 - 16
4603-10-10	5/8	7/8 - 14
4603-10-12	5/8	1 1/16 - 12
4603-12-08	3/4	3/4 - 16
4603-12-10	3/4	7/8 - 14
4603-12-12	3/4	1 1/16 - 12
4603-16-12	1	1 1/16 - 12
4603-16-16	1	1 5/16 - 12
4603-20-16	1 1/4	1 5/16 - 12
4603-20-20	1 1/4	1 5/8 - 12
4603-24-20	1 1/2	1 5/8 - 12
4603-24-24	1 1/2	1 7/8 - 12



WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

4604

HB / M-ORB STRAIGHT

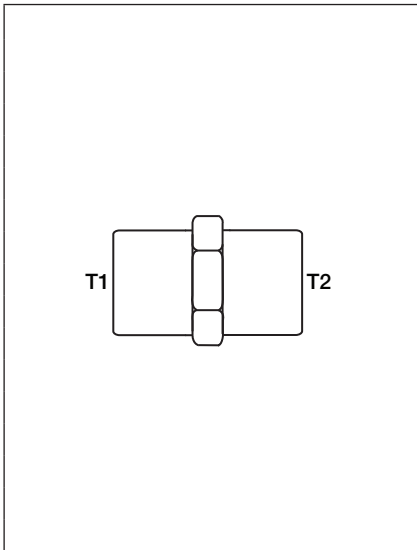


PART NUMBER	T1	T2
4604-04-04	1/4	7/16 - 20
4604-06-04	3/8	7/16 - 20
4604-06-06	3/8	9/16 - 18
4604-08-06	1/2	9/16 - 18
4604-08-08	1/2	3/4 - 16
4604-10-08	5/8	3/4 - 16
4604-10-10	5/8	7/8 - 14
4604-12-08	3/4	3/4 - 16
4604-12-10	3/4	7/8 - 14
4604-12-12	3/4	1 1/16 - 12
4604-12-16	3/4	1 5/16 - 12
4604-16-12	1	1 1/16 - 12
4604-16-16	1	1 5/16 - 12
4604-16-20	1	1 5/8 - 12
4604-20-16	1 1/4	1 5/16 - 12
4604-20-20	1 1/4	1 5/8 - 12
4604-20-24	1 1/4	1 7/8 - 12
4604-24-24	1 1/2	1 7/8 - 12


5000

F-NPT / F-NPT

SAE# 140138



PART NUMBER	T1	T2
5000-02-02	1/8 - 27	1/8 - 27
5000-04-02	1/4 - 18	1/8 - 27
5000-04-04	1/4 - 18	1/4 - 18
5000-06-04	3/8 - 18	1/4 - 18
5000-06-06	3/8 - 18	3/8 - 18
5000-08-04	1/2 - 14	1/4 - 18
5000-08-06	1/2 - 14	3/8 - 18
5000-08-08	1/2 - 14	1/2 - 14
5000-12-06	3/4 - 14	3/8 - 18
5000-12-08	3/4 - 14	1/2 - 14
5000-12-12	3/4 - 14	3/4 - 14
5000-16-12	1 - 11 1/2	3/4 - 14
5000-16-16	1 - 11 1/2	1 - 11 1/2
5000-20-20	1 1/4 - 11 1/2	1 1/4 - 11 1/2
5000-24-24	1 1/2 - 11 1/2	1 1/2 - 11 1/2
5000-32-32	2 - 11 1/2	2 - 11 1/2

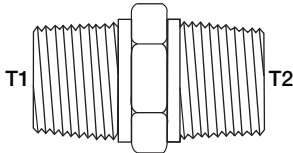
 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



5404

M-NPT / M-NPT

SAE# 140137

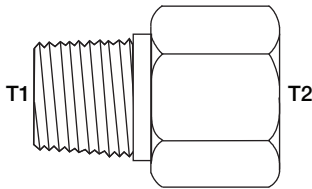


PART NUMBER	T1	T2
5404-02-02	1/8 - 27	1/8 - 27
5404-04-02	1/4 - 18	1/8 - 27
5404-04-04	1/4 - 18	1/4 - 18
5404-06-02	3/8 - 18	1/8 - 27
5404-06-04	3/8 - 18	1/4 - 18
5404-06-06	3/8 - 18	3/8 - 18
5404-08-04	1/2 - 14	1/4 - 18
5404-08-06	1/2 - 14	3/8 - 18
5404-08-08	1/2 - 14	1/2 - 14
5404-12-06	3/4 - 14	3/8 - 18
5404-12-08	3/4 - 14	1/2 - 14
5404-12-12	3/4 - 14	3/4 - 14
5404-16-06	1 - 11 1/2	3/8 - 18
5404-16-08	1 - 11 1/2	1/2 - 14
5404-16-12	1 - 11 1/2	3/4 - 14
5404-16-16	1 - 11 1/2	1 - 11 1/2
5404-20-12	1 1/4 - 11 1/2	3/4 - 14
5404-20-16	1 1/4 - 11 1/2	1 - 11 1/2
5404-20-20	1 1/4 - 11 1/2	1 1/4 - 11 1/2
5404-24-12	1 1/2 - 11 1/2	3/4 - 14
5404-24-16	1 1/2 - 11 1/2	1 - 11 1/2
5404-24-20	1 1/2 - 11 1/2	1 1/4 - 11 1/2
5404-24-24	1 1/2 - 11 1/2	1 1/2 - 11 1/2
5404-32-20	2 - 11 1/2	1 1/4 - 11 1/2
5404-32-24	2 - 11 1/2	1 1/2 - 11 1/2
5404-32-32	2 - 11 1/2	2 - 11 1/2

5405

M-NPT / F-NPT

SAE# 140139



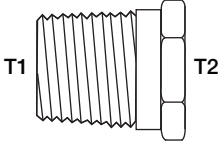
PART NUMBER	T1	T2
5405-02-02	1/8 - 27	1/8 - 27
5405-02-04	1/8 - 27	1/4 - 18
5405-02-08	1/8 - 27	1/2 - 14
5405-04-04	1/4 - 18	1/4 - 18
5405-04-06	1/4 - 18	3/8 - 18
5405-04-08	1/4 - 18	1/2 - 14
5405-06-04	3/8 - 18	1/4 - 18
5405-06-06	3/8 - 18	3/8 - 18
5405-06-08	3/8 - 18	1/2 - 14
5405-06-12	3/8 - 18	3/4 - 14
5405-08-06	1/2 - 14	3/8 - 18
5405-08-08	1/2 - 14	1/2 - 14
5405-08-12	1/2 - 14	3/4 - 14
5405-08-16	1/2 - 14	1 - 11 1/2
5405-12-12	3/4 - 14	3/4 - 14
5405-12-16	3/4 - 14	1 - 11 1/2
5405-16-16	1 - 11 1/2	1 - 11 1/2
5405-16-20	1 - 11 1/2	1 1/4 - 11 1/2
5405-20-16	1 1/4 - 11 1/2	1 - 11 1/2
5405-20-24	1 1/4 - 11 1/2	1 1/2 - 11 1/2
5405-24-32	1 1/2 - 11 1/2	2 - 11 1/2



WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

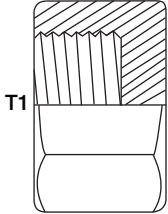
5406

M-NPT / F-NPT

	PART NUMBER	T1	T2
	5406-04-02	1/4 - 18	1/8 - 27
5406-06-02	3/8 - 18	1/8 - 27	
5406-06-04	3/8 - 18	1/4 - 18	
5406-08-02	1/2 - 14	1/8 - 27	
5406-08-04	1/2 - 14	1/4 - 18	
5406-08-06	1/2 - 14	3/8 - 18	
5406-12-04	3/4 - 14	1/4 - 18	
5406-12-06	3/4 - 14	3/8 - 18	
5406-12-08	3/4 - 14	1/2 - 14	
5406-16-04	1 - 11 1/2	1/4 - 18	
5406-16-06	1 - 11 1/2	3/8 - 18	
5406-16-08	1 - 11 1/2	1/2 - 14	
5406-16-12	1 - 11 1/2	3/4 - 14	
5406-20-04	1 1/4 - 11 1/2	1/4 - 18	
5406-20-06	1 1/4 - 11 1/2	3/8 - 18	
5406-20-08	1 1/4 - 11 1/2	1/2 - 14	
5406-20-12	1 1/4 - 11 1/2	3/4 - 14	
5406-20-16	1 1/4 - 11 1/2	1 - 11 1/2	
5406-24-06	1 1/2 - 11 1/2	3/8 - 18	
5406-24-12	1 1/2 - 11 1/2	3/4 - 14	
5406-24-16	1 1/2 - 11 1/2	1 - 11 1/2	
5406-24-20	1 1/2 - 11 1/2	1 1/4 - 11 1/2	
5406-32-20	2 - 11 1/2	1 1/4 - 11 1/2	
5406-32-24	2 - 11 1/2	1 1/2 - 11 1/2	

5406C

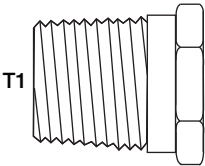
NPT CAP


	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	
5406C-20	1 1/4 - 11 1/2	
5406C-24	1 1/2 - 11 1/2	
5406C-32	2 - 11 1/2	

5406P

NPT PLUG

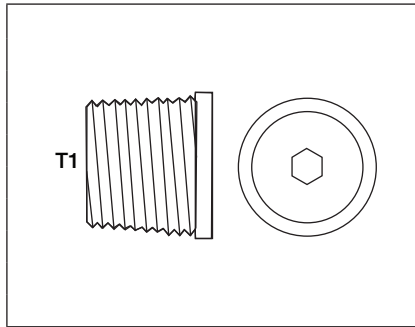
SAE# 130109E

	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	

 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

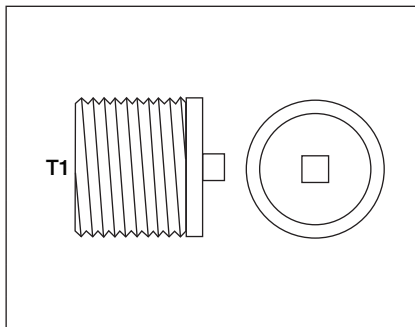


5406HP NPT HOLLOW HEX PLUG



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

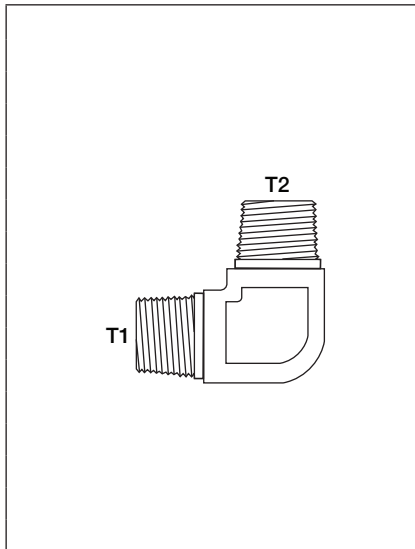
5406SHP SQUARE HEAD PIPE PLUG



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

5500 90° M-NPT / M-NPT

SAE# 140237



PART NUMBER	T1	T2
5500-02-02	1/8 - 27	1/8 - 27
5500-04-02	1/4 - 18	1/8 - 27
5500-04-04	1/4 - 18	1/4 - 18
5500-06-04	3/8 - 18	1/4 - 18
5500-06-06	3/8 - 18	3/8 - 18
5500-08-04	1/2 - 14	1/4 - 18
5500-08-06	1/2 - 14	3/8 - 18
5500-08-08	1/2 - 14	1/2 - 14
5500-12-08	3/4 - 14	1/2 - 14
5500-12-12	3/4 - 14	3/4 - 14
5500-16-08	1 - 11 1/2	1/2 - 14
5500-16-12	1 - 11 1/2	3/4 - 14
5500-16-16	1 - 11 1/2	1 - 11 1/2
5500-20-20	1 1/4 - 11 1/2	1 1/4 - 11 1/2
5500-24-24	1 1/2 - 11 1/2	1 1/2 - 11 1/2
5500-32-32	2 - 11 1/2	2 - 11 1/2

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

5501 45° M-NPT / M-NPT

	PART NUMBER	T1	T2
	5501-04-04	1/4 - 18	1/4 - 18
	5501-06-06	3/8 - 18	3/8 - 18
	5501-08-08	1/2 - 14	1/2 - 14
	5501-12-12	3/4 - 14	3/4 - 14
	5501-16-16	1 - 11 1/2	1 - 11 1/2
	5501-20-20	1 1/4 - 11 1/2	1 1/4 - 11 1/2
	5501-24-24	1 1/2 - 11 1/2	1 1/2 - 11 1/2

5502 90° M-NPT / F-NPT

SAE# 140239

	PART NUMBER	T1	T2
	5502-02-02	1/8 - 27	1/8 - 27
	5502-02-04	1/8 - 27	1/4 - 18
	5502-04-02	1/4 - 18	1/8 - 27
	5502-04-04	1/4 - 18	1/4 - 18
	5502-04-06	1/4 - 18	3/8 - 18
	5502-06-04	3/8 - 18	1/4 - 18
	5502-06-06	3/8 - 18	3/8 - 18
	5502-06-08	3/8 - 18	1/2 - 14
	5502-08-04	1/2 - 14	1/4 - 18
	5502-08-06	1/2 - 14	3/8 - 18
	5502-08-08	1/2 - 14	1/2 - 14
	5502-08-12	1/2 - 14	3/4 - 14
	5502-12-08	3/4 - 14	1/2 - 14
	5502-12-12	3/4 - 14	3/4 - 14
	5502-16-12	1 - 11 1/2	3/4 - 14
	5502-16-16	1 - 11 1/2	1 - 11 1/2
	5502-20-16	1 1/4 - 11 1/2	1 - 11 1/2
	5502-20-20	1 1/4 - 11 1/2	1 1/4 - 11 1/2
	5502-24-24	1 1/2 - 11 1/2	1 1/2 - 11 1/2
5502-32-32	2 - 11 1/2	2 - 11 1/2	

5503 45° M-NPT / F-NPT

SAE# 140339

	PART NUMBER	T1	T2
	5503-02-02	1/8 - 27	1/8 - 27
	5503-04-04	1/4 - 18	1/4 - 18
	5503-06-06	3/8 - 18	3/8 - 18
	5503-08-08	1/2 - 14	1/2 - 14
	5503-12-12	3/4 - 14	3/4 - 14
	5503-16-16	1 - 11 1/2	1 - 11 1/2
	5503-20-20	1 1/4 - 11 1/2	1 1/4 - 11 1/2
5503-24-24	1 1/2 - 11 1/2	1 1/2 - 11 1/2	

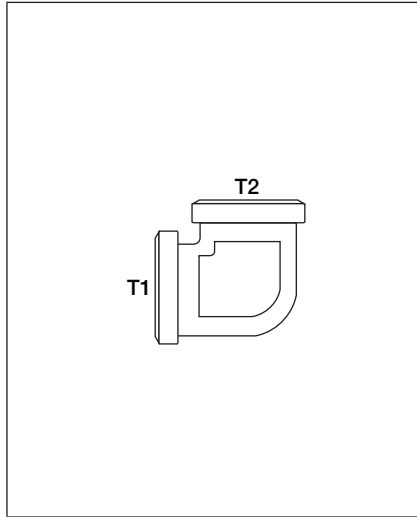
WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



5504

90° F-NPT / F-NPT

SAE# 140238

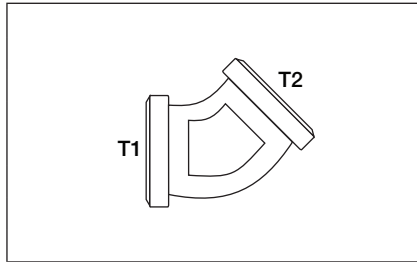


PART NUMBER	T1	T2
5504-02-02	1/8 - 27	1/8 - 27
5504-04-02	1/4 - 18	1/8 - 27
5504-04-04	1/4 - 18	1/4 - 18
5504-06-04	3/8 - 18	1/4 - 18
5504-06-06	3/8 - 18	3/8 - 18
5504-08-04	1/2 - 14	1/4 - 18
5504-08-06	1/2 - 14	3/8 - 18
5504-08-08	1/2 - 14	1/2 - 14
5504-12-08	3/4 - 14	1/2 - 14
5504-12-12	3/4 - 14	3/4 - 14
5504-16-12	1 - 11 1/2	3/4 - 14
5504-16-16	1 - 11 1/2	1 - 11 1/2
5504-20-20	1 1/4 - 11 1/2	1 1/4 - 11 1/2
5504-24-24	1 1/2 - 11 1/2	1 1/2 - 11 1/2
5504-32-32	2 - 11 1/2	2 - 11 1/2

5505

45° F-NPT / F-NPT

SAE# 140338

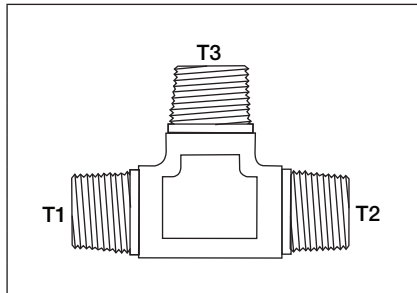


PART NUMBER	T1	T2
5505-02-02	1/8 - 27	1/8 - 27
5505-04-04	1/4 - 18	1/4 - 18
5505-06-06	3/8 - 18	3/8 - 18
5505-08-08	1/2 - 14	1/2 - 14
5505-12-12	3/4 - 14	3/4 - 14
5505-16-16	1 - 11 1/2	1 - 11 1/2

5600

TEE M-NPT

SAE# 140437
(As coded per SAE J846)

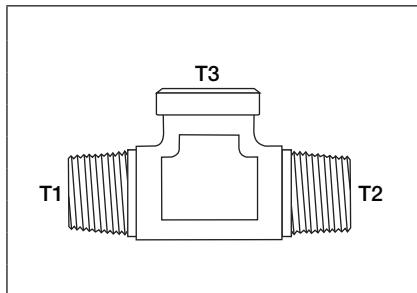


PART NUMBER	T1	T2	T3
5600-02-02-02	1/8 - 27	1/8 - 27	1/8 - 27
5600-04-04-04	1/4 - 18	1/4 - 18	1/4 - 18
5600-06-06-06	3/8 - 18	3/8 - 18	3/8 - 18
5600-08-08-08	1/2 - 14	1/2 - 14	1/2 - 14
5600-12-12-12	3/4 - 14	3/4 - 14	3/4 - 14
5600-16-16-16	1 - 11 1/2	1 - 11 1/2	1 - 11 1/2

5601

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

SAE# 140427
(As coded per SAE J846)



PART NUMBER	T1	T2	T3
5601-02-02-02	1/8 - 27	1/8 - 27	1/8 - 27
5601-04-04-04	1/4 - 18	1/4 - 18	1/4 - 18
5601-06-06-06	3/8 - 18	3/8 - 18	3/8 - 18
5601-08-08-08	1/2 - 14	1/2 - 14	1/2 - 14
5601-12-12-12	3/4 - 14	3/4 - 14	3/4 - 14
5601-16-16-16	1 - 11 1/2	1 - 11 1/2	1 - 11 1/2
5601-20-20-20	1 1/4 - 11 1/2	1 1/4 - 11 1/2	1 1/4 - 11 1/2
5601-24-24-24	1 1/2 - 11 1/2	1 1/2 - 11 1/2	1 1/2 - 11 1/2

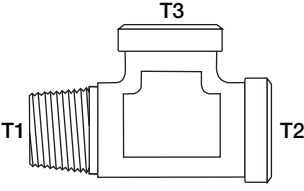


WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

5602

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

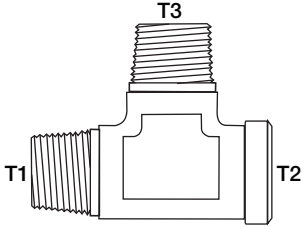
SAE# 140424

	PART NUMBER	T1	T2	T3
	5602-02-02-02	1/8 - 27	1/8 - 27	1/8 - 27
	5602-04-04-04	1/4 - 18	1/4 - 18	1/4 - 18
	5602-06-06-06	3/8 - 18	3/8 - 18	3/8 - 18
	5602-08-08-08	1/2 - 14	1/2 - 14	1/2 - 14
	5602-12-12-12	3/4 - 14	3/4 - 14	3/4 - 14
	5602-16-16-16	1 - 11 1/2	1 - 11 1/2	1 - 11 1/2
	5602-20-20-20	1 1/4 - 11 1/2	1 1/4 - 11 1/2	1 1/4 - 11 1/2
	5602-24-24-24	1 1/2 - 11 1/2	1 1/2 - 11 1/2	1 1/2 - 11 1/2
	5602-32-32-32	2 - 11 1/2	2 - 11 1/2	2 - 11 1/2

5603

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

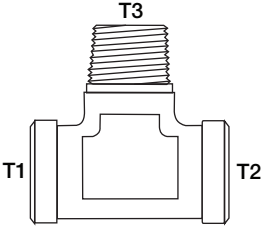
SAE# 140426
(As coded per SAE J846)

	PART NUMBER	T1	T2	T3
	5603-02-02-02	1/8 - 27	1/8 - 27	1/8 - 27
	5603-04-04-04	1/4 - 18	1/4 - 18	1/4 - 18
	5603-06-06-06	3/8 - 18	3/8 - 18	3/8 - 18
	5603-08-08-08	1/2 - 14	1/2 - 14	1/2 - 14
	5603-12-12-12	3/4 - 14	3/4 - 14	3/4 - 14
	5603-16-16-16	1 - 11 1/2	1 - 11 1/2	1 - 11 1/2
	5603-20-20-20	1 1/4 - 11 1/2	1 1/4 - 11 1/2	1 1/4 - 11 1/2
	5603-24-24-24	1 1/2 - 11 1/2	1 1/2 - 11 1/2	1 1/2 - 11 1/2

5604

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

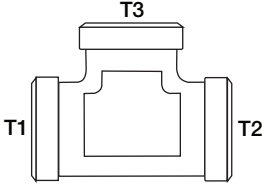
SAE# 140425


	PART NUMBER	T1	T2	T3
	5604-02-02-02	1/8 - 27	1/8 - 27	1/8 - 27
	5604-04-04-04	1/4 - 18	1/4 - 18	1/4 - 18
	5604-06-06-06	3/8 - 18	3/8 - 18	3/8 - 18
	5604-08-08-08	1/2 - 14	1/2 - 14	1/2 - 14
	5604-12-12-12	3/4 - 14	3/4 - 14	3/4 - 14
	5604-16-16-16	1 - 11 1/2	1 - 11 1/2	1 - 11 1/2
	5604-20-20-20	1 1/4 - 11 1/2	1 1/4 - 11 1/2	1 1/4 - 11 1/2
	5604-24-24-24	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
	5605-02-02-02	1/8 - 27	1/8 - 27	1/8 - 27
	5605-04-04-04	1/4 - 18	1/4 - 18	1/4 - 18
	5605-06-06-06	3/8 - 18	3/8 - 18	3/8 - 18
	5605-08-08-08	1/2 - 14	1/2 - 14	1/2 - 14
	5605-12-12-12	3/4 - 14	3/4 - 14	3/4 - 14
	5605-16-16-16	1 - 11 1/2	1 - 11 1/2	1 - 11 1/2
	5605-20-20-20	1 1/4 - 11 1/2	1 1/4 - 11 1/2	1 1/4 - 11 1/2
	5605-24-24-24	1 1/2 - 11 1/2	1 1/2 - 11 1/2	1 1/2 - 11 1/2
	5605-32-32-32	2 - 11 1/2	2 - 11 1/2	2 - 11 1/2

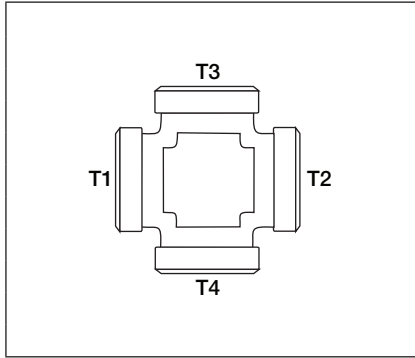
 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



5652

CROSS F-NPT

SAE# 140538
(As coded per SAE J846)

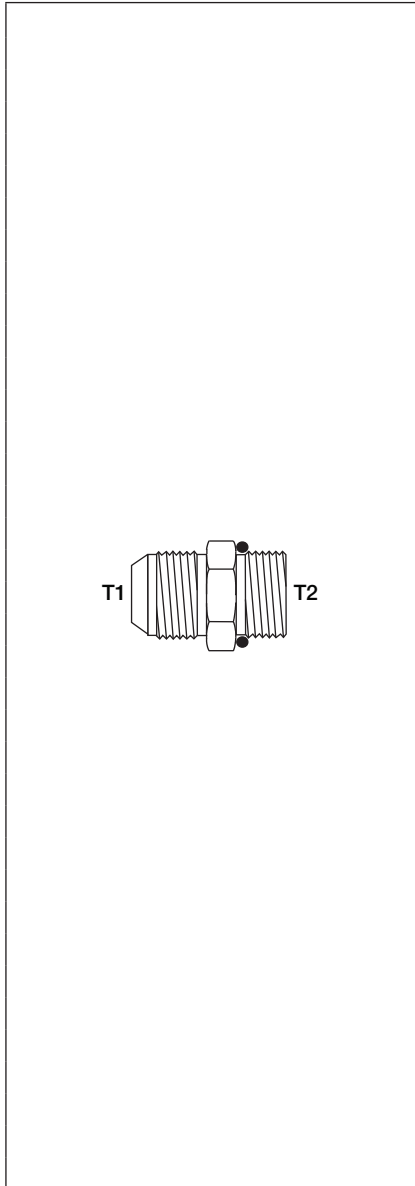


PART NUMBER	T1	T2	T3	T4
5652-02-02-02-02	1/8 - 27	1/8 - 27	1/8 - 27	1/8 - 27
5652-04-04-04-04	1/4 - 18	1/4 - 18	3/8 - 18	3/8 - 18
5652-06-06-06-06	3/8 - 18	3/8 - 18	1/2 - 14	1/2 - 14
5652-08-08-08-08	1/2 - 14	1/2 - 14	3/4 - 14	3/4 - 14
5652-12-12-12-12	3/4 - 14	3/4 - 14	1 - 11 1/2	1 - 11 1/2
5652-16-16-16-16	1 - 11 1/2	1 - 11 1/2	1 1/4 - 11 1/2	1 1/4 - 11 1/2
5652-20-20-20-20	1 1/4 - 11 1/2	1 1/4 - 11 1/2	1 1/2 - 11 1/2	1 1/2 - 11 1/2
5652-24-24-24-24	1 1/2 - 11 1/2	1 1/2 - 11 1/2	2 - 11 1/2	2 - 11 1/2
5652-32-32-32-32	2 - 11 1/2	2 - 11 1/2	2 - 11 1/2	2 - 11 1/2

6400

M-JIC / M-ORB

SAE# 070120



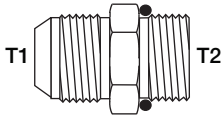
PART NUMBER	T1	T2
6400-02-02	5/16 - 24	5/16 - 24
6400-03-03	3/8 - 24	3/8 - 24
6400-04-02	7/16 - 20	5/16 - 24
6400-04-03	7/16 - 20	3/8 - 24
6400-04-04	7/16 - 20	7/16 - 20
6400-04-05	7/16 - 20	1/2 - 20
6400-04-06	7/16 - 20	9/16 - 18
6400-04-08	7/16 - 20	3/4 - 16
6400-04-10	7/16 - 20	7/8 - 14
6400-04-12	7/16 - 20	1 1/16 - 12
6400-05-04	1/2 - 20	7/16 - 20
6400-05-05	1/2 - 20	1/2 - 20
6400-05-06	1/2 - 20	9/16 - 18
6400-06-04	9/16 - 18	7/16 - 20
6400-06-05	9/16 - 18	1/2 - 20
6400-06-06	9/16 - 18	9/16 - 18
6400-06-08	9/16 - 18	3/4 - 16
6400-06-10	9/16 - 18	7/8 - 14
6400-06-12	9/16 - 18	1 1/16 - 12
6400-08-04	3/4 - 16	7/16 - 24
6400-08-06	3/4 - 16	9/16 - 18
6400-08-08	3/4 - 16	3/4 - 16
6400-08-10	3/4 - 16	7/8 - 14
6400-08-12	3/4 - 16	1 1/16 - 12
6400-08-16	3/4 - 16	1 5/16 - 12
6400-08-20	3/4 - 16	1 7/8 - 12
6400-10-04	7/8 - 14	7/16 - 20
6400-10-06	7/8 - 14	9/16 - 18
6400-10-08	7/8 - 14	3/4 - 16
6400-10-10	7/8 - 14	7/8 - 14
6400-10-12	7/8 - 14	1 1/16 - 12
6400-10-16	7/8 - 14	1 5/16 - 12
6400-12-06	1 1/16 - 12	9/16 - 18
6400-12-08	1 1/16 - 12	3/4 - 16
6400-12-10	1 1/16 - 12	7/8 - 14
6400-12-12	1 1/16 - 12	1 1/16 - 12

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

6400

M-JIC / M-ORB (continued)

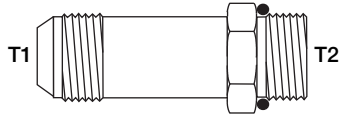
SAE# 070120



PART NUMBER	T1	T2
6400-12-14	1 1/16 - 12	1 3/16 - 12
6400-12-16	1 1/16 - 12	1 5/16 - 12
6400-12-16	1 1/16 - 12	1 5/16 - 12
6400-12-20	1 1/16 - 12	1 5/8 - 12
6400-14-12	1 3/16 - 12	1 1/16 - 12
6400-14-14	1 3/16 - 12	1 3/16 - 12
6400-14-16	1 3/16 - 12	1 5/16 - 12
6400-16-08	1 5/16 - 12	3/4 - 16
6400-16-10	1 5/16 - 12	7/8 - 14
6400-16-12	1 5/16 - 12	1 1/16 - 12
6400-16-14	1 5/16 - 12	1 3/16 - 12
6400-16-16	1 5/16 - 12	1 5/16 - 12
6400-16-20	1 5/16 - 12	1 5/8 - 12
6400-16-24	1 5/16 - 12	1 7/8 - 12
6400-20-16	1 5/8 - 12	1 5/16 - 12
6400-20-20	1 5/8 - 12	1 5/8 - 12
6400-20-24	1 5/8 - 12	1 7/8 - 12
6400-24-16	1 7/8 - 12	1 5/16 - 12
6400-24-20	1 7/8 - 12	1 5/8 - 12
6400-24-24	1 7/8 - 12	1 7/8 - 12
6400-24-32	1 7/8 - 12	2 1/2 - 12
6400-32-20	2 1/2 - 12	1 5/8 - 12
6400-32-24	2 1/2 - 12	1 7/8 - 12
6400-32-32	2 1/2 - 12	2 1/2 - 12

6400L

M-JIC / M-ORB LONG



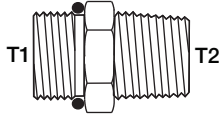
PART NUMBER	T1	T2
6400L-04-04	7/16 - 20	7/16 - 20
6400L-05-05	1/2 - 20	1/2 - 20
6400L-06-06	9/16 - 18	9/16 - 18
6400L-06-08	9/16 - 18	3/4 - 16
6400L-08-08	3/4 - 16	3/4 - 16
6400L-10-10	7/8 - 14	7/8 - 14
6400L-12-12	1 1/16 - 12	1 1/16 - 12
6400L-16-16	1 5/16 - 12	1 5/16 - 12
6400L-20-20	1 5/8 - 12	1 5/8 - 12



WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

6401

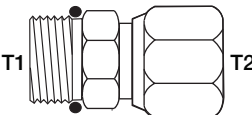
M-ORB / M-NPT



PART NUMBER	T1	T2
6401-04-02	7/16 - 20	1/8 - 27
6401-04-04	7/16 - 20	1/4 - 18
6401-05-04	1/2 - 20	1/4 - 18
6401-06-04	9/16 - 18	1/4 - 18
6401-06-06	9/16 - 18	3/8 - 18
6401-06-08	9/16 - 18	1/2 - 14
6401-08-06	3/4 - 16	3/8 - 18
6401-08-08	3/4 - 16	1/2 - 14
6401-08-12	3/4 - 16	3/4 - 14
6401-10-04	7/8 - 14	1/4 - 18
6401-10-06	7/8 - 14	3/8 - 18
6401-10-08	7/8 - 14	1/2 - 14
6401-10-12	7/8 - 14	3/4 - 14
6401-12-06	1 1/16 - 12	3/8 - 18
6401-12-08	1 1/16 - 12	1/2 - 14
6401-12-12	1 1/16 - 12	3/4 - 14
6401-16-12	1 5/16 - 12	3/4 - 14
6401-16-16	1 5/16 - 12	1 - 11 1/2
6401-20-20	1 5/8 - 12	1 1/4 - 11 1/2
6401-24-24	1 7/8 - 12	1 1/2 - 11 1/2
6401-32-32	2 1/2 - 12	2 - 11 1/2

6402

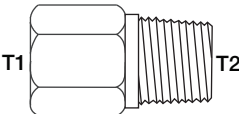
M-ORB / F-JIC



PART NUMBER	T1	T2
6402-04-06	7/16 - 20	9/16 - 18
6402-06-06	9/16 - 18	9/16 - 18
6402-06-08	9/16 - 18	3/4 - 16
6402-08-08	3/4 - 16	3/4 - 16
6402-10-10	7/8 - 14	7/8 - 14
6402-12-12	1 1/16 - 12	1 1/16 - 12
6402-16-16	1 5/16 - 12	1 5/16 - 12
6402-20-20	1 5/8 - 12	1 5/8 - 12
6402-24-24	1 7/8 - 12	1 7/8 - 12
6402-32-32	2 1/2 - 12	2 1/2 - 12

6404

F-ORB / M-NPT



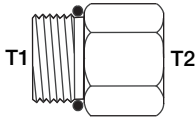
PART NUMBER	T1	T2
6404-04-02	7/16 - 20	1/8 - 27
6404-04-04	7/16 - 20	1/4 - 18
6404-04-06	7/16 - 20	3/8 - 18
6404-05-02	1/2 - 20	1/8 - 27
6404-06-04	9/16 - 18	1/4 - 18
6404-06-06	9/16 - 18	3/8 - 18
6404-06-08	9/16 - 18	1/2 - 14
6404-08-06	3/4 - 16	3/8 - 18
6404-08-08	3/4 - 16	1/2 - 14
6404-10-08	7/8 - 14	1/2 - 14
6404-12-12	1 1/16 - 12	3/4 - 14
6404-16-16	1 5/16 - 12	1 - 11 1/2



WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

6405

M-ORB / F-NPT



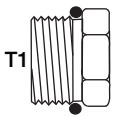
PART NUMBER	T1	T2
6405-04-02	7/16 - 20	1/8 - 27
6405-04-04	7/16 - 20	1/4 - 18
6405-04-06	7/16 - 20	3/8 - 18
6405-05-02	1/2 - 20	1/8 - 27
6405-05-04	1/2 - 20	1/4 - 18
6405-06-02	9/16 - 18	1/8 - 27
6405-06-04	9/16 - 18	1/4 - 18
6405-06-06	9/16 - 18	3/8 - 18
6405-06-08	9/16 - 18	1/2 - 14
6405-08-02	3/4 - 16	1/8 - 27
6405-08-04	3/4 - 16	1/4 - 18
6405-08-06	3/4 - 16	3/8 - 18
6405-08-08	3/4 - 16	1/2 - 14
6405-08-12	3/4 - 16	3/4 - 14
6405-10-04	7/8 - 14	1/4 - 18
6405-10-06	7/8 - 14	3/8 - 18
6405-10-08	7/8 - 14	1/2 - 14
6405-10-12	7/8 - 14	3/4 - 14
6405-12-04	1 1/16 - 12	1/4 - 18
6405-12-06	1 1/16 - 12	3/8 - 18
6405-12-08	1 1/16 - 12	1/2 - 14
6405-12-12	1 1/16 - 12	3/4 - 14
6405-12-16	1 1/16 - 12	1 - 11 1/2
6405-14-12	1 3/16 - 12	3/4 - 14
6405-16-06	1 5/16 - 12	3/8 - 18
6405-16-08	1 5/16 - 12	1/2 - 14
6405-16-12	1 5/16 - 12	3/4 - 14
6405-16-16	1 5/16 - 12	1 - 11 1/2
6405-16-20	1 5/16 - 12	1 1/4 - 11 1/2
6405-20-12	1 5/8 - 12	3/4 - 14
6405-20-16	1 5/8 - 12	1 - 11 1/2
6405-20-20	1 5/8 - 12	1 1/4 - 11 1/2
6405-20-24	1 5/8 - 12	1 1/2 - 11 1/2
6405-24-12	1 7/8 - 12	3/4 - 14
6405-24-16	1 7/8 - 12	1 - 11 1/2
6405-24-20	1 7/8 - 12	1 1/4 - 11 1/2
6405-24-24	1 7/8 - 12	1 1/2 - 11 1/2
6405-32-32	2 1/2 - 12	2 - 11 1/2



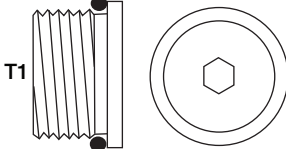
WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>




6408 ORB PLUG

	PART NUMBER	T1
	6408-02	5/16 - 24
	6408-03	3/8 - 24
	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

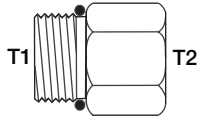
6408H ORB HOLLOW HEX PLUG

	PART NUMBER	T1
	6408H-02	5/16 - 24
	6408H-03	3/8 - 24
	6408H-04	7/16 - 20
	6408H-05	1/2 - 20
	6408H-06	9/16 - 18
	6408H-08	3/4 - 16
	6408H-10	7/8 - 14
	6408H-12	1 1/16 - 12
	6408H-14	1 3/16 - 12
	6408H-16	1 5/16 - 12
	6408H-20	1 5/8 - 12
	6408H-24	1 7/8 - 12
	6408H-32	2 1/2 - 12

 **WARNING** This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>


6410

M-ORB / F-ORB



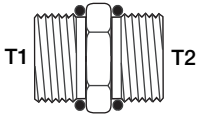
PART NUMBER	T1	T2
6410-02-04	5/16 - 24	7/16 - 20
6410-04-02	7/16 - 20	5/16 - 24
6410-04-04	7/16 - 20	7/16 - 20
6410-04-06	7/16 - 20	9/16 - 18
6410-04-08	7/16 - 20	3/4 - 16
6410-05-04	1/2 - 20	7/16 - 20
6410-05-06	1/2 - 20	9/16 - 18
6410-06-04	9/16 - 18	7/16 - 20
6410-06-06	9/16 - 18	9/16 - 18
6410-06-08	9/16 - 18	3/4 - 16
6410-08-04	3/4 - 16	7/16 - 20
6410-08-06	3/4 - 16	9/16 - 18
6410-08-08	3/4 - 16	3/4 - 16
6410-08-10	3/4 - 16	7/8 - 14
6410-08-12	3/4 - 16	1 1/16 - 12
6410-10-04	7/8 - 14	7/16 - 20
6410-10-06	7/8 - 14	9/16 - 18
6410-10-08	7/8 - 14	3/4 - 16
6410-10-12	7/8 - 14	1 1/16 - 12
6410-12-06	1 1/16 - 12	9/16 - 18
6410-12-08	1 1/16 - 12	3/4 - 16
6410-12-10	1 1/16 - 12	7/8 - 14
6410-12-12	1 1/16 - 12	1 1/16 - 12
6410-12-16	1 1/16 - 12	1 5/16 - 12
6410-14-12	1 3/16 - 12	1 1/16 - 12
6410-16-08	1 5/16 - 12	3/4 - 16
6410-16-10	1 5/16 - 12	7/8 - 14
6410-16-12	1 5/16 - 12	1 1/16 - 12
6410-16-14	1 5/16 - 12	1 3/16 - 12
6410-16-16	1 5/16 - 12	1 5/16 - 12
6410-16-20	1 5/16 - 12	1 5/8 - 12
6410-20-06	1 5/16 - 12	9/16 - 18
6410-20-08	1 5/8 - 12	3/4 - 16
6410-20-10	1 5/8 - 12	7/8 - 14
6410-20-12	1 5/8 - 12	1 1/16 - 12
6410-20-16	1 5/8 - 12	1 5/16 - 12
6410-20-24	1 5/8 - 12	1 7/8 - 12
6410-24-12	1 7/8 - 12	1 1/16 - 12
6410-24-16	1 7/8 - 12	1 5/16 - 12
6410-24-20	1 7/8 - 12	1 5/8 - 12
6410-32-20	2 1/2 - 12	1 5/8 - 12
6410-32-24	2 1/2 - 12	1 7/8 - 12



 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

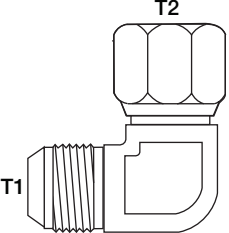



6464 M-ORB / M-ORB STRAIGHT

	PART NUMBER	T1	T2
		6464-04-04	$\frac{7}{16}$ - 20
	6464-08-08	$\frac{3}{4}$ - 16	$\frac{3}{4}$ - 16
	6464-10-10	$\frac{7}{8}$ - 14	$\frac{7}{8}$ - 14
	6464-16-16	$1\frac{5}{16}$ - 12	$1\frac{5}{16}$ - 12
	6464-20-20	$1\frac{5}{8}$ - 12	$1\frac{5}{8}$ - 12

6500 90° M-JIC / F-JIC

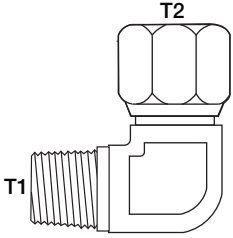
SAE# 070221

	PART NUMBER	T1	T2
		6500-02-02	$\frac{5}{16}$ - 24
	6500-03-03	$\frac{3}{8}$ - 24	$\frac{3}{8}$ - 24
	6500-04-04	$\frac{7}{16}$ - 20	$\frac{7}{16}$ - 20
	6500-04-06	$\frac{7}{16}$ - 20	$\frac{9}{16}$ - 18
	6500-05-05	$\frac{1}{2}$ - 20	$\frac{1}{2}$ - 20
	6500-06-04	$\frac{9}{16}$ - 18	$\frac{7}{16}$ - 20
	6500-06-06	$\frac{9}{16}$ - 18	$\frac{9}{16}$ - 18
	6500-06-08	$\frac{9}{16}$ - 18	$\frac{3}{4}$ - 16
	6500-08-06	$\frac{3}{4}$ - 16	$\frac{9}{16}$ - 18
	6500-08-08	$\frac{3}{4}$ - 16	$\frac{3}{4}$ - 16
	6500-08-10	$\frac{3}{4}$ - 16	$\frac{7}{8}$ - 14
	6500-08-12	$\frac{3}{4}$ - 16	$1\frac{1}{16}$ - 12
	6500-10-08	$\frac{7}{8}$ - 14	$\frac{3}{4}$ - 16
	6500-10-10	$\frac{7}{8}$ - 14	$\frac{7}{8}$ - 14
	6500-10-12	$\frac{7}{8}$ - 14	$1\frac{1}{16}$ - 12
	6500-12-08	$1\frac{1}{16}$ - 12	$\frac{3}{4}$ - 16
	6500-12-10	$1\frac{1}{16}$ - 12	$\frac{7}{8}$ - 14
	6500-12-12	$1\frac{1}{16}$ - 12	$1\frac{1}{16}$ - 12
	6500-12-16	$1\frac{1}{16}$ - 12	$1\frac{5}{16}$ - 12
	6500-14-14	$1\frac{3}{16}$ - 12	$1\frac{3}{16}$ - 12
	6500-16-12	$1\frac{5}{16}$ - 12	$1\frac{1}{16}$ - 12
	6500-16-16	$1\frac{5}{16}$ - 12	$1\frac{5}{16}$ - 12
	6500-20-20	$1\frac{5}{8}$ - 12	$1\frac{5}{8}$ - 12
	6500-24-24	$1\frac{7}{8}$ - 12	$1\frac{7}{8}$ - 12
	6500-32-32	$2\frac{1}{2}$ - 12	$2\frac{1}{2}$ - 12

 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

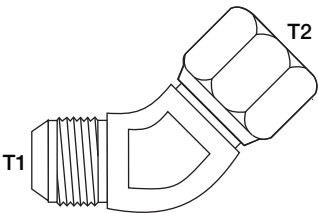
6501

90° M-NPT / F-JIC

	PART NUMBER	T1	T2
	6501-02-04	1/8 - 27	7/16 - 20
6501-04-04	1/4 - 18	7/16 - 20	
6501-04-06	1/4 - 18	9/16 - 18	
6501-06-04	3/8 - 18	7/16 - 20	
6501-06-06	3/8 - 18	9/16 - 18	
6501-06-08	3/8 - 18	3/4 - 16	
6501-08-06	1/2 - 14	9/16 - 18	
6501-08-08	1/2 - 14	3/4 - 16	
6501-08-10	1/2 - 14	7/8 - 14	
6501-12-12	3/4 - 14	1 1/16 - 12	
6501-12-14	3/4 - 14	1 3/16 - 12	
6501-16-16	1 - 11 1/2	1 5/16 - 12	
6501-20-20	1 1/4 - 11 1/2	1 5/8 - 12	
6501-24-24	1 1/2 - 11 1/2	1 7/8 - 12	
6501-32-32	2 - 11 1/2	2 1/2 - 12	

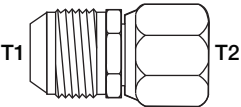
6502


45° M-JIC / F-JIC

	PART NUMBER	T1	T2
	6502-02-02	5/16 - 24	5/16 - 24
6502-04-04	7/16 - 20	7/16 - 20	
6502-05-05	1/2 - 20	1/2 - 20	
6502-06-06	9/16 - 18	9/16 - 18	
6502-08-08	3/4 - 16	3/4 - 16	
6502-10-10	7/8 - 14	7/8 - 14	
6502-12-12	1 1/16 - 12	1 1/16 - 12	
6502-14-14	1 3/16 - 12	1 3/16 - 12	
6502-16-16	1 5/16 - 12	1 5/16 - 12	
6502-20-20	1 5/8 - 12	1 5/8 - 12	
6502-24-24	1 7/8 - 12	1 7/8 - 12	
6502-32-32	2 1/2 - 12	2 1/2 - 12	

6504

M-JIC / F-JIC STRAIGHT

	PART NUMBER	T1	T2
	6504-04-04	7/16 - 20	7/16 - 20
6504-06-06	9/16 - 18	9/16 - 18	
6504-08-08	3/4 - 16	3/4 - 16	
6504-10-10	7/8 - 14	7/8 - 14	
6504-12-12	1 1/16 - 12	1 1/16 - 12	
6504-16-16	1 5/16 - 12	1 5/16 - 12	
6504-20-20	1 5/8 - 12	1 5/8 - 12	

 **WARNING** This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



6505

M-NPT / F-JIC STRAIGHT

	PART NUMBER	T1	T2
	6505-02-04	1/8 - 27	7/16 - 20
	6505-04-04	1/4 - 18	7/16 - 20
	6505-04-06	1/4 - 18	9/16 - 18
	6505-06-06	3/8 - 18	9/16 - 18
	6505-06-08	3/8 - 18	3/4 - 16
	6505-08-08	1/2 - 14	3/4 - 16
	6505-08-10	1/2 - 14	7/8 - 14
	6505-08-12	1/2 - 14	1 1/16 - 12
	6505-12-12	3/4 - 14	1 1/16 - 12
	6505-16-16	1 - 11 1/2	1 5/16 - 12
	6505-20-20	1 1/4 - 11 1/2	1 5/8 - 12
	6505-24-24	1 1/2 - 11 1/2	1 7/8 - 12

6506

F-NPT / F-JIC STRAIGHT

	PART NUMBER	T1	T2
	6506-04-04	1/4 - 18	7/16 - 20
	6506-04-06	1/4 - 18	9/16 - 18
	6506-06-06	3/8 - 18	9/16 - 18
	6506-06-08	3/8 - 18	3/4 - 16
	6506-08-06	1/2 - 14	9/16 - 18
	6506-08-08	1/2 - 14	3/4 - 16
	6506-08-10	1/2 - 14	7/8 - 14
	6506-12-10	3/4 - 14	7/8 - 14
	6506-12-12	3/4 - 14	1 1/16 - 12
	6506-16-16	1 - 11 1/2	1 5/16 - 12
	6506-20-20	1 1/4 - 11 1/2	1 5/8 - 12

6565

F-JIC / F-JIC STRAIGHT

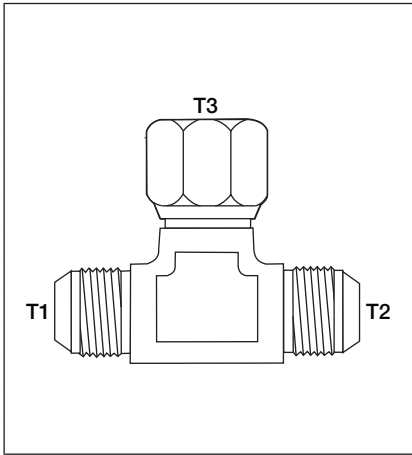
	PART NUMBER	T1	T2
	6565-04-04	7/16 - 20	7/16 - 20
	6565-05-05	1/2 - 20	1/2 - 20
	6565-06-04	9/16 - 18	7/16 - 20
	6565-06-06	9/16 - 18	9/16 - 18
	6565-08-06	3/4 - 16	9/16 - 18
	6565-08-08	3/4 - 16	3/4 - 16
	6565-10-08	7/8 - 14	3/4 - 16
	6565-10-10	7/8 - 14	7/8 - 14
	6565-12-12	1 1/16 - 12	1 1/16 - 12
	6565-16-12	1 5/16 - 12	1 1/16 - 12
	6565-16-16	1 5/16 - 12	1 5/16 - 12
	6565-20-20	1 5/8 - 12	1 5/8 - 12
	6565-24-24	1 7/8 - 12	1 7/8 - 12

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

6600

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

SAE# 070433

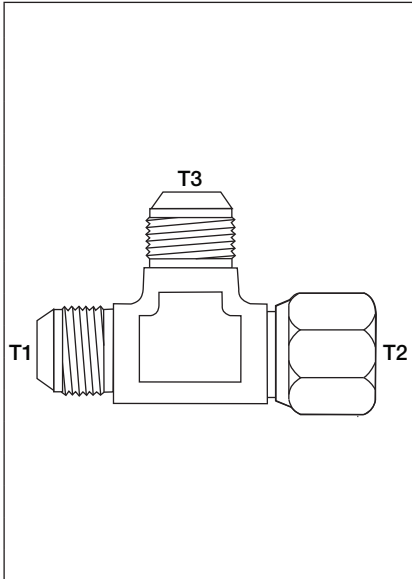


PART NUMBER	T1	T2	T3
6600-03-03-03	3/8 - 24	3/8 - 24	3/8 - 24
6600-04-04-04	7/16 - 24	7/16 - 24	7/16 - 24
6600-05-05-05	1/2 - 20	1/2 - 20	1/2 - 20
6600-06-06-06	9/16 - 18	9/16 - 18	9/16 - 18
6600-06-06-08	9/16 - 18	9/16 - 18	3/4 - 16
6600-08-08-08	3/4 - 16	3/4 - 16	3/4 - 16
6600-10-10-10	7/8 - 14	7/8 - 14	7/8 - 14
6600-12-12-12	1 1/16 - 12	1 1/16 - 12	1 1/16 - 12
6600-14-14-14	1 3/16 - 12	1 3/16 - 12	1 3/16 - 12
6600-16-16-16	1 5/16 - 12	1 5/16 - 12	1 5/16 - 12
6600-20-20-20	1 5/8 - 12	1 5/8 - 12	1 5/8 - 12
6600-24-24-24	1 7/8 - 12	1 7/8 - 12	1 7/8 - 12
6600-32-32-32	2 1/2 - 12	2 1/2 - 12	2 1/2 - 12

6602

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

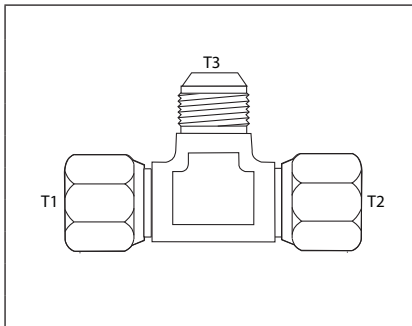
SAE# 070432



PART NUMBER	T1	T2	T3
6602-03-03-03	3/8 - 24	3/8 - 24	3/8 - 24
6602-04-04-04	7/16 - 24	7/16 - 24	7/16 - 24
6602-05-05-05	1/2 - 20	1/2 - 20	1/2 - 20
6602-06-06-04	9/16 - 18	9/16 - 18	7/16 - 20
6602-06-06-06	9/16 - 18	9/16 - 18	9/16 - 18
6602-08-08-06	3/4 - 16	3/4 - 16	9/16 - 18
6602-08-08-08	3/4 - 16	3/4 - 16	3/4 - 16
6602-08-08-12	3/4 - 16	3/4 - 16	1 1/16 - 12
6602-10-10-10	7/8 - 14	7/8 - 14	7/8 - 14
6602-10-10-12	7/8 - 14	7/8 - 14	1 1/16 - 12
6602-12-12-12	1 1/16 - 12	1 1/16 - 12	1 1/16 - 12
6602-14-14-14	1 3/16 - 12	1 3/16 - 12	1 3/16 - 12
6602-16-16-10	1 5/16 - 12	1 5/16 - 12	7/8 - 14
6602-16-16-16	1 5/16 - 12	1 5/16 - 12	1 5/16 - 12
6602-20-20-20	1 5/8 - 12	1 5/8 - 12	1 5/8 - 12
6602-24-24-24	1 7/8 - 12	1 7/8 - 12	1 7/8 - 12
6602-32-32-32	2 1/2 - 12	2 1/2 - 12	2 1/2 - 12

6603

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



PART NUMBER	T1	T2	T2
6603-08-08-08	3/4 - 16	3/4 - 16	3/4 - 16
6603-10-10-10	7/8 - 14	7/8 - 14	7/8 - 14
6603-12-12-12	1 1/16 - 12	1 1/16 - 12	1 1/16 - 12
6603-16-16-16	1 5/16 - 12	1 5/16 - 12	1 5/16 - 12

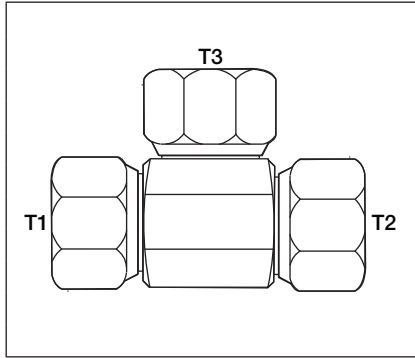
WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





6606

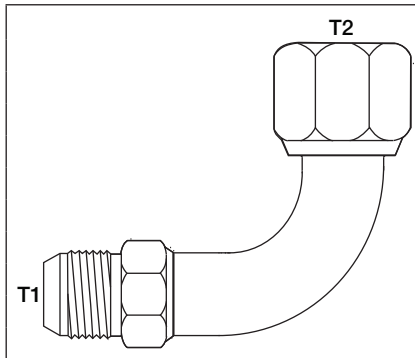
SWIVEL TEE F-JIC



PART NUMBER	T1	T2	T2
6606-04-04-04	7/16 - 20	7/16 - 20	7/16 - 20
6606-06-06-06	9/16 - 18	9/16 - 18	9/16 - 18
6606-08-08-08	3/4 - 16	3/4 - 16	3/4 - 16
6606-12-12-12	1 1/16 - 12	1 1/16 - 12	1 1/16 - 12
6606-16-16-16	1 5/16 - 12	1 5/16 - 12	1 5/16 - 12

6701

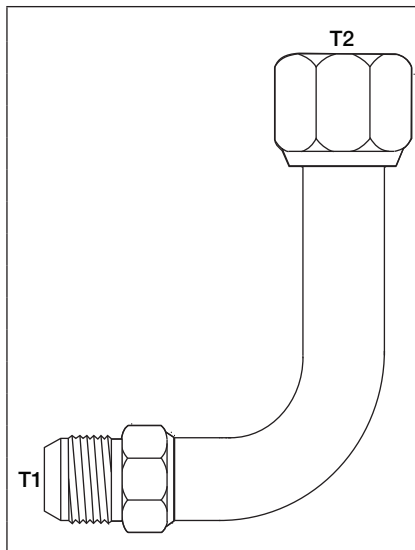
90° M-JIC / F-JIC BENT TUBE



PART NUMBER	T1	T2
6701-04-04	7/16 - 20	7/16 - 20
6701-06-06	9/16 - 18	9/16 - 18
6701-08-08	3/4 - 16	3/4 - 16
6701-10-10	7/8 - 14	7/8 - 14
6701-12-12	1 1/16 - 12	1 1/16 - 12
6701-16-16	1 5/16 - 12	1 5/16 - 12
6701-20-20	1 5/8 - 12	1 5/8 - 12

6701L

90° M-JIC / F-JIC BENT TUBE LONG



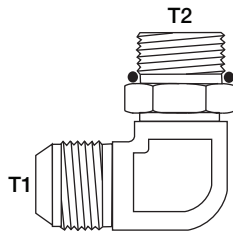
PART NUMBER	T1	T2
6701L-04-04	7/16 - 20	7/16 - 20
6701L-06-06	9/16 - 18	9/16 - 18
6701L-08-08	3/4 - 16	3/4 - 16
6701L-12-12	1 1/16 - 12	1 1/16 - 12
6701L-16-16	1 5/16 - 12	1 5/16 - 12
6701L-20-20	1 5/8 - 12	1 5/8 - 12

⚠ WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

6801

90° M-JIC / M-ORB

SAE# 070220



PART NUMBER	T1	T2
6801-02-02	5/16 - 24	5/16 - 24
6801-03-03	3/8 - 24	3/8 - 24
6801-04-02	7/16 - 20	5/16 - 24
6801-04-03	7/16 - 20	3/8 - 24
6801-04-04	7/16 - 20	7/16 - 20
6801-04-05	7/16 - 20	1/2 - 20
6801-04-06	7/16 - 20	9/16 - 18
6801-04-08	7/16 - 20	3/4 - 16
6801-05-04	1/2 - 20	7/16 - 20
6801-05-05	1/2 - 20	1/2 - 20
6801-05-06	1/2 - 20	9/16 - 18
6801-05-08	1/2 - 20	3/4 - 16
6801-06-04	9/16 - 18	7/16 - 24
6801-06-05	9/16 - 18	1/2 - 20
6801-06-06	9/16 - 18	9/16 - 18
6801-06-08	9/16 - 18	3/4 - 16
6801-06-10	9/16 - 18	7/8 - 14
6801-06-12	9/16 - 18	1 1/16 - 12
6801-08-04	3/4 - 16	7/16 - 20
6801-08-06	3/4 - 16	9/16 - 18
6801-08-08	3/4 - 16	3/4 - 16
6801-08-10	3/4 - 16	7/8 - 14
6801-08-12	3/4 - 16	1 1/16 - 12
6801-08-16	3/4 - 16	1 5/16 - 12
6801-10-06	7/8 - 14	9/16 - 18
6801-10-08	7/8 - 14	3/4 - 16
6801-10-10	7/8 - 14	7/8 - 14
6801-10-12	7/8 - 14	1 1/16 - 12
6801-10-16	7/8 - 14	1 5/16 - 12
6801-12-06	1 1/16 - 12	9/16 - 18
6801-12-08	1 1/16 - 12	3/4 - 16
6801-12-10	1 1/16 - 12	7/8 - 14
6801-12-12	1 1/16 - 12	1 1/16 - 12
6801-12-14	1 1/16 - 12	1 3/16 - 12
6801-12-16	1 1/16 - 12	1 5/16 - 12
6801-12-20	1 1/16 - 12	1 5/8 - 12
6801-14-12	1 3/16 - 12	1 1/16 - 12
6801-14-14	1 3/16 - 12	1 3/16 - 12
6801-16-08	1 5/16 - 12	3/4 - 16
6801-16-10	1 5/16 - 12	7/8 - 14
6801-16-12	1 5/16 - 12	1 1/16 - 12
6801-16-14	1 5/16 - 12	1 3/16 - 12
6801-16-16	1 5/16 - 12	1 5/16 - 12
6801-16-20	1 5/16 - 12	1 5/8 - 12
6801-16-24	1 5/16 - 12	1 7/8 - 12

O-RING BOSS



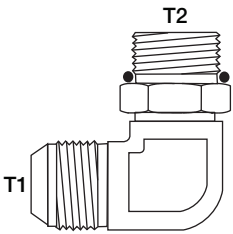
WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



6801

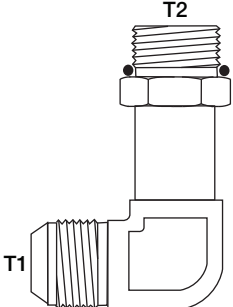
90° M-JIC / M-ORB (continued)

SAE# 070229

	PART NUMBER		
	T1	T2	
	6801-20-12	1½ - 12	1¼ - 12
	6801-20-16	1½ - 12	1½ - 12
	6801-20-20	1½ - 12	1½ - 12
	6801-20-24	1½ - 12	1⅞ - 12
	6801-24-16	1⅞ - 12	1½ - 12
	6801-24-20	1⅞ - 12	1½ - 12
	6801-24-24	1⅞ - 12	1⅞ - 12
	6801-32-24	2½ - 12	1⅞ - 12
	6801-32-32	2½ - 12	2½ - 12

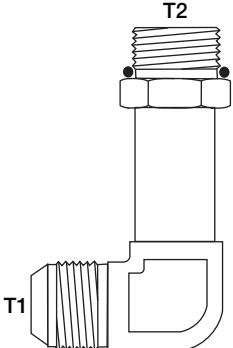
6801L

90° M-JIC / M-ORB LONG

	PART NUMBER		
	T1	T2	
	6801L-04-04	7/16 - 20	7/16 - 20
	6801L-04-06	7/16 - 20	9/16 - 18
	6801L-06-06	9/16 - 18	9/16 - 18
	6801L-06-08	9/16 - 18	¾ - 16
	6801L-08-08	¾ - 16	¾ - 16
	6801L-08-10	¾ - 16	7/8 - 14
	6801L-10-08	7/8 - 14	¾ - 16
	6801L-10-10	7/8 - 14	7/8 - 14
	6801L-12-12	1½ - 12	1½ - 12
	6801L-16-16	1½ - 12	1½ - 12

6801LL

90° M-JIC / M-ORB EXTRA LONG

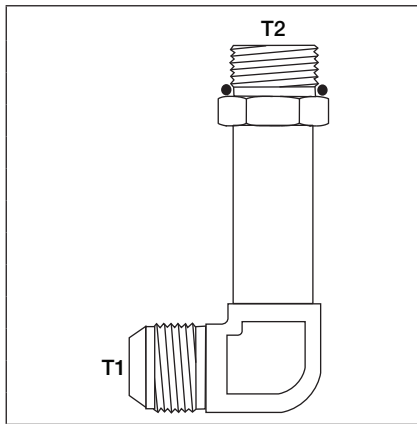
	PART NUMBER		
	T1	T2	
	6801LL-04-04	7/16 - 20	7/16 - 20
	6801LL-06-06	9/16 - 18	9/16 - 18
	6801LL-06-08	9/16 - 18	¾ - 16
	6801LL-08-06	¾ - 16	9/16 - 18
	6801LL-08-08	¾ - 16	¾ - 16
	6801LL-08-10	¾ - 16	7/8 - 14
	6801LL-10-08	7/8 - 14	¾ - 16
	6801LL-10-10	7/8 - 14	7/8 - 14
	6801LL-12-12	1½ - 12	1½ - 12
	6801LL-12-16	1½ - 12	1½ - 12
	6801LL-16-12	1½ - 12	1½ - 12
	6801LL-16-16	1½ - 12	1½ - 12
	6801LL-20-20	1½ - 12	1½ - 12



WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

6801LLL

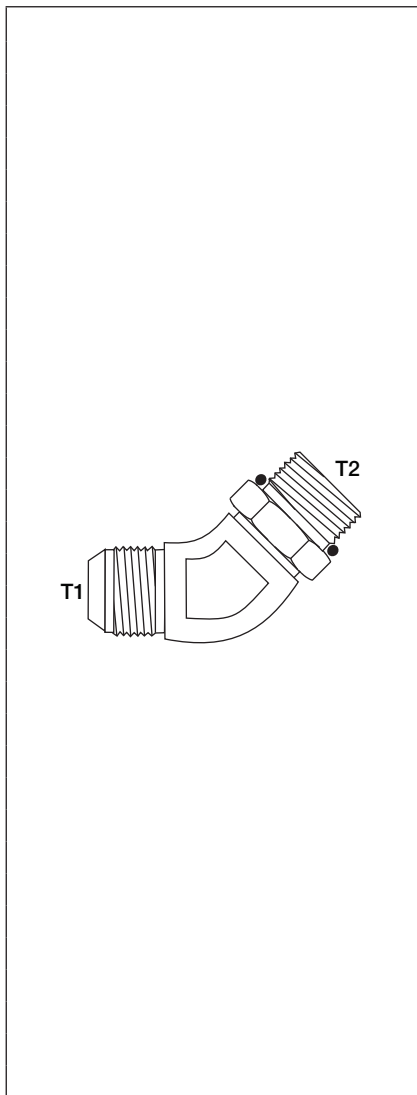
90° M-JIC / M-ORB LONG



PART NUMBER	T1	T2
6801LLL-04-04	7/16 - 20	7/16 - 20
6801LLL-06-06	9/16 - 18	9/16 - 18
6801LLL-06-08	9/16 - 18	3/4 - 16
6801LLL-08-08	3/4 - 16	3/4 - 16

6802

45° M-JIC / M-ORB



PART NUMBER	T1	T2
6802-02-02	5/16 - 24	5/16 - 24
6802-04-04	7/16 - 20	7/16 - 20
6802-04-05	7/16 - 20	1/2 - 20
6802-04-06	7/16 - 20	9/16 - 18
6802-04-08	7/16 - 20	3/4 - 16
6802-05-04	1/2 - 20	7/16 - 20
6802-05-05	1/2 - 20	1/2 - 20
6802-05-06	1/2 - 20	9/16 - 18
6802-06-04	9/16 - 18	7/16 - 20
6802-06-05	9/16 - 18	1/2 - 20
6802-06-06	9/16 - 18	9/16 - 18
6802-06-08	9/16 - 18	3/4 - 16
6802-06-10	9/16 - 18	7/8 - 14
6802-08-04	3/4 - 16	7/16 - 20
6802-08-06	3/4 - 16	9/16 - 18
6802-08-08	3/4 - 16	3/4 - 16
6802-08-10	3/4 - 16	7/8 - 14
6802-08-12	3/4 - 16	1 1/16 - 12
6802-10-08	7/8 - 14	3/4 - 16
6802-10-10	7/8 - 14	7/8 - 14
6802-10-12	7/8 - 14	1 1/16 - 12
6802-12-08	1 1/16 - 12	3/4 - 16
6802-12-10	1 1/16 - 12	7/8 - 14
6802-12-12	1 1/16 - 12	1 1/16 - 12
6802-12-16	1 1/16 - 12	1 5/16 - 12
6802-14-14	1 3/16 - 12	1 3/16 - 12
6802-16-12	1 5/16 - 12	1 1/16 - 12
6802-16-16	1 5/16 - 12	1 5/16 - 12
6802-16-20	1 5/16 - 12	1 5/8 - 12
6802-20-16	1 5/8 - 12	1 5/16 - 12
6802-20-20	1 5/8 - 12	1 5/8 - 12
6802-24-24	1 7/8 - 12	1 7/8 - 12
6802-32-32	2 1/2 - 12	2 1/2 - 12

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

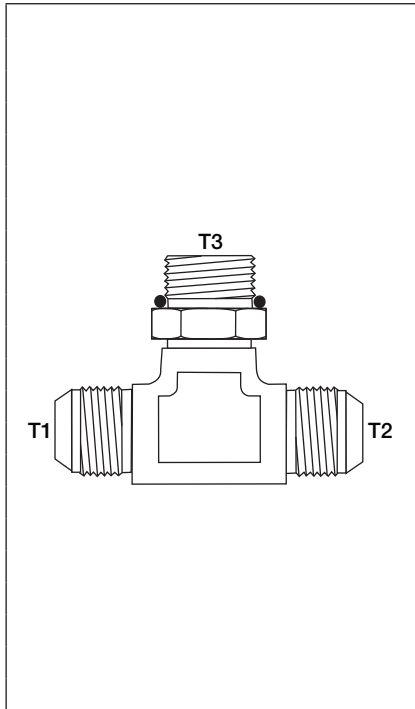




6803

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

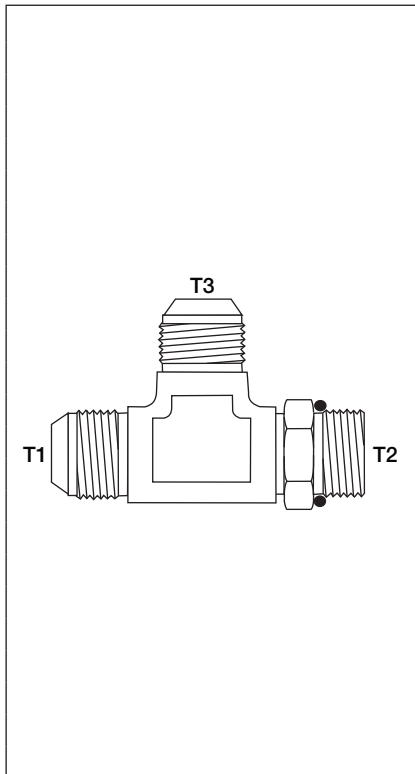
SAE# 070429



PART NUMBER	T1	T2	T3
6803-04-04-04	7/16 - 20	7/16 - 20	7/16 - 20
6803-04-04-06	7/16 - 20	7/16 - 20	9/16 - 18
6803-05-05-05	1/2 - 20	1/2 - 20	1/2 - 20
6803-06-06-04	9/16 - 18	9/16 - 18	7/16 - 20
6803-06-06-06	9/16 - 18	9/16 - 18	9/16 - 18
6803-06-06-08	9/16 - 18	9/16 - 18	3/4 - 16
6803-08-08-06	3/4 - 16	3/4 - 16	9/16 - 18
6803-08-08-08	3/4 - 16	3/4 - 16	3/4 - 16
6803-08-08-10	3/4 - 16	3/4 - 16	7/8 - 14
6803-10-10-10	7/8 - 14	7/8 - 14	7/8 - 14
6803-10-10-12	7/8 - 14	7/8 - 14	1 1/16 - 12
6803-12-12-08	1 1/16 - 12	1 1/16 - 12	3/4 - 16
6803-12-12-10	1 1/16 - 12	1 1/16 - 12	7/8 - 14
6803-12-12-12	1 1/16 - 12	1 1/16 - 12	1 1/16 - 12
6803-12-12-16	1 1/16 - 12	1 1/16 - 12	1 5/16 - 12
6803-16-12-16	1 5/16 - 12	1 1/16 - 12	1 5/16 - 12
6803-16-16-12	1 5/16 - 12	1 5/16 - 12	1 1/16 - 12
6803-16-16-16	1 5/16 - 12	1 5/16 - 12	1 5/16 - 12
6803-20-20-20	1 5/8 - 12	1 5/8 - 12	1 5/8 - 12
6803-24-24-24	1 7/8 - 12	1 7/8 - 12	1 7/8 - 12
6803-32-32-32	2 1/2 - 12	2 1/2 - 12	2 1/2 - 12

6804

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



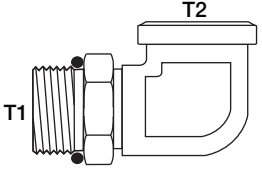
PART NUMBER	T1	T2	T3
6804-04-04-04	7/16 - 20	7/16 - 20	7/16 - 20
6804-04-06-04	7/16 - 20	7/16 - 20	7/16 - 20
6804-05-05-05	1/2 - 20	1/2 - 20	1/2 - 20
6804-06-04-06	9/16 - 18	7/16 - 20	9/16 - 18
6804-06-06-06	9/16 - 18	9/16 - 18	9/16 - 18
6804-06-08-06	9/16 - 18	3/4 - 16	9/16 - 18
6804-08-06-08	3/4 - 16	9/16 - 18	3/4 - 16
6804-08-08-04	3/4 - 16	3/4 - 16	7/16 - 20
6804-08-08-08	3/4 - 16	3/4 - 16	3/4 - 16
6804-08-10-08	3/4 - 16	7/8 - 14	3/4 - 16
6804-10-10-10	7/8 - 14	7/8 - 14	7/8 - 14
6804-10-12-10	7/8 - 14	1 1/16 - 12	7/8 - 14
6804-12-10-12	1 1/16 - 12	7/8 - 14	1 1/16 - 12
6804-12-12-08	1 1/16 - 12	1 1/16 - 12	3/4 - 16
6804-12-12-12	1 1/16 - 12	1 1/16 - 12	1 1/16 - 12
6804-12-12-16	1 1/16 - 12	1 1/16 - 12	1 5/16 - 12
6804-12-16-12	1 1/16 - 12	1 5/16 - 12	1 1/16 - 12
6804-16-12-16	1 5/16 - 12	1 1/16 - 12	1 5/16 - 12
6804-16-16-12	1 5/16 - 12	1 5/16 - 12	1 1/16 - 12
6804-16-16-16	1 5/16 - 12	1 5/16 - 12	1 5/16 - 12
6804-20-20-20	1 5/8 - 12	1 5/8 - 12	1 5/8 - 12
6804-24-24-24	1 7/8 - 12	1 7/8 - 12	1 7/8 - 12
6804-32-32-32	2 1/2 - 12	2 1/2 - 12	2 1/2 - 12



WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

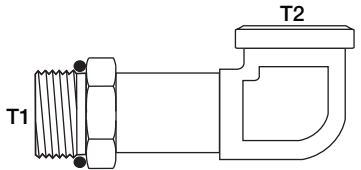
6805

90° M-ORB / F-NPT

	PART NUMBER	T1	T2
	6805-04-02	7/16 - 20	1/8 - 27
6805-04-04	7/16 - 20	1/4 - 18	
6805-04-06	7/16 - 20	3/8 - 18	
6805-05-02	1/2 - 20	1/8 - 27	
6805-06-04	9/16 - 18	1/4 - 18	
6805-06-06	9/16 - 18	3/8 - 18	
6805-08-06	3/4 - 16	3/8 - 18	
6805-08-08	3/4 - 16	1/2 - 14	
6805-10-06	7/8 - 14	3/8 - 18	
6805-10-08	7/8 - 14	1/2 - 14	
6805-12-08	1 1/16 - 12	1/2 - 14	
6805-12-12	1 1/16 - 12	3/4 - 14	
6805-14-12	1 3/16 - 12	3/4 - 14	
6805-16-12	1 5/16 - 12	3/4 - 14	
6805-16-16	1 5/16 - 12	1 - 11 1/2	
6805-20-20	1 5/8 - 12	1 1/4 - 11 1/2	
6805-24-24	1 7/8 - 12	1 1/2 - 11 1/2	
6805-32-32	2 1/2 - 12	2 - 11 1/2	

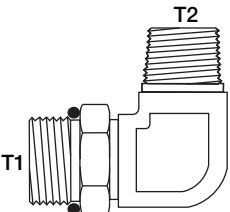
6805L


90° M-ORB / F-NPT LONG

	PART NUMBER	T1	T2
	6805L-08-08	3/4 - 16	1/2 - 14
6805L-10-08	7/8 - 14	1/2 - 14	
6805L-12-12	1 1/16 - 12	3/4 - 14	
6805L-16-16	1 5/16 - 12	1 - 11 1/2	

6806

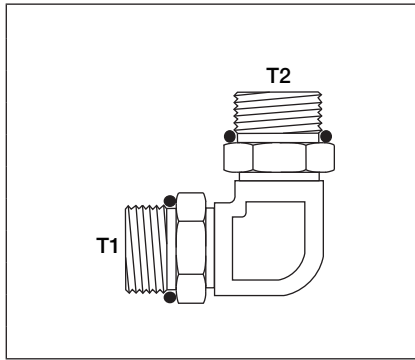
90° M-ORB / M-NPT

	PART NUMBER	T1	T2
	6806-04-02	7/16 - 20	1/8 - 27
6806-04-04	7/16 - 20	1/4 - 18	
6806-05-02	1/2 - 20	1/8 - 27	
6806-06-04	9/16 - 18	1/4 - 18	
6806-06-06	9/16 - 18	3/8 - 18	
6806-08-06	3/4 - 16	3/8 - 18	
6806-08-08	3/4 - 16	1/2 - 14	
6806-10-08	7/8 - 14	1/2 - 14	
6806-12-12	1 1/16 - 12	3/4 - 14	
6806-14-12	1 3/16 - 12	3/4 - 14	
6806-16-12	1 5/16 - 12	3/4 - 14	
6806-16-16	1 5/16 - 12	1 - 11 1/2	
6806-20-20	1 5/8 - 12	1 1/4 - 11 1/2	
6806-24-24	1 7/8 - 12	1 1/2 - 11 1/2	
6806-32-32	2 1/2 - 12	2 - 11 1/2	

 **WARNING** This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

6807

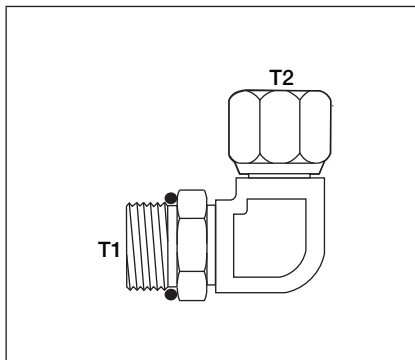
90° M-ORB /M-ORB



PART NUMBER	T1	T2
6807-04-04	7/16 - 20	7/16 - 20
6807-06-06	9/16 - 18	9/16 - 18
6807-08-06	3/4 - 16	9/16 - 18
6807-08-08	3/4 - 16	3/4 - 16
6807-10-08	7/8 - 14	3/4 - 16
6807-10-10	7/8 - 14	7/8 - 14
6807-12-12	1 1/16 - 12	1 1/16 - 12
6807-16-16	1 5/16 - 12	1 5/16 - 12
6807-20-20	1 5/8 - 12	1 5/8 - 12
6807-24-24	1 7/8 - 12	1 7/8 - 12

6809

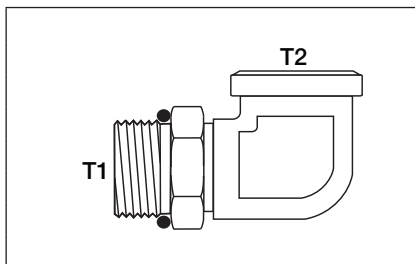
90° M-ORB /F-JIC




PART NUMBER	T1	T2
6809-04-04	7/16 - 20	7/16 - 20
6809-06-04	9/16 - 18	7/16 - 20
6809-06-06	9/16 - 18	9/16 - 18
6809-08-06	3/4 - 16	9/16 - 18
6809-08-08	3/4 - 16	3/4 - 16
6809-10-10	7/8 - 14	7/8 - 14
6809-12-10	1 1/16 - 12	7/8 - 14
6809-12-12	1 1/16 - 12	1 1/16 - 12
6809-16-16	1 5/16 - 12	1 5/16 - 12
6809-20-20	1 5/8 - 12	1 5/8 - 12

6815

90° M-ORB /F-ORB

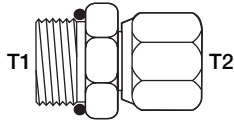


PART NUMBER	T1	T2
6815-04-04	7/16 - 20	7/16 - 20
6815-06-06	9/16 - 18	9/16 - 18
6815-08-08	3/4 - 16	3/4 - 16
6815-10-10	7/8 - 14	7/8 - 14
6815-12-12	1 1/16 - 12	1 1/16 - 12
6815-16-16	1 5/16 - 12	1 5/16 - 12

 **WARNING** This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>


6900

M-ORB / F-NPSM



PART NUMBER	T1	T2
6900-04-04	7/16 - 20	1/4 - 18
6900-04-06	7/16 - 20	3/8 - 18
6900-05-04	1/2 - 20	1/4 - 18
6900-06-04	9/16 - 18	1/4 - 18
6900-06-06	9/16 - 18	3/8 - 18
6900-06-08	9/16 - 18	1/2 - 14
6900-08-04	3/4 - 16	1/4 - 18
6900-08-06	3/4 - 16	3/8 - 18
6900-08-08	3/4 - 16	1/2 - 14
6900-08-12	3/4 - 16	3/4 - 14
6900-10-06	7/8 - 14	3/8 - 18
6900-10-08	7/8 - 14	1/2 - 14
6900-10-12	7/8 - 14	3/4 - 14
6900-12-06	1 1/16 - 12	3/8 - 18
6900-12-08	1 1/16 - 12	1/2 - 14
6900-12-12	1 1/16 - 12	3/4 - 14
6900-12-16	1 1/16 - 12	1 - 11 1/2
6900-14-12	1 3/16 - 12	3/4 - 14
6900-16-12	1 5/16 - 12	3/4 - 14
6900-16-16	1 5/16 - 12	1 - 11 1/2
6900-16-20	1 5/16 - 12	1 1/4 - 11 1/2
6900-20-16	1 5/8 - 12	1 - 11 1/2
6900-20-20	1 5/8 - 12	1 1/4 - 11 1/2
6900-24-24	1 7/8 - 12	1 1/2 - 11 1/2
6900-32-32	2 1/2 - 12	2 - 11 1/2

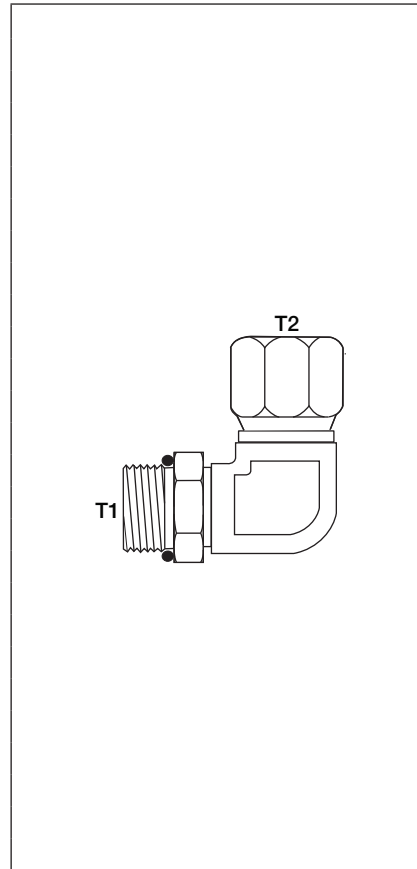


 **WARNING** This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

6901

90° M-ORB / F-NPSM

SAE# 140257

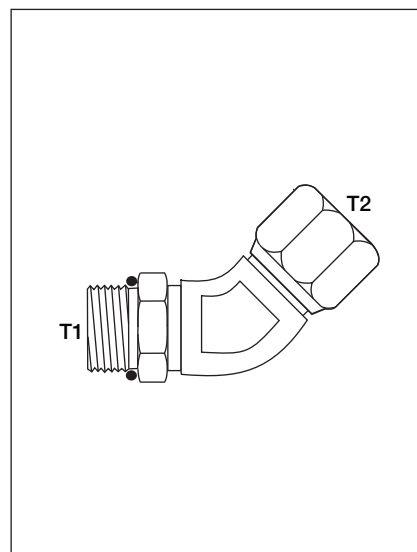


PART NUMBER	T1	T2
6901-04-04	7/16 - 20	1/4 - 18
6901-04-06	7/16 - 20	3/8 - 18
6901-06-04	9/16 - 18	1/4 - 18
6901-06-06	9/16 - 18	3/8 - 18
6901-06-08	9/16 - 18	1/2 - 14
6901-08-04	3/4 - 16	1/4 - 18
6901-08-06	3/4 - 16	3/8 - 18
6901-08-08	3/4 - 16	1/2 - 14
6901-08-12	3/4 - 16	3/4 - 14
6901-10-06	7/8 - 14	3/8 - 18
6901-10-08	7/8 - 14	1/2 - 14
6901-10-12	7/8 - 14	3/4 - 14
6901-12-06	1 1/16 - 12	3/8 - 18
6901-12-08	1 1/16 - 12	1/2 - 14
6901-12-12	1 1/16 - 12	3/4 - 14
6901-12-16	1 1/16 - 12	1 - 11 1/2
6901-14-12	1 3/16 - 12	3/4 - 14
6901-16-12	1 5/16 - 12	3/4 - 14
6901-16-16	1 5/16 - 12	1 - 11 1/2
6901-16-20	1 5/16 - 12	1 1/4 - 11 1/2
6901-20-12	1 5/8 - 12	3/4 - 14
6901-20-16	1 5/8 - 12	1 - 11 1/2
6901-20-20	1 5/8 - 12	1 1/4 - 11 1/2
6901-24-20	1 7/8 - 12	1 1/4 - 11 1/2
6901-24-24	1 7/8 - 12	1 1/2 - 11 1/2
6901-32-32	2 1/2 - 12	2 - 11 1/2


6902

45° M-ORB / F-NPSM

SAE# 140357



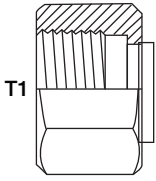
PART NUMBER	T1	T2
6902-04-04	7/16 - 20	1/4 - 18
6902-06-04	9/16 - 18	1/4 - 18
6902-06-06	9/16 - 18	3/8 - 18
6902-06-08	9/16 - 18	1/2 - 14
6902-08-06	3/4 - 16	3/8 - 18
6902-08-08	3/4 - 16	1/2 - 14
6902-08-12	3/4 - 16	3/4 - 14
6902-10-06	7/8 - 14	3/8 - 18
6902-10-08	7/8 - 14	1/2 - 14
6902-10-12	7/8 - 14	3/4 - 14
6902-12-06	1 1/16 - 12	3/8 - 18
6902-12-08	1 1/16 - 12	1/2 - 14
6902-12-12	1 1/16 - 12	3/4 - 14
6902-16-16	1 5/16 - 12	1 - 11 1/2
6902-20-20	1 5/8 - 12	1 1/4 - 11 1/2
6902-24-24	1 7/8 - 12	1 1/2 - 11 1/2

 **WARNING** This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FS0304C

ORFS CAP

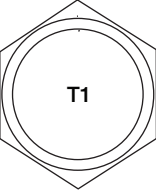
SAE # 520112

	PART NUMBER	T1
	FS0304-04	9/16 - 18
	FS0304-06	1 1/16 - 16
	FS0304-08	1 3/16 - 16
	FS0304-10	1 - 14
	FS0304-12	1 3/16 - 12
	FS0304-16	1 7/16 - 12
	FS0304-20	1 11/16 - 12
	FS0304-24	2 - 12

FS0306

ORFS BULKHEAD LOCKNUT

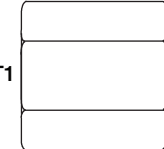
SAE # 520118

	FS0306-04	9/16 - 18
	FS0306-06	1 1/16 - 16
	FS0306-08	1 3/16 - 16
	FS0306-10	1 - 14
	FS0306-12	1 3/16 - 12
	FS0306-16	1 7/16 - 12
	FS0306-20	1 11/16 - 12
	FS0306-24	2 - 12

FS0318

ORFS TUBE NUT


SAE # 520110


	PART NUMBER	T1
	FS0318-04	9/16 - 18
	FS0318-06	1 1/16 - 16
	FS0318-08	1 3/16 - 16
	FS0318-10	1 - 14
	FS0318-12	1 3/16 - 12
	FS0318-16	1 7/16 - 12
	FS0318-20	1 11/16 - 12
	FS0318-24	2 - 12

FS0319

ORFS SLEEVE BRAZE STYLE

SAE # 520115

	PART NUMBER	TUBE O.D.	T1
	FS0319-04	1/4	0.502
	FS0319-06	3/8	0.620
	FS0319-08	1/2	0.745
	FS0319-10	5/8	0.923
	FS0319-12	3/4	1.097
	FS0319-16	1	1.347
	FS0319-20	1 1/4	1.597
	FS0319-24	1 1/2	1.910

 **WARNING** This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



FS0403 BORE / M-ORFS STRAIGHT BRAZE ON

	PART NUMBER		
	PART NUMBER	T1 (BORE)	T2
	FS0403-04-04	0. 256	9/16 - 18
	FS0403-06-04	0. 381	9/16 - 18
	FS0403-06-06	0. 381	1 1/16 - 16
	FS0403-06-08	0. 381	1 3/16 - 16
	FS0403-08-06	0. 506	1 1/16 - 16
	FS0403-08-08	0. 506	1 3/16 - 16
	FS0403-08-12	0. 506	1 3/16 - 12
	FS0403-10-08	0. 631	1 3/16 - 16
	FS0403-10-10	0. 631	1 - 14
	FS0403-10-12	0. 631	1 3/16 - 12
	FS0403-12-10	0. 757	1 - 14
	FS0403-12-12	0. 757	1 3/16 - 12
	FS0403-12-16	0. 757	1 7/16 - 12
	FS0403-16-12	1. 007	1 3/16 - 12
	FS0403-16-16	1. 007	1 7/16 - 12
	FS0403-16-20	1. 007	1 11/16 - 12
	FS0403-20-20	1. 258	1 11/16 - 12
	FS0403-24-20	1. 508	1 11/16 - 12
	FS0403-24-24	1. 508	2 - 12

FS1700 M-ORFS / FLANGE (CODE 61) STRAIGHT

	PART NUMBER		
	PART NUMBER	T1	T2
	FS1700-12-12	1 3/16 - 12	3/4
	FS1700-12-16	1 3/16 - 12	1
	FS1700-16-12	1 7/16 - 12	3/4
	FS1700-16-16	1 7/16 - 12	1
	FS1700-20-16	1 11/16 - 12	1
	FS1700-20-20	1 11/16 - 12	1 1/4
	FS1700-20-24	1 11/16 - 12	1 1/2
	FS1700-24-20	2 - 12	1 1/4
	FS1700-24-24	2 - 12	1 1/2
	FS1700-24-32	2 - 12	2

FS1703 45° M-ORFS / FLANGE (CODE 61)

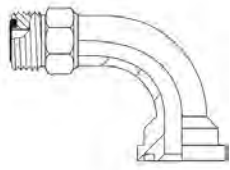
	PART NUMBER		
	PART NUMBER	T1	T2
	FS1703-12-12	1 3/16 - 12	3/4
	FS1703-16-16	1 7/16 - 12	1
	FS1703-20-20	1 11/16 - 12	1 1/4
	FS1703-24-24	2 - 12	1 1/2

FS1703FG FORGED 45° M-ORFS / FLANGE (CODE 61)

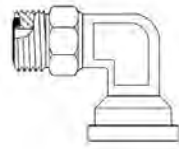
	PART NUMBER		
	PART NUMBER	T1	T2
	FS1703-12-12FG	1 3/16 - 12	3/4
	FS1703-16-16FG	1 7/16 - 12	1
	FS1703-20-20FG	1 11/16 - 12	1 1/4
	FS1703-24-24FG	2 - 12	1 1/2

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

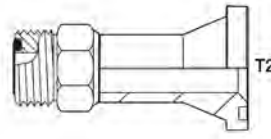
FS1704 90° M-ORFS / FLANGE (CODE 61)

	PART NUMBER	T1	T2
	FS1704-12-12	1 3/16 - 12	3/4
	FS1704-12-16	1 3/16 - 12	1
	FS1704-16-12	1 7/16 - 12	3/4
	FS1704-16-16	1 7/16 - 12	1
	FS1704-16-20	1 7/16 - 12	1 1/4
	FS1704-20-16	1 11/16 - 12	1
	FS1704-20-20	1 11/16 - 12	1 1/4
	FS1704-20-24	1 11/16 - 12	1 1/2
	FS1704-24-20	2 - 12	1 1/4
	FS1704-24-24	2 - 12	1 1/2
	FS1704-24-32	2 - 12	2

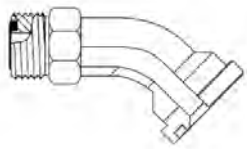
FS1704FG FORGED 90° M-ORFS / FLANGE (CODE 61)


	PART NUMBER	T1	T2
	FS1704-12-12FG	1 3/16 - 12	3/4
	FS1704-12-16FG	1 3/16 - 12	1
	FS1704-16-12FG	1 7/16 - 12	3/4
	FS1704-16-16FG	1 7/16 - 12	1
	FS1704-16-20FG	1 7/16 - 12	1 1/4
	FS1704-20-16FG	1 11/16 - 12	1
	FS1704-20-20FG	1 11/16 - 12	1 1/4
	FS1704-20-24FG	1 11/16 - 12	1 1/2
	FS1704-24-20FG	2 - 12	1 1/4
	FS1704-24-24FG	2 - 12	1 1/2
	FS1704-24-32FG	2 - 12	2

FS1800 M-ORFS / FLANGE (CODE 62) STRAIGHT

	PART NUMBER	T1	T2
	FS1800-12-12	1 3/16 - 12	3/4
	FS1800-12-16	1 3/16 - 12	1
	FS1800-16-12	1 7/16 - 12	3/4
	FS1800-16-12	1 7/16 - 12	3/4
	FS1800-16-12	1 7/16 - 12	3/4
	FS1800-16-16	1 7/16 - 12	1
	FS1800-16-20	1 7/16 - 12	1 1/4
	FS1800-20-16	1 11/16 - 12	1
	FS1800-20-20	1 11/16 - 12	1 1/4
	FS1800-20-24	1 11/16 - 12	1 1/2
	FS1800-24-24	2 - 12	1 1/2
FS1800-24-32	2 - 12	2	

FS1803 45° M-ORFS / FLANGE (CODE 62)

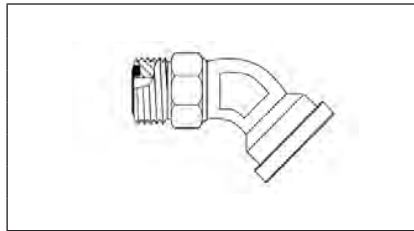
	PART NUMBER	T1	T2
	FS1803-12-12	1 3/16 - 12	3/4
	FS1803-16-16	1 7/16 - 12	1
	FS1803-20-20	1 11/16 - 12	1 1/4
	FS1803-24-24	2 - 12	1 1/2

 **WARNING** This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



FS1803FG

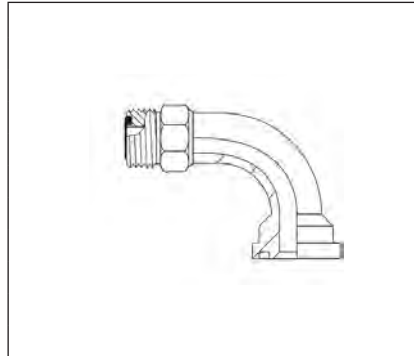
FORGED 45° M-ORFS / FLANGE (CODE 62)



PART NUMBER	T1	T2
FS1803-12-12FG	1 3/16 - 12	3/4
FS1803-16-16FG	1 7/16 - 12	1
FS1803-20-20FG	1 11/16 - 12	1 1/4
FS1803-24-24FG	2 - 12	1 1/2

FS1804

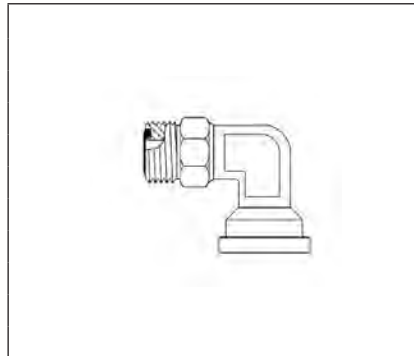
90° M-ORFS / FLANGE (CODE 62)



PART NUMBER	T1	T2
FS1804-12-12	1 3/16 - 12	3/4
FS1804-12-16	1 3/16 - 12	1
FS1804-16-12	1 7/16 - 12	3/4
FS1804-16-16	1 7/16 - 12	1
FS1804-16-20	1 7/16 - 12	1 1/4
FS1804-20-16	1 11/16 - 12	1
FS1804-20-20	1 11/16 - 12	1 1/4
FS1804-20-24	1 11/16 - 12	1 1/2
FS1804-24-20	2 - 12	1 1/4
FS1804-24-24	2 - 12	1 1/2

FS1804FG

FORGED 90° M-ORFS / FLANGE (CODE 62)

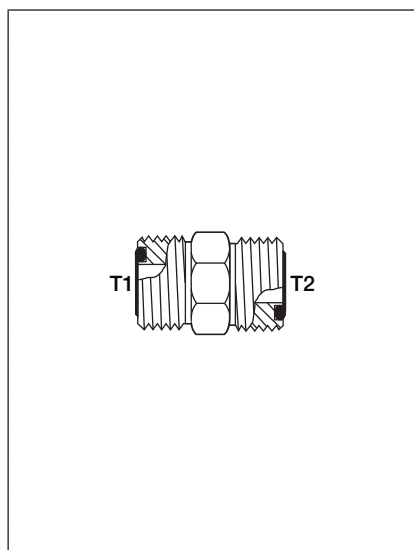


PART NUMBER	T1	T2
FS1804-12-12FG	1 3/16 - 12	3/4
FS1804-12-16FG	1 3/16 - 12	1
FS1804-16-12FG	1 7/16 - 12	3/4
FS1804-16-16FG	1 7/16 - 12	1
FS1804-16-20FG	1 7/16 - 12	1 1/4
FS1804-20-16FG	1 11/16 - 12	1
FS1804-20-20FG	1 11/16 - 12	1 1/4
FS1804-20-24FG	1 11/16 - 12	1 1/2
FS1804-24-20FG	2 - 12	1 1/4
FS1804-24-24FG	2 - 12	1 1/2

FS2403

M-ORFS / M-ORFS STRAIGHT

SAE # 520101

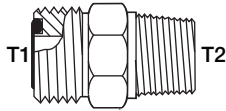


PART NUMBER	T1	T2
FS2403-04-04	9/16 - 18	9/16 - 18
FS2403-06-04	1 1/16 - 16	9/16 - 18
FS2403-06-06	1 1/16 - 16	1 1/16 - 16
FS2403-08-06	1 3/16 - 16	1 1/16 - 16
FS2403-08-08	1 3/16 - 16	1 3/16 - 16
FS2403-10-08	1 - 14	1 3/16 - 16
FS2403-10-10	1 - 14	1 - 14
FS2403-12-08	1 3/16 - 12	1 3/16 - 12
FS2403-12-10	1 3/16 - 12	1 - 14
FS2403-12-12	1 3/16 - 12	1 3/16 - 12
FS2403-16-12	1 7/16 - 12	1 3/16 - 12
FS2403-16-16	1 7/16 - 12	1 7/16 - 12
FS2403-20-16	1 11/16 - 12	1 7/16 - 12
FS2403-20-20	1 11/16 - 12	1 11/16 - 12
FS2403-24-20	2 - 12	1 11/16 - 12
FS2403-24-24	2 - 12	2 - 12

⚠ WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FS2404

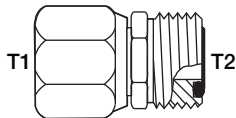
M-ORFS / M-NPT STRAIGHT



PART NUMBER	T1	T2
FS2404-04-02	9/16 - 18	1/8 - 27
FS2404-04-04	9/16 - 18	1/4 - 18
FS2404-04-06	9/16 - 18	3/8 - 18
FS2404-04-08	9/16 - 18	1/2 - 14
FS2404-06-02	11/16 - 16	1/8 - 27
FS2404-06-04	11/16 - 16	1/4 - 18
FS2404-06-06	11/16 - 16	3/8 - 18
FS2404-06-08	11/16 - 16	1/2 - 14
FS2404-08-04	13/16 - 16	1/4 - 18
FS2404-08-06	13/16 - 16	3/8 - 18
FS2404-08-08	13/16 - 16	1/2 - 14
FS2404-08-12	13/16 - 16	3/4 - 14
FS2404-08-16	13/16 - 16	1 - 11 1/2
FS2404-10-08	1 - 14	1/2 - 14
FS2404-10-12	1 - 14	3/4 - 14
FS2404-10-16	1 - 14	1 - 11 1/2
FS2404-12-08	1 3/16 - 12	1/2 - 14
FS2404-12-12	1 3/16 - 12	3/4 - 14
FS2404-12-16	1 3/16 - 12	1 - 11 1/2
FS2404-16-12	1 7/16 - 12	3/4 - 14
FS2404-16-16	1 7/16 - 12	1 - 11 1/2
FS2404-16-20	1 7/16 - 12	1 1/4 - 11 1/2
FS2404-20-16	1 11/16 - 12	1 - 11 1/2
FS2404-20-20	1 11/16 - 12	1 1/4 - 11 1/2
FS2404-24-24	2 - 12	1 1/2 - 11 1/2


FS2406

F-ORFS / M-ORFS



PART NUMBER	T1	T2
FS2406-04-04	9/16 - 18	9/16 - 18
FS2406-06-04	11/16 - 16	9/16 - 18
FS2406-06-06	11/16 - 16	11/16 - 16
FS2406-08-04	13/16 - 16	9/16 - 18
FS2406-08-06	13/16 - 16	11/16 - 16
FS2406-08-08	13/16 - 16	13/16 - 16
FS2406-10-04	1 - 14	9/16 - 18
FS2406-10-06	1 - 14	11/16 - 16
FS2406-10-08	1 - 14	13/16 - 16
FS2406-12-04	1 3/16 - 12	9/16 - 18
FS2406-12-06	1 3/16 - 12	11/16 - 16
FS2406-12-08	1 3/16 - 12	13/16 - 16
FS2406-12-10	1 3/16 - 12	1 - 14
FS2406-12-16	1 3/16 - 12	1 7/16 - 12
FS2406-16-08	1 7/16 - 12	13/16 - 16
FS2406-16-10	1 7/16 - 12	1 - 14
FS2406-16-12	1 7/16 - 12	1 3/16 - 12
FS2406-20-12	1 11/16 - 12	1 3/16 - 12
FS2406-20-16	1 11/16 - 12	1 7/16 - 12
FS2406-20-24	1 11/16 - 12	2 - 12
FS2406-24-16	1	2 - 12
FS2406-24-20	2 - 12	1 1/2 - 12

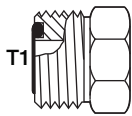
REDUCER MAY BE SUPPLIED AS 2 PIECE ASSEMBLY

 **WARNING** This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FS2408

ORFS HEX PLUG

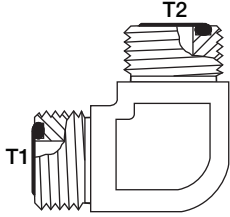
SAE # 520109

	PART NUMBER	T1
	FS2408-04	9/16 - 18
	FS2408-06	11/16 - 16
	FS2408-08	13/16 - 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

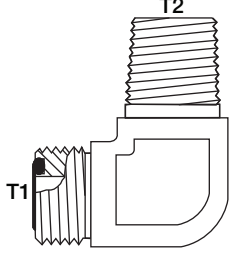
90° M-ORFS / M-ORFS


SAE # 520201

	PART NUMBER	T1	T2
	FS2500-04-04	9/16 - 18	9/16 - 18
	FS2500-06-06	11/16 - 16	11/16 - 16
	FS2500-08-08	13/16 - 16	13/16 - 16
	FS2500-10-10	1 - 14	1 - 14
	FS2500-12-08	1 3/16 - 12	1 3/16 - 16
	FS2500-12-12	1 3/16 - 12	1 3/16 - 12
	FS2500-16-16	1 7/16 - 12	1 7/16 - 12
	FS2500-20-20	1 11/16 - 12	1 11/16 - 12
FS2500-24-24	2 - 12	2 - 12	

FS2501

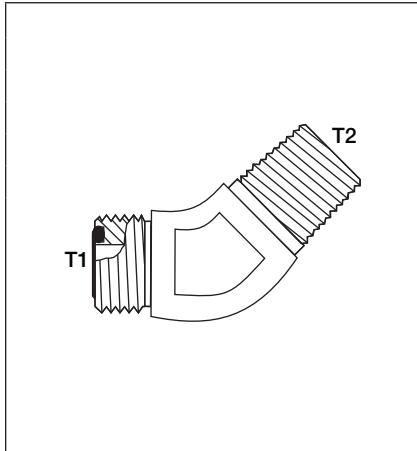
90° M-ORFS / M-NPT

	PART NUMBER	T1	T2
	FS2501-04-02	9/16 - 18	1/8 - 27
	FS2501-04-04	9/16 - 18	1/4 - 18
	FS2501-04-06	9/16 - 18	3/8 - 18
	FS2501-06-04	1 1/16 - 16	1/4 - 18
	FS2501-06-06	1 1/16 - 16	3/8 - 18
	FS2501-06-08	1 1/16 - 16	1/2 - 14
	FS2501-08-04	1 3/16 - 16	1/4 - 18
	FS2501-08-06	1 3/16 - 16	3/8 - 18
	FS2501-08-08	1 3/16 - 16	1/2 - 14
	FS2501-08-12	1 3/16 - 16	3/4 - 14
	FS2501-10-08	1 - 14	1/2 - 14
	FS2501-10-12	1 - 14	3/4 - 14
	FS2501-12-08	1 3/16 - 12	1/2 - 14
	FS2501-12-12	1 3/16 - 12	3/4 - 14
	FS2501-12-16	1 3/16 - 12	1 - 11 1/2
	FS2501-16-12	1 7/16 - 12	3/4 - 14
	FS2501-16-16	1 7/16 - 12	1 - 11 1/2
	FS2501-20-16	1 11/16 - 12	1 - 11 1/2
	FS2501-20-20	1 11/16 - 12	1 1/4 - 11 1/2
	FS2501-24-24	2 - 12	1 1/2 - 11 1/2

 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FS2503

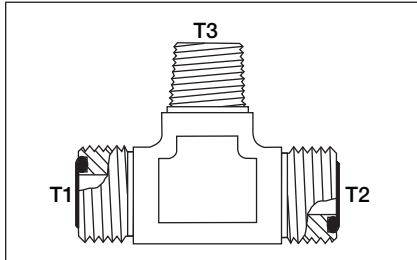
45° M-ORFS / M-NPT



PART NUMBER	T1	T2
FS2503-04-02	9/16 - 18	1/8 - 27
FS2503-04-04	9/16 - 18	1/4 - 18
FS2503-06-04	1 1/16 - 16	1/4 - 18
FS2503-06-06	1 1/16 - 16	3/8 - 18
FS2503-06-08	1 1/16 - 16	1/2 - 14
FS2503-08-06	1 3/16 - 16	3/8 - 18
FS2503-08-08	1 3/16 - 16	1/2 - 14
FS2503-08-12	1 3/16 - 16	3/4 - 14
FS2503-10-08	1 - 14	1/2 - 14
FS2503-12-08	1 3/16 - 12	1/2 - 14
FS2503-12-12	1 3/16 - 12	3/4 - 14
FS2503-16-16	1 7/16 - 12	1 - 11 1/2
FS2503-20-20	1 11/16 - 12	1 1/4 - 11 1/2

FS2601

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

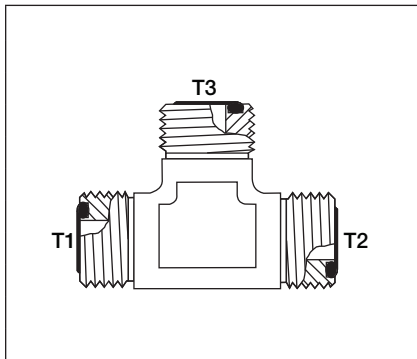


PART NUMBER	T1	T2	T3
FS2601-04-04-04	9/16 - 18	9/16 - 18	1/4 - 18
FS2601-06-06-04	1 1/16 - 16	1 1/16 - 16	1/4 - 18
FS2601-06-06-06	1 1/16 - 16	1 1/16 - 16	3/8 - 18
FS2601-08-08-08	1 3/16 - 16	1 3/16 - 16	1/2 - 14
FS2601-12-12-12	1 3/16 - 12	1 3/16 - 12	3/4 - 14
FS2601-16-16-16	1 7/16 - 12	1 7/16 - 12	1 - 11 1/2

FS2603

TEE M-ORFS

SAE # 520401



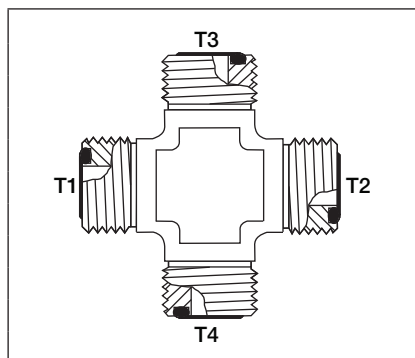
PART NUMBER	T1	T2	T3
FS2603-04-04-04	9/16 - 18	9/16 - 18	9/16 - 18
FS2603-06-06-06	1 1/16 - 16	1 1/16 - 16	1 1/16 - 16
FS2603-06-06-08	1 1/16 - 16	1 1/16 - 16	1 3/16 - 16
FS2603-08-08-08	1 3/16 - 16	1 3/16 - 16	1 3/16 - 16
FS2603-10-10-10	1 - 14	1 - 14	1 - 14
FS2603-12-12-12	1 3/16 - 12	1 3/16 - 12	1 3/16 - 12
FS2603-12-12-16	1 3/16 - 12	1 3/16 - 12	1 7/16 - 12
FS2603-16-16-16	1 7/16 - 12	1 7/16 - 12	1 7/16 - 12
FS2603-20-20-20	1 11/16 - 12	1 11/16 - 12	1 11/16 - 12
FS2603-24-24-24	2 - 12	2 - 12	2 - 12

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



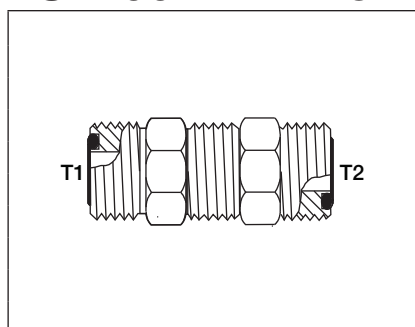


FS2650 CROSS M-ORFS



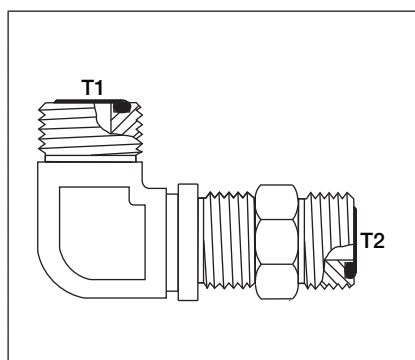
PART NUMBER	T1	T2	T3	T4
FS2650-04-04-04-04	9/16 - 18	9/16 - 18	9/16 - 18	9/16 - 18
FS2650-06-06-06-06	1 1/16 - 16	1 1/16 - 16	1 1/16 - 16	1 1/16 - 16
FS2650-08-08-08-08	1 3/16 - 16	1 3/16 - 16	1 3/16 - 16	1 3/16 - 16
FS2650-10-10-10-10	1 - 14	1 - 14	1 - 14	1 - 14
FS2650-12-12-12-12	1 3/16 - 12	1 3/16 - 12	1 3/16 - 12	1 3/16 - 12
FS2650-16-16-16-16	1 7/16 - 12	1 7/16 - 12	1 7/16 - 12	1 7/16 - 12
FS2650-20-20-20-20	1 1 1/16 - 12	1 1 1/16 - 12	1 1 1/16 - 12	1 1 1/16 - 12
FS2650-24-24-24-24	2 - 12	2 - 12	2 - 12	2 - 12

FS2700LN M-ORFS / M-ORFS BULKHEAD INCLUDES NUT SAE # 520601



PART NUMBER	T1	T2
FS2700LN-04-04	9/16 - 18	9/16 - 18
FS2700LN-06-06	1 1/16 - 16	1 1/16 - 16
FS2700LN-06-08	1 1/16 - 16	1 3/16 - 16
FS2700LN-08-08	1 3/16 - 16	1 3/16 - 16
FS2700LN-10-10	1 - 14	1 - 14
FS2700LN-12-12	1 3/16 - 12	1 3/16 - 12
FS2700LN-16-16	1 7/16 - 12	1 7/16 - 12
FS2700LN-20-20	1 1 1/16 - 12	1 1 1/16 - 12
FS2700LN-24-24	2 - 12	2 - 12

FS2701LN 90° M-ORFS / M-ORFS BULKHEAD INCLUDES NUT SAE # 520701

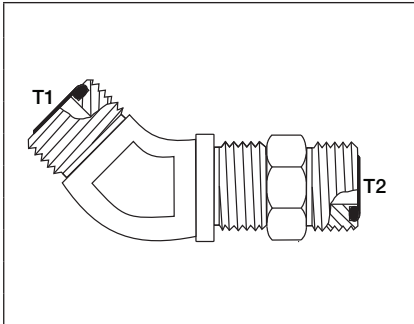


PART NUMBER	T1	T2
FS2701LN-04-04	9/16 - 18	9/16 - 18
FS2701LN-06-06	1 1/16 - 16	1 1/16 - 16
FS2701LN-06-08	1 1/16 - 16	1 3/16 - 16
FS2701LN-08-08	1 3/16 - 16	1 3/16 - 16
FS2701LN-08-10	1 3/16 - 16	1 - 14
FS2701LN-10-10	1 - 14	1 - 14
FS2701LN-12-12	1 3/16 - 12	1 3/16 - 12
FS2701LN-16-16	1 7/16 - 12	1 7/16 - 12
FS2701LN-20-20	1 1 1/16 - 12	1 1 1/16 - 12
FS2701LN-24-24	2 - 12	2 - 12

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

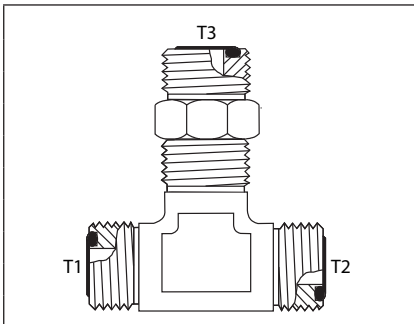
FS2702LN 45° M-ORFS / M-ORFS BULKHEAD

SAE # 520801



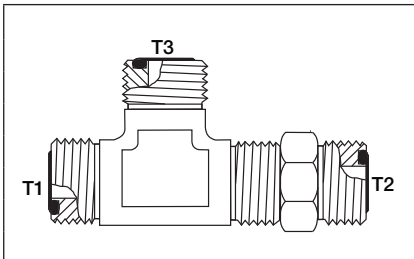
PART NUMBER	T1	T2
FS2702LN-04-04	9/16 - 18	9/16 - 18
FS2702LN-06-06	1 1/16 - 16	1 1/16 - 16
FS2702LN-08-08	1 3/16 - 16	1 3/16 - 16
FS2702LN-10-08	1 3/16 - 16	1 - 14
FS2702LN-10-10	1 - 14	1 - 14
FS2702LN-12-12	1 3/16 - 12	1 3/16 - 12
FS2702LN-16-16	1 7/16 - 12	1 7/16 - 12
FS2702LN-20-20	1 11/16 - 12	1 11/16 - 12
FS2702LN-24-24	2 - 12	2 - 12

FS2703LN BRANCH TEE / M-ORFS / M-ORFS / ORFS BULKHEAD INCLUDES NUT




PART NUMBER	T1	T2	T3
FS2703LN-04-04-04	9/16 - 18	9/16 - 18	9/16 - 18
FS2703LN-06-06-06	1 1/16 - 16	1 1/16 - 16	1 1/16 - 16
FS2703LN-08-08-08	1 3/16 - 16	1 3/16 - 16	1 3/16 - 16
FS2703LN-12-12-12	1 3/16 - 12	1 3/16 - 12	1 3/16 - 12
FS2703LN-16-16-16	1 7/16 - 12	1 7/16 - 12	1 7/16 - 12

FS2704LN RUN TEE M-ORFS / ORFS BULKHEAD / M-ORFS INCLUDES NUT SAE # 520201



PART NUMBER	T1	T2	T3
FS2704LN-04-04-04	9/16 - 18	9/16 - 18	9/16 - 18
FS2704LN-06-06-06	1 1/16 - 16	1 1/16 - 16	1 1/16 - 16
FS2704LN-08-08-08	1 3/16 - 16	1 3/16 - 16	1 3/16 - 16
FS2704LN-10-10-10	1 - 14	1 - 14	1 - 14
FS2704LN-12-12-12	1 3/16 - 12	1 3/16 - 12	1 3/16 - 12
FS2704LN-16-16-16	1 7/16 - 12	1 7/16 - 12	1 7/16 - 12
FS2704LN-20-20-20	1 11/16 - 12	1 11/16 - 12	1 11/16 - 12

 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

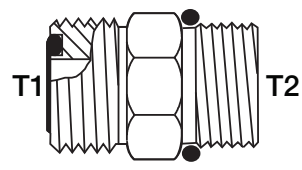




FS6400

M-ORFS / M-ORB

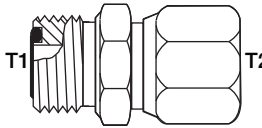
SAE # 520122



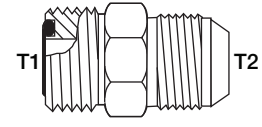
PART NUMBER	T1	T2
FS6400-04-04	9/16 - 18	7/16 - 20
FS6400-04-05	9/16 - 18	1/2 - 20
FS6400-04-06	9/16 - 18	9/16 - 18
FS6400-04-08	9/16 - 18	3/4 - 16
FS6400-06-04	11/16 - 16	7/16 - 20
FS6400-06-05	11/16 - 16	1/2 - 20
FS6400-06-06	11/16 - 16	9/16 - 18
FS6400-06-08	11/16 - 16	3/4 - 16
FS6400-06-10	11/16 - 16	7/8 - 14
FS6400-06-12	11/16 - 16	1 1/16 - 12
FS6400-08-04	13/16 - 16	7/16 - 20
FS6400-08-06	13/16 - 16	9/16 - 18
FS6400-08-08	13/16 - 16	3/4 - 16
FS6400-08-10	13/16 - 16	7/8 - 14
FS6400-08-12	13/16 - 16	1 1/16 - 12
FS6400-08-16	13/16 - 16	1 5/16 - 12
FS6400-10-06	1 - 14	9/16 - 18
FS6400-10-08	1 - 14	3/4 - 16
FS6400-10-10	1 - 14	7/8 - 14
FS6400-10-12	1 - 14	1 1/16 - 12
FS6400-12-06	1 3/16 - 12	9/16 - 18
FS6400-12-08	1 3/16 - 12	3/4 - 16
FS6400-12-10	1 3/16 - 12	7/8 - 14
FS6400-12-12	1 3/16 - 12	1 1/16 - 12
FS6400-12-16	1 3/16 - 12	1 5/16 - 12
FS6400-16-08	1 7/16 - 12	3/4 - 16
FS6400-16-10	1 7/16 - 12	7/8 - 14
FS6400-16-12	1 7/16 - 12	1 1/16 - 12
FS6400-16-16	1 7/16 - 12	1 5/16 - 12
FS6400-16-20	1 7/16 - 12	1 5/8 - 12
FS6400-20-16	1 11/16 - 12	1 5/16 - 12
FS6400-20-20	1 11/16 - 12	1 5/8 - 12
FS6400-20-24	1 11/16 - 12	1 7/8 - 12
FS6400-24-20	2 - 12	1 5/8 - 12
FS6400-24-24	2 - 12	1 7/8 - 12

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FS6402 M-ORFS / F-JIC STRAIGHT

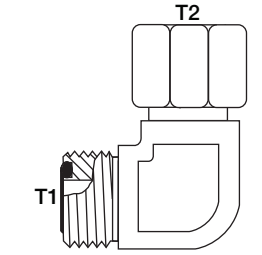
	PART NUMBER	T1	T2
		FS6402-04-04	9/16 - 18
	FS6402-06-06	1 1/16 - 16	9/16 - 18
	FS6402-08-08	1 3/16 - 16	3/4 - 16
	FS6402-10-10	1 - 14	7/8 - 14
	FS6402-12-12	1 3/16 - 12	1 1/16 - 12
	FS6402-16-16	1 7/16 - 12	1 5/16 - 12

FS6403 M-ORFS / M-JIC

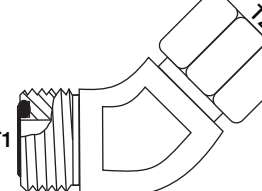
	PART NUMBER	T1	T2
		FS6403-04-04	9/16 - 18
	FS6403-06-06	1 1/16 - 16	9/16 - 18
	FS6403-08-08	1 3/16 - 16	3/4 - 16
	FS6403-10-10	1 - 14	7/8 - 14
	FS6403-12-12	1 3/16 - 12	1 1/16 - 12
	FS6403-16-16	1 7/16 - 12	1 5/16 - 12


FS6500 90° M-ORFS / F-ORFS

SAE # 520221

	PART NUMBER	T1	T2
		FS6500-04-04	9/16 - 18
	FS6500-04-06	9/16 - 18	1 1/16 - 16
	FS6500-06-06	1 1/16 - 16	1 1/16 - 16
	FS6500-08-06	1 3/16 - 16	1 1/16 - 16
	FS6500-08-08	1 3/16 - 16	1 3/16 - 16
	FS6500-10-10	1 - 14	1 - 14
	FS6500-12-12	1 3/16 - 12	1 3/16 - 12
	FS6500-16-16	1 7/16 - 12	1 7/16 - 12
	FS6500-20-20	1 11/16 - 12	1 11/16 - 12
	FS6500-24-24	2 - 12	2 - 12

FS6502 45° M-ORFS / F-ORFS

	PART NUMBER	T1	T2
		FS6502-04-04	9/16 - 18
	FS6502-06-06	1 1/16 - 16	1 1/16 - 16
	FS6502-08-08	1 3/16 - 16	1 3/16 - 16
	FS6502-10-10	1 - 14	1 - 14
	FS6502-12-12	1 3/16 - 12	1 3/16 - 12
	FS6502-16-16	1 7/16 - 12	1 7/16 - 12

 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



FS6504 F-ORFS / M-JIC STRAIGHT

	PART NUMBER	T1	T2
	FS6504-04-04	9/16 - 18	7/16 - 20
	FS6504-06-06	1 1/16 - 16	9/16 - 18
	FS6504-08-08	1 3/16 - 16	3/4 - 16
	FS6504-10-10	1 - 14	7/8 - 14
	FS6504-12-12	1 3/16 - 12	1 1/16 - 12
	FS6504-16-16	1 7/16 - 12	1 5/16 - 12
	FS6504-20-20	1 11/16 - 12	1 5/8 - 12

FS6600 BRANCH TEE M-ORFS / M-ORFS / F-ORFS

SAE # 520433

	PART NUMBER	T1	T2	T3
	FS6600-04-04-04	9/16 - 18	9/16 - 18	9/16 - 18
	FS6600-06-06-06	1 1/16 - 16	1 1/16 - 16	1 1/16 - 16
	FS6600-08-08-08	1 3/16 - 16	1 3/16 - 16	1 3/16 - 16
	FS6600-10-10-10	1 - 14	1 - 14	1 - 14
	FS6600-12-12-12	1 3/16 - 12	1 3/16 - 12	1 3/16 - 12
	FS6600-16-16-16	1 7/16 - 12	1 7/16 - 12	1 7/16 - 12
	FS6600-20-20-20	1 11/16 - 12	1 11/16 - 12	1 11/16 - 12
	FS6600-24-24-24	2 - 12	2 - 12	2 - 12

FS6602 RUN TEE M-ORFS / F-ORFS / M-ORFS

SAE # 520432

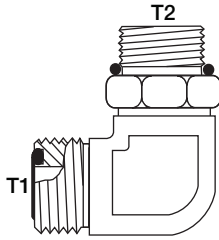
	PART NUMBER	T1	T2	T3
	FS6602-04-04-04	9/16 - 18	9/16 - 18	9/16 - 18
	FS6602-06-06-06	1 1/16 - 16	1 1/16 - 16	1 1/16 - 16
	FS6602-08-08-08	1 3/16 - 16	1 3/16 - 16	1 3/16 - 16
	FS6602-10-10-10	1 - 14	1 - 14	1 - 14
	FS6602-12-12-12	1 3/16 - 12	1 3/16 - 12	1 3/16 - 12
	FS6602-16-16-16	1 7/16 - 12	1 7/16 - 12	1 7/16 - 12
	FS6602-20-20-20	1 11/16 - 12	1 11/16 - 12	1 11/16 - 12
	FS6602-24-24-24	2 - 12	2 - 12	2 - 12

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FS6801

90° M-ORFS / M-ORB

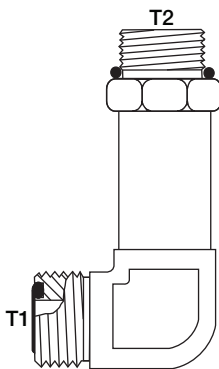
SAE # 520220




PART NUMBER	T1	T2
FS6801-04-04	9/16 - 18	7/16 - 20
FS6801-04-05	9/16 - 18	1/2 - 20
FS6801-04-06	9/16 - 18	9/16 - 18
FS6801-04-08	9/16 - 18	3/4 - 16
FS6801-06-04	1 1/16 - 16	7/16 - 20
FS6801-06-05	1 1/16 - 16	1/2 - 20
FS6801-06-06	1 1/16 - 16	9/16 - 18
FS6801-06-08	1 1/16 - 16	3/4 - 16
FS6801-06-10	1 1/16 - 16	7/8 - 14
FS6801-06-12	1 1/16 - 16	1 1/16 - 12
FS6801-08-04	1 3/16 - 16	7/16 - 20
FS6801-08-06	1 3/16 - 16	9/16 - 18
FS6801-08-08	1 3/16 - 16	3/4 - 16
FS6801-08-10	1 3/16 - 16	7/8 - 14
FS6801-08-12	1 3/16 - 16	1 1/16 - 12
FS6801-10-08	1 - 14	3/4 - 16
FS6801-10-10	1 - 14	7/8 - 14
FS6801-10-12	1 - 14	1 1/16 - 12
FS6801-12-08	1 3/16 - 12	3/4 - 16
FS6801-12-10	1 3/16 - 12	7/8 - 14
FS6801-12-12	1 3/16 - 12	1 1/16 - 12
FS6801-12-16	1 3/16 - 12	1 5/16 - 12
FS6801-16-12	1 7/16 - 12	1 1/16 - 12
FS6801-16-16	1 7/16 - 12	1 5/16 - 12
FS6801-16-20	1 7/16 - 12	1 5/8 - 12
FS6801-20-12	1 11/16 - 12	1 1/16 - 12
FS6801-20-16	1 11/16 - 12	1 5/16 - 12
FS6801-20-20	1 11/16 - 12	1 5/8 - 12
FS6801-20-24	1 11/16 - 12	1 7/8 - 12
FS6801-24-20	2 - 12	1 5/8 - 12
FS6801-24-24	2 - 12	1 7/8 - 12

FS6801L

90° M-ORFS / M-ORB LONG



PART NUMBER	T1	T2
FS6801L-04-04	9/16 - 18	7/16 - 20
FS6801L-06-06	1 1/16 - 16	9/16 - 18
FS6801L-08-08	1 3/16 - 16	3/4 - 16
FS6801L-10-10	1 - 14	7/8 - 14
FS6801L-12-12	1 3/16 - 12	1 1/16 - 12
FS6801L-16-16	1 7/16 - 12	1 5/16 - 12

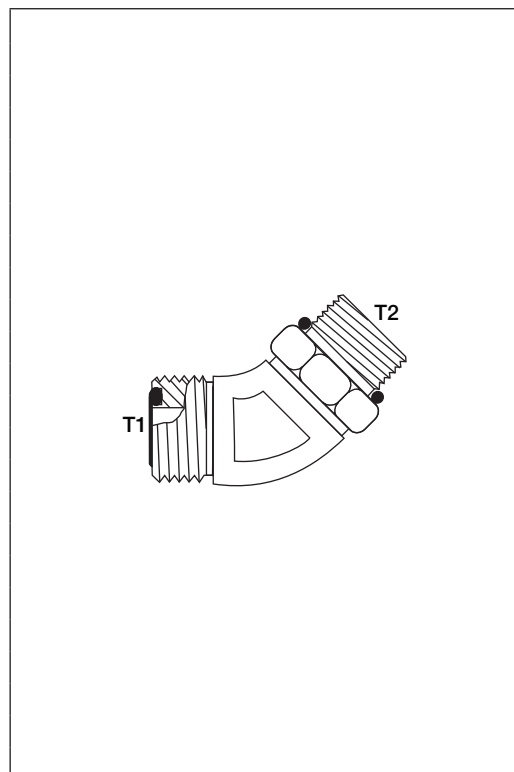
 **WARNING** This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



FS6802

45° M-ORFS / M-ORB

SAE # 520320

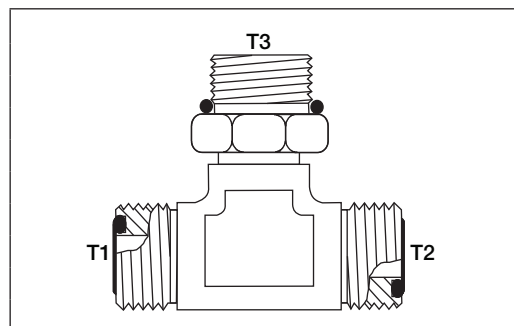


PART NUMBER	T1	T2
FS6802-04-04	1 ¹ / ₁₆ - 16	7 ¹ / ₁₆ - 20
FS6802-04-06	1 ¹ / ₁₆ - 16	9 ¹ / ₁₆ - 18
FS6802-06-04	1 ¹ / ₁₆ - 16	7 ¹ / ₁₆ - 20
FS6802-06-06	1 ¹ / ₁₆ - 16	9 ¹ / ₁₆ - 18
FS6802-06-08	1 ¹ / ₁₆ - 16	3 ⁴ / ₈ - 16
FS6802-06-10	1 ¹ / ₁₆ - 16	7 ⁸ / ₈ - 14
FS6802-08-06	1 ³ / ₁₆ - 16	9 ¹ / ₁₆ - 18
FS6802-08-08	1 ³ / ₁₆ - 16	3 ⁴ / ₈ - 16
FS6802-08-10	1 ³ / ₁₆ - 16	7 ⁸ / ₈ - 14
FS6802-08-12	1 ³ / ₁₆ - 16	1 ¹ / ₁₆ - 12
FS6802-10-08	1 - 14	3 ⁴ / ₈ - 16
FS6802-10-10	1 - 14	7 ⁸ / ₈ - 14
FS6802-10-12	1 - 14	1 ¹ / ₁₆ - 12
FS6802-12-08	1 ³ / ₁₆ - 12	3 ⁴ / ₈ - 16
FS6802-12-10	1 ³ / ₁₆ - 12	7 ⁸ / ₈ - 14
FS6802-12-12	1 ³ / ₁₆ - 12	1 ¹ / ₁₆ - 12
FS6802-12-16	1 ³ / ₁₆ - 12	1 ⁵ / ₁₆ - 12
FS6802-16-12	1 ⁷ / ₁₆ - 12	1 ¹ / ₁₆ - 12
FS6802-16-16	1 ⁷ / ₁₆ - 12	1 ⁵ / ₁₆ - 12
FS6802-16-20	1 ⁷ / ₁₆ - 12	1 ⁵ / ₈ - 12
FS6802-20-16	1 ¹¹ / ₁₆ - 12	1 ⁵ / ₁₆ - 12
FS6802-20-20	1 ¹¹ / ₁₆ - 12	1 ⁵ / ₈ - 12
FS6802-24-24	2 - 12	1 ⁷ / ₈ - 12

FS6803

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

SAE # 520429



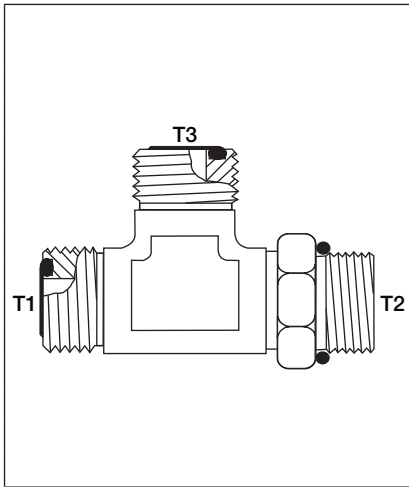
PART NUMBER	T1	T2	T3
FS6803-04-04-04	9 ¹ / ₁₆ - 18	9 ¹ / ₁₆ - 18	7 ¹ / ₁₆ - 20
FS6803-06-06-06	1 ¹ / ₁₆ - 16	1 ¹ / ₁₆ - 16	9 ¹ / ₁₆ - 18
FS6803-06-06-08	1 ¹ / ₁₆ - 16	1 ¹ / ₁₆ - 16	3 ⁴ / ₈ - 16
FS6803-08-08-08	1 ³ / ₁₆ - 16	1 ³ / ₁₆ - 16	3 ⁴ / ₈ - 16
FS6803-10-10-10	1 - 14	1 - 14	7 ⁸ / ₈ - 14
FS6803-12-12-12	1 ³ / ₁₆ - 12	1 ³ / ₁₆ - 12	1 ¹ / ₁₆ - 12
FS6803-16-16-16	1 ⁷ / ₁₆ - 12	1 ⁷ / ₁₆ - 12	1 ⁵ / ₁₆ - 12
FS6803-20-20-20	1 ¹¹ / ₁₆ - 12	1 ¹¹ / ₁₆ - 12	1 ⁵ / ₈ - 12
FS6803-24-24-24	2 - 12	2 - 12	1 ⁷ / ₈ - 12

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FS6804

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

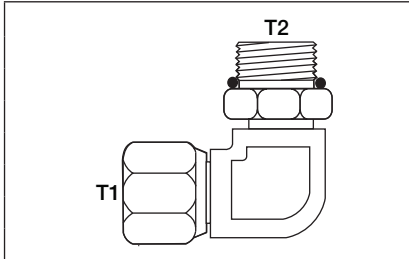
SAE # 520429



PART NUMBER	T1	T2	T3
FS6804-04-04-04	9/16 - 18	7/16 - 20	9/16 - 18
FS6804-06-04-06	11/16 - 16	7/16 - 20	11/16 - 16
FS6804-06-06-06	11/16 - 16	9/16 - 18	11/16 - 16
FS6804-08-06-08	13/16 - 16	9/16 - 18	13/16 - 16
FS6804-08-08-08	13/16 - 16	3/4 - 16	13/16 - 16
FS6804-08-10-08	13/16 - 16	7/8 - 14	13/16 - 16
FS6804-08-12-08	13/16 - 16	1 1/16 - 12	13/16 - 16
FS6804-10-10-10	1 - 14	7/8 - 14	1 - 14
FS6804-10-12-10	1 - 14	1 1/16 - 12	1 - 14
FS6804-12-12-12	1 3/16 - 12	1 1/16 - 12	1 3/16 - 12
FS6804-12-12-16	1 3/16 - 12	1 1/16 - 12	1 7/16 - 12
FS6804-16-16-16	1 7/16 - 12	1 5/16 - 12	1 7/16 - 12
FS6804-20-20-20	1 11/16 - 12	1 5/8 - 12	1 11/16 - 12
FS6804-24-24-24	2 - 12	1 7/8 - 12	2 - 12

FS6809

90° F-ORFS / M-ORB

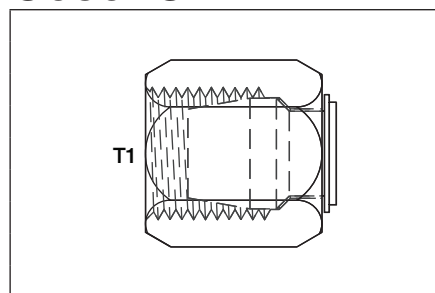


PART NUMBER	T1	T2
FS6809-04-04	9/16 - 18	7/16 - 20
FS6809-06-06	11/16 - 16	9/16 - 18
FS6809-08-08	13/16 - 16	3/4 - 16
FS6809-10-10	1 - 14	7/8 - 14
FS6809-12-12	1 3/16 - 12	1 1/16 - 12
FS6809-16-16	1 7/16 - 12	1 5/16 - 12
FS6809-20-20	1 11/16 - 12	1 5/8 - 12

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

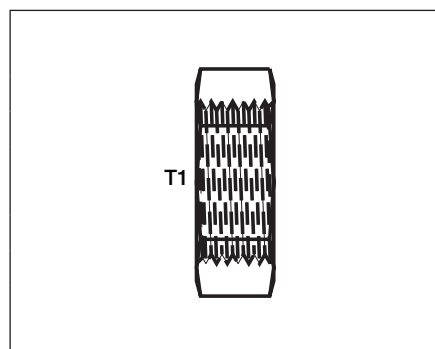


C0304C FLARELESS CAP



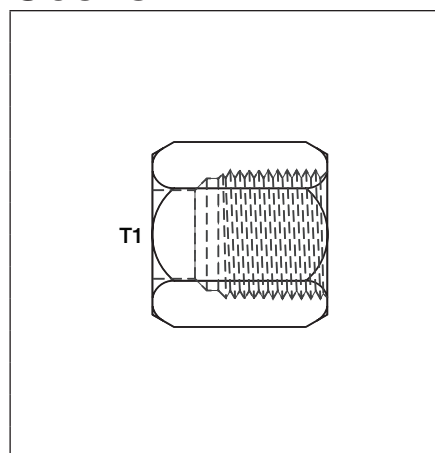
Part Number	T1
C0304-02	1/8
C0304-04	1/4
C0304-06	3/8
C0304-08	1/2
C0304-10	5/8
C0304-12	3/4
C0304-16	1
C0304-20	1 1/4

C0306 FLARELESS BULKHEAD LOCKNUT



Part Number	T1
C0306-04	1/4
C0306-06	3/8
C0306-08	1/2
C0306-10	5/8
C0306-12	3/4
C0306-16	1
C0306-20	1 1/4
C0306-24	1 1/2
C0306-32	2


C0318 FLARELESS NUT



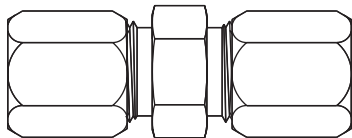
Part Number	T1
C0318-02	1/8
C0318-03	3/16
C0318-04	1/4
C0318-05	5/16
C0318-06	3/8
C0318-08	1/2
C0318-10	5/8
C0318-12	3/4
C0318-14	7/8
C0318-16	1
C0318-20	1 1/4
C0318-24	1 1/2
C0318-32	2

⚠ WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

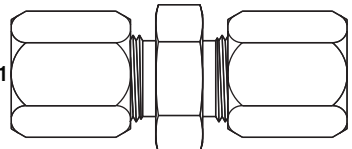
C0319 FLARELESS COMPRESSION SLEEVE


	Part Number	T1
	C0319-02	1/8
C0319-03	3/16	
C0319-04	1/4	
C0319-05	5/16	
C0319-06	3/8	
C0319-08	1/2	
C0319-10	5/8	
C0319-12	3/4	
C0319-14	7/8	
C0319-16	1	
C0319-20	1 1/4	
C0319-24	1 1/2	
C0319-32	2	

C2403 FLARELESS / FLARELESS

	Part Number	T1	T2
	C2403-02-02	1/8	1/8
C2403-03-03	3/16	3/16	
C2403-04-04	1/4	1/4	
C2403-05-05	5/16	5/16	
C2403-06-04	3/8	1/4	
C2403-06-06	3/8	3/8	
C2403-08-08	1/2	1/2	
C2403-10-10	5/8	5/8	
C2403-12-12	3/4	3/4	
C2403-14-14	7/8	7/8	
C2403-16-16	1	1	
C2403-20-20	1 1/4	1 1/4	
C2403-24-24	1 1/2	1 1/2	
C2403-32-32	2	2	

C2403LH FLARELESS / FLARELESS - LARGE HEX

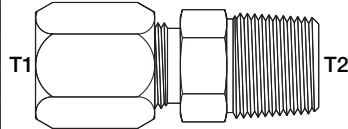
	Part Number	T1	T2
	C2403LH-04-04	1/4	1/4
C2403LH-06-06	3/8	3/8	
C2403LH-08-08	1/2	1/2	
C2403LH-12-12	3/4	3/4	
C2403LH-16-16	1	1	

 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



C2404

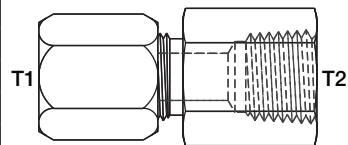
FLARELESS / M-NPT



Part Number	T1	T2
C2404-02-02	1/8	1/8 - 27
C2404-02-04	1/8	1/4 - 18
C2404-03-02	3/16	1/8 - 27
C2404-04-02	1/4	1/8 - 27
C2404-04-04	1/4	1/4 - 18
C2404-04-06	1/4	3/8 - 18
C2404-04-08	1/4	1/2 - 14
C2404-05-02	5/16	1/8 - 27
C2404-05-04	5/16	1/4 - 18
C2404-06-02	3/8	1/4 - 18
C2404-06-04	3/8	1/8 - 27
C2404-06-06	3/8	3/8 - 18
C2404-06-08	3/8	1/2 - 14
C2404-08-04	1/2	3/8 - 18
C2404-08-06	1/2	1/4 - 18
C2404-08-08	1/2	1/2 - 14
C2404-08-12	1/2	3/4 - 14
C2404-10-06	5/8	1/2 - 14
C2404-10-08	5/8	3/8 - 18
C2404-12-08	3/4	3/4 - 14
C2404-12-12	3/4	1/2 - 14
C2404-14-12	7/8	3/4 - 14
C2404-16-12	1	1 - 11 1/2
C2404-16-16	1	3/4 - 14
C2404-20-20	1 1/4	1 1/4 - 11 1/2
C2404-24-24	1 1/2	1 1/2 - 11 1/2
C2404-32-32	2	2 - 11 1/2

C2405

FLARELESS / F-NPT

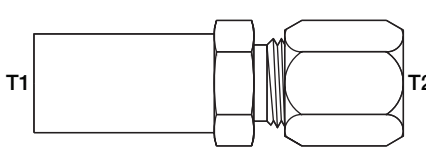


Part Number	T1	T2
C2405-02-02	1/8	1/8 - 27
C2405-04-02	1/4	1/8 - 27
C2405-04-04	1/4	1/4 - 18
C2405-05-02	5/16	1/8 - 27
C2405-06-04	3/8	1/4 - 18
C2405-06-06	3/8	3/8 - 18
C2405-08-06	1/2	3/8 - 18
C2405-08-04	1/2	1/4 - 18
C2405-08-08	1/2	1/2 - 14
C2405-10-08	5/8	1/2 - 14
C2405-12-12	3/4	3/4 - 14
C2405-14-14	7/8	3/4 - 14
C2405-16-16	1	1 - 11 1/2
C2405-20-20	1 1/4	1 1/4 - 11 1/2

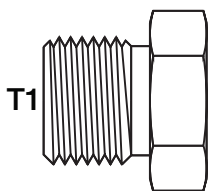


WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

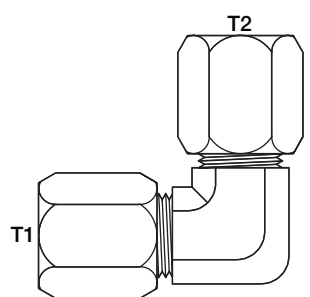
C2406 STANDPIPE / FLARELESS REDUCER


	Part Number	T1	T2
	C2406-06-04	$\frac{3}{8}$	$\frac{1}{4}$
	C2406-08-04	$\frac{1}{2}$	$\frac{1}{4}$
	C2406-08-06	$\frac{1}{2}$	$\frac{3}{8}$
	C2406-10-08	$\frac{5}{8}$	$\frac{1}{2}$
	C2406-12-08	$\frac{3}{4}$	$\frac{1}{2}$
	C2406-16-12	1	$\frac{3}{4}$
	C2406-20-16	$1\frac{1}{4}$	1

C2408 FLARELESS PLUG

	Part Number	T1
	C2408-02	$\frac{1}{8}$
	C2408-04	$\frac{1}{4}$
	C2408-05	$\frac{5}{16}$
	C2408-06	$\frac{3}{8}$
	C2408-08	$\frac{1}{2}$
	C2408-10	$\frac{5}{8}$
	C2408-12	$\frac{3}{4}$
C2408-16	1	

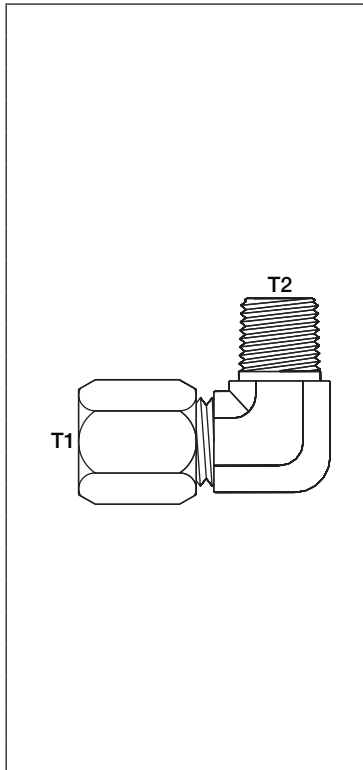
C2500 90° FLARELESS / FLARELESS

	Part Number	T1	T2
	C2500-03-03	$\frac{3}{16}$	$\frac{3}{16}$
	C2500-04-04	$\frac{1}{4}$	$\frac{1}{4}$
	C2500-05-05	$\frac{5}{16}$	$\frac{5}{16}$
	C2500-06-06	$\frac{3}{8}$	$\frac{3}{8}$
	C2500-08-08	$\frac{1}{2}$	$\frac{1}{2}$
	C2500-10-10	$\frac{5}{8}$	$\frac{5}{8}$
	C2500-12-12	$\frac{3}{4}$	$\frac{3}{4}$
	C2500-14-14	$\frac{7}{8}$	$\frac{7}{8}$
	C2500-16-16	1	1
	C2500-20-20	$1\frac{1}{4}$	$1\frac{1}{4}$
	C2500-24-24	$1\frac{1}{2}$	$1\frac{1}{2}$

 **WARNING** This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

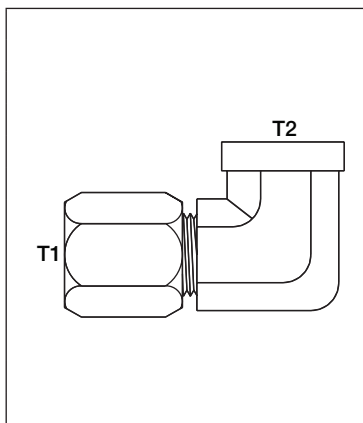


C2501 90° FLARELESS / M-NPT



Part Number	T1	T2
C2501-02-02	1/8	1/8 - 27
C2501-03-02	3/16	1/8 - 27
C2501-04-02	1/4	1/8 - 27
C2501-04-04	1/4	1/4 - 18
C2501-05-02	5/16	1/8 - 27
C2501-05-04	5/16	1/4 - 18
C2501-06-02	3/8	1/4 - 18
C2501-06-04	3/8	1/8 - 27
C2501-06-06	3/8	3/8 - 18
C2501-06-08	3/8	1/2 - 14
C2501-08-06	1/2	3/8 - 18
C2501-08-04	1/2	1/4 - 18
C2501-08-08	1/2	1/2 - 14
C2501-10-08	5/8	1/2 - 14
C2501-10-06	5/8	3/8 - 18
C2501-12-12	3/4	3/4 - 14
C2501-12-08	3/4	1/2 - 14
C2501-14-12	7/8	3/4 - 14
C2501-16-16	1	1 - 11 1/2
C2501-16-12	1	3/4 - 14
C2501-20-20	1 1/4	1 1/4 - 11 1/2
C2501-24-24	1 1/2	1 1/2 - 11 1/2
C2501-32-32	2	2 - 11 1/2

C2502 90° FLARELESS / F-NPT

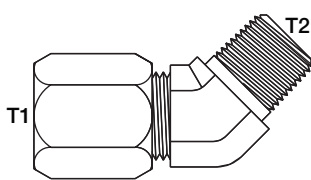


Part Number	T1	T2
C2502-04-02	1/4	1/8 - 27
C2502-04-04	1/4	1/4 - 18
C2502-05-02	5/16	1/8 - 27
C2502-06-04	3/8	1/4 - 18
C2502-06-06	3/8	3/8 - 18
C2502-08-04	1/2	1/4 - 18
C2502-08-06	1/2	3/8 - 18
C2502-08-08	1/2	1/2 - 14
C2502-10-08	5/8	1/2 - 14
C2502-12-12	3/4	3/4 - 14
C2502-14-14	7/8	3/4 - 14
C2502-16-16	1	1 - 11 1/2

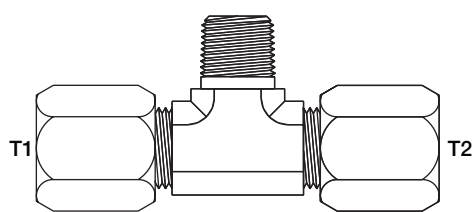


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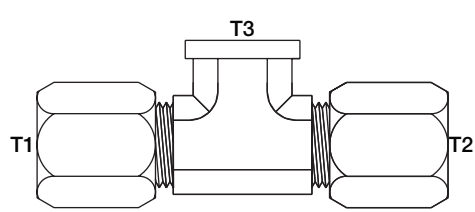
C2503 45° FLARELESS / M-NPT

	Part Number	T1	T2
	C2503-04-02	1/4	1/8 - 27
C2503-04-04	1/4	1/4 - 18	
C2503-05-02	5/16	1/8 - 27	
C2503-06-04	3/8	1/4 - 18	
C2503-08-06	1/2	3/8 - 18	
C2503-08-08	1/2	1/2 - 14	
C2503-10-08	5/8	1/2 - 14	
C2503-12-12	3/4	3/4 - 14	
C2503-16-16	1	1 - 11 1/2	

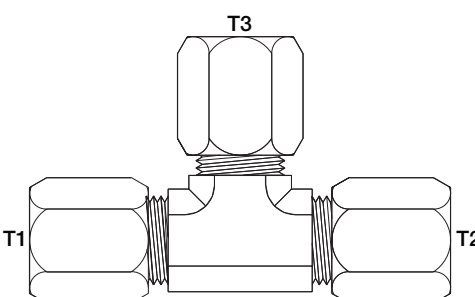
C2601 TEE FLARELESS / FLARELESS / M-NPT


	Part Number	T1	T2	T3
	C2601-04-04-02	1/4	1/4	1/8 - 27
C2601-04-04-04	1/4	1/4	1/4 - 18	
C2601-05-05-02	5/16	5/16	1/8 - 27	
C2601-06-06-04	3/8	3/8	1/4 - 18	
C2601-08-08-06	1/2	1/2	3/8 - 18	
C2601-08-08-08	1/2	1/2	1/2 - 14	
C2601-10-10-08	5/8	5/8	1/2 - 14	
C2601-12-12-12	3/4	3/4	3/4 - 14	
C2601-16-16-16	1	1	1 - 11 1/2	

C2602 TEE FLARELESS / FLARELESS / F-NPT

	Part Number	T1	T2	T3
	C2602-04-04-02	1/4	1/4	1/8 - 27
C2602-04-04-04	1/4	1/4	1/4 - 18	
C2602-06-06-04	3/8	3/8	1/4 - 18	
C2602-08-08-06	1/2	1/2	3/8 - 18	
C2602-08-08-08	1/2	1/2	3/4 - 16	
C2602-10-10-08	5/8	5/8	1/2 - 14	
C2602-12-12-12	3/4	3/4	3/4 - 14	
C2602-16-16-16	1	1	1 - 11 1/2	
C2602-20-20-20	1 1/4	1 1/4	1 1/4 - 11 1/2	

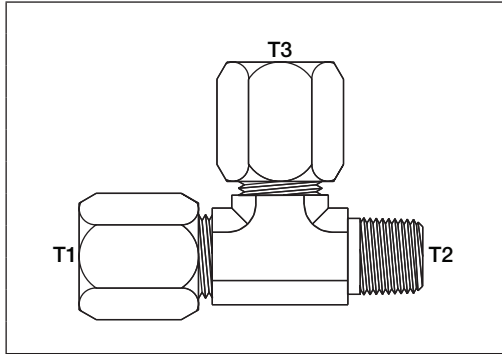
C2603 TEE FLARELESS

	Part Number	T1	T2	T3
	C2603-02-02-02	1/8	1/8	1/8
C2603-03-03-03	3/16	3/16	3/16	
C2603-04-04-04	1/4	1/4	1/4	
C2603-05-05-05	5/16	5/16	5/16	
C2603-06-06-06	3/8	3/8	3/8	
C2603-08-08-06	1/2	1/2	1/2	
C2603-08-08-08	1/2	1/2	3/8	
C2603-10-10-10	5/8	5/8	5/8	
C2603-12-12-12	3/4	3/4	3/4	
C2603-14-14-14	7/8	7/8	7/8	
C2603-16-16-16	1	1	1	
C2603-20-20-20	1 1/4	1 1/4	1 1/4	

 **WARNING** This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

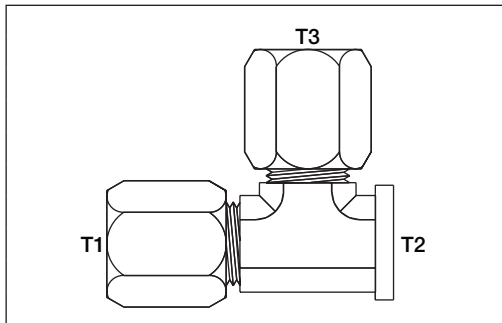


C2605 TEE FLARELESS / M-NPT / FLARELESS



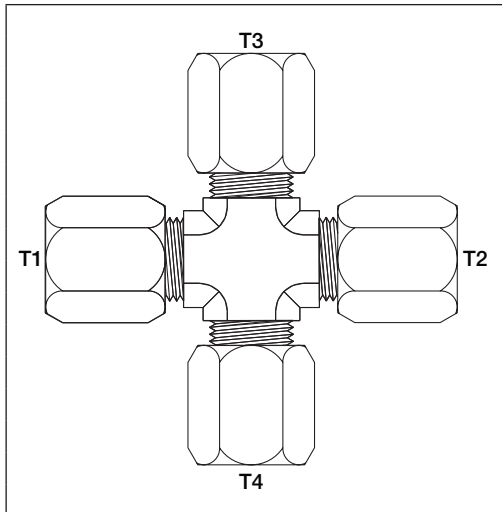
Part Number	T1	T2	T3
C2605-04-02-04	1/4	1/8 - 27	1/4
C2605-04-04-04	1/4	1/4 - 18	1/4
C2605-05-02-05	5/16	1/8 - 27	5/16
C2605-06-04-06	3/8	1/4 - 18	3/8
C2605-06-06-06	3/8	3/8 - 18	3/8
C2605-08-06-08	1/2	3/8 - 18	1/2
C2605-08-08-08	1/2	1/2 - 14	1/2
C2605-10-08-10	5/8	1/2 - 14	5/8
C2605-12-12-12	3/4	3/4 - 14	3/4
C2605-16-16-16	1	1 - 11 1/2	1

C2606 TEE FLARELESS / F-NPT / FLARELESS



Part Number	T1	T2	T3
C2606-04-02-04	1/4	1/8 - 27	1/4
C2606-04-04-04	1/4	1/4 - 18	1/4
C2606-06-04-06	3/8	1/4 - 18	3/8
C2606-08-06-08	1/2	3/8 - 18	1/2
C2606-10-08-10	5/8	1/2 - 14	5/8
C2606-12-12-12	3/4	3/4 - 14	3/4
C2606-14-12-14	7/8	3/4 - 14	7/8

C2650 CROSS FLARELESS

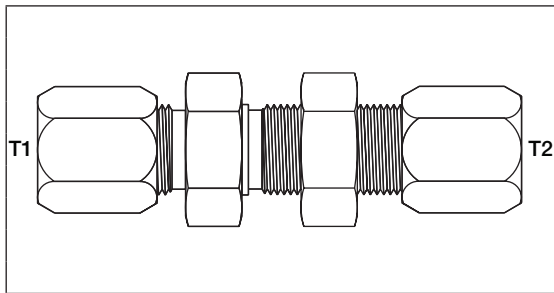


Part Number	T1	T2	T3	T4
C2650-04-04-04-04	1/4	1/4	1/4	1/4
C2650-06-06-06-06	3/8	3/8	3/8	3/8
C2650-08-08-08-08	1/2	1/2	1/2	1/2
C2650-10-10-10-10	5/8	5/8	5/8	5/8
C2650-12-12-12-12	3/4	3/4	3/4	3/4

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C2700

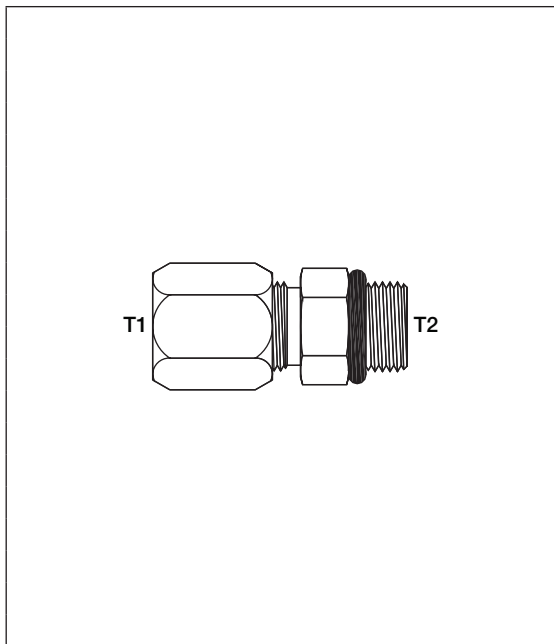
FLARELESS / FLARELESS BULKHEAD



Part Number	T1	T2
C2700-03-03	3/16	3/16
C2700-04-04	1/4	1/4
C2700-06-06	3/8	3/8
C2700-08-08	1/2	1/2
C2700-10-10	5/8	5/8
C2700-12-12	3/4	3/4
C2700-14-14	7/8	7/8
C2700-16-16	1	1

C6400

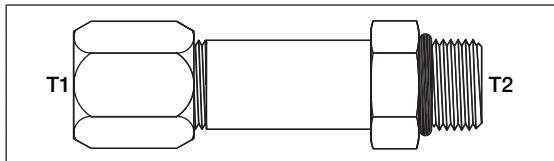
FLARELESS / M-ORB




Part Number	T1	T2
C6400-03-03	3/16	3/8 - 24
C6400-04-04	1/4	7/16 - 20
C6400-04-05	1/4	1/2 - 20
C6400-04-06	1/4	9/16 - 18
C6400-05-05	5/16	1/2 - 20
C6400-06-06	3/8	9/16 - 18
C6400-06-08	3/8	3/4 - 16
C6400-08-06	1/2	9/16 - 18
C6400-08-08	1/2	3/4 - 16
C6400-08-10	1/2	7/8 - 14
C6400-08-12	1/2	1 1/16 - 12
C6400-10-10	5/8	7/8 - 14
C6400-12-12	3/4	1 1/16 - 12
C6400-12-16	3/4	1 5/16 - 12
C6400-16-12	1	1 1/16 - 12
C6400-16-16	1	1 5/16 - 12
C6400-20-20	1 1/4	1 5/8 - 12
C6400-24-24	1 1/2	1 7/8 - 12
C6400-32-32	2	2 1/2 - 12

C6400L

FLARELESS / M-ORB LONG

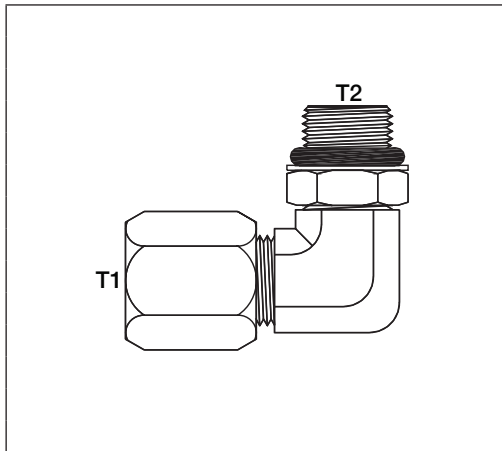


Part Number	T1	T2
C6400L-04-04	1/4	7/16 - 20
C6400L-06-06	3/8	9/16 - 18
C6400L-08-08	1/2	3/4 - 16
C6400L-10-10	5/8	7/8 - 14

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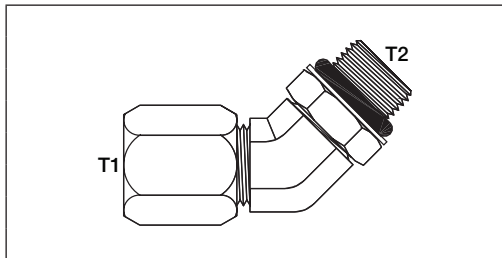


C6801 90° FLARELESS / M-ORB



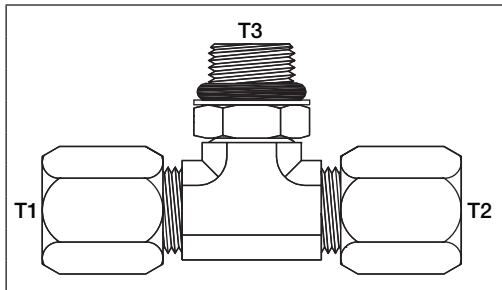
Part Number	T1	T2
C6801-04-04	1/4	7/16 - 20
C6801-05-05	5/16	1/2 - 20
C6801-06-06	3/8	9/16 - 18
C6801-06-08	3/8	3/4 - 16
C6801-08-06	1/2	9/16 - 18
C6801-08-08	1/2	3/4 - 16
C6801-08-10	1/2	7/8 - 14
C6801-08-12	1/2	1 1/16 - 12
C6801-10-10	5/8	7/8 - 14
C6801-12-08	3/4	3/4 - 16
C6801-12-12	3/4	1 1/16 - 12
C6801-16-16	1	1 5/16 - 12
C6801-20-20	1 1/4	1 5/8 - 12

C6802 45° FLARELESS / M-ORB



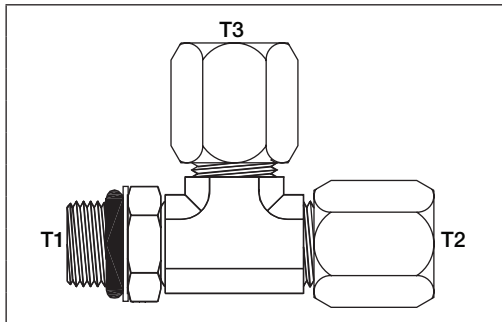
Part Number	T1	T2
C6802-08-08	1/2	3/4 - 16
C6802-12-12	3/4	1 1/16 - 12
C6802-16-16	1	1 5/16 - 12

C6803 TEE FLARELESS / FLARELESS / M-ORB



Part Number	T1	T2	T3
C6803-04-04-04	1/4	1/4	7/16 - 20
C6803-06-06-06	3/8	3/8	9/16 - 18
C6803-08-08-08	1/2	1/2	3/4 - 16

C6804 TEE M-ORB / FLARELESS / FLARELESS

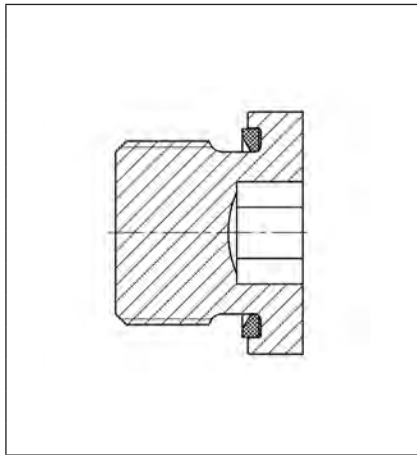


Part Number	T1	T2	T3
C6804-04	7/16 - 20	1/4	1/4
C6804-06	9/16 - 18	3/8	3/8
C6804-08	3/4 - 16	1/2	1/2

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IA-0PHG-WD

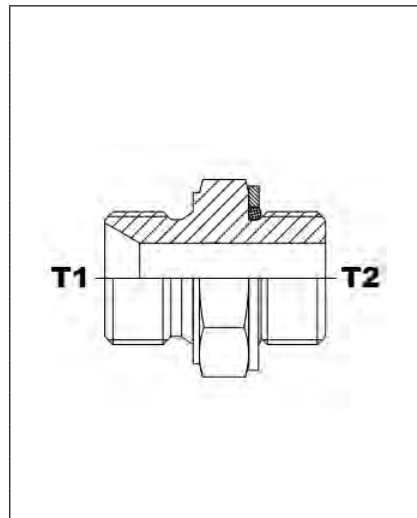
BSPP MALE PORT PLUG WITH CAPTIVE SEAL



PART NUMBER	T1
IA-0PHG-02-WD	1/8 - 28
IA-0PHG-04-WD	1/4 - 19
IA-0PHG-06-WD	3/8 - 19
IA-0PHG-08-WD	1/2 - 14
IA-0PHG-12-WD	3/4 - 14
IA-0PHG-16-WD	1 - 11
IA-0PHG-20-WD	1 1/4 - 11
IA-0PHG-24-WD	1 1/2 - 11

IA-10BG

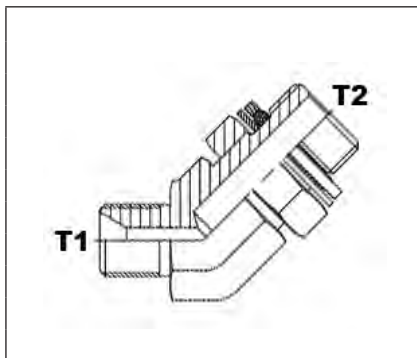
60° BSPP MALE x BSPP MALE PORT



PART NUMBER	T1	T2
IA-10BG-02-02	1/8 - 28	1/8 - 28
IA-10BG-04-04	1/4 - 19	1/4 - 19
IA-10BG-04-06	1/4 - 19	3/8 - 19
IA-10BG-06-04	3/8 - 19	1/4 - 19
IA-10BG-06-06	3/8 - 19	3/8 - 19
IA-10BG-08-08	1/2 - 14	1/2 - 14
IA-10BG-08-12	1/2 - 14	3/4 - 14
IA-10BG-10-08	5/8 - 14	1/2 - 14
IA-10BG-12-08	3/4 - 14	1/2 - 14
IA-10BG-12-12	3/4 - 14	3/4 - 14
IA-10BG-16-08	1 - 11	1/2 - 14
IA-10BG-16-12	1 - 11	3/4 - 14
IA-10BG-16-16	1 - 11	1 - 11
IA-10BG-20-20	1 1/4 - 11	1 1/4 - 11
IA-10BG-24-24	1 1/2 - 11	1 1/2 - 11

IA-14BG

60° BSPP MALE x 45° BSPP MALE ADJ.



PART NUMBER	T1	T2
IA-14BG-04-04	1/4 - 19	1/4 - 19
IA-14BG-04-06	1/4 - 19	3/8 - 19
IA-14BG-06-06	3/8 - 19	3/8 - 19
IA-14BG-06-08	3/8 - 19	1/2 - 14
IA-14BG-08-08	1/2 - 14	1/2 - 14
IA-14BG-12-12	3/4 - 14	3/4 - 14
IA-14BG-16-16	1 - 11	1 - 11
IA-14BG-20-20	1 1/4 - 11	1 1/4 - 11

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





IA-0CB BSPP FEMALE CAP 60° CONE SEAT

	PART NUMBER	T1
	IA-0CB-02	1/8 - 28
	IA-0CB-04	1/4 - 19
	IA-0CB-06	3/8 - 19
	IA-0CB-08	1/2 - 14
	IA-0CB-10	5/8 - 14
	IA-0CB-12	3/4 - 14
	IA-0CB-16	1 - 11
	IA-0CB-20	1 1/4 - 11
	IA-0CB-24	1 1/2 - 11
	IA-0CB-32	2 - 11

IA-0PB BSPP MALE PLUG 60° CONE SEAT

	PART NUMBER	T1
	IA-0PB-02	1/8 - 28
	IA-0PB-04	1/4 - 19
	IA-0PB-06	3/8 - 19
	IA-0PB-08	1/2 - 14
	IA-0PB-10	5/8 - 14
	IA-0PB-12	3/4 - 14
	IA-0PB-16	1 - 11
	IA-0PB-20	1 1/4 - 11
	IA-0PB-24	1 1/2 - 11
	IA-0PB-32	2 - 11
IA-0PB-40	2 1/2 - 11	

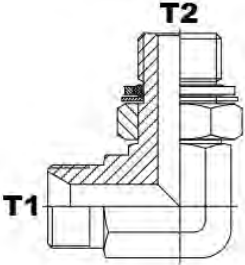
IA-0PB-WD BSPP MALE PLUG DUAL PURPOSE (CAPTIVE SEAL)

	PART NUMBER	T1
	IA-0PB-02-WD	1/8 - 28
	IA-0PB-04-WD	1/4 - 19
	IA-0PB-06-WD	3/8 - 19
	IA-0PB-08-WD	1/2 - 14
	IA-0PB-12-WD	3/4 - 14
	IA-0PB-16-WD	1 - 11
	IA-0PB-20-WD	1 1/4 - 11
	IA-0PB-24-WD	1 1/2 - 11

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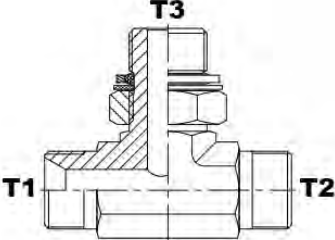
IA-19BG

60° BSPP MALE x 90° BSPP MALE ADJ.

	PART NUMBER	T1	T2
	IA-19BG-04-04	1/4 - 19	1/4 - 19
IA-19BG-04-06	1/4 - 19	3/8 - 19	
IA-19BG-06-04	3/8 - 19	1/4 - 19	
IA-19BG-06-06	3/8 - 19	3/8 - 19	
IA-19BG-06-08	3/8 - 19	1/2 - 14	
IA-19BG-08-06	1/2 - 14	3/8 - 19	
IA-19BG-08-08	1/2 - 14	1/2 - 14	
IA-19BG-08-12	1/2 - 14	3/4 - 14	
IA-19BG-12-08	3/4 - 14	1/2 - 14	
IA-19BG-12-12	3/4 - 14	3/4 - 14	
IA-19BG-12-16	3/4 - 14	1 - 11	
IA-19BG-16-16	1 - 11	1 - 11	
IA-19BG-20-20	1 1/4 - 11	1 1/4 - 11	
IA-19BG-24-24	1 1/2 - 11	1 1/2 - 11	

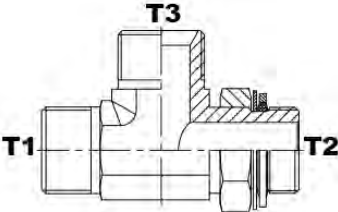
IA-ABBG


BSPP MALE 60° x BSPP MALE ADJ. BR. TEE

	PART NUMBER	T1	T2	T3
	IA-ABBG-04-04-04	1/4 - 19	1/4 - 19	1/4 - 19
IA-ABBG-06-06-04	3/8 - 19	3/8 - 19	3/8 - 19	
IA-ABBG-06-06-06	3/8 - 19	3/8 - 19	3/8 - 19	
IA-ABBG-08-08-06	1/2 - 14	1/2 - 14	3/8 - 19	
IA-ABBG-08-08-08	1/2 - 14	1/2 - 14	1/2 - 14	
IA-ABBG-12-12-12	3/4 - 14	3/4 - 14	3/4 - 14	
IA-ABBG-16-16-16	1 - 11	1 - 11	1 - 11	

IA-ABGB

60° BSPP MALE x BSPP MALE ADJ. RUN TEE

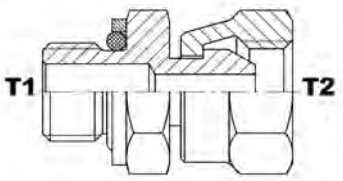
	PART NUMBER	T1	T2	T3
	IA-ABGB-04-04-04	1/4 - 19	1/4 - 19	1/4 - 19
IA-ABGB-06-06-06	3/8 - 19	3/8 - 19	3/8 - 19	
IA-ABGB-08-08-08	1/2 - 14	1/2 - 14	1/2 - 14	
IA-ABGB-12-12-12	3/4 - 14	3/4 - 14	3/4 - 14	
IA-ABGB-16-16-16	1 - 11	1 - 11	1 - 11	

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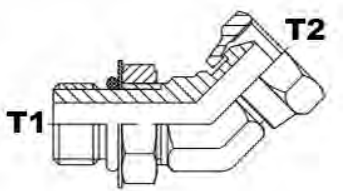
IA-20GB

BSPP MALE PORT x BSPP FEMALE SWIVEL

	PART NUMBER	T1	T2
	IA-20GB-02-02	1/8 - 28	1/8 - 28
IA-20GB-04-02	1/4 - 19	1/8 - 28	
IA-20GB-04-04	1/4 - 19	1/4 - 19	
IA-20GB-04-06	1/4 - 19	3/8 - 19	
IA-20GB-06-04	3/8 - 19	1/4 - 19	
IA-20GB-06-06	3/8 - 19	3/8 - 19	
IA-20GB-06-08	3/8 - 19	1/2 - 14	
IA-20GB-08-06	1/2 - 14	3/8 - 19	
IA-20GB-08-08	1/2 - 14	1/2 - 14	
IA-20GB-08-10	1/2 - 14	5/8 - 14	
IA-20GB-08-12	1/2 - 14	3/4 - 14	
IA-20GB-12-08	3/4 - 14	1/2 - 14	
IA-20GB-12-12	3/4 - 14	3/4 - 14	
IA-20GB-12-16	3/4 - 14	1 - 11	
IA-20GB-16-12	1 - 11	3/4 - 14	
IA-20GB-16-16	1 - 11	1 - 11	
IA-20GB-20-16	1 1/4 - 11	1 - 11	
IA-20GB-20-20	1 1/4 - 11	1 1/4 - 11	
IA-20GB-24-24	1 1/2 - 11	1 1/2 - 11	

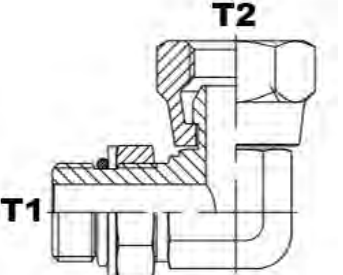
IA-24GB


45° BSPP MALE ADJ. x BSPP FEMALE SWIVEL

	PART NUMBER	T1	T2
	IA-24GB-04-04	1/4 - 19	1/4 - 19
IA-24GB-06-06	3/8 - 19	3/8 - 19	
IA-24GB-08-08	1/2 - 14	1/2 - 14	
IA-24GB-12-12	3/4 - 14	3/4 - 14	

IA-29GB

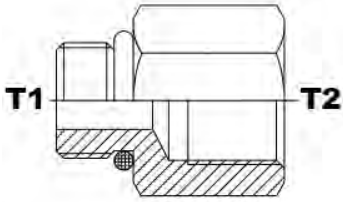
90° BSPP MALE ADJ. x BSPP FEMALE SWIVEL

	PART NUMBER	T1	T2
	IA-29GB-04-04	1/4 - 19	1/4 - 19
IA-29GB-06-06	3/8 - 19	3/8 - 19	
IA-29GB-08-08	1/2 - 14	1/2 - 14	
IA-29GB-12-12	3/4 - 14	3/4 - 14	

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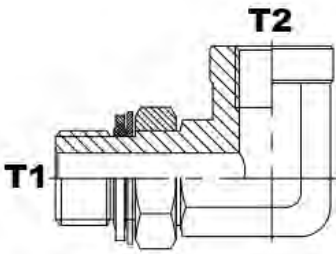
IA-50GB

BSPP PORT MALE x FEMALE RIGID

	PART NUMBER	T1	T2
	IA-50GB-04-04	1/4 - 19	1/4 - 19
IA-50GB-04-06	1/4 - 19	3/8 - 19	
IA-50GB-04-08	1/4 - 19	1/2 - 14	
IA-50GB-06-04	3/8 - 19	1/4 - 19	
IA-50GB-06-06	3/8 - 19	3/8 - 19	
IA-50GB-06-08	3/8 - 19	1/2 - 14	
IA-50GB-08-06	1/2 - 14	3/8 - 19	
IA-50GB-08-08	1/2 - 14	1/2 - 14	
IA-50GB-08-12	1/2 - 14	3/4 - 14	
IA-50GB-12-08	3/4 - 14	1/2 - 14	
IA-50GB-12-12	3/4 - 14	3/4 - 14	
IA-50GB-12-16	3/4 - 14	1 - 11	
IA-50GB-16-12	1 - 11	3/4 - 14	
IA-50GB-16-16	1 - 11	1 - 11	
IA-50GB-16-20	1 - 11	1 1/4 - 11	
IA-50GB-20-24	1 1/4 - 11	1 1/2 - 11	

IA-59GB

BSPP PORT ADJ. MALE x 90° FEMALE RIGID

	PART NUMBER	T1	T2
	IA-59GB-02-02	1/8 - 28	1/8 - 28
IA-59GB-04-04	1/4 - 19	1/4 - 19	
IA-59GB-04-06	1/4 - 19	3/8 - 19	
IA-59GB-06-06	3/8 - 19	3/8 - 19	
IA-59GB-06-08	3/8 - 19	1/2 - 14	
IA-59GB-08-08	1/2 - 14	1/2 - 14	
IA-59GB-12-08	3/4 - 14	1/2 - 14	
IA-59GB-12-12	3/4 - 14	3/4 - 14	
IA-59GB-12-16	3/4 - 14	1 - 11	
IA-59GB-16-16	1 - 11	1 - 11	
IA-59GB-20-20	1 1/4 - 11	1 1/4 - 11	

BSPP 60° • BSPP PORT • BSPT

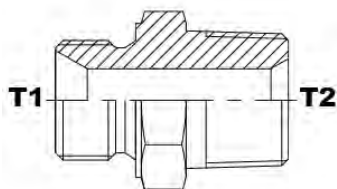


⚠ WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

IA-10BT

BSPP MALE x BSPT MALE

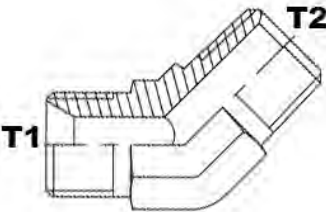
BSPP 60° • BSPP PORT • BSPT



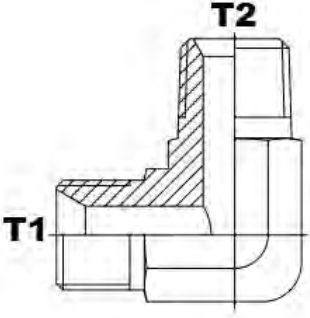
PART NUMBER	T1	T2
IA-10BT-02-02	1/8 - 28	1/8 - 28
IA-10BT-02-04	1/8 - 28	1/4 - 19
IA-10BT-02-06	1/8 - 28	3/8 - 19
IA-10BT-04-02	1/4 - 19	1/8 - 28
IA-10BT-04-04	1/4 - 19	1/4 - 19
IA-10BT-04-06	1/4 - 19	3/8 - 19
IA-10BT-04-08	1/4 - 19	1/2 - 14
IA-10BT-06-02	3/8 - 19	1/8 - 28
IA-10BT-06-04	3/8 - 19	1/4 - 19
IA-10BT-06-06	3/8 - 19	3/8 - 19
IA-10BT-06-08	3/8 - 19	1/2 - 14
IA-10BT-06-10	3/8 - 19	5/8 - 14
IA-10BT-06-12	3/8 - 19	3/4 - 14
IA-10BT-08-04	1/2 - 14	1/4 - 19
IA-10BT-08-06	1/2 - 14	3/8 - 19
IA-10BT-08-08	1/2 - 14	1/2 - 14
IA-10BT-08-10	1/2 - 14	5/8 - 14
IA-10BT-08-12	1/2 - 14	3/4 - 14
IA-10BT-08-16	1/2 - 14	1 - 11
IA-10BT-10-06	5/8 - 14	3/8 - 19
IA-10BT-10-08	5/8 - 14	1/2 - 14
IA-10BT-10-10	5/8 - 14	5/8 - 14
IA-10BT-10-12	5/8 - 14	3/4 - 14
IA-10BT-12-04	3/4 - 14	1/4 - 19
IA-10BT-12-06	3/4 - 14	3/8 - 19
IA-10BT-12-08	3/4 - 14	1/2 - 14
IA-10BT-12-12	3/4 - 14	3/4 - 14
IA-10BT-12-16	3/4 - 14	1 - 11
IA-10BT-12-20	3/4 - 14	1 1/4 - 11
IA-10BT-16-08	1 - 11	1/2 - 14
IA-10BT-16-12	1 - 11	3/4 - 14
IA-10BT-16-16	1 - 11	1 - 11
IA-10BT-16-20	1 - 11	1 1/4 - 11
IA-10BT-16-24	1 - 11	1 1/2 - 11
IA-10BT-16-32	1 - 11	2 - 11
IA-10BT-20-12	1 1/4 - 11	3/4 - 14
IA-10BT-20-16	1 1/4 - 11	1 - 11
IA-10BT-20-20	1 1/4 - 11	1 1/4 - 11
IA-10BT-20-24	1 1/4 - 11	1 1/2 - 11
IA-10BT-20-32	1 1/4 - 11	2 - 11
IA-10BT-24-16	1 1/2 - 11	1 - 11
IA-10BT-24-20	1 1/2 - 11	1 1/4 - 11
IA-10BT-24-24	1 1/2 - 11	1 1/2 - 11
IA-10BT-24-32	1 1/2 - 11	2 - 11
IA-10BT-32-24	2 - 11	1 1/2 - 11
IA-10BT-32-32	2 - 11	2 - 11
IA-10BT-40-40	2 1/2 - 11	2 1/2 - 11
IA-10BT-48-48	3 - 11	3 - 11

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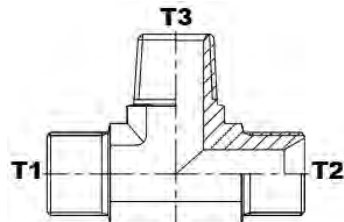
IA-14BT BSPP MALE x 45° BSPT MALE

	PART NUMBER	T1	T2
		IA-14BT-04-02	1/4 - 19
	IA-14BT-04-04	1/4 - 19	1/4 - 19
	IA-14BT-04-06	1/4 - 19	3/8 - 19
	IA-14BT-06-04	3/8 - 19	1/4 - 19
	IA-14BT-06-06	3/8 - 19	3/8 - 19
	IA-14BT-08-06	1/2 - 14	3/8 - 19
	IA-14BT-08-08	1/2 - 14	1/2 - 14
	IA-14BT-12-12	3/4 - 14	3/4 - 14
	IA-14BT-16-16	1 - 11	1 - 11

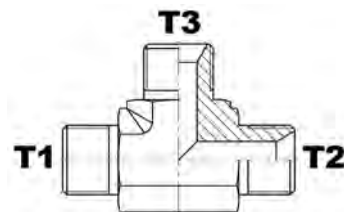
IA-19BT BSPP MALE x 90° BSPT MALE


	PART NUMBER	T1	T2
		IA-19BT-02-02	1/8 - 28
	IA-19BT-02-04	1/8 - 28	1/4 - 19
	IA-19BT-04-02	1/4 - 19	1/8 - 28
	IA-19BT-04-04	1/4 - 19	1/4 - 19
	IA-19BT-06-04	3/8 - 19	1/4 - 19
	IA-19BT-06-06	3/8 - 19	3/8 - 19
	IA-19BT-08-06	1/2 - 14	3/8 - 19
	IA-19BT-08-08	1/2 - 14	1/2 - 14
	IA-19BT-12-12	3/4 - 14	3/4 - 14
	IA-19BT-16-16	1 - 11	1 - 11

IA-ABBT BSPP MALE x BSPT MALE BR. TEE

	PART NUMBER	T1	T2	T3
		IA-ABBT-02-02-02	1/8 - 28	1/8 - 28
	IA-ABBT-04-04-04	1/4 - 19	1/4 - 19	1/4 - 19
	IA-ABBT-06-06-06	3/8 - 19	3/8 - 19	3/8 - 19
	IA-ABBT-08-08-08	1/2 - 14	1/2 - 14	1/2 - 14
	IA-ABBT-12-12-12	3/4 - 14	3/4 - 14	3/4 - 14
	IA-ABBT-16-16-16	1 - 11	1 - 11	1 - 11

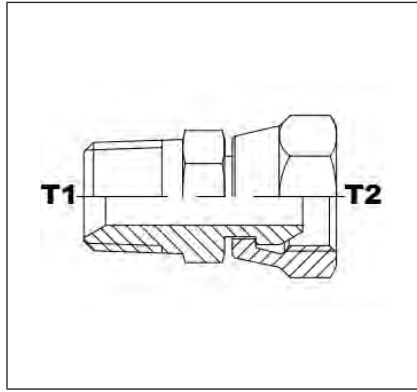
IA-ABTB BSPP MALE x BSPT MALE RUN TEE

	PART NUMBER	T1	T2	T3
		IA-ABTB-02-02-02	1/8 - 28	1/8 - 28
	IA-ABTB-04-04-04	1/4 - 19	1/4 - 19	1/4 - 19
	IA-ABTB-06-06-06	3/8 - 19	3/8 - 19	3/8 - 19
	IA-ABTB-08-08-08	1/2 - 14	1/2 - 14	1/2 - 14
	IA-ABTB-12-12-12	3/4 - 14	3/4 - 14	3/4 - 14
	IA-ABTB-16-16-16	1 - 11	1 - 11	1 - 11

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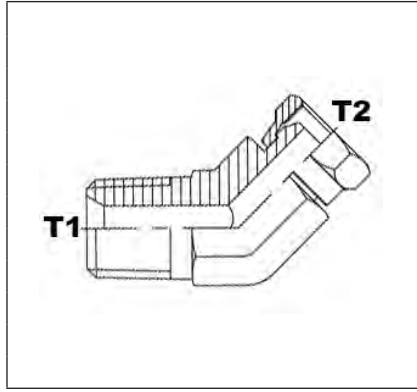


IA-20TB BSPT MALE x BSPP FEMALE SWIVEL



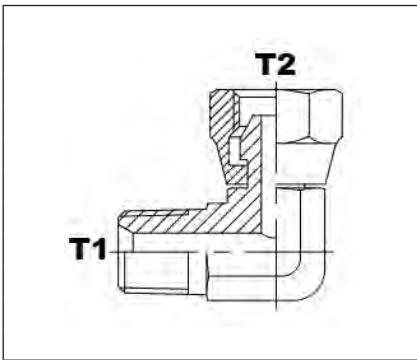
PART NUMBER	T1	T2
IA-20TB-02-02	1/8 - 28	1/8 - 28
IA-20TB-04-04	1/4 - 19	1/4 - 19
IA-20TB-06-06	3/8 - 19	3/8 - 19
IA-20TB-08-08	1/2 - 14	1/2 - 14
IA-20TB-12-12	3/4 - 14	3/4 - 14
IA-20TB-16-12	1 - 11	3/4 - 14
IA-20TB-16-16	1 - 11	1 - 11

IA-24TB BSPT MALE x 45° BSPP FEMALE SWIVEL



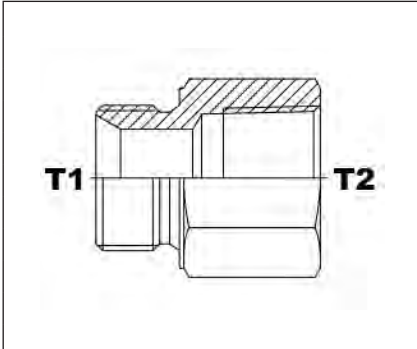
PART NUMBER	T1	T2
IA-24TB-02-02	1/8 - 28	1/8 - 28
IA-24TB-04-04	1/4 - 19	1/4 - 19
IA-24TB-06-06	3/8 - 19	3/8 - 19
IA-24TB-08-08	1/2 - 14	1/2 - 14
IA-24TB-12-12	3/4 - 14	3/4 - 14
IA-24TB-16-16	1 - 11	1 - 11

IA-29TB 90° BSPT MALE x BSPP FEMALE SWIVEL



PART NUMBER	T1	T2
IA-29TB-02-02	1/8 - 28	1/8 - 28
IA-29TB-04-04	1/4 - 19	1/4 - 19
IA-29TB-06-06	3/8 - 19	3/8 - 19
IA-29TB-08-08	1/2 - 14	1/2 - 14
IA-29TB-12-12	3/4 - 14	3/4 - 14
IA-29TB-16-16	1 - 11	1 - 11

IA-50BT 60° BSPP MALE x BSPT FEMALE RIGID

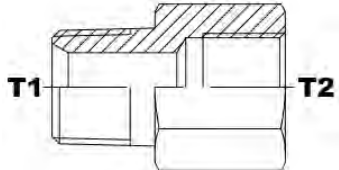


PART NUMBER	T1	T2
IA-50BT-04-02	1/4 - 19	1/8 - 28
IA-50BT-04-04	1/4 - 19	1/4 - 19
IA-50BT-06-04	3/8 - 19	1/4 - 19
IA-50BT-06-06	3/8 - 19	3/8 - 19
IA-50BT-08-08	1/2 - 14	1/2 - 14
IA-50BT-12-12	3/4 - 14	3/4 - 14

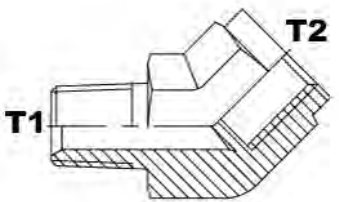
⚠ WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



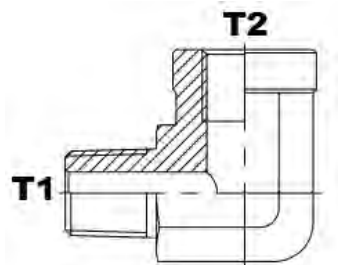
IA-50TB BSPT MALE x BSPP FEMALE RIGID


	PART NUMBER	T1	T2
			IA-50TB-02-04
	IA-50TB-04-04	1/4 - 19	1/4 - 19
	IA-50TB-04-06	1/4 - 19	3/8 - 19
	IA-50TB-06-02	3/8 - 19	1/8 - 28
	IA-50TB-06-04	3/8 - 19	1/4 - 19
	IA-50TB-06-06	3/8 - 19	3/8 - 19
	IA-50TB-06-08	3/8 - 19	1/2 - 14
	IA-50TB-08-04	1/2 - 14	1/4 - 19
	IA-50TB-08-08	1/2 - 14	1/2 - 14
	IA-50TB-08-12	1/2 - 14	3/4 - 14
	IA-50TB-12-06	3/4 - 14	3/8 - 19
	IA-50TB-12-12	3/4 - 14	3/4 - 14
	IA-50TB-12-16	3/4 - 14	1 - 11
	IA-50TB-16-08	1 - 11	1/2 - 14
	IA-50TB-16-12	1 - 11	3/4 - 14
	IA-50TB-16-16	1 - 11	1 - 11

IA-54TB BSPT MALE x 45° BSPP FEMALE RIGID

	PART NUMBER	T1	T2
			IA-54TB-02-02
	IA-54TB-04-04	1/4 - 19	1/4 - 19
	IA-54TB-06-06	3/8 - 19	3/8 - 19
	IA-54TB-08-08	1/2 - 14	1/2 - 14
	IA-54TB-12-12	3/4 - 14	3/4 - 14
	IA-54TB-16-16	1 - 11	1 - 11

IA-59TB BSPT MALE x 90° BSPP FEMALE RIGID

	PART NUMBER	T1	T2
			IA-59TB-02-02
	IA-59TB-04-04	1/4 - 19	1/4 - 19
	IA-59TB-06-06	3/8 - 19	3/8 - 19
	IA-59TB-08-08	1/2 - 14	1/2 - 14
	IA-59TB-12-12	3/4 - 14	3/4 - 14
	IA-59TB-16-16	1 - 11	1 - 11

 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



IA-0PT BSPT MALE PLUG

	PART NUMBER	T1
	IA-0PT-02	1/8 - 28
	IA-0PT-04	1/4 - 19
	IA-0PT-06	3/8 - 19
	IA-0PT-08	1/2 - 14
	IA-0PT-10	5/8 - 14
	IA-0PT-12	3/4 - 14
	IA-0PT-16	1 - 11
	IA-0PT-20	1 1/4 - 11
	IA-0PT-24	1 1/2 - 11
	IA-0PT-32	2 - 11

IA-0PHT BSPT MALE PLUG ALLEN-TYPE

	PART NUMBER	T1
	IA-0PHT-02	1/8 - 28
	IA-0PHT-04	1/4 - 19
	IA-0PHT-06	3/8 - 19
	IA-0PHT-08	1/2 - 14
	IA-0PHT-12	3/4 - 14
	IA-0PHT-16	1 - 11
IA-0PHT-20	1 1/4 - 11	

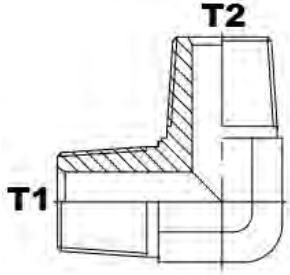
IA-10TT BSPT MALE NIPPLE

	PART NUMBER	T1	T2
	IA-10TT-02-02	1/8 - 28	1/8 - 28
	IA-10TT-04-02	1/4 - 19	1/8 - 28
	IA-10TT-04-04	1/4 - 19	1/4 - 19
	IA-10TT-06-02	3/8 - 19	1/8 - 28
	IA-10TT-06-04	3/8 - 19	1/4 - 19
	IA-10TT-06-06	3/8 - 19	3/8 - 19
	IA-10TT-08-04	1/2 - 14	1/4 - 19
	IA-10TT-08-06	1/2 - 14	3/8 - 19
	IA-10TT-08-08	1/2 - 14	1/2 - 14
	IA-10TT-10-10	5/8 - 14	5/8 - 14
	IA-10TT-12-08	3/4 - 14	1/2 - 14
	IA-10TT-12-12	3/4 - 14	3/4 - 14
	IA-10TT-16-08	1 - 11	1/2 - 14
	IA-10TT-16-12	1 - 11	3/4 - 14
	IA-10TT-16-16	1 - 11	1 - 11
	IA-10TT-20-16	1 1/4 - 11	1 - 11
	IA-10TT-20-20	1 1/4 - 11	1 1/4 - 11
	IA-10TT-24-24	1 1/2 - 11	1 1/2 - 11
	IA-10TT-32-32	2 - 11	2 - 11
	IA-10TT-40-40	2 1/2 - 11	2 1/2 - 11

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

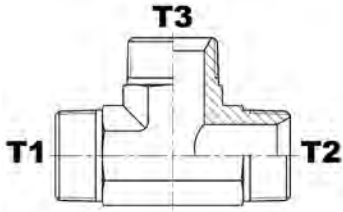
IA-19TT

90° BSPT MALE UNION

	PART NUMBER	T1	T2
	IA-19TT-02-02	1/8 - 28	1/8 - 28
IA-19TT-04-02	1/4 - 19	1/8 - 28	
IA-19TT-04-04	1/4 - 19	1/4 - 19	
IA-19TT-06-02	3/8 - 19	1/8 - 28	
IA-19TT-06-04	3/8 - 19	1/4 - 19	
IA-19TT-06-06	3/8 - 19	3/8 - 19	
IA-19TT-08-02	1/2 - 14	1/8 - 28	
IA-19TT-08-04	1/2 - 14	1/4 - 19	
IA-19TT-08-06	1/2 - 14	3/8 - 19	
IA-19TT-08-08	1/2 - 14	1/2 - 14	
IA-19TT-12-08	3/4 - 14	1/2 - 14	
IA-19TT-12-12	3/4 - 14	3/4 - 14	
IA-19TT-16-12	1 - 11	3/4 - 14	
IA-19TT-16-16	1 - 11	1 - 11	
IA-19TT-20-16	1 1/4 - 11	1 - 11	
IA-19TT-20-20	1 1/4 - 11	1 1/4 - 11	
IA-19TT-24-24	1 1/2 - 11	1 1/2 - 11	
IA-19TT-32-32	2 - 11	2 - 11	

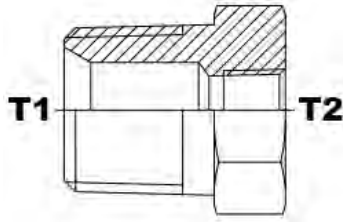
IA-ATTT


BSPT MALE TEE

	PART NUMBER	T1	T2	T3
	IA-ATTT-02-02-02	1/8 - 28	1/8 - 28	1/8 - 28
IA-ATTT-04-04-04	1/4 - 19	1/4 - 19	1/4 - 19	
IA-ATTT-06-06-06	3/8 - 19	3/8 - 19	3/8 - 19	
IA-ATTT-08-08-08	1/2 - 14	1/2 - 14	1/2 - 14	
IA-ATTT-12-12-12	3/4 - 14	3/4 - 14	3/4 - 14	
IA-ATTT-16-16-16	1 - 11	1 - 11	1 - 11	
IA-ATTT-20-20-20	1 1/4 - 11	1 1/4 - 11	1 1/4 - 11	
IA-ATTT-24-24-24	1 1/2 - 11	1 1/2 - 11	1 1/2 - 11	
IA-ATTT-32-32-32	2 - 11	2 - 11	2 - 11	

IA-50TT

BSPT MALE x FEMALE RIGID

	PART NUMBER	T1	T2
	IA-50TT-02-04	1/8 - 28	1/4 - 19
IA-50TT-04-02	1/4 - 19	1/8 - 28	
IA-50TT-04-04	1/4 - 19	1/4 - 19	
IA-50TT-06-02	3/8 - 19	1/8 - 28	
IA-50TT-06-04	3/8 - 19	1/4 - 19	
IA-50TT-06-06	3/8 - 19	3/8 - 19	
IA-50TT-08-04	1/2 - 14	1/4 - 19	
IA-50TT-08-06	1/2 - 14	3/8 - 19	
IA-50TT-08-08	1/2 - 14	1/2 - 14	
IA-50TT-12-06	3/4 - 14	3/8 - 19	
IA-50TT-12-08	3/4 - 14	1/2 - 14	
IA-50TT-12-12	3/4 - 14	3/4 - 14	
IA-50TT-16-08	1 - 11	1/2 - 14	
IA-50TT-16-12	1 - 11	3/4 - 14	
IA-50TT-16-16	1 - 11	1 - 11	

 **WARNING** This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





IA-59TT BSPT MALE x 90° FEMALE RIGID

	PART NUMBER	T1	T2
	IA-59TT-02-02	1/8 - 28	1/8 - 28
	IA-59TT-04-04	1/4 - 19	1/4 - 19
	IA-59TT-06-06	3/8 - 19	3/8 - 19
	IA-59TT-08-08	1/2 - 14	1/2 - 14
	IA-59TT-12-12	3/4 - 14	3/4 - 14
	IA-59TT-16-16	1 - 11	1 - 11
	IA-59TT-20-20	1 1/4 - 11	1 1/4 - 11
	IA-59TT-24-24	1 1/2 - 11	1 1/2 - 11

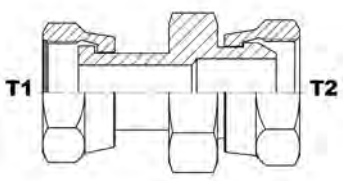
IA-70TT BSPT FEMALE COUPLING

	PART NUMBER	T1	T2
	IA-70TT-02-02	1/8 - 28	1/8 - 28
	IA-70TT-04-02	1/4 - 19	1/8 - 28
	IA-70TT-04-04	1/4 - 19	1/4 - 19
	IA-70TT-06-04	3/8 - 19	1/4 - 19
	IA-70TT-06-06	3/8 - 19	3/8 - 19
	IA-70TT-08-06	1/2 - 14	3/8 - 19
	IA-70TT-08-08	1/2 - 14	1/2 - 14
	IA-70TT-12-12	3/4 - 14	3/4 - 14
	IA-70TT-16-16	1 - 11	1 - 11
	IA-70TT-20-16	1 1/4 - 11	1 - 11
	IA-70TT-20-20	1 1/4 - 11	1 1/4 - 11
	IA-70TT-24-24	1 1/2 - 11	1 1/2 - 11
	IA-70TT-32-32	2 - 11	2 - 11

⚠ WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

IA-30FB

ORFS x BSPP FEMALE SWIVEL UNION

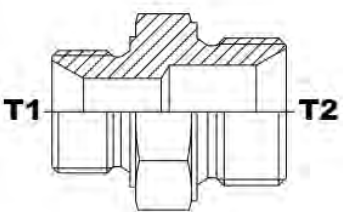
	PART NUMBER	T1	T2
		IA-30FB-04-04	9/16 - 18
	IA-30FB-06-06	11/16 - 16	3/8 - 19
	IA-30FB-08-08	13/16 - 16	1/2 - 14
	IA-30FB-10-12	1 - 14	3/4 - 14
	IA-30FB-12-12	1 3/16 - 12	3/4 - 14
	IA-30FB-16-16	1 7/16 - 12	1 - 11

*All "B" Male Threads have 60° Seat.

*All "G" Threads come with O-Ring / Washer combination for external port sealing.

IA-10BM

60° BSPP MALE x METRIC MALE

	PART NUMBER	T1	T2
		IA-10BM-02-10	1/8 - 28
	IA-10BM-02-12	1/8 - 28	12 X 1.5
	IA-10BM-02-14	1/8 - 28	14 X 1.5
	IA-10BM-04-10	1/4 - 19	10 X 1.0
	IA-10BM-04-10A	1/4 - 19	10 X 1.25
	IA-10BM-04-12	1/4 - 19	12 X 1.5
	IA-10BM-04-12A	1/4 - 19	12 X 1.0
	IA-10BM-04-12B	1/4 - 19	12 X 1.25
	IA-10BM-04-14	1/4 - 19	14 X 1.5
	IA-10BM-04-16	1/4 - 19	16 X 1.5
	IA-10BM-04-18	1/4 - 19	18 X 1.5
	IA-10BM-06-12	3/8 - 19	12 X 1.5
	IA-10BM-06-14	3/8 - 19	14 X 1.5
	IA-10BM-06-16	3/8 - 19	16 X 1.5
	IA-10BM-06-18	3/8 - 19	18 X 1.5
	IA-10BM-06-20	3/8 - 19	20 X 1.5
	IA-10BM-06-22	3/8 - 19	22 X 1.5
	IA-10BM-08-12	1/2 - 14	12 X 1.5
	IA-10BM-08-14	1/2 - 14	14 X 1.5
	IA-10BM-08-16	1/2 - 14	16 X 1.5
	IA-10BM-08-18	1/2 - 14	18 X 1.5
	IA-10BM-08-20	1/2 - 14	20 X 1.5
	IA-10BM-08-22	1/2 - 14	22 X 1.5
	IA-10BM-08-24	1/2 - 14	24 X 1.5
	IA-10BM-08-26	1/2 - 14	26 X 1.5
	IA-10BM-10-22	5/8 - 14	22 X 1.5
	IA-10BM-10-26	5/8 - 14	26 X 1.5
	IA-10BM-12-18	3/4 - 14	18 X 1.5
	IA-10BM-12-20	3/4 - 14	20 X 1.5
	IA-10BM-12-22	3/4 - 14	22 X 1.5
	IA-10BM-12-24	3/4 - 14	24 X 1.5
	IA-10BM-12-26	3/4 - 14	26 X 1.5
	IA-10BM-12-30	3/4 - 14	30 X 2.0
	IA-10BM-12-30D	3/4 - 14	30 X 1.5
	IA-10BM-16-26	1 - 11	26 X 1.5
	IA-10BM-16-30D	1 - 11	30 X 1.5
	IA-10BM-16-33	1 - 11	33 X 2.0
	IA-10BM-16-38	1 - 11	38 X 2.0
	IA-10BM-20-38	1 1/4 - 11	38 X 2.0

*All "B" Male Threads have 60° Seat.

*All "G" Threads come with O-Ring / Washer combination for external port sealing.



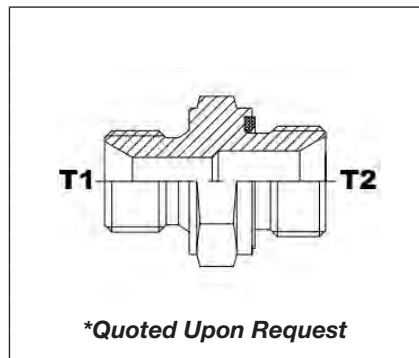
WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





IA-10BM-WD

60° BSPP MALE x METRIC (CAPTIVE SEAL)



*Quoted Upon Request

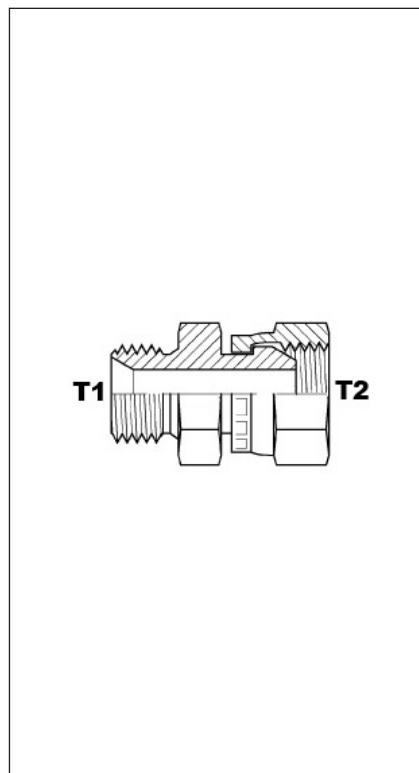
PART NUMBER	T1	T2

*All "B" Male Threads have 60° Seat.

*All "G" Threads come with O-Ring / Washer combination for external port sealing.

IA-20MB

METRIC MALE x BSPP FEMALE SWIVEL



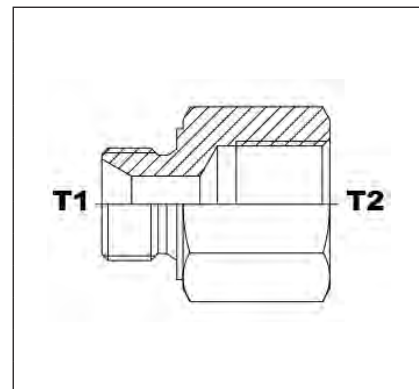
PART NUMBER	T1	T2
IA-20MB-12-04	12 X 1.5	1/4 - 19
IA-20MB-14-04	14 X 1.5	1/4 - 19
IA-20MB-14-06	14 X 1.5	3/8 - 19
IA-20MB-14-08	14 X 1.5	1/2 - 14
IA-20MB-16-04	16 X 1.5	1/4 - 19
IA-20MB-16-06	16 X 1.5	3/8 - 19
IA-20MB-16-08	16 X 1.5	1/2 - 14
IA-20MB-16-12	16 X 1.5	3/4 - 14
IA-20MB-18-06	18 X 1.5	3/8 - 19
IA-20MB-18-08	18 X 1.5	1/2 - 14
IA-20MB-20-06	20 X 1.5	3/8 - 19
IA-20MB-20-08	20 X 1.5	1/2 - 14
IA-20MB-20-12	20 X 1.5	3/4 - 14
IA-20MB-22-06	22 X 1.5	3/8 - 19
IA-20MB-22-08	22 X 1.5	1/2 - 14
IA-20MB-22-12	22 X 1.5	3/4 - 14
IA-20MB-26-06	26 X 1.5	3/8 - 19
IA-20MB-26-08	26 X 1.5	1/2 - 14
IA-20MB-26-12	26 X 1.5	3/4 - 14
IA-20MB-30-06	30 X 2.0	3/8 - 19
IA-20MB-30-08	30 X 2.0	1/2 - 14
IA-20MB-30D-06	30 X 1.5	3/8 - 19
IA-20MB-30D-08	30 X 1.5	1/2 - 14

*All "B" Male Threads have 60° Seat.

*All "G" Threads come with O-Ring / Washer combination for external port sealing.

IA-50BM

BSPP MALE x METRIC FEMALE



PART NUMBER	T1	T2
IA-50BM-06-14	3/8 - 19	14 X 1.5
IA-50BM-06-18	3/8 - 19	18 X 1.5
IA-50BM-08-18	1/2 - 14	18 X 1.5
IA-50BM-08-22	1/2 - 14	22 X 1.5

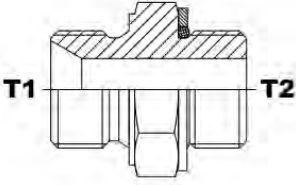
*All "B" Male Threads have 60° Seat.

*All "G" Threads come with O-Ring / Washer combination for external port sealing.

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

IA-10BH

60° BSPP MALE x METRIC PORT MALE

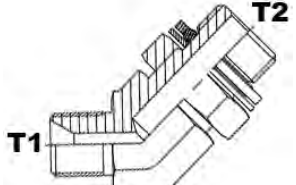
	PART NUMBER	T1	T2
	IA-10BH-02-10	1/8 - 28	10 X 1.0
IA-10BH-02-12	1/8 - 28	12 X 1.5	
IA-10BH-04-12	1/4 - 19	12 X 1.5	
IA-10BH-04-14	1/4 - 19	14 X 1.5	
IA-10BH-04-16	1/4 - 19	16 X 1.5	
IA-10BH-06-14	3/8 - 19	14 X 1.5	
IA-10BH-06-16	3/8 - 19	16 X 1.5	
IA-10BH-06-18	3/8 - 19	18 X 1.5	
IA-10BH-08-18	1/2 - 14	18 X 1.5	
IA-10BH-08-20	1/2 - 14	20 X 1.5	
IA-10BH-08-22	1/2 - 14	22 X 1.5	
IA-10BH-10-22	5/8 - 14	22 X 1.5	
IA-10BH-12-16	3/4 - 14	16 X 1.5	
IA-10BH-12-22	3/4 - 14	22 X 1.5	
IA-10BH-12-27	3/4 - 14	27 X 2.0	
IA-10BH-16-27	1 - 11	27 X 2.0	
IA-10BH-16-33	1 - 11	33 X 2.0	
IA-10BH-20-42	1 1/4 - 11	42 X 2.0	
IA-10BH-24-48	1 1/2 - 11	48 X 2.0	

*All "B" Male Threads have 60° Seat.

*All "G" Threads come with O-Ring / Washer combination for external port sealing.

IA-14BH


60° BSPP MALE x 45° METRIC PORT ADJ. MALE

	PART NUMBER	T1	T2
	IA-14BH-02-10	1/8 - 28	10 X 1.0
IA-14BH-02-12	1/8 - 28	12 X 1.5	
IA-14BH-04-12	1/4 - 19	12 X 1.5	
IA-14BH-04-14	1/4 - 19	14 X 1.5	
IA-14BH-04-16	1/4 - 19	16 X 1.5	
IA-14BH-06-14	3/8 - 19	14 X 1.5	
IA-14BH-06-16	3/8 - 19	16 X 1.5	
IA-14BH-06-18	3/8 - 19	18 X 1.5	
IA-14BH-08-18	1/2 - 14	18 X 1.5	
IA-14BH-08-20	1/2 - 14	20 X 1.5	
IA-14BH-08-22	1/2 - 14	22 X 1.5	
IA-14BH-10-22	5/8 - 14	22 X 1.5	
IA-14BH-12-22	3/4 - 14	22 X 1.5	
IA-14BH-12-27	3/4 - 14	27 X 2.0	
IA-14BH-16-27	1 - 11	27 X 2.0	
IA-14BH-16-33	1 - 11	33 X 2.0	
IA-14BH-20-42	1 1/4 - 11	42 X 2.0	
IA-14BH-24-48	1 1/2 - 11	48 X 2.0	

*All "B" Male Threads have 60° Seat.

*All "G" Threads come with O-Ring / Washer combination for external port sealing.



 **WARNING** This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

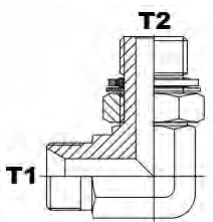
IA-19BH

BSPP MALE x 90° METRIC PORT ADJ. MALE

BSPP, BSPP PORT & BSPT CONVERSION



PART NUMBER	T1	T2
	IA-19BH-02-10	1/8 - 28
IA-19BH-02-12	1/8 - 28	12 X 1.5
IA-19BH-04-12	1/4 - 19	12 X 1.5
IA-19BH-04-14	1/4 - 19	14 X 1.5
IA-19BH-04-16	1/4 - 19	16 X 1.5
IA-19BH-06-14	3/8 - 19	14 X 1.5
IA-19BH-06-16	3/8 - 19	16 X 1.5
IA-19BH-06-18	3/8 - 19	18 X 1.5
IA-19BH-08-18	1/2 - 14	18 X 1.5
IA-19BH-08-20	1/2 - 14	20 X 1.5
IA-19BH-08-22	1/2 - 14	22 X 1.5
IA-19BH-10-20	5/8 - 14	20 X 1.5
IA-19BH-10-22	5/8 - 14	22 X 1.5
IA-19BH-12-22	3/4 - 14	22 X 1.5
IA-19BH-12-26	3/4 - 14	26 X 1.5
IA-19BH-12-27	3/4 - 14	27 X 2.0
IA-19BH-16-27	1 - 11	27 X 2.0
IA-19BH-16-33	1 - 11	33 X 2.0
IA-19BH-20-42	1 1/4 - 11	42 X 2.0
IA-19BH-24-48	1 1/2 - 11	48 X 2.0

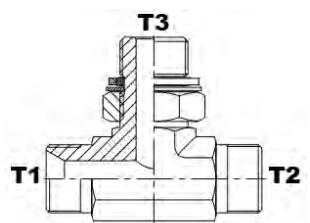


*All "B" Male Threads have 60° Seat.

*All "G" Threads come with O-Ring / Washer combination for external port sealing.

IA-ABBH BSPP MALE x METRIC PORT ADJ. MALE BR TEE

PART NUMBER	T1	T2	T3
IA-ABBH-02-02-10	1/8 - 28	1/8 - 28	10 X 1.0
IA-ABBH-02-02-12	1/8 - 28	1/8 - 28	12 X 1.5
IA-ABBH-04-04-12	1/4 - 19	1/4 - 19	12 X 1.5
IA-ABBH-04-04-14	1/4 - 19	1/4 - 19	14 X 1.5
IA-ABBH-04-04-16	1/4 - 19	1/4 - 19	16 X 1.5
IA-ABBH-06-06-14	3/8 - 19	3/8 - 19	14 X 1.5
IA-ABBH-06-06-16	3/8 - 19	3/8 - 19	16 X 1.5
IA-ABBH-06-06-18	3/8 - 19	3/8 - 19	18 X 1.5
IA-ABBH-08-08-18	1/2 - 14	1/2 - 14	18 X 1.5
IA-ABBH-08-08-20	1/2 - 14	1/2 - 14	20 X 1.5
IA-ABBH-08-08-22	1/2 - 14	1/2 - 14	22 X 1.5
IA-ABBH-10-10-22	5/8 - 14	5/8 - 14	22 X 1.5
IA-ABBH-12-12-27	3/4 - 14	3/4 - 14	27 X 2.0
IA-ABBH-16-16-33	1 - 11	1 - 11	33 X 2.0
IA-ABBH-20-20-42	1 1/4 - 11	1 1/4 - 11	42 X 2.0
IA-ABBH-24-24-48	1 1/2 - 11	1 1/2 - 11	48 X 2.0

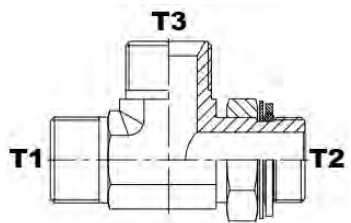


*All "B" Male Threads have 60° Seat.

*All "G" Threads come with O-Ring / Washer combination for external port sealing.

IA-ABHB BSPP MALE x METRIC PORT ADJ. MALE RUN TEE

PART NUMBER	T1	T2	T3
IA-ABHB-02-10-02	1/8 - 28	10 X 1.0	1/8 - 28
IA-ABHB-06-16-06	3/8 - 19	16 X 1.5	3/8 - 19
IA-ABHB-12-27-12	3/4 - 14	27 X 2.0	3/4 - 14



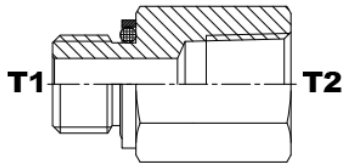
*All "B" Male Threads have 60° Seat.

*All "G" Threads come with O-Ring / Washer combination for external port sealing.

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

IA-50GN

BSPP MALE PORT x NPT FEMALE RIGID



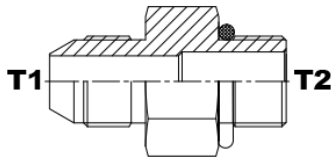
PART NUMBER	T1	T2
IA-50GN-02-02	1/8 - 28	1/8 - 27
IA-50GN-02-04	1/8 - 28	1/4 - 18
IA-50GN-04-02	1/4 - 19	1/8 - 27
IA-50GN-04-04	1/4 - 19	1/4 - 18
IA-50GN-06-04	3/8 - 19	1/4 - 18
IA-50GN-06-06	3/8 - 19	3/8 - 18
IA-50GN-06-08	3/8 - 19	1/2 - 14
IA-50GN-08-06	1/2 - 14	3/8 - 18
IA-50GN-08-08	1/2 - 14	1/2 - 14
IA-50GN-08-12	1/2 - 14	3/4 - 14
IA-50GN-12-08	3/4 - 14	1/2 - 14
IA-50GN-12-12	3/4 - 14	3/4 - 14
IA-50GN-16-16	1 - 11	1 - 11 1/2
IA-50GN-20-20	1 1/4 - 11	1 1/4 - 11 1/2
IA-50GN-24-24	1 1/2 - 11	1 1/2 - 11 1/2

*All "B" Male Threads have 60° Seat.

*All "G" Threads come with O-Ring / Washer combination for external port sealing.

IA-10JG

JIC MALE x BSPP PORT MALE



PART NUMBER	T1	T2
IA-10JG-04-02	7/16 - 20	1/8 - 28
IA-10JG-04-04	7/16 - 20	1/4 - 19
IA-10JG-04-06	7/16 - 20	3/8 - 19
IA-10JG-04-08	7/16 - 20	1/2 - 14
IA-10JG-05-02	1/2 - 20	1/8 - 28
IA-10JG-05-04	1/2 - 20	1/4 - 19
IA-10JG-05-06	1/2 - 20	3/8 - 19
IA-10JG-05-08	1/2 - 20	1/2 - 14
IA-10JG-05-12	1/2 - 20	3/4 - 14
IA-10JG-06-02	9/16 - 18	1/8 - 28
IA-10JG-06-04	9/16 - 18	1/4 - 19
IA-10JG-06-06	9/16 - 18	3/8 - 19
IA-10JG-06-08	9/16 - 18	1/2 - 14
IA-10JG-08-04	3/4 - 16	1/4 - 19
IA-10JG-08-06	3/4 - 16	3/8 - 19
IA-10JG-08-08	3/4 - 16	1/2 - 14
IA-10JG-08-12	3/4 - 16	3/4 - 14
IA-10JG-10-06	7/8 - 14	3/8 - 19
IA-10JG-10-08	7/8 - 14	1/2 - 14
IA-10JG-10-12	7/8 - 14	3/4 - 14
IA-10JG-10-16	7/8 - 14	1 - 11
IA-10JG-12-06	1 1/16 - 12	3/8 - 19
IA-10JG-12-08	1 1/16 - 12	1/2 - 14
IA-10JG-12-12	1 1/16 - 12	3/4 - 14
IA-10JG-12-16	1 1/16 - 12	1 - 11
IA-10JG-12-20	1 1/16 - 12	1 1/4 - 11
IA-10JG-16-12	1 5/16 - 12	3/4 - 14
IA-10JG-16-16	1 5/16 - 12	1 - 11
IA-10JG-16-20	1 5/16 - 12	1 1/4 - 11
IA-10JG-16-24	1 5/16 - 12	1 1/2 - 11
IA-10JG-20-16	1 5/8 - 12	1 - 11
IA-10JG-20-20	1 5/8 - 12	1 1/4 - 11
IA-10JG-24-16	1 7/8 - 12	1 - 11
IA-10JG-24-20	1 7/8 - 12	1 1/4 - 11
IA-10JG-24-24	1 7/8 - 12	1 1/2 - 11

*All "B" Male Threads have 60° Seat.

*All "G" Threads come with O-Ring / Washer combination for external port sealing.



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IA-14JG

JIC MALE x 45° BSPP PORT ADJ. MALE

	PART NUMBER	T1	T2
	IA-14JG-04-02	7/16 - 20	1/8 - 28
	IA-14JG-04-04	7/16 - 20	1/4 - 19
	IA-14JG-06-04	9/16 - 18	1/4 - 19
	IA-14JG-06-06	9/16 - 18	3/8 - 19
	IA-14JG-06-08	9/16 - 18	1/2 - 14
	IA-14JG-08-06	3/4 - 16	3/8 - 19
	IA-14JG-08-08	3/4 - 16	1/2 - 14
	IA-14JG-10-08	7/8 - 14	1/2 - 14
	IA-14JG-12-08	1 1/16 - 12	1/2 - 14
	IA-14JG-12-12	1 1/16 - 12	3/4 - 14
	IA-14JG-12-16	1 1/16 - 12	1 - 11
	IA-14JG-16-16	1 5/16 - 12	1 - 11

*All "B" Male Threads have 60° Seat.

*All "G" Threads come with O-Ring / Washer combination for external port sealing.

IA-19JG

JIC MALE x 90° BSPP PORT ADJ. MALE

	PART NUMBER	T1	T2
	IA-19JG-04-02	7/16 - 20	1/8 - 28
	IA-19JG-04-04	7/16 - 20	1/4 - 19
	IA-19JG-04-06	7/16 - 20	3/8 - 19
	IA-19JG-04-08	7/16 - 20	1/2 - 14
	IA-19JG-05-02	1/2 - 20	1/8 - 28
	IA-19JG-05-04	1/2 - 20	1/4 - 19
	IA-19JG-05-06	1/2 - 20	3/8 - 19
	IA-19JG-06-02	9/16 - 18	1/8 - 28
	IA-19JG-06-04	9/16 - 18	1/4 - 19
	IA-19JG-06-06	9/16 - 18	3/8 - 19
	IA-19JG-06-08	9/16 - 18	1/2 - 14
	IA-19JG-08-04	3/4 - 16	1/4 - 19
	IA-19JG-08-06	3/4 - 16	3/8 - 19
	IA-19JG-08-08	3/4 - 16	1/2 - 14
	IA-19JG-08-10	3/4 - 16	5/8 - 14
	IA-19JG-08-12	3/4 - 16	3/4 - 14
	IA-19JG-10-06	7/8 - 14	3/8 - 19
	IA-19JG-10-08	7/8 - 14	1/2 - 14
	IA-19JG-10-10	7/8 - 14	5/8 - 14
	IA-19JG-10-12	7/8 - 14	3/4 - 14
	IA-19JG-12-08	1 1/16 - 12	1/2 - 14
	IA-19JG-12-12	1 1/16 - 12	3/4 - 14
	IA-19JG-12-16	1 1/16 - 12	1 - 11
	IA-19JG-16-12	1 5/16 - 12	3/4 - 14
	IA-19JG-16-16	1 5/16 - 12	1 - 11
	IA-19JG-16-20	1 5/16 - 12	1 1/4 - 11
	IA-19JG-20-16	1 5/8 - 12	1 - 11
IA-19JG-20-20	1 5/8 - 12	1 1/4 - 11	
IA-19JG-24-24	1 7/8 - 12	1 1/2 - 11	

*All "B" Male Threads have 60° Seat.

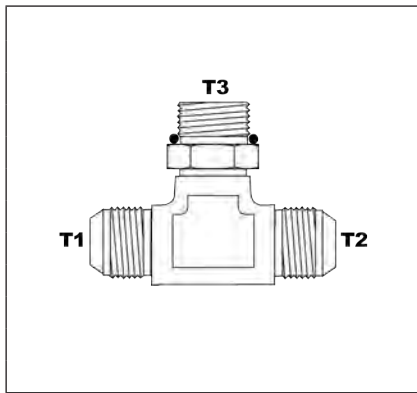
*All "G" Threads come with O-Ring / Washer combination for external port sealing.



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IA-AJJG

JIC MALE x BSPP PORT ADJ. MALE BR. TEE



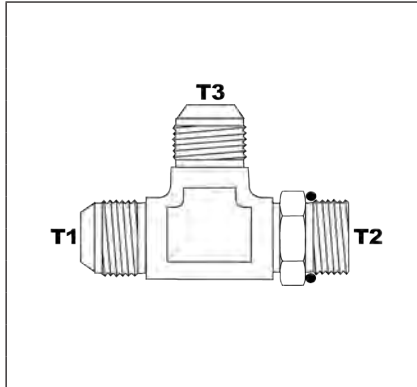
PART NUMBER	T1	T2	T3
IA-AJJG-04-04-04	7/16 - 20	7/16 - 20	1/4 - 19
IA-AJJG-06-06-04	9/16 - 18	9/16 - 18	1/4 - 19
IA-AJJG-06-06-06	9/16 - 18	9/16 - 18	3/8 - 19
IA-AJJG-08-08-06	3/4 - 16	3/4 - 16	3/8 - 19
IA-AJJG-08-08-08	3/4 - 16	3/4 - 16	1/2 - 14
IA-AJJG-10-10-08	7/8 - 14	7/8 - 14	1/2 - 14
IA-AJJG-12-12-12	1 1/16 - 12	1 1/16 - 12	3/4 - 14
IA-AJJG-16-16-16	1 5/16 - 12	1 5/16 - 12	1 - 11

*All "B" Male Threads have 60° Seat.

*All "G" Threads come with O-Ring / Washer combination for external port sealing.

IA-AJGJ

JIC MALE x BSPP PORT ADJ. MALE RUN TEE



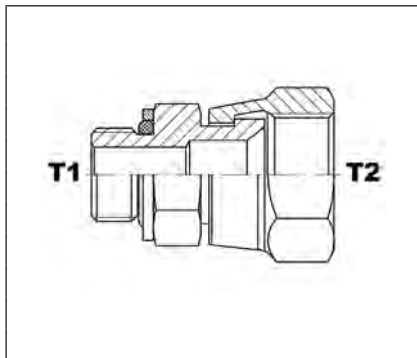
PART NUMBER	T1	T2	T3
IA-AJGJ-04-02-04	7/16 - 20	1/8 - 28	7/16 - 20
IA-AJGJ-04-04-04	7/16 - 20	1/4 - 19	7/16 - 20
IA-AJGJ-06-04-06	9/16 - 18	1/4 - 19	9/16 - 18
IA-AJGJ-06-06-06	9/16 - 18	3/8 - 19	9/16 - 18
IA-AJGJ-08-06-08	3/4 - 16	3/8 - 19	3/4 - 16
IA-AJGJ-08-08-08	3/4 - 16	1/2 - 14	3/4 - 16
IA-AJGJ-12-12-12	1 1/16 - 12	3/4 - 14	1 1/16 - 12
IA-AJGJ-16-16-16	1 5/16 - 12	1 - 11	1 5/16 - 12

*All "B" Male Threads have 60° Seat.

*All "G" Threads come with O-Ring / Washer combination for external port sealing.

IA-20GJ

BSPP MALE PORT x JIC FEMALE SWIVEL



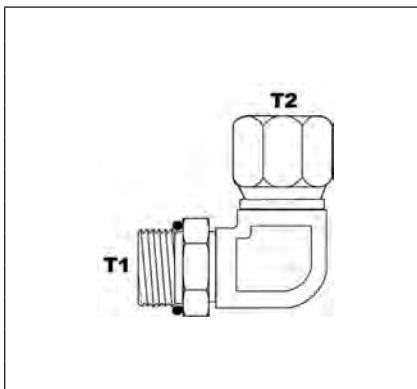
PART NUMBER	T1	T2
IA-20GJ-02-04	1/8 - 28	7/16 - 20
IA-20GJ-04-04	1/4 - 19	7/16 - 20
IA-20GJ-06-08	3/8 - 19	3/4 - 16
IA-20GJ-12-12	3/4 - 14	1 1/16 - 12
IA-20GJ-20-20	1 1/4 - 11	1 5/8 - 12

*All "B" Male Threads have 60° Seat.

*All "G" Threads come with O-Ring / Washer combination for external port sealing.

IA-29GJ

90° BSPP MALE PORT ADJ. x JIC FEMALE SWIVEL



PART NUMBER	T1	T2
IA-29GJ-04-04	1/4 - 19	7/16 - 20
IA-29GJ-04-06	1/4 - 19	9/16 - 18
IA-29GJ-06-06	3/8 - 19	9/16 - 18
IA-29GJ-12-12	3/4 - 14	1 1/16 - 12
IA-29GJ-20-20	1 1/4 - 11	1 5/8 - 12

*All "B" Male Threads have 60° Seat.

*All "G" Threads come with O-Ring / Washer combination for external port sealing.



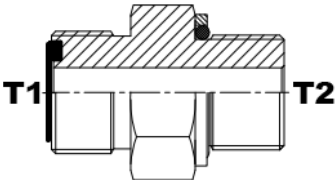
WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

BSPP, BSPP PORT & BSPT CONVERSION





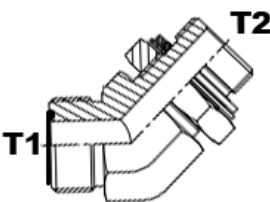
IA-10FG ORFS MALE x BSPP PORT MALE

	PART NUMBER		
	PART NUMBER	T1	T2
	IA-10FG-04-02	9/16 - 18	1/8 - 28
	IA-10FG-04-04	9/16 - 18	1/4 - 19
	IA-10FG-04-06	9/16 - 18	3/8 - 19
	IA-10FG-06-02	11/16 - 16	1/8 - 28
	IA-10FG-06-04	11/16 - 16	1/4 - 19
	IA-10FG-06-06	11/16 - 16	3/8 - 19
	IA-10FG-06-08	11/16 - 16	1/2 - 14
	IA-10FG-08-04	13/16 - 16	1/4 - 19
	IA-10FG-08-06	13/16 - 16	3/8 - 19
	IA-10FG-08-08	13/16 - 16	1/2 - 14
	IA-10FG-08-12	13/16 - 16	1 1/2 - 11
	IA-10FG-08-16	13/16 - 16	1 - 11
	IA-10FG-10-06	1 - 14	3/8 - 19
	IA-10FG-10-08	1 - 14	1/2 - 14
	IA-10FG-10-12	1 - 14	3/4 - 14
	IA-10FG-12-08	1 3/16 - 12	1/2 - 14
	IA-10FG-12-12	1 3/16 - 12	3/4 - 14
	IA-10FG-12-16	1 3/16 - 12	1 - 11
	IA-10FG-16-12	1 7/16 - 12	3/4 - 14
	IA-10FG-16-16	1 7/16 - 12	1 - 11
	IA-10FG-16-20	1 7/16 - 12	1 1/4 - 11
	IA-10FG-20-16	1 11/16 - 12	1 - 11
	IA-10FG-20-20	1 11/16 - 12	1 1/4 - 11
	IA-10FG-24-24	2 - 12	1 1/2 - 11

*All "B" Male Threads have 60° Seat.


*All "G" Threads come with O-Ring / Washer combination for external port sealing.

IA-14FG ORFS MALE x 45° BSPP PORT ADJ. MALE

	PART NUMBER		
	PART NUMBER	T1	T2
	IA-14FG-04-02	9/16 - 18	1/8 - 28
	IA-14FG-04-04	9/16 - 18	1/4 - 19
	IA-14FG-06-04	11/16 - 16	1/4 - 19
	IA-14FG-06-06	11/16 - 16	3/8 - 19
	IA-14FG-08-06	13/16 - 16	3/8 - 19
	IA-14FG-08-08	13/16 - 16	1/2 - 14
	IA-14FG-10-08	1 - 14	1/2 - 14
	IA-14FG-12-12	1 3/16 - 12	3/4 - 14
	IA-14FG-12-16	1 3/16 - 12	1 - 11
	IA-14FG-16-16	1 7/16 - 12	1 - 11

*All "B" Male Threads have 60° Seat.

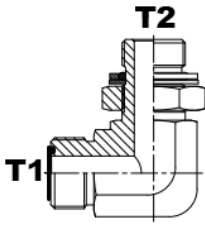
*All "G" Threads come with O-Ring / Washer combination for external port sealing.

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IA-19FG

ORFS MALE x 90° BSPP PORT ADJ. MALE

PART NUMBER	T1		T2	
IA-19FG-04-02	9/16 - 18		1/8 - 28	
IA-19FG-04-04	9/16 - 18		1/4 - 19	
IA-19FG-04-06	9/16 - 18		3/8 - 19	
IA-19FG-06-04	11/16 - 16		1/4 - 19	
IA-19FG-06-06	11/16 - 16		3/8 - 19	
IA-19FG-06-08	11/16 - 16		1/2 - 14	
IA-19FG-08-04	13/16 - 16		1/4 - 19	
IA-19FG-08-06	13/16 - 16		3/8 - 19	
IA-19FG-08-08	13/16 - 16		1/2 - 14	
IA-19FG-10-06	1 - 14		3/8 - 19	
IA-19FG-10-08	1 - 14		1/2 - 14	
IA-19FG-10-12	1 - 14		3/4 - 14	
IA-19FG-12-06	1 3/16 - 12		3/8 - 19	
IA-19FG-12-08	1 3/16 - 12		1/2 - 14	
IA-19FG-12-12	1 3/16 - 12		3/4 - 14	
IA-19FG-12-16	1 3/16 - 12		1 - 11	
IA-19FG-16-12	1 7/16 - 12		3/4 - 14	
IA-19FG-16-16	1 7/16 - 12		1 - 11	
IA-19FG-16-20	1 7/16 - 12		1 1/4 - 11	
IA-19FG-20-16	1 11/16 - 12		1 - 11	
IA-19FG-20-20	1 11/16 - 12		1 1/4 - 11	
IA-19FG-24-24	2 - 12		1 1/2 - 11	



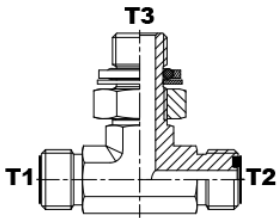
*All "B" Male Threads have 60° Seat.

*All "G" Threads come with O-Ring / Washer combination for external port sealing.

IA-AFFG

ORFS MALE x BSPP PORT ADJ. MALE BR. TEE

PART NUMBER	T1		T2		T3	
IA-AFFG-04-04-04	9/16 - 18		9/16 - 18		1/4 - 19	
IA-AFFG-06-06-06	11/16 - 16		11/16 - 16		3/8 - 19	
IA-AFFG-08-08-08	13/16 - 16		13/16 - 16		1/2 - 14	
IA-AFFG-12-12-12	1 3/16 - 12		1 3/16 - 12		3/4 - 14	
IA-AFFG-16-16-16	1 7/16 - 12		1 7/16 - 12		1 - 11	



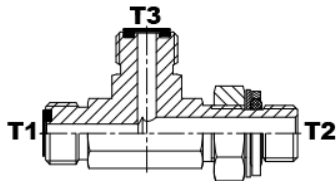
*All "B" Male Threads have 60° Seat.

*All "G" Threads come with O-Ring / Washer combination for external port sealing.

IA-AFGF

ORFS MALE x BSPP PORT ADJ. MALE RUN TEE

PART NUMBER	T1		T2		T3	
IA-AFGF-04-04-04	9/16 - 18		1/4 - 19		9/16 - 18	
IA-AFGF-06-04-06	11/16 - 16		1/4 - 19		11/16 - 16	
IA-AFGF-06-06-06	11/16 - 16		3/8 - 19		11/16 - 16	
IA-AFGF-08-06-08	13/16 - 16		3/8 - 19		13/16 - 16	
IA-AFGF-08-08-08	13/16 - 16		1/2 - 14		13/16 - 16	
IA-AFGF-10-10-08	1 - 14		5/8 - 14		13/16 - 16	
IA-AFGF-12-12-12	1 3/16 - 12		3/4 - 14		1 3/16 - 12	
IA-AFGF-16-16-16	1 7/16 - 12		1 - 11		1 7/16 - 12	

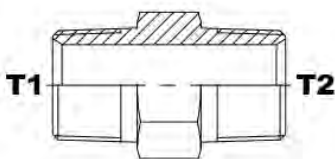


*All "B" Male Threads have 60° Seat.

*All "G" Threads come with O-Ring / Washer combination for external port sealing.

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

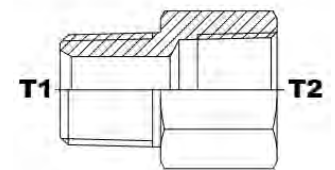
IA-10NT NPT MALE x BSPT MALE

	PART NUMBER	T1	T2
	IA-10NT-02-02	1/8 - 27	1/8 - 28
IA-10NT-04-04	1/4 - 18	1/4 - 19	
IA-10NT-04-06	1/4 - 18	3/8 - 19	
IA-10NT-06-04	3/8 - 18	1/4 - 19	
IA-10NT-06-06	3/8 - 18	3/8 - 19	
IA-10NT-08-08	1/2 - 14	1/2 - 14	
IA-10NT-12-12	3/4 - 14	3/4 - 14	
IA-10NT-16-16	1 - 11 1/2	1 - 11	
IA-10NT-20-20	1 1/4 - 11 1/2	1 1/4 - 11	
IA-10NT-24-24	1 1/2 - 11 1/2	1 1/2 - 11	
IA-10NT-32-32	2 - 11 1/2	2 - 11	

*All "B" Male Threads have 60° Seat.

*All "G" Threads come with O-Ring / Washer combination for external port sealing.

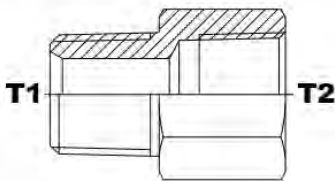
IA-50TN BSPT MALE x NPT FEMALE RIGID

	PART NUMBER	T1	T2
	IA-50TN-02-02	1/8 - 28	1/8 - 27
IA-50TN-02-04	1/8 - 28	1/4 - 18	
IA-50TN-04-02	1/4 - 19	1/8 - 27	
IA-50TN-04-04	1/4 - 19	1/4 - 18	
IA-50TN-06-02	3/8 - 19	1/8 - 27	
IA-50TN-06-04	3/8 - 19	1/4 - 18	
IA-50TN-06-06	3/8 - 19	3/8 - 18	
IA-50TN-08-04	1/2 - 14	1/4 - 18	
IA-50TN-08-06	1/2 - 14	3/8 - 18	
IA-50TN-08-08	1/2 - 14	1/2 - 14	
IA-50TN-12-08	3/4 - 14	1/2 - 14	
IA-50TN-12-12	3/4 - 14	3/4 - 14	
IA-50TN-16-16	1 - 11	1 - 11 1/2	
IA-50TN-20-20	1 1/4 - 11	1 1/4 - 11 1/2	
IA-50TN-24-24	1 1/2 - 11	1 1/2 - 11 1/2	

*All "B" Male Threads have 60° Seat.

*All "G" Threads come with O-Ring / Washer combination for external port sealing.

IA-50NT NPT MALE x BSPT FEMALE RIGID

	PART NUMBER	T1	T2
	IA-50NT-02-02	1/8 - 27	1/8 - 28
IA-50NT-04-02	1/4 - 18	1/8 - 28	
IA-50NT-04-04	1/4 - 18	1/4 - 19	
IA-50NT-04-06	1/4 - 18	3/8 - 19	
IA-50NT-06-04	3/8 - 18	1/4 - 19	
IA-50NT-06-06	3/8 - 18	3/8 - 19	
IA-50NT-06-08	3/8 - 18	1/2 - 14	
IA-50NT-08-06	1/2 - 14	3/8 - 19	
IA-50NT-08-08	1/2 - 14	1/2 - 14	
IA-50NT-08-12	1/2 - 14	3/4 - 14	
IA-50NT-12-08	3/4 - 14	1/2 - 14	
IA-50NT-12-12	3/4 - 14	3/4 - 14	
IA-50NT-12-16	3/4 - 14	1 - 11	
IA-50NT-16-12	1 - 11 1/2	3/4 - 14	
IA-50NT-16-16	1 - 11 1/2	1 - 11	
IA-50NT-16-20	1 - 11 1/2	1 1/4 - 11	
IA-50NT-20-16	1 1/4 - 11 1/2	1 - 11	
IA-50NT-20-20	1 1/4 - 11 1/2	1 1/4 - 11	
IA-50NT-20-24	1 1/4 - 11 1/2	1 1/2 - 11	
IA-50NT-24-24	1 1/2 - 11 1/2	1 1/2 - 11	
IA-50NT-32-32	2 - 11 1/2	2 - 11	

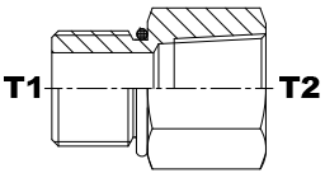
*All "B" Male Threads have 60° Seat.

*All "G" Threads come with O-Ring / Washer combination for external port sealing.

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



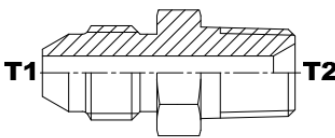
IA-500T M-ORB x BSPT FEMALE RIGID

 <p>*Quoted Upon Request</p>	PART NUMBER	T1	T2

*All "B" Male Threads have 60° Seat.

*All "G" Threads come with O-Ring / Washer combination for external port sealing.

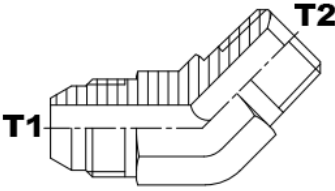
IA-10JT JIC MALE x BSPT MALE

	PART NUMBER	T1	T2
	IA-10JT-02-02	5/16 - 24	1/8 - 28
	IA-10JT-04-02	7/16 - 20	1/8 - 28
	IA-10JT-04-04	7/16 - 20	1/4 - 19
	IA-10JT-04-06	7/16 - 20	3/8 - 19
	IA-10JT-04-08	7/16 - 20	1/2 - 14
	IA-10JT-05-04	1/2 - 20	1/4 - 19
	IA-10JT-05-06	1/2 - 20	3/8 - 19
	IA-10JT-06-02	9/16 - 18	1/8 - 28
	IA-10JT-06-04	9/16 - 18	1/4 - 19
	IA-10JT-06-06	9/16 - 18	3/8 - 19
	IA-10JT-06-08	9/16 - 18	1/2 - 14
	IA-10JT-08-04	3/4 - 16	1/4 - 19
	IA-10JT-08-06	3/4 - 16	3/8 - 19
	IA-10JT-08-08	3/4 - 16	1/2 - 14
	IA-10JT-08-12	3/4 - 16	3/4 - 14
	IA-10JT-08-16	3/4 - 16	1 - 11
	IA-10JT-10-06	7/8 - 14	3/8 - 19
	IA-10JT-10-08	7/8 - 14	1/2 - 14
	IA-10JT-12-08	1 1/16 - 12	1/2 - 14
	IA-10JT-12-12	1 1/16 - 12	3/4 - 14
	IA-10JT-12-16	1 1/16 - 12	1 - 11
	IA-10JT-14-12	1 3/16 - 12	3/4 - 14
	IA-10JT-16-08	1 5/16 - 12	1/2 - 14
	IA-10JT-16-12	1 5/16 - 12	3/4 - 14
	IA-10JT-16-16	1 5/16 - 12	1 - 11
IA-10JT-20-20	1 5/8 - 12	1 1/4 - 11	
IA-10JT-24-24	1 7/8 - 12	1 1/2 - 11	
IA-10JT-32-32	2 1/2 - 12	2 - 11	

*All "B" Male Threads have 60° Seat.

*All "G" Threads come with O-Ring / Washer combination for external port sealing.

IA-14JT JIC MALE x 45° BSPT MALE

	PART NUMBER	T1	T2
	IA-14JT-04-02	7/16 - 20	1/8 - 28
	IA-14JT-04-04	7/16 - 20	1/4 - 19
	IA-14JT-06-04	9/16 - 18	1/4 - 19
	IA-14JT-06-06	9/16 - 18	3/8 - 19
	IA-14JT-08-06	3/4 - 16	3/8 - 19
	IA-14JT-08-08	3/4 - 16	1/2 - 14
	IA-14JT-10-08	7/8 - 14	1/2 - 14
	IA-14JT-12-12	1 1/16 - 12	3/4 - 14
	IA-14JT-16-16	1 5/16 - 12	1 - 11

*All "B" Male Threads have 60° Seat.

*All "G" Threads come with O-Ring / Washer combination for external port sealing.



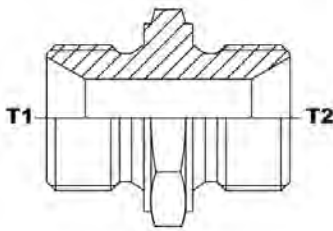
WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



IA-10BB

BSPP MALE UNION 60° SEATS

BSPP (60° SEAT)

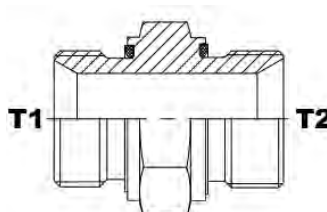


PART NUMBER	T1	T2
IA-10BB-02-02	1/8 - 28	1/8 - 28
IA-10BB-04-02	1/4 - 19	1/8 - 28
IA-10BB-04-04	1/4 - 19	1/4 - 19
IA-10BB-06-02	3/8 - 19	1/8 - 28
IA-10BB-06-04	3/8 - 19	1/4 - 19
IA-10BB-06-06	3/8 - 19	3/8 - 19
IA-10BB-08-02	1/2 - 14	1/8 - 28
IA-10BB-08-04	1/2 - 14	1/4 - 19
IA-10BB-08-06	1/2 - 14	3/8 - 19
IA-10BB-08-08	1/2 - 14	1/2 - 14
IA-10BB-10-04	5/8 - 14	1/4 - 19
IA-10BB-10-06	5/8 - 14	3/8 - 19
IA-10BB-10-08	5/8 - 14	1/2 - 14
IA-10BB-10-10	5/8 - 14	5/8 - 14
IA-10BB-12-04	3/4 - 14	1/4 - 19
IA-10BB-12-06	3/4 - 14	3/8 - 19
IA-10BB-12-08	3/4 - 14	1/2 - 14
IA-10BB-12-10	3/4 - 14	5/8 - 14
IA-10BB-12-12	3/4 - 14	3/4 - 14
IA-10BB-16-04	1 - 11	1/4 - 19
IA-10BB-16-06	1 - 11	3/8 - 19
IA-10BB-16-08	1 - 11	1/2 - 14
IA-10BB-16-10	1 - 11	5/8 - 14
IA-10BB-16-12	1 - 11	3/4 - 14
IA-10BB-16-16	1 - 11	1 - 11
IA-10BB-20-06	1 1/4 - 11	3/8 - 19
IA-10BB-20-08	1 1/4 - 11	1/2 - 14
IA-10BB-20-10	1 1/4 - 11	5/8 - 14
IA-10BB-20-12	1 1/4 - 11	3/4 - 14
IA-10BB-20-16	1 1/4 - 11	1 - 11
IA-10BB-20-20	1 1/4 - 11	1 1/4 - 11
IA-10BB-24-08	1 1/2 - 11	1/2 - 14
IA-10BB-24-10	1 1/2 - 11	5/8 - 14
IA-10BB-24-12	1 1/2 - 11	3/4 - 14
IA-10BB-24-16	1 1/2 - 11	1 - 11
IA-10BB-24-20	1 1/2 - 11	1 1/4 - 11
IA-10BB-24-24	1 1/2 - 11	1 1/2 - 11
IA-10BB-32-16	2 - 11	1 - 11
IA-10BB-32-20	2 - 11	1 1/4 - 11
IA-10BB-32-24	2 - 11	1 1/2 - 11
IA-10BB-32-32	2 - 11	2 - 11
IA-10BB-40-24	2 1/2 - 11	1 1/2 - 11
IA-10BB-40-32	2 1/2 - 11	2 - 11
IA-10BB-40-40	2 1/2 - 11	2 1/2 - 11
IA-10BB-48-32	3 - 11	2 - 11
IA-10BB-48-40	3 - 11	2 1/2 - 11
IA-10BB-48-48	3 - 11	3 - 11

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

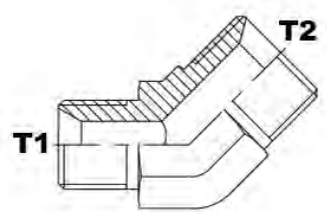
IA-10BB-WD

BSPP MALE UNION 60° SEALS + CAPTIVE SEAL

	PART NUMBER	T1	T2
	IA-10BB-02-02-WD	1/8 - 28	1/8 - 28
	IA-10BB-04-04-WD	1/4 - 19	1/4 - 19
	IA-10BB-06-06-WD	3/8 - 19	3/8 - 19
	IA-10BB-08-08-WD	1/2 - 14	1/2 - 14
	IA-10BB-12-12-WD	3/4 - 14	3/4 - 14
	IA-10BB-16-16-WD	1 - 11	1 - 11
	IA-10BB-20-20-WD	1 1/4 - 11	1 1/4 - 11

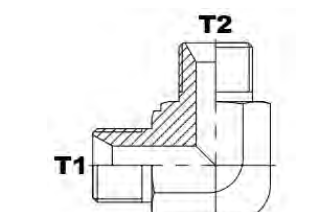
IA-14BB


45° BSPP MALE UNION

	PART NUMBER	T1	T2
	IA-14BB-02-02	1/8 - 28	1/8 - 28
	IA-14BB-04-04	1/4 - 19	1/4 - 19
	IA-14BB-06-04	3/8 - 19	1/4 - 19
	IA-14BB-06-06	3/8 - 19	3/8 - 19
	IA-14BB-08-06	1/2 - 14	3/8 - 19
	IA-14BB-08-08	1/2 - 14	1/2 - 14
	IA-14BB-10-10	5/8 - 14	5/8 - 14
	IA-14BB-12-08	3/4 - 14	1/2 - 14
	IA-14BB-12-10	3/4 - 14	5/8 - 14
	IA-14BB-12-12	3/4 - 14	3/4 - 14
	IA-14BB-16-12	1 - 11	3/4 - 14
	IA-14BB-16-16	1 - 11	1 - 11
	IA-14BB-20-20	1 1/4 - 11	1 1/4 - 11
	IA-14BB-24-24	1 1/2 - 11	1 1/2 - 11
	IA-14BB-32-32	2 - 11	2 - 11

IA-19BB

90° BSPP MALE UNION

	PART NUMBER	T1	T2
	IA-19BB-02-02	1/8 - 28	1/8 - 28
	IA-19BB-04-04	1/4 - 19	1/4 - 19
	IA-19BB-06-04	3/8 - 19	1/4 - 19
	IA-19BB-06-06	3/8 - 19	3/8 - 19
	IA-19BB-08-06	1/2 - 14	3/8 - 19
	IA-19BB-08-08	1/2 - 14	1/2 - 14
	IA-19BB-10-10	5/8 - 14	5/8 - 14
	IA-19BB-12-08	3/4 - 14	1/2 - 14
	IA-19BB-12-12	3/4 - 14	3/4 - 14
	IA-19BB-16-12	1 - 11	3/4 - 14
	IA-19BB-16-16	1 - 11	1 - 11
	IA-19BB-20-20	1 1/4 - 11	1 1/4 - 11
	IA-19BB-24-24	1 1/2 - 11	1 1/2 - 11
IA-19BB-32-32	2 - 11	2 - 11	

 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



IA-ABBB BSPP MALE UNION TEE

	PART NUMBER	T1	T2	T3
	IA-ABBB-02-02-02	1/8 - 28	1/8 - 28	1/8 - 28
	IA-ABBB-04-04-04	1/4 - 19	1/4 - 19	1/4 - 19
	IA-ABBB-06-06-06	3/8 - 19	3/8 - 19	3/8 - 19
	IA-ABBB-08-08-08	1/2 - 14	1/2 - 14	1/2 - 14
	IA-ABBB-10-10-10	5/8 - 14	5/8 - 14	5/8 - 14
	IA-ABBB-12-12-12	3/4 - 14	3/4 - 14	3/4 - 14
	IA-ABBB-16-16-16	1 - 11	1 - 11	1 - 11
	IA-ABBB-20-20-20	1 1/4 - 11	1 1/4 - 11	1 1/4 - 11
	IA-ABBB-24-24-24	1 1/2 - 11	1 1/2 - 11	1 1/2 - 11

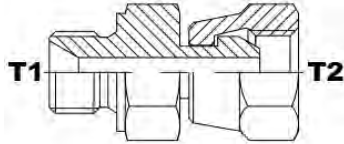
IA-XBBBB BSPP MALE UNION CROSS

	PART NUMBER	T1	T2	T3	T4
	IA-XBBBB-04-04-04-04	1/4 - 19	1/4 - 19	1/4 - 19	
	IA-XBBBB-06-06-06-06	3/8 - 19	3/8 - 19	3/8 - 19	
	IA-XBBBB-08-08-08-08	1/2 - 14	1/2 - 14	1/2 - 14	
	IA-XBBBB-10-10-10-10	5/8 - 14	5/8 - 14	5/8 - 14	
	IA-XBBBB-12-12-12-12	3/4 - 14	3/4 - 14	3/4 - 14	
	IA-XBBBB-16-16-16-16	1 - 11	1 - 11	1 - 11	
	IA-XBBBB-20-20-20-20	1 1/4 - 11	1 1/4 - 11	1 1/4 - 11	
	IA-XBBBB-24-24-24-24	1 1/2 - 11	1 1/2 - 11	1 1/2 - 11	

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

IA-20BB

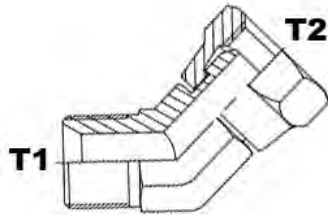
BSPP MALE x FEMALE SWIVEL



PART NUMBER	T1	T2
IA-20BB-02-02	1/8 - 28	1/8 - 28
IA-20BB-02-04	1/8 - 28	1/4 - 19
IA-20BB-04-02	1/4 - 19	1/8 - 28
IA-20BB-04-04	1/4 - 19	1/4 - 19
IA-20BB-04-06	1/4 - 19	3/8 - 19
IA-20BB-04-08	1/4 - 19	1/2 - 14
IA-20BB-06-04	3/8 - 19	1/4 - 19
IA-20BB-06-06	3/8 - 19	3/8 - 19
IA-20BB-06-08	3/8 - 19	1/2 - 14
IA-20BB-06-12	3/8 - 19	3/4 - 14
IA-20BB-08-04	1/2 - 14	1/4 - 19
IA-20BB-08-06	1/2 - 14	3/8 - 19
IA-20BB-08-08	1/2 - 14	1/2 - 14
IA-20BB-08-10	1/2 - 14	5/8 - 14
IA-20BB-08-12	1/2 - 14	3/4 - 14
IA-20BB-08-16	1/2 - 14	1 - 11
IA-20BB-10-08	5/8 - 14	1/2 - 14
IA-20BB-10-10	5/8 - 14	5/8 - 14
IA-20BB-10-12	5/8 - 14	3/4 - 14
IA-20BB-12-06	3/4 - 14	3/8 - 19
IA-20BB-12-08	3/4 - 14	1/2 - 14
IA-20BB-12-10	3/4 - 14	5/8 - 14
IA-20BB-12-12	3/4 - 14	3/4 - 14
IA-20BB-12-16	3/4 - 14	1 - 11
IA-20BB-12-20	3/4 - 14	1 1/4 - 11
IA-20BB-16-08	1 - 11	1/2 - 14
IA-20BB-16-10	1 - 11	5/8 - 14
IA-20BB-16-12	1 - 11	3/4 - 14
IA-20BB-16-16	1 - 11	1 - 11
IA-20BB-16-20	1 - 11	1 1/4 - 11
IA-20BB-20-12	1 1/4 - 11	3/4 - 14
IA-20BB-20-16	1 1/4 - 11	1 - 11
IA-20BB-20-20	1 1/4 - 11	1 1/4 - 11
IA-20BB-20-24	1 1/4 - 11	1 1/2 - 11
IA-20BB-20-32	1 1/4 - 11	2 - 11
IA-20BB-24-16	1 1/2 - 11	1 - 11
IA-20BB-24-20	1 1/2 - 11	1 1/4 - 11
IA-20BB-24-24	1 1/2 - 11	1 1/2 - 11
IA-20BB-32-32	2 - 11	2 - 11

IA-24BB

BSPP MALE x 45° FEMALE SWIVEL

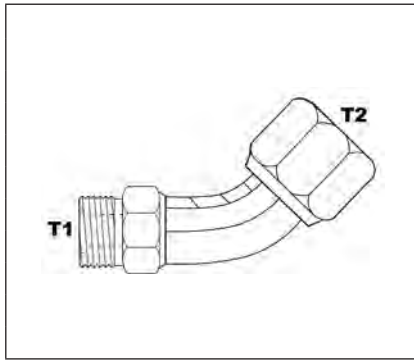


PART NUMBER	T1	T2
IA-24BB-04-04	1/4 - 19	1/4 - 19
IA-24BB-06-06	3/8 - 19	3/8 - 19
IA-24BB-08-08	1/2 - 14	1/2 - 14
IA-24BB-12-12	3/4 - 14	3/4 - 14
IA-24BB-16-16	1 - 11	1 - 11

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

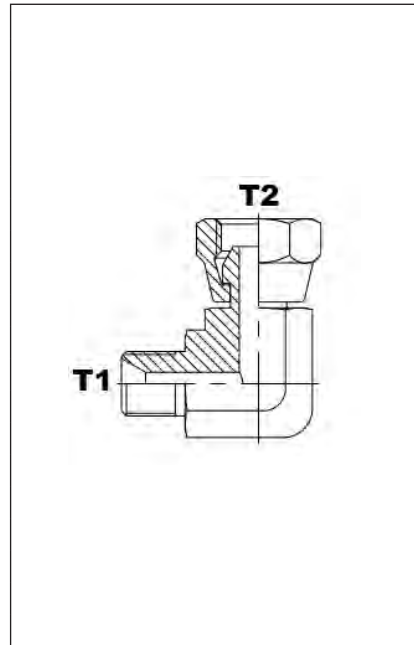


IA-24BB-T BSPP MALE x 45° FEMALE SWIVEL TUBE TYPE



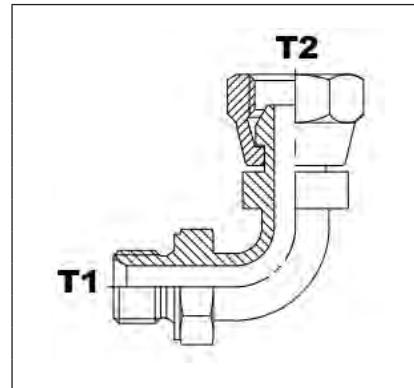
PART NUMBER	T1	T2
IA-24BB-04-04-T	1/4 - 19	1/4 - 19
IA-24BB-06-06-T	3/8 - 19	3/8 - 19
IA-24BB-08-08-T	1/2 - 14	1/2 - 14
IA-24BB-10-10-T	5/8 - 14	5/8 - 14
IA-24BB-12-12-T	3/4 - 14	3/4 - 14
IA-24BB-16-16-T	1 - 11	1 - 11
IA-24BB-20-20-T	1 1/4 - 11	1 1/4 - 11

IA-29BB BSPP MALE x 90° FEMALE SWIVEL



PART NUMBER	T1	T2
IA-29BB-02-02	1/8 - 28	1/8 - 28
IA-29BB-04-04	1/4 - 19	1/4 - 19
IA-29BB-04-06	1/4 - 19	3/8 - 19
IA-29BB-06-04	3/8 - 19	1/4 - 19
IA-29BB-06-06	3/8 - 19	3/8 - 19
IA-29BB-06-08	3/8 - 19	1/2 - 14
IA-29BB-08-06	1/2 - 14	3/8 - 19
IA-29BB-08-08	1/2 - 14	1/2 - 14
IA-29BB-08-10	1/2 - 14	5/8 - 14
IA-29BB-08-12	1/2 - 14	3/4 - 14
IA-29BB-10-10	5/8 - 14	5/8 - 14
IA-29BB-12-08	3/4 - 14	1/2 - 14
IA-29BB-12-12	3/4 - 14	3/4 - 14
IA-29BB-12-16	3/4 - 14	1 - 11
IA-29BB-16-12	1 - 11	3/4 - 14
IA-29BB-16-16	1 - 11	1 - 11
IA-29BB-20-20	1 1/4 - 11	1 1/4 - 11
IA-29BB-24-24	1 1/2 - 11	1 1/2 - 11
IA-29BB-32-32	2 - 11	2 - 11

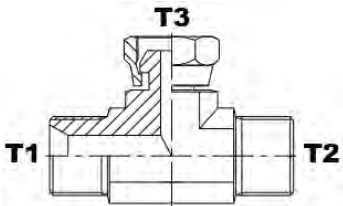
IA-29BB-T BSPP MALE x 90° FEMALE SWIVEL TUBE TYPE



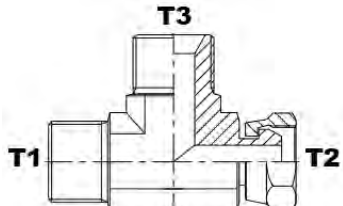
PART NUMBER	T1	T2
IA-29BB-04-04-T	1/4 - 19	1/4 - 19
IA-29BB-06-06-T	3/8 - 19	3/8 - 19
IA-29BB-08-08-T	1/2 - 14	1/2 - 14
IA-29BB-10-10-T	5/8 - 14	5/8 - 14
IA-29BB-12-12-T	3/4 - 14	3/4 - 14
IA-29BB-16-16-T	1 - 11	1 - 11
IA-29BB-20-20-T	1 1/4 - 11	1 1/4 - 11
IA-29BB-24-24-T	1 1/2 - 11	1 1/2 - 11
IA-29BB-32-32-T	2 - 11	2 - 11

⚠ WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

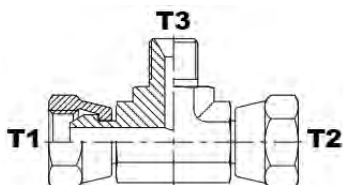
IA-BBBB BSPP FEMALE SWIVEL BRANCH TEE

	PART NUMBER	T1	T2	T3
	IA-BBBB-02-02-02	1/8 - 28	1/8 - 28	1/8 - 28
	IA-BBBB-04-04-04	1/4 - 19	1/4 - 19	1/4 - 19
	IA-BBBB-06-06-06	3/8 - 19	3/8 - 19	3/8 - 19
	IA-BBBB-08-08-08	1/2 - 14	1/2 - 14	1/2 - 14
	IA-BBBB-10-10-10	5/8 - 14	5/8 - 14	5/8 - 14
	IA-BBBB-12-12-12	3/4 - 14	3/4 - 14	3/4 - 14
	IA-BBBB-16-16-16	1 - 11	1 - 11	1 - 11
	IA-BBBB-20-20-20	1 1/4 - 11	1 1/4 - 11	1 1/4 - 11

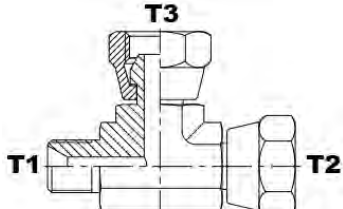
IA-CBBB BSPP FEMALE SWIVEL RUN TEE


	PART NUMBER	T1	T2	T3
	IA-CBBB-02-02-02	1/8 - 28	1/8 - 28	1/8 - 28
	IA-CBBB-04-04-04	1/4 - 19	1/4 - 19	1/4 - 19
	IA-CBBB-06-06-06	3/8 - 19	3/8 - 19	3/8 - 19
	IA-CBBB-08-08-08	1/2 - 14	1/2 - 14	1/2 - 14
	IA-CBBB-10-10-10	5/8 - 14	5/8 - 14	5/8 - 14
	IA-CBBB-12-12-12	3/4 - 14	3/4 - 14	3/4 - 14
	IA-CBBB-16-16-16	1 - 11	1 - 11	1 - 11
	IA-CBBB-20-20-20	1 1/4 - 11	1 1/4 - 11	1 1/4 - 11
	IA-CBBB-32-32-32	2 - 11	2 - 11	2 - 11

IA-EBBB BSPP MALE BRANCH TEE

	PART NUMBER	T1	T2	T3
	IA-EBBB-02-02-02	1/8 - 28	1/8 - 28	1/8 - 28
	IA-EBBB-04-04-04	1/4 - 19	1/4 - 19	1/4 - 19
	IA-EBBB-06-06-06	3/8 - 19	3/8 - 19	3/8 - 19
	IA-EBBB-08-08-08	1/2 - 14	1/2 - 14	1/2 - 14
	IA-EBBB-10-10-10	5/8 - 14	5/8 - 14	5/8 - 14
	IA-EBBB-12-12-12	3/4 - 14	3/4 - 14	3/4 - 14
	IA-EBBB-16-16-16	1 - 11	1 - 11	1 - 11
	IA-EBBB-20-20-20	1 1/4 - 11	1 1/4 - 11	1 1/4 - 11
	IA-EBBB-24-24-24	1 1/2 - 11	1 1/2 - 11	1 1/2 - 11
IA-EBBB-32-32-32	2 - 11	2 - 11	2 - 11	

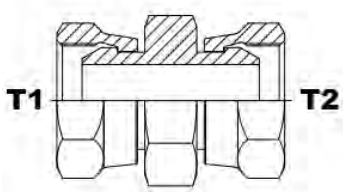
IA-FBBB BSPP MALE RUN TEE

	PART NUMBER	T1	T2	T3
	IA-FBBB-02-02-02	1/8 - 28	1/8 - 28	1/8 - 28
	IA-FBBB-04-04-04	1/4 - 19	1/4 - 19	1/4 - 19
	IA-FBBB-06-06-06	3/8 - 19	3/8 - 19	3/8 - 19
	IA-FBBB-08-08-08	1/2 - 14	1/2 - 14	1/2 - 14
	IA-FBBB-10-10-10	5/8 - 14	5/8 - 14	5/8 - 14
	IA-FBBB-12-12-12	3/4 - 14	3/4 - 14	3/4 - 14
	IA-FBBB-16-16-16	1 - 11	1 - 11	1 - 11

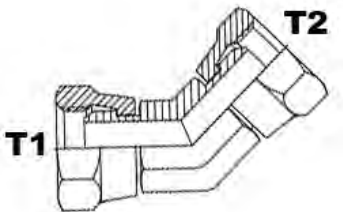
 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



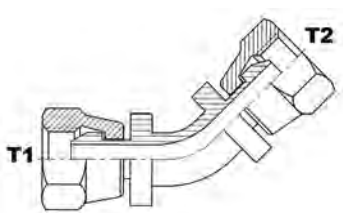
IA-30BB BSPP FEMALE SWIVEL UNION

	PART NUMBER	T1	T2
	IA-30BB-02-02	1/8 - 28	1/8 - 28
IA-30BB-04-02	1/4 - 19	1/8 - 28	
IA-30BB-04-04	1/4 - 19	1/4 - 19	
IA-30BB-06-04	3/8 - 19	1/4 - 19	
IA-30BB-06-06	3/8 - 19	3/8 - 19	
IA-30BB-08-04	1/2 - 14	1/4 - 19	
IA-30BB-08-06	1/2 - 14	3/8 - 19	
IA-30BB-08-08	1/2 - 14	1/2 - 14	
IA-30BB-10-08	5/8 - 14	1/2 - 14	
IA-30BB-10-10	5/8 - 14	5/8 - 14	
IA-30BB-12-08	3/4 - 14	1/2 - 14	
IA-30BB-12-10	3/4 - 14	5/8 - 14	
IA-30BB-12-12	3/4 - 14	3/4 - 14	
IA-30BB-16-08	1 - 11	1/2 - 14	
IA-30BB-16-12	1 - 11	3/4 - 14	
IA-30BB-16-16	1 - 11	1 - 11	
IA-30BB-20-16	1 1/4 - 11	1 - 11	
IA-30BB-20-20	1 1/4 - 11	1 1/4 - 11	
IA-30BB-24-24	1 1/2 - 11	1 1/2 - 11	
IA-30BB-32-32	2 - 11	2 - 11	

IA-34BB 45° BSPP FEMALE SWIVEL UNION

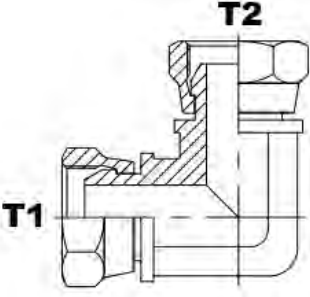
	PART NUMBER	T1	T2
	IA-34BB-04-04	1/4 - 19	1/4 - 19
IA-34BB-06-06	3/8 - 19	3/8 - 19	
IA-34BB-08-08	1/2 - 14	1/2 - 14	
IA-34BB-10-10	5/8 - 14	5/8 - 14	
IA-34BB-12-12	3/4 - 14	3/4 - 14	
IA-34BB-16-16	1 - 11	1 - 11	
IA-34BB-20-20	1 1/4 - 11	1 1/4 - 11	

IA-34BB-T 45° BSPP FEMALE SWIVEL UNION TUBE

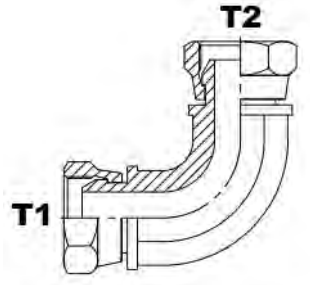
	PART NUMBER	T1	T2
	IA-34BB-04-04-T	1/4 - 19	1/4 - 19
IA-34BB-06-06-T	3/8 - 19	3/8 - 19	
IA-34BB-08-08-T	1/2 - 14	1/2 - 14	
IA-34BB-10-10-T	5/8 - 14	5/8 - 14	
IA-34BB-12-12-T	3/4 - 14	3/4 - 14	
IA-34BB-16-16-T	1 - 11	1 - 11	
IA-34BB-20-20-T	1 1/4 - 11	1 1/4 - 11	

⚠ WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

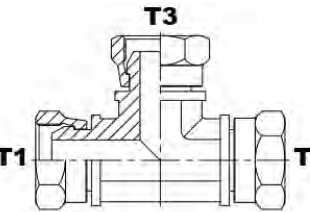
IA-39BB 90° BSPP FEMALE SWIVEL UNION

	PART NUMBER	T1	T2
		IA-39BB-02-02	1/8 - 28
	IA-39BB-04-04	1/4 - 19	1/4 - 19
	IA-39BB-06-06	3/8 - 19	3/8 - 19
	IA-39BB-08-08	1/2 - 14	1/2 - 14
	IA-39BB-10-10	5/8 - 14	5/8 - 14
	IA-39BB-12-12	3/4 - 14	3/4 - 14
	IA-39BB-16-16	1 - 11	1 - 11
	IA-39BB-20-20	1 1/4 - 11	1 1/4 - 11
	IA-39BB-24-24	1 1/2 - 11	1 1/2 - 11
	IA-39BB-32-32	2 - 11	2 - 11

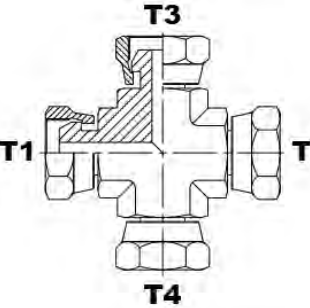
IA-39BB-T 90° BSPP FEMALE SWIVEL UNION TUBE


	PART NUMBER	T1	T2
		IA-39BB-04-04-T	1/4 - 19
	IA-39BB-06-06-T	3/8 - 19	3/8 - 19
	IA-39BB-08-08-T	1/2 - 14	1/2 - 14
	IA-39BB-10-10-T	5/8 - 14	5/8 - 14
	IA-39BB-12-12-T	3/4 - 14	3/4 - 14
	IA-39BB-16-16-T	1 - 11	1 - 11
	IA-39BB-20-20-T	1 1/4 - 11	1 1/4 - 11
	IA-39BB-24-24-T	1 1/2 - 11	1 1/2 - 11

IA-DBBB BSPP FEMALE SWIVEL UNION TEE

	PART NUMBER	T1	T2	T3
		IA-DBBB-02-02-02	1/8 - 28	1/8 - 28
	IA-DBBB-04-04-04	1/4 - 19	1/4 - 19	1/4 - 19
	IA-DBBB-06-06-06	3/8 - 19	3/8 - 19	3/8 - 19
	IA-DBBB-08-08-08	1/2 - 14	1/2 - 14	1/2 - 14
	IA-DBBB-10-10-10	5/8 - 14	5/8 - 14	5/8 - 14
	IA-DBBB-12-12-12	3/4 - 14	3/4 - 14	3/4 - 14
	IA-DBBB-16-16-16	1 - 11	1 - 11	1 - 11
	IA-DBBB-20-20-20	1 1/4 - 11	1 1/4 - 11	1 1/4 - 11
	IA-DBBB-24-24-24	1 1/2 - 11	1 1/2 - 11	1 1/2 - 11

IA-YBBBB BSPP FEMALE SWIVEL CROSS

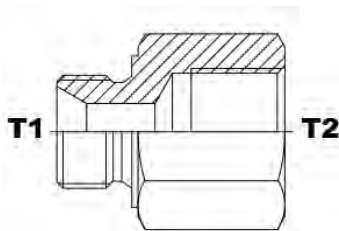
	PART NUMBER	T1	T2	T3	T4
		IA-YBBBB-02-02-02-02	1/8 - 28	1/8 - 28	1/8 - 28
	IA-YBBBB-04-04-04-04	1/4 - 19	1/4 - 19	1/4 - 19	1/4 - 19
	IA-YBBBB-06-06-06-06	3/8 - 19	3/8 - 19	3/8 - 19	3/8 - 19
	IA-YBBBB-08-08-08-08	1/2 - 14	1/2 - 14	1/2 - 14	1/2 - 14
	IA-YBBBB-10-10-10-10	5/8 - 14	5/8 - 14	5/8 - 14	5/8 - 14
	IA-YBBBB-12-12-12-12	3/4 - 14	3/4 - 14	3/4 - 14	3/4 - 14
	IA-YBBBB-16-16-16-16	1 - 11	1 - 11	1 - 11	1 - 11

 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

IA-50BB

BSPF MALE x FEMALE RIGID

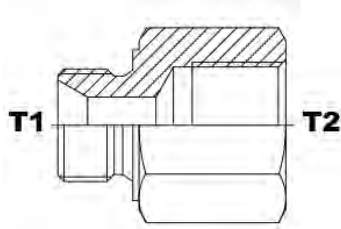
BSPF (60° SEAT)



PART NUMBER	T1	T2
IA-50BB-02-02	1/8 - 28	1/8 - 28
IA-50BB-02-04	1/8 - 28	1/4 - 19
IA-50BB-02-06	1/8 - 28	3/8 - 19
IA-50BB-02-08	1/8 - 28	1/2 - 14
IA-50BB-04-02	1/4 - 19	1/8 - 28
IA-50BB-04-04	1/4 - 19	1/4 - 19
IA-50BB-04-06	1/4 - 19	3/8 - 19
IA-50BB-04-08	1/4 - 19	1/2 - 14
IA-50BB-04-12	1/4 - 19	3/4 - 14
IA-50BB-06-02	3/8 - 19	1/8 - 28
IA-50BB-06-04	3/8 - 19	1/4 - 19
IA-50BB-06-06	3/8 - 19	3/8 - 19
IA-50BB-06-08	3/8 - 19	1/2 - 14
IA-50BB-06-12	3/8 - 19	3/4 - 14
IA-50BB-06-16	3/8 - 19	1 - 11
IA-50BB-08-02	1/2 - 14	1/8 - 28
IA-50BB-08-04	1/2 - 14	1/4 - 19
IA-50BB-08-06	1/2 - 14	3/8 - 19
IA-50BB-08-08	1/2 - 14	1/2 - 14
IA-50BB-08-12	1/2 - 14	3/4 - 14
IA-50BB-08-16	1/2 - 14	1 - 11
IA-50BB-08-20	1/2 - 14	1 1/4 - 11
IA-50BB-10-08	5/8 - 14	1/2 - 14
IA-50BB-10-12	5/8 - 14	3/4 - 14
IA-50BB-12-04	3/4 - 14	1/4 - 19
IA-50BB-12-06	3/4 - 14	3/8 - 19
IA-50BB-12-08	3/4 - 14	1/2 - 14
IA-50BB-12-10	3/4 - 14	5/8 - 14
IA-50BB-12-12	3/4 - 14	3/4 - 14
IA-50BB-12-16	3/4 - 14	1 - 11
IA-50BB-12-20	3/4 - 14	1 1/4 - 11
IA-50BB-12-24	3/4 - 14	1 1/2 - 11
IA-50BB-16-04	1 - 11	1/4 - 19
IA-50BB-16-06	1 - 11	3/8 - 19
IA-50BB-16-08	1 - 11	1/2 - 14
IA-50BB-16-12	1 - 11	3/4 - 14
IA-50BB-16-16	1 - 11	1 - 11
IA-50BB-16-20	1 - 11	1 1/4 - 11
IA-50BB-16-24	1 - 11	1 1/2 - 11
IA-50BB-16-32	1 - 11	2 - 11
IA-50BB-16-48	1 - 11	3 - 11
IA-50BB-20-08	1 1/4 - 11	1/2 - 14
IA-50BB-20-12	1 1/4 - 11	3/4 - 14
IA-50BB-20-16	1 1/4 - 11	1 - 11
IA-50BB-20-20	1 1/4 - 11	1 1/4 - 11
IA-50BB-20-24	1 1/4 - 11	1 1/2 - 11
IA-50BB-20-32	1 1/4 - 11	2 - 11
IA-50BB-24-08	1 1/2 - 11	1/2 - 14
IA-50BB-24-12	1 1/2 - 11	3/4 - 14
IA-50BB-24-16	1 1/2 - 11	1 - 11
IA-50BB-24-20	1 1/2 - 11	1 1/4 - 11
IA-50BB-24-24	1 1/2 - 11	1 1/2 - 11
IA-50BB-24-32	1 1/2 - 11	2 - 11
IA-50BB-32-04	2 - 11	1/4 - 19
IA-50BB-32-06	2 - 11	3/8 - 19

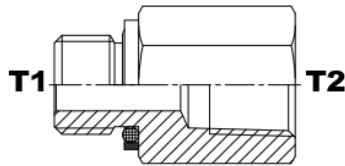
! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

IA-50BB BSPP MALE x FEMALE RIGID



PART NUMBER	T1	T2
IA-50BB-32-08	2 - 11	1/2 - 14
IA-50BB-32-12	2 - 11	3/4 - 14
IA-50BB-32-16	2 - 11	1 - 11
IA-50BB-32-20	2 - 11	1 1/4 - 11
IA-50BB-32-24	2 - 11	1 1/2 - 11
IA-50BB-32-32	2 - 11	2 - 11
IA-50BB-32-40	2 - 11	2 1/2 - 11
IA-50BB-40-24	2 1/2 - 11	1 1/2 - 11
IA-50BB-40-32	2 1/2 - 11	2 - 11
IA-50BB-40-40	2 1/2 - 11	2 1/2 - 11
IA-50BB-48-24	3 - 11	1 1/2 - 11
IA-50BB-48-32	3 - 11	2 - 11
IA-50BB-64-48	4 - 11	3 - 11

IA-50BB-WD BSPP MALE x FEMALE RIGID + CAPTIVE SEAL

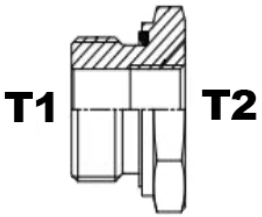


PART NUMBER	T1	T2
IA-50BB-02-04-WD	1/8 - 28	1/4 - 19
IA-50BB-02-06-WD	1/8 - 28	3/8 - 19
IA-50BB-04-02-WD	1/4 - 19	1/8 - 28
IA-50BB-04-06-WD	1/4 - 19	3/8 - 19
IA-50BB-04-08-WD	1/4 - 19	1/2 - 14
IA-50BB-06-02-WD	3/8 - 19	1/8 - 28
IA-50BB-06-04-WD	3/8 - 19	1/4 - 19
IA-50BB-06-08-WD	3/8 - 19	1/2 - 14
IA-50BB-08-02-WD	1/2 - 14	1/8 - 28
IA-50BB-08-04-WD	1/2 - 14	1/4 - 19
IA-50BB-08-06-WD	1/2 - 14	3/8 - 19
IA-50BB-08-12-WD	1/2 - 14	3/4 - 14
IA-50BB-08-16-WD	1/2 - 14	1 - 11
IA-50BB-08-20-WD	1/2 - 14	1 1/4 - 11
IA-50BB-12-04-WD	3/4 - 14	1/4 - 19
IA-50BB-12-06-WD	3/4 - 14	3/8 - 19
IA-50BB-12-08-WD	3/4 - 14	1/2 - 14
IA-50BB-12-16-WD	3/4 - 14	1 - 11
IA-50BB-16-08-WD	1 - 11	1/2 - 14
IA-50BB-16-12-WD	1 - 11	3/4 - 14
IA-50BB-20-12-WD	1 1/4 - 11	3/4 - 14
IA-50BB-20-16-WD	1 1/4 - 11	1 - 11
IA-50BB-24-12-WD	1 1/2 - 11	3/4 - 14
IA-50BB-24-16-WD	1 1/2 - 11	1 - 11

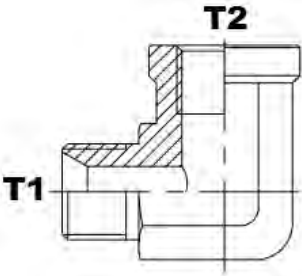


WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

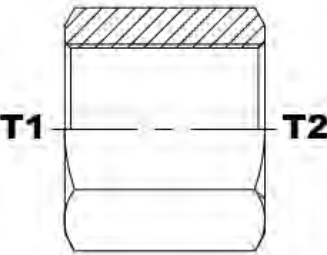
IA-50BB-SB-WD M-BSPP CAPTIVE SEAL x F-BSPP - SHORT BODY


	PART NUMBER	T1	T2
	IA-50BB-06-02-SB-WD	3/8 - 19	1/8 - 28
IA-50BB-08-02-SB-WD	1/2 - 14	1/8 - 28	
IA-50BB-08-04-SB-WD	1/2 - 14	1/4 - 19	
IA-50BB-12-04-SB-WD	3/4 - 14	1/4 - 19	
IA-50BB-12-06-SB-WD	3/4 - 14	3/8 - 19	
IA-50BB-16-04-SB-WD	1 - 11	1/4 - 19	
IA-50BB-16-06-SB-WD	1 - 11	3/8 - 19	
IA-50BB-16-08-SB-WD	1 - 11	1/2 - 14	
IA-50BB-20-08-SB-WD	1 1/4 - 11	1/2 - 14	
IA-50BB-20-12-SB-WD	1 1/4 - 11	3/4 - 14	
IA-50BB-24-08-SB-WD	1 1/2 - 11	1/2 - 14	
IA-50BB-24-12-SB-WD	1 1/2 - 11	3/4 - 14	
IA-50BB-24-16-SB-WD	1 1/2 - 11	1 - 11	

IA-59BB BSPP MALE x 90° FEMALE RIGID

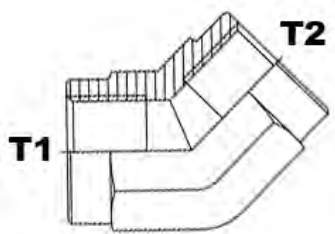
	PART NUMBER	T1	T2
	IA-59BB-04-04	1/4 - 19	1/4 - 19
IA-59BB-06-06	3/8 - 19	3/8 - 19	
IA-59BB-08-08	1/2 - 14	1/2 - 14	
IA-59BB-12-12	3/4 - 14	3/4 - 14	

IA-70BB BSPP FEMALE RIGID COUPLING

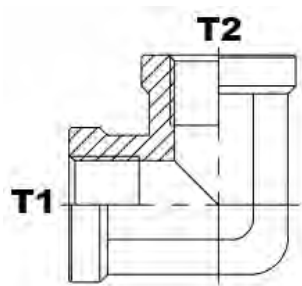
	PART NUMBER	T1	T2
	IA-70BB-02-02	1/8 - 28	1/8 - 28
IA-70BB-04-02	1/4 - 19	1/8 - 28	
IA-70BB-04-04	1/4 - 19	1/4 - 19	
IA-70BB-06-04	3/8 - 19	1/4 - 19	
IA-70BB-06-06	3/8 - 19	3/8 - 19	
IA-70BB-08-04	1/2 - 14	1/4 - 19	
IA-70BB-08-06	1/2 - 14	3/8 - 19	
IA-70BB-08-08	1/2 - 14	1/2 - 14	
IA-70BB-10-08	5/8 - 14	1/2 - 14	
IA-70BB-10-10	5/8 - 14	5/8 - 14	
IA-70BB-12-06	3/4 - 14	3/8 - 19	
IA-70BB-12-08	3/4 - 14	1/2 - 14	
IA-70BB-12-12	3/4 - 14	3/4 - 14	
IA-70BB-16-12	1 - 11	3/4 - 14	
IA-70BB-16-16	1 - 11	1 - 11	
IA-70BB-20-16	1 1/4 - 11	1 - 11	
IA-70BB-20-20	1 1/4 - 11	1 1/4 - 11	
IA-70BB-24-24	1 1/2 - 11	1 1/2 - 11	
IA-70BB-32-32	2 - 11	2 - 11	


WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

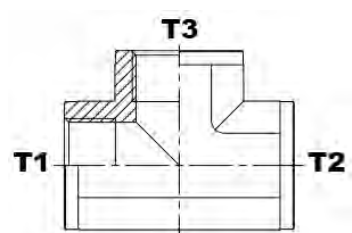
IA-74BB 45° BSPP FEMALE RIGID COUPLING

	PART NUMBER	T1	T2
		IA-74BB-02-02	1/8 - 28
	IA-74BB-04-04	1/4 - 19	1/4 - 19
	IA-74BB-06-06	3/8 - 19	3/8 - 19
	IA-74BB-08-08	1/2 - 14	1/2 - 14
	IA-74BB-10-10	5/8 - 14	5/8 - 14
	IA-74BB-12-12	3/4 - 14	3/4 - 14
	IA-74BB-16-16	1 - 11	1 - 11
	IA-74BB-20-20	1 1/4 - 11	1 1/4 - 11
	IA-74BB-24-24	1 1/2 - 11	1 1/2 - 11
	IA-74BB-32-32	2 - 11	2 - 11

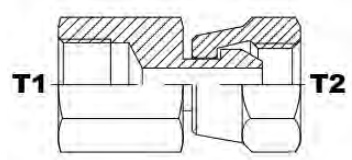
IA-79BB 90° BSPP FEMALE RIGID COUPLING

	PART NUMBER	T1	T2
		IA-79BB-02-02	1/8 - 28
	IA-79BB-04-04	1/4 - 19	1/4 - 19
	IA-79BB-06-06	3/8 - 19	3/8 - 19
	IA-79BB-08-08	1/2 - 14	1/2 - 14
	IA-79BB-12-12	3/4 - 14	3/4 - 14
	IA-79BB-16-16	1 - 11	1 - 11


IA-GBBB BSPP FEMALE RIGID UNION TEE

	PART NUMBER	T1	T2	T3
		IA-GBBB-02-02-02	1/8 - 28	1/8 - 28
	IA-GBBB-04-04-04	1/4 - 19	1/4 - 19	1/4 - 19
	IA-GBBB-06-06-06	3/8 - 19	3/8 - 19	3/8 - 19
	IA-GBBB-08-08-08	1/2 - 14	1/2 - 14	1/2 - 14
	IA-GBBB-12-12-12	3/4 - 14	3/4 - 14	3/4 - 14
	IA-GBBB-16-16-16	1 - 11	1 - 11	1 - 11

IA-40BB BSPP FEMALE RIGID x BSPP FEMALE SWIVEL

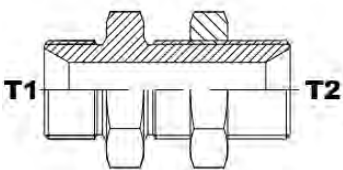
	PART NUMBER	T1	T2
		IA-40BB-04-04	1/4 - 19
	IA-40BB-06-06	3/8 - 19	3/8 - 19

*Quoted Upon Request

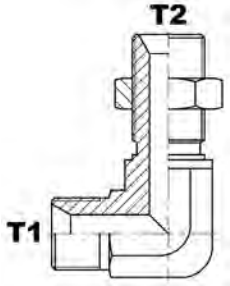
 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>




IA-60BB BSPP MALE BULKHEAD UNION


	PART NUMBER	T1	T2
	IA-60BB-02-02-LN	1/8 - 28	1/8 - 28
IA-60BB-04-04-LN	1/4 - 19	1/4 - 19	
IA-60BB-04-06-LN	1/4 - 19	3/8 - 19	
IA-60BB-06-04-LN	3/8 - 19	1/4 - 19	
IA-60BB-06-06-LN	3/8 - 19	3/8 - 19	
IA-60BB-06-08-LN	3/8 - 19	1/2 - 14	
IA-60BB-08-06-LN	1/2 - 14	3/8 - 19	
IA-60BB-08-08-LN	1/2 - 14	1/2 - 14	
IA-60BB-08-12-LN	1/2 - 14	3/4 - 14	
IA-60BB-10-10-LN	5/8 - 14	5/8 - 14	
IA-60BB-12-08-LN	3/4 - 14	1/2 - 14	
IA-60BB-12-12-LN	3/4 - 14	3/4 - 14	
IA-60BB-16-16-LN	1 - 11	1 - 11	
IA-60BB-20-20-LN	1 1/4 - 11	1 1/4 - 11	
IA-60BB-24-24-LN	1 1/2 - 11	1 1/2 - 11	
IA-60BB-32-32-LN	2 - 11	2 - 11	

IA-69BB 90° BSPP MALE BULKHEAD UNION

	PART NUMBER	T1	T2
	IA-69BB-02-02-LN	1/8 - 28	1/8 - 28
IA-69BB-04-04-LN	1/4 - 19	1/4 - 19	
IA-69BB-04-06-LN	1/4 - 19	3/8 - 19	
IA-69BB-06-06-LN	3/8 - 19	3/8 - 19	
IA-69BB-06-08-LN	3/8 - 19	1/2 - 14	
IA-69BB-08-06-LN	1/2 - 14	3/8 - 19	
IA-69BB-08-08-LN	1/2 - 14	1/2 - 14	
IA-69BB-10-10-LN	5/8 - 14	5/8 - 14	
IA-69BB-12-08-LN	3/4 - 14	1/2 - 14	
IA-69BB-12-12-LN	3/4 - 14	3/4 - 14	
IA-69BB-16-16-LN	1 - 11	1 - 11	
IA-69BB-20-20-LN	1 1/4 - 11	1 1/4 - 11	

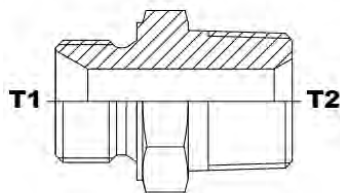
IA-0LNB BSPP MALE BULKHEAD LOCKNUT

	PART NUMBER	T1
	IA-0LNB-02	1/8 - 28
IA-0LNB-04	1/4 - 19	
IA-0LNB-06	3/8 - 19	
IA-0LNB-08	1/2 - 14	
IA-0LNB-10	5/8 - 14	
IA-0LNB-12	3/4 - 14	
IA-0LNB-16	1 - 11	
IA-0LNB-20	1 1/4 - 11	
IA-0LNB-24	1 1/2 - 11	
IA-0LNB-32	2 - 11	

 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

IA-10BN

BSPP MALE x NPT MALE



PART NUMBER	T1	T2
IA-10BN-02-02	1/8 - 28	1/8 - 27
IA-10BN-02-04	1/8 - 28	1/4 - 18
IA-10BN-04-02	1/4 - 19	1/8 - 27
IA-10BN-04-04	1/4 - 19	1/4 - 18
IA-10BN-04-06	1/4 - 19	3/8 - 18
IA-10BN-04-08	1/4 - 19	1/2 - 14
IA-10BN-06-02	3/8 - 19	1/8 - 27
IA-10BN-06-04	3/8 - 19	1/4 - 18
IA-10BN-06-06	3/8 - 19	3/8 - 18
IA-10BN-06-08	3/8 - 19	1/2 - 14
IA-10BN-06-12	3/8 - 19	3/4 - 14
IA-10BN-06-16	3/8 - 19	1 - 11 1/2
IA-10BN-08-04	1/2 - 14	1/4 - 18
IA-10BN-08-06	1/2 - 14	3/8 - 18
IA-10BN-08-08	1/2 - 14	1/2 - 14
IA-10BN-08-12	1/2 - 14	3/4 - 14
IA-10BN-08-16	1/2 - 14	1 - 11 1/2
IA-10BN-10-08	1/2 - 14	1/2 - 14
IA-10BN-10-12	5/8 - 14	3/4 - 14
IA-10BN-12-04	3/4 - 14	1/4 - 18
IA-10BN-12-06	3/4 - 14	3/8 - 18
IA-10BN-12-08	3/4 - 14	1/2 - 14
IA-10BN-12-12	3/4 - 14	3/4 - 14
IA-10BN-12-16	3/4 - 14	1 - 11 1/2
IA-10BN-12-20	3/4 - 14	1 1/4 - 11 1/2
IA-10BN-16-08	1 - 11	1/2 - 14
IA-10BN-16-12	1 - 11	3/4 - 14
IA-10BN-16-16	1 - 11	1 - 11 1/2
IA-10BN-16-20	1 - 11	1 1/4 - 11 1/2
IA-10BN-16-24	1 - 11	1 1/2 - 11 1/2
IA-10BN-20-12	1 1/4 - 11	3/4 - 14
IA-10BN-20-16	1 1/4 - 11	1 - 11 1/2
IA-10BN-20-20	1 1/4 - 11	1 1/4 - 11 1/2
IA-10BN-20-24	1 1/4 - 11	1 1/2 - 11 1/2
IA-10BN-24-12	1 1/2 - 11	3/4 - 14
IA-10BN-24-16	1 1/2 - 11	1 - 11 1/2
IA-10BN-24-20	1 1/2 - 11	1 1/4 - 11 1/2
IA-10BN-24-24	1 1/2 - 11	1 1/2 - 11 1/2
IA-10BN-24-32	1 1/2 - 11	2 - 11 1/2
IA-10BN-32-20	2 - 11	1 1/4 - 11 1/2
IA-10BN-32-24	2 - 11	1 1/2 - 11 1/2
IA-10BN-32-32	2 - 11	2 - 11 1/2
IA-10BN-32-40	2 - 11	2 1/2 - 8
IA-10BN-32-48	2 - 11	3 - 8
IA-10BN-40-32	2 1/2 - 11	2 - 11 1/2
IA-10BN-40-40	2 1/2 - 11	2 1/2 - 8
IA-10BN-40-48	2 1/2 - 11	3 - 8
IA-10BN-48-48	3 - 11	3 - 8
IA-10BN-64-64	4 - 11	4 - 8

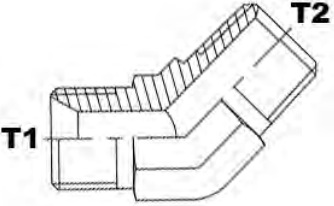
BSPP (60° SEAT & RIGID FEMALE)



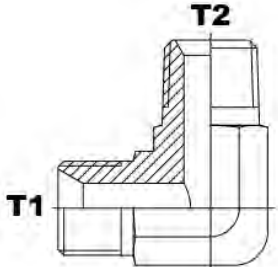
WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



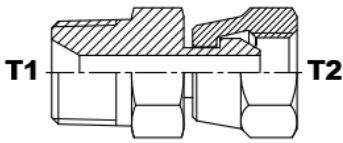
IA-14BN BSP MALE x 45° NPT MALE

 <p>T1 T2</p> <p><i>*Quoted Upon Request</i></p>	PART NUMBER	T1	T2
	IA-14BN-04-04	1/4 - 19	1/4 - 18
	IA-14BN-06-06	3/8 - 19	3/8 - 18

IA-19BN BSP MALE x 90° NPT MALE

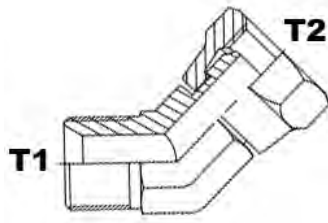
 <p>T1 T2</p>	PART NUMBER	T1	T2
	IA-19BN-02-02	1/8 - 28	1/8 - 27
	IA-19BN-04-02	1/4 - 19	1/8 - 27
	IA-19BN-04-04	1/4 - 19	1/4 - 18
	IA-19BN-06-04	3/8 - 19	1/4 - 18
	IA-19BN-06-06	3/8 - 19	3/8 - 18
	IA-19BN-06-08	3/8 - 19	1/2 - 14
	IA-19BN-08-06	1/2 - 14	3/8 - 18
	IA-19BN-08-08	1/2 - 14	1/2 - 14
	IA-19BN-12-12	3/4 - 14	3/4 - 14
	IA-19BN-16-16	1 - 11	1 - 11 1/2

IA-20NB NPT MALE x BSP FEMALE SWIVEL

 <p>T1 T2</p>	PART NUMBER	T1	T2
	IA-20NB-02-02	1/8 - 27	1/8 - 28
	IA-20NB-02-04	1/8 - 27	1/4 - 19
	IA-20NB-04-04	1/4 - 18	1/4 - 19
	IA-20NB-04-06	1/4 - 18	3/8 - 19
	IA-20NB-06-04	3/8 - 18	1/4 - 19
	IA-20NB-06-06	3/8 - 18	3/8 - 19
	IA-20NB-06-08	3/8 - 18	1/2 - 14
	IA-20NB-08-06	1/2 - 14	3/8 - 19
	IA-20NB-08-08	1/2 - 14	1/2 - 14
	IA-20NB-08-12	1/2 - 14	3/4 - 14
	IA-20NB-12-08	3/4 - 14	1/2 - 14
	IA-20NB-12-12	3/4 - 14	3/4 - 14
	IA-20NB-16-12	1 - 11 1/2	3/4 - 14
	IA-20NB-16-16	1 - 11 1/2	1 - 11
	IA-20NB-20-20	1 1/4 - 11 1/2	1 1/4 - 11
	IA-20NB-24-24	1 1/2 - 11 1/2	1 1/2 - 11

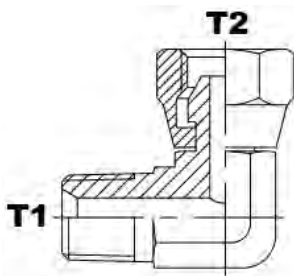
⚠ WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

IA-24NB NPT MALE x 45° BSPP FEMALE SWIVEL

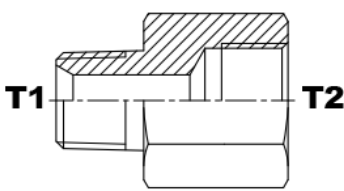
	PART NUMBER	T1	T2
	IA-24NB-04-04	1/4 - 18	1/4 - 19
	IA-24NB-06-06	3/8 - 18	3/8 - 19


*Quoted Upon Request

IA-29NB NPT MALE x 90° BSPP FEMALE SWIVEL

	PART NUMBER	T1	T2
	IA-29NB-02-02	1/8 - 27	1/8 - 28
	IA-29NB-04-04	1/4 - 18	1/4 - 19
IA-29NB-06-06	3/8 - 18	3/8 - 19	
IA-29NB-08-08	1/2 - 14	1/2 - 14	
IA-29NB-12-12	3/4 - 14	3/4 - 14	
IA-29NB-16-16	1 - 11 1/2	1 - 11	
IA-29NB-20-20	1 1/4 - 11 1/2	1 1/4 - 11	
IA-29NB-24-24	1 1/2 - 11 1/2	1 1/2 - 11	

IA-50NB NPT MALE x BSPP FEMALE RIGID

	PART NUMBER	T1	T2
	IA-50NB-02-02	1/8 - 27	1/8 - 28
	IA-50NB-04-02	1/4 - 18	1/8 - 28
IA-50NB-04-04	1/4 - 18	1/4 - 19	
IA-50NB-06-04	3/8 - 18	1/4 - 19	
IA-50NB-06-06	3/8 - 18	3/8 - 19	
IA-50NB-08-04	1/2 - 14	1/4 - 19	
IA-50NB-08-06	1/2 - 14	3/8 - 19	
IA-50NB-08-08	1/2 - 14	1/2 - 14	
IA-50NB-12-06	3/4 - 14	3/8 - 19	
IA-50NB-12-08	3/4 - 14	1/2 - 14	
IA-50NB-12-12	3/4 - 14	3/4 - 14	
IA-50NB-16-06	1 - 11 1/2	3/8 - 19	
IA-50NB-16-08	1 - 11 1/2	1/2 - 14	
IA-50NB-16-12	1 - 11 1/2	3/4 - 14	
IA-50NB-16-16	1 - 11 1/2	1 - 11	
IA-50NB-20-16	1 1/4 - 11 1/2	1 - 11	
IA-50NB-20-20	1 1/4 - 11 1/2	1 1/4 - 11	
IA-50NB-24-20	1 1/2 - 11 1/2	1 1/4 - 11	
IA-50NB-24-24	1 1/2 - 11 1/2	1 1/2 - 11	
IA-50NB-32-16	2 - 11 1/2	1 - 11	
IA-50NB-32-20	2 - 11 1/2	1 1/4 - 11	
IA-50NB-32-32	2 - 11 1/2	2 - 11	

 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



IA-50BN BSPP MALE x NPT FEMALE RIGID

	PART NUMBER		
	T1	T2	
	IA-50BN-02-02	1/8 - 28	1/8 - 27
	IA-50BN-02-04	1/8 - 28	1/4 - 18
	IA-50BN-04-02	1/4 - 19	1/8 - 27
	IA-50BN-04-04	1/4 - 19	1/4 - 18
	IA-50BN-04-06	1/4 - 19	3/8 - 18
	IA-50BN-06-02	3/8 - 19	1/8 - 27
	IA-50BN-06-04	3/8 - 19	1/4 - 18
	IA-50BN-06-06	3/8 - 19	3/8 - 18
	IA-50BN-06-08	3/8 - 19	1/2 - 14
	IA-50BN-08-04	1/2 - 14	1/4 - 18
	IA-50BN-08-06	1/2 - 14	3/8 - 18
	IA-50BN-08-08	1/2 - 14	1/2 - 14
	IA-50BN-08-12	1/2 - 14	3/4 - 14
	IA-50BN-12-08	3/4 - 14	1/2 - 14
	IA-50BN-12-12	3/4 - 14	3/4 - 14
	IA-50BN-16-08	1 - 11	1/2 - 14
	IA-50BN-16-12	1 - 11	3/4 - 14
	IA-50BN-16-16	1 - 11	1 - 11 1/2
	IA-50BN-20-12	1 1/4 - 11	3/4 - 14
	IA-50BN-20-16	1 1/4 - 11	1 - 11 1/2
IA-50BN-20-20	1 1/4 - 11	1 1/4 - 11 1/2	
IA-50BN-24-20	1 1/2 - 11	1 1/4 - 11 1/2	
IA-50BN-24-24	1 1/2 - 11	1 1/2 - 11 1/2	
IA-50BN-32-32	2 - 11	2 - 11 1/2	

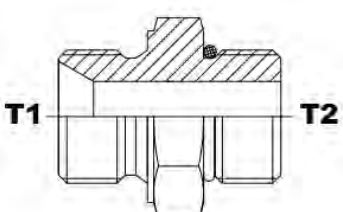
IA-70BN BSPP FEMALE x NPT FEMALE RIGID

	PART NUMBER		
	T1	T2	
	IA-70BN-04-04	1/4 - 19	1/4 - 18
	IA-70BN-06-06	3/8 - 19	3/8 - 18
	IA-70BN-08-08	1/2 - 14	1/2 - 14
	IA-70BN-12-12	3/4 - 14	3/4 - 14
	IA-70BN-16-16	1 - 11	1 - 11 1/2
	IA-70BN-20-20	1 1/4 - 11	1 1/4 - 11 1/2

⚠ WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

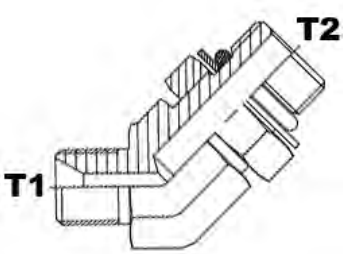
IA-10BO

BSPP MALE x M-ORB

	PART NUMBER	T1	T2
	IA-10BO-04-04	1/4 - 19	7/16 - 20
IA-10BO-04-05	1/4 - 19	1/2 - 20	
IA-10BO-04-06	1/4 - 19	9/16 - 18	
IA-10BO-04-08	1/4 - 19	3/4 - 16	
IA-10BO-06-04	3/8 - 19	7/16 - 20	
IA-10BO-06-06	3/8 - 19	9/16 - 18	
IA-10BO-06-08	3/8 - 19	3/4 - 16	
IA-10BO-06-10	3/8 - 19	7/8 - 14	
IA-10BO-08-04	1/2 - 14	7/16 - 20	
IA-10BO-08-06	1/2 - 14	9/16 - 18	
IA-10BO-08-08	1/2 - 14	3/4 - 16	
IA-10BO-08-10	1/2 - 14	7/8 - 14	
IA-10BO-08-12	1/2 - 14	1 1/16 - 12	
IA-10BO-10-08	5/8 - 14	3/4 - 16	
IA-10BO-10-10	5/8 - 14	7/8 - 14	
IA-10BO-10-12	5/8 - 14	1 1/16 - 12	
IA-10BO-12-08	3/4 - 14	3/4 - 16	
IA-10BO-12-10	3/4 - 14	7/8 - 14	
IA-10BO-12-12	3/4 - 14	1 1/16 - 12	
IA-10BO-12-16	3/4 - 14	1 5/16 - 12	
IA-10BO-16-12	1 - 11	1 1/16 - 12	
IA-10BO-16-16	1 - 11	1 5/16 - 12	
IA-10BO-16-20	1 - 11	1 5/8 - 12	
IA-10BO-20-16	1 1/4 - 11	1 5/16 - 12	
IA-10BO-20-20	1 1/4 - 11	1 5/8 - 12	
IA-10BO-24-24	1 1/2 - 11	1 7/8 - 12	

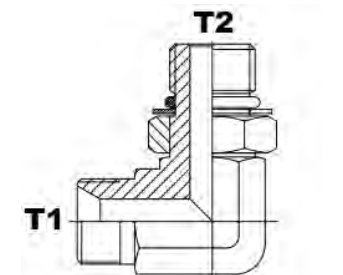
IA-14BO


BSPP MALE x 45° M-ORB

	PART NUMBER	T1	T2
	IA-14BO-04-04	1/4 - 19	7/16 - 20
IA-14BO-06-06	3/8 - 19	9/16 - 18	
IA-14BO-08-08	1/2 - 14	3/4 - 16	
IA-14BO-08-10	1/2 - 14	7/8 - 14	
IA-14BO-12-12	3/4 - 14	1 1/16 - 12	
IA-14BO-16-16	1 - 11	1 5/16 - 12	

IA-19BO

BSPP MALE x 90° M-ORB

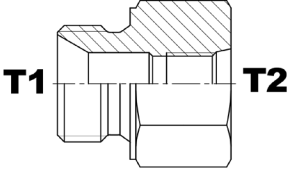
	PART NUMBER	T1	T2
	IA-19BO-04-04	1/4 - 19	7/16 - 20
IA-19BO-04-06	1/4 - 19	9/16 - 18	
IA-19BO-06-06	3/8 - 19	9/16 - 18	
IA-19BO-06-08	3/8 - 19	3/4 - 16	
IA-19BO-08-08	1/2 - 14	3/4 - 16	
IA-19BO-08-10	1/2 - 14	7/8 - 14	
IA-19BO-10-10	5/8 - 14	7/8 - 14	
IA-19BO-12-12	3/4 - 14	1 1/16 - 12	
IA-19BO-16-16	1 - 11	1 5/16 - 12	

 **WARNING** This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

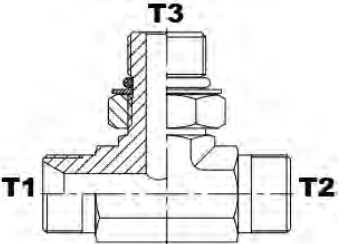




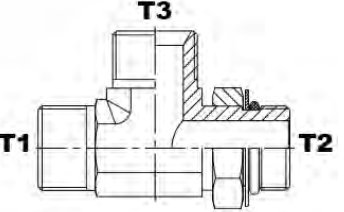
IA-50BO M-BSPP x ORB FEMALE

	PART NUMBER	T1	T2
	IA-50BO-04-04	1/4 - 19	7/16 - 20
	IA-50BO-06-04	3/8 - 19	7/16 - 20
	IA-50BO-06-06	3/8 - 19	9/16 - 18
	IA-50BO-08-08	1/2 - 14	3/4 - 16
	IA-50BO-08-10	1/2 - 14	7/8 - 14
	IA-50BO-12-12	3/4 - 14	1 1/16 - 12
	IA-50BO-16-16	1 - 11	1 5/16 - 12
	IA-50BO-20-20	1 1/4 - 11	1 5/8 - 12

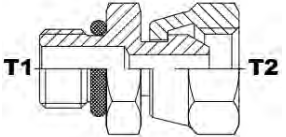
IA-ABBO BSPP MALE x M-ORB BR TEE

	PART NUMBER	T1	T2	T3
	IA-ABBO-04-04-04	1/4 - 19	1/4 - 19	7/16 - 20
	IA-ABBO-06-06-06	3/8 - 19	3/8 - 19	9/16 - 18
	IA-ABBO-08-08-08	1/2 - 14	1/2 - 14	3/4 - 16
	IA-ABBO-12-12-12	3/4 - 14	3/4 - 14	1 1/16 - 12
	IA-ABBO-16-16-16	1 - 11	1 - 11	1 5/16 - 12

IA-ABOB BSPP MALE x M-ORB RUN TEE

	PART NUMBER	T1	T2	T3
	IA-ABOB-04-04-04	1/4 - 19	7/16 - 20	1/4 - 19
	IA-ABOB-06-06-06	3/8 - 19	9/16 - 18	3/8 - 19
	IA-ABOB-08-08-08	1/2 - 14	3/4 - 16	1/2 - 14
	IA-ABOB-12-12-12	3/4 - 14	1 1/16 - 12	3/4 - 14
	IA-ABOB-16-16-16	1 - 11	1 5/16 - 12	1 - 11

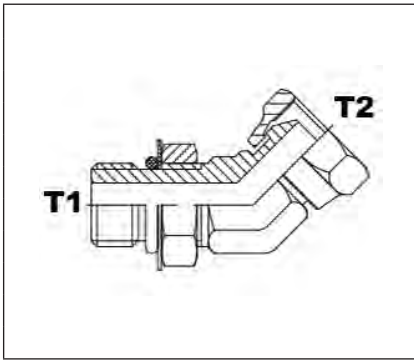
IA-200B M-ORB x BSPP FEMALE SWIVEL

	PART NUMBER	T1	T2
	IA-200B-04-04	7/16 - 20	1/4 - 19
	IA-200B-06-04	9/16 - 18	1/4 - 19
	IA-200B-06-06	9/16 - 18	3/8 - 19
	IA-200B-06-08	9/16 - 18	1/2 - 14
	IA-200B-08-06	3/4 - 16	3/8 - 19
	IA-200B-08-08	3/4 - 16	1/2 - 14
	IA-200B-08-12	3/4 - 16	3/4 - 14
	IA-200B-10-08	7/8 - 14	1/2 - 14
	IA-200B-12-08	1 1/16 - 12	1/2 - 14
	IA-200B-12-12	1 1/16 - 12	3/4 - 14
	IA-200B-16-16	1 5/16 - 12	1 - 11

⚠ WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

IA-24OB

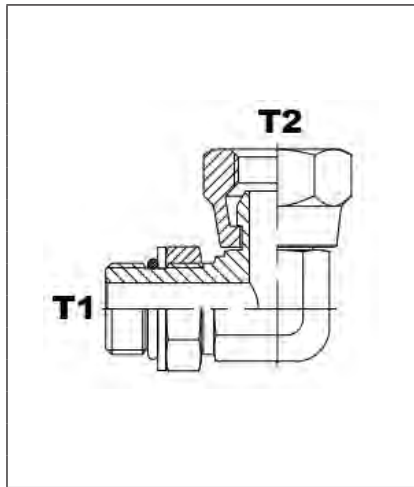
M-ORB x BSPP FEMALE SWIVEL 45°



PART NUMBER	T1	T2
IA-24OB-04-04	7/16 - 20	1/4 - 19
IA-24OB-04-06	7/16 - 20	3/8 - 19
IA-24OB-06-04	9/16 - 18	1/4 - 19
IA-24OB-06-06	9/16 - 18	3/8 - 19
IA-24OB-08-06	3/4 - 16	3/8 - 19
IA-24OB-08-08	3/4 - 16	1/2 - 14
IA-24OB-08-12	3/4 - 16	3/4 - 14
IA-24OB-10-08	7/8 - 14	1/2 - 14
IA-24OB-12-12	1 1/16 - 12	3/4 - 14

IA-29OB

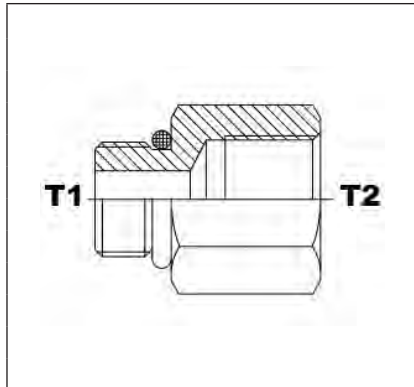
M-ORB x BSPP FEMALE SWIVEL 90°



PART NUMBER	T1	T2
IA-29OB-04-04	7/16 - 20	1/4 - 19
IA-29OB-06-04	7/16 - 20	1/4 - 19
IA-29OB-06-06	9/16 - 18	3/8 - 19
IA-29OB-06-08	3/4 - 16	1/2 - 14
IA-29OB-08-06	9/16 - 18	3/8 - 19
IA-29OB-08-08	3/4 - 16	1/2 - 14
IA-29OB-08-10	7/8 - 14	5/8 - 14
IA-29OB-08-12	1 1/16 - 12	3/4 - 14
IA-29OB-10-08	3/4 - 16	1/2 - 14
IA-29OB-12-08	3/4 - 16	1/2 - 14
IA-29OB-12-12	1 1/16 - 12	3/4 - 14
IA-29OB-16-16	1 5/16 - 12	1 - 11
IA-29OB-20-20	1 5/8 - 12	1 1/4 - 11
IA-29OB-24-24	1 7/8 - 12	1 1/2 - 11

IA-50OB

M-ORB x BSPP FEMALE RIGID



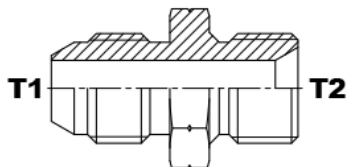
PART NUMBER	T1	T2
IA-50OB-04-04	7/16 - 20	1/4 - 19
IA-50OB-06-06	9/16 - 18	3/8 - 19
IA-50OB-08-06	9/16 - 18	3/8 - 19
IA-50OB-08-08	3/4 - 16	1/2 - 14
IA-50OB-10-08	3/4 - 16	1/2 - 14
IA-50OB-12-12	1 1/16 - 12	3/4 - 14
IA-50OB-16-16	1 5/16 - 12	1 - 11

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

IA-10JB

JIC MALE x BSPP MALE 60°

BSPP (60° SEAT & RIGID FEMALE)

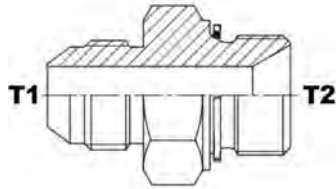


PART NUMBER	T1	T2
IA-10JB-03-04	3/8 - 24	1/4 - 19
IA-10JB-04-02	7/16 - 20	1/8 - 28
IA-10JB-04-04	7/16 - 20	1/4 - 19
IA-10JB-04-06	7/16 - 20	1/4 - 19
IA-10JB-04-08	7/16 - 20	1/2 - 14
IA-10JB-05-02	1/2 - 20	1/8 - 28
IA-10JB-05-04	1/2 - 20	1/4 - 19
IA-10JB-05-06	1/2 - 20	1/4 - 19
IA-10JB-05-08	1/2 - 20	1/2 - 14
IA-10JB-06-02	9/16 - 18	1/8 - 28
IA-10JB-06-04	9/16 - 18	1/4 - 19
IA-10JB-06-06	9/16 - 18	1/4 - 19
IA-10JB-06-08	9/16 - 18	1/2 - 14
IA-10JB-06-10	9/16 - 18	5/8 - 14
IA-10JB-06-12	9/16 - 18	3/4 - 14
IA-10JB-08-04	3/4 - 16	1/4 - 19
IA-10JB-08-06	3/4 - 16	1/4 - 19
IA-10JB-08-08	3/4 - 16	1/2 - 14
IA-10JB-08-10	3/4 - 16	5/8 - 14
IA-10JB-08-12	3/4 - 16	3/4 - 14
IA-10JB-08-16	3/4 - 16	1 - 11
IA-10JB-10-06	7/8 - 14	3/8 - 19
IA-10JB-10-08	7/8 - 14	1/2 - 14
IA-10JB-10-10	7/8 - 14	5/8 - 14
IA-10JB-10-12	7/8 - 14	3/4 - 14
IA-10JB-10-16	7/8 - 14	1 - 11
IA-10JB-12-06	1 1/16 - 12	1/4 - 19
IA-10JB-12-08	1 1/16 - 12	1/2 - 14
IA-10JB-12-10	1 1/16 - 12	5/8 - 14
IA-10JB-12-12	1 1/16 - 12	3/4 - 14
IA-10JB-12-16	1 1/16 - 12	1 - 11
IA-10JB-12-20	1 1/16 - 12	1 1/4 - 11
IA-10JB-14-16	1 3/16 - 12	1 - 11
IA-10JB-16-08	1 5/16 - 12	1/2 - 14
IA-10JB-16-12	1 5/16 - 12	3/4 - 14
IA-10JB-16-16	1 5/16 - 12	1 - 11
IA-10JB-16-20	1 5/16 - 12	1 1/4 - 11
IA-10JB-16-24	1 5/16 - 12	1 1/2 - 11
IA-10JB-20-12	1 5/8 - 12	3/4 - 14
IA-10JB-20-16	1 5/8 - 12	1 - 11
IA-10JB-20-20	1 5/8 - 12	1 1/4 - 11
IA-10JB-20-24	1 5/8 - 12	1 1/2 - 11
IA-10JB-20-32	1 5/8 - 12	2 - 11
IA-10JB-24-16	1 7/8 - 12	1 - 11
IA-10JB-24-20	1 7/8 - 12	1 1/4 - 11
IA-10JB-24-24	1 7/8 - 12	1 1/2 - 11
IA-10JB-24-32	1 7/8 - 12	2 - 11
IA-10JB-32-20	2 1/2 - 12	1 1/4 - 11
IA-10JB-32-24	2 1/2 - 12	1 1/2 - 11
IA-10JB-32-32	2 1/2 - 12	2 - 11

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IA-10JB-BS

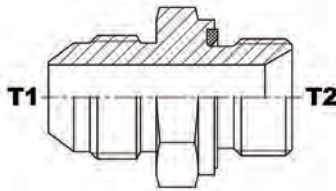
JIC MALE x BSPP MALE w/ Bonded Seal



PART NUMBER	T1	T2
IA-10JB-04-02-BS	7/16 - 20	1/8 - 28
IA-10JB-04-04-BS	7/16 - 20	1/4 - 19
IA-10JB-04-06-BS	7/16 - 20	1/4 - 19
IA-10JB-05-04-BS	1/2 - 20	1/4 - 19
IA-10JB-05-06-BS	1/2 - 20	1/4 - 19
IA-10JB-06-02-BS	9/16 - 18	1/8 - 28
IA-10JB-06-04-BS	9/16 - 18	1/4 - 19
IA-10JB-06-06-BS	9/16 - 18	1/4 - 19
IA-10JB-06-08-BS	9/16 - 18	1/2 - 14
IA-10JB-06-12-BS	9/16 - 18	3/4 - 14
IA-10JB-08-06-BS	3/4 - 16	1/4 - 19
IA-10JB-08-08-BS	3/4 - 16	1/2 - 14
IA-10JB-08-10-BS	3/4 - 16	5/8 - 14
IA-10JB-08-12-BS	3/4 - 16	3/4 - 14
IA-10JB-08-16-BS	3/4 - 16	1 - 11
IA-10JB-10-06-BS	7/8 - 14	3/8 - 19
IA-10JB-10-08-BS	7/8 - 14	1/2 - 14
IA-10JB-10-10-BS	7/8 - 14	5/8 - 14
IA-10JB-10-12-BS	7/8 - 14	3/4 - 14
IA-10JB-12-06-BS	1 1/16 - 12	1/4 - 19
IA-10JB-12-08-BS	1 1/16 - 12	1/2 - 14
IA-10JB-12-10-BS	1 1/16 - 12	5/8 - 14
IA-10JB-12-12-BS	1 1/16 - 12	3/4 - 14
IA-10JB-12-16-BS	1 1/16 - 12	1 - 11
IA-10JB-16-12-BS	1 5/16 - 12	3/4 - 14
IA-10JB-16-16-BS	1 5/16 - 12	1 - 11
IA-10JB-16-20-BS	1 5/16 - 12	1 1/4 - 11
IA-10JB-20-16-BS	1 5/8 - 12	1 - 11
IA-10JB-20-20-BS	1 5/8 - 12	1 1/4 - 11

IA-10JB-WD

JIC MALE x BSPP MALE 60° + CAPTIVE SEAL



PART NUMBER	T1	T2
IA-10JB-04-02-WD	7/16 - 20	1/8 - 28
IA-10JB-04-04-WD	7/16 - 20	1/4 - 19
IA-10JB-04-06-WD	7/16 - 20	1/4 - 19
IA-10JB-04-08-WD	7/16 - 20	1/2 - 14
IA-10JB-05-04-WD	1/2 - 20	1/4 - 19
IA-10JB-05-06-WD	1/2 - 20	1/4 - 19
IA-10JB-06-04-WD	9/16 - 18	1/4 - 19
IA-10JB-06-06-WD	9/16 - 18	1/4 - 19
IA-10JB-06-08-WD	9/16 - 18	1/2 - 14
IA-10JB-06-12-WD	9/16 - 18	3/4 - 14
IA-10JB-08-04-WD	3/4 - 16	1/4 - 19
IA-10JB-08-06-WD	3/4 - 16	1/4 - 19
IA-10JB-08-08-WD	3/4 - 16	1/2 - 14
IA-10JB-08-12-WD	3/4 - 16	3/4 - 14
IA-10JB-10-08-WD	7/8 - 14	1/2 - 14
IA-10JB-10-12-WD	7/8 - 14	3/4 - 14
IA-10JB-12-08-WD	1 1/16 - 12	1/2 - 14
IA-10JB-12-12-WD	1 1/16 - 12	3/4 - 14
IA-10JB-16-12-WD	1 5/16 - 12	3/4 - 14
IA-10JB-16-16-WD	1 5/16 - 12	1 - 11
IA-10JB-20-20-WD	1 5/8 - 12	1 1/4 - 11
IA-10JB-24-20-WD	1 7/8 - 12	1 1/4 - 11
IA-10JB-24-24-WD	1 7/8 - 12	1 1/2 - 11

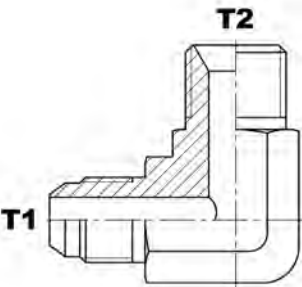


WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

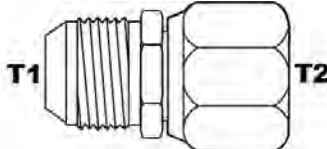




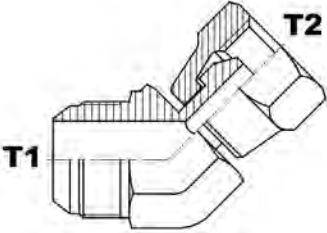
IA-19JB JIC MALE x BSPP MALE 90°

	PART NUMBER	T1	T2
	IA-19JB-04-04	7/16 - 20	1/4 - 19
IA-19JB-06-04	9/16 - 18	1/4 - 19	
IA-19JB-06-06	9/16 - 18	3/8 - 19	
IA-19JB-08-06	3/4 - 16	3/8 - 19	
IA-19JB-08-08	3/4 - 16	1/2 - 14	
IA-19JB-10-08	7/8 - 14	1/2 - 14	
IA-19JB-12-12	1 1/16 - 12	3/4 - 14	
IA-19JB-16-16	1 5/16 - 12	1 - 11	

IA-20JB JIC MALE x BSPP FEMALE SWIVEL

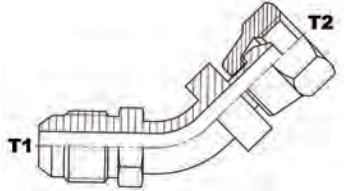
	PART NUMBER	T1	T2
	IA-20JB-04-02	7/16 - 20	1/8 - 28
IA-20JB-04-04	7/16 - 20	1/4 - 19	
IA-20JB-04-06	7/16 - 20	3/8 - 19	
IA-20JB-05-04	1/2 - 20	1/4 - 19	
IA-20JB-06-04	9/16 - 18	1/4 - 19	
IA-20JB-06-06	9/16 - 18	3/8 - 19	
IA-20JB-06-08	9/16 - 18	1/2 - 14	
IA-20JB-08-06	3/4 - 16	3/8 - 19	
IA-20JB-08-08	3/4 - 16	1/2 - 14	
IA-20JB-08-10	3/4 - 16	5/8 - 14	
IA-20JB-08-12	3/4 - 16	3/4 - 14	
IA-20JB-10-06	7/8 - 14	3/8 - 19	
IA-20JB-10-08	7/8 - 14	1/2 - 14	
IA-20JB-10-10	7/8 - 14	5/8 - 14	
IA-20JB-12-12	1 1/16 - 12	3/4 - 14	
IA-20JB-16-16	1 5/16 - 12	1 - 11	
IA-20JB-20-20	1 5/8 - 12	1 1/4 - 11	
IA-20JB-24-24	1 7/8 - 12	1 1/2 - 11	

IA-24JB JIC MALE x BSPP FEMALE SWIVEL 45°

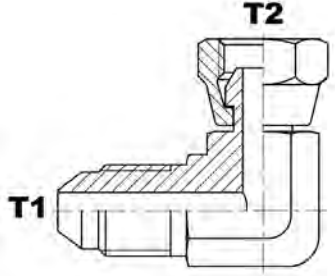
	PART NUMBER	T1	T2
	IA-24JB-04-04	7/16 - 20	1/4 - 19
IA-24JB-06-06	9/16 - 18	3/8 - 19	
IA-24JB-08-08	3/4 - 16	1/2 - 14	
IA-24JB-10-10	7/8 - 14	5/8 - 14	
IA-24JB-12-12	1 1/16 - 12	3/4 - 14	
IA-24JB-16-16	1 5/16 - 12	1 - 11	

⚠ WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

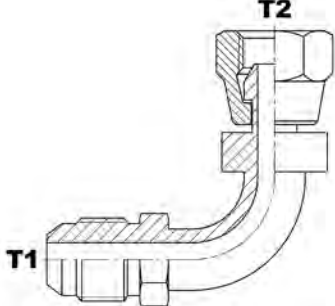
IA-24JB-T JIC MALE x BSPP FEMALE SWIVEL 45° SWEPT


	PART NUMBER	T1	T2
	IA-24JB-04-04-T	7/16 - 20	1/4 - 19
	IA-24JB-06-06-T	9/16 - 18	3/8 - 19
	IA-24JB-08-08-T	3/4 - 16	1/2 - 14
	IA-24JB-12-12-T	1 1/16 - 12	3/4 - 14

IA-29JB JIC MALE x 90° BSPP FEMALE SWIVEL

	PART NUMBER	T1	T2
	IA-29JB-04-04	7/16 - 20	1/4 - 19
	IA-29JB-06-06	9/16 - 18	3/8 - 19
	IA-29JB-08-08	3/4 - 16	1/2 - 14
	IA-29JB-10-10	7/8 - 14	5/8 - 14
	IA-29JB-12-12	1 1/16 - 12	3/4 - 14
	IA-29JB-16-16	1 5/16 - 12	1 - 11

IA-29JB-T JIC MALE x 90° BSPP FEMALE SWIVEL SWEPT

	PART NUMBER	T1	T2
	IA-29JB-04-04-T	7/16 - 20	1/4 - 19
	IA-29JB-06-06-T	9/16 - 18	3/8 - 19
	IA-29JB-08-08-T	3/4 - 16	1/2 - 14
	IA-29JB-10-10-T	7/8 - 14	5/8 - 14
	IA-29JB-12-12-T	1 1/16 - 12	3/4 - 14
	IA-29JB-16-16-T	1 5/16 - 12	1 - 11
	IA-29JB-24-24-T	1 7/8 - 12	1 1/2 - 11

 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



IA-20BJ

BSPP MALE x JIC FEMALE SWIVEL

	PART NUMBER		
	T1	T2	
	IA-20BJ-02-04	1/8 - 28	7/16 - 20
	IA-20BJ-04-04	1/4 - 19	7/16 - 20
	IA-20BJ-04-05	1/4 - 19	1/2 - 20
	IA-20BJ-04-06	1/4 - 19	9/16 - 18
	IA-20BJ-06-04	3/8 - 19	7/16 - 20
	IA-20BJ-06-06	3/8 - 19	9/16 - 18
	IA-20BJ-06-08	3/8 - 19	3/4 - 16
	IA-20BJ-06-10	3/8 - 19	7/8 - 14
	IA-20BJ-08-05	1/2 - 14	1/2 - 20
	IA-20BJ-08-06	1/2 - 14	9/16 - 18
	IA-20BJ-08-08	1/2 - 14	3/4 - 16
	IA-20BJ-08-10	1/2 - 14	7/8 - 14
	IA-20BJ-08-12	1/2 - 14	1 1/16 - 12
	IA-20BJ-10-08	5/8 - 14	3/4 - 16
	IA-20BJ-10-10	5/8 - 14	7/8 - 14
	IA-20BJ-12-08	3/4 - 14	3/4 - 16
	IA-20BJ-12-10	3/4 - 14	7/8 - 14
	IA-20BJ-12-12	3/4 - 14	1 1/16 - 12
	IA-20BJ-12-16	3/4 - 14	1 5/16 - 12
	IA-20BJ-16-16	1 - 11	1 5/16 - 12
IA-20BJ-20-20	1 1/4 - 11	1 5/8 - 12	
IA-20BJ-24-24	1 1/2 - 11	1 7/8 - 12	

IA-20BJ-WD

BSPP MALE +CAPTIVE SEAL x JIC FEM. SWIVEL

	PART NUMBER		
	T1	T2	
	IA-20BJ-04-04-WD	1/4 - 19	7/16 - 20
	IA-20BJ-04-05-WD	1/4 - 19	1/2 - 20
	IA-20BJ-04-06-WD	1/4 - 19	9/16 - 18
	IA-20BJ-04-08-WD	1/4 - 19	3/4 - 16
	IA-20BJ-06-04-WD	3/8 - 19	7/16 - 20
	IA-20BJ-06-06-WD	3/8 - 19	9/16 - 18
	IA-20BJ-06-08-WD	3/8 - 19	3/4 - 16
	IA-20BJ-08-06-WD	1/2 - 14	9/16 - 18
	IA-20BJ-08-08-WD	1/2 - 14	3/4 - 16
	IA-20BJ-08-10-WD	1/2 - 14	7/8 - 14
	IA-20BJ-12-12-WD	3/4 - 14	1 1/16 - 12
	IA-20BJ-12-16-WD	3/4 - 14	1 5/16 - 12
	IA-20BJ-16-16-WD	1 - 11	1 5/16 - 12
	IA-20BJ-20-16-WD	1 1/4 - 11	1 5/16 - 12
	IA-20BJ-20-20-WD	1 1/4 - 11	1 5/8 - 12
	IA-20BJ-24-24-WD	1 1/2 - 11	1 7/8 - 12

IA-24BJ

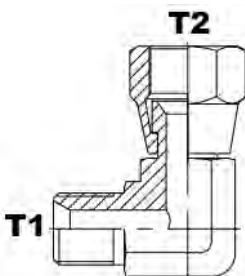
BSPP MALE x JIC FEMALE SWIVEL 45°

	PART NUMBER		
	T1	T2	
	IA-24BJ-04-04	1/4 - 19	7/16 - 20
	IA-24BJ-06-06	3/8 - 19	9/16 - 18
	IA-24BJ-08-08	1/2 - 14	3/4 - 16
	IA-24BJ-10-10	5/8 - 14	7/8 - 14
	IA-24BJ-12-12	3/4 - 14	1 1/16 - 12
	IA-24BJ-16-16	1 - 11	1 5/16 - 12

⚠ WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

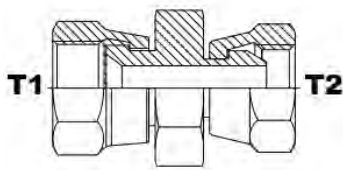
IA-29BJ

BSPP MALE x 90° JIC FEMALE SWIVEL

	PART NUMBER	T1	T2
	IA-29BJ-04-04	1/4 - 19	7/16 - 20
	IA-29BJ-06-06	3/8 - 19	9/16 - 18
	IA-29BJ-08-08	1/2 - 14	3/4 - 16
	IA-29BJ-12-12	3/4 - 14	1 1/16 - 12

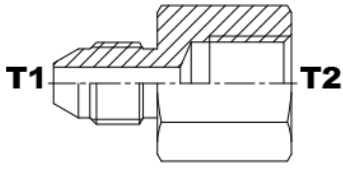
IA-30JB

JIC FEMALE x BSPP SWIVEL UNION

	PART NUMBER	T1	T2
	IA-30JB-04-04	7/16 - 20	1/4 - 19
	IA-30JB-06-04	9/16 - 18	1/4 - 19
	IA-30JB-06-06	9/16 - 18	3/8 - 19
	IA-30JB-06-08	9/16 - 18	1/2 - 14
	IA-30JB-08-06	3/4 - 16	3/8 - 19
	IA-30JB-08-08	3/4 - 16	1/2 - 14
	IA-30JB-10-10	7/8 - 14	5/8 - 14
	IA-30JB-12-12	1 1/16 - 12	3/4 - 14
	IA-30JB-16-16	1 5/16 - 12	1 - 11

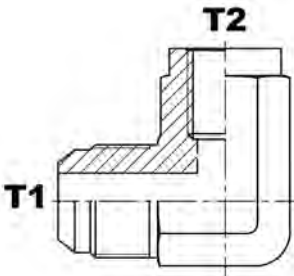
IA-50JB

JIC MALE x BSPP FEMALE RIGID

	PART NUMBER	T1	T2
	IA-50JB-04-02	7/16 - 20	1/8 - 28
	IA-50JB-04-04	7/16 - 20	1/4 - 19
	IA-50JB-06-04	9/16 - 18	1/4 - 19
	IA-50JB-06-06	9/16 - 18	3/8 - 19
	IA-50JB-08-06	3/4 - 16	3/8 - 19
	IA-50JB-08-08	3/4 - 16	1/2 - 14
	IA-50JB-10-08	7/8 - 14	1/2 - 14
	IA-50JB-12-08	1 1/16 - 12	1/2 - 14
	IA-50JB-12-12	1 1/16 - 12	3/4 - 14
	IA-50JB-16-16	1 5/16 - 12	1 - 11
	IA-50JB-20-20	1 5/8 - 12	1 1/4 - 11

IA-59JB

JIC MALE x 90° BSPP FEMALE RIGID

	PART NUMBER	T1	T2
	IA-59JB-04-04	7/16 - 20	1/4 - 19
	IA-59JB-05-04	1/2 - 20	1/4 - 19
	IA-59JB-06-04	9/16 - 18	1/4 - 19
	IA-59JB-06-06	9/16 - 18	3/8 - 19
	IA-59JB-06-08	9/16 - 18	1/2 - 14
	IA-59JB-08-04	3/4 - 16	1/4 - 19
	IA-59JB-08-06	3/4 - 16	3/8 - 19
	IA-59JB-08-08	3/4 - 16	1/2 - 14
	IA-59JB-10-08	7/8 - 14	1/2 - 14
	IA-59JB-10-12	7/8 - 14	3/4 - 14
	IA-59JB-12-08	1 1/16 - 12	1/2 - 14
	IA-59JB-12-12	1 1/16 - 12	3/4 - 14
	IA-59JB-16-12	1 5/16 - 12	3/4 - 14
	IA-59JB-16-16	1 5/16 - 12	1 - 11

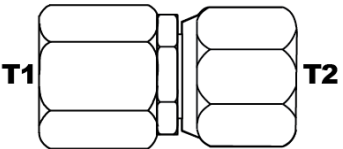
! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





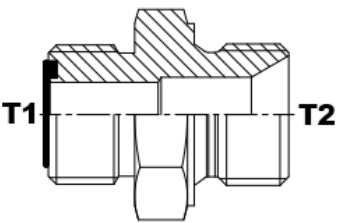
IA-40BJ


BSP FEMALE RIGID x JIC FEMALE SWIVEL

	PART NUMBER	T1	T2
		IA-40BJ-04-04	1/4 - 19
	IA-40BJ-06-06	3/8 - 19	9/16 - 18
	IA-40BJ-08-08	1/2 - 14	3/4 - 16
	IA-40BJ-12-12	3/4 - 14	1 1/16 - 12
	IA-40BJ-16-16	1 - 11	1 5/16 - 12
	IA-40BJ-20-20	1 1/4 - 11	1 5/8 - 12
	IA-40BJ-24-24	1 1/2 - 11	1 7/8 - 12

IA-10FB

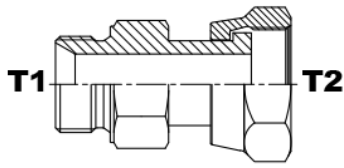
ORFS MALE x BSP MALE

	PART NUMBER	T1	T2
		IA-10FB-04-02	9/16 - 18
	IA-10FB-04-04	9/16 - 18	1/4 - 19
	IA-10FB-04-06	9/16 - 18	3/8 - 19
	IA-10FB-04-08	9/16 - 18	1/2 - 14
	IA-10FB-04-12	9/16 - 18	3/4 - 14
	IA-10FB-06-02	11/16 - 16	1/8 - 28
	IA-10FB-06-04	11/16 - 16	1/4 - 19
	IA-10FB-06-06	11/16 - 16	3/8 - 19
	IA-10FB-06-08	11/16 - 16	1/2 - 14
	IA-10FB-06-12	11/16 - 16	3/4 - 14
	IA-10FB-08-04	13/16 - 16	1/4 - 19
	IA-10FB-08-06	13/16 - 16	3/8 - 19
	IA-10FB-08-08	13/16 - 16	1/2 - 14
	IA-10FB-08-12	13/16 - 16	3/4 - 14
	IA-10FB-08-16	13/16 - 16	1 - 11
	IA-10FB-10-06	1 - 14	3/8 - 19
	IA-10FB-10-08	1 - 14	1/2 - 14
	IA-10FB-10-12	1 - 14	3/4 - 14
	IA-10FB-10-16	1 - 14	1 - 11
	IA-10FB-12-08	1 3/16 - 12	1/2 - 14
	IA-10FB-12-10	1 3/16 - 12	5/8 - 14
	IA-10FB-12-12	1 3/16 - 12	3/4 - 14
	IA-10FB-12-16	1 3/16 - 12	1 - 11
	IA-10FB-12-20	1 3/16 - 12	1 1/4 - 11
	IA-10FB-16-12	1 7/16 - 12	3/4 - 14
	IA-10FB-16-16	1 7/16 - 12	1 - 11
	IA-10FB-20-16	1 11/16 - 12	1 - 11
	IA-10FB-20-20	1 11/16 - 12	1 1/4 - 11
	IA-10FB-20-24	1 11/16 - 12	1 1/2 - 11
	IA-10FB-24-24	2 - 12	1 1/2 - 11

 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

IA-20BF


BSPP MALE 60° x ORFS FEMALE SWIVEL



PART NUMBER	T1	T2
IA-20BF-04-04	1/4 - 19	9/16 - 18
IA-20BF-04-06	1/4 - 19	11/16 - 16
IA-20BF-06-06	3/8 - 19	11/16 - 16
IA-20BF-06-08	3/8 - 19	13/16 - 16
IA-20BF-08-06	1/2 - 14	11/16 - 16
IA-20BF-08-08	1/2 - 14	13/16 - 16
IA-20BF-08-10	1/2 - 14	1 - 14
IA-20BF-10-10	5/8 - 14	1 - 14
IA-20BF-12-12	3/4 - 14	1 3/16 - 12
IA-20BF-16-16	1 - 11	1 7/16 - 12
IA-20BF-20-20	1 1/4 - 11	1 11/16 - 12
IA-20BF-24-24	1 1/2 - 11	2 - 12

BSPP (60° SEAT & RIGID FEMALE)

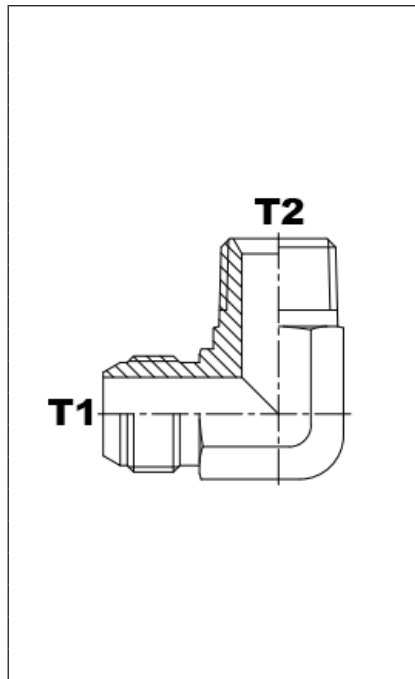


 **WARNING** This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



IA-19JT

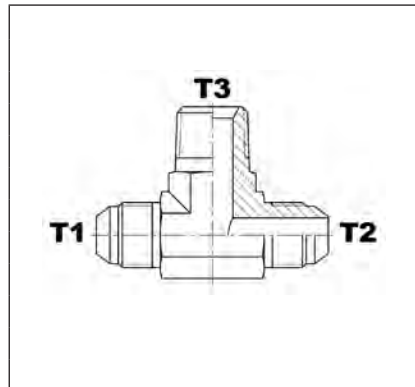
JIC MALE x 90° BSPT MALE



PART NUMBER	T1	T2
IA-19JT-04-02	7/16 - 20	1/8 - 28
IA-19JT-04-04	7/16 - 20	1/4 - 19
IA-19JT-04-06	7/16 - 20	3/8 - 19
IA-19JT-05-02	1/2 - 20	1/8 - 28
IA-19JT-05-04	1/2 - 20	1/4 - 19
IA-19JT-06-04	9/16 - 18	1/4 - 19
IA-19JT-06-06	9/16 - 18	3/8 - 19
IA-19JT-06-08	9/16 - 18	1/2 - 14
IA-19JT-08-06	3/4 - 16	3/8 - 19
IA-19JT-08-08	3/4 - 16	1/2 - 14
IA-19JT-08-12	3/4 - 16	3/4 - 14
IA-19JT-10-08	7/8 - 14	1/2 - 14
IA-19JT-12-08	1 1/16 - 12	1/2 - 14
IA-19JT-12-12	1 1/16 - 12	3/4 - 14
IA-19JT-16-12	1 5/16 - 12	3/4 - 14
IA-19JT-16-16	1 5/16 - 12	1 - 11
IA-19JT-20-20	1 5/8 - 12	1 1/4 - 11
IA-19JT-20-24	1 5/8 - 12	1 1/2 - 11
IA-19JT-24-24	1 7/8 - 12	1 1/2 - 11
IA-19JT-32-32	2 1/2 - 12	2 - 11

IA-AJJT

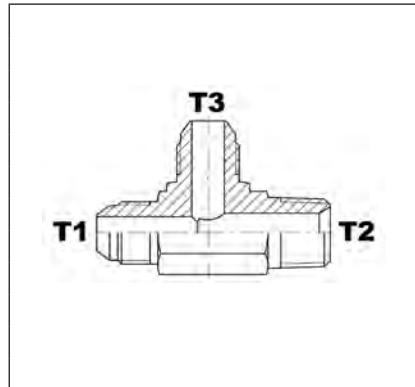
JIC MALE x BSPT MALE BRANCH TEE



PART NUMBER	T1	T2	T3
IA-AJJT-04-04-02	7/16 - 20	7/16 - 20	1/8 - 28
IA-AJJT-04-04-04	7/16 - 20	7/16 - 20	1/4 - 19
IA-AJJT-06-06-04	9/16 - 18	9/16 - 18	1/4 - 19
IA-AJJT-06-06-06	9/16 - 18	9/16 - 18	3/8 - 19
IA-AJJT-08-08-06	3/4 - 16	3/4 - 16	3/8 - 19
IA-AJJT-08-08-08	3/4 - 16	3/4 - 16	1/2 - 14
IA-AJJT-12-12-12	1 1/16 - 12	1 1/16 - 12	3/4 - 14

IA-AJTJ

JIC MALE x BSPT MALE RUN TEE

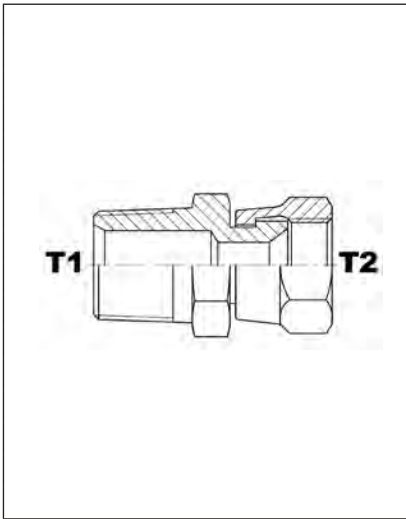


PART NUMBER	T1	T2	T3
IA-AJTJ-04-02-04	7/16 - 20	1/8 - 28	7/16 - 20
IA-AJTJ-04-04-04	7/16 - 20	1/4 - 19	7/16 - 20
IA-AJTJ-06-04-06	9/16 - 18	1/4 - 19	9/16 - 18
IA-AJTJ-06-06-06	9/16 - 18	3/8 - 19	9/16 - 18
IA-AJTJ-08-06-08	3/4 - 16	3/8 - 19	3/4 - 16
IA-AJTJ-08-08-08	3/4 - 16	1/2 - 14	3/4 - 16
IA-AJTJ-12-12-12	1 1/16 - 12	3/4 - 14	1 1/16 - 12

⚠ WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

IA-20TJ

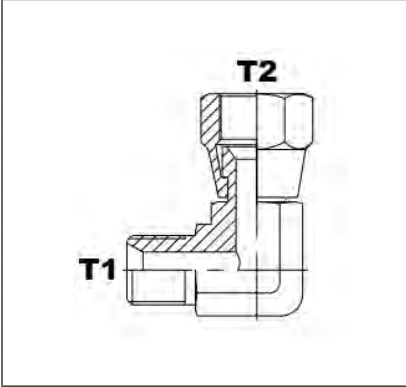
BSPT MALE x JIC FEMALE SWIVEL



PART NUMBER	T1	T2
IA-20TJ-02-04	1/8 - 28	7/16 - 20
IA-20TJ-04-04	1/4 - 19	7/16 - 20
IA-20TJ-04-05	1/4 - 19	1/2 - 20
IA-20TJ-04-06	1/4 - 19	9/16 - 18
IA-20TJ-06-05	3/8 - 19	1/2 - 20
IA-20TJ-06-06	3/8 - 19	9/16 - 18
IA-20TJ-06-08	3/8 - 19	3/4 - 16
IA-20TJ-08-08	1/2 - 14	3/4 - 16
IA-20TJ-08-10	1/2 - 14	7/8 - 14
IA-20TJ-08-12	1/2 - 14	1 1/16 - 12
IA-20TJ-12-12	3/4 - 14	1 1/16 - 12
IA-20TJ-12-16	3/4 - 14	1 5/16 - 12
IA-20TJ-16-16	1 - 11	1 5/16 - 12
IA-20TJ-20-20	1 1/4 - 11	1 5/8 - 12
IA-20TJ-24-24	1 1/2 - 11	1 7/8 - 12

IA-29TJ

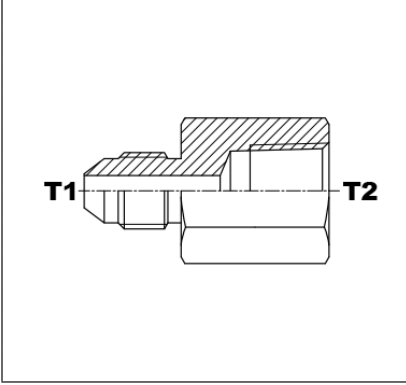
BSPT MALE x 90° JIC FEMALE SWIVEL



PART NUMBER	T1	T2
IA-29TJ-04-04	1/4 - 19	7/16 - 20
IA-29TJ-04-06	1/4 - 19	9/16 - 18
IA-29TJ-06-06	3/8 - 19	9/16 - 18
IA-29TJ-08-08	1/2 - 14	3/4 - 16
IA-29TJ-08-10	1/2 - 14	7/8 - 14
IA-29TJ-12-12	3/4 - 14	1 1/16 - 12
IA-29TJ-16-16	1 - 11	1 5/16 - 12

IA-50JT

JIC MALE x BSPT FEMALE RIGID



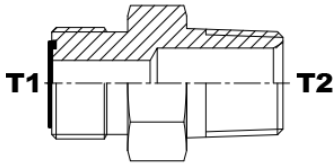
PART NUMBER	T1	T2
IA-50JT-04-02	7/16 - 20	1/8 - 28
IA-50JT-04-04	7/16 - 20	1/4 - 19
IA-50JT-05-04	1/2 - 20	1/4 - 19
IA-50JT-06-04	9/16 - 18	1/4 - 19
IA-50JT-06-06	9/16 - 18	3/8 - 19
IA-50JT-08-06	3/4 - 16	3/8 - 19
IA-50JT-08-08	3/4 - 16	1/2 - 14
IA-50JT-10-06	7/8 - 14	3/8 - 19
IA-50JT-10-08	7/8 - 14	1/2 - 14
IA-50JT-12-08	1 1/16 - 12	1/2 - 14
IA-50JT-12-12	1 1/16 - 12	3/4 - 14

BSPT CONV. • METRIC (60° SEAT)

⚠ WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

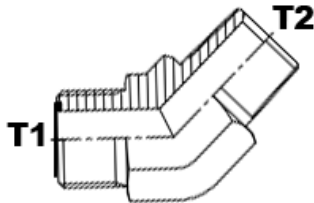


IA-10FT ORFS MALE x BSPT MALE



PART NUMBER	T1	T2
IA-10FT-04-02	9/16 - 18	1/8 - 28
IA-10FT-04-04	9/16 - 18	1/4 - 19
IA-10FT-04-06	9/16 - 18	3/8 - 19
IA-10FT-06-04	11/16 - 16	1/4 - 19
IA-10FT-06-06	11/16 - 16	3/8 - 19
IA-10FT-06-08	11/16 - 16	1/2 - 14
IA-10FT-08-08	13/16 - 16	1/2 - 14
IA-10FT-08-12	13/16 - 16	3/4 - 14
IA-10FT-10-08	1 - 14	1/2 - 14
IA-10FT-10-12	1 - 14	3/4 - 14
IA-10FT-10-16	1 - 14	1 - 11
IA-10FT-12-12	1 3/16 - 12	3/4 - 14
IA-10FT-12-16	1 3/16 - 12	1 - 11
IA-10FT-12-20	1 3/16 - 12	1 1/4 - 11
IA-10FT-16-12	1 7/16 - 12	3/4 - 14
IA-10FT-16-16	1 7/16 - 12	1 - 11
IA-10FT-16-20	1 7/16 - 12	1 1/4 - 11
IA-10FT-16-24	1 7/16 - 12	1 1/2 - 11
IA-10FT-20-16	1 11/16 - 12	1 - 11
IA-10FT-20-20	1 11/16 - 12	1 1/4 - 11
IA-10FT-20-24	1 11/16 - 12	1 1/2 - 11
IA-10FT-24-20	2 - 12	1 1/4 - 11
IA-10FT-24-24	2 - 12	1 1/2 - 11
IA-10FT-24-32	2 - 12	2 - 11

IA-14FT ORFS MALE x 45° BSPT MALE

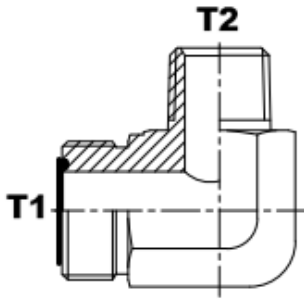


PART NUMBER	T1	T2
IA-14FT-04-04	9/16 - 18	1/4 - 19
IA-14FT-04-06	9/16 - 18	3/8 - 19
IA-14FT-06-06	11/16 - 16	3/8 - 19
IA-14FT-06-08	11/16 - 16	1/2 - 14
IA-14FT-08-08	13/16 - 16	1/2 - 14
IA-14FT-08-12	13/16 - 16	3/4 - 14
IA-14FT-10-08	1 - 14	1/2 - 14
IA-14FT-12-12	1 3/16 - 12	3/4 - 14
IA-14FT-12-16	1 3/16 - 12	1 - 11
IA-14FT-16-16	1 7/16 - 12	1 - 11
IA-14FT-16-20	1 7/16 - 12	1 1/4 - 11
IA-14FT-20-16	1 11/16 - 12	1 - 11
IA-14FT-20-20	1 11/16 - 12	1 1/4 - 11
IA-14FT-20-24	1 11/16 - 12	1 1/2 - 11
IA-14FT-24-24	2 - 12	1 1/2 - 11
IA-14FT-24-32	2 - 12	2 - 11

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

IA-19FT

ORFS MALE x 90° BSPT MALE



PART NUMBER	T1	T2
IA-19FT-04-02	9/16 - 18	1/8 - 28
IA-19FT-04-04	9/16 - 18	1/4 - 19
IA-19FT-04-06	9/16 - 18	3/8 - 19
IA-19FT-06-04	11/16 - 16	1/4 - 19
IA-19FT-06-06	11/16 - 16	3/8 - 19
IA-19FT-06-08	11/16 - 16	1/2 - 14
IA-19FT-08-06	13/16 - 16	3/8 - 19
IA-19FT-08-08	13/16 - 16	1/2 - 14
IA-19FT-08-12	13/16 - 16	3/4 - 14
IA-19FT-10-08	1 - 14	1/2 - 14
IA-19FT-12-12	1 3/16 - 12	3/4 - 14
IA-19FT-12-16	1 3/16 - 12	1 - 11
IA-19FT-16-16	1 7/16 - 12	1 - 11
IA-19FT-16-20	1 7/16 - 12	1 1/4 - 11
IA-19FT-20-16	1 11/16 - 12	1 - 11
IA-19FT-20-20	1 11/16 - 12	1 1/4 - 11
IA-19FT-20-24	1 11/16 - 12	1 1/2 - 11
IA-19FT-24-24	2 - 12	1 1/2 - 11
IA-19FT-24-32	2 - 12	2 - 11

BSPT CONV. • METRIC (60° SEAT)

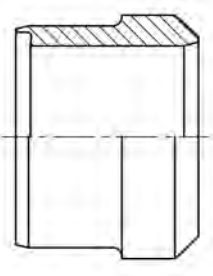


WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



IA-0SA, 0SC, 0SD

DIN LL, L & S METRIC BITE SLEEVE

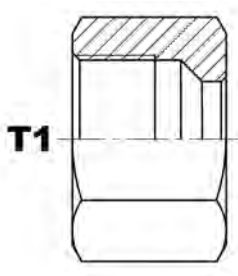
	PART NUMBER	T1	T2	T3	T4	
	IA-0SA-04	LL	4			
	IA-0SA-06		6			
	IA-0SA-08		8			
	IA-0SA-10		10			
	IA-0SA-12		12			
	IA-0SCD-06	L OR S	6			
	IA-0SCD-08		8			
	IA-0SCD-10		10			
	IA-0SCD-12		12			
	IA-0SC-15	L	15			
	IA-0SC-18		18			
	IA-0SC-22		22			
	IA-0SC-28		28			
	IA-0SC-35		35			
IA-0SC-42	42					
IA-0SD-14	S	14				
IA-0SD-16		16				
IA-0SD-20		20				
IA-0SD-25		25				
IA-0SD-30		30				
IA-0SD-38		38				

*Note: All Male DIN types include metric tube nut and metric bite sleeve.

*Note: All Female DIN Swivels are DKO Type.

IA-0NA, 0NC, 0ND

DIN LL, L & S METRIC TUBE NUT

	PART NUMBER	T1	T2	T3	T4	
	IA-0NA-04	LL	8 X 1.0	4		
	IA-0NA-06		10 X 1.0	6		
	IA-0NA-08		12 X 1.0	8		
	IA-0NA-10		14 X 1.0	10		
	IA-0NA-12		16 X 1.0	12		
	IA-0NC-06	L	12 X 1.5	6		
	IA-0NC-08		14 X 1.5	8		
	IA-0NC-10		16 X 1.5	10		
	IA-0NC-12		18 X 1.5	12		
	IA-0NC-15		22 X 1.5	15		
	IA-0NC-18		26 X 1.5	18		
	IA-0NC-22		30 X 2.0	22		
	IA-0NC-28		36 X 2.0	28		
	IA-0NC-35		45 X 2.0	35		
IA-0NC-42	52 X 2.0		42			
IA-0ND-06	S	14 X 1.5	6			
IA-0ND-08		16 X 1.5	8			
IA-0ND-10		18 X 1.5	10			
IA-0ND-12		20 X 1.5	12			
IA-0ND-14		22 X 1.5	14			
IA-0ND-16		24 X 1.5	16			
IA-0ND-20		30 X 2.0	20			
IA-0ND-25		36 X 2.0	25			
IA-0ND-30		42 X 2.0	30			
IA-0ND-38		52 X 2.0	38			

*Note: All Male DIN types include metric tube nut and metric bite sleeve.

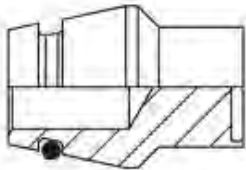
*Note: All Female DIN Swivels are DKO Type.



WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

IA-0BC, 0BD

DIN LIGHT & HEAVY BLANKING PLUG

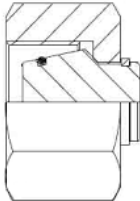
	PART NUMBER		Tube Size
	IA-0BCD-06	L OR S	6
	IA-0BCD-08		8
	IA-0BCD-10		10
	IA-0BCD-12		12
	IA-0BC-15	L	15
	IA-0BC-18		18
	IA-0BC-22		22
	IA-0BC-28		28
	IA-0BC-35		35
	IA-0BC-42		42
	IA-0BD-14	S	14
	IA-0BD-16		16
	IA-0BD-20		20
	IA-0BD-25		25
IA-0BD-30	30		
IA-0BD-38	38		

*Note: All Male DIN types include metric tube nut and metric bite sleeve.

*Note: All Female DIN Swivels are DKO Type.

IA-0CA, 0CC,0CD

DIN L & S FEMALE CAP


	PART NUMBER		T1
	IA-0CC-06	L	12 X 1.5
	IA-0CC-08		14 X 1.5
	IA-0CC-10		16 X 1.5
	IA-0CC-12		18 X 1.5
	IA-0CC-15		22 X 1.5
	IA-0CC-18		26 X 1.5
	IA-0CC-22		30 X 2.0
	IA-0CC-28		36 X 2.0
	IA-0CC-35		45 X 2.0
	IA-0CC-42		52 X 2.0
	IA-0CD-06	S	14 X 1.5
	IA-0CD-08		16 X 1.5
	IA-0CD-10		18 X 1.5
	IA-0CD-12		20 X 1.5
	IA-0CD-14		22 X 1.5
	IA-0CD-16		24 X 1.5
	IA-0CD-20		30 X 2.0
	IA-0CD-25		36 X 2.0
	IA-0CD-30		42 X 2.0
	IA-0CD-38		52 X 2.0

*Note: All Male DIN types include metric tube nut and metric bite sleeve.

*Note: All Female DIN Swivels are DKO Type.

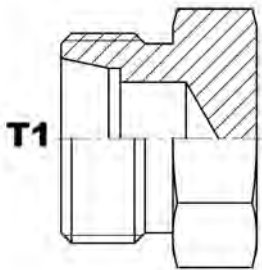
DIN BITE-TYPE 12° SEAT



 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

IA-0PA, 0PC, 0PD

DIN L & S MALE PLUG



PART NUMBER		T1	
IA-0PC-06	L	12 X 1.5	
IA-0PC-08		14 X 1.5	
IA-0PC-10		16 X 1.5	
IA-0PC-12		18 X 1.5	
IA-0PC-15		22 X 1.5	
IA-0PC-18		26 X 1.5	
IA-0PC-22		30 X 2.0	
IA-0PC-28		36 X 2.0	
IA-0PC-35		45 X 2.0	
IA-0PC-42		52 X 2.0	
IA-0PD-06		S	14 X 1.5
IA-0PD-08			16 X 1.5
IA-0PD-10	18 X 1.5		
IA-0PD-12	20 X 1.5		
IA-0PD-14	22 X 1.5		
IA-0PD-16	24 X 1.5		
IA-0PD-20	30 X 2.0		
IA-0PD-25	36 X 2.0		
IA-0PD-30	42 X 2.0		
IA-0PD-38	52 X 2.0		

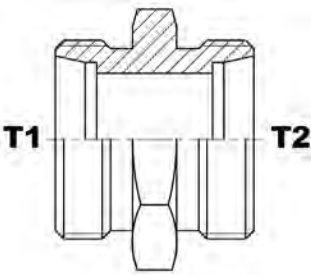
**Note: All Male DIN types include metric tube nut and metric bite sleeve.*

**Note: All Female DIN Swivels are DKO Type.*



WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



	PART NUMBER		T1	T2
	IA-10CC-06-06	L	12 X 1.5	12 X 1.5
	IA-10CC-08-06		14 X 1.5	12 X 1.5
	IA-10CC-08-08		14 X 1.5	14 X 1.5
	IA-10CC-10-06		16 X 1.5	12 X 1.5
	IA-10CC-10-08		16 X 1.5	14 X 1.5
	IA-10CC-10-10		16 X 1.5	16 X 1.5
	IA-10CC-12-06		18 X 1.5	12 X 1.5
	IA-10CC-12-08		18 X 1.5	14 X 1.5
	IA-10CC-12-10		18 X 1.5	16 X 1.5
	IA-10CC-12-12		18 X 1.5	18 X 1.5
	IA-10CC-15-10		22 X 1.5	16 X 1.5
	IA-10CC-15-12		22 X 1.5	18 X 1.5
	IA-10CC-15-15		22 X 1.5	22 X 1.5
	IA-10CC-18-10		26 X 1.5	16 X 1.5
	IA-10CC-18-12		26 X 1.5	18 X 1.5
	IA-10CC-18-15		26 X 1.5	22 X 1.5
	IA-10CC-18-18		26 X 1.5	26 X 1.5
	IA-10CC-22-12		30 X 2.0	18 X 1.5
	IA-10CC-22-15		30 X 2.0	22 X 1.5
	IA-10CC-22-18		30 X 2.0	26 X 1.5
	IA-10CC-22-22		30 X 2.0	30 X 2.0
	IA-10CC-28-12		36 X 2.0	18 X 1.5
	IA-10CC-28-18		36 X 2.0	26 X 1.5
	IA-10CC-28-22		36 X 2.0	30 X 2.0
	IA-10CC-28-28		36 X 2.0	36 X 2.0
	IA-10CC-35-22		45 X 2.0	30 X 2.0
	IA-10CC-35-28		45 X 2.0	36 X 2.0
	IA-10CC-35-35		45 X 2.0	45 X 2.0
	IA-10CC-42-42		52 X 2.0	52 X 2.0
	IA-10DD-06-06		S	14 X 1.5
IA-10DD-08-06	16 X 1.5	14 X 1.5		
IA-10DD-08-08	16 X 1.5	16 X 1.5		
IA-10DD-10-06	18 X 1.5	14 X 1.5		
IA-10DD-10-08	18 X 1.5	16 X 1.5		
IA-10DD-10-10	18 X 1.5	18 X 1.5		
IA-10DD-12-06	20 X 1.5	14 X 1.5		
IA-10DD-12-08	20 X 1.5	16 X 1.5		
IA-10DD-12-10	20 X 1.5	18 X 1.5		
IA-10DD-12-12	20 X 1.5	20 X 1.5		
IA-10DD-14-10	22 X 1.5	18 X 1.5		
IA-10DD-14-12	22 X 1.5	20 X 1.5		
IA-10DD-14-14	22 X 1.5	22 X 1.5		
IA-10DD-16-12	24 X 1.5	20 X 1.5		
IA-10DD-16-14	24 X 1.5	22 X 1.5		
IA-10DD-16-16	24 X 1.5	24 X 1.5		
IA-10DD-20-10	30 X 2.0	18 X 1.5		
IA-10DD-20-12	30 X 2.0	20 X 1.5		
IA-10DD-20-16	30 X 2.0	24 X 1.5		
IA-10DD-20-20	30 X 2.0	30 X 2.0		
IA-10DD-25-16	36 X 2.0	24 X 1.5		
IA-10DD-25-20	36 X 2.0	30 X 2.0		
IA-10DD-25-25	36 X 2.0	36 X 2.0		
IA-10DD-30-20	42 X 2.0	30 X 2.0		
IA-10DD-30-25	42 X 2.0	36 X 2.0		
IA-10DD-30-30	42 X 2.0	42 X 2.0		
IA-10DD-38-30	52 X 2.0	42 X 2.0		
IA-10DD-38-38	52 X 2.0	52 X 2.0		

*Note: All Male DIN types include metric tube nut and metric bite sleeve.

*Note: All Female DIN Swivels are DKO Type.



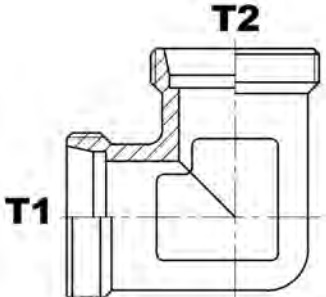
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IA-19AA, 19CC, 19DD

90° DIN LL, L & S TUBE UNION

PART NUMBER		T1	T2
		IA-19CC-06-06	L
IA-19CC-08-08	14 X 1.5	14 X 1.5	
IA-19CC-10-10	16 X 1.5	16 X 1.5	
IA-19CC-12-12	18 X 1.5	18 X 1.5	
IA-19CC-15-15	22 X 1.5	22 X 1.5	
IA-19CC-18-18	26 X 1.5	26 X 1.5	
IA-19CC-22-22	30 X 2.0	30 X 2.0	
IA-19CC-28-28	36 X 2.0	36 X 2.0	
IA-19CC-35-35	45 X 2.0	45 X 2.0	
IA-19CC-42-42	52 X 2.0	52 X 2.0	
IA-19DD-06-06	S	14 X 1.5	14 X 1.5
IA-19DD-08-08		16 X 1.5	16 X 1.5
IA-19DD-10-10		18 X 1.5	18 X 1.5
IA-19DD-12-12		20 X 1.5	20 X 1.5
IA-19DD-14-14		22 X 1.5	22 X 1.5
IA-19DD-16-16		24 X 1.5	24 X 1.5
IA-19DD-20-20		30 X 2.0	30 X 2.0
IA-19DD-25-25		36 X 2.0	36 X 2.0
IA-19DD-30-30		42 X 2.0	42 X 2.0
IA-19DD-38-38		52 X 2.0	52 X 2.0



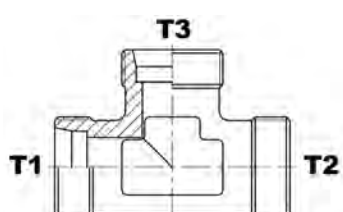
*Note: All Male DIN types include metric tube nut and metric bite sleeve.

*Note: All Female DIN Swivels are DKO Type.

IA-AAAA, ACCC, ADDD


DIN LL, L & S TUBE UNION TEE

PART NUMBER		T1	T2	T3
		IA-ACCC-06-06-06	L	12 X 1.5
IA-ACCC-08-08-08	14 X 1.5	14 X 1.5		14 X 1.5
IA-ACCC-10-10-10	16 X 1.5	16 X 1.5		16 X 1.5
IA-ACCC-12-12-12	18 X 1.5	18 X 1.5		18 X 1.5
IA-ACCC-15-12-15	22 X 1.5	18 X 1.5		22 X 1.5
IA-ACCC-15-15-15	22 X 1.5	22 X 1.5		22 X 1.5
IA-ACCC-18-18-18	26 X 1.5	26 X 1.5		26 X 1.5
IA-ACCC-22-22-22	30 X 2.0	30 X 2.0		30 X 2.0
IA-ACCC-28-28-28	36 X 2.0	36 X 2.0		36 X 2.0
IA-ACCC-35-35-35	45 X 2.0	45 X 2.0		45 X 2.0
IA-ACCC-42-42-42	52 X 2.0	52 X 2.0	52 X 2.0	
IA-ADDD-06-06-06	S	14 X 1.5	14 X 1.5	14 X 1.5
IA-ADDD-08-08-08		16 X 1.5	16 X 1.5	16 X 1.5
IA-ADDD-10-10-10		18 X 1.5	18 X 1.5	18 X 1.5
IA-ADDD-12-12-12		20 X 1.5	20 X 1.5	20 X 1.5
IA-ADDD-14-14-14		22 X 1.5	22 X 1.5	22 X 1.5
IA-ADDD-16-06-16		24 X 1.5	14 X 1.5	24 X 1.5
IA-ADDD-16-16-16		24 X 1.5	24 X 1.5	24 X 1.5
IA-ADDD-20-20-20		30 X 2.0	30 X 2.0	30 X 2.0
IA-ADDD-25-25-25		36 X 2.0	36 X 2.0	36 X 2.0
IA-ADDD-30-30-30		42 X 2.0	42 X 2.0	42 X 2.0
IA-ADDD-38-38-38	52 X 2.0	52 X 2.0	52 X 2.0	



*Note: All Male DIN types include metric tube nut and metric bite sleeve.

*Note: All Female DIN Swivels are DKO Type.

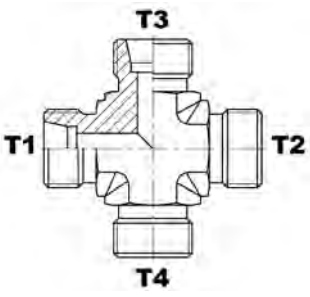
 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

DIN BITE-TYPE 12° SEAT



IA-XCCCC, XDDDD

DIN L & S TUBE UNION CROSS

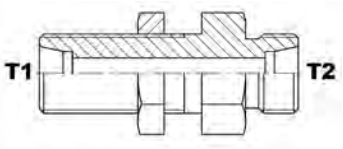
	PART NUMBER		T1	T2	T3	T4
	IA-XAAAA-04-04-04-04	LL	8 X 1.0	8 X 1.0	8 X 1.0	8 X 1.0
	IA-XAAAA-05-05-05-05		10 X 1.0	10 X 1.0	10 X 1.0	10 X 1.0
	IA-XAAAA-06-06-06-06		10 X 1.0	10 X 1.0	10 X 1.0	10 X 1.0
	IA-XAAAA-08-08-08-08		12 X 1.0	12 X 1.0	12 X 1.0	12 X 1.0
IA-XCCCC-06-06-06-06	L	12 X 1.5	12 X 1.5	12 X 1.5	12 X 1.5	
IA-XCCCC-08-08-08-08		14 X 1.5	14 X 1.5	14 X 1.5	14 X 1.5	
IA-XCCCC-10-10-10-10		16 X 1.5	16 X 1.5	16 X 1.5	16 X 1.5	
IA-XCCCC-12-12-12-12		18 X 1.5	18 X 1.5	18 X 1.5	18 X 1.5	
IA-XCCCC-15-15-15-15		22 X 1.5	22 X 1.5	22 X 1.5	22 X 1.5	
IA-XCCCC-18-18-18-18		26 X 1.5	26 X 1.5	26 X 1.5	26 X 1.5	
IA-XCCCC-22-22-22-22		30 X 2.0	30 X 2.0	30 X 2.0	30 X 2.0	
IA-XCCCC-28-28-28-28		36 X 2.0	36 X 2.0	36 X 2.0	36 X 2.0	
IA-XCCCC-35-35-35-35		45 X 2.0	45 X 2.0	45 X 2.0	45 X 2.0	
IA-XCCCC-42-42-42-42		52 X 2.0	52 X 2.0	52 X 2.0	52 X 2.0	
IA-XDDDD-06-06-06-06		S	14 X 1.5	14 X 1.5	14 X 1.5	14 X 1.5
IA-XDDDD-08-08-08-08			16 X 1.5	16 X 1.5	16 X 1.5	16 X 1.5
IA-XDDDD-10-10-10-10	18 X 1.5		18 X 1.5	18 X 1.5	18 X 1.5	
IA-XDDDD-12-12-12-12	20 X 1.5		20 X 1.5	20 X 1.5	20 X 1.5	
IA-XDDDD-14-14-14-14	22 X 1.5		22 X 1.5	22 X 1.5	22 X 1.5	
IA-XDDDD-16-16-16-16	24 X 1.5		24 X 1.5	24 X 1.5	24 X 1.5	
IA-XDDDD-20-20-20-20	30 X 2.0		30 X 2.0	30 X 2.0	30 X 2.0	
IA-XDDDD-25-25-25-25	36 X 2.0		36 X 2.0	36 X 2.0	36 X 2.0	
IA-XDDDD-30-30-30-30	42 X 2.0		42 X 2.0	42 X 2.0	42 X 2.0	
IA-XDDDD-38-38-38-38	52 X 2.0		52 X 2.0	52 X 2.0	52 X 2.0	

*Note: All Male DIN types include metric tube nut and metric bite sleeve.

*Note: All Female DIN Swivels are DKO Type.

IA-60CC, 60DD

DIN L & S TUBE BULKHEAD UNION

	PART NUMBER		T1	T2
	IA-60CC-06-06-LN	L	12 X 1.5	12 X 1.5
	IA-60CC-08-08-LN		14 X 1.5	14 X 1.5
	IA-60CC-10-10-LN		16 X 1.5	16 X 1.5
	IA-60CC-12-12-LN		18 X 1.5	18 X 1.5
IA-60CC-15-15-LN	22 X 1.5		22 X 1.5	
IA-60CC-18-18-LN	26 X 1.5		26 X 1.5	
IA-60CC-22-22-LN	30 X 2.0		30 X 2.0	
IA-60CC-28-28-LN	36 X 2.0		36 X 2.0	
IA-60CC-35-35-LN	45 X 2.0		45 X 2.0	
IA-60CC-42-42-LN	52 X 2.0		52 X 2.0	
IA-60DD-06-06-LN	S	14 X 1.5	14 X 1.5	
IA-60DD-08-08-LN		16 X 1.5	16 X 1.5	
IA-60DD-10-10-LN		18 X 1.5	18 X 1.5	
IA-60DD-12-12-LN		20 X 1.5	20 X 1.5	
IA-60DD-14-14-LN		22 X 1.5	22 X 1.5	
IA-60DD-16-16-LN		24 X 1.5	24 X 1.5	
IA-60DD-20-20-LN		30 X 2.0	30 X 2.0	
IA-60DD-25-25-LN		36 X 2.0	36 X 2.0	
IA-60DD-30-30-LN		42 X 2.0	42 X 2.0	
IA-60DD-38-38-LN		52 X 2.0	52 X 2.0	

*Note: All Male DIN types include metric tube nut and metric bite sleeve.

*Note: All Female DIN Swivels are DKO Type.

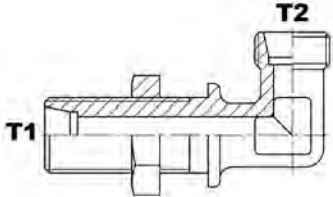
DIN BITE-TYPE 12° SEAT



WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

IA-69CC, 69DD

90° DIN L & S TUBE BULKHEAD UNION



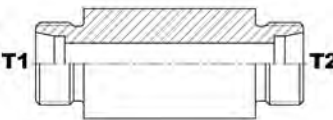
PART NUMBER		T1	T2
IA-69CC-06-06-LN	L	12 X 1.5	12 X 1.5
IA-69CC-08-08-LN		14 X 1.5	14 X 1.5
IA-69CC-10-10-LN		16 X 1.5	16 X 1.5
IA-69CC-12-12-LN		18 X 1.5	18 X 1.5
IA-69CC-15-15-LN		22 X 1.5	22 X 1.5
IA-69CC-18-18-LN		26 X 1.5	26 X 1.5
IA-69CC-22-22-LN		30 X 2.0	30 X 2.0
IA-69CC-28-28-LN		36 X 2.0	36 X 2.0
IA-69CC-35-35-LN		45 X 2.0	45 X 2.0
IA-69CC-42-42-LN		52 X 2.0	52 X 2.0
IA-69DD-06-06-LN	S	14 X 1.5	14 X 1.5
IA-69DD-08-08-LN		16 X 1.5	16 X 1.5
IA-69DD-10-10-LN		18 X 1.5	18 X 1.5
IA-69DD-12-12-LN		20 X 1.5	20 X 1.5
IA-69DD-14-14-LN		22 X 1.5	22 X 1.5
IA-69DD-16-16-LN		24 X 1.5	24 X 1.5
IA-69DD-20-20-LN		30 X 2.0	30 X 2.0
IA-69DD-25-25-LN		36 X 2.0	36 X 2.0
IA-69DD-30-30-LN		42 X 2.0	42 X 2.0
IA-69DD-38-38-LN		52 X 2.0	52 X 2.0

*Note: All Male DIN types include metric tube nut and metric bite sleeve.

*Note: All Female DIN Swivels are DKO Type.

IA-60CC-W, 60DD-W

DIN L & S TUBE WELD BULKHEAD UNION



PART NUMBER		T1	T2
IA-60CC-06-06-W	L	12 X 1.5	12 X 1.5
IA-60CC-08-08-W		14 X 1.5	14 X 1.5
IA-60CC-10-10-W		16 X 1.5	16 X 1.5
IA-60CC-12-12-W		18 X 1.5	18 X 1.5
IA-60DD-06-06-W	S	14 X 1.5	14 X 1.5
IA-60DD-08-08-W		16 X 1.5	16 X 1.5
IA-60DD-10-10-W		18 X 1.5	18 X 1.5
IA-60DD-12-12-W		20 X 1.5	20 X 1.5

*Quoted Upon Request

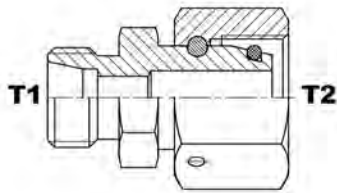
*Note: All Male DIN types include metric tube nut and metric bite sleeve.

*Note: All Female DIN Swivels are DKO Type.



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PART NUMBER		T1	T2
IA-20CC-06-08	L	12 X 1.5	14 X 1.5
IA-20CC-06-10		12 X 1.5	16 X 1.5
IA-20CC-06-12		12 X 1.5	18 X 1.5
IA-20CC-06-15		12 X 1.5	22 X 1.5
IA-20CC-06-18		12 X 1.5	26 X 1.5
IA-20CC-06-22		12 X 1.5	30 X 2.0
IA-20CC-06-28		12 X 1.5	36 X 2.0
IA-20CC-06-35		12 X 1.5	45 X 2.0
IA-20CC-06-42		12 X 1.5	52 X 2.0
IA-20CC-08-10		14 X 1.5	16 X 1.5
IA-20CC-08-12		14 X 1.5	18 X 1.5
IA-20CC-08-15		14 X 1.5	22 X 1.5
IA-20CC-08-18		14 X 1.5	26 X 1.5
IA-20CC-08-22		14 X 1.5	30 X 2.0
IA-20CC-08-28		14 X 1.5	36 X 2.0
IA-20CC-08-35		14 X 1.5	45 X 2.0
IA-20CC-08-42		14 X 1.5	52 X 2.0
IA-20CC-10-12		16 X 1.5	18 X 1.5
IA-20CC-10-15		16 X 1.5	22 X 1.5
IA-20CC-10-18		16 X 1.5	26 X 1.5
IA-20CC-10-22		16 X 1.5	30 X 2.0
IA-20CC-10-28		16 X 1.5	36 X 2.0
IA-20CC-10-35		16 X 1.5	45 X 2.0
IA-20CC-10-42		16 X 1.5	52 X 2.0
IA-20CC-12-15		18 X 1.5	22 X 1.5
IA-20CC-12-18		18 X 1.5	26 X 1.5
IA-20CC-12-22		18 X 1.5	30 X 2.0
IA-20CC-12-28		18 X 1.5	36 X 2.0
IA-20CC-12-35		18 X 1.5	45 X 2.0
IA-20CC-12-42		18 X 1.5	52 X 2.0
IA-20CC-15-15		22 X 1.5	22 X 1.5
IA-20CC-15-18		22 X 1.5	26 X 1.5
IA-20CC-15-22		22 X 1.5	30 X 2.0
IA-20CC-15-28		22 X 1.5	36 X 2.0
IA-20CC-15-35		22 X 1.5	45 X 2.0
IA-20CC-15-42		22 X 1.5	52 X 2.0
IA-20CC-18-15		26 X 1.5	22 X 1.5
IA-20CC-18-22		26 X 1.5	30 X 2.0
IA-20CC-18-28		26 X 1.5	36 X 2.0
IA-20CC-18-35		26 X 1.5	45 X 2.0
IA-20CC-18-42		26 X 1.5	52 X 2.0
IA-20CC-22-28		30 X 2.0	36 X 2.0
IA-20CC-22-35	30 X 2.0	45 X 2.0	
IA-20CC-22-42	30 X 2.0	52 X 2.0	
IA-20CC-28-35	36 X 2.0	45 X 2.0	
IA-20CC-28-42	36 X 2.0	52 X 2.0	
IA-20CC-35-18	45 X 2.0	26 X 1.5	
IA-20CC-35-42	45 X 2.0	52 X 2.0	
IA-20CC-42-28	52 X 2.0	36 X 2.0	
IA-20DD-06-06	S	14 X 1.5	14 X 1.5
IA-20DD-06-08		14 X 1.5	16 X 1.5
IA-20DD-06-10		14 X 1.5	18 X 1.5
IA-20DD-06-12		14 X 1.5	20 X 1.5
IA-20DD-06-14		14 X 1.5	22 X 1.5

*Note: All Male DIN types include metric tube nut and metric bite sleeve.

*Note: All Female DIN Swivels are DKO Type.



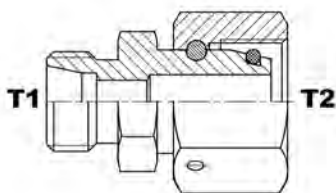
WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



IA-20CC, 20DD

DIN L & S TUBE REDUCER / INCREASER

	PART NUMBER		T1	T2
	IA-20DD-06-16		14 X 1.5	24 X 1.5
	IA-20DD-06-20		14 X 1.5	30 X 2.0
	IA-20DD-06-25		14 X 1.5	36 X 2.0
	IA-20DD-06-30		14 X 1.5	42 X 2.0
	IA-20DD-06-38		14 X 1.5	52 X 2.0
	IA-20DD-08-10		16 X 1.5	18 X 1.5
	IA-20DD-08-12		16 X 1.5	20 X 1.5
	IA-20DD-08-14		16 X 1.5	22 X 1.5
	IA-20DD-08-16		16 X 1.5	24 X 1.5
	IA-20DD-08-20		16 X 1.5	30 X 2.0
	IA-20DD-08-25		16 X 1.5	36 X 2.0
	IA-20DD-08-30		16 X 1.5	42 X 2.0
	IA-20DD-08-38		16 X 1.5	52 X 2.0
	IA-20DD-10-10		18 X 1.5	18 X 1.5
	IA-20DD-10-12		18 X 1.5	20 X 1.5
	IA-20DD-10-14		18 X 1.5	22 X 1.5
	IA-20DD-10-16		18 X 1.5	24 X 1.5
	IA-20DD-10-20		18 X 1.5	30 X 2.0
	IA-20DD-10-25		18 X 1.5	36 X 2.0
	IA-20DD-10-30		18 X 1.5	42 X 2.0
	IA-20DD-10-38		18 X 1.5	52 X 2.0
	IA-20DD-12-14		20 X 1.5	22 X 1.5
	IA-20DD-12-16		20 X 1.5	24 X 1.5
	IA-20DD-12-20		20 X 1.5	30 X 2.0
	IA-20DD-12-25		20 X 1.5	36 X 2.0
	IA-20DD-12-30		20 X 1.5	42 X 2.0
	IA-20DD-12-38		20 X 1.5	52 X 2.0
	IA-20DD-14-16		22 X 1.5	24 X 1.5
	IA-20DD-14-20		22 X 1.5	30 X 2.0
	IA-20DD-14-25		22 X 1.5	36 X 2.0
	IA-20DD-14-30		22 X 1.5	42 X 2.0
	IA-20DD-14-38		22 X 1.5	52 X 2.0
	IA-20DD-16-10		24 X 1.5	18 X 1.5
	IA-20DD-16-12		24 X 1.5	20 X 1.5
	IA-20DD-16-16		24 X 1.5	24 X 1.5
	IA-20DD-16-20		24 X 1.5	30 X 2.0
	IA-20DD-16-25		24 X 1.5	36 X 2.0
	IA-20DD-16-30		24 X 1.5	42 X 2.0
	IA-20DD-16-38		24 X 1.5	52 X 2.0
	IA-20DD-20-20		30 X 2.0	30 X 2.0
	IA-20DD-20-25		30 X 2.0	36 X 2.0
	IA-20DD-20-30		30 X 2.0	42 X 2.0
	IA-20DD-20-38		30 X 2.0	52 X 2.0
	IA-20DD-25-16		36 X 2.0	24 X 1.5
	IA-20DD-25-30		36 X 2.0	42 X 2.0
	IA-20DD-25-38		36 X 2.0	52 X 2.0
	IA-20DD-30-38		42 X 2.0	52 X 2.0



S

*Note: All Male DIN types include metric tube nut and metric bite sleeve.

*Note: All Female DIN Swivels are DKO Type.

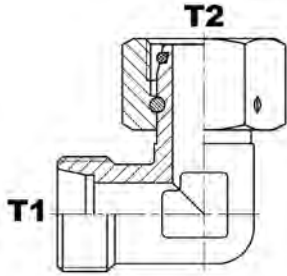
WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



IA-29CC, 29DD

90° DIN L & S FEMALE SWIVEL

PART NUMBER		T1	T2
		IA-29CC-06-06	L
IA-29CC-08-08	14 X 1.5	14 X 1.5	
IA-29CC-10-10	16 X 1.5	16 X 1.5	
IA-29CC-12-12	18 X 1.5	18 X 1.5	
IA-29CC-15-15	22 X 1.5	22 X 1.5	
IA-29CC-18-18	26 X 1.5	26 X 1.5	
IA-29CC-22-22	30 X 2.0	30 X 2.0	
IA-29CC-28-28	36 X 2.0	36 X 2.0	
IA-29CC-35-35	45 X 2.0	45 X 2.0	
IA-29CC-42-42	52 X 2.0	52 X 2.0	
IA-29DD-06-06	S	14 X 1.5	14 X 1.5
IA-29DD-08-08		16 X 1.5	16 X 1.5
IA-29DD-10-10		18 X 1.5	18 X 1.5
IA-29DD-12-12		20 X 1.5	20 X 1.5
IA-29DD-14-14		22 X 1.5	22 X 1.5
IA-29DD-16-16		24 X 1.5	24 X 1.5
IA-29DD-20-20		30 X 2.0	30 X 2.0
IA-29DD-25-25		36 X 2.0	36 X 2.0
IA-29DD-30-30		42 X 2.0	42 X 2.0
IA-29DD-38-38		52 X 2.0	52 X 2.0



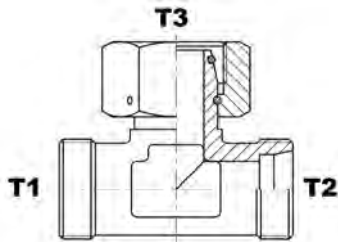
*Note: All Male DIN types include metric tube nut and metric bite sleeve.

*Note: All Female DIN Swivels are DKO Type.

IA-BCCC, BDDD

DIN L & S FEMALE SWIVEL BR. TEE

PART NUMBER		T1	T2	T3
		IA-BCCC-06-06-06	L	12 X 1.5
IA-BCCC-08-08-08	14 X 1.5	14 X 1.5		14 X 1.5
IA-BCCC-10-10-10	16 X 1.5	16 X 1.5		16 X 1.5
IA-BCCC-12-12-12	18 X 1.5	18 X 1.5		18 X 1.5
IA-BCCC-15-15-15	22 X 1.5	22 X 1.5		22 X 1.5
IA-BCCC-18-18-18	26 X 1.5	26 X 1.5		26 X 1.5
IA-BCCC-22-22-22	30 X 2.0	30 X 2.0		30 X 2.0
IA-BCCC-28-28-28	36 X 2.0	36 X 2.0		36 X 2.0
IA-BCCC-35-35-35	45 X 2.0	45 X 2.0		45 X 2.0
IA-BCCC-42-42-42	52 X 2.0	52 X 2.0		52 X 2.0
IA-BDDD-06-06-06	S	14 X 1.5	14 X 1.5	14 X 1.5
IA-BDDD-08-08-08		16 X 1.5	16 X 1.5	16 X 1.5
IA-BDDD-10-10-10		18 X 1.5	18 X 1.5	18 X 1.5
IA-BDDD-12-12-12		20 X 1.5	20 X 1.5	20 X 1.5
IA-BDDD-14-14-14		22 X 1.5	22 X 1.5	22 X 1.5
IA-BDDD-16-16-16		24 X 1.5	24 X 1.5	24 X 1.5
IA-BDDD-20-20-20		30 X 2.0	30 X 2.0	30 X 2.0
IA-BDDD-25-25-25		36 X 2.0	36 X 2.0	36 X 2.0
IA-BDDD-30-30-30		42 X 2.0	42 X 2.0	42 X 2.0
IA-BDDD-38-38-38		52 X 2.0	52 X 2.0	52 X 2.0



*Note: All Male DIN types include metric tube nut and metric bite sleeve.

*Note: All Female DIN Swivels are DKO Type.



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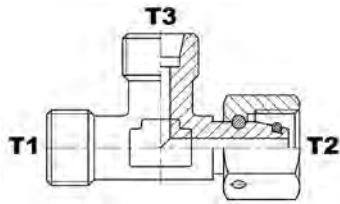




IA-CCCC, CDDD

DIN L & S FEMALE SWIVEL RUN TEE

PART NUMBER		T1	T2	T3	
		IA-CCCC-06-06-06	L	12 X 1.5	12 X 1.5
IA-CCCC-08-08-08	14 X 1.5	14 X 1.5		14 X 1.5	
IA-CCCC-10-10-10	16 X 1.5	16 X 1.5		16 X 1.5	
IA-CCCC-12-12-12	18 X 1.5	18 X 1.5		18 X 1.5	
IA-CCCC-15-15-15	22 X 1.5	22 X 1.5		22 X 1.5	
IA-CCCC-18-18-18	26 X 1.5	26 X 1.5		26 X 1.5	
IA-CCCC-22-22-22	30 X 2.0	30 X 2.0		30 X 2.0	
IA-CCCC-28-28-28	36 X 2.0	36 X 2.0		36 X 2.0	
IA-CCCC-35-35-35	45 X 2.0	45 X 2.0		45 X 2.0	
IA-CCCC-42-42-42	52 X 2.0	52 X 2.0		52 X 2.0	
IA-CDDD-06-06-06	S	14 X 1.5		14 X 1.5	14 X 1.5
IA-CDDD-08-08-08		16 X 1.5		16 X 1.5	16 X 1.5
IA-CDDD-10-10-10		18 X 1.5	18 X 1.5	18 X 1.5	
IA-CDDD-12-12-12		20 X 1.5	20 X 1.5	20 X 1.5	
IA-CDDD-14-14-14		22 X 1.5	22 X 1.5	22 X 1.5	
IA-CDDD-16-16-16		24 X 1.5	24 X 1.5	24 X 1.5	
IA-CDDD-20-20-20		30 X 2.0	30 X 2.0	30 X 2.0	
IA-CDDD-25-25-25		36 X 2.0	36 X 2.0	36 X 2.0	
IA-CDDD-30-30-30		42 X 2.0	42 X 2.0	42 X 2.0	
IA-CDDD-38-38-38		52 X 2.0	52 X 2.0	52 X 2.0	



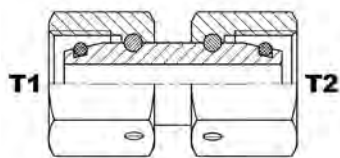
*Note: All Male DIN types include metric tube nut and metric bite sleeve.

*Note: All Female DIN Swivels are DKO Type.

IA-30CC, 30DD

DIN L & S FEMALE SWIVEL UNION

PART NUMBER		T1	T2
		IA-30CC-06-06	L
IA-30CC-08-08	14 X 1.5	14 X 1.5	
IA-30CC-10-10	16 X 1.5	16 X 1.5	
IA-30CC-12-12	18 X 1.5	18 X 1.5	
IA-30CC-15-12	22 X 1.5	18 X 1.5	
IA-30CC-15-15	22 X 1.5	22 X 1.5	
IA-30CC-18-18	26 X 1.5	26 X 1.5	
IA-30CC-22-22	30 X 2.0	30 X 2.0	
IA-30CC-28-28	36 X 2.0	36 X 2.0	
IA-30CC-35-35	45 X 2.0	45 X 2.0	
IA-30CC-42-42	52 X 2.0	52 X 2.0	
IA-30DD-06-06	S	14 X 1.5	
IA-30DD-08-08		16 X 1.5	16 X 1.5
IA-30DD-10-10		18 X 1.5	18 X 1.5
IA-30DD-12-06		20 X 1.5	14 X 1.5
IA-30DD-12-10		20 X 1.5	18 X 1.5
IA-30DD-12-12		20 X 1.5	20 X 1.5
IA-30DD-14-14		22 X 1.5	22 X 1.5
IA-30DD-16-16		24 X 1.5	24 X 1.5
IA-30DD-20-16		30 X 2.0	24 X 1.5
IA-30DD-20-20		30 X 2.0	30 X 2.0
IA-30DD-25-25		36 X 2.0	36 X 2.0
IA-30DD-30-25		42 X 2.0	36 X 2.0
IA-30DD-30-30	42 X 2.0	42 X 2.0	
IA-30DD-38-38	52 X 2.0	52 X 2.0	



*Note: All Male DIN types include metric tube nut and metric bite sleeve.

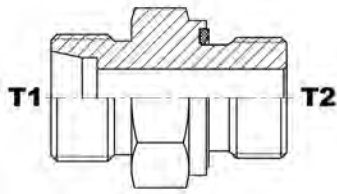
*Note: All Female DIN Swivels are DKO Type.



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IA-10AB, 10CB, 10DB-WD DIN LL, L & S BSPP MALE W/ SEAL

DIN BITE-TYPE 12° SEAT



PART NUMBER		T1	T2
IA-10CB-06-02-WD	L	12 X 1.5	1/8 - 28
IA-10CB-06-04-WD		12 X 1.5	1/4 - 19
IA-10CB-06-06-WD		12 X 1.5	3/8 - 19
IA-10CB-08-02-WD		14 X 1.5	1/8 - 28
IA-10CB-08-04-WD		14 X 1.5	1/4 - 19
IA-10CB-08-06-WD		14 X 1.5	3/8 - 19
IA-10CB-08-08-WD		14 X 1.5	1/2 - 14
IA-10CB-10-02-WD		16 X 1.5	1/8 - 28
IA-10CB-10-04-WD		16 X 1.5	1/4 - 19
IA-10CB-10-06-WD		16 X 1.5	3/8 - 19
IA-10CB-10-08-WD		16 X 1.5	1/2 - 14
IA-10CB-12-02-WD		18 X 1.5	1/8 - 28
IA-10CB-12-04-WD		18 X 1.5	1/4 - 19
IA-10CB-12-06-WD		18 X 1.5	3/8 - 19
IA-10CB-12-08-WD		18 X 1.5	1/2 - 14
IA-10CB-15-06-WD		22 X 1.5	3/8 - 19
IA-10CB-15-08-WD		22 X 1.5	1/2 - 14
IA-10CB-15-12-WD		22 X 1.5	3/4 - 14
IA-10CB-18-06-WD		26 X 1.5	3/8 - 19
IA-10CB-18-08-WD		26 X 1.5	1/2 - 14
IA-10CB-18-12-WD		26 X 1.5	3/4 - 14
IA-10CB-22-08-WD		30 X 2.0	1/2 - 14
IA-10CB-22-12-WD		30 X 2.0	3/4 - 14
IA-10CB-28-12-WD		36 X 2.0	3/4 - 14
IA-10CB-28-16-WD		36 X 2.0	1 - 11
IA-10CB-28-20-WD		36 X 2.0	1 1/4 - 11
IA-10CB-35-16-WD		45 X 2.0	1 - 11
IA-10CB-35-20-WD		45 X 2.0	1 1/4 - 11
IA-10CB-35-24-WD		45 X 2.0	1 1/2 - 11
IA-10CB-42-24-WD		52 X 2.0	1 1/2 - 11
IA-10DB-06-04-WD	S	14 X 1.5	1/4 - 19
IA-10DB-08-04-WD		16 X 1.5	1/4 - 19
IA-10DB-08-06-WD		16 X 1.5	3/8 - 19
IA-10DB-10-04-WD		18 X 1.5	1/4 - 19
IA-10DB-10-06-WD		18 X 1.5	3/8 - 19
IA-10DB-10-08-WD		18 X 1.5	1/2 - 14
IA-10DB-12-04-WD		20 X 1.5	1/4 - 19
IA-10DB-12-06-WD		20 X 1.5	3/8 - 19
IA-10DB-12-08-WD		20 X 1.5	1/2 - 14
IA-10DB-14-08-WD		22 X 1.5	1/2 - 14
IA-10DB-16-06-WD		24 X 1.5	3/8 - 19
IA-10DB-16-08-WD		24 X 1.5	1/2 - 14
IA-10DB-16-12-WD		24 X 1.5	3/4 - 14
IA-10DB-20-08-WD		30 X 2.0	1/2 - 14
IA-10DB-20-12-WD		30 X 2.0	3/4 - 14
IA-10DB-20-16-WD		30 X 2.0	1 - 11
IA-10DB-25-08-WD		36 X 2.0	1/2 - 14
IA-10DB-25-12-WD		36 X 2.0	3/4 - 14
IA-10DB-25-16-WD		36 X 2.0	1 - 11
IA-10DB-25-20-WD		36 X 2.0	1 1/4 - 11
IA-10DB-30-16-WD		42 X 2.0	1 - 11
IA-10DB-30-20-WD		42 X 2.0	1 1/4 - 11
IA-10DB-30-24-WD		42 X 2.0	1 1/2 - 11
IA-10DB-38-24-WD		52 X 2.0	1 1/2 - 11

*Note: All Male DIN types include metric tube nut and metric bite sleeve.

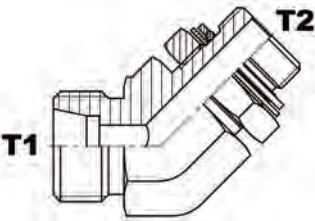
*Note: All Female DIN Swivels are DKO Type.



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IA-14CG, 14DG

DIN L & S x 45° BSPP MALE ADJ.



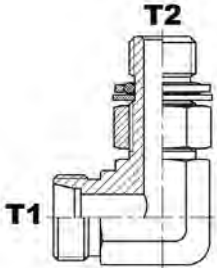
PART NUMBER		T1	T2
IA-14CG-06-02	L	12 X 1.5	1/8 - 28
IA-14CG-08-04		14 X 1.5	1/4 - 19
IA-14CG-10-04		16 X 1.5	1/4 - 19
IA-14CG-12-06		18 X 1.5	3/8 - 19
IA-14CG-15-08		22 X 1.5	1/2 - 14
IA-14CG-18-08		26 X 1.5	1/2 - 14
IA-14CG-18-12		26 X 1.5	3/4 - 14
IA-14CG-22-12		30 X 2.0	3/4 - 14
IA-14CG-28-16		36 X 2.0	1 - 11
IA-14CG-35-20		45 X 2.0	1 1/4 - 11
IA-14DG-06-04	S	14 X 1.5	1/4 - 19
IA-14DG-08-04		16 X 1.5	1/4 - 19
IA-14DG-10-06		18 X 1.5	3/8 - 19
IA-14DG-12-06		20 X 1.5	3/8 - 19
IA-14DG-14-08		22 X 1.5	1/2 - 14
IA-14DG-16-08		24 X 1.5	1/2 - 14
IA-14DG-20-12		30 X 2.0	3/4 - 14
IA-14DG-25-16		36 X 2.0	1 - 11
IA-14DG-30-20		42 X 2.0	1 1/4 - 11

*Note: All Male DIN types include metric tube nut and metric bite sleeve.

*Note: All Female DIN Swivels are DKO Type.

IA-19CG, 19DG

DIN L & S x 90° BSPP MALE ADJ.



PART NUMBER		T1	T2
IA-19CG-06-02	L	12 X 1.5	1/8 - 28
IA-19CG-08-04		14 X 1.5	1/4 - 19
IA-19CG-10-04		16 X 1.5	1/4 - 19
IA-19CG-10-06		16 X 1.5	3/8 - 19
IA-19CG-12-04		18 X 1.5	1/4 - 19
IA-19CG-12-06		18 X 1.5	3/8 - 19
IA-19CG-12-08		18 X 1.5	1/2 - 14
IA-19CG-15-08		22 X 1.5	1/2 - 14
IA-19CG-18-08		26 X 1.5	1/2 - 14
IA-19CG-18-12		26 X 1.5	3/4 - 14
IA-19CG-22-12		30 X 2.0	3/4 - 14
IA-19CG-28-16		36 X 2.0	1 - 11
IA-19CG-35-20		45 X 2.0	1 1/4 - 11
IA-19CG-42-24		52 X 2.0	1 1/2 - 11
IA-19DG-06-04	S	14 X 1.5	1/4 - 19
IA-19DG-08-04		16 X 1.5	1/4 - 19
IA-19DG-10-06		18 X 1.5	3/8 - 19
IA-19DG-12-06		20 X 1.5	3/8 - 19
IA-19DG-12-08		20 X 1.5	1/2 - 14
IA-19DG-14-08		22 X 1.5	1/2 - 14
IA-19DG-16-06		24 X 1.5	3/8 - 19
IA-19DG-16-08		24 X 1.5	1/2 - 14
IA-19DG-20-12		30 X 2.0	3/4 - 14
IA-19DG-25-12		36 X 2.0	3/4 - 14
IA-19DG-25-16		36 X 2.0	1 - 11
IA-19DG-30-20		42 X 2.0	1 1/4 - 11
IA-19DG-38-24		52 X 2.0	1 1/2 - 11

*Note: All Male DIN types include metric tube nut and metric bite sleeve.

*Note: All Female DIN Swivels are DKO Type.



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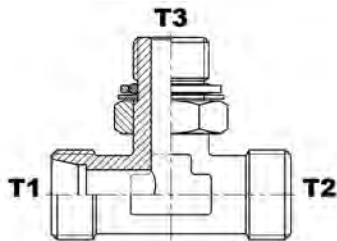
DIN BITE-TYPE 12° SEAT



IA-ACCG, ADDG

DIN L & S x BSPP MALE ADJ. BR. TEE

PART NUMBER		T1	T2	T3
		IA-ACCG-06-06-02	L	12 X 1.5
IA-ACCG-08-08-04	14 X 1.5	14 X 1.5		1/4 - 19
IA-ACCG-10-10-04	16 X 1.5	16 X 1.5		1/4 - 19
IA-ACCG-12-12-06	18 X 1.5	18 X 1.5		3/8 - 19
IA-ACCG-15-15-08	22 X 1.5	22 X 1.5		1/2 - 14
IA-ACCG-18-18-08	26 X 1.5	26 X 1.5		1/2 - 14
IA-ACCG-22-22-12	30 X 2.0	30 X 2.0		3/4 - 14
IA-ACCG-28-28-16	36 X 2.0	36 X 2.0		1 - 11
IA-ACCG-35-35-20	45 X 2.0	45 X 2.0		1 1/4 - 11
IA-ADDG-06-06-04	S	14 X 1.5		14 X 1.5
IA-ADDG-08-08-04		16 X 1.5	16 X 1.5	1/4 - 19
IA-ADDG-10-10-06		18 X 1.5	18 X 1.5	3/8 - 19
IA-ADDG-12-12-06		20 X 1.5	20 X 1.5	3/8 - 19
IA-ADDG-14-14-08		22 X 1.5	22 X 1.5	1/2 - 14
IA-ADDG-16-16-08		24 X 1.5	24 X 1.5	1/2 - 14
IA-ADDG-20-20-12		30 X 2.0	30 X 2.0	3/4 - 14
IA-ADDG-25-25-16		36 X 2.0	36 X 2.0	1 - 11
IA-ADDG-30-30-20		42 X 2.0	42 X 2.0	1 1/4 - 11
IA-ADDG-38-38-24		52 X 2.0	52 X 2.0	1 1/2 - 11



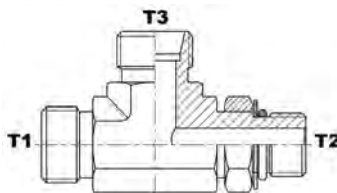
*Note: All Male DIN types include metric tube nut and metric bite sleeve.

*Note: All Female DIN Swivels are DKO Type.

IA-ACGC, ADGD

DIN L & S x BSPP MALE ADJ. RUN TEE

PART NUMBER		T1	T2	T3
		IA-ACGC-06-02-06	L	12 X 1.5
IA-ACGC-08-04-08	14 X 1.5	1/4 - 19		14 X 1.5
IA-ACGC-10-04-10	16 X 1.5	1/4 - 19		16 X 1.5
IA-ACGC-12-06-12	18 X 1.5	3/8 - 19		18 X 1.5
IA-ACGC-15-08-15	22 X 1.5	1/2 - 14		22 X 1.5
IA-ACGC-18-08-18	26 X 1.5	1/2 - 14		26 X 1.5
IA-ACGC-22-12-22	30 X 2.0	3/4 - 14		30 X 2.0
IA-ACGC-28-16-28	36 X 2.0	1 - 11		36 X 2.0
IA-ACGC-35-20-35	45 X 2.0	1 1/4 - 11		45 X 2.0
IA-ADGD-06-04-06	S	14 X 1.5		1/4 - 19
IA-ADGD-08-04-08		16 X 1.5	1/4 - 19	16 X 1.5
IA-ADGD-10-06-10		18 X 1.5	3/8 - 19	18 X 1.5
IA-ADGD-12-06-12		20 X 1.5	3/8 - 19	20 X 1.5
IA-ADGD-14-08-14		22 X 1.5	1/2 - 14	22 X 1.5
IA-ADGD-16-08-16		24 X 1.5	1/2 - 14	24 X 1.5
IA-ADGD-20-12-20		30 X 2.0	3/4 - 14	30 X 2.0
IA-ADGD-25-16-25		36 X 2.0	1 - 11	36 X 2.0
IA-ADGD-30-20-30		42 X 2.0	1 1/4 - 11	42 X 2.0



*Note: All Male DIN types include metric tube nut and metric bite sleeve.

*Note: All Female DIN Swivels are DKO Type.

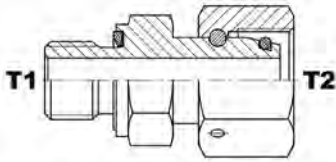


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IA-20BC-WD, 20BD-WD BSPP MALE W/ SEAL x DIN L & S FEM. SWIVEL

DIN BITE-TYPE 12° SEAT



PART NUMBER		T1	T2
IA-20BC-02-06-WD	L	1/8 - 28	12 X 1.5
IA-20BC-04-08-WD		1/4 - 19	14 X 1.5
IA-20BC-04-10-WD		1/4 - 19	16 X 1.5
IA-20BC-04-12-WD		1/4 - 19	18 X 1.5
IA-20BC-04-15-WD		1/4 - 19	22 X 1.5
IA-20BC-06-10-WD		3/8 - 19	16 X 1.5
IA-20BC-06-12-WD		3/8 - 19	18 X 1.5
IA-20BC-08-12-WD		1/2 - 14	18 X 1.5
IA-20BC-08-15-WD		1/2 - 14	22 X 1.5
IA-20BC-08-18-WD		1/2 - 14	26 X 1.5
IA-20BC-12-22-WD		3/4 - 14	30 X 2.0
IA-20BC-16-28-WD		1 - 11	36 X 2.0
IA-20BC-20-35-WD		1 1/4 - 11	45 X 2.0
IA-20BC-24-42-WD		1 1/2 - 11	52 X 2.0
IA-20BD-04-06-WD	S	1/4 - 19	14 X 1.5
IA-20BD-04-08-WD		1/4 - 19	16 X 1.5
IA-20BD-06-10-WD		3/8 - 19	18 X 1.5
IA-20BD-06-12-WD		3/8 - 19	20 X 1.5
IA-20BD-08-12-WD		1/2 - 14	20 X 1.5
IA-20BD-08-14-WD		1/2 - 14	22 X 1.5
IA-20BD-08-16-WD		1/2 - 14	24 X 1.5
IA-20BD-12-16-WD		3/4 - 14	24 X 1.5
IA-20BD-12-20-WD		3/4 - 14	30 X 2.0
IA-20BD-12-25-WD		3/4 - 14	36 X 2.0
IA-20BD-16-25-WD		1 - 11	36 X 2.0
IA-20BD-16-30-WD		1 - 11	42 X 2.0
IA-20BD-20-30-WD		1 1/4 - 11	42 X 2.0

*Note: All Male DIN types include metric tube nut and metric bite sleeve.

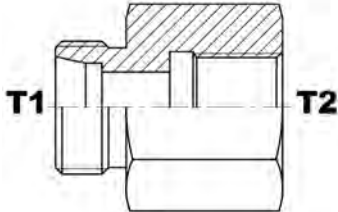
*Note: All Female DIN Swivels are DKO Type.



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IA-50CB, 50DB DIN L & S x BSPP FEMALE RIGID

	PART NUMBER		T1	T2	
	IA-50CB-06-02	L	12 X 1.5	1/8 - 28	
	IA-50CB-06-04		12 X 1.5	1/4 - 19	
	IA-50CB-08-04		14 X 1.5	1/4 - 19	
	IA-50CB-08-06		14 X 1.5	3/8 - 19	
	IA-50CB-08-08		14 X 1.5	1/2 - 14	
	IA-50CB-10-04		16 X 1.5	1/4 - 19	
	IA-50CB-10-06		16 X 1.5	3/8 - 19	
	IA-50CB-10-08		16 X 1.5	1/2 - 14	
	IA-50CB-12-04		18 X 1.5	1/4 - 19	
	IA-50CB-12-06		18 X 1.5	3/8 - 19	
	IA-50CB-12-08		18 X 1.5	1/2 - 14	
	IA-50CB-15-06		22 X 1.5	3/8 - 19	
	IA-50CB-15-08		22 X 1.5	1/2 - 14	
	IA-50CB-18-08		26 X 1.5	1/2 - 14	
	IA-50CB-22-12		30 X 2.0	3/4 - 14	
	IA-50CB-28-16		36 X 2.0	1 - 11	
	IA-50CB-35-20		45 X 2.0	1 1/4 - 11	
	IA-50CB-42-24		52 X 2.0	1 1/2 - 11	
	IA-50DB-06-04		S	14 X 1.5	1/4 - 19
	IA-50DB-08-04			16 X 1.5	1/4 - 19
IA-50DB-10-06	18 X 1.5	3/8 - 19			
IA-50DB-12-06	20 X 1.5	3/8 - 19			
IA-50DB-12-08	20 X 1.5	1/2 - 14			
IA-50DB-14-08	22 X 1.5	1/2 - 14			
IA-50DB-16-06	24 X 1.5	3/8 - 19			
IA-50DB-16-08	24 X 1.5	1/2 - 14			
IA-50DB-20-12	30 X 2.0	3/4 - 14			
IA-50DB-25-16	36 X 2.0	1 - 11			
IA-50DB-30-20	42 X 2.0	1 1/4 - 11			
IA-50DB-38-24	52 X 2.0	1 1/2 - 11			

*Note: All Male DIN types include metric tube nut and metric bite sleeve.

*Note: All Female DIN Swivels are DKO Type.

DIN BITE-TYPE 12° SEAT



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IA-10AT, 10CT, 10DT

DIN L & S x BSPT MALE

DIN BITE-TYPE 12° SEAT



	PART NUMBER		T1	T2
	IA-10CT-06-02	L	12 X 1.5	1/8 - 28
	IA-10CT-06-04		12 X 1.5	1/4 - 19
	IA-10CT-08-02		14 X 1.5	1/8 - 28
	IA-10CT-08-04		14 X 1.5	1/4 - 19
	IA-10CT-08-06		14 X 1.5	3/8 - 19
	IA-10CT-10-04		16 X 1.5	1/4 - 19
	IA-10CT-10-06		16 X 1.5	3/8 - 19
	IA-10CT-10-08		16 X 1.5	1/2 - 14
	IA-10CT-12-04		18 X 1.5	1/4 - 19
	IA-10CT-12-06		18 X 1.5	3/8 - 19
	IA-10CT-12-08		18 X 1.5	1/2 - 14
	IA-10CT-15-06		22 X 1.5	3/8 - 19
	IA-10CT-15-08		22 X 1.5	1/2 - 14
	IA-10CT-18-08		26 X 1.5	1/2 - 14
	IA-10CT-18-12		26 X 1.5	3/4 - 14
	IA-10CT-22-12		30 X 2.0	3/4 - 14
	IA-10CT-28-16		36 X 2.0	1 - 11
	IA-10CT-35-20		45 X 2.0	1 1/4 - 11
	IA-10CT-42-24		52 X 2.0	1 1/2 - 11
	IA-10DT-06-02		S	14 X 1.5
IA-10DT-06-04	14 X 1.5	1/4 - 19		
IA-10DT-08-04	16 X 1.5	1/4 - 19		
IA-10DT-10-04	18 X 1.5	1/4 - 19		
IA-10DT-10-06	18 X 1.5	3/8 - 19		
IA-10DT-12-04	20 X 1.5	1/4 - 19		
IA-10DT-12-06	20 X 1.5	3/8 - 19		
IA-10DT-12-08	20 X 1.5	1/2 - 14		
IA-10DT-14-08	22 X 1.5	1/2 - 14		
IA-10DT-16-08	24 X 1.5	1/2 - 14		
IA-10DT-20-12	30 X 2.0	3/4 - 14		
IA-10DT-20-16	30 X 2.0	1 - 11		
IA-10DT-25-16	36 X 2.0	1 - 11		
IA-10DT-30-20	42 X 2.0	1 1/4 - 11		
IA-10DT-38-24	52 X 2.0	1 1/2 - 11		

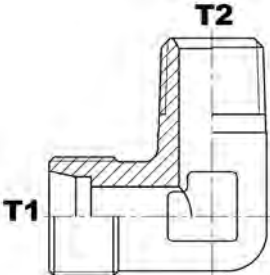
*Note: All Male DIN types include metric tube nut and metric bite sleeve.

*Note: All Female DIN Swivels are DKO Type.

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IA-19AT, 19CT, 19DT

DIN L & S x 90° BSPT MALE



PART NUMBER		T1	T2	
IA-19CT-06-02	L	12 X 1.5	1/8 - 28	
IA-19CT-08-04		14 X 1.5	1/4 - 19	
IA-19CT-10-04		16 X 1.5	1/4 - 19	
IA-19CT-12-06		18 X 1.5	3/8 - 19	
IA-19CT-15-08		22 X 1.5	1/2 - 14	
IA-19CT-18-08		26 X 1.5	1/2 - 14	
IA-19CT-22-12		30 X 2.0	3/4 - 14	
IA-19CT-28-16		36 X 2.0	1 - 11	
IA-19CT-35-20		45 X 2.0	1 1/4 - 11	
IA-19CT-42-24		52 X 2.0	1 1/2 - 11	
IA-19DT-06-04		S	14 X 1.5	1/4 - 19
IA-19DT-08-04			16 X 1.5	1/4 - 19
IA-19DT-10-06	18 X 1.5		3/8 - 19	
IA-19DT-12-06	20 X 1.5		3/8 - 19	
IA-19DT-14-08	22 X 1.5		1/2 - 14	
IA-19DT-16-08	24 X 1.5		1/2 - 14	
IA-19DT-20-12	30 X 2.0		3/4 - 14	
IA-19DT-25-12	36 X 2.0		3/4 - 14	
IA-19DT-25-16	36 X 2.0		1 - 11	
IA-19DT-30-20	42 X 2.0		1 1/4 - 11	
IA-19DT-38-24	52 X 2.0		1 1/2 - 11	

*Note: All Male DIN types include metric tube nut and metric bite sleeve.

*Note: All Female DIN Swivels are DKO Type.

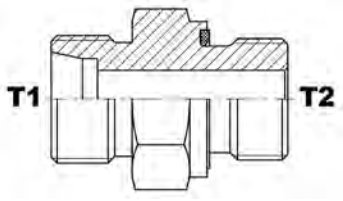
DIN BITE-TYPE 12° SEAT



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IA-10CM-WD, 10DM-WD DIN L & S x METRIC PORT MALE

DIN BITE-TYPE 12° SEAT



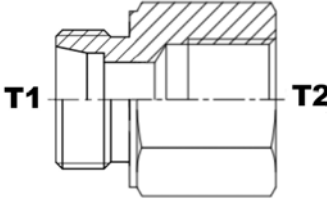
PART NUMBER		T1	T2
IA-10CM-06-10-WD	L	12 X 1.5	10 X 1.0
IA-10CM-06-12-WD		12 X 1.5	12 X 1.5
IA-10CM-08-10-WD		14 X 1.5	10 X 1.0
IA-10CM-08-12-WD		14 X 1.5	12 X 1.5
IA-10CM-08-14-WD		14 X 1.5	14 X 1.5
IA-10CM-08-16-WD		14 X 1.5	16 X 1.5
IA-10CM-10-10-WD		16 X 1.5	10 X 1.0
IA-10CM-10-12-WD		16 X 1.5	12 X 1.5
IA-10CM-10-14-WD		16 X 1.5	14 X 1.5
IA-10CM-10-16-WD		16 X 1.5	16 X 1.5
IA-10CM-10-18-WD		16 X 1.5	18 X 1.5
IA-10CM-12-12-WD		18 X 1.5	12 X 1.5
IA-10CM-12-14-WD		18 X 1.5	14 X 1.5
IA-10CM-12-16-WD		18 X 1.5	16 X 1.5
IA-10CM-12-18-WD		18 X 1.5	18 X 1.5
IA-10CM-12-22-WD		18 X 1.5	22 X 1.5
IA-10CM-15-18-WD		22 X 1.5	18 X 1.5
IA-10CM-15-22-WD		22 X 1.5	22 X 1.5
IA-10CM-18-18-WD		26 X 1.5	18 X 1.5
IA-10CM-18-22-WD		26 X 1.5	22 X 1.5
IA-10CM-22-26-WD		30 X 2.0	26 X 1.5
IA-10CM-22-27-WD		30 X 2.0	27 X 2.0
IA-10CM-28-33-WD		36 X 2.0	33 X 2.0
IA-10CM-35-42-WD		45 X 2.0	42 X 2.0
IA-10CM-42-48-WD	52 X 2.0	48 X 2.0	
IA-10DM-06-12-WD	S	14 X 1.5	12 X 1.5
IA-10DM-08-14-WD		16 X 1.5	14 X 1.5
IA-10DM-10-16-WD		18 X 1.5	16 X 1.5
IA-10DM-12-18-WD		20 X 1.5	18 X 1.5
IA-10DM-14-20-WD		22 X 1.5	20 X 1.5
IA-10DM-16-22-WD		24 X 1.5	22 X 1.5
IA-10DM-20-27-WD		30 X 2.0	27 X 2.0
IA-10DM-25-33-WD		36 X 2.0	33 X 2.0
IA-10DM-30-42-WD		42 X 2.0	42 X 2.0
IA-10DM-38-48-WD		52 X 2.0	48 X 2.0

*Note: All Male DIN types include metric tube nut and metric bite sleeve.
 *Note: All Female DIN Swivels are DKO Type.

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IA-50CM, 50DM

DIN L & S x METRIC FEMALE

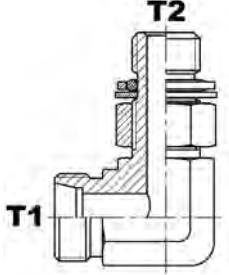
	PART NUMBER		T1	T2	
	IA-50CM-06-10	L		12 X 1.5	10 X 1.0
	IA-50CM-08-12			14 X 1.5	12 X 1.5
	IA-50CM-10-14			16 X 1.5	14 X 1.5
	IA-50CM-12-16			18 X 1.5	16 X 1.5
	IA-50CM-15-18			22 X 1.5	18 X 1.5
	IA-50CM-18-22			26 X 1.5	22 X 1.5
	IA-50CM-22-26			30 X 2.0	26 X 1.5
	IA-50CM-28-33			36 X 2.0	33 X 2.0
	IA-50CM-35-42			45 X 2.0	42 X 2.0
	IA-50CM-42-48			52 X 2.0	48 X 2.0
IA-50DM-06-12	S		14 X 1.5	12 X 1.5	
IA-50DM-08-14			16 X 1.5	14 X 1.5	
IA-50DM-10-16			18 X 1.5	16 X 1.5	
IA-50DM-12-18			20 X 1.5	18 X 1.5	
IA-50DM-14-20			22 X 1.5	20 X 1.5	
IA-50DM-16-22			24 X 1.5	22 X 1.5	
IA-50DM-20-27			30 X 2.0	27 X 2.0	
IA-50DM-25-33			36 X 2.0	33 X 2.0	
IA-50DM-30-42			42 X 2.0	42 X 2.0	
IA-50DM-38-48			52 X 2.0	48 X 2.0	

*Note: All Male DIN types include metric tube nut and metric bite sleeve.

*Note: All Female DIN Swivels are DKO Type.

IA-19CH, 19DH

DIN L & S x 90° METRIC PORT ADJ. MALE

	PART NUMBER		T1	T2	
	IA-19CH-06-10	L		12 X 1.5	10 X 1.0
	IA-19CH-08-12			14 X 1.5	12 X 1.5
	IA-19CH-10-14			16 X 1.5	14 X 1.5
	IA-19CH-12-16			18 X 1.5	16 X 1.5
IA-19CH-15-18			22 X 1.5	18 X 1.5	
IA-19DH-06-12	S		14 X 1.5	12 X 1.5	
IA-19DH-08-14			16 X 1.5	14 X 1.5	
IA-19DH-10-16			18 X 1.5	16 X 1.5	
IA-19DH-12-18			20 X 1.5	18 X 1.5	

*Note: All Male DIN types include metric tube nut and metric bite sleeve.

*Note: All Female DIN Swivels are DKO Type.



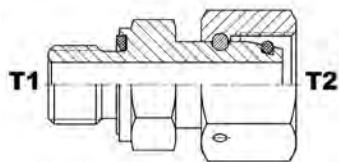
WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>





IA-20MC-WD, 20MD-WD METRIC PORT MALE x DIN L & S SWIVEL

PART NUMBER		T1	T2
		IA-20MC-10-06-WD	L
IA-20MC-12-08-WD	12 X 1.5	14 X 1.5	
IA-20MC-14-10-WD	14 X 1.5	16 X 1.5	
IA-20MC-16-12-WD	16 X 1.5	18 X 1.5	
IA-20MC-18-15-WD	18 X 1.5	22 X 1.5	
IA-20MC-22-18-WD	22 X 1.5	26 X 1.5	
IA-20MC-26-22-WD	26 X 1.5	30 X 2.0	
IA-20MC-33-28-WD	33 X 2.0	36 X 2.0	
IA-20MC-42-35-WD	42 X 2.0	45 X 2.0	
IA-20MC-48-42-WD	48 X 2.0	52 X 2.0	
IA-20MD-12-06-WD	S	12 X 1.5	14 X 1.5
IA-20MD-14-08-WD		14 X 1.5	16 X 1.5
IA-20MD-16-10-WD		16 X 1.5	18 X 1.5
IA-20MD-18-12-WD		18 X 1.5	20 X 1.5
IA-20MD-20-14-WD		20 X 1.5	22 X 1.5
IA-20MD-22-16-WD		22 X 1.5	24 X 1.5
IA-20MD-33-25-WD		33 X 2.0	36 X 2.0
IA-20MD-42-30-WD		42 X 2.0	42 X 2.0
IA-20MD-48-38-WD		48 X 2.0	52 X 2.0

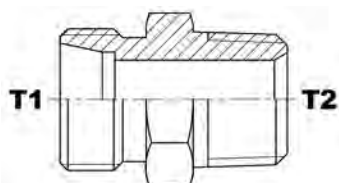


*Note: All Male DIN types include metric tube nut and metric bite sleeve.

*Note: All Female DIN Swivels are DKO Type.

IA-10AI, 10CI DIN LL & L x METRIC TAPERED MALE

PART NUMBER		T1	T2
IA-10AI-04-06	LL	8 X 1.0	6 X 1.0
IA-10AI-04-08		8 X 1.0	8 X 1.0



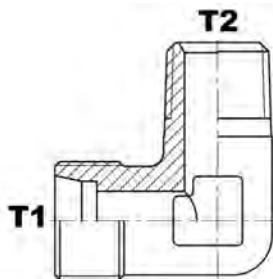
*Quoted Upon Request

*Note: All Male DIN types include metric tube nut and metric bite sleeve.

*Note: All Female DIN Swivels are DKO Type.

IA-19AI, 19CI DIN LL & L x 90° METRIC TAPERED MALE

PART NUMBER		T1	T2
IA-19AI-06-10	LL	10 X 1.0	10 X 1.0
IA-19AI-08-10		12 X 1.0	10 X 1.0



*Quoted Upon Request

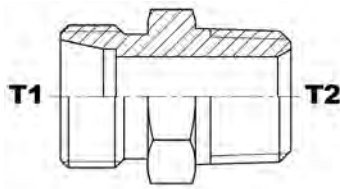
*Note: All Male DIN types include metric tube nut and metric bite sleeve.

*Note: All Female DIN Swivels are DKO Type.

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

IA-10AN, 10CN, 10DN

DIN LL, L & S x NPT MALE



PART NUMBER		T1	T2
IA-10CN-06-02	L	12 X 1.5	1/8 - 27
IA-10CN-06-04		12 X 1.5	1/4 - 18
IA-10CN-08-02		14 X 1.5	1/8 - 27
IA-10CN-08-04		14 X 1.5	1/4 - 18
IA-10CN-10-04		16 X 1.5	1/4 - 18
IA-10CN-10-06		16 X 1.5	3/8 - 18
IA-10CN-12-04		18 X 1.5	1/4 - 18
IA-10CN-12-06		18 X 1.5	3/8 - 18
IA-10CN-12-08		18 X 1.5	1/2 - 14
IA-10CN-15-08		22 X 1.5	1/2 - 14
IA-10CN-15-12		22 X 1.5	3/4 - 14
IA-10CN-18-08		26 X 1.5	1/2 - 14
IA-10CN-18-12		26 X 1.5	3/4 - 14
IA-10CN-22-08		30 X 2.0	1/2 - 14
IA-10CN-22-12		30 X 2.0	3/4 - 14
IA-10CN-22-16		30 X 2.0	1 - 11 1/2
IA-10CN-28-12		36 X 2.0	3/4 - 14
IA-10CN-28-16		36 X 2.0	1 - 11 1/2
IA-10CN-28-20		36 X 2.0	1 1/4 - 11 1/2
IA-10CN-35-20		45 X 2.0	1 1/4 - 11 1/2
IA-10CN-42-20	52 X 2.0	1 1/4 - 11 1/2	
IA-10CN-42-24	52 X 2.0	1 1/2 - 11 1/2	
IA-10DN-06-04	S	14 X 1.5	1/4 - 18
IA-10DN-08-04		16 X 1.5	1/4 - 18
IA-10DN-10-04		18 X 1.5	1/4 - 18
IA-10DN-10-06		18 X 1.5	3/8 - 18
IA-10DN-12-04		20 X 1.5	1/4 - 18
IA-10DN-12-06		20 X 1.5	3/8 - 18
IA-10DN-12-08		20 X 1.5	1/2 - 14
IA-10DN-14-06		22 X 1.5	3/8 - 18
IA-10DN-14-08		22 X 1.5	1/2 - 14
IA-10DN-16-06		24 X 1.5	3/8 - 18
IA-10DN-16-08		24 X 1.5	1/2 - 14
IA-10DN-16-12		24 X 1.5	3/4 - 14
IA-10DN-20-08		30 X 2.0	1/2 - 14
IA-10DN-20-12		30 X 2.0	3/4 - 14
IA-10DN-25-12		36 X 2.0	3/4 - 14
IA-10DN-25-16		36 X 2.0	1 - 11 1/2
IA-10DN-30-16		42 X 2.0	1 - 11 1/2
IA-10DN-30-20		42 X 2.0	1 1/4 - 11 1/2
IA-10DN-30-24		42 X 2.0	1 1/2 - 11 1/2
IA-10DN-38-20		52 X 2.0	1 1/4 - 11 1/2
IA-10DN-38-24	52 X 2.0	1 1/2 - 11 1/2	

*Note: All Male DIN types include metric tube nut and metric bite sleeve.

*Note: All Female DIN Swivels are DKO Type.



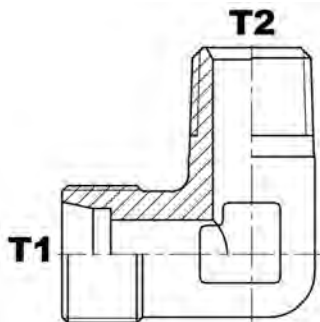
WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



IA-19CN, 19DN

DIN L & S x 90° NPT MALE

PART NUMBER		T1	T2	
		IA-19CN-06-02	L	12 X 1.5
IA-19CN-06-04	12 X 1.5	1/4 - 18		
IA-19CN-08-02	14 X 1.5	1/8 - 27		
IA-19CN-08-04	14 X 1.5	1/4 - 18		
IA-19CN-10-04	16 X 1.5	1/4 - 18		
IA-19CN-10-06	16 X 1.5	3/8 - 18		
IA-19CN-12-04	18 X 1.5	1/4 - 18		
IA-19CN-12-06	18 X 1.5	3/8 - 18		
IA-19CN-15-08	22 X 1.5	1/2 - 14		
IA-19CN-18-12	26 X 1.5	3/4 - 14		
IA-19CN-22-12	30 X 2.0	3/4 - 14		
IA-19CN-28-16	36 X 2.0	1 - 11 1/2		
IA-19CN-35-20	45 X 2.0	1 1/4 - 11 1/2		
IA-19CN-42-24	52 X 2.0	1 1/2 - 11 1/2		
IA-19DN-06-04	S	14 X 1.5		1/4 - 18
IA-19DN-08-04		16 X 1.5		1/4 - 18
IA-19DN-10-06		18 X 1.5	3/8 - 18	
IA-19DN-12-06		20 X 1.5	3/8 - 18	
IA-19DN-14-08		22 X 1.5	1/2 - 14	
IA-19DN-16-08		24 X 1.5	1/2 - 14	
IA-19DN-20-12		30 X 2.0	3/4 - 14	
IA-19DN-25-16		36 X 2.0	1 - 11 1/2	
IA-19DN-30-20		42 X 2.0	1 1/4 - 11 1/2	
IA-19DN-38-24		52 X 2.0	1 1/2 - 11 1/2	



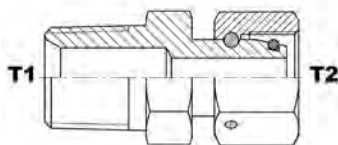
*Note: All Male DIN types include metric tube nut and metric bite sleeve.

*Note: All Female DIN Swivels are DKO Type.

IA-20NC, 20ND

NPT MALE X DIN L & S

PART NUMBER		T1	T2
IA-20NC-02-06	L	1/8 - 27	12 X 1.5
IA-20NC-04-08		1/4 - 18	14 X 1.5
IA-20NC-06-10		3/8 - 18	16 X 1.5
IA-20NC-06-12		3/8 - 18	18 X 1.5
IA-20NC-08-15		1/2 - 14	22 X 1.5
IA-20NC-08-18		1/2 - 14	26 X 1.5
IA-20NC-12-22		3/4 - 14	30 X 2.0
IA-20NC-16-28		1 - 11 1/2	36 X 2.0
IA-20NC-20-35		1 1/4 - 11 1/2	45 X 2.0
IA-20NC-24-42		1 1/2 - 11 1/2	52 X 2.0
IA-20ND-04-06	S	1/4 - 18	14 X 1.5
IA-20ND-04-08		1/4 - 18	16 X 1.5
IA-20ND-06-10		3/8 - 18	18 X 1.5
IA-20ND-06-12		3/8 - 18	20 X 1.5
IA-20ND-08-14		1/2 - 14	22 X 1.5
IA-20ND-08-16		1/2 - 14	24 X 1.5
IA-20ND-12-20		3/4 - 14	30 X 2.0
IA-20ND-16-25		1 - 11 1/2	36 X 2.0
IA-20ND-20-30		1 1/4 - 11 1/2	42 X 2.0
IA-20ND-20-38		1 1/4 - 11 1/2	52 X 2.0



*Note: All Male DIN types include metric tube nut and metric bite sleeve.

*Note: All Female DIN Swivels are DKO Type.



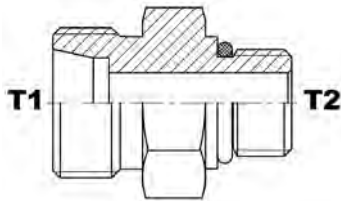
WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



IA-10CO, 10DO

DIN L & S x M-ORB

PART NUMBER		T1	T2	
		IA-10CO-08-04	14 X 1.5	7/16 - 20
IA-10CO-10-04	L	16 X 1.5	7/16 - 20	
IA-10CO-10-06		16 X 1.5	9/16 - 18	
IA-10CO-12-06		18 X 1.5	9/16 - 18	
IA-10CO-12-08		18 X 1.5	3/4 - 16	
IA-10CO-12-10		18 X 1.5	7/8 - 14	
IA-10CO-15-08		22 X 1.5	3/4 - 16	
IA-10CO-15-10		22 X 1.5	7/8 - 14	
IA-10CO-18-08		26 X 1.5	3/4 - 16	
IA-10CO-18-10		26 X 1.5	7/8 - 14	
IA-10CO-22-08		30 X 2.0	3/4 - 16	
IA-10CO-22-10		30 X 2.0	7/8 - 14	
IA-10CO-22-12		30 X 2.0	1 1/16 - 12	
IA-10CO-28-16		36 X 2.0	1 5/16 - 12	
IA-10CO-35-20		45 X 2.0	1 5/8 - 12	
IA-10CO-42-20		52 X 2.0	1 5/8 - 12	
IA-10DO-06-06		S	14 X 1.5	9/16 - 18
IA-10DO-08-04			16 X 1.5	7/16 - 20
IA-10DO-08-06			16 X 1.5	9/16 - 18
IA-10DO-10-06	18 X 1.5		9/16 - 18	
IA-10DO-12-06	20 X 1.5		9/16 - 18	
IA-10DO-12-08	20 X 1.5		3/4 - 16	
IA-10DO-16-08	24 X 1.5		3/4 - 16	
IA-10DO-16-10	24 X 1.5		7/8 - 14	
IA-10DO-20-08	30 X 2.0		3/4 - 16	
IA-10DO-20-10	30 X 2.0		7/8 - 14	
IA-10DO-20-12	30 X 2.0		1 1/16 - 12	
IA-10DO-25-12	36 X 2.0		1 1/16 - 12	
IA-10DO-25-16	36 X 2.0		1 5/16 - 12	
IA-10DO-30-16	42 X 2.0		1 5/16 - 12	
IA-10DO-30-20	42 X 2.0		1 5/8 - 12	
IA-10DO-38-20	52 X 2.0		1 5/8 - 12	



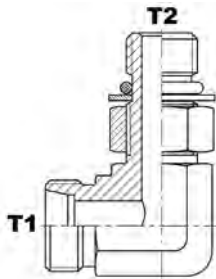
*Note: All Male DIN types include metric tube nut and metric bite sleeve.

*Note: All Female DIN Swivels are DKO Type.

IA-19CO, 19DO

DIN L & S x 90° M-ORB ADJ.

PART NUMBER		T1	T2
		IA-19CO-06-04	12 X 1.5
IA-19CO-08-04	L	14 X 1.5	7/16 - 20
IA-19CO-10-04		16 X 1.5	7/16 - 20
IA-19CO-10-06		16 X 1.5	9/16 - 18
IA-19CO-12-06		18 X 1.5	9/16 - 18
IA-19CO-15-08		22 X 1.5	3/4 - 16
IA-19CO-18-12		26 X 1.5	1 1/16 - 12
IA-19CO-22-12		30 X 2.0	1 1/16 - 12
IA-19DO-06-04		S	14 X 1.5
IA-19DO-08-06	16 X 1.5		9/16 - 18
IA-19DO-10-06	18 X 1.5		9/16 - 18
IA-19DO-12-06	20 X 1.5		9/16 - 18
IA-19DO-12-08	20 X 1.5		3/4 - 16
IA-19DO-14-10	22 X 1.5		7/8 - 14
IA-19DO-16-08	24 X 1.5		3/4 - 16
IA-19DO-16-10	24 X 1.5		7/8 - 14
IA-19DO-20-12	30 X 2.0		1 1/16 - 12
IA-19DO-25-16	36 X 2.0		1 5/16 - 12



*Note: All Male DIN types include metric tube nut and metric bite sleeve.

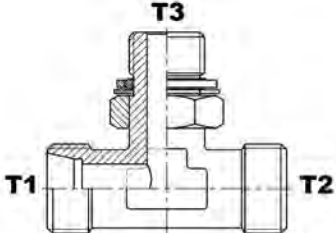
*Note: All Female DIN Swivels are DKO Type.

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



IA-ACCO, ADDO

DIN L & S x M-ORB ADJ. BR. TEE



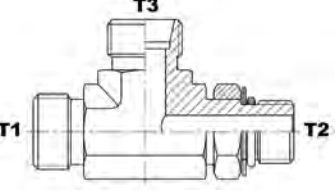
PART NUMBER		T1	T2	T3
IA-ACCO-06-06-04	L	12 X 1.5	12 X 1.5	7/16 - 20
IA-ACCO-08-08-06		14 X 1.5	14 X 1.5	9/16 - 18
IA-ACCO-10-10-06		16 X 1.5	16 X 1.5	9/16 - 18
IA-ACCO-12-12-08		18 X 1.5	18 X 1.5	3/4 - 16
IA-ACCO-15-15-10		22 X 1.5	22 X 1.5	7/8 - 14
IA-ACCO-18-18-12		26 X 1.5	26 X 1.5	1 1/16 - 12
IA-ACCO-22-22-12		30 X 2.0	30 X 2.0	1 1/16 - 12
IA-ACCO-28-28-16		36 X 2.0	36 X 2.0	1 5/16 - 12
IA-ACCO-35-35-20		45 X 2.0	45 X 2.0	1 5/8 - 12
IA-ADDO-06-06-04	S	14 X 1.5	14 X 1.5	7/16 - 20
IA-ADDO-08-08-06		16 X 1.5	16 X 1.5	9/16 - 18
IA-ADDO-10-10-06		18 X 1.5	18 X 1.5	9/16 - 18
IA-ADDO-12-12-08		20 X 1.5	20 X 1.5	3/4 - 16
IA-ADDO-14-14-10		22 X 1.5	22 X 1.5	7/8 - 14
IA-ADDO-16-16-10		24 X 1.5	24 X 1.5	7/8 - 14
IA-ADDO-20-20-12		30 X 2.0	30 X 2.0	1 1/16 - 12
IA-ADDO-25-25-16		36 X 2.0	36 X 2.0	1 5/16 - 12
IA-ADDO-30-30-20		42 X 2.0	42 X 2.0	1 5/8 - 12

*Note: All Male DIN types include metric tube nut and metric bite sleeve.

*Note: All Female DIN Swivels are DKO Type.

IA-ACOC, ADOD

DIN L & S x M-ORB ADJ. RUN TEE



PART NUMBER		T1	T2	T3
IA-ACOC-06-06-04	L	12 X 1.5	7/16 - 20	12 X 1.5
IA-ACOC-08-08-06		14 X 1.5	9/16 - 18	14 X 1.5
IA-ACOC-10-10-06		16 X 1.5	9/16 - 18	16 X 1.5
IA-ACOC-12-12-08		18 X 1.5	3/4 - 16	18 X 1.5
IA-ACOC-15-15-10		22 X 1.5	7/8 - 14	22 X 1.5
IA-ACOC-18-18-12		26 X 1.5	1 1/16 - 12	26 X 1.5
IA-ACOC-22-22-12		30 X 2.0	1 1/16 - 12	30 X 2.0
IA-ACOC-28-28-16		36 X 2.0	1 5/16 - 12	36 X 2.0
IA-ACOC-35-35-20		45 X 2.0	1 5/8 - 12	45 X 2.0
IA-ADOD-06-06-04	S	14 X 1.5	7/16 - 20	14 X 1.5
IA-ADOD-08-08-06		16 X 1.5	9/16 - 18	16 X 1.5
IA-ADOD-10-10-06		18 X 1.5	9/16 - 18	18 X 1.5
IA-ADOD-12-12-08		20 X 1.5	3/4 - 16	20 X 1.5
IA-ADOD-14-14-10		22 X 1.5	7/8 - 14	22 X 1.5
IA-ADOD-16-16-10		24 X 1.5	7/8 - 14	24 X 1.5
IA-ADOD-20-20-12		30 X 2.0	1 1/16 - 12	30 X 2.0
IA-ADOD-25-25-16		36 X 2.0	1 5/16 - 12	36 X 2.0
IA-ADOD-30-30-20		42 X 2.0	1 5/8 - 12	42 X 2.0

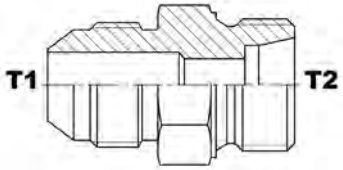
*Note: All Male DIN types include metric tube nut and metric bite sleeve.

*Note: All Female DIN Swivels are DKO Type.



WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

IA-10JA, 10JC, 10JD JIC MALE x DIN LL, L & S MALE

	PART NUMBER		T1	T2
		IA-10JA-04-06	LL	7/16 - 20
IA-10JA-04-08		7/16 - 20		12 X 1.0
IA-10JC-04-06		L	7/16 - 20	12 X 1.5
IA-10JC-04-08			7/16 - 20	14 X 1.5
IA-10JC-06-08			9/16 - 18	14 X 1.5
IA-10JC-06-10			9/16 - 18	16 X 1.5
IA-10JC-06-12			9/16 - 18	18 X 1.5
IA-10JC-08-12			3/4 - 16	18 X 1.5
IA-10JC-08-15			3/4 - 16	22 X 1.5
IA-10JC-10-15			7/8 - 14	22 X 1.5
IA-10JC-10-18			7/8 - 14	26 X 1.5
IA-10JC-12-18			1 1/16 - 12	26 X 1.5
IA-10JC-12-22			1 1/16 - 12	30 X 2.0
IA-10JC-16-28			1 5/16 - 12	36 X 2.0
IA-10JC-20-35			1 5/8 - 12	45 X 2.0
IA-10JC-24-42			1 7/8 - 12	52 X 2.0
IA-10JD-04-06		S	7/16 - 20	14 X 1.5
IA-10JD-04-08			7/16 - 20	16 X 1.5
IA-10JD-04-10			7/16 - 20	18 X 1.5
IA-10JD-06-06			9/16 - 18	14 X 1.5
IA-10JD-06-08			9/16 - 18	16 X 1.5
IA-10JD-06-10			9/16 - 18	18 X 1.5
IA-10JD-06-12			9/16 - 18	20 X 1.5
IA-10JD-06-14			9/16 - 18	22 X 1.5
IA-10JD-08-12			3/4 - 16	20 X 1.5
IA-10JD-08-14			3/4 - 16	22 X 1.5
IA-10JD-08-16			3/4 - 16	24 X 1.5
IA-10JD-10-12			7/8 - 14	20 X 1.5
IA-10JD-10-16			7/8 - 14	24 X 1.5
IA-10JD-10-20			7/8 - 14	30 X 2.0
IA-10JD-12-20	1 1/16 - 12		30 X 2.0	
IA-10JD-12-25	1 1/16 - 12		36 X 2.0	
IA-10JD-16-25	1 5/16 - 12		36 X 2.0	
IA-10JD-20-30	1 5/8 - 12		42 X 2.0	
IA-10JD-20-38	1 5/8 - 12		52 X 2.0	
IA-10JD-24-38	1 7/8 - 12		52 X 2.0	

*Note: All Male DIN types include metric tube nut and metric bite sleeve.

*Note: All Female DIN Swivels are DKO Type.

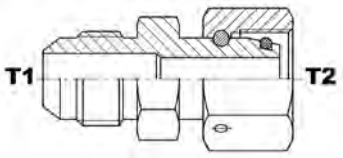
DIN BITE-TYPE 12° SEAT



WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

IA-20JA, 20JC, 20JD JIC MALE x DIN LL, L & S FEMALE SWIVEL

DIN BITE-TYPE 12° SEAT



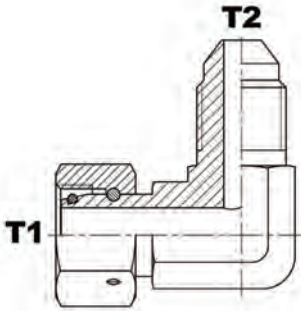
PART NUMBER		T1	T2	
IA-20JA-04-06	LL	7/16 - 20	10 X 1.0	
IA-20JA-04-08		7/16 - 20	12 X 1.0	
IA-20JC-04-06	L	7/16 - 20	12 X 1.5	
IA-20JC-04-08		7/16 - 20	14 X 1.5	
IA-20JC-05-08		1/2 - 20	14 X 1.5	
IA-20JC-05-10		1/2 - 20	16 X 1.5	
IA-20JC-06-08		9/16 - 18	14 X 1.5	
IA-20JC-06-10		9/16 - 18	16 X 1.5	
IA-20JC-06-12		9/16 - 18	18 X 1.5	
IA-20JC-08-10		3/4 - 16	16 X 1.5	
IA-20JC-08-12		3/4 - 16	18 X 1.5	
IA-20JC-08-15		3/4 - 16	22 X 1.5	
IA-20JC-10-15		7/8 - 14	22 X 1.5	
IA-20JC-10-18		7/8 - 14	26 X 1.5	
IA-20JC-12-18		1 1/16 - 12	26 X 1.5	
IA-20JC-12-22		1 1/16 - 12	30 X 2.0	
IA-20JC-16-28		1 5/16 - 12	36 X 2.0	
IA-20JC-20-35		1 5/8 - 12	45 X 2.0	
IA-20JC-20-42		1 5/8 - 12	52 X 2.0	
IA-20JC-24-42		1 7/8 - 12	52 X 2.0	
IA-20JD-04-06		S	7/16 - 20	14 X 1.5
IA-20JD-04-08			7/16 - 20	16 X 1.5
IA-20JD-04-10	7/16 - 20		18 X 1.5	
IA-20JD-05-10	1/2 - 20		18 X 1.5	
IA-20JD-05-12	1/2 - 20		20 X 1.5	
IA-20JD-06-08	9/16 - 18		16 X 1.5	
IA-20JD-06-10	9/16 - 18		18 X 1.5	
IA-20JD-06-12	9/16 - 18		20 X 1.5	
IA-20JD-06-14	9/16 - 18		22 X 1.5	
IA-20JD-08-12	3/4 - 16		20 X 1.5	
IA-20JD-08-14	3/4 - 16		22 X 1.5	
IA-20JD-08-16	3/4 - 16		24 X 1.5	
IA-20JD-10-12	7/8 - 14		20 X 1.5	
IA-20JD-10-16	7/8 - 14		24 X 1.5	
IA-20JD-10-20	7/8 - 14		30 X 2.0	
IA-20JD-12-16	1 1/16 - 12		24 X 1.5	
IA-20JD-12-20	1 1/16 - 12		30 X 2.0	
IA-20JD-12-25	1 1/16 - 12		36 X 2.0	
IA-20JD-16-20	1 5/16 - 12		30 X 2.0	
IA-20JD-16-25	1 5/16 - 12		36 X 2.0	
IA-20JD-16-30	1 5/16 - 12		42 X 2.0	
IA-20JD-20-30	1 5/8 - 12		42 X 2.0	
IA-20JD-20-38	1 5/8 - 12		52 X 2.0	
IA-20JD-24-38	1 7/8 - 12		52 X 2.0	

*Note: All Male DIN types include metric tube nut and metric bite sleeve.
 *Note: All Female DIN Swivels are DKO Type.

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

IA-29JC, 29JD

90° JIC MALE x DIN L & S FEMALE SWIVEL

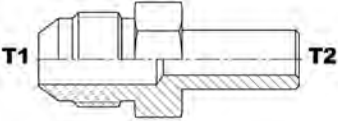
	PART NUMBER		T1	T2
	L	IA-29JC-04-06		7/16 - 20
IA-29JC-06-08			9/16 - 18	14 X 1.5
IA-29JC-06-10			9/16 - 18	16 X 1.5
IA-29JC-08-12			3/4 - 16	18 X 1.5
IA-29JC-10-15			7/8 - 14	22 X 1.5
IA-29JC-12-18			1 1/16 - 12	26 X 1.5
IA-29JC-16-22			1 5/16 - 12	30 X 2.0
IA-29JC-16-28			1 5/16 - 12	36 X 2.0
S	IA-29JD-04-06		7/16 - 20	14 X 1.5
	IA-29JD-06-08		9/16 - 18	16 X 1.5
	IA-29JD-06-10		9/16 - 18	18 X 1.5
	IA-29JD-08-12		3/4 - 16	20 X 1.5
	IA-29JD-10-16		7/8 - 14	24 X 1.5
	IA-29JD-12-20		1 1/16 - 12	30 X 2.0

*Note: All Male DIN types include metric tube nut and metric bite sleeve.

*Note: All Female DIN Swivels are DKO Type.

IA-10JV

JIC MALE x METRIC STAND PIPE

	PART NUMBER	T1	T2
	IA-10JV-04-04	7/16 - 20	4
IA-10JV-04-06	7/16 - 20	6	
IA-10JV-04-08	7/16 - 20	8	
IA-10JV-04-10	7/16 - 20	10	
IA-10JV-06-08	9/16 - 18	8	
IA-10JV-06-10	9/16 - 18	10	
IA-10JV-06-12	9/16 - 18	12	
IA-10JV-06-14	9/16 - 18	14	
IA-10JV-08-10	3/4 - 16	10	
IA-10JV-08-12	3/4 - 16	12	
IA-10JV-08-14	3/4 - 16	14	
IA-10JV-08-15	3/4 - 16	15	
IA-10JV-08-16	3/4 - 16	16	
IA-10JV-10-16	7/8 - 14	16	
IA-10JV-10-18	7/8 - 14	18	
IA-10JV-12-16	1 1/16 - 12	16	
IA-10JV-12-18	1 1/16 - 12	18	
IA-10JV-12-20	1 1/16 - 12	20	
IA-10JV-12-22	1 1/16 - 12	22	
IA-10JV-12-25	1 1/16 - 12	25	
IA-10JV-16-22	1 5/16 - 12	22	
IA-10JV-16-25	1 5/16 - 12	25	
IA-10JV-16-30	1 5/16 - 12	30	
IA-10JV-20-28	1 5/8 - 12	28	
IA-10JV-24-38	1 7/8 - 12	38	

*Note: All Male DIN types include metric tube nut and metric bite sleeve.

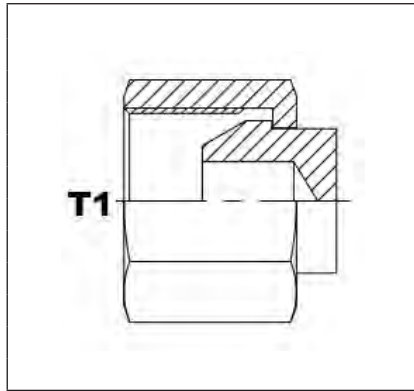
*Note: All Female DIN Swivels are DKO Type.





IA-0CM

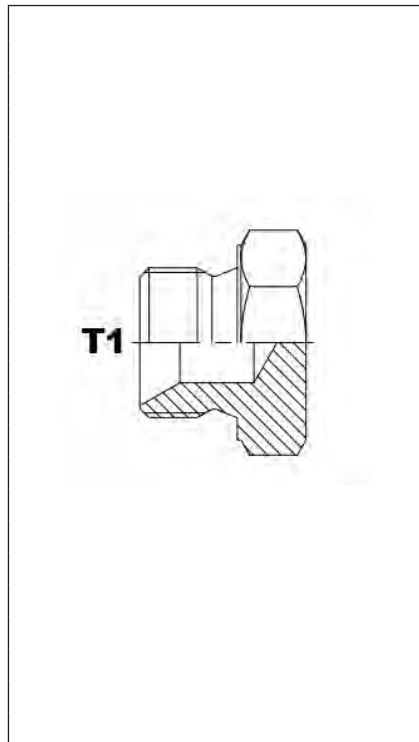
METRIC 60° CONE SEAT FEMALE CAP



PART NUMBER	T1
IA-0CM-12	12 X 1.5
IA-0CM-14	14 X 1.5
IA-0CM-16	16 X 1.5
IA-0CM-18	18 X 1.5
IA-0CM-20	20 X 1.5
IA-0CM-22	22 X 1.5

IA-0PM

METRIC 60° CONE SEAT MALE PLUG

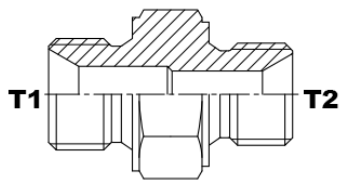


PART NUMBER	T1
IA-0PM-08	8 X 1.0
IA-0PM-10	10 X 1.0
IA-0PM-12	12 X 1.5
IA-0PM-12A	12 X 1.0
IA-0PM-14	14 X 1.5
IA-0PM-16	16 X 1.5
IA-0PM-18	18 X 1.5
IA-0PM-20	20 X 1.5
IA-0PM-22	22 X 1.5
IA-0PM-24	24 X 1.5
IA-0PM-26	26 X 1.5
IA-0PM-27D	27 X 1.5
IA-0PM-30	30 X 2.0
IA-0PM-30D	30 X 1.5
IA-0PM-33	33 X 2.0
IA-0PM-36D	36 X 1.5
IA-0PM-38	38 X 2.0
IA-0PM-38D	38 X 1.5
IA-0PM-45	45 X 2.0
IA-0PM-45D	45 X 1.5
IA-0PM-52	52 X 2.0
IA-0PM-52D	52 X 1.5

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

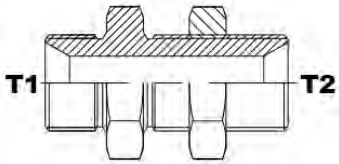
IA-10MM

METRIC MALE UNION

	PART NUMBER	T1	T2
	IA-10MM-10-10	10 X 1.0	10 X 1.0
IA-10MM-12-10	12 X 1.5	10 X 1.0	
IA-10MM-12-12	12 X 1.5	12 X 1.5	
IA-10MM-14-12	14 X 1.5	12 X 1.5	
IA-10MM-14-14	14 X 1.5	14 X 1.5	
IA-10MM-16-12	16 X 1.5	12 X 1.5	
IA-10MM-16-14	16 X 1.5	14 X 1.5	
IA-10MM-16-16	16 X 1.5	16 X 1.5	
IA-10MM-18-16	18 X 1.5	16 X 1.5	
IA-10MM-18-18	18 X 1.5	18 X 1.5	
IA-10MM-20-18	20 X 1.5	18 X 1.5	
IA-10MM-22-18	22 X 1.5	18 X 1.5	
IA-10MM-22-22	22 X 1.5	22 X 1.5	
IA-10MM-26-16	26 X 1.5	16 X 1.5	
IA-10MM-26-18	26 X 1.5	18 X 1.5	
IA-10MM-26-22	26 X 1.5	22 X 1.5	
IA-10MM-26-26	26 X 1.5	26 X 1.5	

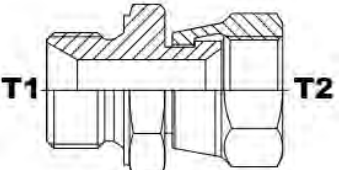
IA-60MM


METRIC MALE BULKHEAD UNION

	PART NUMBER	T1	T2
	IA-60MM-12-12-LN	12 X 1.5	12 X 1.5
IA-60MM-14-14-LN	14 X 1.5	14 X 1.5	
IA-60MM-16-16-LN	16 X 1.5	16 X 1.5	
IA-60MM-18-18-LN	18 X 1.5	18 X 1.5	
IA-60MM-20-20-LN	20 X 1.5	20 X 1.5	
IA-60MM-22-22-LN	22 X 1.5	22 X 1.5	
IA-60MM-24-24-LN	24 X 1.5	24 X 1.5	

IA-20MM

METRIC MALE x FEMALE SWIVEL

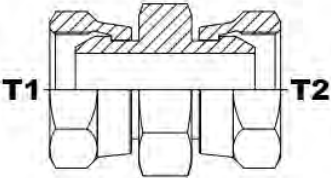
	PART NUMBER	T1	T2
	IA-20MM-12-12	12 X 1.5	12 X 1.5
IA-20MM-14-14	14 X 1.5	14 X 1.5	
IA-20MM-16-16	16 X 1.5	16 X 1.5	
IA-20MM-16-18	16 X 1.5	18 X 1.5	
IA-20MM-18-16	18 X 1.5	16 X 1.5	
IA-20MM-18-18	18 X 1.5	18 X 1.5	
IA-20MM-18-20	18 X 1.5	20 X 1.5	
IA-20MM-18-22	18 X 1.5	22 X 1.5	
IA-20MM-20-18	20 X 1.5	18 X 1.5	
IA-20MM-20-20	20 X 1.5	20 X 1.5	
IA-20MM-20-22	20 X 1.5	22 X 1.5	
IA-20MM-22-18	22 X 1.5	18 X 1.5	
IA-20MM-22-20	22 X 1.5	20 X 1.5	
IA-20MM-22-22	22 X 1.5	22 X 1.5	
IA-20MM-27-27	27 X 2.0	27 X 2.0	
IA-20MM-27D-27D	27 X 1.5	27 X 1.5	
IA-20MM-30-30	30 X 2.0	30 X 2.0	
IA-20MM-30D-30D	30 X 1.5	30 X 1.5	

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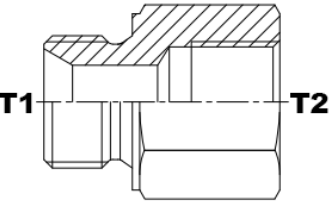




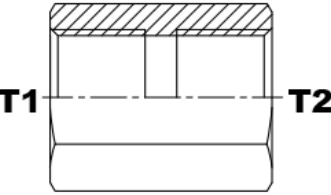
IA-30MM METRIC FEMALE SWIVEL UNION

	PART NUMBER	T1	T2
	IA-30MM-12-12	12 X 1.5	12 X 1.5
	IA-30MM-14-14	14 X 1.5	14 X 1.5
	IA-30MM-16-16	16 X 1.5	16 X 1.5
	IA-30MM-18-18	18 X 1.5	18 X 1.5
	IA-30MM-20-18	20 X 1.5	18 X 1.5
	IA-30MM-20-20	20 X 1.5	20 X 1.5
	IA-30MM-22-18	22 X 1.5	18 X 1.5
	IA-30MM-22-20	22 X 1.5	20 X 1.5
	IA-30MM-22-22	22 X 1.5	22 X 1.5

IA-50MM METRIC MALE x FEMALE RIGID

	PART NUMBER	T1	T2
	IA-50MM-14-14	14 X 1.5	14 X 1.5
	IA-50MM-14-16	14 X 1.5	16 X 1.5
	IA-50MM-16-12	16 X 1.5	12 X 1.5
	IA-50MM-16-18	16 X 1.5	18 X 1.5
	IA-50MM-16-20	16 X 1.5	20 X 1.5
	IA-50MM-16-22	16 X 1.5	22 X 1.5
	IA-50MM-18-14	18 X 1.5	14 X 1.5
	IA-50MM-22-16	22 X 1.5	16 X 1.5
	IA-50MM-24-18	24 X 1.5	18 X 1.5

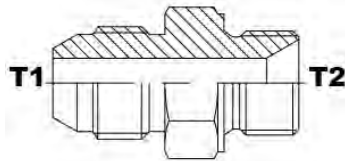
IA-70MM METRIC FEMALE COUPLING RIGID

	PART NUMBER	T1	T2
	IA-70MM-12-12	12 X 1.5	12 X 1.5
	IA-70MM-14-14	14 X 1.5	14 X 1.5
	IA-70MM-16-12	16 X 1.5	12 X 1.5
	IA-70MM-16-16	16 X 1.5	16 X 1.5
	IA-70MM-18-18	18 X 1.5	18 X 1.5
	IA-70MM-20-20	20 X 1.5	20 X 1.5
	IA-70MM-22-16	22 X 1.5	16 X 1.5
	IA-70MM-22-22	22 X 1.5	22 X 1.5

⚠ WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

IA-10JM

JIC MALE x METRIC MALE



PART NUMBER	T1	T2
IA-10JM-04-10	7/16 - 20	10 X 1.0
IA-10JM-04-12	7/16 - 20	12 X 1.5
IA-10JM-04-14	7/16 - 20	14 X 1.5
IA-10JM-05-10	1/2 - 20	10 X 1.0
IA-10JM-05-12	1/2 - 20	12 X 1.5
IA-10JM-05-14	1/2 - 20	14 X 1.5
IA-10JM-06-10	9/16 - 18	10 X 1.0
IA-10JM-06-12	9/16 - 18	12 X 1.5
IA-10JM-06-12B	9/16 - 18	12 X 1.25
IA-10JM-06-14	9/16 - 18	14 X 1.5
IA-10JM-06-16	9/16 - 18	16 X 1.5
IA-10JM-06-18	9/16 - 18	18 X 1.5
IA-10JM-06-20	9/16 - 18	20 X 1.5
IA-10JM-06-22	9/16 - 18	22 X 1.5
IA-10JM-08-12	3/4 - 16	12 X 1.5
IA-10JM-08-14	3/4 - 16	14 X 1.5
IA-10JM-08-16	3/4 - 16	16 X 1.5
IA-10JM-08-18	3/4 - 16	18 X 1.5
IA-10JM-08-20	3/4 - 16	20 X 1.5
IA-10JM-08-22	3/4 - 16	22 X 1.5
IA-10JM-10-16	7/8 - 14	16 X 1.5
IA-10JM-10-18	7/8 - 14	18 X 1.5
IA-10JM-10-20	7/8 - 14	20 X 1.5
IA-10JM-10-22	7/8 - 14	22 X 1.5
IA-10JM-10-24	7/8 - 14	24 X 1.5
IA-10JM-10-26	7/8 - 14	26 X 1.5
IA-10JM-12-18	1 1/16 - 12	18 X 1.5
IA-10JM-12-20	1 1/16 - 12	20 X 1.5
IA-10JM-12-22	1 1/16 - 12	22 X 1.5
IA-10JM-12-24	1 1/16 - 12	24 X 1.5
IA-10JM-12-26	1 1/16 - 12	26 X 1.5
IA-10JM-12-27	1 1/16 - 12	27 X 2.0
IA-10JM-12-30	1 1/16 - 12	30 X 2.0
IA-10JM-12-30D	1 1/16 - 12	30 X 1.5
IA-10JM-12-33	1 1/16 - 12	33 X 2.0
IA-10JM-16-20	1 5/16 - 12	20 X 1.5
IA-10JM-16-22	1 5/16 - 12	22 X 1.5
IA-10JM-16-26	1 5/16 - 12	26 X 1.5
IA-10JM-16-27	1 5/16 - 12	27 X 2.0
IA-10JM-16-30	1 5/16 - 12	30 X 2.0
IA-10JM-16-30D	1 5/16 - 12	30 X 1.5
IA-10JM-16-33	1 5/16 - 12	33 X 2.0
IA-10JM-20-38	1 5/8 - 12	38 X 2.0
IA-10JM-20-45	1 5/8 - 12	45 X 2.0
IA-10JM-24-45	1 7/8 - 12	45 X 2.0
IA-10JM-24-52	1 7/8 - 12	52 X 2.0

METRIC (60° SEAT & RIGID FEMALE)

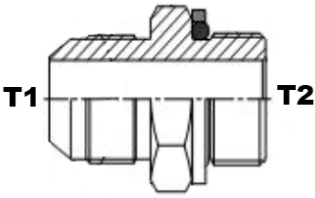


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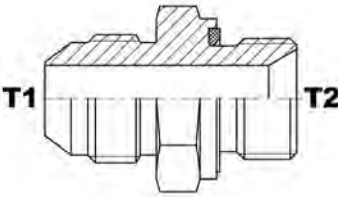
IA-10JM-BS

JIC MALE x METRIC MALE W/ BONDED SEAL

	PART NUMBER	T1	T2
	IA-10JM-04-10-BS	7/16 - 20	10 X 1.0
IA-10JM-04-12-BS	7/16 - 20	12 X 1.5	
IA-10JM-04-14-BS	7/16 - 20	14 X 1.5	
IA-10JM-06-12-BS	9/16 - 18	12 X 1.5	
IA-10JM-06-14-BS	9/16 - 18	14 X 1.5	
IA-10JM-06-16-BS	9/16 - 18	16 X 1.5	
IA-10JM-06-18-BS	9/16 - 18	18 X 1.5	
IA-10JM-08-12-BS	3/4 - 16	12 X 1.5	
IA-10JM-08-16-BS	3/4 - 16	16 X 1.5	
IA-10JM-08-18-BS	3/4 - 16	18 X 1.5	
IA-10JM-08-22-BS	3/4 - 16	22 X 1.5	
IA-10JM-12-22-BS	1 1/16 - 12	22 X 1.5	
IA-10JM-12-27-BS	1 1/16 - 12	27 X 2.0	

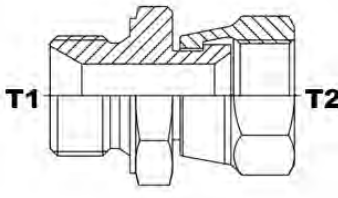
IA-10JM-WD

JIC MALE x METRIC MALE + CAPTIVE SEAL

	PART NUMBER	T1	T2
	IA-10JM-04-10-WD	7/16 - 20	10 X 1.0
IA-10JM-04-12-WD	7/16 - 20	12 X 1.5	
IA-10JM-06-14-WD	9/16 - 18	14 X 1.5	
IA-10JM-06-16-WD	9/16 - 18	16 X 1.5	
IA-10JM-06-18-WD	9/16 - 18	18 X 1.5	
IA-10JM-08-14-WD	3/4 - 16	14 X 1.5	
IA-10JM-08-16-WD	3/4 - 16	16 X 1.5	
IA-10JM-08-18-WD	3/4 - 16	18 X 1.5	
IA-10JM-08-20-WD	3/4 - 16	20 X 1.5	
IA-10JM-08-22-WD	3/4 - 16	22 X 1.5	
IA-10JM-10-20-WD	7/8 - 14	20 X 1.5	
IA-10JM-10-22-WD	7/8 - 14	22 X 1.5	
IA-10JM-12-22-WD	1 1/16 - 12	22 X 1.5	
IA-10JM-12-26-WD	1 1/16 - 12	26 X 1.5	
IA-10JM-12-27-WD	1 1/16 - 12	27 X 2.0	
IA-10JM-16-33-WD	1 5/16 - 12	33 X 2.0	
IA-10JM-20-42-WD	1 5/8 - 12	42 X 2.0	
IA-10JM-20-48-WD	1 5/8 - 12	48 X 2.0	
IA-10JM-24-48-WD	1 7/8 - 12	48 X 2.0	

IA-20MJ

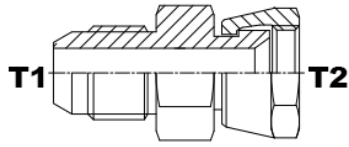
METRIC MALE x FEMALE JIC SWIVEL

	PART NUMBER	T1	T2
	IA-20MJ-10-04	10 X 1.0	7/16 - 20
IA-20MJ-12-05	12 X 1.5	1/2 - 20	
IA-20MJ-14-06	14 X 1.5	9/16 - 18	
IA-20MJ-16-08	16 X 1.5	3/4 - 16	
IA-20MJ-18-06	18 X 1.5	9/16 - 18	
IA-20MJ-18-08	18 X 1.5	3/4 - 16	
IA-20MJ-18-10	18 X 1.5	7/8 - 14	
IA-20MJ-20-10	20 X 1.5	7/8 - 14	
IA-20MJ-22-08	22 X 1.5	3/4 - 16	
IA-20MJ-22-10	22 X 1.5	7/8 - 14	

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IA-20JM

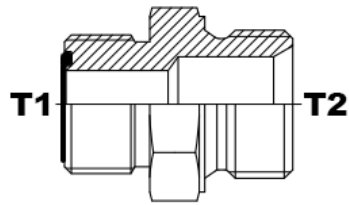
JIC MALE x METRIC FEMALE SWIVEL



PART NUMBER	T1	T2
IA-20JM-05-12	1/2 - 20	12 X 1.5
IA-20JM-06-14	9/16 - 18	14 X 1.5
IA-20JM-06-16	9/16 - 18	16 X 1.5
IA-20JM-06-18	9/16 - 18	18 X 1.5
IA-20JM-06-20	9/16 - 18	20 X 1.5
IA-20JM-06-22	9/16 - 18	22 X 1.5
IA-20JM-08-16	3/4 - 16	16 X 1.5
IA-20JM-08-18	3/4 - 16	18 X 1.5
IA-20JM-08-20	3/4 - 16	20 X 1.5
IA-20JM-08-22	3/4 - 16	22 X 1.5
IA-20JM-10-16	7/8 - 14	16 X 1.5
IA-20JM-10-18	7/8 - 14	18 X 1.5
IA-20JM-10-20	7/8 - 14	20 X 1.5
IA-20JM-10-22	7/8 - 14	22 X 1.5

IA-10FM

ORFS MALE x METRIC 60° MALE



PART NUMBER	T1	T2
IA-10FM-04-10	9/16 - 18	10 X 1.0
IA-10FM-04-12	9/16 - 18	12 X 1.5
IA-10FM-04-14	9/16 - 18	14 X 1.5
IA-10FM-06-12	11/16 - 16	12 X 1.5
IA-10FM-06-14	11/16 - 16	14 X 1.5
IA-10FM-06-16	11/16 - 16	16 X 1.5
IA-10FM-06-18	11/16 - 16	18 X 1.5
IA-10FM-08-16	13/16 - 16	16 X 1.5
IA-10FM-08-18	13/16 - 16	18 X 1.5
IA-10FM-08-22	13/16 - 16	22 X 1.5
IA-10FM-10-20	1 - 14	20 X 1.5
IA-10FM-10-22	1 - 14	22 X 1.5
IA-10FM-12-18	1 3/16 - 12	18 X 1.5
IA-10FM-12-22	1 3/16 - 12	22 X 1.5
IA-10FM-16-27	1 7/16 - 12	27 X 2.0
IA-10FM-16-33	1 7/16 - 12	33 X 2.0
IA-10FM-20-42	1 11/16 - 12	42 X 2.0
IA-10FM-24-48	2 - 12	48 X 2.0

METRIC (60° SEAT & RIGID FEMALE)

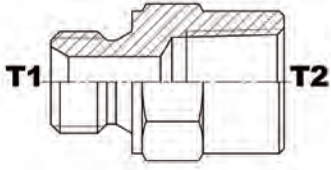


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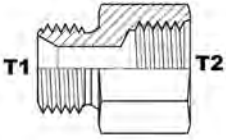
IA-50MN

METRIC MALE x NPT FEMALE

	PART NUMBER	T1	T2
	IA-50MN-06-02	6 X 1.0	1/8 - 27
IA-50MN-08-02	8 X 1.0	1/8 - 27	
IA-50MN-10-02	10 X 1.0	1/8 - 27	
IA-50MN-10-04	10 X 1.0	1/4 - 18	
IA-50MN-10A-02	10 X 1.25	1/8 - 27	
IA-50MN-10B-02	10 X 1.5	1/8 - 27	
IA-50MN-12-06	12 X 1.5	3/8 - 18	
IA-50MN-12B-04	12 X 1.25	1/4 - 18	
IA-50MN-16-06	16 X 1.5	3/8 - 18	
IA-50MN-20-04	20 X 1.5	1/4 - 18	
IA-50MN-20-08	20 X 1.5	1/2 - 14	
IA-50MN-22-04	22 X 1.5	1/4 - 18	
IA-50MN-22-06	22 X 1.5	3/8 - 18	
IA-50MN-27D-12	27 X 1.5	3/4 - 14	
IA-50MN-33D-08	33 X 1.5	1/2 - 14	

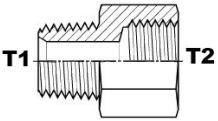
IA-50MO

METRIC MALE x ORB FEMALE

	PART NUMBER	T1	T2
	IA-50MO-14-06	14 X 1.5	9/16 - 18
IA-50MO-26-12	26 X 1.5	1 1/16 - 12	
IA-50MO-27-12	27 X 2.0	1 1/16 - 12	

IA-50NM

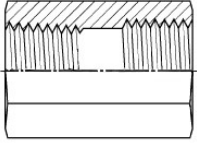
NPT MALE x METRIC FEMALE

	PART NUMBER	T1	T2
	IA-50NM-02-08	1/8 - 27	8 X 1.0
IA-50NM-04-12	1/4 - 18	12 X 1.5	
IA-50NM-04-14	1/4 - 18	14 X 1.5	
IA-50NM-06-14	3/8 - 18	14 X 1.5	
IA-50NM-06-18	3/8 - 18	18 X 1.5	
IA-50NM-08-18	1/2 - 14	18 X 1.5	
IA-50NM-08-20	1/2 - 14	20 X 1.5	
IA-50NM-08-22	1/2 - 14	22 X 1.5	

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

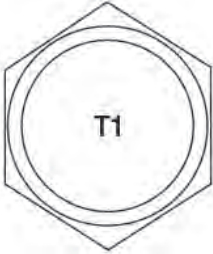
IA-70NM

NPT FEMALE x METRIC FEMALE

	PART NUMBER	T1	T2
	IA-70NM-04-12	1/4 - 18	12 X 1.5
	IA-70NM-04-14	1/4 - 18	14 X 1.5
	IA-70NM-04-16	1/4 - 18	16 X 1.5

IA-0LNM

METRIC BULKHEAD W/ LOCKNUT

	PART NUMBER	T1
	IA-0LNM-10	10 X 1.0
	IA-0LNM-12	12 X 1.5
	IA-0LNM-14	14 X 1.5
	IA-0LNM-16	16 X 1.5
	IA-0LNM-18	18 X 1.5
	IA-0LNM-20	20 X 1.5
	IA-0LNM-22	22 X 1.5
	IA-0LNM-24	24 X 1.5
	IA-0LNM-26	26 X 1.5
	IA-0LNM-30	30 X 2.0
	IA-0LNM-36	36 X 2.0
	IA-0LNM-42	42 X 2.0
	IA-0LNM-45	45 X 2.0
	IA-0LNM-52	52 X 2.0

METRIC (60° SEAT & RIGID FEMALE)

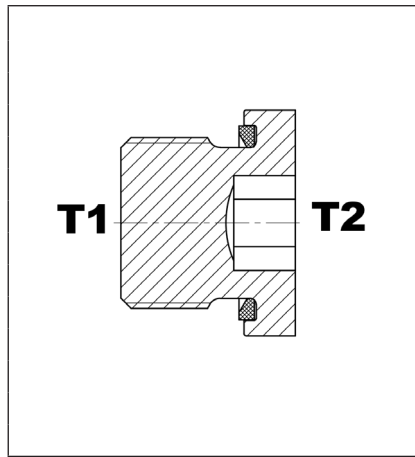


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IA-0PHH-WD

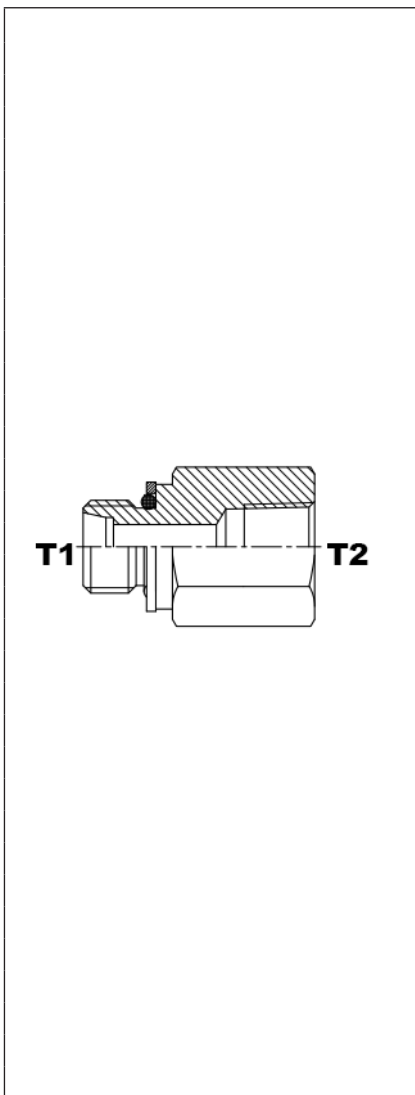
METRIC PORT PLUG (CAPTIVE SEAL)



PART NUMBER	T1
IA-0PHH-08-WD	8 X 1.0
IA-0PHH-10-WD	10 X 1.0
IA-0PHH-12-WD	12 X 1.5
IA-0PHH-14-WD	14 X 1.5
IA-0PHH-16-WD	16 X 1.5
IA-0PHH-18-WD	18 X 1.5
IA-0PHH-20-WD	20 X 1.5
IA-0PHH-22-WD	22 X 1.5
IA-0PHH-24-WD	24 X 1.5
IA-0PHH-26-WD	26 X 1.5
IA-0PHH-27-WD	27 X 2.0
IA-0PHH-33-WD	33 X 2.0
IA-0PHH-42-WD	42 X 2.0

IA-50HN

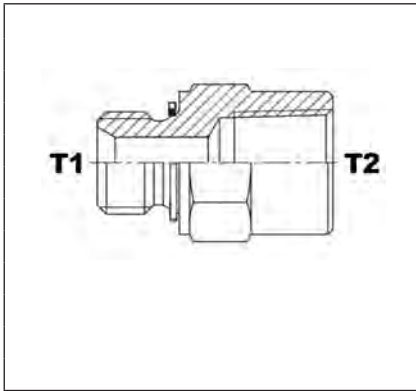
METRIC PORT MALE x NPT FEMALE RIGID



PART NUMBER	T1	T2
IA-50HN-10-02	10 X 1.0	1/8 - 27
IA-50HN-10-04	10 X 1.0	1/4 - 18
IA-50HN-12-02	12 X 1.5	1/8 - 27
IA-50HN-12-04	12 X 1.5	1/4 - 18
IA-50HN-12-06	12 X 1.5	3/8 - 18
IA-50HN-14-02	14 X 1.5	1/8 - 27
IA-50HN-14-04	14 X 1.5	1/4 - 18
IA-50HN-14-06	14 X 1.5	3/8 - 18
IA-50HN-16-04	16 X 1.5	1/4 - 18
IA-50HN-16-06	16 X 1.5	3/8 - 18
IA-50HN-16-08	16 X 1.5	1/2 - 14
IA-50HN-18-04	18 X 1.5	1/4 - 18
IA-50HN-18-06	18 X 1.5	3/8 - 18
IA-50HN-18-08	18 X 1.5	1/2 - 14
IA-50HN-20-04	20 X 1.5	1/4 - 18
IA-50HN-20-06	20 X 1.5	3/8 - 18
IA-50HN-20-08	20 X 1.5	1/2 - 14
IA-50HN-20-12	20 X 1.5	3/4 - 14
IA-50HN-22-06	22 X 1.5	3/8 - 18
IA-50HN-22-08	22 X 1.5	1/2 - 14
IA-50HN-22-12	22 X 1.5	3/4 - 14
IA-50HN-24-08	24 X 1.5	1/2 - 14
IA-50HN-24-12	24 X 1.5	3/4 - 14
IA-50HN-26-08	26 X 1.5	1/2 - 14
IA-50HN-26-12	26 X 1.5	3/4 - 14
IA-50HN-27-12	27 X 2.0	3/4 - 14
IA-50HN-30-12	30 X 2.0	3/4 - 14
IA-50HN-30D-08	30 X 1.5	1/2 - 14
IA-50HN-30D-12	30 X 1.5	3/4 - 14
IA-50HN-33-16	33 X 2.0	1 - 11 1/2
IA-50HN-33D-16	33 X 1.5	1 - 11 1/2
IA-50HN-42-20	42 X 2.0	1 1/4 - 11 1/2
IA-50HN-48-24	48 X 2.0	1 1/2 - 11 1/2

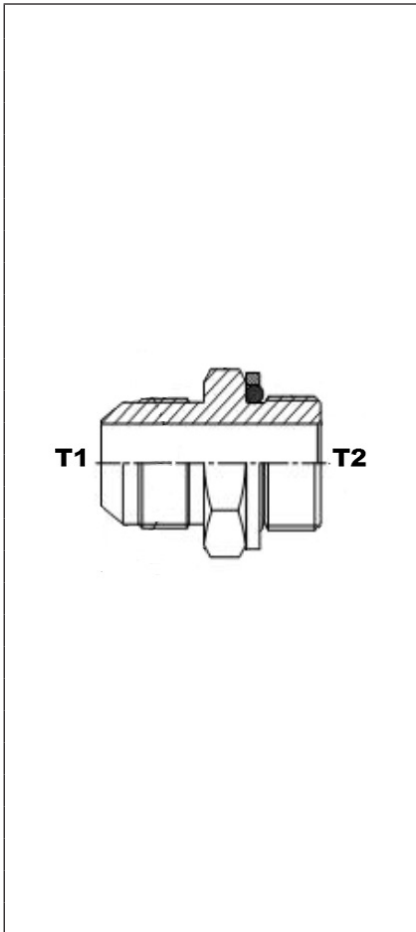
! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

IA-50HN-BS MALE-METRIC PORT W/ BONDED SEAL x NPT FEMALE



PART NUMBER	T1	T2
IA-50HN-14-06-BS	14 X 1.5	3/8 - 18
IA-50HN-16-06-BS	16 X 1.5	3/8 - 18
IA-50HN-18-06-BS	18 X 1.5	3/8 - 18
IA-50HN-18-08-BS	18 X 1.5	1/2 - 14
IA-50HN-22-04-BS	22 X 1.5	1/4 - 18
IA-50HN-22-06-BS	22 X 1.5	3/8 - 18
IA-50HN-22-08-BS	22 X 1.5	1/2 - 14
IA-50HN-30-08-BS	30 X 2.0	1/2 - 14
IA-50HN-33-16-BS	33 X 2.0	1 - 11 1/2

IA-10JH JIC MALE x METRIC PORT MALE



PART NUMBER	T1	T2
IA-10JH-04-10	7/16 - 20	10 X 1.0
IA-10JH-04-12	7/16 - 20	12 X 1.5
IA-10JH-04-14	7/16 - 20	14 X 1.5
IA-10JH-05-12	1/2 - 20	12 X 1.5
IA-10JH-06-12	9/16 - 18	12 X 1.5
IA-10JH-06-14	9/16 - 18	14 X 1.5
IA-10JH-06-16	9/16 - 18	16 X 1.5
IA-10JH-06-18	9/16 - 18	18 X 1.5
IA-10JH-08-12	3/4 - 16	12 X 1.5
IA-10JH-08-14	3/4 - 16	14 X 1.5
IA-10JH-08-16	3/4 - 16	16 X 1.5
IA-10JH-08-18	3/4 - 16	18 X 1.5
IA-10JH-08-20	3/4 - 16	20 X 1.5
IA-10JH-08-22	3/4 - 16	22 X 1.5
IA-10JH-10-16	7/8 - 14	16 X 1.5
IA-10JH-10-18	7/8 - 14	18 X 1.5
IA-10JH-10-20	7/8 - 14	20 X 1.5
IA-10JH-10-22	7/8 - 14	22 X 1.5
IA-10JH-10-24	7/8 - 14	24 X 1.5
IA-10JH-12-22	1 1/16 - 12	22 X 1.5
IA-10JH-12-24	1 1/16 - 12	24 X 1.5
IA-10JH-12-26	1 1/16 - 12	26 X 1.5
IA-10JH-12-27	1 1/16 - 12	27 X 2.0
IA-10JH-12-27A	1 1/16 - 12	27 X 1.5
IA-10JH-16-27	1 5/16 - 12	27 X 2.0
IA-10JH-16-33	1 5/16 - 12	33 X 2.0
IA-10JH-20-42	1 5/8 - 12	42 X 2.0
IA-10JH-24-48	1 7/8 - 12	48 X 2.0

METRIC PORT - DIN 12° SEAT

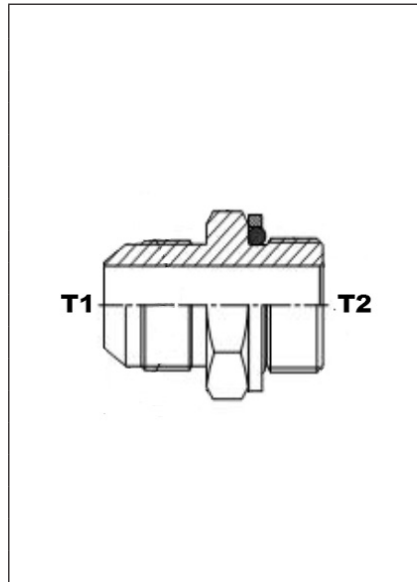


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IA-10JH-BS

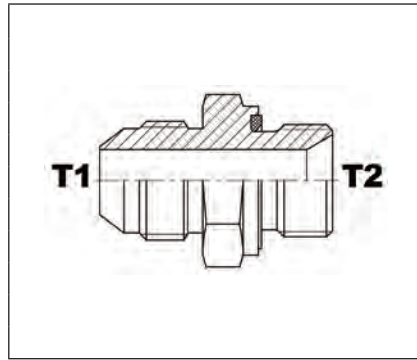
JIC MALE x MALE-METRIC PORT W/ BONDED SEAL



PART NUMBER	T1	T2
IA-10JH-04-10-BS	7/16 - 20	10 X 1.0
IA-10JH-04-12-BS	7/16 - 20	12 X 1.5
IA-10JH-04-14-BS	7/16 - 20	14 X 1.5
IA-10JH-06-12-BS	9/16 - 18	12 X 1.5
IA-10JH-06-14-BS	9/16 - 18	14 X 1.5
IA-10JH-06-16-BS	9/16 - 18	16 X 1.5
IA-10JH-06-18-BS	9/16 - 18	18 X 1.5
IA-10JH-06-22-BS	9/16 - 18	22 X 1.5
IA-10JH-08-18-BS	3/4 - 16	18 X 1.5
IA-10JH-08-22-BS	3/4 - 16	22 X 1.5
IA-10JH-10-20-BS	7/8 - 14	20 X 1.5
IA-10JH-10-22-BS	7/8 - 14	22 X 1.5
IA-10JH-12-22-BS	1 1/16 - 12	22 X 1.5
IA-10JH-12-24-BS	1 1/16 - 12	24 X 1.5
IA-10JH-12-26-BS	1 1/16 - 12	26 X 1.5
IA-10JH-12-27-BS	1 1/16 - 12	27 X 2.0
IA-10JH-16-33-BS	1 5/16 - 12	33 X 2.0

IA-10JH-WD

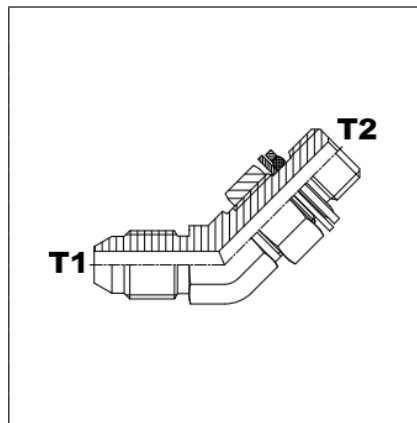
JIC MALE x MALE-METRIC PORT CAPTIVE SEAL



PART NUMBER	T1	T2
IA-10JH-08-20-WD	3/4 - 16	16 X 1.5
IA-10JH-10-22-WD	7/8 - 14	22 X 1.5

IA-14JH

JIC MALE x 45° METRIC PORT MALE ADJ.

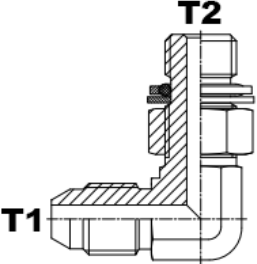


PART NUMBER	T1	T2
IA-14JH-04-10	7/16 - 20	10 X 1.0
IA-14JH-04-12	7/16 - 20	12 X 1.5
IA-14JH-04-14	7/16 - 20	14 X 1.5
IA-14JH-05-12	1/2 - 20	12 X 1.5
IA-14JH-06-14	9/16 - 18	14 X 1.5
IA-14JH-06-16	9/16 - 18	16 X 1.5
IA-14JH-08-16	3/4 - 16	16 X 1.5
IA-14JH-08-18	3/4 - 16	18 X 1.5
IA-14JH-10-18	7/8 - 14	18 X 1.5
IA-14JH-10-22	7/8 - 14	22 X 1.5
IA-14JH-12-22	1 1/16 - 12	22 X 1.5
IA-14JH-12-27	1 1/16 - 12	27 X 2.0

⚠ WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

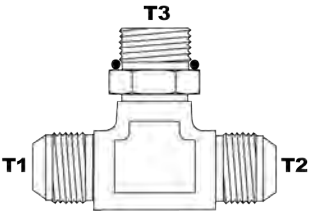
IA-19JH

JIC MALE x 90° METRIC PORT MALE ADJ.

	PART NUMBER		T1	T2
		IA-19JH-04-10		7/16 - 20
IA-19JH-04-12			7/16 - 20	12 X 1.5
IA-19JH-04-14			7/16 - 20	14 X 1.5
IA-19JH-05-10			1/2 - 20	10 X 1.0
IA-19JH-05-12			1/2 - 20	12 X 1.5
IA-19JH-05-14			1/2 - 20	14 X 1.5
IA-19JH-06-12			9/16 - 18	12 X 1.5
IA-19JH-06-14			9/16 - 18	14 X 1.5
IA-19JH-06-16			9/16 - 18	16 X 1.5
IA-19JH-06-18			9/16 - 18	18 X 1.5
IA-19JH-08-14			3/4 - 16	14 X 1.5
IA-19JH-08-16			3/4 - 16	16 X 1.5
IA-19JH-08-18			3/4 - 16	18 X 1.5
IA-19JH-08-20			3/4 - 16	20 X 1.5
IA-19JH-08-22			3/4 - 16	22 X 1.5
IA-19JH-10-16			7/8 - 14	16 X 1.5
IA-19JH-10-18			7/8 - 14	18 X 1.5
IA-19JH-10-20			7/8 - 14	20 X 1.5
IA-19JH-10-22			7/8 - 14	22 X 1.5
IA-19JH-12-22			1 1/16 - 12	22 X 1.5
IA-19JH-12-26			1 1/16 - 12	26 X 1.5
IA-19JH-12-27			1 1/16 - 12	27 X 2.0
IA-19JH-12-33			1 1/16 - 12	33 X 2.0
IA-19JH-16-22			1 5/16 - 12	22 X 1.5
IA-19JH-16-27			1 5/16 - 12	27 X 2.0
IA-19JH-16-33			1 5/16 - 12	33 X 2.0
IA-19JH-20-42			1 5/8 - 12	42 X 2.0
IA-19JH-24-48			1 7/8 - 12	48 X 2.0

IA-AJJH

JIC MALE x METRIC PORT MALE ADJ. BR. TEE

	PART NUMBER			T1	T2	T3
		IA-AJJH-04-04-10			7/16 - 20	7/16 - 20
IA-AJJH-04-04-12				7/16 - 20	7/16 - 20	12 X 1.5
IA-AJJH-06-06-14				9/16 - 18	9/16 - 18	14 X 1.5
IA-AJJH-08-08-16				3/4 - 16	3/4 - 16	16 X 1.5
IA-AJJH-08-08-18				3/4 - 16	3/4 - 16	18 X 1.5
IA-AJJH-10-10-22				7/8 - 14	7/8 - 14	22 X 1.5
IA-AJJH-12-12-27				1 1/16 - 12	1 1/16 - 12	27 X 2.0
IA-AJJH-16-16-33				1 5/16 - 12	1 5/16 - 12	33 X 2.0



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IA-AJHJ JIC MALE x METRIC PORT MALE ADJ. RUN TEE

	PART NUMBER	T1	T2	T3
	IA-AJHJ-04-10-04	7/16 - 20	10 X 1.0	7/16 - 20
	IA-AJHJ-04-12-04	7/16 - 20	12 X 1.5	7/16 - 20
	IA-AJHJ-06-14-06	9/16 - 18	14 X 1.5	9/16 - 18
	IA-AJHJ-08-16-08	3/4 - 16	16 X 1.5	3/4 - 16
	IA-AJHJ-08-18-08	3/4 - 16	18 X 1.5	3/4 - 16
	IA-AJHJ-10-22-10	7/8 - 14	22 X 1.5	7/8 - 14
	IA-AJHJ-12-27-12	1 1/16 - 12	27 X 2.0	1 1/16 - 12
	IA-AJHJ-16-33-16	1 5/16 - 12	33 X 2.0	1 5/16 - 12

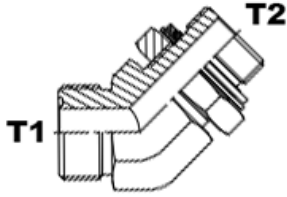
IA-10FH ORFS MALE x METRIC PORT MALE

	PART NUMBER	T1	T2
	IA-10FH-04-10	9/16 - 18	10 X 1.0
	IA-10FH-04-12	9/16 - 18	12 X 1.5
	IA-10FH-04-14	9/16 - 18	14 X 1.5
	IA-10FH-04-16	9/16 - 18	16 X 1.5
	IA-10FH-06-12	11/16 - 16	12 X 1.5
	IA-10FH-06-14	11/16 - 16	14 X 1.5
	IA-10FH-06-16	11/16 - 16	16 X 1.5
	IA-10FH-06-18	11/16 - 16	18 X 1.5
	IA-10FH-06-22	11/16 - 16	22 X 1.5
	IA-10FH-08-14	13/16 - 16	14 X 1.5
	IA-10FH-08-16	13/16 - 16	16 X 1.5
	IA-10FH-08-18	13/16 - 16	18 X 1.5
	IA-10FH-08-22	13/16 - 16	22 X 1.5
	IA-10FH-08-26	13/16 - 16	26 X 1.5
	IA-10FH-08-27	13/16 - 16	27 X 2.0
	IA-10FH-10-18	1 - 14	18 X 1.5
	IA-10FH-10-22	1 - 14	22 X 1.5
	IA-10FH-12-22	1 3/16 - 12	22 X 1.5
	IA-10FH-12-26	1 3/16 - 12	26 X 1.5
	IA-10FH-12-27	1 3/16 - 12	27 X 2.0
	IA-10FH-12-33	1 3/16 - 12	33 X 2.0
	IA-10FH-16-27	1 7/16 - 12	27 X 2.0
	IA-10FH-16-33	1 7/16 - 12	33 X 2.0
	IA-10FH-20-33	1 11/16 - 12	33 X 2.0
	IA-10FH-20-42	1 11/16 - 12	42 X 2.0
	IA-10FH-24-48	2 - 12	48 X 2.0

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IA-14FH

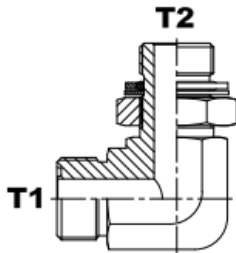
ORFS MALE x 45° METRIC PORT MALE ADJ.



PART NUMBER	T1	T2
IA-14FH-04-10	9/16 - 18	10 X 1.0
IA-14FH-06-12	11/16 - 16	12 X 1.5
IA-14FH-06-14	11/16 - 16	14 X 1.5
IA-14FH-06-16	11/16 - 16	16 X 1.5
IA-14FH-08-14	13/16 - 16	14 X 1.5
IA-14FH-08-16	13/16 - 16	16 X 1.5
IA-14FH-08-18	13/16 - 16	18 X 1.5
IA-14FH-10-18	1 - 14	18 X 1.5
IA-14FH-10-22	1 - 14	22 X 1.5
IA-14FH-12-22	1 3/16 - 12	22 X 1.5
IA-14FH-12-26	1 3/16 - 12	26 X 1.5
IA-14FH-12-27	1 3/16 - 12	27 X 2.0
IA-14FH-12-33	1 3/16 - 12	33 X 2.0
IA-14FH-16-33	1 7/16 - 12	33 X 2.0

IA-19FH

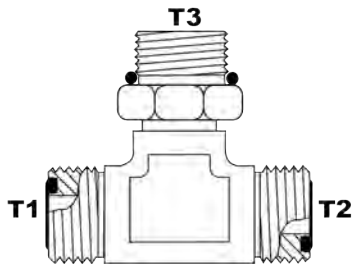
ORFS MALE x 90° METRIC PORT MALE ADJ.



PART NUMBER	T1	T2
IA-19FH-04-10	9/16 - 18	10 X 1.0
IA-19FH-04-12	9/16 - 18	12 X 1.5
IA-19FH-04-14	9/16 - 18	14 X 1.5
IA-19FH-06-12	11/16 - 16	12 X 1.5
IA-19FH-06-14	11/16 - 16	14 X 1.5
IA-19FH-06-16	11/16 - 16	16 X 1.5
IA-19FH-08-14	13/16 - 16	14 X 1.5
IA-19FH-08-16	13/16 - 16	16 X 1.5
IA-19FH-08-18	13/16 - 16	18 X 1.5
IA-19FH-08-22	13/16 - 16	22 X 1.5
IA-19FH-10-18	1 - 14	18 X 1.5
IA-19FH-10-22	1 - 14	22 X 1.5
IA-19FH-12-27	1 3/16 - 12	27 X 2.0
IA-19FH-12-33	1 3/16 - 12	33 X 2.0
IA-19FH-16-33	1 7/16 - 12	33 X 2.0
IA-19FH-20-33	1 11/16 - 12	33 X 2.0
IA-19FH-20-42	1 11/16 - 12	42 X 2.0

IA-AFFH

ORFS MALE x METRIC PORT MALE ADJ. BR. TEE



PART NUMBER	T1	T2	T3
IA-AFFH-04-04-10	9/16 - 18	9/16 - 18	10 X 1.0
IA-AFFH-04-04-12	9/16 - 18	9/16 - 18	12 X 1.5
IA-AFFH-04-04-14	9/16 - 18	9/16 - 18	14 X 1.5
IA-AFFH-06-06-14	11/16 - 16	11/16 - 16	14 X 1.5
IA-AFFH-06-06-16	11/16 - 16	11/16 - 16	16 X 1.5
IA-AFFH-08-08-16	13/16 - 16	13/16 - 16	16 X 1.5
IA-AFFH-08-08-18	13/16 - 16	13/16 - 16	18 X 1.5
IA-AFFH-08-08-22	13/16 - 16	13/16 - 16	22 X 1.5
IA-AFFH-10-10-22	1 - 14	1 - 14	22 X 1.5
IA-AFFH-12-12-27	1 3/16 - 12	1 3/16 - 12	27 X 2.0
IA-AFFH-16-16-33	1 7/16 - 12	1 7/16 - 12	33 X 2.0

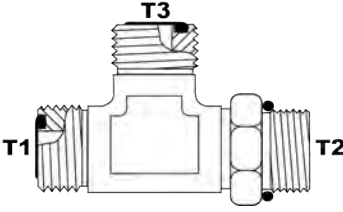


WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

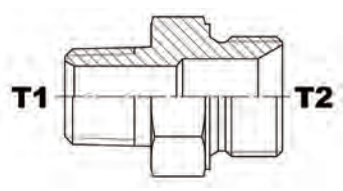




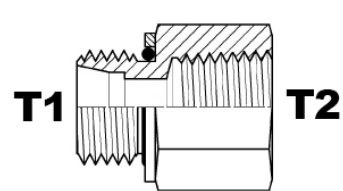
IA-AFHF ORFS MALE x METRIC PORT MALE ADJ. RUN TEE

	PART NUMBER	T1	T2	T3
	IA-AFHF-04-10-04	9/16 - 18	10 X 1.0	9/16 - 18
IA-AFHF-04-12-04	9/16 - 18	12 X 1.5	9/16 - 18	
IA-AFHF-04-14-04	9/16 - 18	14 X 1.5	9/16 - 18	
IA-AFHF-06-14-06	11/16 - 16	14 X 1.5	11/16 - 16	
IA-AFHF-06-16-06	11/16 - 16	16 X 1.5	11/16 - 16	
IA-AFHF-08-16-08	13/16 - 16	16 X 1.5	13/16 - 16	
IA-AFHF-08-18-08	13/16 - 16	18 X 1.5	13/16 - 16	
IA-AFHF-08-22-08	13/16 - 16	22 X 1.5	13/16 - 16	
IA-AFHF-10-22-10	1 - 14	22 X 1.5	1 - 14	
IA-AFHF-12-27-12	1 3/16 - 12	27 X 2.0	1 3/16 - 12	
IA-AFHF-16-33-16	1 7/16 - 12	33 X 2.0	1 7/16 - 12	

IA-10NH NPT MALE x MALE-METRIC PORT

	PART NUMBER	T1	T2
	IA-10NH-02-10	1/8 - 27	10 X 1.0
IA-10NH-02-12	1/8 - 27	12 X 1.5	
IA-10NH-04-10	1/4 - 18	10 X 1.0	
IA-10NH-04-12	1/4 - 18	12 X 1.5	
IA-10NH-04-14	1/4 - 18	14 X 1.5	
IA-10NH-08-16	1/2 - 14	16 X 1.5	
IA-10NH-16-30	1 - 11 1/2	30 X 2.0	

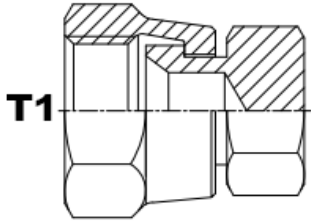
IA-50HN-DP MALE-METRIC DUAL PURPOSE x NPT FEMALE

	PART NUMBER	T1	T2
	IA-50HN-12-L06-04	12 X 1.5 / L06	1/4 - 18
IA-50HN-12-L06-06	12 X 1.5 / L06	3/8 - 18	
IA-50HN-14-L08-04	14 X 1.5 / L08	1/4 - 18	
IA-50HN-14-L08-06	14 X 1.5 / L08	3/8 - 18	
IA-50HN-16-L10-04	16 X 1.5 / L10	1/4 - 18	
IA-50HN-16-L10-06	16 X 1.5 / L10	3/8 - 18	
IA-50HN-16-L10-08	16 X 1.5 / L10	1/2 - 14	
IA-50HN-18-L12-04	18 X 1.5 / L12	1/4 - 18	
IA-50HN-18-L12-06	18 X 1.5 / L12	3/8 - 18	
IA-50HN-18-L12-08	18 X 1.5 / L12	1/2 - 14	
IA-50HN-22-L15-06	22 X 1.5 / L15	3/8 - 18	
IA-50HN-22-L15-08	22 X 1.5 / L15	1/2 - 14	
IA-50HN-22-L15-12	22 X 1.5 / L15	3/4 - 14	
IA-50HN-26-L18-12	26 X 1.5 / L18	3/4 - 14	
IA-50HN-30-L22-12	30 X 2.0 / L22	3/4 - 14	
IA-50HN-14-S06-06	14 X 1.5 / S06	3/8 - 18	
IA-50HN-20-S12-04	20 X 1.5 / S12	1/4 - 18	
IA-50HN-24-S16-12	24 X 1.5 / S16	3/4 - 14	
IA-50HN-42-S30-16	42 X 2.0 / S30	1 - 11 1/2	
IA-50HN-42-S30-20	42 X 2.0 / S30	1 1/4 - 11 1/2	

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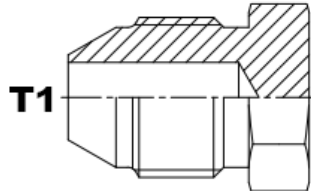
IA-0CS

JIS FEMALE CAP

	PART NUMBER	T1
	IA-0CS-02	1/8 - 28
	IA-0CS-04	1/4 - 19
	IA-0CS-06	3/8 - 19
	IA-0CS-08	1/2 - 14
	IA-0CS-12	3/4 - 14
	IA-0CS-16	1 - 11
	IA-0CS-20	1 1/4 - 11
	IA-0CS-24	1 1/2 - 11
	IA-0CS-32	2 - 11

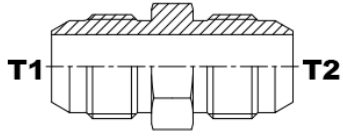
IA-0PS

JIS MALE PLUG

	PART NUMBER	T1
	IA-0PS-02	1/8 - 28
	IA-0PS-04	1/4 - 19
	IA-0PS-06	3/8 - 19
	IA-0PS-08	1/2 - 14
	IA-0PS-10	5/8 - 14
	IA-0PS-12	3/4 - 14
	IA-0PS-16	1 - 11
	IA-0PS-20	1 1/4 - 11
	IA-0PS-24	1 1/2 - 11

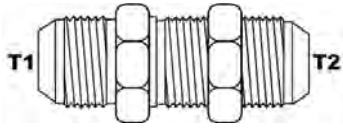
IA-10SS


JIS MALE UNION

	PART NUMBER	T1	T2
	IA-10SS-04-04	1/4 - 19	1/4 - 19
	IA-10SS-06-06	3/8 - 19	3/8 - 19
	IA-10SS-08-08	1/2 - 14	1/2 - 14
	IA-10SS-12-12	3/4 - 14	3/4 - 14
	IA-10SS-16-16	1 - 11	1 - 11
	IA-10SS-20-20	1 1/4 - 11	1 1/4 - 11

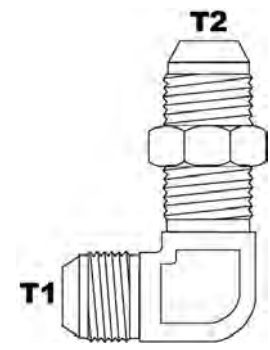
IA-60SS

JIS MALE BULKHEAD UNION

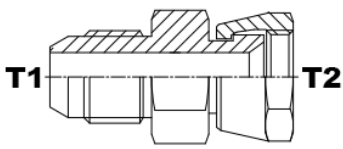
	PART NUMBER	T1	T2
	IA-60SS-04-04	1/4 - 19	1/4 - 19
	IA-60SS-06-06	3/8 - 19	3/8 - 19
	IA-60SS-08-08	1/2 - 14	1/2 - 14
	IA-60SS-12-12	3/4 - 14	3/4 - 14
	IA-60SS-16-16	1 - 11	1 - 11

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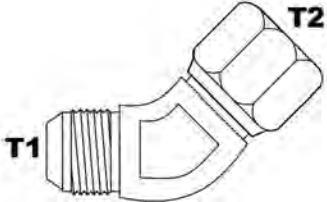
IA-69SS 90° JIS MALE BULKHEAD UNION

	PART NUMBER	T1	T2
	IA-69SS-04-04	1/4 - 19	1/4 - 19
	IA-69SS-06-06	3/8 - 19	3/8 - 19
	IA-69SS-08-08	1/2 - 14	1/2 - 14
	IA-69SS-12-12	3/4 - 14	3/4 - 14
	IA-69SS-16-16	1 - 11	1 - 11

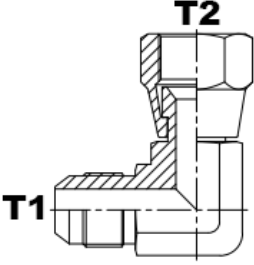
IA-20SS JIS MALE x FEMALE SWIVEL


	PART NUMBER	T1	T2
	IA-20SS-02-02	1/8 - 28	1/8 - 28
	IA-20SS-04-04	1/4 - 19	1/4 - 19
	IA-20SS-06-06	3/8 - 19	3/8 - 19
	IA-20SS-08-08	1/2 - 14	1/2 - 14
	IA-20SS-12-12	3/4 - 14	3/4 - 14
	IA-20SS-16-16	1 - 11	1 - 11
	IA-20SS-20-20	1 1/4 - 11	1 1/4 - 11
	IA-20SS-24-24	1 1/2 - 11	1 1/2 - 11

IA-24SS JIS MALE x 45° FEMALE SWIVEL

	PART NUMBER	T1	T2
	IA-24SS-02-02	1/8 - 28	1/8 - 28
	IA-24SS-04-04	1/4 - 19	1/4 - 19
	IA-24SS-06-06	3/8 - 19	3/8 - 19
	IA-24SS-08-08	1/2 - 14	1/2 - 14
	IA-24SS-12-12	3/4 - 14	3/4 - 14
	IA-24SS-16-16	1 - 11	1 - 11
	IA-24SS-20-20	1 1/4 - 11	1 1/4 - 11
	IA-24SS-24-24	1 1/2 - 11	1 1/2 - 11

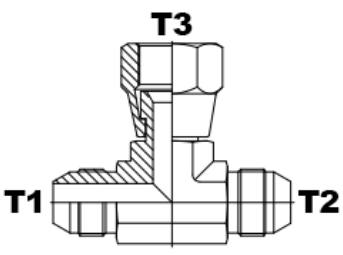
IA-29SS 90° JIS MALE x FEMALE SWIVEL

	PART NUMBER	T1	T2
	IA-29SS-04-04	1/4 - 19	1/4 - 19
	IA-29SS-06-06	3/8 - 19	3/8 - 19
	IA-29SS-08-08	1/2 - 14	1/2 - 14
	IA-29SS-12-12	3/4 - 14	3/4 - 14
	IA-29SS-16-16	1 - 11	1 - 11

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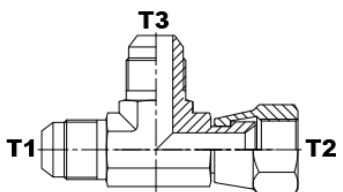
IA-BSSS

JIS MALE x FEMALE SWIVEL BR. TEE

	PART NUMBER	T1	T2	T3
	IA-BSSS-04-04-04	1/4 - 19	1/4 - 19	1/4 - 19
	IA-BSSS-06-06-06	3/8 - 19	3/8 - 19	3/8 - 19
	IA-BSSS-08-08-08	1/2 - 14	1/2 - 14	1/2 - 14
	IA-BSSS-12-12-12	3/4 - 14	3/4 - 14	3/4 - 14
	IA-BSSS-16-16-16	1 - 11	1 - 11	1 - 11

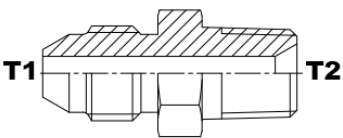
IA-CSSS


JIS MALE x FEMALE SWIVEL RUN TEE

	PART NUMBER	T1	T2	T3
	IA-CSSS-02-02-02	1/8 - 28	1/8 - 28	1/8 - 28
	IA-CSSS-04-04-04	1/4 - 19	1/4 - 19	1/4 - 19
	IA-CSSS-06-06-06	3/8 - 19	3/8 - 19	3/8 - 19
	IA-CSSS-08-08-08	1/2 - 14	1/2 - 14	1/2 - 14
	IA-CSSS-12-12-12	3/4 - 14	3/4 - 14	3/4 - 14
IA-CSSS-16-16-16	1 - 11	1 - 11	1 - 11	

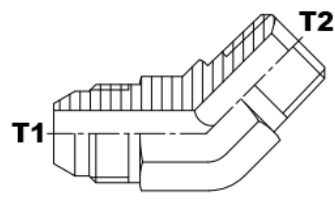
IA-10ST

JIS MALE x BSPT MALE

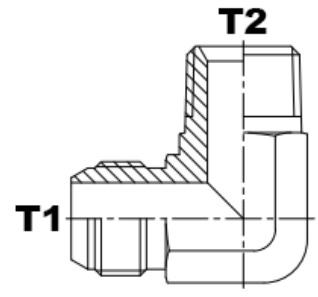
	PART NUMBER	T1	T2
	IA-10ST-02-02	1/8 - 28	1/8 - 28
	IA-10ST-02-04	1/8 - 28	1/4 - 19
	IA-10ST-04-02	1/4 - 19	1/8 - 28
	IA-10ST-04-04	1/4 - 19	1/4 - 19
	IA-10ST-04-06	1/4 - 19	3/8 - 19
	IA-10ST-06-04	3/8 - 19	1/4 - 19
	IA-10ST-06-06	3/8 - 19	3/8 - 19
	IA-10ST-06-08	3/8 - 19	1/2 - 14
	IA-10ST-08-06	1/2 - 14	3/8 - 19
	IA-10ST-08-08	1/2 - 14	1/2 - 14
	IA-10ST-08-12	1/2 - 14	3/4 - 14
	IA-10ST-12-12	3/4 - 14	3/4 - 14
	IA-10ST-16-16	1 - 11	1 - 11
	IA-10ST-20-20	1 1/4 - 11	1 1/4 - 11
	IA-10ST-24-24	1 1/2 - 11	1 1/2 - 11
IA-10ST-32-32	2 - 11	2 - 11	

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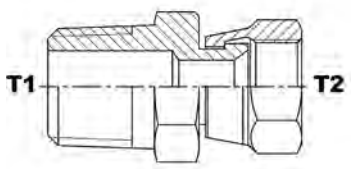
IA-14ST JIS MALE x 45° BSPT MALE


	PART NUMBER	T1	T2
	IA-14ST-02-02	1/8 - 28	1/8 - 28
	IA-14ST-04-04	1/4 - 19	1/4 - 19
	IA-14ST-06-06	3/8 - 19	3/8 - 19
	IA-14ST-08-08	1/2 - 14	1/2 - 14
	IA-14ST-12-12	3/4 - 14	3/4 - 14
	IA-14ST-16-16	1 - 11	1 - 11
	IA-14ST-20-20	1 1/4 - 11	1 1/4 - 11

IA-19ST JIS MALE x 90° BSPT MALE

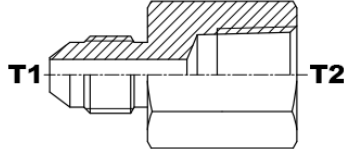
	PART NUMBER	T1	T2
	IA-19ST-02-02	1/8 - 28	1/8 - 28
	IA-19ST-04-02	1/4 - 19	1/8 - 28
	IA-19ST-04-04	1/4 - 19	1/4 - 19
	IA-19ST-04-06	1/4 - 19	3/8 - 19
	IA-19ST-06-04	3/8 - 19	1/4 - 19
	IA-19ST-06-06	3/8 - 19	3/8 - 19
	IA-19ST-06-08	3/8 - 19	1/2 - 14
	IA-19ST-08-08	1/2 - 14	1/2 - 14
	IA-19ST-12-12	3/4 - 14	3/4 - 14
	IA-19ST-16-16	1 - 11	1 - 11
	IA-19ST-20-20	1 1/4 - 11	1 1/4 - 11
	IA-19ST-24-24	1 1/2 - 11	1 1/2 - 11
	IA-19ST-32-32	2 - 11	2 - 11

IA-20TS BSPT MALE x JIS FEMALE SWIVEL

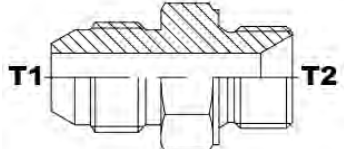
	PART NUMBER	T1	T2
	IA-20TS-04-04	1/4 - 19	1/4 - 19
	IA-20TS-06-06	3/8 - 19	3/8 - 19
	IA-20TS-08-08	1/2 - 14	1/2 - 14
	IA-20TS-12-12	3/4 - 14	3/4 - 14
	IA-20TS-16-16	1 - 11	1 - 11
	IA-20TS-20-20	1 1/4 - 11	1 1/4 - 11
	IA-20TS-24-24	1 1/2 - 11	1 1/2 - 11
	IA-20TS-32-32	2 - 11	2 - 11


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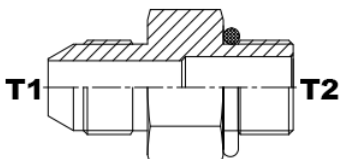
IA-50ST JIS MALE x BSPT FEMALE RIGID

	PART NUMBER	T1	T2
	IA-50ST-04-04	1/4 - 19	1/4 - 19
	IA-50ST-06-06	3/8 - 19	3/8 - 19
	IA-50ST-08-08	1/2 - 14	1/2 - 14
	IA-50ST-12-12	3/4 - 14	3/4 - 14

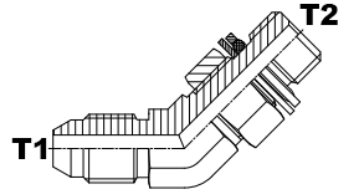
IA-10SB JIS MALE x BSPP MALE 60° SEAT


	PART NUMBER	T1	T2
	IA-10SB-04-04	1/4 - 19	1/4 - 19
	IA-10SB-06-06	3/8 - 19	3/8 - 19
	IA-10SB-08-08	1/2 - 14	1/2 - 14
	IA-10SB-12-12	3/4 - 14	3/4 - 14
IA-10SB-16-16	1 - 11	1 - 11	

IA-10SG JIS MALE x BSPP MALE PORT

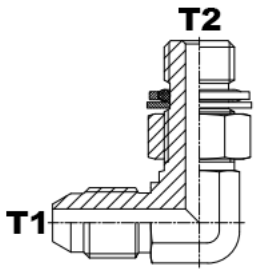
	PART NUMBER	T1	T2
	IA-10SG-04-04	1/4 - 19	1/4 - 19
	IA-10SG-04-06	1/4 - 19	3/8 - 19
	IA-10SG-06-06	3/8 - 19	3/8 - 19
	IA-10SG-06-08	3/8 - 19	1/2 - 14
	IA-10SG-08-08	1/2 - 14	1/2 - 14
	IA-10SG-12-12	3/4 - 14	3/4 - 14
	IA-10SG-16-16	1 - 11	1 - 11

IA-14SG 45° JIS MALE x BSPP PORT ADJ. MALE

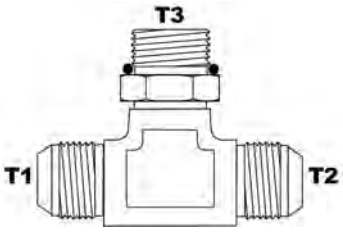
	PART NUMBER	T1	T2
	IA-14SG-04-04	1/4 - 19	1/4 - 19
	IA-14SG-06-06	3/8 - 19	3/8 - 19
	IA-14SG-08-08	1/2 - 14	1/2 - 14
	IA-14SG-12-12	3/4 - 14	3/4 - 14
	IA-14SG-16-16	1 - 11	1 - 11


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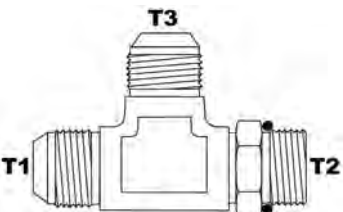
IA-19SG JIS MALE x 90° BSPP PORT MALE ADJ.

	PART NUMBER	T1	T2
	IA-19SG-04-04	1/4 - 19	1/4 - 19
	IA-19SG-04-06	1/4 - 19	3/8 - 19
	IA-19SG-06-06	3/8 - 19	3/8 - 19
	IA-19SG-06-08	3/8 - 19	1/2 - 14
	IA-19SG-08-08	1/2 - 14	1/2 - 14
	IA-19SG-12-12	3/4 - 14	3/4 - 14
	IA-19SG-16-16	1 - 11	1 - 11

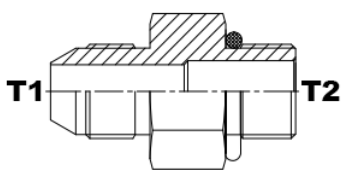
IA-ASSG JIS MALE x BSPP PORT MALE ADJ. BR. TEE


	PART NUMBER	T1	T2	T3
	IA-ASSG-04-04-04	1/4 - 19	1/4 - 19	1/4 - 19
	IA-ASSG-06-06-06	3/8 - 19	3/8 - 19	3/8 - 19
	IA-ASSG-08-08-08	1/2 - 14	1/2 - 14	1/2 - 14
	IA-ASSG-12-12-12	3/4 - 14	3/4 - 14	3/4 - 14
	IA-ASSG-16-16-16	1 - 11	1 - 11	1 - 11

IA-ASGS JIS MALE x BSPP PORT MALE ADJ. RUN TEE

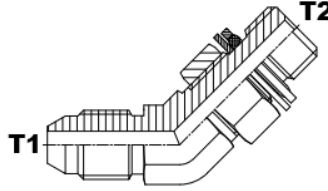
	PART NUMBER	T1	T2	T3
	IA-ASGS-04-04-04	1/4 - 19	1/4 - 19	1/4 - 19
	IA-ASGS-06-06-06	3/8 - 19	3/8 - 19	3/8 - 19
	IA-ASGS-08-08-08	1/2 - 14	1/2 - 14	1/2 - 14
	IA-ASGS-12-12-12	3/4 - 14	3/4 - 14	3/4 - 14
	IA-ASGS-16-16-16	1 - 11	1 - 11	1 - 11

IA-10SO JIS MALE x ORB MALE

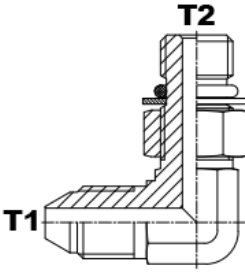
	PART NUMBER	T1	T2
	IA-10SO-04-04	1/4 - 19	7/16 - 20
	IA-10SO-04-06	1/4 - 19	9/16 - 18
	IA-10SO-06-04	3/8 - 19	7/16 - 20
	IA-10SO-06-06	3/8 - 19	9/16 - 18
	IA-10SO-06-08	3/8 - 19	3/4 - 16
	IA-10SO-08-06	1/2 - 14	9/16 - 18
	IA-10SO-08-08	1/2 - 14	3/4 - 16
	IA-10SO-12-12	3/4 - 14	1 1/16 - 12
	IA-10SO-16-16	1 - 11	1 5/16 - 12


WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

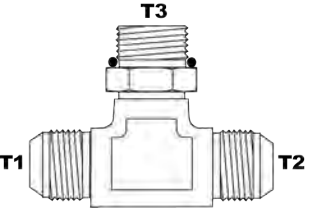
IA-14SO JIC MALE x 45° M-ORB ADJ.

	PART NUMBER	T1	T2
	IA-14SO-04-04	1/4 - 19	7/16 - 20
	IA-14SO-04-06	1/4 - 19	9/16 - 18
	IA-14SO-06-04	3/8 - 19	7/16 - 20
	IA-14SO-06-06	3/8 - 19	9/16 - 18
	IA-14SO-06-08	3/8 - 19	3/4 - 16
	IA-14SO-08-08	1/2 - 14	3/4 - 16

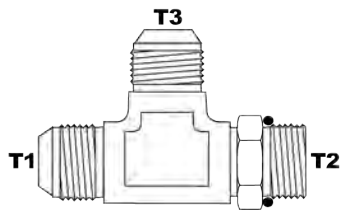
IA-19SO JIS MALE x 90° M-ORB ADJ.


	PART NUMBER	T1	T2
	IA-19SO-04-04	1/4 - 19	7/16 - 20
	IA-19SO-04-06	1/4 - 19	9/16 - 18
	IA-19SO-06-06	3/8 - 19	9/16 - 18
	IA-19SO-06-08	3/8 - 19	3/4 - 16
	IA-19SO-08-06	1/2 - 14	9/16 - 18
	IA-19SO-08-08	1/2 - 14	3/4 - 16

IA-ASSO JIS MALE x M-ORB ADJ. BR. TEE

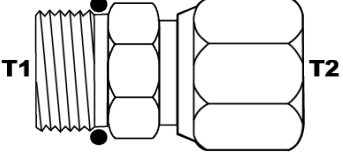
	PART NUMBER	T1	T2	T3
	IA-ASSO-04-04-04	1/4 - 19	1/4 - 19	7/16 - 20
	IA-ASSO-06-06-06	3/8 - 19	3/8 - 19	9/16 - 18
	IA-ASSO-08-08-08	1/2 - 14	1/2 - 14	3/4 - 16
	IA-ASSO-12-12-12	3/4 - 14	3/4 - 14	1 1/16 - 12
	IA-ASSO-16-16-16	1 - 11	1 - 11	1 5/16 - 12

IA-ASOS JIS MALE x M-ORB ADJ. RUN TEE

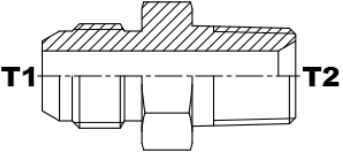
	PART NUMBER	T1	T2	T3
	IA-ASOS-04-04-04	1/4 - 19	7/16 - 20	1/4 - 19
	IA-ASOS-06-06-06	3/8 - 19	9/16 - 18	3/8 - 19
	IA-ASOS-08-08-08	1/2 - 14	3/4 - 16	1/2 - 14
	IA-ASOS-12-12-12	3/4 - 14	1 1/16 - 12	3/4 - 14
	IA-ASOS-16-16-16	1 - 11	1 5/16 - 12	1 - 11


WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

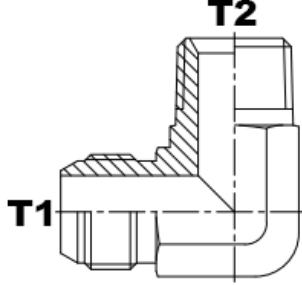
IA-200S M-ORB x JIS FEMALE SWIVEL


	PART NUMBER	T1	T2
	IA-200S-04-04	7/16 - 20	1/4 - 19
IA-200S-04-06	7/16 - 20	3/8 - 19	
IA-200S-06-06	9/16 - 18	3/8 - 19	
IA-200S-06-08	9/16 - 18	1/2 - 14	
IA-200S-08-08	3/4 - 16	1/2 - 14	
IA-200S-10-12	7/8 - 14	3/4 - 14	
IA-200S-12-12	1 1/16 - 12	3/4 - 14	
IA-200S-12-16	1 1/16 - 12	1 - 11	
IA-200S-16-16	1 5/16 - 12	1 - 11	

IA-10SN JIS MALE x NPT MALE

	PART NUMBER	T1	T2
	IA-10SN-04-02	1/4 - 19	1/8 - 27
IA-10SN-04-04	1/4 - 19	1/4 - 18	
IA-10SN-06-04	3/8 - 19	1/4 - 18	
IA-10SN-06-06	3/8 - 19	3/8 - 18	
IA-10SN-06-08	3/8 - 19	1/2 - 14	
IA-10SN-08-06	1/2 - 14	3/8 - 18	
IA-10SN-08-08	1/2 - 14	1/2 - 14	
IA-10SN-12-08	3/4 - 14	1/2 - 14	
IA-10SN-12-12	3/4 - 14	3/4 - 14	
IA-10SN-16-12	1 - 11	3/4 - 14	
IA-10SN-16-16	1 - 11	1 - 11 1/2	
IA-10SN-20-16	1 1/4 - 11	1 - 11 1/2	
IA-10SN-20-20	1 1/4 - 11	1 1/4 - 11 1/2	
IA-10SN-24-24	1 1/2 - 11	1 1/2 - 11 1/2	

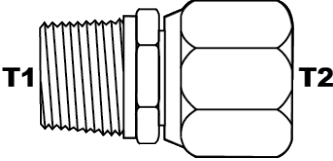
IA-19SN JIS MALE x 90° NPT MALE

	PART NUMBER	T1	T2
	IA-19SN-04-04	1/4 - 19	1/4 - 18
IA-19SN-06-04	3/8 - 19	1/4 - 18	
IA-19SN-06-06	3/8 - 19	3/8 - 18	
IA-19SN-08-06	1/2 - 14	3/8 - 18	
IA-19SN-08-08	1/2 - 14	1/2 - 14	
IA-19SN-12-08	3/4 - 14	1/2 - 14	
IA-19SN-12-12	3/4 - 14	3/4 - 14	
IA-19SN-16-12	1 - 11	3/4 - 14	
IA-19SN-16-16	1 - 11	1 - 11 1/2	
IA-19SN-20-16	1 1/4 - 11	1 - 11 1/2	
IA-19SN-20-20	1 1/4 - 11	1 1/4 - 11 1/2	

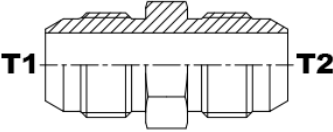
 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

IA-20NS

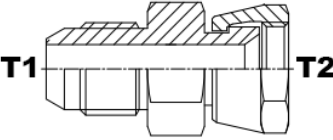
NPT MALE x JIS FEMALE SWIVEL

	PART NUMBER	T1	T2
	IA-20NS-04-04	1/4 - 18	1/4 - 19
	IA-20NS-06-06	3/8 - 18	3/8 - 19
	IA-20NS-08-08	1/2 - 14	1/2 - 14
	IA-20NS-12-12	3/4 - 14	3/4 - 14
	IA-20NS-16-16	1 - 11 1/2	1 - 11

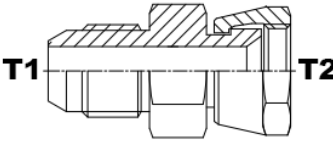
IA-10JS JIC MALE x JIS MALE


	PART NUMBER	T1	T2
	IA-10JS-04-04	7/16 - 20	1/4 - 19
	IA-10JS-06-06	9/16 - 18	3/8 - 19
	IA-10JS-08-08	3/4 - 16	1/2 - 14
	IA-10JS-12-12	1 1/16 - 12	3/4 - 14
	IA-10JS-16-16	1 5/16 - 12	1 - 11

IA-20SJ JIS MALE x JIC FEMALE SWIVEL

	PART NUMBER	T1	T2
	IA-20SJ-04-04	1/4 - 19	7/16 - 20
	IA-20SJ-06-04	3/8 - 19	7/16 - 20
	IA-20SJ-06-06	3/8 - 19	9/16 - 18
	IA-20SJ-08-06	1/2 - 14	9/16 - 18
	IA-20SJ-08-08	1/2 - 14	3/4 - 16
	IA-20SJ-12-10	3/4 - 14	7/8 - 14
	IA-20SJ-12-12	3/4 - 14	1 1/16 - 12
	IA-20SJ-16-12	1 - 11	1 1/16 - 12
	IA-20SJ-16-16	1 - 11	1 5/16 - 12
	IA-20SJ-20-20	1 1/4 - 11	1 5/8 - 12

IA-20JS JIC MALE x JIS FEMALE SWIVEL

	PART NUMBER	T1	T2
	IA-20JS-04-04	7/16 - 20	1/4 - 19
	IA-20JS-06-06	9/16 - 18	3/8 - 19
	IA-20JS-08-08	3/4 - 16	1/2 - 14
	IA-20JS-12-12	1 1/16 - 12	3/4 - 14
	IA-20JS-16-16	1 5/16 - 12	1 - 11

 **WARNING** This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



IA-50JS JIC MALE x JIS FEMALE

	PART NUMBER	T1	T2
	IA-50JS-04-04	7/16 - 20	1/4 - 19
	IA-50JS-06-04	9/16 - 18	1/4 - 19
	IA-50JS-06-06	9/16 - 18	3/8 - 19
	IA-50JS-08-06	3/4 - 16	3/8 - 19
	IA-50JS-08-08	3/4 - 16	1/2 - 14
	IA-50JS-12-12	1 1/16 - 12	3/4 - 14
	IA-50JS-16-16	1 5/16 - 12	1 - 11

IA-10FS ORFS MALE x JIS MALE

	PART NUMBER	T1	T2
	IA-10FS-04-04	9/16 - 18	1/4 - 19
	IA-10FS-06-06	11/16 - 16	3/8 - 19
	IA-10FS-08-08	13/16 - 16	1/2 - 14
	IA-10FS-12-12	1 3/16 - 12	3/4 - 14
	IA-10FS-16-16	1 7/16 - 12	1 - 11

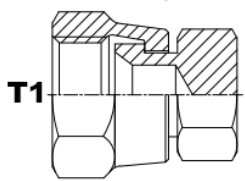
IA-20FS ORFS MALE x JIS FEMALE SWIVEL

	PART NUMBER	T1	T2
	IA-20FS-04-04	9/16 - 18	1/4 - 19
	IA-20FS-06-06	11/16 - 16	3/8 - 19
	IA-20FS-08-08	13/16 - 16	1/2 - 14
	IA-20FS-12-12	1 3/16 - 12	3/4 - 14
	IA-20FS-16-16	1 7/16 - 12	1 - 11

⚠ WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

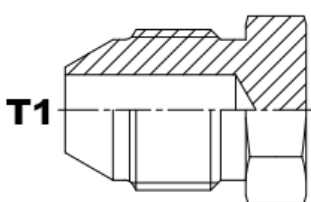
IA-0CK

KOMATSU® FEMALE CAP

	PART NUMBER	T1
	IA-0CK-14	14 X 1.5
	IA-0CK-16	16 X 1.5
	IA-0CK-18	18 X 1.5
	IA-0CK-20	20 X 1.5
	IA-0CK-22	22 X 1.5
	IA-0CK-24	24 X 1.5
	IA-0CK-30	30 X 1.5
	IA-0CK-33	33 X 1.5
	IA-0CK-42	42 X 1.5

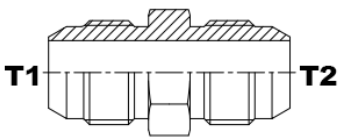
IA-0PK

KOMATSU® MALE PLUG

	PART NUMBER	T1
	IA-0PK-14	14 X 1.5
	IA-0PK-16	16 X 1.5
	IA-0PK-18	18 X 1.5
	IA-0PK-22	22 X 1.5
	IA-0PK-24	24 X 1.5
	IA-0PK-30	30 X 1.5
	IA-0PK-33	33 X 1.5
	IA-0PK-42	42 X 1.5

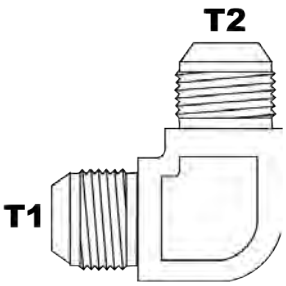
IA-10KK


KOMATSU® MALE UNION

	PART NUMBER	T1	T2
	IA-10KK-14-14	14 X 1.5	14 X 1.5
	IA-10KK-16-16	16 X 1.5	16 X 1.5
	IA-10KK-18-18	18 X 1.5	18 X 1.5
	IA-10KK-20-20	20 X 1.5	20 X 1.5
	IA-10KK-22-22	22 X 1.5	22 X 1.5
	IA-10KK-24-24	24 X 1.5	24 X 1.5
	IA-10KK-30-30	30 X 1.5	30 X 1.5
	IA-10KK-33-33	33 X 1.5	33 X 1.5

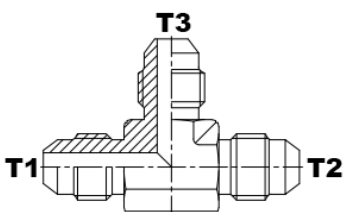
IA-19KK

90° KOMATSU® MALE UNION

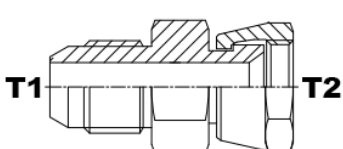
	PART NUMBER	T1	T2
	IA-19KK-14-14	14 X 1.5	14 X 1.5
	IA-19KK-16-16	16 X 1.5	16 X 1.5
	IA-19KK-18-18	18 X 1.5	18 X 1.5
	IA-19KK-22-22	22 X 1.5	22 X 1.5
	IA-19KK-24-24	24 X 1.5	24 X 1.5
	IA-19KK-30-30	30 X 1.5	30 X 1.5
	IA-19KK-33-33	33 X 1.5	33 X 1.5

 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

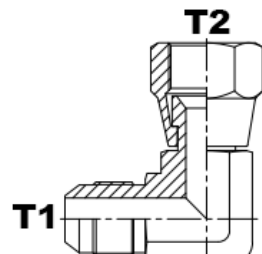
IA-AKKK KOMATSU® MALE UNION TEE

	PART NUMBER	T1	T2	T3
	IA-AKKK-14-14-14	14 X 1.5	14 X 1.5	14 X 1.5
	IA-AKKK-16-16-16	16 X 1.5	16 X 1.5	16 X 1.5
	IA-AKKK-18-18-18	18 X 1.5	18 X 1.5	18 X 1.5
	IA-AKKK-22-22-22	22 X 1.5	22 X 1.5	22 X 1.5
	IA-AKKK-24-24-24	24 X 1.5	24 X 1.5	24 X 1.5
	IA-AKKK-30-30-30	30 X 1.5	30 X 1.5	30 X 1.5
	IA-AKKK-33-33-33	33 X 1.5	33 X 1.5	33 X 1.5

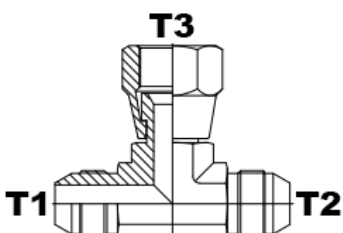
IA-20KK KOMATSU® MALE x FEMALE SWIVEL


	PART NUMBER	T1	T2
	IA-20KK-14-14	14 X 1.5	14 X 1.5
	IA-20KK-16-16	16 X 1.5	16 X 1.5
	IA-20KK-18-18	18 X 1.5	18 X 1.5
	IA-20KK-20-20	20 X 1.5	20 X 1.5
	IA-20KK-22-22	22 X 1.5	22 X 1.5
	IA-20KK-24-24	24 X 1.5	24 X 1.5
	IA-20KK-30-30	30 X 1.5	30 X 1.5
	IA-20KK-33-33	33 X 1.5	33 X 1.5
	IA-20KK-36-36	36 X 1.5	36 X 1.5
	IA-20KK-42-42	42 X 1.5	42 X 1.5

IA-29KK KOMATSU® MALE x 90° FEMALE SWIVEL

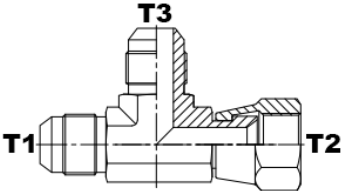
	PART NUMBER	T1	T2
	IA-29KK-14-14	14 X 1.5	14 X 1.5
	IA-29KK-16-16	16 X 1.5	16 X 1.5
	IA-29KK-18-18	18 X 1.5	18 X 1.5
	IA-29KK-22-22	22 X 1.5	22 X 1.5
	IA-29KK-24-24	24 X 1.5	24 X 1.5
	IA-29KK-30-30	30 X 1.5	30 X 1.5
	IA-29KK-33-33	33 X 1.5	33 X 1.5

IA-BKKK KOMATSU® MALE x FEMALE SWIVEL BR. TEE

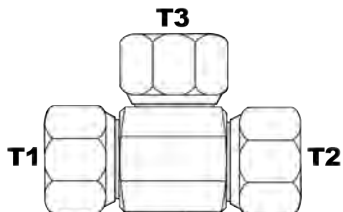
	PART NUMBER	T1	T2	T3
	IA-BKKK-14-14-14	14 X 1.5	14 X 1.5	14 X 1.5
	IA-BKKK-18-18-18	18 X 1.5	18 X 1.5	18 X 1.5
	IA-BKKK-22-22-22	22 X 1.5	22 X 1.5	22 X 1.5
	IA-BKKK-24-24-24	24 X 1.5	24 X 1.5	24 X 1.5
	IA-BKKK-30-30-30	30 X 1.5	30 X 1.5	30 X 1.5
	IA-BKKK-33-33-33	33 X 1.5	33 X 1.5	33 X 1.5

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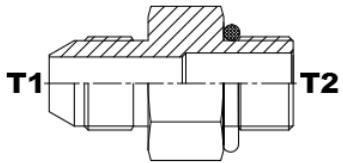
IA-CKKK KOMATSU® MALE x FEMALE SWIVEL RUN TEE

	PART NUMBER	T1	T2	T3
	IA-CKKK-14-14-14	14 X 1.5	14 X 1.5	14 X 1.5
IA-CKKK-18-18-18	18 X 1.5	18 X 1.5	18 X 1.5	18 X 1.5
IA-CKKK-22-22-22	22 X 1.5	22 X 1.5	22 X 1.5	22 X 1.5
IA-CKKK-24-24-24	24 X 1.5	24 X 1.5	24 X 1.5	24 X 1.5
IA-CKKK-30-30-30	30 X 1.5	30 X 1.5	30 X 1.5	30 X 1.5
IA-CKKK-33-33-33	33 X 1.5	33 X 1.5	33 X 1.5	33 X 1.5

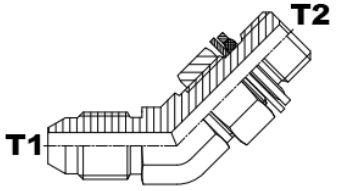
IA-DKKK KOMATSU® FEMALE SWIVEL TEE


	PART NUMBER	T1	T2	T3
	IA-DKKK-14-14-14	14 X 1.5	14 X 1.5	14 X 1.5
IA-DKKK-16-16-16	16 X 1.5	16 X 1.5	16 X 1.5	16 X 1.5
IA-DKKK-18-18-18	18 X 1.5	18 X 1.5	18 X 1.5	18 X 1.5
IA-DKKK-22-22-22	22 X 1.5	22 X 1.5	22 X 1.5	22 X 1.5
IA-DKKK-24-24-24	24 X 1.5	24 X 1.5	24 X 1.5	24 X 1.5
IA-DKKK-30-30-30	30 X 1.5	30 X 1.5	30 X 1.5	30 X 1.5
IA-DKKK-33-33-33	33 X 1.5	33 X 1.5	33 X 1.5	33 X 1.5
IA-DKKK-36-36-36	33 X 1.5	33 X 1.5	33 X 1.5	33 X 1.5
IA-DKKK-42-42-42	42 X 1.5	42 X 1.5	42 X 1.5	42 X 1.5

IA-10KH KOMATSU® MALE x METRIC PORT MALE

	PART NUMBER	T1	T2
	IA-10KH-14-12	14 X 1.5	12 X 1.5
IA-10KH-14-14	14 X 1.5	14 X 1.5	
IA-10KH-18-14	18 X 1.5	14 X 1.5	
IA-10KH-18-16	18 X 1.5	16 X 1.5	
IA-10KH-18-20	18 X 1.5	20 X 1.5	
IA-10KH-22-20	22 X 1.5	20 X 1.5	
IA-10KH-24-22	24 X 1.5	22 X 1.5	
IA-10KH-30-27	30 X 1.5	27 X 2.0	
IA-10KH-33-33	33 X 1.5	33 X 2.0	
IA-10KH-36-33	36 X 1.5	33 X 2.0	

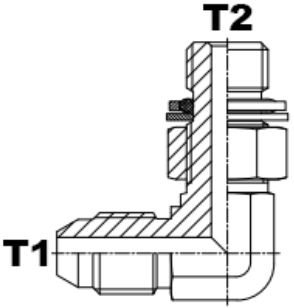
IA-14KH KOMATSU® MALE x 45° METRIC PORT MALE ADJ.

	PART NUMBER	T1	T2
	IA-14KH-14-12	14 X 1.5	12 X 1.5
IA-14KH-16-14	16 X 1.5	14 X 1.5	
IA-14KH-18-14	18 X 1.5	14 X 1.5	
IA-14KH-18-16	18 X 1.5	16 X 1.5	
IA-14KH-18-20	18 X 1.5	20 X 1.5	
IA-14KH-20-18	20 X 1.5	18 X 1.5	
IA-14KH-22-20	22 X 1.5	20 X 1.5	
IA-14KH-24-22	24 X 1.5	22 X 1.5	
IA-14KH-30-20	30 X 1.5	20 X 1.5	
IA-14KH-30-24	30 X 1.5	24 X 1.5	
IA-14KH-33-33	33 X 1.5	33 X 2.0	

 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

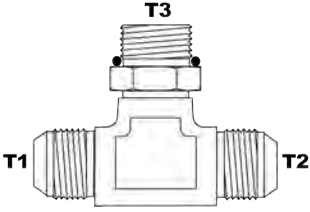
IA-19KH

KOMATSU® MALE x 90° METRIC PORT MALE ADJ.

	PART NUMBER	T1	T2
	IA-19KH-14-12	14 X 1.5	12 X 1.5
	IA-19KH-14-14	14 X 1.5	14 X 1.5
	IA-19KH-16-14	16 X 1.5	14 X 1.5
	IA-19KH-18-14	18 X 1.5	14 X 1.5
	IA-19KH-18-16	18 X 1.5	16 X 1.5
	IA-19KH-18-20	18 X 1.5	20 X 1.5
	IA-19KH-20-18	20 X 1.5	18 X 1.5
	IA-19KH-22-20	22 X 1.5	20 X 1.5
	IA-19KH-24-20	24 X 1.5	20 X 1.5
	IA-19KH-30-20	30 X 1.5	20 X 1.5
	IA-19KH-30-24	30 X 1.5	24 X 1.5
	IA-19KH-30-27	30 X 1.5	27 X 2.0
	IA-19KH-33-33	33 X 1.5	33 X 2.0

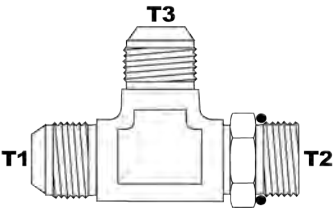
IA-AKKH

KOMATSU® MALE x METRIC PORT MALE BR. TEE

	PART NUMBER	T1	T2	T3
	IA-AKKH-14-14-12	14 X 1.5	14 X 1.5	12 X 1.5
	IA-AKKH-14-14-14	14 X 1.5	14 X 1.5	14 X 1.5
	IA-AKKH-16-16-14	16 X 1.5	16 X 1.5	14 X 1.5
	IA-AKKH-18-18-14	18 X 1.5	18 X 1.5	14 X 1.5
	IA-AKKH-18-18-16	18 X 1.5	18 X 1.5	16 X 1.5
	IA-AKKH-18-18-20	18 X 1.5	18 X 1.5	20 X 1.5
	IA-AKKH-22-22-20	22 X 1.5	22 X 1.5	20 X 1.5
	IA-AKKH-24-24-20	24 X 1.5	24 X 1.5	20 X 1.5
	IA-AKKH-24-24-22	24 X 1.5	24 X 1.5	22 X 1.5
	IA-AKKH-30-30-27	30 X 1.5	30 X 1.5	27 X 2.0
	IA-AKKH-33-33-33	33 X 1.5	33 X 1.5	33 X 2.0

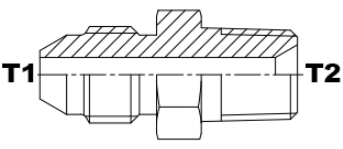
IA-AKHK

KOMATSU® MALE x METRIC PORT MALE RUN TEE

	PART NUMBER	T1	T2	T3
	IA-AKHK-14-12-14	14 X 1.5	12 X 1.5	14 X 1.5
	IA-AKHK-14-14-14	14 X 1.5	14 X 1.5	14 X 1.5
	IA-AKHK-16-14-16	16 X 1.5	14 X 1.5	16 X 1.5
	IA-AKHK-18-14-18	18 X 1.5	14 X 1.5	18 X 1.5
	IA-AKHK-18-16-18	18 X 1.5	16 X 1.5	18 X 1.5
	IA-AKHK-18-20-18	18 X 1.5	20 X 1.5	18 X 1.5
	IA-AKHK-22-20-22	22 X 1.5	20 X 1.5	22 X 1.5
	IA-AKHK-24-20-24	24 X 1.5	20 X 1.5	24 X 1.5
	IA-AKHK-24-22-24	24 X 1.5	22 X 1.5	24 X 1.5
	IA-AKHK-30-27-30	30 X 1.5	27 X 2.0	30 X 1.5
	IA-AKHK-33-33-33	33 X 1.5	33 X 2.0	33 X 1.5
	IA-AKHK-36-33-36	36 X 1.5	33 X 2.0	36 X 1.5

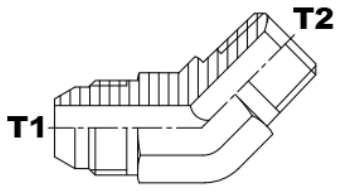
IA-10KT

KOMATSU® MALE x BSPT MALE

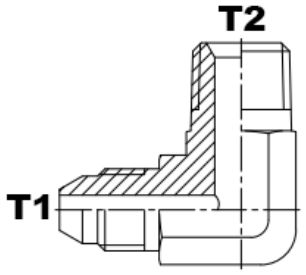
	PART NUMBER	T1	T2
	IA-10KT-14-04	14 X 1.5	1/4 - 19
	IA-10KT-14-06	14 X 1.5	3/8 - 19
	IA-10KT-16-06	16 X 1.5	3/8 - 19
	IA-10KT-18-06	18 X 1.5	3/8 - 19
	IA-10KT-20-06	20 X 1.5	3/8 - 19
	IA-10KT-22-06	22 X 1.5	3/8 - 19
	IA-10KT-22-08	22 X 1.5	1/2 - 14
	IA-10KT-24-08	24 X 1.5	1/2 - 14
	IA-10KT-24-12	24 X 1.5	3/4 - 14
	IA-10KT-30-12	30 X 1.5	3/4 - 14
	IA-10KT-33-16	33 X 1.5	1 - 11

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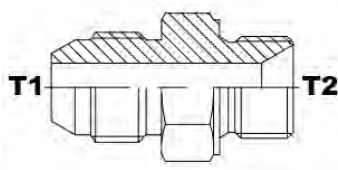
IA-14KT KOMATSU® MALE x 45° BSPT MALE

	PART NUMBER	T1	T2
		IA-14KT-14-04	14 X 1.5
	IA-14KT-14-06	14 X 1.5	3/8 - 19
	IA-14KT-16-06	16 X 1.5	3/8 - 19
	IA-14KT-18-06	18 X 1.5	3/8 - 19
	IA-14KT-20-06	20 X 1.5	3/8 - 19
	IA-14KT-22-06	22 X 1.5	3/8 - 19
	IA-14KT-22-08	22 X 1.5	1/2 - 14
	IA-14KT-24-08	24 X 1.5	1/2 - 14
	IA-14KT-24-12	24 X 1.5	3/4 - 14
	IA-14KT-30-12	30 X 1.5	3/4 - 14
	IA-14KT-33-16	33 X 1.5	1 - 11

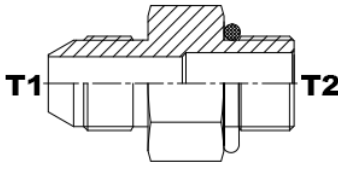
IA-19KT KOMATSU® MALE x 90° BSPT MALE


	PART NUMBER	T1	T2
		IA-19KT-14-02	14 X 1.5
	IA-19KT-14-04	14 X 1.5	1/4 - 19
	IA-19KT-14-06	14 X 1.5	3/8 - 19
	IA-19KT-16-06	16 X 1.5	3/8 - 19
	IA-19KT-18-06	18 X 1.5	3/8 - 19
	IA-19KT-20-06	20 X 1.5	3/8 - 19
	IA-19KT-22-06	22 X 1.5	3/8 - 19
	IA-19KT-22-08	22 X 1.5	1/2 - 14
	IA-19KT-24-08	24 X 1.5	1/2 - 14
	IA-19KT-24-12	24 X 1.5	3/4 - 14
	IA-19KT-30-12	30 X 1.5	3/4 - 14
	IA-19KT-33-16	33 X 1.5	1 - 11

IA-10KB KOMATSU® MALE x BSPP MALE

	PART NUMBER	T1	T2
		IA-10KB-14-04	14 X 1.5
	IA-10KB-18-04	18 X 1.5	1/4 - 19
	IA-10KB-18-06	18 X 1.5	3/8 - 19
	IA-10KB-18-08	18 X 1.5	1/2 - 14
	IA-10KB-20-08	20 X 1.5	1/2 - 14
	IA-10KB-22-06	22 X 1.5	3/8 - 19
	IA-10KB-22-08	22 X 1.5	1/2 - 14
	IA-10KB-24-08	24 X 1.5	1/2 - 14
	IA-10KB-24-10	24 X 1.5	5/8 - 14
	IA-10KB-30-12	30 X 1.5	3/4 - 14
	IA-10KB-33-16	33 X 1.5	1 - 11

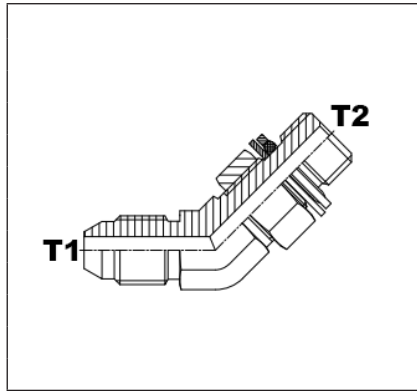
IA-10KG KOMATSU® MALE x BSPP MALE PORT

	PART NUMBER	T1	T2
		IA-10KG-14-04	14 X 1.5
	IA-10KG-14-06	14 X 1.5	3/8 - 19
	IA-10KG-16-06	16 X 1.5	3/8 - 19
	IA-10KG-18-06	18 X 1.5	3/8 - 19
	IA-10KG-22-08	22 X 1.5	1/2 - 14
	IA-10KG-30-12	30 X 1.5	3/4 - 14
	IA-10KG-33-12	33 X 1.5	3/4 - 14
	IA-10KG-33-16	33 X 1.5	1 - 11

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IA-14KG

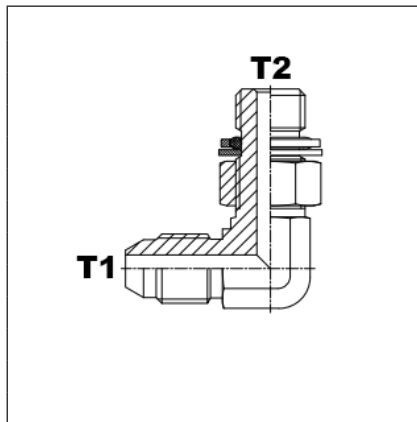
KOMATSU® MALE x 45° BSPP MALE PORT ADJ.



PART NUMBER	T1	T2
IA-14KG-14-04	14 X 1.5	1/4 - 19
IA-14KG-18-06	18 X 1.5	3/8 - 19
IA-14KG-22-08	22 X 1.5	1/2 - 14
IA-14KG-24-08	24 X 1.5	1/2 - 14
IA-14KG-30-12	30 X 1.5	3/4 - 14
IA-14KG-33-16	33 X 1.5	1 - 11

IA-19KG

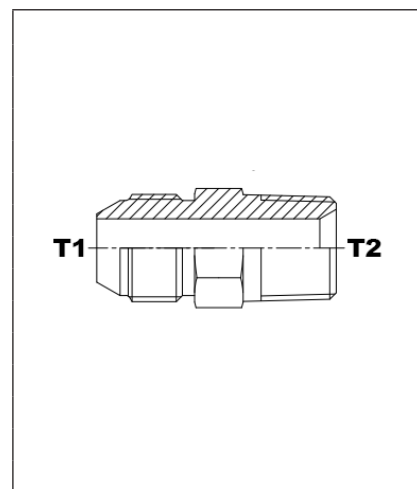
KOMATSU® MALE x 90° BSPP MALE PORT ADJ.



PART NUMBER	T1	T2
IA-19KG-14-04	14 X 1.5	1/4 - 19
IA-19KG-14-06	14 X 1.5	3/8 - 19
IA-19KG-16-06	16 X 1.5	3/8 - 19
IA-19KG-18-06	18 X 1.5	3/8 - 19
IA-19KG-20-06	20 X 1.5	3/8 - 19
IA-19KG-20-08	20 X 1.5	1/2 - 14
IA-19KG-22-08	22 X 1.5	1/2 - 14
IA-19KG-24-08	24 X 1.5	1/2 - 14
IA-19KG-24-12	24 X 1.5	3/4 - 14
IA-19KG-30-12	30 X 1.5	3/4 - 14
IA-19KG-33-16	33 X 1.5	1 - 11
IA-19KG-33-20	33 X 1.5	1 1/4 - 11

IA-10KN

KOMATSU® MALE x NPT MALE

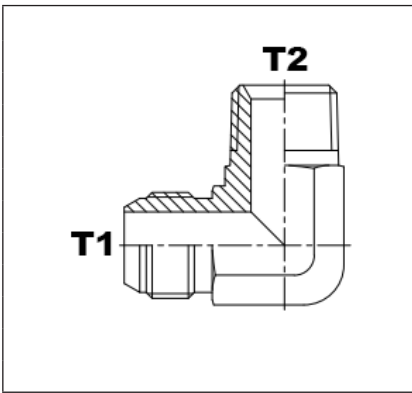


PART NUMBER	T1	T2
IA-10KN-14-04	14 X 1.5	1/4 - 18
IA-10KN-14-06	14 X 1.5	3/8 - 18
IA-10KN-16-06	16 X 1.5	3/8 - 18
IA-10KN-16-08	16 X 1.5	1/2 - 14
IA-10KN-18-06	18 X 1.5	3/8 - 18
IA-10KN-20-06	20 X 1.5	3/8 - 18
IA-10KN-20-08	20 X 1.5	1/2 - 14
IA-10KN-22-08	22 X 1.5	1/2 - 14
IA-10KN-24-08	24 X 1.5	1/2 - 14
IA-10KN-24-12	24 X 1.5	3/4 - 14
IA-10KN-30-12	30 X 1.5	3/4 - 14
IA-10KN-33-16	33 X 1.5	1 - 11 1/2
IA-10KN-36-20	36 X 1.5	1 1/4 - 11 1/2
IA-10KN-42-24	42 X 1.5	1 1/2 - 11 1/2

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

IA-19KN

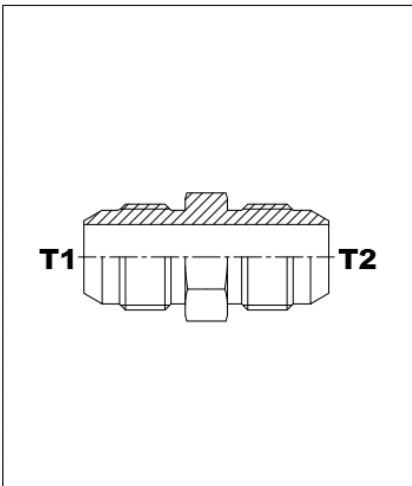
KOMATSU® MALE x 90° NPT MALE



PART NUMBER	T1	T2
IA-19KN-14-04	14 X 1.5	1/4 - 18
IA-19KN-16-06	16 X 1.5	3/8 - 18
IA-19KN-16-08	16 X 1.5	1/2 - 14
IA-19KN-18-06	18 X 1.5	3/8 - 18
IA-19KN-20-06	20 X 1.5	3/8 - 18
IA-19KN-20-08	20 X 1.5	1/2 - 14
IA-19KN-22-08	22 X 1.5	1/2 - 14
IA-19KN-24-08	24 X 1.5	1/2 - 14
IA-19KN-24-12	24 X 1.5	3/4 - 14
IA-19KN-30-12	30 X 1.5	3/4 - 14
IA-19KN-33-16	33 X 1.5	1 - 11 1/2

IA-10JK

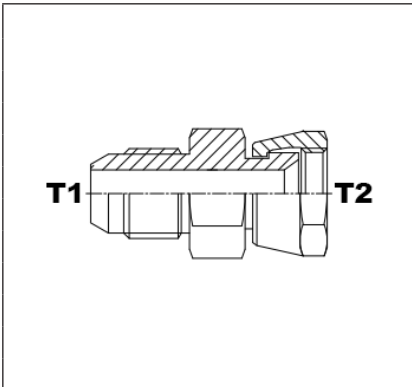
JIC MALE x KOMATSU® MALE



PART NUMBER	T1	T2
IA-10JK-04-14	7/16 - 20	14 X 1.5
IA-10JK-06-16	9/16 - 18	16 X 1.5
IA-10JK-06-18	9/16 - 18	18 X 1.5
IA-10JK-08-22	3/4 - 16	22 X 1.5
IA-10JK-10-24	7/8 - 14	24 X 1.5
IA-10JK-12-30	1 1/16 - 12	30 X 1.5
IA-10JK-12-22	1 1/16 - 12	30 X 1.5
IA-10JK-12-28	1 1/16 - 12	36 X 1.5
IA-10JK-16-33	1 5/16 - 12	33 X 1.5
IA-10JK-16-22	1 5/16 - 12	30 X 1.5
IA-10JK-16-28	1 5/16 - 12	36 X 1.5
IA-10JK-16-35	1 5/16 - 12	45 X 1.5
IA-10JK-20-35	1 5/8 - 12	45 X 1.5
IA-10JK-24-42	1 7/8 - 12	42 X 1.5

IA-20KJ

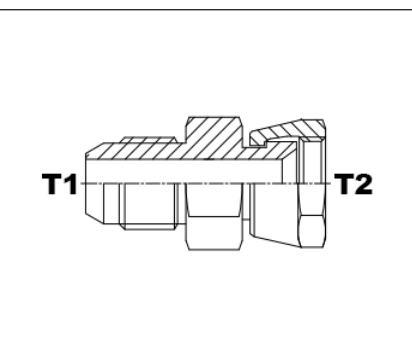
KOMATSU® MALE x JIC FEMALE SWIVEL



PART NUMBER	T1	T2
IA-20KJ-12-22	1 1/16 - 12	30 X 1.5
IA-20KJ-14-04	14 X 1.5	7/16 - 20
IA-20KJ-16-28	1 5/16 - 12	36 X 1.5
IA-20KJ-18-06	18 X 1.5	9/16 - 18
IA-20KJ-20-35	1 5/8 - 12	45 X 1.5
IA-20KJ-22-08	22 X 1.5	3/4 - 16
IA-20KJ-22-12	22 X 1.5	1 1/16 - 12
IA-20KJ-24-10	24 X 1.5	7/8 - 14
IA-20KJ-24-12	24 X 1.5	1 1/16 - 12
IA-20KJ-33-16	33 X 1.5	1 5/16 - 12

IA-20JK

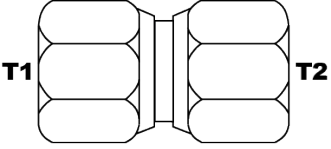
JIC MALE x KOMATSU® FEMALE SWIVEL



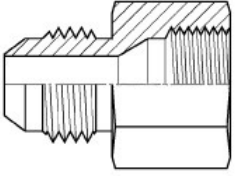
PART NUMBER	T1	T2
IA-20JK-04-14	7/16 - 20	14 X 1.5
IA-20JK-06-16	9/16 - 18	16 X 1.5
IA-20JK-06-18	9/16 - 18	18 X 1.5
IA-20JK-08-22	3/4 - 16	22 X 1.5
IA-20JK-10-24	7/8 - 14	24 X 1.5
IA-20JK-12-30	1 1/16 - 12	30 X 1.5
IA-20JK-16-33	1 5/16 - 12	33 X 1.5

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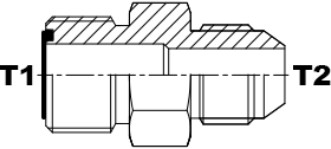
IA-30JK JIC x KOMATSU® FEMALE SWIVEL

	PART NUMBER	T1	T2
	IA-30JK-12-22	1 1/16 - 12	22 X 1.5
	IA-30JK-12-24	1 1/16 - 12	24 X 1.5
	IA-30JK-12-30	1 1/16 - 12	30 X 1.5
	IA-30JK-16-33	1 5/16 - 12	33 X 1.5
	IA-30JK-24-42	1 7/8 - 12	42 X 1.5

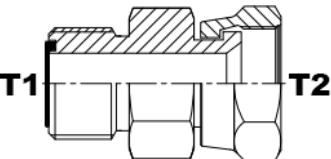
IA-50JK JIC MALE x KOMATSU® FEMALE

	PART NUMBER	T1	T2
	IA-50JK-04-14	7/16 - 20	14 X 1.5
	IA-50JK-06-18	9/16 - 18	18 X 1.5
	IA-50JK-08-22	3/4 - 16	22 X 1.5
	IA-50JK-10-24	7/8 - 14	24 X 1.5
	IA-50JK-12-30	1 1/16 - 12	30 X 1.5

IA-10FK ORFS MALE x KOMATSU® MALE

	PART NUMBER	T1	T2
	IA-10FK-04-14	9/16 - 18	14 X 1.5
	IA-10FK-06-18	11/16 - 16	18 X 1.5
	IA-10FK-08-22	13/16 - 16	22 X 1.5
	IA-10FK-10-24	1 - 14	24 X 1.5
	IA-10FK-12-30	1 3/16 - 12	30 X 1.5
	IA-10FK-16-33	1 7/16 - 12	33 X 1.5

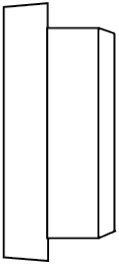
IA-20FK ORFS MALE x KOMATSU® FEMALE SWIVEL

	PART NUMBER	T1	T2
	IA-20FK-04-14	9/16 - 18	14 X 1.5
	IA-20FK-06-18	11/16 - 16	18 X 1.5
	IA-20FK-08-22	13/16 - 16	22 X 1.5
	IA-20FK-10-24	1 - 14	24 X 1.5
	IA-20FK-12-30	1 3/16 - 12	30 X 1.5
	IA-20FK-16-33	1 7/16 - 12	33 X 1.5

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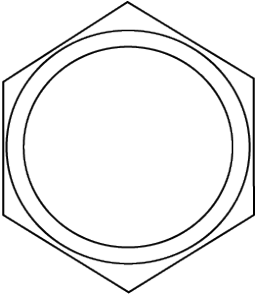
IA-0SX

KOBELCO® METRIC TUBE BITE SLEEVE

	PART NUMBER	T1	TUBE	OD
	IA-0SX-22	22 X 1.5	22	30
	IA-0SX-28	28 X 1.5	28	36
	IA-0SX-35	35 X 1.5	35	45

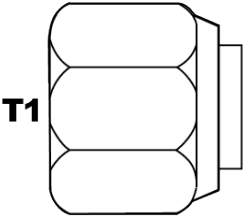
IA-0NX

KOBELCO® METRIC TUBE NUT

	PART NUMBER	T1
	IA-0NX-22	30 X 1.5
	IA-0NX-28	36 X 1.5
	IA-0NX-35	45 X 1.5

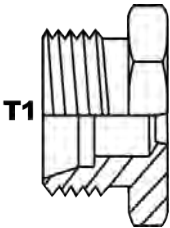
IA-0CX

KOBELCO® FEMALE CAP

	PART NUMBER	T1
	IA-0CX-22	30 X 1.5
	IA-0CX-28	36 X 1.5
	IA-0CX-35	45 X 1.5

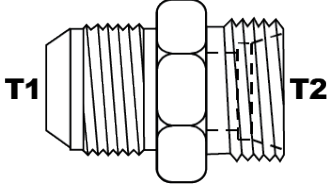
IA-0PX

KOBELCO® MALE PLUG

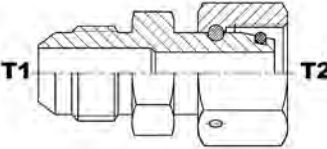
	PART NUMBER	T1
	IA-0PX-22	30 X 1.5
	IA-0PX-28	36 X 1.5
	IA-0PX-35	45 X 1.5


! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

IA-10JX JIC MALE x KOBELCO® MALE

	PART NUMBER	T1	T2
		IA-10JX-12-22	1 1/16 - 12
	IA-10JX-12-28	1 1/16 - 12	28 X 1.5
	IA-10JX-16-22	1 5/16 - 12	22 X 1.5
	IA-10JX-16-28	1 5/16 - 12	28 X 1.5
	IA-10JX-16-35	1 5/16 - 12	35 X 1.5
	IA-10JX-20-35	1 5/8 - 12	35 X 1.5

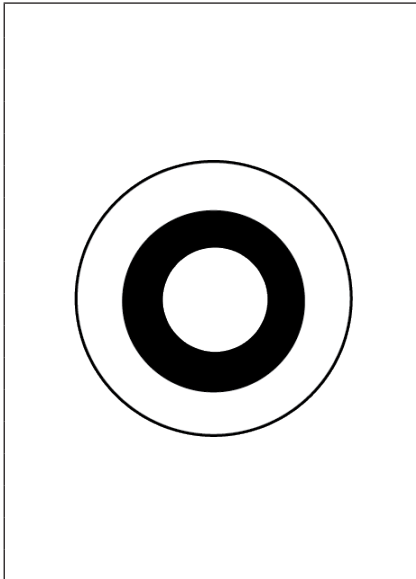
IA-20JX JIC MALE x KOBELCO® FEMALE

	PART NUMBER	T1	T2
		IA-20JX-12-22	1 1/16 - 12
	IA-20JX-16-28	1 5/16 - 12	28 X 1.5
	IA-20JX-20-35	1 5/8 - 12	35 X 1.5


WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

IA-BBS

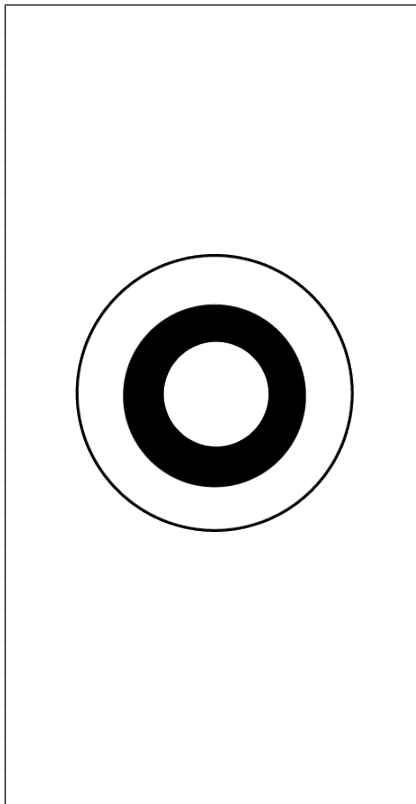
BSP BONDED SEAL



PART NUMBER	OD (in)	ID (in)	WIDTH
IA-BBS-02	0.625	0.408	0.080
IA-BBS-04	0.810	0.541	0.080
IA-BBS-06	0.937	0.680	0.080
IA-BBS-08	1.125	0.848	0.098
IA-BBS-10	1.250	0.925	0.098
IA-BBS-12	1.375	1.065	0.098
IA-BBS-16	1.685	1.334	0.098
IA-BBS-20	2.062	1.690	0.128
IA-BBS-24	2.307	1.907	0.128
IA-BBS-32	2.875	2.385	0.128
IA-BBS-48	4.113	3.507	0.128
IA-BBS-04-SS	0.810	0.541	0.080
IA-BBS-08-SS	1.125	0.848	0.098
IA-BBS-12-SS	1.375	1.065	0.098
IA-BBS-16-SS	1.685	1.334	0.098
IA-BBS-10-SS-V	1.250	0.925	0.098
IA-BBS-24-SS-V	2.307	1.907	0.128

*Note: -SS indicates Stainless Steel; -V indicates Viton seal material (Buna is standard).

IA-MBS METRIC BONDED SEAL




PART NUMBER	OD (in)	ID (in)	WIDTH
IA-MBS-06	10.00	6.70	1.00
IA-MBS-08	13.00	8.70	1.00
IA-MBS-10	15.88	10.35	1.50
IA-MBS-12	18.00	12.70	1.50
IA-MBS-14	22.00	14.70	1.50
IA-MBS-16	24.00	16.70	1.50
IA-MBS-18	26.00	18.70	1.50
IA-MBS-20	28.00	20.70	1.50
IA-MBS-22	30.00	22.70	2.00
IA-MBS-24	32.00	24.70	2.00
IA-MBS-26	35.00	26.70	2.00
IA-MBS-27	36.00	27.20	2.00
IA-MBS-30	39.00	31.00	2.00
IA-MBS-33	42.00	33.70	2.00
IA-MBS-42	53.00	42.70	2.00
IA-MBS-48	59.00	48.70	3.00
IA-MBS-12-SS	18.00	12.70	1.50
IA-MBS-14-SS	22.00	14.70	1.50
IA-MBS-18-SS	26.00	18.70	1.50
IA-MBS-12-SS-V	18.00	12.70	1.50
IA-MBS-14-SS-V	22.00	14.70	1.50
IA-MBS-18-SS-V	26.00	18.70	1.50
IA-MBS-20-SS-V	28.00	20.70	1.50
IA-MBS-22-SS-V	30.00	22.70	2.00



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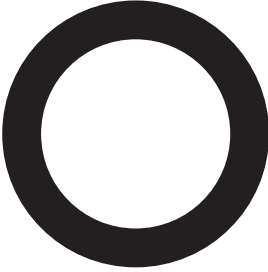


IA-BRR BSPP RETAINING RING


	PART NUMBER	OD (in)	WIDTH
	IA-BRR-02	0.591	0.055
	IA-BRR-04	0.768	0.075
	IA-BRR-06	0.925	0.075
	IA-BRR-08	1.122	0.075
	IA-BRR-12	1.358	0.102
	IA-BRR-16	1.713	0.102
	IA-BRR-20	2.067	0.102
	IA-BRR-24	2.362	0.102
	IA-BRR-12-SS	1.358	0.102


*Note: -SS indicates Stainless Steel.

IA-BOR BSPP O-RING

	PART NUMBER	ID (in)	WIDTH
	IA-BOR-02	0.315	0.079
	IA-BOR-04	0.424	0.103
	IA-BOR-06	0.549	0.103
	IA-BOR-08	0.707	0.103
	IA-BOR-12	0.924	0.103
	IA-BOR-16	1.171	0.139
	IA-BOR-20	1.484	0.139
	IA-BOR-24	1.734	0.139

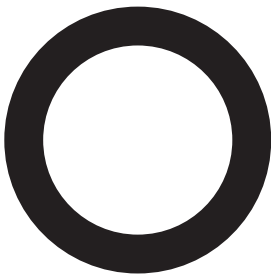
IA-MRR METRIC RETAINING RING

	PART NUMBER	OD (in)	WIDTH
	IA-MRR-08	13.150	1.000
	IA-MRR-10	14.750	1.000
	IA-MRR-12	17.750	1.300
	IA-MRR-14	19.750	1.300
	IA-MRR-16	21.750	1.500
	IA-MRR-18	23.750	2.000
	IA-MRR-20	25.750	1.300
	IA-MRR-22	27.750	1.300
	IA-MRR-24	29.750	1.300
	IA-MRR-26	31.750	2.000
	IA-MRR-27	32.750	2.000
	IA-MRR-30	36.320	2.000
	IA-MRR-33	39.750	2.000
	IA-MRR-36	42.750	2.000
	IA-MRR-42	49.750	2.000
	IA-MRR-45	52.750	2.000
	IA-MRR-48	54.950	2.000

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IA-MOR

METRIC O-RING

	PART NUMBER	ID (in)	WIDTH
	IA-MOR-08	6.07	1.63
	IA-MOR-10	8.00	1.50
	IA-MOR-12	9.25	1.78
	IA-MOR-14	10.82	1.78
	IA-MOR-16	13.46	2.08
	IA-MOR-18	15.54	2.62
	IA-MOR-20	17.17	1.78
	IA-MOR-22	18.77	1.78
	IA-MOR-24	20.35	1.78
	IA-MOR-26	21.89	2.62
	IA-MOR-27	23.47	2.62
	IA-MOR-30	26.64	2.62
	IA-MOR-33	28.24	2.62
	IA-MOR-36	31.42	2.62
	IA-MOR-42	37.77	2.62
	IA-MOR-45	40.94	2.62
IA-MOR-48	44.12	2.62	


IA-BCS


BSPP CAPTIVE SEAL

	PART NUMBER	OD (in)	ID (in)	WIDTH
	IA-BCS-02	0.469	0.331	0.039
	IA-BCS-04	0.650	0.457	0.059
	IA-BCS-06	0.744	0.579	0.059
	IA-BCS-08	0.941	0.728	0.059
	IA-BCS-12	1.150	0.941	0.059
	IA-BCS-16	1.406	1.169	0.079
	IA-BCS-20	1.803	1.528	0.079
	IA-BCS-24	1.996	1.760	0.079

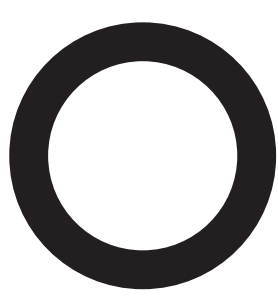
IA-MCS

METRIC CAPTIVE SEAL

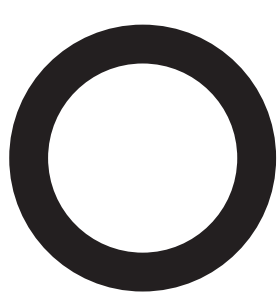
	PART NUMBER	OD (in)	ID (in)	WIDTH
	IA-MCS-08	9.90	6.50	1.00
	IA-MCS-10	11.90	8.40	1.00
	IA-MCS-12	14.40	9.80	1.50
	IA-MCS-14	16.50	11.60	1.50
	IA-MCS-16	18.90	13.80	1.50
	IA-MCS-18	20.90	15.70	1.50
	IA-MCS-20	22.90	17.80	1.50
	IA-MCS-22	24.30	19.60	1.50
	IA-MCS-26	29.20	23.90	1.50
	IA-MCS-27	29.20	23.90	1.50
	IA-MCS-33	35.70	29.70	2.00
	IA-MCS-42	45.80	38.80	2.00
	IA-MCS-48	50.70	44.70	2.00


 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

IA-DOR DIN CONE O-RING (DKO)

	PART NUMBER	ID (in)	WIDTH
	IA-DOR-06	4.50	1.50
	IA-DOR-08	6.50	1.50
	IA-DOR-10	8.00	1.50
	IA-DOR-12	10.00	1.50
	IA-DOR-14	11.00	2.00
	IA-DOR-15	12.00	2.00
	IA-DOR-16	13.00	2.00
	IA-DOR-18	15.00	2.00
	IA-DOR-20	16.30	2.40
	IA-DOR-22	20.00	2.00
	IA-DOR-25	20.30	2.40
	IA-DOR-28	26.00	2.00
	IA-DOR-30	25.30	2.40
	IA-DOR-35	32.00	2.50
IA-DOR-38	33.30	2.40	
IA-DOR-42	38.00	2.50	

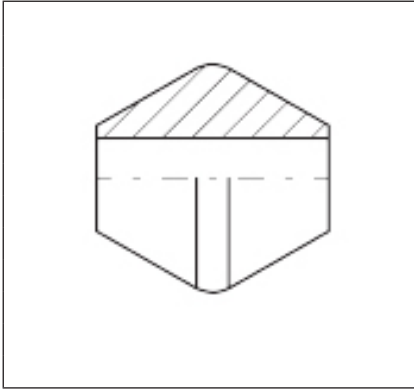
IA-SOR JIS PORT O-RING

	PART NUMBER	ID (in)	WIDTH
	IA-SOR-02	0.307	0.075
	IA-SOR-04	0.425	0.094
	IA-SOR-06	0.543	0.094
	IA-SOR-08	0.701	0.094
	IA-SOR-12	0.933	0.138
	IA-SOR-16	1.130	0.138


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IA-0XBS

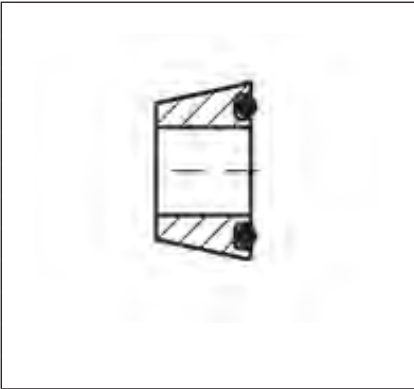
BSPP TO JIS CONVERSION SEAT




PART NUMBER
IA-0XBS-02
IA-0XBS-04
IA-0XBS-06
IA-0XBS-08
IA-0XBS-10
IA-0XBS-12
IA-0XBS-16
IA-0XBS-20
IA-0XBS-24

IA-0XFS

BSPP FF TO JIS CONVERSION SEAT



PART NUMBER
IA-0XFS-06
IA-0XFS-08

 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

ACCESSORIES



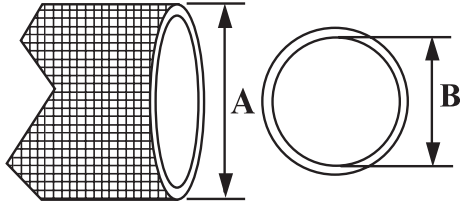
METRIC M20 x 1.5	METRIC M20 x 2.0	METRIC M22 x 2.0	METRIC M22 x 2.0	BP 34 - 14	BP 2 - 11
METRIC M24 x 1.5	METRIC M24 x 1.5	METRIC M24 x 1.5		BP 38 - 14	
METRIC M26 x 1.5	METRIC M27 x 1.5			BP 42 - 14	BP 1 02 - 11
METRIC M28 x 1.5	METRIC M28 x 1.5	METRIC M28 x 2.0	METRIC M28 x 2.0	BP 38 - 18	BP 1 04 - 11
METRIC M32 x 1.5	METRIC M28 x 1.5	METRIC M28 x 1.5		BP 44 - 18	
METRIC M33 x 1.0	METRIC M28 x 1.5	METRIC M33 x 2.0	METRIC M40 x 1.5	BP 54 - 28	BP 1 - 11
METRIC M36 x 1.0	METRIC M22 x 1.5				

FLEXTURAL



NYLON SLEEVING

- Ideal for abrasion protection or bundling hose assemblies
- MSHA approved
- Temperature range: -40°F to 250°F

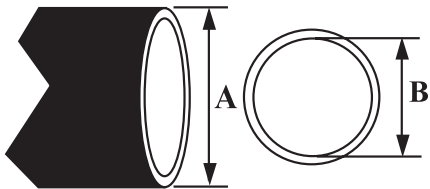


Part Number	Flat Width A (in)	Nominal ID B (in)	Standard Package (ft)
NS-071	1.16	0.71	300
NS-077	1.29	0.77	300
NS-090	1.50	0.90	300
NS-100	1.62	1.00	300
NS-114	1.80	1.14	300
NS-125	1.96	1.25	300
NS-130	2.10	1.30	300
NS-138	2.28	1.38	300
NS-159	2.53	1.59	300
NS-175	2.84	1.75	300
NS-185	3.00	1.85	300
NS-207	3.28	2.07	300
NS-219	3.47	2.19	300
NS-238	3.77	2.38	300
NS-264	4.18	2.64	300
NS-296	4.56	2.96	300
NS-334	5.28	3.34	300
NS-366	5.78	3.66	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)	Nominal ID B (in)	Standard Package (ft)
PS-0625B	PS-0625Y	0.045	0.625	30
PS-0750B	PS-0750Y	0.045	0.750	30
PS-0875B	PS-0875Y	0.045	0.875	30
PS-1000B	PS-1000Y	0.045	1.000	30
PS-1125B	PS-1125Y	0.045	1.125	30
PS-1250B	PS-1250Y	0.045	1.250	30
PS-1375B	PS-1375Y	0.045	1.375	30
PS-1500B	PS-1500Y	0.045	1.500	30
PS-1625B	PS-1625Y	0.045	1.625	30
PS-1750B	PS-1750Y	0.045	1.750	30
PS-2000B	PS-2000Y	0.060	2.000	30
PS-2125Y	PS-2125Y	0.060	2.125	30

NOTE: Other sizes are available upon request

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BURST GUARD - HIGH PERFORMANCE SLEEVING FOR LINE-OF-SIGHT

Product Highlights

- Double-layer sleeve, ultra protection
- Controls hose bursts to prevent injuries and equipment damage
- Ultra dense structure, three times as dense as regular sleeving
- Bulk nylon outer layer, nylon/polyester inner
- Yellow inner safety layer alerts user to damage
- Dissipates dangerous hydraulic fluid sprays
- Flexible, does not restrict hose routings
- Available in six sizes

Ultra dense two layer structure



- Outer layer withstands minimum 350,000 cycles of abrasion testing, using ISO 6945 test method
- Protects against bursts up to 13,000 PSI

Below: Fluid Power Institute Test -
Hose was forced to rupture. Burst Guard sleeve withstood the burst and did not tear.



- 16 Hose Specimen -4 No Apparent Damage to the Sleeve at the Hose Failure Location

Part Number	Flat Width A (in)	Nominal ID B (in)	Standard Package (ft)
NSBG-121	1.92	1.21	100 ft. per roll
NSBG-134	2.12	1.34	100 ft. per roll
NSBG-141	2.23	1.41	100 ft. per roll
NSBG-162	2.55	1.62	100 ft. per roll
NSBG-181	2.85	1.81	100 ft. per roll
NSBG-210	3.29	2.10	100 ft. per roll

- MSHA# IC 171/2
- Meets ISO 3457, 4413, 6945, 6805, EN 414, MDG 41
- Tested by the Fluid Power Institute



Made in USA
ISO 9001: 2008

Burst Guard: Extra protection for workers, equipment & work environment

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PLASTIC WRAP - LIGHT DUTY

- Ideal for abrasion protection or bundling hose assemblies
- Temperature range: -50°F to 175°F



Black Part Number	Yellow Part Number	ID (in)	Wall Thickness	Length (ft)
PWL-018B	PWL-018Y	0.188	0.040	100
PWL-025B	PWL-025Y	0.250	0.052	100
PWL-038B	PWL-038Y	0.375	0.062	100
PWL-050B	PWL-050Y	0.500	0.062	100
PWL-063B	PWL-063Y	0.625	0.062	100
PWL-088B	PWL-088Y	0.875	0.065	100

* Additional colors available upon request.

PLASTIC WRAP - MEDIUM DUTY

- Ideal for abrasion protection or bundling hose assemblies
- Temperature Range: -50°C to 175°F



Black Part Number	Yellow Part Number	ID (in)	Wall Thickness	Length (ft)
PWMD-040B	PWMD-040Y	0.40	0.05	100
PWMD-050B	PWMD-050Y	0.50	0.05	100
PWMD-065B	PWMD-065Y	0.65	0.08	100
PWMD-080B	PWMD-080Y	0.80	0.09	100
PWMD-110B	PWMD-110Y	1.10	0.10	100
PWMD-140B	PWMD-140Y	1.40	0.11	100
PWMD-170B	PWMD-170Y	1.70	0.13	100
PWMD-220B	PWMD-220Y	2.20	0.15	100
PWMD-260B	PWMD-260Y	2.60	0.17	75
PWMD-320B	PWMD-320Y	3.20	0.19	50
PWMD-390B	PWMD-390Y	3.90	0.22	50
PWMD-450B	PWMD-450Y	4.50	0.23	40
PWMD-500B	PWMD-500Y	5.00	0.26	30

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

PRE-CUT PACKAGE - MEDIUM DUTY

- Ideal for abrasion protection or bundling hose assemblies
- Temperature Range: -50°C to 175°F



Black Part Number	Yellow Part Number	ID (in)	Length (ft)
PWMD-040B-PCP	PWMD-040Y-PCP	0.40	25
PWMD-050B-PCP	PWMD-050Y-PCP	0.50	25
PWMD-065B-PCP	PWMD-065Y-PCP	0.65	25
PWMD-080B-PCP	PWMD-080Y-PCP	0.80	25
PWMD-110B-PCP	PWMD-110Y-PCP	1.10	25
PWMD-140B-PCP	PWMD-140Y-PCP	1.40	12
PWMD-170B-PCP	PWMD-170Y-PCP	1.70	10

PLASTIC WRAP - HEAVY DUTY

- Ideal for abrasion protection or bundling hose assemblies
- Temperature range: -50°F to 175°F



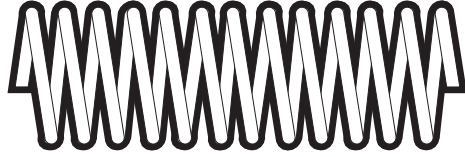
Black Part Number	Yellow Part Number	Wall Thickness (in)	ID (in)	Length (ft)
PW-050B	PW-050Y	0.069	0.50	100
PW-075B	PW-075Y	0.122	0.75	100
PW-100B	PW-100Y	0.118	1.00	100
PW-125B	PW-125Y	0.132	1.25	100
PW-150B	PW-150Y	0.140	1.50	100
PW-200B	PW-200Y	0.160	2.00	100
PW-250B	PW-250Y	0.209	2.50	50
PW-300B	PW-300Y	0.218	3.00	35
PW-350B	PW-350Y	0.250	3.50	25
PW-400B	PW-400Y	0.250	4.00	20
PW-600B	PW-600Y	0.250	6.00	15

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STEEL SPRING GUARD

- Ideal for abrasion protection or bundling hose assemblies



Part Number	ID (in)	Pitch	Wire Gauge	Length /Box
SG-0515	0.515	7/31	0.080	1 x 25'
SG-0550	0.550	7/32	0.080	1 x 25'
SG-0650	0.650	7/32	0.080	1 x 25'
SG-0750	0.750	7/32	0.080	1 x 25'
SG-0835	0.835	7/32	0.080	1 x 25'
SG-0900	0.900	7/32	0.080	1 x 25'
SG-0990	0.990	7/32	0.080	1 x 25'
SG-1055	1.055	7/32	0.080	1 x 25'
SG-1100	1.100	7/32	0.080	1 x 25'
SG-1240	1.240	11/32	0.120	1 x 25'
SG-1300	1.300	11/32	0.120	1 x 25'
SG-1380	1.380	11/32	0.120	1 x 25'
SG-1630	1.630	11/32	0.120	1 x 25'
SG-1810	1.810	11/32	0.120	1 x 25'
SG-2000	2.000	11/32	0.120	1 x 25'
SG-2125	2.125	11/32	0.120	2 x 10'
SG-2300	2.300	11/32	0.120	2 x 10'
SG-2500	2.500	11/32	0.120	2 x 10'
SG-2900	2.900	11/32	0.120	2 x 10'
SG-3000	3.000	11/32	0.120	2 x 10'
SG-3350	3.350	11/32	0.120	2 x 10'

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 molten 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

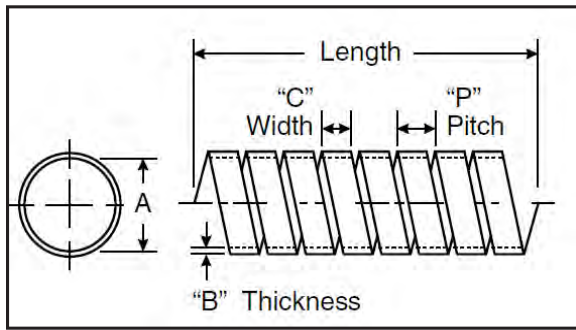
- Strain Relievers reduce bending stress near hose end for longer hose life.



Part Number	Hose Type
TPG-04A	¼" ONE WIRE
TPG-06A	⅜" ONE WIRE
TPG-08A	½" ONE WIRE

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FLAT ARMOR GUARD




Part Number	A (in) (+.015)	B (in)	C (in)	P (in)
FSG-044	0.441	0.028	0.250	0.370
FSG-050	0.500	0.028	0.250	0.370
FSG-057	0.570	0.028	0.250	0.370
FSG-063	0.625	0.028	0.250	0.370
FSG-075	0.750	0.028	0.250	0.370
FSG-088	0.875	0.028	0.250	0.370
FSG-090	0.900	0.028	0.500	0.690
FSG-099	0.990	0.028	0.500	0.690
FSG-103	1.031	0.028	0.500	0.690
FSG-111	1.110	0.028	0.500	0.690
FSG-122	1.219	0.028	0.500	0.690
FSG-130	1.300	0.028	0.500	0.690
FSG-138	1.380	0.028	0.500	0.690
FSG-147	1.469	0.028	0.500	0.810
FSG-163	1.630	0.028	0.500	0.810
FSG-169	1.688	0.028	0.500	0.810
FSG-191	1.906	0.028	0.500	0.810
FSG-213	2.130	0.028	0.500	0.810
FSG-230	2.300	0.028	0.500	0.810
FSG-256	2.562	0.028	0.500	0.810

HOSE PROTECTORS



Part Number	Description
HP-1000-BK	Poly Hose Protector 10" Black
HP-1000-OR	Poly Hose Protector 10" Orange
HP-1200-BK	Poly Hose Protector 12" Black
HP-1200-OR	Poly Hose Protector 12" Orange
HP-1200-YW	Poly Hose Protector 12" Yellow
HP-400-BK	Poly Hose Protector 4" Black
HP-400-OR	Poly Hose Protector 4" Orange
HP-400-YW	Poly Hose Protector 4" Yellow
HP-600-BK	Poly Hose Protector 6" Black
HP-600-OR	Poly Hose Protector 6" Orange
HP-600-YW	Poly Hose Protector 6" Yellow
HP-800-BK	Poly Hose Protector 8" Black
HP-800-OR	Poly Hose Protector 8" Orange
HP-800-YW	Poly Hose Protector 8" Yellow
HP-MIX-OR	Mixed Hose Protector Display Orange

 **WARNING** This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



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-Ring Boss Kit	OK-10
O-Ring Face Seal Kit	OK-20
SAE Flange O-Ring Kit	OK-30
Caterpillar Flange O-Ring Kit	OK-40
Metric O-ring kit FML/FMS/FBSPP	OK-50
O-Ring Boss, Face Seal & SAE Flange Kit	OK-60
O-Ring Boss, Face Seal & SAE Flange Kit (Brown Viton)	OK-60BV90
European Metric Standard O-Ring Kit	OK-60EB90
Japanese Metric Standard O-Ring Kit	OK-60JB90

These replacement O-rings are made from buna-N nitrile rubber and are resistant to gasoline, oil, grease, and petroleum based hydraulic fluids. Other O-ring materials can be special ordered. Match the O-ring dash size to the dash size of the fitting.

PCDK

CAP AND PLUG KITS



These kits contain the following:

- JIC Caps
- NPT Caps
- ORFS Cap
- MORB Plugs
- JIC Plugs
- NPT Plugs
- ORFS Plugs

CAP AND PLUG KITS	Part Number
Domestic Cap & Plug Kit	PCDK-45

PCK-BSPP

BRITISH CAP AND PLUG KIT



These kits contain the following:

CAP AND PLUG KITS	Part Number
British Cap and Plug Kit	PCK-BSPP

! WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

PCK-DINH

METRIC CAP AND PLUG KIT – HEAVY



These kits contain the following:

CAP AND PLUG KITS		Part Number
Metric Cap and Plug Kit – Heavy		PCK-DINH

PCK-DINL

METRIC CAP AND PLUG KIT – LIGHT



These kits contain the following:

CAP AND PLUG KITS		Part Number
Metric Cap and Plug Kit – Light		PCK-DINL

MTK-31


METRIC THREAD ID KIT



Thread Identification Kits for male and female threads include:

- M8 x 1.0 through M52 x 2.0 metric thread gauges
- 1/8-28 BSPP through 2-11 BSPP thread gauges
- Thread and port guide
- 31 dual threaded heat treated aluminum gauges

CAP AND PLUG KITS		Part Number
Metric Thread ID Kit		MTK-31

 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



Flangelok™ Flange Caps and Plugs

- No tools required
- The ultimate contamination control tool
- One hand installation
- Safe for personnel & environment
- **NOT FOR PRESSURE**



Part Number	Size	Color
FLT-08FLU	1/2"	Orange
FLT-12FLU	3/4"	Blue
FLT-16FLU	1"	Green
FLT-20FLU	1 1/4"	Red
FLT-24FLU	1 1/2"	Purple
FLT-32FL61	2"	Black & Silver
FLT-32FLC62	2"	Black
FLT-40FL61	2 1/2"	Black
FLT-48FL61	3"	Black
FLT-56FL61	3 1/2"	Black



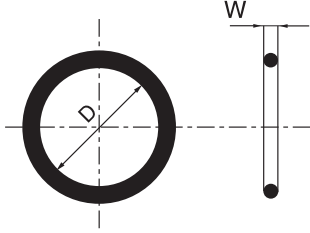
Part Number	Description
FLP-08OK	1/2" code 61 & 62 slug and O-Ring
FLP-10OK	5/8" code 61 slug and O-Ring
FLP-12OK	3/4" code 61 & 62 slug and O-Ring
FLP-16OK	1" code 61 & 62 slug and O-Ring
FLP-20OK	1 1/4" code 61 & 62 slug and O-Ring
FLP-24OK	1 1/2" code 61 & 62 slug and O-Ring
FLP-32OK	2" code 61 & 62 slug and O-Ring



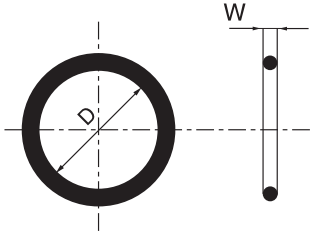
Part Number	Description
FLT-0832TBS	Slugs and O-Rings: Code 61 and code 62

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

BOSS O-RINGS

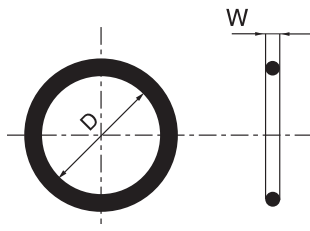
	Part Number	O-Ring ID	Wall Dia.
	OB-02	0.239	0.064
OB-03	0.301	0.064	
OB-04	0.351	0.072	
OB-05	0.414	0.072	
OB-06	0.468	0.078	
OB-08	0.644	0.087	
OB-10	0.755	0.097	
OB-12	0.924	0.116	
OB-14	1.048	0.116	
OB-16	1.170	0.116	
OB-20	1.475	0.118	
OB-24	1.720	0.118	
OB-32	2.337	0.118	

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	

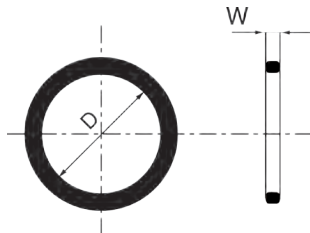
NOTE: Other sizes are available upon request

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.
	OD-08	0.734	0.139
OD-12	0.984	0.139	
OD-16	1.296	0.139	
OD-20	1.484	0.139	
OD-24	1.859	0.139	
OD-32	2.234	0.139	

NOTE: Other sizes are available upon request

 **WARNING** This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



STOPFLEX® NIPPLE RETENTION SYSTEM



Part Number	Eyelet ID Inches	Eyelet Thickness Inches	Cable Length Inches	Number of PCS	Maximum PSI
STOPFUDIN145	0.571	0.079	12	10	6525
STOPFUDIN17	0.669	0.079	12	10	6453
STOPFUDIN185	0.728	0.079	12	10	6090
STOPFUDIN205	0.807	0.079	12	10	6090
STOPFUDIN225	0.886	0.079	12	10	6090
STOPFUDIN245	0.965	0.079	12	10	6090
STOPFUDIN265	1.043	0.079	12	10	6090
STOPFUDIN305	1.291	0.098	12	10	6090
STOPFUDIN34	1.339	0.098	18	10	6090
STOPFUDIN365	1.437	0.098	18	10	6090
STOPFUDIN425	1.673	0.098	18	10	6090
STOPFUDIN455	1.791	0.098	18	10	6090
STOPFUDIN49	1.929	0.098	18	10	6090
STOPFUDIN525	2.067	0.098	18	10	6090
STOPFUDIN60	2.362	0.098	18	10	6090

STOPFLEX® RETENTION SYSTEM FOR SAE 3000 & SAE 6000 FLANGES



Part Number	Eyelet ID Inches	Eyelet Thickness Inches	Cable Length Inches	Number of PCS	Maximum PSI
STOPFUSAE085	0.335	0.157	12	10	6018
STOPFUSAE2105	0.413	0.157	12	10	6090
STOPFUSAE105	0.413	0.157	18	10	6090
STOPFUSAE125	0.492	0.157	18	10	6090
STOPFUSAE145	0.571	0.157	18	10	6090
STOPFUSAE165	0.650	0.157	18	10	6090
STOPFUSAE205	0.807	0.157	18	10	5075
STOPFUSAE25	0.984	0.315	22	10	5075
STOPFUSAE32	1.260	0.315	22	10	3045

STOPFLEX® RETENTION SYSTEM FOR VARIOUS USES



Part Number	Eyelet ID Inches	Eyelet Thickness Inches	Cable Length Inches	Number of PCS	Maximum PSI
STOPFUVARIE	0.512	0.157	18	10	6090


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STOPFLEX® HOSE BANDS



Part Number	Minimum		Maximum		No. of PCS
	mm	in	mm	in	
STOPFA11115	11	0.433	11.5	0.453	10
STOPFA12125	12	0.472	12.5	0.492	10
STOPFA13135	13	0.512	13.5	0.531	10
STOPFA1415	14	0.551	15	0.591	10
STOPFA1617	16	0.630	17	0.669	10
STOPFA1718	17	0.669	18	0.709	10
STOPFA1819	18	0.709	19	0.748	10
STOPFA2021	20	0.787	21	0.827	10
STOPFA2122	21	0.827	22	0.866	10
STOPFA2223	22	0.866	23	0.906	10
STOPFA2425	24	0.945	25	0.984	10
STOPFA2526	25	0.984	26	1.024	10
STOPFA2627	26	1.024	27	1.063	10
STOPFA2728	27	1.063	28	1.102	10
STOPFA2829	28	1.102	29	1.142	10
STOPFA3031	30	1.181	31	1.220	10
STOPFA3233	32	1.260	33	1.299	10
STOPFA3435	34	1.339	35	1.378	10
STOPFA3637	36	1.417	37	1.457	10
STOPFA3839	38	1.496	39	1.535	10
STOPFA3940	39	1.535	40	1.575	10
STOPFA4041	40	1.575	41	1.614	10
STOPFA4243	42	1.654	43	1.693	10
STOPFA4344	43	1.693	44	1.732	10
STOPFA4445	44	1.732	45	1.772	10
STOPFA4547	45	1.772	47	1.850	10
STOPFA4850	48	1.890	50	1.969	10
STOPFA5153	51	2.008	53	2.087	10
STOPFA5354	53	2.087	54	2.126	10
STOPFA5456	54	2.126	56	2.205	10
STOPFA5759	57	2.244	59	2.323	10
STOPFA6062	60	2.362	62	2.441	10
STOPFA6365	63	2.480	65	2.559	10
STOPFA6668	66	2.598	68	2.677	10
STOPFA6971	69	2.717	71	2.795	10
STOPFA7274	72	2.835	74	2.913	10
STOPFA7577	75	2.953	77	3.031	10
STOPFA7880	78	3.071	80	3.150	10
STOPFA8183	81	3.189	83	3.268	10
STOPFA8486	84	3.307	86	3.386	10
STOPFA8789	87	3.425	89	3.504	10
STOPFA9092	90	3.543	92	3.622	10
STOPFA9395	93	3.661	95	3.740	10



 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



HOSE HANDLE CLAMPS



Part Number	Clamp Size Inches
HC-200-H	2"
HC-300-H	3"
HC-400-H	4"
HC-600-H	6"
HC-800-H	8"
HC-1000-H	10"
HC-1200-H	12"

CAMLOCK VELCRO STRAPS



Part Number	Hose Strap Inches
CGVS-19	19"
CGVS-30	30"

⚠️ WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

EQUIPMENT



FLEUTRAL



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.

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FX17LWP

The **FX17LWP** is a powerful, compact and portable crimping machine.



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 $\frac{3}{4}$ "

The **FX17LWPA** - is supplied with a 10,000 PSI air over hydraulic pump.

The **FX17LWPE** - is supplied with a 1HP 110V pump.

The **FX17LWPH** - is supplied with a 10,000 PSI hand over hydraulic pump.

Size: 10" wide, 18" deep, 18" high

Weight: Approx. 45 lbs. without pump.



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 5/16" thru 5/8"
 1-Wire Braid Hose ¾" thru 1¼"
 2-Wire Braid Hose ¼" thru 1¼"
 4-Spiral Hose ¾" 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.

WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

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 die and 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.



WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



FX200

The FX200 series 2" crimper is a stable and reliable workshop crimper. The digital control panel is user friendly and simple enough for the most inexperienced hose assembler. The build quality and reliability is everything you have come to expect from a Flextral crimper.



Specifications:

Crimping Force:	225 Tons
Crimping Range:	6mm - 87mm
Max Hose Diameter (2 Wire):	2"
Max Hose Diameter (4 Wire):	2"
Max Die Opening (Die Size plus):	+32mm
Length:	24"
Width:	19"
Height:	52"
Weight:	772lbs w/o oil
Electrical Power (Std):	220V 3 Ph
Electrical Power (Optional):	220V 1 Ph
Electrical Power (Optional):	440V 3 Ph
Manual/Fully Automatic Crimping:	Yes
Approximate Crimps per Hour (1):	1000

Standard dies included: 14mm, 16mm, 19mm, 22mm, 24mm, 26mm, 30mm, 34mm, 39mm, 48mm, 56mm, and 69mm

(1) Based upon -8 100R2AT hose with 1 pc style fitting.
Specifications are for reference only.



WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>

FX200C

The FX200 series 2" crimper is a stable and reliable workshop crimper. The build quality and reliability is everything you have come to expect from a Flextral crimper.




Specifications:

Master Die I.D. (Standard):	130mm
Crimping Force:	340 Tons
Crimping Range:	6mm - 87mm
Max Hose Diameter (2 Wire):	2"
Max Hose Diameter (4 Wire):	2"
Max Die Opening (Die Size plus):	+32mm
Length:	20"
Width:	29"
Height:	32"
Weight:	635lbs w/o oil
Electrical Power (Std):	5 HP 220V 3 P
Electrical Power (Optional):	5 HP 440V 3 P
Electrical Power (Optional):	5 HP 230V 1 P
Manual/Fully Automatic Crimping:	Yes
Approximate Crimps per Hour (1):	1130

Standard dies included: 14mm, 16mm, 19mm, 22mm, 24mm, 26mm, 30mm, 34mm, 39mm, 48mm, 56mm, and 69mm

(1) Based upon -8 100R2AT hose with 1 pc style fitting.
Specifications are for reference only.

 WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



FX300

The FX300 series 3" crimper is the standard when it comes to production crimpers. The digital control panel is user friendly and simple enough for the most inexperienced hose assembler. The build quality and reliability is everything you have come to expect from a Flextral crimper.



Specifications:

Crimping Force:	245 Tons
Crimping Range:	6mm-120mm
Max Hose Diameter (2 Wire):	2"
Max Hose Diameter (4 Wire):	2"
Max Hose Diameter (6 Wire):	2"
Max Industrial Hose Diameter:	3"
Max Die Opening (Die Size plus):	+65mm
Length:	34"
Width:	40"
Height:	60"
Weight:	2205 lbs
Electrical Power (Std):	220V 1Ph
Electrical Power (Optional):	220V 3Ph
Electrical Power (Optional):	440V 3Ph
Manual/Fully Automatic Crimping:	Yes
Approximate Crimps per Hour (1):	2400

*Automatic Backstop Included

Standard dies included: 12mm, 14mm, 16mm, 19mm, 22mm, 26mm, 30mm, 34mm, 39mm, 45mm, 51mm, 57mm, 63mm, 69mm, 74mm, and 78mm

(1) Based upon -8 100R2AT hose with 1 pc style fitting.
Specifications are for reference only.



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FX400

The FX400 series crimper is ideal for the shop that needs power and capacity. The easy micrometer setting, built in die storage and included foot switch make this crimper ideal for many applications.



(1) Based upon -8 100R2AT hose with 1 pc style fitting. Specifications are for reference only.

Specifications:

Master Die I.D. (Standard):	145mm
Crimping Force:	265 Ton
Max Hose Diameter (2 Wire):	2"
Max Hose Diameter (4 Wire):	2"
Max Hose Diameter (6 Wire):	2"
Max Industrial Hose Diameter:	4"
Max Die Opening (Die Size plus):	60mm
Max Die Opening w/o Dies:	182mm
Length:	29"
Width:	20"
Height:	32"
Weight:	579 lbs
Electrical Power (Std):	230V 1 Ph
Electrical Power (Optional):	230V 3 Ph
Electrical Power (Optional):	440V 3 Ph
Pump HP:	5 HP
Manual/Fully Automatic Crimping:	Yes
Inch/Metric Settings:	Yes
Approximate Crimps per Hour (1):	1415

Standard dies included: 12mm, 14mm, 16mm, 19mm, 22mm, 26mm, 30mm, 34mm, 39mm, 45mm, 51mm, 57mm, 63mm, 69mm, 74mm,

84mm, 92mm and 145/99mm adapter dies.

Additional 99mm die series available in bore sizes: 7mm – 78mm

Additional 145mm die series available in bore sizes: 84mm - 126mm



WARNING This product can expose you to chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information visit <https://www.p65warnings.ca.gov/>



FX650

The FX650 Series hose crimper with the Patented ACT™ Controller and 350 tons of crimping force has the capability to crimp hoses from ¼" up to 6" in diameter and can accommodate 6" 150# flanges.



Specifications:

Crimping Force:	350 Tons
Crimping Range:	7mm - 202mm
Max Hose Diameter (6 Wire):	3"
Max Industrial Hose Diameter:	6"
Max Die Opening (Die Size plus):	286mm
Length:	49"
Width:	54"
Height:	69"
Weight:	4,000 lbs
Electrical Power (Std):	7.5 HP 230V - 3 P
Electrical Power (Optional):	7.5 HP 440V - 3 P
Electrical Power (Optional):	5 HP 230V - 1 P
Manual/Fully Automatic Crimping:	Yes
Approximate Crimps per Hour (1):	2200
Oil Type:	ISO 46 Hydraulic Oil

Standard dies included: 16mm, 19mm, 23mm, 27mm, 31mm, 41mm, 45mm, 51mm, 57mm, 63mm, 69mm, 74mm, 78mm, 84mm, 92mm, 100mm, 108mm, 116mm, 126mm, 166mm, 178mm

* Crimper capacity is estimated based on typical 1-piece fitting. Actual results may vary depending on the fitting and hose manufacturer.

** Estimated Crimps / hour based on -8 100R2AT hose with 1 piece fitting

- Fully adjustable crimp to diameter.
- Production capabilities.
- Pressure Compensation uses pressure to eliminate "trial and error".
- Memory capacity for accurate repeatability.
- Automatically converts inch to mm and mm to inch so that no calculation is ever required.
- Manual Back Stop (Included): Provides speed, precision and repeatably.



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FX1000

The FX1000 Series hose crimper with the ability to store up to 50 different dies and 150 different crimp specs and can crimp hoses from 1/4" to 10" with proper adapter dies.



Specifications:


Crimping Force:	485 Tons
Crimping Range:	7mm - 310mm
Max Hose Diameter (1-2 Wire):	3"
Max Hose Diameter (4 Wire):	3"
Max Hose Diameter (6 Wire):	3"
Max Industrial Hose Diameter:	10"
Max Die Opening (Die Size plus):	350mm
Length:	54"
Width:	62"
Height:	86"
Weight:	6,185 lbs
Electrical Power (Std):	7.5 HP 230V - 3 P
Electrical Power (Optional):	7.5 HP 440V - 3 P
Electrical Power (Optional):	5 HP 230V - 1 P
Manual/Fully Automatic Crimping:	Yes
Approximate Crimps per Hour (1):	1030
Oil Type:	ISO 46 Hydraulic Oil

Standard dies included: 16mm, 19mm, 23mm, 27mm, 31mm, 41mm, 45mm, 51mm, 57mm, 63mm, 69mm, 74mm, 78mm, 84mm, 92mm, 100mm, 108mm, 116mm, 126mm, 166mm, 178mm, 215mm, 245mm

* Crimper capacity is estimated based on typical 1-piece fitting. Actual results may vary depending on the fitting and hose manufacturer.

** Estimated Crimps / hour based on -8 100R2AT hose with 1 piece fitting

- Flexible Crimping: Adapter Dies and large opening support crimping from 1/4" to 10" fittings.
- Adapter Dies: Quickly and easily change adapter dies.
- Quick Change Tool: Makes die changes a quick and simple process.
- Manual Back Stop (Included): Provides speed, precision and repeatably.
- Easy Maintenance: 12 lubrication fittings and easily read oil level sight glass.
- Industrial Die Shelves: Keeps frequently used die sets readily available.

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FX1200

The FX1200 series 12" crimper is the latest edition to the Flextral equipment line. The digital control panel is user friendly and simple enough for the most inexperienced hose assembler. The build quality and reliability is everything you have come to expect from a Flextral crimper.



Specifications:

Crimping Range(mm):	6mm - 350mm
Crimping Force:	850 Tons
Max Hose Diameter (2 Wire):	3"
Max Hose Diameter (4 Wire):	3"
Max Hose Diameter (6 Wire):	3"
Max Industrial Hose Diameter:	12"
Max Die Opening (Die Size Plus):	+155
Diminsions:	Crimper/Power Unit
Length:	49"/46"
Width:	47"/37"
Height:	71"/51"
Weight:	9900lbs/1320lbs
Electrical Power (Std):	480V 3 Ph
Electrical Power (Optional):	220V 3 Ph
Manual/Fully Automatic Crimping:	Yes
Crimping/Hour:	1200

Standard dies included: All dies are custom ordered according to requirements.

(1) Based upon -8 100R2AT hose with 1 pc style fitting.
Specifications are for reference only.



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HS150 HOSE SAW



Capacity: Cuts two wire hose to 2", four spiral hose to 1¼", six spiral hose to 1".

Motor: 1 horsepower 115VAC

Blade: 103187-10 10" serrated blade

Capacity: Cuts two wire hose to 2", four spiral hose to 1¼", six spiral hose to 1".

Motor: 3 horsepower 220V 1PH, 220V 3PH, 480V 3PH

Blade:
103187 12" Serrated Blade

Accessories: Cut cycle counter and hose feeder guide are included.

HS300 HOSE SAW



HS500 HOSE SAW



Capacity: Cuts two wire hose to 2", four spiral hose to 2", six spiral hose to 2".


Motor: 5 horsepower 220V 1PH, 220V 3PH, 480V 3PH

Blade:
103187 12" Serrated Blade

Accessories: Cut cycle counter and hose feeder guide are included.

****Mister Kit:** Available for HS300 and HS500 - Part #103073. Mister sprays a fine mist of oil on saw blade. Increases blade life and helps make smoother cuts.

****Hose Channel:** Available for HS300 and HS500 - Part #103073. This part is an adjustable hose channel.

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KEY CHAIN TOOL

SKIVE KEYS - VS,N, and E SERIES HOSE



Part # - KEYCHAINTOOL
Includes all three key sets.

INSERT-E "E" SERIES HOSE DEPTH INSERTION TOOL



Part # - E Series Gauge Tool

INSERT-N "N" SERIES HOSE DEPTH INSERTION TOOL



Part # - N Series Gauge Tool

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REEL LIFT

Part # - SRL-1



HOSE TREE STAND

Part # - HT5



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