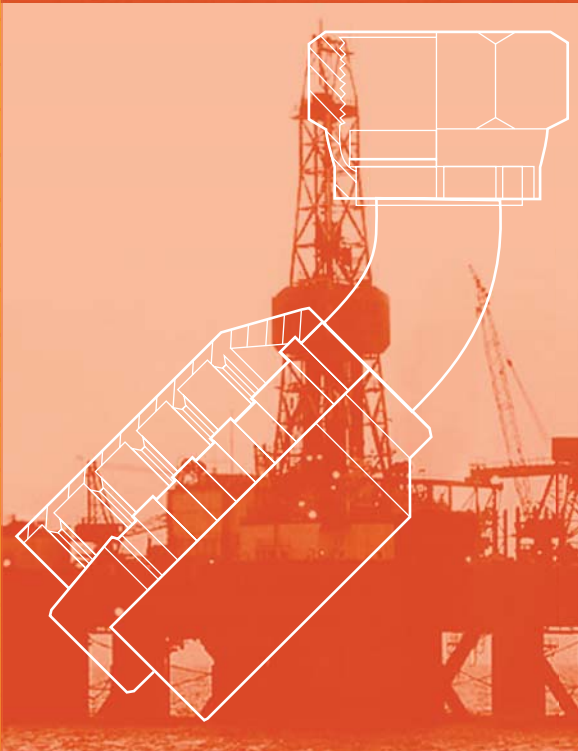


POWERTRACK[®] INTERNATIONAL

“HOSE PRODUCTS FOR INDUSTRY”

Hydraulic Hose and Fittings Catalog



THREE CONVENIENT LOCATIONS NATIONWIDE



4625 Campbells Run Road
Pittsburgh, PA 15205
1-800-365-1577
Phone: (412) 787-4444
Fax: (412) 787-8520

721 W. 15th St.
Long Beach, CA 90813
1-800-925-3414
Phone: (562) 436-9088
Fax: (562) 436-5700

13225 FM 529, Bldg. E
Houston, TX 77041
1-800-937-2269
Phone: (713) 466-1745
Fax: (713) 466-3716

**POWERTRACK INTERNATIONAL, INC. RESERVES THE RIGHT
TO ALTER SPECIFICATIONS WITHOUT PRIOR NOTICE**

Table of Contents

INDEX

Index	1 - 4
<i>Selection, Installation and Maintenance of Hose and Hose Assemblies</i>	1
<i>Explanation of Powertrack Part Numbers</i>	2 - 3
<i>Hose Style / Fitting Series Selection Chart</i>	4

HYDRAULIC HOSE

Wire Braid Reinforced Hose	5 - 7
<i>R1T Hose (SAE100R1AT)</i>	5
<i>R2T Hose (SAE100R2AT)</i>	5
<i>1SN Hose (EN853-1SN)</i>	6
<i>2SN Hose (EN853-2SN)</i>	6
<i>R16 Hose (SAE100R16)</i>	7
<i>R17 Hose (SAE100R17)</i>	7
Multi-Spiral Wire Reinforced Hose	8 - 10
<i>R12 Hose (SAE100R12)</i>	8
<i>R9R Hose</i>	8
<i>4SH Hose (EN856-4SH)</i>	9
<i>R13 Hose (EN856-R13)</i>	9
<i>R15 Hose (EN856-R15)</i>	10

PERMANENTLY ATTACHED FITTINGS

1 PB-Series (Non Skive Fittings for Wire Braid Reinforced Hose Only)	11 - 28
<i>American Threads</i>	11 - 20
<i>British Threads</i>	21 - 23
<i>Metric Threads</i>	24 - 26
<i>Japanese Threads</i>	22 and 27 -28
1 PBS-Series (Non Skive Fittings for Wire Braid <i>and</i> Multi-Spiral Wire Reinforced Hose) ..	29 - 36
<i>American Threads</i>	29 - 33
<i>British Threads</i>	34 - 35
<i>Japanese Threads</i>	35
<i>Metric Threads</i>	35 - 36
1PMS-Series (External Skive Fittings for Multi-Spiral Wire Reinforced Hose Only)	37 - 44
<i>American Threads</i>	37 - 41
<i>British Threads</i>	42 - 43
<i>Metric Threads</i>	43 - 44

SELECTION, INSTALLATION AND MAINTENANCE OF HOSE AND HOSE ASSEMBLIES

SAE J1273NOV91

SAE Recommended Practice

Report of the Fluid Conductors and Connectors Technical Committee, approved September 1979 and reaffirmed May, 1986. Completely revised by the SAE Fluid Conductors and Connectors Technical Committee SC2 - Hydraulic Hose and Hose Fittings November, 1991. Rationale statement available.

1. Scope

Hose (also includes hose assemblies) has a finite life, and there are a number of factors which will reduce its life.

This SAE recommended practice is intended as a guide to assist system designers and/or users in the selection, installation, and maintenance of hoses. The designers and users must make a systematic review of each application and then select, install, and maintain the hose to fulfill the requirements of the application. The following are general guidelines and are not necessarily a complete list.

WARNING: IMPROPER SELECTION, INSTALLATION, OR MAINTENANCE MAY RESULT IN PREMATURE FAILURES, BODILY INJURY, OR PROPERTY DAMAGE

2. References

2.1 Applicable Documents

The following publications form a part of this specification to the extent specified herein. The latest issue of SAE publications shall apply.

2.1.1 SAE publications - Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

J516 Hydraulic Hose Fittings
J517 - Hydraulic Hose

3. Selection

The following is a list of factors which must be considered before final hose selection can be made.

3.1 Pressure

After determining the system pressure, hose selection must be made so that the recommended maximum operating pressure is equal to or greater than the system pressure. Surge pressures higher than the maximum operating pressure will shorten hose life and must be taken into account by the hydraulic designer.

3.2 Suction

Hoses used for suction applications must be selected to insure the hose will withstand the negative pressure of the system.

3.3 Temperature

Care must be taken to insure that fluid and ambient temperatures, both static and transient, do not exceed the limitations of the hose. Special care must be taken when routing near hot manifolds.

3.4 Fluid Compatibility

Hose selection must assure compatibility of the hose tube, cover, and fittings with the fluid used. Additional caution must be observed in hose selection for gaseous applications.

3.5 Size

Transmission of power by means of pressurized fluid varies with pressure and rate of flow. The size of the components must be adequate to keep pressure losses to a minimum and avoid damage to the hose due to heat generation or excessive turbulence.

3.6 Routing

Attention must be given to optimum routing to minimize inherent problems.

3.7 Environment

Care must be taken to insure that the hose and fittings are either compatible with or protected from the environment to which they are exposed. Environmental conditions such as ultraviolet light, ozone, salt water, chemicals, and air pollutants can cause degradation and premature failure, and, therefore, must be considered.

3.8 Mechanical Loads

External forces can significantly reduce hose life. Mechanical loads which must be considered include excessive flexing, twist, kinking, tensile or side loads, vend radius, and vibration. Use of swivel-type fittings or adapters may be required to insure no twist is put into the hose. Unusual applications may require special testing prior to hose selection.

3.9 Abrasion

While a hose is designed with a reasonable level of abrasion resistance, care must be taken to protect the hose from excessive abrasion which can result in erosion, snagging, and cutting of the hose cover. Exposure of the reinforcement will significantly accelerate hose failure.

3.10 Proper End Fittings

Care must be taken to ensure that proper compatibility exists between the hose and coupling selected based on the manufacturer's recommendations substantiated by testing to industry standards such as SAE J517. End fitting components from one manufacturer are usually not compatible with end fitting components supplied by another manufacturer (i.e., using a hose fitting nipple from one manufacturer with a hose socket from another manufacturer). It is the responsibility of the fabricator to consult the manufacturer's written instructions or the manufacturer directly for proper end fitting componentry.

3.11 Length

When establishing proper hose length, motion absorption, hose length changes due to pressure, as well as hose and machine tolerances must be considered.

3.12 Specifications and Standards

When selecting hose, government, industry, and manufacturers' specifications and recommendations must be reviewed as applicable.

3.13 Hose Cleanliness

Hose Components vary in cleanliness levels. Care must be taken to insure that the assemblies selected have an adequate level of cleanliness for the application.

3.14 Electrical Conductivity

Certain applications require that hose be non-conductive to prevent electrical current flow. Other applications require the hose to be sufficiently conductive to drain off static electricity. Hose and fittings must be chosen with these needs in mind.

4. Installation

After selection of proper hose, the following factors must be considered by the installer.

4.1 Pre-Installation Inspection

Prior to installation, a careful examination of the hose must be performed. All components must be checked for correct style, size, and length. In addition, the hose must be examined for cleanliness, I.D. constructions, blisters, loose cover, or any other visible defects.

4.2 Follow Manufacturers' Assembly Instructions

Hose assemblies may be fabricated by the manufacturer, an agent for or customer of the manufacturer, or by the user. Fabrication of permanently attached fittings to hydraulic hose requires specialized assembly equipment.

4.3 Minimum bend radius

Installation at less than minimum bend radius may significantly reduce hose life. Particular attention must be given to preclude sharp bending at the hose fitting juncture.

4.4 Twist Angle and Orientation

Hose installations must be such that relative motion of machine components produces bending of the hose rather than twisting.

4.5 Securement

In many applications, it may be necessary to restrain, protect, or guide the hose to protect it from damage by unnecessary flexing, pressure surges, and contact with other mechanical components. Care must be taken to insure such restraints do not introduce additional stress or wear points.

4.6 Proper Connection of Parts

Proper physical installation of the hose requires a correctly installed part connection while insuring that not twist or torque is put into the hose.

4.7 Avoid External Damage

Proper installation is not complete without insuring that tensile loads, side loads, kinking, flattening, potential abrasion, thread damage, or damage to sealing surfaces are corrected or eliminated.

4.8 System Check-Out

After completing the installation, all air entrapment must be eliminated and the system pressurized to the maximum system pressure and checked for proper function and freedom from leaks.

NOTE: Avoid potential hazardous areas while testing.

5. Maintenance

Even with proper selection and installation, hose life may be significantly reduced with out a continuing maintenance program. Frequency should be determined by the severity of the application and risk potential. A maintenance program should include the following as a minimum.

5.1 Hose Storage

Hose products in storage can be affected adversely by temperature, humidity, ozone, sunlight, oils, solvents, corrosive liquids and fumes, insects, rodents, and radioactive materials. Storage areas should be relatively cool, dark, and free of dust, dirt, dampness, and mildew.

5.2 Visual Inspection

Any of the following conditions requires replacement of the hose:

- Leaks at fitting or in hose (leaking fluid is a fire hazard)
- Damaged, cut, or abraded cover (any reinforcement exposed)
- Kinked, cut, or twisted hose
- Hard, stiff, heat cracked, or charred hose
- Blistered, soft, degraded, or loose cover
- Cracked, damaged, or badly corroded fittings
- Fittings slippage on hose

5.3 Visual Inspection

- Leaking port conditions
- Clamps, guards, shields
- Remove excessive dirt buildup
- System fluid level, fluid type, and any air entrapment

5.4 Functional Test

Operate the system at maximum operating pressure and check for possible malfunctions and freedom from leaks.

NOTE: Avoid potential hazardous areas while testing.

5.5 Replacement Intervals

Specific replacement intervals must be considered based on previous service life, government or industry recommendations, or when failures could result in unacceptable down time, damage, or injury risk.

Explanation of Powertrack Part Numbers

One Piece Fittings

The One Piece Fitting Range consists of the following series:

1PB Series - Non Skive Fittings for Wire Braid Reinforced Hose Only

1PBS Series - Non Skive Fittings for Wire Braid and Multi-Spiral Wire Reinforced Hose

1PMS Series - External Skive Fittings for Multi-Spiral Wire Reinforced Hose Only

Many terminations are available within each series of fittings:

Example:

1PB	-	MP	-	08	-	08
1		2		3		4

1 = Fitting series as shown above

2 = Termination designator as shown below

3 = Size of termination in 16ths of an inch, 8/16" or 1/2"

4 = Hose size (inside diameter) in 16ths of an inch, 8/16" or 1/2"

Terminations:

MP	-	Male NPT Solid
MPX	-	Male NPT Swivel
FP	-	Female NPT Solid
FPX	-	Female NPSM Swivel
FJX	-	Female JIC Swivel
FJX45	-	Female JIC Swivel 45° Elbow
FJX90	-	Female JIC Swivel 90° Elbow
FJX90L	-	Female JIC Swivel 90° Elbow - Long Drop
MJ	-	Male JIC Solid - 37° Flare
MS	-	Male SAE Solid - 45° Flare
FSX	-	Female SAE 45° Flare Swivel
FSX90	-	Female SAE 45° Flare Swivel - 90° Elbow
FG	-	Female Grease Thread Solid - 1/2" -27
MORF	-	Male O Ring Face Seal
ORFS	-	Female O Ring Face Seal
ORFS45	-	Female O Ring Face Seal - 45° Elbow
ORFS90	-	Female O Ring Face Seal - 90° Elbow
ORFS90L	-	Female O Ring Face Seal - 90° Elbow - Long Drop
ORB	-	Male O Ring Boss
SFL	-	SAE Flange - Low Pressure (Code 61)
SFL45	-	SAE Flange 45° Elbow - Low Pressure (Code 61)
SFL60	-	SAE Flange 60° Elbow - Low Pressure (Code 61)
SFL90	-	SAE Flange 90° Elbow - Low Pressure (Code 61)

Explanation of Powertrack Part Numbers

One Piece Fittings

Terminations continued:

SFH -	SAE Flange - High Pressure (Code 62)
SFH45 -	SAE Flange 45° Elbow - High Pressure (Code 62)
SFH90 -	SAE Flange 90° Elbow - High Pressure (Code 62)
MIX -	Male Inverted Swivel
MIX45 -	Male Inverted Swivel 45° Elbow
MIX90 -	Male Inverted Swivel 90° Elbow
FBXF -	Female British Swivel - Flat Face
FBX -	Female British Swivel
FBX45 -	Female British Swivel 45° Elbow
FBX90 -	Female British Swivel 90° Elbow
FBX90c -	Female British Swivel 90° Elbow - Compact Type
MBP -	Male British Parallel
MBT -	Male British Taper
DKOL -	Female Metric Swivel - Light Series
DKOL45 -	Female Metric Swivel 45° Elbow - Light Series
DKOL90 -	Female Metric Swivel 90° Elbow - Light Series
DKOS -	Female Metric Swivel - Heavy Series
DKOS45 -	Female Metric Swivel 45° Elbow - Heavy Series
DKOS90 -	Female Metric Swivel 90° Elbow - Heavy Series
CEL -	Male Metric - Light Series
CES -	Male Metric - Heavy Series
FJIX -	Female Swivel - Japanese Industrial Standard
FKX -	Female Swivel - Japanese Komatsu Type
SFK -	Split Flange - Komatsu Type
SFK45 -	Split Flange 45° Elbow - Komatsu Type
SFK90 -	Split Flange 90° Elbow - Komatsu Type
PW -	Pressure Washer
KW -	Pressure Washer Kaercher

Hose Style / Fitting Series Selection Chart

		Hose Type													
		R1T	1SN	R2T	2SN	R16	R17	4SH	R12	R9R	R13	R15			
H o s e S i z e	04	1PB	1PB	1PB	1PB	1PB	Contact Powertrack								
	05														
	06	1PB/1PBS	1PB/1PBS	1PB/1PBS	1PB/1PBS	1PB	Contact Powertrack		1PBS	1PBS					
	08	1PB/1PBS	1PB/1PBS	1PB/1PBS	1PB/1PBS	1PB	Contact Powertrack		1PBS	1PBS					
	10	1PB/1PBS	1PB/1PBS	1PB/1PBS	1PB/1PBS	1PB	1PB								
	12	1PB/1PBS	1PB/1PBS	1PB/1PBS	1PB/1PBS	1PB	1PB	1PMS	1PBS/1PMS	1PBS/1PMS	1PBS/1PMS	1PMS			
	16	1PB/1PBS	1PB/1PBS	1PB/1PBS	1PB/1PBS	1PB	1PB	1PMS	1PBS/1PMS	1PBS/1PMS	1PBS/1PMS	1PMS			
	20	1PBS	1PBS	1PBS	1PBS			1PMS	1PBS/1PMS	1PMS	1PMS	1PMS	Contact Powertrack		
	24	1PBS	1PBS	1PBS	1PBS			1PMS	1PBS/1PMS	1PMS	1PMS	1PMS	Contact Powertrack		
	32	1PBS	1PBS	1PBS	1PBS			1PMS	1PBS/1PMS	1PMS	1PMS	1PMS			

■ = Not Available

R1T



Application: Medium pressure hydraulic oil lines;
Meets or exceeds requirements of SAE100R1AT

Construction:

Tube: Oil resistant synthetic rubber

Reinforcement: One high tensile steel wire braid

Cover: Synthetic black rubber - Abrasion and oil resistant

Temperature Range: -40°F to +212°F constant/
250°F intermittent

Part Number	Nominal Hose I.D. (in)	Nominal Hose O.D. (in)	Working Pressure (psi)	Burst Pressure (psi)	Minimum Bend Radius (in)	Approx. Weight (lbs/ft)
R1T-04	1/4	0.557	2750	11000	4.00	0.14
R1T-05	5/16	0.619	2500	10000	4.50	0.17
R1T-06	3/8	0.713	2250	9000	5.00	0.23
R1T-08	1/2	0.846	2000	8000	7.00	0.28
R1T-10	5/8	0.971	1500	6000	8.00	0.34
R1T-12	3/4	1.127	1250	5000	9.50	0.43
R1T-16	1	1.440	1000	4000	12.00	0.65
R1T-20	1-1/4	1.766	625	2500	16.50	0.85
R1T-24	1-1/2	2.047	500	2000	20.00	1.07
R1T-32	2"	2.594	375	1500	25.00	1.49

Recommended Fitting 1PB-Series sizes 04 through 16 or 1PBS-Series sizes 20 through 32.

R2T



Application: Medium pressure hydraulic oil lines;
Meets or exceeds requirements of SAE100R2AT

Construction:

Tube: Oil resistant synthetic rubber

Reinforcement: Two high tensile steel wire braids

Cover: Synthetic black rubber - Abrasion and oil resistant

Temperature Range: -40°F to +212°F constant/
250°F intermittent

Part Number	Nominal Hose I.D. (in)	Nominal Hose O.D. (in)	Working Pressure (psi)	Burst Pressure (psi)	Minimum Bend Radius (in)	Approx. Weight (lbs/ft)
R2T-04	1/4	0.619	5000	20000	4.00	0.25
R2T-05	5/16	0.682	4250	17000	4.50	0.30
R2T-06	3/8	0.777	4000	16000	5.00	0.36
R2T-08	1/2	0.908	3500	14000	7.00	0.42
R2T-10	5/8	1.034	2750	11000	8.00	0.53
R2T-12	3/4	1.190	2250	9000	9.50	0.66
R2T-16	1	1.531	2000	8000	12.00	0.99
R2T-20	1-1/4	1.953	1625	6500	16.50	1.60
R2T-24	1-1/2	2.203	1250	5000	20.00	1.69
R2T-32	2"	2.703	1125	4500	25.00	2.15

Recommended Fitting 1PB-Series sizes 04 through 16 or 1PBS-Series sizes 20 through 32.

1SN



Application: Medium pressure hydraulic oil lines;
Meets or exceeds EN853-1SN

Construction:

Tube: Oil resistant synthetic rubber

Reinforcement: One high tensile steel wire braid

Cover: Synthetic black rubber - Abrasion and oil resistant

Temperature Range: -40°F to +212°F constant/
250°F intermittent

Part Number	Nominal Hose I.D. (in)	Nominal Hose O.D. (in)	Working Pressure (in)	Burst Pressure (in)	Minimum Bend Radius (in)	Approx. Weight (lbs/ft)
1SN-04	1/4	0.557	3265	13060	4.00	0.14
1SN-05	5/16	0.619	3120	12480	4.50	0.17
1SN-06	3/8	0.713	2610	10440	5.00	0.23
1SN-08	1/2	0.846	2320	9280	7.00	0.28
1SN-10	5/8	0.971	1890	7560	8.00	0.34
1SN-12	3/4	1.127	1525	6100	9.50	0.43
1SN-16	1	1.440	1275	5100	12.00	0.65
1SN-20	1-1/4	1.766	915	3660	16.50	0.85
1SN-24	1-1/2	2.047	725	2900	20.00	1.07
1SN-32	2	2.594	580	2320	25.00	1.49

Recommended Fitting 1PB-Series sizes 04 through 16 or 1PBS-Series sizes 20 through 32.

2SN



Application: Medium pressure hydraulic oil lines;
Meets or exceeds EN853-2SN

Construction:

Tube: Oil resistant synthetic rubber

Reinforcement: Two high tensile steel wire braids

Cover: Synthetic black rubber - Abrasion and oil resistant

Temperature Range: -40°F to +212°F constant/
250°F intermittent

Part Number	Nominal Hose I.D. (in)	Nominal Hose O.D. (in)	Working Pressure (in)	Burst Pressure (in)	Minimum Bend Radius (in)	Approx. Weight (lbs/ft)
2SN-04	1/4	0.619	5800	23200	4.00	0.25
2SN-05	5/16	0.682	5100	20400	4.50	0.30
2SN-06	3/8	0.777	4800	19200	5.00	0.36
2SN-08	1/2	0.908	4000	16000	7.00	0.42
2SN-10	5/8	1.034	3600	14400	8.00	0.53
2SN-12	3/4	1.190	3100	12400	9.50	0.66
2SN-16	1	1.531	2400	9600	12.00	0.99
2SN-20	1-1/4	1.953	1800	7200	16.50	1.60
2SN-24	1-1/2	2.203	1300	5200	20.00	1.69
2SN-32	2	2.703	1160	4640	25.00	2.15

Recommended Fitting 1PB-Series sizes 04 through 16 or 1PBS-Series sizes 20 through 32.

R16



Application: Medium pressure hydraulic oil lines;
Meets requirements of SAE100R16

Construction:

Tube: Oil resistant synthetic rubber

Reinforcement: Two high tensile steel wire braids

Cover: Synthetic black rubber - Abrasion and oil resistant

Temperature Range: -40°F to +212°F continuous;
250°F intermittent

Part Number	Nominal Hose I.D. (in)	Nominal Hose O.D. (in)	Working Pressure (psi)	Burst Pressure (psi)	Minimum Bend Radius (in)	Approx. Weight (lbs/ft)
R16-04	1/4	0.54	5000	20000	2.00	0.24
R16-06	3/8	0.69	4000	16000	2.50	0.30
R16-08	1/2	0.81	3500	14000	3.50	0.39
R16-10	5/8	0.95	2750	11000	4.00	0.47
R16-12	3/4	1.10	2250	9000	4.75	0.55
R16-16	1	1.36	2000	8000	6.00	0.82

Recommended Fitting 1PB-Series sizes 04 through 16.

R17



Application: Medium pressure hydraulic oil lines;
Meets requirements of SAE100R17

Construction:

Tube: Oil resistant synthetic rubber

Reinforcement: One or two high tensile steel wire braids

Cover: Synthetic black rubber - Abrasion and oil resistant

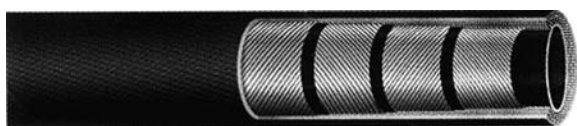
Temperature Range: -40°F to +212°F continuous;
250°F intermittent

Part Number	Nominal Hose I.D. (in)	Nominal Hose O.D. (in)	Working Pressure (psi)	Burst Pressure (psi)	Minimum Bend Radius (in)	Approx. Weight (lbs/ft)
*R17-04	1/4	0.48	3045	12180	2.00	0.16
*R17-06	3/8	0.62	3045	12180	2.50	0.23
R17-08	1/2	0.79	3045	12180	3.50	0.39
R17-10	5/8	0.94	3045	12180	4.00	0.49
R17-12	3/4	1.09	3045	12180	4.75	0.55
R17-16	1	1.48	3045	12180	6.00	0.82

**One wire braid*

Recommended Fitting 1PB-Series sizes 10, 12, and 16. For other sizes consult a Powertrack Sales Representative.

R12



Application: High pressure hydraulic oil lines for heavy duty service applications; Excellent flexibility and bend radius ; Meets SAE100R12

Construction:

Tube: Oil resistant synthetic rubber

Reinforcement: Four plies of spirally wound high tensile wire separated by layers of rubber insulation

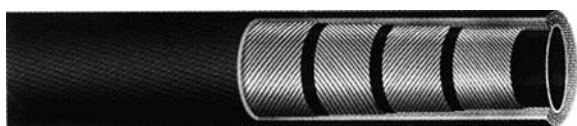
Cover: Synthetic rubber - Abrasion and oil resistant

Temperature Range: -40°F to +250°F

Part Number	Nominal Hose I.D. (in)	Nominal Hose O.D. (in)	Working Pressure (psi)	Burst Pressure (psi)	Minimum Bend Radius (in)	Approx. Weight (lbs/ft)
R12-08	1/2	0.94	4000	16000	7.00	0.54
R12-12	3/4	1.21	4000	16000	9.50	0.89
R12-16	1	1.50	4000	16000	12.00	1.30
R12-20	1 1/4	1.85	3000	12000	16.50	1.73
R12-24	1 1/2	2.10	2500	10000	20.00	1.98
R12-32	2	2.63	2500	10000	25.00	2.74

Recommended Fitting 1PBS-Series sizes 08 through 32 or 1PMS-Series sizes 12 through 32.

R9R



Application: High pressure hydraulic oil lines for heavy duty service applications; Excellent flexibility and bend radius

Construction:

Tube: Oil resistant synthetic rubber

Reinforcement: Four plies of spirally wound high tensile wire separated by layers of rubber insulation

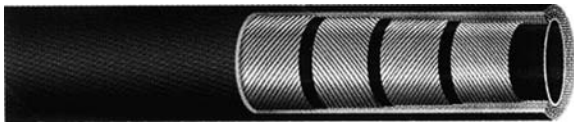
Cover: Synthetic black rubber - Abrasion and oil resistant

Temperature Range: -40°F to +212°F constant/ 250°F intermittent

Part Number	Nominal Hose I.D. (in)	Nominal Hose O.D. (in)	Working Pressure (psi)	Burst Pressure (psi)	Minimum Bend Radius (in)	Approx. Weight (lbs/ft)
R9R-04	1/4	0.70	7000	28000	5.00	0.40
R9R-06	3/8	0.85	6450	25810	6.00	0.50
R9R-08	1/2	0.97	6015	24070	8.00	0.58
R9R-10	5/8	1.13	5100	20400	9.50	0.78
R9R-12	3/4	1.26	5100	20400	12.00	1.00
R9R-16	1	1.56	4400	17600	13.00	1.30
R9R-20	1-1/4	1.80	4000	16000	18.00	1.65
R9R-24	1-1/2	2.11	3700	14800	22.00	2.09
R9R-32	2	2.68	3000	12000	28.00	3.50

Recommended Fitting 1PBS-Series sizes 06 through 16 or 1PMS-Series sizes 12 through 32.

4SH



Application: High pressure hydraulic oil lines

Construction:

Tube: Oil resistant synthetic rubber

Reinforcement: Four plies of spirally wound high tensile wire separated by layers of rubber insulation

Cover: Synthetic black rubber - Abrasion and oil resistant

Temperature Range: -40°F to +212°F constant/
257°F intermittent

Part Number	Nominal Hose I.D. (in)	Nominal Hose O.D. (in)	Working Pressure (psi)	Burst Pressure (psi)	Minimum Bend Radius (in)	Approx. Weight (lbs/ft)
4SH-12	3/4	1.260	6090	24360	11.0	1.10
4SH-16	1	1.524	5510	22040	14.0	1.40
4SH-20	1 1/4	1.791	5075	20300	18.0	1.67
4SH-24	1 1/2	2.106	4205	16820	22.0	2.10
4SH-32	2	2.681	3625	14500	28.0	3.51

Recommended Fitting 1PMS-Series sizes 12 through 32.

R13



Application: High pressure hydraulic oil lines

Construction:

Tube: Oil resistant synthetic rubber

Reinforcement: Four or six plies of spirally wound high tensile wire separated by layers of rubber insulation

Cover: Synthetic rubber - Abrasion and oil resistant

Temperature Range: -40°F to +250°F constant

Part Number	Nominal Hose I.D. (in)	Nominal Hose O.D. (in)	Working Pressure (psi)	Burst Pressure (psi)	Minimum Bend Radius (in)	Approx. Weight (lbs/ft)
*R13-12	3/4	1.264	5000	20000	9.50	1.09
*R13-16	1	1.524	5000	20000	12.00	1.42
R13-20	1 1/4	1.961	5000	20000	16.50	2.52
R13-24	1 1/2	2.260	5000	20000	20.00	3.25
R13-32	2	2.800	5000	20000	25.00	5.05

**Four spiral wire*

Recommended Fitting 1PBS-Series sizes 12 and 16 or 1PMS-Series sizes 12 through 32.

R15



Application: High pressure hydraulic oil lines

Construction:

Tube: Oil resistant synthetic rubber

Reinforcement: Four or six plies of spirally wound high tensile wire separated by layers of rubber insulation

Cover: Synthetic black rubber - Abrasion and oil resistant

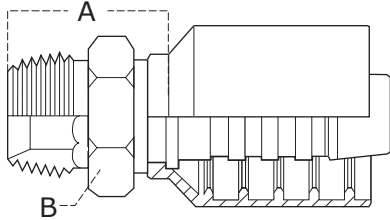
Temperature Range: -40°F to +250°F constant

Part Number	Nominal Hose I.D. (in)	Nominal Hose O.D. (in)	Working Pressure (psi)	Burst Pressure (psi)	Minimum Bend Radius (in)	Approx. Weight (lbs/ft)
*R15-12	3/4	1.268	6000	24000	10.50	1.09
*R15-16	1	1.528	6000	24000	13.00	1.46
R15-20	1 1/4	1.960	6000	24000	17.50	2.40
R15-24	1 1/2	2.250	6000	24000	21.00	3.02

**Four spiral wire*

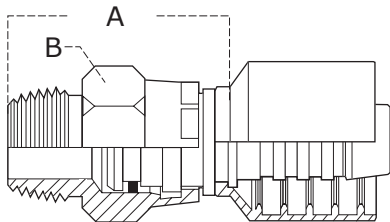
Recommended Fitting 1PMS-Series sizes 12 and 16. For sizes 20 and 24 consult a Powertrack Sales Representative.

Solid Male NPT



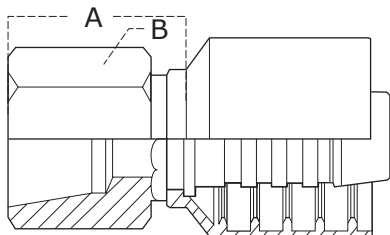
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)
1PB-MP-02-04	1/8"-27	1/4"	0.87"	9/16"
1PB-MP-04-04	1/4"-18	1/4"	1.06"	9/16"
1PB-MP-04-06	1/4"-18	3/8"	1.10"	11/16"
1PB-MP-06-04	3/8"-18	1/4"	1.10"	11/16"
1PB-MP-06-06	3/8"-18	3/8"	1.10"	11/16"
1PB-MP-06-08	3/8"-18	1/2"	1.22"	7/8"
1PB-MP-08-06	1/2"-14	3/8"	1.34"	7/8"
1PB-MP-08-08	1/2"-14	1/2"	1.38"	7/8"
1PB-MP-08-12	1/2"-14	3/4"	1.46"	1"
1PB-MP-12-08	3/4"-14	1/2"	1.48"	1 1/8"
1PB-MP-12-10	3/4"-14	5/8"	1.50"	1 1/8"
1PB-MP-12-12	3/4"-14	3/4"	1.50"	1 1/8"
1PB-MP-12-16	3/4"-14	1"	1.52"	1 1/8"
1PB-MP-16-12	1"-11 1/2	3/4"	1.75"	1 3/8"
1PB-MP-16-16	1"-11 1/2	1"	1.79"	1 3/8"

Male NPT Swivel



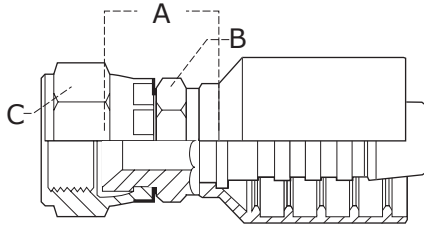
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)
1PB-MPX-04-04	1/4"-18	1/4"	1.83"	11/16"
1PB-MPX-04-06	1/4"-18	3/8"	1.67"	7/8"
1PB-MPX-06-04	3/8"-18	1/4"	1.44"	7/8"
1PB-MPX-06-06	3/8"-18	3/8"	1.44"	7/8"
1PB-MPX-08-06	1/2"-14	3/8"	1.63"	1"
1PB-MPX-08-08	1/2"-14	1/2"	2.22"	1"
1PB-MPX-12-12	3/4"-14	3/4"	2.28"	1 5/16"
1PB-MPX-16-16	1"-11 1/2	1"	2.64"	1.61"

Female NPSM Swivel



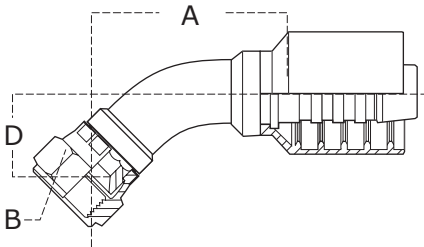
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)
1PB-FPX-04-04	1/4"-18	1/4"	1.06"	11/16"
1PB-FPX-04-06	1/4"-18	3/8"	1.12"	11/16"
1PB-FPX-06-04	3/8"-18	1/4"	1.10"	7/8"
1PB-FPX-06-06	3/8"-14	3/8"	1.12"	7/8"
1PB-FPX-08-06	1/2"-14	3/8"	1.32"	1"
1PB-FPX-08-08	1/2"-14	1/2"	1.36"	1"
1PB-FPX-12-12	3/4"-14	3/4"	1.50"	1 1/4"
1PB-FPX-16-16	1"-11 1/2	1"	1.33"	1 1/2"

JIC Female Swivel



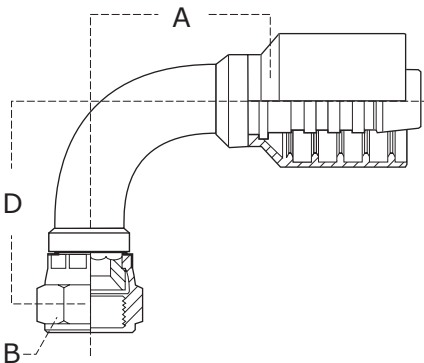
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)	C Hexagon A/F (in)
1PB-FJX-04-04	7/16"-20	1/4"	0.83"	9/16"	9/16"
1PB-FJX-04-06	7/16"-20	3/8"	0.92"	11/16"	9/16"
1PB-FJX-05-04	1/2"-20	1/4"	0.83"	3/4"	3/4"
1PB-FJX-06-04	9/16"-18	1/4"	0.97"	9/16"	11/16"
1PB-FJX-06-06	9/16"-18	3/8"	0.92"	11/16"	11/16"
1PB-FJX-06-08	9/16"-18	1/2"	1.07"	7/8"	11/16"
1PB-FJX-08-06	3/4"-16	3/8"	1.04"	7/8"	7/8"
1PB-FJX-08-08	3/4"-16	1/2"	1.07"	7/8"	7/8"
1PB-FJX-10-08	7/8"-14	1/2"	1.11"	7/8"	1"
1PB-FJX-10-10	7/8"-14	5/8"	1.18"	15/16"	1"
1PB-FJX-10-12	7/8"-14	3/4"	1.15"	1 1/16"	1"
1PB-FJX-12-08	1 1/16"-12	1/2"	1.15"	7/8"	1 1/4"
1PB-FJX-12-10	1 1/16"-12	5/8"	1.15"	15/16"	1 1/4"
1PB-FJX-12-12	1 1/16"-12	3/4"	1.15"	1 1/16"	1 1/4"
1PB-FJX-16-12	1 5/16"-12	3/4"	1.33"	1 1/16"	1 1/2"
1PB-FJX-16-16	1 5/16"-12	1"	1.33"	1 3/8"	1 1/2"
1PB-FJX-20-16	1 5/8"-12	1"	1.50"	1 3/8"	2"

JIC Female Swivel 45° Bent Tube



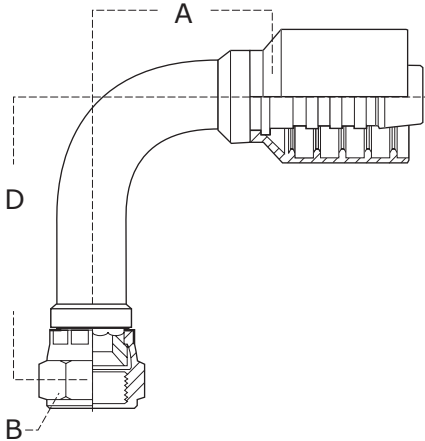
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)	D Drop Length (in)
1PB-FJX45-04-04	7/16"-20	1/4"	1.38"	9/16"	0.57"
1PB-FJX45-05-04	1/2"-20	1/4"	1.71"	3/4"	0.61"
1PB-FJX45-06-04	9/16"-18	1/4"	1.54"	11/16"	0.71"
1PB-FJX45-06-06	9/16"-18	3/8"	1.79"	11/16"	0.71"
1PB-FJX45-08-06	3/4"-16	3/8"	1.75"	7/8"	0.83"
1PB-FJX45-08-08	3/4"-16	1/2"	2.01"	7/8"	0.83"
1PB-FJX45-10-08	7/8"-14	1/2"	1.65"	1"	0.69"
1PB-FJX45-10-10	7/8"-14	5/8"	1.93"	1"	0.91"
1PB-FJX45-12-10	1 1/16"-12	5/8"	1.95"	1 1/4"	0.83"
1PB-FJX45-12-12	1 1/16"-12	3/4"	1.95"	1 1/4"	0.83"
1PB-FJX45-14-12	1 3/16"-12	3/4"	2.03"	1 3/8"	0.89"
1PB-FJX45-16-16	1 5/16"-12	1"	2.38"	1 1/2"	0.98"

JIC Female Swivel 90° Bent Tube



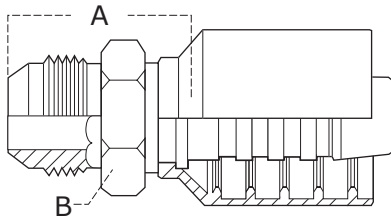
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)	D Drop Length (in)
1PB-FJX90-04-04	7/16"-20	1/4"	1.06"	9/16"	1.02"
1PB-FJX90-05-04	1/2"-20	1/4"	1.00"	3/4"	1.02"
1PB-FJX90-06-04	9/16"-18	1/4"	1.12"	11/16"	1.25"
1PB-FJX90-06-06	9/16"-18	3/8"	1.25"	11/16"	1.32"
1PB-FJX90-06-08	9/16"-18	1/2"	1.25"	11/16"	1.32"
1PB-FJX90-08-06	3/4"-16	3/8"	1.39"	7/8"	1.40"
1PB-FJX90-08-08	3/4"-16	1/2"	1.61"	7/8"	1.71"
1PB-FJX90-10-08	7/8"-14	1/2"	1.39"	1"	1.71"
1PB-FJX90-10-10	7/8"-14	5/8"	1.39"	1"	1.71"
1PB-FJX90-12-08	1 1/16"-12	1/2"	1.61"	1 1/4"	1.83"
1PB-FJX90-12-10	1 1/16"-12	5/8"	1.81"	1 1/4"	1.83"
1PB-FJX90-12-12	1 1/16"-12	3/4"	1.81"	1 1/4"	1.83"
1PB-FJX90-14-12	1 3/16"-12	3/4"	1.81"	1 3/8"	1.88"
1PB-FJX90-16-12	1 5/16"-12	3/4"	1.81"	1 1/2"	1.88"
1PB-FJX90-16-16	1 5/16"-12	1"	2.28"	1 1/2"	2.26"

JIC Female Swivel 90° Long Bent Tube



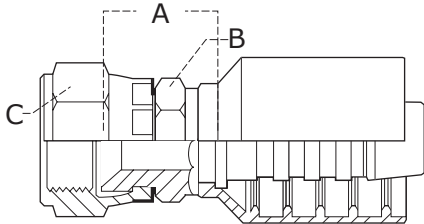
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)	D Drop Length (in)
1PB-FJX90L-04-04	7/16"-20	1/4"	0.98"	9/16"	1.93"
1PB-FJX90L-05-04	1/2"-20	1/4"	1.00"	3/4"	1.95"
1PB-FJX90L-06-04	9/16"-18	1/4"	1.16"	11/16"	2.52"
1PB-FJX90L-06-06	9/16"-18	3/8"	1.16"	11/16"	2.52"
1PB-FJX90L-08-06	3/4"-16	3/8"	1.16"	7/8"	2.38"
1PB-FJX90L-08-08	3/4"-16	1/2"	1.40"	7/8"	2.91"
1PB-FJX90L-10-08	7/8"-14	1/2"	1.40"	1"	2.74"
1PB-FJX90L-10-10	7/8"-14	5/8"	1.59"	1"	3.35"
1PB-FJX90L-12-08	1 1/16"-12	1/2"	1.81"	1 1/4"	3.50"
1PB-FJX90L-12-12	1 1/16"-12	3/4"	1.81"	1 1/4"	3.50"
1PB-FJX90L-16-16	1 5/16"-12	1"	2.28"	1 1/2"	4.19"

Solid JIC Male



Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)
1PB-MJ-04-04	7/16"-20	1/4"	1.04"	9/16"
1PB-MJ-05-04	1/2"-20	1/4"	1.04"	5/8"
1PB-MJ-06-04	9/16"-18	1/4"	1.10"	11/16"
1PB-MJ-06-06	9/16"-18	3/8"	1.12"	11/16"
1PB-MJ-06-08	9/16"-18	1/2"	1.28"	11/16"
1PB-MJ-08-06	3/4"-16	3/8"	1.26"	7/8"
1PB-MJ-08-08	3/4"-16	1/2"	1.28"	7/8"
1PB-MJ-10-08	7/8"-14	1/2"	1.46"	1"
1PB-MJ-10-10	7/8"-14	5/8"	1.61"	1"
1PB-MJ-12-08	1 1/16"-12	1/2"	1.59"	1 1/8"
1PB-MJ-12-10	1 1/16"-12	5/8"	1.61"	1 1/8"
1PB-MJ-12-12	1 1/16"-12	3/4"	1.61"	1 1/8"
1PB-MJ-14-12	1 3/16"-12	3/4"	1.65"	1 1/4"
1PB-MJ-16-12	1 5/16"-12	3/4"	1.75"	1 3/8"
1PB-MJ-16-16	1 5/16"-12	1"	1.75"	1 3/8"

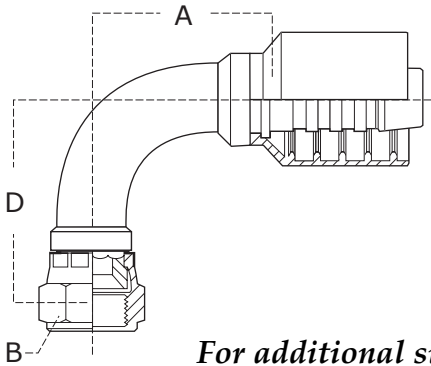
SAE 45° Flare Female Swivel



Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)	C Hexagon A/F (in)
1PB-FSX-06-06	5/8"-18	3/8"	0.92"	11/16"	3/4"
1PB-FSX-12-12	1 1/16"-14	3/4"	1.15"	1"	1 1/4"

For additional sizes, refer to 1PB-FJX Series.

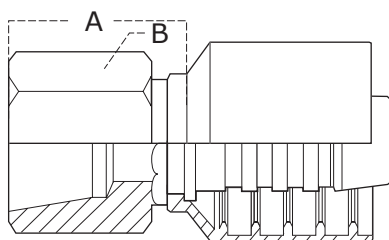
SAE 45° Flare Female Swivel 90° Elbow



Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)	D Drop Length (in)
1PB-FSX90-06-06	5/8"-18	3/8"	1.25"	3/4"	1.32"

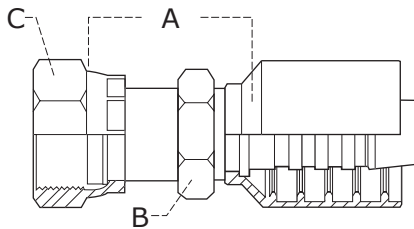
For additional sizes, refer to 1PB-FJX90 Series.

Solid Female Special Grease Fitting



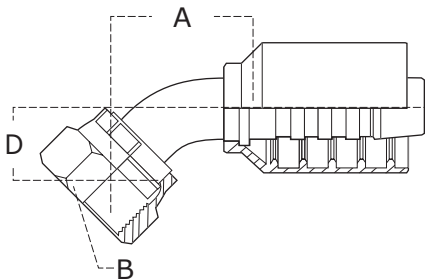
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)	C Hexagon A/F (in)
1PB-FG-04-04	1/2"-27	1/4"	0.84"	3/4"	3/4"

ORFS Female Swivel



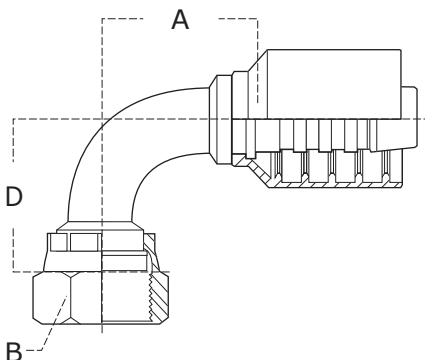
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)	C Hexagon A/F (in)
1PB-ORFS-04-04	9/16"-18	1/4"	1.20"	9/16"	11/16"
1PB-ORFS-06-04	11/16"-16	1/4"	1.32"	11/16"	13/16"
1PB-ORFS-06-06	11/16"-16	3/8"	1.32"	11/16"	13/16"
1PB-ORFS-08-06	13/16"-16	3/8"	1.40"	13/16"	15/16"
1PB-ORFS-08-08	13/16"-16	1/2"	1.42"	13/16"	15/16"
1PB-ORFS-10-08	1"-14	1/2"	1.57"	15/16"	1 1/8"
1PB-ORFS-10-10	1"-14	5/8"	1.57"	1 1/8"	1 1/8"
1PB-ORFS-12-12	1 3/16"-12	3/4"	1.73"	1 1/8"	1 3/8"
1PB-ORFS-16-12	1 7/16"-12	3/4"	1.79"	1 3/8"	1 5/8"
1PB-ORFS-16-16	1 7/16"-12	1"	1.83"	1 3/8"	1 5/8"

ORFS Female Swivel 45° Bent Tube



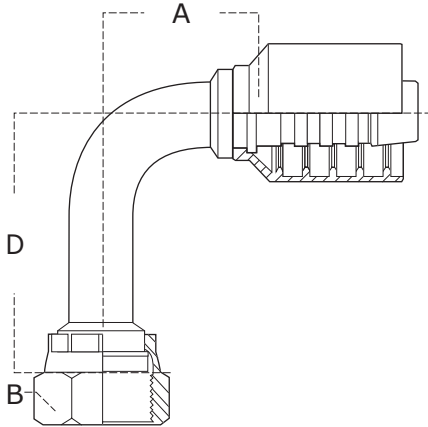
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)	D Drop Length (in)
1PB-ORFS45-04-04	9/16"-18	1/4"	1.52"	11/16"	0.55"
1PB-ORFS45-06-04	11/16"-16	1/4"	1.30"	13/16"	0.47"
1PB-ORFS45-06-06	11/16"-16	3/8"	1.48"	13/16"	0.59"
1PB-ORFS45-08-06	13/16"-16	3/8"	1.48"	15/16"	0.55"
1PB-ORFS45-08-08	13/16"-16	1/2"	1.97"	15/16"	0.83"
1PB-ORFS45-10-08	1"-14	1/2"	1.54"	1 1/8"	0.18"
1PB-ORFS45-10-10	1"-14	5/8"	1.65"	1 1/8"	0.63"
1PB-ORFS45-12-12	1 3/16"-12	3/4"	1.85"	1 3/8"	0.69"
1PB-ORFS45-16-16	1 7/16"-12	1"	2.24"	1 5/8"	0.87"

ORFS Female Swivel 90° Bent Tube



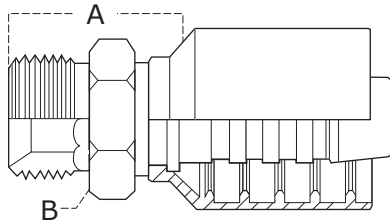
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)	D Drop Length (in)
1PB-ORFS90-04-04	9/16"-18	1/4"	1.06"	11/16"	0.96"
1PB-ORFS90-06-04	11/16"-16	1/4"	1.14"	13/16"	1.00"
1PB-ORFS90-06-06	11/16"-16	3/8"	1.28"	13/16"	1.10"
1PB-ORFS90-08-06	13/16"-16	3/8"	1.38"	15/16"	1.20"
1PB-ORFS90-08-08	13/16"-16	1/2"	1.57"	15/16"	1.54"
1PB-ORFS90-10-08	1"-14	1/2"	1.38"	1 1/8"	1.24"
1PB-ORFS90-10-10	1"-14	5/8"	1.59"	1 1/8"	1.44"
1PB-ORFS90-12-08	1 3/16"-12	1/2"	1.81"	1 3/8"	1.63"
1PB-ORFS90-12-12	1 3/16"-12	3/4"	1.81"	1 3/8"	1.63"
1PB-ORFS90-16-16	1 7/16"-12	1"	2.28"	1 5/8"	2.09"

ORFS Female Swivel 90° Long Bent Tube



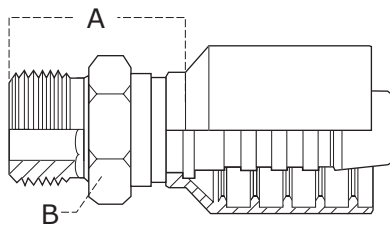
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)	D Drop Length (in)
1PB-ORFS90L-04-04	9/16"-18	1/4"	0.98"	11/16"	1.61"
1PB-ORFS90L-06-04	11/16"-16	1/4"	1.16"	13/16"	2.19"
1PB-ORFS90L-06-06	11/16"-16	3/8"	1.16"	13/16"	2.19"
1PB-ORFS90L-08-06	13/16"-16	3/8"	1.36"	15/16"	2.52"
1PB-ORFS90L-08-08	13/16"-16	1/2"	1.40"	15/16"	2.52"
1PB-ORFS90L-10-08	1"-14	1/2"	1.57"	1 1/8"	2.95"
1PB-ORFS90L-10-10	1"-14	5/8"	1.59"	1 1/8"	2.95"
1PB-ORFS90L-12-12	1 3/16"-12	3/4"	1.81"	1 3/8"	3.31"
1PB-ORFS90L-16-16	1 7/16"-12	1"	2.28"	1 5/8"	4.04"

ORFS Solid Male



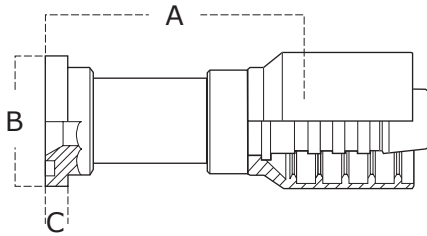
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)
1PB-MORF-06-06	11/16"-16	3/8"	1.08"	3/4"
1PB-MORF-08-08	13/16"-16	1/2"	1.30"	7/8"
1PB-MORF-10-10	1"-14	3/4"	1.54"	1 1/8"
1PB-MORF-12-12	1 3/16"-12	3/4"	1.54"	1 1/4"
1PB-MORF-16-16	1 7/16"-12	1"	1.65"	1 1/2"

"O" Ring Boss Male



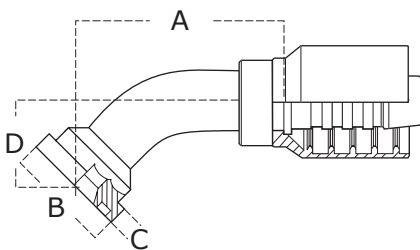
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)
1PB-ORB-04-04	7/16"-20	1/4"	0.94"	9/16"
1PB-ORB-05-04	1/2"-20	1/4"	0.94"	5/8"
1PB-ORB-06-04	9/16"-18	1/4"	0.97"	11/16"
1PB-ORB-06-06	9/16"-18	3/8"	0.97"	11/16"
1PB-ORB-08-06	3/4"-16	3/8"	1.12"	7/8"
1PB-ORB-08-08	3/4"-16	1/2"	1.15"	7/8"
1PB-ORB-10-08	7/8"-14	1/2"	1.27"	1"
1PB-ORB-10-10	1"-14	3/4"	1.27"	1"
1PB-ORB-12-12	1 1/16"-12	3/4"	1.31"	1 1/4"
1PB-ORB-16-16	1 5/16"-12	1"	1.43"	1 1/2"

SAE Flange Straight 3000 PSI (Code 61)



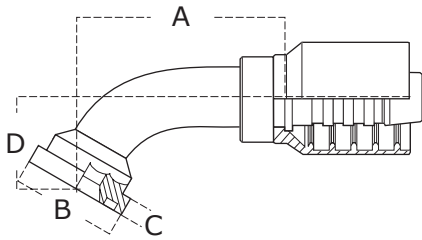
Part Number	Hose Bore (in)	A Cut-Off Length (in)	B Flange Diameter (in)	C Flange Depth (in)
1PB-SFL-08-08	1/2"	1.75"	1.18"	0.26"
1PB-SFL-12-08	1/2"	1.81"	1.50"	0.26"
1PB-SFL-12-12	3/4"	2.03"	1.50"	0.26"
1PB-SFL-12-16	1"	2.09"	1.50"	0.26"
1PB-SFL-16-12	3/4"	1.95"	1.75"	0.32"
1PB-SFL-16-16	1"	2.11"	1.75"	0.32"
1PB-SFL-20-16	1"	2.19"	2.00"	0.32"

45° SAE Flange 3000 PSI (Code 61)



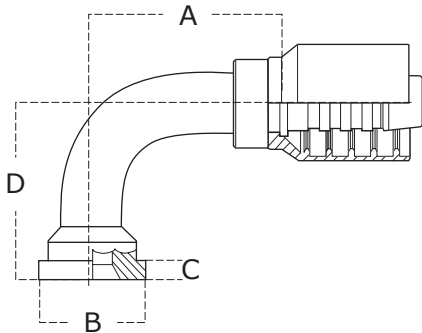
Part Number	Hose Bore (in)	A Cut-Off Length (in)	B Flange Diameter (in)	C Flange Depth (in)	D Drop Length (in)
1PB-SFL45-08-08	1/2"	1.56"	1.18"	0.26"	0.61"
1PB-SFL45-12-08	1/2"	1.61"	1.50"	0.26"	0.65"
1PB-SFL45-12-12	3/4"	1.91"	1.50"	0.26"	0.77"
1PB-SFL45-16-12	3/4"	1.91"	1.75"	0.32"	0.77"
1PB-SFL45-16-16	1"	2.26"	1.75"	0.32"	0.87"
1PB-SFL45-20-16	1"	3.26"	2.00"	0.32"	1.42"

60° SAE Flange 3000 PSI (Code 61)



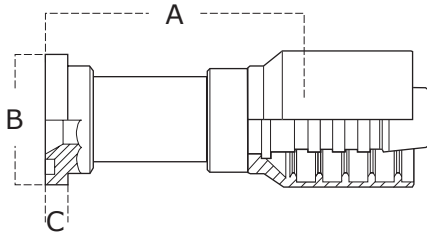
Part Number	Hose Bore (in)	A Cut-Off Length (in)	B Flange Diameter (in)	C Flange Depth (in)	D Drop Length (in)
1PB-SFL60-12-12	3/4"	1.79"	1.50"	0.26"	0.77"
1PB-SFL60-16-12	3/4"	1.79"	1.75"	0.32"	0.77"
1PB-SFL60-16-16	1"	2.05"	1.75"	0.32"	0.87"
1PB-SFL60-20-16	1"	2.11"	2.00"	0.32"	1.42"

90° SAE Flange 3000 PSI (Code 61)



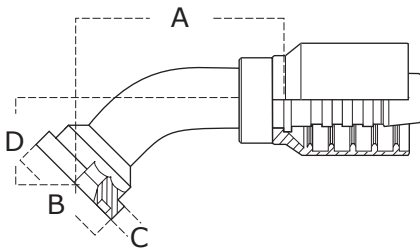
Part Number	Hose Bore (in)	A Cut-Off Length (in)	B Flange Diameter (in)	C Flange Depth (in)	D Drop Length (in)
1PB-SFL90-08-06	3/8"	1.36"	1.18"	0.26"	1.28"
1PB-SFL90-08-08	1/2"	1.40"	1.18"	0.26"	1.30"
1PB-SFL90-12-08	1/2"	1.40"	1.50"	0.26"	1.36"
1PB-SFL90-12-10	5/8"	1.59"	1.50"	0.26"	1.56"
1PB-SFL90-12-12	3/4"	1.81"	1.50"	0.26"	1.73"
1PB-SFL90-16-12	3/4"	1.81"	1.75"	0.32"	1.73"
1PB-SFL90-16-16	1"	2.28"	1.75"	0.32"	2.11"
1PB-SFL90-20-16	1"	3.00"	2.00"	0.32"	2.11"

SAE Flange Straight 6000 PSI (Code 62)



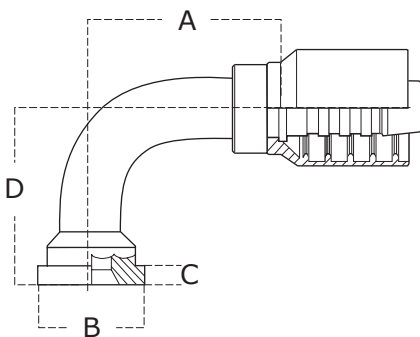
Part Number	Hose Bore (in)	A Cut-Off Length (in)	B Flange Diameter (in)	C Flange Depth (in)
1PB-SFH-08-08	1/2"	1.95"	1.26"	0.32"
1PB-SFH-12-08	1/2"	2.17"	1.63"	0.35"
1PB-SFH-12-12	3/4"	2.30"	1.63"	0.35"
1PB-SFH-12-16	1"	2.44"	1.63"	0.35"
1PB-SFH-16-12	3/4"	2.44"	1.87"	0.38"
1PB-SFH-16-16	1"	2.56"	1.87"	0.38"
1PB-SFH-20-16	1"	2.62"	2.12"	0.41"

45° SAE Flange 6000 PSI (Code 62)



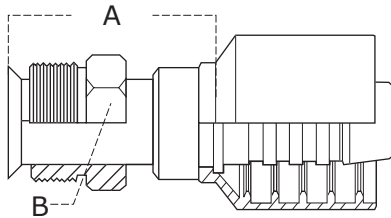
Part Number	Hose Bore (in)	A Cut-Off Length (in)	B Flange Diameter (in)	C Flange Depth (in)	D Drop Length (in)
1PB-SFH45-08-08	1/2"	1.69"	1.26"	0.32"	0.75"
1PB-SFH45-12-08	1/2"	1.85"	1.63"	0.35"	0.89"
1PB-SFH45-12-12	3/4"	1.87"	1.63"	0.35"	0.77"
1PB-SFH45-16-12	3/4"	2.22"	1.87"	0.38"	1.06"
1PB-SFH45-16-16	1"	2.58"	1.87"	0.38"	1.20"
1PB-SFH45-20-16	1"	2.72"	2.12"	0.41"	1.32"

90° SAE Flange 6000 PSI (Code 62)



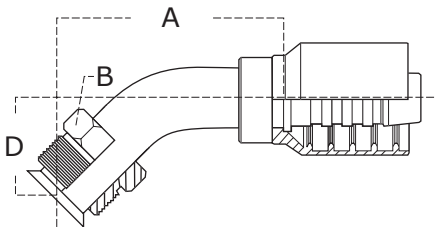
Part Number	Hose Bore (in)	A Cut-Off Length (in)	B Flange Diameter (in)	C Flange Depth (in)	D Drop Length (in)
1PB-SFH90-08-08	1/2"	1.40"	1.26"	0.32"	1.48"
1PB-SFH90-08-12	3/4"	1.40"	1.26"	0.32"	1.48"
1PB-SFH90-12-08	1/2"	1.88"	1.63"	0.35"	2.06"
1PB-SFH90-12-12	3/4"	1.81"	1.63"	0.35"	2.01"
1PB-SFH90-16-12	3/4"	1.81"	1.87"	0.38"	2.13"
1PB-SFH90-16-16	1"	2.28"	1.87"	0.38"	2.56"
1PB-SFH90-20-16	1"	2.28"	2.12"	0.41"	2.93"

SAE Male Inverted Flare



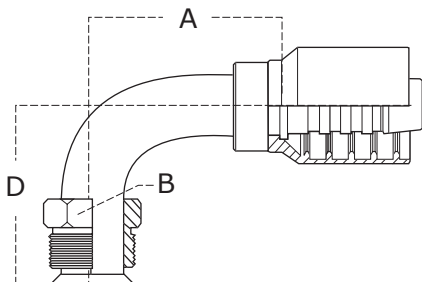
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)
1PB-MIX-04-04	7/16"-24	1/4"	1.89"	7/16"
1PB-MIX-05-04	1/2"-20	1/4"	1.89"	1/2"
1PB-MIX-05-06	1/2"-20	3/8"	1.89"	1/2"
1PB-MIX-06-06	5/8"-18	3/8"	1.89"	5/8"
1PB-MIX-08-08	3/4"-18	1/2"	1.91"	3/4"

SAE Male Inverted Flare 45° Bent Tube



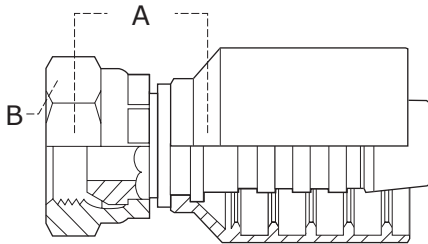
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)	D Drop Length (in)
1PB-MIX45-04-04	7/16"-24	1/4"	1.46"	7/16"	0.61"
1PB-MIX45-05-06	1/2"-20	3/8"	1.56"	1/2"	0.67"
1PB-MIX45-06-06	5/8"-18	3/8"	1.67"	5/8"	0.75"
1PB-MIX45-08-08	3/4"-18	1/2"	1.87"	3/4"	0.85"

SAE Male Inverted Flare 90° Bent Tube



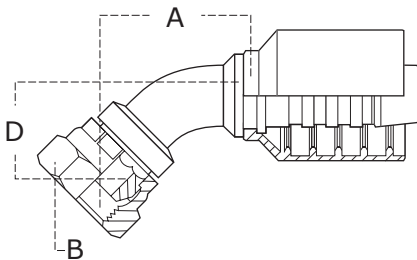
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)	D Drop Length (in)
1PB-MIX90-04-04	7/16"-24	1/4"	1.06"	7/16"	1.06"
1PB-MIX90-05-06	1/2"-20	3/8"	1.16"	1/2"	1.20"
1PB-MIX90-06-06	5/8"-18	3/8"	1.26"	5/8"	1.38"
1PB-MIX90-08-08	3/4"-18	1/2"	1.46"	3/4"	1.63"

BSPP Female Swivel



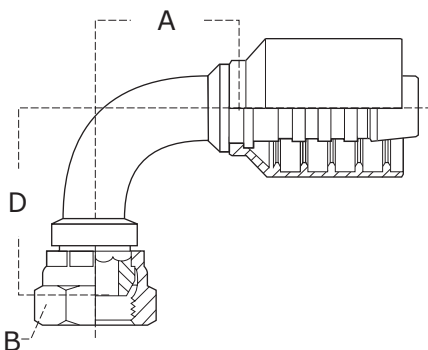
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)
1PB-FBX-02-04	1/8"-28	1/4"	0.63"	0.59"
1PB-FBX-04-04	1/4"-19	1/4"	0.73"	0.75"
1PB-FBX-04-06	1/4"-19	3/8"	0.77"	0.75"
1PB-FBX-06-04	3/8"-19	1/4"	0.79"	0.87"
1PB-FBX-06-06	3/8"-19	3/8"	0.79"	0.87"
1PB-FBX-08-06	1/2"-14	3/8"	0.85"	1.06"
1PB-FBX-08-08	1/2"-14	1/2"	0.87"	1.06"
1PB-FBX-10-08	5/8"-14	1/2"	0.93"	1.18"
1PB-FBX-10-10	5/8"-14	5/8"	0.93"	1.18"
1PB-FBX-12-08	3/4"-14	1/2"	0.93"	1.26"
1PB-FBX-12-10	3/4"-14	5/8"	0.91"	1.26"
1PB-FBX-12-12	3/4"-14	3/4"	0.93"	1.26"
1PB-FBX-16-12	1"-11	3/4"	1.00"	1.61"
1PB-FBX-16-16	1"-11	1"	1.00"	1.61"

BSPP Female Swivel 45° Bent Tube



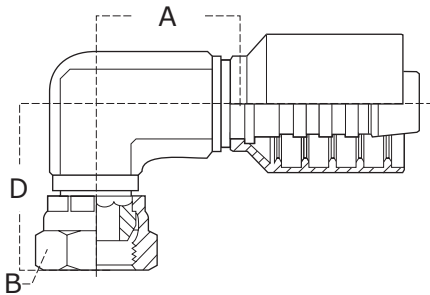
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)	D Drop Length (in)
1PB-FBX45-04-04	1/4"-19	1/4"	1.48"	0.75"	0.67"
1PB-FBX45-06-04	3/8"-19	1/4"	1.36"	0.87"	0.59"
1PB-FBX45-06-06	3/8"-19	3/8"	1.75"	0.87"	0.75"
1PB-FBX45-08-06	1/2"-14	3/8"	1.52"	1.06"	0.67"
1PB-FBX45-08-08	1/2"-14	1/2"	2.09"	1.06"	0.89"
1PB-FBX45-10-08	5/8"-14	1/2"	1.53"	1.18"	0.89"
1PB-FBX45-10-10	5/8"-14	5/8"	1.79"	1.18"	0.75"
1PB-FBX45-12-12	3/4"-14	3/4"	2.17"	1.26"	1.02"
1PB-FBX45-16-16	1"-11	1"	2.60"	1.61"	1.20"

BSPP Female Swivel 90° Bent Tube



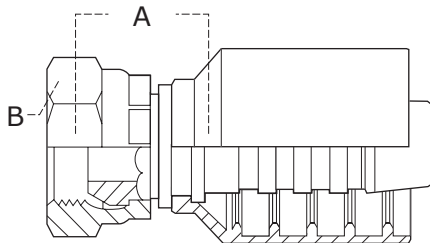
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)	D Drop Length (in)
1PB-FBX90-04-04	1/4"-19	1/4"	1.04"	0.75"	1.14"
1PB-FBX90-06-04	3/8"-19	1/4"	1.08"	0.87"	1.32"
1PB-FBX90-06-06	3/8"-19	3/8"	1.32"	0.87"	1.32"
1PB-FBX90-06-08	3/8"-19	1/2"	1.20"	0.87"	1.24"
1PB-FBX90-08-06	1/2"-14	3/8"	1.36"	1.06"	1.46"
1PB-FBX90-08-08	1/2"-14	1/2"	1.61"	1.06"	1.61"
1PB-FBX90-10-08	5/8"-14	1/2"	1.57"	1.18"	1.61"
1PB-FBX90-10-10	5/8"-14	5/8"	1.59"	1.18"	1.61"
1PB-FBX90-12-10	3/4"-14	5/8"	1.81"	1.26"	2.09"
1PB-FBX90-12-12	3/4"-14	3/4"	1.81"	1.26"	2.09"
1PB-FBX90-16-16	1"-11	1"	2.28"	1.61"	2.58"

BSPP Female Swivel 90° Compact



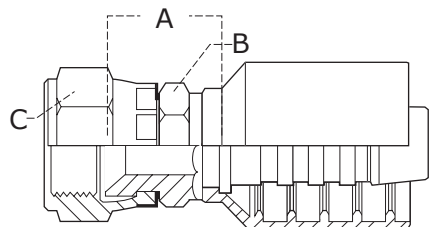
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)	D Drop Length (in)
1PB-FBX90C-04-04	1/4"-19	1/4"	1.12"	0.75"	1.06"
1PB-FBX90C-06-06	3/8"-19	3/8"	1.02"	0.87"	1.18"
1PB-FBX90C-08-08	1/2"-14	1/2"	1.28"	1.06"	1.14"
1PB-FBX90C-10-10	5/8"-14	5/8"	1.28"	1.18"	1.18"
1PB-FBX90C-12-12	3/4"-14	3/4"	1.40"	1.26"	1.28"
1PB-FBX90C-16-16	1"-11	1"	1.28"	1.61"	1.81"

BSP Female Swivel Flat Face



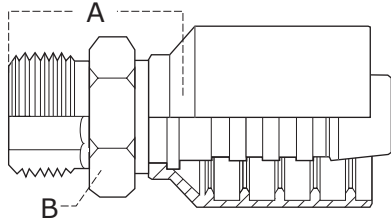
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)
1PB-FBXF-08-06	1/2"-14	3/8"	0.67"	1.06"
1PB-FBXF-08-08	1/2"-14	1/2"	0.69"	1.06"
1PB-FBXF-12-08	3/4"-14	1/2"	0.75"	1.26"
1PB-FBXF-12-12	3/4"-14	3/4"	0.77"	1.26"
1PB-FBXF-16-16	1"-11	1"	0.83"	1.61"

Japanese JIS Swivel



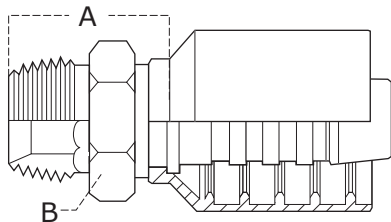
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (mm)	C Hexagon A/F (mm)
1PB-FJIX-04-04	1/4"-19	1/4"	0.83"	13	19
1PB-FJIX-06-06	3/8"-19	3/8"	0.96"	16	22
1PB-FJIX-08-08	1/2"-14	1/2"	1.02"	19	27
1PB-FJIX-12-12	3/4"-14	3/4"	1.26"	27	32
1PB-FJIX-16-16	1"-11	1"	1.46"	36	41

BSPP Solid Male Parallel



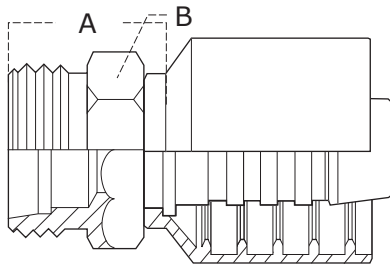
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)
1PB-MBP-04-04	1/4"-19	1/4"	1.00"	0.75"
1PB-MBP-04-06	1/4"-19	3/8"	0.98"	0.75"
1PB-MBP-06-04	3/8"-19	1/4"	1.10"	0.87"
1PB-MBP-06-06	3/8"-19	3/8"	1.08"	0.87"
1PB-MBP-08-06	1/2"-14	3/8"	1.20"	1.06"
1PB-MBP-08-08	1/2"-14	1/2"	1.24"	1.06"
1PB-MBP-10-10	5/8"-14	5/8"	1.42"	1.18"
1PB-MBP-12-10	3/4"-14	5/8"	1.42"	1.26"
1PB-MBP-12-12	3/4"-14	3/4"	1.42"	1.26"
1PB-MBP-16-16	1"-11	1"	1.65"	1.61"

BSPP Solid Male Taper



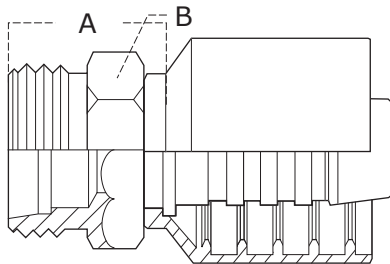
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)
1PB-MBT-04-04	1/4"-19	1/4"	1.22"	0.55"
1PB-MBT-06-06	3/8"-19	3/8"	1.24"	0.71"
1PB-MBT-08-08	1/2"-14	1/2"	1.50"	0.87"
1PB-MBT-12-12	3/4"-14	3/4"	1.69"	1.14"
1PB-MBT-16-16	1"-11	1"	1.95"	1.42"

Metric Stud Male Light CEL



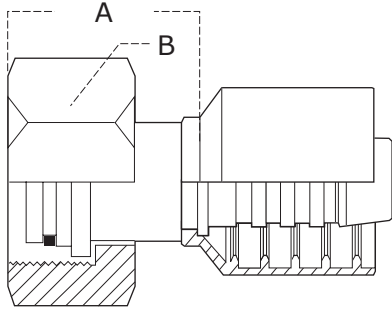
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (mm)
1PB-CEL-12-04	M12 X 1.5	1/4"	1.00"	14
1PB-CEL-14-04	M14 X 1.5	1/4"	1.00"	14
1PB-CEL-16-06	M16 X 1.5	3/8"	1.04"	17
1PB-CEL-18-06	M18 X 1.5	3/8"	1.04"	19
1PB-CEL-22-06	M22 X 1.5	3/8"	1.08"	22
1PB-CEL-22-08	M22 X 1.5	1/2"	1.12"	22
1PB-CEL-26-10	M26 X 1.5	5/8"	1.30"	26
1PB-CEL-30-12	M30 X 2.0	3/4"	1.30"	30
1PB-CEL-36-16	M36 X 2.0	1"	1.36"	36

Metric Stud Male Heavy CES



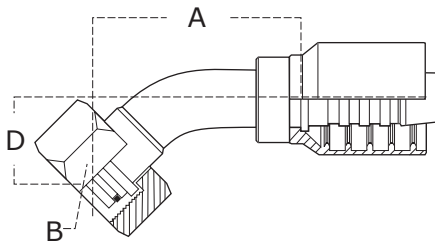
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (mm)
1PB-CES-16-04	M16 X 1.5	1/4"	1.10"	17
1PB-CES-18-04	M18 X 1.5	1/4"	1.08"	19
1PB-CES-20-06	M20 X 1.5	3/8"	1.10"	22
1PB-CES-22-06	M22 X 1.5	3/8"	1.18"	22
1PB-CES-24-08	M24 X 1.5	1/2"	1.22"	24
1PB-CES-36-12	M36 X 2.0	3/4"	1.46"	36
1PB-CES-42-16	M42 X 2.0	1"	1.57"	46

Metric Swivel Female Light DKOL



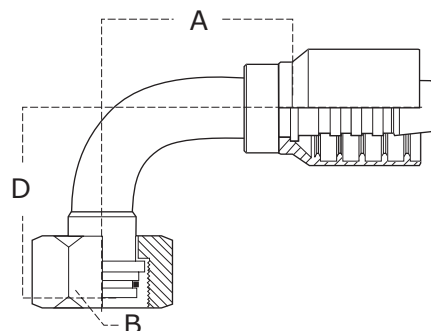
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (mm)
1PB-DKOL-12-04	M12 X 1.5	1/4"	0.91"	17
1PB-DKOL-14-04	M14 X 1.5	1/4"	0.94"	17
1PB-DKOL-16-04	M16 X 1.5	1/4"	1.04"	19
1PB-DKOL-16-06	M16 X 1.5	3/8"	1.04"	19
1PB-DKOL-18-04	M18 X 1.5	1/4"	1.02"	22
1PB-DKOL-18-05	M18 X 1.5	5/16"	1.04"	22
1PB-DKOL-18-06	M18 X 1.5	3/8"	1.04"	22
1PB-DKOL-22-08	M22 X 1.5	1/2"	1.14"	27
1PB-DKOL-26-08	M26 X 1.5	1/2"	1.14"	32
1PB-DKOL-26-10	M26 X 1.5	5/8"	1.14"	32
1PB-DKOL-30-12	M30 X 2.0	3/4"	1.28"	36
1PB-DKOL-36-16	M36 X 2.0	1"	1.38"	41

Metric Swivel Female Light 45° Elbow DKOL45



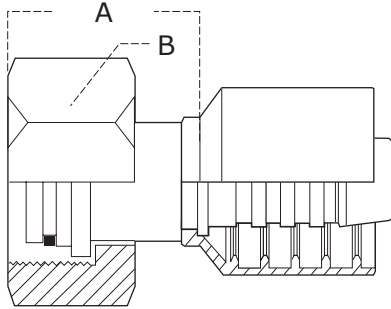
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (mm)	D Drop Length (in)
1PB-DKOL45-14-04	M14 X 1.5	1/4"	1.26"	17	0.51"
1PB-DKOL45-16-06	M16 X 1.5	3/8"	1.36"	19	0.55"
1PB-DKOL45-18-06	M18 X 1.5	3/8"	1.48"	22	0.63"
1PB-DKOL45-22-08	M22 X 1.5	1/2"	1.61"	27	0.67"
1PB-DKOL45-26-08	M26 X 1.5	1/2"	1.14"	32	0.85"
1PB-DKOL45-26-10	M26 X 1.5	5/8"	1.14"	32	0.85"
1PB-DKOL45-30-12	M30 X 2.0	3/4"	1.99"	36	0.85"
1PB-DKOL45-36-16	M36 X 2.0	1"	2.36"	41	0.96"

Metric Swivel Female Light 90° Elbow DKOL90



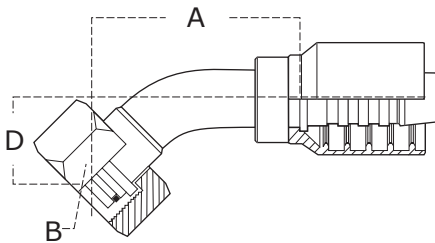
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (mm)	D Drop Length (in)
1PB-DKOL90-14-04	M14 X 1.5	1/4"	1.24"	17	1.18"
1PB-DKOL90-16-04	M16 X 1.5	1/4"	1.44"	19	1.42"
1PB-DKOL90-16-06	M16 X 1.5	3/8"	1.44"	19	1.42"
1PB-DKOL90-18-06	M18 X 1.5	3/8"	1.24"	22	1.34"
1PB-DKOL90-22-08	M22 X 1.5	1/2"	1.50"	27	1.61"
1PB-DKOL90-26-08	M26 X 1.5	1/2"	1.50"	32	1.61"
1PB-DKOL90-26-10	M26 X 1.5	5/8"	1.81"	32	1.85"
1PB-DKOL90-30-12	M30 X 2.0	3/4"	1.81"	36	1.85"
1PB-DKOL90-36-16	M36 X 2.0	1"	2.26"	41	2.24"

Metric Swivel Female Heavy DKOS



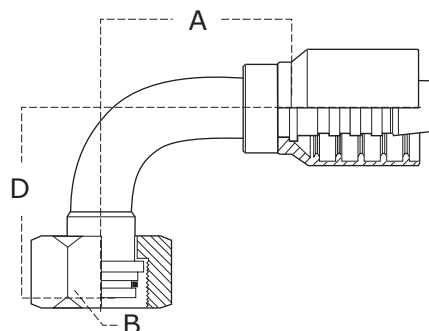
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (mm)
1PB-DKOS-16-04	M16 X 1.5	1/4"	1.04"	19
1PB-DKOS-18-04	M18 X 1.5	1/4"	1.12"	22
1PB-DKOS-20-06	M20 X 1.5	3/8"	1.18"	24
1PB-DKOS-22-06	M22 X 1.5	3/8"	1.26"	27
1PB-DKOS-24-08	M24 X 1.5	1/2"	1.30"	30
1PB-DKOS-30-10	M30 X 2.0	5/8"	1.55"	36
1PB-DKOS-36-10	M36 X 2.0	5/8"	1.61"	46
1PB-DKOS-36-12	M36 X 2.0	3/4"	1.61"	46
1PB-DKOS-42-16	M42 X 2.0	1"	1.73"	50

Metric Swivel Female Heavy 45° Elbow DKOS45



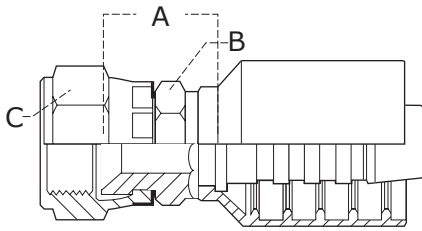
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (mm)	D Drop Length (in)
1PB-DKOS45-16-04	M16 X 1.5	1/4"	1.26"	19	0.53"
1PB-DKOS45-18-04	M18 X 1.5	1/4"	1.38"	22	0.61"
1PB-DKOS45-20-06	M20 X 1.5	3/8"	1.44"	24	0.63"
1PB-DKOS45-22-06	M22 X 1.5	3/8"	1.54"	27	0.69"
1PB-DKOS45-24-08	M24 X 1.5	1/2"	1.69"	30	0.75"
1PB-DKOS45-30-10	M30 X 2.0	5/8"	2.13"	36	0.98"
1PB-DKOS45-36-12	M36 X 2.0	3/4"	2.13"	46	0.98"
1PB-DKOS45-42-16	M42 X 2.0	1"	2.52"	50	0.98"

Metric Swivel Female Heavy 90° Elbow DKOS90



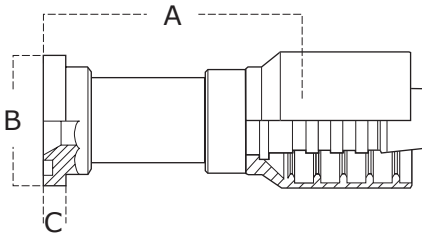
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (mm)	D Drop Length (in)
1PB-DKOS90-16-04	M16 X 1.5	1/4"	0.89"	19	0.91"
1PB-DKOS90-18-04	M18 X 1.5	1/4"	0.98"	22	1.08"
1PB-DKOS90-20-06	M20 X 1.5	3/8"	1.18"	24	1.26"
1PB-DKOS90-22-06	M22 X 1.5	3/8"	1.18"	27	1.30"
1PB-DKOS90-24-08	M24 X 1.5	1/2"	1.40"	30	1.47"
1PB-DKOS90-30-10	M30 X 2.0	5/8"	1.81"	36	2.05"
1PB-DKOS90-36-12	M36 X 2.0	3/4"	1.81"	46	2.05"
1PB-DKOS90-42-16	M42 X 2.0	1"	2.56"	50	2.48"

Japanese Komatsu Swivel



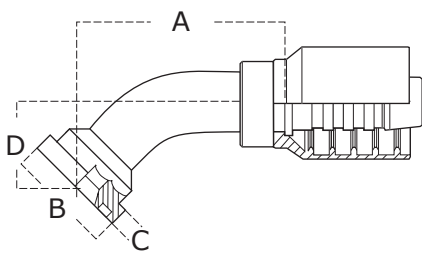
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (mm)	C Hexagon A/F (mm)
1PB-FKX-14-04	M14 X 1.5	1/4"	0.83"	13	19
1PB-FKX-18-06	M18 X 1.5	3/8"	0.96"	16	24
1PB-FKX-22-08	M22 X 1.5	1/2"	1.02"	19	27
1PB-FKX-24-10	M24 X 1.5	5/8"	1.26"	30	32
1PB-FKX-30-12	M30 X 1.5	3/4"	1.26"	27	36
1PB-FKX-33-16	M33 X 1.5	1"	1.46"	36	41

Komatsu Straight Flange



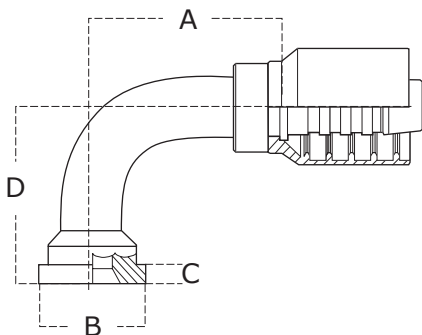
Part Number	Hose Bore (in)	A Cut-Off Length (in)	B Flange Diameter (mm)	C Flange Depth (mm)
1PB-SFK-10-10	5/8"	2.19"	34	6.7

Komatsu Flange 45° Elbow



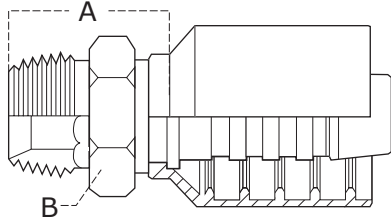
Part Number	Hose Bore (in)	A Cut-Off Length (in)	B Flange Diameter (mm)	C Flange Depth (mm)	D Drop Length (in)
1PB-SFK45-10-10	5/8"	2.31"	34	6.7	0.94"

Komatsu Flange 90° Elbow



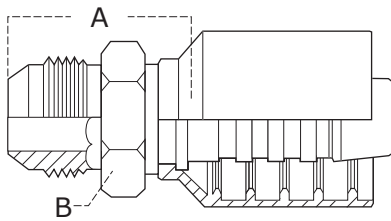
Part Number	Hose Bore (in)	A Cut-Off Length (in)	B Flange Diameter (mm)	C Flange Depth (mm)	D Drop Length (in)
1PB-SFK90-10-10	5/8"	2.50"	34	6.7	1.10"

Solid Male NPT



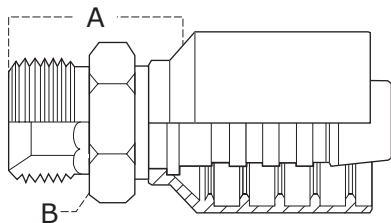
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)
1PBS-MP-06-06	3/8"-18	3/8"	1.10"	11/16"
1PBS-MP-08-08	1/2"-14	1/2"	1.40"	7/8"
1PBS-MP-12-12	3/4"-14	3/4"	1.54"	1 1/8"
1PBS-MP-16-16	1-11"-1/2	1"	1.77"	1 3/8"
1PBS-MP-20-20	1 1/4"-11 1/2	1 1/4"	1.87"	1 3/4"
1PBS-MP-24-24	1 1/2"-11 1/2	1 1/2"	2.00"	2 1/4"
1PBS-MP-32-32	2"-11 1/2	2"	2.17"	2 5/8"

Solid JIC Male



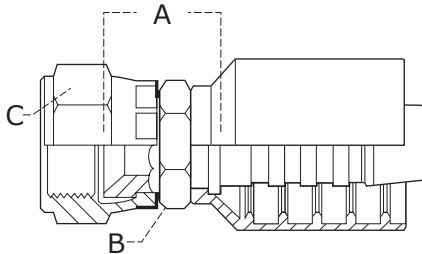
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)
1PBS-MJ-06-06	9/16"-18	3/8"	1.12"	11/16"
1PBS-MJ-08-06	3/4"-16	3/8"	1.24"	13/16"
1PBS-MJ-08-08	3/4"-16	1/2"	1.30"	13/16"
1PBS-MJ-10-08	7/8"-14	1/2"	1.48"	1"
1PBS-MJ-10-10	7/8"-14	5/8"	1.63"	1"
1PBS-MJ-12-08	1 1/16"-12	1/2"	1.61"	1 1/8"
1PBS-MJ-12-12	1 1/16"-12	3/4"	1.63"	1 1/8"
1PBS-MJ-14-12	1 3/16"-12	3/4"	1.73"	1 3/8"
1PBS-MJ-16-12	1 5/16"-12	3/4"	1.73"	1 3/8"
1PBS-MJ-16-16	1 5/16"-12	1"	1.75"	1 3/8"
1PBS-MJ-20-20	1 5/8"-12	1 1/4"	1.85"	1 3/4"
1PBS-MJ-24-24	1 7/8"-12	1-1/2"	2.00"	2 1/4"
1PBS-MJ-32-32	2 1/2"-12	2"	2.16"	2 7/8"

ORFS Solid Male



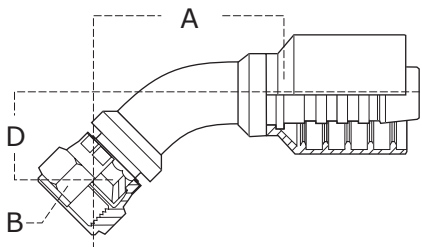
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)
1PBS-MORF-04-04	9/16"-18	1/4"	0.92"	9/16"
1PBS-MORF-06-06	11/16"-16	3/8"	0.92"	3/4"
1PBS-MORF-08-08	13/16"-16	1/2"	1.06"	7/8"
1PBS-MORF-12-12	1 3/16"-12	3/4"	1.31"	1 1/4"
1PBS-MORF-16-16	1 7/16"-12	1"	1.34"	1 1/2"
1PBS-MORF-20-20	1 11/16"-12	1 1/4"	1.41"	1 3/4"

JIC Female Swivel



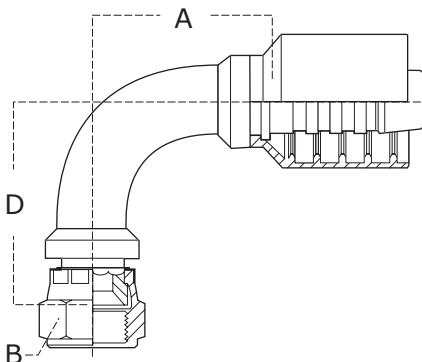
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)	C Hexagon A/F (in)
1PBS-FJX-06-06	9/16"-18	3/8"	0.93"	11/16"	11/16"
1PBS-FJX-08-06	3/4"-16	3/8"	1.04"	7/8"	7/8"
1PBS-FJX-08-08	3/4"-16	1/2"	1.10"	7/8"	7/8"
1PBS-FJX-10-08	7/8"-14	1/2"	1.14"	7/8"	1"
1PBS-FJX-10-10	7/8"-14	5/8"	1.18"	15/16"	1"
1PBS-FJX-12-08	1 1/16"-12	1/2"	1.18"	1 1/16"	1 1/4"
1PBS-FJX-12-10	1 1/16"-12	5/8"	1.18"	1 1/16"	1 1/4"
1PBS-FJX-12-12	1 1/16"-12	3/4"	1.08"	1 3/8"	1 1/2"
1PBS-FJX-14-12	1 3/16"-12	3/4"	1.32"	1 3/8"	1 1/2"
1PBS-FJX-16-12	1 5/16"-12	3/4"	1.32"	1 3/8"	1 1/2"
1PBS-FJX-16-16	1 5/16"-12	1"	1.34"	1 3/4"	2"
1PBS-FJX-20-16	1 5/8"-12	1"	1.50"	1 3/4"	2"
1PBS-FJX-20-20	1 5/8"-12	1-1/4"	1.50"	1 1/4"	1 1/4"
1PBS-FJX-24-24	1 7/8"-12	1-1/2"	1.70"	2 1/4"	2 1/4"
1PBS-FJX-32-32	2 1/2"-12	2"	1.87"	2 5/8"	2 7/8"

JIC Female Swivel 45° Bent Tube



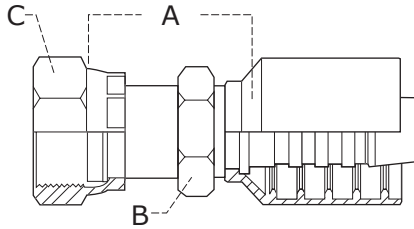
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)	D Drop Length (in)
1PBS-FJX45-06-06	9/16"-18	3/8"	1.83"	11/16"	0.71"
1PBS-FJX45-08-06	3/4"-16	3/8"	1.89"	7/8"	0.79"
1PBS-FJX45-08-08	3/4"-16	1/2"	2.09"	7/8"	0.83"
1PBS-FJX45-10-08	7/8"-14	1/2"	2.13"	1"	0.87"
1PBS-FJX45-10-10	7/8"-14	5/8"	2.68"	15/16"	1.10"
1PBS-FJX45-12-12	1 1/16"-12	3/4"	2.68"	1 1/4"	1.10"
1PBS-FJX45-14-12	1 3/16"-12	3/4"	2.72"	1 3/8"	1.14"
1PBS-FJX45-16-12	1 5/16"-12	3/4"	2.74"	1 1/2"	1.20"
1PBS-FJX45-16-16	1 5/16"-12	1"	3.19"	1 1/2"	1.30"
1PBS-FJX45-20-20	1 5/8"-12	1 1/4"	3.88"	2"	1.57"
1PBS-FJX45-24-24	1 7/8"-12	1 1/2"	4.92"	2 1/4"	1.93"
1PBS-FJX45-32-32	2 1/2"-12	2"	6.34"	2 7/8"	2.32"

JIC Female Swivel 90° Bent Tube



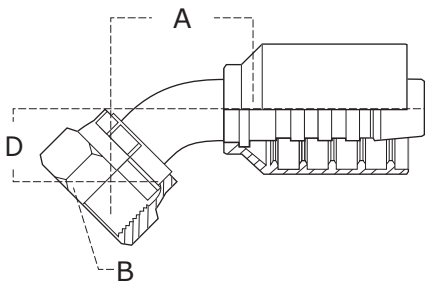
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)	D Drop Length (in)
1PBS-FJX90-06-06	9/16-18	3/8"	1.24"	11/16"	1.30"
1PBS-FJX90-08-06	3/4-16	3/8"	1.30"	7/8"	1.36"
1PBS-FJX90-08-08	3/4-16	1/2"	1.70"	7/8"	1.71"
1PBS-FJX90-10-08	7/8-14	1/2"	1.65"	1"	1.75"
1PBS-FJX90-10-10	7/8-14	5/8"	1.65"	1"	1.71"
1PBS-FJX90-12-08	1-1/16-12	1/2"	1.61"	1 1/4"	1.83"
1PBS-FJX90-12-10	1 1/16-12	5/8"	1.81"	1 1/4"	1.83"
1PBS-FJX90-12-12	1-1/16-12	3/4"	2.17"	1 1/4"	2.17"
1PBS-FJX90-14-12	1-3/16-12	3/4"	2.19"	1 3/8"	2.38"
1PBS-FJX90-16-12	1-5/16-12	3/4"	2.19"	1 1/2"	2.42"
1PBS-FJX90-16-16	1-5/16-12	1"	2.52"	1 1/2"	2.60"
1PBS-FJX90-20-20	1-5/8-12	1-1/4"	3.11"	2"	3.15"
1PBS-FJX90-24-24	1-7/8-12	1-1/2"	4.15"	2 1/4"	4.06"
1PBS-FJX90-32-32	2-1/2-12	2"	5.43"	2 7/8"	4.96"

ORFS Female Swivel



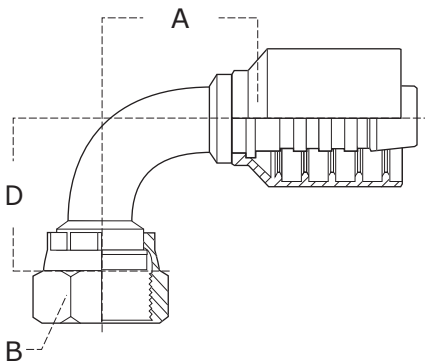
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)	C Hexagon A/F (in)
1PBS-ORFS-06-06	11/16"-16	3/8"	1.32"	11/16"	13/16"
1PBS-ORFS-08-06	13/16"-16	3/8"	1.44"	7/8"	15/16"
1PBS-ORFS-08-08	13/16"-16	1/2"	1.44"	7/8"	15/16"
1PBS-ORFS-10-08	1"-14	1/2"	1.57"	15/16"	1 1/8"
1PBS-ORFS-10-10	1"-14	5/8"	1.75"	15/16"	1 1/8"
1PBS-ORFS-12-12	1 3/16"-12	3/4"	1.75"	1 1/8"	1 3/8"
1PBS-ORFS-16-12	1 7/16"-12	3/4"	1.79"	1 3/8"	1 5/8"
1PBS-ORFS-16-16	1 7/16"-12	1"	1.83"	1 3/8"	1 5/8"
1PBS-ORFS-20-20	1 11/16"-12	1 1/4"	1.85"	1 5/8"	1 7/8"
1PBS-ORFS-24-24	2"-12	1 1/2"	1.95"	2 1/4"	2 1/4"

ORFS Female Swivel 45° Bent Tube



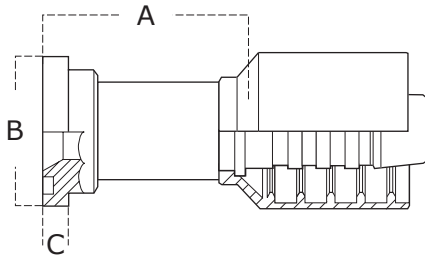
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)	D Drop Length (in)
1PBS-ORFS45-06-06	11/16"-16	3/8"	1.48"	13/16"	0.59"
1PBS-ORFS45-08-06	13/16"-16	3/8"	1.81"	15/16"	0.71"
1PBS-ORFS45-08-08	13/16"-16	1/2"	2.00"	15/16"	0.83"
1PBS-ORFS45-10-08	1"-14	1/2"	2.13"	1 1/8"	0.63"
1PBS-ORFS45-10-10	1"-14	5/8"	2.72"	15/16"	1.13"
1PBS-ORFS45-12-12	1 3/16"-12	3/4"	2.72"	1 3/8"	0.94"
1PBS-ORFS45-16-16	1 7/16"-12	1"	3.09"	1 5/8"	1.30"
1PBS-ORFS45-20-20	1 11/16"-12	1 1/4"	3.64"	1 7/8"	1.46"
1PBS-ORFS45-24-24	2"-12	1 1/2"	4.00"	2 1/4"	1.62"

ORFS Female Swivel 90° Bent Tube



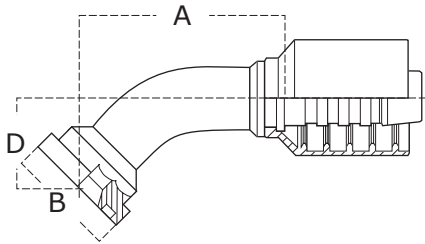
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)	D Drop Length (in)
1PBS-ORFS90-06-06	11/16"-16	3/8"	1.22"	13/16"	1.10"
1PBS-ORFS90-08-06	13/16"-16	3/8"	1.26"	15/16"	1.14"
1PBS-ORFS90-08-08	13/16"-16	1/2"	1.65"	15/16"	1.54"
1PBS-ORFS90-10-08	1"-14	1/2"	1.67"	1 1/8"	1.34"
1PBS-ORFS90-12-12	1 3/16"-12	3/4"	2.20"	1 3/8"	1.93"
1PBS-ORFS90-16-16	1 7/16"-12	1"	3.03"	1 5/8"	2.68"
1PBS-ORFS90-20-20	1 11/16"-12	1 1/4"	3.31"	1 7/8"	2.95"
1PBS-ORFS90-24-24	2"-12	1 1/2"	4.02"	2 1/4"	3.94"

SAE Flange Straight 3000 psi (Code 61)



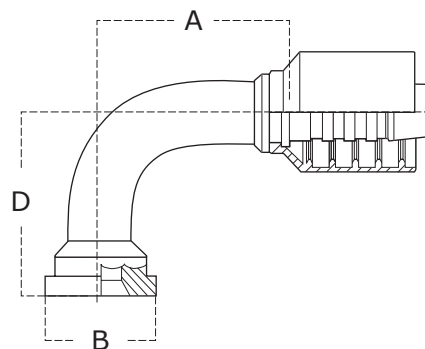
Part Number	Hose Bore (in)	A Cut-Off Length (in)	B Flange Diameter (in)	C Flange Depth (in)
1PBS-SFL-08-08	1/2"	1.77"	1.18"	0.26"
1PBS-SFL-12-08	1/2"	1.85"	1.50"	0.26"
1PBS-SFL-12-12	3/4"	2.07"	1.50"	0.26"
1PBS-SFL-16-12	3/4"	2.32"	1.75"	0.31"
1PBS-SFL-16-16	1"	2.32"	1.75"	0.31"
1PBS-SFL-20-16	1"	2.19"	2.00"	0.31"
1PBS-SFL-20-20	1 1/4"	2.38"	2.00"	0.31"
1PBS-SFL-24-20	1 1/4"	2.58"	2.38"	0.31"
1PBS-SFL-24-24	1 1/2"	2.66"	2.38"	0.31"
1PBS-SFL-32-24	1 1/2"	3.03"	2.81"	0.38"
1PBS-SFL-32-32	2"	3.03"	2.81"	0.38"

45° SAE Flange 3000 psi (Code 61)



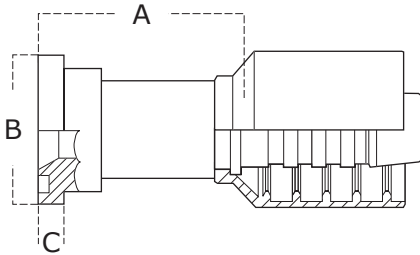
Part Number	Hose Bore (in)	A Cut-Off Length (in)	B Flange Diameter (in)	D Drop Length (in)
1PBS-SFL45-08-08	1/2"	2.56"	1.18"	0.94"
1PBS-SFL45-12-08	1/2"	2.68"	1.50"	0.98"
1PBS-SFL45-12-12	3/4"	2.76"	1.50"	1.02"
1PBS-SFL45-16-12	3/4"	3.19"	1.75"	1.26"
1PBS-SFL45-16-16	1"	3.19"	1.75"	1.26"
1PBS-SFL45-20-16	1"	3.29"	2.00"	1.42"
1PBS-SFL45-20-20	1 1/4"	3.78"	2.00"	1.42"
1PBS-SFL45-24-20	1 1/4"	3.78"	2.38"	1.42"
1PBS-SFL45-24-24	1 1/2"	4.37"	2.38"	1.65"
1PBS-SFL45-32-24	1 1/2"	4.37"	2.81"	2.65"
1PBS-SFL45-32-32	2"	6.85"	2.81"	2.60"

90° SAE Flange 3000 psi (Code 61)



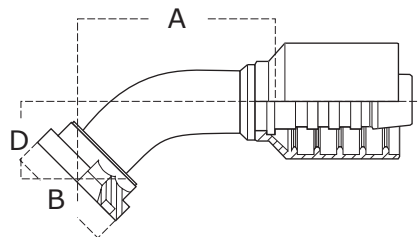
Part Number	Hose Bore (in)	A Cut-Off Length (in)	B Flange Diameter (in)	D Drop Length (in)
1PBS-SFL90-08-08	1/2"	1.97"	1.18"	1.77"
1PBS-SFL90-12-08	1/2"	1.85"	1.50"	2.01"
1PBS-SFL90-12-12	3/4"	2.44"	1.50"	2.26"
1PBS-SFL90-16-12	3/4"	2.32"	1.75"	2.40"
1PBS-SFL90-16-16	1"	2.60"	1.75"	2.52"
1PBS-SFL90-20-16	1"	3.01"	2.00"	2.74"
1PBS-SFL90-20-20	1 1/4"	3.11"	2.00"	2.95"
1PBS-SFL90-24-20	1 1/4"	3.11"	2.38"	2.95"
1PBS-SFL90-24-24	1 1/2"	4.06"	2.38"	3.66"
1PBS-SFL90-32-24	1 1/2"	4.06"	2.81"	3.66"
1PBS-SFL90-32-32	2"	5.91"	2.81"	5.28"

SAE Flange Straight 6000 psi (Code 62)



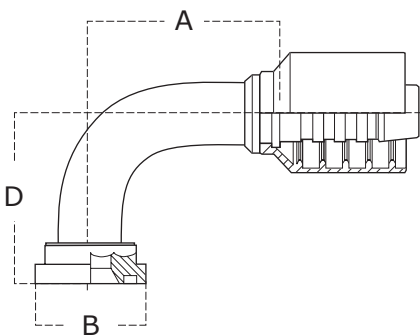
Part Number	Hose Bore (in)	A Cut-Off Length (in)	B Flange Diameter (in)	C Flange Depth (in)
1PBS-SFH-08-08	1/2"	1.89"	1.26"	0.31"
1PBS-SFH-12-08	1/2"	2.83"	1.63"	0.35"
1PBS-SFH-12-12	3/4"	2.19"	1.63"	0.35"
1PBS-SFH-16-12	3/4"	2.46"	1.87"	0.37"
1PBS-SFH-16-16	1"	2.48"	1.87"	0.37"
1PBS-SFH-20-16	1"	2.62"	2.13"	0.41"
1PBS-SFH-20-20	1 1/4"	2.62"	2.13"	0.41"
1PBS-SFH-24-20	1 1/4"	3.27"	2.50"	0.49"
1PBS-SFH-24-24	1 1/2"	3.19"	2.50"	0.49"
1PBS-SFH-32-32	2"	4.17"	3.13"	0.49"

45° SAE Flange 6000 psi (Code 62)



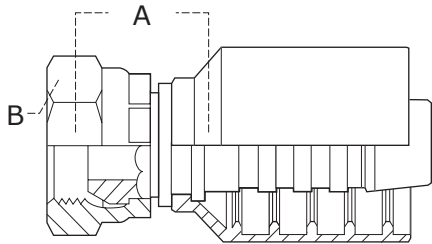
Part Number	Hose Bore (in)	A Cut-Off Length (in)	B Flange Diameter (in)	D Drop Length (in)
1PBS-SFH45-08-08	1/2"	2.60"	1.26"	0.94"
1PBS-SFH45-12-08	1/2"	2.72"	1.63"	1.04"
1PBS-SFH45-12-12	3/4"	2.91"	1.63"	1.14"
1PBS-SFH45-16-12	3/4"	2.91"	1.87"	1.34"
1PBS-SFH45-16-16	1"	3.44"	1.87"	1.30"
1PBS-SFH45-20-16	1"	3.56"	2.13"	1.65"
1PBS-SFH45-20-20	1 1/4"	4.31"	2.13"	1.71"
1PBS-SFH45-24-24	1 1/2"	4.90"	2.50"	1.95"
1PBS-SFH45-32-32	2"	6.75"	3.13"	2.52"

90° SAE Flange 6000 psi (Code 62)



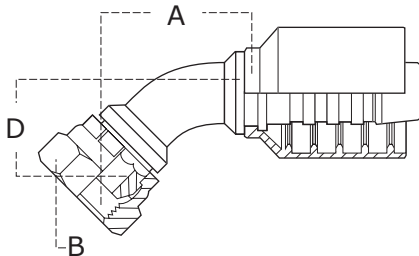
Part Number	Hose Bore (in)	A Cut-Off Length (in)	B Flange Diameter (in)	D Drop Length (in)
1PBS-SFH90-08-08	1/2"	1.97"	1.26"	1.83"
1PBS-SFH90-12-08	1/2"	1.89"	1.63"	2.07"
1PBS-SFH90-12-12	3/4"	2.64"	1.63"	2.38"
1PBS-SFH90-16-12	3/4"	2.32"	1.87"	2.56"
1PBS-SFH90-16-16	1"	2.80"	1.87"	2.56"
1PBS-SFH90-20-16	1"	2.93"	2.13"	3.11"
1PBS-SFH90-20-20	1 1/4"	3.52"	2.13"	3.39"
1PBS-SFH90-24-24	1 1/2"	4.45"	2.50"	4.04"
1PBS-SFH90-32-32	2"	5.96"	3.13"	5.24"

BSPP Female Swivel



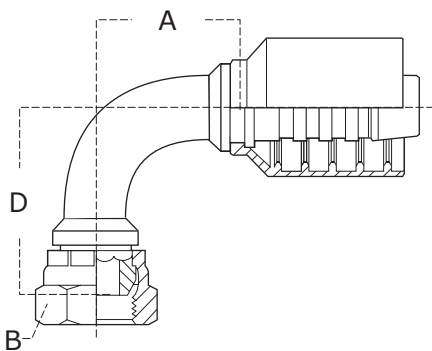
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)
1PBS-FBX-06-06	3/8"-19	3/8"	0.79"	0.87"
1PBS-FBX-08-08	1/2"-14	1/2"	0.91"	1.06"
1PBS-FBX-10-08	5/8"-14	1/2"	0.98"	1.18"
1PBS-FBX-12-12	3/4"-14	3/4"	0.98"	1.26"
1PBS-FBX-16-16	1"-11	1"	1.02"	1.61"
1PBS-FBX-20-20	1 1/4"-11	1 1/4"	1.02"	1.97"
1PBS-FBX-24-24	1 1/2"-11	1 1/2"	1.26"	2.17"
1PBS-FBX-32-32	2"-11	2"	1.36"	2.76"

BSPP Female Swivel 45° Bent Tube



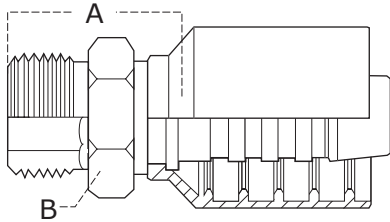
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)	D Drop Length (in)
1PBS-FBX45-06-06	3/8"-19	3/8"	1.75"	0.87"	0.75"
1PBS-FBX45-08-08	1/2"-14	1/2"	2.11"	1.06"	0.89"
1PBS-FBX45-12-12	3/4"-14	3/4"	2.66"	1.26"	1.16"
1PBS-FBX45-16-16	1"-11	1"	3.27"	1.61"	1.38"
1PBS-FBX45-20-20	1 1/4"-11	1 1/4"	3.87"	1.97"	1.57"
1PBS-FBX45-24-24	1 1/2"-11	1 1/2"	4.92"	2.16"	1.93"
1PBS-FBX45-32-32	2"-11	2"	6.33"	2.75"	2.32"

BSPP Female Swivel 90° Bent Tube



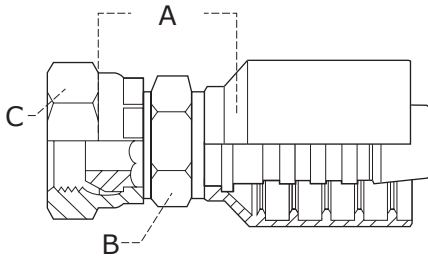
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)	D Drop Length (in)
1PBS-FBX90-06-06	3/8"-19	3/8"	1.32"	0.87"	1.32"
1PBS-FBX90-08-08	1/2"-14	1/2"	1.63"	1.06"	1.60"
1PBS-FBX90-12-12	3/4"-14	3/4"	2.19"	1.26"	2.19"
1PBS-FBX90-16-16	1"-11	1"	2.52"	1.60"	2.68"
1PBS-FBX90-20-20	1 1/4"-11	1 1/4"	3.17"	1.97"	3.21"
1PBS-FBX90-24-24	1 1/2"-11	1 1/2"	4.01"	2.16"	4.05"
1PBS-FBX90-32-32	2"-11	2"	5.43"	2.75"	4.96"

BSPP Solid Male Parallel



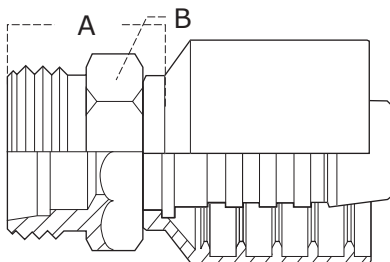
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)
1PBS-MBP-06-06	3/8"-19	3/8"	1.08"	0.87"
1PBS-MBP-08-06	1/2"-14	3/8"	1.20"	1.06"
1PBS-MBP-08-08	1/2"-14	1/2"	1.24"	1.06"
1PBS-MBP-12-12	3/4"-14	3/4"	1.42"	1.26"
1PBS-MBP-16-16	1"-11	1"	1.65"	1.61"
1PBS-MBP-20-20	1 1/4"-11	1 1/4"	1.87"	1.96"
1PBS-MBP-24-24	1 1/2"-11	1 1/2"	1.99"	2.16"
1PBS-MBP-32-32	2"-11	2"	2.16"	2.75"

Japanese Komatsu Swivel



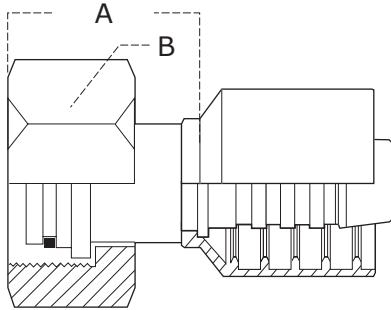
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)	C Hexagon A/F (in)
1PBS-FKX-18-06	M18 X 1.5	3/8"	0.96"	0.63"	0.94"
1PBS-FKX-22-08	M22 X 1.5	1/2"	1.04"	0.75"	1.06"
1PBS-FKX-30-12	M30 X 1.5	3/4"	1.28"	1.06"	1.42"
1PBS-FKX-33-16	M33 X 1.5	1"	1.46"	1.42"	1.61"
1PBS-FKX-36-20	M36 X 1.5	1 1/4"	1.52"	1.81"	1.81"
1PBS-FKX-42-24	M42 X 1.5	1 1/2"	1.73"	2.17"	2.17"

Metric Stud Male Heavy CES



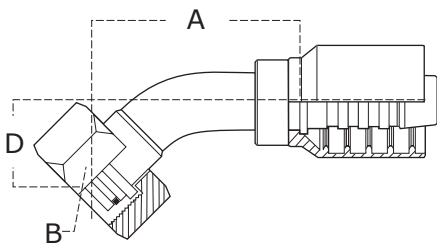
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (mm)
1PBS-CES-24-08	M24 X 1.5	1/2"	1.22"	24
1PBS-CES-36-12	M36 X 2.0	3/4"	1.46"	36
1PBS-CES-42-16	M42 X 2.0	1"	1.57"	46
1PBS-CES-52-20	M52 X 2.0	1 1/4"	1.77"	55

Metric Swivel Female Heavy DKOS



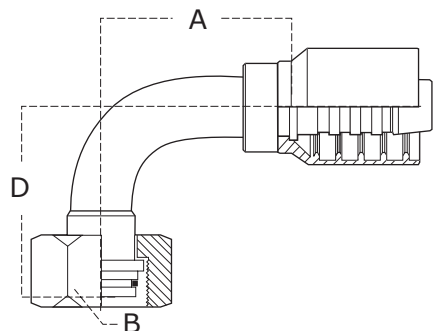
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (mm)
1PBS-DKOS-24-08	M24 X 1.5	1/2"	1.30"	30
1PBS-DKOS-36-12	M36 X 2.0	3/4"	1.61"	46
1PBS-DKOS-42-16	M42 X 2.0	1"	1.73"	50
1PBS-DKOS-52-20	M52 X 2.0	1 1/4"	1.90"	60

Metric Swivel Female 45° Elbow Heavy DKOS45



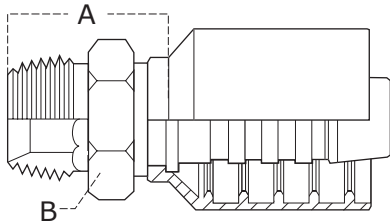
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (mm)	D Drop Length (in)
1PBS-DKOS45-24-08	M24 X 1.5	1/2"	1.69"	30	0.75"
1PBS-DKOS45-36-12	M36 X 2.0	3/4"	2.13"	46	0.98"
1PBS-DKOS45-42-16	M42 X 2.0	1"	2.52"	50	0.98"
1PBS-DKOS45-52-20	M52 X 2.0	1 1/4"	2.58"	60	1.28"

Metric Swivel Female 90° Elbow Heavy DKOS90



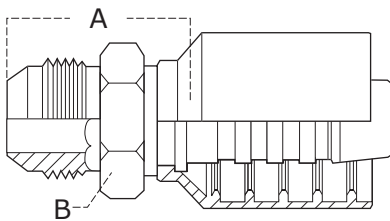
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (mm)	D Drop Length (in)
1PBS-DKOS90-24-08	M24 X 1.5	1/2"	1.40"	30	1.47"
1PBS-DKOS90-36-12	M36 X 2.0	3/4"	1.81"	46	2.05"
1PBS-DKOS90-42-16	M42 X 2.0	1"	2.56"	50	2.48"
1PBS-DKOS90-52-20	M52 X 2.0	1 1/4"	2.60"	60	2.91"

Solid Male NPT



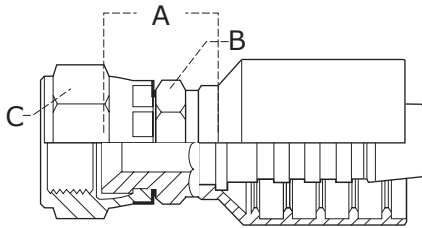
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)
1PMS-MP-12-12	3/4"-14	3/4"	1.81"	1 1/4"
1PMS-MP-16-16	1-11"-1/2	1"	2.03"	1 1/2"
1PMS-MP-20-20	1 1/4"-11 1/2	1 1/4"	2.41"	2"
1PMS-MP-24-24	1 1/2"-11 1/2	1 1/2"	2.44"	2 1/8"
1PMS-MP-32-32	2"-11 1/2	2"	2.84"	2 5/8"

Solid JIC Male



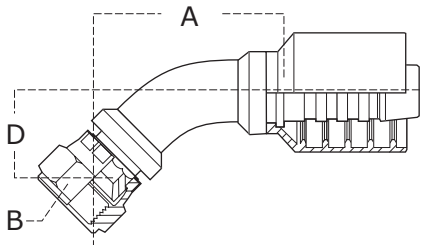
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)
1PMS-MJ-12-12	1 1/16"-12	3/4"	1.97"	1 1/4"
1PMS-MJ-16-12	1 5/16"-12	3/4"	1.72"	1 1/2"
1PMS-MJ-16-16	1 5/16"-12	1"	2.00"	1 1/2"
1PMS-MJ-20-20	1 5/8"-12	1 1/4"	2.41"	2"
1PMS-MJ-24-24	1 7/8"-12	1-1/2"	2.53"	2 1/8"
1PMS-MJ-32-32	2 1/2"-12	2"	3.13"	2 5/8"

JIC Female Swivel



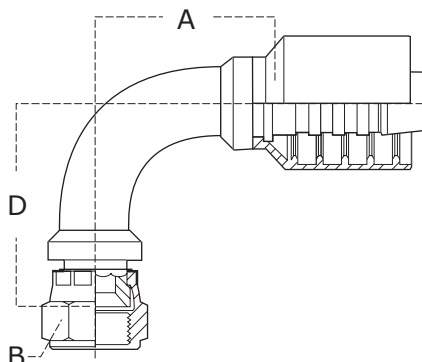
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)	C Hexagon A/F (in)
1PMS-FJX-12-12	1 1/16"-12	3/4"	1.88"	1 3/8"	1 3/8"
1PMS-FJX-16-12	1 5/16"-12	3/4"	1.76"	1 3/8"	1 5/8"
1PMS-FJX-16-16	1 5/16"-12	1"	2.09"	1 5/8"	1 5/8"
1PMS-FJX-20-16	1 5/8"-12	1"	1.85"	1 5/8"	2"
1PMS-FJX-20-20	1 5/8"-12	1 1/4"	2.53"	2"	2"
1PMS-FJX-24-24	1 7/8"-12	1 1/2"	2.84"	2 1/4"	2 1/4"
1PMS-FJX-32-32	2 1/2"-12	2"	3.34"	2 7/8"	2 7/8"

JIC Female Swivel 45° Bent Tube



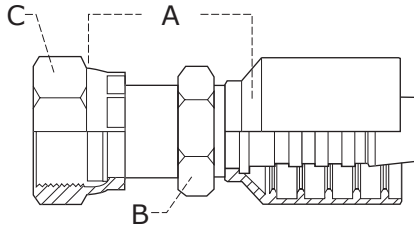
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)	D Drop Length (in)
1PMS-FJX45-12-12	1 1/16"-12	3/4"	3.16"	1 3/8"	1.15"
1PMS-FJX45-16-12	1 5/16"-12	3/4"	3.28"	1 3/8"	1.23"
1PMS-FJX45-16-16	1 5/16"-12	1"	3.28"	1 5/8"	1.23"
1PMS-FJX45-20-16	1 5/8"-12	1"	4.23"	2"	1.38"
1PMS-FJX45-20-20	1 5/8"-12	1 1/4"	4.23"	2"	1.38"
1PMS-FJX45-24-24	1 7/8"-12	1 1/2"	4.47"	2 1/4"	2.02"
1PMS-FJX45-32-32	2 1/2"-12	2"	6.50"	2 7/8"	2.35"

JIC Female Swivel 90° Bent Tube



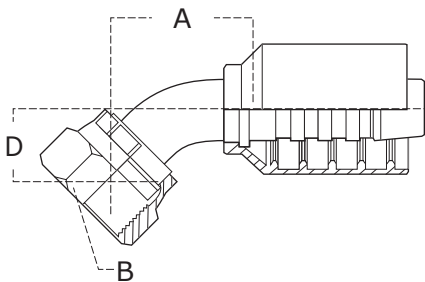
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)	D Drop Length (in)
1PMS-FJX90-12-12	1 1/16-12	3/4"	2.75"	1 1/4"	2.75"
1PMS-FJX90-16-12	1 5/16-12	3/4"	2.97"	1 1/2"	2.97"
1PMS-FJX90-16-16	1 5/16-12	1"	2.97"	1 1/2"	2.97"
1PMS-FJX90-20-16	1 5/8-12	1"	3.97"	2"	3.97"
1PMS-FJX90-20-20	1 5/8-12	1 1/4"	3.97"	2"	3.97"
1PMS-FJX90-24-24	1 7/8-12	1 1/2"	4.00"	2 1/4"	3.78"
1PMS-FJX90-32-32	2 1/2-12	2"	6.00"	2 7/8"	4.96"

ORFS Female Swivel



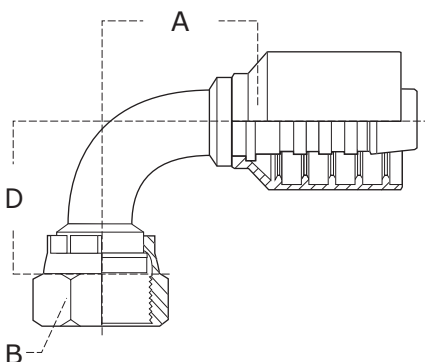
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)	C Hexagon A/F (in)
1PMS-ORFS-12-12	1 3/16"-12	3/4"	1.84"	1 1/4"	1 3/8"
1PMS-ORFS-16-16	1 7/16"-12	1"	1.94"	1 1/2"	1 5/8"
1PMS-ORFS-20-20	1 11/16"-12	1 1/4"	2.00"	1 13/16"	1 7/8"
1PMS-ORFS-24-24	2"-12	1 1/2"	2.31"	2 1/4"	2 1/4"

ORFS Female Swivel 45° Bent Tube



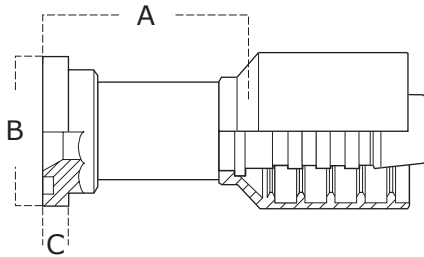
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)	D Drop Length (in)
1PMS-ORFS45-12-12	1 3/16"-12	3/4"	3.28"	1 3/8"	1.25"
1PMS-ORFS45-16-16	1 7/16"-12	1"	3.44"	1 5/8"	1.37"
1PMS-ORFS45-20-20	1 11/16"-12	1 1/4"	3.59"	1 7/8"	1.34"
1PMS-ORFS45-24-24	2"-12	1 1/2"	4.34"	2 1/4"	1.72"

ORFS Female Swivel 90° Bent Tube



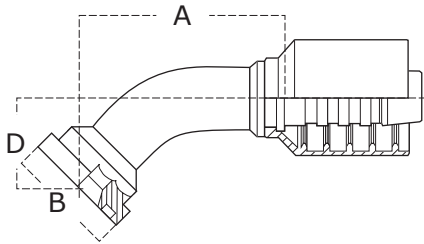
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)	D Drop Length (in)
1PMS-ORFS90-12-12	1 3/16"-12	3/4"	2.75"	1 3/8"	2.50"
1PMS-ORFS90-16-16	1 7/16"-12	1"	2.97"	1 5/8"	2.21"
1PMS-ORFS90-20-20	1 11/16"-12	1 1/4"	3.25"	1 7/8"	2.91"
1PMS-ORFS90-24-24	2"-12	1 1/2"	3.78"	2 1/4"	3.62"

SAE Flange Straight 3000 psi (Code 61)



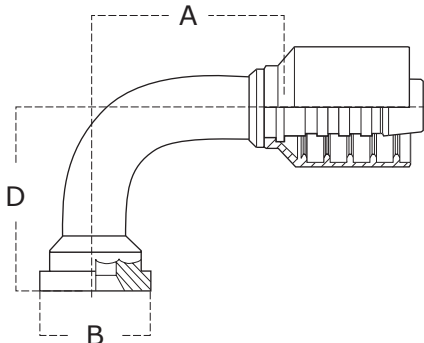
Part Number	Hose Bore (in)	A Cut-Off Length (in)	B Flange Diameter (in)	C Flange Depth (in)
1PMS-SFL-12-12	3/4"	2.88"	1.50"	0.26"
1PMS-SFL-16-12	3/4"	3.09"	1.75"	0.31"
1PMS-SFL-16-16	1"	3.06"	1.75"	0.31"
1PMS-SFL-20-16	1"	2.88"	2.00"	0.31"
1PMS-SFL-20-20	1 1/4"	2.97"	2.00"	0.31"
1PMS-SFL-24-20	1 1/4"	3.34"	2.38"	0.31"
1PMS-SFL-24-24	1 1/2"	3.56"	2.38"	0.31"
1PMS-SFL-32-24	1 1/2"	4.38"	2.81"	0.38"
1PMS-SFL-32-32	2"	4.47"	2.81"	0.38"

45° SAE Flange 3000 psi (Code 61)



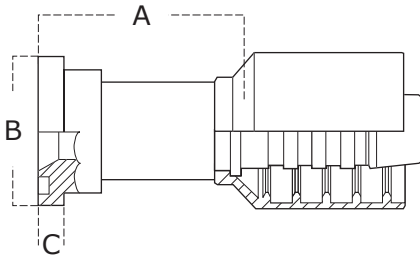
Part Number	Hose Bore (in)	A Cut-Off Length (in)	B Flange Diameter (in)	D Drop Length (in)
1PMS-SFL45-12-12	3/4"	3.08"	1.50"	1.07"
1PMS-SFL45-16-12	3/4"	3.08"	1.75"	1.07"
1PMS-SFL45-16-16	1"	3.28"	1.75"	1.22"
1PMS-SFL45-20-16	1"	3.28"	2.00"	1.22"
1PMS-SFL45-20-20	1 1/4"	3.50"	2.00"	1.27"
1PMS-SFL45-24-20	1 1/4"	3.56"	2.38"	1.32"
1PMS-SFL45-24-24	1 1/2"	4.19"	2.38"	1.58"
1PMS-SFL45-32-24	1 1/2"	4.28"	2.81"	1.67"
1PMS-SFL45-32-32	2"	5.70"	2.81"	2.21"

90° SAE Flange 3000 psi (Code 61)



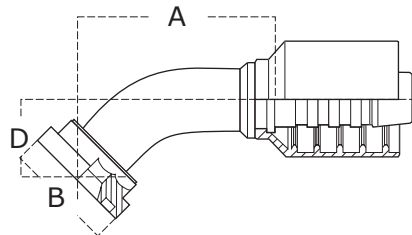
Part Number	Hose Bore (in)	A Cut-Off Length (in)	B Flange Diameter (in)	D Drop Length (in)
1PMS-SFL90-12-12	3/4"	2.75"	1.50"	2.26"
1PMS-SFL90-16-12	3/4"	2.75"	1.75"	2.26"
1PMS-SFL90-16-16	1"	2.97"	1.75"	2.62"
1PMS-SFL90-20-16	1"	2.97"	2.00"	2.62"
1PMS-SFL90-20-20	1 1/4"	3.25"	2.00"	2.80"
1PMS-SFL90-24-20	1 1/4"	3.25"	2.38"	2.87"
1PMS-SFL90-24-24	1 1/2"	3.78"	2.38"	3.41"
1PMS-SFL90-32-24	1 1/2"	3.78"	2.81"	3.53"
1PMS-SFL90-32-32	2"	5.25"	2.81"	4.88"

SAE Flange Straight 6000 psi (Code 62)



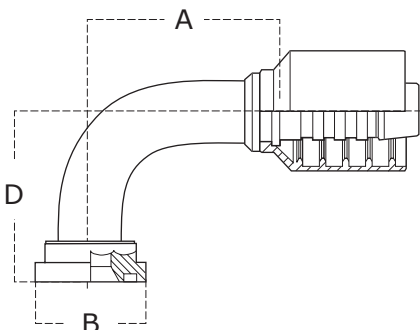
Part Number	Hose Bore (in)	A Cut-Off Length (in)	B Flange Diameter (in)	C Flange Depth (in)
1PMS-SFH-12-12	3/4"	2.88"	1.63"	0.35"
1PMS-SFH-16-12	3/4"	2.88"	1.87"	0.37"
1PMS-SFH-16-16	1"	3.06"	1.87"	0.37"
1PMS-SFH-20-16	1"	3.38"	2.13"	0.41"
1PMS-SFH-20-20	1 1/4"	3.47"	2.13"	0.41"
1PMS-SFH-24-20	1 1/4"	3.53"	2.50"	0.49"
1PMS-SFH-24-24	1 1/2"	3.53"	2.50"	0.49"
1PMS-SFH-32-32	2"	4.97"	3.13"	0.49"

45° SAE Flange 6000 psi (Code 62)



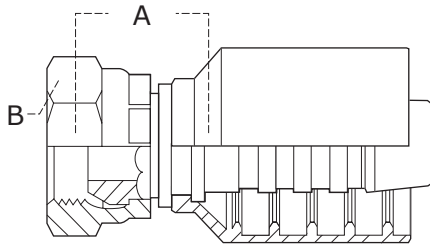
Part Number	Hose Bore (in)	A Cut-Off Length (in)	B Flange Diameter (in)	D Drop Length (in)
1PMS-SFH45-12-12	3/4"	3.09"	1.63"	1.07"
1PMS-SFH45-16-12	3/4"	3.09"	1.87"	1.07"
1PMS-SFH45-16-16	1"	3.28"	1.87"	1.22"
1PMS-SFH45-20-16	1"	3.28"	2.13"	1.22"
1PMS-SFH45-20-20	1 1/4"	3.66"	2.13"	1.40"
1PMS-SFH45-24-24	1 1/2"	4.41"	2.50"	1.80"
1PMS-SFH45-32-32	2"	6.06"	3.13"	2.56"

90° SAE Flange 6000 psi (Code 62)



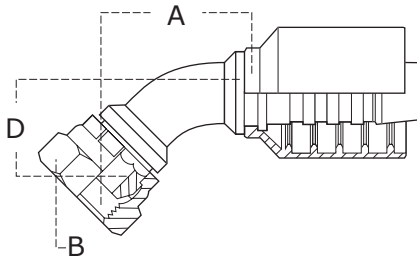
Part Number	Hose Bore (in)	A Cut-Off Length (in)	B Flange Diameter (in)	D Drop Length (in)
1PMS-SFH90-12-12	3/4"	2.75"	1.63"	2.25"
1PMS-SFH90-16-12	3/4"	2.75"	1.87"	2.25"
1PMS-SFH90-16-16	1"	2.97"	1.87"	2.63"
1PMS-SFH90-20-16	1"	2.97"	2.13"	2.63"
1PMS-SFH90-20-20	1 1/4"	3.25"	2.13"	2.99"
1PMS-SFH90-24-24	1 1/2"	3.78"	2.50"	3.72"
1PMS-SFH90-32-32	2"	5.22"	3.13"	5.38"

BSPP Female Swivel



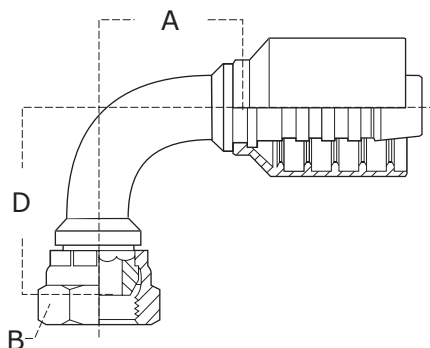
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)
1PMS-FBX-12-12	3/4"-14	3/4"	1.88"	1 3/8"
1PMS-FBX-16-16	1"-11	1"	2.09"	1 5/8"
1PMS-FBX-20-20	1 1/4"-11	1 1/4"	2.53"	2"
1PMS-FBX-24-24	1 1/2"-11	1 1/2"	2.84"	2 1/4"
1PMS-FBX-32-32	2"-11	2"	3.34"	2 7/8"

BSPP Female Swivel 45° Bent Tube



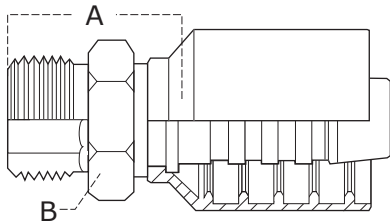
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)	D Drop Length (in)
1PMS-FBX45-12-12	3/4"-14	3/4"	3.16"	1 3/8"	1.15"
1PMS-FBX45-16-16	1"-11	1"	3.28"	1 5/8"	1.23"
1PMS-FBX45-20-20	1 1/4"-11	1 1/4"	4.23"	2"	1.38"
1PMS-FBX45-24-24	1 1/2"-11	1 1/2"	4.47"	2 1/4"	2.02"
1PMS-FBX45-32-32	2"-11	2"	6.50"	2 7/8"	2.35"

BSPP Female Swivel 90° Bent Tube



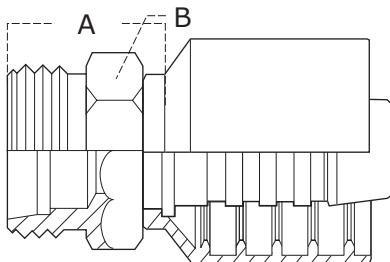
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)	D Drop Length (in)
1PMS-FBX90-12-12	3/4"-14	3/4"	2.75"	1 3/8"	2.75"
1PMS-FBX90-16-16	1"-11	1"	2.97"	1 5/8"	2.97"
1PMS-FBX90-20-20	1 1/4"-11	1 1/4"	3.97"	2"	3.97"
1PMS-FBX90-24-24	1 1/2"-11	1 1/2"	4.00"	2 1/4"	3.78"
1PMS-FBX90-32-32	2"-11	2"	6.00"	2 7/8"	4.96"

BSPP Solid Male Parallel



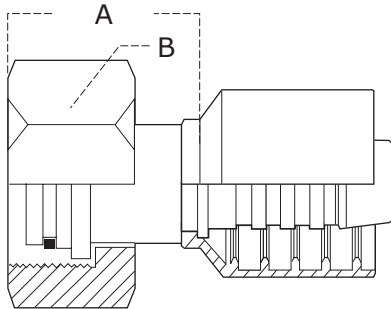
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (in)
1PMS-MBP-12-12	3/4"-14	3/4"	1.81"	1 1/4"
1PMS-MBP-16-16	1"-11	1"	2.03"	1 1/2"
1PMS-MBP-20-20	1 1/4"-11	1 1/4"	2.41"	2"
1PMS-MBP-24-24	1 1/2"-11	1 1/2"	2.44"	2 1/8"
1PMS-MBP-32-32	2"-11	2"	2.84"	2 5/8"

Metric Stud Male Heavy CES



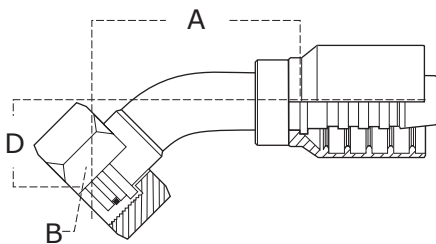
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (mm)
1PMS-CES-36-12	M36 X 2.0	3/4"	1.81"	36
1PMS-CES-42-16	M42 X 2.0	1"	2.03"	46
1PMS-CES-52-20	M52 X 2.0	1 1/4"	2.41"	55

Metric Swivel Female Heavy DKOS



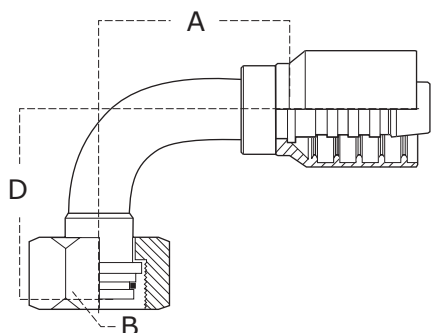
Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (mm)
1PMS-DKOS-36-12	M36 X 2.0	3/4"	1.88"	46
1PMS-DKOS-42-16	M42 X 2.0	1"	2.09"	50
1PMS-DKOS-52-20	M52 X 2.0	1 1/4"	2.53"	60

Metric Swivel Female 45° Elbow Heavy DKOS45



Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (mm)	D Drop Length (in)
1PMS-DKOS45-36-12	M36 X 2.0	3/4"	3.16"	46	0.98"
1PMS-DKOS45-42-16	M42 X 2.0	1"	3.28"	50	0.98"
1PMS-DKOS45-52-20	M52 X 2.0	1 1/4"	4.23"	60	1.28"

Metric Swivel Female 90° Elbow Heavy DKOS90



Part Number	Thread Size	Hose Bore (in)	A Cut-Off Length (in)	B Hexagon A/F (mm)	D Drop Length (in)
1PMS-DKOS90-36-12	M36 X 2.0	3/4"	2.75"	46	2.05"
1PMS-DKOS90-42-16	M42 X 2.0	1"	2.97"	50	2.48"
1PMS-DKOS90-52-20	M52 X 2.0	1 1/4"	3.97"	60	2.91"



THREE CONVENIENT LOCATIONS NATIONWIDE

**4625 Campbells Run Rd.
Pittsburgh, PA 15205
800-365-1577
Phone: 412-787-4444
Fax: 412-787-8520**

**13225 FM 529, Bldg. #E
Houston, TX 77041
800-937-2269
Phone: 713-466-1745
Fax: 713-466-3716**



**721 W. 15th St.
Long Beach, CA 90813
800-925-3414
Phone: 562-436-9088
Fax: 562-436-5700**

1 - 8 0 0 - 3 6 5 - 1 5 7 7

www.powertrackhose.com

sales@powertrackhose.com

