



# Swivels

## PS Series

Introduction .....	D-2
How To Order .....	D-4
In-Line .....	D-5
90° .....	D-16
Repair Kits .....	D-4
Seal Options .....	D-2

## S Series

Introduction .....	D-34
How To Order .....	D-35
90° .....	D-36
Repair Kits .....	D-34



The PS Series Swivel is designed to meet today's application needs and performance requirements. Pressure capabilities up to 5000 psi, 1/4" through 2" body sizes, a variety of port options, Chromium-6 Free or nickel plating and a wide range of seal options make the PS Series Swivels ideal for an array of dynamic applications.

### Features

- Hardened bearing races for extended service life.
- Full flow design minimizes pressure drop for optimum system performance.
- Sealed bearing design isolates bearing race from media and environment.
- Reduced bearing load design minimizes wear in the bearing race and extends service life.
- PTFE back-up rings support primary seal for high-pressure applications.
- Chromium-6 Free plating for maximum corrosion resistance.
- Variety of seal options available.
- Three piece swivel design for sizes 1 1/4" through 2" for superior performance and service life.
- Precision needle bearings and ball bearings sized 1 1/4" through 2" for additional side load resistance.
- Polyurethane U-Cup primary seal standard for sizes 1 1/4" through 2".
- PS Series Swivels eliminate hose twist and torque that may cause premature hose failure.

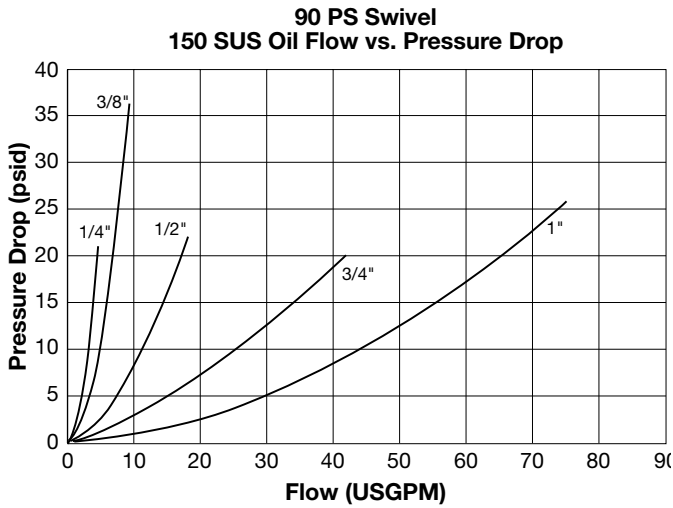
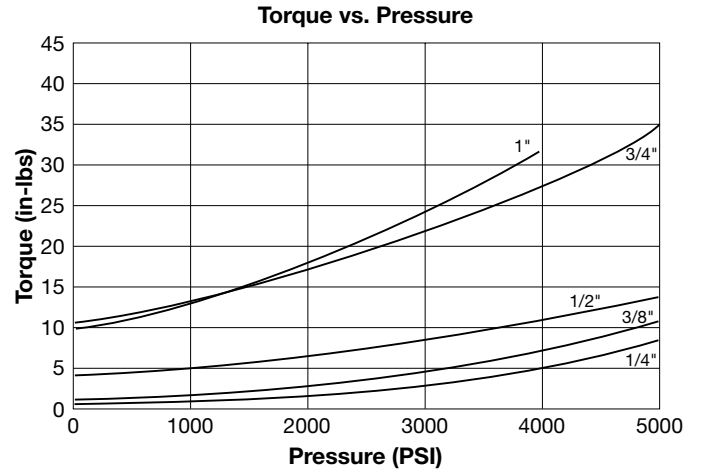
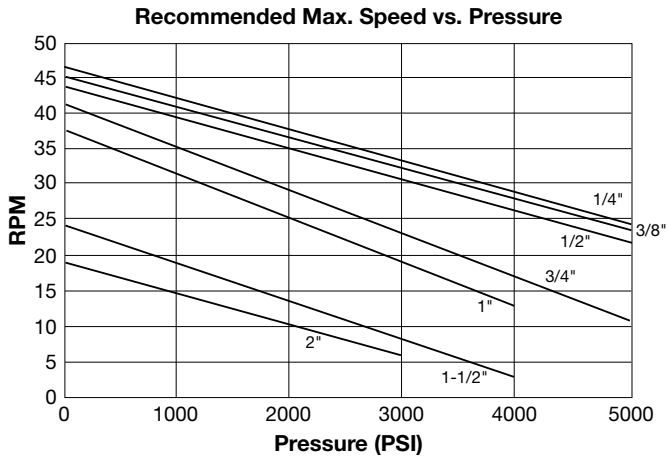
### PS Series Specifications

Body Size (in.)	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
Maximum Rated Pressure (psi)	5000	5000	5000	5000	5000	4000	4000	3000
Except the following port options in the noted size								
03 (Male JIC 37°)							3000	2000
05 (Male SAE O-Ring Boss)								2500
06 (Female JIC 37°) 90° Housing Port				4000	3000	3000	2500	2000
06 (Female JIC 37°) In-Line Housing Port							3000	2000
07 (Female NPSM)			4600	3000	2600	2100	1650	1500
Temperature Range (std seals)	-40° to 250° F					-30° to 180° F		

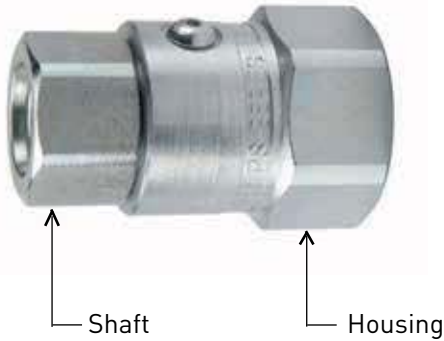
### Seal Options

Nitrile (standard unless otherwise designated)
A = Aflas™
W = Ethylene Propylene
Y = Fluorocarbon
Z = Neoprene
For Perfluoroelastomer seal option contact the division.

Performance Data



#### In-Line Swivels



#### 90° Swivels



#### PS Part Number:

**PS 16 1 02 02-16-16 Y-**

#### Material and Finish:

- Blank = Carbon Steel w/Chromium-6 Free Plating (Std.)
- NI = Carbon Steel with Electroless Nickel Plating\*
- S3 = 303 Stainless Steel Passivated\*
- S6 = 316 Stainless Steel Electropolished\*

#### Seal Code:

- Blank = Nitrile†
- A = Aflas™\*
- W = Ethylene Propylene
- Y = Fluorocarbon
- Z = Neoprene
- For Perfluoroelastomer Seal Option Contact the Division.

#### Housing Port Size (1/16 of an inch)††

#### Shaft Port Size (1/16 of an inch)††

#### Housing Port Configuration:

- 01 = Male NPTF(Non-Standard)\*
- 02 = Female NPTF
- 03 = Male JIC 37 Degree
- 05 = Male SAE O-Ring Straight Thread
- 06 = Female JIC 37 Degree
- 07 = Female NPSM Pipe Swivel
- 10 = Female SAE Straight Thread
- JM = Male Seal-Lok

#### Shaft Port Configuration:

- 01 = Male NPTF
- 02 = Female NPTF
- 03 = Male JIC 37 Degree
- 05 = Male SAE O-Ring Straight Thread
- 10 = Female SAE Straight Thread
- JM = Male Seal-Lok

#### Configuration:

- 1 = In-line
- 9 = 90 degree

#### Body Size (1/16 of an inch)

#### Parker Swivel designator

\*Contact Division for price and delivery

† On -24 and -32 sizes, Polyurethane U-Cup Seal is standard.

†† For -20 Ports, -24 Body is used.

#### PS Series Repair Kits (In-line and 90°)

Repair Kits come complete with O-Rings, PTFE Back-Up Ring, Cap Screws, Locking Balls, Retaining Ring and grease fitting. Repair kits are suitable for both current and previous design in-line and 90° PS Series Swivels.

1/4" Swivel	3/8" Swivel	1/2" Swivel	3/4" Swivel	1" Swivel
PS4-RPR	PS6-RPR	PS8-RPR	PS12-RPR	PS16-RPR
PS4Y-RPR	PS6Y-RPR	PS8Y-RPR	PS12Y-RPR	PS16Y-RPR
PS4A-RPR	PS6A-RPR	PS8A-RPR	PS12A-RPR	PS16A-RPR
PS4W-RPR	PS6W-RPR	PS8W-RPR	PS12W-RPR	PS16W-RPR

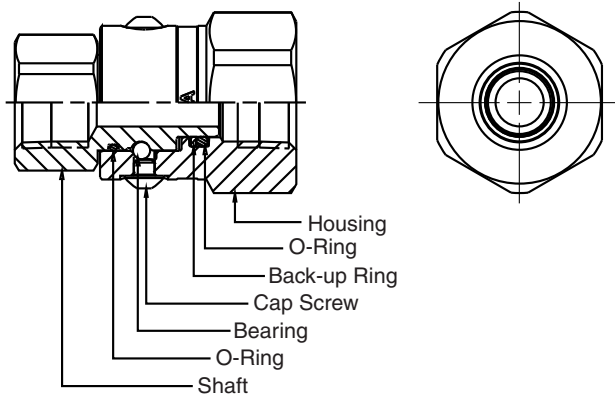
H2C-PS = Bearing Removal Pneumatic Nipple



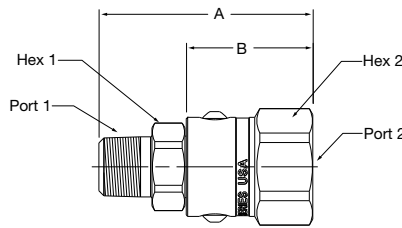
**Materials Of Construction**

- Housing\*: ..... Carbon Steel
- Shaft\*: ..... Carbon Steel
- Plating\*: ..... Chromium-6 Free
- Bearing\*: ..... Chrome
- O-Rings\*: ..... Nitrile
- Back-Up Ring ..... PTFE

\* See How-To-Order for optional material, plating, and seals.

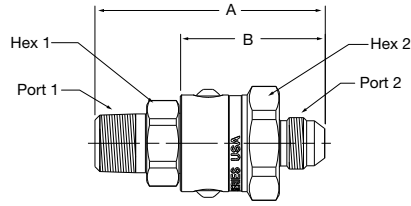


**Male Pipe - Female Pipe**



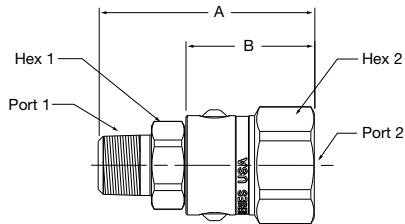
Part Number	A	B	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS410102-4-4	2.59" 65.8 mm	1.60" 40.6 mm	1/4-18 NPTF	1/4-18 NPTF	.75" 19.0 mm	1.19" 30.2 mm
PS610102-6-6	2.66" 67.5 mm	1.64" 41.7 mm	3/8-18 NPTF	3/8-18 NPTF	.88" 22.2 mm	1.31" 33.3 mm
PS810102-8-8	3.03" 76.8 mm	1.79" 45.5 mm	1/2-14 NPTF	1/2-14 NPTF	1.12" 28.6 mm	1.50" 36.5 mm
PS1210102-12-12	3.10" 78.8 mm	1.85" 47.0 mm	3/4-14 NPTF	3/4-14 NPTF	1.38" 35.0 mm	1.69" 42.9 mm
PS1610102-16-16	3.54" 89.8 mm	2.11" 53.5 mm	1-11 1/2 NPTF	1-11 1/2 NPTF	1.62" 41.3 mm	1.88" 47.6 mm

## Male Pipe - Male 37° Flair



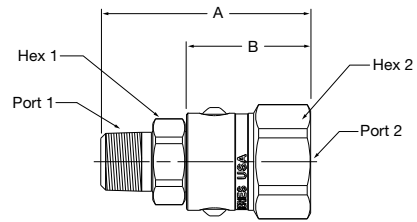
Part Number	A	B	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS410103-4-4	2.86" 72.6 mm	1.87" 47.5 mm	1/4-18 NPTF	7/16-20 UNF	.75" 19.0 mm	1.19" 30.2 mm
PS610103-6-6	2.92" 74.1 mm	1.90" 48.3 mm	3/8-18 NPTF	9/16-18 UNF	.88" 22.2 mm	1.31" 33.3 mm
PS810103-8-8	3.33" 84.5 mm	2.09" 53.1 mm	1/2-14 NPTF	3/4-16 UNF	1.12" 28.6 mm	1.50" 36.5 mm
PS1210103-12-12	3.55" 90.3 mm	2.30" 58.4 mm	3/4-14 NPTF	1-1/16-12 UN	1.38" 35.0 mm	1.69" 42.9 mm
PS1610103-16-16	3.88" 98.6 mm	2.45" 62.2 mm	1-11 1/2 NPTF	1-5/16-12 UN	1.62" 41.3 mm	1.88" 47.6 mm

## Male Pipe - Female 37° Flair



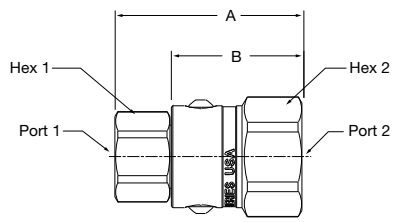
Part Number	A	B	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS410106-4-4	2.72" 69.1 mm	1.73" 43.9 mm	1/4-18 NPTF	7/16-20 UNF	.75" 19.0 mm	1.19" 30.2 mm
PS610106-6-6	2.77" 70.3 mm	1.75" 44.5 mm	3/8-18 NPTF	9/16-18 UNF	.88" 22.2 mm	1.31" 33.3 mm
PS810106-8-8	3.05" 77.3 mm	1.81" 46.0 mm	1/2-14 NPTF	3/4-16 UNF	1.12" 28.6 mm	1.50" 36.5 mm
PS1210106-12-12	3.27" 83.2 mm	2.02" 51.3 mm	3/4-14 NPTF	1-1/16-12 UN	1.38" 35.0 mm	1.69" 42.9 mm
PS1610106-16-16	3.62" 92.0 mm	2.19" 55.6 mm	1-11 1/2 NPTF	1-5/16-12 UN	1.62" 41.3 mm	1.88" 47.6 mm

**Male Pipe - Female SAE Straight Thread**



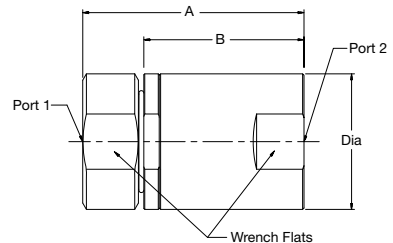
Part Number	A	B	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS410110-4-4	2.71" 68.8 mm	1.72" 43.7 mm	1/4-18 NPTF	7/16-20 UNF	.75" 19.0 mm	1.19" 30.2 mm
PS610110-6-6	2.74" 69.6 mm	1.72" 43.7 mm	3/8-18 NPTF	9/16-18 UNF	.88" 22.2 mm	1.31" 33.3 mm
PS810110-8-8	3.03" 76.8 mm	1.79" 45.5 mm	1/2-14 NPTF	3/4-16 UNF	1.12" 28.6 mm	1.50" 36.5 mm
PS1210110-12-12	3.33" 84.7 mm	2.08" 52.8 mm	3/4-14 NPTF	1-1/16-12 UN	1.38" 35.0 mm	1.69" 42.9 mm
PS1610110-16-16	3.63" 92.2 mm	2.20" 55.9 mm	1-11/2 NPTF	1-5/16-20 UN	1.62" 41.3 mm	1.88" 47.6 mm

**Female Pipe - Female Pipe**



Part Number	A	B	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS410202-4-4	2.16" 54.9 mm	1.60" 40.6 mm	1/4-18 NPTF	1/4-18 NPTF	.75" 19.0 mm	1.19" 30.2 mm
PS610202-6-6	2.30" 58.3 mm	1.64" 41.7 mm	3/8-18 NPTF	3/8-18 NPTF	.88" 22.2 mm	1.31" 33.3 mm
PS810202-8-8	2.56" 65.0 mm	1.79" 45.5 mm	1/2-14 NPTF	1/2-14 NPTF	1.12" 28.6 mm	1.50" 36.5 mm
PS1210202-12-12	2.88" 73.1 mm	1.85" 47.0 mm	3/4-14 NPTF	3/4-14 NPTF	1.38" 35.0 mm	1.69" 42.9 mm
PS1610202-16-16	3.16" 80.1 mm	2.11" 53.5 mm	1-11/2 NPTF	1-11/2 NPTF	1.62" 41.3 mm	1.88" 47.6 mm

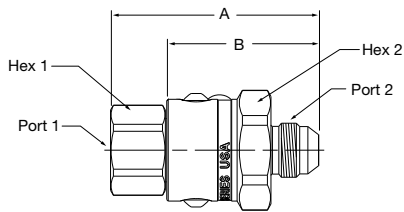
**3 Piece Design**



Part Number	A	B	Wrench Flats 1	Wrench Flats 2	Port 1	Port 2
PS2410202-20-20	4.67" 118.6 mm	3.38" 85.9 mm	2.63" 66.7 mm	2.88" 73.0 mm	1 1/4-11 1/2 NPTF	1 1/4-11 1/2 NPTF
PS2410202-24-24	4.67" 118.6 mm	3.38" 85.9 mm	2.63" 66.7 mm	2.88" 73.0 mm	1 1/2-11 1/2 NPTF	1 1/2-11 1/2 NPTF
PS3210202-32-32	4.88" 123.9 mm	3.58" 90.8 mm	3.06" 77.6 mm	3.35" 85.1 mm	2-11 1/2 NPTF	2-11 1/2 NPTF

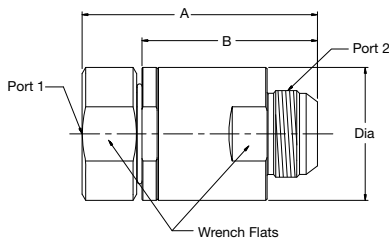


## Female Pipe - Male 37° Flare



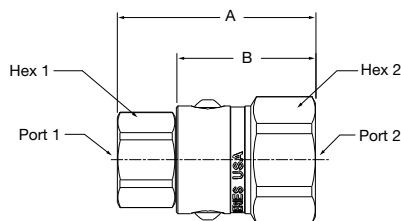
Part Number	A	B	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS410203-4-4	2.43" 61.7 mm	1.87" 47.5 mm	1/4-18 NPTF	7/16-20 UNF	.75" 19.0 mm	1.19" 30.2 mm
PS610203-6-6	2.56" 65.0 mm	1.90" 48.3 mm	3/8-18 NPTF	9/16-18 UNF	.88" 22.2 mm	1.31" 33.3 mm
PS810203-8-8	2.86" 72.7 mm	2.09" 53.1 mm	1/2-14 NPTF	3/4-16 UNF	1.12" 28.6 mm	1.50" 36.5 mm
PS1210203-12-12	3.33" 84.5 mm	2.30" 58.4 mm	3/4-14 NPTF	1-1/16-12 UN	1.38" 35.0 mm	1.69" 42.9 mm
PS1610203-16-16	3.50" 88.9 mm	2.45" 62.2 mm	1-11 1/2 NPTF	1-5/16-12 UN	1.62" 41.3 mm	1.88" 47.6 mm

## 3 Piece Design



Part Number	A	B	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS2410203-20-20	5.06" 128.6 mm	3.78" 95.9 mm	1 1/4-11 1/2 NPTF	1 5/8-12 UN	2.63" 66.7 mm	2.88" 73.0 mm
PS2410203-24-24	5.06" 128.6 mm	3.78" 95.9 mm	1 1/2-11 1/2 NPTF	1 7/8-12 UN	2.63" 66.7 mm	2.88" 73.0 mm
PS3210203-32-32	5.58" 141.7 mm	4.28" 108.6 mm	2-11 1/2 NPTF	2 1/2-12 UN	3.06" 77.6 mm	3.35" 85.1 mm

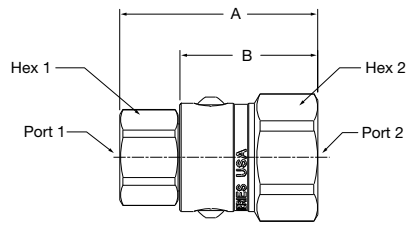
## Female Pipe - Female 37° Flare



Part Number	A	B	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS410206-4-4	2.29" 58.2 mm	1.73" 43.9 mm	1/4-18 NPTF	7/16-20 UNF	.75" 19.0 mm	1.19" 30.2 mm
PS610206-6-6	2.41" 61.1 mm	1.75" 44.5 mm	3/8-18 NPTF	9/16-18 UNF	.88" 22.2 mm	1.31" 33.3 mm
PS810206-8-8	2.58" 65.6 mm	1.81" 46.0 mm	1/2-14 NPTF	3/4-16 UNF	1.12" 28.6 mm	1.50" 36.5 mm
PS1210206-12-12	3.05" 77.4 mm	2.02" 51.3 mm	3/4-14 NPTF	1-1/16-12 UN	1.38" 35.0 mm	1.69" 42.9 mm
PS1610206-16-16	3.24" 82.3 mm	2.19" 55.6 mm	1-11 1/2 NPTF	1-5/16-12 UN	1.62" 41.3 mm	1.88" 47.6 mm

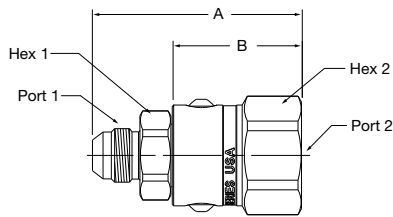


**Female Pipe - Female SAE Straight Thread**



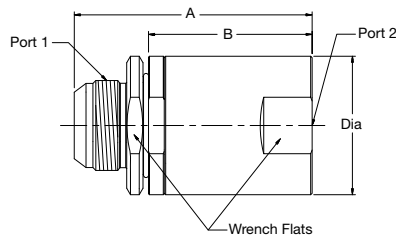
Part Number	A	B	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS410210-4-4	2.28" 57.9 mm	1.72" 43.7 mm	1/4-18 NPTF	7/16-20 UNF	.75" 19.0 mm	1.19" 30.2 mm
PS610210-6-6	2.38" 60.4 mm	1.72" 43.7 mm	3/8-18 NPTF	9/16-18 UNF	.88" 22.2 mm	1.31" 33.3 mm
PS810210-8-8	2.56" 65.0 mm	1.79" 45.5 mm	1/2-14 NPTF	3/4-16 UNF	1.12" 28.6 mm	1.50" 36.5 mm
PS1210210-12-12	3.11" 78.9 mm	2.08" 52.8 mm	3/4-14 NPTF	1-1/16-12 UN	1.38" 35.0 mm	1.69" 42.9 mm
PS1610210-16-16	3.25" 82.6 mm	2.20" 55.9 mm	1-11 1/2 NPTF	1-5/16-20 UN	1.62" 41.3 mm	1.88" 47.6 mm

**Male 37° Flare - Female Pipe**



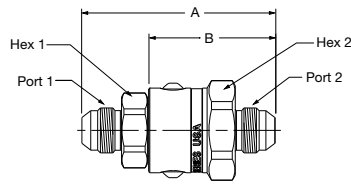
Part Number	A	B	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS410302-4-4	2.59" 65.8 mm	1.60" 40.6 mm	7/16-20 UNF	1/4-18 NPTF	.75" 19.0 mm	1.19" 30.2 mm
PS610302-6-6	2.66" 67.5 mm	1.64" 41.7 mm	9/16-18 UNF	3/8-18 NPTF	.88" 22.2 mm	1.31" 33.3 mm
PS810302-8-8	2.89" 73.5 mm	1.79" 45.5 mm	3/4-16 UNF	1/2-14 NPTF	1.12" 28.6 mm	1.50" 36.5 mm
PS1210302-12-12	3.21" 81.5 mm	1.85" 47.0 mm	1-1/16-12 UN	3/4-14 NPTF	1.38" 35.0 mm	1.69" 42.9 mm
PS1610302-16-16	3.54" 89.8 mm	2.11" 53.5 mm	1-5/16-12 UN	1-11 1/2 NPTF	1.62" 41.3 mm	1.88" 47.6 mm

**3 Piece Design**



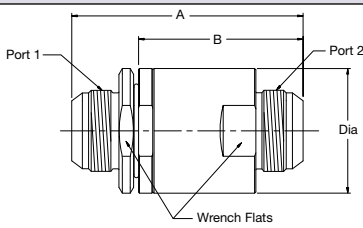
Part Number	A	B	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS2410302-20-20	4.91" 124.8 mm	3.38" 85.9 mm	1 5/8-12 UN	1 1/4-11 1/2 NPTF	2.63" 66.7 mm	2.88" 73.0 mm
PS2410302-24-24	4.91" 124.8 mm	3.38" 85.9 mm	1 7/8-12 UN	1 1/2-11 1/2 NPTF	2.63" 66.7 mm	2.88" 73.0 mm
PS3210302-32-32	5.50" 139.8 mm	3.58" 90.8 mm	2 1/2-12 UN	2-11 1/2 NPTF	3.06" 77.6 mm	3.35" 85.1 mm

**Male 37° Flare - Male 37° Flare**



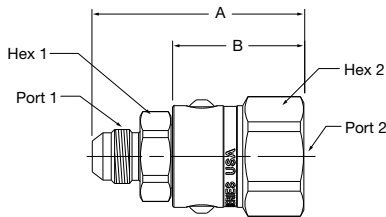
Part Number	A	B	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS410303-4-4	2.86" 72.6 mm	1.87" 47.5 mm	7/16-20 UNF	7/16-20 UNF	.75" 19.0 mm	1.19" 30.2 mm
PS610303-6-6	2.92" 74.1 mm	1.90" 48.3 mm	9/16-18 UNF	9/16-18 UNF	.88" 22.2 mm	1.31" 33.3 mm
PS810303-8-8	3.19" 81.1 mm	2.09" 53.1 mm	3/4-16 UNF	3/4-16 UNF	1.12" 28.6 mm	1.50" 36.5 mm
PS810303-10-10	3.39" 86.2 mm	2.19" 55.6 mm	7/8-14 UNF	7/8-14 UNF	1.12" 28.6 mm	1.50" 36.5 mm
PS1210303-12-12	3.66" 92.9 mm	2.30" 58.4 mm	1-1/16-12 UN	1-1/16-12 UN	1.38" 35.0 mm	1.69" 42.9 mm
PS1610303-16-16	3.88" 98.6 mm	2.45" 62.2 mm	1-5/16-12 UN	1-5/16-12 UN	1.62" 41.3 mm	1.88" 47.6 mm

**3 Piece Design**



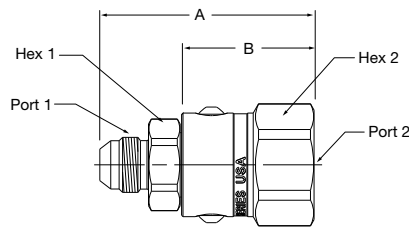
Part Number	A	B	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS2410303-20-20	5.31" 134.8 mm	3.78" 95.9 mm	1 5/8-12 UN	1 5/8-12 UN	2.63" 66.7 mm	2.88" 73.0 mm
PS2410303-24-24	5.31" 134.8 mm	3.78" 95.9 mm	1 7/8-12 UN	1 7/8-12 UN	2.63" 66.7 mm	2.88" 73.0 mm
PS3210303-32-32	6.20" 157.5 mm	4.28" 108.6 mm	2 1/2-12 UN	2 1/2-12 UN	3.06" 77.6 mm	3.35" 85.1 mm

**Male 37° Flare - Female 37° Flare**



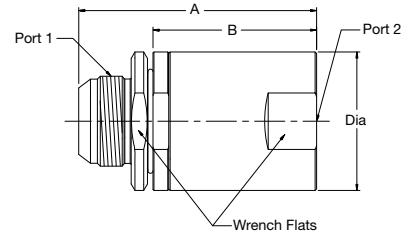
Part Number	A	B	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS410306-4-4	2.72" 69.1 mm	1.73" 43.9 mm	7/16-20 UNF	7/16-20 UNF	.75" 19.0 mm	1.19" 30.2 mm
PS610306-6-6	2.77" 70.3 mm	1.75" 44.5 mm	9/16-18 UNF	9/16-18 UNF	.88" 22.2 mm	1.31" 33.3 mm
PS810306-8-8	2.91" 74.0 mm	1.81" 46.0 mm	3/4-16 UNF	3/4-16 UNF	1.12" 28.6 mm	1.50" 36.5 mm
PS1210306-12-12	3.38" 85.8 mm	2.02" 51.3 mm	1-1/16-12 UN	1-1/16-12 UN	1.38" 35.0 mm	1.69" 42.9 mm
PS1610306-16-16	3.62" 92.0 mm	2.19" 55.6 mm	1-5/16-12 UN	1-5/16-12 UN	1.62" 41.3 mm	1.88" 47.6 mm

**Male 37° Flare - Female SAE Straight Thread**



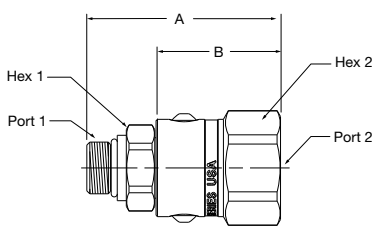
Part Number	A	B	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS410310-4-4	2.71" 68.8 mm	1.72" 43.7 mm	7/16-20 UNF	7/16-20 UNF	.75" 19.0 mm	1.19" 30.2 mm
PS610310-6-6	2.74" 69.6 mm	1.72" 43.7 mm	9/16-18 UNF	9/16-18 UNF	.88" 22.2 mm	1.31" 33.3 mm
PS810310-8-8	2.89" 73.5 mm	1.79" 45.5 mm	3/4-16 UNF	3/4-16 UNF	1.12" 28.6 mm	1.50" 36.5 mm
PS1210310-12-12	3.44" 87.3 mm	2.08" 52.8 mm	1-1/16-12 UN	1-1/16-12 UN	1.38" 35.0 mm	1.69" 42.9 mm
PS1610310-16-16	3.63" 92.2 mm	2.20" 55.9 mm	1-5/16-12 UN	1-5/16-12 UN	1.62" 41.3 mm	1.88" 47.6 mm

**3 Piece Design**



Part Number	A	B	C	D	Diameter	Port 1	Port 2	Wrench Flats
PS2410310-20-20	6.16" 150.2 mm	4.63" 117.5 mm	3.43" 87.0 mm	1.27" 32.3 mm	2.63" 66.7 mm	1 5/8-12 UN	1 5/8-12 UN	3.36" 85.2 mm
PS2410310-24-24	6.16" 150.2 mm	4.63" 117.5 mm	3.43" 87.0 mm	1.27" 32.3 mm	2.63" 66.7 mm	17/8-12 UN	17/8-12 UN	3.36" 85.2 mm
PS3210310-32-32	7.38" 187.4 mm	5.45" 138.4 mm	3.93" 99.7 mm	1.52" 38.5 mm	3.06" 77.6 mm	2 1/2-12 UN	2 1/2-12 UN	4.19" 106.4 mm

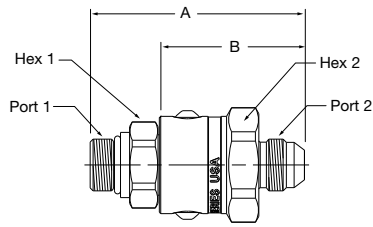
**Male SAE O-Ring Straight Thread - Female Pipe**



Part Number	A	B	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS410502-4-4	2.44" 62.1 mm	1.60" 40.6 mm	7/16-20 UNF	1/4-18 NPTF	.75" 19.0 mm	1.19" 30.2 mm
PS610502-6-6	2.48" 63.0 mm	1.64" 41.7 mm	9/16-18 UNF	3/8-18 NPTF	.88" 22.2 mm	1.31" 33.3 mm
PS810502-8-8	2.79" 70.8 mm	1.79" 45.5 mm	3/4-16 UNF	1/2-14 NPTF	1.12" 28.6 mm	1.50" 36.5 mm
PS1210502-12-12	3.02" 76.7 mm	1.85" 47.0 mm	1-1/16-12 UN	3/4-14 NPTF	1.38" 35.0 mm	1.69" 42.9 mm
PS1610502-16-16	3.31" 84.1 mm	2.11" 53.5 mm	1-5/16-12 UN	1-11 1/2 NPTF	1.62" 41.3 mm	1.88" 47.6 mm

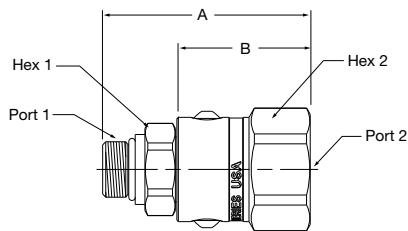


## Male SAE O-Ring Straight Thread - Male 37° Flare



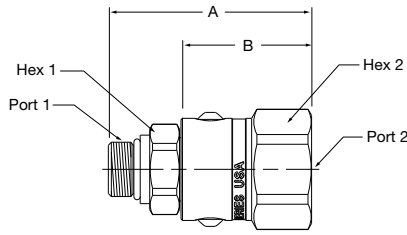
Part Number	A	B	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS410503-4-4	2.71" 68.9 mm	1.87" 47.5 mm	7/16-20 UNF	7/16-20 UNF	.75" 19.0 mm	1.19" 30.2 mm
PS610503-6-6	2.74" 69.6 mm	1.90" 48.3 mm	9/16-18 UNF	9/16-18 UNF	.88" 22.2 mm	1.31" 33.3 mm
PS810503-8-8	3.09" 78.4 mm	2.09" 53.1 mm	3/4-16 UNF	3/4-16 UNF	1.12" 28.6 mm	1.50" 36.5 mm
PS810503-10-10	3.25" 82.5 mm	2.19" 55.6 mm	7/8-14 UNF	7/8-14 UNF	1.12" 28.6 mm	1.50" 36.5 mm
PS1210503-12-12	3.47" 88.2 mm	2.30" 58.4 mm	1-1/16-12 UN	1-1/16-12 UN	1.38" 35.0 mm	1.69" 42.9 mm
PS1610503-16-16	3.66" 92.9 mm	2.45" 62.2 mm	1-5/16-12 UN	1-5/16-12 UN	1.62" 41.3 mm	1.88" 47.6 mm

## Male SAE O-Ring Straight Thread - Female 37° Flare



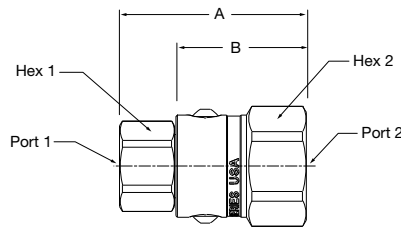
Part Number	A	B	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS410506-4-4	2.57" 65.4 mm	1.73" 43.9 mm	7/16-20 UNF	7/16-20 UNF	.75" 19.0 mm	1.19" 30.2 mm
PS610506-6-6	2.59" 65.8 mm	1.75" 44.5 mm	9/16-18 UNF	9/16-18 UNF	.88" 22.2 mm	1.31" 33.3 mm
PS810506-8-8	2.81" 71.3 mm	1.81" 46.0 mm	3/4-16 UNF	3/4-16 UNF	1.12" 28.6 mm	1.50" 36.5 mm
PS1210506-12-12	3.19" 81.1 mm	2.02" 51.3 mm	1-1/16-12 UN	1-1/16-12 UN	1.38" 35.0 mm	1.69" 42.9 mm
PS1610506-16-16	3.40" 86.3 mm	2.19" 55.6 mm	1-5/16-12 UN	1-5/16-12 UN	1.62" 41.3 mm	1.88" 47.6 mm

**Male SAE O-Ring Straight Thread - Female SAE Straight Thread**



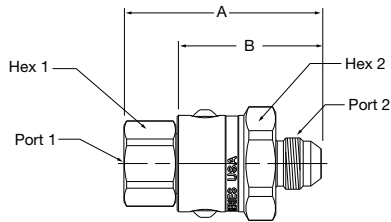
Part Number	A	B	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS410510-4-4	2.56" 65.0 mm	1.72" 43.7 mm	7/16-20 UNF	7/16-20 UNF	.75" 19.0 mm	1.19" 30.2 mm
PS610510-6-6	2.56" 65.0 mm	1.72" 43.7 mm	9/16-18 UNF	9/16-18 UNF	.88" 22.2 mm	1.31" 33.3 mm
PS810510-8-8	2.79" 70.8 mm	1.79" 45.5 mm	3/4-16 UNF	3/4-16 UNF	1.12" 28.6 mm	1.50" 36.5 mm
PS1210510-12-12	3.25" 82.6 mm	2.08" 52.8 mm	1-1/16-12 UN	1-1/16-12 UN	1.38" 35.0 mm	1.69" 42.9 mm
PS1610510-16-16	3.41" 86.5 mm	2.20" 55.9 mm	1-5/16-12 UN	1-5/16-12 UN	1.62" 41.3 mm	1.88" 47.6 mm

**Female SAE Straight Thread - Female Pipe**



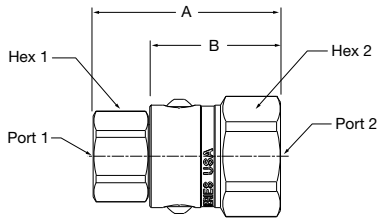
Part Number	A	B	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS411002-4-4	2.16" 55.0 mm	1.60" 40.6 mm	7/16-20 UNF	1/4-18 NPTF	.75" 19.0 mm	1.19" 30.2 mm
PS611002-6-6	2.30" 58.3 mm	1.64" 41.7 mm	9/16-18 UNF	3/8-18 NPTF	.88" 22.2 mm	1.31" 33.3 mm
PS811002-8-8	2.56" 65.0 mm	1.79" 45.5 mm	3/4-16 UNF	1/2-14 NPTF	1.12" 28.6 mm	1.50" 36.5 mm
PS1211002-12-12	2.88" 73.1 mm	1.85" 47.0 mm	1-1/16-12 UN	3/4-14 NPTF	1.38" 35.0 mm	1.69" 42.9 mm
PS1611002-16-16	3.16" 80.1 mm	2.11" 53.5 mm	1-5/16-12 UN	1-11 1/2 NPTF	1.62" 41.3 mm	1.88" 47.6 mm

## Female SAE Straight Thread - Male 37° Flare



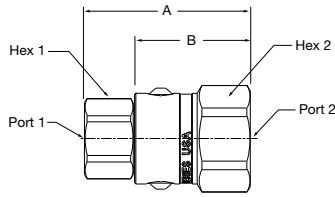
Part Number	A	B	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS411003-4-4	2.43" 61.8 mm	1.87" 47.5 mm	7/16-20 UNF	7/16-20 UNF	.75" 19.0 mm	1.19" 30.2 mm
PS611003-6-6	2.56" 65.0 mm	1.90" 48.3 mm	9/16-18 UNF	9/16-18 UNF	.88" 22.2 mm	1.31" 33.3 mm
PS811003-8-8	2.86" 72.7 mm	2.09" 53.1 mm	3/4-16 UNF	3/4-16 UNF	1.12" 28.6 mm	1.50" 36.5 mm
PS1211003-12-12	3.33" 84.5 mm	2.30" 58.4 mm	1-1/16-12 UN	1-1/16-12 UN	1.38" 35.0 mm	1.69" 42.9 mm
PS1611003-16-16	3.50" 88.9 mm	2.45" 62.2 mm	1-5/16-12 UN	1-5/16-12 UN	1.62" 41.3 mm	1.88" 47.6 mm

## Female SAE Straight Thread - Female 37° Flare



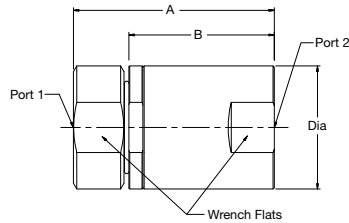
Part Number	A	B	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS411006-4-4	2.29" 58.3 mm	1.73" 43.9 mm	7/16-20 UNF	7/16-20 UNF	.75" 19.0 mm	1.19" 30.2 mm
PS611006-6-6	2.41" 61.1 mm	1.75" 44.5 mm	9/16-18 UNF	9/16-18 UNF	.88" 22.2 mm	1.31" 33.3 mm
PS811006-8-8	2.58" 65.6 mm	1.81" 46.0 mm	3/4-16 UNF	3/4-16 UNF	1.12" 28.6 mm	1.50" 36.5 mm
PS1211006-12-12	3.05" 77.4 mm	2.02" 51.3 mm	1-1/16-12 UN	1-1/16-12 UN	1.38" 35.0 mm	1.69" 42.9 mm
PS1611006-16-16	3.24" 82.3 mm	2.19" 55.6 mm	1-5/16-12 UN	1-5/16-12 UN	1.62" 41.3 mm	1.88" 47.6 mm

Female SAE Straight Thread - Female SAE Straight Thread



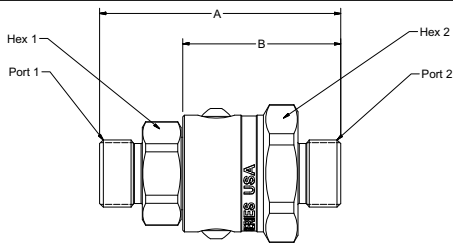
Part Number	A	B	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS411010-4-4	2.28" 58.0 mm	1.72" 43.7 mm	7/16-20 UNF	7/16-20 UNF	.75" 19.0 mm	1.19" 30.2 mm
PS611010-6-6	2.38" 60.4 mm	1.72" 43.7 mm	9/16-18 UNF	9/16-18 UNF	.88" 22.2 mm	1.31" 33.3 mm
PS811010-8-8	2.56" 65.0 mm	1.79" 45.5 mm	3/4-16 UNF	3/4-16 UNF	1.12" 28.6 mm	1.50" 36.5 mm
PS1211010-12-12	3.11" 78.9 mm	2.08" 52.8 mm	1-1/16-12 UN	1-1/16-12 UN	1.38" 35.0 mm	1.69" 42.9 mm
PS1611010-16-16	3.25" 82.6 mm	2.20" 55.9 mm	1-5/16-12 UN	1-5/16-12 UN	1.62" 41.3 mm	1.88" 47.6 mm

3 Piece Design



Part Number	A	B	C	D	Diameter	Port 1	Port 2	Wrench Flats
PS2411010-20-20	5.91" 150.2 mm	4.63" 117.5 mm	3.43" 87.0 mm	1.27" 32.3 mm	2.63" 66.7 mm	1 5/8-12 UN	1 5/8-12 UN	3.36" 85.2 mm
PS2411010-24-24	5.91" 150.2 mm	4.63" 117.5 mm	3.43" 87.0 mm	1.27" 32.3 mm	2.63" 66.7 mm	1 7/8-12 UN	1 7/8-12 UN	3.36" 85.2 mm
PS3211010-32-32	6.83" 173.6 mm	5.45" 138.4 mm	3.93" 99.7 mm	1.52" 38.5 mm	3.06" 77.6 mm	2 1/2-12 UN	2-1/2-12 UN	4.19" 106.4 mm

Male Seal-Lok - Male Seal-Lok



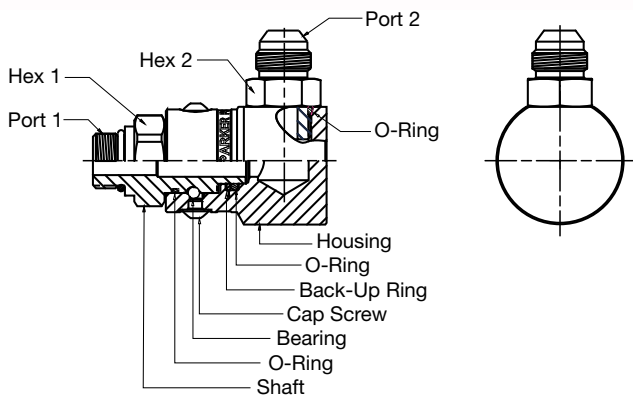
Part Number	A	B	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS61JMJM-6-6	2.67" 67.8 mm	1.83" 46.5 mm	11/16 - 16 UN	11/16 - 16 UN	.88" 22.2 mm	1.31" 33.3 mm
PS81JMJM-8-8	2.89" 73.4 mm	1.90" 48.3 mm	13/16 - 16 UN	13/16 - 16 UN	1.12" 28.6 mm	1.50" 38.1 mm
PS121JMJM-12-12	3.26" 82.8 mm	2.09" 53.1 mm	1-3/16 - 12 UN	1-3/16 - 12 UN	1.38" 35.0 mm	1.75" 44.4 mm
PS161JMJM-16-16	3.41" 86.6 mm	2.20" 55.9 mm	1-7/16 - 12 UN	1-7/16 - 12 UN	1.62" 41.3 mm	1.88" 47.8 mm



**Materials Of Construction**

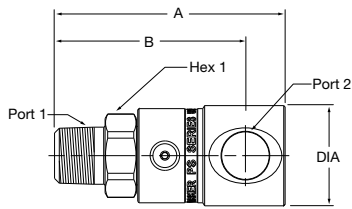
- Housing\*: ..... Carbon Steel
- Shaft\*: ..... Carbon Steel
- Plating\*: ..... Chromium-6 Free
- Bearing\*: ..... Chrome
- O-Rings\*: ..... Nitrile
- Back-Up Ring ..... PTFE

\* See How-To-Order for optional material, plating, and seals.



D Swivels

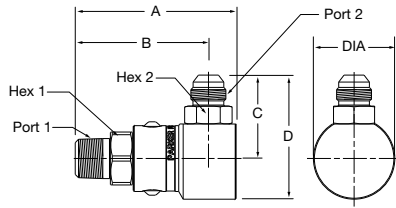
**Male Pipe - Female Pipe**



Part Number	A	B	Diameter	Port 1	Port 2	Wrench Flats 1
PS490102-4-4	2.85" 72.3 mm	2.44" 62.0 mm	1.20" 30.5 mm	1/4-18 NPTF	1/4-18 NPTF	.75" 19.0 mm
PS690102-6-6	3.05" 77.4 mm	2.54" 64.4 mm	1.29" 32.8 mm	3/8-18 NPTF	3/8-18 NPTF	.88" 22.2 mm
PS890102-8-8	3.43" 87.0 mm	2.84" 72.0 mm	1.49" 37.8 mm	1/2-14 NPTF	1/2-14 NPTF	1.12" 28.6 mm
PS1290102-12-12	3.66" 93.0 mm	3.00" 76.1 mm	1.76" 44.6 mm	3/4-14 NPTF	3/4-14 NPTF	1.38" 35.0 mm
PS1690102-16-16	4.41" 112.0 mm	3.54" 90.0 mm	2.16" 54.9 mm	1-11 1/2 NPTF	1-11 1/2 NPTF	1.62" 41.3 mm

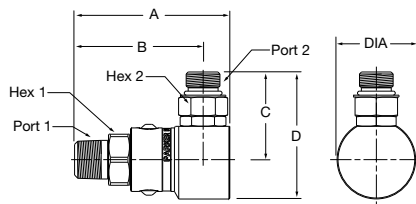


Male Pipe - Male 37° Flare



Part Number	A	B	C	D	Diameter	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS490103-4-4	2.85" 72.3 mm	2.44" 62.0 mm	1.39" 35.2 mm	1.99" 50.5 mm	1.20" 30.5 mm	1/4-18 NPTF	7/16-20 UNF	.75" 19.0 mm	.56" 14.3 mm
PS690103-6-6	3.05" 77.4 mm	2.54" 64.4 mm	1.44" 36.6 mm	2.09" 53.0 mm	1.29" 32.8 mm	3/8-18 NPTF	9/16-18 UNF	.88" 22.2 mm	.69" 17.5 mm
PS890103-8-8	3.43" 87.0 mm	2.84" 72.0 mm	1.78" 45.1 mm	2.64" 67.1 mm	1.73" 44.0 mm	1/2-14 NPTF	3/4-16 UNF	1.12" 28.6 mm	.88" 22.2 mm
PS1290103-12-12	3.66" 93.0 mm	3.00" 76.1 mm	2.24" 56.9 mm	3.86" 85.3 mm	2.17" 55.2 mm	3/4-14 NPTF	1-1/16-12 UN	1.38" 35.0 mm	1.25" 31.8 mm
PS1690103-16-16	4.41" 112.0 mm	3.54" 90.0 mm	2.42" 61.3 mm	3.66" 92.9 mm	2.48" 63.0 mm	1-11 1/2 NPTF	1-5/16-12 UN	1.62" 41.3 mm	1.50" 38.1 mm

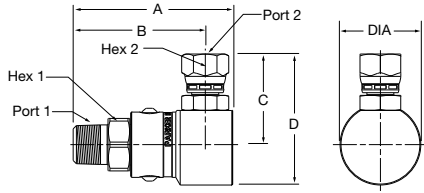
Male Pipe - Male SAE O-Ring Straight Thread



Part Number	A	B	C	D	Diameter	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS490105-4-4	2.85" 72.3 mm	2.44" 62.0 mm	1.38" 35.0 mm	1.98" 50.2 mm	1.20" 30.5 mm	1/4-18 NPTF	7/16-20 UNF	.75" 19.0 mm	.56" 14.3 mm
PS690105-6-6	3.05" 77.4 mm	2.54" 64.4 mm	1.55" 39.4 mm	2.20" 55.8 mm	1.29" 32.8 mm	3/8-18 NPTF	9/16-18 UNF	.88" 22.2 mm	.69" 17.5 mm
PS890105-8-8	3.43" 87.0 mm	2.84" 72.0 mm	1.86" 47.2 mm	2.72" 69.2 mm	1.73" 44.0 mm	1/2-14 NPTF	3/4-16 UNF	1.12" 28.6 mm	.88" 22.2 mm
PS1290105-12-12	3.66" 93.0 mm	3.00" 76.1 mm	2.40" 61.0 mm	3.49" 88.5 mm	2.17" 55.2 mm	3/4-14 NPTF	1-1/16-12 UN	1.38" 35.0 mm	1.25" 31.8 mm
PS1690105-16-16	4.41" 112.0 mm	3.54" 90.0 mm	2.50" 63.4 mm	3.74" 94.9 mm	2.48" 63.0 mm	1-11 1/2 NPTF	1-5/16-12 UN	1.62" 41.3 mm	1.50" 38.1 mm

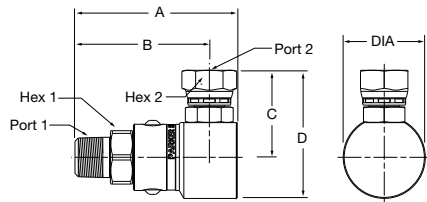
D Swivels

Male Pipe - Female 37° Flare



Part Number	A	B	C	D	Diameter	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS490106-4-4	2.85" 72.3 mm	2.44" 62.0 mm	1.47" 37.3 mm	2.07" 52.5 mm	1.20" 30.5 mm	1/4-18 NPTF	7/16-20 UNF	.75" 19.0 mm	.56" 14.3 mm
PS690106-6-6	3.05" 77.4 mm	2.54" 64.4 mm	1.57" 39.9 mm	2.22" 56.3 mm	1.29" 32.8 mm	3/8-18 NPTF	9/16-18 UNF	.88" 22.2 mm	.69" 17.5 mm
PS890106-8-8	3.43" 87.0 mm	2.84" 72.0 mm	1.91" 48.4 mm	2.77" 70.4 mm	1.73" 44.0 mm	1/2-14 NPTF	3/4-16 UNF	1.12" 28.6 mm	.88" 22.2 mm
PS1290106-12-12	3.66" 93.0 mm	3.00" 76.1 mm	2.34" 59.4 mm	3.43" 87.0 mm	2.17" 55.2 mm	3/4-14 NPTF	1-1/16-12 UN	1.38" 35.0 mm	1.25" 31.8 mm
PS1690106-16-16	4.41" 112.0 mm	3.54" 90.0 mm	2.54" 64.6 mm	3.79" 96.2 mm	2.48" 63.0 mm	1-11 1/2 NPTF	1-5/16-12 UN	1.62" 41.3 mm	1.50" 38.1 mm

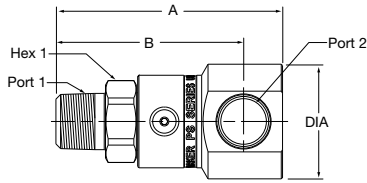
Male Pipe - Female NPSM Pipe Swivel



Part Number	A	B	C	D	Diameter	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS490107-4-4	2.85" 72.3 mm	2.44" 62.0 mm	1.48" 37.5 mm	2.08" 52.8 mm	1.20" 30.5 mm	1/4-18 NPTF	1/4-18 NPSM	.75" 19.0 mm	.69" 17.4 mm
PS690107-6-6	3.05" 77.4 mm	2.54" 64.4 mm	1.51" 38.4 mm	2.16" 54.8 mm	1.29" 32.8 mm	3/8-18 NPTF	3/8-18 NPSM	.88" 22.2 mm	.88" 22.2 mm
PS890107-8-8	3.43" 87.0 mm	2.84" 72.0 mm	1.86" 47.2 mm	2.72" 69.2 mm	1.73" 44.0 mm	1/2-14 NPTF	1/2-14 NPSM	1.12" 28.6 mm	1.00" 25.4 mm
PS1290107-12-12	3.66" 93.0 mm	3.00" 76.1 mm	2.24" 56.9 mm	3.33" 84.5 mm	2.17" 55.2 mm	3/4-14 NPTF	3/4-14 NPSM	1.38" 35.0 mm	1.25" 31.8 mm
PS1690107-16-16	4.41" 112.0 mm	3.54" 90.0 mm	2.48" 63.1 mm	3.73" 94.6 mm	2.48" 63.0 mm	1-11 1/2 NPTF	1-11 1/2 NPSM	1.62" 41.3 mm	1.50" 38.1 mm

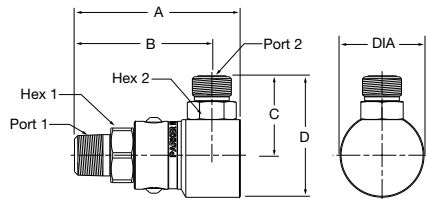
D Swivels

Male Pipe - Female SAE Straight Thread



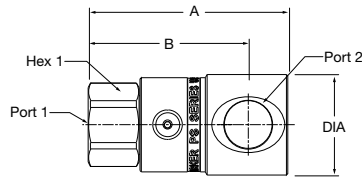
Part Number	A	B	Diameter	Port 1	Port 2	Wrench Flats 1
PS490110-4-4	2.85" 72.3 mm	2.44" 62.0 mm	1.20" 30.5 mm	1/4-18 NPTF	7/16-20 UNF	.75" 19.0 mm
PS690110-6-6	3.05" 77.4 mm	2.54" 64.4 mm	1.29" 32.8 mm	3/8-18 NPTF	9/16-18 UNF	.88" 22.2 mm
PS890110-8-8	3.43" 87.0 mm	2.84" 72.0 mm	1.73" 44.0 mm	1/2-14 NPTF	3/4-16 UNF	1.12" 28.6 mm
PS1290110-12-12	3.66" 93.0 mm	3.00" 76.1 mm	2.17" 55.2 mm	3/4-14 NPTF	1-1/16-12 UN	1.38" 35.0 mm
PS1690110-16-16	4.41" 112.0 mm	3.54" 90.0 mm	2.48" 63.0 mm	1-11 1/2 NPTF	1-5/16-12 UN	1.62" 41.3 mm

Male Pipe - O-Ring Face Seal



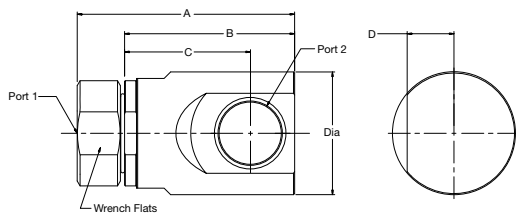
Part Number	A	B	C	D	Diameter	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS4901JM-4-4	2.85" 72.3 mm	2.44" 62.0 mm	1.29" 32.5 mm	1.89" 47.9 mm	1.20" 30.5 mm	1/4-18 NPTF	9/16-18 UNF	.75" 19.0 mm	.56" 14.3 mm
PS6901JM-6-6	3.05" 77.4 mm	2.54" 64.4 mm	1.40" 35.6 mm	2.05" 52.0 mm	1.29" 32.8 mm	3/8-18 NPTF	11/16-16 UN	.88" 22.2 mm	.69" 17.5 mm
PS8901JM-8-8	3.43" 87.0 mm	2.84" 72.0 mm	1.74" 44.1 mm	2.60" 66.1 mm	1.73" 44.0 mm	1/2-14 NPTF	13/16-16 UN	1.12" 28.6 mm	.88" 22.2 mm
PS12901JM-12-12	3.66" 93.0 mm	3.00" 76.1 mm	2.18" 55.4 mm	3.27" 83.0 mm	2.17" 55.2 mm	3/4-14 NPTF	1-3/16-12 UN	1.38" 35.0 mm	1.25" 31.8 mm
PS16901JM-16-16	4.41" 112.0 mm	3.54" 90.0 mm	2.34" 59.6 mm	3.59" 91.1 mm	2.48" 63.0 mm	1-11 1/2 NPTF	1-7/16-12 UN	1.62" 41.3 mm	1.50" 38.1 mm

Female Pipe - Female Pipe



Part Number	A	B	Diameter	Port 1	Port 2	Wrench Flats 1
PS490202-4-4	2.42" 61.4 mm	2.01" 51.2 mm	1.20" 30.5 mm	1/4-18 NPTF	1/4-18 NPTF	.75" 19.0 mm
PS690202-6-6	2.68" 68.2 mm	2.17" 55.2 mm	1.29" 32.8 mm	3/8-18 NPTF	3/8-18 NPTF	.88" 22.2 mm
PS890202-8-8	2.96" 75.3 mm	2.37" 60.3 mm	1.49" 37.8 mm	1/2-14 NPTF	1/2-14 NPTF	1.12" 28.6 mm
PS1290202-12-12	3.43" 87.2 mm	2.77" 70.4 mm	1.76" 44.6 mm	3/4-14 NPTF	3/4-14 NPTF	1.38" 35.0 mm
PS1690202-16-16	4.03" 102.3 mm	3.16" 80.3 mm	2.16" 54.9 mm	1-11 1/2 NPTF	1-11 1/2 NPTF	1.62" 41.3 mm

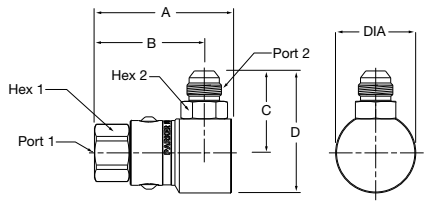
3 Piece Design



Part Number	A	B	C	D	Diameter	Port 1	Port 2	Wrench Flats
PS2490202-20-20	5.91" 150.2 mm	4.63" 117.5 mm	3.43" 87.0 mm	1.27" 32.3 mm	3.36" 85.2 mm	1 1/4-11 1/2 NPTF	1 1/4-11 1/2 NPTF	2.63" 66.7 mm
PS2490202-24-24	5.91" 150.2 mm	4.63" 117.5 mm	3.43" 87.0 mm	1.27" 32.3 mm	3.36" 85.2 mm	1 1/2-11 1/2 NPTF	1 1/2-11 1/2 NPTF	2.63" 66.7 mm
PS3290202-32-32	6.75" 171.5 mm	5.45" 138.4 mm	3.93" 99.7 mm	1.52" 38.5 mm	4.19" 106.4 mm	2 11-1/2 NPTF	2 11-1/2 NPTF	3.06" 77.6 mm

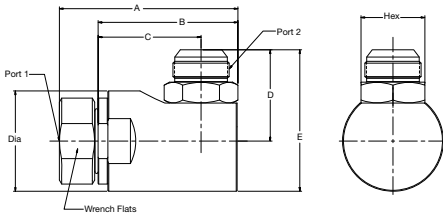
D Swivels

Female Pipe - Male 37° Flare



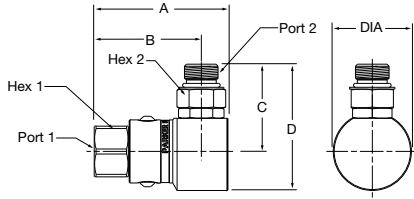
Part Number	A	B	C	D	Diameter	Port 1	Port 2	Wrench Flat 1	Wrench Flat 2
PS490203-4-4	2.42" 61.4 mm	2.01" 51.2 mm	1.39" 35.2 mm	1.99" 50.5 mm	1.20" 30.5 mm	1/4-18 NPTF	7/16-20 UNF	.75" 19.0 mm	.56" 14.3 mm
PS690203-6-6	2.68" 68.2 mm	2.17" 55.2 mm	1.44" 36.6 mm	2.09" 53.0 mm	1.29" 32.8 mm	3/8-18 NPTF	9/16-18 UNF	.88" 22.2 mm	.69" 17.5 mm
PS890203-8-8	2.96" 75.3 mm	2.37" 60.3 mm	1.78" 45.1 mm	2.64" 67.1 mm	1.73" 44.0 mm	1/2-14 NPTF	3/4-16 UNF	1.12" 28.6 mm	.88" 22.2 mm
PS1290203-12-12	3.43" 87.2 mm	2.77" 70.4 mm	2.24" 56.9 mm	3.86" 85.3 mm	2.17" 55.2 mm	3/4-14 NPTF	1-1/16-12 UN	1.38" 35.0 mm	1.25" 31.8 mm
PS1690203-16-16	4.03" 102.3 mm	3.16" 80.3 mm	2.42" 61.3 mm	3.66" 92.9 mm	2.48" 63.0 mm	1-11 1/2 NPTF	1-5/16-12 UN	1.62" 41.3 mm	1.50" 38.1 mm

3 Piece Design



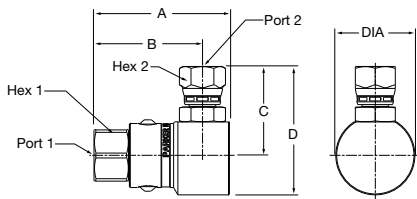
Part Number	A	B	C	D	E	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2	Wrench Flats 3
PS2490203-20-20	5.91" 150.2 mm	4.63" 117.5 mm	3.43" 87.0 mm	2.85" 72.4 mm	4.53" 115.0 mm	1 1/4-11 1/2 NPTF	1 5/8-12 UN	1.88" 47.6 mm	2.63" 66.7 mm	3.36" 85.2 mm
PS2490203-24-24	5.94" 150.9 mm	4.65" 118.2 mm	3.43" 87.0 mm	3.05" 77.6 mm	4.73" 120.2 mm	1 1/2-11 1/2 NPTF	17/8-12 UN	2.13" 54.0 mm	2.63" 66.7 mm	3.36" 85.2 mm
PS3290203-32-32	6.82" 173.1 mm	5.51" 140.0 mm	3.93" 99.7 mm	3.70" 94.0 mm	5.80" 147.2 mm	2 11-1/2 NPTF	2 1/2-12 UN	2.75" 69.8 mm	3.06" 77.6 mm	4.19" 106.4 mm

## Female Pipe - Male SAE O-Ring Straight Thread



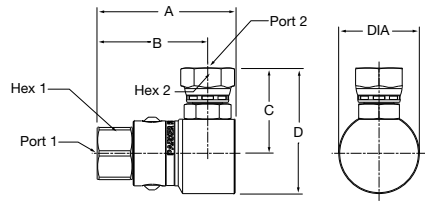
Part Number	A	B	C	D	Diameter	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS490205-4-4	2.42" 61.4 mm	2.01" 51.2 mm	1.38" 35.0 mm	1.98" 50.2 mm	1.20" 30.5 mm	1/4-18 NPTF	7/16-20 UNF	.75" 19.0 mm	.56" 14.3 mm
PS690205-6-6	2.68" 68.2 mm	2.17" 55.2 mm	1.55" 39.4 mm	2.20" 55.8 mm	1.29" 32.8 mm	3/8-18 NPTF	9/16-18 UNF	.88" 22.2 mm	.69" 17.5 mm
PS890205-8-8	2.96" 75.3 mm	2.37" 60.3 mm	1.86" 47.2 mm	2.72" 69.2 mm	1.73" 44.0 mm	1/2-14 NPTF	3/4-16 UNF	1.12" 28.6 mm	.88" 22.2 mm
PS1290205-12-12	3.43" 87.2 mm	2.77" 70.4 mm	2.40" 61.0 mm	3.49" 88.5 mm	2.17" 55.2 mm	3/4-14 NPTF	1-1/16-12 UN	1.38" 35.0 mm	1.25" 31.8 mm
PS1690205-16-16	4.03" 102.3 mm	3.16" 80.3 mm	2.50" 63.4 mm	3.74" 94.9 mm	2.48" 63.0 mm	1-11 1/2 NPTF	1-5/16-12 UN	1.62" 41.3 mm	1.50" 38.1 mm

## Female Pipe - Female 37° Flare



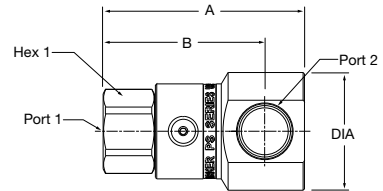
Part Number	A	B	C	D	Diameter	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS490206-4-4	2.42" 61.4 mm	2.01" 51.2 mm	1.47" 37.3 mm	2.07" 52.5 mm	1.20" 30.5 mm	1/4-18 NPTF	7/16-20 UNF	.75" 19.0 mm	.56" 14.3 mm
PS690206-6-6	2.68" 68.2 mm	2.17" 55.2 mm	1.57" 39.9 mm	2.22" 56.3 mm	1.29" 32.8 mm	3/8-18 NPTF	9/16-18 UNF	.88" 22.2 mm	.69" 17.5 mm
PS890206-8-8	2.96" 75.3 mm	2.37" 60.3 mm	1.91" 48.4 mm	2.77" 70.4 mm	1.73" 44.0 mm	1/2-14 NPTF	3/4-16 UNF	1.12" 28.6 mm	.88" 22.2 mm
PS1290206-12-12	3.43" 87.2 mm	2.77" 70.4 mm	2.34" 59.4 mm	3.43" 87.0 mm	2.17" 55.2 mm	3/4-14 NPTF	1-1/16-12 UN	1.38" 35.0 mm	1.25" 31.8 mm
PS1690206-16-16	4.03" 102.3 mm	3.16" 80.3 mm	2.54" 64.6 mm	3.79" 96.2 mm	2.48" 63.0 mm	1-11 1/2 NPTF	1-5/16-12 UN	1.62" 41.3 mm	1.50" 38.1 mm

**Female Pipe - Female NPSM Pipe Swivel**



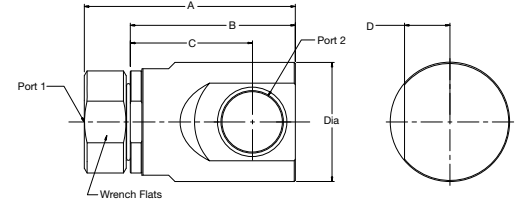
Part Number	A	B	C	D	Diameter	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS490207-4-4	2.42" 61.4 mm	2.01" 51.2 mm	1.48" 37.5 mm	2.08" 52.8 mm	1.20" 30.5 mm	1/4-18 NPTF	1/4-18 NPSM	.75" 19.0 mm	.69" 17.4 mm
PS690207-6-6	2.68" 68.2 mm	2.17" 55.2 mm	1.51" 38.4 mm	2.16" 54.8 mm	1.29" 32.8 mm	3/8-18 NPTF	3/8-18 NPSM	.88" 22.2 mm	.88" 22.2 mm
PS890207-8-8	2.96" 75.3 mm	2.37" 60.3 mm	1.86" 47.2 mm	2.72" 69.2 mm	1.73" 44.0 mm	1/2-14 NPTF	1/2-14 NPSM	1.12" 28.6 mm	1.00" 25.4 mm
PS1290207-12-12	3.43" 87.2 mm	2.77" 70.4 mm	2.24" 56.9 mm	3.33" 84.5 mm	2.17" 55.2 mm	3/4-14 NPTF	3/4-14 NPSM	1.38" 35.0 mm	1.25" 31.8 mm
PS1690207-16-16	4.03" 102.3 mm	3.16" 80.3 mm	2.48" 63.1 mm	3.73" 94.6 mm	2.48" 63.0 mm	1-11 1/2 NPTF	1-11 1/2 NPSM	1.62" 41.3 mm	1.50" 38.1 mm

**Female Pipe - Female SAE Straight Thread**



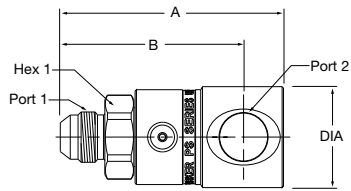
Part Number	A	B	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS490210-4-4	2.42" 61.4 mm	2.01" 51.2 mm	1/4-18 NPTF	7/16-20 UNF	1.20" 30.5 mm	.75" 19.0 mm
PS690210-6-6	2.68" 68.2 mm	2.17" 55.2 mm	3/8-18 NPTF	9/16-18 UNF	1.29" 32.8 mm	.88" 22.2 mm
PS890210-8-8	2.96" 75.3 mm	2.37" 60.3 mm	1/2-14 NPTF	3/4-16 UNF	1.73" 44.0 mm	1.12" 28.6 mm
PS1290210-12-12	3.43" 87.2 mm	2.77" 70.4 mm	3/4-14 NPTF	1-1/16-12 UN	2.17" 55.2 mm	1.38" 35.0 mm
PS1690210-16-16	4.03" 102.3 mm	3.16" 80.3 mm	1-11 1/2 NPTF	1-5/16-12 UN	2.48" 63.0 mm	1.62" 41.3 mm

**3 Piece Design**



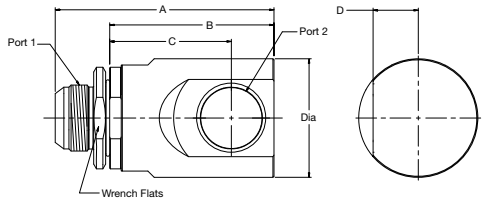
Part Number	A	B	C	D	Diameter	Port 1	Port 2	Wrench Flats
PS2490210-20-20	5.91" 150.2 mm	4.63" 117.5 mm	3.43" 87.0 mm	1.27" 32.3 mm	3.36" 85.2 mm	1 1/4-11 1/2 NPTF	1 5/8-12 UN	2.63" 66.7 mm
PS2490210-24-24	5.91" 150.2 mm	4.63" 117.5 mm	3.43" 87.0 mm	1.27" 32.3 mm	3.36" 85.2 mm	1 1/4-11 1/2 NPTF	1 5/8-12 UN	2.63" 66.7 mm
PS3290210-32-32	6.75" 171.5 mm	5.45" 138.4 mm	3.93" 99.7 mm	1.52" 38.5 mm	4.19" 106.4 mm	2 11-1/2 NPTF	2-1/2-12 UN	3.06" 77.6 mm

## Male 37° Flare - Female Pipe



Part Number	A	B	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS490302-4-4	2.85" 72.3 mm	2.44" 62.0 mm	7/16-20 UNF	1/4-18 NPTF	1.20" 30.5 mm	.75" 19.0 mm
PS690302-6-6	3.05" 77.4 mm	2.54" 64.4 mm	9/16-18 UNF	3/8-18 NPTF	1.29" 32.8 mm	.88" 22.2 mm
PS890302-8-8	3.29" 83.7 mm	2.70" 68.7 mm	3/4-16 UNF	1/2-14 NPTF	1.49" 37.8 mm	1.12" 28.6 mm
PS1290302-12-12	3.76" 95.6 mm	3.10" 78.8 mm	1-1/16-12 UN	3/4-14 NPTF	1.76" 44.6 mm	1.38" 35.0 mm
PS1690302-16-16	4.41" 112.0 mm	3.54" 90.0 mm	1-5/16-12 UN	1-11/2 NPTF	2.16" 54.9 mm	1.62" 41.3 mm

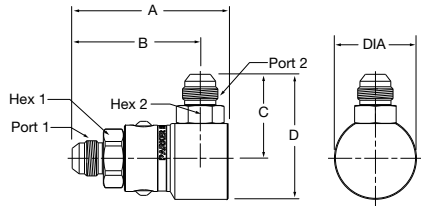
## 3 Piece Design



Part Number	A	B	C	D	Diameter	Port 1	Port 2	Wrench Flats
PS2490302-20-20	6.16" 150.2 mm	4.63" 117.5 mm	3.43" 87.0 mm	1.27" 32.3 mm	3.36" 85.2 mm	1 5/8-12 UN	1 1/4-11 1/2 NPTF	2.63" 66.7 mm
PS2490302-24-24	6.16" 150.2 mm	4.63" 117.5 mm	3.43" 87.0 mm	1.27" 32.3 mm	3.36" 85.2 mm	1 7/8-12 UN	1 1/2-11 1/2 NPTF	2.63" 66.7 mm
PS3290302-32-32	7.38" 187.4 mm	5.45" 138.4 mm	3.93" 99.7 mm	1.52" 38.5 mm	4.19" 106.4 mm	2 1/2-12 UN	2-11-1/2 NPTF	3.06" 77.6 mm

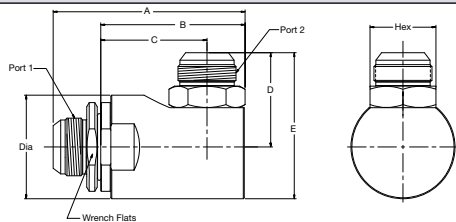


Male 37° Flare - Male 37° Flare



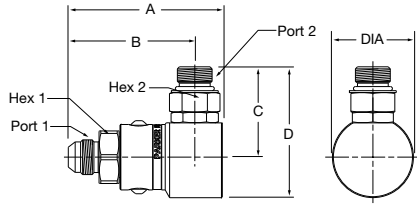
Part Number	A	B	C	D	Diameter	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS490303-4-4	2.85" 72.3 mm	2.44" 62.0 mm	1.39" 35.2 mm	1.99" 50.5 mm	1.20" 30.5 mm	7/16-20 UNF	7/16-20 UNF	.75" 19.0 mm	.56" 14.3 mm
PS690303-6-6	3.05" 77.4 mm	2.54" 64.4 mm	1.44" 36.6 mm	2.09" 53.0 mm	1.29" 32.8 mm	9/16-18 UNF	9/16-18 UNF	.88" 22.2 mm	.69" 17.5 mm
PS890303-8-8	3.29" 83.7 mm	2.70" 68.7 mm	1.78" 45.1 mm	2.64" 67.1 mm	1.73" 44.0 mm	3/4-16 UNF	3/4-16 UNF	1.12" 28.6 mm	.88" 22.2 mm
PS890303-10-10	3.39" 86.2 mm	2.80" 71.2 mm	1.90" 48.4 mm	2.77" 70.4 mm	1.73" 44.0 mm	7/8-14 UNF	7/8-14 UNF	1.12" 28.6 mm	.88" 22.2 mm
PS1290303-12-12	3.76" 95.6 mm	3.10" 78.8 mm	2.24" 56.9 mm	3.86" 85.3 mm	2.17" 55.2 mm	1-1/16-12 UN	1-1/16-12 UN	1.38" 35.0 mm	1.25" 31.8 mm
PS1690303-16-16	4.41" 112.0 mm	3.54" 90.0 mm	2.42" 61.3 mm	3.66" 92.9 mm	2.48" 63.0 mm	1-5/16-12 UN	1-5/16-12 UN	1.62" 41.3 mm	1.50" 38.1 mm

3 Piece Design



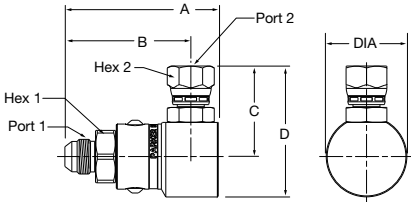
Part Number	A	B	C	D	E	Diameter	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS2490303-20-20	6.16" 156.4 mm	4.63" 117.5 mm	3.43" 87.0 mm	2.85" 72.4 mm	4.53" 115.0 mm	3.36" 85.2 mm	1 5/8-12 UN	1 5/8-12 UN	1.88" 47.6 mm	2.63" 66.7 mm
PS2490303-24-24	5.81" 157.1 mm	4.65" 118.2 mm	3.43" 87.0 mm	3.05" 77.6 mm	4.73" 120.2 mm	3.36" 85.2 mm	1 7/8-12 UN	1 7/8-12 UN	2.13" 54.0 mm	2.63" 66.7 mm
PS3290303-32-32	7.44" 189.0 mm	5.51" 140.0 mm	3.93" 99.7 mm	3.70" 94.0 mm	5.80" 147.2 mm	4.19" 106.4 mm	2 1/2-12 UN	2 1/2-12 UN	2.75" 69.8 mm	3.06" 77.6 mm

**Male 37° Flare - Male SAE O-Ring Straight Thread**



Part Number	A	B	C	D	Diameter	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS490305-4-4	2.85" 72.3 mm	2.44" 62.0 mm	1.38" 35.0 mm	1.98" 50.2 mm	1.20" 30.5 mm	7/16-20 UNF	7/16-20 UNF	.75" 19.0 mm	.56" 14.3 mm
PS690305-6-6	3.05" 77.4 mm	2.54" 64.4 mm	1.55" 39.4 mm	2.20" 55.8 mm	1.29" 32.8 mm	9/16-18 UNF	9/16-18 UNF	.88" 22.2 mm	.69" 17.5 mm
PS890305-8-8	3.29" 83.7 mm	2.70" 68.7 mm	1.86" 47.2 mm	2.72" 69.2 mm	1.73" 44.0 mm	3/4-16 UNF	3/4-16 UNF	1.12" 28.6 mm	.88" 22.2 mm
PS1290305-12-12	3.76" 95.6 mm	3.10" 78.8 mm	2.40" 61.0 mm	3.49" 88.5 mm	2.17" 55.2 mm	1-1/16-12 UN	1-1/16-12 UN	1.38" 35.0 mm	1.25" 31.8 mm
PS1690305-16-16	4.41" 112.0 mm	3.54" 90.0 mm	2.50" 63.4 mm	3.74" 94.9 mm	2.48" 63.0 mm	1-5/16-12 UN	1-5/16-12 UN	1.62" 41.3 mm	1.50" 38.1 mm

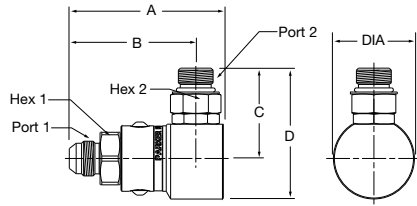
**Male 37° Flare - Female 37° Flare**



Part Number	A	B	C	D	Diameter	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS490306-4-4	2.85" 72.3 mm	2.44" 62.0 mm	1.47" 37.3 mm	2.07" 52.5 mm	1.20" 30.5 mm	7/16-20 UNF	7/16-20 UNF	.75" 19.0 mm	.56" 14.3 mm
PS690306-6-6	3.05" 77.4 mm	2.54" 64.4 mm	1.57" 39.9 mm	2.22" 56.3 mm	1.29" 32.8 mm	9/16-18 UNF	9/16-18 UNF	.88" 22.2 mm	.69" 17.5 mm
PS890306-8-8	3.29" 83.7 mm	2.70" 68.7 mm	1.91" 48.4 mm	2.77" 70.4 mm	1.73" 44.0 mm	3/4-16 UNF	3/4-16 UNF	1.12" 28.6 mm	.88" 22.2 mm
PS1290306-12-12	3.76" 95.6 mm	3.10" 78.8 mm	2.34" 59.4 mm	3.43" 87.0 mm	2.17" 55.2 mm	1-1/16-12 UN	1-1/16-12 UN	1.38" 35.0 mm	1.25" 31.8 mm
PS1690306-16-16	4.41" 112.0 mm	3.54" 90.0 mm	2.54" 64.6 mm	3.79" 96.2 mm	2.48" 63.0 mm	1-5/16-12 UN	1-5/16-12 UN	1.62" 41.3 mm	1.50" 38.1 mm

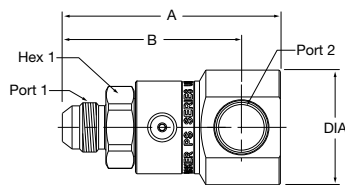
D Swivels

Male 37° Flare - Female NPSM Pipe Swivel



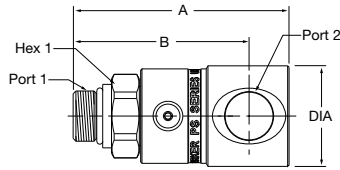
Part Number	A	B	C	D	Diameter	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS490307-4-4	2.85" 72.3 mm	2.44" 62.0 mm	1.48" 37.5 mm	2.08" 52.8 mm	1.20" 30.5 mm	7/16-20 UNF	1/4-18 NPSM	.75" 19.0 mm	.69" 17.4 mm
PS690307-6-6	3.05" 77.4 mm	2.54" 64.4 mm	1.51" 38.4 mm	2.16" 54.8 mm	1.29" 32.8 mm	9/16-18 UNF	3/8-18 NPSM	.88" 22.2 mm	.88" 22.2 mm
PS890307-8-8	3.29" 83.7 mm	2.70" 68.7 mm	1.86" 47.2 mm	2.72" 69.2 mm	1.73" 44.0 mm	3/4-16 UNF	1/2-14 NPSM	1.12" 28.6 mm	1.00" 25.4 mm
PS1290307-12-12	3.76" 95.6 mm	3.10" 78.8 mm	2.24" 56.9 mm	3.33" 84.5 mm	2.17" 55.2 mm	1-1/16-12 UN	3/4-14 NPSM	1.38" 35.0 mm	1.25" 31.8 mm
PS1690307-16-16	4.41" 112.0 mm	3.54" 90.0 mm	2.48" 63.1 mm	3.73" 94.6 mm	2.48" 63.0 mm	1-5/16-12 UN	1-11 1/2 NPSM	1.62" 41.3 mm	1.50" 38.1 mm

Male 37° Flare - Female SAE Straight Thread



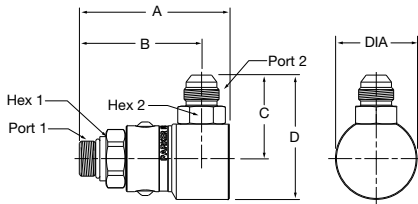
Part Number	A	B	Diameter	Port 1	Port 2	Wrench Flats
PS490310-4-4	2.85" 72.3 mm	2.44" 62.0 mm	1.20" 30.5 mm	7/16-20 UNF	7/16-20 UNF	.75" 19.0 mm
PS690310-6-6	3.05" 77.4 mm	2.54" 64.4 mm	1.29" 32.8 mm	9/16-18 UNF	9/16-18 UNF	.88" 22.2 mm
PS890310-8-8	3.29" 83.7 mm	2.70" 68.7 mm	1.73" 44.0 mm	3/4-16 UNF	3/4-16 UNF	1.12" 28.6 mm
PS1290310-12-12	3.76" 95.6 mm	3.10" 78.8 mm	2.17" 55.2 mm	1-1/16-12 UN	1-1/16-12 UN	1.38" 35.0 mm
PS1690310-16-16	4.41" 112.0 mm	3.54" 90.0 mm	2.48" 63.0 mm	1-1/16-12 UN	1-1/16-12 UN	1.62" 41.3 mm

Male SAE O-Ring Straight Thread - Female Pipe



Part Number	A	B	Diameter	Port 1	Port 2	Wrench Flats
PS490502-4-4	2.70" 68.6 mm	2.29" 58.3 mm	1.20" 30.5 mm	7/16-20 UNF	1/4-18 NPTF	.75" 19.0 mm
PS690502-6-6	2.87" 72.8 mm	2.36" 59.8 mm	1.29" 32.8 mm	9/16-18 UNF	3/8-18 NPTF	.88" 22.2 mm
PS890502-8-8	3.19" 80.9 mm	2.60" 65.9 mm	1.49" 37.8 mm	3/4-16 UNF	1/2-14 NPTF	1.12" 28.6 mm
PS1290502-12-12	3.58" 90.9 mm	2.92" 74.0 mm	1.76" 44.6 mm	1-1/16-12 UN	3/4-14 NPTF	1.38" 35.0 mm
PS1690502-16-16	4.18" 106.3 mm	3.32" 84.3 mm	2.16" 54.9 mm	1-5/16-12 UN	1-11 1/2 NPTF	1.62" 41.3 mm

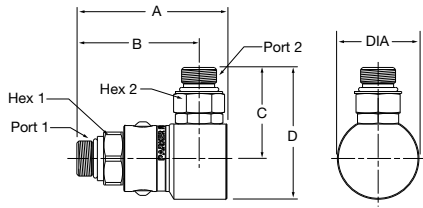
Male SAE O-Ring Straight Thread - Male 37° Flare



Part Number	A	B	C	D	Diameter	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS490503-4-4	2.70" 68.6 mm	2.29" 58.3 mm	1.39" 35.2 mm	1.99" 50.5 mm	1.20" 30.5 mm	7/16-20 UNF	7/16-20 UNF	.75" 19.0 mm	.56" 14.3 mm
PS690503-6-6	2.87" 72.8 mm	2.36" 59.8 mm	1.44" 36.6 mm	2.09" 53.0 mm	1.29" 32.8 mm	9/16-18 UNF	9/16-18 UNF	.88" 22.2 mm	.69" 17.5 mm
PS890503-8-8	3.19" 80.9 mm	2.60" 65.9 mm	1.78" 45.1 mm	2.64" 67.1 mm	1.73" 44.0 mm	3/4-16 UNF	3/4-16 UNF	1.12" 28.6 mm	.88" 22.2 mm
PS890503-10-10	3.25" 82.5 mm	2.66" 67.5 mm	1.90" 48.4 mm	2.77" 70.4 mm	1.73" 44.0 mm	7/8-14 UNF	7/8-14 UNF	1.12" 28.6 mm	.88" 22.2 mm
PS1290503-12-12	3.58" 90.9 mm	2.92" 74.0 mm	2.24" 56.9 mm	3.86" 85.3 mm	2.17" 55.2 mm	1-1/16-12 UN	1-1/16-12 UN	1.38" 35.0 mm	1.25" 31.8 mm
PS1690503-16-16	4.18" 106.3 mm	3.32" 84.3 mm	2.42" 61.3 mm	3.66" 92.9 mm	2.48" 63.0 mm	1-5/16-12 UN	1-5/16-12 UN	1.62" 41.3 mm	1.50" 38.1 mm

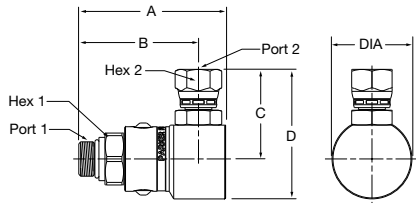
D Swivels

**Male SAE O-Ring Straight Thread - Male SAE O-Ring Straight Thread**



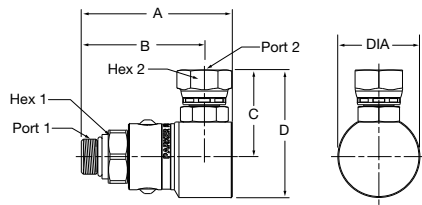
Part Number	A	B	C	D	Diameter	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS490505-4-4	2.70" 68.6 mm	2.29" 58.3 mm	1.38" 35.0 mm	1.98" 50.2 mm	1.20" 30.5 mm	7/16-20 UNF	7/16-20 UNF	.75" 19.0 mm	.56" 14.3 mm
PS690505-6-6	2.87" 72.8 mm	2.36" 59.8 mm	1.55" 39.4 mm	2.20" 55.8 mm	1.29" 32.8 mm	9/16-18 UNF	9/16-18 UNF	.88" 22.2 mm	.69" 17.5 mm
PS890505-8-8	3.19" 80.9 mm	2.60" 65.9 mm	1.86" 47.2 mm	2.72" 69.2 mm	1.73" 44.0 mm	3/4-16 UNF	3/4-16 UNF	1.12" 28.6 mm	.88" 22.2 mm
PS1290505-12-12	3.58" 90.9 mm	2.92" 74.0 mm	2.40" 61.0 mm	3.49" 88.5 mm	2.17" 55.2 mm	1-1/16-12 UN	1-1/16-12 UN	1.38" 35.0 mm	1.25" 31.8 mm
PS1690505-16-16	4.18" 106.3 mm	3.32" 84.3 mm	2.50" 63.4 mm	3.74" 94.9 mm	2.48" 63.0 mm	1-5/16-12 UN	1-5/16-12 UN	1.62" 41.3 mm	1.50" 38.1 mm

**Male SAE O-Ring Straight Thread - Female 37° Flare**



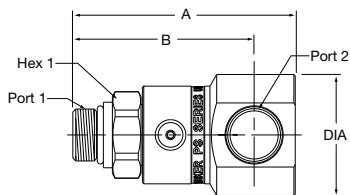
Part Number	A	B	C	D	Diameter	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS490506-4-4	2.70" 68.6 mm	2.29" 58.3 mm	1.47" 37.3 mm	2.07" 52.5 mm	1.20" 30.5 mm	7/16-20 UNF	7/16-20 UNF	.75" 19.0 mm	.56" 14.3 mm
PS690506-6-6	2.87" 72.8 mm	2.36" 59.8 mm	1.57" 39.9 mm	2.22" 56.3 mm	1.29" 32.8 mm	9/16-18 UNF	9/16-18 UNF	.88" 22.2 mm	.69" 17.5 mm
PS890506-8-8	3.19" 80.9 mm	2.60" 65.9 mm	1.91" 48.4 mm	2.77" 70.4 mm	1.73" 44.0 mm	3/4-16 UNF	3/4-16 UNF	1.12" 28.6 mm	.88" 22.2 mm
PS1290506-12-12	3.58" 90.9 mm	2.92" 74.0 mm	2.34" 59.4 mm	3.43" 87.0 mm	2.17" 55.2 mm	1-1/16-12 UN	1-1/16-12 UN	1.38" 35.0 mm	1.25" 31.8 mm
PS1690506-16-16	4.18" 106.3 mm	3.32" 84.3 mm	2.54" 64.6 mm	3.79" 96.2 mm	2.48" 63.0 mm	1-5/16-12 UN	1-5/16-12 UN	1.62" 41.3 mm	1.50" 38.1 mm

## Male SAE O-Ring Straight Thread - Female NPSM Pipe Swivel



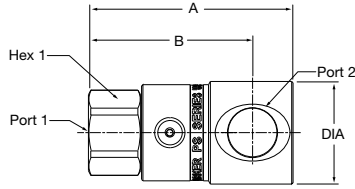
Part Number	A	B	C	D	Diameter	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS490507-4-4	2.70" 68.6 mm	2.29" 58.3 mm	1.48" 37.5 mm	2.08" 52.8 mm	1.20" 30.5 mm	7/16-20 UNF	1/4-18 NPSM	.75" 19.0 mm	.69" 17.4 mm
PS690507-6-6	2.87" 72.8 mm	2.36" 59.8 mm	1.51" 38.4 mm	2.16" 54.8 mm	1.29" 32.8 mm	9/16-18 UNF	3/8-18 NPSM	.88" 22.2 mm	.88" 22.2 mm
PS890507-8-8	3.19" 80.9 mm	2.60" 65.9 mm	1.86" 47.2 mm	2.72" 69.2 mm	1.73" 44.0 mm	3/4-16 UNF	1/2-14 NPSM	1.12" 28.6 mm	1.00" 25.4 mm
PS1290507-12-12	3.58" 90.9 mm	2.92" 74.0 mm	2.24" 56.9 mm	3.33" 84.5 mm	2.17" 55.2 mm	1-1/16-12 UN	3/4-14 NPSM	1.38" 35.0 mm	1.25" 31.8 mm
PS1690507-16-16	4.18" 106.3 mm	3.32" 84.3 mm	2.48" 63.1 mm	3.73" 94.6 mm	2.48" 63.0 mm	1-5/16-12 UN	1-11/2 NPSM	1.62" 41.3 mm	1.50" 38.1 mm

## Male SAE O-Ring Straight Thread - Female SAE Straight Thread



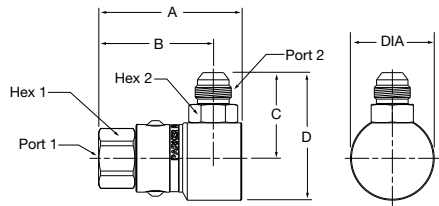
Part Number	A	B	Diameter	Port 1	Port 2	Wrench Flats
PS490510-4-4	2.70" 68.6 mm	2.29" 58.3 mm	1.20" 30.5 mm	7/16-20 UNF	7/16-20 UNF	.75" 19.0 mm
PS690510-6-6	2.87" 72.8 mm	2.36" 59.8 mm	1.29" 32.8 mm	9/16-18 UNF	9/16-18 UNF	.88" 22.2 mm
PS890510-8-8	3.19" 80.9 mm	2.60" 65.9 mm	1.73" 44.0 mm	3/4-16 UNF	3/4-16 UNF	1.12" 28.6 mm
PS1290510-12-12	3.58" 90.9 mm	2.92" 74.0 mm	2.17" 55.2 mm	1-1/16-12 UN	1-1/16-12 UN	1.38" 35.0 mm
PS1690510-16-16	4.18" 106.3 mm	3.32" 84.3 mm	2.48" 63.0 mm	1-5/16-12 UN	1-5/16-12 UN	1.62" 41.3 mm

**Female SAE Straight Thread - Female Pipe**



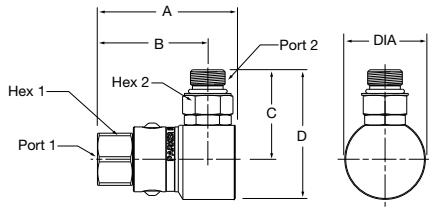
Part Number	A	B	Diameter	Port 1	Port 2	Wrench Flats
PS491002-4-4	2.42" 61.4 mm	2.01" 51.2 mm	1.20" 30.5 mm	7/16-20 UNF	1/4-18 NPTF	.75" 19.0 mm
PS691002-6-6	2.68" 68.2 mm	2.17" 55.2 mm	1.29" 32.8 mm	9/16-18 UNF	3/8-18 NPTF	.88" 22.2 mm
PS891002-8-8	2.96" 75.3 mm	2.37" 60.3 mm	1.49" 37.8 mm	3/4-16 UNF	1/2-14 NPTF	1.12" 28.6 mm
PS1291002-12-12	3.43" 87.2 mm	2.77" 70.4 mm	1.76" 44.6 mm	1-1/16-12 UN	3/4-14 NPTF	1.38" 35.0 mm
PS1691002-16-16	4.03" 102.3 mm	3.16" 80.3 mm	2.16" 54.9 mm	1-5/16-12 UN	1-11/2 NPTF	1.62" 41.3 mm

**Female SAE Straight Thread - Male 37° Flare**



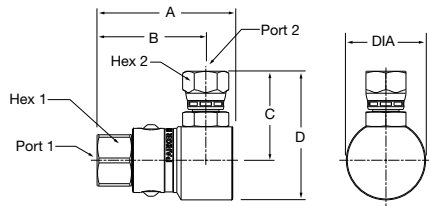
Part Number	A	B	C	D	Diameter	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS491003-4-4	2.42" 61.4 mm	2.01" 51.2 mm	1.39" 35.2 mm	1.99" 50.5 mm	1.20" 30.5 mm	7/16-20 UNF	7/16-20 UNF	.75" 19.0 mm	.56" 14.3 mm
PS691003-6-6	2.68" 68.2 mm	2.17" 55.2 mm	1.44" 36.6 mm	2.09" 53.0 mm	1.29" 32.8 mm	9/16-18 UNF	9/16-18 UNF	.88" 22.2 mm	.69" 17.5 mm
PS891003-8-8	2.96" 75.3 mm	2.37" 60.3 mm	1.78" 45.1 mm	2.64" 67.1 mm	1.73" 44.0 mm	3/4-16 UNF	3/4-16 UNF	1.12" 28.6 mm	.88" 22.2 mm
PS1291003-12-12	3.43" 87.2 mm	2.77" 70.4 mm	2.24" 56.9 mm	3.86" 85.3 mm	2.17" 55.2 mm	1-1/16-12 UN	1-1/16-12 UN	1.38" 35.0 mm	1.25" 31.8 mm
PS1691003-16-16	4.03" 102.3 mm	3.16" 80.3 mm	2.42" 61.3 mm	3.66" 92.9 mm	2.48" 63.0 mm	1-5/16-12 UN	1-5/16-12 UN	1.62" 41.3 mm	1.50" 38.1 mm

**Female SAE Straight Thread - Male SAE O-Ring Straight Thread**



Part Number	A	B	C	D	Diameter	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS491005-4-4	2.42" 61.4 mm	2.01" 51.2 mm	1.38" 35.0 mm	1.98" 50.2 mm	1.20" 30.5 mm	7/16-20 UNF	7/16-20 UNF	.75" 19.0 mm	.56" 14.3 mm
PS691005-6-6	2.68" 68.2 mm	2.17" 55.2 mm	1.55" 39.4 mm	2.20" 55.8 mm	1.29" 32.8 mm	9/16-18 UNF	9/16-18 UNF	.88" 22.2 mm	.69" 17.5 mm
PS891005-8-8	2.96" 75.3 mm	2.37" 60.3 mm	1.86" 47.2 mm	2.72" 69.2 mm	1.73" 44.0 mm	3/4-16 UNF	3/4-16 UNF	1.12" 28.6 mm	.88" 22.2 mm
PS1291005-12-12	3.43" 87.2 mm	2.77" 70.4 mm	2.40" 61.0 mm	3.49" 88.5 mm	2.17" 55.2 mm	1-1/16-12 UN	1-1/16-12 UN	1.38" 35.0 mm	1.25" 31.8 mm
PS1691005-16-16	4.03" 102.3 mm	3.16" 80.3 mm	2.50" 63.4 mm	3.74" 94.9 mm	2.48" 63.0 mm	1-5/16-12 UN	1-5/16-12 UN	1.62" 41.3 mm	1.50" 38.1 mm

**Female SAE Straight Thread - Female 37° Flare**

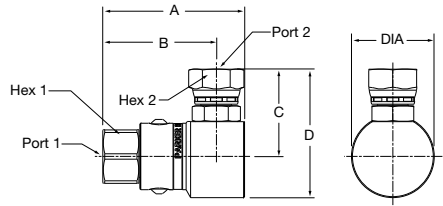


Part Number	A	B	C	D	Diameter	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS491006-4-4	2.42" 61.4 mm	2.01" 51.2 mm	1.47" 37.3 mm	2.07" 52.5 mm	1.20" 30.5 mm	7/16-20 UNF	7/16-20 UNF	.75" 19.0 mm	.56" 14.3 mm
PS691006-6-6	2.68" 68.2 mm	2.17" 55.2 mm	1.57" 39.9 mm	2.22" 56.3 mm	1.29" 32.8 mm	9/16-18 UNF	9/16-18 UNF	.88" 22.2 mm	.69" 17.5 mm
PS891006-8-8	2.96" 75.3 mm	2.37" 60.3 mm	1.91" 48.4 mm	2.77" 70.4 mm	1.73" 44.0 mm	3/4-16 UNF	3/4-16 UNF	1.12" 28.6 mm	.88" 22.2 mm
PS1291006-12-12	3.43" 87.2 mm	2.77" 70.4 mm	2.34" 59.4 mm	3.43" 87.0 mm	2.17" 55.2 mm	1-1/16-12 UN	1-1/16-12 UN	1.38" 35.0 mm	1.25" 31.8 mm
PS1691006-16-16	4.03" 102.3 mm	3.16" 80.3 mm	2.54" 64.6 mm	3.79" 96.2 mm	2.48" 63.0 mm	1-5/16-12 UN	1-5/16-12 UN	1.62" 41.3 mm	1.50" 38.1 mm

D Swivels

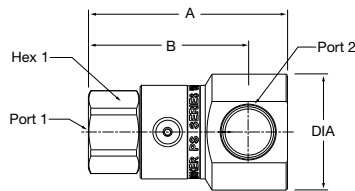


**Female SAE Straight Thread - Female NPSM Pipe Swivel**



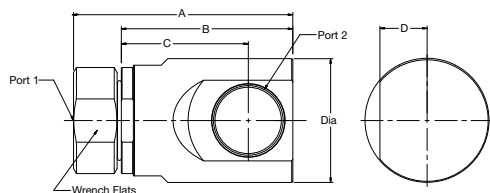
Part Number	A	B	C	D	Diameter	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
PS491007-4-4	2.42" 61.4 mm	2.01" 51.2 mm	1.48" 37.5 mm	2.08" 52.8 mm	1.20" 30.5 mm	7/16-20 UNF	1/4-18 NPSM	.75" 19.0 mm	.69" 17.4 mm
PS691007-6-6	2.68" 68.2 mm	2.17" 55.2 mm	1.51" 38.4 mm	2.16" 54.8 mm	1.29" 32.8 mm	9/16-18 UNF	3/8-18 NPSM	.88" 22.2 mm	.88" 22.2 mm
PS891007-8-8	2.96" 75.3 mm	2.37" 60.3 mm	1.86" 47.2 mm	2.72" 69.2 mm	1.73" 44.0 mm	3/4-16 UNF	1/2-14 NPSM	1.12" 28.6 mm	1.00" 25.4 mm
PS1291007-12-12	3.43" 87.2 mm	2.77" 70.4 mm	2.24" 56.9 mm	3.33" 84.5 mm	2.17" 55.2 mm	1-1/16-12 UN	3/4-14 NPSM	1.38" 35.0 mm	1.25" 31.8 mm
PS1691007-16-16	4.03" 102.3 mm	3.16" 80.3 mm	2.48" 63.1 mm	3.73" 94.6 mm	2.48" 63.0 mm	1-5/16-12 UN	1-11/2 NPSM	1.62" 41.3 mm	1.50" 38.1 mm

**Female SAE Straight Thread - Female SAE Straight Thread**



Part Number	A	B	Diameter	Port 1	Port 2	Wrench Flats 2
PS491010-4-4	2.42" 61.4 mm	2.01" 51.2 mm	1.20" 30.5 mm	7/16-20 UNF	7/16-20 UNF	.75" 19.0 mm
PS691010-6-6	2.68" 68.2 mm	2.17" 55.2 mm	1.29" 32.8 mm	9/16-18 UNF	9/16-18 UNF	.88" 22.2 mm
PS891010-8-8	2.96" 75.3 mm	2.37" 60.3 mm	1.73" 44.0 mm	3/4-16 UNF	3/4-16 UNF	1.12" 28.6 mm
PS1291010-12-12	3.43" 87.2 mm	2.77" 70.4 mm	2.17" 55.2 mm	1-1/16-12 UN	1-1/16-12 UN	1.38" 35.0 mm
PS1691010-16-16	4.03" 102.3 mm	3.16" 80.3 mm	2.48" 63.0 mm	1-5/16-12 UN	1-5/16-12 UN	1.62" 41.3 mm

**3 Piece Design**



Part Number	A	B	C	D	Diameter	Port 1	Port 2	Wrench Flats
PS2491010-20-20	5.91" 150.2 mm	4.63" 117.5 mm	3.43" 87.0 mm	1.27" 32.3 mm	3.36" 85.2 mm	1 5/8-12 UN	1 5/8-12 UN	2.63" 66.7 mm
PS2491010-24-24	5.91" 150.2 mm	4.63" 117.5 mm	3.43" 87.0 mm	1.27" 32.3 mm	3.36" 85.2 mm	1 7/8-12 UN	1 7/8-12 UN	2.63" 66.7 mm
PS3291010-32-32	6.83" 179.8 mm	5.45" 138.4 mm	3.93" 99.7 mm	1.52" 38.5 mm	4.19" 106.4 mm	2 11-1/2 UN	2-1/2-12 UN	3.06" 77.6 mm



**Introduction**

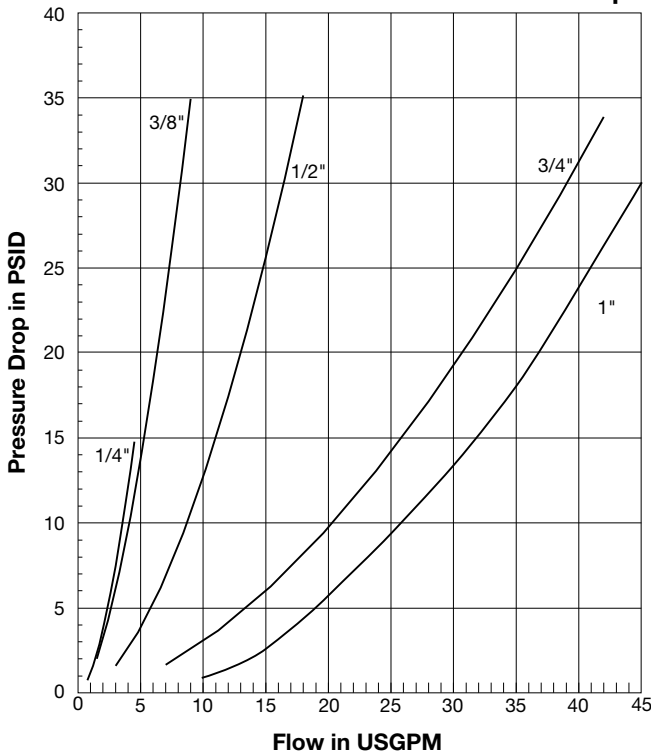
The S Series Swivel product line complements the Quick Coupling Division’s PS Series swivel line by offering a pressure balanced, compact forged body design. As a result of the pressure balanced design, the S Series Swivel does not experience a significant increase in torque as pressure rises. The housing body is forged to provide superior performance and durability in tough applications. This product is great for eliminating hose twist, torque and stress caused by the movement of the hydraulic components where side load to the swivel can be minimized.

**Features**

- 3000 psi working pressure rating for all sizes.
- Variety of seal options.
- Torque value does not significantly increase with pressure.
- Dust seals protect the swivel from damaging environmental contaminants.
- Field service kits are available for quick and reliable repairs.
- 360° swivel eliminates long radius bends, hose twist and stress that can cause premature hose failure.
- One piece forged housing eliminates a brazed 90° adapter connection.
- Case hardened for enhanced service life.
- Compact design to fit into tight areas.

**Performance Data**

**S Series Swivel (1/4", 3/8", 1/2", 3/4", 1")**  
**Test Fluid: Oil - 150 SUS vs. Pressure Drop**



**S Series Swivel Specifications**

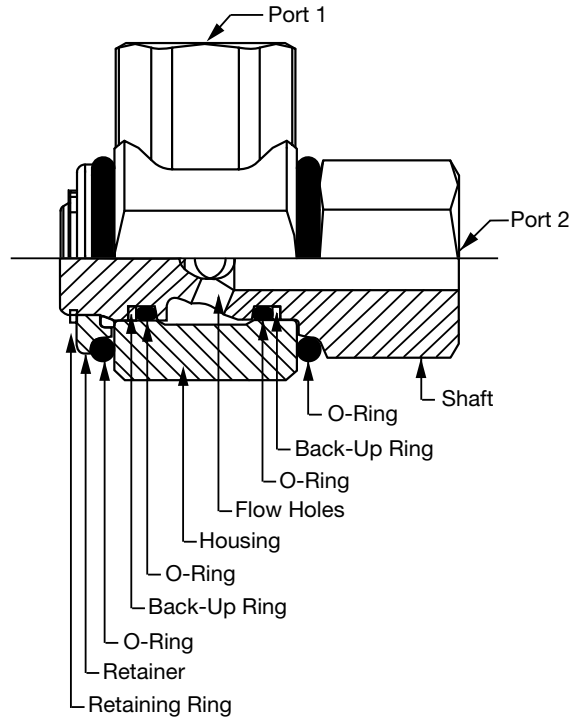
Body Size	1/4	3/8	1/2	3/4	1
Maximum Rated Pressure (psi)	3000	3000	3000	3000	3000*
Temperature Range (standard seals)	-40° to 250° F				
Maximum RPM	10				

\* 07 ports on 1" S Series maximum rated pressure is 2600 psi.

**S Series Repair Kits**

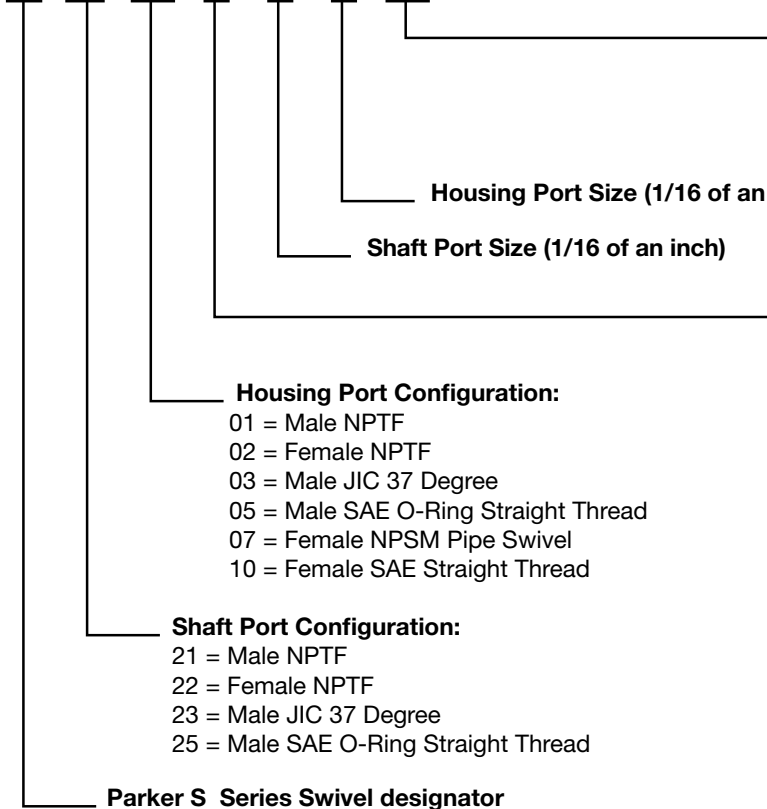
Repair Kits come complete with primary O-Rings, PTFE back-up rings, external and internal dust seals, retaining ring and instruction sheet.

Nitrile Seals		EP Seals		Fluorocarbon Seals	
Size	Kit Number	Size	Kit Number	Size	Kit Number
-4/-6	RK-4/6N	-4/-6	RK-4/6E	-4/-6	RK-4/6V
-8/-10	RK-8N	-8/-10	RK-8E	-8/-10	RK-8V
-12	RK-12N	-12	RK-12E	-12	RK-12V
-16	RK-16N	-16	RK-16E	-16	RK-16V



**S Part Number:**

**S 21 02 V - 8 - 8 NI**

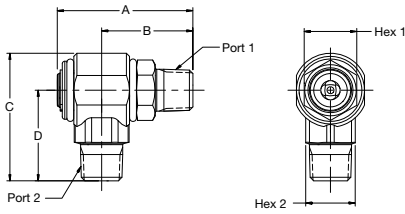


**Material and Finish:**  
 Blank = Carbon Steel (12L14)  
 w/Chromium-6 Free Plating  
 NI = Carbon Steel (12L14)\*  
 Nickel Plating

**Seal Code:**  
 Blank = Nitrile (Standard)  
 E = Ethylene Propylene  
 V = Fluorocarbon

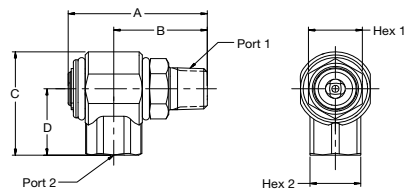
\* Contact the Division for Price and Availability

Male Pipe - Male Pipe



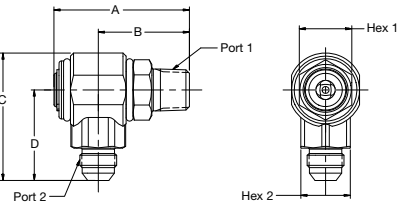
Part Number	A	B	C	D	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
S2101-4-4	2.31" 58.7 mm	1.51" 38.4 mm	2.19" 55.5 mm	1.50" 38.0 mm	1/4-18 NPTF	1/4-18 NPTF	.88" 22.2 mm	.88" 22.2 mm
S2101-6-6	2.31" 58.7 mm	1.51" 38.4 mm	2.19" 55.5 mm	1.50" 38.0 mm	3/8-18 NPTF	3/8-18 NPTF	.88" 22.2 mm	.88" 22.2 mm
S2101-8-8	2.74" 69.6 mm	1.84" 46.8 mm	2.59" 65.8 mm	1.84" 46.7 mm	1/2-14 NPTF	1/2-14 NPTF	1.06" 27.0 mm	1.00" 25.4 mm
S2101-12-12	3.35" 85.1 mm	2.12" 53.9 mm	3.00" 76.2 mm	2.11" 53.5 mm	3/4-14 NPTF	3/4-14 NPTF	1.38" 34.9 mm	1.38" 34.9 mm

Male Pipe - Female Pipe



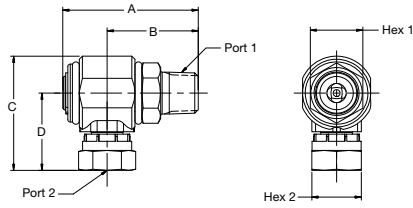
Part Number	A	B	C	D	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
S2102-4-4	2.31" 58.7 mm	1.51" 38.4 mm	1.78" 45.1 mm	1.09" 27.6 mm	1/4-18 NPTF	1/4-18 NPTF	.88" 22.2 mm	.88" 22.2 mm
S2102-6-6	2.31" 58.7 mm	1.51" 38.4 mm	1.78" 45.1 mm	1.09" 27.6 mm	3/8-18 NPTF	3/8-18 NPTF	.88" 22.2 mm	.88" 22.2 mm
S2102-8-8	2.74" 69.6 mm	1.84" 46.8 mm	2.10" 53.3 mm	1.35" 34.3 mm	1/2-14 NPTF	1/2-14 NPTF	1.06" 27.0 mm	1.00" 25.4 mm
S2102-12-12	3.35" 85.1 mm	2.12" 53.9 mm	2.39" 60.7 mm	1.50" 38.0 mm	3/4-14 NPTF	3/4-14 NPTF	1.38" 34.9 mm	1.38" 34.9 mm

Male Pipe - Male 37° Flare



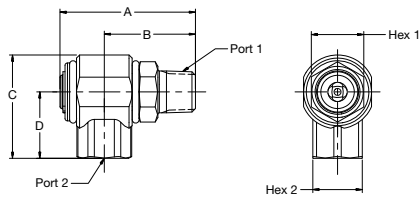
Part Number	A	B	C	D	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
S2103-4-4	2.31" 58.7 mm	1.51" 38.4 mm	2.19" 55.5 mm	1.50" 38.0 mm	1/4-18 NPTF	7/16-20 UNF	.88" 22.2 mm	.88" 22.2 mm
S2103-6-6	2.31" 58.7 mm	1.51" 38.4 mm	2.19" 55.5 mm	1.50" 38.0 mm	3/8-18 NPTF	9/16-18 UNF	.88" 22.2 mm	.88" 22.2 mm
S2103-8-8	2.74" 69.6 mm	1.84" 46.8 mm	2.59" 65.8 mm	1.84" 46.7 mm	1/2-14 NPTF	3/4-16 UNF	1.06" 27.0 mm	1.00" 25.4 mm
S2103-12-12	3.35" 85.1 mm	2.12" 53.9 mm	3.07" 77.9 mm	2.17" 55.2 mm	3/4-14 NPTF	1-1/16-12 UN	1.38" 34.9 mm	1.38" 34.9 mm
S2103-16-16	3.95" 100.33 mm	2.54" 64.5 mm	3.01" 76.5 mm	2.11" 53.6 mm	1-11/2 NPTF	1-5/16-12 UN	1.63" 41.4 mm	1.69" 42.9 mm

**Male Pipe - Female NPSM Pipe Swivel**



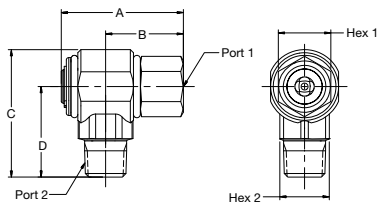
Part Number	A	B	C	D	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
S2107-4-4	2.31" 58.7 mm	1.51" 38.4 mm	2.05" 52.0 mm	1.36" 34.5 mm	1/4-18 NPTF	1/4-18 NPSM	.88" 22.2 mm	.69" 17.5 mm
S2107-6-6	2.31" 58.7 mm	1.51" 38.4 mm	2.07" 52.5 mm	1.38" 35.1 mm	3/8-18 NPTF	3/8-18 NPSM	.88" 22.2 mm	.88" 22.2 mm
S2107-8-8	2.74" 69.6 mm	1.84" 46.8 mm	2.32" 59.0 mm	1.57" 39.9 mm	1/2-14 NPTF	1/2-14 NPSM	1.06" 27.0 mm	1.00" 25.4 mm
S2107-12-12	3.35" 85.1 mm	2.12" 53.9 mm	2.74" 69.5 mm	1.85" 46.9 mm	3/4-14 NPTF	3/4-14 NPSM	1.38" 34.9 mm	1.25" 31.8 mm
S2107-16-16	3.95" 100.3 mm	2.54" 64.5 mm	3.14" 79.8 mm	2.23" 56.6 mm	1-11 1/2 NPTF	1-11 1/2 NPSM	1.63" 41.4 mm	1.69" 42.9 mm

**Male Pipe - Female SAE Straight Thread**



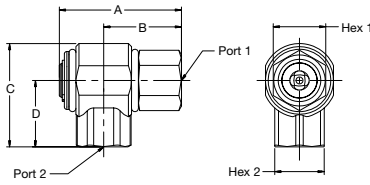
Part Number	A	B	C	D	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
S2110-6-6	2.31" 58.7 mm	1.51" 38.4 mm	1.78" 45.1 mm	1.09" 27.6 mm	3/8-18 NPTF	9/16-18 UNF	.88" 22.2 mm	.88" 22.2 mm
S2110-8-8	2.74" 69.6 mm	1.84" 46.8 mm	2.10" 53.3 mm	1.35" 34.3 mm	1/2-14 NPTF	3/4-16 UNF	1.06" 27.0 mm	1.00" 25.4 mm
S2110-12-12	3.35" 85.1 mm	2.12" 53.9 mm	2.54" 64.5 mm	1.65" 41.9 mm	3/4-14 NPTF	1-1/16-12 UN	1.38" 34.9 mm	1.38" 34.9 mm

**Female Pipe - Male Pipe**



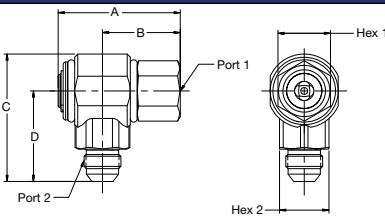
Part Number	A	B	C	D	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
S2201-4-4	2.19" 55.6 mm	1.39" 35.4 mm	2.19" 55.5 mm	1.50" 38.0 mm	1/4-18 NPTF	1/4-18 NPTF	.88" 22.2 mm	.88" 22.2 mm
S2201-6-6	2.19" 55.6 mm	1.39" 35.4 mm	2.19" 55.5 mm	1.50" 38.0 mm	3/8-18 NPTF	3/8-18 NPTF	.88" 22.2 mm	.88" 22.2 mm
S2201-8-8	2.47" 62.7 mm	1.57" 40.0 mm	2.59" 65.8 mm	1.84" 46.7 mm	1/2-14 NPTF	1/2-14 NPTF	1.06" 27.0 mm	1.00" 25.4 mm
S2201-12-12	3.15" 80.0 mm	1.92" 48.8 mm	3.00" 76.2 mm	2.11" 53.5 mm	3/4-14 NPTF	3/4-14 NPTF	1.38" 34.9 mm	1.38" 34.9 mm

Female Pipe - Female Pipe



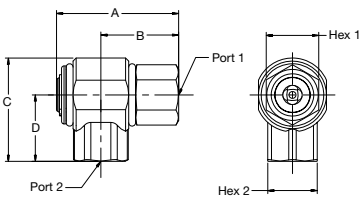
Part Number	A	B	C	D	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
S2202-4-4	2.19" 55.6 mm	1.39" 35.4 mm	1.78" 45.1 mm	1.09" 27.6 mm	1/4-18 NPTF	1/4-18 NPTF	.88" 22.2 mm	.88" 22.2 mm
S2202-6-6	2.19" 55.6 mm	1.39" 35.4 mm	1.78" 45.1 mm	1.09" 27.6 mm	3/8-18 NPTF	3/8-18 NPTF	.88" 22.2 mm	.88" 22.2 mm
S2202-8-8	2.47" 62.7 mm	1.57" 40.0 mm	2.10" 53.3 mm	1.35" 34.3 mm	1/2-14 NPTF	1/2-14 NPTF	1.06" 27.0 mm	1.00" 25.4 mm
S2202-12-12	3.15" 80.0 mm	1.92" 48.8 mm	2.39" 60.7 mm	1.50" 38.0 mm	3/4-14 NPTF	3/4-14 NPTF	1.38" 34.9 mm	1.38" 34.9 mm

Female Pipe - Male 37° Flare



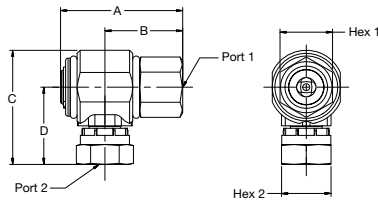
Part Number	A	B	C	D	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
S2203-4-4	2.19" 55.6 mm	1.39" 35.4 mm	2.19" 55.5 mm	1.50" 38.0 mm	1/4-18 NPTF	7/16-20 UNF	.88" 22.2 mm	.88" 22.2 mm
S2203-6-6	2.19" 55.6 mm	1.39" 35.4 mm	2.19" 55.5 mm	1.50" 38.0 mm	3/8-18 NPTF	9/16-18 UNF	.88" 22.2 mm	.88" 22.2 mm
S2203-8-8	2.47" 62.7 mm	1.57" 40.0 mm	2.59" 65.8 mm	1.84" 46.7 mm	1/2-14 NPTF	3/4-16 UNF	1.06" 27.0 mm	1.00" 25.4 mm
S2203-12-12	3.15" 80.0 mm	1.92" 48.8 mm	3.07" 77.9 mm	2.17" 55.2 mm	3/4-14 NPTF	1-1/16-12 UN	1.38" 34.9 mm	1.38" 34.9 mm
S2203-16-16	3.55" 90.2 mm	2.13" 54.1 mm	3.01" 76.5 mm	2.11" 53.6 mm	1-11/2 NPTF	1-5/16-12 UN	1.63" 41.4 mm	1.69" 42.9 mm

Female Pipe - Female SAE Straight Thread



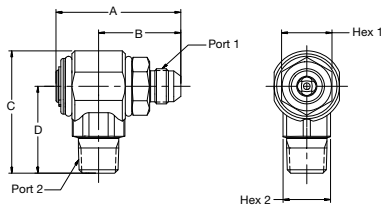
Part Number	A	B	C	D	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
S2210-6-6	2.19" 55.6 mm	1.39" 35.4 mm	1.78" 45.1 mm	1.09" 27.6 mm	3/8-18 NPTF	9/16-18 UNF	.88" 22.2 mm	.88" 22.2 mm
S2210-8-8	2.47" 62.7 mm	1.57" 40.0 mm	2.10" 53.3 mm	1.35" 34.3 mm	1/2-14 NPTF	3/4-16 UNF	1.06" 27.0 mm	1.00" 25.4 mm
S2210-12-12	3.15" 80.0 mm	1.92" 48.8 mm	2.54" 64.5 mm	1.65" 41.9 mm	3/4-14 NPTF	1-1/16-12 UN	1.38" 34.9 mm	1.38" 34.9 mm

**Female Pipe - Female NPSM Pipe Swivel**



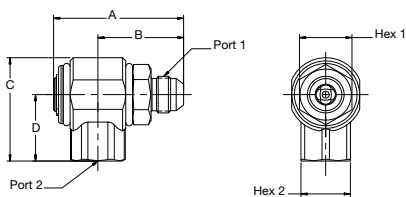
Part Number	A	B	C	D	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
S2207-4-4	2.19" 55.6 mm	1.39" 35.4 mm	2.05" 52.0 mm	1.36" 34.5 mm	1/4-18 NPTF	1/4-18 NPSM	.88" 22.2 mm	.69" 17.5 mm
S2207-6-6	2.19" 55.6 mm	1.39" 35.4 mm	2.07" 52.5 mm	1.38" 35.1 mm	3/8-18 NPTF	3/8-18 NPSM	.88" 22.2 mm	.88" 22.2 mm
S2207-8-8	2.47" 62.7 mm	1.57" 40.0 mm	2.32" 59.0 mm	1.57" 39.9 mm	1/2-14 NPTF	1/2-14 NPSM	1.06" 27.0 mm	1.00" 25.4 mm
S2207-12-12	3.15" 80.0 mm	1.92" 48.8 mm	2.74" 69.5 mm	1.85" 46.9 mm	3/4-14 NPTF	3/4-14 NPSM	1.38" 34.9 mm	1.25" 31.8 mm
S2207-16-16	3.55" 90.2 mm	2.13" 54.1 mm	3.14" 79.8 mm	2.23" 56.6 mm	1-11 1/2 NPTF	1-11 1/2 NPSM	1.63" 41.4 mm	1.69" 42.9 mm

**Male 37° Flare - Male Pipe**



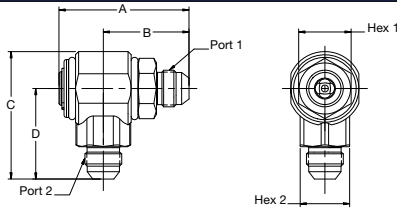
Part Number	A	B	C	D	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
S2301-4-4	2.41" 61.2 mm	1.61" 40.9 mm	2.19" 55.5 mm	1.50" 38.0 mm	7/16-20 UNF	1/4-18 NPTF	.88" 22.2 mm	.88" 22.2 mm
S2301-6-6	2.41" 61.2 mm	1.61" 40.9 mm	2.19" 55.5 mm	1.50" 38.0 mm	9/16-18 UNF	3/8-18 NPTF	.88" 22.2 mm	.88" 22.2 mm
S2301-8-8	2.63" 66.8 mm	1.73" 44.0 mm	2.59" 65.8 mm	1.84" 46.7 mm	3/4-16 UNF	1/2-14 NPTF	1.06" 27.0 mm	1.00" 25.4 mm
S2301-12-12	3.33" 84.6 mm	2.10" 53.4 mm	3.00" 76.2 mm	2.11" 53.5 mm	1-1/16-12 UN	3/4-14 NPTF	1.38" 34.9 mm	1.38" 34.9 mm

**Male 37° Flare - Female Pipe**



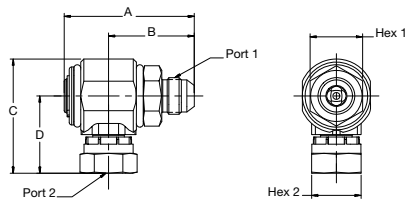
Part Number	A	B	C	D	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
S2302-4-4	2.41" 61.2 mm	1.61" 40.9 mm	1.78" 45.1 mm	1.09" 27.6 mm	7/16-20 UNF	1/4-18 NPTF	.88" 22.2 mm	.88" 22.2 mm
S2302-6-6	2.41" 61.2 mm	1.61" 40.9 mm	1.78" 45.1 mm	1.09" 27.6 mm	9/16-18 UNF	3/8-18 NPTF	.88" 22.2 mm	.88" 22.2 mm
S2302-8-8	2.63" 66.8 mm	1.73" 44.0 mm	2.10" 53.3 mm	1.35" 34.3 mm	3/4-16 UNF	1/2-14 NPTF	1.06" 27.0 mm	1.00" 25.4 mm
S2302-12-12	3.33" 84.6 mm	2.10" 53.4 mm	2.39" 60.7 mm	1.50" 38.0 mm	1-1/16-12 UN	3/4-14 NPTF	1.38" 34.9 mm	1.38" 34.9 mm

Male 37° Flare - Male 37° Flare



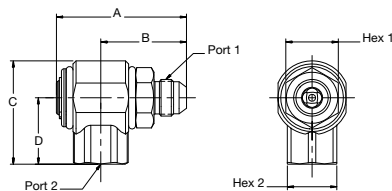
Part Number	A	B	C	D	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
S2303-4-4	2.41" 61.2 mm	1.61" 40.9 mm	2.19" 55.5 mm	1.50" 38.0 mm	7/16-20 UNF	7/16-20 UNF	.88" 22.2 mm	.88" 22.2 mm
S2303-6-6	2.41" 61.2 mm	1.61" 40.9 mm	2.19" 55.5 mm	1.50" 38.0 mm	9/16-18 UNF	9/16-18 UNF	.88" 22.2 mm	.88" 22.2 mm
S2303-8-8	2.63" 66.8 mm	1.73" 44.0 mm	2.59" 65.8 mm	1.84" 46.7 mm	3/4-16 UNF	3/4-16 UNF	1.06" 27.0 mm	1.00" 25.4 mm
S2303-10-10	2.63" 66.8 mm	1.73" 44.0 mm	2.59" 65.8 mm	1.84" 46.7 mm	7/8-14 UNF	7/8-14 UNF	1.06" 27.0 mm	1.00" 25.4 mm
S2303-12-12	3.33" 84.6 mm	2.10" 53.4 mm	3.07" 77.9 mm	2.17" 55.2 mm	1-1/16-12 UN	1-1/16-12 UN	1.38" 34.9 mm	1.38" 34.9 mm
S2303-16-16	4.05" 102.9 mm	2.64" 67.1 mm	3.01" 76.5 mm	2.11" 53.6 mm	1-5/16-12 UN	1-5/16-12 UN	1.63" 41.4 mm	1.69" 42.9 mm

Male 37° Flare - Female NPSM Pipe Swivel



Part Number	A	B	C	D	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
S2307-4-4	2.41" 61.2 mm	1.61" 40.9 mm	2.05" 52.0 mm	1.36" 34.5 mm	7/16-20 UNF	1/4-18 NPSM	.88" 22.2 mm	.69" 17.5 mm
S2307-6-6	2.41" 61.2 mm	1.61" 40.9 mm	2.07" 52.5 mm	1.38" 35.1 mm	9/16-18 UNF	3/8-18 NPSM	.88" 22.2 mm	.88" 22.2 mm
S2307-8-8	2.63" 66.8 mm	1.73" 44.0 mm	2.32" 59.0 mm	1.57" 39.9 mm	3/4-16 UNF	1/2-14 NPSM	1.06" 27.0 mm	1.00" 25.4 mm
S2307-12-12	3.33" 84.6 mm	2.10" 53.4 mm	2.74" 69.5 mm	1.85" 46.9 mm	1-1/16-12 UN	3/4-14 NPSM	1.38" 34.9 mm	1.25" 31.8 mm

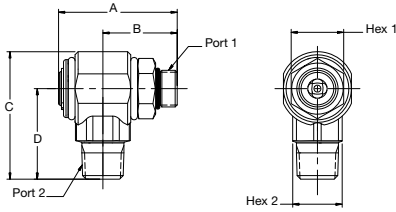
Male 37° Flare - Female SAE Straight Thread



Part Number	A	B	C	D	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
S2310-6-6	2.41" 61.2 mm	1.61" 40.9 mm	1.78" 45.1 mm	1.09" 27.6 mm	9/16-18 UNF	9/16-18 UNF	.88" 22.2 mm	.88" 22.2 mm
S2310-8-8	2.63" 66.8 mm	1.73" 44.0 mm	2.10" 53.3 mm	1.35" 34.3 mm	3/4-16 UNF	3/4-16 UNF	1.06" 27.0 mm	1.00" 25.4 mm
S2310-12-12	3.33" 84.6 mm	2.10" 53.4 mm	2.54" 64.5 mm	1.65" 41.9 mm	1-1/16-12 UN	1-1/16-12 UN	1.38" 34.9 mm	1.38" 34.9 mm

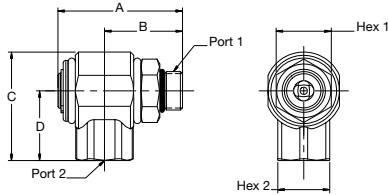


Male SAE O-Ring Straight Thread - Male Pipe



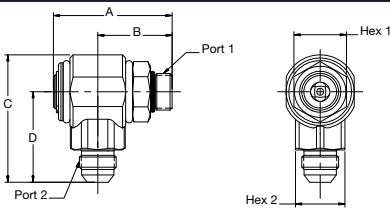
Part Number	A	B	C	D	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
S2501-6-6	2.13" 54.1 mm	1.33" 33.8 mm	2.19" 55.5 mm	1.50" 38.0 mm	9/16-18 UNF	3/8-18 NPTF	.88" 22.2 mm	.88" 22.2 mm
S2501-8-8	2.40" 61.0 mm	1.50" 38.2 mm	2.59" 65.8 mm	1.84" 46.7 mm	3/4-16 UNF	1/2-14 NPTF	1.06" 27.0 mm	1.00" 25.4 mm
S2501-12-12	3.40" 86.4 mm	2.17" 55.2 mm	3.00" 76.2 mm	2.11" 53.5 mm	1-1/16-12 UN	3/4-14 NPTF	1.38" 34.9 mm	1.38" 34.9 mm

Male SAE O-Ring Straight Thread - Female Pipe



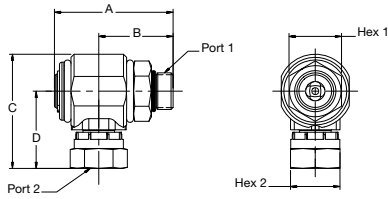
Part Number	A	B	C	D	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
S2502-6-6	2.13" 54.1 mm	1.33" 33.8 mm	1.78" 45.1 mm	1.09" 27.6 mm	9/16-18 UNF	3/8-18 NPTF	.88" 22.2 mm	.88" 22.2 mm
S2502-8-8	2.40" 61.0 mm	1.50" 38.2 mm	2.10" 53.3 mm	1.35" 34.3 mm	3/4-16 UNF	1/2-14 NPTF	1.06" 27.0 mm	1.00" 25.4 mm
S2502-12-12	3.40" 86.4 mm	2.17" 55.2 mm	2.39" 60.7 mm	1.50" 38.0 mm	1-1/16-12 UN	3/4-14 NPTF	1.38" 34.9 mm	1.38" 34.9 mm

Male SAE O-Ring Straight Thread - Male 37° Flare



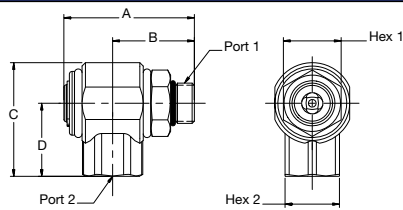
Part Number	A	B	C	D	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
S2503-6-6	2.13" 54.1 mm	1.33" 33.8 mm	2.19" 55.5 mm	1.50" 38.0 mm	9/16-18 UNF	9/16-18 UNF	.88" 22.2 mm	.88" 22.2 mm
S2503-8-8	2.40" 61.0 mm	1.50" 38.2 mm	2.59" 65.8 mm	1.84" 46.7 mm	3/4-16 UNF	3/4-16 UNF	1.06" 27.0 mm	1.00" 25.4 mm
S2503-10-10	2.54" 64.5 mm	1.64" 41.7 mm	2.59" 65.8 mm	1.84" 46.7 mm	7/8-14 UNF	7/8-14 UNF	1.06" 27.0 mm	1.00" 25.4 mm
S2503-12-12	3.40" 86.4 mm	2.17" 55.2 mm	3.07" 77.9 mm	2.17" 55.2 mm	1-1/16-12 UN	1-1/16-12 UN	1.38" 34.9 mm	1.38" 34.9 mm
S2503-16-16	3.75" 95.3 mm	2.33" 59.2 mm	3.01" 76.5 mm	2.11" 53.6 mm	1-5/16-12 UN	1-5/16-12 UN	1.63" 41.4 mm	1.69" 42.9 mm

Male SAE O-Ring Straight Thread - Female NPSM Pipe Swivel



Part Number	A	B	C	D	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
S2507-6-6	2.13" 54.1 mm	1.33" 33.8 mm	2.07" 52.5 mm	1.38" 35.1 mm	9/16-18 UNF	3/8-18 NPSM	.88" 22.2 mm	.88" 22.2 mm
S2507-8-8	2.40" 61.0 mm	1.50" 38.2 mm	2.32" 59.0 mm	1.57" 39.9 mm	3/4-16 UNF	1/2-14 NPSM	1.06" 27.0 mm	1.00" 25.4 mm
S2507-12-12	3.75" 86.4 mm	2.17" 55.2 mm	2.74" 69.5 mm	1.85" 46.9 mm	1-1/16-12 UN	3/4-14 NPSM	1.38" 34.9 mm	1.25" 31.8 mm
S2507-16-16	3.75" 95.3 mm	2.33" 59.2 mm	3.14" 79.8 mm	2.23" 56.6 mm	1-5/16-12 UN	1-11 1/2 NPSM	1.63" 41.4 mm	1.69" 42.9 mm

Male SAE O-Ring Straight Thread - Female SAE Straight Thread



Part Number	A	B	C	D	Port 1	Port 2	Wrench Flats 1	Wrench Flats 2
S2510-6-6	2.13" 54.1 mm	1.33" 33.8 mm	1.78" 45.1 mm	1.09" 27.6 mm	9/16-18 UNF	9/16-18 UNF	.88" 22.2 mm	.88" 22.2 mm
S2510-8-8	2.40" 61.0 mm	1.50" 38.2 mm	2.10" 53.3 mm	1.35" 34.3 mm	3/4-16 UNF	3/4-16 UNF	1.06" 27.0 mm	1.00" 25.4 mm
S2510-12-12	3.40" 86.4 mm	2.17" 55.2 mm	2.54" 64.5 mm	1.65" 41.9 mm	1-1/16-12 UN	1-1/16-12 UN	1.38" 34.9 mm	1.38" 34.9 mm