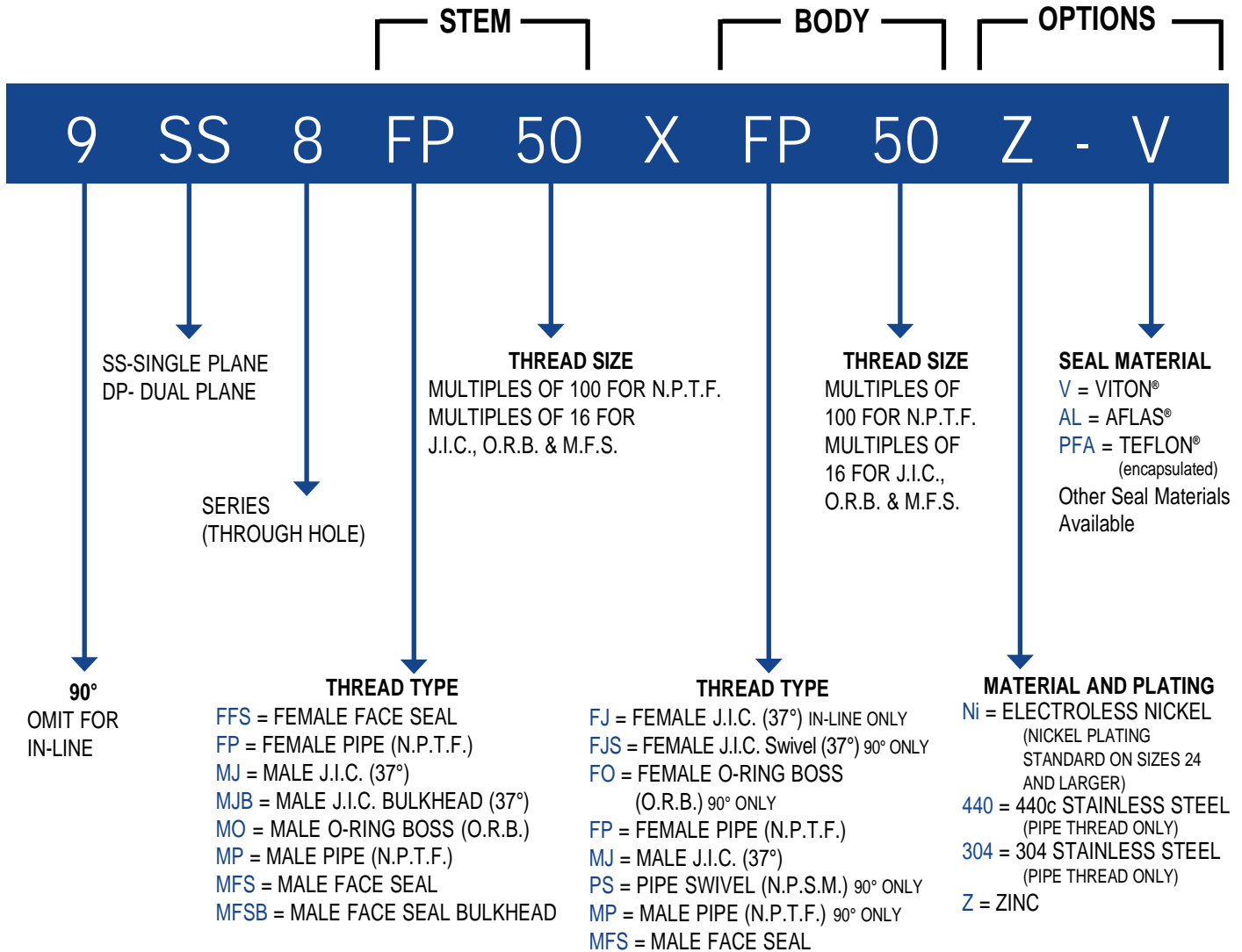


# 90° Swivels



***Switch Your Swivel!***<sup>®</sup>

# HOW TO ORDER



**REBUILDING KITS ARE AVAILABLE FOR ALL SWIVELS.**

**WHEN ORDERING PLEASE SPECIFY PRESSURE, TYPE OF MEDIA OR OXYGEN USE.**

**SUPER SWIVELS® ARE NOT RECOMMENDED FOR BREATHING AIR OR STEAM.**

**ALL SWIVELS HAVE 4 TO 1 PROOF PRESSURE, EXCEPT 10,000 P.S.I. 3 TO 1 PROOF PRESSURE**

**SUPER SWIVELS® MAY ALSO BE ORDERED BY ITEM NUMBER.**

**ANY SERIES STEM WILL FIT WITH THE SAME SERIES BODY. THEREFORE THERE ARE MANY COMBINATIONS THAT DO NOT APPEAR IN THIS CATALOG.**

# Options

## Base Material and Plating

Super Swivels are manufactured from Carbon Steel or 304 and 440c Stainless Steel.

**Carbon Steel Zinc (Z) Plating** is recommended for non-corrosive applications, i.e. hydraulic, pneumatic, etc.

**Carbon Steel Nickel (NI) Plating** is recommended for mildly corrosive environments, i.e. water, mild chemicals, solvents, etc.

**304 Stainless Steel (304)** is recommended for low pressure corrosive environments.

**440c Stainless Steel (440)** is a martensitic, high carbon, magnetic stainless steel, heat-treated to maintain a high-pressure rating. Not as corrosion resistant as 300 Series Stainless Steel.

## Seal Material

**(V) Viton®** (Fluorocarbon) – For most petroleum based applications. (-15°F to 250°F)

**(AL) Aflas®** (Tetrafluoroethylene-propylene copolymer) – Better resistance to many individual chemicals. For service in high temperature environments. (Low temperature limitations.) (+32°F to 400°F)

**(PFA) PFA Teflon®** – High resistance to many individual chemicals where Teflon seals are required. (1,500 max psi) (-15°F to 400°F)

**Other seals available upon request include:**

Buna, EPR, Neoprene and Kalrez®.

Please specify oxygen use when ordering. Super Swivels are not recommended for breathing air or steam.

• Viton and Kalrez are registered trademarks of DuPont Dow® Elastomers. • Teflon, Freon, and Hytrel are registered trademarks of the DuPont® Company.  
• Aflas is a registered trademark of Asahi® Glass Co LTD. • Skydrol and Pydraul are registered trademarks of Monsanto® Chemical Co. All other ® and ™s are the property of their respective owners.

# Seal Compatibility Chart

FLUIDS	VITON® (HYTREL® back-up) 25 in/Hg-5000 P.S.I. MAX* -15°F TO 250°F	AFLAS® (TEFLON® back-up) 25 in/Hg-5000 P.S.I. MAX* +32°F TO 400°F	PFA TEFLON(TEFLONback-up) 25 in/Hg-1500 MAX -15°F TO 400°F
automatic transmission fluids	A	A	A
acetone	C	C	C
air	A	A	A
asphalt	B	A	B
benzene	A	B	B
brake fluid (glycol)	C	A	B
brake fluid (mineral)	C	A	B
brake fluid (silicone)	C	A	B
carbon tetrachloride	A	C	A
engine oil (sf, sf cd)	A	A	A
ethylene glycol	A	A	A
FREON®	C	C	C
hydraulic fluids (petroleum)	A	A	A
hydrochloric acid	B	A	A
methyl ethyl ketone	C	C	C
naphtha	A	A	A
oxygen (gaseous)	A	A	A
power steering fluid	C	A	A
salt water	B	A	A
SKYDROL 500 B4®	C	B	C
soap solutions	C	A	A
sulfuric acid	A	A	A
toluene	A	C	B
trichlorethylene	A	C	A
urethane	C	A	C
water	C	A	A

A=Satisfactory  
B=Fair  
C=Unsatisfactory

\*2500 P.S.I. MAX PNEUMATIC

This chart is only a guide, several factors should be considered when selecting a sealing compound,

Note 1. Please specify oxygen use when ordering. Super Swivels® are not recommended for breathing air.

**Not recommended for steam.**

## Super Swivels' Advantages

### Simplified Connections:

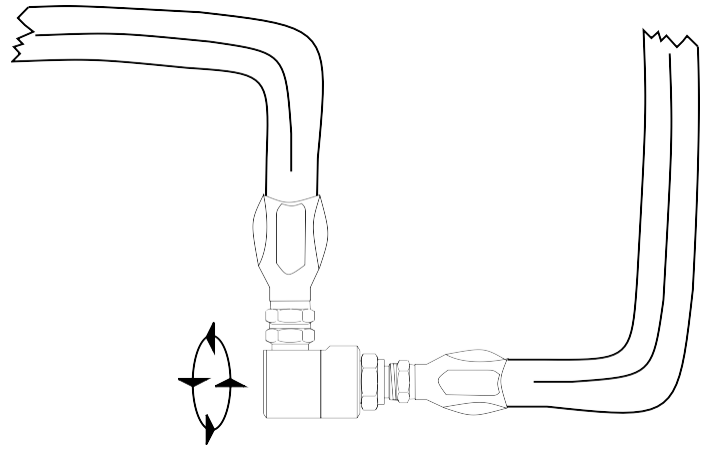
- Super Swivels can connect directly to hose lines which would do away with adapters.
- Super Swivels reduce the complexity of hose lines for 90° connections.
- Less hose is required with Super Swivels live swivels reducing space needs.

### Reduced Hose Twisting:

- Super Swivels live swivel action reduces risk of hose twisting and kinking even in 90° angel connections.

### Less System Shock:

- The increased hose movement allowed by Super Swivels superior design reduces system rigidity and helps absorb some system impulses.



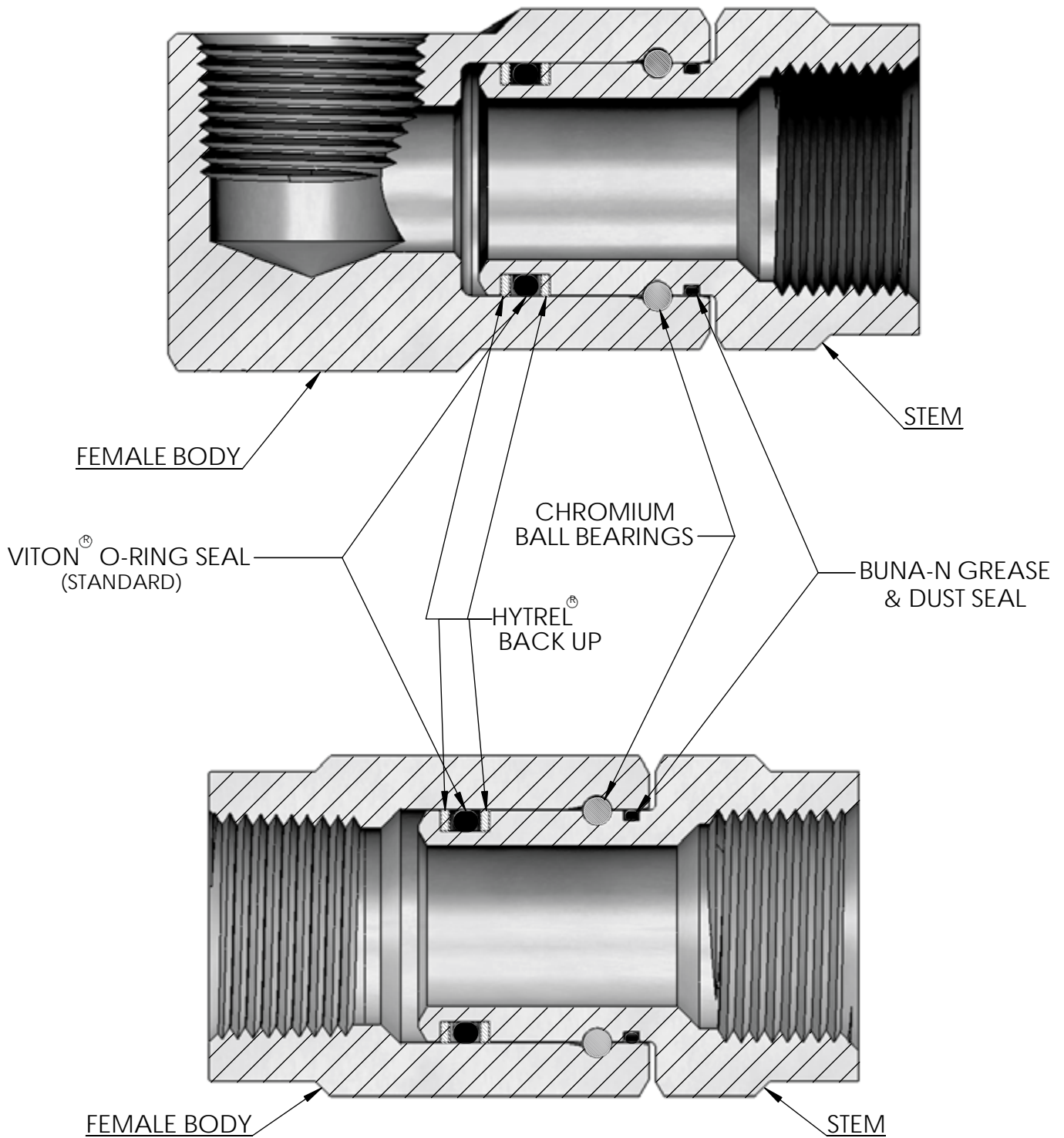
### Reduce Maintenance and Downtime:

- Less hydraulic line congestion, hose kinking, shock damage and twisting means lower maintenance costs and less downtime.

### Reduced Cost:

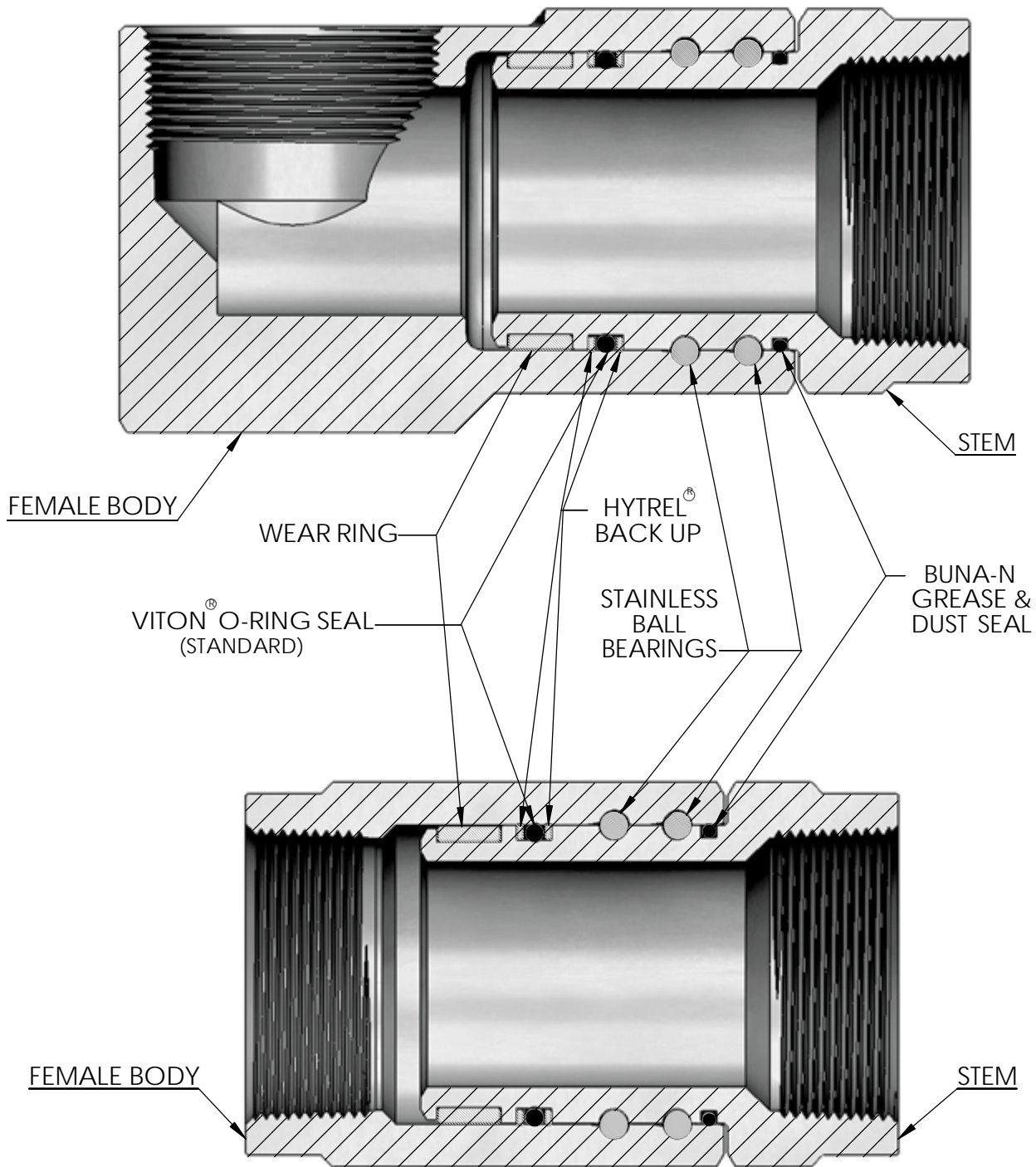
- Simplified hose configuration, less hose and adapters when combined with reduced repairs and downtime reduce the overall cost of hydraulics.

# Cross Sectional Drawings



**Zinc Plated for Hydraulic Oil Applications  
Sizes 4 through 16**

# Cross Sectional Drawings

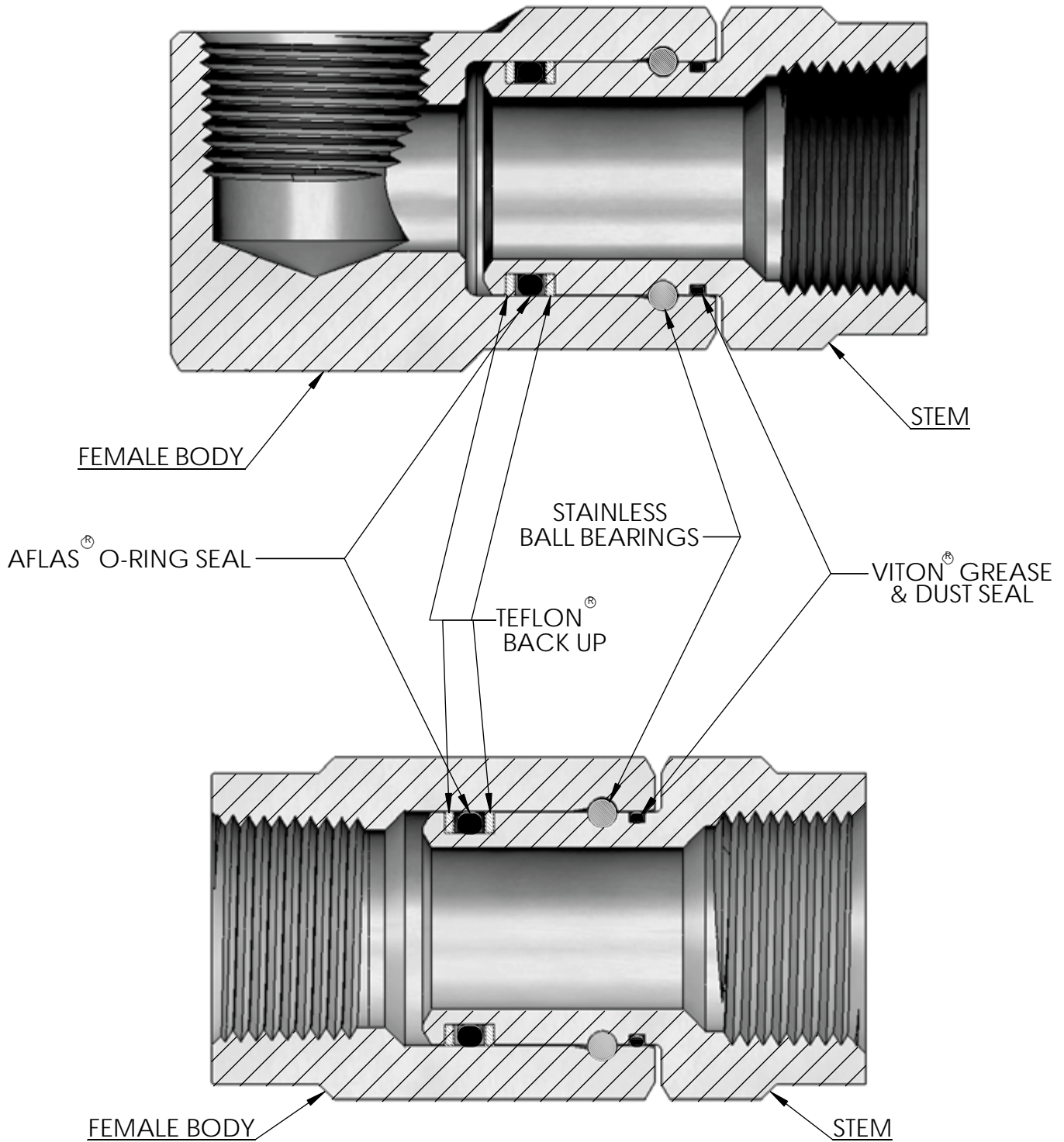


## Nickel Plated for Hydraulic Oil Applications Sizes 20 through 40

(Size 20 No Wear Ring)

Nickel Plating Standard on Size 24 and Larger

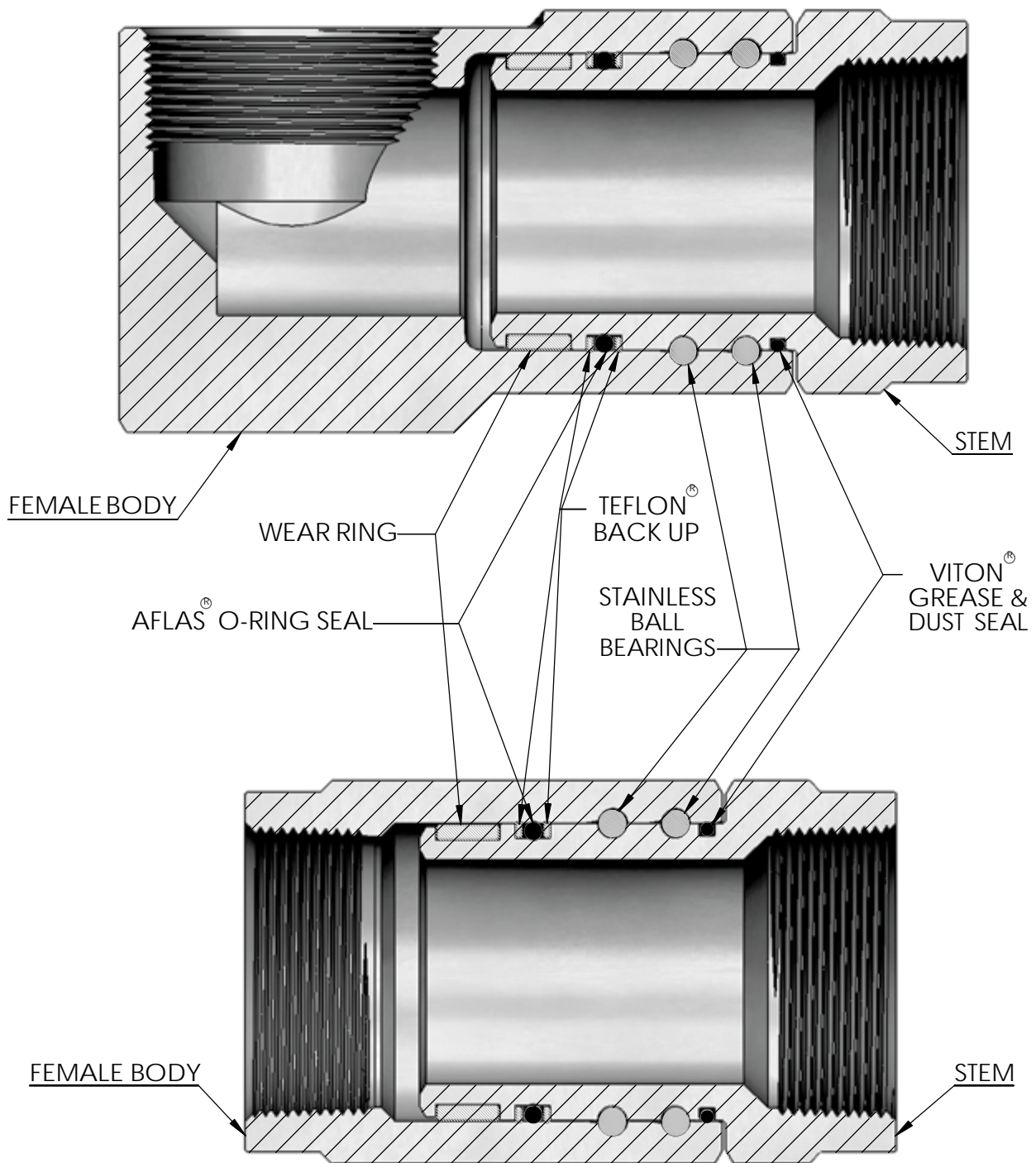
# Cross Sectional Drawings



Nickel Plated for Corrosive Media Applications  
Sizes 4 through 16



# Cross Sectional Drawings



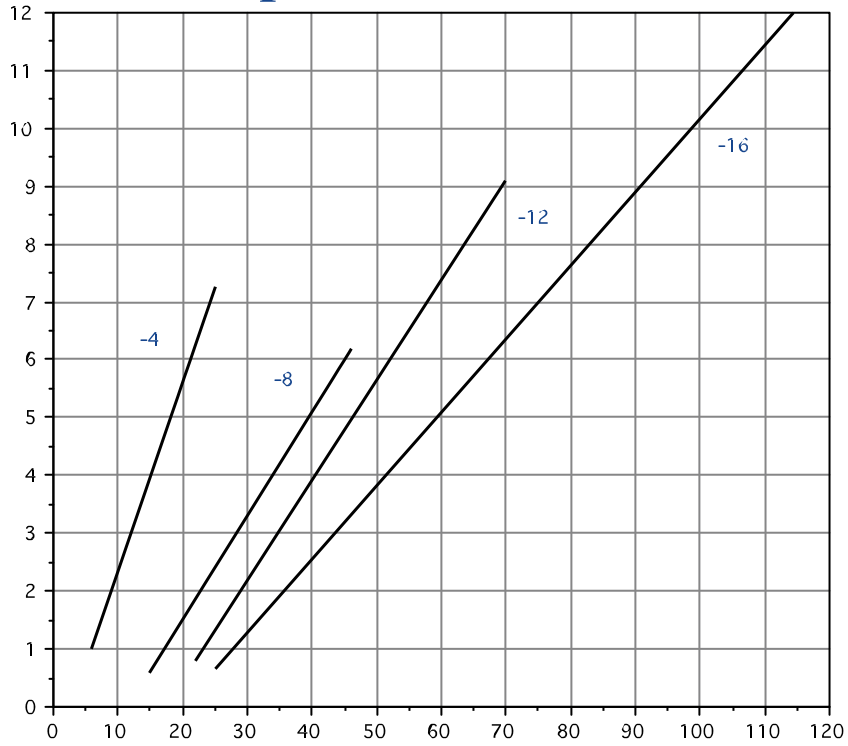
## Nickel Plated for Corrosive Media Applications Sizes 20 through 40

(Size 20 No Wear Ring)

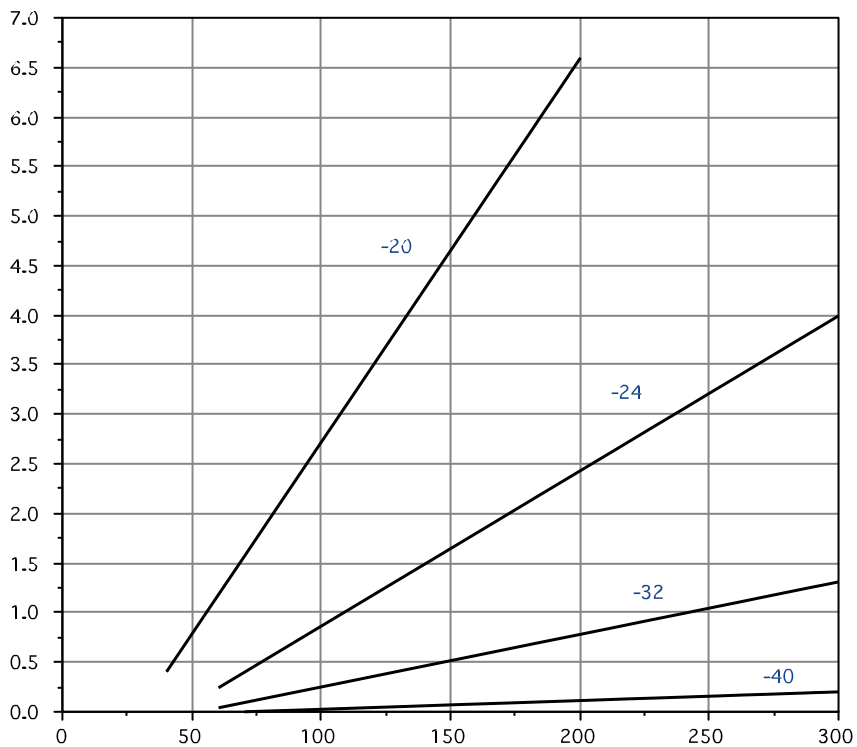
Nickel Plating Standard on Size 24 and Larger



## Pressure Drop "SS" Inline #4 - #16

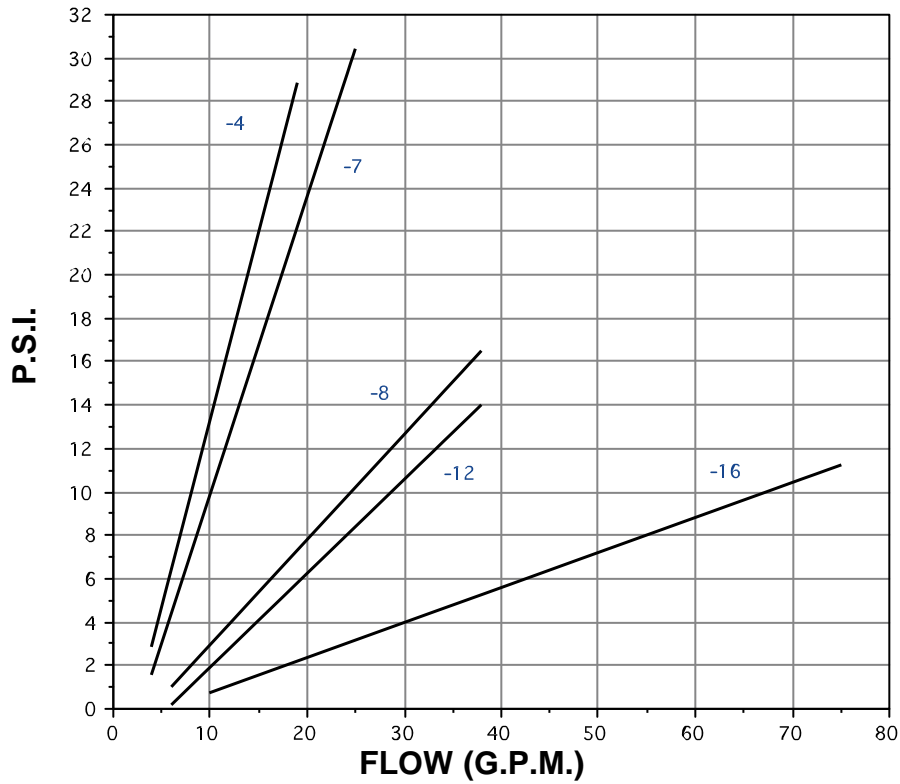


## Pressure Drop "SS" Inline #20 - #40

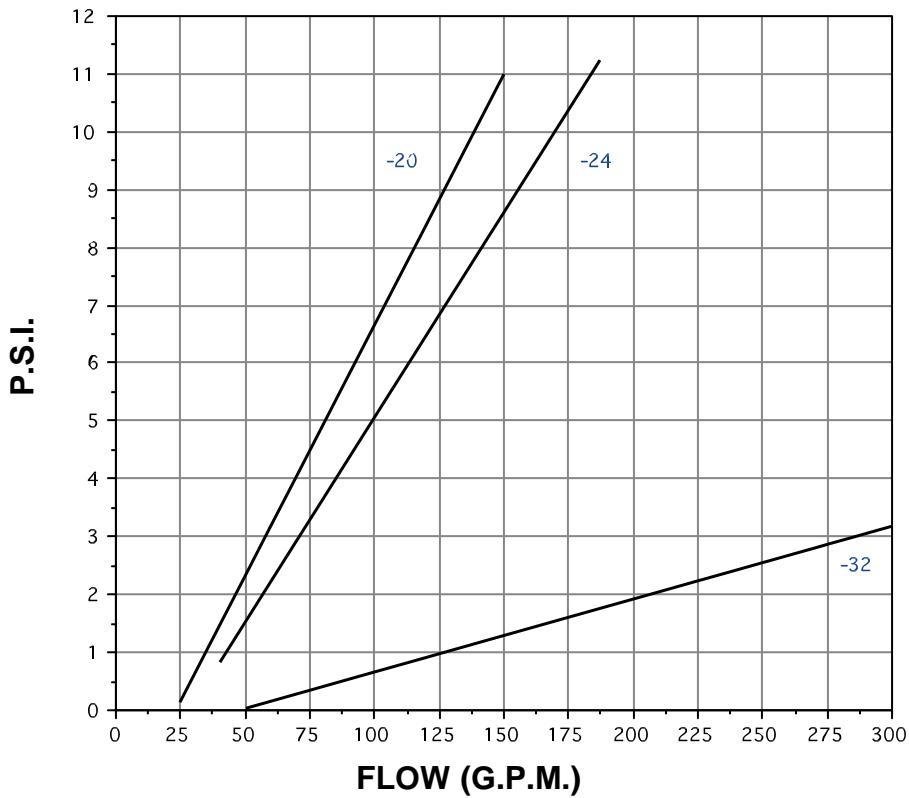




## Pressure Drop "9SS" 90° #4 - #16

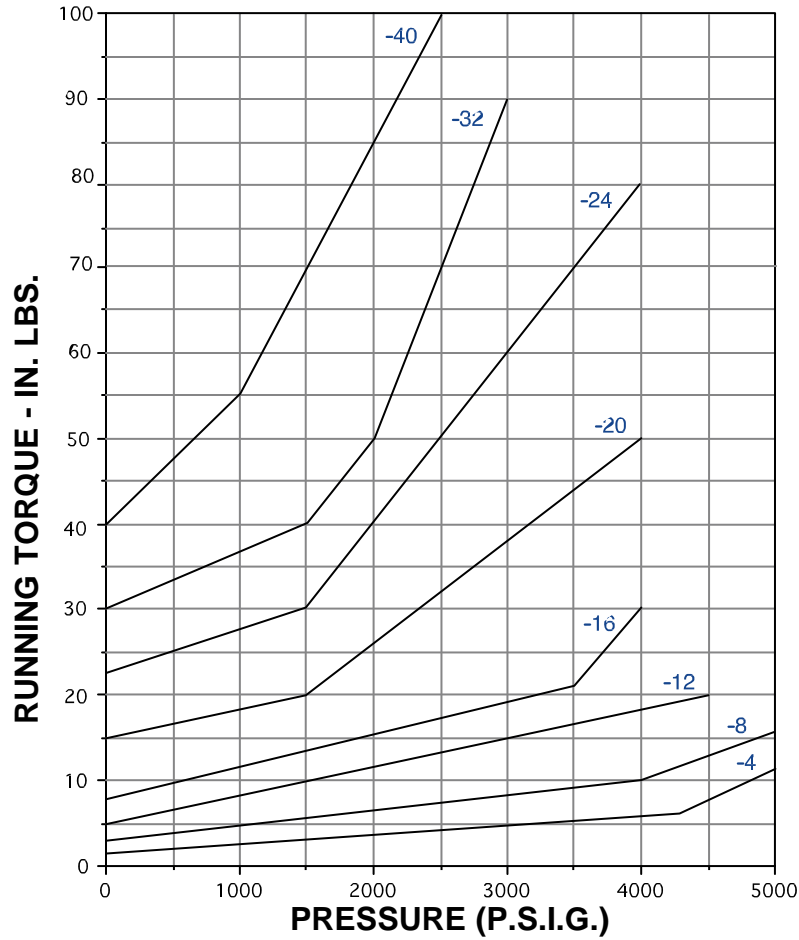


## Pressure Drop "9SS" 90° #20 - #32

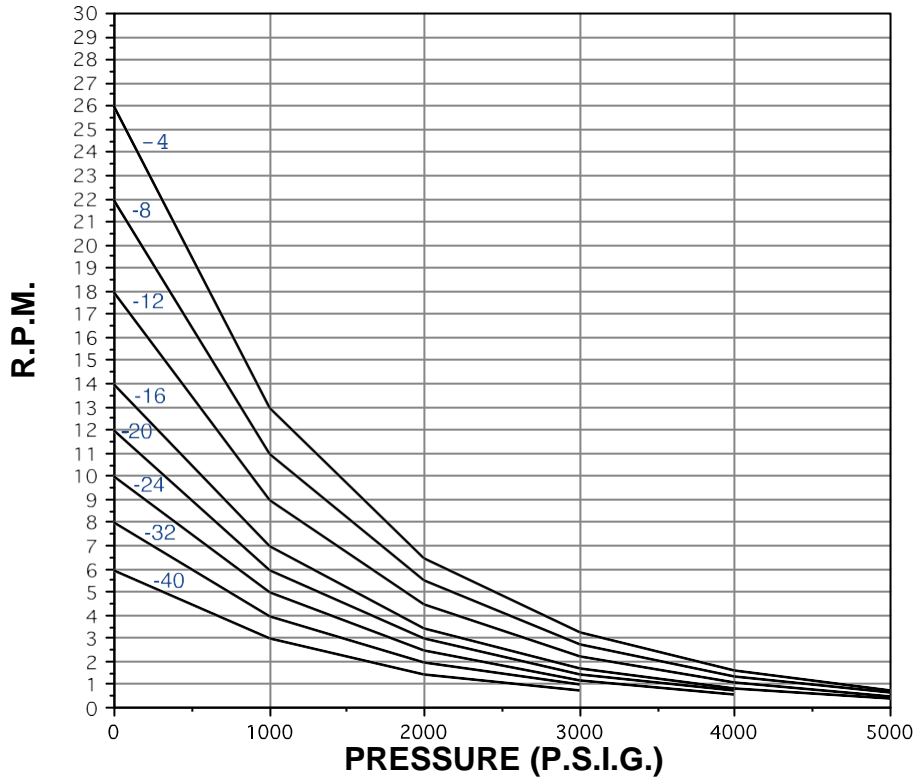




# Rotating Torque vs. Pressure

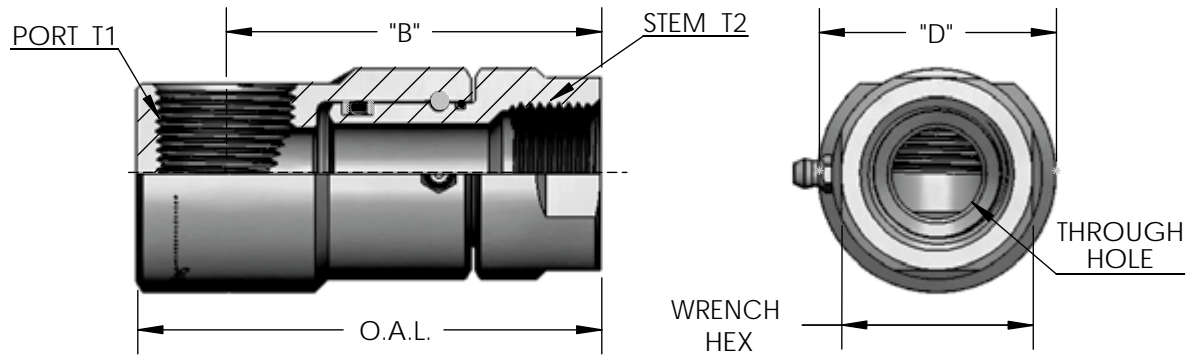


# R.P.M. vs. P.S.I.



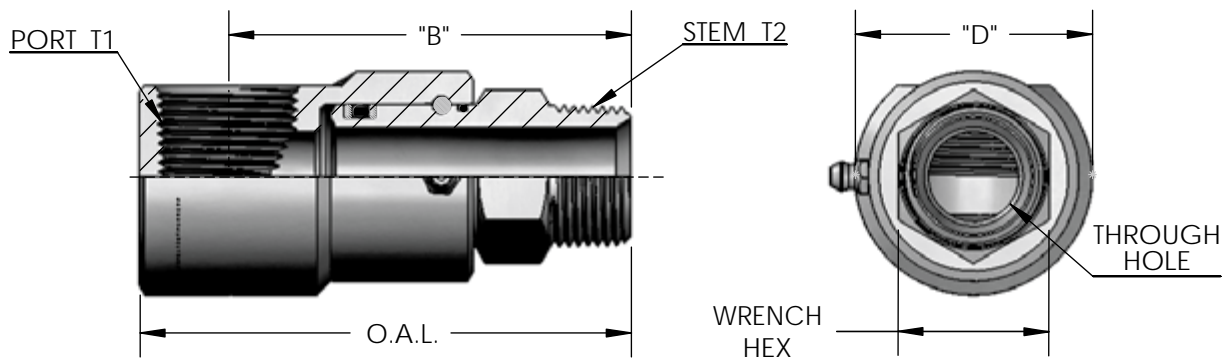
Note: For specific pressure see charts with diagrams.

## Female Pipe (N.P.T.F.) X Female Pipe (N.P.T.F.)



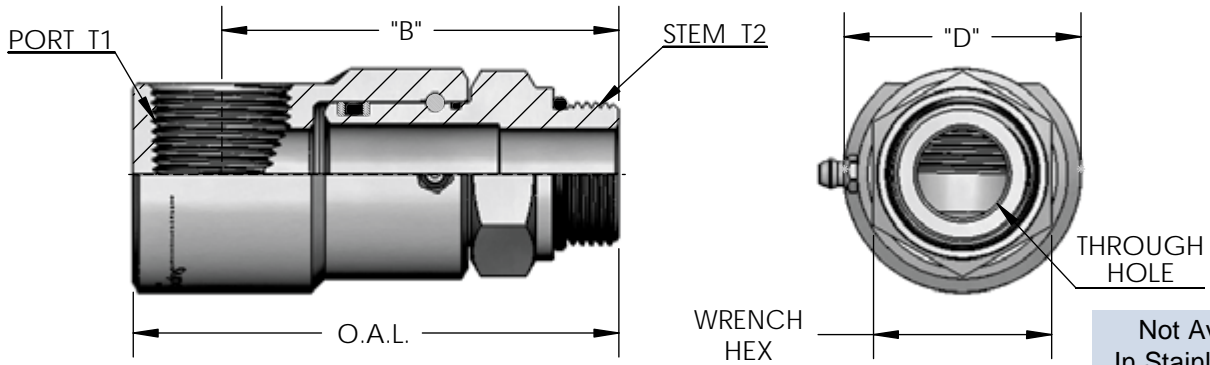
PART NUMBER	O.A.L.	DIM. B	DIM. D Ø	WRENCH/HEX	PORT T1	STEM T2	SWG. RADIUS	MAX. P.S.I.G.	THROUGH HOLE
9 SS 2 FP 12.5 X FP 12.5	1.784	1.524	0.879	0.625	1/8-27 N.P.T.F.	1/8-27 N.P.T.F.	0.375	5000	0.157
9 SS 4 FP 25 X FP 25	2.240	1.875	1.192	0.750	1/4-18 N.P.T.F.	1/4-18 N.P.T.F.	0.525	5000	0.250
9 SS 8 FP 38 X FP 38	2.540	2.060	1.495	0.875	3/8-18 N.P.T.F.	3/8-18 N.P.T.F.	0.588	5000	0.530
9 SS 8 FP 50 X FP 50	2.820	2.275	1.495	1.125	1/2-14 N.P.T.F.	1/2-14 N.P.T.F.	0.588	5000	0.530
9 SS 12 FP 75 X FP 75	3.030	2.365	1.710	1.375	3/4-14 N.P.T.F.	3/4-14 N.P.T.F.	0.662	4500	0.609
9 SS 16 FP 100 X FP 100	4.000	3.190	2.162	1.625	1-11½ N.P.T.F.	1-11½ N.P.T.F.	0.824	4000	0.827
9 SS 20 FP 125 X FP 125	4.365	3.395	2.702	2.000	1¼-11½ N.P.T.F.	1¼-11½ N.P.T.F.	1.049	4000	1.181
9 SS 24 FP 150 X FP 150	5.605	4.375	2.917	2.375	1½-11½ N.P.T.F.	1½-11½ N.P.T.F.	1.076	4000	1.312
9 SS 32 FP 200 X FP 200	6.420	5.050	3.667	2.875	2-11½ N.P.T.F.	2-11½ N.P.T.F.	1.386	3000	1.781

## Male Pipe (N.P.T.F.) X Female Pipe (N.P.T.F.)



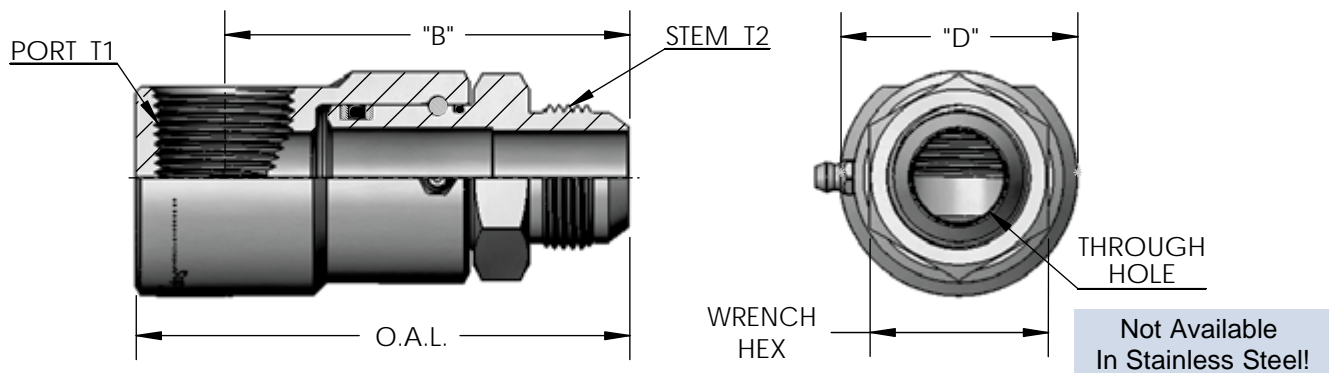
PART NUMBER	O.A.L.	DIM. B	DIM. D Ø	WRENCH/HEX	PORT T1	STEM T2	SWG. RADIUS	MAX. P.S.I.G.	THROUGH HOLE
9 SS 2 MP 12.5 X FP 12.5	1.855	1.595	0.879	0.437	1/8-27 N.P.T.F.	1/8-27 N.P.T.F.	0.375	5000	0.157
9 SS 4 MP 25 X FP 25	2.370	2.000	1.192	0.625	1/4-18 N.P.T.F.	1/4-18 N.P.T.F.	0.525	5000	0.250
9 SS 4 MP 38 X FP 25	2.450	2.080	1.192	0.750	1/4-18 N.P.T.F.	3/8-18 N.P.T.F.	0.525	5000	0.250
9 SS 7 MP 38 X FP 38	3.085	2.527	1.357	0.750	3/8-18 N.P.T.F.	3/8-18 N.P.T.F.	0.565	5000	0.406
9 SS 8 MP 38 X FP 38	2.960	2.480	1.495	1.000	3/8-18 N.P.T.F.	3/8-18 N.P.T.F.	0.588	5000	0.406
9 SS 8 MP 50 X FP 50	3.170	2.630	1.495	1.000	1/2-14 N.P.T.F.	1/2-14 N.P.T.F.	0.588	5000	0.530
9 SS 12 MP 75 X FP 75	3.430	2.760	1.710	1.125	3/4-14 N.P.T.F.	3/4-14 N.P.T.F.	0.643	4500	0.609
9 SS 16 MP 100 X FP 100	4.475	3.667	2.162	1.375	1-11½ N.P.T.F.	1-11 1/2 N.P.T.F.	0.824	4000	0.827
9 SS 20 MP 125 X FP 125	4.873	3.905	2.702	1.750	1¼-11½ N.P.T.F.	1 ¼-11½ N.P.T.F.	1.049	4000	1.181
9 SS 24 MP 150 X FP 150	6.185	4.955	2.917	2.125	1½-11½ N.P.T.F.	1½-11½ N.P.T.F.	1.076	4000	1.312
9 SS 32 MP 200 X FP 200	7.105	5.765	3.667	2.500	2-11½ N.P.T.F.	2-11½ N.P.T.F.	1.386	3000	1.781

## Male O-Ring (O.R.B.) X Female Pipe (N.P.T.F.)



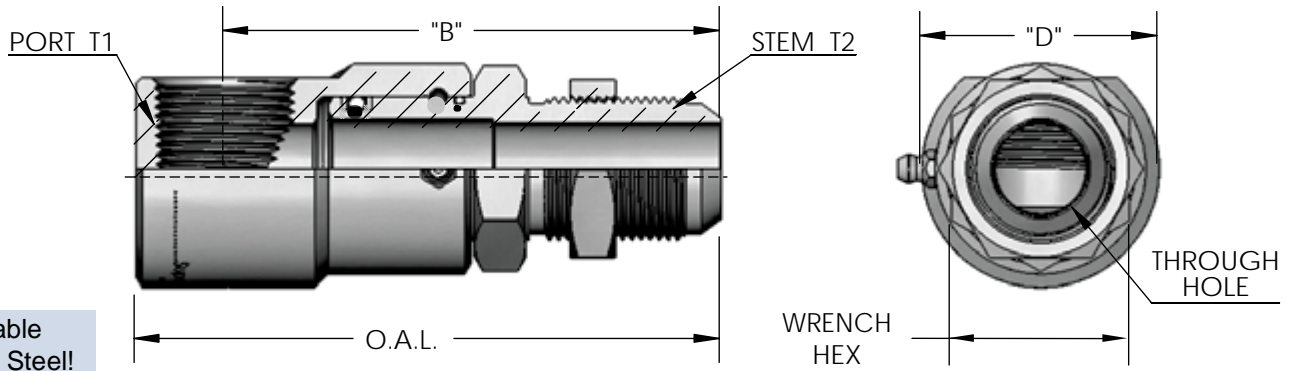
PART NUMBER	O.A.L.	DIM. B	DIM. D Ø	WRENCH/HEX	PORT T1	STEM T2	SWG. RADIUS	MAX. P.S.I.G.	THROUGH HOLE
9 SS 4 MO 4 X FP 25	2.460	2.090	1.192	0.625	1/4-18 N.P.T.F.	7/16-20 U.N.	0.525	5000	0.172
9 SS 4 MO 6 X FP 25	2.460	2.090	1.192	0.750	1/4-18 N.P.T.F.	9/16-18 U.N.	0.525	5000	0.250
9 SS 8 MO 8 X FP 38	2.790	2.310	1.495	1.000	3/8-18 N.P.T.F.	3/4-16 U.N.	0.588	5000	0.391
9 SS 8 MO 10 X FP 38	2.910	2.430	1.495	1.000	3/8-18 N.P.T.F.	7/8-14 U.N.	0.588	5000	0.484
9 SS 8 MO 8 X FP 50	2.923	2.376	1.495	1.000	1/2-14 N.P.T.F.	3/4-16 U.N.	0.588	5000	0.391
9 SS 8 MO 10 X FP 50	3.045	2.498	1.495	1.000	1/2-14 N.P.T.F.	7/8-14 U.N.	0.588	5000	0.484
9 SS 12 MO 12 X FP 75	3.419	2.754	1.710	1.375	3/4-14 N.P.T.F.	11/16-12 U.N.	0.643	4500	0.609
9 SS 16 MO 16 X FP 100	4.424	3.616	2.162	1.625	1-11 1/2 N.P.T.F.	15/16-12 U.N.	0.827	4000	0.827
9 SS 20 MO 20 X FP 125	4.833	3.865	2.702	1.875	1 1/4-11 1/2 N.P.T.F.	15/8-12 U.N.	1.049	4000	1.078
9 SS 24 MO 24 X FP 150	6.105	4.875	2.917	2.125	1 1/2-11 1/2 N.P.T.F.	1 7/8-12 U.N.	1.076	4000	1.312

## Male J.I.C. (37°) X Female Pipe (N.P.T.F.)



PART NUMBER	O.A.L.	DIM. B	DIM. D Ø	WRENCH/HEX	PORT T1	STEM T2	SWG. RADIUS	MAX. P.S.I.G.	THROUGH HOLE
9 SS 4 MJ 4 X FP 25	2.570	2.200	1.192	0.750	1/4-18 N.P.T.F.	7/16-20 U.N.	0.525	5000	0.172
9 SS 4 MJ 6 X FP 25	2.590	2.220	1.192	0.750	1/4-18 N.P.T.F.	9/16-18 U.N.	0.525	5000	0.250
9 SS 8 MJ 8 X FP 38	2.940	2.460	1.495	1.000	3/8-18 N.P.T.F.	3/4-16 U.N.	0.651	5000	0.391
9 SS 8 MJ 10 X FP 38	3.040	2.560	1.495	1.000	3/8-18 N.P.T.F.	7/8-14 U.N.	0.651	5000	0.484
9 SS 8 MJ 8 X FP 50	3.070	2.523	1.495	1.000	1/2-14 N.P.T.F.	3/4-16 U.N.	0.581	5000	0.391
9 SS 8 MJ 10 X FP 50	3.170	2.623	1.495	1.000	1/2-14 N.P.T.F.	7/8-14 U.N.	0.581	5000	0.484
9 SS 12 MJ 12 X FP 75	3.555	2.890	1.710	1.375	3/4-14 N.P.T.F.	11/16-12 U.N.	0.643	4500	0.609
9 SS 16 MJ 16 X FP 100	4.495	3.687	2.162	1.625	1-11 1/2 N.P.T.F.	11/16-12 U.N.	0.741	4000	0.827
9 SS 20 MJ 20 X FP 125	4.913	3.945	2.702	1.750	1 1/4-11 1/2 N.P.T.F.	15/8-12 U.N.	1.049	4000	1.078
9 SS 24 MJ 24 X FP 150	6.275	5.045	2.917	2.125	1 1/2-11 1/2 N.P.T.F.	1 7/8-12 U.N.	1.072	4000	1.312

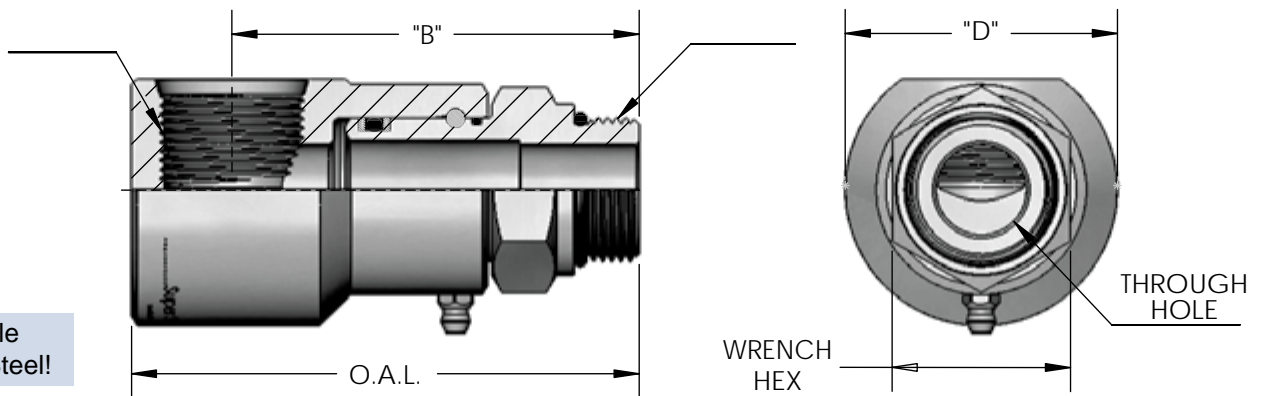
## Male J.I.C. Bulkhead (37°) X Female Pipe (N.P.T.F.)



Not Available  
In Stainless Steel!

PART NUMBER	O.A.L.	DIM. B	DIM. D Ø	WRENCH/HEX	PORT T1	STEM T2	SWG. RADIUS	MAX. P.S.I.G.	THROUGH HOLE
9 SS 4 MJB 6 X FP 25	3.230	2.860	1.190	.812	1/4-18 N.P.T.F.	9/16-18 U.N.	0.530	5000	0.250
9 SS 8 MJB 8 X FP 38	3.670	3.190	1.495	1.000	3/8-18 N.P.T.F.	3/4-16 U.N.	0.651	5000	0.406
9 SS 8 MJB 8 X FP 50	3.805	3.258	1.495	1.000	1/2-14 N.P.T.F.	3/4-16 U.N.	0.581	5000	0.406
9 SS 8 MJB 10 X FP 38	4.025	3.478	1.495	1.125	3/8-18 N.P.T.F.	7/8-14 U.N.	0.650	5000	0.484
9 SS 8 MJB 10 X FP 50	4.025	3.478	1.495	1.125	1/2-14 N.P.T.F.	7/8-14 U.N.	0.581	5000	0.484
9 SS 12 MJB 12 X FP 75	4.475	3.810	1.710	1.375	3/4-14 N.P.T.F.	1 <sup>1</sup> / <sub>16</sub> -12 U.N.	0.643	4500	0.609
9 SS 16 MJB 16 X FP 100	5.330	4.522	2.162	1.625	1-1 <sup>1</sup> / <sub>2</sub> N.P.T.F.	1 <sup>5</sup> / <sub>16</sub> -12 U.N.	0.741	4000	0.827
9 SS 20 MJB 20 X FP 125	5.808	4.840	2.702	1.875	1 <sup>1</sup> / <sub>4</sub> -1 <sup>1</sup> / <sub>2</sub> N.P.T.F.	1 <sup>5</sup> / <sub>8</sub> -12 U.N.	1.049	4000	1.073

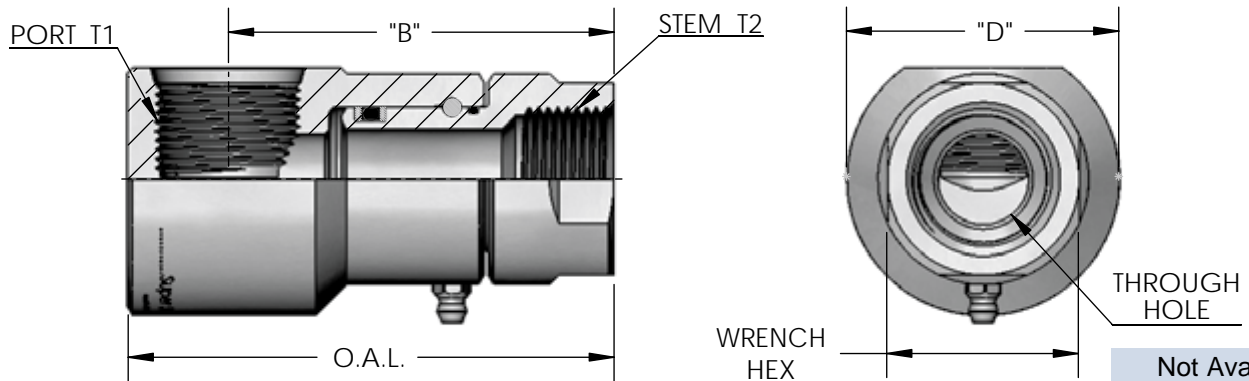
## Male O-Ring (O.R.B.) X Female O-Ring (O.R.B.)



Not Available  
In Stainless Steel!

PART NUMBER	O.A.L.	DIM. B	DIM. D Ø	WRENCH/HEX	PORT T1	STEM T2	SWG. RADIUS	MAX. P.S.I.G.	THROUGH HOLE
9 SS 4 MO 4 X FO 6	2.727	2.215	1.292	0.625	9/16-18 U.N.	7/16-20 U.N.	0.541	5000	0.172
9 SS 4 MO 6 X FO 6	2.727	2.215	1.292	0.750	9/16-18 U.N.	9/16-18 U.N.	0.541	5000	0.250
9 SS 8 MO 8 X FO 8	2.920	2.375	1.662	1.000	3/4-16 U.N.	3/4-16 U.N.	0.703	5000	0.391
9 SS 8 MO 10 X FO 8	3.050	2.500	1.662	1.000	3/4-16 U.N.	7/8-14 U.N.	0.703	5000	0.484
9 SS 12 MO 12 X FO 12	3.709	2.884	2.172	1.375	1 <sup>1</sup> / <sub>16</sub> -12 U.N.	1 <sup>1</sup> / <sub>16</sub> -12 U.N.	0.900	4500	0.609
9 SS 16 MO 16 X FO 16	4.624	3.709	2.482	1.625	1 <sup>5</sup> / <sub>16</sub> -12 U.N.	1 <sup>5</sup> / <sub>16</sub> -12 U.N.	1.009	4000	0.827
9 SS 20 MO 20 X FO 20	5.127	4.044	2.977	1.875	1 <sup>5</sup> / <sub>8</sub> -12 U.N.	1 <sup>5</sup> / <sub>8</sub> -12 U.N.	1.184	4000	1.078

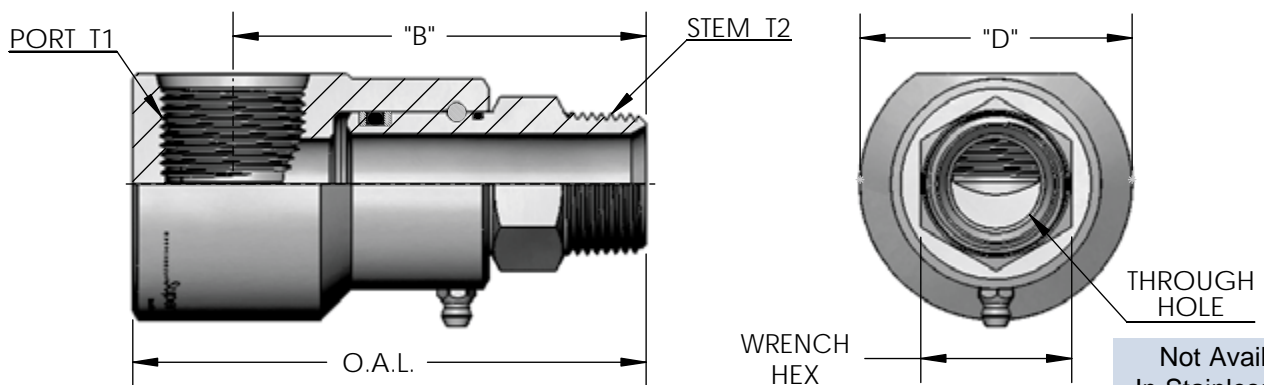
## Female Pipe (N.P.T.F.) X Female O-Ring (O.R.B.)



Not Available  
In Stainless Steel!

PART NUMBER	O.A.L.	DIM. B	DIM. D Ø	WRENCH/HEX	PORT T1	STEM T2	SWG. RADIUS	MAX. P.S.I.G.	THROUGH HOLE
9 SS 4 FP 25 X FO 6	2.510	2.000	1.292	0.750	9/16-18 U.N.	1/4-18 N.P.T.F.	0.541	5000	0.250
9 SS 8 FP 38 X FO 8	2.670	2.125	1.662	0.875	3/4-16 U.N.	3/8-18 N.P.T.F.	0.703	5000	0.530
9 SS 8 FP 50 X FO 8	2.820	2.270	1.662	1.125	3/4-16 U.N.	1/2-14 N.P.T.F.	0.703	5000	0.530
9 SS 12 FP 75 X FO 12	3.320	2.500	2.172	1.375	1 1/16-12 U.N.	3/4-14 N.P.T.F.	0.900	4500	0.609
9 SS 16 FP 100 X FO 16	4.200	3.280	2.482	1.625	1 5/16-12 U.N.	1-11 1/2 N.P.T.F.	1.009	4000	0.827
9 SS 20 FP 125 X FO 20	4.660	3.574	2.977	2.000	1 5/8-12 U.N.	1 1/4-11 1/2 N.P.T.F.	1.185	4000	1.181

## Male Pipe (N.P.T.F.) X Female O-Ring (O.R.B.)

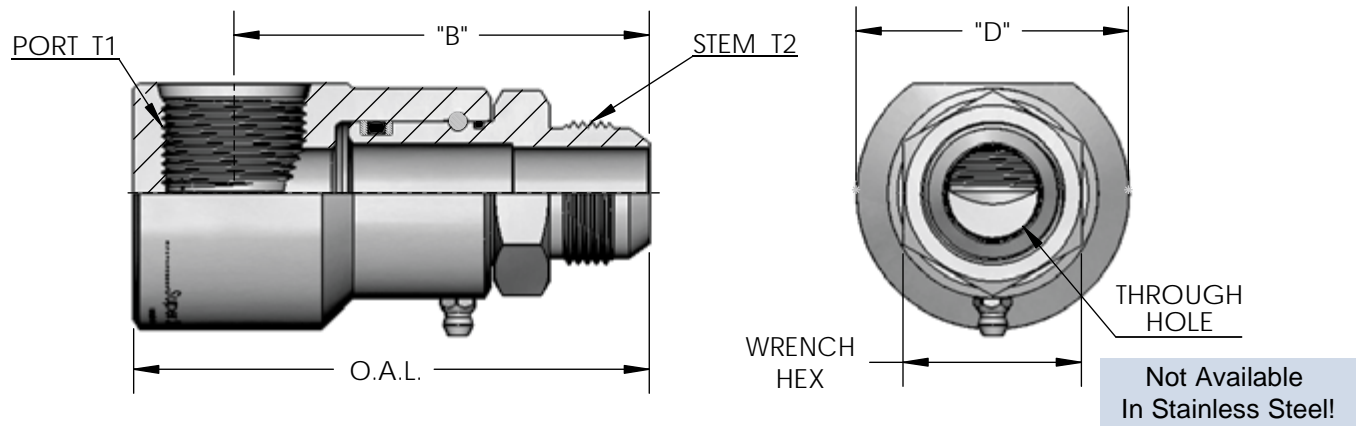


Not Available  
In Stainless Steel!

PART NUMBER	O.A.L.	DIM. B	DIM. D Ø	WRENCH/HEX	PORT T1	STEM T2	SWG. RADIUS	MAX. P.S.I.G.	THROUGH HOLE
9 SS 4 MP 25 X FO 6	2.640	2.130	1.292	0.625	9/16-18 U.N.	1/4-18 N.P.T.F.	0.541	5000	0.250
9 SS 4 MP 38 X FO 6	2.720	2.200	1.292	0.750	9/16-18 U.N.	3/8-18 N.P.T.F.	0.541	5000	0.250
9 SS 8 MP 38 X FO 8	3.100	2.550	1.662	1.000	3/4-16 U.N.	3/8-18 N.P.T.F.	0.703	5000	0.406
9 SS 8 MP 50 X FO 8	3.170	2.620	1.662	1.000	3/4-16 U.N.	1/2-14 N.P.T.F.	0.703	5000	0.530
9 SS 12 MP 75 X FO 12	3.720	2.895	2.172	1.125	1 1/16-12 U.N.	3/4-14 N.P.T.F.	0.900	4500	0.609
9 SS 16 MP 100 X FO 16	4.675	3.760	2.482	1.375	1 5/16-12 U.N.	1-11 1/2 N.P.T.F.	1.009	4000	0.827
9 SS 20 MP 125 X FO 20	5.167	4.084	2.977	1.750	1 5/8-12 U.N.	1 1/4-11 1/2 N.P.T.F.	1.184	4000	1.181

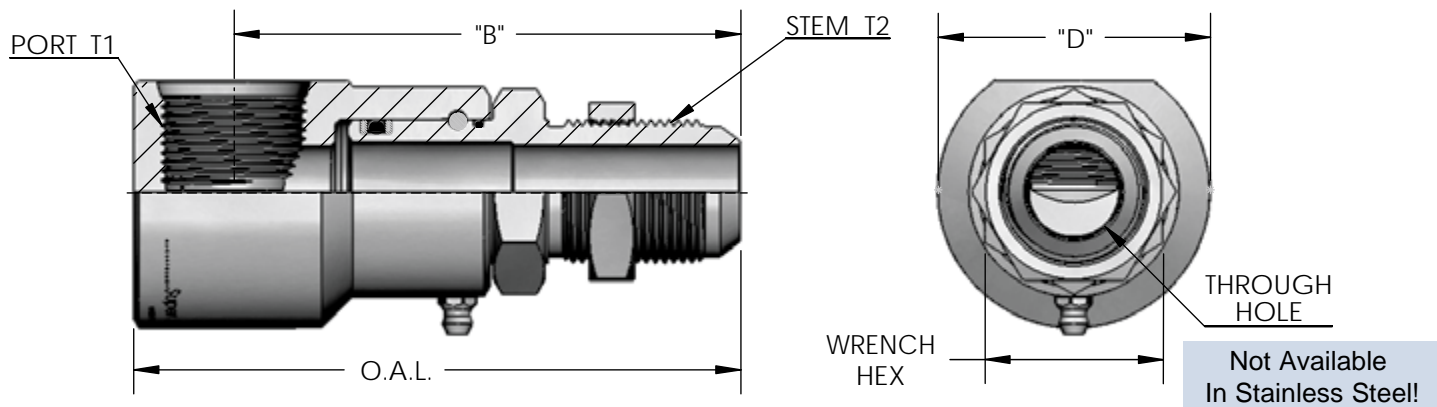


## Male J.I.C. (37°) X Female O-Ring (O.R.B.)



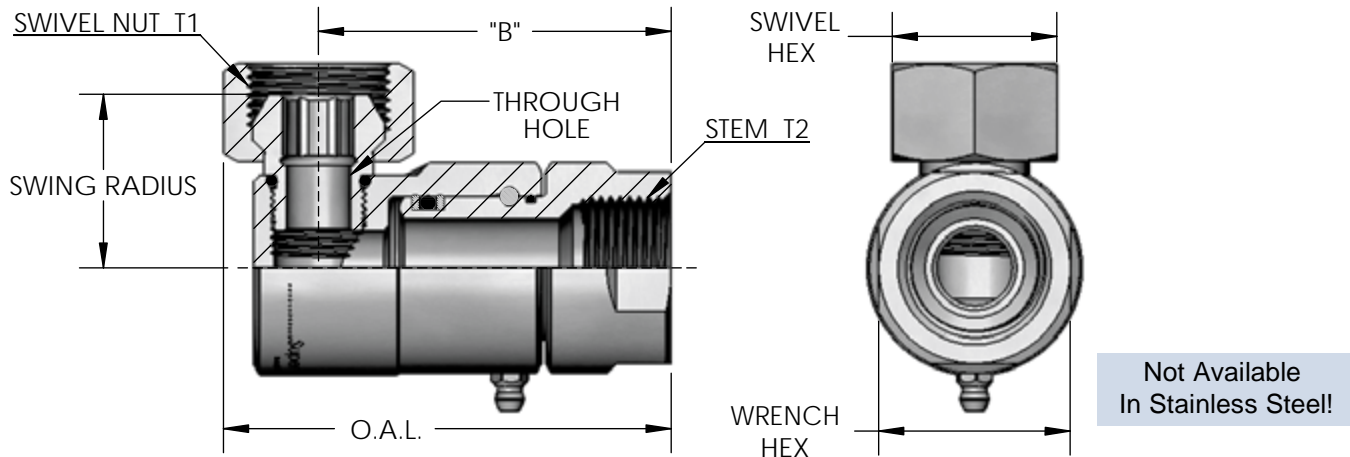
PART NUMBER	O.A.L.	DIM. B	DIM. D Ø	WRENCH/HEX	PORT T1	STEM T2	SWG. RADIUS	MAX. P.S.I.G.	THROUGH HOLE
9 SS 4 MJ 4 X FO 6	2.837	2.325	1.292	0.750	9/16-18 U.N.	7/16-20 U.N.	0.541	5000	0.172
9 SS 4 MJ 6 X FO 6	2.857	2.345	1.292	0.750	9/16-18 U.N.	9/16-18 U.N.	0.541	5000	0.250
9 SS 8 MJ 8 X FO 8	3.070	2.520	1.662	1.000	3/4-16 U.N.	3/4-16 U.N.	0.703	5000	0.391
9 SS 8 MJ 10 X FO 8	3.170	2.600	1.662	1.000	3/4-16 U.N.	7/8-14 U.N.	0.703	5000	0.484
9 SS 12 MJ 12 X FO 12	3.845	3.020	2.172	1.375	1 1/16-12 U.N.	1 1/16-12 U.N.	0.900	4500	0.609
9 SS 16 MJ 16 X FO 16	4.695	3.780	2.482	1.625	1 5/16-12 U.N.	1 5/16-12 U.N.	1.009	4000	0.827
9 SS 20 MJ 20 X FO 20	5.207	4.124	2.977	1.750	1 5/8-12 U.N.	1 5/8-12 U.N.	1.184	4000	1.078

## Male J.I.C. Bulkhead (37°) X Female O-Ring (O.R.B.)



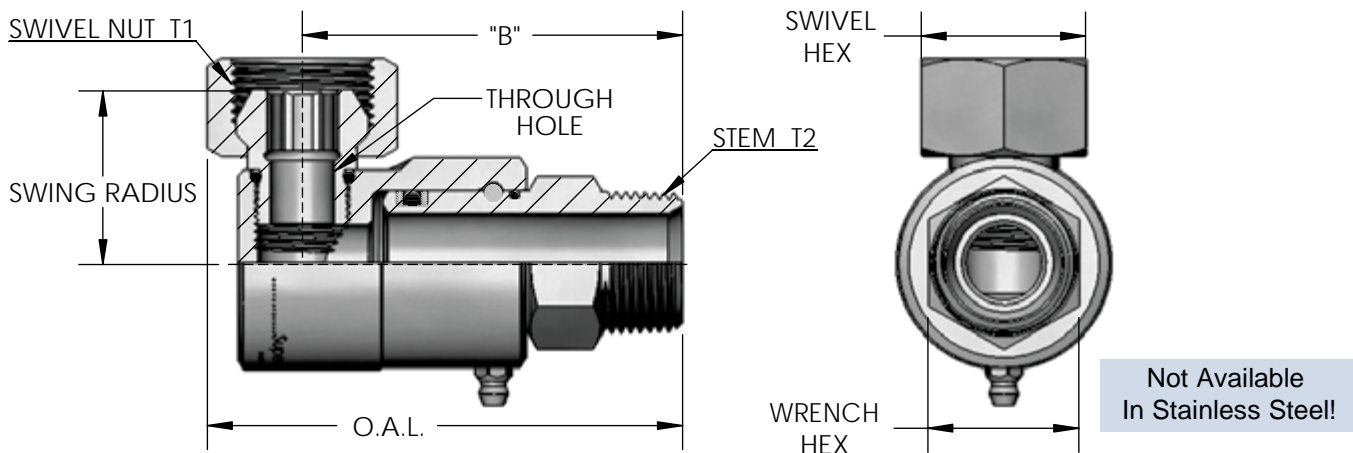
PART NUMBER	O.A.L.	DIM. B	DIM. D Ø	WRENCH/HEX	PORT T1	STEM T2	SWG. RADIUS	MAX. P.S.I.G.	THROUGH HOLE
9 SS 4 MJB 6 X FO 6	3.500	2.990	1.290	.812	9/16-18 U.N.	9/16-18 U.N.	0.580	5000	0.250
9 SS 8 MJB 8 X FO 8	3.800	3.240	1.662	1.000	3/4-16 U.N.	3/4-16 U.N.	0.703	5000	0.391
9 SS 8 MJB 10 X FO 8	4.030	3.480	1.662	1.125	3/4-16 U.N.	7/8-14 U.N.	0.703	5000	0.484
9 SS 12 MJB 12 X FO 12	4.765	3.940	2.172	1.375	1 1/16-12 U.N.	1 1/16-12 U.N.	0.900	4500	0.609
9 SS 16 MJB 16 X FO 16	5.530	4.615	2.482	1.625	1 5/16-12 U.N.	1 5/16-12 U.N.	1.009	4000	0.827
9 SS 20 MJB 20 X FO 20	6.102	5.019	2.977	1.875	1 5/8-12 U.N.	1 5/8-12 U.N.	1.184	4000	1.078

## Female Pipe (N.P.T.F.) X Pipe Swivel (N.P.S.M.)



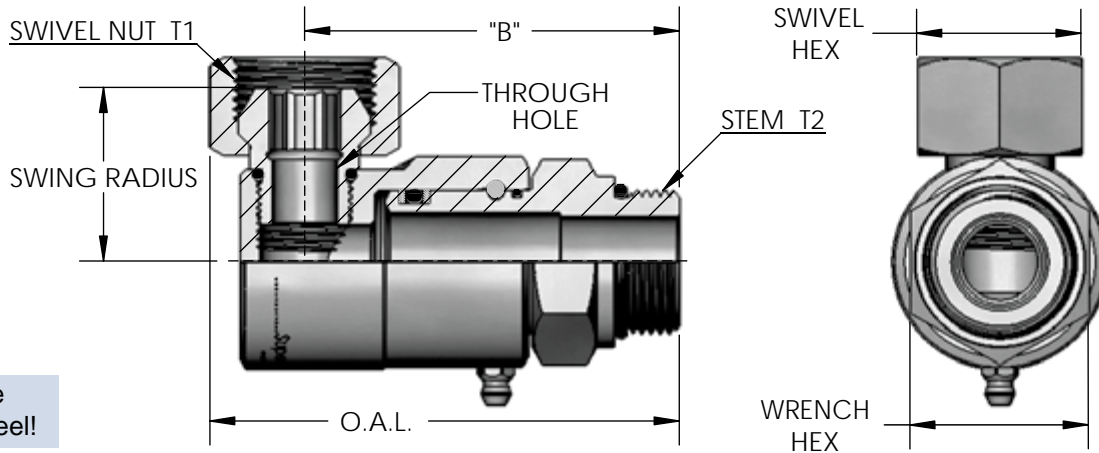
PART NUMBER	O.A.L.	DIM. B	SWIVEL HEX	WRENCH/HEX	SWIVEL NUT T1	STEM T2	SWG. RADIUS	MAX. P.S.I.G.	THROUGH HOLE
9 SS 4 FP 25 X PS 25	2.510	2.000	0.687	0.750	1/4-18 N.P.S.M.	1/4-18 N.P.T.F.	1.326	3500	0.218
9 SS 4 FP 25 X PS 38	2.510	2.000	0.875	0.750	3/8-18 N.P.S.M.	1/4-18 N.P.T.F.	1.555	3500	0.250
9 SS 8 FP 38 X PS 38	2.670	2.120	0.875	0.875	3/8-18 N.P.S.M.	3/8-18 N.P.T.F.	1.437	3500	0.327
9 SS 8 FP 50 X PS 50	2.850	2.270	1.000	1.125	1/2-14 N.P.S.M.	1/2-14 N.P.T.F.	1.521	3500	0.390
9 SS 12 FP 75 X PS 75	3.080	2.360	1.250	1.375	3/4-14 N.P.S.M.	3/4-14 N.P.T.F.	1.664	3500	0.521
9 SS 16 FP 100 X PS 100	3.850	2.980	1.500	1.625	1-11 <sup>1</sup> / <sub>2</sub> N.P.S.M.	1-11 <sup>1</sup> / <sub>2</sub> N.P.T.F.	1.956	3500	0.590
9 SS 20 FP 125 X PS 125	4.365	3.285	1.875	2.000	1 <sup>1</sup> / <sub>4</sub> -11 <sup>1</sup> / <sub>2</sub> N.P.S.M.	1 <sup>1</sup> / <sub>4</sub> -11 <sup>1</sup> / <sub>2</sub> N.P.T.F.	2.570	3500	0.906
9 SS 24 FP 150 X PS 150	5.600	4.375	2.125	2.630	1 <sup>1</sup> / <sub>2</sub> -11 <sup>1</sup> / <sub>2</sub> N.P.S.M.	1 <sup>1</sup> / <sub>2</sub> -11 <sup>1</sup> / <sub>2</sub> N.P.T.F.	2.630	3500	1.040

## Male Pipe (N.P.T.F.) X Pipe Swivel (N.P.S.M.)



PART NUMBER	O.A.L.	DIM. B	SWIVEL HEX	WRENCH/HEX	SWIVEL NUT T1	STEM T2	SWG. RADIUS	MAX. P.S.I.G.	THROUGH HOLE
9 SS 4 MP 25 X PS 25	2.640	2.120	0.687	0.625	1/4-18 N.P.S.M.	1/4-18 N.P.T.F.	1.326	3500	0.218
9 SS 4 MP 38 X PS 25	2.720	2.210	0.687	0.750	1/4-18 N.P.S.M.	3/8-18 N.P.T.	1.326	3500	0.218
9 SS 4 MP 25 X PS 38	2.640	2.120	0.875	0.625	3/8-18 N.P.S.M.	1/4-18 N.P.T.F.	1.555	3500	0.250
9 SS 4 MP 38 X PS 38	2.720	2.210	0.875	0.750	3/8-18 N.P.S.M.	3/8-18 N.P.T.	1.555	3500	0.250
9 SS 8 MP 38 X PS 38	3.095	2.548	0.875	1.000	3/8-18 N.P.S.M.	3/8-18 N.P.T.F.	1.437	3500	0.327
9 SS 8 MP 50 X PS 50	3.170	2.620	1.000	1.000	1/2-14 N.P.S.M.	1/2-14 N.P.T.F.	1.521	3500	0.390
9 SS 12 MP 75 X PS 75	3.481	2.760	1.250	1.125	3/4-14 N.P.S.M.	3/4-14 N.P.T.F.	1.664	3500	0.521
9 SS 16 MP 100 X PS 100	4.327	3.462	1.500	1.375	1-11 <sup>1</sup> / <sub>2</sub> N.P.S.M.	1-11 <sup>1</sup> / <sub>2</sub> N.P.T.F.	1.956	3500	0.590
9 SS 20 MP 125 X PS 125	4.877	3.795	1.875	1.750	1 <sup>1</sup> / <sub>4</sub> -11 <sup>1</sup> / <sub>2</sub> N.P.S.M.	1 <sup>1</sup> / <sub>4</sub> -11 <sup>1</sup> / <sub>2</sub> N.P.T.F.	2.570	3500	0.906
9 SS 24 MP 150 X PS 150	6.185	4.955	2.125	2.000	1 <sup>1</sup> / <sub>2</sub> -11 <sup>1</sup> / <sub>2</sub> N.P.S.M.	1 <sup>1</sup> / <sub>2</sub> -11 <sup>1</sup> / <sub>2</sub> N.P.T.F.	2.630	3500	1.040

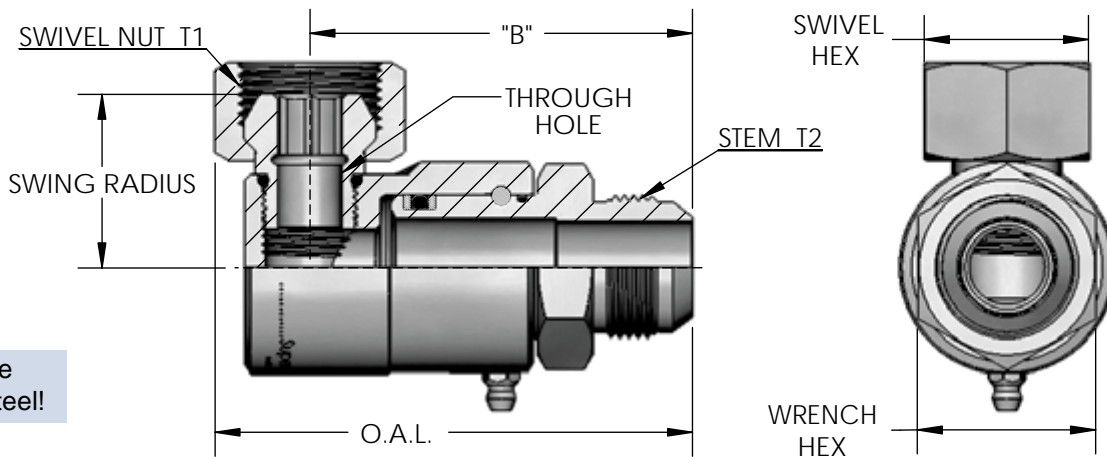
## Male O-Ring (O.R.B.) X Pipe Swivel (N.P.S.M.)



Not Available  
In Stainless Steel!

PART NUMBER	O.A.L.	DIM. B	SWIVEL HEX	WRENCH/HEX	SWIVEL NUT T1	STEM T2	SWG. RADIUS	MAX. P.S.I.G.	THROUGH HOLE
9 SS 4 MO 4 X PS 25	2.727	2.215	0.687	0.625	1/4-18 N.P.S.M.	7/16-20 U.N.	1.326	3500	0.172
9 SS 4 MO 6 X PS 25	2.727	2.215	0.687	0.750	1/4-18 N.P.S.M.	9/16-18 U.N.	1.326	3500	0.218
9 SS 4 MO 6 X PS 38	2.727	2.215	0.875	0.750	3/8-18 N.P.S.M.	9/16-18 U.N.	1.555	3500	0.250
9 SS 8 MO 8 X PS 38	2.923	2.376	0.875	1.000	3/8-18 N.P.S.M.	3/4-16 U.N.	1.437	3500	0.327
9 SS 8 MO 8 X PS 50	2.953	2.376	1.000	1.000	1/2-14 N.P.S.M.	3/4-16 U.N.	1.521	3500	0.327
9 SS 8 MO 10 X PS 50	3.075	2.498	1.000	1.000	1/2-14 N.P.S.M.	7/8-14 U.N.	1.521	3500	0.390
9 SS 12 MO 12 X PS 75	3.470	2.749	1.250	1.375	3/4-14 N.P.S.M.	1 <sup>1</sup> / <sub>16</sub> -12 U.N.	1.664	3500	0.521
9 SS 16 MO 16 X PS 100	4.276	3.411	1.500	1.625	1-11 <sup>1</sup> / <sub>2</sub> N.P.S.M.	1 <sup>5</sup> / <sub>16</sub> -12 U.N.	1.956	3500	0.590
9 SS 20 MO 20 X PS 125	4.837	3.755	1.875	1.875	1 <sup>1</sup> / <sub>4</sub> -11 <sup>1</sup> / <sub>2</sub> N.P.S.M.	1 <sup>5</sup> / <sub>8</sub> -12 U.N.	2.570	3500	0.906
9 SS 24 MO 24 X PS 150	6.105	4.875	2.125	2.125	1 <sup>1</sup> / <sub>2</sub> -11 <sup>1</sup> / <sub>2</sub> N.P.S.M.	1 <sup>7</sup> / <sub>8</sub> -12 U.N.	2.630	3500	1.040

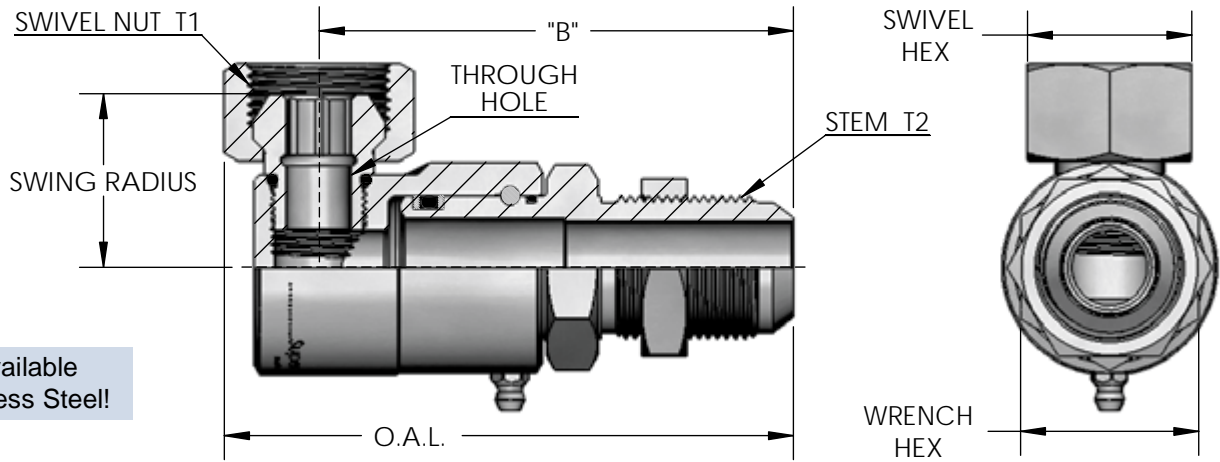
## Male J.I.C. (37°) X Pipe Swivel (N.P.S.M.)



Not Available  
In Stainless Steel!

PART NUMBER	O.A.L.	DIM. B	SWIVEL HEX	WRENCH/HEX	SWIVEL NUT T1	STEM T2	SWG. RADIUS	MAX. P.S.I.G.	THROUGH HOLE
9 SS 4 MJ 4 X PS 25	2.867	2.355	0.687	0.750	1/4-18 N.P.S.M.	7/16-20 U.N.	1.326	3500	0.172
9 SS 4 MJ 6 X PS 25	2.887	2.375	0.687	0.750	1/4-18 N.P.S.M.	9/16-18 U.N.	1.326	3500	0.218
9 SS 4 MJ 6 X PS 38	2.887	2.375	0.875	0.750	3/8-18 N.P.S.M.	9/16-18 U.N.	1.555	3500	0.250
9 SS 8 MJ 8 X PS 38	3.070	2.523	0.875	1.000	3/8-18 N.P.S.M.	3/4-16 U.N.	1.437	3500	0.327
9 SS 8 MJ 8 X PS 50	3.100	2.523	1.000	1.000	1/2-14 N.P.S.M.	3/4-16 U.N.	1.521	3500	0.390
9 SS 8 MJ 10 X PS 50	3.200	2.623	1.000	1.000	1/2-14 N.P.S.M.	7/8-14 U.N.	1.521	3500	0.390
9 SS 12 MJ 12 X PS 75	3.606	2.885	1.250	1.375	3/4-14 N.P.S.M.	1 <sup>1</sup> / <sub>16</sub> -12 U.N.	1.664	3500	0.521
9 SS 16 MJ 16 X PS 100	4.348	3.482	1.500	1.625	1-11 <sup>1</sup> / <sub>2</sub> N.P.S.M.	1 <sup>5</sup> / <sub>16</sub> -12 U.N.	1.956	3500	0.590
9 SS 20 MJ 20 X PS 125	4.917	3.835	1.875	1.750	1 <sup>1</sup> / <sub>4</sub> -11 <sup>1</sup> / <sub>2</sub> N.P.S.M.	1 <sup>5</sup> / <sub>8</sub> -12 U.N.	2.570	3500	0.906
9 SS 24 MJ 24 X PS 150	6.275	5.045	2.125	2.125	1 <sup>1</sup> / <sub>2</sub> -11 <sup>1</sup> / <sub>2</sub> N.P.S.M.	1 <sup>7</sup> / <sub>8</sub> -12 U.N.	2.630	3500	1.040

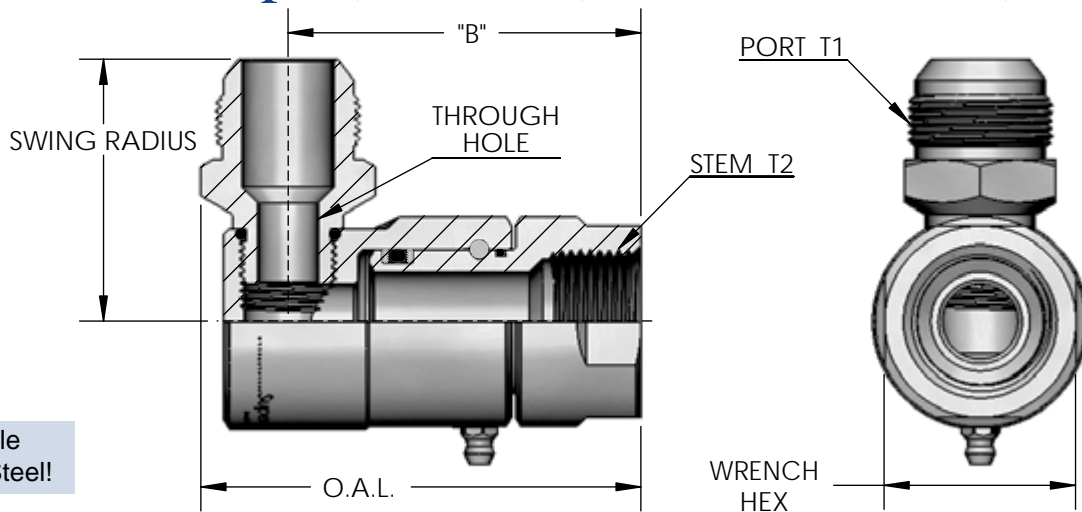
# Male J.I.C. Bulkhead (37°) X Pipe Swivel (N.P.S.M.)



Not Available  
In Stainless Steel!

PART NUMBER	O.A.L.	DIM. B	SWIVEL HEX	WRENCH/HEX	SWIVEL NUT T1	STEM T2	SWG. RADIUS	MAX. P.S.I.G.	THROUGH HOLE
9 SS 4 MJB 6 X PS 25	3.500	2.990	0.688	.812	1/4-18 N.P.S.M.	9/16-18 U.N.	1.350	3500	0.250
9 SS 8 MJB 8 X PS 38	3.805	3.258	0.875	1.000	3/8-18 N.P.S.M.	3/4-16 U.N.	1.437	3500	0.327
9 SS 8 MJB 8 X PS 50	3.835	3.258	1.000	1.000	1/2-14 N.P.S.M.	3/4-16 U.N.	1.521	3500	0.327
9 SS 8 MJB 10 X PS 50	4.055	3.478	1.000	1.125	1/2-14 N.P.S.M.	7/8-14 U.N.	1.521	3500	0.390
9 SS 12 MJB 12 X PS 75	4.526	3.805	1.250	1.375	3/4-14 N.P.S.M.	1 1/16-12 U.N.	1.664	3500	0.521
9 SS 16 MJB 16 X PS 100	5.182	4.317	1.500	1.625	1-11 1/2 N.P.S.M.	1 5/16-12 U.N.	1.956	3500	0.590
9 SS 20 MJB 20 X PS 125	5.812	4.730	1.875	1.875	1 1/4-11 1/2 N.P.S.M.	1 5/8-12 U.N.	2.570	3500	0.906

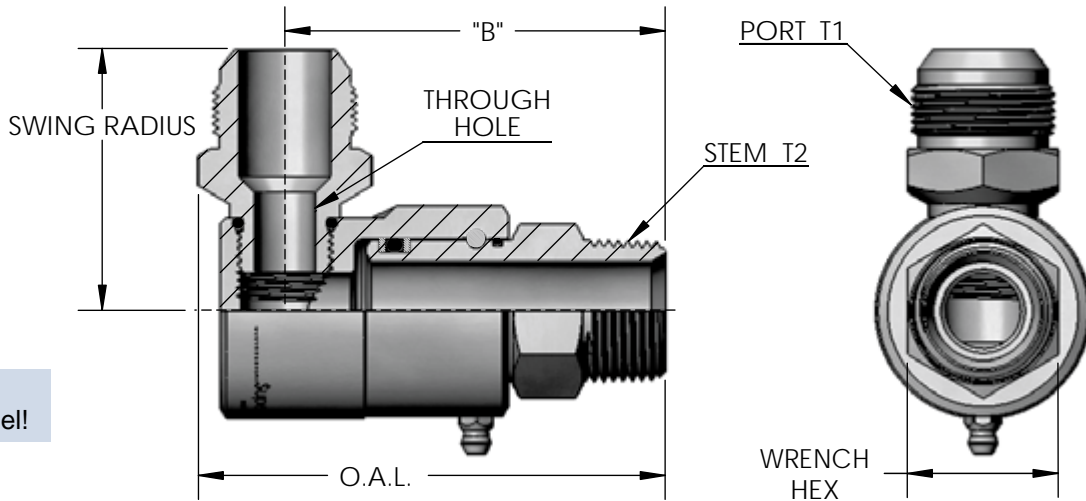
# Female Pipe (N.P.T.F.) X Male J.I.C. (37°)



Not Available  
In Stainless Steel!

PART NUMBER	O.A.L.	DIM. B	WRENCH/HEX	PORT T1	STEM T2	SWG. RADIUS	MAX. P.S.I.G.	THROUGH HOLE
9 SS 4 FP 25 X MJ 4	2.510	2.000	0.750	7/16-20 U.N.	1/4-18 N.P.T.F.	1.454	3500	0.170
9 SS 4 FP 25 X MJ 6	2.510	2.000	0.750	9/16-18 U.N.	1/4-18 N.P.T.F.	1.454	3500	0.250
9 SS 8 FP 38 X MJ 6	2.670	2.120	0.875	9/16-18 U.N.	3/8-18 N.P.T.F.	1.581	3500	0.290
9 SS 8 FP 38 X MJ 8	2.670	2.120	0.875	3/4-16 U.N.	3/8-18 N.P.T.F.	1.712	3500	0.297
9 SS 8 FP 50 X MJ 8	2.850	2.270	1.125	3/4-16 U.N.	1/2-14 N.P.T.F.	1.712	3500	0.297
9 SS 8 FP 50 X MJ 10	2.880	2.270	1.125	7/8-14 U.N.	1/2-14 N.P.T.F.	1.978	3500	0.297
9 SS 12 FP 75 X MJ 12	3.000	2.360	1.375	1 1/16-12 U.N.	3/4-14 N.P.T.F.	2.288	3500	0.385
9 SS 16 FP 100 X MJ 16	3.730	2.980	1.625	1 5/16-12 U.N.	1-11 1/2 N.P.T.F.	2.384	3500	0.550
9 SS 20 FP 125 X MJ 20	4.300	3.285	2.000	1 5/8-12 U.N.	1 1/4-11 1/2 N.P.T.F.	2.970	3500	0.827
9 SS 24 FP 150 X MJ 24	5.600	4.375	2.375	1 7/8-12 U.N.	1 1/2-11 1/2 N.P.T.F.	3.097	3500	0.944

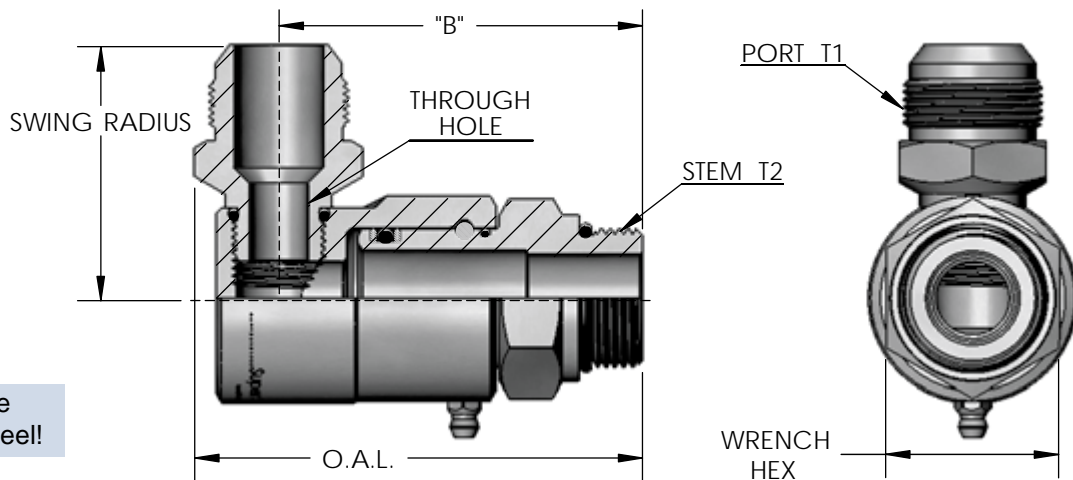
## Male Pipe (N.P.T.F.) X Male J.I.C. (37°)



Not Available  
In Stainless Steel!

PART NUMBER	O.A.L.	DIM. B	WRENCH/HEX	PORT T1	STEM T2	SWG. RADIUS	MAX. P.S.I.G.	THROUGH HOLE
9 SS 4 MP 25 X MJ 4	2.640	2.130	0.625	7/16-20 U.N.	1/4-18 N.P.T.F.	1.454	3500	0.170
9 SS 4 MP 25 X MJ 6	2.640	2.130	0.625	9/16-18 U.N.	1/4-18 N.P.T.F.	1.454	3500	0.250
9 SS 4 MP 38 X MJ 6	2.720	2.210	0.750	9/16-18 U.N.	3/8-18 N.P.T.F.	1.454	3500	0.250
9 SS 8 MP 38 X MJ 8	3.095	2.548	1.000	3/4-16 U.N.	3/8-18 N.P.T.F.	1.712	3500	0.297
9 SS 8 MP 50 X MJ 8	3.220	2.673	1.000	3/4-16 U.N.	1/2-14 N.P.T.F.	1.712	3500	0.297
9 SS 8 MP 50 X MJ 10	3.170	2.620	1.000	7/8-14 U.N.	1/2-14 N.P.T.F.	1.978	3500	0.297
9 SS 12 MP 75 X MJ 12	3.409	2.760	1.125	1 1/16-12 U.N.	3/4-14 N.P.T.F.	2.235	3500	0.385
9 SS 16 MP 100 X MJ 16	4.255	3.462	1.375	1 5/16-12 U.N.	1-1 1/2 N.P.T.F.	2.384	3500	0.550
9 SS 20 MP 125 X MJ 20	4.805	3.795	1.750	1 5/8-12 U.N.	1 1/4-1 1/2 N.P.T.F.	2.970	3500	0.827
9 SS 24 MP 150 X MJ 24	6.185	4.955	2.000	1 7/8-12 U. N.	1 1/2-1 1/2 N.P.T.F.	3.097	3500	0.944

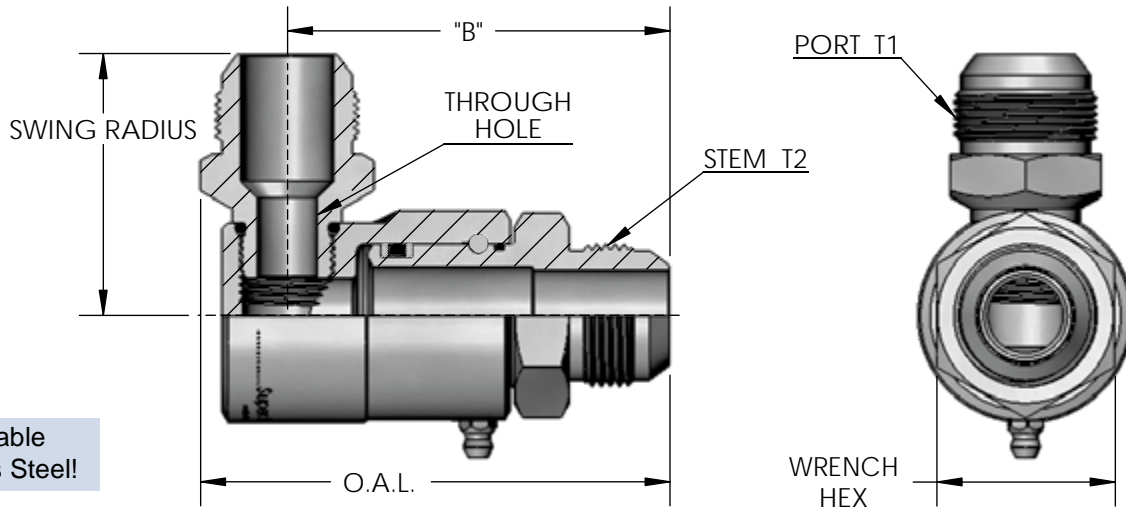
## Male O-Ring (O.R.B.) X Male J.I.C. (37°)



Not Available  
In Stainless Steel!

PART NUMBER	O.A.L.	DIM. B	WRENCH/HEX	PORT T1	STEM T2	SWG. RADIUS	MAX. P.S.I.G.	THROUGH HOLE
9 SS 4 MO 4 X MJ 4	2.727	2.215	0.625	7/16-20 U.N.	7/16-20 U.N.	1.454	3500	0.172
9 SS 4 MO 6 X MJ 6	2.727	2.215	0.750	9/16-18 U.N.	9/16-18 U.N.	1.454	3500	0.250
9 SS 8 MO 8 X MJ 8	2.923	2.376	1.000	3/4-16 U.N.	3/4-16 U.N.	1.712	3500	0.297
9 SS 8 MO 10 X MJ 10	3.075	2.498	1.000	7/8-14 U.N.	7/8-14 U.N.	1.978	3500	0.297
9 SS 12 MO 12 X MJ 12	3.398	2.749	1.375	1 1/16-12 U.N.	1 1/16-12 U.N.	2.288	3500	0.385
9 SS 16 MO 16 X MJ 16	4.204	3.411	1.625	1 5/16-12 U.N.	1 5/16-12 U.N.	2.384	3500	0.550
9 SS 20 MO 20 X MJ 20	4.765	3.755	1.875	1 5/8-12 U.N.	1 5/8-12 U.N.	2.970	3500	0.827
9 SS 24 MO 24 X MJ 24	6.105	4.875	2.125	1 7/8-12 U.N.	1 7/8-12 U.N.	3.097	3500	0.944

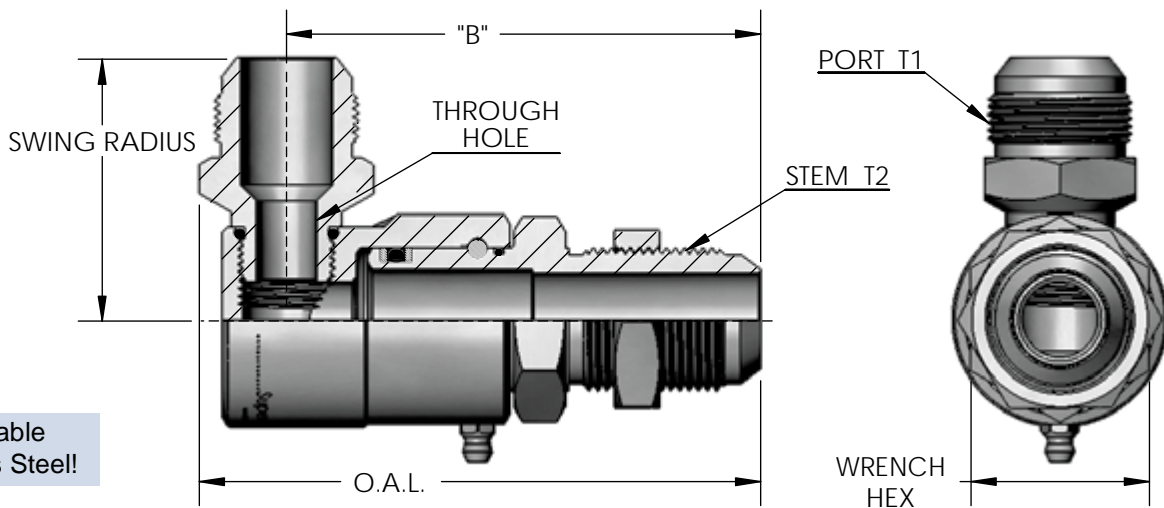
## Male J.I.C. (37°) X Male J.I.C. (37°)



Not Available  
In Stainless Steel!

PART NUMBER	O.A.L.	DIM. B	WRENCH/HEX	PORT T1	STEM T2	SWG. RADIUS	MAX. P.S.I.G.	THROUGH HOLE
9 SS 4 MJ 4 X MJ 4	2.837	2.325	0.750	7/16-20 U.N.	7/16-20 U.N.	1.454	3500	0.172
9 SS 4 MJ 6 X MJ 6	2.857	2.345	0.750	9/16-18 U.N.	9/16-18 U.N.	1.454	3500	0.250
9 SS 8 MJ 8 X MJ 8	3.070	2.523	1.000	3/4-16 U.N.	3/4-16 U.N.	1.712	3500	0.297
9 SS 8 MJ 10 X MJ 10	3.200	2.623	1.000	7/8-14 U.N.	7/8-14 U.N.	1.978	3500	0.297
9 SS 12 MJ 12 X MJ 12	3.534	2.885	1.375	1 1/16-12 U.N.	1 1/16-12 U.N.	2.288	3500	0.385
9 SS 16 MJ 16 X MJ 16	4.275	3.482	1.625	1 5/16-12 U.N.	1 5/16-12 U.N.	2.384	3500	0.550
9 SS 20 MJ 20 X MJ 20	4.845	3.835	1.750	1 7/8-12 U.N.	1 7/8-12 U.N.	2.970	3500	0.827
9 SS 24 MJ 24 X MJ 24	6.275	5.045	2.125	1 7/8-12 U. N.	1 7/8-12 U.N.	3.097	3500	0.944

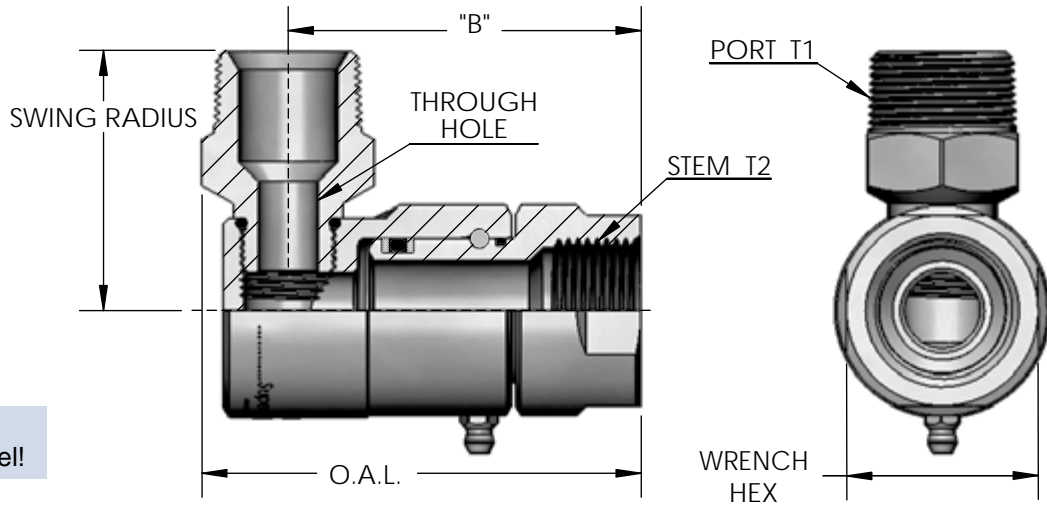
## Male J.I.C. Bulkhead (37°) X Male J.I.C. (37°)



Not Available  
In Stainless Steel!

PART NUMBER	O.A.L.	DIM. B	WRENCH/HEX	PORT T1	STEM T2	SWG. RADIUS	MAX. P.S.I.G.	THROUGH HOLE
9 SS 8 MJB 8 X MJ 8	3.805	3.258	1.000	3/4-16 U.N.	3/4-16 U.N.	1.712	3500	0.297
9 SS 8 MJB 10 X MJ 10	4.055	3.478	1.125	7/8-14 U.N.	7/8-14 U.N.	1.978	3500	0.297
9 SS 12 MJB 12 X MJ 12	4.454	3.805	1.375	1 1/16-12 U.N.	1 1/16-12 U.N.	2.288	3500	0.385
9 SS 16 MJB 16 X MJ 16	5.110	4.317	1.625	1 5/16-12 U.N.	1 5/16-12 U.N.	2.384	3500	0.550
9 SS 20 MJB 20 X MJ 20	5.740	4.730	1.875	1 7/8-12 U.N.	1 7/8-12 U.N.	2.970	3500	0.827

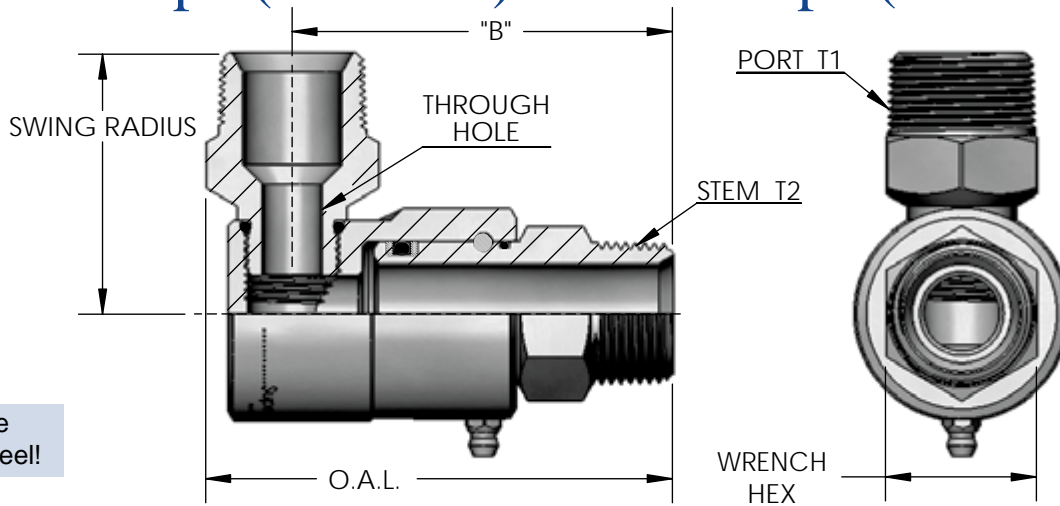
# Female Pipe (N.P.T.F.) X Male Pipe (N.P.T.F.)



Not Available  
In Stainless Steel!

PART NUMBER	O.A.L.	DIM. B	WRENCH/HEX	PORT T1	STEM T2	SWG. RADIUS	MAX. P.S.I.G.	THROUGH HOLE
9 SS 4 FP 25 X MP 25	2.510	2.000	0.750	1/4-18 N.P.T.F.	1/4-18 N.P.T.F.	1.440	3500	0.250
9 SS 8 FP 38 X MP 38	2.670	2.120	0.875	3/8-18 N.P.T.F.	3/8-18 N.P.T.F.	1.440	3500	0.297
9 SS 8 FP 38 X MP 50	2.670	2.120	0.875	1/2-14 N.P.T.F.	3/8-18 N.P.T.F.	1.440	3500	0.297
9 SS 8 FP 50 X MP 38	2.850	2.270	1.125	3/8-18 N.P.T.F.	1/2-14 N.P.T.F.	1.556	3500	0.297
9 SS 8 FP 50 X MP 50	2.850	2.270	1.125	1/2-14 N.P.T.F.	1/2-14 N.P.T.F.	1.848	3500	0.297
9 SS 12 FP 75 X MP 75	3.000	2.360	1.375	3/4-14 N.P.T.F.	3/4-14 N.P.T.F.	1.998	3500	0.484
9 SS 16 FP 100 X MP 100	3.780	3.020	1.625	1-11 <sup>1</sup> / <sub>2</sub> N.P.T.F.	1-11 <sup>1</sup> / <sub>2</sub> N.P.T.F.	2.370	3500	0.550
9 SS 20 FP 125 X MP 125	4.300	3.285	2.000	1 <sup>1</sup> / <sub>4</sub> -11 <sup>1</sup> / <sub>2</sub> N.P.T.F.	1 <sup>1</sup> / <sub>4</sub> -11 <sup>1</sup> / <sub>2</sub> N.P.T.F.	2.987	3500	0.827
9 SS 24 FP 150 X MP 150	5.600	4.375	3.050	1 <sup>1</sup> / <sub>2</sub> -11 <sup>1</sup> / <sub>2</sub> N.P.T.F.	1 <sup>1</sup> / <sub>2</sub> -11 <sup>1</sup> / <sub>2</sub> N.P.T.F.	3.050	3500	0.944

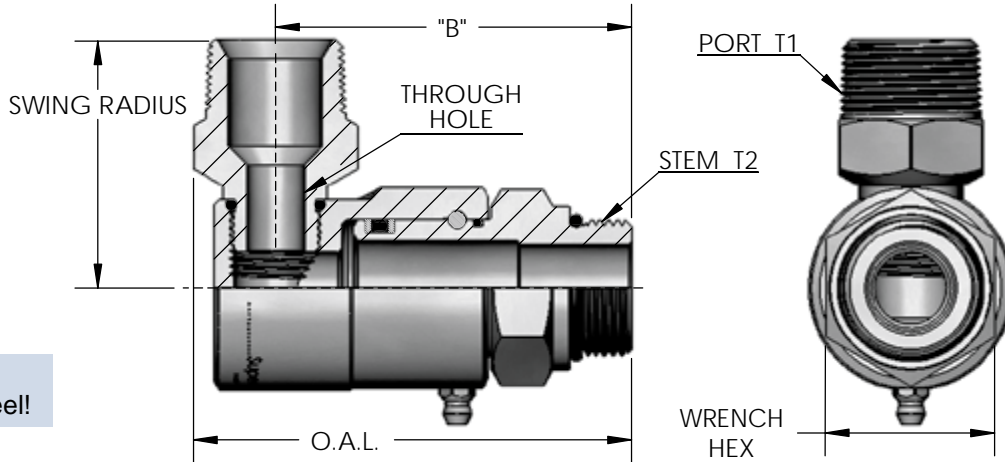
# Male Pipe (N.P.T.F.) X Male Pipe (N.P.T.F.)



Not Available  
In Stainless Steel!

PART NUMBER	O.A.L.	DIM. B	WRENCH/HEX	PORT T1	STEM T2	SWG. RADIUS	MAX. P.S.I.G.	THROUGH HOLE
9 SS 4 MP 25 X MP 25	2.640	2.130	0.625	1/4-18 N.P.T.F.	1/4-18 N.P.T.F.	1.440	3500	0.250
9 SS 4 MP 25 X MP 38	2.640	2.130	0.625	3/8-18 N.P.T.F.	1/4-18 N.P.T.F.	1.440	3500	0.297
9 SS 4 MP 38 X MP 38	2.720	2.200	0.750	3/8-18 N.P.T.F.	3/8-18 N.P.T.F.	1.440	3500	0.297
9 SS 8 MP 38 X MP 38	3.095	2.548	1.000	3/8-18 N.P.T.F.	3/8-18 N.P.T.F.	1.556	3500	0.297
9 SS 8 MP 38 X MP 50	3.095	2.548	1.000	1/2-14 N.P.T.F.	3/8-18 N.P.T.F.	1.848	3500	0.297
9 SS 8 MP 50 X MP 38	3.190	2.620	1.000	3/8-18 N.P.T.F.	1/2-14 N.P.T.F.	1.556	3500	0.297
9 SS 8 MP 50 X MP 50	3.190	2.620	1.000	1/2-14 N.P.T.F.	1/2-14 N.P.T.F.	1.848	3500	0.297
9 SS 12 MP 75 X MP 75	3.400	2.760	1.125	3/4-14 N.P.T.F.	3/4-14 N.P.T.F.	1.998	3500	0.484
9 SS 16 MP 100 X MP 100	4.225	3.462	1.375	1-11 <sup>1</sup> / <sub>2</sub> N.P.T.F.	1-11 <sup>1</sup> / <sub>2</sub> N.P.T.F.	2.370	3500	0.550
9 SS 20 MP 125 X MP 125	4.810	3.795	1.750	1 <sup>1</sup> / <sub>4</sub> -11 <sup>1</sup> / <sub>2</sub> N.P.T.F.	1 <sup>1</sup> / <sub>4</sub> -11 <sup>1</sup> / <sub>2</sub> N.P.T.F.	2.987	3500	0.827
9 SS 24 MP 150 X MP 150	6.185	4.955	2.000	1 <sup>1</sup> / <sub>2</sub> -11 <sup>1</sup> / <sub>2</sub> N.P.T.F.	1 <sup>1</sup> / <sub>2</sub> -11 <sup>1</sup> / <sub>2</sub> N.P.T.F.	3.050	3500	0.944

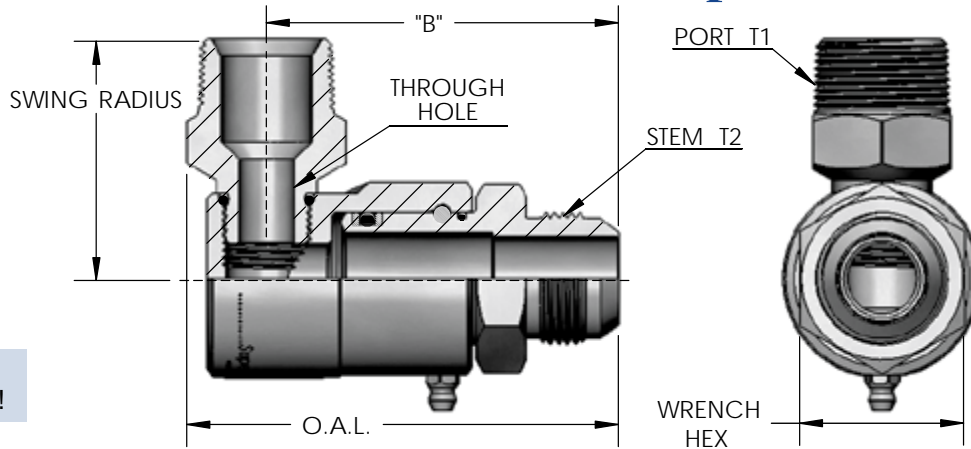
# Male O-Ring (O.R.B.) X Male Pipe (N.P.T.F.)



Not Available  
In Stainless Steel!

PART NUMBER	O.A.L.	DIM. B	WRENCH/HEX	PORT T1	STEM T2	SWG. RADIUS	MAX. P.S.I.G.	THROUGH HOLE
9 SS 4 MO 4 X MP 25	2.727	2.215	0.625	1/4-18 N.P.T.F.	7/16-20 U.N.	1.440	3500	0.172
9 SS 4 MO 6 X MP 25	2.727	2.215	0.750	1/4-18 N.P.T.F.	9/16-18 U.N.	1.440	3500	0.250
9 SS 4 MO 6 X MP 38	2.727	2.215	0.750	3/8-18 N.P.T.F.	9/16-18 U.N.	1.440	3500	0.297
9 SS 8 MO 8 X MP 38	2.923	2.376	1.000	3/8-18 N.P.T.F.	3/4-16 U.N.	1.556	3500	0.297
9 SS 8 MO 8 X MP 50	2.923	2.376	1.000	1/2-14 N.P.T.F.	3/4-16 U.N.	1.848	3500	0.297
9 SS 8 MO 10 X MP 38	3.045	2.498	1.000	3/8-18 N.P.T.F.	7/8-14 U.N.	1.556	3500	0.297
9 SS 8 MO 10 X MP 50	3.045	2.498	1.000	1/2-14 N.P.T.F.	7/8-14 U.N.	1.848	3500	0.297
9 SS 12 MO 12 X MP 75	3.389	2.749	1.375	3/4-14 N.P.T.F.	1 1/16-12 U.N.	1.998	3500	0.484
9 SS 16 MO 16 X MP 100	4.210	3.411	1.625	1-11 1/2 N.P.T.F.	1 5/16-12 U.N.	2.370	3500	0.550
9 SS 20 MO 20 X MP 125	4.770	3.755	1.875	1 1/4-11 1/2 N.P.T.F.	1 5/8-12 U.N.	2.987	3500	0.827
9 SS 24 MO 24 X MP 150	6.105	4.875	2.125	1 1/2-11 1/2 N.P.T.F.	1 7/8-12 U.N.	3.050	3500	0.944

# Male J.I.C. (37°) X Male Pipe (N.P.T.F.)

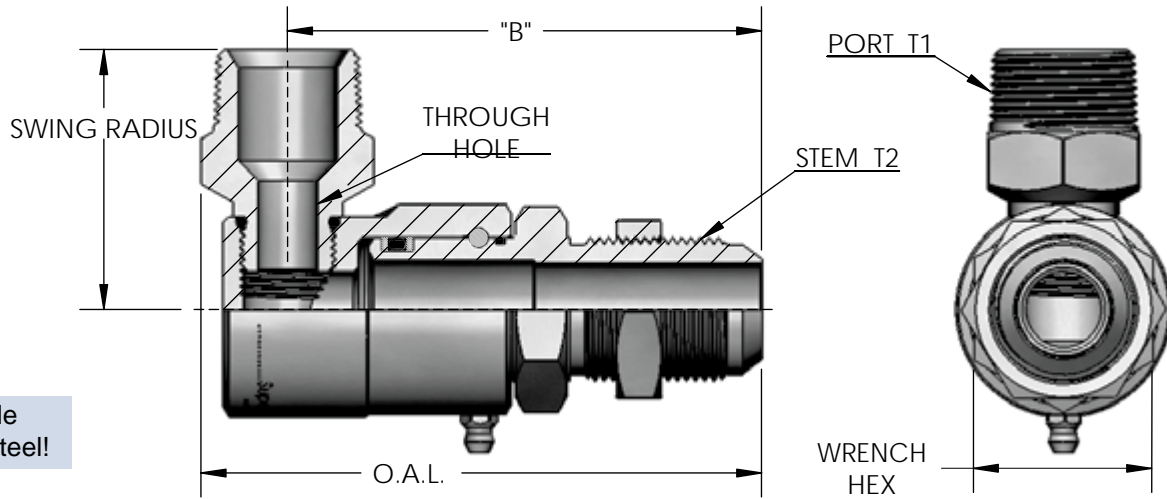


Not Available  
In Stainless Steel!

PART NUMBER	O.A.L.	DIM. B	WRENCH/HEX	PORT T1	STEM T2	SWG. RADIUS	MAX. P.S.I.G.	THROUGH HOLE
9 SS 4 MJ 4 X MP 25	2.837	2.325	0.750	1/4-18 N.P.T.F.	7/16-20 U.N.	1.440	3500	0.172
9 SS 4 MJ 6 X MP 25	2.857	2.345	0.750	1/4-18 N.P.T.F.	9/16-18 U.N.	1.440	3500	0.250
9 SS 4 MJ 6 X MP 38	2.857	2.345	0.750	3/8-18 N.P.T.F.	9/16-18 U.N.	1.440	3500	0.250
9 SS 8 MJ 8 X MP 38	3.060	2.513	1.000	3/8-18 N.P.T.F.	3/4-16 U.N.	1.556	3500	0.297
9 SS 8 MJ 8 X MP 50	3.060	2.513	1.000	1/2-14 N.P.T.F.	3/4-16 U.N.	1.848	3500	0.297
9 SS 8 MJ 10 X MP 38	3.160	2.613	1.000	3/8-18 N.P.T.F.	7/8-14 U.N.	1.556	3500	0.250
9 SS 8 MJ 10 X MP 50	3.160	2.613	1.000	1/2-14 N.P.T.F.	7/8-14 U.N.	1.848	3500	0.297
9 SS 12 MJ 12 X MP 75	3.525	2.885	1.375	3/4-14 N.P.T.F.	1 1/16-12 U.N.	1.998	3500	0.484
9 SS 16 MJ 16 X MP 100	4.290	3.482	1.625	1-11 1/2 N.P.T.F.	1 5/16-12 U.N.	2.370	3500	0.550
9 SS 20 MJ 20 X MP 125	4.850	3.835	1.750	1 1/4-11 1/2 N.P.T.F.	1 5/8-12 U.N.	2.987	3500	0.827
9 SS 24 MJ 24 X MP 150	6.275	5.045	2.125	1 1/2-11 1/2 N.P.T.F.	1 7/8-12 U.N.	3.050	3500	0.944



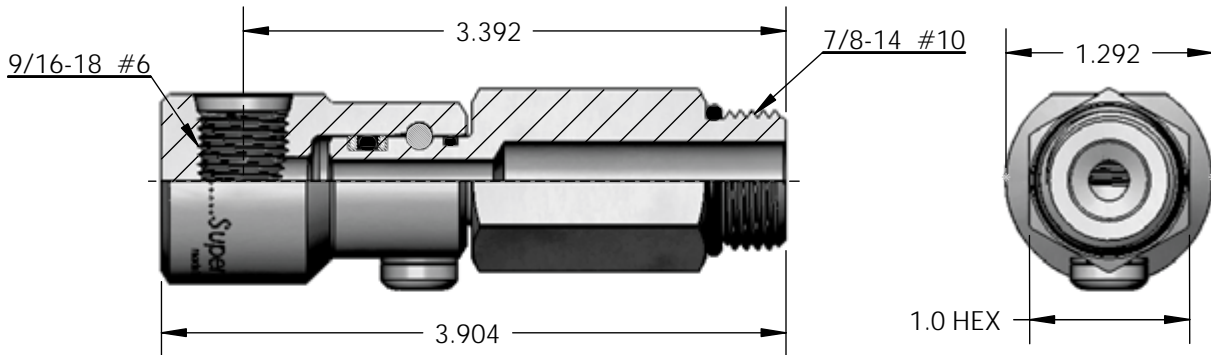
# Male J.I.C. Bulkhead (37°) X Male Pipe (N.P.T.F.)



Not Available  
In Stainless Steel!

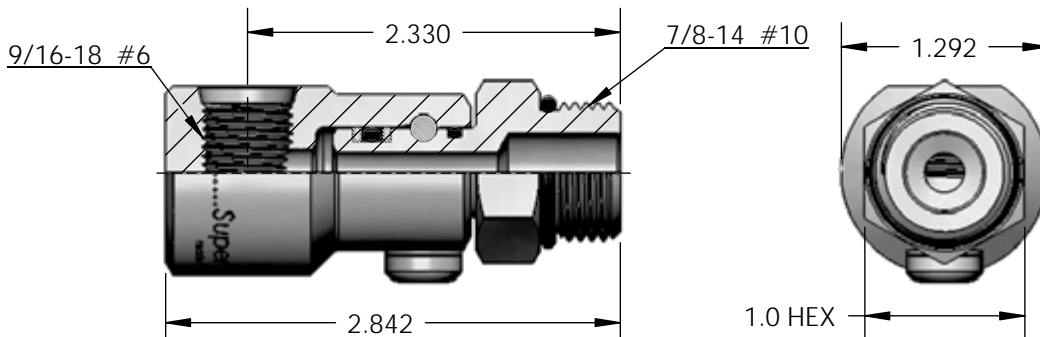
PART NUMBER	O.A.L.	DIM. B	WRENCH/HEX	PORT T1	STEM T2	SWG. RADIUS	MAX. P.S.I.G.	THROUGH HOLE
9 SS 8 MJB 8 X MP 38	3.805	3.258	1.000	3/8-18 N.P.T.F.	3/4-16 U.N.	1.556	3500	0.297
9 SS 8 MJB 8 X MP 50	3.805	3.258	1.000	1/2-14 N.P.T.F.	3/4-16 U.N.	1.848	3500	0.297
9 SS 8 MJB 10 X MP 50	4.025	3.478	1.125	1/2-14 N.P.T.F.	7/8-14 U.N.	1.848	3500	0.297
9 SS 12 MJB 12 X MP 75	4.445	3.805	1.375	3/4-14 N.P.T.F.	1 1/16-12 U.N.	1.998	3500	0.484
9 SS 16 MJB 16 X MP 100	4.905	4.317	1.625	1-11 1/4 N.P.T.F.	1 5/16-12 U.N.	2.370	3500	0.550
9 SS 20 MJB 20 X MP 125	5.575	4.730	1.875	1 1/4-11 1/2 N.P.T.F.	1 5/8-12 U.N.	2.987	3500	0.827

## Wheel Motor Swivels



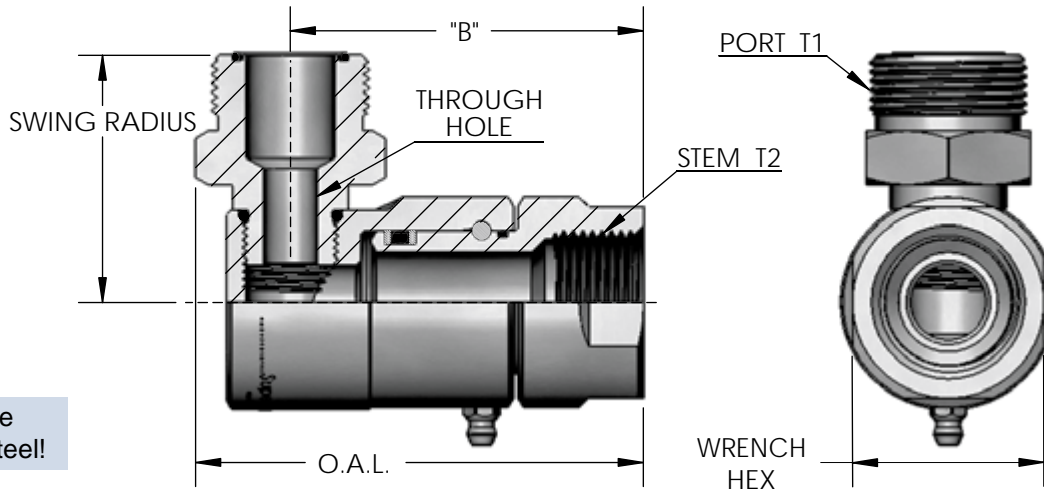
Not Available  
In Stainless Steel!

**9 SS 4 MO 10 X FO 6 - 001 - Z - V**



**9 SS 4 MO 10 X FO 6 - Z - V**

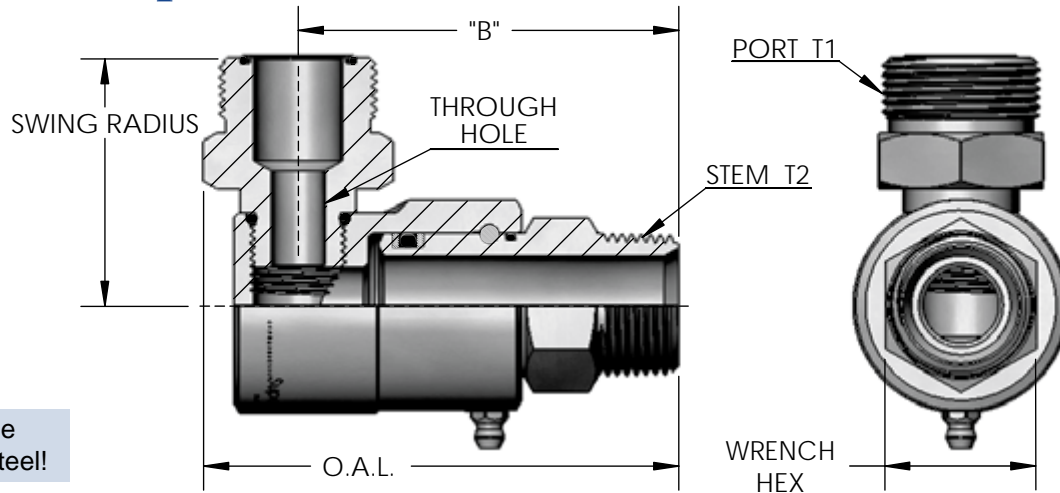
## Female Pipe (N.P.T.F.) X Male Face Seal (M.F.S.)



Not Available  
In Stainless Steel!

PART NUMBER	O.A.L.	DIM. B	WRENCH/HEX	PORT T1	STEM T2	SWG. RADIUS	MAX. P.S.I.G.	THROUGH HOLE
9 SS 4 FP 25 X MFS 6	2.510	2.000	0.750	11/16-16 U.N.	1/4-18 N.P.T.F.	1.314	5000	0.265
9 SS 8 FP 38 X MFS 6	2.670	2.120	0.875	11/16-16 U.N.	3/8-18 N.P.T.F.	1.432	5000	0.265
9 SS 8 FP 38 X MFS 8	2.670	2.120	0.875	13/16-16 U.N.	3/8-18 N.P.T.F.	1.669	5000	0.265
9 SS 8 FP 50 X MFS 8	2.850	2.270	1.125	13/16-16 U.N.	1/2-14 N.P.T.F.	1.669	5000	0.265
9 SS 8 FP 50 X MFS 10	2.850	2.270	1.125	1-14 U.N.	1/2-14 N.P.T.F.	1.826	5000	0.265
9 SS 12 FP 75 X MFS 12	3.000	2.360	1.375	1 <sup>3</sup> / <sub>16</sub> -12 U.N.	3/4-14 N.P.T.F.	2.089	4500	0.389
9 SS 16 FP 100 X MFS 16	3.860	2.980	1.625	1 <sup>7</sup> / <sub>16</sub> -12 U.N.	1-11 <sup>1</sup> / <sub>2</sub> N.P.T.F.	2.255	4000	0.484
9 SS 20 FP 125 X MFS 20	4.300	3.285	2.000	1 <sup>11</sup> / <sub>16</sub> -12 U.N.	1 <sup>1</sup> / <sub>4</sub> -11 <sup>1</sup> / <sub>2</sub> N.P.T.F.	2.658	4000	0.718
9 SS 24 FP 150 X MFS 24	5.600	4.375	2.370	2-12 U.N.	1 <sup>1</sup> / <sub>2</sub> -11 <sup>1</sup> / <sub>2</sub> N.P.T.F.	2.904	4000	0.844

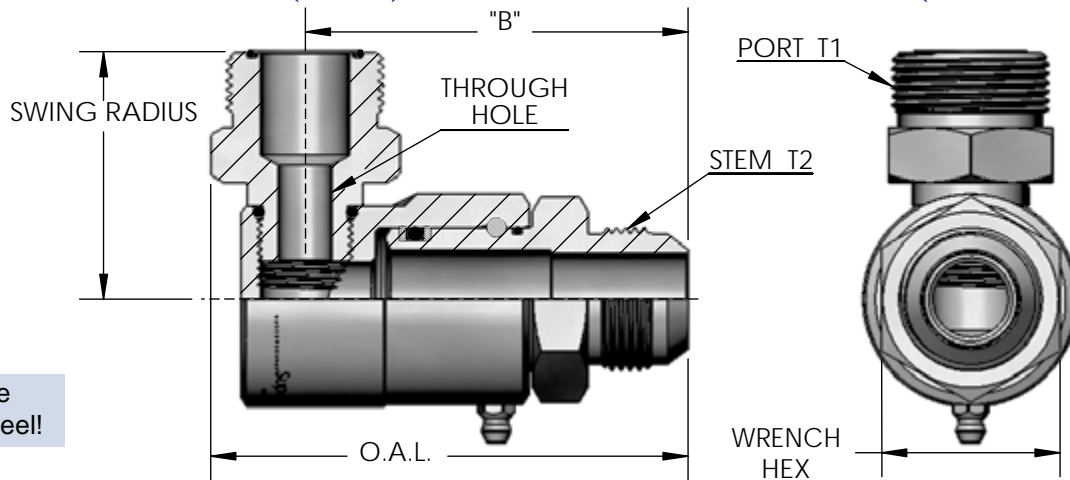
## Male Pipe (N.P.T.F.) X Male Face Seal (M.F.S.)



Not Available  
In Stainless Steel!

PART NUMBER	O.A.L.	DIM. B	WRENCH/HEX	PORT T1	STEM T2	SWG. RADIUS	MAX. P.S.I.G.	THROUGH HOLE
9 SS 4 MP 25 X MFS 6	2.640	2.130	0.625	11/16-16 U.N.	1/4-18 N.P.T.F.	1.314	5000	0.265
9 SS 4 MP 38 X MFS 6	2.720	2.210	0.750	11/16-16 U.N.	3/8-18 N.P.T.F.	1.314	5000	0.265
9 SS 8 MP 38 X MFS 6	3.095	2.548	1.000	11/16-16 U.N.	3/8-18 N.P.T.F.	1.432	5000	0.265
9 SS 8 MP 38 X MFS 8	3.095	2.548	1.000	13/16-16 U.N.	3/8-18 N.P.T.F.	1.669	5000	0.265
9 SS 8 MP 50 X MFS 8	3.170	2.620	1.000	13/16-16 U.N.	1/2-14 N.P.T.F.	1.669	5000	0.265
9 SS 8 MP 50 X MFS 10	3.170	2.620	1.000	1-14 U.N.	1/2-14 N.P.T.F.	1.826	5000	0.265
9 SS 12 MP 75 X MFS 12	3.400	2.760	1.125	1 <sup>3</sup> / <sub>16</sub> -12 U.N.	3/4-14 N.P.T.F.	2.089	4500	0.389
9 SS 16 MP 100 X MFS 16	3.170	3.462	1.375	1 <sup>7</sup> / <sub>16</sub> -12 U.N.	1-11 <sup>1</sup> / <sub>2</sub> N.P.T.F.	2.255	4000	0.484
9 SS 20 MP 125 X MFS 20	4.800	3.795	1.750	1 <sup>11</sup> / <sub>16</sub> -12 U.N.	1 <sup>1</sup> / <sub>4</sub> -11 <sup>1</sup> / <sub>2</sub> N.P.T.F.	2.658	4000	0.718
9 SS 24 MP 150 X MFS 24	6.185	4.955	1.995	2-12 U.N.	1 <sup>1</sup> / <sub>2</sub> -11 <sup>1</sup> / <sub>2</sub> N.P.T.F.	2.904	4000	0.844

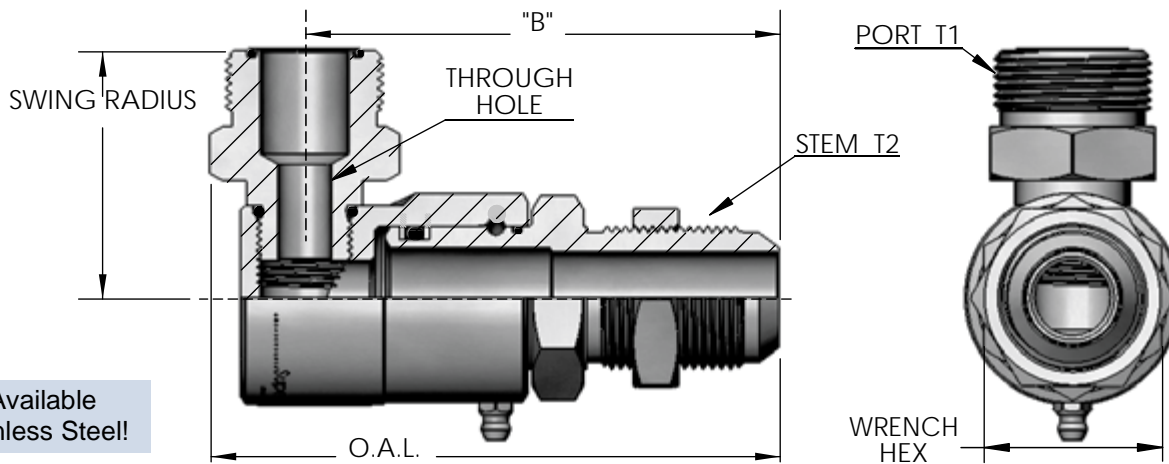
## Male J.I.C. (37°) X Male Face Seal (M.F.S.)



Not Available  
In Stainless Steel!

PART NUMBER	O.A.L.	DIM. B	WRENCH/HEX	PORT T1	STEM T2	SWG. RADIUS	MAX. P.S.I.G.	THROUGH HOLE
9 SS 4 MJ 4 X MFS 4	2.837	2.325	0.750	9/16-18 U.N.	7/16-20 U.N.	1.266	5000	0.172
9 SS 4 MJ 6 X MFS 6	2.857	2.345	0.750	11/16-16 U.N.	9/16-18 U.N.	1.314	5000	0.265
9 SS 8 MJ 8 X MFS 6	3.070	2.523	1.000	11/16-16 U.N.	3/4-16 U.N.	1.432	5000	0.265
9 SS 8 MJ 8 X MFS 8	3.070	2.523	1.000	13/16-16 U.N.	3/4-16 U.N.	1.669	5000	0.265
9 SS 8 MJ 8 X MFS 10	3.070	2.523	1.000	1-14 U.N.	3/4-16 U.N.	1.826	5000	0.265
9 SS 8 MJ 10 X MFS 8	3.160	2.613	1.000	13/16-16 U.N.	7/8-14 U.N.	1.669	5000	0.265
9 SS 8 MJ 10 X MFS 10	3.160	2.613	1.000	1-14 U.N.	7/8-14 U.N.	1.826	5000	0.265
9 SS 12 MJ 12 X MFS 12	3.525	2.885	1.375	1 <sup>3</sup> / <sub>16</sub> -12 U.N.	11/16-12 U.N.	2.089	4500	0.389
9 SS 16 MJ 16 X MFS 16	4.350	3.482	1.625	1 <sup>7</sup> / <sub>16</sub> -12 U.N.	1 <sup>5</sup> / <sub>16</sub> -12 U.N.	2.255	4000	0.484
9 SS 20 MJ 20 X MFS 20	4.850	3.835	1.750	1 <sup>11</sup> / <sub>16</sub> -12 U.N.	1 <sup>5</sup> / <sub>8</sub> -12 U.N.	2.658	4000	0.718
9 SS 24 MJ 24 X MFS 24	6.275	5.045	2.125	2-12 U.N.	1 <sup>7</sup> / <sub>8</sub> -12 U.N.	2.904	4000	0.844

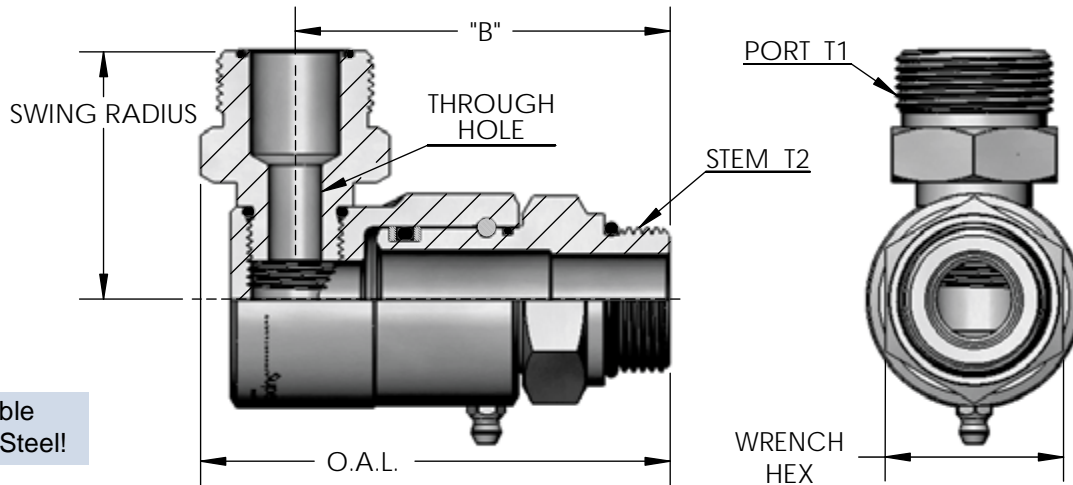
## Male J.I.C. Bulkhead (37°) X Male Face Seal (M.F.S.)



Not Available  
In Stainless Steel!

PART NUMBER	O.A.L.	DIM. B	WRENCH/HEX	PORT T1	STEM T2	SWG. RADIUS	MAX. P.S.I.G.	THROUGH HOLE
9 SS 4 MJB 6 X MFS 6	3.500	2.990	.812	11/16-16 U.N.	9/16-18 U.N.	1.440	5000	0.250
9 SS 8 MJB 8 X MFS 6	3.805	3.258	1.000	11/16-16 U.N.	3/4-16 U.N.	1.432	5000	0.265
9 SS 8 MJB 8 X MFS 8	3.805	3.258	1.000	13/16-16 U.N.	3/4-16 U.N.	1.669	5000	0.265
9 SS 8 MJB 8 X MFS 10	3.805	3.258	1.000	1-14 U.N.	3/4-16 U.N.	1.826	5000	0.265
9 SS 8 MJB 10 X MFS 6	4.025	3.478	1.125	11/16-16 U.N.	7/8-14 U.N.	1.432	5000	0.265
9 SS 8 MJB 10 X MFS 8	4.025	3.478	1.125	13/16-16 U.N.	7/8-14 U.N.	1.669	5000	0.265
9 SS 8 MJB 10 X MFS 10	4.025	3.478	1.125	1-14 U.N.	7/8-14 U.N.	1.826	5000	0.265
9 SS 12 MJB 12 X MFS 12	4.445	3.805	1.375	1 <sup>3</sup> / <sub>16</sub> -12 U.N.	11/16-12 U.N.	2.089	4500	0.389
9 SS 16 MJB 16 X MFS 16	5.200	4.317	1.625	1 <sup>7</sup> / <sub>16</sub> -12 U.N.	1 <sup>5</sup> / <sub>16</sub> -12 U.N.	2.255	4000	0.484
9 SS 20 MJB 20 X MFS 20	5.750	4.730	1.875	1 <sup>11</sup> / <sub>16</sub> -12 U.N.	1 <sup>5</sup> / <sub>8</sub> -12 U.N.	2.658	4000	0.718

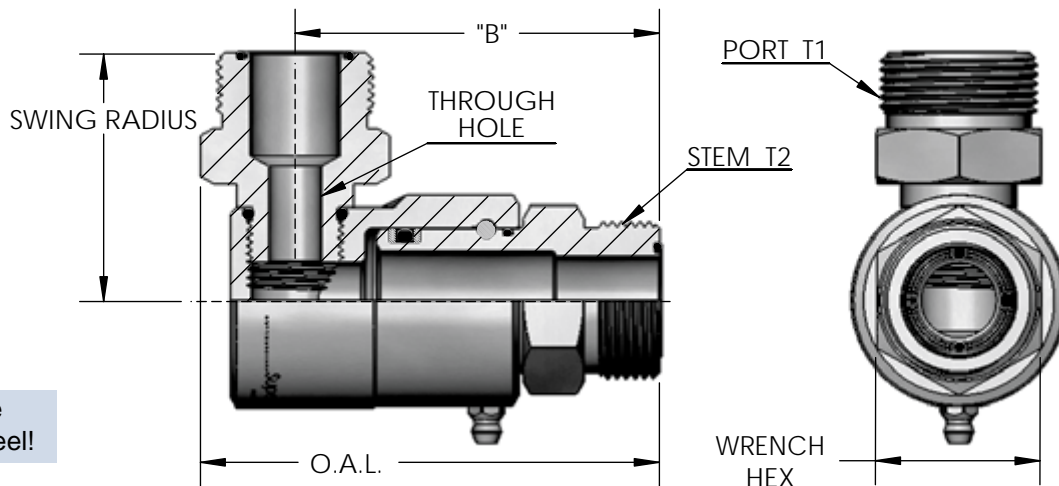
## Male O-Ring (O.R.B.) X Male Face Seal (M.F.S.)



Not Available  
In Stainless Steel!

PART NUMBER	O.A.L.	DIM. B	WRENCH/HEX	PORT T1	STEM T2	SWG. RADIUS	MAX. P.S.I.G.	THROUGH HOLE
9 SS 4 MO 4 X MFS 4	2.727	2.215	0.625	9/16-18 U.N.	7/16-20 U.N.	1.266	5000	0.172
9 SS 4 MO 6 X MFS 6	2.727	2.215	0.750	11/16-16 U.N.	9/16-18 U.N.	1.314	5000	0.265
9 SS 8 MO 8 X MFS 6	2.923	2.376	1.000	11/16-16 U.N.	3/4-16 U.N.	1.432	5000	0.265
9 SS 8 MO 8 X MFS 8	2.923	2.376	1.000	13/16-16 U.N.	3/4-16 U.N.	1.669	5000	0.265
9 SS 8 MO 8 X MFS 10	2.923	2.376	1.000	1-14 U.N.	3/4-16 U.N.	1.826	5000	0.265
9 SS 8 MO 10 X MFS 8	3.045	2.498	1.000	13/16-16 U.N.	7/8-14 U.N.	1.669	5000	0.265
9 SS 8 MO 10 X MFS 10	3.045	2.498	1.000	1-14 U.N.	7/8-14 U.N.	1.826	5000	0.265
9 SS 12 MO 12 X MFS 12	3.389	2.749	1.375	1 3/16-12 U.N.	11/16-12 U.N.	2.089	4500	0.389
9 SS 16 MO 16 X MFS 16	4.270	3.411	1.625	17/16-12 U.N.	15/16-12 U.N.	2.255	4000	0.484
9 SS 20 MO 20 X MFS 20	4.780	3.755	1.875	111/16-12 U.N.	15/8-12 U.N.	2.658	4000	0.718
9 SS 24 MO 24 X MFS 24	6.105	4.875	2.125	2-12 U.N.	17/8-12 U.N.	2.904	4000	0.844

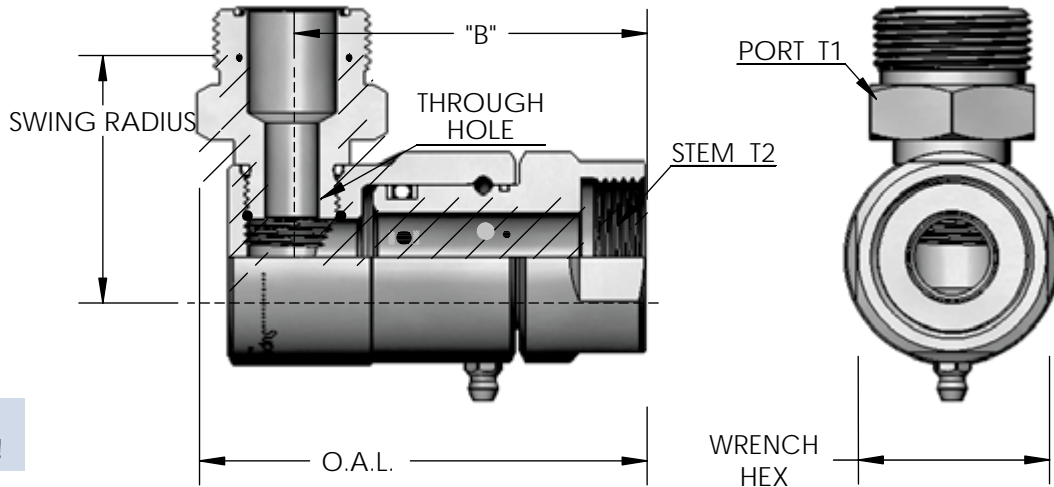
## Male Face Seal (M.F.S.) X Male Face Seal (M.F.S.)



Not Available  
In Stainless Steel!

PART NUMBER	O.A.L.	DIM. B	PORT T1	STEM T2	WRENCH/HEX	SWING RADIUS	MAX P.S.I.G.	THROUGH HOLE
9 SS 4 MFS 6 X MFS 6	2.688	2.176	11/16-16 U.N.	11/16-16 U.N.	0.750	1.450	5000	0.250
9 SS 8 MFS 8 X MFS 8	2.909	2.362	13/16-16 U.N.	13/16-16 U.N.	1.000	1.706	5000	0.264
9 SS 8 MFS 10 X MFS 10	3.105	2.558	1-14 U.N.	1-14 U.N.	1.125	1.826	5000	0.297
9 SS 12 MFS 12 X MFS 12	3.385	2.745	13/16-12 U.N.	13/16-12 U.N.	1.250	2.135	4500	0.378
9 SS 16 MFS 16 X MFS 16	4.190	3.316	17/16-12 U.N.	17/16-12 U.N.	1.500	2.255	4000	0.484
9 SS 20 MFS 20 X MFS 20	4.670	3.649	111/16-16 U.N.	111/16-12 U.N.	1.750	2.658	4000	0.718
9 SS 24 MFS 24 X MFS 24	5.939	4.709	2-12 U.N.	2-12 U.N.	2.125	2.845	4000	0.811

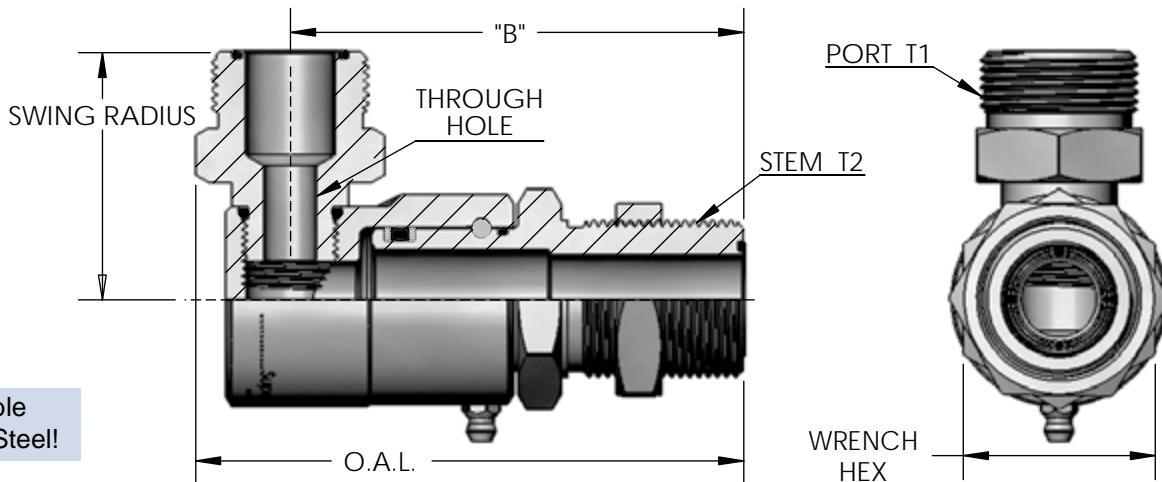
## Female Face Seal (F.F.S.) X Male Face Seal (M.F.S.)



Not Available  
In Stainless Steel!

PART NUMBER	O.A.L.	DIM. B	DIM. C	PORT T1	STEM T2	WRENCH/HEX	SWING RADIUS	MAX P.S.I.G.	THROUGH HOLE
9 SS 4 FFS 6 X MFS 6	2.465	1.950	0.375	11/16-16 U.N.	11/16-16 U.N.	0.875	1.450	5000	0.250
9 SS 8 FFS 8 X MFS 8	2.670	2.120	0.433	13/16-16 U.N.	13/16-16 U.N.	1.250	1.706	5000	0.264
9 SS 8 FFS 10 X MFS 10	2.720	2.170	0.504	1-14 U.N.	1-14 U.N.	1.250	1.826	5000	0.297
9 SS 12 FFS 12 X MFS 12	2.950	2.310	0.571	1 <sup>3</sup> / <sub>16</sub> -12 U.N.	1 <sup>3</sup> / <sub>16</sub> -12 U.N.	1.500	2.135	4500	0.378
9 SS 16 FFS 16 X MFS 16	3.750	2.890	0.583	1 <sup>7</sup> / <sub>16</sub> -12 U.N.	1 <sup>7</sup> / <sub>16</sub> -12 U.N.	1.750	2.255	4000	0.484
9 SS 20 FFS 20 X MFS 20	4.190	3.180	0.583	1 <sup>11</sup> / <sub>16</sub> -16 U.N.	1 <sup>11</sup> / <sub>16</sub> -12 U.N.	2.125	2.658	4000	0.718
9 SS 24 FFS 24 X MFS 24	5.400	4.180	0.583	2-12 U.N.	2-12 U.N.	2.375	2.845	4000	0.811

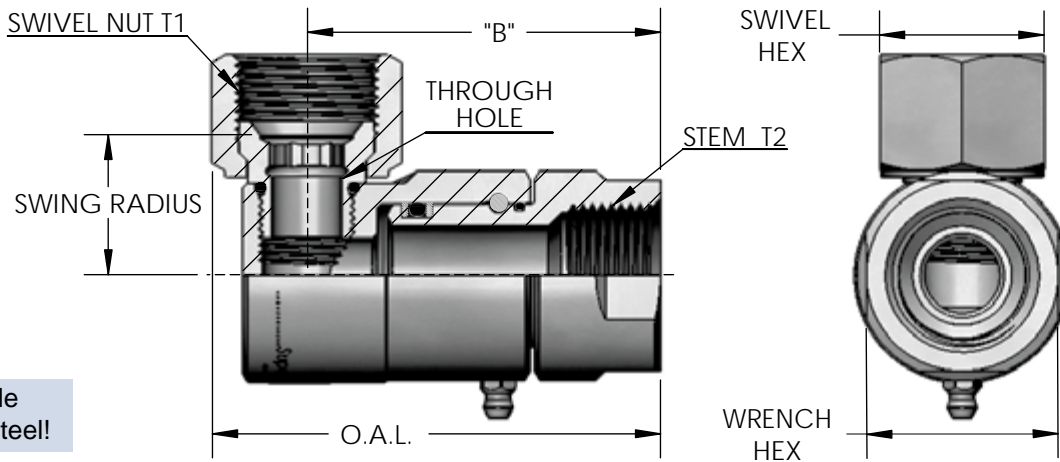
## Male Face Seal Bulkhead (M.F.S.B.) X Male Face Seal (M.F.S.)



Not Available  
In Stainless Steel!

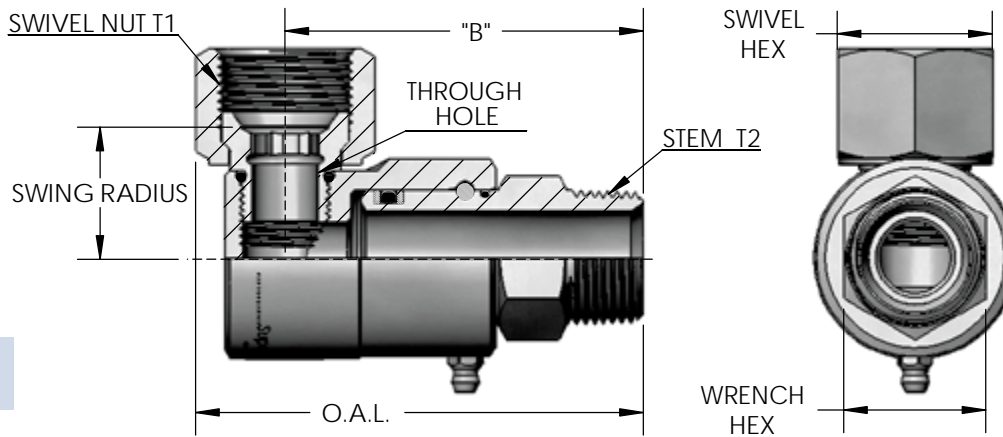
PART NUMBER	O.A.L.	DIM. B	PORT T1	STEM T2	WRENCH/HEX	SWING RADIUS	MAX P.S.I.G.	THROUGH HOLE
9 SS 4 MFSB 6 X MFS 6	3.587	3.075	11/16-16 U.N.	11/16-16 U.N.	1.000	1.450	5000	0.250
9 SS 8 MFSB 8 X MFS 8	3.805	3.258	13/16-16 U.N.	13/16-16 U.N.	1.125	1.706	5000	0.264
9 SS 8 MFSB 10 X MFS 10	3.965	3.418	1-14 U.N.	1-14 U.N.	1.125	1.826	5000	0.297
9 SS 12 MFSB 12 X MFS 12	4.245	3.605	1 <sup>3</sup> / <sub>16</sub> -12 U.N.	1 <sup>3</sup> / <sub>16</sub> -12 U.N.	1.500	2.135	4500	0.378
9 SS 16 MFSB 16 X MFS 16	5.000	4.127	1 <sup>7</sup> / <sub>16</sub> -12 U.N.	1 <sup>7</sup> / <sub>16</sub> -12 U.N.	1.750	2.255	4000	0.484
9 SS 20 MFSB 20 X MFS 20	5.430	3.649	1 <sup>11</sup> / <sub>16</sub> -12 U.N.	1 <sup>11</sup> / <sub>16</sub> -12 U.N.	2.000	2.658	4000	0.718

## Female Pipe (N.P.T.F.) X J.I.C. Swivel Nut (37°)



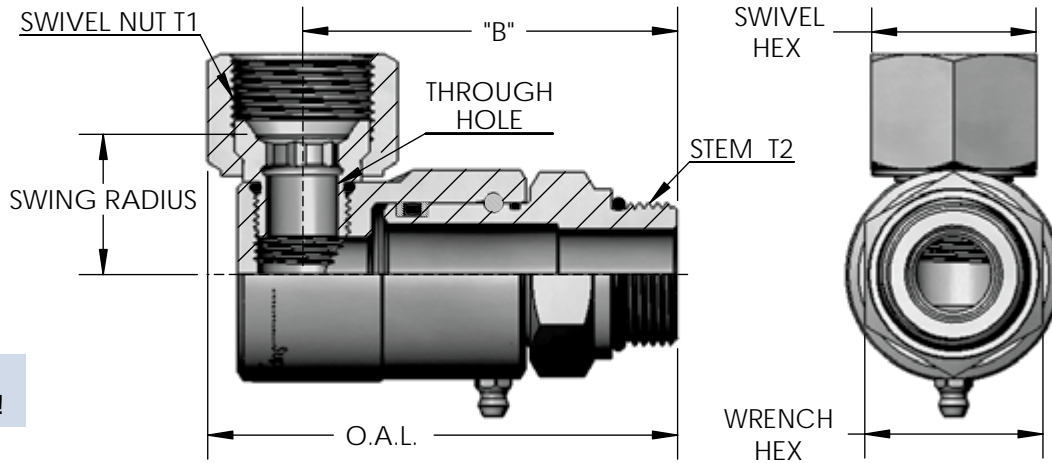
PART NUMBER	O.A.L.	DIM. B	SWIVEL HEX	WRENCH/HEX	SWIVEL NUT T1	STEM T2	SWG. RADIUS	MAX P.S.I.G.	THROUGH HOLE
9 SS 4 FP 25 X FJS 4	2.510	2.000	0.562	0.750	7/16-20 U.N.	1/4-18 N.P.T.F.	1.171	3500	0.165
9 SS 4 FP 25 X FJS 6	2.510	2.000	0.687	0.750	9/16-18 U.N.	1/4-18 N.P.T.F.	1.167	3500	0.250
9 SS 8 FP 38 X FJS 6	2.670	2.120	0.687	0.875	9/16-18 U.N.	3/8-18 N.P.T.F.	1.283	3500	0.290
9 SS 8 FP 50 X FJS 8	2.850	2.270	0.875	1.125	3/4-16 U.N.	1/2-14 N.P.T.F.	1.254	3500	0.290
9 SS 8 FP 50 X FJS 10	2.880	2.270	1.000	1.125	7/8-14 U.N.	1/2-14 N.P.T.F.	1.017	4500	0.320
9 SS 12 FP 75 X FJS 12	3.080	2.360	1.250	1.375	1 1/16-12 U.N.	3/4-14 N.P.T.F.	1.040	4500	0.460
9 SS 16 FP 100 X FJS 16	3.840	2.980	1.500	1.625	1 5/16-12 U.N.	1-11 1/2 N.P.T.F.	1.277	4000	0.650
9 SS 20 FP 125 X FJS 20	4.430	3.285	2.00	2.000	1 5/8-12 U.N.	1 1/4-11 1/2 N.P.T.F.	1.403	4000	0.790
9 SS 24 FP 150 X FJS 24	5.680	4.375	2.250	2.375	1 7/8-12 U.N.	1 1/2-11 1/2 N.P.T.F.	1.699	4000	0.920

## Male Pipe (N.P.T.F.) X J.I.C. Swivel Nut (37°)



PART NUMBER	O.A.L.	DIM. B	SWIVEL HEX	WRENCH/HEX	SWIVEL NUT T1	STEM T2	SWG. RADIUS	MAX P.S.I.G.	THROUGH HOLE
9 SS 4 MP 25 X FJS 4	2.640	2.130	0.562	0.625	7/16-20 U.N.	1/4-18 N.P.T.F.	1.171	3500	0.165
9 SS 4 MP 38 X FJS 4	2.720	2.210	0.562	0.750	7/16-20 U.N.	3/8-18 N.P.T.F.	1.171	3500	0.165
9 SS 4 MP 25 X FJS 6	2.640	2.130	0.687	0.625	9/16-18 U.N.	1/4-18 N.P.T.F.	1.167	3500	0.250
9 SS 4 MP 38 X FJS 6	2.720	2.210	0.687	0.750	9/16-18 U.N.	3/8-18 N.P.T.F.	1.167	3500	0.250
9 SS 8 MP 38 X FJS 6	3.052	2.548	0.687	1.000	9/16-18 U.N.	3/8-18 N.P.T.F.	1.283	3500	0.290
9 SS 8 MP 50 X FJS 8	3.170	2.620	0.875	1.000	3/4-16 U.N.	1/2-14 N.P.T.F.	1.254	3500	0.290
9 SS 8 MP 50 X FJS 10	3.170	2.620	1.000	1.000	7/8-14 U.N.	1/2-14 N.P.T.F.	1.017	4500	0.320
9 SS 12 MP 75 X FJS 12	3.481	2.760	1.250	1.125	1 1/16-12 U.N.	3/4-14 N.P.T.F.	1.040	4500	0.460
9 SS 16 MP 100 X FJS 16	4.327	3.462	1.500	1.375	1 5/16-12 U.N.	1-11 1/2 N.P.T.F.	1.277	4000	0.650
9 SS 20 MP 125 X FJS 20	4.949	3.795	2.000	1.750	1 5/8-12 U.N.	1 1/4-11 1/2 N.P.T.F.	1.403	4000	0.790
9 SS 24 MP 150 X FJS 24	6.253	4.955	2.250	2.000	1 7/8-12 U.N.	1 1/2-11 1/2 N.P.T.F.	1.699	4000	0.920

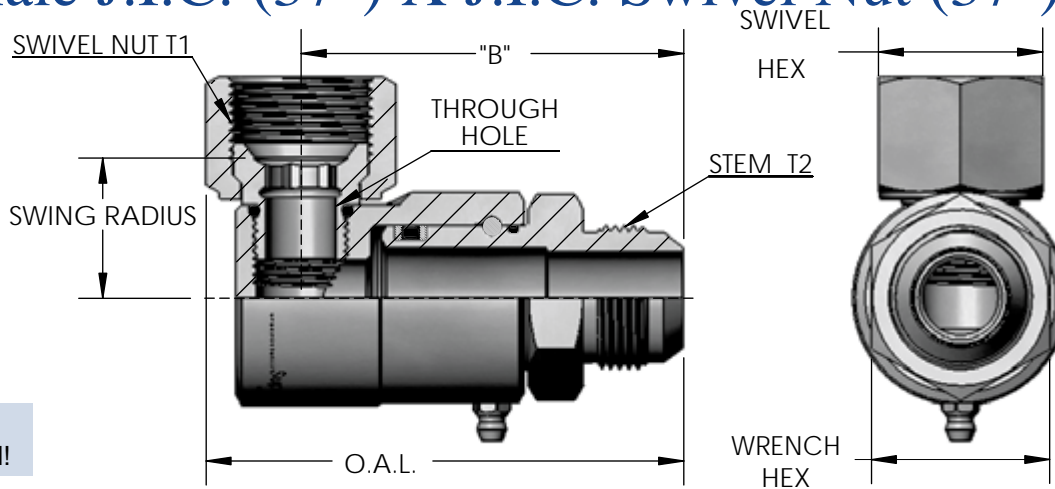
# Male O-Ring (O.R.B.) X J.I.C. Swivel Nut (37°)



Not Available  
In Stainless Steel!

PART NUMBER	O.A.L.	DIM. B	SWIVEL HEX	WRENCH/HEX	SWIVEL NUT T1	STEM T2	SWG. RADIUS	MAX P.S.I.G.	THROUGH HOLE
9 SS 4 MO 6 X FJS 4	2.727	2.215	0.562	0.750	7/16-20 U.N.	9/16-18 U.N.	1.171	3500	0.165
9 SS 4 MO 6 X FJS 6	2.727	2.215	0.687	0.750	9/16-18 U.N.	9/16-18 U.N.	1.167	3500	0.250
9 SS 8 MO 8 X FJS 6	2.923	2.376	0.687	1.000	9/16-18 U.N.	3/4-16 U.N.	1.283	3500	0.290
9 SS 8 MO 8 X FJS 8	2.953	2.376	0.875	1.000	3/4-16 U.N.	3/4-16 U.N.	1.254	3500	0.290
9 SS 8 MO 10 X FJS 10	3.075	2.498	1.000	1.000	7/8-14 U.N.	7/8-14 U.N.	1.017	4500	0.320
9 SS 12 MO 12 X FJS 12	3.470	2.749	1.250	1.375	1 1/16-12 U.N.	1 1/16-12 U.N.	1.040	4500	0.460
9 SS 16 MO 16 X FJS 16	4.276	3.411	1.500	1.625	1 5/16-12 U.N.	1 5/16-12 U.N.	1.277	4000	0.650
9 SS 20 MO 20 X FJS 20	4.909	3.755	2.000	1.750	1 5/8-12 U.N.	1 5/8-12 U.N.	1.403	4000	0.790
9 SS 24 MO 24 X FJS 24	6.173	4.875	2.250	2.125	1 7/8-12 U.N.	1 7/8-12 U.N.	1.699	4000	0.920

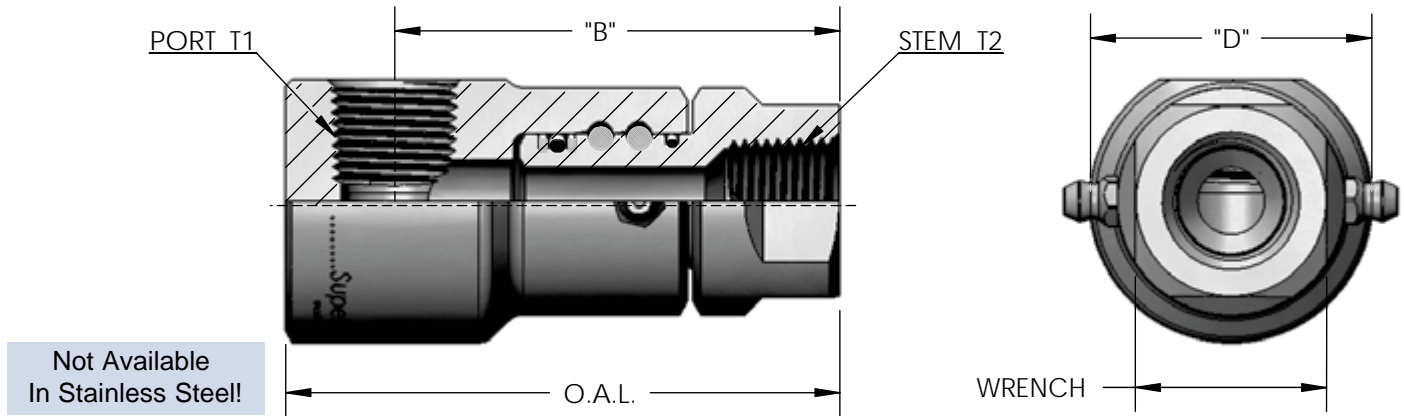
# Male J.I.C. (37°) X J.I.C. Swivel Nut (37°)



Not Available  
In Stainless Steel!

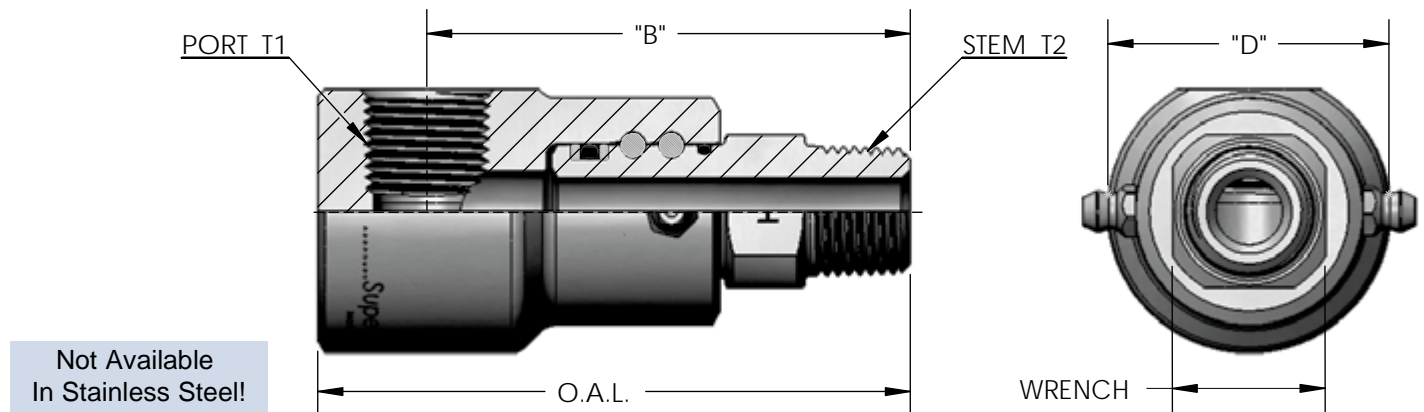
PART NUMBER	O.A.L.	DIM. B	SWIVEL HEX	WRENCH/HEX	SWIVEL NUT T1	STEM T2	SWG. RADIUS	MAX P.S.I.G.	THROUGH HOLE
9 SS 4 MJ 6 X FJS 4	2.887	2.375	0.562	0.750	7/16-20 U.N.	9/16-18 U.N.	1.171	3500	0.165
9 SS 4 MJ 6 X FJS 6	2.887	2.375	0.687	0.750	9/16-18 U.N.	9/16-18 U.N.	1.167	3500	0.250
9 SS 8 MJ 8 X FJS 6	3.070	2.523	0.687	1.000	9/16-18 U.N.	3/4-16 U.N.	1.283	3500	0.290
9 SS 8 MJ 8 X FJS 8	3.100	2.523	0.875	1.000	3/4-16 U.N.	3/4-16 U.N.	1.254	3500	0.290
9 SS 8 MJ 8 X FJS 10	3.100	2.523	1.000	1.000	7/8-14 U.N.	3/4-16 U.N.	1.017	4500	0.320
9 SS 8 MJ 10 X FJS 10	3.200	2.623	1.000	1.000	7/8-14 U.N.	7/8-14 U.N.	1.017	4500	0.320
9 SS 12 MJ 12 X FJS 12	3.606	2.885	1.250	1.375	1 1/16-12 U.N.	1 1/16-12 U.N.	1.040	4500	0.460
9 SS 16 MJ 16 X FJS 16	4.348	3.482	1.500	1.625	1 5/16-12 U.N.	1 5/16-12 U.N.	1.277	4000	0.650
9 SS 20 MJ 20 X FJS 20	4.989	3.835	2.000	1.750	1 5/8-12 U.N.	1 5/8-12 U.N.	1.403	4000	0.790
9 SS 24 MJ 24 X FJS 24	6.343	5.045	2.250	2.125	1 7/8-12 U.N.	1 7/8-12 U.N.	1.699	4000	0.920

## 10,000 P.S.I. Female Pipe (N.P.T.F.) X Female Pipe (N.P.T.F.)



PART NUMBER	O.A.L.	DIM. B	DIM. D Ø	WRENCH	PORT T1	STEM T2	SWG. RADIUS	MAX. P.S.I.G.	THROUGH HOLE
9 SS 8 HP FP 50 X FP 50	3.470	2.895	1.842	1.125	1/2-14 N.P.T.F.	1/2-14 N.P.T.F.	1.048	10,000	0.437

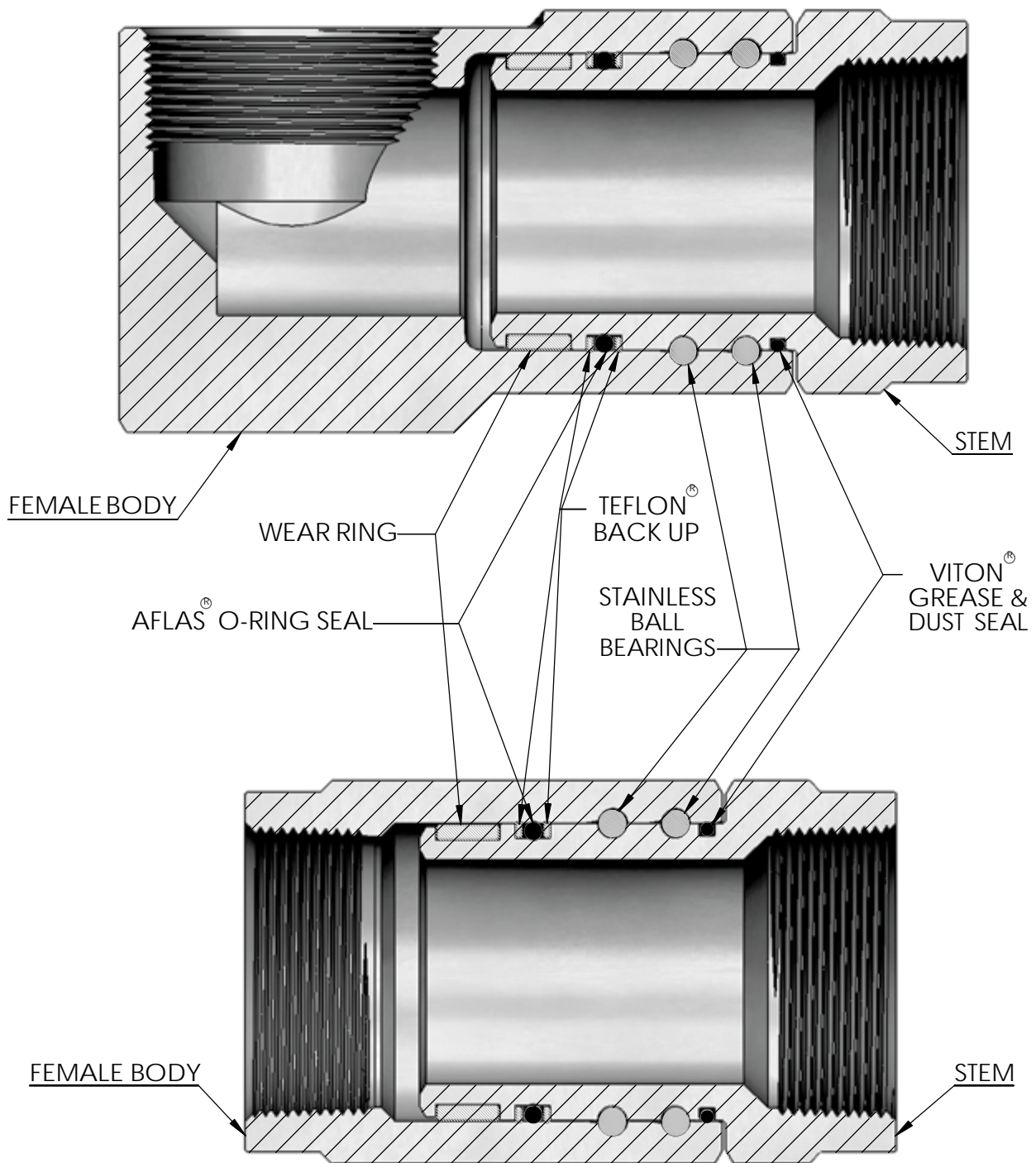
## 10,000 P.S.I. Male Pipe (N.P.T.F.) X Female Pipe (N.P.T.F.)



PART NUMBER	O.A.L.	DIM. B	DIM. D Ø	WRENCH	PORT T1	STEM T2	SWG. RADIUS	MAX. P.S.I.G.	THROUGH HOLE
9 SS 8 HP MP 50 X FP 50	3.855	3.145	1.842	1.000	1/2-14 N.P.T.F.	1/2-14 N.P.T.F.	1.048	10,000	0.437



# Cross Sectional Drawings

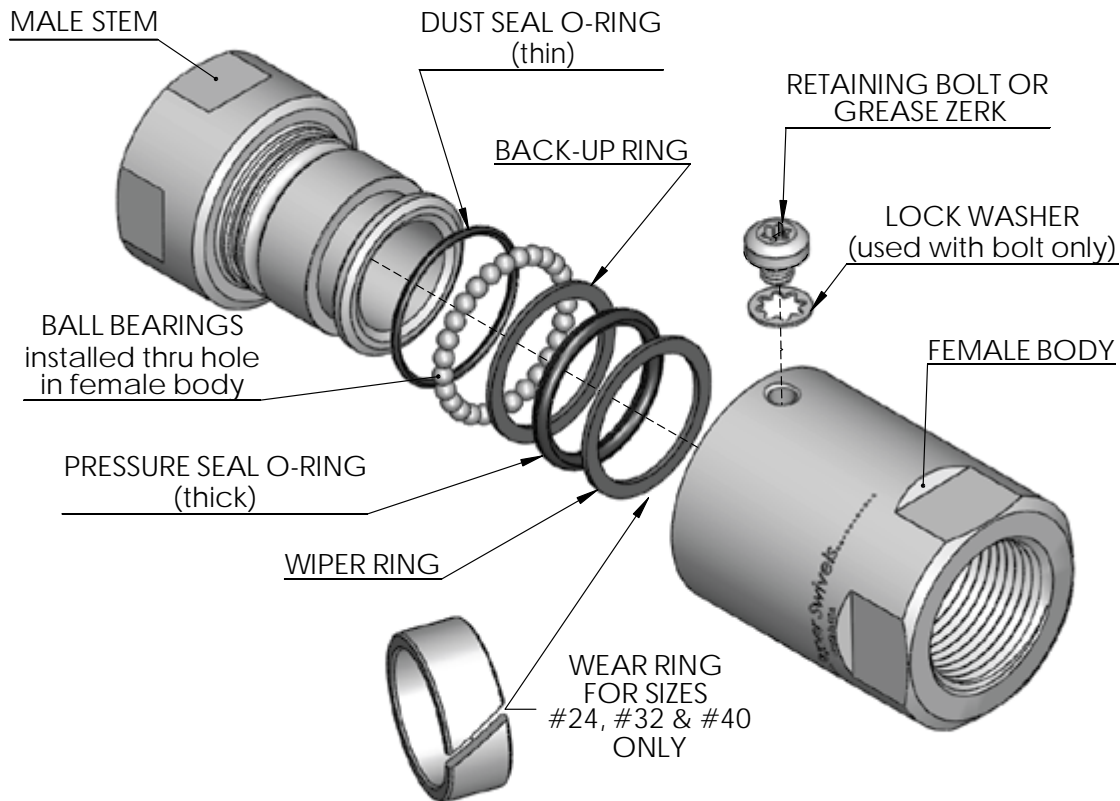


## Nickel Plated for Corrosive Media Applications Sizes 20 through 40

(Size 20 No Wear Ring)

Nickel Plating Standard on Size 24 and Larger

# Hydraulic Inline and 90° Live Swivels Seal Rebuilding Kit Instructions



1. Remove retaining bolt or grease zerk (some models have a permanent grease zerk).
2. Wash swivel in solvent and rotate while immersed to remove grease from the ball bearing groove.
3. Remove ball bearings by rotating swivel with ball loading hole pointed downward. If remaining grease in ball groove prevents balls from falling free when centered over loading hole, tap swivel on work bench with loading hole facing down on bench.
4. With all ball bearings removed (check by rotating while looking into ball loading hole), pull the two halves apart and discard old rings, ball bearings and seals.
5. Clean and dry swivel thoroughly, install new seal and wear rings when required, and lubricate the female bore and male outside diameter before assembly. Load retainer ball bearings and install grease zerk (a temporary zerk is provided for models with a retaining bolt). Use lithium based grease with moly (do not over grease).

**Note:** The temporary grease zerk must be removed and replaced with the original retaining bolt and new lock washer on swivels which didn't originally have a permanent grease zerk.

**Switch Your Swivel!**<sup>®</sup>