

# **WRS HOSE & FITTINGS**

8705 W. Tidwell Houston, Texas 77040

713-895-9385

[sales@wrshose.com](mailto:sales@wrshose.com)

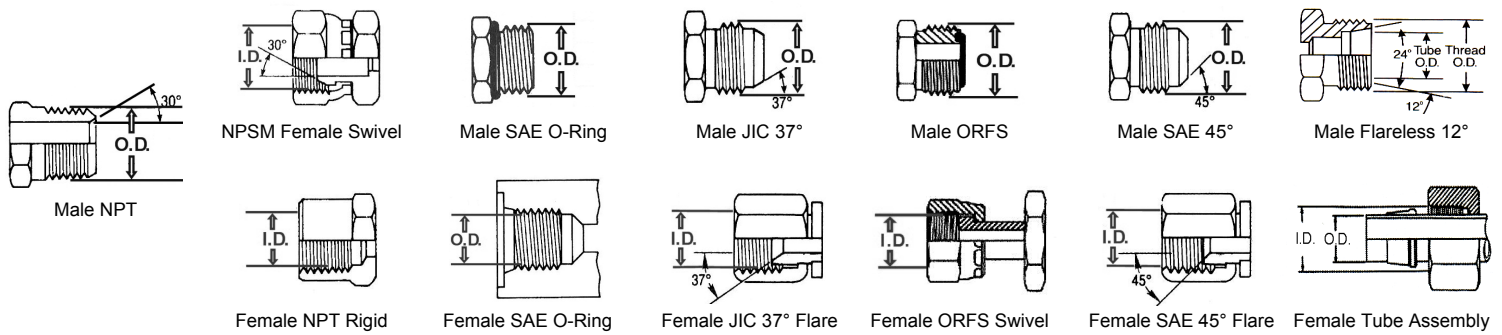
Hoses, Fittings, Adapters,  
Valves, Clamps, Couplers,  
Gauges, Tubing, Hammer Unions,  
O-Rings, and much more...

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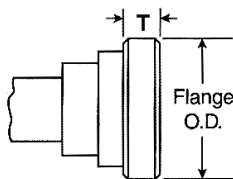
# Connection Identification - Thread Charts

## Common North American Threaded Fluid Connections



| Dash Size | NPT / NPSM Series Code N |                  |             | SAE O-Ring Series Code O |             | Tube O.D. | JIC 37° Flare Series Code J |             | ORFS Series Code F |             | SAE 45° Flare Series Code P |             | Flareless Tube Series Code L |             |
|-----------|--------------------------|------------------|-------------|--------------------------|-------------|-----------|-----------------------------|-------------|--------------------|-------------|-----------------------------|-------------|------------------------------|-------------|
|           | Size & TPI Nominal*      | Actual Male O.D. | Female I.D. | Male O.D. & TPI          | Female I.D. |           | Male O.D. & TPI             | Female I.D. | Male O.D. & TPI    | Female I.D. | Male O.D. & TPI             | Female I.D. | Male O.D. & TPI              | Female I.D. |
| 2         | 1/8-27                   | 13/32            | 23/64       | 5/16-24                  | 17/64       | 1/8"      | 5/16-24                     | 17/64       | °                  | °           | 5/16-24                     | 17/64       | 5/16-24                      | 17/64       |
| 3         | °                        | °                | °           | 3/8-24                   | 21/64       | 3/16"     | 3/8-24                      | 21/64       | °                  | °           | 3/8-24                      | 21/64       | 3/8-24                       | 21/64       |
| 4         | 1/4-18                   | 35/64            | 15/32       | 7/16-20                  | 25/64       | 1/4"      | 7/16-20                     | 25/64       | 9/16-18            | 1/2         | 7/16-20                     | 25/64       | 7/16-20                      | 25/64       |
| 5         | °                        | °                | °           | 1/2-20                   | 29/64       | 5/16"     | 1/2-20                      | 29/64       | °                  | °           | 1/2-20                      | 29/64       | 1/2-20                       | 29/64       |
| 6         | 3/8-18                   | 43/64            | 19/32       | 9/16-18                  | 1/2         | 3/8"      | 9/16-18                     | 1/2         | 11/16-16           | 5/8         | 5/8-18                      | 9/16        | 9/16-18                      | 1/2         |
| 7         | °                        | °                | °           | °                        | °           | 7/16"     | °                           | °           | °                  | °           | 11/16-16                    | 5/8         | °                            | °           |
| 8         | 1/2-14                   | 27/32            | 3/4         | 3/4-16                   | 11/16       | 1/2"      | 3/4-16                      | 11/16       | 13/16-16           | 3/4         | 3/4-16                      | 11/16       | 3/4-16                       | 11/16       |
| 10        | °                        | °                | °           | 7/8-14                   | 13/16       | 5/8"      | 7/8-14                      | 13/16       | 1-14               | 15/16       | 7/8-14                      | 13/16       | 7/8-14                       | 13/16       |
| 12        | 3/4-14                   | 11/16            | 61/64       | 11/16-12                 | 31/32       | 3/4"      | 11/16-12                    | 31/32       | 13/16-12           | 11/8        | 11/16-14                    | 63/64       | 11/16-12                     | 31/32       |
| 14        | °                        | °                | °           | 13/16-12                 | 17/64       | 7/8"      | 13/16-12                    | 17/64       | °                  | °           | °                           | °           | 13/16-12                     | 17/64       |
| 16        | 1-11/2                   | 15/16            | 113/64      | 15/16-12                 | 115/64      | 1"        | 15/16-12                    | 115/64      | 17/16-12           | 111/32      | °                           | °           | 15/16-12                     | 115/64      |
| 20        | 1 1/4-11 1/2             | 143/64           | 117/32      | 15/8-12                  | 135/64      | 1 1/4"    | 15/8-12                     | 135/64      | 111/16-12          | 119/32      | °                           | °           | 15/8-12                      | 135/64      |
| 24        | 1 1/2-11 1/2             | 129/32           | 125/32      | 17/8-12                  | 151/64      | 1 1/2"    | 17/8-12                     | 151/64      | 2-12               | 129/32      | °                           | °           | 17/8-12                      | 151/64      |
| 32        | 2-11 1/2                 | 23/8             | 21/4        | 2 1/2-12                 | 227/64      | 2"        | 2 1/2-12                    | 227/64      | °                  | °           | °                           | °           | 2 1/2-12                     | 227/64      |

## Split Flange Connections

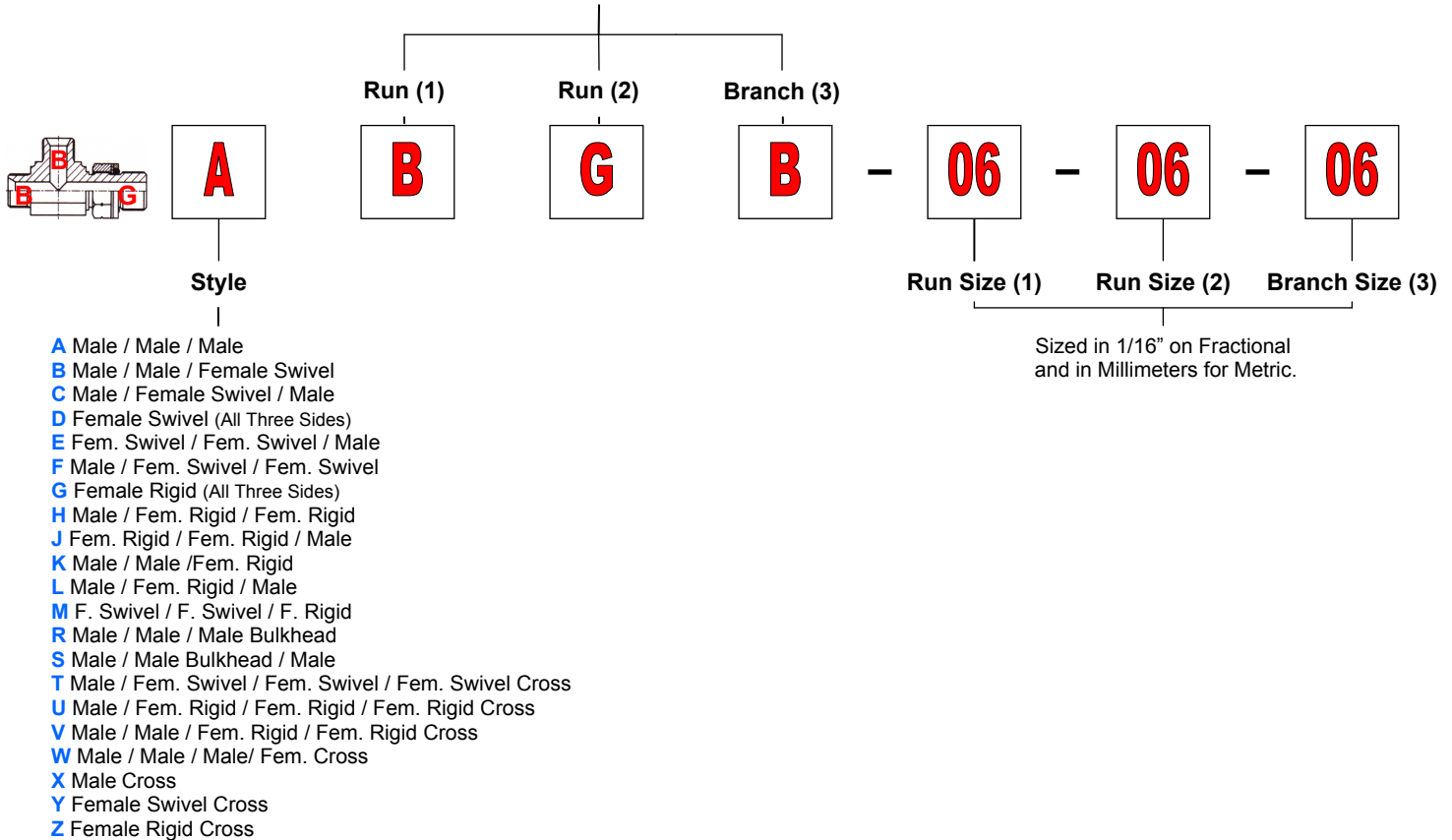
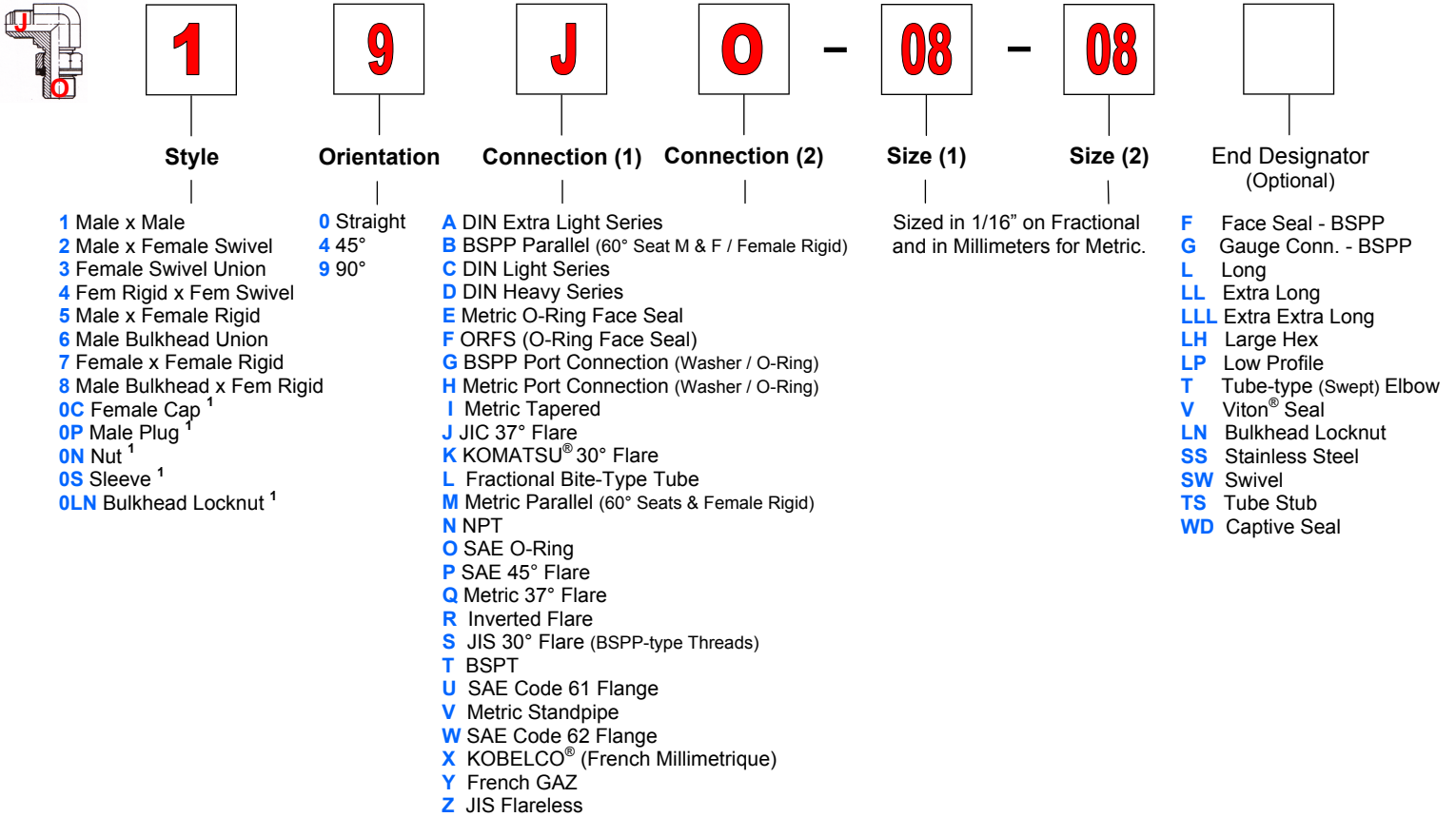


Code 61, Code 62 Four Bolt Flange Connections are equivalent to and interchangeable with their German and Japanese counterparts. The main differences are: Metric Bolts, Metric O-Ring and JIS Type I series has a size 10. "Cat" flanges are the same diameter with the same bolt pattern, but thicker than a Code 62. Replacement of a "Cat" Flange with a Code 62 is made possible by using a Code 62 Split Flange Kit.

| Dash Size | Code 61<br>DIN Form R<br>JIS Type I |      | Code 62<br>DIN Form S<br>JIS Type II |      | "Cat" Flange |      |
|-----------|-------------------------------------|------|--------------------------------------|------|--------------|------|
|           | O.D.                                | (T)  | O.D.                                 | (T)  | O.D.         | (T)  |
| 8         | 1.188                               | .265 | 1.25                                 | .305 | °            | °    |
| 10*       | 1.345                               | .265 | °                                    | °    | °            | °    |
| 12        | 1.500                               | .265 | 1.625                                | .345 | 1.625        | .560 |
| 16        | 1.750                               | .315 | 1.875                                | .375 | 1.875        | .560 |
| 20        | 2.000                               | .315 | 2.125                                | .405 | 2.125        | .560 |
| 24        | 2.375                               | .315 | 2.500                                | .495 | 2.500        | .560 |
| 32        | 2.812                               | .375 | 3.125                                | .495 | 3.125        | .560 |
| 40        | 3.312                               | .375 | °                                    | °    | °            | °    |
| 48        | 4.000                               | .375 | °                                    | °    | °            | °    |

\*Non SAE Size

# Part Number System



<sup>1</sup> Caps, Plugs, Nuts & Sleeves may have only three numbers in the prefix (example : 0CK-22 = 22mm KOMATSU® Cap ).

However, Allen-type Plugs will add an "H" directly behind the "P" (Plug) designator ( example : 0PHG-04-WD = 1/4" BSPP Allen-type with Captive Seal ).

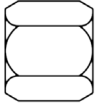
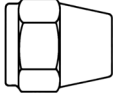
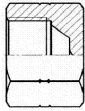
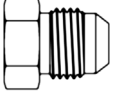
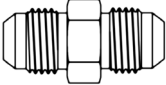
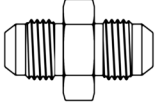
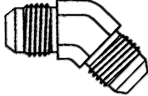
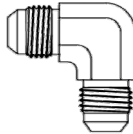
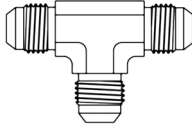
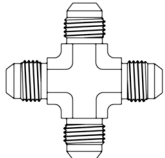
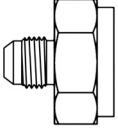
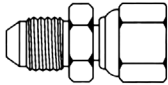
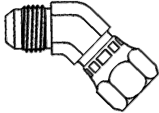
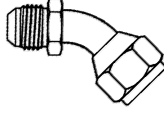
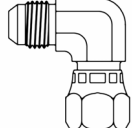
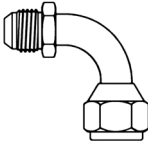
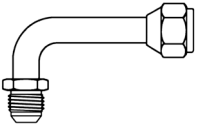
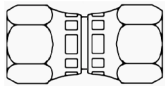
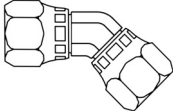
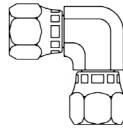
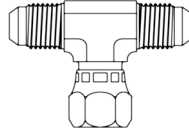
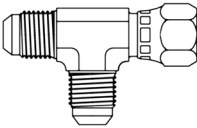
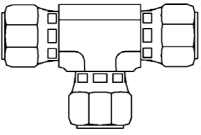
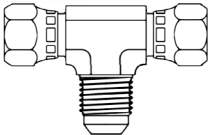
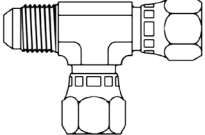
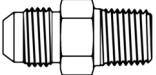
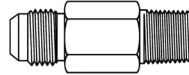
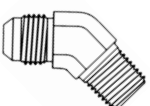
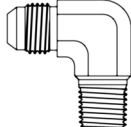
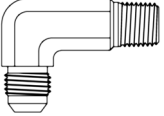
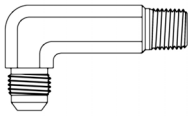
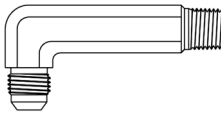
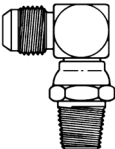
<sup>2</sup> DIN (12° Extra Light, Light & Heavy) and KOBELCO® sizes are listed by Tube Size, with all other type connection sizes being listed by Thread Size.

\* Braze-on type tube connections will have a prefix of "BO" followed by the style and then the thread termination ( example: BO-50J-04-04 )

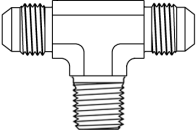
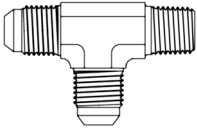
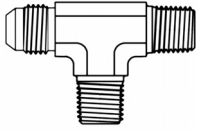
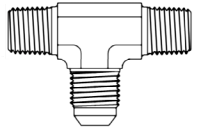
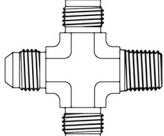
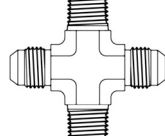
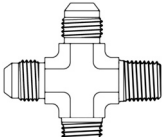
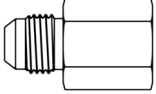
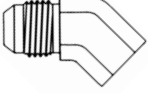
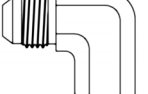
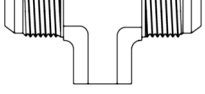
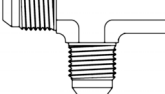
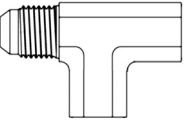
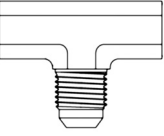
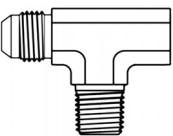
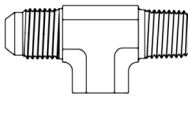
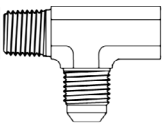
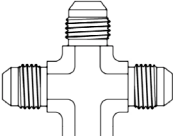
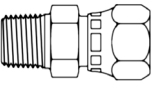
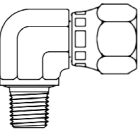
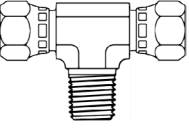
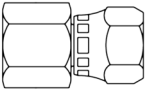
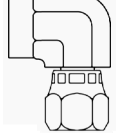
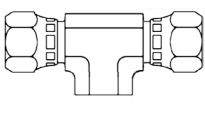
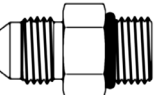
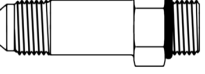
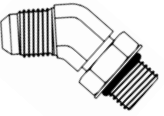
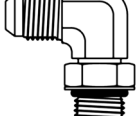
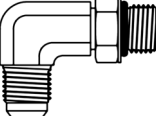
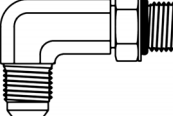
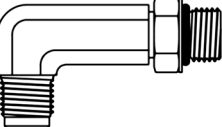
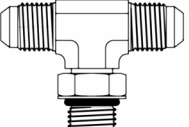
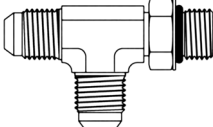
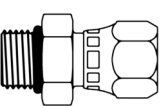
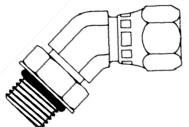
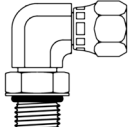
\* SAE Flange Adapters have a prefix of "FO" for O-Ring side or "FC" for Companion side followed by the Flange Series then the thread connection ( example: FO-UN-12-12 )



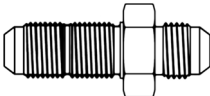
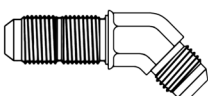
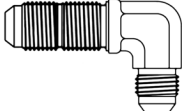
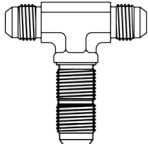
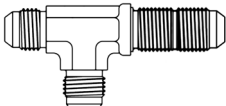
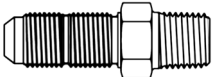
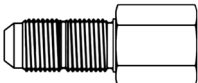
# JIC 37° Flare ○ JIC x NPT

|                                                                                                                                                                 |                                                                                                                                                         |                                                                                                                                                         |                                                                                                                                                                 |                                                                                                                                                                  |                                                                                                                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>OSJ</b><br/>0319</p>  <p>JIC 37° Flare Sleeve</p>                        | <p><b>ONJ</b><br/>0318</p>  <p>JIC 37° Flare Nut</p>                   | <p><b>ONJ-ST</b><br/>0304</p>  <p>JIC 37° Flare Nut Standard</p>       | <p><b>ONJ-S</b><br/>0302</p>  <p>JIC 37° Flare Nut Short</p>                   | <p><b>OCJ</b><br/>0304-C</p>  <p>JIC 37° Flare Female Cap</p>                 | <p><b>OPJ</b><br/>2408</p>  <p>JIC 37° Flare Male Plug</p>                    |
| <p><b>10JJ</b><br/>2403</p>  <p>JIC Male Union</p>                             | <p><b>10JJ-LH</b><br/>2403-LH</p>  <p>JIC Male Union Large Hex</p>     | <p><b>14JJ</b><br/>2504</p>  <p>JIC Male Union 45°</p>                 | <p><b>19JJ</b><br/>2500</p>  <p>JIC Male Union 90°</p>                        | <p><b>AJJJ</b><br/>2603</p>  <p>JIC Male Union Tee</p>                        | <p><b>XJJJJ</b><br/>2650</p>  <p>JIC Male Cross</p>                           |
| <p><b>50JJ</b><br/>2406</p>  <p>JIC Male x Female Rigid</p>                    | <p><b>20JJ</b><br/>6504</p>  <p>JIC Male x Female Swivel</p>           | <p><b>24JJ</b><br/>6502</p>  <p>JIC Male x Female Swivel 45° Elbow</p> | <p><b>24JJ-T</b><br/>6702</p>  <p>JIC Male x Fem Svl 45° Swept Tube Elbow</p> | <p><b>29JJ</b><br/>6500</p>  <p>JIC Male x Fem Swivel 90° Elbow</p>           | <p><b>29JJ-T</b><br/>6701</p>  <p>JIC Male x Fem Svl 90° Swept Tube Elbow</p> |
| <p><b>29JJ-T-L</b><br/>6701-L</p>  <p>JIC M x F 90° Swept Tube Elbow Long</p> | <p><b>30JJ</b><br/>6565</p>  <p>JIC Female Swivel Union</p>          | <p><b>34JJ</b></p>  <p>JIC Female Swivel Union 45°</p>               | <p><b>39JJ</b></p>  <p>JIC Female Swivel Union 90°</p>                       | <p><b>BJJJ</b><br/>6600</p>  <p>JIC Female Swivel Branch Tee</p>            | <p><b>CJJJ</b><br/>6602</p>  <p>JIC Female Swivel Run Tee</p>               |
| <p><b>DJJJ</b><br/>6606</p>  <p>JIC Female Swivel Tee</p>                     | <p><b>EJJJ</b><br/>6603</p>  <p>JIC Fem Swivel x Male Branch Tee</p> | <p><b>FJJJ</b></p>  <p>JIC Male Run x Female Swivel Tee</p>          | <p><b>10JN</b><br/>2404</p>  <p>JIC Male X NPT Male</p>                     | <p><b>10JN-L</b><br/>2404-L</p>  <p>JIC Male x NPT Male Long</p>            | <p><b>10JN-LL</b><br/>2404-LL</p>  <p>JIC Male x NPT Male Extra Long</p>    |
| <p><b>14JN</b><br/>2503</p>  <p>JIC Male x NPT Male 45°</p>                  | <p><b>19JN</b><br/>2501</p>  <p>JIC Male x NPT Male 90°</p>          | <p><b>19JN-L</b><br/>2501-L</p>  <p>JIC Male x NPT Male 90° Long</p> | <p><b>19JN-LL</b><br/>2501-LL</p>  <p>JIC Male x NPT Male 90° X-Long</p>    | <p><b>19JN-LLL</b><br/>2501-LLL</p>  <p>JIC Male x NPT Male 90° XX-Long</p> | <p><b>19JN-SW</b><br/>5701</p>  <p>JIC Male x NPT Male Swivel 90°</p>       |

# JIC x NPT ○ JIC x SAE O-Ring

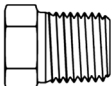
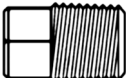
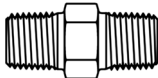
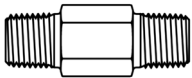
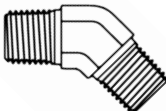
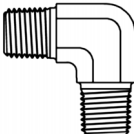
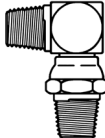
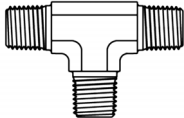
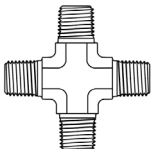
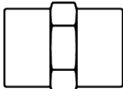
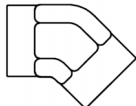
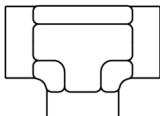
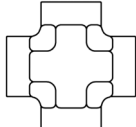
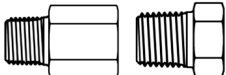
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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>AJJN</b><br/>2601</p>  <p>JIC Male x NPT Male<br/>Branch Tee</p>                  | <p><b>AJNJ</b><br/>2605</p>  <p>JIC Male x NPT Male<br/>Run Tee</p>            | <p><b>AJNN</b><br/>2607</p>  <p>JIC Male Run x<br/>NPT Male Tee</p>            | <p><b>ANNJ</b><br/>2610</p>  <p>NPT Male x JIC Male<br/>Branch Tee</p>        | <p><b>XJNJ</b><br/>2651</p>  <p>JIC Male x NPT<br/>Male Cross</p>                   | <p><b>XJJNN</b><br/>2653</p>  <p>JIC Male x NPT<br/>Male Cross</p>                      |
| <p><b>XJNJN</b><br/>2654</p>  <p>JIC Male x NPT<br/>Male Cross</p>                     | <p><b>50JN</b><br/>2405</p>  <p>JIC Male x<br/>NPT Female</p>                  | <p><b>54JN</b><br/>2505</p>  <p>JIC Male x NPT<br/>Female 45°</p>              | <p><b>59JN</b><br/>2502</p>  <p>JIC Male x NPT<br/>Female 90°</p>             | <p><b>KJJN</b><br/>2602</p>  <p>JIC Male x NPT<br/>Fem Branch Tee</p>               | <p><b>LJNJ</b><br/>2606</p>  <p>JIC Male x NPT<br/>Fem Run Tee</p>                      |
| <p><b>HJNN</b><br/>2609</p>  <p>JIC Male Run x NPT<br/>Female Rigid Tee</p>             | <p><b>JNNJ</b><br/>2612</p>  <p>NPT Fem Run x JIC<br/>Male Branch Tee</p>      | <p><b>LJNN</b><br/>2608</p>  <p>JIC Male x NPT Fem<br/>Run x NPT Male Tee</p>  | <p><b>KJNN</b><br/>2611</p>  <p>JIC Male x NPT Male<br/>Run x NPT Fem Tee</p> | <p><b>LNNJ</b><br/>2613</p>  <p>NPT Male x NPT Fem<br/>x JIC Male Tee</p>           | <p><b>WJJJN</b><br/>2652</p>  <p>JIC Male x<br/>NPT Female Cross</p>                    |
| <p><b>20NJ</b><br/>6505</p>  <p>NPT Male x<br/>JIC Female Swivel</p>                 | <p><b>29NJ</b><br/>6501</p>  <p>NPT Male x JIC<br/>Female Swivel 90°</p>     | <p><b>EJJN</b><br/>6604</p>  <p>NPT Male Branch x<br/>JIC Fem Swivel Tee</p> | <p><b>40NJ</b><br/>6506</p>  <p>NPT Fem x JIC<br/>Female Swivel</p>         | <p><b>49NJ</b><br/>6503</p>  <p>NPT Fem x JIC<br/>Female Swivel 90°</p>           | <p><b>MJJN</b><br/>6605</p>  <p>NPT Fem Branch x<br/>JIC Fem Swivel Tee</p>           |
| <p><b>10JO</b><br/>6400</p>  <p>JIC Male x<br/>SAE O-Ring Male</p>                   | <p><b>10JO-L</b><br/>6400-L</p>  <p>JIC Male x SAE<br/>O-Ring Male Long</p>  | <p><b>14JO</b><br/>6802</p>  <p>JIC Male x SAE<br/>O-Ring Male Adj. 45°</p>  | <p><b>19JO</b><br/>6801</p>  <p>JIC Male x SAE<br/>O-Ring Male Adj. 90°</p> | <p><b>19JO-L</b><br/>6801-L</p>  <p>JIC M x SAE O-Ring<br/>Male Adj. 90° Long</p> | <p><b>19JO-LL</b><br/>6801-LL</p>  <p>JIC M x SAE O-Ring<br/>Male Adj. 90° X-Long</p> |
| <p><b>19JO-LLL</b><br/>6801-LLL</p>  <p>JIC M x SAE O-Ring<br/>M Adj. 90° XX-Long</p> | <p><b>AJJO</b><br/>6803</p>  <p>JIC Male x SAE<br/>O-Ring M Adj. Br. Tee</p> | <p><b>AJOJ</b><br/>6804</p>  <p>JIC Male x SAE<br/>O-Ring M Adj. Run Tee</p> | <p><b>20OJ</b><br/>6402</p>  <p>SAE O-Ring Male<br/>x JIC Fem Swivel</p>    | <p><b>24OJ</b><br/>6810</p>  <p>SAE O-Ring Adj. M x<br/>JIC Fem Swivel 45°</p>    | <p><b>29OJ</b><br/>6809</p>  <p>SAE O-Ring Adj. M x<br/>JIC Fem Swivel 90°</p>        |

# JIC Bulkhead

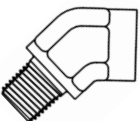
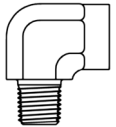
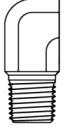
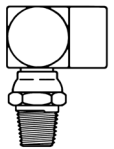
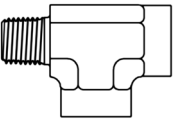
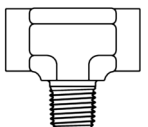
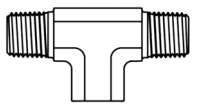
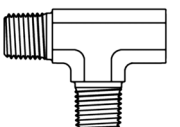
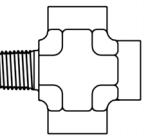
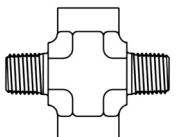
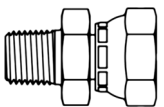
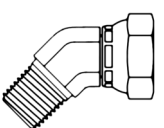
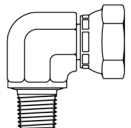
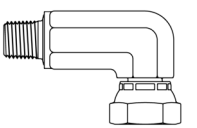
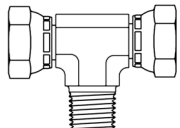
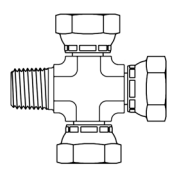
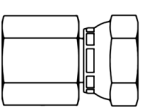
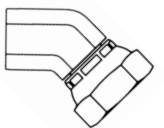
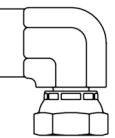
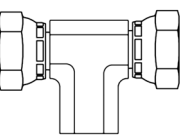
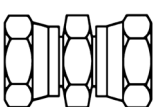
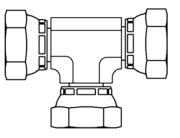
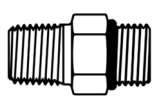
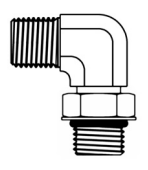
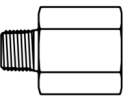
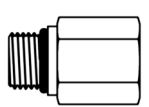
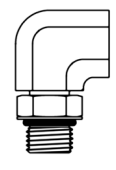
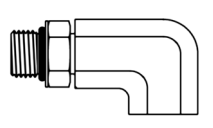
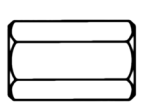
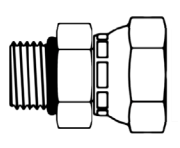
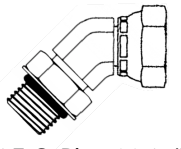
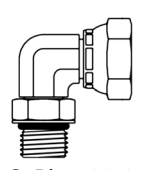
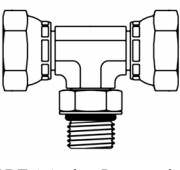
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| <p>0LNJ<br/>0306</p>  <p>JIC Male Bulkhead<br/>Lock Nut</p>  | <p>60JJ<br/>2700</p>  <p>JIC Male Bulkhead<br/>x JIC Male</p>   | <p>64JJ<br/>2702</p>  <p>JIC Male Bulkhead<br/>x JIC Male 45°</p> | <p>69JJ<br/>2701</p>  <p>JIC Male Bulkhead<br/>x JIC Male 90°</p> | <p>RJJJ<br/>2703</p>  <p>JIC M x JIC M<br/>Bulkhead Branch Tee</p> | <p>SJJJ<br/>2704</p>  <p>JIC M x JIC M<br/>Bulkhead Run Tee</p> |
| <p>60JN<br/>2706</p>  <p>JIC Male Bulkhead x<br/>NPT Male</p> | <p>80JN<br/>2705</p>  <p>JIC Male Bulkhead x<br/>NPT Female</p> |                                                                                                                                                    |                                                                                                                                                     |                                                                                                                                                       |                                                                                                                                                    |

\* Add -LN Suffix for Bulkhead / Locknut Assembly

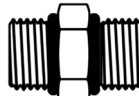
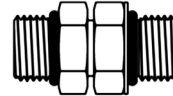
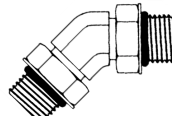
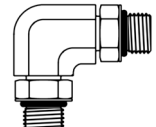
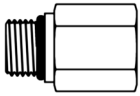
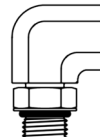
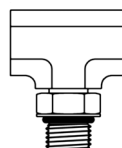
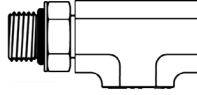
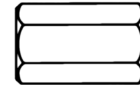
# NPT

|                                                                                                                                                        |                                                                                                                                                        |                                                                                                                                                   |                                                                                                                                                         |                                                                                                                                           |                                                                                                                                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>0PN<br/>5406-P</p>  <p>NPT Male Hex<br/>Head Plug</p>            | <p>0PHN<br/>5406-HP</p>  <p>NPT Male Allen<br/>Hollow Head Plug</p> | <p>0PSN<br/>5406-SHP</p>  <p>NPT Male Square<br/>Head Plug</p> | <p>0CN<br/>5406-C</p>  <p>NPT Female<br/>Cap</p>                     | <p>10NN<br/>5404</p>  <p>NPT Male Hex<br/>Nipple</p> | <p>10NN-L<br/>5404-L</p>  <p>NPT Male Nipple<br/>Long</p>           |
| <p>10NN-P<br/>5404-N</p>  <p>NPT Male Nipple<br/>(Threaded Pipe)</p> | <p>14NN<br/>5501</p>  <p>NPT Male x NPT<br/>Male 45°</p>            | <p>19NN<br/>5500</p>  <p>NPT Male x NPT<br/>Male 90°</p>       | <p>19NN-SW<br/>5500-S</p>  <p>NPT Male x NPT<br/>Male Swivel 90°</p> | <p>ANNN<br/>5600</p>  <p>NPT Male<br/>Tee</p>        | <p>XNNNN<br/>5650</p>  <p>NPT Male<br/>Cross</p>                    |
| <p>70NN<br/>5000</p>  <p>NPT Female<br/>Rigid Coupling</p>          | <p>74NN<br/>5505</p>  <p>NPT Female<br/>Rigid Coupling 45°</p>      | <p>79NN<br/>5504</p>  <p>NPT Female<br/>Rigid Coupling 90°</p> | <p>GNNN<br/>5605</p>  <p>NPT Female<br/>Tee</p>                     | <p>ZNNNN<br/>5652</p>  <p>NPT Female<br/>Cross</p>   | <p>50NN<br/>5405 / 5406</p>  <p>NPT Male x NPT<br/>Female Rigid</p> |

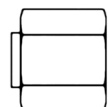
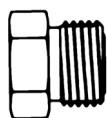
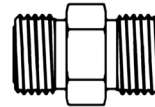
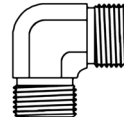
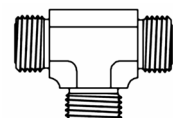
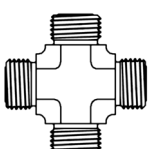
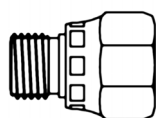
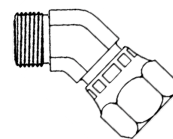
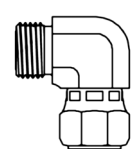
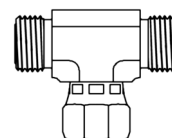
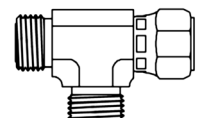
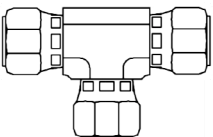
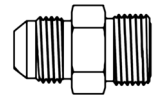
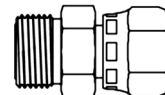
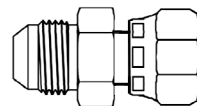
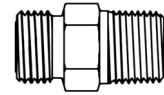
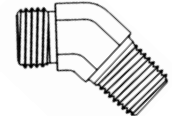
# NPT ○ NPT x NPSM ○ NPT & NPSM x SAE O-Ring

|                                                                                                                                                           |                                                                                                                                                               |                                                                                                                                                                    |                                                                                                                                                                     |                                                                                                                                                                     |                                                                                                                                                                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>54NN</b><br/>5503</p>  <p>NPT Male x NPT<br/>Female Rigid 45°</p>  | <p><b>59NN</b><br/>5502</p>  <p>NPT Male x NPT<br/>Female Rigid 90°</p>      | <p><b>59NN-LP</b><br/>3051</p>  <p>NPT Male x NPT<br/>Fem 90° Low Profile</p>     | <p><b>59NN-SW</b><br/>5702</p>  <p>NPT Male Swivel x<br/>NPT Fem Rigid 90°</p>     | <p><b>HNNN</b><br/>5602</p>  <p>NPT Male Run x<br/>Female Rigid Tee</p>          | <p><b>JNNN</b><br/>5604</p>  <p>NPT Female x Male<br/>Branch Tee</p>                   |
| <p><b>KNNN</b><br/>5601</p>  <p>NPT Male x Female<br/>Branch Tee</p>      | <p><b>LNNN</b><br/>5603</p>  <p>NPT Male x Female<br/>Run Tee</p>            | <p><b>UNNNN</b><br/>5655</p>  <p>NPT Male x Fem x<br/>Fem x Fem Cross</p>         | <p><b>VNNNN</b><br/>5653</p>  <p>NPT Male x Fem x<br/>Male x Fem Cross</p>        |                                                                                                                                                                     |                                                                                                                                                                           |
| <p><b>20NN</b><br/>1404</p>  <p>NPT Male x<br/>NPSM Female</p>            | <p><b>24NN</b><br/>1503</p>  <p>NPT Male x<br/>NPSM Female 45°</p>           | <p><b>29NN</b><br/>1501</p>  <p>NPT Male x NPSM<br/>Female 90°</p>                | <p><b>29NN-L</b><br/>1501-L</p>  <p>NPT Male x NPSM<br/>Female 90° Long</p>       | <p><b>ENNN</b><br/>1601</p>  <p>NPSM Female x NPT<br/>Male Branch Tee</p>        | <p><b>TNNNN</b><br/>1604</p>  <p>NPT Male x<br/>Fem NPSM Cross</p>                     |
| <p><b>40NN</b><br/>1405</p>  <p>NPT Female Rigid x<br/>NPSM Female</p> | <p><b>44NN</b><br/>1504</p>  <p>NPT Female Rigid x<br/>NPSM Female 45°</p> | <p><b>49NN</b><br/>1502</p>  <p>NPT Female Rigid x<br/>NPSM Female 45°</p>      | <p><b>MNNN</b><br/>1602</p>  <p>NPSM Female x<br/>NPT Female Tee</p>            | <p><b>30NN</b><br/>1406</p>  <p>NPSM Female<br/>Swivel Union</p>               | <p><b>DNNN</b><br/>1603</p>  <p>NPSM Female<br/>Swivel Union Tee</p>                 |
| <p><b>10NO</b><br/>6401-O</p>  <p>NPT Male x<br/>SAE O-Ring Male</p>   | <p><b>19NO</b><br/>6806</p>  <p>NPT Male x SAE<br/>O-Ring Female 90°</p>   | <p><b>50NO</b><br/>6404</p>  <p>NPT Male x<br/>SAE O-Ring Female</p>            | <p><b>50ON</b><br/>6405-O</p>  <p>SAE O-Ring Male<br/>x NPT Female Rigid</p>    | <p><b>59ON</b><br/>6805-NWO</p>  <p>SAE O-Ring Male<br/>Adj. x NPT Fem 90°</p> | <p><b>59ON-L</b><br/>6805-L-NWO</p>  <p>SAE O-Ring Male<br/>Adj. x NPT Fem 90° L</p> |
| <p><b>70NO</b><br/>6420</p>  <p>SAE O-Ring Female<br/>X NPT Female</p> | <p><b>20ON</b><br/>6900-O</p>  <p>SAE O-Ring Male x<br/>NPSM Female</p>    | <p><b>24ON</b><br/>6902-NWO</p>  <p>SAE O-Ring M Adj. x<br/>NPSM Female 45°</p> | <p><b>29ON</b><br/>6901-NWO</p>  <p>SAE O-Ring M Adj. x<br/>NPSM Female 90°</p> | <p><b>ENNO</b><br/>1601</p>  <p>NPT Male Branch x<br/>Fem NPSM Tee</p>         |                                                                                                                                                                           |

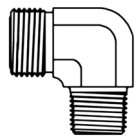
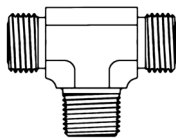
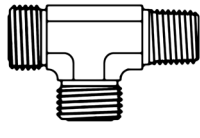
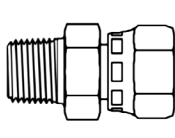
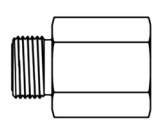
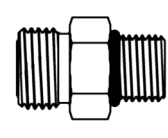
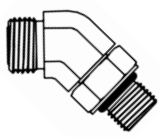
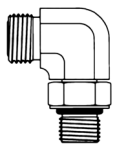
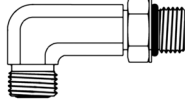
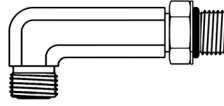
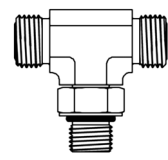
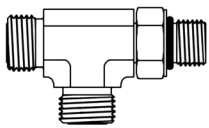
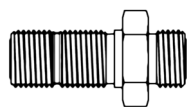
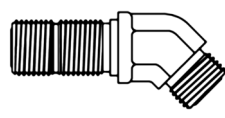
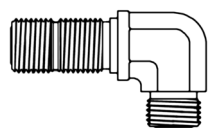
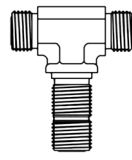
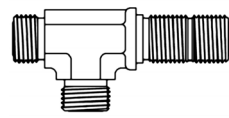
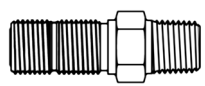
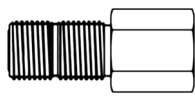
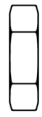
## SAE O-Ring

|                                                                                                                                      |                                                                                                                                                 |                                                                                                                                        |                                                                                                                                                 |                                                                                                                                          |                                                                                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| <b>0PO</b><br>6408<br><br>SAE O-Ring Hex Head Plug  | <b>0PHO</b><br>6408-H<br><br>SAE O-Ring Allen-type Hollow Plug | <b>10OO</b><br>6464<br><br>SAE O-Ring Male Union      | <b>10OO-A</b><br>3474<br><br>SAE O-Ring Male Union Adjustable | <b>14OO</b><br>6808<br><br>SAE O-Ring Male Union 45°  | <b>19OO</b><br>6807<br><br>SAE O-Ring Male Union 90° |
| <b>50OO</b><br>6410<br><br>SAE O-Ring Male x Female | <b>59OO</b><br>6815<br><br>SAE O-Ring Male x Female 90°        | <b>JOOO</b><br>6832<br><br>SAE O-Ring Male Branch Tee | <b>HOOO</b><br>6835<br><br>SAE O-Ring Male Run Tee            | <b>70OO</b><br>6425<br><br>SAE O-Ring Female Coupling |                                                                                                                                         |

## ORS (Flat Face O-Ring) ○ ORS x JIC ○ ORS x NPT

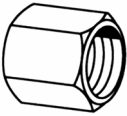
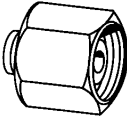
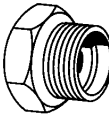
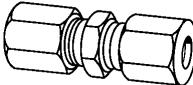
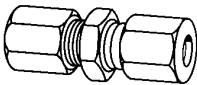
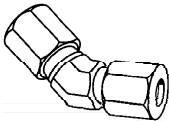
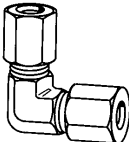
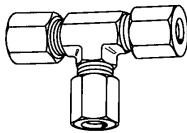
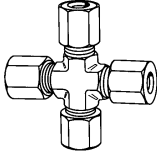
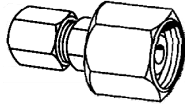
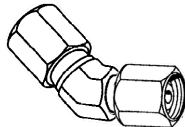
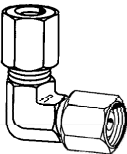
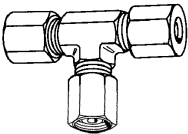
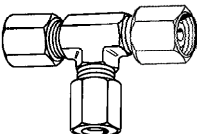
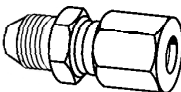
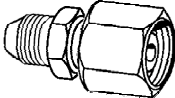
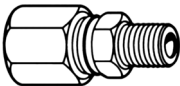
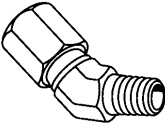
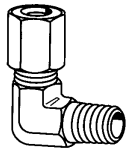
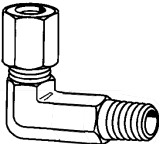
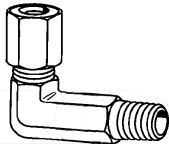
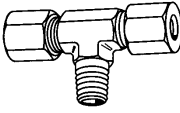
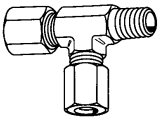
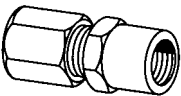
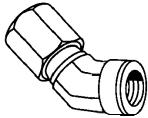
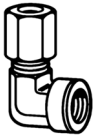
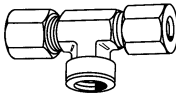
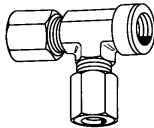
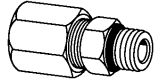
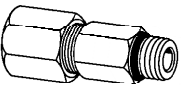
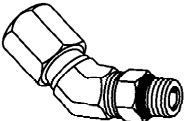
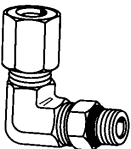
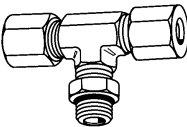
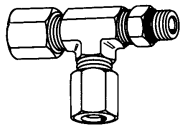
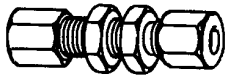
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| <b>ONF</b><br>FS0318<br><br>ORS Nut                     | <b>OCF</b><br>FS0304-C<br><br>ORS Female Cap              | <b>OPF</b><br>FS2408<br><br>ORS Female Plug               | <b>1OFF</b><br>FS2403<br><br>ORS Male Union               | <b>19FF</b><br>FS2500<br><br>ORS Male Union 90°           | <b>AFFF</b><br>FS2603<br><br>ORS Male Union Tee        |
| <b>XFFFF</b><br>FS2650<br><br>ORS Male Union Cross      | <b>20FF</b><br>FS2406<br><br>ORS Male x ORS Female Swivel | <b>24FF</b><br>FS6502<br><br>ORS Male x Female Swivel 45° | <b>29FF</b><br>FS6500<br><br>ORS Male x Female Swivel 90°  | <b>BFFF</b><br>FS6600<br><br>ORS Female Swivel Branch Tee | <b>CFFF</b><br>FS6602<br><br>ORS Female Swivel Run Tee |
| <b>DFFF</b><br>FS6606<br><br>ORS Female Swivel Union Tee | <b>10JF</b><br>FS6403<br><br>JIC Male x ORS Male          | <b>20FJ</b><br>FS6402<br><br>ORS Male x JIC Female Swivel | <b>20JF</b><br>FS6504<br><br>JIC Male x ORS Female Swivel | <b>10FN</b><br>FS2404<br><br>ORS Male x NPT Male          | <b>14FN</b><br>FS2503<br><br>ORS Male x NPT Male 45°   |

# ORS x NPT ○ ORS x SAE O-Ring ○ ORS Bulkhead

|                                                                                                                                                               |                                                                                                                                                              |                                                                                                                                                              |                                                                                                                                                                     |                                                                                                                                                                          |                                                                                                                                                            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>19FN</b><br><i>FS2501</i><br><br>ORS Male<br>x NPT Male 90°               | <b>AFFN</b><br><i>FS2601</i><br><br>ORS Male x NPT<br>Male Branch Tee       | <b>AFNF</b><br><i>FS2605</i><br><br>ORS Male x NPT<br>Male Run Tee          | <b>20NF</b><br><i>FS6505</i><br><br>NPT Male x<br>Female ORS Swivel               | <b>50FN</b><br><i>FS2405</i><br><br>ORS Male x<br>NPT Female Rigid                    | <b>10FO</b><br><i>FS6400-O</i><br><br>ORS Male<br>x SAE O-Ring Male     |
| <b>10FO-L</b><br><i>FS6400-L-O</i><br><br>ORS Male x SAE O-<br>Ring Male Long | <b>14FO</b><br><i>FS6802-NWO</i><br><br>ORS Male x SAE<br>O-Ring M Adj. 45° | <b>19FO</b><br><i>FS6801-NWO</i><br><br>ORS Male x SAE<br>O-Ring M Adj. 90° | <b>19FO-L</b><br><i>FS6801-L-NWO</i><br><br>ORS M x SAE O-Ring<br>M Adj. 90° Long | <b>19FO-LL</b><br><i>FS6801-LL-NWO</i><br><br>ORS M x SAE O-Ring<br>M Adj. 90° X-Long | <b>AFFO</b><br><i>FS6803</i><br><br>ORS x SAE O-Ring<br>Adj. Branch Tee |
| <b>AFOF</b><br><i>FS6804</i><br><br>ORS x SAE O-Ring<br>Adj. Run Tee          | <b>60FF</b><br><i>FS2700</i><br><br>ORS Male<br>Bulkhead Union              | <b>64FF</b><br><i>FS2702</i><br><br>ORS Male<br>Bulkhead Union 45°          | <b>69FF</b><br><i>FS2701</i><br><br>ORS Male<br>Bulkhead Union 90°                | <b>RFFF</b><br><i>FS2703</i><br><br>ORS Male Bulkhead<br>Branch Tee                   | <b>SFFF</b><br><i>FS2704</i><br><br>ORS Male Bulkhead<br>Run Tee        |
| <b>60FN</b><br><i>FS2706</i><br><br>ORS Male Bulkhead<br>x NPT Male         | <b>80FF</b><br><i>FS2705</i><br><br>ORS Male Bulkhead<br>x NPT Female     | <b>OLNF</b><br><i>FS0306</i><br><br>ORS Bulkhead<br>Nut                   | <b>OLNF</b><br><i>FS0306</i><br><br>ORS Bulkhead<br>Nut                          |                                                                                                                                                                          |                                                                                                                                                            |

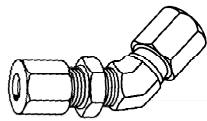
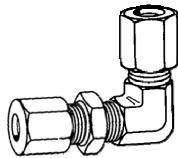
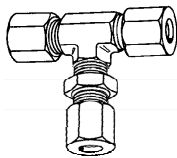
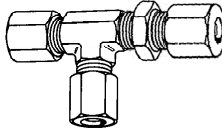
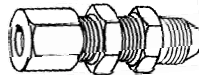
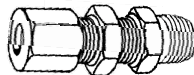
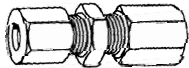
\* Add -LN Suffix for Bulkhead / Locknut Assembly

# Flareless Tube (Fractional Bite Type)

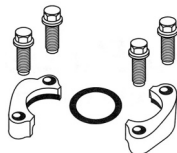
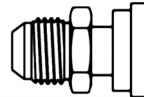
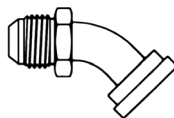
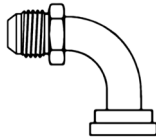
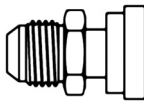
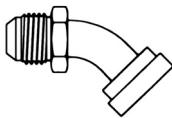
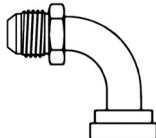
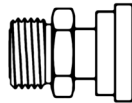
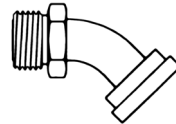
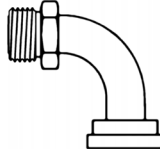
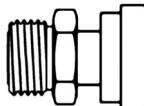
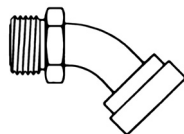
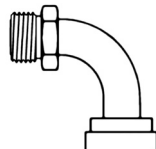
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| <p>OSL<br/>C0319</p>  <p>Fractional Tube<br/>Bite Type Sleeve</p>              | <p>ONL<br/>C0318</p>  <p>Fractional Tube<br/>Bite Type Nut</p>                | <p>OCL<br/>C0304-C</p>  <p>Tube Bite<br/>Type Cap</p>                            | <p>OPL<br/>C2408</p>  <p>Tube Bite<br/>Type Plug</p>                                | <p>10LL<br/>C2403</p>  <p>Tube Bite<br/>Type Union</p>                     | <p>10LL-LH<br/>C2403-LH</p>  <p>Tube Bite Type<br/>Union Large Hex</p>      |
| <p>14LL<br/>C2504</p>  <p>Tube Bite Type<br/>Union 45°</p>                     | <p>19LL<br/>C2500</p>  <p>Tube Bite Type<br/>Union 90°</p>                    | <p>ALLL<br/>C2603</p>  <p>Tube Bite Type<br/>Union Tee</p>                       | <p>XLLLL<br/>C2650</p>  <p>Tube Bite Type<br/>Union Cross</p>                      | <p>20LL<br/>C2406</p>  <p>Tube Bite Type<br/>Reducer / Increaser</p>       | <p>24LL<br/>C6502</p>  <p>Tube Bite Type<br/>Male x Female 45°</p>          |
| <p>29LL<br/>C6500</p>  <p>Tube Bite Type<br/>x Female 90°</p>                  | <p>BLLL<br/>C6600</p>  <p>Tube Bite Type<br/>Female Branch Tee</p>            | <p>CLLL<br/>C6602</p>  <p>Tube Bite Type<br/>Female Run Tee</p>                  | <p>10JL<br/>C2402</p>  <p>JIC Male x<br/>Tube Bite Type</p>                        | <p>20JL</p>  <p>JIC Male x Female<br/>Bite Type</p>                        | <p>10LN<br/>C2404</p>  <p>Fractional Tube Bite<br/>Type x NPT Male</p>      |
| <p>14LN<br/>C2503</p>  <p>Fractional Tube Bite<br/>Type x NPT Male 45°</p>   | <p>19LN<br/>C2501</p>  <p>Fractional Tube Bite<br/>Type x NPT Male 90°</p>  | <p>19LN-L<br/>C2501-L</p>  <p>Fractional Tube Bite<br/>Type x NPT Male 90°</p> | <p>19LN-LL<br/>C2501-LL</p>  <p>Fractional Tube Bite<br/>Type x NPT Male 90°</p> | <p>ALLN<br/>C2601</p>  <p>Tube Bite Type x NPT<br/>Male Branch Tee</p>   | <p>ALNL<br/>C2605</p>  <p>NPT Male Run x<br/>Tube Bite Type Tee</p>       |
| <p>50LN<br/>C2405</p>  <p>Tube Bite Type x NPT<br/>Female</p>                 | <p>54LN<br/>C2505</p>  <p>Tube Bite Type x NPT<br/>Female 45°</p>           | <p>59LN<br/>C2502</p>  <p>Tube Bite Type x NPT<br/>Female 90°</p>              | <p>KLLN<br/>C2602</p>  <p>Tube Bite Type x NPT<br/>Female Branch Tee</p>         | <p>LLNL<br/>C2606</p>  <p>Tube Bite Type x NPT<br/>Female Run Tee</p>    | <p>10LO<br/>C6400-O</p>  <p>Tube Bite Type x SAE<br/>O-Ring Male</p>      |
| <p>10LO-L<br/>C6400-L-O</p>  <p>Tube Bite Type x SAE<br/>O-Ring Male Long</p> | <p>14LO<br/>C6802</p>  <p>Tube Bite Type x SAE<br/>O-Ring Male Adj. 45°</p> | <p>19LO<br/>C6801</p>  <p>Tube Bite Type x SAE<br/>O-Ring Male Adj. 90°</p>    | <p>ALLO<br/>C6803</p>  <p>Bite Type x SAE O-<br/>Ring M Adj. Br. Tee</p>         | <p>ALOL<br/>C6804</p>  <p>Bite Type x SAE O-<br/>Ring M Adj. Run Tee</p> | <p>60LL<br/>C2700</p>  <p>Tube Bite Type Bulk-<br/>head x Tube BT 45°</p> |



## Flareless Tube (Fractional Bite Type)

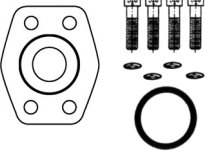
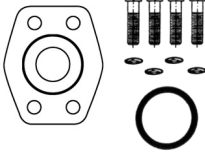
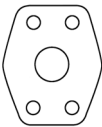
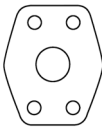
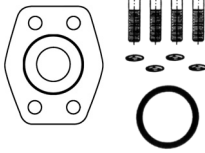
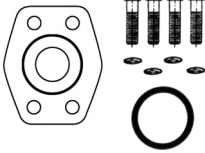
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| <b>64LL</b><br>C2702<br> <p>Tube Bite Type Bulk-head x Tube BT 45°</p> | <b>69LL</b><br>C2701<br> <p>Tube Bite Type Bulk-head x Tube BT 90°</p> | <b>RLLL</b><br>C2703<br> <p>Tube Bite Type Bulk-head x BT Br Tee</p> | <b>SLLL</b><br>C2704<br> <p>Tube Bite Type Bulk-head x BT Run Tee</p> | <b>60LJ</b><br> <p>Tube Bite Type Bulk-head x JIC Male</p> | <b>60LN</b><br>C2706<br> <p>Tube Bite Type Bulk-head x NPT Male</p> |
| <b>80LN</b><br>C2705<br> <p>Tube Bite Type Bulk-head x NPT Female</p>  |                                                                                                                                                         |                                                                                                                                                       |                                                                                                                                                         |                                                                                                                                               |                                                                                                                                                        |

## SAE Split Flange

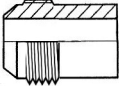
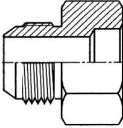
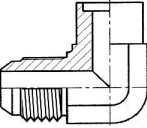
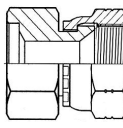
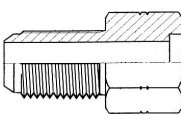
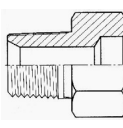
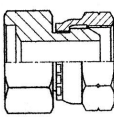
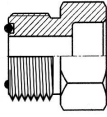
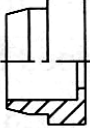
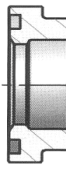
|                                                                                                                                                         |                                                                                                                                                     |                                                                                                                                                         |                                                                                                                                                          |                                                                                                                                                       |                                                                                                                                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>OSFU-K</b><br>SF-K<br> <p>Code 61 SAE Split Flange Kit</p>         | <b>OSFW-K</b><br>SFX-K<br> <p>Code 62 SAE Split Flange Kit</p>   | <b>OPU</b><br>FP<br> <p>Code 61 Split Flange Plug (Blank)</p>        | <b>OPW</b><br>FPX<br> <p>Code 62 Split Flange Plug (Blank)</p>        | <b>10JU</b><br>1700<br> <p>Male JIC x Code 61 Split Flange</p>   | <b>14JU</b><br>1703<br> <p>Male JIC x Code 61 Split Flange 45°</p>   |
| <b>19JU</b><br>1704<br> <p>Male JIC x Code 61 Split Flange 90°</p>   | <b>10JW</b><br>1800<br> <p>Male JIC x Code 62 Split Flange</p>   | <b>14JW</b><br>1803<br> <p>Male JIC x Code 62 Split Flange 45°</p>   | <b>19JW</b><br>1804<br> <p>Male JIC x Code 62 Split Flange 90°</p>   | <b>10FU</b><br>FS1700<br> <p>Male ORS x Code 61 Split Flange</p> | <b>14FU</b><br>FS1703<br> <p>Male ORS x Code 61 Split Flange 45°</p> |
| <b>19FU</b><br>FS1704<br> <p>Male ORS x Code 61 Split Flange 90°</p> | <b>10FW</b><br>FS1800<br> <p>Male ORS x Code 62 Split Flange</p> | <b>14FW</b><br>FS1803<br> <p>Male ORS x Code 62 Split Flange 45°</p> | <b>19FW</b><br>FS1804<br> <p>Male ORS x Code 62 Split Flange 90°</p> |                                                                                                                                                       |                                                                                                                                                           |



# SAE Flange

|                                                                                                                                                    |                                                                                                                                                   |                                                                                                                                                 |                                                                                                                                                |                                                                                                                                                          |                                                                                                                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>FO-UN-K</b><br>W43<br><br>Code 61 Flange<br>Ported NPT + Kit    | <b>FO-WN-K</b><br>W44<br><br>Code 62 Flange<br>Ported NPT + Kit  | <b>FC-UN</b><br>W104<br><br>Code 61 Companion<br>Flange x FNPT | <b>FC-WN</b><br>W45<br><br>Code 61 Companion<br>Flange x FNPT | <b>FO-UO-K</b><br>W46<br><br>Code 61 Flange x<br>SAE O-Ring Fem + Kit | <b>FO-WO-K</b><br>W48<br><br>Code 62 Flange x<br>SAE O-Ring Fem + Kit |
| <b>FC-UO-K</b><br>W106<br><br>Code 62 Companion<br>Flange x SAEOR | <b>FC-WO-K</b><br>W49<br><br>Code 62 Companion<br>Flange x SAEOR |                                                                                                                                                 |                                                                                                                                                |                                                                                                                                                          |                                                                                                                                                          |

# Braze On

|                                                                                                                                                         |                                                                                                                                              |                                                                                                                                                |                                                                                                                                              |                                                                                                                                                       |                                                                                                                                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>10JVF</b><br>0403-TS<br><br>Braze Tube Bore<br>JIC Male Tube Spud | <b>50JVF</b><br>0403<br><br>Braze Tube Bore<br>JIC Male   | <b>59JVF</b><br>0500<br><br>Braze Tube Bore<br>JIC Male 90° | <b>40JVF</b><br>0900<br><br>Braze Tube Bore<br>NPT Female | <b>80JVF</b><br>0406<br><br>Braze Tube Bore<br>JIC Bulkhead Male | <b>50NVF</b><br>0404<br><br>Braze Tube Bore<br>NPT Male |
| <b>40VFN</b><br>0800<br><br>Braze Tube Bore<br>NPSM Female           | <b>50FVF</b><br>FS0403<br><br>Braze Tube Bore<br>ORS Male | <b>40VFF</b><br>FS0319<br><br>Braze Tube Bore<br>ORS Male   | <b>50UVF</b><br><br>Braze Tube Bore<br>Code 61 Flange     | <b>50WVF</b><br><br>Braze Tube Bore<br>Code 62 Flange            |                                                                                                                                              |

# Foreign Connection Identification

International connection identification can be difficult. Although the information in this section can be helpful, you must have the proper tools in order to make an accurate identification. The main tools are caliper, thread pitch gauges, and seat angle gauges. When identifying international connections, there are certain steps that should be taken to ensure an accurate identification.

1. If possible, determine the brand of equipment and / or the country of manufacture.
2. Determine what it connects (female swivel, male flare, etc...) and the sealing method (flare, cone, o-ring, etc...)
3. Determine the thread dimension, thread pitch, tube dimension (if applicable) and seat angle
4. Compare your measurements with the charts.
5. Verify with a mating coupling.

| Country of Origin | Common Swivel or Tube Connections                                                                                                                              | Code (Section)                   | Common Port Connections                                                                                                                            | Code (Section)             |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| Great Britain     | BSPP 30° / 60° Cone Seat                                                                                                                                       | <b>B</b>                         | BSPP (External Seal)<br>BSPT                                                                                                                       | <b>G<br/>T</b>             |
| Germany, Sweden   | DIN 12° / 24° (LL, L & S Series)<br>DIN 30° / 60°<br>O-Ring Face Seal (BSPP Threads)                                                                           | <b>A, B, C<br/>M<br/>R</b>       | Whitworth Fractional (BSPP)<br>Whitworth Fractional (BSPT)<br>Whitworth Metric Parallel<br>Whitworth Metric Tapered<br>Split Flange (Code 61 / 62) | <b>G<br/>T<br/>H<br/>I</b> |
| France            | Millimétrique<br>GAZ                                                                                                                                           | <b>X<br/>Y</b>                   | Metric Parallel Port<br>Poclain Flange                                                                                                             | <b>H</b>                   |
| Japan, Korea      | JIS 30° Flare (BSPP Threads)<br>KOMATSU® - JIS 30° Flare Metric<br>JIS 30° / 60° Cone (BSPP)<br>JIS 30° / 60° Cone (Metric)<br>KOBELCO® (French Millimétrique) | <b>S<br/>K<br/>B<br/>M<br/>X</b> | JIS Parallel Port (BSPP)<br>JIS Tapered Port (BSPT)<br>JIS Parallel Metric<br>JIS Tapered Metric<br>Split Flange (Code 61 / 62)                    | <b>G<br/>T<br/>H<br/>I</b> |
| China             | 37° Flare Metric Threads<br>O-Ring Face Seal Metric Threads                                                                                                    | <b>Q<br/>E</b>                   | Metric Port                                                                                                                                        | <b>H</b>                   |

## External Sealing (Generally Port)- O-Ring / O-Ring & Washer / Bonded Seal / Metal Seal / Cutting Face

- BSPP / JIS / ISO Parallel
- DIN (Whitworth Metric Threads & BSPP Threads)
- SAE O-Ring
- Split Flange (Code 61, Code 62, "Cat" Flange)



## Thread Sealing - Tapered or Conical Threads - Sealing by Thread Interference

- NPT
- BSPT / ISO Tapered / JIS Tapered Pipe / Whitworth Tapered
- Metric Tapered Pipe Thread



## Internal Angle Sealing - Female Flare - 30°, 37°, & 45° Flare

- JIS 30° Flare (BSPP Threads & Metric Threads—KOMATSU®)
- JIC 37° Flare, SAE 45° Flare
- 37° Flare Metric



## Internal Angle Sealing - Female Cone / Tube Assembly - 12°, 30° & 12° Bite-Type

- DIN 12° / 24°
- JIS Flareless
- Millimétrique & GAZ



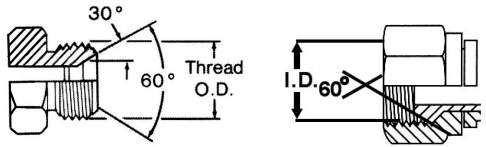
## Internal "Flat Face" Sealing - With O-Ring or Washer Seal

- ORFS
- BSPP
- Metric Threads



# Foreign Connection Identification - Thread Charts

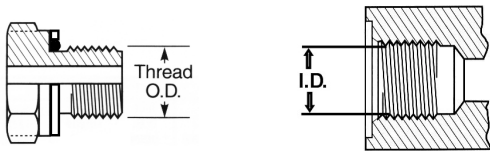
60° Cone ○ Parallel Port ○ Tapered ○ 30° Flare ○ O-Ring Face Seal ○ 37° Flare



**60° Cone Seat**

BSPP = **B**

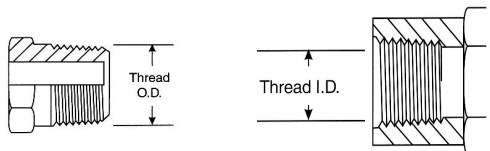
Metric = **M**



**Parallel Port**

BSPP = **G**

Metric = **H**



**Tapered Thread**

BSPT = **T**

Metric = **I**



**30° Flare**

JIS (BSPP) = **S**

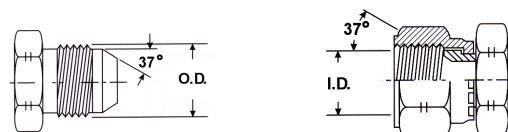
KOMATSU® = **K**



**O-Ring Face Seal**

BSPP = **\***

Metric = **E**



**37° Flare**

Chinese Metric = **Q**

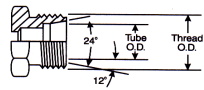
| B | G | T | * | S | Dash Size | Nom. Size | Thread Pitch | Male O.D. (Inches) | Female I.D. (Inches) |
|---|---|---|---|---|-----------|-----------|--------------|--------------------|----------------------|
| ♦ | ♦ | ♦ |   | ♦ | 2         | 1/8       | 28           | .375               | .344                 |
| ♦ | ♦ | ♦ | ♦ | ♦ | 4         | 1/4       | 19           | .531               | .469                 |
| ♦ | ♦ | ♦ | ♦ | ♦ | 6         | 3/8       | 19           | .656               | .594                 |
| ♦ | ♦ | ♦ | ♦ | ♦ | 8         | 1/2       | 14           | .813               | .750                 |
| ♦ |   | ♦ | ♦ |   | 10        | 5/8       | 14           | .906               | .813                 |
| ♦ | ♦ | ♦ | ♦ | ♦ | 12        | 3/4       | 14           | 1.031              | .969                 |
| ♦ | ♦ | ♦ | ♦ | ♦ | 16        | 1         | 11           | 1.344              | 1.219                |
| ♦ | ♦ | ♦ | ♦ | ♦ | 20        | 1¼        | 11           | 1.656              | 1.531                |
| ♦ | ♦ | ♦ |   | ♦ | 24        | 1½        | 11           | 1.875              | 1.781                |
| ♦ |   | ♦ |   | ♦ | 32        | 2         | 11           | 2.334              | 2.219                |
| ♦ |   | ♦ |   |   | 40        | 2½        | 8            | 2.950              | 2.860                |
| ♦ |   | ♦ |   |   | 48        | 3         | 8            | 3.460              | 3.360                |

| M | H | I | K | E | Q | Dash Size | Thread Pitch | Male O.D. (mm) | Female I.D. (mm) |
|---|---|---|---|---|---|-----------|--------------|----------------|------------------|
| ♦ |   | ♦ |   |   |   | 8         | 1.0          | 8              | 6.5              |
| ♦ | ♦ | ♦ | ♦ |   | ♦ | 10        | 1.0          | 10             | 8.5              |
| ♦ |   | ♦ |   |   |   | 10A       | 1.25         | 10             | 8.5              |
| ♦ |   | ♦ |   |   |   | 10B       | 1.5          | 10             | 8.5              |
| ♦ |   | ♦ |   |   |   | 12A       | 1.0          | 12             | 10.5             |
| ♦ |   | ♦ |   | ♦ |   | 12B       | 1.25         | 12             | 10.5             |
| ♦ | ♦ | ♦ | ♦ |   | ♦ | 12        | 1.5          | 12             | 10.5             |
| ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | 14        | 1.5          | 14             | 12.5             |
| ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | 16        | 1.5          | 16             | 14.5             |
| ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | 18        | 1.5          | 18             | 16.5             |
| ♦ | ♦ | ♦ | ♦ |   |   | 20        | 1.5          | 20             | 18.5             |
| ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | 22        | 1.5          | 22             | 20.5             |
| ♦ | ♦ |   | ♦ |   | ♦ | 24        | 1.5          | 24             | 22.5             |
| ♦ | ♦ |   |   |   |   | 26        | 1.5          | 26             | 24.5             |
| ♦ |   |   |   |   |   | 27D       | 1.5          | 27             | 25.5             |
| ♦ | ♦ |   |   | ♦ | ♦ | 27        | 2.0          | 27             | 25.5             |
| ♦ |   |   |   | ♦ |   | 30D       | 1.5          | 30             | 28               |
| ♦ |   |   | ♦ |   | ♦ | 30        | 2.0          | 30             | 28               |
| ♦ |   |   |   |   |   | 33D       | 1.5          | 33             | 31               |
| ♦ | ♦ |   | ♦ |   | ♦ | 33        | 2.0          | 33             | 31               |
|   |   |   | ♦ | ♦ |   | 36        | 2.0          | 36             | 34               |
|   |   |   | ♦ | ♦ |   | 39        | 2.0          | 39             | 37               |
| ♦ | ♦ |   | ♦ | ♦ |   | 42        | 2.0          | 42             | 40               |
|   |   |   |   | ♦ |   | 45        | 2.0          | 45             | 43               |
| ♦ | ♦ |   |   |   |   | 48        | 2.0          | 48             | 46               |
| ♦ |   |   |   | ♦ |   | 52        | 2.0          | 52             | 50               |
| ♦ |   |   |   | ♦ |   | 60        | 2.0          | 60             | 58               |
|   |   |   |   | ♦ |   | 64        | 2.0          | 64             | 62               |

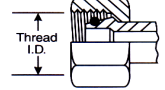
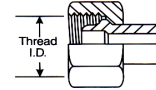
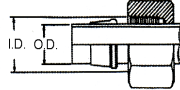
# Foreign Connection Identification - Thread Charts

## 12° / 24° Tube / Cone Seat Thread Chart

The following are the popular 12° / 24° (1/2 angle / whole angle) connections. Each have a common male that can mate with any of three different types of females. DIN are German. Millimetrique and GAZ are French. JIS is Japanese.



Male  
mates with  
all three types  
of Female



Male

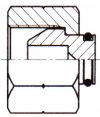
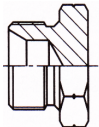
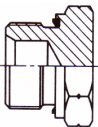
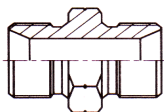
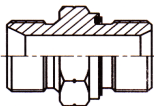
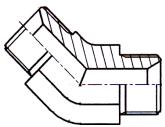
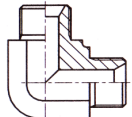
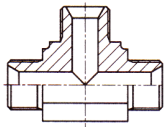
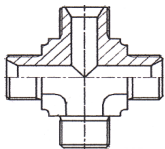
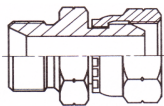
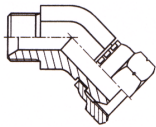
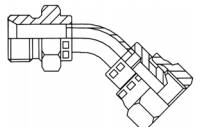
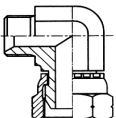
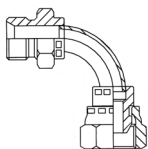
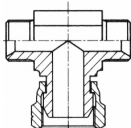
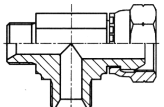
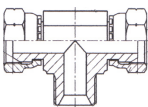
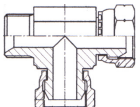
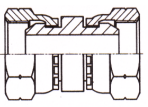
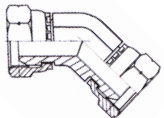
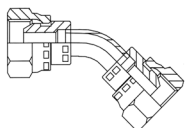
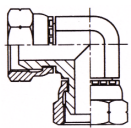
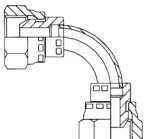
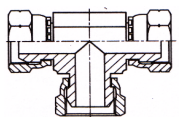
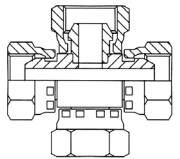
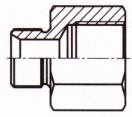
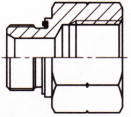
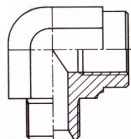
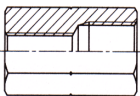
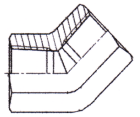
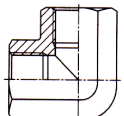
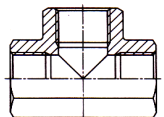
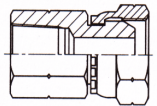
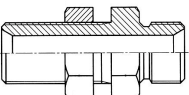
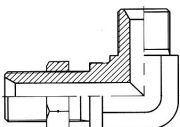
Female Tube Assembly

Female Cone Style

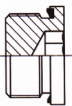
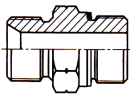
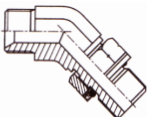
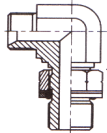
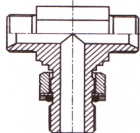
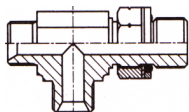
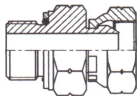
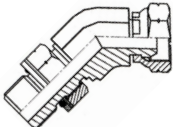
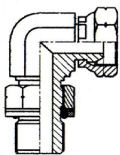
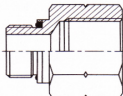
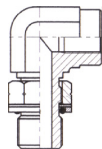
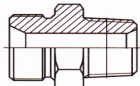
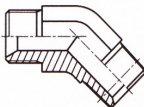
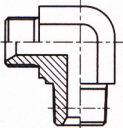
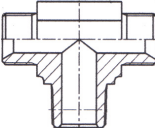
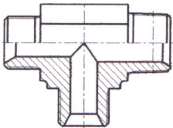
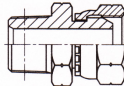
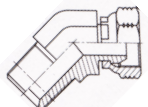
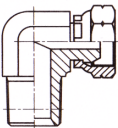
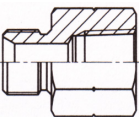
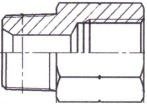
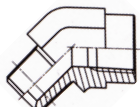
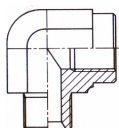
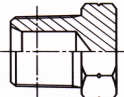
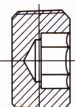
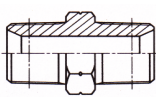
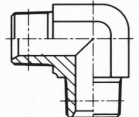
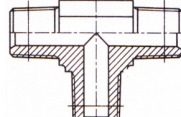
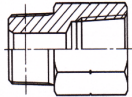
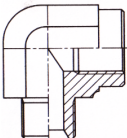
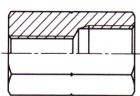
Female O-Ring Cone Style

| Tube<br>Pipe<br>O.D. | DIN LL<br><b>A</b> |           | DIN L<br><b>C</b> |           | DIN S<br><b>D</b> |           | Millimetrique<br><b>X</b> |           | GAZ<br><b>Y</b> |           | JIS<br><b>Z</b> |           |
|----------------------|--------------------|-----------|-------------------|-----------|-------------------|-----------|---------------------------|-----------|-----------------|-----------|-----------------|-----------|
|                      | O.D. & Pitch       | Fem. I.D. | O.D. & Pitch      | Fem. I.D. | O.D. & Pitch      | Fem. I.D. | O.D. & Pitch              | Fem. I.D. | O.D. & Pitch    | Fem. I.D. | O.D. & Pitch    | Fem. I.D. |
| 4                    | 8x1.0              | 6.5       | °                 | °         | °                 | °         | °                         | °         | °               | °         | °               | °         |
| 6                    | 10x1.0             | 8.5       | 12x1.5            | 10.5      | 14x1.5            | 12.5      | 12x1.0                    | 11        | °               | °         | 12x1.5          | 10.5      |
| 8                    | 12x1.0             | 10.5      | 14x1.5            | 12.5      | 16x1.5            | 14.5      | 14x1.5                    | 12.5      | °               | °         | 14x1.5          | 12.5      |
| 10                   | 14x1.0             | 12.5      | 16x1.5            | 14.5      | 18x1.5            | 16.5      | 16x1.5                    | 14.5      | °               | °         | 16x1.5          | 14.5      |
| 10.5                 | °                  | °         | °                 | °         | °                 | °         | °                         | °         | °               | °         | 16x1.5          | 14.5      |
| 12                   | 16x1.0             | 14.5      | 18x1.5            | 16.5      | 20x1.5            | 18.5      | 18x1.5                    | 16.5      | °               | °         | 18x1.5          | 16.5      |
| 13.25                | °                  | °         | °                 | °         | °                 | °         | °                         | °         | 20x1.5          | 18.5      | °               | °         |
| 13.8                 | °                  | °         | °                 | °         | °                 | °         | °                         | °         | °               | °         | 20x1.5          | 18.5      |
| 14                   | °                  | °         | °                 | °         | 22x1.5            | 20.5      | 20x1.5                    | 18.5      | °               | °         | °               | °         |
| 15                   | °                  | °         | 22x1.5            | 20.5      | °                 | °         | 22x1.5                    | 20.5      | °               | °         | 22x1.5          | 20.5      |
| 16                   | °                  | °         | °                 | °         | 24x1.5            | 22.5      | 24x1.5                    | 22.5      | °               | °         | 24x1.5          | 22.5      |
| 16.75                | °                  | °         | °                 | °         | °                 | °         | °                         | °         | 24x1.5          | 22.5      | °               | °         |
| 17.3                 | °                  | °         | °                 | °         | °                 | °         | °                         | °         | °               | °         | 26x1.5          | 24.5      |
| 18                   | °                  | °         | 26x1.5            | 24.5      | °                 | °         | 27x1.5                    | 25.5      | °               | °         | 26x1.5          | 24.5      |
| 20                   | °                  | °         | °                 | °         | 30x2.0            | 28        | 27x1.5                    | 25.5      | °               | °         | 28x1.5          | 26.5      |
| 21.25                | °                  | °         | °                 | °         | °                 | °         | °                         | °         | 30x1.5          | 28        | °               | °         |
| 21.7                 | °                  | °         | °                 | °         | °                 | °         | °                         | °         | °               | °         | 30x1.5          | 28        |
| 22                   | °                  | °         | 30x2.0            | 28        | °                 | °         | 30x1.5                    | 28        | °               | °         | 30x1.5          | 28        |
| 25                   | °                  | °         | °                 | °         | 36x2.0            | 34        | 33x1.5                    | 30        | °               | °         | 35x1.5          | 33        |
| 26.75                | °                  | °         | °                 | °         | °                 | °         | °                         | °         | 36x1.5          | 34        | °               | °         |
| 27.2                 | °                  | °         | °                 | °         | °                 | °         | °                         | °         | °               | °         | 38x1.5          | 36        |
| 28                   | °                  | °         | 36x2.0            | 34        | °                 | °         | 36x1.5                    | 34        | °               | °         | 38x1.5          | 36        |
| 30                   | °                  | °         | °                 | °         | 42x2.0            | 40        | 39x1.5                    | 37        | °               | °         | 40x1.5          | 38        |
| 32                   | °                  | °         | °                 | °         | °                 | °         | 42x1.5                    | 40        | °               | °         | 42x1.5          | 40        |
| 33.5                 | °                  | °         | °                 | °         | °                 | °         | °                         | °         | 45x1.5          | 43        | °               | °         |
| 34                   | °                  | °         | °                 | °         | °                 | °         | °                         | °         | °               | °         | 45x1.5          | 43        |
| 35                   | °                  | °         | 45x2.0            | 43        | °                 | °         | 45x1.5                    | 43        | °               | °         | 45x1.5          | 43        |
| 38                   | °                  | °         | °                 | °         | 52x2.0            | 50        | 48x1.5                    | 46        | °               | °         | 48x1.5          | 43        |
| 40                   | °                  | °         | °                 | °         | °                 | °         | 52x1.5                    | 50        | °               | °         | 52x2.0          | 50        |
| 42                   | °                  | °         | 52x2.0            | 50        | °                 | °         | °                         | °         | °               | °         | 52x2.0          | 50        |
| 42.25                | °                  | °         | °                 | °         | °                 | °         | °                         | °         | 52x1.5          | 50        | °               | °         |
| 42.7                 | °                  | °         | °                 | °         | °                 | °         | °                         | °         | °               | °         | 56x2.0          | 54        |
| 45                   | °                  | °         | °                 | °         | °                 | °         | 54x2.0                    | 52        | °               | °         | °               | °         |
| 48                   | °                  | °         | °                 | °         | °                 | °         | 58x2.0                    | 55        | °               | °         | °               | °         |
| 48.25                | °                  | °         | °                 | °         | °                 | °         | °                         | °         | 58x2.0          | 55        | °               | °         |
| 48.6                 | °                  | °         | °                 | °         | °                 | °         | °                         | °         | °               | °         | 64x2.0          | 62        |
| 50                   | °                  | °         | °                 | °         | °                 | °         | °                         | °         | °               | °         | 64x2.0          | 62        |

# BSPP (60° Seat)

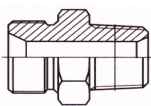
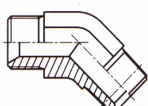
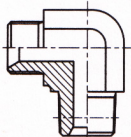
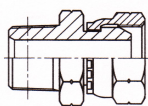
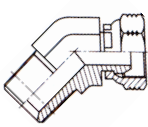
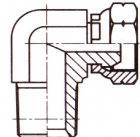
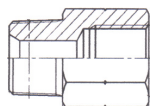
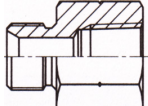
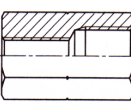
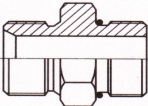
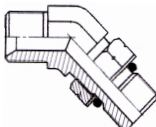
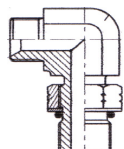
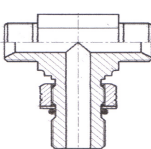
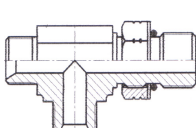
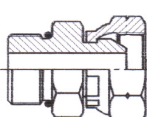
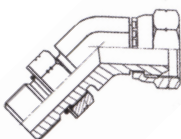
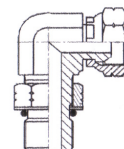
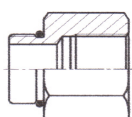
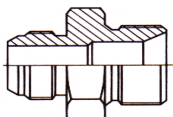
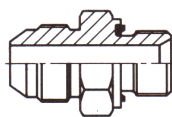
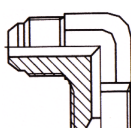
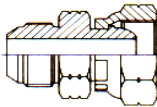
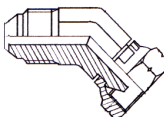
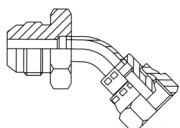
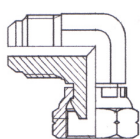
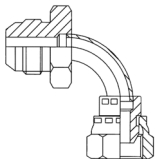
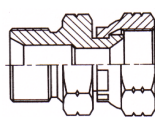
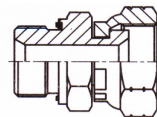
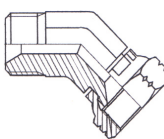
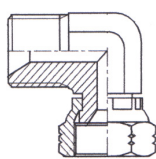
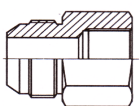
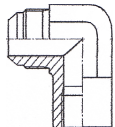
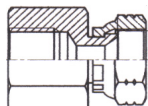
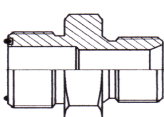
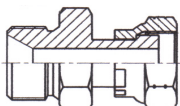
|                                                                                                                                           |                                                                                                                                                 |                                                                                                                                                       |                                                                                                                                          |                                                                                                                                                        |                                                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>0CB</p>  <p>BSPP Female Cap<br/>60° Cone Seat</p>     | <p>0PB</p>  <p>BSPP Male Plug<br/>60° Cone Seat</p>            | <p>0PB-WD</p>  <p>BSPP Male Plug Dual<br/>Purpose (Captive Seal)</p> | <p>10BB</p>  <p>BSPP Male<br/>Union 60° Seats</p>      | <p>10BB-WD</p>  <p>BSPP Male Union 60°<br/>Seats + Captive Seal</p> | <p>14BB</p>  <p>BSPP Male<br/>Union 45°</p>                    |
| <p>19BB</p>  <p>BSPP Male<br/>Union 90°</p>              | <p>ABBB</p>  <p>BSPP Male<br/>Union Tee</p>                    | <p>XBBB</p>  <p>BSPP Male<br/>Union Cross</p>                        | <p>20BB</p>  <p>BSPP Male<br/>x Female Swivel</p>      | <p>24BB</p>  <p>BSPP Male<br/>x Female Swivel 45°</p>               | <p>24BB-T</p>  <p>BSPP Male x Fem<br/>Swivel 45° Tube Type</p> |
| <p>29BB</p>  <p>BSPP Male<br/>x Female Swivel 90°</p>    | <p>29BB-T</p>  <p>BSPP Male x Fem<br/>Swivel 90° Tube Type</p> | <p>BBBB</p>  <p>BSPP Female Swivel<br/>Branch Tee</p>                | <p>CBBB</p>  <p>BSPP Female Swivel<br/>Run Tee</p>     | <p>EBBB</p>  <p>BSPP Male<br/>Branch Tee</p>                        | <p>FBBB</p>  <p>BSPP Male<br/>Run Tee</p>                      |
| <p>30BB</p>  <p>BSPP Female<br/>Swivel Union</p>       | <p>34BB</p>  <p>BSPP Female<br/>Swivel Union 45°</p>         | <p>34BB-T</p>  <p>BSPP Fem Swivel<br/>Union 45° Tube</p>           | <p>39BB</p>  <p>BSPP Female<br/>Swivel Union 90°</p> | <p>39BB-T</p>  <p>BSPP Fem Swivel<br/>Union 90° Tube</p>          | <p>DBBB</p>  <p>BSPP Fem Swivel<br/>Union Tee</p>            |
| <p>YBBB</p>  <p>BSPP Fem Swivel<br/>Cross</p>          | <p>50BB</p>  <p>BSPP Male x<br/>Female Rigid</p>             | <p>50BB-WD</p>  <p>BSPP Male x Female<br/>Rigid + Captive Seal</p> | <p>59BB</p>  <p>BSPP Male x<br/>Female Rigid 90°</p>  | <p>70BB</p>  <p>BSPP Female<br/>Rigid Coupling</p>                | <p>74BB</p>  <p>BSPP Female Rigid<br/>Coupling 45°</p>       |
| <p>79BB</p>  <p>BSPP Female Rigid<br/>Coupling 90°</p> | <p>GBBB</p>  <p>BSPP Female Rigid<br/>Coupling 90°</p>       | <p>40BB</p>  <p>BSPP Female Rigid<br/>x Female Swivel</p>          | <p>60BB</p>  <p>BSPP Male<br/>Bulkhead Union</p>     | <p>69BB</p>  <p>BSPP Male<br/>Bulkhead Union 90°</p>              | <p>OLNB</p>  <p>BSPP Male<br/>Bulkhead Locknut</p>           |

# BSPP (60° Seat) ○ BSPP Port ○ BSPT

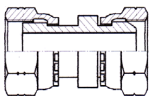
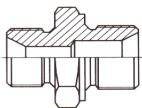
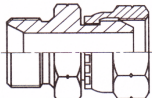
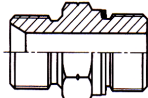
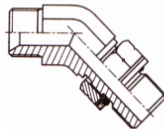
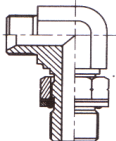
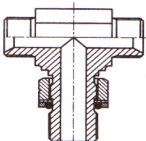
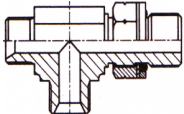
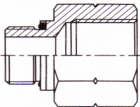
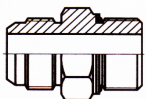
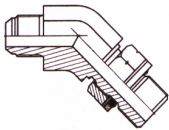
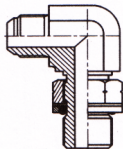
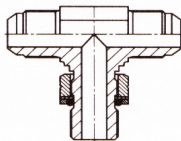
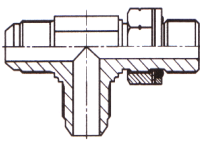
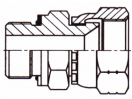
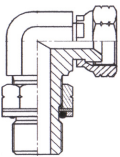
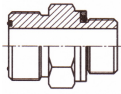
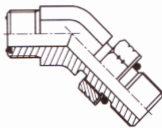
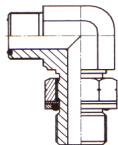
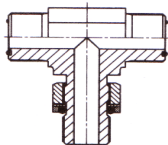
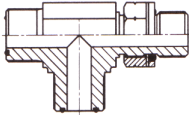
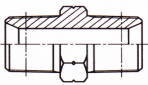
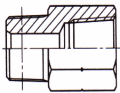
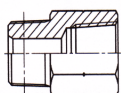
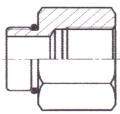
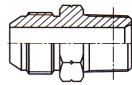
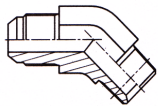
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|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <p>OPHG-WD</p>  <p>BSPP Male Port Plug with Captive Seal</p> | <p>10BG</p>  <p>BSPP Male 60° x BSPP Male Port</p>       | <p>14BG</p>  <p>BSPP Male 60° x BSPP Male Adj. 45°</p>  | <p>19BG</p>  <p>BSPP Male 60° x BSPP Male Adj. 90°</p> | <p>ABBG</p>  <p>BSPP Male 60° x BSPP Male Adj. Branch Tee</p> | <p>ABGB</p>  <p>BSPP Male 60° x BSPP Male Adj. Run Tee</p> |
| <p>20GB</p>  <p>BSPP Male Port x BSPP Female Swivel</p>      | <p>24GB</p>  <p>BSPP Male 60° x BSPP Female Swivel</p>   | <p>29GB</p>  <p>BSPP Male 60° x BSPP Female Swivel</p>  | <p>50GB</p>  <p>BSPP Port Male x Female Rigid</p>      | <p>59GB</p>  <p>BSPP Port Adj. Male x Female Rigid 90°</p>    |                                                                                                                                               |
| <p>10BT</p>  <p>BSPP Male x BSPT Male</p>                    | <p>14BT</p>  <p>BSPP Male x BSPT Male 45°</p>            | <p>19BT</p>  <p>BSPP Male x BSPT Male 90°</p>           | <p>ABBT</p>  <p>BSPP Male x BSPT Male Branch Tee</p>  | <p>ABTB</p>  <p>BSPP Male x BSPT Male Run Tee</p>             | <p>20TB</p>  <p>BSPT Male x BSPP Female Swivel</p>         |
| <p>24TB</p>  <p>BSPT Male x BSPP Female Swivel 45°</p>     | <p>29TB</p>  <p>BSPT Male x BSPP Female Swivel 45°</p> | <p>50BT</p>  <p>BSPP Male 60° x BSPT Female Rigid</p> | <p>50TB</p>  <p>BSPT Male x BSPP Female Rigid</p>   | <p>54TB</p>  <p>BSPT Male x BSPP Female Rigid 45°</p>       | <p>59TB</p>  <p>BSPT Male x BSPP Female Rigid 90°</p>    |
| <p>OPT</p>  <p>BSPT Male Plug</p>                          | <p>OPHT</p>  <p>BSPT Male Plug Allen-type</p>          | <p>10TT</p>  <p>BSPT Male Nipple</p>                  | <p>19TT</p>  <p>BSPT Male Union 90°</p>             | <p>ATTT</p>  <p>BSPT Male Tee</p>                           | <p>50TT</p>  <p>BSPT Male x Female Rigid</p>             |
| <p>59TT</p>  <p>BSPT Male x Female Rigid 90°</p>           | <p>70TT</p>  <p>BSPT Female Coupling</p>               |                                                                                                                                          |                                                                                                                                         |                                                                                                                                                  |                                                                                                                                               |



# BSPP (60° Seat & Rigid Female) Conversion Adapters

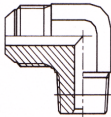
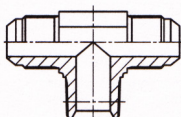
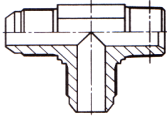
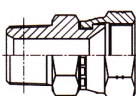
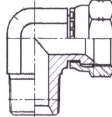
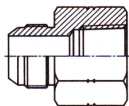
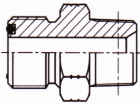
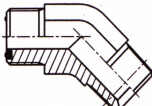
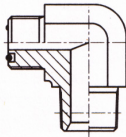
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| <p>10BN</p>  <p>BSPP Male x<br/>NPT Male</p>                | <p>14BN</p>  <p>BSPP Male x<br/>NPT Male 45°</p>                     | <p>19BN</p>  <p>BSPP Male x<br/>NPT Male 90°</p>             | <p>20NB</p>  <p>NPT Male x BSPP<br/>Female Swivel</p>                    | <p>24NB</p>  <p>NPT Male x BSPP<br/>Female Swivel 45°</p>     | <p>29NB</p>  <p>NPT Male x BSPP<br/>Female Swivel 90°</p>        |
| <p>50NB</p>  <p>NPT Male x BSPP<br/>Female Rigid</p>        | <p>50BN</p>  <p>BSPP Male x NPT<br/>Female Rigid</p>                 | <p>70BN</p>  <p>BSPP Female x NPT<br/>Female Rigid</p>       | <p>10BO</p>  <p>BSPP Male x SAE<br/>O-Ring Male</p>                      | <p>14BO</p>  <p>BSPP Male x SAE<br/>O-Ring Male 45°</p>       | <p>19BO</p>  <p>BSPP Male x SAE<br/>O-Ring Male 90°</p>          |
| <p>ABBO</p>  <p>BSPP Male x SAE<br/>O-Ring Male Br Tee</p>  | <p>ABOB</p>  <p>BSPP Male x SAE<br/>O-Ring Male Run Tee</p>          | <p>20OB</p>  <p>SAE Male O-Ring x<br/>BSPP Female Swivel</p> | <p>24OB</p>  <p>SAE Male O-Ring x<br/>BSPP Fem Swivel 45°</p>            | <p>29OB</p>  <p>SAE Male O-Ring x<br/>BSPP Fem Swivel 90°</p> | <p>50OB</p>  <p>SAE Male O-Ring x<br/>BSPP Female Rigid</p>      |
| <p>10JB</p>  <p>JIC Male x BSPP<br/>Male 60°</p>          | <p>10JB-WD</p>  <p>JIC Male x BSPP Male<br/>60° + Captive Seal</p> | <p>19JB</p>  <p>JIC Male x BSPP<br/>Male 90°</p>           | <p>20JB</p>  <p>JIC Male x BSPP<br/>Female Swivel</p>                  | <p>24JB</p>  <p>JIC Male x BSPP<br/>Female Swivel 45°</p>   | <p>24JB-T</p>  <p>JIC Male x BSPP<br/>Fem Swivel 45° Swept</p> |
| <p>29JB</p>  <p>JIC Male x BSPP<br/>Female Swivel 90°</p> | <p>29JB-T</p>  <p>JIC Male x BSPP<br/>Fem Swivel 90° Swept</p>     | <p>20BJ</p>  <p>BSPP Male x<br/>JIC Fem Swivel</p>         | <p>20BJ-WD</p>  <p>BSPP Male (+ Captive<br/>Seal) x JIC Fem Swivel</p> | <p>24BJ</p>  <p>BSPP Male x JIC<br/>Fem Swivel 45°</p>      | <p>29BJ</p>  <p>BSPP Male x JIC<br/>Fem Swivel 90°</p>         |
| <p>30JB</p>  <p>JIC Female x<br/>BSPP Swivel Union</p>    | <p>50JB</p>  <p>JIC Male x<br/>BSPP Female Rigid</p>               | <p>59JB</p>  <p>JIC Male x BSPP<br/>Female Rigid 90°</p>   | <p>40BJ</p>  <p>BSPP Female Rigid x<br/>JIC Female Swivel</p>          | <p>10FB</p>  <p>ORS Male x BSPP<br/>Male 60°</p>            | <p>20BF</p>  <p>BSPP Male 60° x<br/>ORS Female Swivel</p>      |

# BSPP, BSPP Port & BSPT Conversion Adapters

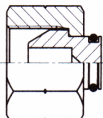
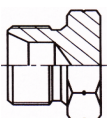
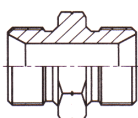
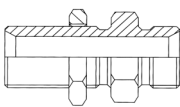
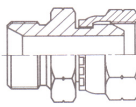
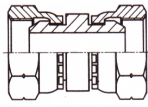
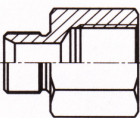
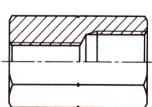
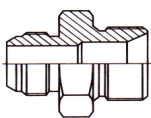
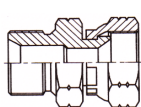
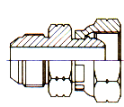
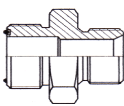
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|----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>30FB</p>  <p>ORS x BSPP Female Swivel Union</p>          | <p>10BM</p>  <p>BSPP 60° Male x Metric Male</p>               | <p>10BM-WD</p>  <p>BSPP 60° Male x Metric (Captive Seal)</p> | <p>20MB</p>  <p>Metric Male x BSPP Female Swivel</p>     | <p>10BH</p>  <p>BSPP 60° Male x Metric Port Male</p>          | <p>14BH</p>  <p>BSPP 60° Male x Metric Port Adj. M 45°</p>   |
| <p>19BH</p>  <p>BSPP Male x Metric Port Adj. Male 90°</p>   | <p>ABBH</p>  <p>BSPP Male x Metric Port Adj. Male Br Tee</p>  | <p>ABHB</p>  <p>BSPP Male x Metric Port Adj. M Run Tee</p>   | <p><i>* All "B" Male Threads have 60° seat</i></p>                                                                                         |                                                                                                                                                  |                                                                                                                                                 |
| <p>50GN</p>  <p>BSPP Port Male Port x NPT Female Rigid</p>  | <p>10JG</p>  <p>JIC Male x BSPP Port Male</p>                 | <p>14JG</p>  <p>JIC Male x BSPP Port Adj. Male 45°</p>       | <p>19JG</p>  <p>JIC Male x BSPP Port Adj. Male 90°</p>    | <p>AJJG</p>  <p>JIC Male x BSPP Port Adj. Male Branch Tee</p> | <p>AJGJ</p>  <p>JIC Male x BSPP Port Adj. Male Run Tee</p>   |
| <p>20GJ</p>  <p>BSPP Male Port x JIC Female Swivel</p>    | <p>29GJ</p>  <p>BSPP Male Adj. Port x JIC Female Swivel</p> | <p>10FG</p>  <p>ORS Male x BSPP Port Male</p>              | <p>14FG</p>  <p>ORS Male x BSPP Port Adj. Male 45°</p> | <p>19FG</p>  <p>ORS Male x BSPP Port Adj. Male 90°</p>      | <p>AFFG</p>  <p>ORS Male x BSPP Port Adj. Male Br. Tee</p> |
| <p>AFGF</p>  <p>ORS Male x BSPP Port Adj. Male Run Tee</p> | <p><i>* All "G" Threads come with O-Ring / Washer combination for external port sealing</i></p>                                                |                                                                                                                                               |                                                                                                                                            |                                                                                                                                                  |                                                                                                                                                 |
| <p>10NT</p>  <p>NPT Male x BSPT Male</p>                  | <p>50TN</p>  <p>BSPT Male x NPT Female Rigid</p>            | <p>50NT</p>  <p>NPT Male x BSPT Female Rigid</p>           | <p>50OT</p>  <p>SAE O-Ring Male x BSPT Female Rigid</p> | <p>10JT</p>  <p>JIC Male x BSPT Male</p>                    | <p>14JT</p>  <p>JIC Male x BSPT Male 45°</p>               |



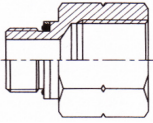
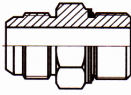
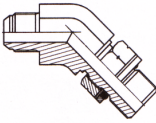
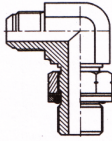
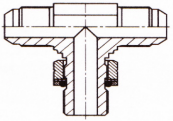
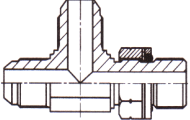
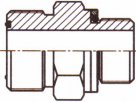
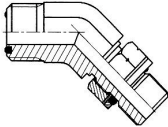
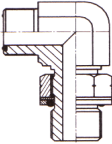
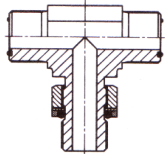
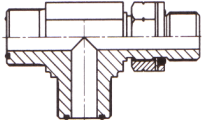
## BSPT Conversion ○ Metric (60° Seat)

|                                                                                                                                   |                                                                                                                                          |                                                                                                                                       |                                                                                                                                         |                                                                                                                                              |                                                                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| <p>19JT</p>  <p>JIC Male x BSPT<br/>Male 90°</p> | <p>AJJT</p>  <p>JIC Male x BSPT<br/>Male Branch Tee</p> | <p>AJTJ</p>  <p>JIC Male x BSPT<br/>Male Run Tee</p> | <p>20TJ</p>  <p>BSPT Male x<br/>JIC Female Swivel</p> | <p>29TJ</p>  <p>BSPT Male x JIC<br/>Female Swivel 90°</p> | <p>50JT</p>  <p>JIC Male x BSPT<br/>Female Rigid</p> |
| <p>10FT</p>  <p>ORS Male x<br/>BSPT Male</p>     | <p>14FT</p>  <p>ORS Male x<br/>BSPT Male 45°</p>        | <p>19FT</p>  <p>ORS Male x<br/>BSPT Male 90°</p>     |                                                                                                                                         |                                                                                                                                              |                                                                                                                                         |

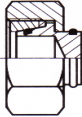
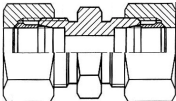
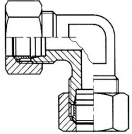
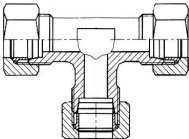
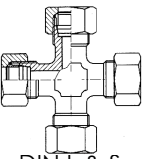
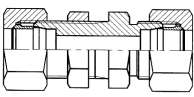
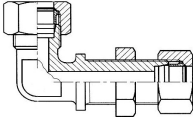
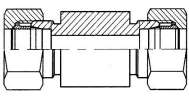
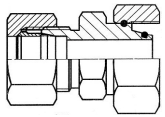
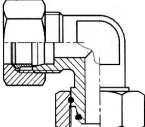
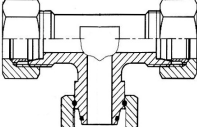
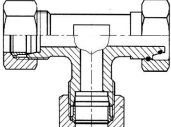
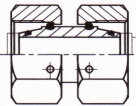
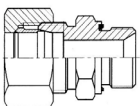
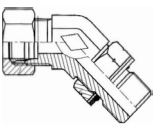
## Metric (60° Seat and Rigid Female)

|                                                                                                                                           |                                                                                                                                          |                                                                                                                                   |                                                                                                                                                      |                                                                                                                                              |                                                                                                                                              |
|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| <p>0CM</p>  <p>Metric 60° Cone<br/>Seat Female Cap</p> | <p>0PM</p>  <p>Metric 60° Cone<br/>Seat Male Plug</p> | <p>10MM</p>  <p>Metric Male<br/>Union</p>      | <p>60MM</p>  <p>Metric Male<br/>Bulkhead Union</p>               | <p>20MM</p>  <p>Metric Male x<br/>Female Swivel</p>     | <p>30MM</p>  <p>Metric Female<br/>Swivel Union</p>      |
| <p>50MM</p>  <p>Metric Male x<br/>Female Rigid</p>     | <p>70MM</p>  <p>Metric Female<br/>Coupling Rigid</p>  | <p>10JM</p>  <p>JIC Male x Metric<br/>Male</p> | <p>10JM-WD</p>  <p>JIC Male x Metric<br/>Male + Captive Seal</p> | <p>20MJ</p>  <p>Metric Male x<br/>Female JIC Swivel</p> | <p>20JM</p>  <p>JIC Male x Metric<br/>Female Swivel</p> |
| <p>10FM</p>  <p>ORS Male x<br/>Metric 60° Male</p>     |                                                                                                                                          |                                                                                                                                   |                                                                                                                                                      |                                                                                                                                              |                                                                                                                                              |

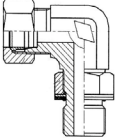
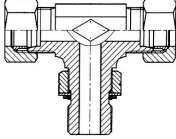
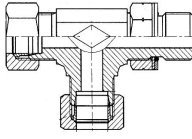
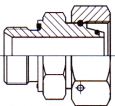
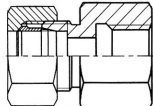
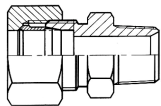
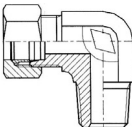
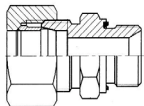
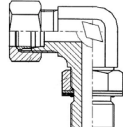
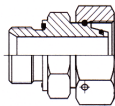
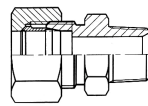
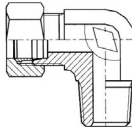
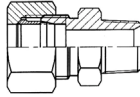
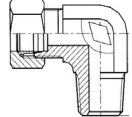
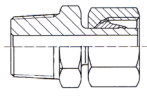
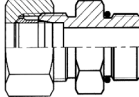
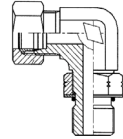
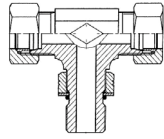
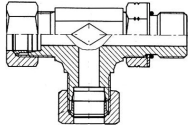
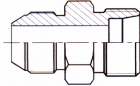
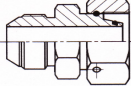
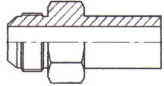
## Metric Port ○ DIN 12° Seat

|                                                                                                                                         |                                                                                                                                     |                                                                                                                                      |                                                                                                                                       |                                                                                                                                            |                                                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| OPHH-WD<br><br>Metric Port Plug<br>(Captive Seal)      | 50HN<br><br>Metric Port Male x<br>NPT Female Rigid | 10JH<br><br>JIC Male x Metric<br>Port Male          | 14JH<br><br>JIC Male x Metric<br>Port Male Adj. 45° | 19JH<br><br>JIC Male x Metric<br>Port Male Adj. 90°     | AJJH<br><br>JIC Male x Metric<br>Port Male Adj. Br. Tee |
| AJHJ<br><br>JIC Male x Metric<br>Port Male Adj. Run Tee | 10FH<br><br>ORS Male x<br>Metric Port Male         | 14FH<br><br>ORS Male x Metric<br>Port Male Adj. 45° | 19FH<br><br>ORS Male x Metric<br>Port Male Adj. 90°  | AFFH<br><br>ORS Male x Metric<br>Port Male Adj. BR. Tee | AFHF<br><br>ORS Male x Metric<br>Port Male Adj. Run Tee |

## DIN Bite-Type 12° Seat

|                                                                                                                                               |                                                                                                                                              |                                                                                                                                           |                                                                                                                                              |                                                                                                                                                       |                                                                                                                                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| OSA, OSC<br>OSD<br><br>DIN LL, L & S<br>Metric Bite Sleeve | ONA, ONC<br>OND<br><br>DIN LL, L & S<br>Metric Tube Nut   | OCA, OCC<br>OCD<br><br>DIN LL, L & S<br>Female Cap     | OPA, OPC<br>OPD<br><br>DIN LL, L & S<br>Male Plug         | 10AA, 10CC<br>10DD<br><br>DIN LL, L & S<br>Tube Union            | 19AA, 19CC<br>19DD<br><br>DIN LL, L & S<br>Tube Union 90° |
| AAAA, ACCC<br>ADDD<br><br>DIN LL, L & S<br>Tube Union Tee   | XCCCC<br>XDDDD<br><br>DIN L & S<br>Tube Union Cross       | 60CC<br>60DD<br><br>DIN L & S Tube<br>Bulkhead Union   | 69CC<br>69DD<br><br>DIN L & S Tube<br>Bulkhead Union 90° | 60CC-W<br>60DD-W<br><br>DIN L & S Tube Weld<br>Bulkhead Union    | 20CC<br>20DD<br><br>DIN L & S Tube<br>Reducer / Increaser |
| 29CC<br>29DD<br><br>DIN L & S<br>Female Swivel 90°         | BCCC<br>BDDD<br><br>DIN L & S Female<br>Swivel Branch Tee | CCCC<br>CDDD<br><br>DIN L & S Female<br>Swivel Run Tee | 30CC<br>30DD<br><br>DIN L & S Female<br>Swivel Union     | 10AB, 10CB<br>10DB-WD<br><br>DIN LL, L & S x BSPP<br>Male w/Seal | 14CG<br>14DG<br><br>DIN L & S x BSPP<br>Male Adj. 45°     |

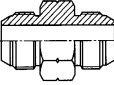
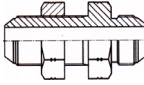
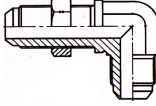
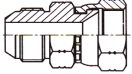
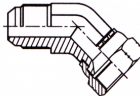
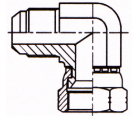
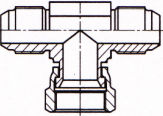
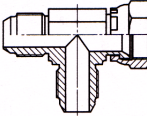
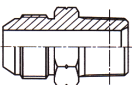
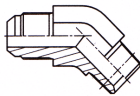
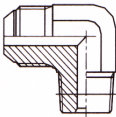
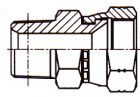
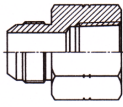
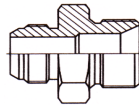
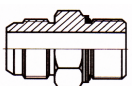
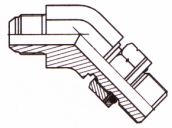
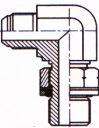
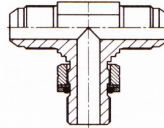
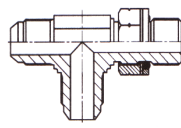
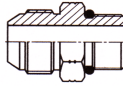
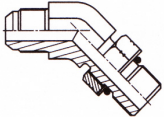
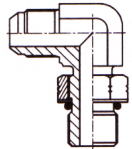
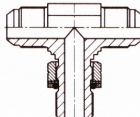
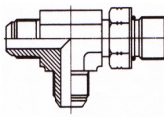
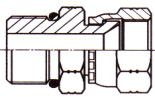
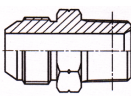
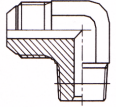
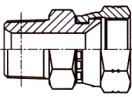
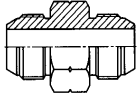
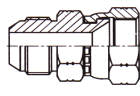
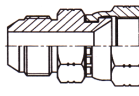
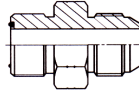
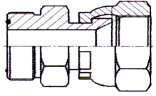
# DIN Bite-Type 12° Seat

|                                                                                                                                                                 |                                                                                                                                                             |                                                                                                                                                                      |                                                                                                                                                                      |                                                                                                                                                              |                                                                                                                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>19CG<br/>19DG</p>  <p>DIN L &amp; S x BSPP<br/>Male Adj. 90°</p>            | <p>ACCG<br/>ADDG</p>  <p>DIN L &amp; S x BSPP<br/>Male Adj. Branch Tee</p> | <p>ACGC<br/>ADGD</p>  <p>DIN L &amp; S x BSPP<br/>Male Adj. Run Tee</p>             | <p>20BC-WD<br/>20BD-WD</p>  <p>DIN L &amp; S Fem Swivel<br/>x BSPP Male w/ Seal</p> | <p>50CB<br/>50DB</p>  <p>DIN L &amp; S x<br/>BSPP Female Rigid</p>        | <p>10AT, 10CT<br/>10DT</p>  <p>DIN L &amp; S x<br/>BSPT Male</p>              |
| <p>19AT, 19CT<br/>19DT</p>  <p>DIN L &amp; S x<br/>BSPT Male 90°</p>           | <p>10CM-WD<br/>10DM-WD</p>  <p>DIN L &amp; S x Metric<br/>Port Male</p>    | <p>19CH<br/>19DH</p>  <p>DIN L &amp; S x Metric<br/>Port Adj. Male 90°</p>          | <p>20MC-WD<br/>20MD-WD</p>  <p>Metric Port Male x<br/>DIN L &amp; S Swivel</p>      | <p>10AI<br/>10CI</p>  <p>DIN LL &amp; L x Metric<br/>Tapered Male</p>     | <p>19AI<br/>19CI</p>  <p>DIN LL &amp; L x Metric<br/>Tapered Male 90°</p>     |
| <p>10AN, 10CN<br/>10DN</p>  <p>DIN LL, L &amp; S x<br/>NPT Male</p>            | <p>19CN<br/>19DN</p>  <p>DIN L &amp; S x<br/>NPT Male 90°</p>              | <p>20NC<br/>20ND</p>  <p>NPT Male x DIN L &amp; S<br/>DIN Female Swivel</p>         | <p>10CO<br/>10DO</p>  <p>DIN L &amp; S x<br/>SAE Male O-Ring</p>                   | <p>19CO<br/>19DO</p>  <p>DIN L &amp; S x SAE Male<br/>O-Ring Adj. 90°</p> | <p>ACCO<br/>ADDO</p>  <p>DIN L &amp; S x SAE Male<br/>O-Ring Adj. Br. Tee</p> |
| <p>ACOC<br/>ADOD</p>  <p>DIN L &amp; S x SAE Male<br/>O-Ring Adj. Run Tee</p> | <p>10JA, 10JC<br/>10JD</p>  <p>JIC Male x DIN<br/>LL, L &amp; S Male</p> | <p>20JA, 20JC<br/>20JD</p>  <p>JIC Male x DIN LL, L<br/>&amp; S Female Swivel</p> | <p>20JV-TS<br/>20JV-TS</p>  <p>JIC Male x<br/>Metric Tube Stub</p>               |                                                                                                                                                              |                                                                                                                                                                  |

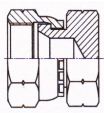
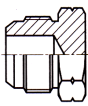
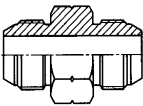
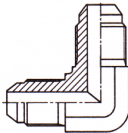
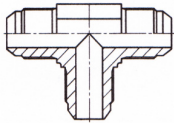
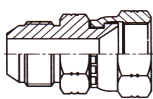
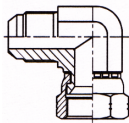
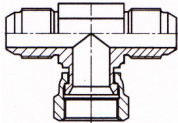
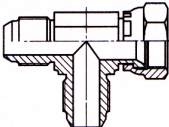
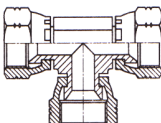
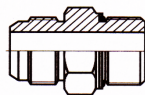
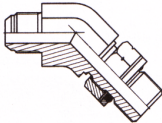
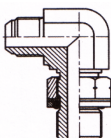
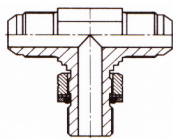
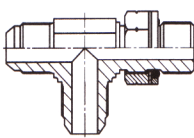
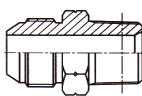
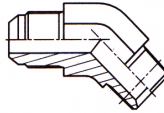
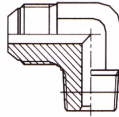
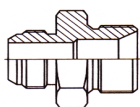
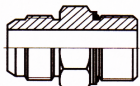
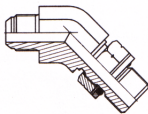
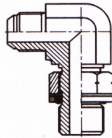
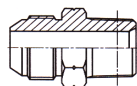
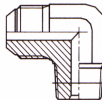
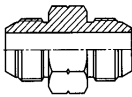
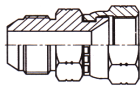
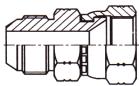
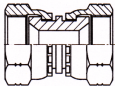
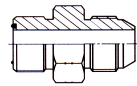
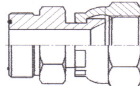
Note: All Female DIN Swivels are DKO type.

JIS Bite-Type Tube Fittings available upon request.

# JIS 30° Flare

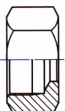
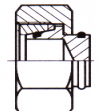
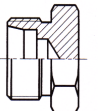
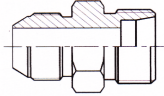
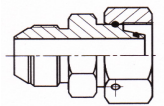
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| <p>0CS</p>  <p>JIS Female Cap</p>                           | <p>0PS</p>  <p>JIS Male Plug</p>                                | <p>10SS</p>  <p>JIS Male Union</p>                           | <p>60SS</p>  <p>JIS Male Bulkhead Union</p>          | <p>69SS</p>  <p>JIS Male Bulkhead Union 90°</p>           | <p>20SS</p>  <p>JIS Male x Female Swivel</p>              |
| <p>24SS</p>  <p>JIS Male x Female Swivel 45°</p>            | <p>29SS</p>  <p>JIS Male x Female Swivel 45°</p>                | <p>BSSS</p>  <p>JIS Male x Female Swivel Branch Tee</p>      | <p>CSSS</p>  <p>JIS Male x Female Swivel Run Tee</p> | <p>10ST</p>  <p>JIS Male x BSPT Male</p>                  | <p>14ST</p>  <p>JIS Male x BSPT Male 45°</p>              |
| <p>19ST</p>  <p>JIS Male x BSPT Male 90°</p>                | <p>20TS</p>  <p>BSPT Male x JIS Female Swivel</p>               | <p>50ST</p>  <p>JIS Male x BSPT Female Rigid</p>             | <p>10SB</p>  <p>JIS Male x BSPP Male 60° Seat</p>    | <p>10SG</p>  <p>JIS Male x BSPP Male Port</p>             | <p>14SG</p>  <p>JIS Male x BSPP Male Port 45°</p>         |
| <p>19SG</p>  <p>JIS Male x BSPP Port Male Adj. 90°</p>    | <p>ASSG</p>  <p>JIS Male x BSPP Port Male Adj. Branch Tee</p> | <p>ASGS</p>  <p>JIS Male x BSPP Port Male Adj. Run Tee</p> | <p>10SO</p>  <p>JIS Male x SAE O-Ring Male</p>      | <p>14SO</p>  <p>JIS Male x SAE O-Ring Male Adj. 45°</p> | <p>19SO</p>  <p>JIS Male x SAE O-Ring Male Adj. 90°</p> |
| <p>ASSO</p>  <p>JIS Male x SAE O-Ring M. Adj. Br. Tee</p> | <p>ASOS</p>  <p>JIS Male x SAE O-Ring M. Adj. Run Tee</p>     | <p>20OS</p>  <p>SAE O-Ring Male x JIS Female Swivel</p>    | <p>10SN</p>  <p>JIS Male x NPT Male</p>             | <p>19SN</p>  <p>JIS Male x NPT Male 90°</p>             | <p>20NS</p>  <p>NPT Male x JIS Female Swivel</p>        |
| <p>10JS</p>  <p>JIC Male x JIS Male</p>                   | <p>20SJ</p>  <p>JIS Male x JIC Female Swivel</p>              | <p>20JS</p>  <p>JIC Male x JIS Female Swivel</p>           | <p>10FS</p>  <p>ORS Male x JIS Male</p>            | <p>20FS</p>  <p>ORS Male x JIS Female Swivel</p>        |                                                                                                                                              |

# KOMATSU®

|                                                                                                                                             |                                                                                                                                            |                                                                                                                                             |                                                                                                                                             |                                                                                                                                         |                                                                                                                                               |
|---------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <p>0CK</p>  <p>KOMATSU® Female Cap</p>                     | <p>0PK</p>  <p>KOMATSU® Male Plug</p>                     | <p>10KK</p>  <p>KOMATSU® Male Union</p>                    | <p>19KK</p>  <p>KOMATSU® Male Union 90°</p>               | <p>AKKK</p>  <p>KOMATSU® Male Union Tee</p>          | <p>20KK</p>  <p>KOMATSU® Male x Female Swivel</p>          |
| <p>29KK</p>  <p>KOMATSU® Male x Female Swivel 90°</p>      | <p>BKKK</p>  <p>KOMATSU® Male x Fem Swivel Br. Tee</p>    | <p>CKKK</p>  <p>KOMATSU® Male x Fem Swivel Run Tee</p>     | <p>DKKK</p>  <p>KOMATSU® Female Swivel Tee</p>            | <p>10KH</p>  <p>KOMATSU® Male x Metric Port Male</p> | <p>14KH</p>  <p>KOMATSU® Male x Metric Port M Adj. 45°</p> |
| <p>19KH</p>  <p>KOMATSU® Male x Metric Port M Adj. 90°</p> | <p>AKKH</p>  <p>KOMATSU® Male x Metric Port M Br. Tee</p> | <p>AKHK</p>  <p>KOMATSU® Male x Metric Port M Run Tee</p>  | <p>10KT</p>  <p>KOMATSU® Male x BSPT Male</p>             | <p>14KT</p>  <p>KOMATSU® Male x BSPT Male 45°</p>    | <p>19KT</p>  <p>KOMATSU® Male x BSPT Male 90°</p>          |
| <p>10KB</p>  <p>KOMATSU® Male x BSPP Male</p>            | <p>10KG</p>  <p>KOMATSU® Male x BSPP Male Port</p>      | <p>14KG</p>  <p>KOMATSU® Male x BSPP M Port Adj. 45°</p> | <p>19KG</p>  <p>KOMATSU® Male x BSPP M Port Adj. 90°</p> | <p>10KN</p>  <p>KOMATSU® Male x NPT Male</p>       | <p>19KN</p>  <p>KOMATSU® Male x NPT Male 90°</p>         |
| <p>10JK</p>  <p>JIC Male x KOMATSU® Male</p>             | <p>20KJ</p>  <p>KOMATSU® Male x JIC Female Swivel</p>   | <p>20JK</p>  <p>JIC Male x KOMATSU® Fem Svl</p>          | <p>30JK</p>  <p>JIC x KOMATSU® Female Swivel</p>         | <p>10FK</p>  <p>ORS Male x KOMATSU® Male</p>       | <p>20FK</p>  <p>ORS Male x KOMATSU® Fem Svl</p>          |



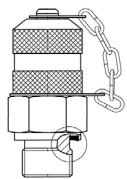
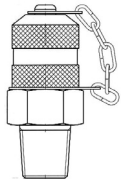
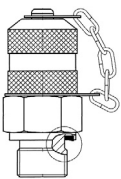
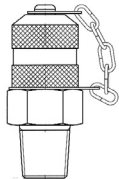
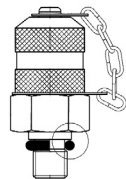
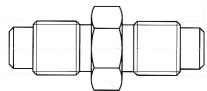
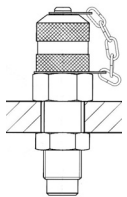
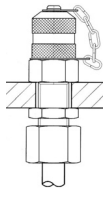
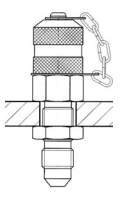
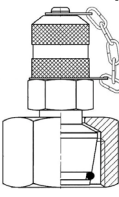
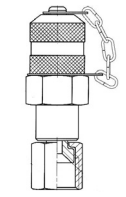
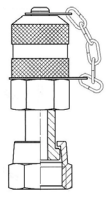
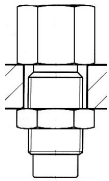
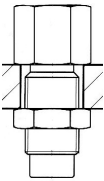
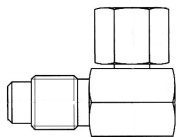
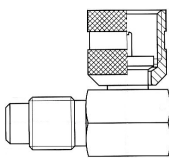
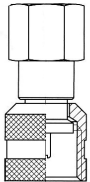
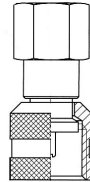
# KOBELCO® (French Millimetric)

|                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| OSX                                                                               | ONX                                                                               | OCX                                                                               | OPX                                                                               | 10JX                                                                                | 20JX                                                                                |
|  |  |  |  |  |  |
| KOBELCO® Metric<br>Tube Bite Sleeve                                               | KOBELCO®<br>Metric Tube Nut                                                       | KOBELCO®<br>Female Cap                                                            | KOBELCO®<br>Male Plug                                                             | JIC Male x<br>KOBELCO® Male                                                         | JIC Male x<br>KOBELCO® Female                                                       |

## O-Rings and Seals

|                                                                                     |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| OOR                                                                                 | FOR                                                                               | UOR                                                                               | SOR                                                                               | DOR                                                                                 | BBS                                                                                 |
|    |  |  |  |  |  |
| SAE<br>O-Ring                                                                       | ORS<br>O-Ring                                                                     | SAE Flange<br>O-Ring                                                              | JIS Port<br>O-Ring                                                                | DIN Cone<br>O-Ring (DKO)                                                            | BSP Bonded<br>Seal                                                                  |
| MBS                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
|  |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
| Metric<br>Bonded Seal                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |

## Micro Test (M16x2.0) ○ Pressure Diagnostic

|                                                                                                                                                      |                                                                                                                                                  |                                                                                                                                                        |                                                                                                                                            |                                                                                                                                              |                                                                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>MT-101G-WD</b><br><br>Micro Test Male x BSPP Male (Captive Seal) | <b>MT-101T</b><br><br>Micro Test Male x BSPT Male               | <b>MT-101H-WD</b><br><br>Micro Test Male x Metric Male (Captive Seal) | <b>MT-101N</b><br><br>Micro Test Male x NPT Male          | <b>MT-101O</b><br><br>Micro Test Male x SAE O-Ring Male   | <b>MT-101I</b><br><br>Micro Test Male Union                 |
| <b>MT-601I</b><br><br>Micro Test Bulkhead Male Union                | <b>MT-601C(D)</b><br><br>Micro Test Bulkhead x Male DIN         | <b>MT-601J</b><br><br>Micro Test Bulkhead Male x JIC Male             | <b>MT-201C(D)</b><br><br>Micro Test Male x DIN Fem Swivel | <b>MT-201J</b><br><br>Micro Test Male x JIC Female Swivel | <b>MT-201F</b><br><br>Micro Test Male x ORS Female Swivel   |
| <b>MT-801N</b><br><br>Micro Test Bulkhead x NPT Female              | <b>MT-801B-G</b><br><br>Micro Test Bulkhead x BSPP Gauge Female | <b>MT-591N</b><br><br>Micro Test Male x NPT Female 90°                | <b>MT-591N</b><br><br>Micro Test Male x NPT Female 90°   | <b>MT-40B1-G</b><br><br>Micro Test Bulkhead x NPT Female  | <b>MT-40N1</b><br><br>NPT Female x Micro Test Female Swivel |

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**[www.wrshose.com](http://www.wrshose.com)**



# Gauges ○ Pressure Diagnostic Kit

|                                                                                   |                                                                                   |                                                                                   |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| G-*-25-D                                                                          | G-*-25-L                                                                          | G-*-25-RC-L                                                                       |
|  |  |  |
| Dry<br>2.5" Face 1/4" NPT                                                         | Liquid Filled<br>2.5" Face 1/4" NPT<br>Up to 15,000psi                            | Liquid Filled<br>2.5" Face 1/4 " NPT<br>Up to 15,000psi                           |

## Pressure Diagnostic Hose Assemblies

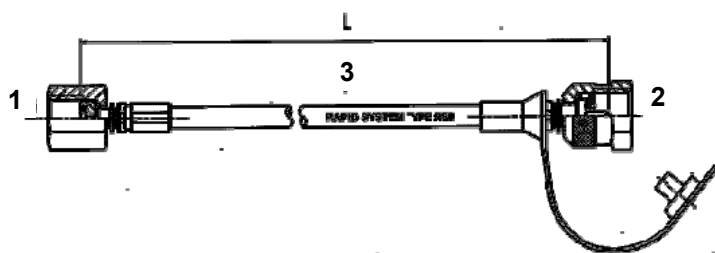
### To order Micro-Test Hose Assemblies

1. End #1
2. End #2
3. Length in inches

**Example:** MTH-4FJX16FMTX-72.00

### **Available Hose Ends (others upon request):**

7/16-20 Female JIC Swivel = 4FJX  
 1/4-19 Female BSPP Swivel = 4FBX  
 M16x2.0 Female Micro-Test Swivel = 16FMTX  
 1/8-18 Male NPT = 4MP  
 1/4-18 Male NPT = 2MP



## Pressure Diagnostic Kits



### **PDK**

Our original Pressure Diagnostic Kit includes an assortment of micro-test fittings, two micro-test hose assemblies and three liquid filled pressure gauges of your choice. Micro-test fittings include NPT, BSPP, BSPT and Parallel Metric Port Threads. Micro-test fittings can be connected under system pressure. Please call (866) 333-5565 for a complete list of parts included.



### **PDK2**

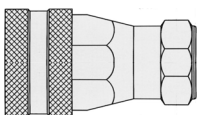
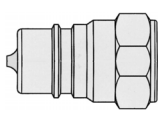
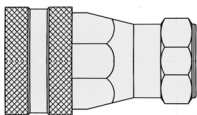
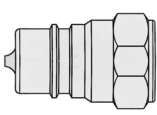
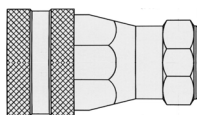
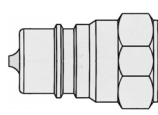
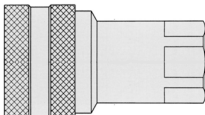
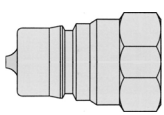
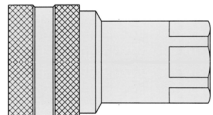
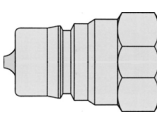
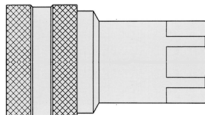
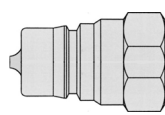
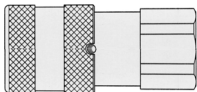
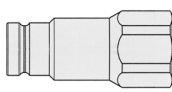
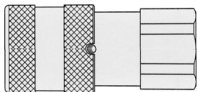
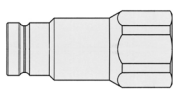
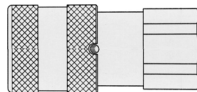
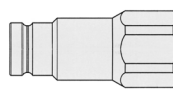
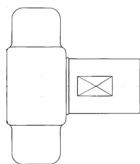
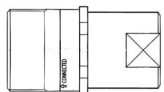
The Pressure Diagnostic Kit 2 includes an assortment of Pressure Diagnostic Quick Disconnect fittings, two micro-test hose assemblies and three liquid filled pressure gauges of your choice. Pressure Diagnostic Quick Disconnects include NPT and SAE O-Ring Threads. Please call (866) 333-5565 for a complete list of parts included.



### **PDK3**

For an assortment of both types of Pressure Diagnostic Fittings, we offer the PDK3. It includes both types fittings in various threads, two hose assemblies and three liquid filled pressure gauges of your choice. Please call (866) 333-5565 for a complete list of parts included.

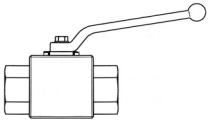
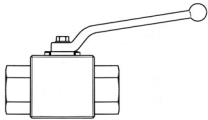
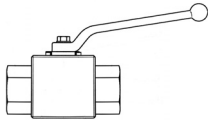
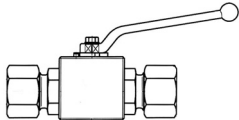
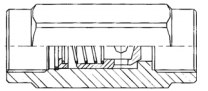
# Hydraulic Quick Disconnects

|                                                                                                                                   |                                                                                                                                |                                                                                                                                          |                                                                                                                                        |                                                                                                                                      |                                                                                                                                   |
|-----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <p>QAFN</p>  <p>ISO A Female<br/>Coupler NPT</p>  | <p>QAMN</p>  <p>ISO A Male<br/>Nipple NPT</p> | <p>QAFO</p>  <p>ISO A Female<br/>Coupler SAE O-Ring</p> | <p>QAMO</p>  <p>ISO A Male<br/>Nipple SAE O-Ring</p> | <p>QAFB</p>  <p>ISO A Female<br/>Coupler BSPP</p> | <p>QAMB</p>  <p>ISO A Male<br/>Nipple BSPP</p> |
| <p>Q-BFN</p>  <p>ISO B Female<br/>Coupler NPT</p> | <p>QBMN</p>  <p>ISO B Male<br/>Nipple NPT</p> | <p>QBFO</p>  <p>ISO B Female<br/>Coupler SAE O-Ring</p> | <p>QBMO</p>  <p>ISO B Male<br/>Nipple SAE O-Ring</p> | <p>QBFB</p>  <p>ISO B Female<br/>Coupler BSPP</p> | <p>QBMB</p>  <p>ISO B Male<br/>Nipple BSPP</p> |
| <p>QFFN</p>  <p>ISO 16028<br/>Coupler NPT</p>     | <p>QFMN</p>  <p>ISO 16028<br/>Coupler NPT</p> | <p>QFFO</p>  <p>ISO 16028<br/>Coupler SAE O-Ring</p>    | <p>QFMO</p>  <p>ISO 16028<br/>Coupler SAE O-Ring</p> | <p>QFFB</p>  <p>ISO 16028<br/>Coupler BSPP</p>    | <p>QFMB</p>  <p>ISO 16028<br/>Coupler BSPP</p> |
| <p>QCPN</p>  <p>Wing Nut<br/>Coupler NPT</p>   | <p>QCPN</p>  <p>Male Nipple<br/>NPT</p>     |                                                                                                                                          |                                                                                                                                        |                                                                                                                                      |                                                                                                                                   |

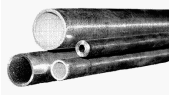
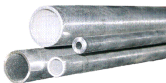
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## Ball Valves ○ Check Valves

|                                                                                                                                                        |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                                                                                                       |                                                                                                                                                                                            |                                                                                                                                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>BV-600-N</b><br><br>600psi WOG<br>Brass Ball Valve<br>1/4" -2" NPT | <b>BV-5M-N</b><br><b>BV-7M-N</b><br><br>5000—7000psi<br>Ball Valve<br>1/4" -1 1/2" NPT | <b>BV-5M-O</b><br><b>BV-7M-O</b><br><br>5000—7000psi<br>Ball Valve<br>1/4" -1 1/2" SAE | <b>BV-5M-B</b><br><b>BV-7M-B</b><br><br>5000—7000psi<br>Ball Valve BSPP<br>1/4" -2" | <b>BV-5M-C(D)</b><br><b>BV-7M-C(D)</b><br><br>5000—7000psi<br>Hyd Ball Valve DIN<br>Bite Type 10mm-42mm | <b>CV-600-N</b><br><br>Hydraulic Check<br>Valve<br>1/4" -2" NPT |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|

## Tubing ○ Tube Clamps

|                                                                                                                                     |                                                                                                                              |                                                                                                                                      |                                                                                                                                                    |                                                                                                                                            |                                                                                                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| <b>HHB</b><br><br>Hex Head Bolt                   | <b>CS</b><br><br>Cap Screw                 | <b>WP</b><br><br>Weld Plate                         | <b>CP</b><br><br>Cover Plate                                     | <b>CPP</b><br><br>Polypropylene<br>Clamp Halves         | <b>CPP3</b><br><br>Complete<br>Clamp Set         |
| <b>SB</b><br><br>Stacking Bolt                   | <b>TB</b><br><br>Twin Clamp Bolt          | <b>TWP</b><br><br>Twin Weld Plate                 | <b>TCP</b><br><br>Twin Cover Plate                             | <b>TCPP</b><br><br>Twin Polypropylene<br>Clamp Halves | <b>TCPP3</b><br><br>Complete Twin<br>Clamp Set |
| <b>TS</b><br><br>Carbon Steel<br>Seamless Tubing | <b>TSS</b><br><br>S316 Seamless<br>Tubing | <b>TS-mm</b><br><br>Carbon Steel<br>Metric Tubing | <b>TSS-mm</b><br><br>S316L/Ti Stainless<br>Steel Metric Tubing |                                                                                                                                            |                                                                                                                                     |

# Standard Plug / Cap Assortments

Our Portable Plug / Cap, Seal and Conversion Adapter Assortments are offered in plastic or metal bin boxes with a laminated legend / thread chart for quick identification.

## A-JIC-PC1

BSPP\* Plug & Cap Assortment



0PJ Series

0CJ Series

| Qty | Plug Numbers | Qty | Cap Numbers |
|-----|--------------|-----|-------------|
| 2   | 0PJ-04       | 2   | 0CJ-04      |
| 4   | 0PJ-06       | 4   | 0CJ-06      |
| 4   | 0PJ-08       | 4   | 0CJ-08      |
| 4   | 0PJ-10       | 4   | 0CJ-10      |
| 2   | 0PJ-12       | 2   | 0CJ-12      |
| 2   | 0PJ-16       | 2   | 0CJ-16      |

## A-SAEOR-P1

SAE O-Ring Plug Assortment



0PO Series

| Qty | Plug Numbers |
|-----|--------------|
| 2   | 0PO-04       |
| 4   | 0PO-06       |
| 4   | 0PO-08       |
| 4   | 0PO-10       |
| 2   | 0PO-12       |
| 2   | 0PO-16       |

## A-ORS-PC1

ORS Plug & Cap



0PF Series

0CF Series

| Qty | Plug Numbers | Qty | Cap Numbers |
|-----|--------------|-----|-------------|
| 2   | 0PF-04       | 2   | 0CF-04      |
| 4   | 0PF-06       | 4   | 0CF-06      |
| 4   | 0PF-08       | 4   | 0CF-08      |
| 4   | 0PF-10       | 4   | 0CF-10      |
| 4   | 0PF-12       | 4   | 0CF-12      |
| 2   | 0PF-16       | 2   | 0CF-16      |

## A-NPT-P1

NPT Plug Assortment



0PN Series

| Qty | Plug Numbers |
|-----|--------------|
| 2   | 0PN-02       |
| 4   | 0PN-04       |
| 4   | 0PN-06       |
| 4   | 0PN-08       |
| 2   | 0PN-12       |
| 2   | 0PN-16       |

## A-N/S-P1

NPT and SAE Plug Assortment



0PN Series

0PO Series

| Qty | Plug Numbers | Qty | Plug Numbers |
|-----|--------------|-----|--------------|
| 2   | 0PN-02       | 2   | 0PO-04       |
| 4   | 0PN-04       | 4   | 0PO-06       |
| 4   | 0PN-06       | 4   | 0PO-08       |
| 4   | 0PN-08       | 4   | 0PO-10       |
| 2   | 0PN-12       | 2   | 0PO-12       |
| 2   | 0PN-16       | 2   | 0PO-16       |

## A-FL/FLH-PC1

Code 61 & Code 62 Plug



0PU Series

0PW Series

| Qty | Code 61 | Qty | Code 62 |
|-----|---------|-----|---------|
| 2   | 0PU-08  | 2   | 0PW-08  |
| 4   | 0PU-12  | 4   | 0PW-12  |
| 4   | 0PU-16  | 4   | 0PW-16  |
| 4   | 0PU-20  | 4   | 0PW-20  |
| 2   | 0PU-24  | 2   | 0PW-24  |
| 2   | 0PU-32  | 2   | 0PW-32  |

# Foreign Plug / Cap Assortments

Our Portable Plug / Cap, Seal and Conversion Adapter Assortments are offered in plastic or metal bin boxes with a laminated legend / thread chart for quick identification.

## A-BSPP-PC1

BSPP\* Plug & Cap Assortment



0PB Series

0CB Series

| Qty | Plug Numbers | Qty | Cap Numbers |
|-----|--------------|-----|-------------|
| 2   | 0PB-02       | 2   | 0CB-02      |
| 4   | 0PB-04       | 4   | 0CB-04      |
| 4   | 0PB-06       | 4   | 0CB-06      |
| 4   | 0PB-08       | 4   | 0CB-08      |
| 2   | 0PB-10       | 2   | 0CB-10      |
| 2   | 0PB-12       | 2   | 0CB-12      |
| 2   | 0PB-16       | 2   | 0CB-16      |



\*BBS series bonded seals included for use with Male BSPP port application

## A-BSPT-P1

BSPT Plug Assortment



0PT Series

| Qty | Plug Numbers |
|-----|--------------|
| 2   | 0PT-02       |
| 4   | 0PT-04       |
| 4   | 0PT-06       |
| 4   | 0PT-08       |
| 2   | 0PT-12       |
| 2   | 0PT-16       |

## A-BSPPWD-P1

BSPP Allen-type Port Plug Assortment



0PHG Series

| Qty | Plug Numbers |
|-----|--------------|
| 2   | 0PHG-02-WD   |
| 4   | 0PHG-04-WD   |
| 4   | 0PHG-06-WD   |
| 4   | 0PHG-08-WD   |
| 2   | 0PHG-12-WD   |
| 2   | 0PHG-16-WD   |

## A-MMWD-P1

Metric Allen-type Port Plug Assortment



0PHH Series

| Qty | Plug Numbers |
|-----|--------------|
| 2   | 0PHH-10-WD   |
| 4   | 0PHH-12-WD   |
| 4   | 0PHH-14-WD   |
| 4   | 0PHH-16-WD   |
| 4   | 0PHH-18-WD   |
| 2   | 0PHH-22-WD   |
| 2   | 0PHH-26-WD   |
| 2   | 0PHH-27-WD   |
| 2   | 0PHH-33-WD   |

## A-DINC-PC1

DIN 12° Light Series Plug & Cap



0PC Series

0CC Series

| Qty | Plug Numbers | Qty | Cap Numbers |
|-----|--------------|-----|-------------|
| 2   | 0PC-06       | 2   | 0CC-06      |
| 4   | 0PC-08       | 4   | 0CC-08      |
| 4   | 0PC-10       | 4   | 0CC-10      |
| 4   | 0PC-12       | 4   | 0CC-12      |
| 4   | 0PC-15       | 4   | 0CC-15      |
| 2   | 0PC-18       | 2   | 0CC-18      |
| 2   | 0PC-22       | 2   | 0CC-22      |
| 2   | 0PC-28       | 2   | 0CC-28      |

## A-DIND-PC1

DIN 12° Heavy Series Plug & Cap



0PD Series

0CD Series

| Qty | Plug Numbers | Qty | Cap Numbers |
|-----|--------------|-----|-------------|
| 2   | 0PD-06       | 2   | 0CD-06      |
| 4   | 0PD-08       | 4   | 0CD-08      |
| 4   | 0PD-10       | 4   | 0CD-10      |
| 4   | 0PD-12       | 4   | 0CD-12      |
| 2   | 0PD-14       | 2   | 0CD-14      |
| 4   | 0PD-16       | 4   | 0CD-16      |
| 2   | 0PD-20       | 2   | 0CD-20      |
| 2   | 0PD-25       | 2   | 0CD-25      |

# Foreign Plug / Cap and Seal Assortments

## A-DINCD-PC1

DIN 12° *Light & Heavy Series* Plug & Cap Assortment



OPC / OPD Series    OCC / OCD Series

| Qty | Plug Numbers | Qty | Cap Numbers |
|-----|--------------|-----|-------------|
| 2   | 0PC-06       | 2   | 0CC-06      |
| 4   | 0PC-08       | 4   | 0CC-08      |
| 4   | 0PC-10       | 4   | 0CC-10      |
| 4   | 0PC-12       | 4   | 0CC-12      |
| 4   | 0PC-15       | 4   | 0CC-15      |
| 2   | 0PC-18       | 2   | 0CC-18      |
| 2   | 0PC-22       | 2   | 0CC-22      |
| 2   | 0PC-28       | 2   | 0CC-28      |
| 2   | 0PD-06       | 2   | 0CD-06      |
| 4   | 0PD-08       | 4   | 0CD-08      |
| 4   | 0PD-10       | 4   | 0CD-10      |
| 4   | 0PD-12       | 4   | 0CD-12      |
| 2   | 0PD-14       | 2   | 0CD-14      |
| 4   | 0PD-16       | 4   | 0CD-16      |
| 2   | 0PD-20       | 2   | 0CD-20      |
| 2   | 0PD-25       | 2   | 0CD-25      |

## A-JIS-PC1

JIS\* Plug & Cap Assortment



0PS Series    0CS Series

| Qty | Plug Numbers | Qty | Cap Numbers |
|-----|--------------|-----|-------------|
| 4   | 0PS-04       | 4   | 0PS-04      |
| 4   | 0PS-06       | 4   | 0PS-06      |
| 4   | 0PS-08       | 4   | 0PS-08      |
| 2   | 0PS-12       | 2   | 0PS-12      |
| 2   | 0PS-16       | 2   | 0PS-16      |

## A-KOM-PC1

KOMATSU® Plug Assortment



0PK Series    0CK Series

| Qty | Plug Numbers | Qty | Cap Numbers |
|-----|--------------|-----|-------------|
| 4   | 0PK-14       | 4   | 0CK-14      |
| 4   | 0PK-18       | 4   | 0CK-18      |
| 4   | 0PK-22       | 4   | 0CK-22      |
| 2   | 0PK-24       | 2   | 0CK-24      |
| 2   | 0PK-30       | 2   | 0CK-30      |
| 2   | 0PK-33       | 2   | 0CK-33      |

## A-KOB-PC1

KOBELCO® Plug & Cap Assortment



0PX Series    0CX Series

| Qty | Plug Numbers | Qty | Cap Numbers |
|-----|--------------|-----|-------------|
| 2   | 0PX-22       | 2   | 0CX-22      |
| 4   | 0PX-28       | 4   | 0CX-28      |
| 4   | 0PX-35       | 4   | 0CX-35      |

## A-BBS-1

BSP Bonded Seal Assortment



BBS Series

| Qty | BSP    |
|-----|--------|
| 10  | BBS-02 |
| 10  | BBS-04 |
| 10  | BBS-06 |
| 10  | BBS-08 |
| 10  | BBS-10 |
| 8   | BBS-12 |
| 6   | BBS-16 |

## A-MBS-1

Metric Bonded Seal Assortment



MBS Series

| Qty | Metric |
|-----|--------|
| 10  | MBS-10 |
| 10  | MBS-12 |
| 10  | MBS-14 |
| 10  | MBS-16 |
| 10  | MBS-18 |
| 10  | MBS-20 |
| 10  | MBS-22 |
| 6   | MBS-24 |
| 6   | MBS-26 |
| 6   | MBS-27 |
| 6   | MBS-33 |



# Portable Conversion Adapter Assortments

## A-BSPP-CV1

BSPP to JIC Conversion Adapter Assortment



10JB Series

20JB Series

| Qty | Male BSPP  | Qty | Female BSPP |
|-----|------------|-----|-------------|
| 2   | 10JB-04-02 | 2   | 20JB-04-02  |
| 4   | 10JB-04-04 | 4   | 20JB-04-04  |
| 4   | 10JB-06-06 | 4   | 20JB-06-06  |
| 4   | 10JB-10-10 | 4   | 20JB-10-10  |
| 2   | 10JB-12-12 | 2   | 20JB-12-12  |
| 2   | 10JB-16-16 | 2   | 20JB-16-16  |



BBS Bonded Seals included for port application

## A-BSPT-CV1

BSPT to JIC Conversion Adapter Assortment



10JT Series

| Qty | Plug Numbers |
|-----|--------------|
| 2   | 10JT-04-02   |
| 4   | 10JT-04-04   |
| 4   | 10JT-06-06   |
| 4   | 10JT-08-08   |
| 2   | 10JT-12-12   |
| 2   | 10JT-16-16   |

## A-DINC-CV1

DIN 12° Light Series to JIC Conversion Adapter Assortment



10JC Series

20JC Series

| Qty | Male DIN   | Qty | Female DIN |
|-----|------------|-----|------------|
| 2   | 10JC-04-06 | 2   | 20JC-04-06 |
| 4   | 10JC-04-08 | 4   | 20JC-04-08 |
| 4   | 10JC-06-10 | 4   | 20JC-06-10 |
| 4   | 10JC-08-12 | 4   | 20JC-08-12 |
| 4   | 10JC-08-15 | 4   | 20JC-08-15 |
| 2   | 10JC-10-18 | 2   | 20JC-10-18 |
| 2   | 10JC-12-22 | 2   | 20JC-12-22 |
| 2   | 10JC-16-28 | 2   | 20JC-16-28 |

## A-DIND-CV1

DIN 12° Heavy Series to JIC Conversion Adapter Assortment



10JD Series

20JD Series

| Qty | Male DIN   | Qty | Female DIN |
|-----|------------|-----|------------|
| 2   | 10JD-04-06 | 2   | 20JD-04-06 |
| 4   | 10JD-04-08 | 4   | 20JD-04-08 |
| 4   | 10JD-06-10 | 4   | 20JD-06-10 |
| 4   | 10JD-08-12 | 4   | 20JD-08-12 |
| 4   | 10JD-08-14 | 4   | 20JD-08-14 |
| 2   | 10JD-10-16 | 2   | 20JD-10-16 |
| 2   | 10JD-12-20 | 2   | 20JD-12-20 |
| 2   | 10JD-16-25 | 2   | 20JD-16-25 |

## A-MP-CV1

Metric Port Connection\* to JIC Conversion Adapter Assortment



10JH Series

| Qty | Male Metric |
|-----|-------------|
| 2   | 10JH-04-10  |
| 4   | 10JH-04-12  |
| 4   | 10JH-06-14  |
| 4   | 10JH-06-16  |
| 4   | 10JH-08-18  |
| 2   | 10JH-08-20  |
| 2   | 10JH-10-22  |
| 2   | 10JH-12-26  |
| 2   | 10JH-12-27  |
| 2   | 10JH-16-33  |

## A-JIS-CV1

Metric Port Connection\* to JIC Conversion Adapter Assortment



10JS Series

20JS Series

| Qty | Male JIS   | Qty | Female JIS |
|-----|------------|-----|------------|
| 2   | 10JS-04-04 | 2   | 20JS-04-04 |
| 4   | 10JS-06-06 | 4   | 20JS-06-06 |
| 4   | 10JS-08-08 | 4   | 20JS-08-08 |
| 4   | 10JS-12-12 | 4   | 20JS-12-12 |
| 2   | 10JS-16-16 | 2   | 20JS-16-16 |

# Portable Conversion Adapter Assortments

## A-KOM-CV1

KOMATSU® to JIC Conversion  
Adapter Assortment



10JK Series

20JK Series

| Qty | Male KOM   | Qty | Female KOM |
|-----|------------|-----|------------|
| 2   | 10JK-04-14 | 2   | 20JK-04-14 |
| 4   | 10JK-06-18 | 4   | 20JK-06-18 |
| 4   | 10JK-08-22 | 4   | 20JK-08-22 |
| 4   | 10JK-10-24 | 4   | 20JK-10-24 |
| 2   | 10JK-12-30 | 2   | 20JK-12-30 |
| 2   | 10JK-16-33 | 2   | 20JK-16-33 |

## A-KOB-CV1

KOBELCO® to JIC Conversion  
Adapter Assortment



10JX Series

20JX Series



OSX / ONX Series

| Qty | Male KOB   | Qty | Fem / S & N   |
|-----|------------|-----|---------------|
| 4   | 10JX-12-22 | 2   | 20JX-12-22    |
| 2   | 10JX-12-28 | 2   | 20JX-16-28    |
| 2   | 10JX-16-22 | 2   | 20JX-20-35    |
| 4   | 10JX-16-28 | 2/2 | OSX-22 ONX-22 |
| 2   | 10JX-16-35 | 2/2 | OSX-28 ONX-28 |
| 2   | 10JX-20-35 | 2/2 | OSX-35 ONX-35 |

## A-BJR-CV1

“Banjo Replacement  
Assortment”

BSPP & Metric Port 90° to JIC  
Conversion Adapter Assortment

Replace OEM banjo connections with  
the use of a 90° adapter (included)  
and a straight Female JIC hose end  
(not included).

The kit includes all of the popular  
banjo threads in *BSP and Metric*.



19JG Series

19JH Series

| Qty | Male BSPP  | Qty | Male Metric |
|-----|------------|-----|-------------|
| 2   | 19JG-04-02 | 2   | 19JH-04-10  |
| 2   | 19JG-04-04 | 2   | 19JH-04-12  |
| 2   | 19JG-06-06 | 2   | 19JH-06-14  |
| 2   | 19JG-08-08 | 2   | 19JH-06-16  |
|     |            | 2   | 19JH-08-18  |
|     |            | 2   | 19JH-10-20  |
|     |            | 2   | 19JH-10-22  |

# Complete International Adapter Assortments

For a more complete assortment of each series, we offer labeled bin cabinet assortments. Each assortment comes in a steel cabinet, pre-labeled with laminated magnetic labels for durability and flexibility.

## A-BSPP-2

BSPP Plug & Cap / BSPP to JIC  
Conversion Adapter Assortment



0PB Series

0CB Series

| Qty | BSPP Plug | Qty | BSPP Cap |
|-----|-----------|-----|----------|
| 2   | 0PB-02    | 2   | 0CB-02   |
| 4   | 0PB-04    | 4   | 0CB-04   |
| 4   | 0PB-06    | 4   | 0CB-06   |
| 4   | 0PB-08    | 4   | 0CB-08   |
| 2   | 0PB-12    | 2   | 0CB-12   |
| 2   | 0PB-16    | 2   | 0CB-16   |



10JB Series



20JB Series

| Qty | Male BSPP  | Qty | Female BSPP |
|-----|------------|-----|-------------|
| 2   | 10JB-04-02 | 2   | 20JB-04-02  |
| 4   | 10JB-04-04 | 4   | 20JB-04-04  |
| 4   | 10JB-06-06 | 4   | 20JB-06-06  |
| 4   | 10JB-08-08 | 4   | 20JB-08-08  |
| 2   | 10JB-10-10 | 2   | 20JB-10-10  |
| 2   | 10JB-12-12 | 2   | 20JB-12-12  |
| 2   | 10JB-16-16 | 2   | 20JB-16-16  |



19JG Series

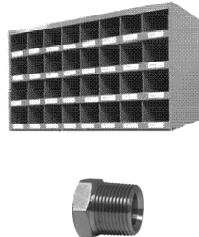


BBS Series

| Qty | Male BSPP 90° | Qty | Bonded Seals |
|-----|---------------|-----|--------------|
| 2   | 19JG-04-02    | 10  | BBS-02       |
| 4   | 19JG-04-04    | 10  | BBS-04       |
| 4   | 19JG-06-06    | 10  | BBS-06       |
| 4   | 19JG-08-08    | 10  | BBS-08       |
| 2   | 19JG-12-12    | 10  | BBS-10       |
| 1   | 19JG-16-16    | 10  | BBS-12       |
|     |               | 10  | BBS-16       |

## A-BSPT-2

BSPT Plug / BSPT to JIC  
Conversion Adapter Assortment



0PT Series

| Qty | Plug Numbers |
|-----|--------------|
| 2   | 0PT-02       |
| 4   | 0PT-04       |
| 4   | 0PT-06       |
| 4   | 0PT-08       |
| 2   | 0PT-12       |
| 2   | 0PT-16       |



10JT Series

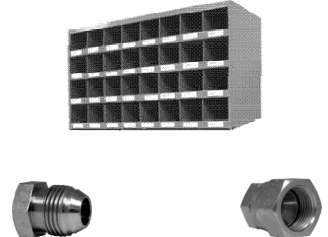


19JT Series

| Qty | Male BSPT  | Qty | Male BSPT 90° |
|-----|------------|-----|---------------|
| 2   | 10JT-04-02 | 2   | 19JT-04-02    |
| 4   | 10JT-04-04 | 4   | 19JT-04-04    |
| 4   | 10JT-06-06 | 4   | 19JT-06-06    |
| 4   | 10JT-08-08 | 2   | 19JT-08-08    |
| 2   | 10JT-12-12 | 2   | 19JT-12-12    |
| 2   | 10JT-16-16 | 1   | 19JT-16-16    |

## A-JIS-2

JIS 30° Plug & Cap / JIC  
Conversion Adapter Assortment



0PS Series

0CS Series

| Qty | Plug Numbers | Qty | Cap Numbers |
|-----|--------------|-----|-------------|
| 4   | 0PS-04       | 4   | 0PS-04      |
| 4   | 0PS-06       | 4   | 0PS-06      |
| 4   | 0PS-08       | 4   | 0PS-08      |
| 2   | 0PS-12       | 2   | 0PS-12      |
| 2   | 0PS-16       | 2   | 0PS-16      |



10JS Series



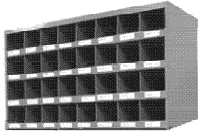
20JS Series

| Qty | Male JIS   | Qty | Female JIS |
|-----|------------|-----|------------|
| 2   | 10JS-04-04 | 2   | 20JS-04-04 |
| 4   | 10JS-06-06 | 4   | 20JS-06-06 |
| 4   | 10JS-08-08 | 4   | 20JS-08-08 |
| 4   | 10JS-12-12 | 4   | 20JS-12-12 |
| 2   | 10JS-16-16 | 2   | 20JS-16-16 |

# Complete International Adapter Assortments

## A-KOM-2

KOMATSU® 30° Plug & Cap / JIC  
Conversion Adapter Assortment



OPK Series

OCK Series

| Qty | Plug Numbers | Qty | Cap Numbers |
|-----|--------------|-----|-------------|
| 4   | OPK-14       | 4   | OCK-14      |
| 4   | OPK-18       | 4   | OCK-18      |
| 4   | OPK-22       | 4   | OCK-22      |
| 2   | OPK-24       | 2   | OCK-24      |
| 2   | OPK-30       | 2   | OCK-30      |
| 2   | OPK-33       | 2   | OCK-33      |



10JK Series

20JK Series

| Qty | Male KOM   | Qty | Female KOM |
|-----|------------|-----|------------|
| 2   | 10JK-04-14 | 2   | 20JK-04-14 |
| 4   | 10JK-06-18 | 4   | 20JK-06-18 |
| 4   | 10JK-08-22 | 4   | 20JK-08-22 |
| 4   | 10JK-10-24 | 4   | 20JK-10-24 |
| 2   | 10JK-12-30 | 2   | 20JK-12-30 |
| 2   | 10JK-16-33 | 2   | 20JK-16-33 |

## A-DIN-2

DIN 12° Plug & Cap / DIN 12° to JIC  
Conversion Adapter Assortment



OPC Series

OCC Series

| Qty | Plug Numbers | Qty | Cap Numbers |
|-----|--------------|-----|-------------|
| 2   | OPC-06       | 2   | OCC-06      |
| 4   | OPC-08       | 4   | OCC-08      |
| 4   | OPC-10       | 4   | OCC-10      |
| 4   | OPC-12       | 4   | OCC-12      |
| 4   | OPC-15       | 4   | OCC-15      |
| 2   | OPC-18       | 2   | OCC-18      |
| 2   | OPC-22       | 2   | OCC-22      |
| 2   | OPC-28       | 2   | OCC-28      |



OPD Series

OCD Series

| Qty | Plug Numbers | Qty | Cap Numbers |
|-----|--------------|-----|-------------|
| 2   | OPD-06       | 2   | OCD-06      |
| 4   | OPD-08       | 4   | OCD-08      |
| 4   | OPD-10       | 4   | OCD-10      |
| 4   | OPD-12       | 4   | OCD-12      |
| 2   | OPD-14       | 2   | OCD-14      |
| 4   | OPD-16       | 4   | OCD-16      |
| 2   | OPD-20       | 2   | OCD-20      |
| 2   | OPD-25       | 2   | OCD-25      |



10JC Series

20JC Series

| Qty | Male DIN   | Qty | Female DIN |
|-----|------------|-----|------------|
| 2   | 10JC-04-06 | 2   | 20JC-04-06 |
| 4   | 10JC-04-08 | 4   | 20JC-04-08 |
| 4   | 10JC-06-10 | 4   | 20JC-06-10 |
| 4   | 10JC-08-12 | 4   | 20JC-08-12 |
| 4   | 10JC-08-15 | 4   | 20JC-08-15 |
| 2   | 10JC-10-18 | 2   | 20JC-10-18 |
| 2   | 10JC-12-22 | 2   | 20JC-12-22 |
| 2   | 10JC-16-28 | 2   | 20JC-16-28 |



A-DIN-2  
Continued



10JD Series

20JD Series

| Qty | Male DIN   | Qty | Female DIN |
|-----|------------|-----|------------|
| 2   | 10JD-04-06 | 2   | 20JD-04-06 |
| 4   | 10JD-04-08 | 4   | 20JD-04-08 |
| 4   | 10JD-06-10 | 4   | 20JD-06-10 |
| 4   | 10JD-08-12 | 4   | 20JD-08-12 |
| 4   | 10JD-08-14 | 4   | 20JD-08-14 |
| 2   | 10JD-10-16 | 2   | 20JD-10-16 |
| 2   | 10JD-12-20 | 2   | 20JD-12-20 |
| 2   | 10JD-16-25 | 2   | 20JD-16-25 |



OSC/D Series

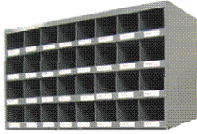
ONC/D Series

| Qty | Sleeve Numbers | Qty | Nut Numbers |
|-----|----------------|-----|-------------|
| 8   | 0SCD-06        | 4   | 0NC-06      |
| 8   | 0SCD-08        | 4   | 0NC-08      |
| 8   | 0SCD-10        | 4   | 0NC-10      |
| 8   | 0SCD-12        | 4   | 0NC-12      |
| 2   | 0SD-14         | 4   | 0NC-15      |
| 4   | 0SC-15         | 2   | 0NC-18      |
| 4   | 0SD-16         | 2   | 0NC-22      |
| 2   | 0SC-18         | 2   | 0NC-28      |
| 2   | 0SD-20         | 4   | 0ND-06      |
| 2   | 0SC-22         | 4   | 0ND-08      |
| 2   | 0SD-25         | 4   | 0ND-10      |
| 2   | 0SC-28         | 4   | 0ND-12      |
|     |                | 2   | 0ND-14      |
|     |                | 4   | 0ND-16      |
|     |                | 2   | 0ND-20      |
|     |                | 2   | 0ND-25      |
|     |                | 2   | 0ND-30      |
|     |                | 2   | 0ND-38      |

# Complete International Adapter Assortments

## A-MP-CV2

Metric Parallel Port Male (Washer/O-Ring)  
to JIC Male Straight & Adjustable 90°  
Conversion Adapter Assortment



10JH Series

19JH Series

| Qty | Metric Port | Qty | Metric Port 90° |
|-----|-------------|-----|-----------------|
| 2   | 10JH-04-10  | 2   | 19JH-04-10      |
| 4   | 10JH-04-12  | 4   | 19JH-04-12      |
| 4   | 10JH-06-14  | 4   | 19JH-06-14      |
| 4   | 10JH-06-16  | 4   | 19JH-06-16      |
| 4   | 10JH-08-18  | 4   | 19JH-08-18      |
| 2   | 10JH-08-20  | 2   | 19JH-08-20      |
| 4   | 10JH-10-22  | 4   | 19JH-10-22      |
| 2   | 10JH-12-26  | 2   | 19JH-12-26      |
| 2   | 10JH-12-27  | 2   | 19JH-12-27      |
| 2   | 10JH-16-33  | 2   | 19JH-16-33      |

## A-TM-1

Total International Assortment



Our complete International Adapter Assortment includes the following in four pre-labeled bin cabinets:

### BSPP (1/8" - 1")

- 0PB** Plugs
- 0CB** Caps
- 10JB** To JIC Conversion Males
- 20JB** To JIC Conversion Females
- 19JG** To JIC Adjustable 90° Males
- BBS** Bonded Seals
- BSPT (1/8" - 1")**
- 0PT** Plugs
- 10JT** To JIC Conversion Males
- 19JT** To JIC 90° Males

### DIN Light (6mm - 28mm)

- 0SC** Sleeves
- 0NC** Nuts
- 0PC** Plugs
- 0CC** Caps
- 10JC** To JIC Conversion Males
- 20JC** To JIC Conversion Females

### DIN Heavy (6mm - 25mm)

- 0SD** Sleeves
- 0ND** Nuts
- 0PD** Plugs
- 0CD** Caps
- 10JD** To JIC Conversion Males
- 20JD** To JIC Conversion Females

### Metric Port (10mm-33mm)

- 0PHH** Plugs
- 10JH** To JIC Conversion Males
- 19JH** To JIC Adjustable 90° Males
- MBS** Bonded Seals
- JIS (1/4" - 1")**
- 0PS** Plugs
- 0CS** Caps
- 10JS** To JIC Conversion Males
- 20JS** To JIC Conversion Females
- SOR** JIS Port O-Rings

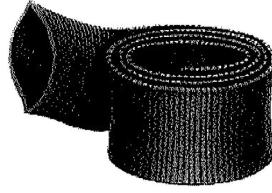
### KOMATSU® (14mm - 33mm)

- 0PK** Plugs
- 0CK** Caps
- 10JK** To JIC Conversion Males
- 20JK** To JIC 90° Males

### KOBELCO® (22mm—35mm)

- 0SX** Sleeves
- 0NX** Nuts
- 0PX** Plugs
- 0CX** Caps
- 10JX** To JIC Conversion Males
- 20JX** To JIC Conversion Females

# Nylon Hose Sleeve



*Economical Hose Protection / Bundling*

| <u>GFC PART #</u> | <u>NOMINAL I.D.</u> | <u>FLAT O.D.</u> |
|-------------------|---------------------|------------------|
| NPS-067           | .067                | 1.18             |
| NPS-079           | .079                | 1.34             |
| NPS-091           | .091                | 1.54             |
| NPS-098           | .098                | 1.65             |
| NPS-106           | 1.06                | 1.77             |
| NPS-122           | 1.22                | 2.05             |
| NPS-130           | 1.30                | 2.17             |
| NPS-142           | 1.42                | 2.24             |
| NPS-154           | 1.54                | 2.52             |
| NPS-157           | 1.57                | 2.60             |
| NPS-169           | 1.69                | 2.80             |
| NPS-173           | 1.73                | 2.83             |
| NPS-185           | 1.85                | 3.03             |
| NPS-209           | 2.09                | 3.39             |
| NPS-217           | 2.17                | 3.50             |
| NPS-236           | 2.36                | 3.82             |
| NPS-260           | 2.60                | 4.21             |
| NPS-287           | 2.87                | 4.65             |
| NPS-295           | 2.95                | 4.76             |
| NPS-335           | 3.35                | 5.35             |
| NPS-366           | 3.66                | 5.87             |

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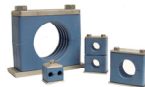
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