
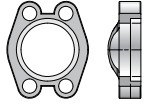
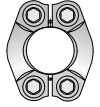

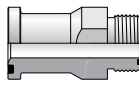
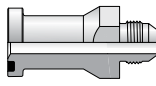
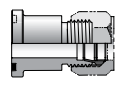
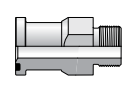
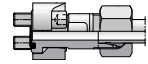
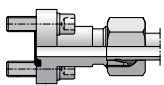





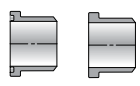
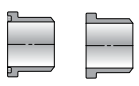

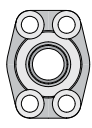
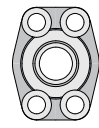
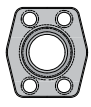
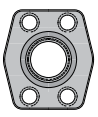
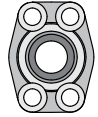
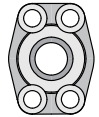
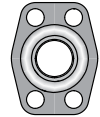
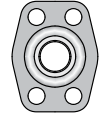
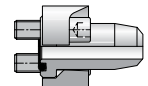
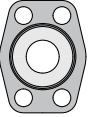
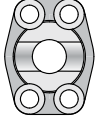
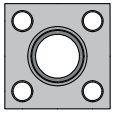
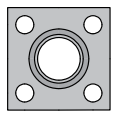
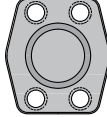
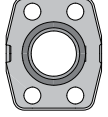
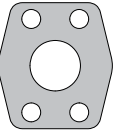
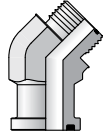
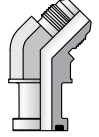
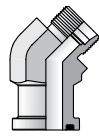
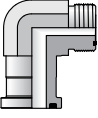
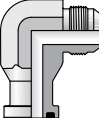
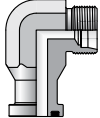
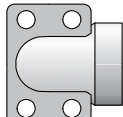
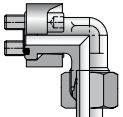
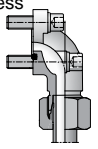
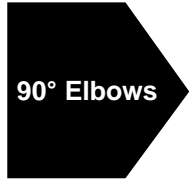
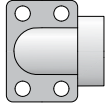
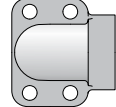
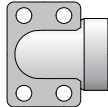
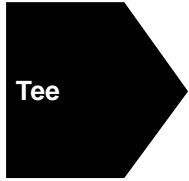
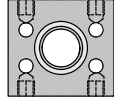

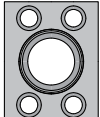
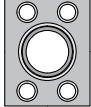
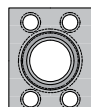
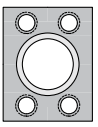






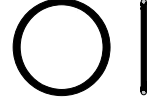
Hydraulic Flanges & Components & Dual Seal Flanges

Hydraulic Flanges and Components


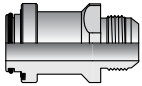

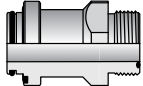
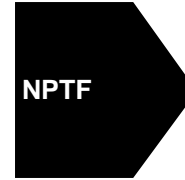
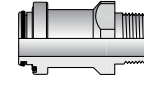
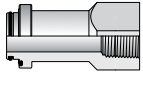

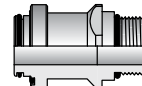
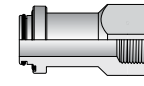

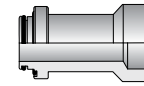
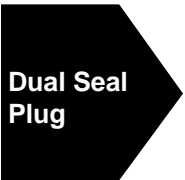





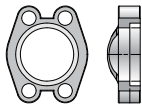
<p>Flange Clamps</p>	<p>FCS Flange Clamps – Split</p>  <p>L9</p>	<p>FCC Flange Clamp – Captive</p>  <p>L9</p>	<p>FHS3 Code 61 Flange Clamps – Metric</p>  <p>L10</p>	<p>FHS6 Code 62 Flange Clamps – Metric</p>  <p>L11</p>	
<p>Straight Flange Adapters / Flanges</p>	<p>LOHQ Code 61, 62 / ORFS</p>  <p>L12</p>	<p>XHQ Code 61, 62 / 37° Flare</p>  <p>L12</p>	<p>BUHQ1 Code 61 / Flareless</p>  <p>L12</p>	<p>F5OHQ Code 61, 62 / SAE-ORB</p>  <p>L13</p>	<p>GFS Code 61, 62 / Metric Flareless</p>  <p>L14</p>
<p>BFG DIN Flange / Metric Flareless</p>  <p>L15</p>	<p>B3HQ Code 61, 62 / Flareless</p>  <p>L13</p>	<p>P Flange Head Plug</p>  <p>L15</p>	<p>W7HQ Flange Head / Pipe Socket</p>  <p>L16</p>	<p>G5HQ Flange Head / SAE-ORB</p>  <p>L16</p>	<p>GHQ Flange Head / NPT</p>  <p>L16</p>
<p>WB1/3/5HQ1 Code 61 / Weld Butt – Pipe</p>  <p>L17</p>	<p>WB3/5/7HQ2 Code 62 / Weld Butt – Pipe</p>  <p>L17</p>	<p>G5Q Code 61, 62 / SAE-ORB</p>  <p>L18</p>	<p>GQ Code 61, 62 / NPT</p>  <p>L18</p>	<p>G4Q Code 61, 62 / BSPP</p>  <p>L19</p>	<p>W5Q Code 61, 62 / Socket – Pipe</p>  <p>L20</p>
<p>W4Q Code 61, 62 / Socket – Tube</p>  <p>L21</p>	<p>W7Q Code 61, 62 / Ext Socket – Pipe</p>  <p>L22</p>	<p>W6Q Code 61, 62 / Ext Socket – Tube</p>  <p>L23</p>	<p>WB1/3/5Q1 Code 61 / Weld Butt – Pipe</p>  <p>L24</p>	<p>WB3/5/7Q2 Code 62 / Weld Butt – Pipe</p>  <p>L25</p>	<p>AS Code 61, 62 / Weld Butt – Tube Metric</p>  <p>L26</p>
<p>WBT Code 61 / Weld Tank Adapter</p>  <p>L26</p>	<p>WSD Code 61, 62 / Weld Saddle</p>  <p>L27</p>	<p>GQS Square Flange / NPT</p>  <p>L27</p>	<p>W5SQS Square Flange / Weld Socket – Pipe</p>  <p>L28</p>	<p>PQ Code 61, 62 / Blank</p>  <p>L28</p>	<p>SPGG5 Flange Spacer w/Gage Ports</p>  <p>L29</p>
<p>CP Flange Connector Plate</p>  <p>L29</p>	<p>45° Flange Adapters</p>	<p>LOVQ Code 61, 62 / ORFS</p>  <p>L30</p>	<p>XVQ Code 61, 62 / 37° Flare</p>  <p>L30</p>	<p>BUVQ1 Code 61 / Flareless</p>  <p>L30</p>	
<p>90° Flange Adapters</p>	<p>LOEQ Code 61, 62 / ORFS</p>  <p>L31</p>	<p>XEQ Code 61, 62 / 37° Flare</p>  <p>L31</p>	<p>BUEQ1 Code 61 / Flareless</p>  <p>L31</p>	<p>W7EQ Code 61, 62 / Weld Socket – Pipe</p>  <p>L32</p>	<p>WFS Code 61, 62 / Metric Flareless</p>  <p>L33</p>

<p>BFW DIN Flange / Metric Flareless</p>  <p>L34</p>	<p>90° Elbows</p> 	<p>G5EQ Code 61, 62 / SAE-ORB</p>  <p>L35</p>	<p>GEQ Code 61, 62 / NPT</p>  <p>L36</p>	<p>W6EQ Code 61, 62 / Weld Socket - Tube</p>  <p>L37</p>	
<p>Tee</p> 	<p>QPQPJQ Code 61, 62 Junction Tee</p>  <p>L35</p>	<p>Stainless Steel Flanges</p> 	<p>G5Q Code 61, 62 / SAE-ORB</p>  <p>L38</p>	<p>GQ Code 61, 62 / NPT</p>  <p>L38</p>	<p>W5Q Code 61, 62 / Weld Socket - Pipe</p>  <p>L39</p>
<p>PQ Code 61, 62 / Blank</p>  <p>L40</p>					


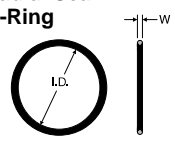
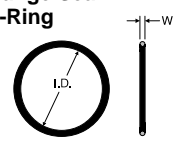
O-Rings and Seals (Shown in Section N)

<p>O-Rings and Seals</p> 	<p>ORFS O-Ring</p>  <p>N4</p>	<p>SAE 4-Bolt Flange O-Ring</p>  <p>N10</p>
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Dual Seal Flanges

 <p>37° Flare</p>	<p>XHQ40 37° Flare</p>  <p>L41</p>	 <p>ORFS</p>	<p>LOHQ40 ORFS</p>  <p>L41</p>	 <p>NPTF</p>	<p>FHQ40 Male NPTF</p>  <p>L41</p>
<p>GHQ40 Female NPTF</p>  <p>L42</p>	 <p>SAE-ORB</p>	<p>F5OHQ40 Male SAE-ORB</p>  <p>L42</p>	<p>G5HQ40 Female SAE-ORB</p>  <p>L42</p>	 <p>Socket Weld Pipe</p>	<p>W7HQ40 Socket Weld Pipe</p>  <p>L43</p>
 <p>Dual Seal Plug</p>	<p>PQ40 Dual Seal Plug</p>  <p>L43</p>	 <p>Q4 Insert</p>	<p>Q4 Insert Flange Insert</p>  <p>L43</p>		
 <p>Flange Clamps</p>	<p>FCS Flange Clamps – Split</p>  <p>L9</p>	<p>FCC Flange Clamp – Captive</p>  <p>L9</p>			

O-Rings and Seals (Shown in Section N)

 <p>O-Rings and Seals</p>	<p>Radial Seal O-Ring</p>  <p>I.D. W</p> <p>N10</p>	<p>Flange Seal O-Ring</p>  <p>I.D. W</p> <p>N10</p>
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Hydraulic Flanges and Components

The 4-bolt flange connections conforming to SAE J518 and ISO 6162-1 and -2 are proven, leak-free connections, especially suited for larger sizes, higher pressures and assembly in tight quarters. Threaded port connections such as SAE straight thread O-ring and ISO 6149 are reasonably easy to assemble and provide 6000 psi and higher pressure capability up to size 12 (M27). Beyond this size the pressure rating starts to decrease and assembly torques increase rapidly. The 4-bolt flange port connections provide ability to connect larger sizes and achieve higher-pressure capability at reasonable assembly torques. Because of the lower assembly torques compared to an equivalent size threaded port, these connections are well suited for tight quarters where wrench clearances are limited. Parker 4-bolt flange products described in this part of the catalog provide various means of connecting tubes, hoses, pipes and threaded fittings to 4-bolt flange ports. The discussion below provides an overview of some of the available flange products.

Design and Construction

Parker 4-bolt flange products are designed to provide different methods of connecting a tube, hose, pipe or another fitting to the SAE standard 4-bolt flange port.

Flange Fittings — All Parker flange fittings, except for those with square mounting hole patterns (nomenclature code QS), are designed to conform to O-ring groove, bolt holes and bolt pattern dimensions of either Code 61 or Code 62 of SAE J518 and ISO 6162-1 (Code 61) or -2 (Code 62).

The flange adapters (Code Q1 and Q2), and flange block fittings (Codes Q1B, Q2B and QSB) have O-ring grooves conforming to dimensions in SAE J518. The flange block fittings (Codes Q1B and Q2B) have through holes for the mounting bolts, again conforming to SAE J518. There is no industry standard for the bolt pattern of the square pattern block flanges with codes QSP and QSB.

The flange pad fittings (Codes Q1P, Q2P, and QSP) have a flat face (no O-ring groove) and the mounting holes are tapped. Where these fittings are used, the seal is in the mating part (flange adapter, flange hose fitting, flange block fitting, etc.) as shown in Fig. L1.

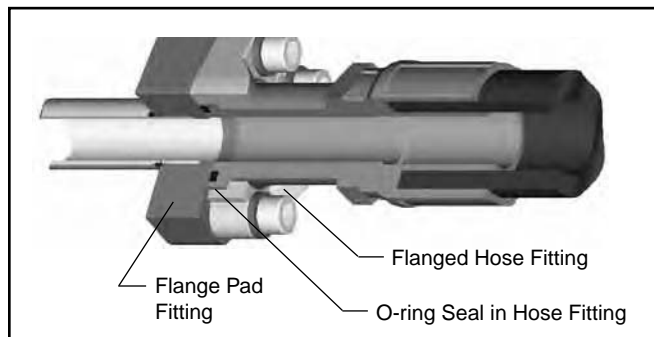


Fig. L1 – Flange Pad Fitting

Dimensions other than the O-ring groove, bolt holes, bolt pattern, and the flange foot print (for codes Q1B and Q2B only) are not governed by any industry standard. However, Parker product design follows common industry practice and sound engineering.

Dimensions and pressures for reference only, subject to change.

Flange Clamps — Clamps are used for providing the holding power to the 4-bolt flange connection. They are offered in split and captive (one-piece) versions. The captive version is also offered with either drilled or tapped bolt holes. The captive flange clamp with tapped holes is used while connecting a tube to another tube or a hose.

Parker flange clamps are forged for higher strength and durability. They meet all requirements of SAE J518. The split clamps make it easy to assemble the connection in close quarters. They also make removal of the flange head component, such as a hose assembly, easy by loosening all four bolts and removing one clamp half, as shown in Fig. L2.

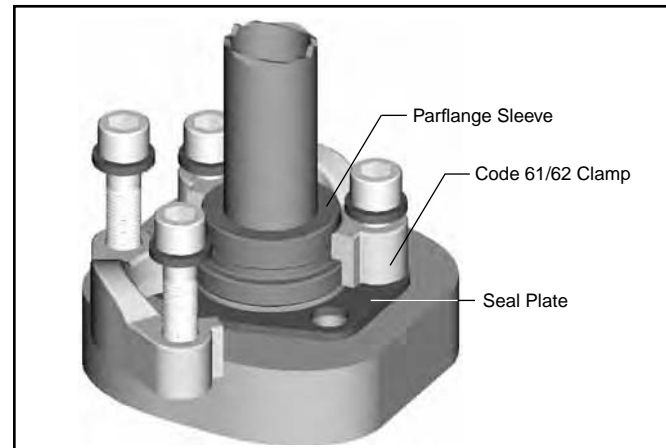


Fig. L2 – Assembly / Removal SAE J518 Connection

Junction Block Tees — These are solid block union fittings to connect two tube/hose assemblies using 4-bolt flange connection, at a junction, to SAE 4-bolt flange port, or three tube/hose assemblies to each other.

Connector Plate — Connector plate is used as a middle plate to connect two flange heads with O-ring grooves, such as two hose assemblies with flange connection ends. The flat surface of the plate provides sealing surface on each side for the O-ring housed in the hose ends.

Spacer Plate — Spacer plate provides access to the system fluid via the gage port on the side. The plate is between the flange connection to provide this access.

Plugs — Plugs provide a means to block off the 4-bolt flange port with and without clamps, and to plug the end of a pipe (via welding).

Tank Weld Adapter — Tank weld adapters provide a means of flange connection to a fabricated reservoir or tank.

Hydraulic Flanges	Steel		Stainless Steel	
	ASTM	Type	ASTM	Type
4-Bolt Flanges	A108	C1020	A240	316L
Flange Clamps	A108	C1045	A351 / A743	Nitronic 50
HHCS Bolts	SAE Grade 8		—	—
SHCS Bolts	—	—	A240	316

Table L1 – Standard Material Specifications for Hydraulic Flanges and Components

Note: Split flange clamps are zinc clear (or Cr6 free) chromate. All other steel flanges are oil dipped. Flange adapters are not plated.

How Flange Connections Work

The four-bolt flange connection (SAE J518) is a proven leak-free connection, especially suited for larger sizes. As a result, it has achieved worldwide acceptance.

The connection's success is in its simplicity. It is a static face seal using a high durometer O-ring for the seal and clamps and bolts for holding power as shown in Fig. L3. Alternatively, a bonded seal plate is between the port face and the flat face of a mechanically formed (flanged with Parflange® process) tube as shown in Fig. L4 to achieve the same results.

The (O-ring) seal is compressed between the bottom of the groove in the flange head and the flat surface of the port or flange pad, providing a reliable soft seal. The alternate seal plate has a high durometer bonded rubber seal on the inside edge, which compresses between the two flat surfaces, providing a soft seal with the same reliability. A metal-to-metal contact at the outer face of the flange with the port face keeps the seal from extruding under pressure. This metal-to-metal contact is maintained by the clamping force provided by tightening the bolts via the clamps.

This simple design provides several advantages over threaded port connections, such as NPTF, SAE, BSPP, ISO 6149, etc., in larger sizes:

- Ability to connect up to 5 inch O.D tube (Code 61 only)
- Much lower tightening torque required from the four bolts compared to that required for equivalent size threaded port
- Less tightening torque means smaller wrenches and wrench swing clearances — providing ease of assembly in tight quarters
- Up to 6000 psi capability through 2" size (Code 62 only)
- Single seal point between tube/pipe/hose assembly and the port
- Ease of disassembly through use of split clamps

The connection has one disadvantage — it requires a larger area (foot print) on the component than an equivalent threaded port.

Assembly and Installation

Please refer to Section S for the assembly and installation instructions for Hydraulic Flanges and Components fittings.

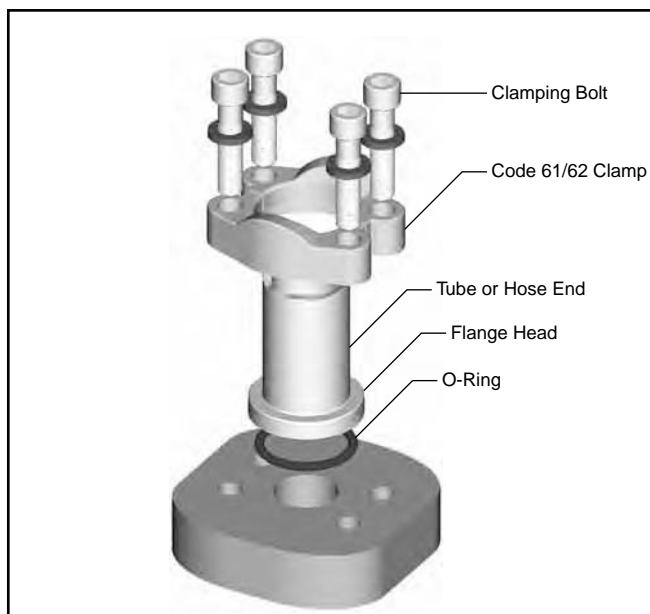


Fig. L3 – Four-Bolt Flange Connection (SAE J518)

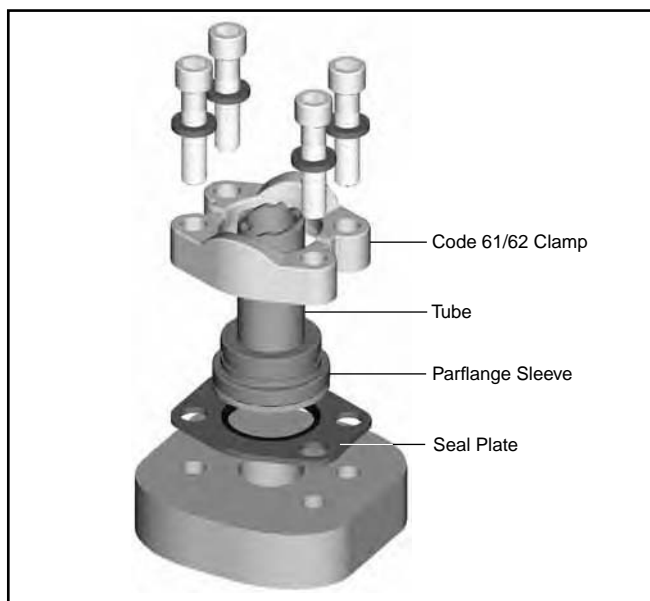


Fig. L4 – Formed Tube with ISO 6162 (SAE J518) Connection

Feature	Advantage	Benefit
Conform to SAE J518 and ISO 6162	Controls dimensions and tolerances of code 61 and 62 port connections	Insures interchangeability and consistency
Forged Construction	Reliable, long life performance	No downtime, reduced costs
	Compact envelope size, no sharp edges	Reduced weight
Over 60 Configurations	Flexibility in plumbing, match system needs	Best solution and best value
Parflange Technology	Designed to be used with Code 61/62 fittings	Eliminates messy and time consuming brazing process
Mounting Hardware	Grade 8 bolts standard	Performs in rigorous applications for the life of the flange
Flange Kits	Flange with hardware for mounting (o-ring, bolts and lockwashers)	Reduces order and assembly error

Dimensions and pressures for reference only, subject to change.

Dual Seal Flange Adapters

Parker's Dual Seal Flange Adapter product line provides a solution for high vibration, high shock hydraulic four bolt connection styles used in various applications. This Parker innovation is offered as an alternative to traditional ISO 6121 (SAE J518) Code 62 Flange connections providing improved port retention, increased sealing capability and elimination of costly field replacement due to failure. Dual Seal Flange Adapters incorporate both radial and face seal technologies, reducing the potential for system leakage and ingress of air or water caused by side loading of traditional flange face seal connections.

Dual Seal Flange Adapters have a system working pressure rating of 7500 PSI with a 4:1 design factor. The face seal system incorporates Parker's Captive O-ring Groove technology to prevent o-ring fall out during installation minimizing connection failures seen with traditional flange connections.

Design and Construction

The Dual Seal Flange adapter consists of three components: a body, a face sealing O-ring and a radial sealing O-ring. The body is manufactured from Heat Code Traceable 316 stainless steel and the O-rings are manufactured from 90 durometer Nitrile. Additional components used for assembly of the Dual Seal Flange adapters include four bolts, flange clamps and lock washers. Flange clamps are available from Parker Tube Fittings Division, with standard sizes listed on Page L9 of this catalog section.

The Dual Seal Flange Adapter Body

Dual Seal Flange Adapters bodies are manufactured in ½", 1" and 1 ½" sizes with ten different cold drawn tube, pipe or hose end configurations available as standard. Straight bodies are machined from 316/316L bar stock.

Dual Seal Flange Clamps

Flange clamps are offered in both split and captive (one-piece) versions depending on the adapter configuration being used. Flange clamps are machined from 316/316L materials. For all straight Dual Seal Flange Adapter bodies split flange clamp are required. The 90° and 45° cast shaped versions can be installed with either split or captive flange clamps.

Industry Acceptance

Dual Seal Flange Adapters are designed to conform to bolt thread and bolt pattern dimensions of ISO 6162-2 or SAE J518 Code 62.

Materials used in the manufacture of Parker Dual Seal Flange Adapters are compliant to NACE MR0175. All products are Heat Code Traceable and have been tested to SAE requirements.

How Dual Seal Flange Adapters Work

As shown below, Dual Seal Flange connections use both a radial seal and face seal to achieve superior leak free port connection. The primary radial seal (A) improves the pressure capabilities of this adapter to 7500 PSI while offering additional system integrity. The face seal (B) provides resistance of external pressures introduced by the application environment. The flange clamps (C) and bolts (D) are used to compress the o-rings into the port and provide the clamping force necessary. Reference Fig. L5 below.

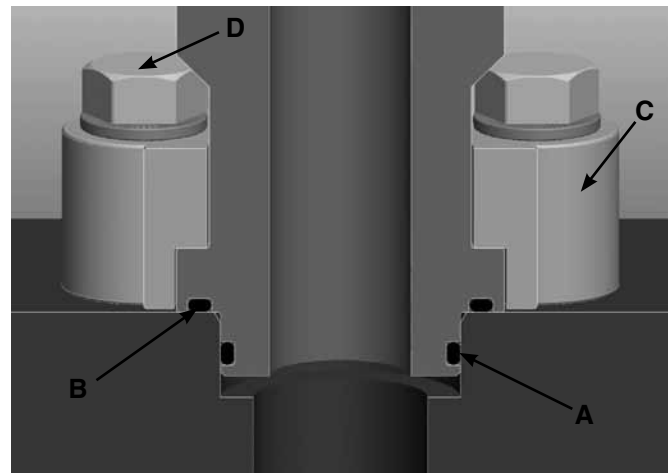


Fig. L5

Dimensions and pressures for reference only, subject to change.

The Parker Advantage

Improved Pressure Rating: Parker's new Dual Seal design is rated for up to 7500 PSI to meet current and future hydraulic design needs. This design has also been tested to meet standard SAE J1644 parameters.

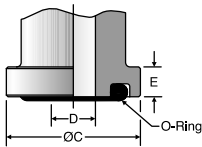
Captive O-ring Groove: The design of Parker's Dual Seal Flange Adapters incorporates a captive O-ring groove (CORG) which prevents O-ring fall out during installation further preventing the possibility of leaks.

Radial Seal: The primary radial seal (A) improves the pressure capabilities of the Dual Seal system to 7500 PSI while offering additional system integrity.

Ingression Seal: Reduces the potential for side loading and ultimately connection failure in high impulse and high vibration applications.

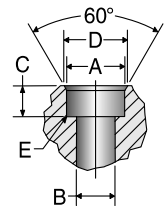
Multiple Standard Configurations: Parker's Dual Seal Flange Adapter product line includes a variety of tube, pipe, and hose connection styles to meet hydraulic system design needs. Included are Parker's Seal-Lok (SAE J1453), Triple-Lok (SAE J514), SAE ORB (SAE J1926) and NPTF for traditional hydraulic connections. In addition, to offer a solution for schedule pipe assemblies, Parker offers socket weld configurations.

Code 61 and Code 62 Port Ends



	Flange O.D. C	Drill D Max	Flange Height E
SIZE	(inch)	(inch)	(inch)
CODE 61			
8	1.19	0.50	0.265
12	1.50	0.75	0.265
16	1.75	1.00	0.315
20	2.00	1.25	0.315
24	2.38	1.50	0.315
32	2.81	2.00	0.375
CODE 62			
8	1.25	0.50	0.305
12	1.63	0.75	0.345
16	1.88	1.00	0.375
20	2.13	1.25	0.405
24	2.50	1.50	0.495
32	3.13	2.00	0.495

Port Ends for Dual Seal Flange Port

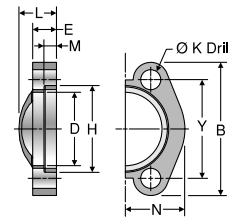


SIZE	A (in.)	B (in.)	C (in.)	D (CSK)	E (R)
8	0.750 - 0.752	0.500	0.400	.82 X 60°	0.02
16	1.375 - 1.377	0.938	0.400	1.445 X 60°	0.02
24	1.750 - 1.752	1.312	0.530	1.82 X 60°	0.02

Dimensions and pressures for reference only, subject to change.

FCS

Code 61/62 Flange Clamps, Split

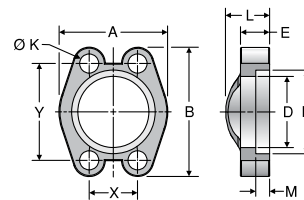


TUBE FITTING PART #	HOSE PRODUCTS PART #	HOSE PRODUCTS PART #	FLANGE SIZE (in.)	B (in.)	D (in.)	E (in.)	H (in.)	K DRILL DIA. (in.)	L (in.)	M (in.)	N (in.)	Y (in.)	MOUNTING HARDWARE HHCS	Dynamic Pressure (x 1,000 PSI)	
FLANGE HALF	FLANGE HALF	KIT												S	SS
CODE 61 FLANGE CLAMPS, SPLIT															
8FCS1	51H-8	5151HK-8	0.50	2.12	0.955	0.50	1.22	0.344	0.75	0.245	0.86	1.50	5/16-18 x 1.25	5.0	5.0
12FCS1	51H-12	5151HK-12	0.75	2.56	1.265	0.56	1.53	0.406	0.88	0.245	0.98	1.88	3/8-16 x 1.25	5.0	5.0
16FCS1	51H-16	5151HK-16	1.00	2.75	1.515	0.62	1.78	0.406	0.94	0.295	1.11	2.06	3/8-16 x 1.25	5.0	5.0
20FCS1	51H-20	5151HK-20	1.25	3.12	1.720	0.56	2.03	0.469	0.88	0.295	1.39	2.31	7/16-14 x 1.50	4.0	4.0
24FCS1	51H-24	5151HK-24	1.50	3.69	2.000	0.62	2.41	0.531	1.00	0.295	1.58	2.75	1/2-13 x 1.50	3.0	3.0
32FCS1	51H-32	5151HK-32	2.00	4.00	2.470	0.62	2.84	0.531	1.03	0.355	1.86	3.06	1/2-13 x 1.50	3.0	3.0
40FCS1	51H-40	5151HK-40	2.50	4.50	2.950	0.75	3.34	0.531	1.50	0.355	2.09	3.50	1/2-13 x 1.75	2.5	2.5
48FCS1	51H-48	5151HK-48	3.00	5.31	3.580	0.88	4.03	0.656	1.62	0.355	2.53	4.19	5/8-11 x 1.75	2.0	2.0
56FCS1	51H-56	5151HK-56	3.50	6.00	4.030	0.88	4.53	0.656	1.12	0.422	2.70	4.75	5/8-11 x 1.75	0.5	0.5
64FCS1	51H-64	5151HK-64	4.00	6.38	4.530	1.00	5.03	0.656	1.38	0.422	2.95	5.13	5/8-11 x 2.00	0.5	0.5
CODE 62 FLANGE CLAMPS, SPLIT															
12FCS2	HFH-12	HFHFHK-12	0.75	2.81	1.280	0.75	1.66	0.406	1.12	0.325	1.14	2.00	3/8-16 x 1.50	6.0	6.0
16FCS2	HFH-16	HFHFHK-16	1.00	3.19	1.530	0.94	1.91	0.469	1.31	0.355	1.33	2.25	7/16-14 x 1.75	6.0	6.0
20FCS2	HFH-20	HFHFHK-20	1.25	3.75	1.750	1.06	2.16	0.531	1.50	0.385	1.48	2.63	1/2-13 x 1.75	6.0	6.0
24FCS2	HFH-24	HFHFHK-24	1.50	4.44	2.030	1.19	2.53	0.656	1.69	0.475	1.83	3.13	5/8-11 x 2.25	6.0	6.0
32FCS2	HFH-32	HFHFHK-32	2.00	5.25	2.660	1.44	3.16	0.781	2.06	0.475	2.20	3.81	3/4-10 x 2.75	6.0	6.0

To order a flange clamp split kit, insert a "K" after the material designator in the Tube Fitting part number. The Kit includes two flange clamp halves, 4 HHCS bolts, 4 lock washers and an O-ring.

FCC

Code 61/62 Flange Clamp, Captive



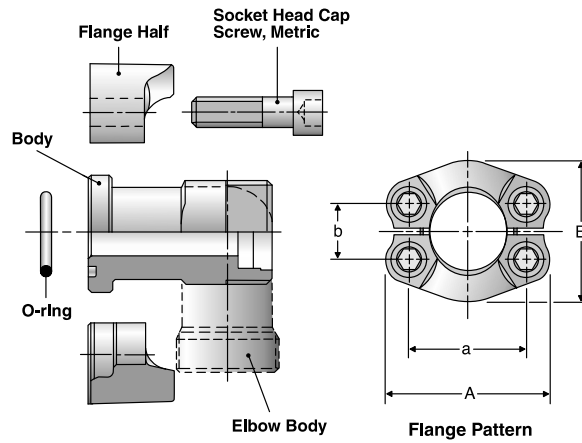
TUBE FITTING PART #	FLANGE SIZE (in.)	A (in.)	B (in.)	D (in.)	E (in.)	H (in.)	K DRILL DIA. (in.)	L (in.)	M (in.)	T TAP UN-2B (in.)	X (in.)	Y (in.)	MOUNTING HARDWARE HHCS	Dynamic Pressure (x 1,000 PSI)		
DRILLED HOLES	TAPPED HOLES													SX	SS	
CODE 61 FLANGE CLAMP, CAPTIVE																
8FCC1	8FCCT1	0.50	1.81	2.125	0.955	0.50	1.219	0.344	0.75	0.245	5/16-18	0.688	1.500	5/16-18 x 1.25	5.0	
12FCC1	12FCCT1	0.75	2.06	2.560	1.265	0.56	1.531	0.406	0.88	0.245	3/8-16	0.875	1.875	3/8-16 x 1.25	5.0	
16FCC1	16FCCT1	1.00	2.31	2.750	1.515	0.62	1.781	0.406	0.94	0.295	3/8-16	1.031	2.062	3/8-16 x 1.25	5.0	
20FCC1	20FCCT1	1.25	2.88	3.125	1.720	0.56	2.031	0.469	0.88	0.295	7/16-14	1.188	2.312	7/16-14 x 1.50	4.0	
24FCC1	24FCCT1	1.50	3.25	3.705	2.000	0.62	2.406	0.531	1.00	0.295	1/2-13	1.406	2.750	1/2-13 x 1.50	3.0	
32FCC1	32FCCT1	2.00	3.81	4.000	2.470	0.62	2.844	0.531	1.03	0.355	1/2-13	1.688	3.062	1/2-13 x 1.50	3.0	
40FCC1	40FCCT1	2.50	4.28	4.500	2.950	0.75	3.344	0.531	1.50	0.355	1/2-13	2.000	3.500	1/2-13 x 1.75	2.5	
48FCC1	48FCCT1	3.00	5.16	5.315	3.580	0.88	4.031	0.656	1.62	0.355	5/8-11	2.438	4.188	5/8-11 x 1.75	2.0	
56FCC1	56FCCT1	3.50	5.50	6.000	4.030	0.88	4.531	0.656	1.12	0.422	5/8-11	2.750	4.750	5/8-11 x 1.75	0.5	
64FCC1	64FCCT1	4.00	6.00	6.375	4.530	1.00	5.031	0.656	1.38	0.422	5/8-11	3.062	5.125	5/8-11 x 2.00	0.5	
CODE 62 FLANGE CLAMP, CAPTIVE																
12FCC2	12FCCT2	0.75	2.38	2.810	1.280	0.75	1.656	0.406	1.12	0.325	3/8-16	0.938	2.000	3/8-16 x 1.50	6.0	
16FCC2	16FCCT2	1.00	2.75	3.190	1.530	0.94	1.906	0.469	1.31	0.355	7/16-14	1.094	2.250	7/16-14 x 1.75	6.0	
20FCC2	20FCCT2	1.25	3.06	3.750	1.750	1.06	2.156	0.531	1.50	0.385	1/2-13	1.250	2.625	1/2-13 x 1.75	6.0	
24FCC2	24FCCT2	1.50	3.75	4.440	2.030	1.19	2.531	0.656	1.69	0.475	5/8-11	1.438	3.125	5/8-11 x 2.25	6.0	
32FCC2	32FCCT2	2.00	4.50	5.250	2.660	1.44	3.156	0.781	2.06	0.475	3/4-10	1.750	3.8120	3/4-10 x 2.75	6.0	

Dimensions and pressures for reference only, subject to change.



FHS3

Flange Components



Code 61

For Straights and Elbows
(ISO 6162-1, Type 1)

Size	For Tube O.D. Series	Working Pressure (bar)	SAE Flange Halves	4 Socket Head Cap Screws DIN 912-8.8	O-Ring
1/2	15L	315	FHS 32CFX	M8X30	OR18.64 x 3.53X
1/2	16S	350			
3/4	18L	315	FHS 33CFX	M10X35	OR25.00 x 3.53X
3/4	22L	160			
3/4	20S	350			
3/4	25S	350			
1	28L	160	FHS 34CFX	M10X35	OR32.92 x 3.53X
1	30S	350			
1 1/4	35L	160	FHS 35CFX	M12X40*	OR37.70 x 3.53X
1 1/4	25S	280			
1 1/4	30S	280			
1 1/4	38S	280			
1 1/2	42L	160	FHS 36CFX	M12X40	OR47.22 x 3.53X
1 1/2	38S	210			

Size	For Tube O.D. Series	A ≈	B ≈	a	b
1/2	15L	54	46	38.1	17.5
1/2	16S	54	46	38.1	17.5
3/4	18L	65	52	47.6	22.2
3/4	22L	65	52	47.6	22.2
3/4	20S	65	52	47.6	22.2
3/4	25S	65	52	47.6	22.2
1	28L	70	59	52.4	26.2
1	30S	70	59	52.4	26.2
1 1/4	35L	79	73	58.7	30.2
1 1/4	25S	79	73	58.7	30.2
1 1/4	30S	79	73	58.7	30.2
1 1/4	38S	79	73	58.7	30.2
1 1/2	42L	94	83	69.9	35.7
1 1/2	38S	94	83	69.9	35.7

Temperature range without pressure reductions for fittings with O-ring sealing of NBR (e.g., buna N series) -35°C up to +100°C, FPM (e.g., fluorocarbon on request) -25°C up to +120°C.

Tightening torques for socket head cap screws see Table S6.

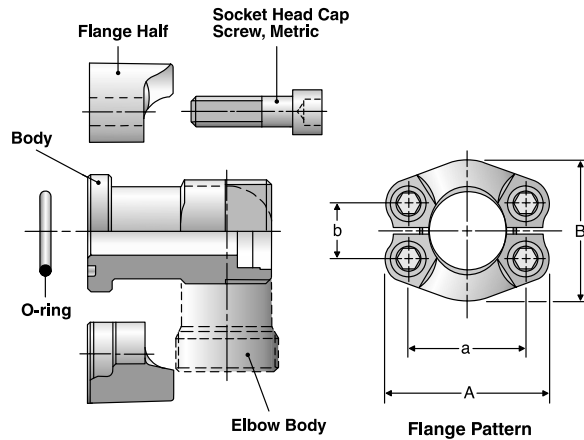
* Does not meet ISO 6162 specification.

Note: Clamp halves are sold separately, not as a set.

Dimensions and pressures for reference only, subject to change.

FHS6

Flange Components



Code 62

For Straights and Elbows
(ISO 6162-2, Type 1)

Size	For Tube O.D. Series	Working Pressure (bar)	SAE Flange Halves	4 Socket Head Cap Screws DIN 912-8.8	O-Ring
1/2	16S	400	FHS 62CFX	M8X35	OR18.64 x 3.53X
3/4	16S	400	FHS 63CFX	M10X35	OR25.00 x 3.53X
3/4	20S	400	FHS 63CFX	M10X35	OR25.00 x 3.53X
3/4	25S	400	FHS 63CFX	M10X35	OR25.00 x 3.53X
1	25S	400	FHS 64CFX	M12X45	OR32.92 x 3.53X
1	30S	400	FHS 64CFX	M12X45	OR32.92 x 3.53X
1 1/4	30S	400	FHS 65CFX	M14X50*	OR37.70 x 3.53X
1 1/4	38S	315	FHS 65CFX	M14X50*	OR37.70 x 3.53X
1 1/2	38S	315	FHS 66CFX	M16X55	OR47.22 x 3.53X

Size	For Tube O.D. Series	A ≈	a	B ≈	b
1/2	16S	56	40.5	47	18.2
3/4	16S	71	50.8	60	23.8
3/4	20S	71	50.8	60	23.8
3/4	25S	71	50.8	60	23.8
1	25S	81	57.2	70	27.8
1	30S	81	57.2	70	27.8
1 1/4	30S	95	66.7	77	31.8
1 1/4	38S	95	66.7	77	31.8
1 1/2	38S	113	79.4	95	36.5

Temperature range without pressure reductions for fittings with O-ring sealing of NBR (e.g., buna N series) -35° up to +100°C, FPM (e.g., fluorocarbon on request) -25° up to +120°C.

Tightening torques for socket head cap screws see Table S7.

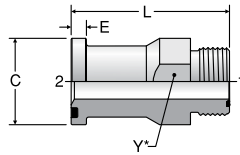
* Does not meet ISO 6162 specification.

Note: Clamp halves are sold separately, not as a set.

Dimensions and pressures for reference only, subject to change.

LOHQ1

Code 61 Flange Connector
Code 61 / ORFS

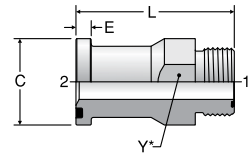


* Y – Across Wrench Flats

TUBE FITTING PART #	END SIZE		C (in.)	E (in.)	L (in.)	Y (in.)	Dynamic Pressure (x 1,000 PSI) -S
	1 (in.)	2 Code 61					
12 LOHQ1	3/4	3/4	1.500	0.265	2.79	1 3/8	5.0
16 LOHQ1	1	1	1.750	0.315	2.81	1 5/8	5.0
20 LOHQ1	1 1/4	1 1/4	2.000	0.315	3.21	1 7/8	4.0
24 LOHQ1	1 1/2	1 1/2	2.375	0.315	3.29	2 1/8	3.0

LOHQ2

Code 62 Flange Connector
Code 62 / ORFS

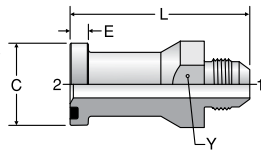


* Y – Across Wrench Flats

TUBE FITTING PART #	END SIZE		C (in.)	E (in.)	L (in.)	Y (in.)	Dynamic Pressure (x 1,000 PSI) -S
	1 (in.)	2 Code 62					
12 LOHQ2	3/4	3/4	1.625	0.345	3.02	1 3/8	6.0
12-16 LOHQ2	3/4	1	1.875	0.375	3.34	1 5/8	6.0
16 LOHQ2	1	1	1.875	0.375	3.36	1 5/8	6.0
20 LOHQ2	1 1/4	1 1/4	2.125	0.405	3.48	1 7/8	5.0
24 LOHQ2	1 1/2	1 1/2	2.500	0.495	4.14	2 1/8	4.5

XHQ1

Code 61 Flange Connector
Code 61 / 37° Flare

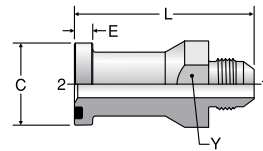


* Y – Across Wrench Flats

TUBE FITTING PART #	END SIZE		C (in.)	E (in.)	L (in.)	Y (in.)	Dynamic Pressure (x 1,000 PSI) -S
	1 (in.)	2 Code 61					
12 XHQ1	3/4	3/4	1.500	0.265	2.77	1 3/8	5.0
16 XHQ1	1	1	1.750	0.315	2.91	1 5/8	5.0
20 XHQ1	1 1/4	1 1/4	2.000	0.315	3.36	1 7/8	4.0
24 XHQ1	1 1/2	1 1/2	2.375	0.315	3.57	2 1/8	3.0
32 XHQ1	2	2	2.812	0.375	4.04	2 5/8	2.0

XHQ2

Code 62 Flange Connector
Code 62 / 37° Flare

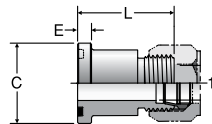


* Y – Across Wrench Flats

TUBE FITTING PART #	END SIZE		C (in.)	E (in.)	L (in.)	Y (in.)	Dynamic Pressure (x 1,000 PSI) -S
	1 (in.)	2 Code 62					
12 XHQ2	3/4	3/4	1.625	0.345	3.08	1 3/8	5.0
16 XHQ2	1	1	1.875	0.375	3.43	1 5/8	5.0
20 XHQ2	1 1/4	1 1/4	2.125	0.405	3.60	1 7/8	4.0
24 XHQ2	1 1/2	1 1/2	2.500	0.495	4.34	2 1/8	3.0

BUHQ1

Code 61 Connector
Code 61 / Flareless

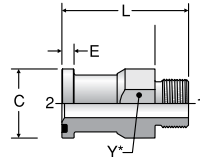


TUBE FITTING PART #	END SIZE		C (in.)	E (in.)	L (in.)	Dynamic Pressure (x 1,000 PSI) -S
	1 (in.)	2 Code 61				
12 BUHQ1	3/4	3/4	1.500	0.265	1.82	
16 BUHQ1	1	1	1.750	0.315	1.88	
20 BUHQ1	1 1/4	1 1/4	2.000	0.315	1.82	
24 BUHQ1	1 1/2	1 1/2	2.375	0.315	1.94	
32 BUHQ1	2	2	2.812	0.375	1.97	

Dimensions and pressures for reference only, subject to change.

F50HQ1

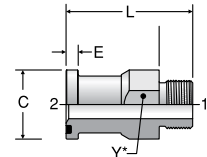
Code 61 Connector
Code 61 / SAE-ORB



* Y – Across Wrench Flats

F50HQ2

Code 62 Connector
Code 62 / SAE-ORB



* Y – Across Wrench Flats

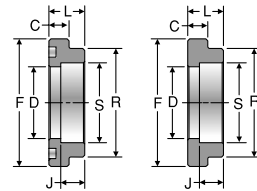
TUBE FITTING PART #	END SIZE		C (in.)	E (in.)	L (in.)	Y (in.)	Dynamic Pressure (x 1,000 PSI) -S
	1 (in.)	2 Code 61					
12 F50HQ1	3/4	3/4	1.500	0.265	2.63	1 3/8	5.0
16 F50HQ1	1	1	1.750	0.315	2.73	1 5/8	4.5
20 F50HQ1	1 1/4	1 1/4	2.000	0.315	3.13	1 7/8	4.0
24 F50HQ1	1 1/2	1 1/2	2.375	0.315	3.22	2 1/8	3.0
32 F50HQ1	2	2	2.812	0.375	3.49	2 3/4	3.0

TUBE FITTING PART #	END SIZE		C (in.)	E (in.)	L (in.)	Y (in.)	Dynamic Pressure (x 1,000 PSI) -S
	1 (in.)	2 Code 62					
12 F50HQ2	3/4	3/4	1.625	0.345	3.08	1 3/8	6.0
16 F50HQ2	1	1	1.875	0.375	3.25	1 5/8	5.5
20 F50HQ2	1 1/4	1 1/4	2.125	0.405	3.37	1 7/8	4.5
24 F50HQ2	1 1/2	1 1/2	2.500	0.495	3.99	2 1/8	4.0
32 F50HQ2	2	2	3.125	0.495	4.86	2 3/4	3.0

B3HQ

Braze Flange Head Connector, Tube
Tube Braze Socket* / Code 61/62 Flange Head

* For clearance brazing



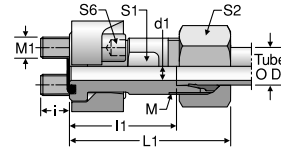
O-ring Face Flat Face

TUBE FITTING PART #	FLANGE SIZE (in.)	TUBE O.D. (in.)	C (in.)	D (in.)	F (in.)	J (in.)	L (in.)	R (in.)	S (in.)	Dynamic Pressure (x 1,000 PSI)		
										SX	SS	
TUBE BRAZE SOCKET / CODE 61 FLANGE HEAD												
8B3HQ1	8B3HQ1N	0.50	1/2	0.265	0.406	1.188	0.312	0.50	0.940	0.502	5.0	
10-8B3HQ1	10-8B3HQ1N	0.50	5/8	0.265	0.500	1.188	0.312	0.50	0.940	0.625	5.0	
12B3HQ1	12B3HQ1N	0.75	3/4	0.265	0.656	1.500	0.375	0.56	1.250	0.752	4.5	
16-12B3HQ1	16-12B3HQ1N	0.75	1	0.315	0.750	1.500	0.375	0.56	1.250	1.002	4.5	
16B3HQ1	16B3HQ1N	1.00	1	0.315	0.906	1.750	0.375	0.56	1.500	1.002	4.5	
20-16B3HQ1	20-16B3HQ1N	1.00	1 1/4	0.315	1.000	1.750	0.375	0.56	1.500	1.252	4.0	
20B3HQ1	20B3HQ1N	1.25	1 1/4	0.315	1.125	2.000	0.375	0.56	1.700	1.252	3.5	
24-20B3HQ1	24-20B3HQ1N	1.25	1 1/2	0.315	1.250	2.000	0.375	0.56	1.700	1.502	3.5	
24B3HQ1	24B3HQ1N	1.50	1 1/2	0.315	1.375	2.380	0.438	0.62	1.980	1.502	3.0	
28-24B3HQ1	28-24B3HQ1N	1.50	1 3/4	0.315	1.500	2.380	0.438	0.62	1.980	1.752	2.7	
32B3HQ1	32B3HQ1N	2.00	2	0.375	1.875	2.810	0.500	0.62	2.450	2.002	3.0	
36-32B3HQ1	36-32B3HQ1N	2.00	2 1/4	0.375	2.000	2.810	0.500	0.62	2.450	2.252	3.0	
40B3HQ1	40B3HQ1N	2.50	2 1/2	0.375	2.375	3.312	0.562	0.68	2.921	2.502	2.2	
44-40B3HQ1	44-40B3HQ1N	2.50	2 3/4	0.375	2.500	3.312	0.500	0.68	2.921	2.752	2.2	
48B3HQ1	48B3HQ1N	3.00	3	0.375	2.875	4.000	0.562	0.75	3.546	3.002	1.7	
TUBE BRAZE SOCKET / CODE 62 FLANGE HEAD												
12B3HQ2	12B3HQ2N	0.75	3/4	0.345	0.656	1.625	0.500	0.69	1.250	0.752	6.0	
16-12B3HQ2	16-12B3HQ2N	0.75	1	0.345	0.750	1.625	0.500	0.69	1.250	1.002	6.0	
16B3HQ2	16B3HQ2N	1.00	1	0.375	0.810	1.875	0.625	0.81	1.500	1.002	6.0	
20-16B3HQ2	20-16B3HQ2N	1.00	1 1/4	0.375	1.000	1.875	0.625	0.81	1.500	1.252	6.0	
20B3HQ2	20B3HQ2N	1.25	1 1/4	0.405	1.010	2.125	0.812	1.00	1.718	1.252	6.0	
24-20B3HQ2	24-20B3HQ2N	1.25	1 1/2	0.405	1.250	2.125	0.812	1.00	1.718	1.502	5.5	
24B3HQ2	24B3HQ2N	1.50	1 1/2	0.495	1.250	2.500	1.000	1.19	2.000	1.502	6.0	
28-24B3HQ2	28-24B3HQ2N	1.50	1 3/4	0.495	1.500	2.500	1.000	1.19	2.000	1.752	4.5	
32B3HQ2	32B3HQ2N	2.00	2	0.495	1.750	3.125	1.375	1.50	2.620	2.002	5.5	
36-32B3HQ2	36-32B3HQ2N	2.00	2 1/4	0.495	2.000	3.125	1.312	1.50	2.620	2.252	4.0	

Dimensions and pressures for reference only, subject to change.

GFS

SAE Flange Connector – Standard Series
Code 61 & 62 / Metric Flareless



TUBE FITTING PART #	SIZE (in.)	TUBE O.D. (mm)	WORKING PRESSURE (bar)	M THREAD	d1 (mm)	i (mm)	L1 (mm)	L1 ≈ (mm)	S1 (mm)	S2 (mm)	S6 (mm)	MATERIAL FROM STOCK		EO-2 FROM STOCK	
												CF	71	CF	71
SAE FLANGE CONNECTIONS – CODE 61 – STANDARD SERIES															
GFS32/15LCF	1/2	15L	200	M22 x 1.5	12	11.5	41	56	24	27	6	•		•	
FS3 / SCF	/	S	0	4	.	.	4	0	4	30		•		•	
FS33/ CF	3/4		00	.	.	.	4		30	3		•		•	
FS33/ CF	3/4		00	30	.	.	4		30	3		•		•	
FS33/ 0SCF	3/4	0S	0	30	.	.	4		30	3		•		•	
FS33/ SCF	3/4	S	0	3	.	.	4		30	4		•		•	
FS34/ CF			00	3	4	3.	4	3	3	4		•		•	
FS34/30SCF		30S	0	4	4	3.	4		3	0		•		•	
FS3 /3 CF	/4	3	00	4	30	.	4		4	0		•		•	
FS3 / SCF	/4	S		3	0	.	4		4	4		•		•	
FS3 /30SCF	/4	30S		4		.	4		4	0		•		•	
FS3 /3 SCF	/4	3 S				.	0		4	0		•		•	
FS3 /4 CF	/	4	00		3	.	3		4	0	0	•		•	
FS3 /3 SCF	/	3 S	30		3	.	4		4	0	0	•		•	
C C C H H P															
FS / SCF	/	S	0	4	.	3.	44.	3	4	30		•		•	
FS 3/ SCF	3/4	S	0	4	.	.	0.		30	30		•		•	
FS 3/ 0SCF	3/4	0S	0	30	.	.	0.		30	3		•		•	
FS 3/ SCF	3/4	S	0	3	.	.		4	30	4		•		•	
FS 4/ SCF		S	0	3	0	0.	0	4	3	4	0	•		•	
FS 4/30SCF		30S	0	4	4	0.	0.		3	0	0	•		•	
FS /30SCF	/4	30S	0	4	.	.			4	0	0	•		•	
FS /3 SCF	/4	3 S	00		30	.			4	0	0	•		•	
FS /3 SCF	/	3 S	00		30	4.	3	04	4	0	4	•		•	

EO-2 Part Number example: GFS33/18ZLCF

Temperature range without pressure reductions for fittings with O-ring sealing of NBR (e.g., buna N series) -35°C up to +100°C, FPM (e.g., fluorocarbon on request) -25°C up to +120°C.

Tightening torques for socket head cap screws see Tables S6 and S7.

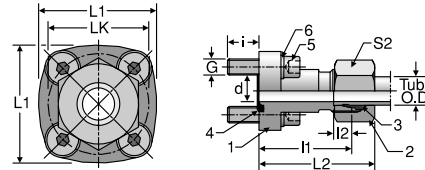
Dimensions and pressures for reference only, subject to change.



BFG

D Flange / Metric Flareless

Tube connection according to D 3 3



P	C	P bar	mm	mm	i mm	mm	mm	mm	mm	mm	C		C	
											C	C	C	C
	C				. 3		4	43	40		•		•	
	C				. 3		4	44	40	3	•		•	
	C				. 3		4	44.	40	3	•		•	
	C				. 30		3	3	3		•		•	
	C	00	0		. 30		3	3	3		•		•	
	C	00	0		. 30		3	3	3		•		•	

Material Selection Component

Material	Tube	Pressure	Temp	Seal	Cap	Pin
C	CF	D	CF	O		
C	CF	D	CF	O		
C	CF	D	CF	O		
C	CF	D	CF	O 0		
C	0 CF	D	0 CF	O 0		
C	CF	D	CF	O 0		

Part Material Selection Component

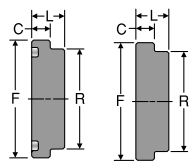
Temperature range without pressure reductions for fittings with O ring sealing of e.g., buna series 3 C up to 00 C, F e.g., fluorocarbon on request C up to 0 C.

Tightening torques for socket head cap screws see Table S .

P

Flange Head Lug

Code / Flange Head Lug



O ring Face Flat Face

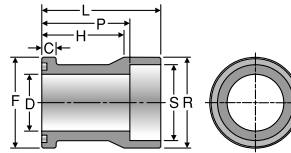
P	C	in.	C in.	in.	in.	in.	Material	
							Pre	P
P	P	0. 0	0. 0	. 0	0. 00	0. 40	. 0	
P	P	0. 0	0. 0	. 00	0. 0	. 0	. 0	
P	P	. 00	0. 3	. 0	0. 0	. 00	. 0	
P	P	. 0	0. 3	. 000	0. 0	. 00	4. 0	
P	P	. 0	0. 3	. 3 0	0. 0	. 0	3. 0	
P	P	. 00	0. 3	. 0	0. 0	. 4 0	3. 0	
P	P	. 0	0. 3	3. 3	0. 0	.	.	
P	P	3. 00	0. 3	4. 000	0. 0	3. 4	. 0	
C		H		P				
P	P	0. 0	0. 34	.	0. 0	. 0	. 0	
P	P	. 00	0. 3	.	0. 0	. 00	. 0	
P	P	.	0. 40	.	. 000	.	. 0	
P	P	. 0	0. 4	. 00	.	. 000	. 0	
P	P	. 00	0. 4	3. 0	. 00	.	. 0	

Dimensions and pressures for reference only, subject to change.



W7HQ

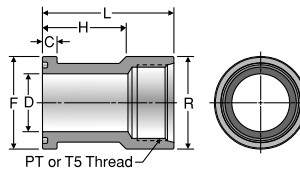
Welded Socket Flange Connector, 1/2" or 3/4" O.D. Socket, 1/2" / Code or 3/4" Flange Head



P	PP	in.	in.	C	in.	in.	in.	H	in.	in.	in.	na i re P	
												Pre	P
C P P C H													
H	3/4	0.	0.	0.	0.	.00	.34	.00	.00	.00	.00	3.	
H	/	.00	0.3	.000	.0	.0	.3	.0	.0	.3	.00	3.	
H	/4	.0	0.3	.0	.000	.0	.4	.000	.0	.000	.0	3.	
H	/	.0	0.3	.00	.3	.00	.00	.00	.3	.00	.00	.0	
H	/	.00	0.3	.000	.0	.00	3.00	.00	.00	.00	.40	.0	
C P P C H													
H	/4	.00	0.3	.000	.0	.34	3.0	.43	.000	.3	.0	.0	
H	/	.0	0.40	.0	.0	.0	3.3	.3	.0	.0	.0	.0	
H	/	.0	0.4	.3	.00	3.0	3.3	3.0	.0	.0	.0	.0	
H	/	.00	0.4	.0	3.0	3.0	4.0	3.0	3.0	.0	.40	.0	

GHQ / G5HQ

Threaded Port Flange Adapter
1/2" or 3/4" Port / Code Flange Head



H

P	P	H	TF	in.	C	in.	in.	H	in.	in.	in.	na i re P	
												Pre	P
P P C H													
H	3/4	4	0.	0.	0.	.00	.4	.0	.0	.0	.0	4.0	
H	/	/	.00	0.3	.00	.0	.0	.0	.0	.0	.0	4.0	
H	/4	/	.0	0.3	.000	.0	.4	.00	.00	.00	.00	3.0	
H	/	/	.0	0.3	.0	.3	.00	3.00	.3	.00	.0	.0	
H	/	/	.00	0.3	.00	.0	.00	3.00	.00	.00	.0	.0	

H

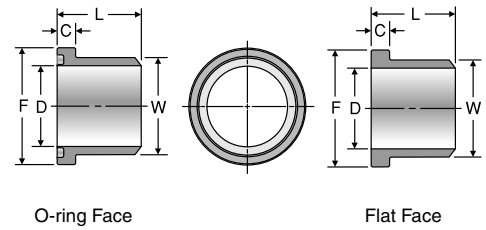
P	P	H	UN-2B	in.	C	in.	in.	H	in.	in.	in.	na i re P	
												Pre	P
P C H													
H	/	/	0.	0.	0.	.00	.4	.0	.0	.0	.0	4.0	
H	/	/	.00	0.3	.00	.0	.0	.0	.0	.0	.0	3.0	
H	/	/	0	.0	.000	.0	.4	.00	.00	.00	.00	.0	
H	/	/	4	.0	0.3	.0	.3	.00	3.00	.3	.00	.0	
H	/	/	3	.00	0.3	.00	.00	.00	3.00	.00	.00	.0	

Dimensions and pressures for reference only, subject to change.



WB1HQ1 / WB3HQ1 / WB5HQ1

Code 61 Weld Butt Flange
Connector, Pipe
Schedule 40, 80 or 160 Weld Butt /
Code 61 Flange Head



WELD BUTT FLANGE CONNECTION TYPE	TUBE FITTING PART #		PIPE SIZE (in.)	FLANGE SIZE (in.)	C (in.)	D (in.)	F (in.)	L (in.)	W (in.)	Dynamic Pressure (x 1,000 PSI)	
	O-RING FACE	FLAT FACE								SX	SS
SCHEDULE 40 WELD BUTT / CODE 61 FLANGE HEAD											
WB1HQ1 For Schedule 40 pipe	8WB1HQ1	8WB1HQ1N	1/2	0.50	0.265	0.622	1.188	1.06	0.840	5.3	
	12WB1HQ1	12WB1HQ1N	3/4	0.75	0.265	0.824	1.500	1.06	1.050	4.6	
	16WB1HQ1	16WB1HQ1N	1	1.00	0.315	1.049	1.750	1.25	1.315	4.0	
	20WB1HQ1	20WB1HQ1N	1 1/4	1.25	0.315	1.380	2.000	1.44	1.660	3.6	
	24WB1HQ1	24WB1HQ1N	1 1/2	1.50	0.315	1.610	2.375	1.75	1.900	3.0	
	32WB1HQ1	32WB1HQ1N	2	2.00	0.375	2.067	2.812	2.00	2.375	2.6	
	40WB1HQ1	40WB1HQ1N	2 1/2	2.50	0.375	2.469	3.312	2.31	2.875	2.6	
48WB1HQ1	48WB1HQ1N	3	3.00	0.375	3.068	4.000	2.32	3.500	2.3		
SCHEDULE 80 WELD BUTT / CODE 61 FLANGE HEAD											
WB3HQ1 For Schedule 80 pipe	8WB3HQ1	8WB3HQ1N	1/2	0.50	0.265	0.546	1.188	1.06	0.840	5.0	
	12WB3HQ1	12WB3HQ1N	3/4	0.75	0.265	0.742	1.500	1.06	1.050	3.5	
	16WB3HQ1	16WB3HQ1N	1	1.00	0.315	0.957	1.750	1.25	1.315	4.0	
	20WB3HQ1	20WB3HQ1N	1 1/4	1.25	0.315	1.278	2.000	1.44	1.660	3.5	
	24WB3HQ1	24WB3HQ1N	1 1/2	1.50	0.315	1.500	2.375	1.75	1.900	3.0	
	32WB3HQ1	32WB3HQ1N	2	2.00	0.375	1.939	2.812	2.00	2.375	3.0	
	40WB3HQ1	40WB3HQ1N	2 1/2	2.50	0.375	2.323	3.312	2.31	2.875	2.7	
48WB3HQ1	48WB3HQ1N	3	3.00	0.375	2.900	4.000	2.32	3.500	2.2		
SCHEDULE 160 WELD BUTT / CODE 61 FLANGE HEAD											
WB5HQ1 For Schedule 160 pipe	8WB5HQ1	8WB5HQ1N	1/2	0.50	0.265	0.464	1.188	1.06	0.840	5.0	
	12WB5HQ1	12WB5HQ1N	3/4	0.75	0.265	0.614	1.500	1.06	1.050	4.0	
	16WB5HQ1	16WB5HQ1N	1	1.00	0.315	0.815	1.750	1.25	1.315	4.5	
	20WB5HQ1	20WB5HQ1N	1 1/4	1.25	0.315	1.160	2.000	1.44	1.660	4.0	
	24WB5HQ1	24WB5HQ1N	1 1/2	1.50	0.315	1.337	2.375	1.75	1.900	3.0	
	32WB5HQ1	32WB5HQ1N	2	2.00	0.375	1.689	2.812	2.00	2.375	3.0	
	40WB5HQ1	40WB5HQ1N	2 1/2	2.50	0.375	2.125	3.312	2.31	2.875	2.5	
48WB5HQ1	48WB5HQ1N	3	3.00	0.375	2.624	4.000	2.32	3.500	2.0		

WB3HQ2 / WB5HQ2 / WB7HQ2

Code 62 Weld Butt Flange
Connector, Pipe
Schedule 80, 160 or
XXS Weld Butt / Code 62
Flange Head

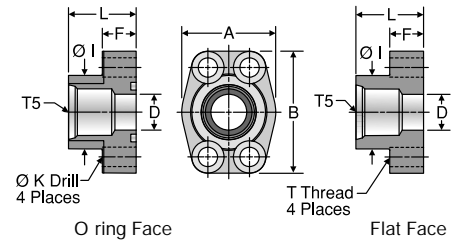
WELD BUTT FLANGE CONNECTION TYPE	TUBE FITTING PART #		PIPE SIZE (in.)	FLANGE SIZE (in.)	C (in.)	D (in.)	F (in.)	L (in.)	W (in.)	Dynamic Pressure (x 1,000 PSI)	
	O-RING FACE	FLAT FACE								SX	SS
SCHEDULE 80 WELD BUTT / CODE 62 FLANGE HEAD											
WB3HQ2 For Schedule 80 pipe	12WB3HQ2	12WB3HQ2N	3/4	0.75	0.345	0.742	1.625	1.42	1.050	5.0	
	16WB3HQ2	16WB3HQ2N	1	1.00	0.375	0.957	1.875	1.61	1.315	4.5	
	20WB3HQ2	20WB3HQ2N	1 1/4	1.25	0.405	1.278	2.125	1.73	1.660	3.5	
	24WB3HQ2	24WB3HQ2N	1 1/2	1.50	0.495	1.500	2.500	2.17	1.900	3.0	
	32WB3HQ2	32WB3HQ2N	2	2.00	0.495	1.939	3.125	2.48	2.375	3.0	
SCHEDULE 160 WELD BUTT / CODE 62 FLANGE HEAD											
WB5HQ2 For Schedule 160 pipe	12WB5HQ2	12WB5HQ2N	3/4	0.75	0.345	0.614	1.625	1.42	1.050	6.0	
	16WB5HQ2	16WB5HQ2N	1	1.00	0.375	0.815	1.875	1.61	1.315	5.5	
	20WB5HQ2	20WB5HQ2N	1 1/4	1.25	0.405	1.160	2.125	1.73	1.660	5.0	
	24WB5HQ2	24WB5HQ2N	1 1/2	1.50	0.495	1.337	2.500	2.17	1.900	5.0	
	32WB5HQ2	32WB5HQ2N	2	2.00	0.495	1.689	3.125	2.48	2.375	4.5	
SCHEDULE XXS WELD BUTT / CODE 62 FLANGE HEAD											
WB7HQ2 For Schedule XXS pipe	12WB7HQ2	12WB7HQ2N	3/4	0.75	0.345	0.434	1.625	1.42	1.050	6.0	
	16WB7HQ2	16WB7HQ2N	1	1.00	0.375	0.599	1.875	1.61	1.315	6.0	
	20WB7HQ2	20WB7HQ2N	1 1/4	1.25	0.405	0.896	2.125	1.73	1.660	6.0	
	24WB7HQ2	24WB7HQ2N	1 1/2	1.50	0.495	1.100	2.500	2.17	1.900	6.0	
	32WB7HQ2	32WB7HQ2N	2	2.00	0.495	1.503	3.125	2.48	2.375	6.0	

Dimensions and pressures for reference only, subject to change.



G5Q

S port lock dapter
S port / Code or lock Flange or ad



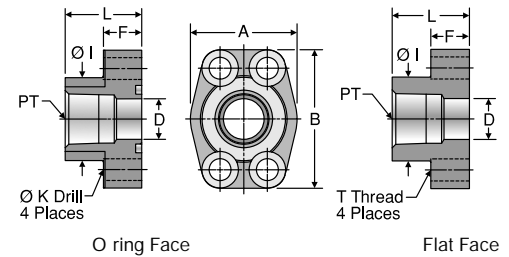
P		P	H	H	H								H	H	na	i
C	C			UN-2B	in.	in.	in.	in.	in.	in.	in.	in.	UNC-2B	HC	Pre	re
	P		3/4		0.0	.3	0.0	0.3	.4	0.344	.4	/	/	.0		
	P		/		0.	.0	0.	.4	0.40	.4	3/	3/	.0	4.0		
	P		/		.00	.00	0.	.00	0.40	.0	3/	3/	.0	3.		
	P	0	/		.0	3.	0.3	.0	0.4	.0	/	4	/	4	.0	3.0
	P	4	/		.0	3.0	3.	.0	0.3	.0	/	3	/	3	.0	.0
	P		3/4		0.0	.0	0.0	0.3	.33	0.344	.4	/	/	.0		
	P		/		0.	.0	0.	0.3	.3	0.40	.3	3/	3/	.0		
	P		/		.00	3.	.00	0.	0.40	.0	/	4	/	4	.0	4.
	P	0	/		.0	3.0	3.	.0	0.3	.0	/	3	/	3	.0	3.0
	P	4	/		.0	3.0	4.4	.0	0.	.0	/	/	/	.0	.0	
	P	3	/		.00	4.0	.00	.4	3.3	0.	.0	3/4	0	3/4	0	.0

See page 3 for standard stainless steel sizes and dimensions.

To receive mounting hardware with flange, insert a "K" after the material designator. Mounting hardware kits are available for O ring Face part numbers and include 4 bolts, 4 lock washers and an O ring.

GQ

TF port lock dapter
TF port / Code or lock Flange or ad



P		P	H										H	H	na	i
C	C	TF			in.	in.	in.	in.	in.	in.	in.	in.	UNC-2B	HC	Pre	re
	P	/	4		0.0	.3	0.0	0.3	.4	0.344	.4	/	/	.0		
	P	3/4	4		0.	.0	0.	.4	0.40	.4	3/	3/	.0	4.		
	P	/	/		.00	.00	0.	.00	0.40	.0	3/	3/	.0	4.0		
	P	/4	/		.0	3.	.0	0.3	.4	.0	/	4	/	4	.0	3.
	P	/	/		.0	3.0	3.	.0	0.3	.0	/	3	/	3	.0	.0
	P	/	/		.00	3.4	4.00	.00	0.	3.	0.3	/	3	/	3	.0
	P	/	/		.0	4.0	4.4	.0	0.	3.	0.3	/	3	/	3	.0
	P	3	/		3.00	4.	.0	4.4	0.	.0	/	/	.00	.0		
	P	/	4		0.0	.0	0.0	0.3	.33	0.344	.4	/	/	.0		
	P	3/4	4		0.	.0	0.	0.3	.3	0.40	.3	3/	3/	.0	.0	
	P	/	/		.00	3.	.00	0.	0.4	.0	/	4	/	4	.0	4.0
	P	/4	/		.0	3.0	3.	.0	0.3	.3	/	3	/	3	.0	3.
	P	/	/		.0	3.0	4.4	.0	0.	.0	/	/	/	.0	3.0	
	P	/	/		.00	4.0	.00	.4	3.3	0.	.0	3/4	0	3/4	0	.0

See page 3 for standard stainless steel sizes and dimensions.

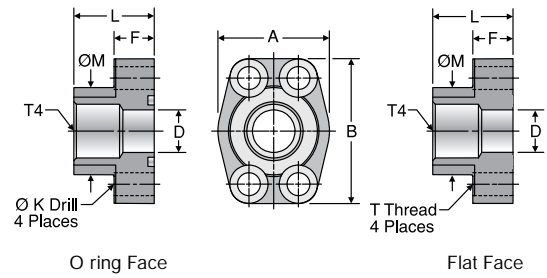
To receive mounting hardware with flange, insert a "K" after the material designator. Mounting hardware kits are available for O ring Face part numbers and include 4 bolts, 4 lock washers and an O ring.

Dimensions and pressures for reference only, subject to change.



G4Q

Short lock dapter
Short / Code or
lock Flange or ad



P		H S	in.	in.	in.	in.	in.	in.	in.	in.	H UNC-2B	H HC	na i Pre re P	
C	C													
			PP P			C			C			P		
	P	/ 4	0.0	.	.3	0.00	0.3	0.344	.4	.	/	/	.	.0
	P	3/4 4	0.	.	.	0.0	0.	0.40	.4	.4	3/	3/	.0	4.0
	P		.00	.	.	.000	0.	0.40	.0	.	3/	3/	.0	3.0
	P	/4	.	.	3.	.0	0.3	0.4	.	.	/ 4	/ 4	.	.
	P	/	.0	3.0	3.	.00	0.	0.3	.	.0	/ 3	/ 3	.	.
	P		.00	3.4	4.00	.000	0.	0.3	.	3.	/ 3	/ 3	.	.
			PP P			C			C			P		
	P	/ 4	0.0	.	.	0.00	0.3	0.344	.4	.33	/	/	.	.0
	P	3/4 4	0.	.	.0	0.0	0.3	0.40	.3	.	3/	3/	.0	.0
	P		.00	.	3.	.000	0.	0.4	.	.	/ 4	/ 4	.	4.0
	P	/4	.	3.0	3.	.0	.0	0.3	.	.3	/ 3	/ 3	.	3.0
	P	/	.0	3.0	4.4	.00	.	0.	.	.	/	/	.	.
	P		.00	4.0	.	.000	.4	0.	.	3.3	3/4 0	3/4 0	.	.0

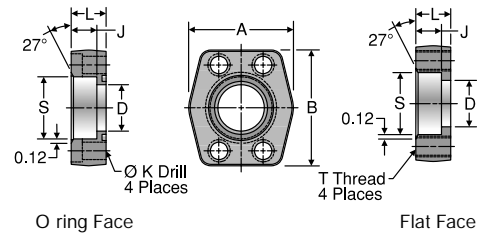
To receive mounting hardware with flange, insert a "K" after the material designator. Mounting hardware kits are available for O ring Face part numbers and include 4 bolts, 4 lock washers and an O ring.

Dimensions and pressures for reference only, subject to change.



W5Q

Flat ended Socket Lock Connector, pipe
Flat ended Socket, pipe / Code or
Lock Flange or Ad



P		PP									H	H	na	i	re	P
C	C	in.	in.	in.	in.	in.	in.	in.	in.	in.	UNC-2B	HC				
		C	PP	C	C	C	C	P								
	P	/	0.0	.3	.000	0.0	0.344	0.0	0.0	/	/	.0	.0			
	P	3/4	0.0	.3	.000	0.0	0.40	0.0	.0	3/	3/	.0	.0			
	P		.00	.3	.000	0.30	0.40	0.0	.3	3/	3/	.0	.0			
	P	/4	.	3.	.0	0.0	0.4	0.40	.	/ 4	/ 4	.4	4.0			
	P	/	.0	3.0	.00	0.0	0.3	.0	.	/ 3	/ 3	.3	3.0			
	P		.00	3.3	4.000	.000	0.3	.3	.40	/ 3	/ 3	.0	3.0			
	P	/	.0	4.	4.00	.00	.000	0.3	.0	/ 3	/ 3	.	.			
	P	3	3.00	.3	3.000	.0	0.	.0	3.4	/	/	3.0	.0			
	P	3 /	3.0	.00	.000	3.00	.0	0.	.440	4.04	/	.	0.			
	P	4	4.00	.000	.3	4.000	.0	0.	.00	4.	/	.	0.			
	P		.00	.0	.0	4.00	.3	0.	.0	.4	/	3.00	0.			
		C	PP	C	C	C	C	P								
	P	/	0.0	.40	.300	0.00	0.344	.0	0.	/	/	.00	.0			
	P	3/4	0.	.00	.0	0.0	0.40	.0	.0	3/	3/	.00	.0			
	P		.00	.0	3.0	.000	0.30	0.4	.00	.3	/ 4	/ 4	.0			
	P	/4	.	3.0	3.0	.0	0.3	.00	.	/ 3	/ 3	.0	.0			
	P	/	.0	3.0	4.440	.00	0.	.0	.	/	/	3.00	.0			
	P		.00	4.00	.0	.000	0.	.0	.40	3/4	0	3.00	.0			
	P	/	.0	.0	.0	.000	0.0	.0	.0	/	/	3.0	.0			
	P	3	3.00	.000	.00	3.000	.0	.	.0	3.4	/	4.0	.0			

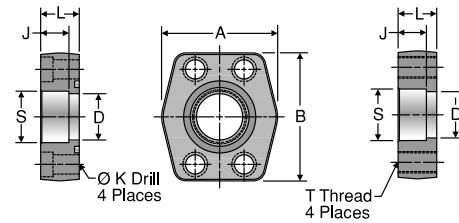
See page 3 for standard stainless steel sizes and dimensions.
 2) Not covered in SAE J518. Bolt hole centerline dimensions are: 2.312" x 4.875" for 40W5Q2 and 2.812" x 6.000" for 48W5Q2.
 To receive mounting hardware with flange, insert a "K" after the material designator. Mounting hardware kits are available for O ring Face part numbers and include 4 bolts, 4 lock washers and an O ring.

Dimensions and pressures for reference only, subject to change.



W4Q

Flat ended Socket Lock Connector, Tube
Flat ended Socket, Tube / Code or
Lock Flange or Pad



O ring Face

Flat Face

P		in.		in.		in.		in.		in.		in.		in.		H	H	na
C	C	C		C		C		C		C		P		UNC-2B	HC	Pre	re	
	P	3/4	0.	.0	.	0.	0.	0	0.40	0.	0	0.	3/	3/	.0	.0		
	P		0.	.0	.	0.	0	0	0.40	0.	0	.00	3/	3/	.0	.0		
	P		.00	.3	.	0.	0	.30	0.40	0.	0	.00	3/	3/	.	.0		
	P	1/4	.00	.3	.	.000	0	.30	0.40	0.	0	.	3/	3/	.	.0		
	P	1/4	.	.	3.	.	0	0	0.4	0.	0	0.40	/ 4	/ 4	.	4.0		
	P	/	.	.	3.	.	0	0	0.4	0.	0	0.40	/ 4	/ 4	.	4.0		
	P	/	.0	3.	3.	.3	0	0	0.3	.	0	.0	/ 3	/ 3	.	3.0		
	P	3/4	.0	3.	3.	.00	0	0	0.3	.	0	.0	/ 3	/ 3	.	3.0		
	P		.00	3.	4.00	.	0.	0	0.3	.3	.00	.	/ 3	/ 3	.0	3.0		
	P	1/4	.00	3.	4.00	.000	0.	0	0.3	.3	.	.	/ 3	/ 3	.0	3.0		
	P	3/4	0.	.3	.	0.	0	0	0.40	.	0	0.	3/	3/	.00	.0		
	P		0.	.3	.	0.	0	0	0.40	.	0	.00	3/	3/	.00	.0		
	P		.00	.	3.	0.	0	.30	0.4	.00	.00	.	/ 4	/ 4	.	.0		
	P	1/4	.00	.	3.	.000	0	.30	0.4	.00	.	.	/ 4	/ 4	.	.0		
	P	1/4	.	3.0	3.	.	0	0	0.3	.00	.	.	/ 3	/ 3	.0	.0		
	P	/	.	3.0	3.	.	0	0	0.3	.00	.0	.	/ 3	/ 3	.0	.0		
	P	/	.0	3.	4.44	.3	0	0	0.	.0	.0	.	/	/	.	.0		
	P	3/4	.0	3.	4.44	.00	0	0	0.	.	0	.	/	/	.	.0		
	P		.00	4.0	.	.	0.	0.	.	0	.00	.	3/4 0	3/4 0	3.00	.0		
	P	1/4	.00	4.0	.	.000	0.	0.	.	0	.	.	3/4 0	3/4 0	3.00	.0		

not covered in S

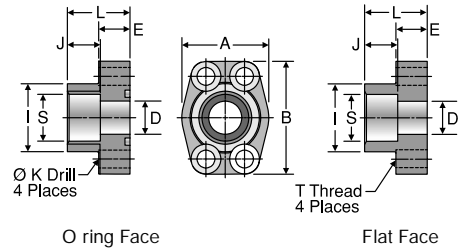
To receive mounting hardware with flange, insert a "K" after the material designator. Mounting hardware kits are available for O ring Face part numbers and include 4 bolts, 4 lock washers and an O ring.

Dimensions and pressures for reference only, subject to change.



W7Q

Standard Deep Groove Socket Lock Connector, Pipe
Deep Groove Socket, Pipe / Code or
Lock Flange or Adapter



P		PP											H	H	na i Pre P
C	C	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	UNC-2B	SHCS	
	P	3/4	0.	.	.	0.	0. 0	. 4	0. 0	0.40	.4 0	.0	3/	3/	. 0
	P		.00	.	.	.00	0. 0	.	0. 0	0.40	. 00	.3	3/	3/	. 0
	P	/4	.	.	3.	.	0. 30	.	0. 0	0.4	. 0	.	/ 4	/ 4	.
	P	/	. 0	3.0	3.	. 0	0. 0	. 0	0. 40	0. 3	. 0	.	/ 3	/ 3	3.0
	P		.00	3. 4	4.00	.00	0. 0	3.	.0 0	0. 3	. 0	.40	/ 3	/ 3	.
	P	/	. 0	4.0	4.4	. 0	0. 0	3.	. 0	0. 3	. 0	. 0	/ 3	/ 3	.
	P	3/4	0.	.	. 0	0.	0. 30	.	0. 0	0.40	.3 0	.0	3/	3/	. 0
	P		.00	.	3.	.00	0. 0	.	0. 0	0.4	. 0	.3	/ 4	/ 4	. 0
	P	/4	.	3.0	3.	.	.0 0	.3	0. 0	0. 3	. 0	.	/ 3	/ 3	.
	P	/	. 0	3.	4.4	. 0	. 0	.	. 00	0.	. 0	.	/	/	.
	P		.00	4.	.	.00	.4 0	3.3	0. 40	0.	. 0	.40	3/4 0	3/4 0	. 0

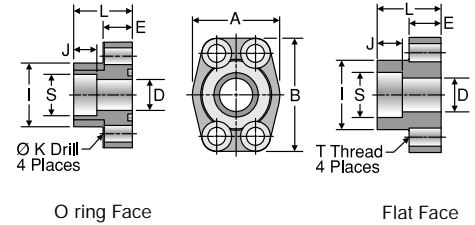
To receive mounting hardware with flange, insert a "K" after the material designator. Mounting hardware kits are available for O ring Face part numbers and include 4 bolts, 4 lock washers and an O ring.

Dimensions and pressures for reference only, subject to change.



W6Q

Standard Deep Groove Socket Lock Connector, Tube
Deep Groove Socket, Tube / Code or
Lock Flange or Adapter



P													H		na i		
C	C	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	UNC-2B	HC	Pre	re
	P	3/4	0.	.	.	0.	0.	.4	0.	0	0.40	.4 0	0.	3/	3/	. 0	.0
	P		0.	.	.	0.	0	.4	0.	0	0.40	.4 0	.00	3/	3/	. 0	.0
	P		.00	.	.	0.	0.	.	0.	0.30	0.40	. 00	.00	3/	3/	. 0	.0
	P	1/4	.00	.	.	.000	0.	.	0.	0.30	0.40	. 00	.	3/	3/	. 0	.0
	P	1/4	.	.	3.	.	0.3	.	0.	0	0.4	. 0	.	/ 4	/ 4	.	4.0
	P	/	.	.	3.	.	0.3	.	0.	0	0.4	. 0	.0	/ 4	/ 4	.	4.0
	P	/	. 0	3.0	3.	.3	0.	.0	0.	0	0.3	. 0	.0	/ 3	/ 3	.	3.0
	P	3/4	. 0	3.0	3.	.00	0.	.0	0.	0	0.3	. 0	.	/ 3	/ 3	.	3.0
	P		.00	3.4	4.00	.	0.	3.	0.	0	0.3	. 0	.00	/ 3	/ 3	.	3.0
	P	1/4	.00	3.4	4.00	.000	0.	3.	0.	0	0.3	. 0	.	/ 3	/ 3	.	3.0
	P	/	. 0	4.0	4.4	.3	0.	3.	.000	0.	0.3	. 0	.0	/ 3	/ 3	.	.
	P	3/4	. 0	4.0	4.4	.00	0.	3.	.000	0.	0.3	. 0	.	/ 3	/ 3	.	.
	P	3/4	0.	.	.0	0.	0.3	.	0.	0	0.40	.3 0	0.	3/	3/	. 0	.0
	P		0.	.	.0	0.	0.3	.	0.	0	0.40	.3 0	.00	3/	3/	. 0	.0
	P		.00	.	3.	0.	0.	.	0.	0.30	0.4	. 0	.00	/ 4	/ 4	.	.0
	P	1/4	.00	.	3.	.000	0.	.	0.	0.30	0.4	. 0	.	/ 4	/ 4	.	.0
	P	1/4	.	3.0	3.	.	.0	.3	0.	0	0.3	. 0	.	/ 3	/ 3	.	.0
	P	/	.	3.0	3.	. 0	.0	.3	0.	0	0.3	. 0	.0	/ 3	/ 3	.	.0
	P	/	. 0	3. 0	4.4	.3	.	.	0.	0	0.	. 0	.0	/	/	.	.0
	P	3/4	. 0	3. 0	4.4	.00	.	.	0.	0	0.	. 0	.0	/	/	.	.0
	P		.00	4. 0	.	.	.4	3.3	0.	0	0.	. 0	.00	3/4 0	3/4 0	.	.0
	P	1/4	.00	4. 0	.	.000	.4	3.3	0.	0	0.	. 0	.	3/4 0	3/4 0	.	.

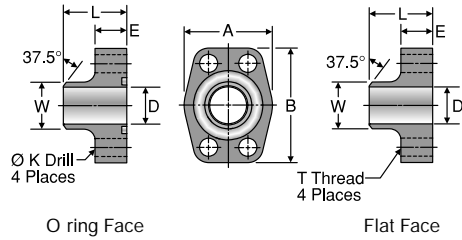
To receive mounting hardware with flange, insert a "K" after the material designator. Mounting hardware kits are available for O ring Face part numbers and include 4 bolts, 4 lock washers and an O ring.

Dimensions and pressures for reference only, subject to change.



WB1Q1 / WB3Q1 / WB5Q1

Code eld utt lock Connector, ipe
Schedule 40, 0 or 0 eld utt/
Code lock Flange or ad



C	C C P	P		P P				P P				H UNC-2B	P P		H HC	na i Pre re P	
		C	C	in.	in.	in.	in.	in.	in.	in.	in.		in.	in.		in.	in.
		CH		C				C				P					
For Schedule 40 pipe	P	3/4	0.	.	.	0.	0	0	0.40	.4	0	3/	.0	0	3/	.0	3.
	P		.00	.	.	.0	0	0	0.40	.00	3/	.3	3/	.0	3.	3.0	
	P	/4	.	.	3.	.3	0	.30	0.4	.0	/	4	.0	/	4	.	.
	P	/	.0	3.0	3.	.	0	0	0.3	.30	/	3	.00	/	3	.	.
	P	/	.00	3.4	4.00	.0	0	0	0.3	.0	/	3	.3	/	3	.	.0
	P	/	.0	4.0	4.4	.4	0	0	0.3	.0	/	3	.	/	3	.	.0
		CH		C				C				P					
For Schedule 0 pipe	P	3/4	0.	.	.	0.44	0	0	0.40	.4	0	3/	.0	0	3/	.0	.0
	P		.00	.	.	0.	0	0	0.40	.00	3/	.3	3/	.0	4.	.	
	P	/4	.	.	3.	.0	0	.30	0.4	.0	/	4	.0	/	4	.	4.0
	P	/	.0	3.0	3.	.0	0	0	0.3	.30	/	3	.00	/	3	.	3.0
	P	/	.00	3.4	4.00	.4	0	0	0.3	.0	/	3	.3	/	3	.	3.0
	P	/	.0	4.0	4.4	.3	0	0	0.3	.0	/	3	.	/	3	.	.
		CH		C				C				P					
For Schedule pipe	P	3/4	0.	.	.	0.4	0	0	0.40	.4	0	3/	.0	0	3/	.0	.0
	P		.00	.	.	0.	0	0	0.40	.00	3/	.3	3/	.0	.0	.	
	P	/4	.	.	3.	.	0	.30	0.4	.0	/	4	.0	/	4	.	4.0
	P	/	.0	3.0	3.	.340	0	0	0.3	.30	/	3	.00	/	3	.	3.0
	P	/	.00	3.4	4.00	.	0	0	0.3	.0	/	3	.3	/	3	.	3.0
	P	/	.0	4.0	4.4	.	0	0	0.3	.0	/	3	.	/	3	.	.
		CH		C				C				P					
For Schedule pipe	P	3/4	0.	.	.	0.4	0	0	0.40	.4	0	3/	.0	0	3/	.0	.0
	P		.00	.	.	0.	0	0	0.40	.00	3/	.3	3/	.0	.0	.	
	P	/4	.	.	3.	.	0	.30	0.4	.0	/	4	.0	/	4	.	4.0
	P	/	.0	3.0	3.	.340	0	0	0.3	.30	/	3	.00	/	3	.	3.0
	P	/	.00	3.4	4.00	.	0	0	0.3	.0	/	3	.3	/	3	.	3.0
	P	/	.0	4.0	4.4	.	0	0	0.3	.0	/	3	.	/	3	.	.
		CH		C				C				P					
For Schedule pipe	P	3/4	0.	.	.	0.4	0	0	0.40	.4	0	3/	.0	0	3/	.0	.0
	P		.00	.	.	0.	0	0	0.40	.00	3/	.3	3/	.0	.0	.	
	P	/4	.	.	3.	.	0	.30	0.4	.0	/	4	.0	/	4	.	4.0
	P	/	.0	3.0	3.	.340	0	0	0.3	.30	/	3	.00	/	3	.	3.0
	P	/	.00	3.4	4.00	.	0	0	0.3	.0	/	3	.3	/	3	.	3.0
	P	/	.0	4.0	4.4	.	0	0	0.3	.0	/	3	.	/	3	.	.

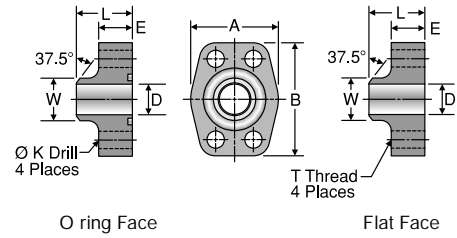
To receive mounting hardware with flange, insert a "K" after the material designator. Mounting hardware kits are available for O ring Face part numbers and include 4 bolts, 4 lock washers and an O ring.

Dimensions and pressures for reference only, subject to change.



WB3Q2 / WB5Q2 / WB7Q2

Code eld utt lock Connector, ipe
Schedule 0, 0 or S eld utt /
Code lock Flange or ad



C	C C P	P		P P				P P				H UNC-2B	P P		na i Pre re P		
		C	C	in.	in.	in.	in.	in.	in.	in.	in.		in.	H	HC		
		CH		C				C				P					
For Schedule pipe	0	P	3/4	0.	.	.0	0.44	0.3	0.40	.3	3/	.00	3/	.0	.0		
		P		.00	.	3.	0.	0.3	0.4	.	/ 4	.3	/ 4	.	.0		
		P	/4	.	3.0	3.	.0	0.	0.3	.3	/ 3	.0	/ 3	.	.0		
		P	/	.0	3.0	4.4	.0	.	0.	.	/	.00	/	.	.0		
		CH		C				C				P					
For Schedule pipe	0	P	3/4	0.	.	.0	0.4	0.3	0.40	.3	3/	.00	3/	.0	.0		
		P		.00	.	3.	0.	0.3	0.4	.	/ 4	.3	/ 4	.	.0		
		P	/4	.	3.0	3.	.	0.	0.3	.3	/ 3	.0	/ 3	.	.0		
		P	/	.0	3.0	4.4	.340	.	0.	.	/	.00	/	.	.0		
		CH		C				C				P					
For Schedule pipe	S	P	3/4	0.	.	.0	0.43	0.3	0.40	.3	3/	.00	3/	.0	.0		
		P		.00	.	3.	0.0	0.3	0.4	.	/ 4	.3	/ 4	.	.0		
		P	/4	.	3.0	3.	.0	0.	0.3	.3	/ 3	.0	/ 3	.	.0		
		P	/	.0	3.0	4.4	.0	.	0.	.	/	.00	/	.	.0		
		CH		C				C				P					
		CH		C				C				P					
		CH		C				C				P					

S does not cover these sizes in Code .

To receive mounting hardware with flange, insert a "K" after the material designator. Mounting hardware kits are available for O ring Face part numbers and include 4 bolts, 4 lock washers and an O ring.

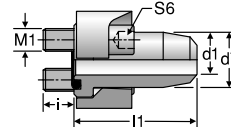
Dimensions and pressures for reference only, subject to change.



AS3 / AS6

S Flange / eld utt

For metric tube welded connection



P	in.	H C mm	P bar	mm	mm	mm	mm	mm	PP	C	C
	/		00		3.		3		S3 /		
	/	3	0	0	3.		3		S3 / 3		
	3/4	.	30		3.		0		S33/		
	3/4		40		3.		0		S33/		
	3/4	0 3	0	4	3.		0		S33/ 0 3		
	3/4	4	0		3.		0		S33/ 4		
				4	3		0		S34/		
		30 4.	0		3		0		S34/30 4.		
	/4	3	0	3	43				S3 /3		
	/4	3			43				S3 / 3		
	/4	30 4			43				S3 /30 4		
	/4	3			43				S3 /3		
	/	4 3		3	0			0	S3 /4 3		
	/	3 4	30	30	0			0	S3 /3 4		
		0	30	3			4		S3 / 0		
			30	4			4		S3 /		
			C	C	C	H	HP				
	/	3	0	0	3.	3.	4		S / 3		
	3/4		0		3.				S 3/		
			0		3	0.		0	S 4/		
		30 4	00		3	0.		0	S 4/30 4		
	/4	30 4	00		43.			0	S /30 4		
	/4	3	00		43.			0	S /3		
	/4	3	0		43.			0	S /3		
	/	3	00		0.	4.		4	S /3		
	/	3	0		0.	4.		4	S /3		
		0	0	3		3.			S / 0		
			0	4		3.			S /		

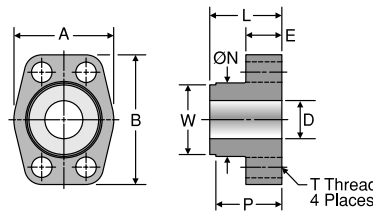
identical types.

Temperature range without pressure reductions for fittings with O ring sealing of e.g., buna series 3 C up to 00 C, F e.g., uorocarbon on re uest C up to 0 C.

Tightening tor ues for socket head cap screws see Tables S and S .

WBT

Code eld utt Tank dapter
eld utt with ilot / Code lock Flange ad



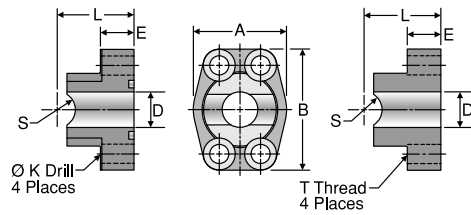
P	in.	in.	in.	in.	in.	in.	P in.	H UNC-2B	in.	na i Pre re P
P	0.	.	.	0.	0.	.4	.30	3/	.3	0.
P	.00	.	.	.00	0.	.0	.3	3/	.00	0.
P	.	3.	.	0. 3	.	.	.4	/ 4	.0	0.
P	.0	3.0	3.	.0	0.	.	.4	/ 3	.	0.
P	.00	3. 4	4.00	.00	0.	.	.	/ 3	.00	0.
P	.0	4.0	4. 0	.0	0.	.	.	/ 3	3. 0	0.

Dimensions and pressures for reference only, sub ect to change.



WSD

Code eld Saddle lock Connector
 Pipe or Tube eld Saddle /
 Code lock Flange or ad



O ring Face

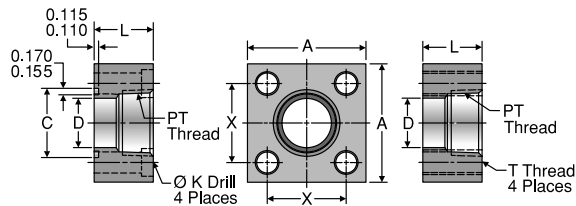
Flat Face

P		P									H	H		na i	
C	C	in.	in.	in.	in.	in.	in.	in.	in.	in.	UNC-2B	HC	Pre	re	
	P	3/4	0.	.	.	0.	0.	0	0.40	.4	0.3	3/	3/	.0	.0
	P	/	.00	.	.	.00	0.	0	0.40	.0	0.	3/	3/	.0	.0
	P	/4	.	.	3.	.	0.	30	0.4	.	0.3	/ 4	/ 4	.	4.0
	P	/	.0	3.0	3.	.0	0.	0	0.3	.	0.	/ 3	/ 3	.	3.0
	P	/	.00	3.4	4.00	.00	0.	0	0.3	.	.00	/ 3	/ 3	.	3.0
	P	3/4	0.	.	.	0.	0.	0	0.40	.4	0.3	3/	3/	.0	.0
	P	/	.00	.	.	.00	0.	0	0.40	.0	0.0	3/	3/	.0	.0
	P	/4	.00	.	.	.00	0.	0	0.40	.0	0.3	3/	3/	.0	.0
	P	/	.	.	3.	.	0.	30	0.4	.	0.3	/ 4	/ 4	.	4.0
	P	/	.	.	3.	.	0.	30	0.4	.	0.	/ 4	/ 4	.	4.0
	P	/	.0	3.0	3.	.0	0.	0	0.3	.	0.	/ 3	/ 3	.	3.0
	P	3/4	.0	3.0	3.	.0	0.	0	0.3	.	0.	/ 3	/ 3	.	3.0
	P	/	.00	3.4	4.00	.00	0.	0	0.3	.	.00	/ 3	/ 3	.	3.0
	P	/4	.00	3.4	4.00	.00	0.	0	0.3	.	.3	/ 3	/ 3	.	3.0

To receive mounting hardware with flange, insert a "K" after the material designator. Mounting hardware kits are available for O ring Face part numbers and include 4 bolts, 4 lock washers and an O ring.

GQS

TF ort S uare lock Flange dapter
 TF ort / S uare lock Flange or ad



O ring Face

Flat Face

P		P									H	H		na i	
C	C	TF	in.	in.	in.	in.	in.	in.	in.	in.	UNC-2B	HC	Pre	re	
	P	3/4 4	0.	.	.	.0	0.	0.40	.	3/	.43	4	3/	.00	.0
	P	/	.00	3.00	.0	.0	.00	0.3	.0	/ 3	.000		/ 3	.	.0
	P	/4 /	.	3.00	.0	.0	.	0.3	.0	/ 3	.000		/ 3	.	4.0
	P	/ /	.0	4.00	.00	.	.0	0.	.	/	.0		/	.	3.0
	P	/ /	.00	4.00	.00	.4	0	.00	.	/	.0		/	.	.
	P	/	.0	.0	.	.	.0	0.	.0	/	3.0	3	/	3.0	.
	P	3	3.00	.0	.	3.	3.00	0.0	.	/	3.0	3	/	3.0	.

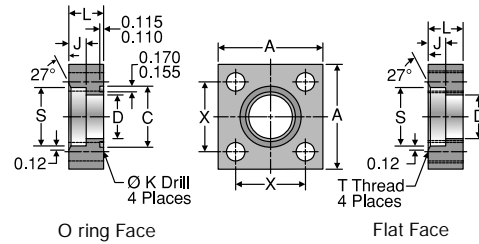
To receive mounting hardware with flange, insert a "K" after the material designator. Mounting hardware kits are available for O-ring Face part numbers and include 4 bolts, 4 lock washers and an O ring.

Dimensions and pressures for reference only, subject to change.



W5SQS

Old Socket Square Lock Connector, Pipe
Pipe Old Socket / Square Lock Flange or Ad

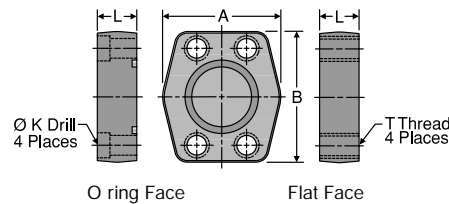


P		P P		C								H	H	na i Pre P		
C	C	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	UNC-2B	in.	HC		
	P	3/4	0.	.	.	0	0.	0.0	0.40	.00	.0	3/	.43	4	3/	.0
	P		.00	3.00	.0	.0	.00	0.0	0.3	.00	.3	/ 3	.000		/ 3	.0
	P	/4	.	3.00	.0	.0	.00	0.0	0.3	.00	.0	/ 3	.000		/ 3	4.0
	P	/	.0	4.00	.00	.	.0	0.	.	.	.	/	.0		/	3.0
	P		.00	4.00	.00	.4	0	.00	0.	.	.40	/	.0		/	3.0
	P	/	.0	.0	.	.	.0	0.	0.0	.0	.0	/	3.0	3	/	.
	P	3	3.00	.0	.	3.	3.00	0.	0.0	.0	3.4	/	3.0	3	/	.0

To receive mounting hardware with flange, insert a "K" after the material designator. Mounting hardware kits are available for O-ring Face part numbers and include 4 bolts, 4 lock washers and an O ring.

PQ

Lock Lug
Code / Lock Flange or Ad Lug



P		P P		C								H	H	Dynamic ressure ,000 S
C	C	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	UNC-2B	HC	
	P	P	P	0.0	.3	.	0.344	0.0	/	/	.0			.0
	P	P	P	0.	.03	.3	0.40	0.0	3/	3/	.0			.0
	P	P	P	.00	.33	.0	0.40	0.0	3/	3/	.0			.0
	P	P	P	.	3.	0.4	0.40	/	4	/	4.0			4.0
	P	P	P	.0	3.0	0.3	.0	/	3	/	3.0			3.0
	P	P	P	.00	3.3	4.000	0.3	.440	/	3	/	3.0		3.0
	P	P	P	.0	4.	4.00	0.3	.	/	3	/	3.		.
	P	P	P	3.00	.	.33	0.	.0	/	/	3.0			.0
	P	P	P	3.0	.00	.000	0.	.440	/	/	.0			.0
	P	P	P	4.00	.000	.30	0.	.440	/	/	.0			.0
	P	P	P	0.0	.40	.300	0.344	.0	/	/	.00			.0
	P	P	P	.00	.00	.0	0.40	.0	3/	3/	.00			.0
	P	P	P	.0	3.0	0.4	.00	/	4	/	4.0			.0
	P	P	P	.	3.0	0.3	.430	/	3	/	3.0			.0
	P	P	P	.0	3.0	4.440	0.	.	/	/	3.00			.0
	P	P	P	.00	4.00	.0	0.	.	3/4	0	3.00			.0
	P	P	P	.0	.0	.0	0.40	.30	/	/	3.0			.0
	P	P	P	3.00	.000	.00	.0	.0	/	/	4.0			.0

See page 40 for standard stainless steel sizes and dimensions.

2) SAE J518 does not cover these sizes in Code 62. Bolt hole centerline dimensions are: 2.312" x 4.875" for 4OPQ2 and 2.812" x 6.000" for 48PQ2.

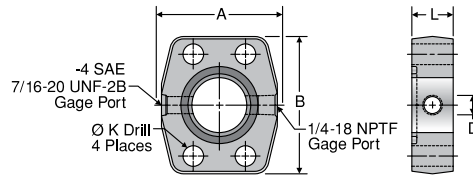
To receive mounting hardware with flange, insert a "K" after the material designator. Mounting hardware kits are available for O ring Face part numbers and include 4 bolts, 4 lock washers and an O ring.

Dimensions and pressures for reference only, subject to change.



SPGG5

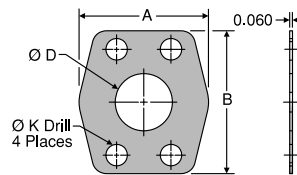
Flange Spacer with gage ports
Code / Spacer with Side gage ports



P	in.	in.	in.	in.	in.	in.	na i re P	
C							P C	
P	0.0	.3	.	0.00	0.344	.	.0	
P	0.	.03	.3	0.0	0.40	.	.0	
P	.00	.33	.0	.000	0.40	0.	.0	
P	.	.	3.	.0	0.4	0.4	4.0	
P	.0	3.0	3.	.00	0.3	.	3.0	
P	.00	3.3	4.000	.000	0.3	.3	3.0	
P	.0	4.	4.00	.00	0.3	.	.	
P	3.00	.	.33	3.000	0.	.	.0	
C							P C	
P	0.0	.40	.300	0.00	0.344	.	.0	
P	0.	.00	.0	0.0	0.40	.	.0	
P	.00	.0	3.0	.000	0.4	.0	.0	
P	.	3.00	3.0	.0	0.3	.0	.0	
P	.0	3.0	4.440	.00	0.	.	.0	
P	.00	4.00	.0	.000	0.	.	.0	

CP

Flange Connector late
Code / Flange Connector late



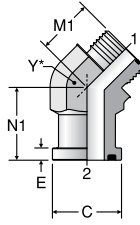
P	in.	in.	in.	in.	in.	Dynamic pressure ,000 S	
C					P		
CP	0.0	.	.	0.0	0.344	.0	
CP	0.	.0	.	0.	0.40	.0	
CP	.00	.3	.	.00	0.40	.0	
CP	.	.	3.	.	0.4	4.0	
CP	.0	3.	3.	.0	0.3	3.0	
CP	.00	3.	4.00	.00	0.3	3.0	
CP	.0	4.	4.44	.0	0.3	.	
CP	3.00	.	.3	3.00	0.	.	
C					P		
CP	0.	.3	.	0.	0.40	.0	
CP	.00	.	3.	.00	0.4	.0	
CP	.	3.0	3.	.	0.3	.0	
CP	.0	3.	4.44	.0	0.	.0	
CP	.00	4.0	.	.00	0.	.0	

Dimensions and pressures for reference only, subject to change.



LOVQ1

Code Flange 4 lbow
Code / O FS

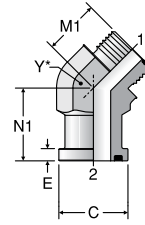


cross rench Flats

P	in.		C in.	in.	in.	in.	in.	na Pre re P
	in.	in.						
	3/4	3/4	.00	0.	.0	.	/	.0
			.0	0.3	.	.	/	.0
	/4	/4	.000	0.3	.	.40	/	4.0
	/	/	.3	0.3	.4	.0	/	3.0

LOVQ2

Code Flange 4 lbow
Code / O FS

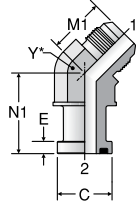


cross rench Flats

P	in.		C in.	in.	in.	in.	in.	na Pre re P
	in.	in.						
	3/4	3/4	.	0.34	.0	.3	/	.0
			.	0.3	.	.0	/	.0
	/4	/4	.	0.40	.	.40	/	.0
	/	/	.00	0.4	.4	.0	/	4.

XVQ1

Code Flange 4 lbow
Code / 3 Flare

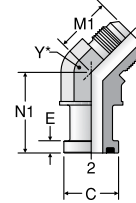


cross rench Flats

P	in.		C in.	in.	in.	in.	in.	na Pre re P
	in.	in.						
	3/4	3/4	.00	0.	.	.	/	.0
			.0	0.3	.4	.	/	.0
	/4	/4	.000	0.3	.	.40	/	4.0
	/	/	.3	0.3	.	.0	/	3.0
			.	0.3	.	3.00	/	.0

XVQ2

Code Flange 4 lbow
Code / 3 Flare

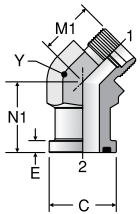


cross rench Flats

P	in.		C in.	in.	in.	in.	in.	na Pre re P
	in.	in.						
	3/4	3/4	.	0.34	.	.3	/	.0
			.	0.3	.4	.0	/	.0
	/4	/4	.	0.40	.	.40	/	4.0
	/	/	.00	0.4	.	.0	/	3.0

BUVQ1

Code 4 lbow
Code / Flareless



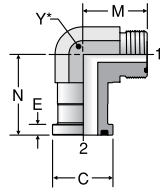
cross rench Flats

P	in.		C in.	in.	in.	in.	in.	na Pre re P
	in.	in.						
	3/4	3/4	.00	0.	.	.	/	
			.0	0.3	.3	.	/	
	/4	/4	.000	0.3	.4	.40	/	
	/	/	.3	0.3	.	.0	/	
			.	0.3	.3	3.00	/	

Dimensions and pressures for reference only, sub ect to change.

LOEQ1

Code Flange 0 lbow
Code / O FS

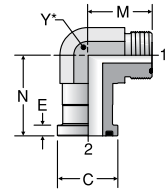


cross rench Flats

P	in.		C in.	in.	in.	in.	in.	in.	na i Pre re P		
	in.	in.									
	3/4	3/4	.00	0.	.	.	3/	.0			
			.0	0.3	.0	.3	/	.0			
	/4	/4	.000	0.3	.	.	/	4.0			
	/	/	.3	0.3	.4	.4		3.0			

LOEQ2

Code Flange 0 lbow
Code / O FS

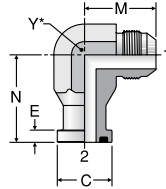


cross rench Flats

P	in.		C in.	in.	in.	in.	in.	in.	na i Pre re P		
	in.	in.									
	3/4	3/4	.	0.34	.0	.0	3/	.0			
			.	0.3	.	.4	/	.0			
	/4	/4	.	0.40	.0	.	/	.0			
	/	/	.00	0.4	.	3.3		4.			

XEQ1

Code Flange 0 lbow
Code / 3 Flare

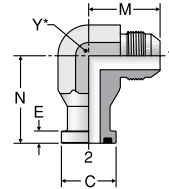


cross rench Flats

P	in.		C in.	in.	in.	in.	in.	in.	na i Pre re P		
	in.	in.									
	3/4	3/4	.00	0.	.	.	3/	.0			
			.0	0.3	.0	.3	/	.0			
	/4	/4	.000	0.3	.	.	/	4.0			
	/	/	.3	0.3	.	.4		3.0			
			.	0.3	3.0	4.	/	.0			

XEQ2

Code Flange 0 lbow
Code / 3 Flare

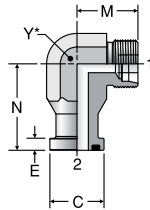


cross rench Flats

P	in.		C in.	in.	in.	in.	in.	in.	na i Pre re P		
	in.	in.									
	3/4	3/4	.	0.34	.	.04	3/	.0			
			.	0.3	.	.4	/	.0			
	/4	/4	.	0.40	.	.	/	4.0			
	/	/	.00	0.4	3.03	3.3		3.0			

BUEQ1

Code 0 lbow
Code / Flareless



cross rench Flats

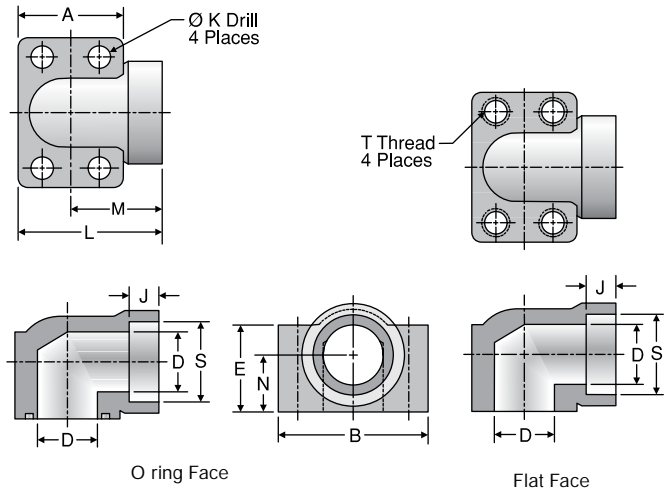
P	in.		C in.	in.	in.	in.	in.	in.	na i Pre re P		
	in.	in.									
	3/4	3/4	.00	0.	.3	.	3/				
			.0	0.3	.	.3	/				
	/4	/4	.000	0.3	.	.	/				
	/	/	.3	0.3	.33	.4					
			.	0.3	.4	4.	/				

Dimensions and pressures for reference only, subject to change.



W7EQ

Weld Socket Lock Bolt Connector, Pipe
Weld Socket, Pipe / Code or
Lock Flange or Ad



P		P P												H	H		na i Pre re P	
C	C	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	UNC-2B	HC			
		C			P P		C		C			P						
	P	3/4	0.	.4	.0	.0	.0	0.40	.44	.0	.0	.0	3/	3/	.00	.0		
	P		.00	.4	.00	.0	0.40	.0	.0	.3	3/	3/	.0	4.				
	P	/4	.0	.3	.0	.00	0.4	3.00	.0	.3	/	4	/	4	.0	3.0		
	P	/	.00	3.0	4.33	.00	0.3	3.33	.0	.3	/	3	/	3	3.00	3.0		
	P	/	.00	3.0	4.33	.00	0.3	3.0	.0	.3	/	3	/	3	3.0	3.0		
		C			P P		C		C			P						
	P	3/4	0.	.4	.0	.0	0.40	.0	.0	.0	.0	3/	3/	.0	.0			
	P		.00	.3	.00	.0	0.4	3.00	.0	.3	/	4	/	4	.0	.0		
	P	/4	.0	.3	.00	.0	0.3	3.3	.0	.3	/	3	/	3	3.00	.0		
	P	/	.00	3.0	4.33	.00	0.3	3.0	.0	.3	/	3	/	3	3.0	.0		

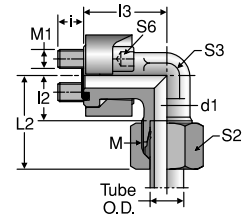
To receive mounting hardware with flange, insert a "K" after the material designator. Mounting hardware kits are available for O-ring Face part numbers and include 4 bolts, 4 lock washers and an O ring.

Dimensions and pressures for reference only, subject to change.

WFS

S Flange Connection

Code / etric Flareless



P	in.	mm	P bar	TH	D	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	C			
																C	C	C	
C	/	S	00	4			4		3		44	4		4			•	•	
C	/	S	0	4			4		3	0	4	4	30	4			•	•	
C	3/4		00				4	3	4		4	30	3	30			•	•	
C	3/4	OS	00	30			4	33	4		0	30	3	30			•	•	
C	3/4	OS	0	30			4	3	4		4	30	3	30			•	•	
C	3/4	S	0	3			4	33	4			30	4	30			•	•	
C		30S	00	3	4	3	4	3	4	3	3	3	4	3			•	•	
C		30S	0	4	4	3	4	3	4		3	3	0	3			•	•	
C	1/4	3	00	4	30		4	4	0		4	0	4	4			•	•	
C	1/4	S		3	0		4	43	0			4	4	4			•	•	
C	1/4	30S		4			4	43	0		0	4	0	4			•	•	
C	1/4	3 S					0	43	0		4	4	0	4			•	•	
C	/	4	00			3		3	4		0	4	0	0	0		•	•	
C	/	3 S	30			3		4	4			4	0	0	0		•	•	
C	/	S	0	4		3	44		3	3	4	4	30	4			•	•	
C	3/4	S	0	4			0	3	4			30	30	3			•	•	
C	3/4	OS	0	30			0	3	4			30	3	3			•	•	
C	3/4	S	0	3				3	4		0	30	4	3			•	•	
C		S	0	3	0	0	0	44	0	4		3	4	4	0		•	•	
C		30S	0	4	4	0	0	4	0			3	0	4	0		•	•	
C	1/4	30S	0	4				44				4	0	4	0		•	•	
C	1/4	3 S	00			30		4				4	0	4	0		•	•	
C	/	3 S	00			30	4	3		04		4	0	0	4		•	•	

Part description C

Temperature range without pressure reductions for fittings with O ring sealing of e.g., buna series 3 C up to 00 C, F e.g., uorocarbon on re est C up to 0 C.

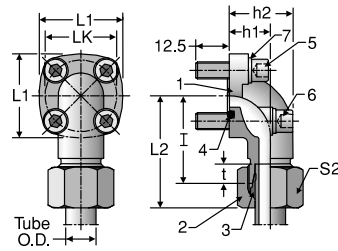
Tightening tor ues for socket head cap screws see Tables S and S .

Dimensions and pressures for reference only, sub ect to change.



BFW

Hydraulic Flange / Metric Flareless
D Flange / Metric Flareless



P	C	P bar	mm	mm	mm	mm	mm	mm	mm	mm	t mm	C			
												C	C	C	C
C	C			3	3	4	4	40				•		•	
C	C			3	3	4	4	40	3			•		•	
C	C			3	3	4	4	40	3			•		•	
C	C			43	40	4	4	40	4			•		•	
C	C		3	3		4	4	40	0	0		•		•	
C	C		3	3		4	4	40	0	0		•		•	
C	C		4	40	4	4			0			•		•	
C	C					3	4	3				•		•	
C	C		0	4	3	4			3	0		•		•	
C	C		0		3	40	4	0	40	3	0	•		•	
C	C			30	4	4			4			•		•	
C	C		30	3	0	4			0	3		•		•	
C	C	00	0			3	3	4	3			•		•	
C	C	00				3	3	4	3			•		•	
C	C	00		0	3	3	3	4	3	30		•		•	

na e e ittin Co ponent

o o	t	Pro re i e in	in	Cap re	Cap re	pr a er
C	CF	D	CF	O	.	
C	CF	D	CF	O	.	
C	CF	D	CF	O	.	
C	CF	D	CF	O	.	
C	3 CF	D	3 CF	O	.	0
C	3 CF	D	3 CF	O	33	0
C	4 CF	D	4 CF	O	33	0
C	CF	D	CF	O	0	3
C	0SCF	D	0SCF	O	33	0
C	0SCF	D	0SCF	O	.	4
C	SCF	D	SCF	O	33	
C	30SCF	D	0SCF	O	33	
C	0 CF	D	0 CF	O	0	3
C	CF	D	CF	O	0	3
C	SCF	D	SCF	O	0	40
C	0SCF	D	0SCF	O	0	4

Part e r e a p e C

Temperature range without pressure reductions for fittings with O ring sealing of e.g., buna series
3 C up to 00 C, F e.g., uorocarbon on re uest C up to 0 C.

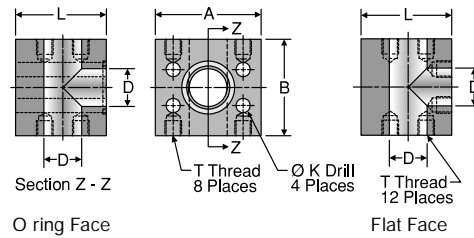
Tightening tor ues for socket head cap screws see Table S .

Dimensions and pressures for reference only, sub ect to change.



QPQPJQ

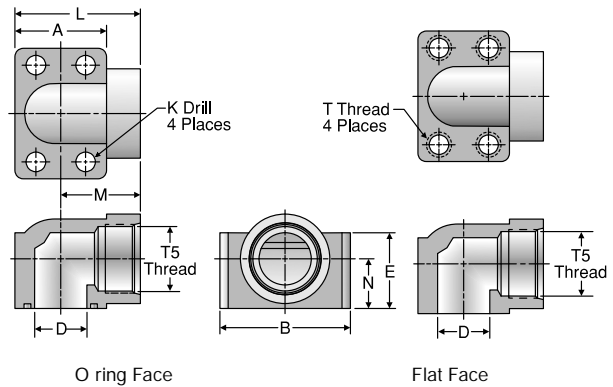
lock union Tee
Code or lock ads / lock Flange or ad



P		C		C		C		C		P		H		na i	
C		C		C		C		C		P		H		Pre re P	
in.		in.		in.		in.		in.		in.		UNC-2B			
P	P	P	P	P	P	0.	.	3.00	0.	0.40	.	3/	.	0	
P	P	P	P	P	P	.00	3.	3.00	.00	0.40	.	3/	.	0	
P	P	P	P	P	P	.	3.	3.00	.	0.4	3.00	/	4	4.0	
P	P	P	P	P	P	.0	3.	4.00	.0	0.3	3.0	/	3	3.0	
P	P	P	P	P	P	.00	4.00	4.	.00	0.3	4.00	/	3	3.0	
C		C		C		C		C		P		H		na i	
C		C		C		C		C		P		H		Pre re P	
P	P	P	P	P	P	0.	.	3.00	0.	0.40	.	3/	.	0	
P	P	P	P	P	P	.00	3.	3.00	.00	0.4	3.00	/	4	.0	
P	P	P	P	P	P	.	3.	4.00	.	0.3	3.0	/	3	.0	
P	P	P	P	P	P	.0	4.0	4.0	.0	0.	4.00	/		.0	
P	P	P	P	P	P	.00	.	.00	.4	0.	.00	3/4	0	.0	

G5EQ

S port lock blow
S port / Code or lock Flange or ad



P		H		P		H		in.		in.		in.		in.		H		na i	
C		C		H		H		P		C		C		P		H		Pre re P	
C		C		UN-2B		H		P		C		C		P		UNC-2B		HC	
		P	/			0.	.	4.	.	0.	.	0.40	.	.440	0.	3/	3/	.00	4.0
		P	/			.00	.	4.	.	.00	.	0.40	.	.0	0	3/	3/	.	3.0
		P	/	0		.	.	3.	.	0.	.	0.4	3.00	.	0	/	4	.	3.0
		P	/	4		.0	.	3.	.	.00	0.3	3.33	.0	.3	/	3	/	3	3.00
		P	/	3		.00	3.0	4.33	.00	.0	0.3	3.	.	.	/	3	/	3	3.0
C		C		P		C		C		C		P		H		na i		Pre re P	
		P	/			0.	.	4.	.	0.	.	0.40	.	.0	0	3/	3/	.	.0
		P	/			.00	.	3.	.	.00	.	0.4	3.00	.	0	/	4	.	4.0
		P	/	0		.	.	3.	.	.00	0.3	3.3	.0	.3	/	3	/	3	3.00
		P	/	4		.0	3.0	4.33	.0	.0	0.	3.	.	.	/		/	3.0	3.

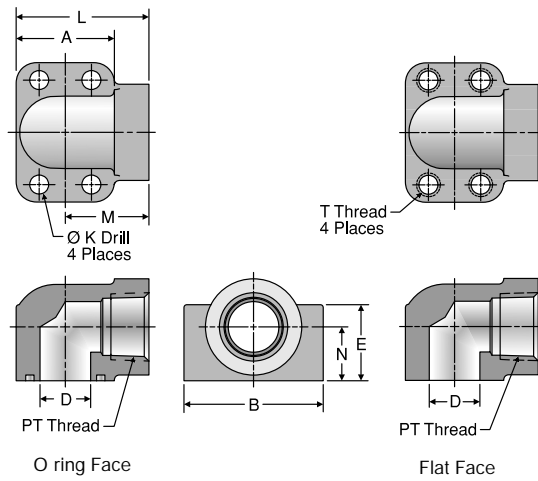
To receive mounting hardware with flange, insert a "K" after the material designator. Mounting hardware kits are available for O ring Face part numbers and include 4 bolts, 4 lock washers and an O ring.

Dimensions and pressures for reference only, subject to change.



GEQ

TF ort lock lbow dapter
TF / Code or lock Flange or ad



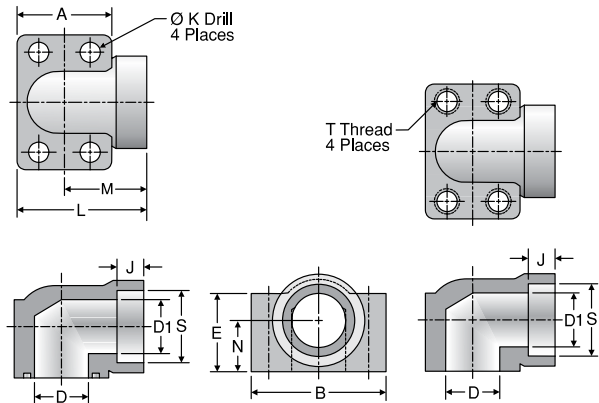
P		H	P	in.	in.	in.	in.	in.	in.	in.	in.	in.	H	H	na	i	Pre	re	P
C	C																		
	P	3/4	4	0.	.4	.0	.0	0.40	.440	0.	3/	3/	.00	4.0					
	P	/	/	.00	.4	.00	.0	0.40	.0	.0	3/	3/	.00	4.0					
	P	/4	/	.0	.3	.00	.0	0.4	3.00	.0	/	4	/	4					
	P	/	/	.0	.3	.00	.0	0.3	3.33	.0	/	3	/	3	3.00				
	P	/	/	.00	3.0	4.33	.0	0.3	3.	.0	/	3	/	3	3.0				
	P	3/4	4	0.	.4	.0	.0	0.40	.440	0.	3/	3/	.00	4.0					
	P	/	/	.00	.4	.00	.0	0.4	.0	.0	/	4	/	4	.0				
	P	/4	/	.0	.3	.00	.0	0.3	3.3	.0	/	3	/	3	3.00	3.			
	P	/	/	.0	3.0	4.33	.0	0.	3.	.0	/	3	/	3	3.0	3.0			

To receive mounting hardware with flange, insert a "K" after the material designator. Mounting hardware kits are available for O ring Face part numbers and include 4 bolts, 4 lock washers and an O ring.

Dimensions and pressures for reference only, subject to change.

W6EQ

Old Socket Lock Flange Connector, Tube
Old Socket, Tube / Code or Lock Flange or Ad



O ring Face

Flat Face

P																H		na i	
C	C	in	in	in	in	in	in	in	in	in	in	in	in	in	in	C	HC	Pre	re
	P	3/4	0.	.4	.0	0.3	.0	0.0	0.40	.0	.44	0.	0.	3/	3/	.00	.0		
	P		0.	.4	.0	0.	.0	0.0	0.40	.0	.44	0.	.00	3/	3/	.00	.0		
	P		.00	.4	.00	0.	.0	0.43	0.40	.0	.0	.00	.00	3/	3/	.00	.0		
	P	1/4	.00	.4	.00	.00	.0	0.00	0.40	.0	.0	.0	.0	3/	3/	.00	.0		
	P	1/4	.0	.3	.00	.3	.00	0.00	0.4	3.000	.0	.0	.0	/ 4	/ 4	.00	4.0		
	P	/	.0	.3	.0	.0	.0	0.0	0.4	3.000	.0	.0	.0	/ 4	/ 4	.00	4.0		
	P	/	.0	.3	.0	.3	.00	0.0	0.3	3.3	.0	.3	.0	/ 3	/ 3	3.00	3.0		
	P	3/4	.0	.3	.0	.0	.00	0.0	0.3	3.3	.0	.3	.0	/ 3	/ 3	3.00	3.0		
	P	/	.00	3.0	4.33	.00	.0	0.0	0.3	3.	.0	.00	.00	/ 3	/ 3	3.0	3.0		
	P	1/4	.00	3.0	4.33	.00	.00	0.0	0.3	3.	.0	.0	.00	/ 3	/ 3	3.0	3.0		
	P	3/4	0.	.4	.0	0.3	.0	0.0	0.40	.0	.0	0.	0.	3/	3/	.00	.0		
	P		0.	.4	.0	0.	.0	0.0	0.40	.0	.0	.00	.00	3/	3/	.00	.0		
	P		.00	.3	.00	0.	.0	0.0	0.4	3.000	.0	.00	.00	/ 4	/ 4	.00	.0		
	P	1/4	.00	.3	.00	.00	.0	0.0	0.4	3.000	.0	.0	.0	/ 4	/ 4	.00	.0		
	P	1/4	.0	.3	.00	.3	.00	0.0	0.3	3.3	.0	.3	.0	/ 3	/ 3	3.00	.0		
	P	/	.0	.3	.00	.00	.0	0.0	0.3	3.3	.0	.3	.0	/ 3	/ 3	3.00	.0		
	P	/	.0	3.0	4.33	.0	.3	.00	0.3	3.0	.0	.0	.00	/ 3	/ 3	3.0	.0		
	P	3/4	.0	3.0	4.33	.0	.0	.00	0.0	3.0	.0	.0	.00	/ 3	/ 3	3.0	.0		

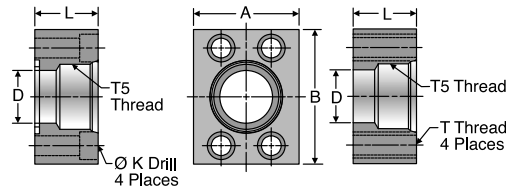
To receive mounting hardware with flange, insert a "K" after the material designator. Mounting hardware kits are available for O-ring Face part numbers and include 4 bolts, 4 lock washers and an O ring.

Dimensions and pressures for reference only, subject to change.



G5Q – Stainless Steel

S port lock Flange dapter
S port / Code or lock Flange



O ring Face

Flat Face

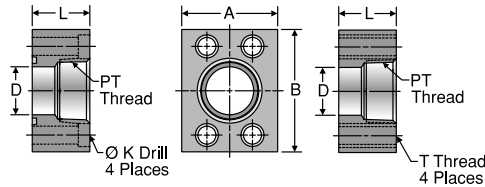
P		P H	in.	in.	in.	in.	in.	in.	H UN-2B	H HC	na i Pre re P
C	C										
P											
C											
			0.0	.0	.0	0.0	0.344	.0	3/4	/	.0
			0.	.	.	0.	0.40	.0	/	3/	.0
			.00	.00	.	.00	0.40	.4	/	3/	.0
		0	.	.0	3.	.	0.4	.4	/	/ 4	4.0
		4	.0	.	3.	.	0.3	.0	/	/ 3	.00
		3	.00	3.	4.00	.00	0.3	.0	/	/ 3	.00
P											
C											
			0.0	.	.	0.0	0.344	0.	3/4	/	.0
			0.	.00	.	0.	0.40	.0	/	3/	.0
			.00	.	3.	.00	0.4	.4	/	/ 4	.0
		0	.	.	3.	.	0.3	.4	/	/ 3	.0
		4	.0	3.	4.0	.0	0.	.0	/	/	.00
		3	.00	4.00	.	.00	0.	.0	/	3/4 0	.0

Consult factory.

To receive mounting hardware with flange, insert a "K" after the material designator. Mounting hardware kits are available for O ring Face part numbers and include 4 bolts, 4 lock washers and an O ring.

GQ – Stainless Steel

TF port lock Flange dapter
TF port / Code or lock Flange



O ring Face

Flat Face

P		P H TF	in.	in.	in.	in.	in.	in.	H HC	na i Pre re P
C	C									
P										
C										
		/ 4	0.0	.0	.	0.0	0.344	.	/	.0
		3/4 4	0.	.	.	0.	0.40	.	3/	.00
		/	.00	.00	.	.00	0.40	.0	3/	.0
		/4 /	.	.0	3.	.	0.4	.0	/ 4	4.0
		/ /	.0	.	3.	.0	0.3	.	/ 3	.0
		/	.00	3.	4.00	.00	0.3	.	/ 3	.0
		/	.0	4.00	4.0	.0	0.3	.00	/ 3	.
		3	3.00	4.0	.3	3.00	0.	.	/	3.00
P										
C										
		3/4 4	0.	.00	.	0.	0.40	.0	3/	.00
		/	.00	.	3.	.00	0.4	.4	/ 4	.0
		/4 /	.	.	3.	.	0.3	.4	/ 3	.0
		/ /	.0	3.	4.0	.0	0.	.0	/	3.
		/	.00	4.00	.	.00	0.	.0	3/4 0	3.00

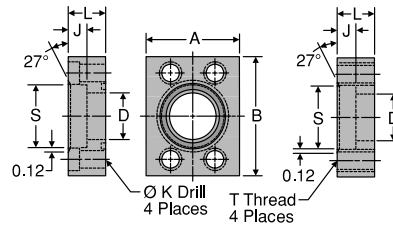
Consult factory.

To receive mounting hardware with flange, insert a "K" after the material designator. Mounting hardware kits are available for O ring Face part numbers and include 4 bolts, 4 lock washers and an O ring.

Dimensions and pressures for reference only, subject to change.

W5Q - Stainless Steel

Flat eld Socket lock Flange Connector, ipe
Flat eld Socket, ipe / Code or
lock Flange or ad



O ring Face

Flat Face

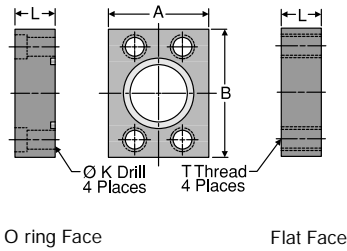
P		P P									H	H		na i Pre re P
C	C	in.	in.	in.	in.	in.	in.	in.	in.	in.	UNC-2B	HC		
	P	/	0.0	.0	.	0.00	0.30	0.344	0.	0.0	/	/	.0	
	P	3/4	0.	.	.	0.0	0.00	0.40	0.4	.00	3/	3/	.0	
	P		.00	.00	.	.000	0.00	0.40	0.4	.33	3/	3/	.0	
	P	/4	.	.0	3.	.0	0.00	0.4	0.4	.0	/ 4	/ 4	4.0	
	P	/	.0	.	3.	.00	0.00	0.3	.	.0	/ 3	/ 3	3.0	
	P		.00	3.	4.00	.000	0.0	0.3	.44	.4	/ 3	/ 3	3.0	
	P	/	.0	4.00	4.0	.00	0.0	0.3	.	.	/ 3	/ 3	.	
	P	3	3.00	4.0	.3	3.000	.40	0.	.	3.40	/	/	3.0	
	P	/	0.0	.	.	0.00	0.00	0.344	0.4	0.0	/	/	.0	
	P	3/4	0.	.00	.	0.0	0.00	0.40	0.4	.00	3/	3/	.0	
	P		.00	.	3.	.000	0.00	0.4	0.4	.33	/ 4	/ 4	.0	
	P	/4	.	.	3.	.0	0.00	0.3	.	.	/ 3	/ 3	.0	
	P	/	.0	3.	4.0	.00	0.00	0.	.44	.0	/	/	.0	
	P		.00	4.00	.	.000	0.0	0.	.	.4	3/4 0	3/4 0	3.00	
	P	/	.0	.00	.	.00	0.0	0.0	.4	.	/	/	3.0	
	P	3	3.00	.00	.0	3.000	0.0	.	.44	3.40	/	/	4.0	

To receive mounting hardware with flange, insert a "K" after the material designator. Mounting hardware kits are available for O ring Face part numbers and include 4 bolts, 4 lock washers and an O ring.

Dimensions and pressures for reference only, subject to change.

PQ – Stainless Steel

lock lug
Code / lock Flange or ad lug

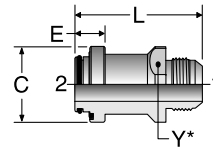


P						H		H		na i
C	C	in.	in.	in.	in.	in.	UNC-2B	HC	Pre	P
P	P P	0.0	.00	.0	0.344	.0	/	/	.00	.0
P	P P	0.	.0	.0	0.40	.0	3/	3/	.00	.0
P	P P	.00	.000	.0	0.40	.4	3/	3/	.	.0
P	P P	.	.00	3.0	0.4	.4	/ 4	/ 4	.	4.0
P	P P	.0	.0	3.0	0.3	.0	/ 3	/ 3	.0	3.0
P	P P	.00	3.0	4.000	0.3	.0	/ 3	/ 3	.0	3.0
P	P P	.0	4.000	4.00	0.3	.	/ 3	/ 3	.	.
P	P P	3.00	4.00	.30	0.	.0	/	/	3.00	.0
C		C				P		P		
P	P P	0.0	.0	.0	0.344	0.4	/	/	.0	.0
P	P P	0.	.000	.0	0.40	.	3/	3/	.00	.0
P	P P	.00	.0	3.0	0.4	.44	/ 4	/ 4	.	.0
P	P P	.	.0	3.0	0.3	.44	/ 3	/ 3	.0	.0
P	P P	.0	3.0	4.00	0.	.	/	/	.	.0
P	P P	.00	4.000	.0	0.	.	3/4 0	3/4 0	3.00	.0
P	P P	.0	.000	.0	0.0	.4	/	/	3.0	.0
P	P P	3.00	.000	.00	.0	.44	/	/	3.	.0

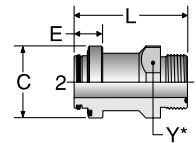
To receive mounting hardware with flange, insert a "K" after the material designator. Mounting hardware kits are available for O ring Face part numbers and include 4 bolts, 4 lock washers and an O ring.

Dimensions and pressures for reference only, subject to change.

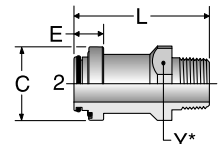


XHQ40Dual Seal Flange Connector
Dual Seal / 37° Flare

TUBE FITTING PART #	END SIZE		C (in.)	D1 DRILL (in.)	D2 DRILL (in.)	E (in.)	L (in.)	Y (in.)	Dynamic Pressure (x 1,000 PSI)
	1 (in.)	2 DUAL SEAL							SS
8 XHQ40	1/2	1/2	1.25	0.391	0.391	0.69	2.98	1.00	7.2
16 XHQ40	1	1	1.88	0.844	0.844	0.75	3.18	1.63	4.8
24 XHQ40	1 1/2	1 1/2	2.50	1.310	1.310	1.00	4.00	2.13	3.6

LOHQ40Dual Seal Flange Connector
Dual Seal / ORFS

TUBE FITTING PART #	END SIZE		C (in.)	D1 DRILL (in.)	D2 DRILL (in.)	E (in.)	L (in.)	Y (in.)	Dynamic Pressure (x 1,000 PSI)
	1 (in.)	2 DUAL SEAL							SS
8 LOHQ40	1/2	1/2	1.25	0.374	0.374	0.69	2.83	1.00	7.5
16 LOHQ40	1	1	1.88	0.807	0.807	0.75	2.96	1.63	6.0
24 LOHQ40	1 1/2	1 1/2	2.50	1.260	1.260	1.00	3.61	2.13	5.0

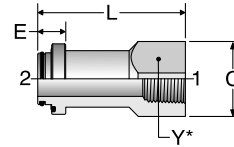
FHQ40Dual Seal Flange Connector
Dual Seal / Male NPTF

TUBE FITTING PART #	END SIZE		C (in.)	D1 DRILL (in.)	D2 DRILL (in.)	E (in.)	L (in.)	Y (in.)	Dynamic Pressure (x 1,000 PSI)
	1 (in.)	2 DUAL SEAL							SS
8 FHQ40	1/2	1/2	1.25	0.500	0.500	0.69	3.18	1.00	7.2
16 FHQ40	1	1	1.88	0.938	0.938	0.75	3.45	1.63	5.4
24 FHQ40	1 1/2	1 1/2	2.50	1.312	1.312	1.00	4.10	2.13	3.6

Dimensions and pressures for reference only, subject to change.

GHQ40

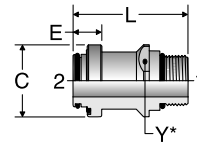
Dual Seal Flange Connector
Dual Seal / Female NPTF



TUBE FITTING PART #	END SIZE		C (in.)	D1 DRILL (in.)	D2 DRILL (in.)	E (in.)	L (in.)	Y (in.)	Dynamic Pressure (x 1,000 PSI)
	1 (in.)	2 DUAL SEAL							SS
8 GHQ40	1/2	1/2	1.25	0.500	0.500	0.69	2.96	1.00	6.0
16 GHQ40	1	1	1.88	0.938	0.938	0.75	3.94	1.63	3.6
24 GHQ40	1 1/2	1 1/2	2.50	1.312	1.312	1.00	4.81	2.25	3.0

F5OHQ40

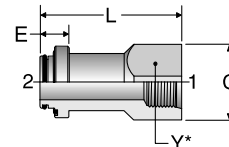
Dual Seal Flange Connector
Dual Seal / Male SAE-ORB



TUBE FITTING PART #	END SIZE		C (in.)	D1 DRILL (in.)	D2 DRILL (in.)	E (in.)	L (in.)	Y (in.)	Dynamic Pressure (x 1,000 PSI)
	1 (in.)	2 DUAL SEAL							SS
8 F5OHQ40	1/2	1/2	1.25	0.394	0.394	0.69	2.87	1.00	6.0
16 F5OHQ40	1	1	1.88	0.844	0.844	0.75	3.00	1.63	4.0
24 F5OHQ40	1 1/2	1 1/2	2.50	1.312	1.312	1.00	3.65	2.17	3.0

G5HQ40

Dual Seal Flange Connector
Dual Seal / Female SAE-ORB

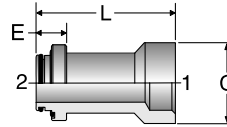


TUBE FITTING PART #	END SIZE		C (in.)	D1 DRILL (in.)	D2 DRILL (in.)	E (in.)	L (in.)	Y (in.)	Dynamic Pressure (x 1,000 PSI)
	1 (in.)	2 DUAL SEAL							SS
8 G5HQ40	1/2	1/2	1.25	0.406	0.406	0.69	2.77	1.00	5.0
16 G5HQ40	1	1	1.88	0.938	0.938	0.75	3.72	1.63	3.5
24 G5HQ40	1 1/2	1 1/2	2.50	1.312	1.312	1.00	4.59	2.25	2.5

Dimensions and pressures for reference only, subject to change.

W7HQ40

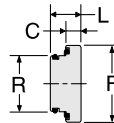
Dual Seal Flange Connector
Dual Seal / Socket Weld Pipe



TUBE FITTING PART #	END SIZE		C (in.)	D1 DRILL (in.)	D2 DRILL (in.)	E (in.)	L (in.)	Dynamic Pressure (x 1,000 PSI)
	1 PIPE	2 DUAL SEAL						SS
	8 W7HQ40	1/2						1/2
16 W7HQ40	1	1	1.88	0.938	0.938	0.75	3.44	7.5
24 W7HQ40	1 1/2	1 1/2	2.50	1.312	1.312	1.00	4.43	7.5

PQ40

Dual Seal Flange Connector
Dual Seal Plug



TUBE FITTING PART #	END SIZE		F (in.)	C (in.)	L (in.)	R (in.)	Dynamic Pressure (x 1,000 PSI)
	2 DUAL SEAL	SS					
	8 PQ40	1/2					1.25
16 PQ40	1	1.88	0.38	0.75	1.21	7.5	
24 PQ40	1 1/2	2.50	0.50	1.00	1.75	7.5	

Q4 Insert

Dual Seal Flange Insert



TUBE FITTING PART #	END SIZE		L (in.)	C (in.)	Dynamic Pressure (x 1,000 PSI)
	2 DUAL SEAL	SS			
	8 Q4 INSERT	1/2			1.00
16 Q4 INSERT	1	1.00	1.37	7.5	
24 Q4 INSERT	1 1/2	1.00	1.74	7.5	

Dimensions and pressures for reference only, subject to change.

