

FLANGE ADAPTERS

HYDRAULIC ADAPTERS

STEEL FLANGE ADAPTERS

CONFORMANCE

- SAE J518

MATERIALS

- Steel per SAE J518 with either black phosphate finish or plated zinc finish or iridite dip. Stainless Steel available upon request.

WORKING PRESSURES

The following table lists the recommended working pressures for steel Four-bolt Solid and Split Flange Fittings and Hose Ends manufactured in accordance with SAE standards J518 and J517. SAE recommends sufficient testing to be conducted to assure that performance levels will be safe and satisfactory, especially if installed in systems operating at elevated pressures or in severe conditions. When using Flanged Fittings that have a threaded connection on one end, use the lower pressure rating of the two.

Caution: Although many Four-bolt Flanged Fittings have sufficient structural integrity to support the weight of many components, we recommend consulting with our technical support department for guidance in selection of parts for this purpose.

SAE J518 FOUR-BOLT CODE 61 FLANGE PRESSURE RATINGS

Dash Size	Flange Head OD Inches	4 TO 1 Minimum Burst PSI
-8	1-3/16 - 1.188	5000
-12	1-1/2 - 1.500	5000
-16	1-3/4 - 1.750	5000
-20	2 - 2.000	4000
-24	2-3/8 - 2.375	3000
-32	2-13/16 - 2.812	3000
-40	3-5/16 - 3.312	2500
-48	4 - 4.000	2000
-56	4-1/2 - 4.500	500
-64	5 - 5.000	500
-80	6 - 6.000	500

SAE J518 FOUR-BOLT CODE 62 FLANGE PRESSURE RATINGS

Dash Size	Flange Head OD Inches	4 TO 1 Minimum Burst PSI
-8	1-1/4 - 1.250	6000
-12	1-5/8 - 1.625	6000
-16	1-7/8 - 1.875	6000
-20	2-1/8 - 2.125	6000
-24	2-1/2 - 2.500	6000
-32	3-1/8 - 3.125	6000

STEEL FLANGE ADAPTERS ASSEMBLY INSTRUCTIONS

RECOMMENDED SOLID FOUR-BOLT

- Step 1.** Inspect port area to be smooth and free of nicks, burrs, scratches, or contaminants.
- Step 2.** Lubricate the o-ring and place in flange head groove.
- Step 3.** Lubricate screw threads, slip lock washers onto screws, and insert screws into flange
- Step 4.** Position flange on port and finger tighten all screws.
- Step 5.** Torque the screws in a figure eight sequence, incrementally until the appropriate torque value in the following table is achieved.

J518 CODE 61 AND CODE 62 FLANGE MINIMUM TORQUE VALUES

Dash Size	Port Size	Code 61 Foot/Lbs.	Code 62 Foot/Lbs.
-8	1/2"	15-19	15-19
-12	3/4"	20-29	25-33
-16	1"	27-35	41-50
-20	1-1/4"	35-46	62-75
-24	1-1/2"	46-58	116-133
-32	2"	53-67	200-217
-40	2-1/2"	79	NA
-48	3"	137	NA
-56	3-1/2"	116	NA
-64	4"	116	NA
-80	5"	116	NA

RECOMMENDED SPLIT FOUR-BOLT

- Step 1.** Follow steps 1 through 3 above, then proceed to the following steps.
- Step 2.** Position both flanges on port and turn one screw in each flange about three turns.
- Step 3.** Rotate each flange away from the port for sufficient clearance to position hose or fitting flange head on port.
- Step 4.** Close each flange until it properly captures flange head. Insert remaining screws and finger tighten.
- Step 5.** Torque the screws in a figure eight sequence incrementally until the appropriate torque value in the preceding table is achieved.

WHY WET TORQUE?

Due to the difference in plating types and thickness, materials, and thread quality of different components, the coefficient of friction varies greatly on any given assembly. Lubrication not only produces a more consistent coefficient of friction, it increases clamping force on sealing area with less torque on the threads. Overtightening causes threads to yield, deform and lose their ability to maintain an adequate load or clamping force on the seating area. Extended operation and severe conditions cause further yielding which results in leaks. Overtightening is the single greatest cause for leaks in metal to metal seat hydraulic connections. It is our firm position, that to not wet torque, is to compromise consistency and quality for convenience.