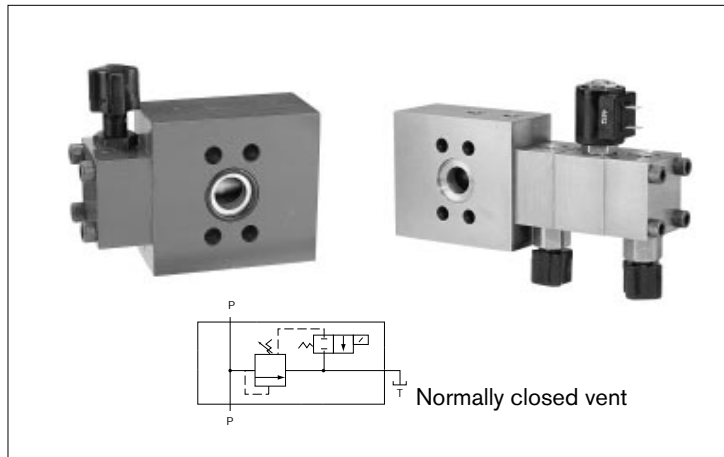


Poppet relief valve

- 3/4", 1", 1 1/4" & 1 1/2"
- 5000 psi / 50–120 gpm
- Gasket mounted (flow thru)
- Inline mounted
- Solenoid controlled
- Multiple pressure & venting



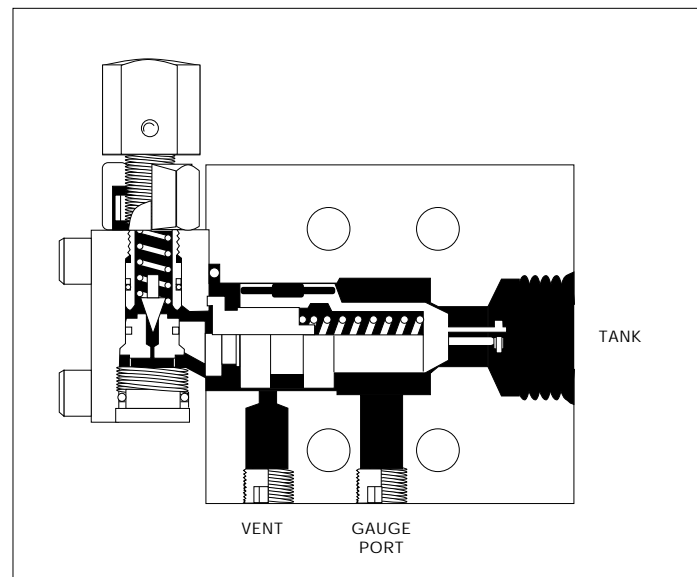
Specifications	
Valve function	Pressure relief valve, pilot operated
Mounting type	Inline or gasket
Mounting position	Not restricted
Fluid	Mineral oil or HFA / B / C / D
Viscosity	60... 2500 SUS (10...500 cst)
Fluid-temperature	-13 to 176°F (-25 to 80°C)
Filtration	Contamination class 10, according to NAS 1638 can be realized with filter $\beta_{25} = 75$
Seals	Viton
Max. setting pressure	1500, 3000, or 5000 PSI (100, 200 or 340 bar)
Max. operating pressure	5000 PSI (340 bar)
Max. flow	3/4" & 1" - 50 gpm (189 l/min) 1 1/4" & 1 1/2" - 120 gpm (454 l/min)
Repeatability	± 50 psi (3.4 bar)
Stability	± 25 psi (1.7 bar)
Response	20 milliseconds
Electrical	Solenoid venting heads optional 12, 24 vdc 115 ac
Weight	3/4" & 1" - 7.5 lbs (3.4 kg) 1 1/4" & 1 1/2" - 12 lbs (5.4 kg)

"Venting" is accomplished by opening the vent port to-tank through suitable external valving.

This valve can be remotely controlled by connecting the inlet of another relief valve to the vent port of the valve* (through suitable external orificing for stability). The pressure setting at which the main poppet opens can be adjusted at the remote relief valve, providing it is set to a lower value than the internal setting.

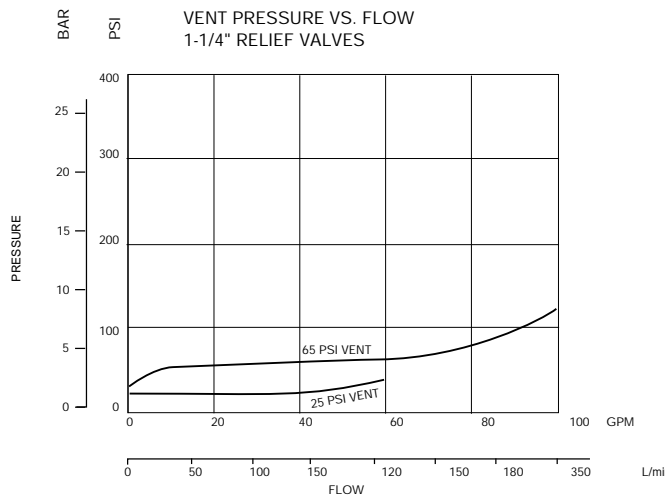
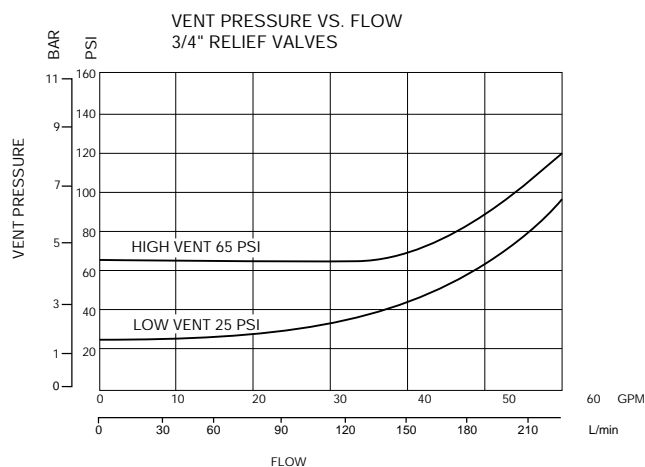
The tank connection should be piped directly to tank to minimize back pressure. Any pressure in the tank line is additive to the pressure setting.

*Recommended orifice size is .040".

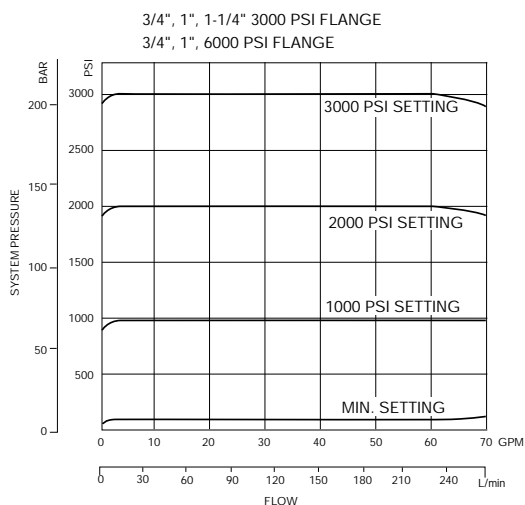


Performance characteristics

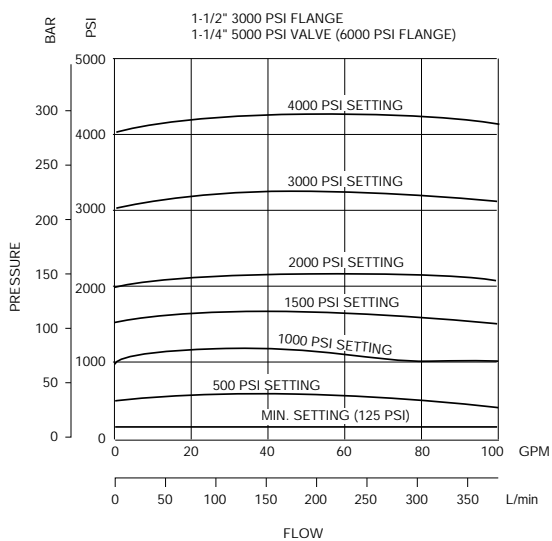
$v = 35 \text{ mm}^2/\text{s}$



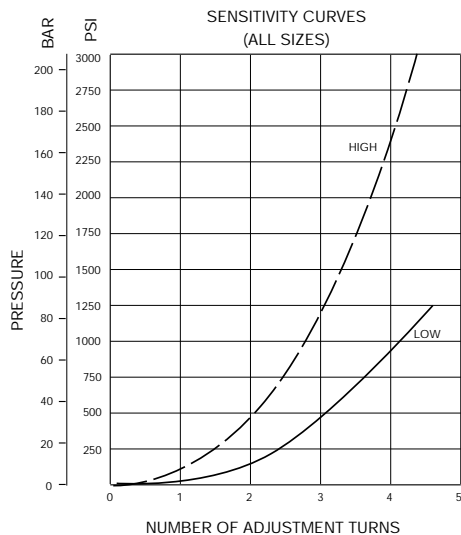
Nominal override characteristics



**** Smaller body see note below**



**** Larger body see note below**

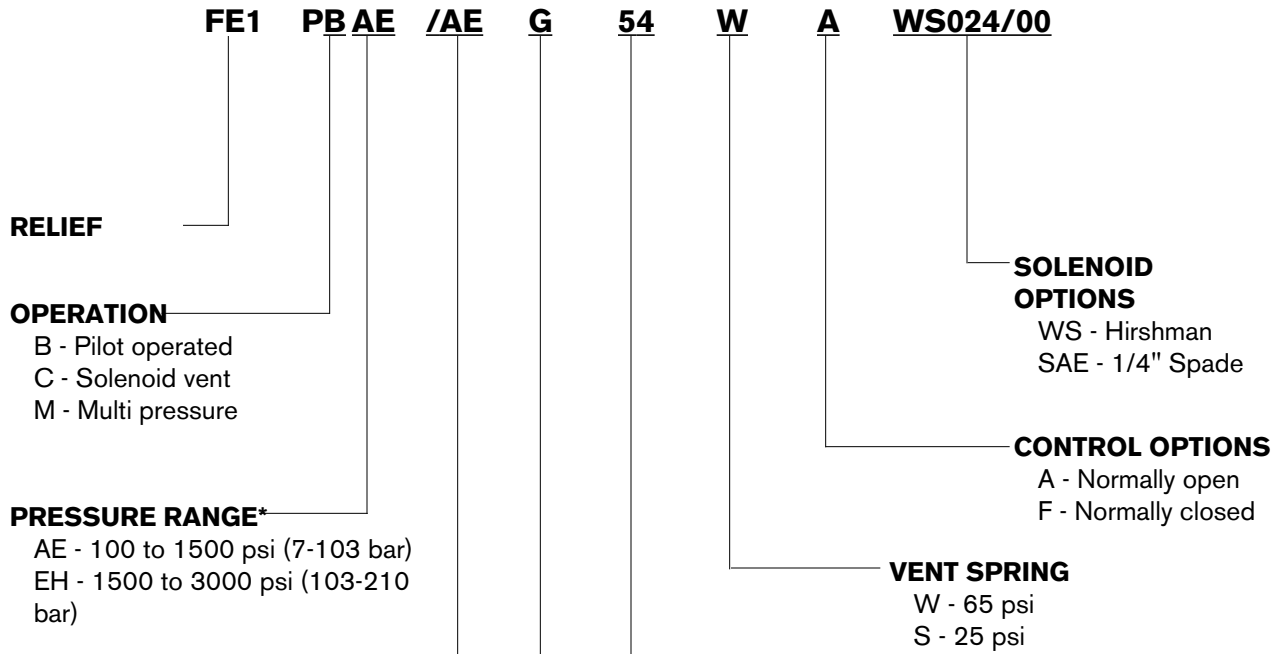


Adjustment range*

- AE - 100 to 1500 psi – Low
- EH - 1500 to 3000 psi – High
- EK - 1500 to 5000 psi – High

*All valves are capable of 100 psi minimum setting.

**3/4", 1", 1 1/4" 3000 psi versions & 3/4" & 1" 5000 psi versions are made from the smaller body.
1 1/2" 3000 psi & 1 1/2" 5000 psi versions are from the larger body.



RELIEF

OPERATION

- B - Pilot operated
- C - Solenoid vent
- M - Multi pressure

PRESSURE RANGE*

- AE - 100 to 1500 psi (7-103 bar)
- EH - 1500 to 3000 psi (103-210 bar)

SECOND PRESSURE

(If required)

MOUNTING

- G - Gasket
- T - Inline (threaded connections)

SOLENOID OPTIONS

- WS - Hirshman
- SAE - 1/4" Spade

CONTROL OPTIONS

- A - Normally open
- F - Normally closed

VENT SPRING

- W - 65 psi
- S - 25 psi

FLANGE SIZE PORT

- 54 - 3/4" SAE
- 56 - 1" SAE
- 58 - 1 1/4" SAE
- 60 - 1 1/2" SAE
- 55 - 3/4" SAE Code 62 (5000 psi)
- 57 - 1" SAE Code 62 (5000 psi)
- 59 - 1 1/4" SAE Code 62 (5000 psi)
- 61 - 1 1/2" SAE Code 62 (5000 psi)

TANK

- #16 SAE
- #16 SAE
- #20 SAE
- #24 SAE
- #20 SAE
- #16 SAE
- #24 SAE
- #24 SAE

*All springs are capable of 100 psi min. setting.

PORT SIZE (Inline mounted)

- 54 - #12 SAE
- 56 - #16 SAE

Adapters for rotating relief valve (see page 25)

MODEL NO.	ADAPTERS USED WITH VALVE SIZE
AD-75-3	3/4" - 3000 PSI FLANGE
AD-100-3	1" - 3000 PSI FLANGE
AD-125-3	1 1/4" - 3000 PSI FLANGE
AD-150-3	1 1/2" - 3000 PSI FLANGE
AD-75-6	3/4" - 6000 PSI FLANGE
AD-100-6	1" - 6000 PSI FLANGE
AD-125-6	1 1/4" - 6000 PSI FLANGE

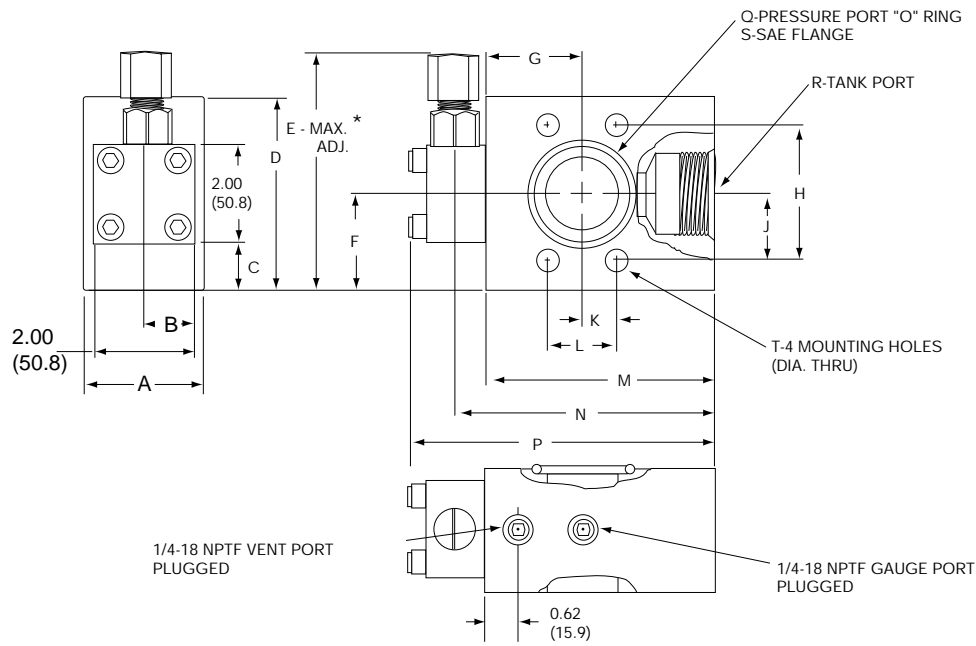
BOLT KITS FOR ADAPTERS	
BOLT KIT NO.	USED WITH
B-16	1 1/4" 3000 & 1" 6000 PSI FLANGED ADAPTER
B-53	3/4" & 1" 3000 PSI & 3/4" 6000 PSI FLANGED ADAPTER
B-73	1 1/2" 3000 PSI & 1 1/4" 6000 PSI FLANGED ADAPTER

Bolt Kits to mount the valve & Adapters must be ordered seperately.

Dimensions

Inches (millimeters)

Flange mounted

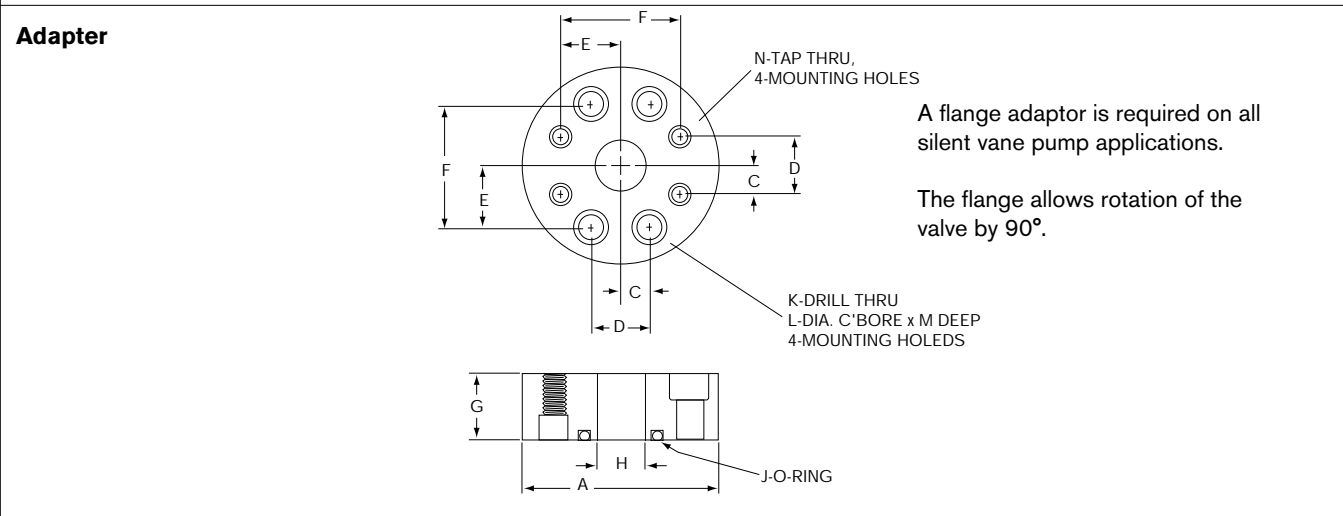
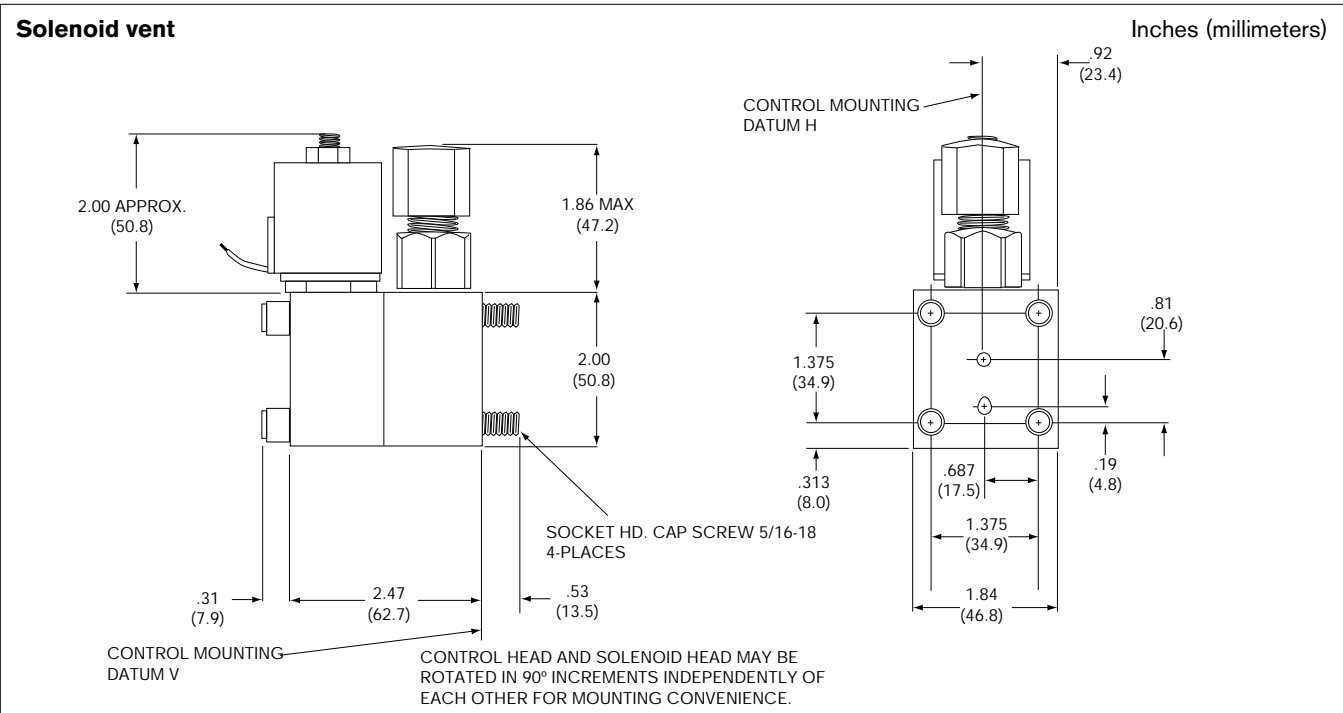


*LESS KNOB SUBTRACT .55"

For dimensions of solenoid controlled, multiple pressure and solenoid venting heads see Bulletin No. G-34

VALVE SIZE	A	B	C	D	E*	F	G	H	J	K	L	M	N	P	Q-PRESS PORT	R-TANK PORT	S-SAE FLG.	T
3/4" (-54) 3000 PSI	2.06 (52.4)	1.06 (27.0)	0.75 (19.1)	3.50 (88.9)	4.62 (117.5)	1.75 (44.5)	1.81 (46.0)	1.875 (47.6)	0.94 (23.8)	0.44 (11.2)	0.875 (22.2)	3.88 (98.4)	4.50 (114.3)	5.44 (138.1)	1/8 C.S. x 1.00 I.D.	16 SAE	3/4"	0.41 (10.4)
1" (-56) 3000 PSI	2.06 (52.4)	1.06 (27.0)	0.75 (19.1)	3.50 (88.9)	4.62 (117.5)	1.75 (44.5)	1.81 (46.0)	2.062 (57.37)	1.03 (26.1)	0.52 (13.2)	1.031 (26.1)	3.88 (98.4)	4.50 (114.3)	5.44 (138.1)	1/8 C.S. x 1.31 I.D.	16 SAE	1"	0.41 (10.4)
1 1/4" (-58) 3000 PSI	2.06 (52.4)	1.06 (27.0)	0.75 (19.1)	3.50 (88.9)	4.62 (117.5)	1.175 (44.5)	1.81 (46.0)	2.312 (58.72)	1.16 (29.4)	0.59 (14.9)	1.188 (30.17)	3.88 (98.4)	4.50 (114.3)	5.44 (138.1)	1/8 C.S. x 1.31 I.D.	20 SAE	1 1/4"	0.47 (11.9)
1 1/2" (-60) 3000 PSI	2.50 (63.5)	1.25 (31.8)	1.00 (25.4)	4.00 (101.6)	4.88 (123.8)	2.00 (50.8)	2.00 (50.8)	2.75 (69.8)	1.38 (35.05)	0.70 (17.8)	1.406 (35.71)	4.75 (120.7)	5.38 (136.6)	6.31 (160.3)	1/8 C.S. x 1.88 I.D.	24 SAE	1 1/2"	0.53 (13.5)
3/4" (-55) 5000 PSI	2.06 (52.4)	1.06 (27.8)	0.75 (19.1)	3.50 (88.9)	4.62 (117.5)	1.75 (44.5)	1.81 (46.0)	2.00 (50.8)	1.00 (25.4)	0.47 (11.9)	0.937 (23.79)	3.88 (98.4)	4.50 (114.3)	5.44 (138.1)	1/8 C.S. x 1.00 I.D.	20 SAE	3/4"	0.41 (10.4)
1" (-57) 5000 PSI	2.06 (52.4)	1.06 (27.0)	0.75 (19.1)	3.50 (88.9)	4.62 (117.5)	1.75 (44.5)	1.81 (46.0)	2.25 (57.15)	1.12 (28.4)	0.55 (13.9)	1.093 (27.76)	3.88 (98.4)	4.50 (114.3)	5.44 (138.1)	1/8 C.S. x 1.31 I.D.	16 SAE	1"	0.47 (10.4)
1 1/4" (-59) 5000 PSI	2.50 (63.5)	1.25 (31.8)	1.00 (25.4)	4.00 (101.6)	4.88 (123.8)	2.00 (50.8)	2.00 (50.8)	2.675 (66.67)	1.31 (33.2)	0.62 (15.7)	1.25 (31.7)	4.75 (120.7)	5.36 (136.6)	6.31 (160.3)	1/8 C.S. x 1.50 I.D.	24 SAE	1 1/4"	0.53 (13.5)
1 1/2" (-61) 5000 PSI	2.50 (63.5)	1.25 (31.8)	1.00 (25.4)	4.00 (101.6)	4.88 (123.8)	2.00 (50.8)	2.00 (50.8)	3.125 (79)	1.56 (39.6)	0.68 (17.3)	1.438 (36.5)	4.75 (120.7)	5.38 (136.6)	6.31 (160.3)	1/8 C.S. x 1.88 I.D.	24 SAE	1 1/2"	0.66 (16.8)

Options



FLANGE SIZE	FLANGE RATING	ADAPTER MODEL NO.	BOLT KIT NO.	A	C	D	E	F	G	H	J	K	L	M	N
3/4" (-54) FLANGE	3000 PSI	AD-75-3	B-53	3.00 (76.2)	0.44 (11.1)	0.875 (22.2)	0.94 (23.7)	1.875 (47.6)	1.00 (25.4)	0.75 (19.05)	0.12 C.S. x 1.00 I.D.	0.41 (10.4)	0.59 (14.9)	0.41 (10.4)	3/8-16 UNC
1" (-56) FLANGE	3000 PSI	AD-100-3	B-53	3.00 (76.2)	0.52 (13.2)	1.031 (26.18)	1.03 (26.1)	2.062 (52.37)	1.00 (25.4)	1.00 (25.4)	0.12 C.S. x 1.31 I.D.	0.41 (10.4)	0.59 (14.9)	0.41 (10.4)	3/8-16 UNC
1 1/4" (-58) FLANGE	3000 PSI	AD-125-3	B-16	3.50 (88.9)	0.59 (14.9)	1.188 (30.14)	1.16 (29.4)	2.312 (58.7)	1.00 (25.4)	1.25 (31.7)	0.12 C.S. x 1.50 I.D.	0.49 (11.9)	0.69 (17.5)	0.47 (11.9)	7/16-14 UNC
1 1/2" (-60) FLANGE	3000 PSI	AD-150-3	B-73	4.00 (101.6)	0.70 (17.7)	1.406 (35.71)	1.38 (35.08)	2.750 (69.8)	1.00 (25.4)	1.50 (38.1)	0.12 C.S. x 1.88 I.D.	0.53 (13.4)	0.78 (19.8)	0.53 (13.4)	1/2-16 UNC
3/4" (-55) FLANGE	6000 PSI	AD-75-6	B-53	3.00 (76.2)	0.47 (11.9)	0.937 (23.79)	1.00 (25.4)	2.00 (50.8)	1.00 (25.4)	0.75 (19.05)	0.12 C.S. x 1.00 I.D.	0.41 (10.4)	.059 (14.9)	.041 (10.4)	3/8-16 UNC
1" (-57) FLANGE	6000 PSI	AD-100-6	B-16	3.50 (88.9)	.055 (13.9)	1.093 (27.76)	1.12 (28.4)	2.25 (57.1)	1.00 (25.4)	1.00 (25.4)	0.12 C.S. x 1.31 I.D.	.047 (11.9)	0.69 (17.9)	0.47 (11.9)	7/16-14 UNC
1 1/4" (-59) FLANGE	6000 PSI	AD-125-6	B-73	4.00 (101.6)	0.62 (15.2)	1.250 (31.75)	1.31 (33.2)	2.625 (66.67)	1.00 (25.4)	1.25 (31.7)	0.12 C.S. x 1.50 I.D.	0.53 (13.4)	0.78 (19.8)	0.53 (13.4)	1/2-13 UNC