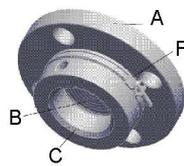
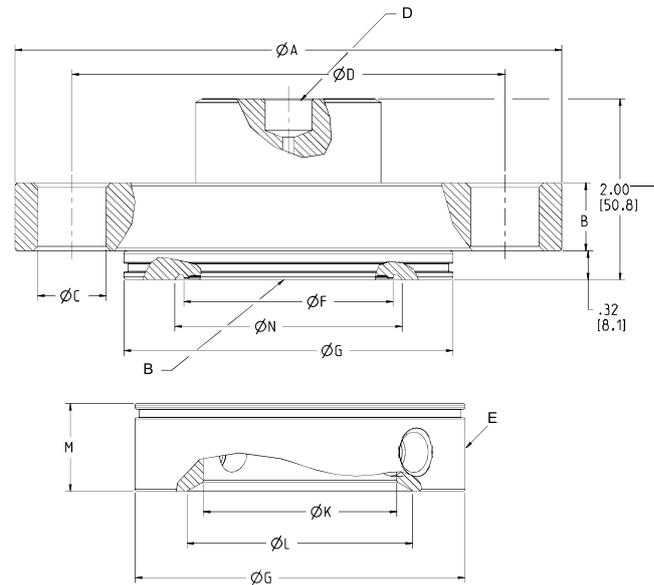


Figure 31: FFW Flush Flanged Seal - Standard (Two-Piece) Design (Shown with Flushing Ring)



- A. Process flange
- B. Diaphragm
- C. Flushing connection
- D. Connection to transmitter
- E. Flushing ring
- F. Lower housing alignment clamp (option code SA)



Note

Dimensions are in inches (millimeters).

Table 56: Dimensions for FFW Flush Flanged Raised Face Seals-Two Piece (Upper Housing and Flange) Design

Pipe size	Class	Flange diameter "A" in. (mm)	Flange thickness "B" in. (mm)	Bolt circle "C" in. (mm)	Number of bolts	Bolt hole diameter "D" in. (mm)	Standard diaphragm diameter "F" in. (mm)	Raised face outer diameter "G" in. (mm)
ASME								
2-in.	150	6.00 (152)	0.69 (18)	4.75 (121)	4	0.75 (19)	2.30 (58)	3.62 (92)
	300	6.50 (165)	0.81 (21)	5.00 (127)	8	0.75 (19)	2.30 (58)	3.62 (92)
	600	6.50 (165)	1.00 (25)	5.00 (127)	8	0.75 (19)	2.30 (58)	3.62 (92)
	900	8.50 (216)	1.50 (38)	6.50 (165)	8	1.00 (25)	2.30 (58)	3.62 (92)
	1500	8.50 (216)	1.50 (38)	6.50 (165)	8	1.00 (25)	2.30 (58)	3.62 (92)
	2500	9.25 (235)	2.00 (51)	6.75 (172)	8	1.13 (29)	2.30 (58)	3.62 (92)
3-in.	150	7.50 (191)	0.88 (22)	6.00 (152)	4	0.75 (19)	3.50 (89)	5.00 (127)
	300	8.25 (210)	1.06 (27)	6.62 (168)	8	0.88 (22)	3.50 (89)	5.00 (127)
	600	8.25 (210)	1.25 (32)	6.62 (168)	8	0.88 (22)	3.50 (89)	5.00 (127)
	900	9.50 (241)	1.50 (38)	7.50 (191)	8	1.00 (25)	3.50 (89)	5.00 (127)
	1500	10.50 (267)	1.88 (48)	8.00 (203)	8	1.25 (32)	3.50 (89)	5.00 (127)
	2500	12.00 (305)	2.62 (67)	9.00 (229)	8	1.38 (35)	3.50 (89)	5.00 (127)
4-in.	150	9.00 (229)	0.88 (22)	7.50 (191)	8	0.75 (19)	3.50 (89)	6.20 (157)
	300	10.0 (254)	1.19 (30)	7.88 (200)	8	0.88 (22)	3.50 (89)	6.20 (157)
	600	10.75 (273)	1.50 (38)	8.50 (216)	8	1.00 (25)	3.50 (89)	6.20 (157)

Table 56: Dimensions for FFW Flush Flanged Raised Face Seals-Two Piece (Upper Housing and Flange) Design (continued)

Pipe size	Class	Flange diameter "A" in. (mm)	Flange thickness "B" in. (mm)	Bolt circle "C" in. (mm)	Number of bolts	Bolt hole diameter "D" in. (mm)	Standard diaphragm diameter "F" in. (mm)	Raised face outer diameter "G" in. (mm)
	900	11.50 (292)	1.75 (45)	9.25 (235)	8	1.25 (32)	3.50 (89)	6.20 (157)
	1500	12.25 (311)	2.12 (54)	9.50 (241)	8	1.38 (35)	3.50 (89)	6.20 (157)
	2500	14.00 (356)	3.00 (76)	10.75(274)	8	1.63 (41)	3.50 (89)	6.20 (157)
EN1092-1								
DN 50	PN 40	6.50 (165)	0.67 (17)	4.92 (125)	4	0.71 (18)	2.30 (58)	4.00 (102)
	PN 63	7.09 (180)	0.91 (23)	5.31 (135)	4	0.88 (22)	2.30 (58)	4.00 (102)
	PN 100	7.68 (195)	0.99 (25)	5.71 (145)	4	1.02 (26)	2.30 (58)	4.00 (102)
	PN 160	7.68 (195)	1.06 (27)	5.71 (145)	4	1.02 (26)	2.30 (58)	4.00 (102)
DN 80	PN 40	7.87 (200)	0.83 (21)	6.30 (160)	8	0.71 (18)	3.50 (89)	5.43 (138)
	PN 63	8.46 (215)	0.99 (25)	6.69 (170)	8	0.88 (22)	3.50 (89)	5.43 (138)
	PN 100	9.06 (230)	1.15 (29)	7.09 (180)	8	1.02 (26)	3.50 (89)	5.43 (138)
	PN 160	9.06 (230)	1.30 (33)	7.09 (180)	8	1.02 (26)	3.50 (89)	5.43 (138)
DN 100	PN 10/16	8.66 (220)	0.67 (17)	7.09 (180)	8	0.71 (18)	3.50 (89)	6.20 (157)
	PN 40	9.25 (235)	0.94 (24)	7.48 (190)	8	0.88 (22)	3.50 (89)	6.20 (157)
	PN 63	9.84 (250)	0.83 (21)	7.87 (200)	8	1.02 (26)	3.50 (89)	6.20 (157)
	PN 100	10.43 (265)	1.30 (27)	8.27 (210)	8	1.18 (30)	3.50 (89)	6.20 (157)
	PN 160	10.43 (265)	1.46 (37)	8.27 (210)	8	1.18 (30)	3.50 (89)	6.20 (157)
JIS								
50A	10K	6.10 (155)	0.63 (16)	4.72 (120)	4	0.75 (19)	2.30 (58)	3.62 (92)
	20K	6.10 (155)	0.71 (18)	4.72 (120)	8	0.75 (19)	2.30 (58)	3.62 (92)
	40K	6.50 (165)	1.02 (26)	5.12 (130)	8	0.75 (19)	2.30 (58)	4.00 (102)
80A	10K	7.28 (185)	0.71 (18)	5.91 (150)	8	0.75 (19)	3.50 (89)	5.00 (127)
	20K	7.87 (200)	0.88 (22)	6.30 (160)	8	0.91 (23)	3.50 (89)	5.00 (127)
	40K	8.27 (210)	1.26 (32)	6.69 (170)	8	0.91 (23)	3.50 (89)	5.43 (138)
100A	10K	8.27 (210)	0.71 (18)	6.89 (175)	8	0.75 (19)	3.50 (89)	6.20 (157)
	20K	8.86 (225)	0.95 (24)	7.28 (185)	8	0.91 (23)	3.50 (89)	6.20 (157)
	40K	9.84 (250)	1.42 (36)	8.07 (205)	8	0.98 (25)	3.50 (89)	6.20 (157)

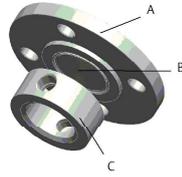
Table 57: Dimensions for FFW Flush Flanged Raised Face Seals-Two Piece (Upper Housing and Flange) Design

Pipe size	Class	Inner diameter "K" in. (mm)	Beveled edge "L" in. (mm)	Thickness with ¼-NPT F.C. "M" in. (mm)	Thickness with ½-NPT F.C. "M" in. (mm)	Minimum gasket I.D. "N" in. (mm)	Weight lb (kg)
ASME							
2-in.	150	2.12 (54)	2.48 (63)	0.97 (25)	1.30 (33)	2.50 (64)	7.40 (3.33)
	300	2.12 (54)	2.48 (63)	0.97 (25)	1.30 (33)	2.50 (64)	8.99 (4.05)
	600	2.12 (54)	2.48 (63)	0.97 (25)	1.30 (33)	2.50 (64)	10.44 (4.70)
	900	2.12 (54)	2.48 (63)	0.97 (25)	1.30 (33)	2.50 (64)	24.62 (11.08)
	1500	2.12 (54)	2.48 (63)	0.97 (25)	1.30 (33)	2.50 (64)	24.62 (11.08)
	2500	2.12 (54)	2.48 (63)	0.97 (25)	1.30 (33)	2.50 (64)	36.71 (16.52)
3-in.	150	3.60 (91)	N/A	0.97 (25)	1.30 (33)	3.70 (94)	13.79 (6.21)
	300	3.60 (91)	N/A	0.97 (25)	1.30 (33)	3.70 (94)	17.84 (8.03)
	600	3.60 (91)	N/A	0.97 (25)	1.30 (33)	3.70 (94)	20.31 (9.14)
	900	3.60 (91)	N/A	0.97 (25)	1.30 (33)	3.70 (94)	33.21 (14.94)
	1500	3.60 (91)	N/A	0.97 (25)	1.30 (33)	3.70 (94)	46.76 (21.04)
	2500	3.60 (91)	N/A	0.97 (25)	1.30 (33)	3.70 (94)	81.34 (36.60)
4-in.	150	3.60 (91)	N/A	0.97 (25)	1.30 (33)	3.70 (94)	19.56 (8.80)
	300	3.60 (91)	N/A	0.97 (25)	1.30 (33)	3.70 (94)	29.56 (13.30)
	600	3.60 (91)	N/A	0.97 (25)	1.30 (33)	3.70 (94)	40.73 (18.33)
	900	3.60 (91)	N/A	0.97 (25)	1.30 (33)	3.70 (94)	53.16 (23.92)
	1500	3.60 (91)	N/A	0.97 (25)	1.30 (33)	3.70 (94)	71.72 (32.27)
	2500	3.60 (91)	N/A	0.97 (25)	1.30 (33)	3.70 (94)	125.72 (56.57)
EN1092-1							
DN 50	PN 40	2.40 (61)	N/A	0.97 (25)	1.30 (33)	2.50 (64)	9.02 (4.06)
	PN 63	2.40 (61)	N/A	0.97 (25)	1.30 (33)	2.50 (64)	12.58 (5.66)
	PN 100	2.40 (61)	N/A	0.97 (25)	1.30 (33)	2.50 (64)	15.23 (6.85)
	PN 160	2.40 (61)	N/A	0.97 (25)	1.30 (33)	2.50 (64)	16.12 (7.25)

Table 57: Dimensions for FFW Flush Flanged Raised Face Seals-Two Piece (Upper Housing and Flange) Design (continued)

Pipe size	Class	Inner diameter "K" in. (mm)	Beveled edge "L" in. (mm)	Thickness with ¼-NPT F.C. "M" in. (mm)	Thickness with ½-NPT F.C. "M" in. (mm)	Minimum gasket I.D. "N" in. (mm)	Weight lb (kg)
DN 80	PN 40	3.60 (91)	N/A	0.97 (25)	1.30 (33)	3.70 (94)	15.03 (6.76)
	PN 63	3.60 (91)	N/A	0.97 (25)	1.30 (33)	3.70 (94)	18.87 (8.49)
	PN 100	3.60 (91)	N/A	0.97 (25)	1.30 (33)	3.70 (94)	23.34 (10.50)
	PN 160	3.60 (91)	N/A	0.97 (25)	1.30 (33)	3.70 (94)	25.83 (11.62)
DN 100	PN 10/16	3.60 (91)	N/A	0.97 (25)	1.30 (33)	3.70 (94)	16.08 (7.24)
	PN 40	3.60 (91)	N/A	0.97 (25)	1.30 (33)	3.70 (94)	20.31 (9.14)
	PN 63	3.60 (91)	N/A	0.97 (25)	1.30 (33)	3.70 (94)	26.74 (12.03)
	PN 100	3.60 (91)	N/A	0.97 (25)	1.30 (33)	3.70 (94)	34.26 (15.42)
	PN 160	3.60 (91)	N/A	0.97 (25)	1.30 (33)	3.70 (94)	37.44 (16.85)
JIS							
50A	10K	2.12 (54)	N/A	0.97 (25)	1.30 (33)	2.5 (64)	6.93 (3.15)
	20K	2.12 (54)	N/A	0.97 (25)	1.30 (33)	2.5 (64)	7.11 (3.20)
	40K	2.40 (61)	N/A	0.97 (25)	1.30 (33)	2.5 (64)	10.41 (4.68)
80A	10K	3.60 (91)	N/A	0.97 (25)	1.30 (33)	3.70 (94)	10.52 (4.73)
	20K	3.60 (91)	N/A	0.97 (25)	1.30 (33)	3.70 (94)	13.61 (6.12)
	40K	3.60 (91)	N/A	0.97 (25)	1.30 (33)	3.70 (94)	20.08 (9.04)
100 A	10K	3.60 (91)	N/A	0.97 (25)	1.30 (33)	3.70 (94)	14.03 (6.31)
	20K	3.60 (91)	N/A	0.97 (25)	1.30 (33)	3.70 (94)	19.16 (8.62)
	40K	3.60 (91)	N/A	0.97 (25)	1.30 (33)	3.70 (94)	32.12 (14.45)

Figure 32: FFW Flush Flanged Seal - One-Piece Design (Option Code "E", Shown with Flushing Ring)



- A. Process flange
- B. Diaphragm
- C. Flushing connection
- D. Connection to transmitter
- E. Flushing ring

Note
Dimensions are in inches (millimeters).

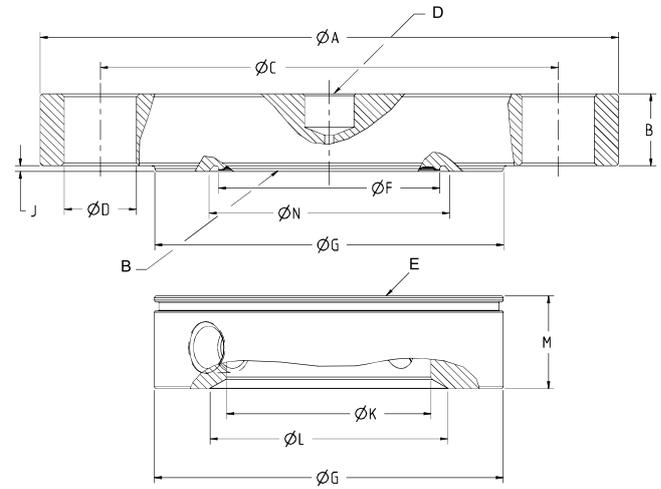


Table 58: Dimensions for FFW Flush Flanged Seals- One Piece (Upper Housing and Flange) Design (Option Code E)

Pipe size	Class	Flange diameter "A" in. (mm)	Flange thickness "B" in. (mm)	Bolt circle "C" in. (mm)	Number of bolts
ASME					
2-in.	150	6.00 (152)	0.69 (18)	4.75 (121)	4
	300	6.50 (165)	0.81 (21)	5.00 (127)	8
	600	6.50 (165)	1.00 (25)	5.00 (127)	8
	900/1500	8.50 (216)	1.50 (38)	6.50 (165)	8
	2500	9.25 (235)	2.00 (51)	6.75 (172)	8
3-in.	150	7.50 (191)	0.88 (22)	6.00 (152)	4
	300	8.25 (210)	1.06 (27)	6.62 (168)	8
	600	8.25 (210)	1.25 (32)	6.62 (168)	8
	900	9.50 (241)	1.50 (38)	7.50 (229)	8
	1500	10.50 (267)	1.88 (48)	8.00 (203)	8
	2500	12.00 (305)	2.62 (67)	9.00 (229)	8
4-in.	150	9.00 (229)	0.88 (22)	7.50 (191)	8
	300	10.00 (254)	1.19 (30)	7.88 (200)	8
	600	10.75 (273)	1.50 (38)	8.50 (216)	8
	900	11.50 (292)	1.75 (45)	9.25 (235)	8
	1500	12.25 (311)	2.12 (54)	9.50 (241)	8
	2500	14.00 (356)	3.00 (76)	10.75 (274)	8
EN 1092-1					
DN50	PN 40	6.50 (165)	0.67 (17)	4.92 (125)	4
	PN 63	7.08 (180)	0.91 (23)	5.31 (135)	4
	PN 100	7.68 (195)	0.99 (25)	5.71 (145)	4
	PN160	7.68 (195)	1.06 (27)	5.71 (145)	4