

FLANGED (RFW) SEAL (For smaller process connection)

Drawings represent the standard offering. Dimensional drawings may vary when ordering special shaded options. Contact an Emerson Process Management representative if dimensional drawings are required for special order configuration.

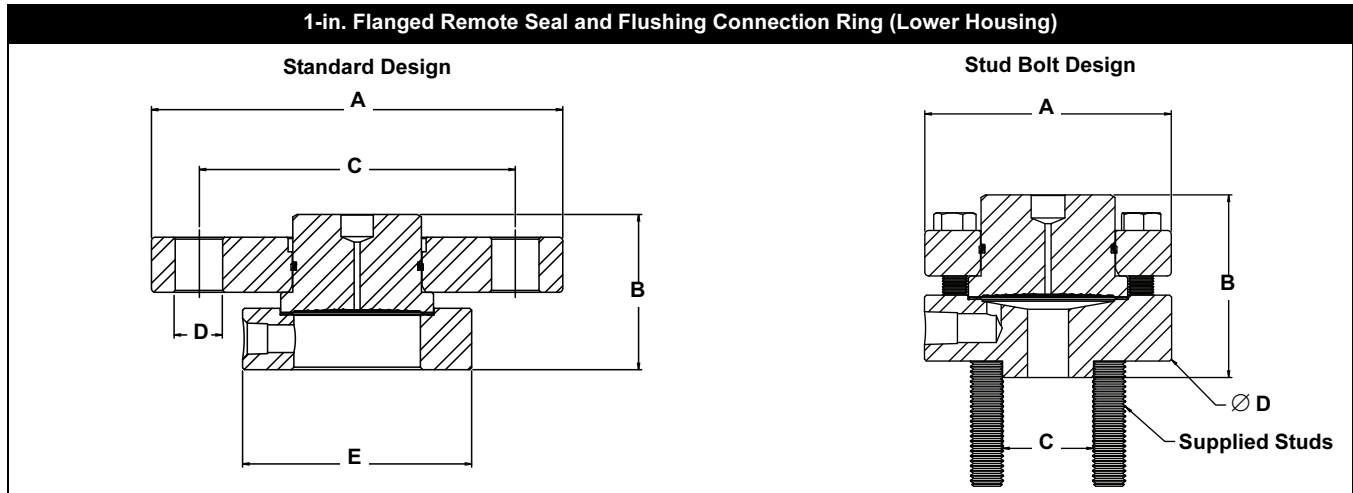


TABLE 22. RFW Dimensions⁽¹⁾

Pipe Size Class	Flange Diameter (A)	Overall Height (B)		Bolt Circle Diameter (C)	Bolt Hole Diameter (D)	Lower Housing Diameter (E)
		No or 1/4-in. NPT flush connection	1/2-in. NPT flush connection			
Standard Design⁽²⁾						
ANSI						
3/4-in. (300/600#)	4.62 (117.3)	2.45 (62.2)	2.79 (70.9)	3.25 (82.6)	0.75 (19.5)	2.62 (66.5)
1-in. (150#)	4.25 (107.9)	2.45 (62.2)	2.79 (70.9)	3.12 (79.3)	0.625 (15.9)	2.62 (66.5)
1-in. (300#)	4.88 (124.0)	2.45 (62.2)	2.79 (70.9)	3.50 (88.9)	0.75 (19.5)	2.62 (66.5)
1-in. (600#)	4.88 (124.0)	2.45 (62.2)	2.79 (70.9)	3.50 (88.9)	0.75 (19.5)	2.62 (66.5)
1 1/2-in. (150#)	5.00 (127.0)	2.45 (62.2)	2.79 (70.9)	3.88 (98.6)	0.625 (15.9)	2.62 (66.5)
1 1/2-in. (300#)	6.12 (155.4)	2.45 (62.2)	2.79 (70.9)	4.50 (114)	0.875 (22.2)	2.88 (73.2)
1 1/2-in. (600#)	6.12 (155.4)	2.45 (62.2)	2.79 (70.9)	4.50 (114)	0.875 (22.2)	2.88 (73.2)
DIN						
DN25 (40)	4.53 (115.1)	2.45 (62.2)	2.79 (70.9)	3.35 (85)	0.55 (14)	2.68 (68.1)
DN40 (40)	5.91 (150.1)	2.45 (62.2)	2.79 (70.9)	4.33 (110)	0.71 (18)	3.47 (88.1)
Pipe Size Class	Flange Diameter (A)	Overall Height (B)		Stud Circle Diameter (C) ⁽³⁾	Stud (Size, Length)	Lower Housing Diameter (D)
		No or 1/4-in. NPT flush connection	1/2-in. NPT flush connection			
Stud Bolt Design⁽⁴⁾						
ANSI						
1/2-in. (150#)	3.74 (95.0)	2.52 (64.0)	2.82 (71.6)	2.38 (60.5)	1/2-13NC, 2.5"	3.74 (95.0)
1/2-in. (300/600#)	3.74 (95.0)	2.77 (70.4)	2.87 (72.9)	2.62 (66.5)	1/2-13NC, 2.5"	3.75 (95.3)
3/4-in. (150#)	3.74 (95.0)	2.52 (64.0)	2.82 (71.6)	2.75 (69.9)	1/2-13NC, 2.5"	3.88 (98.6)
DIN						
DN 15 (PN 40)	3.74 (95.0)	2.52 (64.0)	2.82 (71.6)	2.56 (65)	M12x1.75, 60mm	3.74 (95.0)
DN 15 (PN 100/160)	3.74 (95.0)	2.52 (64.0)	2.82 (71.6)	2.95 (75)	M12x1.75, 60mm	4.13 (105)
DN 20 (PN40)	3.74 (95.0)	2.52 (64.0)	2.82 (71.6)	2.95 (75)	M12x1.75, 60mm	4.13 (105)

(1) Dimensions are in inches (millimeters).

(2) Lower housing is loose on standard design, consult factory for retained lower housing options.

(3) Lowers with 1/2 NPT flushing connections use offset stud bolt pattern.

(4) Upper and lower housing installed bolt torque with CS or SST bolts is 23 ft-lbs. (31 Nm).

Product Data Sheet

00813-0100-4016, Rev HA
January 2008

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TABLE 23. Flanged (RFW) Seal Ordering Information⁽¹⁾

Code	Industry Standard		
A	ANSI / ASME B16.5 (American National Standards Institute / American Society of Mechanical Engineers)		
D	DIN (Deutsches Institut für Normung)		
J	JIS (Japanese industrial Standards)		
Code	Process Connection Style		
RFW	Flanged		
Code	Process Connection Size		
	ANSI	DIN	JIS
2	1-in.	NA	25A
4	1 1/2-in.	NA	40A
D	NA	DN 25	NA
F	NA	DN 40	NA
1	1/2-in. (bolts and studs included, CS std)	NA	NA
A	3/4-in. (bolts and studs included, CS std)	NA	NA
B	NA	DN 15 (bolts and studs included, SST std)	NA
Code	Flange Pressure Rating		
	ANSI	DIN	JIS
1	Class 150	NA	10K
2	Class 300	NA	20K
4	Class 600	NA	40K
G	NA	PN 40	
5	Class 900	NA	
6	Class 1500	NA	
7	Class 2500	NA	
H	NA	PN 64	
J	NA	PN 100	
K	NA	PN 160	
Code	Diaphragm Material	Upper Housing Material ⁽²⁾	Mounting Flange Material
CA	316L SST	316 SST	Carbon Steel
DA	316L SST	316 SST	316 SST
CB	Hastelloy C-276	316 SST	Carbon Steel
DB	Hastelloy C-276	316 SST	316 SST
CC	Tantalum	316 SST	Carbon Steel
DC	Tantalum	316 SST	316 SST
CF	304L SST	316 SST	Carbon Steel
DF	304L SST	316 SST	316 SST
CJ	Hastelloy B	316 SST	Carbon Steel
DJ	Hastelloy B	316 SST	316 SST
CE	Inconel 600	316 SST	Carbon Steel
DE	Inconel 600	316 SST	316 SST
CV	Monel 400	316 SST	Carbon Steel
DV	Monel 400	316 SST	316 SST
CP	Nickel	316 SST	Carbon Steel
DP	Nickel	316 SST	316 SST
CK	Alloy 20	316 SST	Carbon Steel
DK	Alloy 20	316 SST	316 SST
RH	Titanium Gr 4	Titanium Gr 4	316 SST
CH ⁽³⁾	Titanium Gr 4	316 SST	Carbon Steel
DH ⁽³⁾	Titanium Gr 4	316 SST	316 SST
YM	Titanium Gr 2	Titanium Gr 2	316 SST
CM ⁽³⁾	Titanium Gr 2	316 SST	Carbon Steel
DM ⁽³⁾	Titanium Gr 2	316 SST	316 SST
C4	Hastelloy C-22	316 SST	Carbon Steel
D4	Hastelloy C-22	316 SST	316 SST

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TABLE 23. Flanged (RFW) Seal Ordering Information⁽¹⁾

C5	Duplex 2507 SST	316 SST	Carbon Steel
D5	Duplex 2507 SST	316 SST	316 SST
WW	316Ti SST (WNR 1.4571)	316Ti SST (WNR 1.4571)	316 SST
RZ	Zirconium 702	Zirconium 702	316 SST
CZ ⁽³⁾	Zirconium 702	316 SST	Carbon Steel
DZ ⁽³⁾	Zirconium 702	316 SST	316 SST

Code Flushing Connection Ring Material (Lower Housing)⁽⁴⁾

A	316L SST
B	Hastelloy C-276
D	Carbon Steel
C ⁽⁵⁾	Tantalum-lining 316 SST (no flushing connection allowed)
2	Duplex 2205 SST
F	304L SST
H	Titanium Gr 4
3	Titanium Gr 2
J	Hastelloy B
6	Nickel 201
V	<i>Monel</i> 400
E	<i>Inconel</i> 600
1	<i>Inconel</i> 625
K	Alloy 20
W	316Ti SST (WNR 1.4571)

Code Flushing Options

1	One 1/4-in. Flushing Connection
3	Two 1/4-in. Flushing Connection
5	No Flushing Connection
7	One 1/2-in. Flushing Connection
9	Two 1/2-in. Flushing Connection

Code Options (select up to 3)

B	Extra Fill for Cold Temperature Applications
C	150 μm (0.006-in.) Diaphragm Thickness (316L SST and Hastelloy C-276 diaphragms only, for abrasive applications)
D	Hastelloy Plug In. Flushing Connection
G	SST Plug In Flushing Connection
H	SST Drain / Vent in Flushing Connection
J	<i>PTFE</i> Gasket (for use with flushing connection ring)
K	Barium Sulfate-filled <i>PTFE</i> Gasket (for use with flushing connection ring)
N	<i>Grafoil</i> Gasket (for use with flushing connection ring)
R	Ethylene Propylene Gasket for lower housing
V ⁽⁶⁾	<i>PTFE</i> Coated Diaphragm for nonstick purposes (316L SST and Hastelloy C-276 diaphragms only)
3	304 SST Bolts
4	316 SST Bolts
9	104 mm (4.1-in.) Diaphragm
U	25 μm (0.001 in) Gold Plated Diaphragm
T ⁽⁷⁾	NACE MR0175/ISO 15156, MR0103

(1) Shaded areas indicate special orders. Consult an Emerson Process Management, Rosemount division, representative for availability, performance effects, and lead time.

(2) When ordering special diaphragm materials, the upper housing is 316 SST unless otherwise noted.

(3) Operating temperature is limited to 150 °C (302 °F).

(4) Supplied with C4401 gasket.

(5) Not applicable for Process Connection codes 1 and A with 150# Class.

(6) Not available with transmitter option code Q8, for Material Traceability per DIN EN 10204 3.1B of the transmitter / diaphragm seal assembly.

(7) Materials of Construction comply with metallurgical requirements highlighted within NACE MR0175/ISO 15156 for sour oil field production environments. Environmental limits apply to certain materials. Consult latest standard for details. Selected materials also conform to NACE MR0103 for sour refining environments.