

FLANGED OFFLINE WELDED DIAPHRAGM SEALS

REOTEMP's Flanged Offline Welded Diaphragm Seals are designed with an upper and lower housing, bolted together with a diaphragm welded to the upper housing. This removable design allows for easy cleanout of the seal chamber, while maintaining the system fill. The flanged offline diaphragm seal can be adapted to fit almost any pressure instrument and process application.



Stud Mount Style



Lower Ring Style

DIAPHRAGM SEALS

FEATURES / BENEFITS

- Welded Diaphragm for Maximum Durability
- Wide Variety of Diaphragm and Material Options
- Continuous-duty Disc Protects from Process Fluid Leaking in the Event of a System Breach
- Easy Cleanout of Diaphragm Cavity without Compromising Filled System

SPECIFICATIONS

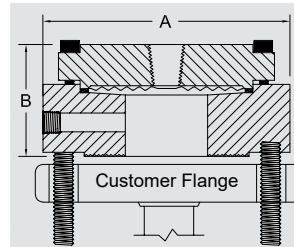
Diaphragm	316SS, Hast C-276, Tantalum, Monel or others		
Lower Housing	316SS, Hast C-276, Monel, CPVC or others		
Gasket	PTFE, Grafoil, Klinger, or Kalrez		
Upper Housing	316SS or Carbon Steel Nickel Plated		
Process Temperature Limits		Housing Type	
		2	3
Metallic Lower	PTFE Gasket	-110/400°F	
	Klinger Gasket	-110/500°F	
	Grafoil Gasket	-40/750°F	
Non-Metallic Lower	N/A	140°F	

Ambient Temperature Limits Determined by the pressure instrument.

Minimum Recommended Span	W5	W6
2.5" & 3.5" Gauges	15 psi	200" H ₂ O
4", 4.5", & 6" Gauges	30 psi	200" H ₂ O
Transmitter (Gauge Pressure)	150" H ₂ O	60" H ₂ O
Transmitter (Differential Pressure)	300" H ₂ O _d	60" H ₂ O _d
Differential Pressure Gauge (D40/42 Only)	N/A	N/A

Maximum Working Pressure Determined by flange.

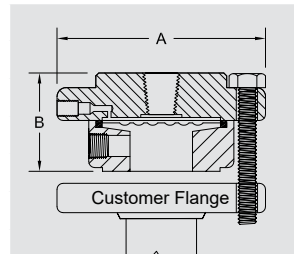
Diaphragm Size	Flange (ANSI)	A (in)	B (in)
W52	1/2"	150#	3.3
		300#	3.5
	3/4"	150#	3.5
W62	1/2"	150#	4.0
		300#	4.0
	3/4"	150#	4.0
		300#	4.0
	1"	150#	4.0
		300#	4.8



W52/W62 Stud Mount Style

Note: stud bolts provided as a convenience. Reotemp recommends customer provide their own bolts and fasteners.

Diaphragm Size	Flange (ANSI)	A (in)	B (in)
W53	1"	150#	4.3
		300#	4.8
	1.5"	150#	5.0
		300#	6.0
W63	1.5"	150#	5.0
		300#	6.0
	2"	150#	6.0
		300#	6.5



W53/W63 Lower Ring Style

Note: All drawings depict a single 1/4" NPT Flush Port (optional). Drawing are not to scale. Contact REOTEMP customer service for more detailed drawings.

FLANGED OFFLINE WELDED DIAPHRAGM SEALS

HOW TO ORDER: Choose options to build a part number. For example: **W5262RT1SSS-KDTD-AS-PP**

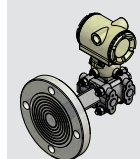
SEAL TYPE	HOUSING	FLUSH PORT	INSTRUMENT CONNECTION	SEALING FACE	PIPE SIZE	FLANGE RATING	DIAPHRAGM MATERIAL
W5 = 2.2" Diaphragm W6 = 2.9" Diaphragm	2 = Stud Mount Style 3 = Lower Ring Style	5 = No Flush Port 6 = Single 1/4" NPT 7 = Dual 1/4" NPT C = Single 1/2" NPT ¹ D = Dual 1/2" NPT ¹ ¹ Not available with type 2 housing.	2 = 1/2" Female NPT 4 = 1/4" Female NPT W = Low-Volume Connection for Smart Transmitters	R = Raised Face J = Ring Type Joint F = Flat Face	0 = 1/2" ANSI T = 3/4" ANSI 1 = 1" ANSI H = 1 1/2" ANSI 2 = 2" ANSI 3 = 3" ANSI	1 = 150# 3 = 300# 6 = 600# 9 = 900/1500# 5 = 2500# 7 = 900# ² 8 = 1500# ² ² For 3" pipe size and larger.	S = 316L H = Hast C-276 U = Tantalum M = Monel (A400) [†] D = Alloy 20 Y = Inconel G = Hast B N = Nickel J = Titanium ³ 2 = Duplex 2205 ³ Snap-in diaphragm type, not welded to upper housing. [†] Only available with carbon steel upper housing.

Pipe Size	Seal Type	
	W5	W6
1/2"	2	2
3/4"	150# 2	2
	300# 3	
1"	3	2
1 1/2"	3	3
2"	3	3
3"	3	3

DIAPHRAGM SEALS

LOWER HOUSING	UPPER HOUSING	GASKET	INSTRUMENT MOUNT	SYSTEM FILL FLUID	OPTIONS
S = 316L H = Hast C-276 M = Monel (A400) D = Alloy 20 G = Hast B L = Teflon Lined 316SS ⁵ 2 = Duplex 2205 T = Teflon (PTFE) ⁴ ⚠️ K = Kynar ⁴ ⚠️ W = CPVC ⁴ ⚠️ Z = PVC ⁴ ⚠️ ⁴ Not available on stud mount style housing. ⁵ Available for 1" flange and larger.	S = 316SS C = Carbon Steel Nickel Plated	-K = Klinger -T = PTFE -G = Grafoil -Z = Kalrez Wetted	Direct Mount DTD = Direct Mount, Threaded DWD = Direct Mount, Welded RTR = 6" Cooling Tower STW = 3" Cooling Standoff Remote Mount A?? = Armored Capillary, Threaded B?? = Armored Capillary, Welded P?? = PVC Coated Armor, Threaded W?? = PVC Coated Armor, Welded Note: ?? = Length in feet (e.g. 05 = 5 feet). Tree Mount TRE = Goal Post, Low Pressure TRX = Goal Post, Heavy Duty TRM = Compact Tree Assembly See Page 57 for Complete Mounting Guide YYY = Dry Seal, No Instrument	Common Fills -AS = Silicone DC200 -AG = Glycerin USP -BH = Silicone DC704 -C1 = Fomblin Y06 (inert) -C2 = Halocarbon 6.3 See 58 for Complete Fill Guide -XX = No Fill Fluid	-PP = Pulse Plus™ (Pulsation Protection) -OX = Cleaned for Oxygen Service -AU = Gold-Plated Diaphragm -TC = Teflon-Coated Diaphragm -TS = SS Tag (1-10 Characters) -FW = Fill Port Welded Closed -LU = Tantalum Clad Lower Housing -NC = NACE Certification MRO-175 See Page 83 for Additional Options

⚠️ Important Note on Choosing a Lower Housing: Reotemp recommends the use of metallic lower housings when process compatibility allows. Before specifying a non-metallic lower housing, users should be familiar with the material characteristics and risks of non-metallic materials including leaking, cracking, flowing and other issues that can affect durability and performance.



See Page 55 for Smart Transmitter Attachment Codes