

THREADED OFFLINE WELDED DIAPHRAGM SEALS

REOTEMP's Threaded 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 still maintaining the system fill. The threaded offline diaphragm seal can be adapted to fit almost any pressure instrument and process application.

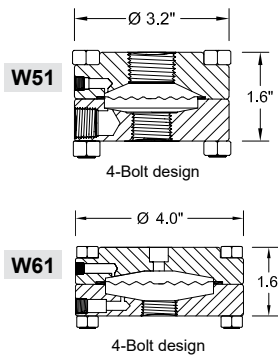
DIAPHRAGM SEALS



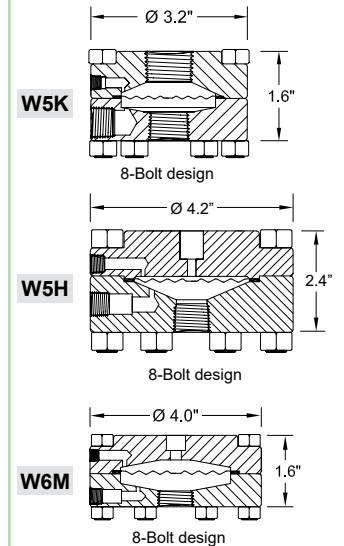
FEATURES / BENEFITS

- 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

Standard Pressure



Heavy Duty



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.

SPECIFICATIONS

Diaphragm	316SS, Hast C-276, Tantalum, Monel, or others
Lower Housing	316SS, Hast C-276, Monel, CPVC, or others
Gasket	PTFE, Grafoil, Kalrez, or Klinger
Upper Housing	316SS or Nickel-plated Carbon Steel

Process

Temperature Limits

		W51/W61	W5K/W6M/W5H
Metallic Lower	PTFE Gasket	-110/350°F	-110/400°F
	Klinger Gasket	-110/450°F	-110/500°F
	Grafoil Gasket	-40/600°F	-40/750°F
Non-Metallic Lower		140°F	N/A

Ambient Determined by the pressure instrument.

Temperature Limits

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

Weight

Note: Weights are approximate.

	Metallic Lower	Non-Metallic Lower
W51/W5K	3.5 lbs	2.5 lbs
W5H	11.0 lbs	N/A lbs
W61/W6M	5.2 lbs	4.2 lbs

Maximum Working Pressure at 100°F:

	Bolts	Grade 5	Grade 8	18/8SS	316SS
Metallic Lower	W51	2,500 psi	2,500 psi	1,500 psi	1,500 psi
	W5K	5,000 psi	5,000 psi	3,000 psi	2,500 psi
	W5H	-	10,000 psi	-	-
	W61	1,500 psi	1,500 psi	1,000 psi	750 psi
	W6M	2,500 psi	2,500 psi	2,000 psi	2,000 psi
Non-Metallic Lower		300 psi	300 psi	300 psi	300 psi

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HOW TO ORDER: Choose options to build a part number. For example: **W51622HSS-TGRTR-BH-PP**

SEAL TYPE	FLUSH PORT	INSTRUMENT CONNECTION	PROCESS CONNECTION	DIAPHRAGM MATERIAL	LOWER HOUSING	UPPER HOUSING
W51 = 2.2" Diaphragm W5K = 2.2" Diaphragm Heavy Duty W5H = 2.2" Diaphragm High Pressure W61 = 2.9" Diaphragm W6M = 2.9" Diaphragm Heavy Duty	5 = No Flush Port 6 = Single 1/4" NPT 7 = Dual 1/4" NPT C = Single 1/2" NPT* D = Dual 1/2" NPT* *Only Available with W51 and W61 Seal Types. Note: SS Plugs Included in Flush Ports.	2 = 1/2" Female NPT 4 = 1/4" Female NPT W = Low-Volume Connection for Smart Transmitters (316 upper only)	1 = 1" NPT Female 2 = 1/2" NPT Female 3 = 3/4" NPT Female 4 = 1/4" NPT Female 5 = 1.5" NPT Female (W6 ONLY) M = 1/2" NPT Male* 6 = 1.25" NPT Female 7 = 3/8" NPT Female 8 = 1/8" NPT Female 9 = 2" NPT Female (W6 ONLY) *Welded adapter, not available in all materials.	S = 316L H = Hast C-276 U = Tantalum M = Monel (A400) D = Alloy 20 Y = Inconel G = Hast B N = Nickel J = Titanium ¹ 2 = Duplex 2205 ¹ Snap-in diaphragm type, not welded to upper housing. Wetted	S = 316/316L H = Hast C-276 M = Monel (A400) D = Alloy 20 G = Hast B F = 304/304L C = Carbon Steel J = Titanium N = Duplex 2205 2 = Nickel T = Teflon (PTFE) ⚠️ Z = PVC ⚠️ W = CPVC ⚠️ K = Kynar ⚠️ ⚠️ Important: see choosing a lower housing note below. Wetted	S = 316SS C = Carbon Steel, Nickel Plated

DIAPHRAGM SEALS

BOLTS/FASTENERS	GASKET	INSTRUMENT MOUNT	SYSTEM FILL FLUID	OPTIONS
-5 = Carbon Steel Grade 5, Zinc Plated -8 = Carbon Steel Grade 8, Yellow Chromate -T = Stainless Steel 18/8 -S = Stainless Steel 316	K = Klinger C-4401 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	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 Character) -FW = Fill Port Welded Closed -MR = Mill Test Report -NC = NACE Certification -PM = Positive Material Identification Certification 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.