## **Data Sheet**

## 510/511 All Welded Diaphragm Seal



#### **FEATURES**

- Compact design allows seals to fit in confined areas
- Sufficient displacement to drive a wide variety of instrumentation
- Minimal fill volume
- All stainless steel construction; other materials available
- Light weight design

#### **TYPICAL USES**

- Oil and gas
- Refineries (Hydrofluoric / Sulfuric Alkylation)
- Chemical and petrochemical
- Water and wastewater
- Oil and gas fracking
- NACE Compliant processes (sour gas separation)
- Biogas and biodiesel
- Corrosive processes

SPECIFICATIONS



## 510/511

Threaded Seals

#### **KEY BENEFITS**

- Continuous duty design
- All-welded construction prevents inadvertent disassembly
- Ensures process compatibility
- Male connections eliminate adapters/fittings

Connection Style:	510: Threaded 511: Threaded with Flushed Connection
Process Connection Size:	1⁄2 NPT Male
Instrument Connection Size:	1/2 NPT Female
Pressure Rating (MAWP):	Vac. to 1,500 psi at 100 °F (high pressure option available)
Added Tolerance:	±0.5% typical
Fill Fluid:	Glycerin, Silicone, Halocarbon®, Syltherm®
Approvals:	CRN, NACE

### WETTED COMPONENTS

#### Diaphragm 316L SS Hastelloy<sup>®</sup> C-276 Monel<sup>®</sup> 400 Duplex 2205

Lower Housing 316L Stainless steel Hastelloy® C-276 Monel® 400 Duplex 2205 Hastelloy® B

#### NON-WETTED COMPONENTS

Top Housing

316 SS, Hastelloy<sup>®</sup> C-276 (XHB), Monel<sup>®</sup> 400, Duplex 2205

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# 510/511 All Welded Diaphragm Seal

ORDERING CODE	Example:	04	510	S	S	04T	XCG	NH
Process Connection Size								
04 - 1/2 NPT Male		04						
Seal Model								
510 - All-welded threaded compact seal, with no flushing	) port		510					
511 - All-welded threaded compact seal, with flushing po	ort							
Diaphragm Material								
S - 316L Stainless Steel				S				
H - Hastelloy <sup>®</sup> C-276								
P - Monel <sup>®</sup> 400								
W - 316L Stainless Diaphram, gold plated on non-proces	s (fill) side							
B - Monel Diaphram, gold plated on non-process (fill) side	e							
Z - Duplex 2205								
U - Tantalum®								
Bottom Housing Material								
S - 316L Stainless Steel					S			
H - Hastelloy <sup>®</sup> C-276								
M - Monel <sup>®</sup> 400								
Z - Duplex 2205								
B - Hastelloy <sup>®</sup> B (510 only)								
Instrument Connection Size								
04T - 1/2 NPT Female						04T		
Options (if choosing option(s) must include an "X")								
Fill Fluid							X	
CF - Halocarbon <sup>®</sup>								
CC - Syltherm <sup>®</sup> XLT (for low-temperature applications)								
CG - Glycerin (direct-mount only)							CG	
CK - 50 cSt Silicone								
DJ - 10 cSt Silicone								
HA - Syltherm <sup>®</sup> 800 (for high-temperature applications)								
Optional Features								
DU - Instrument welded to seal								
PU - Pipe plug for flushing connection (511 only)								
NH - Stainless steel tag wired to product								NH
HY - Hydrostatic testing								
6B - Cleaning for oxidizing agents								
HP - High pressure design (510: 10,000 psi MAWP, 511: 5	5000 MAWP)							
HB - Hastelloy <sup>®</sup> C-276 top housing								

When selecting an instrument, refer to the Min/Max Guide for compatibility with this diaphragm seal or scan the QR code to the right.



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## 510/511 All Welded Diaphragm Seal



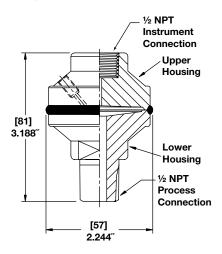
#### DIMENSIONS

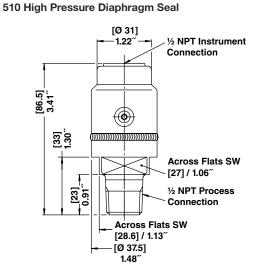
For reference only, consult Ashcroft for specific dimensional drawings

#### 510 Diaphragm Seal

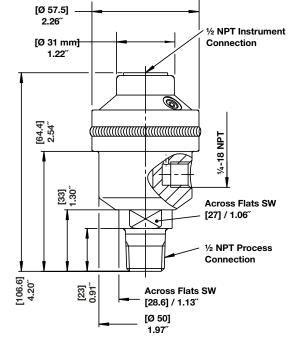
511 Diaphragm Seal with

**Flushing Connection** 





511 High Pressure Diaphragm Seal with Flushing Connection



[Ø31] 1.22 1/2 NPT Instrument Connection (© 1/4 - 27 NPT ...... [98] 3.86 Across Flats SW [27] / 1.06" [33] [23] 0.91<sup>~</sup> <sup>1</sup>/<sub>2</sub> NPT Process Connection Across Flats SW [28.6] / 1.13" [Ø37.5] 1.48

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