

## 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
- Harsh chemicals such as Sulfuric Acid, Hydrochloric Acid and Chlorine



**510/511**  
Threaded Seals



#### SPECIFICATIONS

Connection Style: 510: Threaded  
511: Threaded with Flushed Connection

Process Connection Size: ½ NPT Male

Instrument Connection Size: ½ 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	Lower Housing
316L SS	316L Stainless steel
Hastelloy® C-276	Hastelloy® C-276
Monel® 400	Monel® 400
Duplex 2205	Duplex 2205
Tantalum	Hastelloy® B

#### NON-WETTED COMPONENTS

Top Housing

316L Stainless Steel (Standard), Hastelloy® C276 (Optional - XHB)  
Monel® 400 (Optional - XYM)

#### KEY BENEFITS

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

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ORDERING CODE	Example:	04	510	S	S	04T	XCG	NH
<b>Process Connection Size</b>								
04 - ½ NPT Male		04						
<b>Seal Model</b>								
510 - All-welded threaded seal, with no flushing port			510					
511 - All-welded threaded seal, with flushing port								
<b>Diaphragm Material</b>								
S - 316L Stainless steel				S				
H - Hastelloy® C-276								
P - Monel® 400								
W - 316L Stainless diaphragm, gold plated on non-process (fill) side								
B - Monel diaphragm, gold plated on non-process (fill) side								
Z - Duplex 2205								
U - Tantalum								
<b>Bottom Housing Material</b>								
S - 316L Stainless steel					S			
H - Hastelloy® C-276								
M - Monel® 400								
Z - Duplex 2205								
G - Hastelloy® B (510 only)								
<b>Instrument Connection Size</b>								
04T - ½ NPT Female						04T		
<b>Options (if choosing option(s) must include an "X")</b>								
<b>Fill Fluid</b>								
CF - Halocarbon®							X_ _	
CC - Syltherm® XLT (for low-temperature applications)								
CG - Glycerin (direct-mount only)							CG	
CK - 50 cSt Silicone								
DJ - 10 cSt Silicone								
HA - Syltherm® 800 (for high-temperature applications)								
<b>Optional Features</b>								
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: 5000 MAWP)								
HB - Hastelloy® C-276 top housing								
YM - Monel® Top housing (only available with Monel® diaphragm and lower 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.



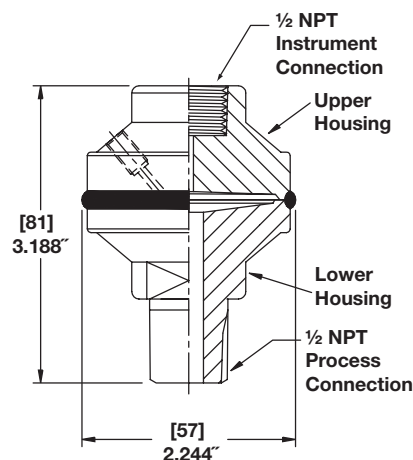
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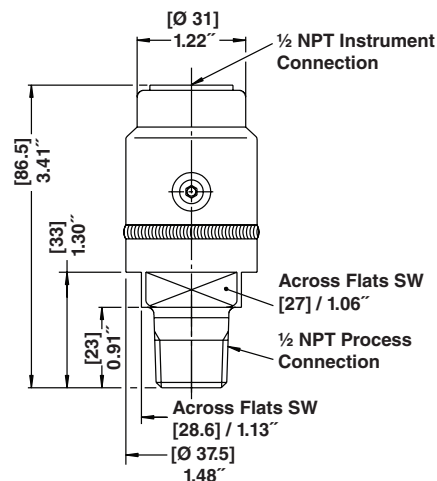
### DIMENSIONS

For reference only, consult Ashcroft for specific dimensional drawings

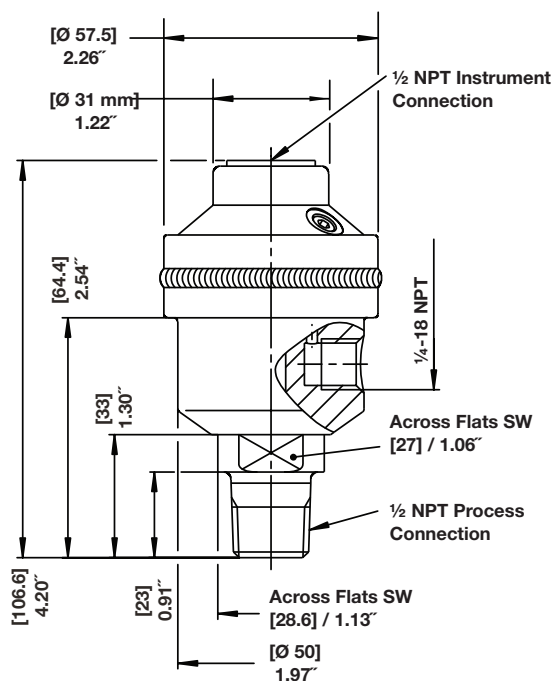
510 Diaphragm Seal



510 High Pressure Diaphragm Seal



511 Diaphragm Seal with Flushing Connection



511 High Pressure Diaphragm Seal with Flushing Connection

