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
- 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

<table>
<thead>
<tr>
<th>Diaphragm</th>
<th>Lower Housing</th>
</tr>
</thead>
<tbody>
<tr>
<td>316L SS</td>
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</tr>
<tr>
<td>Hastelloy® C-276</td>
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<tr>
<td>Monel® 400</td>
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<tr>
<td>Duplex 2205</td>
<td>Duplex 2205</td>
</tr>
</tbody>
</table>

NON-WETTED COMPONENTS

<table>
<thead>
<tr>
<th>Top Housing</th>
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</thead>
<tbody>
<tr>
<td>316 SS, Hastelloy® C-276, Monel® 400, Duplex 2205</td>
</tr>
</tbody>
</table>

KEY BENEFITS
- Continuous duty design
- All-welded construction prevents inadvertent disassembly
- Ensures process compatibility
- Male connections eliminate adapters/fittings
## ORDERING CODE

<table>
<thead>
<tr>
<th>Example:</th>
<th>04 510 S S 04T XCG NH</th>
</tr>
</thead>
</table>

### Process Connection Size
- **04** - ½ NPT Male

### Seal Model
- **510** - All-welded threaded compact seal, with no flushing port
- **511** - All-welded threaded compact seal, with flushing port

### Diaphragm Material
- **S** - 316L Stainless Steel
- **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

### Bottom Housing Material
- **S** - 316L Stainless Steel
- **H** - Hastelloy® C-276
- **M** - Monel® 400
- **Z** - Duplex 2205

### Instrument Connection Size
- **04T** - ½ NPT Female

### Options (if choosing option(s) must include an “X”)
- **Fill Fluid**
  - **CF** - Halocarbon®
  - **CC** - Syltherm® XLT (for low-temperature applications)
  - **CG** - Glycerin (direct-mount only)
  - **CK** - 50 cSt Silicone
  - **DJ** - 10 cSt Silicone
  - **HA** - Syltherm® 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
- **HY** - Hydrostatic testing
- **6B** - Cleaning for oxidizing agents
- **HP** - High pressure design (510: 10,000 psi MAWP; 511: 5000 MAWP)

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