

311/312 All-Welded Midi Threaded Seals



FEATURES

- All-welded construction
- No gaskets or bolts
- Large diaphragm allows for use with 4½" gauges
- Compact and light weight alternative to larger seals

TYPICAL USES

- Oil and Gas
- Refineries
- Chemical and Petrochemical
- Water and Wastewater
- NACE Compliant Processes (Sour Gas Separation)
- Biogas and Biodiesel



312/311
Threaded Seal



SPECIFICATIONS

Connection style:	311: All-Welded 312: All-Welded with flushing connection
Process Connection:	311: ¼ to 1 NPT Male or Female 312: ¼ or ½ NPT Female
Instrument Connection:	¼ or ½ NPT Female
Fill Fluid:	See table 1 on page 2
Approvals:	CRN

WETTED COMPONENTS

Diaphragm	Bottom Housing
316L SS, Hastelloy® C-276, Tantalum	316L SS, Hastelloy® C-276

NON-WETTED COMPONENTS

Top Housing
316L Stainless steel

KEY BENEFITS

- Protects instruments from corrosive media
- Stainless top housing stands up to corrosive environments
- Prevents pressure instruments from clogging

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TABLE 3 - FILL FLUIDS

Fill Fluid	Temperature	Viscosity (cSt at 70°F (21°C))	Variation Code	Notes
Glycerin (food grade)	0°F to 400°F (-18°C to 204°C)	1,300	CG	Direct-mounting only. Not for use with vacuum service
50 cSt Silicone	-40°F to 500°F (-40°C to 260°C)	50	CK	
10 cSt Silicone	-40°F to 500°F (-40°C to 260°C)	10	DJ	
Halocarbon [®] 4.2	-70°F to 300°F (-57°C to 199°C)	4.2	CF	For use with oxygen/ oxidizing process media
Slytherm [®] 800	-40°F to 750°F (-40°C to 400°C)	10	HA	High temperature applications
Syltherm [®] XLT	-150°F to 500°F (-100°C to 260°C)	1.4	CC	Low temperature applications
Calflo [®] AF	-20°F to 600°F (-29°C to 316°C)	60	KF	High temperature, silicone-free
Mineral Oil	10°F to 400°F (-12°C to 204°C)	75	MY	
Neobee [®] M-20 (food grade)	5°F to 400°F (-15°C to 204°C)	9.5	NM	
Silicone (food grade)	-40°F to 500°F (-40°C to 260°C)	350	CZ	
Distilled Water	40°F to 185°F (4°C to 85°C)	0.9	FJ	
50/50 Glycerin/Water	15°F to 200°F (-9°C to 93°C)	30	GH	
Propylene Glycol	-50°F to 325°F (-46°C to 163°C)	54	CV	
Ethylene Glycol	20°F to 325°F (-7°C to 163°C)	14	FK	
50/50 Ethylene Glycol/Water	-25°F to 190°F (-32°C to 88°C)	2.9	CT	
80/20 Glycerin/Water	15°F to 225°F (-9°C to 107°C)	270	GR	
95/5 Water/Propylene Glycol	40°F to 185°F (4°C to 85°C)	1.0	PY	

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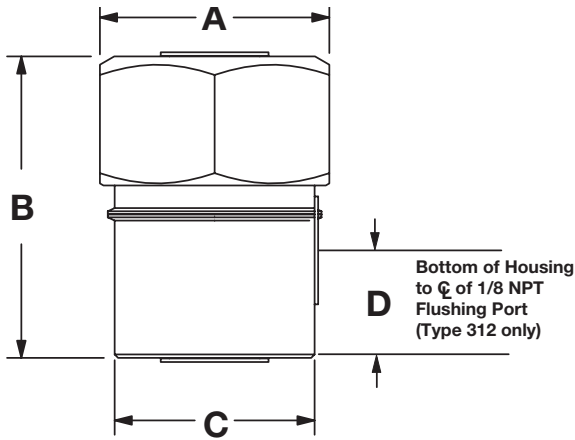
ORDERING CODE	Example:	02	312	S	S	02T	XCK	NH
Process Connection Size								
02 - ¼ NPT Male (available for 311 only)		02						
04 - ½ NPT Male (available for 311 only)								
06 - ¾ NPT Male (available for 311 only)								
08 - 1 NPT Male (available for 311 only)								
25 - ¼ NPT Female								
50 - ½ NPT Female								
75 - ¾ NPT Female (available for 311 only)								
10 - 1 NPT Female (available for 311 only)								
Seal Type								
311 - Threaded All-welded midi seal no flushing port								
312 - Threaded All-welded midi seal with flushing port			312					
Diaphragm Material								
S - 316L Stainless steel				S				
U - Tantalum								
H - Hastelloy® C-276								
Bottom Housing Material								
S - 316L Stainless steel					S			
H - Hastelloy® C-276								
Instrument Connection Size								
02T - ¼ NPT Female						02T		
04T - ½ NPT Female								
Options (if choosing an option(s) must include an "X")								
Fill Fluid (See Table 1 on page 2 for more available fill fluids)								
CK - 50 cSt Silicone							CK	
Optional Features								
PU - Pipe plug for flushing connection (plug will match bottom housing material; 312 seal only)								
NH - Stainless steel instrument								NH
DU - Instrument welded to seal (instrument must be of like-material to top housing)								
MQ - Positive material identification								
W1 - Dye penetrant testing								
6B - Cleaned for oxygen service								

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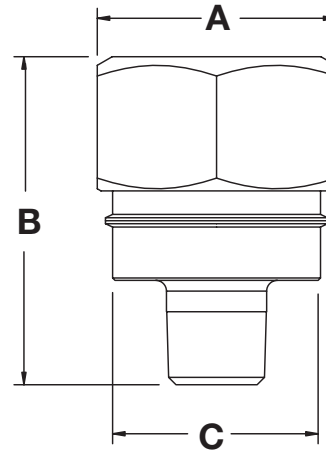
DIMENSIONS in [] are millimeters

For reference only, consult Ashcroft for specific dimensional drawings

311/312 MIDI DIAPHRAGM SEAL -THREADED (WITH & WITHOUT FLUSHING CONNECTION)



311 MIDI DIAPHRAGM SEAL -THREADED MALE PROCESS CONNECTION



Model	A	B	C	D
311/312	2 [51]	2.65 [67]	0.94 [24]	0.94 [24]
311 (male connection)	2 [51]	1 ³ / ₈ [35]	1 ³ / ₄ [44]	-