

All Welded Flanged Diaphragm Seal Model 502/503 with flange according to EN 1092-1 and ASME B16.5

FEATURES

- All-welded compact design with high volumetric displacement for small flanges and low pressure ranges
- Variety of wetted parts materials
- Available with flushing port
- Suitable for pressure gauges, switches and transmitters
- Continuous duty design
- Minimized fill volume

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

Diaphragm Seal type: 502: Flanged
 503: Flanged with 1/4 NPT flushing ports

Process Connection Size: Flange according to EN 1092-1
 DN15, DN20, DN25, DN40
 Flange according to ASME B16.5
 1/2", 3/4", 1", 1-1/2"

Flange Style: EN 1092-1
 Raised face B1
 ASME B16.5
 Raised face RF

Instrument Connection Size: G 1/4 or G 1/2 Female
 1/4 NPT or 1/2 NPT Female
 Welding port (8 mm) for capillary line
 others available on request

Flange Rating: EN 1092-1
 PN2,5 up to PN100
 ASME B16.5
 Class 150, 300 or 600

Flushing Port: 1/4 NPT Female

Accuracy Effect: + 0,5% typical

Fill Fluid: Silicone, Halocarbon[®], Syltherm[®]
 others available on request

Approvals: NACE for Oilfields and Refineries

WETTED COMPONENTS

Diaphragm and Flange: Stainless steel 316L (1.4404)
 Duplex 2205 (1.4462)
 Hastelloy[®] C-276 (2.4819)
 Inconel 625 (2.4856)
 Monel 400 (2.4360)
 Tantalum diaphragm on Hastelloy[®] C-276 flange

NON-WETTED COMPONENTS

Bolts: Stainless steel 316L (1.4404)

Instrument Connection: Stainless steel 316L (1.4404)
 Monel 400 (2.4360)

KEY BENEFITS

- Well suited to low pressure ranges
- No flange through bolts required for mounting
- Compact design
- Pressure rating up to PN100 or Class 600

All welded flanged diaphragm seal

Model 502/503

ORDERING CODE		EXAMPLE:	75	502	S	S	51T	150	RF	CK	XC3
Process Connection Size											
EN 1092-1											
DN15	Flange size DN15										
DN20	Flange size DN20										
DN25	Flange size DN25										
DN40	Flange size DN40										
ASME B16.5											
50	Flange size 1/2"										
75	Flange size 3/4"										
10	Flange size 1"										
15	Flange size 1-1/2"										
Model				502							
502	Flanged diaphragm seal, all welded			502							
503	Flanged diaphragm seal, all welded with flushing port										
Diaphragm Material											
H	Hastelloy [®] C-276 (2.4819)										
P	Monel 400 (2.4360)										
S	Stainless steel 316L (1.4404)				S						
U	Tantalum [Flange & diaphragm support in Hastelloy [®] C-276 (2.4819)]										
M	Inconel 625 (2.4856)										
Z	Duplex 2205 (1.4462)										
Flange Material											
H	Hastelloy [®] C-276 (2.4819)										
M	Monel 400 (2.4360)										
S	Stainless steel 316L (1.4404)										
W	Inconel 625 (2.4856)										
Z	Duplex 2205 (1.4462)					S					
Instrument Connection Size											
00T	Welding port for capillary line system (8 mm)										
02T	1/4 NPT Female										
04T	1/2 NPT Female										
26T	G 1/4 Female										
51T	G 1/2 Female						51T				
Flange Rating											
EN 1092-1								150			
PN6	Flange rating PN6										
PN10	Flange rating PN10										
PN16	Flange rating PN16										
PN25	Flange rating PN25										
PN40	Flange rating PN40										
PN63	Flange rating PN63										
PN100	Flange rating PN100										
ASME B16.5								150			
150	Flange rating 150 lbs										
300	Flange rating 300 lbs										
600	Flange rating 600 lbs										
Flange Style											
EN 1092-1											
B1	Raised face Form B1										
ASME B16.5											
RF	Raised face RF								RF		



**All welded flanged diaphragm seal
 Model 502/503**
ORDERING CODE **EXAMPLE:** 75 502 S S 51T 150 RF **CK** XC3

System Filling

			Max. Allowable Process Temperature:		Application:
CC	Syltherm® XLT		-100 to 260 °C	-150 to 500 °F	Low temperature
CF	Halocarbon® 4.2		-57 to 200 °C	-70 to 300 °F	Inert/Oxygen
CG	Glycerine	(1)	-18 to 204 °C	0 to 400 °F	Food
CK	Silicone 50 cSt	(2)	-40 to 260 °C	-40 to 500 °F	General purpose
DJ	Silicone 10 cSt		-40 to 260 °C	-40 to 500 °F	Fast response time
FJ	Distilled water	(1)	4 to 85 °C	40 to 185 °F	Food & Beverage
GQ	White oil silicone free		-12 to 204 °C	10 to 400 °F	Food, Painting
HA	Syltherm® 800		-40 to 400 °C	-40 to 750 °F	High temperature
HO	Halocarbon® 6.3S		-57 to 200 °C	-70 to 300 °F	Inert/Oxygen
KG	Silicone 704		0 to 300 °C	32 to 572 °F	High temperature & vacuum
KJ	Silicone 705		20 to 215 °C	68 to 420 °F	High vacuum
NM	Neobee® M-20		-15 to 204 °C	5 to 400 °F	Food & Pharma

CK

(1) Not available for compound or vacuum pressure applications

(2) Only suitable for capillary systems ≤ 3 m (10 ft)

Options (If choosing an option(s) must include a "X")

X_

Flushing Port

 DK Dual flushing port 1/4 NPT Female
 PU Plugs for flushing port

Cleaning

 6W Cleaned for oxidizing processes other than oxygen
 6B Cleaned for oxygen service
 YF Cleaned silicone free (not available for silicone filling)

Tagging

NH Stainless steel tag, wired

Testing/Certificates

 CD2 Material test report according to EN 10204 / 2.2
 C3 Material report according to EN 10204 / 3.1
 CD5 Certificate according to NACE for Oilfields MR0175 / ISO 15156 and Refineries MR0103 / ISO 17945
 MQ Positive Material Identification (PMI)

C3

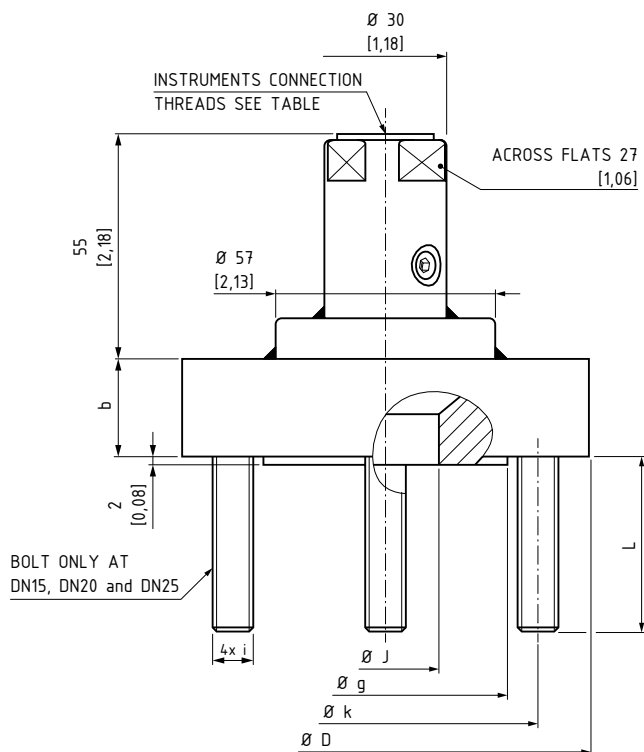
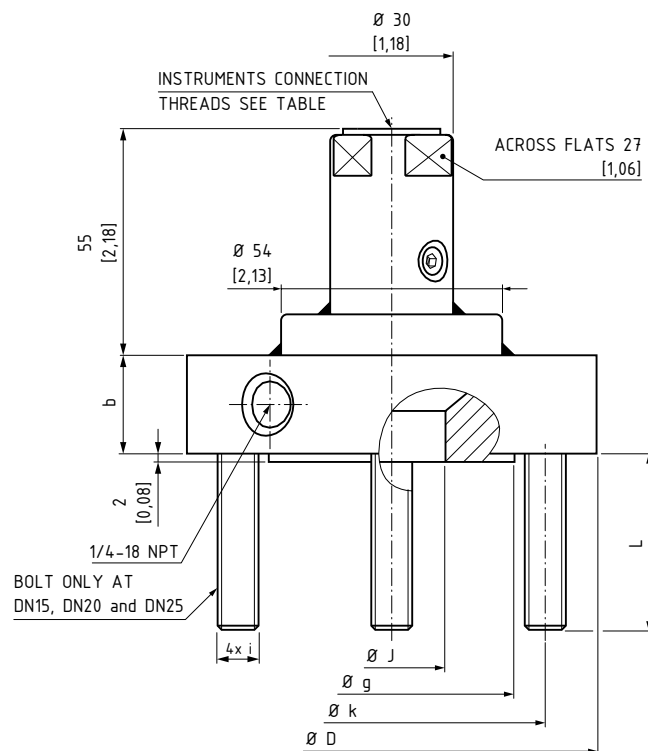


All welded flanged diaphragm seal
Model 502 / 503 EN

according to EN 1092-1

DIMENSIONS IN MM [INCH]

For reference only, consult Ashcroft for specific dimensional drawings

DIAPHRAGM SEAL 502

DIAPHRAGM SEAL 503 WITH FLUSHING PORT


SIZE DN	PRESSURE CLASSES	$\varnothing D$	b	$\varnothing g$	$\varnothing J$	$\varnothing k$	i	L
DN15	PN6	80 [3,15]	12 [0,47]	40 [1,57]	15,8 [0,62]	55 [2,17]	M10	~43 [1,69]
	PN10 up to PN40	95 [3,74]	16 [0,63]	45 [1,77]		65 [2,56]	M12	~45,5 [1,79]
	PN63 up to PN100	105 [4,13]	20 [0,79]			75 [2,95]		
DN20	PN6	90 [3,54]	14 [0,55]	50 [1,97]	20,9 [0,82]	65 [2,56]	M10	~43 [1,69]
	PN10 up to PN40	105 [4,13]	18 [0,71]	58 [2,28]		75 [2,95]	M12	~45,5 [1,79]
	PN63 up to PN100	130 [5,12]	22 [0,87]			90 [3,54]		
DN25	PN6	100 [3,94]	14 [0,55]	60 [2,36]	26,6 [1,05]	75 [2,95]	M10	~43 [1,69]
	PN10 up to PN40	115 [4,53]	18 [0,71]	68 [2,68]		85 [3,35]	M12	~45,5 [1,79]
	PN63 up to PN100	140 [5,51]	24 [0,94]			100 [3,94]		
DN40	PN6	130 [5,12]	14 [0,55]	80 [3,15]	40,9 [1,61]	100 [3,94]	14 [0,55]	THROUGH BORE
	PN10 up to PN40	150 [5,91]	18 [0,71]	88 [3,46]		110 [4,33]	18 [0,71]	
	PN63 up to PN100	170 [6,7]	26 [1,02]			125 [4,92]	22 [0,87]	

