

Model 300AM

Diaphragm Seals for Threaded In-Line Process Connections Standard Pressure Rating with Metal Lower Housing

Process Connection Sizes

1/4" NPTF through 1" NPTF

Maximum Working Pressure

1250, 2500 PSIG (8.62, 17.25 MPa)

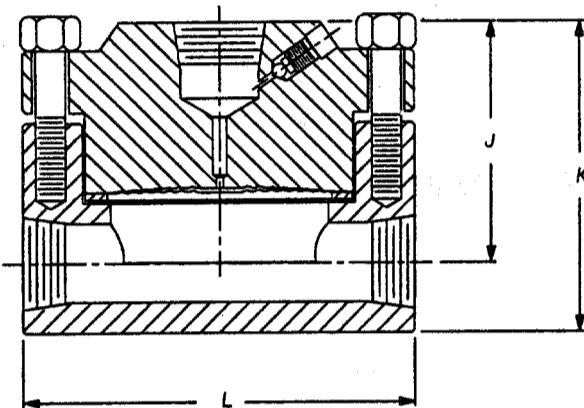
@ 100°F (38°C) (See Notes 5, 6, 7, 10 and 11)

Dimensional Data

Process Connection Size

	1/4"	1/2"	3/4"	1"
J	2.00 (51)	2.12 (54)	2.38 (60)	2.50 (64)
K	2.59 (66)	2.78 (71)	3.25 (83)	3.38 (86)
L	3.50 (89)	3.50 (89)	3.50 (89)	3.50 (89)

() Dimensions in millimeters



Standard Features and Options

This threaded connection, in-line seal has a diaphragm welded to the upper housing. Recommended for applications that require a continuous flow of process across the diaphragm to insure that pressure sensing is not inhibited by solids buildup. This design allows for use of diaphragm materials that are of a weldable grade. The displacement capability of this series of diaphragm seal is 0.05 cubic inches utilizing a 2.4"(60.96mm) diameter diaphragm. The upper housing can be removed from the lower housing for inspection, or cleaning of the diaphragm without loss of fill fluid.

The standard pressure rating is 2500 PSIG (17.25 MPa) when Stainless Steel bolting is not required (See Note 6). The Seal-off feature is standard. A model 300J3 upper only assembly can be purchased to fit existing lowers threaded in line.

Offerings

Lower Materials: All metallic

Upper Materials: Carbon Steel or 316 Stainless Steel

Optional Materials are Carpenter 20, Titanium and Monel - Refer to Control Engineering Data for details.

Diaphragm Materials: All metallic

Bolting: Carbon Steel or 300 Stainless Steel

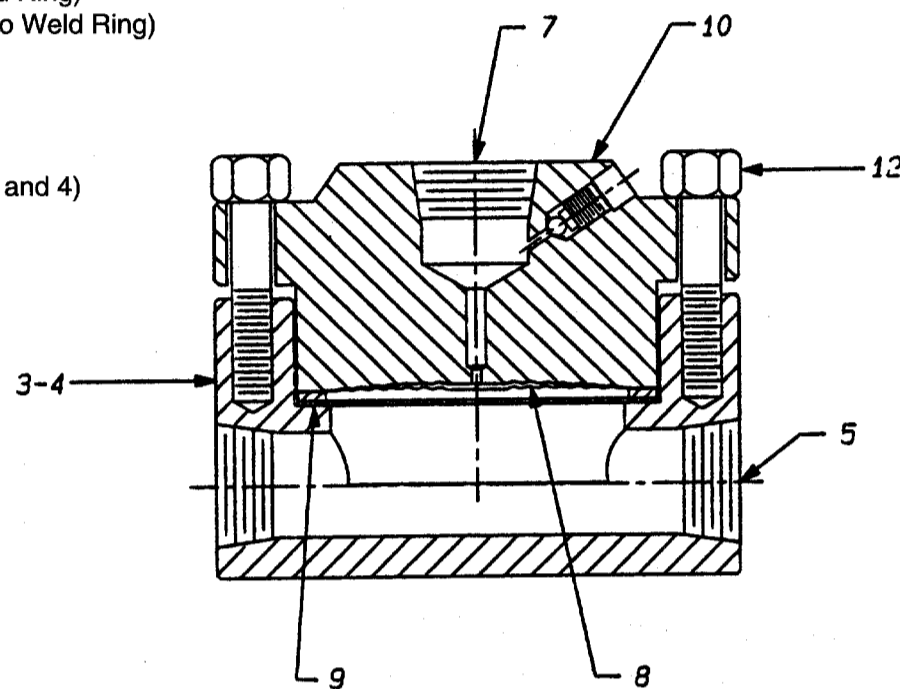
(See Notes 5, 6, 7 and 10)

CONTROL ENGINEERING DATA

D2N26U2NSC0C00N

- (15) FILL LIQUID
N = (Standard)
- (14) PLATING OPTIONS
0 = None (Standard)
G = Gold Plating Diaphragm Only (See Note 12)
- (13) TEFLON COATINGS (See Note 13)
0 = None (Standard)
A = Teflon Coated Diaphragm Only
- (12) BOLTING
C = Carbon Steel, grade 5 (See Note 5)
S = 300 Series Stainless Steel (See Note 6)
H = 300 Series Stainless Steel (Hi-Strength) (See Note 7)
- (11) FUTURE OPTIONS
0 = Not Applicable
- (10) UPPER HOUSING MATERIAL
B = Carbon Steel - N.A.C.E. (No Weld Ring)
F = 316 Stainless Steel - N.A.C.E. (No Weld Ring)
N = Monel - N.A.C.E. (No Weld Ring)
C = Carbon Steel (Standard)
S = 316 Stainless Steel
M = Monel (See Note 4)
2 = Carpenter 20 CB-3 (See Notes 2 and 4)
T = Titanium (See Notes 2 and 4)
- (9) SEAL GASKET MATERIAL
B = Buna "N"
G = Grafoil
T = Teflon (See note 3)
V = Viton
S = CGR 2750 (Standard)
- (8) SEAL DIAPHRAGM MATERIAL
C = Carpenter 20 CB-3 (See Notes 2 and 4)
H = Hastelloy B3
D = Hastelloy C-276
I = Inconel 600
M = Monel 400 (See Note 4)
N = Nickel 200
J = 316L Stainless Steel (See Note 1)
T = Tantalum (See Note 2)
E = Titanium - Grade 2 (See Notes 2 and 4)
- (7) SEAL INSTRUMENT CONNECTION
1 = 1/4" NPTF with bleed
2 = 1/2" NPTF with bleed
- (6) SEAL PRESSURE RATING @ 100°F (38°C)
C = 1250 PSIG (8.62 MPa) (See Note 6)
U = 2500 PSIG (17.25 MPa) (See Notes 5, 6, 7, 10 and 11)
- (5) SEAL PROCESS CONNECTION (See Notes 10 and 11)
2 = 1/4" NPTF
4 = 1/2" NPTF
5 = 3/4" NPTF
6 = 1" NPTF
- (3-4) LOWER HOUSING MATERIAL (WETTED)
C2 = Carpenter 20 CB-3
CS = Carbon Steel
HB = Hastelloy B3
HC = Hastelloy C-276
I6 = Inconel 600
M4 = Monel 400
N2 = Nickel 200 (See Note 11)
S4 = 304 Stainless Steel
S6 = 316 Stainless Steel
SF = 304L Stainless Steel
SL = 316L Stainless Steel
TI = Titanium-Grade 4 (See Note 11)
TP = Tantalum Plate (Wetted Surfaces Only) (See Note 8)
- (1-2) DIAPHRAGM SEAL DESIGN
D2 = 300AM Threaded In-Line
(For coding of upper housing only,
refer to 300J3 Series Seal, Page 40)

CATALOG NUMBERS AS RECEIVED
FOR THE 300AM SERIES MUST
CONTAIN FIFTEEN (15) CHARACTERS



Notes:

1. Standard diaphragm material is 316L Stainless Steel for seals with lower housing manufactured of CS, S4, S6, SF and SL.
2. Standard diaphragm material is tantalum for seals with lower housing manufactured of C2, TP and TI. When customer requires a Carpenter 20, Monel or Titanium diaphragm, refer to Position 10 for proper upper housing material.
3. Teflon Gasket is standard for seals with lower housing manufactured of C2, TI and TP.
4. When a Monel, Carpenter 20 or Titanium diaphragm is chosen in Positioner 8, then an equivalent upper housing is required.
5. Using Grade 5 bolts and Grade 8 nuts will maintain the standard 2500 PSIG (17.25 MPa) pressure rating chosen in Option 6.
6. When using 300 Series Stainless Steel bolts and nuts, the standard 2500 PSIG (17.25 MPa) pressure rating will be reduced by 50% 1250 PSIG (8.62 MPa), refer to Option 6.
7. To maintain the standard 2500 PSIG (17.25 MPa) pressure rating chosen in Option 6 when 300 Series Stainless Steel bolts and nuts are required, then stainless steel high-strength bolts and nuts will be necessary.
8. Adequate plating coverage of threaded connections cannot be guaranteed due to limitations and nature of the plating/coating process. Tantalum plated lowers cannot be supplied with flush connections.
9. N.A.C.E. - Welded diaphragm seals with Hastelloy C-276 or Monel wetted materials of construction will meet the requirements of N.A.C.E. International Document MR-0175-1995. 316 Stainless Steel construction will NOT BE offered in a welded design as meeting N.A.C.E. MR-0175-1995 requirements as the weld area of the diaphragm seal will not meet the maximum hardness specifications within this document.
10. Refer to Miscellaneous Data Section for Pressure-Temperature Rating Guide.
11. Maximum working pressure limited to 1250 PSIG (8.62 MPa) @ 100°F (38°C) for all lower housings with pipe threads larger than 1/4" NPTF that are constructed of Nickel 200 or with pipe threads larger than 3/4" NPTF that are constructed of Titanium Grade 4 due to connection thread strength limitations.
12. Tantalum and Titanium materials cannot be gold plated.
13. Teflon-S® Coating (FEP Grade).