

Model 100S

Diaphragm Seals for Socket Welded Off-Line Process Connections
 Standard Pressure Rating with Metal Lower Housing
 Complete with Clean-out Option

Process Connection Sizes

1/4" through 1"

All Pipe Schedules per ASME/ANSI B36.10 or B36.19

Maximum Working Pressure

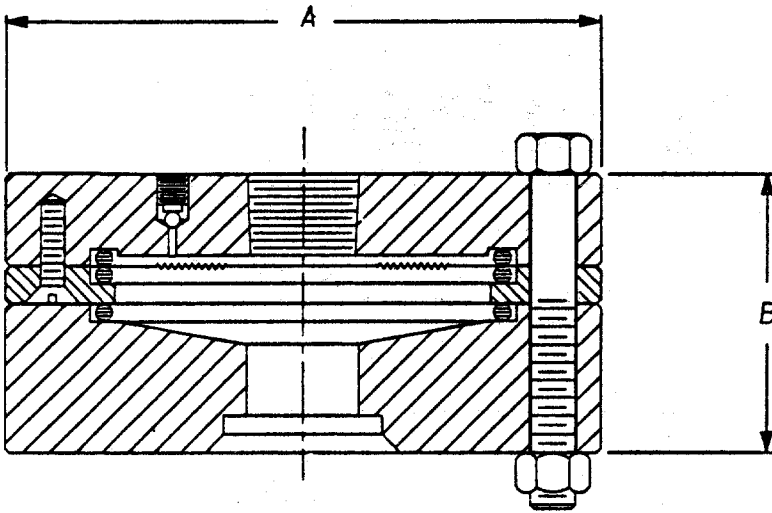
Conforms to Pipe Schedule Ratings as calculated by ASME/ANSI B31.1 Equation "4" @ 100°F (38°C) (See Notes 3, 4, 5 and 8)

Dimensional Data

Process Connection Sizes

1/4" - 1"	
A	4.0 (102)
B	2.13 (54)

() Dimensions in millimeters



Standard Features and Options

This socket weld connection, off-line seal has a replaceable diaphragm clamped between o-rings. The 100S Series Seals are designed to utilize a diaphragm that is field replaceable. This configuration allows for the use of metal as well as elastomer diaphragm materials. The "Clean-out" feature is a separate diaphragm clamping ring that permits removal of the lower housing for welding of lower, inspection, or cleaning of the diaphragm without loss of fill fluid. The displacement capability of this series of diaphragm seal is 0.09 cubic inches. The seal-off feature is optional.

Offerings

Lower Materials: All metallic

Upper Materials: Carbon Steel or 316 Stainless Steel

Diaphragm Materials: All metallic and elastomers

O-Rings: Buna-N, Teflon, Viton

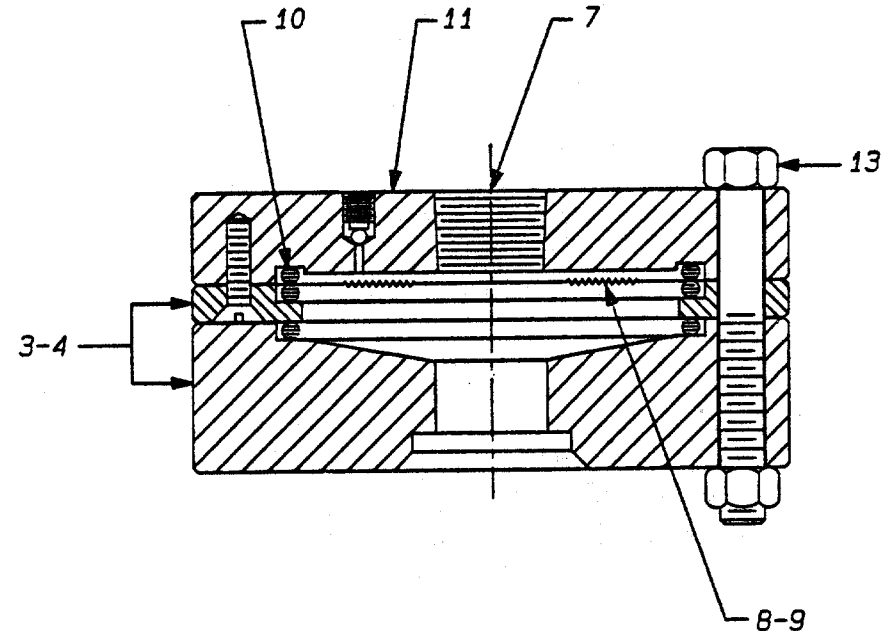
Bolting: Carbon Steel or 300 Series Stainless Steel. (See Notes 3, 4, 5 and 8)

CONTROL ENGINEERING DATA

AHS4 4 K I T A B C 0 C 0 N

(15) FILL LIQUID	N = (Standard)
(14) TEFLON COATINGS (See Note 9)	0 = None (Standard) A = Teflon Coated Diaphragm Only
(13) BOLTING	C = Carbon Steel Grade 5 (See Note 3) S = 300 Series Stainless Steel (See Note 4) H = 300 Series Stainless Steel (Hi-Strength) (See Note 5)
(12) FUTURE OPTIONS	0 = Not Applicable
(11) UPPER HOUSING MATERIAL	C = Carbon Steel (Standard) S = 316 Stainless Steel
(10) O-RING MATERIAL	B = Buna "N" (Standard) T = Teflon-Virgin (See Note 2) V = Viton
(8-9) SEAL DIAPHRAGM MATERIAL	BN = Buna "N" C2 = Carpenter 20 CB-3 HB = Hastelloy B3 HC = Hastelloy C-276 I6 = Inconel 600 KF = Kel-F M5 = Monel 400 N2 = Nickel 200 SL = 316L Stainless Steel (See Note 1) TA = Tantalum TI = Titanium - Grade 2 TF = Teflon-Virgin VI = Viton
(7) SEAL INSTRUMENT CONNECTION	1 = 1/4" NPTF with bleed 2 = 1/2" NPTF with bleed
(6) SEAL PRESSURE (PIPE SCHEDULE) RATING @ 100°F (38°C) (See Notes 3, 4, 5 and 8)	H = Schedule 5 I = Schedule 10 J = Schedule 40 (Standard) K = Schedule 80 L = Schedule 160
(5) SEAL PROCESS CONNECTION (See Note 8)	2 = 1/4" 4 = 1/2" 5 = 3/4" 6 = 1"
(3-4) LOWER HOUSING MATERIAL (WETTED)(See Note 6)	C2 = Carpenter 20 CB-3 CS = Carbon Steel HB = Hastelloy B3 HC = Hastelloy C-276 I6 = Inconel 600 M4 = Monel 400 N2 = Nickel 200 S4 = 304 Stainless Steel S6 = 316 Stainless Steel SF = 304L Stainless Steel SL = 316L Stainless Steel TI = Titanium - Grade 4
(1-2) DIAPHRAGM SEAL DESIGN	AH = 100S- Socket Welded Off-Line

CATALOG NUMBERS AS RECEIVED FOR THE 100S SERIES MUST CONTAIN FIFTEEN (15) CHARACTERS



Notes:

- Standard diaphragm material is 316L Stainless Steel for seals with lower housing manufactured of CS, S4, S6, SL and SF.
- Teflon o-rings cannot be used on seals with pipe schedules greater than 40.
- Using Grade 5 bolts will maintain the pressure rating calculated from pipe size and schedule specified in Options 5 and 6.
- When using 300 Series Stainless Steel bolts, the maximum pressure rating calculated will be reduced by 50% when the pipe schedule is greater than 40 as specified in Option 6.
- Pipe schedules greater than 40 will be supplied with high-strength stainless steel bolting to maintain seal pressure rating when stainless steel bolts are required.
- The clean-out ring is the same material as the lower housing.
- N.A.C.E. - Non-welded diaphragm seals with 316 Stainless Steel, Hastelloy C-276 or Monel wetted materials of construction will meet the requirements of N.A.C.E. International Document MR-0175-1995.
- Refer to Miscellaneous Data Section for ASME B31.1 Equation "4."
- Teflon-S® Coating (FEP Grade).