

# Model 190K

## Diaphragm Seals for Threaded Off-Line Process Connections All Welded - Gasketless Design

### Process Connection Sizes

1/4" NPTF through 1" NPTF

### Maximum Working Pressure

1000 PSIG (6.90 MPa) @ 100°F (38°C)

### Dimensional Data

See drawing below.

### Standard Features and Options

This threaded connection, off-line seal is an all welded, gasketless design. The diaphragm and lower material offerings are 316 Stainless Steel, Hastelloy and Monel. The displacement capability of this series of diaphragm seal is 0.035 cubic inches utilizing a 1.9" (48.26mm) diameter diaphragm. Due to the limited displacement capability of this series, gauges with dial sizes no larger than 4-1/2" (114.30mm) having bourdon tube ranges no lower than 30" Hg/30 PSIG (0.207 MPa) are applicable to this series of seal. The standard pressure rating is 1000 PSIG (6.90 MPa).

### Offerings

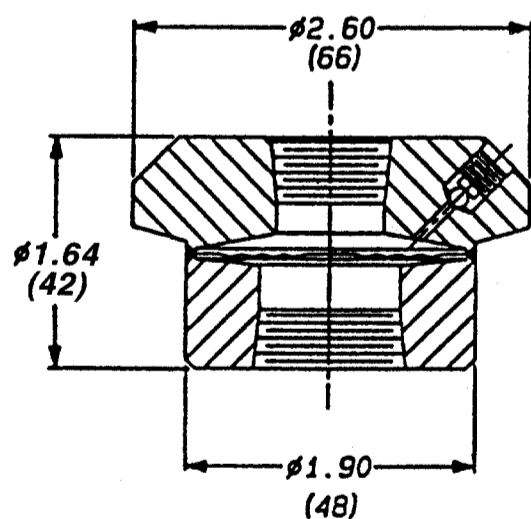
**Lower Materials:** 316 Stainless Steel, Hastelloy C-276, Hastelloy B3, and Monel

**Upper Materials:** 316 Stainless Steel and Monel (See Note below)

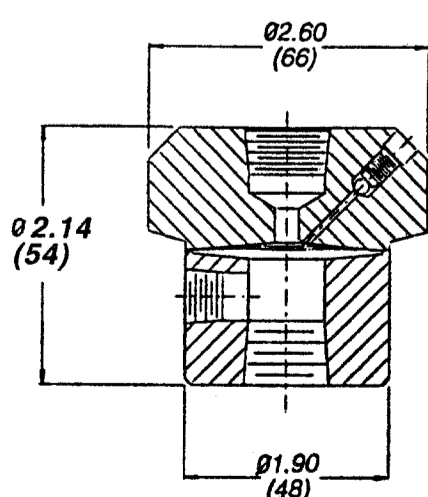
**Diaphragm Materials:** 316 Stainless Steel, Hastelloy C-276, Hastelloy B3, and Monel

**Note:** Upper materials are not available in carbon steel. When a Monel diaphragm is chosen, then the upper housing must be Monel.

( ) Dimensions in millimeters



190K SERIES



190 KF SERIES

### CONTROL ENGINEERING DATA

B4HC6 4 B S N

#### (9) FILL LIQUID

N = (Standard)

#### (8) UPPER HOUSING MATERIAL (See Note 1)

M = Monel 400

S = 316 Stainless Steel

#### (7) SEAL DIAPHRAGM MATERIAL (See Note 1)

B = Hastelloy B3

C = Hastelloy C-276

M = Monel 400

S = 316L Stainless Steel

#### (6) SEAL INSTRUMENT CONNECTION

3 = 1/4" NPTF with bleed

4 = 1/2" NPTF with bleed

#### (5) SEAL PROCESS CONNECTION WITHOUT FLUSHING PORT (FEMALE)

1 = 1/4" NPTF - No Flush Port

2 = 1/2" NPTF - No Flush Port

3 = 3/4" NPTF - No Flush Port

6 = 1" NPTF - No Flush Port

#### SEAL PROCESS CONNECTION WITH FLUSHING PORT (FEMALE)

7 = 1/4" NPTF With 1/8" NPTF Flushing Port

4 = 1/4" NPTF With 1/4" NPTF Flushing Port

5 = 1/2" NPTF With 1/8" NPTF Flushing Port

8 = 1/2" NPTF With 1/4" NPTF Flushing Port

9 = 3/4" NPTF With 1/8" NPTF Flushing Port

A = 3/4" NPTF With 1/4" NPTF Flushing Port

B = 1" NPTF With 1/8" NPTF Flushing Port

E = 1" NPTF With 1/4" NPTF Flushing Port

#### SEAL PROCESS CONNECTION (MALE) FLUSH PORT NOT AVAILABLE

A = 1/4" NPTM - Male

F = 1/2" NPTM - Male

H = 3/4" NPTM - Male

K = 1" NPTM - Male

#### (3-4) LOWER HOUSING MATERIAL

HB = Hastelloy B3

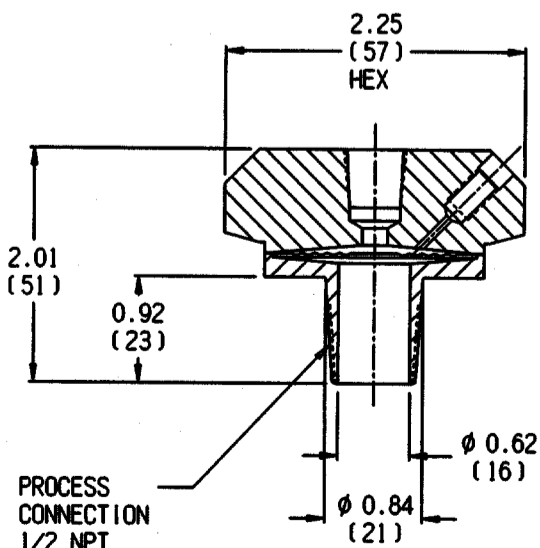
HC = Hastelloy C-276

M4 = Monel 400

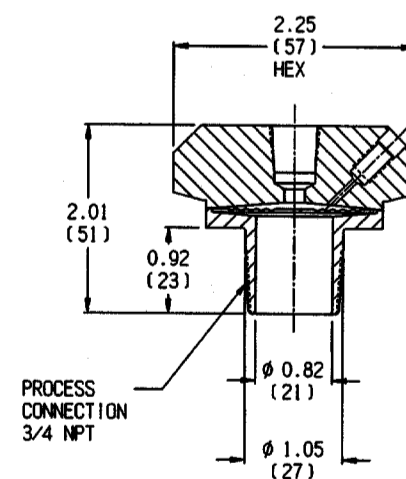
S6 = 316 Stainless Steel

#### (1-2) DIAPHRAGM SEAL DESIGN

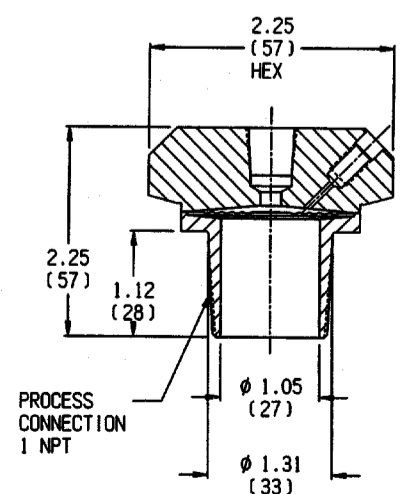
B4 = 190K- Threaded Off-Line



190K - 1/2" NPT Male



190K - 3/4" NPT Male



190K 1" NPT Male

CATALOG NUMBERS AS RECEIVED FOR THE 190K SERIES MUST CONTAIN NINE (9) CHARACTERS

### Notes:

1. When a Monel diaphragm is required, the upper housing will be Monel.

2. 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.