

Sanitary Tank Connections

Type ST

Application

The Benney Silo Seal (Tank Spud Seal) was developed to provide a sanitary connection in storage vessels. After installation the diaphragm is flush with the inner vessel wall. A seal at the process face eliminates dead space or pockets where bacteria can grow or CIP liquids can accumulate. This seal is designed to integrate with spray ball cleaning and automated clean in place systems (CIP).

The Silo seal is particularly suitable for installation in the bottom of a vessel where other process connections would leave a cavity or dead space.

Configuration

Differential or Gauge pressure. In all cases a Low Volume cover flange must be fitted to all D.P type transmitters to reduce fill quantities and therefore reduce errors induced by ambient temperature change. Gauge pressure transmitters require a G-1/2" process connection.

The silo seal consists of two basic components, the outer spud or Weldment and the inner removable silo diaphragm seal. Installation is achieved by cutting a hole in the vessel wall and welding the spud in the desired location. The diaphragm seal is slid into the spud and fastened using either a clamp or nut. A sanitary o-ring seal is made at the inner wall surface.

Process Connection

- 3" Nut Silo Seal
- 3" Clamped Silo Seal

Seal Construction

Machined out of bar stock with diaphragm welded directly into seal body.

Diaphragm Materials

316L Stainless Steel (standard)
Other materials available upon request.

Body and Weldment Material

316/316L Dual Certified Stainless Steel (standard)
Other materials available upon request.

Maximum Pressure

1500kPa.

Capillary

Available in 1 to 10 metre lengths. Capillaries must be of matching lengths for differential systems.

Capillary Armour

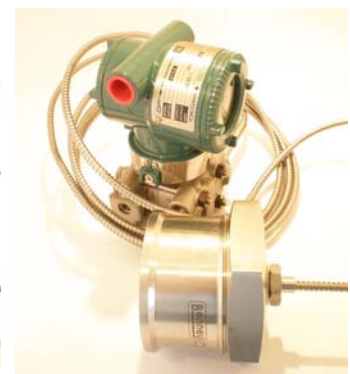
Spiral wound 304 Stainless Steel (standard)

Zero Stability

Stability will be affected by the instrument configuration, ambient temperature, process temperature, connection size (diaphragm size) and the measuring range. For temperature effects and instrument accuracy please contact us.

Dimensional Drawings & System Configuration

Refer to Dimensional Drawings.



General Specifications



How to Order - Type ST

Model Type

ST = Sanitary Tank

Connection Type

CL32 = Clamped (Triclamp Type)
CL32NW = Clamped (Triclamp Type), without Clamp and Weldment
NU24 = Retaining Nut (BSM Type)
NU24NW = Retaining Nut (BSM Type), without Weldment

Diaphragm Material

S = 316L Stainless Steel
X = Special

Wetted Parts

S = 316/316L Dual Certified Stainless Steel
X = Special

System Configuration

G = Gauge Pressure System with G-1/2" Connection Direct Mounted TX
S = Gauge Pressure System with G-1/2" Connection Capillary mounted TX
M = Gauge Pressure System with DP Type TX Direct Mounted
P = Gauge pressure System with DP Type TX Capillary Mounted
D = Differential Pressure System with Capillary

Capillary / Standoff

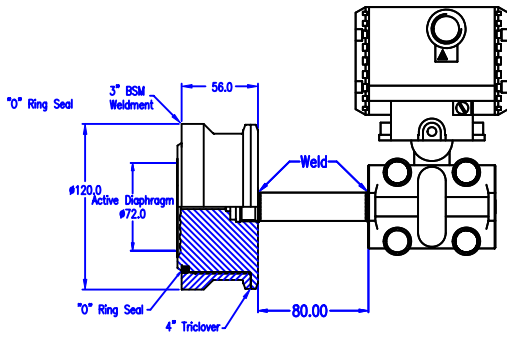
AA = Standoff (System Configuration "M") / Heat Neck (System Configuration "G")
00 = None **Note: Only available with System Configuration "G"**
01 = 1 Metre
02 = 2 Metres
03 = 3 Metres
04 = 4 Metres
05 = 5 Metres
06 = 6 Metres
07 = 7 Metres
08 = 8 Metres
09 = 9 Metres
10 = 10 Metres

Fill Liquid

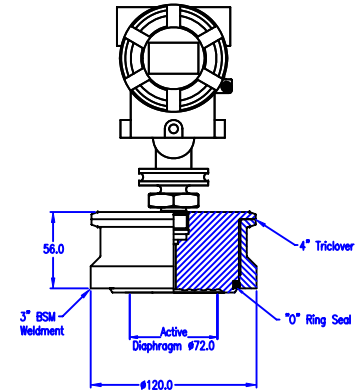
A = 704 Silicon Oil (20°C to 250°C)
B = Silicon Oil 100cs (-30°C to 180°C)
C = KN2.2 Silicon Oil (-40°C to 300°C)
F = Neobee (Food) (10°C to 160°C)
V = Vegetable Oil (10°C to 100°C)
L = KN17 Silicon Oil (-90°C to 180°C)
X = Special



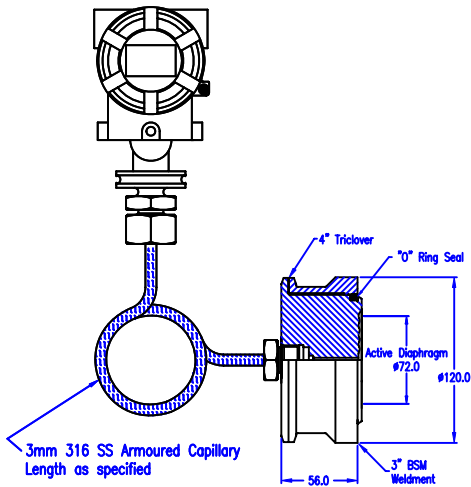
Model STCL32
Sanitary Tank Connections



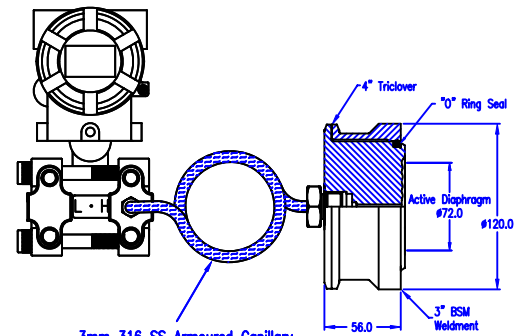
Configuration "M"



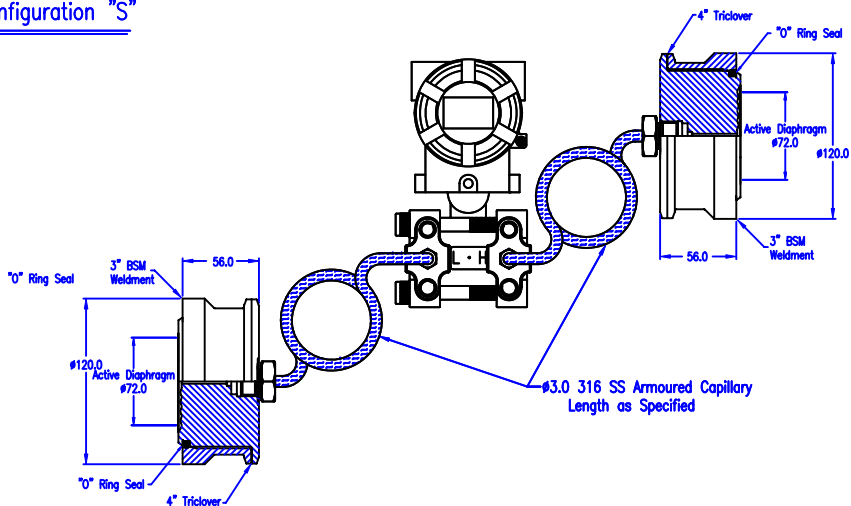
Configuration "G"



Configuration "S"



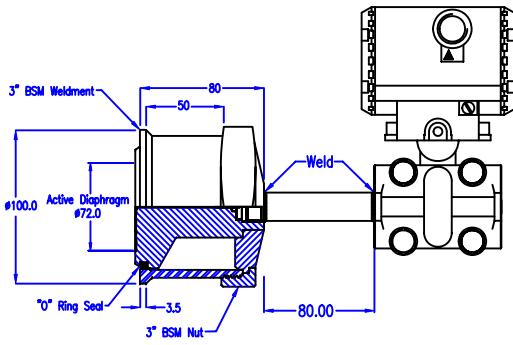
Configuration "P"



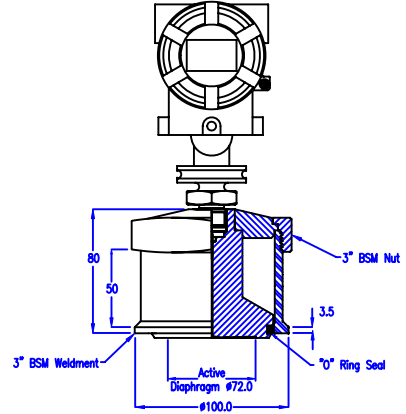
Configuration "D"



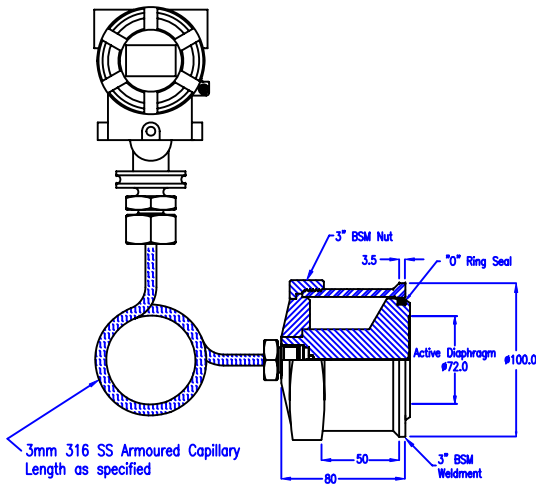
Model STNU24
Sanitary Tank Connections



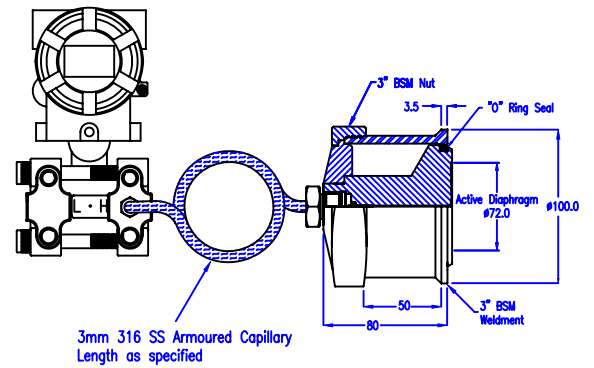
Configuration "M"



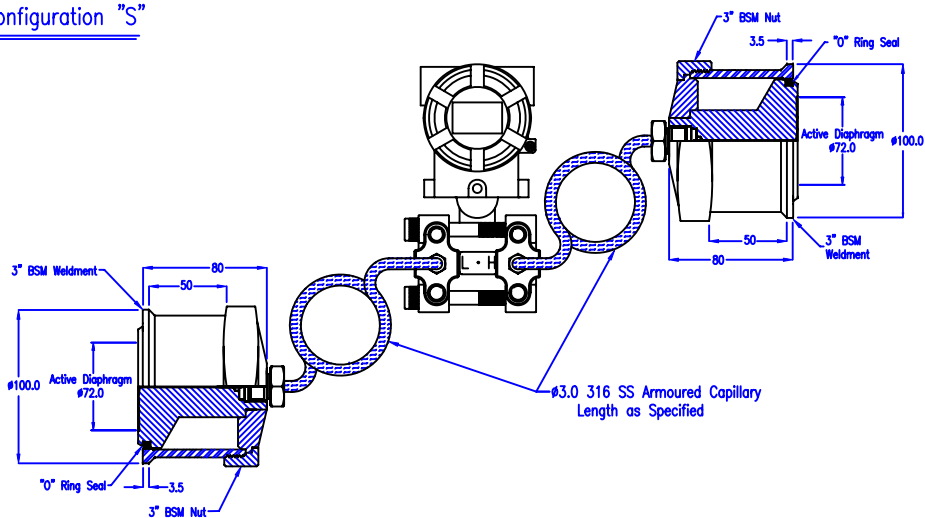
Configuration "G"



Configuration "S"



Configuration "P"



Configuration "D"