

## General Specifications

# Sanitary Tank Connections

## Specification 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 vessel inner 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 DP type transmitters to reduce fill quantity and therefore reduce errors induced by ambient temperature change. Gauge pressure transmitters require a G1/2" process connection.

The Silo Seal consists of two basic components, the outer housing (Spud or Weldment) and the inner removable Diaphragm Seal. Installation is achieved by cutting a hole and welding the Spud in the desired location in the vessel wall. The Diaphragm Seal is inserted 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

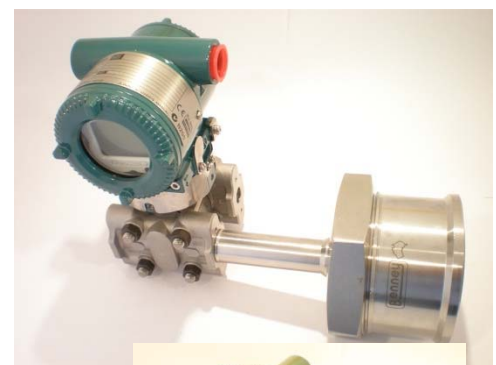
Spiral wound 304 Stainless Steel (standard)

### Zero Stability

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

### Dimensional Drawings & System Configuration

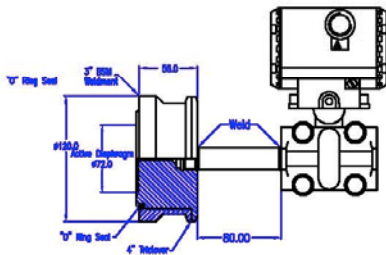
Refer to Dimensional Drawings.



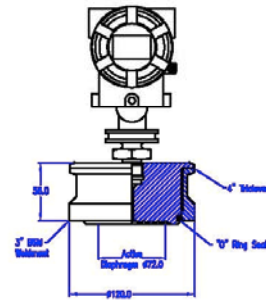
## General Specifications

Sanitary Tank Connection – Type ST		Suffix Code
Process Connection	Sanitary Tank	ST
Connection Type	Clamped – Triclamped type	CL32
	Clamped – Triclamped type without Clamp & Weldment	CL32NW
	Retaining Nut – BSM Type	NU24
	Retaining Nut – BSM Type without Weldment	NU24NW
Wetted Material	316/316L Dual Certified Stainless Steel	S
	Special	X
System Configuration	Gauge Pressure System with G-1/2" Connection Direct Mounted TX	G
	Gauge Pressure System with G-1/2" Connection Capillary mounted TX	S
	Gauge Pressure System with DP Type TX Direct Mounted	M
	Gauge pressure System with DP Type TX Capillary Mounted	P
	Differential Pressure System with Capillary	D
Capillary / Standoff	Standoff (System Configuration "M") / Heat Neck (System Configuration "G")	AA
	None <b>Note: Only available with System Configuration "G"</b>	00
	1 Metre	01
	2 Metres	02
	3 Metres	03
	4 Metres	04
	5 Metres	05
	6 Metres	06
	7 Metres	07
	8 Metres	08
	9 Metres	09
10 Metres	10	
Fill Liquid	KN32 704 Silicon Oil 30cs (-10°C to +300°C)	A
	KN22 Silicon Oil 100cs (-40°C to +290°C)	B
	KN33 705 Silicon Oil 320cs (-10°C to +400°C)	C
	KN59 Neobee 10.1cs (FDA app) (-20°C to +160°C for less than 0Bar. -20°C to +204°C for greater than 0Bar)	F
	Vegetable Oil (Food Grade) (10°C to +100°C)	V
	KN17 Silicon Oil 2cs (-90°C to +80°C for less than 1Bar. -90°C to +180°C for greater than 1Bar)	L
	Special	X

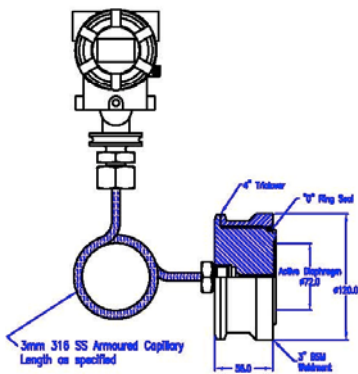
Model STCL32  
Sanitary Tank Connections



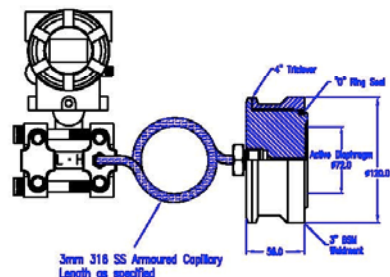
Configuration "M"



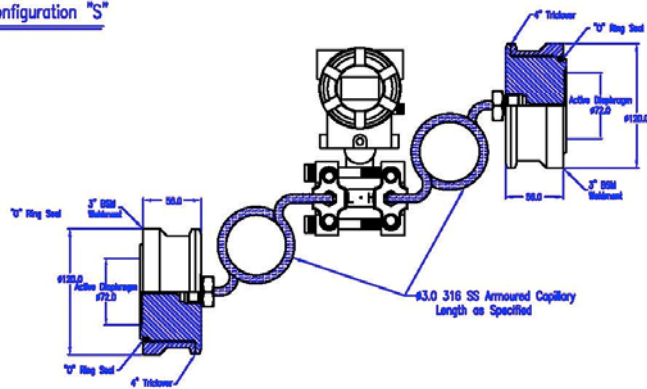
Configuration "G"



Configuration "S"

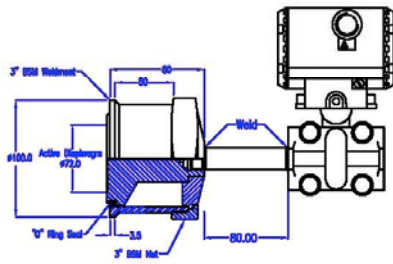


Configuration "P"

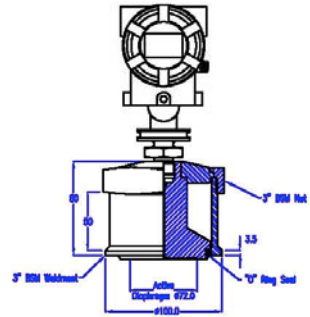


Configuration "D"

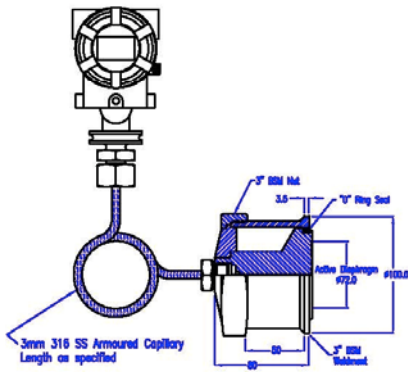
Model STNU24  
Sanitary Tank Connections



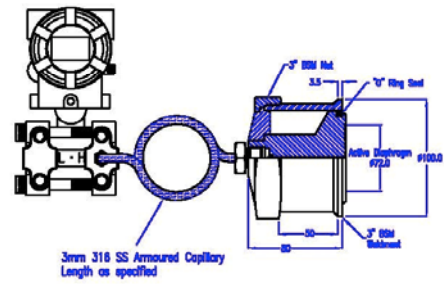
Configuration "M"



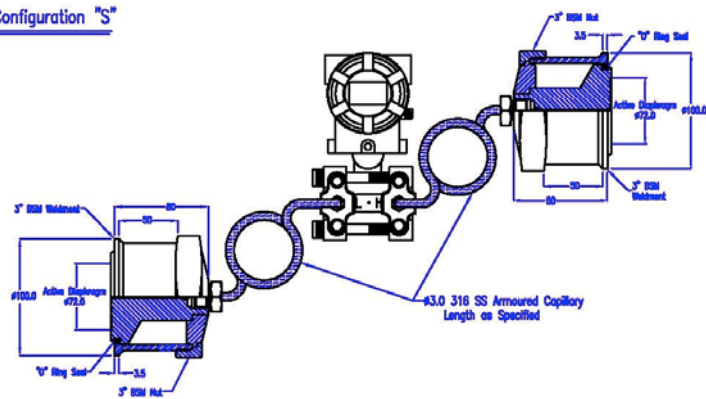
Configuration "G"



Configuration "S"



Configuration "P"



Configuration "D"