eltherm

CHEMICAL SEALS



OPERATION

Chemical seals transmit pressure from your process to the pressure sensing instrument, separating the process fluid from the mechanism of the instrument. The most common applications for using chemical (diaphragm) seals are if:

- -The process is highly corrosive
 -The process fluid is highly viscous and would block the instrument
- -The process fluid hardens on cooling or crystalises
- -The process fluid is operating at a higher temperature than the instrument can withstand
- -Sanitary conditions are required for systems needing contact surfaces rigorously clean and totally safe. Prevents bacteria developing inside the pressure sensing element.

PRESSURE

See specific details for pressure limitation. These are accurate to -95 kPa vacuum. Stainless steel diaphragms are accurate to -85 kPa vacuum.

Generally all 316 stainless steel seals are suitable up to 250 °C using a high temperature filling fluid and 160 °C using a lower temperature (standard) fill.

Composite diaphragms are suitable up to 110 °C, Viton diaphragms up to 200 °C.

MATERIAL

Generally most chemical seals are manufactured from 316 SS. For corrosive applications the seal is manufactured from appropriate composite material, or the stainless diaphragm is suitably coated, for example with PTFE.

ORDERING INFORMATION

Seal type Instrument type and details Process connection Process pressure Process fluid Process temperature Capillary length for remote reading

NOTE

Other designs and sizes can be provided on request. Teflon coating of the process side is available for systems using severely corrosive media. Capillaries of different designs are available on request.

DIMENSIONS (mm)

55 63 1 ½ " 2 "

SPECIFICATIONS

RATING:

MODEL: 1 1/2 " and 2 " RJT (APV) Clean Flow Type

MATERIAL: 316 SS Body and Backing Nut

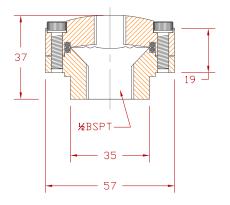
Welded 316 SS Diaphragm

Instrument - 1/4 " NPT **CONNECTION:** Process - 600 APV

40 bar at 25 °C

FEATURES: Complete with backing nut only

SPECIFICATIONS



MODEL: 350 Screwed Type

MATERIAL: 316 SS Body, Welded

Nitrile O-Ring (standard) PTFE O-Ring (optional) Viton O-Ring (optional)

CONNECTION: Instrument - 1/4 " NPT

Process - 1/2 " BSPT

RATING: 350 bar at 25 °C



MODEL: Flange Type - Specify Requirement

MATERIAL: 316 SS Body

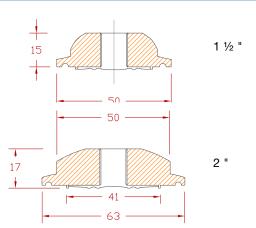
316 SS Welded (standard) Nitrile Diaphragm (optional) Viton Diaphragm (optional) Food Grade Diaphragm (optional)

CONNECTION: Instrument - 1/4 " NPT

> **RATING:** See Flange Tables

FEATURES: Large displacement capacity.

Ideal for low pressure applications.



MODEL: Tri-Cover Type (Ladish seal)

MATERIAL: 316 SS Body

Welded 316 SS Diaphragm - 30 mm Diaphragm 1 ½ ' 2 " - 40 mm Diaphragm

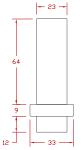
Instrument - 1/4 " NPT **CONNECTION:**

Process - Quick Connect Coupling

RATING: 40 bar at 25 °C

Body only

FEATURES:



MODEL: Homogeniser

316 SS Body MATERIAL:

Welded 316 SS Diaphragm

18 mm Diameter

CONNECTION: Instrument - % " BSP

Process - Standard Homogeniser Oval Clamp (clamp not supplied)

RATING: 750 bar

FEATURES: High pressure diaphragm

Manufactured in New Zealand by

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