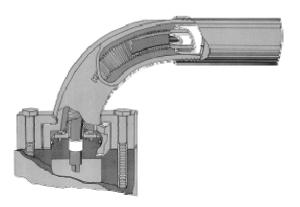
# **Kerotest Hermetic Bellows Stem Seal**

### APPLICATION

#### Any application where emissions to the environment must be eliminated including but not limited to

- Hazardous Fluids
- Expensive Gases
- Noxious Odors
- High Purity Gases
- High Vacuum Service
- Double Walled Systems
- Inaccessible Piping
- Carcinogens

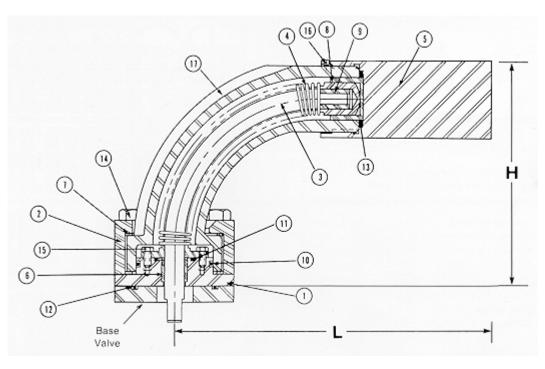


The Kerotest Manufacturing Corporation has developed a method of eliminating the familiar valve stem leakage problem on 1/4 turn valves. This new product is the Hermetic Stem Seal Device. This device uses a metal bellows around the stem instead of standard seals or packing.

The zero leakage feature greatly reduces valve maintenance eliminating the need for costly repair parts, and labor and additional repair to the nearby equipment and machinery that is damaged by the leak. More importantly, process and plant downtime is reduced and the safety problems associated with leakage and maintenance on critical service components are eliminated.

The Hermetic Stem Seal Device is easily adapted to most rotating, nonrising stem valves (including plug, ball and butterfly) and can be used in 360 degree or quarter turn applications.

#### When this unique device is adapted to a ball valve the final result is:





## Kerotest Manufacturing Corp.

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# **Kerotest Hermetic Bellows Stem Seal**

| Specifications: Standard Design |                        |                                       |  |
|---------------------------------|------------------------|---------------------------------------|--|
| ltem                            | Part                   | Material                              |  |
| 1                               | Bonnet                 | SS, ASTM A351,GR CF8M                 |  |
| 2                               | Cover                  | SS, ASTM A351, GR, CF8                |  |
| 3                               | Stem                   | SS, Teflon Covered, ASTM A564, GR 630 |  |
| 4                               | Bellows Assembly       | SS, ASTM A240 Type 316                |  |
| 5                               | Handle                 | SS, ASTM A276 Type 316                |  |
| 6                               | Bearing                | 10% Glass Filled PTFE                 |  |
| 7                               | Bearing                | 10% Glass Filled PTFE                 |  |
| 8                               | Bearing                | 10% Glass Filled PTFE                 |  |
| 9                               | Bearing                | 10% Glass Filled PTFE                 |  |
| 10                              | O-Ring                 | Viton                                 |  |
| 11                              | O-Ring                 | Viton                                 |  |
| 12                              | O-Ring                 | Viton                                 |  |
| 13                              | Gasket                 | 10% Glass Filled PTFE                 |  |
| 14                              | Hex Head Cap Screw     | Alloy Steel, ASTM A193 Grade B7       |  |
| 15                              | Hex Head Machine Screw | SS, Type 304                          |  |
| 16                              | Set Screw              | 18-8 SS                               |  |
| 17                              | Housing                | SS, ASTM A351, GR, CF8M               |  |

#### Specifications: Standard Design

### Parts exposed to the live fluid, excluding O-Rings, are the Bonnet(1), Stem(3) and Bellows Assembly(4). Optional materials are as follows:

| Optional Material | Inconel     | Monel     |
|-------------------|-------------|-----------|
| Bonnet            | Inconel 625 | Monel 400 |
| Stem              | Inconel 625 | K-Monel   |
| Bellows           | Inconel 625 | Monel 400 |

Kerotest's HSS is currently installed on 1/4 turn Top Entry Ball Valves

Sizes: 1/2", 3/4", 1", 2", 3", 4"

Pressure Classes: ANSI classes 150#, 300#

End Connections: Flanged and Buttweld

Valves are available in:

Carbon Steel: ASTM A126 GR WCB Carbon Steel Body with 316 Stainless Steel Ball and Seat Rings, PTFE Seat, Stem Seal and Gasket.

Stainless Steel: 316 Stainless Steel Body with 316 Stainless Steel Ball and Seat Rings, PTFE Seat, Stem Seal and Gasket.



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