



# GAUGE HATCHES

- Sizes 4" (DN 100), 6" (DN 150) and 8" (DN 200)
- Provide tank access for manual gauging, sampling and temperature readings
- Free-lifting or lockdown models available
- Thermometer hook, gauge marker and lock hole are provided
- Hinged cover can be opened a full 75° to 80°
- Available in Aluminum, Stainless Steel and Carbon Steel



### OBJECTIVE

The Protectoseal Gauge Hatches provide ready access to storage tank's interior for inspection, gauging and sampling. Gauge Hatches are intended for use where the fire protection afforded by a Protectoseal flame arrester is not considered necessary.

The lockdown feature on the Series 4970 / 5960 makes them particularly suited for use on tanks with normal operating pressure under 3 PSIG. Tightening the thumb screw holds the cover securely in place, thereby minimizing leakage and evaporation losses.

The Series 4960 / 4980 Gauge Hatches with Free-Lifting Covers have nominal opening pressures (based on their weight), but they should not be considered as primary pressure relief devices. Vapors relieved are expelled to atmosphere.

### TECHNIQUE

The Gauge Hatches consist of a hinged, self-closing pallet which sits on a flanged base. Placing the foot on the treadle opens the cover to a full 75° to 80° permitting inspection and easy entry for gauging or sampling. Removing foot allows the pallet to return to its closed position.

In normal operation, the lockdown models, Series 4970 / 5960 are secured in the closed position by means of a wing nut. When the wing nut is loosened, the gauge hatch cover is free to hinge open to provide access to the tank's interior. Care must be taken when loosening the wing nut. If the tank is under pressure, vapors and, possibly liquid may be expelled from the opening. The hinged cover closes automatically when force is removed from the treadle. Manual tightening of the wing nut is required to reseal the cover.

### SPECIAL FEATURES

**Easy Inspection, Installation and Maintenance.** Design and light weight of entire unit permits convenient handling for inspection, installation and maintenance.

**Trouble-Free Operation.** The cover is opened and held open with the foot, leaving both hands free for gauging or sampling. Removal of the foot permits the cover to fall shut by gravity. A thermometer hook, gauge marker and lock hole for padlocking are provided.

**Sizes Available.** 4" (DN 100), 6" (DN 150) and 8" (DN 200) flanged to mate with 125# ANSI and DIN PIN 16 flat flanges.

**FM Approved.** Series 4960, 4970, 4980 and 5960 are Factory Mutual Approved in all sizes.

**Quality Assurance.** Each unit is factory inspected prior to shipment to meet Protectoseal's high standards.

### CONSTRUCTION

A comprehensive range of materials is offered as shown in the chart below. Other features and materials of construction such as FRP can be furnished upon request.

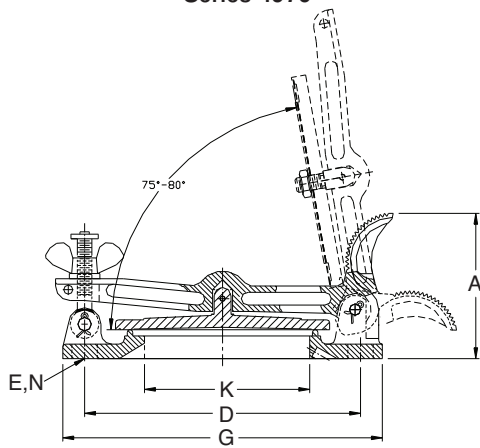
#### Available Options.

- Material certifications for castings
- Alternate diaphragm materials
- FEP coating
- Kynar® coating (*Kynar is a Registered Trademark of Arkema, Inc.*)
- Special cleaning & packaging for the storage of ultrapure liquids

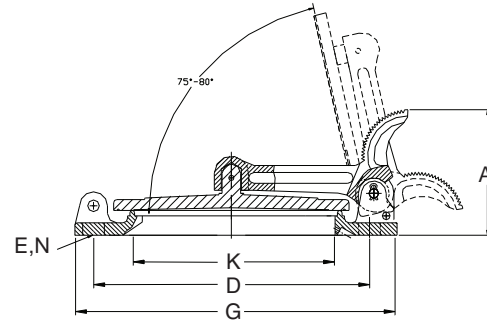
| Series  | Flange       |           |                |          |
|---------|--------------|-----------|----------------|----------|
|         | Body & Cover | Seat Ring | Pallet Seat    | Lockdown |
| 4970    | Aluminum 356 | -         | Metal-to-Metal | Yes      |
| AX4970  | Aluminum 356 | -         | FEP Film       | Yes      |
| 4980    | Aluminum 356 | -         | Metal-to-Metal | No       |
| AX4980  | Aluminum 356 | -         | FEP Film       | No       |
| AX5960  | Welded Steel | 316 S.S.  | FEP Film       | Yes      |
| AXF5960 | 316 S.S.     | 316 S.S.  | FEP Film       | Yes      |
| AX4960  | Welded Steel | 316 S.S.  | FEP Film       | No       |
| AXF4960 | 316 S.S.     | 316 S.S.  | FEP Film       | No       |

Note: Flanged to mate with 125# ANSI and DIN PN 16 flat face flanges.

Series 4970



Series 4980

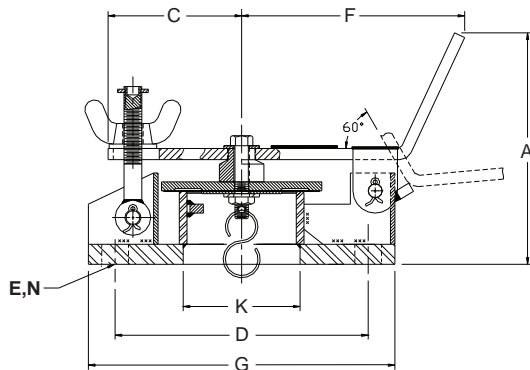


**DIMENSIONS & ORDERING INFORMATION** (Dimensions shown are for reference only, contact Factory for certified drawings.)

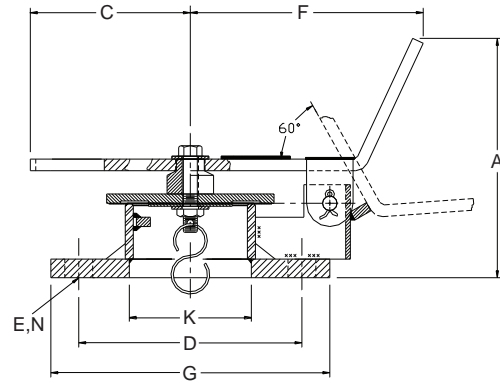
| Cat. No.*  | K<br>Pipe Size | A<br>Ht. | D<br>B.C. | G<br>Dia. | E<br>Dia. | N<br>Holes | Lockdown | Test<br>Lab Listing |
|--|----------------|----------|-----------|-----------|-----------|------------|----------|---------------------|
| <b>For Aluminum Housing With Metal-to-Metal Seat</b> |                |          |           |           |           |            |          |                     |
| 4974D  | 4"             | 4"       | 7½"       | 9"        | ¾"        | 8          | Yes      | FM                  |
| 4976D  | 6"             | 5"       | 9½"       | 11"       | ⅞"        | 8          | Yes      | FM                  |
| 4978D  | 8"             | 5½"      | 11¾"      | 13½"      | ⅞"        | 8          | Yes      | FM                  |
| 4984D  | 4"             | 4"       | 7½"       | 9"        | ¾"        | 8          | No       | FM                  |
| 4986D  | 6"             | 5"       | 9½"       | 11"       | ⅞"        | 8          | No       | FM                  |
| 4988D  | 8"             | 5½"      | 11¾"      | 13½"      | ⅞"        | 8          | No       | FM                  |

\* Add prefix "AX" for Aluminum Housing with FEP Film Seat.

Series 5960



Series 4960



**DIMENSIONS & ORDERING INFORMATION** (Dimensions shown are for reference only, contact Factory for certified drawings.)

| Cat. No.*  | K<br>Pipe Size | A<br>Ht. | D<br>B.C. | G<br>Dia. | E<br>Dia. | N<br>Holes | Lockdown | Test<br>Lab Listing |
|--|----------------|----------|-----------|-----------|-----------|------------|----------|---------------------|
| <b>For Carbon Steel Housing with 316 S.S. Seat Ring &amp; FEP Film Pallet Seat</b> |                |          |           |           |           |            |          |                     |
| AX4964D  | 4"             | 6½"      | 7½"       | 9"        | ¾"        | 8          | No       | FM                  |
| AX4966D  | 6"             | 6½"      | 9½"       | 11"       | ⅞"        | 8          | No       | FM                  |
| AX4968D  | 8"             | 6½"      | 11¾"      | 13½"      | ⅞"        | 8          | No       | FM                  |
| AX5964D  | 4"             | 6½"      | 7½"       | 9"        | ¾"        | 8          | Yes      | FM                  |
| AX5966D  | 6"             | 6½"      | 9½"       | 11"       | ⅞"        | 8          | Yes      | FM                  |
| AX5968D  | 8"             | 6½"      | 11¾"      | 13½"      | ⅞"        | 8          | Yes      | FM                  |

\* Change prefix "AXF" for all 316 S.S. construction and FEP Pallet Seat.



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