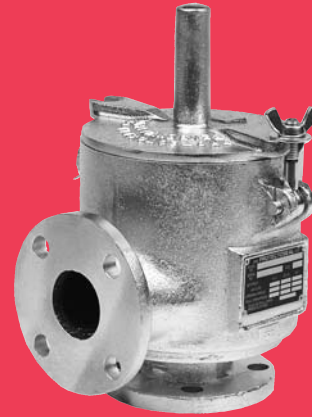


SERIES 17800

Pipe-Away Conservation Pressure Breather Vent

SERIES
17800

- Sizes 2" (DN 50) through 12" (DN 300)
- Settings achieved by weight loading
- Reduces costly evaporation losses
- Leakage rate of less than 1 SCFH of air at 90% of set point
- Patented, FEP film "Air-Cushioned Seating"
- Low-leak pallet design - certified test reports
- Conforms with European ATEX Directive 94/9/EC
- Factory tested / certified for leakage and correct settings
- Available in Aluminum, Ductile Iron, Stainless Steel, Carbon Steel and Alloy C / C276



OBJECTIVE

The Protectoseal Series 17800, Pipe-Away Pressure Conservation Vent is intended for use where pressure relief is required and the relieving vapors must be piped away and not emitted into the atmosphere. May also be used for in-line vacuum relief.

TECHNIQUE

A pallet in the vent housing opens and closes permitting relief necessary, under normal working conditions, to avoid tank damage. A flanged side connection is provided for easy pipe-away of vapors, eliminating their emission into the atmosphere, and allowing compliance with applicable regulations.

Peripheral pallet assembly guides and center pallet stem guides insure proper alignment of pallet assembly on the seat and smooth lifting and reseating action.

Optimized Performance Vents™

Protectoseal's "Optimized Performance Vents" incorporate patented features that provide the optimum overall vent performance with regard to sealing, set point, flow and resealing (blow down).

SPECIAL FEATURES

Fast Inspection, Easy Maintenance. Design and light weight of entire unit permits easy, convenient handling for inspection and maintenance.

Maintains Accurate Pressure Settings. Set points are accurate to within +/- 3% across the entire range of available settings.

Air-Cushioned Seating. A flat, smooth diaphragm of FEP film is supported on both sides of an annular channel to form a floating air seal with the seat. An outer support rim assures proper seating.

Automatic Condensate Drainage. Self-draining housing body and drip rings keep condensate away from seating surfaces. Vent is protected from freezing, binding and clogging.

Low-Leakage. Vent leakage is no more than 1 SCFH at 90% of the set pressure. Pressure tested against leakage through castings and gasketed joints.

Sizes Available. Available in 2" (DN 50) through 12" (DN 300) sizes. Aluminum flanged to mate with 125# ANSI and DIN PN 16 flat face flanges. All other materials mate with 150# ANSI and DIN PN 16 raised face flanges. Other drilling patterns are also available upon special request.

PRO-FLOW III® Sizing and Selection Software.

Use PRO-FLOW III® to select the correct size unit for pressure and vacuum relief calculated in accordance with API 2000, ISO 23800, NFPA 30 and OSHA 1910.106.

CONSTRUCTION

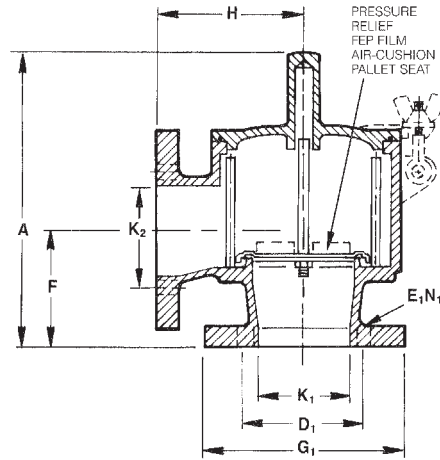
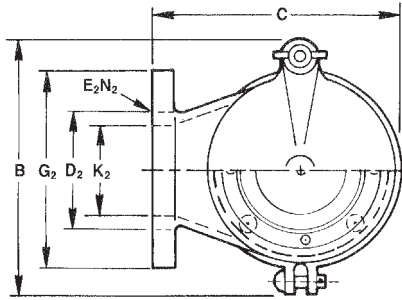
A comprehensive range of materials is offered as shown in the chart below. Non-metallic (thermoplastic resin & FRP) construction available. Other materials and features can be furnished upon request.

Available Options.

- Alternate diaphragm materials
- Material certifications for castings
- Lower than standard minimum pressure settings
- Steam jacketing available
- Manual or electronic indication of vent opening
- FEP coating
- Kynar® coating (*Kynar® is a Registered Trademark of Arkema, Inc.*)
- Special cleaning & packaging for the storage of ultrapure liquids

| Series | Housing | Pallet | Pallet Diaphragm | Weight Material |
|---------|--------------|----------|------------------|-----------------|
| 17800 | Aluminum 356 | Aluminum | FEP Film | Steel or Lead |
| C17800 | Ductile Iron | 316 S.S. | FEP Film | Steel or Lead |
| CS17800 | Cast Steel | 316 S.S. | FEP Film | Steel or Lead |
| F17800 | 316 S.S. | 316 S.S. | FEP Film | S.S. or Lead |
| RE17800 | Aluminum 356 | 316 S.S. | FEP Film | Steel or Lead |
| M17800 | Alloy C | C276 | FEP Film | C276 or Lead |

Note: Aluminum flanged to mate with 125# ANSI and DIN PN 16 flat face flanges. All other materials mate with 150# ANSI and DIN PN 16 raised face flanges.



DIMENSIONS & ORDERING INFORMATION

Dimensions shown are for reference only, contact Factory for certified drawings

| Cat. No.* | Flange Size | | Ht A | Width B | Length C | F | H | B.C. | | Dia. G1 | Dia. G2 | Dia. E1 | Dia. E2 | Holes N1 | Holes N2 |
|-----------|-------------|-------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|---------------------------------|---------------------------------|-------------|-------------|
| | K1 | K2 | | | | | | D1 | D2 | | | | | | |
| 17802D2 | 2" | 2" | 13" | 9 ⁵ / ₈ " | 10" | 3 ³ / ₈ " | 5 ¹ / ₄ " | 4 ³ / ₄ " | 4 ³ / ₄ " | 6" | 6" | 3 ¹ / ₄ " | 3 ¹ / ₄ " | 4 | 4 |
| 17802DN2 | DN50 | DN50 | 330mm | 251mm | 254mm | 98mm | 133mm | 125mm | 125mm | 165mm | 165mm | 18mm | 18mm | 4 | 4 |
| 17802D3 | 2" | 3" | 11" | 9 ⁷ / ₈ " | 9 ³ / ₄ " | 4 ³ / ₈ " | 5 ¹ / ₂ " | 4 ³ / ₄ " | 6" | 6" | 7 ¹ / ₂ " | 3 ¹ / ₄ " | 3 ¹ / ₄ " | 4 | 4 |
| 17802DN3 | DN50 | DN80 | 279mm | 251mm | 235mm | 111mm | 140mm | 125mm | 160mm | 165mm | 200mm | 18mm | 18mm | 4 | 8 |
| 17803D3 | 3" | 3" | 13" | 9 ⁵ / ₈ " | 10 ¹ / ₄ " | 4 ¹ / ₄ " | 5 ¹ / ₄ " | 6" | 6" | 7 ¹ / ₂ " | 7 ¹ / ₂ " | 3 ¹ / ₄ " | 3 ¹ / ₄ " | 4 | 4 |
| 17803DN3 | DN80 | DN80 | 330mm | 244mm | 260mm | 108mm | 140mm | 160mm | 160mm | 200mm | 200mm | 18mm | 18mm | 8 | 8 |
| 17803D4 | 3" | 4" | 11" | 9 ⁵ / ₈ " | 9 ³ / ₄ " | 5 ¹ / ₄ " | 5 ⁵ / ₈ " | 6" | 7 ¹ / ₂ " | 7 ¹ / ₂ " | 9" | 3 ¹ / ₄ " | 3 ¹ / ₄ " | 4 | 8 |
| 17803DN4 | DN80 | DN100 | 279mm | 244mm | 235mm | 133mm | 143mm | 160mm | 180mm | 200mm | 220mm | 18mm | 18mm | 8 | 8 |
| 17804D4 | 4" | 4" | 16 ¹ / ₂ " | 10" | 12 ¹ / ₄ " | 6 ³ / ₈ " | 6 ¹ / ₂ " | 7 ¹ / ₂ " | 7 ¹ / ₂ " | 9" | 9" | 3 ¹ / ₄ " | 3 ¹ / ₄ " | 8 | 8 |
| 17804DN4 | DN100 | DN100 | 419mm | 254mm | 311mm | 156mm | 165mm | 180mm | 180mm | 220mm | 220mm | 18mm | 18mm | 8 | 8 |
| 17804D6 | 4" | 6" | 14 ³ / ₄ " | 11" | 12 ¹ / ₄ " | 6 ³ / ₈ " | 6 ¹ / ₂ " | 7 ¹ / ₂ " | 9 ¹ / ₂ " | 9" | 11" | 3 ¹ / ₄ " | 7 ⁵ / ₈ " | 8 | 8 |
| 17804DN6 | DN100 | DN150 | 375mm | 279mm | 311mm | 162mm | 165mm | 180mm | 240mm | 220mm | 285mm | 18mm | 22mm | 8 | 8 |
| 17806D6 | 6" | 6" | 18" | 11" | 15 ⁵ / ₈ " | 7 ³ / ₄ " | 8 ⁵ / ₈ " | 9 ¹ / ₂ " | 9 ¹ / ₂ " | 11" | 11" | 7 ⁵ / ₈ " | 7 ⁵ / ₈ " | 8 | 8 |
| 17806DN6 | DN150 | DN150 | 457mm | 279mm | 391mm | 197mm | 213mm | 240mm | 240mm | 285mm | 285mm | 22mm | 22mm | 8 | 8 |
| 17806D8 | 6" | 8" | 18" | 13 ¹ / ₂ " | 15 ¹ / ₂ " | 8 ¹ / ₂ " | 8 ¹ / ₂ " | 9 ¹ / ₂ " | 11 ³ / ₄ " | 11" | 13 ¹ / ₂ " | 7 ⁵ / ₈ " | 7 ⁵ / ₈ " | 8 | 8 |
| 17806DN8 | DN150 | DN200 | 457mm | 343mm | 394mm | 216mm | 216mm | 240mm | 295mm | 285mm | 340mm | 22mm | 22mm | 8 | 12 |
| 17808D10 | 8" | 10" | 19 ¹ / ₄ " | 16" | 18 ³ / ₄ " | 10 ¹ / ₂ " | 10 ¹ / ₂ " | 11 ³ / ₄ " | 14 ¹ / ₄ " | 13 ¹ / ₂ " | 16" | 7 ⁵ / ₈ " | 1" | 8 | 12 |
| 17808DN10 | DN200 | DN250 | 502mm | 406mm | 476mm | 267mm | 267mm | 295mm | 355mm | 340mm | 405mm | 22mm | 26mm | 12 | 12 |
| 17810D12 | 10" | 12" | 21 ⁵ / ₈ " | 19" | 21 ¹ / ₄ " | 11" | 12" | 14 ¹ / ₄ " | 17" | 16" | 19" | 1" | 1" | 12 | 12 |
| 17810DN12 | DN250 | DN300 | 537mm | 483mm | 552mm | 279mm | 305mm | 355mm | 410mm | 405mm | 460mm | 26mm | 26mm | 12 | 12 |
| 17812D14 | 12" | 14" | 23 ³ / ₄ " | 21" | 21" | 12" | 12" | 17" | 18 ³ / ₄ " | 19" | 21" | 1" | 1 ¹ / ₈ " | 12 | 12 |
| 17812DN14 | DN300 | DN350 | 603mm | 533mm | 533mm | 305mm | 305mm | 410mm | 470mm | 460mm | 520mm | 26mm | 26mm | 12 | 16 |

* Cat. No. designates Aluminum Housing & Pallets, please refer to chart on the reverse for other materials of construction.

PRESSURE AND/OR VACUUM SETTINGS

(Consult factory for settings outside of STANDARD range.)

| Flange Size | STANDARD MINIMUM SETTINGS | | | | | | STANDARD MAXIMUM SETTINGS | | | | | |
|--------------------------|---------------------------|---------|------|----------------------|---------|------|---------------------------|---------|-------|----------------------|---------|-----|
| | PRESSURE ONLY | | | | | | PRESSURE | | | VACUUM | | |
| | Aluminum | | | Other Materials | | | All Materials | | | All Materials | | |
| | oz./in. ² | in.W.C. | kPa | oz./in. ² | in.W.C. | kPa | oz./in. ² | in.W.C. | kPa | oz./in. ² | in.W.C. | kPa |
| 2" x 2" / DN 50 x 50 | 0.50 | 0.87 | 0.22 | 0.75 | 1.30 | 0.32 | 45.00 | 77.85 | 19.39 | N/A | N/A | N/A |
| 2" x 3" / DN 50 x 80 | 0.50 | 0.87 | 0.22 | 0.75 | 1.30 | 0.32 | 17.00 | 29.41 | 7.32 | N/A | N/A | N/A |
| 3" x 3" / DN 80 x 80 | 0.50 | 0.87 | 0.22 | 0.75 | 1.30 | 0.32 | 36.00 | 62.28 | 15.51 | N/A | N/A | N/A |
| 3" x 4" / DN 80 x 100 | 0.50 | 0.87 | 0.22 | 0.75 | 1.30 | 0.32 | 23.00 | 39.79 | 9.91 | N/A | N/A | N/A |
| 4" x 4" / DN 100 x 100 | 0.50 | 0.87 | 0.22 | 0.75 | 1.30 | 0.32 | 47.00 | 81.31 | 20.25 | N/A | N/A | N/A |
| 4" x 6" / DN 100 x 150 | 0.50 | 0.87 | 0.22 | 0.75 | 1.30 | 0.32 | 31.00 | 53.63 | 13.36 | N/A | N/A | N/A |
| 6" x 6" / DN 150 x 150 | 0.50 | 0.87 | 0.22 | 0.75 | 1.30 | 0.32 | 32.00 | 55.36 | 13.79 | N/A | N/A | N/A |
| 6" x 8" / DN 150 x 200 | 0.50 | 0.87 | 0.22 | 0.75 | 1.30 | 0.32 | 32.00 | 55.36 | 13.79 | N/A | N/A | N/A |
| 8" x 10" / DN 200 x 250 | 0.50 | 0.87 | 0.22 | 0.75 | 1.30 | 0.32 | 27.00 | 46.71 | 11.63 | N/A | N/A | N/A |
| 10" x 12" / DN 250 x 300 | 0.50 | 0.87 | 0.22 | 0.75 | 1.30 | 0.32 | 29.00 | 50.17 | 12.49 | N/A | N/A | N/A |
| 12" x 14" / DN 300 x 350 | 0.50 | 0.87 | 0.22 | 0.75 | 1.30 | 0.32 | 23.00 | 39.79 | 9.91 | N/A | N/A | N/A |



225 Foster Ave., Bensenville, IL 60106-1690
 P 630.595.0800 F 630.595.8059
 info@protectoseal.com www.protectoseal.com