

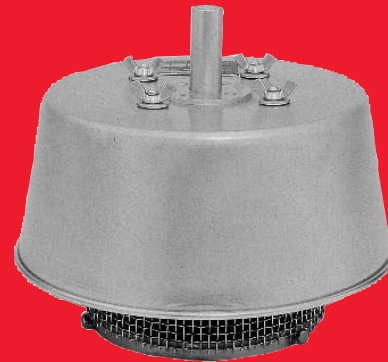
SERIES 7800

End-of-Line Emergency Pressure Vent


PROTECTOSEAL

SERIES 7800

- Sizes 2" (DN 50) through 24" (DN 600)
- Settings achieved by weight loading
- Reduces costly evaporation losses
- Provides emergency relief in the event of external fire
- 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 to the latest ATEX Directive
- Factory tested / certified for leakage and correct settings
- Available in Aluminum, Stainless Steel, Carbon Steel, and Alloy C / C276



OBJECTIVE

The Protectoseal Series 7800, End-of-Line Emergency Pressure Vents are designed to provide emergency relief capacity beyond that furnished by the operating vents on tanks, low pressure vessels and piping in the event of external fire involvement. Vapors are relieved to atmosphere.

TECHNIQUE

Under normal operating conditions, the pallet assembly is closed providing a vapor-tight seal. In the event of an emergency (fire involvement of the tank) the pallet lifts to vent excess vapors thereby protecting the tank from dangerous over-pressurization. Pallet automatically closes and reseals when the pressure is reduced.

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. Coarse mesh screen prevents entry of foreign matter into seating area.

Maintains Accurate Pressure Settings. Set points are accurate to within +/- 3% based on weight per area of mean seat diameter.

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.

Low-Leakage. Vent leakage is no more than 1 SCFH at 90% of the set pressure.

Sizes Available. 2" (DN 50) through 12" (DN 300) aluminum units 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. 16" (DN 400) through 24" (DN 600) units flanged to mate with applicable ANSI or API flat face flange connections.

PRO-FLOW® Sizing and Selection Software.

Use PRO-FLOW® to select the correct size unit for pressure relief calculated in accordance with API 2000, ISO 28300, 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.

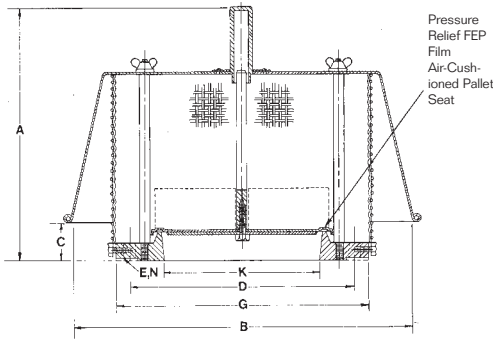
- Alternate diaphragm materials
- Material certifications for castings
- Lower than standard minimum pressure settings
- Mechanical or electronic indication of vent opening
- FEP coating
- Kynar® coating (*Kynar® is a Registered Trademark of Arkema, Inc.*)
- Special cleaning & packaging for the storage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

| Series | Size | Base Flange/ Seat | Weather- Hood | Pallet* Pallet* | Pallet Diaphragm |
|--------|---------|----------------------|------------------|--------------------|---------------------|
| 7800 | 2"-12" | Aluminum | Aluminum | Aluminum | FEP Film |
| 7800 | 16"-24" | Steel/316 S.S. | Steel | Aluminum | FEP Film |
| C7800 | 2"-12" | Steel/316 S.S. | Steel | 316 S.S. | FEP Film |
| C7800 | 16"-24" | Steel/316 S.S. | Steel | 316 S.S. | FEP Film |
| E7800 | 2"-12" | Aluminum | Aluminum | 316 S.S. | FEP Film |
| F7800 | 2"-12" | 316 S.S. | 316 S.S. | 316 S.S. | FEP Film |
| F7800 | 16"-24" | 316 S.S. | 316 S.S. | 316 S.S. | FEP Film |
| M7800 | 2"-12" | Alloy C | C276 | C276 | FEP Film |
| M7800 | 16"-24" | C276 | C276 | C276 | FEP Film |

* On steel and aluminum vents, weights are steel or lead. On stainless steel vents, weights are stainless steel or lead. On C276 vents, weights are C276 or lead.

2" through 12" Aluminum vents flanged to mate with 125# ANSI and DIN PN 16 flat face flanges. Steel, stainless steel and C276 units flanged to mate with 150# ANSI and DIN PN 16 raised face flanges. 16" through 24" vents flanged to mate with applicable ANSI or API flat face flange connections.

DIMENSIONS & ORDERING INFORMATION



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

| Cat. No.* | Pipe Size | Ht. | Width | | B.C. | Dia. | Dia. | Holes |
|-----------|-----------|-----------------------------------|----------------------------------|-----------------------------------|----------------------------------|------------------------------------|----------------------------------|-------|
| | K | A | B | C | D | E | G | N |
| 7802H | 2" | 8 ¹ / ₄ " | 8 ¹ / ₂ " | 3 ¹ / ₄ " | 4 ³ / ₄ " | 5 ⁵ / ₈ "-11 | 6" | Stud |
| 7802DNH | DN 50 | 210mm | 216mm | 19mm | 125mm | M16x2 | 165mm | Stud |
| 7803H | 3" | 10 ¹ / ₄ " | 12 ¹ / ₄ " | 2 ¹ / ₈ " | 6" | 3 ¹ / ₄ " | 7 ¹ / ₂ " | 4 |
| 7803DNH | DN 80 | 260mm | 311mm | 54mm | 160mm | 18mm | 200mm | 8 |
| 7804H | 4" | 10 ⁹ / ₁₆ " | 12 ¹ / ₄ " | 2 ³ / ₈ " | 7 ¹ / ₂ " | 3 ¹ / ₄ " | 9" | 8 |
| 7804DNH | DN 100 | 268mm | 311mm | 60mm | 180mm | 18mm | 220mm | 8 |
| 7806H | 6" | 13 ⁷ / ₈ " | 14 ¹ / ₂ " | 2 ¹¹ / ₁₆ " | 9 ¹ / ₂ " | 7 ⁵ / ₈ " | 11" | 8 |
| 7806DNH | DN 150" | 333mm | 362mm | 68mm | 240mm | 22mm | 285mm | 8 |
| 7808H | 8" | 15 ¹ / ₄ " | 17" | 3 ³ / ₈ " | 11 ³ / ₄ " | 7 ⁵ / ₈ " | 13 ¹ / ₂ " | 8 |
| 7808DNH | DN 200 | 387mm | 432mm | 86mm | 295mm | 22mm | 340mm | 12 |
| 7810H | 10" | 16 ⁵ / ₈ " | 22 ³ / ₄ " | 2 ¹ / ₄ " | 14 ¹ / ₄ " | 1" | 16" | 12 |
| 7810DNH | DN 250 | 422mm | 578mm | 57mm | 355mm | 26mm | 405mm | 12 |
| 7812H | 12" | 18 ⁵ / ₈ " | 25 ⁵ / ₈ " | 2 ³ / ₄ " | 17" | 1" | 19" | 12 |
| 7812DNH | DN 300 | 473mm | 638mm | 70mm | 410mm | 26mm | 460mm | 12 |
| 7816ASA | 16" | 20" | 26 ³ / ₄ " | 6 ⁵ / ₈ " | 21 ¹ / ₄ " | 1 ¹ / ₈ " | 23 ¹ / ₂ " | 16 |
| 7816DN | DN 400 | 508mm | 679mm | 168mm | 525mm | 30mm | 580mm | 16 |
| 7820ASA | 20" | 20" | 32" | 6 ⁵ / ₈ " | 25" | 1 ¹ / ₄ " | 27 ¹ / ₂ " | 20 |
| 7820API | 20" | 20" | 32" | 6 ⁵ / ₈ " | 23 ¹ / ₂ " | 3 ¹ / ₄ " | 26" | 16 |
| 7820DN | DN 500 | 508mm | 813mm | 168mm | 650mm | 33mm | 715mm | 20 |
| 7824ASA | 24" | 21" | 40" | 6 ⁵ / ₈ " | 29 ¹ / ₂ " | 1 ³ / ₈ " | 32" | 20 |
| 7824API | 24" | 21" | 40" | 6 ⁵ / ₈ " | 27 ¹ / ₂ " | 3 ¹ / ₄ " | 30" | 20 |
| 7824DN | DN 600 | 533mm | 1016mm | 168mm | 770mm | 33mm | 840mm | 20 |

* Cat. No. designates Aluminum Housing & Pallets, see 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" / DN 50 | 1.00 | 1.73 | 0.43 | 1.00 | 1.73 | 0.43 | 48.00 | 83.04 | 20.68 | N/A | N/A | N/A |
| 3" / DN 80 | 1.00 | 1.73 | 0.43 | 1.00 | 1.73 | 0.43 | 48.00 | 83.04 | 20.68 | N/A | N/A | N/A |
| 4" / DN 100 | 1.00 | 1.73 | 0.43 | 1.00 | 1.73 | 0.43 | 48.00 | 83.04 | 20.68 | N/A | N/A | N/A |
| 6" / DN 150 | 1.00 | 1.73 | 0.43 | 1.00 | 1.73 | 0.43 | 48.00 | 83.04 | 20.68 | N/A | N/A | N/A |
| 8" / DN 200 | 1.00 | 1.73 | 0.43 | 1.00 | 1.73 | 0.43 | 48.00 | 83.04 | 20.68 | N/A | N/A | N/A |
| 10" / DN 250 | 1.00 | 1.73 | 0.43 | 1.00 | 1.73 | 0.43 | 48.00 | 83.04 | 20.68 | N/A | N/A | N/A |
| 12" / DN 300 | 1.00 | 1.73 | 0.43 | 1.00 | 1.73 | 0.43 | 48.00 | 83.04 | 20.68 | N/A | N/A | N/A |
| 16" / DN 400 | 1.00 | 1.73 | 0.43 | 1.00 | 1.73 | 0.43 | 11.90 | 20.59 | 5.13 | N/A | N/A | N/A |
| 18" / DN 450 | 1.00 | 1.73 | 0.43 | 1.00 | 1.73 | 0.43 | 11.90 | 20.59 | 5.13 | N/A | N/A | N/A |
| 20" / DN 500 | 1.00 | 1.73 | 0.43 | 1.00 | 1.73 | 0.43 | 8.00 | 13.84 | 3.45 | N/A | N/A | N/A |
| 24" / DN 600 | 1.00 | 1.73 | 0.43 | 1.00 | 1.73 | 0.43 | 11.00 | 19.03 | 4.74 | 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