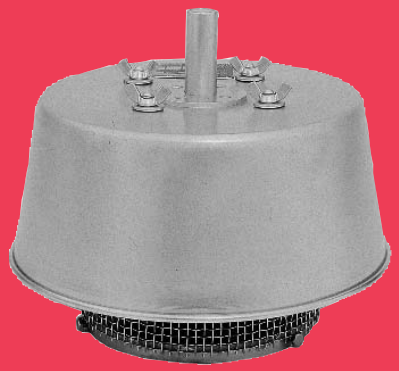
SAFETY WITHOUT COMPROMISE

SERIES 7800

End-of-Line Emergency Pressure Vent

PROTECTOSEAL.

- 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 with European ATEX Directive 94/9/EC
- Factory tested / certified for leakage and correct settings
- Available in Aluminum, Stainless Steel, Carbon Steel, and Alloy C / C276



SERIES 7800

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 tank, 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 reseating (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" (DN600) units flanged to mate with applicable ANSI or API flat face flange connections.

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, NFPA 30 and OSHA 1910.106.

CONSTRUCTION

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

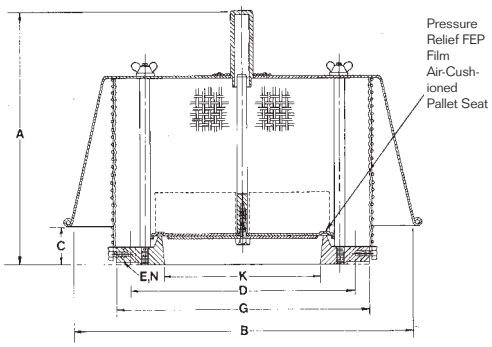
Available Options.

- 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 Diaphragm
7800	2"-12"	Alum/Alum	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"	Alum/Alum	Aluminum	316 S.S.	FEP Film
F7800	2"-12"	316 S.S./316 S.S.	316 S.S.	316 S.S.	FEP Film
F7800	16"-24"	316 S.S./316 S.S.	316 S.S.	316 S.S.	FEP Film
M7800	2"-12"	Alloy C/Alloy C	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"-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"-24" vents flanged to mate with applicable ANSI or API flat face flange connections.



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

DIMENSIONS & ORDERING INFORMATION

Cat. No.*	Pipe Size K	Ht. A	Width B	C	B.C. D	Dia. E	Dia. G	Holes N
7802H	2"	8¼"	8½"	¾"	4¾"	⅝"-11	6"	Stud
7802DNH	DN50	210mm	216mm	19mm	125mm	M16x2	165mm	Stud
7803H	3"	10¼"	12¼"	2⅛"	6"	¾"	7½"	4
7803DNH	DN75	260mm	311mm	54mm	160mm	18mm	200mm	8
7804H	4"	10⁹⁄₁₆"	12¼"	2⅜"	7½"	¾"	9"	8
7804DNH	DN100	268mm	311mm	60mm	180mm	18mm	220mm	8
7806H	6"	13⅛"	14½"	2¹¹⁄₁₆"	9½"	⅞"	11"	8
7806DNH	DN150"	333mm	362mm	68mm	240mm	22mm	285mm	8
7808H	8"	15¼"	17"	3⅜"	11¾"	⅞"	13½"	8
7808DNH	DN200	387mm	432mm	86mm	295mm	22mm	340mm	12
7810H	10"	16⅝"	22¾"	2¼"	14¼"	1"	16"	12
7810DNH	DN250	422mm	578mm	57mm	355mm	26mm	405mm	12
7812H	12"	18⅝"	25⅛"	2¾"	17"	1"	19"	12
7812DNH	DN300	473mm	638mm	70mm	410mm	26mm	460mm	12
7816ASA	16"	20"	26¾"	6⅝"	21¼"	1⅛"	23½"	16
7816DN	DN400	508mm	679mm	168mm	525mm	30mm	580mm	16
7820ASA	20"	20"	32"	6⅝"	25"	1¼"	27½"	20
7820API	20"	20"	32"	6⅝"	23½"	1¼"	26"	20
7820DN	DN500	508mm	813mm	168mm	650mm	33mm	715mm	20
7824ASA	24"	21"	40"	6⅝"	29½"	1⅜"	32"	20
7824API	24"	21"	40"	6⅝"	27½"	¾"	30"	20
7824DN	DN600	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.)*

	STANDARD MINIMUM SETTINGS						STANDARD MAXIMUM SETTINGS					
	PRESSURE ONLY						PRESSURE			VACUUM		
	Aluminum			Other Materials			All Materials			All Materials		
Flange Size	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 75	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

PROTECTOSEAL®
Safety Without Compromise

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