

DATA BOOK INDEX

Client Name: LESEDI NUCLEAR SERVICE (Pty) Ltd
Project: MEDUPI COAL FIRED POWER STATION
Location: LEPHALALE
Client Order No.: 027353
Equipment: PROTECTOSEAL TANK PROTECTION EQUIPMENT
Energas Ref: L1853



10.6.1 INSTALLATION & MAINTENANCE DATA BOOK FOR:

**0 0ENA10 AA602 - 50mm End of Line Vacuum Vent
(Model CS6242, Set at -0,4 kPa)**

**0 0ENA45 AA601 - 80mm Emergency Pressure Vent
(Model C7803H, Set at 5 kPa)**

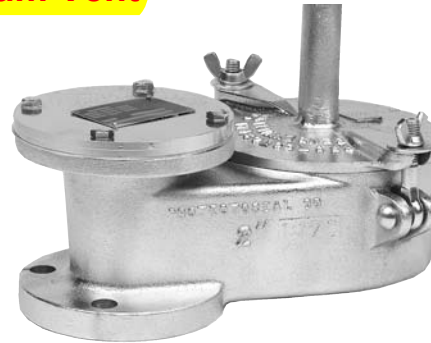
**0 0ENA10 AA601 - 150mm Emergency Pressure Vent
(Model C7803H, Set at 5 kPa)**

0 0ENA10 AA602 - 50mm End of Line Vacuum Vent

CAUTION:

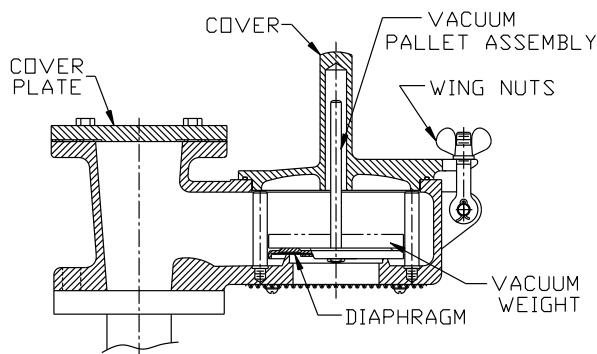
If any questions arise concerning the proper installation or maintenance of our products, please contact Protectoseal or one of our Authorized Representatives.

When installing any Protectoseal device, the legal, corporate and advisory safety regulations and procedures appropriate for the specific installation site must be fully understood and followed.

Installation
Maintenance

NOTE 1: This vent style includes a removable cover and removable cover plate.

NOTE 2: When vacuum weights (packed separately if heavy) are included with a unit, the weights should be inspected, properly identified and set aside for later installation. Weights will be stamped with a serial number matching the number on the vent; identification as pressure or vacuum weights; and a statement as to the contribution that each weight provides to the total vacuum setting.

**INSTALLATION PROCEDURE:**

1. Loosen wing nuts and remove cover.
2. Withdraw vacuum pallet assembly. Remove and discard protective cardboard and tape from assembly. The cardboard protects the diaphragm during shipment.
3. Remove protective flange cover.
4. Check carefully to insure that all packing materials are removed from on or inside the vent housing and from the pallet assembly.
5. Mount the vent to the appropriate tank flange using gaskets compatible with service conditions. Note: For some vent styles, threaded studs that mate with tapped holes in the vent housing flange are provided. For best performance, the vent should be mounted level so that the seating surfaces are no more than 1° off horizontal.
6. Reinstall the vacuum pallet assembly. Setting weights (if provided) should be installed by engaging the hole in the weight on the appropriate pallet assembly stem. Make sure that weights are properly installed as marked to provide specified set points. Heavy weights may be provided with tapped holes to temporarily attach lifting hardware to facilitate installation. Any such threaded fasteners used during installation must be removed from the weights. Foreign objects will limit the lift capability of the pallet assemblies and will reduce rated flow capacity of the vent.
7. Replace the cover. Note: Make sure that the vacuum pallet assembly stem positively engages the hole in the stem guide in the weatherhood and in the cover. The pallet assembly must be free to move upwards, with the pallet stem traveling into the stem guide.
8. Secure cover and hood with wing nuts or nuts.

MAINTENANCE:

Protectoseal recommends that our products be inspected and maintained according to the normal maintenance schedule of the facility. At a minimum, maintenance should be conducted annually. More frequent maintenance may be required, and should be scheduled, for unusual service conditions.

CAUTION: When maintaining any Protectoseal device, the legal, corporate and advisory safety regulations and procedures appropriate for the specific installation site must be fully understood and followed.

CAUTION: Tank vapor space pressure or vacuum should be relieved before any maintenance operations are undertaken.

MAINTENANCE PROCEDURE:

1. Loosen wing nuts and remove cover.
2. Inspect the gasket on the cover. Replace if deteriorated or damaged.
3. Remove any loose dirt or foreign material from the housing interior and exterior. Check inside the stem guide hole of the cover and remove any dirt or accumulation of foreign material.
4. Withdraw the vacuum pallet assembly and any weights. Set aside for inspection. Note: Identify any weights on the vacuum pallet assembly for later reinstallation.
5. Inspect the screen that protects the vacuum port. Clean or replace as necessary.
6. Inspect and clean the machined seating surfaces in the vent housings with a suitable cleaning fluid. Seat should be free of nicks, marks or accumulations of foreign material.
7. Inspect the pallet assembly. If pallet is deteriorated or bent, it must be replaced. Inspect the diaphragm material in the pallet assembly. The diaphragm must be clean, flat and smooth. If the diaphragm material is deteriorated, it must be replaced. Make sure that all nuts and screws on the pallet assembly are tightened securely.
8. Reinstall the vacuum pallet assembly. Setting weights (if provided) should be installed by engaging the hole in the weight on the pallet assembly stem. Make sure that weights are properly installed as marked to provide specified set points. Heavy weights may be provided with tapped holes to temporarily attach lifting hardware to facilitate installation. Any such threaded fasteners used during installation must be removed from the weights. Foreign objects will limit the lift capability of the pallet assembly and will reduce rated flow capacity of the vent.
9. Replace the cover. NOTE: Make sure that the vacuum pallet assembly stem positively engages the hole in the stem guide in the cover. The pallet assembly must be free to move upwards, with the pallet stem traveling into the stem guide.
10. Replace wing nuts or nuts and tighten to secure cover.

ADDITIONAL PRODUCTS FROM PROTECTOSEAL

Series 18540



Pipe-Away Pressure Vacuum Relief Vent for applications that require hazardous vapors be processed into manifolded piping and not released into the atmosphere

Series 7800



Emergency Vent protects tanks against rupture or explosion resulting from excessive internal pressure caused by exposure to fires.

Series 4950



Vent Line / In-Line Parallel Plate Flame Arrester is designed for installation in open vent pipe or bleed lines from storage or processing tanks. Suitable for NEC Group D (IEC Group IIA) vapors

Series 830

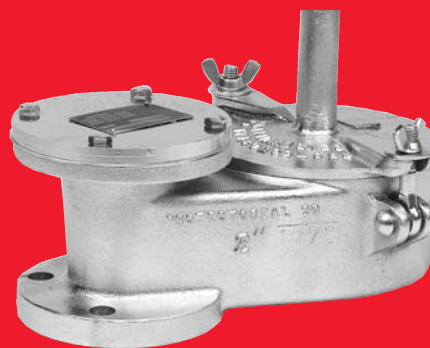


Combination Pressure / Vacuum Relief Vent & Flame Arrester provides pressure and vacuum relief as well as protection from propagation of externally introduced flames. Suitable for NEC Group D (IEC Group IIA) vapors.

SERIES 6240

End-of-Line Vacuum Relief Vent

- 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 to the latest ATEX Directive
- Factory tested / certified for leakage and correct settings
- Available in Aluminum, Ductile Iron, Stainless Steel, Carbon Steel, and Alloy C / C276



SERIES 6240

OBJECTIVE

The Protectoseal Series 6240, End-of-Line Vacuum Vent provides vacuum relief to maintain tank's vapor space within safe operating parameters. Vent settings minimize vent opening.

TECHNIQUE

A pallet in the vent housing retards air intake as the tank normally breathes in due to atmospheric temperature changes or due to emptying the tank. The pallet opens and closes to permit only the intake relief necessary to avoid tank damage under normal operating conditions.

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® Sizing and Selection Software.

Use PRO-FLOW® to select the correct size unit for pressure and vacuum relief calculated in accordance with API 2000, ISO 28300 NFPA 30 and OSHA 1910.106.

CONSTRUCTION

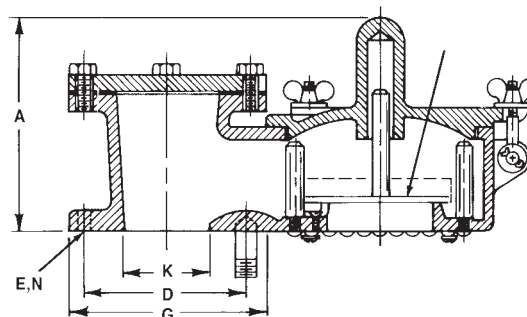
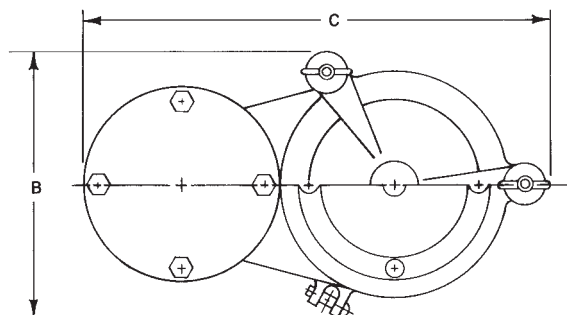
A comprehensive range of materials is offered as shown in the chart below. Non-metallic (thermoplastic resin & FRP) construction available. Other materials and features can be furnished upon request.

Available Options.

- Alternate diaphragm materials
- Material certifications for castings
- Lower than standard minimum vacuum setting
- Higher than standard maximum vacuum setting
- Mounting connections added to vacuum port
- Steam jacketing available
- 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
6240	Aluminum 356	Aluminum	FEP Film	Steel or Lead
C6240	Ductile Iron	316 S.S.	FEP Film	Steel or Lead
CS6240	Cast Steel	316 S.S.	FEP Film	Steel or Lead
F6240	316 S.S.	316 S.S.	FEP Film	S.S. or Lead
RE6240	Aluminum 356	316 S.S.	FEP Film	Steel or Lead
M6240	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 shown are for reference only, contact Factory for certified drawings.

DIMENSIONS & ORDERING INFORMATION

Cat. No.*	Flange K	Ht. A	Width B	Length C	B.C. D	Dia. G	Dia. E	Holes N
6242	2"	8½"	7½"	13¾"	4¾"	6	¾"	4
6242DN	DN50	216mm	191mm	349mm	125mm	165mm	18mm	4
6243D	3"	7"	9¾"	15"	6"	7½"	¾"	4
6243DN	DN80	178mm	248mm	381mm	160mm	200mm	18mm	8
6244D	4"	9"	10"	18½"	7½"	9"	¾"	8
6244DN	DN100	229mm	254mm	470mm	180mm	220mm	18mm	8
6246D	6"	12¼"	12⅞"	23½"	9½"	11"	⅞"	8
6246DN	DN150	311mm	327mm	597mm	240mm	285mm	22mm	8
6248D	8"	12½"	15¾"	28¾"	11¾"	13½"	⅞"	8
6248DN	DN200	318mm	400mm	718mm	295mm	340mm	22mm	12
6250D	10"	13⅞"	18½"	33½"	14¼"	16"	1"	12
6250DN	DN250	352mm	470mm	851mm	355mm	405mm	26mm	12
6252D	12"	16⅞"	19"	37¼"	17"	19"	1"	12
6252DN	DN300	416mm	483mm	946mm	410mm	460mm	26mm	12

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

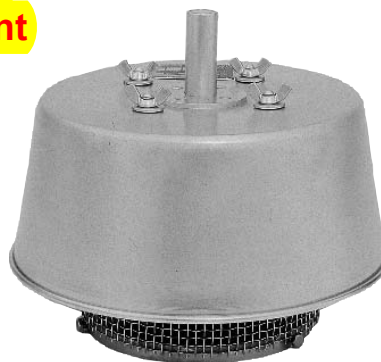
PRESSURE AND/OR VACUUM SETTINGS (Consult factory for settings outside of STANDARD range.)

Flange Size	STANDARD MINIMUM SETTINGS						STANDARD MAXIMUM SETTINGS					
	VACUUM						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	0.50	0.87	0.22	0.75	1.30	0.32	n/a	n/a	n/a	11.00	19.03	4.74
3" / DN 80	0.50	0.87	0.22	0.75	1.30	0.32	n/a	n/a	n/a	11.00	19.03	4.74
4" / DN 100	0.50	0.87	0.22	0.75	1.30	0.32	n/a	n/a	n/a	7.40	12.80	3.19
6" / DN 150	0.50	0.87	0.22	0.75	1.30	0.32	n/a	n/a	n/a	18.00	31.14	7.76
8" / DN 200	0.50	0.87	0.22	0.75	1.30	0.32	n/a	n/a	n/a	18.00	31.14	7.76
10" / DN 250	0.50	0.87	0.22	0.75	1.30	0.32	n/a	n/a	n/a	19.00	32.87	8.19
12" / DN 300	0.50	0.87	0.22	0.75	1.20	0.32	n/a	n/a	n/a	23.00	39.79	9.91

00ENA45 AA601 - 80mm Emergency Pressure Vent
00ENA10 AA601 - 150mm Emergency Pressure Vent**CAUTION:**

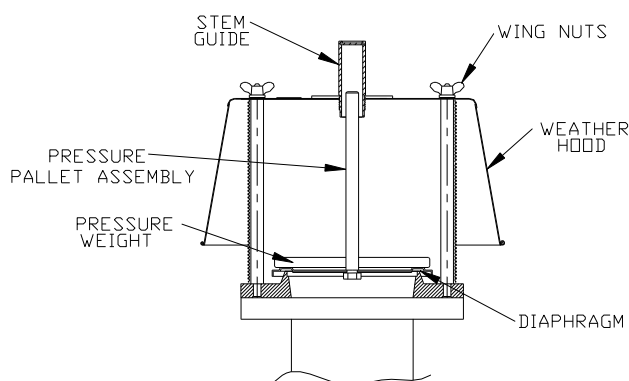
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When installing any Protectoseal device, the legal, corporate and advisory safety regulations and procedures appropriate for the specific installation site must be fully understood and followed.

**Installation**
Maintenance

NOTE 1: This vent style includes a removable weatherhood. The hood stem guide may be taped to the top of the hood to prevent damage during shipment. This stem guide will be threaded into the tapped hole on top of the hood.

NOTE 2: When pressure weights (packed separately if heavy) are included with a unit, the weights should be inspected, properly identified and set aside for later installation. Weights will be stamped with a serial number matching the number on the vent; identification as pressure or vacuum weights; and a statement as to the contribution that each weight provides to the total pressure setting.



4. Check carefully to insure that all packing materials are removed from on or inside the vent housing and from the pallet assembly.
5. Mount the vent to the appropriate tank flange using gaskets compatible with service conditions. Note: For some vent styles, threaded studs that mate with tapped holes in the vent housing flange are provided. For best performance, the vent should be mounted level so that the seating surfaces are no more than 1° off horizontal.
6. Reinstall the pressure pallet assembly. Setting weights (if provided) should be installed by engaging the hole in the weight on the pallet assembly stem. Make sure that weights are properly installed as marked to provide specified set points. Heavy weights may be provided with tapped holes to temporarily attach lifting hardware to facilitate installation. Any such threaded fasteners used during installation must be removed from the weights. Foreign objects will limit the lift capability of the pallet assemblies and will reduce rated flow capacity of the vent.
7. Replace the weatherhood. Note: Make sure that the pressure pallet assembly stem positively engages the hole in the stem guide in the weatherhood. It may be useful to verify engagement of the pressure stem into the weatherhood guide by unthreading the guide and then reinstalling it with the stem centered in the hole. The pallet assembly must be free to move upwards, with the pallet stem traveling into the stem guide.
8. Secure hood with wing nuts.

INSTALLATION PROCEDURE:

1. Loosen wing nuts and remove weatherhood.
2. Withdraw pressure pallet assembly. Remove and discard protective cardboard and tape from assembly. The cardboard protects the diaphragm during shipment.
3. Remove protective flange cover.

MAINTENANCE:

Protectoseal recommends that our products be inspected and maintained according to the normal maintenance schedule of the facility. At a minimum, maintenance should be conducted annually. More frequent maintenance may be required, and should be scheduled, for unusual service conditions.

CAUTION: When maintaining any Protectoseal device, the legal, corporate and advisory safety regulations and procedures appropriate for the specific installation site must be fully understood and followed.

CAUTION: Tank vapor space pressure or vacuum should be relieved before any maintenance operations are undertaken.

MAINTENANCE PROCEDURE:

1. Loosen wing nuts and remove weatherhood.
2. Remove any loose dirt or foreign material from the housing interior and exterior. Check inside the stem guide hole of the cover and remove any dirt or accumulation of foreign material.
3. Withdraw the pressure pallet assembly and any weights. Set aside for inspection. Note: Identify any weights on the pressure pallet assembly for later reinstallation.
4. Inspect the screen that protects the pressure port. Clean or replace as necessary.
5. Inspect and clean the machined seating surface in the vent with a suitable cleaning fluid. Seat should be free of nicks, mars or accumulation of foreign material.
6. Inspect the pallet assembly. If pallet is deteriorated or bent, it must be replaced. Inspect the diaphragm material in the pallet assembly. The diaphragm must be clean, flat and smooth. If the diaphragm material is deteriorated, it must be replaced. Make sure that all nuts and screws on the pallet assembly are tightened securely.
7. Reinstall the pressure pallet assembly. Setting weights (if provided) should be installed by engaging the hole in the weight on the pallet assembly stem. Make sure that weights are properly installed as marked to provide specified set points. Heavy weights may be provided with tapped holes to temporarily attach lifting hardware to facilitate installation. Any such threaded fasteners used during installation must be removed from the weights. Foreign objects will limit the lift capability of the pallet assembly and will reduce rated flow capacity of the vent.
8. Replace the weatherhood. NOTE: Make sure that the pressure pallet assembly stem positively engage the hole in the stem guide in the weatherhood and in the weatherhood. It may be useful to verify engagement of the pressure stem into the weatherhood stem guide by unthreading the guide and then reinstalling it with the stem centered in the hole. The pallet assembly must be free to move upwards, with the pallet stem traveling into the stem guide.
9. Secure weatherhood with wing nuts.

ADDITIONAL PRODUCTS FROM PROTECTOSEAL

Series 18540



Pipe-Away Pressure Vacuum Relief Vent for applications that require hazardous vapors be processed into manifolded piping and not released into the atmosphere

Series 53300



Emergency Pressure Manhole Cover Vents provide emergency pressure relief for storage tanks where vacuum relief is being provided for by a separate operating vent

Series 4950



Vent Line / In-Line Parallel Plate Flame Arrester is designed for installation in open vent pipe or bleed lines from storage or processing tanks. Suitable for NEC Group D (IEC Group IIA) vapors

Series 830



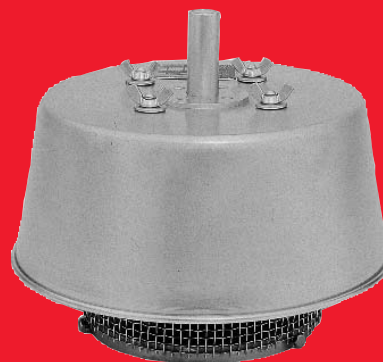
Combination Pressure / Vacuum Relief Vent & Flame Arrester provides pressure and vacuum relief as well as protection from propagation of externally introduced flames. Suitable for NEC Group D (IEC Group IIA) vapors.

SERIES 7800

End-of-Line Emergency Pressure Vent

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" (DN600) 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 and vacuum 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.

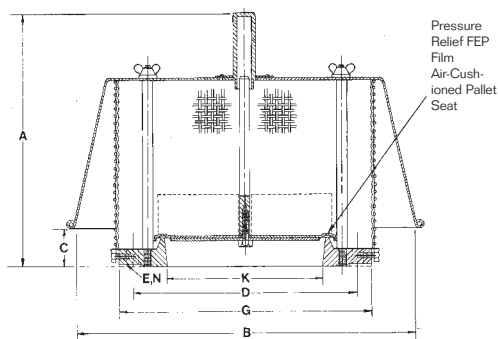
- Alternate diaphragm materials
- Material certifications for castings
- Lower than standard minimum pressure settings
- Mechanical or electronic indication of vent opening
- FEP coating
- Kynar® coating (*Kynar® is a Registered Trademark of Arkema, Inc.*)
- Special cleaning & packaging for the storage 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 K	Ht. A	Width B	C	B.C. D	Dia. E	Dia. G	Holes N
7802H	2"	8 $\frac{1}{4}$ "	8 $\frac{1}{2}$ "	$\frac{3}{4}$ "	4 $\frac{3}{4}$ "	$\frac{5}{8}$ "-11	6"	Stud
7802DNH	DN50	210mm	216mm	19mm	125mm	M16x2	165mm	Stud
7803H	3"	10 $\frac{1}{4}$ "	12 $\frac{1}{4}$ "	2 $\frac{1}{8}$ "	6"	$\frac{3}{4}$ "	7 $\frac{1}{2}$ "	4
7803DNH	DN80	260mm	311mm	54mm	160mm	18mm	200mm	8
7804H	4"	10 $\frac{9}{16}$ "	12 $\frac{1}{4}$ "	2 $\frac{3}{8}$ "	7 $\frac{1}{2}$ "	$\frac{3}{4}$ "	9"	8
7804DNH	DN100	268mm	311mm	60mm	180mm	18mm	220mm	8
7806H	6"	13 $\frac{7}{8}$ "	14 $\frac{1}{2}$ "	2 $\frac{1}{16}$ "	9 $\frac{1}{2}$ "	$\frac{7}{8}$ "	11"	8
7806DNH	DN150"	333mm	362mm	68mm	240mm	22mm	285mm	8
7808H	8"	15 $\frac{1}{4}$ "	17"	3 $\frac{3}{8}$ "	11 $\frac{3}{4}$ "	$\frac{7}{8}$ "	13 $\frac{1}{2}$ "	8
7808DNH	DN200	387mm	432mm	86mm	295mm	22mm	340mm	12
7810H	10"	16 $\frac{3}{8}$ "	22 $\frac{3}{4}$ "	2 $\frac{1}{4}$ "	14 $\frac{1}{4}$ "	1"	16"	12
7810DNH	DN250	422mm	578mm	57mm	355mm	26mm	405mm	12
7812H	12"	18 $\frac{5}{8}$ "	25 $\frac{5}{8}$ "	2 $\frac{3}{4}$ "	17"	1"	19"	12
7812DNH	DN300	473mm	638mm	70mm	410mm	26mm	460mm	12
7816ASA	16"	20"	26 $\frac{3}{4}$ "	6 $\frac{5}{8}$ "	21 $\frac{1}{4}$ "	1 $\frac{1}{8}$ "	23 $\frac{1}{2}$ "	16
7816DN	DN400	508mm	679mm	168mm	525mm	30mm	580mm	16
7820ASA	20"	20"	32"	6 $\frac{5}{8}$ "	25"	1 $\frac{1}{4}$ "	27 $\frac{1}{2}$ "	20
7820API	20"	20"	32"	6 $\frac{5}{8}$ "	23 $\frac{1}{2}$ "	$\frac{3}{4}$ "	26"	16
7820DN	DN500	508mm	813mm	168mm	650mm	33mm	715mm	20
7824ASA	24"	21"	40"	6 $\frac{5}{8}$ "	29 $\frac{1}{2}$ "	1 $\frac{3}{8}$ "	32"	20
7824API	24"	21"	40"	6 $\frac{5}{8}$ "	27 $\frac{1}{2}$ "	$\frac{3}{4}$ "	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.)

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