SAFETY WITHOUT COMPROMISE

SERIES 8740

In-Line Conservation Breather Vent

PROTECTOSEAL

- Sizes 2" (DN 50) through 4" (DN 100)
- Settings achieved by weight loading
- Reduces costly evaporation losses
- Threaded outlet facilitates piping of vapors
- 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
- Factory tested / certified for leakage and correct settings
- Available in Aluminum, Ductile Iron and Stainless Steel

SERIES 8740

OBJECTIVE

The Protectoseal Series 8740 In-Line Conservation Breather Vents are used to conserve costly vapors and to protect a tank or vessel from damage caused by excessive pressure or vacuum accumulations during normal operation. The design makes these vents particularly suited for mounting inside tank house installations. Outlet pipes can direct vapors to some appropriate area for discharge. Locating the vent inside the building facilitates maintenance and eliminate hazardous roof top inspections.

TECHNIQUE

Installed in vent pipes from storage tanks or process kettles, the In-Line Conservation Breather Vents guard against damage caused by internal or external pressure or vacuum build-up during filling or withdrawing operations or simply due to normal thermal change. Pallets in the vent housing retard intake of air and escape of vapors as the tank normally breathes in and out. Pallets open and close to permit only that intake or outlet relief necessary to remain within permissable working pressures and avoid tank damage.

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. Unit's rugged design and light weight provide for easy, convenient handling during installation, inspection, and cleaning. Protectoseal's axial design permits locating valve directly in line. Piping is simplified and excessive stress on tank flange mounting is eliminated.

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. 2" (DN 50), 3" (DN 80) and 4" (DN 100) sizes. Inlet connection mates with standard ANSI flanges. Outlet connection has standard NPT threads. Aluminum flanged to mate with 125# ANSI and DIN PN 16 flat face flanges. All other materials mate with 150# ANS and DIN PN 16 raised face flanges.

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 28300, NFPA 30 and OSHA 1910.106.

Quality Assurance. Each unit is factory tested for leakage and correct settings to meet Protectoseal's high standards prior to shipment.

CONSTRUCTION

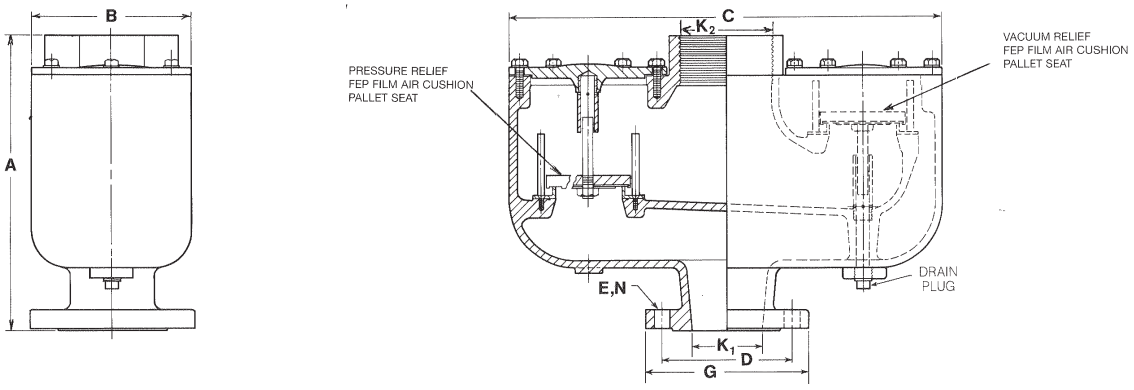
A comprehensive range of materials is offered as shown in the chart below. Other materials and features can be furnished upon request.

Available Options.

- Alternate diaphragm materials
- Material certifications for castings
- Steam jacketing
- FEP coating
- Kynar® coating *(Kynar® is a Registered Trademark of Arkema, Inc.)*

Series	Housing	Pallet	Pallet Diaphragm	Weight Material
8740	Aluminum 356	Aluminum	FEP Film	Steel or Lead
C8740	Ductile Iron	316 S.S.	FEP Film	Steel or Lead
F8740	316 S.S.	316 S.S.	FEP Film	S.S. or Lead
RE8740	Aluminum 356	316 S.S.	FEP Film	Steel 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.*	Pipe Size K_1 & K_2	Ht. A	Width B	Length C	B.C. D	Dia. G	Dia. E	Holes N
8742	2"	12"	6¼"	16¾"	4¾"	6	¾"	4
8742DN	DN50	305mm	159mm	425mm	125mm	165mm	18mm	4
8743	3"	13¾"	7½"	20½"	6"	7½"	¾"	4
8743DN	DN80	349mm	191mm	521mm	160mm	200mm	18mm	8
8744	4"	16"	8½"	23"	7½"	9"	¾"	8
8744DN	DN100	406mm	216mm	584mm	180mm	220mm	18mm	8

** 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.)*

	STANDARD MINIMUM SETTINGS						STANDARD MAXIMUM SETTINGS					
	PRESSURE & VACUUM						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" / DN50	1.00	1.73	0.43	1.00	1.73	0.43	26.00	44.98	11.20	1.00	1.73	0.43
3" / DN80	1.00	1.73	0.43	1.00	1.73	0.43	9.50	16.44	4.09	1.00	1.73	0.43
4" / DN100	1.00	1.73	0.43	1.00	1.73	0.43	9.70	16.78	4.18	1.00	1.73	0.43

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.

PROTECTOSEAL®
Safety Without Compromise

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