

# Series 52600

## Emergency Pressure/ Vacuum Relief Vent



- Sizes 16" (DN 400) through 24" (DN 600)
- Provides emergency relief in the event of an external fire
- Vents directly to atmosphere
- Pressure setting achieved by weight loading
- Vacuum setting achieved by spring loading
- Leakage rate of less than 1SCFH of air at 90% of set point
- Reseats automatically when tank pressure is reduced
- Conforms to the latest ATEX Directive
- Patented, FEP film "Air-Cushioned Seating"
- Low-leak pallet design - certified test reports
- Available in Carbon Steel, Aluminum & Stainless Steel

### Objective

Protectoseal's Series 52600 Emergency Pressure / Vacuum Relief Vents are designed to provide emergency relief capacity beyond that available through the operating vents on tanks. In emergency situations (external fire involvement of the tank), normal venting devices may be too small to prevent overpressurization of the tank. The Series 52600 provides the necessary pressure relief capacity to maintain the tank in a safe operating range. The integral vacuum vent provides additional protection against tank collapse due to excessive vacuum in the vapor space.

### Technique

The Series 52600 Emergency Pressure / Vacuum Relief Vent provides an effective vapor-tight seal until pressure or vacuum relief is required to protect the tank. The vacuum vent is spring loaded to relieve at a negative pressure of 1/2 oz./in.<sup>2</sup>. Entry of foreign materials through the vacuum and pressure seating areas is precluded by use of a wire mesh screen. The pressure relieving pallet is designed to lift only far enough to flow its rated capacity should high tank pressure be encountered then reseal automatically when the tank pressure is reduced. The guide posts (mounted on the flange) ensure proper guiding and positioning of the pallet on the seating surface.



### Special Features

#### Fast Inspection, Easy Maintenance.

Proprietary design allows for easy, convenient handling for installation, inspection and maintenance.

#### Maintains Accurate Pressure Settings.

Set points are accurate to within +/- 3% across the entire range of available pressure and vacuum relief settings shown in the chart on the reverse. Set point accuracy is assured by stringent machining, assembly and test procedures. Higher settings are available upon special request, but may require longer lead times.

#### 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-Leak Pallets.

Leakage on pallet is no more than 1SCFH at 90% of the set pressure.

#### Sizes Available.

Available in 16" (DN 400) through 24" (DN 600) sizes. Flanged to mate with flat face flanges, 125# ANSI, API (20" or 24" only) or DIN PN 16 bolting specifications. Other drilling patterns are also available upon special request API 2000, ISO 28300, NFPA 30 and OSHA 1910.106.

**PRO-FLOW® Sizing and Selection.**

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

**Construction**

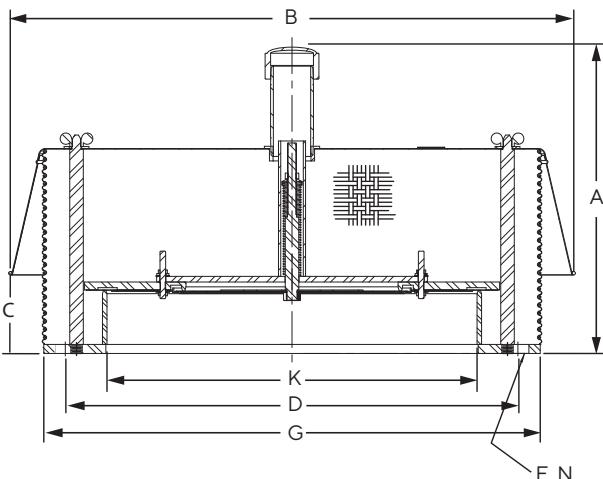
A comprehensive range of materials is offered as shown in the chart, on the right.

**Available Options.**

- Alternate diaphragm materials
- Material certifications for flange and seat

- Mechanical or electronic indication of vent opening
- FEP coating
- Kynar® coating (Kynar® is a Registered Trademark of Arkema, Inc.)
- Special cleaning and packaging

Series	Base Flange/Seat	Hood	Pallet	Diaphragm
AX52600	Steel/316 S.S.	Aluminum	Aluminum	Aluminum
AXCS52600	Steel/316 S.S.	316 S.S.	FEP Film	316 S.S.
AXF52600	316 S.S.	316 S.S.	316 S.S.	FEP Film

**Specifications**

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

Cat. No.*	Pipe	Ht.	Width		B.C.	Dia.	Dia.	Holes
	Size K	A	B	C	D	G	E	N
52516ASA	16"	18"	26 $\frac{3}{4}$ "	7 $\frac{3}{8}$ "	21 $\frac{1}{4}$ "	23 $\frac{1}{2}$ "	1 $\frac{1}{8}$ "	16
52616DN	DN400	457mm	679mm	111mm	525mm	580mm	30mm	16
52618ASA	18"	18"	26 $\frac{1}{2}$ "	7 $\frac{3}{8}$ "	22 $\frac{3}{4}$ "	25"	1 $\frac{1}{4}$ "	16
52618DN	DN450	457mm	640mm	111mm	585mm	640mm	30mm	20
52620ASA	20"	18"	32"	7 $\frac{3}{8}$ "	25"	27 $\frac{1}{2}$ "	1 $\frac{1}{4}$ "	20
52620API	20"	18"	32"	7 $\frac{3}{8}$ "	23 $\frac{1}{2}$ "	26"	$\frac{3}{4}$ "	16
52620DN	DN500"	457mm	813mm	111mm	650mm	715mm	33mm	20
52624ASA	24"	18"	39"	7 $\frac{3}{8}$ "	29 $\frac{1}{2}$ "	32"	1 $\frac{1}{8}$ "	20
52624API	24"	18"	39"	7 $\frac{3}{8}$ "	27 $\frac{1}{2}$ "	130"	$\frac{3}{4}$ "	20
52624DN	DN600	457mm	991mm	111mm	770mm	840mm	36mm	20

Add Prefix	Base Flange/Seat	Hood	Pallet	Diaphragm
AX	Steel/316 S.S.	Aluminum	Aluminum	FEP Film
AXCS	Steel/316 S.S.	Steel	316 S.S.	FEP Film
AXF	316 S.S.	316 S.S.	316 S.S.	FEP Film

## Pressure and/or Vacuum Settings

(Consult factory for settings outside of STANDARD range.)

Series	Flange Size	STANDARD MINIMUM SETTINGS						STANDARD MAXIMUM SETTINGS					
		PRESSURE			VACUUM			PRESSURE			VACUUM		
		Aluminum		Other Materials		All Materials		All Materials		All Materials		All Materials	
		oz./in. <sup>2</sup>	in.W.C.	kPa	oz./in. <sup>2</sup>	in.W.C.	kPa	oz./in. <sup>2</sup>	in.W.C.	kPa	oz./in. <sup>2</sup>	in.W.C.	kPa
AX52616	16" / DN 400	0.75	1.30	0.32	0.50	0.87	0.21	6.00	10.39	2.59	0.75	1.30	0.30
AXCS & AXF52616	16" / DN 400	1.79	3.10	0.76	0.50	0.87	0.21	6.00	10.39	2.59	0.75	1.30	0.30
AX52618	18" / DN 450	0.75	1.30	0.32	0.50	0.87	0.21	6.00	10.39	2.59	0.75	1.30	0.30
AXCS & AXF52618	18" / DN 450	1.79	3.10	0.76	0.50	0.87	0.21	6.00	10.39	2.59	0.75	1.30	0.30
AX52620	20" / DN 500	0.83	1.44	0.36	0.50	0.87	0.21	6.00	10.39	2.59	0.75	1.30	0.30
AXCS & AXF52620	20" / DN 500	2.05	3.55	0.87	0.50	0.87	0.21	6.00	10.39	2.59	0.75	1.30	0.30
AX52624	24" / DN 600	0.89	1.54	0.38	0.50	0.87	0.21	6.00	10.39	2.59	0.75	1.30	0.30
AXCS & AXF52624	24" / DN 600	2.27	3.94	0.97	0.50	0.87	0.21	6.00	10.39	2.59	0.75	1.30	0.30

Note 1. For above standard vacuum setting range:

• Add suffix /V1 - 0.75 oz./in.<sup>2</sup> up to and including 1.29 oz./in.<sup>2</sup> • Add suffix /V2 - Above 1.29 oz./in.<sup>2</sup> up to and including 3.90 oz./in.<sup>2</sup> • Add suffix /V3 - Above 3.90 oz./in.<sup>2</sup> up to and including 5.0 oz./in.<sup>2</sup>

## Additional Products From Protectoseal



### Series 8540H

End-of-Line Pressure / Vacuum Conservation Vent is intended for use where both pressure and vacuum relief are required. The pallets in the vent housing allow intake of air and escape of vapors as the tank normally breathes in and out.



### Series UCA

In-line Unstable Detonation Flame Arresters are designed to prevent the propagation of gas or vapor explosions in pipelines under the most severe condition of unstable detonation. Suitable for NEC Group D (IEC Group IIA and IIA1) vapors.



### Series 830

Combination Pressure/Vacuum Relief Vent & Flame Arrestor 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 AVC

End-of-Line Flame Arresters are designed to be installed at the end of a pipeline or exit vent from a vessel to provide protection against atmospheric deflagrations. Suitable for NEC Groups B, C, and D (IEC Groups IIB and IIC) vapors.

## Business contact details:



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