

# SERIES 860

## End-of-Line Rectangular Plate-Type Flame Arrester

# SERIES 860

- Sizes 2" (DN 50) through 8" (DN 200)
- FM Approved in 2" through 6"
- Listed by Underwriters Laboratories in 2" through 8"
- Suitable for use with vapors equivalent to NEC 500 Group D, IEC Group IIA
- Vertically mounted, rectangular plate-type flame arrester(s)
- Protects against fire
- Minimizes pressure drop under normal operating conditions
- Easy inspection and maintenance
- Factory inspected prior to shipment
- Available in Aluminum, Ductile Iron and Stainless Steel



### OBJECTIVE

The Protectoseal Series 860 Flame Arresters are installed where it is not necessary to conserve vapor but where low flash point solvents must be protected against fire and explosion from external sources of ignition. These vents are designed with housing calculated to provide the maximum air-flow consistent with operating efficiency, fire protection and low-cost maintenance.

### TECHNIQUE

The Series No. 860 Flame Arrester is mounted on the end of a vent pipe from the tank. Vapors are allowed to escape into the atmosphere and air can be drawn into the tank through the specially designed arrester grid assembly. If an ignition source outside of the tank is encountered, the flame arrester provides protection for the tank contents.

### SPECIAL FEATURES

**Fast Inspection, Easy Maintenance.** The time-saving ease of dismantling for the purposes of inspecting or cleaning interior parts is made possible through the use of large, combination wing nuts and swing bolts. The design permits removal for cleaning of the flame arrester in a fraction of the usual time. The large wing nuts loosen easily and the bolts swing aside quickly to permit full access to flame arrester and vent interior. A spare element can be quickly inserted to safeguard the tank interior while servicing the original. The surface of each individual flame arrester plate is made accessible for cleaning by rotating upward around the single aligning rod.

**Automatic Condensate Drainage.** Vertically mounted, rectangular plate-type flame arrester is employed for self-drainage of condensate. This prevents accumulation of condensate subject to freezing and consequent clogging of the arrester under low temperature conditions.

**Positive Flame Arresting.** Correct, uniform air-spacing between the individual plates is assured through precision embossings on the face of each plate. Plates are sturdily fabricated from  $\frac{1}{16}$ " to  $\frac{3}{32}$ " heavy gauge metal, depending on material of construction to resist distortion during cleaning and reassembly.

**Sizes Available.** 2", 3" and 4" sizes have standard NPT threaded connections. Adapter flanges available in these sizes. 6" (DN 150), 8" (DN 200) and 10" (DN 250) vents mate with standard flanged ANSI connections. Aluminum flanged bodies mate with 125# ANSI flat face flanges and DIN PN 16 flat face flanges. All other material flanged bodies mate with 150# ANSI raised face flanges and DIN PN 16 raised face flanges.

**Test Lab Listings.** Approved by Factory Mutual Research (FM) in 2" through 6". Listed by Underwriters Laboratories (UL) in 2" through 8".

**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.

### CONSTRUCTION

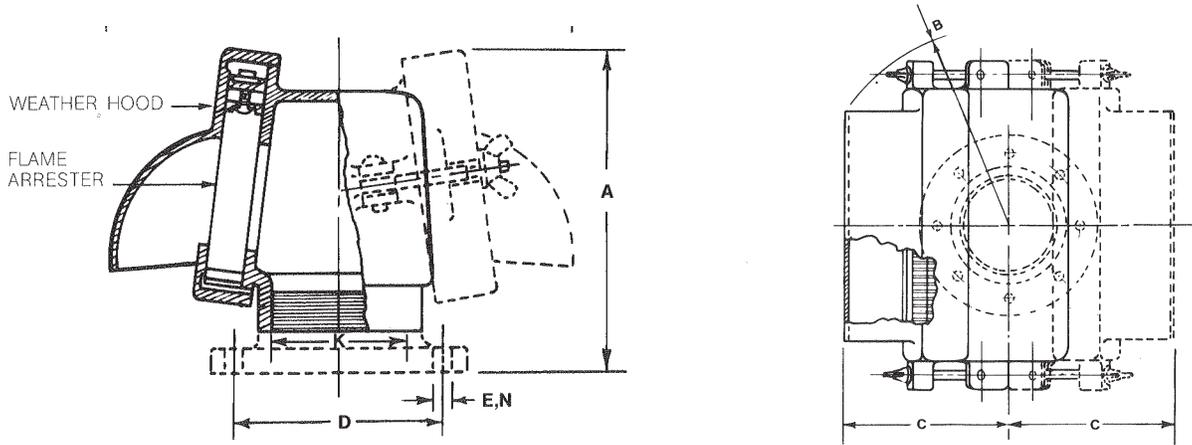
A comprehensive range of materials is offered as shown in the chart below. Other materials and features can be furnished upon request.

#### Available Options.

- ▶ Material certifications for castings - Chemical and mechanical material certifications for castings can be made available upon request
- ▶ Flange connections - ANSI 125#, flat face flange connections available for threaded aluminum units. ANSI 150#, raised face flange connections available for all other material threaded units.

Series	Housing	Flame Arrester Grid Assembly
860	Aluminum 356	Aluminum
C860	Ductile Iron	316 S.S.
E860	Aluminum 356	316 S.S.
F860	316 S.S.	316 S.S.

*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.*



Note: 2" unit has a single flame arresting grid. 3" 4", 6" and 8" units have two flame arrester grids

## DIMENSIONS & ORDERING INFORMATION (Dimensions shown are for reference only, contact Factory for certified drawings.)

Cat. No.*	Flange K	Connection	Ht. A	Width B	Length C	B.C. D	Dia. E	Holes N	Test Lab Listing
862B	2"	Threaded	7"	6 <sup>3</sup> / <sub>8</sub> "	5"	-	-	-	FM / UL
863B	3"	Threaded	7"	7 <sup>1</sup> / <sub>8</sub> "	5 <sup>3</sup> / <sub>4</sub> "	-	-	-	FM / UL
864B	4"	Threaded	7 <sup>1</sup> / <sub>8</sub> "	9 <sup>1</sup> / <sub>4</sub> "	6 <sup>1</sup> / <sub>4</sub> "	-	-	-	FM / UL
866B	6"	Flanged	14"	10 <sup>3</sup> / <sub>4</sub> "	8 <sup>1</sup> / <sub>4</sub> "	9 <sup>1</sup> / <sub>2</sub> "-	7 <sup>7</sup> / <sub>8</sub> "	8	FM / UL
866DNB	DN150	Flanged	356mm	273mm	210mm	240mm	22mm	8	-
868B	8"	Flanged	18 <sup>1</sup> / <sub>2</sub> "	14 <sup>3</sup> / <sub>4</sub> "	10 <sup>1</sup> / <sub>4</sub> "	11 <sup>3</sup> / <sub>4</sub> "	7 <sup>7</sup> / <sub>8</sub> "	12	UL
868DNB	DN200	Flanged	470mm	375mm	260mm	295mm	26mm	12	-

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

## 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.