

## FLAMQUENCH™ II SQ FLAMELESS VENTING

### DESCRIPTION

Fike designs simple, reliable explosion protection solutions to meet your safety requirements. During normal venting, an explosion is freely discharged, allowing flames and dust to exit the process vessel being protected. When the process vessel is located indoors, ducts are generally used to safely convey the explosion outside the building. However the cost of implementing larger explosion vents and ducts limits the practical use due to dramatically decreased venting efficiency.

Fike FlamQuench flameless vents are designed to protect people and equipment from flames and dust. In the event of an explosion, flame and dust discharge into the FlamQuench device. The flame from the explosion is extinguished as it travels through several layers of heat-absorbing stainless steel mesh, while dust screens retain a high percentage of particulate. This allows explosion venting to be utilized indoors or when the vent discharge path can be dangerous to personnel.



*FlamQuench II SQ Flameless Vent*

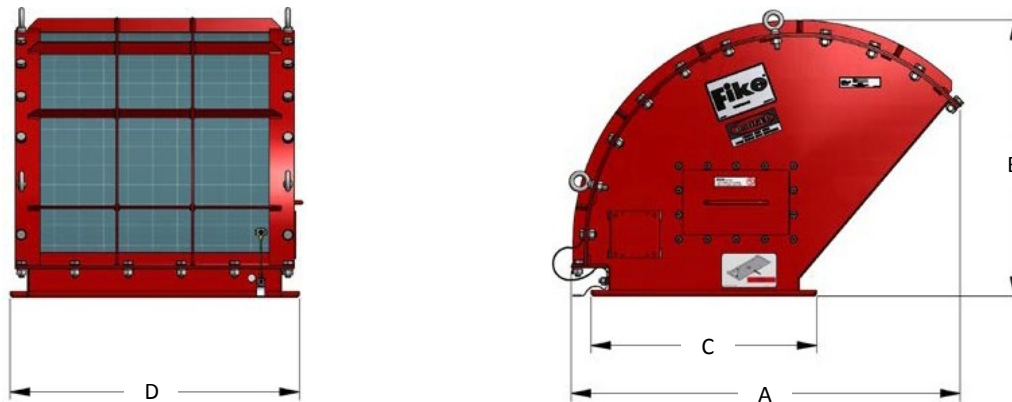
### FEATURES AND BENEFITS

Flame Filter	Prevents flames from emerging from vented areas-perfect for indoor applications and retains high percentage of dust
Eliminate Vent Ducts	Replaces expensive ductwork or relocation of process equipment
Optimal Relief Area	Enhanced venting efficiency over venting with ductwork
Dynamically Tested	Tested under full-scale explosion conditions, not just computer modeling
High Mechanical Integrity	Longer service life
Non-Fragmenting Design	Reduced risk to personnel and equipment
Virtually Maintenance Free	Reduced cost of ownership
Approvals	Independent third party approved and certified (ATEX)

### SPECIFICATIONS

Compliance	NFPA 68, ATEX Certification available (consult factory)
Materials of Construction	Carbon steel, painted with stainless steel screens
Companion Explosion Vents	Rectangular Fike models must be ordered separately with burst indication. Insulated vents, such as the CV-I, should not be used with flameless venting devices.
Installation Location	Device must be installed a minimum distance from walls, equipment and personnel to ensure proper pressure relief and personnel safety. Consult installation manual for details.
Operating Conditions	Device is not exposed to process conditions. Choose explosion vent to match operating conditions. Maximum process temperature is 500°F.
Environmental Conditions	Ambient pressure and temperature (-40° – +140°F). Keep device free of deposits.
Hazard	Non-metallic, non-fibrous dusts Class ST1 explosions ( $K_{st} \leq 200 \text{ bar.m/s}$ ) $P_{red} \leq 1 \text{ bar} / 14.5 \text{ psi}$ . ( $P_{red} \leq 0.7 \text{ bar} / 10.15 \text{ psig}$ for 36" x 36", 36" x 44" and 38" x 46") Consult factory when more than 1 device is required or protected volume $> 20 \text{ m}^3$ (706 ft <sup>3</sup> ).
Accessories	Burst indicator lead cables, mounting bases, gaskets, dust covers and reload kits

**SPECIFICATIONS**



Flame Filter Assembly		Dimensions				Approximate Weight
FlamQuench II SQ Size/Type	P/N	A	B	C	D	Lbs. (kg)
18" X 24"	E34-004-1824	37.60 in (955 mm)	26.73 in (679 mm)	21.46 in (545 mm)	27.48 in (698 mm)	230 lbs (104 kg)
18" X 35"	E34-004-1835	37.28 in (947 mm)	26.55 in (674 mm)	21.65 in (550 mm)	38.66 in (982 mm)	302 lbs (137 kg)
24" x 24"	E34-004-2424	47.31 in (1202 mm)	32.35 in (822 mm)	27.65 in (702 mm)	27.66 in (703 mm)	310 lbs (141 kg)
24" X 36"	E34-004-2436	47.48 in (1206 mm)	32.72 in (831 mm)	27.48in (698 mm)	39.49 in (1003 mm)	400 lbs (181 kg)
36" X 36"	E34-004-3636	67.2 in (1707 mm)	45.9 in (1165 mm)	39.5 in (1003 mm)	39.5 in (1003 mm)	705 lbs (320 kg)
36" x 44"	E34-004-3644	67.06 in (1703 mm)	45.92 in (1166 mm)	39.66 in (1007 mm)	47.66 in (1211 mm)	783 lbs (355 kg)
38" x 46"	E34-004-3846	70.51 in (1791 mm)	46.69 in (1186 mm)	41.73 in (1060 mm)	49.72 in (1263 mm)	845 lbs (383 kg)
<b>Metric Sizes</b>						
400 x 500 mm	91200000	35.24 in (895 mm)	25.39 in (645 mm)	20.16 in (512 mm)	24.09 in (612 mm)	165 lbs (75 kg)
500 x 500 mm	91201000	41.73in (1060 mm)	29.33 in (745mm)	24.09 in (612 mm)	24.09 in (612 mm)	201 lbs (91 kg)
500 x 800 mm	91204000	41.73in (1060 mm)	29.33 in (745 mm)	24.09 in (612 mm)	35.91in (912 mm)	254 lbs (115 kg)
470 x 570 mm	91212000	39.76 in (1010 mm)	28.15 in (715 mm)	22.91in (582 mm)	26.85 in (682 mm)	203 lbs (92 kg)
566 x 900 mm	91213000	45.98 in (1168 mm)	31.89 in (810 mm)	26.69 in (678mm)	39.84 in (1012 mm)	304 lbs (138 kg)
1110 x 1110 mm	91217000	81.18 in (2062 mm)	54.09 in (1374 mm)	48.70 in (1237 mm)	48.70 in (1237 mm)	783 lbs (355 kg)

*Note: The FlamQuench II SQ Flameless Venting device is designed for multiple uses. Contact the factory for details in the event of an explosion.*