

FLAMQUENCH™ 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.



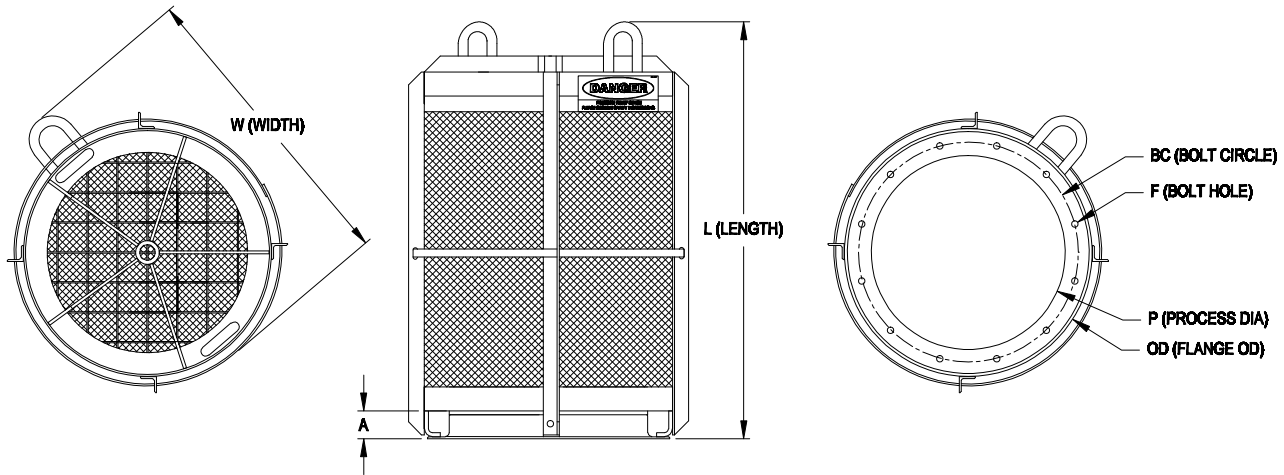
FlamQuench Flameless Vent

STANDARD 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
Field Refurbishment	Save time and money with easy refurbishment kits after an explosion
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

SPECIFICATIONS

Compliance:	FM approved through 24", NFPA 68, ATEX Certification available (consult factory)
Materials of Construction:	316 SST
Companion Explosion Vents:	Circular 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 Pressures and Temperatures (-40 - 140°F). Keep device free of deposits
Hazard:	Non-metallic organic dusts with flame temperatures of $\leq 1500^{\circ}\text{C}/2732^{\circ}\text{F}$ Kst ≤ 300 bar meters/sec or less Pred ≤ 1 bar / 14.5 psig. Maximum process temperature is 500°F Vessel volume $\leq 20\text{m}^3$
Accessories:	Burst indicator lead cables, mounting bases, gaskets, dust covers and reload kits



ORDERING INFORMATION

Fike P/N	FlamQuench II Size (IN)	P	OD	BC	F	Bolt Qty	Torque (Ft.-Lbs.)
E34-001-08	8	8 1/8	10 5/8	9 1/2	5/16	8	30
E34-001-12	12	12 3/16	15 3/16	13 13/16	3/8	12	30
E34-001-14	14	14 3/16	17 3/16	15 13/16	3/8	12	30
E34-001-16	16	16 1/4	19 1/4	18 1/8	3/8	16	30
E34-001-20	20	20 1/4	23 1/4	22 1/8	3/8	20	30
E34-001-24	24	24 1/4	27 1/4	26 1/8	3/8	20	30
E34-001-30	30	30 1/4	34 1/4	32 1/2	1/2	28	50
E34-001-36	36	36 1/4	40 1/4	38 1/2	1/2	32	50
E34-001-40	40	40 1/4	44 1/4	42 1/2	1/2	36	50

Fike P/N	FlamQuench II Size (IN)	L	W	A	Weight Lbs.	Gasket Inside Diameter	Gasket Outside Diameter
E34-001-08	8	23 1/2	13	1 3/4	44	8 1/8	10 5/8
E34-001-12	12	26 1/4	19	1 3/4	80	12 3/16	15 3/16
E34-001-14	14	31 1/2	22 1/4	2 1/2	113	14 3/16	17 3/16
E34-001-16	16	35 1/2	25	2 1/2	168	16 1/4	19 1/4
E34-001-20	20	35 1/2	28 1/2	2 1/2	199	20 1/4	23 1/4
E34-001-24	24	57 3/4	32 1/2	2 1/2	402	24 1/4	27 1/4
E34-001-30	30	86 1/4	38 3/4	2 1/2	635	30 1/4	34 1/4
E34-001-36	36	88 1/4	46 1/4	2 1/2	804	36 1/4	40 1/4
E34-001-40	40	88 1/4	49 3/4	2 1/2	965	40 1/4	44 1/4