

FIKE EXPLOSION PROTECTION SOLUTIONS

EXPLOSION VENTING PRODUCT GUIDE



Fike[®]



Fike EXPLOSION PROTECTION SOLUTIONS



At Fike we know that safety is no accident. That's why we provide simple, reliable explosion protection solutions for your growing safety needs. With over six decades of field experience and a team of in-house engineers, application specialists, and combustion researchers, we understand your industrial processes, relevant code compliance, and how critical continued plant operation is to you. Fike's high quality vents can be installed easily – usually by your own personnel. There's no maintenance. With Fike explosion vents and our full range of safety solutions, your plant stays up and running.

Selected benefits of choosing Fike as your industrial safety resource for explosion vents:

- Vents are dynamically tested and validated under full-scale explosion conditions — Fike exclusive!
- Stock program gives you the best prices and speed delivery — Fike exclusive!
- Optimal relief area with broadest range of sizes and configurations
- Certified burst pressure offers predictable, full opening
- Facility-wide monitoring with burst indicators and monitors - Fike exclusive

Explosion Vent Types				Performance Attributes						Compliance	
				Operating Ratio	Temperature Range	Vacuum Rating	Non-Fragmenting	Pulsating/Cycle	Sanitary		
	Fike Model	Design	Burst Pressure Range								
Square / Rectangular	Bulged	CV-S	Composite	70 - 1000 mbarg 0,07 - 1,0 kg/cm ²	85%	-40 - 260°C	•••	•	••		ATEX / CE NFPA 68
		CV-CF	Composite	35 - 1000 mbarg 0,04 - 1,0 kg/cm ²	85%	-40 - 120°C	••	•	•••		ATEX / CE NFPA 68
		CV-S-I	Composite	35 - 1000 mbarg 0,04 - 1,0 kg/cm ²	85%	-40 - 600°C	•••	•	••		CE NFPA 68
		Sani-V-S	Single element integrated frame and gasket	40 - 1000 mbarg 0,04 - 1,0 kg/cm ²	85%	-40 - 240°C	••	•	•••	•	ATEX / CE NFPA 68 CIP / SIP
		Sani-VS/A	Single element integrated frame and gasket	40 - 100 mbarg 0,04 - 0,1 kg/cm ²	85%	-40 - 110°C	••	•	•••	•••	ATEX / CE NFPA 68 CIP / SIP 3A / EHEDG
	Flat	CV	Composite	35 - 1000 mbarg 0,04 - 1,0 kg/cm ²	60%	-40 - 260°C	••	•	•		ATEX / CE NFPA 68
		CV-I	Composite	35 - 700 mbarg 0,04 - 0,7 kg/cm ²	60%	-40 - 600°C	••	•	•		CE NFPA 68
		Sani-V	Single element integrated frame and gasket	35 - 1000 mbarg 0,04 - 1,0 kg/cm ²	60%	-40 - 240°C	••	•	•	•	ATEX / CE NFPA 68
		Sani-V/A	Single element integrated frame and gasket	35 - 100 mbarg 0,04 - 0,1 kg/cm ²	60%	-40 - 110°C	••	•	•	•••	ATEX / CE NFPA 68 CIP / SIP 3A / EHEDG
		EleGuard	Single element integrated frame and gasket	50 - 200 mbarg 0,05 - 0,20 kg/cm ²	25%	-20 - 60°C			•		ATEX / CE NFPA 68
Round	Bulged	CV-S	Composite	70 - 1000 mbarg 0,07 - 1,0 kg/cm ²	85%	-40 - 260°C	•••	•	••		ATEX / CE NFPA 68
		CV-CF	Composite	35 - 1000 mbarg 0,04 - 1,0 kg/cm ²	85%	-40 - 120°C	••	•	•••		ATEX / CE NFPA 68
		CV-S-I	Composite	35 - 1000 mbarg 0,04 - 1,0 kg/cm ²	85%	-40 - 600°C	•••	•	•		CE NFPA 68
	Flat	CV	Composite	35 - 1000 mbarg 0,04 - 1,0 kg/cm ²	60%	-40 - 260°C	••	•			ATEX / CE NFPA 68
		CV-I	Composite	35 - 700 mbarg 0,04 - 0,7 kg/cm ²	60%	-40 - 600°C	••	•	•		CE NFPA 68
		Sani-V/A	Single element integrated frame and gasket	35 - 100 mbarg 0,04 - 0,1 kg/cm ²	60%	-40 - 110°C	••	•	•	•••	ATEX / CE NFPA 68 CIP / SIP 3A / EHEDG

• Good •• Better ••• Best

PRODUCT OVERVIEW

EXPLOSION PROTECTION

HIGH INTEGRITY

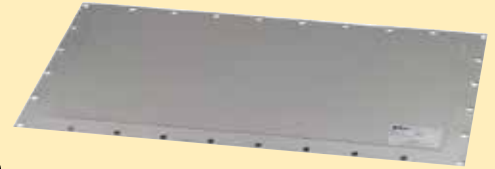
- Special design prevents fragmentation even during the most violent explosions
- Flange alignment independent
- Available for CV, CV-S, and CV-CF round vents
- Stock program*



CV

- Long-lasting service for static to light-pressure cycling conditions
- Stock program*

60%



CV-S

- Optimal for full vacuum process conditions with some pulsating / cycling
- Stock program*

85%



CV-CF

- Extended service life under heavy pulsating and cycling process conditions

85%



SANITARY EXPLOSION PROTECTION

Sani-V(S)

- Single membrane, integrated frame designed for bolt-on installation
- Stock program*

85%**



** Operating ratio for Sani-V is 60%.
** Pulsating Cycle for Sani-V is good

Sani-V(S)/A

- Single membrane, integrated frame designed for bolt-on installation
- Stock program*

85%**



** Operating ratio for Sani-V/A is 60%.
** Pulsating Cycle for Sani-V/A is good

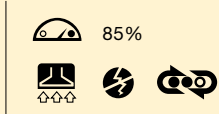
Explosion Vent Considerations:

- Difficult to protect equipment inside buildings because combustion by-products (heat, flame, off-gasses) must be released or vented to a safe location
- Does not prevent fire damage
- Cannot be used if toxic or environmentally detrimental materials will be vented into the atmosphere
- In some cases very large vents areas may be needed for low-pressure structures

CONSULT WITH FIKE FOR YOUR APPLICATION !

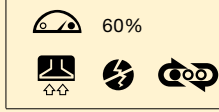
CV-S-I

- Optimal for high temperature vacuum process conditions with some pulsating / cycling
- Stock program*



CV-I

- Insulation extends service life in high temperature applications



ELEGUARD

- Integrated frame designed for bolt-on installation
- Designed and priced to protect bucket elevators
- Stock program*



*Stock program varies by market

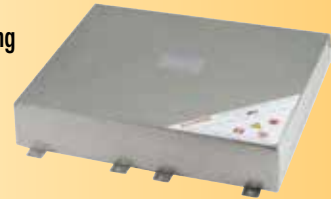
EXPLOSION VENT ACCESSORIES

- High quality installation **FRAMES** in a variety of materials and designs

- Easy plant-wide monitoring with **BURST INDICATORS** and monitoring



- Extend the service life of vents with **ENVIRONMENTAL PROTECTION** that reduces the effects of dirt, wind, and snow while maintaining vent functionality



- Protect your equipment and vents with **PROCESS** and **ATMOSPHERIC INSULATION** options.

Ideal for high-temperature conditions, to reduce energy loss, condensation effects, and acoustic emission levels



TESTING

- DEFINE THE **CHARACTERISTICS** OF AN EXPLOSION IN YOUR PLANT
- **IDENTIFY VULNERABLE PROCESS AREAS**
- DESIGN **PREVENTION** AND PROTECTION **SAFETY** MEASURES

CONTACT FIKE for a hazard evaluation.



Fike® FLAMELESS EXPLOSION VENTING



Normal venting



Flameless venting

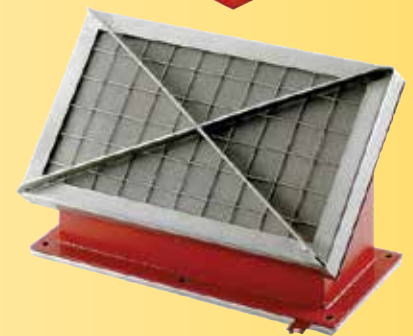
During normal venting, an explosion is freely discharged, allowing flames and dust to exit the process vessel being protected. When the process vessel is located indoors, ducts are generally used to safely convey the explosion outside the building. However the cost of implementing such ducts and dramatically decreased venting efficiency limits the practical use of ducts. Flame arresters are designed to protect people and equipment from flames and dust, releasing post-combustion gases only.

- Eliminates need for expensive ducts
- Enhanced venting efficiency over venting with ductwork
- Choose explosion vent to match operating conditions
- No maintenance

FlamQuench II SQ™ For use with rectangular vents



FlamQuench™ For use with round vents Field refurbish kits available



EleQuench™ For use with EleGuard explosion vents

FLAMELESS EXPLOSION VENTING CONSIDERATIONS

Flameless venting is an alternative to vent ducting and very suitable for the retrofitting of existing installations.

Flameless venting indoors will generate pressure in the surrounding volume. Expected overpressure should be compared to the building design and building venting should be considered to limit overpressures.

The venting efficiency factors of the venting and flameless venting devices are manufacturer product specific. Specific limitations on volume and fuel characteristics may apply. It is essential that the user work closely with the manufacturer to ensure that all of the parameters are addressed for a safe, reliable installation.

CONTACT FIKE

Fike Corporation is a global team of experienced professionals dedicated to life and business safety. We work closely with our clients to solve highly complex problems with easy-to-use products and services.

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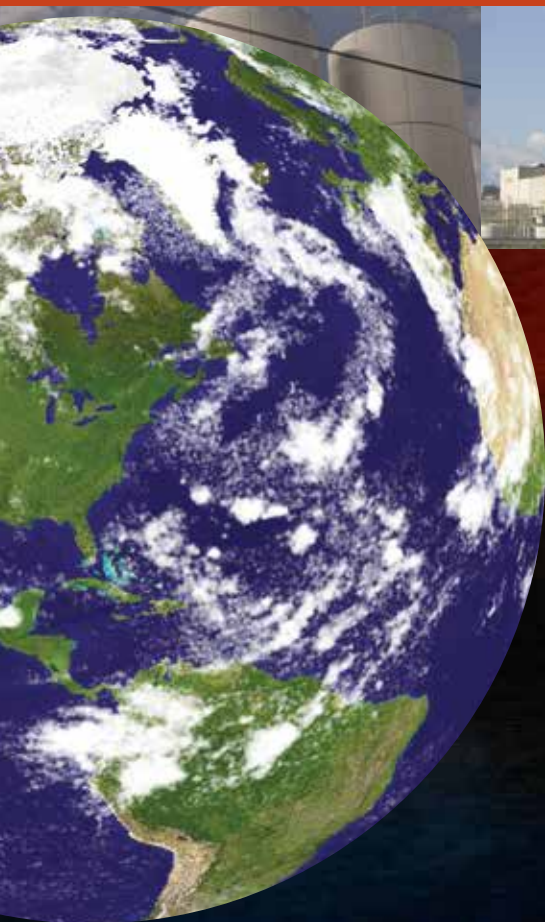
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