

INNOVATIVE, PROVEN,

COST-EFFECTIVE

**TECHNOLOGY** 







# Fike Expertise

Fike is the leader in delivering patented, innovative technologies to the explosion protection market. With over 65 years of field experience, Fike understands the complexities of plant processes, relevant code compliance and the critical nature of continued plant operation.

Proven to be one of the most effective forms of passive explosion protection, explosion venting provides overpressure protection from potential deflagration hazards by providing a planned pathway for the expanding gases to escape. Fike is a leader in the development of effective, cost efficient, ATEX certified explosion venting solutions. Economically priced and offering a long service life, Fike's wide range of explosion venting solutions are ideal for many applications.

# Fike Explosion Vents

- Require little to no maintenance
- Proven to perform as designed and all models' performance is validated using large scale explosion tests
- Engineered to provide optimal performance characteristics:
  - Low mass
  - Cyclic pressure capability
  - Vacuum resistance
  - High venting efficiency
  - Certified burst pressures (P<sub>STAT</sub>)
- Full opening, non-fragmenting vent design, eliminating restraints
- No moving parts for greater reliability
- · Low product cost, simple installation, and long service life
- Weather covers, burst indicators, insulation and vacuum bar options available

| COMPOSITE EXPLOSION VENTS       |  | Burst Pressure<br>Range            | Operating<br>Ratio | Non-<br>Fragmenting | Vacuum<br>Rating | Pulsating/<br>Cyclic | Explosion Vent<br>Stocking Program |
|---------------------------------|--|------------------------------------|--------------------|---------------------|------------------|----------------------|------------------------------------|
| Round and sq                    | ole<br>n static to light pressure cycling conditions<br>uare/rectangular configurations  | 0.5 - 10.0 PSIG<br>35 - 690 MBARG  | 60 - 75%           | Yes*                | Partial          | Good                 | Yes                                |
| Round and sq                    | ance vent<br>ice life for pressure cycling/pulsating conditions<br>uare/rectangular configurations   | 1.0 - 15.0 PSIG<br>69 - 1030 MBARG | 80 - 90%           | Yes*                | Full/Partial     | Best                 | Yes                                |
| Long lasting i<br>Round and sq  | ull vacuum conditions with use of backup bars<br>n static to light pressure cycling conditions<br>uare/rectangular configurations              | 0.5 - 10.0 PSIG<br>35 - 690 MBARG  | 60 - 75%           | Yes                 | Full             | Good                 | Yes                                |
| For use in hig                  | vice life under heavy pulsating and cycling conditions<br>her vibration applications<br>uare/rectangular configurations                        | 0.75 - 10.0 PSIG<br>52 - 690 MBARG | 60 - 75%           | Yes*                | Partial          | Best                 |                                    |
| Insulation ext                  | ends service life in high temperature applications<br>uare/rectangular configurations  | 0.5 - 15.0 PSIG<br>35 - 1030 MBARG | 60 - 75%           | Yes                 | Partial          | Good                 |                                    |
| Insulation ext<br>Superior serv | ends service life in high temperature applications<br>ice life for pressure cycling/pulsating conditions<br>uare/rectangular configurations    | 0.7 - 15.0 PSIG<br>50 - 1030 MBARG | 80%                | Yes                 | Full             | Better               |                                    |
| NITARY EXPLO                    | OSION VENTS  |                                    |                    |                     |                  |                      |                                    |
| Integrated fra                  | mance over a wide range of temperatures<br>me design for easy installation<br>compliant materials  | 0.3 -10.2 PSIG<br>21 - 703 MBARG   | 80%                | Yes                 | Partial          | Best                 |                                    |
| Integrated fra                  | OG Certified; Designed for clean production environments<br>me design for easy installation<br>et; FDA compliant materials                     | 0.3 -10.2 PSIG<br>21 - 703 MBARG   | 80%                | Yes                 | Partial          | Best                 |                                    |
| CIP / SIP; FDA                  | nomical<br>me design for easy installation<br>compliant materials  | 0.5 - 6.5 PSIG<br>35 - 448 MBARG   | 50%                | Yes                 | Partial          | Good                 |                                    |
| Sanitary gask                   | OG Certified<br>me design for easy installation<br>et; FDA compliant materials   | 0.5 - 6.5 PSIG<br>35 - 448 MBARG   | 50%                | Yes                 | Partial          | Good                 |                                    |
| Simple, reliab                  | ess side supports hygienic applications<br>ole; Long lasting in static to light pressure cycling conditions<br>uare/rectangular configurations | 0.5 -15.0 PSIG<br>35 -1030 MBARG   | 60 - 75%           | Yes                 |                  | Good                 |                                    |
| GH PERFORMA                     | NCE / SPECIAL APPLICATION EXPLOS   | SION VENTS                         |                    |                     |                  |                      |                                    |
| VMAX™<br>Stable perform         | mance over a wide range of temperatures  | 0.5 - 5.0 PSIG<br>35 - 345 MBARG   | 80%                | Yes                 | Partial          | Best                 | Yes                                |
|                                 | D <sup>®</sup> cifically to protect bucket elevators me designed for easy installation   | 0.7 - 2.9 PSIG<br>50 - 200 MBARG   | 25%                | Yes                 |                  | Good                 |                                    |

<sup>\*</sup>Larger diameters may require the optional High Integrity model to prevent fragmentation. Please consult factory.

# Vent Stocking Program

Fike's Stock Explosion Venting Program gives you the added advantages of quick turn-around and reduced costs. When you select one of the listed stock vents, you realize shipment within 48 hours\*, at a price less than a custom manufactured vent.

Select from the following venting solutions, each available in multiple sizes.

- CV Ideal for static to light pressure cycling and light vacuum conditions.
- CV-S Optimal for full or moderate vacuum process conditions with some pulsating/cycling.
- CV-SF Supports full vacuum conditions with use of back-up bars in the frame assembly.
- VMAX Multi-domed, high performance explosion vent provides excellent service life in challenging process conditions, stable performance over a wide range of temperatures and is vacuum rated.

TIME IS MONEY, AND YOU SAVE BOTH WITH FIKE'S GLOBAL STOCK EXPLOSION VENT PROGRAM

\*Stock program varies by market

# Vent Accessories

- High quality installation FRAMES are available in a variety of materials and designs.
- Easy plant-wide monitoring with **BURST INDICATORS**.
- PROTECTION WEATHER COVERS

  are lightweight, corrosion resistant
  environmental protection. Weather
  covers minimize the effect of dirt, wind, snow, etc.,
  while safeguarding the operation of the explosion vent.

# Flameless Explosion 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, ductwork has disadvantages and may result in decreased venting efficiency. Flameless venting, in combination with Fike explosion vents, can extinguish the flame from the vented explosion without the use of expensive ducting, limitations to equipment location, or more costly explosion protection.





- Eliminates need for expensive ducts
- Enhanced venting efficiency over venting with ductwork
- · Virtually maintenance free

Highly suited for indoor applications, flameless venting is designed to protect people and equipment from flames and dust, releasing post-combustion gases only.



FlamQuench II™

- · For use with round vents
- Field refurbish kits available
- FM/CE Approvals



FlamQuench SQ

- · For use with rectangular vents
- Field refurbish kits available
- CE Approvals



EleQuench®

- For use with EleGuard explosion vents
- CE Approvals

# **Testing Services**

Every application, process and facility is unique and requires a complete assessment to determine what needs to be protected and the most effective means for accomplishing the safety goals. Fike offers a wide range of both standard and non-standard explosibility tests designed to assist companies in identifying and mitigating costly explosion hazards — all completed at Fike's own state-of-the-art testing laboratories.

Contact Fike for a hazard evaluation.

Fike offers full-scale hazard explosion testing

- Define the characteristics of an explosion hazard in your plant
- Identify vulnerable process areas
- Design prevention and protection safety measures



# CONTACT FIKE

Fike 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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U.S. Patents including 4,662,126; 4,821,909; 6,070,365; 6,959,828; 7,017,767; 7,234,278; 5,105,370; 5,105,371; 5,107,446; 5,138,562; 5,199,500; 5,647,438; 5,718,294; 5,816,330; 6,031,462; 6,131,594; 6,540,029 Additional foreign patents and U.S. patents pending.