## THE PACESETTER IN

# EXPLOSION SAFETY

## **INNOVATION**

**EXPLOSION PROTECTION** 

SOLUTIONS YOU CAN

COUNT ON WORLDWIDE.







In today's competitive business world, making sure your production process continues to work smoothly is crucial to your company's bottom line. That's why you can rely on Fike. We know safety is no accident. Our simple, reliable explosion protection solutions fit your growing safety needs. With our field experience and a team of in-house engineers, application specialists, and combustion researchers, we understand your plant's processes, relevant code compliance, and how critical continued plant operation is to you. We stand behind our products with a commitment to quality, full-scale explosion testing capabilities and explosion expertise.



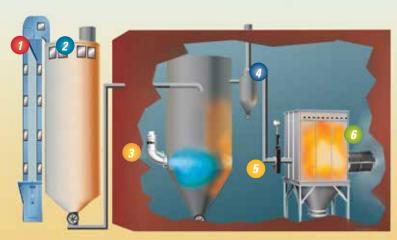
Explosion protection is the best solution to avoiding costly disasters.

Fike complies with or is approved by global third party approval agencies, including:

- ISO 9001 and EN29001
- ATEX Directive 94/9/EC
- NFPA 68 and 69
- Factory Mutual
- Canadian Standards Association
- CE
- PED and SIL (Safety Integrity Level)

This combined with full-scale explosion testing capabilities for all products and patented technology lends strength and confidence to Fike's explosion protection solutions.

### FIKE EXPLOSION PROTECTION SOLUTIONS AT WORK



Fike is a uniquely qualified provider for total explosion protection solutions -

- A bucket elevator is protected by Fike's Eleguard vent panels.
- *2 Fike vent panels protect a grain silo.*
- *3* Fike system disperses suppressant to extinguish a dryer explosion.
- A cyclone is protected by a ducted explosion vent and accompanying weather cover.
- Fike's high speed explosion isolation valves and/or chemical barrier system prevent explosion propagation through fuel laden pipes.
- 6 FlamQuench II protects dust collector located inside the building, without expensive ductwork.

AUTO COATINGS VENTILATION

PLASTICS

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### HAZARD ANALYSIS TESTING AND SUPPORT



Fike's Remote Large Scale Testing Facility is used for research, data collection, validation and testing of safety protection equipment.



The hazard in your process plant can be duplicated, controlled, studied and monitored to determine the best choice for safety.



10m<sup>3</sup> sphere for large-scale combustion research



1m<sup>3</sup> laboratory research testing vessel

Large scale testing of a Fike mechanical explosion isolation valve



Chemical isolation testing at remote site



Fike customizes testing equipment, complex set-ups and data evaluation for specific client requirements.

Fike's comprehensive state-of-the-art explosion testing laboratories verify the right protection strategies for your plant. Our testing defines your products' hazard characteristics, which helps you manage your process and select the right safety equipment. The lab complies with recognized international standards for hazard testing including ASTM and EN.

From a simple explosibility screening test to custom large-scale projects, our capabilities include explosibility parameters, flammability limits, auto-ignition temperature, minimum ignition energy, and more. All of Fike's explosion protection products have been tested under full-scale explosion conditions. We have tremendous depth of experience in a broad range of applications and installations, and are active members of technical standards committees such as CEN, NFPA, VDI, and ASTM.

## PROVEN PERFORMANCE AND WORLDWIDE EXPERTISE

Get unparalleled explosion protection control, monitoring, and reporting with Fike's EPACO Explosion Protection Control System. With Fike, you choose the level of protection, information, and plant integration. The EPACO system can be customized to accommodate your plant's process conditions. Combined with Fike's pressure and optical detectors, the EPACO system offers enhanced system stability and scalable design, which minimizes shutdowns, reduces costs, and delivers unparalleled explosion protection.

FM, ATEX, CSA, and CE approved.

Fike's exclusive EPWorks<sup>™</sup> software reports system status, pressure readings, and pre/post system activation history in easily understandable graphs, giving you more information at your fingertips. Fike's exclusive bus technology communicates system status, activates system protection, and allows for remote access.

Refine and further integrate the explosion protection system for your process with optional expansion modules:

- Annunciator Module: Command/communication central, located in office or a safe, convenient place.
- Relay Card: Relays for process equipment interface allowing the system to discriminate between critical and non-critical trouble conditions.
- Power Supply: uninterruptible power supply.

Fike's innovative system gives you total control of your business and confidence in your protection.



Fike detection and control for total process supervision. 1. Fike EPWorks<sup>™</sup> provides in-depth analysis. 2. Fast, reliable EPACO<sup>™</sup> detectors. 3. Mix and match EPACO<sup>™</sup> modules to suit application.



SOLUTIONS FOR LIFE AND BUSINESS SAFETY

suit application

An optimum explosion suppression system must quickly deliver a properly distributed and sufficient amount of suppressant agent into the explosion to stop its further development.

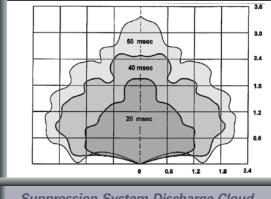


HRD suppression containers provide fast reaction time



Chemical Isolation

Simple container design for greater reliability and leak free operation



Suppression System Discharge Cloud Profile (distance in m)

Fike is the leader in suppressing all classes of dust, gas, and hybrid explosion hazards. Fike's innovative Gas Cartridge Actuators release suppressant agents without an explosive charge and have a 10-year shelf life. Patented container and nozzle designs eliminate flow restrictions, extinguishing the explosion faster, minimizing pressure build-up inside process equipment. The simple design of the suppression container has no moving parts or wear points, for unparalleled reliability in explosion protection. Options are available for a variety of agents and special sanitary applications.

## FM and ATEX approved

### SYSTEM DESIGN

Fike Engineers are qualified professionals who are trained to relate explosion and process characteristics

to the suppression systems performance. Fike has developed a proprietary software tool **EPDesigner™** which enables complex problems to be solved

and computes the optimum suppression system design.

### WORLDWIDE ACCESS

WHEN YOU NEED IT

## Prevent the spread of an explosion

The Fike ValvEx<sup>®</sup> Passive Explosion Isolation Valve prevents explosion propagation against the normal process flow. The ValvEx<sup>®</sup> is a truly passive explosion isolation device which provides protection at the lowest cost of ownership.

I-Flex™ Valve



ValvEx<sup>®</sup> Passive Explosion Isolation Valve

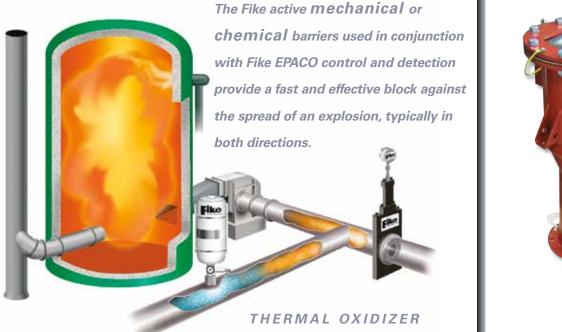
The Fike I-Flex<sup>™</sup> is a semi-active Explosion Isolation Valve which requires a minimum control and detection measures to provide a mechanical block against pressure, flame or sparks. This valve is field resettable and successfully combines the protection function with the use as a process valve.



Mechanical Isolation Valve



Flow-Actuated Explosion Isolation Float Valve





Explosion Diverter

### COST-EFFECTIVE AND

EASY TO MAINTAIN SOLUTIONS

Fike's innovative approach to venting and flameless venting solutions provides protection you can rely on.

Through full-scale explosion testing and research, Fike has developed vents with optimal relief areas, the broadest range of sizes, and certified burst pressures. Innovative features like integrated frames, specialty materials, protective covers, and other options are available. We provide facility-wide monitoring to instantly alert your staff and relays to adjust your processes.



FlamQuench II flameless venting protects indoor dust collector.

Fike's exclusive vent stocking program provides quick delivery on a wide selection of premium



quality explosion vents at significantly reduced costs.

For indoor venting, or where flameless venting is required, Fike offers several models to suit your application.





Normal Venting Flameless Venting with FlamQuench II™

High Integrity (HI) Vent

Fike HI Vents are non-fragmenting

When you combine our wealth of experience with our reputation for breakthrough solutions in explosion protection, Fike adds up to the right choice every time.

### 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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