

OVERPRESSURE PROTECTION FOR
SANITARY APPLICATIONS

PHARMACEUTICAL

BIOTECH

FOOD & BEVERAGE



SANITARY SOLUTIONS from FIKE

There are unique challenges in the Biotech, Pharmaceutical and Food & Beverage industries. With over 60 years experience and a dedication to innovative technologies, Fike has developed a complete line of pressure relief products designed to meet these stringent sanitary and hygienic requirements.

And Fike listens ... taking suggested improvements directly from our customers and incorporating them into the design of our sanitary rupture discs and explosion protection products. Our attention to detail has led to many satisfied customers ... and a long list of innovative patented products.

- **Comprehensive selection of ASME, CE and 3-A rupture/ bursting discs**
- **High performance explosion vents specifically designed for sanitary applications**
- **Complete line of explosion protection and overpressurization products designed for CIP/SIP applications**
- **Commitment to quality, reliable products delivered on-time**



Fike®

- **24/7 Emergency response support**
- **Trained global representative network**
- **Extensive line of standard products and full custom designed solutions**
- **Comprehensive product / application testing capabilities**
- **ASME Certified Flow Lab**
- **Metallurgy Lab**
- **Explosion testing and analysis**
- **Large-scale explosion test site**
- **On-line, easy access order status**
- **Commitment to on-time delivery**
- **Competitive prices on quality products**

FIKE IS THE RIGHT CHOICE

Supplying quality products is important to Fike. Continued support is crucial. Fike has well-trained resources to meet your installation, service, and maintenance requirements. And with over 75% of Fike managers with 10+ service years, you can depend on consistent, experienced customer and product support.

Innovation is another key. Fike built its reputation on research, development, and product testing. We are constantly striving to find new, innovative and cost-effective solutions for our customer's applications.



SETTING PERFORMANCE STANDARDS

Fike is committed to safety and reliability by continually researching new technologies, developing new products and performing extensive testing.

ADVANCED RUPTURE DISC TECHNOLOGY

The AXIUS® line of rupture discs represents the most innovative technological advance in pressure relief manufacturing in over 30 years. Designed and manufactured using Fike's proprietary G2 technology, the Axius surpasses other low pressure discs in every performance category. Through the application of this new technology, the AXIUS rupture disc has no score line, no stress zones that can fatigue and no tool marks or indentations on the process side of the disc, making AXIUS the ONLY 95% operating ratio disc with a completely smooth process surface.



Fike's rupture discs are used in a variety of sanitary applications, such as chemical synthesis, fermentation, extraction, formulation and packaging; and fit many types of equipment:

- Flammable liquid storage containers
- Pelletizer / tablet coater
- Storage tanks
- Process piping
- Batch process vessel / reactors
- Autoclave / sterilization
- Safety valve protection & isolation from corrosive media

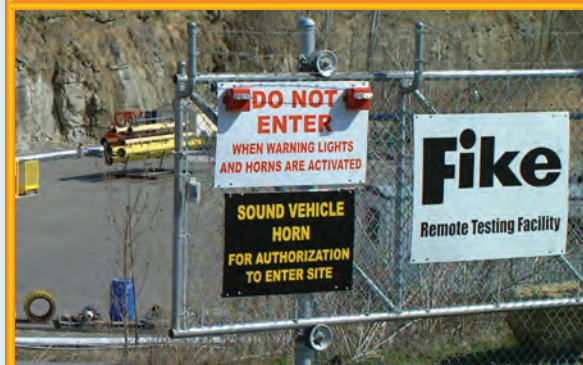
ADVANCING EXPLOSION PROTECTION

Fike is dedicated to providing the most reliable, effective safety products available. Comprehensive testing is performed in order to evaluate new Fike equipment/products, test customer's equipment or material performance, and/or to test specific customer applications.

Unique within the pressure relief and explosion protection markets, Fike maintains several comprehensive research and testing facilities. In addition to the main 13,000 sq.ft. test lab facility, Fike operates a 26,000 sq.ft. remote, large scale testing area, where noise events and release of flame can be done safely. Fike has the facilities and resources to perform all standard and many non-standard tests.

Don't just assume when it comes to the protection of your vital resources – utilize the Fike resources that are dedicated to producing quality, reliable safety protection.

**ASME Certified Flow Laboratory
Metallurgical Lab
Explosibility Testing
Product Capability Testing
Industry Testing Support**



RUPTURE / BURSTING DISCS

AXIUS SC: Smooth, Reverse Acting, 1 – 4" (25 - 100 mm), DN40 & DN50



Made with 316/316L Stainless Steel, the Axius SC has the smoothest, indentation-free process surface of any low-pressure rupture disc. Free of features that may trap contaminants, the Axius SC is superior for CIP/SIP applications.

- 95% operating ratio
- Non-fragmenting and provides an excellent means of isolating relief valves
- Cycling & pulsating duty meets or exceeds industry requirements
- Liquid or vapor applications
- Withstands full vacuum at all catalog pressures
- Standard 12-25 Ra finish

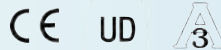


SR-H: Scored, Reverse Acting, 1½ – 4" (40 - 100 mm), DN40 & DN50



Convenient and easy to clean, the versatile SR-H works in both gas and liquid.

- 90% operating ratio
- Extended service life
- Non-fragmenting
- Standard 12-25 Ra finish



SHX: Cross Scored, Forward Acting, 1 ½ – 2" (40 - 50 mm), DN40 & DN50



The SHX is designed for higher pressures.

- 90% operating ratio
- Superior for heavy cycling and pulsating duty
- Non-fragmenting in both liquid and vapor
- Full vacuum capability
- Hygienic/clean-in-place service
- Standard 12-25 Ra finish



AD-H TC: Flat Composite, 1½ – 4" (40 - 100 mm), DN40 & DN50



The Fike AD Series Rupture Disc is specifically designed for protection of atmospheric vessels.

- Larger sizes are available
- Low burst pressures available
- Teflon liner on process side



LO-V: Bi-Directional - Negative or Positive Pressure Relief, 3 – 8" (80- 200 mm)



The Lo-V is an accurate, bi-directional rupture disc designed to protect processing and storage tanks from implosion or over pressure conditions.

- Superior opening and flow relief
- Non-fragmenting
- Sanitary and bolt-type configurations
- 1" water column minimum burst pressure
- Compatible with competitor holder designs



UNIQUE SANITARY GASKETS



Fike's bead ring design allows for increased sealing and proper alignment in standard ferrules. Fike has 3-A approved gaskets specifically designed to prevent media build-up.

Fike's wide selection of gaskets includes those with 3-A, FDA, USP Class VI approvals: EPDM, Silicone, Viton®, Teflon® and J-1500.

ELECTRO-POLISHING AVAILABLE 8-16 Ra FINISH

STANDARD QUALITY CONTROLLED SANITARY PACKAGING

- Cleaned for sanitary service
 - Discs are nitrogen purged, poly-bagged and sealed
 - Sanitary handling clearly labeled
 - Additional cleaning options included for:
 - Oxygen service
 - Chlorine service
- Per specific customer requirements



No special holder required: used in ASME BPE ferrules, DIN 32676 ferrules and NovAseptic® Connectors (excludes Lo-V)

OPTIONAL INTEGRAL BURST INDICATION



EXPLOSION VENTS

SANI-V-S®: Square or Rectangular, Bulged, Single Element

Specifically designed for CIP/SIP applications, the fail safe design of the Sani-V-S provides instantaneous full opening, eliminating undetected small openings and risks of contamination. This explosion vent can handle partial vacuum conditions and provides stable performance over a wide range of temperatures.

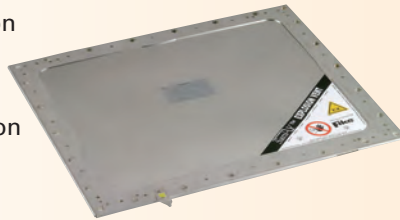
- 80% operating ratio
- Integrated frame for easy installation and cost savings
- High integrity composite design
- Simple, maintenance-free installation
- FDA compliant materials
- Non-fragmenting



SANI-V®: Square or Rectangular, Flat, Single Element

Designed for the specific needs of clean production environments, the Sani-V can handle partial vacuum conditions and provides stable performance over a wide range of temperatures. The integrated frame and process gasket, make installation easy and fast.

- 50% Operating Ratio
- Integrated frame for easy installation and cost savings
- High integrity composite design
- Simple, maintenance-free installation
- FDA compliant materials
- Non-fragmenting



CV-H: Round or Rectangular, Flat, Composite

The CV-H is manufactured from a stainless steel slotted sheet with a pre-determined burst pattern and covered by a Teflon® liner on the process side. This unique design effectively eliminates “pocket areas”, making it great for hygienic and sanitary applications.

- 60 – 75% operating ratio
- Full, controlled opening
- Simple, maintenance-free installation
- Supports applications in static environments



From venting to active explosion protection systems, Fike has the right high-performance products for all your sanitary and industrial applications.

EXPLOSION VENTING

Explosion vents provide a planned pathway for expanding gases to escape. Fike has a complete line of cost-effective, reliable explosion vents, including several high performance vents designed for sanitary applications.

EXPLOSION ISOLATION

Explosion Isolation is designed to prevent an explosion from escalating, by blocking the flame paths that lead to other areas - effectively eliminating secondary explosions. Designed for use with sanitary applications, Fike's explosion isolation systems can be used in conjunction with other explosion protection products.

EXPLOSION SUPPRESSION

Explosion suppression systems do not vent flame or other material, making it the natural choice when toxic materials are being handled, equipment is located indoors, or venting exposes personnel to the pressure/flame discharge. Fike suppression systems offer the fastest, most reliable response time, lower maintenance costs and specific solutions for CIP/SIP requirements.

EXPLOSION DETECTION

Its small size, modular design, pre-configured set-ups, easy installation, global compatibility and sanitary rating, make Fike's EPACO® the most flexible, simple-to-use explosion protection detection and control system.

EPACO



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 5,267,666; 5,467,886; 6,672,389; 6,945,420; 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.

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