



EXPLOSION PROTECTION



fire protection
TECHNOLOGIES



GASEOUS
SUPPRESSION



WATER
SUPPRESSION



FOAM
SUPPRESSION



EXPLOSION
PROTECTION



FIRE
DETECTION



MILITARY
& DEFENCE



SPECIAL
APPLICATIONS



SUPPORT
SERVICES

EXPLOSION VENTS & PRESSURE RELIEF

Explosion venting is the most common explosion protection strategy in use today.

When properly applied, explosion venting will prevent the explosion from reaching potential maximum pressures of 10 bar, or higher. Various types of devices are used to provide explosion overpressure protection, such as certified rupture panels or vents.

Explosion venting provides overpressure protection from potential industrial explosion hazards by providing a planned pathway for the expanding gases to escape. Damage to industrial equipment subjected to explosions can be controlled through the use of explosion vents that are virtually maintenance free.

In addition, safe venting of explosions in electrical switch rooms provide structural integrity and prevent building destruction in the case of an electrical ARC explosion. Our range of explosion relief vents include resettable venting systems specifically for explosion relief of electrical substations and switch rooms.

SPARK SUPPRESSION

Spark detection and extinguishing systems detect and extinguish a spark or burning ember in under 300 milliseconds. This rapid detection and suppression can save dust filters or collection bins upstream from destruction caused by fire.

Detecting a spark in a pneumatic material transport duct at speeds that often exceed 25 meters per second requires a very sensitive and very fast sensing device. Detectors provide the sensitivity, speed, durability and reliability that such an application demands. High speed infrared detectors that actually count sparks can quickly actuate a suppression system that utilises water, CO₂ or other extinguishing agent of choice to effectively protect the operating plant from fires and explosions.

The detectors automatically and immediately reset themselves so that they stand ready to detect any possible subsequent sparks.

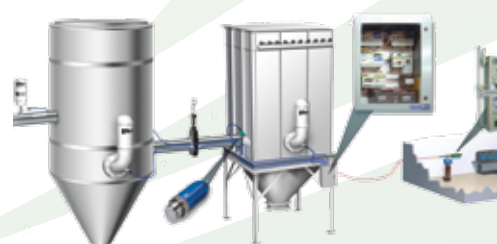
EXPLOSIBILITY TESTING

Explosibility testing provides a basis for safe plant design, operating parameters, and handling procedures. In conjunction with our explosion protection partners, Fike Corporation, we offer a wide range of explosibility tests designed to assist companies in identifying and mitigating costly explosion hazards.

Fike's 'state of the art' testing laboratory is staffed with highly trained technicians, engineers, and combustion scientists; and tests are conducted in accordance with ASTM and CEN standards to assure proper execution and interpretation.

We can provide tests in both small and large scale explosion test vessels. These test vessels are designed and constructed to provide accurate explosion protection data that is scalable to industrial equipment volumes.

Fike also maintains a unique 2,500 sq.m remote test facility for conducting large scale research, product development, and industrial application tests. At this isolated location, full scale tests can be conducted where explosions and release of flame can be carried out safely.



EXPLOSION PROTECTION

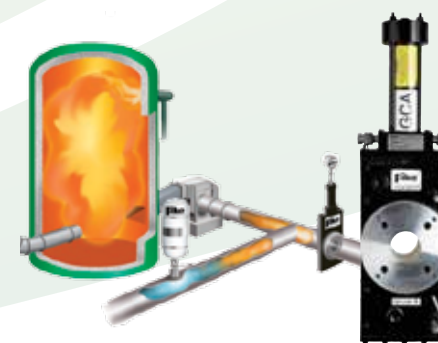


"EVERY SOLUTION FOR YOUR SPECIAL HAZARD PROBLEMS"

"Our unique range of fire and explosion detection is second to none"

Explosion Protection Systems

and devices are used to protect many industrial processes against internal explosions or deflagrations. Our various explosion protection systems extend from simple explosion pressure relief devices to highly developed, ultra high speed explosion detection and suppression systems; operating at millisecond speed to prevent damage and resultant losses from the explosion.



EXPLOSION SUPPRESSION

Explosion Suppression systems are designed to detect and chemically suppress an explosion in its earliest stages before it can cause a disaster or become catastrophic. While unsuppressed explosion pressures can reach dangerous levels in less than 50 milliseconds. This unique technology can detect and respond in less than 1 millisecond - averting a catastrophe.

Additionally, an isolation system prevents the propagation of flames to other process equipment. Patented container and nozzle designs minimise flow restrictions, helping extinguish the explosion faster and minimising pressure build-up inside the process equipment. The suppression container has no moving parts or wear points, increasing the reliability of the system.

EXPLOSION ISOLATION

Total explosion risk management must include ways for preventing crippling business downtime and minimising the devastation of equipment, facility and potential loss of life.

Proven explosion isolation systems prevent the propagation of flame from one part of the process to another through the use of fast-acting explosion isolation valves and/or chemical barriers.

Mechanical explosion isolation involves the use of uniquely designed mechanical valves which provide an actual physical barrier to prevent the spread of an explosion through connecting pipe work.

Chemical explosion isolation is achieved through a rapid discharge of a chemical explosion suppressant to prevent the flame from continuing through to other areas of your process system. An explosion detector initiates the release of the extinguishing agent when it detects a deflagration pressure or flame front preventing the propagation of flame and burning materials.

OUR COMMITMENT *"To provide our customers with the best possible service, the highest quality products and the right solution for your needs"*

PRODUCTS:

Gaseous Suppression



ProInert™ (IG-01, IG-55, IG-100, IG-541)
Novec 1230™ Fluid (FK-5-1-12)
FM-200® (HFC-227ea.)
Carbon Dioxide (CO₂)
Hybrid Systems (N₂ / Water)
Pressure Relief Vents
Enclosure Integrity Testing Equipment
Pipe & Fittings

Water Suppression



Water Mist - High Pressure
Water Mist - Intermediate Pressure
Water Mist - Low Pressure
Hybrid Systems (Water / N₂)
Monitors & Delivery Systems
High Speed Deluge

Foam Suppression



Foam Concentrates
Foam Proportioning
Foam Delivery Systems
Foam Concentrate Testing

Explosion Protection



Explosion Suppression
Explosion Isolation
Explosion Vents & Pressure Relief
Spark Suppression
Explosibility Testing

Support Services



Design / Engineering:

- Design Services
- Project Documentation
- Project Management
- Cost Analysis
- System Hydraulics

Technical Support:

- Design Verification
- Commissioning
- Hazard / Risk Analysis
- Product After Sales Service
- Field Support

Fire Detection



Linear Heat Detection - Digital
Linear Heat Detection - Fibre Optic
Linear Heat Detection - Micro Chip
Flame Detection
Video Imaging Detection
Spark Detection
Control & Indicating Equipment
Thermal Imaging Detection

Military & Defence



Military Vehicles
Naval Vessels

Special Applications



Micro Environment
Oxygen Reduction
Kitchen Protection Systems
Dry Chemical
Vehicle Systems
Compressed Air Foam
Marine & Offshore
Vapour Mitigation

1300 742 296

Unit 1/251 Ferntree Gully Road, Mt. Waverley, Victoria, 3149
P.O. Box 75, Mt. Waverley, 3149

www.fire-protection.com.au



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