

ENGINEERED BURSTING DISCS WHATEVER YOUR NEED IS

Fike offers an extensive line of bursting disc devices designed to satisfy the pressure relief requirements found in the chemical, (bio)pharmaceutical, oil and gas and many other processing industries, the details of which can be found on www.fike.com.

Where your application requires a unique approach, our experienced engineers and technical staff are ready to start from a clean sheet. Our attention for details has led to many satisfied customers ... and a long of innovative, patented products.



TYPICAL PERFORMANCE CAPABILITIES

Operating Ratio	Non-Fragmenting	Vacuum Resistance	Pulsating / Cycling	Sanitary

Fike engineered bursting disc devices offer accurate and reliable fast acting relief or activation of stored energy systems in a compact, maintenance free, leak-tight design.



SPECIFICATIONS

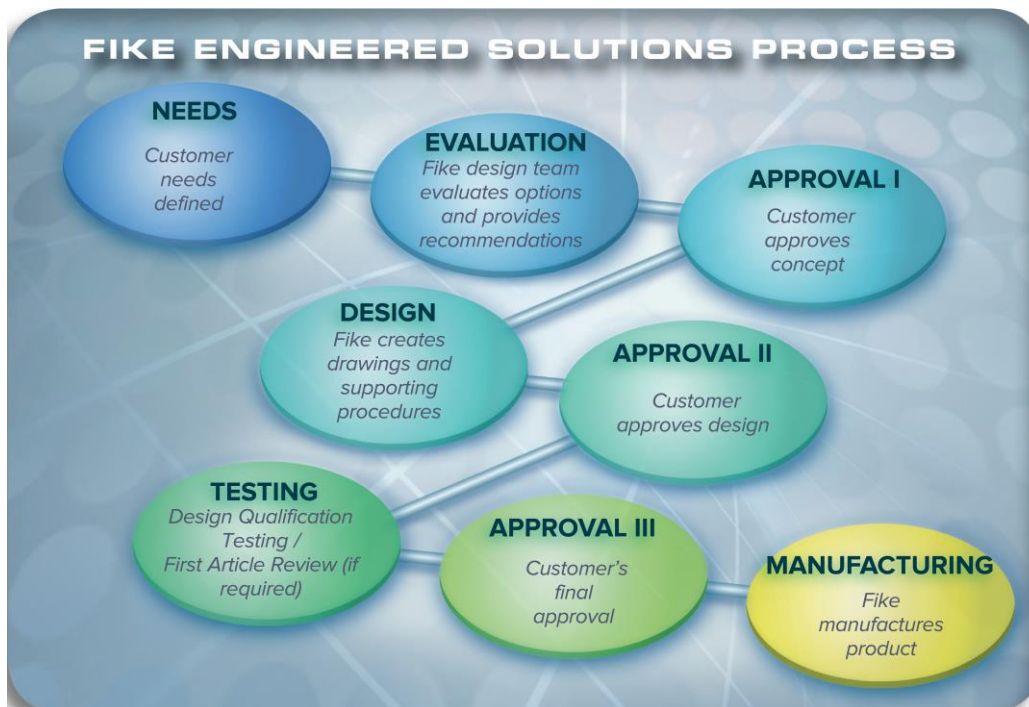
Size	DN2 to DN1700
Burst Pressure Range	From 0.03 barg to as high as 8275 barg
Backpressure	Patented Fike designs offer extreme high backpressure capability
Operating Temperature	-273°C to 900°C
Performance Tolerance	Typically $\pm 5\%$ with tighter tolerances available for some designs
Non-Fragmenting Design	Precision scored bursting disc designs are available for most applications
Leak Tightness	Most engineered burst disc devices are designed and tested to achieve a leakage requirement not to exceed 1×10^{-8} cc Helium/sec, at 1atm differential (higher differential pressures possible)
Operating Pressure	Up to 95% of the bursting discs minimum bursting pressure
Materials of Construction	Aluminium, Copper, Stainless Steel, Nickel, Monel®, Inconel®, Silver, Hastelloy®, Titanium and Tantalum

DESIGN

Fike's specialists employ extensive knowledge of material behaviour and the ability to modify material performance characteristics to design and manufacture engineered bursting disc devices for the most demanding applications.

In close consultation with our client we identify and appraise all key requirements in order to present a concept proposal for customer review. Ongoing discussions and evaluations provide optimum bursting disc device solution for final customer approval.

Our extensive manufacturing and in-house testing facilities underpin product quality by ensuring total control over all aspects of manufacture and qualification testing.



QUALITY

Fike products are registered and certified by recognised third party organisations, such as:

- ISO 9001:2008
- EN9100 Aerospace Series (Technically equivalent to AS9100 / JIS9100)
- NADCAP (SAE AS7003) Welding
- ASME Section VIII
- EU Directive 94/9/EC
- EN ISO 4126-2



TYPICAL APPLICATIONS

Fike engineered bursting discs can be found in various industries including:

Electronic Industry



Semiconductor manufacturing utilises special CO₂-laser systems to slicecut wafers. Bursting disc assemblies offer protection to these critical manufacturing systems.

Cryogenic Industry



Cryogenic storage and production equipment, and cooling systems for large electromagnetic devices such as CT-scanners often use high vacuum temperature insulating jackets to keep heat loss to a minimum. The outer shell of these insulating jackets are normally designed for full vacuum but not high pressure. Specially designed bursting disc assemblies can offer the essential long term vacuum integrity required.

Gas Sampling and Storage Containers



Sampling containers are used by process operators or dedicated personnel to remove samples from the process. Bursting disc assemblies are used on the shut-off valves of these sampling containers to protect against overpressure. Similar devices are fitted to small gas storage cylinders.

Refrigeration



A bursting disc is used to isolate refrigeration valves to prevent leakage of refrigerant to the atmosphere. The leakage of such refrigerants is not only the cause for additional maintenance or malfunction of the installation, but is also restricted by law (toxic//environment). Bursting discs offer superior leak-tightness combined with flexibility in configuration and material selection.

Air // Hydraulic Accumulators and Compressors



Hydropneumatic bladder accumulators consist of two parts: a vessel and a bladder. The bladder is mounted in the vessel and filled with gas at a well determined pressure. The vessel is connected to the hydraulic circuit and filled with oil. The gaseous side (bladder) needs to be protected against overpressures. A bursting disc is provided as protection.

Fire Extinguishing Equipment



Fixed fire fighting systems have to be protected in accordance with EN 12094 against over pressure caused by fire engulfment by bursting disc devices. Each cylinder incorporates a bursting disc set to burst at a pressure below the cylinder burst pressure.

Pipe Mole



Highly sophisticated, very expensive, in-line testing devices for oil and gas pipelines needs to be protected from external overpressure and safely relieve possible build-up of internal (restricted) pressures.

Aerospace // Defense



Pressure vessels used for the missile activation have to be protected against overpressure caused by fire engulfment. The requested operating environment of these bursting disc devices can vary from extremely low to extremely high temperatures.

... AND MANY MORE APPLICATION FIELDS:

Medical, Stored energy, High purity, Nuclear, Wind power, High voltage transformers, Solar energy, Ultra-high pressures, Specialty machines, ...

WHATEVER YOU NEED IS ... FIKE CAN MEET IT!