



SAVE DOWNTIME,

SAVE MONEY,

INCREASE PRODUCTION





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## GET YOUR PRODUCTION NUMBERS UP, BUDGET NUMBERS DOWN.

At Fike, we make it our business to safeguard your entire business, from the production line to the bottom line. That's why we offer the Fike VALVEGUARD™ concept ... a rupture/bursting disc application that can reduce your maintenance procedures, reduce emissions, increase your plant's operating potential and save you money!

### Are Your PRVs Unprotected?

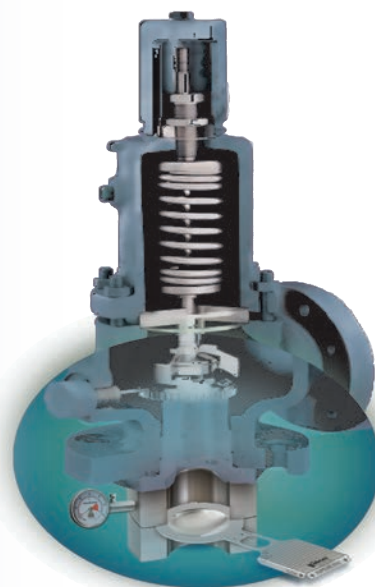
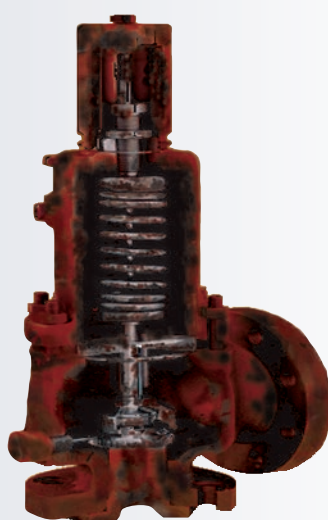
Pressure or Safety Relief Valves (PRV/SRV) are commonly used to protect many processes ... and ultimately your business. Unfortunately PRVs are also costly to maintain and expensive to replace. Now you can safeguard your high-cost PRVs and greatly extend their service life with affordable rupture discs from Fike.

When Fike rupture discs are used to isolate or GUARD your Pressure Relief VALVES from process media and downstream contaminants, we refer to this as the VALVEGUARD concept. The rupture disc takes the abuse, preserving the internals of your expensive PRV and protecting it from corrosive media, build-up and polymerization. Affordable and effective in both vapor and liquid applications, Fike rupture discs are 100% leak-proof and bubble-tight.

*For additional information on this concept, reference Technical Bulletin TB8105.*

### Which PRV is Protected by a Fike VALVEGUARD rupture disc?

*When your PRVs are operating efficiently, your entire process runs more smoothly.*



*Using the Fike VALVEGUARD concept, you can expect your PRVs to look and function like new for an extended period of time.*



S A V E   W I T H   **VALVEGUARD**

## EMISSION CONTROL – PROTECTING THE ENVIRONMENT AND YOUR BOTTOM LINE

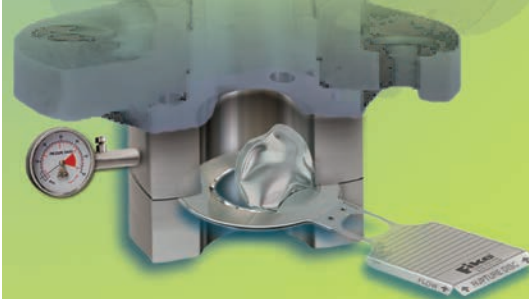
Global air quality standards, protecting public health and environmental concerns are increasingly hot topics not only for the politicians, but for your business success. In the US, for example, the Clean Air Act is now requiring industries to implement a Leak Detection and Repair program (LDAR) to control fugitive emissions. The European Directive 2003/87/EC is directly aimed at the reduction of greenhouse gas emissions. And similar legislation and codes are in force or being proposed for other major industrial regions around the world.

And while Pressure Relief Valves are a vital part of your process, they also can be a major source of process media emissions. By installing Fike rupture/bursting discs upstream of your PRV, you not only protect the valve, but greatly decrease emissions. Plus, there are cost savings advantages, such as:

- Possible exemption from PRV monitoring requirements
- Zero emissions during normal operation means no collection and disposal costs
- Significantly reducing possible fugitive emission fines
- Within the US, zero daily PRV emissions calculations allow you to sell emissions credits for increased profits

The use of the valve/rupture disc combination allows for industries to respond in a positive manner to the new global emissions guidelines – protecting the environment and reducing maintenance costs and downtime.

*When selecting a rupture disc assembly to protect a PRV, Fike recommends the use of a tall hold down. As a standard, Fike's holders have a much higher profile, containing the open disc pedals within the holder and preventing them from protruding into the valve internals where they could impair valve function.*



## SAVE DOWNTIME, CONTROL EMISSIONS, PROTECT YOUR PRESSURE RELIEF VALVES



### INCREASE

- PRODUCTION CAPACITY
- LEAKAGE PROTECTION
- PRV LIFETIME
- SAFETY
- MTBUR  
(Mean Time Between Unscheduled Removal)

### DECREASE

- DOWNTIME/OUTAGE COSTS
- MAINTENANCE COSTS
- LOSS OF PROCESS MEDIA
- FINES FOR FUGITIVE EMISSIONS
- INITIAL PRV INVESTMENT

**VALVE**  **GUARD**





## S A V E   W I T H   VALVEGUARD

FIKE'S **G2**  
TECHNOLOGYPRV/  
SRVZERO  
EMISSIONSHUGE  
COST  
SAVINGSTHE **G2** DIFFERENCE

Fike's **G2** patented, state-of-the-art technology manufactures rupture discs without hard-score tooling, producing no stress zones that can fatigue offering premium performance. The result is a low-pressure rupture disc solution featuring tight burst tolerances, extremely high operating ratios and advanced automation providing for quick lead time.

## Atlas™

The latest addition to the **G2** family, ATLAS, is a reverse acting disc that can achieve burst pressures in excess of 1000 psig (68.95 barg) and offers the same performance capabilities as AXIUS. In addition to higher burst pressures, ATLAS maintains a 95% operating ratio, suitable for liquid or vapor service, high backpressure resistance and unrivaled cycling capability.

## Axius®

The AXIUS, the first of the **G2** family, is a 95% operating ratio rupture disc offering some of the tightest tolerances and highest cycling capabilities of any high performance disc available. Extremely reliable, the AXIUS disc is versatile enough to be used in virtually any application, and has been used to solve application problems where other discs have failed.

## SRX

Fike SRX rupture disc is a reverse acting rupture disc with a cross scored design for use with vapor service only. These discs have many high performance characteristics that make them ideal for demanding applications such as the isolation of pressure relief valves.

Fike®

FIKE RUPTURE DISCS ARE  
FORMULATED WITH  
IN-DEPTH RESEARCH AND  
LEADING-EDGE TECHNOLOGY.



## NOT JUST A CONCEPT ... A GREAT WAY TO **SAVE**

With Fike rupture or bursting discs protecting your valves, you spend a little extra at the front end, but the SAVINGS add up QUICKLY.

*Here is an example of the typical savings for a facility using 100 Pressure Relief Valves (Carbon Steel Body; Stainless Steel Trim), based on a composite of several actual installations.*

COST ANALYSIS EXAMPLE <small>(PRV and disc costs vary based on application and quantity)</small>	
# of Pressure Relief or Safety Relief Valves:	100
Average Cost per PRV/SRV:	\$3,150
# of Rupture Discs:	100
Initial Cost per Disc and Holder:	\$980

### INITIAL COSTS

COSTS	VALVES PROTECTED BY FIKE	UNPROTECTED VALVES
Valve Cost:	\$315,000	\$315,000
Fike Rupture Disc Protection:	\$ 98,000	N/A
<b>TOTAL INITIAL COST:</b>	<b>\$413,000</b>	<b>\$315,000</b>

### \*TURNAROUND COSTS

COSTS	VALVES PROTECTED BY FIKE	UNPROTECTED VALVES
PRV Repair Costs:	\$ 31,500	\$110,250
Fike Rupture Disc Protection:	\$ 14,700	N/A
<b>TOTAL COSTS/TURNAROUND</b>	<b>\$ 46,200</b>	<b>\$110,250</b>

- \* TURNAROUND COSTS: Conservative assumptions, based on experience within the chemical industry.
- Replacement of an unprotected valve is about 30 - 40% per turn-around
  - Replacement of a valve protected by a Fike rupture disc, is about 0 - 15%
  - Replacement of Fike rupture discs is about 35% per turn-around, at an average cost of \$420 per disc

**VALVE  GUARD = SAVINGS**

**THAT'S A SAVINGS OF \$64,050 PER TURN –**

**your investment in Fike rupture discs is paid for in about 1.5 turns.**

**GREATER SAVINGS:** It is possible to eliminate the use of more exotic valve internals (i.e. Hastelloy®) necessary for harsh or corrosive process environments, when using a disc assembly manufactured from the same material.

#### Other **HIDDEN COST** Considerations:

- Using more expensive PRVs than necessary
- Unscheduled outage/downtime for damaged PRVs
- Loss of product or process media
- Fugitive emission fines
- Expensive PRV inventory

**WANT TO ESTIMATE YOUR SAVINGS  
USING FIKE RUPTURE DISCS  
TO GUARD YOUR VALVES?**

Use the **VALVEGUARD** Calculator at  
<http://www.fike.com/products/calculate.html>

WWW.FIKE.COM