



# ASHCROFT®

Introducing

## **PLUS!™ Performance**

**Liquid-filled performance in a dry gauge!**

### THE PROBLEM ...

Until recently, applications where heavy vibration and pulsation were present required the use of either a conventional dry gauge with a hard to read pointer and a limited life span, or, a costly liquid-filled gauge and all the headaches that come with them.



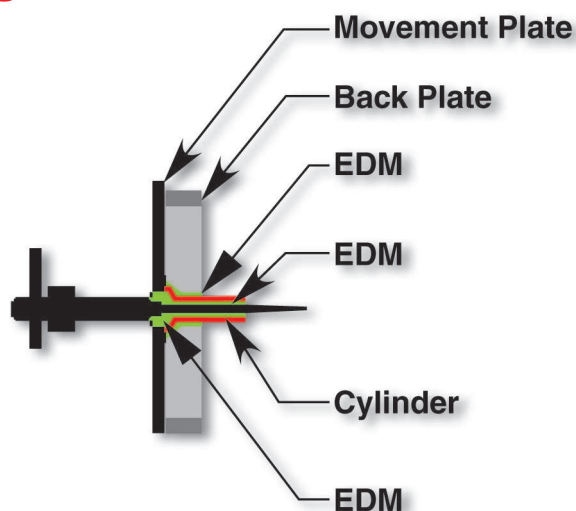
### THE SOLUTION ...

A new, exclusive, breakthrough technology developed for Ashcroft® pressure instruments providing virtually liquid-filled performance in a dry gauge, the Ashcroft® **PLUS!™** Performance option.

- **Fight vibration and pulsation without the headaches of liquid-filled gauges**
- **Twice the lifespan of traditional dry gauges**

### HOW'D THEY DO THAT? ...

The Patent Pending Ashcroft® **PLUS!™** Performance option utilizes a unique cartridge to surround the pinion with an engineered dampening agent to dynamically dampen the pointer and movement, thereby providing a dry gauge which acts liquid-filled.



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## Benefits vs Liquid-filled ...

- Dampens vibration and pulsation without the headaches of liquid-filled gauges.
- No liquid - No leaks!
- Easier to read - No fill lines!
- Easier to recalibrate.
- Eliminates disposal & environmental issues.
- Wider temperature range vs glycerin-fill.

## Benefits vs. Dry Gauges ...

- Dampens vibration and pulsation
- Steady pointer - Easier to read!
- 100 % longer life
- Reduce purchases by 50 %!

## Improved Plant Safety

Safety is a critical issue and the **PLUS!™** Performance option can improve the safety of your plant. Industry surveys indicate that 20 % to 30 % of customer's gauges are misapplied and prematurely fail due to pulsation and vibration. If a bourdon tube fails due to excessive pulsation, the process media will escape causing possible environmental damage, process contamination and more importantly, possible injury, fire or explosion. **PLUS!™** Performance improves safety and saves money by allowing facilities to standardize on a convenient dry **PLUS!™** gauge that performs virtually like a liquid-filled gauge. This saves 20 % to 30 % annually by reducing misapplied gauges, as well as reducing the risk of spills, injury and damage to their facility.

## Too Good to be True?

We have an impressive array of awards that will make you a believer. If you want the only true liquid gauge alternative on the market today, order your next gauge with the Ashcroft® **PLUS!™** Performance option. You'll never feel the same about liquid-filled gauges again!



**Plant Engineering** "Product of the Year Gold Award in Instrumentation"  
**Instrumentation and Automation News** "Editor's Choice"  
**Food Manufacturing** "Editor's Choice"  
**Processing** "A Breakthrough Product of the Year"  
**Design News** "Among the Best Products of 1998"

## Gauge Life



### Any Questions?

**Q. Are PLUS!™ Performance gauges "new" gauges?**

A. No. We simply enhanced the industry leading Ashcroft® products you've grown to trust with a fluid clutch dampener. The mechanical system is unchanged.

**Q. Does PLUS!™ Performance affect accuracy?**

A. No. The only difference is that the response time is similar to liquid-filled gauges.

**Q. Can these gauges be oxygen cleaned?**

A. Yes. Our process cleans the system to meet ASME B40.1 level IV.

**Q. What temperature range is possible?**

A. -40°F to 300°F, -40°C to 149°C.

**Q. Can I use PLUS!™ Performance instead of Halocarbon fill?**

A. Yes!

**Q. Can this be used in paint applications or others requiring no silicone?**

A. The standard PLUS!™ Performance cannot be used in silicone-free applications. However, PLUS!™ is available in a silicone-free version. Order as XNS for silicone-free.

**Q. Does the throttle plug do all the work?**

A. No. Throttle plugs are designed only to fight pulsation. Vibration requires either a liquid-filled gauge or PLUS!™ Performance.

**Q. Does our competition have anything similar?**

A. No. One competitor evaluated a liquidless gauge with poor results prior to 1993. Their design utilized a dashpot which caused premature failures versus even dry gauges. Gauges with PLUS!™ Performance utilize a completely different approach overcoming their design problem.

**Q. Will this gauge last forever?**

A. No gauge will last forever under conditions of severe pulsation and vibration. The PLUS!™ Performance gauges simply last significantly longer than traditional dry gauges with the benefits outlined above. There are a few applications, chiefly severe high frequency pulsation, where a liquid-filled gauge or a remote mounted gauge is necessary. With a few exceptions, Beta site customers have found the performance to rival liquid-filled gauges in life expectancy without any of the headaches of liquid-filled gauges.