

PLUS!™ Performance... Liquid-filled performance with out the fill!

The Problem...

Vibration or pulsation can make a dry pressure gauge impossible to read. In the long term, these excesses can cause Bourdon tube failure leading to:

- Process contamination
- Environmental damage
- Personal injury
- Damage to plant and equipment

For years, gauge manufacturers have resorted to filling gauges with high viscosity fluids like glycerin and silicone to prevent pointer flutter. While this option does dampen vibration, it also creates a variety of difficulties such as:

- Leaking gauges, messy recalibrations
- Increased manufacturing costs
- Costly specialty fluids for oxidizing applications
- Double inventory for process plants and distributors



Award Winning Solutions...

At Ashcroft, we have developed a now-proven technology to help engineers, operators and buyers alike.

With the **PLUS!™** Performance option, the stabilized pinion and throttle plug will reduce or eliminate pointer flutter that would otherwise render the gauge unreadable, while helping to subdue forces that can damage the gauge's movement and Bourdon tube. Problem solved... a gauge that can be trusted to provide useful pressure indication along with prolonged, reliable operation despite pulsation and vibration.

PLUS!™ Performance makes design specification simple. By extending service life expectancy over a traditional dry gauge, purchases can be reduced significantly.

Q. What are the other advantages of PLUS!™ over a liquid filled gauge?

- A. **PLUS!™** eliminates the possibility of fluid leaks and misreading due to fill lines, can be used in a wider ambient temperature range and is less expensive than liquid fill.

Q. How does it work?

- A. The patented **PLUS!™** Performance option utilizes a unique cartridge that surrounds the pinion with an engineered dampening media (EDM). This viscous compound encapsulates the pinion and restricts superfluous pointer movement. The addition of a throttle plug also helps to neutralize pulsation.

Patented
Award Winning
Design!

PLUS!
Performance

Q. Can PLUS!™ Performance be used with oxidizing agents and in place of halocarbon fill?

- A. The standard **PLUS!™** Performance option (identified by adding code XLL) is a cost effective way to avoid expensive halocarbon fill fluids in applications that prohibit exposure to hydrocarbons, especially in gauges that are to be used with oxidizing agents or specially cleaned and certified for oxygen service.

Q. Can these gauges be cleaned for oxygen service?

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

Q. What if my requirement includes "silicone free"?

- A. Installations such as paint processes that preclude the use of silicone will require the alternate silicone-free version of the **PLUS!™** Performance option. Just specify code XNZ.

Q. Does PLUS!™ Performance effect accuracy?

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

Q. What is the allowable operating temperature for PLUS!™ Performance gauges?

- A. -40°F (-40°C) to 200°F (93°C) or 250°F (121°C) depending on window material.

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. Will PLUS!™ Performance neutralize all effects of pulsation and vibration?

- A. There are a few applications, especially severe high frequency pulsation, where a liquid-filled gauge or a remote mounted gauge is necessary.

Q. Which Ashcroft® gauges are available with the PLUS!™ Performance option?

- A. **PLUS!™** Performance Product variation codes XLL and XNZ (silicone-free) apply to gauge types 1008S, 1009, 1032, 1036, 1279, 1377, 1379, 2462, T5500, T5500E and T6500 pressure gauges.



PLUS!™ Performance... Liquid-filled performance with out the fill!



DURAGAUGE® PRESSURE GAUGE

ACCURACY
1/2% span

DIAL SIZE
4½", 6", 8½"

TUBE MATERIAL
Bronze, 316 SS, Monel, Inconel

SENSING ELEMENT
Bourdon tube

CONNECTION
¼ NPT, ½ NPT, JIS, DIN, BSP,
All lower or back

RANGES
Vac. to 100,000 psi

CASE MATERIAL
Phenolic, aluminum, polypropylene

MOVEMENT
Stainless steel, rotary design, Teflon® S coated pinion and bearings

POINTER
Micrometer adjustable

DIAL
White painted aluminum

WINDOW
Glass

TYPE NUMBERS
1279 phenolic (4½")
1377 alum. (4½", 6", 8½")
1379 alum. (4½", 6", 8½")
2462 polypropylene (6")



TYPE T5500 & 6500 PRESSURE GAUGES

ACCURACY
Class 1, 1% span

DIAL SIZE
100mm or 160mm

TUBE MATERIAL
316 SS, Monel

SENSING ELEMENT
Bourdon tube

CONNECTION
¼ NPT male, ½ NPT male
G ¼ B male, G ½ B male

RANGES
Vac. to 15,000 psi

CASE & RING MATERIAL
304 stainless steel

MOVEMENT
304/303 SS

POINTER
Aluminum black

DIAL
White painted aluminum

WINDOW
T5500: Standard: glass,
Optional: laminated safety glass or acrylic
T6500: Standard: laminated safety glass
Optional: acrylic

AUTOCLAVABLE!



TYPE 1032 SANITARY GAUGE

ACCURACY
1.5%-2% depending on range

DIAL SIZE
2½", 3½", 4½"

TUBE MATERIAL
316 SS

SENSING ELEMENT
316L SS diaphragm (12-20RA finish)

CONNECTION
Standard: 1½" or 2" Tri-Clamp® Location: lower, lower back, side or top

RANGES
From 15# to 1000# including vacuum and compound

CASE & RING MATERIAL
304 stainless steel

MOVEMENT
Stainless steel, PowerFlex™

POINTER
Adjustable Pointer (all)
Easy Zero Ext. Adjust (3½")

DIAL
White painted aluminum

WINDOW
Polycarbonate, Polysulfone (optional)

CLEAN & STEAM IN PLACE
Temperature limits to 300°F (140°C)

AUTOCLAVE OR STERILIZE
Temperature limits to 280°F (138°C) with polysulfone window

SYSTEM FILL
Glycerin (Std)
Food Grade Silicone (Opt)

AGENCY APPROVAL
Meets 3A Standard 74



TYPE 1009 PRESSURE GAUGE

ACCURACY
1% full scale

DIAL SIZE
2½", 3½", 4½", 6"

TUBE MATERIAL
316 SS (2½", 3½")
Bronze, 316 SS, monel, steel (4½" 6")

SENSING ELEMENT
Bourdon tube, Helium leak test to 1 x 10⁻⁶ ATM CC/sec

CONNECTION
⅛ NPT, ¼ NPT, ½ NPT, 7/16" x 20 SAE lower or lower back, other threads on application

RANGES
Vac. to 30,000 psi including compound

CASE & RING MATERIAL
304 Stainless steel with ventable relief plug

MOVEMENT
Stainless steel, PowerFlex™ (2½", 3½")
Stainless steel (4½", 6")

POINTER
Adjustable

DIAL
White painted aluminum

WINDOW
Polycarbonate (2½", 3½")
Glass (4½" 6"), safety glass optional

- ASME B40.100
- RoHS compliant
- CRN approved



TYPE 1008S SS METRIC CASE

ACCURACY
1.6% full scale

DIAL SIZE
63mm, 100mm

TUBE MATERIAL
316 SS

SENSING ELEMENT
Bourdon tube

CONNECTION
¼ NPT lower or lower back
½ NPT lower (100mm), JIS
DIN available

RANGES
Vac. to 15,000 psi including compound

CASE & RING MATERIAL
304 stainless steel

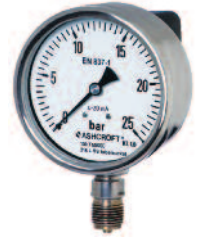
MOVEMENT
Stainless steel, PowerFlex™

POINTER
Fixed

DIAL
White painted aluminum

WINDOW
Polycarbonate

- ASME B40.100
- EN837.1 compliance available
- RoHS compliant
- CRN approved



TYPE T5500E PRESSURE TRANSMITTER AND GAUGE

ACCURACY
½% span

DIAL SIZE
100mm (4½")

TUBE/SOCKET MATERIAL
316L SS

SENSING ELEMENT
Bourdon tube, 17-4PH SS

CONNECTION
¼ NPT, ½ NPT Male lower

RANGES
psi -30" Hg/0 to 0/20,000 bar -1/0 to 0/1600 bar

CASE & RING MATERIAL
304L SS

MOVEMENT
303/304 SS

POINTER
Aluminum, Black
Micrometer

DIAL
Aluminum, White-coated

WINDOW
Safety glass

- ASME B40.100
- RoHS compliant
- CRN approved

POWER SUPPLY REQUIREMENTS
Supply Voltage: 12-30Vdc
Supply Current: Max. 20mA
Output Signal: 4-20mA
Isolation Voltage: 350 Vac

ELECTRICAL TERMINATION

- Type B Universal Box Cable Connector
- DIN EN 175301-803 Angle Connector

