



[HOME](#) > [ENGINEERING & TECHNICAL](#) > [TECHNICAL ARTICLES](#) > [INTRODUCTION TO GAUGE GUARDS](#)

Technical Articles

July 21, 2016

Introduction to Gauge Guards

True Blue Thermoplastic Gauge Guards • Also known as Instrument Isolators, Diaphragm Seals

Including information on Pressure/Vacuum Gauges, and Temperature/Pressure “Tridicators”

Gauge Guards are an economical way to protect instruments from corrosion and clogging — or to protect your process from the instrument.

Plast-O-Matic True Blue Brand Gauge Guards maintain high accuracy, and assure system dependability within an operational range of full vacuum to 250 PSI, 200 PSI for Series GGME and GGMU.

- Offers an inexpensive initial investment.
- Reduces instrument failures.
- Reduces system downtime.
- Eliminates the expense of special alloy instruments.
- Choice of various thermoplastic materials assures maximum process compatibility.
- Every single Gauge Guard is individually inspected and hand tested.



Gauge Guards are used to isolate and protect pressure or vacuum instruments used on ultra-pure or highly-corrosive fluid lines. They can be confidently used with liquids such as deionized water (GGMU) sulphuric acid, hydrochloric acid, caustics...or with gasses such as corrosive air, ammonia...whenever such fluids will corrode metal instrument components. Gauge Guards also protect against clogging of instruments by suspended solids or highly viscous fluids. Furthermore, they eliminate dead pocket areas within instruments where chemicals or

organic matter could decompose. All True Blue Gauge Guards are available with or without gauges.

Please scroll down for descriptions and links for specific types of Gauge Guards...

Series GGS — True Blue Gauge Guards — 1/2" process connection with 1/4" or 1/2" instrument connection. PTFE or Viton diaphragm; Geon PVC, Corzan CPVC, Natural Polypropylene, Glass-filled Polypropylene, Kynar PVDF bodies available. With or without gauges; standard gauge is 2 1/2" face, stainless steel case & connection. Pressure rating from full vacuum to 250 PSI. Options include center mount gauges, acrylic shield, vibration snubber. Series GGS provides the same pressure ratings and performance as previous Series GGM, but features a non-breakable, solid hex stainless steel (non-wetted) gauge fitting in the upper housing. For high purity or highly corrosive environments, the GGS can be ordered in 1/2" instrument connection without the solid hex fitting .

Acrylic Shields for Series GGS — This is a .PDF file that gives complete specifications for this optional feature, available only for series GGS with standard gauge.

Series GGM — Discontinued — Please note that Series GGM was replaced by Series GGS during 3rd quarter 2009. This .pdf file link is provided for field reference only.



Series GGME — Miniature Gauge Guards — Polypro body, Buna-nitrile or Viton diaphragm. 1/2" male process connection, 1/4" female instrument connection. Available with or without gauges; rated full vacuum through 200 PSI. Optional 1/4" female process connection also available.



Series GGMU — Ultra-Pure Gauge Guards with Spigot End Connectors — Zero dead-leg design with EPDM or Viton sleeve; ultra-pure connection via natural polypro, Kynar PVDF, or PVC. Pipe sizes 1/2", 3/4", 1", 1-1/2", and 2". Rated full vacuum (Gauge Guard MUST be solidly filled to function properly with process vacuum) through 200 PSI.



Series PTSS “Tridicator” — Temperature and pressure gauge all-in-one with short probe for virtually any piping system with less aggressive liquids (the steel probe is wetted; it will not work properly with diaphragm seal). Easy-to-read stainless steel case available with top or bottom mount, 2½” or 3” face. Link to .pdf file.



Acrylic Shields for Series GGS — This is a .PDF file that gives complete specifications for this optional feature, available only for series GGS with smaller, steel gauge.

Additional Gauge/Gauge Guard Products & Accessories: Links to be added for additional accessories. All of this information is currently available by fax or by mail.