

# Protect & Isolate Pressure Sensing Instruments from Corrosive and Ultra Pure Fluids

# TUFF GUARD™ Gauge Isolators

Series TG

## Introduction

Marquest Scientific's new line of gauge and instrument isolators are engineered to provide total protection and isolation of corrosive & ultra pure fluids while offering a design with the most rugged features in the industry.

Branded "TUFF GUARD" to represent all its inherent strengths, the many features address the problematic issues associated with all existing product designs.

Materials of Construction: **PVC, CPVC, PP, & PVDF**  
Diaphragm Materials: **PTFE, Viton, & EPDM**  
Connection Sizes: **1/4" x 1/2", 1/4" x 1/4", 1/2" x 1/2"**  
**Instrument x Process Female, NPT/BSP Connections**  
**Solvent Cement Socket Process Joints**

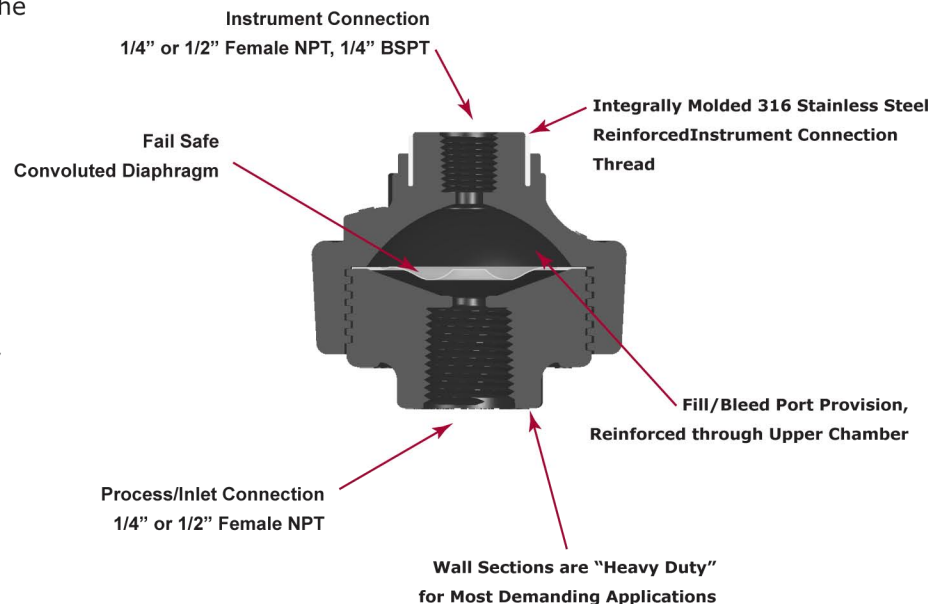
## Features and Benefits

- Stainless steel reinforcement of the instrument connection to prevent fracturing associated with metal to plastic threads. This stainless steel reinforcing component is integrally molded into the the Upper Chamber to completely surround the full length of the female thread and is for all practical purposes "unbreakable".
- Reinforced process connection with compressive spoke ribs to transfer the tensile stresses into compression.
- Sufficient displacement to handle the required volumetric displacement of all instrument sizes and pressure ranges.
- Fill / bleed port provision, reinforced through upper chamber to allow for threaded connections in vacuum fill processing.
- Integral wrench provisions for field service and maintenance.
- Diaphragms in Virgin PTFE, Viton and EPDM offer the choices for each application. Field Replaceable.
- Wall Thickness meet or exceed ANSI Schedule 120
- Low Profile Design eliminates dead volume



## Fields of Application

Wet Processing, Waste Water Treatment, Chemical Feed Systems, Commercial Industrial RO Systems, Plating Equipment, Agriculture Spraying, Water Purification, Photographic Processing, Car Wash, Farming, Pharma Processing, SemiFab Wafer Manufacturing.



**The Tuffest Guard in the Industry!**

- Body**
- **PVC:** Polyvinyl Chloride
  - **CPVC:** Chlorinated Polyvinyl Chloride
  - **PP:** Polypropylene, unpigmented homopolymer, glass & mineral reinforced
  - **PVDF:** 100% Virgin Polyvinylidene Fluoride

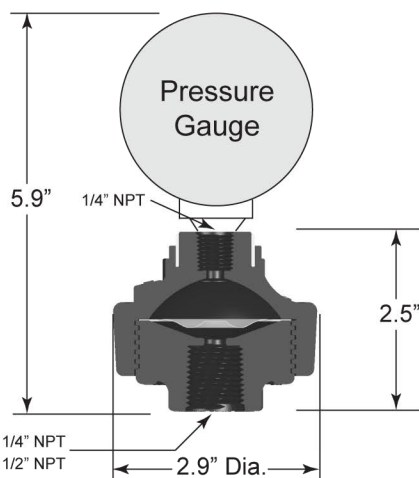
- Diaphragm**
- Virgin PTFE
  - Viton®
  - EPDM

**Connection Types**

- Instrument Connection:**
- 1/4" or 1/2" Female NPT
  - 1/4" Female BSPT
- Inlet Connection:**
- 1/4" or 1/2" Female NPT
  - 1/4" Female BSPT
  - 1/4" or 1/2" Solvent "Slip"

**DIMENSIONAL DATA - inches**

**PRESSURE/TEMPERATURE DATA**



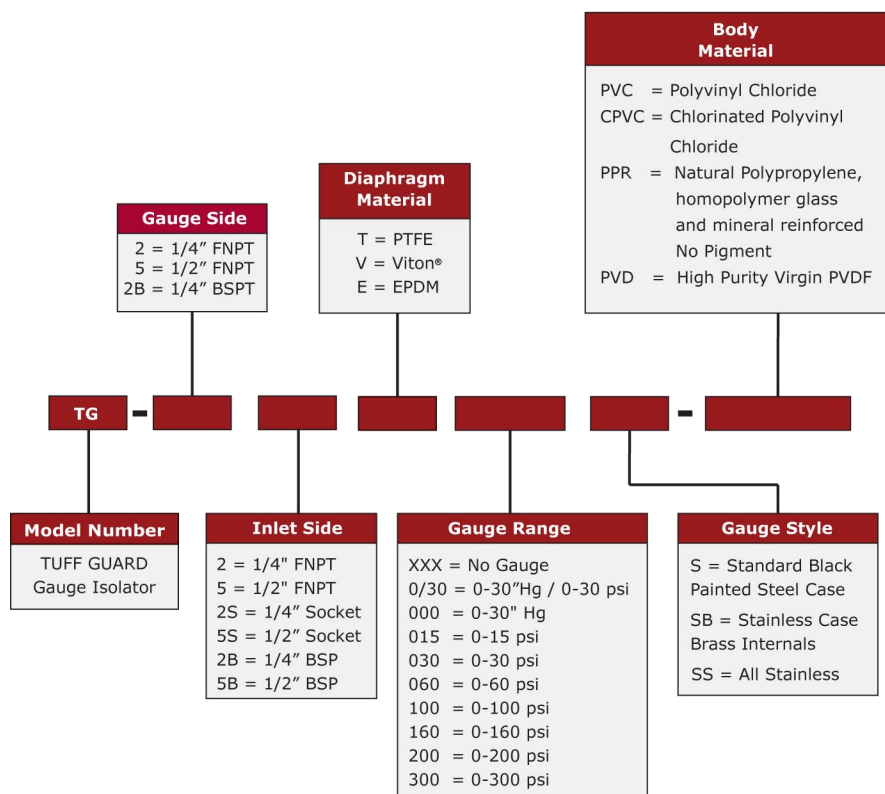
**WORKING PRESSURE PSI**

**WEIGHTS**

Material	50°C 10°F	68°C 10°F	30°C 86°F	40°C 104°F	50°C 122°F	60°C 140°F	70°C 158°F	80°C 176°F	90°C 194°F	100°C 212°F	120°C 248°F	Net Weights Pounds*
<b>PVC</b>	200	250	250	220	140	135	—	—	—	—	—	0.33
<b>CPVC</b>	230	250	250	230	200	200	150	120	60	—	—	0.36
<b>PP</b>	200	240	240	210	145	125	75	60	—	—	—	0.31
<b>PVDF</b>	240	250	250	250	250	230	220	200	160	140	80	0.39

**Temperature Ranges:** PVC: 14 to 140°F (10 to 60°C), CPVC: 50 to 194°F (10 to 90°C), PP: 46 to 176°F (8 to 80°C), PVDF: -22 to 248°F (-30 to 120°C). \* Weights are for unfilled 1/4" x 1/2" without gauges.

**HOW TO ORDER**



**Example Part Number: TG-25T060S-PVC**

Tuff Guard Gauge Isolator with 1/4" Female NPT Outlet, 1/2" Female NPT Inlet, Convoluted PTFE Diaphragm, w/ 0-60 PSI Standard Black Painted Steel Case Gauge with Brass Internals, Polyvinyl Chloride (PVC) Body

**Notes:**

- Dual Scale Dials Available
- Gauge Specifications Available
- Pressure Switch & Transducer Assemblies Available



**MARQUEST SCIENTIFIC**  
Fluid Handling Products

For further details, please visit our Info Site:

[www.GaugeGuards.com](http://www.GaugeGuards.com)

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