

**Materials: PVC, CPVC, Natural Polypropylene, PVDF**

Marquest Scientific's complete line of Mini gauge and instrument isolators are engineered to provide total isolation of all instruments from corrosive and ultra pure fluids in an ultra compact size.

**Features & Benefits**

- Provides a compatible, protective barrier between process fluids and instruments
- Adds system reliability by eliminating instrument failures.
- Ultra compact size for limited space applications
- Extremely low cost for O.E.M. integration
- Replaceable composite PTFE/FKM diaphragm
- Integral wrench provisions
- Diaphragm safety features
- Displacement capacity for up to 2 1/2" diameter gauges
- Self-venting, 1/4" female NPT instrument connection



<b>SERIES MTG-22FS-PVC</b> 2" ECONOMY GAUGE 1/4" Fem NPT Inlet PVC Body	<b>SERIES MTG-22SB-PPR</b> 2.5" STAINLESS/BRASS GAUGE 1/4" Male NPT Inlet Nat Polypro Body	<b>SERIES MTG-25SS-PVD</b> 2.5" ALL STAINLESS GAUGE 1/2" Male NPT Inlet PVDF Body
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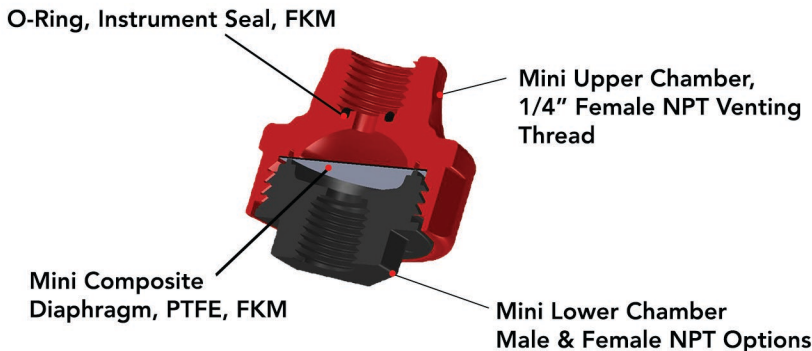
(1) Please see backside of data sheet for ordering info, including configuration & material options.

**Specifications**

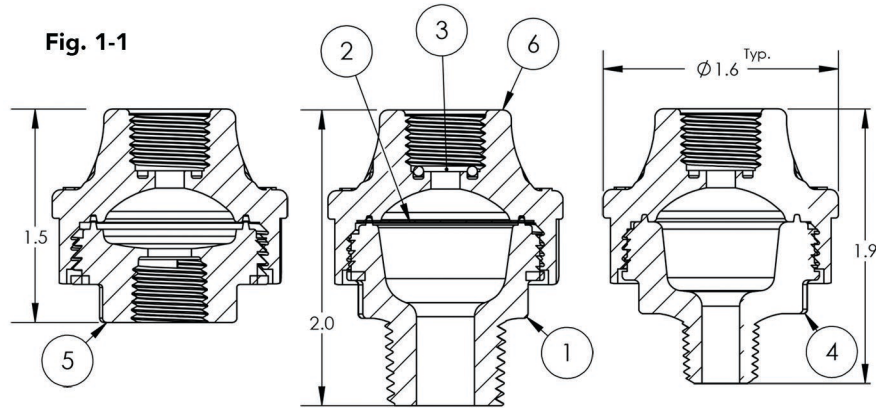
**Instrument Connection:** Venting 1/4" Female NPT  
**Process Connections:** 1/4" & 1/2" MNPT, 1/4" Female NPT  
**Materials of Construction:**  
**Upper Housing:** PVC, CPVC, Natural Polypro, PVDF  
**Lower Housing:** PVC, CPVC, Natural Polypro, PVDF  
**Composite Diaphragm:** PTFE, System / Process Side  
 FKM, Instrument Side  
**Working Pressure:** 0 - 250 psi at 70 Deg F.  
**Codes & Standards:** ARRA Section 1605 "Buy American"  
 Compliant. ASME A112.18.1M

**Markets / Applications**

- Wastewater Treatment
- Semiconductor Manufacturing
- Chemical Plants
- Chemical Feed Systems
- Food & Beverage
- Wet Processing
- Chemical Odor Control
- PCB Manufacturing
- Pharmaceutical Processing

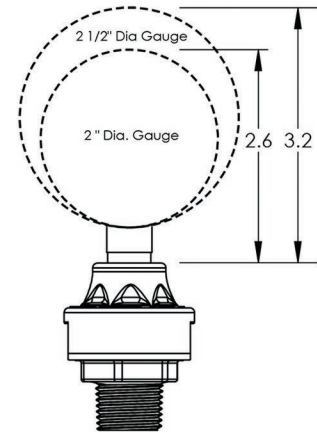


## Dimensional Data / Parts List



\*Dimensions in inches

ITEM NO.	DESCRIPTION	QTY
1	Mini Lower 1/2" Male NPT	1
2	Mini Composite Diaphragm PTFE / FKM	1
3	O-Ring, Instrument Seal, FKM	1
4	Mini Lower 1/4" Male NPT	1
5	Mini Lower 1/4" Female NPT	1
6	Mini Upper 1/4" Female NPT Venting Thread	3



(1) Model MTG-25 shown above with 2" & 2.5" diameter case dimensions. Please combine dimensions from fig.1-1 to total full assembly height dimensions.

## Pressure / Temperature Data

### WORKING PRESSURES PSI

### WEIGHTS

Material	10°C 50°F	20°C 68°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*
PVC	200	250	250	220	140	135	----	----	----	----	----	.13
CPVC	230	250	250	230	200	200	150	120	60	----	----	.14
PP	200	240	240	210	145	125	75	60	----	----	----	.12
PVDF	240	250	250	250	250	230	220	200	160	140	80	.16

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" Female NPT x 1/2" MNPT without gauges.

## How to Order Mini Tuff Guard

Part No: **MTG - 2 5 060 SS - PVC**

MODEL	INSTRUMENT PORT	PROCESS INLET PORT		GAUGE INSTALLED	BODY MATERIAL
Mini Tuff Guard	2 = 1/4" Vented Female NPT <small>(1) Viton FKM O-ring seal is used for sealing instrument to thread. Zero pressure build during instrument install.</small>	5 = 1/2" Male NPT 2 = 1/4" Male NPT 2F = 1/4" Female NPT	<b>LEAVE BLANK</b> = No Gauge <b>H030</b> = 0-30 in Hg Vacuum <b>015</b> = 0-15 PSI <b>030</b> = 0-30 PSI <b>060</b> = 0-60 PSI <b>100</b> = 0-100 PSI <b>160</b> = 0-160 PSI <b>200</b> = 0-200 PSI <b>300</b> = 0-300 PSI	<b>LEAVE BLANK</b> = No Gauge <b>S</b> = Standard 2" Black Painted Steel Case, Marquest, Dry Case, 2-3-2 % Accuracy <b>SB</b> = Stainless Case / Brass Internals 2.5" Wika 212.53, Glycerin Filled Case, 2.5% Accuracy <b>SS</b> = All Stainless 2.5" Ashcroft 1008s, Glycerin Filled Case, 1.5% Accuracy	<b>PVC</b> = Polyvinyl Chloride <b>CPVC</b> = Chlorinated Polyvinyl Chloride <b>PPN</b> = Natural Unpigmented Polypropylene <b>PVDF</b> = 100% HP Virgin PVDF
<b>Example: MTG-25060SS-PVC (Gauge Installed)</b> PVC Mini Tuff Guard Isolator, 1/2" Male NPT Inlet, PTFE/FKM Composite Diaphragm, 0-60 PSI All Stainless 2.5" Dia. Ashcroft 1008s Glycerin Filled Gauge Assembled & Tested.					
<b>Example: MTG-22-PVDF (No Gauge Installed)</b> PVDF Mini Tuff Guard Isolator, 1/4" Vented Female NPT x 1/4" Male NPT Inlet, PTFE/FKM Composite Diaphragm, No Gauge Installed					
<small>(1) Assemblies with gauge installed have an Aqueous Glycerin (70% USDA 99.5% Glycerin / 30% Distilled Water) internal fill in the upper chamber and gauge stem internals. Silicone &amp; Halocarbon fills available. Units ordered with out an instrument, need to be filled per installation instructions.</small>			<small>(1) Only specify pressure range when ordering with a gauge installed. When ordering a unit with no gauge installed (X), please leave section blank.</small> <small>(2) We offer both dual scale and compound pressure ranges. Please contact factory.</small>	<small>(1) We offer a variety of other gauge &amp; instrument options from Ashcroft, Wika, &amp; US Ametek including 1.5", 2", &amp; 2.5" Dial Sizes. The Mini Tuff Guard is also perfectly suited for a variety of pressure sensors. Please contact factory.</small>	

Marquest Scientific, Inc.  
2950 Airway Avenue, Costa Mesa, 92626 California  
Toll Free 866 452 2349 Fax 714 491 9199  
[www.marquestscientific.com](http://www.marquestscientific.com) | [www.GaugeGuards.com](http://www.GaugeGuards.com)



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