

INNOVATIVE SYSTEMS & SOLUTIONS

ISO 9001:2008 Certified Quality System



**TOTAL
PRODUCT
CAPABILITY
FOR THE
PROCESS,
POWER
AND GAS
INDUSTRIES**



PGI International
Excellence Through Innovation

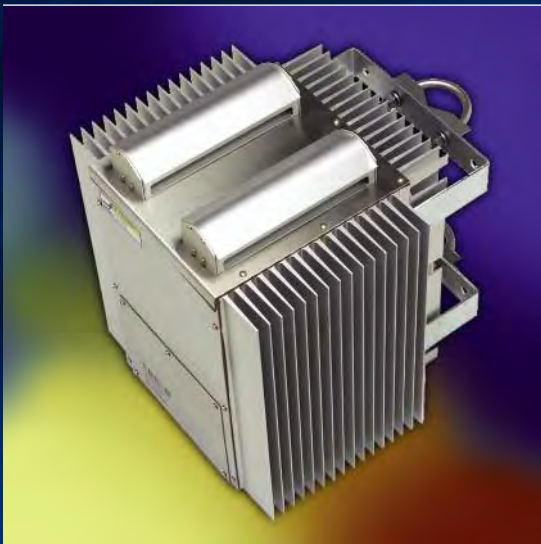
PGI's Valves and Manifolds are offered with our Low-Torque™ Grafoil® packed stem seals. To answer customer requests for a lower stem handle turning torque, PGI developed a proprietary assembly technique to lower stem torque by 50% which increases ease of operation, and therefore reduces stem abrasion and stem damage from over-torqueing. The Low-Torque™ Grafoil® packed stem seal reduces packing adjustments and the associated maintenance costs, while extending the service life of the Grafoil® packing.



POWER & ROOT VALVES

All PGI Power Valves conform to ANSI B31.1 Power Piping Code. Valve temperature and pressure ratings are ASME Class 2500, and materials conform to those listed in the ASTM specifications. Hydrostatic testing is performed in accordance with MSS-SP-61 and includes a shell test at 1.5 times the rated design pressure and seat(s) leakage test at 1.1 times the maximum pressure rating. • Socket weld connections are available, packing is below stem threads and bonnet lock plates are standard on all valves and manifolds. • OS&Y bonnets available.

Orifice Sizes	.187" .375"
Connections	1/2" FNPT 1/2" MNPT 1/2" FNPT x Flange Flange x Flange
Materials	ASTM A-105 Carbon Steel or ASTM A-479 316 SS
Pressure	Up to 6,170 PSI (425 Bar)
Temperature	Up to 1,000° F (538° C)
Packing	Low-Torque™ Grafoil®
Seats	Carbide® Ball



TEC™ THERMOELECTRIC CHARGERS

Our ThermoElectric Battery Chargers offer a cost-effective, more reliable alternative to dropped power and solar panels when natural gas or propane is available.

- 2 watt and 8 watt continuous, reliable power
- Compact, robust design to minimize footprint and eliminate vandalism and theft
- Cost effective remote and city applications for monitoring systems, control systems, and other applications that require AC or DC power
- Integrated temperature compensated charger and sensor extends battery life
- User-configurable operating characteristics and status output for remote monitoring
- Modular accessories for H₂S filtration, pressure regulation and batteries... you only buy what you need
- Microprocessor controlled for simple start up and diagnostics
- Low maintenance but also field serviceable with low cost exchange program available through distributors or manufacturer
- 2" pipe or wall mountable
- CSA Approved for Class 1, Division 2, Group D hazardous locations



ZEUS
POWER SYSTEMS



DB1™ DIFFERENTIAL PRESSURE BATTERY CHARGERS

The DB1 provides the most environmentally friendly solution for powering your SCADA, flow computers, on-site monitoring and detection systems, volume correctors, odorization systems and other critical electrical devices.

- 10 or 20 Watts available 24/7
- 12 or 24 Volts – field selectable
- Class I, Division 1, Group D Certified
- Operates in parallel with the station regulators
- Only 16 SCFM bypass flow when charging
- Consumes no gas / emission free
- Virtually maintenance free
- Inconspicuous compact design [7" W x 10" D x 12" H] eliminates theft and vandalism
- Microprocessor controlled mini-turbine technology provides long term reliability



ZEUS
POWER SYSTEMS

PRESSURE-CORE® STEM SEAL | INSTRUMENT & MULTI-PORT VALVES | DIRECT-MOUNT® SYSTEMS

PGI's Valves and Direct-Mount® Systems feature the patented Teflon® Pressure-Core® Stem Seal. • All valves and manifolds are available with a bonnet handle lock-out that prevents unauthorized cycling in either the open or closed position, or an anti-tamper bonnet that allows the bonnet stem to be placed in any position before removing the handle. • OS & Y bonnets available. • Standard 316 SS models conform to NACE MR0175/ISO 15156-36.



PRESSURE-CORE® STEM SEALS

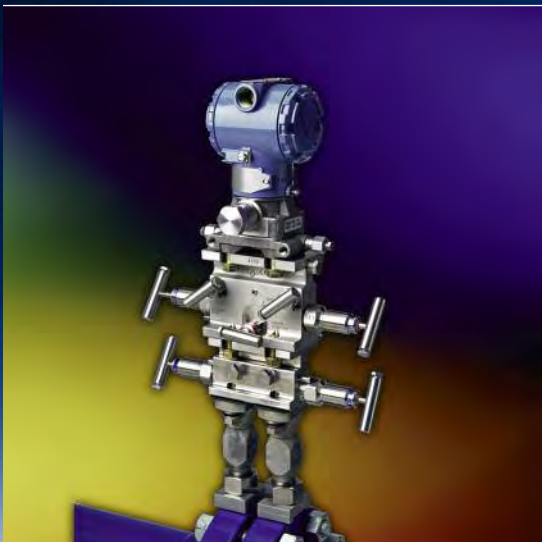
PGI's Teflon® Pressure-Core® Stem Seal offers advanced sealing technology in standard instrument valves and manifolds, saving you both time and money. Compared to competitive packing designs, the Pressure-Core® Seal offers virtually leak-free performance with no maintenance requirements. To support this claim, we tested the Pressure-Core® Seal against the leading manufacturer's design. The tests simulated harsh plant operating environments and were performed by an independent laboratory in accordance with EPA Method 21. Detailed test results are available that prove our Pressure-Core® Seal clearly outperformed the leading manufacturer's design. • The Pressure-Core® Seal consists of an outer Teflon® shell with an elliptical shaped Viton® O-ring core. The encapsulated core is "live-loaded" and provides constant outward pressure against the Teflon® shell, which flexes under pressure like an O-ring. The Teflon® shell offers the desired chemical resistance without periodic gland tightening as in conventional designs. • Our test results indicate that you can have a reliable, affordable and virtually leak-free valve requiring no costly, time-consuming maintenance. We stand behind our claim with a five year warranty, far exceeding the industry standard.



INSTRUMENT & MULTI-PORT VALVES

PGI's Instrument and Multi-Port Valves are designed for bubble tight shut-off and maximum reliability, making them both an excellent choice for most service conditions. PGI's Multi-Port Valves are very versatile and can be used for multiple positioning of gauges, instruments and pressure switches.

Orifice Sizes	.136" .187" .250" .375"
Connections	1/4" thru 1" FNPT & MNPT
Materials	Carbon Steel, 316 SS or Specialty Metals
Pressure	Up to 10,000 PSI (690 Bar)
Temperature	Up to 1,000° F (538° C)
Packing	Teflon® Pressure-Core® or Low-Torque™ Grafoil®
Seats	Carbide® Ball or Soft "Roddable" Seat



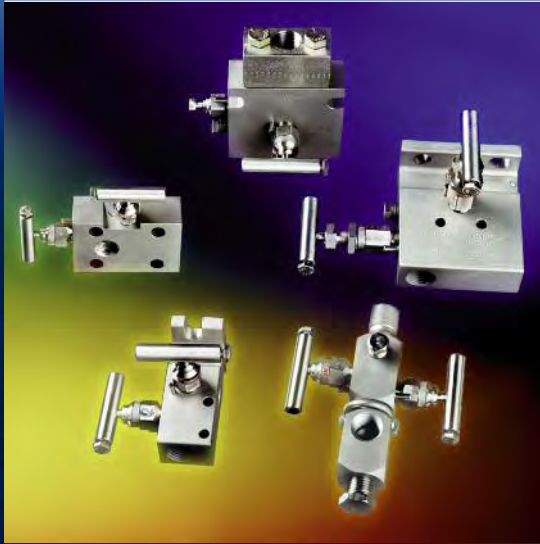
DIRECT-MOUNT® SYSTEMS

PGI is the recognized industry leader in the close coupling of manifold systems. Pioneered by PGI in 1988, Direct-Mount® Systems can minimize or eliminate Gauge Line Error (GLE), resulting in more accurate measurement. Dielectric isolators are available for stabilized connectors and manifolds.

Orifice Sizes	.187" .375"
Connections	1/2" MNPT x Flange Flange x Flange
Materials	Carbon Steel, 316 SS or Specialty Metals
Pressure	Up to 6,000 PSI (414 Bar)
Temperature	Up to 450° F (232° C)
Packing	Teflon® Pressure-Core®
Seats	Carbide® Ball or Soft "Roddable" Seat

2-VALVE MANIFOLDS | 3-VALVE MANIFOLDS | 5-VALVE MANIFOLDS

PGI's Manifolds feature the patented Teflon® Pressure-Core® Stem Seal. • All manifolds are available with a bonnet handle lock-out that prevents unauthorized cycling in either the open or closed position, or an anti-tamper bonnet that allows the bonnet stem to be placed in any position before removing the handle. • OS & Y bonnets available. • Standard 316 SS models conform to NACE MR0175/ISO 15156-36.



2-VALVE MANIFOLDS

PGI's wide variety of 2-Valve Manifolds permit the user to select and hook-up to virtually any pressure transmitter, gauge or switch. The controlled vent provides the option of venting to atmosphere or piping to a collector, depending on the media.

Orifice Sizes	.136" .187" .250" .375"
Connections	1/4" FNPT 1/2" FNPT & MNPT 1/2" FNPT x Flange Flange x Flange
Materials	Carbon Steel, 316 SS or Specialty Metals
Pressure	Up to 10,000 PSI (690 Bar)
Temperature	Up to 1,000° F (538° C)
Packing	Teflon® Pressure-Core® or Low-Torque™ Grafoil®
Seats	Carbide® Ball or Soft "Roddable" Seat



3-VALVE MANIFOLDS

PGI's selection of 3-Valve Manifolds permit the user to select and hook-up any transmitter. Several 3-Valve Manifold styles are available with controlled vents for use where venting to atmosphere is not permitted and piping to collectors or vessels is required.

Orifice Sizes	.136" .187" .250" .375"
Connections	1/4" FNPT 1/2" FNPT 1/2" FNPT x Flange Flange x Flange
Materials	Carbon Steel, 316 SS or Specialty Metals
Pressure	Up to 10,000 PSI (690 Bar)
Temperature	Up to 1,000° F (538° C)
Packing	Teflon® Pressure-Core® or Low-Torque™ Grafoil®
Seats	Carbide® Ball or Soft "Roddable" Seat



5-VALVE MANIFOLDS

PGI's 5-Valve Manifolds permit the user to select and hook-up any chart recorder, transmitter or EFM for gas applications. PGI's Versa-Mount bracket (shown left) allows the easy mounting of most 2, 3 and 5-Valve Manifolds to a 2" pipe stand or wall-mounted application.

Orifice Sizes	.187" .375"
Connections	1/2" FNPT 1/2" FNPT x Flange Flange x Flange
Materials	Carbon Steel, 316 SS or Specialty Metals
Pressure	Up to 10,000 PSI (690 Bar)
Temperature	Up to 1,000° F (538° C)
Packing	Teflon® Pressure-Core® or Low-Torque™ Grafoil®
Seats	Carbide® Ball or Soft "Roddable" Seat

Features
WIDE
Pattern™ Manifolds
A unique configuration
for "no finger pinching"
operation of all
five valves.



SAMPLING SYSTEMS

Both the highly reliable Interceptor™ and NOVA™ Samplers are FM and CSA Approved and Intrinsically Safe for Class 1, Division 1, Groups C & D hazardous locations. In addition, both models are offered with a wide variety of options. All materials conform to NACE MR0175/ISO 15156-36.

Interceptor™ Gas Sampler

- Least expensive and most versatile direct mount flow proportional sampler
- Two-year limited warranty
- On-line serviceability
- User-friendly electronic control
- Compatible with all flow computers
- Direct or remote mounted
- 10" Vacuum to 2200 psig
- 0.025 to 0.5cc bite size

NOVA™ Gas or Liquid Sampler

- Unsurpassed configuration options
- Largest bite-size capability
- Compatible with all flow computers
- Direct or remote mounted
- 10" Hg vacuum to 2000 psig
- 0.03 to 3.0cc bite size
- Skids available

PGI's Constant Pressure Sample Cylinders are offered in volume ranges from 150 to 1,000cc.

Constant Pressure Cylinders

- DOT approved
- Dual piston seals
- Patented jet flow mixers
- Magnetic fill indicator

Probes

- Single flow, dual flow, hot tap
- 1/2" thru 1" MNPT inlet
- All 316 SS construction



HOT-SHOT™ HEATED ENCLOSURE

PGI's Hot-Shot Heated Enclosures will help you comply with the standard "Collecting and Handling of Natural Gas Samples for Custody Transfer" – API 14.1. This standard requires that the temperature of the sampling equipment be kept above the hydrocarbon dew point of the gas being sampled, which typically requires heating of the equipment, and thus insures a more accurate measurement.

- Sample Pump, Probe and Cylinder heated above hydrocarbon dew point
- Regulated enclosure temperature with overheat protection
- Class 1 Division 1 Approved
- Heater supply gas taken from sample probe
- Complies with API 14.1 requirements for heated sampling
- High thermal conductivity sample probe transfers enclosure heat throughout the probe
- Finned probe section, located inside the pipe, utilizes heat from flowing gas to warm the sample probe
- Large capacity scrubber protects heater and sampler solenoid from moisture and H₂S
- Kits also available for other manufacturer's gas samplers



THERMO SYNC® TEMPERATURE MEASUREMENT

The ThermoSync® thermowell and RTD probe provide the most accurate pipeline gas temperature measurement system available. It reduces the ambient temperature effects on flow calculations, thus providing greater accuracy and minimizing unaccounted errors. ThermoSync® measures the true gas temperature with little influence from changing pipe temperatures.

- Reduces thermal transfer from the pipeline
- More accurate than a standard thermowell
- Fast response time
- Reduces unaccounted error
- Accepts standard probes
- Mounts in existing 3/4" NPT thermowell port
- Flow tested and rated to 100 FPS in 1,000 PSI natural gas (up to 6.7" insertion length)
- Visit www.thermosync.com for detailed test reports, spec sheets and pricing



MONOFLANGE VALVES

PGI's one-piece isolation valves and block and bleed valves are offered in a wide variety of configurations. Typical applications would include isolation service, block and bleed, double block and bleed, level, flow measurement, sampling and chemical injection.

Orifice Sizes	.187"
Connections	ANSI/ASME B16.5 flanged inlet connections 1/2 to 2-inch sizes
Materials	Carbon Steel, 316 SS or Specialty Metals
Pressure	Up to 6,000 PSI (414 Bar)
Temperature	-80° to 1,000° F (-62° to 538° C)
Packing	Teflon® Pressure-Core®, Viton® O-Ring, Teflon® Packed, Low-Torque™ Grafoil®
Seats	Carbide® Ball and Stainless Ball with Bonnet Lock-Out and Anti-Tamper Option

INSTRUMENTATION PRODUCTS

- Instrument Valves & Manifolds
- Power and Steam Plant Valves & Manifolds
- Purge Adapters for the Process Industry

ENGINEERED PRODUCTS

- Gas & Liquid Sampling Systems
- Natural Gas Sampling System Heated Enclosures
- Sample Cylinders and Accessories

MEASUREMENT ACCURACY PRODUCTS

- ThermoSync® Thermowells & Temperature Probes
- Direct-Mount® Systems
- Square Root Error (SRE) & Gauge Line Error (GLE) Indicators

ZEUS® POWER SYSTEMS

- TEC™ ThermoElectric Battery Chargers
- DB1™ Differential Pressure Battery Chargers

ADDITIONAL PGI INTERNATIONAL PRODUCTS & SERVICES

- Valve Fittings & Wellhead Components
- Propane and Anhydrous Ammonia Valves
- Contract Machining



PGI International provides this information in good faith, and it is intended only as an informative guide to PGI International products and services. Individuals using this literature must exercise their independent judgment in evaluating product selection and determining product appropriateness for their particular purpose, system requirements and certifications. PGI International reserves the right to change product designs and specifications without notice.



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