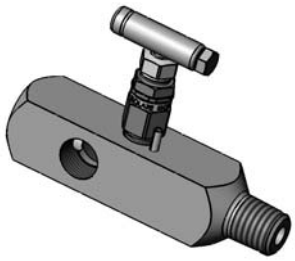
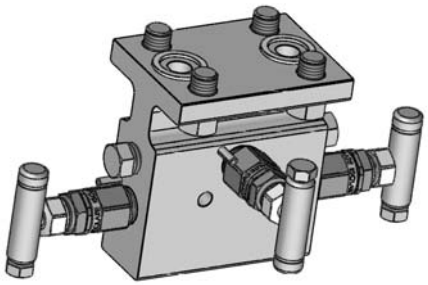
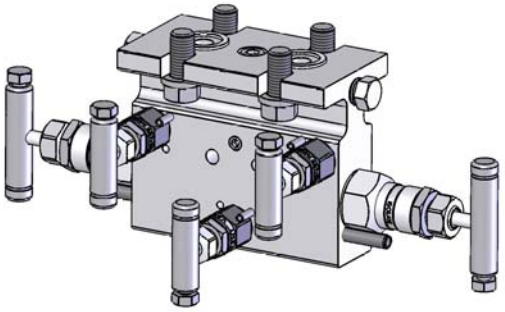
# Lone Star

***Quality Products at a Value Price***







Parker

PGI

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**Notes:**

# Lone Star Warranty, Sales Policies and Manufacturing Standards

## Parker PGI

Parker PGI, founded as General Screw Products Company in 1941, began as a contract manufacturer for the oil and gas industry. Parker PGI has since evolved into a leading designer, manufacturer and distributor of innovative and diverse products for the energy and process industries. Based in Houston, Texas, Parker PGI currently has over 180,000 square feet of manufacturing capability and over 400 employees worldwide. As the markets we service expand, Parker PGI's quality products are demanded and specified worldwide. For companies that demand the best, Parker PGI delivers "Excellence Through Innovation."

## Product Warranty

Parker PGI warrants its products to be free from defects in material and/or workmanship for a period of one (1) year from date of shipment. This guarantee is valid only if such products have been used in normal applications consistent with our recommendations. Our liability is limited to repair or replacement and no responsibility is assumed for consequential damage or expense. Any controversy arising out of the sale of Parker PGI products shall be determined in accordance with the laws of the State of Texas, United States of America (USA).

Parker PGI reserves the right to change materials, specifications or designs without notice. Parker PGI will not be obligated to install or furnish such changes on products previously sold.

## Sales Policy

Our products are sold through authorized manufacturer representatives or direct from our factory sales office. All orders are subject to acceptance by Parker PGI, headquarters located in Houston, Texas (USA). Prices are subject to change without notice and any errors in published prices are subject to correction. No materials may be returned for credit without written authorization from our Houston office. In issuing credit for returned material, we reserve the right to deduct a reconditioning and handling charge. Special items, not conforming to our standard line, will not be accepted for credit.

## Special Orders

Parker PGI has been a custom manufacturer of valve components since 1941. Parker PGI invites inquiries for special variations and will work with you to solve your specific application problems.

## Oxygen & Chlorine Service

To insure the quality, safety and cleanliness levels of our products, Parker PGI has a verifiable, environmentally controlled system of precision cleaning for Oxygen and Chlorine Service.

- Parts are cleaned with an approved liquid cleaner in an ultrasonic vibrator.
- Inspection of parts is done with an Ultraviolet light to detect contaminants such as hydrocarbons and minute particles that are not visible to the naked eye.
- Each part is tagged and heat-sealed in a double bag to prevent contamination in transit.
- Upon completion of cleaning process, Carbon Steel Valves discolor to a silver-greenish sheen. This does not affect manifold performance in any way.

## Manufacturing Standards & Compliances

Lone Star Products are Manufactured, Conform and are Certified to the Following Agencies and Associations:

- ISO 9001:2008 Certified Quality System
- Canadian Registration Number (CRN)
- CE - Pressure Equipment Directive Conformity
- National Association of Corrosion Engineers (NACE MR0175/ISO 15156-3)
- ASME/ANSI B1.20.1 General Pipe Threads
- ASME/ANSI B16.34 Valves Flanged, Threaded
- ASME/ANSI B16.11 Fittings/Socket Weld, etc.
- ASME/ANSI B31.3 Process Piping
- MSS SP-25 Standard Valve Markings
- MSS SP-82 Valve Pressure Testing Methods
- MSS SP-99 Instrument Valves
- MSS SP-105 Instrument Valves for Code Applications

**Visit Parker.com/Safety**

# Miniature "Mini" Valves

SOFT & METAL SEAT
.136" ORIFICE

## SOFT "WASHER" SEATS: .136" Orifice

**Features**
- PGI "Washer" Seat

**Benefits**
- Throttling and shut-off design
- Interchangeable between soft or metal seats
- Easily replaced
- Available in a variety of materials

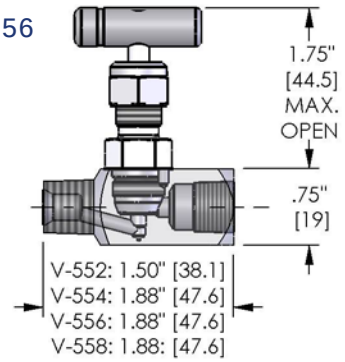
## INTEGRAL METAL TO METAL SEAT: .136" Orifice

**Features**
- PGI Integral Metal Seat

**Benefits**
- Throttling and shut-off design
- Interchangeable between soft or metal seats

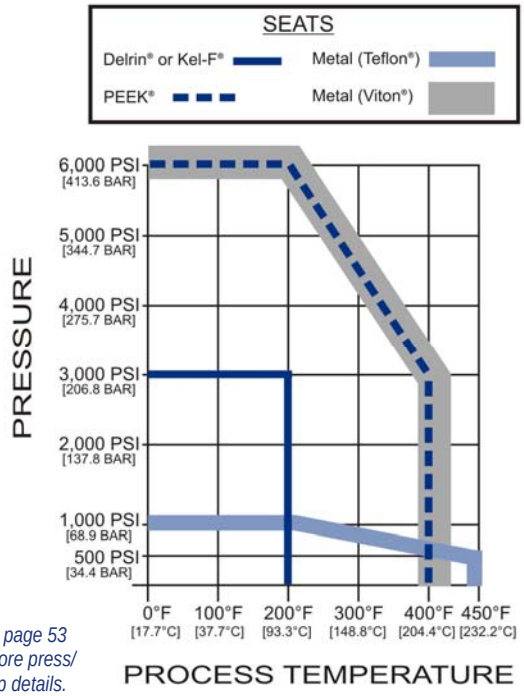
## Dimensions, inches [mm]

V-556




| Note Regarding Handle Types: | |
|---|---|
| Soft Seated Valves | CS or SS Round Handles as Standard |
| Hard Seat Valves | CS or SS Bar Handles as Standard |

## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| | | *Inlet x Outlet* |
|---|---|---|
| V- | 552 | 1/4" MNPT x 1/4" FNPT Angle |
| V- | 554 | 1/4" MNPT x 1/4" MNPT |
| V- | 556 | 1/4" MNPT x 1/4" FNPT |
| V- | 558 | 1/4" FNPT x 1/4" FNPT |

Body Material Code

| | |
|---|---|
| C | ASTM A108 |
| S | ASTM A479-316 SS |

Seat Material Code

| | |
|---|---|
| M | Metal *(Standard)* |
| D | Delrin® *(Standard)* |
| K | Kel-F® |
| P | Peek® |

Stem Packing/Seal Code

| | |
|---|---|
| T | Mini PTFE Packed |
| V | Viton® O-Ring |

V- [ ] [ ] [ ] [ ] - Options *[pages 49-50]*

## Materials of Construction

| Part | Carbon Steel | 316 Stainless Steel |
|---|---|---|
| Body / Bonnet | ASTM A108 | ASTM A479-316 |
| Packing "T" / "V" | PTFE / Viton® O-Ring | PTFE / Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 |
| Packing Nut *(TFE Packed Only)* | ASTM A108 | ASTM A582-303 |
| Handles: Soft Seated Valves | CS or SS Round Handles are Standard | |
| Handles: Hard Seat Valves | CS or SS Bar Handles are Standard | |

## Max Cv Ratings

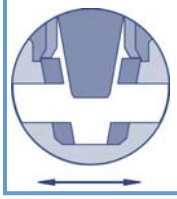
| .136" Orifice | Body Style | |
|---|---|---|
| | Straight | Angle |
| Soft Seat | .22 | .27 |
| Metal Seat | .25 | .32 |

Approx. Valve Weight:
.25 lbs. [.11 kg] ea.

## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ ISO 15156-3
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

## SOFT SEAT: .187" Orifice



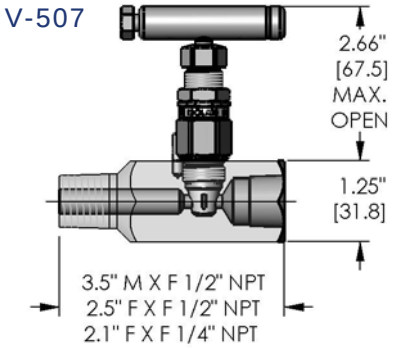
**Features**

- PGI Soft *Cone* Seat

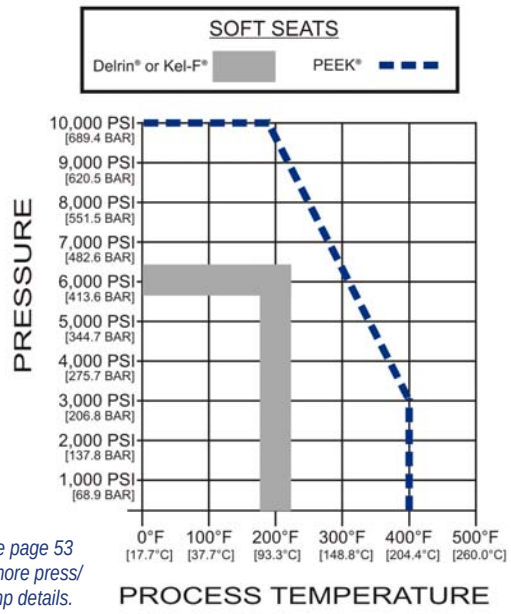
**Benefits**

- Roddable straight-through design
- Leak free, bubble tight seating
- Easily replaced
- Available in a variety of materials
- Bi-directional flow

## Dimensions, inches [mm]




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| | | *Bi-Directional Flow* |
|---|---|---|
| V- | 501 | 1/4" MNPT x 1/4" FNPT |
| V- | 503 | 1/4" FNPT x 1/4" FNPT |
| V- | 507 | 1/2" MNPT x 1/2" FNPT |
| V- | 509 | 1/2" FNPT x 1/2" FNPT |
| V- | 529 | 3/4" MNPT x 1/2" FNPT |
| V- | 531 | 1/2" MNPT x 1/4" FNPT |

Body Material Code

| | |
|---|---|
| C | ASTM A108 |
| S | ASTM A479-316 SS |
| P | ASTM A696* |

Seat Material Code

| | |
|---|---|
| D | Delrin® *(Standard)* |
| K | Kel-F® |
| P | Peek® |

Stem Packing/Seal Code

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

| | | | | | | |
|---|---|---|---|---|---|---|
| V- | | | | | - | Options *[pages 49-50]* |

## Materials of Construction

| Part | Carbon Steel | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|---|
| Body / Bonnet | ASTM A108 | ASTM A696 Gr.C | ASTM A479-316 |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| | Straight Body Style |
|---|---|
| .187" Orifice | .83 |

Approx. Valve Weight:
1.30 lbs. [.58 kg] ea.

* Barstock equivalent of ASTM A105

## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

# Instrument Needle Valves

HARD SEAT
.187" ORIFICE

## HARD BALL SEAT: .187" Orifice

**Features**

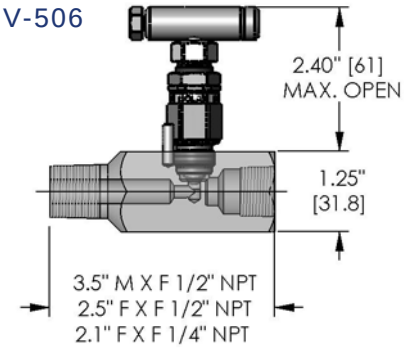
- PGI Standard 316 SS *Ball* Seat

**Benefits**

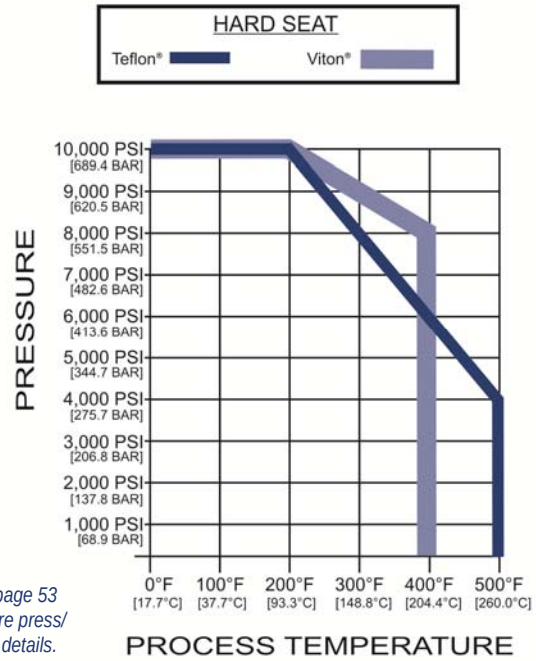
- Non-rotating ball eliminates seat galling and ball creasing
- Leak free, bubble tight seating
- Available in a variety of materials

## Dimensions, inches [mm]

V-506




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| | | *Inlet x Outlet* |
|---|---|---|
| V- | 500 | 1/4" MNPT x 1/4" FNPT |
| V- | 502 | 1/4" FNPT x 1/4" FNPT |
| V- | 506 | 1/2" MNPT x 1/2" FNPT |
| V- | 508 | 1/2" FNPT x 1/2" FNPT |
| V- | 528 | 3/4" MNPT x 1/2" FNPT |
| V- | 530 | 1/2" MNPT x 1/4" FNPT |
| V- | 540 | 3/4" FNPT x 3/4" FNPT |

Body Material Code

| | |
|---|---|
| C | ASTM A108 |
| S | ASTM A479-316 SS |
| P | ASTM A696* |

Seat Material Code

| | |
|---|---|
| 6 | 316 SS Ball *(Standard)* |
| C | Carbide Ball |
| N | Monel® |

Stem Packing/Seal Code

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

V- [ ] [ ] [ ] [ ] [ ] - Options *[pages 49-50]*

## Materials of Construction

| Part | Carbon Steel | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|---|
| Body / Bonnet | ASTM A108 | ASTM A696 Gr.C | ASTM A479-316 |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| | Straight Body Style |
|---|---|
| .187" Orifice | .53 |

Approx. Valve Weight:
1.30 lbs. [.58 kg] ea.

* Barstock equivalent of ASTM A105

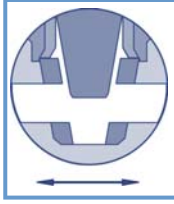
## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

# Instrument Needle Valve-90° Angle Style

SOFT SEAT .187" ORIFICE

**SOFT SEAT: .187" Orifice**



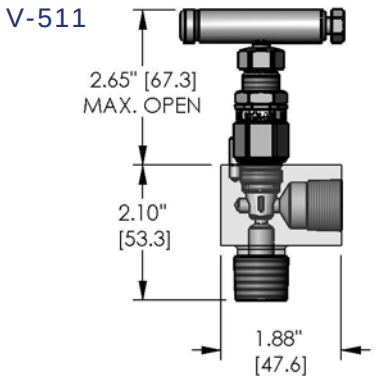
**Features**

- PGI Soft *Cone* Seat

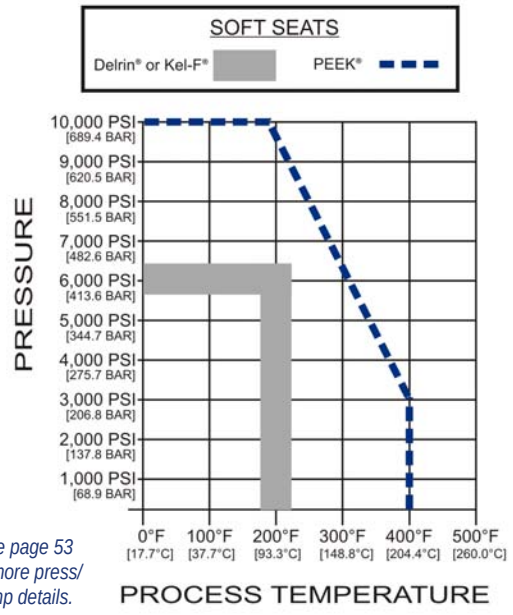
**Benefits**

- Roddable design
- Leak free, bubble tight seating
- Easily replaced
- Available in a variety of materials
- Bi-directional flow

## Dimensions, inches [mm]




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| | |
|---|---|
| | *Bi-Directional Flow* |
| V-511 | 1/2" MNPT x 1/2" FNPT |

Body Material Code

| | |
|---|---|
| C | ASTM A108 |
| S | ASTM A479-316 SS |
| P | ASTM A696* |

Seat Material Code

| | |
|---|---|
| D | Delrin® *(Standard)* |
| K | Kel-F® |
| P | Peek® |

Stem Packing/Seal Code

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

| | | | | | |
|---|---|---|---|---|---|
| V-511 | | | | - | Options *[pages 49-50]* |

## Materials of Construction

| Part | Carbon Steel | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|---|
| Body / Bonnet | ASTM A108 | ASTM A696 Gr.C | ASTM A479-316 |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| .187" Orifice | Straight Body Style |
|---|---|
| | .79 |

Approx. Valve Weight:
1.00 lbs. [.45 kg] ea.

* Barstock equivalent of ASTM A105

## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

# Instrument Needle Valves-90° Angle Style

HARD SEAT
.187" ORIFICE

## HARD BALL SEAT: .187" Orifice

**Features**

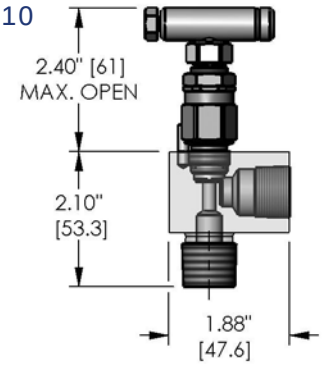
- PGI Standard 316 SS *Ball* Seat

**Benefits**

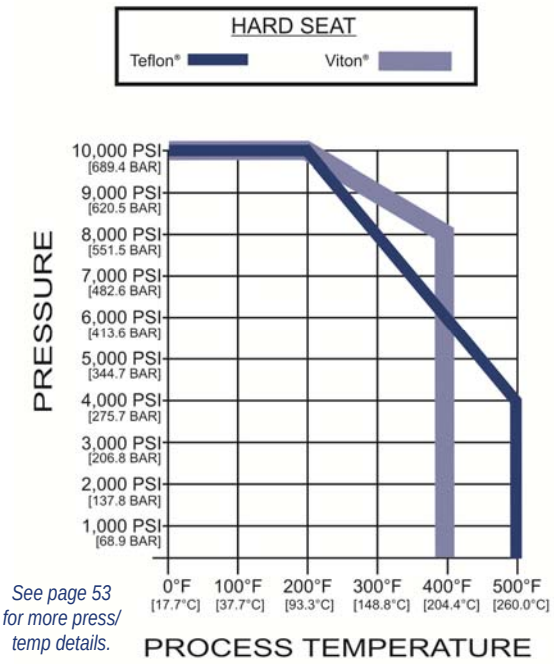
- Non-rotating ball eliminates seat galling and ball creasing
- Leak free, bubble tight seating
- Available in a variety of materials

## Dimensions, inches [mm]

V-510




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| | | *Inlet x Outlet* |
|---|---|---|
| V- | 510 | 1/2" MNPT x 1/2" FNPT |
| V- | 514 | 1/4" FNPT x 1/4" FNPT |

Body Material Code

| | |
|---|---|
| C | ASTM A108 |
| S | ASTM A479-316 SS |
| P | ASTM A696* |

Seat Material Code

| | |
|---|---|
| 6 | 316 SS Ball *(Standard)* |
| C | Carbide Ball |
| N | Monel® |

Stem Packing/Seal Code

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

V- [ ] [ ] [ ] [ ] [ ] - Options *[pages 49-50]*

## Materials of Construction

| Part | Carbon Steel | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|---|
| Body / Bonnet | ASTM A108 | ASTM A696 Gr.C | ASTM A479-316 |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| | Straight Body Style |
|---|---|
| .187" Orifice | .53 |

Approx. Valve Weight:
2.00 lbs. [.91 kg] ea.

* Barstock equivalent of ASTM A105

## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

## SOFT SEAT: .375" Orifice

**Features**

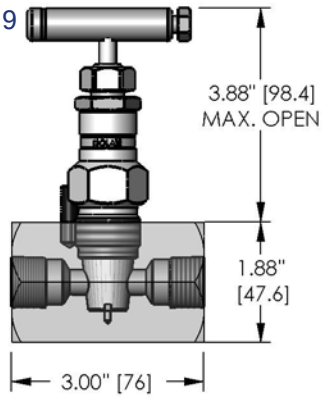
- PGI Soft *Cone* Seat

**Benefits**

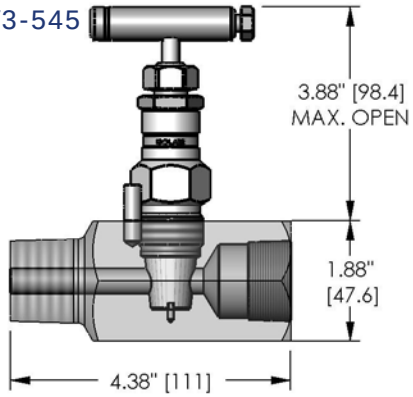
- Roddable straight-through design
- Leak free, bubble tight seating
- Easily replaced
- Available in a variety of materials
- Bi-directional flow

## Dimensions, inches [mm]

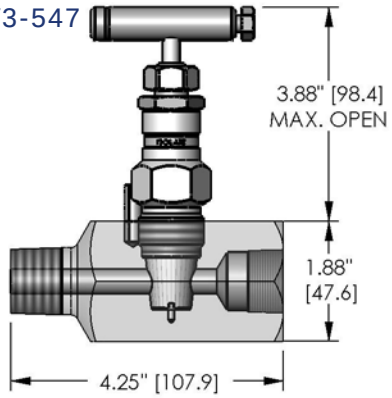
V3-509



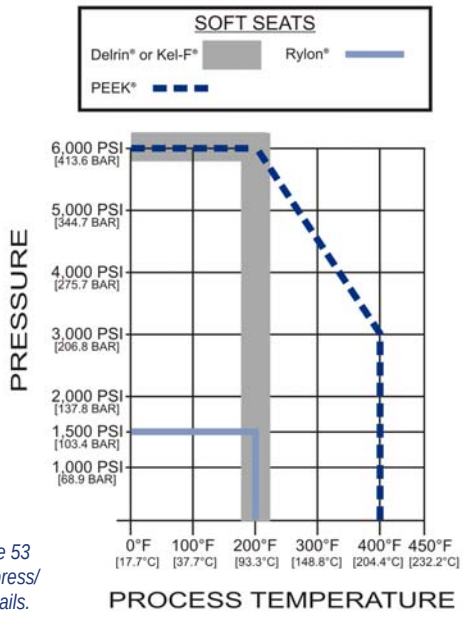

V3-545




V3-547




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| | | |
|---|---|---|
| V3- | 507 | 1/2" MNPT x 1/2" FNPT |
| V3- | 509 | 1/2" FNPT x 1/2" FNPT |
| V3- | 529 | 3/4" MNPT x 1/2" FNPT |
| V3- | 537 | 1" MNPT x 1/2" FNPT |
| V3- | 541 | 3/4" FNPT x 3/4" FNPT |
| V3- | 543 | 1" FNPT x 1" FNPT |
| V3- | 545 | 1" MNPT x 1" FNPT |
| V3- | 547 | 3/4" MNPT x 3/4" FNPT |

Body Material Code

| | |
|---|---|
| C | ASTM A108 |
| S | ASTM A479-316 SS |

Seat Material Code

| | |
|---|---|
| D | Delrin® *(Standard)* |
| K | Kel-F® |
| P | Peek® |

Stem Packing/Seal Code

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

V3- ____ ____ ____ ____ - Options *[pages 49-50]*

## Materials of Construction

| Part | Carbon Steel | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|---|
| Body / Bonnet | ASTM A108 | ASTM A696 Gr.C | ASTM A479-316 |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| .375" Orifice | Straight Body Style |
|---|---|
| | 3.00 |

Approx. Valve Weight:
3.00 lbs. [1.36 kg] ea.

* Barstock equivalent of ASTM A105

## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

## HARD BALL SEAT: .375" Orifice

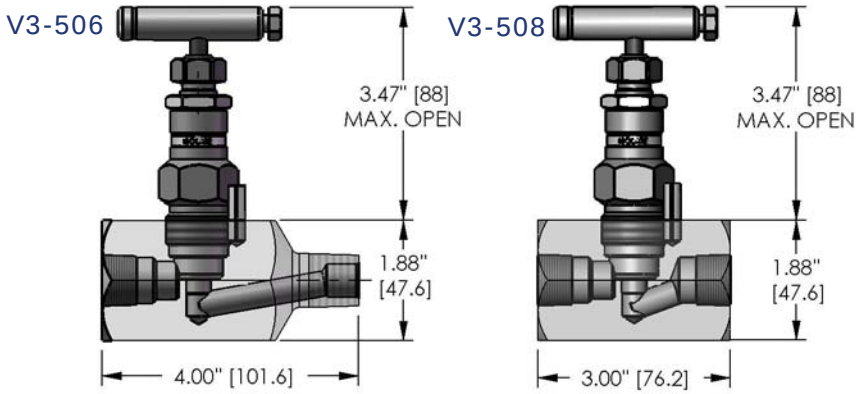
**Features**

- PGI Standard 316 SS *Ball* Seat

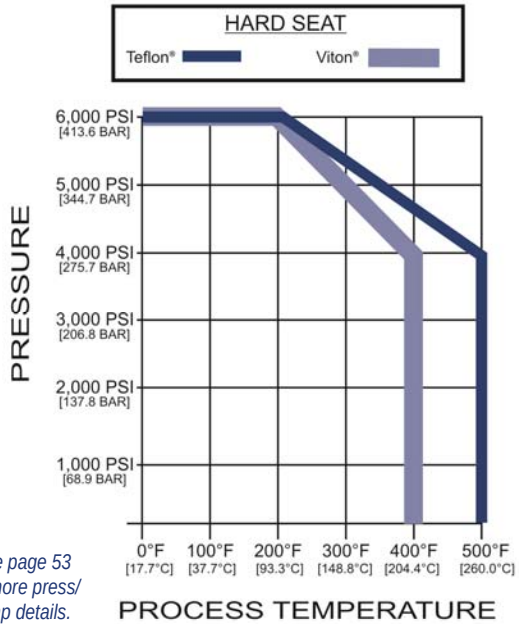
**Benefits**

- Non-rotating ball eliminates seat galling and ball creasing
- Leak free, bubble tight seating
- Available in a variety of materials

## Dimensions, inches [mm]




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| | | *Inlet x Outlet* |
|---|---|---|
| V3- | 506 | 1/2" MNPT x 1/2" FNPT |
| V3- | 508 | 1/2" FNPT x 1/2" FNPT |
| V3- | 540 | 3/4" FNPT x 3/4" FNPT |
| V3- | 542 | 1" FNPT x 1" FNPT |
| V3- | 544 | 1" MNPT x 1" FNPT |

Body Material Code

| | |
|---|---|
| C | ASTM A108 |
| S | ASTM A479-316 SS |
| P | ASTM A696* |

Seat Material Code

| | |
|---|---|
| 6 | 316 SS Ball *(Standard)* |
| C | Carbide Ball |
| N | Monel® |

Stem Packing/Seal Code

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

V3- [ ][ ][ ][ ][ ] - Options *[pages 49-50]*

## Materials of Construction

| Part | Carbon Steel | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|---|
| Body / Bonnet | ASTM A108 | ASTM A696 Gr.C | ASTM A479-316 |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| .375" Orifice | Straight Body Style |
|---|---|
| | 2.40 |

Approx. Valve Weight:
3.00 lbs. [1.36 kg] ea.

* Barstock equivalent of ASTM A105

## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

# Multi-Port Gauge Valves

## SOFT SEAT: .187" Orifice

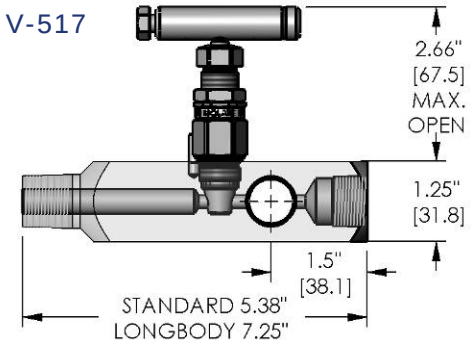
**Features**

- PGI Soft *Cone* Seat

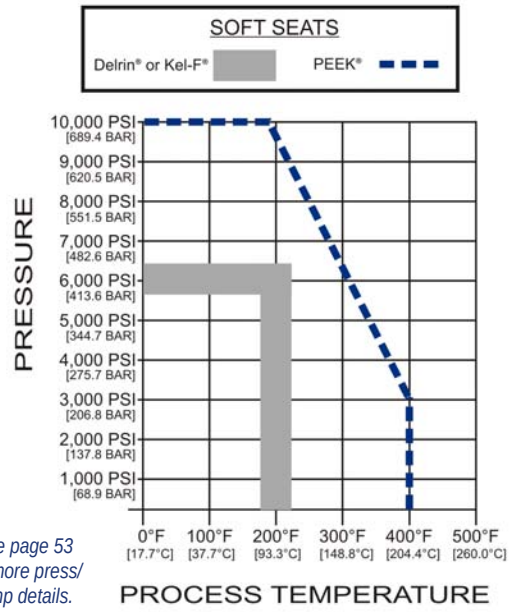
**Benefits**

- Roddable straight-through design
- Leak free, bubble tight seating
- Easily replaced
- Available in a variety of materials
- Bi-directional flow

## Dimensions, inches [mm]




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| | | *Inlet x Outlets* |
|---|---|---|
| V- | 517 | 1/2" MNPT x (3) 1/2" FNPT (Standard) |
| V- | 519 | 3/4" MNPT x (3) 1/2" FNPT (Standard) |
| V- | 573 | 1/2" MNPT x (3) 1/2" FNPT (Long) |
| V- | 574 | 3/4" MNPT x (3) 1/2" FNPT (Long) |

Body Material Code

| | |
|---|---|
| C | ASTM A108 |
| S | ASTM A479-316 SS |
| P | ASTM A696* |

Seat Material Code

| | |
|---|---|
| D | Delrin® *(Standard)* |
| K | Kel-F® |
| P | Peek® |

Stem Packing/Seal Code

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

V- [ ] [ ] [ ] [ ] [ ] - Options *[pages 49-50]*

## Materials of Construction

| Part | Carbon Steel | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|---|
| Body / Bonnet | ASTM A108 | ASTM A696 Gr.C | ASTM A479-316 |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| .187" Orifice | Straight Body Style |
|---|---|
| | .83 |

Approx. Valve Weight:
2.30 lbs. [1.04 kg] ea. (Standard)
3.00 lbs. [1.36 kg] ea. (Long)

* Barstock equivalent of ASTM A105

## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

## HARD BALL SEAT: .187" Orifice

**Features**

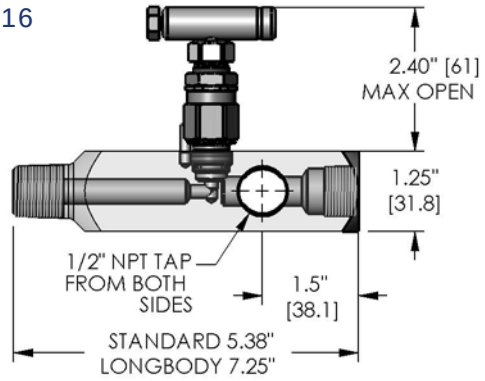
- PGI Standard 316 SS *Ball* Seat

**Benefits**

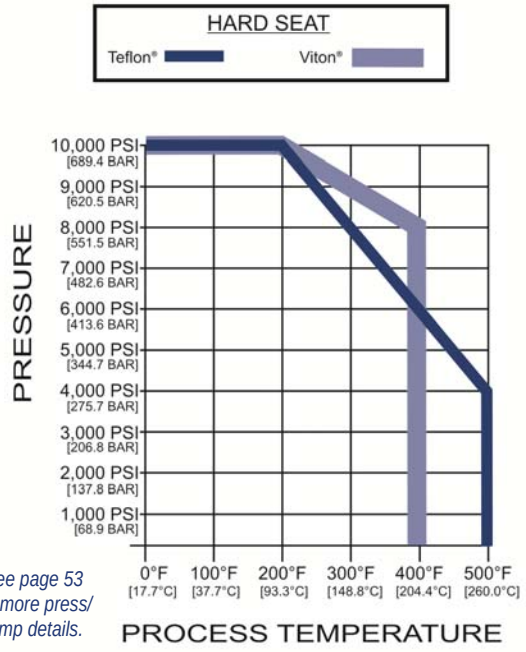
- Non-rotating ball eliminates seat galling and ball creasing
- Leak free, bubble tight seating
- Available in a variety of materials

## Dimensions, inches [mm]

V-516




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| *Process x Instrument* | | |
|---|---|---|
| V- | 516 | 1/2" MNPT x (3) 1/2" FNPT (Standard) |
| V- | 518 | 3/4" MNPT x (3) 1/2" FNPT (Standard) |
| V- | 520 | 1/2" MNPT x (3) 1/2" FNPT (Long) |
| V- | 532 | 3/4" MNPT x (3) 1/2" FNPT (Long) |

Body Material Code

| | |
|---|---|
| C | ASTM A108 |
| S | ASTM A479-316 SS |
| P | ASTM A696* |

Seat Material Code

| | |
|---|---|
| 6 | 316 SS Ball *(Standard)* |
| C | Carbide Ball |
| N | Monel® |

Stem Packing/Seal Code

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

| V- | | | | | - | Options *[pages 49-50]* |
|---|---|---|---|---|---|---|

## Materials of Construction

| Part | Carbon Steel | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|---|
| Body / Bonnet | ASTM A108 | ASTM A696 Gr.C | ASTM A479-316 |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| .187" Orifice | Straight Body Style |
|---|---|
| | .53 |

Approx. Valve Weight:
2.30 lbs. [1.04 kg] ea. (Standard)
3.00 lbs. [1.36 kg] ea. (Long)

* Barstock equivalent of ASTM A105

## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

# Multi-Port Gauge Valves

## SOFT SEAT: .375" Orifice

**Features**

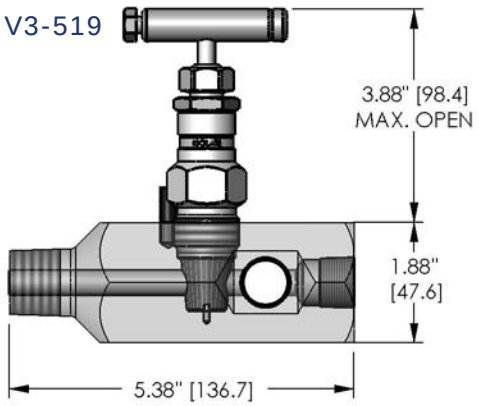
- PGI Soft *Cone* Seat

**Benefits**

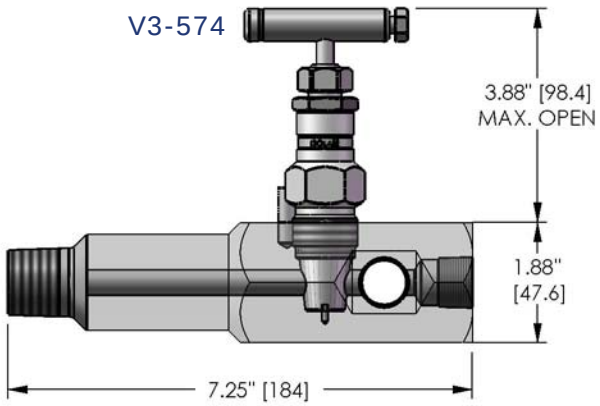
- Roddable straight-through design
- Leak free, bubble tight seating
- Easily replaced
- Available in a variety of materials
- Bi-directional flow

## Dimensions, inches [mm]

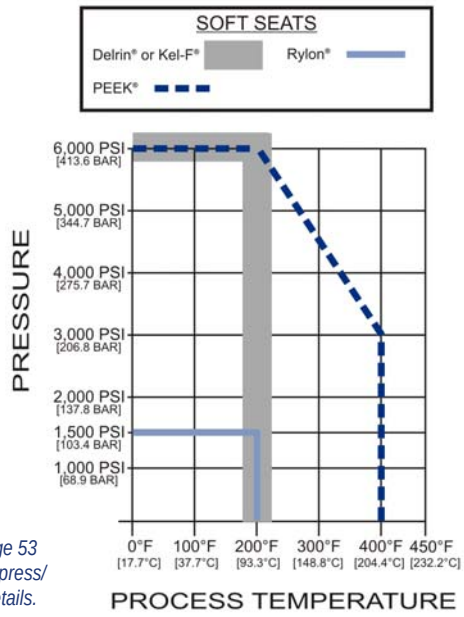
V3-519




V3-574




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

**Base Model**

| | | |
|---|---|---|
| V3- | 517 | 1/2" MNPT x (3) 1/2" FNPT (Standard) |
| V3- | 519 | 3/4" MNPT x (3) 1/2" FNPT (Standard) |
| V3- | 573 | 1/2" MNPT x (3) 1/2" FNPT (Long) |
| V3- | 574 | 3/4" MNPT x (3) 1/2" FNPT (Long) |
| V3- | 577 | 1" MNPT x (3) 1/2" FNPT (Standard) |

**Body Material Code**

| | |
|---|---|
| C | ASTM A108 |
| S | ASTM A479-316 SS |

**Seat Material Code**

| | |
|---|---|
| D | Delrin® *(Standard)* |
| K | Kel-F® |
| P | Peek® |

**Stem Packing/Seal Code**

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| V3- | | | | | | - | Options *[pages 49-50]* |

## Materials of Construction

| Part | Carbon Steel | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|---|
| Body / Bonnet | ASTM A108 | ASTM A696 Gr.C | ASTM A479-316 |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| .375" Orifice | Straight Body Style |
|---|---|
| | 2.40 |

Approx. Valve Weight:
2.30 lbs. [1.04 kg] ea.

* Barstock equivalent of ASTM A105

## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

# Multi-Port Gauge Valves

HARD SEAT
.375" ORIFICE

## HARD BALL SEAT: .375" Orifice

**Features**

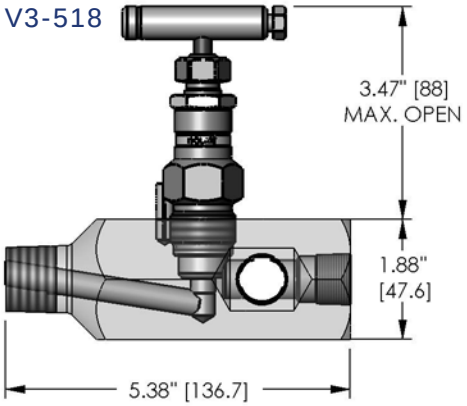
- PGI Standard 316 SS *Ball* Seat

**Benefits**

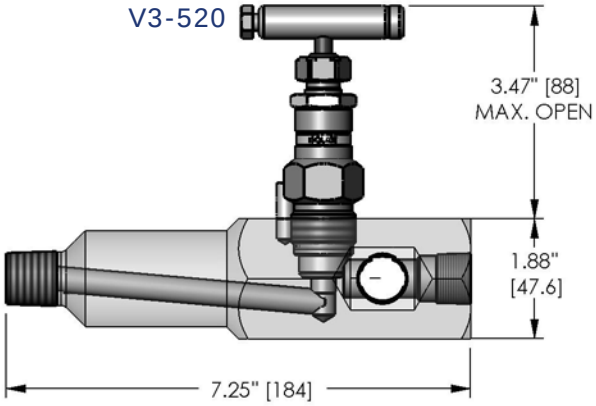
- Non-rotating ball eliminates seat galling and ball creasing
- Leak free, bubble tight seating
- Available in a variety of materials

## Dimensions, inches [mm]

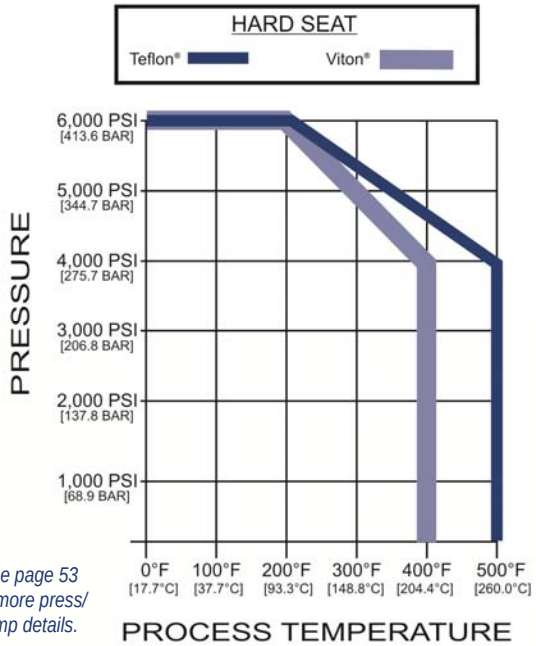
V3-518




V3-520




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| | | |
|---|---|---|
| V3- | 516 | 1/2" MNPT x (3) 1/2" FNPT (Standard) |
| V3- | 518 | 3/4" MNPT x (3) 1/2" FNPT (Standard) |
| V3- | 520 | 1/2" MNPT x (3) 1/2" FNPT (Long) |
| V3- | 532 | 3/4" MNPT x (3) 1/2" FNPT (Long) |

Body Material Code

| | |
|---|---|
| C | ASTM A108 |
| S | ASTM A479-316 SS |
| P | ASTM A696* |

Seat Material Code

| | |
|---|---|
| 6 | 316 SS Ball *(Standard)* |
| C | Carbide Ball |
| N | Monel® |

Stem Packing/Seal Code

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

V3- [ ][ ][ ][ ][ ] - Options *[pages 49-50]*

## Materials of Construction

| Part | Carbon Steel | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|---|
| Body / Bonnet | ASTM A108 | ASTM A696 Gr.C | ASTM A479-316 |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| .375" Orifice | Straight Body Style |
|---|---|
| | 2.40 |

Approx. Valve Weight:
2.30 lbs. [1.04 kg] ea. (Standard)
3.00 lbs. [1.36 kg] ea. (Longbody)

* Barstock equivalent of ASTM A105

## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

# Bleeder Screw Gauge Valves

HARD SEAT
.187" ORIFICE

## HARD BALL SEAT: .187" Orifice

**Features**

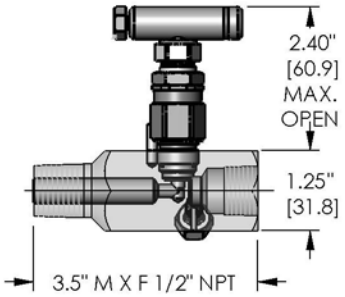
- PGI Standard 316 SS *Ball* Seat

**Benefits**

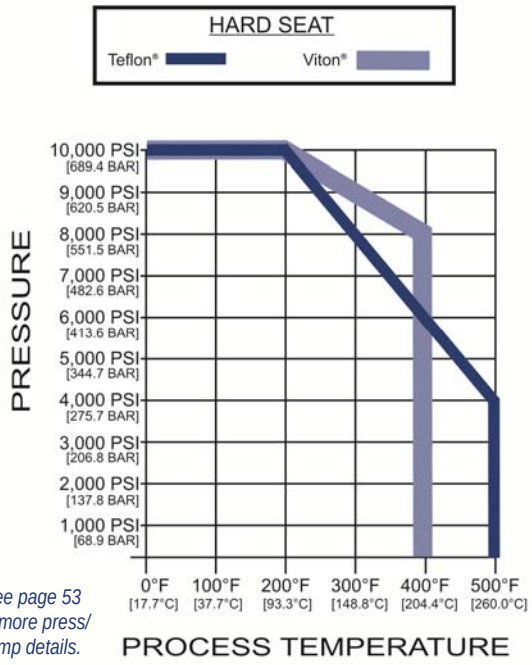
- Non-rotating ball eliminates seat galling and ball creasing
- Leak free, bubble tight seating
- Available in a variety of materials

## Dimensions, inches [mm]

V-522




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| | | *Process x Instrument* |
|---|---|---|
| V- | 522 | 1/2" MNPT x 1/2" FNPT |
| V- | 526 | 3/4" MNPT x 1/2" FNPT |

Body Material Code

| | |
|---|---|
| C | ASTM A108 |
| S | ASTM A479-316 SS |
| P | ASTM A696* |

Seat Material Code

| | |
|---|---|
| 6 | 316 SS Ball *(Standard)* |
| C | Carbide Ball |
| N | Monel® |

Stem Packing/Seal Code

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| V- | | | | | | - | Options *[pages 49-50]* |

## Materials of Construction

| Part | Carbon Steel | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|---|
| Body / Bonnet | ASTM A108 | ASTM A696 Gr.C | ASTM A479-316 |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| .187" Orifice | Straight Body Style |
|---|---|
| | .53 |

Approx. Valve Weight:
1.30 lbs. [.58 kg] ea.

* Barstock equivalent of ASTM A105

## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

# Bleeder Screw Gauge Valves

SOFT SEAT
.187" ORIFICE

## SOFT SEAT: .187" Orifice

**Features**

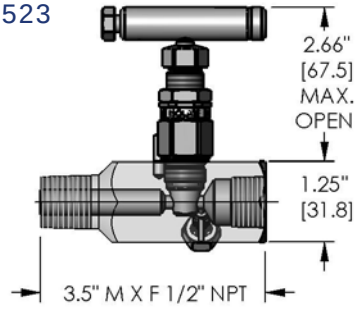
- PGI Soft *Cone* Seat

**Benefits**

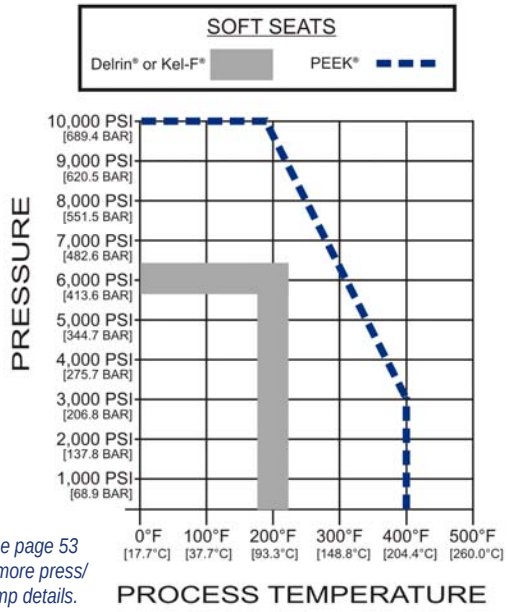
- Roddable straight-through design
- Leak free, bubble tight seating
- Easily replaced
- Available in a variety of materials
- Bi-directional flow

## Dimensions, inches [mm]

V-523




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| *Process x Instrument* | | |
|---|---|---|
| V- | 523 | 1/2" MNPT x 1/2" FNPT |
| V- | 527 | 3/4" MNPT x 1/2" FNPT |

Body Material Code

| | |
|---|---|
| C | ASTM A108 |
| S | ASTM A479-316 SS |
| P | ASTM A696* |

Seat Material Code

| | |
|---|---|
| D | Delrin® *(Standard)* |
| K | Kel-F® |
| P | Peek® |

Stem Packing/Seal Code

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

| | | | | | | |
|---|---|---|---|---|---|---|
| V- | | | | | - | Options *[pages 49-50]* |

## Materials of Construction

| Part | Carbon Steel | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|---|
| Body / Bonnet | ASTM A108 | ASTM A696 Gr.C | ASTM A479-316 |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| .187" Orifice | Straight Body Style |
|---|---|
| | .83 |

Approx. Valve Weight:
1.30 lbs. [.58 kg] ea.

* Barstock equivalent of ASTM A105

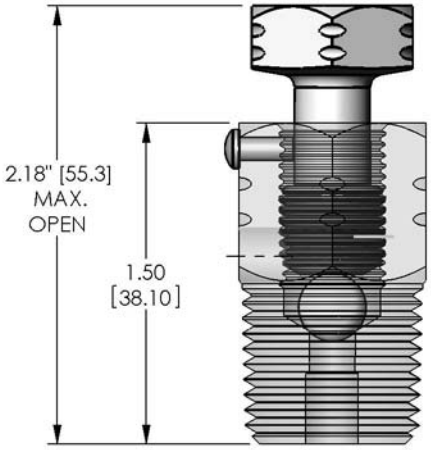
## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

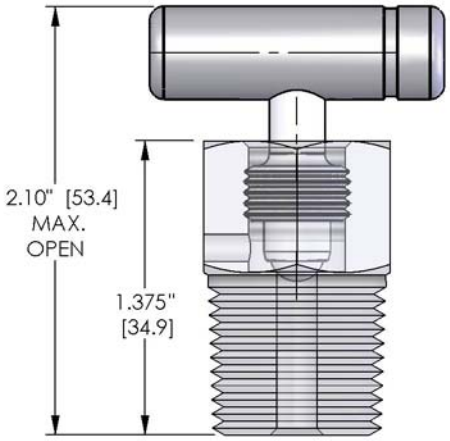
# Bleeder Plugs

## Dimensions, inches [mm]

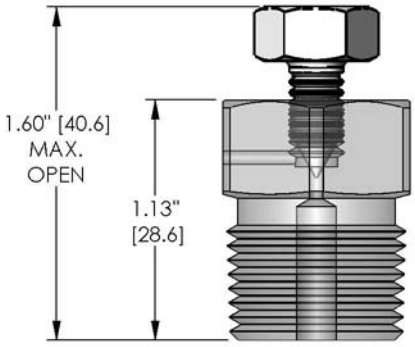
BV10



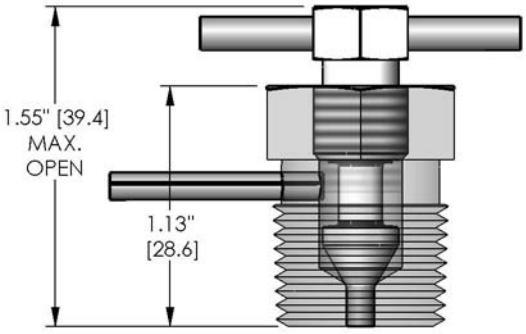

A7-521 /520




A7-525 /526




A7-528/529




## Part Number Selection

Base Model

| | *Connection* | *Seat Material* | *Other Material* |
|---|---|---|---|
| BV10N2 | 1/4" MNPT | Carbide Ball | Drive Screw 300 SS |
| BV10N4 | 1/2" MNPT | | |
| A7-520 | 1/2" MNPT | | |
| A7-521 | 1/4" MNPT | | |
| A7-525 | 1/4" MNPT | Integral Metal | Bleed Screw 316 SS |
| A7-526 | 1/2" MNPT | | |
| A7-528 | 1/4" MNPT | | Bleed Tube 316 SS |
| A7-529 | 1/2" MNPT | | |

Body Material Code

| | |
|---|---|
| 10 | ASTM A108 |
| C0 | ASTM A479-316 SS |

[ ] - [ ]

## Pressure vs. Temperature

| | |
|---|---|
| Carbon Steel | 10,000 PSI @ 200° F Max<br>1,500 PSI @ 500° F Max |
| 316 SS | 10,000 PSI @ 200° F Max<br>1,500 PSI @ 1,000° F Max |

## Materials of Construction

*See Body Material Code.*

## Weights

Approx. Valve Weight:
.50 lbs. [.22 kg] ea. (BV10N2/N4)
.50 lbs. [.22 kg] ea. (A7-520/521)
.30 lbs. [.13 kg] ea. (A7-525/526)
.50 lbs. [.22 kg] ea. (A7-528/529)

## Notes

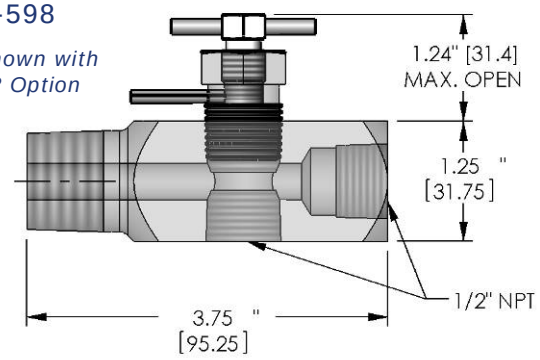
- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

# Bleed "T" Valves

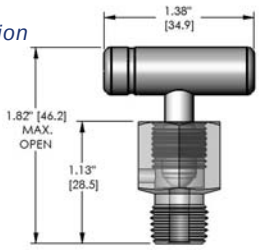
## Dimensions, inches [mm]

V-598

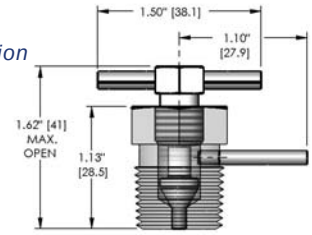
*Shown with B2 Option*



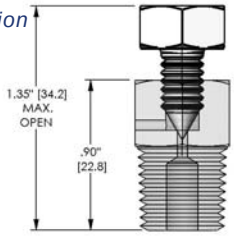

*B1 Option*



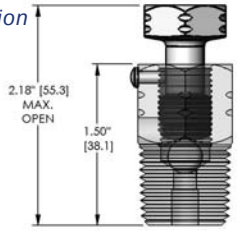

*B2 Option*




*B4 Option*




*B6 Option*




## Part Number Selection

Base Model

| | | *Process x Instrument* |
|---|---|---|
| V- | 597- | 1/2" MNPT x (3) 1/2" FNPT |
| V- | 598- | 3/4" MNPT x (3) 1/2" FNPT |
| B8- | 597- | 1/2" MNPT x (3) 1/2" FNPT Body Only |
| B8- | 598- | 3/4" MNPT x (3) 1/2" FNPT Body Only |

Body Material Code

| | |
|---|---|
| 10 | ASTM A108 |
| C0 | ASTM A479-316 SS |

Bleeder Installed

| | |
|---|---|
| B1 | Carbide Ball Bleed Plug (A7-520) |
| B2 | Bleed "T" Plug (A7-529) |
| B4 | Mini-Hex Bleed Plug (A7-526) |
| B6 | SS Ball Bleed Plug (BV10N4) |

| | | | |
|---|---|---|---|
| - | - | | |

## Pressure vs. Temperature

| | |
|---|---|
| Carbon Steel | 10,000 PSI @ 200° F Max<br>1,500 PSI @ 500° F Max |
| 316 SS | 10,000 PSI @ 200° F Max<br>1,500 PSI @ 1,000° F Max |

## Materials of Construction

*See Body Material Code.*

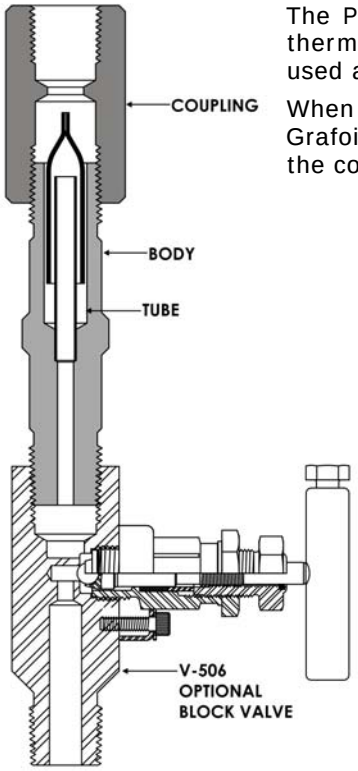
## Weights

Approx. Valve Weight:
1.00 lbs. [0.45 kg] ea. (V-597/598)
0.50 lbs. [0.22 kg] ea. (BX Options)

## Notes

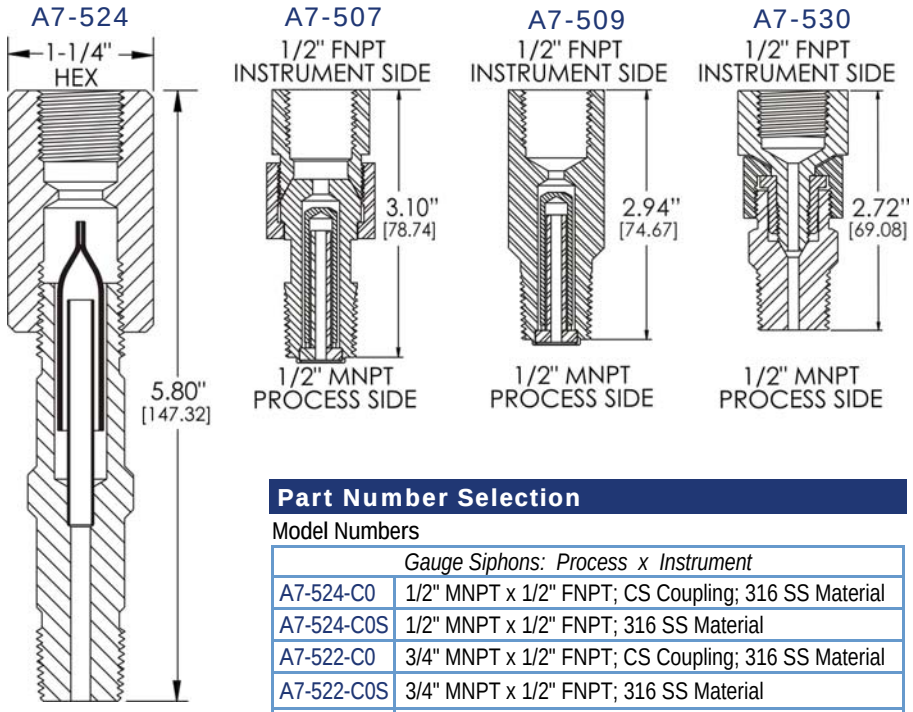
- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

# Gauge Siphons & Swivels




The PGI Gauge Siphon replaces the old style "Pigtail" siphon. The siphon provides a thermal barrier, protecting your instruments from harmful vapors. The siphon can be used as either a freeze or steam protector when used with the proper fill fluids.

When very high heat is present, the siphon, used in conjunction with the PGI V-506 Grafoil packed Hand Valve, reduces temperatures seen at the instrument by lengthening the condensate leg.




ESTIMATED GAUGE TEMPERATURES

By knowing the material of construction, saturated steam conditions, and ambient temperature, the chart below can estimate the gauge temperature for the A7-522/524-C0 & C0S. For example, if using an A7-524-C0 in an application of 500 psig, 470° F saturated steam, and 90° F ambient temperature, Chart 1 (Carbon Steel) can be utilized by following the 90° F ambient temperature curve to 500 psig. An estimated gauge temperature of 180° F is shown.

The same method will be applied for an A7-524-C0S on Chart 2 (Stainless Steel.) The estimated gauge temperature will be 144° F.

Chart 1: Carbon Steel

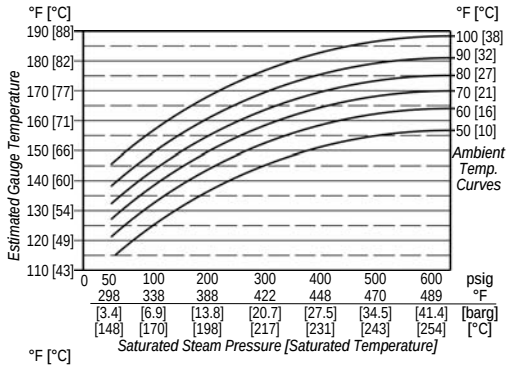
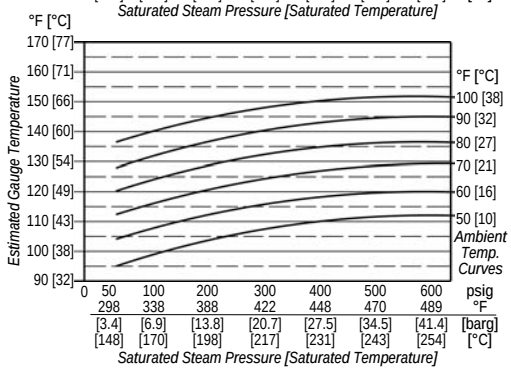



Chart 2: Stainless Steel




## Part Number Selection

Model Numbers

| | *Gauge Siphons: Process x Instrument* |
|---|---|
| A7-524-C0 | 1/2" MNPT x 1/2" FNPT; CS Coupling; 316 SS Material |
| A7-524-C0S | 1/2" MNPT x 1/2" FNPT; 316 SS Material |
| A7-522-C0 | 3/4" MNPT x 1/2" FNPT; CS Coupling; 316 SS Material |
| A7-522-C0S | 3/4" MNPT x 1/2" FNPT; 316 SS Material |
| A7-507-C0 | With Excess Flow Check & Swivel; 1/2" MNPT x 1/2" FNPT; 316 SS Material |
| A7-508-C0 | 3/4" MNPT x 3/4" FNPT; CS Coupling; 316 SS Material |
| A7-509-C0 | With Excess Flow Check; 1/2" MNPT x 1/2" FNPT; 316 SS Material |
| A7-530-C0 | Gauge Swivel Only; 1/2" MNPT x 1/2" FNPT; 316 SS Material |

## Pressure vs. Temperature

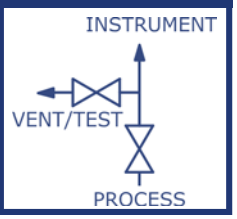
| Part | Pressure @ Temperature |
|---|---|
| A7-524-C0 | 6,000 PSI @ 200° F Max<br>1,500 PSI @ 500° F Max |
| A7-524-C0S | 6,000 PSI @ 200° F Max<br>1,500 PSI @ 1,000° F Max |
| A7-530-C0 | 10,000 PSI @ 200° F Max<br>1,500 PSI @ 1,000° F Max |
| A7-507-C0 | 1,500 PSI @ 1,000° F Max |
| A7-508-C0 | 10,000 PSI @ 200° F Max<br>1,500 PSI @ 500° F Max |
| A7-509-C0 | 1,500 PSI @ 1,000° F Max |

## Weights

Approx. Weights:
1.51 lbs. [0.68 kg] ea. (A7-508 and A7-522/524-C0/C0S)
0.58 lbs. [0.26 kg] ea. (A7-530-C0)
0.60 lbs. [0.27 kg] ea. (A7-507-C0)
1.00 lbs. [0.45 kg] ea. (A7-509-C0)

# Block & Bleed
# Static Pressure Valves

**HARD SEAT .187" ORIFICE**




## HARD BALL SEAT: .187" Orifice

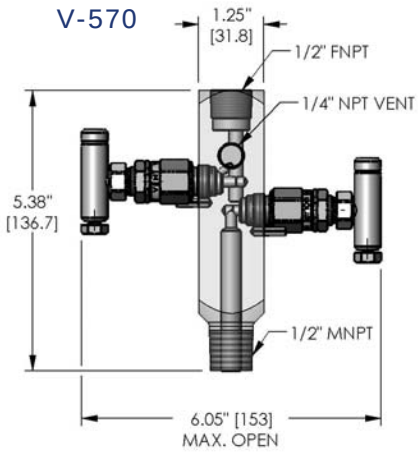
**Features**

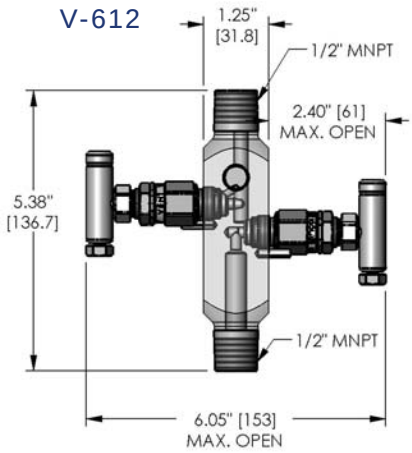
- PGI Standard 316 SS *Ball* Seat

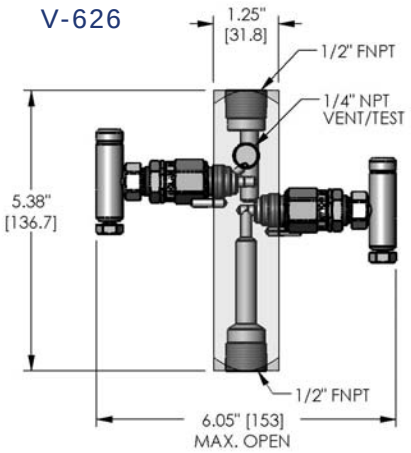
**Benefits**

- Non-rotating ball eliminates seat galling and ball creasing
- Leak free, bubble tight seating
- Available in a variety of materials

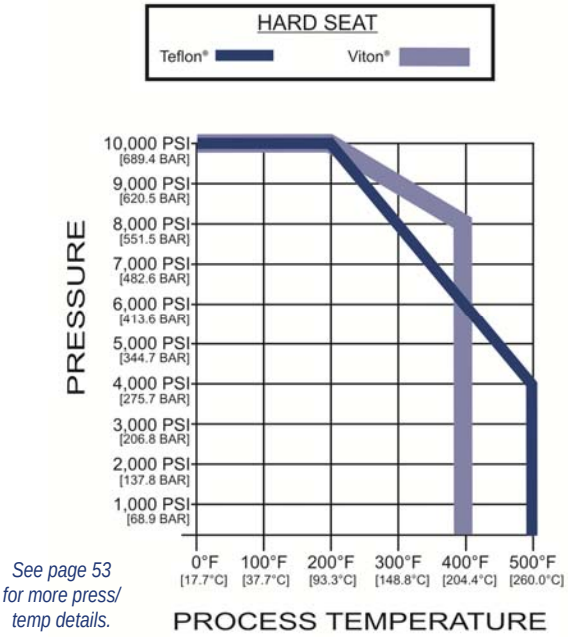
## Dimensions, inches [mm]




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| | | *Process x Instrument x Vent* |
|---|---|---|
| V- | 570 | 1/2" MNPT x 1/2" FNPT x 1/4" NPT |
| V- | 572 | 3/4" MNPT x 1/2" FNPT x 1/4" NPT |
| V- | 612 | 1/2" MNPT x 1/2" MNPT x 1/4" NPT |
| V- | 614 | 1/2" FNPT x 1/2" MNPT x 1/4" NPT |
| V- | 616 | 3/4" MNPT x 1/2" MNPT x 1/4" NPT |
| V- | 626 | 1/2" FNPT x 1/2" FNPT x 1/4" NPT |

Body Material Code

| | |
|---|---|
| C | ASTM A108 |
| S | ASTM A479-316 SS |
| P | ASTM A696* |

Seat Material Code

| | |
|---|---|
| 6 | 316 SS Ball *(Standard)* |
| C | Carbide Ball |
| N | Monel® |

Stem Packing/Seal Code

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

| | | | | | | |
|---|---|---|---|---|---|---|
| V- | | | | | - | Options *[pages 49-50]* |

## Materials of Construction

| Part | Carbon Steel | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|---|
| Body / Bonnet | ASTM A108 | ASTM A696 Gr.C | ASTM A479-316 |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| | Straight Body Style |
|---|---|
| .187" Orifice | .53 |

Approx. Valve Weight:
2.50 lbs. [1.13 kg] ea.

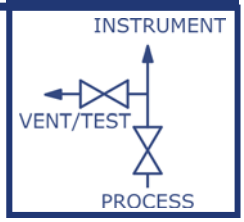
* Barstock equivalent of ASTM A105

## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

# Bracket Mount Block & Bleed Static Pressure Valves

HARD SEAT
.187" ORIFICE




## HARD BALL SEAT: .187" Orifice

**Features**

- PGI Standard 316 SS *Ball* Seat

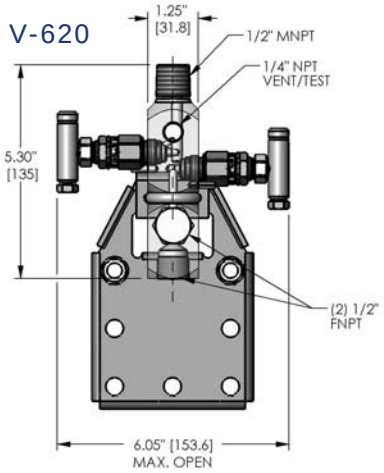
**Benefits**

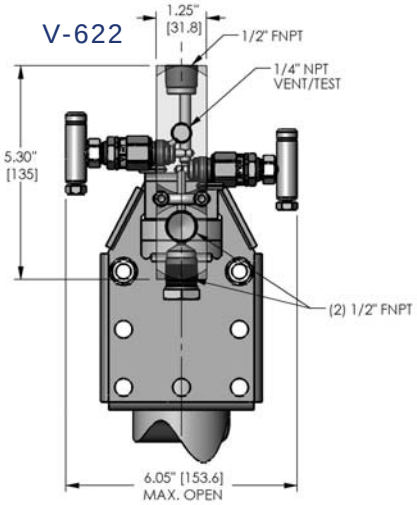
- Non-rotating ball eliminates seat galling and ball creasing
- Leak free, bubble tight seating
- Available in a variety of materials

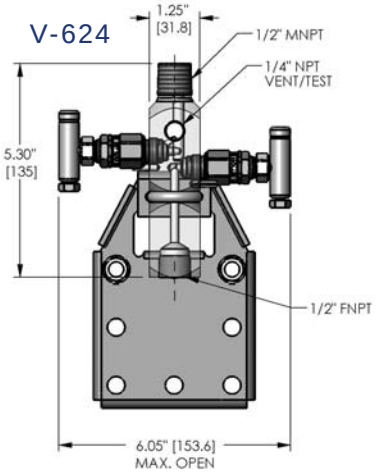
## Dimensions, inches [mm]

VCH/VSH Bracket Shown for Reference Only

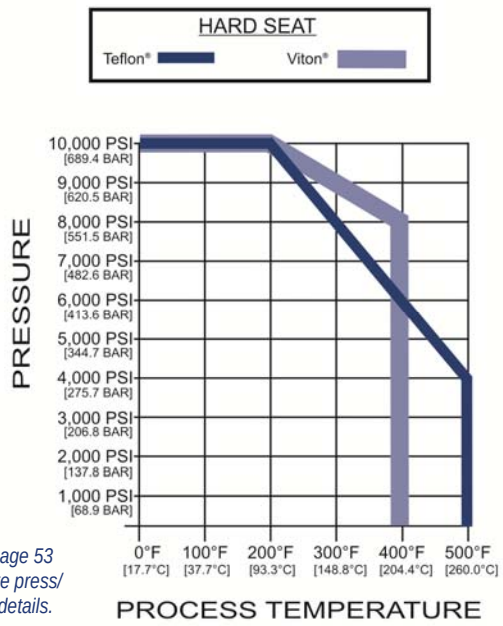
See Options Page 50




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| | | *Process x Instrument x Vent* |
|---|---|---|
| V- | 620 | (2) 1/2" FNPT x 1/2" MNPT x 1/4" NPT Bracket Mount |
| V- | 622 | (2) 1/2" FNPT x 1/2" FNPT x 1/4" NPT Bracket Mount |
| V- | 624 | 1/2" FNPT x 1/2" MNPT x 1/4" NPT Bracket Mount |

Body Material Code

| | |
|---|---|
| C | ASTM A108 |
| S | ASTM A479-316 SS |
| P | ASTM A696* |

Seat Material Code

| | |
|---|---|
| 6 | 316 SS Ball *(Standard)* |
| C | Carbide Ball |
| N | Monel® |

Stem Packing/Seal Code

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

V- _ _ _ _ _ - Options *[pages 49-50]*

## Materials of Construction

| Part | Carbon Steel | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|---|
| Body / Bonnet | ASTM A108 | ASTM A696 Gr.C | ASTM A479-316 |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| .187" Orifice | Straight Body Style |
|---|---|
| | .53 |

Approx. Valve Weight:
2.50 lbs. [1.13 kg] ea.

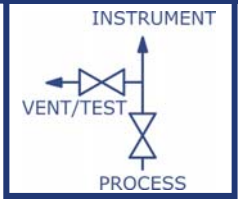
* Barstock equivalent of ASTM A105

## Notes

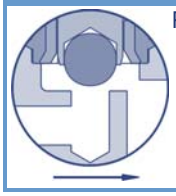
- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

# Stabilized Block & Bleed Static Pressure Valves

HARD SEAT
.187" ORIFICE




## HARD BALL SEAT: .187" Orifice



**Features**

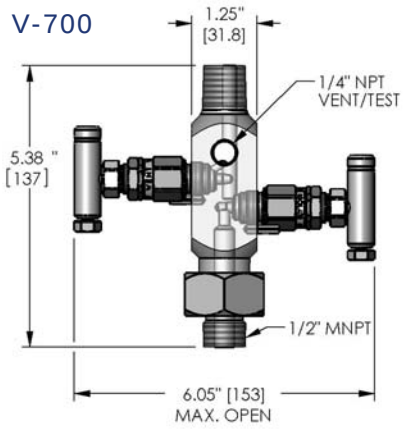
- PGI Standard 316 SS *Ball* Seat

**Benefits**

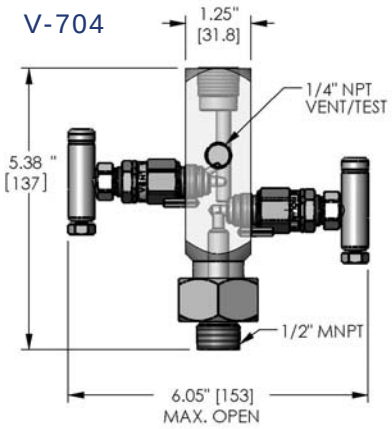
- Non-rotating ball eliminates seat galling and ball creasing
- Leak free, bubble tight seating
- Available in a variety of materials

## Dimensions, inches [mm]

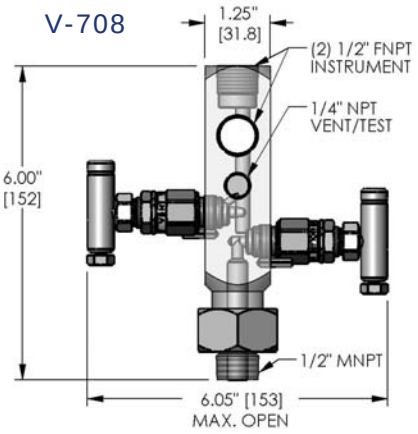
V-700



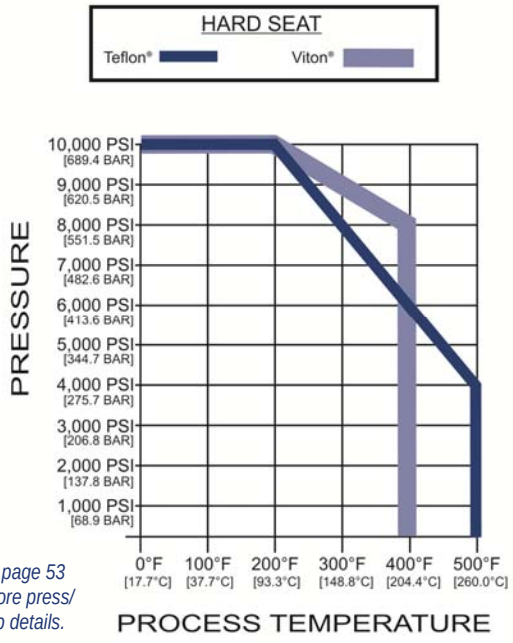

V-704




V-708




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| | | Process x Instrument x Vent | |
|---|---|---|---|
| V- | 700 | 1/2" MNPT x 1/2" MNPT x 1/4" NPT | With Stabilizer Nut |
| V- | 704 | 1/2" MNPT x 1/2" FNPT x 1/4" NPT | |
| V- | 708 | 1/2" MNPT x (2) 1/2" FNPT x 1/4" NPT | |

Body Material Code

| | |
|---|---|
| C | ASTM A108 |
| S | ASTM A479-316 SS |
| P | ASTM A696* |

Seat Material Code

| | |
|---|---|
| 6 | 316 SS Ball *(Standard)* |
| C | Carbide Ball |
| N | Monel® |

Stem Packing/Seal Code

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

V- [ ] [ ] [ ] [ ] [ ] - Options *[pages 49-50]*

## Materials of Construction

| Part | Carbon Steel | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|---|
| Body / Bonnet | ASTM A108 | ASTM A696 Gr.C | ASTM A479-316 |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| .187" Orifice | Straight Body Style |
|---|---|
| | .53 |

Approx. Valve Weight:
2.50 lbs. [1.13 kg] ea.

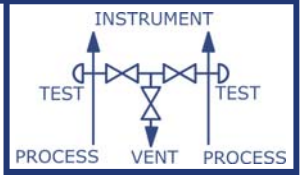
* Barstock equivalent of ASTM A105

## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

# 3-Valve Chart Recorder / Meter Manifold

**SOFT SEAT**
**1/2" FNPT x FLANGE**
**.187" ORIFICE**



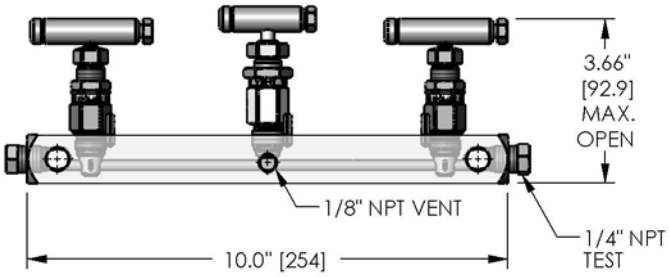

## SOFT SEAT: .187" Orifice

**Features**
- PGI Soft *Cone* Seat

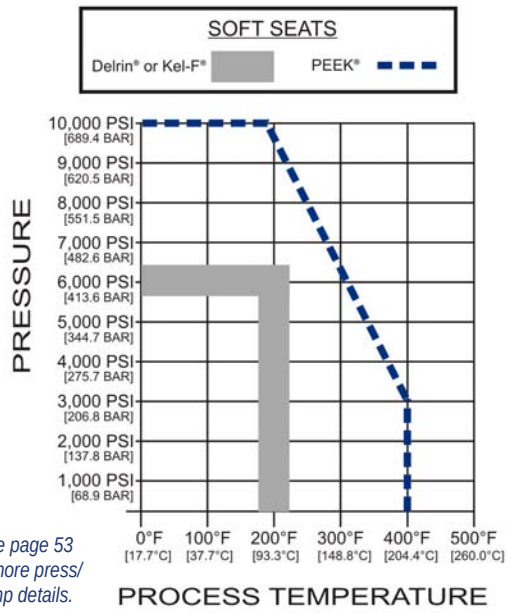
**Benefits**
- Roddable straight-through design
- Leak free, bubble tight seating
- Easily replaced
- Available in a variety of materials
- Bi-directional flow

## Dimensions, inches [mm]

M-505




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| | |
|---|---|
| M-505 | 3-Valve Chart Recorder/Meter Manifold |

Body Material Code

| | |
|---|---|
| C | ASTM A108 |
| S | ASTM A479-316 SS |

Seat Material Code

| | |
|---|---|
| D | Delrin® *(Standard)* |
| K | Kel-F® |
| P | Peek® |

Stem Packing/Seal Code

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

5-Valve Meter Manifold Option

| | |
|---|---|
| C4 | (2) V-501 Block Valves Included |

| | | | | | | |
|---|---|---|---|---|---|---|
| M-505 | | | | | - | Options *[pages 49-50]* |

## Materials of Construction

| Part | Carbon Steel | 316 Stainless Steel |
|---|---|---|
| Body / Bonnet | ASTM A108 | ASTM A479-316 |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C* | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C* | ASTM A582-303 |
| Handle Assembly | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| .187" Orifice | Straight Body Style |
|---|---|
| | .83 |

Approx. Manifold Weight:
3.70 lbs. [1.67 kg] ea.

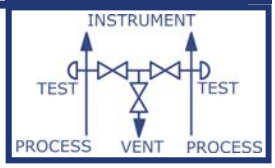
* Barstock equivalent of ASTM A105

## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

# Meter & Equalizer Manifolds

**SOFT SEAT .187" ORIFICE**




## SOFT SEAT: .187" Orifice

**Features**

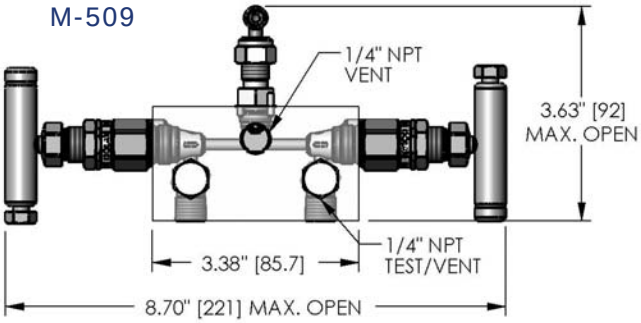
- PGI Soft *Cone* Seat

**Benefits**

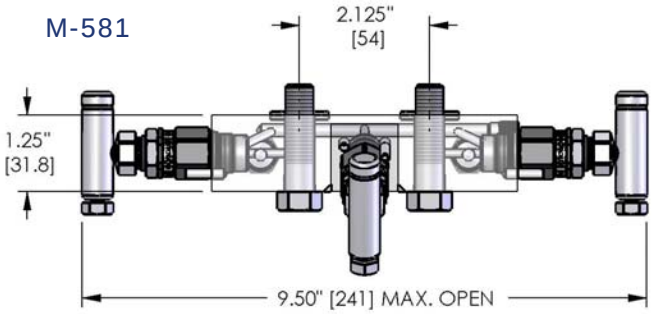
- Roddable straight-through design
- Leak free, bubble tight seating
- Easily replaced
- Available in a variety of materials
- Bi-directional flow

## Dimensions, inches [mm]

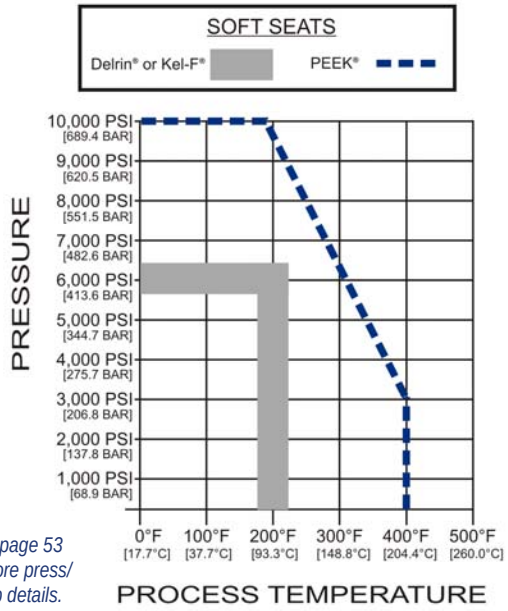
M-509




M-581




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| | | *Process x Instrument x Vent/Test* |
|---|---|---|
| M- | 509 | 1/4" FNPT x 1/4" FNPT x 1/4" FNPT |
| M- | 581 | 1/4" FNPT x Flange x 1/4" FNPT |

Body Material Code

| | |
|---|---|
| C | ASTM A108 |
| S | ASTM A479-316 SS |

Seat Material Code

| | |
|---|---|
| D | Delrin® |
| K | Kel-F® |
| P | Peek® |

Stem Packing/Seal Code

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

M- [ ] [ ] [ ] [ ] [ ] - Options *[pages 49-50]*

## Materials of Construction

| Part | Carbon Steel | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|---|
| Body | ASTM A108 | ASTM A696 Gr.C | ASTM A479-316 |
| Bonnet | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A479-316 |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| | Straight Body Style |
|---|---|
| .187" Orifice (M-509) | .83 |
| .125" Orifice (M-581) | .25 |

Approx. Manifold Weight:
5 lbs. [2.26 kg] ea.

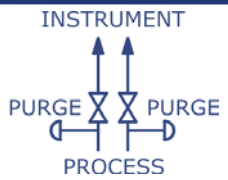
* Barstock equivalent of ASTM A105

## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

# Liquid Level Manifolds

**HARD SEAT .187" ORIFICE**




## HARD BALL SEAT: .187" Orifice

**Features**

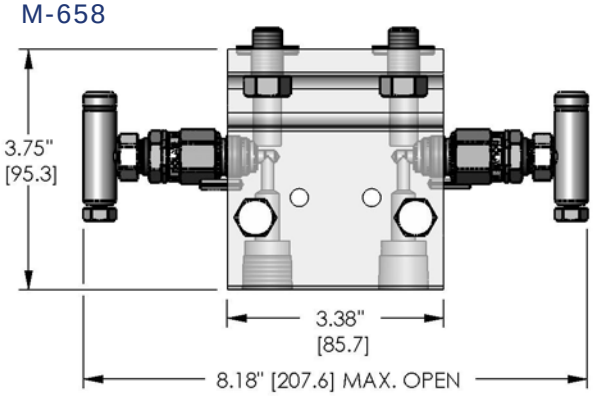
- PGI Standard 316 SS *Ball* Seat

**Benefits**

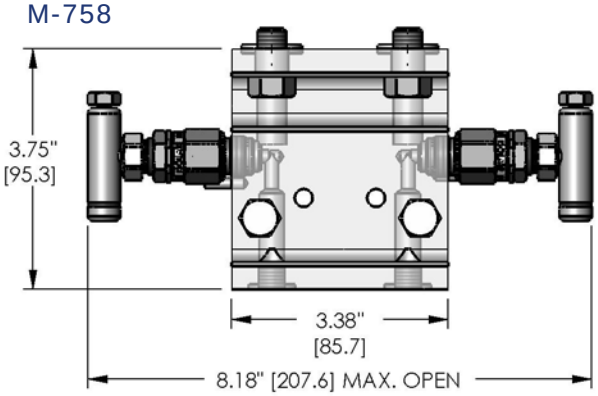
- Non-rotating ball eliminates seat galling and ball creasing
- Leak free, bubble tight seating
- Available in a variety of materials

## Dimensions, inches [mm]

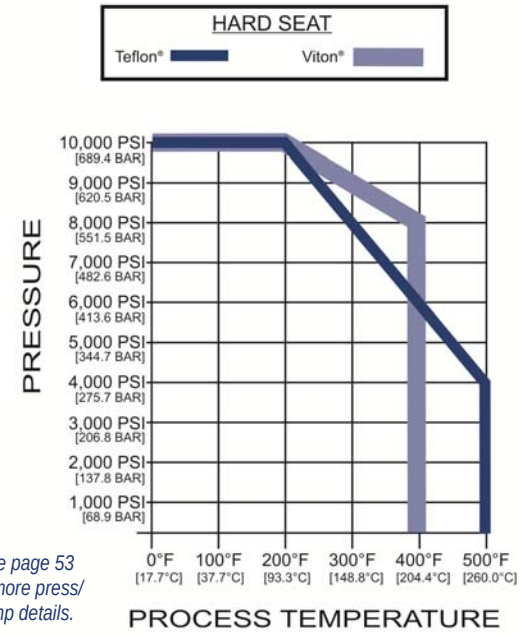
M-658




M-758




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| | | *Process x Instrument x Purge* |
|---|---|---|
| M- | 658 | 1/2" FNPT x Flange x (2) 1/4" NPT |
| M- | 758 | Flange x Flange x (2) 1/4" NPT |

Body Material Code

| | |
|---|---|
| C | ASTM A108 |
| S | ASTM A276-316 SS |
| P | ASTM A696* |

Seat Material Code

| | |
|---|---|
| 6 | 316 SS Ball *(Standard)* |
| C | Carbide Ball |
| N | Monel® |

Stem Packing/Seal Code

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

M- [ ] [ ] [ ] [ ] [ ] - Options *[pages 49-50]*

## Materials of Construction

| Part | Carbon Steel | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|---|
| Body / Bonnet | ASTM A108 | ASTM A696 Gr.C | ASTM A276-316 |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| .187" Orifice | Straight Body Style |
|---|---|
| | .53 |

Approx. Manifold Weight:
6.1 lbs. [2.76 kg] ea. (M-658)
6.8 lbs. [3.08 kg] ea. (M-758)

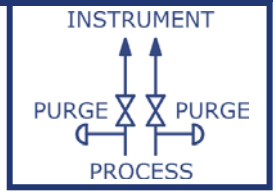
* Barstock equivalent of ASTM A105

## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

# Liquid Level Manifolds

SOFT SEAT
.187" ORIFICE




## SOFT SEAT: .187" Orifice

**Features**

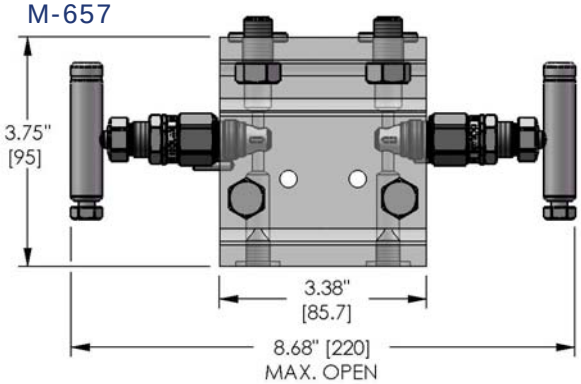
- PGI Soft *Cone* Seat

**Benefits**

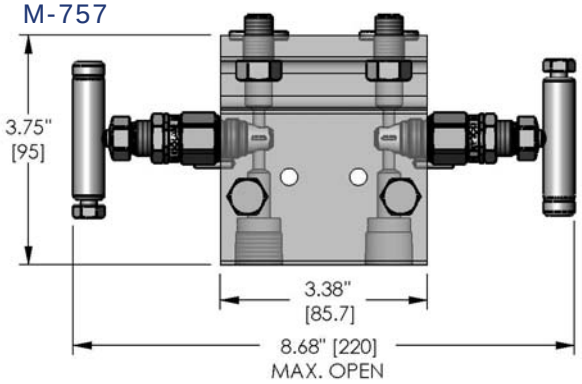
- Roddable straight-through design
- Leak free, bubble tight seating
- Easily replaced
- Available in a variety of materials
- Bi-directional flow

## Dimensions, inches [mm]

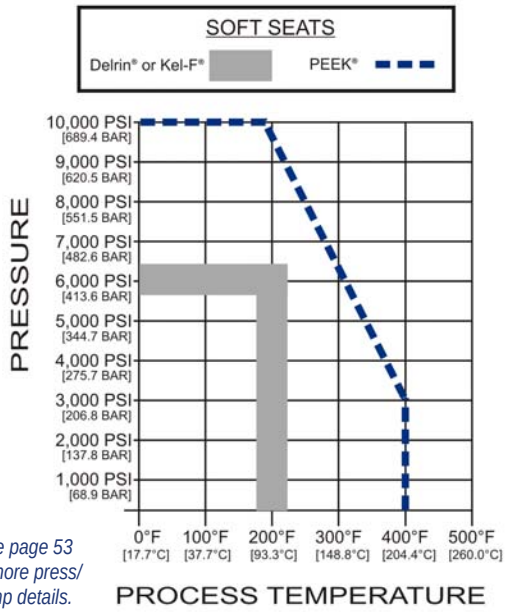
M-657




M-757




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| | | *Process x Instrument x Purge* |
|---|---|---|
| M- | 657 | 1/2" FNPT x Flange x (2) 1/4" FNPT |
| M- | 757 | Flange x Flange x (2) 1/4" FNPT |

Body Material Code

| | |
|---|---|
| C | ASTM A108 |
| S | ASTM A276-316 SS |
| P | ASTM A696* |

Seat Material Code

| | |
|---|---|
| D | Delrin® |
| K | Kel-F® |
| P | Peek® |

Stem Packing/Seal Code

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

M- [ ] [ ] [ ] [ ] [ ] - Options *[pages 49-50]*

## Materials of Construction

| Part | Carbon Steel | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|---|
| Body | ASTM A108 | ASTM A696 Gr.C | ASTM A276-316 |
| Bonnet | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A479-316 |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| .187" Orifice | Straight Body Style |
|---|---|
| | .83 |

Approx. Manifold Weight:
6.1 lbs. [2.76 kg] ea. (M-657)
6.8 lbs. [3.08 kg] ea. (M-757)

* Barstock equivalent of ASTM A105

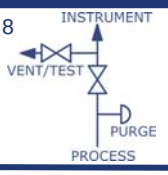
## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

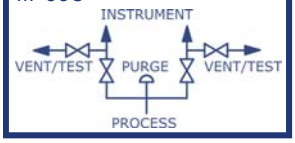
# Single & Dual Static Pressure Instrument Manifolds

**HARD SEAT .187" ORIFICE**

M-598




M-698




## HARD BALL SEAT: .187" Orifice

**Features**

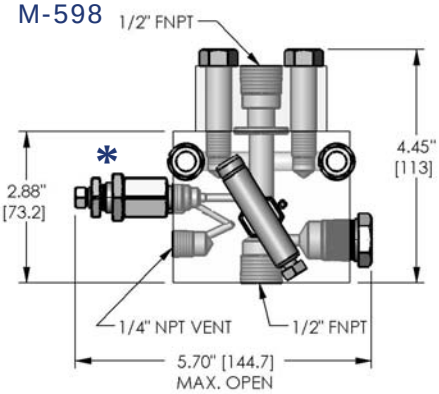
- PGI Standard 316 SS *Ball* Seat

**Benefits**

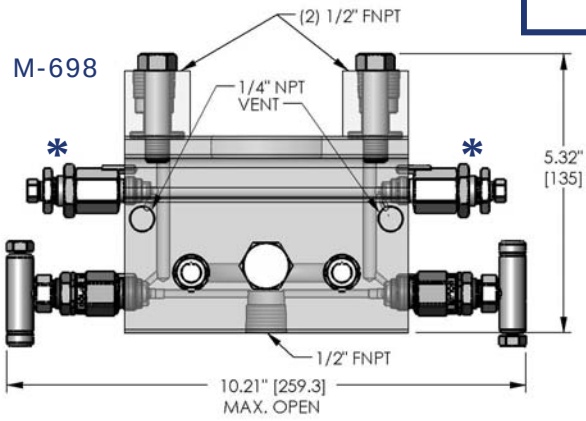
- Non-rotating ball eliminates seat galling and ball creasing
- Leak free, bubble tight seating
- Available in a variety of materials

## Dimensions, inches [mm]

M-598

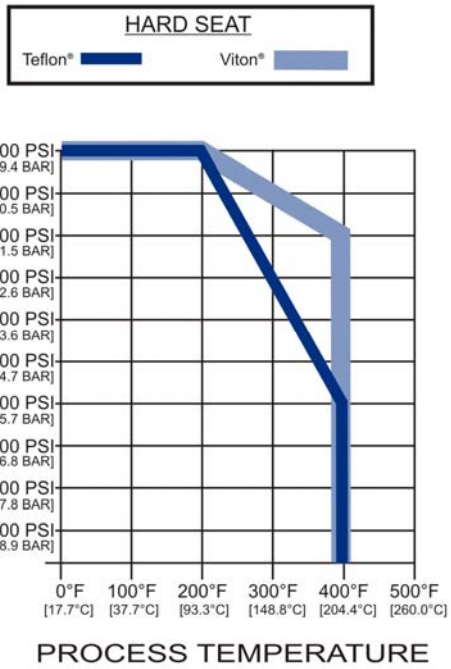



M-698




✻*Vent control stem seals are Viton® (Standard)*

## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| | | | |
|---|---|---|---|
| M- | 598 | Single Instrument | 1/2" FNPT x 1/2" FNPT with 1/4" Vent and 1/2" Purge Connections *(MNPT Instrument Adapter Available)* |
| M- | 698 | Dual Instruments | |

Body Material Code

| | |
|---|---|
| C | ASTM A108 |
| S | ASTM 316 SS |
| P | ASTM A696* |

Seat Material Code

| | |
|---|---|
| 6 | 316 SS Ball *(Standard)* |
| C | Carbide Ball |
| N | Monel® |

Stem Packing/Seal Code

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

Vent Valve(s) Seal Material Options

| | |
|---|---|
| -CVSCF | Fluorosilicone O-Ring |
| -CVSCG | Grafoil® Packed |
| -CVSCP | PTFE Packed |

M- [ ][ ][ ][ ][ ] - Options *[pages 49-50]*

## Materials of Construction

| Part | Carbon Steel | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|---|
| Body / Bonnet | ASTM A108 | ASTM A696 Gr.C | ASTM 316 |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| | Straight Body Style |
|---|---|
| .187" Orifice | .53 |

Approx. Manifold Weight:
5 lbs. [2.26 kg] ea. (M-598)
10 lbs. [4.53 kg] ea. (M-698)

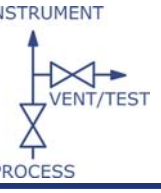
* Barstock equivalent of ASTM A105

## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

# 2-Valve Static Pressure M-800 Series Manifold *2-1/8" Centers*

HARD SEAT
1/2" FNPT x FLANGE
.125" ORIFICE




## HARD BALL SEAT: .125" Orifice

**Features**

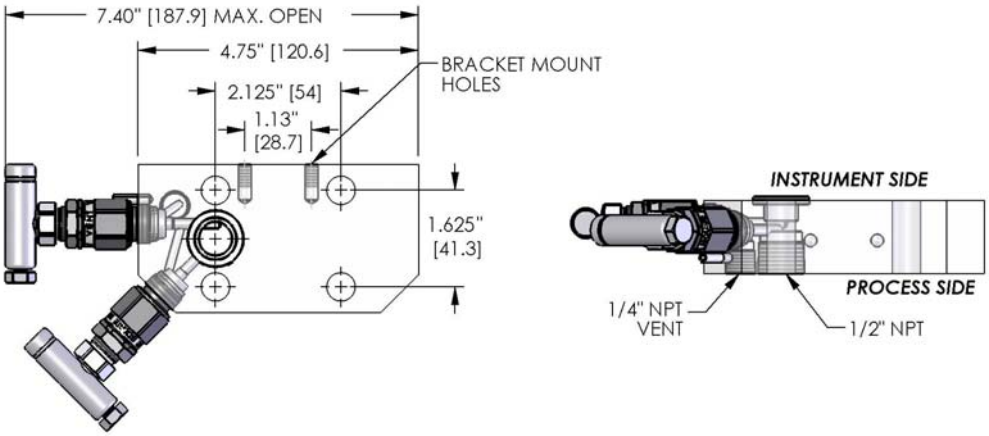
- PGI Standard 316 SS *Ball* Seat

**Benefits**

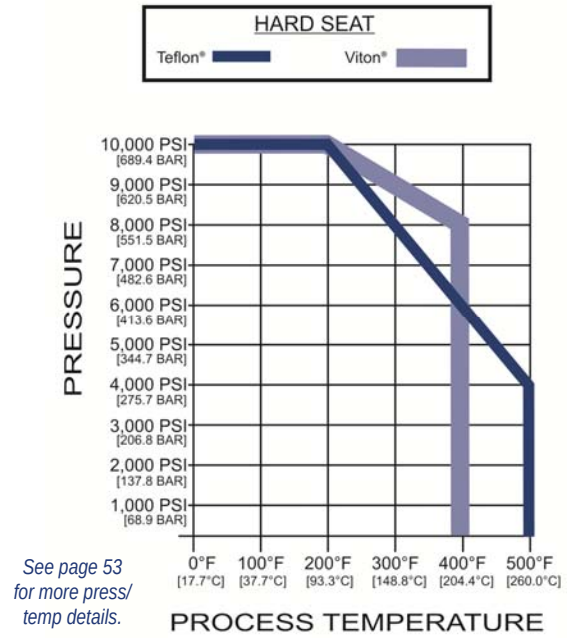
- Non-rotating ball eliminates seat galling and ball creasing
- Leak free, bubble tight seating
- Available in a variety of materials

## Dimensions, inches [mm]

M-822




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| *Process x Instrument x Vent/Test* | |
|---|---|
| M-822 | 1/2" FNPT x Flange x 1/4" NPT |

Body Material Code

| | |
|---|---|
| S | ASTM A479-316 SS |
| P | ASTM A696* |

Seat Material Code

| | |
|---|---|
| 6 | 316 SS Ball *(Standard)* |
| C | Carbide Ball |
| N | Monel® |

Stem Packing/Seal Code

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

M-822 [ ] [ ] [ ] [ ] - Options *[pages 49-50]*

## Materials of Construction

| Part | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|
| Body / Bonnet | ASTM A696 Gr.C | ASTM A479-316 |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| .125" Orifice | Straight Body Style |
|---|---|
| | .25 |

Approx. Manifold Weight:
5.20 lbs. [2.35 kg] ea.

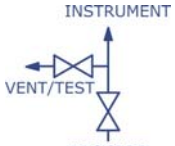
* Barstock equivalent of ASTM A105

## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

# 2-Valve Block & Bleed Static Pressure Manifolds

**SOFT & METAL SEAT**
**NPT x NPT**
**.136" ORIFICE**




## SOFT "WASHER" SEATS: .136" Orifice

**Features**
- PGI "Washer" Seat

**Benefits**
- Throttling and shut-off design
- Interchangeable between soft or metal seats
- Easily replaced
- Available in a variety of materials

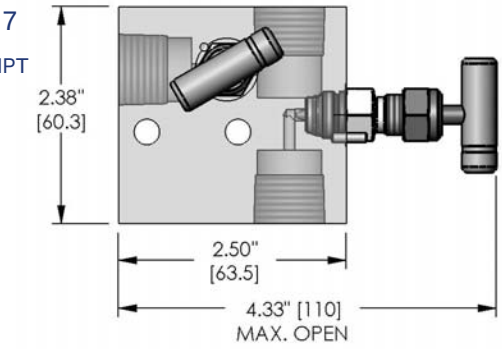
## INTEGRAL METAL TO METAL SEAT: .136" Orifice

**Features**
- PGI Integral Metal Seat

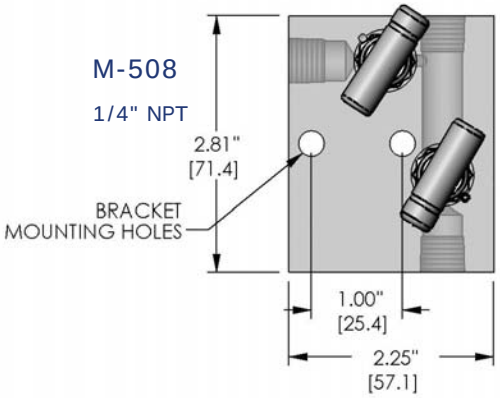
**Benefits**
- Throttling and shut-off design
- Interchangeable between soft or metal seats

## Dimensions, inches [mm]

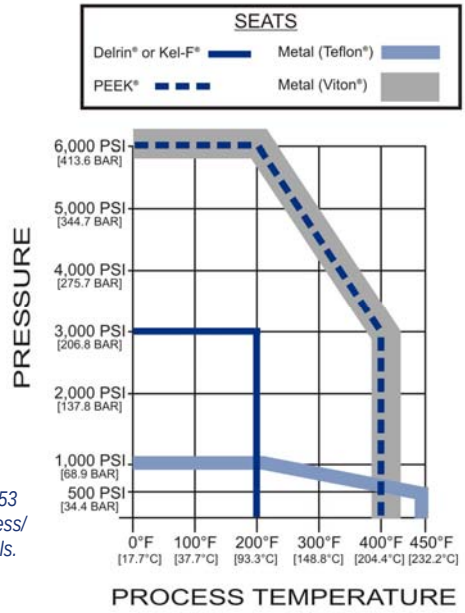
M-507
1/2" NPT




M-508
1/4" NPT




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| | | Process x Instrument x Vent |
|---|---|---|
| M- | 507 | 1/2" FNPT x 1/2" FNPT x 1/2" FNPT |
| M- | 508 | 1/4" FNPT x 1/4" FNPT x 1/4" NPT |

Body Material Code

| | |
|---|---|
| C | ASTM A108 |
| S | ASTM A479-316 SS |

Seat Material Code

| | |
|---|---|
| M | Integral Metal (Standard) |
| D | Delrin® (Standard) |
| K | Kel-F® |
| P | Peek® |

Stem Packing/Seal Code

| | |
|---|---|
| T | PTFE (Below threads) |
| V | Viton® O-Ring |

M- [ ][ ][ ][ ][ ] - Options *[pages 49-50]*

## Materials of Construction

| Part | Carbon Steel | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|---|
| Body / Bonnet | ASTM A108 | ASTM A696 Gr.C | ASTM A479-316 |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| | Straight Body Style |
|---|---|
| .136" Orifice | .25 = Integral Metal Seat<br>.22 = Soft Washer |

Approx. Manifold Weight:
2.7 lbs. [1.22 kg] ea. (M-507)
2.4 lbs. [1.08 kg] ea. (M-508)

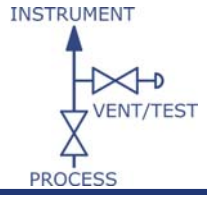
* Barstock equivalent of ASTM A105

## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

# 2-Valve Block & Bleed Pressure Manifold

HARD SEAT
1/2" FNPT x 1/2" FNPT
.187" ORIFICE




## HARD BALL SEAT: .187" Orifice

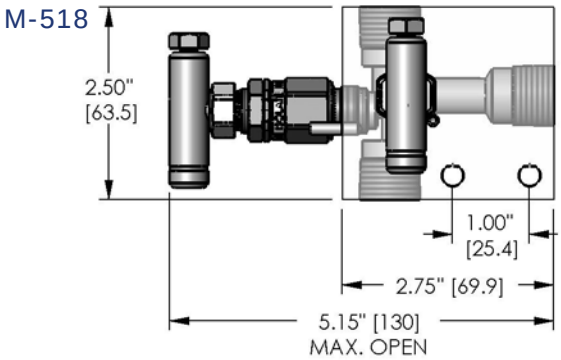
**Features**

- PGI Standard 316 SS *Ball* Seat

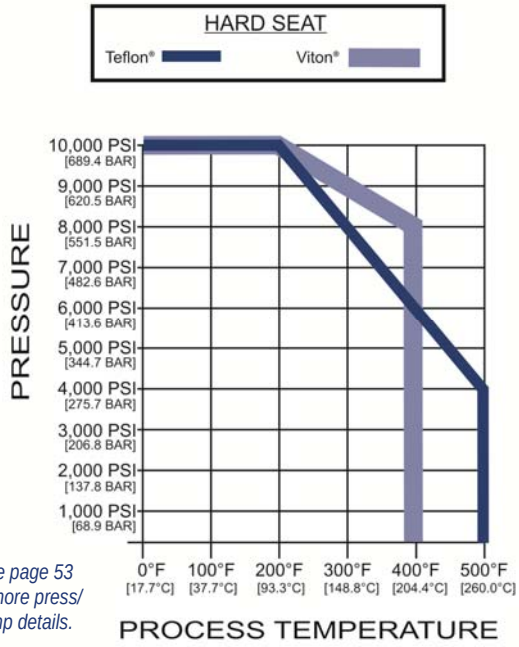
**Benefits**

- Non-rotating ball eliminates seat galling and ball creasing
- Leak free, bubble tight seating
- Available in a variety of materials

## Dimensions, inches [mm]




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| | |
|---|---|
| M-518 | 1/2" FNPT x 1/2" FNPT x 1/2" NPT |

Body Material Code

| | |
|---|---|
| C | ASTM A108 |
| S | ASTM A479-316 SS |
| P | ASTM A696* |

Seat Material Code

| | |
|---|---|
| 6 | 316 SS Ball (*Standard*) |
| C | Carbide Ball |
| N | Monel® |

Stem Packing/Seal Code

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

M-518 [ ] [ ] [ ] [ ] - Options *[pages 49-50]*

## Materials of Construction

| Part | Carbon Steel | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|---|
| Body / Bonnet | ASTM A108 | ASTM A696 Gr.C | ASTM A479-316 |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| | Straight Body Style |
|---|---|
| .187" Orifice | .53 |

Approx. Manifold Weight:
3.1 lbs. [1.40 kg] ea.

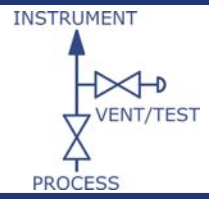
* Barstock equivalent of ASTM A105

## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C CS

# 2-Valve Block & Bleed Static Pressure Manifold

**SOFT SEAT**
**1/2" FNPT x 1/2" FNPT**
**.187" ORIFICE**

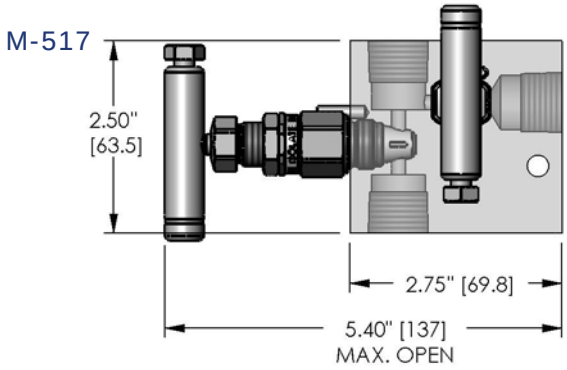



## SOFT SEAT: .187" Orifice

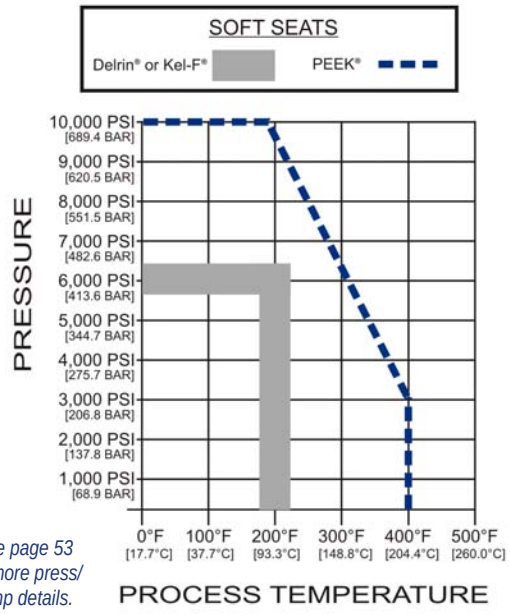
**Features**
- PGI Soft *Cone* Seat

**Benefits**
- Roddable straight-through design
- Leak free, bubble tight seating
- Easily replaced
- Available in a variety of materials
- Bi-directional flow

## Dimensions, inches [mm]




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| | |
|---|---|
| M-517 | 1/2" FNPT x 1/2" FNPT x 1/2" NPT |

Body Material Code

| | |
|---|---|
| C | ASTM A108 |
| S | ASTM A479-316 SS |
| P | ASTM A696* |

Seat Material Code

| | |
|---|---|
| D | Delrin® *(Standard)* |
| K | Kel-F® |
| P | Peek® |

Stem Packing/Seal Code

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

| | | | | | | |
|---|---|---|---|---|---|---|
| M-517 | | | | - | Options *[pages 49-50]* |

## Materials of Construction

| Part | Carbon Steel | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|---|
| Body / Bonnet | ASTM A108 | ASTM A696 Gr.C | ASTM A479-316 |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| | Straight Body Style |
|---|---|
| .187" Orifice | .83 |

Approx. Manifold Weight:
3.1 lbs. [1.40 kg] ea.

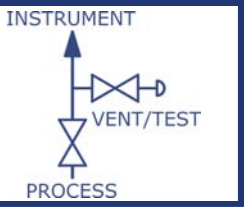
* Barstock equivalent of ASTM A105

## Notes

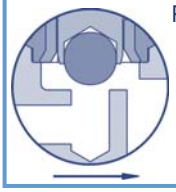
- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

# 2-Valve Block & Bleed Pressure Manifolds

**HARD SEAT**
**1/2" FNPT x FLANGE**
**.187" ORIFICE**




## HARD BALL SEAT: .187" Orifice

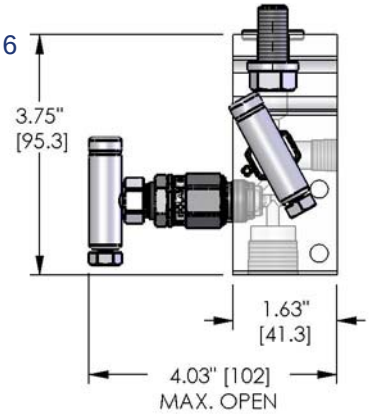


**Features**
- PGI Standard 316 SS *Ball* Seat

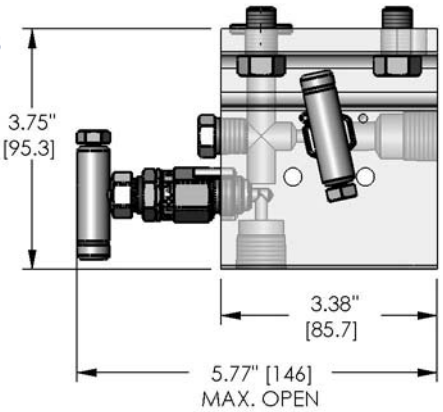
**Benefits**
- Non-rotating ball eliminates seat galling and ball creasing
- Leak free, bubble tight seating
- Available in a variety of materials

## Dimensions, inches [mm]

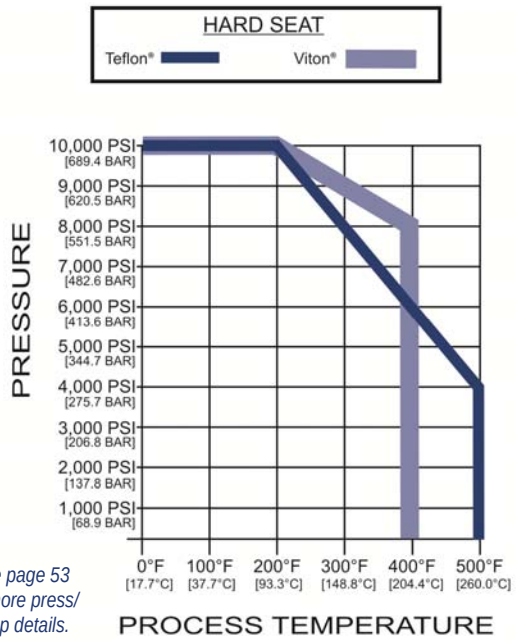
M-616




M-618




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| | | *Process x Instrument x Vent* |
|---|---|---|
| M- | 616 | 1/2" FNPT x Flange x 1/4" NPT Slim Body |
| M- | 618 | 1/2" FNPT x Flange x 1/2" NPT Standard Body |

Body Material Code

| | |
|---|---|
| C | ASTM A108 |
| S | ASTM A276-316 SS |
| P | ASTM A696* |

Seat Material Code

| | |
|---|---|
| 6 | 316 SS Ball *(Standard)* |
| C | Carbide Ball |
| N | Monel® |

Stem Packing/Seal Code

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

M- [ ] [ ] [ ] [ ] [ ] - Options *[pages 49-50]*

## Materials of Construction

| Part | Carbon Steel | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|---|
| Body / Bonnet | ASTM A108 | ASTM A696 Gr.C | ASTM A276-316 |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| | Straight Body Style |
|---|---|
| .187" Orifice | .53 |

Approx. Manifold Weight:
2.60 lbs. [1.17 kg] ea. (M-616)
5.00 lbs. [2.26 kg] ea. (M-618)

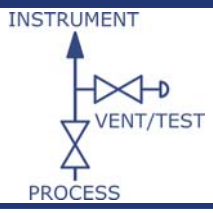
* Barstock equivalent of ASTM A105

## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

# 2-Valve Block & Bleed Static Pressure Manifolds

SOFT SEAT
1/2" FNPT x FLANGE
.187" ORIFICE




## SOFT SEAT: .187" Orifice

**Features**

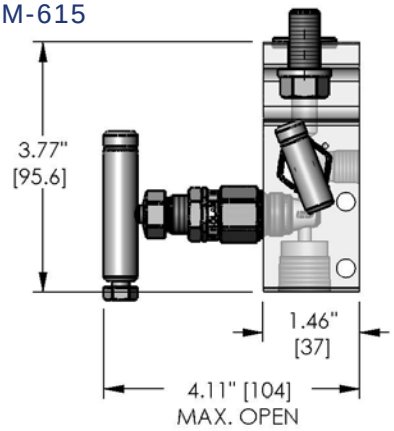
- PGI Soft *Cone* Seat

**Benefits**

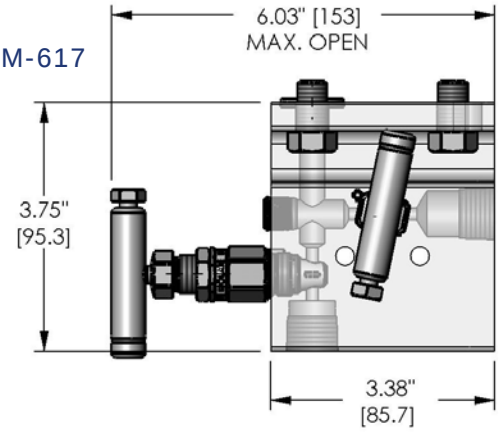
- Roddable straight-through design
- Leak free, bubble tight seating
- Easily replaced
- Available in a variety of materials
- Bi-directional flow

## Dimensions, inches [mm]

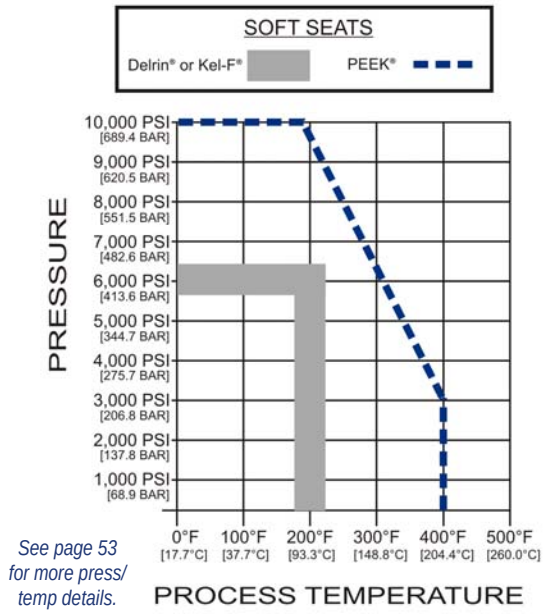
M-615




M-617




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| | | *Process x Instrument x Vent* |
|---|---|---|
| M- | 615 | 1/2" FNPT x Flange x 1/4" NPT Slim Body |
| M- | 617 | 1/2" FNPT x Flange x 1/2" NPT Standard Body |

Body Material Code

| | |
|---|---|
| C | ASTM A108 |
| S | ASTM A276-316 SS |
| P | ASTM A696* |

Seat Material Code

| | |
|---|---|
| D | Delrin® *(Standard)* |
| K | Kel-F® |
| P | Peek® |

Stem Packing/Seal Code

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

M- [ ] [ ] [ ] [ ] [ ] - Options *[pages 49-50]*

## Materials of Construction

| Part | Carbon Steel | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|---|
| Body / Bonnet | ASTM A108 | ASTM A696 Gr.C | ASTM A276-316 |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| | Straight Body Style |
|---|---|
| .187" Orifice | .83 |

Approx. Manifold Weight:
2.60 lbs. [1.17 kg] ea. (M-615)
5.00 lbs. [2.26 kg] ea. (M-617)

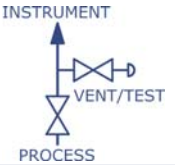
* Barstock equivalent of ASTM A105

## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

# 2-Valve Block & Bleed Static Pressure Manifolds

**HARD SEAT FLANGE x FLANGE .187" ORIFICE**




## HARD BALL SEAT: .187" Orifice

**Features**

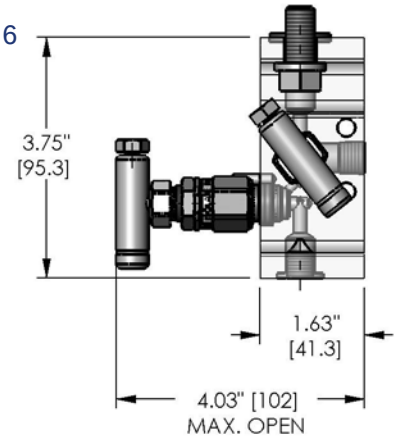
- PGI Standard 316 SS *Ball* Seat

**Benefits**

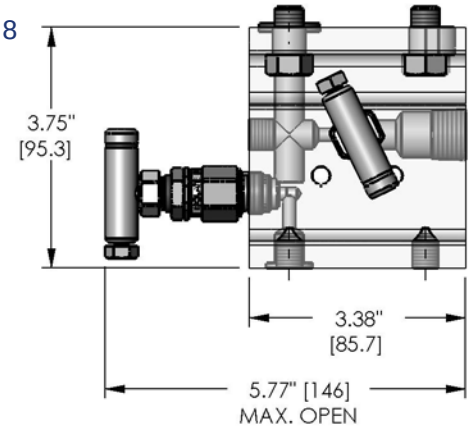
- Non-rotating ball eliminates seat galling and ball creasing
- Leak free, bubble tight seating
- Available in a variety of materials

## Dimensions, inches [mm]

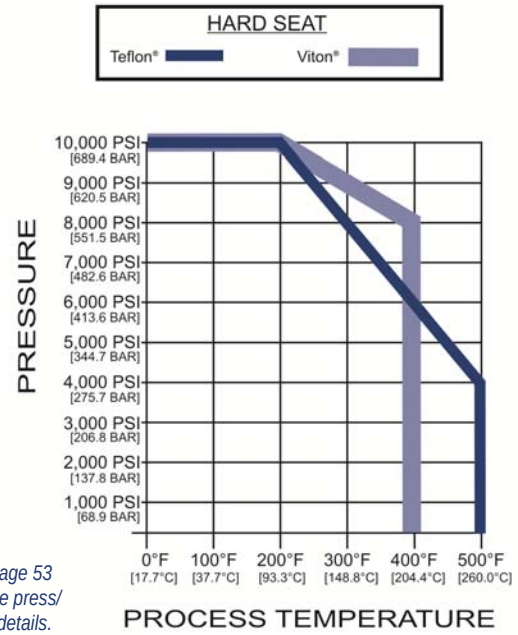
M-716




M-718




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| | | *Process x Instrument x Vent* |
|---|---|---|
| M- | 716 | Flange x Flange x 1/4" NPT Slim Body |
| M- | 718 | Flange x Flange x 1/2" NPT Standard Body |

Body Material Code

| | |
|---|---|
| C | ASTM A108 |
| S | ASTM A276-316 SS |
| P | ASTM A696* |

Seat Material Code

| | |
|---|---|
| 6 | 316 SS Ball *(Standard)* |
| C | Carbide Ball |
| N | Monel® |

Stem Packing/Seal Code

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

M- [ ] [ ] [ ] [ ] - Options *[pages 49-50]*

## Materials of Construction

| Part | Carbon Steel | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|---|
| Body / Bonnet | ASTM A108 | ASTM A696 Gr.C | ASTM A276-316 |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| | Straight Body Style |
|---|---|
| .187" Orifice | .53 |

Approx. Manifold Weight:
3.00 lbs. [1.36 kg] ea. (M-716)
5.50 lbs. [2.49 kg] ea. (M-718)

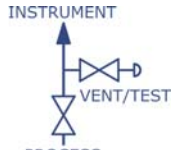
* Barstock equivalent of ASTM A105

## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

# 2-Valve Block & Bleed Static Pressure Manifolds

**SOFT SEAT FLANGE x FLANGE .187" ORIFICE**




## SOFT SEAT: .187" Orifice

**Features**

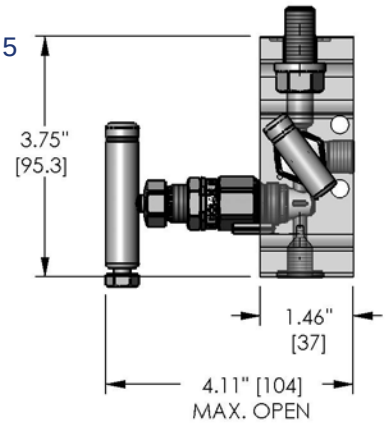
- PGI Soft *Cone* Seat

**Benefits**

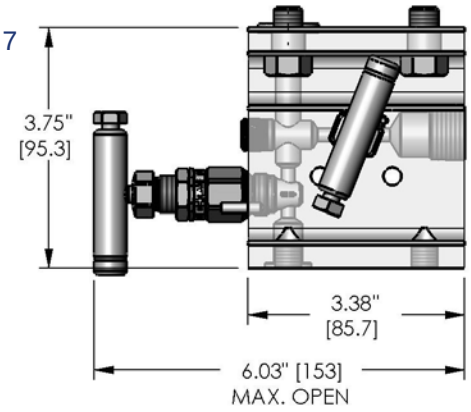
- Roddable straight-through design
- Leak free, bubble tight seating
- Easily replaced
- Available in a variety of materials
- Bi-directional flow

## Dimensions, inches [mm]

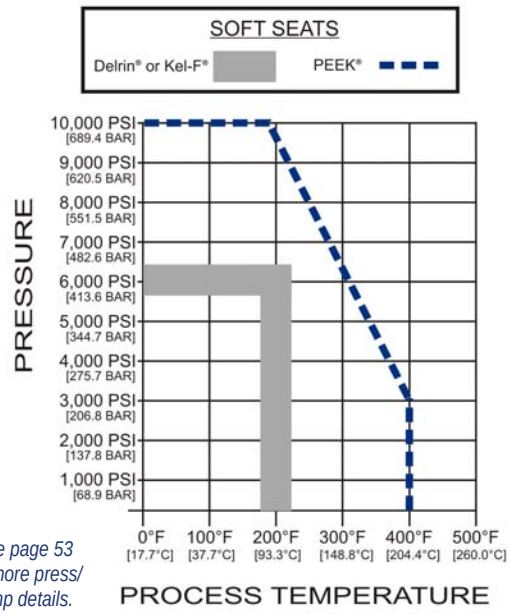
M-715




M-717




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| | | *Process x Instrument x Vent* |
|---|---|---|
| M- | 715 | Flange x Flange x 1/4" NPT Slim Body |
| M- | 717 | Flange x Flange x 1/2" NPT Standard Body |

Body Material Code

| | |
|---|---|
| C | ASTM A108 |
| S | ASTM A276-316 SS |
| P | ASTM A696* |

Seat Material Code

| | |
|---|---|
| D | Delrin® *(Standard)* |
| K | Kel-F® |
| P | Peek® |

Stem Packing/Seal Code

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

M- [ ] [ ] [ ] [ ] [ ] - Options *[pages 49-50]*

## Materials of Construction

| Part | Carbon Steel | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|---|
| Body / Bonnet | ASTM A108 | ASTM A696 Gr.C | ASTM A276-316 |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| | Straight Body Style |
|---|---|
| .187" Orifice | .83 |

Approx. Manifold Weight:
3.00 lbs. [1.36 kg] ea. (M-715)
5.50 lbs. [2.49 kg] ea. (M-717)

* Barstock equivalent of ASTM A105

## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

# 3-Valve Differential Pressure Miniature Manifold

SOFT & METAL SEAT .136" ORIFICE


## SOFT "WASHER" SEATS: .136" Orifice

**Features**
- PGI "Washer" Seat

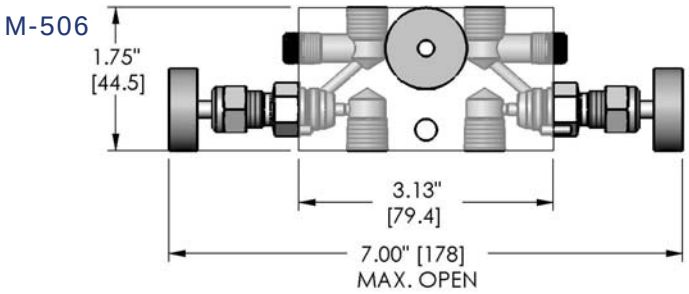
**Benefits**
- Throttling and shut-off design
- Interchangeable between soft or metal seats
- Easily replaced
- Available in a variety of materials

## INTEGRAL METAL TO METAL SEAT: .136" Orifice

**Features**
- PGI Integral Metal Seat

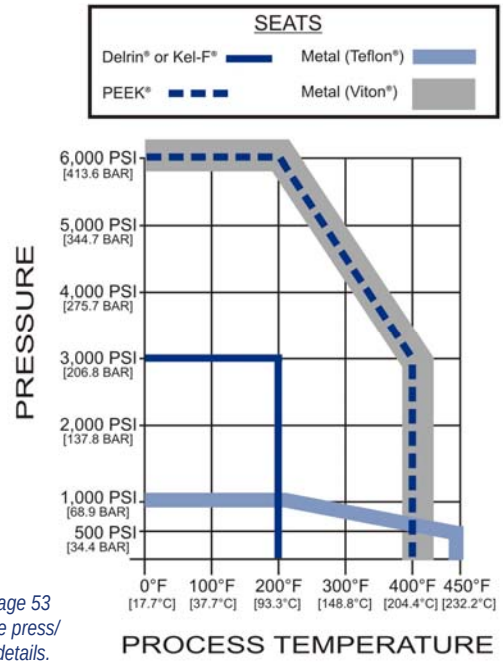
**Benefits**
- Throttling and shut-off design
- Interchangeable between soft or metal seats

## Dimensions, inches [mm]




| Note Regarding Handle Types: | |
|---|---|
| Soft Seated Valves | CS or SS **Round** Handles as Standard |
| Hard Seat Valves | CS or SS **Bar** Handles as Standard |

## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| | *Inlet x Outlet* |
|---|---|
| M-506 | 1/4" FNPT x 1/4" FNPT |

Body Material Code

| | |
|---|---|
| C | ASTM A108 |
| S | ASTM A479-316 SS |

Seat Material Code

| | |
|---|---|
| M | Metal *(Standard)* |
| D | Delrin® *(Standard)* |
| K | Kel-F® |
| P | Peek® |

Stem Packing/Seal Code

| | |
|---|---|
| T | PTFE |
| V | Viton® O-Ring |

| M-506 | | | | - | Options *[pages 49-50]* |
|---|---|---|---|---|---|

## Materials of Construction

| Part | Carbon Steel | 316 Stainless Steel |
|---|---|---|
| Body | ASTM 1016-1018/A108 | ASTM A479-316/A479-316 |
| Packing "T" / "V" | PTFE / Viton® O-Ring | PTFE / Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 |
| Packing Nut *(TFE Packed Only)* | ASTM A108 | ASTM A582-303 |
| Handles: Soft Seated Valves | CS or SS Round Handles as Standard | |
| Handles: Hard Seat Valves | CS or SS Bar Handles as Standard | |

## Max Cv Ratings

| | Straight Body Style |
|---|---|
| .136" Orifice | .25 = Integral Metal Seat<br>.22 = Soft Washer |

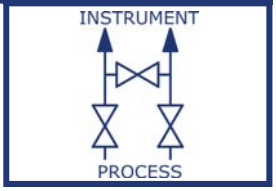
Approx. Manifold Weight:
1.8 lbs. [.81 kg] ea.

## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ ISO 15156-3
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

# 3-Valve Differential Pressure M-800 Series Manifold *2-1/8" Centers*

HARD SEAT
.125" ORIFICE




## HARD BALL SEAT: .125" Orifice

**Features**

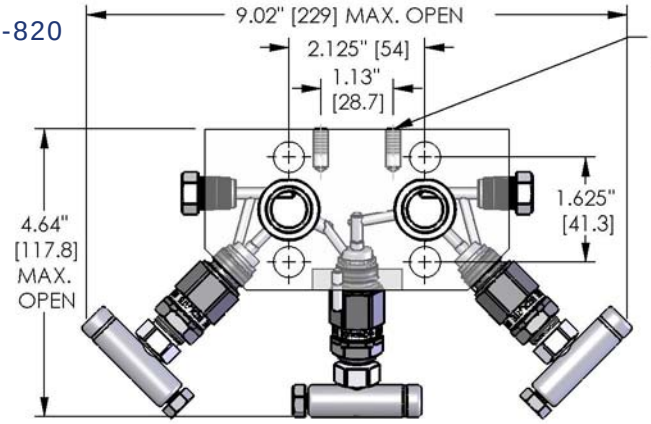
- PGI Standard 316 SS *Ball* Seat

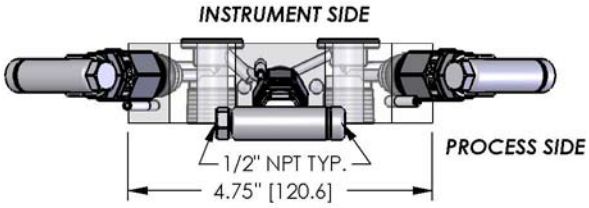
**Benefits**

- Non-rotating ball eliminates seat galling and ball creasing
- Leak free, bubble tight seating
- Available in a variety of materials

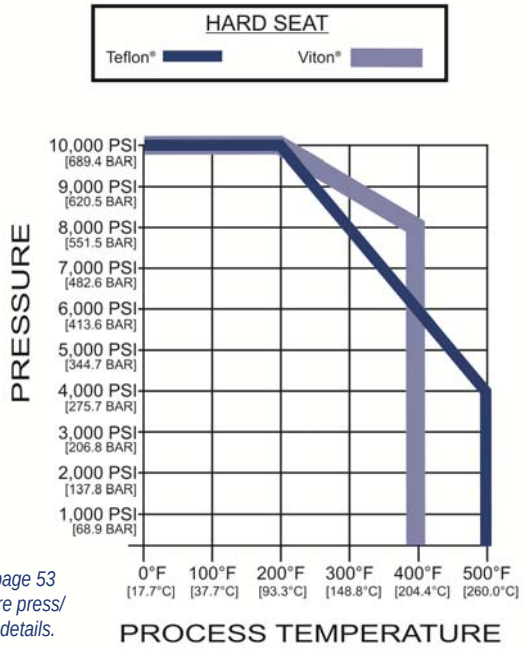
## Dimensions, inches [mm]

M-820




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| | *Process x Instrument x Vent/Test* |
|---|---|
| M-820 | 1/2" FNPT x Flange x 1/4" NPT |

Body Material Code

| | |
|---|---|
| S | ASTM A479-316 SS |
| P | ASTM A696* |

Seat Material Code

| | |
|---|---|
| 6 | 316 SS Ball *(Standard)* |
| C | Carbide Ball |
| N | Monel® |

Stem Packing/Seal Code

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

M-820 [ ] [ ] [ ] [ ] - Options *[pages 49-50]*

## Materials of Construction

| Part | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|
| Body / Bonnet | ASTM A696 Gr.C | ASTM A479-316 |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| .125" Orifice | Straight Body Style |
|---|---|
| | .25 |

Approx. Manifold Weight:
5.50 lbs. [2.49 kg] ea.

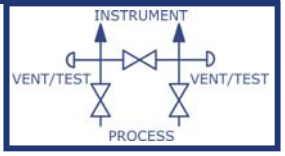
* Barstock equivalent of ASTM A105

## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

# 3-Valve Differential Pressure Manifolds

**HARD SEAT .187" ORIFICE**




## HARD BALL SEAT: .187" Orifice

**Features**

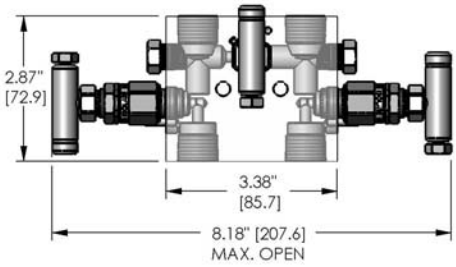
- PGI Standard 316 SS *Ball* Seat

**Benefits**

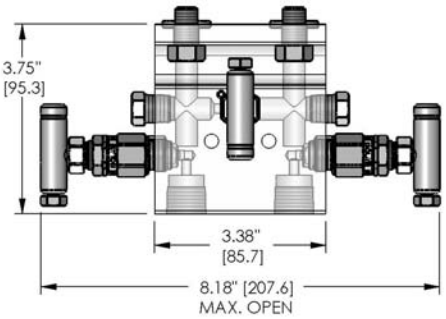
- Non-rotating ball eliminates seat galling and ball creasing
- Leak free, bubble tight seating
- Available in a variety of materials

## Dimensions, inches [mm]

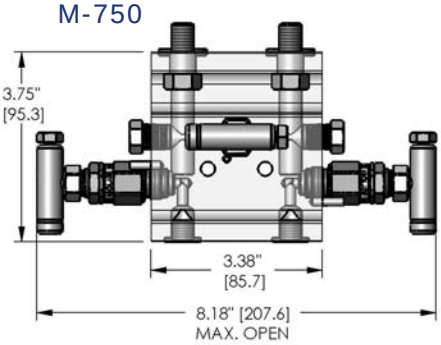
M-500



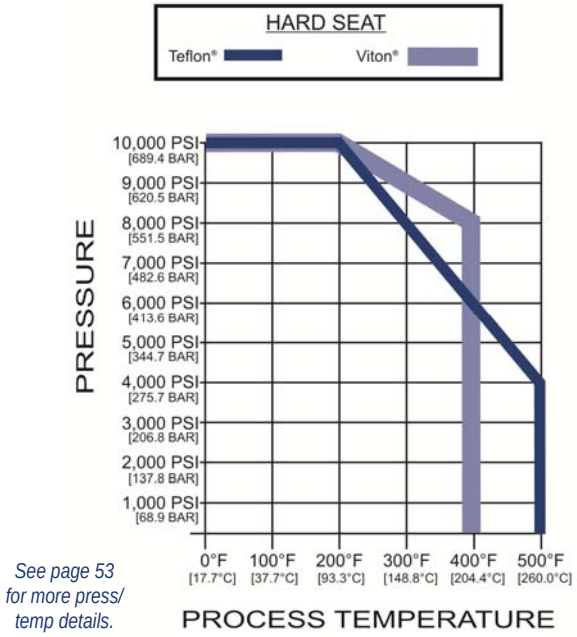

M-650




M-750




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| | | *Process x Instrument x Vent* |
|---|---|---|
| M- | 500 | 1/2" FNPT x 1/2" FNPT x 1/4" FNPT |
| M- | 650 ¤ | 1/2" FNPT x Flange x 1/4" FNPT |
| M- | 750 ¤ | Flange x Flange x 1/4" FNPT |

Body Material Code

| | |
|---|---|
| C | ASTM A108 |
| S | ASTM A479-316 SS |
| | ASTM A276-316 SS ¤ |
| P | ASTM A696* |

Seat Material Code

| | |
|---|---|
| 6 | 316 SS Ball *(Standard)* |
| C | Carbide Ball |
| N | Monel® |

Stem Packing/Seal Code

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

M- [ ] [ ] [ ] [ ] [ ] - Options *[pages 49-50]*

## Materials of Construction

| Part | Carbon Steel | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|---|
| Body / Bonnet | ASTM A108 | ASTM A696 Gr.C | ASTM A479-316<br>ASTM A276-316 ¤ |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| | Straight Body Style |
|---|---|
| .187" Orifice | .53 |

Approx. Manifold Weight:
4.20 lbs. [1.90 kg] ea. (M-500)
5.20 lbs. [2.35 kg] ea. (M-650)
5.70 lbs. [2.58 kg] ea. (M-750)

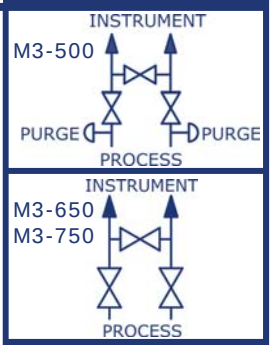
* Barstock equivalent of ASTM A105

## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

# 3-Valve Differential Pressure Manifolds

**HARD SEAT .375" ORIFICE**




## HARD BALL SEAT: .375" Orifice

**Features**

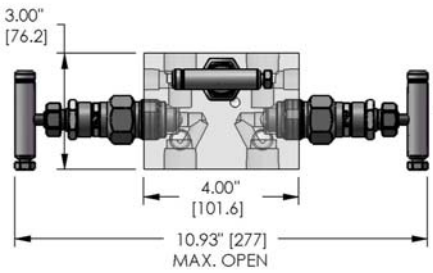
- PGI Standard 316 SS *Ball* Seat

**Benefits**

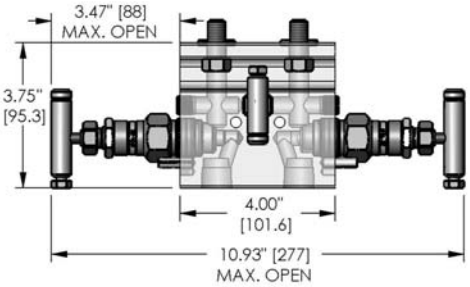
- Non-rotating ball eliminates seat galling and ball creasing
- Leak free, bubble tight seating
- Available in a variety of materials

## Dimensions, inches [mm]

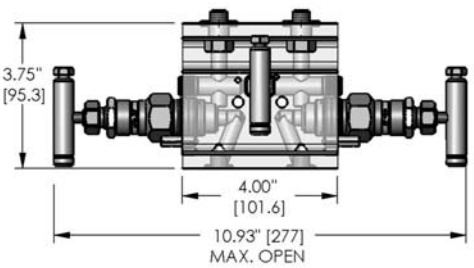
M3-500



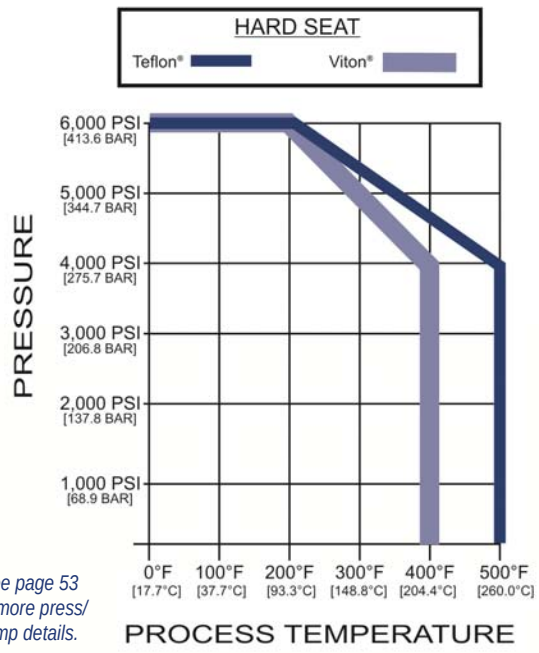

M3-650




M3-750




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| | | *Process x Instrument x Vent* |
|---|---|---|
| M3- | 500 | 1/2" FNPT x 1/2" FNPT x 1/4" NPT |
| M3- | 650 ¤ | 1/2" FNPT x Flange x 1/4" FNPT |
| M3- | 750 ¤ | Flange x Flange x 1/4" NPT |

Body Material Code

| | |
|---|---|
| C | ASTM A108 |
| S | ASTM A479-316 SS |
| | ASTM A276-316 SS ¤ |
| P | ASTM A696* |

Seat Material Code

| | |
|---|---|
| 6 | 316 SS Ball |
| C | Carbide Ball |
| N | Monel® |

Stem Packing/Seal Code

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

M3- [ ] [ ] [ ] [ ] [ ] - Options *[pages 49-50]*

## Materials of Construction

| Part | Carbon Steel | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|---|
| Body / Bonnet | ASTM A108 | ASTM A696 Gr.C | ASTM A479-316<br>ASTM A276-316 ¤ |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| .375" Orifice | Straight Body Style |
|---|---|
| | 2.40 |

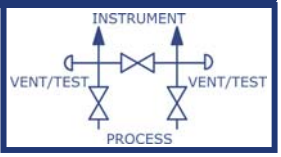
Approx. Manifold Weight:
9.00 lbs. [4.08 kg] ea. (M3-500)
7.00 lbs. [3.17 kg] ea. (M3-650)
7.60 lbs. [3.44 kg] ea. (M3 -750)

## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

# 3-Valve Differential Pressure Manifolds

**SOFT SEAT .187" ORIFICE**




## SOFT SEAT: .187" Orifice

**Features**

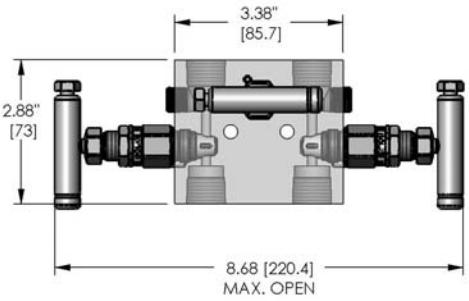
- PGI Soft *Cone* Seat

**Benefits**

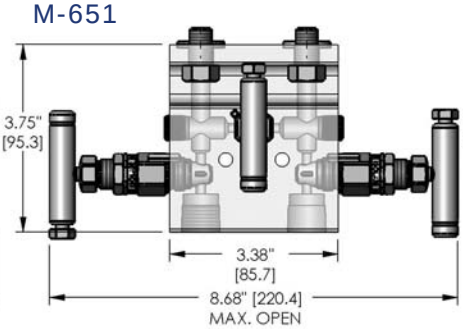
- Roddable straight-through design
- Leak free, bubble tight seating
- Easily replaced
- Available in a variety of materials
- Bi-directional flow

## Dimensions, inches [mm]

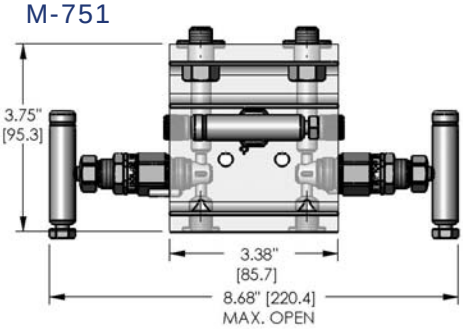
M-501



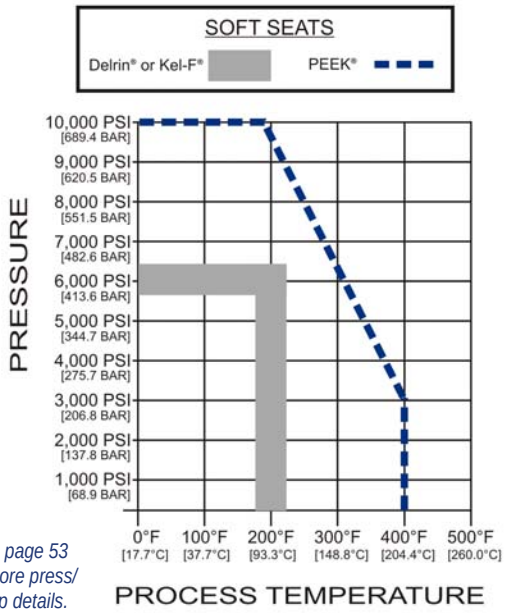

M-651




M-751




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| | | *Process x Instrument x Vent* |
|---|---|---|
| M- | 501 | 1/2" FNPT x 1/2" FNPT x 1/4" NPT |
| M- | 651 ¤ | 1/2" FNPT x Flange x 1/4" FNPT |
| M- | 751 ¤ | Flange x Flange x 1/4" NPT |

Body Material Code

| | |
|---|---|
| C | ASTM A108 |
| S | ASTM A479-316 SS |
| | ASTM A276-316 SS ¤ |
| P | ASTM A696* |

Seat Material Code

| | |
|---|---|
| D | Delrin® (Standard) |
| K | Kel-F® |
| P | Peek® |

Stem Packing/Seal Code

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

M- [ ] [ ] [ ] [ ] - Options *[pages 49-50]*

## Materials of Construction

| Part | Carbon Steel | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|---|
| Body / Bonnet | ASTM A108 | ASTM A696 Gr.C | ASTM A479-316<br>ASTM A276-316 ¤ |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| | Straight Body Style |
|---|---|
| .187" Orifice | .83 |

Approx. Manifold Weight:
4.20 lbs. [1.90 kg] ea. (M-501)
5.20 lbs. [2.35 kg] ea. (M-651)
5.70 lbs. [2.58 kg] ea. (M-751)

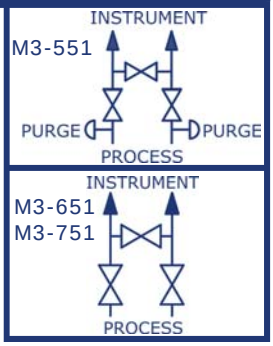
* Barstock equivalent of ASTM A105

## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

# 3-Valve Differential Pressure Manifolds

**SOFT SEAT .375" ORIFICE**




## SOFT SEAT: .375" Orifice

**Features**

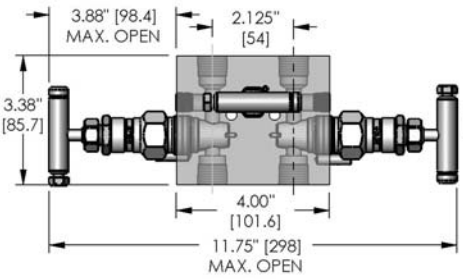
- PGI Soft *Cone* Seat

**Benefits**

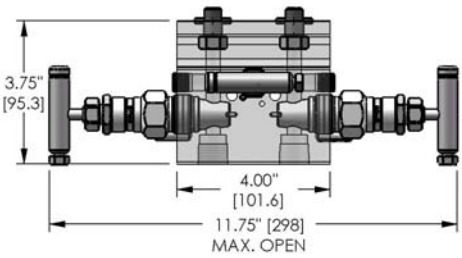
- Roddable straight-through design
- Leak free, bubble tight seating
- Easily replaced
- Available in a variety of materials
- Bi-directional flow

## Dimensions, inches [mm]

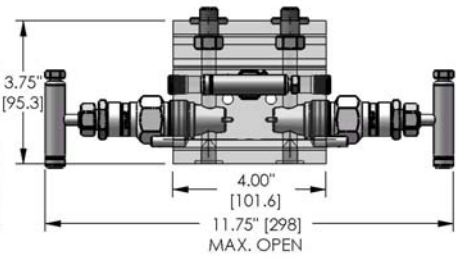
M3-551



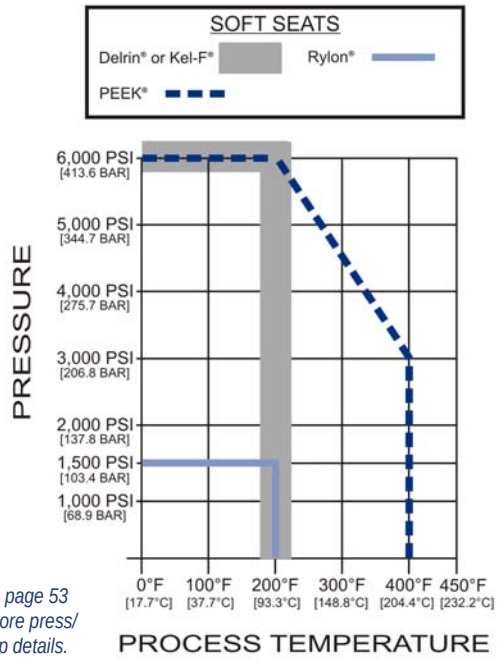

M3-651




M3-751




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| | | *Process x Instrument x Vent* |
|---|---|---|
| M3- | 551 | 1/2" FNPT x 1/2" FNPT x 1/4" NPT |
| M3- | 651 ¤ | 1/2" FNPT x Flange x 1/4" FNPT |
| M3- | 751 ¤ | Flange x Flange x 1/4" NPT |

Body Material Code

| | |
|---|---|
| C | ASTM A108 |
| S | ASTM A479-316 SS |
| | ASTM A276-316 SS ¤ |
| P | ASTM A696* |

Seat Material Code

| | |
|---|---|
| L | Rylon™ (Standard) |
| D | Delrin® |
| K | Kel-F® |
| P | Peek® |

Stem Packing/Seal Code

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

M3- [ ][ ][ ][ ][ ] - Options *[pages 49-50]*

## Materials of Construction

| Part | Carbon Steel | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|---|
| Body / Bonnet | ASTM A108 | ASTM A696 Gr.C | ASTM A479-316<br>ASTM A276-316 ¤ |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| .375" Orifice | Straight Body Style |
|---|---|
| | 2.4 |

Approx. Manifold Weight:
9.00 lbs. [4.08 kg] ea. (M-500)
7.00 lbs. [3.17 kg] ea. (M-650)
7.60 lbs. [3.44 kg] ea. (M-750)

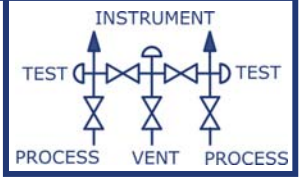
* Barstock equivalent of ASTM A105

## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

# 5-Valve Differential Pressure Wafer Style Series Manifold (Natural Gas Pattern) *2-1/8" Centers*

HARD SEAT
1/2" FNPT x FLANGE
.125" ORIFICE




## HARD BALL SEAT: .125" Orifice

**Features**

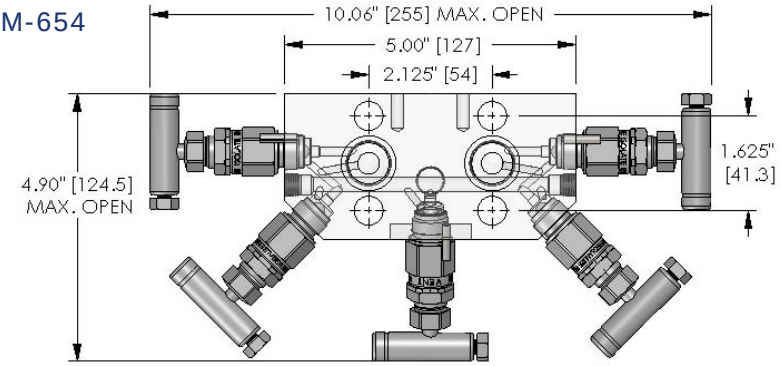
- PGI Standard 316 SS *Ball* Seat

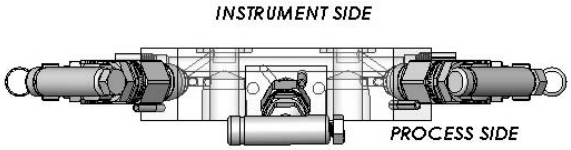
**Benefits**

- Non-rotating ball eliminates seat galling and ball creasing
- Leak free, bubble tight seating
- Available in a variety of materials

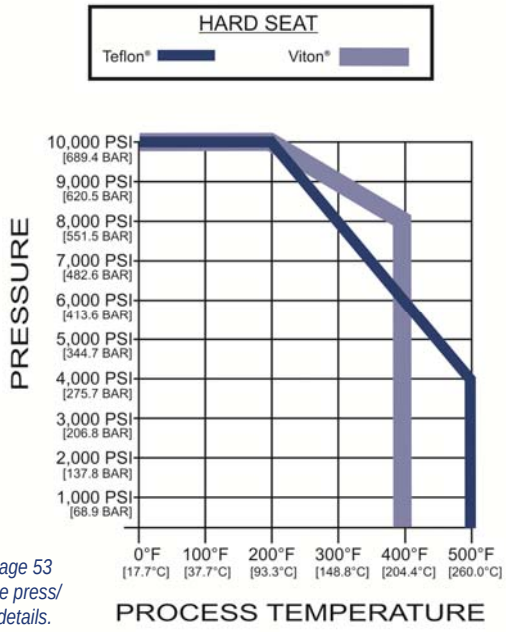
## Dimensions, inches [mm]

M-654




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| *Process x Instrument x Vent/Test* | |
|---|---|
| M-654 | 1/2" FNPT x Flange x 1/4" NPT |

Body Material Code

| | |
|---|---|
| S | ASTM A479-316 SS |
| P | ASTM A696* |

Seat Material Code

| | |
|---|---|
| 6 | 316 SS Ball *(Standard)* |
| C | Carbide Ball |
| N | Monel® |

Stem Packing/Seal Code

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

| | | | | | |
|---|---|---|---|---|---|
| M-654 | | | | - | Options *[pages 49-50]* |

## Materials of Construction

| Part | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|
| Body / Bonnet | ASTM A696 Gr.C | ASTM A479-316 |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| .125" Orifice | Straight Body Style |
|---|---|
| | .25 |

Approx. Manifold Weight:
4.1 lbs. [1.85 kg] ea.

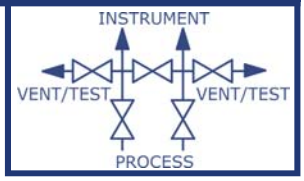
* Barstock equivalent of ASTM A105

## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

# 5-Valve Differential Pressure M-800 Series Manifold (Power Pattern)
## *2-1/8" Centers*

HARD SEAT
1/2" FNPT x FLANGE
.125" ORIFICE



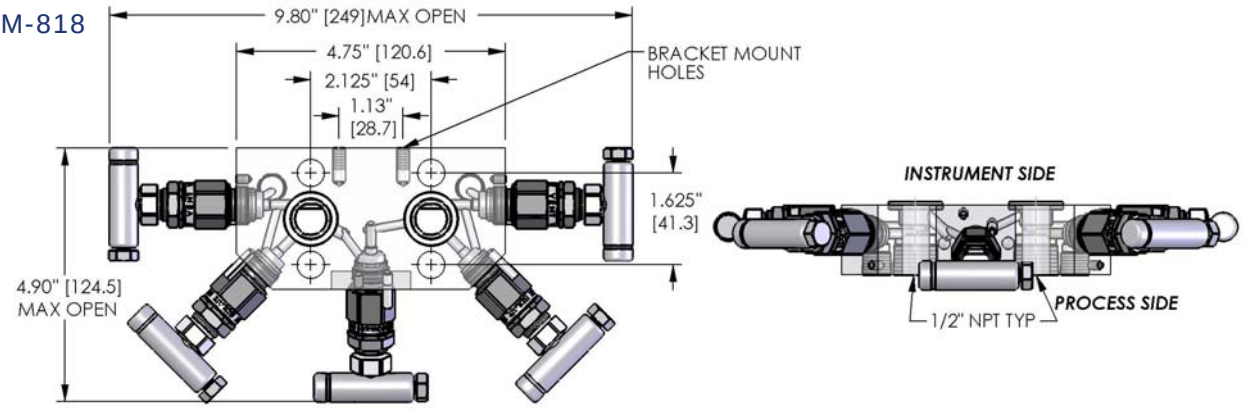

### HARD BALL SEAT: .125" Orifice

**Features**
- PGI Standard 316 SS *Ball* Seat

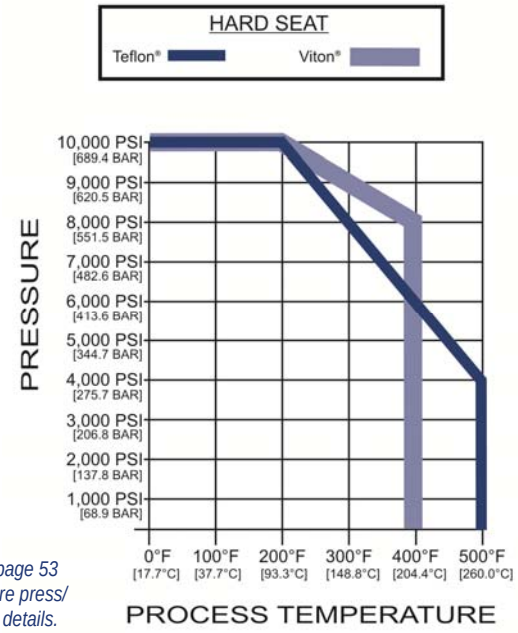
**Benefits**
- Non-rotating ball eliminates seat galling and ball creasing
- Leak free, bubble tight seating
- Available in a variety of materials

## Dimensions, inches [mm]

M-818




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| | Process x Instrument x Vent/Test |
|---|---|
| M-818 | 1/2" FNPT x Flange x 1/4" NPT |

Body Material Code

| | |
|---|---|
| S | ASTM A479-316 SS |
| P | ASTM A696* |

Seat Material Code

| | |
|---|---|
| 6 | 316 SS Ball *(Standard)* |
| C | Carbide Ball |
| N | Monel® |

Stem Packing/Seal Code

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

| M-818 | | | | - | Options *[pages 49-50]* |
|---|---|---|---|---|---|

## Materials of Construction

| Part | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|
| Body / Bonnet | ASTM A696 Gr.C | ASTM A479-316 |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| .125" Orifice | Straight Body Style |
|---|---|
| | .25 |

Approx. Manifold Weight:
6.10 lbs. [2.76 kg] ea.

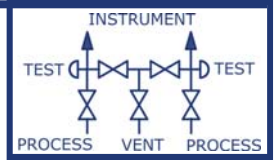
* Barstock equivalent of ASTM A105

## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

# 5-Valve Wide-Pattern™ Differential Pressure Manifolds

HARD SEAT
.187" ORIFICE




## HARD BALL SEAT: .187" Orifice

**Features**

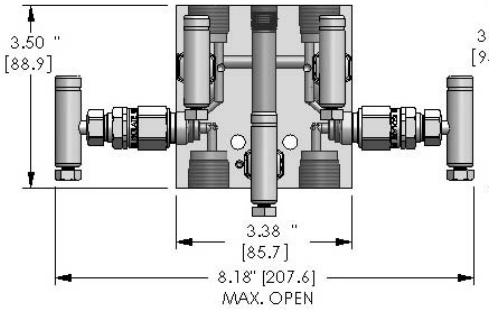
- PGI Standard 316 SS *Ball* Seat

**Benefits**

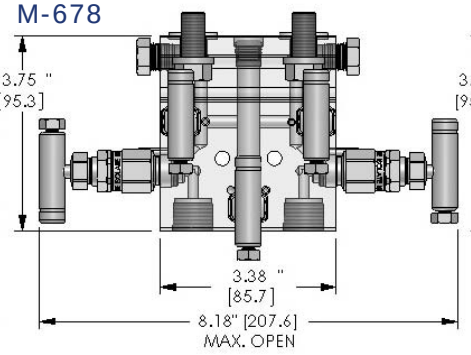
- Non-rotating ball eliminates seat galling and ball creasing
- Leak free, bubble tight seating
- Available in a variety of materials

## Dimensions, inches [mm]

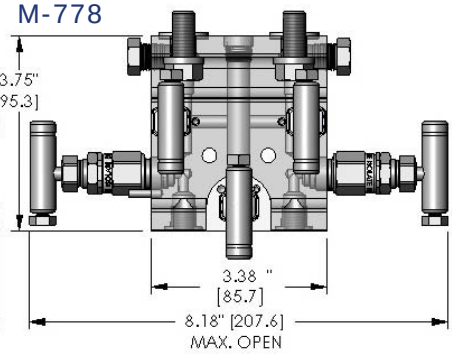
M-578



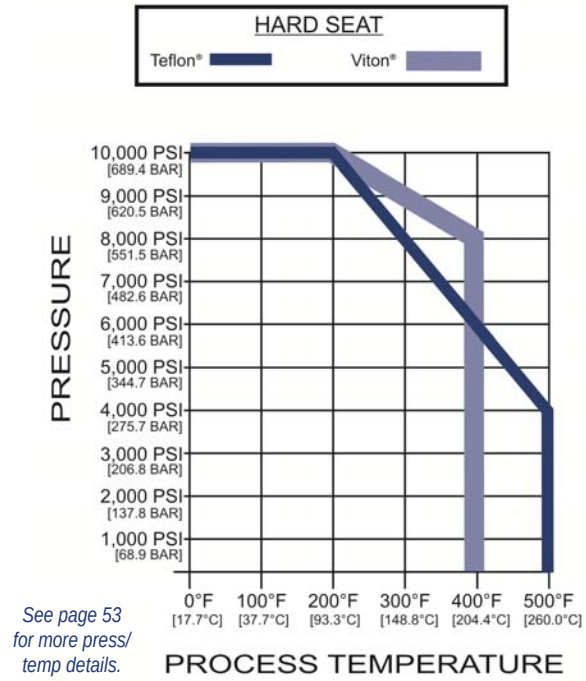

M-678




M-778




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| | | *Process x Instrument x Vent* |
|---|---|---|
| M- | 578 | 1/2" FNPT x 1/2" FNPT x 1/4" NPT |
| M- | 678 ¤ | 1/2" FNPT x Flange x 1/4" FNPT |
| M- | 778 ¤ | Flange x Flange x 1/4" NPT |

Body Material Code

| | |
|---|---|
| C | ASTM A108 |
| S | ASTM A479-316 SS |
| | ASTM A276-316 SS ¤ |
| P | ASTM A696* |

Seat Material Code

| | |
|---|---|
| 6 | 316 SS Ball *(Standard)* |
| C | Carbide Ball |
| N | Monel® |

Stem Packing/Seal Code

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

M- _ _ _ _ _ - Options *[pages 49-50]*

## Materials of Construction

| Part | Carbon Steel | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|---|
| Body / Bonnet | ASTM A108 | ASTM A696 Gr.C | ASTM A479-316<br>ASTM A276-316 ¤ |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| .187" Orifice | Straight Body Style |
|---|---|
| | .53 |

Approx. Manifold Weight:
5.70 lbs. [2.58 kg] ea.

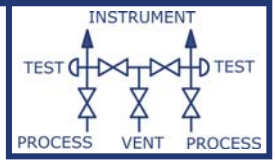
* Barstock equivalent of ASTM A105

## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

# 5-Valve Wide-Pattern™ Differential Pressure Manifolds

SOFT SEAT
.187" ORIFICE




## SOFT SEAT: .187" Orifice

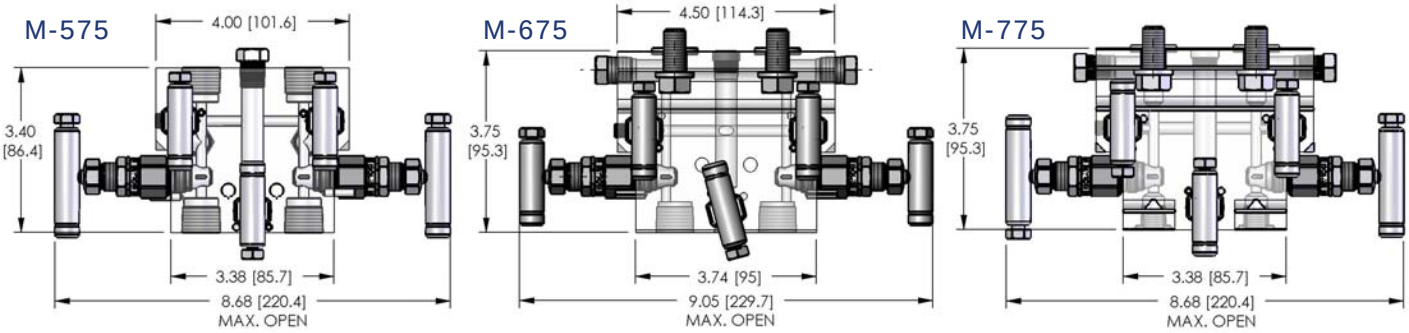
**Features**

- PGI Soft *Cone* Seat

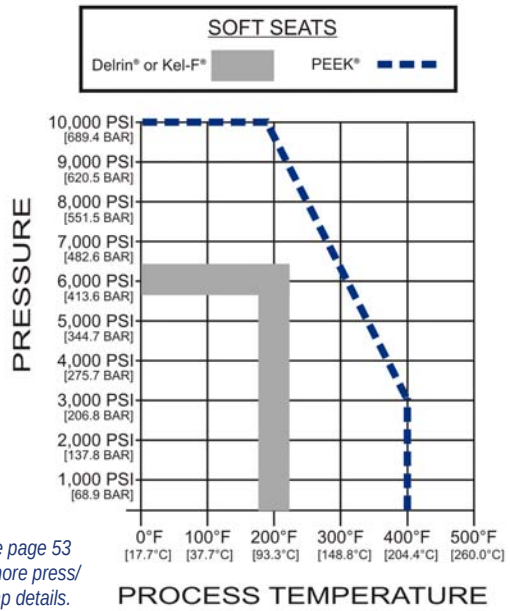
**Benefits**

- Roddable straight-through design
- Leak free, bubble tight seating
- Easily replaced
- Available in a variety of materials
- Bi-directional flow

## Dimensions, inches [mm]




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| | | *Process x Instrument x Vent* |
|---|---|---|
| M- | 575 | 1/2" FNPT x 1/2" FNPT x 1/4" NPT |
| M- | 675 ¤ | 1/2" FNPT x Flange x 1/4" FNPT |
| M- | 775 ¤ | Flange x Flange x 1/4" NPT |

Body Material Code

| | |
|---|---|
| C | ASTM A108 |
| S | ASTM A479-316 SS |
| | ASTM A276-316 SS ¤ |
| P | ASTM A696* |

Seat Material Code

| | |
|---|---|
| D | Delrin® (Standard) |
| K | Kel-F® |
| P | Peek® |

Stem Packing/Seal Code

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

M- _ _ _ _ _ - Options *[pages 49-50]*

## Materials of Construction

| Part | Carbon Steel | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|---|
| Body / Bonnet | ASTM A108 | ASTM A696 Gr.C | ASTM A479-316<br>ASTM A276-316 ¤ |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| .187" Orifice | Straight Body Style |
|---|---|
| | .83 |

Approx. Manifold Weight:
4.30 lbs. [1.95 kg] ea. (M-575)
6.30 lbs. [2.85 kg] ea. (M-675)
7.00 lbs. [3.18 kg] ea. (M-775)

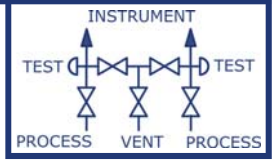
* Barstock equivalent of ASTM A105

## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

# 5-Valve Wide-Pattern™ Differential Pressure Manifolds

SOFT SEAT
.375" ORIFICE




## SOFT SEAT: .375" Orifice

**Features**

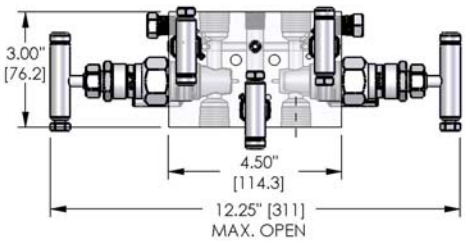
- PGI Soft *Cone* Seat

**Benefits**

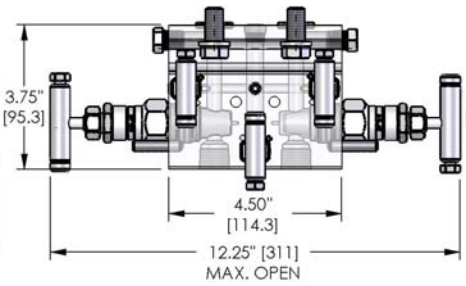
- Roddable straight-through design
- Leak free, bubble tight seating
- Easily replaced
- Available in a variety of materials
- Bi-directional flow

## Dimensions, inches [mm]

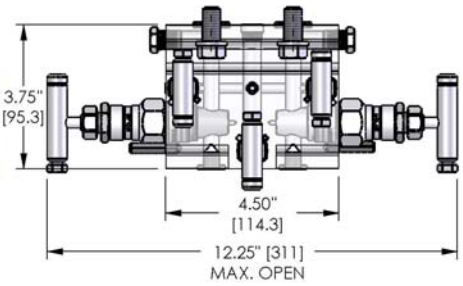
M3-575



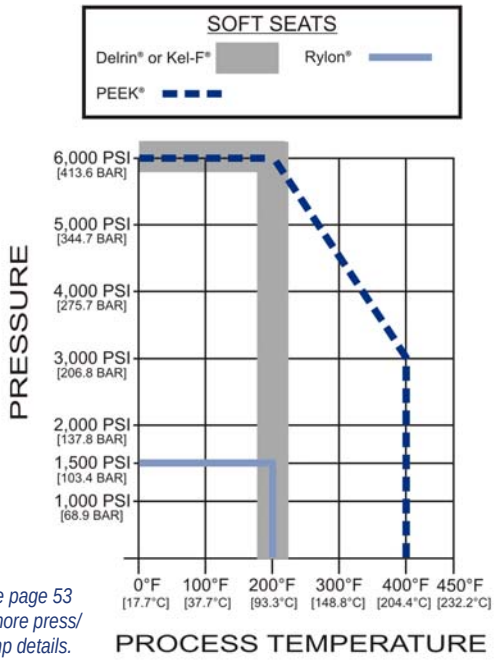

M3-675




M3-775




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| | | *Process x Instrument x Vent* |
|---|---|---|
| M3- | 575 | 1/2" FNPT x 1/2" FNPT x 1/4" NPT |
| M3- | 675 ¤ | 1/2" FNPT x Flange x 1/4" FNPT |
| M3- | 775 ¤ | Flange x Flange x 1/4" NPT |

Body Material Code

| | |
|---|---|
| C | ASTM A108 |
| S | ASTM A479-316 SS |
| | ASTM A276-316 SS ¤ |
| P | ASTM A696* |

Seat Material Code

| | |
|---|---|
| L | Rylon™ (Standard on Block Valves) |
| D | Delrin® (Standard on Equalizer & Vent Valves) |
| K | Kel-F® |
| P | Peek® |

Stem Packing/Seal Code

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

M3- [ ] [ ] [ ] [ ] [ ] - Options *[pages 49-50]*

## Materials of Construction

| Part | Carbon Steel | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|---|
| Body / Bonnet | ASTM A108 | ASTM A696 Gr.C | ASTM A479-316<br>ASTM A276-316 ¤ |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| .375" Orifice | Straight Body Style |
|---|---|
| | 3.0 |

Approx. Manifold Weight:
7.10 lbs. [3.22 kg] ea. (M3-575)
7.70 lbs. [3.49 kg] ea. (M3-675)
8.30 lbs. [3.76 kg] ea. (M3-775)

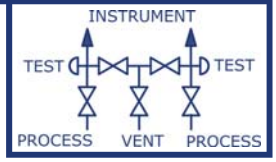
* Barstock equivalent of ASTM A105

## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

# 5-Valve 90° Angle Differential Pressure Manifold

SOFT SEAT
.375" ORIFICE




## SOFT SEAT: .375" Orifice

**Features**

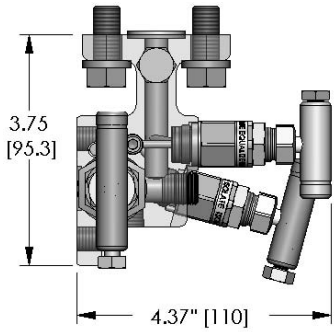
- PGI Soft *Cone* Seat

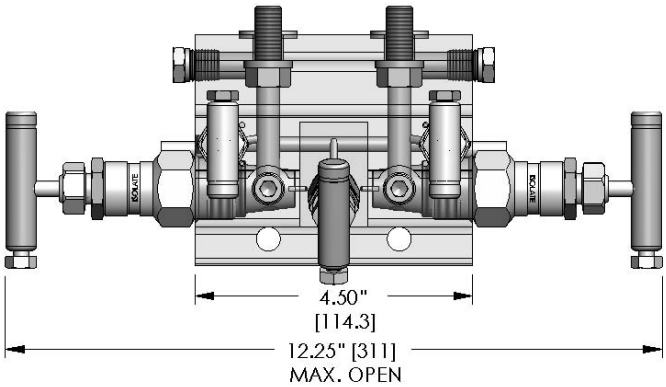
**Benefits**

- Roddable design
- Leak free, bubble tight seating
- Easily replaced
- Available in a variety of materials
- Bi-directional flow

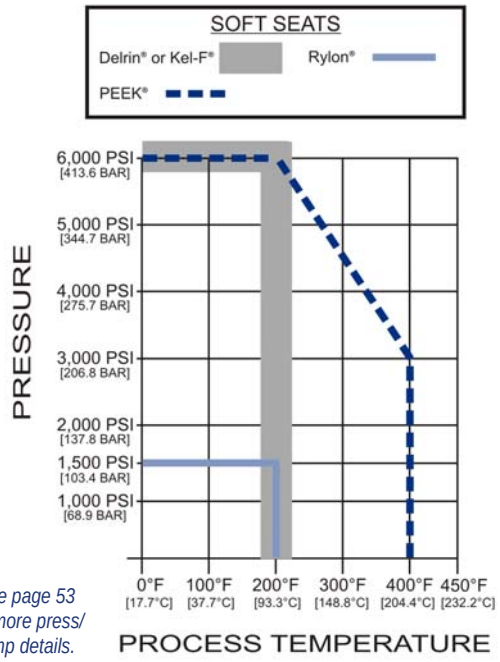
## Dimensions, inches [mm]

M3-909




## Pressure vs. Temperature




*See page 53 for more press/ temp details.*

## Part Number Selection

Base Model

| *Process x Instrument x Vent* | |
|---|---|
| M3-909 | Flange x Flange x 1/4" NPT *(90° Angle)* |

Body Material Code

| | |
|---|---|
| C | ASTM A108 |
| S | ASTM A276-316 SS |
| P | ASTM A696* |

Seat Material Code

| | |
|---|---|
| L | Rylon™ (Standard) |
| D | Delrin® |
| K | Kel-F® |
| P | Peek® |

Stem Packing/Seal Code

| | |
|---|---|
| P | PTFE (Below threads) |
| V | Viton® O-Ring |

| | | | | | |
|---|---|---|---|---|---|
| M3-909 | | | | - | Options *[pages 49-50]* |

## Materials of Construction

| Part | Carbon Steel | A696 Carbon Steel* | 316 Stainless Steel |
|---|---|---|---|
| Body / Bonnet | ASTM A108 | ASTM A696 Gr.C | ASTM A276-316 |
| Packing "P" / "V" | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring | PTFE/Viton® O-Ring |
| Stem | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Packing Adjuster | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A479-316 |
| Packing Follower | ASTM A479-316 | ASTM A479-316 | ASTM A479-316 |
| Jam Nut *(TFE Packed Only)* | ASTM A696 Gr.C | ASTM A696 Gr.C | ASTM A582-303 |
| Handle Assembly | ASTM A108 | ASTM A108 | 300 Series SS |

## Max Cv Ratings

| .375" Orifice | Straight Body Style |
|---|---|
| | 3.0 |

Approx. Manifold Weight:
7.7 lbs. [3.5 kg] ea.

* Barstock equivalent of ASTM A105

## Notes

- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

# Lone Star Options

| M-505 | C | D | P | - | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|

*Add Options in Alpha-Numeric Order*

*Consult Factory to Verify that Options are Available with the Specific Model Number(s) Chosen*

| OPTIONS | |
|---|---|
| OPTION CODE | DESCRIPTION |
| AB | INTEGRAL TUBE FITTING - PARKER A-LOK WELDED IN COMPRESSION FITTING |
| AM7 | MALE PIPE SOCKET WELD - INLET ONLY (Process Ports) |
| AP | FEMALE PIPE SOCKET WELD INLET & OUTLET |
| AP7 | FEMALE PIPE SOCKET WELD INLET ONLY (Process Ports) |
| AP8 | FEMALE PIPE SOCKET WELD OUTLET ONLY |
| AS | 6" TUBE STUB INLET & OUTLET |
| AS7 | 6" TUBE STUB INLET ONLY |
| AU | INTEGRAL PARKER A-LOK INLET & OUTLET |
| AU7 | 1/2" INTEGRAL TUBE FITTING - PARKER A-LOK DUAL FERRULES INLET ONLY (Process Ports) |
| AY | INTEGRAL PARKER CPI INLET & OUTLET |
| AY7 | INTEGRAL PARKER CPI INLET ONLY |
| B1 | BLEED VALVE INSTALLED BALL SEAT A7-521 (1/4") OR A7-520 (1/2") |
| B2 | BLEED VALVE INSTALLED BLEED TEE STYLE A7-528 (1/4") or A7-529(1/2") |
| B3XX | MINI BLEED VALVE INSTALLED V-585 STYLE XX = SEAT AND SEAL CODE ON V-585 |
| B4 | BLEED VALVE INSTALLED MINI HEX STYLE A7-525 (1/4") or A7-526 (1/2") |
| B5 | BLEEDER VALVE 1/4" NPT INSTALLED IN VENT PORT (BV10N2) |
| B6 | BLEEDER VALVE 1/2" NPT INSTALLED IN VENT PORT (BV10N4) |
| GA | ANTI-TAMPER BONNET (ALL POSITIONS) |
| GC | ANTI-TAMPER BONNET (ISOLATION VALVE ONLY) |
| GD | ANTI-TAMPER BONNET (EQUALIZER VALVE ONLY) |
| GE | ANTI-TAMPER BONNET (VENT VALVE ONLY) |
| GJ | BONNET LOCK OUT (ALL POSITIONS - LOCK NOT PROVIDED) |
| GK | BONNET LOCK OUT (ISOLATION VALVE ONLY- LOCK NOT PROVIDED) |
| GL | BONNET LOCK OUT (EQUALIZER or SECONDARY POSITION - LOCK NOT PROVIDED) |
| GM | BONNET LOCK OUT (VENT VALVE ONLY - LOCK NOT PROVIDED) |
| HCB | 2" BLOCK VALVE HANDLES CS FOR USE WITH DP TO DP ADAPTER PLATE (HANDLE CLEARS ADAPTER BAR) |
| HSB | 2" BLOCK VALVE HANDLES 316 SS FOR USE WITH DP TO DP ADAPTER PLATE (HANDLE CLEARS ADAPTER BAR) |
| H3EV | 1.5" CS HANDLES ON EQUALIZER & VENT VALVES WIDE PATTERN 5 VALVE MANIFOLDS (2" STANDARD) |
| H4EV | 1.5" SS HANDLES ON EQUALIZER & VENT VALVES WIDE PATTERN 5 VALVE MANIFOLDS (2" STANDARD) |
| H5 | CS MINI ROUND HANDLES |
| H6 | SS MINI ROUND HANDLES |
| H7 | CS MINI "T" / BAR HANDLE |
| H8 | SS MINI "T" / BAR HANDLE |
| IEC | IEC INSTRUMENT FLANGE SEAL(S) & BOLT HOLES (DERATES MANIFOLD TO 6,000 PSI MAX PRESSURE) |
| M1 | PANEL MOUNT NUT |
| M7 | REQUIRED SLOTTING FOR ROSEMOUNT 1151 TRANSMITTERS SERIES 6 & 7 (FLANGE MANIFOLDS ONLY) |
| MA | VERSA-MOUNT BRACKET HOLES |

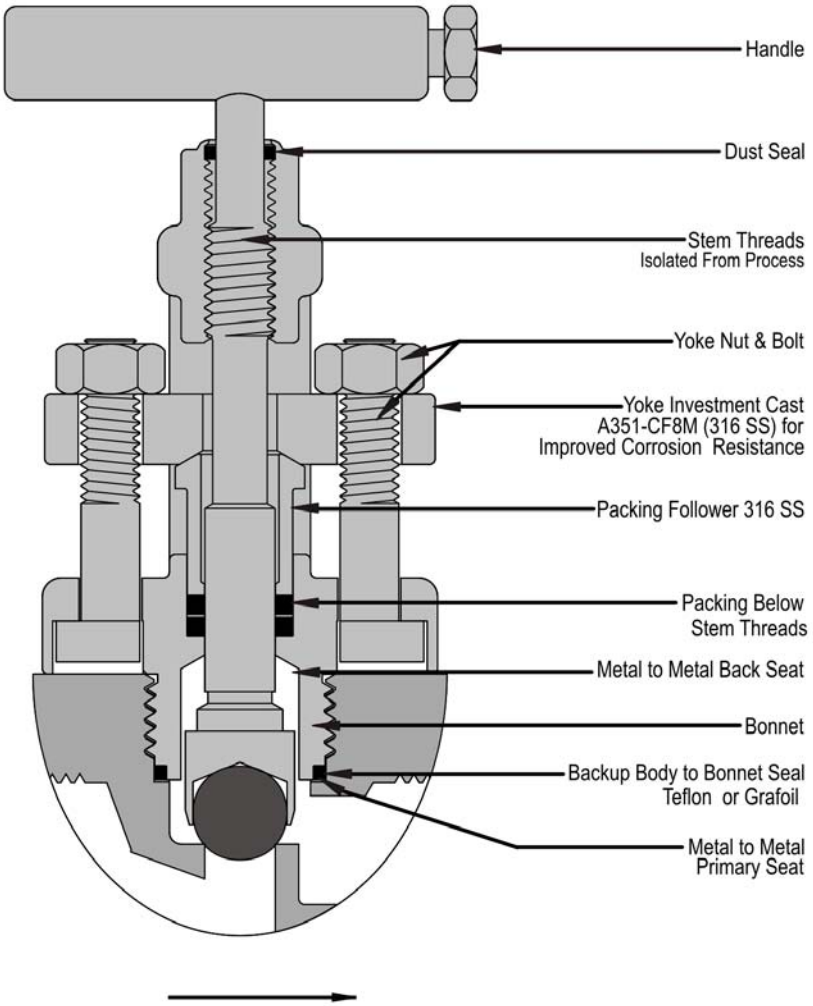
*Options Continued on Next Page* ⟶

| M-505 | C | D | P | - | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|

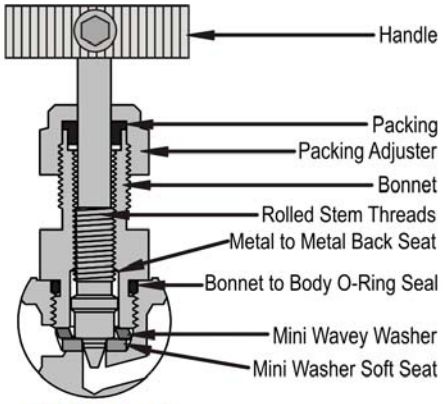
*Add Options in Alpha-Numeric Order*

*Consult Factory to Verify that Options are Available with the Specific Model Number(s) Chosen*

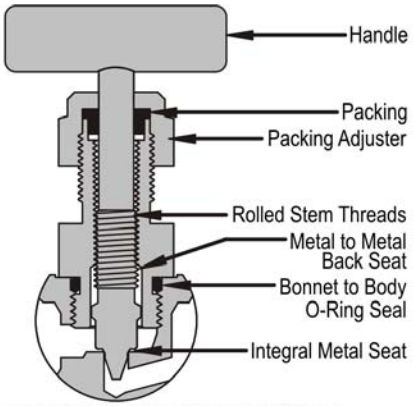
| OPTIONS | |
|---|---|
| OPTION CODE | DESCRIPTION |
| ME | SLOTTED INSTRUMENT FLANGE BOLT HOLES WHEN USING BOLT LENGTHS OVER 3" |
| MF | IEC FLANGE SEALS ONLY |
| MH | VITON O-RING FLANGE SEALS (FLANGE MANIFOLDS ONLY) |
| MJ | VITON O-RING FLANGE SEALS (AK-003/079-CO ONLY) |
| MN | DIELECTRIC ISOLATION (AK SERIES ADAPTERS AND CONNECTORS) |
| MT | TAYLOR INSTUMENT FLANGE SEALS |
| MY | DIELECTRIC ISOLATION (FLANGE MANIFOLDS ONLY) |
| MZ | DIELECTRIC ISOLATION (WAFER MANIFOLDS ONLY) |
| P1 | PURGE / TEST LINE FITTING(S) - MUST INCLUDE LOCATION OPTION PB, PS OR PT (I.E. PBP1, PSP1, PTP1) |
| P4 | (2) 1/4" VENT / TEST PORTS (BOTTOM) |
| P9 | NPT HEX HEAD PIPE PLUG IN VENT / TEST PORT |
| PB | (2) 1/4" CONSTANT PURGE PORTS WITH PLUGS (BOTTOM) |
| PS | (2) 1/4" CONSTANT PURGE PORTS WITH PLUGS (SIDE) |
| PT | (2) 1/4" CONSTANT PURGE PORTS WITH PLUGS (TOP) |
| S1 | MONEL STEM MATERIAL |
| ST | THROTTLING STEM TIP (CARBIDE STANDARD) |
| TC | STEAM TRACE BLOCK - CARBON STEEL |
| TH | HYDROSTATIC TESTING |
| TS | STEAM TRACE BLOCK - STAINLESS STEEL |
| VA | BRACKET SPACER FOR FLANGE TO FLANGE MANIFOLDS - 316 SS ONLY; REQUIRES A BRACKET OPTION ADD “A” TO END OF BRACKET PART NUMBERS BELOW = VCA, VCHA, VSA or VSHA |
| VC | CS VERSA MOUNT BRACKET |
| VCH | CS HEAVY DUTY VERSA MOUNT BRACKET |
| VS | 316 SS VERSA MOUNT BRACKET |
| VSH | 316 SS HEAVY DUTY VERSA MOUNT BRACKET |
| VMC | MANIFOLD BRACKET KIT (L STYLE) CARBON STEEL |
| VMS | MANIFOLD BRACKET KIT (L STYLE) 316 STAINLESS STEEL |
| W | SAFETY BONNET LOCK PLATE |
| W1 | 316 SS TAG (20 CHARACTERS) |
| W9 | 316 SS STANDARD LENGTH BOLTS |
| WA | CS 2-1/4" BOLTS FOR ROSEMOUNT 3051C OR 2024 WITH COPLANAR FLANGE MANIFOLD ONLY |
| WAW9 | 316 SS 2-1/4" BOLTS FOR ROSEMOUNT 3051C OR 2024 WITH COPLANAR FLANGE MANIFOLD ONLY |
| X3 | (2) 1/4" TEST PORTS ON INSTRUMENT FLANGE ON INSTRUMENT FLANGE (FLANGE MANIFOLDS ONLY) |
| X8 | GRAFOIL FLANGE SEALS (NOT AVAILABLE WITH MN OPTION) |
| XL | CLEAN FOR CRITICAL SERVICE (OXYGEN OR CHLORINE) |
| XS | SPECIAL STAMPING |
| XV | MANIFOLD MOUNTED TO CUSTOMERS TRANSMITTER AND PRESSURE TESTED |
| Y | OS & Y BONNET |


Handle
Dust Seal
Stem Threads
Isolated From Process
Yoke Nut & Bolt
Yoke Investment Cast
A351-CF8M (316 SS) for
Improved Corrosion Resistance
Packing Follower 316 SS
Packing Below
Stem Threads
Metal to Metal Back Seat
Bonnet
Backup Body to Bonnet Seal
Teflon or Grafoil
Metal to Metal
Primary Seat

## .136" Orifice

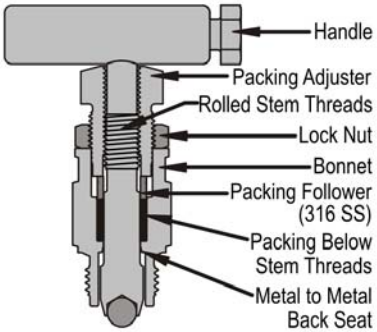



Soft Seat

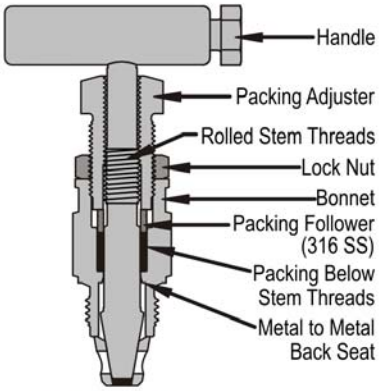



Integral Metal to Metal Seat

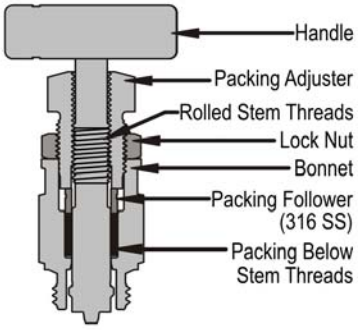
## .187" Orifice




Hard Seat

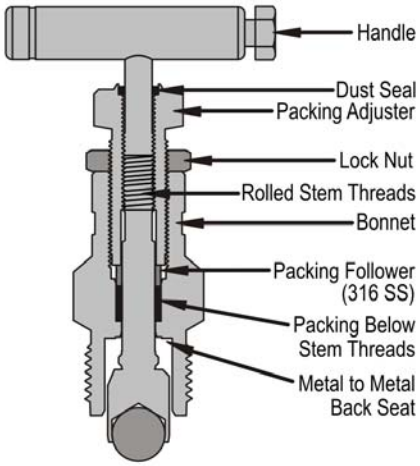



Soft Seat

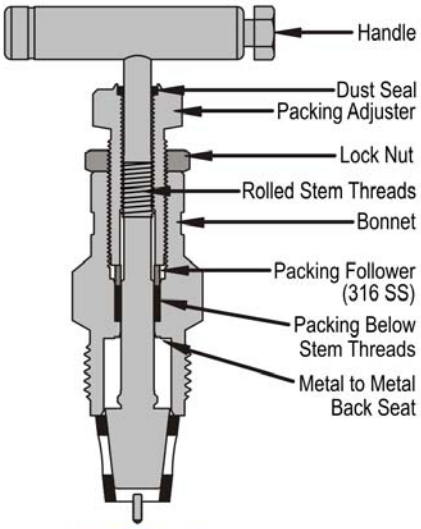



Soft Washer Seat

## .375" Orifice



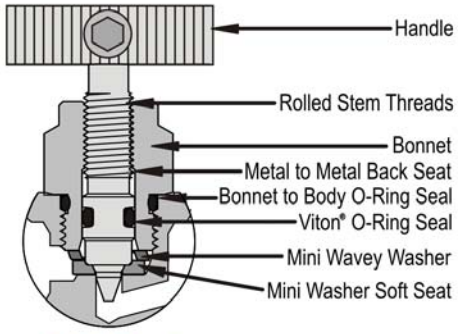

Hard Seat



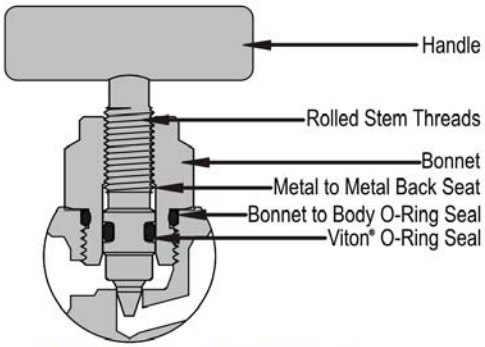

Soft Seat

# Viton® O-Ring Bonnet Design

## .136" Orifice

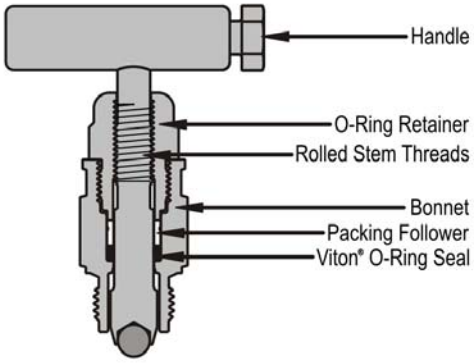



**Soft Seat**

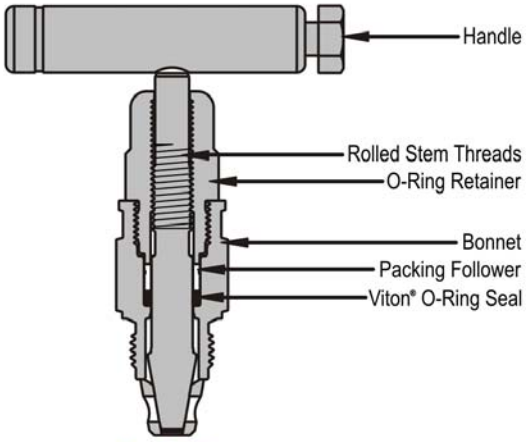



**Integral Metal to Metal Seat**

## .187" Orifice

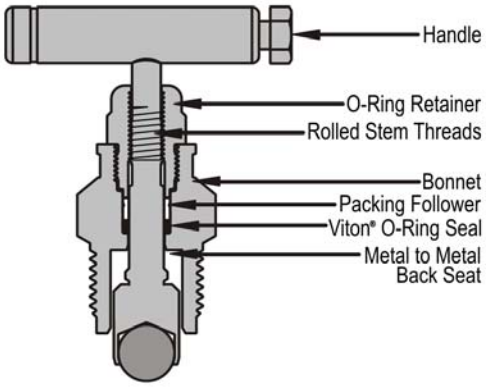



**Hard Seat**

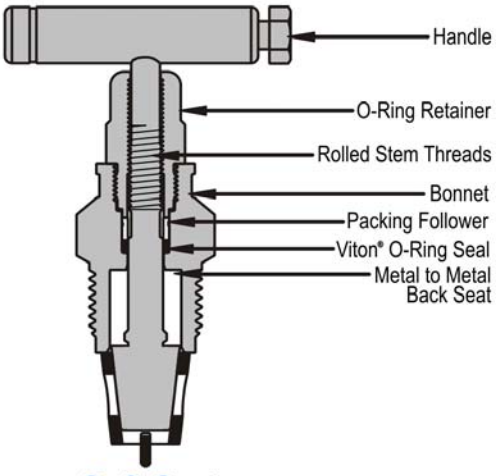



**Soft Seat**

## .375" Orifice




**Hard Seat**




**Soft Seat**

# Pressure & Process Temperature Ratings

| STANDARD BODY MATERIAL CODES | | | |
|---|---|---|---|
| CODE | DESCRIPTION | PRESSURE & PROCESS TEMPERATURE LIMITS | |
| S | ASTM A479-316 Stainless Steel | 10,000 PSI Max. @ 200° to -100°F Min.<br>1,500 PSI Max. @ 1,000° F Max. | 689 bar Max. @ 93° to -73° C Min.<br>103 bar Max. @ 538° C Max. |
| C | ASTM A108 Carbon Steel | 10,000 PSI Max. @ 200° to -20°F Min.<br>1,500 PSI Max. @ 500° F Max. | 689 bar Max. @ 93° to -29° C Min.<br>103 bar Max. @ 260° C Max. |
| P | ASTM A696 Gr. C Carbon Steel*<br>(* Barstock equivalent of ASTM A105) | 10,000 PSI Max. @ 200° to -20°F Min.<br>1,500 PSI Max. @ 800° F Max. | 689 bar Max. @ 93° to -29° C Min.<br>103 bar Max. @ 427° C Max. |
| T | ASTM A395 GR 60-40-18 Ductile Iron | 3,000 PSI Max. @ 200° to -20°F Min.<br>1,500 PSI Max. @ 650° F Max. | 207 bar Max. @ 93° to -29° C Min.<br>103 bar Max. @ 343° C Max. |

| STANDARD STEM SEAL MATERIAL CODES | | | | |
|---|---|---|---|---|
| CODE | DESCRIPTION | ORIFICE SIZES | PRESSURE & PROCESS TEMPERATURE LIMITS | |
| P | PTFE Packed Style | .187" .250" | 10,000 PSI Max. @ 200° to -80°F Min.<br>4,000 PSI Max. @ 500° F Max. | 689 bar Max. @ 93° to -62° C Min.<br>276 bar Max. @ 260° C Max. |
| | | .375" | 6,000 PSI Max. @ 200° to -40°F Min.<br>4,000 PSI Max. @ 500° F Max. | 414 bar Max. @ 93° to -40° C Min.<br>276 bar Max. @ 260° C Max. |
| T | Mini PTFE Packed | .136" | 6,000 PSI Max. @ 200° F Max. to -80°F Min.<br>4,000 PSI Max. @ 450° Max. | 414 bar Max. @ 93° C Max. to -62° C Min.<br>276 bar Max. @ 232° C Max. |
| V | Viton® O-Ring | .187" .250" | 10,000 PSI Max. @ 200° to -15°F Min.<br>8,000 PSI Max. @ 400° F Max. | 689 bar Max. @ 93° to -26° C Min.<br>552 bar Max. @ 204° C Max. |
| | | .375" | 6,000 PSI Max. @ 200° F Max. to -15°F Min.<br>4,000 PSI Max. @ 400° Max. | 414 bar Max. @ 93° C Max. to -40° C Min.<br>276 bar Max. @ 204° C Max. |

| STANDARD SOFT SEAT MATERIAL CODES | | | | |
|---|---|---|---|---|
| CODE | DESCRIPTION | ORIFICE SIZES | PRESSURE & PROCESS TEMPERATURE | |
| L | Rylon™ Cone | .375" | 1,500 PSI Max. @ 200° F Max. to -40°F Min. | 103 bar Max. @ 93° C Max. to -40° C Min. |
| D & K | Delrin® and Kel-F® Cone | .187" .250" .375" | 6,000 PSI Max. @ 200° F Max. to -40°F Min. | 414 bar Max. @ 93° C Max. to -40° C Min. |
| | Delrin® and Kel-F® Washer | .136" | 3,000 PSI Max. @ 200° F Max. to -40°F Min. | 207 bar Max. @ 93° C Max. to -40° C Min. |
| P | PEEK® Cone | .187" .250" | 10,000 PSI Max. @ 200° to -40°F Min.<br>3,000 PSI Max. @ 400° F Max. | 689 bar Max. @ 93° to -40° C Min.<br>207 bar Max. @ 204° C Max. |
| | | .375" | 6,000 PSI Max. @ 200° to -40°F Min.<br>3,000 PSI Max. @ 400° F Max. | 414 bar Max. @ 93° C Max. to -40° C Min.<br>207 bar Max. @ 204° C Max. |
| | PEEK® Washer | .136" | 6,000 PSI Max. @ 200° to -40°F Min.<br>3,000 PSI Max. @ 400° F Max. | 414 bar Max. @ 93° to -40° C Min.<br>207 bar Max. @ 204° C Max. |
| T | PTFE Washer | .136" | 1,000 PSI Max. @ 200° to -80°F Min.<br>500 psi Max. @ 450° F Max. | 69 bar Max. @ 93° to -62° C Min.<br>34 bar Max. @ 232° C Max. |
| | PTFE Cone | .187" .250" .375" | 1,000 PSI Max. @ 200° to -80°F Min.<br>500 psi Max. @ 450° F Max. | 69 bar Max. @ 93° to -62° C Min.<br>34 bar Max. @ 232° C Max. |

| STANDARD HARD SEAT MATERIAL CODES | | | | |
|---|---|---|---|---|
| CODE | DESCRIPTION | ORIFICE SIZES | PRESSURE & PROCESS TEMPERATURE | |
| C | Carbide Ball | .187" | 10,000 PSI Max. @ 1,000° F Max. to -100°F Min. | 689 bar Max. @ 538° C Max. to -73° C Min. |
| 6 | 316 SS Ball | | | |
| N | Monel® Ball | | | |
| M | Integral Metal to Metal Seat | .136" .187" | See Pressure & Temperature of Body and Stem Seal Materials. | |
| C | Carbide Ball | .375" | 6,000 PSI Max. @ 1,000° F Max. to -100°F Min. | 414 bar Max. @ 538° C Max. to -73° C Min. |
| 6 | 316 SS Ball | | | |
| N | Monel® Ball | | | |

## .136" Orifice

| .136" ORIFICE SEATS | |
|---|---|
| PART NO. | DESCRIPTION |
| P5-020-R0 | Mini PTFE Seat |
| P5-020-R1 | Mini Kel-F® Seat |
| P5-020-R2 | Mini Delrin® Seat |
| P5-020-R3 | Mini PEEK® Seat |
| P7-024-C0 | Wavey Washer |

| .136" ORIFICE HANDLES | |
|---|---|
| PART NO. | DESCRIPTION |
| SAV-001-10 | Round Handle - Carbon Steel |
| SAV-002-10 | Bar Handle - Carbon Steel |
| SAV-002-A0 | Bar Handle - Stainless Steel |
| SAV-100-A0 | Round Handle - Stainless Steel |

| .136" ORIFICE BONNET PACKING | | |
|---|---|---|
| PART NO. | DESCRIPTION | PACKING CODE |
| SP5-019-R0 | Mini Packed PTFE Seal | T |
| SP7-025-C0 | Stainless Steel Backup Washer | |

| .136" ORIFICE MINIATURE BONNET ASSEMBLIES | | | | | |
|---|---|---|---|---|---|
| PART NO. | BONNET PACKING/SEAL | SEAT | BONNET MATERIAL | HANDLE MATERIAL | PACKING/ SEAL CODE |
| SAV106C-V-H5 | Viton® | Integral Metal or Soft Wash-er | Carbon Steel | Round CS | V |
| SAV106C-V-H7 | | | | Bar CS | |
| SAV106S-V-H6 | | | NACE 316 SS | Round SS | |
| SAV106S-V-H8 | | | | Bar SS | |
| SAV107C-T-H5 | PTFE Above Threads | | Carbon Steel | Round CS | T |
| SAV107C-T-H7 | | | | Bar CS | |
| SAV107S-T-H6 | | | NACE 316 SS | Round SS | |
| SAV107S-T-H8 | | | | Bar SS | |
| Note: Soft Seats are ordered separately. | | | | | |

## .187" Orifice

| .187" ORIFICE SEATS | |
|---|---|
| PART NO. | DESCRIPTION |
| SP3-003-R1 | Kel-F® Cone Seat |
| SP3-003-R2 | PEEK® Cone Seat |
| SP3-003-R4 | Delrin® Cone Seat |

| .187" ORIFICE BONNET ASSEMBLIES | | | | |
|---|---|---|---|---|
| PART NO. | BONNET PACKING/ SEAL | SEAT | BONNET MATERIAL | PACKING/SEAL CODE |
| SAV182P6V-HC | Viton® | 316 SS Ball | A696 Gr.C Carbon Steel* | V |
| SAV166P6P-HC | PTFE Below Threads | | | P |
| SAV182S6V-HS | Viton® | | NACE 316 SS | V |
| SAV166S6P-HS | PTFE Below Threads | | | P |
| Note: Seats are Integral to the Bonnet Assembly. | | | | |

| .187" ORIFICE BONNET ASSEMBLIES | | | | |
|---|---|---|---|---|
| PART NO. | BONNET PACKING/ SEAL | SEAT | BONNET MATERIAL | PACKING/SEAL CODE |
| SAV193P-V-HH | Viton® | Soft Cone | A696 Gr.C Carbon Steel* | V |
| SAV185P-P-HH | PTFE Above Threads | | | P |
| SAV193S-V-HH | Viton® | | NACE 316 SS | V |
| SAV185S-P-HH | PTFE Above Threads | | | P |
| Note: Soft Seats are ordered separately. | | | | |

| .187" ORIFICE BONNET ASSEMBLIES | | | | |
|---|---|---|---|---|
| PART NO. | BONNET PACKING/SEAL | SEAT | BONNET MATERIAL | PACKING/ SEAL CODE |
| SAV127L-P-H3 | PTFE Above Threads | Soft Washer | PTFE Packed 1016/1018 | P |
| SAV127P-P-H3 | | | A696 Gr.C Carbon Steel* | P |
| SAV127S-P-H4 | | | NACE 316 SS | P |
| Note: Soft Seats are ordered separately. | | | | |

## .375" Orifice

| .375" ORIFICE SEATS | |
|---|---|
| PART NO. | DESCRIPTION |
| SP3-007-R1 | Kel-F® Cone Seat |
| SP3-007-R2 | PEEK® Cone Seat |
| SP3-007-R4 | Delrin® Cone Seat |
| SP3-007-R8 | Rylon™ Cone Seat |

**Note:**

Handle included in all Bonnet Assemblies.

* Barstock equivalent of ASTM A105.

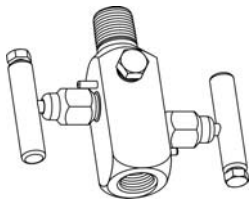
| .375" ORIFICE SOFT SEAT BONNET ASSEMBLIES | | | | |
|---|---|---|---|---|
| PART NO. | BONNET PACKING/ SEAL | SEAT | BONNET MATERIAL | PACKING/SEAL CODE |
| SAV300P-V-HH | Viton® | Soft Cone | A696 Gr.C Carbon Steel* | V |
| SAV301P-P-HH | PTFE Below Threads | | | P |
| SAV300S-V-HH | Viton® | | NACE 316 SS | V |
| SAV301S-P-HH | PTFE Below Threads | | | P |
| Note: Seats are ordered separately. | | | | |

| .375" ORIFICE HARD BALL SEATS BONNET ASSEMBLIES | | | | |
|---|---|---|---|---|
| PART NO. | BONNET PACKING/ SEAL | SEAT | BONNET MATERIAL | PACKING/SEAL CODE |
| SAV300P6V-HH | Viton® | 316 SS Ball | A696 Gr.C Carbon Steel* | V |
| SAV301P6P-HH | PTFE Below Threads | | | P |
| SAV300S6V-HH | Viton® | | NACE 316 SS | V |
| SAV301S6P-HH | PTFE Below Threads | | | P |
| Note: Seats are Integral to the Bonnet Assembly. | | | | |

# Additional Parker PGI Product Offerings

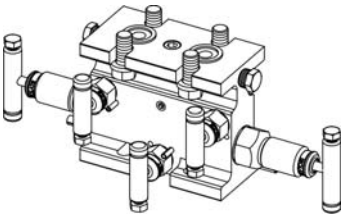
## PGI Instrument Valves

Hand, Gauge, Bleed, Root and Multi-port designs. Carbon Steel, 316 SS to NACE MR0175/ISO 15156-3 and exotic materials available. Offered with our patented PTFE Pressure-Core® Stem Seal with an unmatched 5 year warranty.



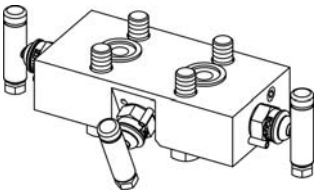
## Fugitive Emission Valves & Manifolds

Parker PGI's patented PTFE Pressure-Core® Stem Seal allows us to offer a line of fugitive emission products. Controlled venting and no bonnet maintenance help create a virtually leak free line of products. Offered with our patented PTFE Pressure-Core® Stem Seal with an unmatched 5 year warranty.



## PGI Instrument Manifolds

A complete line of Block & Bleed, Meter, Two, Three and Five Valve styles available in Carbon Steel and 316 SS to NACE MR0175/ISO 15156-3. Specialty alloys available. Offered with the patented PTFE Pressure-Core® Stem Seal with an unmatched 5 year warranty.

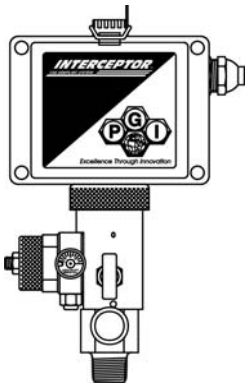


## Pulsation Testing

In conjunction with the Gas Machinery Research Council (GMRC), Parker PGI developed its patented Square Root Error (SRE) and Gauge Line Error (GLE) Testers. These products quantify the effect of pulsation on natural gas orifice measurement. In addition, PGI offers on-site testing using the latest equipment to provide a full technical report.

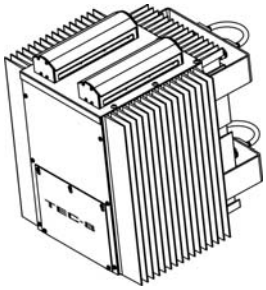
## Engineered Products

Parker PGI offers a complete line of Gas and Liquid Composite Samplers. The Interceptor and Nova samplers are FM and CSA Approved, Intrinsically safe for Class I, Division 1, Group C and D hazardous locations, when used with an approved PGI furnished power supply. Our NOVA system samples refined liquids, dense phase CO2 and wet, dry or dirty gas. Engineered Products division also offers sample cylinders, sample probes and cylinder valves. Our Hot-Shot™ Heated Enclosure System is designed to be used with natural gas samplers and will heat the sampling system to temperatures above the hydrocarbon dew point of the gas, assisting in the compliance of the new API Standard 14.1.



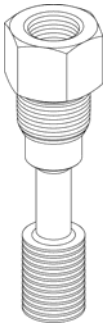

## ZEUS® Power Systems

We offer efficient and reliable alternatives to solar panel systems used to power electronic instruments on gas pipelines. PGI's ThermoElectric Chargers (TEC) and Differential Pressure Chargers (DB1) both produce 12- or 24- volts of power to keep batteries fully charged. TEC is fueled by natural gas or propane, while the DB1 is powered using the differential pressure developed across a pressure regulator. Both TEC and DB1 continually monitor the battery's temperature and charge level, and charge the battery accordingly. TEC and DB1 can be used on transmitters, flow computers, AFR (Air Fuel Ratio) and communication systems on gas pipelines. The compact units excel in cold, snowy or rainy conditions, and are low-emission environmentally friendly.



## ThermoSync® Temperature Measurement System

Parker PGI's ThermoSync thermowell and optional RTD probe provide the most accurate pipeline gas temperature measurement system available. The unique patented design optimizes thermo-coupling at the RTD tip while minimizing pipe wall induced errors. Reducing pipe temperature effects on flow calculations provides greater accuracy and minimizes unaccountable errors. The ThermoSync Temperature system measures the true flowing gas temperature by including a finned thermowell with a RTD that has PVC insulation, thus reducing the transfer of outside temperature effects to the RTD.



**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

*Parker PGI provides this information in good faith, and it is intended only as an informative guide to Parker PGI 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. Parker PGI reserves the right to change product designs and specifications without notice.*

Lone Star

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DNV CERTIFICATION INC.

Parker

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