



Lone Star

Quality Products at a Value Price

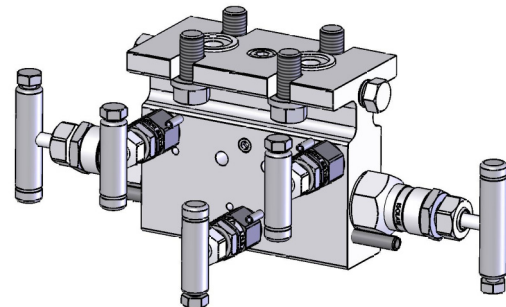
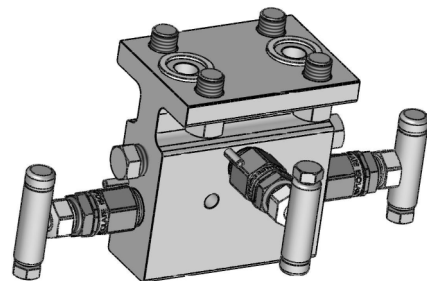
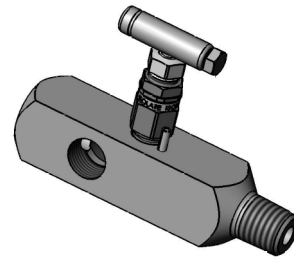




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Rylon™ is a trademark of Parker Hannifin—PGI Division.



Lone Star Warranty, Sales Policies and Manufacturing Standards

PGI Division—Parker Hannifin Corporation

Parker Hannifin's PGI Division, founded as General Screw Products Company in 1941, began as a contract manufacturer for the oil and gas industry. The PGI Division 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, the PGI Division currently has over 180,000 square feet of manufacturing capability and over 400 employees worldwide. As the markets we service expand, PGI's quality products are demanded and specified worldwide. For companies that demand the best, Parker PGI delivers "Excellence Through Innovation."

Product Warranty

Parker 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 products shall be determined in accordance with the laws of the State of Texas, United States of America (USA).

Parker reserves the right to change materials, specifications or designs without notice. Parker 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 the PGI Division, 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's PGI Division has been a custom manufacturer of valve components since 1941. 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, 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

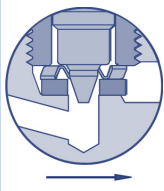
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Miniature "Mini" Valves

**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



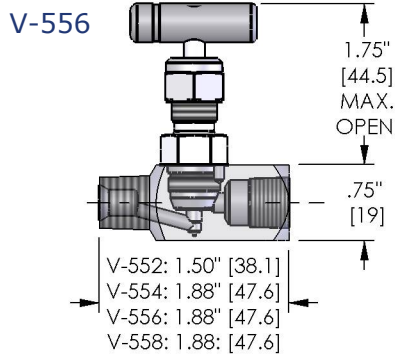
Features

- PGI Integral Metal Seat

Benefits

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

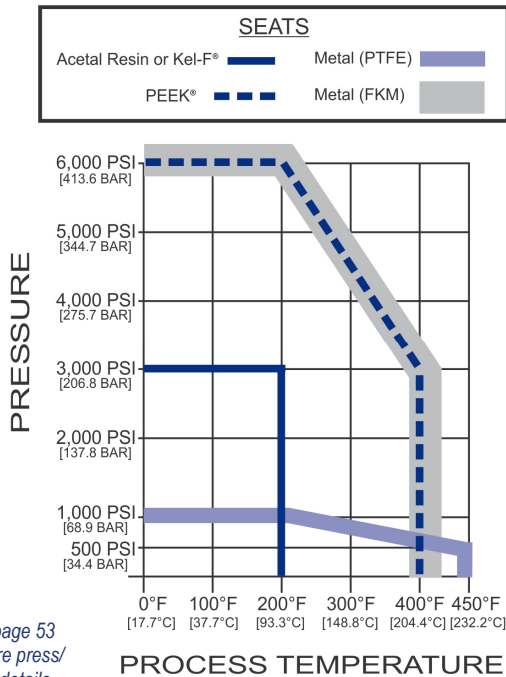
Dimensions, inches [mm]



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



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	Acetal Resin
K	Kel-F®
P	Peek®

Stem Packing/Seal Code

T	Mini PTFE Packed
V	FKM 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/FKM O-Ring	PTFE/FKM 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



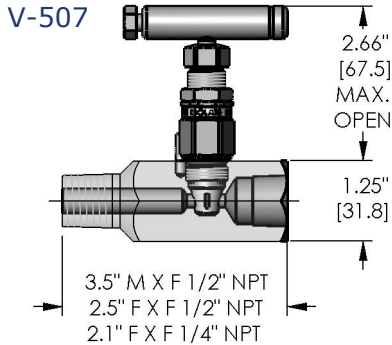
Features

- PGI Soft Cone Seat

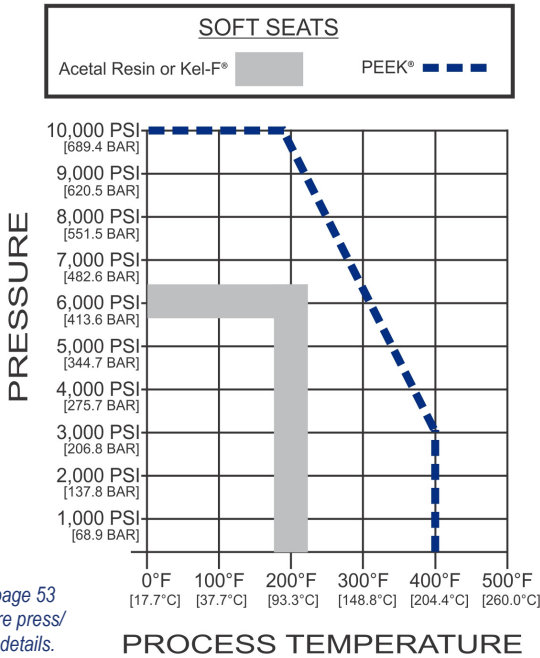
Benefits

- 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



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	Acetal Resin (Standard)
K	Kel-F®
P	Peek®

Stem Packing/Seal Code

P	PTFE (Below threads)
V	FKM 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/FKM O-Ring	PTFE/FKM O-Ring	PTFE/FKM 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



Instrument Needle Valve-90° Angle Style

**SOFT SEAT
.187" ORIFICE**

SOFT SEAT: .187" Orifice



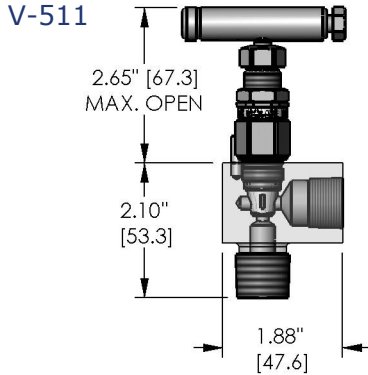
Features

- PGI Soft Cone Seat

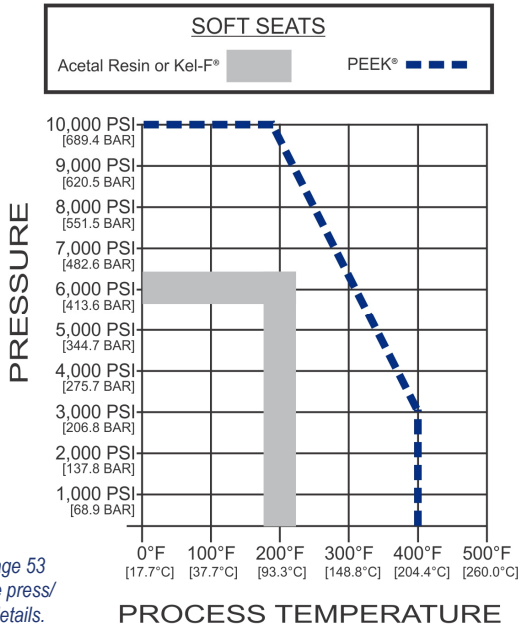
Benefits

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

Dimensions, inches [mm]



Pressure vs. Temperature



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 Acetal Resin (*Standard*)
K Kel-F®
P Peek®

Stem Packing/Seal Code

P PTFE (Below threads)
V FKM 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/FKM O-Ring	PTFE/FKM O-Ring	PTFE/FKM 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 (<i>TFE Packed Only</i>)	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



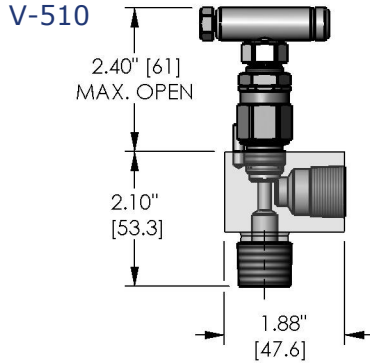
Features

- PGI Standard 316 SS Ball Seat

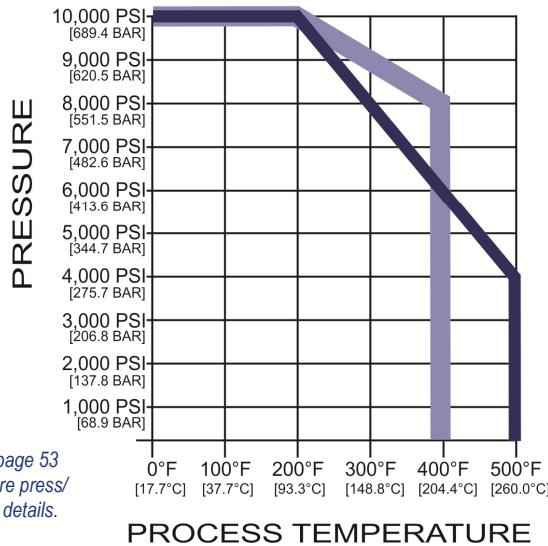
Benefits

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

Dimensions, inches [mm]



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	FKM 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/FKM O-Ring	PTFE/FKM O-Ring	PTFE/FKM 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:
2.00 lbs. [.91 kg] ea.

* Barstock equivalent of ASTM A105

Notes

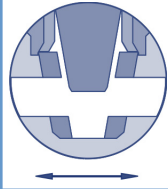
- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C



Instrument Needle Valves

**SOFT SEAT
.375" ORIFICE**

SOFT SEAT: .375" Orifice



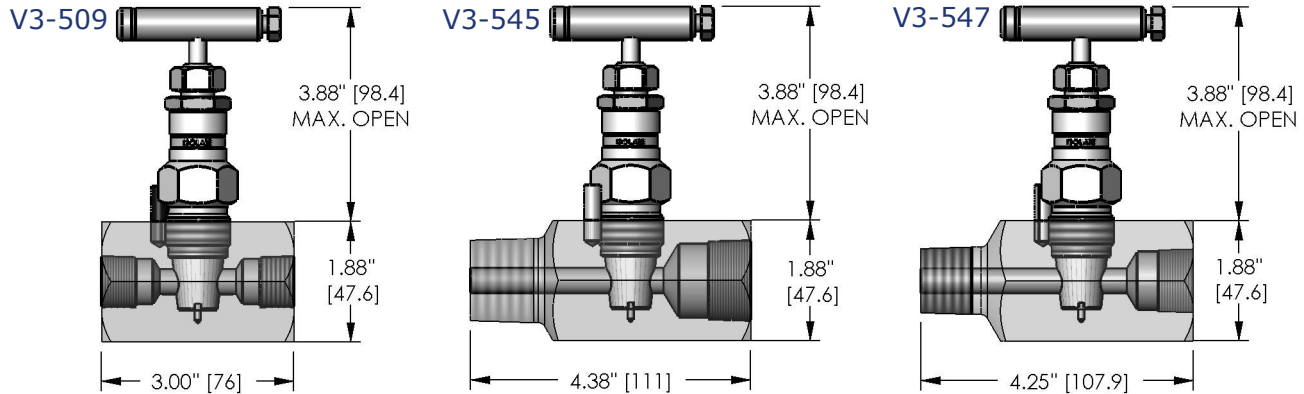
Features

- PGI Soft Cone Seat

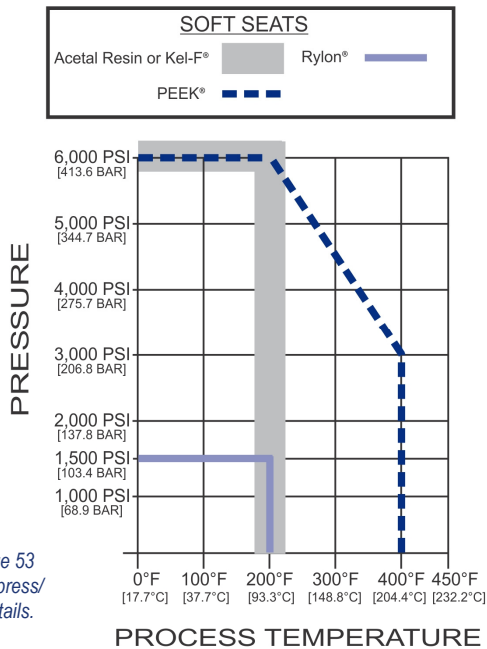
Benefits

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

Dimensions, inches [mm]



Pressure vs. Temperature



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	Acetal Resin (Standard)
K	Kel-F®
P	Peek®

Stem Packing/Seal Code

P	PTFE (Below threads)
V	FKM 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/FKM O-Ring	PTFE/FKM O-Ring	PTFE/FKM 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



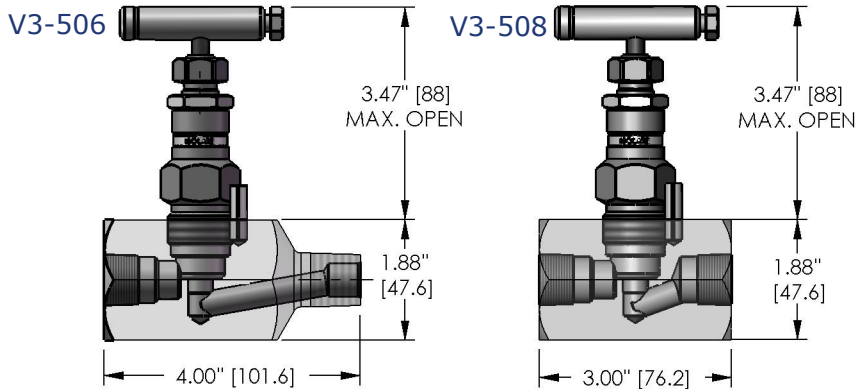
Features

- PGI Standard 316 SS Ball Seat

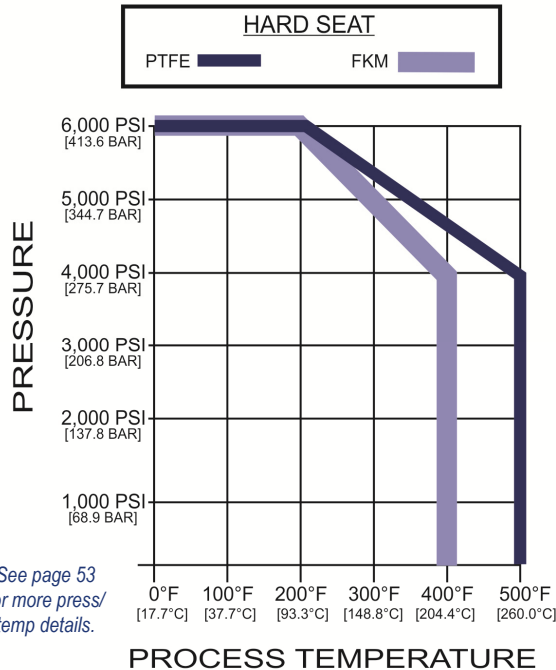
Benefits

- 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



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	FKM 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/FKM O-Ring	PTFE/FKM O-Ring	PTFE/FKM 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**

SOFT SEAT: .187" Orifice



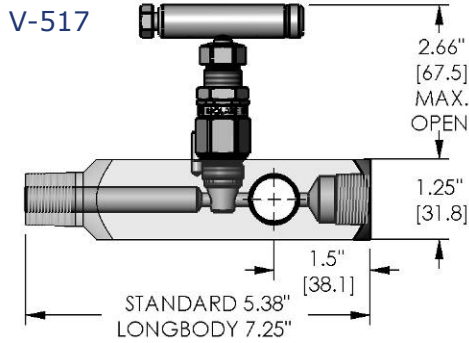
Features

- PGI Soft Cone Seat

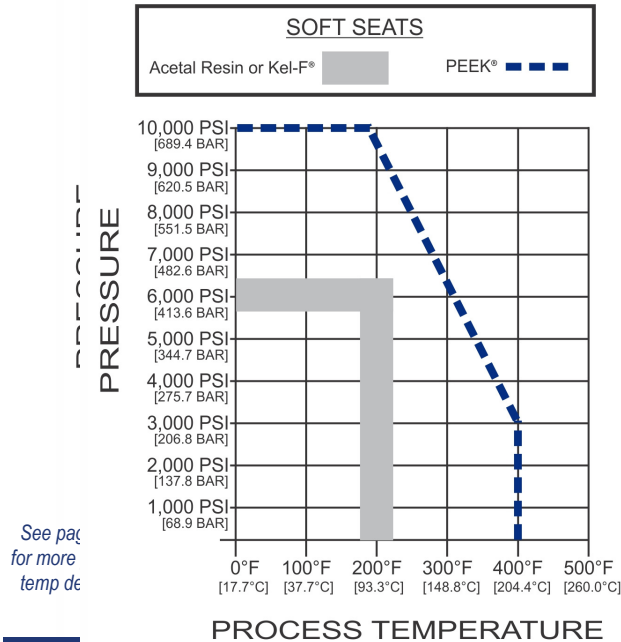
Benefits

- 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



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	Acetal Resin (Standard)
K	Kel-F®
P	Peek®

Stem Packing/Seal Code

P	PTFE (Below threads)
V	FKM O-Ring

V- - Options [pages 49-50]

Mate

Part	Carbon Steel	A696 Carbon Steel*	316 Stainless Steel
Body / Bonnet	ASTM A108	ASTM A696 Gr.C	ASTM A479-316
Packing "P" / "V"	PTFE/FKM O-Ring	PTFE/FKM O-Ring	PTFE/FKM 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



Multi-Port Gauge Valves

**HARD SEAT
.187" ORIFICE**

HARD BALL SEAT: .187" Orifice



Features

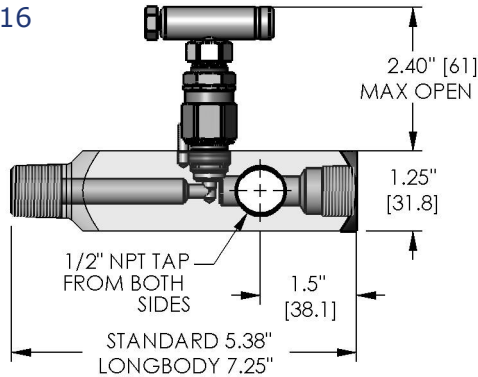
- PGI Standard 316 SS Ball Seat

Benefits

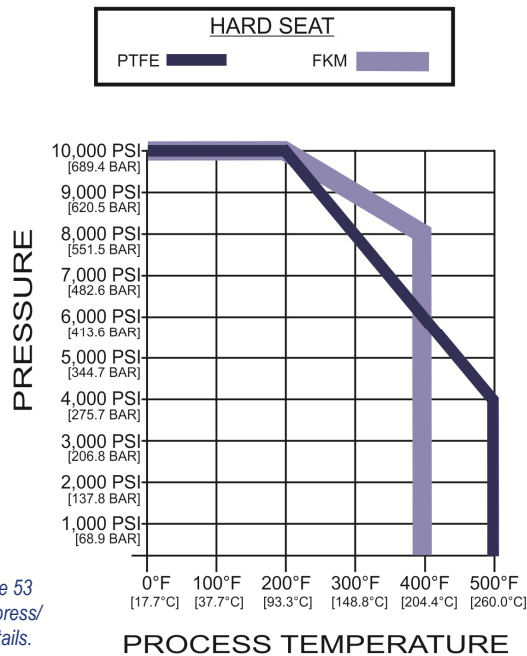
- Non-rotating ball eliminates seat galling and ball creasing
- Leak free, bubble tight seating
- Available in a variety of materials

Dimensions, inches [mm]

V-516



Pressure vs. Temperature



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	FKM 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/FKM O-Ring	PTFE/FKM O-Ring	PTFE/FKM 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**

SOFT SEAT: .375" Orifice



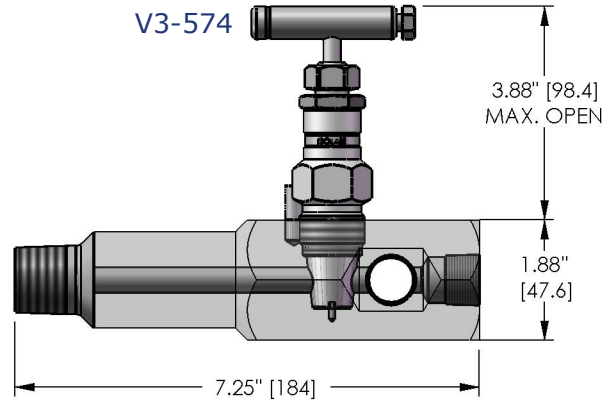
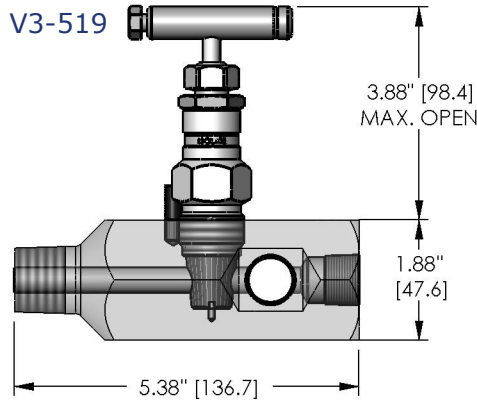
Features

- PGI Soft Cone Seat

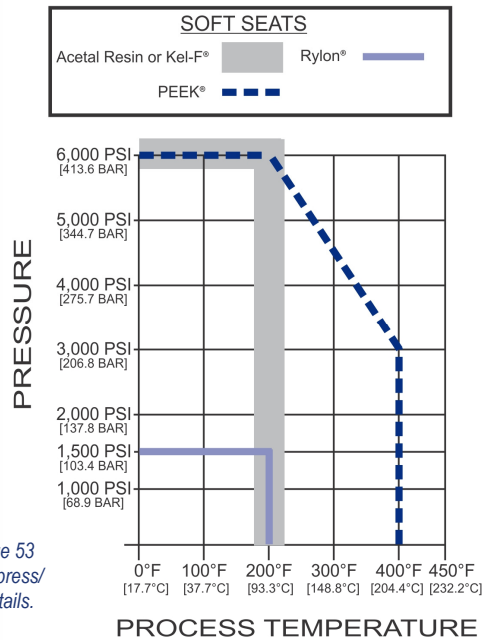
Benefits

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

Dimensions, inches [mm]



Pressure vs. Temperature



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	Acetal Resin (Standard)
K	Kel-F®
P	Peek®

Stem Packing/Seal Code

P	PTFE (Below threads)
V	FKM 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/FKM O-Ring	PTFE/FKM O-Ring	PTFE/FKM 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



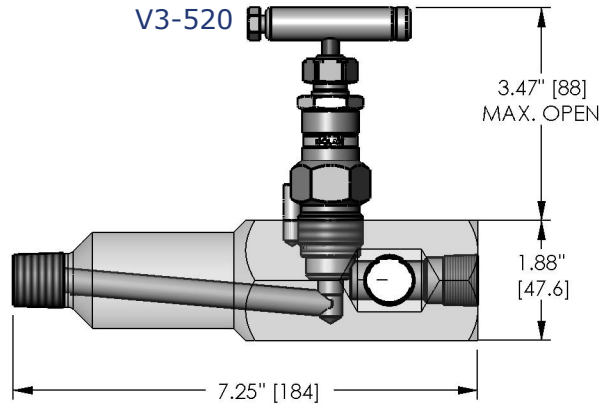
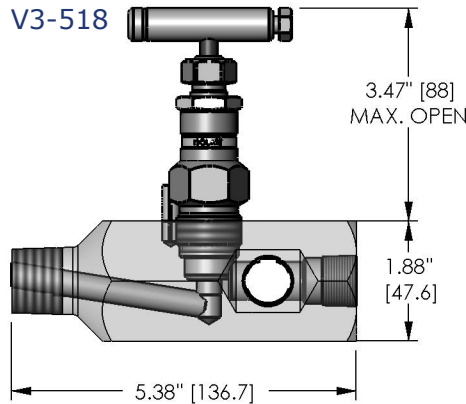
Features

- PGI Standard 316 SS Ball Seat

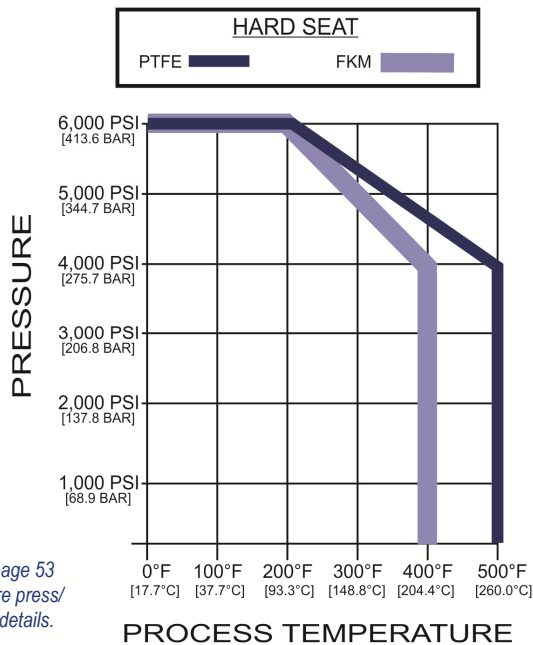
Benefits

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

Dimensions, inches [mm]



Pressure vs. Temperature



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	FKM 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/FKM O-Ring	PTFE/FKM O-Ring	PTFE/FKM 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

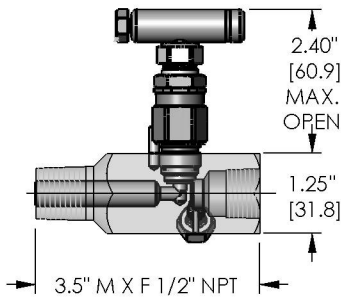
- PGI Standard 316 SS Ball Seat

Benefits

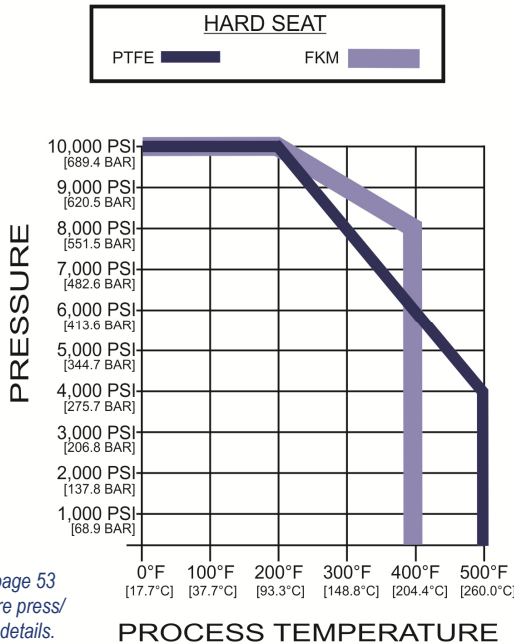
- Non-rotating ball eliminates seat galling and ball creasing
- Leak free, bubble tight seating
- Available in a variety of materials

Dimensions, inches [mm]

V-522



Pressure vs. Temperature



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	FKM 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/FKM O-Ring	PTFE/FKM O-Ring	PTFE/FKM 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

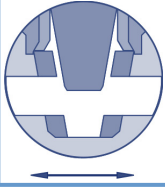
- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C



Bleeder Screw Gauge Valves

**SOFT SEAT
.187" ORIFICE**

SOFT SEAT: .187" Orifice



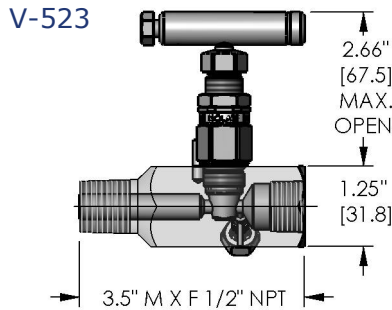
Features

- PGI Soft Cone Seat

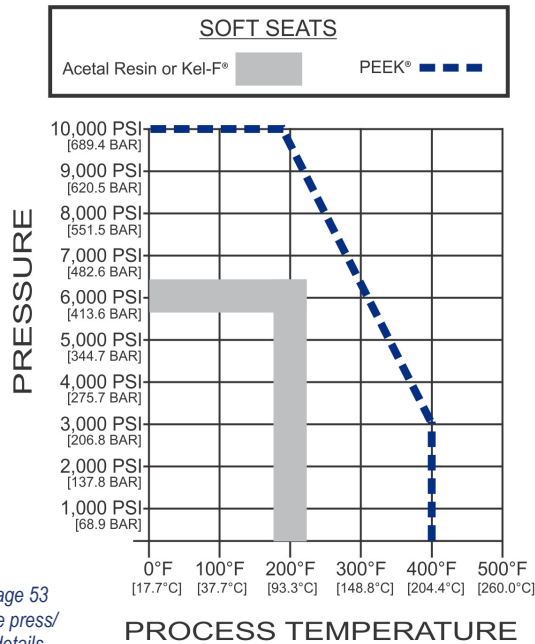
Benefits

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

Dimensions, inches [mm]



Pressure vs. Temperature



Part Number Selection

Base Model

		<i>Process x Instrument</i>	
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	Acetal Resin (Standard)
K	Kel-F®
P	Peek®

Stem Packing/Seal Code

P	PTFE (Below threads)
V	FKM 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/FKM O-Ring	PTFE/FKM O-Ring	PTFE/FKM 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

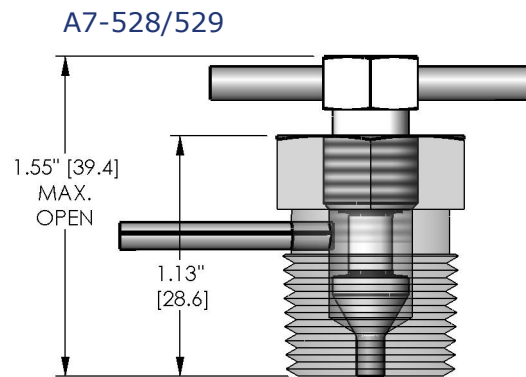
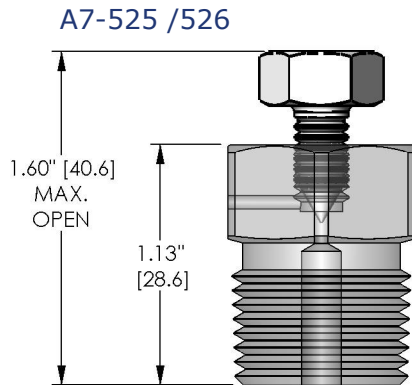
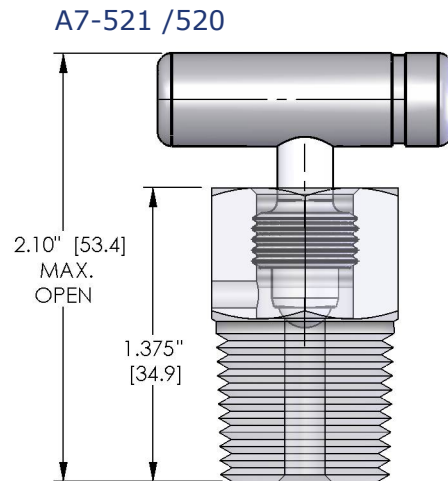
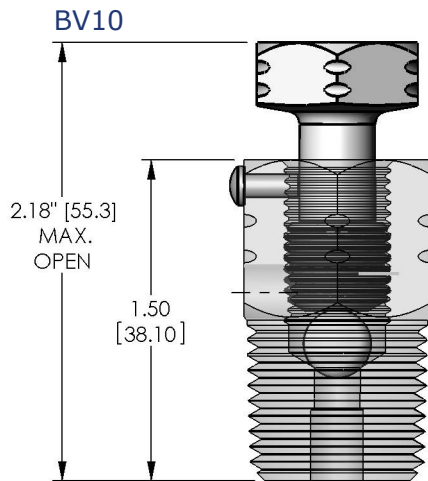
Notes

- 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]



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	Integral Metal	Bleed Screw 316 SS
A7-525	1/4" MNPT		
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 1,500 PSI @ 500° F Max
316 SS	10,000 PSI @ 200° F Max 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

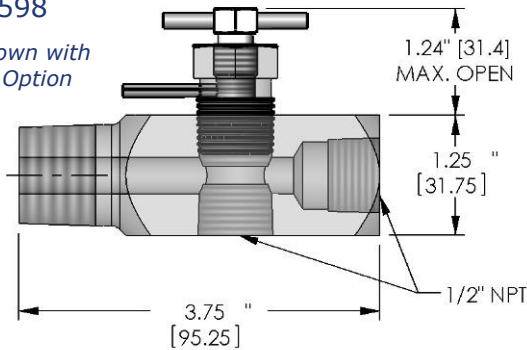


Bleed "T" Valves

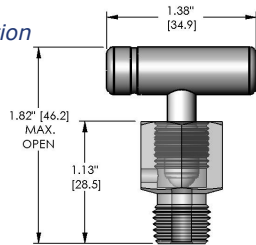
Dimensions, inches [mm]

V-598

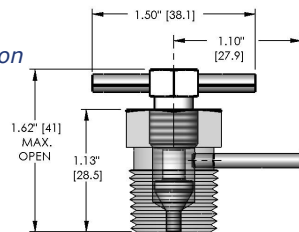
Shown with
B2 Option



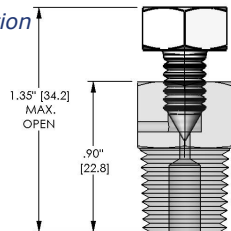
B1 Option



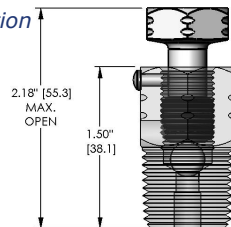
B2 Option



B4 Option



B6 Option



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

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

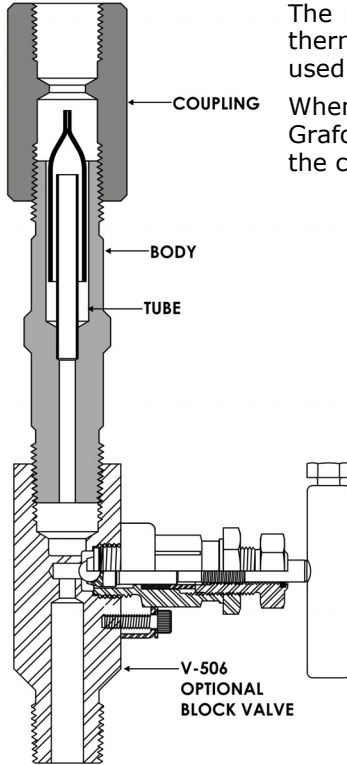
B1	Carbide Ball Bleed Plug (A7-520)
B2	Bleed "T" Plug (A7-529)
B4	Mini-Hex Bleed Plug (A7-526)
B6	SS Ball Bleed Plug (BV10N4)

Pressure vs. Temperature

Carbon Steel	10,000 PSI @ 200° F Max 1,500 PSI @ 500° F Max
316 SS	10,000 PSI @ 200° F Max 1,500 PSI @ 1,000° F Max

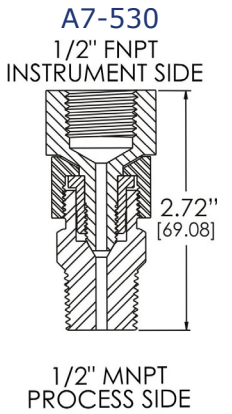
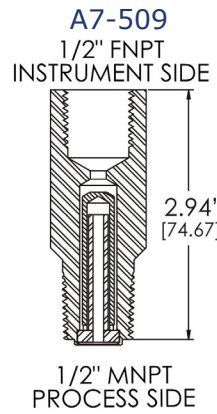
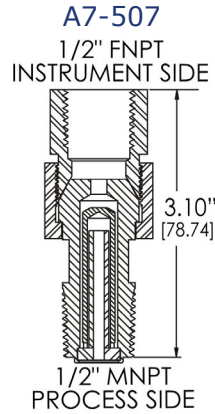
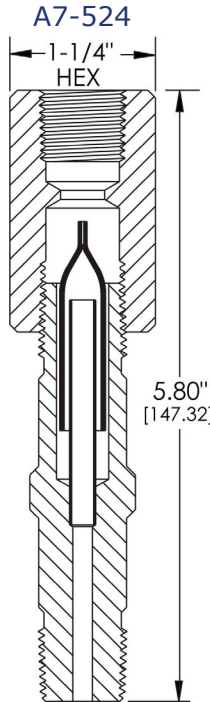


Gauge Siphons & Swivels



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

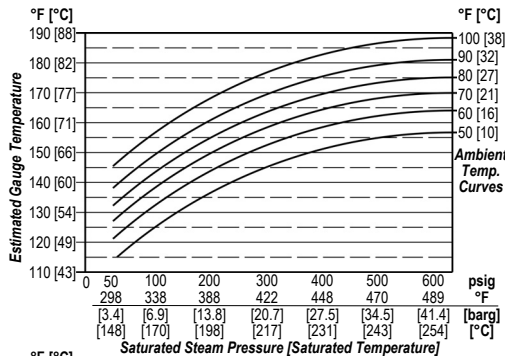
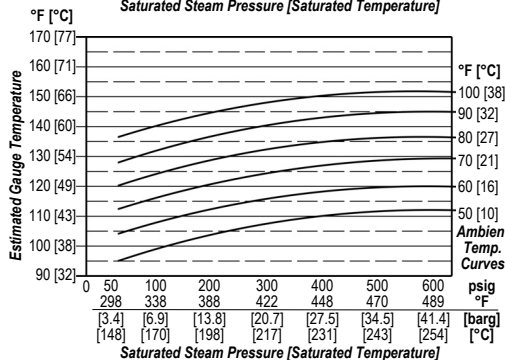


Chart 2:
Stainless
Steel



Part Number Selection

Model Numbers

Gauge Siphons: Process x Instrument	
A7-524-C0	1/2" MNPT x 1/2" FNPT with Carbon Steel Coupling
A7-524-C0S	1/2" MNPT x 1/2" FNPT
A7-522-C0	3/4" MNPT x 1/2" FNPT with Carbon Steel Coupling
A7-522-C0S	3/4" MNPT x 1/2" FNPT
A7-507-C0	1/2" MNPT x 1/2" FNPT with Safety Excess Flow Check/ Snubber and Gauge Swivel
A7-508-C0	3/4" MNPT x 3/4" FNPT with Carbon Steel Coupling
A7-509-C0	1/2" MNPT x 1/2" FNPT with Safety Excess Flow Check/ Snubber
A7-530-C0	1/2" MNPT x 1/2" FNPT with Gauge Swivel

Pressure vs. Temperature

Part	Pressure @ Temperature
A7-524-C0	6,000 PSI @ 200° F Max 1,500 PSI @ 500° F Max
A7-524-C0S	6,000 PSI @ 200° F Max 1,500 PSI @ 1,000° F Max
A7-530-C0	10,000 PSI @ 200° F Max 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 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)

Body Material

All 316 Stainless Steel body material.



Block & Bleed Static Pressure Valves

**HARD SEAT
.187" ORIFICE**

HARD BALL SEAT: .187" Orifice

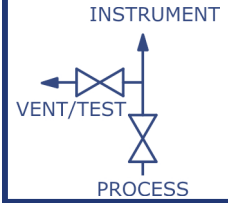


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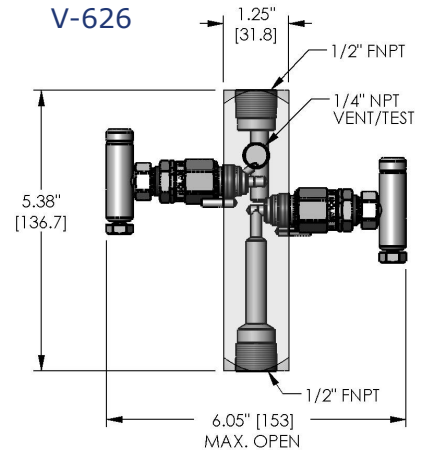
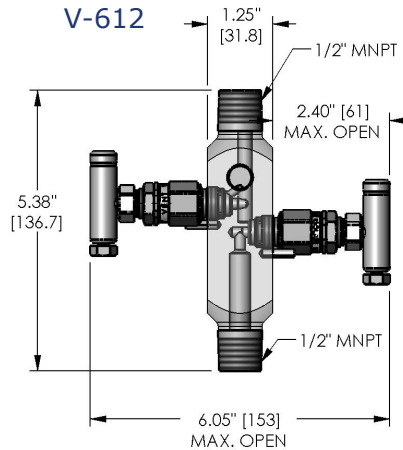
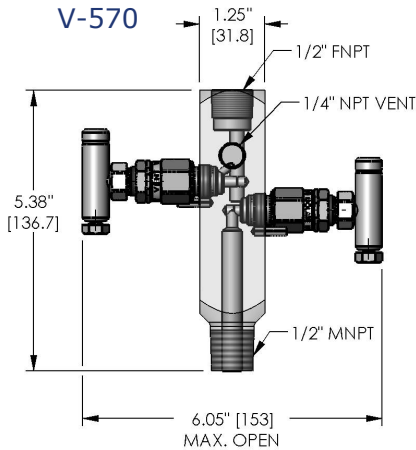
- PGI Standard 316 SS Ball Seat

Benefits

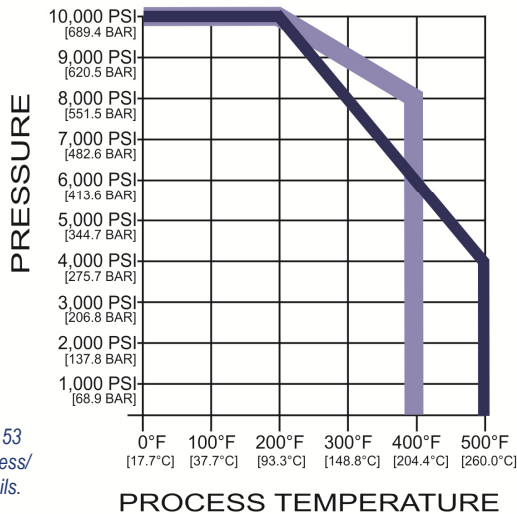
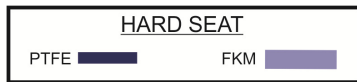
- Non-rotating ball eliminates seat galling and ball creasing
- Leak free, bubble tight seating
- Available in a variety of materials



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	FKM 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/FKM O-Ring	PTFE/FKM O-Ring	PTFE/FKM 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.

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

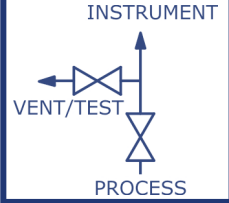


Features

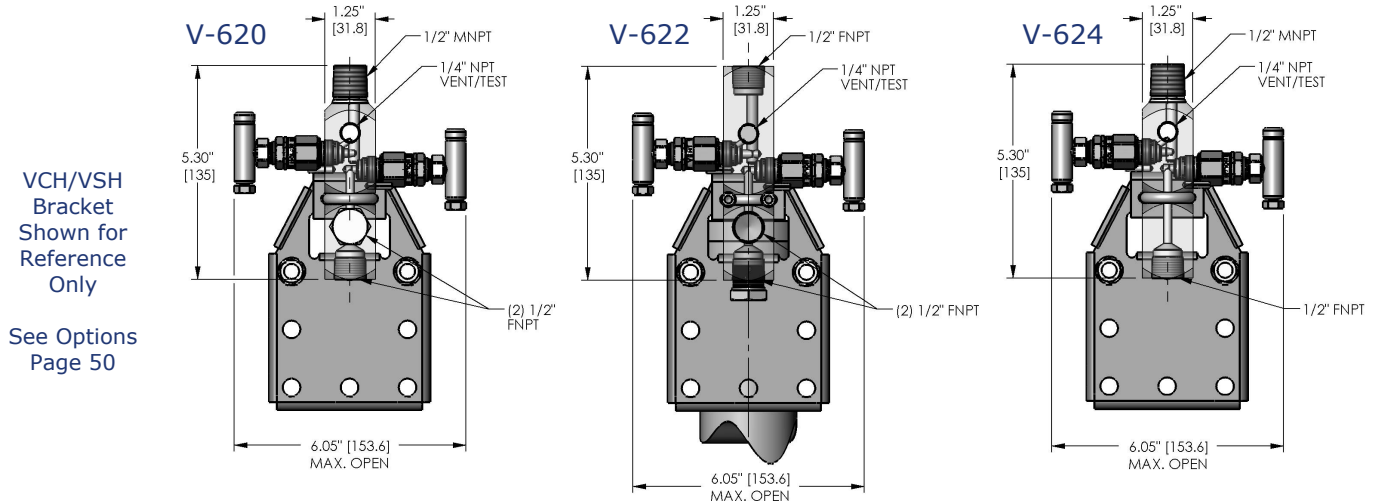
- PGI Standard 316 SS Ball Seat

Benefits

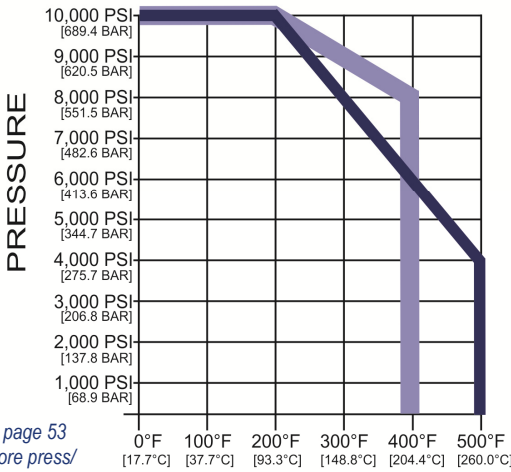
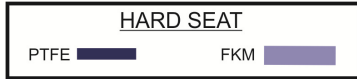
- Non-rotating ball eliminates seat galling and ball creasing
- Leak free, bubble tight seating
- Available in a variety of materials



Dimensions, inches [mm]



Pressure vs. Temperature



See page 53 for more press/ temp details.

PROCESS TEMPERATURE

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	None [®]

Stem Packing/Seal Code

P	PTFE (Below threads)
V	FKM 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/FKM O-Ring	PTFE/FKM O-Ring	PTFE/FKM 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.

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

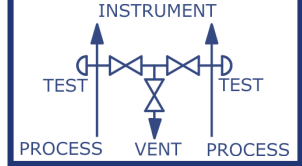


Features

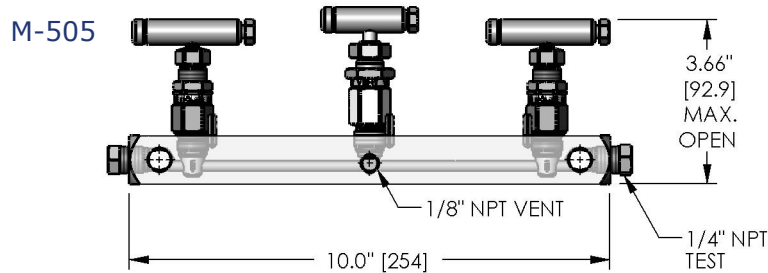
- PGI Soft Cone Seat

Benefits

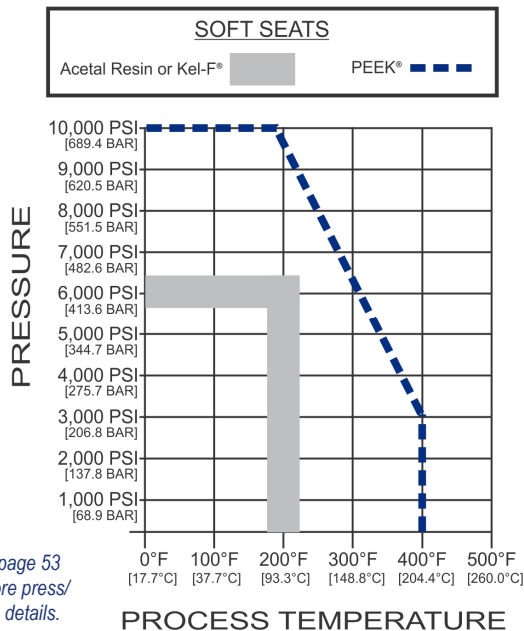
- Roddable straight-through design
- Leak free, bubble tight seating
- Easily replaced
- Available in a variety of materials
- Bi-directional flow



Dimensions, inches [mm]



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 Acetal Resin (Standard)
K Kel-F®
P Peek®

Stem Packing/Seal Code

P PTFE (Below threads)
V FKM 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/FKM O-Ring	PTFE/FKM 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

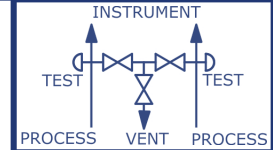


Features

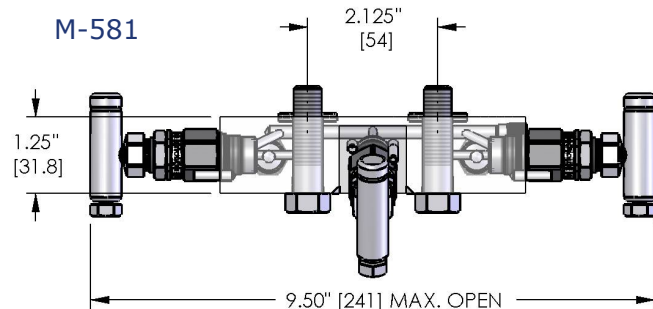
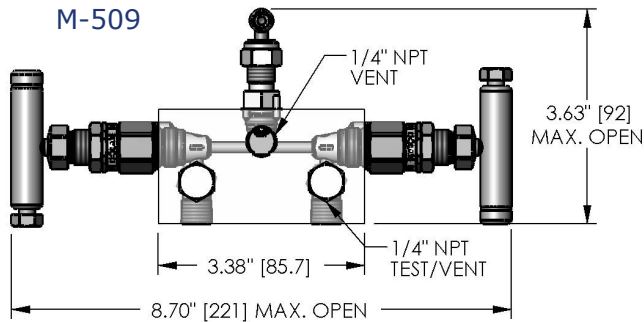
- PGI Soft Cone Seat

Benefits

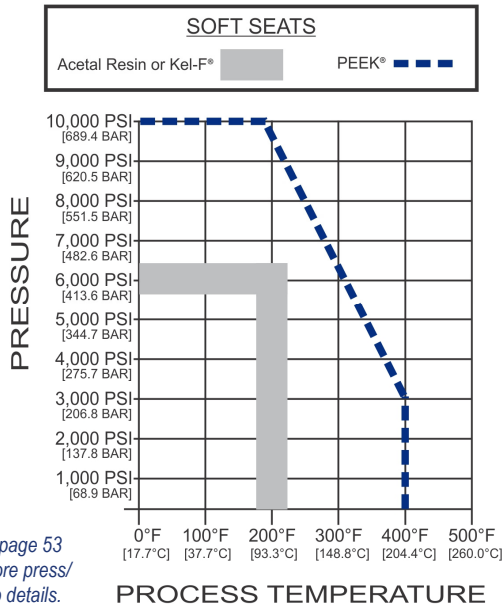
- Roddable straight-through design
- Leak free, bubble tight seating
- Easily replaced
- Available in a variety of materials
- Bi-directional flow



Dimensions, inches [mm]



Pressure vs. Temperature



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	Acetal Resin
K	Kel-F®
P	Peek®

Stem Packing/Seal Code

P	PTFE (Below threads)
V	FKM 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/FKM O-Ring	PTFE/FKM O-Ring	PTFE/FKM 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

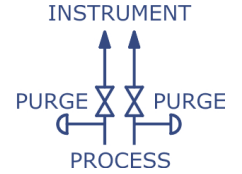


Features

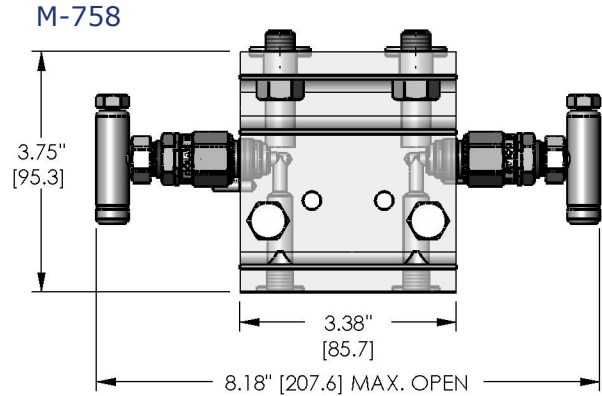
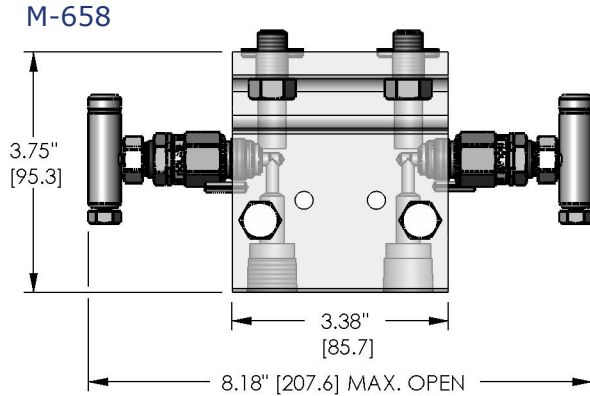
- PGI Standard 316 SS Ball Seat

Benefits

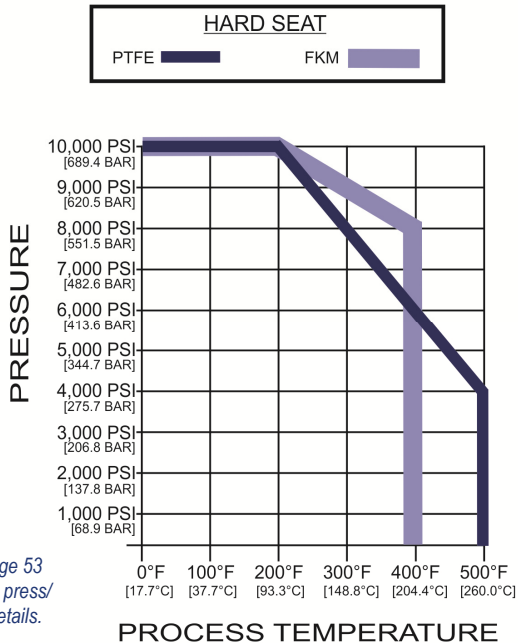
- Non-rotating ball eliminates seat galling and ball creasing
- Leak free, bubble tight seating
- Available in a variety of materials



Dimensions, inches [mm]



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	Mone] [®]

Stem Packing/Seal Code

P	PTFE (Below threads)
V	FKM 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/FKM O-Ring	PTFE/FKM O-Ring	PTFE/FKM 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

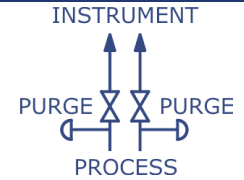


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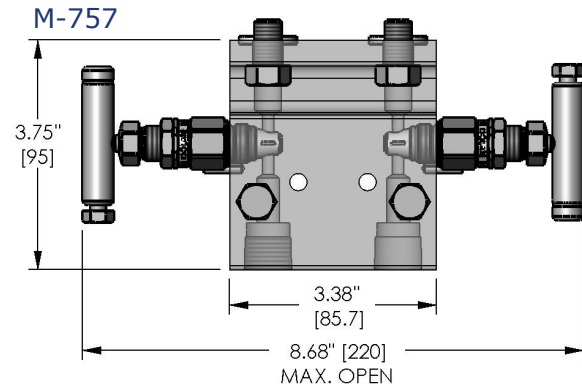
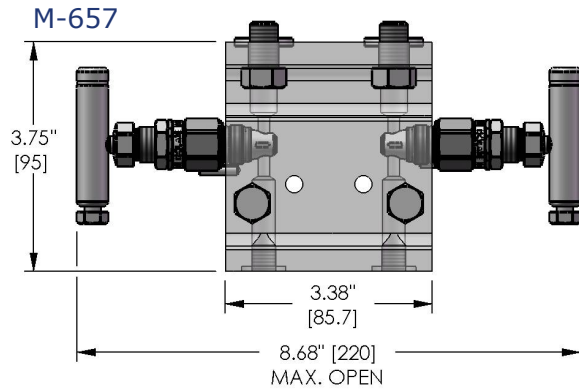
- PGI Soft Cone Seat

Benefits

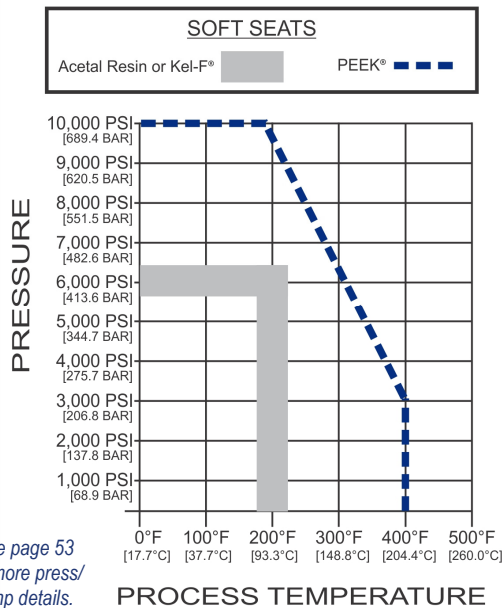
- Roddable straight-through design
- Leak free, bubble tight seating
- Easily replaced
- Available in a variety of materials
- Bi-directional flow



Dimensions, inches [mm]



Pressure vs. Temperature



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	Acetal Resin
K	Kel-F®
P	Peek®

Stem Packing/Seal Code

P	PTFE (Below threads)
V	FKM 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/FKM O-Ring	PTFE/FKM O-Ring	PTFE/FKM 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 A108

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**

HARD BALL SEAT: .187" Orifice

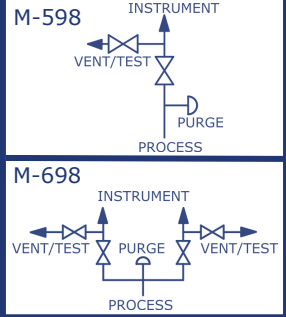


Features

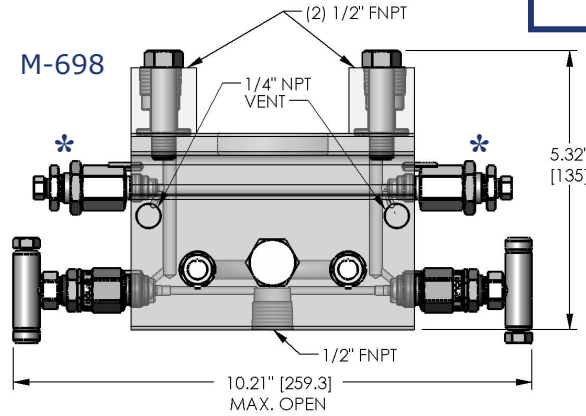
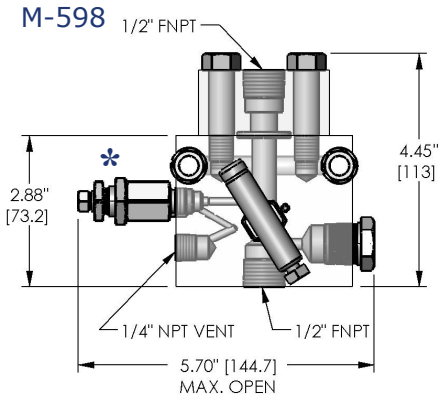
- PGI Standard 316 SS Ball Seat

Benefits

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

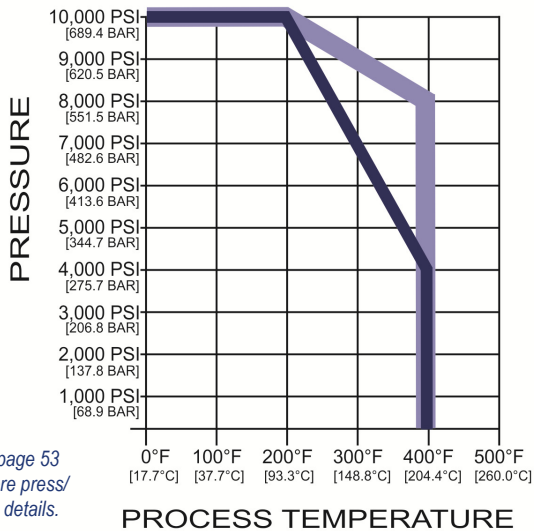


Dimensions, inches [mm]



*Vent control stem seals are FKM (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
M- 698	Dual Instruments	(MNPT Instrument Adapter Available)

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	FKM 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/FKM O-Ring	PTFE/FKM O-Ring	PTFE/FKM 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 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



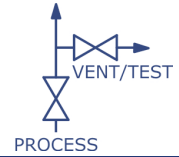
Features

- PGI Standard 316 SS Ball Seat

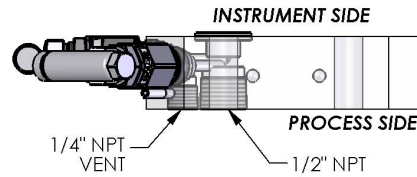
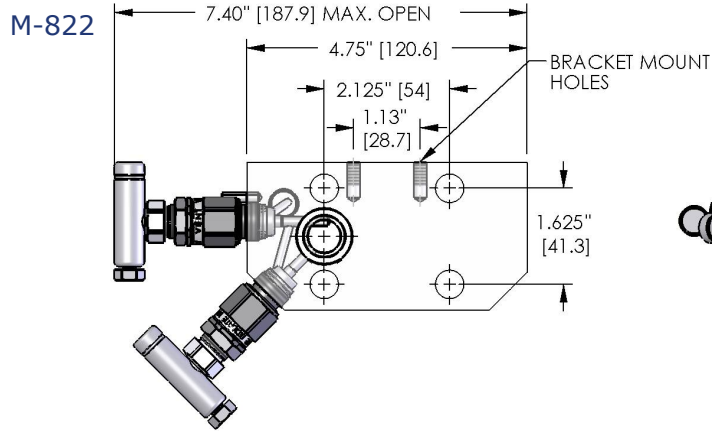
Benefits

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

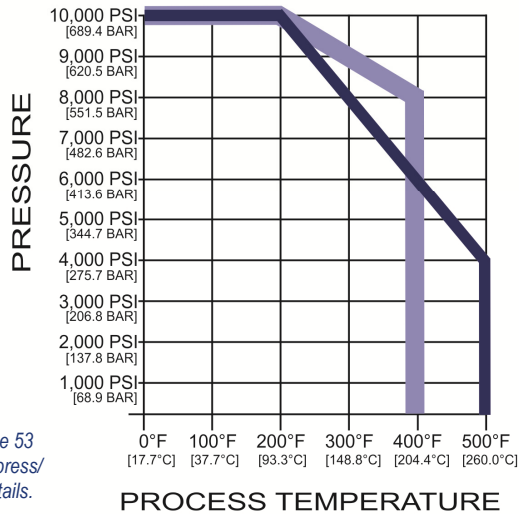
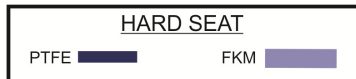
INSTRUMENT



Dimensions, inches [mm]



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	Mone®

Stem Packing/Seal Code

P	PTFE (Below threads)
V	FKM O-Ring

M-822				-	Options [pages 49-50]
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Materials of Construction

Part	A696 Carbon Steel*	316 Stainless Steel
Body / Bonnet	ASTM A696 Gr.C	ASTM A479-316
Packing "P" / "V"	PTFE/FKM O-Ring	PTFE/FKM 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

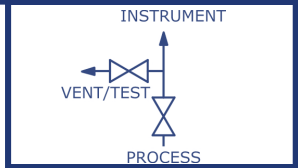
Notes

- 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



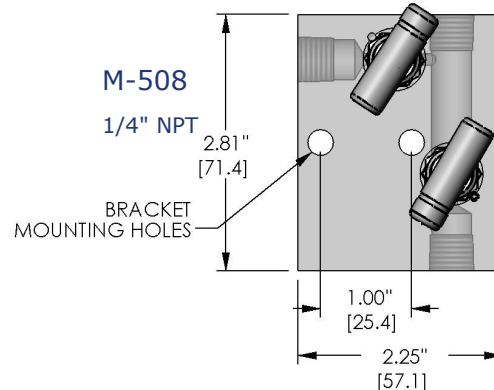
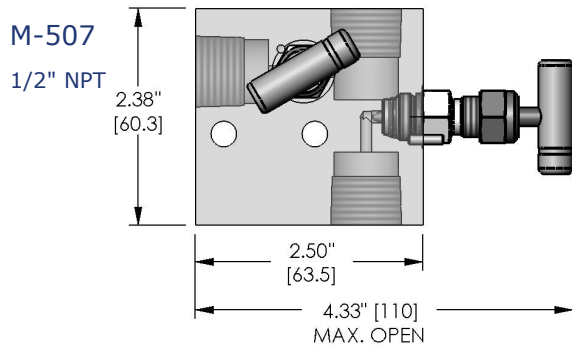
2-Valve Block & Bleed Static Pressure Manifolds

SOFT & METAL SEAT
NPT x NPT
.136" ORIFICE



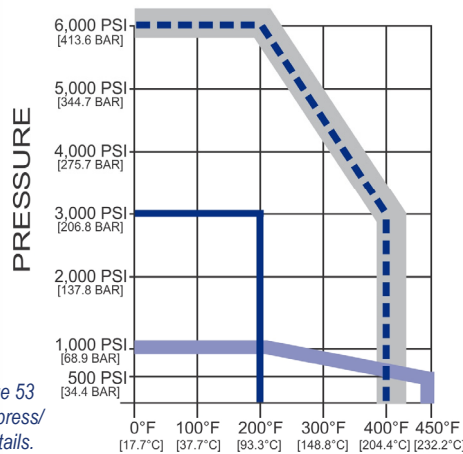
SOFT "WASHER" SEATS: .136" Orifice		INTEGRAL METAL TO METAL SEAT: .136" Orifice	
	Features <ul style="list-style-type: none"> PGI "Washer" Seat 		Features <ul style="list-style-type: none"> PGI Integral Metal Seat
	Benefits <ul style="list-style-type: none"> Throttling and shut-off design Interchangeable between soft or metal seats Easily replaced Available in a variety of materials 		Benefits <ul style="list-style-type: none"> Throttling and shut-off design Interchangeable between soft or metal seats

Dimensions, inches [mm]



Pressure vs. Temperature

SEATS			
Acetal Resin or Kel-F®		Metal (PTFE)	
PEEK®		Metal (FKM)	



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	Acetal Resin (Standard)
K	Kel-F®
P	Peek®

Stem Packing/Seal Code	
T	PTFE (Below threads)
V	FKM O-Ring

M-					-	Options [pages 49-50]
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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/FKM O-Ring	PTFE/FKM O-Ring	PTFE/FKM 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

.136" Orifice	Straight Body Style	
	.25 = Integral Metal Seat	.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



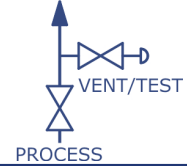
Features

- PGI Standard 316 SS Ball Seat

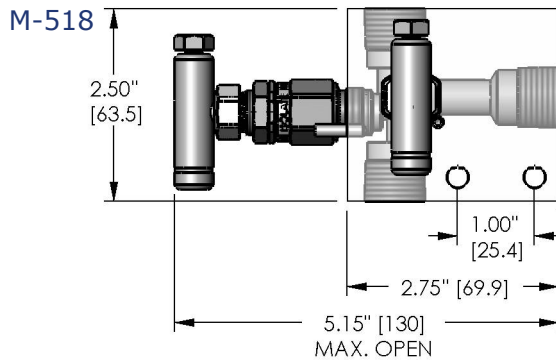
Benefits

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

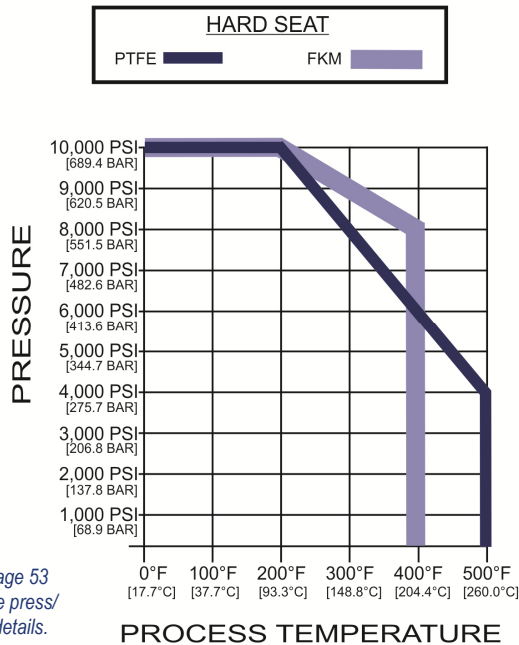
INSTRUMENT



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** FKM 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/FKM O-Ring	PTFE/FKM O-Ring	PTFE/FKM 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:
 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

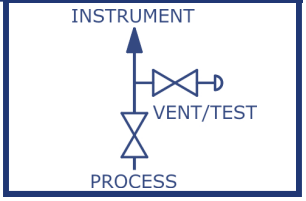


Features

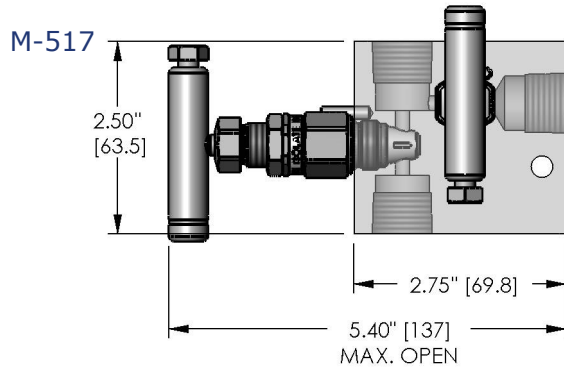
- PGI Soft Cone Seat

Benefits

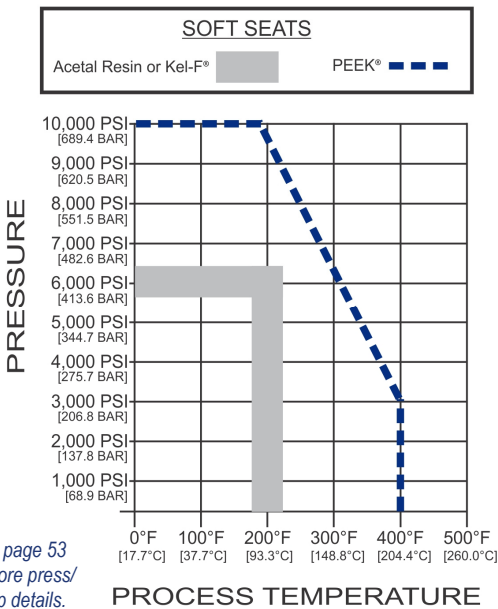
- Roddable straight-through design
- Leak free, bubble tight seating
- Easily replaced
- Available in a variety of materials
- Bi-directional flow



Dimensions, inches [mm]



Pressure vs. Temperature



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	Acetal Resin (Standard)
K	Kel-F®
P	Peek®

Stem Packing/Seal Code

P	PTFE (Below threads)
V	FKM O-Ring

M-517				-	Options [pages 49-50]
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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/FKM O-Ring	PTFE/FKM O-Ring	PTFE/FKM 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:
 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



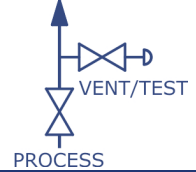
Features

- PGI Standard 316 SS Ball Seat

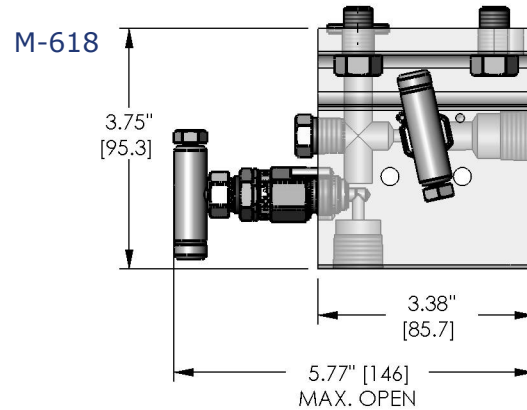
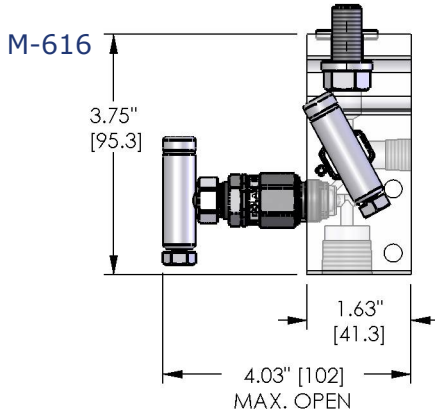
Benefits

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

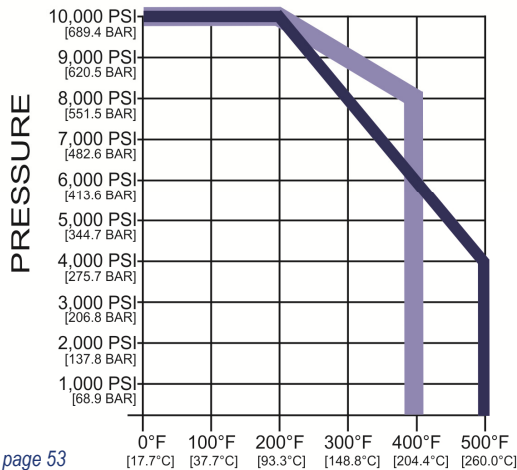
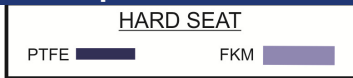
INSTRUMENT



Dimensions, inches [mm]



Pressure vs. Temperature



See page 53 for more press/temp details.

PROCESS TEMPERATURE

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	FKM 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/FKM O-Ring	PTFE/FKM O-Ring	PTFE/FKM 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:
 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



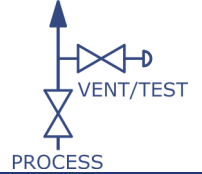
Features

- PGI Soft Cone Seat

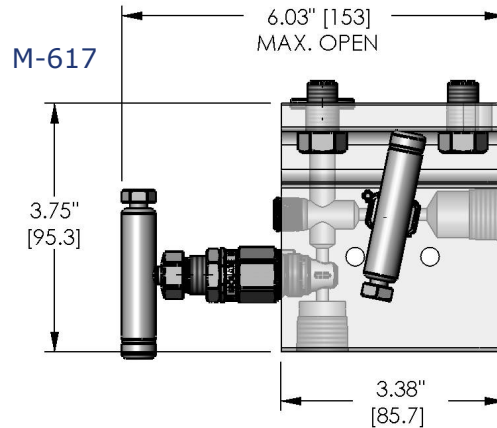
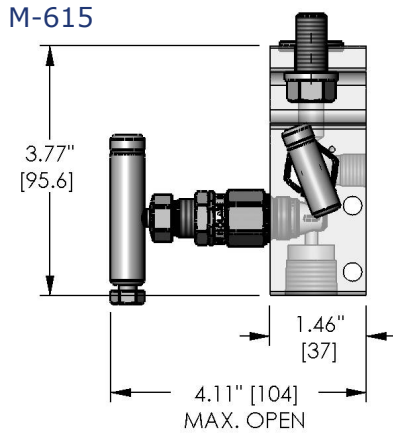
Benefits

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

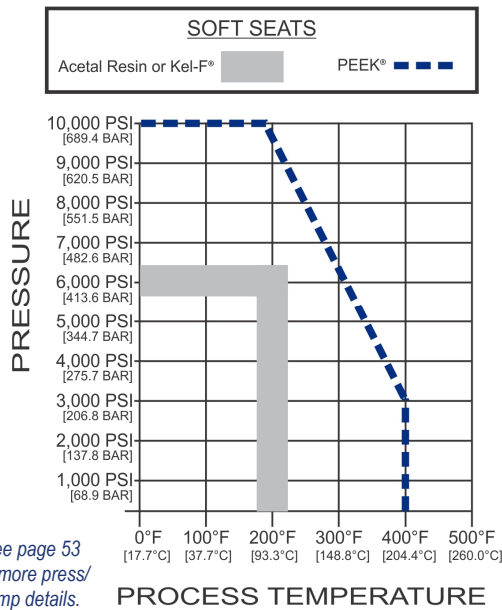
INSTRUMENT



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-	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	Acetal Resin (Standard)
K	Kel-F®
P	Peek®

Stem Packing/Seal Code

P	PTFE (Below threads)
V	FKM 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/FKM O-Ring	PTFE/FKM O-Ring	PTFE/FKM 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:

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

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

SOFT SEAT: .187" Orifice

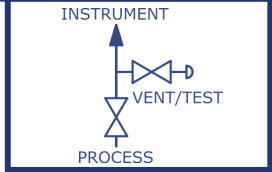


Features

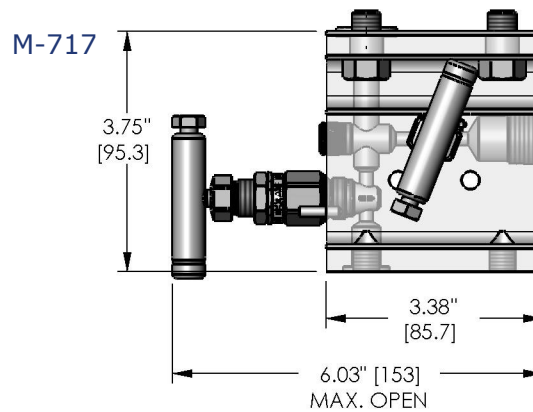
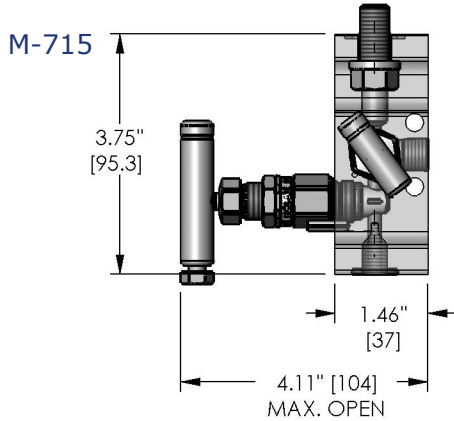
- PGI Soft Cone Seat

Benefits

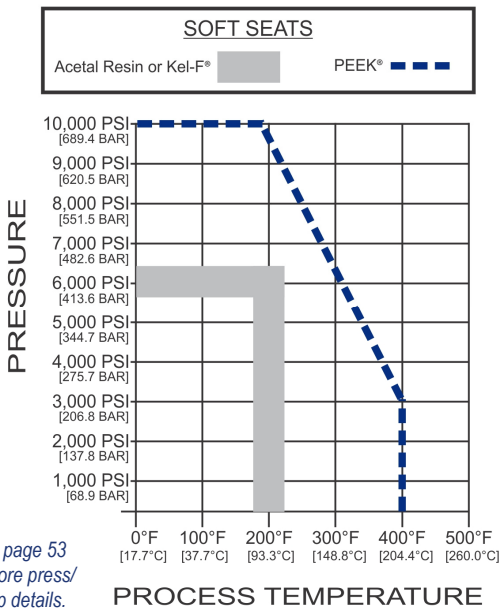
- Roddable straight-through design
- Leak free, bubble tight seating
- Easily replaced
- Available in a variety of materials
- Bi-directional flow



Dimensions, inches [mm]



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	Acetal Resin (Standard)
K	Kel-F®
P	Peek®

Stem Packing/Seal Code

P	PTFE (Below threads)
V	FKM 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/FKM O-Ring	PTFE/FKM O-Ring	PTFE/FKM 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:
3.00 lbs. [1.36 kg] ea. (M-715)
5.50 lbs. [2.49 kg] ea. (M-717)

* Barstock equivalent of ASTM A105

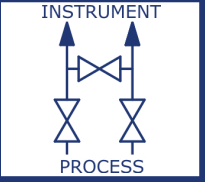
Notes

- 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

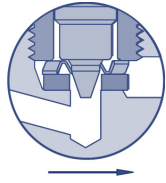


3-Valve Differential Pressure Miniature Manifold

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



SOFT "WASHER" SEATS: .136" Orifice



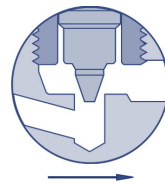
Features

- 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



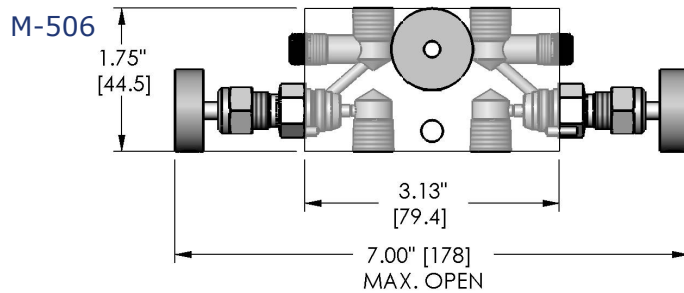
Features

- PGI Integral Metal Seat

Benefits

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

Dimensions, inches [mm]

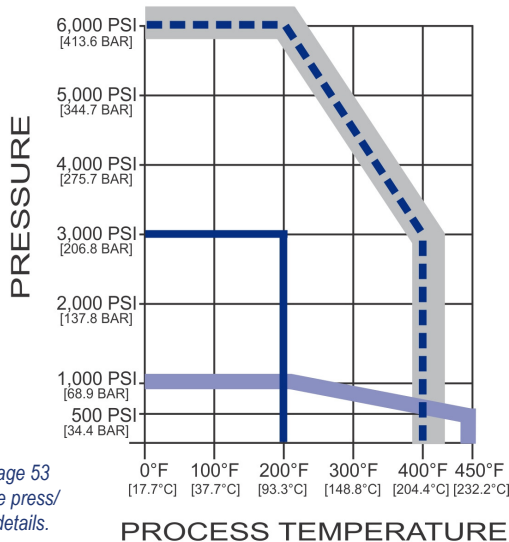


Note Regarding Handle Types:

Soft Seated Valves	CS or SS Round Handles as Standard
Hard Seat Valves	CS or SS Bar Handles as Standard

Pressure vs. Temperature

SEATS			
Acetal Resin or Kel-F®	—	Metal (PTFE)	—
PEEK®	- - -	Metal (FKM)	—



Part Number Selection

Base Model

<i>Inlet x Outlet</i>	
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	Acetal Resin
K	Kel-F®
P	Peek®

Stem Packing/Seal Code

T	PTFE
V	FKM O-Ring

M-506				-	Options [pages 49-50]
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Materials of Construction

Part	Carbon Steel	316 Stainless Steel
Body	ASTM 1016-1018/A108	ASTM A479-316/A479-316
Packing "T" / "V"	PTFE/FKM O-Ring	PTFE/FKM 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 .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

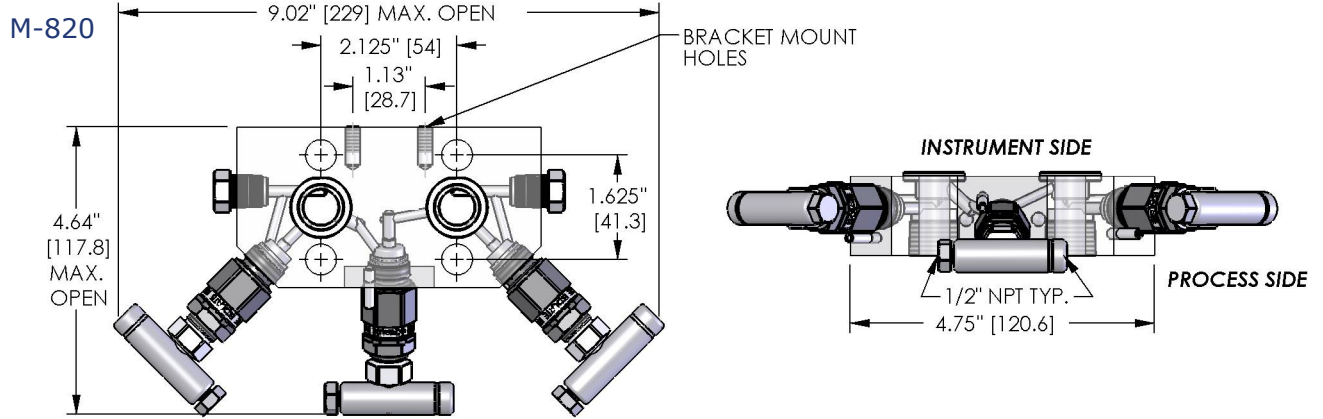
Features

- PGI Standard 316 SS Ball Seat

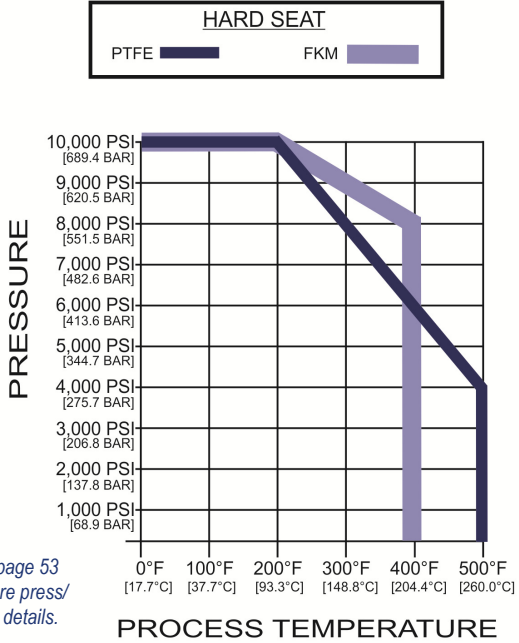
Benefits

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

Dimensions, inches [mm]



Pressure vs. Temperature



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	FKM 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/FKM O-Ring	PTFE/FKM 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

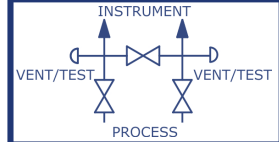
Notes

- 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

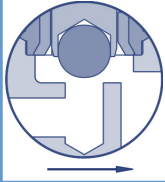


3-Valve Differential Pressure Manifolds

**HARD SEAT
.187" ORIFICE**



HARD BALL SEAT: .187" Orifice



Features

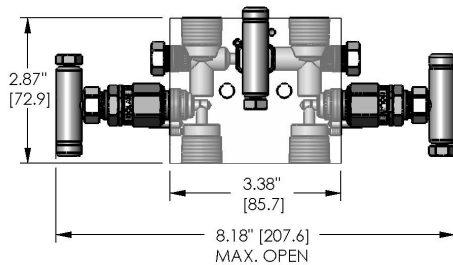
- PGI Standard 316 SS Ball Seat

Benefits

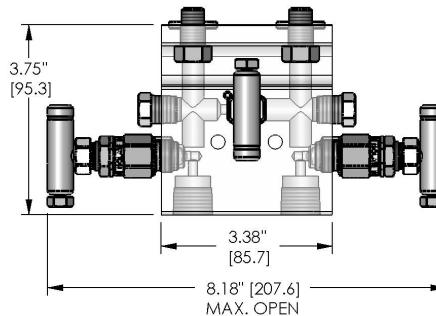
- Non-rotating ball eliminates seat galling and ball creasing
- Leak free, bubble tight seating
- Available in a variety of materials

Dimensions, inches [mm]

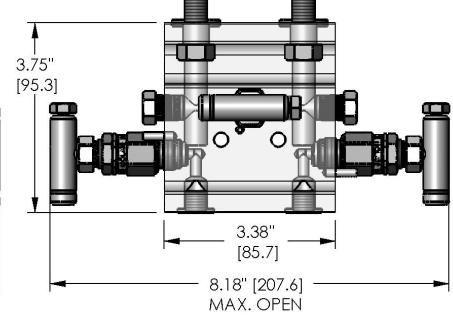
M-500



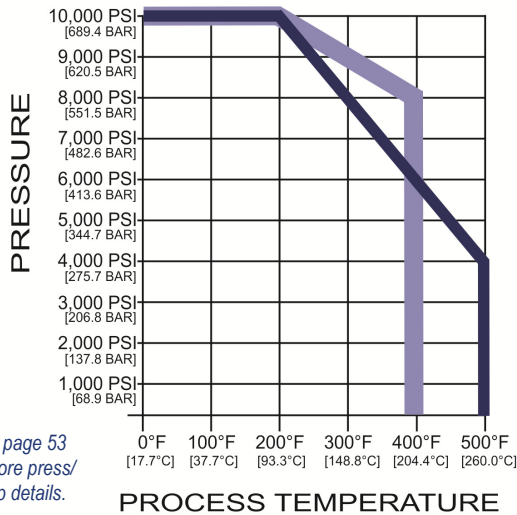
M-650



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	FKM 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 ASTM A276-316 □
Packing "P" / "V"	PTFE/FKM O-Ring	PTFE/FKM O-Ring	PTFE/FKM 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:
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

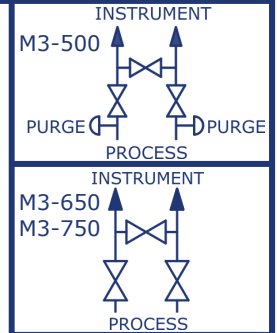


Features

- PGI Standard 316 SS Ball Seat

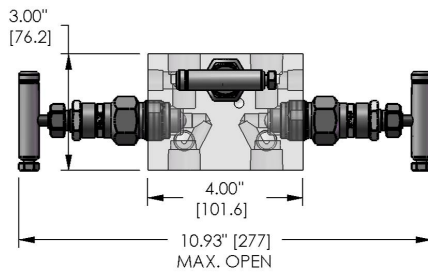
Benefits

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

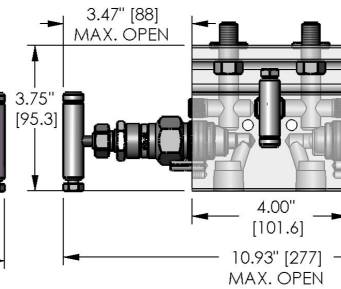


Dimensions, inches [mm]

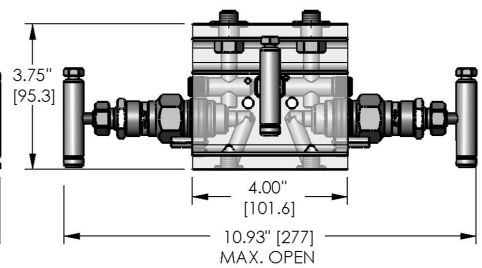
M3-500



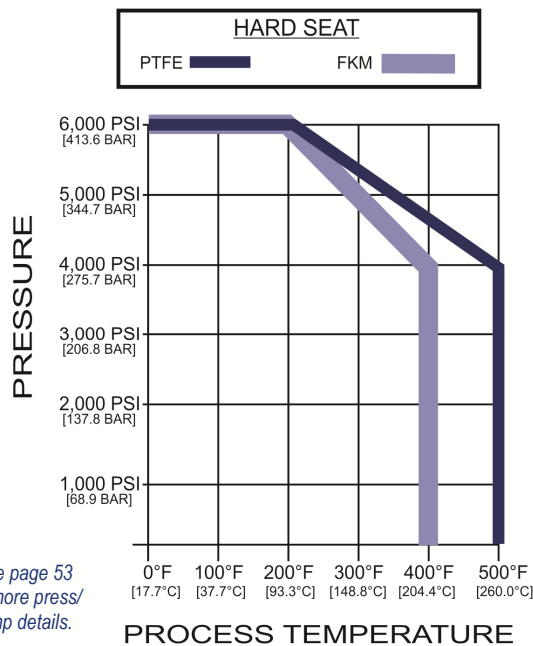
M3-650



M3-750



Pressure vs. Temperature



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	FKM 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 ASTM A276-316 □
Packing "P" / "V"	PTFE/FKM O-Ring	PTFE/FKM O-Ring	PTFE/FKM 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)

* Barstock equivalent of ASTM A105

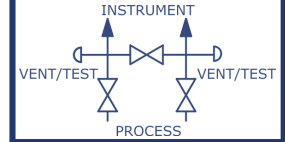
Notes

- 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
.187" ORIFICE



SOFT SEAT: .187" Orifice



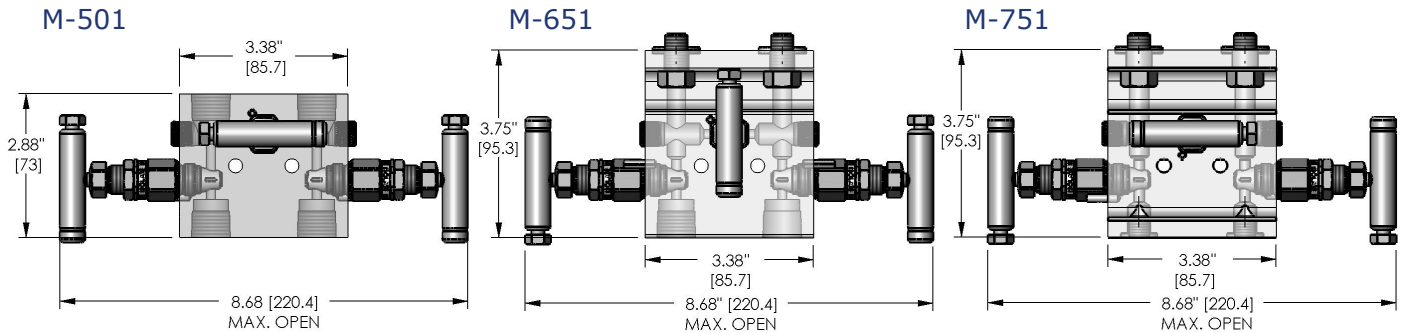
Features

- PGI Soft Cone Seat

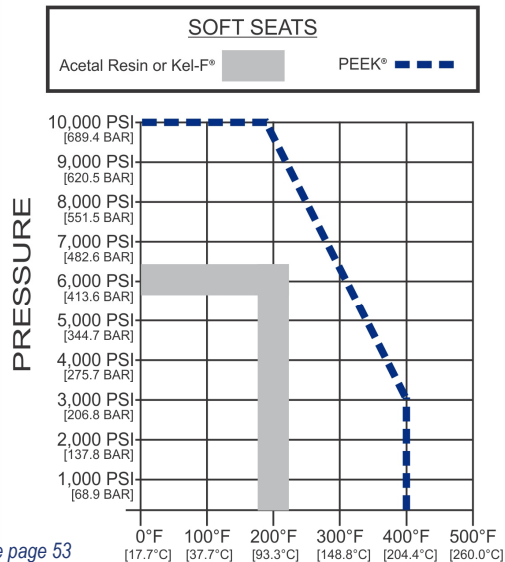
Benefits

- 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.

PROCESS TEMPERATURE

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
S	ASTM A276-316 SS □
P	ASTM A696*

Seat Material Code

D	Acetal Resin (Standard)
K	Kel-F®
P	Peek®

Stem Packing/Seal Code

P	PTFE (Below threads)
V	FKM 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 ASTM A276-316 □
Packing "P" / "V"	PTFE/FKM O-Ring	PTFE/FKM O-Ring	PTFE/FKM 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:

- 4.20 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

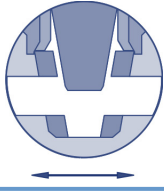
- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C



3-Valve Differential Pressure Manifolds

**SOFT SEAT
.375" ORIFICE**

SOFT SEAT: .375" Orifice

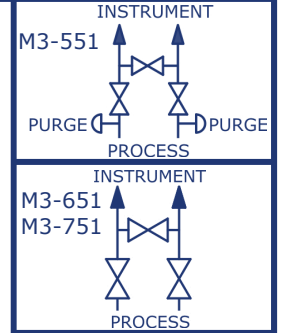


Features

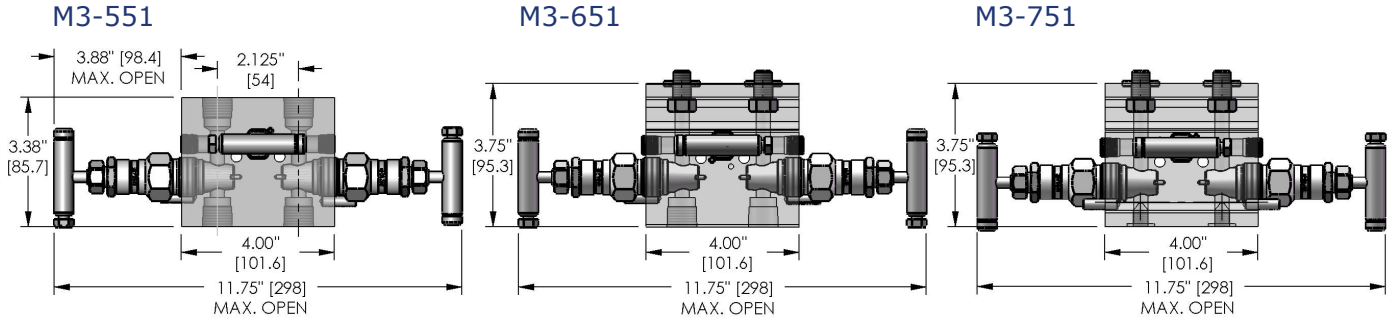
- PGI Soft Cone Seat

Benefits

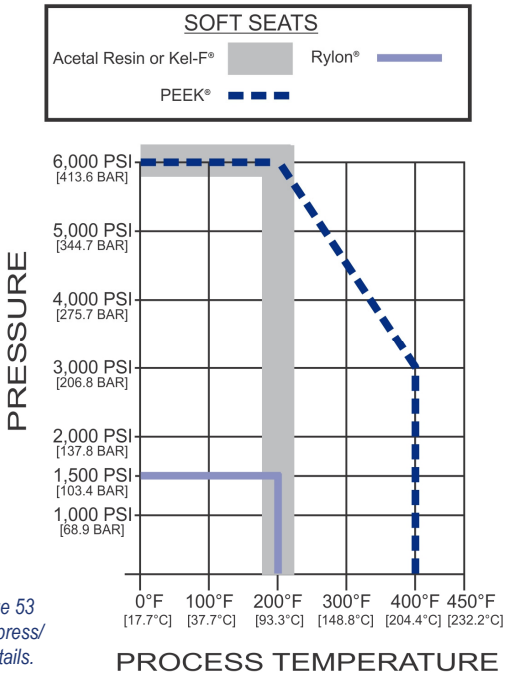
- Roddable straight-through design
- Leak free, bubble tight seating
- Easily replaced
- Available in a variety of materials
- Bi-directional flow



Dimensions, inches [mm]



Pressure vs. Temperature



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	Acetal Resin
K	Kel-F®
P	Peek®

Stem Packing/Seal Code

P	PTFE (Below threads)
V	FKM 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 ASTM A276-316
Packing "P" / "V"	PTFE/FKM O-Ring	PTFE/FKM O-Ring	PTFE/FKM 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

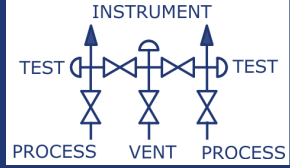
Notes

- 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



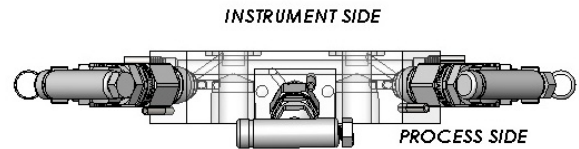
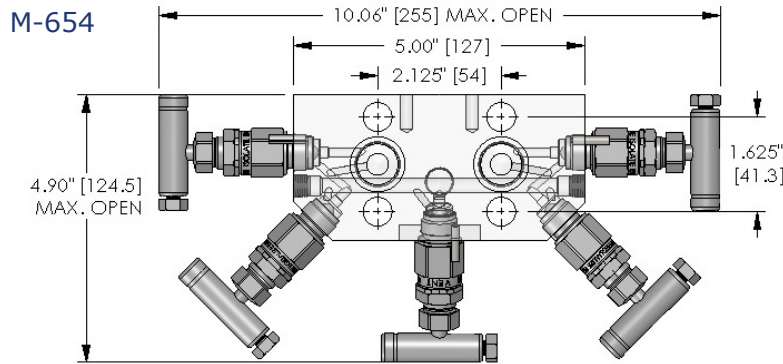
Features

- PGI Standard 316 SS Ball Seat

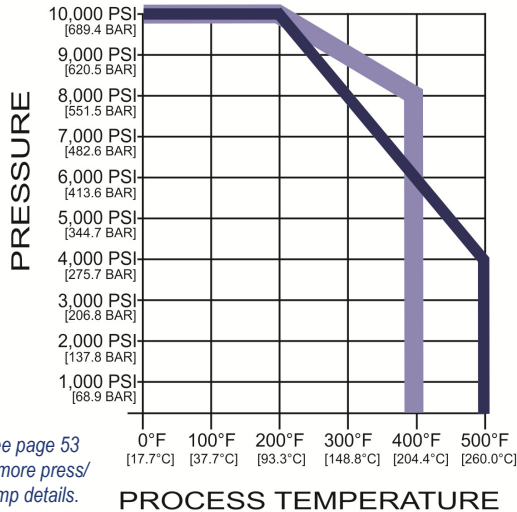
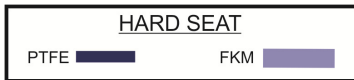
Benefits

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

Dimensions, inches [mm]



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	FKM 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/FKM O-Ring	PTFE/FKM 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

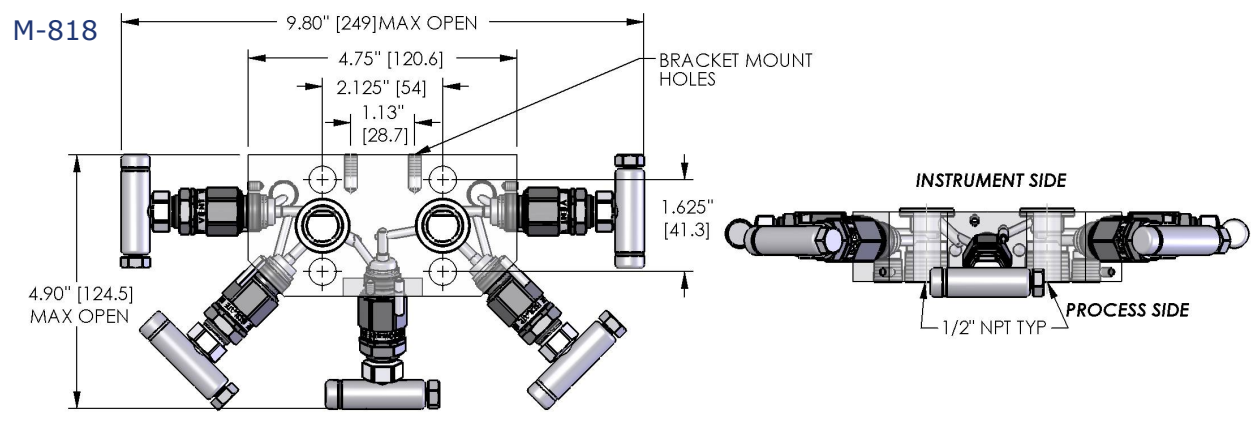
Features

- PGI Standard 316 SS Ball Seat

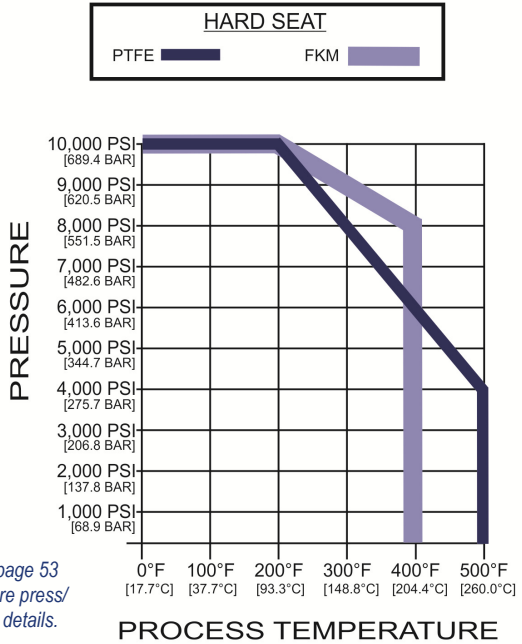
Benefits

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

Dimensions, inches [mm]



Pressure vs. Temperature



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	FKM 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/FKM O-Ring	PTFE/FKM 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

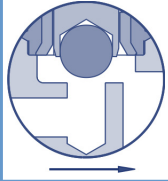
- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C



5-Valve Wide-Pattern™ Differential Pressure Manifolds

**HARD SEAT
.187" ORIFICE**

HARD BALL SEAT: .187" Orifice

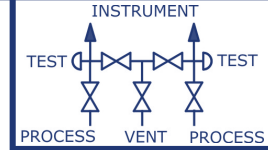


Features

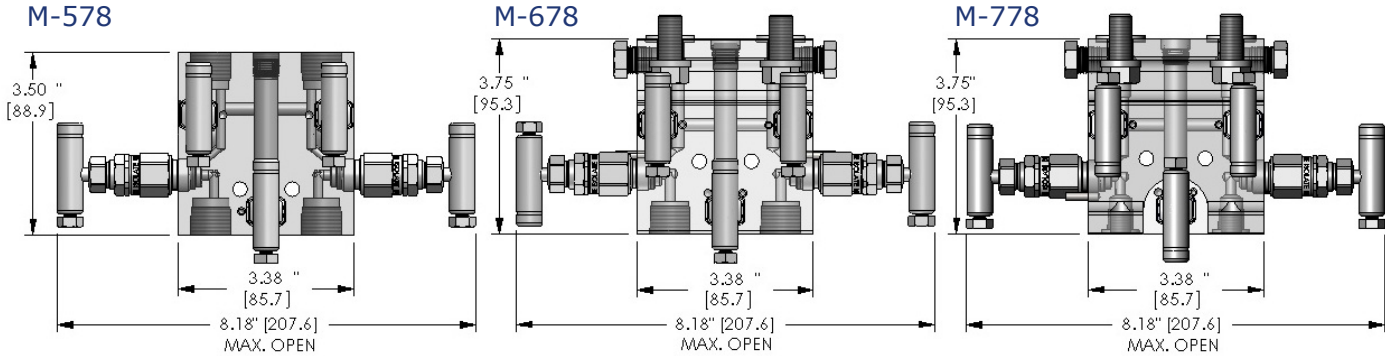
- PGI Standard 316 SS Ball Seat

Benefits

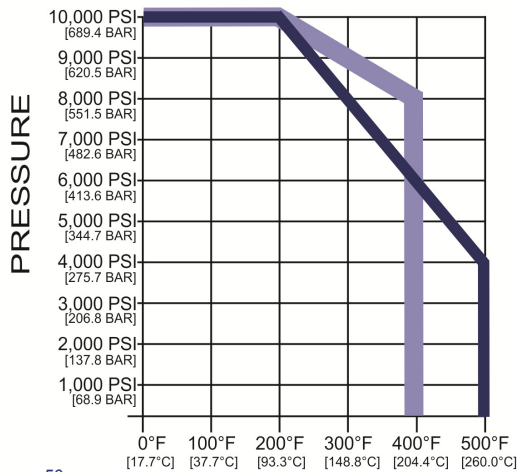
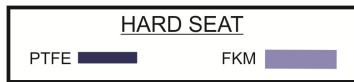
- Non-rotating ball eliminates seat galling and ball creasing
- Leak free, bubble tight seating
- Available in a variety of materials



Dimensions, inches [mm]



Pressure vs. Temperature



See page 53
for more press/
temp details.

PROCESS TEMPERATURE

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	FKM 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 ASTM A276-316 □
Packing "P" / "V"	PTFE/FKM O-Ring	PTFE/FKM O-Ring	PTFE/FKM 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 A108

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

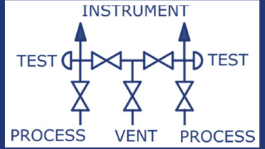


Features

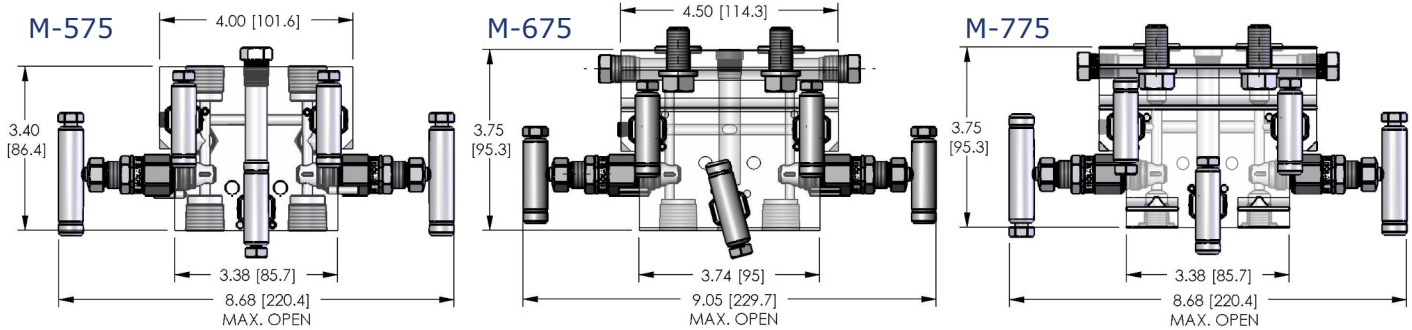
- PGI Soft Cone Seat

Benefits

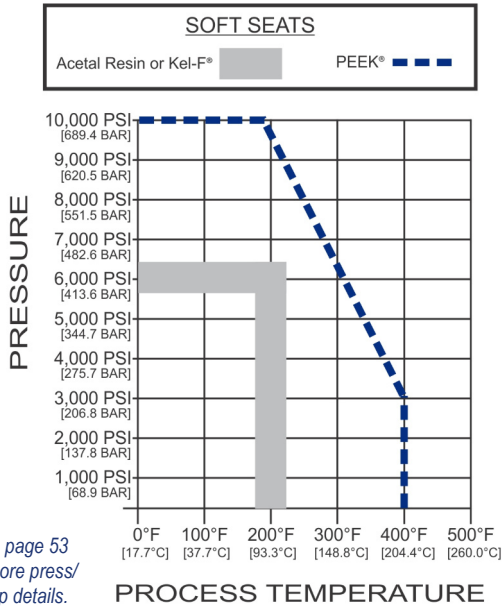
- Roddable straight-through design
- Leak free, bubble tight seating
- Easily replaced
- Available in a variety of materials
- Bi-directional flow



Dimensions, inches [mm]



Pressure vs. Temperature



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" FNPT

Body Material Code

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

Seat Material Code

D	Acetal Resin (Standard)
K	Kel-F®
P	Peek®

Stem Packing/Seal Code

P	PTFE (Below threads)
V	FKM 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 ASTM A276-316 □
Packing "P" / "V"	PTFE/FKM O-Ring	PTFE/FKM O-Ring	PTFE/FKM 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)

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

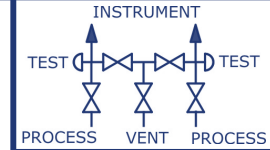


Features

- PGI Soft Cone Seat

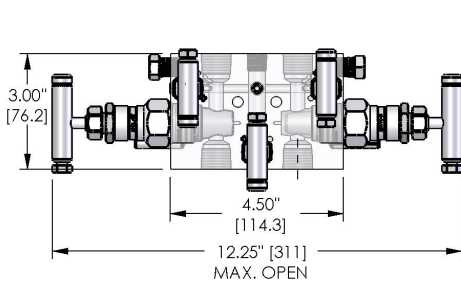
Benefits

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

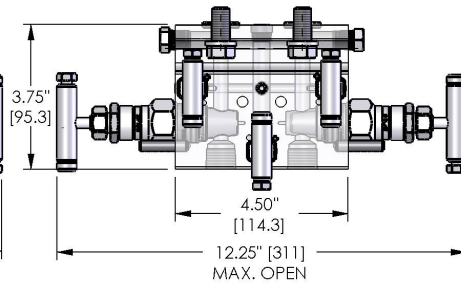


Dimensions, inches [mm]

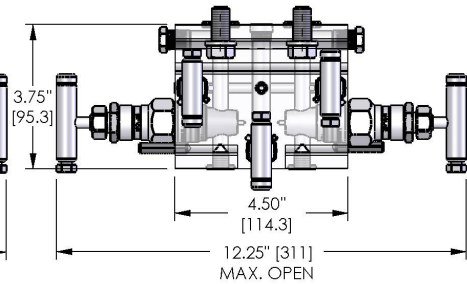
M3-575



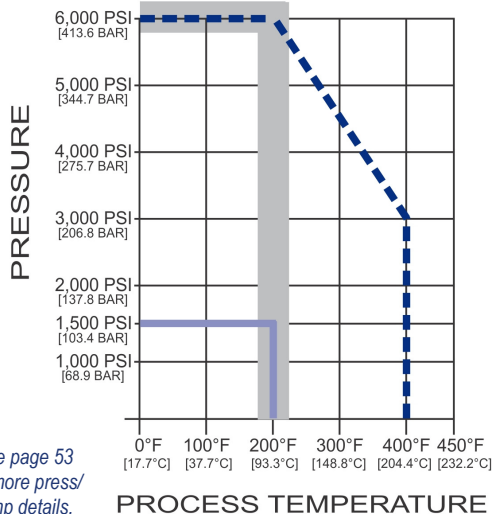
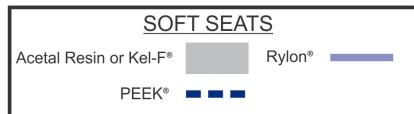
M3-675



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	Acetal Resin (Standard on Equalizer & Vent Valves)
K	Kel-F®
P	Peek®

Stem Packing/Seal Code

P	PTFE (Below threads)
V	FKM 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 ASTM A276-316 □
Packing "P" / "V"	PTFE/FKM O-Ring	PTFE/FKM O-Ring	PTFE/FKM 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

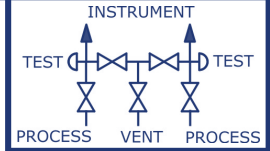
Notes

- 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



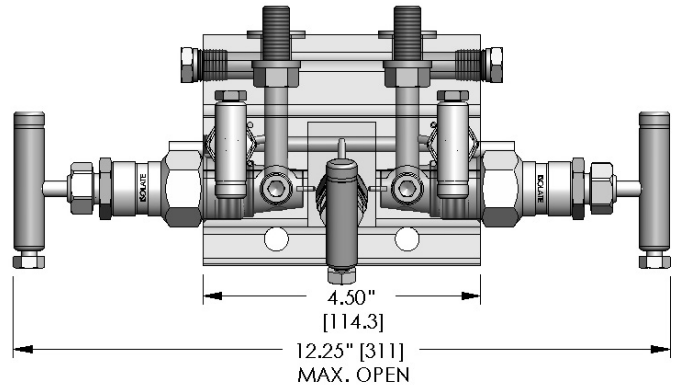
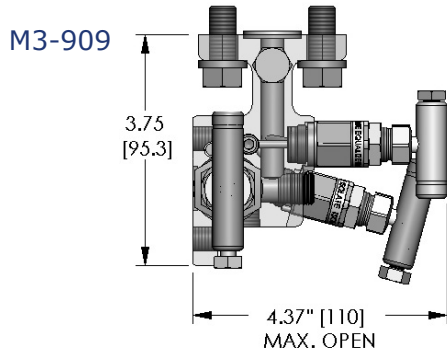
Features

- PGI Soft Cone Seat

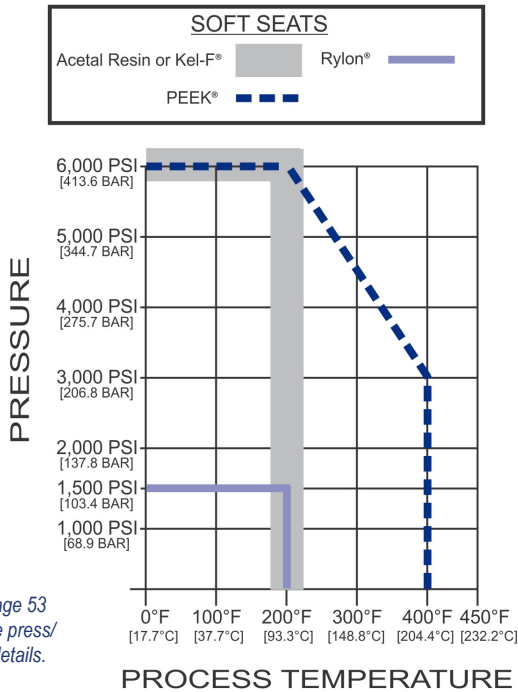
Benefits

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

Dimensions, inches [mm]



Pressure vs. Temperature



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	Acetal Resin
K	Kel-F®
P	Peek®

Stem Packing/Seal Code

P	PTFE (Below threads)
V	FKM 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/FKM O-Ring	PTFE/FKM O-Ring	PTFE/FKM 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 →

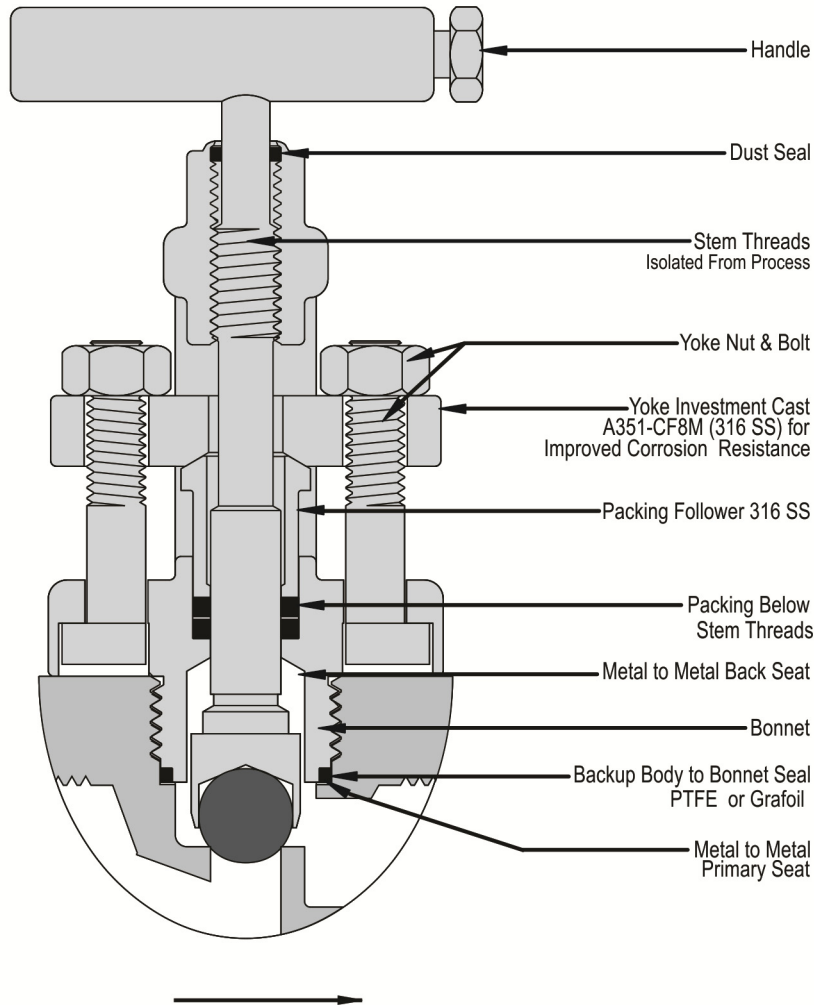


M-505 C D P -

Add Options in Alpha-Numeric Order

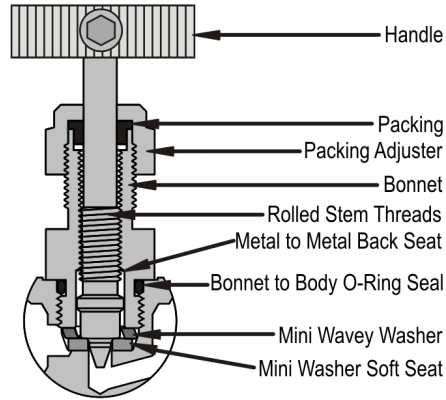
Consult Factory to Verify that Options are Available with the Specific Model Number(s) Chosen

OPTIONS	
OPTION CODE	DESCRIPTION
ME	SLOTTED INSTRUMENT FLANGE BOLT HOLES WHEN USING BOLT LENGTHS OVER 3"
MF	IEC FLANGE SEALS ONLY
MH	FKM O-RING FLANGE SEALS (FLANGE MANIFOLDS ONLY)
MJ	FKM O-RING FLANGE SEALS (AK-003/079-CO ONLY)
MN	DIELECTRIC ISOLATION (AK SERIES ADAPTERS AND CONNECTORS)
MT	TAYLOR INSTRUMENT 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

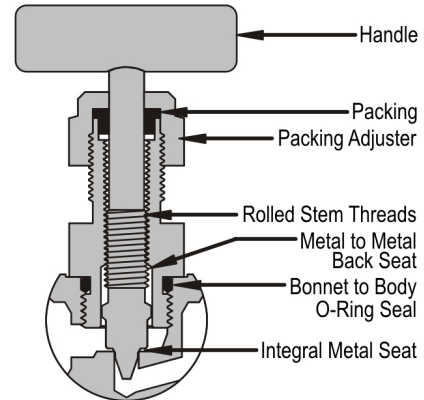




.136" Orifice

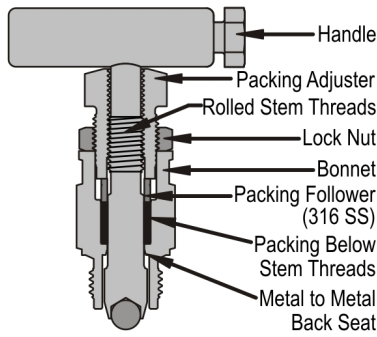


Soft Seat

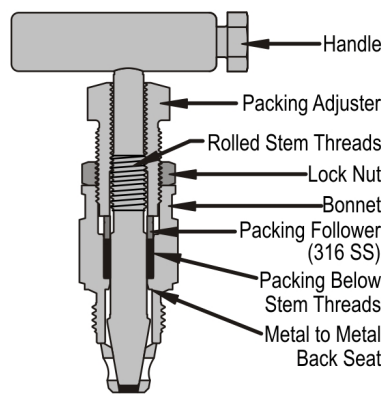


Integral Metal to Metal Seat

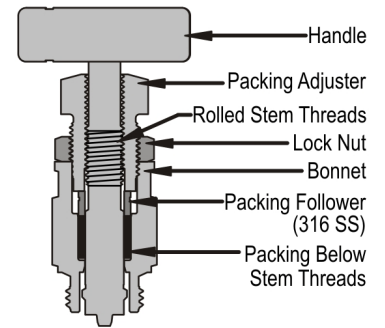
.187" Orifice



Hard Seat

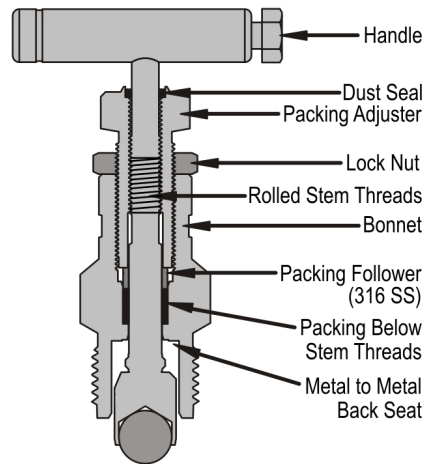


Soft Seat

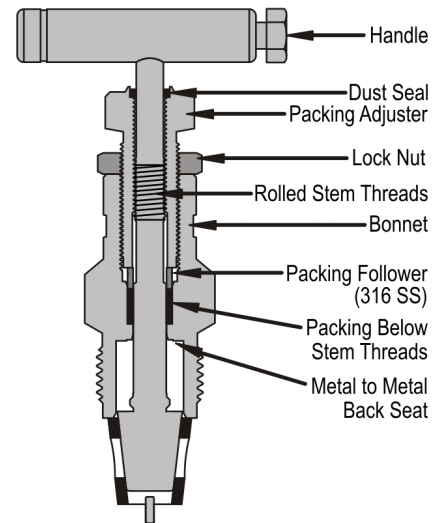


Soft Washer Seat

.375" Orifice



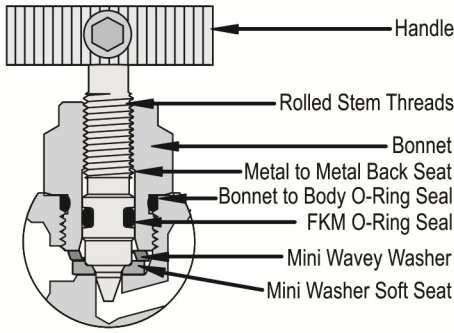
Hard Seat



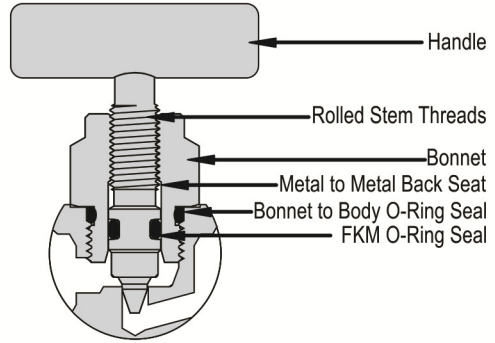
Soft Seat



.136" Orifice

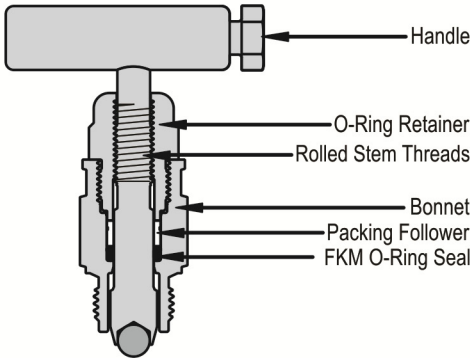


Soft Seat

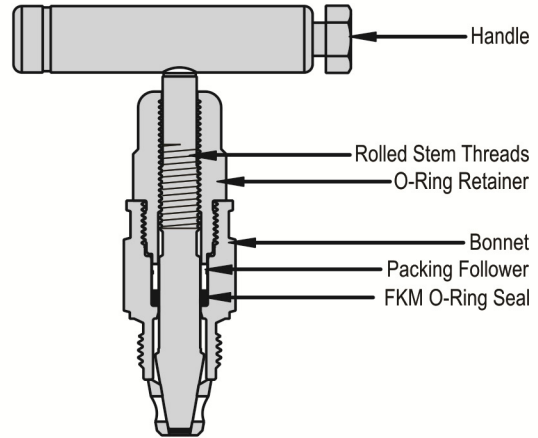


Integral Metal to Metal Seat

.187" Orifice

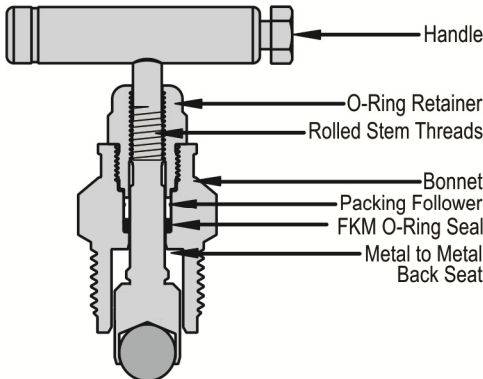


Hard Seat

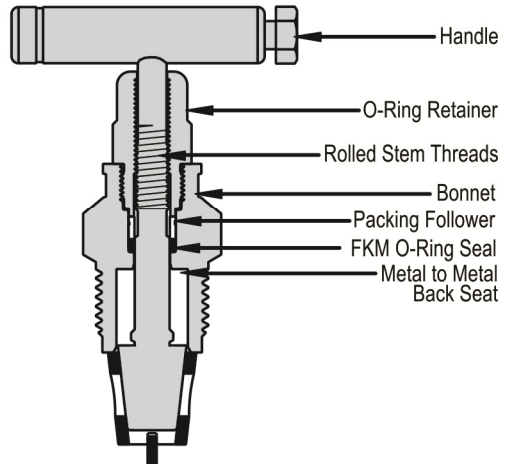


Soft Seat

.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. 1,500 PSI Max. @ 1,000° F Max.	689 bar Max. @ 93° to -73° C Min. 103 bar Max. @ 538° C Max.
C	ASTM A108 Carbon Steel	10,000 PSI Max. @ 200° to -20°F Min. 1,500 PSI Max. @ 500° F Max.	689 bar Max. @ 93° to -29° C Min. 103 bar Max. @ 260° C Max.
P	ASTM A696 Gr. C Carbon Steel* (* Barstock equivalent of ASTM A105)	10,000 PSI Max. @ 200° to -20°F Min. 1,500 PSI Max. @ 800° F Max.	689 bar Max. @ 93° to -29° C Min. 103 bar Max. @ 427° C Max.
T	ASTM A395 GR 60-40-18 Ductile Iron	3,000 PSI Max. @ 200° to -20°F Min. 1,500 PSI Max. @ 650° F Max.	207 bar Max. @ 93° to -29° C Min. 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. 4,000 PSI Max. @ 500° F Max.
		.375"	6,000 PSI Max. @ 200° to -40°F Min. 4,000 PSI Max. @ 500° F Max.
T	Mini PTFE Packed	.136"	6,000 PSI Max. @ 200° F Max. to -80°F Min. 4,000 PSI Max. @ 450° Max.
V	FKM O-Ring	.187" .250"	10,000 PSI Max. @ 200° to -15°F Min. 8,000 PSI Max. @ 400° F Max.
		.375"	6,000 PSI Max. @ 200° F Max. to -15°F Min. 4,000 PSI Max. @ 400° 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	Acetal Resin & 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.
	Acetal Resin & 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. 3,000 PSI Max. @ 400° F Max.
		.375"	6,000 PSI Max. @ 200° to -40°F Min. 3,000 PSI Max. @ 400° F Max.
	PEEK® Washer	.136"	6,000 PSI Max. @ 200° to -40°F Min. 3,000 PSI Max. @ 400° F Max.
T	PTFE Washer	.136"	1,000 PSI Max. @ 200° to -80°F Min. 500 psi Max. @ 450° F Max.
	PTFE Cone	.187" .250" .375"	1,000 PSI Max. @ 200° to -80°F Min. 500 psi Max. @ 450° F 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 Acetal Resin Seat
P5-020-R3	Mini PEEK® Seat
P7-024-C0	Wavy 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	FKM	Integral Metal or	Carbon Steel	Round CS	V
SAV106C-V-H7			Bar CS		
SAV106S-V-H6			NACE	Round SS	
SAV106S-V-H8			316 SS	Bar SS	
SAV107C-T-H5	PTFE Above Threads	Soft Washer	Carbon Steel	Round CS	T
SAV107C-T-H7			Bar CS		
SAV107S-T-H6			NACE	Round SS	
SAV107S-T-H8			316 SS	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	Acetal Resin Cone Seat

.187" ORIFICE BONNET ASSEMBLIES				
PART NO.	BONNET PACKING/SEAL	SEAT	BONNET MATERIAL	PACKING/SEAL CODE
SAV182P6V-HC	FKM	316 SS Ball	A696 Gr.C	V
SAV166P6P-HC	PTFE Below Threads		Carbon Steel*	P
SAV182S6V-HS	FKM		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	FKM	Soft Cone	A696 Gr.C	V
SAV185P-P-HH	PTFE Above Threads		Carbon Steel*	P
SAV193S-V-HH	FKM		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	Acetal Resin Cone Seat
SP3-007-R8	Rylon™ Cone Seat

.375" ORIFICE SOFT SEAT BONNET ASSEMBLIES				
PART NO.	BONNET PACKING/SEAL	SEAT	BONNET MATERIAL	PACKING/SEAL CODE
SAV300P-V-HH	FKM	Soft Cone	A696 Gr.C	V
SAV301P-P-HH	PTFE Below Threads		Carbon Steel*	P
SAV300S-V-HH	FKM		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	FKM	316 SS Ball	A696 Gr.C	V
SAV301P6P-HH	PTFE Below Threads		Carbon Steel*	P
SAV300S6V-HH	FKM		NACE 316 SS	V
SAV301S6P-HH	PTFE Below Threads			P

Note: Seats are Integral to the Bonnet Assembly.

Note:

Handle included in all Bonnet Assemblies.

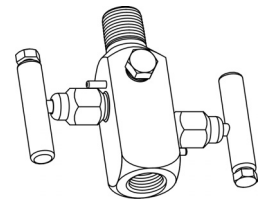
* Barstock equivalent of ASTM A105.



Additional Parker PGI Product Offerings

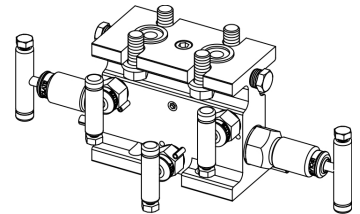
PGI Instrument Valves

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.



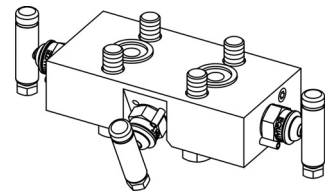
Fugitive Emission Valves & Manifolds

Parker'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.



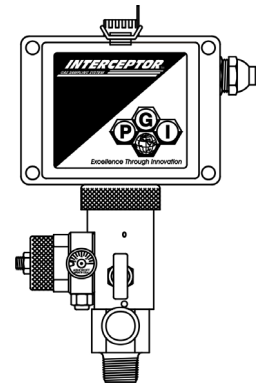
PGI Instrument Manifolds

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 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, Parker offers on-site testing using the latest equipment to provide a full technical report.

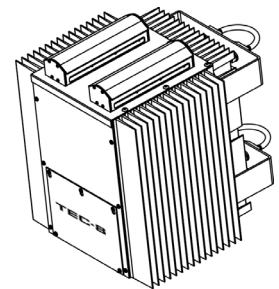


Engineered Products

Parker 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 Parker 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.

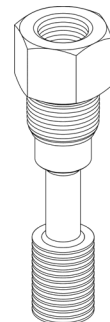
ZEUS[®] Power Systems

We offer efficient and reliable alternatives to solar panel systems used to power electronic instruments on gas pipelines. Parker'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'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

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Purge Adapters for the Process Industry

SPECIALIZED SYSTEMS

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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 DIVISION PRODUCTS & SERVICES

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Lone Star



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