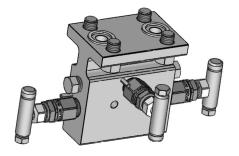
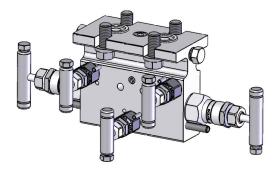


Quality Products at a Value Price













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Product Warranty, Sales Policy, Special Orders, Oxygen/Chlorine Service and Manufacturing Standards Overview

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Soft & Metal Seat - .136" Orifice

#### **Instrument Needle Valves**

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#### Instrument Needle Valves-90° Angle Style

Soft Seat - .187" Orifice Hard Seat - .187" Orifice

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Soft Seat - .375" Orifice

Hard Seat - .375" Orifice

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Gauge Siphons

19 Gauge Siphons with Excess Flow Check

Gauge Siphons with Excess Flow Check 19 and Swivels

19 Gauge Swivel

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32

33

Hard Seat - .187" Orifice NPT x Flange Soft Seat - .187" Orifice NPT x Flange Hard Seat - .187" Orifice Flange x Flange

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Soft Seat - .187" Orifice Soft Seat - .375" Orifice

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Soft Seat - .375" Orifice

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Lone Star Options

OS & Y PTFE Packed Bonnet Design

PTFE Packed Bonnet Design .136" .187" .375" Orifice

FKM O-Ring Bonnet Design .136" .187" .375" Orifice

Pressure & Process Temperature Ratings

Lone Star Spare Parts

#### **Additional PGI Division Product Offerings**

PGI Instrument Valves, Fugitive Emission Valves & Manifolds, PGI Instrument Manifolds, Pulsation Testing, Engineered Products, ZEUS Power Systems, and ThermoSync Temperature Measurement System



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#### Notes:

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#### **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

#### Visit Parker.com/Safety

#### 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



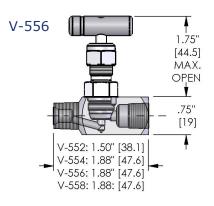
#### **Features**

PGI Integral Metal Seat

#### **Benefits**

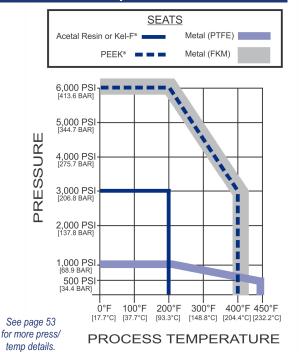
- Throttling and shut-off design
- Interchangeable between soft or metal seats

#### 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



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							

#### **Part Number Selection**

#### Base Model

	Inlet x Outlet								
V-	5	52	1/4" MNPT x 1/4" FNPT Angle						
V-	5	54	1.	/4" I	M١	NPT	X	1/4" MNPT	
V-	5	56	1.	/4" I	M١	NPT	X	1/4" FNPT	
V-	5	58	1.	/4" I	FΝ	IPT:	x 1	/4" FNPT	
	Body Material Code								
			C ASTM A108						
			S	Α	ST	M A	47	79-316 SS	
				S	ea	at M	ate	erial Code	
					N	I M	eta	al (Standard)	
					D	) A	ce	tal Resin	
					K	K	el-	F®	
					P	P	ee	k®	
		Stem Packing/Seal Code							
			T Mini PTFE Packed						
				V FKM O-Ring			FKM O-Ring		

#### **Max Cv Ratings Body Style** .136" Orifice Straight Angle Soft Seat .22 .27 Metal Seat .32

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

#### Notes

PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention

Options [pages 49-50]

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

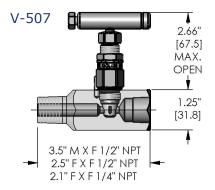
# SOFT SEAT: .187" Orifice **Features**

PGI Soft Cone Seat

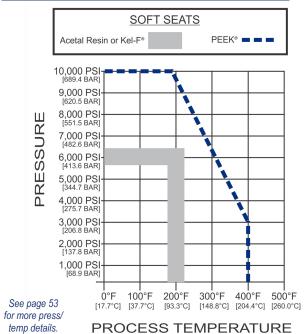
#### **Benefits**

- 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



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						

#### **Part Number Selection**

ase	Model									
	Bi-Directional Flow									
V-	501	1/4	1/4" MNPT x 1/4" FNPT							
V-	503	1/4	l" FNF	T x T	1/4" FN	PT				
V-	507	1/2	2" MNF	РΤх	1/2" FN	IPT				
V-	509	1/2	" FNF	'T x	1/2" FN	PT				
V-	529	3/4	I" MNF	РΤх	1/2" FN	IPT				
V-	531	1/2	2" MNI	РΤх	1/4" FN	IPT				
	Body Material Code									
		С	ASTN	/ A1	08					
		S	ASTN	1 A4	79-316	SS				
		Р	ASTN	1 A6	96*					
			Seat	Mat	erial C	ode				
			D	Ace	tal Res	in (Standar	rd)			
			K	Kel-F®						
			Р	Peek®						
				Ster	n Pack	ing/Seal C	ode			
	P PTFE (Below threads)									
	V FKM O-Ring									
				Т						
V-					-	Options	[pages 49-50]			

### Max Cv Ratings Straight Body Style .187" Orifice

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

\* Barstock equivalent of ASTM A105

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

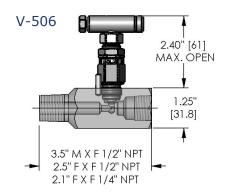
## HARD BALL SEAT: .187" Orifice **Features**

PGI Standard 316 SS Ball Seat

#### **Benefits**

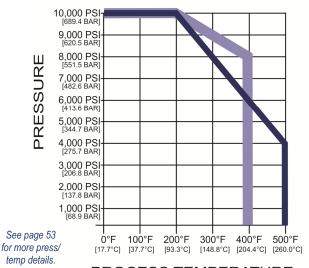
- Non-rotating ball eliminates seat galling and ball creasing
- Leak free, bubble tight seating
- Available in a variety of materials

#### **Dimensions, inches [mm]**



#### **Pressure vs. Temperature**

HARD SEAT PTFE ■ FKM



#### PROCESS TEMPERATURE

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						

#### **Part Number Selection**

В	ase	Mc	del								
	Inlet x Outlet										
	V- 500 1/4" MNPT x 1/4" FNPT										
	V-	5	02	1	/4"	F١	۱P	Тх	1/4	" FNP	T
	V-	5	06	1	/2"	M	NF	Тχ	1/2	2" FNF	PT
	V-	5	08	1	/2"	F١	۱P	Τx	1/2	" FNP	T
	V-	5	28	3	/4"	M	NF	Тχ	1/2	2" FNF	PT
	V-	5	30	1	/2"	Μ	NF	Тχ	1/4	4" FNF	PT
	V-	5	40	3	/4"	F١	۱P	Tχ	3/4	" FNP	T
			ı	300	уt	Ma	ite	rial	Co	de	
				C	1	٩S	TΝ	I A1	80		
				S	1	٩S	TΝ	I A4	79	-316 S	SS
				Р	1	٩S	TΝ	I A6	96	*	
						Se	at	Mat	eri	al Co	de
							6	316	S	S Ball	(Standard)
						(	2	Car	bid	de Bal	
	N Monel®										
	Stem Packing/Seal Code										
	P PTFE (Below threads)										
	V FKM O-Ring										
	1		Щ		-						0.4
	V-									-	Options [pages 49-50]

Max Cv Ratings						
.187" Orifice	Straight Body Style					
.107 Office	.53					

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

- 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

<sup>\*</sup> Barstock equivalent of ASTM A105



## **Instrument Needle Valve-90° Angle Style**

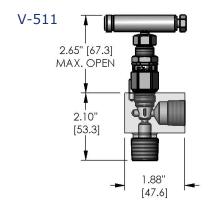
# SOFT SEAT: .187" Orifice **Features**

PGI Soft Cone Seat

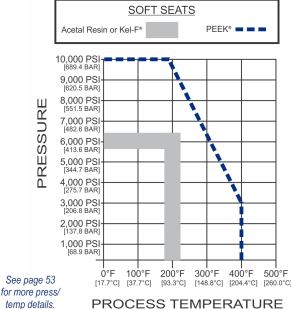
#### **Benefits**

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

#### Dimensions, inches [mm]



## **Pressure vs. Temperature**



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						

#### **Part Number Selection Base Model** Bi-Directional Flow 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]

Max CV Ratiligs							
.187" Orifice	Straight Body Style						
.ior Office	.79						
Approx. Valve Weight: 1.00 lbs. [.45 kg] ea.							

\* Barstock equivalent of ASTM A105

- 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 BALL SEAT: .187" Orifice



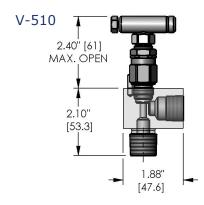
#### **Features**

PGI Standard 316 SS Ball Seat

#### **Benefits**

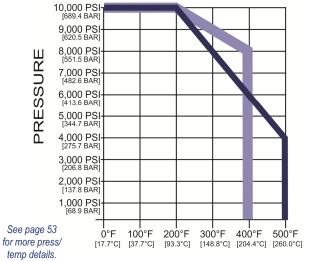
- Non-rotating ball eliminates seat galling and ball creasing
- Leak free, bubble tight seating
- · Available in a variety of materials

#### **Dimensions, inches [mm]**



#### **Pressure vs. Temperature**





#### PROCESS TEMPERATURE

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					

#### **Part Number Selection**

В	ase	Model								
	Inlet x Outlet									
	V-	510	1/	2" MI	NPT	x 1/	2" FNI	PT		
	V-	514	1/	4" FN	NPT	x 1/4	l" FNF	PΤ		
	Body Material Code									
	C ASTM A108									
			S	AS	TM A	4479	-316 S	SS		
			Р	AS	TM A	4696	*			
				Se	at M	later	ial Co	de		
				(	3	16 S	S Ball	(Standard)		
				(	C	arbi	de Bal	l		
				1	N N	1one	®			
					S	tem	Packi	ng/Seal Code		
						P	PTFE	(Below threads)		
						۱	-KM C	)-Ring		
	V-		_	Τ	Т		-	Options [pages 49-50]		

# Max Cv Ratings .187" Orifice Straight Body Style .53

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

\* Barstock equivalent of ASTM A105

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

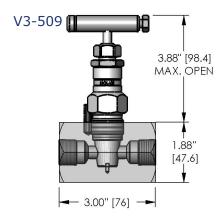
#### SOFT SEAT: .375" Orifice **Features**

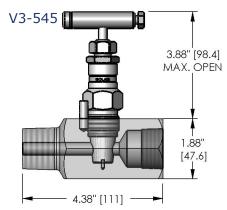
PGI Soft Cone Seat

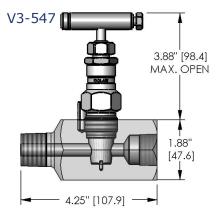
#### **Benefits**

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

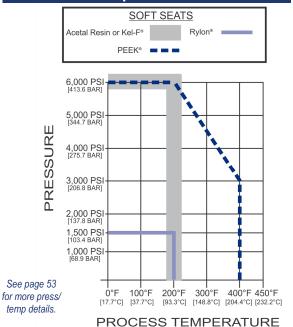
#### **Dimensions, inches [mm]**







#### Pressure vs. Temperature



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						

#### **Part Number Selection**

Base	Mod	el								
V3	- 5	07	1/2" MNPT x 1/2" FNPT							
V3	- 5	09	1/2" FNPT x 1/2" FNPT							
V3	- 5	29	3/4" MNPT x 1/2" FNPT							
V3	- 5	37	1" MNPT x 1/2" FNPT							
V3	- 5	41	3/4" FNPT x 3/4" FNPT							
V3	- 5	43	1" FNPT x 1" FNPT							
V3	- 5	45	1" MNPT x 1" FNPT							
V3	- 5	47	3/4" MNPT x 3/4" FNPT							
	Body Material Code									
			C ASTM A108							
			<b>S</b> 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							
$\perp$										
V3	-		- Options [pages 49-50]							

#### Max Cv Ratings Straight Body Style .375" Orifice

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

\* Barstock equivalent of ASTM A105

- 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



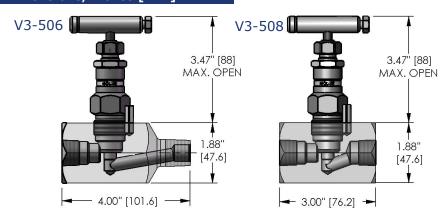
#### **Features**

PGI Standard 316 SS Ball Seat

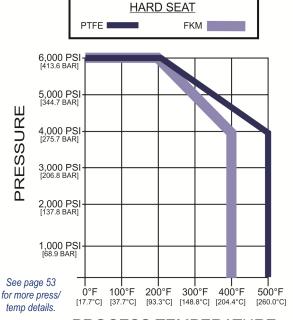
#### **Benefits**

- 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**



#### PROCESS TEMPERATURE

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					

#### **Part Number Selection**

#### **Base Model**

Jusc	use model									
	Inlet x Outlet									
V3-	506	1/2"	1/2" MNPT x 1/2" FNPT							
V3-	508	1/2"	FNPT:	x 1/:	2" FNF	PT				
V3-	540	3/4"	FNPT:	x 3/4	" FNP	T				
V3-	542	1" FI	NPT x	1" FI	NPT					
V3-	544	1" M	NPT x	1" F	NPT					
	Body Material Code									
		CA	STM A	108						
		SA	STM A	479	-316 S	S				
		PA	STM A	696	*					
		5	Seat Ma	ateri	al Cod	de				
			<b>6</b> 3	16 S	S Ball	(Standard)				
			C C	arbio	de Ball					
			N M	onel	®					
			St	em	Packir	ng/Seal Code				
				PF	PTFE (	Below threads)				
	V FKM O-Ring									
V3-					-	Options [pages 49-50]				
						2 3 3 3 3 3 3				

## Max Cv Ratings Straight Body Style

.375" Orifice 2.40

Approx. Valve Weight:

3.00 lbs. [1.36 kg] ea.

\* Barstock equivalent of ASTM A105

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

# SOFT SEAT: .187" Orifice

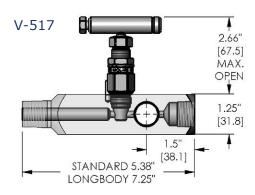
#### **Features**

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]**

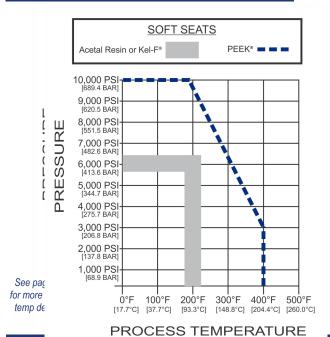


#### **Pressure vs. Temperature**

Mate

Body / Bonnet

Part



#### Carbon Steel A696 Carbon Steel\* 316 Stainless Steel 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

#### **Part Number Selection**

#### **Base Model**

	Inlet x Outlets										
	V-	5	17	T	1/2" MNPT x (3) 1/2" FNPT (Standard)						
	V-	5	19		3/4	" N	INF	PT >	(3)	1/2"	FNPT (Standard)
	V-	5	73		1/2	" N	INF	PT >	(3)	1/2"	FNPT (Long)
	V-	5	74		3/4	" N	INF	PT >	(3)	1/2"	FNPT (Long)
ľ	Body Material Code										
				(	)	AS	ΤN	1 A	108		
				9	3	AS	ΤN	1 A	479	-316 S	SS
				F	)	AS	ΤN	1 A	696°	*	
						Se	at	Ма	teri	al Co	de
							D	Αc	eta	l Resii	n (Standard)
							K	Ke	ŀ-F®	0	
							Р	Ре	ek®	)	
								Ste	em l	Packi	ng/Seal Code
								F	P	PTFE	(Below threads)
	V FKM O-Ring								)-Ring		
	V-							П		-	Options [pages 49-50]

## **Max Cv Ratings**

Straight Body Style .187" Orifice

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

\* Barstock equivalent of ASTM A105

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

#### HARD BALL SEAT: .187" Orifice

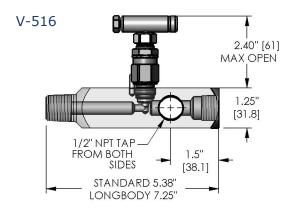
#### **Features**

PGI Standard 316 SS Ball Seat

#### **Benefits**

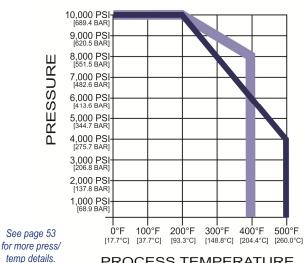
- Non-rotating ball eliminates seat galling and ball creasing
- Leak free, bubble tight seating
- Available in a variety of materials

#### Dimensions, inches [mm]



#### Pressure vs. Temperature

HARD SEAT PTFE ■ FKM

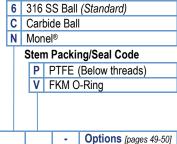


PROCESS TEMPERATURE

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							

#### **Part Number Selection**

В	as	se	Mc	del							
		Process x Instrument									
	١	/-	5	16	1/	/2" [	INPT	x (3) 1/2" FNPT (Standard)			
	١	/-	5	18	3/	/4" I	INPT	x (3) 1/2" FNPT (Standard)			
	١	/-	5	20	1/	/2" I	INPT	x (3) 1/2" FNPT (Long)			
	١	/-	5	32	2 3/4" MNPT x (3) 1/2" FNPT (Long)						
				E	Bod	ly N	ateria	I Code			
					С	A:	TM A	108			
	S ASTM A479-316 SS						479-316 SS				
		P ASTM A696*									
	Seat Material Code										
		6 316 SS Ball (Standard)									
	- 1										



Max Cv	Ratings
.187" Orifice	Straight Body Style
. I O I O I I I I C C	

V-

#### Approx. Valve Weight:

2.30 lbs. [1.04 kg] ea. (Standard) 3.00 lbs. [1.36 kg] ea. (Long)

\* Barstock equivalent of ASTM A105

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

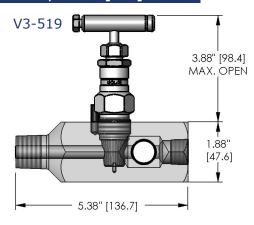
# SOFT SEAT: .375" Orifice Features

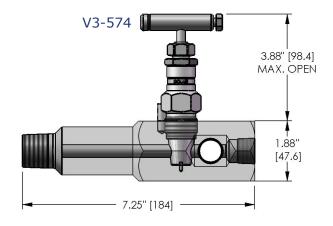
#### PGI Soft Cone Seat

#### **Benefits**

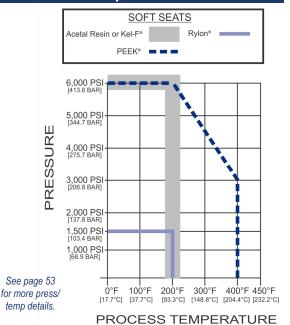
- Roddable straight-through design
- · Leak free, bubble tight seating
- Easily replaced
- Available in a variety of materials
- Bi-directional flow

#### **Dimensions, inches [mm]**





#### Pressure vs. Temperature



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						

#### **Part Number Selection**

_								
В	Base Model							
	V3-	5	17	1/2	" MN	IPT x (3	) 1/2"	FNPT (Standard)
	V3-	5	19	3/4	" MN	IPT x (3	) 1/2"	FNPT (Standard)
	V3-	5	73	1/2	" MN	IPT x (3	) 1/2" I	FNPT (Long)
	V3-	5	74					FNPT (Long)
	V3-	5	77				,	NPT (Standard)
			В			erial Co		
				_		M A108		
				-		M A479		25
					Sea	t Mater	iai Co	de
					D	Aceta	l Resir	n (Standard)
					K	Kel-F	®	
					Р	Peek	3	
					Т	Stem	Packi	ng/Seal Code
								(Below threads)
		V FKM O-Ring						
								1
	V3-						-	Options [pages 49-50]

# 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

- 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



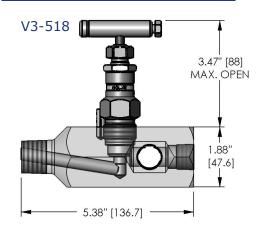
### • PGI Standard 316 SS Ball

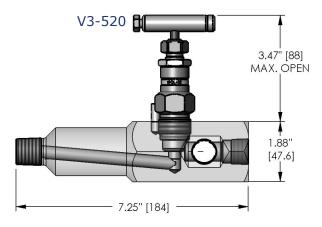
Seat

#### **Benefits**

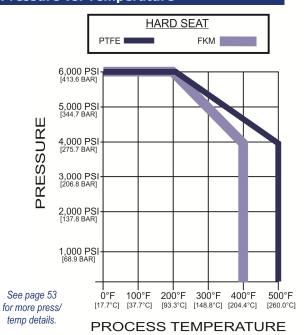
- Non-rotating ball eliminates seat galling and ball creasing
- Leak free, bubble tight seating
- · Available in a variety of materials

#### Dimensions, inches [mm]





#### Pressure vs. Temperature



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	

#### **Part Number Selection**

Base	М	odel								
V3-	5	16	1/	2"	ΛNF	rT c	x (3)	1/2" F	NPT (S	Standard)
V3-	5	18	3/	3/4" MNPT x (3) 1/2" FNPT (Sta				Standard)		
V3-	5	20	1/	2" N	ΛNF	PT :	x (3)	1/2" F	NPT (L	ong)
V3-	/3- 532 3/4" MNPT x (3) 1/2" FNPT (Long)				ong)					
	Body Material Code									
			С	AS	STN	ΛA	108			
			S	AS	STN	ΛA	479-	316 S	S	
			Р	AS	STN	ΛA	696*			
				S	eat	Ма	teria	al Cod	e	
					6	31	6 SS	Ball	Standa	ard)
					С	Ca	arbid	e Ball		
					N	М	onel®	0		
						Ste	em P	ackir	g/Seal	Code
						F	P	TFE (	Below t	threads)
				V FKM O-Ring						
V3-						Ι		-	Optio	ons [pages 49-50]

# 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)

- 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

<sup>\*</sup> Barstock equivalent of ASTM A105

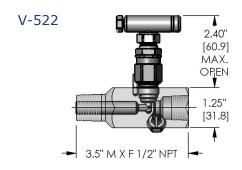
## HARD BALL SEAT: .187" Orifice **Features**

#### PGI Standard 316 SS Ball

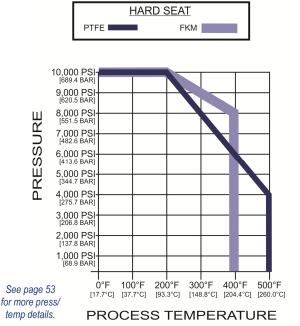
#### **Benefits**

- 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



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	

#### **Part Number Selection Base Model** Process x Instrument 1/2" MNPT x 1/2" FNPT V- 526 3/4" MNPT x 1/2" FNPT **Body Material Code** C ASTM A108 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

#### **Max Cv Ratings** Straight Body Style .187" Orifice

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

V-

\* Barstock equivalent of ASTM A105

#### Notes

 PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention

Options [pages 49-50]

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

# SOFT SEAT: .187" Orifice

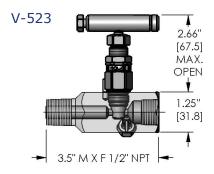
#### **Features**

#### PGI Soft Cone Seat

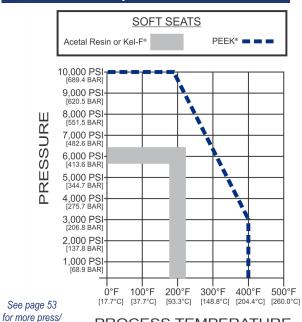
#### **Benefits**

- 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



PROCESS TEMPERATURE

Part	art Number Selection								
В	Base Model								
		Process x Instrument							
	V-	523	1	1/2" MNPT x 1/2" FNPT					
	V-	527	3	3/4" MNPT x 1/2" FNPT					
		Body Material Code							
			C	: /	٩S	TΜ	I A108		
			S	,	٩S	TΜ	I A479	-316 S	S
			Р	1	٩S	TΜ	I A696	*	
					Se	at	Materi	al Cod	de
					[	)	Aceta	l Resir	(Standard)
					ŀ	(	Kel-F	0	
					F	)	Peek®	)	
							Stem	Packir	ng/Seal Code
							PF	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**

Straight Body Style .187" Orifice

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

\* Barstock equivalent of ASTM A105

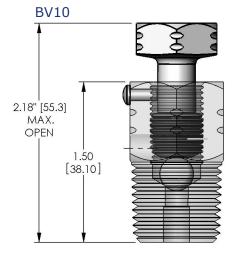
#### Notes

- 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

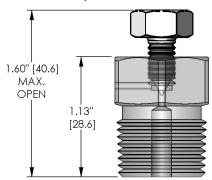
temp details.

# Bleeder Plugs

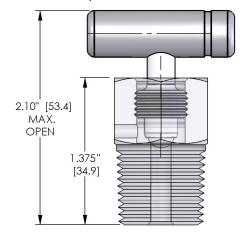
#### Dimensions, inches [mm]



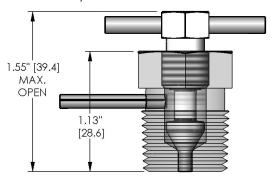
#### A7-525 /526



#### A7-521 /520



#### A7-528/529



#### **Part Number Selection**

#### Base Model

0	ase model			
		Connection	Seat Material	Other Material
	BV10N2	1/4" MNPT		Drive Screw 300 SS
	BV10N4	1/2" MNPT	Carbide Ball	Dilive Sciew 300 SS
	A7-520	1/2" MNPT	Carbide Ball	
	A7-521	1/4" MNPT		
	A7-525	1/4" MNPT		Bleed Screw 316 SS
	A7-526	1/2" MNPT	Integral Metal	bleed Sciew 310 33
	A7-528	1/4" MNPT	iiilegiai Melai	Bleed Tube 316 SS
	A7-529	1/2" MNPT		Diced Tube 310 33

#### **Body Material Code**

	,
10	ASTM A108
C0	ASTM A479-316 SS
	7

#### 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

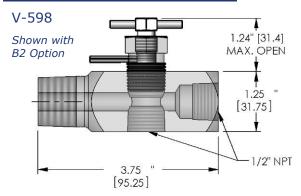
#### Approx. Valve Weight:

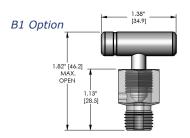
50 lbs. [22 kg] ea. (BV10N2/N4) .50 lbs. [.22 kg] ea. (A7-520/521) .30 lbs. [.13 kg] ea. (A7-525/526) .50 lbs. [.22 kg] ea. (A7-528/529)

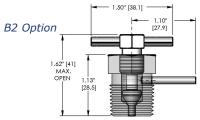
- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

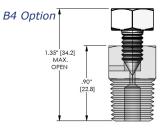
# Bleed "T" Valves

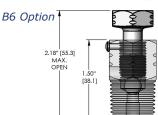
#### Dimensions, inches [mm]











#### **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)

#### **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)

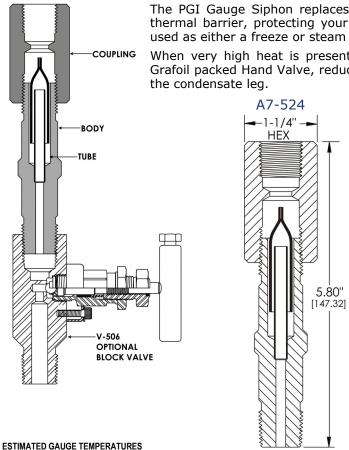
#### Pressure vs. Temperature

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

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

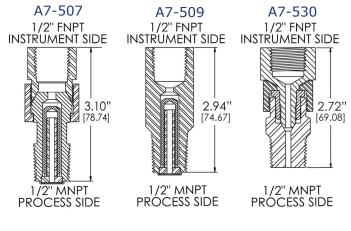


## **Gauge Siphons & Swivels**



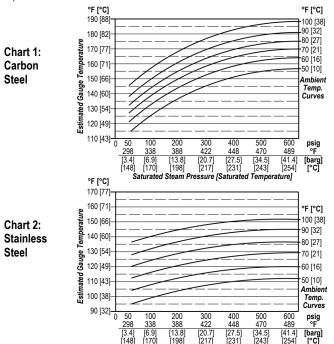
The PGI Gauge Siphon replaces the old style "Pigtail" siphon. The siphon provides a thermal barrier, protecting your instruments from harmful vapors. The siphon can be used as either a freeze or steam protector when used with the proper fill fluids.

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



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 & COS. 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.



11981

#### **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.

# HARD SEAT .187" ORIFICE

#### HARD BALL SEAT: .187" Orifice

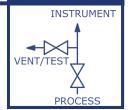


#### Features

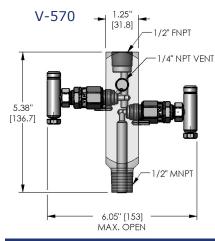
PGI Standard 316 SS Ball Seat

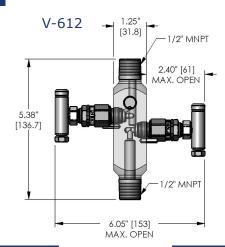
#### Benefits

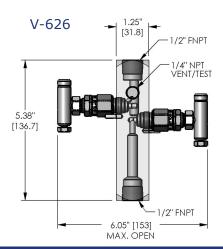
- Non-rotating ball eliminates seat galling and ball creasing
- · Leak free, bubble tight seating
- · Available in a variety of materials



#### **Dimensions, inches [mm]**

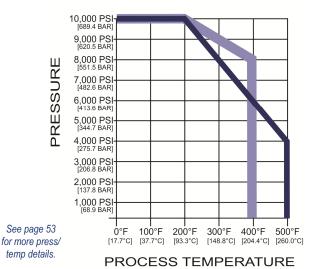






#### Pressure vs. Temperature





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					

#### **Part Number Selection**

#### Base Model

V-	5	70	1/2" MNPT x 1/2" FNPT x 1/4" NPT						
V-	5	72	3/	4" M	NPT x 1/2" FNPT x 1/4" NPT				
V-	6	12	1/:	2" M	NPT x 1/2" MNPT x 1/4" NPT				
V-	6	14	1/:	2" FN	NPT x 1/2" MNPT x 1/4" NPT				
V-	6	16	3/	4" M	NPT x 1/2" MNPT x 1/4" NPT				
V-	6	26	1/2" FNPT x 1/2" FNPT x 1/4" NPT						
		Body Material Code							
			С	C ASTM A108					
			S	S ASTM A479-316 SS					
			Р	P ASTM A696*					
				Seat Material Code					
				6 316 SS Ball (Standard)					
				(	Carbide Ball				

Process x Instrument x Vent

N | Monel®

Stem Packing/Seal Code
P | PTFE (Below threads)

V FKM O-Ring

Max Cv Ratings
.187" Orifice
Straight Body Style
.53

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

V-

#### Notes

 PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention

Options [pages 49-50]

- 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

# INSTRUMENT

**PROCESS** 

#### HARD BALL SEAT: .187" Orifice



VCH/VSH Bracket Shown for Reference Only

See Options Page 50

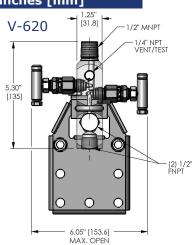
#### Features

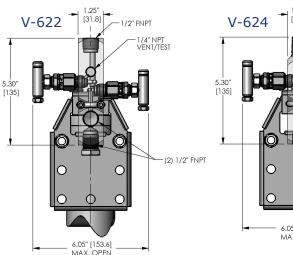
 PGI Standard 316 SS Ball Seat

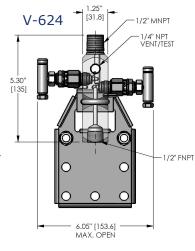
#### **Benefits**

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

#### Dimensions, inches [mm]

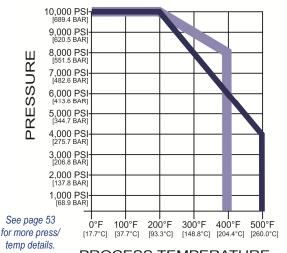






## Pressure vs. Temperature





#### PROCESS TEMPERATURE

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					

#### **Part Number Selection**

#### Base Model

3as	e M	ode	el								
				Pr	осе	ess	χ	Ins	trumer	nt x Vent	
٧	- (	620		(2	(2) 1/2" FNPT x 1/2" MNPT x 1/4" NPT Bracket Mount						
٧	- (	622		(2	) 1/	2" l	-NI	PT :	x 1/2"	FNPT x 1/4" NPT Bracket Mount	
٧	- (	624		1/	2" F	NF	T:	x 1/	2" MN	PT x 1/4" NPT Bracket Mount	
T			В	od	y M	late	ria	l C	ode		
				С	A۵	STN	ИΑ	108	3		
				S	A۶	STN	ИΑ	479	9-316	SS	
				Р	A۵	STN	ИΑ	696	3*		
	Seat Material Code										
						6	3	16 8	SS Bal	l (Standard)	
						С	С	arb	ide Ba	II	
						N	M	one	e ®		
							St	em	Packi	ng/Seal Code	
								Р	PTFE	(Below threads)	
	V FKM O-Ring										
٧	-						T		-	Options [pages 49-50]	

#### Max Cv Ratings

.187" Orifice	Straight Body Style
.107 Office	.53

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

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



# **Stabilized Block & Bleed Static Pressure Valves**

#### HARD SEAT .187" ORIFICE

# INSTRUMENT VENT/TEST PROCESS

#### HARD BALL SEAT: .187" Orifice



#### **Features**

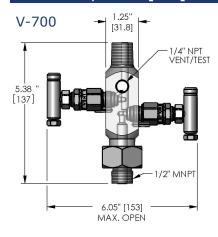
#### -eatures

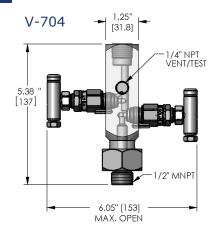
PGI Standard 316 SS *Ball* Seat

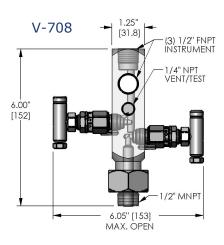
#### **Benefits**

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

#### **Dimensions, inches [mm]**

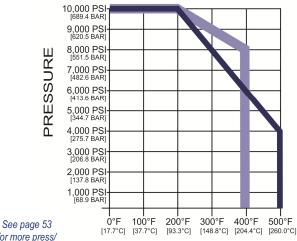






#### Pressure vs. Temperature





for more press/ temp details.

#### PROCESS TEMPERATURE

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						

#### **Part Number Selection**

#### **Base Model**

Process x Instrument x Vent										
۷-	. 7	00	1/.	1/2" MNPT x 1/2" MNPT x 1/4" NPT With						
۷-	. 7	04	1/.	2" N	ΛNF	T'	x 1/:	2" FNF	PT x 1/4" NPT	Stabilizer
۷-	. 7	08	1/:	2" N	ΛNF	T'	x (3	) 1/2" I	NPT x 1/4" NPT	Nut
	Body Material Code									
	C ASTM A108									
			S	AS	STM	۱A	479	-316 S	S	
			P	AS	STM	l A	696	*		
	Seat Material Code									
					6	31	6 S	S Ball	(Standard)	
					С			de Ball		
					N	Mo	one	®		
						Ste	em	Packii	ng/Seal Code	
						F	_	PTFE (	(Below threads)	
	V FKM O-Ring									
V-								-	Options [pages 49	9-50]

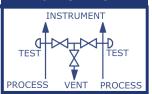
# Max Cv Ratings .187" Orifice Straight Body Style

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

- 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



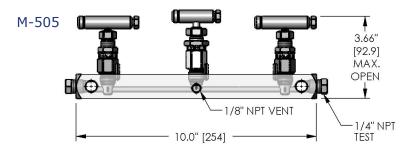
#### **Features**

 PGI Soft Cone Seat

#### **Benefits**

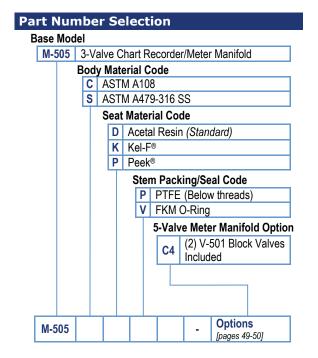
- Roddable straight-through design
- Leak free, bubble tight seating
- · Easily replaced
- Available in a variety of materials
- Bi-directional flow

#### **Dimensions, inches [mm]**



#### Pressure vs. Temperature SOFT SEATS Acetal Resin or Kel-F® PEEK® ■ ■ 10,000 PSI-9.000 PSI 8,000 PSI 7,000 PSI 6,000 PSI 5,000 PSI [344.7 BAR] 4,000 PSI [275.7 BAR] 3,000 PSI [206.8 BAR] 2,000 PSI [137.8 BAR] 1,000 PSI 200°F 300°F 400°F 500°F 0°F 100°F See page 53 [17.7°C] [37.7°C] [93.3°C] [148.8°C] [204.4°C] [260.0°C] for more press/ temp details. PROCESS TEMPERATURE

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

- 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**

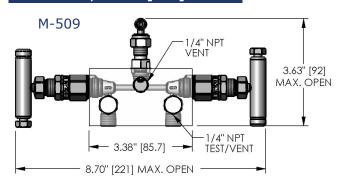
PGI Soft Cone Seat

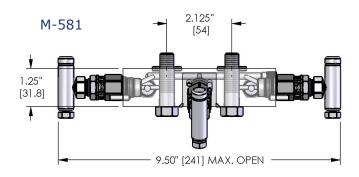
#### **Benefits**

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

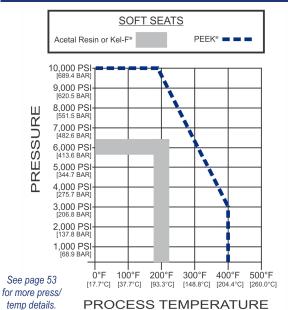
# INSTRUMENT TEST PROCESS VENT PROCESS

#### Dimensions, inches [mm]





#### **Pressure vs. Temperature**



Part No	umber S	election
---------	---------	----------

ase	Mode	l							
	Process x Instrument x Vent/Test								
M-	509	1/4	" FN	PT x	1/4"	FNPT	x 1/4" FNPT		
M-	581	1/4	1/4" FNPT x Flange x 1/4" FNPT						
	Body Material Code								
		С	AS	TM A	108				
		S	AS <sup>°</sup>	TM A	479	316 S	S		
			Sea	at Ma	ateria	al Cod	е		
			0	A	cetal	Resin			
			K	K	el-F®				
			P	P	eek®				
				5	Stem	Packi	ng/Seal Code		
					Р	PTFE	(Below threads)		
					٧	FKM C	)-Ring		
							0.4		
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

- 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

# INSTRUMENT PURGE X X PURGE PROCESS

#### HARD BALL SEAT: .187" Orifice



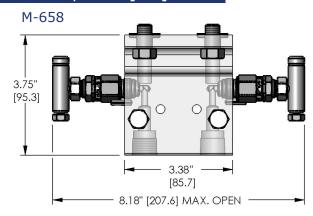
#### Features

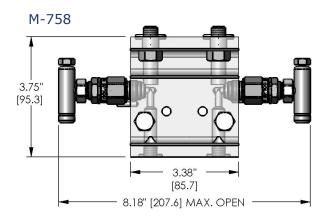
 PGI Standard 316 SS Ball Seat

#### **Benefits**

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

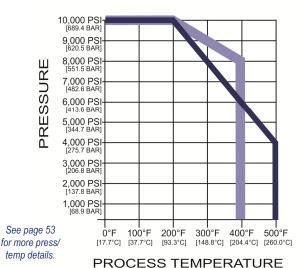
#### **Dimensions, inches [mm]**





#### **Pressure vs. Temperature**





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				

#### **Part Number Selection**

В	ase	Mc	odel				
				Process x Instrument x Purge			
	M-	6	58	1/2" FNPT x Flange x (2) 1/4" NPT			
	M-	7	58	Flange x Flange x (2) 1/4" NPT			
	Body Material Code						

C ASTM A108

# P ASTM A696\* Seat Material Code 6 316 SS Ball (Standard)

C Carbide Ball

ASTM A276-316 SS

N Monel®

Stem Packing/Seal Code

P PTFE (Below threads)
V FKM O-Ring

Max Cv Ratings

Straight Body Style

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

M-

\* Barstock equivalent of ASTM A105

#### Notes

 PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention

Options [pages 49-50]

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



### SOFT SEAT: .187" Orifice



• PGI Soft Cone Seat

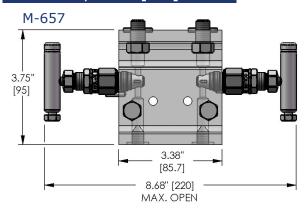
#### **Benefits**

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

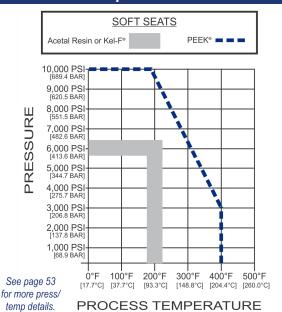
# INSTRUMENT PURGE X X PURGE PROCESS

**SOFT SEAT** 

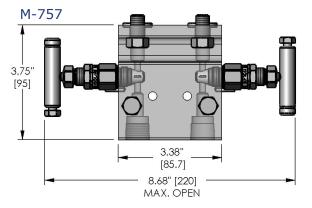
#### **Dimensions, inches [mm]**



#### Pressure vs. Temperature



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				



#### **Part Number Selection**

ase	Mode	) I								
	Process x Instrument x Purge									
M-	657	1/2'	' FN	IPT	x Fla	ang	je x (2	) 1/4" FNPT		
M-	757	Flai	nge	хF	lang	e x	(2) 1/-	4" FNPT		
	Body Material Code									
	C ASTM A108									
		S	AS	STM	1 A27	76-	316 S	S		
		Р	AS	STM	1 A69	96*				
		T	S	eat	Mate	eria	al Cod	le		
				D	Ace	tal	Resin			
				K	Kel-	۰F®				
				Р	Pee	k®				
					Ster	n F	ackin	g/Seal Code		
					Р	Р	TFE (	Below threads)		
					٧	F	KM O	-Ring		
M-			Т		т		-	Options (pages 49-50		

Max Cv Ratings					
.187" Orifice	Straight Body Style				
.107 Office	.83				

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

\* Barstock equivalent of ASTM A105

- 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

**Benefits** 

#### HARD SEAT .187" ORIFICE

#### HARD BALL SEAT: .187" Orifice

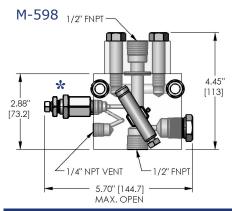


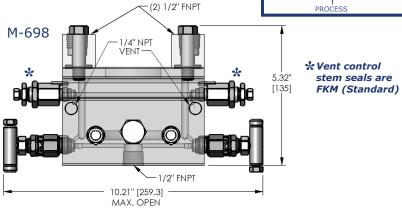
#### Features

- PGI Standard 316 SS Ball Seat
- Non-rotating ball eliminates seat galling and ball creasing
- Leak free, bubble tight seating
- · Available in a variety of materials

# M-598 VENT/TEST PURGE PROCESS M-698 INSTRUMENT VENT/TEST PURGE VENT/TEST PROCESS

#### Dimensions, inches [mm]

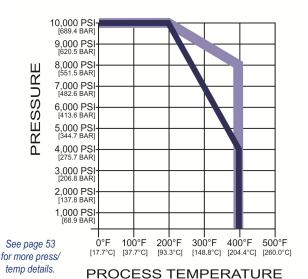




#### Pressure vs. Temperature

Handle Assembly





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			

ASTM A108

ASTM A108

#### Part Number Selection

а	art Number Selection									
В	Base Model									
	M-	59	8	Single Instru				ent		NPT x 1/2" FNPT with 1/4" and 1/2" Purge Connections
	M-	69	8	Dual Instruments						Instrument Adapter Available)
	Т		E	Body	y M	later	ial	Cod	е	
				С	ΑS	STM	Α1	08		
				S	ΑS	STM	31	6 SS	;	
				Р	A۶	STM	Α6	96*		
				T :	Se	at Ma	ate	rial (	Code	
					6	3	16	SS E	Ball (Sta	andard)
					(	C	arb	ide E	Ball	
					N	M M	one	el®		
						St	em	Pac	king/S	Seal Code
							2	PTF	E (Bel	ow threads)
						'	/	FKN	1 O-Rir	ng
							٧	ent \	Valve(	s) Seal Material Options
				-C				-C\	/SCF	Fluorosilicone O-Ring
						-C'			/SCG	Grafoil® Packed
				-C			-C\	/SCP	PTFE Packed	
	M-		Т			Т		-	Opt	tions [pages 49-50]
			_							

## Max Cv Ratings Straight Body Style

.187" Orifice Straight Body Style .53
Approx. Manifold Weight:

**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

300 Series SS



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

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

# INSTRUMENT VENT/TEST PROCESS

#### HARD BALL SEAT: .125" Orifice



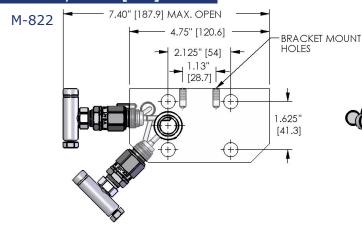
#### **Features**

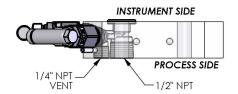
PGI Standard 316 SS Ball Seat

#### **Benefits**

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

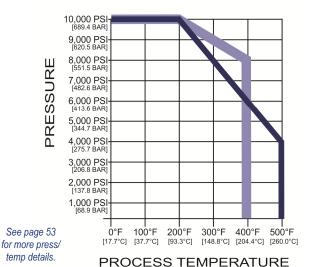
#### Dimensions, inches [mm]





#### Pressure vs. Temperature





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				

#### **Part Number Selection**

Process x Instrument x Vent/Test  M-822 1/2" FNPT x Flange x 1/4" NPT									
M-822 1/2" FNPT x Flange x 1/4" NPT									
Body Material Code									
S ASTM A479-316 SS									
P ASTM A696*									
Seat Material Code									
6 316 SS Ball (Standard)									
C Carbide Ball									
N Monel®									
Stem Packing/Seal Cod	е								
P PTFE (Below thread	ds)								
V FKM O-Ring									
M-822 - Options [pag	jes 49-50]								

#### Max Cv Ratings

.125" Orifice Straight Body Style

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

\* Barstock equivalent of ASTM A105

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



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



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



#### **Features**

PGI "Washer" Seat

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

# INTEGRAL METAL TO METAL SEAT: .136" Orifice

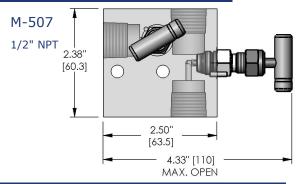
#### **Features**

PGI Integral Metal Seat

#### **Benefits**

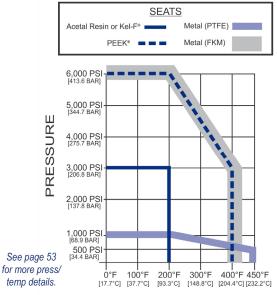
- Throttling and shut-off design
- Interchangeable between soft or metal seats

#### **Dimensions, inches [mm]**



### M-508 1/4" NPT | 2.81" [71.4] **BRACKET** MOUNTING HOLES 1.00" [25.4] 2.25" [57.1]

#### Pressure vs. Temperature



#### **Part Number Selection**

#### **Base Model**

	Process x Instrument x Vent						
M-	507	1/2"	FNF	PT x 1/2" FNPT x 1/2" FNPT			
M-	508	1/4"	FNF	PT x 1/4" FNPT x 1/4" NPT			
	E	Body N	/late	erial Code			
		CA	STN	M A108			
		SA	STN	M A479-316 SS			
Seat Material Code							
			M	Integral Metal (Standard)			
			D	Acetal Resin (Standard)			
			K	Kel-F®			
			Р	Peek®			
				Stem Packing/Seal Code			
				T PTFE (Below threads)			
				V FKM O-Ring			
M-				- Options [pages 49-50]			

#### PROCESS TEMPERATURE

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

Straight Body Style .136" Orifice .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

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



#### HARD BALL SEAT: .187" Orifice



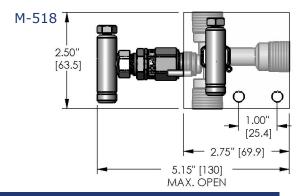
#### **Features**

PGI Standard 316 SS Ball Seat

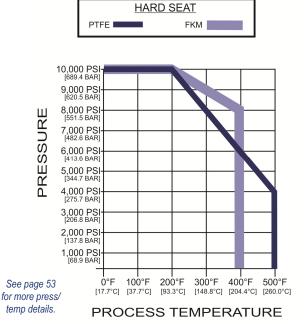
#### **Benefits**

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

#### Dimensions, inches [mm]



#### Pressure vs. Temperature



Materials of C	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							

#### **Part Number Selection**

Base Model									
M-518	1/2	2" FNF	Γ x 1/2" NPT						
	Body Material Code								
	С	C ASTM A108							
	S	S ASTM A479-316 SS							
	Р	AST	M A69	ô*					
		Sea	t Mate	rial Co	de				
		6	316	SS Ball	(Standard)				
		С	Carb	ide Bal	l				
		N	Mone	el®					
			Stem	Packi	ng/Seal Code				
			Р	PTFE	(Below threads)				
			٧	FKM C	)-Ring				
M-518				-	Options [pages 49-50]				

#### **Max Cv Ratings**

.187" Orifice Straight Body Style
.53

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

\* Barstock equivalent of ASTM A105

- 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



#### SOFT SEAT: .187" Orifice



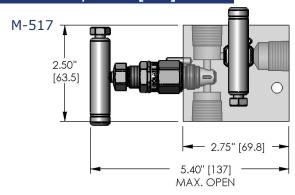
#### Features

PGI Soft Cone Seat

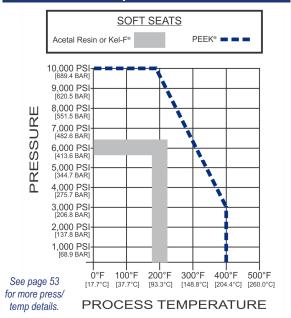
#### **Benefits**

- 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**



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					

#### 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]							

Max Cv Ratings					
.187" Orifice	Straight Body Style				
.107 Office	.83				

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

\* Barstock equivalent of ASTM A105

- 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

# INSTRUMENT VENT/TEST **PROCESS**

#### HARD BALL SEAT: .187" Orifice



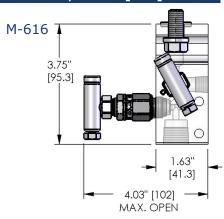
#### **Features**

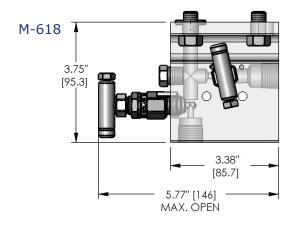
PGI Standard 316 SS Ball Seat

#### **Benefits**

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

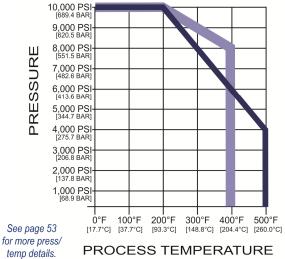
#### Dimensions, inches [mm]





**Part Number Selection** 

#### **Pressure vs. Temperature HARD SEAT** PTFE ■ FKM



	Process x Instrument x Vent					
M-	6	16	1/:	2"	FNPT x Flange x 1/4" NPT	
M-	6	18	1/:	2"	FNPT x Flange x 1/2" NPT	
	Body Material Code					
			C	;	ASTM A108	
		S ASTM A276-316 SS				
			P	)	ASTM A696*	
					Seat Material Code	

**Base Model** 

#### 4696\* Material Code 6 316 SS Ball (Standard) Carbide Ball N Monel® Stem Packing/Seal Code P PTFE (Below threads) V FKM O-Ring

Flange x 1/4" NPT Slim Body Flange x 1/2" NPT Standard Body

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 Straight Body Style

M-

.187" Orifice

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**

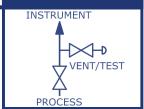
PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention

Options [pages 49-50]

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



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



#### SOFT SEAT: .187" Orifice



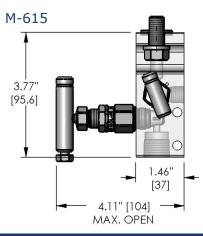
#### Features

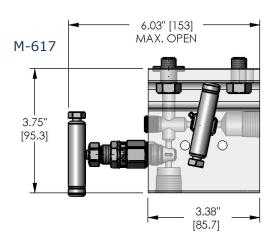
PGI Soft Cone Seat

#### **Benefits**

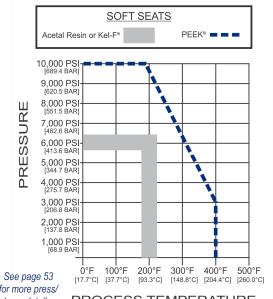
- Roddable straight-through design
- · Leak free, bubble tight seating
- Easily replaced
- Available in a variety of materials
- Bi-directional flow

#### **Dimensions, inches [mm]**





#### Pressure vs. Temperature



ASTM A108

Handle Assembly

See page 53 [1] for more press/		00°F 400°F 500°F 48.8°C] [204.4°C] [260.0°C]	
Materials of	Construction		
Part	Carbon Steel	A696 Carbon Steel*	316 Stainless Steel
Part Body / Bonnet	ASTM A108	A696 Carbon Steel* ASTM A696 Gr.C	ASTM A276-316
Body / Bonnet	ASTM A108	ASTM A696 Gr.C	ASTM A276-316
Body / Bonnet Packing "P" / "V"	ASTM A108 PTFE/FKM O-Ring	ASTM A696 Gr.C PTFE/FKM O-Ring	ASTM A276-316 PTFE/FKM O-Ring
Body / Bonnet Packing "P" / "V" Stem	ASTM A108 PTFE/FKM O-Ring ASTM A479-316	ASTM A696 Gr.C PTFE/FKM O-Ring ASTM A479-316	ASTM A276-316 PTFE/FKM O-Ring ASTM A479-316

ASTM A108

#### **Part Number Selection**

В	ase	Mc	del								
		Process x Instrument x Vent									
	M-	6	15	1/2	1/2" FNPT x Flange x 1/4" NPT Slim Body						
	M-	6	17	1/2	1/2" FNPT x Flange x 1/2" NPT Standard Body						
		Body Material Code									
				C	Α	STM A	A108				
				S	Α	STM A	A276-316 SS				
				P	Α	STM A	<del>\</del> 696*				
					S	eat M	aterial Code				
						D A	cetal Resin (Standard)				
						K K	el-F®				
						P P	eek®				
						St	tem Packing/Seal Code				
		P PTFE (Below threads)									
	V FKM O-Ring										

Max Cv Ratings				
.187" Orifice	Straight Body Style			
.107 Office	.83			
Annroy Manifold Waights				

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

M-

\* Barstock equivalent of ASTM A105

#### Notes

 PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention

Options [pages 49-50]

- 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

300 Series SS



# 2-Valve Block & Bleed Static Pressure Manifolds

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



#### HARD BALL SEAT: .187" Orifice



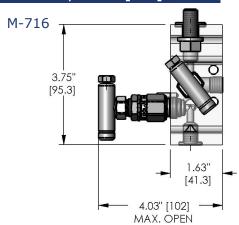
#### **Features**

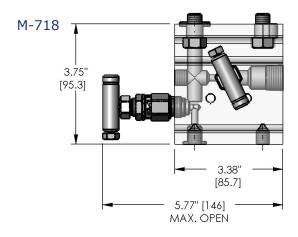
PGI Standard 316 SS Ball Seat

#### **Benefits**

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

#### **Dimensions**, inches [mm]

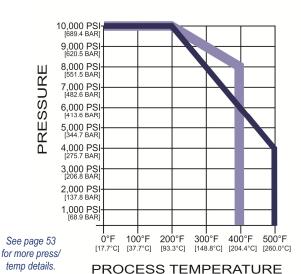




**Base Model** 

#### **Pressure vs. Temperature**





Materials	of Construction		
art	Carbon Steel	A696 Carbon Steel*	316 Sta

riaterials of constituction						
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			

#### **Part Number Selection**

ast	2 IAIA	Juei							
Process x Instrument x Vent									
M-	- 7	'16	Flange x Flange x 1/4" NPT Slim Body						
M-	- 7	'18	Flange x Flange x 1/2" NPT Standard Body						
	Body Material Code								
			С	C ASTM A108					
			S ASTM A276-316 SS						
			P ASTM A696*						
	Seat Material Code								
			6 316 SS Ball (Standard)						
			C Carbide Ball				I		
				N Monel®					
				Stem Packing/Seal Code					
							Р	PTFE	(Below threads)
							۷	FKM C	D-Ring
M-				Т		Т		-	Options [pages 49-50]

Max	Cv	Ratings

.187" Orifice	Straight Body Style	
.107 Office	.53	

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

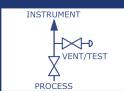
\* Barstock equivalent of ASTM A105

- 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



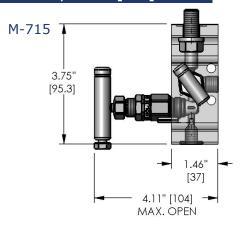
#### Features

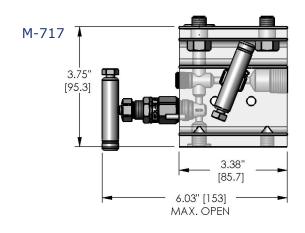
PGI Soft Cone Seat

#### **Benefits**

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

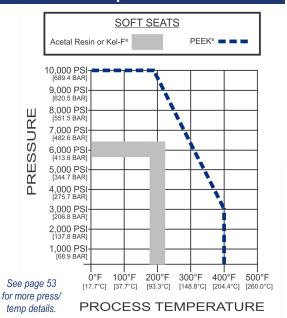
#### **Dimensions, inches [mm]**





**Base Model** 

#### **Pressure vs. Temperature**



Dart	MILIPA	bor So	action
rait	V 1 . I I I I		ection

	Proc	ess .	x Instr	ument	x Vent					
715	Flang	Flange x Flange x 1/4" NPT Slim Body								
717	Flang	Flange x Flange x 1/2" NPT Standard Body								
Body Material Code										
C ASTM A108										
<b>S</b> ASTM A276-316 SS										
	P /	ASTI	Л A696	j*						
		Seat	Mater	ial Co	de					
		D	Aceta	l Resir	n (Standard)					
		K	Kel-F	®						
		Р	Peek	®						
			Stem	Packi	ng/Seal Code					
			Р	PTFE	(Below threads)					
			۷	FKM C	)-Ring					
			Т	-	Options [pages 49-50]					
	1.10	715 Flang 717 Flang Body C / S / P /	715 Flange x F 717 Flange x F  Body Mate C ASTM S ASTM P ASTM Seat D K	715 Flange x Flange 717 Flange x Flange  Body Material Co C ASTM A108 S ASTM A276 P ASTM A696  Seat Mater D Aceta K Kel-F P Peek	717 Flange x Flange x 1/2"  Body Material Code  C ASTM A108 S ASTM A276-316 S P ASTM A696*  Seat Material Co D Acetal Resir K Kel-F® P Peek®  Stem Packi					

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

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

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



#### SOFT "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



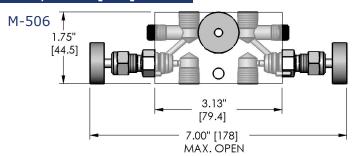
#### PGI Integral

Metal Seat

#### **Benefits**

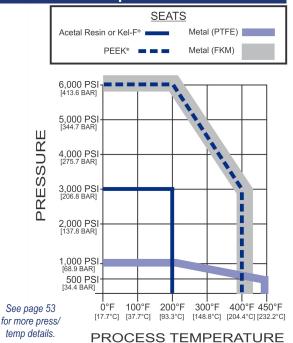
- · Throttling and shut-off design
- Interchangeable between soft or metal seats

#### **Dimensions, inches [mm]**



Note Regarding Han	dle Types:
Soft Seated Valves	CS or SS Round Handles as Standard
Hard Seat Valves	CS or SS Bar Handles as Standard

#### **Pressure vs. Temperature**



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								

#### **Part Number Selection**

ase Mode								
	Inlet x Outlet							
M-506	1/4" FNPT x 1/4" FNPT							
	Body Material Code							
	C ASTM A108							
	<b>S</b> 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]							

#### **Max Cv Ratings**

Straight Body Style .136" Orifice .25 = Integral Metal Seat .22 = Soft Washer

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

- 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



#### • PGI Standard 316 SS Ball

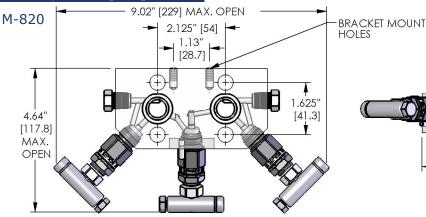
Seat

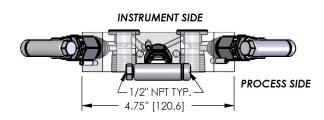
#### **Benefits**

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



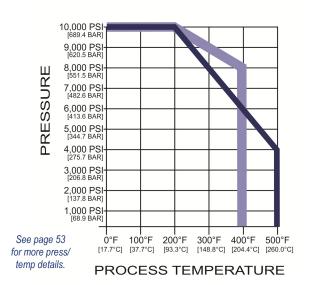
#### Dimensions, inches [mm]





#### Pressure vs. Temperature





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					

#### **Part Number Selection**

В	ase	Mod	el							
	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									
			F	)	AS	TΝ	I A6	96	*	
					Sea	at I	Mat	eri	al Co	de
					6	;	316	S	S Ball	(Standard)
					C	;	Са	rbic	de Ball	
					Ν	ı	Мо	nel	®	
							Ste	em	Packi	ing/Seal Code
							F	)	PTFE	(Below threads)
							١	/	FKM (	O-Ring
	M-	820								Options [pages 49-50]

# Max Cv Ratings .125" Orifice Straight Body Style .25

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

\* Barstock equivalent of ASTM A105

- 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 SEAT .187" ORIFICE

# INSTRUMENT VENT/TEST PROCESS

#### HARD BALL SEAT: .187" Orifice



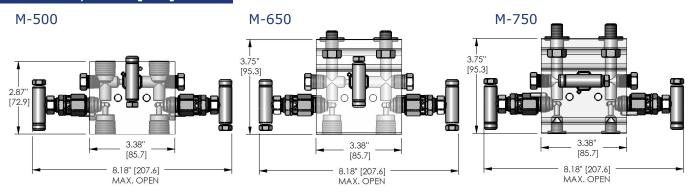
#### **Features**

PGI Standard 316 SS Ball Seat

#### **Benefits**

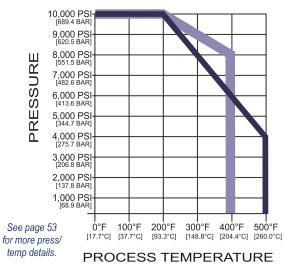
- Non-rotating ball eliminates seat galling and ball creasing
- Leak free, bubble tight seating
- · Available in a variety of materials

#### Dimensions, inches [mm]



#### Pressure vs. Temperature





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					

#### **Part Number Selection**

	-	ш	ш	<b>U</b> .	<b>-</b>	<u> </u>	4	911			
В	ase	Мс	de	I							
	Process x Instrument x Vent										
	M-	50	0	1	/2" F	2" FNPT x 1/2" FNPT x 1/4" FNPT					
	M-	65	0 ¤	1	/2" F	NΡ	Τx	Fla	nge	Х	1/4" FNPT
	M-	75	0 ¤	F	lange	э х	Fla	inge	e x 1/	4	" FNPT
	Body Material Code										
				С	AS	ΤM	I A	108			
				S	AS	TM	ΙA	479	-316	S	SS
				3	ASTM A276-316 SS ¤						
				Р	P   ASTM A696*						
					Se	at	Ma	ter	al C	00	de
						6	31	6 S	S Ba	III	(Standard)
						С	Ca	ırbi	de Ba	all	
						N	М	one	®		
							Ste	m	Pack	(ir	ng/Seal Code
							F	P	PTFE	: (	(Below threads)
				V FKM O-Ring					-Ring		
	B.4										Outland to the
	M-								-		Options [pages 49-50]

# Max Cv Ratings .187" Orifice Straight Body Style

**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

- 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 SEAT .375" ORIFICE

#### HARD BALL SEAT: .375" Orifice



#### Features

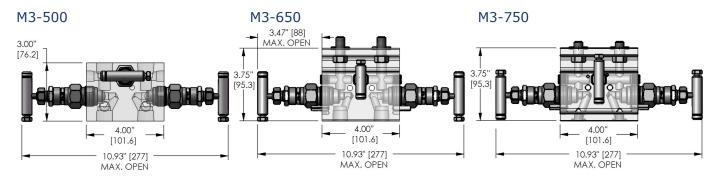
PGI Standard 316 SS Ball Seat

#### **Benefits**

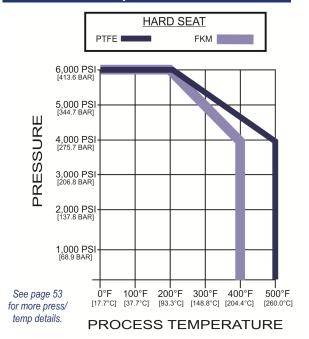
- Non-rotating ball eliminates seat galling and ball creasing
- · Leak free, bubble tight seating
- · Available in a variety of materials

# INSTRUMENT M3-500 PURGE PROCESS INSTRUMENT M3-650 M3-750 PROCESS

#### Dimensions, inches [mm]



#### Pressure vs. Temperature



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					

#### **Part Number Selection**

3	ase	Mo	del								
	Process x Instrument x Vent										
ľ	М3	- 50	0	1/	'2" F	NPT	x 1/2	2" FN	IPT x 1/4" NPT		
ľ	М3	- 65	0 ¤	1/	'2" F	NPT	x Fla	ange	x 1/4" FNPT		
ľ	М3	- 75	0 ¤	FI	ang	e x f	lange	e x 1.	/4" NPT		
			E	Bod	y M	ateri	al Co	de			
				С	AS	TM	A108				
				s	AS	MT	A479	-316	SS		
				၁	AS	MT	A276	-316	SS ¤		
				Р	AS	MT	M A696*				
					S	at N	lateri	al Co	ode		
						6 3	16 S	S Ba	II		
						C	Carbide Ball				
						N N	Monel®				
						S	tem l	Pack	ing/Seal Code		
							P F	TFE	(Below threads)		
							V FKM O-Ring				
						'					
Ī	M3	-			Т	Н		-	Options [pages 49-50]		

Max Cv	Ratings
375" Orifice	Straight Body Style
1010 0111100	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)

- 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

<sup>\*</sup> Barstock equivalent of ASTM A105



#### SOFT SEAT .187" ORIFICE

# VENT/TEST VENT/TEST PROCESS

#### SOFT SEAT: .187" Orifice



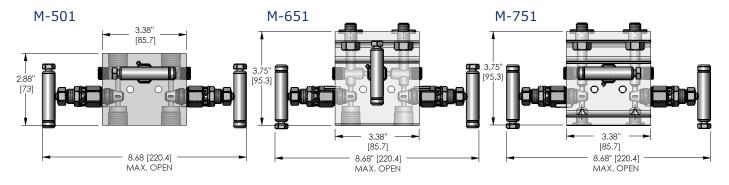
#### **Features**

PGI Soft Cone Seat

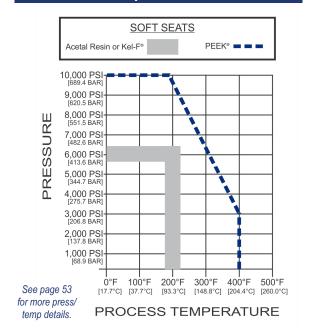
#### **Benefits**

- 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**

_				
Rase	М	nn	اما	

Process x Instrument x Vent									
M-	501		1/	/2" FNPT x 1/2" FNPT x 1/4" NPT					
M-	651	n	1/	/2" I	FNP	ΤxF	lange	x 1/4" FNPT	
M-	751	n	F	lanç	де х	Flan	ge x 1/	4" NPT	
		В	od	y N	latei	rial C	ode		
			С	A	STM	A10	8		
			s	A	STM	A47	9-316	SS	
			3	A	STM	A27	6-316	SS ¤	
			Р	ASTM A696*					
				S	eat l	Mate	rial Co	ode	
					D	Aceta	al Resi	in (Standard)	
					K	Kel-F	®		
					Р	Peek	®		
					;	Stem	Pack	ing/Seal Code	
	P PTFE (Below threads)							(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

#### 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)

- 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

<sup>\*</sup> Barstock equivalent of ASTM A105



# SOFT SEAT .375" ORIFICE

#### SOFT SEAT: .375" Orifice



#### **Features**

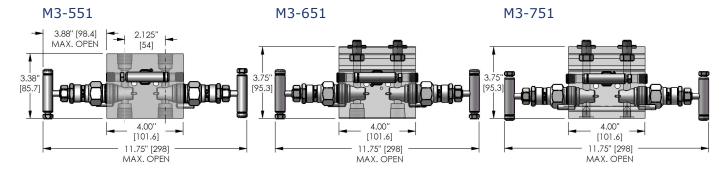
PGI Soft Cone Seat

#### **Benefits**

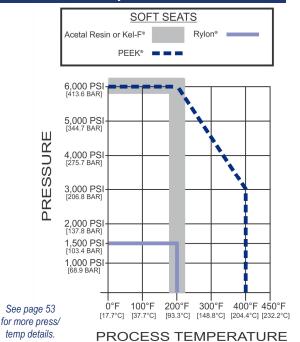
- Roddable straight-through design
- · Leak free, bubble tight seating
- · Easily replaced
- Available in a variety of materials
- Bi-directional flow

# INSTRUMENT M3-551 PURGE ( D) PROCESS INSTRUMENT M3-651 M3-751 PROCESS

#### Dimensions, inches [mm]



#### Pressure vs. Temperature



Part Num	ber Se	lection
----------	--------	---------

В	ase Model									
	Process x Instrument x Vent									
	M	3-	55	1	1	1/2" FNPT x 1/2" FNPT x 1/4" NPT				
	M	3-	65°	1 ¤	1	/2" I	FNI	PT x Flange x 1/4" FNPT		
	M	3-	75°	1 ¤	F	lanç	ge x	x Flange x 1/4" NPT		
				Е	Boc	ly N	late	erial Code		
					С	A:	STI	M A108		
					s	ASTM A479-316 SS				
					3	ASTM A276-316 SS ¤				
					Р	ASTM A696*				
						S	eat	: Material Code		
							L	Rylon™ (Standard)		
					D	Acetal Resin				
					K	Kel-F®				
					Р	Peek®				
								Stem Packing/Seal Code		

٧

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				
	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)

M3-

#### **Notes**

FKM O-Ring

PTFE (Below threads)

 PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention

Options [pages 49-50]

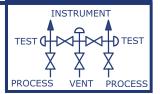
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

<sup>\*</sup> Barstock equivalent of ASTM A105



## 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



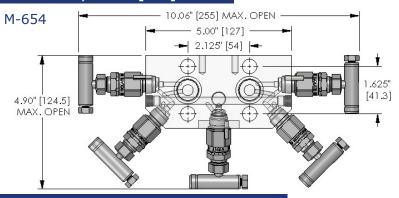
#### **Features**

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

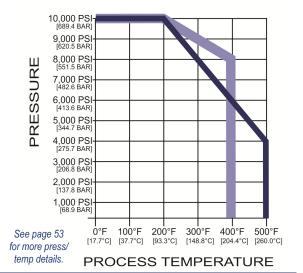
#### Dimensions, inches [mm]



# INSTRUMENT SIDE PROCESS SIDE

#### Pressure vs. Temperature





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					

300 Series SS

ASTM A108

#### **Part Number Selection**

Base Mode	I									
	Process x Instrument x Vent/Test									
M-654	54 1/2" FNPT x Flange x 1/4" NPT									
Е	Body Material Code									
	<b>S</b> 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]									

#### Max Cv Ratings

.125" Orifice Straight Body Style

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

\* Barstock equivalent of ASTM A105

#### Notes

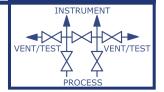
- PGI Carbon Steel products are Alkaline Zinc plated for corrosion prevention
- PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3
- 100% Pressure Tested
- Carbon Steel Weld End Connection Bodies are ASTM A696 Gr.C

Handle Assembly



### 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



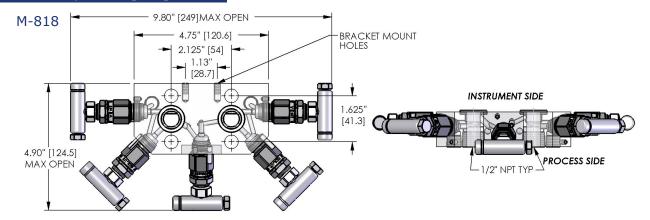
#### **Features**

 PGI Standard 316 SS Ball Seat

#### **Benefits**

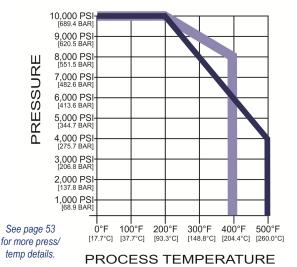
- Non-rotating ball eliminates seat galling and ball creasing
- · Leak free, bubble tight seating
- · Available in a variety of materials

#### **Dimensions, inches [mm]**



#### Pressure vs. Temperature





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					

#### **Part Number Selection**

В	ase	Mod	el									
			Pro	осе	SS )	(In	strı	um	ent x	١.	/ent/Test	
	M-8	M-818 1/2" FNPT x Flange x 1/4" NPT										
		Body Material Code										
		S ASTM A479-316 SS										
				Р	AS <sup>-</sup>	ГΜ	Α6	96	*			
		Seat Material Code										
					6	;	316	S	S Ba	II	(Standard)	
					C	;	Caı	bic	le Ba	all		
					N	Monel®						
						Stem Packing/Seal Code						
							P PTFE (Below threads)					
							١	/	FKM	C	)-Ring	
	M-	818							-		Options [pages 49-50]	
			-							_		

#### Max Cv Ratings

.125" Orifice Straight Body Style

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

\* Barstock equivalent of ASTM A105

- 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



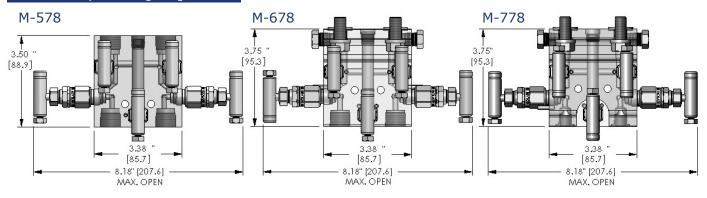
#### **Features**

# PGI Standard 316 SS Ball Seat

#### **Benefits**

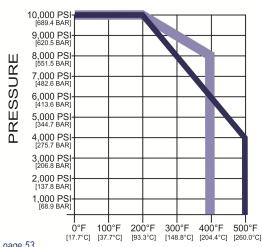
- Non-rotating ball eliminates seat galling and ball creasing
- · Leak free, bubble tight seating
- · Available in a variety of materials

#### Dimensions, inches [mm]



#### Pressure vs. Temperature





See page 53 for more press/temp details.

PROCESS TEMPERATURE

<b>Part Num</b>	ber Se	lection

#### **Base Model**

	Process x Instrument x Vent												
M-	578	1/	2"	FΝ	NPT x 1/2" FNPT x 1/4" NPT								
M-	678 ¤ 1/2" Fi				PT x Flange x 1/4" FNPT								
M-	778 ¤	lang	ange x Flange x 1/4" NPT										
	E	od	y N	late	erial Code								
		С	A	STI	M A108								
			A:	STI	M A479-316 SS								
		S	A:	STI	M A276-316 SS ¤								
		Р	A:	STI	M A696*								
	Seat Material Code												
				6	316 SS Ball (Standard)								
				С	Carbide Ball								
				N	N Monel®								
					Stem Packing/Seal Code								
					P PTFE (Below threads)								
					V FKM O-Ring								
M-			Ι		- 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

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

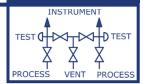
\* Barstock equivalent of ASTM A105

- 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



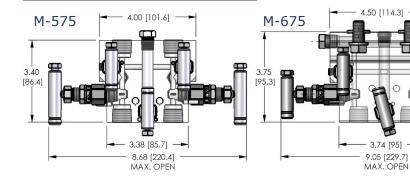
#### Features

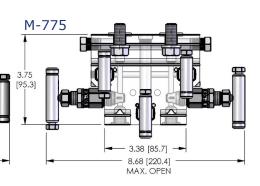
 PGI Soft Cone Seat

#### **Benefits**

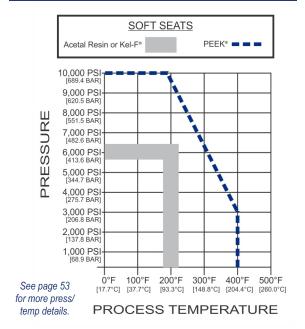
- Roddable straight-through design
- Leak free, bubble tight seating
- Easily replaced
- · Available in a variety of materials
- Bi-directional flow

#### Dimensions, inches [mm]





#### Pressure vs. Temperature



#### **Part Number Selection**

#### **Base Model**

	Process x Instrument x Vent											
M-	57	5	1	/2" FNPT x 1/2" FNPT x 1/4" NPT								
M-	67	5 ¤	1	/2" FNPT x Flange x 1/4" FNPT								
M-	77	5 ¤	F	lange x Flange x 1/4" FNPT								
		В	od	у Ма	terial Code							
			С	AS	TM A108							
			s	AS	TM A479-316 SS							
			3	AS	STM A276-316 SS ¤							
			Р	ASTM A696*								
	Seat Material Code											
					Acetal Resin (Standard)							
				K	Kel-F®							
				F	Peek®							
					Stem Packing/Seal Code							
					P PTFE (Below threads)							
					V FKM O-Ring							
M-				$\Box$	- <b>Options</b> [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

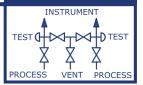
#### Approx. Manifold Weight:

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)

- 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



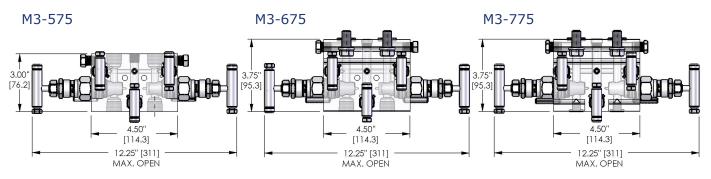
#### Features

 PGI Soft Cone Seat

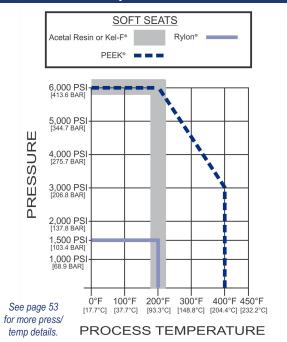
#### **Benefits**

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

#### Dimensions, inches [mm]



#### **Pressure vs. Temperature**



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								

#### **Part Number Selection**

#### Base Model

ט	asc	IVIO	uei										
		Process x Instrument x Vent											
	M3-	57	5	1/	1/2" FNPT x 1/2" FNPT x 1/4" NPT								
	M3-	67	5 ¤	1/	1/2" FNPT x Flange x 1/4" FNPT								
	M3-	77	5 ¤	FI	lang	је х	Flange x 1/4" NPT						
			В	od	ody Material Code								
				С			1 A108						
					AS	STN	1 A479-316 SS						
				S	AS	STN	1 A276-316 SS ¤						
				Р	AS	STN	1 A696*						
				T	Se	eat Material Code							
						L	Rylon™ (Standard on Block Valves)						
						D	Acetal Resin (Standard on Equalizer & Vent Valves)						
						K	Kel-F®						
						Р	Peek®						
							Stem Packing/Seal Code						
							P PTFE (Below threads)						
							V FKM O-Ring						
	M3-				T		- <b>Options</b> [pages 49-50]						

#### Max Cv Ratings

.375" Orifice Straight Body Style

#### 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)

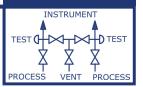
\* Barstock equivalent of ASTM A105

- 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



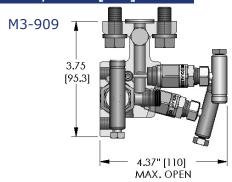
#### **Features**

PGI Soft Cone Seat

#### **Benefits**

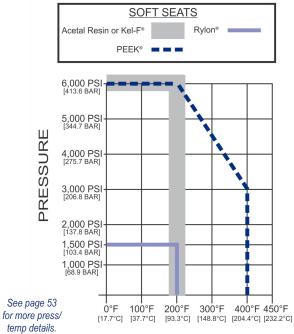
- Roddable design
- Leak free, bubble tight seating
- Easily replaced
- Available in a variety of materials
- Bi-directional flow

#### Dimensions, inches [mm]



# 4.50 [114.3] 12.25" [311] MAX. OPEN

#### Pressure vs. Temperature



#### **Part Number Selection**

ase Model								
	F	roce	ss x i	Ins	trumei	nt x Vent		
M3-909	lange	nge x Flange x 1/4" NPT (90° Angle)						
В	Bod	у Ма	teria	I C	ode			
	С	AS	STM A108					
	SA			ASTM A276-316 SS				
	Р	AS	TM A	69	6*			
		Sea	at Ma	itei	rial Co	ode		
		L	Rylon™ (Standard)					
		D	D Acetal Resin					
		K	K Kel-F®					
		Р	P Peek®					
			Ste	em	Packi	ing/Seal Code		
			F	7	PTFE	(Below threads)		
			١	/	FKM (	D-Ring		
M3-909	Ė	Т'			-	Options [pages 49-50]		

#### PROCESS TEMPERATURE

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 Straight Body Style .375" Orifice

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

\* Barstock equivalent of ASTM A105

- 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



M-505	С	D	Р	-							
					Add	Optio	ns in	Alpha	-Num	eric O	rder

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)
В6	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 ---



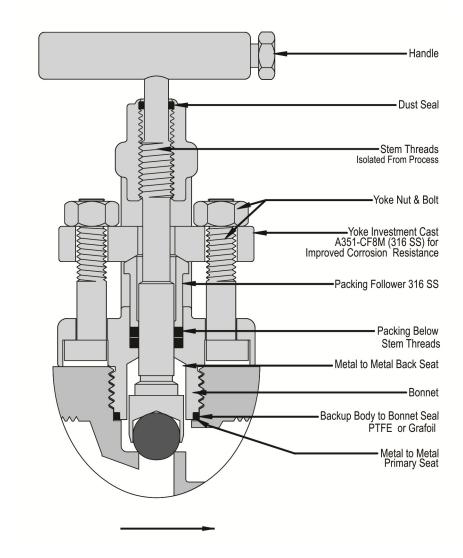
M-505	C	D	Р	-				
M EOE	_	_ D	D D					

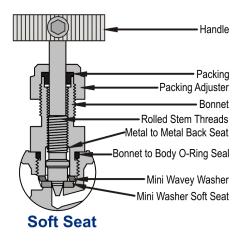
Add Options in Alpha-Numeric Order

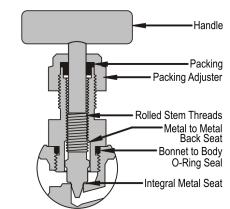
Consult Factory to Verify that Options are Available with the Specific Model Number(s) Chosen

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 INSTUMENT FLANGE SEALS			
MY	DIELECTRIC ISOLATION (FLANGE MANIFOLDS ONLY)			
MZ	DIELECTRIC ISOLATION (WAFER MANIFOLDS ONLY)			
P1	PURGE / TEST LINE FITTING(S) - MUST INCLUDE LOCATION OPTION PB, PS OR PT (I.E. PBP1, PSP1, PTP1)			
P4	(2) 1/4" VENT / TEST PORTS (BOTTOM)			
P9	NPT HEX HEAD PIPE PLUG IN VENT / TEST PORT			
PB	(2) 1/4" CONSTANT PURGE PORTS WITH PLUGS (BOTTOM)			
PS	(2) 1/4" CONSTANT PURGE PORTS WITH PLUGS (SIDE)			
PT	(2) 1/4" CONSTANT PURGE PORTS WITH PLUGS (TOP)			
S1	MONEL STEM MATERIAL			
ST	THROTTLING STEM TIP (CARBIDE STANDARD)			
TC	STEAM TRACE BLOCK - CARBON STEEL			
TH	HYDROSTATIC TESTING			
TS	STEAM TRACE BLOCK - STAINLESS STEEL			
VA	BRACKET SPACER FOR FLANGE TO FLANGE MANIFOLDS - 316 SS ONLY; REQUIRES A BRACKET OPTION ADD "A" TO END OF BRACKET PART NUMBERS BELOW = VCA, VCHA, VSA or VSHA			
VC	CS VERSA MOUNT BRACKET			
VCH	CS HEAVY DUTY VERSA MOUNT BRACKET			
VS	316 SS VERSA MOUNT BRACKET			
VSH	316 SS HEAVY DUTY VERSA MOUNT BRACKET			
VMC	MANIFOLD BRACKET KIT (L STYLE) CARBON STEEL			
VMS	MANIFOLD BRACKET KIT (L STYLE) 316 STAINLESS STEEL			
W	SAFETY BONNET LOCK PLATE			
W1	316 SS TAG (20 CHARACTERS)			
W9	316 SS STANDARD LENGTH BOLTS			
WA	CS 2-1/4" BOLTS FOR ROSEMOUNT 3051C OR 2024 WITH COPLANAR FLANGE MANIFOLD ONLY			
WAW9	316 SS 2-1/4" BOLTS FOR ROSEMOUNT 3051C OR 2024 WITH COPLANAR FLANGE MANIFOLD ONLY			
Х3	(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			



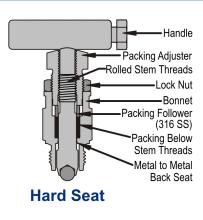


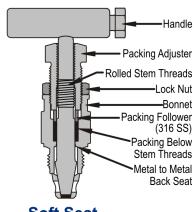


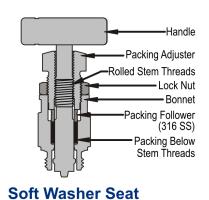


**Integral Metal to Metal Seat** 

187" Orifice

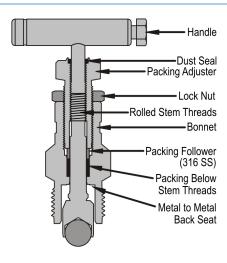




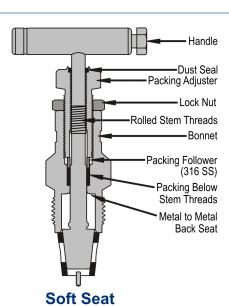


**Soft Seat** 

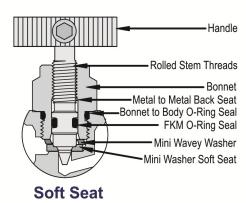
375" Orifice

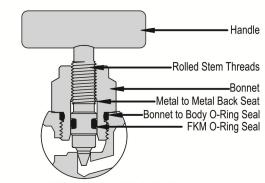


**Hard Seat** 

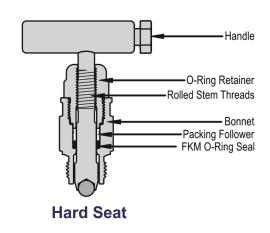


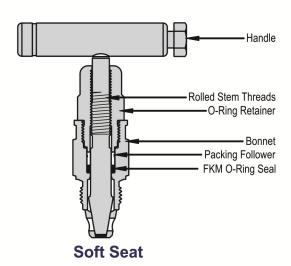
# **FKM O-Ring Bonnet Design**



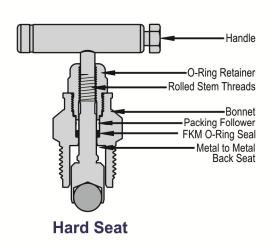


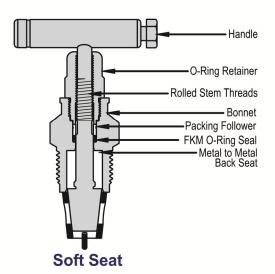
**Integral Metal to Metal Seat** 













# Pressure & Process Temperature Ratings

	STANDARD BODY MATERIAL CODES				
CODE	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.		
С	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.		
Р	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.		
Т	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	ZES PRESSURE & PROCESS TEMPERATURE LIMITS		
D	PTFE Packed Style	.187" .250"	10,000 PSI Max. @ 200° to -80°F Min. 4,000 PSI Max. @ 500° F Max.	689 bar Max. @ 93° to -62° C Min. 276 bar Max. @ 260° C Max.	
P PIFE Packe	TITE Tacked Style	.375"	6,000 PSI Max. @ 200° to -40°F Min. 4,000 PSI Max. @ 500° F Max.	414 bar Max. @ 93° to -40° C Min. 276 bar Max. @ 260° C Max.	
Т	Mini PTFE Packed	.136"	6,000 PSI Max. @ 200° F Max. to -80°F Min. 4,000 PSI Max. @ 450° Max.	414 bar Max. @ 93° C Max. to -62° C Min. 276 bar Max. @ 232° C Max.	
V	V FKM O-Ring	.187" .250"	10,000 PSI Max. @ 200° to -15°F Min. 8,000 PSI Max. @ 400° F Max.	689 bar Max. @ 93° to -26° C Min. 552 bar Max. @ 204° C Max.	
v		.375"	6,000 PSI Max. @ 200° F Max. to -15°F Min. 4,000 PSI Max. @ 400° Max.	414 bar Max. @ 93° C Max. to -40° C Min. 276 bar Max. @ 204° C Max.	

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

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



# **Lone Star Spare Parts**

.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	Wavey Washer			

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

.136" ORIFICE 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			

.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					
BONNET PACKING/SEAL	SEAT	BONNET MATERIAL	HANDLE MATERIAL	PACKING/ SEAL CODE	
		Carbon	Round CS		
EKW		Steel	Bar CS	V	
LLVIA	Integral	NACE	Round SS	V V	
	Metal or	316 SS	Bar SS		
	Soft Wash-	Carbon	Round CS		
PTFE Above	er	Steel	Bar CS	_	
Threads		NACE	Round SS	'	
		316 SS	Bar SS		
	BONNET PACKING/SEAL FKM PTFE Above	BONNET PACKING/SEAL  FKM  Integral Metal or Soft Wash- er	BONNET PACKING/SEAL         SEAT         BONNET MATERIAL           FKM         Integral Metal or Metal or Soft Wash-PTFE Above Threads         NACE Soft Wash- Steel           NACE         NACE	BONNET PACKING/SEAL         SEAT         BONNET MATERIAL MATERIAL MATERIAL MATERIAL         HANDLE MATERIAL MATERIAL           FKM         Integral Metal or Metal or Soft Wash-PTFE Above Threads         Integral Metal or Soft Wash-PTFE Above Threads         NACE Steel Steel Bar CS NACE NACE Round SS	

Note:	Soft Seats	are ordere	ed separately	
				_
				_

.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*	Р	
SAV182S6V-HS	FKM		NACE 316 SS	V	
SAV166S6P-HS	PTFE Below Threads			Р	
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*	Р	
SAV193S-V-HH	FKM		NACE 316 SS	V	
SAV185S-P-HH	PTFE Above Threads			Р	

<b>Note:</b> Soft Seats are ordered separately.
107" ODIEICE DONNET ASSEMBLIES

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

.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		

#### Note:

Handle included in all Bonnet Assemblies.

\* Barstock equivalent of ASTM A105.

.375" ORIFICE SOFT SEAT BONNET ASSEMBLIES					
PART NO.	BONNET PACKING/ SEAL	SEAT	BONNET MATERIAL	PACKING/SEAL CODE	
SAV300P-V-HH	FKM	Soft Cone	A696 Gr.C	V	
SAV301P-P-HH	PTFE Below Threads		Carbon Steel*	Р	
SAV300S-V-HH	FKM		NACE 316 SS	V	
SAV301S-P-HH	PTFE Below Threads			Р	
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		A696 Gr.C Carbon Steel*	V	
SAV301P6P-HH	PTFE Below Threads	316 SS		Р	
SAV300S6V-HH	FKM	Ball	NACE 316 SS	V	
SAV301S6P-HH	PTFE Below Threads			Р	
Note: Seats are Integral to the Bonnet Assembly.					



#### **Additional Parker PGI Product Offerings**

#### **PGI Instrument Valves**

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

#### **Fugitive Emission Valves & Manifolds**

Parker'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 $^{(\!g\!)}$  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**

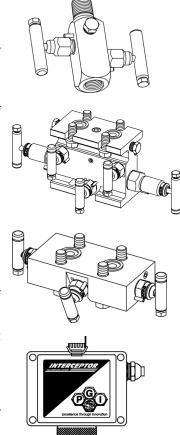
Parker offers a complete line of Gas and Liquid Composite Samplers. The Interceptor and Nova samplers are FM and CSA Approved, Intrinsically safe for Class I, Division 1, Group C and D hazardous locations, when used with an approved Parker furnished power supply. Our NOVA system samples refined liquids, 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.

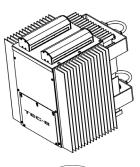
#### **ZEUS<sup>®</sup> Power Systems**

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**

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

#### **SPECIALIZED SYSTEMS**

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

# MEASUREMENT ACCURACY PRODUCTS ThermoSync® Thermowells & Temperature Probes

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**

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











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