



P3M5S™, P4M5S™, P6M5S™ 5-VALVE SOFT SEAT MANIFOLD

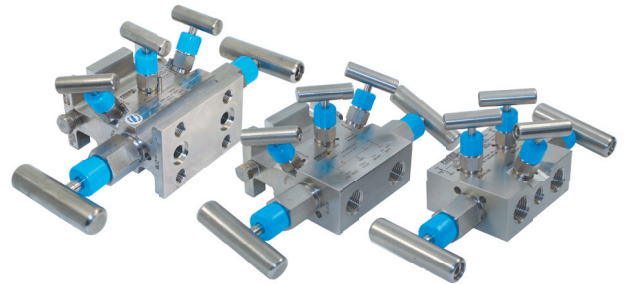
GAS STYLE MANIFOLD

US PATENT NO.: US 7,225,832 B2

5-Valve Gas Style Manifold

The 5-valve manifold features 2 isolation valves, 2 equalizer valves and 1 vent valve in a single body for isolation and calibration of differential pressure transmitters. The RADIAL PATTERN™ manifold has an innovative angled bonnet configuration for easy operation. Additional features include a body manufactured from extruded solid bar, robust stems and Parker's innovative design which ensures a bubble tight seal in a variety of conditions.

RADIAL PATTERN™



Standard Features

Hydrotested at 150% of rated pressure (shell test). Nitrogen gas tested to 2000 psi.

Seat tightness (zero leakage) verified to 110% of rated pressure. Nitrogen gas tested to 2000 psi.

Packing below stem threads

Metal body-to-bonnet seals are in compression, not tension

Stem threads are rolled, not cut

Non-rotating tapered tip stem (3/8" bore only)

8 RMS stem finish

V-Style Teflon™ packing

Pressure component materials sourced from the US, Canada or Europe

Benefits

Complies with ASME B31.1 & B31.3 shell testing procedures as standard. Ensures structural integrity of valve.

Complies with ASME B31.1 & B31.3 seat testing procedures as standard. Ensures zero leakage at seats for proper calibration.

Prevents corrosion of critical stem threads

Mitigates risk of stress cracking

Higher quality stem for longer service life

Extended soft seat life and a reliable soft seat shut off

Extended packing life

30-40% less operational torque and less frequent packing adjustments than traditional Teflon™ packed valves.

Reliable material traceability. MTR's provided with every order for pressure containing components.

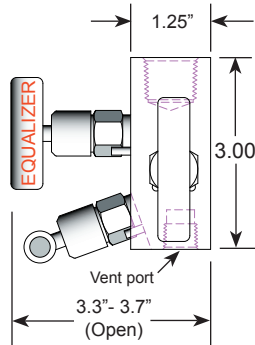
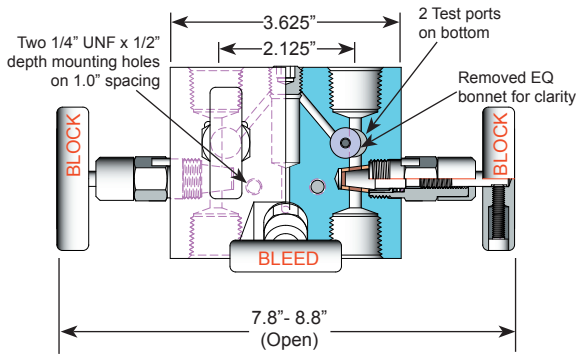
Solutions for Oil & Gas and Petrochemical Processing





P3M5S™, P4M5S™, P6M5S™ Pipe x Pipe Technical Specifications

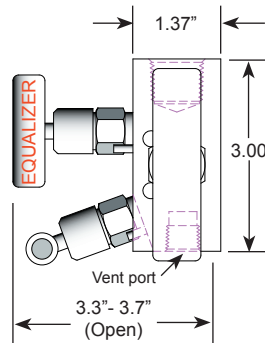
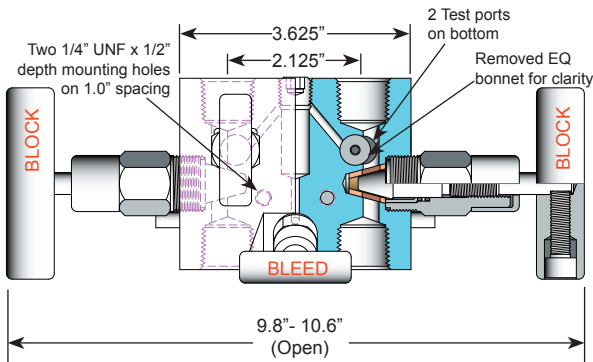
3/16" Bore Configuration



Specifications:

Type: **P3M5S** PxP Manifold, Roddabe Pattern
 Rating: Up to 6000 psi @ 100°F
 (41370 kPa @ 38°C)
 Stem: Taper Tip and Flat Tip
 Packing: Viton™ O-ring or Teflon™
 Seat: Delrin™ or Peek™
 Handle: Removable
 Bore Size: 3/16" (Primary), 1/8" (EQ., Bleed)
 Inlet Connections: 1/2" FNPT
 Outlet Connections: 1/2" FNPT
 Bonnet Lock: Pin or Plate
 Body Stock: 3.625" x 3.00" x 1.25"
 Weight: 4.1 - 4.3 lbs
 Special Service: O₂ or CL cleaning available*
 *Other specifications or services may be available.

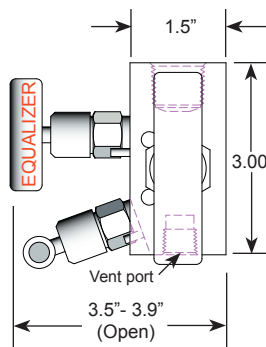
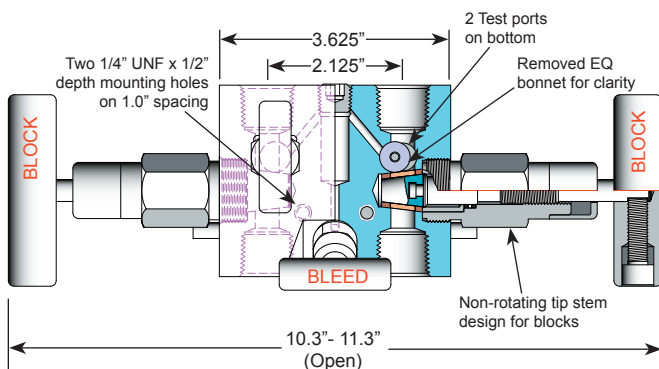
1/4" Bore Configuration



Specifications:

Type: **P4M5S** PxP Manifold, Roddable Pattern
 Rating: Up to 6000 psi @ 100°F
 (41370 kPa @ 38°C)
 Stem: Taper Tip and Flat Tip
 Packing: Viton™ O-ring or Teflon™
 Seat: Delrin™ or Peek™
 Handle: Removable
 Bore Size: 1/4" (Primary), 1/8" (EQ., Bleed)
 Inlet Connections: 1/2" FNPT
 Outlet Connections: 1/2" FNPT
 Bonnet Lock: Pin or Plate
 Body Stock: 3.625" x 3.00" x 1.37"
 Weight: 5.0 - 5.2 lbs
 Special Service: O₂ or CL cleaning available*
 *Other specifications or services may be available.

3/8" Bore Configuration



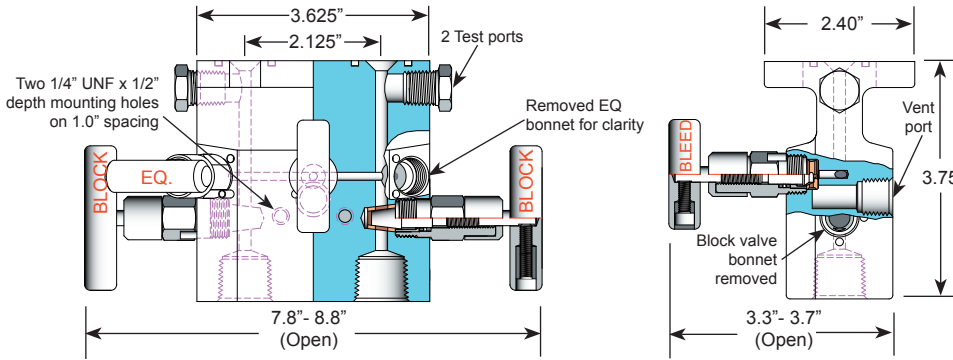
Specifications:

Type: **P6M5S** PxP Manifold, Roddable Pattern
 Rating: Up to 6000 psi @ 100°F
 (41370 kPa @ 38°C)
 Stem: Taper Tip and Flat Tip
 Packing: Viton™ O-ring or Teflon™
 Seat: Delrin™, Peek™ and Tefzel™ (for blocks)
 Handle: Removable
 Bore Size: 3/8" (Primary), 1/8" (EQ., Bleed)
 Inlet Connections: 1/2" FNPT
 Outlet Connections: 1/2" FNPT
 Bonnet Lock: Pin or Plate
 Body Stock: 3.625" x 3.00" x 1.5"
 Weight: 5.9 - 6.1 lbs
 Special Service: O₂ or CL cleaning available*
 *Other specifications or services may be available.



P3M5S™, P4M5S™, P6M5S™ Pipe x Flange Technical Specifications

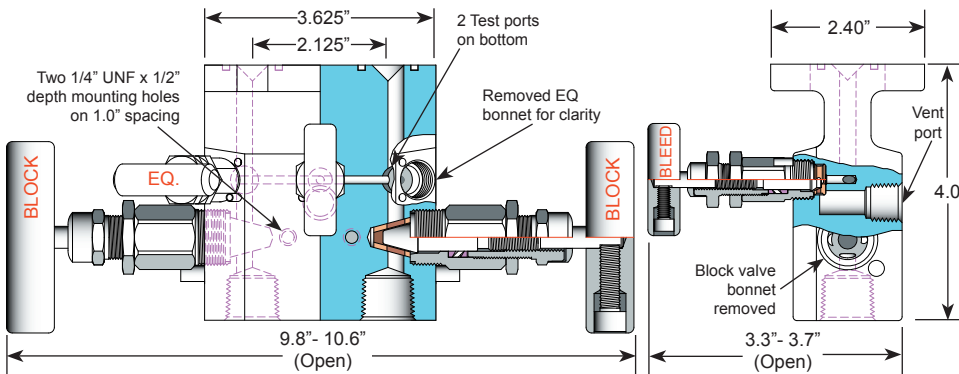
3/16" Bore Configuration



Specifications:

Type: **P3M5S** PxF Manifold, Roddabe Pattern
 Rating: Up to 6000 psi @ 100°F
 (41370 kPa @ 38°C)
 Stem: Taper Tip and Flat Tip
 Packing: Viton™ O-ring or Teflon™
 Seat: Delrin™ or Peek™
 Handle: Removable
 Bore Size: 3/16" (Primary), 1/8" (EQ., Bleed)
 Inlet Connections: 1/2" FNPT
 Outlet Connections: 4-Bolt Flange
 Bonnet Lock: Pin or Plate
 Body Stock: 3.625" x 3.75" x 1.5 x 2.4"
 Weight: 5.9 - 6.1 lbs
 Special Service: O₂ or CL cleaning available*
 *Other specifications or services may be available.

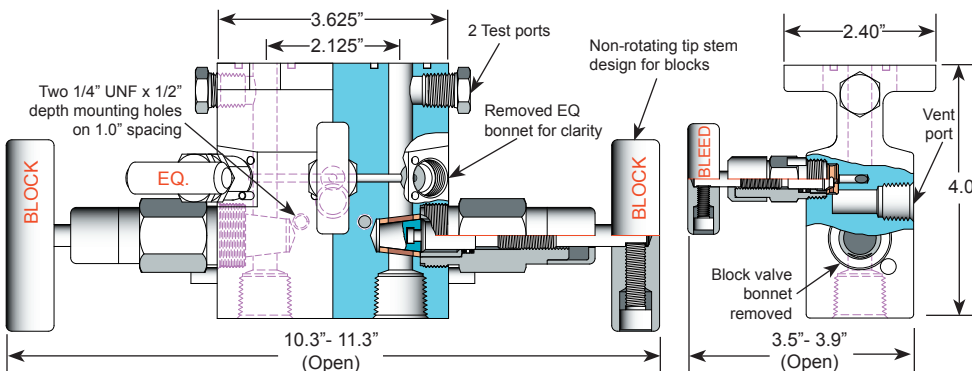
1/4" Bore Configuration



Specifications:

Type: **P4M5S** PxF Manifold, Roddable Pattern
 Rating: Up to 6000 psi @ 100°F
 (41370 kPa @ 38°C)
 Stem: Taper Tip and Flat Tip
 Packing: Viton™ O-ring or Teflon™
 Seat: Delrin™ or Peek™
 Handle: Removable
 Bore Size: 1/4" (Primary), 1/8" (EQ., Bleed)
 Inlet Connections: 1/2" FNPT
 Outlet Connections: 4-Bolt Flange
 Bonnet Lock: Pin or Plate
 Body Stock: 3.625" x 4.0" x 1.7 x 2.4"
 Weight: 7.5 - 7.7 lbs
 Special Service: O₂ or CL cleaning available*
 *Other specifications or services may be available.

3/8" Bore Configuration



Specifications:

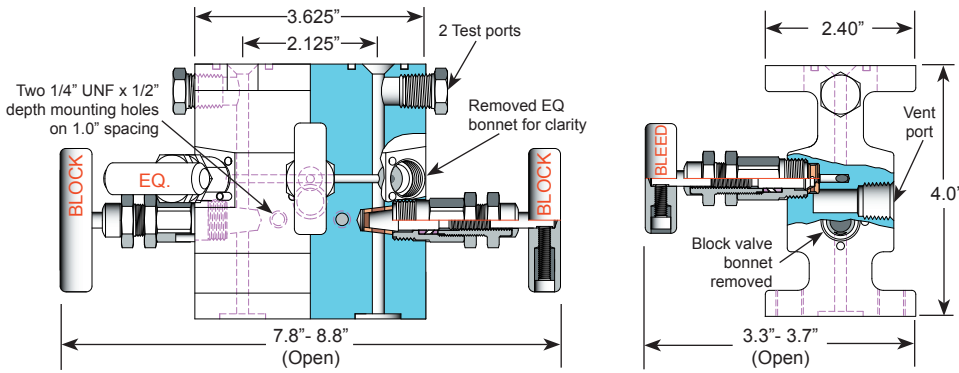
Type: **P6M5S** PxF Manifold, Roddable Pattern
 Rating: Up to 6000 psi @ 100°F
 (41370 kPa @ 38°C)
 Stem: Non-rotating Taper Tip and Flat Tip
 Packing: Viton™ O-ring or Teflon™
 Seat: Delrin™, Peek™ or Tefzel™ (for blocks)
 Handle: Removable
 Bore Size: 3/8" (Primary), 1/8" (EQ., Bleed)
 Inlet Connections: 1/2" FNPT
 Outlet Connections: 4-Bolt Flange
 Bonnet Lock: Pin or Plate
 Body Stock: 3.625" x 4.0" x 1.7 x 2.4"
 Weight: 7.5 - 7.7 lbs
 Special Service: O₂ or CL cleaning available*
 *Other specifications or services may be available.



P3M5S™, P4M5S™, P6M5S™

Flange x Flange Technical Specifications

3/16" Bore Configuration

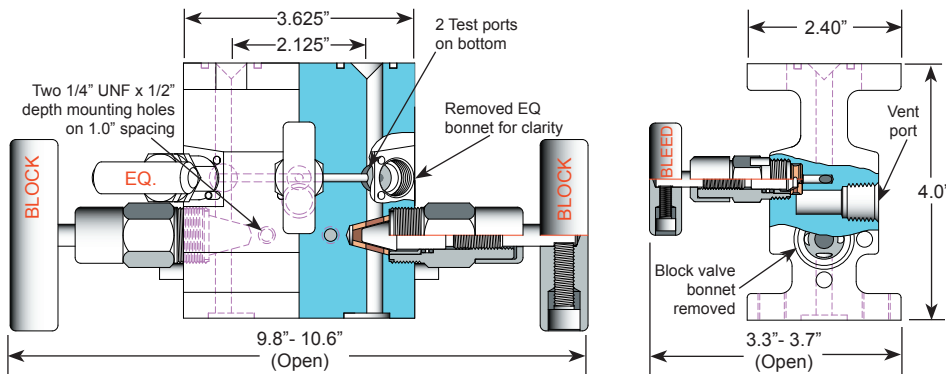


Specifications:

Type: **P3M5S** FxF Manifold, Roddabe Pattern
 Rating: Up to 6000 psi @ 100°F
 (41370 kPa @ 38°C)
 Stem: Taper Tip and Flat Tip
 Packing: Viton™ O-ring or Teflon™
 Seat: Delrin™ or Peek™
 Handle: Removable
 Bore Size: 3/16" (Primary), 1/8" (EQ., Bleed)
 Inlet Connections: 4-Bolt Flange
 Outlet Connections: 4-Bolt Flange
 Bonnet Lock: Pin or Plate
 Body Stock: 3.625" x 4.0" x 1.7 x 2.4"
 Weight: 6.9 - 7.1 lbs
 Special Service: O₂ or CL cleaning available*

*Other specifications or services may be available.

1/4" Bore Configuration

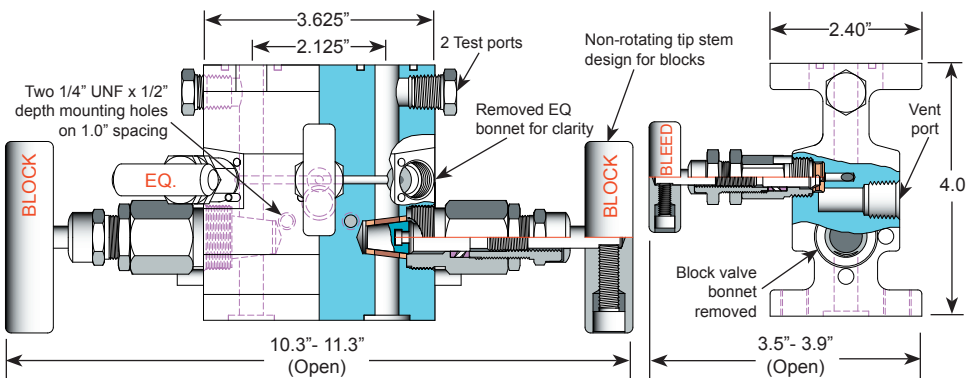


Specifications:

Type: **P4M5S** FxF Manifold, Roddable Pattern
 Rating: Up to 6000 psi @ 100°F
 (41370 kPa @ 38°C)
 Stem: Taper Tip and Flat Tip
 Packing: Viton™ O-ring or Teflon™
 Seat: Delrin™ or Peek™
 Handle: Removable
 Bore Size: 1/4" (Primary), 1/8" (EQ., Bleed)
 Inlet Connections: 4-Bolt Flange
 Outlet Connections: 4-Bolt Flange
 Bonnet Lock: Pin or Plate
 Body Stock: 3.625" x 4.0" x 1.7 x 2.4"
 Weight: 7.6 - 7.8 lbs
 Special Service: O₂ or CL cleaning available*

*Other specifications or services may be available.

3/8" Bore Configuration



Specifications:

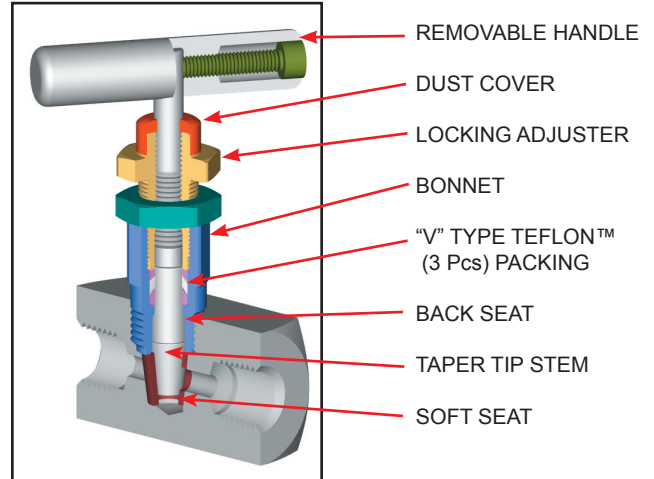
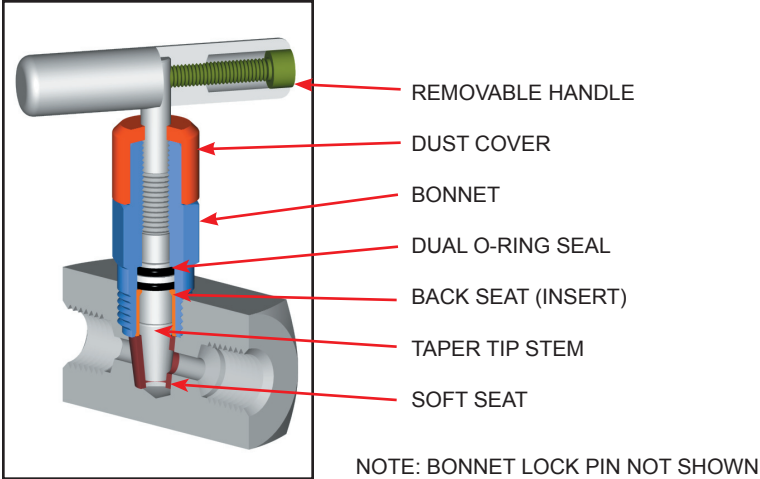
Type: **P6M5S** FxF Manifold, Roddable Pattern
 Rating: Up to 6000 psi @ 100°F
 (41370 kPa @ 38°C)
 Stem: Taper Tip and Flat Tip
 Packing: Viton™ O-ring or Teflon™
 Seat: Delrin™, Peek™ or Tefzel™ (for blocks)
 Handle: Removable
 Bore Size: 3/8" (Primary), 1/8" (EQ., Bleed)
 Inlet Connections: 4-Bolt Flange
 Outlet Connections: 4-Bolt Flange
 Bonnet Lock: Pin or Plate
 Body Stock: 3.625" x 4.0" x 1.7 x 2.4"
 Weight: 7.6 - 7.8 lbs
 Special Service: O₂ or CL cleaning available*

*Other specifications or services may be available.

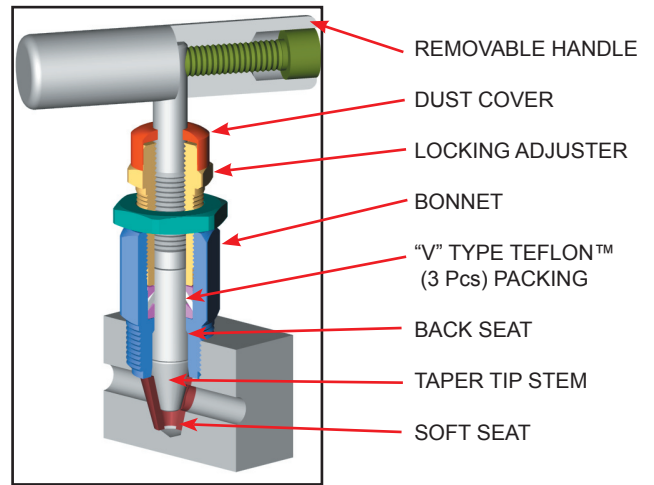
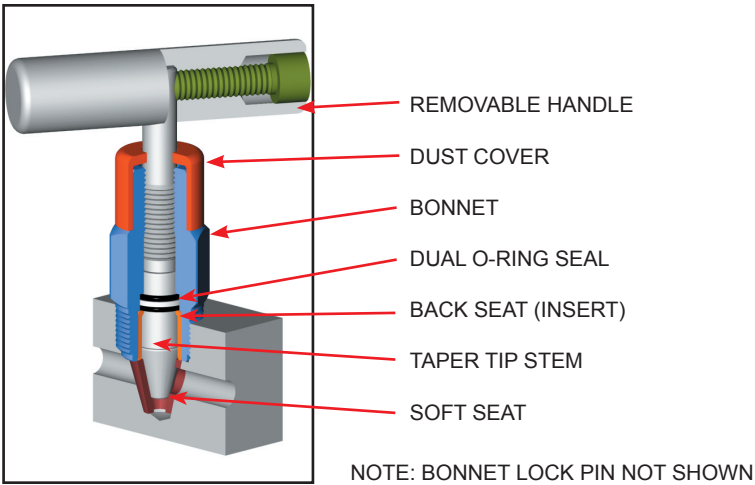


P3M5S™, P4M5S™, P6M5S™ Block Bonnet Characteristics

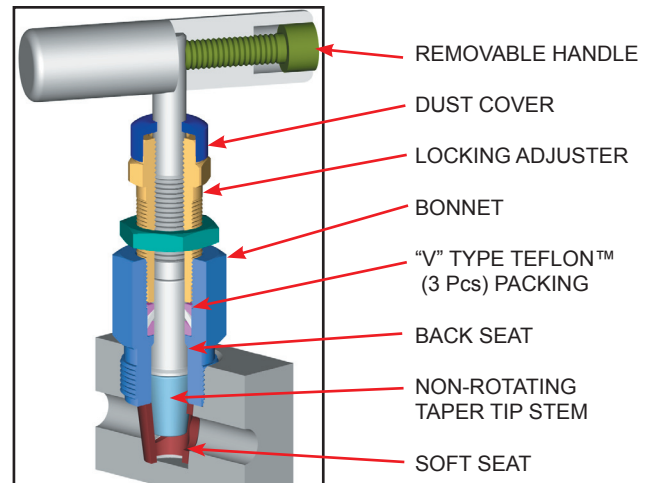
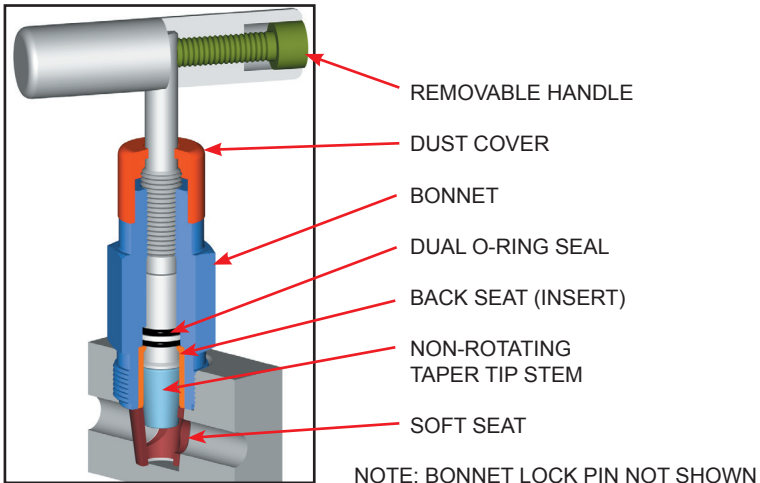
3/16" Bore O-ring and Packed Bonnet Assembly



1/4" Bore O-ring and Packed Bonnet Assembly



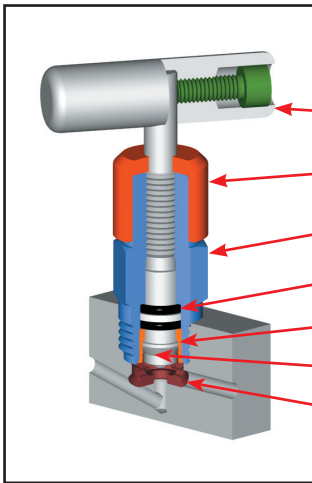
3/8" Bore O-ring and Packed Bonnet Assembly





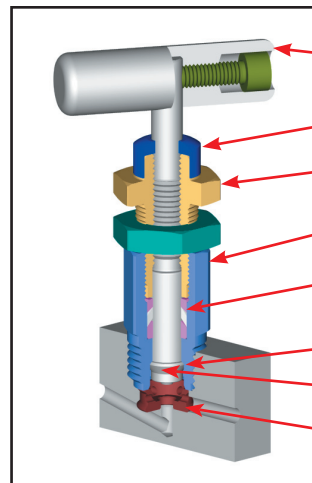
P3M5S™, P4M5S™, P6M5S™ Bleed and Equalizer Bonnet, Stem and Seat Characteristics

1/8" Bore O-ring and Packed Bonnet Assembly for Bleed and Equalizer



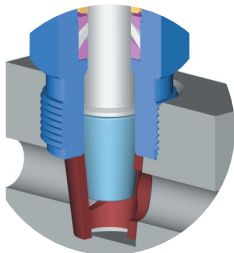
- REMOVABLE HANDLE
- DUST COVER
- BONNET
- DUAL O-RING SEAL
- BACK SEAT (INSERT)
- FLAT TIP STEM
- SOFT SEAT

NOTE: BONNET LOCK PIN NOT SHOWN

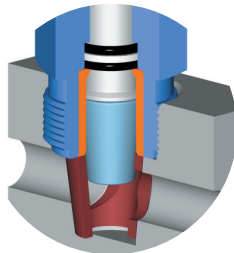


- REMOVABLE HANDLE
- DUST COVER
- LOCKING ADJUSTER
- BONNET
- "V" TYPE TEFLON™ (3 Pcs) PACKING
- BACK SEAT
- FLAT TIP STEM
- SOFT SEAT

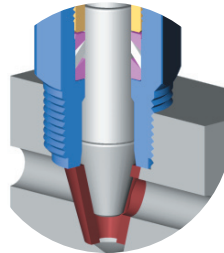
Stem and Seat Configurations



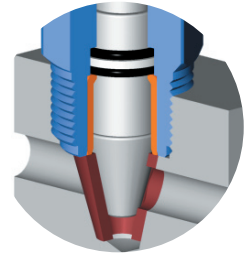
3/8" Bore
Non-rotating Packed
for Block



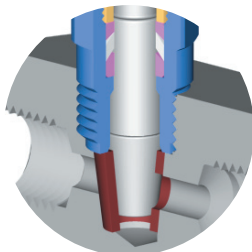
3/8" Bore
Non-rotating O-ring
for Block



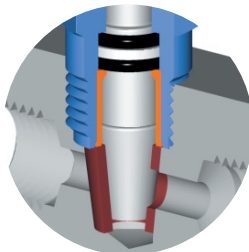
1/4" Bore
Packed
for Block



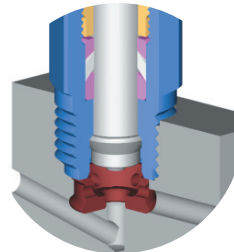
1/4" Bore
O-ring
for Block



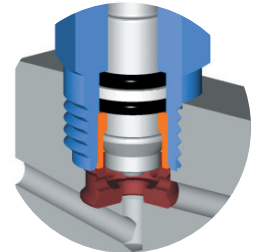
3/16" Bore
Packed
for Block



3/16" Bore
O-ring
for Block

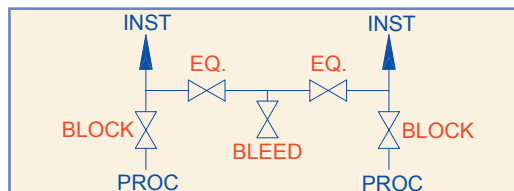


1/8" Bore
Packed
for Equalize or Bleed



1/8" Bore
O-ring
for Equalize or Bleed

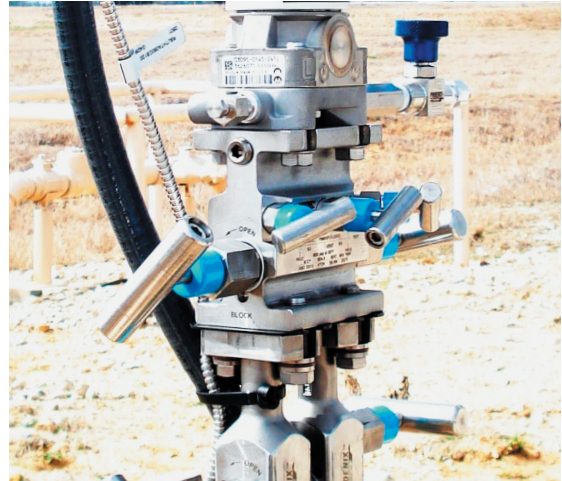
Flow Diagram for All Manifolds





P3M5S™, P4M5S™, P6M5S™ Other Technical Information

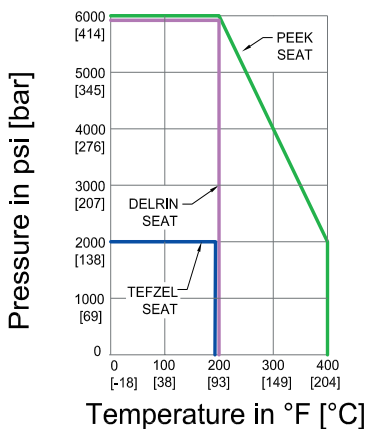
Manifold Applications



Parker Products Meet the Following Specifications:

- ✓ ASME B31.1 Power Piping
- ✓ ASME B31.3 Process Piping
- ✓ ASME B16.34 Valves - Flanged, Thread, and Welding End
- ✓ API 598 Valve Inspection and Testing
- ✓ MSS SP-25 Standard Marking Systems for Valves, Fittings and Flange Unions
- ✓ MSS SP-99 Instrument Valves
- ✓ MSS SP-105 Instrument Valves for Code Applications
- ✓ NACE MR0175 for all 316SS valves and A105CS body/316SS bonnet (SC Material Code)

Pressure vs. Temperature Chart
6000 psi (Soft Seat)



Note: Packing material ratings based on manufacturer's specifications. Approximations only. Parker does not represent these values as finite. They are provided only as representative values.

Seal & Seat Temperature Rating

Code	Description	Min. Temp.	Max. Temp.
A	Aflas™	15°F (-10°C)	400°F (204°C)
V	Viton™	-20°F (-29°C)	400°F (204°C)
T	Teflon™	-65°F (-54°C)	450°F (232°C)
D	Delrin™	-40°F (-40°C)	200°F (93°C)
P	Peek™	-40°F (-40°C)	400°F (204°C)
Z	Tefzel™	-300°F (-185°C)	300°F (150°C)

Materials of Construction

Code	SS	SC	CS
Body	ASTM A182 316SS	ASTM A105 CS	ASTM A108 CS
Bonnet	ASTM A182 316SS	ASTM A182 316SS	ASTM A108 CS
Stem	ASTM A182 316SS	ASTM A182 316SS	ASTM A582 303SS
Adjuster	ASTM A582 303SS	ASTM A582 303SS	ASTM A108 CS
Insert	ASTM A182 316SS	ASTM A182 316SS	ASTM A108 CS
Handle	ASTM A582 303SS	ASTM A582 303SS	ASTM A108 CS



P3M5S™, P4M5S™, P6M5S™ Model Numbering System

Parker	Orifice Size	Type	Inlet Size	Inlet Type	Outlet Size	Outlet Type	Material	Packing	Seat	Option Code
P	3=3/16"	M5S	8=1/2" Only for NPT	F= FNPT	8=1/2" Only for NPT	F= FNPT	SS=ASTM A182 316/316L	A=Aflas™	D=Delrin™	DI=Dielectric
	4=1/4"			FL= Flange		FL= Flange	SC=ASTM A105 CS*	V=Viton™ (FKM)	P=Peek™	OR=Viton™ O-ring Flange Seal
	6=3/8"						CS=ASTM A108 CS*	T=Teflon™ (PTFE)	Z=Tefzel™ **	

EXAMPLE: P6M5SFLFLSSVD = 3/8" Orifice, Flange Inlet, Flange Outlet, 316SS Body, Viton™ packing, Delrin™ Seats, Needle Tip Stem

P	6	M5S		FL		FL	SS	V	D	
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*For code applications, A108 CS is unacceptable, A105 CS must be selected for CS valves.

**For block bonnet only.

Note: **Standard Bolting Options:** 1. **CS** - carbon steel, Gr.8, zinc plated bolts; **SS** - stainless steel, 18.8 (304SS) bolts.
2. All manifolds are supplied with both 1" lg. and 2-1/2" lg. bolts.
3. Manifolds with dielectric option are supplied with 1-1/4" lg. and 2-1/2" lg. bolts.

BOLT OPTIONS

Application	Description	Length	BOLT MATERIAL DESIGNATION		
			CS	304 SS	316 SS
DP Transmitter	Bi-planar Design: Rosemount™ 1151, Honeywell™ 900 etc.	1"	Blank: Standard for CS Manifolds	Blank: Standard for SS Manifolds	-S6
	Coplanar Design: Rosemount™ 3051, 3095, 2024 with coplanar flange.	2-1/2"	Blank: Standard for CS Manifolds	Blank: Standard for SS Manifolds	-250S6
Flow Computer	ABB Total Flow, Thermo Fisher™ (with Honeywell™ Transducer Module), Barton Scanner, Bristol Teleflow & TeleTrans	1"	Blank: Standard for CS Manifolds	Blank: Standard for SS Manifolds	-S6
	Fisher™, Flow Automation™ (with Rosemount™ transducer module), Daniel, Dynamic Fluid	2-1/2"	Blank: Standard for CS Manifolds	Blank: Standard for SS Manifolds	-250S6
DP Transmitter with DP to GP Adapter	DP Bi-planar design used in combination with DP to GP Adapter (DPG6S)	2"	-200CS	-200S4	-200S6
	DP Coplanar design used in combination with DP to GP Adapter (DPG6S)	3-1/4"	-325CS	325S4	-325S6

For further information please contact:

Distributor / Representative:



SAI GLOBAL
ISO 9001
Quality

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