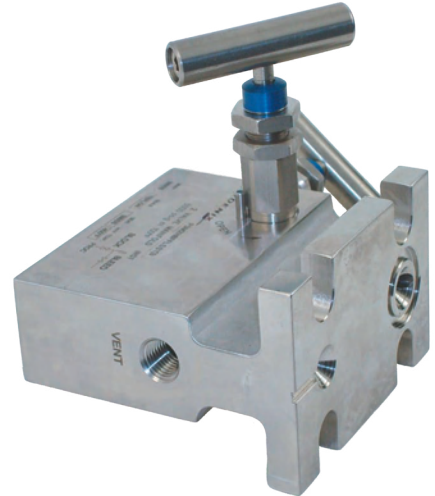


GAS MANIFOLD

2-Valve Gas Manifold

The 3/16" bore 2-valve block and bleed manifold features a built-in vent/calibration port making it a cost-effective choice for static pressure measurement. The roddable, soft-seated manifold machined from bar stock ensures a bubble-tight seal and is available in a range of materials and configurations that meet most application requirements. The valve includes robust stems, pinned bonnets and two mount holes for bracket support.

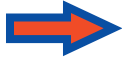


Standard Features

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



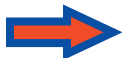
Metal body-to-bonnet seals are in compression, not tension



Stem threads are rolled, not cut



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 packing life

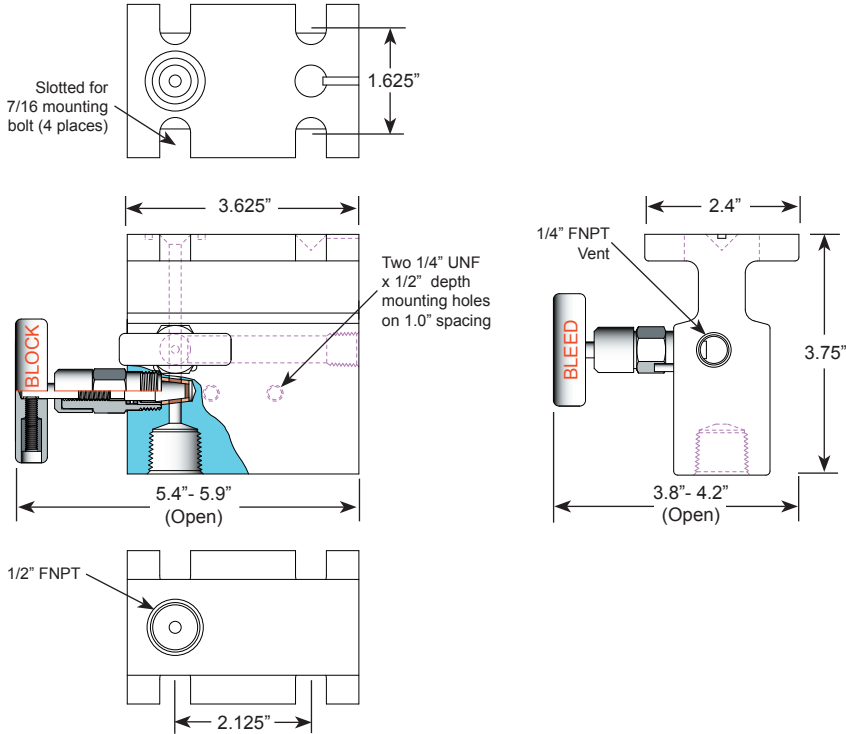
30-40% less operational torque and less frequent packing adjustments than traditional Teflon™ packed valves

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

P3M2S™ 2-Valve Manifold

Technical Specifications

Pipe x Flange Configuration

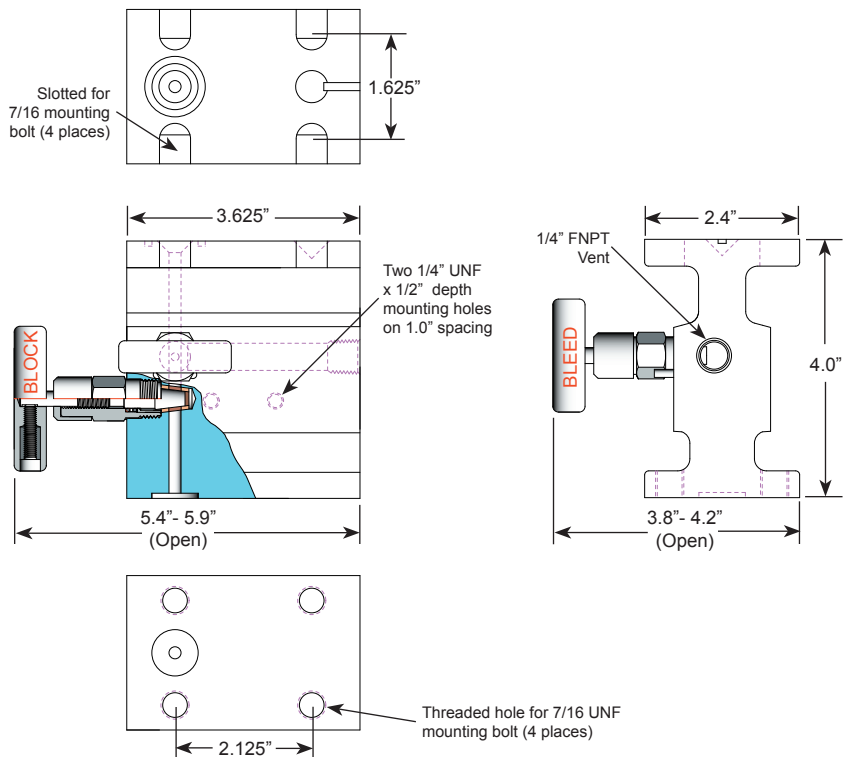


Specifications:

Type: **P3M2S**, 2-valve Manifold, Roddable Pattern
 Rating: Up to 6000 psi @ 100°F
 (41370 kPa @ 38°C)
 Stem: Tapered Tip, Flat Tip
 Packing: Aflas™, Viton™ O-ring or Teflon™
 Seat: Delrin™, Peek™
 Handle: Removable
 Bore Size: 3/16" (Primary), 1/8" (Bleed)
 Inlet Connections: FNPT
 Outlet Connections: Flange
 Vent Port: 1/4" FNPT
 Bonnet Lock: Pin or Plate
 Body Stock: 3.625" x 3.75" x 2.4" x 1.5"
 Weight: 4.7 - 4.8 lbs
 Special Service: O₂ or CL cleaning available*

*Other specifications or services may be available.

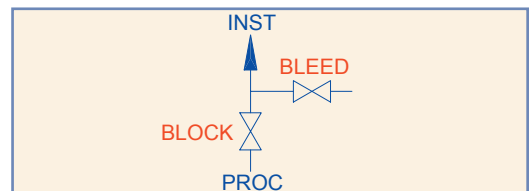
Flange x Flange Configuration



Specifications:

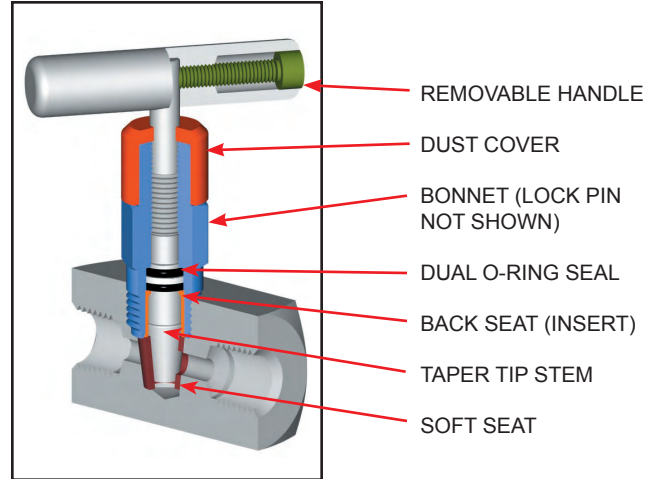
Type: **P3M2S**, 2-valve Manifold, Roddable Pattern
 Rating: Up to 6000 psi @ 100°F
 (41370 kPa @ 38°C)
 Stem: Tapered Tip, Flat Tip
 Packing: Aflas™, Viton™ O-ring or Teflon™
 Seat: Delrin™, Peek™
 Handle: Removable
 Bore Size: 3/16" (Primary), 1/8" (Bleed)
 Inlet Connections: Flange
 Outlet Connections: Flange
 Vent Port: 1/4" FNPT
 Bonnet Lock: Pin or Plate
 Body Stock: 3.625" x 4.0" x 2.4" x 1.5"
 Weight: 5.1 - 5.2 lbs
 Special Service: O₂ or CL cleaning available*

*Other specifications or services may be available.



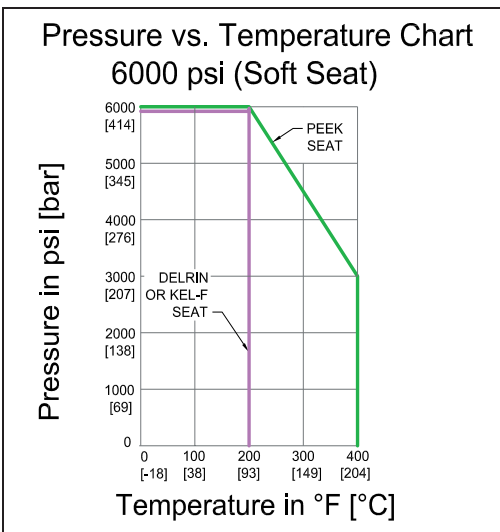
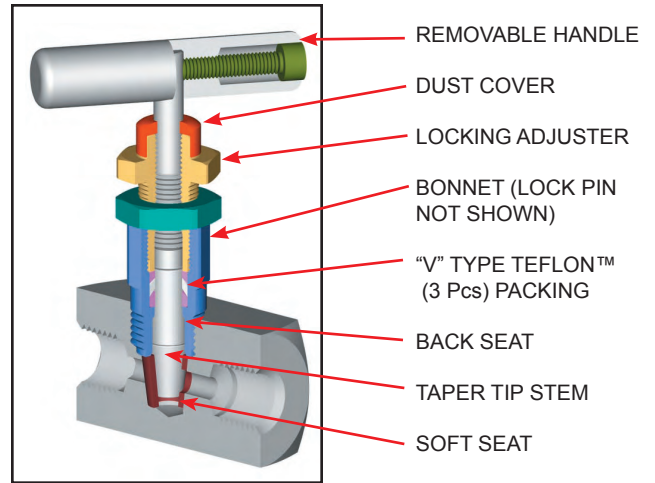
O-Ring Bonnet Assembly

Standard Materials					
Valve	Body	Bonnet	Stem	Seat	Packing
CS	ASTM A108CS	ASTM A108CS	ASTM A582 303SS	SEE OPTION CODES ON PAGE 4	Aflas™ or Viton™ O-ring with Teflon™ backup ring
SC	ASTM A105CS	ASTM A182 316SS	ASTM A182 316SS		
316SS	ASTM A182 316SS	ASTM A182 316SS	ASTM A182 316SS		

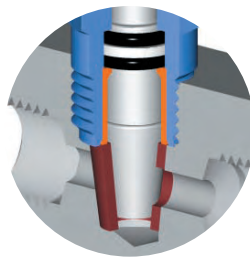


Teflon™ or Grafoil™ Bonnet Assembly

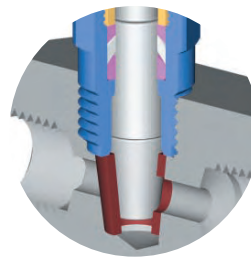
Standard Materials					
Valve	Body	Bonnet	Stem	Seat	Packing
CS	ASTM A108CS	ASTM A108CS	ASTM A582 303SS	SEE OPTION CODES ON PAGE 4	Teflon™
SC	ASTM A105CS	ASTM A182 316SS	ASTM A182 316SS		
316SS	ASTM A182 316SS	ASTM A182 316SS	ASTM A182 316SS		



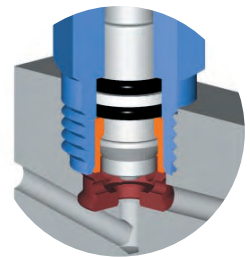
Stem and Seat Configurations



3/16" Bore
Tapered Tip
(O-ring)



3/16" Bore
Tapered Tip
(Packed)



1/8" Bore
Flat Tip
(O-ring)

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

P3M2S™ 2-Valve Manifold Model Numbering System

Phoenix	Orifice Size	Type	Inlet Size	Inlet Type	Outlet Size	Outlet Type	Material	Packing	Seat	Stem Tip
P	3=3/16"	M2S	8=1/2"	F=FNPT		FL=Flange	SS=ASTM A182 316/316L	A=Aflas™	D=Delrin™	Tapered Tip Standard (leave blank)
				FL=Flange			SC=ASTM A105 CS*	V=Viton™ (FKM)	P=Peek™	
				FT=Female Tube Fitting			CS=ASTM A108 CS*	T=Teflon™ (PTFE)		
							C5=ASTM A350 LF2			
							N4=Monel™ 400			
							N6=Inconel™ 625			
							N8=Inconel™ 825			
							N2=Hastelloy™ C276			
EXAMPLE: P3M2S8FFLSSD = 3/16" Orifice, 2-Valve Manifold, 1/2" FNPT Inlet, Flange Outlet, 316 SS Body, Teflon™ Packing, Delrin™ Seat, 316 SS Tapered Tip Stem										
P	3	M2S	8	F		FL	SS	T	D	
*For code applications, A105 CS must be selected for CS valves. Code grade bolts must be specified for code applications. Note: Standard Bolting Options , CS - carbon steel, Gr.8, zinc plated bolts; SS - stainless steel, 18.8 (304SS) bolts.										

Option Codes	Description
LB	Bonnet Lock
CC	Chlorine Clean
OC	Oxygen Clean
TG	SS Tag
SGI	Sour Gas ISO NACE Latest Rev.
N4	Monel™ 400 Stem
N5	Monel™ 500 Stem
N6	Inconel™ 625 Stem
N8	Inconel™ 825 Stem
N2	Hastelloy™ C276 Stem
H(V)MB	Horizontal (Vertical) Mounting Bracket
H(V)MBS	SS Horizontal (Vertical) Mounting Bracket
S6	316 SS Bolts
225CS	2.25" CS Bolts
225S4	2.25" 304 SS Bolts
225S6	2.25" 316 SS Bolts
TB	1/4" FNPT Test Ports Bottom
PB	1/4" FNPT Purge Ports Bottom
B7	AISI 4140/4142 QT
B8C1	Class 1, 304SS, ST
B8MC1	Class 1, 316SS, ST
B8C2	Class 2, 304SS, ST, SH
B8MC2	Class 2, 316SS, ST, SH

Use with Confidence, Phoenix Precision 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/ISO15156 for all 316SS valves and A105CS body/316SS bonnet (SC-Material Code) when in service with less than 50 PPM of chlorides

Code Bolting Information
1. B7, B8C1, B8MC1, B8C2, B8MC2 are code grades to ASTM A193;
2. To specify code grade bolting, example: 225B7 indicates 2.25" bolt length; B7 grade, alloy steel, AISI 4140/4142
3. QT -Quenched & Tempered; ST -Carbide Solution Treated; SH -Strain Hardened

Seal and Seat Material 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)

For further information please contact:

Phoenix Precision Ltd.
2620 21st Street N.E.
Calgary, Alberta T2E 7L3
Phone:(403) 291-3154
Fax: (403) 291-3292
email: phoenix@phoenixprecision.ca
www.phoenixprecisionvalves.com

Distributor / Representative:



Phone: +61-3-9872-5822 Fax: +61-3-9872-5129
E-mail: sales@haldatec.com.au Web Site: www.haldatec.com.au



Phoenix Precision Ltd. (PPL) provides the information herein in good faith but makes no representation as to its comprehensiveness or accuracy. The information contained herein is intended only as a guide to PPL products and services. Individuals using information must exercise independent judgment in evaluating product selection and determining product appropriateness for their particular purpose and system requirements. PPL MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT(S) TO WHICH THE INFORMATION REFERS. ACCORDINGLY, PPL WILL NOT BE RESPONSIBLE FOR DAMAGES (OF ANY KIND OR NATURE, INCLUDING INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES) RESULTING FROM THE USE OF OR RELIANCE UPON THIS INFORMATION. Patents and Patents Pending in the U.S. and foreign countries. PPL reserves the right to change product designs and specifications without notice.

DELIN, TEFLON, VITON and TEFLO are registered trademarks (hereinafter referred to as TM) of E.I. Du Pont De Nemours and Company Corporation. PEEK is a registered TM of Whitford Worldwide Company and Whitford B.V. KEL-F is a registered TM of M.W. Kellogg Company. GRAFOIL is a registered TM of High Temperature Materials Inc. and Graftech INC. Corporation. AFLAS is a registered TM of Asahi Glass Co. Ltd. Corporation Japan. MONEL and INCONEL are registered TMs of Huntington Alloys Corporation. HASTELLOY is a registered TM of Haynes International, Inc.

© 2010 by Phoenix Precision Ltd. All rights reserved. Material in this brochure or catalogue may not be reproduced in whole or in part, in any form, without written permission from the publisher.