

## CHART RECORDER MANIFOLD

### 3/16" Bore Chart Recorder Manifold

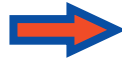
The P3CR3S™ and P3CR5S™ manifolds are designed to use with chart recorder style orifice meters. These manifolds feature a 3/16" bore in a roddable straight through design which minimizes plugging. These manifolds are constructed from bar stock and feature robust stems. This design ensures a bubble tight seal. Bonnets are pinned for security.



### Standard Features

### Benefits

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



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

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



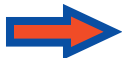
Complies with ASME B31.1 & B31.3 seat testing procedures as standard. Ensures zero leakage at seats for proper calibration.

Packing below stem threads



Prevents corrosion of critical stem threads

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



Mitigates risk of stress cracking

Stem threads are rolled, not cut



Higher quality stem for longer service life

8 RMS stem finish



Extended packing life

V-Style Teflon™ packing



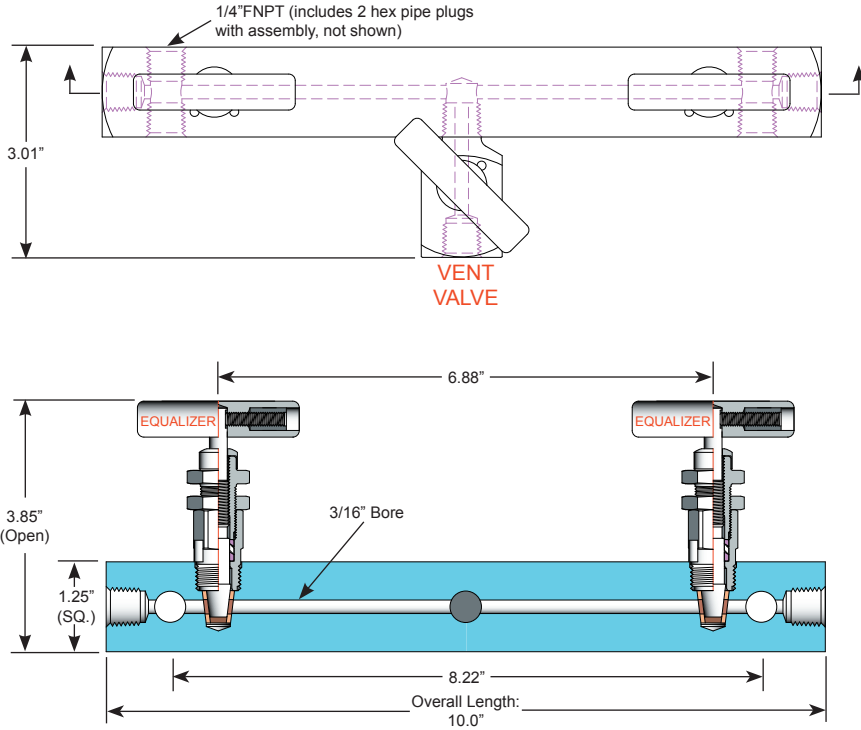
30-40% less operational torque and less frequent packing adjustments than traditional Teflon™ packed valves

Pressure component materials sourced from the US, Canada or Europe



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

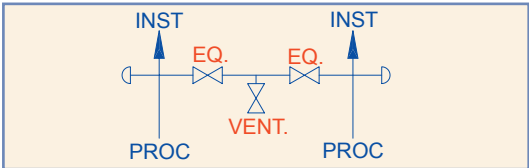
### P3CR3S with Packed Bonnet Assembly



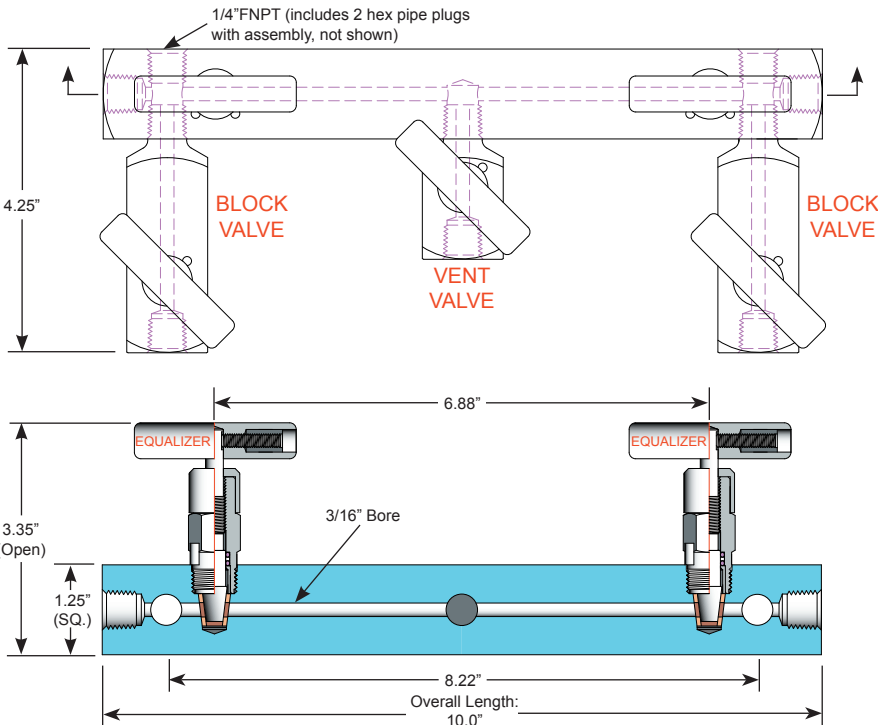
**Specifications:**

Type: **P3CR3S** Chart Recorder, Roddable Pattern  
 Rating: Up to 6000 psi @ 100°F (41370 kPa @ 38°C)  
 Stem: Tapered Plug Tip  
 Packing: Aflas<sup>TM</sup>, Viton<sup>TM</sup> O-ring or Teflon<sup>TM</sup>  
 Seat: Delrin<sup>TM</sup>  
 Handle: Removable  
 Bore Size: 3/16"  
 Inlet Connections: 1/4" FNPT  
 Outlet Connections: 1/4" FNPT  
 Vent Connection: 1/4" FNPT  
 Bonnet Lock: Pin or Plate  
 Body Stock: 10.0" x 1.25" x 1.25"  
 Weight: 5.45 lbs  
 Special Service: O<sub>2</sub> or CL cleaning available\*

\*Other specifications or services may be available



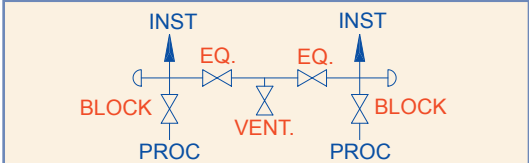
### P3CR5S with O-ring Bonnet Assembly



**Specifications:**

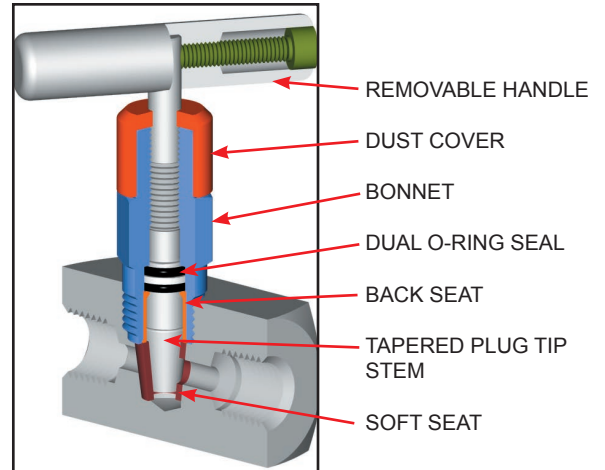
Type: **P3CR5S** Chart Recorder, Roddable Pattern  
 Rating: Up to 6000 psi @ 100°F (41370 kPa @ 38°C)  
 Stem: Tapered Plug Tip  
 Packing: Aflas<sup>TM</sup>, Viton<sup>TM</sup> O-ring or Teflon<sup>TM</sup>  
 Seat: Delrin<sup>TM</sup>  
 Handle: Removable  
 Bore Size: 3/16"  
 Inlet Connections: 1/4" FNPT  
 Outlet Connections: 1/4" FNPT  
 Vent Connection: 1/4" FNPT  
 Bonnet Lock: Pin or Plate  
 Body Stock: 10.0" x 1.25" x 1.25"  
 Weight: 7.88 lbs  
 Special Service: O<sub>2</sub> or CL cleaning available\*

\*Other specifications or services may be available



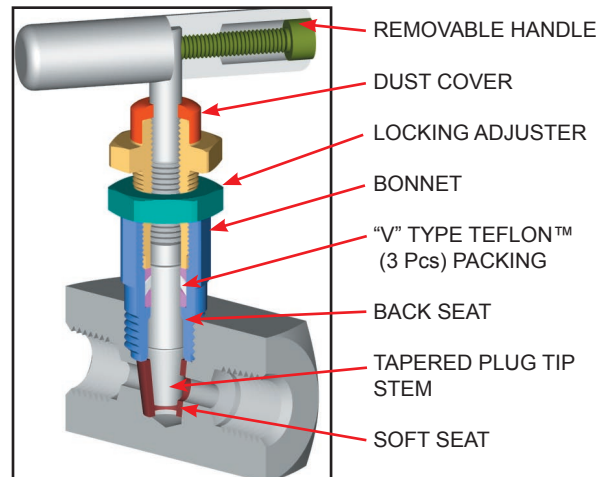
## O-Ring Bonnet Assembly

Standard Materials					
Valve	Body	Bonnet	Stem	Insert	Handle
CS	ASTM A108CS	ASTM A108CS	ASTM A582 303SS	ASTM A108CS	ASTM A108CS
SC	ASTM A105CS	ASTM A182 316SS	ASTM A182 316SS	ASTM A182 316SS	ASTM A582 303SS
316SS	ASTM A182 316SS	ASTM A182 316SS	ASTM A182 316SS	ASTM A182 316SS	ASTM A582 303SS

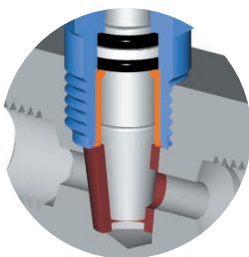


## Teflon™ Bonnet Assembly

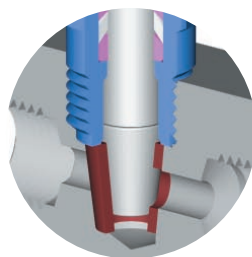
Standard Materials					
Valve	Body	Bonnet	Stem	Adjuster	Handle
CS	ASTM A108CS	ASTM A108CS	ASTM A582 303SS	ASTM A108CS	ASTM A108CS
SC	ASTM A105CS	ASTM A182 316SS	ASTM A182 316SS	ASTM A182 303SS	ASTM A582 303SS
316SS	ASTM A182 316SS	ASTM A182 316SS	ASTM A182 316SS	ASTM A182 303SS	ASTM A582 303SS



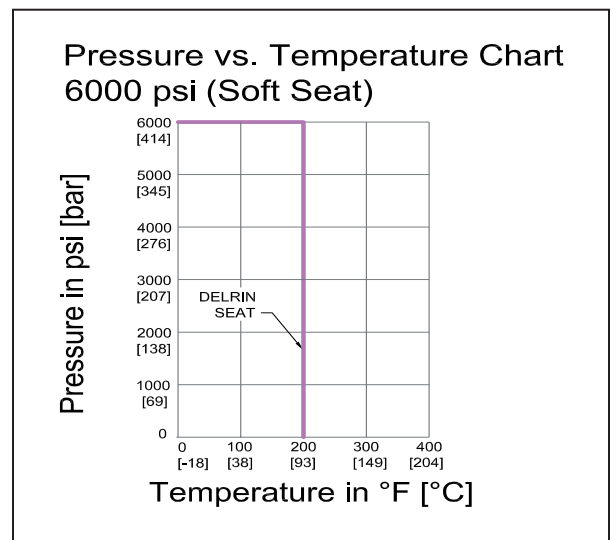
## Stem and Seat Configurations



Tapered plug tip stem with O-ring seal



Tapered plug tip stem with Teflon™ packing



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.

Phoenix	Orifice Size	Type	Inlet Type	Outlet Type	Material	Packing	Seat
P	3=3/16"	CR3S= 3-Valve	4F= 1/4" FNPT	4F= 1/4" FNPT	SS=ASTM A182 316/316L	A=Aflas™	D=Delrin™
		CR5S= 5-Valve			SC=ASTM A105 CS	V=Viton™ (FKM)	
					CS=ASTM A108 CS	T=Teflon™ (PTFE)	
EXAMPLE: <b>P3CR5S4F4FSSVD</b> = Phoenix, 3/16" Orifice, Chart Recorder, 5-Valve, 1/4"FNPT x 1/4"FNPT, 316SS material, Viton O-ring Seal, Delrin™ Seat							
<b>P</b>	<b>3</b>	<b>CR5S</b>	<b>4F</b>	<b>4F</b>	<b>SS</b>	<b>V</b>	<b>D</b>
<b>Includes 1/4" Pipe Plugs:</b> 2 pipe plugs for both P3CR3S and P3CR5S configurations.							

**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 for all 316SS valves and A105CS body/316SS bonnet (SC Material Code)

**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)

**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:**

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.

DELRIIN, TEFLON, VITON and TEFLON 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.

© 2013 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.