

P3GC4S™ GAS CHROMATOGRAPH MANIFOLD

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3/16" Bore Gas Chromatograph Manifold

The P3GC4S[™] gas chromatograph manifold is designed to facilitate the easy installation of dual carrier gas bottles on a single gas chromatograph installation and to eliminate leak points in the process. The manifold features two purge valves, two block valves and a built-in 2" mounting bracket.



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



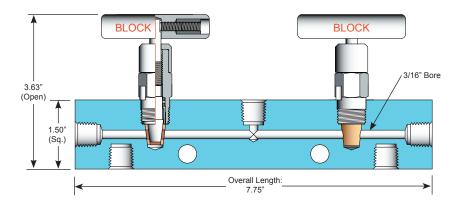
Reliable material traceability. MTR's provided with every order for pressure containing components.





P3GC4S™ GAS CHROMATOGRAPH MANIFOLD

Technical Specifications



Specifications:

Type: **P3GC4S** Manifold, Roddable Pattern for Blocks, Globe Pattern for Purges

Rating: Up to 6000 psi @ 100°F (41370 kPa @ 38°C)

Stem: Tapered Plug Tip and Flat Tip

Packing: Aflas™, Viton™ O-ring or Teflon™

Seat: Delrin™ Handle: Removable

Bore Size: 3/16" for Blocks, 1/8" for Purges

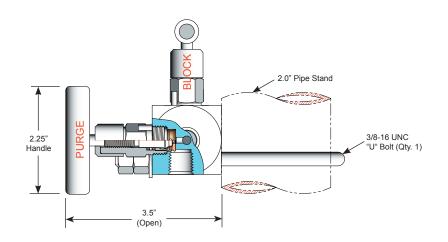
Inlet Connections: 1/4" FNPT Outlet Connections: 1/4" FNPT Purge Port: 1/4" FNPT (includes 1/4"

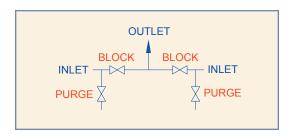
Pipe Plug)
Bonnet Lock: Pin or Plate
Body Stock: 7.75" x 1.5" x 1.5"

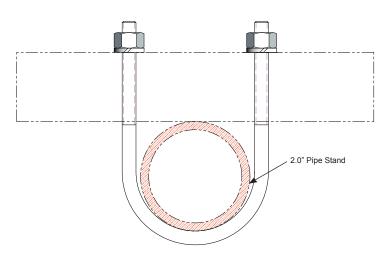
Weight: 5.65 lbs

Special Service: O2 or CL cleaning available*

*Other specifications or services may be available







NOTE: "U" Bolt, Nuts and washers are included (See Numbering System on Page 4)



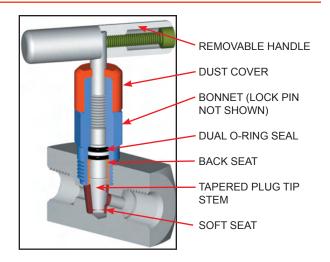
P3GC4S Application



P3GC4S™ GAS CHROMATOGRAPH MANIFOLD Bonnet, Stem and Seat Characteristics

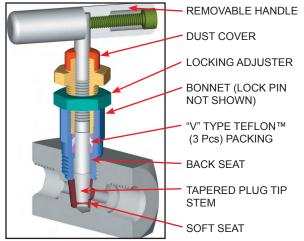
O-Ring Bonnet Assembly

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

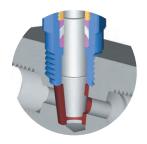


Teflon™ Bonnet Assembly

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



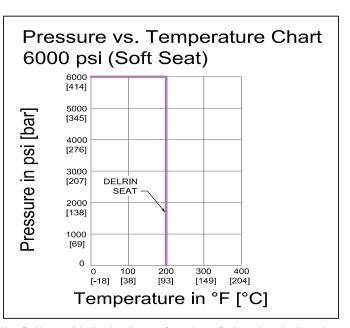
Stem and Seat Configurations



Tapered plug stem for block valve



Flat tip stem for purge valve



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.



P3GC4S™ GAS CHROMATOGRAPH MANIFOLD Model Numbering System

Phoenix	Orifice Size	Туре	Inlet Type	Outlet Type	Material	Packing	Seat
Р	3=3/16"	GC4S	4F= 1/4" FNPT	4F= 1/4" FNPT	SS=ASTM A182 316/316L	A=Aflas™	D=Delrin™
					SC=ASTM A105 CS	V=Viton™ (FKM)	
					CS=ASTM A108 CS	T=Teflon™ (PTFE)	
EXAMPLE: P3GC4S4F4FSSVD = Phoenix, 3/16" Orifice, Gas Chromatograph, 1/4"FNPT x 1/4"FNPT, 316SS material, FKM O-ring Bonnet, Delrin™ Seat							
Р	3	GC4S	4F	4F	SS	V	D
Includes Mounting Kit: Option 1: 3/8-16 UNF "U" Bolt, 18.8SS, Qty. 1 3/8-16 Hex Nut, 18.8SS, Qty. 4 3/8-16 Stainless Steel Flat Washer, Qty. 2 3/8-16 Stainless Steel Lock Washer, Qty. 2					Qty. 2		

Option Codes	Description
CC	Chlorine Clean
OC	Oxygen Clean
LB	Bonnet Lock
RL (R)(B)	Round Large Handle Aluminum (Red)(Blue)
RC	Round Handle CS
RS	Round Handle SS

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

Seal and Seat Material Temperature Rating

Code	Description	MIN. TEMP	MAX. TEMP
Α	Aflas™	15°F (-10°C)	400°F (204°C)
V	Viton™	-20°F (-29°C)	400°F (204°C)
Т	Teflon™	-65°F (-54°C)	450°F (232°C)
D	Delrin™	-40°F (-40°C)	200°F (93°C)

For further information please contact:



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