

# **P3G6S™, P4G6S™ AND P6G6S™** SOFT SEAT GAUGE VALVE

## SOFT SEAT GAUGE VALVE

### 3/16", 1/4" and 3/8" Bore Soft Seat Gauge Valve

Soft seat gauge valves are designed for use with various instrumentation equipment and can be installed to control. isolate, measure, calibrate, equalize, drain or vent the pressure of gases and liquids. Phoenix's roddable, multiport gauge valves are of bar stock construction and are available in various materials, sizes, sealing styles, end connections and stem types. The main features of Phoenix gauge valves are robust stems, tapered stem tips, bubble tight seals, pinned bonnets with packing below the threads to prevent process contamination, and flexible mounting for both vertical and horizontal applications.

#### 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<sup>™</sup> 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.

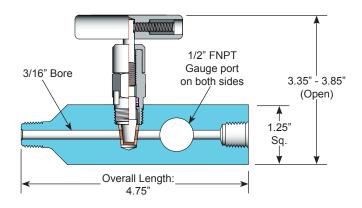
Solutions for Oil & Gas and Petrochemical Processing www.phoenixprecisionvalves.com



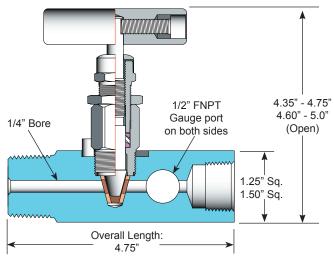


## **PHOENIX** ™ P3G6S™, P4NGS™ and P6G6S™ Gauge Valve Technical Specifications

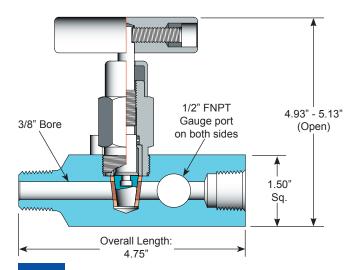
### P3G6S Assembly



## P4G6S Assembly



#### P6G6S Assembly



#### Specifications:

Type: P3G6S Gauge Valve, Roddable Pattern Rating: Up to 6000 psi @ 100°F (41370 kPa @ 38°C) Stem: Tapered Plug Tip Packing: Vition™. Aflas™ O-ring or Teflon™ Seat: Delrin™ Handle: Removable Bore Size: 3/16" Inlet Connections: 1/4" to 1/2" NPT, 3/4" for Male NPT Only) Outlet Connections: 1/4" to 1/2"NPT Bonnet Lock: Pin or Plate Body Stock: 1.25" square Weight: 1.6 - 1.8 lbs Special Service: O2 or CL cleaning available\*

\*Other specifications or services may be available.

#### Specifications:

Type: P4G6S Gauge Valve, Roddable Pattern Rating: Up to 6000 psi @ 100°F (41370 kPa @ 38°C) Stem: Tapered Plug Tip Packing: Vition™, Aflas™ O-ring or Teflon™ Seat: Delrin™ Handle: Removable Bore Size: 1/4" Inlet Connections: 1/4" to 1/2", 3/4" NPT, 1" for Male NPT Only Outlet Connections: 1/4" to 1/2", 3/4" Bonnet Lock: Pin or Plate Body Stock: 1.25" or 1.50" square Weight: 2.3 - 2.9 lbs Special Service: O2 or CL cleaning available\*

\*Other specifications or services may be available.

#### Specifications:

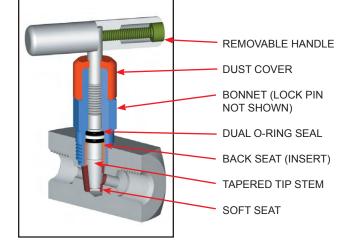
Type: P6G6S Gauge Valve, Roddable Pattern Rating: Up to 6000 psi @ 100°F (41370 kPa @ 38°C) Stem: Non-rotating Tapered Plug Tip Packing: Vition™, Aflas™ O-ring or Teflon™ Seat: Delrin<sup>™</sup>, Tefzel<sup>™</sup> (2000 psi Rating) Handle: Removable Bore Size: 3/8" Inlet Connections: 1/2" to 3/4"NPT, 1" for Male NPT Only Outlet Connections: 1/2" to 3/4"NPT Bonnet Lock: Pin or Plate Body Stock: 1.50" square Weight: 2.6 - 2.9 lbs Special Service: O2 or CL cleaning available\*

\*Other specifications or services may be available.

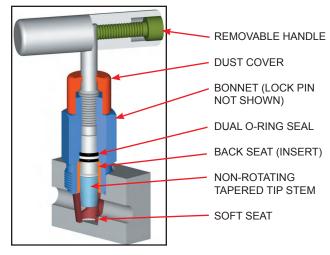


# **PHOENIX** <sup>™</sup> P3G6S<sup>™</sup>, P4G6S<sup>™</sup> and P6G6S<sup>™</sup> Gauge Valve Bonnet, Stem and Seat Characteristics

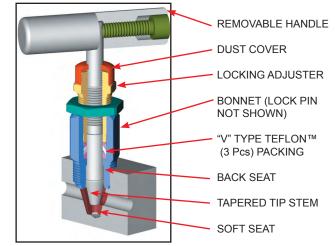
### 3/16" Bonnet Assembly



### 3/8" Bonnet Assembly



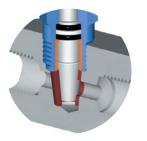
### 1/4" Bonnet Assembly



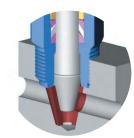
#### Materials of Construction

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

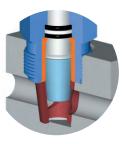
### Stem and Seat Configurations



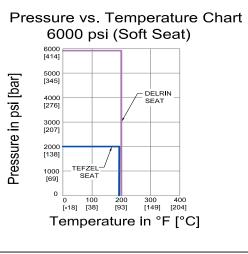
3/16" Bore



1/4" Bore



#### 3/8" Bore



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 ™ P3G6S™, P4G6S™ and P6G6S™ Gauge Valve Model Numbering System

Phoenix	Orifice Size	Туре	Inlet Size	Inlet Type	Outlet Size	Outlet Type	Material	Packing	Seat	Stem Tip	Option Codes	Description	
P 3=3/16"	3=3/16"	6" G6S	4=1/4"	F=FNPT	4=1/4"	F=FNPT	SS=ASTM	A=Aflas™	D=	Tapered Plug	LB	Bonnet Lock	
		(P3, P4 Only)		(P3, P4 Only)		A182 316/316L		Delrin™	Tip Standard (leave blank)	CC	Chlorine Clean		
	4=1/4"		6=3/8"	M=MNPT	6=3/8"	M=MNPT	SC=ASTM	V=Viton™	Z=		ос	Oxygen Clean	
			(P3, P4) Only		(P3, P4 Only)		A105 CS*	(FKM)	Tefzel™ (P6 Only)		TG	SS Tag	
	6=3/8"		8=1/2"		8=1/2"		CS=ASTM A108 CS*	T=Teflon™ (PTFE)			SGI	Sour Gas ISO NACE Latest Rev.	
			12=3/4" (Male only)		12=3/4"		C5=ASTM A350 LF2	(1112)			RA (R)(B)	Round Handle Aluminum (Red) (Blue) (P3 Only)	
			16=1" (Male				N4=Monel™ 400				RC	Round Handle C.S. (P3 Only)	
			only)				N6=Inconel™				RS	Round Handle S.S. (P3 Only)	
							625				PM	Panel Mount	
							N8=Inconel™ 825				N4	Monel <sup>™</sup> 400 Stem	
							N2=Hastelloy™				N5	Monel <sup>™</sup> 500 Stem	
	F. D2060		- Dhaaniy	2/16" Orifice			C276	0 CS Dady F	KM Dooking		N6	Inconel <sup>™</sup> 625 Stem	
EXAMPLE: P3G6S4M4FCSV = Phoenix, 3/16" Orifice, G6S, 1/4" MNPT Inlet, 1/4" FNPT Outlet, A108 CS Body, FKM Packing, Delrin™ Seat, Tapered Plug Tip Stem							N8	Inconel <sup>™</sup> 825					
Р	3	G6S	4	м	4	F	cs	V	D			Stem	
*For code applications, A108 CS is unacceptable, A105 CS must be selected for CS valves. Note: includes 2 pipe plugs for gauge ports.						N2	Hastelloy™ C276 Stem						

#### 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

#### For further information please contact:



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#### Seal and Seat Material Temperature Rating

Code	Description	MIN. TEMP	MAX. TEMP
А	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)
Z	Tefzel™	-300°F (-185°C)	300°F (150°C)

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