

## SOFT SEAT BLOCK AND BLEED VALVES

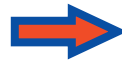
### 3/16" Bore Soft Seat Block and Bleed Valve

The soft seat block and bleed valve can be used with pressure gauges, pressure transmitters and pressure switches. The valve is built using bar stock construction, robust stems, and bonnets pinned for security. The BB6S features two block and bleed valves with one 1/4" FPNT vent/calibration port. Phoenix offers the roddable BB6S valve in a variety of materials and inlet/outlet configuration that meet most application requirements. The soft seat design ensures a bubble-tight seal.

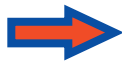


### Standard Features

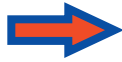
Hydrotested at 150% of rated pressure (shell test). Nitrogen gas tested to 2000 psi.



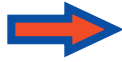
Seat tightness (zero leakage) verified to 110% of rated pressure. Nitrogen gas tested to 2000 psi.



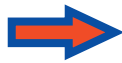
Packing below stem threads



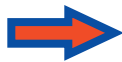
Metal body-to-bonnet seals are in compression, not tension



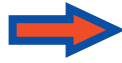
Stem threads are rolled, not cut



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

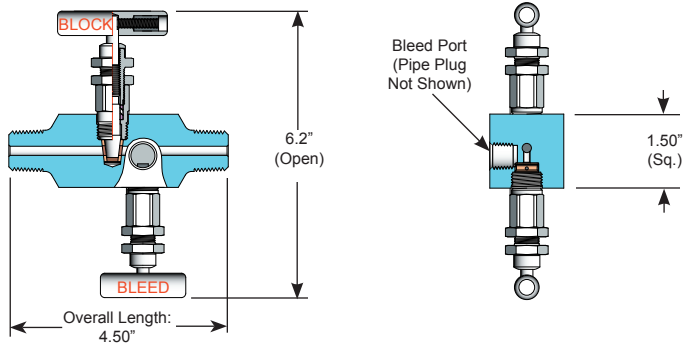
Extended packing life

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.

# P3BB6S™ Soft Seat Block and Bleed Valve Technical Specifications

## Male x Male Configuration

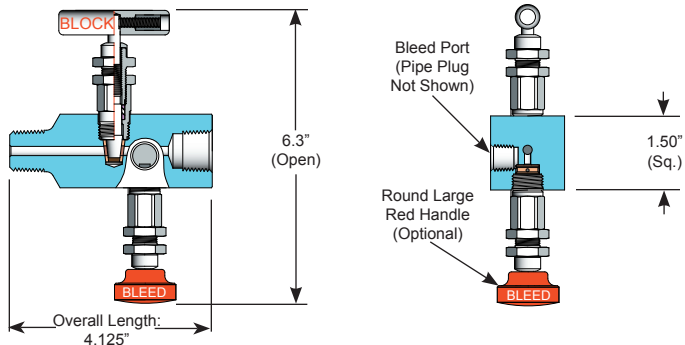


### Specifications:

Type: P3BB6S Valve, Male x Male, Roddable Pattern  
 Rating: Up to 6000 psi @ 100°F  
 (41370 kPa @ 38°C)  
 Stem: Tapered tip and Flat tip  
 Packing: Aflas™ or Viton™ O-ring or Teflon™  
 Seat: Delrin™ or Peek™  
 Handle: Removable  
 Bore Size: 3/16", 1/8" for Bleed  
 Inlet Connections: 1/2" NPT to 3/4" NPT, or FT (1" for Male NPT Only)  
 Outlet Connections: Same as inlet  
 Bleed Port: 1/4" FNPT (includes 1/4" Pipe Plug)  
 Bonnet Lock: Pin or Plate  
 Body Stock: 1.50" sq  
 Weight: 2.53 lbs  
 Special Service: O<sub>2</sub> or CL cleaning available\*

\*Other specifications or services may be available

## Male x Female Configuration

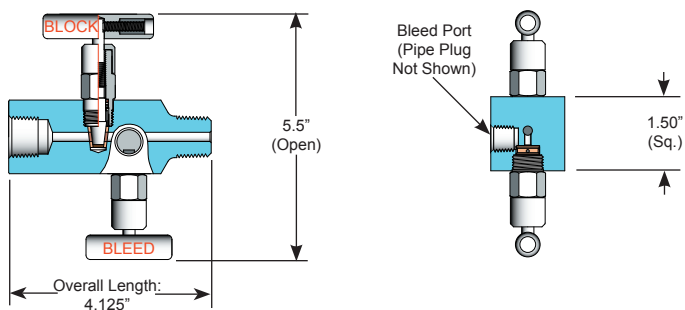


### Specifications:

Type: P3BB6S Valve, Male x Female, Roddable Pattern  
 Rating: Up to 6000 psi @ 100°F  
 (41370 kPa @ 38°C)  
 Stem: Tapered tip and Flat tip  
 Packing: Aflas™ or Viton™ O-ring or Teflon™  
 Seat: Delrin™ or Peek™  
 Handle: Removable  
 Bore Size: 3/16", 1/8" for Bleed  
 Inlet Connections: 1/2" to 3/4" NPT, or FT (1" for Male NPT Only)  
 Outlet Connections: Same as inlet  
 Bleed Port: 1/4" FNPT (includes 1/4" Pipe Plug)  
 Bonnet Lock: Pin or Plate  
 Body Stock: 1.5" sq  
 Weight: 2.45 lbs  
 Special Service: O<sub>2</sub> or CL cleaning available\*

\*Other specifications or services may be available.

## Female x Male Configuration

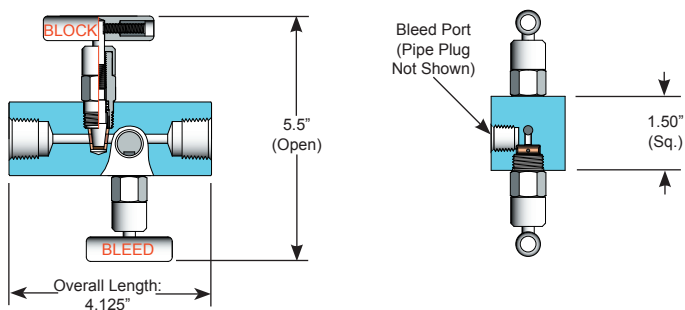


### Specifications:

Type: P3BB6S Valve, Female x Male, Roddable Pattern  
 Rating: Up to 6000 psi @ 100°F  
 (41370 kPa @ 38°C)  
 Stem: Tapered tip and Flat tip  
 Packing: Aflas™ or Viton™ O-ring or Teflon™  
 Seat: Delrin™ or Peek™  
 Handle: Removable  
 Bore Size: 3/16", 1/8" for Bleed  
 Inlet Connections: 1/2" to 3/4" NPT, or FT (1" for Male NPT Only)  
 Outlet Connections: Same as inlet  
 Bleed Port: 1/4" FNPT (includes 1/4" Pipe Plug)  
 Bonnet Lock: Pin or Plate  
 Body Stock: 1.5" sq  
 Weight: 2.43 lbs  
 Special Service: O<sub>2</sub> or CL cleaning available\*

\*Other specifications or services may be available.

## Female x Female Configuration



### Specifications:

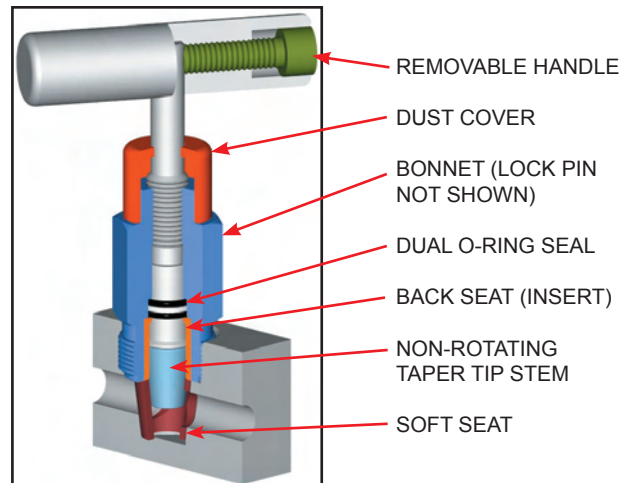
Type: P3BB6S Valve, Female x Female, Roddable Pattern  
 Rating: Up to 6000 psi @ 100°F  
 (41370 kPa @ 38°C)  
 Stem: Tapered tip and Flat tip  
 Packing: Aflas™ or Viton™ O-ring or Teflon™  
 Seat: Delrin™ or Peek™  
 Handle: Removable  
 Bore Size: 3/16", 1/8" for Bleed  
 Inlet Connections: 1/2" to 3/4" NPT, or FT (1" for Male NPT Only)  
 Outlet Connections: Same as inlet  
 Bleed Port: 1/4" FNPT (includes 1/4" Pipe Plug)  
 Bonnet Lock: Pin or Plate  
 Body Stock: 1.5" sq  
 Weight: 2.50 lbs  
 Special Service: O<sub>2</sub> or CL cleaning available\*

\*Other specifications or services may be available.



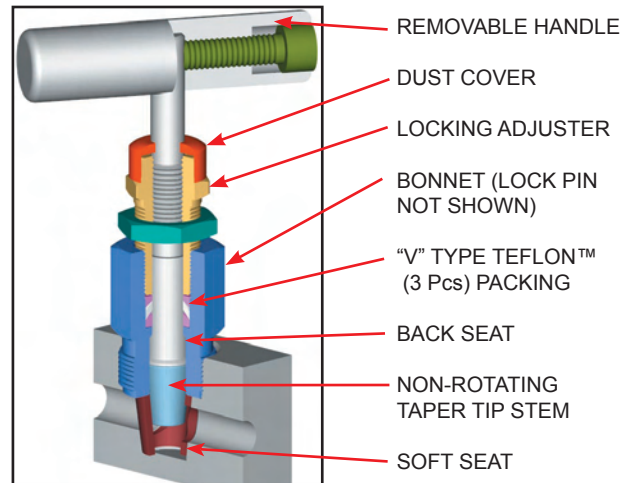
## O-Ring Bonnet Assembly

Standard Materials					
Valve	Body	Bonnet	Stem	Seat	Packing
CS	ASTM A108CS	ASTM A108CS	ASTM A582 303SS	Delrin™ or Peek™	Dual 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		

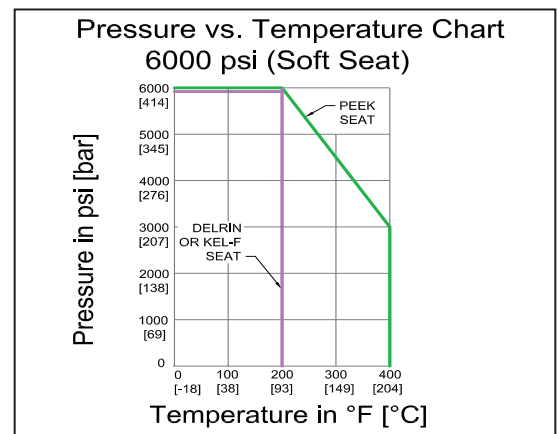
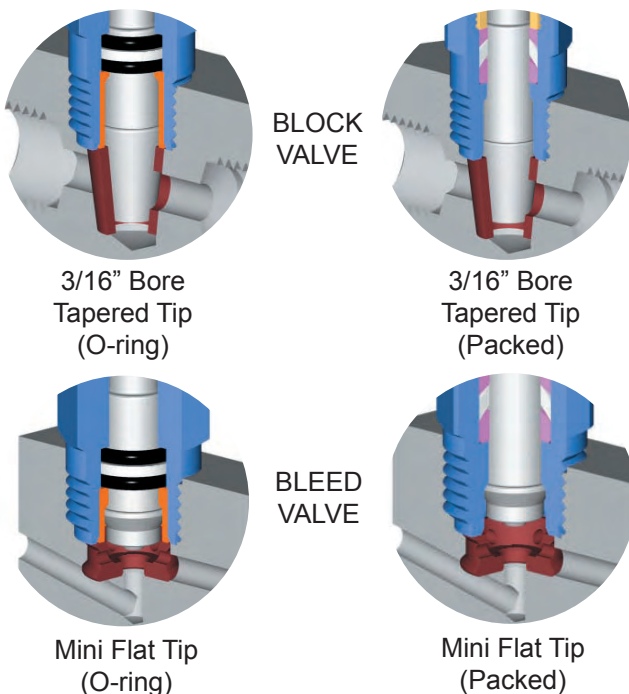


## Packed Bonnet Assembly

Standard Materials					
Valve	Body	Bonnet	Stem	Seat	Packing
CS	ASTM A108CS	ASTM A108CS	ASTM A582 303SS	Delrin™ or Peek™	Teflon™
SC	ASTM A105CS	ASTM A182 316SS	ASTM A182 316SS		
316SS	ASTM A182 316SS	ASTM A182 316SS	ASTM A182 316SS		



## Stem and Seat Configurations



Note: Body material specifications based on ASME B16.34 - 2009. 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 Size	Inlet Type	Outlet Size	Outlet Type	Material	Packing	Seat	Stem Tip
P	3=3/16"	BB6S (3/16" Bore)	8=1/2"	F=FNPT	8=1/2"	F=FNPT	SS=ASTM A182 316/316L	A=Aflas™	D=Delrin™	Tapered and Flat Tip Standard (leave blank)
			12=3/4"	M=MNPT	12=3/4"	M=MNPT	SC=ASTM A105 CS*	V=Viton™ (FKM)	P=Peek™	
			16=1" (Male Only)	FT=Female Tube Fitting	16=1" (Male Only)	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: P3BB6S8M8FSSVD = Phoenix, 3/16" Orifice, Block & Bleed Valve, 1/2" MNPT Inlet, 1/2" FNPT Outlet, 316 SS Body, Viton™ O-ring Packing, Delrin™ Seat, Tapered and Flat Tip Stems										
<b>P</b>	<b>3</b>	<b>BB6S</b>	<b>8</b>	<b>M</b>	<b>8</b>	<b>F</b>	<b>SS</b>	<b>V</b>	<b>D</b>	
*For code applications, A108 CS is unacceptable, A105 CS must be selected for CS valves.										

Option Codes	Description
LB	Bonnet Lock
CC	Chlorine Clean
OC	Oxygen Clean
TG	SS Tag
SGI	Sour Gas ISO NACE Latest Rev.
RLR	Round Large Red Aluminum Handle for Bleed (Vent)
RC	Round Handle C.S.
RS	Round Handle S.S.
N4	Monel™ 400 Stem
N5	Monel™ 500 Stem
N6	Inconel™ 625 Stem
N8	Inconel™ 825 Stem
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

**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)

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