



# P3BB6S™

## Soft Seat Block and Bleed Valve

3/16" Bore Soft Seat Block and Bleed Valve



Parker Phoenix Precision Brand

## Table of Contents

Overview, Features and Benefits .....	3
Technical Specifications .....	4
Bonnet Characteristics .....	5
Stem and Seat Characteristics .....	6
Model Numbering System .....	7



## P3BB6S™: 1/8" Bore Soft Seat Block and Bleed Valve

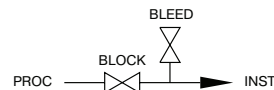
The Parker Phoenix™ brand Soft Seat Block and Bleed Valve can be used with pressure gauges, pressure transmitters and pressure switches. The valve is built using bar stock construction, robust stems, and bonnets pinned for security.

The BB6S features two block and bleed valves with one 1/4" FPNT vent/calibration port. Parker 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.

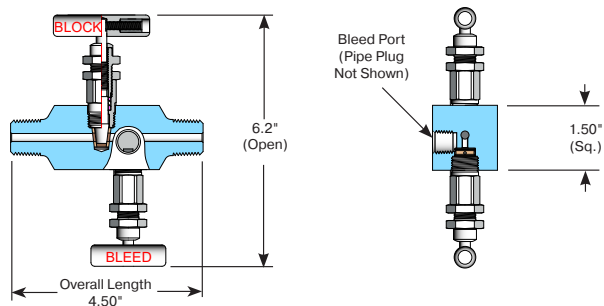


Standard Features	Benefits
Hydrotested at 150% of rated pressure (shell test). Nitrogen gas tested to 2000 psi.	Complies with ASME B31.1 & B31.3 shell testing procedures as standard. Ensures structural integrity of valve.
Seat tightness (zero leakage) verified to 110% of rated pressure. Nitrogen gas 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.

# P3BB6S™: Technical Specifications



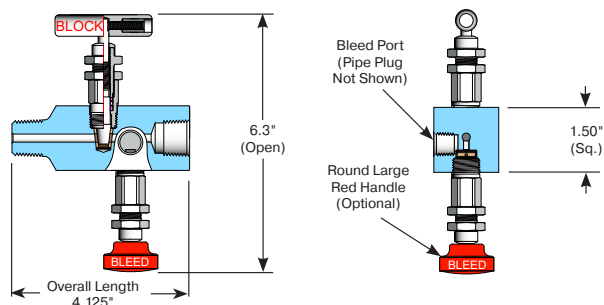
## Male x Male Configuration



### 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: O2 or CL cleaning available\*  
 \*Other specifications or services may be available.

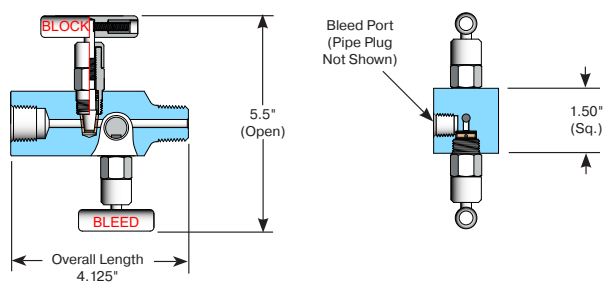
## Male x Female Configuration



### 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: O2 or CL cleaning available\*  
 \*Other specifications or services may be available.

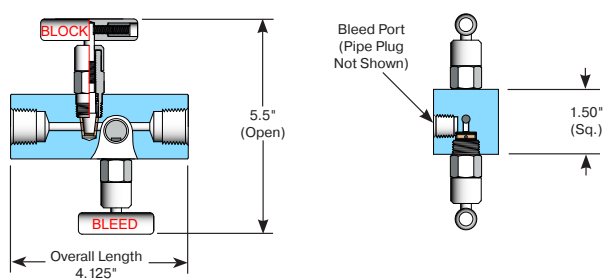
## Female x Male Configuration



### 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: O2 or CL cleaning available\*  
 \*Other specifications or services may be available.

## Female x Female Configuration



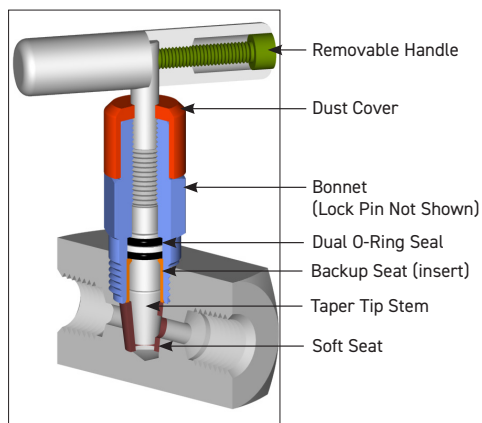
### Specifications:

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: O2 or CL cleaning available\*  
 \*Other specifications or services may be available.

# P3BB6S™: Bonnet Characteristics

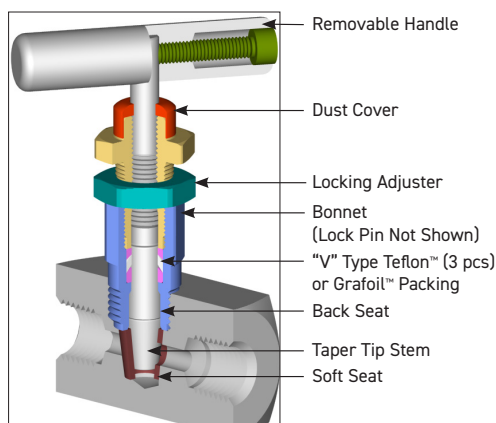
## O-Ring Bonnet Assembly

Standard Materials					
Valve	Body	Bonnet	Stem	Ball	Packing
CS	ASTM A108CS	ASTM A108CS	ASTM A582 303SS	SEE OPTION CODES ON PAGE 6	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

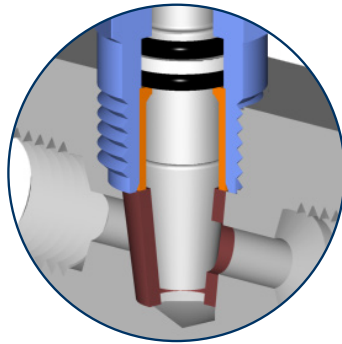
Standard Materials					
Valve	Body	Bonnet	Stem	Ball	Packing
CS	ASTM A108CS	ASTM A108CS	ASTM A582 303SS	SEE OPTION CODES ON PAGE 6	Teflon™ and Grafoil™
SC	ASTM A105CS	ASTM A182 316SS	ASTM A182 316SS		
316SS	ASTM A182 316SS	ASTM A182 316SS	ASTM A182 316SS		



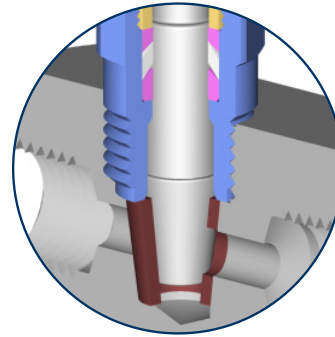
# P3BB6S™: Stem Tips and Seat Characteristics

## Stem Tips

### Block Valve

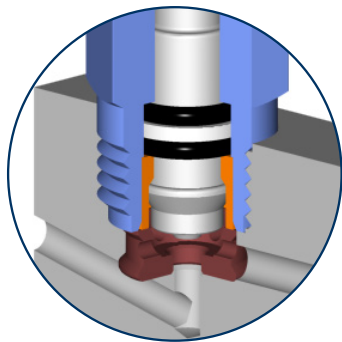


3/16" Bore Tapered Tip (O-Ring)

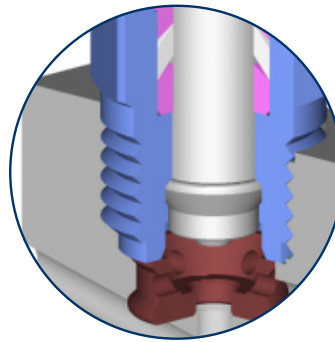


3/16" Bore Tapered Tip (Packed)

### Bleed Valve



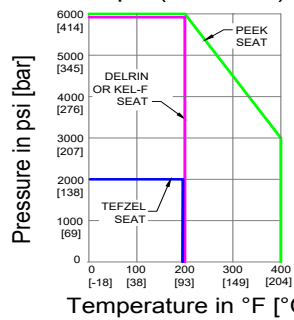
Mini Flat Tip (O-ring)



Mini Flat Tip (Packed)

## Pressure vs. Temperature (Hard Seat)

Pressure vs. Temperature Chart  
6000 psi (Soft Seat)



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.

## P3BB6S™: Model Numbering System

Phoenix	Orifice Size	Type	Inlet Size	Inlet Type	Outlet Size	Outlet Type	Material	Packing	Seat	Stem Tip	Option Codes	Description
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 Tip Flat Tip Standard (leave blank)	LB	Bonnet Lock
			12 3/4"	M MNPT	12 3/4"	M MNPT	SC ASTM A105 CS**	V Viton™ (FKM)	P Peek™		CC	Chlorine Clean
			16 1" (Male only)	FT Female Tube Fitting	16 1" (Male only)	FT Female Tube Fitting	CS ASTM A108 CS**	T Teflon™ (PTFE)			OC	Oxygen Clean
							C5 ASTM A350 LF2				TG	SS Tag
							N4 Monel™ 400				SGI	Sour Gas ISO NACE Latest Rev.
							N6 Inconel™ 625				RLR	Round Large Red Aluminum Handle for Bleed (Vent)
							N8 Inconel™ 825				RC	Round Handle CS
							N2 Hastelloy™ C276				RS	Round Handle SS
EXAMPLE: <b>P3BB6S8M8FSSVD</b> = 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												
P	3	BB6S	8	M	8	F	SS	V	D		N4	Monel™ 400 Stem
											N5	Monel™ 500 Stem
											N6	Inconel™ 625 Stem
											N8	Inconel™ 825 Stem
											N2	Hastelloy™ C276 Stem

\*For code applications, A108 CS is unacceptable, A105 CS must be selected for CS valves.

### Use with Confidence, Parker 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)
P	Peek™	-40°F (-40°C)	400°F (204°C)

Parker Hannifin Corporation  
**Instrumentation Products Division**  
1005 A Cleaner Way  
Huntsville, AL 35805 USA  
phone 256 881 2040  
fax 256 881 5072

Parker Phoenix P3BB6S™ 3/16" Bore Soft Seat Block and Bleed Valve  
**PPL-CAT-P3BB6S-001 June 2024**

© 2024 Parker Hannifin Corporation



[parker.com/ipd](https://parker.com/ipd)