P3BB6H™ BLOCK AND BLEED VALVE

BLOCK AND BLEED VALVES

3/16” Bore Block and Bleed Valve

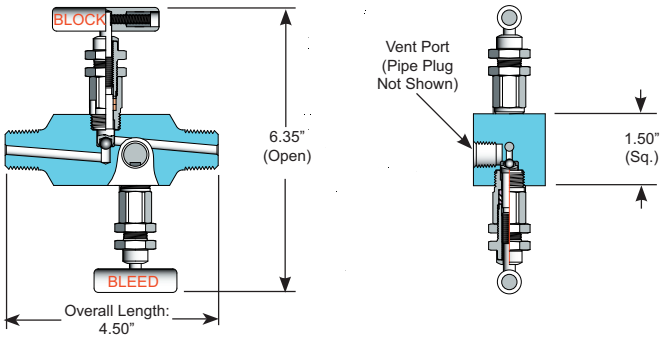
The block and bleed valve is designed for use with pressure gauges, pressure transmitters, or pressure switches. The BB6H features a two-valve block and bleed design complete with a ¼” FNPT vent/calibration port. The BB6H is constructed from barstock and features robust stems. This design ensures a bubble tight seal. Bonnets are pinned for security. The globe pattern provides maximum shut-off with a variety of stem tips, materials, and configurations to meet specific requirements. All Phoenix valves are built and tested in accordance with MSS-SP 105.

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.

PHOENIX PRECISION Ltd.™

P3BB6H™ Block and Bleed Valve
Technical Specifications

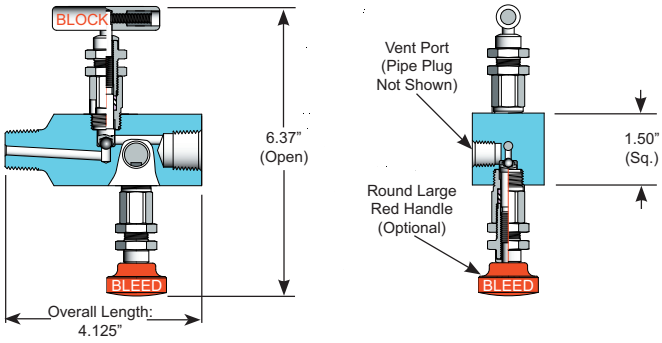
Male x Male Configuration



Specifications:
Type: **P3BB6H** Valve, Male x Male, Globe Pattern
Rating: Up to 6000 psi @ 100ºF
(41370 kPa @ 38°C)
Stem: Needle tip or Ball tip
Packing: Viton™ O-ring, Teflon™ or Grafoil™
Seat: Integral
Handle: Removable
Bore Size: 3/16", 1/8" for Bleed
Inlet Connections: 1/2" NPT to 3/4"NPT, SW or FT (1" for Male NPT, SW Only)
Outlet Connections: Same as inlet
Vent 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_2 or CL cleaning available*

*Other specifications or services may be available

Male x Female Configuration



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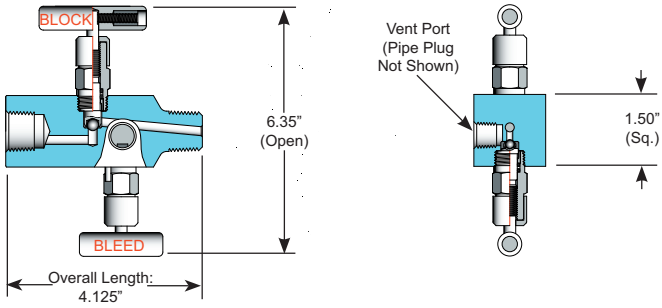
Outlet Connections: Same as inlet
Vent Port: 1/4" FNPT (includes 1/4" Pipe Plug)
Bonnet Lock: Pin or Plate
Body Stock: 1.5" sq
Weight: 2.45 lbs
Special Service: O_2 or CL cleaning available*

*Other specifications or services may be available.

Female x Male Configuration



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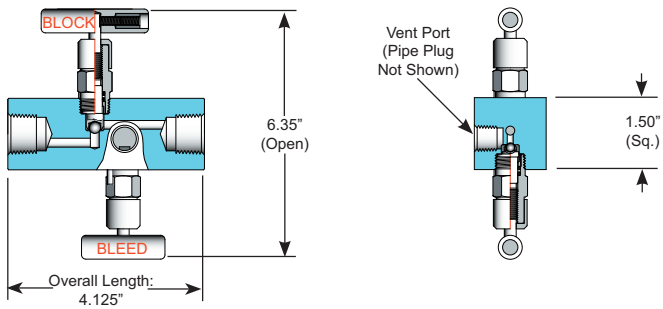
Outlet Connections: Same as inlet
Vent Port: 1/4" FNPT (includes 1/4" Pipe Plug)
Bonnet Lock: Pin or Plate
Body Stock: 1.5" sq
Weight: 2.43 lbs
Special Service: O_2 or CL cleaning available*

*Other specifications or services may be available.

Female x Female Configuration



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Outlet Connections: Same as inlet
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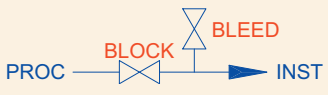
Bonnet Lock: Pin or Plate
Body Stock: 1.5" sq
Weight: 2.50 lbs
Special Service: O_2 or CL cleaning available*

*Other specifications or services may be available.



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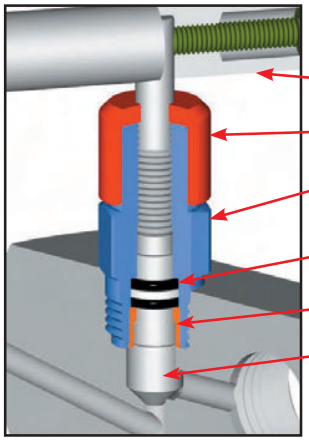
P3BB6H™ Block and Bleed Valve
Bonnet, Stem and Seat Characteristics

O-Ring Bonnet Assembly

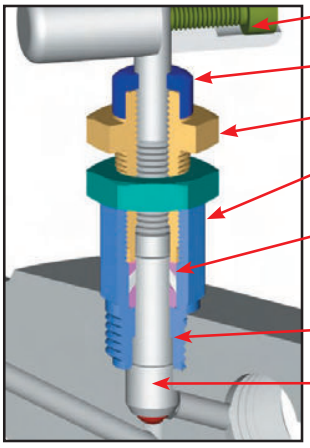
Standard Materials					
Valve	Body	Bonnet	Stem	Ball	Packing
CS	ASTM A108CS	ASTM A108CS	ASTM A582 303SS	SEE OPTION CODES ON PAGE 4	Dual Viton™ O-ring with Teflon™ backup ring
SC	ASTM A105CS	ASTM A182 316SS	ASTM A182 316SS		
316SS	ASTM A182 316SS	ASTM A182 316SS	ASTM A182 316SS		



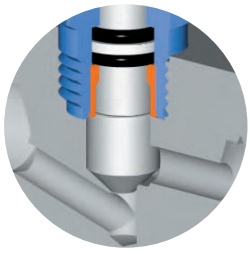
Teflon™ or Grafoil™ Bonnet Assembly

Standard Materials					
Valve	Body	Bonnet	Stem	Ball	Packing
CS	ASTM A108CS	ASTM A108CS	ASTM A582 303SS	SEE OPTION CODES ON PAGE 4	Teflon™ and Grafoil™
SC	ASTM A105CS	ASTM A182 316SS	ASTM A182 316SS		
316SS	ASTM A182 316SS	ASTM A182 316SS	ASTM A182 316SS		

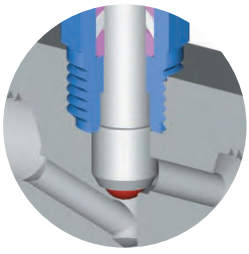
NOTE: Optional low torque Grafoil™ available (G4 Packing Code)



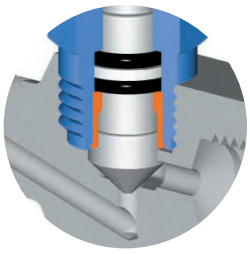
Stem and Seat Configurations



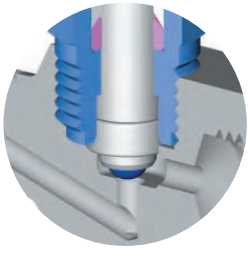
3/16" Bore Needle Tip (Standard)



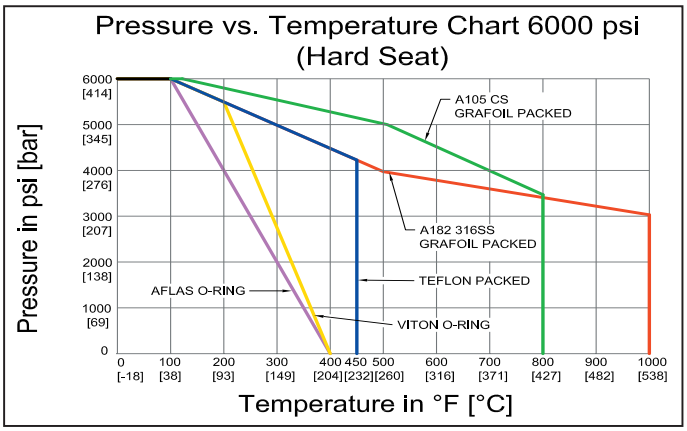
3/16" Bore Ball Tip (Optional)



Mini Needle Tip (Standard)



Mini Ball Tip (Optional)



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.

P3BB6H™ Block and Bleed Valve
Model Numbering System

Phoenix	Orifice Size	Type	Inlet Size	Inlet Type	Outlet Size	Outlet Type	Material	Packing	Seat	Stem Tip
P	3=3/16"	BB6H (3/16" Bore)	8=1/2"	F=FNPT	8=1/2"	F=FNPT	SS=ASTM A182 316/316L	A=Aflas™	Integral (leave blank)	Needle Tip Standard (leave blank)
			12=3/4"	M=MNPT	12=3/4"	M=MNPT	SC=ASTM A105 CS**	V=Viton™ (FKM)		B=316SS Ball Tip
			16=1" (Male Only)	MS*=Male Socket weld	16=1" (Male Only)	MS*=Male Socket weld	CS=ASTM A108 CS**	T=Teflon™ (PTFE)		BC=Ceramic Ball Tip
				FS*=Female Socket weld		FS*=Female Socket weld	C5=ASTM A350 LF2	G=Grafoil™		BM=Monel™ Ball Tip
				FT=Female Tube Fitting		FT=Female Tube Fitting	N4=Monel™ 400	G4=Low Torque Grafoil™		
							N6=Inconel™ 625			
							N8=Inconel™ 825			
							N2=Hastelloy™ C276			
EXAMPLE: P3BB6H8M8FSSV = Phoenix, 3/16" Orifice, Block & Bleed Valve, 1/2" MNPT Inlet, 1/2" FNPT Outlet, 316 SS Body, Vtion™ O-ring Packing, Integral Seat, Needle Tip Stem										
P	**3**	**BB6H**	**8**	**M**	**8**	**F**	**SS**	**V**		

*For socket weld (SW) connections, specify MS or FS
**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)
G	Grafoil™		
	(SS Body)	-70°F (-56°C)	1000°F (537°C)
	(CS Body)	-70°F (-56°C)	800°F (427°C)

Note: Grafoil™ is suitable for services in excess of 1000°F in a non-oxidizing environment.

For further information please contact:

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