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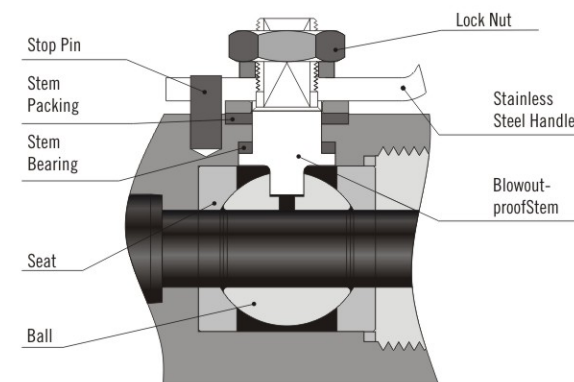
20 Injection Double Block & Bleed Valves

20 Sampling Double Block & Bleed Valves

Features

- Maximum working pressure: 10000 psig (690 bar)
- Working temperature up to 1200°F (649°C) with Graphite packing
- Colour coded valve function identification
- Every design is hydraulic pressure tested in accordance with EN 12266-1 and API 598. Every set is tested with nitrogen for leak-tight performance at 6000 psig
- Fire-tested design in accordance with BS 6755 part 2
- Flanged connections comply with ANSI B16.5 RF and RTJ
- Pressure ratings in accordance with ANSI B16.34

Ball Valve Model



Features

- Maximum working pressure is 10000 psig (690 bar).
- Working temperature are as follows:
PTFE: -65°F to 450°F (-54°C to 232°C)
PEEK: -65°F to 450°F (-54°C to 232°C)
- Actuate at quarter-turn.
- Directional stem flats show open or closed position.
- Bottom-loaded stem prevents stem blowout and enhances system safety.
- High-strength stem bearing provides smooth actuation and eliminates galling between valve stem and body.
- It may be required to adjust the packing during the service life of the valve.
- FD-LOK ball valves are designed to be operated in a fully open or fully closed position.

BB Series: Single Block and Bleed Valves

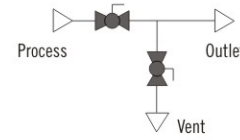
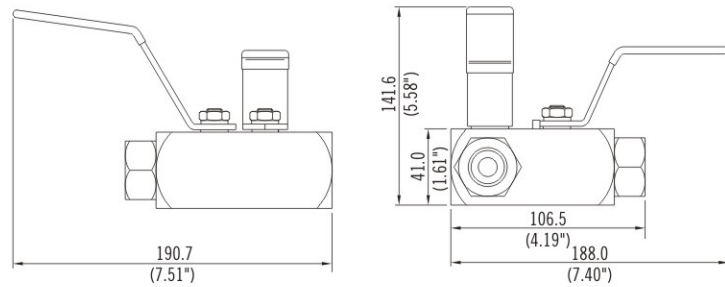
Instrument Single Block and Bleed Valves

Features

- Utilising bar stock body
- Combines piping & instrument valves in one body
- Weight, space and cost saving over traditional designs
- Standard high performance bonnet design
- Blowout-proof valve stems and needles
- Combinations of ball valves and needle valves in various configurations
- Complete traceability of materials
- Bleed port equipped with plug
- Optional port sizes and threads available

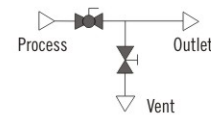
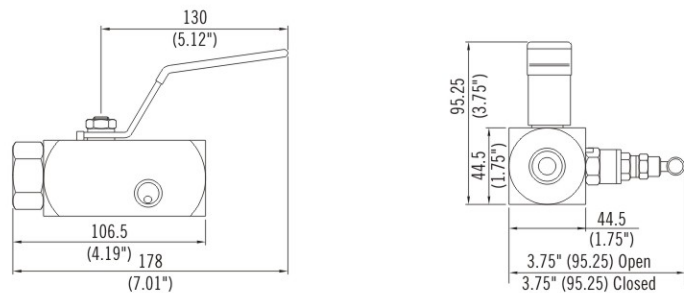
Block: ball Bleed: ball (BB)

Basic Order Number	Inlet/Process	Outlet/Instrument	Vent/Bleed
BB□□-BB-F8-V4-C	1/2 female NPT	1/2 female NPT	1/4 female NPT
BB□□-BB-F8-V4-CP	1/2 female NPT	1/2 female NPT	1/4 female NPT



Block: ball Bleed: needle (BN)

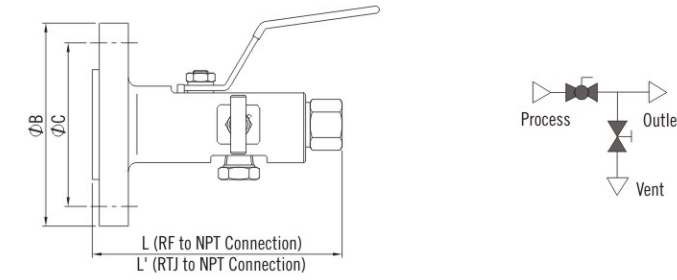
Basic Order Number	Inlet/Process	Outlet/Instrument	Vent/Bleed
BB□□-BN-F8-V4-V	1/2 female NPT	1/2 female NPT	1/4 female NPT
BB□□-BN-F8-V4-VP	1/2 female NPT	1/2 female NPT	1/4 female NPT
BB□□-BN-F8-NS8-V4-V	1/2 female NPT	1/2 male NPT	1/4 female NPT
BB□□-BN-F8-M8-V4-VP	1/2 female NPT	1/2 male NPT	1/4 female NPT



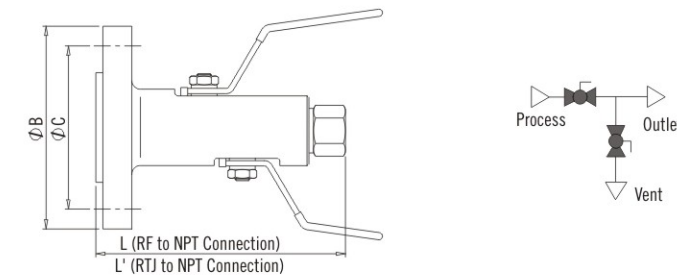
BB Series: Single Block and Bleed Valves

Instrument Single Block and Bleed Valves

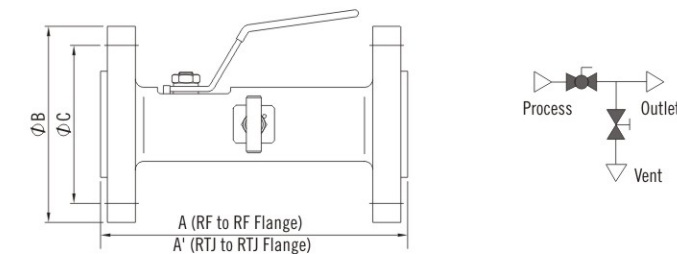
Block: ball Bleed: needle (BN)



Block: ball Bleed: ball (BB)



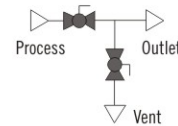
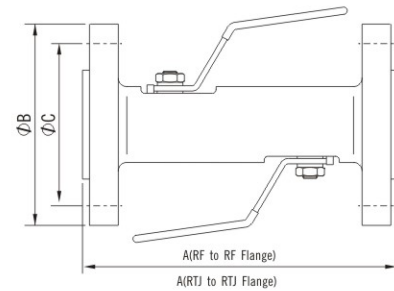
Block: ball Bleed: needle (BN)



BB Series: Single Block and Bleed Valves

Instrument Single Block and Bleed Valves

Block: ball Bleed: ball (BB)



Flange Size	Bore Size in. (mm)	ANS IClass	L in. (mm)	L' in. (mm)	A in. (mm)	A' in. (mm)	ØB in. (mm)	ØC in. (mm)				
1/2 (DN 15)	0.39 (10.0)	150	4.88 (124.0)	—	6.41 (162.8)	—	3.50 (88.9)	2.38 (60.5)				
		300		4.88 (124.0)	6.81 (173.0)	6.81 (173.0)	3.75 (95.3)	2.62 (66.5)				
		600	5.67 (144.0)	5.67 (144.0)	7.99 (202.9)	7.99 (202.9)	4.75 (120.7)	3.25 (82.6)				
		900/1500					5.25 (133.4)	3.50 (88.9)				
		2500					5.25 (133.4)	3.50 (88.9)				
3/4 (DN 20)	0.39 (10.0)	150	4.88 (124.0)	—	6.41 (162.8)	—	3.88 (98.6)	2.75 (69.9)				
		300		4.88 (124.0)	6.81 (173.0)	6.81 (173.0)	4.62 (117.3)	3.25 (82.6)				
		600	5.67 (144.0)	5.67 (144.0)	7.99 (202.9)	7.99 (202.9)	5.13 (130.3)	3.50 (88.9)				
		900/1500					5.50 (139.7)	3.75 (95.3)				
		2500					5.50 (139.7)	3.75 (95.3)				
1 (DN 25)	0.39 (10.0)	150	4.88 (124.0)	4.88 (124.0)	6.41 (162.8)	6.61 (167.9)	4.25 (108.0)	3.12 (79.2)				
		300			7.00 (177.8)	7.00 (177.8)	4.88 (124.0)	3.50 (88.9)				
		600	5.98 (151.9)	5.98 (151.9)	8.90 (226.1)	9.49 (241.0)	5.00 (127.0)	3.88 (98.6)				
		900/1500							10.30 (261.6)	10.30 (261.6)	5.88 (149.4)	4.00 (101.6)
		2500							10.70 (271.8)	10.70 (271.8)	6.25 (158.8)	4.25 (108.0)
1 1/2 (DN 40)	0.39 (10.0)	150	5.98 (151.9)	5.98 (151.9)	8.90 (226.1)	9.49 (241.0)	5.00 (127.0)	3.88 (98.6)				
		300			9.89 (251.2)	9.89 (251.2)	6.12 (155.4)	4.50 (114.3)				
		600	6.61 (167.9)	6.61 (167.9)	11.50 (292.1)	11.50 (292.1)	7.00 (177.8)	4.88 (124.0)				
		900/1500							12.40 (315.0)	12.40 (315.0)	8.00 (203.2)	5.75 (146.1)
		2500							12.40 (315.0)	12.40 (315.0)	8.00 (203.2)	5.75 (146.1)
2 (DN 50)	0.39 (10.0)	150	5.98 (151.9)	5.98 (151.9)	9.09 (230.9)	9.49 (241.0)	6.00 (152.4)	4.75 (120.7)				
		300			10.10 (256.5)	10.30 (261.6)	6.50 (165.1)	5.00 (127.0)				
		600	6.61 (167.9)	6.61 (167.9)	12.00 (304.8)	12.00 (304.8)	8.50 (215.9)	6.50 (165.1)				
		900/1500							13.60 (345.4)	13.60 (345.4)	9.25 (235.0)	6.75 (171.5)
		2500							13.60 (345.4)	13.60 (345.4)	9.25 (235.0)	6.75 (171.5)

Dimensions are for reference only and are subject to change

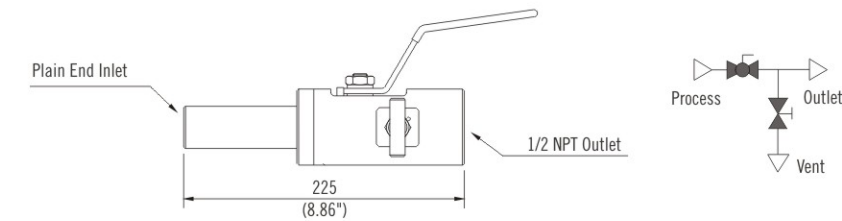
BB Series: Single Block and Bleed Valves

Root Single Block and Bleed Valves

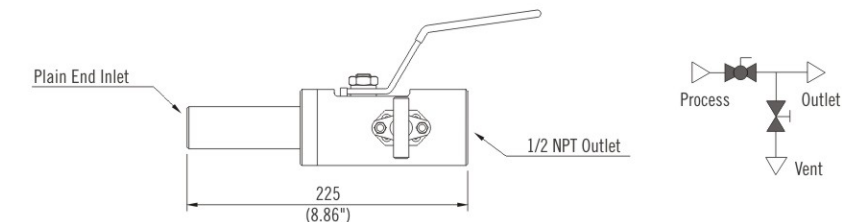
Features

- Directly-mounted root valves available to the vessel or process pipe
- Weight, space and cost saving over traditional designs
- Weld inlet connection sizes from 1/2 to 2
- Blowout-proof valve stems and needles
- Complete traceability of materials
- 1/2 female NPT standard vent with plug
- 1/2 female NPT standard outlet with plug

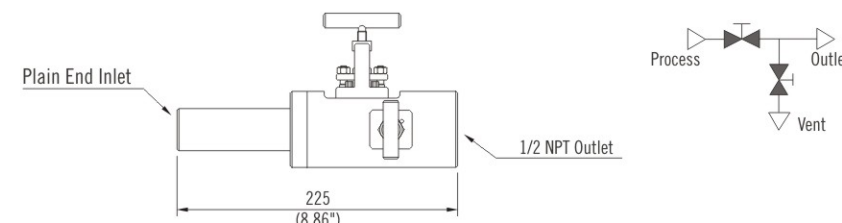
Block: ball Bleed: needle (BN)



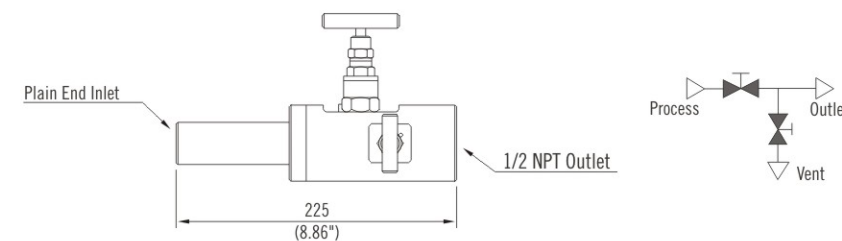
Block: ball Bleed: OS&Y (BO)



Block: OS&Y Bleed: needle (ON)



Block: needle Bleed: needle (NN)



Dimensions are for reference only and are subject to change

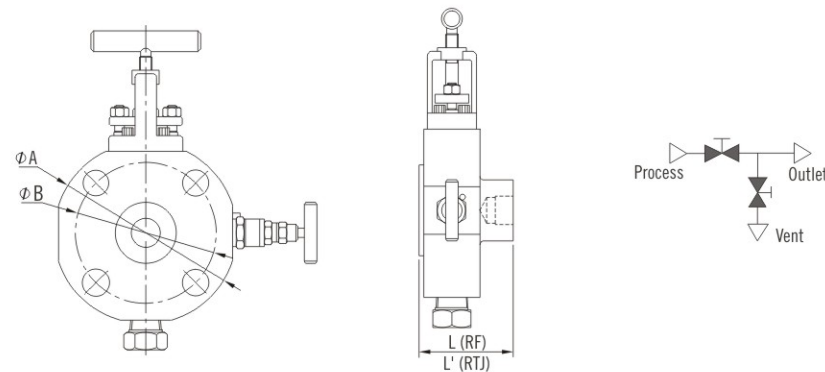
BB Series: Single Block and Bleed Valves

Monoflange Single Block and Bleed Valves

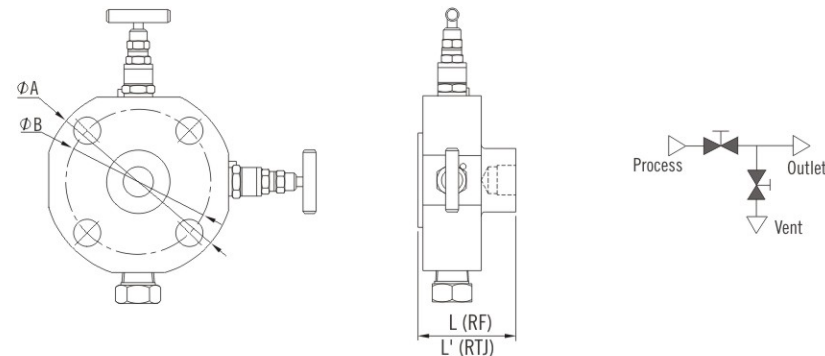
Features

- Piping and instrument valves in one body
- Weight, space and cost saving over traditional designs
- Blowout-proof valve stems and needles
- Complete traceability of materials
- 1/4 female NPT standard vent with plug
- 1/2 female NPT standard outlet with plug

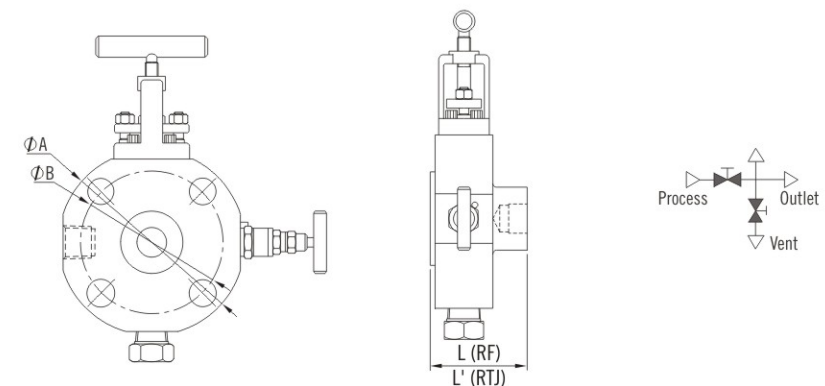
Block: OS&Y Bleed: needle (ON)



Block: needle Bleed: needle (NN)



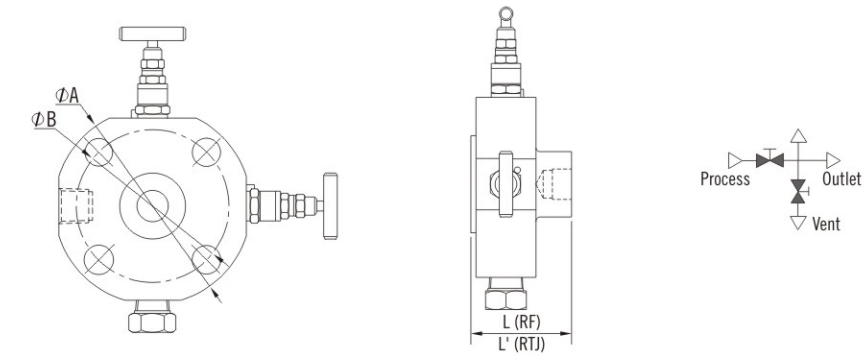
Block: OS&Y Bleed: needle (ON)



BB Series: Single Block and Bleed Valves

Monoflange Single Block and Bleed Valves

Block: needle Bleed: needle (NN)



Flange Size	Bore Size in. (mm)	ANS IClass	L in. (mm)	L' in. (mm)	ΦA in. (mm)	ΦB in. (mm)
1/2 (DN15)	0.39 (10.0)	150	2.03 (51.6)	—	3.50 (88.9)	2.38 (60.5)
		300		2.03 (51.6)	3.75 (95.2)	2.62 (66.5)
		600			4.75 (120.7)	3.25 (82.5)
		900/1500			5.25 (133.4)	3.50 (88.9)
		2500			5.88 (149.4)	4.00 (101.6)
3/4 (DN 20)	0.39 (10.0)	150	2.03 (51.6)	—	3.88 (98.6)	2.75 (69.8)
		300		2.03 (51.6)	4.62 (117.3)	3.25 (82.6)
		600			5.13 (130.3)	3.50 (88.9)
		900/1500			5.50 (139.7)	3.75 (95.2)
		2500			6.25 (158.8)	4.25 (108.0)
1 (DN 25)	0.39 (10.0)	150	2.03 (51.6)	2.03 (51.6)	4.25 (108.0)	3.12 (79.2)
		300			4.88 (124.0)	3.50 (88.9)
		600			5.88 (149.4)	4.00 (101.6)
		900/1500			6.25 (158.8)	4.25 (108.0)
		2500			6.75 (171.5)	4.75 (120.7)
1 1/2 (DN 40)	0.39 (10.0)	150	2.03 (51.6)	2.03 (51.6)	5.00 (127.0)	3.88 (98.6)
		300			6.12 (155.5)	4.50 (114.3)
		600			7.00 (177.8)	4.88 (124.0)
		900/1500			8.00 (203.2)	5.75 (146.1)
		2500			8.50 (215.9)	6.50 (165.1)
2 (DN 50)	0.39 (10.0)	150	2.11 (53.5)	2.11 (53.5)	6.00 (152.4)	4.75 (120.7)
		300			6.50 (165.1)	5.00 (127.0)
		600			7.00 (177.8)	5.75 (146.1)
		900/1500			8.50 (215.9)	6.50 (165.1)
		2500			9.25 (235.0)	6.75 (171.5)

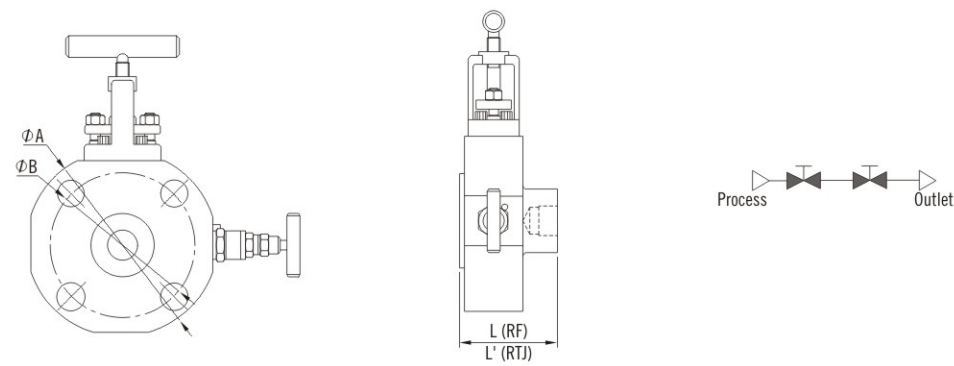
Dimensions are for reference only and are subject to change.

DB Series: Double Block Valves

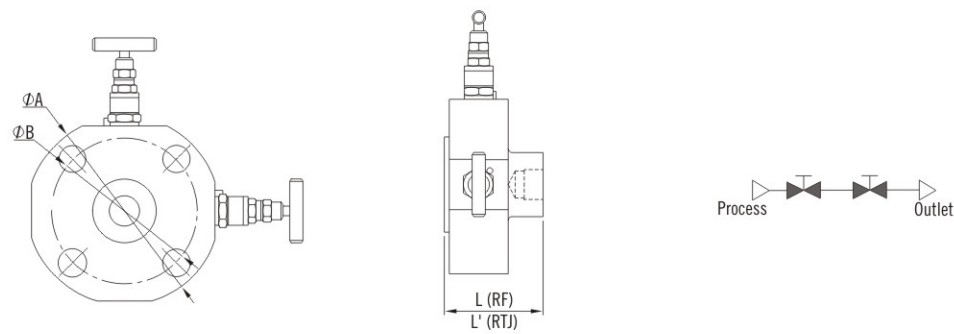
Features

- Piping and instrument valves in one body
- Weight, space and cost saving over traditional designs
- Blowout-proof valve stems and needles
- Complete traceability of materials
- 1/2 female NPT standard outlet with plug

Primary: OS & Y Secondary: needle (ON)



Primary: needle Secondary: needle (NN)



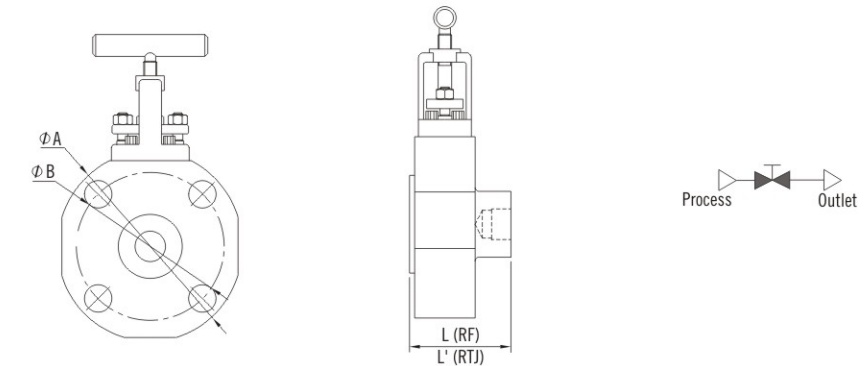
Dimensions are the same as the monoflange single block & bleed valves

SB Series: Single Block Valve

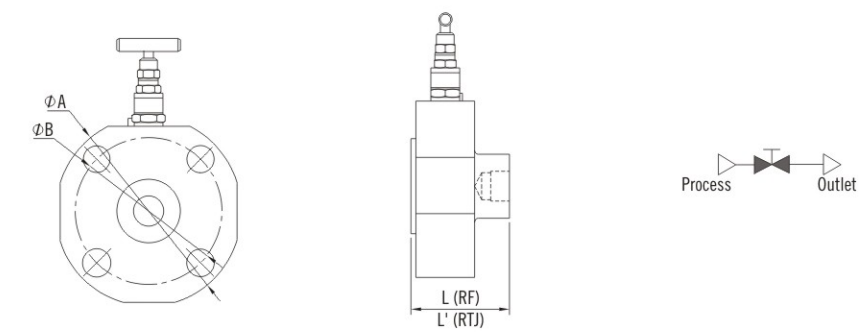
Features

- Piping and instrument valves in one body
- Weight, space and cost saving over traditional designs
- Blowout-proof valve stems and needles
- Complete traceability of materials
- 1/2 female NPT standard outlet with plug

Block: OS&Y (O)



Block: needle (N)



Dimensions are the same as the Monoflange single block & bleed valves

DBB Series: Double Block and Bleed Valves

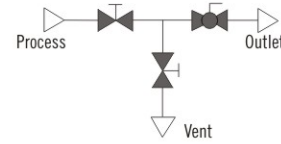
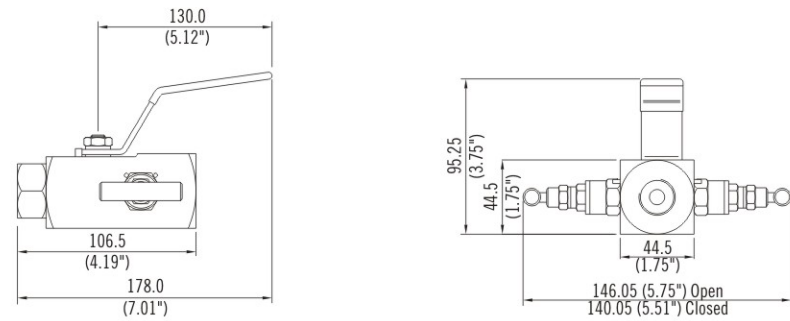
Instrument Double Block and Bleed Valves

Features

- Utilising bar stock body
- Standard high performance bonnet design
- Optional port sizes and thread forms available
- Combinations of ball pattern and needle pattern valves in various configurations
- Suitable for double block and bleed of instrument
- Easy operation
- Complete traceability of materials

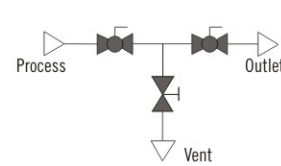
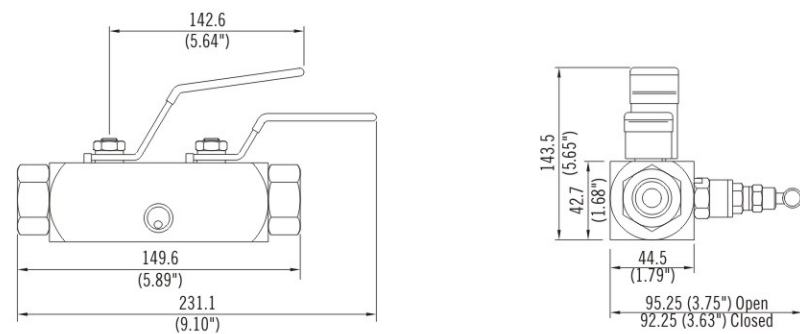
Primary: needle Secondary: ball Bleed: needle (NBN)

Basic Order Number	Inlet/Process	Outlet/Instrument	Vent/Bleed
DBB□□-NBN-F8-V4-V	1/2 female NPT	1/2 female NPT	1/4 female NPT
DBB□□-NBN-F8-V4-VP	1/2 female NPT	1/2 female NPT	1/4 female NPT



Primary: ball Secondary: ball Bleed: needle (BBN)

Basic Order Number	Inlet/Process	Outlet/Instrument	Vent/Bleed
DBB□□-BBN-F8-V4-V	1/2 female NPT	1/2 female NPT	1/4 female NPT
DBB□□-BBN-F8-V4-VP	1/2 female NPT	1/2 female NPT	1/4 female NPT

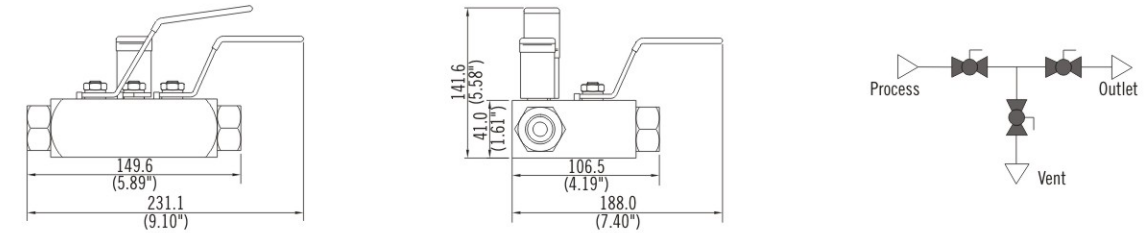


DBB Series: Double Block and Bleed Valves

Instrument Double Block and Bleed Valves

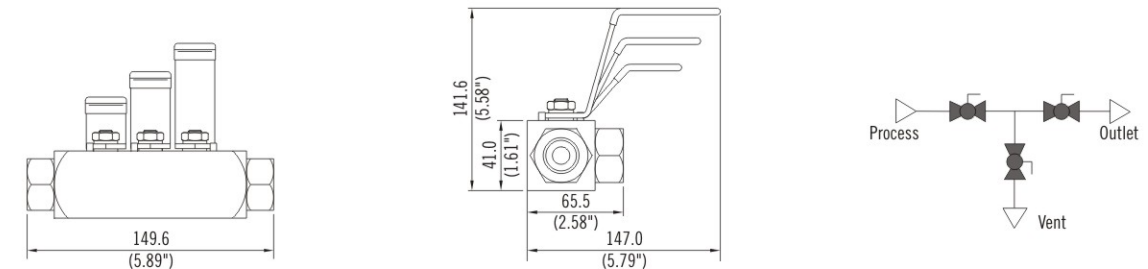
Primary: ball Secondary: ball Bleed: ball (BBB)

Basic Order Number	Inlet/Process	Outlet/Instrument	Vent/Bleed
DBB□□-BBB-F8-V4-C	1/2 female NPT	1/2 female NPT	1/4 female NPT
DBB□□-BBB-F8-V4-CP	1/2 female NPT	1/2 female NPT	1/4 female NPT



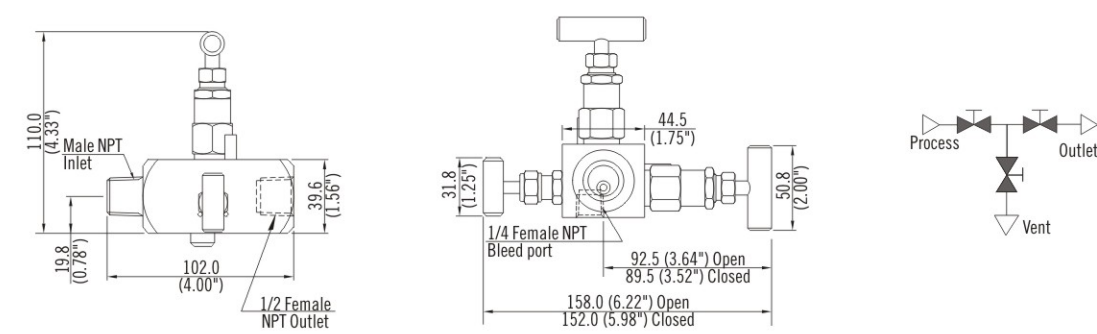
Primary: ball Secondary: ball Bleed: ball (BBB)

Basic Order Number	Inlet/Process	Outlet/Instrument	Vent/Bleed
DBB□□-BBB-F8-V4-L	1/2 female NPT	1/2 female NPT	1/4 female NPT
DBB□□-BBB-F8-V4-LP	1/2 female NPT	1/2 female NPT	1/4 female NPT



Primary: needle Secondary: needle Bleed: needle (NNN)

Basic Order Number	Inlet/Process	Outlet/Instrument	Vent/Bleed
DBB□□-NNN-M8-FS8-V4-V	1/2 male NPT	1/2 female NPT	1/4 female NPT
DBB□□-NNN-M12-FS8-V4-VG	3/4 male NPT	1/2 female NPT	1/4 female NPT



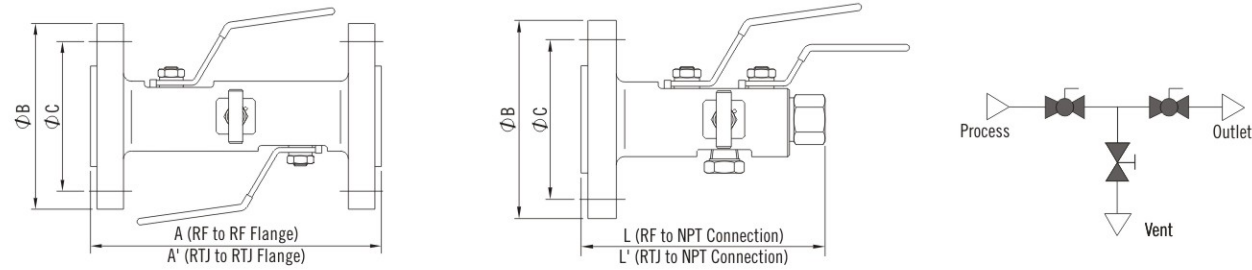
DBB Series: Double Block and Bleed Valves

Flange Double Block and Bleed Valves

Features

- One piece forged body, minimize potential leak point
- Piping and instrument valves in one design
- Weight, space and cost saving over traditional designs
- Blowout-proof valve stems and needles
- Complete traceability of materials

Primary: ball Secondary: ball Bleed: needle (BBN)

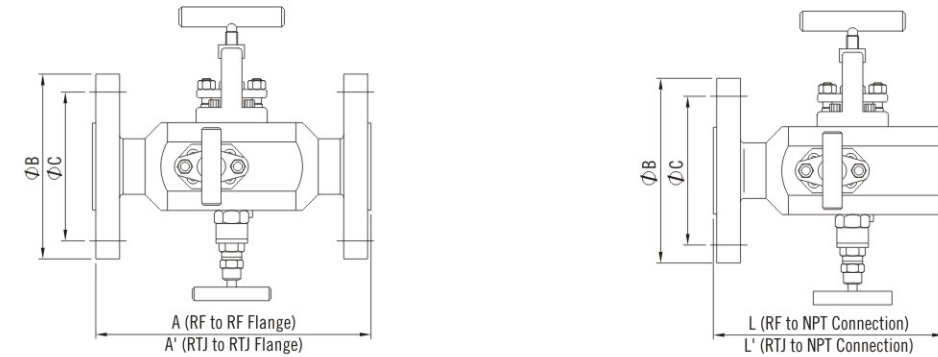


Flange Size	Bore Size in. (mm)	ANSI Class	L in. (mm)	L' in. (mm)	A in. (mm)	A' in. (mm)	ΦB in. (mm)	ΦC in. (mm)	
1/2 (DN15)	3/8 (9.5)	150	5.91 (150.1)	—	6.41 (162.8)	—	3.50 (88.9)	2.38 (60.5)	
		300		5.91 (150.1)	6.81 (173.0)	6.81 (173.0)	3.75 (95.3)	2.62 (66.5)	
		600	6.69 (170.0)	6.69 (170.0)	7.99 (202.9)	7.99 (202.9)	4.75 (120.7)	3.25 (82.6)	
		900/1500		5.25 (133.4)	3.50 (88.9)				
		2500		4.75 (120.7)	3.25 (82.6)				
3/4 (DN 20)	3/8 (9.5)	150	5.91 (150.1)	—	6.41 (162.8)	—	3.88 (98.6)	2.75 (69.9)	
		300		5.91 (150.1)	6.81 (173.0)	6.81 (173.0)	4.62 (117.3)	3.25 (82.6)	
		600	6.69 (170.0)	6.69 (170.0)	7.99 (202.9)	7.99 (202.9)	5.13 (130.3)	3.50 (88.9)	
		900/1500		5.50 (139.7)	3.75 (95.3)				
		2500		5.13 (130.3)	3.50 (88.9)				
1 (DN 25)	3/8 (9.5)	150	5.91 (150.1)	5.91 (150.1)	6.41 (162.8)	6.61 (167.9)	4.25 (108.0)	3.12 (79.2)	
		300		7.00 (177.8)	7.00 (177.8)	4.88 (124.0)	3.50 (88.9)		
		600	7.00 (177.8)	7.00 (177.8)	10.30 (261.6)	10.30 (261.6)	5.88 (149.4)	4.00 (101.6)	
		900/1500		10.70 (271.8)	10.70 (271.8)	6.25 (158.8)	4.25 (108.0)		
		2500		8.90 (226.1)	9.49 (241.0)	5.00 (127.0)	3.88 (98.6)		
1 1/2 (DN 40)	3/8 (9.5)	150	7.00 (177.8)	7.00 (177.8)	8.90 (226.1)	9.49 (241.0)	5.00 (127.0)	3.88 (98.6)	
		300		9.89 (251.2)	9.89 (251.2)	6.12 (155.4)	4.50 (114.3)		
		600	7.64 (194.1)	7.64 (194.1)	11.50 (292.1)	11.50 (292.1)	7.00 (177.8)	4.88 (124.0)	
		900/1500		12.40 (315.0)	12.40 (315.0)	8.00 (203.2)	5.75 (146.1)		
		2500		9.09 (230.9)	9.49 (241.0)	6.00 (152.4)	4.75 (120.7)		
2 (DN 50)	3/8 (9.5)	150	7.00 (177.8)	7.00 (177.8)	10.10 (256.5)	10.30 (261.6)	6.50 (165.1)	5.00 (127.0)	
		300		10.10 (256.5)	10.30 (261.6)	6.50 (165.1)	5.00 (127.0)		
		600	7.64 (194.1)	7.64 (194.1)	12.00 (304.8)	12.00 (304.8)	8.50 (215.9)	6.50 (165.1)	
		900/1500		8.03 (204.0)	8.03 (204.0)	13.60 (345.4)	13.60 (345.4)	9.25 (235.0)	6.75 (171.5)
		2500		8.03 (204.0)	8.03 (204.0)	13.60 (345.4)	13.60 (345.4)	9.25 (235.0)	6.75 (171.5)

DBB Series: Double Block and Bleed Valves

Flange Double Block and Bleed Valves

Primary: OS&Y Secondary: OS&Y Bleed: needle (OON)

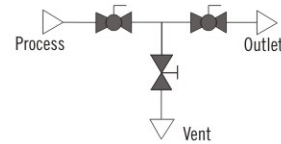
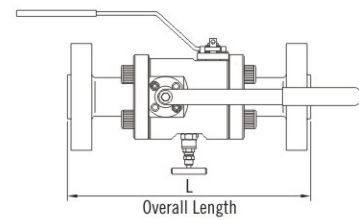


Flange Size	Bore Size in. (mm)	ANSI Class	L in. (mm)	L' in. (mm)	A in. (mm)	A' in. (mm)	ΦB in. (mm)	ΦC in. (mm)	
1/2 (DN15)	3/8 (9.5)	150	4.88 (124.0)	—	6.41 (162.8)	—	3.50 (88.9)	2.38 (60.5)	
		300		4.88 (124.0)	6.81 (173.0)	6.81 (173.0)	3.75 (95.3)	2.62 (66.5)	
		600	5.60 (142.2)	5.60 (142.2)	7.99 (202.9)	7.99 (202.9)	4.75 (120.7)	3.25 (82.6)	
		900/1500		5.25 (133.4)	3.50 (88.9)				
		2500		4.75 (120.7)	3.25 (82.6)				
3/4 (DN 20)	3/8 (9.5)	150	4.88 (124.0)	—	6.41 (162.8)	—	3.88 (98.6)	2.75 (69.9)	
		300		4.88 (124.0)	6.81 (173.0)	6.81 (173.0)	4.62 (117.3)	3.25 (82.6)	
		600	5.60 (142.2)	5.60 (142.2)	7.99 (202.9)	7.99 (202.9)	5.13 (130.3)	3.50 (88.9)	
		900/1500		5.50 (139.7)	3.75 (95.3)				
		2500		5.13 (130.3)	3.50 (88.9)				
1 (DN 25)	3/8 (9.5)	150	4.88 (124.0)	4.88 (124.0)	6.41 (162.8)	6.61 (167.9)	4.25 (108.0)	3.12 (79.2)	
		300		7.00 (177.8)	7.00 (177.8)	4.88 (124.0)	3.50 (88.9)		
		600	5.98 (151.9)	5.98 (151.9)	10.30 (261.6)	10.30 (261.6)	5.88 (149.4)	4.00 (101.6)	
		900/1500		10.70 (271.8)	10.70 (271.8)	6.25 (158.8)	4.25 (108.0)		
		2500		8.90 (226.1)	9.49 (241.0)	5.00 (127.0)	3.88 (98.6)		
1 1/2 (DN 40)	3/8 (9.5)	150	5.98 (151.9)	5.98 (151.9)	8.90 (226.1)	9.49 (241.0)	5.00 (127.0)	3.88 (98.6)	
		300		9.89 (251.2)	9.89 (251.2)	6.12 (155.4)	4.50 (114.3)		
		600	6.61 (167.9)	6.61 (167.9)	11.50 (292.1)	11.50 (292.1)	7.00 (177.8)	4.88 (124.0)	
		900/1500		12.40 (315.0)	12.40 (315.0)	8.00 (203.2)	5.75 (146.1)		
		2500		9.09 (230.9)	9.49 (241.0)	6.00 (152.4)	4.75 (120.7)		
2 (DN 50)	3/8 (9.5)	150	5.98 (151.9)	5.98 (151.9)	10.10 (256.5)	10.30 (261.6)	6.50 (165.1)	5.00 (127.0)	
		300		10.10 (256.5)	10.30 (261.6)	6.50 (165.1)	5.00 (127.0)		
		600	6.61 (167.9)	6.61 (167.9)	12.00 (304.8)	12.00 (304.8)	8.50 (215.9)	6.50 (165.1)	
		900/1500		7.00 (177.8)	7.00 (177.8)	13.60 (345.4)	13.60 (345.4)	9.25 (235.0)	6.75 (171.5)
		2500		7.00 (177.8)	7.00 (177.8)	13.60 (345.4)	13.60 (345.4)	9.25 (235.0)	6.75 (171.5)

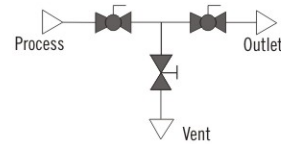
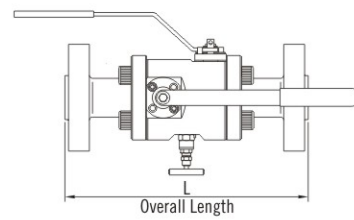
Features

- Complementing the existing one-piece range, flange to flange bolted construction DBB valves available in sizes from 1/2 to 2.
- Designed according to ASME VIII & ANSI B16.34
- Weight, space and cost saving over traditional designs.
- Complete traceability of materials

Full-bore Series



Reduced-bore Series



Dimensions

Flange Size	Bore Size in. (mm)	ANSI Class	L in. (mm)
1 (DN25)	1 (25.4)	150	10.7 (272)
		300	11.0 (279)
		600	11.5 (292)
		900/1500	14.3 (364)
		2500	14.8 (377)
1 1/2 (DN 40)	1 1/2 (38.1)	150	14.2 (361)
		300	14.4 (367)
		600	15.1 (384)
		900/1500	15.8 (402)
		2500	18.2 (463)
2 (DN 50)	2 (50.8)	150	15.4 (390)
		300	15.7 (398)
		600	16.4 (416)
		900/1500	18.9 (481)

Dimensions are for reference only and are subject to change

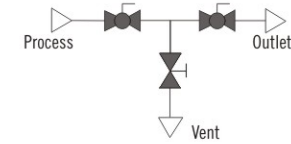
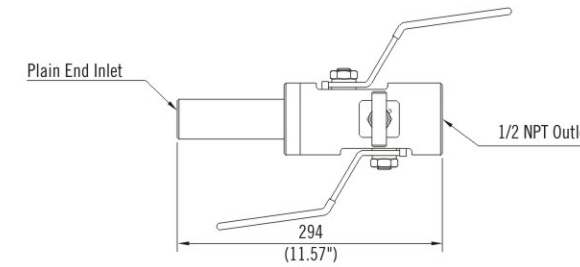
Dimensions

Flange Size	Bore Size in. (mm)	ANSI Class	L in. (mm)
1 1/2 (DN 40)	1 (25.4)	150	11.0 (279)
		300	11.2 (285)
		600	11.9 (301)
		900/1500	14.6 (370)
		2500	15.6 (396)
2 (DN 50)	1 1/2 (38.1)	150	14.3 (364)
		300	14.6 (372)
		600	15.4 (390)
		900/1500	16.3 (415)
		2500	18.7 (475)
3 (DN 80)	2 (50.8)	150	15.7 (400)
		300	16.1 (410)
		600	16.9 (428)
		900	17.4 (441)
		1500	19.7 (500)

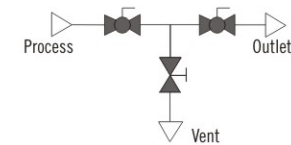
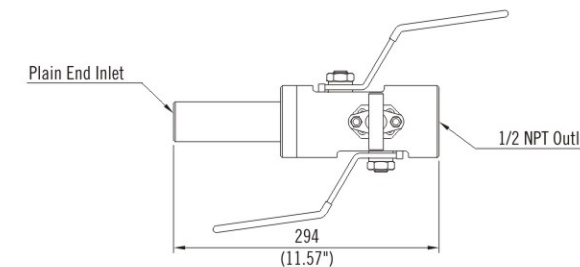
Features

- Directly-mounted root valves available to the vessel or process pipe
- Weight, space and cost saving over traditional designs
- Weld inlet connections in sizes from 1/2 to 2
- Blowout-proof valve stems and needles
- Complete traceability of materials
- 1/2 female NPT standard vent with plug
- 1/2 female NPT standard outlet with plug

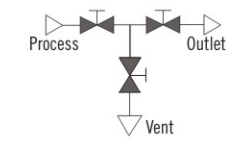
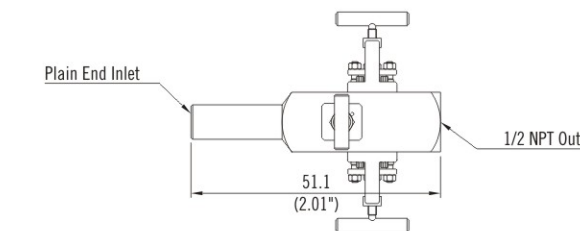
Primary: ball Secondary: ball Bleed: needle (BBN)



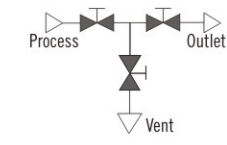
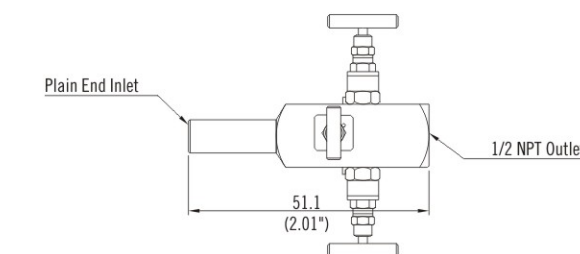
Primary: ball Secondary: ball Bleed: OS&Y (BBO)



Primary: OS&Y Secondary: OS&Y Bleed: needle (OON)



Primary: needle Secondary: needle Bleed: needle (NNN)



Dimensions are for reference only and are subject to change

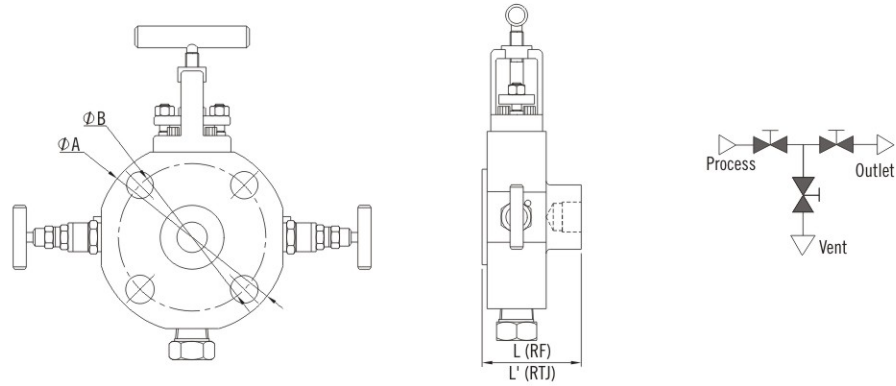
DBB Series: Double Block and Bleed Valves

Monoflange Double Block & Bleed Valves

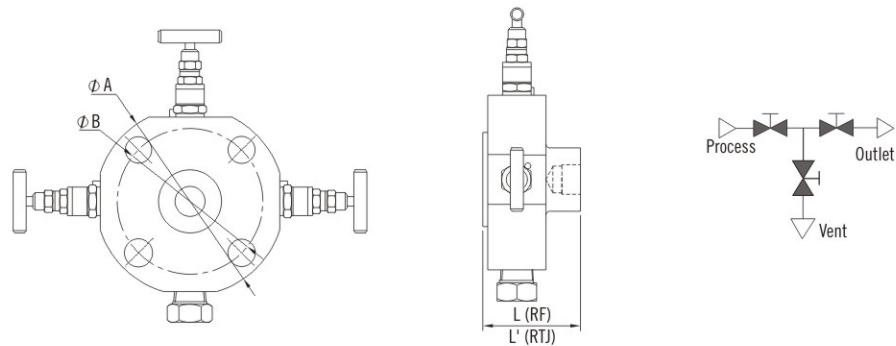
Features

- Piping and instrument valves in one body
- Weight, space and cost saving over traditional designs
- Blowout-proof valve stems and needles
- Complete traceability of materials
- 1/4 female NPT standard vent with plug
- 1/2 female NPT standard outlet with plug

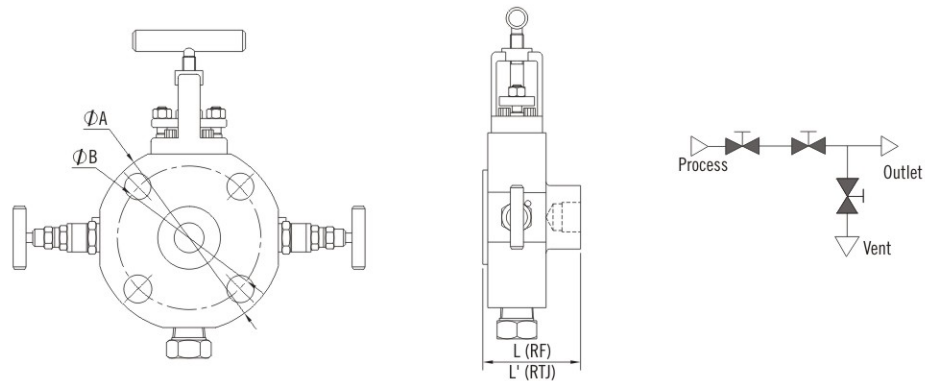
Primary: OS&Y Secondary: needle Bleed: needle (ONN)



Primary: needle Secondary: needle Bleed: needle (NNN)



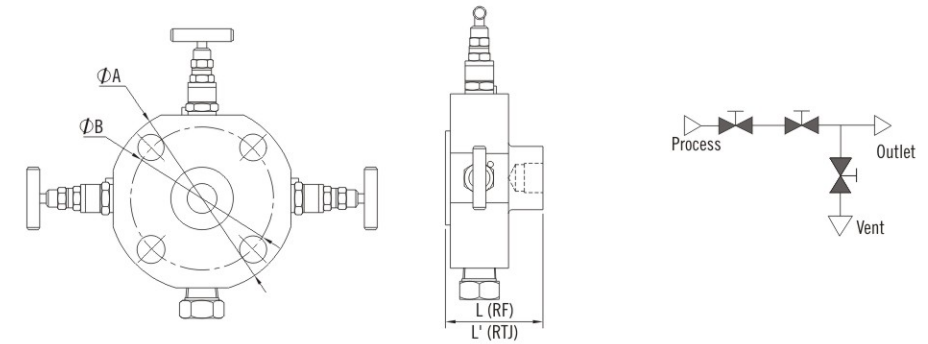
Primary: OS&Y Secondary: needle Bleed: needle (ONN)



DBB Series: Double Block and Bleed Valves

Monoflange Double Block & Bleed Valves

Primary: needle Secondary: needle Bleed: needle (NNN)



Flange Size	Bore Size in. (mm)	ANSI Class	L in. (mm)	L' in. (mm)	ΦA in. (mm)	ΦB in. (mm)
1/2 (DN15)	0.39 (10.0)	150	2.03 (51.6)	2.03 (51.6)	3.50 (88.9)	2.38 (60.5)
		300			3.75 (95.2)	2.62 (66.5)
		600			4.75 (120.7)	3.25 (82.5)
		900/1500			5.25 (133.4)	3.50 (88.9)
		2500			5.88 (149.4)	4.00 (101.6)
3/4 (DN 20)	0.39 (10.0)	150	2.03 (51.6)	2.03 (51.6)	3.88 (98.6)	2.75 (69.8)
		300			4.62 (117.3)	3.25 (82.6)
		600			5.13 (130.3)	3.50 (88.9)
		900/1500			5.50 (139.7)	3.75 (95.2)
		2500			6.25 (158.8)	4.25 (108.0)
1 (DN 25)	0.39 (10.0)	150	2.03 (51.6)	2.03 (51.6)	4.25 (108.0)	3.12 (79.2)
		300			4.88 (124.0)	3.50 (88.9)
		600			5.88 (149.4)	4.00 (101.6)
		900/1500			6.25 (158.8)	4.25 (108.0)
		2500			7.00 (177.8)	4.88 (124.0)
1 1/2 (DN 40)	0.39 (10.0)	150	2.11 (53.5)	2.11 (53.5)	5.0 (127.0)	3.88 (98.6)
		300			6.12 (155.4)	4.50 (114.3)
		600			7.00 (177.8)	4.88 (124.0)
		900/1500			7.00 (177.8)	4.88 (124.0)
		2500			8.00 (203.2)	5.75 (146.1)
2 (DN 50)	0.39 (10.0)	150	2.19 (55.5)	2.19 (55.5)	6.00 (152.4)	4.75 (120.7)
		300			6.50 (165.1)	5.00 (127.0)
		600			6.50 (165.1)	5.00 (127.0)
		900/1500			8.50 (215.9)	6.50 (165.1)
		2500			9.25 (235.0)	6.75 (171.5)

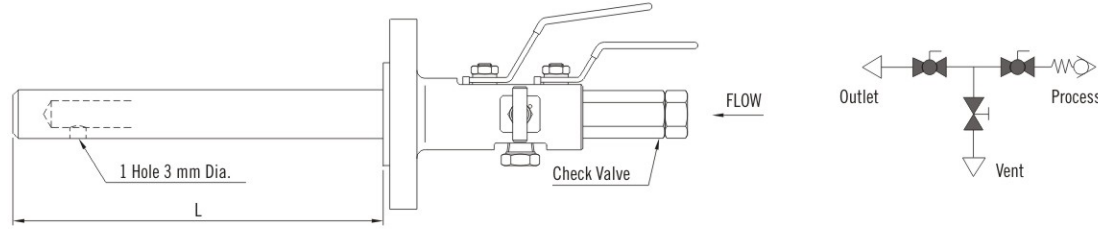
Dimensions are for reference only and are subject to change

DBB Series: Double Block and Bleed Valves

Injection Double Block & Bleed Valves

Function - injection

Injection of chemicals and other media into the process stream can be accomplished with this design. A check valve is installed to prevent process fluid from reaching the inlet injection position. There is a 0.125" (3 mm) hole in the injection nozzle orifice. The length of the injection nozzle orifice can be manufactured to meet customer requirements and needs to be specified. The injection orifice can also be rotated. Injection valves can be provided in most of the styles and options offered for the DBB ranges.



Injection Quill

The injection quill length (L) is manufactured to meet customer requirements. The injection nozzle is a 3 mm diameter hole (standard).

Integral Check Valve

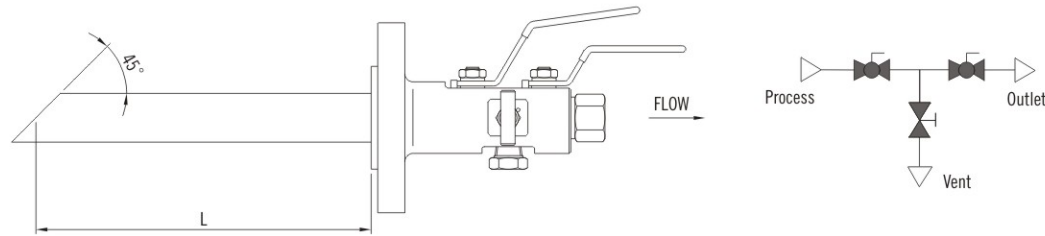
This poppet type spring return valve has a FKM soft seal (standard).

DBB Series: Double Block and Bleed Valves

Sampling Double Block & Bleed Valves

Function - sampling

This design is developed to remove a sample directly from process stream at full system pressure. The customised sampling probe extends from the pipe flange connection for correct sample removal. Sampling valves can be provided without a probe and valves can be provided in most of the styles and options offered for the DBB ranges.



Sampling Probe

The sampling probe length (L) is manufactured to meet customer requirements.

Ordering Information

DBBSS - BB01 - FE16300 - F 8 - 2V8 - RPSF2

Series	Body Material	Configuration	Options of Ball Valve Bore	Inlet Type	Inlet Size	ANSI Class	Outlet Type	ANSI Class	Vent Number and Size	Body Style/Function	Packing/Sealing Material	NACE MRO175	Cleaning and Packaging
BB	Single Block and Bleed	Primary Needle	No ball valves configuration	F Female NPT	4 1/4 (in.)	150	Same as inlet	150	V4 1/4 Female NPT with plug	Flange and Root pattern	No	FC-01	
DB	Double Block	Secondary Needle	Bore size is Std. 9.5 mm	M Male NPT	6 3/8 (in.) or 6 mm	300	Specified in the same way as the inlet type and size	300	V8 1/2 Female NPT with plug	Compact pattern	S	F2	
SB	Single Block	Ball	Bore size is Std. 14 mm	FR Female BSPT	8 1/2 (in.) or 8 mm	600		600	One Vent	Valves in-line mounted			
DBB	Double Block and Bleed	Ball	Bore size is Std. 20 mm	MR Male BSPT	10 10 mm	900		900	Two Vents	Valves vertically mounted	P		
		OS&Y		SM Metric Tube Fitting	12 3/4 (in.) or 12 mm	1500		1500		Valves horizontally mounted	G		
		OS&Y Needle		S Fractional Tube Fitting	14 1.4 mm	2500		2500		Full-bore three piece bolted mounted			
		BB0		MU Nut+Gasket+Metric Bulge Nipple	16 1 (in.) or 16 mm					Reduced-bore three piece bolted mounted			
		BB		FM RF Smooth Flange (3.2 to 6.3 um)	20 1 1/4 (in.) or M20 x 1.5					Block/Block/Bleed			
		NN		FE RF Serrated Flange (6.3 to 12.5 um)	24 1 1/2 (in.)					Sampling application			
		BN		FJ RTJ Flange	32 2 (in.)					Injection application			
SS	316 SS	Ball		MM RF Smooth Monoflange (3.2 to 6.3 um)									
6L	316L SS	OS&Y		ME RF Serrated Monoflange (6.3 to 12.5 um)									
CS	Carbon Steel	OS&Y Needle		MJ RTJ Monoflange									
D5	Duplex 2205	O OS&Y		RV Root Valve Plain End									
904L	904L SS	N Needle											

- Options of ball valve bore:
 - 3/8" (9.5 mm) bore (all process connection sizes);
 - 1/2" (14 mm) bore (1, 1 1/2, or 2 process connections; select size DN25, DN40 or DN50)
 - 3/4" (20 mm) bore (1 1/2 or 2 process connections; select size DN40 or DN50)
- For information about pneumatic and electric actuator, contact the authorized representative or FD-LOK.
- For Oxygen or virulent medium service, contact the authorized representative or FD-LOK.
- Cleaning and Packaging
 - FC-01: Standard cleaning and packaging for general industrial procedures.
 - FC-02: Special cleaning and packaging for wetted system components to ensure compliance with product cleanliness requirement as stated in ASTM G93 Level C.