C-LOK

C-LOK Instrument Valve Co.,Ltd.

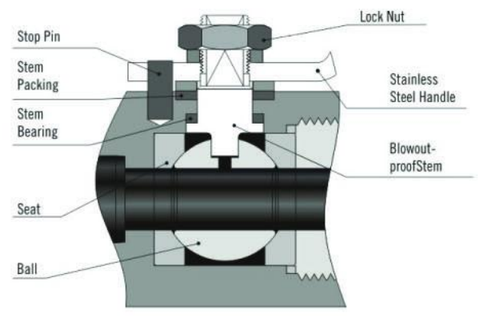
Block and Bleed Valves

Contents

Features

- Maximum working pressure: 10000 psig (690 bar)
- Working temperature up to 1200℉ (649℃) 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

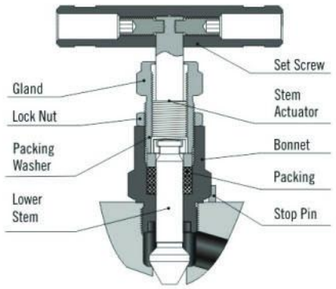
Ball Valve Model



Features

- Maximum working pressure is 10000 psig (690 bar).
- Working temperature are as follows:
  PTFE:-65℉ to 450℉ (-54℃ to 232℃)
  PEEK:-65℉ to 450℉ (-54℃ to 232℃)
- 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.

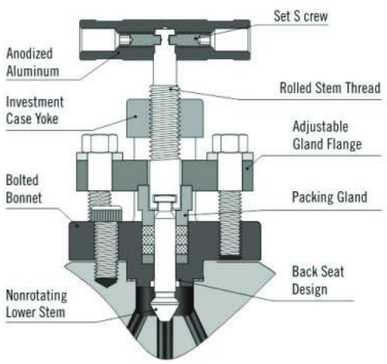
Needle Type Valve Model



Features

- Maximum working pressure is 10000 psig (690 bar).
- Working temperature are as follows:
  PTFE: -65℉ to 450℉ (54℃ to 232℃)
  Graphite: -65℉ to 1200℉ (54℃ to 649℃)
- We offer two-stem design: thread hardened upper stem and smooth surface hardened lower stem.
- Upper stem thread lubricant is isolated from system fluid.
- The nonrotating lower stem, linearly instead of helical movement, avoids galling damage to the seat and tip, as well as reduces the total friction area between the packing and the lower stem.
- Stem back seating seals in fully open position.
- Panel mounting is available as an option.
- Double lock-pins enable steady and durable fastening of the handle.
- Handle of different colors are available for option.

OS & Y Needle Type Valve Model



Features

- Maximum working pressure is 10000 psig (690 bar).
- Working temperature are as follows:
  PTFE: -65℉ to 450℉ (-54℃ to 232℃)
  Graphite: -65℉ to 1200℉ (-54℃ to 649℃)
- Two-stem design: thread hardened upper stem and smooth surface hardened lower stem.
- Upper stem thread lubricant is isolated from system fluid.
- The nonrotating lower stem, linearly instead of helical movement, avoids galling damage to the seat and tip, as well as reduces the total friction area between the packing and the lower stem.
- Bolted bonnet enhance strength and reliability.
- Back seat design provides secondary stem sealing and prevents stem blowout.
- Adjustable gland flange allows easy access to the packing gland and packing adjustment for an effective stem seal.
- Investment case yoke is formed by precision casting which enhances strength and perfect stem alignment.
- Two handle pins make the handle fixed firmly and lastingly.

Handle colors indicate functions:
Needle and OS&Y valves:
BLACK = Isolate/Block RED = Vent/Bleed
Ball valves:
YELLOW = Isolate/Block RED = Vent/Bleed

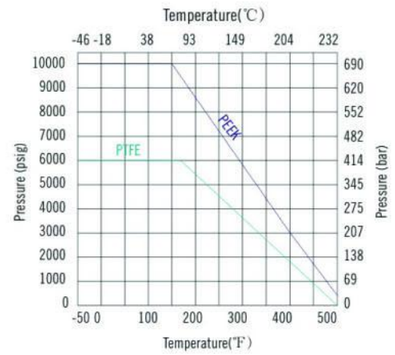
Standard Materials of Construction

Component		Body Material				
		Stainless Steel		Carbon Steel	Duplex Stainless Steel	
		Material Grade/Specification				
Body/End connector		F316 SS, F316L SS /A182	316 SS, 316L SS /A479	LF2/A350	F51/A182	S31803/A479
Ball Valve	Ball	316 SS,316L SS/A479			S31803/A479	
	Stem					
	Retainer					
	Socket					
	Seat	Reinforced PTFE, PEEK				
Needle Type Globe Valve	Stem Tip	316 SS, 316L SS/A479			S31803/A479	
	Stem					
	Bonnet					
OS&Y Needle Type Globe Valve	Stem Tip	316 SS, 316L SS/A479			S31803/A479	
	Stem					
	Bonnet					
	Yoke	CF8M/A351 or F316 SS/A182				

Stainless steel is standard material, others are available upon request.

Pressure vs. Temperature

Ball Valve

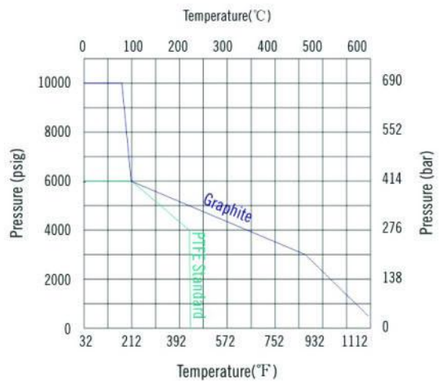


Sour Gas Service / NACE Compliant

Process interface valves for sour gas service are available. Materials are selected in accordance with NACE MR0175/ISO 15156. Contact the authorized representative or C-LOK if any request.

Needle and OS&Y Needle

Type Valve



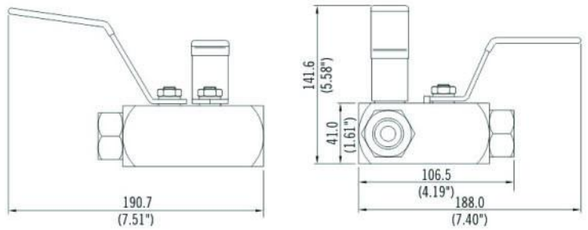
BB Series:Single Block and Bleed Valves

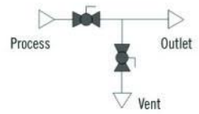
Features

- 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)

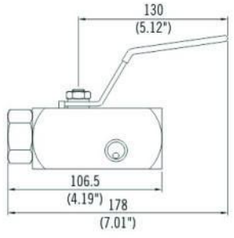
Basic Order Number	Inlet/Process	Outlet/Instrument	Vent/Bleed
BB□□-BB-F8-V4-C	1/2 female NPT	1/2 female NPT	1/4 female NPT
BB□□-BB-F8-V4-CP	1/2 female NPT	1/2 female NPT	1/4 female NPT

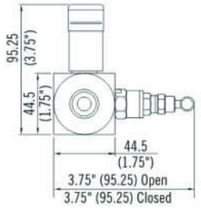


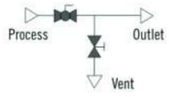


Block: ball Bleed: needle (BN)

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



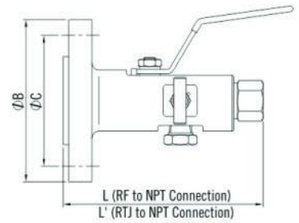


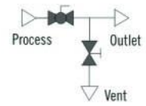


BB Series:Single Block and Bleed Valves

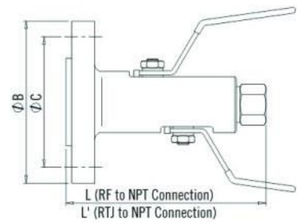
Instrument Single Block and Bleed Valves

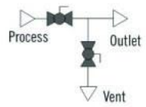
Block: ball Bleed: needle (BN)



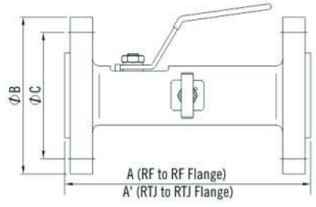


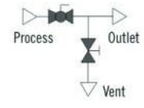
Block: ball Bleed: ball (BB)



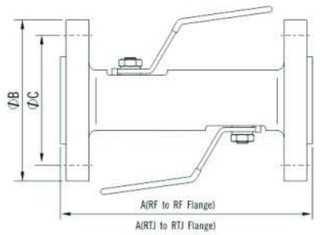


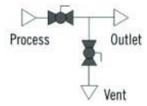
Block: ball Bleed: needle (BN)





Block: ball Bleed: ball (BB)





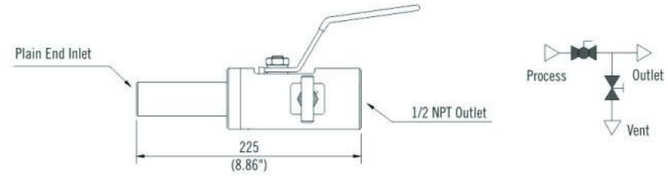
Flange Size	Bore Size in. (mm)	ANS IClass	L in. (mm)	L' in. (mm)	A in. (mm)	A' in. (mm)	ΦB in. (mm)	ΦC in. (mm)
1/2 (DN 15)	0.39 (10.0)	150	4.88 (124.0)	—	6.41 (162.8)	—	3.50 (88.9)	2.38 (60.5)
		300		4.88 (124.0)	6.81 (173.0)	6.81 (173.0)	3.75 (95.3)	2.62 (66.5)
		600						
		900/1500	5.67 (144.0)	5.67 (144.0)	7.99 (202.9)	7.99 (202.9)	4.75 (120.7)	3.25 (82.6)
		2500					5.25 (133.4)	3.50 (88.9)
3/4 (DN 20)		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						
		900/1500	5.67 (144.0)	5.67 (144.0)	7.99 (202.9)	7.99 (202.9)	5.13 (130.3)	3.50 (88.9)
		2500					5.50 (139.7)	3.75 (95.3)
1 (DN 25)		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						
		900/1500	5.98 (151.9)	5.98 (151.9)	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)		150			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						
		900/1500	6.61 (167.9)	6.61 (167.9)	11.50 (292.1)	11.50 (292.1)	7.00 (177.8)	4.88 (124.0)
		2500			12.40 (315.0)	12.40 (315.0)	8.00 (203.2)	5.75 (146.1)
2 (DN 50)		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						
		900/1500	6.61 (167.9)	6.61 (167.9)	12.00 (304.8)	12.00 (304.8)	8.50 (215.9)	6.50 (165.1)
		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)

Dimensions are for reference only and are subject to change

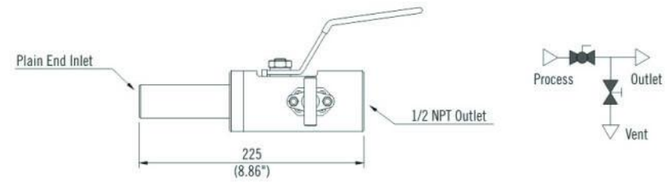
Features

- 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

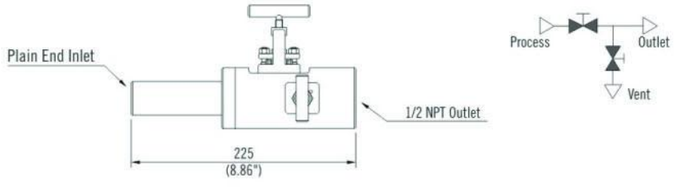
Block: ball Bleed: needle (BN)



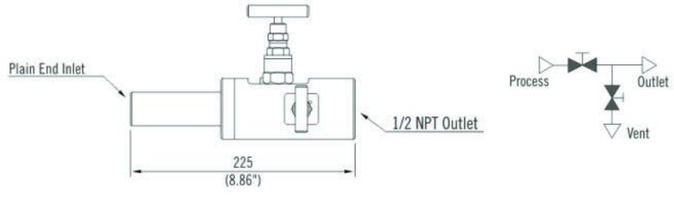
Block: ball Bleed: OS&Y (BO)



Block: OS&Y Bleed: needle (ON)



Block: needle Bleed: needle (NN)

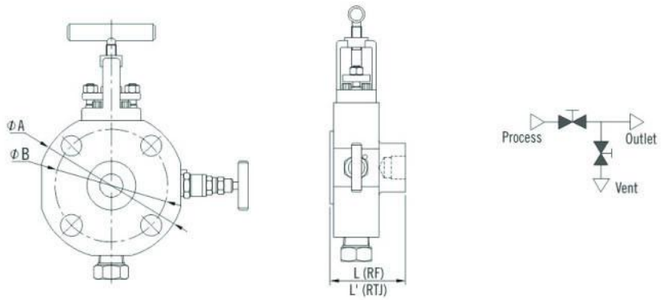


Dimensions are for reference only and are subject to change

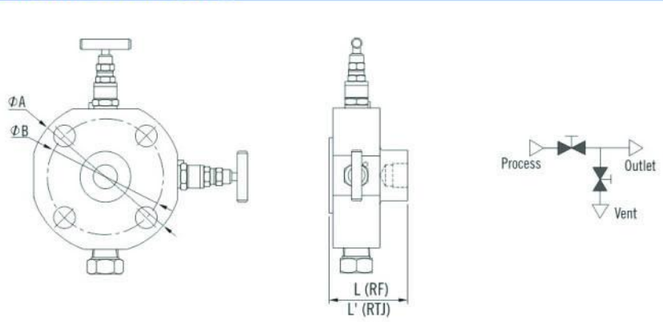
Features

- 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

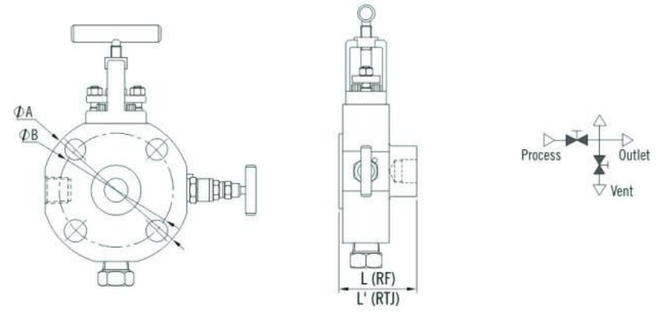
Block: OS&Y Bleed: needle (ON)



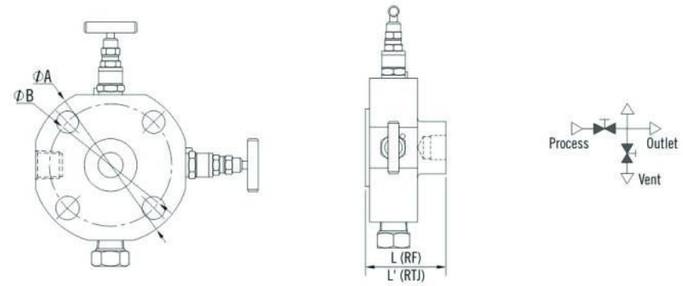
Block: needle Bleed: needle (NN)



Block: OS&Y Bleed:needle (ON)



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				
		900/1500			4.75 (120.7)	3.25 (82.5)
		2500			5.25 (133.4)	3.50 (88.9)
3/4 (DN 20)		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				
		900/1500			5.13 (130.3)	3.50 (88.9)
		2500	2.11 (53.5)	2.11 (53.5)	5.50 (139.7)	3.75 (95.2)
1 (DN 25)		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				
		900/1500	2.11 (53.5)	2.11 (53.5)	5.88 (149.4)	4.00 (101.6)
		2500			6.25 (158.8)	4.25 (108.0)
1 1/2 (DN 40)		150	2.03 (51.6)	2.03 (51.6)	5.00 (127.0)	3.88 (98.6)
		300	2.11 (53.5)	2.11 (53.5)	6.12 (155.5)	4.50 (114.3)
		600				
		900/1500	2.19 (55.5)	2.19 (55.5)	7.00 (177.8)	4.88 (124.0)
		2500	2.67 (67.9)	2.67 (67.9)	8.00 (203.2)	5.75 (146.1)
2 (DN 50)		150	2.11 (53.5)	2.11 (53.5)	6.00 (152.4)	4.75 (120.7)
		300	2.19 (55.5)	2.19 (55.5)	6.50 (165.1)	5.00 (127.0)
		600				
		900/1500	2.42 (61.5)	2.42 (61.5)	8.50 (215.9)	6.50 (165.1)
		2500	2.88 (73.4)	2.88 (73.4)	9.25 (235.0)	6.75 (171.5)

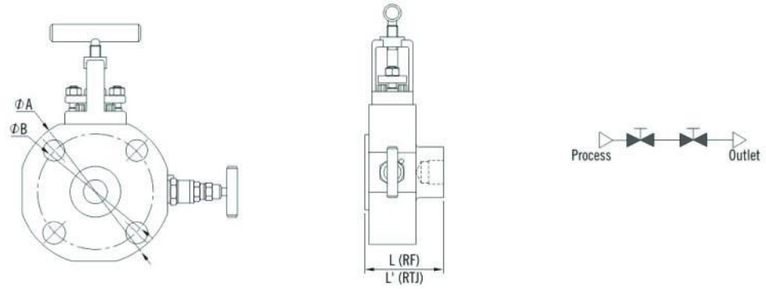
Dimensions are for reference only and are subject to change.

DB Series: Double Block Valves

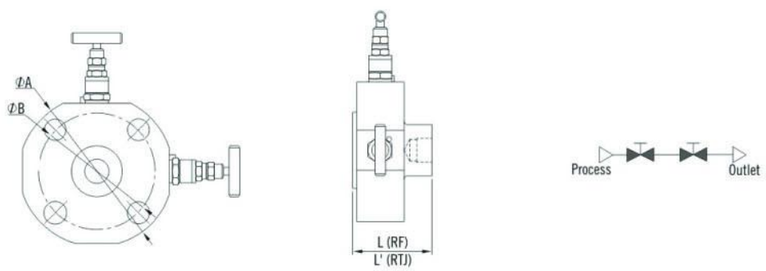
Features

- 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)



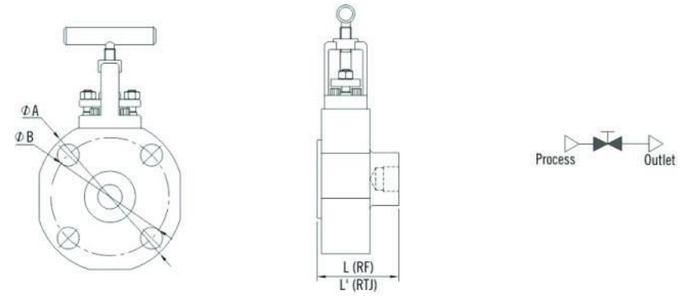
Dimensions are the same as the monoflange single block & bleed valves

SB Series: Single Block Valve

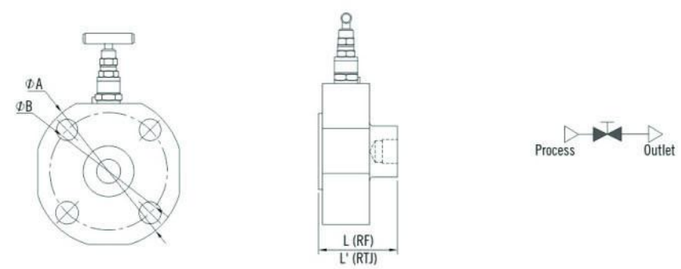
Features

- 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

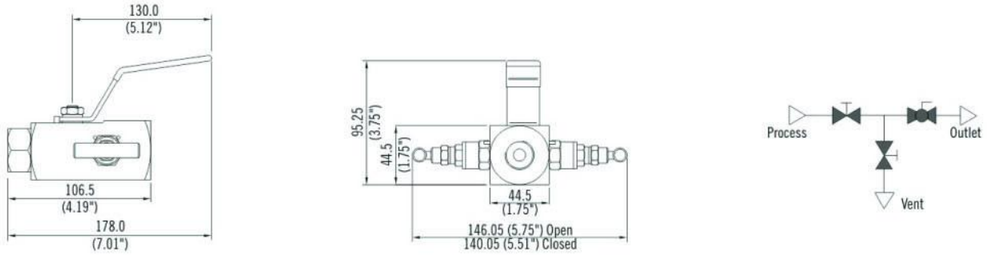
DBB Series: Double Block and Bleed Valves

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

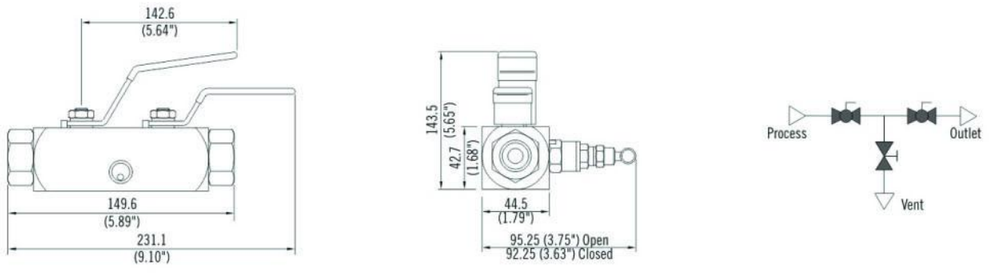
Primary: needle Secondary: ball Bleed: needle (NBN)

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

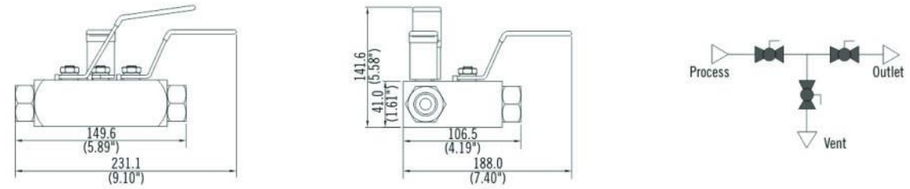


DBB Series: Double Block and Bleed Valves

Instrument Double Block and Bleed Valves

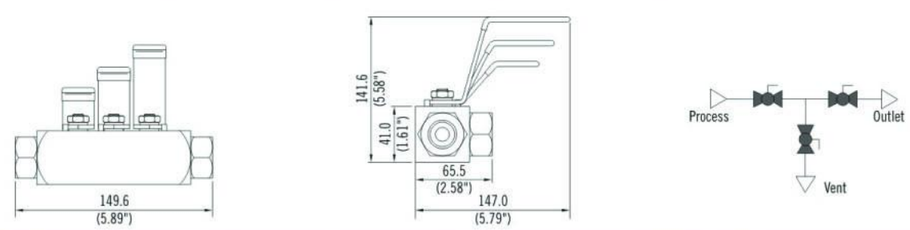
Primary: ball Secondary: ball Bleed: ball (BBB)

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



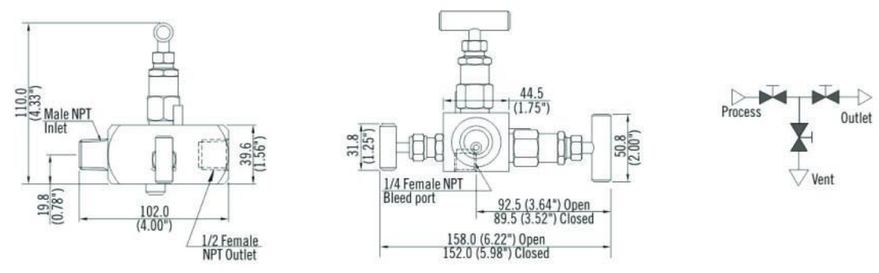
Primary: ball Secondary: ball Bleed: ball (BBB)

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)

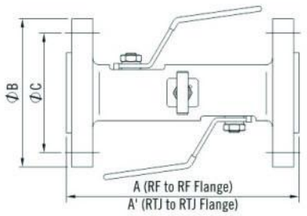
Basic Order Number	Inlet/Process	Outlet/Instrument	Vent/Bleed
DBB□□-NNN-M8-FS8-V4-V	1/2 male NPT	1/2 female NPT	1/4 female NPT
DBB□□-NNN-M12-FS8-V4-VG	3/4 male NPT	1/2 female NPT	1/4 female NPT

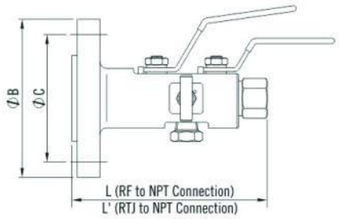


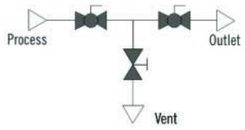
Features

- 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)

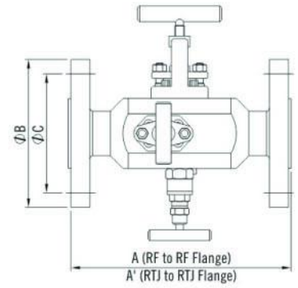


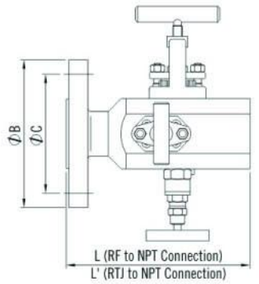




Flange Size	Bore Size in. (mm)	ANSI Class	L in. (mm)	L' in. (mm)	A in. (mm)	A' in. (mm)	ΦB in. (mm)	ΦC in. (mm)
1/2 (DN15)	3/8 (9.5)	150	5.91 (150.1)	—	6.41 (162.8)	—	3.50 (88.9)	2.38 (60.5)
		300		5.91 (150.1)	6.81 (173.0)	6.81 (173.0)	3.75 (95.3)	2.62 (66.5)
		600						
		900/1500	6.69 (170.0)	6.69 (170.0)	7.99 (202.9)	7.99 (202.9)	4.75 (120.7)	3.25 (82.6)
		2500					5.25 (133.4)	3.50 (88.9)
3/4 (DN 20)		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						
		900/1500	6.69 (170.0)	6.69 (170.0)	7.99 (202.9)	7.99 (202.9)	5.13 (130.3)	3.50 (88.9)
		2500					5.50 (139.7)	3.75 (95.3)
1 (DN 25)		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						
		900/1500	7.00 (177.8)	7.00 (177.8)	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)		150			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						
		900/1500	7.64 (194.1)	7.64 (194.1)	11.50 (292.1)	11.50 (292.1)	7.00 (177.8)	4.88 (124.0)
		2500			12.40 (315.0)	12.40 (315.0)	8.00 (203.2)	5.75 (146.1)
2 (DN 50)		150	7.00 (177.8)	7.00 (177.8)	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						
		900/1500	7.64 (194.1)	7.64 (194.1)	12.00 (304.8)	12.00 (304.8)	8.50 (215.9)	6.50 (165.1)
		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)

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						
		900/1500	5.60 (142.2)	5.60 (142.2)	7.99 (202.9)	7.99 (202.9)	4.75 (120.7)	3.25 (82.6)
		2500					5.25 (133.4)	3.50 (88.9)
3/4 (DN 20)		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						
		900/1500	5.60 (142.2)	5.60 (142.2)	7.99 (202.9)	7.99 (202.9)	5.13 (130.3)	3.50 (88.9)
		2500					5.50 (139.7)	3.75 (95.3)
1 (DN 25)		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						
		900/1500	5.98 (151.9)	5.98 (151.9)	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)		150			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						
		900/1500	6.61 (167.9)	6.61 (167.9)	11.50 (292.1)	11.50 (292.1)	7.00 (177.8)	4.88 (124.0)
		2500			12.40 (315.0)	12.40 (315.0)	8.00 (203.2)	5.75 (146.1)
2 (DN 50)		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						
		900/1500	6.61 (167.9)	6.61 (167.9)	12.00 (304.8)	12.00 (304.8)	8.50 (215.9)	6.50 (165.1)
		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)

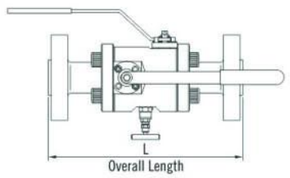
DBB Series: Double Block and Bleed Valves

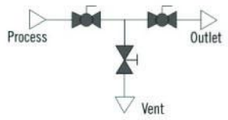
Large-bore Bolted Double Block and Bleed Valves

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



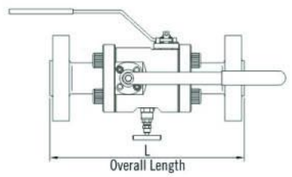


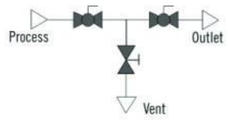
Dimensions

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)	11/2 (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

Reduced-bore Series





Dimensions

Flange Size	Bore Size in. (mm)	ANSI Class	L in. (mm)
11/2 (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)	11/2 (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)

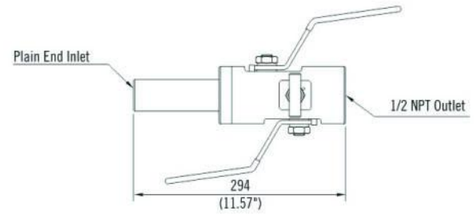
DBB Series: Double Block and Bleed Valves

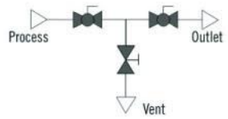
Root Double Block and Bleed Valves

Features

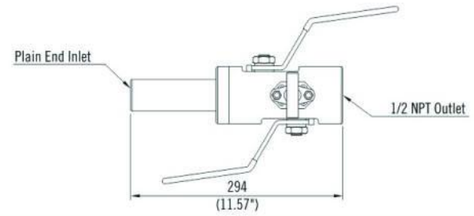
- Directly-mounted root valves available to the vessel or process pipe
- Weight, space and cost saving over traditional designs
- Weld inlet connections in sizes from 1/2 to 2
- Blowout-proof valve stems and needles
- Complete traceability of materials
- 1/2 female NPT standard vent with plug
- 1/2 female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

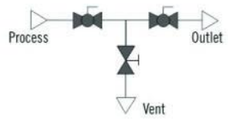
Primary: ball Secondary: ball Bleed: needle (BBN)



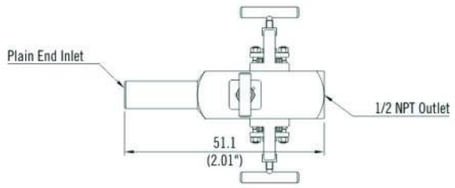


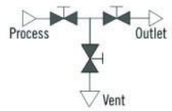
Primary: ball Secondary: ball Bleed: OS&Y (BBO)



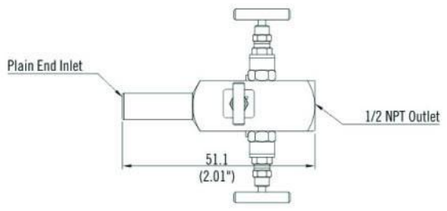


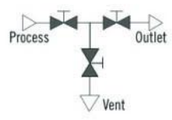
Primary: OS&Y Secondary: OS&Y Bleed: needle (OON)





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



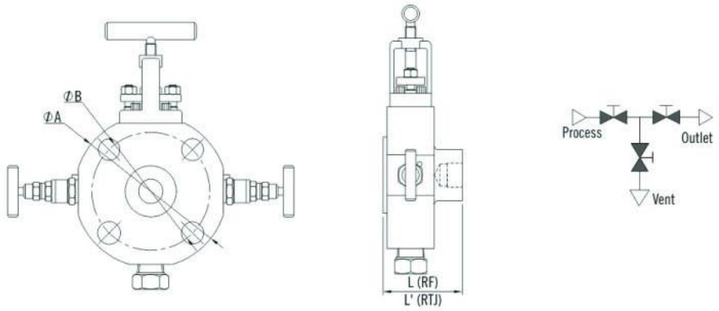


Dimensions are for reference only and are subject to change

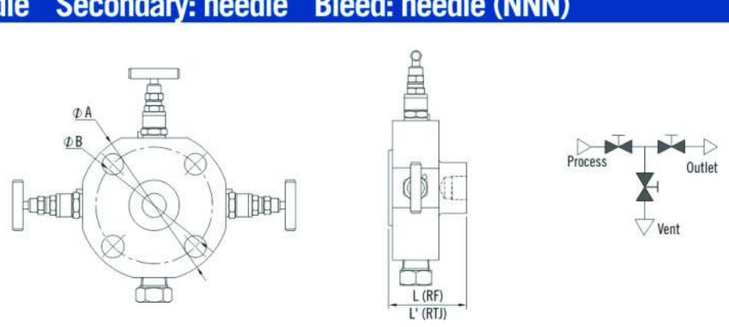
Features

- 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

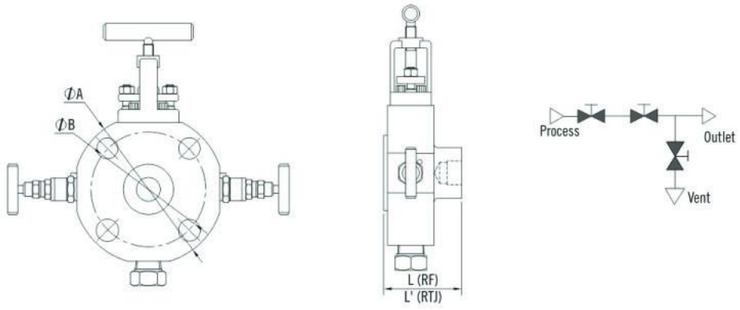
Primary: OS&Y Secondary: needle Bleed: needle (ONN)



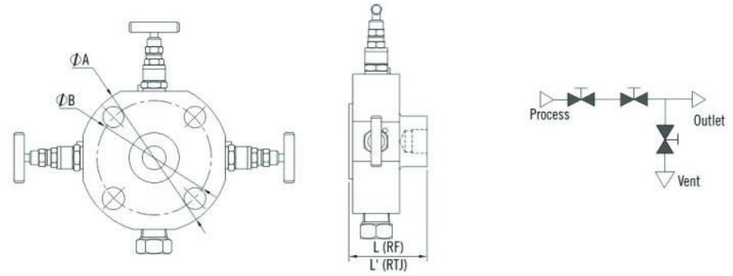
Primary: needle Secondary: needle Bleed: needle (NNN)



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



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)	—	3.50 (88.9)	2.38 (60.5)
		300		2.03 (51.6)	3.75 (95.2)	2.62 (66.5)
		600				
		900/1500			4.75 (120.7)	3.25 (82.5)
		2500			5.25 (133.4)	3.50 (88.9)
3/4 (DN 20)		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				
		900/1500			5.13 (130.3)	3.50 (88.9)
		2500	2.11 (53.5)	2.11 (53.5)	5.50 (139.7)	3.75 (95.2)
1 (DN 25)		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				
		900/1500	2.11 (53.5)	2.11 (53.5)	5.88 (149.4)	4.00 (101.6)
		2500			6.25 (158.8)	4.25 (108.0)
1 1/2 (DN 40)		150	2.03 (51.6)	2.03 (51.6)	5.0 (127.0)	3.88 (98.6)
		300	2.11 (53.5)	2.11 (53.5)	6.12 (155.4)	4.50 (114.3)
		600				
		900/1500	2.19 (55.5)	2.19 (55.5)	7.00 (177.8)	4.88 (124.0)
		2500	2.67 (67.9)	2.67 (67.9)	8.00 (203.2)	5.75 (146.1)
2 (DN 50)		150	2.11 (53.5)	2.11 (53.5)	6.00 (152.4)	4.75 (120.7)
		300	2.19 (55.5)	2.19 (55.5)	6.50 (165.1)	5.00 (127.0)
		600				
		900/1500	2.42 (61.5)	2.42 (61.5)	8.50 (215.9)	6.50 (165.1)
		2500	2.88 (73.4)	2.88 (73.4)	9.25 (235.0)	6.75 (171.5)

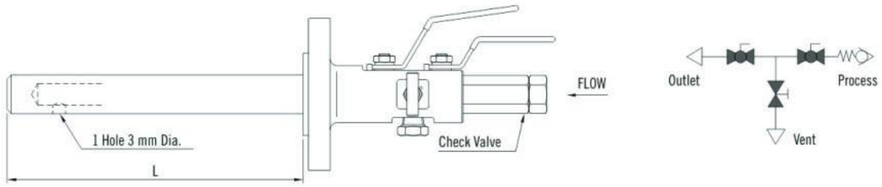
Dimensions are for reference only and are subject to change

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

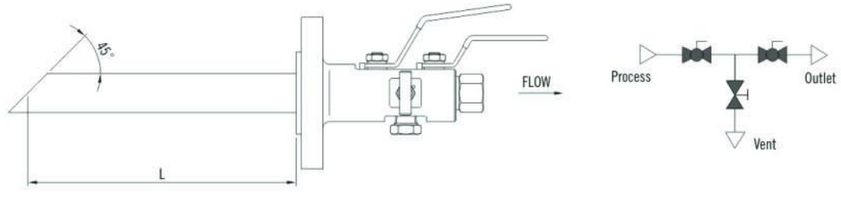
This poppet type spring return valve has a FKM soft seal (standard).

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
BB	Single Block and Bleed
DB	Double Block
SB	Single Block
DBB	Double Block and Bleed
SS	316 SS
6L	316L SS
CS	Carbon Steel
D5	Duplex 2205
904L	904L SS

Configuration	Primary	Secondary	Bleed
NNN	Needle	Needle	Needle
NBN	Needle	Ball	Needle
BBN	Ball	Ball	Needle
BBB	Ball	Ball	Ball
OON	OS&Y	OS&Y	Needle
BBO	Ball	Ball	OS&Y
ONN	OS&Y	Needle	Needle
BB	Ball	—	Ball
	Needle	—	Needle
NN	Needle	Needle	—
BN	Ball	—	Needle
BO	Ball	—	OS&Y
ON	OS&Y	—	Needle
	OS&Y	Needle	—
O	OS&Y	—	—
N	Needle	—	—

Options of Ball Valve Bore	
	No ball valves configuration
1	Bore size is Std. 9.5 mm
	Bore size is Std. 14 mm
2	Bore size is Std. 20 mm

Inlet Type		Inlet Size	
F	Female NPT	4	1/4 (in.)
M	Male NPT	6	3/8 (in.) or 6 mm
FR	Female BSPT	8	1/2(in.) or 8 mm
MR	Male BSPT	10	10 mm
SM	Metric Tube Fitting	12	3/4 (in.) or 12 mm
S	Fractional Tube Fitting	14	14 mm
		16	1 (in.) or 16 mm
MU	Nut+Gasket+Metric Bulge Nipple	20	1 1/4 (in.) or M20 x 1.5
FM	RF Smooth Flange (3.2 to 6.3 um)	24	1 1/2 (in.)
FE	RF Serrated Flange (6.3 to 12.5 um)	32	2 (in.)
FJ	RTJ Flange		
MM	RF Smooth Monoflange (3.2 to 6.3 um)		
ME	RF Serrated Monoflange (6.3 to 12.5 um)		
MJ	RTJ Monoflange		
RV	Root Valve Plain End		

ANSI Class
150 Class 150
300 Class 300
600 Class 600
900 Class 900
1500 Class 1500
2500 Class 2500

Outlet Type	Outlet Size	ANSI Class
	Same as inlet	
	Specified in the same way as the inlet type and size	

Vent Number	Vent Type and Size
V4	1/4 Female NPT with plug
V8	1/2 Female NPT with plug
	One Vent
2	Two Vents

Packing/Sealing Material	
	PTFE
P	PEEK
G	Graphite

NACE MR0175	
	No
S	Yes

Body Style/Function	
	Flange and Rod pattern
C	Compact pattern
L	Valves in-line mounted
V	Valves vertically mounted
H	Valves horizontally mounted
F	Full-bore three piece bolted mounted
R	Reduced-bore three piece bolted mounted
X	Block/Block/Bleed
SA	Sampling application
IN	Injection application

Cleaning and Packaging	
	FC-01
F2	FC-02

1. 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 2process connections; select size DN25, DN40 or DN50)
   3/4" (20 mm) bore (1 1/2 or 2process connections; select size DN40 or DN50)
2. For information about pneumatic and electric actuator, contact the authorized representative or C-LOK .
3. For Oxygen or virulent medium service, contact the authorized representative or C-LOK .
4. 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.