

YDB VALVES LLP

- Competitive Price
- Better Product Flexibility
- Consistency & Optimum Service

Innovations designed to improve operations and profitability



Our Company

YDB VALVES LLP, a pioneer manufacturing company having good experience in the designing and manufacturing of a new concept instrumentation Valves: Manifolds, Monoflanges, SBB & DBB Valves both in needle and ball types, Floating and Trunnion design Ball Valves, strictly produced in according to the most stringent quality standards of safety and efficiency.

We have a fully well-equipped modern in-house manufacturing facility using CNC lathes, VMC, etc. with highly motivated team and up to date technology assisting us to achieve reliable products at competitive price with better product flexibility, consistency and optimum service.

Our experience in the understanding of applications requirements, combined with our high flexibility, allows us to develop customized solutions designed for customers' specific needs.

Our products are machined from the materials CF8M, SS316, SS316L, Duplex, Super Duplex, Monel, Inconel, etc.

Moreover, our valves production can be completed with complementary accessories, something that makes YDB VALVES a favourite and reliable partner for those companies that supply 'packages' of various matching goods. Our products are widely use in the Chemical, Petrochemical, Oil & Gas, Off-Shore, On-Shore, Power Generation, Naval industries, etc., used as components of plants and machineries with a high technological value.

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Primary Isolation Valve Application

Market :

- Chemical
- Pharmaceutical
- Marine
- Packaging
- Printing Industries
- Architectural
- Electronic
- Power Generation
- Laboratory
- Oil and Gas
- Petro-Chemical
- Power

Application :

- Double Block and Bleed Instrumentation Isolation
- Gauge Isolation
- Instrumentation Drain
- Chemical Injection Connection
- Sample connection
- Direct Mounting of Instruments
- Remote Mounting of Instruments



Chemical



Pharmaceutical



Marine



Packaging



Printing Industries

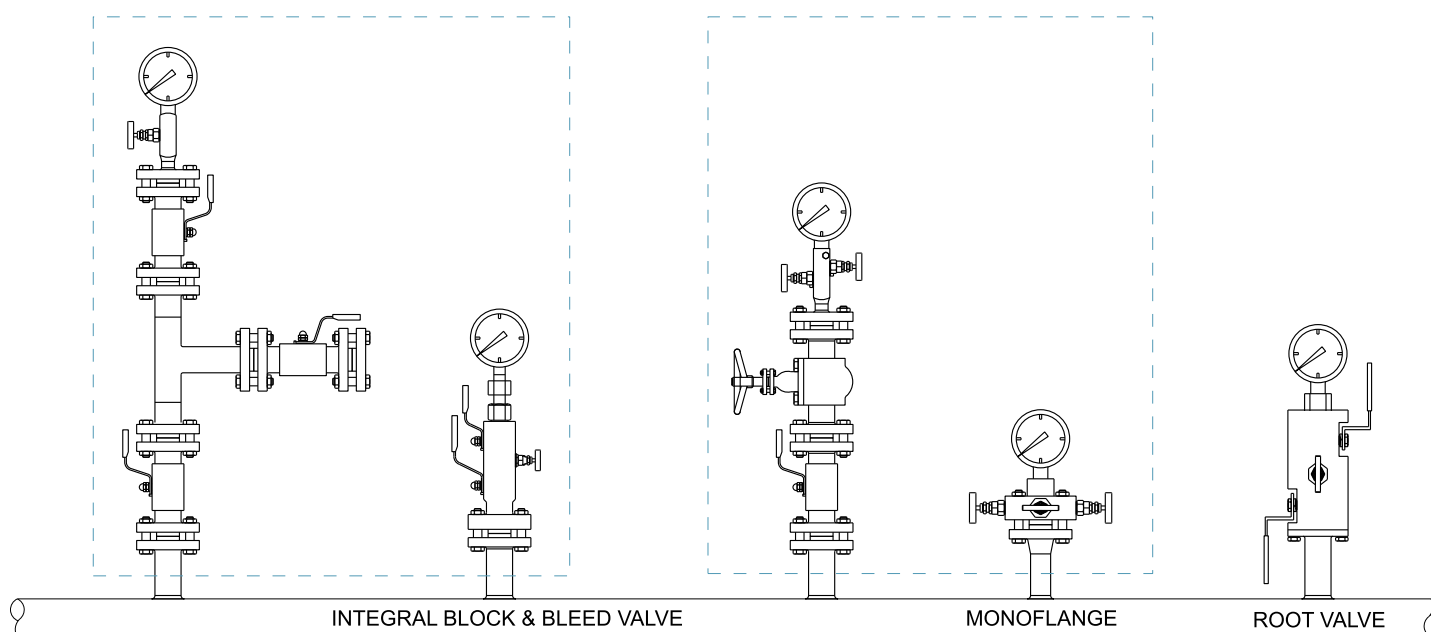


Power Generation

.....and many more

Installation Advantages:

- More compact design
- Reduced weight and height
- Reduced leakage point
- Reduced effect of vibration
- Supporting bracket are not required
- Reduced installation cost
- Reduced gasket and bolting



Integral Block & Bleed valve

- Ball and globe type needle valves
- Flanged and threaded connections
- Integrally forged body

Monoflange

- Globe type needle valves
- Flanged and threaded connections
- Slimline Integrally forged body

Root valve

- Ball and globe type needle valves
- Weld or threaded connections
- Direct connection to the vessel

Pressure-Temperature Rating

YDB VALVES process and instrumentation products pipeline's pressure temperature rating depends on and connection.

We offers a variety of sizes and pressure ratings of the flange in accordance with ASME B16.5 Specifications.

Below listed data adopts ASME B16.5 Table 2-2.2 and Table F2-2.2. The rating data are based on stainless steel F316 A182.

	ASME Ratings					
Temp.	150	300	600	900	1500	2500
C	Working pressure bar					
-29 to 38	19.0	49.6	99.3	148.9	248.2	413.7
50	18.4	48.1	96.2	144.3	240.6	400.9
100	16.2	42.2	84.4	126.6	211.0	351.6
150	14.8	38.5	77.0	115.5	192.5	320.8
200	13.7	35.7	71.3	107.0	178.3	297.2
250	12.1	33.4	66.8	100.1	166.9	278.1
300	10.2	31.6	63.2	94.9	158.1	263.5
325	9.3	30.9	61.8	92.7	154.4	257.4
350	8.4	30.3	60.7	91.0	151.6	252.7
375	7.4	29.9	59.8	89.6	149.4	249.0
400	6.5	29.4	58.9	88.3	147.2	245.3
425	5.5	29.1	58.3	87.4	145.7	242.9
450	4.6	28.8	57.7	86.5	144.2	240.4

	ASME Ratings					
Temp.	150	300	600	900	1500	2500
F	Working pressure bar					
-20 to 100	275	720	1440	2160	3600	6000
200	235	620	1240	1860	3095	5160
300	215	560	1120	1680	2795	4660
400	195	515	1025	1540	2570	4280
500	170	480	955	1435	2390	3980
600	140	450	900	1355	2255	3760
650	125	440	885	1325	2210	3680
700	110	435	870	1305	2170	3620
750	95	425	855	1280	2135	3560
800	80	420	845	1265	2110	3520
850	65	420	835	1255	2090	3480

Sour Gas Service NACE Compliant

Process interface valves for sour gas service are available. Material are selected in accordance with NACE MR0175/ISO 15156.

Contact the authorized representative or YDB VALVES if any request.

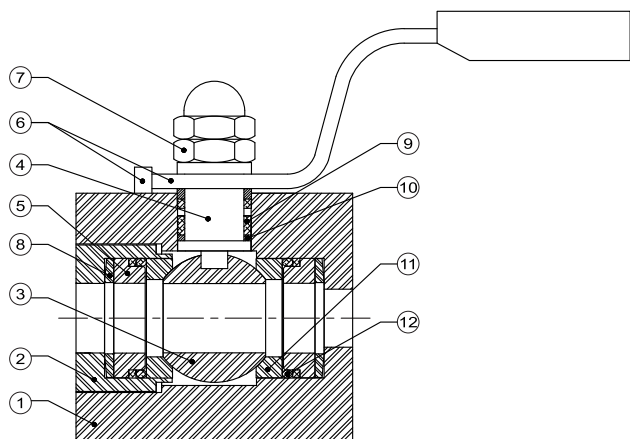
DOUBLE BLOCK & BLEED VALVES



FEATURES

- Compact ball valve/needle valve and OS&Y assembly in one DBB.
- Working pressure up to 10,000 Psig (690 Bar).
- Every valve is subject to a pressure test in accordance with the standard API 598 or BS 6755 part 1.
- NPT Threaded connection to ANSI/ASME B1.20.1.
- Pressure rating as per ASME B16.34 Class 150 thru 2500.
- Anti-Static device is set between the stem and ball.
- Fire tested as per BS6755 part 2/API 607, 6FA.
- Wetted components of sour gas service valve are selected as per requirements of NACE MR01-75/ISO 15156.
- Flange construction as per the requirement of ASME B16.5. Flange connections comply with EN 1092-1 are also available upon request.
- Reduced potential leak paths with primary & secondary isolation in one valve.

Ball Valve Model



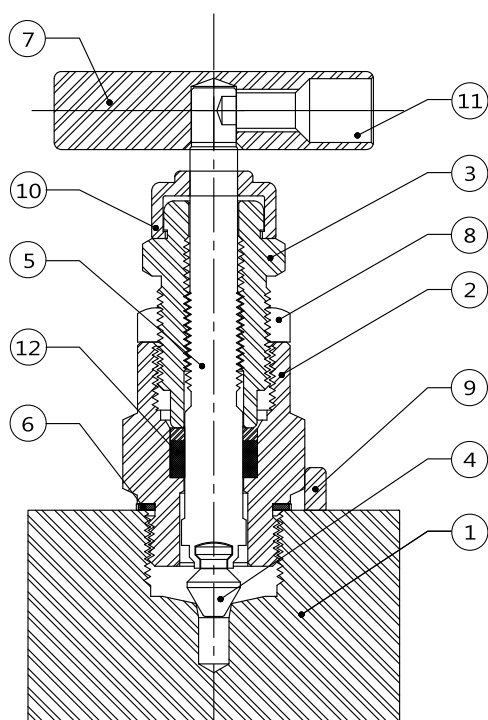
Features

- Quarter turn positive stop handle with protective sleeve.
- Micro-Finished ball for long service life.
- Anti-static design.
- 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.
- Pressure rating upto 10,000 psig (690 Bar).
- Temperature rating upto -65°F to 450°F (-54°C to 232°C)

Material of construction:

No.	Component	Material of Constructions			
		SS316 SS316L	Carbon steel A105	Duplex	Inconel 625
1	Body	SS316 SS316L	Carbon steel A105	Duplex	Inconel 625
2	End connector	SS316 SS316L	Carbon steel A105	Duplex	Inconel 625
3	Ball	SS316 SS316L	SS316 SS316L	Duplex	Inconel 625
4	Stem	SS316 SS316L	SS316 SS316L	Duplex	Inconel 625
5	Seat retainer	SS316 SS316L	SS316 SS316L	Duplex	Inconel 625
6	Handle & stop pin	SS304			
7	Lock nut	SS316			
8	Disc spring	Inconel X750			
9	Stem packing	PTFE Graphite			
10	Stem bearing	PTFE			
11	Seat	PTFE Peek			
12	Retainer O'ring	Viton			
13	Gasket	PTFE			

Needle Valve Model:



Features

- Standard non-rotating free swivel stem tip.
- Upper stem thread lubricant is isolated from system fluid.
- Non-rotating lower stem avoid galling damage to the seat and tip, as well as reduces the total friction area between the packing and lower stem.
- Back seating design provides secondary stem sealing and prevents stem blowout.
- Adjustable gland flange allows packing adjustment.
- Stem packing below thread design prevent media contamination and thread lubrication washout.
- Pressure rating upto 10,000 psig (690 Bar)
- Temperature rating are as follows:
PTFE: -65°F to 450°F (-54°C to 232°C)
Graphite: -65°F to 1200°F (-54°C to 649°C)

Material of construction:

No.	Component	Material of Constructions			
		SS316 SS316L	Carbon steel A105	Duplex	Inconel 625
1	Body	SS316 SS316L	Carbon steel A105	Duplex	Inconel 625
2	Lower Bonnet	SS316 SS316L	Carbon steel A105	Duplex	Inconel 625
3	Packing Bolt	SS316 SS316L	Carbon steel A105	Duplex	Inconel 625
4	Stem Tip	SS316 SS316L	SS316 SS316L	Duplex	Inconel 625
5	Stem	SS316 SS316L	SS316 SS316L	Duplex	Inconel 625
6	Washer	SS316 SS316L	SS316 SS316L	Duplex	Inconel 625
7	Handle	SS316			
8	Lock Nut	SS316			
9	Locking pin	SS316			
10	Cap	PVC			
11	Screw	SS 316			
12	Packing	PTFE Graphite			

Ordering Information:

Example: BBV05-1-D-12-600-A-8N-S-4
 A B C D E F G H I

BBV – Double Block & Bleed Valve

<div>A. Valve Series<div>05 – Single Piece Forged Body</div><div>10FB – Three Piece Bolted Body Full Bore</div><div>10RB – Three Piece Bolted Body Reduce Bore</div></div>	<div>B. Bore Size<table><tr><th>Designator</th><th>Size</th></tr><tr><td>1</td><td>9.5 mm (3/8")</td></tr><tr><td>2</td><td>14 mm (1/2")</td></tr><tr><td>3</td><td>19 mm (3/4")</td></tr><tr><td>4</td><td>25 mm (1")</td></tr><tr><td>5</td><td>38 mm (1 ½")</td></tr><tr><td>6</td><td>42 mm (1 11/16")</td></tr><tr><td>7</td><td>50 mm (2")</td></tr></table></div>	Designator	Size	1	9.5 mm (3/8")	2	14 mm (1/2")	3	19 mm (3/4")	4	25 mm (1")	5	38 mm (1 ½")	6	42 mm (1 11/16")	7	50 mm (2")	<div>C. Seats, Body Seals, Stem seal<div>D – PEEK, Graphite, PTFE</div><div>E – PEEK, PTFE, PTFE</div><div>F – PEEK, VITON, PTFE</div></div>														
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<div>D. Process Connection Flange Size<table><tr><th>Designator</th><th>Size</th></tr><tr><td>8</td><td>1/2</td></tr><tr><td>12</td><td>3/4</td></tr><tr><td>16</td><td>1</td></tr><tr><td>24</td><td>1 1/2</td></tr><tr><td>32</td><td>2</td></tr><tr><td>48</td><td>3</td></tr></table></div>	Designator	Size	8	1/2	12	3/4	16	1	24	1 1/2	32	2	48	3	<div>E. ASME Class Rating<table><tr><th colspan="2">Flange Class</th></tr><tr><th>Designator</th><th>Class Rating</th></tr><tr><td>150</td><td>150</td></tr><tr><td>300</td><td>300</td></tr><tr><td>600</td><td>600</td></tr><tr><td>900</td><td>900</td></tr><tr><td>1500</td><td>1500</td></tr><tr><td>2500</td><td>2500</td></tr></table></div>	Flange Class		Designator	Class Rating	150	150	300	300	600	600	900	900	1500	1500	2500	2500	<div>F. Process Outlet Connection Type<div>A – Flange, RF Smooth</div><div>B – Flange, Concentric Serrated</div><div>C – Flange, RTJ</div></div>
Designator	Size																															
8	1/2																															
12	3/4																															
16	1																															
24	1 1/2																															
32	2																															
48	3																															
Flange Class																																
Designator	Class Rating																															
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300	300																															
600	600																															
900	900																															
1500	1500																															
2500	2500																															
<div>G. Outlet Connection<div>8N – 1/2 Female NPT (9.5mm & 14mm Bore Only)</div><div>12N – 3/4 Female NPT (9.5mm & 14mm Bore Only)</div><div>F – Flange (Same as Process)</div></div>	<div>H. Material<div>S – SS316</div><div>C – Carbon Steel</div><div>D – Duplex</div><div>M – Monel</div><div>I – Inconel</div></div>	<div>I. Bleed Connection<div>4 – ¼" Female NPT</div><div>8 – ½" Female NPT</div></div>																														

DBB-05 SERIES

9.5mm BORE

SINGLE PIECE FORGED

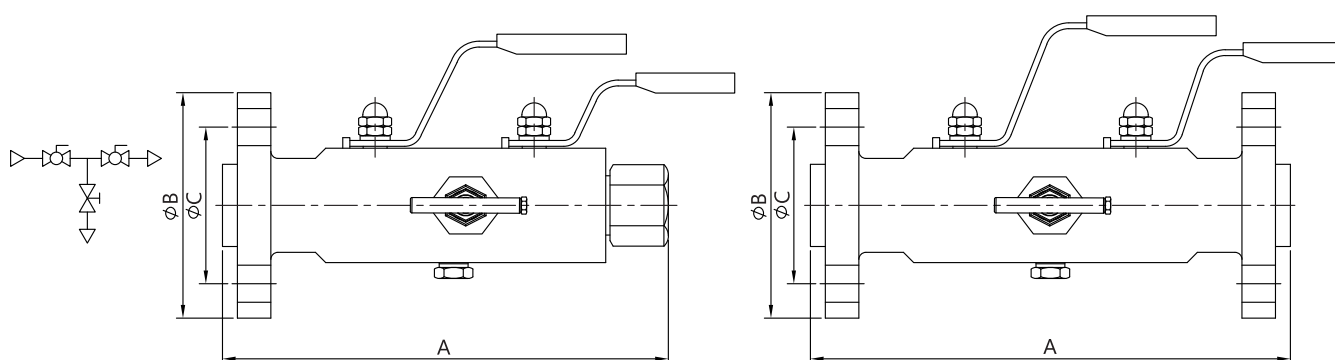
RAISED FACE (RF) FLANGE PROCESS CONNECTIONS.

to 1/2in. FEMALE NPT OUTLET CONNECTIONS.

FOR 9.5 AND 14mm BORE SIZES

RAISED FACE (RF) FLANGE PROCESS

AND OUTLET CONNECTIONS ALL BORE SIZES.



SIZE	CLASS	DIMENSION (mm)					WEIGHT (Kg.)	
		A(RF)	A(RTJ)	A(FLANGE/NPT)	B	C	FLANGE	FLANGE/NPT
1/2	150	188	-	168	88.9	60.5	4.3	3.6
	300	188	193	168	95.2	66.5	5	3.9
	600	188	196	168	95.2	66.5	5.2	4
	900/1500	206	213	176	120.6	82.5	7.9	5
	2500	206	213	176	133.4	88.5	10.8	6
3/4	150	188	-	168	98.6	69.9	4.9	3.9
	300	188	196	168	117.3	82.5	6.3	4
	600	188	196	168	117.3	82.5	6.5	4.2
	900/1500	206	213	176	130	88.9	9.5	5.6
	2500	206	213	176	139.7	95.3	11	7.1
1	150	188	193	173	108	79.2	5	3.9
	300	190	195	173	124	88.9	6.3	4.3
	600	190	198	173	124	88.9	6.5	4.5
	900/1500	240	240	195	149.3	101.6	11.5	6.8
	2500	255	255	203	158.8	108	14.3	8.1
1-1/2	150	198	203	178	127	98.6	7	4.6
	300	218	218	185	155.4	114.3	10.1	6
	600	235	235	204	155.4	114.3	11	6.5
	900/1500	280	280	215	177.8	123.9	16.5	9.4
	2500	316	316	220	203.2	146.1	25.8	14
2	150	203	213	183	152.4	120.7	9.4	5.5
	300	223	228	190	165.1	127	12.8	6.8
	600	243	253	202	165.1	127	13.4	8.1
	900/1500	288	288	215	215.9	165.1	25.4	14
	2500	313	313	220	235	171.5	36.6	22

*DIMENSIONS ARE FOR REFERENCE ONLY AND ARE SUBJECT TO CHANGE

DBB-05 SERIES

14mm BORE

SINGLE PIECE FORGED

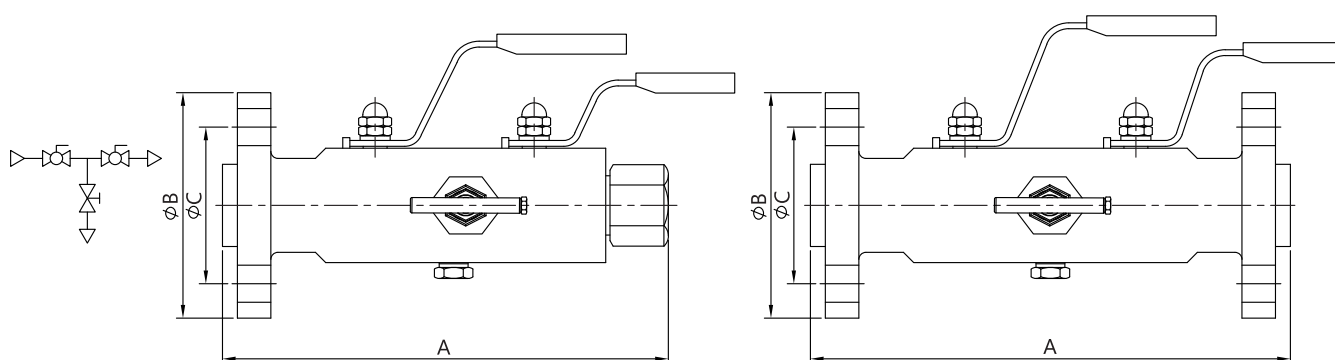
RAISED FACE (RF) FLANGE PROCESS CONNECTIONS.

to 1/2in. FEMALE NPT OUTLET CONNECTIONS.

FOR 9.5 AND 14mm BORE SIZES

RAISED FACE (RF) FLANGE PROCESS

AND OUTLET CONNECTIONS ALL BORE SIZES.



SIZE	CLASS	DIMENSION (mm)					FLANGE	FLANGE/NPT
		A(RF)	A(RTJ)	A(FLANGE/NPT)	B	C		
1	150	231	231	197	108	79.2	7.7	3.9
	300	241	241	197	124	88.9	8.8	4.3
	600	241	241	203	124	88.9	8.8	4.5
	900/1500	261	261	203	149.3	101.6	12.7	6.8
	2500	273	273	203	158.8	108	16.5	8.1
1-1/2	150	241	241	207	127	98.6	9.1	4.9
	300	251	251	207	155.4	114.3	12.3	6.4
	600	251	251	215	155.4	114.3	12.3	6.9
	900/1500	291	291	215	177.8	123.9	17.7	9.8
	2500	316	316	220	203.2	146.1	27	14
2	150	241	213	210	152.4	120.7	10.9	5.9
	300	261	241	210	165.1	127	14.1	7.5
	600	261	261	220	165.1	127	14.1	8.4
	900/1500	306	306	220	215.9	165.1	26.6	14
	2500	346	346	230	235	171.5	37.8	22.1

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DBB-05 SERIES

19mm BORE

SINGLE PIECE FORGED

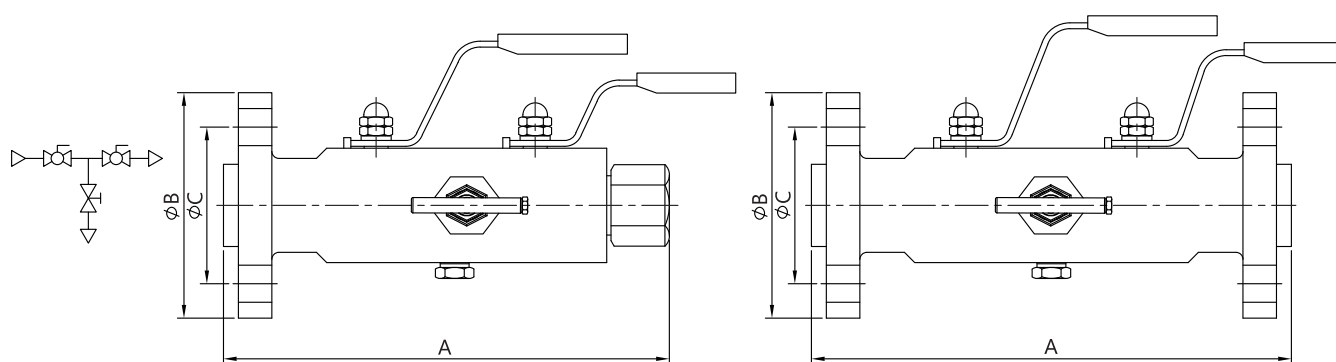
RAISED FACE (RF) FLANGE PROCESS CONNECTIONS.

to 1/2in. FEMALE NPT OUTLET CONNECTIONS.

FOR 9.5 AND 14mm BORE SIZES

RAISED FACE (RF) FLANGE PROCESS

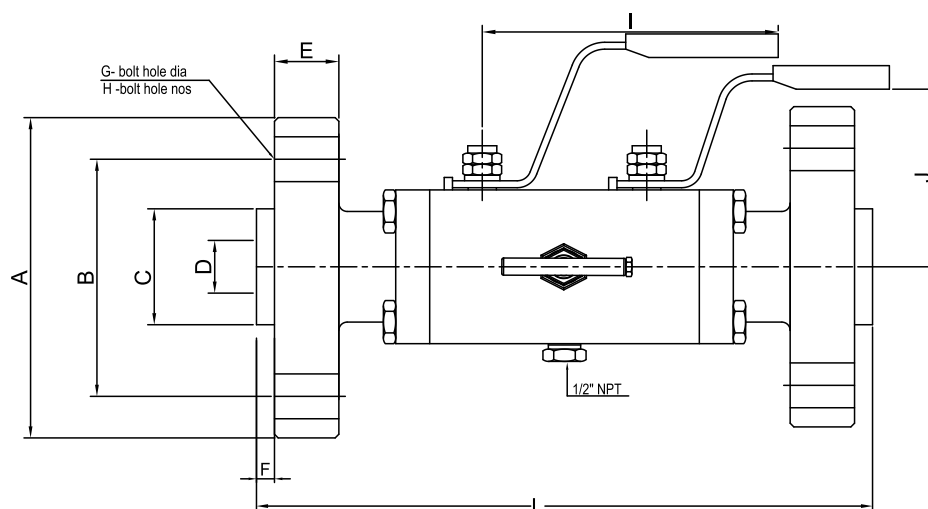
AND OUTLET CONNECTIONS ALL BORE SIZES.



SIZE	CLASS	DIMENSION (mm)				WEIGHT(KG)
		A(RF)	A(RTJ)	B	C	
1-1/2	150	253	253	127	98.6	9.8
	300	263	263	155.4	114.3	13
	600	263	263	155.4	114.3	13
	900/1500	303	303	177.8	123.9	18.4
	2500	328	328	203.2	146.1	27.7
2	150	253	253	152.4	127	11.7
	300	273	273	165.1	127	14.9
	600	273	273	165.1	127	14.9
	900/1500	318	318	215.9	165.1	27.4
	2500	358	358	235	171.5	38.6

*DIMENSIONS ARE FOR REFERENCE ONLY AND ARE SUBJECT TO CHANGE

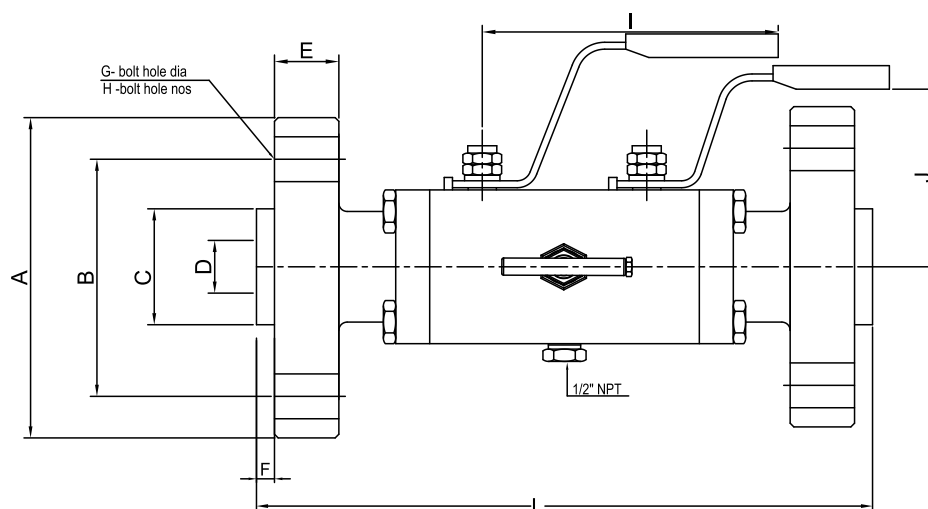
MODULAR DOUBLE BLOCK AND BLEED VALVES - DBB10 SERIES



SIZE	CLASS	A	B	C	D	E	F	G	H	I	J	L
1/2"	150	88.9	60.5	35.0	15.0	9.6	1.6	15.7	4	135	65	248
	300	95.2	66.5	35.0	15.0	12.7	1.6	15.7	4	135	70	254
	600	95.2	66.5	35.0	15.0	14.3	6.35	15.7	4	135	70	254
	900	121	82.6	35.0	15.0	22.3	6.35	22.4	4	165	80	287
	1500	121	82.6	35.0	15.0	22.3	6.35	22.4	4	165	80	287
	2500	134	88.9	35.0	12.0	30.2	6.35	22.4	4	250	95	303
3/4"	150	98.6	69.8	42.9	20.0	11.2	1.6	15.7	4	135	70	277
	300	117	82.6	42.9	20.0	14.3	1.6	19.0	4	135	80	290
	600	117	82.6	42.9	20.0	15.9	6.35	19.0	4	150	80	290
	900	130	88.9	42.9	20.0	25.4	6.35	22.4	4	180	90	320
	1500	130	88.9	42.9	20.0	25.4	6.35	22.4	4	180	90	320
	2500	140	95.2	42.9	16.0	31.8	6.35	22.4	4	250	95	333
1"	150	108	79.2	50.8	25.0	12.7	1.6	15.7	4	165	75	285
	300	124	88.9	50.8	25.0	15.9	1.6	19.0	4	165	85	292
	600	124	88.9	50.8	25.0	17.5	6.35	19.0	4	180	85	292
	900	149	102	50.8	25.0	28.6	6.35	25.4	4	200	100	364
	1500	149	102	50.8	25.0	28.6	6.35	25.4	4	200	100	364
	2500	159	108	50.8	22.0	35.0	6.35	25.4	4	300	105	377
1-1/2"	150	127	98.6	73.15	38.0	15.9	1.6	15.7	4	200	90	374
	300	155	114	73.15	38.0	19.1	1.6	22.4	4	200	105	384
	600	155	114	73.15	38.0	22.3	6.35	22.4	4	250	105	384
	900	178	124	73.15	38.0	31.8	6.35	28.7	4	300	115	402
	1500	178	124	73.15	38.0	31.8	6.35	28.7	4	300	115	42
	2500	203	156	73.15	32.0	44.5	6.35	31.8	4	400	130	466
2"	150	152	121	91.95	50.0	17.5	1.6	19.0	4	225	100	403
	300	165	127	91.95	50.0	20.7	1.6	19.0	8	225	110	411
	600	165	127	91.95	50.0	25.4	6.35	19.0	8	280	110	419
	900	216	165	91.95	50.0	38.1	6.35	25.4	8	350	135	484
	1500	216	165	91.95	48.0	38.1	6.35	25.4	8	350	135	484
	2500	235	171	91.95	42.0	50.9	6.35	28.7	8	450	145	655

*DIMENSIONS ARE FOR REFERENCE ONLY AND ARE SUBJECT TO CHANGE

MODULAR DOUBLE BLOCK AND BLEED VALVES - DBB10 SERIES



SIZE	CLASS	A	B	C	D	E	F	G	H	I	J	L
2-1/2"	150	180	139.7	104.8	62.0	20.7	2.0	19.0	4	280.0	130.0	345.0
	300	190	149.2	104.8	62.0	23.9	2.0	22.2	4	280.0	130.0	360.0
	600	190	149.2	104.8	62.0	28.6	7.0	22.2	8	350	150.0	506.0
	900	245	190.5	104.8	62.0	41.3	7.0	28.6	8	-	-	610.0
	1500	245	190.5	104.8	62.0	41.3	7.0	28.6	8	-	-	610.0
	2500	265	196.8	104.8	52.0	57.2	9.5	31.8	8	-	-	734.0
3"	150	190	152.4	127.0	75	22.3	2.0	19.0	4	350	125	390.0
	300	210	168.3	127.0	75	27.0	2.0	22.2	8	350	130	410.0
	600	210	168.3	127.0	75	31.8	7.0	22.2	8	350	150	460.0
	900	240	190.5	127.0	75	38.1	7.0	25.4	8	-	-	673.0
	1500	265	203.2	127.0	75	47.7	7.0	31.8	8	-	-	700.0
	2500	305	228.6	127.0	62	66.7	9.5	35.0	8	-	-	832.0
4"	150	230	190.5	157.2	100	22.3	2.0	19.0	8	450	165	450.0
	300	254	200	157.2	100	30.2	2.0	22.2	8	450	165	480.0
	600	275	216	157.2	100	38.1	7.0	25.4	8	-	-	673.0
	900	292	235	157.2	100	44.5	8.0	31.8	8	-	-	750.0
	1500	310	241.3	157.2	100	54.0	8.0	35.0	8	-	-	832.0
	2500	355	273.0	157.2	87.0	76.2	11.1	41.0	8	-	-	990.0
6"	150	280	241.3	216.0	150	23.9	2.0	22.2	8	550	200	610.0
	300	320	270.0	216.0	150	35.0	2.0	22.2	12	550	220	714.0
	600	355	292.1	216.0	150	47.7	7.0	28.6	12	-	-	864.0
	900	381	317.5	216.0	150	55.6	7.0	31.8	12	-	-	972.0
	1500	395	317.5	216.0	144	82.6	9.5	38.1	12	-	-	1067.0
	2500	485	438.2	216.0	131	108.0	12.7	54.0	12	-	-	1350.0
8"	150	345	298.5	270.0	200	27.0	2.0	22.2	8	-	-	832.0
	300	380	330.2	270.0	200	39.7	2.0	25.4	12	-	-	914.0
	600	420	349.2	270.0	200	55.6	7.0	31.8	12	-	-	1022.0
	900	470	393.7	270.0	200	63.5	7.0	38.1	12	-	-	1150.0
	1500	485	393.7	270.0	192	92.1	11.1	44.5	12	-	-	1350.0
	2500	550	438.2	270.0	179	127.0	14.3	54.0	12	-	-	1473.0

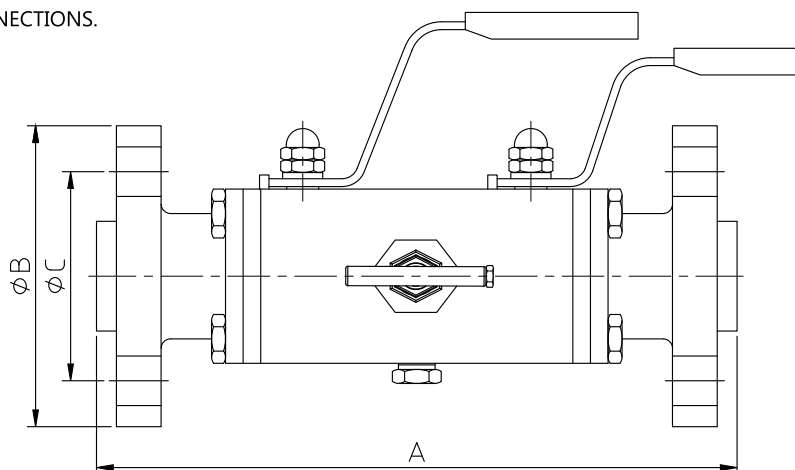
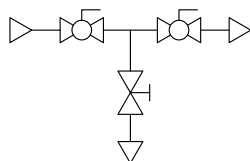
*DIMENSIONS ARE FOR REFERENCE ONLY AND ARE SUBJECT TO CHANGE

DBB-10 SERIES

REDUCE BORE - (RB)

THREE PIECE, BOLTED BODY.

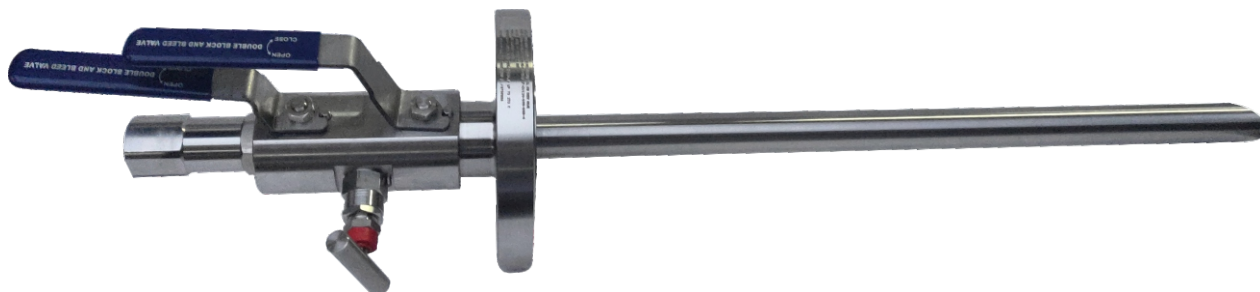
RF OR RTJ FLANGE PROCESS AND OUTLET CONNECTIONS.



SIZE	BORE (MM)	CLASS	DIMENSION (mm)				WEIGHT(KG)
			A(RF)	A(RTJ)	B	C	
3/4	14	150	249	262	98.6	69.9	10
		300	262	275	117.3	82.5	11.5
		600	275	275	117.3	82.5	13
		900/1500	305	305	130	88.9	16
		2500	318	321	139.7	95.3	19
1	19	150	267	280	108	79.2	11.5
		300	281	294	124	88.9	13
		600	294	294	124	88.9	14.5
		900/1500	336	336	149.3	101.6	19
		2500	350	353	158.8	108	22
1-1/2	25	150	279	292	127	98.6	16.4
		300	285	298	155.4	114.3	20.2
		600	301	301	155.4	114.3	21
		900/1500	370	370	177.8	123.9	26.2
		2500	396	399	203.2	146.1	36.6
2	38	150	364	377	152.4	120.7	25.7
		300	372	383	165.1	127	29.8
		600	390	393	165.1	127	31.2
		900/1500	415	418	215.9	165.1	43.8
		2500	475	478	235	171.5	57.5
3	50	150	400	413	190.5	152.4	52.7
		300	410	423	209.5	168.1	56.7
		600	428	431	209.5	168.1	58.7
		900	441	444	241.3	190.5	68.9
		900/1500	500	503	266.7	203.2	84.7
	42	2500	694	700	304.8	228.6	210

*DIMENSIONS ARE FOR REFERENCE ONLY AND ARE SUBJECT TO CHANGE

INJECTION QUILLS & SAMPLING PROBES FOR DBB VALVES



In most modern applications there is often a requirement to take a sample of the process fluid or inject a particular chemical directly into the process stream at full operating pressures and temperatures.

To meet this requirement then any of the YDB VALVES ranges of Double Block and Bleed Valves including one piece body DBB, Modular Type, Monoflange Valves and Manifold Valves can be fitted with either an Injection Quill or Sampling Probe whilst retaining the wide choice of options available in each range.

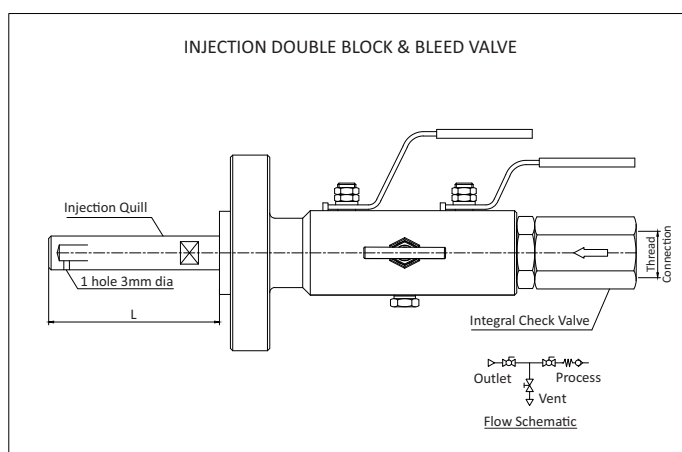
Probes and Quills extend into the process medium and are designed to meet the individual application requirements. Units can be fitted with an Integral Check Valve to prevent back flow into the process stream.

Injection Quills

In many applications there is a need to inject chemicals such as de-waxing, de-icing or de-foaming agents into the process stream to facilitate a free flow of the process media.

Using the primary and secondary isolation valves the required chemical is injected directly into the process stream. It is usual for Injection Valves to be fitted with a non-return check valve that only opens when chemicals are injected into the process line thus preventing back flow out of the process stream.

The Injection Quill length (L) is manufactured to suit customer requirements.
The Injection Nozzle is a 3mm diameter hole and other options available



Non Return Valve

A high integrity full bore non-return valve, which can be fitted internally or externally, eliminates the risk of back flow into or out of the process stream. The design uses a spring loaded poppet to ensure leak proof performance and has standard cracking pressure of 10 psig although other cracking pressures can be supplied.

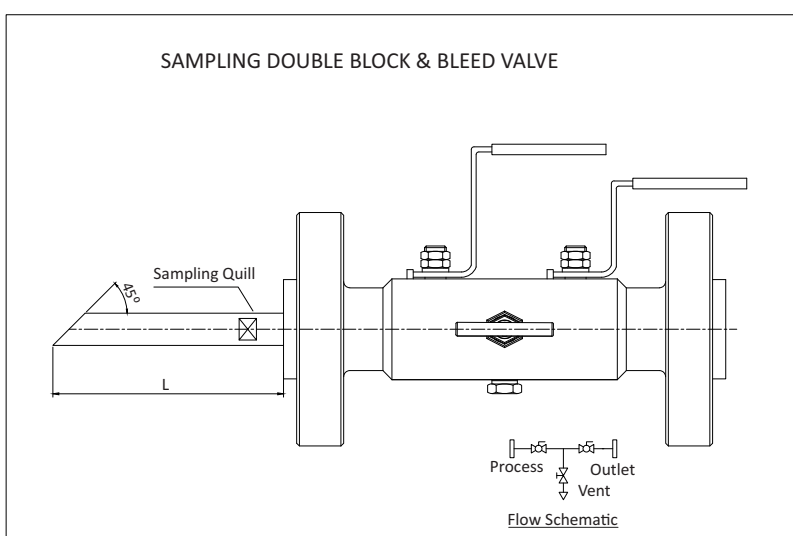
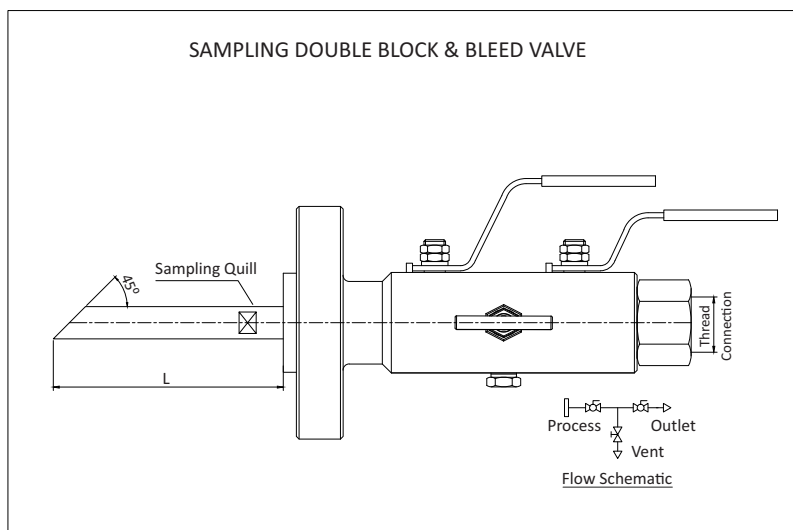
INJECTION QUILLS & SAMPLING PROBES FOR DBB VALVES

Sampling Probe

Typically the need would be to allow a small process sample to be removed for evaluation under full system pressure.

Usually this is achieved by opening and closing of the primary isolation valve thus trapping a sample of the process fluid between the primary and secondary isolation valves. Using the vent valve this sample can then be safely vented off at reduced pressure.

Alternatively if larger samples are required then this can be achieved by use of the primary and secondary isolation valves with an optional Non Return Check Valve being fitted to prevent back flow into the process stream.



Sampling Probe

The Sampling Probe length (L) is manufactured to suit customer requirements.

INJECTION QUILLS & SAMPLING PROBES FOR DBB VALVES

Construction

The Quill / Probe can be manufactured in several ways to suit the users' requirement:

- a) The outlet flange and the probe can be made from a single one piece forging or from forged barstock.
- b) The Quill / Probe is manufactured from forged barstock which is then screwed and torqued into the outlet flange. If required the probe can also be seam welded to provide added strength.
- c) The Quill / Probe can be socket welded into the outlet flange.

Dimension

The overall quill length, defined in mm from the tip to directly below the flange face and pipe schedule of the quill are user definable. Units can be fitted with velocity or support collars dependent upon the required design.

Bore

Bore sizes are determine by the through bore of the DBB valve that have 10mm, 14mm and 20mm as standard. Other options available Kindly contact YDB VALVES

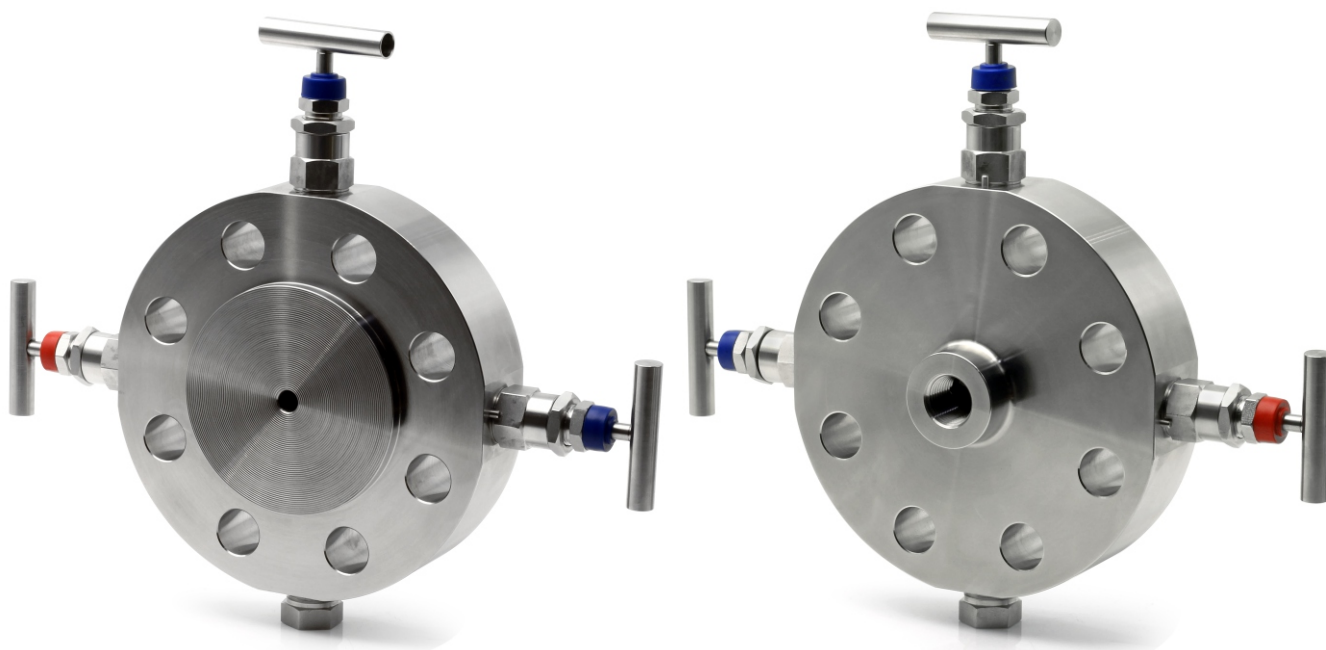
Materials

Quill / Probes are usually manufactured special to order and as such are available in a full range of materials including: SS 316, SS 316L, LF2 Carbon Steel, A105 Carbon Steel, Duplex, Super Duplex, Hastelloy, 6 Mo, Monel, Inconel, Titanium etc

Quill Profiles

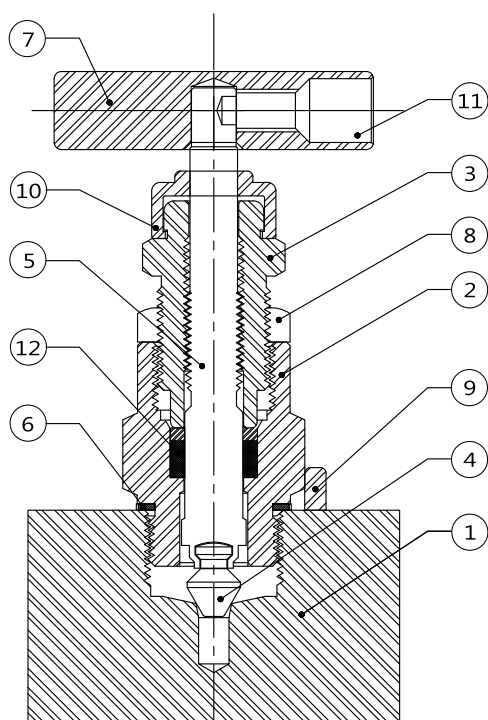
The profile of the end of the quill / probe can be manufactured to suit the application. Typically on sampling probes the end will be cut at 45 degrees to face the oncoming process stream whereas on injection quills the ends are usually sealed except for a small outlet hole as defined by the user.

MONOFLANGE VALVES



- Compact Block, Block and Bleed assemblies with minimal potential leak points.
- Compatible with ASME B16.5 Flange Connections from 1/2 inch to 2 inch (DN 15 to DN 50).
- ANSI B16.5 150 to 2500 flange class and API 10000. Combined needle and OS&Y valves available.
- Raised face and ring type joint flange face styles.
- One piece forged construction flange as standard.
- 4mm Needle valve orifice standard and for bigger orifice please contact us.
- Anti-blow out valve stem.
- Fire safe designed to meet BS 6755 part 2/API 607 NACE MR 0175/ISO 15156 compliant material available.
- Standard material of construction: SS316, SS316L, Carbon steel, A105, Duplex.
- Optional material: Super Duplex, Inconel, Hastelloy, 6Mo, Monel.

Needle Valve Model:



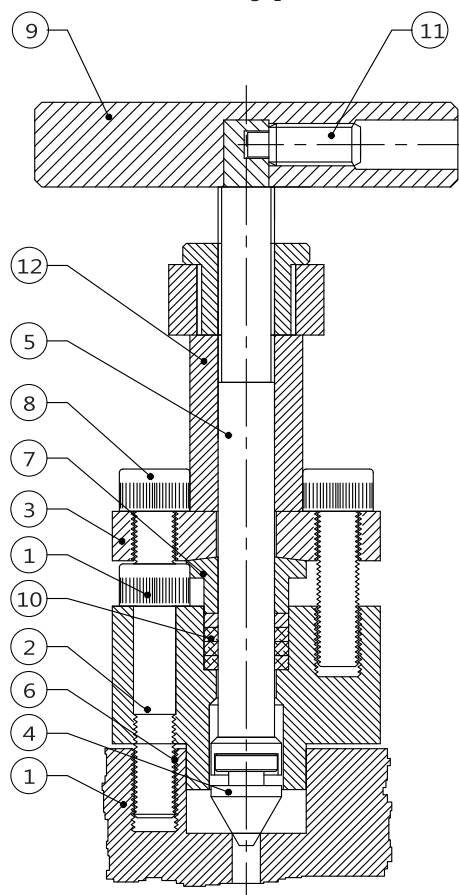
Features

- Standard non-rotating free swivel stem tip.
- Upper stem thread lubricant is isolated from system fluid.
- Non-rotating lower stem avoid galling damage to the seat and tip, as well as reduces the total friction area between the packing and lower stem.
- Back seating design provides secondary stem sealing and prevents stem blowout.
- Adjustable gland flange allows packing adjustment.
- Stem packing below thread design prevent media contamination and thread lubrication washout.
- Pressure rating upto 10,000 psig (690 Bar)
- Temperature rating are as follows:
PTFE: -65°F to 450°F (-54°C to 232°C)
Graphite: -65°F to 1200°F (-54°C to 649°C)

Material of construction:

No.	Component	Material of Constructions			
		Ss316 SS316L	Carbon steel A105	Duplex	Inconel 625
1	Body	SS316 SS316L	Carbon steel A105	Duplex	Inconel 625
2	Lower Bonnet	SS316 SS316L	Carbon steel A105	Duplex	Inconel 625
3	Packing Bolt	SS316 SS316L	Carbon steel A105	Duplex	Inconel 625
4	Stem Tip	SS316 SS316L	SS316 SS316L	Duplex	Inconel 625
5	Stem	SS316 SS316L	SS316 SS316L	Duplex	Inconel 625
6	Washer	SS316 SS316L	SS316 SS316L	Duplex	Inconel 625
7	Handle	SS316			
8	Lock Nut	SS316			
9	Locking pin	SS316			
10	Cap	PVC			
11	Screw	SS 316			
12	Packing	PTFE Graphite			

OS&Y Needle Type Valve Model



Features

- Investment case yoke is formed by precision casting which enhances strength and perfect stem alignment.
- Standard non-rotating free swivel stem tip.
- Upper stem thread lubricant is isolated from system fluid.
- Non-rotating lower stem avoid galling damage to the seat and tip, as well as reduces the total friction area between the packing and lower stem.
- Back seating design provides secondary stem sealing and prevents stem blowout.
- Adjustable gland flange allows packing adjustment.
- Stem packing below thread design prevent media contamination and thread lubrication washout.
- Pressure rating upto 10,000 psig (690 Bar)
- Temperature rating are as follows:
PTFE: -65°F to 450°F (-54°C to 232°C)
Graphite: -65°F to 1200°F (-54°C to 649°C)

Material of construction:

No.	Component	Material of Constructions			
		SS316 / SS316L	Carbon Steel A105	Duplex	Inconel 625
1	Body	SS316 / SS316L	Carbon Steel A105	Duplex	Inconel 625
2	Bolted Bonnet	SS316 / SS316L	Carbon Steel A105	Duplex	Inconel 625
3	Adjustable Gland Flange	SS316 / SS316L	Carbon Steel A105	Duplex	Inconel 625
4	Stem Tip	SS316 / SS316L	SS316 / SS316L	Duplex	Inconel 625
5	Stem	SS316 / SS316L	SS316 / SS316L	Duplex	Inconel 625
6	Washer	SS316 / SS316L	SS316 / SS316L	Duplex	Inconel 625
7	Investment Cast Yoke	SS316 / SS316L	Carbon Steel A105	Duplex	Inconel 625
8	Packing Gland	SS316 / SS316L	Carbon Steel A105	Duplex	Inconel 625
9	Bolt	SS316	Carbon Steel A105	SS316	SS316
10	Packing	PTFE / Graphite	PTFE/Graphite	PTFE/Graphite	PTFE/Graphite
11	Set Screw	SS316	Carbon Steel A105	SS316	SS316
12	Handle	SS316	Carbon Steel A105	SS316	SS316

Ordering Information:

Example: MFV25N-24-600-A-8N-S-S-P-4-NR
 A B C D E F G H I

MFV - Monoflange Valve

MFV05 Series –Single Block

Flange to 1/2" NPTF

Isolate : OS&Y or Needle

Designators	Isolate	Intermediate Ordering #
Y	OS&Y	MFV05Y
N	Needle	MFV05N

MFV10 Series – Block & Bleed

Flange to 1/2" NPTF

Isolate : OS&Y or Needle

Bleed : OS&Y or Needle

Designators	Isolate	Bleed	Intermediate Ordering #
Y	OS&Y	OS&Y	MFV10Y
N	Needle	Needle	MFV10N
D	OS&Y	Needle	MFV10D

MFV15 Series – Block & Block

Flange to 1/2" NPTF

Primary Isolate : OS&Y or Needle

Secondary Isolate : Needle

Designators	Primary Isolate	Secondary Isolate	Intermediate Ordering #
Y	OS&Y	OS&Y	MFV15Y
N	Needle	Needle	MFV15N
D	OS&Y	Needle	MFV15D

MFV20 Series – Block Bleed Block

Flange to 1/2" NPTF

Primary Isolate : OS&Y or Needle

Bleed : Needle

Secondary Isolate : OS&Y or Needle

Designators	Primary Isolate	Bleed	Secondary Isolate	Intermediate Ordering #
Y	OS&Y	Needle	OS&Y	MFV20Y
N	Needle	Needle	Needle	MFV20N
D	OS&Y	Needle	OS&Y	MFV20D

MFV25 Series – Block Block Bleed

Flange to 1/2" NPTF

Primary Isolate : OS&Y or Needle

Bleed : Needle

Secondary Isolate : OS&Y or Needle

Designators	Primary Isolate	Bleed	Secondary Isolate	Intermediate Ordering #
Y	OS&Y	Needle	OS&Y	MFV25Y
N	Needle	Needle	Needle	MFV25N
D	OS&Y	Needle	OS&Y	MFV25D

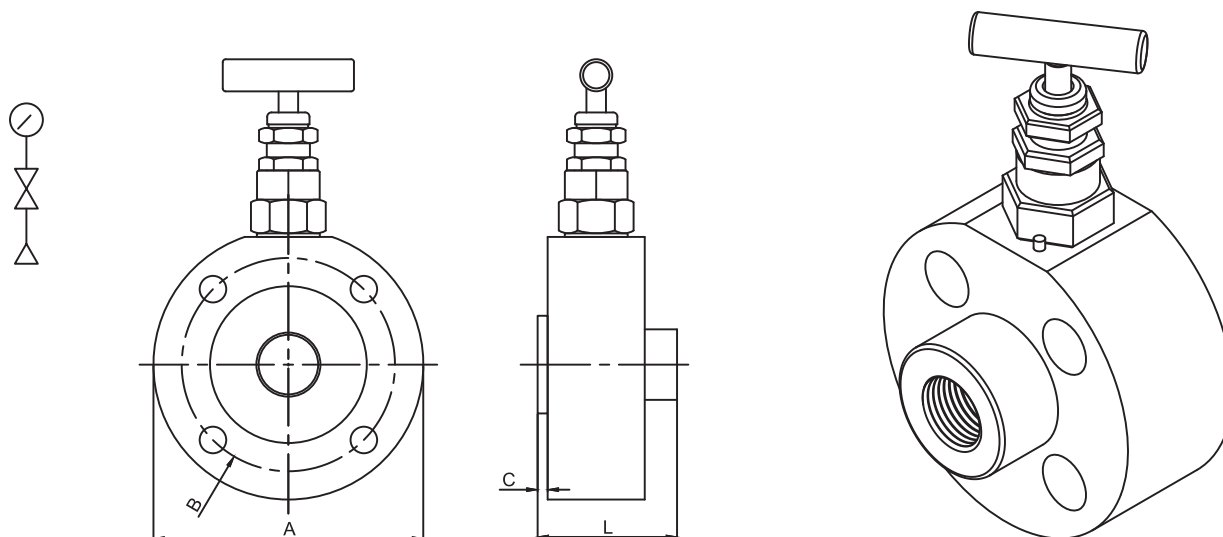
Ordering Information:

Example: MFV25N-24-600-A-8N-S-S-P-4-NR
 A B C D E F G H I

MFV - Monoflange Valve

<div>A.Process Connection Size</div> <table><tr><th colspan="2">Flange Size</th></tr><tr><th>Designator</th><th>Size</th></tr><tr><td>8</td><td>1/2</td></tr><tr><td>12</td><td>3/4</td></tr><tr><td>16</td><td>1</td></tr><tr><td>24</td><td>1- 1/2</td></tr><tr><td>32</td><td>2</td></tr></table>	Flange Size		Designator	Size	8	1/2	12	3/4	16	1	24	1- 1/2	32	2	<div>B. Class Rating</div> <table><tr><th>Designator</th><th>Size</th></tr><tr><td>150</td><td>150</td></tr><tr><td>300</td><td>300</td></tr><tr><td>600</td><td>600</td></tr><tr><td>900</td><td>900</td></tr><tr><td>1500</td><td>1500</td></tr><tr><td>2500</td><td>2500</td></tr></table>	Designator	Size	150	150	300	300	600	600	900	900	1500	1500	2500	2500	<div>C. Process Connection Type</div> <div>A – Flange, RF Smooth</div> <div>B – Flange, Concentric Serrated</div> <div>C – Flange, RTJ</div>
Flange Size																														
Designator	Size																													
8	1/2																													
12	3/4																													
16	1																													
24	1- 1/2																													
32	2																													
Designator	Size																													
150	150																													
300	300																													
600	600																													
900	900																													
1500	1500																													
2500	2500																													
<div>D. Outlet Connection</div> <div>8N – 1/2 Female NPT</div> <div>12N – 3/4 Female NPT</div> <div>F – Flange</div>	<div>E – Body Material</div> <div>S – SS316</div> <div>C – Carbon Steel</div> <div>D – Duplex</div> <div>M – Monel</div> <div>I – Inconel</div>	<div>F – Trim Material</div> <div>S – SS316</div> <div>C – Carbon Steel</div> <div>D – Duplex</div> <div>M – Monel</div> <div>I – Inconel</div>																												
<div>G – Packing Material</div> <div>P – PTFE</div> <div>G – Graphite</div> <div>RP – Reinforced PTFE</div> <div>F – Flange (Same as Process)</div>	<div>H – Vent</div> <div>¼ Female NPT – 4</div> <div>½ Female NPT - 8</div>	<div>I- Trim type</div> <div>NR- Non Rotating</div>																												

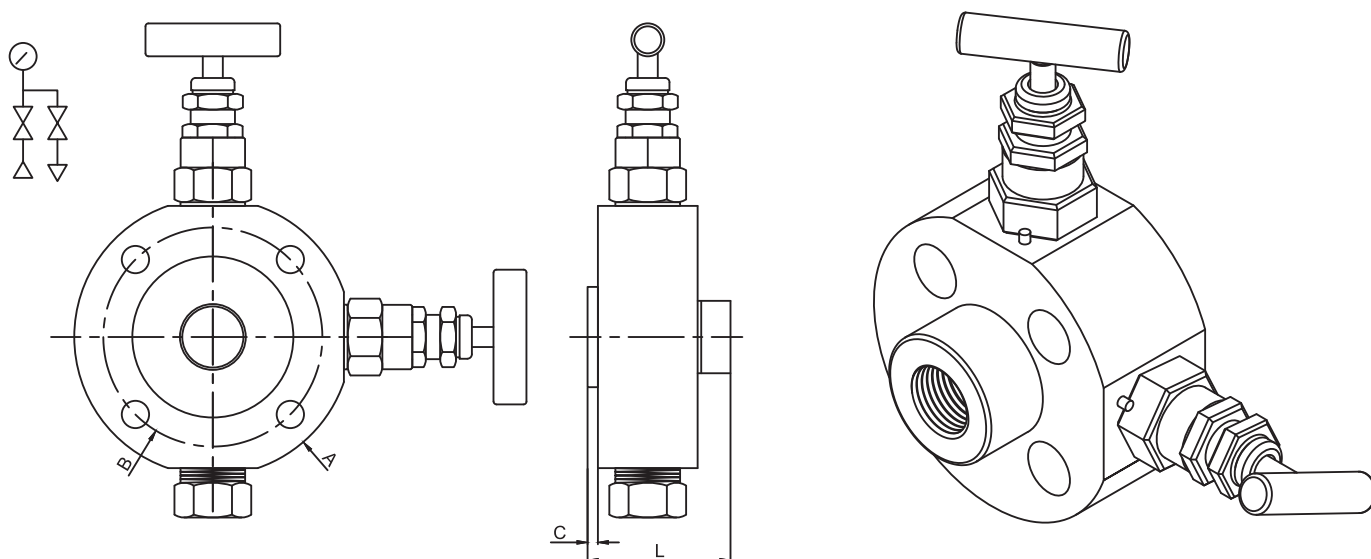
MONOFLANGE SINGLE BLOCK - MFV05 SERIES



SIZE	CLASS	DIMENSION			
		A	B	C	L
1/2	150	88.90	60.45	1.59	60.00
	300	95.25	66.55	1.59	60.00
	600	95.25	66.55	6.35	60.00
	900/1500	120.65	82.55	6.35	60.00
	2500	133.35	88.90	6.35	60.00
3/4	150	98.55	69.85	1.59	60.00
	300	117.35	82.55	1.59	60.00
	600	117.35	82.55	6.35	60.00
	900/1500	130.05	88.90	6.35	60.00
	2500	139.70	95.25	6.35	60.00
1	150	107.95	79.25	1.59	60.00
	300	123.95	88.90	1.59	60.00
	600	123.95	88.90	6.35	60.00
	900/1500	149.35	101.60	6.35	67.00
	2500	158.75	107.95	6.35	67.00
1-1/2	150	127.00	98.55	1.59	67.00
	300	155.45	114.30	1.59	67.00
	600	155.45	114.30	6.35	67.00
	900/1500	177.80	123.95	6.35	74.00
	2500	203.20	146.05	6.35	80.00
2	150	152.40	120.65	1.59	60.00
	300	165.10	127.00	1.59	60.00
	600	165.10	127.00	6.35	60.00
	900/1500	215.90	165.10	6.35	67.00
	2500	234.95	171.45	6.35	80.00

*DIMENSIONS ARE FOR REFERENCE ONLY AND ARE SUBJECT TO CHANGE

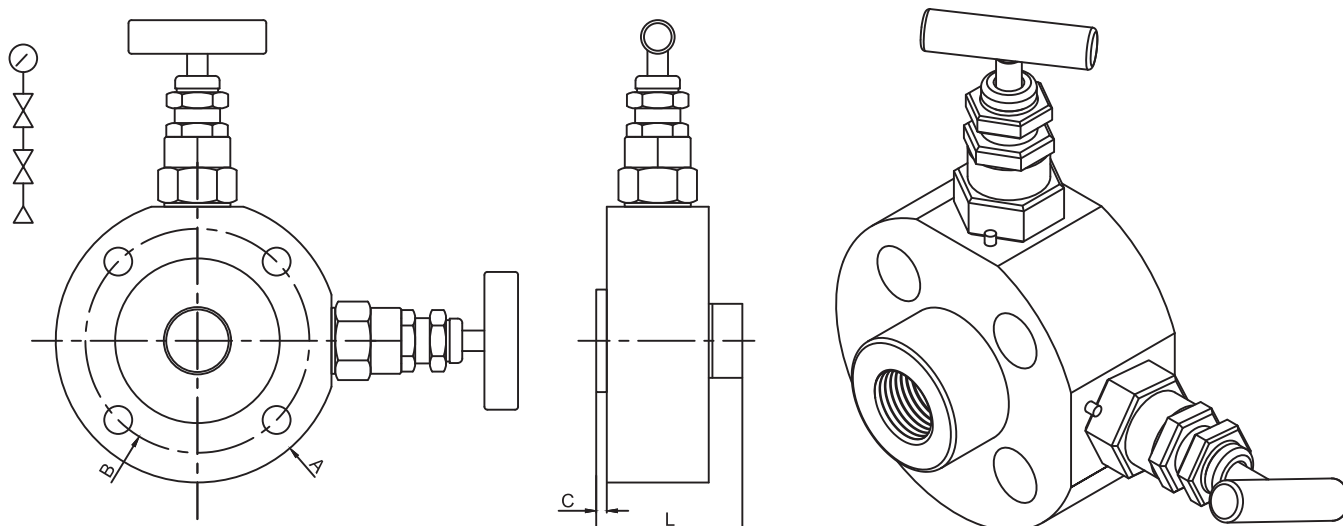
MONOFLANGE SINGLE BLOCK & BLEED - MFV10 SERIES



SIZE	CLASS	DIMENSION			
		A	B	C	L
1/2	150	88.90	60.45	1.59	60.00
	300	95.25	66.55	1.59	60.00
	600	95.25	66.55	6.35	60.00
	900/1500	120.65	82.55	6.35	60.00
	2500	133.35	88.90	6.35	60.00
3/4	150	98.55	69.85	1.59	60.00
	300	117.35	82.55	1.59	60.00
	600	117.35	82.55	6.35	60.00
	900/1500	130.05	88.90	6.35	60.00
	2500	139.70	95.25	6.35	60.00
1	150	107.95	79.25	1.59	60.00
	300	123.95	88.90	1.59	60.00
	600	123.95	88.90	6.35	60.00
	900/1500	149.35	101.60	6.35	67.00
	2500	158.75	107.95	6.35	67.00
1-1/2	150	127.00	98.55	1.59	67.00
	300	155.45	114.30	1.59	67.00
	600	155.45	114.30	6.35	67.00
	900/1500	177.80	123.95	6.35	74.00
	2500	203.20	146.05	6.35	80.00
2	150	152.40	120.65	1.59	60.00
	300	165.10	127.00	1.59	60.00
	600	165.10	127.00	6.35	60.00
	900/1500	215.90	165.10	6.35	67.00
	2500	234.95	171.45	6.35	80.00

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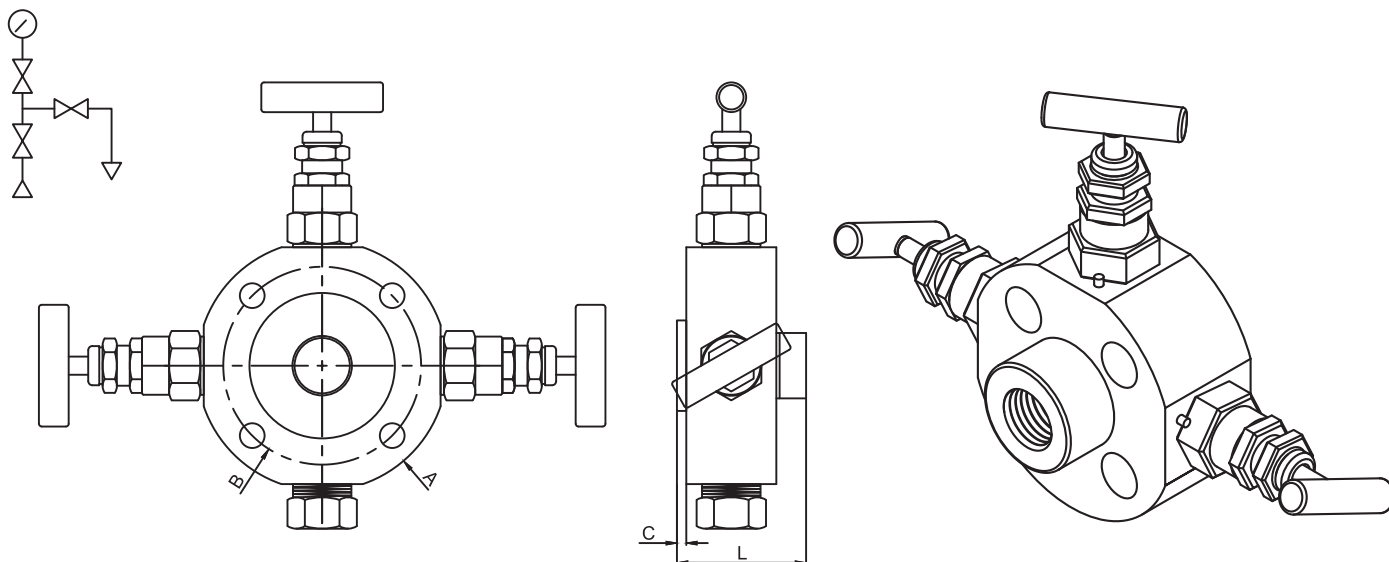
MONOFLANGE DOUBLE BLOCK - MFV15 SERIES



SIZE	CLASS	DIMENSION			
		A	B	C	L
1/2	150	88.90	60.45	1.59	60.00
	300	95.25	66.55	1.59	60.00
	600	95.25	66.55	6.35	60.00
	900/1500	120.65	82.55	6.35	60.00
	2500	133.35	88.90	6.35	60.00
3/4	150	98.55	69.85	1.59	60.00
	300	117.35	82.55	1.59	60.00
	600	117.35	82.55	6.35	60.00
	900/1500	130.05	88.90	6.35	60.00
	2500	139.70	95.25	6.35	60.00
1	150	107.95	79.25	1.59	60.00
	300	123.95	88.90	1.59	60.00
	600	123.95	88.90	6.35	60.00
	900/1500	149.35	101.60	6.35	67.00
	2500	158.75	107.95	6.35	67.00
1-1/2	150	127.00	98.55	1.59	67.00
	300	155.45	114.30	1.59	67.00
	600	155.45	114.30	6.35	67.00
	900/1500	177.80	123.95	6.35	74.00
	2500	203.20	146.05	6.35	80.00
2	150	152.40	120.65	1.59	60.00
	300	165.10	127.00	1.59	60.00
	600	165.10	127.00	6.35	60.00
	900/1500	215.90	165.10	6.35	67.00
	2500	234.95	171.45	6.35	80.00

*DIMENSIONS ARE FOR REFERENCE ONLY AND ARE SUBJECT TO CHANGE

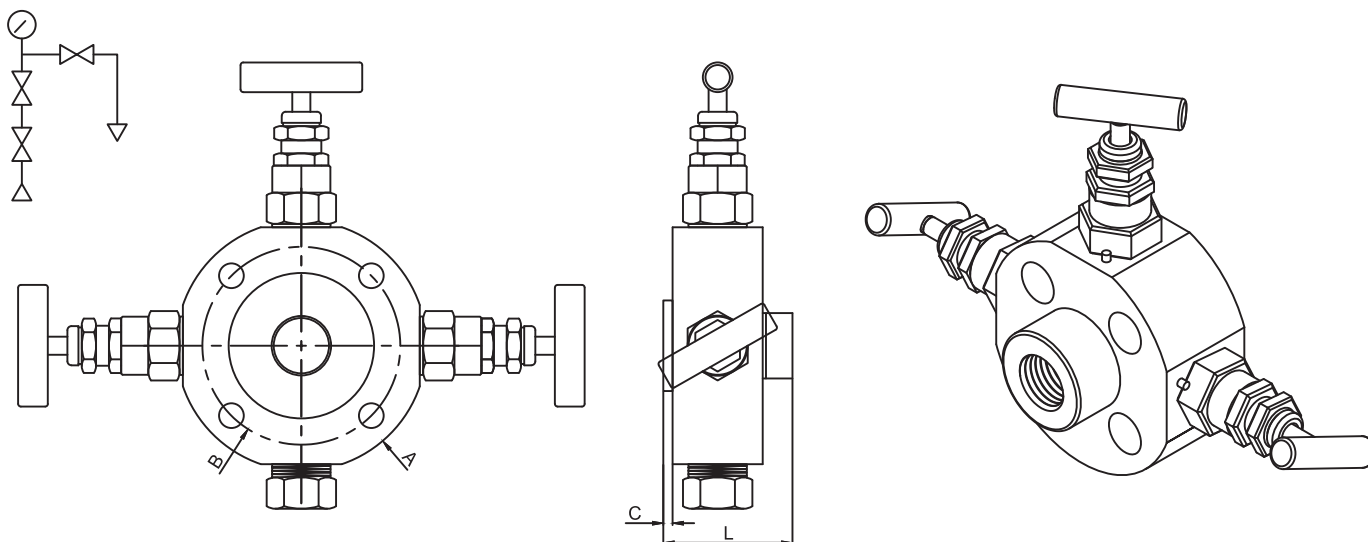
MONOFLANGE BLOCK BLEED BLOCK - MFV20 SERIES



SIZE	CLASS	DIMENSION			
		A	B	C	L
1/2	150	88.90	60.45	1.59	60.00
	300	95.25	66.55	1.59	60.00
	600	95.25	66.55	6.35	60.00
	900/1500	120.65	82.55	6.35	60.00
	2500	133.35	88.90	6.35	60.00
3/4	150	98.55	69.85	1.59	60.00
	300	117.35	82.55	1.59	60.00
	600	117.35	82.55	6.35	60.00
	900/1500	130.05	88.90	6.35	60.00
	2500	139.70	95.25	6.35	60.00
1	150	107.95	79.25	1.59	60.00
	300	123.95	88.90	1.59	60.00
	600	123.95	88.90	6.35	60.00
	900/1500	149.35	101.60	6.35	67.00
	2500	158.75	107.95	6.35	67.00
1-1/2	150	127.00	98.55	1.59	67.00
	300	155.45	114.30	1.59	67.00
	600	155.45	114.30	6.35	67.00
	900/1500	177.80	123.95	6.35	74.00
	2500	203.20	146.05	6.35	80.00
2	150	152.40	120.65	1.59	60.00
	300	165.10	127.00	1.59	60.00
	600	165.10	127.00	6.35	60.00
	900/1500	215.90	165.10	6.35	67.00
	2500	234.95	171.45	6.35	80.00

*DIMENSIONS ARE FOR REFERENCE ONLY AND ARE SUBJECT TO CHANGE

MONOFLANGE BLOCK BLOCK BLEED - MFV25 SERIES



SIZE	CLASS	DIMENSION			
		A	B	C	L
1/2	150	88.90	60.45	1.59	60.00
	300	95.25	66.55	1.59	60.00
	600	95.25	66.55	6.35	60.00
	900/1500	120.65	82.55	6.35	60.00
	2500	133.35	88.90	6.35	60.00
3/4	150	98.55	69.85	1.59	60.00
	300	117.35	82.55	1.59	60.00
	600	117.35	82.55	6.35	60.00
	900/1500	130.05	88.90	6.35	60.00
	2500	139.70	95.25	6.35	60.00
1	150	107.95	79.25	1.59	60.00
	300	123.95	88.90	1.59	60.00
	600	123.95	88.90	6.35	60.00
	900/1500	149.35	101.60	6.35	67.00
	2500	158.75	107.95	6.35	67.00
1-1/2	150	127.00	98.55	1.59	67.00
	300	155.45	114.30	1.59	67.00
	600	155.45	114.30	6.35	67.00
	900/1500	177.80	123.95	6.35	74.00
	2500	203.20	146.05	6.35	80.00
2	150	152.40	120.65	1.59	60.00
	300	165.10	127.00	1.59	60.00
	600	165.10	127.00	6.35	60.00
	900/1500	215.90	165.10	6.35	67.00
	2500	234.95	171.45	6.35	80.00

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