

SG-LOK

Double Block and Bleed Valves

Samwon Green Co., Ltd.

101, Mayu-ro 20beon-gil, Siheung-si, Gyeonggi-do, Republic of Korea

Tel. 031-431-3452 / Fax. 031-431-3460

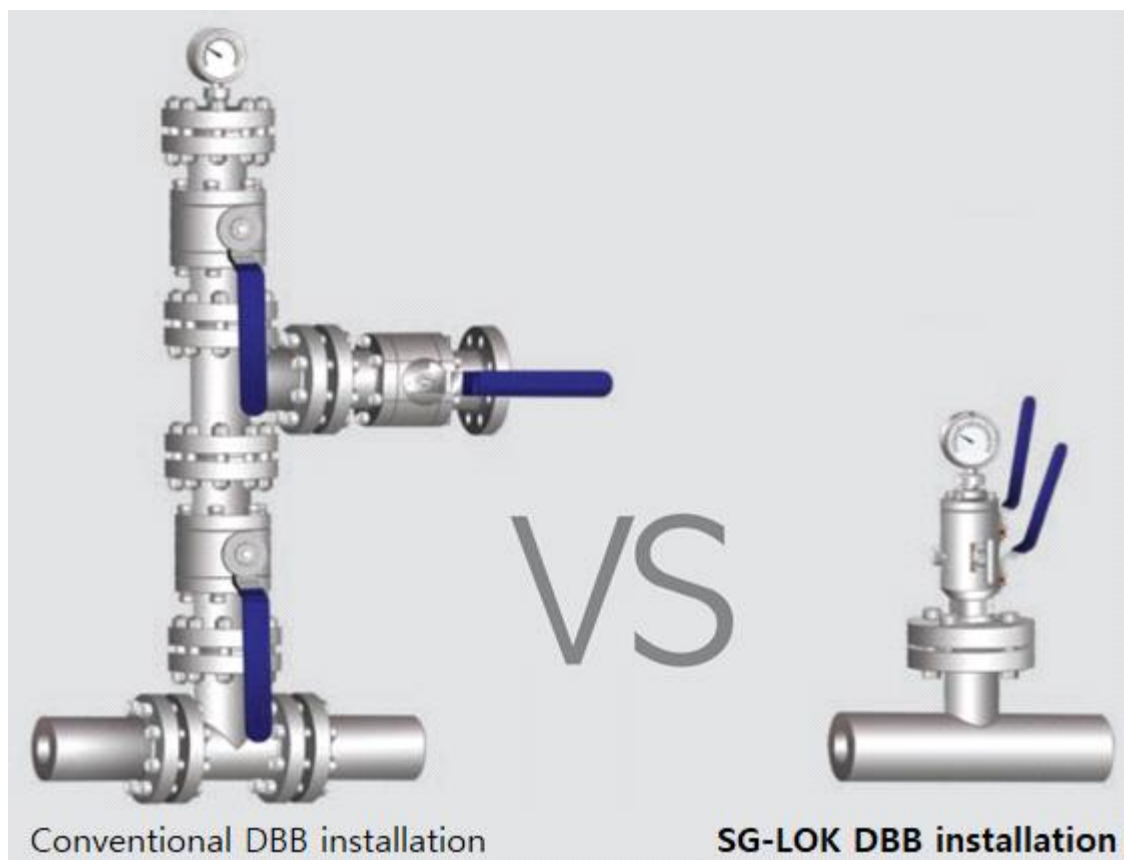
Contents

Applications and installations	3
Ball valve and Needle globe valve specifications	4
Flange to screw Double Block and Bleed Valves	
2 ball 1 needle pattern	5
3 needle pattern	6
Flange to flange Double Block and Bleed Valves	
2 ball 1 needle pattern	7
3 needle pattern	8
Instrument Double Block and Bleed Valves	
3 ball pattern	9
2 ball 1 needle pattern	10
3 needle pattern	11
How to order SG-LOK Double Block and Bleed Valves	12
Large bore Double Block and Bleed Valves	13
Flange to screw Single Block and Bleed Valves	14
Monoflange valves	15

Applications and Installations

In prior double block and bleed system, 2 blocked(off) the valves and 1 bleed valve should be assembled with flange or piping screws to pipe tee. The problem is that installation is costly because it needs too many parts and leakage would increase. And the size of the system is big and it needs huge space for the installation and it is vulnerable to vibration.

SG-LOK Double Block and Bleed Valve has been developed to solve these problems. Compactly designed 1-piece or a 2-piece body with 2 blocked(off) valve and 1 bleed valve can replace the existing double block and bleed system with 1 double block and bleed valve and it can reduce installation space and time.



● Benefits of SG-LOK Double Block and Bleed Valve

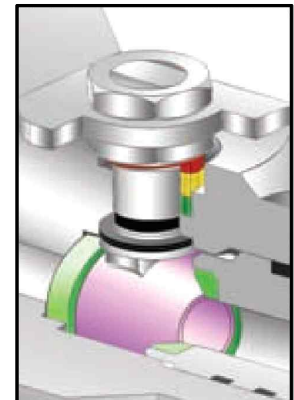
- Compact assembly
- Easy installation and maintenance
- Reduced installation cost
- Space and weight saving
- Reduced leakage points
- Reduced effect of system vibration

Technical Specifications

- SG-LOK Double Block and Bleed (DBB) valve is designed and manufactured in conformance with specification of API 6D and ASME B 16.34.
- SG-LOK DBB valve is available in variety of size (1/2" through 12"), working pressure and configurations.
- SG-LOK DBB valves are available in full range of materials and options to meet the individual user requirements.
- Each and every DBB valve is completely tested before leaving the factory to ensure adherence to customer specifications and proper performance.

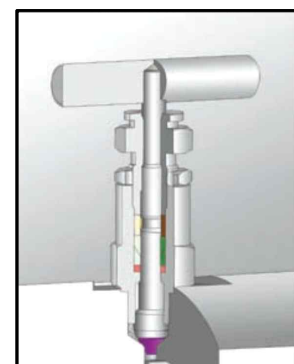
Ball Valve Specifications

- Floating ball design for improved performance and smooth, low torque operation.
- Bubble tight shut off .
- Available to antistatic device.
- Anti blowout stem.
- Bi-directional design.
- Fire safety according to API 607 4th edition.
- Available to metal seated construction.
- Pressure rating up to 6000 psig [414 bar]



Needle Globe Valve Specifications

- Heavy duty needle type globe valve in designed to ensuring bubble tight.
- Non-rotating stem tip.
- PTFE or Graphite packing.
- Rolled stem operating threads prevent galling.
- Backseat design.
- Available to outside screw and yoke(OS&Y) type globe valve.
- Fire safety according to API 607 4th edition.
- Pressure rating up to 6000 psig [414 bar]

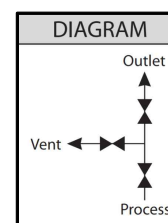
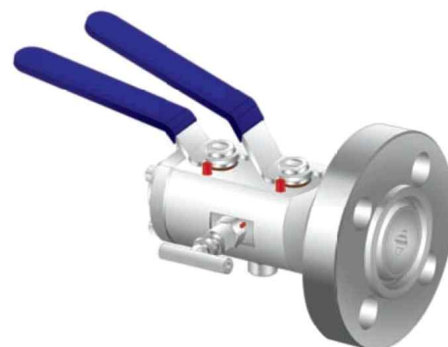


Flange To Screw Double Block And Bleed Valves

- 2 Ball, 1 Needle Pattern

● FEATURES & BENEFITS

- Integral flange
- 2 ball 1 needle pattern
- 1/2" PT or NPT threaded female outlet
- ANSI B 16.5 flanged inlet connections
- 1/2" NPT threaded bleed connection
- 14mm ball valve bore
- Floating ball design
- Pressure ratings : class 150 to class 2500
- Available to Fire safe to API 607
- Available to NACE MR-01-75
- Flanged connections according to ASME B 16.5
RF and RTJ

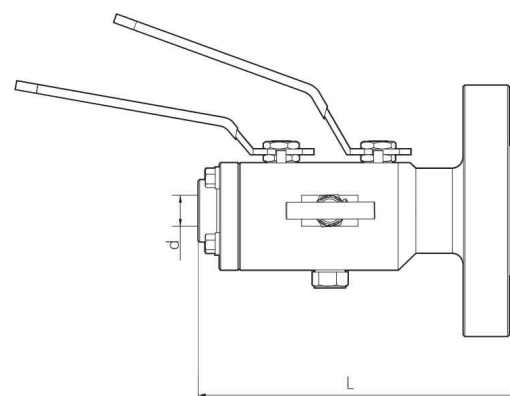


● MATERIALS

316, 316L, 304, 304L, A105, LF2, Titanium, monel, inconel625, C95800 and other special materials are available to customer spec.

● TYPICAL APPLICATIONS

- Double block and bleed applications
- Primary isolation
- Chemical injection
- Sampling
- Flow measurement



< TABLE 1 - FLANGE TO SCREW DBB VALVE >

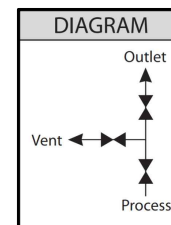
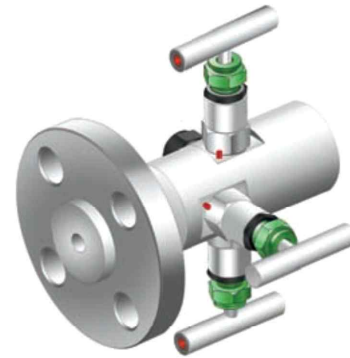
Rating Flange size	150				300				600				900/1500				2500			
	L(RF)	L(RTJ)	d	Approx Weight(kg)	L(RF)	L(RTJ)	d	Approx Weight(kg)	L(RF)	L(RTJ)	d	Approx Weight(kg)	L(RF)	L(RTJ)	d	Approx Weight(kg)	L(RF)	L(RTJ)	d	Approx Weight(kg)
1/2"	156	-	14	3.5	164	163	14	3.9	164	163	14	3.9	212	212	14	8.8	220	220	12	11.0
3/4"	160	-	14	3.9	166	171	14	4.3	166	171	14	4.3	212	212	14	9.1	222	222	12	13.5
1"	164	169	14	4.3	175	180	14	4.9	175	180	14	5.1	221	221	14	10.5	228	228	12	21.
1-1/4"	168	173	14	5.1	178	183	14	5.7	178	183	14	5.9	224	224	14	11.5	231	231	12	23.0
1-1/2"	173	178	14	6.2	185	190	14	6.9	185	190	14	7.1	227	227	14	12.3	240	240	12	27.5
2"	175	183	14	7.3	187	195	14	8.0	187	195	14	8.2	230	232	14	18.0	242	242	12	42.3

Flange To Screw Double Block And Bleed Valves

- 3 Needle Pattern

● FEATURES & BENEFITS

- Integral flange
- 3 needle pattern
- 1/2" PT or NPT threaded female outlet
- ANSI B 16.5 flanged inlet connections
- 1/2" NPT threaded bleed connection
- Pressure ratings : class 150 to class 2500
- Available to Fire safe to API 607
- Available to NACE MR-01-75
- Flanged connections according to ASME B 16.5
RF and RTJ

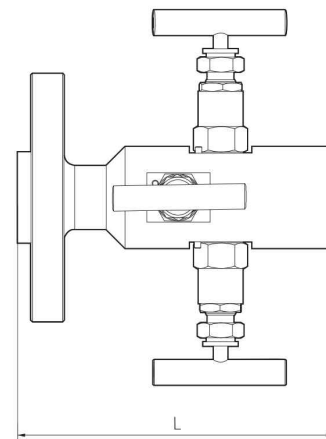


● MATERIALS

316, 316L, 304, 304L, A105, LF2, Titanium, monel, inconel625, C95800 and other special materials are available to customer spec.

● TYPICAL APPLICATIONS

- Double block and bleed applications
- Primary isolation
- Chemical injection
- Sampling
- Flow measurement



< TABLE 2 - FLANGE TO SCREW (3 NEEDLE PATTERN) DBB VALVE >

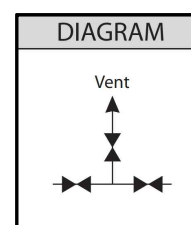
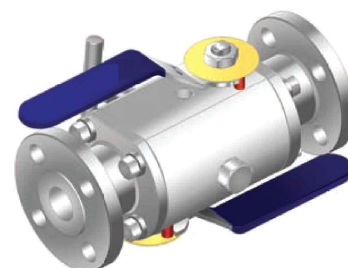
Rating Flange size	150			300			600			900/1500			2500		
	L(RF)	L(RTJ)	Approx Weight(kg)	L(RF)	L(RTJ)	Approx Weight(kg)	L(RF)	L(RTJ)	Approx Weight(kg)	L(RF)	L(RTJ)	Approx Weight(kg)	L(RF)	L(RTJ)	Approx Weight(kg)
1/2"	135	-	2.5	135	140	2.6	145	145	3.3	160	160	5.2	170	170	6.3
3/4"	135	-	3.2	135	140	3.4	150	150	3.9	165	160	6.0	180	180	7.0
1"	135	140	3.8	135	140	3.9	153	153	4.5	168	160	7.3	183	183	9.5
1-1/4"	155	160	4.3	155	160	4.5	160	160	5.4	175	175	9.2	188	188	13.8
1-1/2"	160	165	4.8	160	165	5.0	170	170	7.0	185	185	10.2	190	190	15.5
2"	160	168	7.0	160	168	7.2	174	177	8.3	185	187	12.3	193	195	21.3

Flange To Flange Double Block And Bleed Valves

- 2 Ball, 1 Needle Pattern

● FEATURES & BENEFITS

- 3-piece construction
- 2 ball 1 needle pattern
- ANSI B 16.5 flanged connections
- 1/2" NPT threaded bleed connection
- Floating or trunnion ball design
- 10mm to 50mm ball valve bore
- Pressure rating : class 150 to class 2500
- Available to Fire safe to API 607
- Available to NACE MR-01-75
- Flanged connections according to ASME B 16.5
RF and RTJ

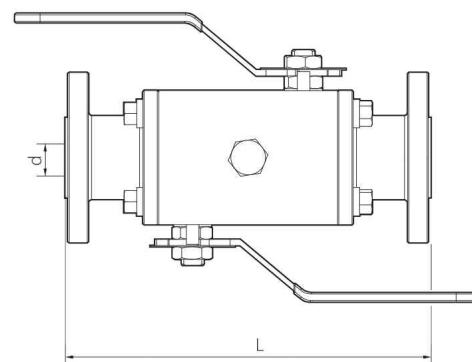


● MATERIALS

316, 316L, 304, 304L, A105, LF2. Titanium, monel, inconel625, C95800 and other special materials are available to customer spec.

● TYPICAL APPLICATIONS

- Double block and bleed applications
- Primary isolation
- Sampling
- Venting



< TABLE 3 - FLANGE TO FLANGE DBB VALVE >

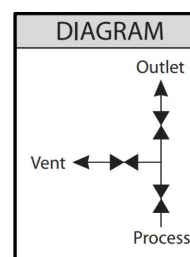
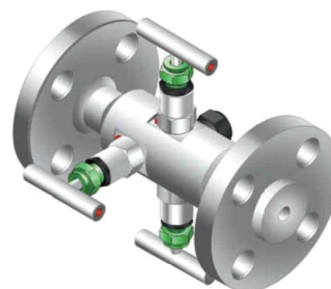
Rating Flange size	150				300				600				900/1500				2500			
	L(RF)	L(RTJ)	d	Approx Weight(kg)	L(RF)	L(RTJ)	d	Approx Weight(kg)	L(RF)	L(RTJ)	d	Approx Weight(kg)	L(RF)	L(RTJ)	d	Approx Weight(kg)	L(RF)	L(RTJ)	d	Approx Weight(kg)
1/2"	174	-	11	4.4	186	194	11	4.7	211	209	11	7.5	240	240	11	9.0	340	340	9	19.6
	175	-	14	5.2	190	198	14	5.6	215	215	14	8.0	245	245	14	12.2	346	346	12	24.9
3/4"	183	-	14	5.8	197	206	14	6.3	234	234	14	8.9	267	267	14	13.7	355	355	12	27.2
	205	-	20	9.2	215	224	20	10.2	252	252	20	12.9	288	288	20	17.3	363	363	16	30.8
1"	211	220	20	9.8	215	224	20	11.5	278	278	20	13.5	312	312	20	20.6	398	398	16	36.2
	234	243	25	13.7	236	245	25	14.7	286	286	25	17.0	324	324	25	24.6	408	408	22	47.0
1-1/4"	241	250	25	15.3	248	247	25	16.0	293	293	25	19.3	349	349	25	27.0	449	449	22	55.0
	245	254	32	17.8	256	265	32	18.3	308	308	32	25.0	356	356	32	32.0	516	516	26	82.3
1-1/2"	254	267	32	18.3	269	278	32	21.0	320	320	32	28.5	384	384	32	45.2	554	554	26	88.6
	290	300	38	24.5	294	303	38	26.1	328	328	38	33.0	477	477	38	78.0	563	563	32	105.2
2"	296	309	38	26.3	303	316	38	27.5	379	379	38	38.6	540	543	38	96.8	630	630	32	125.0
	319	331	50	38.7	330	343	50	42.3	395	395	50	52.3	553	556	48	112.0	683	683	42	145.6

Flange To Flange Double Block And Bleed Valves

- 3 Needle Pattern

● FEATURES & BENEFITS

- 1-piece construction
- 3 needle pattern
- ANSI B 16.5 flanged connections
- 1/2" NPT threaded bleed connection
- Pressure rating : class 150 to class 2500
- Available to Fire safe to API 607
- Available to NACE MR-01-75
- Flanged connections according to ASME B 16.5 RF and RTJ

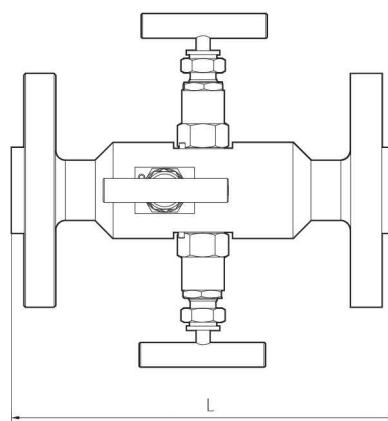


● MATERIALS

316, 316L, 304, 304L, A105, LF2. Titanium, monel, inconel625, C95800 and other special materials are available to customer spec.

● TYPICAL APPLICATIONS

- Double block and bleed applications
- Primary isolation
- Sampling
- Venting



< TABLE 4 - FLANGE TO FLANGE(3 NEEDLE PATTERN) DBB VALVE >

Rating Flange size	150			300			600			900/1500			2500		
	L(RF)	L(RTJ)	Approx Weight(kg)	L(RF)	L(RTJ)	Approx Weight(kg)	L(RF)	L(RTJ)	Approx Weight(kg)	L(RF)	L(RTJ)	Approx Weight(kg)	L(RF)	L(RTJ)	Approx Weight(kg)
1/2"	168	-	3.5	173	173	3.8	173	173	4.5	203	203	5.5	210	210	7.1
3/4"	168	-	3.9	173	173	4.0	173	173	4.7	210	210	7.0	233	233	8.3
1"	175	185	4.5	180	180	5.3	180	180	5.8	261	261	15.3	272	272	18.0
1-1/4"	185	195	6.4	205	205	7.0	205	205	6.6	275	275	18.0	308	308	35.3
1-1/2"	225	165	7.5	252	252	8.9	252	252	12.5	293	293	22.3	330	330	44.2
2"	233	168	11.3	260	260	13.3	260	260	18.3	305	305	33.5	350	350	56.5

Instrument Double Block And Bleed Valves

- 3 Ball Pattern

● FEATURES & BENEFITS

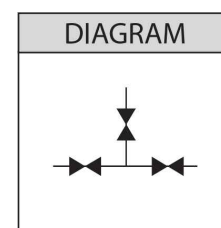
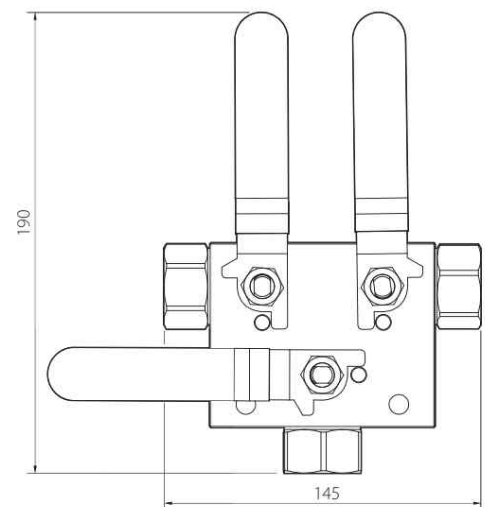
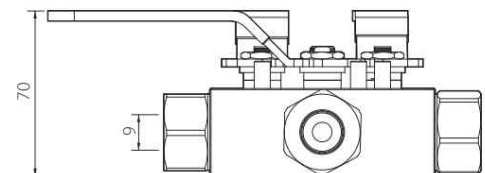
- 3 ball pattern
- FNPT threaded connections
- 1/2" NPT threaded bleed connection
- Floating ball design
- 10mm ball valve bore
- Pressure ratings : 6000 psi
- Available to Fire safe to API 607
- Available to NACE MR-01-75

● MATERIALS

316, 316L, 304, 304L, A105, LF2, Titanium, monel, inconel625, C95800 and other special materials are available to customer spec.

● TYPICAL APPLICATIONS

- Double block and bleed applications
- Primary isolation
- Sampling
- Venting



Instrument Double Block And Bleed Valves

- 2 Ball 1 Needle Pattern

● FEATURES & BENEFITS

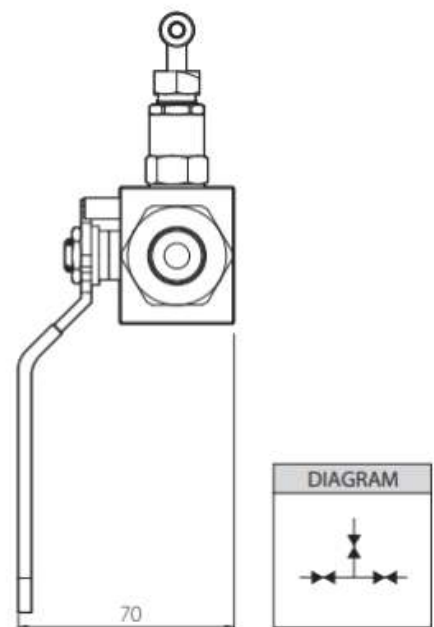
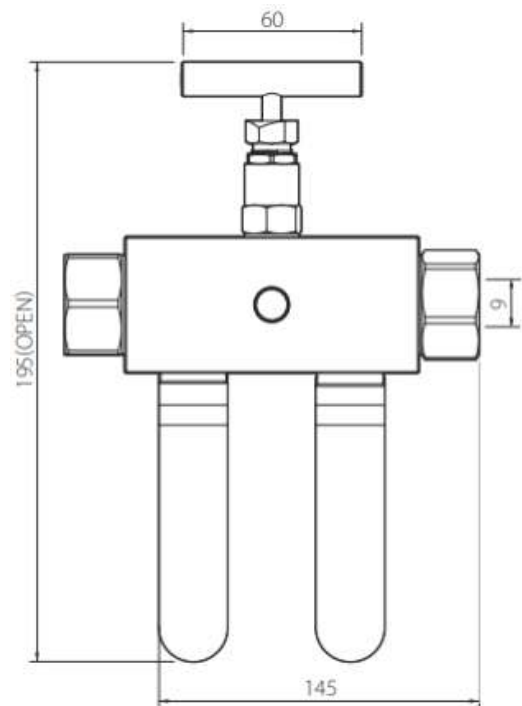
- 2 ball 1 needle pattern
- FNPT threaded connections
- 1/4" NPT threaded bleed connection
- Floating ball design
- 10mm ball valve bore
- Pressure ratings : 6000 psi
- Available to Fire safe to API 607
- Available to NACE MR-01-75

● MATERIALS

316, 316L, 304, 304L, A105, LF2. Titanium, monel, inconel625, C95800 and other special materials are available to customer spec.

● TYPICAL APPLICATIONS

- Double block and bleed applications
- Primary isolation
- Sampling
- Venting

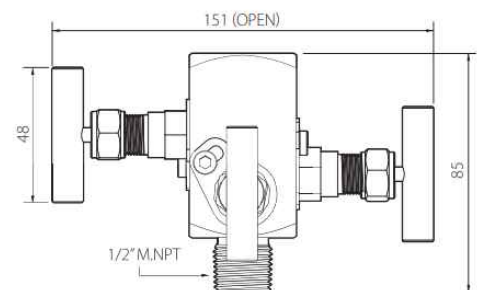
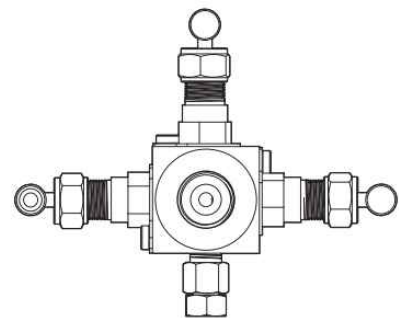


Instrument Double Block And Bleed Valves

- 3 Needle Pattern

● FEATURES & BENEFITS

- 3 needle pattern
- FNPT threaded connections
- 1/4" NPT threaded bleed connection
- Pressure ratings : 6000 psi
- Available to Fire safe to API 607
- Available to NACE MR-01-75

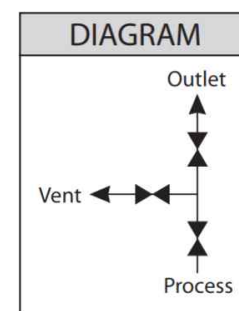


● MATERIALS

316, 316L, 304, 304L, A105, LF2. Titanium, monel, inconel625, C95800 and other special materials are available to customer spec.

● TYPICAL APPLICATIONS

- Double block and bleed applications
- Primary isolation
- Sampling
- Venting



How To Order SG-LOK Double Block And Bleed Valves

SG-LOK Double Block And Bleed Valves are ordered by part number as shown below.

Example:

The following part number, "SGDBB-A-1-50R-15N-15-16-P-F" is designated for integral flange 2 ball 1 needle pattern Double Block and Bleed Valve with class 150 seat pressure ratings, 2" RF flange inlet, 1/2" female NPT outlet, 1/2" NPT vent, 316SS material, PTFE ball valve seat material, and fire safe.

SG	DBB	A	1	50R	15N	15	16	P	F
SG-LOK	Model	Type	Ratings	Inlet	Outlet	Vent	Material	Ball valve Seat material	Option

Model	
Double block and bleed	

Type	
A	integral flange 2 ball 1 needle pattern
S	3-piece type 2 ball 1 needle pattern
I	instrument 3 ball pattern
N	instrument 3 needle pattern
H	instrument 2 ball 1 needle pattern

Ratings	
150#	1
300#	3
600#	6
900#	9
1500#	15
2500#	25
3000psi	3P
6000psi	6P

Inlet	
1/2"	15
3/4"	20
1"	25
1-1/4"	32
1-1/2"	40
2"	50
Female NPT	N
RF Flange	R
RTJ	RJ
Stub	ST
Socket weld	S
Butt weld	B

Outlet	
1/2"	15
3/4"	20
1"	25
1-1/4"	32
1-1/2"	40
2"	50
Female NPT	N
RF Flange	R
RTJ	RJ
Stub	ST
Socket weld	S
Butt weld	B

Vent	
1/4" NPT	08
3/8" NPT	10
1/2" NPT	15
3/4" NPT	20
1" NPT	25

Material	
316	16
316L	16L
304	04
304L	04L
A105	05
LF2	F2
Monel	MO
Titanium	TI
Hastelloy C276	HC
Alloy 20	A20
Inconel 625	IN
F51(Duplex)	F5

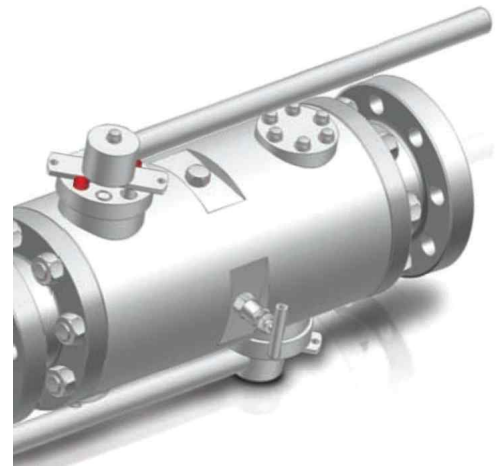
Ball valve Seat material	
PTFE	P
RTEE	R
PEEK	K
DEVLON	N
NYLON	D
METAL TO METAL	MS

Option	
Fire safe	F
Anti static device	A
Locking device	LO
Injection quill	Q
Graphite seals	GP
NACE MR-01-75	N

Large Bore Double Block And Bleed Valves

● FEATURES & BENEFITS

- 2 isolate ball valve pattern
- ANSI B 16.5 flanged connections
- Floating or trunnion ball design
- Pressure ratings : class 150 to class 2500
- Available to Fire safe to API 607
- Available to NACE MR-01-75
- Size range 2" ~ 12"

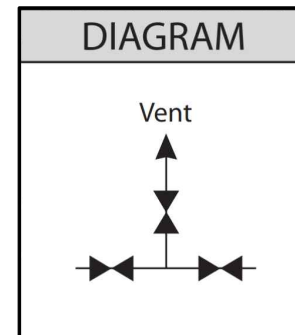


● MATERIALS

316, 316L, 304, 304L, A105, LF2, WCB, CF8, CF8M, CF3, CF3M and other special materials are available to customer spec.

● TYPICAL APPLICATIONS

- Double block and bleed applications
- Primary isolation
- Sampling
- Venting



Flange To Screw Single Block And Bleed Valves

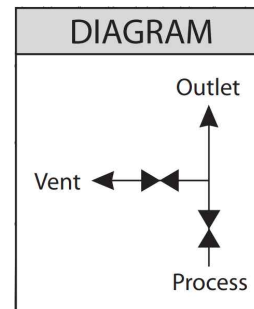
● FEATURES & BENEFITS

- Integral flange
- 1 ball 1 needle pattern
- 1/2" PT or NPT threaded female outlet
- ANSI B 16.5 flanged inlet connections
- 1/2" NPT threaded bleed connection
- Size Range : 1/2" ~ 4"
- Pressure ratings : class 150 to class 1500
- Available to Fire safe to API 607
- Available to NACE MR-01-75
- Flanged connections according to ASME B 16.5
RF and RTJ



● MATERIALS

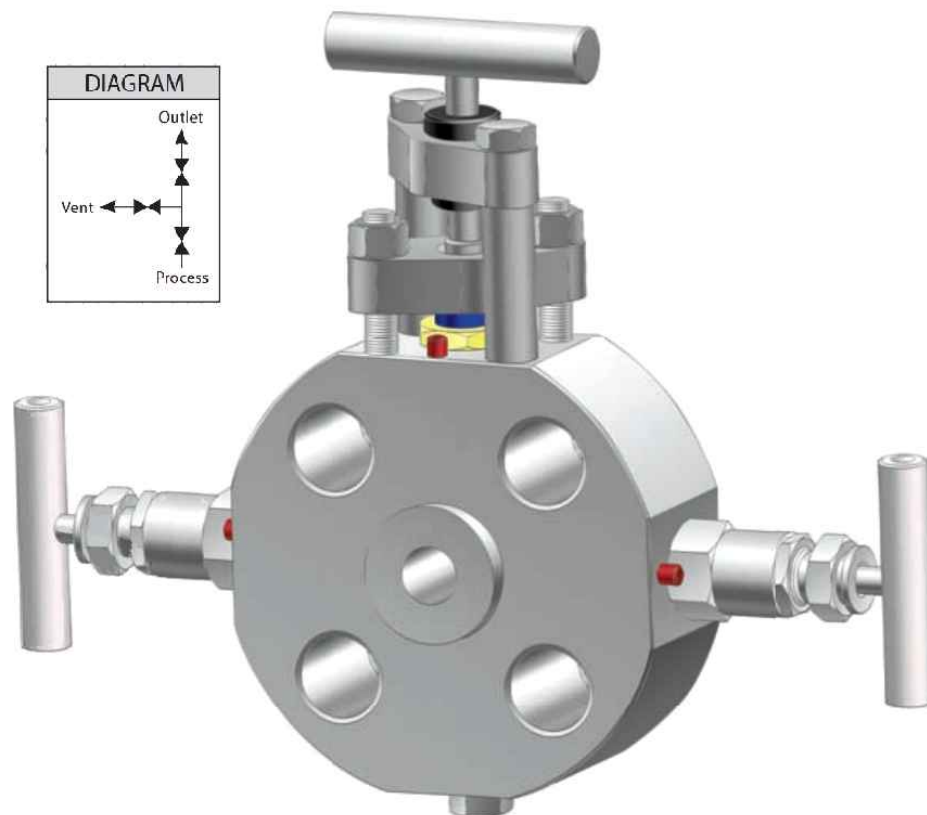
316, 316L, 304, 304L, A105, LF2. Titanium, monel, inconel625, C95800 and other special materials are available to customer spec.



● TYPICAL APPLICATIONS

- Double block and bleed applications
- Primary isolation
- Chemical injection
- Sampling
- Flow measurement

Monoflange Valves



◀ OS&Y Type Double Block & Bleed

● FEATURES & BENEFITS

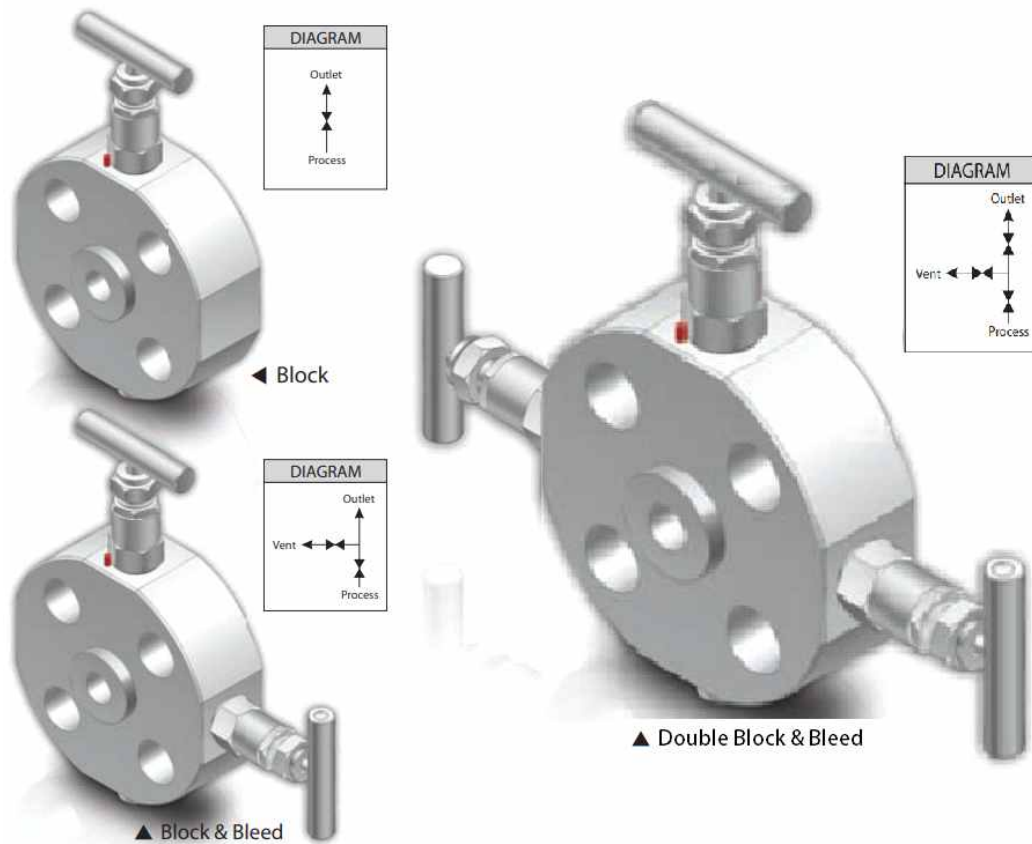
- 3 Needle pattern
- 1/2" PT or N PT threaded female outlet
- ANSI B 16.5 flanged inlet connections
- 1/2" NPT threaded bleed connection
- Pressure ratings : class 150 to class 2500
- Available to Fire safe to API 607
- Available to NACE MR-01-75
- Single block and bleed type is available
- Flanged connections according to ASME B 16.5 RF and RT

● MATERIALS

316, 316L, 304, 304L, A105, LF2, C95800, Titanium, monel, inconel625, and other special materials are available to customer spec.

● TYPICAL APPLICATIONS

- Double block and bleed applications
- Primary isolation
- Chemical injection
- Sampling
- Flow measurement



How To Order SG-LOK Monoflange Valves

SG-LOK Monoflange Valves are ordered by part number as shown below.

SG	M	D	F50A	15N	15	16	F
SG-LOK	Model	Type	Flange Detail	Outlet	Vent	Material	Option

Model		Flange Detail		Outlet*		Material	
Monoflange		RF	F	1/4" NPT	8N	316	16
		RTJ	R	3/8" NPT	10N	316L	16L
		1/2"	15	1/2" NPT	15N	304	04
		3/4"	20			304L	04L
		1"	25			A105	05
		1-1/4"	32			LF2	F2
		1-1/2"	40			Monel	MO
		2"	50			Titanium	TI
		150#	A			Hastelloy C276	HC
		300#	B			Alloy 20	A20
		600#	C			Inconel 625	IN
		900#	D			F51(Duplex)	F5
		1500#	F				
		2500#	G				
Type				Vent			
D	Double block & Bleed			1/4" NPT	08		
B	Block			3/8" NPT	10		
E	Block & Bleed			1/2" NPT	15		
				Option			
				Fire safe	F		
				Locking device	LO		
				Graphite seals	GP		
				NACE MR-01-75	N		

* Other thread connections are available.