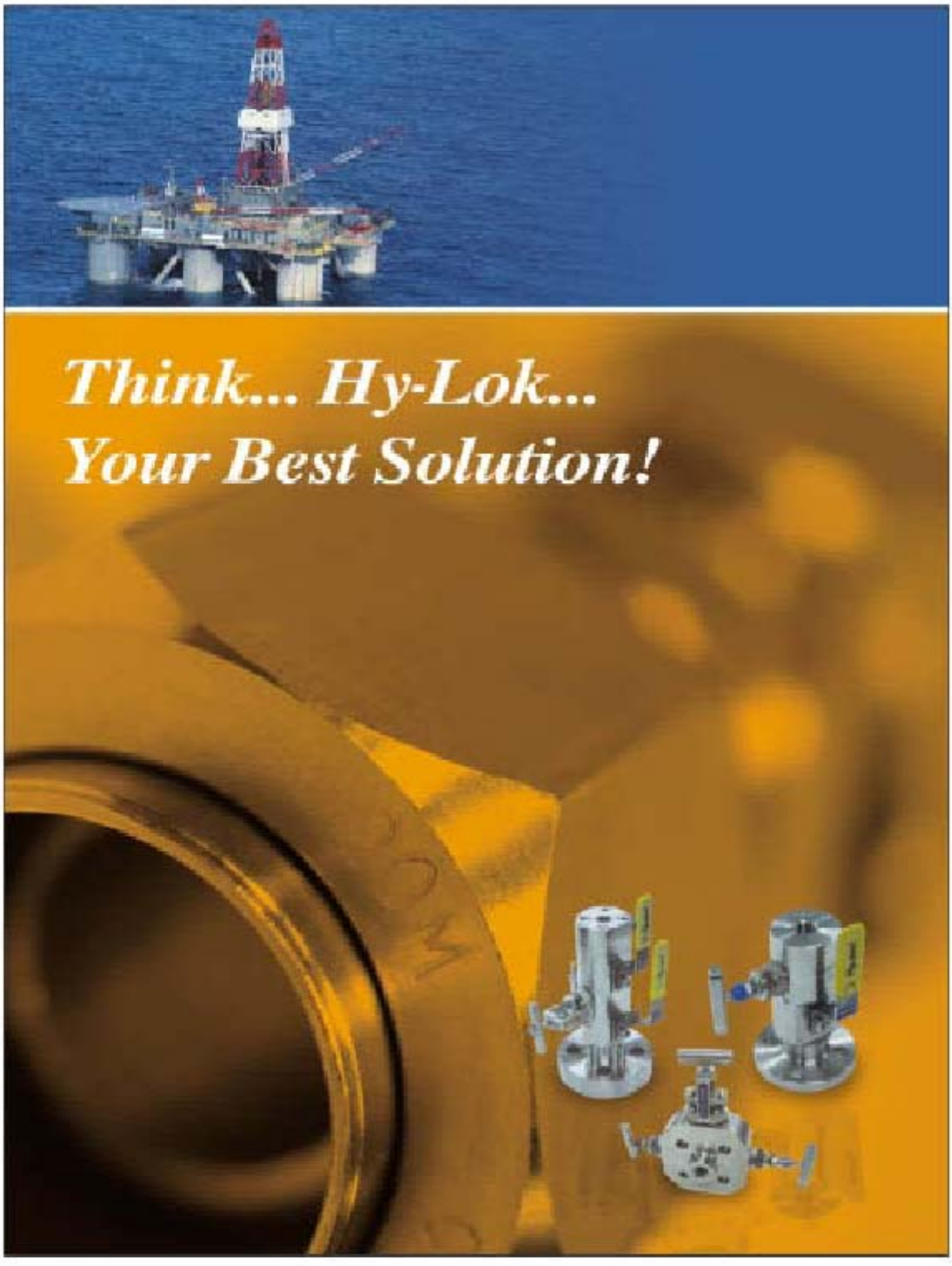
Hy-Lok

INTEGRAL BLOCK & BLEED VALVES

Catalog No. H-100PIV
Apr. 2003



HY-LOK CORPORATION

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INTRODUCTION

Hy-Lok Integral Block & Bleed Valves have been specifically designed to provide a compact installation for gauge or transmitter instruments.
Used as an alternative to multivalve systems the advantages of reduced weight and minumum leakpaths provide for a higher integrity system. And the reduced height of the installation reduces the risk of damage through vibration as well.

Hy-Lok Integral Block & Bleed Valves is a leader in its field. A company that has built its reputation on inspired development, precision engineering and high quality customer service satisfies the demands of industry worldwide.

Today, Hy-Lok Integral Block & Bleed Valves is uniquely placed to offer an unrivalled range of standard products from stock, together with a supreme manufacturing capability to handle sepcific requirements and exotic materials. In addition, the company has the technical ability and resources to develop bespoke products for the most demanding or unusual applications.

A team of dedicated engineering specialists brought together to solve problems and deliver high quality solutions worldwide.

Consistently high levels of performance in design, manufacturing, inventory management, quality, system development and service.

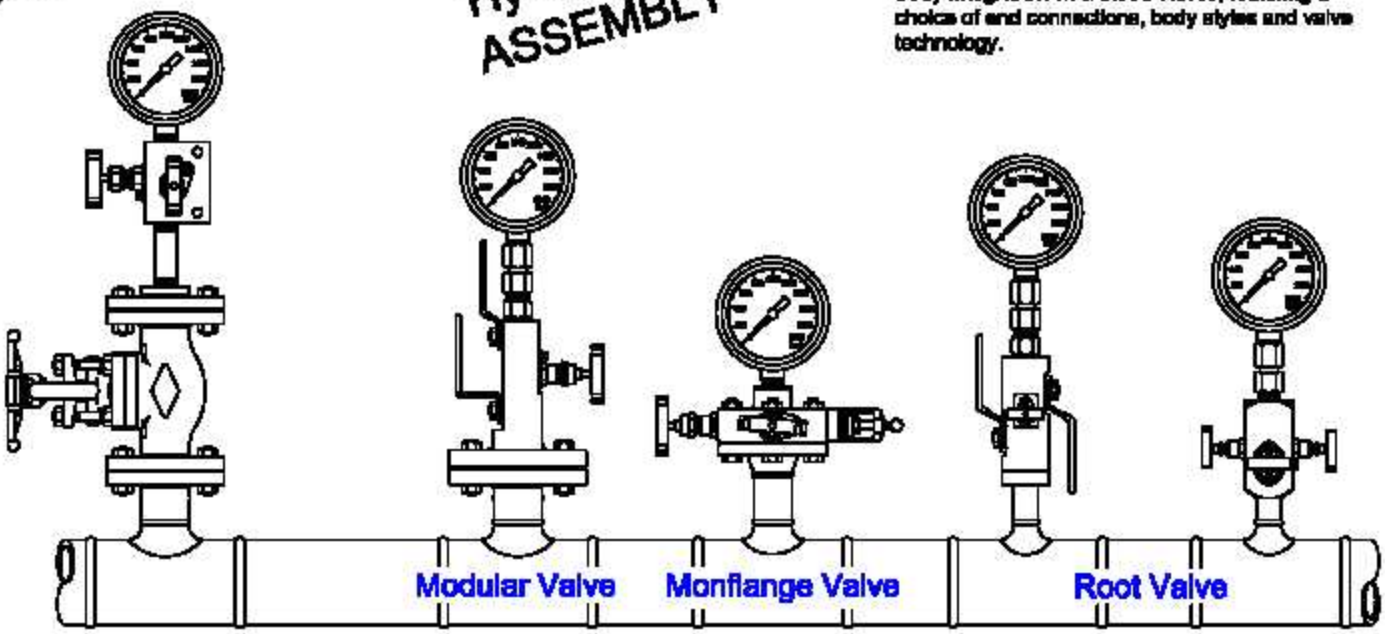
Design excellence, drawing on engineering expertise from project experience the world over. Meeting the most demanding applications.

APPLICATION & INSTALLATION

CONVENTIONAL ASSEMBLY

Hy-Lok Integral Block & Bleed Valve ASSEMBLY

Hy-Lok Instrumentation Products has the ultimate solutions for a compact range of one-piece forged body integral block & bleed valves, featuring a choice of end connections, body styles and valve technology.



Modular Valve

Ball and Globe style Needle Valves
Flange and Threaded Connections
Integrally Forged Body

Monflange Valve

Globe Style Needle Valves
Flanged and Threaded Connections
Slimline Integrally Forged Body

Root Valve

Ball and Globe Style Needle Valves
Weld or Threaded Connections
Direct Connection to the Vessel
Integrally Forged Body

APPLICATION

- Double block and bleed instrument isolation
- Gauge isolation
- Instrument drain
- Chemical injection connection
- Sample connections
- Chemical seal instrument isolation
- Piping/Intrument interface
- Direct mounting of Instruments
- Remote mounting of Instruments

ADVANTAGES

- More compact design
- Reduced weight
- Reduced height
- Reduced leakage points
- Reduced effect of system vibration
- Supporting brackets are not required
- Reduced bending moment acting on the vessel branch fitting weld
- Reduced installation cost
- Reduced gaskets and bolting

MARKETS

- Offshore oil and gas production
- Onshore terminals
- Chemical, petro-chemical, refining
- Control panel manufacturers
- Process/power industry contractors
- Compressor manufacturers
- LNG Carriers

GENERAL

Design

ANSI/ASME B16.34
-Material wall thickness
ANSI/ASME B16.5
-Flange dimensions
ASME VIII
-Design procedures materials
ANSI/ASME B1.20.1
-National pipe threads
API 607/BS 6755
-Fire tested

Quality Assurance

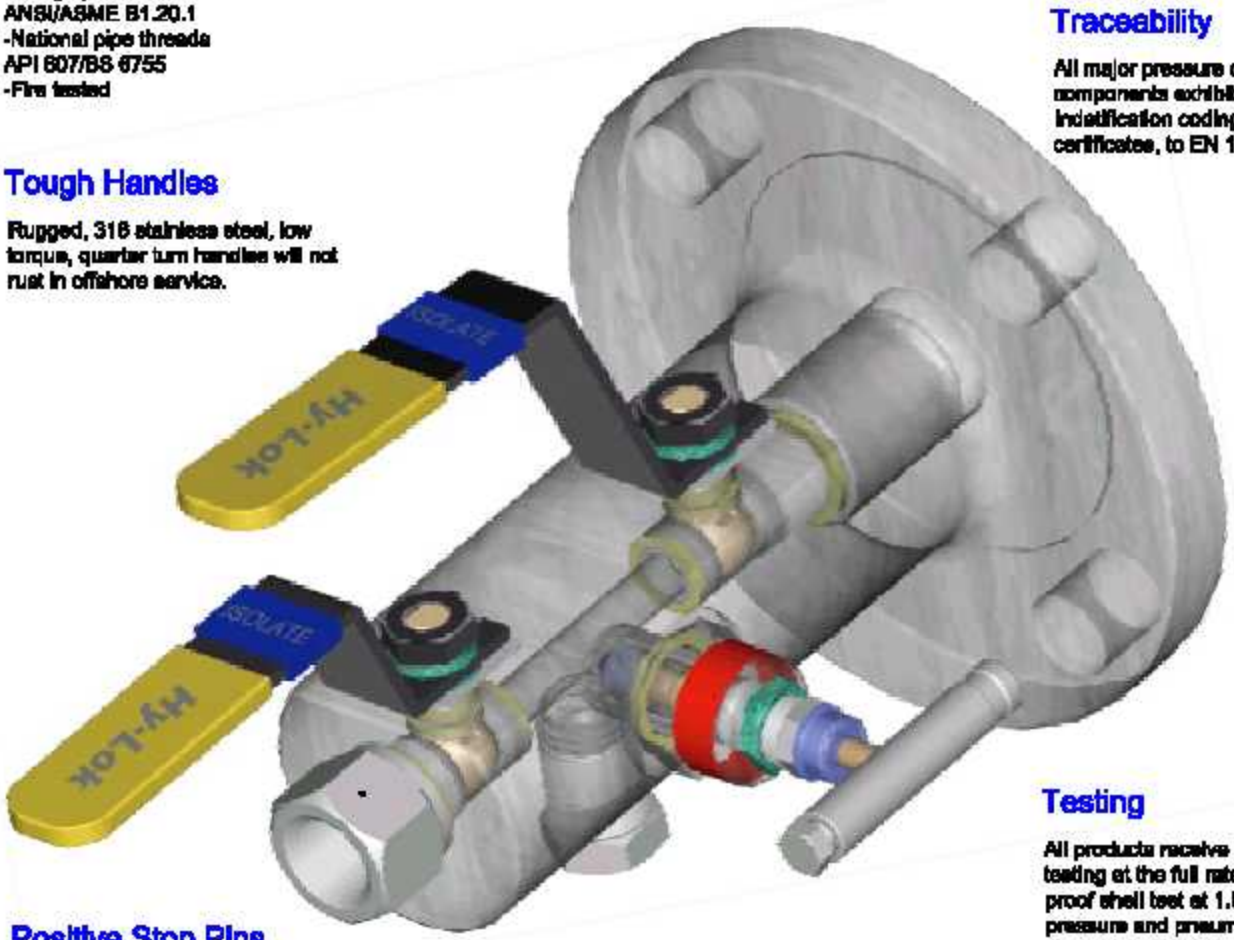
All quality assurance performance shall be applied with ISO 9001, API 6D, CE procedure.

Traceability

All major pressure containing components exhibit unique indetification coding and material test certificates, to EN 10204 3.1.B.

Tough Handles

Rugged, 316 stainless steel, low torque, quarter turn handles will not rust in offshore service.



Positive Stop Pins

A 316 stainless steel pin held into the body by a machined anti-vibration spline ensures an absolute 90° turn.

Testing

All products receive hydrostatic testing at the full rated pressure with proof shell test at 1.5 times full rated pressure and pneumatic test of the seats at 1,000psi thereby ensuring suitability for use across a wide operating range. And a 1.1 times full rated hydrostatic seat test.

High Performance Seats

Unique enclosed seats offer great process compatibility but restrict creep or distortion in service. Our approach achieves high levels of seat integrity at low and high pressures.

Sour Service

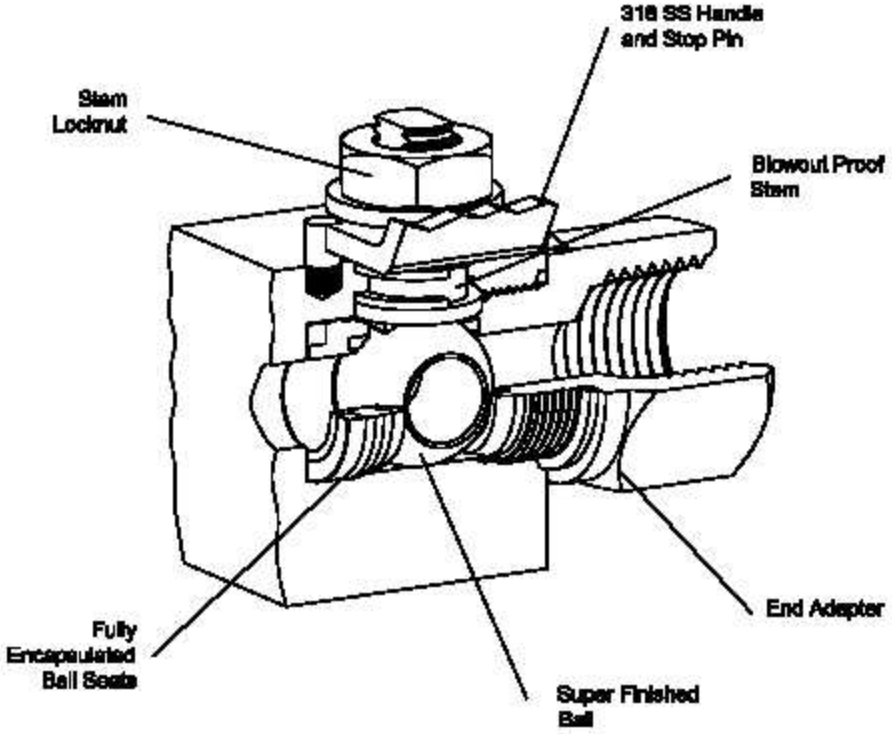
Comliance to NACE specification MR 01-75 latest revision-suitable for sour service- resistant to sulphide stress corrosion cracking.

Flanged Valve Ratings

Comply with, and are affected by, the material class pressure and temperatures of ANSI B16.5 unless the temperature limitations above apply. For clarification consult Hy-Lok Corporation.

SPECIFICATION

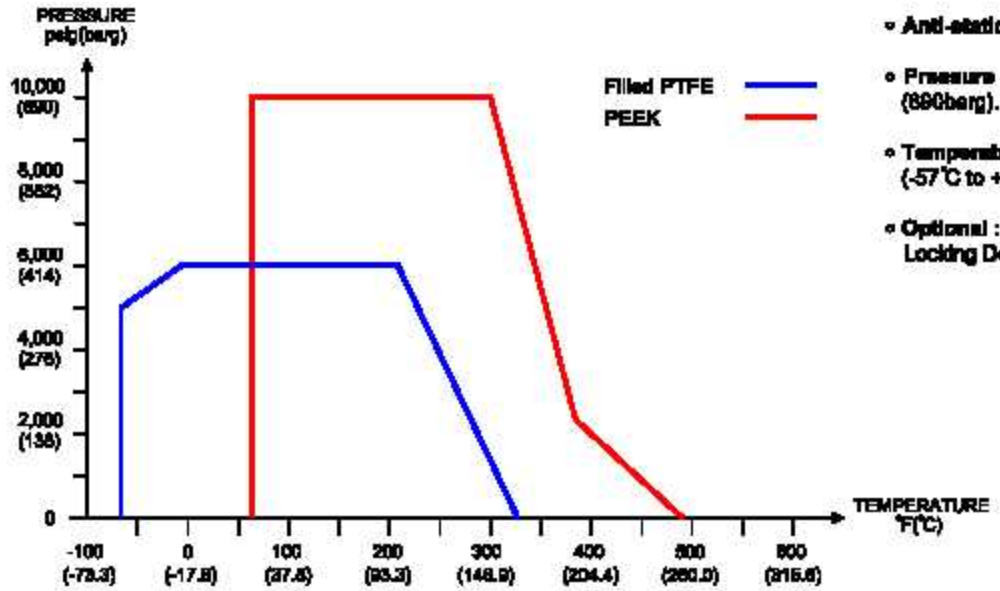
BALL VALVE



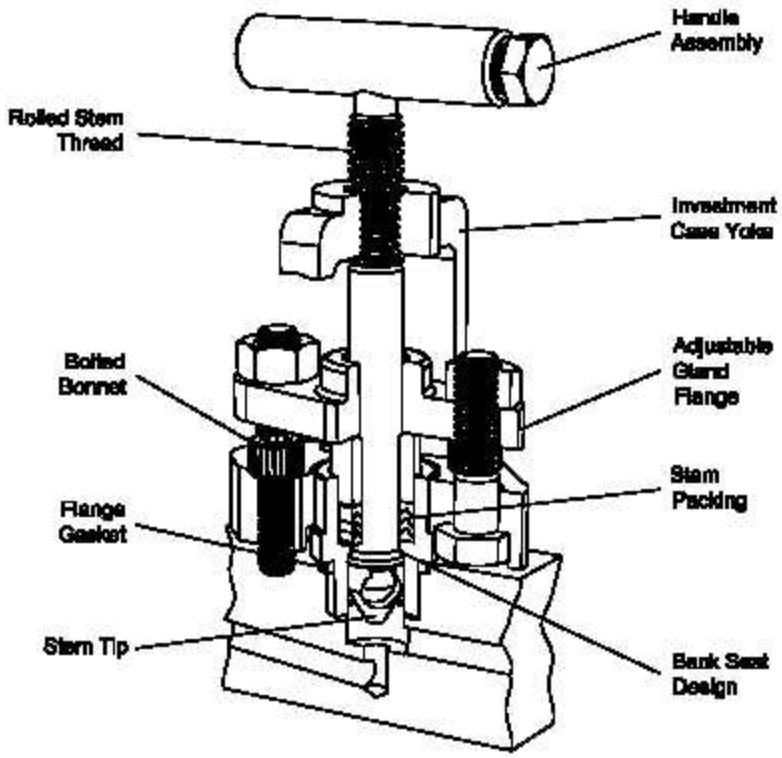
Features

- Stainless steel handle and positive machined stop.
- Full grip PVC handle sleeve.
- Blowout proof one-piece stem spindle.
- Low operating torque.
- Fully encapsulated ball seats minimize seat seal extrusion and allow high working pressures.
- Super finished ball for low operating torque and long life.
- End adapter threads are fully isolated from process by primary and secondary static seals.
- Stem locknut is vibration resistant to avoid working loose.
- Color coded and function identified handles.
- Fireseals to API 607, BS 6755 part2.
- Bore size available 0.4"(10mm), 0.55"(14mm).
- Ball seats choice of seat materials: PVDF, PTFE(virgin or filled), PCTFE or PEEK.
- Anti-static design as standard.
- Pressure rating up to 10,000psig (690barg).
- Temperature rating -70.5°F to +482°F (-57°C to +250°C).
- Optional : NACE compliance, Handle Locking Device, Full bore size.

Pressure and Temperature Ratings



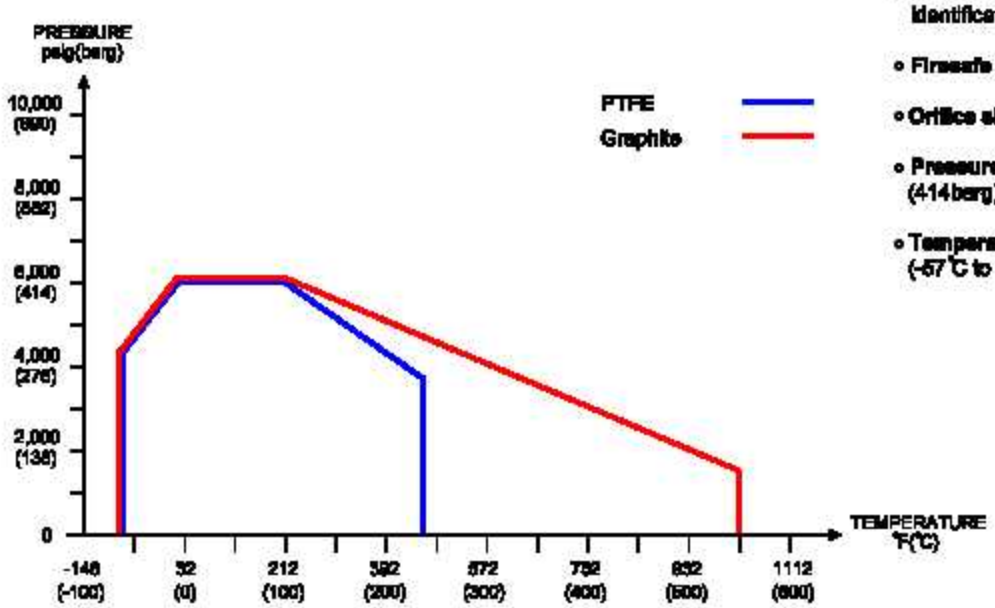
OS&Y NEEDLE TYPE GLOBE VALVE



Features

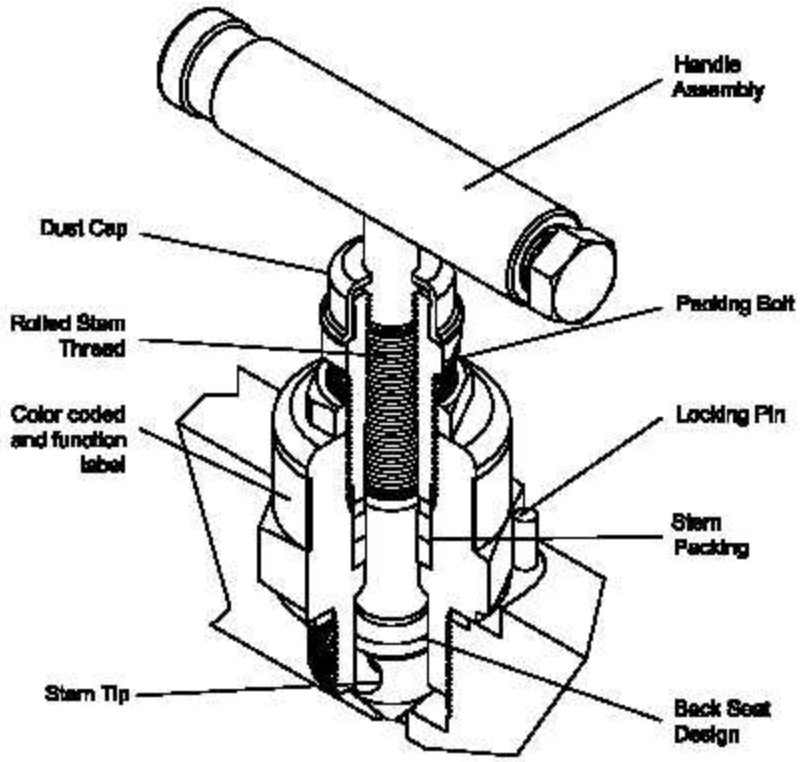
- Rolled stem threads prevent galling. Stem threads are completely isolated fromthe process.
- Stem packing with Graphite or PTFE rings for bubble-tight seal.
- Bolted bonnet for strength and reliability.
- Stem tip construction : non-rotating self-centering, Anti-galling tip positive bubble-tight and field interchangeable tip.
- Flange gasket seal ensures a bubble-tight between body and bonnet.
- Backseat 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 cast yoke is precision casted for strength and perfect stem alignment.
- Robust bar handle is standard.
- Color coded and function label for easy identification.
- Fireasfe to API 607, BS 6755 part2.
- Orifice size 0.2"(5mm).
- Pressure rating up to 6,000psig (414barg).
- Temperature rating -70.6˚F to +1022˚F (-57˚C to +550˚C).

Pressure and Temperature Ratings



SPECIFICATION

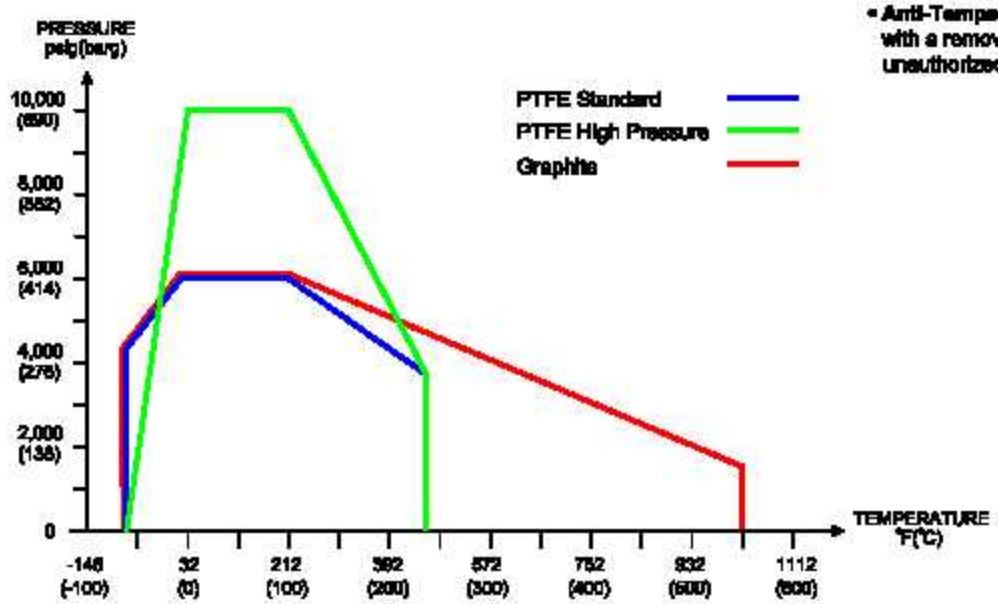
NEEDLE TYPE GLOBE VALVE



Features

- Rolled stem threads prevent galling. Stem threads are completely isolated fromthe process.
- Stem packing with Graphite or PTFE rings for bubble-tight seal.
- Stem tip construction : non-rotating self-centering, Anti-galling tip positive bubble-tight and field interchangeable tip.
- Backseat design provides secondary stem sealing and prevents stem blowout.
- Packing bolt allows easy access to adjust the packing gland.
- Robust bar handle is standard.
- Color coded and function label for easy identification.
- Firesafe to API 607, BS 6755 part2.
- Orifice size 0.2"(5mm).
- Pressure rating up to 10,000psig (414barg).
- Temperature rating -70.6°F to +1022°F (-57°C to +550°C).
- Anti-Tamper bonnets are available with a removable T-bar key to prevent unauthorized operation of vent valves.

Pressure and Temperature Ratings



MATERIALS OF CONSTRUCTION

TYPE	DESCRIPTION	MATERIAL				
MODULAR	Body / End Connector	A182 F51	A182 F316	A350 LF2	A105	UNS N04400
MONOFLANGE		A182 F51	A182 F316	A350 LF2	A105	UNS N04400
ROOT VALVE		UNS-S31803	A479 TYPE316	A350 LF2	A105	UNS N04400
Ball Valve	Ball	UNS-S31803	A479 TYPE316			UNS N04400
	Stem	UNS-S31803	A479 TYPE316			UNS N04400
	Retainer	UNS-S31803	A479 TYPE316			UNS N04400
	Socket	UNS-S31803	A479 TP316		A105	UNS N04400
	Ball Seat	PVDF, PTFE(Virgin or filled), PCTFE or PEEK				
OS&Y Needle Type Globe Valve	Stem Tip	UNS-S31803	A564 TP630			UNS N04400
	Stem	UNS-S31803	A479 TYPE316			UNS N04400
	Bonnet	UNS-S31803	A479 TYPE316			UNS N04400
	Yoke	A351 CF8M				
Needle Type Globe Valve	Stem Tip	UNS-S31803	A564 TP630			UNS N04400
	Stem	UNS-S31803	A479 TYPE316			UNS N04400
	Bonnet	UNS-S31803	A479 TYPE316			UNS N04400

NOTE.

Stainless steel is standard body material but such a Monel, Duplex, Super Duplex, Hastelcy, Inconel and other special material are available upon request.

MODULAR VALVES

Modular Valves are integrally forged, one-piece double block and bleed assemblies for primary isolation of pressure take-offs, where the valve is directly mounted to the vessel or process pipe. Instruments may be directly mounted to the valve outlet or alternatively remotely with gauge lines/impulse pipe work.

Applications

Block and Bleed(SB Series)
Double Block and Bleed(DB Series)
Pressure Measurement
Chemical Injection
Level Measurement
Sampling
Flow Measurement

Standard Features

ANSI B16.5 flanged inlet connections 1/2" to 2" sizes.
Class150 rated to Class2500 rated.
API flanged inlet connections sizes to 2 1/16".
1/2" NPT threaded female outlet to ANSI/ASME B1.20.1.
1/2" NPT threaded female vent connection to ANSI/ASME B1.20.1.
Material thickness to ANSI B16.34.
Bolted Body construction (Inlet or Outlet) is options.
Firesafe to API 607, BS6755 Part2.

Standard Pressure Testing

to BS6755 Part1.

Standard Material Traceability

to EN 10204 3.1.B (Body only).

Ball Isolation Valve Seat Materials

a choice of PVDF, PTFE(virgin or filled), PCTFE and PEEK are available.

OS&Y Needle Type and Needle Type Globe Valve Packing Materials

Standard valves are offered with Graphite. PTFE is also available as an option.

SB50 SERIES

Single Block & Bleed Valve
Flange x 1/2"NPT
Isolate : Ball
Bleed : Ball or OS&Y or Needle

SB55 SERIES

Single Block & Bleed Valve
Flange x 1/2"NPT
Isolate : OS&Y or Needle
Bleed : OS&Y or Needle

SB60 SERIES

Single Block & Bleed Valve
Flange x Flange
Primary : Ball
Bleed : Ball or OS&Y or Needle

SB65 SERIES

Single Block & Bleed Valve
Flange x Flange
Primary : OS&Y
Bleed : OS&Y or Needle

DB50 SERIES

Double Block & Bleed Valve
Flange x 1/2"NPT
Primary : Ball
Secondary : Ball
Bleed : OS&Y or Needle

DB55 SERIES

Double Block & Bleed Valve
Flange x 1/2"NPT
Primary : OS&Y
Secondary : OS&Y or Needle
Bleed : OS&Y or Needle

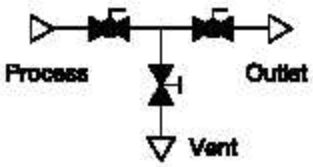
DB60 SERIES

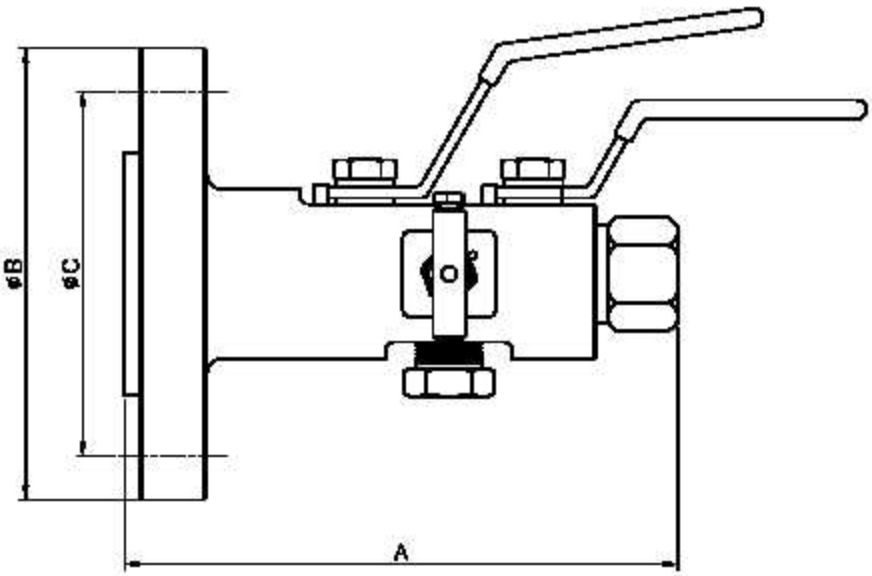
Double Block & Bleed Valve
Flange x Flange
Primary : Ball
Secondary : Ball
Bleed : OS&Y or Needle

DB65 SERIES

Double Block & Bleed Valve
Flange x Flange
Primary : OS&Y
Secondary : OS&Y or Needle
Bleed : OS&Y or Needle

DB50 Series





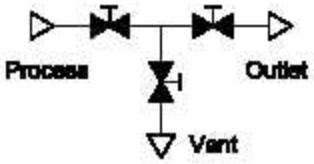
○ Dimensions & Weights

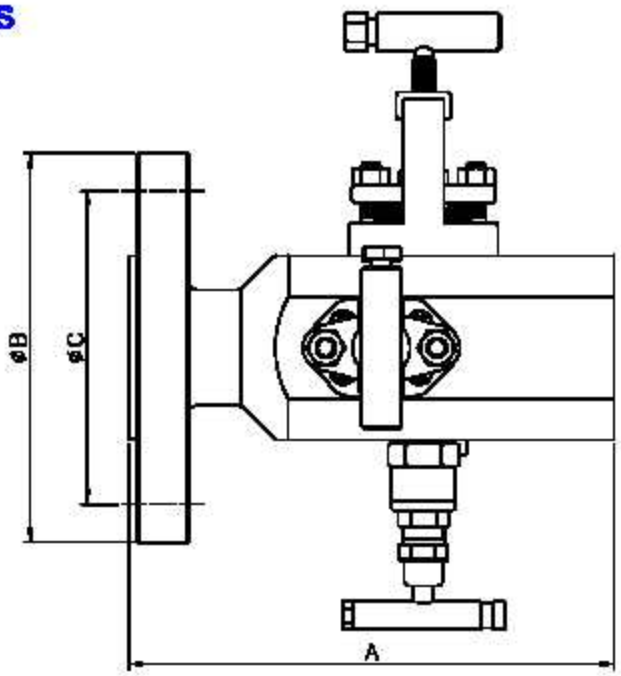
SIZE (Inch)	RATING lb	DIMENSIONS (mm)				Weight (kg)
		A (RF)	A (RTJ)	B	C	
1/2	150	166	-	89	80.3	3.6
1/2	300	186	193	96	88.7	3.9
1/2	600	166	196	96	88.7	4.0
1/2	900/1500	206	213	121	82.5	5.4
1/2	2500	206	213	134	88.9	6.9
3/4	150	169	-	99	88.8	3.9
3/4	300	186	196	116	82.5	4.6
3/4	600	186	196	116	82.5	4.7
3/4	900/1500	206	213	130	88.9	6.3
3/4	2500	206	213	140	95.2	7.5
1	150	176	183	106	79.4	4.0
1	300	190	195	124	88.9	4.6
1	600	190	198	124	88.9	4.7
1	900/1500	191	196	150	101.6	7.0
1	2500	206	206	169	108.0	8.6
1 1/2	150	190	195	127	98.4	4.8
1 1/2	300	193	198	156	114.3	6.0
1 1/2	600	193	193	156	114.3	6.5
1 1/2	900/1500	203	203	176	123.8	9.4
1 1/2	2500	216	216	203	146.1	15.9
2	150	163	168	153	120.6	6.6
2	300	195	192	165	127.0	8.0
2	600	196	197	165	127.0	8.3
2	900/1500	226	210	216	165.1	15.0
2	2500	221	229	235	171.5	22.0

Dimensions are for reference only, subject to change.

MODULAR VALVES

DB55 / SB50 / SB55 Series



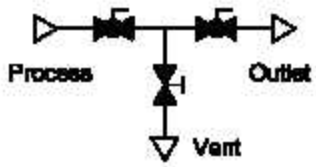


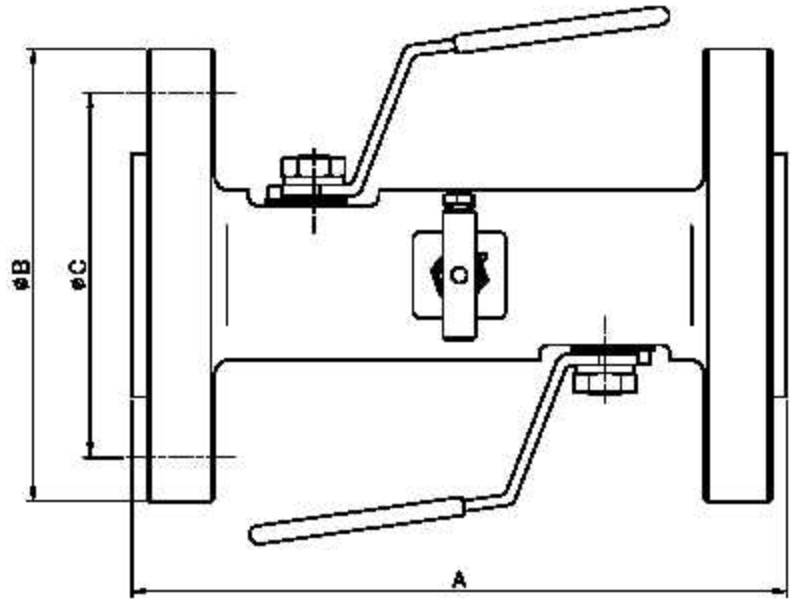
○ Dimensions & Weights

SIZE (Inch)	RATING lb	DIMENSIONS (mm)				L Weight (kg)
		A (RF)	A (RTJ)	B	C	
1/2	150	161	-	89	80.3	3.6
1/2	300	161	163	96	88.7	3.9
1/2	600	166	165	96	88.7	4.0
1/2	900/1500	184	184	121	82.5	5.4
1/2	2500	184	184	134	88.9	6.9
3/4	150	161	-	99	88.8	3.9
3/4	300	161	165	118	82.5	4.6
3/4	600	166	165	118	82.5	4.7
3/4	900/1500	184	184	130	88.9	6.3
3/4	2500	184	184	140	95.2	7.5
1	150	156	161	106	79.4	4.0
1	300	159	164	124	88.9	4.6
1	600	159	166	124	88.9	4.7
1	900/1500	169	177	150	101.6	7.0
1	2500	183	183	169	108.0	8.6
1 1/2	150	159	164	127	98.4	4.8
1 1/2	300	162	167	156	114.3	6.0
1 1/2	600	170	170	156	114.3	6.5
1 1/2	900/1500	180	180	178	123.8	9.4
1 1/2	2500	193	194	203	146.1	15.9
2	150	161	166	153	120.6	6.6
2	300	164	170	165	127.0	8.0
2	600	173	178	165	127.0	8.3
2	900/1500	186	188	216	165.1	15.0
2	2500	199	201	235	171.5	22.0

Dimensions are for reference only, subject to change.

DB60 Series





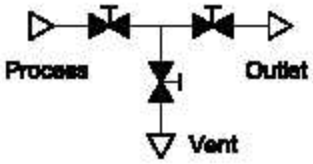
○ Dimensions & Weights

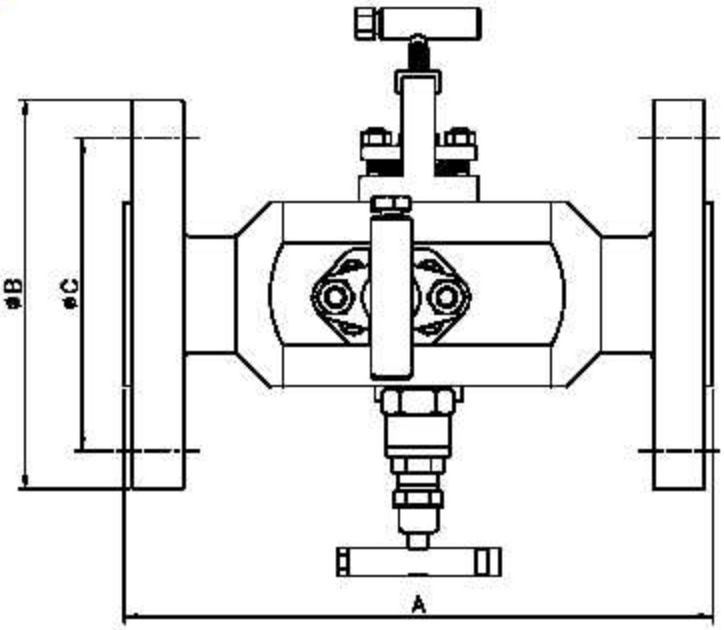
SIZE (Inch)	RATING lb	DIMENSIONS (mm)				Weight (kg)
		A (RF)	A (RTJ)	B	C	
1/2	150	206	-	89	80.3	4.3
1/2	300	206	221	96	86.7	5.0
1/2	600	206	221	96	86.7	5.2
1/2	900/1500	243	256	121	82.5	7.9
1/2	2500	243	256	134	88.9	10.8
3/4	150	206	-	99	89.8	4.9
3/4	300	206	221	118	82.5	6.3
3/4	600	206	221	118	82.5	6.5
3/4	900/1500	243	256	130	88.9	9.5
3/4	2500	243	256	140	95.2	12.0
1	150	160	169	108	79.4	5.0
1	300	189	196	124	88.9	6.3
1	600	199	199	124	88.9	6.5
1	900/1500	221	221	150	101.6	11.2
1	2500	234	234	159	108.0	14.3
1 1/2	150	186	196	127	98.4	6.4
1 1/2	300	192	202	156	114.3	9.1
1 1/2	600	206	208	156	114.3	10.1
1 1/2	900/1500	227	227	178	123.8	16.0
1 1/2	2500	253	256	203	146.1	27.8
2	150	189	199	153	120.6	9.9
2	300	198	208	165	127.0	11.9
2	600	216	218	165	127.0	13.4
2	900/1500	240	243	216	165.1	27.2
2	2500	265	268	235	171.5	40.0

Dimensions are for reference only, subject to change.

MODULAR VALVES

DB65 / SB60 / SB65 Series





○ Dimensions & Weights

SIZE (inch)	RATING lb	DIMENSIONS (mm)				Weight (kg)
		A (RF)	A (RTJ)	B	C	
1/2	150	197	-	89	80.3	4.3
1/2	300	197	206	96	86.7	5.0
1/2	600	206	206	96	86.7	5.2
1/2	900/1500	243	243	121	82.5	7.9
1/2	2500	243	243	134	88.9	10.8
3/4	150	197	-	99	89.8	4.9
3/4	300	197	206	118	82.5	6.3
3/4	600	206	206	118	82.5	6.5
3/4	900/1500	243	243	130	88.9	9.5
3/4	2500	243	243	140	95.2	12.0
1	150	180	189	108	79.4	5.0
1	300	189	198	124	88.9	6.3
1	600	199	199	124	88.9	6.5
1	900/1500	221	221	150	101.6	11.2
1	2500	234	234	159	108.0	14.3
1 1/2	150	186	196	127	98.4	6.4
1 1/2	300	192	202	156	114.3	9.1
1 1/2	600	206	208	156	114.3	10.1
1 1/2	900/1500	227	227	178	123.8	16.0
1 1/2	2500	253	256	203	146.1	27.8
2	150	189	199	153	120.6	9.9
2	300	198	208	165	127.0	11.9
2	600	216	218	165	127.0	13.4
2	900/1500	240	243	216	165.1	27.2
2	2500	265	268	235	171.5	40.0

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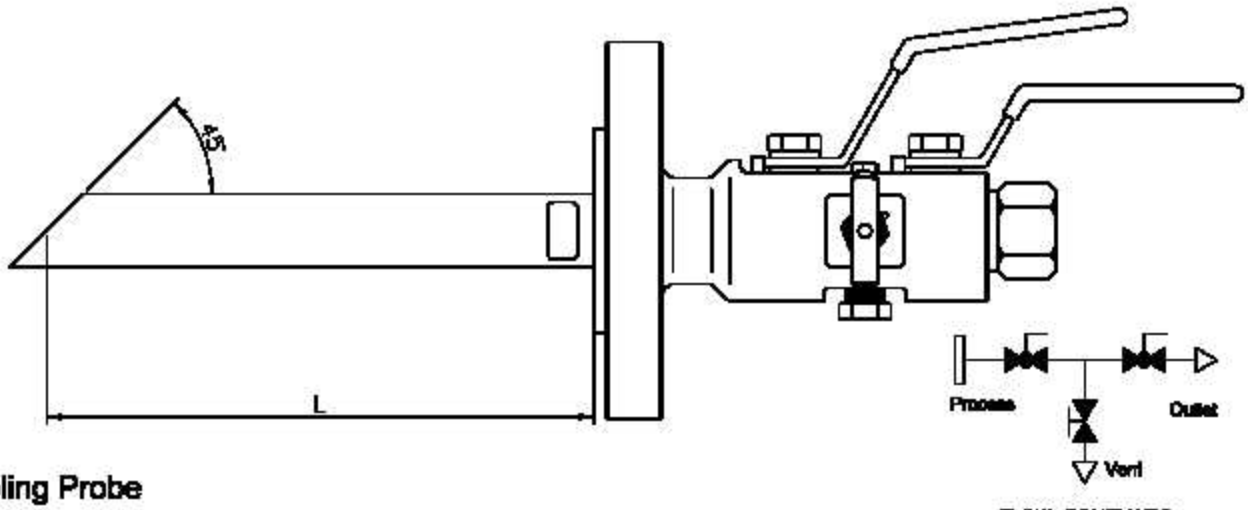
SAMPLING VALVE

Sampling the process stream can be accomplished with this valve design, where a sampling can be taken even at full system pressure directly from the process line. The product allows double isolations from process for safety.



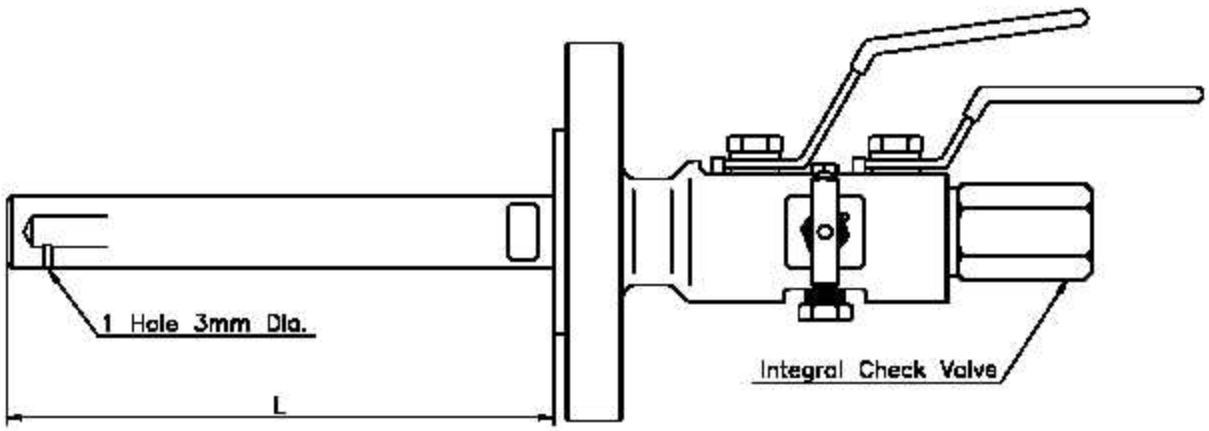
FLOW SCHEMATIC

Sampling Probe

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

CHEMICAL INJECTION VALVE

Injection of chemicals and other media into the process stream can be accomplished with this valve design. The valve inlet houses a one way check valve which opens for injectin and goes normally closed to eliminate process fluid outflow.



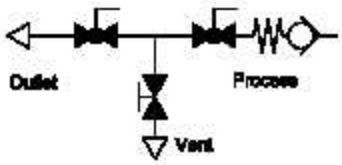
Injection Quill

The Injection Quill length(L) is manufactured to suit customer requirements.

The Injection Nozzle is a 3mm diameter hole(standard).

Integral Check Valve

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



FLOW SCHEMATIC

MONOFALNGE VALVES

Monoflange Valves

are integrally forged, one-piece double block and bleed assemblies for primary isolation of pressure take-offs, where the valve is directly mounted to the vessel or process pipe. Instruments may be directly mounted to the valve outlet or alternatively remotely with gauge lines/impulse pipe work.

Applications

Isolation(MF45)
Block and Bleed(MF55)
Double Block and Bleed(MF65)
Pressure Measurement
Chemical Injection
Level Measurement
Sampling
Flow Measurement

Standard Features

ANSI B16.5 flanged inlet connections 1/2" to 2" sizes.
Class150 rated to Class2500 rated.
API flanged inlet connections sizes to 2 1/16".
1/2" NPT threaded female outlet to ANSI/ASME B1.20.1.
1/2" NPT threaded female vent connection to ANSI/ASME B1.20.1.
Material thickness to ANSI B16.34.
Firesafe to API 607, BS6755 Part2.

Standard Pressure Testing

to BS6755 Part1.

Standard Material Traceability

to EN 10204 3.1.B (Body only).

OS&Y Needle Type and Needle Type Globe Valve Packing Materials

Standard valves are offered with Graphite. PTFE is also available as an option.

MN45 SERIES

Single Block Valve
Flange x 1/2"NPT
Isolate : OS&Y or Needle

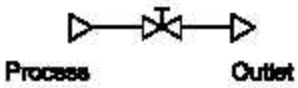
MN55 SERIES

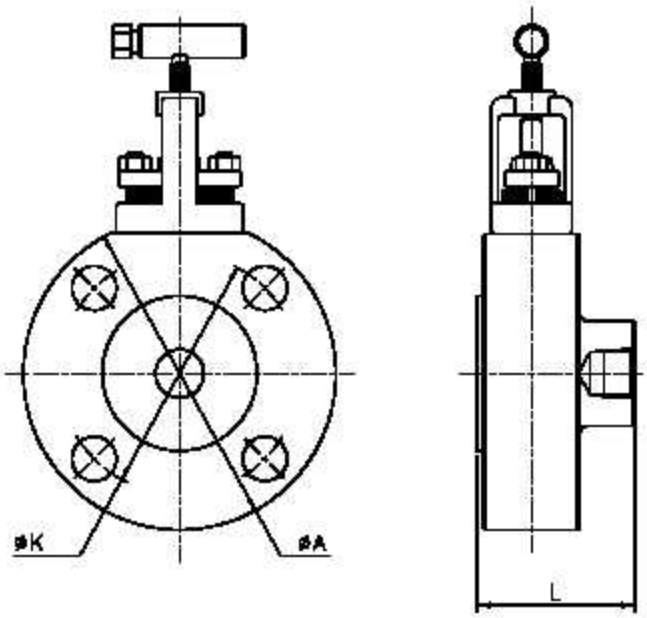
Single Block & Bleed Valve
Flange x 1/2"NPT
Isolate : OS&Y or Needle
Bleed : OS&Y or Needle

MN65 SERIES

Double Block & Bleed Valve
Flange x 1/2"NPT
Primary : OS&Y or Needle
Secondary : OS&Y or Needle
Bleed : OS&Y or Needle

MN45 Series





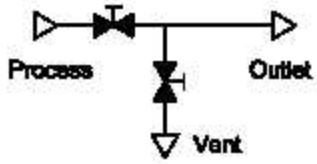
○ Dimensions & Weights

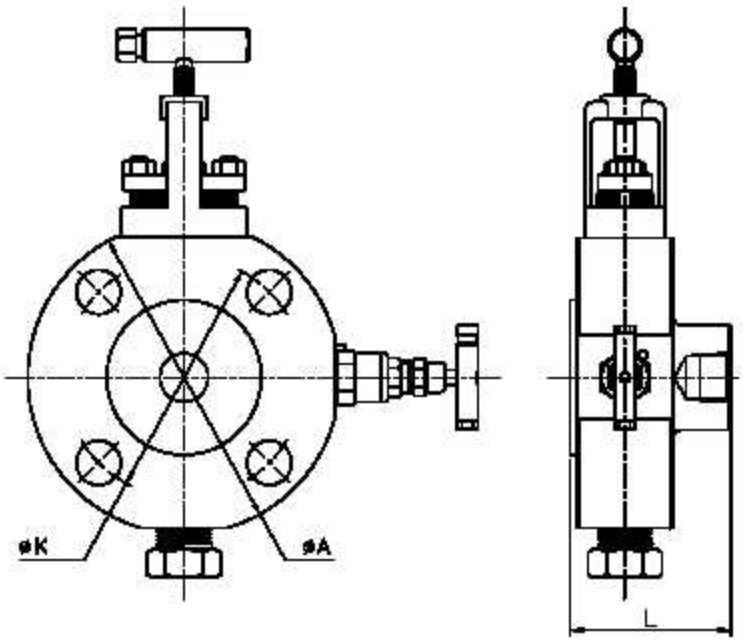
SIZE (Inch)	RATING lb	DIMENSIONS (mm)				Weight (kg)
		L (RF)	L (RTJ)	A	K	
1/2	150	64	-	99	60.3	2.0
1/2	300	64	68	99	66.7	2.0
1/2	600	68	68	99	66.7	2.0
1/2	900/1500	68	68	133	82.5	3.4
1/2	2500	68	68	133	88.9	3.4
3/4	150	64	-	99	69.8	2.0
3/4	300	64	68	133	82.5	3.4
3/4	600	68	68	133	82.5	3.4
3/4	900/1500	68	68	133	88.9	3.4
3/4	2500	73	73	159	95.2	5.5
1	150	64	68	133	79.4	2.4
1	300	64	68	133	88.9	3.4
1	600	68	68	133	88.9	3.4
1	900/1500	73	73	159	101.6	5.5
1	2500	73	73	159	108.0	5.5
1 1/2	150	64	68	127	98.4	3.2
1 1/2	300	69	69	159	114.3	5.5
1 1/2	600	73	73	159	114.3	5.5
1 1/2	900/1500	73	73	178	123.8	7.8
1 1/2	2500	82	84	235	146.1	11.4
2	150	69	73	159	120.6	5.5
2	300	69	76	178	127.0	7.8
2	600	73	75	178	127.0	7.8
2	900/1500	82	84	235	165.1	11.4

Dimensions are for reference only, subject to change.

MONOFALNGE VALVES

MN55 Series



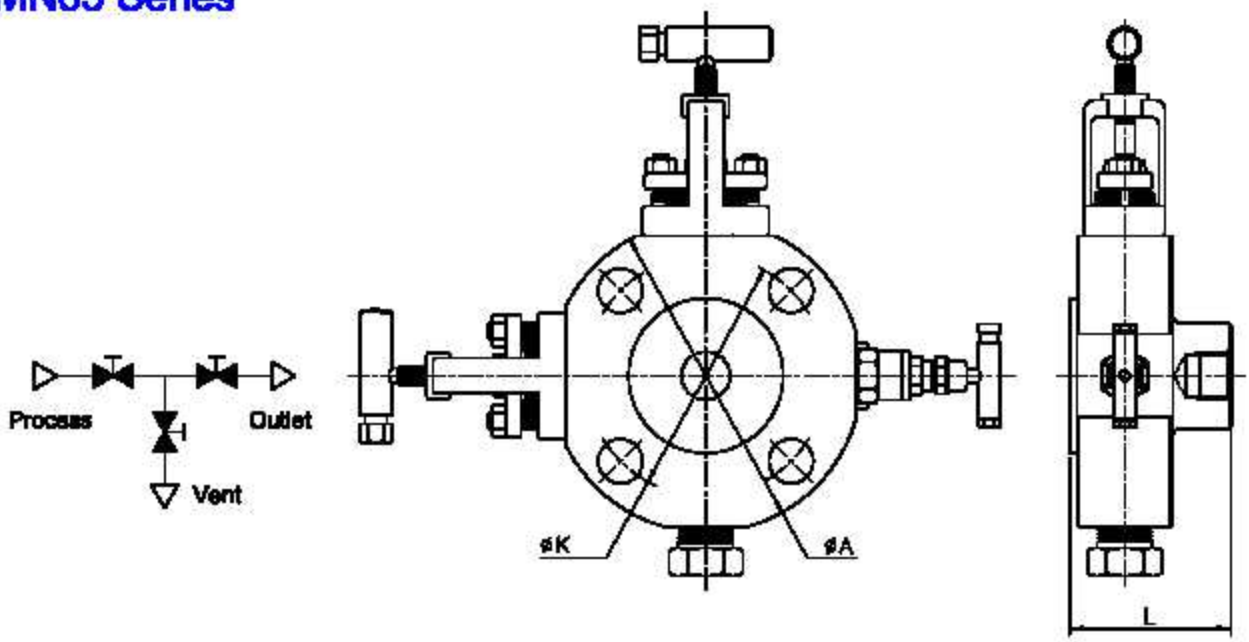


○ Dimensions & Weights

SIZE (Inch)	RATING lb	DIMENSIONS (mm)				Weight (kg)
		L (RF)	L (RTJ)	A	K	
1/2	150	64	-	99	80.3	2.0
1/2	300	64	68	99	86.7	2.0
1/2	600	68	68	99	86.7	2.0
1/2	900/1500	68	68	133	82.5	3.4
1/2	2500	68	68	133	88.9	3.4
3/4	150	64	-	99	89.8	2.0
3/4	300	64	68	133	82.5	3.4
3/4	600	68	68	133	82.5	3.4
3/4	900/1500	68	68	133	88.9	3.4
3/4	2500	73	73	159	95.2	5.5
1	150	64	68	133	79.4	2.4
1	300	64	68	133	88.9	3.4
1	600	68	68	133	88.9	3.4
1	900/1500	73	73	159	101.6	5.5
1	2500	73	73	159	108.0	5.5
1 1/2	150	64	68	127	98.4	3.2
1 1/2	300	69	69	159	114.3	5.5
1 1/2	600	73	73	159	114.3	5.5
1 1/2	900/1500	73	73	178	123.8	7.8
1 1/2	2500	82	84	235	146.1	11.4
2	150	69	73	159	120.6	5.5
2	300	69	76	178	127.0	7.8
2	600	73	75	178	127.0	7.8
2	900/1500	82	84	235	166.1	11.4

Dimensions are for reference only, subject to change.

MN65 Series



○ Dimensions & Weights

SIZE (Inch)	RATING lb	DIMENSIONS (mm)				Weight (kg)
		L (RF)	L (RTJ)	A	K	
1/2	150	64	-	99	80.3	2.0
1/2	300	64	68	99	86.7	2.0
1/2	600	68	68	99	86.7	2.0
1/2	900/1500	68	68	133	82.5	3.4
1/2	2500	68	68	133	88.9	3.4
3/4	150	64	-	99	89.8	2.0
3/4	300	64	68	133	82.5	3.4
3/4	600	68	68	133	82.5	3.4
3/4	900/1500	68	68	133	88.9	3.4
3/4	2500	73	73	159	95.2	5.5
1	150	64	68	133	79.4	2.4
1	300	64	68	133	88.9	3.4
1	600	68	68	133	88.9	3.4
1	900/1500	73	73	159	101.6	5.5
1	2500	73	73	159	108.0	5.5
1 1/2	150	64	68	127	98.4	3.2
1 1/2	300	69	69	159	114.3	5.5
1 1/2	600	73	73	159	114.3	5.5
1 1/2	900/1500	73	73	178	123.8	7.8
1 1/2	2500	82	84	235	146.1	11.4
2	150	69	73	159	120.6	5.5
2	300	69	76	178	127.0	7.8
2	600	73	75	178	127.0	7.8
2	900/1500	82	84	235	166.1	11.4

Dimensions are for reference only, subject to change.

ROOT VALVES

Root Valves are integrally forged, one-piece double block and bleed assemblies for primary isolation of pressure take-offs, where the valve is directly mounted to the vessel or process pipe. Instruments may be directly mounted to the valve outlet or alternatively remotely with gauge lines/impulse pipe work.

Applications

Isolation(RV4 Series)
Block and Bleed(RV5 Series)
Double Block and Bleed(RV6 Series)
Pressure Measurement
Flow Measurement

Standard Features

Weld inlet connections 1/2" to 2" sizes
Class150 rated to Class2500 rated.
1/2" NPT threaded female outlet to ANSI/ASME B1.20.1.
1/2" NPT threaded female vent connection to ANSI/ASME B1.20.1.
Material thickness to ANSI B16.34.
Firesafe to API 607, BS6755 Part2.

Standard Pressure Testing

to BS6755 Part1.

Standard Material Traceability

to EN 10204 3.1.B (Body only).

Ball Isolation Valve Seat Material

A choice of PVDF, PTFE(virgin or filled), PCTFE and PEEK are available.

OS&Y Needle Type and Needle Type Globe Valve Packing Materials

Standard valves are offered with Graphite. PTFE is also available as an option.

Options

Options requirement are the same as the Modular and Monoflange range.

RV40 SERIES

Single Block Valve
Plain End x 1/2"NPT
Isolate : Ball

RV45 SERIES

Single Block Valve
Plain End x 1/2"NPT
Isolate : OS&Y or Needle

RV50 SERIES

Single Block & Bleed Valve
Plain End x 1/2"NPT
Primary : Ball
Bleed : OS&Y or Needle

RV55 SERIES

Single Block & Bleed Valve
Plain End x 1/2"NPT
Primary : OS&Y or Needle
Bleed : OS&Y or Needle

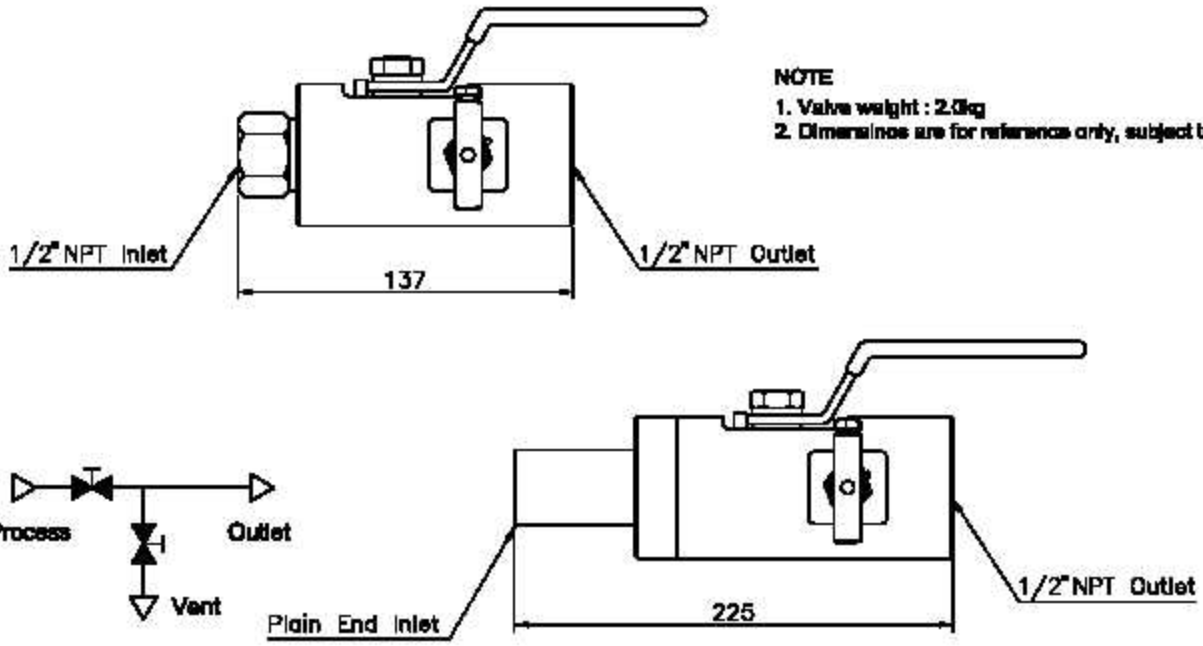
RV60 SERIES

Double Block & Bleed Valve
Plain End x 1/2"NPT
Primary : Ball
Secondary : Ball
Bleed : OS&Y or Needle

RV65 SERIES

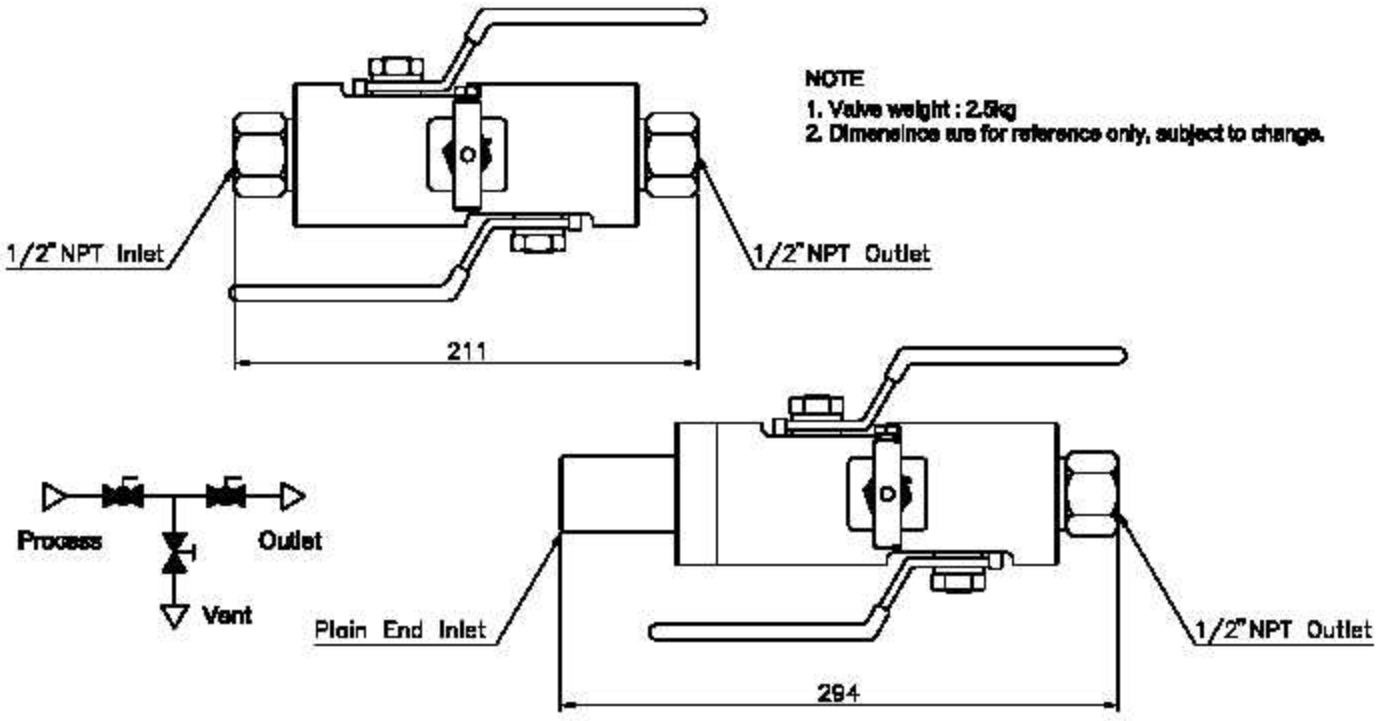
Double Block & Bleed Valve
Plain End x 1/2"NPT
Primary : OS&Y
Secondary : OS&Y or Needle
Bleed : OS&Y or Needle

RV40 / RV45 / RV50 Series



NOTE
1. Valve weight : 2.0kg
2. Dimensinos are for reference only, subject to change.

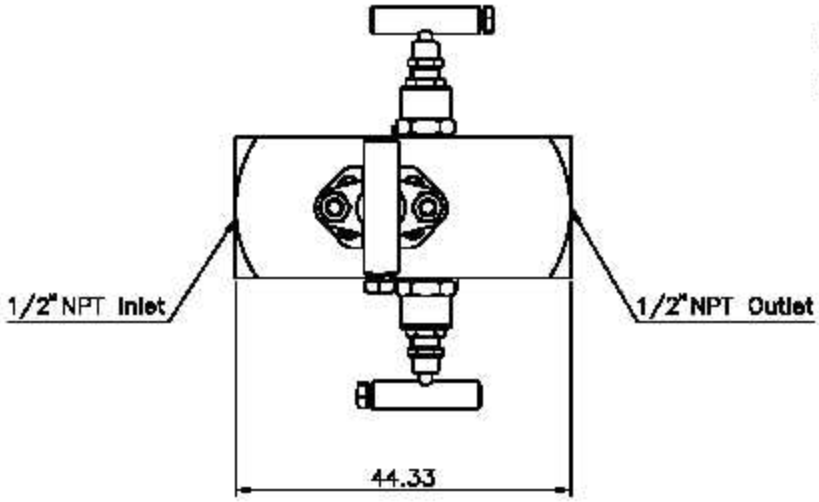
RV60 Series



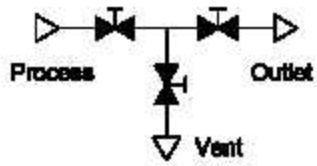
NOTE
1. Valve weight : 2.5kg
2. Dimensinos are for reference only, subject to change.

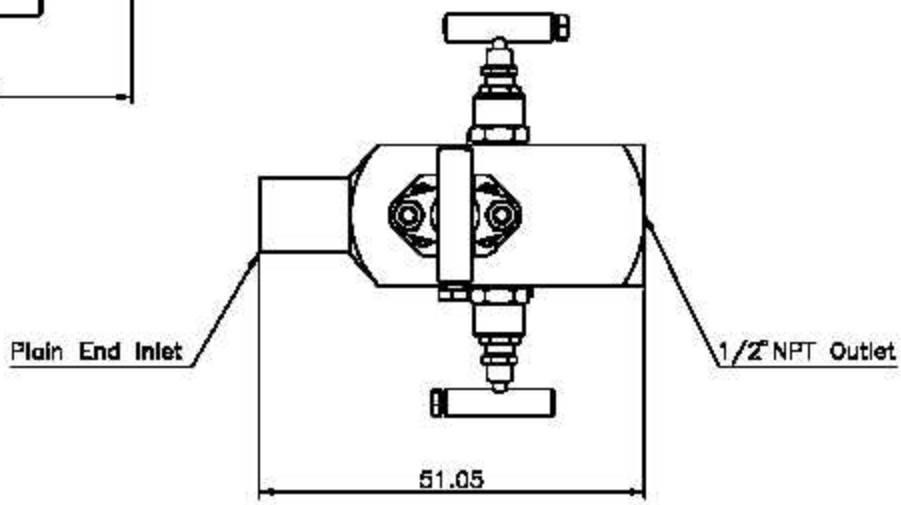
ROOT VALVES

RV55 / MN65 Series



NOTE
1. Valve weight : 1.7kg
2. Dimensions are for reference only, subject to change.





ORDERING INFORMATION

DBA – 12JD – 8N – PC* – S* – V* – 01* – P* – S316

Valve Series | Inlet | Outlet | Ball Seat Material* | Trim Material* | Options A* | Options B* | Options C* | Body Material Designator

MODULAR - Single Block & Bleed			
Series	I.D.	Block	Bleed
SB60 SB80	SBA	Ball	Needle
	SBE	Ball	OS & Y
	SBH	Ball	Ball
	SBG	Ball	OS & Y
		Full Bore, Dual Flange	
SB66 SB86	SBB	OS & Y	OS & Y
	SBC	OS & Y	Needle
	SBD	Needle	Needle

MODULAR - Double Block & Bleed				
Series	I.D.	Block	Block	Bleed
DB30 DB80	DBA	Ball	Ball	Needle
	DBE	Ball	Ball	OS & Y
	DBG	Ball	Ball	OS & Y
		Full Bore, Dual Flange		
	DBH	Ball	Ball	-
	DBI	Ball	Needle	-
	DBJ	Ball	Ball	Ball
	DBK	Ball	Needle	Needle
		Needle bore : 10mm		
	DBL	Ball	Ball	Needle
		Needle bore : 10mm		
DB66 DB86	DBB	OS & Y	OS & Y	OS & Y
	DBC	OS & Y	OS & Y	Needle
	DBD	Needle	Needle	Needle
	DBF	OS & Y	Needle	Needle

MONOFLANGE VALVE				
Series	I.D.	Block	Block	Bleed
MN45	MNA	OS & Y	-	-
	MNB	Needle	-	-
MN55	MNC	OS & Y	-	Needle
	MND	Needle	-	Needle
MN85	MNE	OS & Y	Needle	Needle
	MNF	Needle	Needle	Needle

ROOT VALVE				
Series	I.D.	Block	Block	Bleed
RV40 RV45	MNA	Ball	-	-
	MNB	OS & Y	-	-
RV60 RV65	MNC	Ball	-	Needle
	MND	OS & Y	-	Needle
RV80 RV85	MNE	Ball	Ball	Needle
	MNF	OS & Y	Needle	Needle

Ball Seat Material*
- NI – PVDF (Standard)
- PC – PCTFE
- PK – PEEK
- RG – Glass filled PTFE
- RC – Carbon filled PTFE
- PT – PTFE

Trim Material*
- NI – without(Standard)
- S – SS316
- D – DUPLEX UNS S31803
- M – UNS N04400
- T – SS316 + stellite coated seat (needle valve only)

Inlet and Outlet Connection

Size		Flange				Threads	
Inch	Identifier	Description	Identifier	Class	Identifier	Type	Identifier
1/4	-4	Spiral Finish Raised Faced	R	150	A	NPT	N
3/8	-6	Smooth Finish Raised Faced	S	300	B	BSPT	R
1/2	-8	Stock Finish Raised Faced	F	600	C	Weld End	
3/4	-12			900	D	Type	Identifier
1	-16	Ring Type Joint	J	1500	E	Butt Weld	BW
1 1/2	-24	Stock Finish Flate Faced	L	2500	F	Socket Weld	SW
2	-32						
3	-48						

Standard Construction

Trim Construction
C, L and S Body : S Trim
D Body : D Trim
M Body : M Trim

Ball Valve : Fireseals, Anti-Static, Locking-device

Packing : Graphite

Bore size :
Ball : 10mm, Needle : 5mm
but DBE, SBE - Ball : 14mm, Needle : 8mm
but DBG, SBG - Ball : Full bore, Needle : 8mm
but DBK, DBL - Ball : 10mm, Needle : 10mm

Options A
Stem and End connector O-ring
- NI – without(Standard)
- V – VITON
- I – AFLAS
- E – ELASTOLION

Options B
- NI – without(Standard)
- 01 – NACE MR-01-75 ①
- 02 – Anti Tamper on vent ①
- 03 – PTFE Packing ①
- 04 – 1/4"NPT Bleed Port ④
- 05 – ① + ②
- 06 – ① + ③
- 07 – ① + ④
- 08 – ① + ② + ③
- 09 – ① + ② + ④
- 10 – ① + ② + ③ + ④
- 11 – ② + ③
- 12 – ② + ④
- 13 – ② + ③ + ④
- 14 – ③ + ④

Options C
- NI – without(Standard)
- P – Pluged Vent ①
- I – Injection Quill w/ Check Valve + ①
- S – Sampling Probe + ①
- D – Dual Outlet
- E – Dual Outlet + ①
- B – Bolted Body Construction
- C – Bolted Body Construction + ①
- Z – Special Requirements

Body Material Designator
- S316 – ASTM A182 F316 ⑪
- A105 – ASTM A105 ⑫
- LF2 – ASTM A350 LF2 ⑬
- F51 – ASTM A182 F51 ⑭
- NONE – UNS N04400 ⑮

* Note : No designator is required for standard items.
e.g. DBA-12JD8N-S316(Double Block & Bleed valve)
Inlet - 3/4" RTJ Class600 (ANSI/ASME B16.5)
Outlet - 1/2" Female NPT
Vent : 1/2" Female NPT