



DK-LOK Block & Bleed Valves

Catalog No. DBB-2
Oct 2012



Features

- Reduced potential leak paths with primary & secondary isolation in one valve
- Compact ball/OS&Y/needle valve assembly in one DBB
- Flange construction as per the requirements of ASME B16.5
- Pressure ratings as per ASME B16.34 Class 150 thru 2500
- Wetted components of Sour gas service valve are selected as per the requirements of NACE MR0175 /ISO 15156.
- Fire tested as per BS 6755 part 2.

Applications

- Offshore oil and gas platforms
- Onshore oil and gas terminals
- LNG carriers
- Petrochemical and refinery

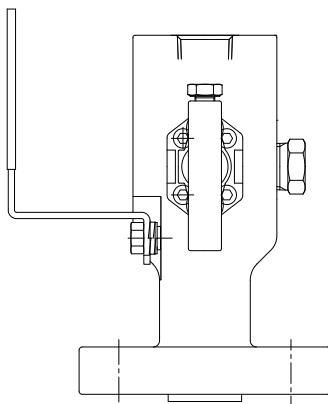
Factory Testing

Every valve is factory tested hydrostatically. A shell test is performed at 1.5 times maximum rated working pressure and a seat test is performed at 1.1 times MWP in accordance with API 598.

1. Body Construction

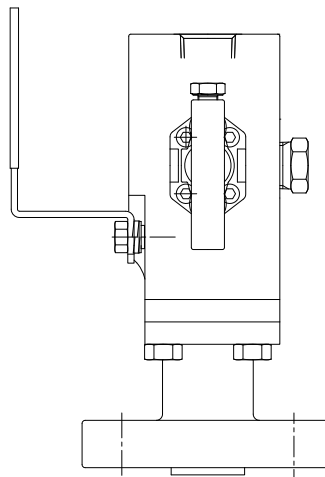
One Piece Forged Design

Designator: V1



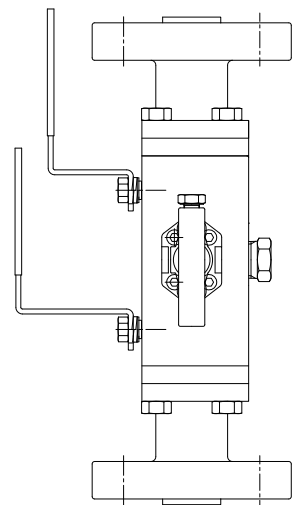
Two Piece Bolted Design

Designator: V2



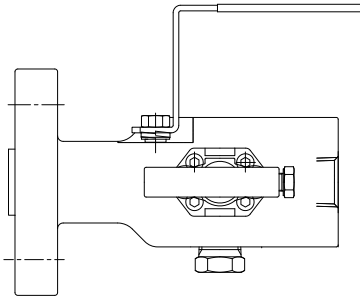
Three Piece Bolted Design

Designator: V3

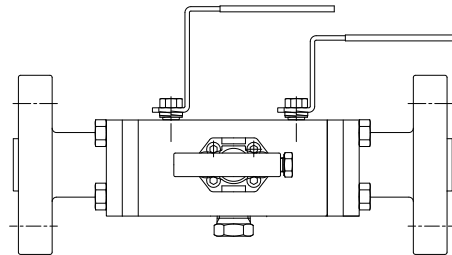


2. Process and Outlet Connection

Flange to 1/2" NPTF
Designator - F

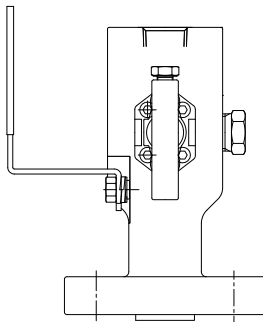


Flange to Flange
Designator - FF

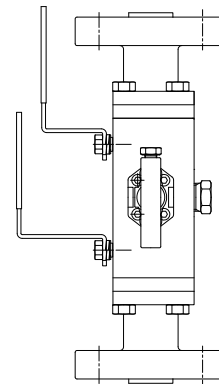


3. Single and Double Block and Bleed Valve

Single Block and Bleed
Designator - S



Double Block and Bleed
Designator - D



4. Configuration

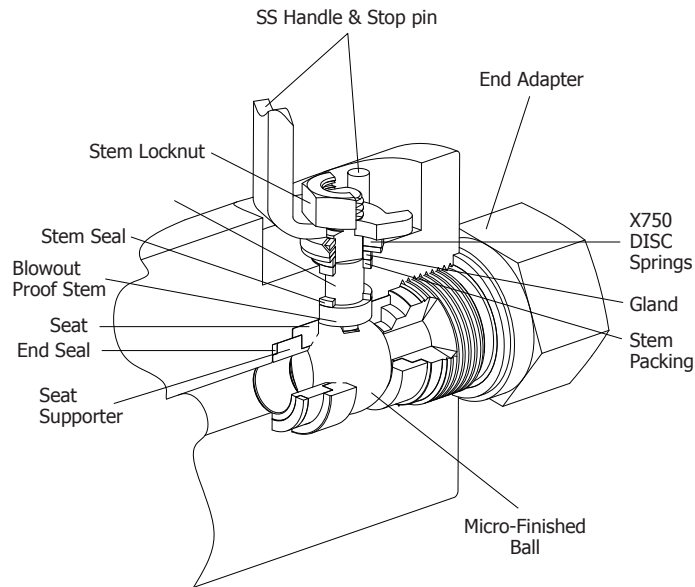
Single Block and Bleed Valve

Designator	Block	Vent
B	Ball	Ball
Y	OS&Y	OS&Y
N	Globe Needle	Globe Needle
A	Ball	OS&Y
C	Ball	Globe Needle
D	OS&Y	Globe Needle

Double Block and Bleed Valve

Designator	Block	Secondary Block	Vent
B	Ball	Ball	Ball
Y	OS&Y	OS&Y	OS&Y
A	Ball	Ball	OS&Y
C	Ball	Ball	Globe Needle
D	OS&Y	Globe Needle	Globe Needle
E	OS&Y	OS&Y	Globe Needle

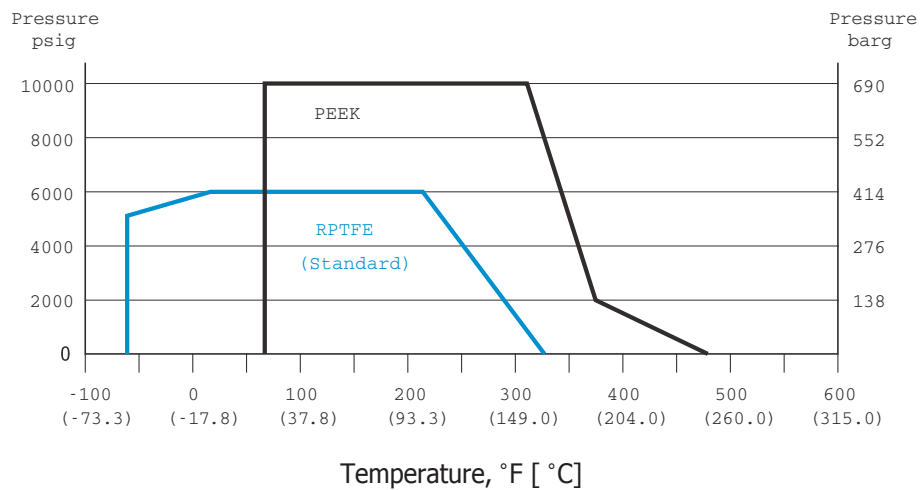
Ball Valve (Designator: B)



Features

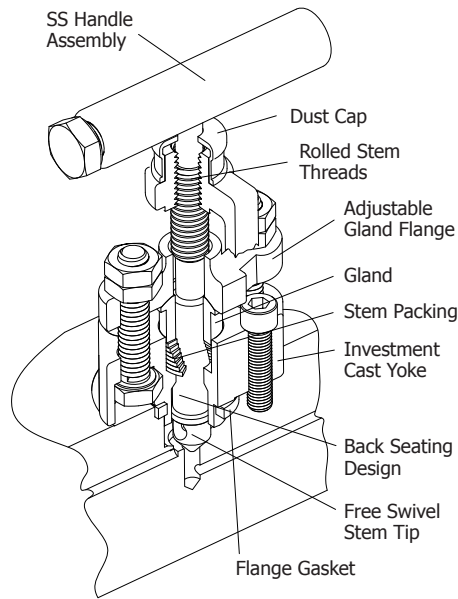
- Quarter turn actuation.
- Blowout proof stem design.
- Micro-finished ball for long service life.
- Anti static ball design is standard.
- 3/8" (9.5mm) bore on ball is standard.
- Lockable with nylon sleeve lever handle is standard.
- Pressure rating up to 10 000 psig (690 barg).
- Temperature rating - 71 to 482 °F (-57 to 250 °C).

Ball Valve Pressure - Temperature Ratings



OS & Y (Designator: Y)

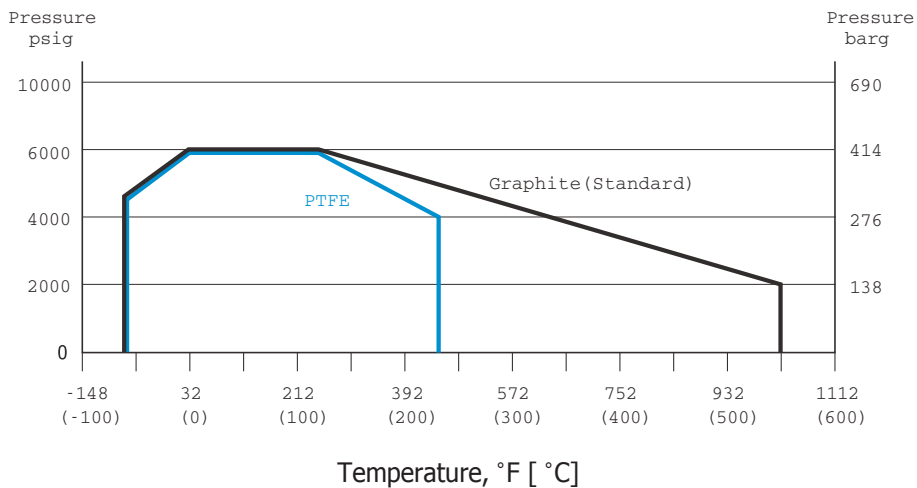
Outside Screw and Yoke Needle Valve.



Features

- Investment cast yoke is precision cased for perfect stem alignment.
- Standard non-rotating free swivel stem tip.
- Roll threaded and hard chrome plated stem for long valve life.
- Stem packing below thread design prevents media contamination and thread lubricant washout.
- Back seating design provides secondary stem sealing and prevents stem blowout.
- Adjustable gland flange allows packing adjustment.
- 0.2 in. (5mm) bore.
- Pressure rating up to 6000 psig (414 barg).
- Temperature rating - 71 to 1022 °F (-57 to 550 °C).

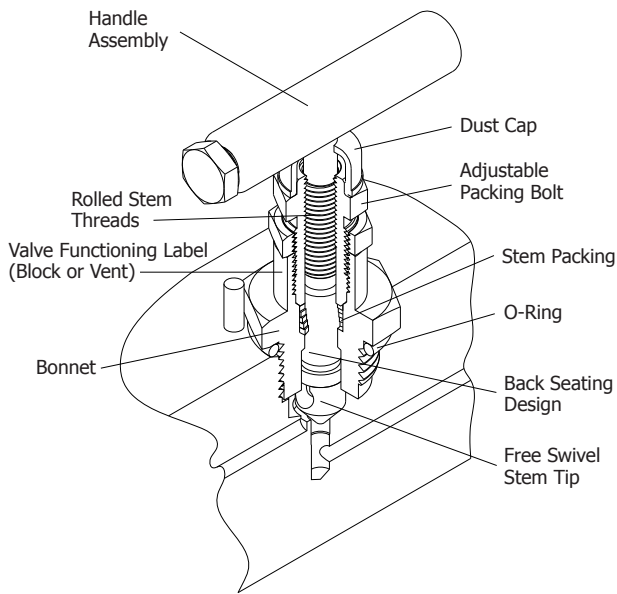
OS & Y Pressure - Temperature Ratings



Globe Needle Valve (Designator: N)

Features

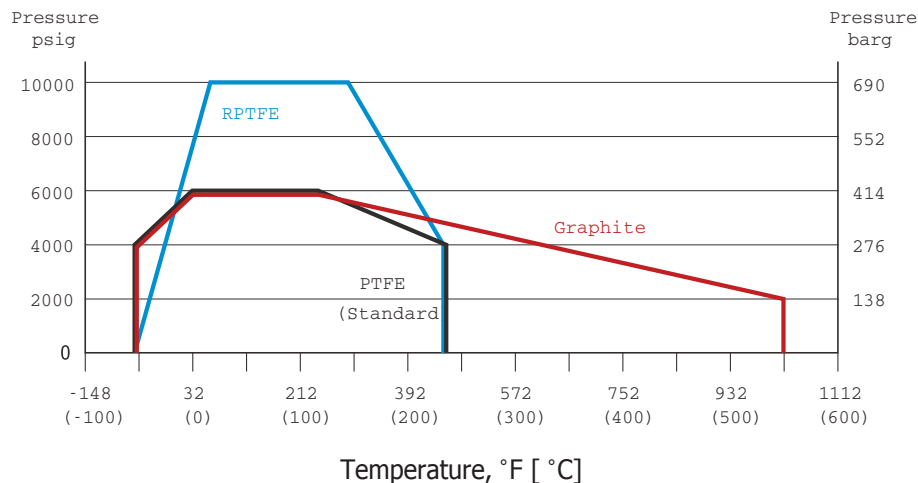
- Bar-handled vent is standard.
- External packing adjustment.
- Back seating design provides secondary stem sealing and prevents stem blowout.
- Standard non-rotating free swivel stem tip.
- Roll threaded and hard chrome plated stem for long valve life.
- Stem packing below thread design prevents media contamination and thread lubricant washout.
- Stellite seat is an option for Globe Needle Valve. To order the option, suffix "HS" to the ordering number. i.e., V1F-SNHS, V1F-SCHS, V1F-SDHS, V1FF-DCHS, V1FF-DDHS, and V1FF-DEHS.
- Globe needle valve with **anti-tamper bonnet**(designator - **T**) is available with a removable T-bar key to prevent unauthorized operation and release of fluid through **the vent port** to atmosphere. The T-bar key is supplied separately or alternatively the key can be chained (designator - **TC**) to the valve.
- 0.2 in. (5mm) bore.
- Pressure rating up to 10 000 psig (690 barg)
- Temperature rating -71 to 1022 °F (57 to 550 °C)

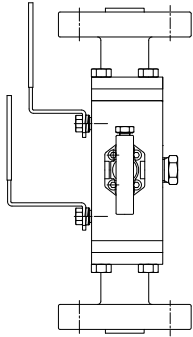


How to order "**T**" and "**TC**" options

Designator	Needle Valve on Vent	Intermediate ordering #
T	Anti-tamper Globe Needle Valve	V1F-SNT
TC	Chained Anti-tamper Globe Needle Valve	V1F-SCTC

Globe Needle Valve Pressure - Temperature Ratings



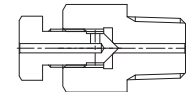


5. Vent (Bleed) Port



Vent Port

- Vent port 1/2" NPTF with Hex Plug is standard.
- Vent port with "Vent Plug" is an option with "VP" designator.



"VP" option

How to order the "VP" option

Designator	on Vent Port	Intermediate ordering #
VP	Vent Plug	V1F-SCT VP
Nil	Hex Plug	V1F-SCT

6. Process Connections

Flange Size		Flange Class		Finish Standard	
Designator	Size	Designator	Class Rating	Designator	Finish
8	1/2" (DN15)	A	150	1	Raised Faced Smooth
12	3/4" (DN20)	B	300	2	Raised Faced Serrated
16	1" (DN25)	C	600	3	Raised Faced Stock
24	1 1/2" (DN40)	D	900/1500	4	Ring Type Joint
32	2" (DN50)	E	2500		

How to order

Designators	Selected Flange Size	Selected Flange Class	Selected Finish Standard	Intermediate Ordering Number
8A1	1/2" (DN15)	150	Raised Faced Smooth Finish	V1F-SNT- 8A1
16C1	1" (DN25)	600	Raised Faced Smooth Finish	V1F-SCTC- 16C1
24D2	2" (DN50)	900/1500	Raised Faced Serrated	V1F-SDT- 24D2

7. Seat and Packing

Ball Valve Seat Material	OS & Y Packing	Needle Valve Packing
Nil: Standard Reinforced PTFE PK : PEEK	Nil: Standard Graphite PE : PTFE	Nil: Standard PTFE GF : Graphite RP : Reinforced PTFE

How to order

Designators	Ball Valve Seat Material	OS & Y Packing	Needle Valve Packing	Intermediate Ordering Number
Nil	Standard Reinforced PTFE	Standard Graphite	Standard PTFE	V1F-SNT-8A1-
PKPE	PK: PEEK	PE: PTFE	Standard PTFE	V1F-SCTC-16C1- PKPE
PKPEGF	PK: PEEK	PE: PTFE	GF: Graphite	V1F-SDT-24D2- PKPEGF

8. Option, Trim and Body Material

Option	Trim Material	Body Material
SG : NACE MR0175 FS : Fire Tested Design to BS6755 Part 2	S : SS316 C : Carbon Steel D : Duplex M : Monel UNS N04400	S : ASTM A182 F316 / F316L C : ASTM A105 D : ASTM A182 F51 M : ASTM B564 UNS N04400 AL6 : ASTM A350 LF2

FS: Optional fire tested design valve is supplied with the following seat & packing materials.

- Ball Seat: Standard Reinforced PTFE
- OS&Y Packing: Standard Graphite Packing
- Needle Valve Packing: Optional Graphite Packing

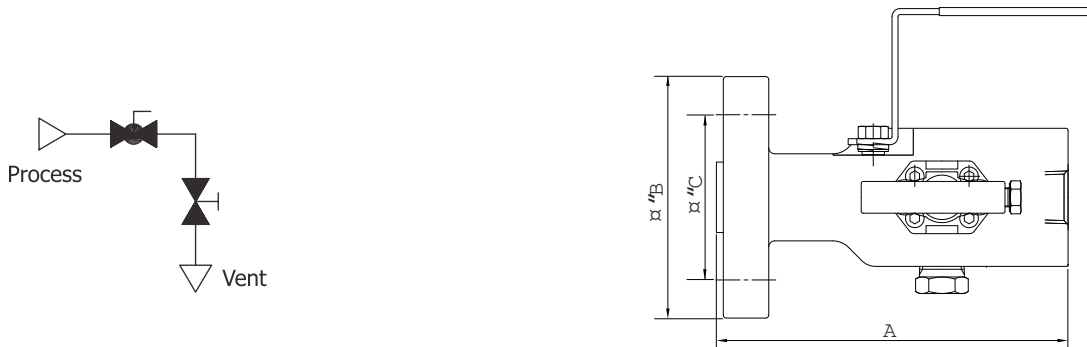
Fire tested valve therefore, need not include the designators of SEAT & PACKING materials.

Completion of DBB ordering numbers

Complete Ordering #	Option	Trim Material	Body Material
V1F-SDT-24D2- FS-SS	FS	S	S
V1F-SCTC-16C1-PKPE- SG-MS	SG	M	S
V1F-SNT-8A1- SS	No option	S	S

V1F-SA/SC Series

One Piece Forged Flange to 1/2" NPTF Single Block and Bleed Valve with Ball and OS&Y (or Needle) on Block and Vent.

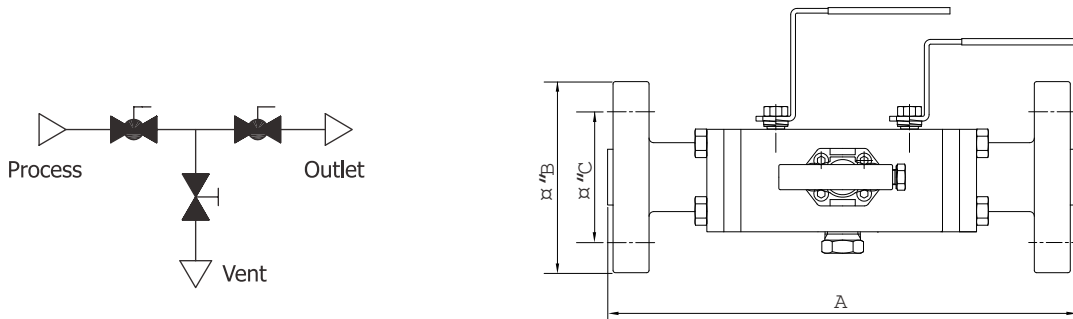


Dimensions & Weights

Size inch	Class	Dimensions, mm				Weight kg
		A(RF)	A(RTJ)	B	C	
1/2	150	188	-	89	60.3	3.6
	300	188	193	96	66.7	3.9
	600	188	196	96	66.7	4.0
	900/1500	206	213	121	82.5	5.4
	2500	206	213	134	88.9	6.9
3/4	150	188	-	99	69.8	3.9
	300	188	196	118	82.5	4.6
	600	188	196	118	82.5	4.7
	900/1500	206	213	130	88.9	6.3
	2500	206	213	140	95.2	7.5
1	150	178	183	108	79.4	4.0
	300	180	185	124	88.9	4.6
	600	180	188	124	88.9	4.7
	900/1500	191	198	150	101.6	7.0
	2500	206	206	159	108.0	8.6
1 1/2	150	180	185	127	98.4	4.6
	300	183	188	156	114.3	6.0
	600	193	193	156	114.3	6.5
	900/1500	203	203	178	128.8	9.4
	2500	216	216	203	146.1	15.9
2	150	183	188	153	120.6	6.6
	300	185	192	165	127.0	8.0
	600	196	197	165	127.0	8.3
	900/1500	226	210	216	165.1	15.0
	2500	221	223	235	171.5	22.0

V3FF-DA/DC Series

Three Piece Bolted Design Flange to Flange Double Block and Bleed Valve with Ball and OS&Y (or Needle) on Block and Vent.



Dimensions & Weights

Size inch	Class	Dimensions, mm			Weight kg
		A(RF)	A(RTJ)	B	
1/2	150	208	-	89	4.3
	300	208	221	96	5.0
	600	208	221	96	5.2
	900/1500	243	256	121	7.9
	2500	243	256	134	10.8
3/4	150	208	-	99	4.9
	300	208	221	118	6.3
	600	208	221	118	6.5
	900/1500	243	256	130	9.5
	2500	243	256	140	12.0
1	150	180	189	108	5.0
	300	186	196	124	6.3
	600	199	199	124	6.5
	900/1500	221	221	150	11.2
	2500	234	234	159	14.3
1 1/2	150	186	196	127	6.4
	300	192	202	156	9.1
	600	208	208	156	10.1
	900/1500	227	227	178	16.0
	2500	253	256	203	27.8
2	150	189	199	153	9.9
	300	196	208	165	11.9
	600	215	218	165	13.4
	900/1500	240	243	216	27.2
	2500	265	268	235	40.0

Caution

Valves that have not been actuated for a period of time may have a higher initial actuation torque. Packing adjustment may be required during the valve in service.

Safe Valve Selection

The selection of a valve for any application or system design must be considered to ensure safe performance. Valve function, valve rating, material compatibility, proper installation, operation and maintenance remain the sole responsibility of the system designer and the user. Dk Tech accepts no liability for any improper selection, installation, operation or maintenance.

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