

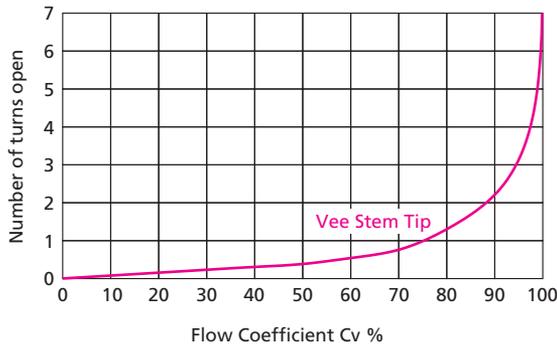
Block & Bleed Needle Valves

Working Pressure Up to 20,000 psig (1379 bar)

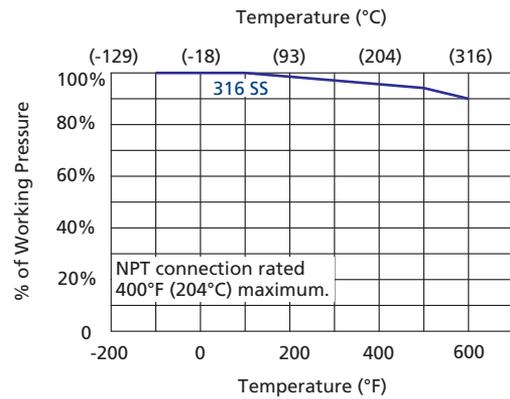
Features

- Compact design offers advantages over configurations with multiple valves and fittings
- Minimal space needed for installation and operation
- Cost savings from fewer components required
- Reduced potential for leakage
- Metal-to-metal seating achieves ideal shutoff, longer stem/seat service lifetime for abrasive flow, excellent corrosion resistance and greater durability for repeated on/off cycles
- Non-rotating stem and bar stock body design
- Reliable packing gland locking device

Flow Data at 100°F (38°C)



Pressure vs. Temperature Curve



Technical Data

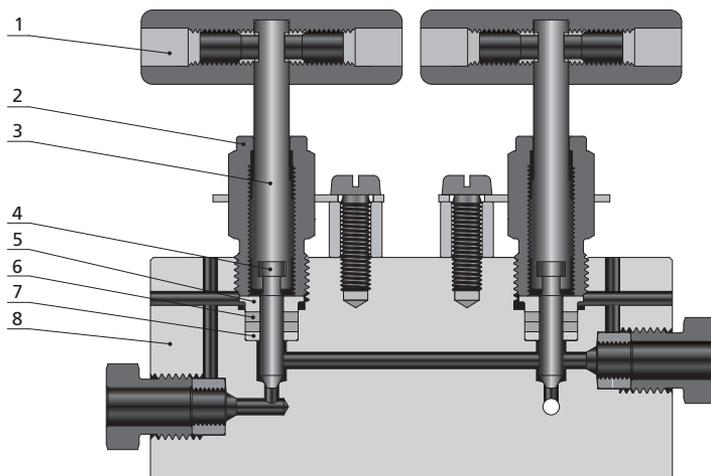
Series	Connection	Orifice in. (mm)	Cv	Working Pressure psig (bar)
15BN	FNS4	0.094 (2.4)	0.20	15,000 (1034)
	FNS6	0.094 (2.4)	0.20	15,000 (1034)
20BN	MF4	0.094 (2.4)	0.20	20,000 (1379)
	MF6	0.094 (2.4)	0.20	20,000 (1379)

Notes: 1. Packing Options

PTFE is the standard packing material, RPTFE glass also available.
 PTFE: -100°F~450°F (-73°C~232°C).
 RPTFE glass:-100°F~600°F (-73°C~316°C).

2. A variety of end connections are available on request . For connections not shown above, please contact FITOK Group or our authorized distributors.

Standard Materials of Construction

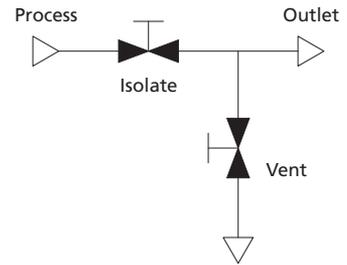
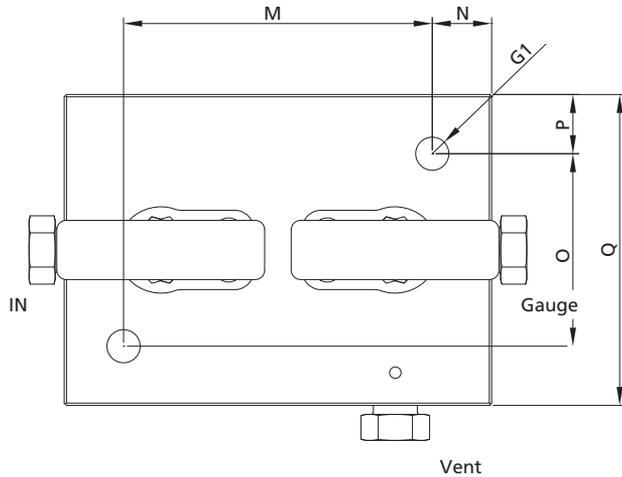
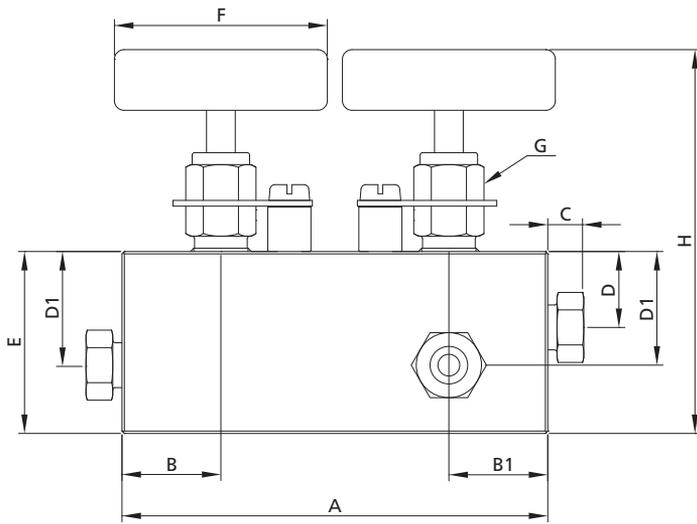


Item	Component	Material Grade
1	Handle	Stainless Steel
2	Packing Gland	C63000
3	Upper Stem	316 SS
4	<i>Lower Stem</i>	<i>S17400</i>
5	Packing Ring	C63000
6	<i>Packing</i>	<i>PTFE/RPTFE</i>
7	<i>Packing Washer</i>	<i>S17400</i>
8	<i>Body</i>	<i>316 SS</i>
	Lubricant	Molybdenum Disulfide

Wetted components listed in italics.

Fittings
Tubing
Quick Couplings
Line Filters
Valves
Sour Service Products
Subsea Valves
Part Number Crossover Charts

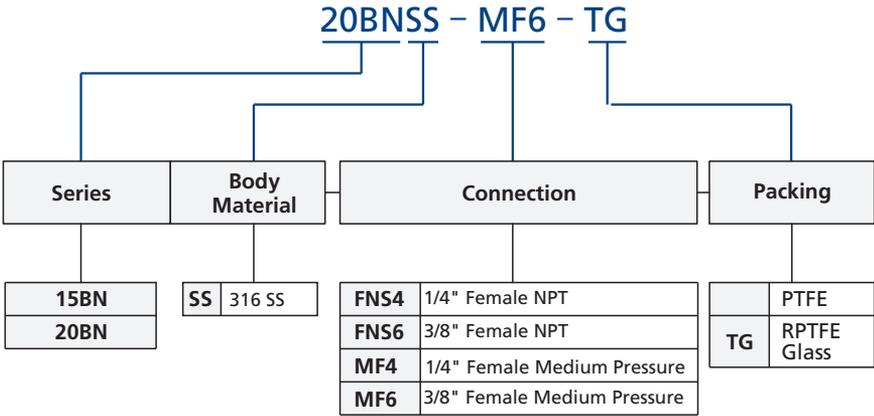
Ordering Information and Dimensions



Dimensions																		
Ordering Number	Connection	Orifice in. (mm)	Dimensions, in. (mm)															
			A	B	B1	C	D	D1	E	F	G	G1	H	M	N	O	P	Q
15BNSS-FNS4	FNS4	0.094 (2.4)	3.78 (96.0)	0.90 (22.9)	1.00 (25.4)	/	0.81 (20.6)	1.08 (27.5)	1.50 (38.1)	1.75 (44.5)	0.63 (15.9)	0.28 (7.1)	3.26 (82.7)	3.03 (77.0)	0.37 (9.5)	1.25 (31.8)	0.37 (9.5)	2.00 (50.8)
15BNSS-FNS6	FNS6	0.094 (2.4)	3.88 (98.5)	1.00 (25.4)	1.00 (25.4)	/	0.81 (20.6)	1.08 (27.5)	1.58 (40.2)	1.75 (44.5)	0.63 (15.9)	0.28 (7.1)	3.34 (84.8)	3.13 (79.5)	0.37 (9.5)	1.25 (31.8)	0.37 (9.5)	2.00 (50.8)
20BNSS-MF4	MF4	0.094 (2.4)	3.5 (88.9)	0.81 (20.6)	0.81 (20.6)	0.38 (9.7)	0.81 (20.6)	1.08 (27.5)	1.50 (38.1)	1.75 (44.5)	0.63 (15.9)	0.28 (7.1)	3.26 (82.7)	2.74 (69.5)	0.37 (9.5)	1.25 (31.8)	0.37 (9.5)	2.00 (50.8)
20BNSS-MF6	MF6	0.094 (2.4)	3.88 (98.5)	1.00 (25.4)	1.00 (25.4)	0.44 (11.2)	0.81 (20.6)	1.08 (27.5)	1.50 (38.1)	1.75 (44.5)	0.63 (15.9)	0.28 (7.1)	3.26 (82.7)	3.13 (79.5)	0.37 (9.5)	1.25 (31.8)	0.37 (9.5)	2.00 (50.8)

- Notes:
1. G is the drill dimension of packing gland mounting hole.
 2. G1 is the panel mounting drill size.
 3. H is the dimension of stem in closed position.
 4. All dimensions are for reference only and are subject to change. For dimensions not shown above, please contact FITOK Group or our authorized distributors.

Ordering Number Description



- Notes: 1. For more details regarding Medium Pressure connections, please see **Connection Information** on A-02.
 2. "Ordering Number Description" is a reference to understand the combination rules of FITOK product part number. Not all combinations are available.

Fittings
Tubing
Quick Couplings
Line Filters
Valves
Sour Service Products
Subsea Valves
Part Number Crossover Charts

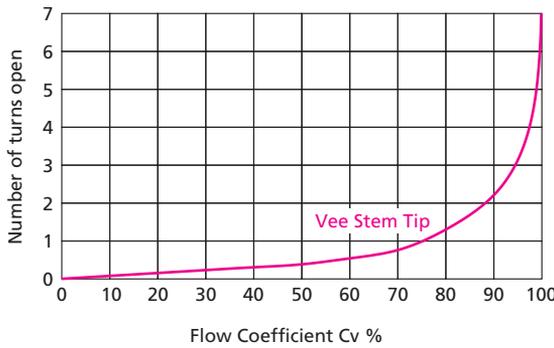
Double Block & Bleed Needle Valves

Working Pressure Up to 20,000 psig (1379 bar)

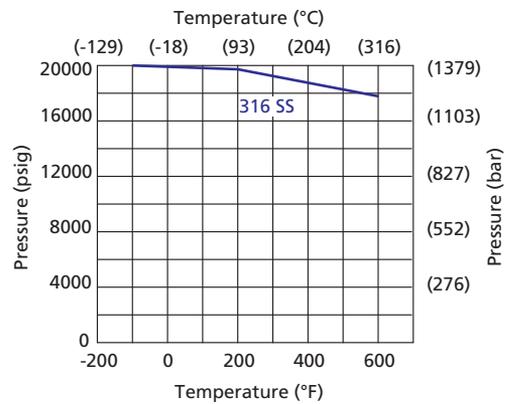
Features

- ⦿ Compact design provides large valve performance in a small package
- ⦿ Reduced potential for leakage
- ⦿ Metal-to-metal seating achieves ideal shutoff, longer stem/seat service lifetime for abrasive flow, excellent corrosion resistance and greater durability for repeated on/off cycles
- ⦿ Non-rotating stem and bar stock body design
- ⦿ Reliable packing gland locking device

Flow Data at 100°F (38°C)



Pressure vs. Temperature Curve



Technical Data

Series	Connection Type (Inlet and Outlet)	Vent Connection	Orifice in. (mm)	Cv	Working Pressure psig (bar)
20DBN	MF4	MF4	0.094 (2.4)	0.10	20,000 (1379)
	MF6	MF4	0.094 (2.4)	0.27	20,000 (1379)
	MF9	MF4	0.094 (2.4)	0.27	20,000 (1379)
	HF9	MF4	0.094 (2.4)	0.27	20,000 (1379)

Notes: 1. Packing Options

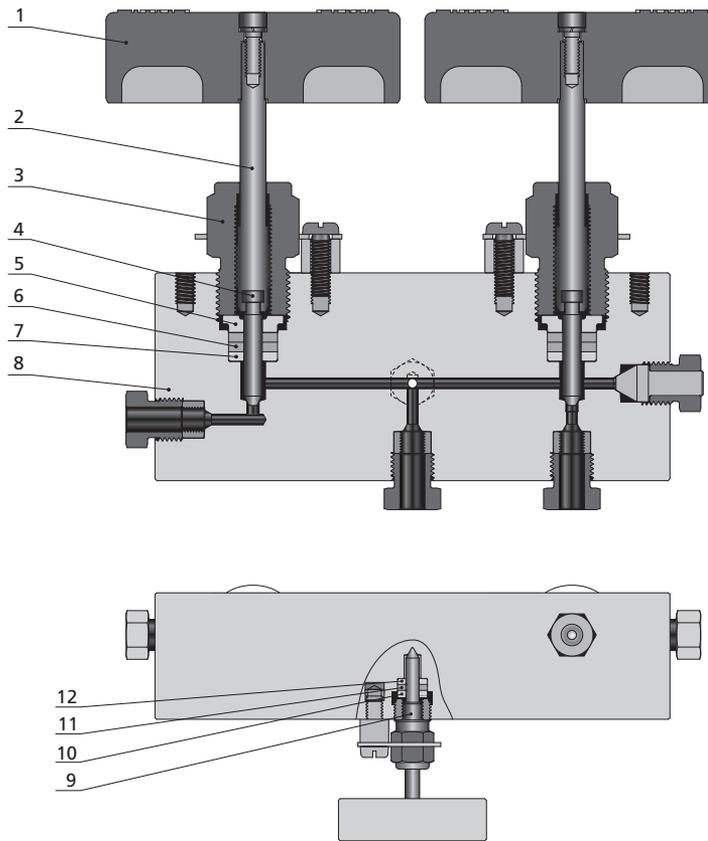
PTFE is the standard packing material, RPTFE glass also available.

PTFE: -100°F~450°F (-73°C~232°C).

RPTFE glass: -100°F~600°F (-73°C~316°C).

2. A variety of end connections are available on request. For connections not shown above, please contact FITOK Group or our authorized distributors.

Standard Materials of Construction



Bottom View

Item	Component	Material Grade
1	Handle	Stainless Steel
2	Upper Stem	316 SS
3	Packing Gland	C63000
4	<i>Lower Stem</i>	<i>S17400</i>
5	<i>Packing Ring</i>	<i>C63000</i>
6	<i>Packing</i>	<i>PTFE/RPTFE</i>
7	<i>Packing Washer</i>	<i>S17400</i>
8	<i>Body</i>	<i>316 SS</i>
9	<i>Vent Valve Stem</i>	<i>S17400</i>
10	<i>Vent Valve Ring</i>	<i>C63000</i>
11	<i>Vent Valve Packing</i>	<i>PTFE/RPTFE</i>
12	<i>Vent Valve Packing Washer</i>	<i>S17400</i>
	Lubricant	Molybdenum Disulfide

Wetted components listed in italics.

Fittings

Tubing

Quick Couplings

Line Filters

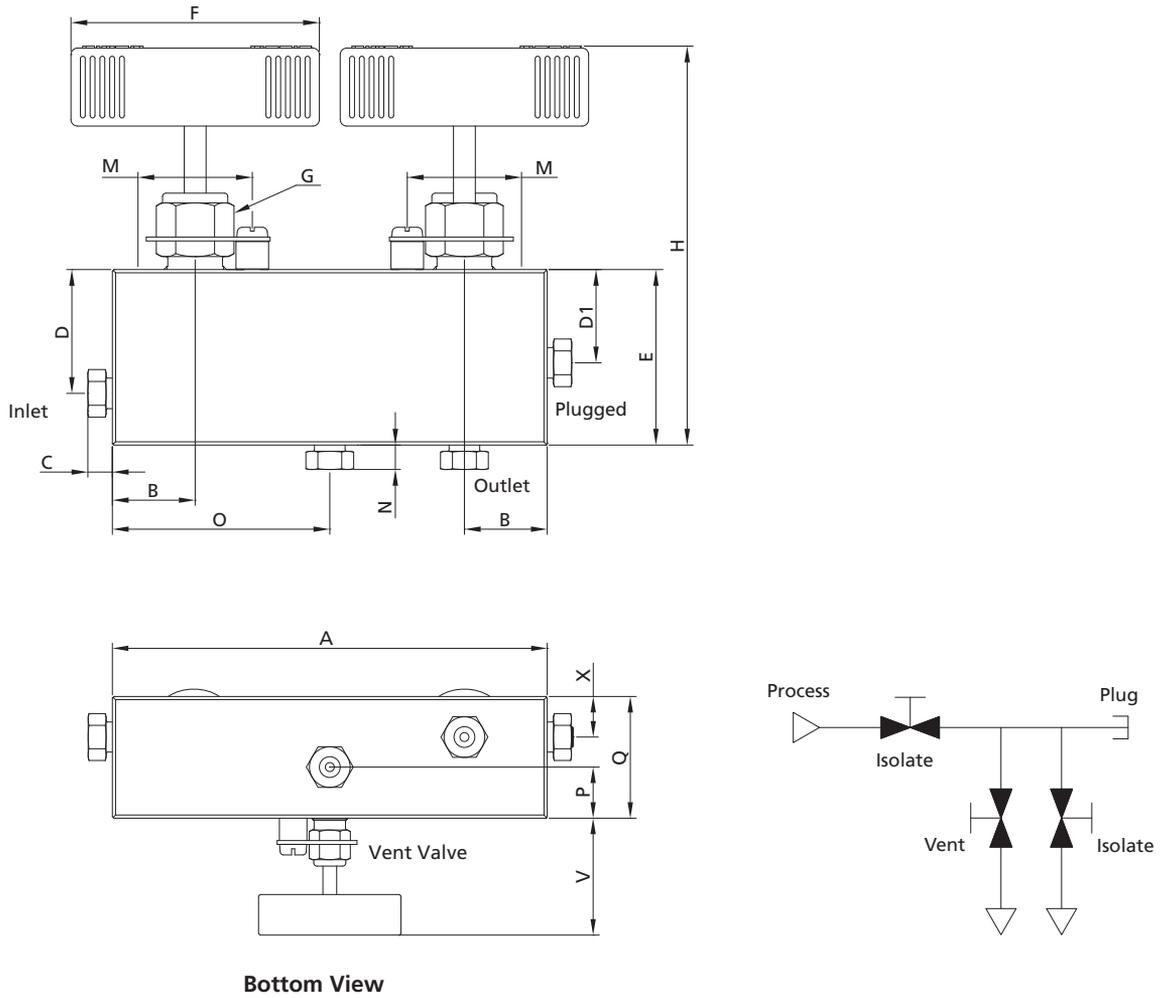
Valves

Sour Service Products

Subsea Valves

Part Number Crossover Charts

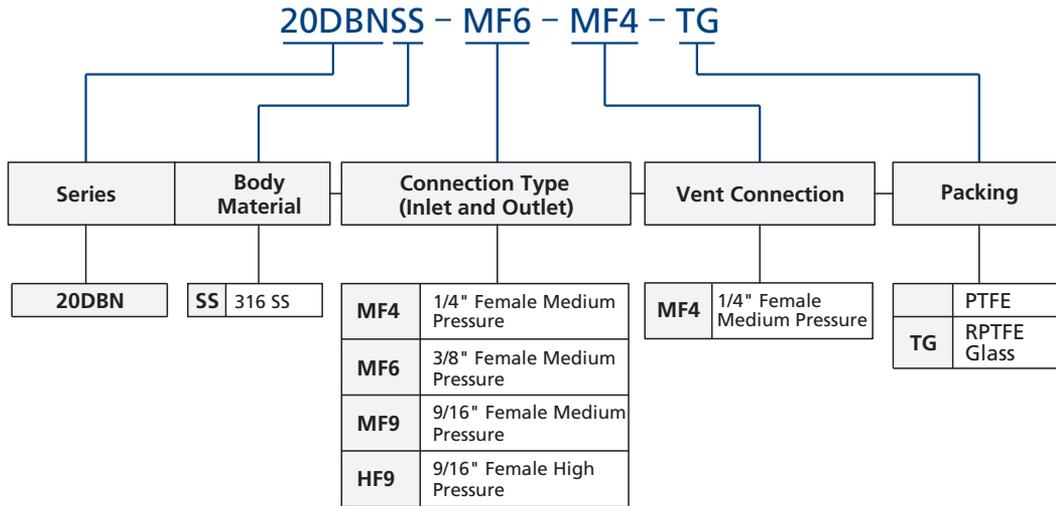
Ordering Information and Dimensions



Dimensions																		
Ordering Number	Connection Type (Inlet and Outlet)	Orifice in. (mm)	Dimensions, in. (mm)															
			A	B	C	D	D1	E	F	G	H	M	N	O	P	Q	V	X
20DBNSS-MF4-MF4	MF4	0.094 (2.4)	5.25 (133.4)	1.00 (25.4)	0.38 (9.65)	1.50 (38.1)	1.13 (28.7)	2.13 (54.1)	3.00 (76.2)	1.00 (25.4)	4.82 (122.4)	1.38 (35.1)	0.50 (12.7)	2.62 (66.7)	0.63 (16.0)	1.50 (38.1)	1.47 (37.4)	0.50 (12.7)
20DBNSS-MF6-MF4	MF6	0.094 (2.4)	5.25 (133.4)	1.00 (25.4)	0.44 (11.2)	1.50 (38.1)	1.13 (28.7)	2.13 (54.1)	3.00 (76.2)	1.00 (25.4)	4.82 (122.4)	1.38 (35.1)	0.50 (12.7)	2.62 (66.7)	0.63 (16.0)	1.50 (38.1)	1.47 (37.4)	0.50 (12.7)
20DBNSS-MF9-MF4	MF9	0.094 (2.4)	5.88 (149.4)	1.31 (33.3)	0.55 (14.0)	1.50 (38.1)	1.13 (28.7)	3.00 (76.2)	3.00 (76.2)	1.00 (25.4)	5.69 (144.5)	1.38 (35.1)	0.50 (12.7)	2.94 (74.7)	0.63 (16.0)	1.75 (44.5)	1.47 (37.4)	0.75 (19.1)
20DBNSS-HF9-MF4	HF9	0.094 (2.4)	5.88 (149.4)	1.31 (33.3)	0.95 (24.1)	1.50 (38.1)	1.13 (28.7)	3.00 (76.2)	3.00 (76.2)	1.00 (25.4)	5.69 (144.5)	1.38 (35.1)	0.50 (12.7)	2.94 (74.7)	0.63 (16.0)	1.75 (44.5)	1.47 (37.4)	0.75 (19.1)

- Notes: 1. Vent connection: 1/4" Female Medium Pressure.
 2. G is the drill dimension of packing gland mounting hole.
 3. G1 is the panel mounting drill size.
 4. H is the dimension of stem in closed position.
 5. All dimensions are for reference only and are subject to change. For dimensions not shown above, please contact FITOK Group or our authorized distributors.

Ordering Number Description



- Notes: 1. For more details regarding Medium/High Pressure connections, please see **Connection Information** on A-02.
 2. "Ordering Number Description" is a reference to understand the combination rules of FITOK product part number. Not all combinations are available.

	Fittings
	Tubing
	Quick Couplings
	Line Filters
	Valves
	Sour Service Products
	Subsea Valves
	Part Number Crossover Charts

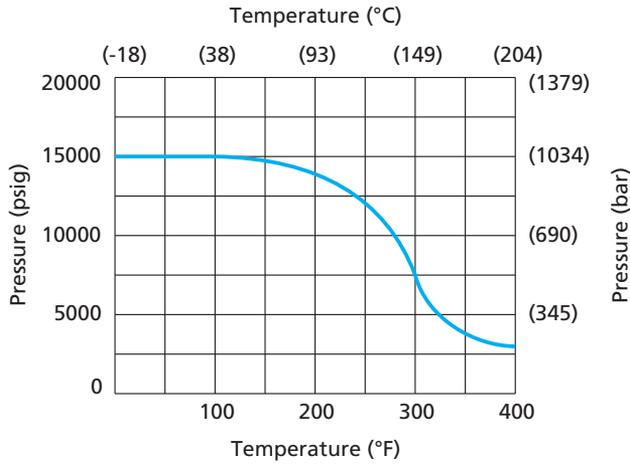
Double Block & Bleed Ball Valves

Working Pressure Up to 15,000 psig (1034 bar)

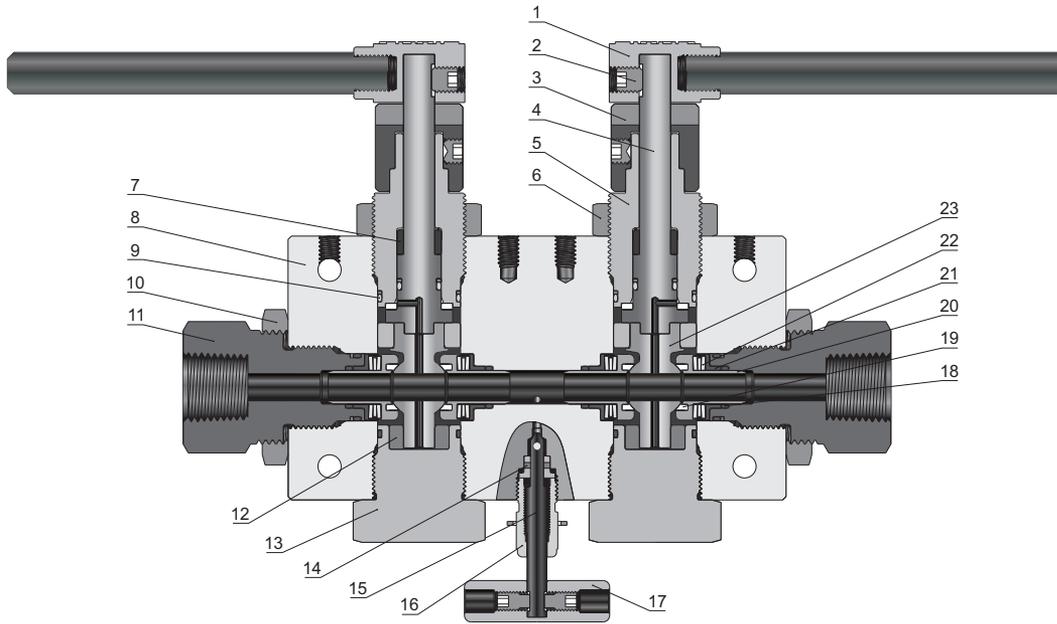
Features

- ⦿ Working temperature range from 0°F to 400°F (-17.8°C to 204°C) with fluorocarbon FKM O-rings; other O-ring materials available
- ⦿ High tensile 316 stainless steel body material
- ⦿ PEEK seats offer excellent resistance to chemicals, heat and abrasion
- ⦿ Trunnion-style ball to prevent ball blowout
- ⦿ Full-port flow path to minimize pressure drop
- ⦿ Vee-stem vent valve
- ⦿ Wide selection of tube and pipe end fittings available
- ⦿ Quarter turn from open to closed with positive stop

Pressure vs. Temperature Curve



Standard Materials of Construction

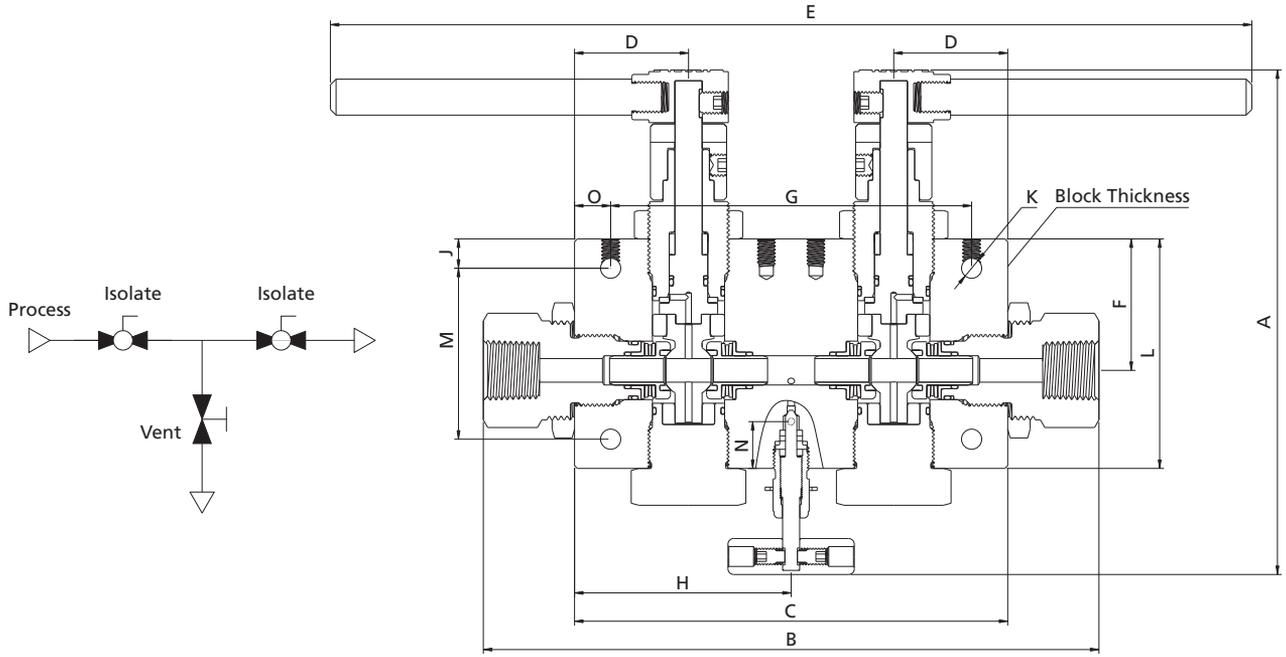


Item	Component	Material Grade
1	Handle	Stainless Steel
2	Set Screw	Stainless Steel
3	Stopping Device	316 SS
4	<i>Stem</i>	316 SS
5	<i>Packing Gland</i>	316 SS
6	Locking Piece	316 SS
7	<i>Stem Backup</i>	PEEK
8	<i>Valve Body</i>	316 SS
9	<i>O-Ring</i>	Fluorocarbon FKM
10	Lock Nut	316 SS
11	<i>Seat Gland</i>	316 SS
12	<i>Bearing</i>	PEEK
13	<i>Bottom Gland</i>	316 SS
14	<i>Vent Valve Packing</i>	PTFE
15	<i>Vent Valve Stem</i>	S17400
16	Vent Valve Packing Gland	C63000
17	Vent Valve Handle	Stainless Steel
18	<i>O-Ring</i>	Fluorocarbon FKM
19	<i>Seat</i>	PEEK
20	<i>Seat Retainer</i>	S17400
21	<i>Belleville Backup</i>	S17400
22	<i>Belleville Washers</i>	S17700
23	<i>Ball</i>	316 SS
	Lubricant	Molybdenum Disulfide/Fluorinated-Based

Wetted components listed in italics.

Fittings
Tubing
Quick Couplings
Line Filters
Valves
Sour Service Products
Subsea Valves
Part Number Crossover Charts

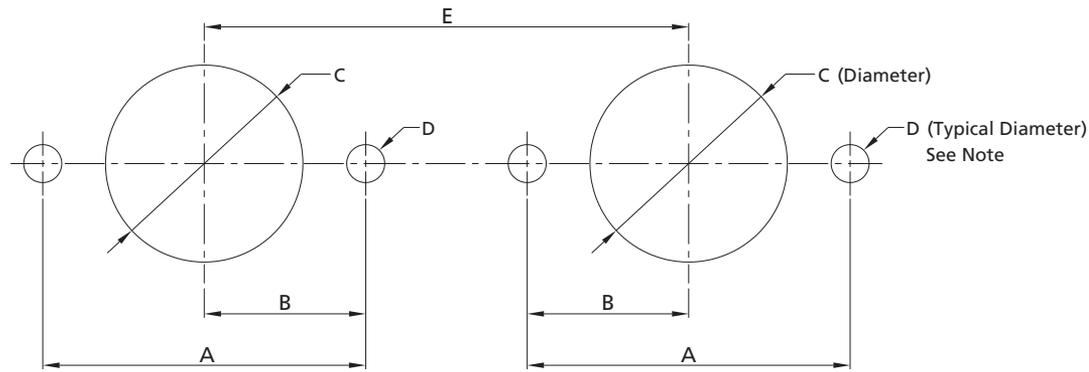
Dimensions



Dimensions, in. (mm)														
A	B	C	D	E	F	G	H	J	K	L	M	N ^①	O	Block Thickness
7.14 (181.4)	8.53 (216.6)	6 (152.4)	1.58 (40.1)	12.76 (324.2)	1.83 (46.4)	5 (127)	3 (76.2)	0.41 (10.3)	0.28 (7.1)	3.19 (81)	2.38 (60.4)	0.65 (16.5)	0.5 (12.7)	1.75 (44.45)

- Notes: 1. N: Vent connection on back side.
 2. All dimensions are for reference only and are subject to change.

Panel Mounting Dimensions



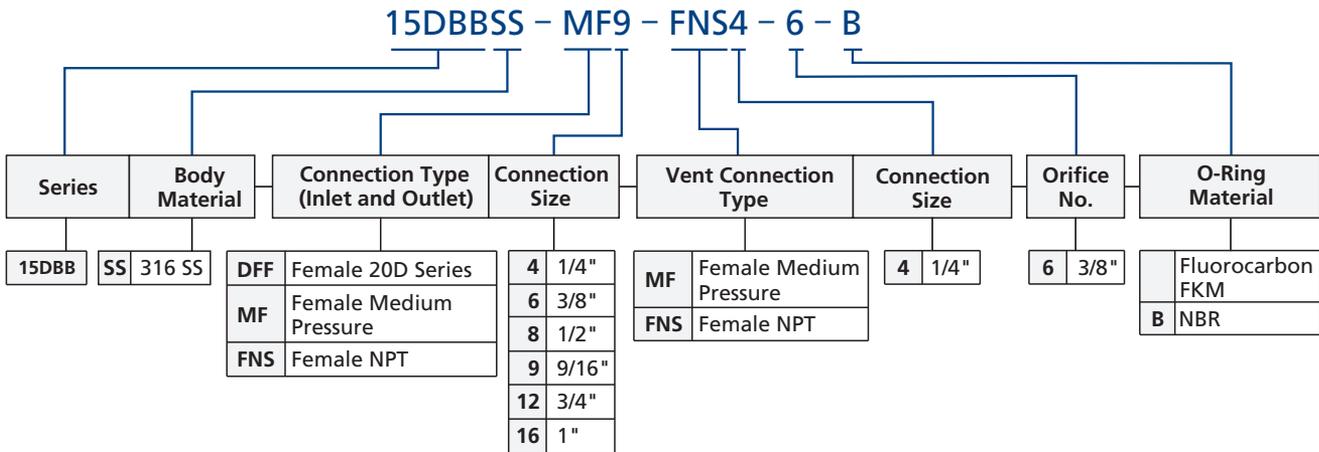
Dimensions, in. (mm)				
A	B	C	D	E
2.16 (54.8)	1.08 (27.4)	1.5 (38.1)	0.28 (7.1)	2.84 (72.2)

- Notes: 1. Body mounting 1/4-20 thread.
 2. All dimensions are for reference only and are subject to change.

Ordering Information and Dimensions

Series	Ordering Number	Connection Type (Inlet and Outlet)	Vent Connection	Orifice No.	Orifice Size in. (mm)	Cv	Working Pressure psig (bar)
15DBB	15DBBSS-DFF8-FNS4-6	DFF8	FNS4	6	0.33 (8.3)	2.3	15,000 (1034)
	15DBBSS-MF4-MF4-6	MF4	MF4		0.11 (2.8)	0.23	
	15DBBSS-MF6-MF4-6	MF6	MF4		0.20 (5.2)	0.9	
	15DBBSS-MF9-MF4-6	MF9	MF4		0.33 (8.3)	2.3	
	15DBBSS-MF9-FNS4-6	MF9	FNS4		0.33 (8.3)	2.3	
	15DBBSS-MF12-MF4-6	MF12	MF4		0.33 (8.3)	2.3	
	15DBBSS-MF16-FNS4-6	MF16	FNS4		0.33 (8.3)	2.3	
	15DBBSS-FNS4-FNS4-6	FNS4	FNS4		0.33 (8.3)	2.3	
	15DBBSS-FNS6-FNS4-6	FNS6	FNS4		0.33 (8.3)	2.3	
	15DBBSS-FNS8-FNS4-6	FNS8	FNS4		0.33 (8.3)	2.3	

Ordering Number Description



- Notes: 1. For more details regarding 20D Series and Medium Pressure connections, please see **Connection Information** on A-02.
2. "Ordering Number Description" is a reference to understand the combination rules of FITOK product part number. Not all combinations are available.

Designator	O-Ring Material	Working Temperature Range, °F (°C)
	Fluorocarbon FKM	0 to 400 (-17.8 to 204)
B	NBR	-10 to 250 (-23 to 121)

Fittings
Tubing
Quick Couplings
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