

Subsea Needle Valves

Features

- ⦿ Working pressure up to 20,000 psig (1379 bar)
- ⦿ Maximum external pressure: 6,000 psig (414 bar)
- ⦿ NBR O-ring for operation from -10 to 250°F (-23 to 121°C); other O-ring materials available
- ⦿ High tensile 316 stainless steel for valve body
- ⦿ Standard stem seal material: PTFE
- ⦿ Available to NACE MR0175
- ⦿ Using a two-part spindle assembly with a non-rising upper stem, it is of great advantage when being used with ROVs
- ⦿ Non-rotating lower stem to ensure positive non-galling operation during shut-off
- ⦿ Packing located under stem threads
- ⦿ Metal-to-metal seating to ensure ideal shut-off, longer stem/seat service lifetime for abrasive flow, excellent corrosion resistance and greater durability for repeated on/off cycles
- ⦿ Reliable packing gland locking device
- ⦿ Wide selection of tube and pipe end fittings available
- ⦿ 2-way straight and angle flow patterns available
- ⦿ Orifice size: 0.203"
- ⦿ Rated Cv: 0.75
- ⦿ Maximum water depth: 13,800 ft. (4200 m)



Fittings

Tubing

Quick Couplings

Line Filters

Valves

Sour Service Products

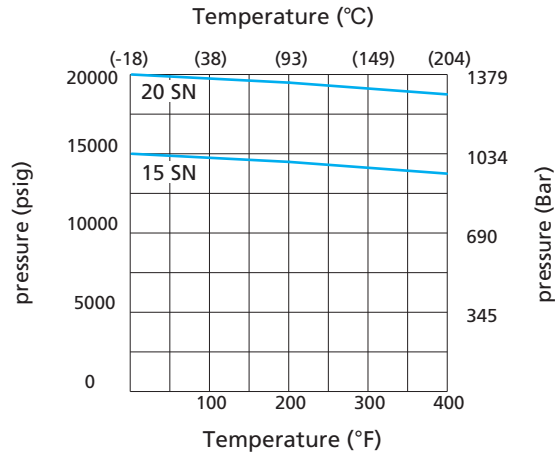
Subsea Valves

Tools and Installation Instructions

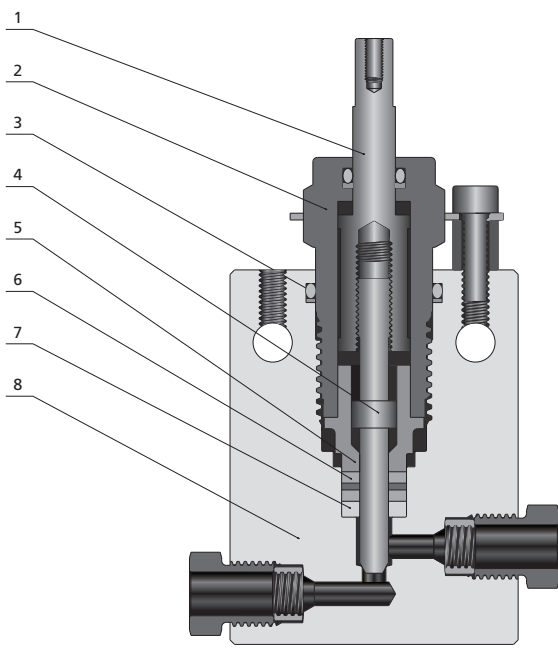
Technical Information

Part Number Crossover Charts

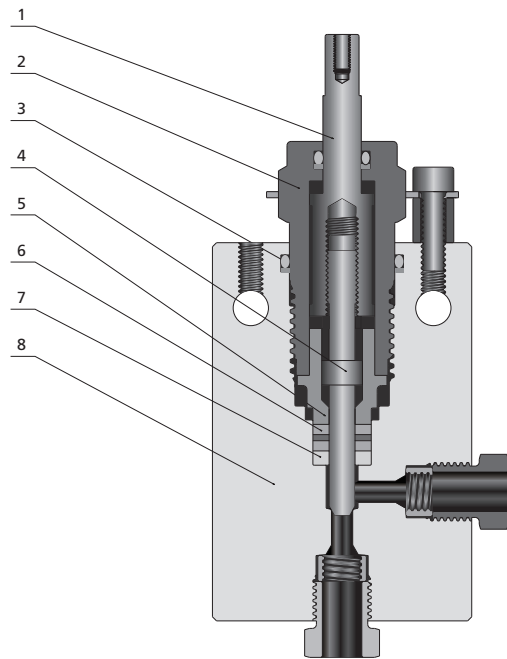
Pressure vs. Temperature Curve



Standard Materials of Construction



2-way straight



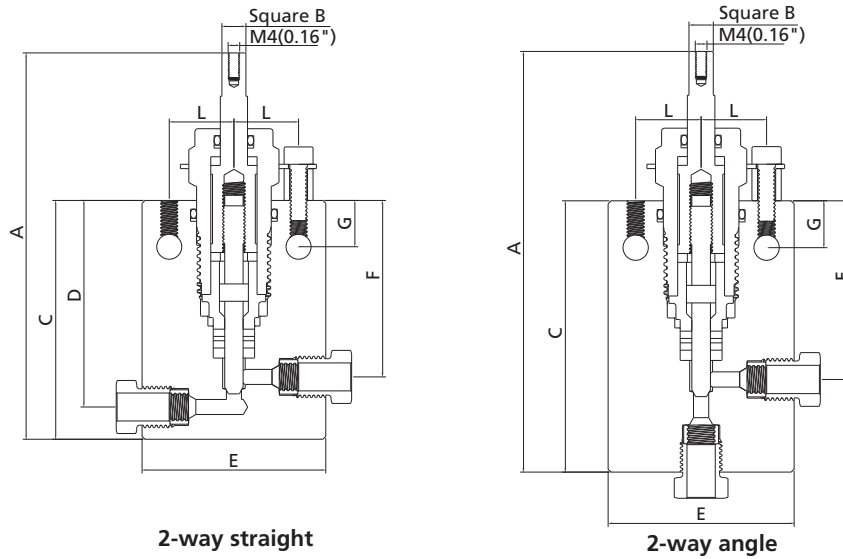
2-way angle

Item	Component	Material Grade
1	Upper Stem	316SS
2	Packing Gland	316SS
3	O-Ring	NBR
4	<i>Lower Stem</i>	<i>S17400</i>
5	Packing Ring	C63000
6	<i>Packing</i>	<i>PTFE</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.

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Ordering Information and Dimensions

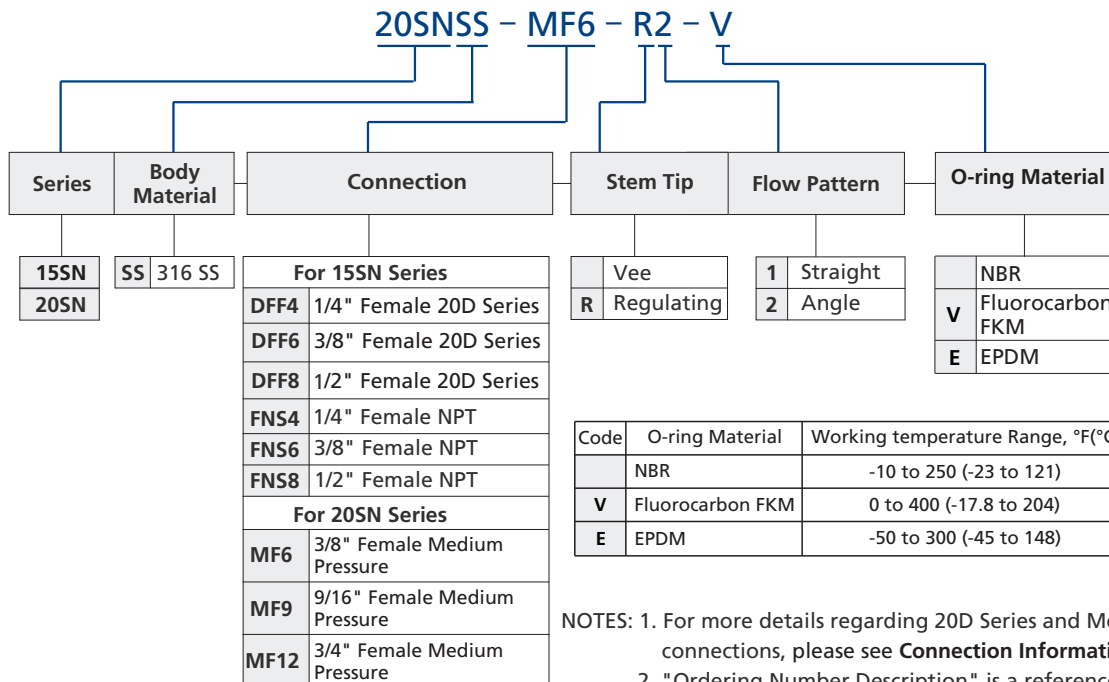


2-way straight

2-way angle

Ordering Number	Connection	Dimensions, in. (mm)								
		A	B	C	D	E	F	G	L	Block Thickness
20SNSS-MF6-1	MF6	5.35 (135.9)	0.24 (6.0)	2.60 (66.00)	2.22 (56.4)	2.00 (50.8)	1.79 (45.40)	0.38 (9.65)	0.77 (19.5)	1.00 (25.4)
20SNSS-MF9-1	MF9	5.75 (146.1)	0.24 (6.0)	3.00 (76.2)	2.40 (61.0)	2.50 (63.5)	2.00 (50.8)	0.38 (9.65)	0.77 (19.5)	1.50 (38.1)
20SNSS-MF12-1	MF12	5.90 (149.9)	0.24 (6.0)	3.15 (80.0)	2.43 (61.8)	3.00 (76.2)	2.00 (50.8)	0.38 (9.65)	0.77 (19.5)	1.50 (38.1)
20SNSS-MF6-2	MF6	5.78 (146.9)	0.24 (6.0)	3.03 (77.00)	—	2.00 (50.8)	1.78 (45.40)	0.38 (9.65)	0.77 (19.5)	1.00 (25.4)
20SNSS-MF9-2	MF9	6.25 (158.8)	0.24 (6.0)	3.50 (88.9)	—	2.50 (63.5)	2.00 (50.8)	0.38 (9.65)	0.77 (19.5)	1.50 (38.1)
20SNSS-MF12-2	MF12	6.50 (165.2)	0.24 (6.0)	3.75 (95.3)	—	3.00 (76.2)	2.00 (50.8)	0.38 (9.65)	0.77 (19.5)	1.50 (38.1)

Ordering Number Description



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

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