

Nonrotating-stem Needle Valves

ND Series: Working pressure up to 3000 psig

NDH Series: Working pressure up to 5000 psig

Features

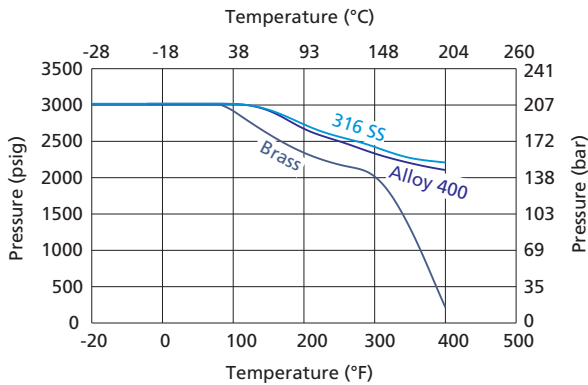
- ⦿ One-piece forged body
- ⦿ Straight and angle pattern
- ⦿ Compact design
- ⦿ Non-rotating stem
- ⦿ Specially designed handle to stop contamination from entering into the valve
- ⦿ Every valve leak tested with Nitrogen or compressed air at the maximum allowable working pressure
- ⦿ Working pressure up to:
 - ND Series—Stainless steel: 3000 psig (207 bar)
 - Brass: 3000 psig (207 bar)
 - NDH Series—Stainless steel: 5000 psig(345 bar)
- ⦿ Working temperature with stem tip:
 - PCTFE stem tip: -20°F to 200°F (-28°C to 93°C)
 - PEEK stem tip: -20°F to 400°F (-28°C to 204°C)
- ⦿ Working temperature with O-ring:
 - Fluorocarbon Rubber (FKM) : -20°F to 400°F (-28°C to 204°C)
 - Nitrile Butadiene Rubber (NBR) : -20°F to 212°F (-28°C to 100°C)
 - Ethylene Propylene Diene Rubber (EPDM): -20°F to 300°F (-28°C to 148°C)



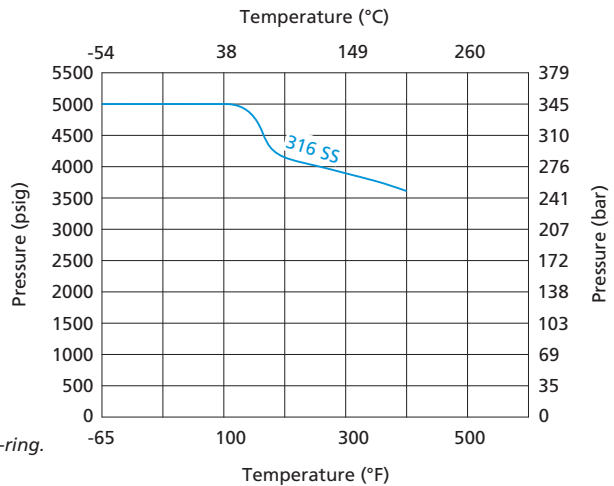
Needle Valves
Metering Valves

Pressure vs. Temperature

ND Series

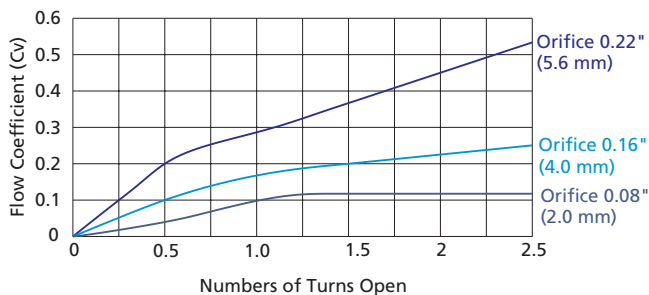


NDH Series

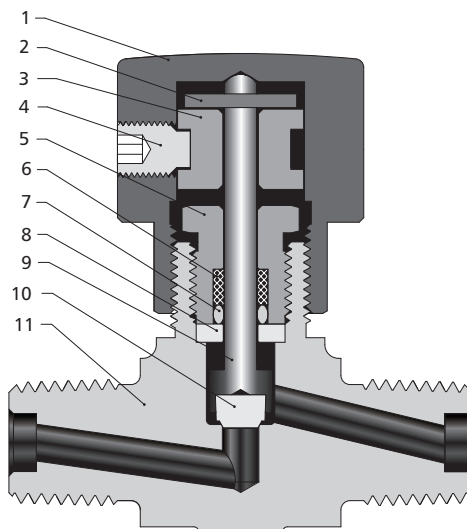


1. The graphs are based on PEEK stem tip and Fluorocarbon rubber (FKM) O-ring.
2. Contact FITOK Group or our authorized distributors for curve graph of other materials.

Flow Data at 100°F (38°C)



Standard Materials of Construction

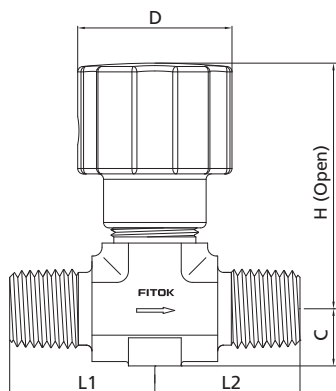


Item	Component	Valve Body Material				
		316 SS	304 SS	321 SS	Brass	Alloy 400
		Material Grade/ASTM Specification				
1	Handle	Anodized aluminum				
2	Stop Pin	Stainless steel				
3	Spool	Aluminum				
4	Set Screw	Stainless steel				
5	Packing Bolt	304 SS/A479			Brass C36000/B16	Alloy 400/B164
6	Backup Ring	PTFE/D1710				
7	O-ring	Fluorocarbon Rubber (FKM), Nitrile Butadiene Rubber (NBR) or Ethylene Propylene Diene Rubber (EPDM)				
8	Washer	316 SS/A479				Alloy 400/B164
9	Stem	316 SS/A479				Alloy 400/B164
10	Stem Tip	PCTFE or PEEK				
11	Body	316 SS/A182	304 SS/A182	321 SS/A182	Brass C37700/B283	Alloy 400/B564
	Lubricant	Molybdenum disulfide-based				

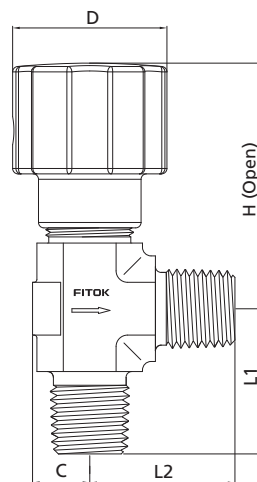
Note: Contact FITOK Group or our authorized distributors for other materials.

Dimensions

Straight Pattern



Angle Pattern



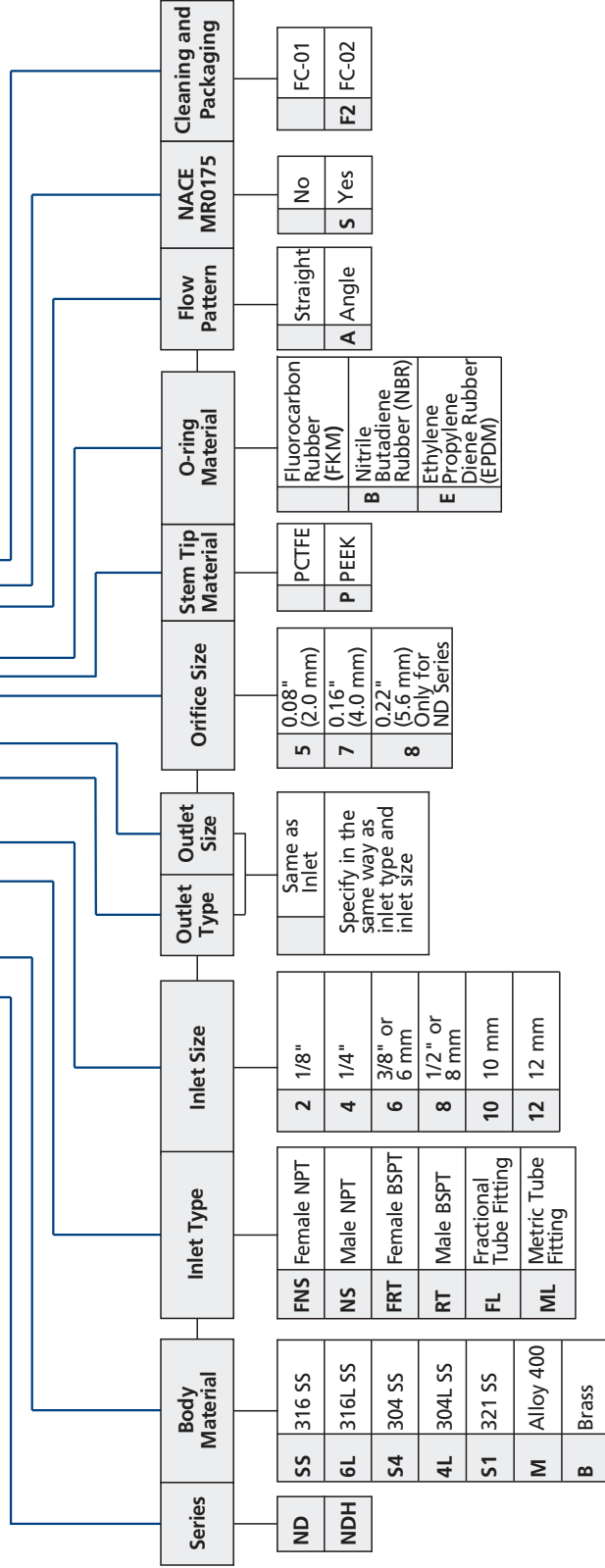
ND and NDH Series

Basic Ordering Number	Connection Type and Size		Orifice in.(mm)	Cv	Dimensions, in.(mm)				
	Inlet	Outlet			L1	L2	C	D	H
ND□□-NS2-5	1/8 Male NPT	1/8 Male NPT	0.08 (2.0)	0.12	0.81 (20.6)	1.10 (27.9)	0.32 (8.1)	1.06 (26.9)	1.86 (47.2)
ND□□-NS2-FL2-5	1/8 Male NPT	1/8 Male NPT			0.81 (20.6)				
ND□□-FL2-5	1/8" FITOK	1/8" FITOK			1.10 (27.9)				
ND□□-ML3-5	3 mm FITOK	3 mm FITOK			1.10 (27.9)				
ND□□-NS4-7	1/4 Male NPT	1/4 Male NPT	0.16 (4.0)	0.27	0.98 (25.0)	1.13 (28.7)	0.39 (10.0)	1.13 (28.7)	1.86 (47.2)
ND□□-NS4-FL4-7	1/4 Male NPT	1/4 FITOK			0.98 (25.0)				
ND□□-FL4-7	1/4" FITOK	1/4" FITOK			1.13 (28.7)				
ND□□-ML6-7	6 mm FITOK	6 mm FITOK			1.13 (28.7)				
ND□□-ML8-7	8 mm FITOK	8 mm FITOK	1.18 (30.0)	1.18 (30.0)	0.49 (12.5)	1.22 (31.0)	2.02 (51.3)		
ND□□-FNS4-8	1/4 Female NPT	1/4 Female NPT	1.06 (26.9)	1.06 (26.9)					
ND□□-NS6-8	3/8 Male NPT	3/8 Male NPT	1.12 (28.6)	1.12 (28.6)					
ND□□-FL6-8	3/8" FITOK	3/8" FITOK	1.29 (32.8)	1.29 (32.8)					
ND□□-FL8-8	1/2" FITOK	1/2" FITOK	1.40 (35.6)	1.40 (35.6)					
ND□□-ML10-8	10 mm FITOK	10 mm FITOK	1.30 (33.0)	1.30 (33.0)					
ND□□-ML12-8	12 mm FITOK	12 mm FITOK	1.40 (35.6)	1.40 (35.6)					
NDH□□-NS2-5	1/8 Male NPT	1/8 Male NPT	0.08 (2.0)	0.12	0.81 (20.6)	1.10 (27.9)	0.32 (8.1)	1.06 (26.9)	1.86 (47.2)
NDH□□-FL2-5	1/8" FITOK	1/8" FITOK			0.81 (20.6)				
NDH□□-ML3-5	3 mm FITOK	3 mm FITOK			1.10 (27.9)				
NDH□□-NS4-7	1/4 Male NPT	1/4 Male NPT	0.16 (4.0)	0.27	0.98 (25.0)	1.13 (28.7)	0.39 (10.0)	1.13 (28.7)	1.98 (50.2)
NDH□□-FL4-7	1/4" FITOK	1/4" FITOK			0.95 (25.0)				
NDH□□-ML6-7	6 mm FITOK	6 mm FITOK			1.13 (28.7)				

1. Connection type of "FITOK" means FITOK double ferrule tube fittings. When the connection type of valves is FITOK double ferrule tube fitting, the working pressures of the valves are related to the wall thickness of used applied. For specific working pressure of the valves, please refer to the allowable working pressures in FITOK Catalog Tubing.
2. Sizes and types listed are standard. Other sizes and types are available upon request. For details, please contact FITOK Group or our authorized distributors.
3. Dimensions are shown with FITOK tube fitting nuts finger-tight. 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

NDSS - FNS4 - ML8 - 7PE - ASF2



NOTE: "Ordering Number Description" is a reference to understand the combination rules of FITOK product part number. Not all combinations are available.

Cleaning and Packaging:

FC-01: Standard cleaning and packaging for general industrial procedures.

FC-02: Special cleaning and packaging for wetted system components to ensure compliance with product cleanliness requirement of ASTM G93 Level C.