



Needle Valves



High quality products for
industrial & construction

DSG
VALVES & TUBE FITTINGS

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PART NUMBER AND

DESCRIPTION

S D NB MN 2 FN 2 3 11C A

MATERIAL

(S) 316 (M) MONEL
(S9) 904 L (INC) INCONEL 625
(S4) 304 (HC) HASTELLOY C276
(SI) 321 (B) BRASS

MANUFACTURER

(D) DSG

SERIES

(NB) INTEGRAL BONNET NEEDLE VALVES
(NF) INTEGRAL FORGED NEEDLE VALVES
(NFH) FORGED NEEDLE VALVES
(NU AND NUH) UNION BONNET NEEDLE VALVES
(NP AND NPG) RISING PLUG VALVES
(VGT AND VGP) GAUGE VALVES

INLET OR OUTLET CONNECTION

(FN) FEMALE NPT (FT) FRACTIONAL TUBE
(MN) MALE NPT (MT) METRIC TUBE
(FB) FEMALE BSPT (BW) BUTT WELD
(MB) MALE BSPT (SW) SOCKET WELD

SIZE

(2) 1/8" (6) 3/8" OR 6MM (16) 1" OR 16MM
(3) 3/16" OR 3MM (8) 1/2" OR 8MM
(4) 1/4" (10) 5/8" OR 10MM
(5) 5/16" (12) 3/4" OR 12MM

ORIFICE

(3) 3 MM (7) 7.5 MM
(4) 4 MM (9) 9.1 MM
(5) 5 MM (12) 12.2 MM
(6) 6.4 MM (15) 15 MM

STEM

11 A
11 B
11 C

TYPE

(A) ANGLE
(3W) 3-WAY

NB SERIES: MAXIMUM WORKING PRESSURE 3000 PSI

NBH SERIES: MAXIMUM WORKING PRESSURE 5000 PSI

FEATURES

- ° One-piece forged body
- ° Easy external adjustments by packing nut
- ° Compact design
- ° Handle color options are available
- ° Leak-tight performance testing for every valve with nitrogen at the maximum working pressure
- ° Maximum working pressure:

NB Series - Stainless steel: 3000 psig (207 bar)

NBH Series - Stainless steel: 5000 psig (345 bar)

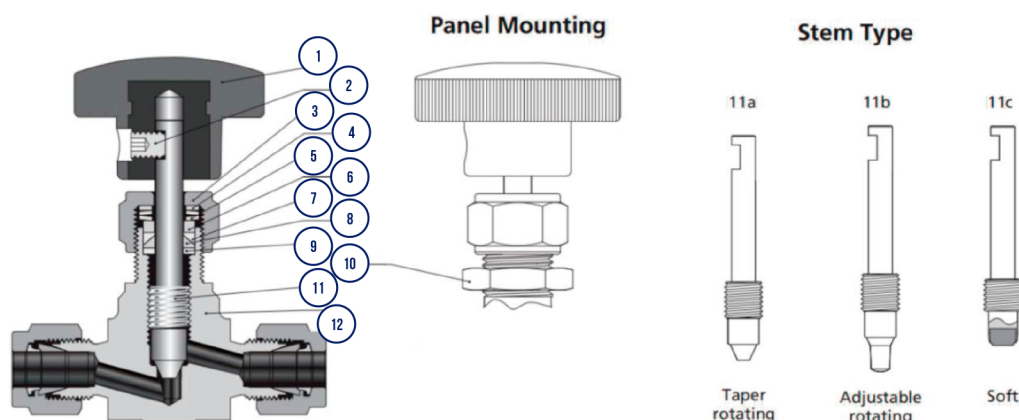
- ° Working temperature:

PTFE: -65°F to 450°F (-54°C to 232°C)

PEEK: -65°F to 500°F (-54°C to 260°C)



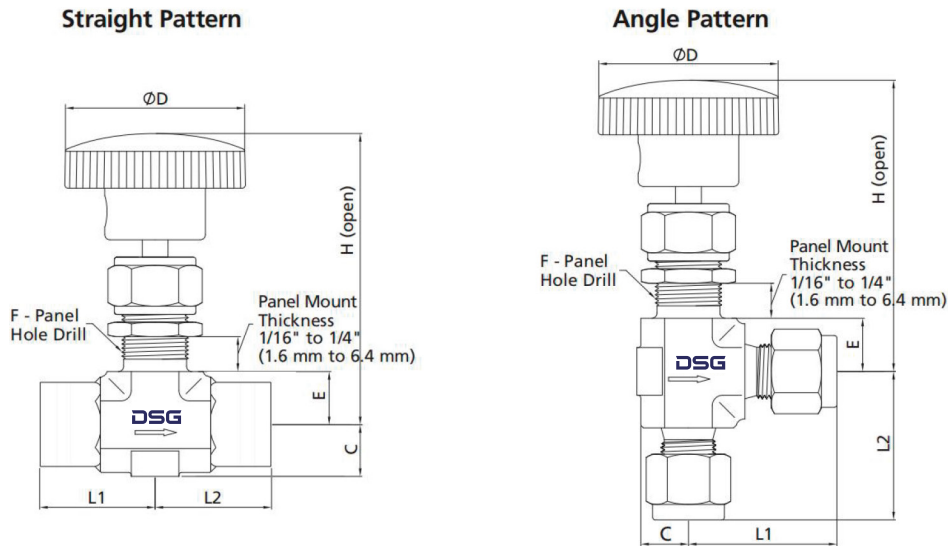
STANDARD MATERIALS OF CONSTRUCTION



Item	Component	Valve Body Material		
		316 SS	Brass	Steel
1	Handle	Anodized aluminium or stainless steel or black knob		
2	Set Screw	Stainless steel		
3	Packing Bolt	304 SS/A276	Brass C36000/B16	Alloy 400/B164
4	Washer	316 SS/A276		
5	Packing Spring	S17700/A276		
6	Washer	316 SS/A276		
7	Upper Packing	PTFE/PEEK		
8	Lower Packing			
9	Packing Washer	316 SS/A276		
10	Panel Nut	17-4PH		
11a	Stem	Chrome-plated 316 SS/A276		
11b	Stem	PCTFE/D1430		PEEK
11c	Stem	Chrome-plated 316 SS/A276		
12	Body	316 SS/A105	Brass C37700/B283	Alloy

NB SERIES

DIMENSIONS



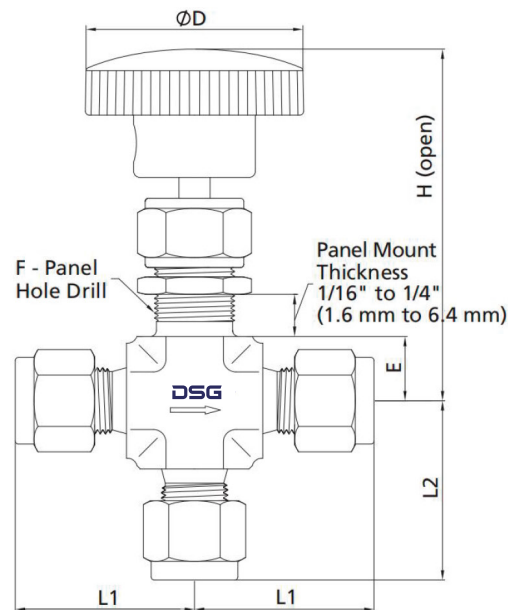
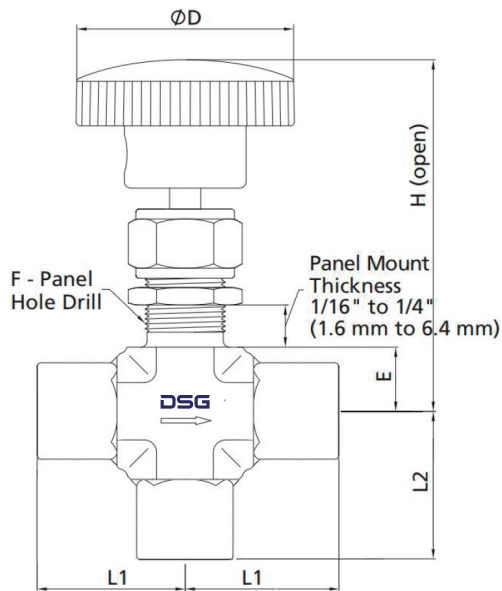
DIMENSIONS OF NB SERIES

Basic Ordering Number	Connection Type and Size		Orifice in.(mm)	Cv	Dimension, in. (mm)						
	Inlet	Outlet			L1	L2	C	D	E	F	H
_D-NB-FN2-3	1/8 FEMALE NPT	1/8 FEMALE NPT	0.12 (3.0)	0.20	0.97 (24.6)	0.97 (24.6)	0.39 (10.0)	1.38 (35.0)	0.44 (11.2)	0.53 (13.5)	2.50 (63.5)
_D-NB-FN4-4	1/4 FEMALE NPT	1/4 FEMALE NPT	0.16 (4.0)	0.35	1.06 (27.0)	1.06 (27.0)	0.50 (12.7)	1.38 (35.0)	0.50 (12.7)	0.78 (19.8)	2.97 (75.5)
_D-NB-FN6-5	3/8 FEMALE NPT	3/8 FEMALE NPT	0.2 (5.1)	0.56	1.06 (27.0)	1.06 (27.0)	0.50 (12.7)	1.88 (47.8)	0.50 (12.7)	0.78 (19.8)	2.97 (75.5)
_D-NB-FN8-6	1/2 FEMALE NPT	1/2 FEMALE NPT	0.25 (6.4)	0.70	1.50 (38.1)	1.50 (38.1)	0.75 (19.1)	1.88 (47.8)	0.75 (19.1)	1.03 (26.2)	3.91 (93.3)
_D-NB-FN12-7	3/4 FEMALE NPT	3/4 FEMALE NPT	0.29 (7.5)	0.95	1.63 (41.3)	1.63 (41.3)	0.75 (19.1)	3.00 (76.2)	0.75 (19.1)	1.03 (26.2)	3.91 (93.3)
_D-NB-MN2-3	1/8 MALE NPT	1/8 MALE NPT	0.08 (3.0)	0.20	0.81 (21.6)	0.81 (21.6)	0.39 (10.0)	1.38 (35.0)	0.44 (11.2)	0.53 (13.5)	2.50 (63.5)
_D-NB-MN4-4	1/4 MALE NPT	1/4 MALE NPT	0.16 (4.0)	0.35	0.98 (25.0)	0.98 (25.0)	0.39 (10.0)	1.38 (35.0)	0.44 (11.2)	0.53 (13.5)	2.50 (63.5)
_D-NB-MN6-5	3/8 MALE NPT	3/8 MALE NPT	0.2 (5.1)	0.56	1.12 (28.4)	1.12 (28.4)	0.50 (12.7)	1.88 (47.8)	0.50 (12.7)	0.78 (19.8)	2.97 (75.5)
_D-NB-MN8-6	1/2 MALE NPT	1/2 MALE NPT	0.25 (6.4)	0.70	1.50 (38.1)	1.50 (38.1)	0.50 (12.7)	1.88 (47.8)	0.50 (12.7)	0.78 (19.8)	2.97 (75.5)
_D-NB-MN12-7	3/4 MALE NPT	3/4 MALE NPT	0.29 (7.5)	0.95	1.63 (41.3)	1.63 (41.3)	0.75 (19.1)	3.00 (76.2)	0.75 (19.1)	1.03 (26.2)	3.91 (93.3)
_D-NB-FT2-2	1/8" TUBE	1/8" TUBE	0.12 (3.0)	0.20	0.98 (25.0)	0.98 (25.0)	0.39 (10.0)	1.38 (35.0)	0.44 (11.2)	0.53 (13.5)	2.50 (63.5)
_D-NB-FT4-4	1/4" TUBE	1/4" TUBE	0.16 (4.0)	0.35	1.12 (28.4)	1.12 (28.4)	0.39 (10.0)	1.38 (35.0)	0.44 (11.2)	0.53 (13.5)	2.50 (63.5)
_D-NB-FT6-5	3/8" TUBE	3/8" TUBE	0.2 (5.1)	0.56	1.29 (32.8)	1.29 (32.8)	0.50 (12.7)	1.88 (47.8)	0.50 (12.7)	0.78 (19.8)	2.97 (75.5)
_D-NB-FT8-6	1/2" TUBE	1/2" TUBE	0.25 (6.4)	0.70	1.40 (35.6)	1.40 (35.6)	0.50 (12.7)	1.88 (47.8)	0.50 (12.7)	0.78 (19.8)	2.97 (75.5)
_D-NB-FT12-7	3/4" TUBE	3/4" TUBE	0.29 (7.5)	0.95	1.90 (48.3)	1.90 (48.3)	0.75 (19.1)	3.00 (76.2)	0.75 (19.1)	1.03 (26.2)	3.91 (93.3)
_D-NB-MT3-2	3 MM	3 MM	0.08 (3.0)	0.09	0.98 (25.0)	0.98 (25.0)	0.39 (10.0)	1.38 (35.0)	0.44 (11.2)	0.53 (13.5)	2.50 (63.5)
_D-NB-MT6-4	6 MM	6 MM	0.16 (4.0)	0.35	1.12 (28.4)	1.12 (28.4)	0.39 (10.0)	1.38 (35.0)	0.44 (11.2)	0.53 (13.5)	2.50 (63.5)
_D-NB-FT8-4	8 MM	8 MM	0.16 (4.0)	0.35	1.17 (29.6)	1.17 (29.6)	0.39 (10.0)	1.38 (35.0)	0.44 (11.2)	0.53 (13.5)	2.50 (63.5)
_D-NB-MT10-5	10 MM	10 MM	0.20 (5.1)	0.56	1.29 (32.8)	1.29 (32.8)	0.50 (12.7)	1.88 (47.8)	0.50 (12.7)	0.78 (19.8)	2.97 (75.5)
_D-NB-FT12-6	12 MM	12 MM	0.25 (6.4)	0.70	1.40 (35.6)	1.40 (35.6)	0.50 (12.7)	1.88 (47.8)	0.50 (12.7)	0.78 (19.8)	2.97 (75.5)
_D-NB-MT14-6	14 MM	14 MM	0.25 (6.4)	0.70	1.56 (39.7)	1.56 (39.7)	0.50 (12.7)	1.88 (47.8)	0.50 (12.7)	0.78 (19.8)	2.97 (75.5)
_D-NB-FT18-7	18 MM	18 MM	0.29 (7.5)	0.95	1.75 (44.5)	1.75 (44.5)	0.75 (19.1)	3.00 (76.2)	0.75 (19.1)	1.03 (26.2)	3.91 (93.3)
_D-NB-MT20-7	20 MM	20 MM	0.29 (7.5)	0.95	1.50 (38.1)	1.50 (38.1)	0.75 (19.1)	3.00 (76.2)	0.75 (19.1)	1.03 (26.2)	3.91 (93.3)

NBH SERIES

DIMENSIONS OF NBH SERIES

Basic Ordering Number	Connection Type and Size		Orifice in.(mm)	Cv	Dimension, in. (mm)						
	Inlet	Outlet			L1	L2	C	D	E	F	H
_D-NBH-FN2-3	1/8 FEMALE NPT	1/8 FEMALE NPT	0.12 (3.0)	0.20	0.81 (21.6)	0.81 (21.6)	0.39 (10.0)	1.38 (35.0)	0.44 (11.2)	0.53 (13.5)	2.50 (63.5)
_D-NBH-FN4-4	1/4 FEMALE NPT	1/4 FEMALE NPT	0.16 (4.0)	0.35	1.06 (27.0)	1.06 (27.0)	0.50 (12.7)	1.88 (47.8)	0.50 (12.7)	0.78 (19.8)	2.97 (75.5)
_D-NBH-FN6-5	3/8 FEMALE NPT	3/8 FEMALE NPT	0.2 (5.1)	0.56	1.06 (27.0)	1.06 (27.0)	0.50 (12.7)	1.88 (47.8)	0.50 (12.7)	0.78 (19.8)	2.97 (75.5)
_D-NBH-FN8-6	1/2 FEMALE NPT	1/2 FEMALE NPT	0.25 (6.4)	0.70	1.50 (38.1)	1.50 (38.1)	0.75 (19.1)	3.00 (76.2)	0.75 (19.1)	1.03 (26.2)	3.91 (93.3)
_D-NBH-FN12-7	3/4 FEMALE NPT	3/4 FEMALE NPT	0.29 (7.5)	0.95	1.63 (41.3)	1.63 (41.3)	0.75 (19.1)	3.00 (76.2)	0.75 (19.1)	1.03 (26.2)	3.91 (93.3)
_D-NBH-MN2-3	1/8 MALE NPT	1/8 MALE NPT	0.08 (3.0)	0.20	0.81 (21.6)	0.81 (21.6)	0.39 (10.0)	1.38 (35.0)	0.44 (11.2)	0.53 (13.5)	2.50 (63.5)
_D-NBH-MN4-4	1/4 MALE NPT	1/4 MALE NPT	0.16 (4.0)	0.35	0.98 (25.0)	0.98 (25.0)	0.39 (10.0)	1.38 (35.0)	0.44 (11.2)	0.53 (13.5)	2.50 (63.5)
_D-NBH-MN6-5	3/8 MALE NPT	3/8 MALE NPT	0.2 (5.1)	0.56	1.12 (28.4)	1.12 (28.4)	0.50 (12.7)	1.88 (47.8)	0.50 (12.7)	0.78 (19.8)	2.97 (75.5)
_D-NBH-MN8-6	1/2 MALE NPT	1/2 MALE NPT	0.25 (6.4)	0.70	1.50 (38.1)	1.50 (38.1)	0.50 (12.7)	1.88 (47.8)	0.50 (12.7)	0.78 (19.8)	2.97 (75.5)
_D-NBH-MN12-7	3/4 MALE NPT	3/4 MALE NPT	0.29 (7.5)	0.95	1.63 (41.3)	1.63 (41.3)	0.75 (19.1)	3.00 (76.2)	0.75 (19.1)	1.03 (26.2)	3.91 (93.3)
_D-NBH-FT2-2	1/8" TUBE	1/8" TUBE	0.08 (2.0)	0.09	0.98 (25.0)	0.98 (25.0)	0.39 (10.0)	1.38 (35.0)	0.44 (11.2)	0.53 (13.5)	2.50 (63.5)
_D-NBH-FT4-4	1/4" TUBE	1/4" TUBE	0.16 (4.0)	0.35	1.12 (28.4)	1.12 (28.4)	0.39 (10.0)	1.38 (35.0)	0.44 (11.2)	0.53 (13.5)	2.50 (63.5)
_D-NBH-FT6-5	3/8" TUBE	3/8" TUBE	0.20 (5.1)	0.56	1.29 (32.8)	1.29 (32.8)	0.50 (12.7)	1.88 (47.8)	0.50 (12.7)	0.78 (19.8)	2.97 (75.5)
_D-NBH-FT8-6	1/2" TUBE	1/2" TUBE	0.25 (6.4)	0.70	1.40 (35.6)	1.40 (35.6)	0.50 (12.7)	1.88 (47.8)	0.50 (12.7)	0.78 (19.8)	2.97 (75.5)
_D-NBH-FT12-7	3/4" TUBE	3/4" TUBE	0.29 (7.5)	0.95	1.90 (48.3)	1.90 (48.3)	0.75 (19.1)	3.00 (76.2)	0.75 (19.1)	1.03 (26.2)	3.91 (93.3)
_D-NBH-MT3-2	3 MM	3 MM	0.08 (3.0)	0.09	0.98 (25.0)	0.98 (25.0)	0.39 (10.0)	1.38 (35.0)	0.44 (11.2)	0.53 (13.5)	2.50 (63.5)
_D-NBH-MT6-4	6 MM	6 MM	0.16 (4.0)	0.35	1.12 (28.4)	1.12 (28.4)	0.39 (10.0)	1.38 (35.0)	0.44 (11.2)	0.53 (13.5)	2.50 (63.5)
_D-NBH-MT8-4	8 MM	8 MM	0.16 (4.0)	0.35	1.17 (29.6)	1.17 (29.6)	0.39 (10.0)	1.38 (35.0)	0.44 (11.2)	0.53 (13.5)	2.50 (63.5)
_D-NBH-MT10-5	10 MM	10 MM	0.20 (5.1)	0.56	1.29 (32.8)	1.29 (32.8)	0.50 (12.7)	1.88 (47.8)	0.50 (12.7)	0.78 (19.8)	2.97 (75.5)
_D-NBH-MT12-6	12 MM	12 MM	0.25 (6.4)	0.70	1.40 (35.6)	1.40 (35.6)	0.50 (12.7)	1.88 (47.8)	0.50 (12.7)	0.78 (19.8)	2.97 (75.5)
_D-NBH-MT14-6	14 MM	14 MM	0.25 (6.4)	0.70	1.56 (39.7)	1.56 (39.7)	0.50 (12.7)	1.88 (47.8)	0.50 (12.7)	0.78 (19.8)	2.97 (75.5)
_D-NBH-MT18-7	18 MM	18 MM	0.29 (7.5)	0.95	1.75 (44.5)	1.75 (44.5)	0.75 (19.1)	3.00 (76.2)	0.75 (19.1)	1.03 (26.2)	3.91 (93.3)
_D-NBH-MT20-7	20 MM	20 MM	0.29 (7.5)	0.95	1.50 (38.1)	1.50 (38.1)	0.75 (19.1)	3.00 (76.2)	0.75 (19.1)	1.03 (26.2)	3.91 (93.3)



NBH SERIES

DIMENSIONS OF NBH 3-WAY SERIES

Basic Ordering Number	Connection Type and Size		Orifice in.(mm)	Cv	Dimension, in. (mm)						
	Inlet	Outlet			L1	L2	C	D	E	F	H
_D-NB-FN2-3-3W	1/8 FEMALE NPT	1/8 FEMALE NPT	0.12 (3.0)	0.20	0.81 (21.6)	0.81 (21.6)	0.39 (10.0)	2.50 (63.5)	0.44 (11.2)	0.53 (13.5)	2.50 (63.5)
_D-NB-FN4-4-3W	1/4 FEMALE NPT	1/4 FEMALE NPT	0.16 (4.0)	0.35	1.06 (27.0)	1.06 (27.0)	0.50 (12.7)	2.97 (75.5)	0.50 (12.7)	0.78 (19.8)	2.97 (75.5)
_D-NB-FN6-5-3W	3/8 FEMALE NPT	3/8 FEMALE NPT	0.2 (5.1)	0.56	1.06 (27.0)	1.06 (27.0)	0.50 (12.7)	2.97 (75.5)	0.50 (12.7)	0.78 (19.8)	2.97 (75.5)
_D-NB-FN8-6-3W	1/2 FEMALE NPT	1/2 FEMALE NPT	0.25 (6.4)	0.70	1.50 (38.1)	1.50 (38.1)	0.75 (19.1)	3.91 (93.3)	0.75 (19.1)	1.03 (26.2)	3.91 (93.3)
_D-NB-FN12-7-3W	3/4 FEMALE NPT	3/4 FEMALE NPT	0.29 (7.5)	0.95	1.63 (41.3)	1.63 (41.3)	0.75 (19.1)	3.91 (93.3)	0.75 (19.1)	1.03 (26.2)	3.91 (93.3)
_D-NB-MN2-3-3W	1/8 MALE NPT	1/8 MALE NPT	0.08 (3.0)	0.20	0.81 (21.6)	0.81 (21.6)	0.39 (10.0)	2.50 (63.5)	0.44 (11.2)	0.53 (13.5)	2.50 (63.5)
_D-NB-MN4-4-3W	1/4 MALE NPT	1/4 MALE NPT	0.16 (4.0)	0.35	0.98 (25.0)	0.98 (25.0)	0.39 (10.0)	2.50 (63.5)	0.44 (11.2)	0.53 (13.5)	2.50 (63.5)
_D-NB-MN6-5-3W	3/8 MALE NPT	3/8 MALE NPT	0.2 (5.1)	0.56	1.12 (28.4)	1.12 (28.4)	0.50 (12.7)	2.97 (75.5)	0.50 (12.7)	0.78 (19.8)	2.97 (75.5)
_D-NB-MN8-6-3W	1/2 MALE NPT	1/2 MALE NPT	0.25 (6.4)	0.70	1.50 (38.1)	1.50 (38.1)	0.50 (12.7)	2.97 (75.5)	0.50 (12.7)	0.78 (19.8)	2.97 (75.5)
_D-NB-MN12-7-3W	3/4 MALE NPT	3/4 MALE NPT	0.29 (7.5)	0.95	1.63 (41.3)	1.63 (41.3)	0.75 (19.1)	3.91 (93.3)	0.75 (19.1)	1.03 (26.2)	3.91 (93.3)
_D-NB-FT2-2-3W	1/8" TUBE	1/8" TUBE	0.12 (3.0)	0.20	0.98 (25.0)	0.98 (25.0)	0.39 (10.0)	1.38 (35.0)	0.44 (11.2)	0.53 (13.5)	2.50 (63.5)
_D-NB-FT4-4-3W	1/4" TUBE	1/4" TUBE	0.16 (4.0)	0.35	1.12 (28.4)	1.12 (28.4)	0.39 (10.0)	1.38 (35.0)	0.44 (11.2)	0.53 (13.5)	2.50 (63.5)
_D-NB-FT6-5-3W	3/8" TUBE	3/8" TUBE	0.20 (5.1)	0.56	1.29 (32.8)	1.29 (32.8)	0.50 (12.7)	1.88 (47.8)	0.50 (12.7)	0.78 (19.8)	2.97 (75.5)
_D-NB-FT8-6-3W	1/2" TUBE	1/2" TUBE	0.25 (6.4)	0.70	1.40 (35.6)	1.40 (35.6)	0.50 (12.7)	1.88 (47.8)	0.50 (12.7)	0.78 (19.8)	2.97 (75.5)
_D-NB-FT12-9-3W	3/4" TUBE	3/4" TUBE	0.29 (7.5)	0.95	1.90 (48.3)	1.90 (48.3)	0.75 (19.1)	3.00 (76.2)	0.75 (19.1)	1.03 (26.2)	3.91 (93.3)
_D-NB-MT3-2-3W	3 MM	3 MM	0.08 (3.0)	0.09	0.98 (25.0)	0.98 (25.0)	0.39 (10.0)	1.38 (35.0)	0.44 (11.2)	0.53 (13.5)	2.50 (63.5)
_D-NB-MT6-4-3W	6 MM	6 MM	0.16 (4.0)	0.35	1.12 (28.4)	1.12 (28.4)	0.39 (10.0)	1.38 (35.0)	0.44 (11.2)	0.53 (13.5)	2.50 (63.5)
_D-NB-MT8-4-3W	8 MM	8 MM	0.16 (4.0)	0.35	1.17 (29.6)	1.17 (29.6)	0.39 (10.0)	1.38 (35.0)	0.44 (11.2)	0.53 (13.5)	2.50 (63.5)
_D-NB-MT10-5-3W	10 MM	10 MM	0.20 (5.1)	0.56	1.29 (32.8)	1.29 (32.8)	0.50 (12.7)	1.88 (47.8)	0.50 (12.7)	0.78 (19.8)	2.97 (75.5)
_D-NB-MT12-6-3W	12 MM	12 MM	0.25 (6.4)	0.70	1.40 (35.6)	1.40 (35.6)	0.50 (12.7)	1.88 (47.8)	0.50 (12.7)	0.78 (19.8)	2.97 (75.5)
_D-NB-MT14-6-3W	14 MM	14 MM	0.25 (6.4)	0.70	1.56 (39.7)	1.56 (39.7)	0.50 (12.7)	1.88 (47.8)	0.50 (12.7)	0.78 (19.8)	2.97 (75.5)
_D-NB-MT18-7-3W	18 MM	18 MM	0.29 (7.5)	0.95	1.75 (44.5)	1.75 (44.5)	0.75 (19.1)	3.00 (76.2)	0.75 (19.1)	1.03 (26.2)	3.91 (93.3)
_D-NB-MT20-7-3W	20 MM	20 MM	0.29 (7.5)	0.95	1.50 (38.1)	1.50 (38.1)	0.75 (19.1)	3.00 (76.2)	0.75 (19.1)	1.03 (26.2)	3.91 (93.3)

DIMENSIONS OF NBH 3-WAY SERIES

Basic Ordering Number	Connection Type and Size		Orifice in.(mm)	Cv	Dimension, in. (mm)						
	Inlet	Outlet			L1	L2	C	D	E	F	H
_D-NBH-FN2-3-3W	1/8 FEMALE NPT	1/8 FEMALE NPT	0.12 (3.0)	0.20	0.81 (21.6)	0.81 (21.6)	0.39 (10.0)	1.38 (35.0)	0.44 (11.2)	0.53 (13.5)	2.50 (63.5)
_D-NBH-FN4-4-3W	1/4 FEMALE NPT	1/4 FEMALE NPT	0.16 (4.0)	0.35	1.06 (27.0)	1.06 (27.0)	0.50 (12.7)	1.88 (47.8)	0.50 (12.7)	0.78 (19.8)	2.97 (75.5)
_D-NBH-FN6-5-3W	3/8 FEMALE NPT	3/8 FEMALE NPT	0.2 (5.1)	0.56	1.06 (27.0)	1.06 (27.0)	0.50 (12.7)	1.88 (47.8)	0.50 (12.7)	0.78 (19.8)	2.97 (75.5)
_D-NBH-FN8-6-3W	1/2 FEMALE NPT	1/2 FEMALE NPT	0.25 (6.4)	0.70	1.50 (38.1)	1.50 (38.1)	0.75 (19.1)	3.00 (76.2)	0.75 (19.1)	1.03 (26.2)	3.91 (93.3)
_D-NBH-FN12-7-3W	3/4 FEMALE NPT	3/4 FEMALE NPT	0.29 (7.5)	0.95	1.63 (41.3)	1.63 (41.3)	0.75 (19.1)	3.00 (76.2)	0.75 (19.1)	1.03 (26.2)	3.91 (93.3)
_D-NBH-MN2-3-3W	1/8 MALE NPT	1/8 MALE NPT	0.08 (3.0)	0.20	0.81 (21.6)	0.81 (21.6)	0.39 (10.0)	1.38 (35.0)	0.44 (11.2)	0.53 (13.5)	2.50 (63.5)
_D-NBH-MN4-4-3W	1/4 MALE NPT	1/4 MALE NPT	0.16 (4.0)	0.35	0.98 (25.0)	0.98 (25.0)	0.39 (10.0)	1.38 (35.0)	0.44 (11.2)	0.53 (13.5)	2.50 (63.5)
_D-NBH-MN6-5-3W	3/8 MALE NPT	3/8 MALE NPT	0.2 (5.1)	0.56	1.12 (28.4)	1.12 (28.4)	0.50 (12.7)	1.88 (47.8)	0.50 (12.7)	0.78 (19.8)	2.97 (75.5)
_D-NBH-MN8-6-3W	1/2 MALE NPT	1/2 MALE NPT	0.25 (6.4)	0.70	1.50 (38.1)	1.50 (38.1)	0.50 (12.7)	1.88 (47.8)	0.50 (12.7)	0.78 (19.8)	2.97 (75.5)
_D-NBH-MN12-7-3W	3/4 MALE NPT	3/4 MALE NPT	0.29 (7.5)	0.95	1.63 (41.3)	1.63 (41.3)	0.75 (19.1)	3.00 (76.2)	0.75 (19.1)	1.03 (26.2)	3.91 (93.3)

NBH SERIES

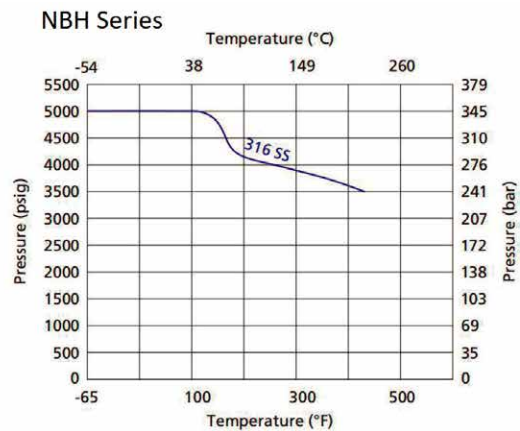
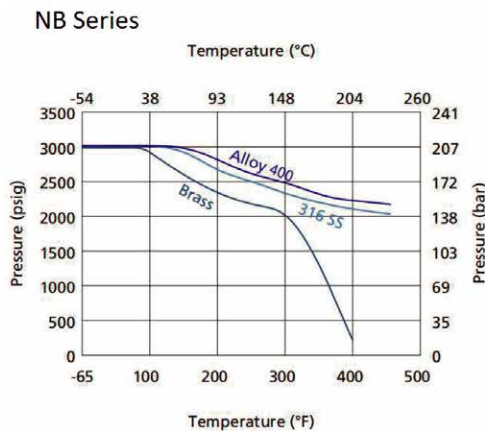
Basic Ordering Number	Connection Type and Size		Orifice in.(mm)	Cv	Dimension, in. (mm)						
	Inlet	Outlet			L1	L2	C	D	E	F	H
_D-NBH-FT2-2-3W	1/8" TUBE	1/8" TUBE	0.12 (3.0)	0.20	0.98 (25.0)	0.98 (25.0)	0.39 (10.0)	1.38 (35.0)	0.44 (11.2)	0.53 (13.5)	2.50 (63.5)
_D-NBH-FT4-4-3W	1/4" TUBE	1/4" TUBE	0.16 (4.0)	0.35	1.12 (28.4)	1.12 (28.4)	0.39 (10.0)	1.38 (35.0)	0.44 (11.2)	0.53 (13.5)	2.50 (63.5)
_D-NBH-FT6-5-3W	3/8" TUBE	3/8" TUBE	0.20 (5.1)	0.56	1.29 (32.8)	1.29 (32.8)	0.50 (12.7)	1.88 (47.8)	0.50 (12.7)	0.78 (19.8)	2.97 (75.5)
_D-NBH-FT8-6-3W	1/2" TUBE	1/2" TUBE	0.25 (6.4)	0.70	1.40 (35.6)	1.40 (35.6)	0.50 (12.7)	1.88 (47.8)	0.50 (12.7)	0.78 (19.8)	2.97 (75.5)
_D-NBH-FT12-9-3W	3/4" TUBE	3/4" TUBE	0.29 (7.5)	0.95	1.90 (48.3)	1.90 (48.3)	0.75 (19.1)	3.00 (76.2)	0.75 (19.1)	1.03 (26.2)	3.91 (93.3)
_D-NBH-MT3-2-3W	3 MM	3 MM	0.08 (3.0)	0.09	0.98 (25.0)	0.98 (25.0)	0.39 (10.0)	1.38 (35.0)	0.44 (11.2)	0.53 (13.5)	2.50 (63.5)
_D-NBH-MT6-4-3W	6 MM	6 MM	0.16 (4.0)	0.35	1.12 (28.4)	1.12 (28.4)	0.39 (10.0)	1.38 (35.0)	0.44 (11.2)	0.53 (13.5)	2.50 (63.5)
_D-NBH-MT8-4-3W	8 MM	8 MM	0.16 (4.0)	0.35	1.17 (29.6)	1.17 (29.6)	0.39 (10.0)	1.38 (35.0)	0.44 (11.2)	0.53 (13.5)	2.50 (63.5)
_D-NBH-MT10-5-3W	10 MM	10 MM	0.20 (5.1)	0.56	1.29 (32.8)	1.29 (32.8)	0.50 (12.7)	1.88 (47.8)	0.50 (12.7)	0.78 (19.8)	2.97 (75.5)
_D-NBH-MT12-6-3W	12 MM	12 MM	0.25 (6.4)	0.70	1.40 (35.6)	1.40 (35.6)	0.50 (12.7)	1.88 (47.8)	0.50 (12.7)	0.78 (19.8)	2.97 (75.5)
_D-NBH-MT14-6-3W	14 MM	14 MM	0.25 (6.4)	0.70	1.56 (39.7)	1.56 (39.7)	0.50 (12.7)	1.88 (47.8)	0.50 (12.7)	0.78 (19.8)	2.97 (75.5)
_D-NBH-MT18-7-3W	18 MM	18 MM	0.29 (7.5)	0.95	1.75 (44.5)	1.75 (44.5)	0.75 (19.1)	3.00 (76.2)	0.75 (19.1)	1.03 (26.2)	3.91 (93.3)
_D-NBH-MT20-7-3W	20 MM	20 MM	0.29 (7.5)	0.95	1.90 (48.3)	1.90 (48.3)	0.75 (19.1)	3.00 (76.2)	0.75 (19.1)	1.03 (26.2)	3.91 (93.3)

1. Size and types listed are standard. Other sizes and types are available upon request, refer to the ordering information.

2. Dimensions are shown with DSG nuts finger-tightened. All dimensions are for reference only and are subject to change.

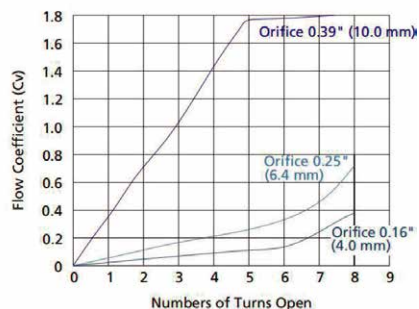
3. For dimensions not shown above, please contact the authorized representative or DSG employees.

PRESSURE VS. TEMPERATURE



FLOW DATA AT 100°F (38°C)

Regulating Stem



NF SERIES: MAXIMUM WORKING PRESSURE 6000 PSI

FEATURES

- ° One-piece forged body
- ° Panel mounting available as an option
- ° Steady and durable fastening of the handle by double lock-pins
- ° Handle color options are available
- ° Leak-tight performance testing for every valve with nitrogen at the maximum working pressure
- ° Maximum working pressure:

NF Series - Stainless steel: 6000 psig (414 bar)

Alloy C-276: 6000 psig (414 bar)

Alloy 400: 5000 psig (345 bar)

Titanium: 3500 psig (241 bar)

Brass: 3000 psig (207 bar)

- ° Working temperature:

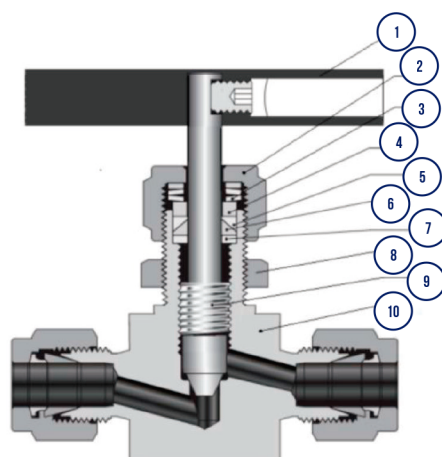
PTFE: -65°F to 450°F (-54°C to 232°C)

PEEK: -65°F to 500°F (-54°C to 260°C)

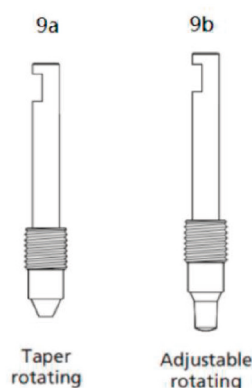
Graphite: -65°F to 820°F (-54°C to 454°C)



STANDARD MATERIALS OF CONSTRUCTION



Stem Type

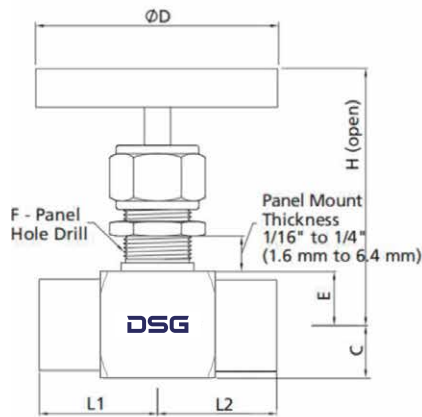


Item	Component	Valve Body Material		
		316 SS	Brass	Steel
1	Handle	Anodized aluminium or stainless steel or black knob		
2	Packing Nut	304 SS/A276	Brass C36000/B16	Alloy 400/B164
3	Packing Spring	S17700/A693		
4	Washer	316 SS/A276		
5	Upper Packing	PTFE/PEEK		
6	Lower Packing			
7	Packing Washer	316 SS/A276		
8	Panel Nut	17-4PH		
9	Stem	Chrome-planted 316 SS/A276		
10	Body	316 SS/A182	Brass C37700/B283	Alloy

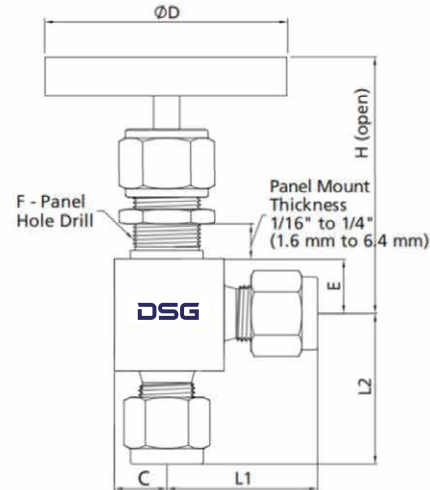
NF SERIES

DIMENSIONS

Straight Pattern



Angle Pattern



DIMENSIONS OF NF SERIES

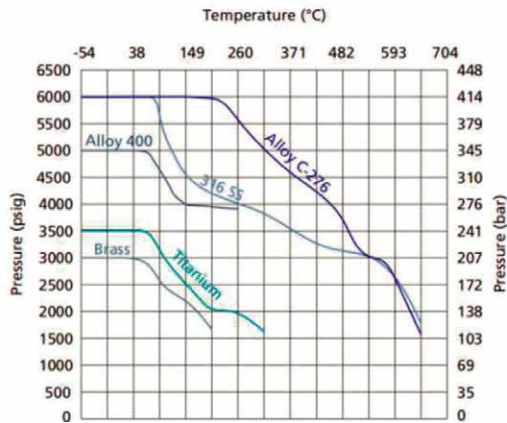
Basic Ordering Number	Connection Type and Size		Orifice in.(mm)	Cv	Dimension, in. (mm)						
	Inlet	Outlet			L1	L2	C	D	E	F	H
_D-NF-FN2-3	1/8 FEMALE NPT	1/8 FEMALE NPT	0.12 (3.0)	0.20	0.98 (25.0)	0.98 (25.0)	0.39 (10.0)	1.77 (45.0)	0.39 (10.0)	0.63 (16.0)	3.23 (82.0)
_D-NF-FN4-4	1/4 FEMALE NPT	1/4 FEMALE NPT	0.16 (4.0)	0.35	1.06 (27.0)	1.06 (27.0)	0.47 (12.0)	2.05 (52.0)	0.47 (12.0)	0.63 (16.0)	3.35 (85.0)
_D-NF-FN6-5	3/8 FEMALE NPT	3/8 FEMALE NPT	0.20 (5.1)	0.56	1.14 (29.0)	1.14 (29.0)	0.51 (13.0)	2.17 (55.0)	0.51 (13.0)	0.71 (18.0)	3.62 (92.0)
_D-NF-FN8-6	1/2 FEMALE NPT	1/2 FEMALE NPT	0.25 (6.4)	0.70	1.26 (32.0)	1.26 (32.0)	0.63 (16.0)	2.17 (55.0)	0.63 (16.0)	0.71 (18.0)	3.78 (96.0)
			0.29 (7.5)	0.95	1.26 (32.0)	1.26 (32.0)	0.63 (16.0)	2.17 (55.0)	0.63 (16.0)	0.79 (20.0)	3.78 (96.0)
_D-NF-FN12-9	3/4 FEMALE NPT	3/4 MALE NPT	0.36 (9.1)	1.60	1.30 (33.0)	1.30 (33.0)	0.71 (18.0)	2.36 (60.0)	0.71 (18.0)	0.79 (20.0)	3.94 (100)
-B-NF-FN16-12	1 FEMALE NPT	1 FEMALE NPT	0.48 (12.2)	2.65	1.42 (36.0)	1.42 (36.0)	0.87 (22.0)	2.36 (60.0)	0.87 (22.0)	0.94 (24.0)	4.17 (106)
_D-N-MN2-2	1/8 MALE NPT	1/8 MALE NPT	0.12 (3.0)	0.20	0.98 (25.0)	0.98 (25.0)	0.39 (10.0)	1.77 (45.0)	0.39 (10.0)	0.63 (16.0)	3.23 (82.0)
_D-NF-MN4-4	1/4 MALE NPT	1/4 MALE NPT	0.16 (4.0)	0.35	1.06 (27.0)	1.06 (27.0)	0.39 (10.0)	1.77 (45.0)	0.39 (10.0)	0.63 (16.0)	3.23 (82.0)
_D-NF-MN6-5	3/8 MALE NPT	3/8 MALE NPT	0.20 (5.1)	0.56	1.14 (29.0)	1.14 (29.0)	0.47 (12.0)	2.05 (52.0)	0.47 (12.0)	0.63 (16.0)	3.35 (85.0)
_D-NF-MN8-6	1/2 MALE NPT	1/2 MALE NPT	0.25 (6.4)	0.70	1.30 (33.0)	1.30 (33.0)	0.51 (13.0)	2.17 (55.0)	0.51 (13.0)	0.71 (18.0)	3.62 (92.0)
_D-NF-MN12-7	3/4 MALE NPT	3/4 MALE NPT	0.29 (7.5)	0.95	1.42 (36.0)	1.42 (36.0)	0.63 (16.0)	2.17 (55.0)	0.63 (16.0)	0.79 (20.0)	3.78 (96.0)
_D-NF-MN3-2	1 MALE NPT	1 MALE NPT	0.36 (9.1)	1.60	1.61 (41.0)	1.61 (41.0)	0.71 (18.0)	2.36 (60.0)	0.71 (18.0)	0.79 (20.0)	3.94 (100)
_D-FN-SW2-3	1/8 SOKET WELD	1/8 SOKET WELD	0.12 (3.0)	0.20	0.94 (23.8)	0.94 (23.8)	0.39 (10.0)	1.77 (45.0)	0.39 (10.0)	0.63 (16.0)	3.23 (82.0)
_D-FN-SW4-4	1/4 SOKET WELD	1/4 SOKET WELD	0.16 (4.0)	0.35	0.98 (25.0)	0.98 (25.0)	0.47 (12.0)	2.05 (52.0)	0.47 (12.0)	0.63 (16.0)	3.35 (85.0)
_D-FN-SW6-5	3/8 SOKET WELD	3/8 SOKET WELD	0.20 (5.1)	0.56	1.06 (27.0)	1.06 (27.0)	0.51 (13.0)	2.17 (55.0)	0.51 (13.0)	0.71 (18.0)	3.62 (92.0)
_D-FN-SW8-6	1/2 SOKET WELD	1/2 SOKET WELD	0.25 (6.4)	0.70	1.14 (29.0)	1.14 (29.0)	0.63 (16.0)	2.17 (55.0)	0.63 (16.0)	0.71 (18.0)	3.78 (96.0)
			0.29 (7.5)	0.95	1.14 (29.0)	1.14 (29.0)	0.63 (16.0)	2.17 (55.0)	0.63 (16.0)	0.79 (20.0)	3.78 (96.0)
_D-FN-SW12-9	3/4 SOKET WELD	3/4 SOKET WELD	0.36 (9.1)	1.60	1.14 (29.0)	1.14 (29.0)	0.71 (18.0)	2.36 (60.0)	0.71 (18.0)	0.79 (20.0)	3.94 (100)
_D-FN-SW16-12	1 SOKET WELD	1 SOKET WELD	0.48 (12.2)	2.65	1.30 (33.0)	1.30 (33.0)	0.87 (22.0)	2.36 (60.0)	0.87 (22.0)	0.94 (24.0)	4.17 (106)

DIMENSIONS OF NF SERIES

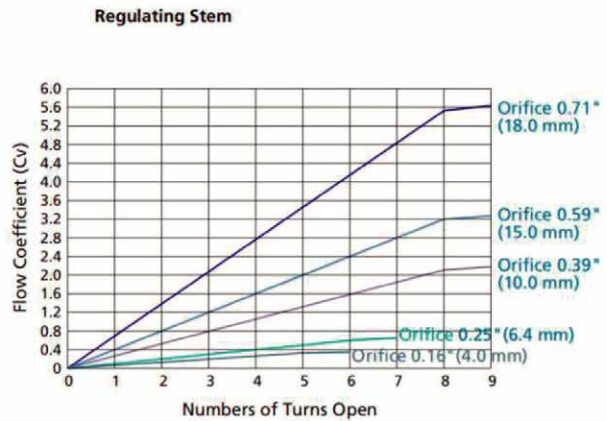
Basic Ordering Number	Connection Type and Size		Orifice in.(mm)	Cv	Dimension, in. (mm)						
	Inlet	Outlet			L1	L2	C	D	E	F	H
_D-FN-FT2-3	1/8" TUBE	1/8" TUBE	0.08 (2.0)	0.09	0.98 (25.0)	0.98 (25.0)	0.39 (10.0)	1.77 (45.0)	0.39 (10.0)	0.63 (16.0)	3.23 (82.0)
_D-FN-FT4-4	1/4" TUBE	1/4" TUBE	0.16 (4.0)	0.35	1.14 (29.0)	1.14 (29.0)	0.39 (10.0)	1.77 (45.0)	0.39 (10.0)	0.63 (16.0)	3.23 (82.0)
B-FN-FT6-5	3/8" TUBE	3/8" TUBE	0.20 (5.1)	0.56	1.30 (33.0)	1.30 (33.0)	0.47 (12.0)	2.05 (52.0)	0.47 (12.0)	0.63 (16.0)	3.35 (85.0)
_D-FN-FT8-6	1/2" TUBE	1/2" TUBE	0.25 (6.4)	0.70	1.42 (36.0)	1.42 (36.0)	0.51 (13.0)	2.17 (55.0)	0.51 (13.0)	0.71 (18.0)	3.62 (92.0)
_D-FN-FT12-9	3/4" TUBE	3/4" TUBE	0.29 (7.5)	0.95	1.89 (48.0)	1.89 (48.0)	0.63 (16.0)	2.17 (55.0)	0.63 (16.0)	0.79 (20.0)	3.78 (96.0)
_D-FN-FT16-12	1 TUBE	1 TUBE	0.36 (9.1)	1.60	2.05 (52.0)	2.05 (52.0)	0.71 (18.0)	2.36 (60.0)	0.71 (18.0)	0.79 (20.0)	3.94 (100)
_D-NF-MT3-2	3 MM	3 MM	0.08 (2.0)	0.09	0.98 (25.0)	0.98 (25.0)	0.39 (10.0)	1.77 (45.0)	0.39 (10.0)	0.63 (16.0)	3.23 (82.0)
_D-NF-MT6-4	6 MM	6 MM	0.16 (4.0)	0.35	1.14 (29.0)	1.14 (29.0)	0.39 (10.0)	1.77 (45.0)	0.39 (10.0)	0.63 (16.0)	3.23 (82.0)
_D-NF-MT8-4	8 MM	8 MM	0.16 (4.0)	0.35	1.14 (29.0)	1.14 (29.0)	0.39 (10.0)	1.77 (45.0)	0.39 (10.0)	0.63 (16.0)	3.23 (82.0)
_D-NF-MT10-5	10 MM	10 MM	0.20 (5.1)	0.56	1.30 (33.0)	1.30 (33.0)	0.47 (12.0)	2.05 (52.0)	0.47 (12.0)	0.63 (16.0)	3.35 (85.0)
_D-NF-MT12-6	12 MM	12 MM	0.25 (6.4)	0.70	1.42 (36.0)	1.42 (36.0)	0.51 (13.0)	2.17 (55.0)	0.51 (13.0)	0.71 (18.0)	3.62 (92.0)
_D-NF-MT14-6	14 MM	14 MM	0.25 (6.4)	0.70	1.57 (40.0)	1.57 (40.0)	0.51 (13.0)	2.17 (55.0)	0.51 (13.0)	0.71 (18.0)	3.62 (92.0)
_D-NF-MT18-7	18 MM	18 MM	0.29 (7.5)	0.95	1.81 (46.0)	1.81 (46.0)	0.63 (16.0)	2.17 (55.0)	0.63 (16.0)	0.79 (20.0)	3.78 (96.0)
_D-NF-MT20-7	20 MM	20 MM	0.29 (7.5)	0.95	1.89 (48.0)	1.89 (48.0)	0.63 (16.0)	2.17 (55.0)	0.63 (16.0)	0.79 (20.0)	3.78 (96.0)
_D-NF-MT25-9	25 MM	25 MM	0.36 (9.1)	1.60	2.05 (52.0)	2.05 (52.0)	0.71 (18.0)	2.36 (60.0)	0.71 (18.0)	0.79 (20.0)	3.94 (100)

1. Size and types listed are standard. Other sizes and types are available upon request, refer to the ordering information.
2. Dimensions are shown with DSG nuts finger-tightened. All dimensions are for reference only and are subject to change.
3. For dimensions not shown above, please contact the authorized representative or DSG employees.

Pressure vs. Temperature



Flow Data at 100°F (38°C)



NFH SERIES: MAXIMUM WORKING PRESSURE 10000 PSI

FEATURES

- ° One-piece forged body
- ° Two-stem design: thread hardened upper stem and smooth surface hardened lower stem
- ° Linearly instead of helical movement of the nonrotating lower stem, avoiding galling damage to the seat and tip, as well as reducing the total friction area between the packing and the lower stem
- ° Panel mounting available as an option
- ° Leak-tight performance testing for every valve with nitrogen at the maximum working pressure
- ° Maximum working pressure:
NFH Series - Stainless steel: 10000 psig (689 bar)

Working temperature:

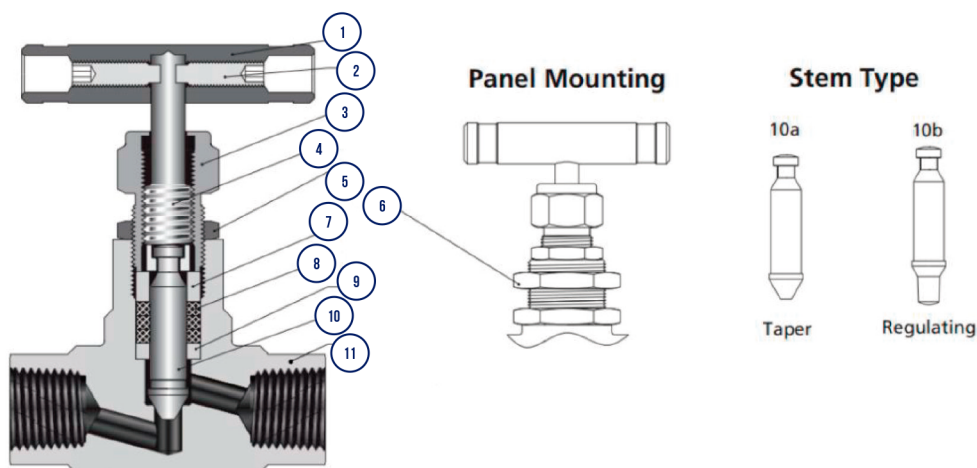
PTFE: -65°F to 450°F (-54°C to 232°C)

PEEK: -65°F to 500°F (-54°C to 260°C)

Graphite: -65°F to 820°F (-54°C to 454°C)



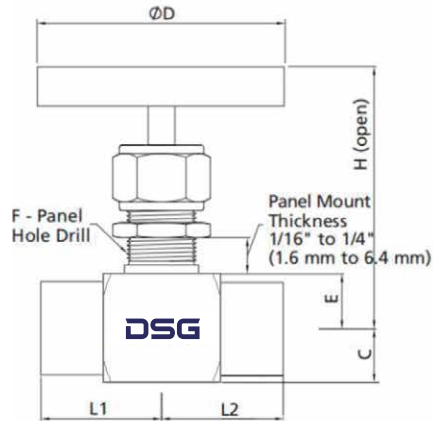
STANDARD MATERIALS OF CONSTRUCTION



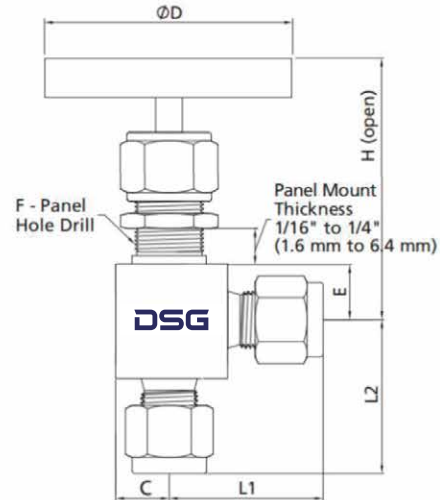
Item	Component	Valve Body Material		
		316 SS	Brass	Steel
1	Handle	Anodized aluminium or stainless steel or black knob		
2	Set Screw	Stainless steel		
3	Packing Bolt	304 SS/A276		
4	Upper Stem	316 SS/A276	F91/A182	F92/A182
5	Lock Nut	316 SS/B783		
6	Panel Nut	17-4PH		
7	Gland	316 SS/A276	316 SS/B783	F92/A182
8	Packing	PTFE or PEEK or graphite		
9	Packing Washer	316 SS/A276	F91/A182	F92/A182
10a 10b	Lower Packing	Chrome-plated 316 SS/A276	Chrome-plated F91/A182	Chrome-plated F92/A182
11	Body	316 SS/A182	F91/A182	F92/A182

DIMENSIONS

Straight Pattern



Angle Pattern



DIMENSIONS OF NFH SERIES

Basic Ordering Number	Connection Type and Size		Orifice in.(mm)	Cv	Dimension, in. (mm)						
	Inlet	Outlet			L1	L2	C	D	E	F	H
_D-NFH-FN2-3	1/8 FEMALE NPT	1/8 FEMALE NPT	0.12 (3.0)	0.20	1.00 (25.4)	1.008 (25.4)	0.53 (13.5)	2.17 (55.0)	0.71 (18.0)	0.77 (19.6)	2.85 (72.5)
_D-NFH-FN4-4	1/4 FEMALE NPT	1/4 FEMALE NPT	0.16 (4.0)	0.35	1.06 (27.0)	1.06 (27.0)	0.53 (13.5)	2.17 (55.0)	0.71 (18.0)	0.77 (19.6)	2.85 (72.5)
_D-NFH-FN6-5	3/8 FEMALE NPT	3/8 FEMALE NPT	0.20 (5.1)	0.56	1.14 (29.0)	1.14 (29.0)	0.62 (15.8)	2.50 (63.5)	0.87 (22.0)	0.96 (24.4)	3.38 (85.8)
_D-NFH-FN8-6	1/2 FEMALE NPT	1/2 FEMALE NPT	0.25 (6.4)	0.70	1.26 (32.0)	1.26 (32.0)	0.62 (15.8)	2.50 (63.5)	0.87 (22.0)	0.96 (24.4)	3.38 (85.8)
_D-NFH-FN8-7			0.29 (7.5)	0.95	1.26 (32.0)	1.26 (32.0)	0.62 (15.8)	2.50 (63.5)	0.87 (22.0)	0.96 (24.4)	3.38 (85.8)
_D-NFH-FN12-9	3/4 FEMALE NPT	3/4 MALE NPT	0.36 (9.1)	1.60	1.58 (40.0)	1.58 (40.0)	0.80 (20.2)	3.50 (88.9)	1.10 (28.3)	1.08 (27.5)	
_D-NFH-FN16-12	1 FEMALE NPT	1 FEMALE NPT	0.48 (12.2)	2.65	1.97 (50.0)	1.97 (50.0)	1.30 (33.0)	5.00 (127)	1.61 (41.0)	1.45 (36.8)	6.50 (165)
_D-NFH-MN2-3	1/8 SOKET WELD	1/8 SOKET WELD	0.12 (3.0)	0.20	0.94 (23.8)	0.94 (23.8)	0.53 (13.5)	2.17 (55.0)	0.71 (18.0)	0.77 (19.6)	2.85 (72.5)
_D-NFH-MN4-4	1/4 SOKET WELD	1/4 SOKET WELD	0.16 (4.0)	0.35	1.00 (25.4)	1.00 (25.4)	0.53 (13.5)	2.17 (55.0)	0.71 (18.0)	0.77 (19.6)	2.85 (72.5)
_D-NFH-MN6-5	3/8 SOKET WELD	3/8 SOKET WELD	0.20 (5.1)	0.56	1.06 (27.0)	1.06 (27.0)	0.62 (15.8)	2.50 (63.5)	0.87 (22.0)	0.96 (24.4)	3.38 (85.8)
_D-NFH-MN8-6	1/2 SOKET WELD	1/2 SOKET WELD	0.25 (6.4)	0.70	1.14 (29.0)	1.14 (29.0)	0.62 (15.8)	2.50 (63.5)	0.87 (22.0)	0.96 (24.4)	3.38 (85.8)
_D-NFH-MN12-9	3/4 SOKET WELD	3/4 SOKET WELD	0.36 (9.1)	1.60	1.26 (32.0)	1.26 (32.0)	0.80 (20.2)	3.50 (88.9)	1.10 (28.3)	1.08 (27.5)	3.78 (96.0)
_D-NFH-MN16-12	1 SOKET WELD	1 SOKET WELD	0.48 (12.2)	2.65	1.58 (40.0)	1.58 (40.0)	1.30 (33.0)	5.00 (127)	1.61 (41.0)	1.45 (36.8)	6.50 (165)
_D-NFH-SW2-3	1/8 SOKET WELD	1/8 SOKET WELD	0.12 (3.0)	0.20	0.94 (23.8)	0.94 (23.8)	0.53 (13.5)	2.17 (55.0)	0.71 (18.0)	0.77 (19.6)	2.85 (72.5)
_D-NFH-SW4-4	1/4 SOKET WELD	1/4 SOKET WELD	0.16 (4.0)	0.35	1.00 (25.4)	1.00 (25.4)	0.53 (13.5)	2.17 (55.0)	0.71 (18.0)	0.77 (19.6)	2.85 (72.5)
_D-NFH-SW6-5	3/8 SOKET WELD	3/8 SOKET WELD	0.20 (5.1)	0.56	1.06 (27.0)	1.06 (27.0)	0.62 (15.8)	2.50 (63.5)	0.87 (22.0)	0.96 (24.4)	3.38 (85.8)
_D-NFH-SW8-6	1/2 SOKET WELD	1/2 SOKET WELD	0.25 (6.4)	0.70	1.14 (29.0)	1.14 (29.0)	0.62 (15.8)	2.50 (63.5)	0.87 (22.0)	0.96 (24.4)	3.38 (85.8)
_D-NFH-SW12-9	3/4 SOKET WELD	3/4 SOKET WELD	0.36 (7.5)	1.60	1.26 (32.0)	1.26 (32.0)	0.80 (20.2)	3.50 (88.9)	1.10 (28.3)	1.08 (27.5)	3.78 (96.0)
_D-NFH-SW16-12	1 SOKET WELD	1 SOKET WELD	0.48 (9.1)	2.65	1.58 (40.0)	1.58 (40.0)	1.30 (33.0)	5.00 (127)	1.61 (41.0)	1.45 (36.8)	6.50 (165)

DIMENSIONS OF NFH SERIES

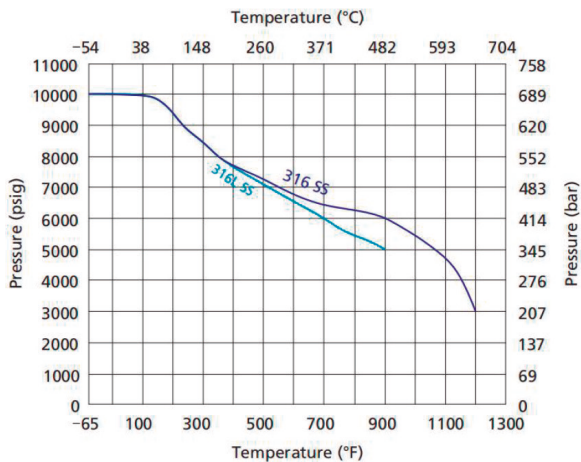
Basic Ordering Number	Connection Type and Size		Orifice in.(mm)	Cv	Dimension, in. (mm)						
	Inlet	Outlet			L1	L2	C	D	E	F	H
_D-NFH-FT2-2	1/8" TUBE	1/8" TUBE	0.08 (2.0)	0.09	1.00 (25.4)	1.00 (25.4)	0.53 (13.5)	2.17 (55.0)	0.71 (18.0)	0.77 (19.6)	2.85 (72.5)
_D-NFH-FT4-4	1/4" TUBE	1/4" TUBE	0.16 (4.0)	0.35	1.00 (25.4)	1.00 (25.4)	0.53 (13.5)	2.17 (55.0)	0.71 (18.0)	0.77 (19.6)	2.85 (72.5)
_D-NFH-FT6-6	3/8" TUBE	3/8" TUBE	0.20 (5.1)	0.56	1.44 (36.5)	1.30 (33.0)	0.62 (15.8)	2.50 (63.5)	0.87 (22.0)	0.96 (24.4)	3.38 (85.8)
_D-NFH-FT8-6	1/2" TUBE	1/2" TUBE	0.25 (6.4)	0.70	1.50 (38.1)	1.50 (38.1)	0.62 (15.8)	2.50 (63.5)	0.87 (22.0)	0.96 (24.4)	3.38 (85.8)
_D-NFH-FT12-10	3/4" TUBE	3/4" TUBE	0.29 (7.5)	0.95	1.97 (50.0)	1.97 (50.0)	0.80 (20.2)	3.50 (88.9)	1.10 (28.3)	1.08 (27.5)	3.78 (96.0)
_D-NFH-FT16-15	1" TUBE	1" TUBE	0.36 (9.1)	1.60	2.35 (59.7)	2.35 (59.7)	1.30 (33.0)	5.00 (127)	1.61 (41.0)	1.45 (36.8)	6.50 (165)
_D-NFH-MT3-2	3 MM	3 MM	0.08 (2.0)	0.09	1.00 (25.4)	1.00 (25.4)	0.53 (13.5)	2.17 (55.0)	0.71 (18.0)	0.77 (19.6)	2.85 (72.5)
_D-NFH-MT6-4	6 MM	6 MM	0.16 (4.0)	0.35	1.00 (25.4)	1.00 (25.4)	0.53 (13.5)	2.17 (55.0)	0.71 (18.0)	0.77 (19.6)	2.85 (72.5)
_D-NFH-MT8-4	8 MM	8 MM	0.16 (4.0)	0.35	1.00 (25.4)	1.00 (25.4)	0.53 (13.5)	2.17 (55.0)	0.71 (18.0)	0.77 (19.6)	2.85 (72.5)
_D-NFH-MT10-5	10 MM	10 MM	0.20 (5.1)	0.56	1.50 (38.1)	1.50 (38.1)	0.62 (15.8)	2.50 (63.5)	0.87 (22.0)	0.96 (24.4)	3.38 (85.8)
_D-NFH-MT12-6	12 MM	12 MM	0.25 (6.4)	0.70	1.50 (38.1)	1.50 (38.1)	0.62 (15.8)	2.50 (63.5)	0.87 (22.0)	0.96 (24.4)	3.38 (85.8)
_D-NFH-MT14-6	14 MM	14 MM	0.25 (6.4)	0.70	1.50 (38.1)	1.50 (38.1)	0.62 (15.8)	2.50 (63.5)	0.87 (22.0)	0.96 (24.4)	3.38 (85.8)
_D-NFH-MT18-7	18 MM	18 MM	0.29 (7.5)	0.95	1.97 (50.0)	1.97 (50.0)	0.80 (20.2)	3.50 (88.9)	1.10 (28.3)	1.08 (27.5)	3.78 (96.0)
_D-NFH-MT20-7	20 MM	20 MM	0.29 (7.5)	0.95	1.97 (50.0)	1.97 (50.0)	0.80 (20.2)	3.50 (88.9)	1.10 (28.3)	1.08 (27.5)	3.78 (96.0)
_D-NFH-MT25-9	25 MM	25 MM	0.36 (9.1)	1.60	2.35 (59.7)	2.35 (59.7)	1.30 (33.0)	5.00 (127)	1.61 (41.0)	1.45 (36.8)	6.50 (165)

1. Size and types listed are standard. Other sizes and types are available upon request, refer to the ordering information.

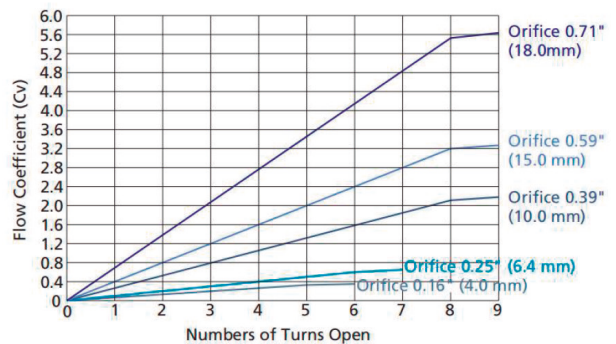
2. Dimensions are shown with DSG nuts finger-tightened. All dimensions are for reference only and are subject to change.

3. For dimensions not shown above, please contact the authorized representative or DSG employees.

Pressure vs. Temperature
NFH Series



Flow Data at 100°F (38°C)
Regulating Stem



NU SERIES: MAXIMUM WORKING PRESSURE 6000 PSI

NUH SERIES: MAXIMUM WORKING PRESSURE 10000 PSI

FEATURES

- ° One-piece forged body
- ° Two-stem design: thread hardened upper stem and smooth surface hardened lower stem
- ° Accidental valve disassembly disabled by union bonnet construction
- ° Upper stem thread lubricant isolated from system media. Linearly instead of helical movement of the nonrotating lower stem, avoiding galling damage to the seat and tip, as well as reducing the total friction area between the packing and the lower stem
- ° Safety back seating seal in fully open option
- ° Panel mounting available as an option
- ° Steady and durable fastening of the handle by double lock-pins
- ° Handle color options are available
- ° Leak-tight performance testing for every valve with nitrogen at the maximum working pressure

° Maximum working pressure:

NU Series - Stainless steel: 6000 psig (414 bar)

NUH Series - Stainless steel: 10000 psig (689 bar)

° Working temperature:

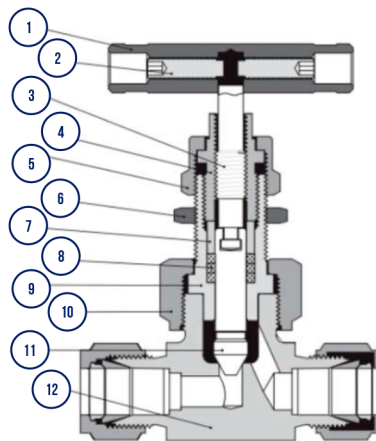
PTFE: -65°F to 450°F (-54°C to 232°C)

PEEK: -65°F to 500°F (-54°C to 260°C)

Graphite: -65°F to 1200°F (-54°C to 649°C)



STANDARD MATERIALS OF CONSTRUCTION



Stem Type



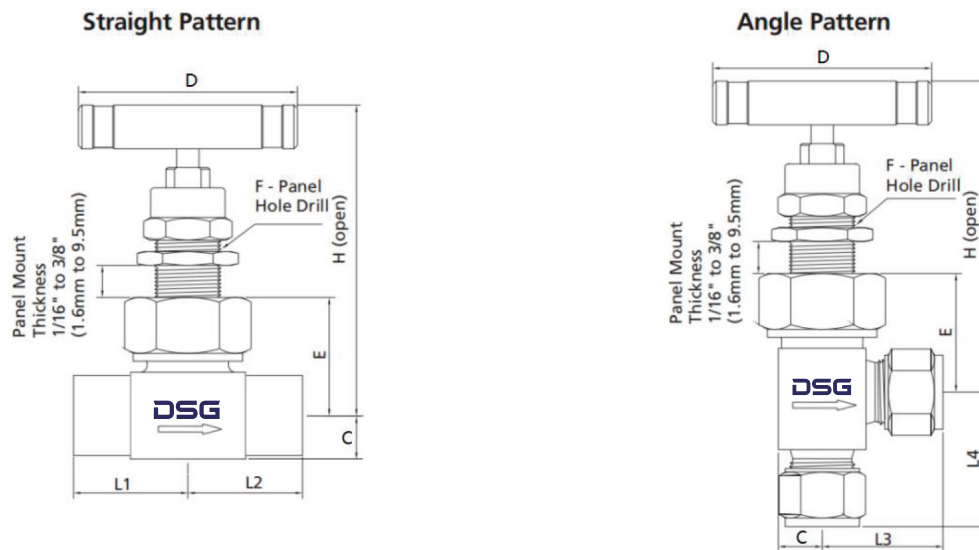
Taper



Regulating

Item	Component	Valve Body Material			
		316 SS	Alloy 400	Titanium	Alloy C-276
1	Handle	Anodized aluminium or stainless steel or black knob			
2	Set Screw	Stainless steel			
3	Upper Stem	316 SS/A276			
4	Packing Bolt	321 SS/A276			
5	Lock Nut	316 SS/A276			
6	Panel Nut	316 SS/B783			
7	Gland	316 SS/A276	Alloy R-405/B164	Titanium Gr 4/B348	Alloy C-276/B574
8	Packing	PTFE or PEEK or graphite			
9	Bonnet	316 SS/A479	Alloy R-405/B164	Titanium Gr 4/B348	Alloy C-276/B574
10	Union Nut	316 SS/A276			
11a 11b	Lower Stem	316 SS/A276	Alloy R-405/B164	Titanium Gr 4/B348	Alloy C-276/B574
12	Body	316 SS/A182	Alloy R-400/B164	Titanium Gr 4/B348	Alloy C-276/B574

DIMENSIONS



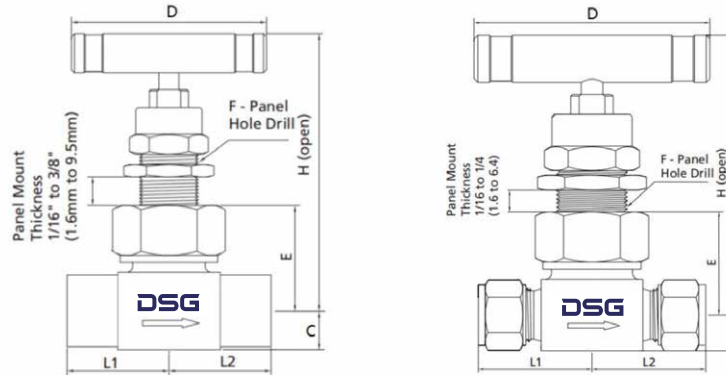
DIMENSIONS OF NU SERIES

Basic Ordering Number	Connection Type and Size		Orifice in.(mm)	Cv	Dimension, in. (mm)								
	Inlet	Outlet			L1	L2	L3	L4	C	D	E	F	H
_D-NU-FN2-4	1/8 FEMALE NPT	1/8 FEMALE NPT	0.16 (4.0)	0.35	1.00 (25.4)	1.00 (25.4)	0.89 (22.6)	1.00 (25.4)	0.39 (10.0)	1.77 (45.0)	1.09 (27.7)	0.59 (15.0)	3.04 (77.2)
_D-NU-FN4-4	1/4 FEMALE NPT	1/4 FEMALE NPT	0.16 (4.0)	0.35	1.03 (26.2)	1.03 (26.2)	0.89 (22.6)	1.00 (25.4)	0.39 (10.0)	1.77 (45.0)	1.09 (27.7)	0.59 (15.0)	3.04 (77.2)
_D-NU-FN6-4	3/8 FEMALE NPT	3/8 FEMALE NPT	0.25 (6.4)	0.80	1.13 (28.6)	1.13 (28.6)	1.00 (25.4)	1.13 (28.6)	0.50 (12.7)	2.50 (63.5)	1.34 (34.0)	0.78 (19.8)	3.70 (94.0)
_D-NU-FN8-10	1/2 FEMALE NPT	1/2 FEMALE NPT	0.39 (10.0)	1.80	1.56 (39.6)	1.56 (39.6)	1.31 (33.3)	1.56 (39.6)	0.78 (19.8)	3.50 (88.9)	1.91 (48.5)	1.03 (26.2)	4.85 (123)
_D-NU-FN12-10	3/4 FEMALE NPT	3/4 FEMALE NPT	0.39 (10.0)	1.80	1.63 (41.3)	1.63 (41.3)	-	-	0.78 (19.8)	3.50 (88.9)	1.91 (48.5)	1.03 (26.2)	4.85 (123)
_D-NU-FN16-10	1 FEMALE NPT	1 FEMALE NPT	0.39 (10.0)	1.80	1.81 (46.0)	1.81 (46.0)	-	-	1.00 (25.4)	3.50 (88.9)	2.13 (54.0)	1.03 (26.2)	5.10 (129)
_D-NU-MN2-4	1/8 MALE NPT	1/8 MALE NPT	0.16 (4.0)	0.35	1.00 (25.4)	1.00 (25.4)	0.89 (22.6)	1.00 (25.4)	0.39 (10.0)	1.77 (45.0)	1.09 (27.7)	0.59 (15.0)	3.04 (77.2)
_D-NU-MN4-4	1/4 MALE NPT	1/4 MALE NPT	0.16 (4.0)	0.35	1.03 (26.2)	1.03 (26.2)	0.89 (22.6)	1.00 (25.4)	0.39 (10.0)	1.77 (45.0)	1.09 (27.7)	0.59 (15.0)	3.04 (77.2)
_D-NU-MN6-6	3/8 MALE NPT	3/8 MALE NPT	0.25 (6.4)	0.80	1.13 (28.6)	1.13 (28.6)	1.00 (25.4)	1.13 (28.6)	0.50 (12.7)	2.50 (63.5)	1.34 (34.0)	0.78 (19.8)	3.70 (94.0)
_D-NU-MN8-10	1/2 MALE NPT	1/2 MALE NPT	0.39 (10.0)	1.80	1.56 (39.6)	1.56 (39.6)	1.31 (33.3)	1.56 (39.6)	0.78 (19.8)	3.50 (88.9)	1.91 (48.5)	1.03 (26.2)	4.85 (123)
_D-NU-MN12-10	3/4 MALE NPT	3/4 MALE NPT	0.39 (10.0)	1.80	1.63 (41.3)	1.63 (41.3)	-	-	0.78 (19.8)	3.50 (88.9)	1.91 (48.5)	1.03 (26.2)	4.85 (123)
_D-NU-MN16-10	1 MALE NPT	1 MALE NPT	0.39 (10.0)	1.80	1.81 (46.0)	1.81 (46.0)	-	-	1.00 (25.4)	3.50 (88.9)	2.13 (54.0)	1.03 (26.2)	5.10 (129)
_D-NU-SWT4-4	1/4 SOKET WELD	1/4 SOKET WELD	0.16 (4.0)	0.35	0.91 (23.1)	0.91 (23.1)	0.88 (22.4)	1.19 (30.2)	0.39 (10.0)	1.77 (45.0)	1.09 (27.7)	0.59 (15.0)	3.04 (77.2)
_D-NU-SWT6-6	3/8 SOKET WELD	3/8 SOKET WELD	0.25 (6.4)	0.80	1.13 (28.6)	1.13 (28.6)	1.00 (25.4)	1.13 (28.6)	0.50 (12.7)	2.50 (63.5)	1.34 (34.0)	0.78 (19.8)	3.70 (94.0)
_D-NU-SWT8-6	1/2 SOKET WELD	1/2 SOKET WELD	0.25 (6.4)	0.80	1.13 (28.6)	1.13 (28.6)	1.00 (25.4)	1.13 (28.6)	0.50 (12.7)	2.50 (63.5)	1.34 (34.0)	0.78 (19.8)	3.70 (94.0)
_D-NU-SWT12-10	3/4 SOKET WELD	3/4 SOKET WELD	0.39 (10.0)	1.80	1.56 (39.6)	1.56 (39.6)	1.31 (33.3)	1.69 (42.9)	0.78 (19.8)	3.50 (88.9)	1.91 (48.5)	1.03 (26.2)	4.85 (123)
_D-NU-SWT16-15	1 SOKET WELD	1 SOKET WELD	0.39 (10.0)	1.80	1.63 (41.3)	1.63 (41.3)	-	-	1.00 (25.4)	3.50 (88.9)	2.13 (54.0)	1.03 (26.2)	5.10 (129)
_D-NU-SWM12-6	12 MM SW	12 MM SW	0.25 (6.4)	0.35	1.13 (28.6)	1.13 (28.6)	1.00 (25.4)	1.13 (28.6)	0.50 (12.7)	2.50 (63.5)	1.34 (34.0)	0.78 (19.8)	3.70 (94.0)
_D-NU-SWM14-6	14 MM SW	14 MM SW	0.25 (6.4)	0.80	1.13 (28.6)	1.13 (28.6)	1.00 (25.4)	1.13 (28.6)	0.50 (12.7)	2.50 (63.5)	1.34 (34.0)	0.78 (19.8)	3.70 (94.0)
_D-NU-SWM16-10	16 MM SW	16 MM SW	0.39 (10.0)	1.80	1.56 (39.6)	1.56 (39.6)	1.31 (33.3)	1.69 (42.9)	0.78 (19.8)	3.50 (88.9)	1.91 (48.5)	1.03 (26.2)	4.85 (123)
_D-NU-SWM20-10	20 MM SW	20 MM SW	0.39 (10.0)	1.80	1.56 (39.6)	1.56 (39.6)	1.31 (33.3)	1.69 (42.9)	0.78 (19.8)	3.50 (88.9)	1.91 (48.5)	1.03 (26.2)	4.85 (123)
_D-NU-SWM25-10	25 MM SW	25 MM SW	0.39 (10.0)	1.80	1.63 (41.3)	1.63 (41.3)	-	-	1.00 (25.4)	3.50 (88.9)	2.13 (54.0)	1.03 (26.2)	5.10 (129)

DIMENSIONS OF NU SERIES

Basic Ordering Number	Connection Type and Size		Orifice in.(mm)	Cv	Dimension, in. (mm)								
	Inlet	Outlet			L1	L2	L3	L4	C	D	E	F	H
_D-NU-BWM14-6	14 MM BW	14 MM BW	0.25 (6.4)	0.80	1.13 (28.6)	1.13 (28.6)	1.00 (25.4)	1.13 (28.6)	0.50 (12.7)	1.77 (45.0)	1.34 (34.0)	0.78 (19.8)	3.70 (94.0)
_D-NU-BWM16-10	16 MM BW	16 MM BW	0.25 (6.4)	0.80	1.56 (39.6)	1.56 (39.6)	1.31 (41.3)	1.69 (42.9)	0.78 (19.8)	1.77 (45.0)	1.91 (48.5)	1.03 (26.2)	4.85 (123)
_D-NU-BWM20-10	20 MM BW	20 MM BW	0.39 (10.0)	1.80	1.56 (39.6)	1.56 (39.6)	1.31 (41.3)	1.69 (42.9)	0.78 (19.8)	2.50 (63.5)	1.91 (48.5)	1.03 (26.2)	4.85 (123)
_D-NU-BWM25-10	25 MM BW	25 MM BW	0.39 (10.0)	1.80	1.63 (41.3)	1.63 (41.3)	-	-	1.00 (25.4)	3.50 (88.9)	2.13 (54.0)	1.03 (26.2)	5.10 (129)
_D-NU-FT4-4	1/4" TUBE	1/4" TUBE	0.16 (4.0)	0.35	1.22 (30.9)	1.22 (30.9)	1.16 (29.6)	1.48 (37.6)	0.53 (13.5)	2.17 (55.0)	0.71 (18.0)	0.77 (19.6)	2.85 (72.5)
_D-NU-FT6-6	3/8" TUBE	3/8" TUBE	0.16 (4.0)	0.35	1.41 (35.9)	1.41 (35.9)	1.59 (32.8)	1.66 (42.2)	0.62 (15.8)	2.50 (63.5)	0.87 (22.0)	0.96 (24.4)	3.38 (85.8)
_D-NU-FT8-6	1/2" TUBE	1/2" TUBE	0.25 (6.4)	0.70	1.52 (32.8)	1.52 (32.8)	1.59 (32.8)	1.66 (42.2)	0.62 (15.8)	2.50 (63.5)	0.87 (22.0)	0.96 (24.4)	3.38 (85.8)
_D-NU-FT12-10	3/4" TUBE	3/4" TUBE	0.39 (10.0)	2.20	1.97 (50.0)	1.97 (50.0)	1.68 (42.7)	2.08 (51.8)	0.80 (20.2)	3.50 (88.9)	1.10 (28.3)	1.08 (27.5)	3.78 (96.0)
_D-NU-FT16-15	1" TUBE	1" TUBE	0.39 (10.0)	3.30	2.04 (51.8)	2.04 (51.8)	-	-	1.30 (33.0)	5.00 (1279)	1.61 (41.0)	1.45 (36.8)	6.50 (165)
_D-NU-MT6-4	6 MM	6 MM	0.16 (4.0)	0.35	1.22 (30.9)	1.22 (30.9)	1.16 (29.5)	1.48 (37.6)	0.53 (13.5)	2.17 (55.0)	0.71 (18.0)	0.77 (19.6)	2.85 (72.5)
_D-NU-MT8-4	8 MM	8 MM	0.16 (4.0)	0.35	1.22 (30.9)	1.22 (30.9)	1.16 (29.5)	1.48 (37.6)	0.53 (13.5)	2.17 (55.0)	0.71 (18.0)	0.77 (19.6)	2.85 (72.5)
_D-NU-MT10-6	10 MM	10 MM	0.16 (4.0)	0.35	1.41 (35.9)	1.41 (35.9)	1.59 (32.8)	1.66 (42.2)	0.62 (15.8)	2.50 (63.5)	0.87 (22.0)	0.96 (24.4)	3.38 (85.8)
_D-NU-MT12-6	12 MM	12 MM	0.25 (6.4)	0.70	1.52 (38.6)	1.52 (38.6)	1.59 (32.8)	1.66 (42.2)	0.62 (15.8)	2.50 (63.5)	0.87 (22.0)	0.96 (24.4)	3.38 (85.8)
_D-NU-MT14-6	14 MM	14 MM	0.25 (6.4)	0.70	1.41 (35.9)	1.41 (35.9)	1.59 (32.8)	1.66 (42.2)	0.62 (15.8)	2.50 (63.5)	0.87 (22.0)	0.96 (24.4)	3.38 (85.8)
_D-NU-MT18-10	18 MM	18 MM	0.39 (10.0)	2.20	1.52 (38.6)	1.52 (38.6)	1.59 (32.8)	1.66 (42.2)	0.62 (15.8)	2.50 (63.5)	0.87 (22.0)	0.96 (24.4)	3.38 (85.8)
_D-NU-MT20-10	20 MM	20 MM	0.39 (10.0)	2.20	1.97 (50.0)	1.97 (50.0)	1.68 (42.7)	2.08 (51.8)	0.80 (20.2)	3.50 (88.9)	1.10 (28.3)	1.08 (27.5)	3.78 (96.0)
_D-NU-MT25-15	25 MM	25 MM	0.59 (15.0)	3.30	2.04 (51.8)	2.04 (51.8)	-	-	1.30 (33.0)	5.00 (127)	1.61 (41.0)	1.45 (36.8)	6.50 (165)

NUH SERIES



DIMENSIONS OF NUH SERIES

Basic Ordering Number	Connection Type and Size		Orifice in.(mm)	Cv	Dimension, in. (mm)						
	Inlet	Outlet			L1	L2	C	D	E	F	H
_D-NUH-FN2-4	1/8 FEMALE NPT	1/8 FEMALE NPT	0.16 (4.0)	0.35	1.00 (25.4)	1.00 (25.4)	0.50 (12.7)	2.50 (63.5)	1.34 (34.0)	0.78 (19.8)	3.31 (84.0)
_D-NUH-FN4-4	1/4 FEMALE NPT	1/4 FEMALE NPT	0.16 (4.0)	0.35	1.13 (28.60)	1.13 (28.60)	0.50 (12.7)	2.50 (63.5)	1.34 (34.0)	0.78 (19.8)	3.31 (84.0)
_D-NUH-FN6-6	3/8 FEMALE NPT	3/8 FEMALE NPT	0.25 (6.4)	0.80	1.13 (28.60)	1.13 (28.60)	0.50 (12.7)	2.50 (63.5)	1.34 (34.0)	0.78 (19.8)	3.31 (84.0)
_D-NUH-FN8-10	1/2 FEMALE NPT	1/2 FEMALE NPT	0.25 (6.4)	0.80	1.56 (39.6)	1.56 (39.6)	0.78 (19.8)	3.50 (88.9)	1.91 (48.5)	1.03 (26.2)	4.13 (105)

NUH SERIES

Basic Ordering Number	Connection Type and Size		Orifice in.(mm)	Cv	Dimension, in. (mm)						
	Inlet	Outlet			L1	L2	C	D	E	F	H
_D-NUH-MN4-4	1/4 MALE NPT	1/4 MALE NPT	0.16 (4.0)	0.35	1.13 (28.6)	1.13 (28.6)	0.50 (12.7)	2.50 (63.5)	1.34 (34.0)	0.78 (19.8)	3.31 (84.0)
_D-NUH-MN6-6	3/8 MALE NPT	3/8 MALE NPT	0.16 (4.0)	0.35	1.13 (28.6)	1.13 (28.6)	0.50 (12.7)	2.50 (63.5)	1.34 (34.0)	0.78 (19.8)	3.31 (84.0)
_D-NUH-MN8-10	1/2 MALE NPT	1/2 MALE NPT	0.25 (6.4)	0.80	1.56 (39.7)	1.56 (39.7)	0.78 (19.8)	3.50 (88.9)	1.91 (48.5)	1.03 (26.2)	4.13 (105)
_D-NUH-SWT4-4	1/4 SOKET WELD	1/4 SOKET WELD	0.16 (4.0)	0.35	1.13 (28.6)	1.13 (28.6)	0.50 (12.7)	2.50 (63.5)	1.34 (34.0)	0.78 (19.8)	3.70 (94.0)
_D-NUH-SWT6-6	3/8 SOKET WELD	3/8 SOKET WELD	0.16 (4.0)	0.35	1.13 (28.6)	1.13 (28.6)	0.50 (12.7)	2.50 (63.5)	1.34 (34.0)	0.78 (19.8)	3.31 (84.0)
_D-NUH-SWT8-6	1/2 SOKET WELD	1/2 SOKET WELD	0.25 (6.4)	0.80	1.56 (39.7)	1.56 (39.7)	0.78 (19.8)	3.50 (88.9)	1.91 (48.5)	1.03 (26.2)	4.85 (123)
_D-NUH-SWT12-6	12 MM SW	12 MM SW	0.25 (6.4)	0.80	1.56 (39.7)	1.56 (39.7)	0.78 (19.8)	3.50 (88.9)	1.91 (48.5)	1.03 (26.2)	4.85 (123)
_D-NUH-SWT14-6	14 MM SW	14 MM SW	0.25 (6.4)	0.80	1.56 (39.7)	1.56 (39.7)	0.78 (19.8)	3.50 (88.9)	1.91 (48.5)	1.03 (26.2)	4.85 (123)
_D-NUH-FT4-4	1/4" TUBE	1/4" TUBE	0.16 (4.0)	0.35	1.13 (28.6)	1.13 (28.6)	0.50 (12.7)	2.50 (63.5)	1.34 (34.0)	0.78 (19.8)	3.31 (84.0)
_D-NUH-FT6-6	3/8" TUBE	3/8" TUBE	0.16 (4.0)	0.35	1.13 (28.6)	1.13 (28.6)	0.50 (12.7)	2.50 (63.5)	1.34 (34.0)	0.78 (19.8)	3.31 (84.0)
_D-NUH-FT8-10	1/2" TUBE	1/2" TUBE	0.25 (6.4)	0.70	1.97 (50.0)	1.97 (50.0)	0.78 (19.8)	3.50 (88.9)	1.91 (48.5)	1.03 (26.2)	4.25 (108)
_D-NUH-MT10-6	10 MM	10 MM	0.16 (4.0)	0.35	1.13 (28.6)	1.13 (28.6)	0.50 (12.7)	2.50 (63.5)	1.34 (34.0)	0.78 (19.8)	3.31 (84.0)
_D-NUH-MT12-6	12 MM	12 MM	0.25 (6.4)	0.70	1.97 (50.0)	1.97 (50.0)	0.78 (19.8)	3.50 (88.9)	1.91 (48.5)	1.03 (26.2)	4.25 (108)

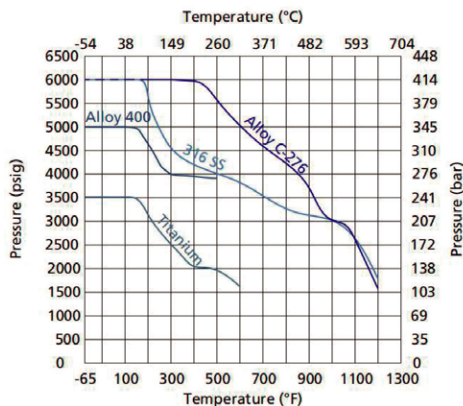
1. Size and types listed are standard. Other sizes and types are available upon request, refer to the ordering information.

2. Dimensions are shown with DSG nuts finger-tightened. All dimensions are for reference only and are subject to change.

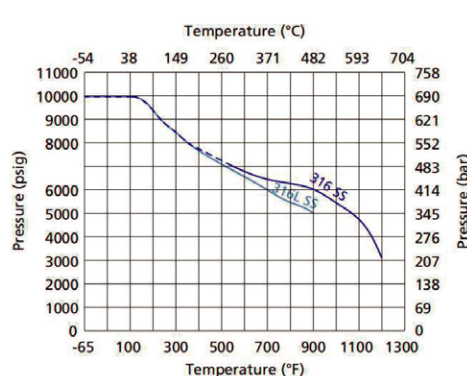
3. For dimensions not shown above, please contact the authorized representative or DSG employees.

PRESSURE VS. TEMPERATURE

NU SERIES

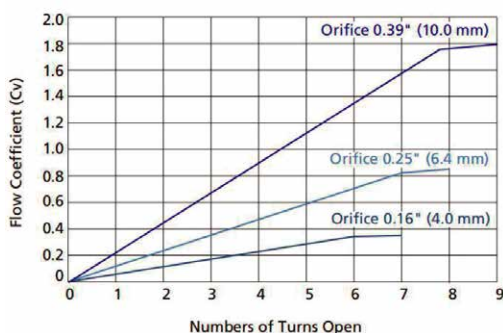


NUH SERIES



FLOW DATA AT 100°F (37°C)

Regulating Stem



NP SERIES: MAXIMUM WORKING PRESSURE 6000 PSI NPG SERIES (WITH GAUGE PORT)

FEATURES

- ° Nonrotating stem for longer seat life
- ° Roddable, straight through flow path for maximum flow with minimum pressure drop
- ° Stem thread lubricant isolated from system media
- ° Replaceable seat and stem tip design
- ° Stem thread protected from outside contamination by PTFE ring the gland
- ° Panel mounting available as an option
- ° Handle color options are available
- ° Leak-tight performance testing for every valve with nitrogen at full maximum working pressure

° Maximum working pressure: Stainless steel: 6000 psig (414 bar)

° Working temperature:

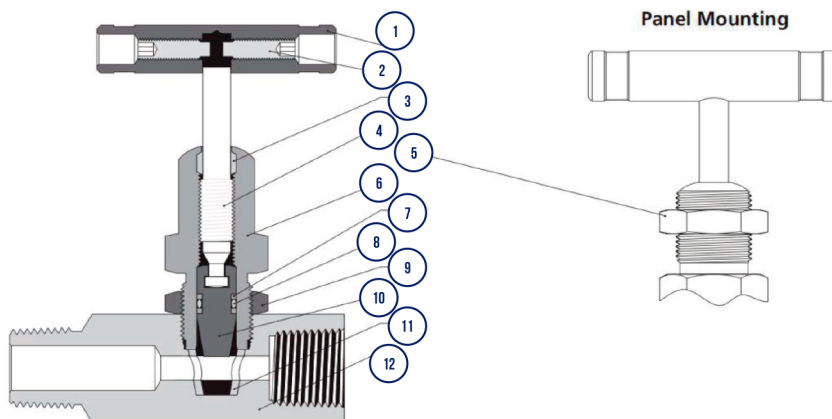
Acetal: -20°F to 250°F (-28°C to 121°C)

PEEK: -20°F to 400°F (-28°C to 204°C)

PFA: -20°F to 400°F (-28°C to 204°C)



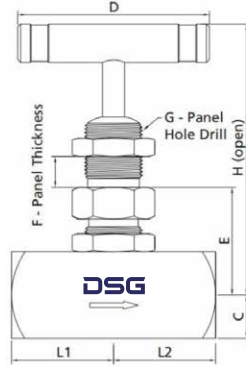
STANDARD MATERIALS OF CONSTRUCTION



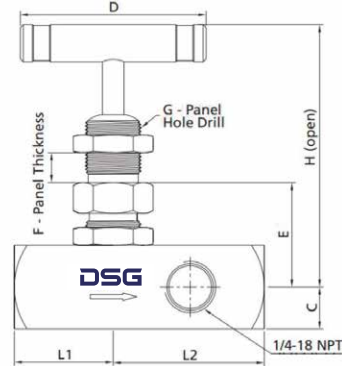
Item	Component	Valve Body Material			
		316 SS	304 SS	321 SS	Alloy R-405
1	Handle	Anodized aluminium or stainless steel or black knob			
2	Set Screw	Stainless steel			
3	Wiper Ring	PTFE/D1710			
4	Upper Stem	316 SS/A276	304 SS/A276	321 SS/A276	Alloy R-405/B164
5	Panel Nut	17-4PH			
6	Bonnet	316 SS/A479	304 SS/A479	321 SS/A479	Alloy R-405/B164
7	Backup Ring	PTFE/D1710			
8	O-ring	Fluorocarbon FKM	Buna-N		Ethlene propylene
9	Lock Nut	17-4PH			
10	Stem Tip	316 SS/A276	304 SS/A276	304 SS/A276	Alloy R-405/B164
11	Seat	Acetal or PEEK or PFA			
12	Body	316 SS/A479	304 SS/A479	304 SS/A479	Alloy R-405/B164

DIMENSIONS

Standard Pattern
NP Series



Gauge Port Pattern
NPG Series



DIMENSIONS OF NP/NPG SERIES

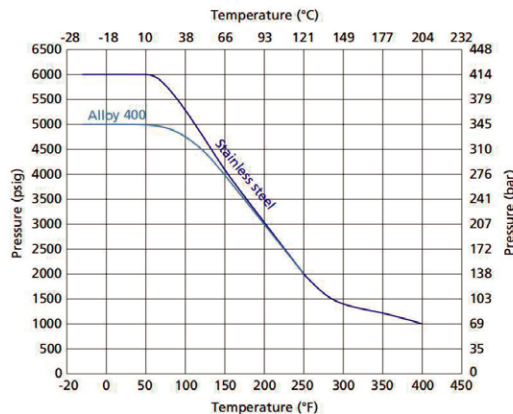
Basic Ordering Number	Connection Type and Size		Orifice in.(mm)	Cv	Dimension, in. (mm)							
	Inlet	Outlet			L1	L2	C	D	E	F		H
_D-NP-FN4-4	1/4" FEMALE NPT	1/4" FEMALE NPT	0.16 (4.0)	0.63	1.12 (28.4)	1.13 (28.6)	0.44 (11.1)	1.77 (45.0)	1.08 (27.5)	0.25 (6.4)	0.65 (16.0)	3.77 (95.8)
_D-NP-MN4-FN4-4	1/4" MALE NPT	1/4" FEMALE NPT	0.16 (4.0)	0.63	1.12 (28.4)	1.13 (28.6)	0.44 (11.1)	1.77 (45.0)	1.08 (27.5)	0.25 (6.4)	0.65 (16.0)	3.77 (95.8)
_D-NP-MN8-FN4-4	1/2" MALE NPT	1/4" FEMALE NPT	0.16 (4.0)	0.63	1.89 (48.0)	1.13 (28.6)	0.44 (11.1)	1.77 (45.0)	1.08 (27.5)	0.25 (6.4)	0.65 (16.0)	3.77 (95.8)
_D-NP-FN8-6	1/2" FEMALE NPT	1/2" FEMALE NPT	0.25 (6.4)	1.80	1.33 (33.8)	1.33 (33.8)	0.56 (14.3)	2.05 (52.0)	1.40 (35.5)	0.38 (9.7)	0.77 (19.6)	3.83 (97.3)
_D-NP-MN8-FN8-6	1/2" MALE NPT	1/2" FEMALE NPT	0.25 (6.4)	1.80	2.16 (55.0)	1.33 (33.6)	0.56 (14.3)	2.17 (55.0)	1.40 (35.5)	0.38 (9.7)	0.77 (19.6)	3.83 (97.3)
_D-NP-MN12-FN8-6	3/4" MALE NPT	1/2" FEMALE NPT	0.25 (6.4)	1.80	2.16 (55.0)	1.33 (33.8)	0.56 (14.3)	2.17 (55.0)	1.40 (35.5)	0.38 (9.7)	0.77 (19.6)	3.83 (97.3)
_D-NP-FN4-4	1/4" FEMALE NPT	1/4" FEMALE NPT	0.16 (4.0)	0.63	1.12 (28.4)	1.75 (44.4)	0.50 (12.7)	2.17 (55.0)	1.08 (27.5)	0.25 (6.4)	0.65 (16.0)	3.77 (95.8)
_D-NP-MN8-FN4-4	1/2" MALE NPT	1/4" FEMALE NPT	0.16 (4.0)	0.63	1.89 (48.0)	1.75 (44.4)	0.50 (12.7)	2.17 (55.0)	1.08 (27.5)	0.25 (6.4)	0.65 (16.0)	3.77 (95.8)
_D-NP-FN8-6	1/2" FEMALE NPT	1/2" FEMALE NPT	0.25 (6.4)	1.80	1.33 (33.8)	2.25 (57.2)	0.56 (14.3)	2.36 (60.0)	1.40 (35.5)	0.38 (9.7)	0.77 (19.6)	3.83 (97.3)
_D-NP-MN12-FN8-6	3/4" MALE NPT	1/2" MALE NPT	0.25 (6.4)	1.80	2.16 (55.0)	2.25 (57.2)	0.56 (14.3)	20 MM	1.40 (35.5)	0.38 (9.7)	0.77 (19.6)	3.83 (97.3)

1. Size and types listed are standard. Other sizes and types are available upon request, refer to the ordering information.

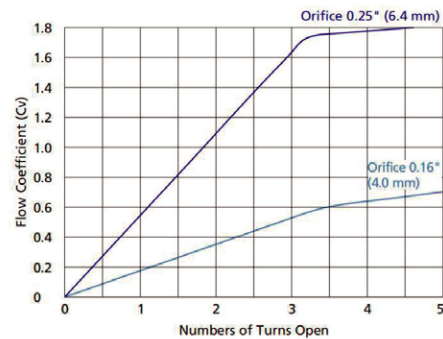
2. Dimensions are shown with DSG nuts finger-tightened. All dimensions are for reference only and are subject to change.

3. For dimensions not shown above, please contact the authorized representative or DSG employees.

Pressure vs. Temperature



Flow Data at 100°F (38°C)



VGT SERIES: MAXIMUM WORKING PRESSURE 6000 PSI

VGP SERIES: MAXIMUM WORKING PRESSURE 6000 PSI

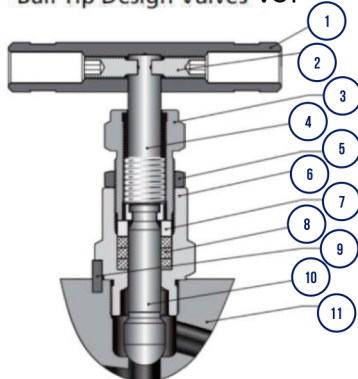
FEATURES

- ° Non-rotating lower stem, ball tip and plug tip designs
- ° Variety of materials for seat and packing
- ° Safety back seating seals in fully open position
- ° Bonnet locking pin fitted as standard
- ° Low torque operating T bar handle
- ° Option for different colored handles
- ° Leak-tight performance testing for every valve with nitrogen at the maximum working pressure
- ° Maximum working pressure: 6000 psig (414 bar)
- ° VGT series working temperature:
PTFE packing: -65°F to 450°F (-54°C to 232°C)
Graphite packing: -65°F to 1200°F (-54°C to 649°C)
- ° VGP series working temperature:
Acetal-seat: -20°F to 250°F (-28°C to 121°C)
PEEK-seat: -20°F to 400°F (-28°C to 204°C)

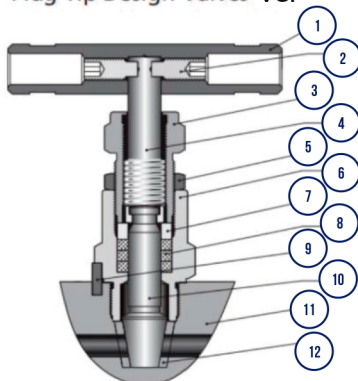


STANDARD MATERIALS OF CONSTRUCTION

Ball Tip Design Valves VGT



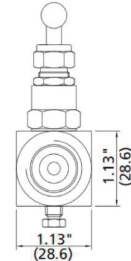
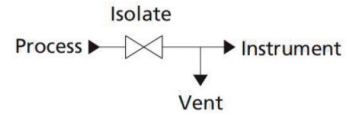
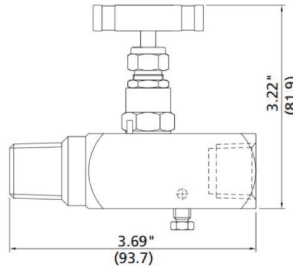
Plug Tip Design Valves VGP



Item	Part	Valve Body Material	
		SS 316	Alloy 400
1	Handle	Anodized aluminum	
2	Set Screw	Stainless steel	
3	Packing Bolt	SS 304	
4	Upper Stem	SS 316	
5	Lock Nut	17-4PH	
6	Bonnet	SS 316	Alloy 400
7	Gland	SS316	
8	Packing	PTFE or graphite	
9	Lock Pin	Stainless steel	
10	Lower Stem	SS 316	Alloy 400
11	Body		
12	Seat	Acetal or PEEK or PFA	

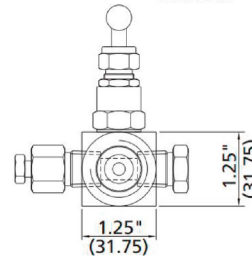
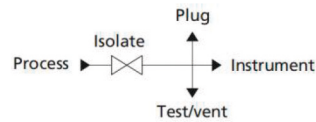
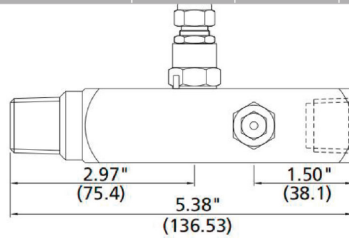
MINIATURE TYPE

Basic Ordering Number	Inlet Process	Outlet Instrument	Vent	Orifice in (mm)	Cv
B-VGT-MN8-FN8-M	1/2 FEMALE NPT	1/2 FEMALE NPT	Vent Stem	0.25 (6.4)	0.9
B-VGT-MN8-FN8-N				0.25 (6.4)	1.8



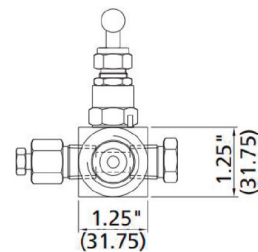
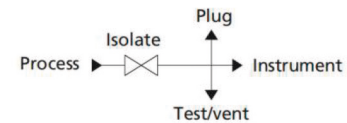
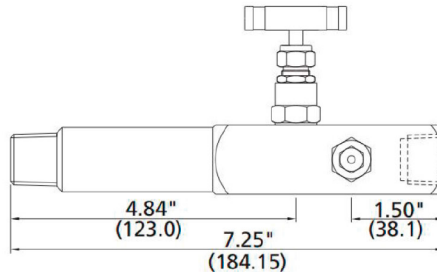
MINIATURE TYPE

Basic Ordering Number	Inlet Process	Outlet Instrument	Test Vent Plug	Orifice in (mm)	Cv
D-VGT-MN8-FN8	1/2 MALE NPT	1/2 FEMALE NPT	1/2 FEMALE NPT	0.25 (6.4)	1.0
D-VGP-MN8-FN8				0.25 (6.4)	1.8
D-VGT-MN12-FN12	3/4 MALE NPT	3/4 FEMALE NPT	1/2 FEMALE NPT	0.25 (6.4)	1.0
D-VGP-MN12-FN12				0.25 (6.4)	1.8



LAGGING EXTENSION BODY TYPE

Basic Ordering Number	Inlet Process	Outlet Instrument	Vent	Orifice in (mm)	Cv
D VGT-MN8-FN8-L	1/2 FEMALE NPT	1/2 FEMALE NPT	Vent Stem	0.25 (6.4)	1.2
D VGP-MN8-FN8-L				0.25 (6.4)	1.8





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