

# NEEDLE VALVE SERIES A6NV1

## Bar Stock Needle Valve ---N1 Series

### Performance

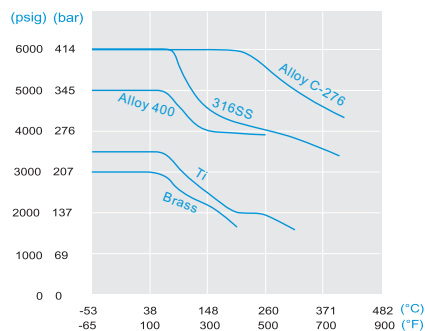
- Rolled threads of packing bolt ensures longer life service
- Double lock pins promise steady and durable fastening of valve handle
- Stop pin prevents loosening of valve cover
- Cold rolled threads of valve stem
- Stellite surfacing lower stem has better wear resistance
- Back seat seals in fully open position



### Pressure vs. Temperature

PTFE: Used under ordinary temperature

Grafoil: Used under higher temperature



### Features

- Material: 316SS, titanium, other material as request
- Working Pressure: Up to 6000 psi (413 bar)
- Working Temperature: -65°F to 850°F (-53°C to 455°C)
- End Connection Type: Metric and fractional tube fittings, NPT threads, ISO/BSP threads, weld ends
- End Connection Size: 1/8 to 1 1/4 in., 3 to 28 mm

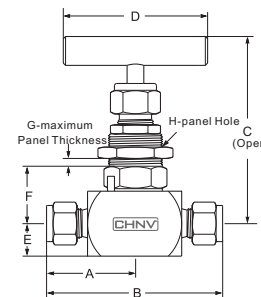
### Ordering Information

**A**   **B**   **C**   **D**   **E**   **F**   **G**  
316 - N1 4 - F 4 - A - Y

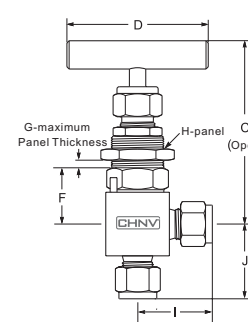
A	Body Material	B	Valve Series	C	DN	D	End Connection Type						
	<b>316</b> = 316 SS <b>304</b> = 304 SS <b>304L</b> = 304L SS <b>321</b> = 321 SS <b>D5</b> = Duplex 2205 <b>TI</b> = Titanium <b>400</b> = Alloy 400 <b>C276</b> = Alloy C-276		<b>N1</b> = Bar Stock Needle Valve		<b>2</b> = 2.0 mm <b>4</b> = 4.0 mm <b>6</b> = 6.0 mm <b>10</b> = 10.0 mm <b>15</b> = 15.0 mm <b>20</b> = 20.0 mm		<b>M</b> = Metric Tube Fitting <b>F</b> = Fractional Tube Fitting <b>MTB</b> = Metric Butt Weld <b>TB</b> = Fractional Butt Weld <b>MTS</b> = Metric Socket Weld <b>TS</b> = Fractional Socket Weld <b>UMB</b> = Union Butt Weld						
E End Connection Size													
Code	2	4	6	8	10	12	14	16	18	20	22	25	28
Fractional	1/8 in.	1/4 in.	3/8 in.	1/2 in.		3/4 in.		1 in.					
Metric			8 mm	10 mm	12 mm	14 mm	16 mm	18 mm	20 mm	22 mm	25 mm	28 mm	

### Ordering Information & Dimension

#### Straight



#### Angle



End Connection		Ordering Number	DN (mm)	Cv	Size (mm)									
Inlet/Outlet	Size				A	B	C	D	E	F	G	H	I	J
Fractional Tube Fitting	3/8 in.	N16-F6	6.0	0.85	45.5	91	87.3	65.0	14.3	25.4	9.7	24.4	45.5	45.5
	1/2 in.	N16-F8			48.3	96.6							48.3	48.3
	3/4 in.	N110-F12	10.0	2.18	47.1	94.2	93.0	75.0	22.2	34.9	9.7	27.5	47.1	47.1
Metric Tube Fitting	10 mm	N16-M10	6.0	0.85	45.8	91.6	88.9	65.0	14.3	25.4	9.7	24.4	45.8	45.8
	12 mm	N16-M12			48.2	96.4							48.2	48.2
	14 mm	N16-M14			48.2	96.4								
	16 mm	N110-M16	10.0	2.18	47.1	94.2	93.0	75.0	22.2	34.9	9.7	27.5	47.1	47.1
18 mm	N110-M18													
Fractional Socket Weld	3/8 in.	N16-TS6	6.0	0.85	28.6	57.2	88.9	65.0	14.3	25.4	9.7	24.4	28.6	28.6
	1/2 in.	N16-TS8			37.0	74.0							37.0	37.0
	3/4 in.	N110-TS12	10.0	2.18	37.0	74.0	93.0	75.0	22.2	34.9	9.7	27.5	—	—
Metric Socket Weld	1 in.	N110-TS16	20.0	5.65	50.0	100.0	123.0	90.0	31.5	—	—	—	—	—
	12 mm	N16-MTS12	6.0	0.85	28.6	57.2	88.9	65.0	14.3	25.4	9.7	24.4	28.6	28.6
	14 mm	N16-MTS14			37.0	74.0							37.0	37.0
	16 mm	N110-MTS14	10.0	2.18	37.0	74.0	93.0	75.0	22.2	34.9	9.7	27.5	—	—
	16 mm	N16-MTS16	6.0	0.85	28.6	57.2	88.9	65.0	14.3	25.4	9.7	24.4	28.6	28.6
16 mm	N110-MTS16	10.0	2.18	37.0	74.0	93.0	75.0	22.2	34.9	9.7	27.5	—	—	
Metric Butt Weld	28 mm	N120-MTS28	20.0	5.65	50.0	100.0	123.0	90.0	27.0	—	—	—	—	—
	14 mm	N16-MTB14	6.0	0.85	38.1	76.2	88.9	65.0	14.3	25.4	9.7	24.4	38.1	38.1
		N110-MTB14	10.0	2.18	37.0	74.0	93.0	75.0	22.2	34.9	9.7	27.5	—	—
	16 mm	N16-MTB16	6.0	0.85	38.1	76.2	88.9	65.0	14.3	25.4	9.7	24.4	38.1	38.1
N110-MTB16		10.0	2.18	37.0	74.0	93.0	75.0	22.2	34.9	9.7	27.5	—	—	
28 mm	N120-MTB28	20.0	5.65	50.0	100.0	123.0	90.0	27.0	—	—	—	—	—	

**F** Straight 2-way type is standard for N1 series needle valve, add **A** as a suffix if angle type is required.

eg.: 316-N110-F8-A

**G** If the installation is panel mount, add **Y** as a suffix

eg.: 316-N110-F8-Y