

High Pressure Bar Stock Needle Valve

SHBNV Series

Features

- Bar stock body
- Compact design
- Low operating torques
- Variety of End Connections
- Straight and Angle flow patterns
- Each and every valve is tested at the factory



Specifications

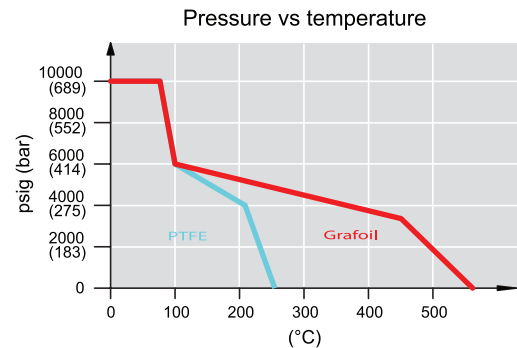
Maximum Working Pressure rating	10000psig (689bar) @100°F(38°C)
Temperature rating	-65 to 450°F (-54 to 232 °C) with PTFE packing
Body material	316 stainless steel, Carbon steel
Orifice	0.197" (5.0mm)

Testing

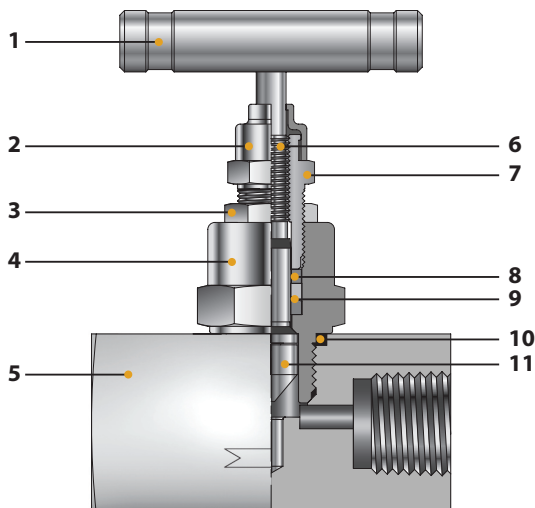
- Each Valve is tested with nitrogen at 1000psig(69bar) to maximum allowable leak rate of 0.1 SCCM.
- Hydrostatic shell test is performed at 1.5 times of the working pressure. (OPTION)

Technical Data

Body Material	Stainless Steel	Carbon Steel
Temperature Rating	-65 °F ~ 450 °F (-54 °C ~ 232 °C)	-20 °F ~ 350 °F (-29 °C ~ 176 °C)
Pressure Rating @ 100 °F	10000 psig (413 bar)	10000 psig (413 bar)
Pressure Rating @ Max Temperature	4000 psig @ 500 °F 276 bar @ 260 °C	5230 psig @ 350 °F 360 bar @ 176 °C



Materials of Construction



No.	Component	Material Grade / ASTM Specification	
		Stainless Steel	Carbon Steel
1	Bar Handle	Stainless Steel	
2	Dust Cap	PVC	
3	Lock Nut	Stainless Steel	
4	Bonnet	SS316 / A479	A105
5	Body	SS316 / A479	A105
6	Stem	SS316 / A479	
7	Packing Bolt	SS316 / A479	
8	Packing Gland	SS316 / A479	
9	Packing	PTFE, Grafoil	
10	Bonnet Seal	PTFE, Grafoil	
11	Vee Tip	SS630 / A564	

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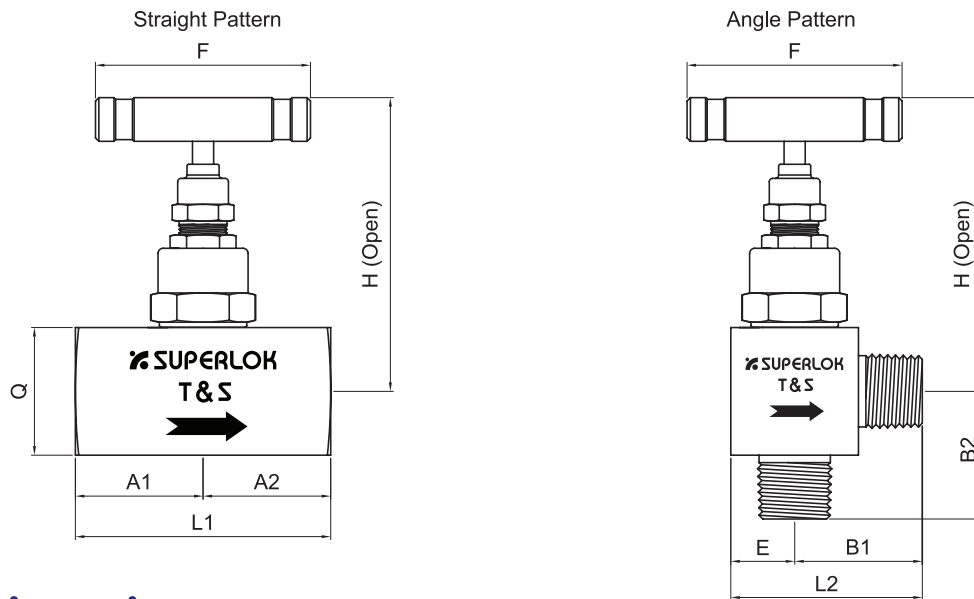


Table of Dimensions

Order Number		Orifice (mm)	Cv	End Connections		Dimensions										
Series	Part No.			Inlet	Outlet	L1	A1	A2	Q	L2	B1	B2	E	F	H	
SHBNV	F	4N	5.0	0.52	1/4 Female NPT		76.0	38.0	38.0	38.0	57.0	38.0	38.0	19.0	64.0	87.5
	MF	4N			1/4 Male NPT	1/4 Female NPT										
	F	6N			3/8 Female NPT		82.0	44.0								
	MF	6N			3/8 Male NPT	3/8 Female NPT										
	F	8N			1/2 Female NPT		76.0	38.0								
	MF	8N			1/2 Male NPT	1/2 Female NPT	87.0	49.0								
	F	12N			3/4 Female NPT		84.0	42.0								

Ordering Information

SHBNV - MF - 8N - AH - A - GR - SS

1
2
3
4
5
6

1. Port Type(Inlet x Outlet)

- M : Male Pipe Thread
- F : Female Pipe Thread
- MF : Male Pipe Thread x Female Pipe Thread

2. Port Size

- Pipe Thread Designation

Size (inch)	1/4	3/8	1/2	3/4
Screwed BSPT	4R	6R	8R	12R
Screwed NPT	4N	6N	8N	12N

3. Handle

- Nil : Stainless Steel Bar Handle (Standard)
- AH : Anodized black aluminum bar handle

4. Flow Pattern

- Nil : Straight Pattern (Standard)
- A : Angle Pattern

5. Packing Material

- Nil : PTFE (Standard)
- GR : Grafoil

6. Body Material

- SS : 316 Stainless Steel
- C : Carbon Steel