

High Pressure Bar Stock Needle Valves

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

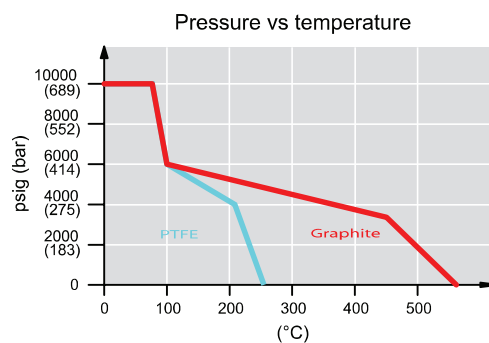
Maximum Working Pressure rating	10000psig (689bar) @100°F(38°C)
Temperature rating	-65 to 450°F (-54 to 232 °C) with PTFE packing
Body material	316 stainless steel, Carbon steel
Orifice	0.197" (5.0mm)

Testing

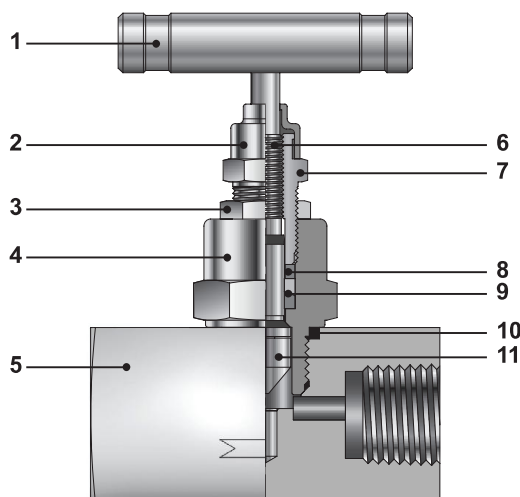
- Each Valve is tested with nitrogen at 1000psig(69bar) to maximum allowable leak rate of 0.1 SCCM.
- Hydrostatic shell test is performed at 1.5 times of the working pressure. (OPTION)

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 (689bar)	10000 psig (689bar)
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	Nylon	
3	Lock Nut	Stainless Steel	
4	Bonnet	SS316 / A479	A105
5	Body	SS316 / A479	A105
6	Stem	SS316 / A479	
7	Packing Bolt	SS316 / A276	
8	Packing Gland	SS316 / A276	
9	Packing	PTFE, Graphite	
10	Bonnet Seal	PTFE, Graphite	
11	Vee Tip	SS630 / A564	

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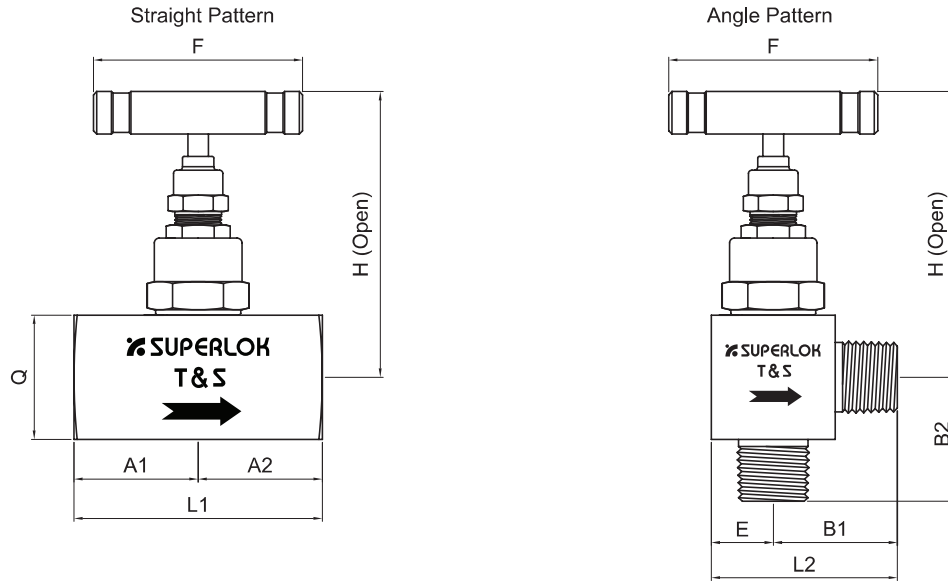


Table of Dimensions

Part Number		Orifice	Cv	End Connections		Dimensions									
				Inlet	Outlet	L1	A1	A2	Q	L2	B1	B2	E	F	H
SHBNV	F4N	4.0	0.52	1/4 Female NPT		60.4	30.2	30.2	32.0	51.0	35.0	35.0	16.0	64.0	85.5
	M4N-F4N			1/4 Male NPT	1/4 Female NPT	62.0	31.8								
	F6N			3/8 Female NPT		68.0	34.0	34.0							
	M6N-F6N			3/8 Male NPT	3/8 Female NPT	70.0	36.0								
	F8N			1/2 Female NPT		70.0	35.0	35.0							
	M8N-F8N			1/2 Male NPT	1/2 Female NPT	79.0	44.0								

* All dimensions in millimeters unless specified as "inch". Dimension are for reference only, subject to change.

Ordering Information

Example : **SHBNV - M 8N - F 8N - AH - GR - SS**

1
2
3
2
3
4
5
6

1. Valve Series

SHBNV : Straight Flow Pattern
SHBNVA : Angle Flow Pattern

2. (Inlet x Outlet)

M : Male Pipe Thread
F : Female Pipe Thread

3. Port Size

Pipe Thread Designation

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

4. Handle

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

5. Packing Material

Nil : PTFE (Standard)
GR : Grafoil

6. Body Material

SS : 316 Stainless Steel
C : Carbon Steel