

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

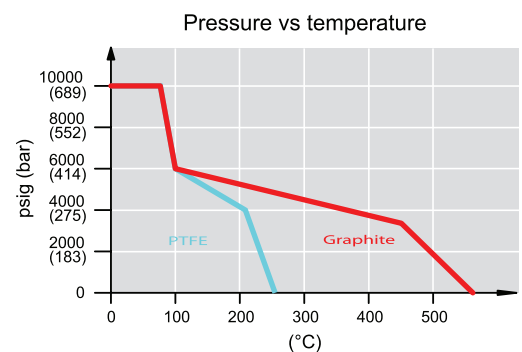
Maximum Working Pressure rating	10000psig (689bar) @100°F(38°C)
Temperature rating	-65 to 450°F (-54 to 232 °C) with PTFE packing
Body material	316 stainless steel, Carbon steel
Orifice	0.197 in. (5.0mm)

Testing

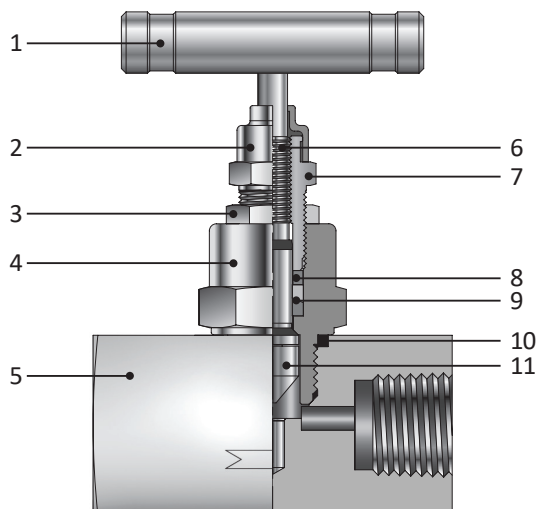
- Each Valve is tested with nitrogen at 1000psig(69bar) to maximum allowable leak rate of 0.1 SCCM.
- Hydrostatic shell test is performed at 1.5 times of the working pressure. (OPTION)

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	

* Wetted components

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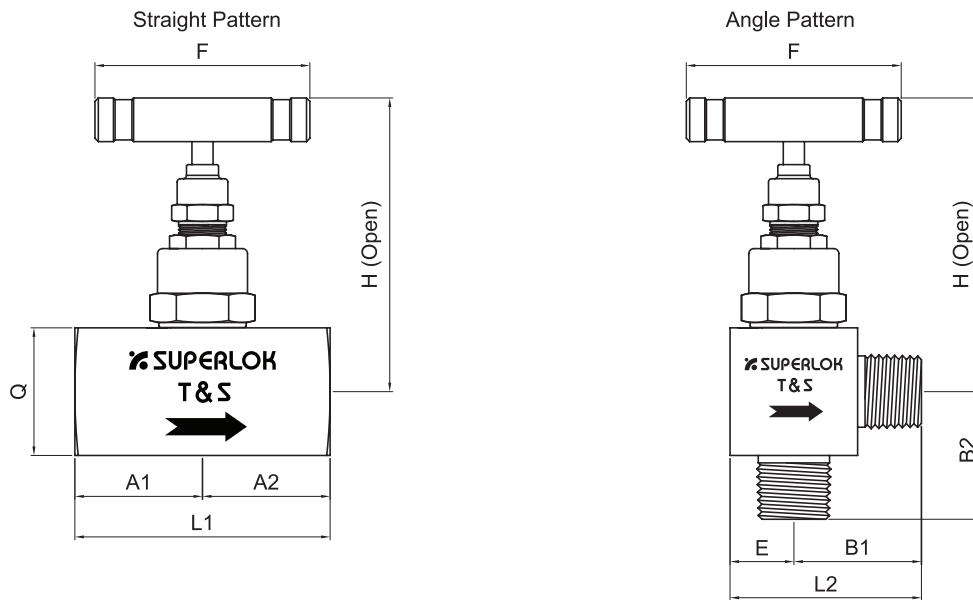


Table of Dimensions

Part No.	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	60.4	30.2	30.2							
	F6N			3/8 Female NPT		61.0	30.5	30.5							
	M6N-F6N			3/8 Male NPT	3/8 Female NPT	61.0	30.5	30.5							
	F8N			1/2 Female NPT		68.0	34.0	34.0							
	M8N-F8N			1/2 Male NPT	1/2 Female NPT	68.0	34.0	34.0							

- Dimensions and Drawings are for reference only and are subject to change without prior notice.
- Unless otherwise specified, all dimensions are in millimeters.
- Sizes, pressure classes, and end connections not listed are available upon request.
- Dimensions shown with SUPERLOK nuts finger-tight, where applicable.

Ordering Information

Example :

	Inlet	Outlet					
SHBNV	M8N	F8N	AH	GR	C		
1	2	3	2	3	4	5	6

1. Valve Series

- SHBNV = Straight Flow Pattern
- SHBNVA = Angle Flow Pattern

2. Port Type

- M = Male Pipe Thread
- F = Female Pipe Thread

3. Port Size

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

4. Handle

- (Blank) = Stainless Steel Bar Handle (Standard)
- AH = Anodized black aluminum bar handle

5. Packing Material

- (Blank) = PTFE (Standard)
- GR = Grafoil

6. Body Material

- (Blank) = 316 Stainless Steel
- C = Carbon Steel

※ For special sizes and configurations, please consult BMT (SUPERLOK) sales representative.