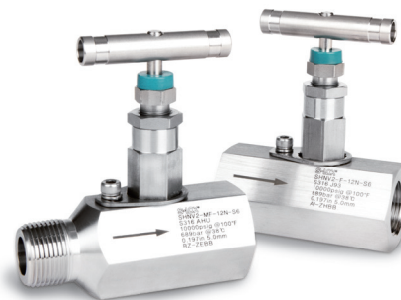


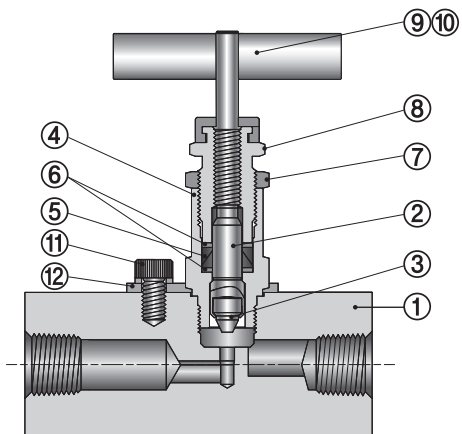
SHNV100 Series High Pressure Needle Valves

Features

- Pressure rating up to 10000psig (689bar) at 21 °C (70 °F).
- Temperature rating from -54 °C (-65 °F) to 232 °C (450 °F) with standard PTFE packing and up to 648 °C (1200 °F) with optional Graphite packing.
- Chevron PTFE packing design provides highly qualified sealing maintain ability.
- Packing Bolt allows external packing adjustment.
- Packing under the stem threads is to isolate threads from system fluid and lubricant washout.
- Non-rotating stem tip at closure is used for long-life and leak-tight shutoff.
- Lock plate ensures the valve to be fastened to the body.
- Available Sour Gas service per NACE MR0175.



Materials of Construction



No	Component	Material	
		Stainless Steel	Carbon Steel
1	Body	SS316 / A479 or A276	JIS G4051
2	Stem	SS316 / A479 or A276	
3	Stem Tip	SS630 / A564 (17-4PH)	
4	Bonnet	SS316 / A479 or A276	JIS G4051
5	Packing	Chevron PTFE (Optional PEEK)	
6	Packing Ring	Reinforced PTFE	
7	Lock Nut	SS316 / A276	
8	Packing Bolt	SS316 / A479 or A276	JIS G4051
9	Set Screw	Stainless Steel	
10	Bar Handle	Stainless Steel	
11	Lock Bolt	Stainless Steel	
12	Lock Plate	Stainless Steel	

* Carbon Steel finished White zinc galvanized.

Technical Data

Pressure-Temperature Rating with Packing and Body Material

Valve Material	Packing Material	Temperature Range °C (°F)	Pressure Rating @38 °C(100 °F)	Pressure Rating @Max. Temp.
Stainless Steel 316	PTFE	-54 °C to 232 °C (-65 °F to 450 °F)	10000psig (689 bar)	4130psig (285 bar)
	Graphite	-54 °C to 648 °C (-65 °F to 1200 °F)		1715psig (118bar)
Carbon Steel	PTFE	-29 °C to 176 °C (-20 °F to 350 °F)	10000psig (689 bar)	5230psig (360 bar)
	Graphite	-29 °C to 176 °C (-20 °F to 350 °F)		

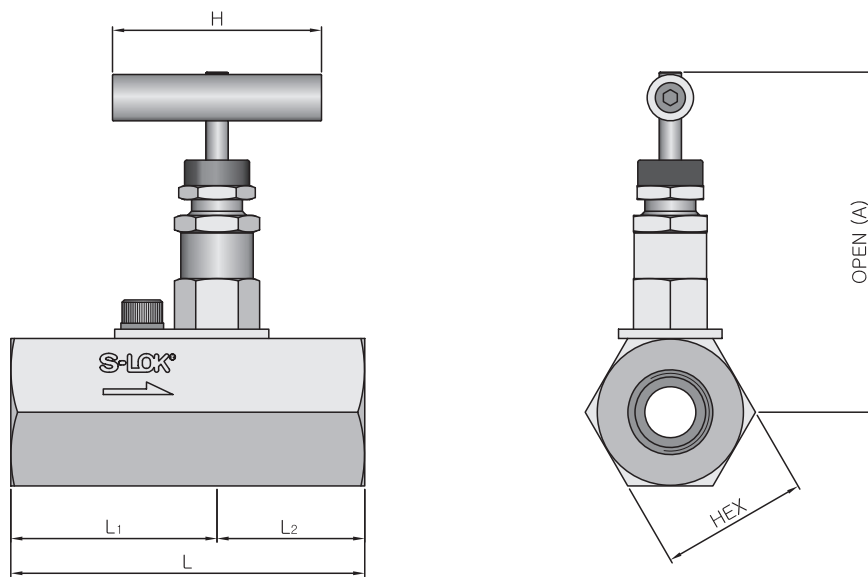
Packing Adjustment and Actuation Torque

- Extreme or rapid temperature cycle while valve in service may require packing adjustment.
- Valves that have not been actuated for a period of time may have a higher initial actuation torque.

Testing

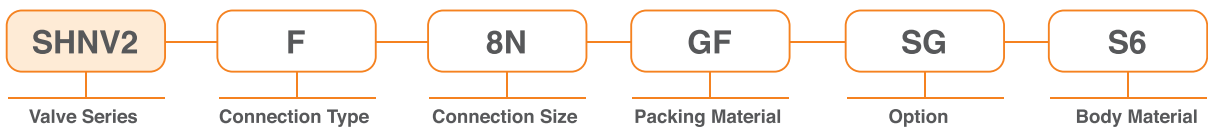
- Every valve is factory tested with Nitrogen @ 1000psig (69bar)
- Seats have a maximum allowable leak of 0.1 (SSCM).
- Stem packing is tested for the detection of no leakage.

Ordering Information & Dimensions



Ordering Number		Orifice (mm)	End Connections		Dimensions (mm)					
			Inlet	Outlet	A	L	L ₁	L ₂	HEX	H
SHNV1	F-4N	3.2	1/4" Female NPT		72.7	76.2	44.4	31.8	31.8	45.0
	F-6N		3/8" Female NPT							
SHNV2	F-8N	5.0	1/2" Female NPT		94.8	76.2	38.1	38.1	38.1	64.0
	MF-8N		1/2" Male NPT	1/2" Female NPT						
	MF-12N		3/4" Male NPT	3/4" Female NPT	98.2	95.2	57.1	44.5		

* Dimensions are for reference only and are subject to change.



- Nil : PTFE (Standard)
- GF : Graphite Packing
- Nil : Standard
- SG : Sour Gas Service
- S6 : 316 Stainless Steel
- CS : Carbon Steel