



Cost Effective and Reliable Source For Instrumentation Needle Valves

SERIES - BS01
BSA01



www.sealexcel.com

*Advanced Technology in design, development and production of world class quality Fittings and Valves for Instrumentation, Process Tubing etc. ensure
A TOTAL CUSTOMER SATISFACTIONS*



Unit-II, Gujarat (Plant-1)



Unit-II, Gujarat (Plant-2)

SEALEXCEL (INDIA) PVT. LTD. A fast growing manufacturing company having over 25 years of experience and expertise with advanced technology in Design, Development and Manufacturing World Class consistent and reliable quality Tube Fittings and Valves used in Fluid/Gas Control System in Industries like Automobile, Chemicals, Petrochemicals, Oil & Gas, Marine, Food, Biotechnology, Pharmaceutical, Packaging and Printing Industries etc.

We have two well-equipped modern manufacturing plant including in-house product performance testing facilities to check and verify the maximum safety and consistent reliable performance under adverse, harsh, stressful environments like vibrations, high pressure, deep vacuum and thermal shock etc.

RESEARCH & DEVELOPMENT

By continuous Research & Development with advanced technology and high tech cutting edge machineries. SEALEXCEL produce best quality products for its customers.

QUALITY

SEALEXCEL's total quality system and control from incoming raw material inspection through ongoing quality assurance during production, final inspection, assembly, testing, packing and dispatch ensure high standard quality products which has earned us various quality certifications such as

- ISO 9001:2015
- PED 2014/68/EU
- ATEX
- OHSAS 18001 (Safety)
- ISO 14001 (Environment)

SEALEXCEL products are validated by type testing in accordance with

- ASTM F 1387-99(2012)
- ECE R110, ISO 15500
- BS4368:4:1984
- MSS SP-99-2010
- Helium Leak Test
- ARAI Test Report

CUSTOMER SATISFACTION

We strive for Total Customer Satisfaction and continuously work to set of goals to provide the best quality and delivery of products and services in the best interest of our customers.

NEEDLE VALVES : SERIES - BS01



FEATURES / BENEFITS

- Available in material SS316, Inconel, Monel, Duplex etc. all wetted parts in accordance with NACE MR01-75
- Heat Code Traceable to certified material test report
- Spring loaded PTFE/Graphite Packing ensure Bubble tight sealing and compensate for wear and pressure/temperature changes
- Low operating torques,
- Bar stock Body in Straight and Angle Patterns, Panel mountable
- Anti Blow-out stem, Variety of stem tips, PTFE packing standard
- Flow coefficient (Cv) From 0.35 to 1.8
- Orifice size : 0.156" (4.0 mm), 0.250" (6.4mm), 0.375" (9.5mm)
- Variety of end configuration includes SEALEXCEL® Well-Lok™ Tube Fittings, Male / Female NPT, BSPT, BSPP pipe and tube socket weld connections
- Every valve is factory tested



OPERATING PARAMETERS

Pressure Rating : upto 6000 psig (408 bar) at CWP
 Temperature Rating : -54°C to 232°C with PTFE packing
 : upto 426°C with graphite packing

APPLICATIONS

- General Plant Service
- Instrument Isolations
- Hydraulic and Pneumatic
- Pressuring measurement devices
- Venting

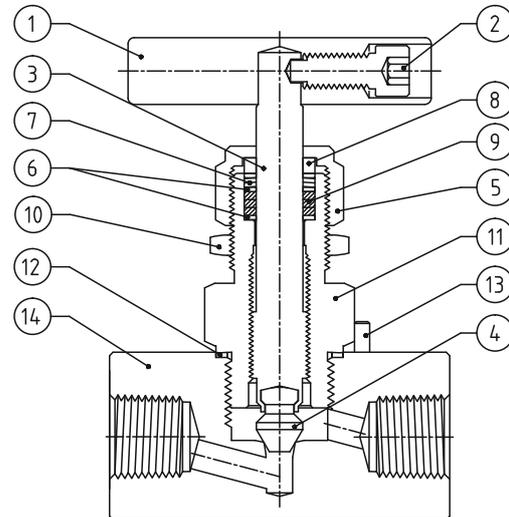
STEM TYPE :

SEALEXCEL® Needle Valves are available with choice of optional stem to provide greater flexibility.

- NON-ROTATING (NR) : It is Standard self centering non rotating stem tip typically used in high cycle application to extend the valve life.
 V-STEM (VS) : It is used for general purpose liquid and gases.
 SOFT SEAT (SS) : A soft seat stem requires a lower sealing torque, It is replaceable and suitable for temperature upto 120°C
 REGULATING STEM (RS) : It is used where some degree of flow control required.

MATERIAL OF CONSTRUCTIONS

Sr. No.	Component	Material
1	Bar Handle	SS316
2	Set Screw	SS316
3	Stem	SS316
4	Stem Tip	SS316
5	Packing Nut	SS316
6	Packing Washer	SS316
7	Packing Spring	Stainless Steel
8	Packing Gland	SS316
9	Packing	PTFE/Graphite
10	Panel Nut	SS316
11	Bonnet	SS316
12	Washer	SS316
13	Bonnet Lock Pin	SS316
14	Valve Body	SS316



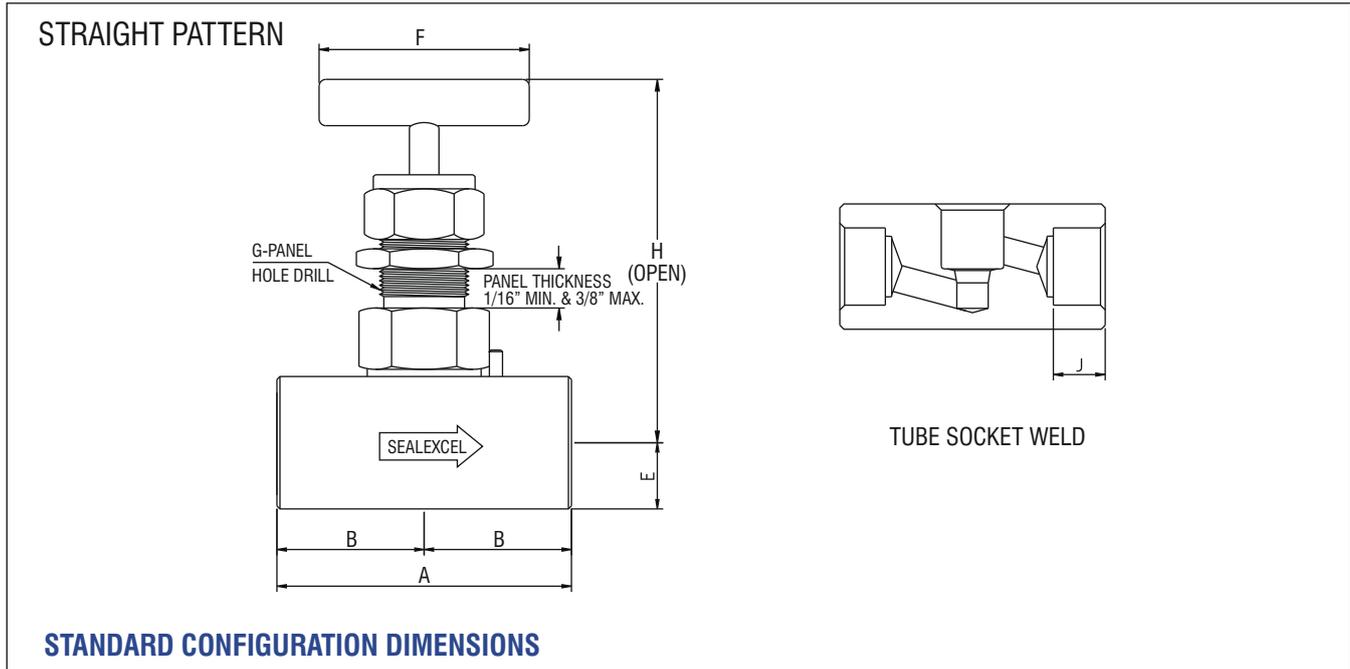
TECHNICAL DATA :-

The Temperature and Pressure rating for a standard valve with PTFE packing.

Temperature	Pressure	
	psig	bar
-54°C to 38°C	5000	340
-54°C to 93°C	4295	292
-54°C to 148°C	3845	264
-54°C to 176°C	3715	254
-54°C to 204°C	3560	242
-54°C to 232°C	3435	234

TESTING :

- Standard Test : Each valve is factory tested with nitrogen at 1000 psig (69 bar) for leakage at the seat and packing.
- Optional Hydrostatic test : This test is performed with de-ionised water at 1.5 times the working pressure

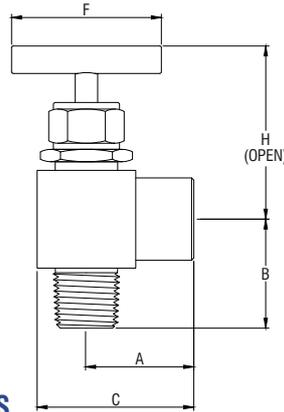


End Connections		Orifice	Cv	Dimensions (mm)							Ordering Number
Inlet	Outlet			A	B	E	F	G	H	J	
1/4" Well-Lok	1/4" Well-Lok	4.0	0.35	62.0	31.0	12.7	52.5	15.1	66.8	-	BS01-TT4
3/8" Well-Lok	3/8" Well-Lok	6.4	0.86	73.0	36.5	14.3	63.5	19.9	76.2	-	BS01-TT6
1/2" Well-Lok	1/2" Well-Lok	6.4	0.86	77.8	38.9	14.3	63.5	19.9	76.2	-	BS01-TT8
3/4" Well-Lok	3/4" Well-Lok	9.5	1.8	100.0	50.0	15.9	69.9	26.2	85.8	-	BS01-TT12
6mm Well-Lok	6mm Well-Lok	4.0	0.35	62.0	31.0	12.7	52.5	15.1	76.2	-	BS01-TT6M
8mm Well-Lok	8mm Well-Lok	4.0	0.35	62.0	31.0	12.7	52.5	15.1	76.2	-	BS01-TT8M
10mm Well-Lok	10mm Well-Lok	6.4	0.86	73.0	36.5	14.3	63.5	19.9	76.2	-	BS01-TT10M
12mm Well-Lok	12mm Well-Lok	6.4	0.86	77.8	38.9	14.3	63.5	19.9	76.2	-	BS01-TT12M
1/8" Female NPT	1/8" Female NPT	4.0	0.35	50.8	25.4	12.7	52.5	15.1	66.8	-	BS01-FF2N
1/4" Female NPT	1/4" Female NPT	4.0	0.35	57.2	28.6	12.7	52.5	15.1	66.8	-	BS01-FF4N
3/8" Female NPT	3/8" Female NPT	6.4	0.86	60.4	30.2	14.3	63.5	19.9	76.2	-	BS01-FF6N
1/2" Female NPT	1/2" Female NPT	6.4	0.86	79.4	39.7	15.9	63.5	19.9	85.8	-	BS01-FF8N
3/4" Female NPT	3/4" Female NPT	9.5	1.8	79.4	39.7	17.5	69.9	26.2	90.0	-	BS01-FF12N
1/4" TSW	1/4" TSW	4.0	0.35	46.0	23.0	12.7	52.5	15.1	66.8	7.2	BS01-TSW4
3/8" TSW	3/8" TSW	6.4	0.86	57.2	28.6	14.3	63.5	19.9	76.2	8.0	BS01-TSW6
1/2" TSW	1/2" TSW	6.4	0.86	57.2	28.6	14.3	63.5	19.9	76.2	9.5	BS01-TSW8
3/4" TSW	3/4" TSW	9.5	1.8	79.4	39.7	15.9	69.9	26.2	85.8	11.1	BS01-TSW12
6mm TSW	6mm TSW	4.0	0.35	46.0	23.0	12.7	52.5	15.1	66.8	7.2	BS01-TSW6M
8mm TSW	8mm TSW	4.0	0.35	46.0	23.0	12.7	52.5	15.1	66.8	7.2	BS01-TSW8M
10mm TSW	10mm TSW	6.4	0.86	57.2	28.6	14.3	63.5	19.9	76.2	8.0	BS01-TSW10M
12mm TSW	12mm TSW	6.4	0.86	57.2	28.6	14.3	63.5	19.9	76.2	9.5	BS01-TSW12M
1/4" Male NPT	1/4" Female NPT	4.0	0.35	57.2	28.6	12.7	52.5	15.1	66.8	-	BS01-MF4N
3/8" Male NPT	3/8" Female NPT	6.4	0.86	60.4	30.2	14.3	63.5	19.9	76.2	-	BS01-MF6N
1/2" Male NPT	1/2" Female NPT	6.4	0.86	79.4	39.7	15.9	63.5	19.9	85.8	-	BS01-MF8N
3/4" Male NPT	3/4" Female NPT	9.5	1.8	79.4	39.7	17.5	69.9	26.2	90.0	-	BS01-MF12N
1/4" Male NPT	1/4" Male NPT	4.0	0.35	57.2	28.6	12.7	52.5	15.1	66.8	-	BS01-MM4N
3/8" Male NPT	3/8" Male NPT	6.4	0.86	60.4	30.2	14.3	63.5	19.9	76.2	-	BS01-MM6N
1/2" Male NPT	1/2" Male NPT	6.4	0.86	79.4	39.7	15.9	63.5	19.9	85.8	-	BS01-MM8N
3/4" Male NPT	3/4" Male NPT	9.5	1.8	82.6	41.3	17.5	69.9	26.2	90.0	-	BS01-MM12N

Dimensions shown with SEALEXCEL® Well-Lok™ Nut are finger tight

Dimensions are for reference only and subject to change

ANGLE PATTERN



STANDARD CONFIGURATION DIMENSIONS

End Connections		Orifice	Cv	Dimensions (mm)					Ordering Number
Inlet	Outlet			A	B	C	F	H	
1/4" Well-Lok	1/4" Well-Lok	3.2	0.21	28.7	29.5	39.9	44.4	42.2	BSA01-TT4
1/4" Female NPT	1/4" Female NPT	3.2	0.21	25.4	25.4	36.6	44.4	42.2	BSA01-FF4N
1/2" Female NPT	1/2" Female NPT	6.4	0.73	35.8	35.8	52.3	63.5	58.7	BSA01-FF8N
1/4" Male NPT	1/4" Well-Lok	3.2	0.21	28.7	25.4	39.9	44.4	42.2	BSA01-MT4N
1/4" Male	1/4" Female NPT	3.2	0.21	25.4	26.2	36.6	44.4	42.2	BSA01-MT4N
3/8" Male	3/8" Female NPT	6.4	0.73	35.8	31.0	52.3	63.5	58.7	BSA01-MT6N
1/2" Male	1/2" Female NPT	6.4	0.73	35.8	35.8	52.3	63.5	58.7	BSA01-MT8N

Dimensions shown with SEALEXCEL® Well-Lok™ Nut are finger tight

Dimensions are for reference only and subject to change

ORDERING INFORMATION

VALVE DESCRIPTION	ORDERING NUMBER FOR TUBE CONNECTIONS	ORDERING NUMBER FOR PIPE END CONNECTIONS
NEEDLE VALVES	<u>BS01-TT 8-E T-NR</u> 1 2 3 5 6 7	<u>BS01-FF 8 N-E T-NR</u> 1 2 3 4 5 6 7

1. VALVE SERIES CODE DESCRIPTION

NEEDLE VALVES SERIES : STRAIGHT PATTERNS - BS01
: ANGLE PATTERNS - BSA01

2. END CONNECTION TYPE CODE DESCRIPTION

TT - SEALEXCEL® Well-Lok™ Tube Fittings
MM - Male pipe thread
FF - Female pipe thread
MT - Male pipe thread to SEALEXCEL® Well-Lok™ Tube Fittings
MF - Male pipe thread to Female pipe thread
TSW - Tube Socket Weld Pipe

4. PIPE THREAD TYPE CODE DESCRIPTION

N - Male / Female NPT
RT - Male / Female BSPT
RG - Female BSP
SE - SAE Straight Thread

3. END CONNECTION SIZE CODE DESCRIPTION

TUBE OD SIZE

FRACTIONAL		METRIC	
SIZE	CODE	SIZE	CODE
1/4"ODT	4	6mm ODT	6M
3/8"ODT	6	8mm ODT	8M
1/2" ODT	8	10mm ODT	10M
3/4"ODT	12	12m ODT	12M
1" ODT	16	16mm ODT	16M

PIPE THREAD SIZE

SIZE	CODE	SIZE	CODE
1/8"	2	1/2"	8
1/4"	4	3/4"	12
3/8"	6	1"	16

5. MATERIAL OF CONSTRUCTIONS

E - SS316
EL - SS316 to NACE MR01-75
C - Carbon Steel
M4 - Monel 400
A6 - Alloy 625
A8 - Alloy 825
SD - Super Duplex

6. PACKING / SEAT MATERIAL

T - PTFE
G - Graphite

7. STEM TYPE

NR - Non Rotating
VS - 'V' Stem
RS - Regulating Stem
SS - Soft Seat

 <p>Twin/Single Ferrule Tube Fittings</p>	 <p>37° Flare Tube Fittings To SAE J514</p>	 <p>Instrument Threaded & Welded Pipe Fittings</p>	 <p>Tube Fittings With Integral Flange</p>	 <p>Low /Medium PressureBall Valves</p>
 <p>High Pressure Ball Valve</p>	 <p>High Pressure 2/3 Way Ball Valve</p>	 <p>Needle Valve</p>	 <p>Needle Valves (Panel Mountable)</p>	 <p>High Pressure Needle Valve</p>
 <p>Rising Stem Plug Valves</p>	 <p>Gauge/Root Valves</p>	 <p>Instrument 2/3/5 Manifold Valves</p>	 <p>Monoflange Valves</p>	 <p>Single / Double Block & Bleed</p>
 <p>Purge Valves</p>	 <p>Bleed Valves</p>	 <p>Toggle Valves</p>	 <p>Relief Valves</p>	 <p>Check Valves</p>
 <p>Micron In-line Filters</p>	 <p>Quick Connect Couplings</p>	 <p>Stainless Steel Pneumatics Fittings & Valves</p>		



SEALEXCEL[®] (INDIA) PVT. LTD.

Registered Office : 56 & 61, Veena Dalvai Industrial Estate, S. V. Road, Oshiwara, Jogeshwari (west), Mumbai - 400 102. India.
 Phone :+91-22-26786885, 26788534, 66944124
 Fax : +91-22-26781426, 66944126
 E-mail : sales@sealexcel.com, Website : <http://www.sealexcel.com>

Manufacturing Plant : At Post - Mahi, Pirojpara - Mahi Road, Via Chhapi, Taluka-vadgam, Dist-Banaskantha, North-Gujarat, Pin-385210. India