



Cost Effective and Reliable Source For Instrumentation Needle Valves

SERIES - BS31



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*



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

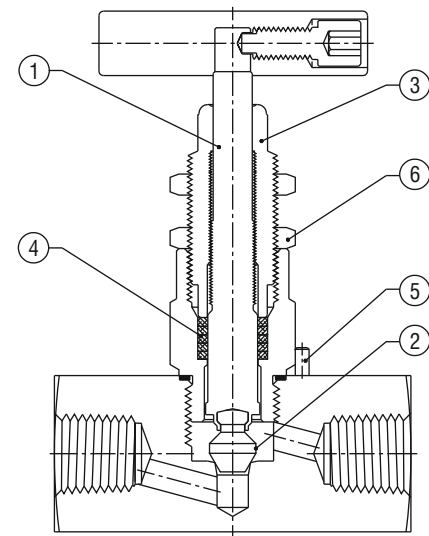
- ASTM F 1387-99(2012)
- ECE R110, ISO 15500
- BS4368:4:1984
- MSS SP-99-2010
- Helium Leak Test
- ARAI Test Report

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.

FEATURES / BENEFITS

- Available in SS316, all wetted parts in accordance with NACE MR01-75
- Heat Code Traceable to certified material test report
- Bar Stock Body Straight patterns, Panel mountable
- Thread for greater strength and smoother operation
- Prevents lubricant washout
- Variety of end configurations includes SEALEXCEL® Well-Lok™ Tube Fittings Male/Female NPT, BSPT, BSPP pipe and tube socket weld connections
- Hardened Stem Tip
- Flow coefficients (Cv) from 0.35 to 0.86
- Orifice size : 0.156" (4mm) and 0.250" (6.4mm)
- Every valve is factory tested.



Description	Features and Benefits
1. Anti Blow-out Stem	i) Rolled and plated stem threads for excellent performance & extended service life. II) Non Rotating self centering stem tip for superior & repeatable perfect sealing. III) Burnished stem at packing area to ensure low torque operation of the valve & reduction in packing wear.
2. Stem Tip	Hardened Stem Tip for Excellence performance and Extended service life.
3. Packing Bolt	Allows packing adjustment in open or close position.
4. Packing	Packing below the threads protects the flow stream from lubricant contamination on the threads or wash out and also protect the stem threads from potential damaging effects of the media.
5. Locking Pin	To prevent accidental loosening / disassembly of valve.
6. Bonnet Lock Nut	For safety to prevent accidental loosening of packing bolt

OPERATING PARAMETERS

Pressure Rating : Upto 10,000 psig (680 bar) at CWP
 Temperature Rating : -54°C to 232°C with standard PTFE packing
 : upto 426°C with optional Graphite packing

APPLICATIONS

- General Plant Service
- Instrument Isolation
- Hydraulic and Pneumatic
- Pressure 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.

REGULATING STEM (RS) : It is used where some degree of flow control required.

TECHNICAL DATA : The Temperature and Pressure rating for a standard valve with PTFE packing

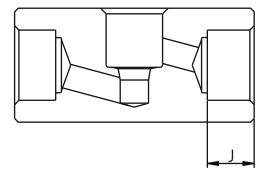
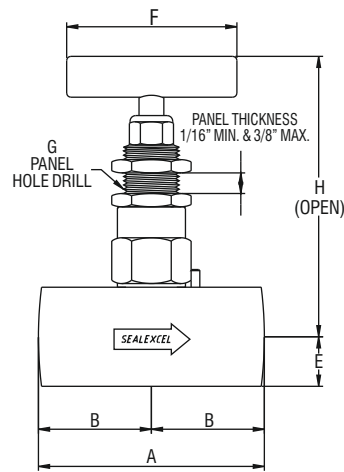
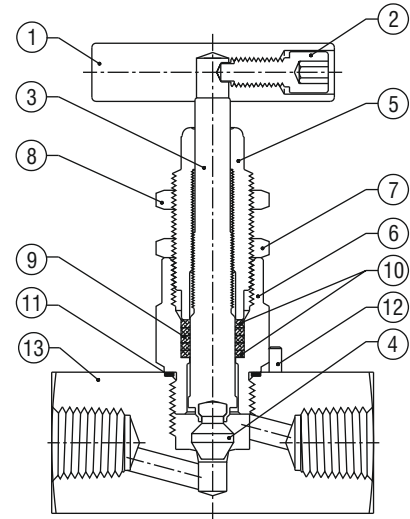
Temperature	Pressure	
	psig	bar
-50°C to 38°C	10,000	680
-50°C to 90°C	9290	632
-50°C to 145°C	8390	570
-50°C to 200°C	7705	524
-50°C to 230°C	7435	505

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 time the working pressure.

MATERIAL OF CONSTRUCTIONS

Sr. No.	Part Description	Material
1.	Bar Handle	SS316
2.	Set Screw	SS316
3.	Stem	SS316
4.	Stem Tip	Hardened - 17-4PH
5.	Packing Bolt	SS316
6.	Lower Bonnet	SS316
7.	Lock Nut	SS316
8.	Panel Nut	SS316
9.	Packing	PTFE/Graphite
10.	Back-up Ring	GFT
11.	Washer	SS316
12.	Bonnet Lock Pin	SS316
13.	Valve Body	SS316



TUBE SOCKET WELD

STRAIGHT NEEDLE VALVE

STANDARD CONFIGURATION DIMENSIONS

End Connections		Orifice	Cv	Dimensions (mm)							Ordering Number
Inlet	Outlet			A	B	E	F	G	H (Open)	J	
1/8" Female NPT	1/8" Female NPT	4.0	0.35	57.2	28.6	12.7	52.5	19.8	82.8	-	BS31-FF2N
1/4" Female NPT	1/4" Female NPT	4.0	0.35	57.2	28.6	14.3	52.5	19.8	82.8	-	BS31-FF4N
1/2" Female NPT	1/2" Female NPT	6.4	0.86	79.4	39.7	19.0	69.9	26.2	107.0	-	BS31-FF8N
1/4" Male NPT	1/4" Male NPT	4.0	0.35	57.2	28.6	12.7	63.5	19.8	82.8	-	BS31-MM4N
1/2" Male NPT	1/2" Male NPT	6.4	0.86	79.4	39.7	15.8	63.5	26.2	82.8	-	BS31-MM8N
14" Well-Lok	14" Well-Lok	4.0	0.35	71.6	35.8	12.7	52.5	19.8	82.8	-	BS31-TT4
1/4" TSW	1/4" TSW	4.0	0.35	57.2	28.6	12.7	52.5	19.8	82.8	7.20	BS31-TSW4
1/4" Male NPT	1/4" Female NPT	4.0	0.35	57.2	28.6	12.5	63.5	19.8	82.8	-	BS31-MF4N
1/2" Male NPT	1/2" Female NPT	6.4	0.86	79.4	39.7	19.0	69.9	26.2	107.0	-	BS31-MF8N

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

Dimensions are for reference only and subject to change without notice

VALVE DESCRIPTION	ORDERING NUMBER FOR TUBE CONNECTIONS	ORDERING NUMBER FOR PIPE END CONNECTIONS
NEEDLE VALVES	<u>BS31-TT</u> <u>8-E</u> <u>T-NR</u> 1 2 3 5 6 7	<u>BS31-FF</u> <u>8</u> <u>N-E</u> <u>T-NR</u> 1 2 3 4 5 6 7

1. VALVE SERIES CODE DESCRIPTION

NEEDLE VALVES : STRAIGHT PATTERNS

2. END CONNECTION TYPE CODE DESCRIPTION

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

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

4. PIPE THREAD TYPE CODE DESCRIPTION

N - Male / Female NPT
 RT - Male / Female BSPT
 RG - Female BSP

5. MATERIAL OF CONSTRUCTIONS

E - SS316
 EL - SS316 to NACE MR01-75
 C - Carbon

6. PACKING / SEAT MATERIAL

T - PTFE
 G - Graphite

7. STEM TYPE

NR - Non Rotating
 VS - 'V' Stem
 RS - Regulating Stem

TANGENTIAL BENEFITS OF OUR PRODUCTS:

- Brings world Class quality products indigenously developed.
- The products meeting all the international manufacturing standards and are supported by our qualitative product engineering services.
- Products are designed and manufacturing methodology follows advanced technology in our well – equipped ultra-modern design and manufacturing facility.
- The Products are manufactured by cutting-edge technology concept machineries, In-house performance, endurance and quality testing facilities resulting in sustained quality consistant products.
- The commercial price competitiveness saves substantial cost without any compromise in quality and services.

PRODUCT RANGE



<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>		



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