



Cost Effective and Reliable Source For Instrumentation Needle Valves

SERIES - BS03



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 35 years of experience and expertise with advanced technology in Design, Development and Manufacturing World Class consistent and reliable quality Tube Fitting 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

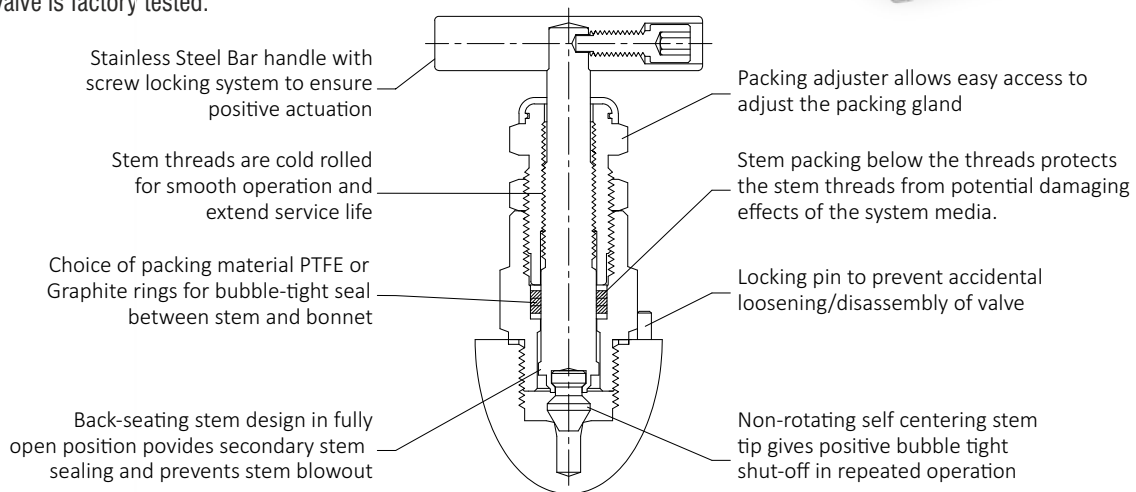
- ASTM F 1387-99(2012)
- ECE R110, ISO 15500
- BS4368:4:1984
- MSS SP-99-2016a
- Helium Leak Test
- ARAI Test Report

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 material SS316, Inconel, Monel, Duplex etc. all wetted parts in accordance with NACE MR01-75
- Heat Code Traceable to certified material test report
- Low operating torques
- Bar stock Body in Straight Pattern
- 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

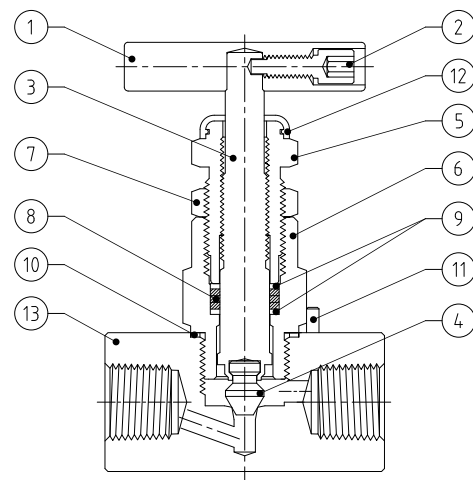
Pressure Rating : upto 6000 psig (413 bar) at CWP
 Temperature Rating : -54°C to 232°C with standard PTFE packing
 upto 426°C with optional Graphite packing

APPLICATIONS

- General Plant Service
- Instrument Isolation
- Hydraulic and Pneumatic
- Pressure measurement devices
- Venting

MATERIAL OF CONSTRUCTIONS

Sr. No.	Part Description	Material
1.	Bar Handle	SS316
2.	Set Screw	SS316
3.	Stem	SS316
4.	Stem Tip	SS316
5.	Packing Adjuster	SS316
6.	Lower Bonnet	SS316
7.	Bonnet Lock Nut	SS316
8.	Packing	PTFE/Graphite
9.	Packing Washer	SS316
10.	Washer	SS316
11.	Bonnet Lock Pin	SS316
12.	Dust Cap	PVC
13.	Valve Body	SS316



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

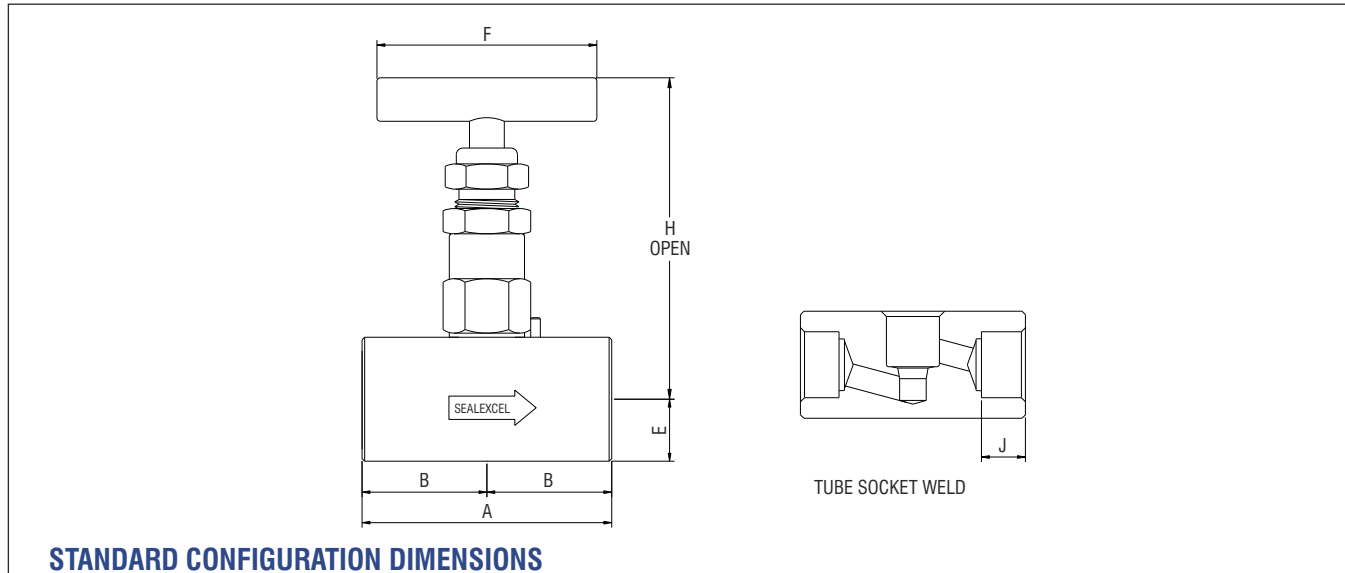
REGULATING STEM (RS) : It is used where some degree of flow control required.

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

Temperature	Pressure	
	psig	bar
-54°C to 38°C	6000	413
-54°C to 93°C	5160	351
-54°C to 148°C	4660	317
-54°C to 204°C	4280	291
-54°C to 232°C	4130	289

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.



STANDARD CONFIGURATION DIMENSIONS

End Connections		Orifice	Cv	Dimensions (mm)						Ordering Number
Inlet	Outlet			A	B	E	F	H	J	
1/4" Well-Lok	1/4" Well-Lok	4.3	0.37	73.0	36.5	12.7	52.5	73.0	-	BS03-TT4
3/8" Well-Lok	3/8" Well-Lok	6.4	0.86	73.0	36.5	14.3	57.0	88.0	-	BS03-TT6
1/2" Well-Lok	1/2" Well-Lok	6.4	0.86	77.8	38.9	14.3	57.0	88.0	-	BS03-TT8
3/4" Well-Lok	3/4" Well-Lok	6.4	0.86	85.2	42.6	15.9	63.5	114.0	-	BS03-TT12
6mm Well-Lok	6mm Well-Lok	4.3	0.37	73.0	36.5	12.7	52.5	73.0	-	BS03-TT6M
8mm Well-Lok	8mm Well-Lok	4.3	0.37	73.0	36.5	12.7	52.5	73.0	-	BS03-TT8M
10mm Well-Lok	10mm Well-Lok	6.4	0.86	73.0	36.5	14.3	57.0	88.0	-	BS03-TT10M
12mm Well-Lok	12mm Well-Lok	6.4	0.86	77.8	38.9	14.3	57.0	88.0	-	BS03-TT12M
1/8" Female NPT	1/8" Female NPT	4.3	0.37	57.2	28.6	12.7	47.6	73.0	-	BS03-FF2N
1/4" Female NPT	1/4" Female NPT	4.3	0.37	57.2	28.6	12.7	52.5	73.0	-	BS03-FF4N
3/8" Female NPT	3/8" Female NPT	6.4	0.86	57.2	28.6	14.3	57.0	88.0	-	BS03-FF6N
1/2" Female NPT	1/2" Female NPT	6.4	0.86	66.6	33.3	15.9	63.5	113.0	-	BS03-FF8N
3/4" Female NPT	3/4" Female NPT	9.5	1.80	69.8	34.9	17.5	63.5	115.0	-	BS03-FF12N
1" Female NPT	1" Female NPT	9.5	1.80	82.6	41.3	22.5	69.9	122.0	-	BS03-FF16N
1/4" Male NPT	1/4" Male NPT	4.3	0.37	57.2	28.6	12.7	52.5	73.0	-	BS03-MM4N
1/4" Male NPT	1/4" Female NPT	4.3	0.37	60.2	30.1	12.7	52.5	73.0	-	BS03-MF4N
1/2" Male NPT	1/2" Female NPT	6.4	0.86	69.8	34.9	15.9	63.5	113.0	-	BS03-MF8N
3/4" Male NPT	3/4" Female NPT	9.5	1.80	76.2	38.1	17.5	63.5	115.0	-	BS03-MF12N
1" Male NPT	1" Female NPT	9.5	1.80	85.8	42.9	22.5	69.9	122.0	-	BS03-MF16N
1/4" TSW	1/4" TSW	4.3	0.37	57.2	28.6	12.7	52.5	73.0	7.2	BS03-TSW4
3/8" TSW	3/8" TSW	6.4	0.86	57.2	28.6	14.3	52.5	88.0	8.0	BS03-TSW6
1/2" TSW	1/2" TSW	6.4	0.86	66.6	33.3	14.3	52.5	88.0	9.6	BS03-TSW8
3/4" TSW	3/4" TSW	9.5	1.80	69.8	34.9	15.9	63.5	113.0	11.1	BS03-TSW12

Dimensions shown with SEALEXCEL[®] Well-Lok[®] Nut are finger tight
 Dimensions are for reference only and subject to change

VALVE DESCRIPTION	ORDERING NUMBER FOR TUBE CONNECTIONS	ORDERING NUMBER FOR PIPE END CONNECTIONS
NEEDLE VALVES	$\frac{BS03-TT}{1} \frac{8-E}{2} \frac{T-NR}{3 \ 5 \ 6 \ 7}$	$\frac{BS03-FF}{1} \frac{8}{2} \frac{N-E}{3 \ 4} \frac{T-NR}{5 \ 6 \ 7}$

VALVE SERIES CODE DESCRIPTION

NEEDLE VALVES SERIES : STRAIGHT PATTERNS - BS03

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

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
- SE - SAE Straight Thread

5. MATERIAL OF CONSTRUCTIONS

- E - SS316
- EL - SS316 to NACE MR01-75
- C - Carbon Steel
- M4 - Monel 400
- A6 - Inconel 625
- A8 - Inconel 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

SEALEXCEL's commitment to upgrading its product range by way of continuous research and development programme with advance technology and cutting edge solutions to ensure best quality products at competitive price and also best delivery schedule for its customer with objective of

A TOTAL CUSTOMER SATISFACTIONS

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 Pressure Ball 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 Valves</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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