



Cost Effective and Reliable Source For Instrumentation Needle Valves

SERIES - INV01



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, 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
- Forged Body, straight and Angle patterns
- Low operating Torques
- Panel mountable, Variety of stem tips
- Flow coefficient (Cv) from 0.09 to 1.8
- Orifice size : 0.078" (2mm), 0.172" (4.4mm), 0.250" (6.4mm)
0.375" (9.5mm)
- Variety of end configurations includes SEALEXCEL[®] Well-Lok[®] Tube Fittings, Male/Female NPT, BSPT and BSPP pipe connections
- Every valve is factory tested.



OPERATING PARAMETERS

Pressure Rating : upto 5000 psig (340 bar) at CWP
 Temperature Rating : -54°C to 232°C with PTFE Packing

APPLICATIONS :

- General plant service
- Instrument Isolation
- Hydraulic and pneumatic
- Pressure measurement devices
- Venting

STEM :

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

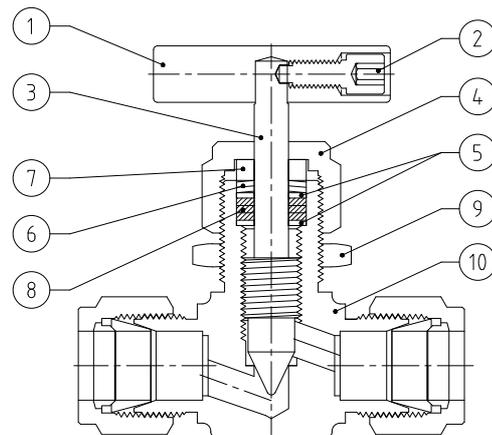
NON-ROTATING (NR) : It is Standard self centering non rotating stem tip typically used in high cycle application to extend the valve life.

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.

MATERIAL OF CONSTRUCTIONS

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



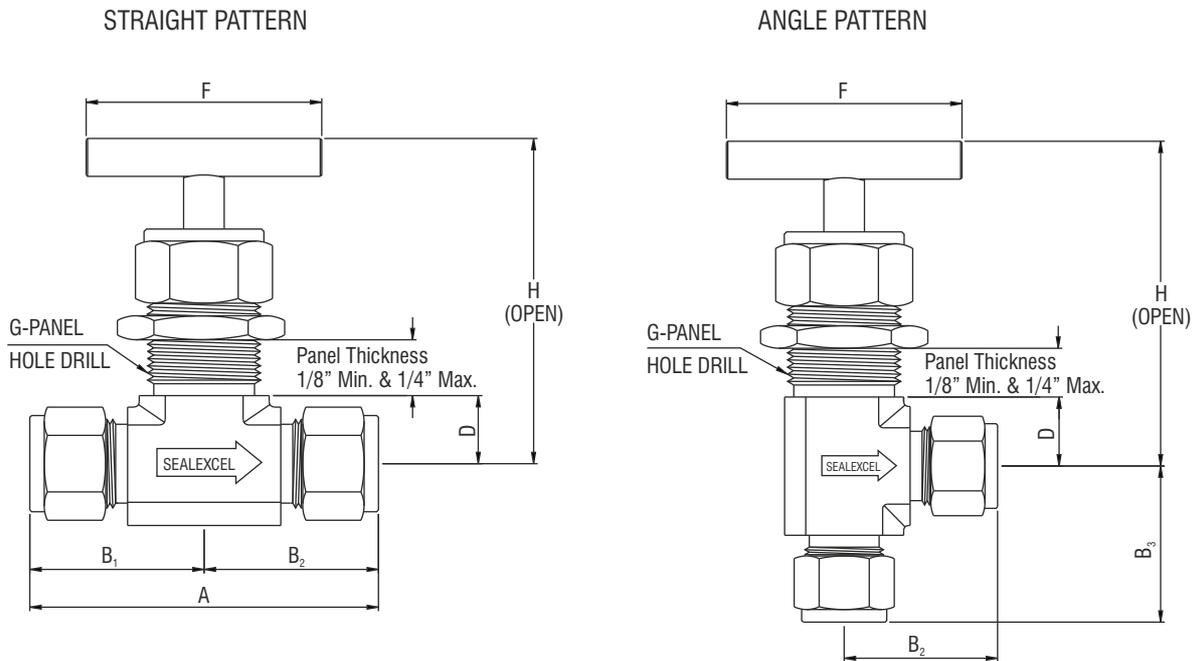
TECHNICAL DATA :-

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 time the working pressure.



STANDARD CONFIGURATION DIMENSIONS

End Connections		Orifice	Cv	Dimensions (mm)								Ordering Number
Inlet	Outlet			A	B ₁	B ₂	B ₃	D	F	G	H	
1/8" Well-Lok	1/8" Well-Lok	2.0	0.09	49.4	24.7	24.7	24.7	11.2	35.0	13.2	57.0	INV01-TT2
1/4" Well-Lok	1/4" Well-Lok	4.4	0.37	57.4	28.7	28.7	28.7	11.2	52.5	13.2	59.0	INV01-TT4
3/8" Well-Lok	3/8" Well-Lok	6.4	0.73	65.6	32.8	32.8	32.8	12.7	57.0	20.0	71.0	INV01-TT6
1/2" Well-Lok	1/2" Well-Lok	6.4	0.73	71.2	35.6	35.6	35.6	14.2	57.0	20.0	71.0	INV01-TT8
3/4" Well-Lok	3/4" Well-Lok	9.5	1.80	96.6	48.3	48.3	48.3	19.1	63.5	26.2	99.5	INV01-TT12
3mm Well-Lok	3mm Well-Lok	2.0	0.09	49.4	24.7	24.7	24.7	11.2	35.0	13.2	57.0	INV01-TT3M
6mm Well-Lok	6mm Well-Lok	4.4	0.37	57.4	28.7	28.7	28.7	11.2	52.5	13.2	59.0	INV01-TT6M
8mm Well-Lok	8mm Well-Lok	4.4	0.37	59.4	29.7	29.7	29.7	12.7	52.5	20.0	59.0	INV01-TT8M
10mm Well-Lok	10mm Well-Lok	6.4	0.73	66.0	33.0	33.0	33.0	12.7	57.0	20.0	71.0	INV01-TT10M
12mm Well-Lok	12mm Well-Lok	6.4	0.73	71.2	35.6	35.6	35.6	14.2	57.0	20.0	71.0	INV01-TT12M
1/8" Female NPT	1/8" Female NPT	4.4	0.37	41.2	20.6	20.6	20.6	11.2	52.5	13.2	59.0	INV01-FF2N
3/8" Female NPT	3/8" Female NPT	6.4	0.73	57.2	28.6	28.6	28.6	12.7	57.0	13.2	57.0	INV01-FF6N
1/2" Female NPT	1/2" Female NPT	9.5	1.80	76.2	38.1	38.1	38.1	19.1	63.5	26.2	99.5	INV01-FF8N
1/8" Male NPT	1/8" Male NPT	2.0	0.09	38.2	19.1	19.1	19.1	11.2	35.0	13.2	57.0	INV01-MM2N
1/4" Male NPT	1/4" Male NPT	4.4	0.37	49.8	24.9	24.9	24.9	11.2	52.5	13.2	59.0	INV01-MM4N
3/8" Male NPT	3/8" Male NPT	6.4	0.73	57.4	28.7	28.7	28.7	12.7	57.0	20.0	71.0	INV01-MM6N
1/2" Male NPT	1/2" Male NPT	9.5	1.80	76.2	38.1	38.1	38.1	19.1	63.5	26.2	71.0	INV01-MM8N
1/8" Male NPT	1/8" WELL-LOK	2.0	0.09	43.8	19.1	24.7	19.1	11.2	35.0	13.2	57.0	INV01-MT2N
1/4" Male NPT	1/4" WELL-LOK	4.4	0.37	53.6	24.9	28.7	24.9	11.2	52.5	13.2	59.4	INV01-MT4N
1/4" Male NPT	3/8" WELL-LOK	6.4	0.73	61.5	28.7	32.8	28.7	12.7	57.0	20.0	71.0	INV01-MT4N6
3/8" Male NPT	3/8" WELL-LOK	6.4	0.73	61.5	28.7	32.8	28.7	12.7	57.0	20.0	71.0	INV01-MT6N
3/8" Male NPT	1/2" WELL-LOK	6.4	0.73	64.3	28.7	35.6	28.7	14.2	57.0	20.0	71.0	INV01-MT6N8
1/2" Male NPT	1/2" Female NPT	9.5	1.80	76.2	38.1	38.1	38.1	19.1	63.5	26.2	99.5	INV01-MT8N

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	$\frac{INV01-TT}{1} \frac{8-E}{2} \frac{T-NR}{3\ 5\ 6\ 7}$	$\frac{INV01-FF}{1} \frac{8}{2} \frac{N-E}{3\ 4} \frac{T-NR}{5\ 6\ 7}$

1. VALVE SERIES CODE DESCRIPTION

NEEDLE VALVES SERIES	: STRAIGHT PATTERNS	- INV01
	: ANGLE PATTERNS	- INVA01

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

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

6. PACKING / SEAT MATERIAL

T	- PTFE
G	- Graphite

7. STEM TYPE

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

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 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 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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