

# VB16 Series Integral Bonnet Needle Valves

Pressure Rating up to 6,000 psig



# Features

Two-piece chevron PFA stem packing design with compensating spring packing.

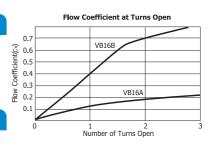
- improves sealing integrity.
- high pressure valve but with compact design.

## **Flow Data**

Cv are measured at the valve. Therefore restrictions at end connections may reduce flow.

#### Materials of Construction

	Components	Material Grade				
1	Bar Handle	SS316/ASTM A276				
2	Position Pin	55510/A51101A270				
3	Set Screw	Grade B8 TYPE 304/A193				
4	Optional Round Handle	Nylon with brass insert				
5	Cap Nut	SS316/ASTM A276				
6	Gland	33310/A311VLA270				
7	Spring Packing (2)	S17700/A693				
8	Upper / Lower Gland (2)	SS316/ASTM A276				
9	Chevron Packing (2)	PFA/D3307				
10	Standard Vee Stem	SS316/ASTM A276				
10.1	<b>Optional Soft Stem</b>	Kel-F (PCTFE)				
11	Body	SS316/ASTM A276				



## **Pressure-Temperature Ratings**

Temperature rating of VB16A & B series with nonrotating KeI-F soft seat -65 to 200 °F (-53 to 93 °C), Vee stem metal seat -65 to 450 °F (-53 to 232 °C). Non-rotating soft seat for repetitive shut-off on gas

ASME Class	2500				
Material Group	2.2				
Material	SS316				
Temperature °F (°C )	Working Pressure, psig (bar)				
-65 to 100 (-53 to 37)	6000 (413)				
200 (93)	5160 (355)				
250 (121)	4910 (338)				
300 (148)	4660 (321)				

#### **Ordering Information and Dimensions**

Angle Pattern

Ordering Number		End Connection		Dimensions, mm(in.)		H2		L1	А	w	
				Orifice/Cv	Н	H1	HZ	L .	LI	A	vv
VB16A-	D4T-S	1/4 in. DK-Lok		3.2 (0.125)	43.1 (1.69)	10.7 (0.42)	29.5 (1.16)	62.5 (2.46)	39.9 (1.57)	44.5 (1.75) *36.0	21.6 (0.85)
	F4N-S	1/4 in. Female NPT				10.7 (0.42)	25.4 (1.00)	47.8 (1.88)	36.6 (1.44)		
	M4N-S	1/4 in. Male NPT					-	49.3 (1.94)	-		
	MF4N-S	1/4 in. Male	1/4 in. Female	Cv 0.21		,	26.2 (1.03)	48.5 (1.91)	36.6 (1.44)	(1.42)	
VB16B-	D6T-S	3/8 in. DK-Lok 1/2 in. DK-Lok		6.4 (0.25)	58.0 (2.28)	16.8 (0.66)	-	78.2 (3.08)	-	64.0	32.0 (1.26)
	D8T-S						-	83.8 (3.30)	-		
	F6N-S	3/8 in. Female NPT					-	-	-		
	F8N-S	1/2 in. Female NPT					35.8 (1.41)			1	
	MF6N-S	3/8 in. Male NPT	3/8 in. Female NPT	Cv 0.73	(2.28)		31.0 (1.22)	63.5 (2.50)	52.3 (2.06)	*50.0 (1.97)	(1.20)
	MF8N-S	1/2 in. Male NPT	1/2 in. Female NPT				35.8 (1.41)				
	MF12N8N-S	3/4 in. Male NPT	1/2 in. Female NPT				-		-		

Angle Pattern : Valves with L1 dimension available for Angle Pattern. \* Round handle diameter. To order a valve with soft stem, insert -K in the ordering number. i.e., VB16A-D4T-K-S

#### **Factory Test**

In-Line Pattern

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Every valve is tested with the nitrogen @ 68 bar (1,000 psig) for leakage at the seat to a maximum allowance leak rate of 0.1 scc /min. The stem packing is tested for no detectable leakage.

### Safe Valve Selection

The selection of a valve for any application or system design must be considered to ensure safe performance. Valve function, valve rating, material compatibility, proper installation, operation and maintenance Remain the sole responsibility of the system designer and the user. DK-Lok accepts no liability for any improper selection, installation, operation or maintenance.

