



# VB16 Series Barstock Needle Valves

Pressure Rating up to 6000 psig

Catalog No. VB16-4  
March 2010

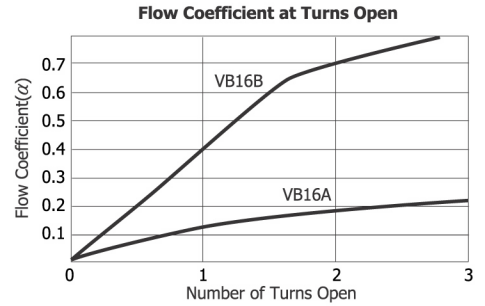


## Features

- 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.



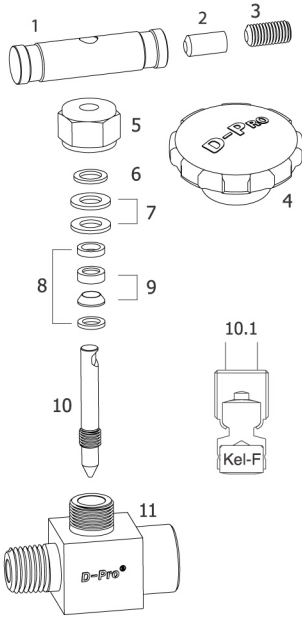
## Materials of Construction

Component	Material Grade
1 Bar Handle	SS316/ASTM A276
2 Position Pin	SS316/ASTM A276
3 Set Screw	Grade B8 TYPE 304/A193
4 Optional Round Handle	Nylon with brass insert
5 Cap Nut	SS316/ASTM A276
6 Gland	SS316/ASTM A276
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 Optional Soft Stem	Kel-F (PCTFE)
11 Body	SS316/ASTM A276

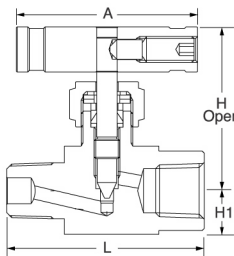
## Pressure-Temperature Ratings

Temperature rating of VB16A & B series with non-rotating Kel-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

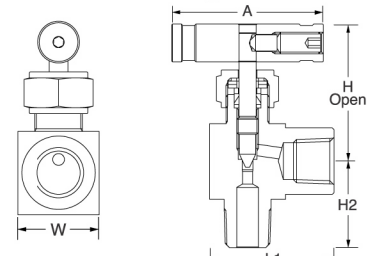
ASME Class	2500
Material Group	2.2
Material	SS316
Temperature °F (°C)	Working Pressure, psig (bar)
-65 to 100 (-53 to 37)	6000 (413)
200 (93)	5160 (355)
250 (121)	4910 (338)
300 (148)	4660 (321)



## In-Line Pattern



## Angle Pattern



## Ordering Information and Dimensions

Unit: mm (in.)

Ordering Number	End Connection		Orifice/ Cv	H	H1	H2	L	L1	A	W
	Inlet	Outlet								
VB16A-	D4T-S	1/4 in. DK-LOK	3.2 (0.125)	43.1 (1.69)	0.42 (10.7)	29.5 (1.16)	62.5 (2.46)	39.9 (1.57)	44.5	21.60 (0.85)
	F4N-S	1/4 in. Female NPT				25.4 (1.00)	47.8 (1.88)	36.6 (1.44)	(1.75)	
	M4N-S	1/4 in. Male NPT	-	49.3 (1.94)	-	*36.0				
	MF4N-S	1/4 in. Male NPT   1/4 in. Female NPT	0.21	26.2 (1.03)	48.5 (1.91)	36.6 (1.44)	(1.42)			
VB16B-	D6T-S	3/8 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	1/2 in. DK-LOK				-	83.8 (3.30)	-	(2.51)	
	F6N-S	3/8 in. Female NPT	-	-	-	*50.0				
	F8N-S	1/2 in. Female NPT	35.8 (1.41)	63.5 (2.50)	52.3 (2.06)	(1.97)				
	MF6N-S	3/8 in. Male NPT   3/8 in. Female NPT	0.73	-	-	31.0 (1.22)	-	-	-	
	MF8N-S	1/2 in. Male NPT   1/2 in. Female NPT				35.8 (1.41)	64.8 (2.55)	-	-	
	MF12N8N-S	3/4 in. Male NPT   1/2 in. Female NPT	-	63.5 (2.50)	-	-	-	-		

**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

Every valve is tested with the nitrogen @68 bar (1000 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 Tech accepts no liability for any improper selection, installation, operation or maintenance.

<p>Quality System Approvals</p>	<p>DK-Lok Tube Fitting Certification Listing</p>	<p>D-Pro Valve Certification Listing</p>	<p><b>DK Tech Corporation</b> www.dklok.com</p>
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