



V46A series Hex. Body Needle Valves

Pressure rating up to 10 000 psig

Catalog No. V46A-2
Jan. 2012

Features

- **Packing bolt** permits packing adjustment externally.
- **Chevron PTFE packing** design provides far improved sealing integrity.
- **Packing** below stem threads is to isolate **threads** from system fluid and lubricant washout.
- **Non-rotating** stem tip at closure for long-life and leak-tight shutoff.
- **Lock plate** ensures the valve fastened to the body.
- **NACE** MR0175/ISO 15156-3 applicable.

Pressure-Temperature Ratings

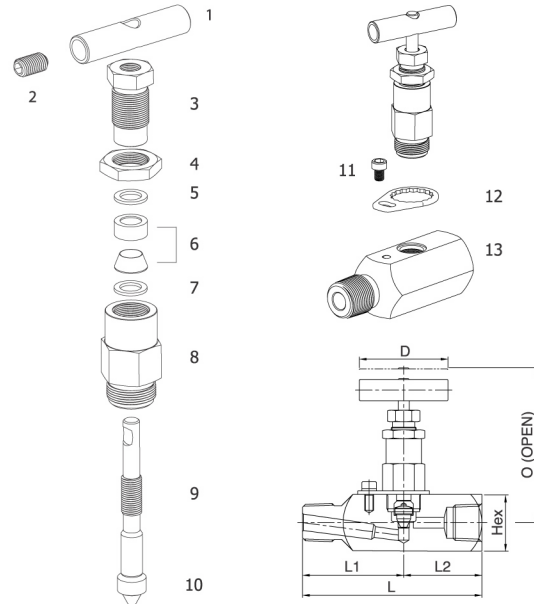
Body Material	Packing material	Temperature Rating	Pressure Rating @ 38 C (100 F)	Pressure Rating @ Max. Temp.
Stainless steel	PTFE	- 54 to 232 °C (-65 to 450 °F)	689 bar (10 000 psig)	285 bar@232 °C 4130 psig@450 °F
	Grafoil	-54 to 648 °C (-65 to 1200 °F)		118 bar@648 °C 1715 psig @ 1200 °F
Carbon steel	PTFE	- 29 to 176 °C (-20 to 350F)	689 bar (10 000 psig)	360 bar @ 176 °C (5230 psig @ 350 °F)
	Grafoil	- 29 to 176 °C (-20 to 350°F)		

Materials of Construction

Component	Valve Body Materials	
	Stainless Steel	Carbon steel
	Grade/ASTM Specification	
1. Handle	Stainless Steel	Carbon steel
2. Set screw		Carbon steel
3. Packing bolt	SS316/A276 or A479	C.Steel/JIS G4051
4. Lock nut		
5. Upper gland		SS316/A276 or A479
6. Packing	Standard chevron PTFE packing. Optional Grafoil.	
7. Lower gland	SS316/A276 or A479	SS316/A276 or A479
8. Bonnet		C.Steel/JIS G4051
9. Stem		SS316/A276 or A479
10. Non-rotating stem disc	SS630/A564	
11. Lock bolt	Stainless steel	
12. Lock plate		
13. Body	SS316/A276 or A479	C.Steel/ JIS G4051, White zinc galvanized.

Wetted components listed in blue.

Grafoil: TM UCAR



Ordering Information and Dimensions

Basic Ordering No.	End Connection		Orifice in. (mm)	CV	Dimensions inch (mm)					
	Inlet	Outlet			L	L1	L2	Hex	D	O
V46A-	D-4T-	1/4 DK-LOK	0.185 (4.7)	0.37	3.21 (81.5)	1.59 (40.4)	1.62 (41.1)	1.25 (31.75)	1.77 (45.0)	2.64 (67.2)
	D-6T-	3/8 DK-LOK		0.64	3.33 (84.5)	1.65 (41.9)	1.68 (42.6)			
	D-8T-	1/2 DK-LOK		0.83	3.54 (90.0)	1.76 (44.7)	1.78 (45.3)			
	F-4N-	1/4 Female NPT		0.83	3.0 (76.2)	1.75 (44.4)	1.25 (31.8)			
	F-6N-	3/8 Female NPT								
	F-8N-	1/2 Female NPT								
	MF-8N-	1/2 Male NPT	1/2 Female NPT							
	MF-12N8N-	3/4 Male NPT	1/2 Female NPT	3.5 (88.9)	2.25 (57.1)	2.25 (57.1)				

Dimensions shown are for reference only and subject to change.

How to order

- To complete ordering number, add material designator **S** for stainless steel or **C** for carbon steel. Example V46A-F8N-S
- To order optional Grafoil packing, insert **GF** to the ordering number. Example V46A-F8N-GF-S
- To order NACE applicable valve, insert **SG** to the ordering number. Example V46A-F8N-GF-SG-S

Factory test, cleaning and packaging

- Every valve is factory tested with nitrogen @ 69 bar (1000 psig) for leakage at the seat to a maximum allowable leak rate of 0.1 SCCM.
- Stem packing is tested for no detectable leakage.
- Every valve is cleaned and packaged in accordance with DK Tech Corporation cleaning standard DC-01. Optional DC-11 cleaning for oxygen application is available on request.

Packing adjustment and Actuation Torque

- Extreme or rapid temperature cycle while valve in service may require packing adjustment.
- Valves that have not been actuated for a period of time may have a higher initial actuation torque.

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.



Quality Assurance System Certificate



Nuclear Quality Assurance System Certificate



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