

V81 Series Ball Valve

Pressures rating of 68.9 bar (1000 psig) and 137bar (2000psig)

Catalog No. V81-5
Sept. 2008



Valve with lever handle
Working pressure
● PTFE seats: 68.9 bar (1000 psig)
● TFM seats: 137 bar (2000 psig)



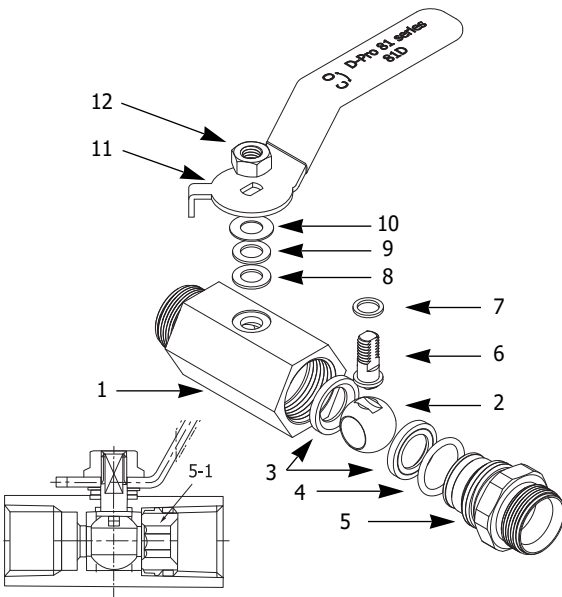
Valve with butterfly handle
Working pressure
● PTFE seats: 68.9 bar (1000 psig)
● TFM seats not applicable

Design Features

- Compact barstock construction for high integrity
- Blow-out proof design with internally loaded stem
- Floating Ball design providing seat wear compensation
- Micro-finished ball ensures a leak-tight shut-off on pressure
- Standard lever handle, optional butterfly handle.

Applications

V81 series ball valve offers a safe and reliable performance for a wide range of onshore and offshore applications: water, oil, gas, petrochemical and general duty applications.



Materials of Construction

Component	Valve Body Materials	
	Stainless Steel	Brass
1. Body	SS316/ASTM A276 or A479	ASTM B16 or JIS H3250
2. Ball	SS316 / ASTM A276	
3. Seat (2)	PTFE / D1710 for pressure 68.9 bar (1000 psig) TFM 1600 for pressure 137 bar (2000 psig)*	
4. O-Ring (2)	FKM	NBR
5. End Connector (2)	SS316/ ASTM A276 or A479	ASTM B16 or JIS H3250
5-1. Insert		
6. Ball Valve Stem	SS316/ ASTM A276 or A479	
7. Lower Packing	PTFE / D1710	
8. Upper Packing	PTFE / D1710	
9. Grand Washer	SS304 /ASTM A276 or A479	
10. Spring Washer	Stainless Steel	
11. Handle	SS304 Lever handle with vinyl sleeve ZINC/ ASTM B240 Butterfly handle, Nickel-plated	
12. Lock Nut	SS304	SS304

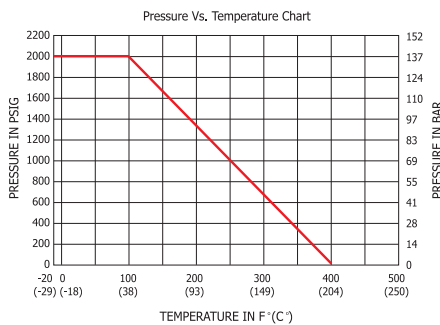
4. O-Ring is applicable to DK-LOK end connection

5. End Connector is for DK-LOK end connection

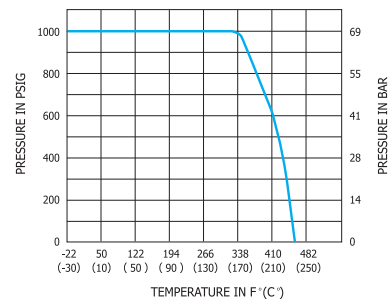
5-1. Insert is for Pipe Thread end connection

* TFM 1600 seat is applicable only to body in stainless.

Pressure – Temperature Curves



TFM 1600 Seat
Body Material: Stainless



PTFE Seat
Body Material: Stainless and Brass

Quality System Approvals

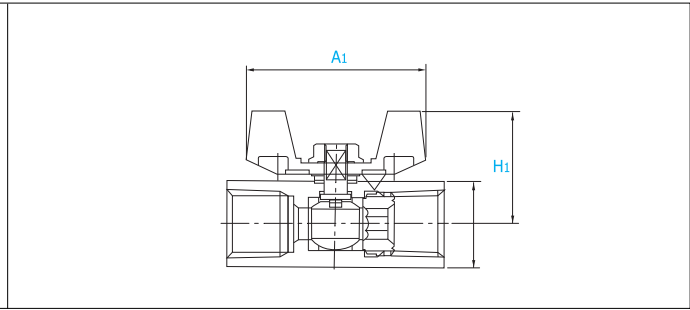
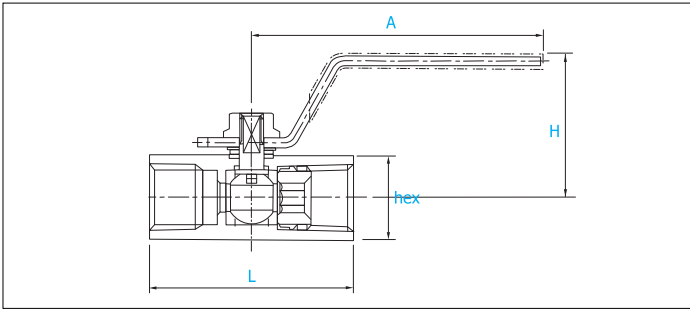


DK-Lok Tube Fitting Certification Listing



D-Pro Valve Certification Listing





Ordering Information and Table of Dimensions

Basic Ordering Number	End Connection Inlet / Outlet	Cv	Orifice mm (in.)	Dimensions, mm (in.)						
				L	H	hex	A	A1	H1	
V81A-	D-6M	6mm DK-LOK	1.25	5 (0.20)	79 (3.11)	31 (1.22)	17 (11/16)	59.5 (2.34)	30.50 (1.20)	23.50 (0.93)
	D-4T	1/4 in. DK-LOK	1.25		79 (3.11)					
	F-4N	1/4 in. Female NPT	1.35		41.9 (1.65)					
V81B-	D-10M	10mm DK-LOK	2.6	7.50 (0.30)	90 (3.54)	40 (1.57)	20.64 (13/16)	81 (3.19)	42.00 (1.65)	30.00 (1.18)
	D-6T	3/8 in. DK-LOK	2.5		90 (3.54)					
	F-6N	3/8 in. Female NPT	2.6		45 (1.77)					
V81C-	D-12M	12mm DK-LOK	9.25	9.00 (0.35)	98 (3.86)	42 (1.65)	27 (1-1/16)	81 (3.19)	46.00 (1.81)	35.70 (1.41)
	D-8T	1/2 in. DK-LOK	9.25		98 (3.86)					
	F-8N	1/2 in. Female NPT	9.25		56.15 (2.21)					
V81D-	D-16M	16mm DK-LOK	10.6	12.50 (0.49)	108 (4.25)	51 (2.00)	32 (1-1/4)	102.5 (4.04)	49.50 (1.95)	38.10 (1.50)
	D-10T	5/8 in. DK-LOK	10.6		108 (4.25)					
	F-12N	3/4 in. Female NPT	12.65		60 (2.36)					
	D-12T	3/4 in. DK-LOK	12.65		109 (4.29)					
V81E-	D-16T	1 in. DK-LOK	17.35	16.00 (0.63)	133 (5.23)	55 (2.16)	38 (1-1/2)	102.5 (4.04)	68.00 (2.68)	45.00 (1.77)
	F-16N	1 in. Female NPT	17.35		78.1 (3.07)					

Dimensions shown are for reference only, subject to change. Dimensions with DK-LOK nuts are in finger-tight position

Factory Test

Every valve is factory tested with nitrogen gas @41 bar (600 psig) for leakage at the seat to a maximum allowable leak rate of 0.1 SCCM. The packing is tested with nitrogen for no detectable leakage.

How to order

Select valve ordering number, applicable option(s) from designator tables listed below.

Examples

V81A-D-6M-

V81A-D-6M-



O-ring	Seat Material	Handle	Body material
<ul style="list-style-type: none"> ● Nil: FKM O-ring is standard for SS316 body. ● Nil: NBR O-ring is standard for Brass body. ● VT: FKM O-ring for Brass body ● BN: NBR O-ring for SS316 <p>NOTE: O-ring is required for DK-LOK end connection.</p>	<ul style="list-style-type: none"> ● Nil: Standard PTFE seats for 68.9 bar (1000 psig) working pressure. ● TF: Optional TFM1600 for 137 bar (2000 psig) working pressure. <p>NOTE: TFM1600 seat is not applicable to Brass valve.</p>	<ul style="list-style-type: none"> ● Nil: Standard lever handle ● BF: Optional butterfly handle <p>NOTE: BF option is not applicable to the valve with TF seats.</p>	<ul style="list-style-type: none"> ● S: S316 ● B: Brass

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.



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