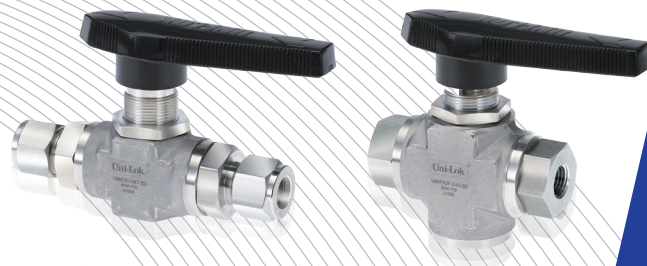




HIGH PRESSURE FORGED MULTI PURPOSE **BALL VALVES**

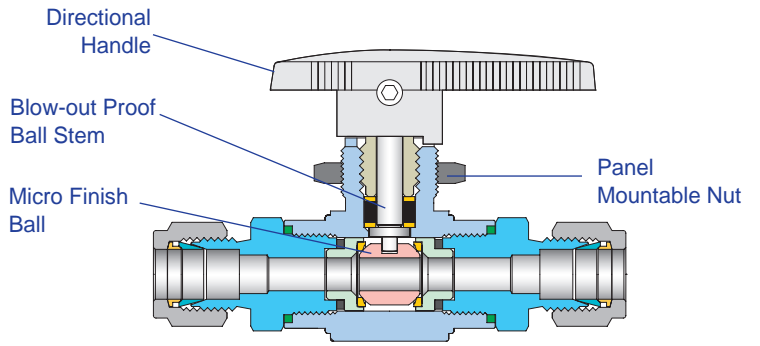
VB6F Series

www.unilok.com



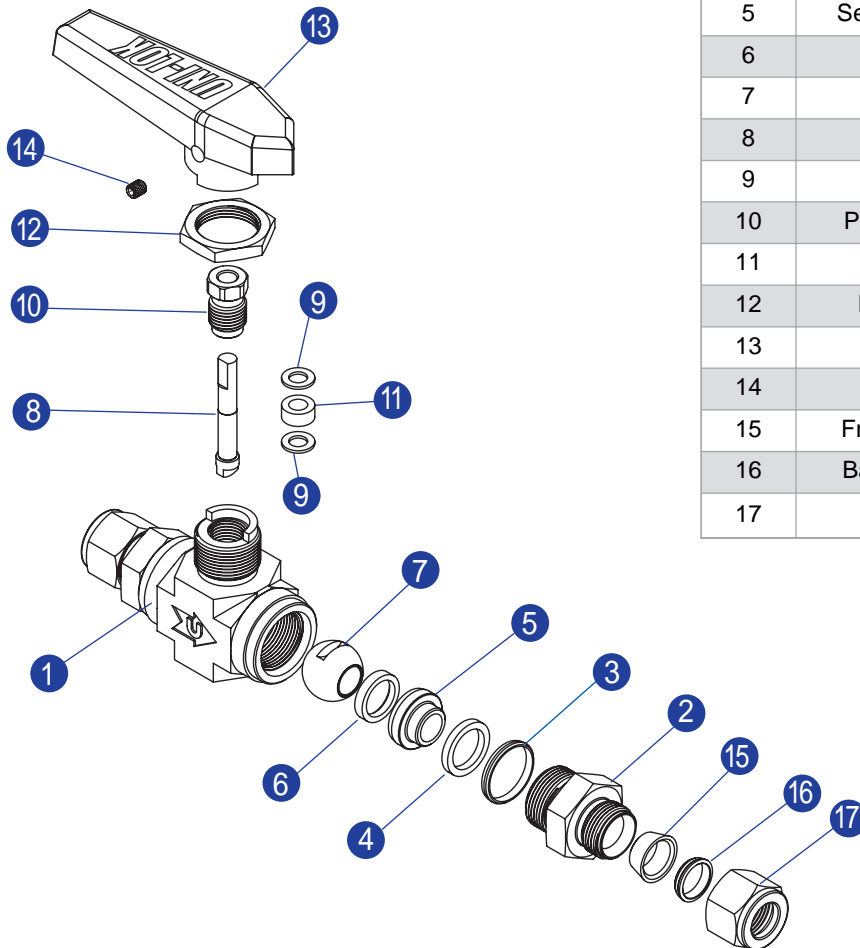
Features

- Pressure rating up to 6000psig (413bar) @21°C (70°F) with standard PCTFE seats
- Temperature rating from -54°C (-65°F) to 177°C (350°F) with standard PCTFE seats
- Compact forged body design
- Micro finished 316SS ball to provide a positive seal
- Blow-out proof design with internally loaded ball stem
- Low operating torques and positive handle stops
- Panel mounting for easy installation
- 2 way shut off valves and 3 way switching valves are available



Materials of Construction

No.	Description	Materials
1	Body	316SS
2	Connector	316SS
3	Connector O-ring	PTFE
4	Retainer Seal	PTFE
5	Seat Retainer	316SS
6	Ball Seat	PCTFE
7	Ball	316SS
8	Stem	316SS
9	Washer	304SS
10	Packing Bolt	304SS
11	Packing	PTFE
12	Panel Nut	316SS
13	Handle	Nylon
14	Bolt	304SS
15	Front Ferrule	316SS
16	Back Ferrule	316SS
17	Nut	316SS



Application

VB6F series valves are requiring in a wide range onshore and offshore applications to offer a safe and reliable performance.

Sour Environment Services

Uni-Lok valves are comply with NACE MR-0175/ISO 115156 for sour oilfield application or NACE MR-0103 for petroleum refining operations.

To order, add-N to the end of part number.

Testing

Every valve is 100% factory tested with air and nitrogen at 1000psig(69bar) for leakage at the seat and packing. Each test is performed to a maximum allowable leak rate of 0.1scc/min.

Hydrostatic shell test to be performed at 1.5 time of the working pressure with optional.

How To Order

Uni-Lok VB6F series ball valves are ordered by part number as shown as below.

Cleaning

Uni-Lok valves are free from machine oils, loose particles and grease throughout the close cleaning process.

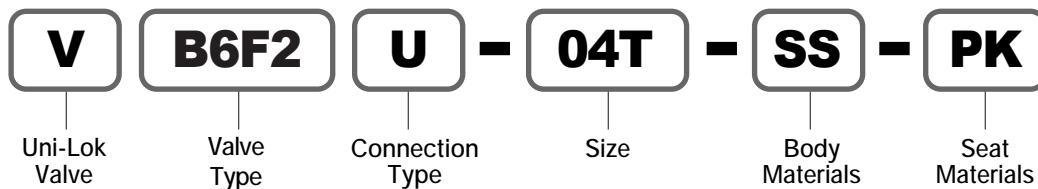
Important Notification

Uni-Lok ball valves are designed to be operated in a fully open or fully closed position.

The packing adjustment may be required during the valve's service life.

Proper installation, materials compatibility, operation and maintenance of these valves are the responsibility of the user. The total system design must be taken into consideration to ensure optimal performance and safety.

Example : The following part number, **VB6F2U-04T-SS-PK** is designated for VB6F series ball valve with both 1/4" Uni-Lok tube fitting, 316SS, PEEK seat.



Other alloys are available upon request

Valve Type	
B6F	2 Way Type
B6FX	3 Way Type

Connection Type	
U	Uni-Lok Tube Fitting
F	Female NPT or ISO7/1(PT)
M	Male NPT or ISO7/1(PT)

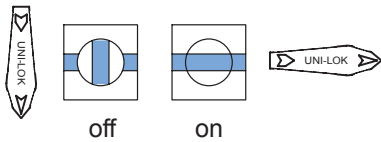
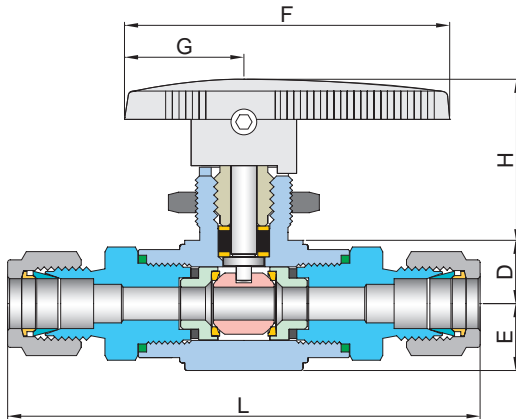
Connection Type						
Fractional(Inch) Tube O.D. Designation						
Tube O.D.	inch	1/8	1/4	3/8	1/2	3/4
	mm	3.17	6.35	9.53	12.70	19.05
Designator		02T	04T	06T	08T	12T

Metric Tube O.D. Designation						
Tube O.D.	mm	3	6	8	10	12
	Designator	M03T	M06T	M08T	M10T	M12T

Pipe Size Designation (NPT or ISO7/1-PT)				
Pipe Size	1/8	1/4	3/8	1/2
Designator	02N/R	04N/R	06N/R	08N/R

Seat Materials	
None	PCTFE
PK	PEEK

VB6F series (2 Way, Shut-Off Both Uni-Lok Tube Fittings or Both Female or Male Threads)



Ordering Information & Dimensions

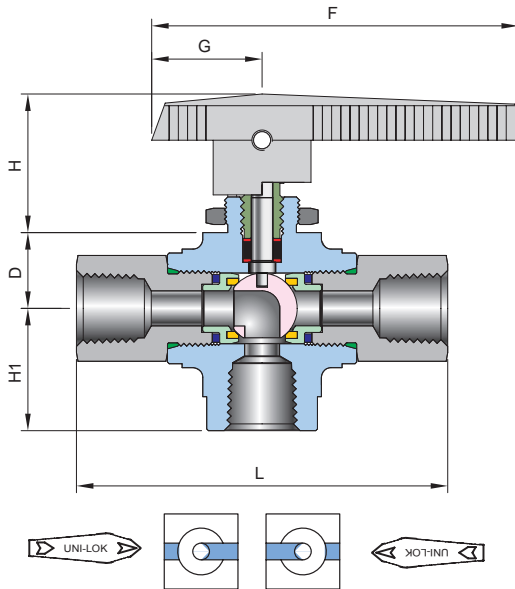
Part Number	End Connection		Orifice	CV	Dimensions (mm)					
	Inlet	Outlet			L	E	D	H	F	G
VB6F1	U-04T-	1/4" Uni-Lok	4.2	0.93	75.2	9.5	8.4	23.2	46.0	17.4
	F-02N-	1/8" Female NPT			54.4					
	M-04N-	1/4" Male NPT			68.6					
VB6F2	U-04T-	1/4" Uni-Lok	6.4	2.34	88.7	13.0	12.3	31.8	63.2	23.2
	U-06T-	3/8" Uni-Lok			91.4					
	U-M06T-	6mm Uni-Lok			88.7					
	U-M08T-	8mm Uni-Lok			91.0					
	U-M10T-	10mm Uni-Lok			93.0					
	F-04N-	1/4" Female NPT			77.0					
	M-04N-	1/4" Male NPT			82.2					
	M-06N-	3/8" Male NPT			82.2					
VB6F3	U-08T-	1/2" Uni-Lok	10.3	6.42	118.8	18.5	17.0	46.1	108.0	32.5
	U-12T-	3/4" Uni-Lok			118.4					
	U-M12T-	12mm Uni-Lok	9.5	5.57	118.8					
	F-06N-	3/8" Female NPT	10.3	6.42	98.9					
	F-08N-	1/2" Female NPT			109.2					
	M-08N-	1/2" Male NPT	112.8							

ISO7/1 Tapered Threads (PT) are available for all fractional sizes of VB6F series valves.
Add "R" as a suffix instead of "N".

Dimensions are for reference only and are subject to change without prior notice.

VB6FX series

(3 Way, Switching Uni-Lok Tube Fittings or Female or Male Threads)



Ordering Information & Dimensions

Part Number	End Connection		Orifice	CV	Dimensions (mm)					
	Inlet	Outlet			L	H ₁	D	H	F	G
VB6FX1	U-04T-	1/4" Uni-Lok	4.2	0.93	75.2	37.2	8.4	23.2	46.0	17.4
	F-02N-	1/8" Female NPT			54.4	29.9				
	M-04N-	1/4" Male NPT			68.6	29.9				
VB6FX2	U-04T-	1/4" Uni-Lok	6.4	2.34	88.7	40.3	12.3	31.8	63.2	23.2
	U-06T-	3/8" Uni-Lok			91.4	40.3				
	U-M06T-	6mm Uni-Lok			88.7	40.4				
	U-M08T-	8mm Uni-Lok			91.0	40.5				
	U-M10T-	10mm Uni-Lok			93.0	40.6				
	F-04N-	1/4" Female NPT			77.0	33.0				
	M-04N-	1/4" Male NPT			82.2	33.0				
	M-06N-	3/8" Male NPT			82.2	33.0				
VB6FX3	U-08T-	1/2" Uni-Lok	10.3	6.42	118.8	57.1	17.0	46.1	108.0	32.5
	U-12T-	3/4" Uni-Lok			118.4	57.1				
	U-M12T-	12mm Uni-Lok	9.5	5.57	118.8	57.1				
	F-06N-	3/8" Female NPT	10.3	6.42	98.9	47.0				
	F-08N-	1/2" Female NPT			109.2	47.0				
	M-08N-	1/2" Male NPT			112.8	47.0				

ISO/71 Tapered Threads (PT) are available for all fractional sizes of VB6FX series valves.
Add "R" as a suffix instead of "N".

Dimensions are for reference only and are subject to change without prior notice.

Pressure - Temperature Ratings

Valve Group	Sealing Materials			Pressure Rating	Temperature Rating
	Seat	Stem Packing	End Seal		
2 Way					
VB6F1	PCTFE	PTFE	Viton	6000psig(413bar)	-22°F~355°F (-30°C~180°C)
VB6F2	PEEK			6000psig(413bar)	-65°F~446°F (-54°C~230°C)
VB6F3				6000psig(413bar)	-65°F~446°F (-54°C~230°C)
3 Way					
VB6FX1	PCTFE	PTFE	Viton	4000psig(275bar)	-22°F~355°F (-30°C~180°C)
	PEEK			6000psig(413bar)	-65°F~446°F (-54°C~230°C)
VB6FX2	PCTFE			3000psig(206bar)	Viton
VB6FX3	PEEK	4000psig(275bar)	-54°F~410°F (-35°C~210°C)		

Flow Rates

Pressure Drop(Δp) to Atmosphere in psig	Cv														
	0.06	0.18	0.21	0.26	0.63	0.7	0.87	0.93	1.04	2.34	3.46	3.62	5.57	6.42	
Air @70°F(21°C) SCFM	10	5.9	17.7	20.7	25.6	62.0	68.9	85.6	91.5	102.4	230.3	340.6	356.3	548.2	631.9
	50	13.2	39.6	46.2	57.2	138.7	154.1	191.5	204.7	228.9	515.0	761.5	796.7	1225.9	1413.0
	100	18.7	56.0	65.4	80.9	196.1	217.9	270.8	289.5	323.7	728.3	1077.0	1126.8	1733.7	1998.3
Water @60°F(16°C) US GPM	10	0.2	0.6	0.7	0.8	2.0	2.2	2.8	2.9	3.3	7.4	10.9	11.5	17.6	20.3
	50	0.4	1.3	1.5	1.8	4.5	4.9	6.2	6.6	7.4	16.5	24.5	25.6	39.4	45.4
	100	0.6	1.8	2.1	2.6	6.3	7.0	8.7	9.3	10.4	23.4	34.6	36.2	55.7	64.2

Flow rate calculated with 1000psig(69bar) inlet pressure.
 To determine m³/hr, multiply SCFM by 1.69 and US GPM by 0.227.
 SCFM : Standard Cubic Feet per Minute. US GPM : Gallons Per Minute

Uni-Lok Line up

Instrumentation

Fittings



- Tube Fittings
- PTFE Fittings
- Hose & Push-On Connectors



- Precision Pipe Fittings
- Fusible Connectors
- Dielectric Fittings



Valves



- VB1 series
- VB2 series
- VB3 series
- VB6B series
- VB6F series
- VB6T series
- VP series



- Precision & Clean Ball Valves
- Swing-Out Ball Valves
- Instrumentation Ball Valves
- High Pressure Bar Stock Ball Valves
- High Pressure Forged Ball Valves
- Trunnion Ball Valves
- Plug Valves



- VN5 series
- VN6 series
- VU6 series
- VMT series

- Integral Bonnet Forged Needle Valves
- High Pressure Bar Stock Needle Valves
- Union Bonnet Valves
- Metering Valves

- VM series
- VG series
- VL series

- Instrumentation Manifolds Valves
- Gauge & Gauge Root Valves
- Bleed Valves

- VD series

- Double Block and Bleed Valves

- VC series
- VR series
- VE series

- General & High Pressure Relief Valves
- Low & High Pressure Relief Valves
- Industrial Excess Flow Valves

- VF series
- VPR series
- VBR series

- T & In-Line Filters
- Pressure Reducing Valves
- Back Pressure Regulators

Others

- Seamless & Welded Tubing
- Condensate Pots

UHP(Ultra High Purity)

Fittings



- Weld & Metal Face Seal Fittings
- Pipe & Tube Fittings
- Flanges



- Cylinder Connectors

Valves



- VCD series
- VCB series
- VCC series



- Diaphragm Valves
- Bellows Valves
- Welded Check Valves



*CONNECTS THE WORLD SINCE 1984
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OF THE TIME OF BEGINNING*



Uni-Lok[®] Uni-Lok corporation

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