

#### Working Pressure:

- Stainless & Brass with PTFE seats: 1000 psig (68.9 barg).
- Stainless with TFM seats: 2000 psig (137 barg).



Lever handle valves



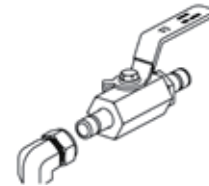
Butterfly handle valves



Dielectric handle valves

#### Features

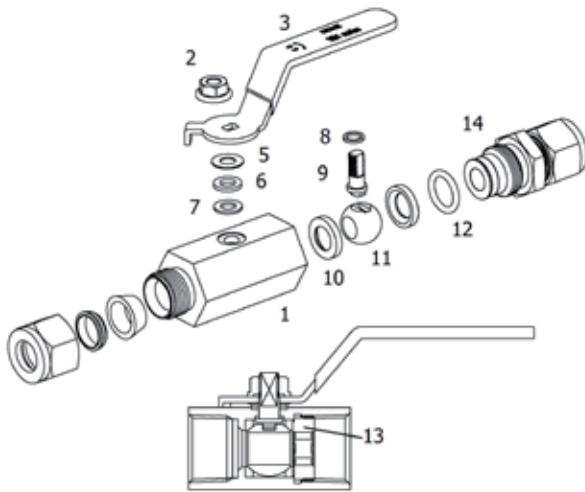
- Cold drawn hexagonal bar construction.
- Stainless Steel and Brass material standard.
- Lever handle standard, optional butterfly handle and Dielectric handle
- Blow-out proof design with internally loaded stem.
- Micro-finish ball for smooth valve actuation.
- Floating ball design provides seat wear compensation.
- Outstanding sealing performance across the pressure range.
- Tube adapter ends allow tubing connection in any direction.



Tube Adapter End

#### Application and Operation

- Designed for gas, liquid, and vacuum service provides a reliable sealing performance in wide range general duty applications.
- Valves are designed to control fluid bi-directionally in full open and full close position.



#### Materials of Construction

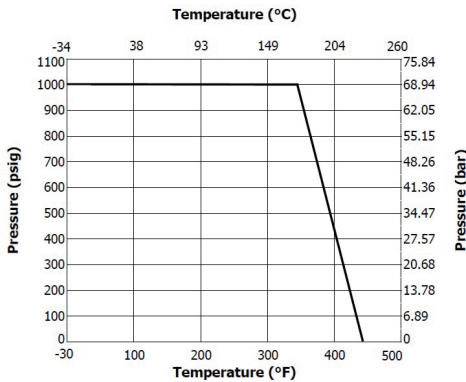
No.	Components		Valve Body Materials	
	Female End	M Tube Fitting End	Stainless Steel	Brass
			Material Grade/ASTM Standard	
1	Hexagonal Body		SS316/A276, A479	B16, JIS H3250
2	Lock Nut		SS304	
3	Handle		SS304 Lever handle with blue PVC sleeve Optional nickel-plated steel	
4	Spring Washer		Stainless Steel	
5	Gland		SS304/A276, A479	
6	Upper Packing		PTFE / D1710	
7	Lower Packing		PTFE / D1710	
8	Stem		SS316/A276, A479	
9	Seat (2)		PTFE / D1710, optional TFM 1600	
10	Ball		SS316/A276	
11				
12	-	O-Ring	FKM	NBR
13,14	13. Insert	14. End Connector	SS316/A276, A479	B16, JIS H3250

#### Factory Test and Cleaning

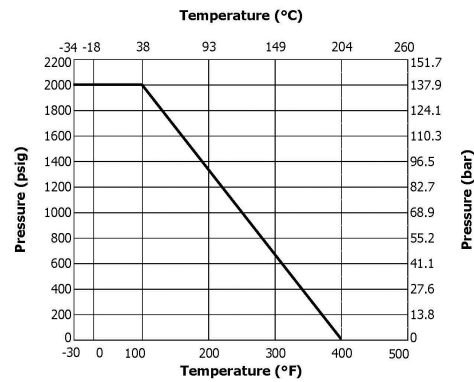
- Every valve is factory tested with nitrogen @ 600 psig (41 bar) for leakage at the seat to a maximum allowable leak rate of 0.1 SCCM.
- The packing seal integrity is tested with nitrogen for no detectable leakage.
- Every valve is cleaned and packaged in accordance with HSME cleaning standard CS-01.
- Special cleaning standard CS-11 in compliance with ASTM G93 Level C is optional.

# VB1 Series 2000 psig Ball Valve

## Pressure – Temperature Ratings

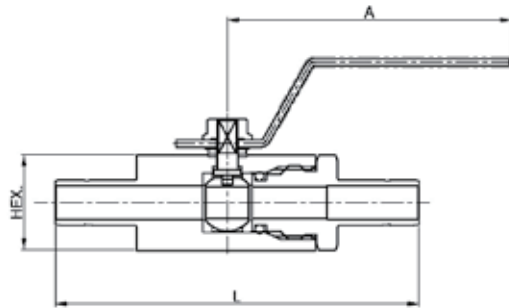
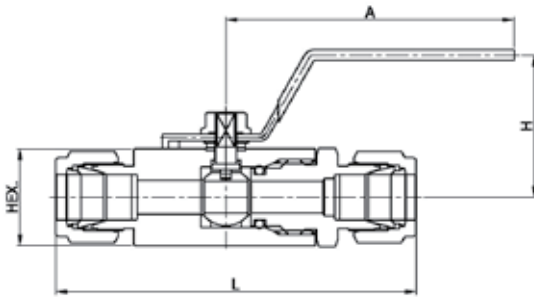


PTFE Seats on Stainless and Brass Valves



TFM 1600 Seats on Stainless Valves

## Ordering Information and Dimensions



Tube Adapter End Valve

Ordering Number	End Connection	Cv	Orifice mm (in.)	Dimensions, mm (in.)			
				L	H	hex	A
VB1A-	A4T-SS	1.25	5 (0.2)	79 (3.11)	31 (1.22)	17 (11/16)	59.5 (2.34)
	A4TA-SS			76 (2.99)			
	A6M-SS	79 (3.11)					
	F4N-SS	41.9 (1.65)					
VB1B-	A6T-SS	2.5	7.5 (0.3)	90 (3.54)	40 (1.57)	20.64 (13/16)	81 (3.19)
	A6TA-SS			88.1 (34.7)			
	A10M-SS			90 (3.54)			
	F6N-SS			45 (1.77)			
VB1C-	A8T-SS	9.25	9 (0.35)	98 (3.86)	42 (1.65)	27 (1 1/16)	102.5 (4.04)
	A8TA-SS			103.6 (4.08)			
	A12M-SS			98 (3.86)			
	F8N-SS			56.1 (2.21)			
VB1D-	A10T-SS	10.6	12.5 (0.49)	108 (4.25)	51 (2.00)	32 (1 1/4)	102.5 (4.04)
	A12T-SS	12.65		109 (4.29)			
	A16M-SS	10.6		108 (4.25)			
	F12N-SS	12.65		60 (2.36)			
VB1E-	A16T-SS	17.35	16 (0.63)	133 (5.23)	55 (2.16)	38 (1 1/2)	102.5 (4.04)
	F16N-SS			78.1 (3.07)			

Dimensions are reference only, subject to change. Dimensions with M Tube Fittings are in finger-tight position.

### How to order

To order, select a valve ordering number. Example: VB1A-A4T-SS

To order brass valve, replace "SS" with "B". Example: VB1A-A4T-B

To order valve for working pressure 2000 psig with TFM1600 seats, insert "TF" in the ordering number. Example: VB1A-A4T-TF-SS

To order valve with butterfly handle, insert "RBF", Dielectric handle, insert "NY" in the ordering number. Example: VB1A-A4T-TF-RBF-SS

### Safe Valve Selection

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