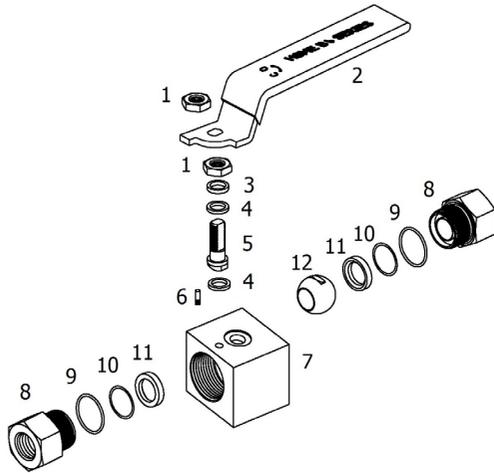
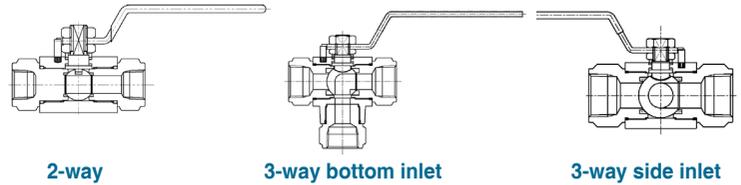


#### Features

- Cold drawn bar construction.
- Stainless Steel material with lever handle standard.
- 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.



#### Materials of Construction

Components		Valve Body Material Stainless Steel Material Grade/ASTM Standard
1	Stem Nut (2)	Stainless
2	Lever Handle	Stainless Steel with Blue PVC Sleeve
3	Gland	SS316/A276
4	<b>Packing (2)</b>	PTFE with Carbon 25%
5	<b>Stem</b>	SS316/A276
6	Stop Pin	Stainless
7	<b>Square Body</b>	SS316/A276. A479
8	<b>End Connector (2)</b>	
9	End Connector Seal (2)	FKM O-ring
10	<b>Seat Seal (2)</b>	FKM O-ring not applicable to VB6A Series
11	<b>Seat (2)</b>	PCTFE, optional PEEK
12	<b>Ball</b>	SS316/A276

- Wetted component listed in **BOLD** letters.
- Wetted component lubrication: Silicon-based

#### Pressure-Temperature Ratings

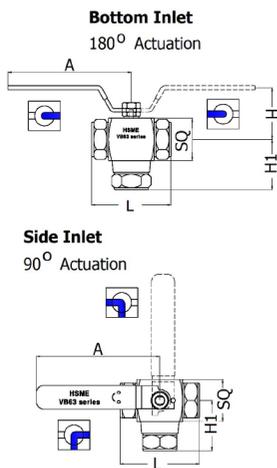
Valve Series	Seat Material	Working Pressure @100 °F (37 °C) psig (barg)	Temperature Rating °F ( °C)
3-way	PCTFE	VB63A	4000 (275)
		VB63B	3000 (206)
		VB63C	
	PEEK	VB63A	6000 (413)
		VB63B	4000 (275)
		VB63C	

#### Application and Operation

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

#### Factory Test and Cleaning

- Every valve is factory tested with nitrogen @ 1000 psig (69 bar) 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.
- Every valve is cleaned and packaged in accordance with HSME cleaning standard CS-01.



#### 3-way Diverter Ball Valve – Ordering information and Dimensions

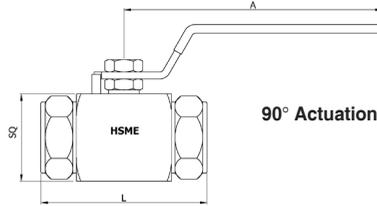
Bottom Inlet Ordering No.	End Connections	Orifice mm (in.)	Dimensions, mm (in.)				
			L	H	H1	SQ.	
VB63A-	A4T-SS	1/4 in. OD M Tube Fitting	4.8 (0.19)	96.0 (3.78)	38.4 (1.52)	50.9 (2.00)	32 (1.26)
	A6T-SS	3/8 in. OD M Tube Fitting	7.1 (0.28)	102.5 (4.04)		53.0 (2.09)	
	A8T-SS	1/2 in. OD M Tube Fitting	10.0 (0.39)	107.6 (4.24)		55.8 (2.20)	
	F4N-SS	1/4 in. Female NPT		74.0 (2.91)		40.0 (1.57)	
	F6N-SS	3/8 in. Female NPT		77.0 (3.03)		41.5 (1.64)	
VB63B-	F8N-SS	1/2 in. Female NPT	85.0 (3.35)	45.5 (1.79)	51 (2)	47.2 (1.86)	40 (1.57)
	A10T-SS	5/8 in. OD M Tube Fitting	114.4 (4.5)	67.2 (2.65)			
	A12T-SS	3/4 in. OD M Tube Fitting	115.0 (4.52)	67.7 (2.66)			
	F8N-SS	1/2 in. Female NPT	89.0 (3.5)	55.0 (2.17)			
VB63C-	F12N-SS	3/4 in. Female NPT	90.0 (3.54)	56 (2.2)	59.5 (2.34)	50 (1.97)	
	A12T-SS	3/4 in. OD M Tube Fitting	15.7 (0.62)		125.0 (4.92)		
	A16T-SS	1 in. OD M Tube Fitting	19.0		134.0 (5.27)		
	F12N-SS	3/4 in. Female NPT	0.75)		96.0 (3.78)		
	F16N-SS	1 in. Female NPT	111.0 (4.37)		67.0 (2.64)		

\*"A" Dimension: VB63A Series- 108.3 mm (4.26 in.), VB63B & C Series- 149mm (5.86 in.)

• 3-way Diverter Valve: designed to switch fluid through the inlet port and direct it to out of two outlet ports.

**Ordering Information:** To order side inlet 3-way valve, insert "S" in the ordering number. Example: VB63A-A4T-S-SS

# VB6 & VBC6 Series Ball Valves



## 2-way Ball Valve- Ordering Information and Dimensions

Ordering Number	End Connection	Cv	Orifice mm (in.)	Dimensions, mm (in.)			
				L	SQ	A	
VB6A-	A4T-SS	1/4 in. OD M Tube Fitting	1.2	4.8 (0.19)	32.0 (1.26)	108 (4.25)	
	A6T-SS	3/8 in. OD M Tube Fitting	3.7	7.1 (0.28)			
	A8T-SS	1/2 in. OD M Tube Fitting	7.5	10.0 (0.39)			
	F4N-SS	1/4 in. Female NPT					
	F6N-SS	3/8 in. Female NPT					
	F8N-SS	1/2 in. Female NPT	3.7	7.1 (0.28)			
	M4N-SS	1/4 in. Male NPT					
	M6N-SS	3/8 in. Male NPT					
M8N-SS	1/2 in. Male NPT						
VB6B- VBC6B-	A8T-SS	1/2 in. OD M Tube Fitting	10.1	10.4 (0.41)	40.0 (1.57)	149 (5.87)	
	A10T-SS	5/8 in. OD M Tube Fitting					
	A12T-SS	3/4 in. OD M Tube Fitting					
	F8N-SS	1/2 in. Female NPT		12.7 (0.50)			
	F12N-SS	3/4 in. Female NPT					
	A12M-SS	12 mm OD M Tube Fitting					
	A16M-SS	16 mm OD M Tube Fitting		10.0 (0.39)			110.00 (4.33)
	VB6C- VBC6C-	A12T-SS		3/4 in. OD M Tube Fitting			19
A16T-SS		1 in. OD M Tube Fitting					
F12N-SS		3/4 in. Female NPT					
F16N-SS		1 in. Female NPT	30	19.0 (0.75)			
M12N-SS		3/4 in. Male NPT					
M16N-SS		1 in. Male NPT					

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

## Pressure-Temperature Ratings

### VB6 Series

Valve Series	Seat Material	Working Pressure @ 100 °F (37 °C) psig (barg)	Temperature Rating °F (°C)
VB6A	PTFE	6000 (413)	-22 to 350
VB6B			
VB6C			
VB6A	PEEK	10 000 (689)	-40 to 446
VB6B			
VB6C			
		6000 (413)	-40 to 410
			(-40 to 210)

### ECE R110 CNG Valves

Valve Series	Seat Material	Temperature Rating	Working Pressure
VB6A	PEEK	-40 to 120 °C (-40 to 250 °F)	274 bar @ 120 °C
VBC6B			
VBC6C			

**Note:** VB6A Series with PEEK Seats turns into CNG applicable valves.

### Sour gas option

Valve materials are selected in accordance with NACE MR0175/ISO 15156-3. To order valve for sour gas application, insert "SG" in the valve ordering number. Example: VB6A-F4N-PK-SG-SS

## How to order

To order PTFE seat valve, select a valve ordering number.  
To order PEEK seat valve, insert "PK" into the ordering number.

Example: VB6A-F4N-SS  
Example: VB6A-F4N-PK-SS

## Locking device option



Locking device option is applicable to 2-way and 3-way valve.

The valve with locking device is manually locked out in the valve open or close position. For additional security, apply padlock.

To order valve with locking device, insert "LD" in the valve ordering number. Example: VB6A-F4N-PK-SG-LD-SS  
Note: LD option does not include padlock.

## Panel mount option



For panel mounting, disassemble the handle. To order, insert "PM" designator into the valve ordering number. Example: VBC6B-A12M-PM-SS

Valve with PM option is supplied either with Nylon handle or lever handle.

Unit: mm (in.)

Valve Series	Panel Thickness	Panel Hole
VBC6B	Max.	38.1 (1.50)
VBC6C	9.7 (0.381)	

## 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.