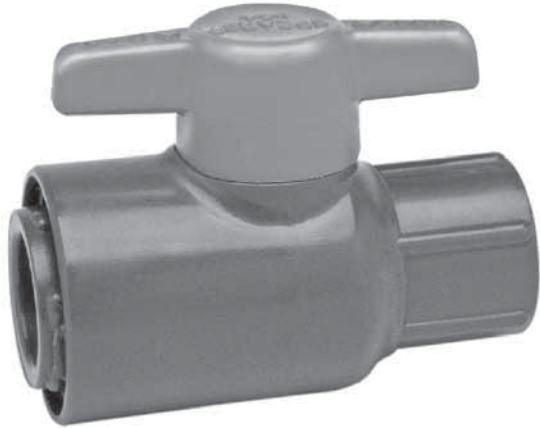




# LAB BALL VALVES



## Features – PVC, CPVC

This versatile quarter-turn shutoff valve is ideally suited for a variety of laboratory, system monitoring and OEM applications. Available in IPS sizes 1/4" - 3/8" with socket or threaded end connectors, plus 1/4" threaded Valve & Adapter Kit to provide multiple connection options.

- Chemical & Corrosion Resistant PVC or CPVC Construction
- Maintenance-Free Sealed Unit
- Individual Valve or Multi-functional Valve & Adapter Kit
- Schedule 80 Full-Bore Design
- High Impact Polypropylene Handle
- EPDM or Viton® O-rings
- PTFE Floating Seat Design
- Sizes 1/4" - 3/8" Pressure Rated to 150 psi @ 73°F
- NSF Certified for Potable Water use
- Assembled with Silicone-Free, Water Soluble Lubricant

## Sample Engineering Specification

All thermoplastic valves shall be sealed unit Lab type constructed from PVC Type I, ASTM D 1784 Cell Classification 12454 or CPVC Type IV, ASTM D 1784 Cell Classification 23447. All O-rings shall be EPDM or Viton®. All valves shall have double stop Polypropylene handle. All 1/4" valves shall have optional field installable male thread and tubing end connector adapters. All valves shall be certified by NSF International for use in potable water service. All valves shall be pressure rated at 150 psi for water at 73°F, as manufactured by Spears® Manufacturing Company.



**LAB VALVE WITH ADAPTER KIT**

## Quick-View Valve Selection Chart

Valve Size	O-ring Material	PVC Part Number <sup>1</sup>			Pressure Rating
		Socket	Threaded	Threaded with Kit	
1/4	EPDM	1522-002	1521-002	1529-002	150 psi Non-Shock Water @ 73°F
	Viton®	1532-002	1531-002	1539-002	
3/8	EPDM	1522-003	1521-003	N/A	
	Viton®	1532-003	1531-003	N/A	

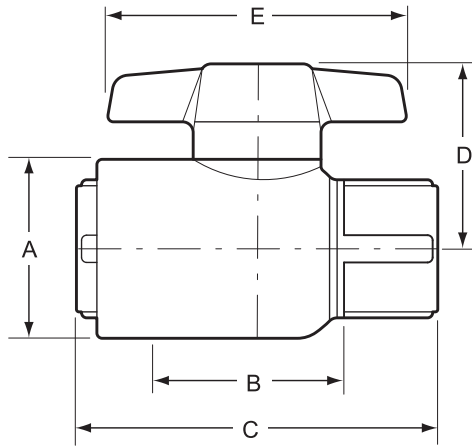
<sup>1</sup>: For CPVC Valves, add the letter "C" to part number listed (e.g., 1521-002C)

## Valve & Adapter Kit

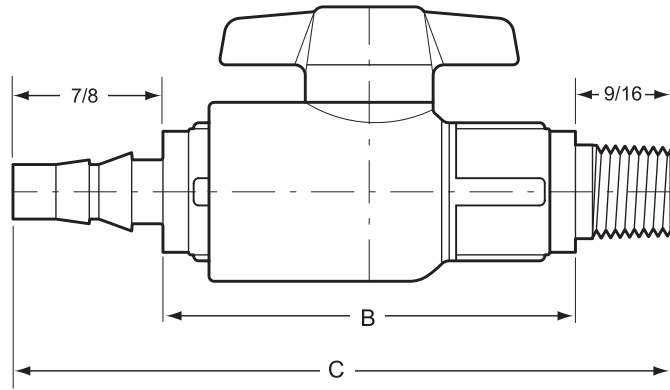
Kit allows multiple connection options. Adapters use O-ring seals for easy connection to threaded valve. Complete Kit includes:

- 1 – 1/4" Threaded Valve
- 2 – 1/4" O-ring Sealed Mpt x Mipt Adapters
- 2 – 1/4" O-ring Sealed Mpt x Barb Adapters (for 3/8" I.D. tubing)
- 2 – EPDM or Viton® O-rings (AS568A-013 size)
- 1 – End Connector Wrench

# LAB BALL VALVES



**Basic Valve**



**Valve with Adapter Kit**

## Dimensions, Weights & C<sub>v</sub> Values

Nominal Size	Dimension Reference (inches, ± 1/16)					Approx. Wt. (Lbs.)		C <sub>v</sub> <sup>2</sup> Values
	A	B <sup>1</sup>	C	D	E	PVC	CPVC	
1/4	1-1/16	15/16	2-1/8	1-1/16	1-3/4	.10	.11	10
1/4 w/Kit	1-1/16	2-7/16	3-7/8	1-1/16	1-3/4	.14	.15	6
3/8	1-5/16	1	2-3/16	1-1/4	2	.12	.13	24

1: Valve Lay Length

2: Gallons per minute at 1 psi pressure drop. Values calculated from valve laying length, based on derivative of Hazen-Williams equation with roughness factor of C=150.

## Temperature Pressure Rating

System Operating Temperature °F (°C)		73 (23)	100 (38)	110 (43)	120 (49)	130 (54)	140 (60)	150 (66)	160 (71)	170 (77)	180 (82)	190 (88)
Valve Pressure Rating psi (MPa)	PVC	150 (1.03)	124 (.85)	100 (.69)	75 (.52)	-0- (-0-)	-0- (-0-)	-0- (-0-)	-0- (-0-)	-0- (-0-)	-0- (-0-)	-0- (-0-)
	CPVC	150 (1.03)	140 (.97)	130 (.90)	120 (.83)	110 (.76)	100 (.69)	90 (.62)	80 (.55)	70 (.48)	60 (.41)	-0- (-0-)

**NOT FOR USE WITH COMPRESSED AIR OR GASES**