



PVC & CPVC LAB VALVES

LV-2-1198

Laboratory and Specialty Valve



This versatile, quarter-turn shut off valve is ideally suited for a variety of laboratory, system monitoring and OEM applications. Available in IPS sizes 1/4" and 3/8" with choice of socket or thread end connectors. Optional 1/4" valve & adapter kit provides multiple combinations of tubing and male pipe thread connections.



Multi-Functional 1/4" Lab Valve with Adapter Kit

Kit includes PVC or CPVC 1/4" FIPT Valve, MIPT Adapters, MIPT x 3/8" I.D. Tubing Adapters, EPDM or Viton® O-rings and Hex Wrench for quick assembly of adapters with valve.

Chemical and Corrosion Resistant PVC or CPVC Construction

Spears Lab Valves never rust, scale or pit, providing exceptional chemical and corrosion resistance. Heat resistant CPVC allows higher temperature applications.

EPDM or Viton® O-Ring Options

Choice of high grade, ozone resistant EPDM or Viton® elastomer o-rings allows application specific selection for optimum chemical resistance.

High Impact Polypropylene Handle

Features double stop engagement and exhibits excellent resistance to most chemical environments.

Teflon® Ball Seats

Spears PTFE floating seat design reduces seat wear for extended valve life, smooth operation and bubble-tight shut-off. 100% factory tested.

Full Schedule 80 Bore

In full open position, full bore virtually eliminates pressure drop, providing optimum flow.

Full 150 psi Pressure Rating

Maximum Internal Pressure at 73°F for the most demanding applications.

Suitable for Vacuum Service

Spears Lab Valves are tested at 26 in. Hg vacuum for one hour with less than 1 in. Hg loss.

Individual 1/4" and 3/8" Specialty Valves

Small, compact socket or thread design without adapters allows a variety of O.E.M. and other special applications.

For additional information, please refer to Spears' THERMOPLASTIC VALVES & ACCESSORIES PRODUCT GUIDE & ENGINEERING SPECIFICATIONS V-4 and THERMOPLASTIC VALVES & ACCESSORIES Price Schedule V-1.

Sample Engineering Specification

All thermoplastic valves shall be Lab type constructed from PVC Type I Cell Classification 12454 or CPVC Type IV 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 pressure rated at 150 psi for water at 73°F, as manufactured by Spears Manufacturing Company.



Quality Systems Certificate No. 293
Corporate Facilities, Sylmar, CA
Assessed to ISO 9001

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PROGRESSIVE PRODUCTS FROM SPEARS INNOVATION & TECHNOLOGY

Quick-View Valve Selection Chart

Valve Size	O-ring Material	PVC PART NUMBER ¹			Pressure Rating
		Threaded	Socket	Threaded w/Adapter Kit	
1/4	EPDM	1521-002	1522-002	1529-002	150 psi Non-Shock Water @ 73°F
	Viton®	1531-002	1532-002	1539-002	
3/8	EPDM	1521-003	1522-003	N/A	
	Viton®	1531-003	1532-003	N/A	

1: For CPVC valves, add the letter "C" to part numbers listed (e.g., 1521-002C).

C _v Values	
Valve Size	C _v
1/4*	10*
3/8	24

*without adapters

Values calculated from valve laying length, based on derivative of Hazen-Williams equation with surface roughness factor of C=150.

NOT FOR USE WITH COMPRESSED AIR OR GASES

Spears Manufacturing Company DOES NOT RECOMMEND the use of thermoplastic piping products for systems to transport or store compressed air or gases, or the testing of thermoplastic piping systems with compressed air or gases in above and below ground locations. The use of our product in compressed air or gas systems automatically voids any warranty for such products, and its use against our recommendation is entirely the responsibility and liability of the installer.

WARNING: DO NOT USE COMPRESSED AIR OR GAS TO TEST ANY PVC OR CPVC THERMOPLASTIC PIPING PRODUCT OR SYSTEM, AND DO NOT USE DEVICES PROPELLED BY COMPRESSED AIR OR GAS TO CLEAR SYSTEMS. THESE PRACTICES MAY RESULT IN EXPLOSIVE FRAGMENTATION OF SYSTEM PIPING COMPONENTS CAUSING SERIOUS OR FATAL BODILY INJURY.

Temperature Pressure Rating

System Operating Temperature °F (°C)		100 (38)	110 (43)	120 (49)	130 (54)	140 (60)	150 (66)	160 (71)	170 (77)	180 (82)	190 (88)	200 (93)	210 (99)
Valve Pressure Rating psi (MPa)	PVC	150 (1.03)	135 (.93)	110 (.76)	75 (.52)	50 (.34)	-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 (.70)	90 (.62)	80 (.55)	70 (.48)	60 (.41)	50 (.34)	-0- (-0-)

NOTE: Threaded Valves should not be used at temperatures above 110°F (43°C) for PVC, and 150°F (66°C) for CPVC.



SPEARS® MANUFACTURING COMPANY

CORPORATE OFFICES

15853 Olden Street, Sylmar, CA 91342
P.O. Box 9203, Sylmar, CA 91392
(818) 364-1611 • <http://www.spearsmfg.com>



PACIFIC SOUTHWEST

15860 Olden Street
Sylmar (Los Angeles), CA 91342
P.O. Box 9203, Sylmar, CA 91392
(818) 364-1611
(800) 862-1499
FAX: (818) 367-3014

NORTHWEST

3902 "B" Street N.W.
Auburn (Seattle), WA
98002
(253) 939-4433
(800) 347-7327
FAX: (253) 939-7557

ROCKY MOUNTAIN

4800 Nome Street
Denver, CO
80239
(303) 371-9430
(800) 777-4154
FAX: (303) 375-9546

SOUTH CENTRAL

1838 Forms Drive
Carrollton (Dallas), TX
75006
(972) 245-0387
(800) 441-1437
FAX: (972) 245-4205

UTAH

1415 South 700 West #3
Salt Lake City, UT
84104
(801) 972-0659
FAX: (801) 972-0688

NORTHEAST

543 Industrial Drive
Lewisberry (Harrisburg), PA
17339-9532
(717) 938-8844
(800) 233-0275
FAX: (717) 938-6547

SOUTHEAST

2751 Miller Road
Decatur (Atlanta), GA
30035
(770) 981-7122
(800) 662-6326
FAX: (770) 981-6106

FLORIDA

3445 Bartlett Boulevard
Orlando, FL
32811
(407) 843-1960
(800) 327-6390
FAX: (407) 425-3563

MIDWEST

854 Fairway Drive
Bensenville (Chicago), IL
60106
(630) 773-0075
(800) 662-6330
FAX: (630) 773-0435

INTERNATIONAL SALES

15853 Olden Street
Sylmar (Los Angeles), CA 91342
P.O. Box 9203
Sylmar, CA 91392
(818) 364-1611
FAX: (818) 898-3774
E-mail: export@spearsmfg.com