PVC SINGLE ENTRY BALL VALVES

SE-2-0809

Economical Industrial Grade Valve



This quarter-turn shut off valve is widely chosen for heavy duty use in industrial & chemical, turf & irrigation, and pool & spa applications. Available in IPS sizes 1/2" through 4" with choice of socket or threaded end connectors.

Heavy Bodied PVC Gray or White Construction
Spears® Single Entry Ball Valves never rust, scale or pit, providing exceptional chemical and corrosion resistance.

Buttress Threaded External Adjustment Nut
Strong buttress type threads on adjustment nut allow higher pressure handling capability and quick external adjustment for seat wear compensation.

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

Buna-N, EPDM or FKM O-ring Options
Choice of high grade, abrasion resistant Buna-N, EPDM or FKM 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.

Full Schedule 80 Bore
In full open position, full bore virtually eliminates pressure drop, providing optimum flow.

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

Safe-T-Shear® Stem
Developed to help prevent line fluids from leaking out in the event of ball valve stem damage. Engineered for high strength, the stem incorporates a special shear point to control accidental breakage. Over torquing breaks occur above the stem O-ring leaving the seal intact until repair or replacement can be made.

Full 235 psi Pressure Rating
Maximum Internal Pressure at 73° F for the most demanding applications for 1/2" - 2" valves, 150 psi for 3" & 4" valves.

Suitable For Vacuum Service
Spears® Single Entry Ball Valves are tested at 26 in. Hg vacuum for one hour with less than 1 in. Hg loss.

NSF® Certified for Potable Water
All Single Entry Ball Valves with Buna-N or EPDM O-rings are NSF® Certified for potable water use.

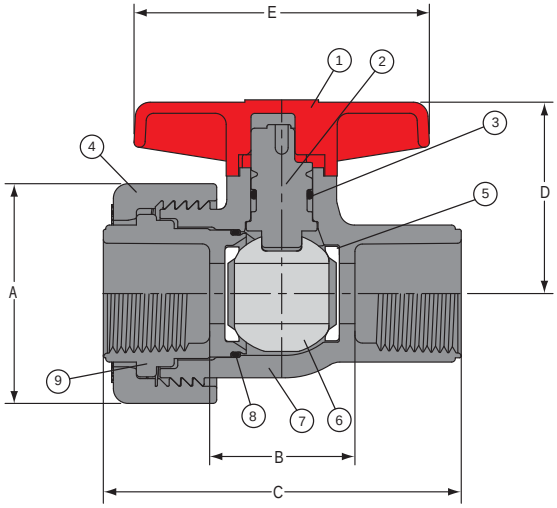
Fully Repairable, Non-Blocked Valve
Convenient Seat & O-ring Replacement Kits, for easy ordering, servicing and extended valve life. Requires system shutdown for service.

Optional Accessories
- Round Safety Handle
- Stem Extension Kit
- Mini-Mount Actuation Mounting Kit
- 2" Square/T-Style Operator Nut

Sample Engineering Specifications
All thermoplastic ball valves shall be Single Entry type constructed from PVC Type I Cell Classification 12454. All O-rings shall be Buna-N, EPDM or FKM. All valves shall have Safe-T-Shear® stem and double stop Polypropylene handle. All valve union nuts shall have Buttress threads. All valve components shall be replaceable. All valves with Buna-N or EPDM O-rings shall be certified for potable water use by the NSF International. All 1/2" through 2" valves shall be pressure rated at 235 psi and all 3" and 4" valves shall be pressure rated at 150 psi for water at 73° F, as manufactured by Spears® Manufacturing Company.

PROGRESSIVE PRODUCTS FROM SPEARS® INNOVATION & TECHNOLOGY

Visit our web site: www.spearsmfg.com



Replacement Parts

No.	Component	Qty.	Material
1	Handle	1	PP
2	Stem	1	PVC
3	Stem O-ring	1	Buna-N/EPDM/FKM
4	Union Nut	1	PVC
5	Seat	2	PTFE
6	Ball	1	PVC
7	Body	1	PVC
8	Carrier O-ring	1	Buna-N/EPDM/FKM
9	End Connector	1	PVC

Seat O-rings (not Shown) on sizes 3" and larger.

Dimensions, Weights, Operating Torque & Cv Values

Nominal Size	Dimension Reference (inches, ± 1/16)						Approx. Wt. (Lbs.)	Oper.[2] Torque (in.-lb.)	C_v[3] Values
	A	B[1]		C	D	E			
		Socket	Thread						
1/2	1-15/16	1-1/4	1-5/8	3-1/16	1-5/8	2-1/2	.22	20	38
3/4	2-3/8	1-7/16	2-1/8	3-9/16	2	3	.36	30	76
1	2-5/8	1-5/8	2-1/8	3-7/8	2-5/16	3-15/16	.50	40	146
1-1/4	3-1/8	1-15/16	2-1/4	4-1/8	2-13/16	3-1/2	.75	60	292
1-1/2	3-9/16	2-3/8	2-3/4	4-5/8	3-1/16	3-7/8	1.00	80	412
2	4-5/16	3-1/16	3-5/8	5-1/2	3-3/4	5	2.00	90	720
3	6-3/16	4-3/8	5-3/8	8-1/8	5-1/2	7-5/8	7.00	300	1660
4	7-3/4	5-11/16	6-7/8	9-3/4	6-1/8	9-1/16	12.00	400	3104

1: Valve Lay Length
2: Torque required at valve maximum internal pressure rating, 5 ft./sec. flow velocity; due to adjustment differences during installation, actual values may vary.
3: Gallons per minute at 1 psi pressure drop. Values calculated from valve laying length, based on derivative of Hazen-Williams equation with surface 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)
Valve Pressure Rating psi (MPa)	1/2" - 2"	PVC	235 (1.62)	146 (1.01)	118 (.81)	94 (.65)	71 (.49)	52 (.36)	-0- (-0-)
	3" - 4"	PVC	150 (1.03)	93 (.64)	75 (.52)	60 (.41)	45 (.31)	33 (.23)	-0- (-0-)

SPEARS® MANUFACTURING COMPANY
CORPORATE OFFICE
15853 Olden St., Sylmar, CA 91342 • PO Box 9203, Sylmar, CA 91392
(818) 364-1611 • www.spearsmfg.com

© Copyright 2009 Spears® Manufacturing Company. All Rights Reserved. Printed in the United States of America 08/09.