



# PVC & CPVC COMPACT 2000 BALL VALVES

CB2000-2-0420

## Industrial Grade, Maintenance-Free Sealed Unit Lower-Profile And Compact Design Provides Even Greater Space-Savings



- Industrial Grade, Maintenance-Free Sealed Unit
- Actuator-Ready Body – Accepts Spears® Improved Mini-Mount Actuator Mounting Kits
- Double O-ring Stem Seal
- Spears® Safe-T-Shear Stem
- PTFE Self Adjusting Floating Seats
- EPDM or FKM O-ring Seals
- Full 235 psi Pressure Rating @ 73°F
- EPDM valves NSF® Certified for Use with Potable Water
- Suitable for Vacuum Service
- Produced in ASTM IPS sizes 1/2" - 2" with Socket or Threaded End Connectors.

### Corrosion Resistant PVC or CPVC Construction, Silicone Free Assembly

Spears® Compact 2000 Ball Valves never rust, scale, or pit, providing exceptional chemical and corrosion resistance. Assembled with water soluble, silicone free lubricant.

### Actuation-Ready Body Mounting Lugs

Valve body has built-in mounting lugs for direct attachment to Spears® improved Mini-Mount actuator mounting kits.

### PTFE Ball Seats

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

### EPDM or FKM O-ring Options

Available with high grade, abrasion resistant EPDM or FKM elastomer O-ring seals. Allows application specific selection for optimum chemical resistance.

### High Impact Polypropylene Handle

Low profile, double stop design. Exhibits excellent resistance to most chemical environments.

### Full Schedule 80 Bore

In open position, full-bore provides optimum flow with pressure drop equal to that of an equivalent length of Schedule 80 pipe.

### Suitable for Vacuum Service

Compact 2000 Ball Valves have been tested at 26 in-Hg. vacuum for one hour with less than 1-in. Hg loss.

### NSF® Certified for Potable Water

All EPDM Compact 2000 Ball Valves are NSF® Certified for use in potable water systems.

### Optional Accessories

- Round Safety Handles
- Stem Extension Kits
- Square Operator Nuts
- Multi Mount Valve/Actuation Mounting Kits
- Mini-Mount Actuation Mounting Kits

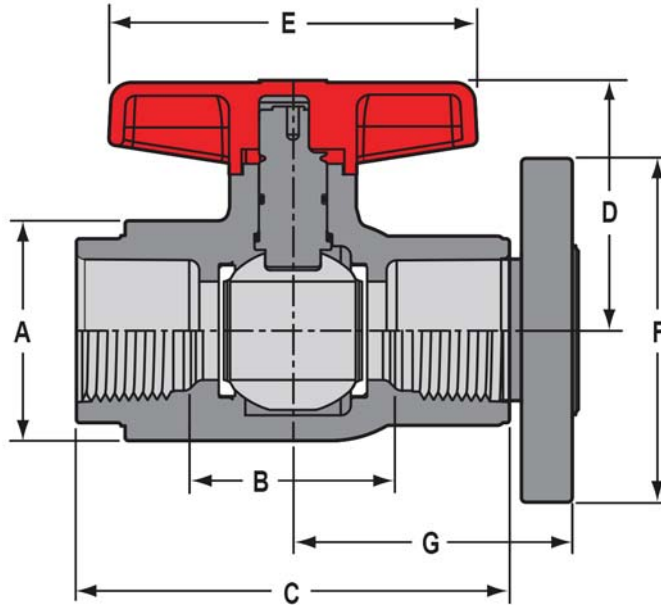
### Sample Engineering Specification

All thermoplastic ball valves shall be Compact 2000 sealed unit type manufactured to ASTM F 1970 and constructed from PVC Type I, ASTM D 1784 Cell Classification 12454 or CPVC Type IV, Cell Classification 23447. All Valve bodies shall have actuation mounting lugs. All O-rings shall be EPDM or FKM. All valves shall have Safe-T-Shear® stem with O-ring stem seal and double-stop Polypropylene handle. All valves shall be listed by NSF International for use in potable water service. All 1/2" - 2" valves shall be pressure rated at 235psi, for water at 73°F, as manufactured by Spears® Manufacturing Company.



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## Technical Information



### Dimensions, Weights, Operating Torque & Cv Values

Nominal Size	Dimension Reference (inches, ± 1/16)								Approx. Wt. (Lbs.)		Oper. <sup>2</sup> Torque (in.-lb.)	Cv <sup>3</sup> Values
	A	B <sup>1</sup>		C	D	E	F	G	PVC	CPVC		
		Socket	Threaded									
1/2	1-7/16	1-1/4	1-1/2	3	1-5/8	2-1/2	3-1/2	2-11/32	.18	.20	10	42
3/4	1-3/4	1-1/2	2	3-1/2	2	3	3-7/8	2-5/8	.29	.31	20	87
1	2-1/16	1-23/32	2-3/16	4	2-5/16	3-3/8	4-1/4	2-29/32	.44	.46	25	157
1-1/4	2-9/16	2-1/8	2-3/4	4-5/8	2-7/8	3-1/2	4-5/8	3-9/32	.68	.70	30	311
1-1/2	3	2-1/2	3-5/16	5-1/4	3-1/16	3-7/8	5	3-27/32	.99	1.03	50	429
2	3-9/16	3	4	6	3-3/4	5	5-7/8	4-1/4	1.64	1.70	90	768

1: Valve Lay Length

2: Torque required at valve maximum internal pressure rating, 5ft/sec. Flow velocity.

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

### 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)	1/2" - 2"	PVC	235 (1.62)	211 (1.45)	150 (1.03)	75 (.52)	50 (.34)	-0- (-0-)	-0- (-0-)	-0- (-0-)	-0- (-0-)	-0- (-0-)	-0- (-0-)	
		CPVC	235 (1.62)	219 (1.51)	170 (1.17)	145 (1.00)	130 (.90)	110 (.76)	90 (.62)	80 (.55)	70 (.48)	60 (.41)	50 (.34)	-0- (-0-)
	FLANGED	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 (.73)	100 (.70)	90 (.62)	80 (.55)	70 (.48)	60 (.41)	50 (.34)	-0- (-0-)

**NOT FOR DISTRIBUTION OF COMPRESSED AIR OR GASES**



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