

PVC and CPVC Tru-Bloc® True Union Ball Valve, Model C

Construction Materials

Components ¹	PVC	CPVC
1. Handle	Orange PVC	
2. Stem	PVC	CPVC
3. Body	PVC	CPVC
4. Seat-Carrier	PVC	CPVC
5. Union Nut	PVC	CPVC
6. End Connector	PVC	CPVC
7. Ball	PVC	CPVC
8. Seat ² ; (2 ea.)	PTFE	
9. O-Ring ³ – Seat-Carrier; End Seal	FKM or EPDM	
10. O-Ring ³ – Body; End Seal		
11. O-Ring ³ – Stem; OD Seal		
12. O-Ring ³ – Seat-Carrier; OD Seal		
13. O-Ring ³ – Seat-Carrier; Seat Energizer		
14. Flange – 2 ea. Socket-End	PVC	CPVC
15. Plain-End Nipple; 2 ea. Spg x Spg	PVC	CPVC
16. Stem; Friction Washer (4" & 6" Only)	PTFE	
17. Handle Bolt (4" & 6" Only)	PVC	

¹ All components **except valve bodies** are available as replacement parts.

² Each replacement **PTFE seat kit** contains two seats.

³ Each replacement O-ring kit contains all the O-rings required to refurbish a particular size True Union Ball or Check Valve (regardless of model or style), or a minimum of two pipe unions.

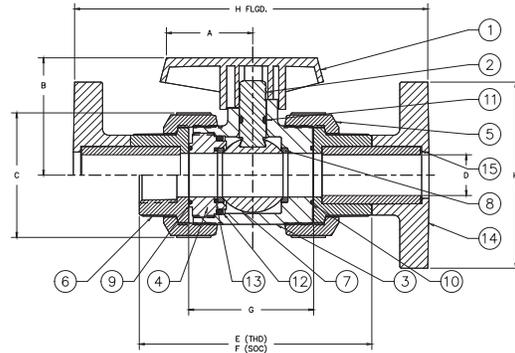
Chemtrol Figure Number

Valve Style	Elasto-meric Trim	PVC			CPVC		
		Soc.	Thd.*	Flgd.	Soc.	Thd.*	Flgd.
TU/TB	FKM	S45TB-V	T45TB-V	F45TB-V	S51TB-V	T51TB-V	F51TB-V
	EPDM	S45TB-E	T45TB-E	F45TB-E	S51TB-E	T51TB-E	F51TB-E

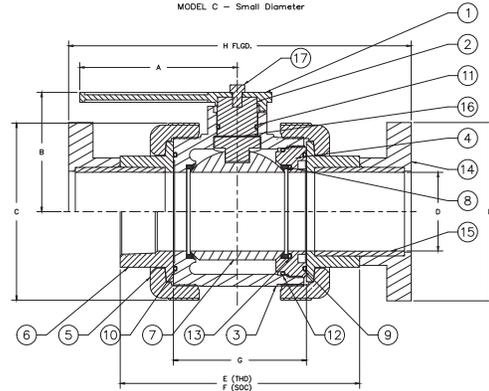
* Thread end connections are not available for 6" valves.

Features

- Rated at 150 psi with non-shock water service at 73°F.
- Designed with an energizer O-ring beneath the PTFE seat, Model D and C valves automatically adjust for seat wear.
- Full-port design produces minimum flow restriction with the lowest possible pressure-drop. 6" ball valve is reduced port.
- Valves are manufactured and assembled without exposure to silicone compounds. Silicone-free lubricant is used to assemble all ball valves.



MODEL C – Small Diameter



MODEL C – Lg Diameter 4" & 6"

Dimensions–Weights–Flow Coefficients

Valve Size	A ¹	B	C	D	N	P	E	F	G	H	Approx. ²	Wt. Lbs.
3	4.00	5.59	7.18	3.00	7.42	7.50	10.39	10.39	6.58	14.63	11.25	
4	8.00	6.05	8.78	4.00	8.52	9.00	12.22	12.22	7.66	17.63	17.68	
6 ⁴	8.00	6.05	8.78	4.00	11.90	11.05	NA	30.22	24.16	24.08	29.25	

Fluid Flow Coefficient

Valve Size	C _v ³ TU
3	1348
4	2602
6 ⁴	2602

Maximum Non-Shock Pressure Ratings (psi) vs. Temperature

"Maximum Operating Pressure (psi) vs. Temperature"

"Operating Temperature (F)"	PVC	CPVC
100	150	150
110	135	140
120	110	130
130	75	120
140	50	110
150	N.R.	100
160	N.R.	90
170	N.R.	80
180	N.R.	70
190	N.R.	60
200	N.R.	50
250	N.R.	N.R.
280	N.R.	N.R.

N.R. - Not recommended

¹ Handle is not symmetrical about center line. Dimensions shown represent the longest operational radius. The handle position is correctly shown for the 3" True Union valve style, but the position must be rotated 180° from that shown for the 4" - 6" True Unions.

² Weight includes socket end connections only for 3" - 6" sizes. The material represented is PVC in all cases. ³ C_v values computed for basic valve laying lengths (G).

⁴ **The 6" ball valve is a Venturi design derived from the 4" valve: a 4" end connector and a 6" coupling are connected by a 6" x 4" Venturied reducer, with a union nut captured within the assembly. Threaded end connection not available.**