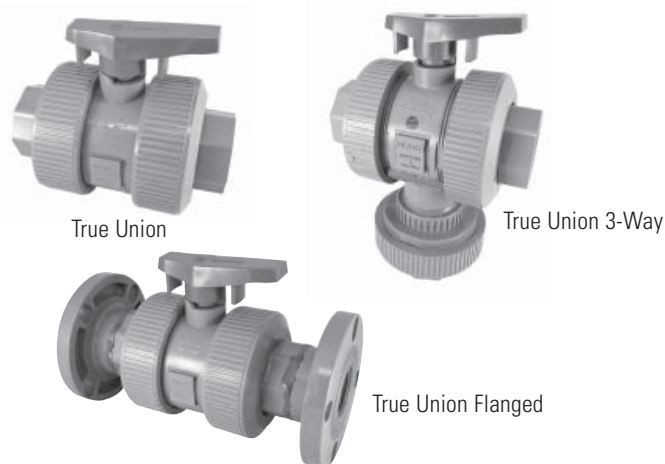


## True Union Ball Valves—A Family of Products

The True Union feature, an exclusive Chemtrol® introduction, so revolutionized the industrial plastic valve industry that it has become the standard followed by all major manufacturers. The purpose of the design is to permit the valve cartridge, i.e., the body containing all operational components, to be easily lifted from the piping system for servicing/replacement when the union nuts are backed off. Easy repair/replacement, interchangeability, distribution availability, technical service, and reliable quality are the synergistic rationale many plants and original equipment manufacturers have embraced while standardizing on Chemtrol® True Union Ball and Check Valves.

The True Union Valve is plastic's answer to the function of a flanged valve. In comparison with flanged joints, union connections at the ends of a valve have the following advantages: less costly to manufacture; can be mass produced for interchangeable use on other fitting and valve products, which also present flexible piping opportunities; ease of tightening or removing union nuts by hand makes valve servicing/replacement far more accessible; precise compression on ring face-seals results in greater joint reliability than mechanic-dependent bolted gasket face-seals.



Detailed information on the individual ball valve styles is offered on the next seven pages.

### Construction Materials

Components <sup>1</sup>	Valve Style							
	TU/TB PVC	TU/TB CPVC	TU 3-Way PVC	TU 3-Way CPVC	TU/TB Black PP	TU/TB Nat. PP	TU/TB Red PVDF	TU/TB Nat. PVDF
1. Handle – Lever <sup>4</sup>	Orange PVC				Red PVC	Red PVC	Black GBPP	Black GBPP
2. Stem	PVC	CPVC	PVC	CPVC	Nat. PP	Nat. PP	Nat. PVDF	Nat. PVDF
3. Body – TU; Model D	PVC	CPVC	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
– TU; Model C	PVC	CPVC	PVC	CPVC	Black PP	Nat. PP	Red PVDF	Nat. PVDF
– TU/3-Way; Multiport	N. A.	N. A.	PVC	CPVC	N. A.	N. A.	N. A.	N. A.
– TU/3-Way; Diverter	N. A.	N. A.	PVC	CPVC	N. A.	N. A.	N. A.	N. A.
4. Seat-Carrier – TU/TB Model D	PVC	CPVC	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
– TU/TB Model C	PVC	CPVC	N. A.	N. A.	Nat. PP	Nat. PP	Nat. PVDF	Nat. PVDF
– TU/TB Model B <sup>6</sup>	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.
– TU Model A	N. A.	N. A.	PVC	CPVC	N. A.	N. A.	N. A.	N. A.
5. Retainer Ring; Model B <sup>6</sup>	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.
6. Union Nut; Std. – 2 ea. TU, or 3 ea. 3-Way (for Sizes 1/2" - 1")	PVC	CPVC	PVC	CPVC	Black PP	Nat. PP	Red PVDF	Nat. PVDF
Mod. <sup>7</sup> – 3 ea. 3-Way (for Sizes 1-1/4" - 2")	N. A.	N. A.	PVC	CPVC	N. A.	N. A.	N. A.	N. A.
7. End Connector								
– Socket <sup>8</sup> ; 2 ea. TU, or 3 ea. 3-Way	PVC	CPVC	PVC	CPVC	Black PP	Nat. PP	Red PVDF	Nat. PVDF
– Thread <sup>8</sup> ; 2 ea. TU, or 3 ea. 3-Way	PVC	CPVC	PVC	CPVC	Black PP	N. A.	Red PVDF	Nat. PVDF
8. Ball – TU	PVC	CPVC	N. A.	N. A.	Nat. GBPP <sup>9</sup>	Nat. GBPP <sup>9</sup>	Nat. PVDF	Nat. PVDF
– Multiport N. A.	N.A.	PVC	N. A.	N. A.	N. A.	N. A.	N.A.	N.A.
– Diverter	N. A.	N.A.	PVC	N. A.	N. A.	N. A.	N. A.	N.A.
9. Seat <sup>2</sup> ; (2 ea.)	PTFE							
10. O-Ring <sup>3</sup> – Seat-Carrier; End Seal; TU or 3-Way	FKM <sup>5</sup> or EPDM		FKM <sup>5</sup> or EPDM		FKM <sup>5</sup>			
11. O-Ring <sup>3</sup> – Body; End Seal; TU or 3-Way								
12. O-Ring <sup>3</sup> – Stem; OD Seal; TU or 3-Way								
13. O-Ring <sup>3</sup> – Seat-Carrier; OD Seal; TU or 3-Way								
14. O-Ring <sup>3</sup> – Seat-Carrier; Seat Energizer; TU			N. A.					
15. O-Ring <sup>3</sup> – Branch Union; End Seal; 3-Way	N. A.		FKM <sup>5</sup> or EPDM		N. A.			
16. Plain-End Nipple; 2 ea. Spg x Spg	PVC	CPVC	N. A.		Black PP	N. A.	Red PVDF	Nat. PVDF
17. Flange – 2 ea. Socket-End	PVC	CPVC	N. A.		Black PP	N. A.	Red PVDF	Nat. PVDF
18. Stem; Friction Washer (4" & 6" Only)	PTFE		N. A.		PTFE			
19. Handle Bolt (4" & 6" Only)	PVC		N. A.		Nat. PP			

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 Valve (regardless of model number), TU 3-Way Ball Valve, Ball Check or Foot Valve, or a minimum of two pipe unions.

4 Round **safety handle** available as an optional accessory in sizes 1/2"-2".

5 **Fluoropolymer elastomer** is also known as FKM.

6 The two-piece seat-carrier assembly for Model B Tru-Bloc Valves was replaced by a **one-piece carrier in Model C Tru-Bloc®** Valves. However, Model B components are still available as replacements.

7 The length of the **standard union nut** is **modified** to be slightly shorter for the 1-1/4" - 2" sizes of TU 3-Way Multiport and Diverter Valves.

8 **PVC and CPVC Tru-Bloc Ball Valves in the TU configuration** are equipped with **universal connectors**, meaning that a pair of socket and a pair of NPT threaded connectors are included in the valve package.

9 Polypropylene filled with **glass micro-beads**.