

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

### Construction Materials

| Components <sup>1</sup>                                | PVC         | CPVC |
|--------------------------------------------------------|-------------|------|
| 1. Handle                                              | Orange PVC  |      |
| 2. Stem                                                | PVC         | CPVC |
| 3. Body                                                | PVC         | CPVC |
| 4. Seat-Carrier                                        | PVC         | CPVC |
| 6. Union Nut                                           | PVC         | CPVC |
| 7. End Connector                                       | PVC         | CPVC |
| 8. Ball                                                | PVC         | CPVC |
| 9. Seat <sup>2</sup> ; (2 ea.)                         | PTFE        |      |
| 10. O-Ring <sup>3</sup> – Seat-Carrier; End Seal       | FKM or EPDM |      |
| 11. O-Ring <sup>3</sup> – Body; End Seal               |             |      |
| 12. O-Ring <sup>3</sup> – Stem; OD Seal                |             |      |
| 13. O-Ring <sup>3</sup> – Seat-Carrier; OD Seal        |             |      |
| 14. O-Ring <sup>3</sup> – Seat-Carrier; Seat Energizer |             |      |
| 15. Plain-End Nipple; 2 ea. Spg x Spg                  | PVC         | CPVC |
| 16. Flange – 2 ea. Socket-End                          | PVC         | CPVC |
| 17. Stem; Friction Washer (4" & 6" Only)               | PTFE        |      |
| 18. 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               | U45TB-V* | U45TB-V* | F45TB-V | U51TB-V* | U51TB-V* | F51TB-V |
|             | EPDM              | U45TB-E* | U45TB-E* | F45TB-E | U51TB-E* | U51TB-E* | F51TB-E |

\* As original equipment, 1/2" - 2" True Union Tru-Bloc valve models are supplied with universal connectors (i.e., a set of both socket and thread end connectors).

### Dimensions—Weights—Flow Coefficients

|            | TU Figures Profile |      |      |      |         | TU Figures End-to-End |        |        |        |         |                                   |                                    | Fluid Flow Coefficient         |
|------------|--------------------|------|------|------|---------|-----------------------|--------|--------|--------|---------|-----------------------------------|------------------------------------|--------------------------------|
| Valve Size | A <sup>1</sup>     | B    | C    | D    | K Flgd. | E Soc.                | F Thd. | G Soc. | H Thd. | J Flgd. | PVC Approx. <sup>2</sup> Wt. Lbs. | CPVC Approx. <sup>2</sup> Wt. Lbs. | C <sub>v</sub> <sup>3</sup> TU |
| 1/2        | 2.07               | 2.16 | 1.82 | .50  | 3.50    | 4.20                  | 4.10   | 2.42   | 2.44   | 6.30    | 0.350                             | 0.370                              | 6.4                            |
| 3/4        | 2.74               | 2.90 | 2.36 | .75  | 3.88    | 5.02                  | 4.62   | 3.02   | 3.05   | 7.34    | 0.690                             | 0.730                              | 38.7                           |
| 1          | 2.74               | 3.07 | 2.73 | 1.00 | 4.26    | 5.47                  | 5.32   | 3.22   | 3.40   | 8.17    | 0.960                             | 1.000                              | 58.2                           |
| 1 1/4      | 2.62               | 3.91 | 4.07 | 1.25 | 4.62    | 6.53                  | 6.07   | 4.01   | 4.06   | 9.41    | 2.155                             | 2.255                              | 61.7                           |
| 1 1/2      | 2.62               | 3.91 | 4.07 | 1.50 | 5.00    | 6.89                  | 6.23   | 4.10   | 4.18   | 10.05   | 2.190                             | 2.315                              | 117.4                          |
| 2          | 3.12               | 4.71 | 5.23 | 2.00 | 6.00    | 8.04                  | 7.39   | 5.01   | 5.19   | 11.44   | 4.410                             | 4.670                              | 178.4                          |

1 Handle is not symmetrical about centerline. Dimensions shown represent the longest operational radius. The handle position is correctly shown for the 1/2" - 3" True Union valve style.

2 Weight for 1/2" - 2" TU figures includes both sets of end connectors.

3 C<sub>v</sub> values computed for basic valve laying lengths (G).

### Features

- Rated at 250 psi with non-shock water service at 73°F
- Corzan® HP CPVC rated at 130 psi at 180°F, see chart in Reference Data section for maximum service temperature.
- Retains laying length of previous models, full interchangeable cartridge, nuts and end connectors
- 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
- Improved union nut grip style and flats on end connectors
- Universal product includes socket and threaded end connections
- Ergonomic handle with built-in carrier wrench
- Valves are manufactured and assembled without exposure to silicone compounds. Silicone-free lubricant is used to assemble all ball valves.

