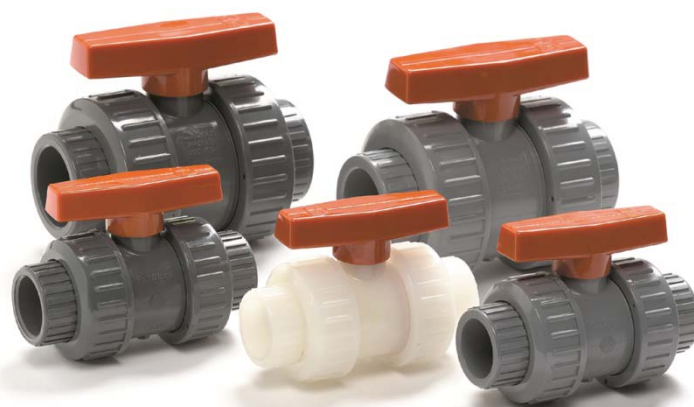


- **Premium quality, Full Port Sch 80 design**, suited for the most demanding industrial, commercial plumbing, aquatic, or irrigation environments. Premium performance in piping systems since 1984.
- Blocked carrier held securely with a patented locking-strip, which also allows for external seat-wear adjustment.
- Dual stem o-rings. The stem is designed to shear above the secondary o-ring under excessive force. This is an important safety feature.
- Two stem-stops for positive shut-off. Floating ball design for pressure-assisted sealing downstream.
- True Union design permits easy removal of valve body for service. Complete inventory of repair parts is readily available.
- Vacuum rating: 26 Hg (inches mercury) with less than 1 Hg loss.
- 100% tested for a bubble-tight seal.
- Meets ASTM F-1970 for pressure-rating.
- Socket dimensions meet all ASTM requirements: PVC D-2467, D-2464; CPVC F-439, F437
- Version with **vented ball** available for sodium hypochlorite application. (See separate submittal)
- Version with Silicone o-rings available for use with Sodium Permanganate in wastewater treatment systems (see part numbers in this brochure)
- Available in PVC, CPVC and Polypropylene. PVC and CPVC versions are certified to NSF/ANSI 61-G & 372

**SAMPLE ENGINEERING SPECIFICATIONS:** All thermoplastic True Union Ball Valves ½ - 4" shall be Full Port, Schedule 80, and shall be produced of PVC Type I, cell class 12454 or CPVC Type IV, cell class 23447, or natural unpigmented Polypropylene material. O-rings shall be made of EPDM or Viton® FKM material. Valves seats shall be made of PTFE material. Valves shall be assembled using silicone-free lubricant. Valves shall be capable of being adjusted externally for seat-wear, and shall meet ASTM standard F-1970 for pressure rating. End connectors shall be of socket, thread or flange type.



Pressure rating, Cv, Torque, Wgt.

| VALVE SIZE     | SOCKET & THREAD, PVC & CPVC | FLANGED, PVC & CPVC | SOCKET AND THREAD, PP | Cv <sup>2</sup> | OPENING TORQUE <sup>3</sup> | WGT. (LBS) |
|----------------|-----------------------------|---------------------|-----------------------|-----------------|-----------------------------|------------|
| 1/2            | 235                         | 150                 | 150                   | 22              | 16                          | 0.54       |
| 3/4            | 235                         | 150                 | 150                   | 55              | 35                          | 0.84       |
| 1              | 235                         | 150                 | 150                   | 112             | 60                          | 1.03       |
| 1-1/4          | 235                         | 150                 | 150                   | 178             | 110                         | 3.13       |
| 1-1/2          | 235                         | 150                 | 150                   | 285             | 110                         | 2.93       |
| 2              | 235                         | 150                 | 150                   | 540             | 180                         | 5.30       |
| 3              | 150                         | 150                 |                       | 1348            | 600                         | 9.75       |
| 4              | 150                         | 150                 |                       | 2602            | 1000                        | 16.15      |
| 6 <sup>1</sup> | 150                         | 150                 |                       | 2602            | 1000                        | 21.50      |

<sup>1</sup> 6" valve is 4" valve with 6 x 4 reducers.

<sup>2</sup> GPM of water at 1 psi pressure drop, calculated from Hazen-Williams equation.

<sup>3</sup> Torque required at maximum pressure rating, with valve installed and interior o-rings wetted.

NOTE: Max recommended fluid velocity is 5 feet per second.

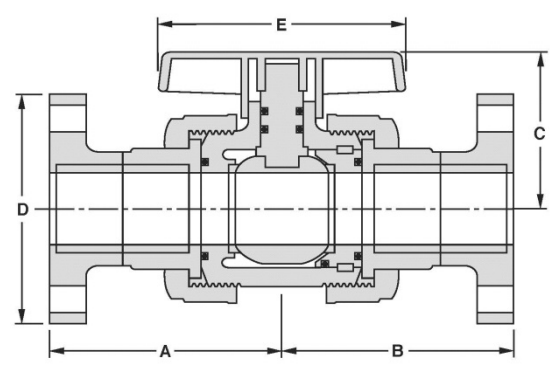
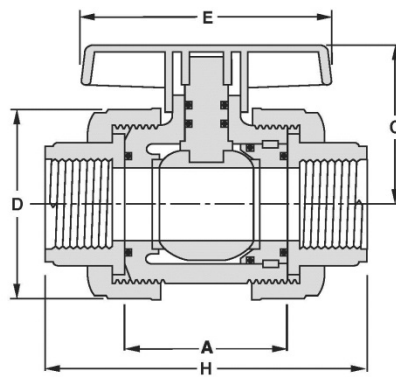
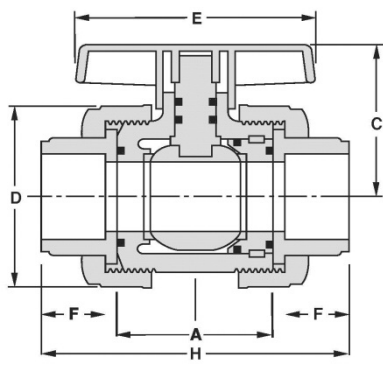
Colonial recommends a minimum installation distance of 10x the pipe diameter from a pump or other sources of turbulence.

Do not use with compressed air or gas.

Pressure ratings per ASTM F-1070, non-shock water at 73°F



REV 031417



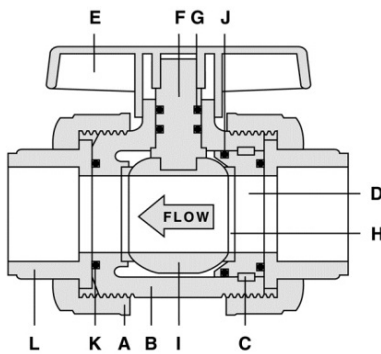
| SLIP X SLIP | A       | C        | D        | E        | F        | H        |
|-------------|---------|----------|----------|----------|----------|----------|
| 1/2"        | 2-1/16" | 1-29/32" | 2-1/32"  | 3-7/32"  | 15/16"   | 4-1/4"   |
| 3/4"        | 2-5/8"  | 2-3/8"   | 2-15/32" | 3-7/16"  | 1"       | 5-1/8"   |
| 1"          | 2-7/8"  | 2-19/32" | 2-27/32" | 4"       | 1-5/32"  | 5-3/8"   |
| 1-1/4"      | 3-3/8"  | 3-19/32" | 4-3/32"  | 5"       | 1-13/32" | 6-1/8"   |
| 1-1/2"      | 3-3/8"  | 3-19/32" | 4-3/32"  | 5"       | 1-13/32" | 6-1/2"   |
| 2"          | 4-1/4"  | 4-9/32"  | 5-5/16"  | 5-31/31" | 1-17/32" | 7-3/4"   |
| 3"          | 5-7/8"  | 5-13/32" | 7-7/32"  | 7-5/8"   | 1-15/16" | 10-5/16" |
| 4"          | 7"      | 6-1/32"  | 8-9/16"  | 9-15/32" | 2-9/32"  | 12-3/16" |

| FPT X FPT | A       | C        | D        | E        | H        |
|-----------|---------|----------|----------|----------|----------|
| 1/2"      | 2-1/16" | 1-29/32" | 2-1/32"  | 3-7/32"  | 3-11/16" |
| 3/4"      | 2-5/8"  | 2-3/8"   | 2-15/32" | 3-7/16"  | 4-5/16"  |
| 1"        | 2-7/8"  | 2-19/32" | 2-27/32" | 4"       | 5"       |
| 1-1/4"    | 3-3/8"  | 3-19/32" | 4-3/32"  | 5"       | 6-1/16"  |
| 1-1/2"    | 3-3/8"  | 3-19/32" | 4-3/32"  | 5"       | 5-3/4"   |
| 2"        | 4-1/4"  | 4-9/32"  | 5-5/16"  | 5-31/32" | 6-11/16" |
| 3"        | 5-7/8"  | 5-13/32" | 7-7/32"  | 7-5/8"   | 10-1/4"  |
| 4"        | 7"      | 6-1/32"  | 8-9/16"  | 9-15/32" | 12-3/16" |

| FLANGED | A        | B        | L*       | C        | D        | E        |
|---------|----------|----------|----------|----------|----------|----------|
| 1/2"    | 3-3/16"  | 3-3/16"  | 6-12/32" | 1-29/32" | 3-17/32" | 3-7/32"  |
| 3/4"    | 3-3/4"   | 3-3/4"   | 7-1/2"   | 2-3/8"   | 3-29/32" | 3-7/16"  |
| 1"      | 4"       | 4"       | 8"       | 2-19/32" | 4-9/32"  | 4"       |
| 1-1/4"  | 4-1/2"   | 4-1/2"   | 9"       | 3-19/32" | 4-21/32" | 5"       |
| 1-1/2"  | 4-13/16" | 4-13/16" | 9-5/8"   | 3-19/32" | 5-1/32"  | 5"       |
| 2"      | 5-5/8"   | 5-5/8"   | 11-1/4"  | 4-9/32"  | 6"       | 5-31/32" |
| 3"      | 7"       | 7"       | 14"      | 5-13/32" | 7-1/2"   | 7-5/8"   |
| 4"      | 7-5/16"  | 7-5/16"  | 14-5/8"  | 6-17/32" | 9-7/16"  | 9-15/32" |

\* L Overall Dim (A + B)

For 2-1/2" size, see the Colonial Commercial Series TUBV (V27050N, V27052N, V27053N, V27054N) on separate submittal.



| Part | Component      | Qty | Material               |
|------|----------------|-----|------------------------|
| A    | Union Nut      | 2   | PVC, CPVC, PP          |
| B    | Body           | 1   | PVC, CPVC, PP          |
| C    | Locking Strip  | 1   | PVDF                   |
| D    | Carrier        | 1   | PVC, CPVC, PP          |
| E    | Handle         | 1   | ABS                    |
| F    | Stem           | 1   | PVC, CPVC, PP          |
| G    | Stem O-Ring    | 2   | EPDM, Viton®, Silicone |
| H    | Ball Seat      | 2   | PTFE                   |
| I    | Ball           | 1   | PVC, CPVC, PP          |
| J    | Carrier O-Ring | 1   | EPDM, Viton®, Silicone |
| K    | Face O-Ring    | 2   | EPDM, Viton®, Silicone |
| L    | Connector      | 2   | PVC, CPVC, PP          |

De-rate pressure for elevated process temps per the chart below:

| Temp (°F) | PVC  | CPVC | PP   |
|-----------|------|------|------|
| 73        | 1.00 | 1.00 | 1.00 |
| 80        | .88  | .96  | .93  |
| 90        | .75  | .92  | .83  |
| 100       | .62  | .85  | .74  |
| 110       | .50  | .77  | .66  |
| 120       | .40  | .70  | .58  |
| 130       | .30  | .62  | .51  |
| 140       | .22  | .55  | .40  |
| 150       | NR   | .47  | .38  |
| 160       | NR   | .40  | .35  |
| 170       | NR   | .32  | .29  |
| 180       | NR   | .25  | .23  |
| 200       | NR   | .18  | .14  |
| 210       | NR   | .15  | .10  |
| 240       | NR   | NR   | NR   |
| 280       | NR   | NR   | NR   |

| MATERIAL CHOICES | SOCKET & THREADED END CONNECTORS | SOCKET  | THREADED | FLANGED | SOCKET & THREADED END CONNECTORS | SOCKET  | THREADED | FLANGED |
|------------------|----------------------------------|---------|----------|---------|----------------------------------|---------|----------|---------|
| SIZE             | PVC w/EPDM O-RINGS               |         |          |         | PVC w/VITON® O-RINGS             |         |          |         |
| 1/2"             | V07101N                          | -       | -        | V07121N | V07102N                          | -       | -        | V07122N |
| 3/4"             | V08101N                          | -       | -        | V08121N | V08102N                          | -       | -        | V08122N |
| 1"               | V10101N                          | -       | -        | V10121N | V10102N                          | -       | -        | V10122N |
| 1-1/4"           | V14101N                          | -       | -        | V14121N | V14102N                          | -       | -        | V14122N |
| 1-1/2"           | V17101N                          | -       | -        | V17121N | V17102N                          | -       | -        | V17122N |
| 2"               | V20101N                          | -       | -        | V20121N | V20102N                          | -       | -        | V20122N |
| 3"               | -                                | V30101N | V30111N  | V30121N | -                                | V30102N | V30112N  | V30122N |
| 4"               | -                                | V40101N | V40111N  | V40121N | -                                | V40102N | V40112N  | V40122N |
| *1/6"            | -                                | V60101N | -        | V60121N | -                                | V60102N | -        | V60122N |

| SIZE   | CPVC w/EPDM |         |         | CPVC w/VITON® |         |         |         | PP w/VITON® |         |
|--------|-------------|---------|---------|---------------|---------|---------|---------|-------------|---------|
| 1/2"   | V07103N     | -       | -       | V07123N       | V07104N | -       | -       | V07124N     | V07106N |
| 3/4"   | V08103N     | -       | -       | V08123N       | V08104N | -       | -       | V08124N     | V08106N |
| 1"     | V10103N     | -       | -       | V10123N       | V10104N | -       | -       | V10124N     | V10106N |
| 1-1/4" | V14103N     | -       | -       | V14123N       | V17104N | -       | -       | V14124N     | V14106N |
| 1-1/2" | V17103N     | -       | -       | V17123N       | V17104N | -       | -       | V17124N     | V17106N |
| 2"     | V20103N     | -       | -       | V20123N       | V20104N | -       | -       | V20124N     | V20106N |
| 3"     | -           | V30103N | V30113N | V30123N       | -       | V30104N | V30114N | V30124N     | -       |
| 4"     | -           | V40103N | V40113N | V40123N       | -       | V40104N | V40114N | V40124N     | -       |
| *1/6"  | -           | V60103N | -       | -             | -       | V60104N | -       | V60124N     | -       |



Electric and Pneumatic Actuated valves, brackets and accessories are also available.

