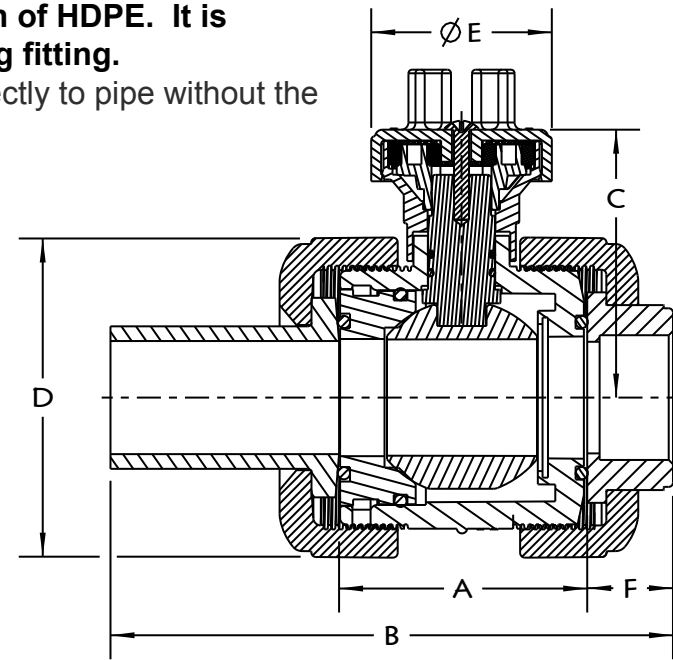
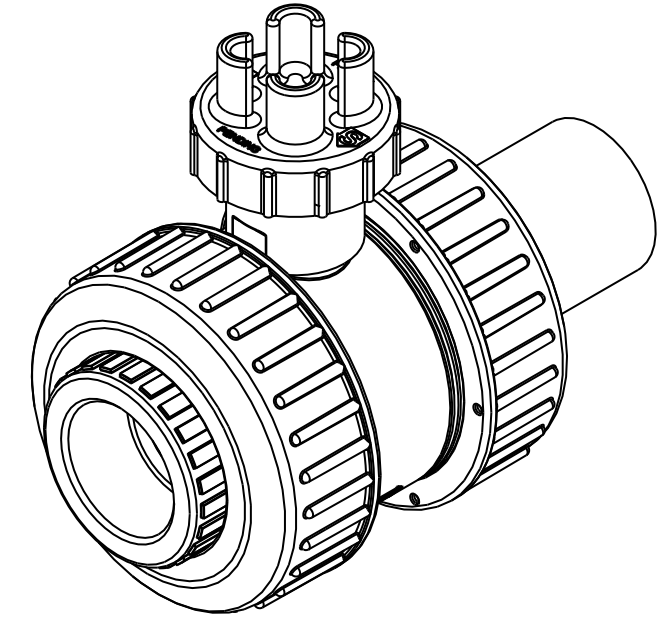


# Submittal Drawing: HP-SC Series Thermoplastic True Union Ball Valve with HDPE X PVC End Connectors

Designed for turf irrigation, and many other applications. Patented gear drive thermoplastic handle mechanism allows for a 360° rotation of the handle to achieve a 90° turn of the ball. This gradual open/close actuation greatly reduces the opportunity for shock or hammer experienced by the sudden open/closure of a standard quarter-turn ball valve.

- Handle features a cross to accept standard sprinkler key wrench (or Lasco plastic key VKey-1) for buried service actuation.
- Replaces brass or bronze gate valves for irrigation uses.
- Thermoplastic construction eliminates process and atmospheric corrosion.
- True Union End Connectors allow for easy and quick removal from line.
- Follow published guidelines to de-rate pressure for elevated process temperature. Avoid prolonged exposure to direct sunlight during installation.
- Slo-Close valves are for Open or Closed operation. Do not attempt to meter or throttle by leaving valve in partially open/closed position.
- Spigot ends are to be joined to HDPE electro-fusion fittings, or compression adapters, following equipment manufacturers' recommendations. **This valve is not suitable for butt fusion in a section of HDPE pipe that exceeds 24" in length due to thermal expansion and contraction of HDPE. It is designed to be connected to a directional-changing fitting.**
- The PVC or CPVC socket connection may be made directly to pipe without the requirement of a directional-changing fitting.

- End connectors: HDPE spigot ends meeting DR11 dimensions and PVC or CPVC Sch 80 socket.
- Full port design - same I.D. as Sch 80 pipe minimizes turbulence at high flow rates.
- Floating ball design for positive seal.
- Dual Stem o-rings for extra protection against leaks.
- Repairable: A complete inventory of repair parts is readily available.
- Valves should be installed such that the center-line of the pipe is a minimum of 18" below grade. We recommend a double valve box allowing access to the union nuts to facilitate simple future maintenance or repair.



| Dimensions (Inches): |       |       |
|----------------------|-------|-------|
|                      | 2"    | 3"    |
| A                    | 4.20  | 5.85  |
| B                    | 11.64 | 12.42 |
| C                    | 5.54  | 7.00  |
| D                    | 5.30  | 7.25  |
| E                    | 2.88  | 2.88  |
| F                    | 1.78  | 1.94  |

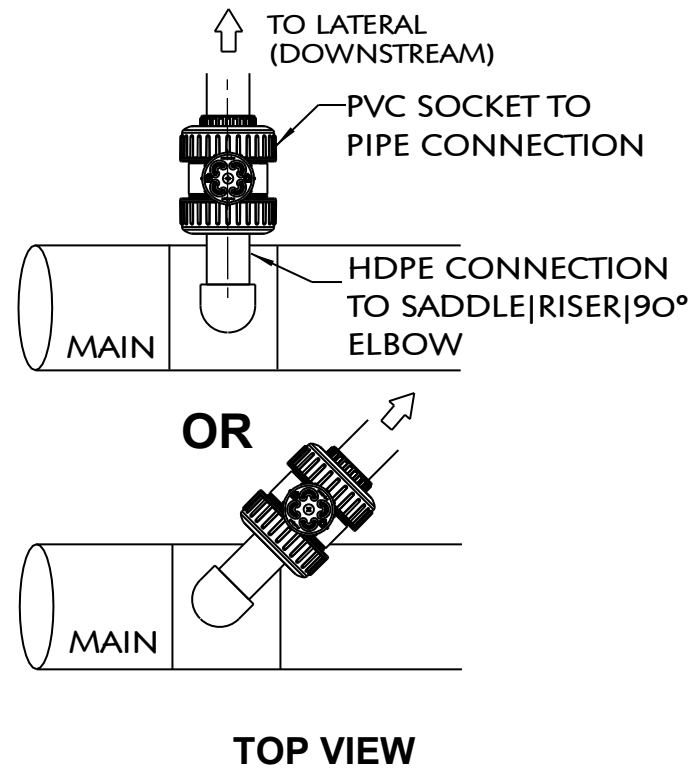
❖ 360° turn clockwise to close.

| Model Numbers | 2"                 | 2"               | 3"                 | 3"               |
|---------------|--------------------|------------------|--------------------|------------------|
| Material      | HDPE X PVC Socket  | HDPE X PVC FIPT  | HDPE X PVC Socket  | HDPE X PVC FIPT  |
| PVC/EPDM      | V20101HP-SC        | V20111HP-SC      | V30101HP-SC        | V30111HP-SC      |
| PVC/Viton     | V20102HP-SC        | V20112HP-SC      | V30102HP-SC        | V30112HP-SC      |
| Material      | HDPE X CPVC Socket | HDPE X CPVC FIPT | HDPE X CPVC Socket | HDPE X CPVC FIPT |
| CPVC/EPDM     | V20103HP-SC        | V20113HP-SC      | V30103HP-SC        | V30113HP-SC      |
| CPVC/Viton    | V20104HP-SC        | V20114HP-SC      | V30104HP-SC        | V30114HP-SC      |

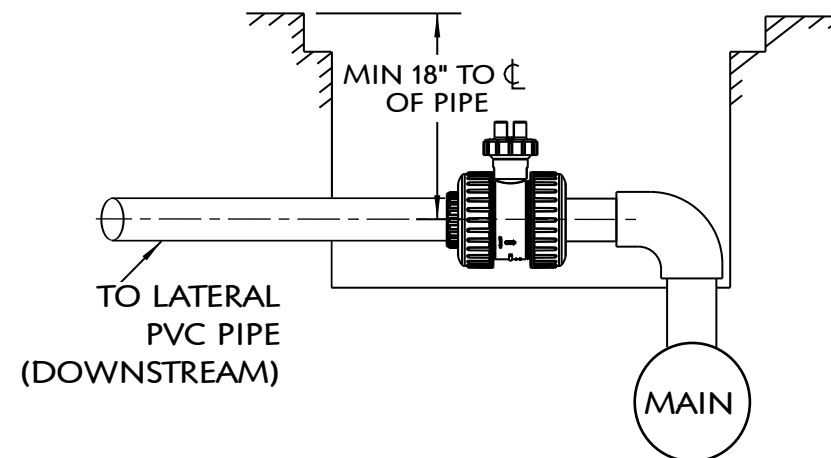
[Also see Colonial Full Block® True Union Ball Valve 101N Series for a complete size range of standard quarter-turn valves, manual or automated.]

| Pressure Rating |                                       |
|-----------------|---------------------------------------|
| 2"              | 160 psi, non-shock water at 73 Deg F. |
| 3"              | 150 psi, non-shock water at 73 Deg F. |

## Recommended Installation Layout



## Recommended Burial Depth



## Sample Engineering Specifications:

**True Union Ball Valves** shall be produced of PVC Type I, cell class 12454 or CPVC, cell class 23447 material. Valve handle shall have a gear-mechanism allowing for a 360° rotation of the handle to achieve a 90° turn of the ball and shall be activated manually by hand or by use of a standard sprinkler key wrench. Valve o-rings shall be made of EPDM material. Valve stem shall have two o-rings. Valve seats shall be produced of Teflon® and POM material. End connectors shall be of ASTM 3408 material and DR11 dimensions and Sch 80 socket. **Colonial HP-SC Series® TUBV.**

| TITLE  |              |  |
|--|--------------|--|
| SLO-OPEN / SLO-CLOSE TRUE UNION BALL VALVE (HDPE X PVC ENDS) |              |  |
| DESIGNED BY  | DWG SIZE     | COLONIAL ENGINEERING, INC<br>6400 Corporate Ave Portage, MI 49002<br><small>This drawing is the property of Colonial Engineering. It is furnished to you for confidential information purposes only and is not to be disclosed to anyone else or reproduced or used for manufacturing purposes without the express written permission of Colonial Engineering.</small> |
| MB   | B            |  |
| DRAWN BY   | SHEET NO     |  |
| EJL  | 1 OF 1       |  |
| REVIEWED BY  | SCALE        | DRAWING NO   |
| MB   | -            |  |
| DATE   | LENGTH UNITS | <h1>K29004</h1>  |
| 10-25-10   | INCH         |  |