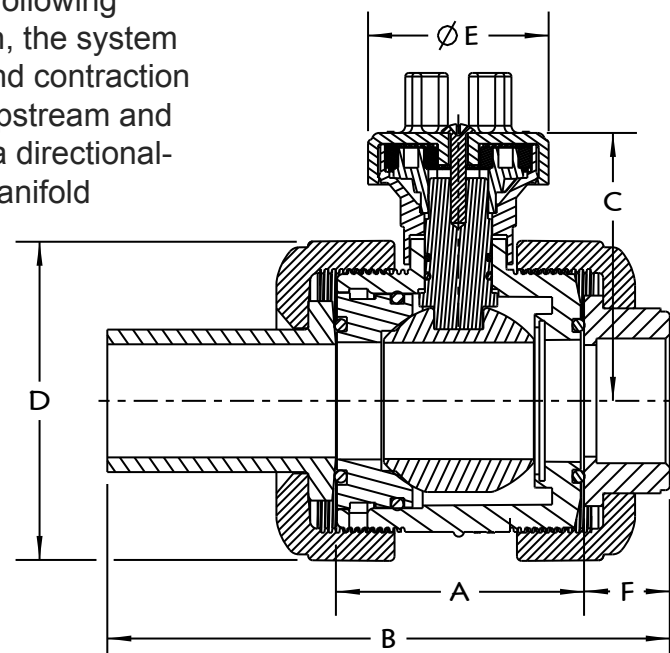
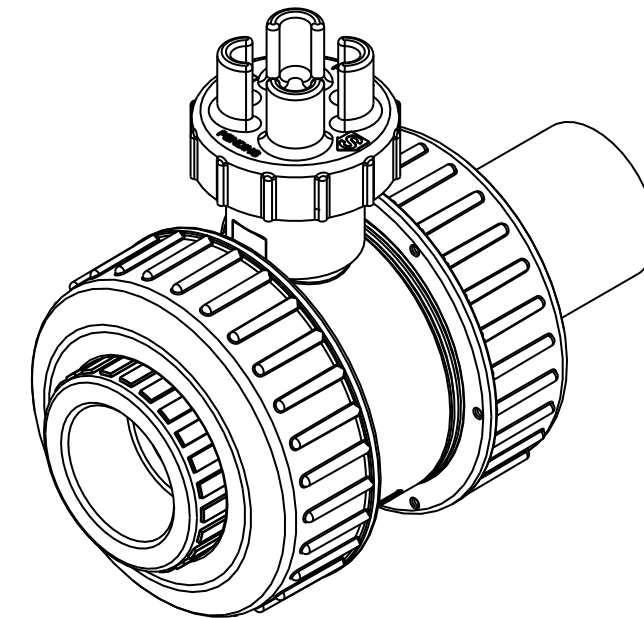


# Submittal Drawing: HP-SC Series Thermoplastic True Union Ball Valve with HDPE X PVC End Connectors

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 Valve Key 1) for buried service actuation.
- Follow published guidelines to de-rate pressure for elevated process temperature. Avoid prolonged exposure to direct sunlight during installation.
- Slo-Close valves are designed for use in the Open or Closed position. Moderate throttling (valve closed slightly) has been successful in systems with low flow rates such as in geexchange systems. Throttling is not recommended for Heavy-Turf Irrigation or other systems with high flow rates, as it can result in cavitation of the valve interior or seat-damage. The maximum recommended flow rate through any Colonial Valve product is five feet per second.
- HDPE Spigot ends are to be joined to HDPE socket-fusion or electro-fusion fittings, compression adapters, or butt-fused to HDPE pipe, following equipment manufacturers' recommendations. For butt fusion, the system must be designed/installed to allow for thermal expansion and contraction by use of directional changing fittings (Tees, Elbows) both upstream and downstream from the valve. The distance from the valve to a directional-changing fitting should not exceed eight (8) feet. Support manifold assemblies as required to allow for thermal expansion without excessive stress on the valve union ends.
- In buried applications, valves should be installed such that the centerline of the 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.

- 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.
- The PVC socket connection may be made directly to pipe without the requirement of a directional-changing fitting.
- End connectors are HDPE spigot ends meeting DR11 dimensions and PVC Sch 80 socket.
- Full port design - same I.D. as Sch 80 pipe minimizes turbulence at high flow
- 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.
- Assembled in USA.



❖ 360° turn clockwise to close.

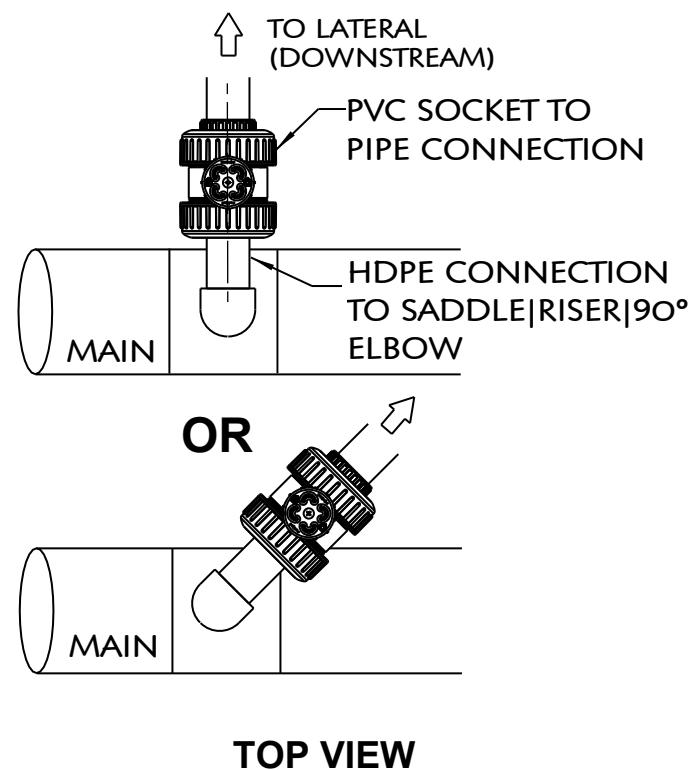
Model Numbers	2"	2"	3"	3"
Material	HDPE x PVC SOCKET	HDPE x PVC FIPT	HDPE x PVC SOCKET	HDPE x PVC FIPT
PVC / EPDM	V20101HP-SC	V20111HP-SC	V30101HP-SC	V30111HP-SC

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

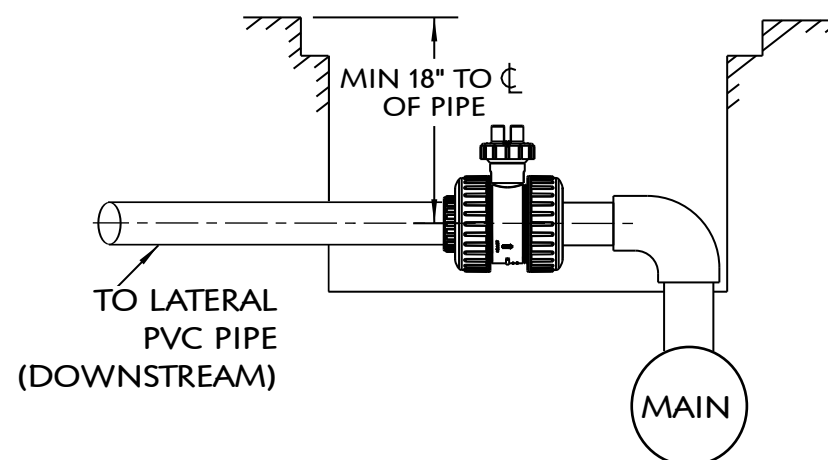
[Also see Colonial Full Block® True Union Ball Valve 101N Series for a complete size range of standard quarter-turn valves, manual or automated.]

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 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 6400 Corporate Ave Portage, MI 49002 <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>
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