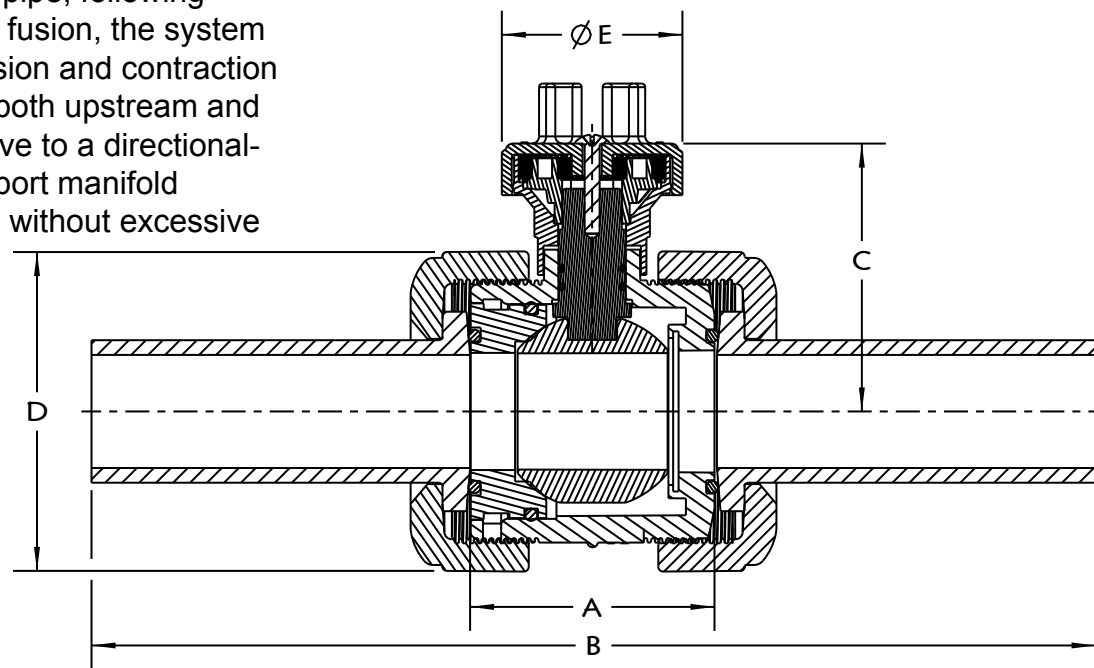


# Submittal Drawing: Metric HD-SC Series Thermoplastic True Union Ball Valve with HDPE End Connectors

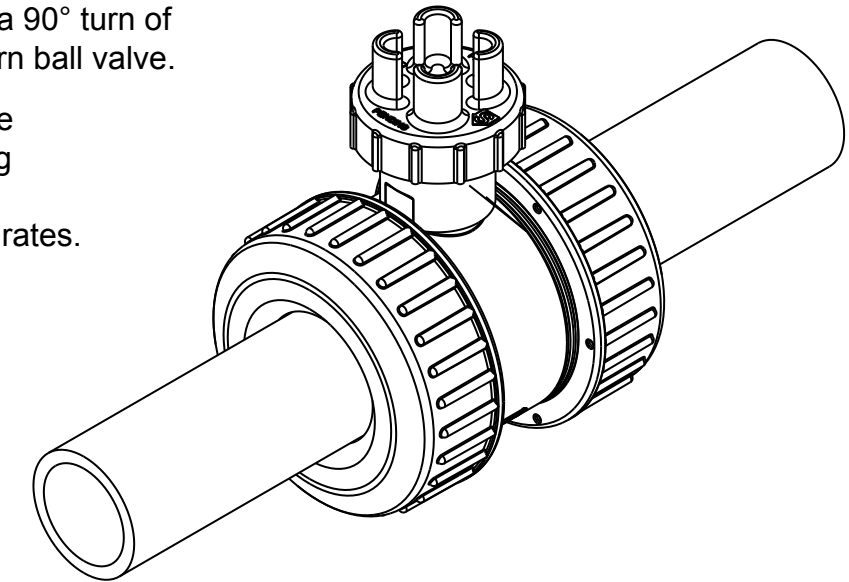
Designed for turf irrigation, and many other applications. Patented gear drive thermoplastic handle mechanism allows for a 360° rotation of the handle to achieve a 90° turn of the ball. This gradual open/close actuation greatly reduces the opportunity for shock or hammer experienced by the sudden open/closure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

Dimensions (mm):		
	63mm	90mm
A	106.38	148.59
B	409	416.05
C	140.7	177.80
D	134.6	184.15
E	73.1	73.1



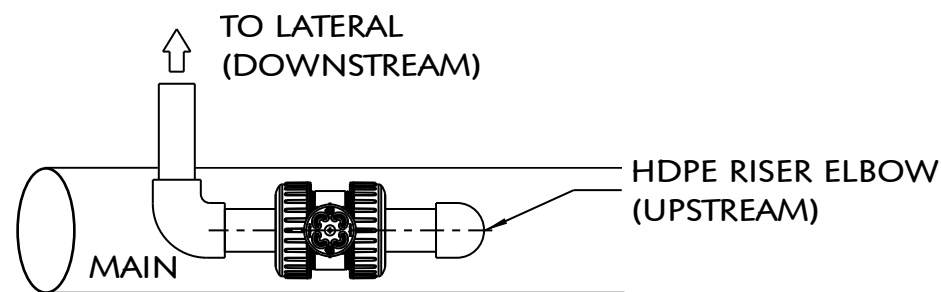
- In buried applications, valves should be installed such that the centerline of the is a minimum of 18" below grade. We recommend a double valve box allowing access to the union nuts to facilitate simple future maintenance or repair.
- Full port design - same I.D. as Sch 80 pipe minimizes turbulence at high flow rates.
- 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.
- End connectors are HDPE spigot ends meeting DR11 dimensions.
- 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.



Size	Model	Material	Pressure Rating
63	V63101HD-SC	PVC/EPDM	160 psi, non-shock water at 73 Deg F.
90	V90101HD-SC	PVC/EPDM	150 psi, non-shock water at 73 Deg F.

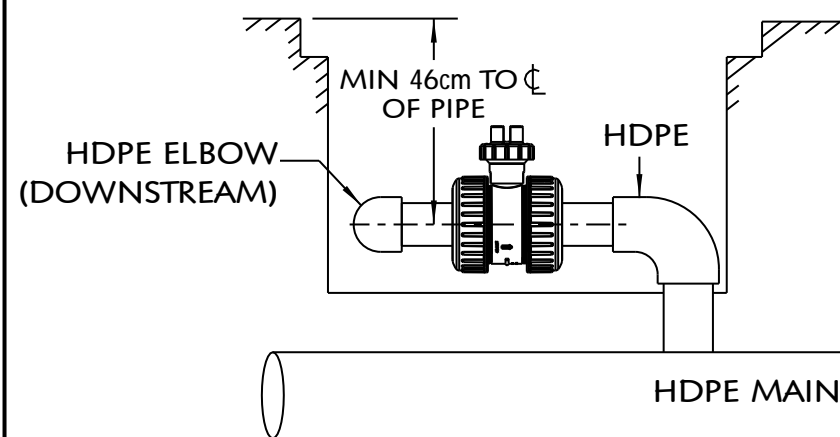
[Also see Colonial Full Block® True Union Ball Valve 101N Series for a complete size range of standard quarter-turn valves, manual or automated.]

## Recommended Installation Layout



TOP VIEW

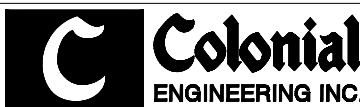
## Recommended Burial Depth



SIDE VIEW

## Sample Engineering Specifications:

**True Union Ball Valves** shall be produced of PVC Type I, cell classification 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. **Colonial HD-SC Series® TUBV.**

TITLE		SLO-CLOSE TRUE UNION BALL VALVE (METRIC HDPE ENDS)		
DESIGNED BY	MB	DWG SIZE	B	
DRAWN BY	EJL	SHEET NO	1 OF 1	
REVIEWED BY	MB	SCALE	-	
DATE	6-15-15	LENGTH UNITS	INCH	
				<b>K29003M</b>