****

**TS120 SERIES IMPACT SPRINKLER BIDDING SPECIFICATION**

**Note: These specifications were current at the time of publication, but are subject to change at any time without notice. Please confirm the accuracy of these specifications with the manufacturer and/or distributor prior to installation.**

The full- or part-circle pop-up impact sprinkler model shall be capable of covering a radius of 62-125 feet of radius at an operating pressure between 45 and 145 pounds per square inch (psi) with a discharge rate between 20 and 121 gallons per minute. Water distribution shall be via a nozzle assembly selectable from a range of nozzles sized from 7mm to 17.5mm; the sprinkler shall be offered in a standard configuration with the 17.5mm nozzle installed.

The part-circle sprinkler shall offer infinitely adjustable arc coverage between 30° to 330°, and the full-circle sprinkler shall offer uni-directional 360° rotation. Both part- and full-circle sprinklers shall have a fixed rotation speed equal to achieving a full circle rotation of sixty (60) seconds. Arc adjustment can be performed with or without the sprinkler in operation and shall not require any special tools. The sprinkler shall feature a fixed nozzle stream trajectory of 22°.

The sprinkler shall be fully serviceable from the top without requiring special tools. The pop-up height shall be four inches, or 8.1 inches when configured with a TurfCup™. The retract spring shall be of stainless steel and of sufficient force for positive pop down. The lid cover shall be seven inches in diameter. The depth of the sod-capable TurfCup, when equipped, shall be four inches.

The sprinkler’s internal case shall be made of galvanized steel and outer body of molded engineering-grade plastic and shall have a threaded brass 1-1/2” Female NPT bottom inlet.

Both models shall be available in either electric valve-in-head (VIH) or block style configurations (particularly for artificial turf applications where valves are to be located behind the side lines or outside of running tracks).

*Electric Valve-in-Head*

The sprinkler shall have a normally-closed valve, actuated by a 24V ac, 50/60 Hz cycle solenoid, located in the base of the sprinkler case.

*Block Style*

The sprinkler shall have shall be installed in-line with an electrically-actuated valve.

Once the final sprinkler head location is determined and the swing joint assembly has been installed, the main line and sub-laterals should be flushed to ensure that any debris or dirt can be purged from the piping system prior to sprinkler installation. The swing joint assembly should be constructed of ductile iron, or Schedule 80 or Schedule 40 PVC (PVC swing joints are recommended for use in systems with lower operating pressures). When connecting the sprinkler to the swing joint assembly, a minimum of 6-8 wraps of Teflon tape should be used. Do not use pipe dope or Teflon paste. Adjust the sprinkler head so that it is flush with the surrounding grade.

For artificial turf applications, the sprinkler can be located within a stainless-steel enclosure with a lid of the same diameter as the top of the sprinkler head. The enclosure’s lid should have a ½” lip that allows for Trex-type material to be secured to the lid surface. The artificial turf system should be adhered to the Trex material using an appropriate adhesive, providing an even and unbroken surface between the top of the sprinkler and surrounding grades. Adjust the sprinkler head for verticality and centering within the enclosure. To stabilize the installed sprinkler head during operation, backfill the interior of the sprinkler enclosure per the installation details.

An arrow or pointer is molded into the top of the sprinkler head lid denoting the nozzle direction. Verify this arrow is pointing into the field prior to operating the system. Adjust the spray pattern by adjusting the spring stops as needed.

The sprinkler shall be a model number \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and shall be manufactured by The Toro Company, Irrigation Division, based in Riverside, California, USA.

**END OF SECTION**