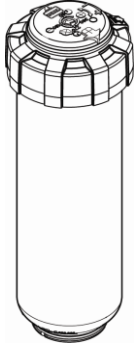


# T7 Series Sprinklers



Specifying Information – T7 Series Sprinklers				
	T7P	XX	-	X X XX
<i>Sprinkler Model</i>	<i>Riser Type</i>	<i>Body Threads</i>	<i>Valve Type</i>	<i>Optional</i>
Toro T7 pop-up	Blank – Plastic SS – Stainless Steel	0–NPT 5–BSP	2-Check-O-Matic	L-Low flow E-Effluent

**Example:** When specifying a T7 Series Sprinkler with NPT threads, Low flow nozzle tree and effluent markings, use the following designation: **T7P-02LE**

## Specifications

- Radius: High-flow models: 46'-83' (14,0 – 25,0m); Low-flow models: 38'-53' (11,6 – 16,2m)
- Flow rate: High-flow models: 6.8-30.5 gpm (25,4-116 lpm); Low-flow models: 1.7-13.0 gpm (6,4-49, 2 lpm)
- Arc: Bidirectional, part-circle rotation, adjustable from 45°-335°, and true unidirectional 360° full-circle rotation
- Recommended operating pressure range: 40-100 psi (2,8-7,0 Bar)
- Maximum pressure: 125 psi (8,6 Bar)
- Minimum pressure: 40 psi (2,8 Bar)
- Stainless-steel and plastic riser models
- Check valve capable of checking up to 5' (1,5m) of elevation difference
- Variable reversing stators: 2
- Inlet size: 1" (40mm) NPT or BSP
- Body height: 9.4" (238,8mm)
- Body diameter: 2.7" (68,6mm)
- Pop-up to nozzle: 5" (127,0mm)
- Pop-up height (overall): 5.75" (146,1mm)
- Weight: Plastic models: 1.23 lbs. (.56 kg.); Stainless-steel models: 1.39 lbs. (.63 kg)
- Precipitation rates: High flow models:
  - Minimum: .30"/hr. (7.6mm/hr.)

- Maximum: .66"/hr. (16.8mm/hr.)
- Low flow models:
  - Minimum: .13"/hr. (3.3mm/hr.)
  - Maximum: .51"/hr. (13.0mm/hr.)
- Radius reduction retains nozzle and provides up to 25% radius reduction
- Two nozzle trees: High flow models 7 nozzles (7, 9, 12, 16, 20, 24 and 27). Low flow models 6 nozzles (2, 3, 4.5, 6, 7.5 and 9)

## Bidding Specifications

This sprinkler shall be capable of full- and part-circle operation and be a gear-driven rotary type. The sprinkler shall be of a pop-up design with an overall height of 9.4" (238,8mm), a cap diameter of 3.3" (83,8mm) and a pop-up stroke of 5.75 (146,1mm). The sprinkler shall have a 1" (40mm) NPT or BSP female-threaded inlet. The sprinkler shall be capable of covering \_\_\_ feet radius at \_\_\_ pounds per square inch pressure with a discharge rate of \_\_\_ gallons per minute.

Water distribution shall be via a single pressed-in nozzle mounted in a 1.95" (49,5mm)-diameter plastic nozzle turret and retained by the radius reduction screw. There shall be two flow range models available – a high flow model that provides an 7 nozzle tree capable of 46'-83' (14,0 –

25,0mm) radius and 6.8-30.5 gpm (25,4-116 lpm) and a low flow model that comes with a 6 nozzle tree capable of 38'-53' (11,6 – 16,2mm) radius 1.7-13.0 gpm (6,4-49,2 lpm) and elevate 5" (127,0mm) above the body when in operation. All of the sprinkler nozzles shall be color-coded for easy identification of radius and flow performance capabilities. A stainless-steel radius reduction screw shall be provided for fine-tuning the radius up to a 25% reduction. All nozzles shall be sized to allow any particle capable of passing through the riser screen to pass through the nozzle.

The arc of the sprinkler shall be top-adjustable with the provided tool, wet or dry, and graphically illustrated to identify the arc setting. The sprinkler shall be adjustable from a minimum of 45 degrees to maximum of 335 degrees as a part circle, and a true uni-directional full circle at 360 degrees. The left arc position shall be fixed and identified by a molded arrow on the cap. The right arc shall be the adjustable position where all arc adjustments occur.

The sprinkler shall incorporate SMART ARC™, a memory arc feature that allows the nozzle base to be turned beyond the arc borders without damage to the sprinkler and returns to the original arc setting once released.

The sprinkler shall include a nozzle base clutch feature that enables the user to rotate the nozzle base in either direction (wet or dry) and hold in one position (during operation) for spot watering.

The date of manufacture shall be stamped onto the sprinkler cap in the Julian calendar format.

Rotation shall be accomplished by a water-lubricated planetary gear drive. The drive assembly shall be driven by a spring-loaded, poppet-type, variable reversing stator designed to provide a 3-minute, full-circle rotation speed throughout the pressure and flow range. The drive and stator assemblies shall be constructed of non-corrosive plastic and stainless-steel materials.

The body and cap of the sprinkler shall be injection-molded from ABS, a corrosion-proof, impact-resistant, UV-resistant, heavy-duty, engineering-grade plastic material. The nozzle base cover shall incorporate a pull-up feature that provides serviceability of the nozzles and riser assembly. The sprinkler shall have a plastic filter screen in the riser to prevent entry of foreign material from clogging the nozzle.

All internal components shall be serviceable from the top of the sprinkler without disturbing the body installation. The sprinkler shall have a riser/body seal assembly that regulates flushing during pop-up and retraction to clear any debris from around the riser, and a heavy-duty, stainless-steel spring to ensure positive retraction. Sprinkler flush rate shall not exceed 5 GPM (18,9 lpm).

The rubber cover shall be injection-molded from Santoprene thermoplastic elastomer, intended to provide a cushion to avoid personal injury from contact. The rubber

cover shall be available in a lavender color to identify the use of non-potable water (effluent) not intended for public consumption.

The sprinkler shall provide a check valve feature that prevents low head drainage, soil erosion and water waste while maintaining water in the piping system up to 5' (1,5m) of elevation difference. The check valve shall be reversible allowing full pipe drainage if desired.

The sprinkler shall be developed and manufactured by an ISO 9001-certified facility. The sprinkler shall be model number \_\_\_\_\_ and shall be manufactured by The Toro Company, Irrigation Division.

## Recommended Installation Procedures

The T7 Series sprinkler is designed specifically for turf areas requiring \_\_\_\_\_ coverage. These products offer the most economical method of irrigation where flows and system pressures are available to support a short- to medium-range radius.

The T7 Series sprinkler should be specified for installation on a swing joint. The swing joint should be specified as a triple-swing type, allowing movement up, down, laterally, and at an angle to grade. The sprinkler should be installed with the top of the cap at finished grade.

T7 Series sprinklers are engineered to provide a smooth, consistent curtain of water across the arc, with provision made for head-to-head coverage. For proper spacing, ensure that system design and installation accounts for prevailing wind conditions.

It is recommended that sprinklers are installed 2" (5 cm) from hardscaping and 6"-12" (15.2-30.5 cm) from buildings or other vertical impediments to allow for normal

maintenance procedures and to minimize overspray on buildings. Where possible, sprinklers should be installed in a manner that will minimize nozzle stream contact with trees, controller enclosures, shrubbery or other obstructions.