

**TORO.**

Count on it.

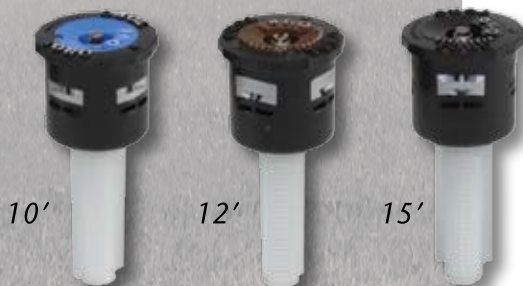
# Precision™ Series Spray Nozzle

## Sprays

### Male-threaded



### Female-threaded



*Toro's new Precision Series Spray Nozzles are the most complete and efficient spray nozzle line available to help irrigation professionals manage water use, eliminate runoff and reduce customer water bills.* The Precision Spray nozzles 1"/hr precipitation rate ensures that water is applied more slowly and evenly without sacrificing landscape health. These nozzles are available in a wide selection of arcs and radii, as well as male and female threads, making them ideal for large scale installations and retrofits.

## Features & Benefits

### The "O" Advantage

Precision Spray nozzles deliver an industry first 1"/hr precipitation rate which is significantly less than traditional spray nozzles. On retrofits for water savings, the 1:1 relationship between popular spray nozzles and Precision Spray nozzles will make the retrofit process straight forward, accurate and less time consuming since arc adjustment is eliminated.

### Patented H<sup>2</sup>O Chip Technology

Toro's Precision Series Spray nozzles look, install and radius-adjust like the most popular brand of spray nozzles. However, that is where the similarities end. Using patented H<sup>2</sup>O chip technology – and no moving parts - each Precision Series Spray nozzle creates one or more high-frequency oscillating streams to achieve the desired arc and radius. While invisible to the naked eye, these oscillating streams can be detected with a strobe light.

### Durable Construction

The Precision Series Spray nozzle housing is a single, molded piece. There is no sonic welding that is common to popular spray nozzles. No sonic welding means no possibility that the top half of the nozzle separates from the bottom half, therefore no small geyser, no wasted water and no water-starved section of landscape. Because H<sup>2</sup>O technology uses no moving parts to create high frequency oscillating streams, there are no parts to wear out.

### No Installation Learning Curve

Precision Spray nozzles come in male and female threads, throw distances of 5-15 ft with 9 arcs per radii and even offer side and corner strip sprays. Precision Spray nozzles are color-coded and hot stamped with easy-to-read identification on each nozzle and the pre-attached screen reduces installation time.



# Precision™ Series Spray Nozzle

## Additional Features

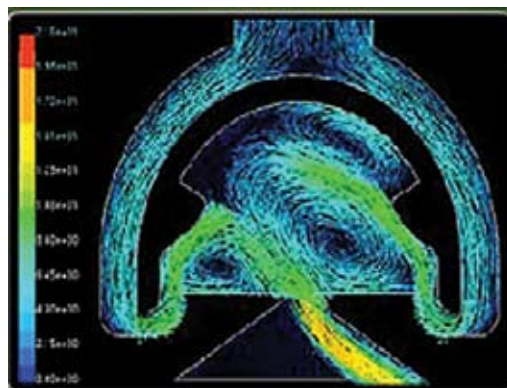
While Precision™ Series Spray Nozzles look and install exactly like traditional spray nozzles, there are many additional features that differentiate the nozzles, making them the most significant breakthrough in the spray nozzle category in over 60 years.

### The Patented H<sup>2</sup>O Chip

No Moving or Sonic Welded Parts



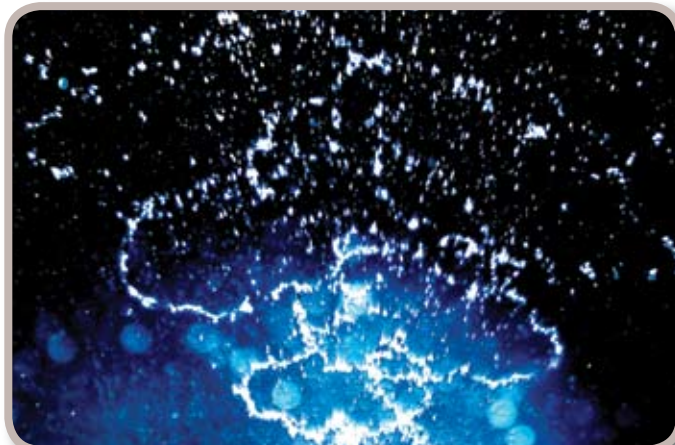
Assures no variation at the end of the water arc for better edge definition and consistent, reliable performance.



Water expands and collapses inside the H<sup>2</sup>O Chip created high-frequency oscillating streams which allow for distance of throw using 1/3 less flow.

### Water Management Highlight

Uniform Droplet Size



The H<sup>2</sup>O Chip generates a larger, more uniform droplet size resulting in consistency across the irrigated arc, increased wind resistance and minimizes unintentional watering of hardscape features and run-off

### High Distribution Uniformity w/ 1"/hr. Matched Precipitation Rate



Precision™ Series Spray Nozzles tested higher than competitive water conserving nozzles in multiple independent third party studies for distribution uniformity. The 1"/hr. precipitation rate ensures irrigation runtimes can be achieved even with tight watering windows.

### Pre-Attached Filter Screen for Installation Convenience

Filter Screen is pre-attached to the nozzle to ensure timely installations and retrofits. There are three different sizes of mesh filters to prevent debris from clogging the head.



### Matched Precipitation Rate even after 25% Radius Reduction



The stainless steel radius reduction screw can reduce the radius down 25% without affecting precipitation rate...an industry first for spray nozzles!

## Specifications

5' "O" Nozzle			8' "O" Nozzle		
Male	Female	Descrip.	Male	Female	Descrip.
• O-T-5-60	• O-5-60	60° Arc	• O-T-8-60	• O-8-60	60° Arc
• O-T-5-Q	• O-5-Q	90° Arc	• O-T-8-Q	• O-8-Q	90° Arc
• O-T-5-T	• O-5-T	120° Arc	• O-T-8-T	• O-8-T	120° Arc
• O-T-5-150	• O-5-150	150° Arc	• O-T-8-150	• O-8-150	150° Arc
• O-T-5-H	• O-5-H	180° Arc	• O-T-8-H	• O-8-H	180° Arc
• O-T-5-210	• O-5-210	210° Arc	• O-T-8-210	• O-8-210	210° Arc
• O-T-5-TT	• O-5-TT	240° Arc	• O-T-8-TT	• O-8-TT	240° Arc
• O-T-5-TQ	• O-5-TQ	270° Arc	• O-T-8-TQ	• O-8-TQ	270° Arc
• O-T-5-F	• O-5-F	360° Arc	• O-T-8-F	• O-8-F	360° Arc

10' "O" Nozzle			12' "O" Nozzle		
• O-T-10-60	• O-10-60	60° Arc	• O-T-12-60	• O-12-60	60° Arc
• O-T-10-Q	• O-10-Q	90° Arc	• O-T-12-Q	• O-12-Q	90° Arc
• O-T-10-T	• O-10-T	120° Arc	• O-T-12-T	• O-12-T	120° Arc
• O-T-10-150	• O-10-150	150° Arc	• O-T-12-150	• O-12-150	150° Arc
• O-T-10-H	• O-10-H	180° Arc	• O-T-12-H	• O-12-H	180° Arc
• O-T-10-210	• O-10-210	210° Arc	• O-T-12-210	• O-12-210	210° Arc
• O-T-10-TT	• O-10-TT	240° Arc	• O-T-12-TT	• O-12-TT	240° Arc
• O-T-10-TQ	• O-10-TQ	270° Arc	• O-T-12-TQ	• O-12-TQ	270° Arc
• O-T-10-F	• O-10-F	360° Arc	• O-T-12-F	• O-12-F	360° Arc

15' "O" Nozzle			Special Patterns		
Male	Female	Descrip.	Male	Female	Descrip.
• O-T-15-60	• O-15-60	60° Arc	• O-T-4X9-RCS	• O-4X9-RCS	Right Corner
• O-T-15-Q	• O-15-Q	90° Arc	• O-T-4X9-LCS	• O-4X9-LCS	Left Corner
• O-T-15-T	• O-15-T	120° Arc	• O-T-4X18-SST	• O-4X18-SST	Side Strip
• O-T-15-150	• O-15-150	150° Arc	• O-T-4X15-RCS	• O-4X15-RCS	Left Corner
• O-T-15-H	• O-15-H	180° Arc	• O-T-4X15-LCS	• O-4X15-LCS	Right Corner
• O-T-15-210	• O-15-210	210° Arc	• O-T-4X30-SST	• O-4X30-SST	Side Strip
• O-T-15-TT	• O-15-TT	240° Arc			
• O-T-15-TQ	• O-15-TQ	270° Arc			
• O-T-15-F	• O-15-F	360° Arc			

### Operating Specifications

- Radius: 5'-15'
- Operating pressure range: 20-50 psi (maximum – 75 psi)
- Flow Rate: 0.038-10.4

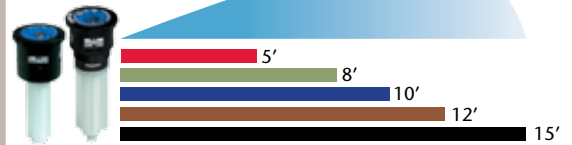
### Additional Features

- Specialty Arcs available (60°, 120°, 150°, 210°, 240°)
- Radius adjustment 25% maximum
- Color coded for radius on top of the nozzle
- Precipitation rate ≤ 1"/hour
- Maintains precipitation rate as radius reduced up to max of 25%
- Max trajectory 30°
- Matched precipitation rate within radius families
- Matched precipitation rates between radius families
- Screen attached to nozzle for easy insertion into the spray body
- Works on all spray bodies

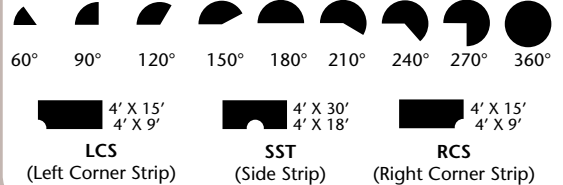
### Warranty

Two years

### 5 Radii Available In Male & Female Threads



### 9 Arcs Plus Side and Corner Strips Available



### Maximize Efficiency

Combine the 570ZPRX sprayhead with the Precision Series Spray Nozzle to create the most efficient combination in the marketplace from 5-15 ft.



### Female-Threaded Models

Install or retrofit onto competitive sprayheads with ease.

### Specifying Information

O-X-XXXX-XXX								
Nozzle	Thread	Radius		Arc		Body		
O	X	XXXX		XXX				
O—1" Per Hour	T—Toro Male Threaded Nozzle Blank—Female Threaded Nozzle	5—5'	8—8'	10—10'	12—12'	15—15'	60—60° Q—90° T—120° 150—150° H—180° 210—210° TT—240° TQ—270° F-360—Full-circle LCS—Left Corner RCS—Right Corner SST—Side Strip*	Call out body as required
Example: A female threaded Precision Series Spray with a spray radius of 12' and a 90° arc would be specified as: O-12-Q Example 2: A male threaded Precision Series Spray with a spray radius of 10' and a 180° arc would be specified as: O-T-10-H								

\*4X15' and 4X30' are only SST models available.

# Performance Data — Precision™ Series Spray Nozzles

Arc	PSI	GPM	Radius	Precip. Rate □ (in./hr.)	Precip. Rate △ (in./hr.)
5-60°	20	0.04	4.7	0.99	1.15
	30	0.04	5.0	0.99	1.15
	40	0.04	5.0	0.99	1.15
	50	0.05	5.3	0.99	1.14
5Q	20	0.06	4.6	1.02	1.18
	30	0.06	5.0	0.99	1.14
	40	0.07	5.0	1.00	1.16
5T	20	0.07	5.0	1.02	1.17
	30	0.09	5.0	1.04	1.20
	40	0.09	5.2	0.99	1.15
5-150°	20	0.07	4.0	1.02	1.18
	30	0.11	5.0	1.03	1.19
	40	0.12	5.2	1.04	1.20
	50	0.13	5.4	1.04	1.20
5H	20	0.10	4.4	0.99	1.15
	30	0.13	5.0	1.00	1.16
	40	0.14	5.1	1.00	1.15
	50	0.14	5.2	0.99	1.14
5-210°	20	0.10	4.4	0.99	1.15
	30	0.15	5.2	1.07	1.23
	40	0.16	5.3	1.10	1.27
	50	0.17	5.5	1.08	1.25
5TT	20	0.14	4.3	1.09	1.26
	30	0.17	5.0	0.98	1.13
	40	0.19	5.0	1.07	1.23
	50	0.19	5.0	1.09	1.25
5TQ	20	0.15	4.3	1.02	1.17
	30	0.20	5.0	1.00	1.16
	40	0.21	5.0	1.05	1.21
	50	0.22	5.0	1.10	1.27
5F	20	0.17	4.0	1.02	1.18
	30	0.26	5.0	1.00	1.16
	40	0.26	5.0	1.00	1.16
	50	0.26	5.0	1.00	1.16
12-60°	20	0.24	11.5	1.0	1.2
	30	0.25	12.0	1.0	1.2
	40	0.26	12.1	1.0	1.2
	50	0.28	12.2	1.1	1.3
12Q	20	0.34	12.0	1.0	1.2
	30	0.37	12.1	1.0	1.1
	40	0.39	11.4	1.0	1.2
12T	20	0.46	11.5	1.0	1.2
	30	0.49	12.0	1.0	1.1
	40	0.51	12.2	1.0	1.1
12-150°	20	0.60	11.6	1.0	1.2
	30	0.62	12.0	1.0	1.2
	40	0.63	12.2	1.0	1.1
	50	0.64	12.3	1.0	1.1
12H	20	0.70	11.5	1.0	1.2
	30	0.74	12.0	1.0	1.1
	40	0.79	12.3	1.0	1.2
	50	0.80	12.4	1.0	1.2
12-210°	20	0.76	11.6	1.1	1.3
	30	0.82	12.0	1.1	1.3
	40	0.84	12.3	1.1	1.2
	50	0.85	12.4	1.1	1.2
12TT	20	0.90	11.4	1.0	1.2
	30	0.99	12.0	1.0	1.1
	40	1.04	12.3	1.0	1.1
	50	1.05	12.4	1.0	1.1
12TQ	20	1.05	11.4	1.0	1.2
	30	1.15	12.0	1.0	1.2
	40	1.19	12.2	1.0	1.2
	50	1.22	12.3	1.0	1.2
12F	20	1.35	11.5	1.0	1.1
	30	1.48	12.0	1.0	1.1
	40	1.59	12.4	1.0	1.1
	50	1.60	12.5	1.0	1.1

Arc	PSI	GPM	Radius	Precip. Rate □ (in./hr.)	Precip. Rate △ (in./hr.)
8-60°	20	0.10	7.6	1.0	1.2
	30	0.11	8.0	1.0	1.1
	40	0.12	8.1	1.1	1.2
	50	0.13	8.3	1.1	1.3
8Q	20	0.14	7.0	1.1	1.3
	30	0.17	8.0	1.0	1.1
	40	0.18	8.2	1.0	1.2
	50	0.18	8.4	1.0	1.1
8T	20	0.20	7.6	1.01	1.2
	30	0.22	8.0	1.0	1.1
	40	0.23	8.2	1.0	1.1
	50	0.24	8.3	1.0	1.1
8-150°	20	0.25	7.5	1.0	1.2
	30	0.27	8.0	1.0	1.1
	40	0.28	8.1	1.0	1.1
	50	0.29	8.2	1.0	1.2
8H	20	0.26	7.0	1.0	1.2
	30	0.33	8.0	1.0	1.1
	40	0.34	8.0	1.0	1.2
	50	0.34	8.0	1.0	1.2
8-210°	20	0.33	7.6	1.1	1.3
	30	0.36	8.0	1.1	1.3
	40	0.37	8.1	1.1	1.3
	50	0.38	8.2	1.1	1.3
8TT	20	0.34	7.0	1.0	1.2
	30	0.44	8.0	1.0	1.1
	40	0.46	8.0	1.0	1.2
	50	0.46	8.0	1.0	1.2
8TQ	20	0.41	7.2	1.0	1.1
	30	0.49	8.0	1.1	1.1
	40	0.54	8.0	1.1	1.2
	50	0.55	8.0	1.1	1.2
8F	20	0.55	7.0	1.1	1.2
	30	0.66	8.0	1.0	1.1
	40	0.68	8.0	1.0	1.2
	50	0.71	8.0	1.1	1.2
15-60°	20	0.35	14.0	1.0	1.2
	30	0.39	15.0	1.0	1.2
	40	0.40	15.1	1.0	1.2
	50	0.42	15.3	1.0	1.2
15Q	20	0.53	14.2	1.0	1.2
	30	0.58	15.0	1.0	1.1
	40	0.60	15.1	1.0	1.2
15T	20	0.72	14.3	1.0	1.2
	30	0.77	15.0	1.0	1.1
	40	0.81	15.3	1.0	1.2
15-150°	20	0.92	14.7	1.0	1.2
	30	0.96	15.0	1.0	1.2
	40	1.00	15.2	1.0	1.2
	50	1.10	15.3	1.1	1.3
15H	20	1.10	14.5	1.0	1.2
	30	1.16	15.0	1.0	1.1
	40	1.25	15.4	1.0	1.2
	50	1.28	15.5	1.0	1.2
15-210°	20	1.15	14.5	1.1	1.2
	30	1.20	15.0	1.0	1.2
	40	1.30	15.5	1.0	1.2
	50	1.40	15.6	1.1	1.3
15TT	20	1.45	14.5	1.0	1.2
	30	1.54	15.0	1.0	1.1
	40	1.58	15.2	1.0	1.1
	50	1.61	15.3	1.0	1.1
15TQ	20	1.72	14.5	1.0	1.2
	30	1.78	15.0	1.0	1.1
	40	1.82	15.0	1.0	1.2
	50	1.90	15.3	1.0	1.2
15F	20	2.20	14.5	1.0	1.2
	30	2.31	15.0	1.0	1.1
	40	2.35	15.2	1.0	1.1
	50	2.40	15.3	1.0	1.1

Arc	PSI	GPM	Radius	Precip. Rate □ (in./hr.)	Precip. Rate △ (in./hr.)
10-60°	20	0.16	9.5	1.0	1.2
	30	0.17	10.0	1.0	1.1
	40	0.18	10.0	1.0	1.2
	50	0.19	10.0	1.1	1.3
10Q	20	0.26	9.5	1.0	1.1
	30	0.23	10.0	1.0	1.2
	40	0.28	10.2	1.0	1.2
	50	0.28	10.3	1.0	1.2
10T	20	0.31	9.5	1.0	1.1
	30	0.34	10.0	1.0	1.1
	40	0.36	10.0	1.0	1.2
	50	0.37	10.0	1.1	1.2
10-150°	20	0.41	9.8	1.0	1.1
	30	0.43	10.0	1.0	1.1
	40	0.44	10.2	1.0	1.1
	50	0.46	10.4	1.0	1.1
10H	20	0.48	9.7	1.0	1.1
	30	0.51	10.0	1.0	1.1
	40	0.55	10.3	1.0	1.2
	50	0.56	10.4	1.0	1.2
10-210°	20	0.56	9.8	1.1	1.3
	30	0.58	10.0	1.1	1.3
	40	0.60	10.4	1.1	1.2
	50	0.62	10.5	1.1	1.3
10TT	20	0.63	9.6	1.0	1.1
	30	0.69	10.0	1.0	1.2
	40	0.73	10.3	1.0	1.1
	50	0.74	10.4	1.0	1.1
10TQ	20	0.71	9.5	1.0	1.1
	30	0.79	10.0	1.0	1.1
	40	0.84	10.3	1.0	1.1
	50	0.86	10.4	1.0	1.1
10F	20	0.95	9.6	1.0	1.1
	30	1.03	10.0	1.0	1.1
	40	1.08	10.3	1.0	1.1
	50	1.12	10.4	1.0	1.2
4X30 SST	20	0.62	4x28	1.0	1.1
	30	0.66	4x30	1.1	1.2
	40	0.67	4x30	1.1	1.2
	50	0.68	4x30	1.1	1.3
4X15 LCS	20	0.32	4x15	1.0	1.2
	30	0.33	4x15	1.1	1.2
	40	0.34	4x15	1.1	1.3
4X15 RCS	20	0.32	4x15	1.0	1.2
	30	0.33	4x15	1.1	1.2
	40	0.34	4x15	1.1	1.3
4X18 SST	20	0.36	4X18	1.0	1.1
	30	0.37	4X18	1.0	1.1
	40	0.38	4X18	1.0	1.2
	50	0.38	4X18	1.0	1.2
4X9 LCS	20	0.18	4X9	1.0	1.1
	30	0.19	4X9	1.0	1.2
	40	0.20	4X9	1.1	1.2
	50	0.20	4X9	1.1	1.1
4X9 RCS	20	0.18	4X9	1.0	1.2
	30	0.19	4X9	1.0	1.2
	40	0.20	4X9	1.1	1.2
	50	0.20	4X9	1.1	1.2

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