

**TORO®****PRECISION™ SERIES SPRAY NOZZLES****WATER  
SMART®**

Toro® Precision™ Series Spray Nozzles are the most efficient spray nozzles available and feature proprietary H<sup>2</sup>O Chip Technology. With a precipitation rate of 1" per hour, Precision™ Series Spray Nozzles help irrigation professionals better manage water usage, eliminate runoff, and reduce their customers' water bills. These nozzles are available in a wide variety of arcs and radii, as well as Toro (male) and female-threaded bodies, making them ideal for large scale installations and retrofits. In addition, the best-in-class\* Precision™ Series Spray nozzles are available with factory-installed Pressure Compensating Discs (PCD).

## FEATURES & BENEFITS

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

Each nozzle contains one or more H<sup>2</sup>O chips that create a high frequency oscillating stream and deliver a precipitation rate of 1" per hour – an industry first – while using up to 35% less water than a standard MPR nozzle.

### Pressure-Compensating Versions Available

At a fraction of the cost of a pressure-regulating spray head, pressure-compensating Precision™ Series Spray Nozzles maintain a 1" per hour precipitation rate and minimize misting and water waste that results from higher pressure systems.

### Design and Retrofit Effectiveness

The lower flow rate of Precision™ Series Spray Nozzles maximizes design efficiency and helps reduce overall material costs based on the need for fewer valves and controller stations.

### Third-Party Performance Validation

Precision™ Series Spray Nozzles\*\* have been tested and validated in the field and at the Center for Irrigation Technology (CIT).

\* Laboratory and third party independent field testing show efficiency to be 15-20% higher than competitive nozzles at 15 feet or less.

\*\* non-PCD models only



Male-threaded  
Model



Female-threaded  
Model

### Pressure Compensating Disc (PCD)

The elastomeric PCD adjusts in response to changes in inlet pressure to maintain optimal nozzle performance. Recommended for use on systems operating above 40 psi, PCD models can easily be identified by the red Toro lettering across the top of the nozzle.





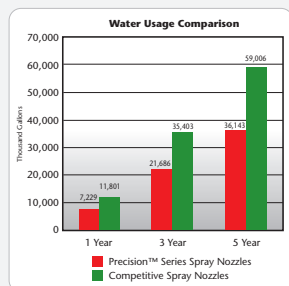
## 1" Per Hour Matched Precipitation & One-For-One Retrofit

Perfect when upgrading conventional, higher flow spray nozzles... Look for the "0" stamped on top of the nozzle.

*"I was skeptical that putting 30% less water down would keep the turf in good condition. If I reduced my time by 30% with the old nozzles, I'd be growing straw. All I can say just by my observation is that it works. So far it looks great."*

**Bill Bobbit**

Landscape Manager / La Quinta, CA



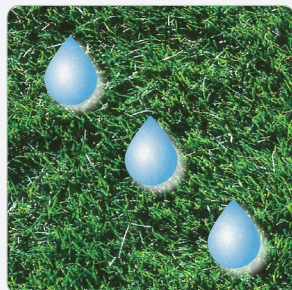
## Higher Overall Irrigation Efficiency From 4-15 Feet

Precision™ Series Spray nozzles perform more like a small rotor. The H<sup>2</sup>O Chip enables the nozzles to achieve distances of throw equivalent to those of conventional spray nozzles – but with one-third less flow and higher overall irrigation efficiency.

*"I am absolutely thrilled by the installation of the Precision Spray Nozzles. I am getting water where the gardener said I never would. I asked him to completely do my back yard with these nozzles. I live in an area that we can only water three days a week. But every inch of my backyard now gets watered. And even though it's been hotter than blue blazes, my lawn is greening up."*

**Barbara Brown**

Homeowner / San Diego, CA



## Water Use Reduction While Minimizing Run-Off & Water Waste

Precision™ Series Spray Nozzles have proven to save water in the field while reducing unnecessary overspray, wasteful run-off and evaporation.

*"I've been doing this 27 years and I can tell there is a savings of at least 20-25% of water. The droplets are good, I'm real impressed, so impressed, we want to retrofit other heads with all Toro Precision Spray Nozzles. We're always looking for anything that saves water. I'm sold on these."*

**Louie Raygoza**

Sr. Crew Leader/Maintenance / Specialist (Irrigation), City of Santa Maria



## Nozzle Selection Second To None

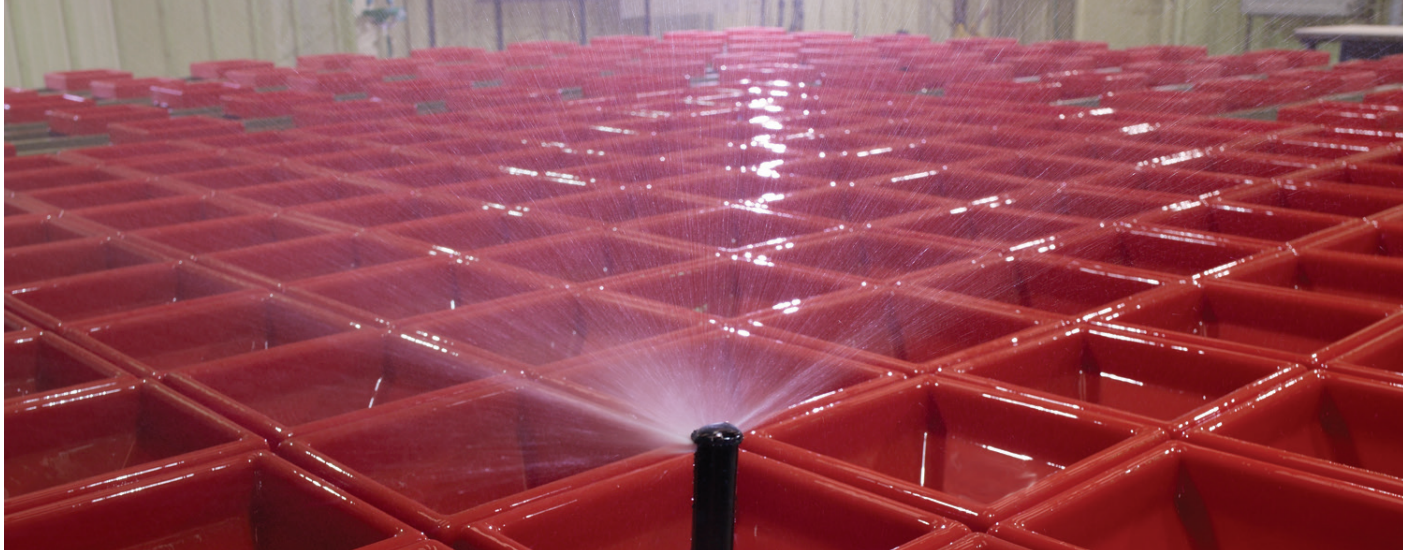
Available in male and female threaded models with a radius between 5' and 15' and the nozzle tops are color-coded to indicate the specific radius. Available in models with 9 different arcs between 60° and 360°, and specialty arcs such as right and left corners and center strips. All Precision™ nozzles can be used with operating pressures of between 20 and 50 psi.

*"The Precision Series Spray Nozzle is sort of like the Compact Fluorescent Light (CFL) bulb of water savings. You just remove the old style nozzle, screw on a Precision Spray Nozzle, and save 25-30% more water instantly."*

**Bryan McDonald**

Vice-President / Whitmore Landscape Management / Plano, TX





Laboratory and third party independent field testing show efficiency to be 15-20% higher than competitive nozzles at 15 feet or less.

### PRECISION™ SERIES SPRAY NOZZLE MODEL LIST

5' NOZZLE (RED)			8' NOZZLE (GREEN)		
Male	Female	Pattern	Male	Female	Pattern
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' NOZZLE (BLUE)			12' NOZZLE (BROWN)		
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' NOZZLE (BLACK)			SPECIAL PATTERNS (GREY)		
O-T-15-60	O-15-60	60° Arc	Male	Female	
O-T-15-Q	O-15-Q	90° Arc	O-T-4X9-RCS	O-4X9-RCS	Right Corner
O-T-15-T	O-15-T	120° Arc	O-T-4X9-LCS	O-4X9-LCS	Left Corner
O-T-15-150	O-15-150	150° Arc	O-T-4X18-SST	O-4X18-SST	Side Strip
O-T-15-H	O-15-H	180° Arc	O-T-4X15-RCS	O-4X15-RCS	Right Corner
O-T-15-210	O-15-210	210° Arc	O-T-4X15-LCS	O-4X15-LCS	Left Corner
O-T-15-TT	O-15-TT	240° Arc	O-T-4X30-SST	O-4X30-SST	Side Strip
O-T-15-TQ	O-15-TQ	270° Arc			
O-T-15-F	O-15-F	360° Arc			

### PRESSURE-COMPENSATING

### PRECISION™ SERIES SPRAY NOZZLE MODEL LIST

5' NOZZLE (RED)			8' NOZZLE (GREEN)		
Male	Female	Pattern	Male	Female	Pattern
O-T-5-60P	O-5-60P	60° Arc	O-T-8-60P	O-8-60P	60° Arc
O-T-5-QP	O-5-QP	90° Arc	O-T-8-QP	O-8-QP	90° Arc
O-T-5-TP	O-5-TP	120° Arc	O-T-8-TP	O-8-TP	120° Arc
O-T-5-150P	O-5-150P	150° Arc	O-T-8-150P	O-8-150P	150° Arc
O-T-5-HP	O-5-HP	18° Arc	O-T-8-HP	O-8-HP	18° Arc
O-T-5-210P	O-5-210P	210° Arc	O-T-8-210P	O-8-210P	210° Arc
O-T-5-TTP	O-5-TTP	240° Arc	O-T-8-TTP	O-8-TTP	240° Arc
O-T-5-TQP	O-5-TQP	270° Arc	O-T-8-TQP	O-8-TQP	270° Arc
O-T-5-FP	O-5-FP	360° Arc	O-T-8-FP	O-8-FP	360° Arc
10' NOZZLE (BLUE)			12' NOZZLE (BROWN)		
O-T-10-60P	O-10-60P	60° Arc	O-T-12-60P	O-12-60P	60° Arc
O-T-10-QP	O-10-QP	90° Arc	O-T-12-QP	O-12-QP	90° Arc
O-T-10-TP	O-10-TP	120° Arc	O-T-12-TP	O-12-TP	120° Arc
O-T-10-150P	O-10-150P	150° Arc	O-T-12-150P	O-12-150P	150° Arc
O-T-10-HP	O-10-HP	18° Arc	O-T-12-HP	O-12-HP	18° Arc
O-T-10-210P	O-10-210P	210° Arc	O-T-12-210P	O-12-210P	210° Arc
O-T-10-210P	O-10-210P	210° Arc	O-T-12-210P	O-12-210P	210° Arc
O-T-10-TTP	O-10-TTP	240° Arc	O-T-12-TTP	O-12-TTP	240° Arc
O-T-10-TQP	O-10-TQP	270° Arc	O-T-12-TQP	O-12-TQP	270° Arc
O-T-10-TQP	O-10-TQP	270° Arc	O-T-12-TQP	O-12-TQP	270° Arc
O-T-10-FP	O-10-FP	360° Arc	O-T-12-FP	O-12-FP	360° Arc
15' NOZZLE (BLACK)			SPECIAL PATTERNS (GREY)		
O-T-15-60P	O-15-60P	60° Arc	Male	Female	
O-T-15-QP	O-15-QP	90° Arc	O-T-4X9-RCS	O-4X9-RCS	Right Corner
O-T-15-TP	O-15-TP	120° Arc	O-T-4X9-LCS	O-4X9-LCS	Left Corner
O-T-15-150P	O-15-150P	150° Arc	O-T-4X18-SST	O-4X18-SST	Side Strip
O-T-15-HP	O-15-HP	18° Arc	O-T-4X15-RCS	O-4X15-RCS	Right Corner
O-T-15-210P	O-15-210P	210° Arc	O-T-4X15-LCS	O-4X15-LCS	Left Corner
O-T-15-210P	O-15-210P	210° Arc	O-T-4X30-SST	O-4X30-SST	Side Strip
O-T-15-TTP	O-15-TTP	240° Arc			
O-T-15-TQP	O-15-TQP	270° Arc			
O-T-15-TQP	O-15-TQP	270° Arc			
O-T-15-FP	O-15-FP	360° Arc			



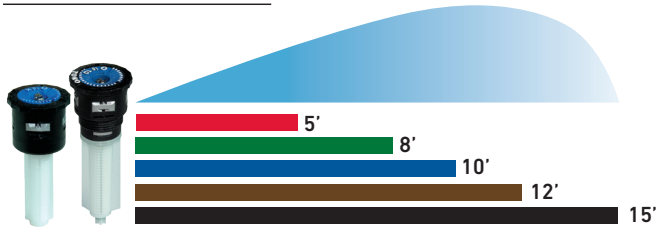
# PRECISION™ SERIES SPRAY NOZZLES



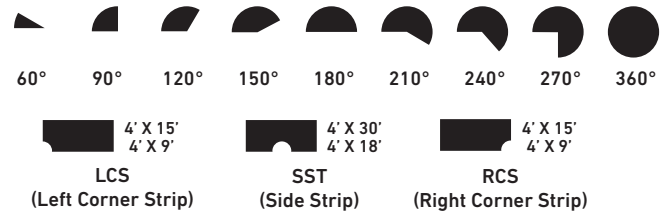
## PERFORMANCE DATA PRESSURE COMPENSATING – PRECISION™ SERIES SPRAY NOZZLES

Arc	model # (O-XX-XX)	psi	gpm	Radius	Precip. Rate	Precip. Rate	model # (O-XX-XX)	psi	gpm	Radius	Precip. Rate	Precip. Rate	model # (O-XX-XX)	psi	gpm	Radius	Precip. Rate	Precip. Rate
					■ (in./hr.)	▲ (in./hr.)					■ (in./hr.)	▲ (in./hr.)					■ (in./hr.)	▲ (in./hr.)
60°	5-60P	40	0.07	6.0	1.2	1.4	8-60P	40	0.11	7.5	1.1	1.3	10-60P	40	0.16	9.5	1.0	1.2
		50	0.07	5.5	1.3	1.5		50	0.11	7.5	1.2	1.3		50	0.18	10.5	1.0	1.1
		60	0.07	6.0	1.0	1.2		60	0.12	7.5	1.3	1.4		60	0.20	11.0	1.0	1.1
		70	0.08	6.5	1.0	1.2		70	0.14	8.0	1.2	1.4		70	0.22	11.0	1.1	1.2
90°	5-QP	40	0.06	4.6	1.0	1.2	8-QP	40	0.14	7.0	1.1	1.3	10-QP	40	0.26	9.5	1.0	1.1
		50	0.08	5.1	1.2	1.4		50	0.17	7.7	1.2	1.3		50	0.28	10.0	1.1	1.2
		60	0.09	5.6	1.3	1.5		60	0.20	8.4	1.2	1.4		60	0.29	10.5	1.1	1.3
		70	0.11	6.2	1.5	1.7		70	0.23	9.1	1.3	1.4		70	0.31	11.1	1.2	1.4
120°	5-TP	40	0.07	4.4	1.0	1.1	8-TP	40	0.20	7.6	1.0	1.2	10-TP	40	0.31	9.5	1.0	1.1
		50	0.11	4.9	1.3	1.5		50	0.24	8.0	1.1	1.3		50	0.36	10.0	1.1	1.2
		60	0.15	5.5	1.7	2.0		60	0.27	8.5	1.2	1.4		60	0.41	10.5	1.2	1.4
		70	0.19	6.0	2.0	2.4		70	0.31	8.9	1.3	1.5		70	0.46	11.0	1.3	1.5
150°	5-150P	40	0.10	4.9	0.96	1.11	8-150P	40	0.32	8.0	1.1	1.3	10-150P	40	0.47	9.5	1.2	1.4
		50	0.12	5.2	1.03	1.18		50	0.32	8.5	1.0	1.2		50	0.49	10.0	1.1	1.3
		60	0.13	5.4	1.03	1.19		60	0.32	8.0	1.1	1.3		60	0.51	10.0	1.2	1.4
		70	0.14	5.8	0.96	1.11		70	0.32	8.0	1.1	1.3		70	0.53	10.5	1.1	1.3
180°	5-HP	40	0.10	4.4	1.0	1.2	8-HP	40	0.26	7.0	1.0	1.2	10-HP	40	0.48	9.7	1.0	1.1
		50	0.13	4.9	1.1	1.3		50	0.33	7.6	1.1	1.3		50	0.53	10.1	1.1	1.2
		60	0.16	5.4	1.3	1.5		60	0.39	8.1	1.2	1.4		60	0.57	10.4	1.1	1.3
		70	0.19	6.0	1.4	1.6		70	0.46	8.7	1.3	1.5		70	0.62	10.8	1.2	1.4
210°	5-210P	40	0.16	5.0	1.1	1.2	8-210P	40	0.34	8.0	0.9	1.0	10-210P	40	0.57	9.5	1.1	1.2
		50	0.18	5.5	1.0	1.1		50	0.38	8.0	1.0	1.1		50	0.64	10.0	1.1	1.2
		60	0.20	6.0	0.9	1.1		60	0.42	8.0	1.1	1.3		60	0.70	10.0	1.2	1.3
		70	0.21	6.0	1.0	1.1		70	0.45	8.0	1.2	1.3		70	0.75	10.0	1.2	1.4
240°	5-TTP	40	0.14	4.3	1.1	1.3	8-TTP	40	0.34	7.0	1.0	1.1	10-TTP	40	0.63	9.6	1.0	1.1
		50	0.20	4.9	1.3	1.5		50	0.43	7.8	1.1	1.2		50	0.70	9.9	1.1	1.2
		60	0.25	5.4	1.4	1.7		60	0.52	8.5	1.2	1.4		60	0.77	10.3	1.1	1.3
		70	0.31	6.0	1.6	1.8		70	0.61	9.3	1.3	1.5		70	0.84	10.6	1.2	1.4
270°	5-TQP	40	0.15	4.3	1.0	1.2	8-TQP	40	0.41	7.2	1.0	1.1	10-TQP	40	0.71	9.5	1.0	1.1
		50	0.21	4.9	1.2	1.4		50	0.48	7.9	1.1	1.2		50	0.77	9.9	1.0	1.2
		60	0.26	5.6	1.4	1.6		60	0.55	8.6	1.2	1.4		60	0.82	10.3	1.1	1.2
		70	0.32	6.2	1.5	1.7		70	0.62	9.3	1.3	1.5		70	0.88	10.7	1.1	1.3
360°	5-FP	40	0.17	4.0	1.0	1.2	8-FP	40	0.55	7.0	1.1	1.2	10-FP	40	0.95	9.6	1.0	1.1
		50	0.24	4.8	1.1	1.3		50	0.65	7.5	1.1	1.2		50	1.06	10.0	1.1	1.2
		60	0.31	5.5	1.2	1.4		60	0.74	8.0	1.1	1.3		60	1.16	10.5	1.1	1.3
		70	0.38	6.3	1.3	1.5		70	0.84	8.5	1.1	1.3		70	1.27	10.9	1.2	1.4

**Five Radii Available in Toro  
(Male) & Female Threads**



**Nine Arcs, Plus Side and Center Strips Available**



**PERFORMANCE DATA PRESSURE COMPENSATING – PRECISION™ SERIES SPRAY NOZZLES**

Arc	model # (O-XX-XX)	psi	gpm	Radius	Precip. Rate ■ (in./hr.)	Precip. Rate ▲ (in./hr.)
60°	12-60P	40	0.30	13.0	1.0	1.2
		50	0.30	13.0	1.0	1.2
		60	0.30	13.0	1.0	1.2
		70	0.30	13.0	1.0	1.2
90°	12-QP	40	0.34	12.0	1.0	1.2
		50	0.39	12.2	1.1	1.3
		60	0.43	12.5	1.2	1.3
		70	0.48	12.7	1.2	1.4
120°	12-TP	40	0.46	11.5	1.0	1.2
		50	0.50	11.8	1.0	1.2
		60	0.54	12.0	1.1	1.3
150°	12-150P	40	0.59	12.0	1.0	1.1
		50	0.66	11.5	1.2	1.3
		60	0.72	12.0	1.2	1.3
		70	0.78	12.0	1.3	1.5
180°	12-HP	40	0.70	11.5	1.0	1.2
		50	0.75	11.8	1.0	1.2
		60	0.80	12.2	1.1	1.2
		70	0.85	12.5	1.1	1.2
210°	12-210P	40	0.86	11.0	1.2	1.4
		50	0.96	11.5	1.2	1.4
		60	1.05	12.0	1.2	1.4
240°	12-TTP	40	1.03	11.4	1.0	1.2
		50	1.03	11.5	1.1	1.3
		60	1.16	11.5	1.2	1.3
270°	12-TQP	40	1.05	11.4	1.0	1.2
		50	1.14	11.7	1.0	1.2
		60	1.23	12.0	1.1	1.3
360°	12-FP	40	1.35	11.5	1.0	1.1
		50	1.49	11.8	1.0	1.2
		60	1.63	12.2	1.1	1.3
		70	1.77	12.5	1.1	1.3

model # (O-XX-XX)	psi	gpm	Radius	Precip. Rate ■ (in./hr.)	Precip. Rate ▲ (in./hr.)
15-60P	40	0.36	14.0	1.1	1.2
	50	0.41	15.0	1.0	1.2
	60	0.45	15.0	1.1	1.3
	70	0.48	15.0	1.2	1.4
15-QP	40	0.53	14.2	1.0	1.2
	50	0.59	14.5	1.1	1.2
	60	0.64	14.8	1.1	1.3
	70	0.70	15.1	1.2	1.3
15-TP	40	0.72	14.3	1.0	1.2
	50	0.77	14.8	1.0	1.2
	60	0.82	15.2	1.1	1.2
	70	0.87	15.7	1.1	1.2
15-150P	40	0.93	14.0	1.1	1.3
	50	1.04	14.5	1.2	1.3
	60	1.14	14.5	1.3	1.5
	70	1.23	14.5	1.4	1.6
15-HP	40	1.10	14.5	1.0	1.2
	50	1.20	14.3	1.1	1.2
	60	1.29	14.0	1.1	1.3
	70	1.39	13.8	1.2	1.3
15-210P	40	1.23	14.0	1.0	1.2
	50	1.44	14.0	1.2	1.4
	60	1.56	14.0	1.3	1.5
	70	1.70	15.0	1.2	1.4
15-TTP	40	1.45	14.5	1.0	1.2
	50	1.57	14.8	1.0	1.2
	60	1.68	15.0	1.1	1.2
	70	1.80	15.3	1.1	1.3
15-TQP	40	1.60	14.0	0.9	1.0
	50	1.70	14.4	1.0	1.1
	60	1.80	14.8	1.0	1.2
	70	1.90	15.1	1.1	1.2
15-FP	40	2.20	14.5	1.0	1.2
	50	2.36	14.8	1.0	1.2
	60	2.52	15.1	1.1	1.2
	70	2.68	15.4	1.1	1.3

Arc	psi	gpm	Radius	Precip. Rate ■ (in./hr.)	Precip. Rate ▲ (in./hr.)
4X30 SSTP	40	0.62	4x30	1.0	1.1
	50	0.65	4x30	1.0	1.2
	60	0.67	4x30	1.1	1.3
	70	0.70	4x30	1.1	1.3
4X15 LCSP	40	0.32	4x15	1.0	1.2
	50	0.33	4x15	1.1	1.2
	60	0.34	4x15	1.1	1.3
	70	0.35	4x15	1.2	1.3
4X15 RCSP	40	0.32	4x15	1.0	1.2
	50	0.33	4x15	1.1	1.2
	60	0.34	4x15	1.1	1.3
	70	0.35	4x15	1.2	1.3
4X18 SSTP	40	0.36	4x18	1.0	1.1
	50	0.37	4x18	1.0	1.2
	60	0.38	4x18	1.0	1.2
	70	0.39	4x18	1.0	1.2
4X9 LCSP	40	0.18	4x9	1.0	1.1
	50	0.19	4x9	1.1	1.2
	60	0.20	4x9	1.1	1.2
	70	0.21	4x9	1.2	1.3
4X9 RCSP	40	0.18	4x9	1.0	1.2
	50	0.19	4x9	1.1	1.2
	60	0.20	4x9	1.1	1.2
	70	0.21	4x9	1.2	1.3



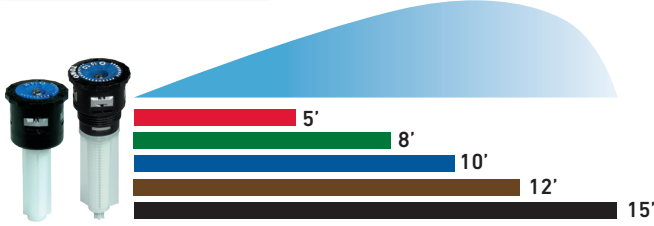
# PRECISION™ SERIES SPRAY NOZZLES



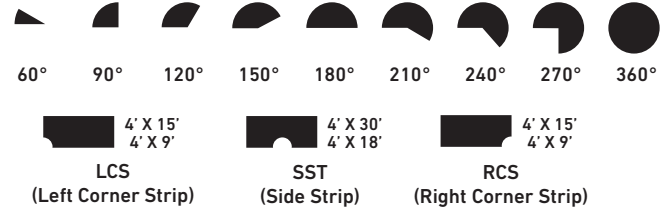
## PERFORMANCE DATA – PRECISION™ SERIES SPRAY NOZZLES

Arc	model # (O-XX-XX)	psi	gpm	Radius	Precip. Rate ■ (in./hr.)	Precip. Rate ▲ (in./hr.)	model # (O-XX-XX)	psi	gpm	Radius	Precip. Rate ■ (in./hr.)	Precip. Rate ▲ (in./hr.)	model # (O-XX-XX)	psi	gpm	Radius	Precip. Rate ■ (in./hr.)	Precip. Rate ▲ (in./hr.)
60°	5-60	20	0.04	4.7	1.0	1.2	8-60	20	0.10	7.6	1.0	1.2	10-60	20	0.16	9.5	1.0	1.2
		30	0.04	5.0	1.0	1.2		30	0.11	8.0	1.0	1.1		30	0.17	10.0	1.0	1.1
		40	0.04	5.0	1.0	1.2		40	0.12	8.1	1.1	1.2		40	0.18	10.0	1.0	1.2
		50	0.05	5.3	1.0	1.1		50	0.13	8.3	1.1	1.3		50	0.19	10.0	1.1	1.3
90°	5-Q	20	0.06	4.6	1.0	1.2	8-Q	20	0.14	7.0	1.1	1.3	10-Q	20	0.26	9.5	1.0	1.1
		30	0.06	5.0	1.0	1.1		30	0.17	8.0	1.0	1.1		30	0.23	10.0	1.0	1.2
		40	0.07	5.0	1.0	1.2		40	0.18	8.2	1.0	1.2		40	0.28	10.2	1.0	1.2
		50	0.07	5.0	1.0	1.2		50	0.18	8.4	1.0	1.1		50	0.28	10.3	1.0	1.2
120°	5-T	20	0.07	4.4	1.0	1.2	8-T	20	0.20	7.6	1.0	1.2	10-T	20	0.31	9.5	1.0	1.1
		30	0.09	5.0	1.0	1.2		30	0.22	8.0	1.0	1.1		30	0.34	10.0	1.0	1.1
		40	0.09	5.2	1.0	1.2		40	0.23	8.2	1.0	1.1		40	0.36	10.0	1.0	1.2
		50	0.10	5.4	1.0	1.1		50	0.24	8.3	1.0	1.1		50	0.37	10.0	1.1	1.2
150°	5-150	20	0.07	4.0	1.0	1.2	8-150	20	0.25	7.5	1.0	1.2	10-150	20	0.41	9.8	1.0	1.1
		30	0.11	5.0	1.0	1.2		30	0.27	8.0	1.0	1.1		30	0.43	10.0	1.0	1.1
		40	0.12	5.2	1.0	1.2		40	0.28	8.1	1.0	1.1		40	0.44	10.2	1.0	1.1
		50	0.13	5.4	1.0	1.2		50	0.29	8.2	1.0	1.2		50	0.46	10.4	1.0	1.1
180°	5-H	20	0.10	4.4	1.0	1.2	8-H	20	0.26	7.0	1.0	1.2	10-H	20	0.48	9.7	1.0	1.1
		30	0.13	5.0	1.0	1.2		30	0.33	8.0	1.0	1.1		30	0.51	10.0	1.0	1.1
		40	0.14	5.1	1.0	1.2		40	0.34	8.0	1.0	1.2		40	0.55	10.3	1.0	1.2
		50	0.14	5.2	1.0	1.1		50	0.34	8.0	1.0	1.2		50	0.56	10.4	1.0	1.2
210°	5-210	20	0.10	4.4	1.0	1.2	8-210	20	0.33	7.6	1.1	1.3	10-210	20	0.56	9.8	1.1	1.3
		30	0.15	5.2	1.1	1.2		30	0.36	8.0	1.1	1.3		30	0.58	10.0	1.1	1.3
		40	0.16	5.3	1.1	1.3		40	0.37	8.1	1.1	1.3		40	0.60	10.4	1.1	1.2
		50	0.17	5.5	1.1	1.3		50	0.38	8.2	1.1	1.3		50	0.62	10.5	1.1	1.3
240°	5-TT	20	0.14	4.3	1.1	1.3	8-TT	20	0.34	7.0	1.0	1.2	10-TT	20	0.63	9.6	1.0	1.1
		30	0.17	5.0	1.0	1.1		30	0.44	8.0	1.0	1.1		30	0.69	10.0	1.0	1.2
		40	0.19	5.0	1.1	1.2		40	0.46	8.0	1.0	1.2		40	0.73	10.3	1.0	1.1
		50	0.19	5.0	1.1	1.3		50	0.46	8.0	1.0	1.2		50	0.74	10.4	1.0	1.1
270°	5-TQ	20	0.15	4.3	1.0	1.2	8-TQ	20	0.41	7.2	1.0	1.1	10-TQ	20	0.71	9.5	1.0	1.1
		30	0.20	5.0	1.0	1.2		30	0.49	8.0	1.1	1.1		30	0.79	10.0	1.0	1.1
		40	0.21	5.0	1.1	1.2		40	0.54	8.0	1.1	1.2		40	0.84	10.3	1.0	1.1
		50	0.22	5.0	1.1	1.3		50	0.55	8.0	1.1	1.2		50	0.86	10.4	1.0	1.1
360°	5-F	20	0.17	4.0	1.0	1.2	8-F	20	0.55	7.0	1.1	1.2	10-F	20	0.95	9.6	1.0	1.1
		30	0.26	5.0	1.0	1.2		30	0.66	8.0	1.0	1.1		30	1.03	10.0	1.0	1.1
		40	0.26	5.0	1.0	1.2		40	0.68	8.0	1.0	1.2		40	1.08	10.3	1.0	1.1
		50	0.26	5.0	1.0	1.2		50	0.71	8.0	1.1	1.2		50	1.12	10.4	1.0	1.2

**Five Radii Available in Toro  
(Male) & Female Threads**



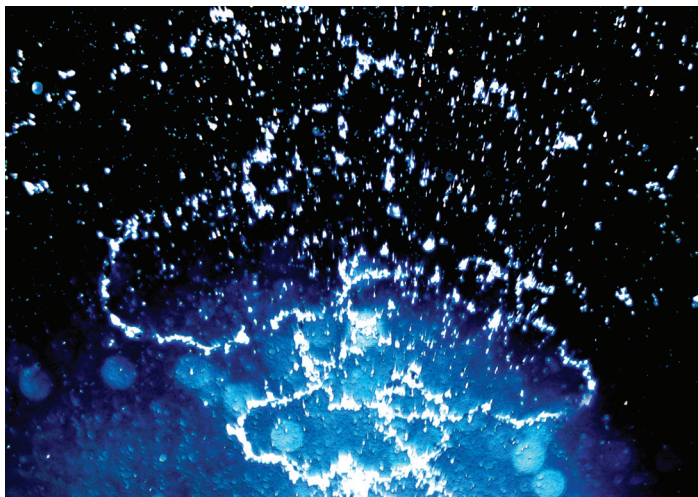
**Nine Arcs, Plus Side and Center Strips Available**



**PERFORMANCE DATA – PRECISION™ SERIES SPRAY NOZZLES**

Arc	model # (O-XX-XX)	psi	gpm	Radius	Precip. Rate ■ (in./hr.)	Precip. Rate ▲ (in./hr.)	model # (O-XX-XX)	psi	gpm	Radius	Precip. Rate ■ (in./hr.)	Precip. Rate ▲ (in./hr.)	Arc	psi	gpm	Radius	Precip. Rate ■ (in./hr.)	Precip. Rate ▲ (in./hr.)
60°	12-60	20	0.24	11.5	1.0	1.2	15-60	20	0.35	14.0	1.0	1.2	4X30 SST	20	0.62	4x28	1.0	1.1
		30	0.25	12.0	1.0	1.2		30	0.39	15.0	1.0	1.2		30	0.66	4x30	1.1	1.2
		40	0.26	12.1	1.0	1.2		40	0.40	15.1	1.0	1.2		40	0.67	4x30	1.1	1.2
		50	0.28	12.2	1.1	1.3		50	0.42	15.3	1.0	1.2		50	0.68	4x30	1.1	1.3
90°	12-Q	20	0.34	12.0	1.0	1.2	15-Q	20	0.53	14.2	1.0	1.2	4X15 LCS	20	0.32	4x15	1.0	1.2
		30	0.37	12.1	1.0	1.1		30	0.58	15.0	1.0	1.1		30	0.33	4x15	1.1	1.2
		40	0.39	11.4	1.0	1.2		40	0.60	15.1	1.0	1.2		40	0.34	4x15	1.1	1.2
		50	0.39	12.0	1.0	1.1		50	0.61	15.3	1.0	1.2		50	0.34	4x15	1.1	1.3
120°	12-T	20	0.46	11.5	1.0	1.2	15-T	20	0.72	14.3	1.0	1.2	4X15 RCS	20	0.32	4x15	1.0	1.2
		30	0.49	12.0	1.0	1.1		30	0.77	15.0	1.0	1.1		30	0.33	4x15	1.1	1.2
		40	0.51	12.2	1.0	1.1		40	0.81	15.3	1.0	1.2		40	0.34	4x15	1.1	1.3
		50	0.52	12.3	1.0	1.1		50	0.82	15.4	1.0	1.2		50	0.34	4x15	1.1	1.3
150°	12-150	20	0.60	11.6	1.0	1.2	15-150	20	0.92	14.7	1.0	1.2	4X18 SST	20	0.36	4x18	1.0	1.1
		30	0.62	12.0	1.0	1.1		30	0.96	15.0	1.0	1.2		30	0.37	4x18	1.0	1.1
		40	0.63	12.2	1.0	1.1		40	1.00	15.2	1.0	1.2		40	0.38	4x18	1.0	1.2
		50	0.64	12.3	1.0	1.1		50	1.10	15.3	1.1	1.3		50	0.38	4x18	1.0	1.2
180°	12-H	20	0.70	11.5	1.0	1.2	15-H	20	1.10	14.5	1.0	1.2	4X9 LCS	20	0.18	4x9	1.0	1.2
		30	0.74	12.0	1.0	1.1		30	1.16	15.0	1.0	1.1		30	0.19	4x9	1.0	1.2
		40	0.79	12.3	1.0	1.2		40	1.25	15.4	1.0	1.2		40	0.2	4x9	1.1	1.2
		50	0.80	12.4	1.0	1.2		50	1.28	15.5	1.0	1.2		50	0.2	4x9	1.1	1.1
210°	12-210	20	0.76	11.6	1.1	1.3	15-210	20	1.15	14.5	1.1	1.2	4X9 RCS	20	0.18	4x9	1.0	1.2
		30	0.82	12.0	1.1	1.3		30	1.20	15.0	1.0	1.2		30	0.19	4x9	1.0	1.2
		40	0.84	12.3	1.1	1.2		40	1.30	15.5	1.0	1.2		40	0.2	4x9	1.1	1.2
		50	0.85	12.4	1.1	1.2		50	1.40	15.6	1.1	1.3		50	0.2	4x9	1.1	1.2
240°	12-TT	20	0.90	11.4	1.0	1.2	15-TT	20	1.45	14.5	1.0	1.2	4X9 RCS	20	0.18	4x9	1.0	1.2
		30	0.99	12.0	1.0	1.1		30	1.54	15.0	1.0	1.1		30	0.19	4x9	1.0	1.2
		40	1.04	12.3	1.0	1.1		40	1.58	15.2	1.0	1.1		40	0.2	4x9	1.1	1.2
		50	1.05	12.4	1.0	1.1		50	1.61	15.3	1.0	1.1		50	0.2	4x9	1.1	1.2
270°	12-TQ	20	1.05	11.4	1.0	1.2	15-TQ	20	1.72	14.5	1.0	1.2	4X9 RCS	20	0.18	4x9	1.0	1.2
		30	1.15	12.0	1.0	1.2		30	1.78	15.0	1.0	1.1		30	0.19	4x9	1.0	1.2
		40	1.19	12.2	1.0	1.2		40	1.82	15.0	1.0	1.2		40	0.2	4x9	1.1	1.2
		50	1.22	12.3	1.0	1.2		50	1.90	15.3	1.0	1.2		50	0.2	4x9	1.1	1.2
360°	12-F	20	1.35	11.5	1.0	1.1	15-F	20	2.20	14.5	1.0	1.2	4X9 RCS	20	0.18	4x9	1.0	1.2
		30	1.48	12.0	1.0	1.1		30	2.31	15.0	1.0	1.1		30	0.19	4x9	1.0	1.2
		40	1.59	12.4	1.0	1.1		40	2.35	15.2	1.0	1.1		40	0.2	4x9	1.1	1.2
		50	1.60	12.5	1.0	1.1		50	2.40	15.3	1.0	1.1		50	0.2	4x9	1.1	1.2





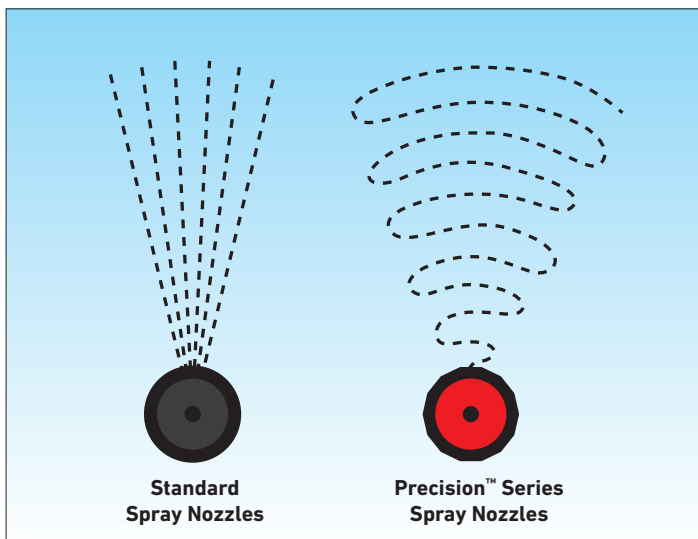
## SPECIFICATIONS

### Operational

- Radius: 5'-15'
- Operating pressure range: 20-75 psi
- Recommended operating pressure: non-Pressure Compensating—30 psi, Pressure Compensating—50 psi
- Flow Rate: 0.04-2.4 gpm
- Nozzle trajectory:
  - 5': 5°
  - 8': 10°
  - 10': 15°
  - 12': 20°
  - 15': 27°
  - Corner and Side Strips: 20°

### Warranty

- Two years



**Patented H<sup>2</sup>O Chip Technology Delivers Improved Uniformity**  
 Water enters a specially designed chamber within the H<sup>2</sup>O Chip where the water expands and collapses, creating an oscillating effect. Consistent-sized water droplets exit the Chip in the designed arc pattern and radius with clean edge definition, class-leading distribution uniformity, and reduced water usage.

### Specifying Information-Precision™ Series Spray Nozzle

O-X-XXXX-XXXX-P				
Nozzle	Thread	Radius	Arc	PCD
O	X	XXXX	XXXX	P
0—1" Per Hour	T—Toro Male-Threaded Nozzle Blank—Female-Threaded Nozzle	5—5' 8—8' 10—10' 12—12' 15—15' 4X15—4'X15' 4X30—4'X30' 4X9—4'X9' 4X18—4'X18'	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	P—Pressure Compensating
<p><b>Example:</b> A female-threaded Precision™ Series Spray with a spray radius of 12' and a 90° arc would be specified as: O-12-Q</p> <p><b>Example 2:</b> A male-threaded Pressure-Compensating Precision™ Series Spray with a spray radius of 10' and a 180° arc would be specified as O-T-10-HP</p>				



[www.toro.com](http://www.toro.com)

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