



"We design and install with spray bodies and nozzles that are reliable, easy to maintain and promote efficient water use. What do we like about the Rain Bird 1800 Series Spray Bodies and U-Series Nozzles? They dependably and effectively work the way they say they're going to. I can say with confidence that Rain Bird 1800 Spray Bodies and U-Series Nozzles work flawlessly and effectively. In fact, by installing that combination, we see significant gains in water efficiency."

*Steve Linnenberger, Landscape Designer
Juan Chavez, Landscape Foreman
Landscape Consultants & Contractors, Inc.*

Major Products		Applications
Rotary Nozzles	Individual rotating streams with lower precipitation reduce runoff and erosion	Turf, hills and slopes
U-Series Nozzles	More even distribution through dual orifice and even wetting through radius	Turf
MPR Nozzles	Matched precipitation simplifies the design process	Turf
VAN Nozzles	Easy, flexible, and convenient	Turf
SQ Nozzles	Low volume, uniform square wetting pattern with pressure-compensation	Narrow turf or flower beds

Water Saving \$

Water Saving Tips

- Rotary Nozzles have efficient water distribution through rotating streams that uniformly deliver water at a low precipitation rate, significantly reducing runoff and erosion
- U-Series Nozzles are dual-orifice nozzles that have better, more uniform water distribution. Water flowing from both orifices combines to form a continuous water stream and eliminates gaps for more uniform coverage throughout the entire watering area
- SQ Nozzles are the most precise low-volume spray with pressure compensation, square wetting pattern, and adjustable 2.5' to 4' (0.8 m to 1.2 m) throws. Excellent for narrow areas

- Introduction
- Spray Bodies
- Spray Nozzles**
- Rotors
- Impacts
- Valves
- Controllers
- Central Controls
- Pumps
- Landscape Drip
- Accessories
- Resources
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Rotary Nozzles

0.60 in/hr Precipitation Rate from 13 to 24 Feet



- Low precipitation rate of 0.60 in/hr (15.2 mm/hr) reduces runoff and erosion
- With approximately 60% less flow than conventional spray nozzles, Rotary Nozzles allow more heads per zone, reducing overall system complexity and cost
- Multiple, rotating streams uniformly distribute water throughout the 13' to 24' radius range

Features

A Spray Nozzle with Rain Curtain Performance

- Large droplets for consistent performance
- Effective close-in watering
- Even distribution over the entire radius

Installation and Maintenance

- Designed for use on Rain Bird Spray Bodies
- Color-coded radius reduction plugs for easy identification
- Stainless steel radius reduction screw allows reduction down to 13' on the R13-18 and to 17' on the R17-24 to accommodate varying landscape needs

Design Solutions

- Matched precipitation rate across radii and pattern simplify the design process
- Precipitation rate matches Rain Bird 5000/5000 Plus MPR Rotor Nozzles allowing MPR irrigation designs from 13' to 35' (see page 57)
- Maintains highly efficient performance throughout the 20 to 55 psi pressure range, with no misting or fogging at high pressures
- Use in conjunction with 1800-SAM-P45 spray heads for maximum nozzle performance (see page 13 for more information)

Durability

- Rubber collar keeps out large debris particles while enabling small ones to exit easily to keep deflector clean and clear of debris
- Screen mesh size prevents large debris from entering nozzle through spray
- Three-year trade warranty

Operating Range

- Pressure range: 20-55 psi (1.4 to 3.8 bar)
- Spacing: 13 feet to 24 feet (4.0 m to 7.3 m)
- Above spacing based on zero wind conditions

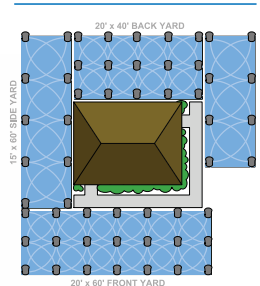
Models

- There are six different patterns available which are available in two radius* ranges:
- 13'-18' (4.0m to 5.5m)
- 17'-24' (5.2m to 7.3m)

*Radius refers to recommended spacing to achieve optimal precipitation rate and distribution uniformity with head to head spacing

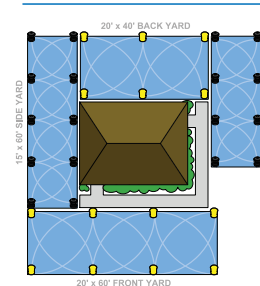


With Conventional Spray Nozzles



- Total 58 gpm
- 6 zones required

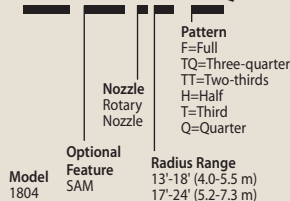
With Rotary Nozzles



- Total 26 gpm
- 3 zones required

How To Specify







1804-SAM-R13-18Q

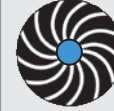







Note: Specify sprinkler bodies and nozzles separately. Installation on Rain Bird 1800™ SAM Spray Bodies recommended in sandy environments









The Rotary Nozzle has efficient water distribution through rotating streams that uniformly deliver water at a low precipitation rate, significantly reducing runoff and erosion







R13-18 Series (Black)					
Arc	Pressure psi	Radius* ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
R13-18F 	20	13	1.31	0.75	0.86
	25	14	1.46	0.67	0.77
	30	16	1.60	0.61	0.70
	35	16	1.73	0.61	0.70
	40	17	1.85	0.61	0.70
	45	18	1.96	0.61	0.70
	50	18	2.07	0.61	0.70
55	18	2.17	0.61	0.70	
R13-18TQ 	20	13	0.98	0.75	0.86
	25	14	1.10	0.67	0.77
	30	16	1.20	0.61	0.70
	35	16	1.30	0.61	0.70
	40	17	1.39	0.61	0.70
	45	18	1.47	0.61	0.70
	50	18	1.55	0.61	0.70
55	18	1.62	0.61	0.70	
R13-18TT 	20	13	0.87	0.75	0.86
	25	14	0.97	0.67	0.77
	30	16	1.07	0.61	0.70
	35	16	1.15	0.61	0.70
	40	17	1.23	0.61	0.70
	45	18	1.31	0.61	0.70
	50	18	1.38	0.61	0.70
55	18	1.44	0.61	0.70	
R13-18H 	20	13	0.65	0.75	0.86
	25	14	0.73	0.67	0.77
	30	16	0.80	0.61	0.70
	35	16	0.86	0.61	0.70
	40	17	0.92	0.61	0.70
	45	18	0.98	0.61	0.70
	50	18	1.03	0.61	0.70
55	18	1.08	0.61	0.70	
R13-18T 	20	13	0.44	0.75	0.86
	25	14	0.49	0.67	0.77
	30	16	0.53	0.61	0.70
	35	16	0.58	0.61	0.70
	40	17	0.62	0.61	0.70
	45	18	0.65	0.61	0.70
	50	18	0.69	0.61	0.70
55	18	0.72	0.61	0.70	
R13-18Q 	20	13	0.33	0.75	0.86
	25	14	0.37	0.67	0.77
	30	16	0.40	0.61	0.70
	35	16	0.43	0.61	0.70
	40	17	0.46	0.61	0.70
	45	18	0.49	0.61	0.70
	50	18	0.52	0.61	0.70
55	18	0.54	0.61	0.70	

R13-18 Series (Black)						METRIC
Arc	Pressure bar	Radius* m	Flow l/m	■ Precip mm/h	▲ Precip mm/h	
R13-18F 	1.4	4.0	4.95	19	22	
	1.7	4.3	5.53	18	21	
	2.1	4.8	6.06	15	18	
	2.4	5.0	6.54	15	18	
	2.8	5.2	6.99	15	18	
	3.1	5.4	7.42	15	18	
	3.4	5.5	7.82	15	18	
3.8	5.6	8.20	15	18		
R13-18TQ 	1.4	4.0	3.71	19	22	
	1.7	4.3	4.15	18	21	
	2.1	4.8	4.54	15	18	
	2.4	5.0	4.91	15	18	
	2.8	5.2	5.25	15	18	
	3.1	5.4	5.56	15	18	
	3.4	5.5	5.86	15	18	
3.8	5.6	6.15	15	18		
R13-18TT 	1.4	4.0	3.30	19	22	
	1.7	4.3	3.69	18	21	
	2.1	4.8	4.04	15	18	
	2.4	5.0	4.36	15	18	
	2.8	5.2	4.66	15	18	
	3.1	5.4	4.95	15	18	
	3.4	5.5	5.21	15	18	
3.8	5.6	5.47	15	18		
R13-18H 	1.4	4.0	2.47	19	22	
	1.7	4.3	2.76	18	21	
	2.1	4.8	3.03	15	18	
	2.4	5.0	3.27	15	18	
	2.8	5.2	3.50	15	18	
	3.1	5.4	3.71	15	18	
	3.4	5.5	3.91	15	18	
3.8	5.6	4.10	15	18		
R13-18T 	1.4	4.0	1.65	19	22	
	1.7	4.3	1.84	18	21	
	2.1	4.8	2.02	15	18	
	2.4	5.0	2.18	15	18	
	2.8	5.2	2.33	15	18	
	3.1	5.4	2.47	15	18	
	3.4	5.5	2.61	15	18	
3.8	5.6	2.73	15	18		
R13-18Q 	1.4	4.0	1.24	19	22	
	1.7	4.3	1.38	18	21	
	2.1	4.8	1.51	15	18	
	2.4	5.0	1.64	15	18	
	2.8	5.2	1.75	15	18	
	3.1	5.4	1.85	15	18	
	3.4	5.5	1.95	15	18	
3.8	5.6	2.05	15	18		

Note: Rotary Nozzles tested on 4 inch pop-ups.
Performance data taken in zero wind conditions
*Radius refers to recommended spacing to achieve optimal precipitation rate and distribution uniformity with head to head spacing
■ Square spacing based on 50% diameter of throw
▲ Triangular spacing based on 50% diameter of throw

Single row applications are not recommended
Do not reduce radius below 13' (4.0 m) on the R13-18 model and below 17' (5.2 m) on the R17-24 model
Installation on Rain Bird 1800®- SAM Spray Bodies recommended in sandy environments
Performance data derived from tests that conform with ASAE Standards; ASAE S398.1. See page 224 for complete ASAE Test Certification Statement.

R17-24 Series (Yellow)					
Arc	Pressure psi	Radius* ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
	20	17	2.45	0.79	0.92
	25	19	2.74	0.71	0.82
	30	21	3.00	0.65	0.75
	35	22	3.24	0.65	0.75
	40	23	3.46	0.65	0.75
	45	23	3.67	0.65	0.75
	50	24	3.87	0.65	0.75
55	24	4.06	0.65	0.75	
	20	17	1.84	0.79	0.92
	25	19	2.05	0.71	0.82
	30	21	2.25	0.65	0.75
	35	22	2.43	0.65	0.75
	40	23	2.60	0.65	0.75
	45	23	2.76	0.65	0.75
	55	24	3.05	0.65	0.75
	20	17	1.63	0.79	0.92
	25	19	1.83	0.71	0.82
	30	21	2.00	0.65	0.75
	35	22	2.16	0.65	0.75
	40	23	2.31	0.65	0.75
	45	23	2.45	0.65	0.75
	55	24	2.58	0.65	0.75
55	24	2.71	0.65	0.75	
	20	17	1.22	0.79	0.92
	25	19	1.37	0.71	0.82
	30	21	1.50	0.65	0.75
	35	22	1.62	0.65	0.75
	40	23	1.73	0.65	0.75
	45	23	1.84	0.65	0.75
	55	24	1.94	0.65	0.75
55	24	2.03	0.65	0.75	
	20	17	0.82	0.79	0.92
	25	19	0.91	0.71	0.82
	30	21	1.00	0.65	0.75
	35	22	1.08	0.65	0.75
	40	23	1.15	0.65	0.75
	45	23	1.22	0.65	0.75
	55	24	1.29	0.65	0.75
55	24	1.35	0.65	0.75	
	20	17	0.61	0.79	0.92
	25	19	0.68	0.71	0.82
	30	21	0.75	0.65	0.75
	35	22	0.81	0.65	0.75
	40	23	0.87	0.65	0.75
	45	23	0.92	0.65	0.75
	55	24	0.97	0.65	0.75
55	24	1.02	0.65	0.75	

R17-24 Series (Yellow)				METRIC	
Arc	Pressure bar	Radius* m	Flow l/m	■ Precip mm/h	▲ Precip mm/h
	1.4	5.2	9.27	20	23
	1.7	5.8	10.37	18	21
	2.1	6.4	11.36	16	19
	2.4	6.7	12.26	16	19
	2.8	6.9	13.10	16	19
	3.1	7.1	13.89	16	19
	3.8	7.4	15.37	16	19
	1.4	5.2	6.95	20	23
	1.7	5.8	7.78	18	21
	2.1	6.4	7.57	16	19
	2.4	6.7	8.18	16	19
	2.8	6.9	8.74	16	19
	3.1	7.1	10.43	16	19
	3.8	7.4	11.00	16	19
3.8	7.4	11.53	16	19	
	1.4	5.2	6.18	20	23
	1.7	5.8	6.91	18	21
	2.1	6.4	7.57	16	19
	2.4	6.7	8.18	16	19
	2.8	6.9	8.74	16	19
	3.1	7.1	9.27	16	19
	3.8	7.3	9.77	16	19
3.8	7.4	10.25	16	19	
	1.4	5.2	4.62	20	23
	1.7	5.8	5.19	18	21
	2.1	6.4	5.68	16	19
	2.4	6.7	6.17	16	19
	2.8	6.9	6.55	16	19
	3.1	7.1	6.97	16	19
	3.8	7.3	7.34	16	19
3.8	7.4	7.68	16	19	
	1.4	5.2	3.09	20	23
	1.7	5.8	3.46	18	21
	2.1	6.4	3.79	16	19
	2.4	6.7	4.09	16	19
	2.8	6.9	4.37	16	19
	3.1	7.1	4.64	16	19
	3.8	7.3	4.89	16	19
3.8	7.4	5.13	16	19	
	1.4	5.2	2.31	20	23
	1.7	5.8	2.57	18	21
	2.1	6.4	2.84	16	19
	2.4	6.7	3.07	16	19
	2.8	6.9	3.29	16	19
	3.1	7.1	3.48	16	19
	3.8	7.3	3.67	16	19
3.8	7.4	3.86	16	19	

Note: Rotary Nozzles tested on 4 inch pop-ups.

Performance data taken in zero wind conditions

*Radius refers to recommended spacing to achieve optimal precipitation rate and distribution uniformity with head to head spacing

■ Square spacing based on 50% diameter of throw

▲ Triangular spacing based on 50% diameter of throw

Single row applications are not recommended

Do not reduce radius below 13' (4.0 m) on the R13-18 model and below 17' (5.2 m) on the R17-24 model

Installation on Rain Bird 1800®- SAM Spray Bodies recommended in sandy environments

Performance data derived from tests that conform with ASAE Standards; ASAE S398.1. See page 224 for complete ASAE Test Certification Statement.

Plastic U-Series Nozzles

Dual orifice spray nozzles that use 30% less water¹

- Additional orifice for close-in watering. Minimizes brown spots around spray heads
- Low scheduling coefficient for efficient watering. Use up to 30% less water²
- Matched precipitation rate between sets and matched flow (gpm, m³/h and l/m) and precipitation rates with Rain Bird MPR Nozzles

Features

- U-Series offers a full family of nozzles, providing greater flexibility
- Fine mesh screen protects bottom orifice from debris
- Stainless steel adjustment screw to adjust flow and radius
- Five-year trade warranty
- Fits all Rain Bird Spray Bodies and Shrub Adapters

¹ When U-Series dual-orifice nozzles are installed instead of standard nozzles on every spray body in the zone. Results may vary based on site-specific conditions such as sprinkler spacing, wind, temperature, soil and grass type

² Scheduling Coefficient (SC) measures the efficiency of spray heads. SC measures how much more you must water your ENTIRE area for the driest sections to receive sufficient water. The lower the SC, the better the spray heads distribute water

Operating Range

- Spacing: 5 to 15 feet (1.8 to 4.6 m)
- Pressure: 15 to 30 psi (1.0 to 2.1 bar)
- Optimum pressure: 30 psi (2.1 bar)³

³ Rain Bird recommends using 1800 PRS Spray Bodies to maintain optimum nozzle performance in higher pressure situations

Going Head-to-Head Against the Competition



Patented U-Series

Water flowing from both orifices results in a lower scheduling coefficient. This efficient design conserves water, saves money and reduces waste



Competitor A and B nozzles fail to provide efficient close-in watering which results in a higher scheduling coefficient

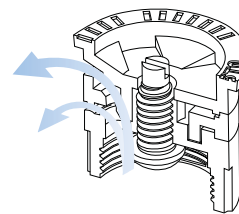


Models

- U-8Q: 8-foot quarter-circle pattern nozzle
- U-8T: 8-foot one-third-circle pattern nozzle
- U-8H: 8-foot half-circle pattern nozzle
- U-8F: 8-foot full-circle pattern nozzle
- U-10Q: 10-foot quarter-circle pattern nozzles
- U-10T: 10-foot one-third-circle pattern nozzle
- U-10H: 10-foot half-circle pattern nozzle
- U-10F: 10-foot full-circle pattern nozzle
- U-12Q: 12-foot quarter-circle pattern nozzle
- U-12T: 12-foot one-third-circle pattern nozzle
- U-12H: 12-foot half-circle pattern nozzle
- U-12TT: 12-foot two-thirds-circle pattern nozzle
- U-12TQ: 12-foot three-quarter-circle pattern nozzle
- U-12F: 12-foot full-circle pattern nozzle
- U-15Q: 15-foot quarter-circle pattern nozzle
- U-15T: 15-foot one-third-circle pattern nozzle
- U-15H: 15-foot half-circle pattern nozzle
- U-15TT: 15-foot two-thirds-circle pattern nozzle
- U-15TQ: 15-foot three-quarter-circle pattern nozzle
- U-15F: 15-foot full-circle pattern nozzle



U-Series Nozzles



U-Series Nozzle with screen

How To Specify

1804 - U12H

Nozzle Series/Pattern
U12H: 12 Series U-Series
nozzle with half circle pattern





Model
1804: 4" (10.2 cm) pop-up height





Rain Bird® U-Series Nozzles produce spray patterns from two orifices to form a continuous water stream. The result is that gaps in coverage are eliminated so the entire watering area is more uniformly covered*





* Based on tests conducted at the Rain Bird Product Research Center. Tests conducted on Rain Bird and principal competitors' part-circle nozzles







Water flowing from both orifices results in a lower scheduling coefficient. This efficient design conserves water, saves money and reduces waste.

U8 Series					
10° Trajectory					
Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
	15	5	0.74	2.07	2.39
	20	6	0.86	2.01	2.32
	25	7	0.96	1.62	1.87
	30	8	1.05	1.58	1.83
	15	5	0.37	2.07	2.39
	20	6	0.42	2.01	2.32
	25	7	0.47	1.62	1.87
	30	8	0.52	1.58	1.83
	15	5	0.25	2.07	2.39
	20	6	0.29	2.01	2.32
	25	7	0.32	1.62	1.87
	30	8	0.35	1.58	1.83
	15	5	0.18	2.07	2.39
	20	6	0.21	2.01	2.32
	25	7	0.24	1.62	1.87
	30	8	0.26	1.58	1.83

U8 Series					METRIC	
10° Trajectory						
Nozzle	Pressure bar	Radius m	Flow m ³ /h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
	1.0	1.7	0.16	2.8	52	60
	1.5	2.1	0.20	3.4	47	55
	2.0	2.4	0.23	3.9	41	48
	2.1	2.4	0.24	4.0	40	46
	2.1	2.4	0.24	4.0	40	46
	1.0	1.7	0.08	1.4	52	60
	1.5	2.1	0.10	1.7	47	55
	2.0	2.4	0.12	1.9	41	48
	2.1	2.4	0.12	2.0	40	46
	2.1	2.4	0.12	2.0	40	46
	1.0	1.7	0.05	0.9	52	60
	1.5	2.1	0.07	1.1	47	55
	2.0	2.4	0.08	1.3	41	48
	2.1	2.4	0.08	1.3	40	46
	2.1	2.4	0.08	1.3	40	46
	1.0	1.7	0.04	0.7	52	60
	1.5	2.1	0.05	0.8	47	55
	2.0	2.4	0.06	1.0	41	48
	2.1	2.4	0.06	1.0	40	46
	2.1	2.4	0.06	1.0	40	46

U10 Series					
12° Trajectory					
Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
	15	7	1.16	2.07	2.39
	20	8	1.34	2.01	2.32
	25	9	1.50	1.62	1.87
	30	10	1.64	1.58	1.83
	15	7	0.58	2.07	2.39
	20	8	0.67	2.01	2.32
	25	9	0.75	1.62	1.87
	30	10	0.82	1.58	1.83
	15	7	0.39	2.07	2.39
	20	8	0.45	2.01	2.32
	25	9	0.50	1.62	1.87
	30	10	0.55	1.58	1.83
	15	7	0.29	2.07	2.39
	20	8	0.33	2.01	2.32
	25	9	0.37	1.62	1.87
	30	10	0.41	1.58	1.83

U10 Series					METRIC	
12° Trajectory						
Nozzle	Pressure bar	Radius m	Flow m ³ /h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
	1.0	2.1	0.26	4.4	52	60
	1.5	2.6	0.30	5.3	47	55
	2.0	3.0	0.34	6.1	41	48
	2.1	3.1	0.37	6.2	40	46
	1.0	2.1	0.13	2.2	52	60
	1.5	2.6	0.15	2.6	47	55
	2.0	3.0	0.17	3.1	41	48
	2.1	3.1	0.19	3.1	40	46
	1.0	2.1	0.09	1.5	52	60
	1.5	2.6	0.10	1.8	47	55
	2.0	3.0	0.11	2.0	41	48
	2.1	3.1	0.12	2.1	40	46
	1.0	2.1	0.07	1.1	52	60
	1.5	2.6	0.08	1.3	47	55
	2.0	3.0	0.08	1.5	41	48
	2.1	3.1	0.09	1.6	40	46







Note: All U-Series nozzles tested on 4" (10.2 cm) pop-ups







■ Square spacing based on 50% diameter of throw

▲ Triangular spacing based on 50% diameter of throw

Performance data taken in zero wind conditions

Radius refers to recommended product spacing. Actual radii along arc may vary

U12 Series					
23° Trajectory					
Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
U-12F 	15	9	1.80	2.14	2.47
	20	10	2.10	2.02	2.34
	25	11	2.40	1.91	2.21
	30	12	2.60	1.74	2.01
U-12TQ 	15	9	1.35	2.14	2.47
	20	10	1.58	2.02	2.34
	25	11	1.80	1.91	2.21
	30	12	1.95	1.74	2.01
U-12TT 	15	9	1.20	2.14	2.47
	20	10	1.40	2.02	2.34
	25	11	1.60	1.91	2.21
	30	12	1.74	1.74	2.01
U-12H 	15	9	0.90	2.14	2.47
	20	10	1.05	2.02	2.34
	25	11	1.20	1.91	2.21
	30	12	1.30	1.74	2.01
U-12T 	15	9	0.60	2.14	2.47
	20	10	0.70	2.02	2.34
	25	11	0.80	1.91	2.21
	30	12	0.87	1.74	2.01
U-12Q 	15	9	0.45	2.14	2.47
	20	10	0.53	2.02	2.34
	25	11	0.60	1.91	2.21
	30	12	0.65	1.74	2.01

U12 Series					METRIC	
23° Trajectory						
Nozzle	Pressure bar	Radius m	Flow m ³ /h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
U-12F 	1.0	2.7	0.40	6.8	55	63
	1.5	3.2	0.48	8.3	47	54
	2.0	3.6	0.59	9.7	46	53
	2.1	3.7	0.60	9.8	44	51
	2.1	3.7	0.60	9.8	44	51
U-12TQ 	1.0	2.7	0.30	5.1	55	63
	1.5	3.2	0.36	6.3	47	54
	2.0	3.6	0.45	7.3	46	53
	2.1	3.7	0.45	7.4	44	51
	2.1	3.7	0.45	7.4	44	51
U-12TT 	1.0	2.7	0.26	4.5	55	63
	1.5	3.2	0.32	5.6	47	54
	2.0	3.6	0.40	6.5	46	53
	2.1	3.7	0.40	6.6	44	51
	2.1	3.7	0.40	6.6	44	51
U-12H 	1.0	2.7	0.20	3.4	55	63
	1.5	3.2	0.24	4.2	47	54
	2.0	3.6	0.30	4.8	46	53
	2.1	3.7	0.30	4.9	44	51
	2.1	3.7	0.30	4.9	44	51
U-12T 	1.0	2.7	0.13	2.3	55	63
	1.5	3.2	0.16	2.8	47	54
	2.0	3.6	0.20	3.2	46	53
	2.1	3.7	0.20	3.3	44	51
	2.1	3.7	0.20	3.3	44	51
U-12Q 	1.0	2.7	0.10	1.7	55	63
	1.5	3.2	0.12	2.1	47	54
	2.0	3.6	0.15	2.4	46	53
	2.1	3.7	0.15	2.5	44	51
	2.1	3.7	0.15	2.5	44	51

Note: All U-Series nozzles tested on 4" (10.2 cm) pop-ups

■ Square spacing based on 50% diameter of throw







▲ Triangular spacing based on 50% diameter of throw







Performance data taken in zero wind conditions

Radius refers to recommended product spacing. Actual radii along arc may vary



U-Series Nozzle

U15 Series					
23° Trajectory					
Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
U-15F 	15	11	2.60	2.07	2.39
	20	12	3.00	2.01	2.32
	25	14	3.30	1.62	1.87
	30	15	3.70	1.58	1.83
U-15TQ 	15	11	1.95	2.07	2.39
	20	12	2.25	2.01	2.32
	25	14	2.48	1.62	1.87
	30	15	2.78	1.58	1.83
U-15TT 	15	11	1.74	2.07	2.39
	20	12	2.01	2.01	2.32
	25	14	2.21	1.62	1.87
	30	15	2.48	1.58	1.83
U-15H 	15	11	1.30	2.07	2.39
	20	12	1.50	2.01	2.32
	25	14	1.65	1.62	1.87
	30	15	1.85	1.58	1.83
U-15T 	15	11	0.87	2.07	2.39
	20	12	1.00	2.01	2.32
	25	14	1.10	1.62	1.87
	30	15	1.23	1.58	1.83
U-15Q 	15	11	0.65	2.07	2.39
	20	12	0.75	2.01	2.32
	25	14	0.82	1.62	1.87
	30	15	0.92	1.58	1.83

U15 Series					METRIC	
23° Trajectory						
Nozzle	Pressure bar	Radius m	Flow m ³ /h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
U-15F 	1.0	3.4	0.60	9.8	52	60
	1.5	3.9	0.72	11.8	47	55
	2.0	4.5	0.84	13.7	41	48
	2.1	4.6	0.84	14.0	40	46
	2.1	4.6	0.84	14.0	40	46
U-15TQ 	1.0	3.4	0.45	7.4	52	60
	1.5	3.9	0.54	8.8	47	55
	2.0	4.5	0.63	10.3	41	48
	2.1	4.6	0.63	10.5	40	46
	2.1	4.6	0.63	10.5	40	46
U-15TT 	1.0	3.4	0.40	6.6	52	60
	1.5	3.9	0.48	7.9	47	55
	2.0	4.5	0.55	9.2	41	48
	2.1	4.6	0.56	9.4	40	46
	2.1	4.6	0.56	9.4	40	46
U-15H 	1.0	3.4	0.30	4.9	52	60
	1.5	3.9	0.36	5.9	47	55
	2.0	4.5	0.42	6.9	41	48
	2.1	4.6	0.42	7.0	40	46
	2.1	4.6	0.42	7.0	40	46
U-15T 	1.0	3.4	0.20	3.3	52	60
	1.5	3.9	0.24	3.9	47	55
	2.0	4.5	0.28	4.6	41	48
	2.1	4.6	0.28	4.7	40	46
	2.1	4.6	0.28	4.7	40	46
U-15Q 	1.0	3.4	0.15	2.5	52	60
	1.5	3.9	0.18	2.9	47	55
	2.0	4.5	0.21	3.4	41	48
	2.1	4.6	0.21	3.5	40	46
	2.1	4.6	0.21	3.5	40	46

Note: All U-Series nozzles tested on 4" (10.2 cm) pop-ups

■ Square spacing based on 50% diameter of throw

▲ Triangular spacing based on 50% diameter of throw

Performance data taken in zero wind conditions

Radius refers to recommended product spacing. Actual radii along arc may vary



U-Series nozzles offer better, more uniform water distribution. Water flowing from both orifices combines to form a continuous water stream. Eliminates gaps for more uniform coverage throughout the entire watering area

HE-VAN Series Nozzles*

High-Efficiency Variable Arc Spray Nozzles

NEW

- Easy arc adjustment from 0° to 360° with a simple twist of the center collar to increase or decrease arc setting
- ExactEdge™ takes the guesswork out of arc adjustment. As you turn the nozzle to the desired arc setting, you'll feel it lock into place for a clean, consistent edge every time
- Patent pending Flow Control Technology provides superior close-in watering and uniform coverage across the entire pattern

Features

- Thicker streams and large water droplets for greater wind resistance
- Matched precipitation rates with Rain Bird® MPR and U-Series Nozzles
- A strong top deflector to minimize nozzle damage due to normal wear and tear
- No special tools required
- Stainless steel adjustment screw to adjust flow and radius, up to a 25% reduction in radius
- Shipped with blue filter screens (0.02 x 0.02) to maintain precise radius adjustment and prevent clogging
- Fits on all Rain Bird® 1800® Series Spray Heads, UNI-Spray™ Series Spray Heads and Rain Bird Shrub Adapters

Rain Bird® HE-VAN Efficiency Ratings¹

- Rain Bird® HE-VAN Nozzles deliver an average DU_{LQ} of 70%, more than a 40% improvement over typical variable arc spray nozzles
- Rain Bird® HE-VAN Nozzles deliver a $SC \leq 1.6$, which is 35% lower than the typical variable arc spray nozzle

Operating Range

- Radius:²
 - HE-VAN-12: 9 to 12 feet (2,7 to 3,7 m)
 - HE-VAN-15: 11 to 15 feet (3,4 to 4,6 m)
- Pressure: 15 to 30 psi (1.0 to 2.1 bar)
- Optimum pressure: 30 psi (2.1 bar)³

Models

- HE-VAN-12
- HE-VAN-15

* Currently only available in limited markets

¹ Distribution Uniformity (DU_{LQ}): DU in irrigation is a measure of how uniformly water is applied to the area being watered. DU_{LQ} is calculated by taking the volume in the lowest quarter of catch can measurements and dividing it by the average volume of all catch can measurements. Scheduling Coefficient (SC): SC is a measure of how long a zone must be run in order to provide adequate water to the driest spot.

² These ranges are based on proper pressure at nozzle

³ Rain Bird recommends using 1800 PRS Spray Bodies to maintain optimum nozzle performance in higher pressure situations



HE-VAN Series Nozzle



Spray Nozzles





How To Specify





1804 – PRS – HE-VAN-15





Model
1804: 4" (10.2 cm) pop-up height





Optional Feature
PRS: In-stem Pressure Regulation

Size
HE-VAN-15: High Efficiency VAN with variable arc

12 Series HE-VAN					
23° Trajectory					
Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
	15	9	1.67	1.99	2.30
	20	10	1.93	1.86	2.15
	25	11	2.16	1.72	1.99
	30	12	2.37	1.58	1.83
	15	9	1.25	1.99	2.30
	20	10	1.45	1.86	2.15
	25	11	1.62	1.72	1.99
	30	12	1.77	1.58	1.83
	15	9	0.84	1.99	2.30
	20	10	0.97	1.86	2.15
	25	11	1.08	1.72	1.99
	30	12	1.18	1.58	1.83
	15	9	0.42	1.99	2.30
	20	10	0.48	1.86	2.15
	25	11	0.54	1.72	1.99
	30	12	0.59	1.58	1.83

12 Series HE-VAN						METRIC
23° Trajectory						
Nozzle	Pressure bar	Radius m	Flow m ³ /h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
	1.0	2.7	0.38	6.33	50.5	58.3
	1.4	3.0	0.44	7.31	47.3	54.6
	1.7	3.4	0.49	8.18	43.7	50.4
	2.1	3.7	0.54	8.96	40.2	46.4
	1.0	2.7	0.28	4.75	50.5	58.3
	1.4	3.0	0.33	5.48	47.3	54.6
	1.7	3.4	0.37	6.16	43.7	50.4
	2.1	3.7	0.40	6.72	40.2	46.4
	1.0	2.7	0.19	3.17	50.5	58.3
	1.4	3.0	0.22	3.66	47.3	54.6
	1.7	3.4	0.25	4.09	43.7	50.4
	2.1	3.7	0.27	4.48	40.2	46.4
	1.0	2.7	0.09	1.58	50.5	58.3
	1.4	3.0	0.11	1.83	47.3	54.6
	1.7	3.4	0.12	2.04	43.7	50.4
	2.1	3.7	0.13	2.24	40.2	46.4

15 Series HE-VAN					
25° Trajectory					
Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
	15	11	2.62	2.08	2.40
	20	12	3.02	2.02	2.33
	25	14	3.38	1.66	1.92
	30	15	3.70	1.58	1.83
	15	11	1.96	2.08	2.40
	20	12	2.27	2.02	2.33
	25	14	2.53	1.66	1.92
	30	15	2.78	1.58	1.83
	15	11	1.31	2.08	2.40
	20	12	1.51	2.02	2.33
	25	14	1.69	1.66	1.92
	30	15	1.85	1.58	1.83
	15	11	0.65	2.08	2.40
	20	12	0.76	2.02	2.33
	25	14	0.84	1.66	1.92
	30	15	0.93	1.58	1.83

15 Series HE-VAN						METRIC
25° Trajectory						
Nozzle	Pressure bar	Radius m	Flow m ³ /h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
	1.0	3.4	0.59	9.91	52.9	61.1
	1.4	3.7	0.69	11.44	51.3	59.3
	1.7	4.3	0.77	12.79	42.2	48.7
	2.1	4.6	0.84	14.01	40.2	46.5
	1.0	3.4	0.45	7.43	52.9	61.1
	1.4	3.7	0.51	8.58	51.3	59.3
	1.7	4.3	0.58	9.59	42.2	48.7
	2.1	4.6	0.63	10.51	40.2	46.5
	1.0	3.4	0.30	4.95	52.9	61.1
	1.4	3.7	0.34	5.72	51.3	59.3
	1.7	4.3	0.38	6.39	42.2	48.7
	2.1	4.6	0.42	7.00	40.2	46.5
	1.0	3.4	0.15	2.48	52.9	61.1
	1.4	3.7	0.17	2.86	51.3	59.3
	1.7	4.3	0.19	3.20	42.2	48.7
	2.1	4.6	0.21	3.50	40.2	46.5

Note: Turning the radius reduction screw may be required to achieve catalog radius and flow when the arc is set at less than maximum arc

- Square spacing based on 50% diameter of throw
- ▲ Triangular spacing based on 50% diameter of throw

Performance data taken in zero wind conditions

VAN Series Nozzles

Variable Arc Nozzles

- Easy arc adjustment from 0° to 360° for 10, 12, 15 and 18-VAN; 0° to 330° for 4, 6 and 8-VAN
- Simple twist of the center collar increases or decreases arc setting
- 12, 15, and 18-VAN have matched precipitation rates with Rain Bird MPR Nozzles

Features

- Captured screw slot prevents screwdriver strippage
- No special tools required
- Stainless steel adjustment screw to adjust flow and radius
- Tactile left edge indicator
- Ideal for watering odd-shaped areas
- Shipped with blue filter screen (0.02" x 0.02") to maintain precise radius adjustment and prevent clogging

Operating Range

- Radius: *
 - 4-VAN: 3 to 4 feet (0.9 to 1.2 m)
 - 6-VAN: 4 to 6 feet (1.2 to 1.8 m)
 - 8-VAN: 6 to 8 feet (1.8 to 2.4 m)
 - 10-VAN: 8 to 10 feet (2.4 to 3.0 m)
 - 12-VAN: 10 to 12 feet (3.0 to 3.7 m)
 - 15-VAN: 12 to 15 feet (3.7 to 4.6 m)
 - 18-VAN: 14 to 18 feet (4.3 to 5.5 m)
- Pressure: 15 to 30 psi (1.0 to 2.1 bar)
- Optimum pressure: 30 psi (2.1 bar)**

* These ranges are based on proper pressure at nozzle
** Rain Bird recommends using 1800 PRS Spray Bodies to maintain optimum nozzle performance in higher pressure situations

Models

- 4-VAN
- 6-VAN
- 8-VAN
- 10-VAN
- 12-VAN
- 15-VAN
- 18-VAN







VAN Series Nozzle



Easy to Adjust

4 Series VAN





0° Trajectory

Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
330° Arc 	15	3	0.62	7.23	8.35
	20	3	0.70	8.17	9.43
	25	4	0.80	5.25	6.06
	30	4	0.88	5.78	6.67
270° Arc 	15	3	0.52	7.42	8.57
	20	3	0.58	8.27	9.55
	25	4	0.66	5.29	6.11
	30	4	0.73	5.86	6.77
180° Arc 	15	3	0.32	6.84	7.90
	20	3	0.37	7.91	9.13
	25	4	0.41	4.93	5.69
	30	4	0.45	5.41	6.25
90° Arc 	15	3	0.21	8.98	10.37
	20	3	0.24	10.27	11.86
	25	4	0.26	6.26	7.23
	30	4	0.29	6.98	8.06

4 Series VAN

METRIC





0° Trajectory





Nozzle	Pressure bar	Radius m	Flow m ³ /h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
330° Arc 	1.0	0.9	0.14	2.3	189	218
	1.5	1.0	0.17	2.8	183	215
	2.0	1.2	0.20	3.3	152	176
	2.1	1.2	0.20	3.3	152	176
270° Arc 	1.0	0.9	0.12	2.0	198	229
	1.5	1.0	0.14	2.3	187	216
	2.0	1.2	0.16	2.7	148	171
	2.1	1.2	0.17	2.8	157	181
180° Arc 	1.0	0.9	0.07	1.2	173	200
	1.5	1.0	0.09	1.5	180	208
	2.0	1.2	0.10	1.7	139	161
	2.1	1.2	0.10	1.7	139	161
90° Arc 	1.0	0.9	0.05	0.8	247	285
	1.5	1.0	0.06	0.9	240	277
	2.0	1.2	0.06	1.1	167	193
	2.1	1.2	0.07	1.1	194	224





Note: Turning the radius reduction screw may be required to achieve catalog radius and flow when the arc is set at less than maximum arc





- Square spacing based on 50% diameter of throw
- ▲ Triangular spacing based on 50% diameter of throw

Performance data taken in zero wind conditions

6 Series VAN					
0° Trajectory					
Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
 330° Arc	15	4	0.85	5.58	6.44
	20	5	0.96	4.03	4.65
	25	5	1.09	4.58	5.29
	30	6	1.20	3.50	4.04
 270° Arc	15	4	0.79	6.34	7.32
	20	5	0.88	4.52	5.22
	25	5	1.00	5.13	5.92
	30	6	1.10	3.92	4.53
 180° Arc	15	4	0.42	5.05	5.83
	20	5	0.49	3.77	4.35
	25	5	0.55	4.24	4.90
	30	6	0.60	3.21	3.71
 90° Arc	15	4	0.26	6.26	7.23
	20	5	0.30	4.62	5.33
	25	5	0.34	5.24	6.05
	30	6	0.37	3.96	4.57

6 Series VAN					METRIC	
0° Trajectory						
Nozzle	Pressure bar	Radius m	Flow m ³ /h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
 330° Arc	1.0	1.2	0.19	3.2	144	166
	1.5	1.5	0.23	3.8	112	129
	2.0	1.8	0.27	4.5	91	105
	2.1	1.8	0.27	4.5	91	105
	2.1	1.8	0.27	4.5	91	105
 270° Arc	1.0	1.2	0.18	3.0	167	193
	1.5	1.5	0.21	3.5	124	143
	2.0	1.8	0.24	4.1	99	114
	2.1	1.8	0.25	4.2	103	119
	2.1	1.8	0.25	4.2	103	119
 180° Arc	1.0	1.2	0.10	1.6	139	161
	1.5	1.5	0.11	1.9	98	113
	2.0	1.8	0.13	2.2	80	92
	2.1	1.8	0.14	2.3	86	99
	2.1	1.8	0.14	2.3	86	99
 90° Arc	1.0	1.2	0.06	1.0	167	193
	1.5	1.5	0.07	1.2	124	143
	2.0	1.8	0.08	1.4	99	114
	2.1	1.8	0.08	1.4	99	114
	2.1	1.8	0.08	1.4	99	114





8 Series VAN					
5° Trajectory					
Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
 330° Arc	15	6	1.21	3.53	4.07
	20	7	1.36	2.91	3.36
	25	7	1.55	3.32	3.83
	30	8	1.70	2.79	3.22
 270° Arc	15	6	1.11	3.95	4.55
	20	7	1.24	3.24	3.74
	25	7	1.41	3.69	4.25
	30	8	1.55	3.10	3.58
 180° Arc	15	6	0.84	4.49	5.18
	20	7	0.97	3.81	4.40
	25	7	1.09	4.28	4.94
	30	8	1.19	3.58	4.13
 90° Arc	15	6	0.51	5.46	6.29
	20	7	0.59	4.64	5.35
	25	7	0.66	5.19	5.98
	30	8	0.72	4.33	5.00





8 Series VAN					METRIC	
5° Trajectory						
Nozzle	Pressure bar	Radius m	Flow m ³ /h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
 330° Arc	1.0	1.8	0.27	4.6	91	105
	1.5	2.1	0.32	5.4	79	91
	2.0	2.3	0.38	6.3	78	90
	2.1	2.4	0.39	6.4	74	86
	2.1	2.4	0.39	6.4	74	86
 270° Arc	1.0	1.8	0.25	4.2	103	119
	1.5	2.1	0.30	4.9	91	105
	2.0	2.3	0.34	5.8	86	99
	2.1	2.4	0.35	5.9	81	94
	2.1	2.4	0.35	5.9	81	94
 180° Arc	1.0	1.8	0.19	3.2	117	135
	1.5	2.1	0.23	3.8	104	120
	2.0	2.3	0.26	4.4	98	113
	2.1	2.4	0.27	4.5	94	109
	2.1	2.4	0.27	4.5	94	109
 90° Arc	1.0	1.8	0.12	1.9	148	171
	1.5	2.1	0.14	2.3	127	147
	2.0	2.3	0.16	2.7	121	140
	2.1	2.4	0.16	2.7	111	128
	2.1	2.4	0.16	2.7	111	128





Note: Turning the radius reduction screw may be required to achieve catalog radius and flow when the arc is set at less than maximum arc





- Square spacing based on 50% diameter of throw
- ▲ Triangular spacing based on 50% diameter of throw

Performance data taken in zero wind conditions

10 Series VAN					
10° Trajectory					
Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
360° Arc 	15	7	1.93	3.80	4.39
	20	8	2.32	3.50	4.04
	25	9	2.52	3.00	3.46
	30	10	2.60	2.50	2.89
270° Arc 	15	7	1.45	3.80	4.39
	20	8	1.75	3.50	4.04
	25	9	1.89	3.00	3.46
	30	10	2.10	2.70	3.12
180° Arc 	15	7	0.97	3.80	4.39
	20	8	1.20	3.50	4.04
	25	9	1.26	3.00	3.46
	30	10	1.45	2.80	3.23
90° Arc 	15	7	0.48	3.80	4.39
	20	8	0.58	3.50	4.04
	25	9	0.63	3.00	3.46
	30	10	0.75	2.90	3.35

10 Series VAN						METRIC
10° Trajectory						
Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
360° Arc 	1.0	2.1	0.44	7.3	96	111
	1.5	2.4	0.53	9.0	89	103
	2.0	2.7	0.57	9.8	76	88
	2.1	3.1	0.59	9.8	63	73
270° Arc 	1.0	2.1	0.33	5.5	96	111
	1.5	2.4	0.4	6.8	89	103
	2.0	2.7	0.43	7.8	76	88
	2.1	3.1	0.48	7.9	68	79
180° Arc 	1.0	2.1	0.22	3.7	96	111
	1.5	2.4	0.27	4.6	89	103
	2.0	2.7	0.29	5.3	76	88
	2.1	3.1	0.33	5.5	71	82
90° Arc 	1.0	2.1	0.11	1.8	96	111
	1.5	2.4	0.13	2.3	89	103
	2.0	2.7	0.14	2.7	76	88
	2.1	3.1	0.17	2.8	73	85

12 Series VAN					
15° Trajectory					
Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
360° Arc 	15	9	1.56	1.86	2.14
	20	10	1.86	1.79	2.06
	25	11	2.12	1.68	1.95
	30	12	2.36	1.58	1.82
270° Arc 	15	9	1.17	1.86	2.14
	20	10	1.39	1.79	2.06
	25	11	1.59	1.68	1.94
	30	12	1.77	1.58	1.82
180° Arc 	15	9	0.78	1.86	2.14
	20	10	0.93	1.79	2.06
	25	11	1.06	1.68	1.95
	30	12	1.18	1.58	1.82
90° Arc 	15	9	0.39	1.86	2.14
	20	10	0.46	1.79	2.06
	25	11	0.53	1.68	1.95
	30	12	0.59	1.58	1.82





12 Series VAN						METRIC
15° Trajectory						
Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
360° Arc 	1.0	2.7	0.35	5.80	48	55
	1.5	3.2	0.44	7.37	43	50
	2.0	3.6	0.52	8.75	41	47
	2.1	3.7	0.54	9.02	40	46
270° Arc 	1.0	2.7	0.26	4.35	48	55
	1.5	3.2	0.33	5.53	43	50
	2.0	3.6	0.39	6.56	41	47
	2.1	3.7	0.41	6.76	40	46
180° Arc 	1.0	2.7	0.17	2.90	48	55
	1.5	3.2	0.22	3.69	43	50
	2.0	3.6	0.26	4.37	41	47
	2.1	3.7	0.27	4.51	40	46
90° Arc 	1.0	2.7	0.09	1.45	48	55
	1.5	3.2	0.11	1.84	43	50
	2.0	3.6	0.13	2.19	41	47
	2.1	3.7	0.14	2.25	40	46





Note: Turning the radius reduction screw may be required to achieve catalog radius and flow when the arc is set at less than maximum arc





■ Square spacing based on 50% diameter of throw





▲ Triangular spacing based on 50% diameter of throw

Performance data taken in zero wind conditions

15 Series VAN					
23° Trajectory					
Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
	15	11	2.60	2.07	2.39
	20	12	3.00	2.01	2.32
	25	14	3.30	1.62	1.87
	30	15	3.70	1.58	1.83
	15	11	1.95	2.07	2.39
	20	12	2.25	2.01	2.32
	25	14	2.48	1.62	1.87
	30	15	2.78	1.58	1.83
	15	11	1.30	2.07	2.39
	20	12	1.50	2.01	2.32
	25	14	1.65	1.62	1.87
	30	15	1.85	1.58	1.83
	15	11	0.65	2.07	2.39
	20	12	0.75	2.01	2.32
	25	14	0.82	1.62	1.87
	30	15	0.92	1.58	1.83

15 Series VAN					METRIC	
23° Trajectory						
Nozzle	Pressure bar	Radius m	Flow m ³ /h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
	1.0	3.4	0.60	9.8	52	60
	1.5	3.9	0.72	11.8	47	55
	2.0	4.5	0.84	13.7	41	48
	2.1	4.6	0.84	14.0	40	46
	2.1	4.6	0.84	14.0	40	46
	1.0	3.4	0.45	7.4	52	60
	1.5	3.9	0.54	8.8	47	55
	2.0	4.5	0.63	10.3	41	48
	2.1	4.6	0.63	10.5	40	46
	2.1	4.6	0.63	10.5	40	46
	1.0	3.4	0.30	4.9	52	60
	1.5	3.9	0.36	5.9	47	55
	2.0	4.5	0.42	6.9	41	48
	2.1	4.6	0.42	7.0	40	46
	2.1	4.6	0.42	7.0	40	46
	1.0	3.4	0.15	2.5	52	60
	1.5	3.9	0.18	2.9	47	55
	2.0	4.5	0.21	3.4	41	48
	2.1	4.6	0.21	3.5	40	46
	2.1	4.6	0.21	3.5	40	46

18 Series VAN					
26° Trajectory					
Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
	15	14	4.21	2.07	2.39
	20	15	4.70	2.01	2.32
	25	17	4.86	1.62	1.87
	30	18	5.32	1.58	1.83
	15	14	3.16	2.07	2.39
	20	15	3.52	2.01	2.32
	25	17	3.65	1.62	1.87
	30	18	3.99	1.58	1.83
	15	14	2.11	2.07	2.39
	20	15	2.35	2.01	2.32
	25	17	2.43	1.62	1.87
	30	18	2.66	1.58	1.83
	15	14	1.05	2.07	2.39
	20	15	1.17	2.01	2.32
	25	17	1.22	1.62	1.87
	30	18	1.33	1.58	1.83

18 Series VAN					METRIC	
26° Trajectory						
Nozzle	Pressure bar	Radius m	Flow m ³ /h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
	1.0	4.3	0.96	15.9	52	60
	1.5	4.8	1.07	18.0	47	55
	2.0	5.4	1.20	19.8	41	48
	2.1	5.5	1.21	20.1	40	46
	2.1	5.5	1.21	20.1	40	46
	1.0	4.3	0.72	12.0	52	60
	1.5	4.8	0.80	13.5	47	55
	2.0	5.4	0.90	14.8	41	48
	2.1	5.5	0.91	15.1	40	46
	2.1	5.5	0.91	15.1	40	46
	1.0	4.3	0.48	8.0	52	60
	1.5	4.8	0.54	9.0	47	55
	2.0	5.4	0.60	9.9	41	48
	2.1	5.5	0.61	10.1	40	46
	2.1	5.5	0.61	10.1	40	46
	1.0	4.3	0.24	4.0	52	60
	1.5	4.8	0.27	4.5	47	55
	2.0	5.4	0.30	5.0	41	48
	2.1	5.5	0.30	5.0	40	46
	2.1	5.5	0.30	5.0	40	46

Note: Turning the radius reduction screw may be required to achieve catalog radius and flow when the arc is set at less than maximum arc

■ Square spacing based on 50% diameter of throw

▲ Triangular spacing based on 50% diameter of throw

Performance data taken in zero wind conditions

Plastic MPR Nozzles

Matched Precipitation Rate Nozzles

- Matched precipitation rates across sets and across patterns in 5 Series, 8 Series, 10 Series, 12 Series, and 15 Series for even water distribution and design flexibility
- 5 Series nozzles meet small-area shrub or turf requirements
- 8 Series nozzles now have a lower water flow, which allows more spray heads per zone

Features

- 1800° Series white filter (0.035" x 0.035") screens (shipped with nozzles) maintain precise radius adjustment and prevent clogging (5 and 8 Series nozzles are shipped with blue fine-mesh (0.02" x 0.02") filter screens)
- Stainless steel adjustment screw to adjust flow and radius

Operating Range

- Spacing: 3 to 20 feet (0.9 to 4.6 m)
- Pressure: 15 to 30 psi (1 to 2.1 bar)
- Optimum pressure: 30 psi (2.1 bar)*

* Rain Bird recommends using 1800 PRS Spray Bodies to maintain optimum nozzle performance in higher pressure situations

Models

- 5 Series
- 5 Series: Bubbler Nozzles
- 8 Series
- 8 FLT Series: Designed for lower trajectory applications, such as windy areas
- 10 Series
- 12 Series
- 15 Series
- 15 Strip Series



MPR Nozzle and Screen



Rain Bird® MPR Nozzles,
The Industry Standard




Re-Sealable Nozzle Packaging




Features





- Convenient re-sealable bags
- Tamper proof seal
- Hanging holes for easy display







Re-Sealable Nozzle Packaging

5 Series MPR					
5° Trajectory					
Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
5F 	15	3	0.29	2.07	2.39
	20	4	0.33	2.01	2.32
	25	4	0.37	1.62	1.87
	30	5	0.41	1.58	1.83
5H 	15	3	0.14	2.07	2.39
	20	4	0.16	2.01	2.32
	25	4	0.18	1.62	1.87
	30	5	0.20	1.58	1.83
5Q 	15	3	0.07	2.07	2.39
	20	4	0.08	2.01	2.32
	25	4	0.09	1.62	1.87
	30	5	0.10	1.58	1.83





5 Series MPR						METRIC	
5° Trajectory							
Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h	
5F 	1.0	1.1	0.06	1.1	52	60	
	1.5	1.3	0.08	1.4	47	55	
	2.0	1.5	0.09	1.6	41	48	
	2.1	1.5	0.09	1.6	40	46	
5H 	1.0	1.1	0.03	0.5	52	60	
	1.5	1.3	0.04	0.7	47	55	
	2.0	1.5	0.04	0.7	41	48	
	2.1	1.5	0.05	0.9	40	46	
5Q 	1.0	1.1	0.02	0.4	52	60	
	1.5	1.3	0.02	0.4	47	55	
	2.0	1.5	0.02	0.4	41	48	
	2.1	1.5	0.02	0.4	40	46	





8 Series MPR					
10° Trajectory					
Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
8F 	15	5	0.74	1.11	1.29
	20	6	0.86	1.29	1.49
	25	7	0.96	1.44	1.67
	30	8	1.05	1.58	1.82
8H 	15	5	0.37	1.11	1.29
	20	6	0.42	1.26	1.46
	25	7	0.47	1.41	1.63
	30	8	0.52	1.56	1.81
8T 	15	5	0.25	1.13	1.30
	20	6	0.29	1.31	1.51
	25	7	0.32	1.44	1.67
	30	8	0.35	1.58	1.82
8Q 	15	5	0.18	1.08	1.25
	20	6	0.21	1.26	1.46
	25	7	0.24	1.44	1.67
	30	8	0.26	1.56	1.81






8 Series MPR						METRIC	
10° Trajectory							
Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h	
8F 	1.0	1.7	0.16	2.8	28.28	32.66	
	1.5	2.1	0.20	3.4	32.87	37.95	
	2.0	2.4	0.23	3.9	36.69	42.37	
	2.1	2.4	0.24	4.0	40.13	46.34	
8H 	1.0	1.7	0.08	1.4	28.28	32.66	
	1.5	2.1	0.10	1.7	32.10	37.07	
	2.0	2.4	0.12	1.9	35.93	41.48	
	2.1	2.4	0.12	2.0	39.75	45.90	
8T 	1.0	1.7	0.05	1.0	28.66	33.10	
	1.5	2.1	0.07	1.1	33.25	38.40	
	2.0	2.4	0.08	1.3	36.69	42.37	
	2.1	2.4	0.08	1.3	40.13	46.34	
8Q 	1.0	1.7	0.04	0.7	27.52	31.78	
	1.5	2.1	0.05	0.8	32.10	37.07	
	2.0	2.4	0.06	1.0	36.69	42.37	
	2.1	2.4	0.06	1.0	39.75	45.90	






Note: All MPR nozzles tested on 4" (10.2 cm) pop-ups
 ■ Square spacing based on 50% diameter of throw
 ▲ Triangular spacing based on 50% diameter of throw
 Performance data taken in zero wind conditions

Note: Specify spray body and nozzles separately.
Note: Radius reduction over 25% of the normal throw of the nozzle is not recommended

10 Series MPR						
15° Trajectory						
Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h	
10F 	15	7	1.16	2.28	2.63	
	20	8	1.30	1.96	2.26	
	25	9	1.44	1.71	1.98	
	30	10	1.58	1.52	1.75	
10H 	15	7	0.58	2.28	2.63	
	20	8	0.65	1.96	2.26	
	25	9	0.72	1.71	1.98	
	30	10	0.79	1.52	1.75	
10T 	15	7	0.39	2.28	2.63	
	20	8	0.43	1.96	2.26	
	25	9	0.48	1.71	1.98	
	30	10	0.53	1.52	1.75	
10Q 	15	7	0.29	2.28	2.63	
	20	8	0.33	1.96	2.26	
	25	9	0.36	1.71	1.98	
	30	10	0.39	1.52	1.75	






10 Series MPR							METRIC
15° Trajectory							
Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h	
10F 	1.0	2.1	0.26	4.2	58	67	
	1.5	2.4	0.29	4.8	50	58	
	2.0	3.0	0.35	6.0	39	45	
	2.1	3.1	0.36	6.0	37	43	
10H 	1.0	2.1	0.13	2.4	58	67	
	1.5	2.4	0.14	2.4	50	58	
	2.0	3.0	0.18	3.0	39	45	
	2.1	3.1	0.18	3.0	37	43	
10T 	1.0	2.1	0.09	1.2	58	67	
	1.5	2.4	0.10	1.8	50	58	
	2.0	3.0	0.12	1.8	39	45	
	2.1	3.1	0.12	1.8	37	43	
10Q 	1.0	2.1	0.06	1.2	58	67	
	1.5	2.4	0.07	1.2	50	58	
	2.0	3.0	0.09	1.2	39	45	
	2.1	3.1	0.09	1.2	37	43	

12 Series MPR						
30° Trajectory						
Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h	
12F 	15	9	1.80	2.14	2.47	
	20	10	2.10	2.02	2.34	
	25	11	2.40	1.91	2.21	
	30	12	2.60	1.74	2.01	
12TQ 	15	9	1.35	2.14	2.47	
	20	10	1.58	2.02	2.34	
	25	11	1.80	1.91	2.21	
	30	12	1.95	1.74	2.01	
12H 	15	9	0.90	2.14	2.47	
	20	10	1.05	2.02	2.34	
	25	11	1.20	1.91	2.21	
	30	12	1.30	1.74	2.01	
12T 	15	9	0.60	2.14	2.47	
	20	10	0.70	2.02	2.34	
	25	11	0.80	1.91	2.21	
	30	12	0.87	1.74	2.01	
12Q 	15	9	0.45	2.14	2.47	
	20	10	0.53	2.02	2.34	
	25	11	0.60	1.91	2.21	
	30	12	0.65	1.74	2.01	






12 Series MPR							METRIC
30° Trajectory							
Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h	
12F 	1.0	2.7	0.40	6.8	55	63	
	1.5	3.2	0.48	8.3	47	54	
	2.0	3.6	0.59	9.7	46	53	
	2.1	3.7	0.60	9.8	44	51	
12TQ 	1.0	2.7	0.30	5.1	55	63	
	1.5	3.2	0.36	6.3	47	54	
	2.0	3.6	0.45	7.3	46	53	
	2.1	3.7	0.45	7.4	44	51	
12H 	1.0	2.7	0.20	3.4	55	63	
	1.5	3.2	0.24	4.2	47	54	
	2.0	3.6	0.30	4.9	46	53	
	2.1	3.7	0.30	4.9	44	51	
12T 	1.0	2.7	0.13	2.3	55	63	
	1.5	3.2	0.16	2.8	47	54	
	2.0	3.6	0.20	3.2	46	53	
	2.1	3.7	0.20	3.3	44	51	
12Q 	1.0	2.7	0.10	1.7	55	63	
	1.5	3.2	0.12	2.1	47	54	
	2.0	3.6	0.15	2.4	46	53	
	2.1	3.7	0.15	2.5	44	51	

Note: All MPR nozzles tested on 4" (10.2 cm) pop-ups
 ■ Square spacing based on 50% diameter of throw
 ▲ Triangular spacing based on 50% diameter of throw
 Performance data taken in zero wind conditions





Spray Nozzles

15 Series MPR					
30° Trajectory					
Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
15F 	15	11	2.60	2.07	2.39
	20	12	3.00	2.01	2.32
	25	14	3.30	1.62	1.87
	30	15	3.70	1.58	1.83
15TQ 	15	11	1.95	2.07	2.39
	20	12	2.25	2.01	2.32
	25	14	2.48	1.62	1.87
	30	15	2.78	1.58	1.83
15H 	15	11	1.30	2.07	2.39
	20	12	1.50	2.01	2.32
	25	14	1.65	1.62	1.87
	30	15	1.85	1.58	1.83
15T 	15	11	0.87	2.07	2.39
	20	12	1.00	2.01	2.32
	25	14	1.10	1.62	1.87
	30	15	1.23	1.58	1.83
15Q 	15	11	0.65	2.07	2.39
	20	12	0.75	2.01	2.32
	25	14	0.82	1.62	1.87
	30	15	0.92	1.58	1.83





Note: All MPR nozzles tested on 4" (10.2 cm) pop-ups
 ■ Square spacing based on 50% diameter of throw
 ▲ Triangular spacing based on 50% diameter of throw
 Performance data taken in zero wind conditions







15 Series MPR					METRIC	
30° Trajectory						
Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
15F 	1.0	3.4	0.60	9.8	52	60
	1.5	3.9	0.72	11.8	47	55
	2.0	4.5	0.84	13.7	41	48
	2.1	4.6	0.84	14.0	40	46
	2.1	4.6	0.84	14.0	40	46
15TQ 	1.0	3.4	0.45	7.4	52	60
	1.5	3.9	0.54	8.8	47	55
	2.0	4.5	0.63	10.3	41	48
	2.1	4.6	0.63	10.5	40	46
	2.1	4.6	0.63	10.5	40	46
15H 	1.0	3.4	0.30	4.9	52	60
	1.5	3.9	0.36	5.9	47	55
	2.0	4.5	0.42	6.8	41	48
	2.1	4.6	0.42	7.0	40	46
	2.1	4.6	0.42	7.0	40	46
15T 	1.0	3.4	0.20	3.3	52	60
	1.5	3.9	0.24	3.9	47	55
	2.0	4.5	0.28	4.6	41	48
	2.1	4.6	0.28	4.7	40	46
	2.1	4.6	0.28	4.7	40	46
15Q 	1.0	3.4	0.15	2.5	52	60
	1.5	3.9	0.18	2.9	47	55
	2.0	4.5	0.21	3.4	41	48
	2.1	4.6	0.21	3.5	40	46
	2.1	4.6	0.21	3.5	40	46

Note: Specify spray body and nozzles separately.
Note: Radius reduction over 25% of the normal throw of the nozzle is not recommended

5 Series MPR Stream Bubbler Nozzles			
0° Trajectory			
Nozzle	Pressure psi	Radius ft.	Flow gpm
5F-B 	15	5	1.50
	20	5	1.50
	25	5	1.50
	30	5	1.50
5H-B 	15	5	1.00
	20	5	1.00
	25	5	1.00
	30	5	1.00
5Q-B 	15	5	0.50
	20	5	0.50
	25	5	0.50
	30	5	0.50
5CST-B 	15	5	0.50
	20	5	0.50
	25	5	0.50
	30	5	0.50

Note: Indicates adjusted radius at psi shown
Note: Flow at adjusted radius of 5 feet (1.5 m)







5 Series MPR Stream Bubbler Nozzles				METRIC
0° Trajectory				
Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m
5F-B 	1.0	1.5	0.35	5.7
	1.5	1.5	0.35	5.7
	2.0	1.5	0.35	5.7
	2.1	1.5	0.35	5.7
5H-B 	1.0	1.5	0.23	3.8
	1.5	1.5	0.23	3.8
	2.0	1.5	0.23	3.8
	2.1	1.5	0.23	3.8
5Q-B 	1.0	1.5	0.12	1.9
	1.5	1.5	0.12	1.9
	2.0	1.5	0.12	1.9
	2.1	1.5	0.12	1.9
5CST-B 	1.0	1.5	0.12	1.9
	1.5	1.5	0.12	1.9
	2.0	1.5	0.12	1.9
	2.1	1.5	0.12	1.9

15 Strip Series			
30° Trajectory			
Nozzle	Pressure psi	W x L ft.	Flow gpm
	15	4 x 13	0.45
	20	4 x 14	0.50
	25	4 x 14	0.56
	30	4 x 15	0.61
	15	4 x 26	0.89
	20	4 x 28	1.00
	25	4 x 28	1.11
	30	4 x 30	1.21
	15	3 x 11	0.35
	20	3 x 12	0.40
	25	4 x 14	0.45
	30	4 x 15	0.49
	15	3 x 11	0.35
	20	3 x 12	0.40
	25	4 x 14	0.45
	30	4 x 15	0.49
	15	4 x 26	0.89
	20	4 x 28	1.00
	25	4 x 28	1.11
	30	4 x 30	1.21
	15	9 x 15	1.34
	20	9 x 16	1.47
	25	9 x 18	1.60
	30	9 x 18	1.73



W = Width of coverage pattern L = Length of coverage pattern

Note: Specify spray body and nozzles separately.

Note: Radius reduction over 25% of the normal throw of the nozzle is not recommended

15 Strip Series				METRIC
30° Trajectory				
Nozzle	Pressure bar	W x L m	Flow m ³ /h	Flow l/m
	1.0	1.2 x 4.0	0.10	1.7
	1.5	1.2 x 4.3	0.11	2.0
	2.0	1.2 x 4.3	0.13	2.3
	2.1	1.2 x 4.6	0.14	2.3
	1.0	1.2 x 7.9	0.20	3.4
	1.5	1.2 x 8.5	0.23	4.0
	2.0	1.2 x 8.5	0.25	4.5
	2.1	1.2 x 9.2	0.27	4.6
	1.0	0.8 x 3.2	0.08	1.3
	1.5	1.0 x 3.9	0.09	1.6
	2.0	1.2 x 4.5	0.11	1.8
	2.1	1.2 x 4.6	0.11	1.9
	1.0	0.8 x 3.2	0.08	1.3
	1.5	1.0 x 3.9	0.09	1.6
	2.0	1.2 x 4.5	0.11	1.8
	2.1	1.2 x 4.6	0.11	1.9
	1.0	1.2 x 7.9	0.20	3.4
	1.5	1.2 x 8.5	0.23	4.0
	2.0	1.2 x 8.5	0.25	4.5
	2.1	1.2 x 9.2	0.27	4.6
	1.0	2.7 x 4.6	0.30	5.1
	1.5	2.7 x 4.9	0.33	5.8
	2.0	2.7 x 5.5	0.36	6.5
	2.1	2.7 x 5.5	0.39	6.5

Performance data taken in zero wind conditions



8 FLT Series MPR					
5° Trajectory					
Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
	15	6	0.56	3.36	3.88
	20	7	0.65	2.91	3.36
	25	7	0.72	2.60	3.01
	30	8	0.79	2.38	2.75
	15	6	0.28	3.32	3.83
	20	7	0.32	2.87	3.32
	25	7	0.36	2.57	2.97
	30	8	0.39	2.35	2.71

Note: All MPR nozzles tested on 4" (10.2 cm) pop-ups

■ Square spacing based on 50% diameter of throw

▲ Triangular spacing based on 50% diameter of throw

Performance data taken in zero wind conditions

8 FLT Series MPR						METRIC
5° Trajectory						
Nozzle	Pressure bar	Radius m	Flow m ³ /h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
	1.0	1.7	0.12	2.1	87	101
	1.5	2.1	0.15	2.6	71	82
	2.0	2.4	0.18	2.9	62	71
	2.1	2.4	0.18	3.0	60	70
	1.0	1.7	0.06	1.1	86	100
	1.5	2.1	0.07	1.3	71	81
	2.0	2.4	0.09	1.4	61	71
	2.1	2.4	0.09	1.5	60	69

Note: Specify spray body and nozzles separately.

Note: Radius reduction over 25% of the normal throw of the nozzle is not recommended

SQ Series, Square Pattern Nozzles (formerly known as XPCN)

The Most Precise and Efficient, Low-Volume Spray Solution for Irrigation of Small Areas with Dense Plantings

- Square spray pattern and pressure compensation offer increased efficiency and control, reducing overspray, property damage and liability
- Unique edge to edge capabilities for non-turf applications reduces the number of nozzles needed, which decreases cost and dramatically reduces installation time
- Simplify design and installation with the flexibility of applications: one nozzle throws 2.5' or 4' (0.8 m or 1.2 m) and can be used on a variety of spray heads and risers
- Meets micro irrigation system requirement for less than 26 gph flow rate at 30 psi

Features

- Square spray pattern with edge-to-edge coverage allows you to easily design and install in small spaces
- Pressure compensation design delivers uniform flow over the pressure range
- Available in 3 models—quarter, half and full patterns with matched precipitation rate
 - Virtual no-mist performance from 20 psi to 50 psi
 - Two throw distances in each nozzle. One simple click adjusts to 2.5' or 4' (0.8 m or 1.2 m)
 - Shipped with blue filter screen (0.02" x 0.02") to maintain precise distance of flow, and to prevent clogging
- Compatible with all 1800 Sprays, Xeri-Pops, New PolyFlex Riser Adapter, UNI-Spray and SCH 80 risers

Operating Range

- Pressure: 20 to 50 psi (1.4 to 3.5 bar)
- Flow rates: 6, 12 and 24 gph (22.7, 45.4 and 90.8 l/h)
- Required filtration: 40 mesh

Models

- SQ QTR: SQ Nozzle, quarter pattern
- SQ HLF: SQ Nozzle, half pattern
- SQ FUL: SQ Nozzle, full pattern
- SQ ADP12: SQ Nozzle Adapter with 12" PolyFlex Riser
- SQ ADP24: SQ Nozzle Adapter with 24" PolyFlex Riser
- SQ ADP: SQ PolyFlex Riser Adapter only

* **Note:** A PA-8S Plastic Shrub Adapter (see page 19) is needed when using an SQ Series Nozzle mounted on a SCH 80 riser.



SQ Nozzle Installed on PolyFlex Riser with Nozzle Adapter



SQ Nozzles with Screens

One Nozzle...Two Throws

With a simple turn of the nozzle to the next preset stop, the Rain Bird SQ Nozzle adjusts from a 2.5' (0.8 m) throw to a 4' (1.2 m) throw. It's like having two nozzles in one.



Can be used on...

The SQ Nozzle is an ideal solution for a wide range of difficult-to-design areas, thanks to its compatibility with popular irrigation products.



1800® Series
Spray Heads




Xeri-Pop
Spray Heads




Polyflex
Risers




Schedule 80
Risers






SQ Series Nozzles provide a precise square wetting pattern and efficient water placement with pressure compensation – resulting in up to 65% water savings. They are great for narrow planting beds, parking lot islands, walkways, parkways, and street medians.

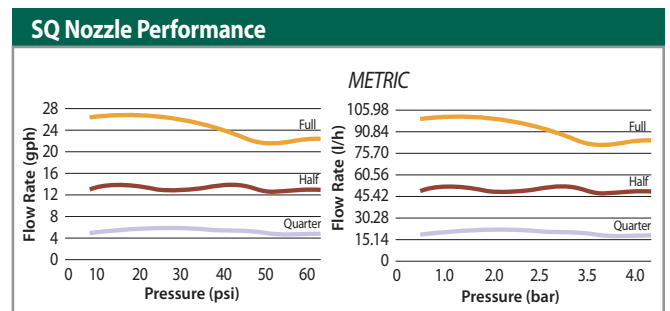
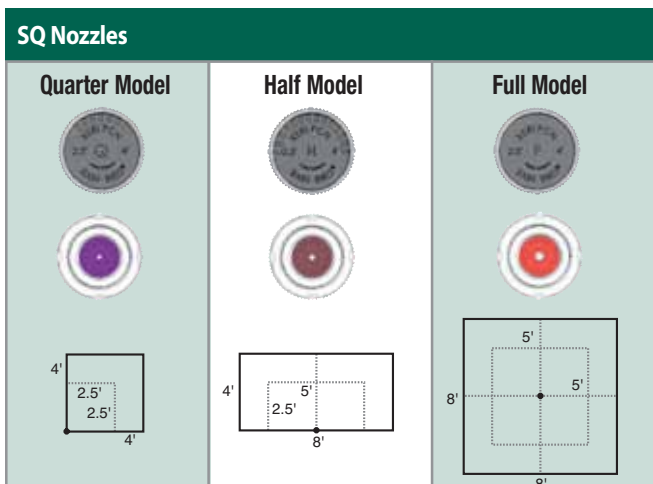
SQ Nozzle Performance					
2.5 feet throw @ 6" height above grade					
Nozzle	Pressure psi	Throw Radius ft.	Flow gph	Flow gpm	Precip. Rate w/no overlap in/h
Q 	20	2.5	6.4	0.11	1.64
	30	2.5	7.4	0.12	1.90
	40	3.0	7.4	0.12	1.32
	50	3.0	7.4	0.12	1.32
H 	20	2.5	10.2	0.17	1.31
	30	2.5	12.2	0.20	1.57
	40	3.0	13.7	0.23	1.22
	50	3.0	13.7	0.23	1.22
F 	20	2.5	20.0	0.33	1.28
	30	2.5	24.2	0.40	1.55
	40	3.0	27.3	0.46	1.22
	50	3.0	27.3	0.46	1.22

SQ Nozzle Performance					METRIC
0.8 m throw @ 0.15 m height above grade					
Nozzle	Throw Pressure bar	Radius m.	Flow lph	Flow lpm	Precip. Rate w/no overlap mm/h
Q 	1.4	0.8	24	0.40	42
	2.1	0.8	28	0.47	48
	2.8	0.9	28	0.47	34
	3.4	0.9	28	0.47	34
H 	1.4	0.8	39	0.65	33
	2.1	0.8	46	0.77	40
	2.8	0.9	52	0.87	31
	3.4	0.9	52	0.87	31
F 	1.4	0.8	76	1.27	33
	2.1	0.8	92	1.53	39
	2.8	0.9	103	1.72	31
	3.4	0.9	103	1.72	31

SQ Nozzle Performance					
4 feet throw @ 6" height above grade					
Nozzle	Pressure psi	Throw Radius ft.	Flow gph	Flow gpm	Precip. Rate w/no overlap in/h
Q 	20	4.0	6.4	0.11	0.64
	30	4.0	7.4	0.12	0.74
	40	4.5	7.4	0.12	0.59
	50	4.5	7.4	0.12	0.59
H 	20	4.0	10.2	0.17	0.51
	30	4.0	12.2	0.20	0.61
	40	4.5	13.7	0.23	0.54
	50	4.5	13.7	0.23	0.54
F 	20	4.0	20.0	0.33	0.50
	30	4.0	24.2	0.40	0.61
	40	4.5	27.3	0.46	0.54
	50	4.5	27.3	0.46	0.54

SQ Nozzle Performance					METRIC
1.2 m throw @ 0.15 m height above grade					
Nozzle	Throw Pressure bar	Radius m.	Flow lph	Flow lpm	Precip. Rate w/no overlap mm/h
Q 	1.4	1.2	24	0.40	16
	2.1	1.2	28	0.47	19
	2.8	1.4	28	0.47	15
	3.4	1.4	28	0.47	15
H 	1.4	1.2	39	0.65	13
	2.1	1.2	46	0.77	16
	2.8	1.4	52	0.87	14
	3.4	1.4	52	0.87	14
F 	1.4	1.2	76	1.27	13
	2.1	1.2	92	1.53	15
	2.8	1.4	103	1.72	14
	3.4	1.4	103	1.72	14

Performance data taken in zero wind conditions



1300A-F

Adjustable Full-Circle Bubbler

Features

- Fully adjustable flow
- Shipped with SR-050 1/2" (15/21) inlet filter screen for easy installation and resistance to debris
- Operates over a wide range of pressures
- Non-corrosive plastic and stainless steel construction for long life
- Five-year trade warranty

Operating Range

- Flow: 1.0 to 2.3 gpm (3.6 to 8.4 l/m)
- Spacing: 1 to 3 feet (0.3 to 0.9 m)
- Pressure: 10 to 60 psi (0.7 to 4.1 bar)

Dimensions

- Inlet: 1/2" (15/21) female threaded inlet
- Height: 1" (2.5 cm)
- Top diameter: 1" (2.5 cm)

Model

- 1300A-F

1300A-F		
Nozzle	Pressure psi	Flow gpm
F	10	1.0
	20	1.4
	30	1.7
	40	1.9
	50	2.1
	60	2.3

1300A-F METRIC			
Nozzle	Pressure bar	Radius m ³ /h	Flow l/m
F	0.7	0.23	3.6
	1.0	0.26	4.2
	1.5	0.30	4.8
	2.0	0.34	5.4
	2.5	0.39	6.0
	3.0	0.43	7.2
	3.5	0.48	7.8
	4.0	0.52	8.4
	4.1	0.53	8.4



1300A-F

1400 Series

Pressure Compensating Full-Circle Bubblers

Features

- Low flow rates allow water to be absorbed as needed. Reduces runoff
- Flow will not fluctuate at pressures between 20 and 90 psi (1.4 to 6.2 bar). Maintains even flow
- Flow is not adjustable, providing increased vandal resistance
- No adjustment required
- Corrosion-proof plastic and rubber construction for long life
- Five-year trade warranty
- Shipped with special SR-050 1/2" (15/21) bubbler filter screen for easy installation and resistance to debris
- Trickle pattern on models 1401 and 1402; umbrella pattern on models 1404 and 1408

Operating Range

- Flow: 0.25 to 2.00 gpm (1.2 to 7.2 l/m)
- Spacing: 1 to 3 feet (0.3 to 0.9 m)
- Pressure: 20 to 90 psi (1.4 to 6.2 bar)

Dimensions

- Inlet: 1/2" (15/21) female threaded inlet
- Height: 1" (2.5 cm)
- Top diameter: 1" (2.5 cm)

Models

- 1401: 0.25 gpm (0.06 m³/h; 0.9 l/m); full-circle, trickle pattern
- 1402: 0.50 gpm (0.11 m³/h; 1.8 l/m); full-circle, trickle pattern
- 1404: 1.00 gpm (0.23 m³/h; 3.6 l/m); full-circle, umbrella pattern
- 1408: 2.00 gpm (0.46 m³/h; 7.2 l/m); full-circle, umbrella pattern



1400 Series

Facts About Rain Bird's Commitment to Support Water Conservation Efforts

Rain Bird has hosted 12 Intelligent Use of Water™ Summits since 2004



- Summits convene water, environmental and green industry experts from around the world to discuss strategies and initiatives in outdoor water conservation
- Past Summit locations: California; Arizona; Washington, DC; France; Spain; Australia
- View past Summit proceedings (via video and PDFs) at: <http://www.rainbird.com/corporate/IUOW/summits.htm>

Rain Bird educates our industry and our communities on water conservation



- Rain Bird has published four white papers that examine the global water crisis and explore potential solutions
- White papers available for free at: <http://www.rainbird.com/corporate/IUOW/whitepapers.htm>
- Rain Bird has published two educational curricula for elementary students and their teachers on water conservation
- Curricula available for free at: <http://www.rainbird.com/corporate/IUOW/education.htm>

Rain Bird's Intelligent Use of Water Awards provide grants to promote outdoor water conservation



- The interactive grant program awards funds to water conservation and environmental sustainability projects that promote water conservation and green spaces in communities around the world.
- Visit <http://IUOWAwards.com> to learn more

Rain Bird presents The Intelligent Use of Water Film Competition



- Filmmakers and green industry professionals are invited to share their thoughts on responsible water use through the powerful medium of film
- The top short film submissions (1-10 minutes in length) are shown at a special screening event in LA
- Winners receive cash prizes
- To see past winning entries, go to: <http://www.iuowfilm.com>

Rain Bird sponsors National Public Gardens Day



- In partnership with the American Public Gardens Assoc. (APGA), Rain Bird seeks to raise awareness of the role botanic gardens, arboreta, conservatories and zoological gardens play as stewards of the environment
- National spokesperson Paul James (host of HGTV's Gardening by the Yard) conducts interviews with print, TV, radio and online outlets from across the country and hosts TV and radio public service announcements focusing on public gardens' educational activities in plant management and water conservation
- Celebrated the Friday before Mother's Day
- Visit <http://nationalpublicgardensday.org> to learn more