



TECH SPECS

Rotary Nozzles

0.60 in/hr precipitation rate from 13 to 24 feet

Designed to fit on Rain Bird® spray heads, Rotary Nozzles provide unsurpassed design flexibility and highly efficient water distribution from 13' to 24'.

Features

- Low precipitation rate – 0.60 in/hr (15,2 mm/hr) – reduces run-off and erosion.
- Multiple, rotating streams uniformly distribute water throughout the radius range.
- Matched precipitation rate across radii and pattern simplify the design process.
- Matched precipitation rate with Rain Bird 5000/5000 Plus MPR Rotor Nozzles allow MPR irrigation designs from 13' to 35'.
- With approximately 60% less flow than conventional spray nozzles, Rotary Nozzles allow more heads per zone, reducing overall system complexity and cost.
- Maintains highly efficient performance throughout the 20-55 psi pressure range, with no misting or fogging at high pressures.
- 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.
- Designed for use on Rain Bird spray heads.
- Three-year trade warranty.
- Color coded radius reduction plugs allow easy identification of fixed arc pattern

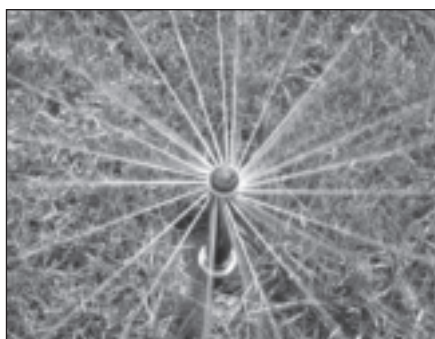
Pattern	Color
Quarter	Yellow
Third	Green
Half	Orange
Two Thirds	Grey
Three Quarters	Black
Full	Blue

Operating Range

- Pressure range: 20-55 psi (1,4 to 3,8 bars)
- Spacing: 13' to 24' (4,0 m to 7,3 m)

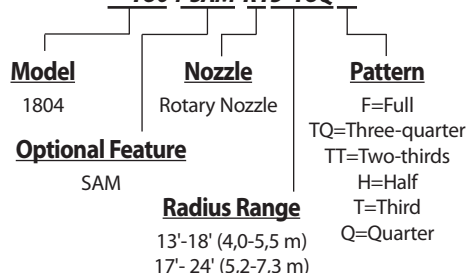
Models

- R13-18Q: 13' to 18' (4,0 m to 5,5 m) quarter-circle pattern nozzle
- R13-18T: 13' to 18' (4,0 m to 5,5 m) third-circle pattern nozzle
- R13-18H: 13' to 18' (4,0 m to 5,5 m) half-circle pattern nozzle
- R13-18TT: 13' to 18' (4,0 m to 5,5 m) two-thirds-circle pattern nozzle
- R13-18TQ: 13' to 18' (4,0 m to 5,5 m) three-quarter-circle pattern nozzle
- R13-18F: 13' to 18' (4,0 m to 5,5 m) full-circle pattern nozzle
- R17-24Q: 17' to 24' (5,2 m to 7,3 m) quarter-circle pattern nozzle
- R17-24T: 17' to 24' (5,2 m to 7,3 m) third-circle pattern nozzle
- R17-24H: 17' to 24' (5,2 m to 7,3 m) half-circle pattern nozzle
- R17-24TT: 17' to 24' (5,2 m to 7,3 m) two-thirds-circle pattern nozzle
- R17-24TQ: 17' to 24' (5,2 m to 7,3 m) three-quarter-circle pattern nozzle
- R17-24F: 17' to 24' (5,2 m to 7,3 m) full-circle pattern nozzle



How to Specify

1804-SAM-R13-18Q



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



R13-18 Series (Black)

Arc	Pressure psi	Radius ft.	Flow GPM	Precip In/h	Precip In/h
 Blue	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
 Black	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
 Grey	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
 Orange	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
 Green	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
 Yellow	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

R17-24 Series (Yellow)

Arc	Pressure psi	Radius ft.	Flow GPM	Precip In/h	Precip In/h
 Blue	R17-24F 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
 Black	R17-24TQ 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
	50	24	2.90	0.65	0.75
 Grey	R17-24TT 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
	50	24	2.58	0.65	0.75
 Orange	R17-24H 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
	50	24	1.94	0.65	0.75
 Green	R17-24T 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
	50	24	1.29	0.65	0.75
 Yellow	R17-24Q 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
	50	24	0.97	0.65	0.75

Note: Rotary Nozzles tested on 4" pop-ups. Performance data taken in zero wind conditions.

■ Square spacing based on 50% diameter of throw.

▲ Triangular spacing based on 50% diameter of throw.

Layout using square or triangular head-to-head (50%) spacing. Single row applications are not recommended.

Do not reduce radius below 13' on the R13-18 model and below 17' on the R17-24 model. Metric data on facing page.

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



R13-18 Series (Black)

METRIC						
Arc	Pressure bar	Radius m	Flow m ³ /h	Flow l/s	Precip mm/h	Precip mm/h
 Blue	R13-18F 1,4	4,0	0,29	0,08	19	22
	1,7	4,3	0,33	0,09	18	21
	2,1	4,8	0,36	0,10	15	18
	2,4	5,0	0,39	0,11	15	18
	2,8	5,2	0,42	0,12	15	18
	3,1	5,4	0,44	0,12	15	18
	3,4	5,5	0,47	0,13	15	18
	3,8	5,6	0,49	0,14	15	18
 Black	R13-18TQ 1,4	4,0	0,22	0,06	19	22
	1,7	4,3	0,25	0,07	18	21
	2,1	4,8	0,27	0,08	15	18
	2,4	5,0	0,29	0,08	15	18
	2,8	5,2	0,31	0,09	15	18
	3,1	5,4	0,33	0,09	15	18
	3,4	5,5	0,35	0,10	15	18
	3,8	5,6	0,37	0,10	15	18
 Grey	R13-18TT 1,4	4,0	0,20	0,05	19	22
	1,7	4,3	0,22	0,06	18	21
	2,1	4,8	0,24	0,07	15	18
	2,4	5,0	0,26	0,07	15	18
	2,8	5,2	0,28	0,08	15	18
	3,1	5,4	0,29	0,08	15	18
	3,4	5,5	0,31	0,09	15	18
	3,8	5,6	0,33	0,09	15	18
 Orange	R13-18H 1,4	4,0	0,15	0,04	19	22
	1,7	4,3	0,16	0,05	18	21
	2,1	4,8	0,18	0,05	15	18
	2,4	5,0	0,19	0,05	15	18
	2,8	5,2	0,21	0,06	15	18
	3,1	5,4	0,22	0,06	15	18
	3,4	5,5	0,23	0,06	15	18
	3,8	5,6	0,24	0,07	15	18
 Green	R13-18T 1,4	4,0	0,10	0,03	19	22
	1,7	4,3	0,11	0,03	18	21
	2,1	4,8	0,12	0,03	15	18
	2,4	5,0	0,13	0,04	15	18
	2,8	5,2	0,14	0,04	15	18
	3,1	5,4	0,15	0,04	15	18
	3,4	5,5	0,16	0,04	15	18
	3,8	5,6	0,16	0,05	15	18
 Yellow	R13-18Q 1,4	4,0	0,07	0,02	19	22
	1,7	4,3	0,08	0,02	18	21
	2,1	4,8	0,09	0,03	15	18
	2,4	5,0	0,10	0,03	15	18
	2,8	5,2	0,10	0,03	15	18
	3,1	5,4	0,11	0,03	15	18
	3,4	5,5	0,12	0,03	15	18
	3,8	5,6	0,12	0,03	15	18

R17-24 Series (Yellow)

METRIC						
Arc	Pressure bar	Radius m	Flow m ³ /h	Flow l/s	Precip mm/h	Precip mm/h
 Blue	R17-24F 1,4	5,2	0,55	0,15	20	23
	1,7	5,8	0,62	0,17	18	21
	2,1	6,4	0,68	0,19	16	19
	2,4	6,7	0,73	0,20	16	19
	2,8	6,9	0,78	0,22	16	19
	3,1	7,1	0,83	0,23	16	19
	3,4	7,3	0,87	0,24	16	19
	3,8	7,4	0,91	0,25	16	19
 Black	R17-24TQ 1,4	5,2	0,41	0,11	20	23
	1,7	5,8	0,46	0,13	18	21
	2,1	6,4	0,51	0,14	16	19
	2,4	6,7	0,55	0,15	16	19
	2,8	6,9	0,59	0,16	16	19
	3,1	7,1	0,62	0,17	16	19
	3,4	7,3	0,65	0,18	16	19
	3,8	7,4	0,69	0,19	16	19
 Grey	R17-24TT 1,4	5,2	0,37	0,10	20	23
	1,7	5,8	0,41	0,11	18	21
	2,1	6,4	0,45	0,13	16	19
	2,4	6,7	0,49	0,14	16	19
	2,8	6,9	0,52	0,14	16	19
	3,1	7,1	0,55	0,15	16	19
	3,4	7,3	0,58	0,16	16	19
	3,8	7,4	0,61	0,17	16	19
 Orange	R17-24H 1,4	5,2	0,28	0,08	20	23
	1,7	5,8	0,31	0,09	18	21
	2,1	6,4	0,34	0,09	16	19
	2,4	6,7	0,36	0,10	16	19
	2,8	6,9	0,39	0,11	16	19
	3,1	7,1	0,41	0,11	16	19
	3,4	7,3	0,44	0,12	16	19
	3,8	7,4	0,46	0,13	16	19
 Green	R17-24T 1,4	5,2	0,18	0,05	20	23
	1,7	5,8	0,21	0,06	18	21
	2,1	6,4	0,23	0,06	16	19
	2,4	6,7	0,24	0,07	16	19
	2,8	6,9	0,26	0,07	16	19
	3,1	7,1	0,28	0,08	16	19
	3,4	7,3	0,29	0,08	16	19
	3,8	7,4	0,30	0,08	16	19
 Yellow	R17-24Q 1,4	5,2	0,14	0,04	20	23
	1,7	5,8	0,15	0,04	18	21
	2,1	6,4	0,17	0,05	16	19
	2,4	6,7	0,18	0,05	16	19
	2,8	6,9	0,20	0,05	16	19
	3,1	7,1	0,21	0,06	16	19
	3,4	7,3	0,22	0,06	16	19
	3,8	7,4	0,23	0,06	16	19

Note: Rotary Nozzles tested on 4" pop-ups. Performance data taken in zero wind conditions.

■ Square spacing based on 50% diameter of throw.

▲ Triangular spacing based on 50% diameter of throw.

Layout using square or triangular head-to-head (50%) spacing. Single row applications are not recommended. Do not reduce radius below 4,0 m on the R13-18 model and below 5,2 m on the R17-24 model.

Installation on Rain Bird 1800'-SAM Spray Heads recommended in sandy environments.



Specifications

The Rotary Nozzle shall have a fixed arc of ____degrees (____circle) and shall be capable of covering a ____feet radius (FT.RAD.)/(meter) at ____pounds per square inch (psi)/(bars) with a discharge rate of ____gallons per minute, (GPM)/(m³/h,l/s). The angle of the trajectory shall vary from 1 to 30 degrees.

The Rotary Nozzle shall have multiple arced streams and have a matched precipitation rate of 0.60 in/hr.

The Rotary Nozzle shall be constructed of UV-resistant plastic. The radius adjustment screw shall be of stainless steel.

The Rotary Nozzles shall include a removable .02 x .02 mesh screen to protect the nozzle against clogging.

The Rotary Nozzle shall have a precipitation rate matched with Rain Bird 5000/5000 Plus MPR Rotor Nozzles.

The Rotary Nozzle shall be manufactured by Rain Bird Corp., Azusa, California.

The
Intelligent
Use of Water™

At Rain Bird, we believe it is our responsibility to develop products and technologies that use water efficiently. Our commitment also extends to education, training and services for our industry and our communities.

The need to conserve water has never been greater. We want to do even more, and with your help, we can. Visit www.rainbird.com for more information about The Intelligent Use of Water.™

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