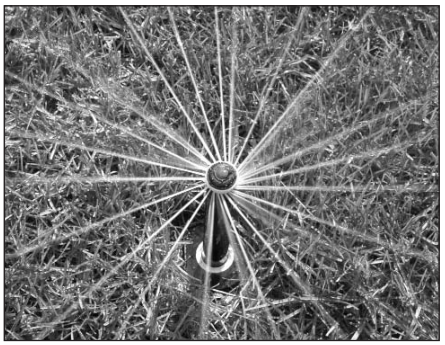
TECH SPECS

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.

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

Model
1804

Optional Feature
SAM

Nozzle
Rotary Nozzle

Radius Range
13'-18' (4,0-5,5 m)
17'- 24' (5,2-7,3 m)

Pattern
F=Full
TQ=Three-quarter
TT=Two-thirds
H=Half
T=Third
Q=Quarter

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 ▲
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

R17-24 Series (Yellow)

Arc	Pressure psi	Radius ft.	Flow GPM	Precip In/h ■	Precip In/h ▲
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
	55	24	4.06	0.65	0.75
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
	55	24	3.05	0.65	0.75
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
	55	24	2.71	0.65	0.75
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
	55	24	2.03	0.65	0.75
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
	55	24	1.35	0.65	0.75
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
	55	24	1.02	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 m3/h**	**Flow l/s**	**Precip mm/h**	**Precip mm/h**
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
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
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
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
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
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 m3/h**	**Flow l/s**	**Precip mm/h**	**Precip mm/h**
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
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
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
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
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
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.

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