



## 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

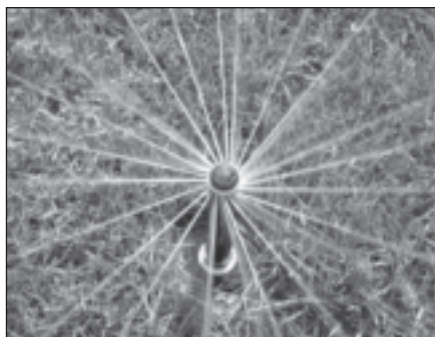
Pattern	Color
Quarter	Yellow
Third	Green
Half	Orange
Two Thirds	Grey
Three Quarters	Black
Full	Blue

### Operating Range

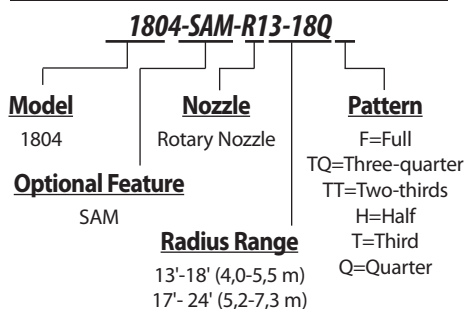
- Pressure range: 20-55 psi (1,4 to 3,8 bars)
- Spacing: 13' to 24' (4,0 m to 7,3 m)

### 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









*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	
 <b>Blue</b>	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	
 <b>Black</b>	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	
 <b>Grey</b>	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	
 <b>Orange</b>	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	
 <b>Green</b>	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	
 <b>Yellow</b>	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	
 <b>Blue</b>	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	
 <b>Black</b>	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	
 <b>Grey</b>	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	
 <b>Orange</b>	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	
 <b>Green</b>	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	
 <b>Yellow</b>	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 m <sup>3</sup> /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 <sup>3</sup> /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.

Laying out 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](http://www.rainbird.com) for more information about The Intelligent Use of Water.™

---

### Rain Bird Corporation

Contractor, Landscape Drip  
and Accessories Division  
970 W. Sierra Madre, Azusa, CA 91702  
Phone: (626) 812-3400 Fax: (626) 812-3411

### Rain Bird Corporation

Commercial Division  
6991 E. Southpoint Rd., Tucson, AZ 85706  
Phone: (520) 741-6100 Fax: (520) 741-6146

### Rain Bird International, Inc.

145 North Grand Avenue, Glendora, CA 91741  
Phone: (626) 963-9311 Fax: (626) 963-4287

### Rain Bird Technical Service

(800) 247-3782 (U.S. and Canada only)

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