

R-VAN Adjustable Rotary Nozzle

Rain Bird® R-VAN Adjustable Rotary Nozzles provide water efficiency and design flexibility. R-VAN Adjustable Rotary Nozzles feature rotating stream technology which uniformly delivers water at a low precipitation rate, significantly reducing runoff and erosion. Retrofitting standard spray nozzles with R-VAN Adjustable Rotary Nozzles can reduce flow by up to 60% and improve water efficiency by up to 30%. Nozzle spray pattern and distance are easily adjusted by hand with no tools required.

Features

- Adjust arc and radius without tools
- Color coded for easy identification of R-VAN model
- Low precipitation rate reduces run-off and erosion
- Maintains efficient performance at high operating pressures without misting or fogging
- Compatible with all models of Rain Bird spray bodies in addition to a wide variety of risers and adapters
- Matched precipitation rates across radius and arcs simplify the design process
- Installing with Rain Bird 5000 Series Rotor matched precipitation rate (MPR) nozzles allows for MPR irrigation designs from 13' to 35' (4,0m to 10,7m)
- Three year trade warranty

Operating Specifications

- Pressure Range: 20 to 55 psi (1,4 to 3,8 bar)
- Recommended Operating Pressure: 45 psi (3,1 bar)
- Spacing: 13' to 24' (4,0 to 7,3m)
- Adjustments: Arc and radius should be adjusted while water is running



Models

R-VAN1318

- Black Rotary Deflector
- 13' to 18' (4,0 to 5,5m) radius
- 45° to 270° arc

R-VAN1724

- Yellow Rotary Deflector
- 17' to 24' (5,2 to 7,3m) radius
- 45° to 270° arc

How To Specify

1804 - SAM-P45 - R-VAN1318

Model
1804: 4in (10,2cm)
pop-up height




Nozzle
R-VAN Adjustable
Rotary Nozzle




Optional Feature
SAM: Seal-A-Matic™ check valve
P45: 45 psi (3,1 bar) in-stem
pressure regulation




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




Note: Specify sprinkler bodies and nozzles separately. Installation on Rain Bird 1800SAM-P45 spray bodies recommended in sandy environments.

Performance Data

R-VAN1318 (Black)					
ARC	Pressure (psi)	Radius* (ft.)	Flow (gpm)	■ Precip (in/hr)	▲ Precip (in/hr)
270° 	20	13	0.95	0.72	0.83
	25	14	1.12	0.69	0.80
	30	16	1.26	0.65	0.75
	35	16	1.35	0.64	0.74
	40	17	1.42	0.63	0.73
	45	18	1.51	0.60	0.69
	50	18	1.57	0.60	0.69
	55	18	1.62	0.60	0.69
180° 	20	13	0.75	0.72	0.83
	25	14	0.83	0.69	0.80
	30	16	0.85	0.65	0.75
	35	16	0.91	0.64	0.74
	40	17	0.98	0.63	0.73
	45	18	1.01	0.60	0.69
	50	18	1.07	0.60	0.69
	55	18	1.09	0.60	0.69
90° 	20	13	0.37	0.72	0.83
	25	14	0.39	0.69	0.80
	30	16	0.42	0.65	0.75
	35	16	0.47	0.64	0.74
	40	17	0.50	0.63	0.73
	45	18	0.50	0.60	0.69
	50	18	0.54	0.60	0.69
	55	18	0.58	0.60	0.69

R-VAN1318 (Black) Metric					
ARC	Pressure (bar)	Radius* (m)	Flow (l/m)	■ Precip (mm/h)	▲ Precip (mm/h)
270° 	1.4	4.0	3.60	18	21
	1.7	4.3	4.24	18	20
	2.1	4.9	4.77	17	19
	2.4	4.9	5.11	16	19
	2.8	5.2	5.38	16	18
	3.1	5.5	5.72	15	18
	3.4	5.5	5.94	15	18
	3.8	5.5	6.13	15	18
180° 	1.4	4.0	2.84	18	21
	1.7	4.3	3.14	18	20
	2.1	4.9	3.22	17	19
	2.4	4.9	3.44	16	19
	2.8	5.2	3.71	16	18
	3.1	5.5	3.82	15	18
	3.4	5.5	4.05	15	18
	3.8	5.5	4.13	15	18
90° 	1.4	4.0	1.40	18	21
	1.7	4.3	1.48	18	20
	2.1	4.9	1.59	17	19
	2.4	4.9	1.78	16	19
	2.8	5.2	1.89	16	18
	3.1	5.5	1.89	15	18
	3.4	5.5	2.04	15	18
	3.8	5.5	2.20	15	18

R-VAN1724 (Yellow)					
ARC	Pressure (psi)	Radius* (ft.)	Flow (gpm)	■ Precip (in/hr)	▲ Precip (in/hr)
270° 	20	17	1.77	0.76	0.88
	25	19	1.99	0.72	0.83
	30	21	2.26	0.70	0.81
	35	22	2.39	0.66	0.76
	40	23	2.55	0.63	0.73
	45	24	2.73	0.61	0.70
	50	24	2.76	0.61	0.70
	55	24	2.80	0.61	0.70
180° 	20	17	1.24	0.76	0.88
	25	19	1.30	0.72	0.83
	30	21	1.41	0.70	0.81
	35	22	1.55	0.66	0.76
	40	23	1.69	0.63	0.73
	45	24	1.83	0.61	0.70
	50	24	1.91	0.61	0.70
	55	24	1.98	0.61	0.70
90° 	20	17	0.59	0.76	0.88
	25	19	0.67	0.72	0.83
	30	21	0.73	0.70	0.81
	35	22	0.78	0.66	0.76
	40	23	0.85	0.63	0.73
	45	24	0.91	0.61	0.70
	50	24	0.98	0.61	0.70
	55	24	1.05	0.61	0.70

R-VAN1724 (Yellow) Metric					
ARC	Pressure (bar)	Radius* (m)	Flow (l/m)	■ Precip (mm/h)	▲ Precip (mm/h)
270° 	1.4	5.2	6.70	19	22
	1.7	5.8	7.53	18	21
	2.1	6.4	8.56	18	21
	2.4	6.7	9.05	17	19
	2.8	7.0	9.65	16	18
	3.1	7.3	10.33	15	18
	3.4	7.3	10.45	15	18
	3.8	7.3	10.60	15	18
180° 	1.4	5.2	4.69	19	22
	1.7	5.8	4.92	18	21
	2.1	6.4	5.34	18	21
	2.4	6.7	5.87	17	19
	2.8	7.0	6.40	16	18
	3.1	7.3	6.93	15	18
	3.4	7.3	7.23	15	18
	3.8	7.3	7.50	15	18
90° 	1.4	5.2	2.23	19	22
	1.7	5.8	2.54	18	21
	2.1	6.4	2.76	18	21
	2.4	6.7	2.95	17	19
	2.8	7.0	3.22	16	18
	3.1	7.3	3.44	15	18
	3.4	7.3	3.71	15	18
	3.8	7.3	3.97	15	18

* See Performance Data Notes on Sheet 3

Performance Data Notes

- R-VAN tested on 4 inch (10,2cm) spray bodies.
- 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 the radius below 13' (4,0m) on the R-VAN1318 model.
- Do not reduce the radius below 17' (5,2m) on the R-VAN1724 model.
- Installation on Rain Bird 1800SAM-P45 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.

Specifications

- The R-VAN nozzle shall have a variable arc that is adjustable without a tool at specified operating pounds per square inch (psi/bar).
- The R-VAN nozzle shall have a radius that is adjustable without a tool at specified operating pounds per square inch (psi/bar).
- The R-VAN nozzle shall have multiple arced streams and have a matched precipitation rate of ___ in/hr (mm/h).
- The R-VAN nozzle shall have a variable arc of 45° to 270°.
- The R-VAN nozzle variable arc shall be capable of covering a ___ foot radius (FT. RAD./meter) at ___ pounds per square inch (psi/bar).
- The R-VAN nozzle shall have a discharge rate of ___ gallons per minute, (GPM/ (l/m).
- The R-VAN nozzle angle of the trajectory shall vary from 4 to 34 degrees.
- The R-VAN nozzle shall be constructed of UV-resistant plastic. The protective metal cap shall be of stainless steel.
- The R-VAN nozzle shall include a removable .02 x .02 mesh screen to protect the nozzle against clogging.
- The R-VAN nozzle shall have a precipitation rate matched with Rain Bird 5000 Series MPR Rotor Nozzles.

- The R-VAN nozzle shall be manufactured by Rain Bird Corp., Azusa, California.
- The R-VAN nozzle shall have a 3 year trade warranty.

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