What is a High-Efficiency Nozzle?

Typical nozzles – Un-Even Watering

With typical nozzles, part of the lawn may not have enough water and other parts may be over-watered. A large portion of water may be lost to evaporation / misting, and over-spray.

High-efficiency nozzles – Even Watering

High-efficiency nozzles provide better coverage. Better coverage means shorter zone run-times while keeping grass healthy. Shorter run-times means you will save up to 25%+ water vs. typical nozzles. Rain Bird's high-efficiency nozzles are also engineered to produce large water droplets to reduce wind drift.

Standard or Low Precipitation Rate?

Low Precipitation Rate Nozzles

Low precipitation rate nozzles are best used in sloped or compacted soil areas to minimize run-off. The low watering rate makes run-times longer.

Standard Precipitation Rate Nozzles

Standard precipitation rate nozzles are best used for shorter distance irrigation, and when watering times may be limited due to city ordinances.

Low Precipitation Rate		Standard Precipitation Rate			
High-Efficiency Rotary Nozzles		High-Efficiency Nozzles		Standard Nozzles	
					
					
R-VAN		HE-VAN	U-Series	VAN	MPR
Adjustable Arc (45° - 270°)	Full Circle (360°)	Adjustable Arc	Fixed Arc	Adjustable Arc	Fixed Arc

R-VAN Nozzles

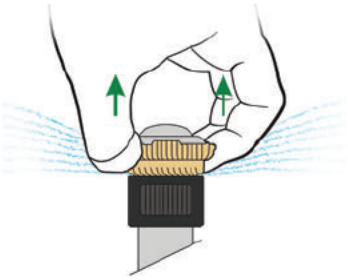
High Efficiency, Multi-Stream

Rain Bird® R-VAN Adjustable Rotary Nozzles save more water, are easier to use, and are lower priced compared to leading rotating nozzles. R-VANs thick streams and large water droplets cut through the wind to deliver water where you want it. R-VANs are easier to use thanks to its hand-adjustable arc and radius.

R-VAN Nozzles

Features

- Matched precipitation across radius, arcs, and pattern types
- Low precipitation rate reduces run-off and erosion
- Adjust arc and radius without tools
- A pull-up to flush feature clears the nozzle of dirt and debris
- Maintains efficient performance at high operating pressures without misting or fogging
- Compatible with all models of Rain Bird spray bodies, risers and adapters
- Installing with Rain Bird 5000 MPR Series Rotors allows for matched precipitation from 8'to 35' (2.4m to 10.7m)
- Three year trade warranty



Pull Up HARD to Flush

Operating Specifications

- Pressure Range: 30 to 55 psi (2.1 to 3.8 bar)
- Recommended Operating Pressure: 45 psi (3.1 bar)
- Spacing: 8' to 24' (2.4 to 7.3m)
- Adjustments: Arc and radius should be adjusted while water is running

Models

8' - 14' (2.4 to 4.6m)

- R-VAN14: 45° - 270° Adjustable Arc
- R-VAN14-360: 360° Full Circle

13' - 18' (4.0 to 5.5m)

- R-VAN18: 45° - 270° Adjustable Arc
- R-VAN18-360: 360° Full Circle

17' - 24' (5.2 to 7.3m)

- R-VAN24: 45° - 270° Adjustable Arc
- R-VAN24-360: 360° Full Circle

Strip Nozzles

- R-VAN-LCS: 5'x 15' (1.5 x 4.6m) Left Corner Strip
- R-VAN-RCS: 5'x 15' (1.5 x 4.6m) Right Corner Strip
- R-VAN-SST: 5'x 30' (1.5 x 9.1m) Side Strip

[1] *Rain Bird recommends using 1800 P45 Spray Bodies to maintain optimum nozzle performance*

For Optimum Performance, Use Rain Bird 1800 45 PSI Regulated or RD1800 45 PSI Regulated Spray Bodies

How to Specify

R-VAN 18-360

Radius Range

8' - 14' (2.4 to 4.6m)
R-VAN14: 45° - 270°
R-VAN14-360: 360°

13' - 18' (4.0 to 5.5m)
R-VAN18: 45° - 270°
R-VAN18-360: 360°

17' - 24' (5.2 to 7.3m)
R-VAN24: 45° - 270°
R-VAN24-360: 360°

Strip Nozzles
R-VAN-LCS: 5' x 15' (1.5 x 4.6m)
R-VAN-RCS: 5' x 15' (1.5 x 4.6m)
R-VAN-SST: 5' x 30' (1.5 x 9.1m)

Model
R-VAN Adjustable Rotary Nozzle

R-VAN Nozzles meet the requirements of the ASABE/ICC 802-2014 standard

The average DU(LQ) of the applicable products exceed 0.65 distribution uniformity.

Product	Type	Radius	DU(LQ)
R-VAN	Multi-stream	8 - 24 ft.	> 0.70

To view the complete document of compliance for Rain Bird products that have been tested to meet the requirements of the ASABE/ICC 802-2014 standard and the California MWELO go to: www.rainbird.com/agency/mweb

8' to 14' (2.4m to 4.6m) | **13' to 18'** (4.0m to 5.5m) | **17' to 24'** (5.2m to 7.3m) | **Strip Nozzles**

R-VAN14 45° - 270° | **R-VAN14-360** 360° | **R-VAN18** 45° - 270° | **R-VAN18-360** 360° | **R-VAN24** 45° - 270° | **R-VAN24-360** 360° | **R-VAN-LCS** 5' x 15' Left Corner Strip | **R-VAN-SST** 5' x 30' Side Strip | **R-VAN-RCS** 5' x 15' Right Corner Strip

8' - 14' Adjustable Arc Nozzles (45° to 270°)

R-VAN14 8' - 14'

Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
270°	30	13	0.84	0.64	0.76
	35	13	0.87	0.66	0.74
	40	14	0.92	0.60	0.71
	45	**14**	**0.94**	**0.62**	**0.70**
	50	15	1.11	0.63	0.73
	55	15	1.17	0.67	0.77
210°	30	13	0.65	0.64	0.76
	35	13	0.68	0.66	0.74
	40	14	0.72	0.60	0.71
	45	**14**	**0.73**	**0.62**	**0.70**
	50	15	0.86	0.63	0.73
	55	15	0.91	0.67	0.77
180°	30	13	0.56	0.64	0.76
	35	13	0.58	0.66	0.74
	40	14	0.61	0.60	0.71
	45	**14**	**0.63**	**0.62**	**0.70**
	50	15	0.74	0.63	0.73
	55	15	0.78	0.67	0.77
90°	30	13	0.28	0.64	0.76
	35	13	0.29	0.66	0.74
	40	14	0.31	0.62	0.71
	45	**14**	**0.32**	**0.61**	**0.70**
	50	15	0.37	0.63	0.73
	55	15	0.39	0.67	0.77

R-VAN14 2.4 to 4.6m METRIC

Nozzle	Pressure bar	Radius m	Flow l/m	■ Precip mm/h	▲ Precip mm/h
270°	2.1	4.0	3.18	16	19
	2.4	4.0	3.29	17	19
	2.8	4.3	3.48	15	18
	3.1	**4.3**	**3.56**	**16**	**18**
	3.4	4.6	4.20	16	19
	3.8	4.6	4.43	17	20
210°	2.1	4.0	2.46	16	19
	2.4	4.0	2.57	17	19
	2.8	4.3	2.73	15	18
	3.1	**4.3**	**2.76**	**16**	**18**
	3.4	4.6	3.26	16	19
	3.8	4.6	3.44	17	20
180°	2.1	4.0	2.12	16	19
	2.4	4.0	2.20	17	19
	2.8	4.3	2.31	15	18
	3.1	**4.3**	**2.38**	**16**	**18**
	3.4	4.6	2.80	16	19
	3.8	4.6	2.95	17	20
90°	2.1	4.0	1.06	16	19
	2.4	4.0	1.10	17	19
	2.8	4.3	1.17	16	18
	3.1	**4.3**	**1.21**	**15**	**18**
	3.4	4.6	1.40	16	19
	3.8	4.6	1.48	17	20

8' - 14' Full Circle Nozzles (360°)

R-VAN14-360 8' - 14'

Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
360°	30	13	1.10	0.63	0.72
	35	13	1.12	0.64	0.74
	40	14	1.22	0.60	0.69
	45	**14**	**1.27**	**0.62**	**0.72**
	50	15	1.41	0.60	0.70
	55	15	1.45	0.62	0.72

R-VAN14-360 2.4 to 4.6m METRIC

Nozzle	Pressure bar	Radius m	Flow l/m	■ Precip mm/h	▲ Precip mm/h
360°	2.1	4.0	4.16	16	18
	2.4	4.0	4.24	16	19
	2.8	4.3	4.62	15	18
	3.1	**4.3**	**4.81**	**16**	**18**
	3.4	4.6	5.34	15	18
	3.8	4.6	5.49	16	18

Note: *All R-VAN 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
R-VAN24 and R-VAN24-360: "Do not reduce the radius below 17' (5,2 m)
R-VAN18 and R-VAN18-360: "Do not reduce the radius below 13' (4,0 m)
R-VAN14 and R-VAN18-360: "Do not reduce the radius below 8' (2,4 m)

13' - 18' Adjustable Arc Nozzles (45° to 270°)

R-VAN18 13' - 18'

Nozzle	Pressure psi	Radius ft.	Flow gpm	Precip ■ In/h	Precip ▲ In/h
270° 	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	**17**	**1.51**	**0.64**	**0.73**
	50	18	1.57	0.60	0.69
	55	18	1.62	0.60	0.69
210° 	30	16	0.98	0.63	0.73
	35	16	1.05	0.68	0.78
	40	17	1.10	0.63	0.73
	45	**17**	**1.17**	**0.64**	**0.77**
	50	18	1.22	0.62	0.72
	55	18	1.26	0.64	0.74
180° 	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	**17**	**1.01**	**0.64**	**0.73**
	50	18	1.07	0.60	0.69
	55	18	1.09	0.60	0.69
90° 	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	**17**	**0.50**	**0.64**	**0.73**
	50	18	0.54	0.60	0.69
	55	18	0.58	0.60	0.69

R-VAN18 4.0 to 5.5m METRIC

Nozzle	Pressure bar	Radius m	Flow l/m	Precip ■ mm/h	Precip ▲ mm/h
270° 	2.1	4.9	4.77	17	19
	2.4	4.9	5.11	16	19
	2.8	5.2	5.38	16	19
	3.1	**5.2**	**5.72**	**16**	**19**
	3.4	5.5	5.94	15	18
	3.8	5.5	6.13	0	18
210° 	2.1	4.9	3.71	16	19
	2.4	4.9	3.97	17	20
	2.8	5.2	4.16	16	19
	3.1	**5.2**	**4.43**	**16**	**20**
	3.4	5.5	4.62	16	18
	3.8	5.5	4.77	16	19
180° 	2.1	4.9	3.22	17	19
	2.4	4.9	3.44	16	19
	2.8	5.2	3.71	16	19
	3.1	**5.2**	**3.82**	**16**	**19**
	3.4	5.5	4.05	15	18
	3.8	5.5	4.13	15	18
90° 	2.1	4.9	1.59	17	19
	2.4	4.9	1.78	16	19
	2.8	5.2	1.89	16	19
	3.1	**5.2**	**1.89**	**16**	**19**
	3.4	5.5	2.04	15	18
	3.8	5.5	2.20	15	18

13' - 18' Full Circle Nozzles (360°)

R-VAN18-360 13' - 18'

Nozzle	Pressure psi	Radius ft.	Flow gpm	Precip ■ In/h	Precip ▲ In/h
360° 	30	16	1.65	0.62	0.72
	35	16	1.67	0.63	0.73
	40	17	1.80	0.60	0.69
	45	**17**	**1.85**	**0.62**	**0.71**
	50	18	2.05	0.61	0.70
	55	18	2.11	0.63	0.72

R-VAN18-360 4.0 to 5.5m METRIC

Nozzle	Pressure bar	Radius m	Flow l/m	Precip ■ mm/h	Precip ▲ mm/h
360° 	2.1	4.9	6.25	16	18
	2.4	4.9	6.32	16	19
	2.8	5.2	6.81	15	18
	3.1	**5.2**	**7.00**	**16**	**18**
	3.4	5.5	7.76	15	18
	3.8	5.5	7.99	16	18

Note: *All R-VAN 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
R-VAN24 and R-VAN24-360: "Do not reduce the radius below 17' (5,2 m)
R-VAN18 and R-VAN18-360: "Do not reduce the radius below 13' (4,0 m)
R-VAN14 and R-VAN18-360: "Do not reduce the radius below 8' (2,4 m)

Did you know?

You can use R-VAN Nozzles and 5000 Series MPR Rotors on the same zone!

- Matched precipitation rate (MPR = .06) from 8' to 35'
- Superior coverage – >0.70 DU[LQ]
- Thick, wind-resistant streams – near to far

17' - 24' Adjustable Arc Nozzles (45° to 270°)

R-VAN24 17' - 24'				■	▲
Nozzle	Pressure psi	Radius ft.	Flow gpm	Precip In/h	Precip In/h
270° 	30	19	1.80	0.64	0.74
	35	20	1.95	0.63	0.72
	40	22	2.31	0.61	0.71
	45	**23**	**2.52**	**0.61**	**0.71**
	50	24	2.82	0.63	0.73
	55	24	2.88	0.64	0.74
210° 	30	19	1.40	0.64	0.74
	35	20	1.52	0.63	0.72
	40	22	1.80	0.61	0.71
	45	**23**	**1.96**	**0.61**	**0.71**
	50	24	2.19	0.63	0.73
	55	24	2.24	0.64	0.74
180° 	30	19	1.20	0.64	0.74
	35	20	1.30	0.63	0.72
	40	22	1.54	0.61	0.71
	45	**23**	**1.68**	**0.61**	**0.71**
	50	24	1.88	0.63	0.73
	55	24	1.92	0.64	0.74
90° 	30	19	0.60	0.64	0.74
	35	20	0.65	0.63	0.72
	40	22	0.77	0.61	0.71
	45	**23**	**0.84**	**0.61**	**0.71**
	50	24	0.94	0.63	0.73
	55	24	0.96	0.64	0.74

R-VAN24 5.2 to 7.3m METRIC				■	▲
Nozzle	Pressure bar	Radius m	Flow l/m	Precip mm/h	Precip mm/h
270° 	2.1	5.8	6.81	16	19
	2.4	6.1	7.38	16	18
	2.8	6.7	8.74	15	18
	3.1	**7.0**	**9.54**	**15**	**18**
	3.4	7.3	10.67	16	19
	3.8	7.3	10.90	16	19
210° 	2.1	5.8	5.30	16	19
	2.4	6.1	5.75	16	18
	2.8	6.7	6.81	15	18
	3.1	**7.0**	**7.42**	**15**	**18**
	3.4	7.3	8.29	16	19
	3.8	7.3	8.48	16	19
180° 	2.1	5.8	4.54	16	19
	2.4	6.1	4.92	16	18
	2.8	6.7	5.83	15	18
	3.1	**7.0**	**6.36**	**15**	**18**
	3.4	7.3	7.12	16	19
	3.8	7.3	7.27	16	19
90° 	2.1	5.8	2.27	16	19
	2.4	6.1	2.46	16	18
	2.8	6.7	2.91	15	18
	3.1	**7.0**	**3.18**	**15**	**18**
	3.4	7.3	3.56	16	19
	3.8	7.3	3.63	16	19

17' - 24' Full Circle Nozzles (360°)

R-VAN24-360 17' - 24'				■	▲
Nozzle	Pressure psi	Radius ft.	Flow gpm	Precip In/h	Precip In/h
360° 	30	19	2.35	0.63	0.72
	35	20	2.52	0.61	0.70
	40	22	3.13	0.62	0.72
	45	**23**	**3.48**	**0.63**	**0.73**
	50	24	3.61	0.60	0.70
	55	24	3.74	0.62	0.72

R-VAN24-360 5.2 to 7.3m METRIC				■	▲
Nozzle	Pressure bar	Radius m	Flow l/m	Precip mm/h	Precip mm/h
360° 	2.1	5.8	8.90	16	18
	2.4	6.1	9.54	15	18
	2.8	6.7	11.85	16	18
	3.1	**7.0**	**13.17**	**16**	**19**
	3.4	7.3	13.67	15	18
	3.8	7.3	14.16	16	18

Note: *All R-VAN 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
R-VAN24 and R-VAN24-360: "Do not reduce the radius below 17' (5,2 m)
R-VAN18 and R-VAN18-360: "Do not reduce the radius below 13' (4,0 m)
R-VAN14 and R-VAN18-360: "Do not reduce the radius below 8' (2,4 m)

45° - 270° 360°

Offering Valuable Bottom-Line Savings

- Shorter zone run times save water and energy
- Lower precipitation rates reduce wasteful runoff and costly erosion
- Fewer nozzles needed to cover any area, reducing your inventory costs

Strip Nozzles (Left Corner, Side, Right Corner)

R-VAN-LCS 5' x 15'

Nozzle	Pressure psi	Size ft.	Flow gpm	Precip In/h (–)	Precip In/h (▲)
Left Corner Strip	30	4'x14'	0.18	0.62	0.62
	35	5'x15'	0.22	0.56	0.56
	40	5'x15'	0.23	0.59	0.59
	45	**5'x15'**	**0.24**	**0.62**	**0.62**
	50	5'x15'	0.25	0.64	0.64
	55	6'x16'	0.28	0.56	0.56

R-VAN-LCS 1.5 x 4.6m METRIC

Nozzle	Pressure bar	Size m	Flow l/m	Precip mm/h (–)	Precip mm/h (▲)
Left Corner Strip	2.1	1.2x4.3	0.68	16	16
	2.4	1.5x4.6	0.83	14	14
	2.8	1.5x4.6	0.87	15	15
	3.1	**1.5x4.6**	**0.91**	**16**	**16**
	3.4	1.5x4.6	0.95	16	16
	3.8	1.8x4.9	1.06	14	14

R-VAN-SST 5' x 30'

Nozzle	Pressure psi	Size ft.	Flow gpm	Precip In/h (–)	Precip In/h (▲)
Side Strip	30	4'x28'	0.36	0.62	0.62
	35	5'x30'	0.44	0.56	0.56
	40	5'x30'	0.46	0.59	0.59
	45	**5'x30'**	**0.48**	**0.62**	**0.62**
	50	5'x30'	0.50	0.64	0.64
	55	6'x32'	0.56	0.56	0.56

R-VAN-SST 1.5 x 9.1m METRIC

Nozzle	Pressure bar	Size m	Flow l/m	Precip mm/h (–)	Precip mm/h (▲)
Side Strip	2.1	1.2x8.5	1.36	16	16
	2.4	1.5x9.1	1.67	14	14
	2.8	1.5x9.1	1.74	15	15
	3.1	**1.5x9.1**	**1.82**	**16**	**16**
	3.4	1.5x9.1	1.89	16	16
	3.8	1.8x9.8	2.12	14	14

R-VAN-RCS 5' x 15'

Nozzle	Pressure psi	Size ft.	Flow gpm	Precip In/h (–)	Precip In/h (▲)
Right Corner Strip	30	4'x14'	0.18	0.62	0.62
	35	5'x15'	0.22	0.56	0.56
	40	5'x15'	0.23	0.59	0.59
	45	**5'x15'**	**0.24**	**0.62**	**0.62**
	50	5'x15'	0.25	0.64	0.64
	55	6'x16'	0.28	0.56	0.56

R-VAN-RCS 1.5 x 4.6m METRIC

Nozzle	Pressure bar	Size m	Flow l/m	Precip mm/h (–)	Precip mm/h (▲)
Right Corner Strip	2.1	1.2x4.3	0.68	16	16
	2.4	1.5x4.6	0.83	14	14
	2.8	1.5x4.6	0.87	15	15
	3.1	**1.5x4.6**	**0.91**	**16**	**16**
	3.4	1.5x4.6	0.95	16	16
	3.8	1.8x4.9	1.06	14	14

Note: *All R-VAN nozzles tested on 4" (10.2 cm) pop-ups*
Performance data taken in zero wind conditions

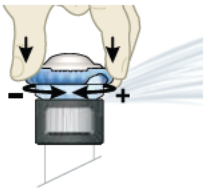
– *Straight-line spacing based on 50% overlap of throw for LCS, SST, and RCS*
▲ *Triangular spacing based on 50% overlap of throw for LCS, SST, and RCS*

Easy Adjustments

Adjustable Arc Nozzles
R-VAN14, R-VAN18, R-VAN24

RADIUS ADJUSTMENT

ARC ADJUSTMENT

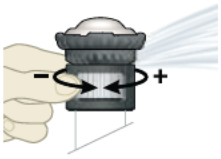


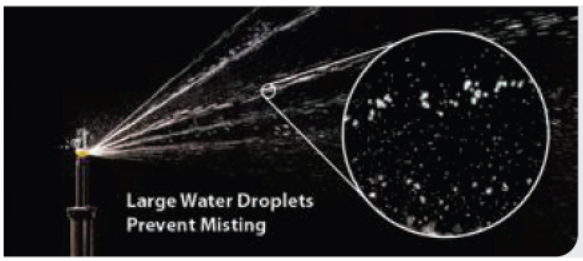
Full Circle Nozzles
R-VAN14-360, R-VAN18-360, RVAN24-360

RADIUS ADJUSTMENT

Strip Nozzles
R-VAN-LCS, R-VAN-RCS, R-VAN-SST

SIZE ADJUSTMENT





Improving Watering Efficiencies Up to 30%

- Gentle, rotating streams create uniform coverage at lower precipitation rates
- Multi-stream technology optimizes absorption for healthier lawns
- Larger droplets and thicker streams cut through wind and keep water in target zone