

## Variable Arc Nozzles (VANs)

Adjustable nozzles for all standard and irregular-shaped turf and shrub areas. Fit all Rain Bird spray heads and shrub adapters.

### Features

- Easy arc adjustment from 0° to 360° for 10-, 12-, 15- and 18 VAN; 0° to 330° for 4-, 6- and 8 VAN.
- Simple twist of center collar increases or decreases arc setting.
- No special tools required.
- Stainless steel adjustment screw to adjust flow and radius.
- Ideal for watering odd-shaped areas.
- 12-, 15-, and 18 VAN have matched precipitation rates with Rain Bird MPR Nozzles.
- Shipped with blue filter screen (.02 x .02) to maintain precise radius adjustment and prevent clogging.

### Models

- 4-VAN
- 6-VAN
- 8-VAN
- 10-VAN
- 12-VAN
- 15-VAN
- 18-VAN

### Operating Range

- Radius: \*
  - 4-VAN: 3 to 4 feet (0.9 to 1.2 m)
  - 6-VAN: 4 to 6 feet (1.2 to 1.8 m)
  - 8-VAN: 6 to 8 feet (1.8 to 2.4 m)
  - 10-VAN: 8 to 10 feet (2.4 to 3.0 m)
  - 12-VAN: 10 to 12 feet (3.0 to 3.7 m)
  - 15-VAN: 12 to 15 feet (3.7 to 4.6 m)
  - 18-VAN: 14 to 18 feet (4.3 to 5.5 m)
- Pressure: 15 to 30 psi (1 to 2.1 bar)
- Optimum pressure: 30 psi (2.1 bar)

\*These ranges are based on proper pressure at nozzle.

### Specifications

#### 4, 6, 8, 10, 12, 15 and 18 Series VAN Nozzles

The plastic VAN nozzle shall be constructed of UV resistant plastic. The radius adjustment screw shall be constructed of stainless steel.

The nozzle shall accept the Rain Bird blue filter screen to allow for radius adjustment.

The plastic VAN nozzles shall be manufactured by Rain Bird Corporation, Azusa, California.



Simply twist collar to adjust arc pattern

### How To Specify





**1804 - 15-VAN**





**Spray Head Model**





**Nozzle Series Pattern**





This specifies an 1800 Series spray head with 4" (10 cm) pop-up height; 15 Series Variable Arc Nozzle providing 0° - 360° coverage.





# Variable Arc Nozzles (VANs)





4 Series VAN						
0° Trajectory Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h	
	15	3	0.62	7.23	8.35	
	20	3	0.70	8.17	9.43	
	25	4	0.80	5.25	6.06	
	30	4	0.88	5.78	6.67	
	15	3	0.52	7.42	8.57	
	20	3	0.58	8.27	9.55	
	25	4	0.66	5.29	6.11	
	30	4	0.73	5.86	6.77	
	15	3	0.32	6.84	7.90	
	20	3	0.37	7.91	9.13	
	25	4	0.41	4.93	5.69	
	30	4	0.45	5.41	6.25	
	15	3	0.21	8.98	10.37	
	20	3	0.24	10.27	11.86	
	25	4	0.26	6.26	7.23	
	30	4	0.29	6.98	8.06	

4 Series VAN							METRIC	
0° Trajectory Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h		
	1.0	0.9	0.14	2.3	189	218		
	1.5	1.0	0.17	2.8	183	215		
	2.0	1.2	0.20	3.3	152	176		
	2.1	1.2	0.20	3.3	152	176		
	1.0	0.9	0.12	2.0	198	229		
	1.5	1.0	0.14	2.3	187	216		
	2.0	1.2	0.16	2.7	148	171		
	2.1	1.2	0.17	2.8	157	181		
	1.0	0.9	0.07	1.2	173	200		
	1.5	1.0	0.09	1.5	180	208		
	2.0	1.2	0.10	1.7	139	161		
	2.1	1.2	0.10	1.7	139	161		
	1.0	0.9	0.05	0.8	247	285		
	1.5	1.0	0.06	0.9	240	277		
	2.0	1.2	0.06	1.1	167	193		
	2.1	1.2	0.07	1.1	194	224		

6 Series VAN						
0° Trajectory Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h	
	15	4	0.85	5.58	6.44	
	20	5	0.96	4.03	4.65	
	25	5	1.09	4.58	5.29	
	30	6	1.20	3.50	4.04	
	15	4	0.79	6.34	7.32	
	20	5	0.88	4.52	5.22	
	25	5	1.00	5.13	5.92	
	30	6	1.10	3.92	4.53	
	15	4	0.42	5.05	5.83	
	20	5	0.49	3.77	4.35	
	25	5	0.55	4.24	4.90	
	30	6	0.60	3.21	3.71	
	15	4	0.26	6.26	7.23	
	20	5	0.30	4.62	5.33	
	25	5	0.34	5.24	6.05	
	30	6	0.37	3.96	4.57	





6 Series VAN							METRIC	
0° Trajectory Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h		
	1.0	1.2	0.19	3.2	144	166		
	1.5	1.5	0.23	3.8	112	129		
	2.0	1.8	0.27	4.5	91	105		
	2.1	1.8	0.27	4.5	91	105		
	1.0	1.2	0.18	3.0	167	193		
	1.5	1.5	0.21	3.5	124	143		
	2.0	1.8	0.24	4.1	99	114		
	2.1	1.8	0.25	4.2	103	119		
	1.0	1.2	0.10	1.6	139	161		
	1.5	1.5	0.11	1.9	98	113		
	2.0	1.8	0.13	2.2	80	92		
	2.1	1.8	0.14	2.3	86	99		
	1.0	1.2	0.06	1.0	167	193		
	1.5	1.5	0.07	1.2	124	143		
	2.0	1.8	0.08	1.4	99	114		
	2.1	1.8	0.08	1.4	99	114		





8 Series VAN						
5° Trajectory Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h	
	15	6	1.21	3.53	4.07	
	20	7	1.36	2.91	3.36	
	25	7	1.55	3.32	3.83	
	30	8	1.70	2.79	3.22	
	15	6	1.11	3.95	4.55	
	20	7	1.24	3.24	3.74	
	25	7	1.41	3.69	4.25	
	30	8	1.55	3.10	3.58	
	15	6	0.84	4.49	5.18	
	20	7	0.97	3.81	4.40	
	25	7	1.09	4.28	4.94	
	30	8	1.19	3.58	4.13	
	15	6	0.51	5.46	6.29	
	20	7	0.59	4.64	5.35	
	25	7	0.66	5.19	5.98	
	30	8	0.72	4.33	5.00	





8 Series VAN							METRIC	
5° Trajectory Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h		
	1.0	1.8	0.27	4.6	91	105		
	1.5	2.1	0.32	5.4	79	91		
	2.0	2.3	0.38	6.3	78	90		
	2.1	2.4	0.39	6.4	74	86		
	1.0	1.8	0.25	4.2	103	119		
	1.5	2.1	0.30	4.9	91	105		
	2.0	2.3	0.34	5.8	86	99		
	2.1	2.4	0.35	5.9	81	94		
	1.0	1.8	0.19	3.2	117	135		
	1.5	2.1	0.23	3.8	104	120		
	2.0	2.3	0.26	4.4	98	113		
	2.1	2.4	0.27	4.5	94	109		
	1.0	1.8	0.12	1.9	148	171		
	1.5	2.1	0.14	2.3	127	147		
	2.0	2.3	0.16	2.7	121	140		
	2.1	2.4	0.16	2.7	111	128		





- Square spacing based on 50% diameter of throw
- ▲ Triangular spacing based on 50% diameter of throw





**Note:** Turning the radius reduction screw may be required to achieve catalog radius and flow when the arc is set at less than maximum arc  
Performance data taken in zero wind conditions





10 Series VAN					
10° Trajectory Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
	15	7	1.93	3.80	4.39
	20	8	2.32	3.50	4.04
	25	9	2.52	3.00	3.46
	30	10	2.60	2.50	2.89
	15	7	1.45	3.80	4.39
	20	8	1.75	3.50	4.04
	25	9	1.89	3.00	3.46
	30	10	2.10	2.70	3.12
	15	7	0.97	3.80	4.39
	20	8	1.20	3.50	4.04
	25	9	1.26	3.00	3.46
	30	10	1.45	2.80	3.23
	15	7	0.48	3.80	4.39
	20	8	0.58	3.50	4.04
	25	9	0.63	3.00	3.46
	30	10	0.75	2.90	3.35

10 Series VAN METRIC						
10° Trajectory Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
	1.0	2.1	0.44	7.3	96	111
	1.5	2.4	0.53	9.0	89	103
	2.0	2.7	0.57	9.8	76	88
	2.1	3.1	0.59	9.8	63	73
	1.0	2.1	0.33	5.5	96	111
	1.5	2.4	0.4	6.8	89	103
	2.0	2.7	0.43	7.8	76	88
	2.1	3.1	0.48	7.9	68	79
	1.0	2.1	0.22	3.7	96	111
	1.5	2.4	0.27	4.6	89	103
	2.0	2.7	0.29	5.3	76	88
	2.1	3.1	0.33	5.5	71	82
	1.0	2.1	0.11	1.8	96	111
	1.5	2.4	0.13	2.3	89	103
	2.0	2.7	0.14	2.7	76	88
	2.1	3.1	0.17	2.8	73	85

12 Series VAN					
15° Trajectory Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
	15	9	1.56	1.86	2.14
	20	10	1.86	1.79	2.06
	25	11	2.12	1.68	1.95
	30	12	2.36	1.58	1.82
	15	9	1.17	1.86	2.14
	20	10	1.39	1.79	2.06
	25	11	1.59	1.68	1.94
	30	12	1.77	1.58	1.82
	15	9	0.78	1.86	2.14
	20	10	0.93	1.79	2.06
	25	11	1.06	1.68	1.95
	30	12	1.18	1.58	1.82
	15	9	0.39	1.86	2.14
	20	10	0.46	1.79	2.06
	25	11	0.53	1.68	1.95
	30	12	0.59	1.58	1.82





12 Series VAN METRIC						
15° Trajectory Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
	1.0	2.7	0.35	5.80	48	55
	1.5	3.2	0.44	7.37	43	50
	2.0	3.6	0.52	8.75	41	47
	2.1	3.7	0.54	9.02	40	46
	1.0	2.7	0.26	4.35	48	55
	1.5	3.2	0.33	5.53	43	50
	2.0	3.6	0.39	6.56	41	47
	2.1	3.7	0.41	6.76	40	46
	1.0	2.7	0.17	2.90	48	55
	1.5	3.2	0.22	3.69	43	50
	2.0	3.6	0.26	4.37	41	47
	2.1	3.7	0.27	4.51	40	46
	1.0	2.7	0.09	1.45	48	55
	1.5	3.2	0.11	1.84	43	50
	2.0	3.6	0.13	2.19	41	47
	2.1	3.7	0.14	2.25	40	46

15 Series VAN					
23° Trajectory Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
	15	11	2.60	2.07	2.39
	20	12	3.00	2.01	2.32
	25	14	3.30	1.62	1.87
	30	15	3.70	1.58	1.83
	15	11	1.95	2.07	2.39
	20	12	2.25	2.01	2.32
	25	14	2.48	1.62	1.87
	30	15	2.78	1.58	1.83
	15	11	1.30	2.07	2.39
	20	12	1.50	2.01	2.32
	25	14	1.65	1.62	1.87
	30	15	1.85	1.58	1.83
	15	11	0.65	2.07	2.39
	20	12	0.75	2.01	2.32
	25	14	0.82	1.62	1.87
	30	15	0.92	1.58	1.83





15 Series VAN METRIC						
23° Trajectory Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
	1.0	3.4	0.60	9.8	52	60
	1.5	3.9	0.72	11.8	47	55
	2.0	4.5	0.84	13.7	41	48
	2.1	4.6	0.84	14.0	40	46
	1.0	3.4	0.45	7.4	52	60
	1.5	3.9	0.54	8.8	47	55
	2.0	4.5	0.63	10.3	41	48
	2.1	4.6	0.63	10.5	40	46
	1.0	3.4	0.30	4.9	52	60
	1.5	3.9	0.36	5.9	47	55
	2.0	4.5	0.42	6.9	41	48
	2.1	4.6	0.42	7.0	40	46
	1.0	3.4	0.15	2.5	52	60
	1.5	3.9	0.18	2.9	47	55
	2.0	4.5	0.21	3.4	41	48
	2.1	4.6	0.21	3.5	40	46

- Square spacing based on 50% diameter of throw
- ▲ Triangular spacing based on 50% diameter of throw

**Note:** Turning the radius reduction screw may be required to achieve catalog radius and flow when the arc is set at less than maximum arc  
Performance data taken in zero wind conditions

18 Series VAN						
26° Trajectory Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h	
 360° Arc	15	14	4.21	2.07	2.39	
	20	15	4.70	2.01	2.32	
	25	17	4.86	1.62	1.87	
	30	18	5.32	1.58	1.83	
 270° Arc	15	14	3.16	2.07	2.39	
	20	15	3.52	2.01	2.32	
	25	17	3.65	1.62	1.87	
	30	18	3.99	1.58	1.83	
 180° Arc	15	14	2.11	2.07	2.39	
	20	15	2.35	2.01	2.32	
	25	17	2.43	1.62	1.87	
	30	18	2.66	1.58	1.83	
 90° Arc	15	14	1.05	2.07	2.39	
	20	15	1.17	2.01	2.32	
	25	17	1.22	1.62	1.87	
	30	18	1.33	1.58	1.83	

- Square spacing based on 50% diameter of throw
- ▲ Triangular spacing based on 50% diameter of throw

18 Series VAN					METRIC	
26° Trajectory Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
 360° Arc	1.0	4.3	0.96	15.9	52	60
	1.5	4.8	1.07	18.0	47	55
	2.0	5.4	1.20	19.8	41	48
	2.1	5.5	1.21	20.1	40	46
 270° Arc	1.0	4.3	0.72	12.0	52	60
	1.5	4.8	0.80	13.5	47	55
	2.0	5.4	0.90	14.8	41	48
	2.1	5.5	0.91	15.1	40	46
 180° Arc	1.0	4.3	0.48	8.0	52	60
	1.5	4.8	0.54	9.0	47	55
	2.0	5.4	0.60	9.9	41	48
	2.1	5.5	0.61	10.1	40	46
 90° Arc	1.0	4.3	0.24	4.0	52	60
	1.5	4.8	0.27	4.5	47	55
	2.0	5.4	0.30	5.0	41	48
	2.1	5.5	0.30	5.0	40	46

**Note:** Turning the radius reduction screw may be required to achieve catalog radius and flow when the arc is set at less than maximum arc  
Performance data taken in zero wind conditions

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