5000 Series Rotors

Technical Specifications

Built from top to bottom with the contractor in mind, the Rain Bird 5000 Series product line is the durable, reliable rotor for residential and commercial applications. Its Rain Curtain™ nozzle set includes 12 nozzles (8 standard and 4 low angle) that ensure you always have the correct nozzle in hand for the project.

FEATURES:

- Thicker rubber cover
- Self-Flushing Arc Adjustment Port: as the riser stem pops-up and retracts a jet of water cleans out the arc adjustment slot
- Slip Clutch: quickly set the left edge of the 5000 Series rotor
- Self-flushing tapered stem design and integrated triple-blade multi-function wiper seal protect internals from debris
- Heavy duty case
- Part Circle: Reversing 40–360° rotation
  Full Circle: Non-reversing 360° rotation
- Top-adjust arc adjustment requiring only a flat-blade screwdriver
- Tree of nozzles including 8 Rain Curtain (25° trajectory) and 4 low-angle (10° trajectory) provides 25 ft to 50 ft (7.6 to 15.2 m) distance of throw
- **Rain Curtain nozzles feature:**
  - Large droplets for superior wind resistance
  - Effective close-in watering
  - Even distribution over the entire radius
- Optional Matched Precipitation Rate (MPR) nozzles
- True 4 in (10 cm) pop-up (measured from the case cover to the nozzle)
- Five-year trade warranty

OPERATING RANGE:

Precipitation Rate
0.20 to 1.50 in/hr (5 to 38 mm/hr)

Flow Rate
0.76 to 9.63 gpm (3.0 to 36.6 l/m)

Radius
25 ft to 50 ft (7.6 to 15.2 m)
Radius may be reduced up to 25% with nozzle retention screw

Pressure
25 to 65 psi (1.7 to 4.5 bar)

SPECIFICATIONS:

- ¾" NPT female bottom threaded inlet
- Part Circle: Reversing 40–360°
- Full Circle: Non-reversing 360°

DIMENSIONS:

Exposed Surface Diameter
1⅝" (4.1 cm)

Pop-up Height
Shrub; 4" (10.2 cm); 6" (15.2 cm); 12" (30.5 cm)

Overall Body Height
Shrub: 7¾" (19.7 cm)
4": 7⅜" (18.5 cm); 6": 9⅝" (24.5 cm);
12": 16⅞" (42.9 cm)

Note: Pop-up height measured from the cover to the nozzle. Overall body height is measured popped down

How To Specify

5004 - S - + - PC - SAM - R - NP - SS

- **Model** 5004: 4" pop-up; 5006: 6" pop-up; 5012: 12" pop-up
- **Model** Shrub
- **Model** Plus
- **Rotation** "PC" for 40-360 degrees; "FC" for 360 degree only
- **Options** SAM; R: PRS; NP: Non-Potable Cover
- **Model** Stainless Steel

Note: Certain specifications not available for some rotor series.

OPTIONAL FEATURES:

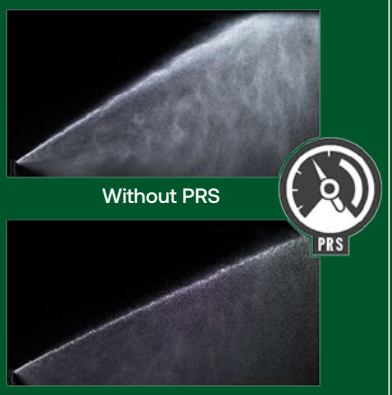
Plus (+)
The Green Top

FLOW SHUT OFF

- Turn the rotor on/off at the head for easier maintenance
- Flush zone and nozzle rotor without going back and forth to a valve or controller
- Troubleshoot for leaks by turning off all the heads in that zone

PRS (R)

PRESSURE REGULATION



PRS WITH FLOW OPTIMIZER™ TECHNOLOGY

- Conserve water and manage flow at each head by regulating pressure to precisely 45 psi
- Eliminate wasteful misting and fogging
- Ensure even distribution uniformity across the entire zone

NP

NON-POTABLE

- Purple top to identify non-potable water source
- Engineered thermoplastics resist common chemicals present in water source

ADDITIONAL FEATURES

- Stainless Steel (SS)
- Seal-A-Matic™ (SAM) Check Valve
- Matched Precipitation (MPR) Nozzles

5000 SERIES STANDARD ANGLE RAIN CURTAIN™ NOZZLE PERFORMANCE (IMPERIAL)

PRESSURE (PSI)	NOZZLE	RADIUS (FT)	FLOW (GPM)	■ PRECIP (IN/H)	▲ PRECIP (IN/H)
25	1.5	33	1.12	0.20	0.23
	2.0	35	1.50	0.24	0.27
	2.5	35	1.81	0.28	0.33
	3.0	36	2.26	0.34	0.39
	4.0	36	2.91	0.43	0.49
	5.0	37	3.72	0.52	0.60
	6.0	37	4.25	0.60	0.69
	8.0	33	5.90	1.26	1.50
35	1.5	34	1.35	0.22	0.26
	2.0	36	1.81	0.27	0.31
	2.5	37	2.17	0.31	0.35
	3.0	38	2.71	0.36	0.42
	4.0	40	3.50	0.42	0.49
	5.0	41	4.47	0.51	0.59
	6.0	43	5.23	0.54	0.63
	8.0	41	7.06	0.94	1.10
45	1.5	35	1.54	0.24	0.28
	2.0	37	2.07	0.29	0.34
	2.5	37	2.51	0.35	0.41
	3.0	39	3.09	0.37	0.43
	4.0	42	4.01	0.44	0.51
	5.0	43	5.09	0.48	0.56
	6.0	44	6.01	0.59	0.69
	8.0	44	8.03	0.92	1.06
55	1.5	35	1.71	0.27	0.31
	2.0	37	2.30	0.32	0.37
	2.5	37	2.76	0.39	0.45
	3.0	40	3.47	0.42	0.48
	4.0	42	4.44	0.48	0.56
	5.0	45	5.66	0.54	0.62
	6.0	50	6.63	0.51	0.59
	8.0	47	8.86	0.80	0.93
65	1.5	34	1.86	0.31	0.36
	2.0	35	2.52	0.40	0.46
	2.5	37	3.01	0.42	0.49
	3.0	40	3.78	0.45	0.53
	4.0	42	4.83	0.53	0.61
	5.0	45	6.16	0.59	0.68
	6.0	50	7.22	0.55	0.64
	8.0	48	9.63	0.84	0.97

Precipitation rates based on half-circle operation

■ Square spacing based on 50% diameter of throw

▲ Triangular spacing based on 50% diameter of throw

Performance data collected in zero wind conditions

Performance data derived from tests that conform with ASAE Standards; ASAE S398.1.

5000 SERIES STANDARD ANGLE RAIN CURTAIN™ NOZZLE PERFORMANCE (METRIC)

PRESSURE (BAR)	NOZZLE	RADIUS (M)	FLOW (M^3/H)	FLOW (L/M)	■ PRECIP (MM/H)	▲ PRECIP (MM/H)
2.0	1.5	10.2	0.28	4.8	5	6
	2.0	10.8	0.36	6.0	6	7
	2.5	10.9	0.44	7.2	7	9
	3.0	11.2	0.55	9.0	9	10
	4.0	11.6	0.71	12.0	11	12
	5.0	12.1	0.91	15.0	13	15
	6.0	12.4	1.05	17.4	15	17
	8.0	11.8	1.45	24.0	32	37
2.5	1.5	10.4	0.31	5.4	6	7
	2.0	11.0	0.41	6.6	7	8
	2.5	11.3	0.50	8.4	8	9
	3.0	11.2	0.62	10.2	9	11
	4.0	12.3	0.81	13.2	11	13
	5.0	12.7	1.03	17.4	13	15
	6.0	13.2	1.21	20.4	14	16
	8.0	13.3	1.63	27.0	24	28
3.0	1.5	10.6	0.34	6.0	6	7
	2.0	11.2	0.45	7.8	7	8
	2.5	11.3	0.56	9.6	9	10
	3.0	12.1	0.69	11.4	9	11
	4.0	12.7	0.89	15.0	11	13
	5.0	13.5	1.13	18.6	12	14
	6.0	13.4	1.34	22.2	13	17
	8.0	13.4	1.79	30.0	23	27
3.5	1.5	10.7	0.37	6.0	7	8
	2.0	11.3	0.49	8.4	8	9
	2.5	11.3	0.60	10.2	9	11
	3.0	12.2	0.74	12.6	10	12
	4.0	12.8	0.97	16.2	12	14
	5.0	13.7	1.23	20.4	13	15
	6.0	14.2	1.45	24.0	13	15
	8.0	14.9	1.93	32.4	20	24
4.0	1.5	10.6	0.40	6.6	7	8
	2.0	11.1	0.52	9.0	8	10
	2.5	11.3	0.64	10.8	10	12
	3.0	12.2	0.80	13.2	11	12
	4.0	12.8	1.04	17.4	13	15
	5.0	13.7	1.32	22.2	14	16
	6.0	14.9	1.55	25.8	14	16
	8.0	15.2	2.06	34.2	21	25
4.5	1.5	10.4	0.42	7.2	8	9
	2.0	10.7	0.55	9.0	10	11
	2.5	11.3	0.68	11.4	11	12
	3.0	12.2	0.84	13.8	11	13
	4.0	12.8	1.10	18.0	13	15
	5.0	13.7	1.40	23.4	15	17
	6.0	14.6	1.64	28.2	15	18
	8.0	15.2	2.19	36.6	19	22

5000 SERIES LOW-ANGLE NOZZLE PERFORMANCE (IMPERIAL)

PRESSURE (PSI)	NOZZLE	RADIUS (FT)	FLOW (GPM)	■ PRECIP (IN/H)	▲ PRECIP (IN/H)
25	1.0 LA	25	0.76	0.23	0.27
	1.5 LA	27	1.15	0.30	0.35
	2.0 LA	29	1.47	0.34	0.39
	3.0 LA	29	2.23	0.51	0.59
35	1.0 LA	28	0.92	0.23	0.26
	1.5 LA	30	1.38	0.30	0.34
	2.0 LA	31	1.77	0.35	0.41
	3.0 LA	33	2.68	0.47	0.55
45	1.0 LA	29	1.05	0.24	0.28
	1.5 LA	31	1.58	0.32	0.37
	2.0 LA	32	2.02	0.38	0.44
	3.0 LA	35	3.07	0.48	0.56
55	1.0 LA	29	1.17	0.27	0.31
	1.5 LA	31	1.76	0.35	0.41
	2.0 LA	33	2.24	0.40	0.46
	3.0 LA	36	3.41	0.51	0.58
65	1.0 LA	29	1.27	0.29	0.34
	1.5 LA	31	1.92	0.38	0.44
	2.0 LA	33	2.45	0.43	0.50
	3.0 LA	36	3.72	0.55	0.64

Precipitation rates based on half-circle operation

■ Square spacing based on 50% diameter of throw

▲ Triangular spacing based on 50% diameter of throw

Performance data collected in zero wind conditions

Performance data derived from tests that conform with ASAE Standards; ASAE S398.1.

5000 SERIES LOW-ANGLE NOZZLE PERFORMANCE (METRIC)

PRESSURE (BAR)	NOZZLE	RADIUS (M)	FLOW (M^3/H)	FLOW (L/M)	■ PRECIP (MM/H)	▲ PRECIP (MM/H)
1.7	1.0 LA	7.6	0.17	3.0	6	7
	1.5 LA	8.2	0.26	4.2	8	9
	2.0 LA	8.8	0.33	5.4	9	10
	3.0 LA	8.8	0.51	8.4	13	15
2.0	1.0 LA	8.0	0.18	3.0	6	6
	1.5 LA	8.6	0.28	4.8	8	9
	2.0 LA	9.1	0.36	6.0	9	10
	3.0 LA	9.3	0.55	9.0	13	15
2.5	1.0 LA	8.6	0.20	3.6	5	6
	1.5 LA	9.2	0.32	5.4	8	9
	2.0 LA	9.5	0.41	6.6	9	10
	3.0 LA	10.1	0.62	10.2	12	14
3.0	1.0 LA	8.8	0.22	3.6	6	7
	1.5 LA	9.4	0.35	6.0	8	9
	2.0 LA	9.7	0.45	7.8	10	11
	3.0 LA	10.6	0.68	11.4	12	14
3.5	1.0 LA	8.8	0.24	4.2	6	7
	1.5 LA	9.4	0.38	6.6	9	10
	2.0 LA	9.9	0.49	8.4	10	11
	3.0 LA	10.8	0.74	12.6	13	15
4.0	1.0 LA	8.8	0.26	4.2	7	8
	1.5 LA	9.4	0.41	6.6	9	11
	2.0 LA	10.1	0.52	9.0	10	12
	3.0 LA	11.0	0.80	13.2	13	15
4.5	1.0 LA	8.8	0.27	4.8	7	8
	1.5 LA	9.4	0.44	7.2	10	11
	2.0 LA	10.1	0.56	9.0	11	13
	3.0 LA	11.0	0.84	13.8	14	16

5000 SERIES WITH PRS STANDARD ANGLE RAIN CURTAIN™ NOZZLE PERFORMANCE (IMPERIAL)

PRESSURE (PSI)	NOZZLE	RADIUS (FT)	FLOW (GPM)	■ PRECIP (IN/H)	▲ PRECIP (IN/H)
25	1.5	33	1.12	0.20	0.23
	2.0	35	1.50	0.24	0.27
	2.5	35	1.81	0.28	0.33
	3.0	36	2.26	0.34	0.39
	4.0	36	2.91	0.43	0.49
	5.0	37	3.72	0.52	0.66
	6.0	37	4.25	0.60	0.69
	8.0	33	5.90	1.26	1.50
35	1.5	34	1.35	0.22	0.26
	2.0	36	1.81	0.27	0.31
	2.5	37	2.17	0.31	0.35
	3.0	38	2.71	0.36	0.41
	4.0	40	3.50	0.42	0.49
	5.0	41	4.47	0.51	0.59
	6.0	43	5.23	0.54	0.63
	8.0	41	7.06	0.94	1.10
45	1.5	35	1.54	0.24	0.28
	2.0	37	2.07	0.29	0.34
	2.5	37	2.51	0.35	0.41
	3.0	39	3.09	0.37	0.43
	4.0	42	4.01	0.44	0.51
	5.0	43	5.09	0.48	0.56
	6.0	44	6.01	0.55	0.63
	8.0	44	8.03	0.92	1.06
55–75	1.5	35	1.59	0.25	0.29
	2.0	37	2.14	0.30	0.35
	2.5	37	2.60	0.37	0.42
	3.0	39	3.20	0.39	0.44
	4.0	42	4.15	0.45	0.52
	5.0	43	5.27	0.50	0.58
	6.0	44	6.22	0.57	0.65
	8.0	44	8.31	0.72	0.84

Precipitation rates based on half-circle operation

■ Square spacing based on 50% diameter of throw

▲ Triangular spacing based on 50% diameter of throw

Performance data collected in zero wind conditions

Performance data derived from tests that conform with ASAE Standards; ASAE S398.1.

5000 SERIES WITH PRS STANDARD ANGLE RAIN CURTAIN™ NOZZLE PERFORMANCE (METRIC)

PRESSURE (BAR)	NOZZLE	RADIUS (M)	FLOW (M^3/H)	FLOW (L/M)	■ PRECIP (MM/H)	▲ PRECIP (MM/H)
1.7	1.5	10.1	0.25	4.2	5	6
	2.0	10.7	0.34	5.4	6	7
	2.5	10.7	0.41	6.6	7	8
	3.0	11.0	0.51	8.4	8	10
	4.0	11.3	0.66	10.8	10	12
	5.0	11.9	0.84	13.8	12	14
	6.0	11.9	0.97	16.2	14	16
	8.0	11.0	1.34	22.2	22	26
2.0	1.5	10.2	0.28	4.8	5	6
	2.0	10.8	0.36	6.0	6	7
	2.5	10.9	0.44	7.2	7	9
	3.0	11.2	0.55	9.0	9	10
	4.0	11.6	0.71	12.0	11	13
	5.0	12.1	0.91	15.0	13	15
	6.0	12.4	1.05	17.4	15	17
	8.0	11.8	1.45	24.0	32	37
2.5	1.5	10.4	0.31	5.4	6	7
	2.0	11.0	0.41	6.6	7	8
	2.5	11.3	0.50	8.4	8	9
	3.0	11.2	0.62	10.2	9	11
	4.0	12.3	0.81	13.2	11	13
	5.0	12.7	1.03	17.4	13	15
	6.0	13.2	1.21	20.4	14	16
	8.0	13.3	1.63	27.0	24	18
3.0	1.5	10.6	0.34	6.0	6	7
	2.0	11.2	0.45	7.8	7	8
	2.5	11.3	0.56	9.6	9	10
	3.0	12.1	0.69	11.4	9	11
	4.0	12.7	0.89	16.8	11	13
	5.0	13.5	1.13	18.6	12	14
	6.0	13.9	1.34	22.2	14	16
	8.0	14.1	1.79	30.0	23	27
3.5–5.2	1.5	10.6	0.35	6.0	6	7
	2.0	11.2	0.47	7.8	8	9
	2.5	11.3	0.58	10.2	9	11
	3.0	12.1	0.71	12.0	10	11
	4.0	12.7	0.92	15.6	12	13
	5.0	13.5	1.17	19.2	13	15
	6.0	13.9	1.39	22.8	14	17
	8.0	14.1	1.85	31.2	18	21

5000 SERIES PRS LOW-ANGLE NOZZLE PERFORMANCE (IMPERIAL)

PRESSURE (PSI)	NOZZLE	RADIUS (FT)	FLOW (GPM)	■ PRECIP (IN/H)	▲ PRECIP (IN/H)
25	1.0 LA	25	0.76	0.22	0.26
	1.5 LA	27	1.15	0.30	0.35
	2.0 LA	29	1.47	0.34	0.39
	3.0 LA	29	2.23	0.51	0.59
35	1.0 LA	28	0.92	0.21	0.25
	1.5 LA	30	1.38	0.30	0.34
	2.0 LA	31	1.77	0.35	0.41
	3.0 LA	33	2.68	0.47	0.55
45	1.0 LA	29	1.05	0.23	0.26
	1.5 LA	31	1.58	0.32	0.37
	2.0 LA	32	2.02	0.38	0.44
	3.0 LA	35	3.07	0.48	0.56
55 –75	1.0 LA	29	1.09	0.25	0.29
	1.5 LA	31	1.64	0.33	0.38
	2.0 LA	32	2.09	0.39	0.45
	3.0 LA	35	3.18	0.5	0.58

Precipitation rates based on half-circle operation

■ Square spacing based on 50% diameter of throw

▲ Triangular spacing based on 50% diameter of throw

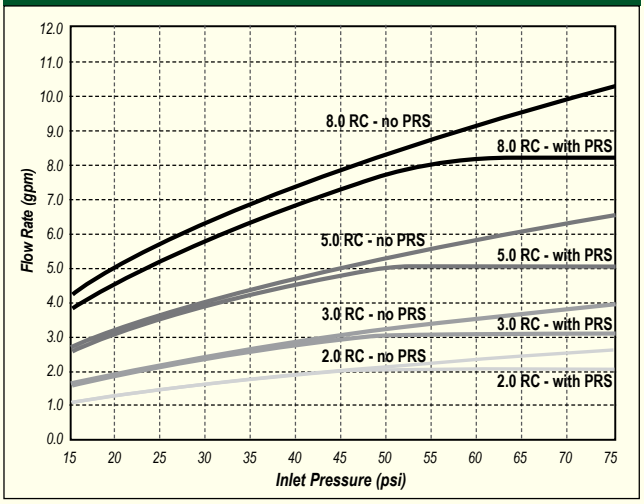
Performance data collected in zero wind conditions

Performance data derived from tests that conform with ASAE Standards; ASAE S398.1.

5000 SERIES LOW-ANGLE NOZZLE PERFORMANCE (METRIC)

PRESSURE (BAR)	NOZZLE	RADIUS (M)	FLOW (M^3/H)	FLOW (L/M)	■ PRECIP (MM/H)	▲ PRECIP (MM/H)
1.7	1.0 LA	7.6	0.17	3.0	6	7
	1.5 LA	8.2	0.26	4.2	8	9
	2.0 LA	8.8	0.33	5.4	9	10
	3.0 LA	8.8	0.51	8.4	13	15
2.0	1.0 LA	8.0	0.18	3.0	6	6
	1.5 LA	8.6	0.28	4.8	8	9
	2.0 LA	9.1	0.36	6.0	9	10
	3.0 LA	9.3	0.55	9.0	13	15
2.5	1.0 LA	8.6	0.20	3.6	5	6
	1.5 LA	9.2	0.32	5.4	8	9
	2.0 LA	9.5	0.41	6.6	9	10
	3.0 LA	10.1	0.62	10.2	12	14
3.0	1.0 LA	8.8	0.22	3.6	6	7
	1.5 LA	9.4	0.35	6.0	8	9
	2.0 LA	9.7	0.45	7.8	10	11
	3.0 LA	10.6	0.68	11.4	12	14
3.5 –5.2	1.0 LA	8.8	0.23	3.6	6	7
	1.5 LA	9.4	0.36	6.0	8	10
	2.0 LA	9.7	0.47	7.8	10	12
	3.0 LA	10.6	0.70	12.0	13	15

Flow Rate vs. Inlet Pressure – Rain Curtain™ Nozzles



SPECIFICATIONS:

5000 Plus Series Full and Reversing Full- or Part-Circle Sprinkler

The full- and/or part-circle sprinkler shall be a single-stream, water-lubricated, gear-drive type capable of covering a ___ foot (xx meter) at ___ pounds per square inch (psi) or (bar) with a discharge rate of ___ gallons per minute (___ gpm (___ m^3/h). The sprinkler shall have a flow shut-off device that is integrated into the flow path of the rotor as well as adjustable arc coverage of 40° to 360°. Arc adjustment can be performed with or without the sprinkler in operation and shall require only a flat-blade screwdriver.

The sprinkler shall have a smoothed flow path entrance to enhance the flow characteristics of the rotor. In addition, the sprinkler shall feature a flow path to nozzle bore transition radius to minimize pressure loss and assure peak nozzle radius is achieved.

The sprinkler shall have a pressure activated, multi-function wiper seal that positively seals against the pop-up stem to keep debris out of the rotor and to clean debris from the pop-up stem as it retracts.

This wiper seal shall prevent sprinkler from sticking up and be capable of sealing the sprinkler cap to sprinkler body under normal operating pressures.

The sprinkler shall have a screen installed in the pop-up stem to filter inlet water, protect the drive from clogging, and simplify its removal for cleaning and flushing of the system. It shall have a ¾" (FNPT) bottom inlet.

The sprinkler shall have a standard green rubber cover and a strong stainless steel retract spring for positive pop down. Pop-up height as measured from the top of the cap, at normal installation, to the middle of the nozzle orifice shall be ___ inches or __ cm.

The rotor's overall height shall be ___ inches (_____ cm), with an exposed surface diameter of 1⅝" (4.1 cm).

The sprinkler shall have 12 interchangeable nozzles: 8 Rain Curtain nozzles for superior coverage and, 4 Low Angle nozzles for reduced radius of throw and superior wind resistance with all nozzles containing Micro-Ramp™ for superior close-in watering. The angle of trajectory shall be 25° for the Rain Curtain nozzles and 10° for the low angle nozzles. The sprinkler shall come with a stainless steel adjusting screw capable of reducing the radius up to 25%.

The sprinkler shall be manufactured by Rain Bird Corporation.

Optional Feature Specifications

5000 Plus Series SAM, Full and Reversing Full- or Part-Circle Sprinkler SAM unit

When so indicated on the design, the sprinkler shall have a spring-loaded Seal-A-Matic (SAM) device in the base of the case. The device shall hold back at least 7 ft (2.13 m) of elevation change to prevent puddling, run-off, and erosion caused by low-head drainage.

5000 Plus Series Full and Reversing Full- or Part-Circle Non-Potable

When so indicated on the design, the sprinkler shall have a purple rubber cover to indicate to the user that non-potable water is being used. There shall be no difference between the black and the purple covers, except for the color.

The sprinkler shall be manufactured by Rain Bird Corporation.

SPECIFICATIONS (CONTINUED):

5000 Series Shrub Model Full and Reversing Full- or Part-Circle Sprinkler (SAM)

When so indicated on the design, the shrub model shall contain all of the specifications of the standard 5000 series rotor plus a locking screw to fasten the shrub unit to the riser. Additionally, the shrub base unit will feature Secure Ribs™ that are designed to assist in the staking of the shrub model if so specified on the design. When the Seal-A-Matic (SAM) model is indicated on the design, the device shall hold back at least 7 ft (2.13 m) of elevation change to prevent puddling, run-off, and erosion caused by low-head drainage. As well, the SAM unit shall experience no pressure loss during normal operation.

5000 Plus Series Stainless Steel

When so indicated on the design, the rotor shall have a stainless steel covered nozzle turret and riser stem. This riser stem shall be tapered and conform to the standard plastic riser in all other ways.

5000 MPR Nozzle Specification

The MPR Nozzle shall be capable of covering a _____ foot radius (ft.rad.)/(meter) at ____ pounds per square inch (psi)/(bars) with a discharge rate of_____ gallons per minute (gpm)/(m^3/h, l/s).

The MPR Nozzle shall have a matched precipitation rate of 0.6 in/hr (15 mm/h) at 45 psi (3.1 bar).

The MPR Nozzle shall be color-coded by radius. The MPR Nozzle shall contain Micro Ramp technology for superior close-in watering.

The sprinkler shall be manufactured by Rain Bird Corporation.

How To Specify

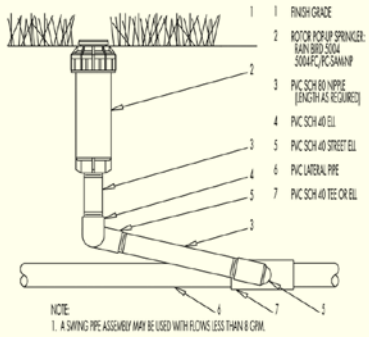
5004 - MPR - 25 - Q

Model
5000 Series

Nozzle
Matched Precipitation Rate

Radius Range
25 ft
30 ft
35 ft

Pattern
Q=Quarter
T=Third
H=Half
F=Full



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