

## 5500 Series Rotors

### Durability, Reliability, Performance

The Rain Bird® 5500 Series Rotors are built to withstand the harsh conditions and vandalism present in commercial rotor applications. They have been designed and tested to ensure the high reliability demanded by the market today. The 5500 Series offers the durability and performance of Rain Bird's best commercial rotors in a package designed to excel in short to mid-range applications.

#### Features

- Five year trade warranty
- Memory Arc® returns the rotor to its original arc setting
- Non-strippable drive mechanism prevents damage from vandals
- Brass reinforcing shaft of the nozzle turret to riser withstands vandal kick
- Optional stainless steel riser model helps deter vandalism on public turf areas
- Full and part circle operation in one unit to reduce inventory requirements
- Easy, wet, dry arc adjustment with slotted screwdriver through top of rotor from 50° to 330° part-circle, 360° non-reversing full-circle
- Left and right side trips adjustable for ease of installation without turning the case and loosening the pipe connection
- Seal-A-Matic™ (SAM) check device/riser to help prevent low head drainage
- Water-lubricated gear drive
- Rain Curtain™ nozzles for optimal distribution and close-in watering resulting in superior uniformity
- Nozzles are interchangeable from the front with no special tools
- Self-adjusting turbine stator allows nozzle replacement with no other adjustments required
- Heavy duty retract spring ensures positive pop-down
- Standard black rubber cover
- Optional Purple rubber cover for non-potable applications
- Five-year trade warranty

#### Operating Range

- Precipitation Rates: 0.21 to 1.48 in/hr (6.3 to 33.8 mm/h)
- Radius: 17' to 55' (5.2 to 16.8 m)
- Pressure: 40 to 90 psi (2.8 to 6.2 bar)
- Flow 1.2 to 15.5 gpm (0.32 to 3.52 m³/h; 4.52 to 58.66 l/m)

#### Specifications

- 3/4" (20/27) NPT female threaded inlet
- SAM check device holds up to 10' (3.1 m) of head
- Rain Curtain nozzles: 2.0 - Orange, 3.0 Red, 4.0 - Black, 5.0 - Yellow, 6.0 - Light Blue, 8.0 - Dark Green, 10.0 - Grey, 12.0 - Beige; and short throw nozzle tree 18S, 22S, 26S, 30S - Aqua
- Nozzle outlet trajectory is 22°

#### Dimensions

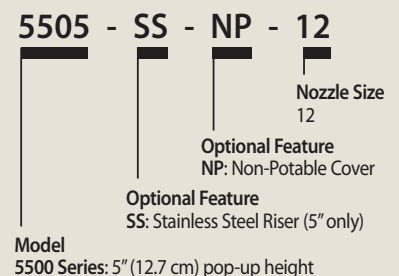
- Exposed diameter: 1 3/4" (4.4 cm)
- Overall diameter: 2 3/4" (7.0 cm)
- Overall height: 9 1/4" (23.5 cm)
- Pop-up height: 5" (12.7 cm)
- *Note: Pop-up height is measured from cover to the primary nozzle port. Overall body height is measured popped down.*

#### Models

- 5505: 3/4" NPT female threaded inlet (5" plastic riser stem)
- 5505-SS: 3/4" NPT female threaded inlet (5" stainless steel covered riser stem)



#### How To Specify



## 5500 Nozzle Performance

Pressure psi	Nozzle	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
30	● 2	33	1.2	0.21	0.25
	● 3	35	2.3	0.36	0.42
	● 4	37	2.4	0.34	0.39
	● 5	37	2.6	0.37	0.42
	● 6	39	4.2	0.53	0.61
	● 8	39	5.3	0.67	0.77
40	● 2	37	1.6	0.23	0.26
	● 3	39	2.7	0.34	0.39
	● 4	41	2.9	0.33	0.38
	● 5	41	3.5	0.40	0.46
	● 6	45	4.8	0.46	0.53
	● 8	45	6.4	0.61	0.70
	● 10	41	7.5	0.86	0.99
	● 12	39	10.1	1.28	1.48
50	● 2	37	1.7	0.24	0.28
	● 3	41	3.0	0.34	0.40
	● 4	43	3.3	0.34	0.40
	● 5	45	3.8	0.36	0.42
	● 6	47	5.4	0.47	0.54
	● 8	49	7.3	0.59	0.68
	● 10	47	8.9	0.78	0.90
	● 12	45	11.1	1.06	1.22
60	● 2	37	1.9	0.27	0.31
	● 3	41	3.3	0.38	0.44
	● 4	45	3.6	0.34	0.40
	● 5	47	4.8	0.42	0.48
	● 6	47	6.0	0.52	0.60
	● 8	51	8.2	0.61	0.70
	● 10	51	9.7	0.72	0.83
	● 12	51	12.3	0.91	1.05
70	● 2	39	2.1	0.27	0.31
	● 3	43	3.5	0.36	0.42
	● 4	45	3.9	0.37	0.43
	● 5	47	5.1	0.44	0.51
	● 6	47	6.5	0.57	0.65
	● 8	53	8.8	0.60	0.70
	● 10	53	11.1	0.76	0.88
	● 12	53	13.5	0.93	1.07
80	● 2	39	2.3	0.29	0.34
	● 3	43	3.8	0.40	0.46
	● 4	45	4.2	0.40	0.46
	● 5	47	5.5	0.48	0.55
	● 6	49	7.0	0.56	0.65
	● 8	53	9.5	0.65	0.75
	● 10	55	12.1	0.77	0.89
	● 12	55	14.4	0.92	1.06
90	● 10	55	13.1	0.83	0.96
	● 12	55	15.5	0.99	1.14



5500 Nozzles







































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.

5500 Nozzle Performance					METRIC	
Pressure bar	Nozzle	Radius m	Flow m <sup>3</sup> /h	Flow l/m	Precip mm/h 	Precip mm/h 
2.1	 2	10.1	0.32	4.54	6.3	7.3
	 3	10.7	0.52	8.71	9.2	10.6
	 4	11.3	0.59	9.08	9.3	10.7
	 5	11.3	0.73	9.84	11.4	13.2
	 6	11.3	0.86	15.90	13.6	15.7
	 8	10.1	1.23	20.06	24.2	28.0
2.5	 2	10.8	0.35	5.49	5.9	6.8
	 3	11.4	0.58	9.65	8.9	10.2
	 4	12.0	0.66	10.27	9.1	10.5
	 5	12.0	0.81	11.97	11.2	12.9
	 6	12.4	0.96	17.32	12.5	14.4
	 8	11.2	1.37	22.67	21.8	25.2
3.0	 2	11.3	0.38	6.19	6.0	6.9
	 3	12.1	0.64	10.62	8.7	10.0
	 4	12.7	0.74	11.51	9.1	10.5
	 5	12.9	0.90	13.65	10.8	12.5
	 6	13.3	1.07	18.97	12.1	13.9
	 8	12.3	1.53	25.42	20.1	23.2
	 10	13.1	1.74	30.25	20.1	23.2
	 12	12.5	2.30	39.56	29.3	33.8
3.5	 2	11.3	0.41	6.49	6.5	7.5
	 3	12.5	0.69	11.44	8.8	10.2
	 4	13.2	0.80	12.58	9.2	10.7
	 5	13.8	0.98	14.67	10.4	12.0
	 6	13.8	1.17	20.61	12.3	14.2
	 8	13.2	1.67	27.89	19.3	22.3
	 10	14.4	1.83	33.92	17.6	20.3
	 12	13.9	2.54	42.36	26.5	30.6
	4.0	 2	11.3	0.45	7.04	7.0
 3		12.5	0.75	12.27	9.7	11.2
 4		13.6	0.85	13.40	9.2	10.6
 5		14.2	1.05	17.42	10.4	12.0
 6		14.2	1.25	22.26	12.4	14.3
 8		13.6	1.80	30.36	19.5	22.5
 10		15.3	2.12	36.11	18.1	20.9
 12		15.2	2.74	45.65	23.8	27.4

Pressure bar	Nozzle	Radius m	Flow m <sup>3</sup> /h	Flow l/m	Precip mm/h 	Precip mm/h 	
4.5	 2	11.6	0.48	7.59	7.1	8.2	
	 3	12.8	0.80	12.89	9.7	11.2	
	 4	13.7	0.90	14.22	9.6	11.0	
	 5	14.3	1.12	18.77	10.9	12.6	
	 6	14.3	1.33	23.71	13.0	15.0	
	 8	14.0	1.92	32.23	19.5	22.5	
	 10	15.9	2.38	39.51	18.9	21.9	
5.0	 12	15.9	2.94	48.95	23.3	26.9	
	 2	11.9	0.51	8.14	7.2	8.3	
	 3	13.1	0.83	13.53	9.7	11.2	
	 4	13.7	0.95	15.05	10.1	11.6	
	 5	14.3	1.18	19.69	11.5	13.3	
	 6	14.5	1.41	25.08	13.4	15.5	
	 8	14.5	2.04	33.98	19.4	22.5	
5.5	 10	16.3	2.60	42.97	19.5	22.5	
	 12	16.3	3.12	51.96	23.4	27.1	
	 2	11.9	0.52	8.69	7.4	8.5	
	 3	13.1	0.88	14.36	10.3	11.9	
	 4	13.7	1.00	15.87	10.6	12.2	
	 5	14.3	1.25	20.78	12.2	14.0	
	 6	14.9	1.47	26.45	13.2	15.3	
6.0	 8	14.9	2.15	35.90	19.3	22.3	
	 10	16.8	2.74	45.71	19.6	22.6	
	 12	16.8	3.27	54.43	23.3	26.9	
	 10	16.8	2.91	48.46	20.7	23.9	
	 12	16.8	3.45	57.43	24.5	28.3	
	6.2	 10	16.8	2.98	49.58	21.2	24.4
		 12	16.8	3.52	58.66	25.1	28.9

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.

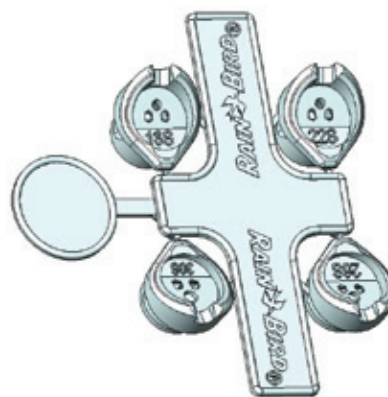
**5500 Short Radius Nozzle Performance**

Pressure psi	Nozzle	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
30	18S	17	1.4	0.93	1.08
	22S	19	1.4	0.75	0.86
	26S	25	1.4	0.43	0.50
	30S	25	1.7	0.52	0.60
40	18S	19	1.5	0.80	0.92
	22S	21	1.6	0.70	0.81
	26S	25	1.9	0.59	0.68
	30S	29	1.8	0.41	0.48
50	18S	21	1.8	0.79	0.91
	22S	23	1.8	0.66	0.76
	26S	29	2.1	0.48	0.56
	30S	31	2.0	0.40	0.46
60	18S	23	2.0	0.73	0.84
	22S	25	2.0	0.62	0.71
	26S	29	2.4	0.55	0.63
	30S	33	2.2	0.39	0.45
70	18S	23	2.2	0.80	0.92
	22S	25	2.3	0.71	0.82
	26S	29	2.8	0.64	0.74
	30S	35	2.8	0.44	0.51
80	18S	25	2.4	0.74	0.85
	22S	27	2.5	0.66	0.76
	26S	29	3.1	0.71	0.82
	30S	35	3.1	0.49	0.56

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.

**5500 Short Radius Nozzle Performance METRIC**

Pressure bar	Nozzle	Radius m	Flow m <sup>3</sup> /h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
2.1	18S	5.2	0.32	5.3	23.7	27.3
	22S	5.8	0.32	5.3	19.0	21.9
	26S	7.6	0.32	5.3	11.0	12.6
	30S	7.6	0.39	6.4	13.3	15.4
2.5	18S	5.6	0.33	5.5	21.5	24.8
	22S	6.2	0.35	5.8	18.2	21.0
	26S	7.6	0.39	6.5	13.4	15.5
	30S	8.4	0.40	6.7	11.4	13.2
3.0	18S	6.0	0.36	6.1	20.2	23.3
	22S	6.6	0.38	6.3	17.3	20.0
	26S	8.0	0.45	7.5	13.8	16.0
	30S	9.1	0.42	7.1	10.4	12.0
3.5	18S	6.4	0.41	6.9	19.8	22.9
	22S	7.1	0.41	6.9	16.6	19.1
	26S	8.8	0.48	8.0	12.3	14.3
	30S	9.5	0.46	7.6	10.2	11.7
4.0	18S	6.9	0.45	7.4	18.8	21.7
	22S	7.5	0.45	7.4	15.8	18.3
	26S	8.8	0.53	8.9	13.6	15.7
	30S	9.9	0.49	8.2	9.9	11.5
4.5	18S	7.0	0.49	8.2	19.9	23.0
	22S	7.6	0.49	8.2	16.9	19.5
	26S	8.8	0.59	9.9	15.2	17.5
	30S	10.4	0.57	9.5	10.6	12.2
5.0	18S	7.2	0.53	8.9	20.8	24.0
	22S	7.8	0.53	8.9	17.7	20.4
	26S	8.8	0.65	10.9	16.7	19.3
	30S	10.7	0.65	10.9	11.5	13.3
5.5	18S	7.6	0.57	9.4	19.6	22.6
	22S	8.2	0.57	9.4	16.8	19.4
	26S	8.8	0.70	11.7	18.0	20.8
	30S	10.7	0.70	11.7	12.3	14.3



5500 Short Radius Nozzles

## Specifications

The full- or part-circle sprinkler shall be a single stream, water lubricated, gear drive type capable of covering a \_\_\_\_ foot (meter) radius at a base pressure of \_\_\_\_ pounds per square inch (bar) with a discharge rate of \_\_\_\_ gallons per minute (l/h, m<sup>3</sup>/h).

The sprinkler shall be capable of both full circle and part circle operation in the same unit. The mode of operation shall be selected by inserting a flat blade screwdriver in the top of the rubber cap and turning a selector approximately 45 degrees. The sprinkler shall not reverse direction during continuous operation in the full circle mode. The part-circle sprinkler shall have adjustable arc coverage of 50 to 330 degrees. Arc adjustment can be performed with or without the rotor in operation and shall require only a flat blade screwdriver. The arc adjustment can be performed on both the right and left trip of the sprinkler. The sprinkler shall have a rotating nozzle turret independent of the riser stem. The portion of the riser stem that is in contact with the wiper seal shall be non-rotating.

The sprinkler shall have a non-strippable drive mechanism and permit manual rotation of the pop-up stem in any direction. This shall have no effect on either the drive or the set arc. Once the manual rotation is terminated, the sprinkler shall automatically return the water stream to its preset arc.

The sprinkler shall have a pressure activated, multi-function, soft elastomeric wiper seal. This wiper seal shall prevent the sprinkler from sticking in the up position, and be capable of sealing the sprinkler riser stem to the sprinkler cap under normal operating pressures.

The sprinkler shall have a screen attached to the drive housing to filter inlet water, protect the drive from clogging and simplify its removal for cleaning and flushing of the system. The sprinkler body shall have a 3/4" (20/27) female (NPT) bottom inlet. The sprinkler shall have a standard rubber cover which designates each adjustment opening from the top. The sprinkler shall have a single front-load nozzle with dual-ports which will allow the nozzle to be installed without a stator bushing change. The sprinkler shall have a stainless steel nozzle retention screw. The angle of trajectory shall be 22 degrees from horizontal.

The sprinkler shall have a strong stainless steel retract spring for positive pop-down. The sprinkler shall have a standard Seal-A-Matic™ (SAM) device capable of holding up to 10' (3.1 m) of head. Pop-up height as measured from the top of the cover to the centerline of the nozzle orifice shall be at least 5 inches (12.7 cm). The sprinkler's overall height shall be 9 1/4 inches (23.5 cm) and the exposed diameter shall be 1 3/4 inches (4.4 cm).

### 5505-SS

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

The sprinkler shall be as manufactured by Rain Bird Corporation, Glendora, California.

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