

## 8005 Series Rotors

### Bigger, Better, Built to Last

The Rain Bird® 8005 Rotor is built rugged to withstand the harsh conditions and vandalism present in commercial rotor applications. It has been designed and tested to ensure the high reliability demanded by the market today. Its extensive customer identified features and 80 foot radius make it ideal for sportsfields, parks and other large turf 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 rubber cap. (Green)
- Optional Purple rubber cover for non-potable applications

#### Operating Range

- Radius: 57 to 81 feet (17,4 to 24,7 m)
- Pressure: 50 to 100 psi (3,5 to 6,9 bar)
- Flow: 11.1 to 36.3 gpm (2,54 to 8,24 m<sup>3</sup>/h; 0,70 to 2,29 l/s)

#### Specifications

- 1" (26/34) NPT or BSP female threaded inlet
- SAM check device holds up to 10 feet (3,1 m) of head
- Rain Curtain nozzles: 12 - beige; 14 - light green; 16 - dark brown; 18 - dark blue; 20 - red; 22 - yellow; 24 - orange; 26 - white
- Nozzle outlet trajectory is 25°

#### Dimensions

- Exposed diameter: 1 7/8" (4,8 cm)
- Overall diameter: 3 1/8" (7,9 cm)
- Overall height: 10 1/8" (25,7 cm)
- Pop-up height: 5" (12,7 cm)

*Note: Pop-up height is measured from cover to center of primary nozzle port. Overall body height is measured popped down.*

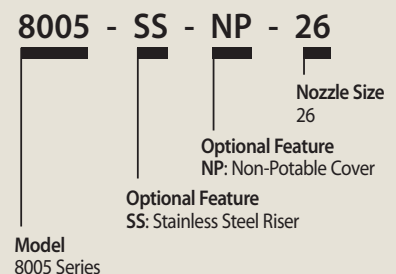
#### Models

- 8005: 1" NPT female threaded inlet (plastic riser stem).
- 8005-SS: 1" NPT female threaded inlet (stainless steel covered riser stem).
- Optional rubber collar (black)
- Optional non-potable rubber collar (purple)

*\*All models available with BSP threads*



#### How To Specify



**Standard Rubber Cover with 1 7/8" Exposed Diameter**  
for enhanced safety on playing fields

**Vandal Resistant Tripping Mechanism with Memory Arc®**

**Brass Reinforcing Shaft**  
brass shaft for enhanced protection against vandals

**Non-Strippable Drive Mechanism**

**Seal-A-Matic™ (SAM) Check Device**  
prevents puddling/erosion

**Adjustable Right & Left Trips**

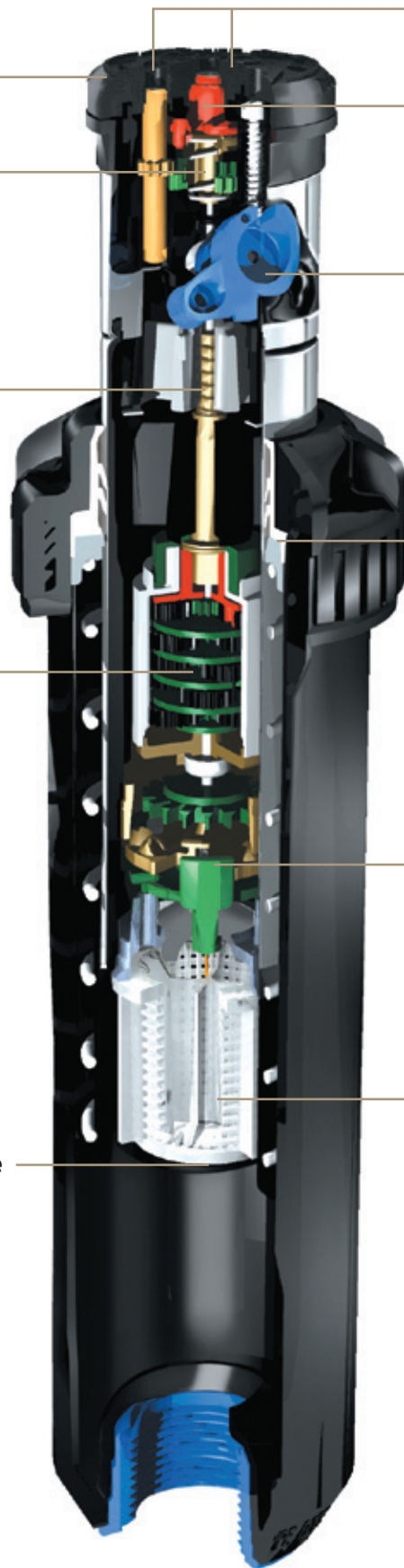
**Adjustment Mechanism**  
for part-circle and non-reversing full-circle operation

**Interchangeable Color-coded Rain Curtain™ Nozzles**  
for superior water distribution

**Pressure-Activated Wiper Seal**  
protects the internals from debris

**Self-Adjusting Stator**  
automatically adjusts when nozzle is changed

**Filter with Built-In Freeze Protection**



8005 Nozzle Performance					
Pressure psi	Nozzle	Radius ft.	Flow gpm	Precip in/h	Precip in/h
50	● 04	39	3.8	0.48	0.56
	● 06	45	5.6	0.53	0.62
	● 08	49	6.6	0.53	0.61
	● 10	53	9.3	0.64	0.74
	● 12	57	11.1	0.66	0.76
	● 14	59	12.6	0.70	0.81
	● 16	61	14.3	0.74	0.85
	● 18	63	16.1	0.78	0.90
	● 20	65	18.6	0.85	0.98
	● 22	65	20.7	0.94	1.09
	● 24	63	22.3	1.08	1.25
○ 26	65	24.3	1.11	1.28	
60	● 04	39	3.8	0.48	0.56
	● 06	45	6.1	0.58	0.67
	● 08	49	8.4	0.67	0.78
	● 10	53	10.1	0.69	0.80
	● 12	59	12.0	0.66	0.77
	● 14	61	14.3	0.74	0.85
	● 16	65	15.9	0.72	0.84
	● 18	65	17.8	0.81	0.94
	● 20	67	20.1	0.86	1.00
	● 22	71	23.2	0.89	1.02
	● 24	69	24.7	1.00	1.15
○ 26	73	26.7	0.96	1.11	
70	● 04	39	4.7	0.60	0.69
	● 06	45	6.7	0.64	0.74
	● 08	49	9.0	0.72	0.83
	● 10	55	11.1	0.71	0.82
	● 12	59	13.2	0.73	0.84
	● 14	63	15.3	0.74	0.86
	● 16	67	17.2	0.74	0.85
	● 18	67	19.3	0.83	0.96
	● 20	71	22.0	0.84	0.97
	● 22	73	25.2	0.91	1.05
	● 24	75	27.0	0.92	1.07
○ 26	75	29.4	1.01	1.16	
80	● 04	39	5.0	0.63	0.73
	● 06	45	7.1	0.68	0.78
	● 08	49	9.8	0.79	0.91
	● 10	55	11.8	0.75	0.87
	● 12	61	14.2	0.73	0.85
	● 14	63	16.4	0.80	0.92
	● 16	67	18.6	0.80	0.92
	● 18	69	20.9	0.85	0.98
	● 20	71	23.9	0.91	1.05
	● 22	75	27.3	0.93	1.08
	● 24	77	29.2	0.95	1.10
○ 26	79	31.5	0.97	1.12	
90	● 12	61	14.7	0.76	0.88
	● 14	65	17.9	0.82	0.94
	● 16	69	20.0	0.81	0.93
	● 18	71	22.2	0.85	0.98
	● 20	73	25.3	0.91	1.06
	● 22	75	29.1	1.00	1.15
100	● 24	79	31.0	0.96	1.10
	○ 26	79	33.7	1.04	1.20
	● 20	75	26.8	0.85	0.97
	● 22	77	30.7	1.00	1.15
● 24	79	32.8	1.01	1.17	
○ 26	81	36.3	1.07	1.23	

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.

8005 Nozzle Performance						METRIC
Pressure bar	Nozzle	Radius m	Flow m <sup>3</sup> /h	Flow l/m	Precip mm/h	Precip mm/h
3.5	● 4	11.9	0.86	14.38	12	14
	● 6	13.7	1.28	21.34	14	16
	● 8	14.9	1.59	25.50	14	16
	● 10	16.1	2.10	35.43	16	19
	● 12	17.5	2.52	42.27	16	19
	● 14	18.0	2.89	48.18	18	21
	● 16	18.7	3.28	54.59	19	22
	● 18	19.2	3.69	61.43	20	23
	● 20	19.9	4.25	70.83	21	25
	● 22	20.0	5.08	79.07	25	29
	○ 26	19.3	5.11	85.10	27	32
4.0	● 4	11.9	0.93	14.38	13	15
	● 6	13.7	1.37	22.71	15	17
	● 8	14.9	1.75	30.44	16	18
	● 10	16.3	2.30	37.63	17	20
	● 12	17.7	2.70	44.74	17	20
	● 14	18.5	3.17	52.85	19	21
	● 16	19.6	3.54	58.98	18	21
	● 18	19.7	3.97	66.10	20	24
	● 20	20.3	4.50	74.95	22	25
	● 22	21.3	5.23	85.94	23	27
	○ 26	20.7	5.50	91.69	26	30
4.5	● 4	11.9	1.00	16.18	14	16
	● 6	13.7	1.45	24.28	15	18
	● 8	14.9	1.92	32.99	17	20
	● 10	16.5	2.40	40.22	18	20
	● 12	18.0	2.87	47.81	18	20
	● 14	18.9	3.37	56.12	19	22
	● 16	20.1	3.77	62.77	19	22
	● 18	20.1	4.22	70.36	21	24
	● 20	21.1	4.79	79.87	22	25
	● 22	22.0	5.51	91.80	23	26
	○ 26	22.0	5.88	98.08	24	28
5.0	● 4	11.9	1.06	18.08	15	17
	● 6	13.7	1.54	25.74	16	19
	● 8	14.9	2.09	34.83	19	22
	● 10	16.7	2.50	42.68	18	21
	● 12	18.3	3.05	50.92	18	21
	● 14	19.2	3.54	58.96	19	22
	● 16	20.4	3.99	66.44	19	22
	● 18	20.6	4.47	74.58	21	24
	● 20	21.6	5.11	85.08	22	25
	● 22	22.4	5.84	97.39	23	27
	○ 26	23.0	6.26	104.29	24	27
5.5	● 4	11.9	1.13	18.90	16	18
	● 6	13.7	1.62	26.84	17	20
	● 8	14.9	2.25	37.02	20	23
	● 10	16.8	2.70	44.60	19	22
	● 12	18.5	3.23	53.66	19	22
	● 14	19.2	3.72	61.98	20	23
	● 16	20.4	4.22	70.28	20	23
	● 18	21.0	4.74	78.97	21	25
	● 20	21.6	5.42	90.30	23	27
	● 22	22.8	6.19	103.15	24	28
	○ 26	23.5	6.62	110.33	24	28
6.0	● 12	18.6	3.30	55.07	19	22
	● 14	19.6	3.96	66.06	21	24
	● 16	20.9	4.45	74.12	20	24
	● 18	21.5	4.95	82.56	21	25
	● 20	22.1	5.65	94.18	23	27
	● 22	22.9	6.71	108.12	26	30
	● 24	23.9	6.92	115.31	24	28
	○ 26	24.1	7.50	125.08	26	30
	● 14	19.8	4.06	67.75	21	24
	● 16	21.0	4.54	75.70	21	24
	● 18	21.7	5.04	84.02	21	25
6.5	● 20	22.5	5.89	98.19	23	27
	● 22	23.4	6.84	112.73	25	29
	● 24	24.1	7.22	120.25	25	29
	○ 26	24.3	7.91	131.76	27	31
6.9	● 20	22.9	6.09	101.43	23	27
	● 22	23.5	6.97	116.19	25	29
	● 24	24.1	7.45	124.14	26	30
	○ 26	24.7	8.24	137.39	27	31

## 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.

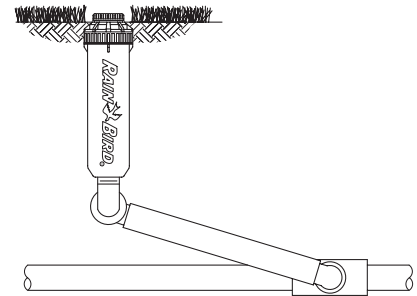
The sprinkler shall have a screen attached to the drive housing to filter inlet water, protect the drive from clogging and simplify its removal for cleaning and flushing of the system. The sprinkler body shall have a 1" (26/34) female (NPT or BSP) bottom inlet. The sprinkler shall have a standard rubber cover which designates each adjustment opening from the top. The sprinkler shall have a two piece, front-load nozzle assembly which will allow the nozzle to be installed without a stator bushing change. The primary and secondary nozzle ports shall be contained in one of the parts and shall be unique to each nozzle size. The tertiary nozzle port shall be common to all of the other primary/secondary nozzle assemblies. The sprinkler shall have a selection of eight color-coded nozzles. All nozzles shall have three ports for optimal close-in, mid-range and long-range water distribution. The sprinkler shall have a stainless steel nozzle retention screw. The angle of trajectory shall be 25 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 feet (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 10 1/8 inches (25,7 cm) and the exposed diameter shall be 1 7/8 inches (4,8 cm).

### 8005-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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