

8005 Series Rotors

Technical Specifications



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 sports fields, 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
- Heavy duty retract spring ensures positive pop-down
- Standard rubber cover (black)

OPERATING RANGE

Flow Rate

3.8 to 36.3 gpm (0.86 to 8.24 m³/h;
14.4 to 137.4 l/m)

Radius

Radius: 39 to 81 ft (11.9 to 24.7 m)

Pressure

50 to 100 psi (3.5 to 6.9 bar)

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.

SPECIFICATIONS

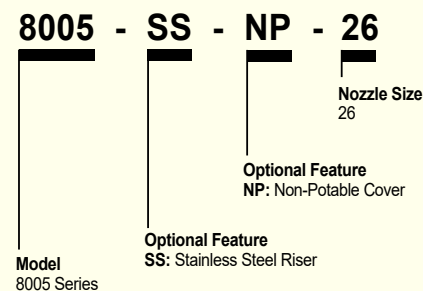
- 1" NPT or BSP female threaded inlet
- SAM check device holds up to 10 ft (3.1 m) of head
- Nozzle outlet trajectory is 25°

MODELS*

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

**All models available with BSP threads*

How To Specify



AVAILABLE NOZZLES

Standard Flow Kit - B81620

10, 12, 14, 16, 18

Low Flow Kit - B81610

4, 6, 8

High Flow Kit - B81630

20, 22, 24, 26

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
60	24	63	22.3	1.08	1.25
	26	65	24.3	1.11	1.28
	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
70	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
	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
80	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
	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
90	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
	04	39	14.7	0.76	0.88
	06	45	17.9	0.82	0.94
100	08	49	20.0	0.81	0.93
	10	55	22.2	0.85	0.98
	12	61	25.3	0.91	1.06
	14	65	29.1	1.00	1.15
	16	69	31.0	0.96	1.10
	18	71	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

8005 NOZZLE PERFORMANCE METRIC

Pressure (BAR)	Nozzle	Radius (M)	Flow (M³/H)	Flow (L/M)	Precip (mm/h)	Precip (mm/h)
3.5	04	11.9	0.86	14.38	12	14
	06	13.7	1.28	21.34	14	16
	08	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
4.0	24	19.3	5.11	85.10	27	32
	26	20.0	5.57	92.67	28	32
	04	11.9	0.93	14.38	13	15
	06	13.7	1.37	22.71	15	17
	08	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
4.5	20	20.3	4.50	74.95	22	25
	22	21.3	5.23	85.94	23	27
	24	20.7	5.50	91.69	26	30
	26	21.8	6.01	99.26	25	29
	04	11.9	1.00	16.18	14	16
	06	13.7	1.45	24.28	15	18
	08	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
5.0	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
	24	22.0	5.88	98.08	24	28
	26	22.6	6.42	106.44	25	29
	04	11.9	1.06	18.08	15	17
	06	13.7	1.54	25.74	16	19
	08	14.9	2.09	34.83	19	22
	10	16.7	2.50	42.68	18	21
5.5	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
	24	23.0	6.26	104.29	24	27
	26	23.2	6.80	113.28	25	29
	04	11.9	1.13	18.90	16	18
	06	13.7	1.62	26.84	17	20
6.0	08	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
	24	23.5	6.62	110.33	24	28
	26	24.1	7.14	119.05	25	28
6.2	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
6.5	18	21.7	5.04	84.02	21	25
	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
	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
	16	21.0	4.54	75.70	21	24

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 Rain Curtain™ Nozzles



Low Flow Kit

4, 6, 8

Standard Flow Kit

10, 12, 14, 16, 18

High Flow Kit

20, 22, 24, 26

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

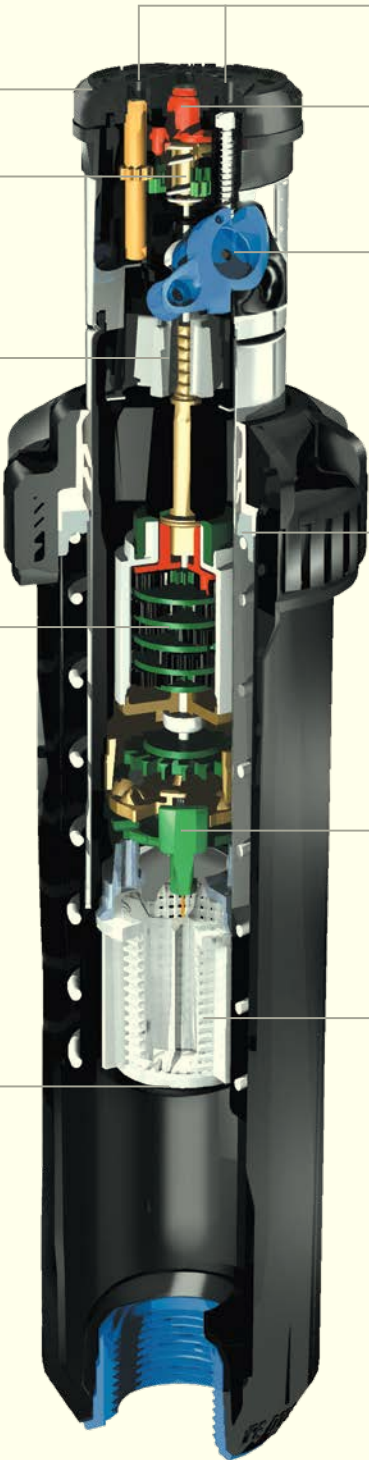
Adjustment Mechanism
For part-circle and non-reversing full-circle operation

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



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, m3/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.

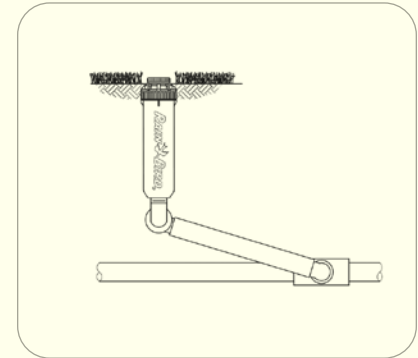
The sprinkler shall have a pressure activated, multi-function, soft elastomeric wiper seal. This wiper seal shall prevent the sprinkler from sticking in the up position, and be capable of sealing the sprinkler riser stem to the sprinkler cap under normal operating pressures.

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" 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.

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