

835S/855S Series

Radius: 52'–97'
Flow rate: 13.7–60.1 GPM
40°–330° Part- and Full-circle

Specifications

Radius:

835S: 52'–92' (15,8–28,0m)
855S: 61'–97' (18,6–29,6m)

Flow rate:

835S: 13.7–45.3 GPM (51,9–171,5 LPM)
855S: 18–60.1 GPM (68,3–227,5 LPM)

Precipitation rates:

835S: • Minimum: .46"/hr. • Maximum: .63"/hr.
855S: • Minimum: .50"/hr. • Maximum: .72"/hr.

Inlet:

835S: 1" NPT, BSP or ACME
855S: 1½" NPT, BSP or ACME

Dimensions:

835S: • Body height: 10" • Body diameter: 6½" • Pop-up height to nozzle: 3¼" • Weight: 2.98 lbs.
855S: • Body height: 11¾" • Body diameter: 7½" • Pop-up height to nozzle: 3¼" • Weight: 3.70 lbs.

Pilot Valve:

Selectable at 50, 65, 80 and 100 psi

Recommended operating pressure range:

65–100 psi (4,5–6,9 Bar)

Maximum pressure:

150 psi (10,3 Bar)

Minimum pressure:

40 psi (2,8 Bar)

Electric Valve-In-Head Solenoid:

24 V ac, 50/60 Hz
Inrush: 50 Hz, 0.17 Amps; 60 Hz, 0.12 Amps
Holding: 50 Hz, 0.15 Amps; 60 Hz, 0.10 Amps

Check-O-Matic:

Maintains 37' (11,2m) of elevation



835S

855S

Features and Benefits

Trjectory™ Adjustment of the main nozzle—24 positions from 7°–30°.

• A Toro patented exclusive, puts water where you want it with on-the-spot precision. Simply adjust the trajectory from the top of the sprinkler, wet or dry, and see instant results of the changes with no disassembly required. With 24 different angle positions, the 835S/855S provides the flexibility to tackle every obstacle on the course; wind, trees, bunkers, mounds and more. Adjust the radius to keep out of the native or lower the angle to avoid the effluent drift. So many possibilities!

Ratcheting riser

• Ratcheting riser, another Toro exclusive, allows you to adjust the riser position in the body with no disassembly required. Simply pull up the riser and ratchet it to precisely the position you want to water.
• Simplifies initial installation. Install the sprinklers onto the piping system without worrying about watering arc position. Once the grass lines are determined, pull up the riser, ratchet the riser to the left watering border then adjust the arc to the right watering border. Putting water precisely in the area you want. Onto the grass and out of the bunkers or native areas or cart paths. Nothing more, nothing less.

Arc Adjustment—40–330° and true full-circle in one

• The full and part circle drive assembly allows you to use one sprinkler for every location on the course. With part circle adjustment from 40° to 330° and the capability to be a true unidirectional full circle sprinkler, the 835S/855S can cover every angle. And for those special areas these unique sprinklers can be a full circle today and a part circle tomorrow. Whether you want to water just the greens today or water rationing means not watering the roughs, the 835S/855S drive assembly adjusts to every changing demand.

The industries largest and most flexible nozzle selection provides precision application

• From the main-less configuration for short radius applications to 100' radius requirements, we've got you covered with the largest nozzle selection in the industry.
• A wide-assortment of back nozzles water directly behind the sprinklers for those areas other sprinklers neglect.
• All nozzles are color coded for easy flow and radius identification and thread directly in from the front so no additional disassembly is required
• Hot spot watering is easier than ever. Simply turn on the sprinkler, point and hold the nozzle anywhere you want for as long as you want. No need to drag out those hoses anymore.

Specifying Information



Body Inlet	Arc	Body Threads	Valve Type	Nozzle	Pressure Regulation*	Optional
3–1" 5–1½"	5—Part-circle and Full-circle In One	0—NPT 4—ACME 5—BSP	1—Normally Open Hydraulic 2—Check-O-Matic 6—Electric	83XS 31 32 33 34 35 36 37 85XS 51 52 53 54 55 56 57 58 59	6–65 psi (4,5 Bar) 8–80 psi (5,5 Bar)	E—Effluent Model DL—Decoder Model N—Nickel-plated Model

Example: When specifying an 835S Series Sprinkler with NPT threads, #34 nozzle, an electric valve and pressure regulation at 65 psi (4,5 Bar), you would specify: **835S-06-346**

* Electric models only. All sprinklers are equipped with the selectable pilot valve that allows settings at 50, 65, 80 and 100 psi. Note: Not all models available. Nickel-plated, corrosion-resistant models are available upon request.

835S/855S Series

Spike-Guard™ Solenoid

- The Spike-Guard solenoid's 20,000 volt lightning rating is nearly 3 times that of the leading competitor providing excellent performance in lightning prone areas, lowering your service part expenses and improving your labor efficiency.
- Drawing ½ the amperage of standard solenoids the Spike-Guard solenoid allows you to operate twice as many sprinklers simultaneously. Watering the course in half the time saves electrical cost of

operating the pump and just think what one or two more rounds might mean to the bottom line.

- Backward compatible to all Toro golf sprinklers and valves, the Spike-Guard solenoid allows you to instantly upgrade your existing Toro system for improved lightning protection and lower system operating costs.

Conversion Assemblies

- Upgrade your existing Toro Golf Sprinklers with a full line of 835S/855S conversions. Enjoy all the benefits of these exciting

new sprinklers by easily and economically dropping these conversions into your existing Toro sprinkler bodies.

Durability, Reliability and Serviceability

- Indestructible stainless steel valve seat eliminates body damage from rocks and debris in the system.
- Slow closing piston valve. For over 40 years Toro's slow closing piston valve has eliminated pressure surges that can cause damage to the piping system.

- Selectable pilot valve allows the user to identify, select and lock the pressure setting they desire.
- Removable rock screen from the top of the sprinkler allows you to flush the piping system quickly and thoroughly without worry of debris contamination.
- With fewer and more economical service parts, the 835S/855S will provide a lifetime of performance at a lower long term cost of ownership.

835S Series Performance Chart—U.S.

Base Pressure	Nozzle Set 31 ● (Yellow)		Nozzle Set 32 ● (Blue)		Nozzle Set 33 ● (Brown)		Nozzle Set 34 ● (Orange)		Nozzle Set 35 ● (Green)		Nozzle Set 36 ● (Gray)		Nozzle Set 37 ● (Black)		
	● Blue	■ Gray	● Red	■ Gray	● Orange	■ Gray	● Orange	■ Gray	● Blue	■ Gray	● Blue	■ Gray	● Orange	■ Gray	
psi	Radius	GPM	Radius	GPM	Radius	GPM	Radius	GPM	Radius	GPM	Radius	GPM	Radius	GPM	
50	52	13.7	61	17.1	64	20.2	69	27.4	—	—	—	—	—	—	
65	54	15.5	63	20.5	66	22.9	74	30.0	76	32.4	80	34.0	—	—	
80	57	17.0	67	22.6	70	25.3	77	33.2	79	35.8	84	37.5	86	40.8	
100	59	18.9	72	25.2	74	28.2	80	37.0	84	39.9	88	42.5	92	45.3	
Low-flow Stator								Medium-flow Stator							

Not recommended at these pressures. Radius shown in feet.
 Toro recommends the use of a 1¼" (30mm) swing joint at flows over 25 GPM (95 LPM). Sprinkler radius of throw per ASAE standard S398.1. All sprinklers are equipped with the selectable pilot valve that allows settings at 50, 65, 80 and 100 psi.

835S Series Performance Chart—Metric

Pressure	Nozzle Set 31 ● (Yellow)		Nozzle Set 32 ● (Blue)		Nozzle Set 33 ● (Brown)		Nozzle Set 34 ● (Orange)		Nozzle Set 35 ● (Green)		Nozzle Set 36 ● (Gray)		Nozzle Set 37 ● (Black)		
	● Blue	■ Gray	● Red	■ Gray	● Orange	■ Gray	● Orange	■ Gray	● Blue	■ Gray	● Blue	■ Gray	● Orange	■ Gray	
Bar kPa kg/cm²	Radius	LPM	Radius	LPM	Radius	LPM	Radius	LPM	Radius	LPM	Radius	LPM	Radius	LPM	
3,4 340 3,47	15,9	51,9	18,6	64,7	19,5	76,5	21,0	103,7	—	—	—	—	—	—	
4,5 450 4,59	16,5	58,7	19,2	77,6	20,1	86,7	22,6	113,6	23,2	122,6	24,4	128,7	—	—	
5,5 550 5,61	17,4	64,3	20,4	85,5	21,4	95,8	23,5	125,7	24,1	135,5	25,6	141,9	26,2	154,4	
6,9 690 7,04	18,0	71,5	22,0	95,4	22,6	106,7	24,4	140,0	25,6	151,0	26,8	160,9	28,1	171,5	
Low-flow Stator								Medium-flow Stator							

Not recommended at these pressures. Radius shown in meters.
 Toro recommends the use of a 1¼" (30mm) swing joint at flows over 25 GPM (95 LPM). Sprinkler radius of throw per ASAE standard S398.1.
 ● = Main Nozzle ● = Intermediate Nozzle ■ = Inner Nozzle

855S Series Performance Chart—U.S.

Base Pressure	Nozzle Set 51 ● (Yellow)		Nozzle Set 52 ● (Blue)		Nozzle Set 53 ● (Brown)		Nozzle Set 54 ● (Orange)		Nozzle Set 55 ● (Green)		Nozzle Set 56 ● (Gray)		Nozzle Set 57 ● (Black)		Nozzle Set 58 ● (Red)		Nozzle Set 59 ● (Beige)		
	● Blue	■ Gray	● Red	■ Gray	● Orange	■ Gray	● Orange	■ Gray	● Blue	■ Gray	● Blue	■ Gray	● Orange	■ Gray	● Blue	■ Gray	● Blue	■ Gray	
psi	Radius	GPM	Radius	GPM	Radius	GPM	Radius	GPM	Radius	GPM	Radius	GPM	Radius	GPM	Radius	GPM	Radius	GPM	
50	52	13.9	62	17.4	66	20.7	69	28.6	—	—	—	—	—	—	—	—	—	—	
65	54	15.7	64	20.8	68	23.4	74	31.2	76	33.8	81	35.7	—	—	—	—	—	—	
80	57	17.2	68	22.9	72	25.3	77	34.4	79	37.2	85	39.4	89	43.6	92	47.5	96	57.0	
100	59	19.1	73	25.5	76	28.7	80	38.2	84	41.3	89	43.7	94	48.5	95	51.1	100	61.1	
Low-flow Stator										Medium-flow Stator						High-flow			

Not recommended at these pressures. Radius shown in feet.
 Toro recommends the use of a 1¼" (30mm) swing joint at flows over 25 GPM (95 LPM). Sprinkler radius of throw per ASAE standard S398.1. All sprinklers are equipped with the selectable pilot valve that allows settings at 50, 65, 80 and 100 psi.

855S Series Performance Chart—Metric

Pressure	Nozzle Set 51 ● (Yellow)		Nozzle Set 52 ● (Blue)		Nozzle Set 53 ● (Brown)		Nozzle Set 54 ● (Orange)		Nozzle Set 55 ● (Green)		Nozzle Set 56 ● (Gray)		Nozzle Set 57 ● (Black)		Nozzle Set 58 ● (Red)		Nozzle Set 59 ● (Beige)		
	● Blue	■ Gray	● Red	■ Gray	● Orange	■ Gray	● Orange	■ Gray	● Blue	■ Gray	● Blue	■ Gray	● Orange	■ Gray	● Blue	■ Gray	● Blue	■ Gray	
Bar kPa kg/cm²	Radius	LPM	Radius	LPM	Radius	LPM	Radius	LPM	Radius	LPM	Radius	LPM	Radius	LPM	Radius	LPM	Radius	LPM	
3,4 340 3,47	15,9	52,6	18,9	65,9	20,1	78,3	21,0	108,3	—	—	—	—	—	—	—	—	—	—	
4,5 450 4,59	16,5	59,4	19,5	78,3	20,7	88,6	22,6	113,1	23,2	127,9	24,7	135,1	—	—	—	—	—	—	
5,5 550 5,61	17,4	65,1	20,7	86,7	22,0	97,7	23,5	130,2	24,1	140,8	25,9	149,1	27,1	165,0	28,1	179,8	29,3	215,7	
6,9 690 7,04	18,0	72,3	22,3	96,5	23,2	108,6	24,4	144,6	25,6	156,3	27,1	165,4	28,7	183,6	29,0	194,9	30,5	231,3	
Low-flow Stator										Medium-flow Stator						High-flow			

Not recommended at these pressures. Radius shown in meters.
 Toro recommends the use of a 1¼" (30mm) swing joint at flows over 25 GPM (95 LPM). Sprinkler radius of throw per ASAE standard S398.1.

835S Features

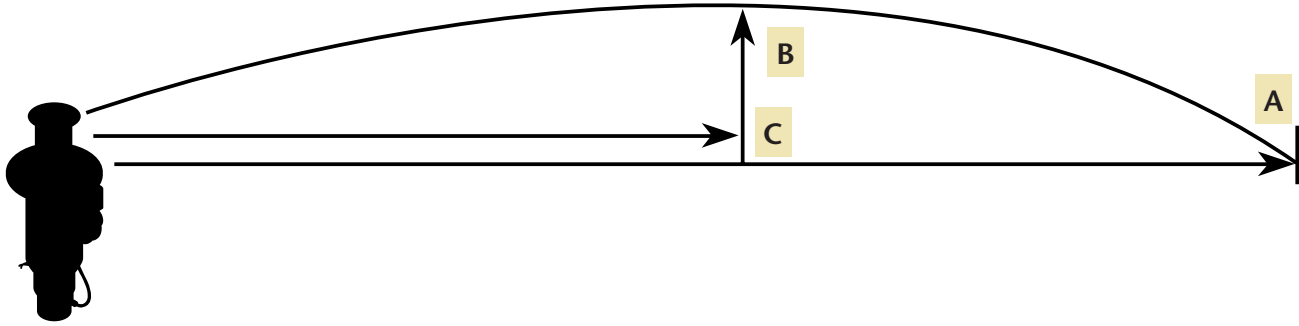
- Nozzle variations: seven (31, 32, 33, 34, 35, 36 and 37)
- Four in-line nozzles, rotating stream pattern
- Optional back nozzle
- Stator variations: 2
- Apex at 65 psi, 25°:
 - 31 nozzle: 8' @ 33'
 - 32 nozzle: 12' @ 34'
 - 33 nozzle: 13' @ 35'
 - 34 nozzle: 14' @ 39'
 - 35 nozzle: 15' @ 43'
 - 36 nozzle: 17' @ 45'
 - 37 nozzle: 18' @ 46'

855S Features

- Nozzle variations: nine (51, 52, 53, 54, 55, 56, 57, 58 and 59)
- Four in-line nozzles, rotating stream pattern
- Optional back nozzle
- Stator variations: 3
 - Apex at 25°:
 - 51 nozzle @ 65 psi: 10' @ 38'
 - 52 nozzle @ 65 psi: 11' @ 34'
 - 53 nozzle @ 65 psi: 13' @ 37'
 - 54 nozzle @ 65 psi: 15' @ 41'
 - 55 nozzle @ 65 psi: 15' @ 45'
 - 56 nozzle @ 80 psi: 18' @ 47'
 - 57 nozzle @ 80 psi: 19' @ 45'
 - 58 nozzle @ 80 psi: 18' @ 45'
 - 59 nozzle @ 80 psi: 21' @ 49'

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835S Trajectory Performance Data

Nozzle/PSI/GPM	#31 nozzle @ 65 psi, 15.5 gpm						#32 nozzle @ 65 psi, 20.5 gpm						#33 nozzle @ 65 psi, 22.9 gpm					
Trajectory	7°	10°	15°	20°	25°	30°	7°	10°	15°	20°	25°	30°	7°	10°	15°	20°	25°	30°
"A" Radius	46'	46'	50'	53'	54'	50'	48'	50'	55'	59'	63'	54'	54'	56'	59'	62'	66'	61'
"B" Spray Height	4'	4'	5'	8'	11'	13'	3'	4'	6'	9'	12'	15'	4'	5'	7'	9'	13'	15'
"C" Distance from Head	25'	25'	26'	33'	33'	33'	20'	24'	28'	34'	34'	34'	23'	28'	32'	34'	35'	35'

Nozzle/PSI/GPM	#34 nozzle @ 65 psi, 30.0 gpm						#35 nozzle @ 65 psi, 32.4 gpm						#36 nozzle @ 80 psi, 34.0 gpm					
Trajectory	7°	10°	15°	20°	25°	30°	7°	10°	15°	20°	25°	30°	7°	10°	15°	20°	25°	30°
"A" Radius	58'	60'	63'	67'	74'	70'	59'	61'	64'	70'	76'	74'	64'	65'	73'	79'	84'	80'
"B" Spray Height	4'	4'	6'	11'	14'	17'	4'	5'	7'	11'	15'	17'	5'	7'	8'	13'	17'	22'
"C" Distance from Head	24'	26'	35'	39'	39'	39'	30'	32'	36'	43'	43'	43'	25'	38'	40'	44'	45'	45'

Nozzle/PSI/GPM	#37 nozzle @ 80 psi, 39.8 gpm					
Trajectory	7°	10°	15°	20°	25°	30°
"A" Radius	65'	69'	77'	81'	86'	82'
"B" Spray Height	4'	5'	8'	12'	18'	21'
"C" Distance from Head	30'	34'	39'	42'	46'	46'

855S Trajectory Performance Data

Nozzle/PSI/GPM	#51 nozzle @ 65 psi, 15.7 gpm						#52 nozzle @ 65 psi, 20.8 gpm						#53 nozzle @ 65 psi, 23.4 gpm					
Trajectory	7°	10°	15°	20°	25°	30°	7°	10°	15°	20°	25°	30°	7°	10°	15°	20°	25°	30°
"A" Radius	46'	46'	51'	53'	54'	50'	49'	50'	56'	60'	64'	60'	54'	56'	59'	64'	68'	61'
"B" Spray Height	4'	4'	6'	10'	13'	15'	4'	4'	6'	9'	11'	13'	5'	6'	7'	9'	13'	15'
"C" Distance from Head	26'	27'	32'	38'	40'	41'	22'	26'	31'	35'	34'	30'	30'	33'	32'	35'	37'	37'

Nozzle/PSI/GPM	#54 nozzle @ 65 psi, 31.2 gpm						#55 nozzle @ 65 psi, 33.8 gpm						#56 nozzle @ 80 psi, 35.7 gpm					
Trajectory	7°	10°	15°	20°	25°	30°	7°	10°	15°	20°	25°	30°	7°	10°	15°	20°	25°	30°
"A" Radius	58'	60'	63'	67'	74'	70'	59'	62'	66'	70'	76'	74'	72'	73'	75'	81'	85'	82'
"B" Spray Height	5'	6'	8'	10'	15'	17'	6'	6'	9'	11'	15'	17'	6'	7'	8'	13'	18'	22'
"C" Distance from Head	31'	34'	40'	41'	41'	42'	34'	36'	43'	45'	45'	45'	41'	44'	44'	44'	47'	47'

Nozzle/PSI/GPM	#57 nozzle @ 80 psi, 41.9 gpm						#58 nozzle @ 80 psi, 46.2 gpm						#59 nozzle @ 80 psi, 53.3 gpm					
Trajectory	7°	10°	15°	20°	25°	30°	7°	10°	15°	20°	25°	30°	7°	10°	15°	20°	25°	30°
"A" Radius	72'	74'	80'	85'	89'	86'	75'	76'	82'	87'	92'	90'	77'	79'	85'	90'	96'	92'
"B" Spray Height	7'	8'	9'	12'	19'	23'	7'	7'	10'	13'	18'	21'	9'	8'	11'	14'	21'	25'
"C" Distance from Head	40'	40'	41'	41'	45'	45'	43'	43'	43'	45'	45'	45'	45'	45'	49'	49'	49'	49'

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Nozzle Performance Data—U.S.

	Blue-Plug-Gray w/r	Orange-Plug-Gray w/r	Red-Plug-Gray w/r	Gray w/R-Plug-Gray w/r	Gray-Plug-Gray w/r					
PSI	Radius	GPM	Radius	GPM	Radius	GPM	Radius	GPM	Radius	GPM
65	46	8.7	46	10.4	50	12.4	42	10.2	47	13.9
SOR	5:02		4:16		3:36		4:19		4:06	
80	46	9.6	47	11.5	53	13.7	44	11.2	51	15.3
SOR	4:22		3:40		3:03		3:53		3:40	

Radius shown in feet.

Nozzle Performance Data—Metric

	Blue-Plug-Gray w/r	Orange-Plug-Gray w/r	Red-Plug-Gray w/r	Gray w/R-Plug-Gray w/r	Gray-Plug-Gray w/r							
Bar	kPa	kg/cm ²	Radius	LPM	Radius	LPM	Radius	LPM	Radius	LPM	Radius	LPM
4.5	448	4,6	14.0	32.9	14.0	39.4	15.3	46.9	12.8	38.6	14.3	52.6
SOR			5:02		4:16		3:36		4:19		4:06	
5,5	552	5,6	14.0	36.3	14.3	43.5	16.2	51.9	13.4	42.4	15.6	57.8
SOR			4:22		3:40		3:03		3:53		3:40	

Radius shown in meters.

- Plug, main nozzle, 102-2208
- Intermediate nozzle, 102-2925
- Intermediate nozzle, 102-2926
- Intermediate nozzle, 102-2928

- SOR: Speed of rotation
 - Inner nozzle with restrictor (w/r), 102-2910
 - Inner nozzle without restrictor, 102-2930
- Requires the low-flow stator for indicated rotation speeds.

Performance Data—U.S.

Nozzles			65 PSI				80 PSI				4,5 Bar•448 kPa•4,6 kg/cm ²				5,5 Bar•552 kPa•5,6 kg/cm ²			
Part #	Restrictor	Color	Radius	GPM	Radius	GPM	Profile	Radius (m)	LPM	Radius (m)	LPM	Radius (m)	LPM	Radius (m)	LPM			
89-4785	No	Green	25	1.7	25	1.9		7.6	6.6									
102-2135	102-1124 large white included	White	25	4.1	26	4.5		7.6	15.5	7.9	17.0							
102-2136	102-2041 yellow included	Yellow	24	3.8	25	4.1		7.3	14.4	7.6	15.5							
89-3942	89-4649 black required	Blue	23	2.4	24	2.5		7.0	9.1	7.3	9.5							
89-4652	89-4650 small white required	Brown	30	3.1	30	3.5		9.2	11.7	9.2	13.2							
89-3942	No	Blue	36	3.4	36	3.7		11.0	12.8	11.0	14.3							
89-4738	No	Red	29	3.5	31	3.8		8.8	13.1	9.5	14.3							
89-4651	No	Yellow	34	2.6	36	2.9		10.4	9.8	11.0	11.0							
89-3942	No	Blue	36	3.4	36	3.7		11.0	12.8	11.0	14.2							
89-4652	No	Brown	34	3.8	34	4.4		10.4	14.2	10.4	16.7							
89-3729	No	Orange	33	4.0	34	4.5		10.1	15.1	10.4	16.9							
89-4653	No	Green	32	4.1	32	4.8		9.8	15.5	9.8	18.1							
89-1879	No	Gray	35	4.8	36	5.0		10.7	18.2	11.0	19.0							
89-4654	No	Black	32	4.7	32	5.1		9.8	17.6	9.8	19.4							
89-1878	No	Red	36	4.7	36	5.2		11.0	17.9	11.0	19.8							
102-2925	No	Blue	40	2.9	40	3.1		12.2	11.0	12.2	11.7							
102-2926	No	Orange	43	4.2	43	4.4		13.1	15.9	13.1	16.7							
102-2927	No	Gray	46	4.6	47	4.9		14.0	17.4	14.3	18.5							
102-2928	No	Red	50	5.7	52	6.3		15.3	21.6	15.9	23.7							
102-2929	No	Beige	48	7.2	53	8.1		14.6	27.3	16.2	30.7							