

640 Series

- Inlet Size: 1" (25mm) NPT or BSP
- Radius: 47'-67' (14,0-20,0m)
- Operating Pressure Range: 40-90 psi (2,8-6,2 Bar)

Considered the most durable, heavy-duty commercial sprinkler available, the Toro® 640 Series is the proven veteran for athletic fields, parks, campuses and commercial sites.



Effluent
Options
Available



Check
Valve
Options
Available

Features & Benefits

35 Years of Reliability

Once the 640 Series sprinkler goes in the ground, it stays there. With a stainless steel-encased nozzle assembly and gear drive design.

Normally Open Valve-In-Head Body

Allows individual head control - the only commercial grade Toro rotor available with this feature.

Stainless Steel, Engineering Plastic and Brass Construction

Provide dependable performance in the most demanding environments.

Standard Check Valve

Prevents low-head drainage and keeps laterals charged with water.



The 640 installs below grade for increased player safety.

640 Series

Specifications

Dimensions

- Body diameter: 2 1/2" (65mm)
- Cap diameter: 3 1/4" (83mm)
- Body height: Check-O-Matic – 9" (230mm);
Valve-In-head – 10 1/2" (267mm)
- Exposed surface diameter when buried 1/2" below grade: 1 3/4" (65mm)

Operating Specifications

- Radius: 47' – 67' (14-20m)
- Flow Rate: 6.0 – 25.0 GPM (23-95 LPM)
- Operating Pressure Range: 40-90 psi (2,8-6,2 Bar)
- Trajectory: 27°
- Pop-up to nozzle: 2 3/8" (60mm)
- Inlet: 1" female-threaded (25mm)
- Below-grade installation: up to 1/2" (13mm)
- Check-O-Matic maintains up to 15' (4,6m) elevation change
- Selection of five nozzles and 12 arcs
- Adjustment screw allows up to 25% radius reduction

Additional Features

- Standard rubber cover
- Vandal-resistant cap with locking set screw
- Small exposed surface diameter
- Gear-drive design
- Basket filter screen
- Stainless steel retraction spring

Options Available

- 995-100 - Valve-In-Head Snap Ring Pliers
- 995-08 - Valve Removal Tool
- 995-35 - Valve Insertion Tool
- 995-37 - Seal Installation Tool
- 995-42 - Canister Removal Tool
- 996-51 - Cap Removal Tool
- 35-0579 - #41 Fast Rotating Stator
- 35-1011 - #42/43 Fast Rotating Stator
- Effluent options available

Warranty

- Five years

640 Series Model List Standard Arcs with Check-O-Matic

Model	Description
Body Package	
• 640-02 • 640-52	Check-O-Matic, NPT Check-O-Matic, BSP
Nozzle/Stator Set	
• 641-40 • 641-41 • 641-42 • 641-43 • 641-44 • 642-40E • 642-41E • 642-42E • 642-43E • 642-44E	#40 Nozzle & Stator #41 Nozzle & Stator #42 Nozzle & Stator #43 Nozzle & Stator #44 Nozzle & Stator #40 Nozzle & Stator #41 Nozzle & Stator #42 Nozzle & Stator #43 Nozzle & Stator #44 Nozzle & Stator
Drive Assemblies	
• 640-090 • 640-180 • 640-270	Drive Assembly, 90 Degrees Drive Assembly, 180 Degrees Drive Assembly, 270 Degrees

640 Series Model List

Model	Description
• 640-0XXX • 640-10 • 640-20 • 640-XX • 640-XXX	Drive Assembly Body Package, Valve-In-Head Body Package, Check-O-Matic Nozzle and Stator Nozzle and Stator, Effluent
Standard Arcs w/Check-O-Matic	
• 641-02-40 • 641-02-41 • 641-02-42 • 641-02-43 • 641-02-44 • 642-02-40 • 642-02-41 • 642-02-42 • 642-02-43 • 642-02-44 • 644-02-40 • 644-02-41 • 644-02-42 • 644-02-43 • 644-02-44	90° Arc, #40 Nozzle 90° Arc, #41 Nozzle 90° Arc, #42 Nozzle 90° Arc, #43 Nozzle 90° Arc, #44 Nozzle 180° Arc, #40 Nozzle 180° Arc, #41 Nozzle 180° Arc, #42 Nozzle 180° Arc, #43 Nozzle 180° Arc, #44 Nozzle 360° Arc, #40 Nozzle 360° Arc, #41 Nozzle 360° Arc, #42 Nozzle 360° Arc, #43 Nozzle 360° Arc, #44 Nozzle

Specifying Information—640

64X X-X-4X-XXX-E					
Arc	Thread	Valve Type	Nozzle	Special Arc	
X	X	X	X	XXX	
0—Special Arc 2—180° 1—90° 3—270° 4—360°	0—NPT Thread 5—BSP Thread	1—Normally Open Valve-In-Head 2—Check-O-Matic	0 1 2 3 4	045° 060° 108° 127°	148° 173° 192° 238°
E—Effluent Model					

Example: A 640 Series Sprinkler with a 90° arc, 40 nozzle and a check valve, would be specified as: **641-02-40**

Most 640 sprinklers are available in component parts only. Consult Res/Com Finished Goods Price List for a complete list of sprinklers available as finished goods.

640 Series Performance Data

Nozzle	psi	GPM	Radius	360° 		270° 		238° 		192° 		180° 		173° 	
															
40	40	6.0	47	0.30	0.26	0.40	0.35	0.46	0.39	0.57	0.49	0.60	0.52	0.63	0.54
	50	6.7	50	0.30	0.26	0.40	0.34	0.45	0.39	0.56	0.49	0.60	0.52	0.62	0.54
	60	7.3	52	0.30	0.26	0.40	0.35	0.45	0.39	0.56	0.49	0.60	0.52	0.62	0.54
	70	8.0	53	0.32	0.27	0.42	0.36	0.48	0.41	0.60	0.52	0.63	0.55	0.66	0.57
	80	8.6	54	0.33	0.28	0.44	0.38	0.50	0.43	0.62	0.53	0.66	0.57	0.68	0.59
41	90	9.2	55	0.34	0.29	0.45	0.39	0.51	0.44	0.64	0.55	0.68	0.59	0.70	0.61
	40	9.5	48	0.46	0.40	0.61	0.53	0.69	0.60	0.86	0.75	0.92	0.79	0.95	0.83
	50	10.2	53	0.40	0.35	0.54	0.47	0.61	0.58	0.76	0.60	0.81	0.70	0.84	0.73
	60	11.0	54	0.42	0.36	0.56	0.48	0.63	0.55	0.79	0.68	0.84	0.73	0.87	0.76
	70	11.9	55	0.44	0.38	0.58	0.50	0.66	0.57	0.82	0.71	0.87	0.76	0.91	0.79
42	80	12.7	56	0.45	0.39	0.60	0.52	0.68	0.59	0.85	0.73	0.90	0.78	0.94	0.81
	90	13.4	57	0.46	0.40	0.61	0.53	0.69	0.60	0.86	0.74	0.92	0.79	0.95	0.83
	40	12.0	52	0.49	0.43	0.66	0.57	0.75	0.65	0.93	0.80	0.99	0.85	1.03	0.89
	50	12.9	55	0.47	0.41	0.63	0.55	0.72	0.62	0.89	0.77	0.95	0.82	0.99	0.85
	60	14.0	56	0.50	0.43	0.66	0.57	0.75	0.65	0.93	0.81	0.99	0.86	1.03	0.89
43	70	14.7	57	0.50	0.44	0.67	0.58	0.76	0.66	0.95	0.82	1.01	0.87	1.05	0.91
	80	15.8	58	0.52	0.45	0.69	0.60	0.79	0.68	0.98	0.85	1.04	0.90	1.09	0.94
	90	16.8	58	0.56	0.48	0.74	0.64	0.84	0.73	1.04	0.90	1.11	0.96	1.16	1.00
	40	13.2	56	0.47	0.41	0.62	0.54	0.71	0.61	0.88	0.76	0.94	0.81	0.97	0.84
	50	14.5	59	0.46	0.40	0.62	0.53	0.70	0.61	0.87	0.75	0.93	0.80	0.96	0.83
44	60	15.7	59	0.50	0.43	0.67	0.58	0.76	0.66	0.94	0.82	1.00	0.87	1.04	0.83
	70	17.0	61	0.51	0.44	0.68	0.59	0.77	0.67	0.96	0.83	1.02	0.88	1.06	0.92
	80	18.3	63	0.51	0.44	0.68	0.59	0.77	0.67	0.96	0.83	1.03	0.89	1.07	0.92
	90	19.4	64	0.53	0.46	0.70	0.61	0.80	0.69	0.99	0.86	1.05	0.91	1.10	0.95
	40	16.7	55	0.61	0.53	0.82	0.71	0.93	0.80	1.15	1.00	1.23	1.06	1.28	1.11
44	50	18.6	60	0.57	0.50	0.76	0.66	0.87	0.75	1.08	0.94	1.15	1.00	1.20	1.03
	60	19.9	61	0.59	0.52	0.79	0.68	0.90	0.78	1.12	0.97	1.19	1.03	1.24	1.07
	70	21.9	63	0.61	0.53	0.82	0.71	0.93	0.80	1.15	1.00	1.23	1.06	1.28	1.11
	80	23.4	65	0.62	0.53	0.82	0.71	0.93	0.81	1.16	1.00	1.23	1.07	1.28	1.11
	90	25.0	67	0.62	0.54	0.82	0.71	0.94	0.81	1.16	1.01	1.24	1.07	1.29	1.12

Nozzle	psi	GPM	Radius	148° 		127° 		108° 		90° 		60° 		45° 	
															
40	40	6.0	47	0.73	0.64	0.85	0.74	1.01	0.87	1.21	1.05	1.81	1.57	2.42	2.09
	50	6.7	50	0.72	0.63	0.84	0.73	0.99	0.86	1.19	1.03	1.79	1.55	2.38	2.06
	60	7.3	52	0.73	0.63	0.85	0.74	1.00	0.75	1.20	1.04	1.80	1.56	2.40	2.08
	70	8.0	53	0.77	0.67	0.90	0.78	1.05	0.91	1.27	1.10	1.90	1.65	2.53	2.19
	80	8.6	54	0.80	0.69	0.93	0.80	1.09	0.95	1.31	1.14	1.97	1.70	2.62	2.27
41	90	9.2	55	0.82	0.71	0.96	0.83	1.13	0.98	1.35	1.17	2.03	1.76	2.71	2.34
	40	9.5	48	1.11	0.96	1.30	1.12	1.53	1.32	1.83	1.59	2.75	2.38	3.67	3.18
	50	10.2	53	0.98	0.85	1.14	0.99	1.34	1.16	1.62	1.40	2.42	2.10	3.23	2.80
	60	11.0	54	1.02	0.88	1.19	1.03	1.40	1.21	1.68	1.45	2.52	2.18	3.36	2.91
	70	11.9	55	1.06	0.92	1.24	1.07	1.46	1.26	1.75	1.52	2.62	2.27	3.50	3.03
42	80	12.7	56	1.09	0.95	1.27	1.10	1.50	1.30	1.80	1.56	2.70	2.34	3.60	3.12
	90	13.4	57	1.11	0.97	1.30	1.12	1.53	1.32	1.83	1.59	2.75	2.38	3.67	3.18
	40	12.0	52	1.20	1.04	1.40	1.21	1.64	1.42	1.97	1.71	2.96	2.56	3.95	3.42
	50	12.9	55	1.15	1.00	1.34	1.16	1.58	1.37	1.90	1.64	2.85	2.46	3.79	3.29
	60	14.0	56	1.21	1.05	1.40	1.22	1.65	1.43	1.99	1.72	2.98	2.58	3.97	3.44
43	70	14.7	57	1.22	1.06	1.42	1.23	1.68	1.445	2.01	1.74	3.02	2.61	4.03	3.49
	80	15.8	58	1.27	1.10	1.48	1.28	1.74	1.51	2.09	1.81	3.13	2.71	4.18	3.62
	90	16.8	58	1.35	1.17	1.57	1.36	1.85	1.60	2.22	1.92	3.33	2.89	4.44	3.85
	40	13.2	56	1.14	0.98	1.32	1.15	1.56	1.35	1.87	1.62	2.81	2.43	3.74	3.24
	50	14.5	59	1.13	0.97	1.31	1.14	1.54	1.34	1.85	1.60	2.78	2.41	3.71	3.21
44	60	15.7	59	1.22	1.06	1.42	1.23	1.67	1.45	2.01	1.74	3.01	2.61	4.01	3.47
	70	17.0	61	1.23	1.07	1.44	1.25	1.69	1.47	2.03	1.76	3.05	2.64	4.06	3.52
	80	18.3	63	1.25	1.08	1.45	1.25	1.71	1.48	2.05	1.78	3.08	2.66	4.10	3.55
	90	19.4	64	1.28	1.11	1.49	1.29	1.75	1.52	2.11	1.82	3.16	2.74	4.21	3.65
	40	16.7	55	1.49	1.29	1.74	1.50	2.04	1.77	2.46	2.13	3.68	3.19	4.91	4.25
44	50	18.6	60	1.40	1.21	1.63	1.41	1.91	1.66	2.30	1.99	3.45	2.99	4.60	3.98
	60	19.9	61	1.45	1.25	1.68	1.46	1.98	1.71	2.38	2.06	3.57	3.09	4.76	4.12
	70	21.9	63	1.49	1.29	1.74	1.53	2.04	1.84	2.45	2.16	3.68	3.19	4.91	4.25
	80	23.4	65	1.50	1.30	1.74	1.51	2.05	1.78	2.46	2.13	3.70	3.20	4.93	4.27
	90	25.0	67	1.50	1.30	1.75	1.52	2.06	1.79	2.48	2.15	3.72	3.22	4.95	4.29

* Precipitation rates are for triangular spacing, shown in inches per hour, calculated at 50% of diameter.

* Precipitation rates are for square spacing, shown in inches per hour, calculated at 50% of diameter.

All performance specifications are based on the stated working pressure available at the base of the sprinkler.

Radius shown in feet. Data based on 360°.

Note: For the 640, differing arcs cannot be valved together.