

# TS90 Series Sprinklers

## S P R I N K L E R S

The new TS90 long throw rotor brings Toro patented, exclusive innovations like *Trjectory* and ratcheting riser to large turf areas, making an ideal Sports Turf rotor.



TS90 Series  
Sprinkler

### Key Features

- Trjectory™ adjustment from 7° to 30° fine-tunes nozzle spray height, helps provide true head-to-head coverage, and compensates for windy conditions
- Part- and full-circle in one sprinkler. No need to inventory multiple models or service parts
- Back nozzle capable. Perfect for perimeter of sports fields. Provides the flexibility for fine-tuning any watering requirement.
- Ratcheting riser allows you to adjust the riser position in the body with no disassembly. Simply pull up the riser and ratchet it to the precise position you want to water

### Additional Features

- Three-nozzle configuration provides better distribution uniformity, nozzle flexibility and system efficiency
- Constant-velocity drive provides reliable rotation speed - from sprinkler to sprinkler
- Full set of colour-coded nozzles that thread directly into the front.
- Safe rubber cover and below grade installation
- Effluent Indicator available: part number 118-0063
- Check Valve Standard
  - Checks up to 3m (10')

### Specifications

- Radius: 16,2-29,0 (53'-95') at 25° trajectory
- Flow Rate: 53-233 LPM (14.0-61.5 GPM)
- Precipitation Rate: 14,2-15,2 mm/hr (56-60 "/hr)
- Arc:
  - Full- and part-circle in one
  - Full-circle: 360° unidirectional clockwise rotation
  - Part-circle: 40°-330°
- Rotation Speed: 3 minutes ± 30 seconds
- 25mm (1") female-threaded inlet (NPT or BSP)
- Recommended operating pressure range:
  - 3,4-6,9 bar (50-100 psi)
  - Maximum Pressure: 6,9 bar (100 psi)
  - Minimum Pressure: 2,8 bar (40 psi)
- Body Height: 25,4cm (10")
  - Overall Height: 31,75 cm (12.5")
  - Retracted Height: 21,6cm (8.5")
  - Pop-Up Height: 10,1cm (4.0")
- Exposed Cap Diameter: 5,6cm (2.2")
- Nozzle options: 9 main, 3 intermediate, 1 inner
- Nozzle trajectory: adjustable 7°-30°
- Factory installed nozzles:
  - TS90TP-52: #4 includes nozzle/stator set 1-9
  - TS90TP-02-14: #3 includes nozzle/stator set 1-4
  - TS90TP-02-58: #6 includes nozzle/stator set 5-8
- Nozzle tools:
  - Riser Pull-Up: Included
  - Main Nozzle Tool: 5/8" hex socket or Toro Part #995-99 (sold separately)
  - Intermediate and Trajectory Tool: 5/16" hex socket or Toro Part #995-105 (sold separately)



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## TS90TP Performance Data - Metric

Nozzle Set		Stator	3,4 bar		4,1 bar		4,8 bar		5,5 bar		6,2 bar		6,9 bar	
Number	Main/ Intermediate		Radius (m)	Flow (LPM)	Radius (m)	Flow (LPM)	Radius (m)	Flow (LPM)	Radius (m)	Flow (LPM)	Radius (m)	Flow (LPM)	Radius (m)	Flow (LPM)
1	Yellow/Blue	102-1939 Yellow	16,2	53	16,5	58	16,8	62	16,8	66	16,5	70	17,1	74
2	Blue/Red		16,8	71	18,0	78	18,6	84	18,0	89	18,0	95	18,9	100
3	Brown/Orange		–	–	17,4	86	18,3	93	18,6	99	19,2	105	20,7	110
4	Orange/Orange		–	–	–	–	22,6	124	24,4	133	24,7	140	25,0	147
5	Green/Blue	102-1940 White	–	–	–	–	–	–	24,1	143	25,0	151	25,6	158
6	Gray/Blue		–	–	–	–	–	–	25,0	150	26,2	159	26,5	167
7	Black/Orange		–	–	–	–	–	–	24,4	165	26,5	175	25,6	184
8	Red/Blue		–	–	–	–	–	–	26,2	184	26,8	195	26,8	205
9	Beige/Blue	102-1941 White	–	–	–	–	–	–	25,9	208	27,7	221	29,0	233

## TS90TP Performance Data - English

Nozzle Set		Stator	50 psi		60 psi		70 psi		80 psi		90 psi		100 psi	
Number	Main/ Intermediate		Radius (ft)	Flow (GPM)	Radius (ft)	Flow (GPM)	Radius (ft)	Flow (GPM)	Radius (ft)	Flow (GPM)	Radius (ft)	Flow (GPM)	Radius (ft)	Flow (GPM)
1	Yellow/Blue	102-1939 Yellow	53	14.0	54	15.2	55	16.4	55	17.4	54	18.5	56	19.4
2	Blue/Red		55	18.8	59	20.5	61	22.1	59	23.6	59	25.0	62	26.3
3	Brown/Orange		–	–	57	22.7	60	24.5	61	26.1	63	27.6	68	29.1
4	Orange/Orange		–	–	–	–	74	32.7	80	35.1	81	37.0	82	38.9
5	Green/Blue	102-1940 White	–	–	–	–	–	–	79	37.7	82	39.9	84	41.8
6	Gray/Blue		–	–	–	–	–	–	82	39.6	86	41.9	87	44.1
7	Black/Orange		–	–	–	–	–	–	80	43.6	87	46.2	84	48.6
8	Red/Blue		–	–	–	–	–	–	86	48.5	88	51.4	88	54.1
9	Beige/Blue	102-1941 White	–	–	–	–	–	–	85	55.1	91	58.3	95	61.6

## Back Nozzle Performance Data - Metric (English)

Nozzles			4,5 Bar 448 kPa 4,6 kg/cm2 (65 PSI)				5,5 Bar 552 kPa 5,6 kg/cm2 (80 PSI)				Profile
Part #	Description	Colours	Radius -m (ft)		LPM (GPM)		Radius -m (ft)		LPM (GPM)		
102-6937	Inner Nozzle with Yellow Restrictor	Yellow/Yellow	8,8	<b>29</b>	14,0	<b>3,7</b>	9,2	<b>30</b>	15,5	<b>4,1</b>	
102-6531	Inner Nozzle with White Restrictor	Green/White	9,5	<b>31</b>	16,1	<b>4,3</b>	10,1	<b>33</b>	17,4	<b>4,6</b>	
102-2135	Inner nozzle assy w/ wht restrictor	White/White	7,6	<b>25</b>	15,5	<b>4,1</b>	7,9	<b>26</b>	17,0	<b>4,5</b>	
102-2136	Inner nozzle assy w/ yel restrictor	Yellow/Yellow	7,3	<b>24</b>	14,4	<b>3,8</b>	7,6	<b>25</b>	15,5	<b>4,1</b>	
102-6883	Intermediate Nozzle	Brown	11,6	<b>38</b>	10,6	<b>2,8</b>	11,6	<b>38</b>	10,6	<b>2,8</b>	
102-6884	Intermediate Nozzle	Yellow	12,5	<b>41</b>	15,5	<b>4,1</b>	13,1	<b>43</b>	17,0	<b>4,5</b>	
102-6885	Intermediate Nozzle	Green	12,8	<b>42</b>	20,4	<b>5,4</b>	13,7	<b>45</b>	22,7	<b>6,0</b>	
102-2925	Intermediate Nozzle	Blue	12,2	<b>40</b>	10,6	<b>2,8</b>	12,8	<b>42</b>	12,1	<b>3,2</b>	
102-2926	Intermediate Nozzle	Orange	13,4	<b>44</b>	16,3	<b>4,3</b>	13,7	<b>45</b>	18,2	<b>4,8</b>	
102-2927	Intermediate Nozzle	Gray	14,0	<b>46</b>	19,3	<b>5,1</b>	14,3	<b>47</b>	20,4	<b>5,4</b>	
102-2928	Intermediate Nozzle	Red	14,6	<b>48</b>	24,6	<b>6,5</b>	15,3	<b>50</b>	26,5	<b>7,0</b>	
102-2929	Intermediate Nozzle	Beige	15,6	<b>51</b>	30,7	<b>8,1</b>	16,2	<b>53</b>	34,4	<b>9,1</b>	

## Mainless Nozzle Performance Data - Metric (English)

Base Pressure				Green 102-6531	Plug 102-2208	Gray 102-2927	Green 102-6531	Plug 102-2208	Green 102-6885	Green 102-6531	Plug 102-2208	Red 102-2928	Green 102-6531	Plug 102-2208	Beige 102-2929
Bar	kPa	kg/cm2	(PSI)	Radius - m (ft)	LPM (GPM)	Radius - m (ft)	LPM (GPM)	Radius - m (ft)	LPM (GPM)	Radius - m (ft)	LPM (GPM)	Radius - m (ft)	LPM (GPM)	Radius - m (ft)	LPM (GPM)
4,5	448	4,6	<b>65</b>	10,4 ( <b>34</b> )	39,5 ( <b>10.4</b> )	13,4 ( <b>44</b> )	38,6 ( <b>10.2</b> )	14,6 ( <b>48</b> )	43,5 ( <b>11.5</b> )	15,3 ( <b>50</b> )	51,1 ( <b>13.5</b> )				
SOR				3:40			3:50			3:25			2:40		
80	46	9,6	<b>80</b>	11,3 ( <b>37</b> )	43,9 ( <b>11.6</b> )	13,4 ( <b>44</b> )	43,1 ( <b>11.4</b> )	14,6 ( <b>48</b> )	48,8 ( <b>12.9</b> )	15,3 ( <b>50</b> )	56,8 ( <b>15.0</b> )				
SOR				3:15			3:25			3:00			2:30		

## TS90 Series Specifying Information

TS90TP- XX - XX - X

Body	Threads	Nozzle	Optional
TS90TP—TS90TP	02—NPT	1 6	E—Effluent Model
25mm-1" Trjectory	52—BSP	2 7	
		3 8	
		4 9	
		5	

For Example: When specifying a TS90 Series sprinkler with Trjectory, an effluent indicator and BSP threads, you would specify:

**TS90TP-52-E**



**Count on it.**

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