# The Irrigation Innovators







**Adjustable Arc** 

**I-90** 

Industry's
Iongest distance
rotary sprinkler
specifically
designed for
parks, sports
fields, and
public areas

ith a radius up to 96 feet from a single sprinkler, the I-90 boasts a coverage area no other commercial sprinkler can deliver. Yet, its reduced-size diameter and cushioned rubber cover make it the perfect choice for parks and wide-open lawn areas, as well as perimeter watering of athletic fields and horse arenas. The rotor is also easy to service, with a "jar-top"

body cap that allows quick access to the filter screen and check valve with no extra pieces, parts, or tools required. The I-90 is offered in two models—a full-circle opposing-nozzle version or an adjustable arc model—each with color-coded nozzles that can be field-changed to match the specific needs of your site.

### **Features & Benefits**



## Extra-thick heavy-duty rubber cover

Helps keep playing surfaces safe

#### 6 color-coded primary nozzles

Truly uniform coverage and fast identification

#### Jar-Top serviceability

Easy access to screen, gear drive, and valve assemblies

#### **Closed case rotor**

Absolute protection from dirt

#### Proven, heavy-duty gear drive

Enduring reliability

#### Water activated riser seal

Clean flushing action and positive retraction

#### Heavy duty stainless steel spring

Assures positive retraction, time after time

#### Drain check valve to handle elevation change

Saves water, reduces liability

#### **Models**

I-90 36V — Full circle I-90 ADV — Adjustable arc (40°—360°)

#### **Dimensions**

Pop-up height: 3" (7.6 cm)
Female inlet: 1½" NPT or BSP
Exposed diameter: 3½" (8.9 cm)
Overall height: 11" (28 cm)

## **Operating Specifications**

#### I-90 36V

- Discharge rate: 29.8 to 69.4 GPM (6.77 to 15.76 m³/hr, 113 to 263 l/min)
- Radius: 71' to 96' (21 to 29.3 m)
- Recommended pressure range: 70 to 90 PSI (4.8 to 6.2 bars; 482 to 620 kPa)
- Operating pressure range: 50 to 100 PSI (3.4 to 6.9 bars; 344 to 689 kPa)

#### I-90 ADV

- Discharge rate: 30.7 to 69.8 GPM (6.97 to 15.85 m³/hr, 116 to 264 l/min)
- Radius: 67' to 90' (20.4 to 27.4 m)
- Recommended pressure range: 70 to 90 PSI (4.8 to 6.2 bars; 482 to 620 kPa)
- Operating pressure range: 50 to 100 PSI (3.4 to 6.9 bars; 344 to 689 kPa)

#### **Options Available**

- · Reclaimed water identification
- Factory-installed nozzles
- Turf Cup Kit (part # 467955)





## The Ideal Choice for Parks and Large Spaces

If you're looking for the smallest number of sprinklers to cover the greatest amount of turf, the I-90 is the choice. For sports fields that feature a substantial amount of turf—such as those for soccer, football or lacrosse—the I-90 gives you the ability to place just a few rotors in place and receive complete coverage from perimeter areas. After all, the I-90 is designed to effectively irrigate turf areas that require a sprinkler that distributes water well in excess of 90 feet. Plus, its small exposed surface and rubber cover make it the safe choice as well.

	I-90-36\	/ Nozzle F	Performan	ice Data		
	Nozzle	Pressure PSI	Radius ft.	Flow GPM	Precip	in/hr
	<b>33</b> Gray	60 70 80 90 100	71' 74' 76' 78' 80'	29.8 32.2 34.4 36.8 38.6	0.57 0.57 0.57 0.58 0.58	0.66 0.65 0.66 0.67 0.67
	<b>38</b> Red	60 70 80 90 100	74' 77' 79' 80' 82'	33.3 36.1 38.4 40.9 42.8	0.59 0.59 0.59 0.62 0.61	0.68 0.68 0.68 0.71 0.71
	<b>Q43</b> Dk. Brown	60 70 80 90 100	77' 79' 82' 83' 84'	38.1 40.9 43.9 46.5 48.5	0.62 0.63 0.63 0.65 0.66	0.71 0.73 0.73 0.75 0.76
	O48 Dk. Green	70 80 90 100	82' 86' 89' 90'	46.3 49.6 52.5 54.8	0.66 0.65 0.64 0.65	0.77 0.75 0.74 0.75
	<b>●53</b> Dk. Blue*	70 80 90 100	85' 88' 90' 92'	50.5 53.5 57.4 59.5	0.67 0.66 0.68 0.68	0.78 0.77 0.79 0.78
	<b>63</b> Black**	70 80 90 100	90' 92' 94' 96'	60.6 63.2 65.9 69.4	0.72 0.72 0.72 0.72	0.83 0.83 0.83 0.84

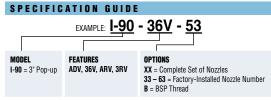
Note: To ensure optimum nozzle performance, the rotor should be operated in the "Recommended pressure range". The sprinkler will work normally when used in the "Operating pressure range", but nozzle performance may be reduced.

Data represents test results in zero wind. Adjust for local conditions. Performance data are derived from tests that conform to ASAE Standard S398.1. See Hunter Irrigation Products Catalog for complete ASAE Certification Statement.

I-90-AD	V Nozzle I	Performar	ice Data		
Nozzle	Pressure PSI	Radius ft.	Flow GPM	Precip	in/hr
<b>33</b> Gray	60 70 80 90 100	67' 68' 69' 70'	30.7 33.1 35.5 37.7 39.8	1.32 1.42 1.48 1.52 1.56	1.52 1.64 1.71 1.76 1.81
<b>38</b> Red	60	69'	34.0	1.37	1.59
	70	70'	36.9	1.45	1.67
	80	72'	39.8	1.48	1.71
	90	73'	42.3	1.53	1.76
	100	75'	44.1	1.51	1.74
<b>43</b> Dk. Brown	60	70'	38.7	1.52	1.76
	70	71'	42.0	1.60	1.85
	80	72'	44.5	1.65	1.91
	90	73'	47.6	1.72	1.99
	100	73'	48.3	1.74	2.01
<b>Q48</b> Dk. Green	70	75'	47.0	1.61	1.86
	80	77'	50.2	1.63	1.88
	90	79'	53.3	1.64	1.90
	100	81'	56.0	1.64	1.90
<b>○53</b> Dk. Blue*	70 80 90 100	79' 81' 85' 86'	48.5 53.4 57.0 59.5	1.50 1.57 1.52 1.55	1.73 1.81 1.75 1.79
<b>63</b> Black**	70	84'	60.9	1.66	1.92
	80	86'	63.8	1.66	1.92
	90	88'	66.5	1.65	1.91
	100	90'	69.8	1.66	1.92

<sup>\*</sup> Factory-installed nozzle

Note: All precipitation rates are calculated for 180-degree operation. For the precipitation rate for a 360-degree sprinkler, divide by 2.



#### **KEY TO FEATURES:**

ADV = Adjustable Arc with Check Valve
36V = Full-Circle with Check Valve
3RV = Full-Circle, Reclaimed Water, with Check Valve

<sup>\*\*</sup> Preliminary performance data

Note: All precipitation rates are calculated for 180-degree operation

## **I-90**

The robust I-90 Rotor is built for long-distance natural turf applications in large parks, open spaces, and sports fields.

#### **KEY BENEFITS**

- Exclusive PressurePort<sup>™</sup> Technology creates exceptional nozzle uniformity
- Forward-facing triple nozzles (I-90), opposing triple nozzles (I-90-ON) create uniform nozzle profiles in part- and full-circle applications
- QuickCheck<sup>™</sup> Arc Mechanism for fast arc adjustment and review of the arc setting
- Part- and full-circle in one model provides flexible installation options and decreases inventory (I-90)
- Drain Check Valve prevents low-head drainage (up to 2 meters of elevation)

#### **Operating Specifications**

- I-90 nozzle choices: 8
- Radius I-90 ADV: 20.1 to 29.6 m
  Radius I-90 36V: 22.3 to 31.4 m
- Flow I-90 ADV: 6.7 to 19.04 m3/hr; 111.7 l/min
- Flow I-90 36V: 6.93 to 18.92 m3/hr; 115.5 to 315.3 l/min
- Recommended pressure range: 5.5 to 8.3 bar; 550 to 830 kPa
- Operating pressure range: 5.5 to 8.3 bar; 550 to 1030 kPa
- Precipitation rate: 19 mm/hr approximately
- Warranty period: 5 years

#### **Factory-Installed Options**

• Reclaimed water ID

#### **User-Installed Options**

- Prefabricated PVC HSJ Swing Joints
- Rubber Cover Kit P/N 959300SP
- Rubber Cover Kit P/N 234200
- Sod Cup Kit P/N 467955
  - No-dig servicing
  - No-dig arc adjustments
  - Quick-release turf cup assembly
  - o Threads in cup lock/retain the turf



## **I-90-ADV NOZZLE PERFORMANCE DATA**

Nozzle	Pre	Pressure		Flow		Precip mm/hr	
	bar	kPa	m	m³/hr	l/min		<b>A</b>
	5.5	550	20.1	6.70	111.7	33.1	38.2
25 °	6.0	600	20.4	7.16	119.2	34.3	39.6
Lt. Blue	7.0	700	20.7	7.54	125.7	35.1	40.5
	7.5	750	21.0	8.09	134.8	36.6	42.2
	5.5	550	20.7	8.22	137.0	38.3	44.2
33 °	6.0	600	21.0	8.68	144.6	39.2	45.3
Grey	7.0	700	21.3	9.18	152.9	40.3	46.6
	7.5	750	21.6	9.68	161.3	41.3	47.7
	5.5	550	21.9	9.22	153.7	38.3	44.2
38 <b>•</b>	6.0	600	22.3	9.77	162.8	39.5	45.6
Red	7.0	700	22.9	10.31	171.9	39.5	45.6
	7.5	750	23.2	10.81	180.2	40.3	46.5
	5.5	550	22.6	10.47	174.5	41.2	47.5
43 •	6.0	600	22.6	11.02	183.6	43.3	50.0
Ok. Brown	7.0	700	22.9	11.52	191.9	44.1	50.9
	7.5	750	23.5	12.13	202.1	44.0	50.9
	5.5	550	23.5	11.40	190.0	41.4	47.8
48 *	6.0	600	24.1	11.95	199.1	41.2	47.6
Dk. Green	7.0	700	24.7	12.52	208.6	41.1	47.4
	7.5	750	25.0	13.06	217.7	41.8	48.3
	5.5	550	24.7	12.47	207.8	40.9	47.2
52.0	6.0	600	25.6	12.99	216.5	39.6	45.8
Dk. Blue*	7.0	700	26.2	13.52	225.2	39.3	45.4
DK. Blue	7.5	750	26.5	14.11	235.1	40.1	46.3
	8.0	800	26.8	14.63	243.8	40.7	47.0
	5.5	550	26.2	14.15	235.8	41.2	47.6
	6.0	600	26.8	14.88	247.9	41.4	47.8
Black	7.0	700	27.4	15.67	261.2	41.7	48.1
DIACK	7.5	750	27.7	16.33	272.2	42.5	49.0
	8.0	800	28.0	16.97	282.8	43.2	49.8
	5.5	550	27.1	16.51	275.2	44.9	51.8
72.	6.0	600	27.7	17.13	285.4	44.5	51.4
73 ·	7.0	700	28.3	17.74	295.6	44.2	51.0
Orange	7.5	750	29.0	18.38	306.2	43.8	50.6
	8.0	800	29.6	19.04	317.2	43.5	50.3

<sup>\*</sup> Factory-installed nozzle

#### Notes

Precipitation rates for ADV models are calculated for 180-degree operation. All triangular rates are equilateral. For low angle nozzle performance, reduce radius by 15%. Complies to ASAE standard.

#### I-90-36V NOZZLE PERFORMANCE DATA Nozzle Radius Flow Precip mm/hr kPa m³/hr l/min bar m 5.5 550 22.3 6.93 115.5 14.0 16.2 25 • 6.0 600 22.9 7.36 122.6 14.1 16.3 Lt. Blue 7.0 700 23.2 7.79 129.8 14.5 16.8 750 23.8 8.29 138.2 14.7 16.9 7.5 5.5 550 23.5 8.25 137.4 15.0 17.3 6.0 600 23.8 8.72 145.4 15.4 17.8 33 ° Grey 7.0 700 24.4 9.22 153.7 15.5 17.9 7.5 750 24.7 9.70 161.6 15.9 18.4 5.5 550 24.4 9.22 153.7 15.5 17.9 38 • 6.0 600 25.0 9.75 162.4 15.6 18.0 Red 7.0 700 25.3 10.29 171.5 16.1 18.6 7.5 750 25.9 10.84 180.6 16.1 18.6 25.3 10.49 5.5 550 174.9 16.4 18.9 43 **•** 6.0 600 25.6 11.04 184.0 16.8 19.4 Dk. Brown 7.0 700 25.9 11.56 192.7 17.2 19.9 7.5 750 26.2 12.13 202.1 17.7 20.4 11.27 5.5 550 26.2 187.8 16.4 18.9 11.93 6.0 600 27.1 198.7 16.2 18.7 Dk. Green 7.0 700 27.4 12.45 207.4 16.5 19.1 7.5 750 27.7 13.02 216.9 16.9 19.5 5.5 550 27.1 12.31 205.2 16.7 19.3 6.0 600 27.4 12.88 214.6 17.1 19.8 53 **•** 7.0 700 28.0 13.45 224.1 17.1 19.7 Dk. Blue\* 7.5 750 28.3 14.02 233.6 17.4 20.1 8.0 800 28.7 14.58 243.0 17.8 20.5 5.5 550 28.0 14.36 239.2 18.3 21 1 28.7 14.97 6.0 600 249.5 18.2 21.1 63 ° 700 29.3 15.76 262.7 21.3 7.0 18.4 Black 7.5 750 29.6 16.36 272.5 18.7 21.6 8.0 800 29.9 17.01 283.5 19.1 22.0 550 29.3 16.38 272.9 191 22 1 5.5 17.04 283.9 6.0 600 29.9 19.1 22.0 73 **•** 7.0 700 30.2 17.67 294.5 19.4 22.4 Orange 7.5 750 31.1 18.29 304.7 18.9 21.8

8.0

800

#### Notes

Precipitation rates for 36V models are calculated for 360-degree operation. All triangular rates are equilateral. For low angle nozzle performance, reduce radius by 15%. Complies to ASAE standard.

18.92

315.3

19.2

22.2

31.4



<sup>\*</sup> Factory installed nozzle.