## Hunter®

### **DESIGN GUIDE**

## MP800SR



Water small spaces more efficiently with a new series of MP Rotators designed for distances from 1.8 to 3.5 m.

The SR series offers the benefits of multi-stream multi-trajectory (MSMT) technology in smaller areas than ever before possible. The new MP800SR provides wind-resistant streams, high distribution uniformity, a double-pop nozzle protector, and extreme resilience to dirt and debris.

Realise water savings for tight spaces. The MP800SR delivers water at a low application rate of 20 mm/hr, less than half that of traditional spray nozzles.

### **Features & Benefits**

- Provides coverage from 1.8 to 3.5 m
- Colour-coded for easy identification
- Double-pop feature keeps dirt and debris out of nozzle
- Removable filter screen prevents large objects from clogging nozzle
- Low precipitation rate yields higher efficiency
- Wind-resistant multi-stream technology
- Adjustable arc and radius

### **MP ROTATOR®: MP800SR**

## SPECIFICATIONS & PERFORMANCE INFORMATION

### Models

### MP800SR-90

1.8 to 3.5 m radius Adjustable from 90° to 210°





### **Pressure Ratings**

The MP800SR, just like its larger family of MP Rotators, prefers 2.8 bar; 280 kPa for optimal performance. This pressure yields best results for coverage and distribution uniformity. However, to achieve the lowest radius setting of 1.8 m, it will be necessary to regulate the inlet pressure to 2.1 bar; 210 kPa. The products below will help in adjusting the pressure as needed.

### 2.1 bar

**PAIR WITH PRO-SPRAY PRS30** Necessary to achieve radius of 1.8 m.



### 2.8 bar **PAIR WITH PRO-SPRAY PRS40**



#### MP ROTATOR® PERFORMANCE DATA - MP800SR

### MP800SR

Radius: 1.8 to 3.5 m

Adjustable Arc

Orange and Grey: 90° to 210°

Lime Green and Grey: 360°

MAX RADIUS								MIN RADIUS		
Arc	<b>Pres</b>	sure kPa	<b>Radius</b> m		ow I/min	Precip.	mm/hr	Radius m		ow I/min
90°	2.1	200	2.6	0.04	0.61	22	25	1.8	0.03	0.49
	2.5	250	2.9	0.04	0.72	21	24	2.1	0.03	0.55
	2.8	280	3.1	0.05	0.87	21	24	2.4	0.04	0.61
	3.0	300	3.4	0.06	0.95	20	23	2.4	0.04	0.68
	3.5	350	3.5	0.06	1.02	20	23	2.7	0.04	0.72
	3.8	380	3.5	0.06	1.06	20	23	3.0	0.05	0.76
	2.1	200	2.6	0.07	1.21	22	25	1.8	0.06	0.98
180°	2.5	250	2.8	0.08	1.40	21	24	2.1	0.07	1.10
	2.8	280	3.0	0.10	1.59	21	24	2.4	0.07	1.21
	3.0	300	3.3	0.10	1.74	19	22	2.4	0.08	1.36
	3.5	350	3.4	0.11	1.82	19	22	2.7	0.09	1.44
	3.8	380	3.5	0.11	1.89	18	21	3.0	0.09	1.51
210°	2.1	200	2.6	0.08	1.40	22	25	1.8	0.07	1.15
	2.5	250	2.8	0.10	1.67	22	25	2.1	0.08	1.28
	2.8	280	3.0	0.11	1.85	21	24	2.4	0.08	1.41
	3.0	300	3.2	0.12	2.01	20	23	2.4	0.10	1.59
	3.5	350	3.4	0.13	2.12	19	22	2.7	0.10	1.68
	3.8	380	3.5	0.13	2.20	18	21	3.0	0.11	1.77
2000	2.1	200	2.6	0.14	2.38	22	25	1.8	0.11	1.78
360°	2.5	250	2.8	0.16	2.65	20	23	2.1	0.12	1.97
	2.8	280	3.0	0.18	2.95	20	23	2.4	0.13	2.12
	3.0	300	3.1	0.19	3.22	20	23	2.4	0.13	2.23
	3.5	350	3.3	0.20	3.33	19	21	2.7	0.14	2.38
	3.8	380	3.5	0.22	3.71	18	21	3.0	0.16	2.65

**Bold** = Optimal pressure for the MP Rotator is 2.8 bar; 280 kPa. This can easily be achieved by using the MP Rotator with the Hunter PRS40 Spray Body, pressure regulated at 2.8 bar; 280 kPa

### MP Tool for easy adjustments



<sup>\*</sup> Proper spacing must be configured to maintain matched precipitation at low

**MP ROTATOR®: MP800SR** 

# RECOMMENDED LAYOUT & PLACEMENT

### **Precipitation Rate Calculations**

The MP800SR can be configured to work well in head-to-head coverage in either square or triangular layouts. When square spacing is used, the resulting precipitation rate will be approximately 20 mm/hr.

Since this precipitation rate differs from the original line of MP Rotators of 10 mm/hr, it is strongly suggested to zone the MP800SR separately to maintain matched precipitation within each zone. See the diagram below for details on how to properly zone the MP800SR relative to the original MP Rotators.

### **Head-to-Head Square**

Square layout application rate in millimeters per hour

 $= \frac{1000 \times m^3/hr \times [360/arc setting]}{head spacing (m) \times row spacing (m)}$ 

### Example:

 $180^{\circ}$  arc @  $3.2 \, m$ , flow rate =  $0.10 \, \text{m}^3/\text{hr}$ 

$$\frac{1000 \times (0.10) \times (^{360}/_{180})}{(3.2 \times 3.2)} = \frac{200}{10.24} = 19.5 \text{ mm/hr}$$



### **MP ROTATOR®: MP800SR**

## **EFFICIENCY & UNIFORMITY**

### **Distribution Uniformity**

The various streams of the MP Rotator allow it to target all areas of the landscape evenly, yielding superior uniformity over traditional spray nozzles. Several independent studies have been conducted that demonstrate this difference and other efficiency benefits of the MP Rotator, which can be referenced at *hunterindustries.com/site-studies*.

The MP Rotator qualifies for a variety of water rebate programs due to its high-efficiency ratings. Check with your local water company for details.



### **FILTRATION**

### PCZ Drip Control Zone Kit



### **Filtration Guidelines**

A basic rule of thumb is to use primary filtration that is five times the mesh rating of the nozzle filter. For example, if the nozzle filter is 20 mesh, the primary filter should be specified to 100 mesh. However, field testing conducted shows that the MP800SR runs well in dirty water conditions with the use of a 150 mesh primary filtration system.

### Nozzle Filter-Screen Size:

MP800SR 90-210: 60 mesh MP800SR 360: 40 mesh

### PCZ-101

Height: 18 cm Width: 7 cm Length: 26 cm 25 mm female inlet x 20 mm female outlet



Website hunterindustries.com | Customer Support 1-800-383-4747 | Technical Service 1-800-733-2823

Helping our customers succeed is what drives us. While our passion for innovation and engineering is built into everything we do, it is our commitment to exceptional support that we hope will keep you in the Hunter family of customers for years to come.

Gregory R. Hunter, President of Hunter Industries