

# MP ROTATOR®

Design Guide

High-Efficiency Multi-Stream Nozzle

**Hunter®**





# Product Introduction

## Reliable Operation

Patented double-pop nozzle keeps the sprinkler free of external debris.

## Efficient Application

Multiple rotating streams provide even coverage and wind resistance, eliminating dry spots.



## Accurate Adjustments

Arc and radius can be adjusted while maintaining matched precipitation. Radius can be reduced up to 25%.



## Durable

Removable inlet filter keeps sprinkler free of internal debris.

## Easy Installation

Compatible with all Hunter spray bodies—perfect for retrofits. Use the MP-HT for female-threaded spray bodies.

## Pressure Regulation

For best results, use the pressure-regulated Pro-Spray® PRS40.

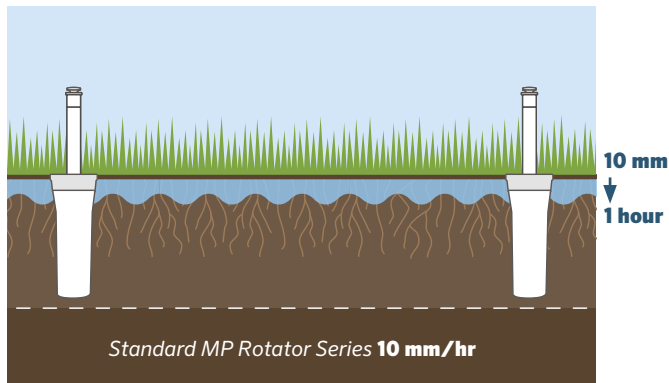


# MATCHED PRECIPITATION

*MP Rotators now come in two precipitation rate options to provide maximum flexibility for your irrigation design.*

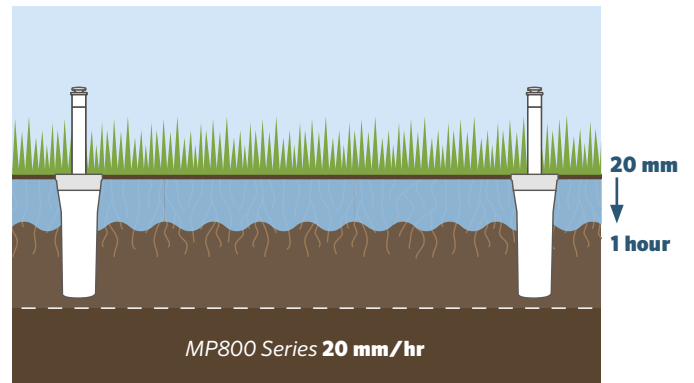
## Standard MP Rotator Series Precipitation Rate

The Standard MP Rotator Series has the slowest precipitation rate in the industry at approximately 10 mm/hr, preventing runoff in the majority of soil applications, and allowing for gentle hydration of the landscape.



## MP800 Series Precipitation Rate

The MP800 Series has a precipitation rate of approximately 20 mm/hr, allowing for high-efficiency irrigation of small spaces and medium-grade soils.



## Matching Soil Intake Rates

Matching your precipitation rate to your soil intake rate will eliminate the hazards of runoff and help conserve water. With two different precipitation rate options with the MP Rotator, you can now choose the best high-efficiency rotary nozzle for your plant material, soil type, and slope.

- Standard MP Rotators deliver water slowly, at a rate that most soils and slopes can effectively absorb.
- The MP800 Series delivers water at half the rate of a spray nozzle, better matching typical soil intake rates.
- Standard sprays apply water at a rate much higher than most soils can absorb, causing runoff in most soil types.

## INFILTRATION RATE BY SOIL TYPE

	SLOPE PERCENTAGE			
	0-5%	5-8%	8-12%	>12%
<b>COARSE SAND</b>	●●●	●●●	●●●	●
<b>FINE SAND</b>	●●●	●●●	●	-
<b>SANDY LOAM</b>	●●●	●	●	-
<b>FINE SANDY LOAM</b>	●●●	●	-	-
<b>LOAM/SILT LOAM</b>	●	●	-	-
<b>CLAY/CLAY LOAM</b>	●	-	-	-

Water infiltration into the soil is less than:

- 40 mm/hr
- 25 mm/hr
- 13 mm/hr
- Cycle and Soak required to avoid runoff

# MP ROTATOR DESIGN GUIDE

## Application

### 1 MP Rotator Application

Specify the MP Rotator as the desired nozzle in a spray head body.

Retrofit spray systems by installing the MP Rotator onto any conventional spray head or shrub adapter.

### 2 Radius Adjustment

All models of the MP Rotator allow for easy radius adjustment of up to 25% while maintaining automatic matched precipitation.

Turn the nozzle adjustment screw clockwise to reduce the radius or counterclockwise to increase the radius. Four full rotations will maximise the effect. Additional rotations will not affect the performance of the nozzle.

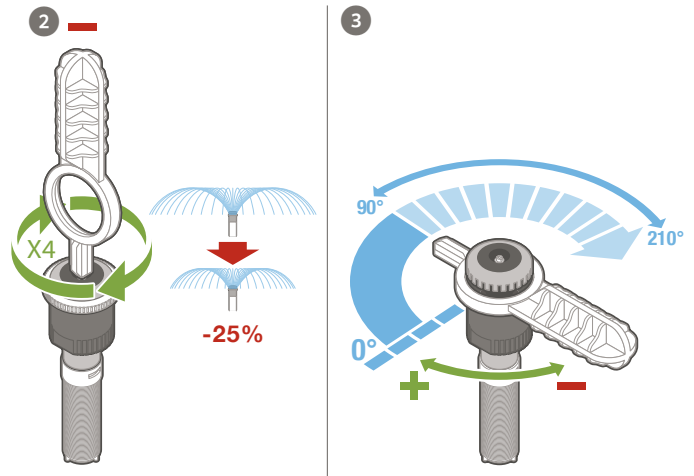
### 3 Arc Setting

The MP Rotator has a fixed left edge on all 90°–210° models and 210°–270° models. Turn the adjustment ring clockwise to increase the arc, and turn the adjustment ring counterclockwise to decrease the arc.

### 4 Pressure

Optimal performance and uniformity are reached at 2.8 bar (280 kPa) operating pressure. Use the Pro-Spray PRS40 to achieve pressure regulation of 2.8 bar (280 kPa).

To reach the minimum radius, use the Pro-Spray PRS30 for pressure regulation to 2.1 bar (210 kPa). To achieve the maximum radius, increase the pressure over 2.8 bar (280 kPa).



#### MP ROTATOR FACTORY SETTINGS

New MP Rotators are shipped from the factory at the maximum radius setting and with the following arc settings:

MP MODEL	FACTORY SET ARC
90°–210°	180°
210°–270°	210°
360°	Full-circle
MP Corner	45°
MP Side Strip	180°
MP Left Corner Strip	90°
MP Right Corner Strip	90°

#### MP ROTATOR NOZZLE HEIGHT AND TRAJECTORY

Nozzle No.	Pressure		Degrees of Trajectory	Max. Height of Spray (m)
	bar	kPa		
MP815	2.8	280	15°	0.3
MP800SR	2.8	280	18°	0.5
MP1000	2.8	280	20°	0.5
MP2000	2.8	280	26°	1.1
MP3000	2.8	280	26°	2.0
MP3500	2.8	280	26°	2.0
MP Corner	2.8	280	14°	0.4
MP Side Strip	2.8	280	16°	0.5
MP Left Corner Strip	2.8	280	16°	0.5
MP Right Corner Strip	2.8	280	16°	0.5

# MP ROTATOR DESIGN GUIDE

## Layout and Placement

### Run Times

Because the MP Rotator applies less water with increased uniformity, simply doubling the run time used for traditional spray nozzles may supply sufficient water to the landscape while using less water overall.

You can also calculate the run time based on the lower precipitation rate.

Visit [www.hunterindustries.com/tools/runtime](http://www.hunterindustries.com/tools/runtime) for more information on run time calculations.

### Precipitation Rate Calculations

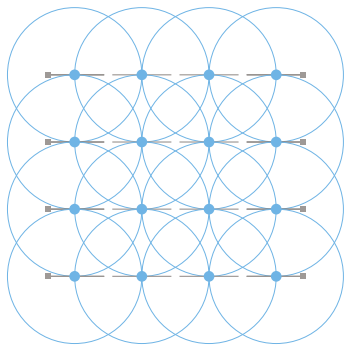
MP Rotators are recommended for use with head-to-head coverage in either square or triangular layouts.

#### Square Spacing Application Rate

$$\frac{96.25 \times \text{Flow rate of } 360^\circ \text{ sprinkler (m}^3/\text{hr)}}{(\text{Head spacing} \times \text{Row spacing})}$$

Example:

$$\frac{1000 \times 0.34 \text{ (m}^3/\text{hr)}}{(5.8 \times 5.8)} = 10.1 \text{ mm/hr}$$



#### 5.8 m Square Spacing

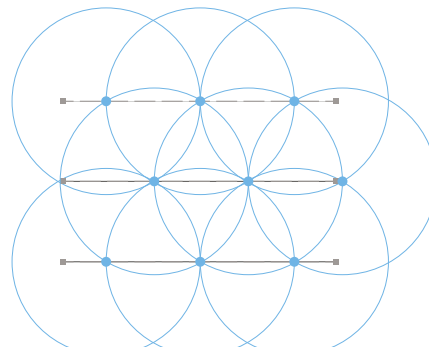
MP2000-360  
2.8 bar (280 kPa)  
5.8 m Radius  
0.34 m<sup>3</sup>/hr  
5.8 m Head x 5.8 m Row,  
Square Spacing

#### Equilateral Triangular Spacing Application Rate

$$\frac{1000 \times \text{Flow rate for } 360^\circ \text{ sprinkler (m}^3/\text{hr)}}{(\text{Head spacing} \times \text{Head spacing}) 0.866}$$

Example:

$$\frac{1000 \times 0.84 \text{ (m}^3/\text{hr)}}{(9.1 \times 9.1) 0.866} = 11.7 \text{ mm/hr}$$



#### 9.1 m Triangular Spacing

MP3000-360  
2.8 bar (280 kPa)  
9.1 m Radius  
0.84 m<sup>3</sup>/hr  
9.1 m Head x 7.9 m Row,  
Triangular Spacing

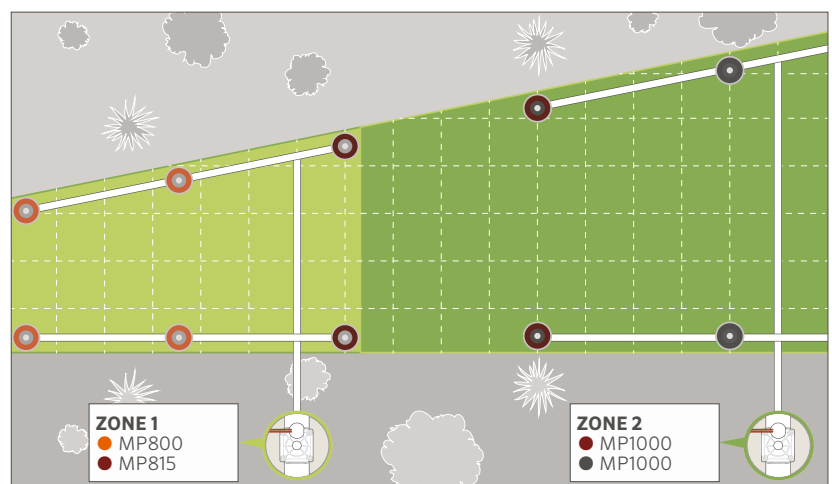
**Note:** Equilateral triangular spacing has a higher application rate than square spacing due to less area per sprinkler.

### Zoning with the MP Rotator

The standard MP Rotators have a matched precipitation rate of approximately 10 mm/hr. This means any standard MP Rotator at any arc or radius can be placed on the same zone.

The MP800 Series 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 standard line of MP Rotators, you should zone the MP800 Series separately to maintain matched precipitation within each zone.



# MP ROTATOR DESIGN GUIDE

## MP800 Series

### Matched Precipitation

Maximise water savings for tight spaces with the MP800 Series. The MP800 Series offers the benefits of multi-stream, multi-trajectory technology in smaller areas than ever before. The MP800 Series delivers water to distances as short as 1.8 m at a matched precipitation rate of approximately **20 mm/hr**, less than half that of traditional spray nozzles.

### Radius

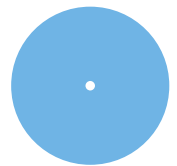
### Arc



90° to 210°

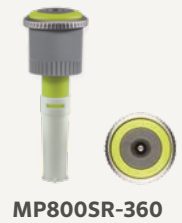


210° to 270°

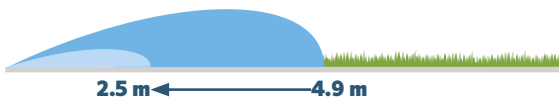


360°

### MP800SR



### MP815



### Pressure Ratings

The MP800 Series, just like its larger family of MP Rotators, prefers 2.8 bar (280 kPa) for optimal performance. This pressure yields the best results for coverage and distribution uniformity. **However, to achieve the lowest radius setting of 1.8 m, you must regulate the inlet pressure to 2.1 bar (210 kPa).** Use a Pro-Spray PRS30 to achieve a consistent inlet pressure of 2.1 bar (210 kPa).

### PRS30

Pair the MP Rotator with a Pro-Spray PRS30 to achieve minimum radius.



### PRS40

Pair the MP Rotator with a Pro-Spray PRS40 for peak performance.



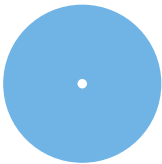




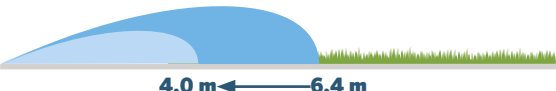



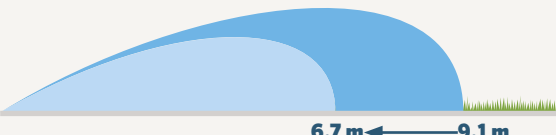



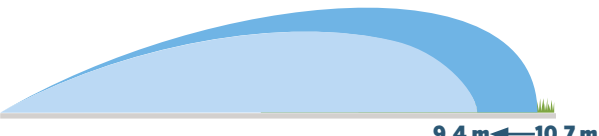



# MP ROTATOR DESIGN GUIDE

## MP1000, MP2000, MP3000, MP3500

### Matched Precipitation

All standard MP Rotators have a matched precipitation rate of approximately **10 mm/hr** across the radius range of 2.5 m to 10.7 m.

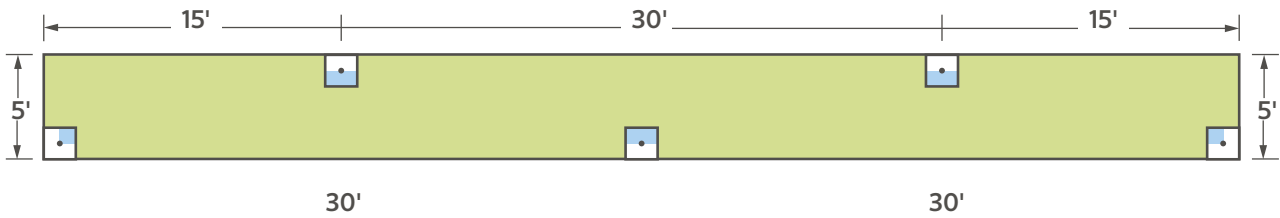
Radius	Arc		
	 90° to 210°	 210° to 270°	 360°
<b>MP1000</b> 	 <b>MP1000-90</b>	 <b>MP1000-210</b>	 <b>MP1000-360</b>
<b>MP2000</b> 	 <b>MP2000-90</b>	 <b>MP2000-210</b>	 <b>MP2000-360</b>
<b>MP3000</b> 	 <b>MP3000-90</b>	 <b>MP3000-210</b>	 <b>MP3000-360</b>
<b>MP3500</b> 	 <b>MP3500-90</b>		

# MP ROTATOR DESIGN GUIDE

## Side Strip and Corner Models

### Side Strip Precipitation Example

The precipitation rate of the MP Strips is dependent on the layout of the system. The following is an example of a potential design and associated precipitation rate:



### Precipitation Rate Using Total Area Method

$$P = \frac{1000 \times \text{Total Flow (m}^3/\text{hr)}}{\text{Total Area (m}^2)}$$

$$P = \frac{1000 \times (0.05 + 0.10 + 0.10 + 0.10 + 0.05)}{1.5 \times 18.28}$$

$$P = 14.6 \text{ mm/hr}$$



**MPLCS515**  
(Left Strip)



**MPSS530**  
(Side Strip)



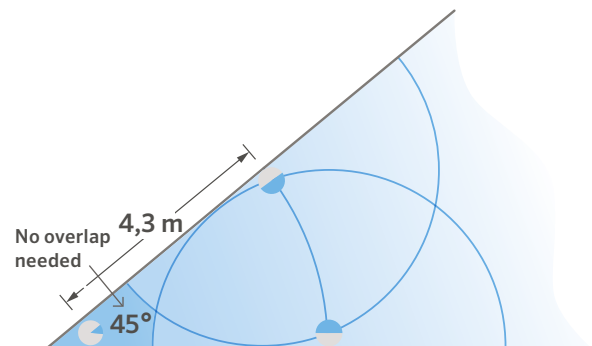
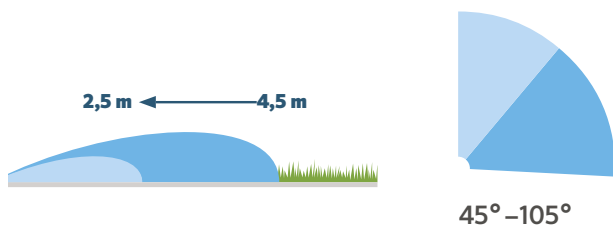
**MPRCS515**  
(Right Strip)

### MP Corner

The MP Corner is specially designed to provide extra coverage in tight corners so that neighbouring heads do not need to reach into the corner to provide head-to-head coverage, avoiding unnecessary overspray onto non-target areas.



**MPCorner**





# MP ROTATOR DESIGN GUIDE

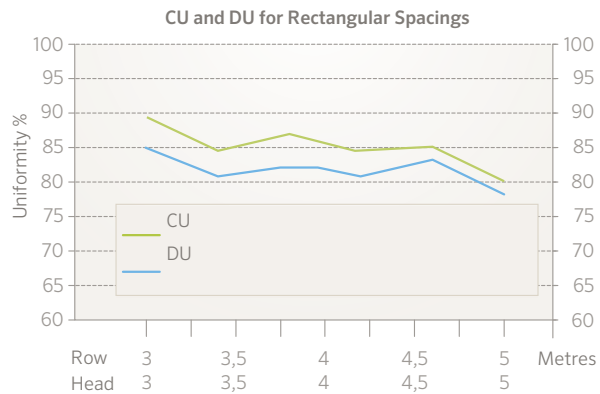
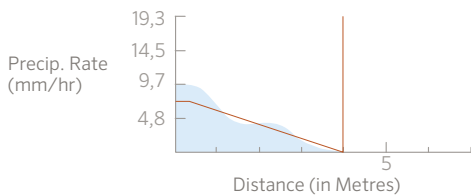
## Uniformity

### Uniformity Samples

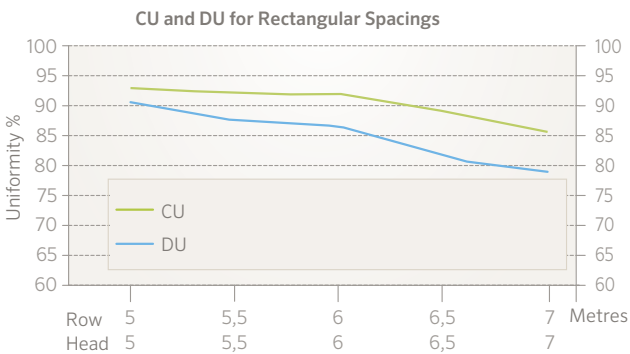
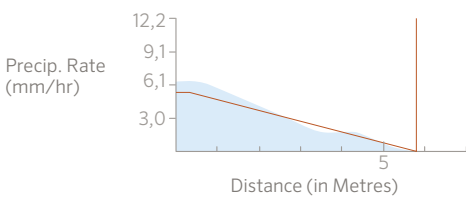
The various streams of the MP Rotator allow it to target all areas of the landscape evenly when properly installed, yielding superior uniformity over traditional spray nozzles. Several independent studies demonstrate this difference and other efficiency benefits of the MP Rotator. Read more at [hunterindustries.com/site-studies](http://hunterindustries.com/site-studies).

Below is a sampling of MP Rotator profiles and associated uniformities. These uniformity examples result from tests performed indoors in controlled conditions. On-site conditions will affect actual uniformity, and the uniformity data may change due to continuing product development.

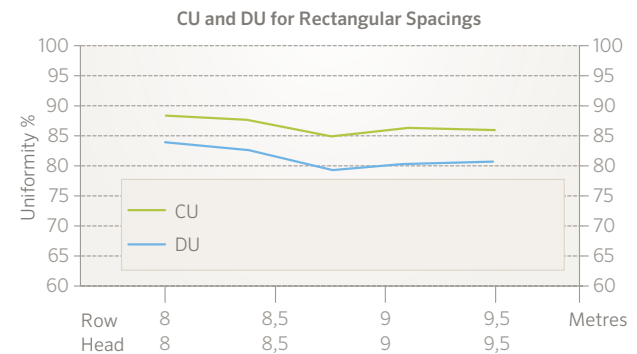
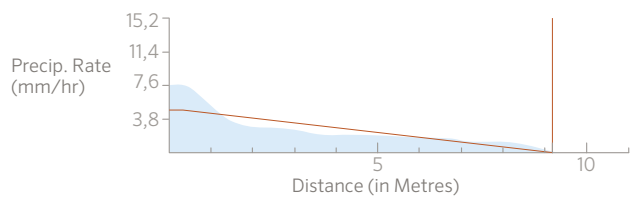
#### MP1000 90-210 180° at 2.8 bar (280 kPa)



#### MP2000 90-210 180° at 2.8 bar (280 kPa)



#### MP3000 90-210 180° at 2.8 bar (280 kPa)



# MP ROTATOR DESIGN GUIDE

## Cost and Water Savings

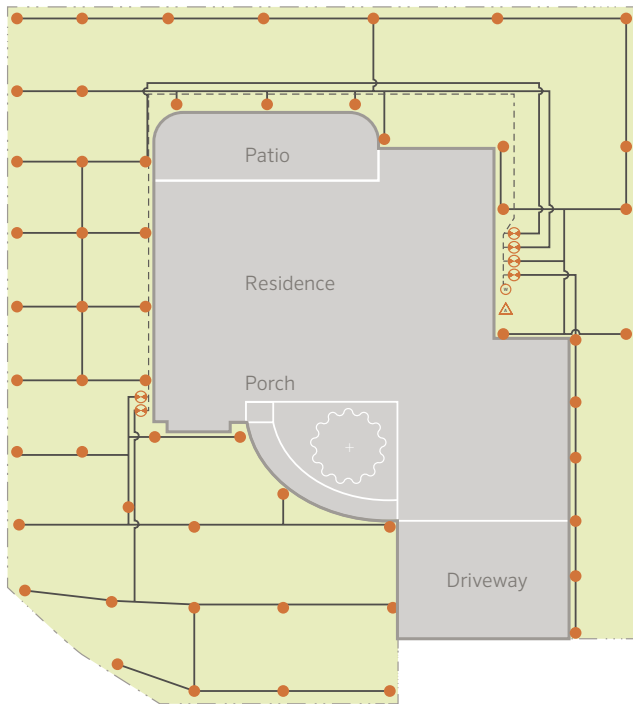
### Lower System Cost

A design with MP Rotators uses far less material and equipment than a traditional spray design, resulting in an overall reduced project cost. Due to the lower flow rates, more heads can be run at once, reducing the number of valves needed.

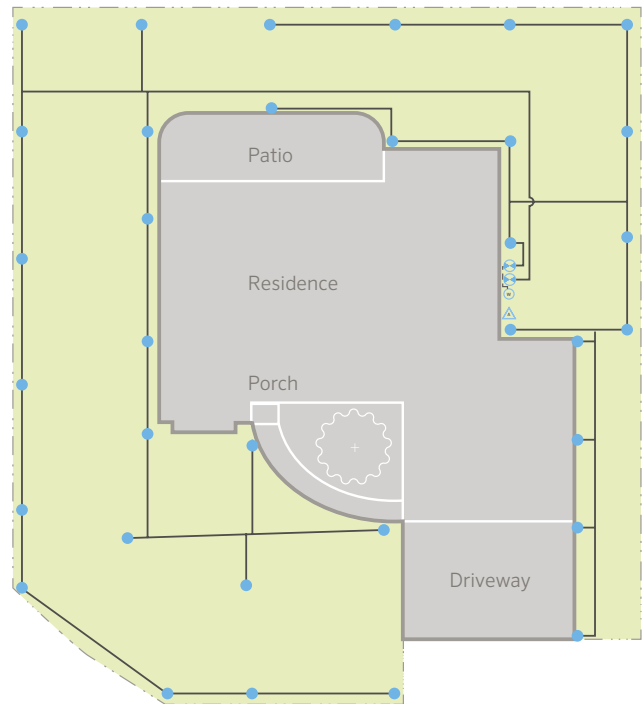
Learn more about how the MP Rotator provides material and labour savings in this residential site study:

<http://hunter.direct/mprotatorss>.

### Design Using Traditional Sprays



### Design Using MP Rotators



IRRIGATION SYSTEM COST COMPARISON	
Materials Needed	With Sprays
Valves	6
Mainline	45.7 m
Laterals	234.8 m
Sprinklers	55
Controller	6-Station
Wire	53.3 m
<b>SPRAY COST</b>	<b>\$\$\$\$</b>

IRRIGATION SYSTEM COST COMPARISON	
Materials Needed	With MP Rotators
Valves	2
Mainline	4.6 m
Laterals	182.9 m
Sprinklers	34
Controller	4-Station
Wire	6.1 m
<b>MP ROTATOR COST</b>	<b>\$\$</b>

## MP ROTATOR DESIGN GUIDE

### Filtration Recommendations and Wastewater Applications

#### Filtration Guidelines

You should use primary filtration when operating with dirty water.

A general rule 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 100 mesh.

Field testing has shown that the MP800 Series runs well in dirty water conditions with the use of a 120-mesh primary filtration system.

NOZZLE FILTER SIZES	
Nozzle	Screen Size (mesh)
MP1000	40
MP2000	40
MP3000	20
MP3500	20
MP Strips and Corner	40
MP800SR-90	60
MP800SR-360	40
MP815	40

#### HY-100, HY-100-75, HY-075

Height: 15 cm

Width: 7 cm

Depth: 13 cm





















Hunter's HY filters with 150-mesh size are a great solution for zone-specific MP800 Series arrangements.

#### Reclaimed Wastewater

The MP Rotator is an excellent choice when using reclaimed wastewater. The materials used in the MP Rotator are chemical-resistant polypropylene, polyurethane, acetal plastics, stainless steel, and EPDM rubber. These materials are designed to withstand the chemicals and conditions commonly used in wastewater irrigation.

# MP ROTATOR DESIGN GUIDE

## MP800 Series

MP ROTATOR PERFORMANCE DATA										MP ROTATOR PERFORMANCE DATA																																																																																																																																														
<b>MP800SR</b> Radius: 1.8 to 3.5 m Adjustable Arc and Full-Circle ● Orange and Grey: 90° to 210° ● Lime Green and Grey: 360°										<b>MP815</b> Radius: 2.5 to 4.9 m Adjustable Arc and Full-Circle ● Maroon and Grey: 90° to 210° ● Lt. Blue and Grey: 210° to 270° ● Olive and Grey: 360°																																																																																																																																														
MAX RADIUS					MIN RADIUS																																																																																																																																																			
Arc	Pressure		Radius	Flow		Precip. mm/hr		Radius	Flow		Arc	Pressure		Radius	Flow		Precip. mm/hr																																																																																																																																							
	bar	kPa	m	m <sup>3</sup> /hr	l/min	■	▲	m	m <sup>3</sup> /hr	l/min		bar	kPa	m	m <sup>3</sup> /hr	l/min	■	▲																																																																																																																																						
90° 	2.1	200	2.6	0.04	0.61	22	25	1.8	0.03	0.49	90° 	2.1	210	4.3	0.10	1.59	21	24	2.8 <b>280</b>	2.5	250	2.9	0.04	0.72	21	24	4.6 <b>0.11</b>	2.5	250	4.5	0.10	1.74	21	24	21	2.8	280	<b>3.1</b>	<b>0.05</b>	<b>0.87</b>	<b>21</b>	<b>24</b>	24	3.1	310	4.8	0.12	1.97	21	24	21	3.1	310	4.6	0.11	1.85	21	24	24	3.0	300	3.4	0.06	0.95	20	23	2.4	3.0	300	3.4	0.06	0.95	20	23	0.04	3.5	350	3.5	0.06	1.02	20	23	0.04	3.5	350	4.9	0.12	2.08	21	24	0.72	3.5	350	3.5	0.06	1.02	20	23	0.72	3.8	380	3.5	0.06	1.06	20	23	0.76	3.8	380	4.9	0.13	2.20	22	25	0.76	3.8	380	3.0	0.05	0.76	0.76	3.8	380	4.9	0.13	2.20	22	25																								
	180° 	2.1	200	2.6	0.07	1.21	22	25	1.8	0.06		0.98	180° 	2.1	210	4.0	0.17	2.84		21	25	2.8 <b>280</b>	2.5	250	2.8	0.08		1.40	21	24	4.5 <b>0.21</b>	2.5	250	4.3		0.20	3.26	21	24	21	2.8	280		<b>3.0</b>	<b>0.10</b>	<b>1.59</b>	<b>21</b>	<b>24</b>	24	3.1		310	4.6	0.22	3.63	21	24	2.4		3.1	310	3.3	0.10	1.74	19	22		0.07	3.1	310	3.3	0.10	1.74	19		22	0.07	3.5	350	3.4	0.11	1.82		19	22	1.21	3.5	350	3.4	0.11		1.82	19	22	1.21	3.8	380	3.5		0.11	1.89	18	21	1.10	3.8	380		3.5	0.11	1.89	18	21	1.10	3.8		380	4.9	0.25	4.20	21		24	1.36	3.8	380	3.0	0.09	1.51	1.36	3.8	380	4.9	0.25	4.20	21	24																
		210° 	2.1	200	2.6	0.08	1.40	22	25	1.8		0.07		1.15	210° 	2.1	210	4.0		0.20	3.33		21	25	2.8 <b>280</b>	2.5		250	2.8	0.10		1.67	22	25		4.5 <b>0.25</b>	2.5	250	4.3		0.22	3.63		20	23	21	2.8	280		<b>3.0</b>		<b>0.11</b>	<b>1.85</b>	<b>21</b>	<b>24</b>	24	3.1			310	4.6	0.26	4.39	21	25	2.4			3.1	310	3.2	0.12	2.01	20		23		0.08	3.1	310	3.2	0.12		2.01	20		23	0.08	3.5	350		3.4	0.13	2.12		19	22	1.41		3.5	350	3.4	0.13		2.12	19		22	1.41	3.8	380	3.5		0.13		2.20	18	21	1.68	3.8		380		3.0	0.11	1.77	1.68	3.8		380	4.9	0.30	4.92	21	24																	
			360° 	2.1	200	2.6	0.14	2.38	22	25		1.8		0.11		1.78	360° 	2.1		210	4.0		0.26	4.31		22		25	2.8 <b>280</b>	2.5		250	2.8	0.16			2.65	20	23		4.5 <b>0.32</b>	2.5		250	4.3		0.28	4.69		20		23	21	2.8	280		<b>3.0</b>			<b>0.18</b>	<b>2.95</b>	<b>20</b>	<b>23</b>	24	3.1				310	4.6	0.33	5.56	21	24		2.4			3.1	310	3.1	0.19		3.22	20		23		0.13	3.1		310	3.1	0.19		3.22	20			23	0.13	3.5	350		3.3	0.20		3.33		19	21	2.12		3.5		350	3.3	0.20		3.33		19		21	2.12	3.8		380		3.5	0.22	3.71	18	21	2.65	3.8	380	3.0	0.16	2.65	2.65	3.8	380	4.9	0.37	6.09	20	23				
				90° 	2.1	210	4.3	0.10	1.59	21		24		90° 		2.1		210		4.0	0.17		2.84	21		25		2.8 <b>280</b>		2.5		250	4.5	0.10			1.74	21	24			4.5 <b>0.21</b>		2.5	250		4.3	0.20		3.26		21		24	21		2.8			280	<b>4.6</b>	<b>0.11</b>	<b>1.85</b>		<b>21</b>				<b>24</b>	24	3.1	310	4.8	0.12					1.97	21	24	2.4		3.1	310		4.6			0.22		3.63	21	24		0.07	3.5			350		4.9	0.12		2.08	21		24		1.21	3.5			350		4.8	0.24	4.01		21		24		1.21		3.8		380		4.9	0.13	2.20	22	25		1.10	3.8	380	4.9	0.13		2.20	22	25	1.36	3.8	380	4.9	0.25	4.20	21	24
					180° 	2.1	210	4.0	0.17	2.84		21				25		180° 		2.1	210		4.0	0.20		3.33				21		25	2.8 <b>280</b>	2.5			250	4.3	0.20					3.26	21		24	4.5 <b>0.25</b>		2.5		250		4.3			0.22			3.63	20	23	21		2.8				280		<b>4.5</b>	<b>0.21</b>	<b>3.52</b>	<b>21</b>					<b>24</b>	24	3.1			310	4.6		0.22			3.63		21	24	2.4			3.1			310		4.6	0.26		4.39	21		25			0.08			3.5		350	4.8	0.24		4.01		21				24		1.41		3.5	350	4.8	0.28	4.69			21	24	1.41	3.8		380	4.9	0.25		4.20	21	24	1.68	3.8	380	4.9
210° 	2.1					210	4.0	0.20	3.33	21	25	210° 	2.1			210			4.0	0.26	4.31	22	25	2.8 <b>280</b>		2.5	250			4.3	0.28	4.69		20	23		4.5 <b>0.32</b>	2.5	250	4.3			0.28	4.69	20		23		21	2.8	280	<b>4.5</b>		<b>0.25</b>			<b>4.16</b>	<b>21</b>	<b>24</b>	24	3.1	310			4.6		0.26	4.39	21		25	2.4	3.1	310	4.6		0.26		4.39		21		25	0.13	3.5	350	4.8			0.28	4.69	21	24		2.12		3.5		350	4.8		0.28	4.69	21	24	2.12	3.8	380					4.9	0.30	4.92	21	24	2.65		3.8	380	4.9	0.37			6.09			20	23																						
	270° 	2.1				210	4.0	0.26	4.31	22	25		270° 		2.1	210			4.0	0.35	5.75	22	25		2.8 <b>280</b>	2.5	250			4.3	0.28	4.69		20	23	4.5 <b>0.42</b>		2.5	250	4.3			0.28	4.69	20	23	21			2.8	280	<b>4.5</b>		<b>0.32</b>		<b>5.30</b>	<b>21</b>	<b>24</b>	24		3.1	310			4.6	0.33	5.56	21	24		2.4		3.1	310	4.6		0.33	5.56	21		24		0.14		3.5	350	4.8	0.35		5.83	20	23	2.38				3.5	350	4.8	0.35		5.83	20	23	2.38		3.8	380	4.9				0.37	6.09	20	23	2.65		3.8	380	4.9	0.37	6.09			20	23																									
		360° 	2.1			210	4.0	0.35	5.75	22	25				360° 	2.1	210		4.0	0.35	5.75	22	25			2.8 <b>280</b>	2.5		250	4.3	0.39	6.43		21	24			4.5 <b>0.42</b>	2.5	250	4.3		0.39	6.43	21	24				21	2.8	280	<b>4.5</b>	<b>0.42</b>		<b>7.08</b>	<b>21</b>	<b>24</b>			24	3.1		310	4.6	0.45	7.57	21	25				2.4	3.1	310	4.6	0.45	7.57	21		25				0.14	3.5	350	4.8	0.48	8.06	21	24					2.38	3.5	350	4.8	0.48	8.06	21	24			2.38	3.8	380			4.9	0.51	8.55	21	25			2.65	3.8	380	4.9	0.51		8.55	21	25																									

Due to its precipitation rate of approximately 20 mm/hr, we strongly recommend zoning the MP800 Series separately from the Standard MP Rotator Series.

### PERFORMANCE DATA NOTE FOR ALL CHARTS:






**Bold** = Recommended Pressure.




The MP Rotator is designed to maintain matched precipitation after radius adjustment. Optimal pressure for the MP Rotator is 2.8 bar (280 kPa). This can be achieved easily by using the MP Rotator with the Hunter Pro-Spray PRS40 Spray Body, pressure regulated at 2.8 bar (280 kPa).



# MP ROTATOR DESIGN GUIDE

## MP1000, MP2000, MP3000, MP3500

MP ROTATOR PERFORMANCE DATA																	
MP1000								MP2000					MP3000				
Radius: 2.5 to 4.5 m Adjustable Arc and Full-Circle								Radius: 4.0 to 6.4 m Adjustable Arc and Full-Circle					Radius: 6.7 to 9.1 m Adjustable Arc and Full-Circle				
● Maroon: 90° to 210° ● Lt. Blue: 210° to 270° ● Olive: 360°								● Black: 90° to 210° ● Green: 210° to 270° ● Red: 360°					● Blue: 90° to 210° ● Yellow: 210° to 270° ● Grey: 360°				
Arc	Pressure		Radius	Flow	Flow	Precip mm/hr		Radius	Flow	Flow	Precip mm/hr		Radius	Flow	Flow	Precip mm/hr	
	bar	kPa	m	m³/hr	l/min	■	▲	m	m³/hr	l/min	■	▲	m	m³/hr	l/min	■	▲
90° 	1.7	170	-	-	-	-	-	5.2	0.08	1.29	12	13	7.6	0.16	2.69	11	13
	2	200	3.7	0.04	0.64	11	13	5.5	0.09	1.44	12	13	8.2	0.17	2.88	10	12
	2.5	250	4.0	0.04	0.72	11	13	5.8	0.09	1.52	11	13	8.5	0.19	3.11	10	12
	<b>2.8</b>	<b>280</b>	<b>4.1</b>	<b>0.05</b>	<b>0.80</b>	<b>11</b>	<b>13</b>	<b>6.1</b>	<b>0.10</b>	<b>1.63</b>	<b>11</b>	<b>12</b>	<b>9.1</b>	<b>0.20</b>	<b>3.26</b>	<b>10</b>	<b>11</b>
	3	300	4.3	0.05	0.87	11	13	6.4	0.11	1.74	10	12	9.1	0.21	3.41	10	12
	3.5	350	4.5	0.06	0.95	11	13	6.4	0.11	1.78	11	12	9.1	0.22	3.60	11	12
	3.8	380	4.5	0.06	1.02	12	14	6.4	0.11	1.82	11	12	9.1	0.23	3.83	11	13
180° 	1.7	170	-	-	-	-	-	4.9	0.14	2.27	11	13	7.6	0.33	5.46	11	13
	2	200	3.7	0.08	1.29	11	13	5.2	0.15	2.43	11	13	8.2	0.36	5.99	11	12
	2.5	250	4.0	0.09	1.44	11	13	5.5	0.16	2.69	11	12	8.5	0.39	6.44	11	12
	<b>2.8</b>	<b>280</b>	<b>4.1</b>	<b>0.10</b>	<b>1.59</b>	<b>11</b>	<b>13</b>	<b>5.8</b>	<b>0.18</b>	<b>2.92</b>	<b>11</b>	<b>12</b>	<b>9.1</b>	<b>0.42</b>	<b>6.90</b>	<b>10</b>	<b>12</b>
	3	300	4.3	0.10	1.67	11	13	6.1	0.20	3.22	11	12	9.1	0.44	7.31	11	12
	3.5	350	4.5	0.12	1.90	11	13	6.4	0.21	3.45	10	12	9.1	0.47	7.73	11	13
	3.8	380	4.5	0.12	1.93	12	13	6.4	0.22	3.60	11	12	9.1	0.49	8.07	12	14
210° 	1.7	170	-	-	-	-	-	4.9	0.17	2.73	12	14	7.6	0.39	6.37	11	13
	2	200	3.7	0.09	1.52	12	13	5.2	0.17	2.84	11	13	8.2	0.42	6.97	11	12
	2.5	250	4.0	0.10	1.71	11	13	5.5	0.19	3.07	11	12	8.5	0.46	7.54	11	13
	<b>2.8</b>	<b>280</b>	<b>4.1</b>	<b>0.11</b>	<b>1.86</b>	<b>11</b>	<b>13</b>	<b>5.8</b>	<b>0.20</b>	<b>3.26</b>	<b>10</b>	<b>12</b>	<b>9.1</b>	<b>0.49</b>	<b>8.03</b>	<b>10</b>	<b>12</b>
	3	300	4.3	0.12	1.93	11	13	6.1	0.21	3.45	10	11	9.1	0.52	8.53	11	12
	3.5	350	4.5	0.13	2.16	11	13	6.4	0.23	3.71	9	11	9.1	0.55	8.98	11	13
	3.8	380	4.5	0.14	2.24	11	13	6.4	0.23	3.83	10	11	9.1	0.57	9.44	12	14
270° 	1.7	170	-	-	-	-	-	4.9	0.20	3.30	11	13	7.6	0.50	8.30	12	13
	2	200	3.7	0.11	1.82	11	12	5.2	0.22	3.60	11	12	8.2	0.55	8.98	11	12
	2.5	250	4.0	0.12	2.01	10	12	5.5	0.24	3.90	10	12	8.5	0.59	9.66	11	12
	<b>2.8</b>	<b>280</b>	<b>4.1</b>	<b>0.14</b>	<b>2.39</b>	<b>11</b>	<b>13</b>	<b>5.8</b>	<b>0.25</b>	<b>4.17</b>	<b>10</b>	<b>12</b>	<b>9.1</b>	<b>0.63</b>	<b>10.35</b>	<b>10</b>	<b>12</b>
	3	300	4.3	0.15	2.54	11	13	6.1	0.27	4.43	10	11	9.1	0.66	10.95	11	12
	3.5	350	4.5	0.17	2.73	11	13	6.4	0.28	4.66	9	11	9.1	0.70	11.60	11	13
	3.8	380	4.5	0.17	2.84	11	13	6.4	0.30	4.93	10	11	9.1	0.74	12.20	12	14
360° 	1.7	170	-	-	-	-	-	4.9	0.28	4.55	11	13	7.6	0.66	10.92	11	13
	2	200	3.7	0.16	2.62	12	13	5.2	0.29	4.85	11	13	8.2	0.72	11.94	11	12
	2.5	250	4.0	0.18	2.92	11	13	5.5	0.32	5.19	10	12	8.5	0.78	12.89	11	12
	<b>2.8</b>	<b>280</b>	<b>4.1</b>	<b>0.19</b>	<b>3.18</b>	<b>11</b>	<b>13</b>	<b>5.8</b>	<b>0.34</b>	<b>5.61</b>	<b>10</b>	<b>12</b>	<b>9.1</b>	<b>0.84</b>	<b>13.80</b>	<b>10</b>	<b>12</b>
	3	300	4.3	0.20	3.34	11	13	6.1	0.36	5.95	10	11	9.1	0.89	14.63	11	12
	3.5	350	4.5	0.23	3.71	11	13	6.4	0.39	6.37	9	11	9.1	0.94	15.43	11	13
	3.8	380	4.5	0.23	3.83	11	13	6.4	0.40	6.59	10	11	9.1	0.98	16.18	12	14




MP3500																											
Radius: 9.4 to 10.7 m Adjustable Arc								90° 				MP3500 Radius: 9.4 to 10.7 m Adjustable Arc				180° 				MP3500 Radius: 9.4 to 10.7 m Adjustable Arc				210° 			
● Light Brown: 90° to 210°								● Light Brown: 90° to 210°				● Light Brown: 90° to 210°				● Light Brown: 90° to 210°											
Pressure		Radius	Flow	Flow	Precip mm/hr		Radius	Flow	Flow	Precip in/hr		Radius	Flow	Flow	Precip in/hr												
bar	kPa	m	m³/hr	l/min	■	▲	m	m³/hr	l/min	■	▲	m	m³/hr	l/min	■	▲											
1.7	170	10.1	0.24	3.94	9	11	10.1	0.50	8.36	10	11	10.1	0.59	9.80	10	12											
2.0	200	10.4	0.26	4.28	10	11	10.4	0.51	8.48	9	11	10.4	0.65	10.75	10	12											
2.5	250	10.4	0.28	4.58	10	12	10.4	0.60	10.03	11	13	10.4	0.70	11.66	11	13											
<b>2.8</b>	<b>280</b>	<b>10.7</b>	<b>0.29</b>	<b>4.84</b>	<b>10</b>	<b>12</b>	<b>10.7</b>	<b>0.65</b>	<b>10.83</b>	<b>11</b>	<b>13</b>	<b>10.7</b>	<b>0.75</b>	<b>12.45</b>	<b>11</b>	<b>13</b>											
3.0	300	10.7	0.31	5.22	11	13	10.7	0.70	11.73	12	14	10.7	0.80	13.40	12	14											
3.5	350	10.7	0.33	5.41	11	13	10.7	0.73	12.15	13	15	10.7	0.85	14.23	13	15											
3.8	380	10.7	0.34	5.68	12	14	10.7	0.75	12.41	13	15	10.7	0.90	14.91	13	16											

# MP ROTATOR DESIGN GUIDE

## MP Specialty




### MP ROTATOR PERFORMANCE DATA

**MP Corner**  
 Radius: 2.5 to 4.5 m  
 Adjustable Arc  
 ● Turquoise: 45° to 105°

Arc	Pressure		Radius m	Flow m <sup>3</sup> /hr	Flow l/min
	bar	kPa			
45° 	1.7	170	--	--	--
	2.0	200	3.5	0.04	0.61
	2.5	250	4.0	0.04	0.68
	<b>2.8</b>	<b>280</b>	<b>4.1</b>	<b>0.04</b>	<b>0.70</b>
	3.0	300	4.3	0.04	0.73
	3.5	350	4.4	0.05	0.78
	3.8	380	4.5	0.05	0.81
90° 	1.7	170	3.2	0.07	1.15
	2.0	200	3.5	0.08	1.27
	2.5	250	4.0	0.08	1.40
	<b>2.8</b>	<b>280</b>	<b>4.1</b>	<b>0.09</b>	<b>1.44</b>
	3.0	300	4.3	0.09	1.57
	3.5	350	4.4	0.10	1.67
	3.8	380	4.5	0.10	1.73
105° 	1.7	170	3.2	0.08	1.34
	2.0	200	3.5	0.09	1.48
	2.5	250	4.0	0.10	1.63
	<b>2.8</b>	<b>280</b>	<b>4.1</b>	<b>0.10</b>	<b>1.70</b>
	3.0	300	4.3	0.11	1.83
	3.5	350	4.4	0.12	1.94
	3.8	380	4.5	0.12	2.00

### MP ROTATOR PERFORMANCE DATA

● **MPLCS515**: Ivory, MP Left Corner Strip  
 ● **MPRCS515**: Copper, MP Right Corner Strip  
 ● **MPSS530**: Brown, MP Side Strip

	Pressure		Radius m	Flow m <sup>3</sup> /hr	Flow l/min
	bar	kPa			
<b>MP Left Corner Strip</b> 	1.7	170	1.1 x 4.2	0.04	0.67
	2.0	200	1.2 x 4.3	0.04	0.72
	2.5	250	1.4 x 4.5	0.05	0.79
	<b>2.8</b>	<b>280</b>	<b>1.5 x 4.6</b>	<b>0.05</b>	<b>0.84</b>
	3.0	300	1.6 x 4.7	0.06	0.87
	3.5	350	1.7 x 4.8	0.06	0.94
	3.8	380	1.8 x 4.9	0.06	0.99
<b>MP Right Corner Strip</b> 	1.7	170	1.1 x 4.2	0.04	0.67
	2.0	200	1.2 x 4.3	0.04	0.72
	2.5	250	1.4 x 4.5	0.05	0.79
	<b>2.8</b>	<b>280</b>	<b>1.5 x 4.6</b>	<b>0.05</b>	<b>0.84</b>
	3.0	300	1.6 x 4.7	0.05	0.87
	3.5	350	1.7 x 4.8	0.06	0.94
	3.8	380	1.8 x 4.9	0.06	0.99
<b>MP Side Strip</b> 	1.7	170	1.1 x 8.3	0.08	1.34
	2.0	200	1.2 x 8.6	0.09	1.43
	2.5	250	1.4 x 8.9	0.09	1.57
	<b>2.8</b>	<b>280</b>	<b>1.5 x 9.1</b>	<b>0.10</b>	<b>1.66</b>
	3.0	300	1.6 x 9.3	0.10	1.72
	3.5	350	1.7 x 9.6	0.11	1.87
	3.8	380	1.8 x 9.9	0.12	1.96

Strip pattern radius can be adjusted by 25%.

MP Strips can be used with both the Standard MP Rotator Series and the MP800 Series depending on the layout.

### PERFORMANCE DATA NOTE FOR ALL CHARTS:

































**Bold** = Recommended Pressure.

The MP Rotator is designed to maintain matched precipitation after radius adjustment. Optimal pressure for the MP Rotator is 2.8 bar (280 kPa). This can be achieved easily by using the MP Rotator with the Hunter Pro-Spray PRS40 Spray Body, pressure regulated at 2.8 bar (280 kPa).

# MP ROTATOR DESIGN GUIDE

## Field Identification

MP Rotator models are colour-coded for easy field identification.

Standard MP Rotator Series					MP Strip	
Radius	2.5 to 4.5 m	4.0 to 6.4 m	6.7 to 9.1 m	9.4 to 10.7 m	Shape	
Arc						
90° to 210°	<b>MP1000-90</b>	<b>MP2000-90</b>	<b>MP3000-90</b>	<b>MP3500-90</b>		<b>MPLCS515</b> 1.5 x 4.6 m Left Corner
Arc						
210° to 270°	<b>MP1000-210</b>	<b>MP2000-210</b>	<b>MP3000-210</b>			<b>MPRCS515</b> 1.5 x 4.6 m Right Corner
Arc						
360°	<b>MP1000-360</b>	<b>MP2000-360</b>	<b>MP3000-360</b>			<b>MPS530</b> 1.5 x 9.1 m Side Strip
MP800 Series					MP Corner	
Radius	1.8 to 3.5 m		2.5 to 4.9 m		Arc	
Arc						
90° to 210°	<b>MP800SR-90</b> Short Radius		<b>MP815-90</b>		45° to 105°	<b>MPCORNER</b> 2.5 to 4.5 m
Arc						
210° to 270°			<b>MP815-210</b>			
Arc						
360°	<b>MP800SR-360</b> Short Radius		<b>MP815-360</b>			
					MP Male Threaded	
					Available in all MP Rotator models, except MP1000-210, MP3500-90, and MP800 models	
						<b>MP-HT</b> Male-Threaded



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.

A handwritten signature in white ink, appearing to read 'G.R. Hunter', is written over a dark blue background.

Gregory R. Hunter, CEO of Hunter Industries

A handwritten signature in white ink, appearing to read 'Gene Smith', is written over a dark blue background.

Gene Smith, President, Landscape Irrigation and Outdoor Lighting

**Website** [hunterindustries.com](http://hunterindustries.com) | **Customer Support** +1 760-752-6037 | **Technical Service** +1 760-591-7383

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