

MP ROTATOR®

DESIGN GUIDE

Hunter®



## The MP Rotator

### Setting the Standard for Water Efficiency

#### High Uniformity

Precision-engineered streams provide excellent coverage and superior wind resistance

#### Low Precipitation Rate

Reduces runoff on slopes and tight soils

#### Flexible Design Tool

From 1.2 to 9.1 m spacing—any models can be combined on the same zone

#### Automatic Matched Precipitation

Even after arc and radius adjustment

#### Proven Durability and Reliability

Rotator® technology proven since 1987 in the agricultural market

#### Quick, Easy Arc and Radius Adjustments

Fast installation—no nozzles to change



## The One and Only



The MP Rotator is a multistream rotor like no other. It installs on the Hunter Pro-Spray® and MPR40 bodies, giving you

the versatility your project needs. What makes the MP Rotator so special? It is in the MP—true matched precipitation that is. Any combination of the many rotators you see on the right can operate in conjunction with one another, giving you ultimate flexibility you simply can't duplicate with any other product.



## The MPR40 and The MP Rotator—A Perfect Combination

Designing and working with the MP Rotator gave us the opportunity to make it even better. How? We did this by determining its optimal operating pressure.

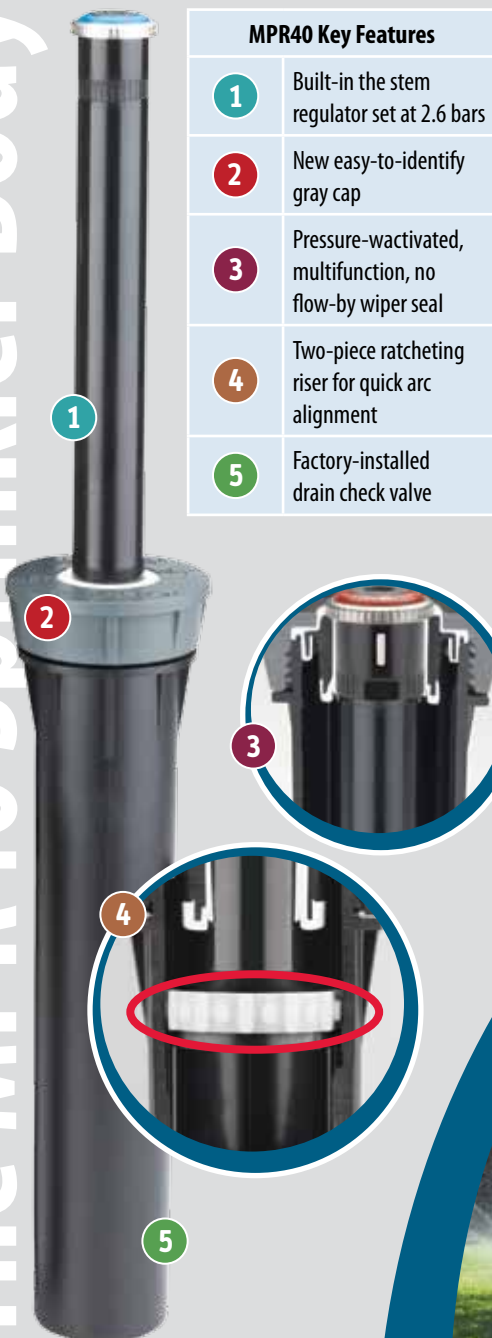
**The end result: The MPR40.** As the name suggests, we calibrated the MPR40 to provide the MP Rotator with a consistent 2.6 bars. Even more, we've added a new gray-colored body cap for easy identification. Together, the two are a true blend of technology and performance. In fact, the MPR40 is the only product of its kind. Discover the MPR40. Paired with the MP Rotator, it's a partnership that performs.



### The MPR40 Sprinkler Body:

Four models available: 10 cm (4"), 15 cm (6"), and 30 cm (12"). Shrub model not shown.

# The MPR40 Sprinkler Body



MPR40 Key Features	
1	Built-in the stem regulator set at 2.6 bars
2	New easy-to-identify gray cap
3	Pressure-wactivated, multifunction, no flow-by wiper seal
4	Two-piece ratcheting riser for quick arc alignment
5	Factory-installed drain check valve



## Design By Color



## Models

**MP1000 (Female Thread) & MP1000HT (Male Thread)**  
**Radius Range** – 2.4 to 4.6 m including all pressure and radius adjustment influence  
**Pressure Range** – 2.1 to 3.8 bars  
**Application Notes**

- Low trajectory, perfect for smaller areas
- For minimum radius, install on a 2.1 bars regulated Institutional Spray body



**MPCorner (Female Thread) & MPCornerHT (Male Thread)**  
**Radius Range** – 2.4 to 4.6 m  
**Pressure Range** – 2.1 to 3.8 bars  
**Application Notes**

- Designed for application in areas with less than 90 degrees of arc area necessary
- Does not require adjacent sprinklers to reach into the first 0.9 to 1.5 m of coverage



**MP2000 (Female Thread) & MP2000HT (Male Thread)**  
**Radius Range** – 4.0 to 6.4 m including all pressure and radius adjustment influence  
**Pressure Range** – 1.7 to 3.8 bars  
**Application Notes**

- Flow rate is about 1/3 of a 4.6 m spray head; and yet has greater radius and higher uniformity
- For minimum radius, install on a 2.1 bars regulated Institutional Spray body



**MPLCS515 (Female Thread) & MPLCSHT515 (Male Thread)**  
**Pressure Range** – 2.1 to 3.8 bars  
**Application Notes**

- Matched precipitation even after radius reduction with head to head spacing
- Can be used on the same zone with the MP1000, MP2000 or MP3000 and still maintain matched precipitation
- Adjustable right edge



**MP3000 (Female Thread) & MP3000HT (Male Thread)**  
**Radius Range** – 6.7 to 9.1 m including all pressure and radius adjustment influence  
**Pressure Range** – 2.1 to 3.8 bars  
**Application Notes**

- Flow rate is about the same as a 4.6 m spray head; and yet has greater radius and higher uniformity
- For minimum radius, provide adjustable zone pressure regulation; Installation on a 2.1 bars pressure regulated Institutional Spray body is not recommended if radius reduction is needed
- For maximum radius, provide pressures over 2.6 bars



**MPSS530 (Female Thread) & MPSSHT530 (Male Thread)**  
**Pressure Range** – 2.1 to 3.8 bars  
**Application Notes**

- Matched precipitation even after radius reduction with head to head spacing
- Can be used on the same zone with the MP1000, MP2000 or MP3000 and still maintain matched precipitation
- Adjustable right edge to fit curved strips



Color-coded for easy identification, the MP Rotator is the perfect solution for water efficiency. The MP Rotator is easy to install and a breeze to adjust.




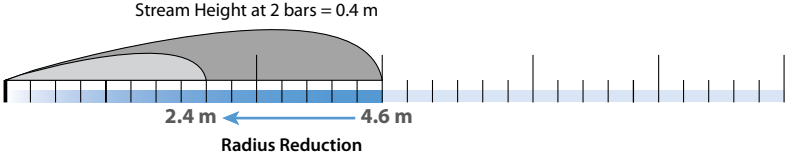



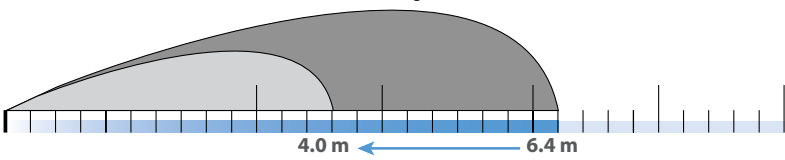



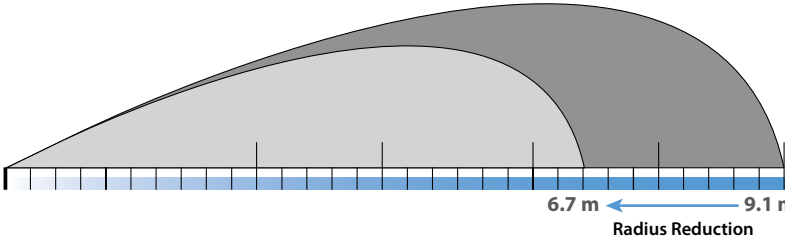



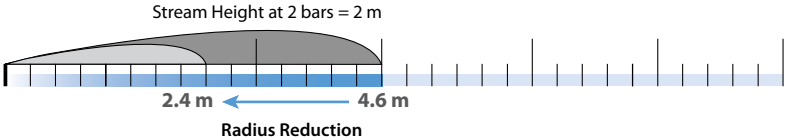

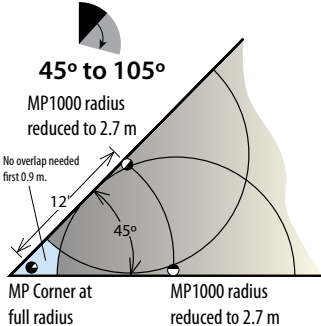
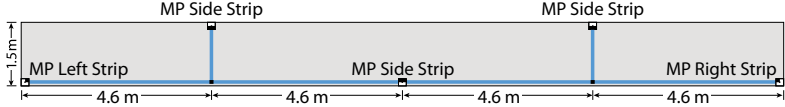





**MPRCS515 (Female Thread) & MPRCSHT515 (Male Thread)**  
**Pressure Range** – 2.1 to 3.8 bars  
**Application Notes**

- Matched precipitation even after radius reduction with head to head spacing
- Can be used on the same zone with the MP1000, MP2000 or MP3000 and still maintain matched precipitation
- Edges are fixed



# Maintain Matched Precipitation – Any Model, Any Arc, Any Radius

Adjustable Radius	Adjustable Arc		
<p>All models of the MP Rotator allow for easy radius adjustment of up to 25% while maintaining automatic matched precipitation.</p>	 <b>90° to 210°</b>	 <b>210° to 270°</b>	 <b>360°</b>
<p><b>MP1000</b></p>  <p>Stream Height at 2 bars = 0.4 m</p> <p>2.4 m ← 4.6 m</p> <p>Radius Reduction</p>	<p>MP1000-90-210</p>  Maroon	<p>MP1000-210-270</p>  Light Blue	<p>MP1000-360</p>  Olive
<p><b>MP2000</b></p>  <p>Stream Height at 2 bars = 1 m</p> <p>4.0 m ← 6.4 m</p> <p>Radius Reduction</p>	<p>MP2000-90-210</p>  Black	<p>MP2000-210-270</p>  Green	<p>MP2000-360</p>  Red
<p><b>MP3000</b></p>  <p>Stream Height at 2.8 bars = 2 m</p> <p>6.7 m ← 9.1 m</p> <p>Radius Reduction</p>	<p>MP3000-90-210</p>  Blue	<p>MP3000-210-270</p>  Yellow	<p>MP3000-360</p>  Gray
<p><b>MP Corner</b></p>  <p>Stream Height at 2 bars = 2 m</p> <p>2.4 m ← 4.6 m</p> <p>Radius Reduction</p> <p>The MP Corner is designed for tight corners that are difficult to irrigate properly with conventional sprinklers. It has an adjustable arc from 45° to 105°, maintains MPR at any arc, any radius and can be placed on the same zone with any other MP Rotator model.</p>	<p>MPCorner</p>  Turquoise	 <p><b>45° to 105°</b></p> <p>MP1000 radius reduced to 2.7 m</p> <p>No overlap needed first 0.9 m.</p> <p>12°</p> <p>45°</p> <p>MP Corner at full radius</p> <p>MP1000 radius reduced to 2.7 m</p>	
<p><b>MP Strip</b></p> <p>Example with triangular spacing.</p>  <p>MP Left Strip</p> <p>MP Side Strip</p> <p>MP Side Strip</p> <p>MP Side Strip</p> <p>MP Right Strip</p> <p>4.6 m</p> <p>4.6 m</p> <p>4.6 m</p> <p>4.6 m</p> <p>1.5 m</p> <p>The three MP Strip models of the MP Rotator family offer an exciting alternative to irrigate strip areas. Strip models offer improved uniformity and excellent wind-fighting ability. The reduced flow rate compared to conventional sprays makes longer runs and/or fewer zones possible.</p>	<p>MPLCS-515 (Left Strip)</p>  Ivory	<p>MPSS-530 (Side Strip)</p>  Brown	<p>MPRCS-515 (Right Strip)</p>  Copper

### SPECIFICATION BUILDER

MODEL	FEATURES	
MP1000 MP2000 MP3000	90° = 90° to 210° 210° = 210° to 270° 360° = 360°	* Add "HT" to specify male thread. MP Rotators are designed to operate in conjunction with a pop-up sprinkler or shrub sprinkler.
MPCORNER		
MPLCS515 MPRCS515 MPSS530		
▶ MP2000    ▶ 90		
EXAMPLE ▶ <b>MP2000* – 90</b>		

### SPECIFICATION BUILDER

MODEL	FEATURES	OPTIONS
MPR40 = MPR40 (Includes factory-installed 2.75 bar pressure regulator)	00 = Shrub 04 = 10 cm (4") Pop-up 06 = 15 cm (6") Pop-up 12 = 30 cm (12") Pop-up  CV = Factory-installed check valve CV-R = (Pop-up models only) Factory-installed reclaimed body cap	MP ROTATORS See MP Rotator Specification Guide for details
▶ MPR40    ▶ 04-CV    ▶ MP200090		
EXAMPLE ▶ <b>MPR40 – 04-CV – MP200090</b>		

#### MP Rotator Performance Data – Metric

Arc	Pressure		Color	MP1000		MP2000		MP3000					
	Bars	kPa		Radius m	Flow LPH	Flow LPM	Precip mm/hr	Radius m	Flow LPH	Flow LPM	Precip mm/hr		
90°	1.75	175	Maroon = 90° to 210°	---	---	---	---	7.6	158	2.63	11	13	
	2.00	200		3.7	36	0.61	11	12	8.2	166	2.77	10	11
	2.25	225		3.8	38	0.63	10	12	8.4	175	2.92	10	12
	2.50	250		4.0	41	0.68	10	12	8.5	185	3.08	10	12
	2.75	275		4.1	42	0.70	10	11	9.1	195	3.25	9	11
	3.00	300		4.3	44	0.73	10	11	9.1	203	3.38	10	11
	3.25	325		4.3	45	0.75	10	11	9.1	212	3.53	10	12
180°	3.50	350	4.4	47	0.78	10	11	9.1	220	3.67	11	12	
	3.75	375	4.6	49	0.81	9	11	9.1	228	3.80	11	13	
	---	---	---	---	---	---	---	---	7.6	329	5.48	11	13
	2.00	200	3.7	72	1.20	11	12	8.2	353	5.88	10	12	
	2.25	225	3.8	76	1.27	10	12	8.4	373	6.22	11	12	
	2.50	250	4.0	81	1.35	10	12	8.5	393	6.55	11	12	
	2.75	275	4.1	84	1.40	10	11	9.1	413	6.88	10	11	
210°	3.00	300	4.3	88	1.46	10	11	9.1	431	7.18	10	12	
	3.25	325	4.3	91	1.51	10	11	9.1	449	7.48	11	12	
	3.50	350	4.4	94	1.56	10	11	9.1	466	7.77	11	13	
	3.75	375	4.6	97	1.62	9	11	9.1	481	8.02	12	13	
	---	---	---	---	---	---	---	---	4.9	155	2.58	11	12
	2.00	200	3.7	85	1.41	11	13	5.2	165	2.75	11	13	
	2.25	225	3.8	89	1.48	10	12	5.3	175	2.92	11	13	
270°	2.50	250	4.0	95	1.58	10	12	5.5	185	3.08	10	12	
	2.75	275	4.1	98	1.63	10	11	5.8	195	3.25	10	12	
	3.00	300	4.3	102	1.71	10	11	6.1	205	3.42	10	11	
	3.25	325	4.3	106	1.76	10	11	6.2	214	3.57	9	11	
	3.50	350	4.4	109	1.82	10	11	6.4	222	3.70	9	10	
	3.75	375	4.6	113	1.89	9	11	6.4	228	3.80	10	11	
	---	---	---	---	---	---	---	---	4.9	199	3.32	11	12
360°	2.00	200	3.7	108	1.80	11	13	5.2	212	3.53	11	13	
	2.25	225	3.8	114	1.90	10	12	5.3	225	3.75	11	13	
	2.50	250	4.0	123	2.05	10	12	5.5	238	3.97	10	12	
	2.75	275	4.1	126	2.10	10	11	5.8	249	4.15	10	12	
	3.00	300	4.3	132	2.20	10	11	6.1	261	4.35	10	11	
	3.25	325	4.3	135	2.25	10	11	6.2	272	4.53	9	11	
	3.50	350	4.4	141	2.35	10	11	6.4	282	4.70	9	10	
3.75	375	4.6	147	2.45	9	11	6.4	293	4.88	9	11		
MP Corner	---	---	---	---	---	---	---	---	---	---	---	---	
	1.75	175	---	---	---	---	---	---	---	---	---	---	
	2.00	200	3.5	144	2.40	12	14	4.9	265	4.42	11	12	
	2.25	225	3.8	153	2.55	11	13	5.2	283	4.72	11	13	
	2.50	250	4.0	161	2.69	10	12	5.3	300	5.00	11	13	
	2.75	275	4.1	169	2.81	10	12	5.5	317	5.28	10	12	
	3.00	300	4.3	177	2.94	10	11	5.8	333	5.55	10	12	
3.25	325	4.3	183	3.05	10	11	6.1	348	5.80	10	11		
3.50	350	4.4	190	3.17	10	11	6.2	362	6.03	9	11		
3.75	375	4.5	195	3.25	10	11	6.4	375	6.25	9	10		
---	---	---	---	---	---	---	---	6.4	384	6.40	9	10	

#### MP Rotator Performance Data – Metric

Arc	Pressure		Color	MP Corner		Flow LPH	Flow LPM
	Bars	kPa		Radius m	Flow LPH		
45°	1.75	175	Turquoise = 45° to 105°	---	---	---	---
	2.00	200		3.5	36	0.61	---
	2.25	225		3.8	38	0.63	---
	2.50	250		4.0	41	0.68	---
	2.75	275		4.1	42	0.70	---
	3.00	300		4.3	44	0.73	---
	3.25	325		4.3	45	0.75	---
90°	3.50	350	4.4	47	0.78	---	
	3.75	375	4.5	49	0.81	---	
	1.75	175	3.2	69	1.15	---	
	2.00	200	3.5	76	1.27	---	
	2.25	225	3.8	79	1.31	---	
	2.50	250	4.0	84	1.40	---	
	2.75	275	4.1	86	1.44	---	
105°	3.00	300	4.3	94	1.57	---	
	3.25	325	4.3	98	1.63	---	
	3.50	350	4.4	100	1.67	---	
	3.75	375	4.5	104	1.73	---	
	1.75	175	3.2	80	1.34	---	
	2.00	200	3.5	89	1.48	---	
	2.25	225	3.8	92	1.53	---	
MP Side Strip	2.50	250	4.0	98	1.63	---	
	2.75	275	4.1	102	1.70	---	
	3.00	300	4.3	110	1.83	---	
	3.25	325	4.3	113	1.88	---	
	3.50	350	4.4	117	1.94	---	
	3.75	375	4.5	120	2.00	---	

#### MP Rotator Performance Data – Metric

Nozzle Model	Pressure		Color	MPLCS515 MPRCS515 MPSS530		Flow LPM	Flow LPH
	Bars	kPa		Width x Length	Flow LPH		
MP Left Strip	2.1	210	Ivory	1.2 m x 4.3 m	0.72	43.2	
	2.4	240		1.5 m x 4.6 m	0.80	48.0	
	2.8	280		1.5 m x 4.6 m	0.83	49.8	
	3.1	310		1.5 m x 4.6 m	0.87	52.2	
	3.4	340		1.8 m x 4.9 m	0.95	57.0	
	3.8	380		1.8 m x 4.9 m	0.98	58.8	
MP Right Strip	2.1	210	Copper	1.2 m x 4.3 m	0.72	43.2	
	2.4	240		1.5 m x 4.6 m	0.80	48.0	
	2.8	280		1.5 m x 4.6 m	0.83	49.8	
	3.1	310		1.5 m x 4.6 m	0.87	52.2	
	3.4	340		1.8 m x 4.9 m	0.95	57.0	
	3.8	380		1.8 m x 4.9 m	0.98	58.8	
MP Side Strip	2.1	210	Brown	1.2 m x 8.5 m	1.44	86.4	
	2.4	240		1.5 m x 9.1 m	1.55	93.0	
	2.8	280		1.5 m x 9.1 m	1.66	99.6	
	3.1	310		1.5 m x 9.1 m	1.78	106.8	
	3.4	340		1.8 m x 9.8 m	1.85	111.0	
	3.8	380		1.8 m x 9.8 m	1.93	115.8	

Note: Strip pattern radius can be adjusted by 25%. MP Rotator is designed to maintain matched precipitation after radius adjustment.

