

### 1800®-SAM, 1800®-PRS, 1800®-SAM-PRS, 1800®-SAM-P45 Series

4", 6", 12" (10.2 cm, 15.2 cm, 30.5 cm)

#### Features

- **1800®-SAM Series:** Built-in Seal-A-Matic™ (SAM) check valve. Eliminates the need for under-the-head check valves. Traps water in lateral pipes in elevation changes of up to 14 feet (4.2 m). Reduces wear on system components by minimizing water hammer during start-up
- **1800®-PRS Series:** Maintains constant outlet pressure at 30 psi (2.1 bar). PRS pressure regulator built into the stem simplifies system design. Eliminates misting and fogging caused by high pressure. Saves time and money
- **1800®-SAM-PRS Series:** Incorporates all 1800 Series SAM and PRS features. Meets the needs of all spray areas, regardless of changing elevation or water pressures
- **1800®-SAM-P45 Series:** Maintains constant outlet pressure at 45 psi (3.1 bar) at varying inlet pressures. Ensures maximum spray body and nozzle performance, even with varying inlet pressures. Maintains constant pressure regardless of nozzle used

#### Specifications

- SAM capability: holds up to 14 feet (4.2 m) of head; 6 psi (0.4 bar)
- PRS models regulate nozzle pressure to an average 30 or 45 psi (2.1 or 3.1 bar) with inlet pressures of up to 70 psi (4.8 bar)
- Flow-by: 0 gpm at 8 psi (0.6 bar) or greater; 0.10 gpm (0.02 m³/h; 0.36 l/m) otherwise
- Installation: side or bottom inlet
- Side inlet installation not recommended in freezing climates
- Five Year Trade Warranty

#### 1800-SAM Models

- 1804-SAM: 4" pop-up height (10.2 cm)
- 1806-SAM: 6" pop-up height (15.2 cm)
- 1812-SAM: 12" pop-up height (30.5 cm)

#### 1800-PRS Models

- 1804 PRS: 4" pop-up height (10.2 cm)
- 1806 PRS: 6" pop-up height (15.2 cm)
- 1812 PRS: 12" pop-up height (30.5 cm)

#### 1800-SAM-PRS Models

- 1804-SAM-PRS: 4" pop-up height (10.2 cm)
- 1806-SAM-PRS: 6" pop-up height (15.2 cm)
- 1812-SAM-PRS: 12" pop-up height (30.5 cm)

#### 1800-SAM-P45 Models

- 1804-SAM-P45: 4" pop-up height (10.2 cm)
- 1806-SAM-P45: 6" pop-up height (15.2 cm)
- 1812-SAM-P45: 12" pop-up height (30.5 cm)

#### Operating Range

- Spacing: 2.5 to 24 feet (0.8 to 7.3m)\*
- Pressure: 15 to 70 psi (1.0 to 4.8 bar)



1800-SAM



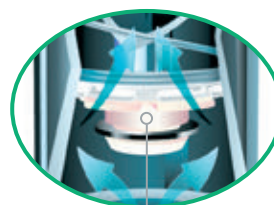
1800-PRS



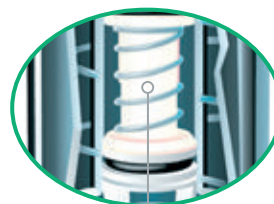
1800-SAM-PRS



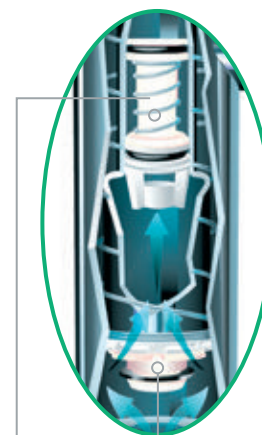
1800-SAM-P45



Built in Seal-A-Matic check valve prevents low-head drainage, ideal for use in changing elevations



Patented pressure regulator in stem compensates for high or fluctuating water pressure to ensure maximum performance



Top-of-the-line spray head includes all the features of the SAM and PRS series, ideal regardless of pressure or elevation

\* 2.5 to 18 feet with standard Rain Bird Spray Head Nozzles (SQ, MPR, VAN, U-Series), 13 to 24 feet with Rain Bird Rotary Nozzles

## RD1800™ Series Spray Heads

4", 6", 12" (10.2 cm; 15.2 cm; 30.5 cm)

### Features

- Patented, Triple-Blade Wiper Seal precisely balances flushing, flow-by and debris protection to optimize performance and durability at pop-up and retraction. Precision-controlled flushing at pop-up and retraction clears debris, ensuring positive stem retraction in all soil types
- Unique debris pockets hold grit in place, removing it from circulation and preventing long-term damage. Parts resistant to corrosion in treated recycled water containing chlorine
- **RD1800™ SAM PRS Series:** Incorporates all RD1800 Series SAM and PRS features. Meets the needs of all spray areas, regardless of changing elevation or water pressures
- **RD1800™ Flow-Shield™ Series:** Provides low flow vertical water jet visible from +200' line of sight when a nozzle has been removed
- **RD1800™ Non-Potable Water Series:** Provides an alternative to clip-on caps and molded purple covers. Easy-to-read English "DO NOT DRINK", Spanish "NO BEBA" warnings, and international do not drink symbol

### Operating Range

- Spacing: 2.5 to 24 feet (0.8 to 7.3 m)
- Pressure: 15 to 100 psi (1.0 to 6.9 bar)

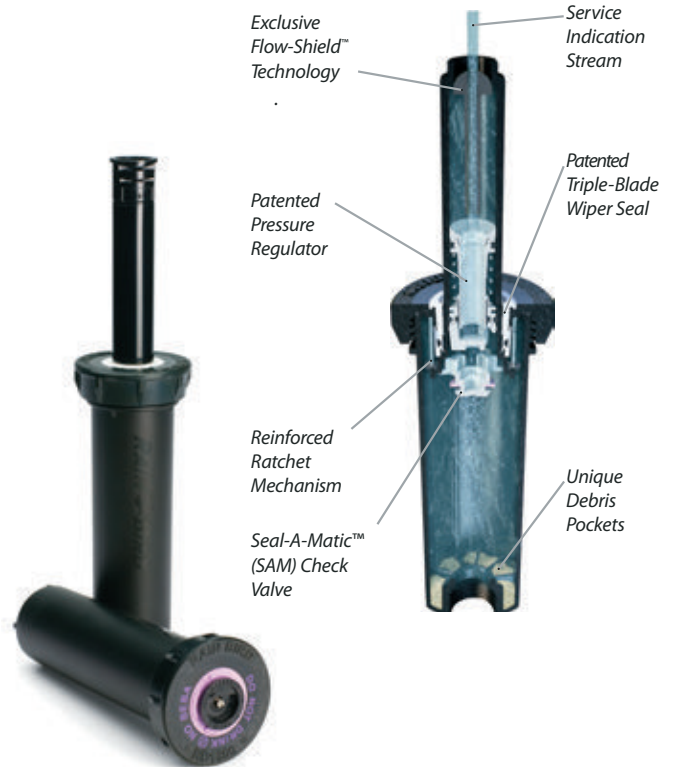
### Specifications

- SAM capability: Holds up to 14 feet (4.2 m) of head; 6 psi (0.3 bar)
- Flow-by: SAM Models: 0 at 15 psi (1.0 bar) or greater; 0.5 gpm (0.1 m<sup>3</sup>/h; 0.03 l/s) otherwise  
All Other Models: 0 at 10 psi (0.7 bar) or greater; 0.5 gpm (0.1 m<sup>3</sup>/h; 0.03 l/s) otherwise
- SAM-PRS models regulate nozzle pressure to an average 30 or 45 psi (2.1 or 3.1 bar) with inlet pressures of up to 100 psi (6.9 bar)
- Side inlets featured on non Seal-A-Matic™ (SAM) models only
- Five-year trade warranty

### Dimensions

- ½" (15/21) NPT female threaded inlet

Models	4"	6"	12"
RD04	–	–	–
RD04-NP	–	–	–
RD04-S-P-30		RD06-S-P-30	RD12-S-P-30
RD04-S-P-30-NP		RD06-S-P-30-NP	RD12-S-P-30-NP
RD04-S-P-30-F		RD06-S-P30-F	RD12-S-P-30-F
RD04-S-P-30-F-NP		RD06-S-P-30-F-NP	RD12-S-P-30-F-NP
RD04-S-P-45-NP		RD06-S-P-45-NP	RD12-S-P-45-NP
RD04-S-P-45-F		RD06-S-P-45-F	RD12-S-P-45-F
RD04-S-P-45-F-NP		RD06-S-P-45-F-NP	RD12-S-P-45-F-NP



RD1800 Series



Standard Cover



Non-Potable Cover

### How To Specify

#### RD-XX - X - Nozzle

**Nozzle**  
See Rotary Nozzle, U-Series, MPR, VAN, HE-VAN and SQ Nozzle specifications for more information

#### Optional Features

- S: Seal-A-Matic™ check valve
- P30: 30 psi (2.1 bar) in-stem pressure regulation
- P45: 45 psi (3.1 bar) in-stem pressure regulation
- F: Flow-Shield™ Technology
- NP: Non-potable water use indicating cover

#### Model

- RD-04: 4" (10 cm) pop-up height
- RD-06: 6" (15 cm) pop-up height
- RD-12: 12" (40 cm) pop-up height

#### Notes:

Flow-Shield™ Technology available in P30 and P45 models only.  
Specify sprinkler bodies and nozzles separately.

### 1800® NP Cover

Non-Potable 1800 Spray Head Cover

#### Features

- Designed for excellent retention on 1800 Series Spray Body covers
- Purple plastic cover for easy identification of non-potable water system
- Marked with "Do Not Drink!" warning in both English and Spanish
- Snaps onto all 1800® Series Spray Body covers

#### Model

- 1800-NPCAP



1800-NPCAP

### PA

Plastic Shrub Adapter

#### Features

- Adapts Rain Bird Nozzles for use with 1/2" (15/21) NPT threaded risers
- Accepts protective, non-clogging 1800 Series filter screen (shipped with nozzle) and PCS Series screens
- Durable, non-corrosive plastic construction
- Non-Potable Plastic Shrub Adapter

#### Specifications

- 1/2" (15/21) female inlet threads
- Fine top threads accept all Rain Bird nozzles

#### Model

- PA-8S
- PA-8S-NP



PA-8S



PA-8S-NP

### PA-80

Plastic Adapter

#### Features

- Adapts Rain Bird Spray Bodies for use with any 1/2" (15/21) FPT bubbler or spray nozzle
- Rugged, UV-resistant thermoplastic construction
- Easy to install; no tools required

#### Dimensions

- Height: 1 1/2" (3.8 cm); 0.8" (2.0 cm) above 1800 cap

#### Model

- PA-80



PA-80

### 1800®-EXT

Plastic Extension

#### Features

- UV-resistant thermoplastic construction for long life
- Fits all Rain Bird Spray Bodies and Nozzles. Exception: Cannot be used with bubblers

#### Model

- 1800-EXT



1800-EXT

### PA-8S-PRS

Pressure Regulating Shrub Adapter

#### Features

- Adapts nozzles for use with 1/2" (15/21) NPT threaded risers
- Patented PRS pressure regulator built into the stem. No parts to be installed at the site. Saves time and money
  - Maintains constant outlet pressure at 30 psi (2.1 bar). Ensures maximum spray head and nozzle performance
  - Restricts water loss by up to 70% if nozzle is removed or damaged. Saves water and money. Reduces liability. Recommended for vandal-prone areas
- Fits all Rain Bird plastic nozzles
- Rugged thermoplastic construction resists UV rays

#### Operating Range

- Pressure: 15 to 70 psi (1.0 to 4.8 bar)
- Flow: 0.2 to 4.0 gpm (0.05 to 0.91 m<sup>3</sup>/h; 0.06 to 15.0 l/m)

#### Specifications

- 1/2" (15/21) female inlet threads
- Fine top threads accept all Rain Bird nozzles
- Height: 5 1/4" (13.3 cm)

#### Model

- PA-8S-PRS



PA-8S-PRS

### 1800 PCS

Pressure Compensating Screens

#### Features

- Compensates\* for pressure variations
- Eliminates fogging and water waste caused by high pressures
- Nozzles can be matched with screens to create short-throw, reduced-radius patterns and/or flush-mounted bubblers
- Color-coded for easy identification
- Use with all 1800 Series plastic nozzles (MPR, VAN, U-Series, Strips and Bubblers)

#### Operating Range

- Flow: 0.20 to 0.90 gpm (0.05 to 0.20 m<sup>3</sup>/h; 0.6 to 3.6 l/m)
- Pressure: 15 to 70 psi (1.0 to 4.8 bar)

#### Models

- PCS-020: 0.2 gpm (0.05 m<sup>3</sup>/h; 0.6 l/m) - Brown
- PCS-025: 0.25 gpm (0.06 m<sup>3</sup>/h; 1.2 l/m) - Pink
- PCS-030: 0.3 gpm (0.07 m<sup>3</sup>/h; 1.2 l/m) - Silver
- PCS-040: 0.4 gpm (0.09 m<sup>3</sup>/h; 1.8 l/m) - Orange
- PCS-060: 0.6 gpm (0.14 m<sup>3</sup>/h; 2.4 l/m) - Black
- PCS-090: 0.9 gpm (0.20 m<sup>3</sup>/h; 3.6 l/m) - White

\* With a pressure compensator, outlet pressure will be reduced, but will fluctuate as the inlet pressure changes. A pressure compensator cannot maintain outlet pressure at a constant rate. A pressure regulator establishes and maintains a constant outlet pressure of 30 psi (2.1 bar) as long as the inlet pressure at the spray head is greater than 30 psi (2.1 bar)



1800 PCS  
Screens

## SA Series

Swing Assemblies Connect Heads to Lateral Pipes.

### Features

- Quality alternative to locally assembled swing pipe/spiral barb fittings that do not carry a manufacturer's warranty
- Comprehensive range of products support a variety of landscape solutions
- Complementary engineered fittings and spray heads instill confidence in product specification

### Specifications

- The operating range of the Rain Bird Swing Assemblies matches or exceeds the operating range for most 1/2" (1.3 cm) sprays and 3/4" (1.9 cm) rotors
- Operating pressure: Up to 80 psi (5.5 bar)
- Surge pressure: Up to 240 psi (15.5 bar)
- Temperature: Up to 110° F (43° C)
- Maximum flow: 8 gpm (0.5 l/sec)



Swing Pipe Flexible  
Sprinkler Assembly



SA Series

### How To Specify

#### SA 12 5050

Inlet/Outlet  
050: 1/2" x 1/2"  
5050: 1/2" x 1/2"  
5075: 1/2" x 3/4"  
7575: 3/4" x 3/4"

Length  
18"  
12"  
6"

Model  
Swing Assembly

### SA Series Swing Assemblies Specifications

Model Number	Part Number	Length		Inlet		Outlet	
		US	METRIC	US	METRIC	US	METRIC
SA-6050	A48030	6"	15.2 cm	1/2"	1.3 cm	1/2"	1.3 cm
SA-125050	A48035	12"	30.5 cm	1/2"	1.3 cm	1/2"	1.3 cm
SA-127575	A48050	12"	30.5 cm	3/4"	1.9 cm	3/4"	1.9 cm
SA-185050	A48065	18"	45.7 cm	1/2"	1.3 cm	1/2"	1.3 cm

## SPX Series Swing Pipe

Swing Pipe with Spiral Barb Fittings Provides a Flexible Swing Assembly for Sprays and Rotors

### Features and Benefits

- **SPX-FLEX100**
  - Superior flexibility allows pipe to be efficiently routed around hardscape, terraces, and uneven terrain to turn landscape design into reality
  - Textured surface makes product easier to handle, contributing to labor efficiency, especially under wet conditions
  - Resists kinking
  - Quick and easy installation lowers material and labor costs
  - Installs quickly leaving time for additional system installations and incremental revenue opportunities

### Specifications

- Inside diameter: 0.49" (1.24 cm)
- Operating pressure: Up to 80 psi (5.5 bar)
- Temperature: Up to 110° F (43° C)

### Models

- SPX-FLEX-100: 100' (30 m) coil

## SPX-FLEX

Extra Flexible Kink-Resistant Swing Pipe



- Same High Quality
- NOW 25% More Flexible



SPX-FLEX100

## SB Series Spiral Barb Fittings

A Natural Product Complement to SPX Series Swing Pipe

### Features and Benefits

- Fittings are made of robust acetal material to make connecting swing pipe fast and easy
- Easy twist-in insertion – no glue or clamps needed for installation
- Aggressive barb lip makes a secure connection that is less likely to leak

- Broad range of shapes and sizes allow the contractor to choose the best fitting for the application
- Extended length and aggressive barb lip prevent blow outs, reducing likelihood of contractor call backs

### Specifications

- Operating pressure: Up to 80 psi (5.5 bar)
- Temperature: Up to 110° F (43° C)

### Models

- SB-CPLG: 1/2" barb x 1/2" barb coupling
- SBA-050: 1/2" M NPT x 1/2" barb adapter
- SBE-075: 3/4" M NPT x 1/2" barb elbow
- SBE-050: 1/2" M NPT x 1/2" barb elbow
- SB-TEE: 1/2" barb x 1/2" barb x 1/2" barb tee





### What is a High-Efficiency Nozzle?

#### Typical nozzles – Un-Even Watering

With typical nozzles, part of the lawn may not have enough water and other parts may be over-watered. A large portion of water may be lost to evaporation / misting, and over-spray.

#### High-efficiency nozzles – Even Watering

High-efficiency nozzles provide better coverage. Better coverage means shorter zone run-times while keeping grass healthy. Shorter run-times means you will save up to 25%+ water vs. typical nozzles. Rain Bird's high-efficiency nozzles are also engineered to produce large water droplets to reduce wind drift.

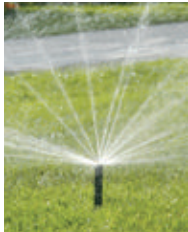











### Standard or Low Precipitation Rate?

#### Low Precipitation Rate Nozzles

Low precipitation rate nozzles are best used in sloped or compacted soil areas to minimize run-off. The low watering rate makes run-times longer.

#### Standard Precipitation Rate Nozzles

Standard precipitation rate nozzles are best used for shorter distance irrigation, and when watering times may be limited due to city ordinances.

Low Precipitation Rate		Standard Precipitation Rate			
High-Efficiency Rotary Nozzles		High-Efficiency Nozzles		Standard Nozzles	
					
					
R-VAN	Rotary	HE-VAN	U-Series	VAN	MPR and SQ
Adjustable Arc (45° - 270°)	Full Circle (360°)	Adjustable Arc (0° - 360°)	Fixed Arc	Adjustable Arc	Fixed Arc

### R-VAN Nozzles

Adjustable arc. 0.6 in/hr Precipitation Rate from 8 to 24 Feet

#### Features

- Adjust arc and radius without tools
- Color coded for easy identification
- Low precipitation rate reduces run-off and erosion
- Maintains efficient performance at high operating pressures without misting or fogging
- The Rain Bird exclusive manual flush feature makes it easy to clear dirt and debris in seconds, assuring reliable performance year after year
- Compatible with all models of Rain Bird spray bodies in addition to a wide variety of risers and adapters
- Matched precipitation rates across radius and arcs simplify the design process
- Matched precipitation rates enable large and small turf areas to be zoned together by mixing R-VAN, R-Series, and 5000 Series rotors with the MPR nozzle set
- Three year trade warranty

#### Operating Specifications

- Pressure Range: 30 to 55 psi (1.4 to 3.8 bar)
- Recommended Operating Pressure: 45 psi (3.1 bar)
- Spacing: 8' to 24' (4.0 to 7.3m)
- Adjustments: Arc and radius should be adjusted while water is running



#### Model

- R-VAN1724
- R-VAN18
- R-VAN14

<sup>1</sup> Rain Bird recommends using 1800 P45 Spray Bodies to maintain optimum nozzle performance in higher pressure situations

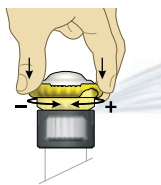
Spray Nozzles

#### R-VAN Nozzles meet the requirements of the ASABE/ICC 802-2014 standard

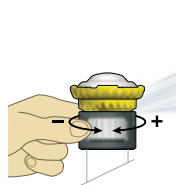
The average DU(LQ) of the applicable products exceed 0.65 distribution uniformity.

Product	Type	Radius	DU(LQ)
R-VAN	Multi-stream, Variable Arc	8 - 24 ft.	> 0.70

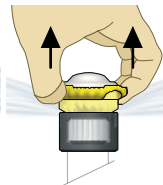
To view the complete document of compliance for Rain Bird products that have been tested to meet the requirements of the ASABE/ICC 802-2014 standard and the California MWELO go to: [www.rainbird.com/agency/california/MWELO.htm](http://www.rainbird.com/agency/california/MWELO.htm)



Arc Adjustment



Radius Adjustment



Flush Debris




#### How To Specify

##### R-VAN- 1724

Radius Range  
1724: 17' to 24' (5.2 to 7.3m)  
18: 13' to 18' (4.0 to 5.5m)  
14: 8' to 14' (2.4 to 4.6m)

Model  
R-VAN Adjustable Rotary Nozzle

#### R-VAN 1724

Nozzle	Pressure psi	Radius ft.	Flow gpm	Precip In/h	Precip In/h
270° Arc 	30	21	2.26	0.70	0.81
	35	22	2.39	0.66	0.76
	40	23	2.55	0.63	0.73
	45	23	2.73	0.64	0.73
	50	24	2.76	0.61	0.70
180° Arc 	30	21	1.41	0.70	0.81
	35	22	1.55	0.66	0.76
	40	23	1.69	0.63	0.73
	45	23	1.83	0.64	0.73
	50	24	1.91	0.61	0.70
90° Arc 	30	21	0.73	0.70	0.81
	35	22	0.78	0.66	0.76
	40	23	0.85	0.63	0.73
	45	23	0.91	0.64	0.73
	50	24	0.98	0.61	0.70
55	24	1.05	0.61	0.70	




**Note:** All R-VAN nozzles tested on 4" (10.2 cm) pop-ups

■ Square spacing based on 50% diameter of throw

▲ Triangular spacing based on 50% diameter of throw




#### R-VAN 1724




#### METRIC




Nozzle	Pressure bar	Radius m	Flow l/m	Precip mm/h	Precip mm/h
270° Arc 	2.1	6.4	8.56	18	21
	2.4	6.7	9.05	17	19
	2.8	7.0	9.65	16	18
	3.1	7.0	10.33	16	18
	3.4	7.3	10.45	15	18
180° Arc 	3.8	7.3	10.60	15	18
	2.1	6.4	5.34	18	21
	2.4	6.7	5.87	17	19
	2.8	7.0	6.40	16	18
	3.1	7.0	6.93	16	18
90° Arc 	3.4	7.3	7.23	15	18
	3.8	7.3	7.50	15	18
	2.1	6.4	2.76	18	21
	2.4	6.7	2.95	17	19
	2.8	7.0	3.22	16	18
3.1	7.0	3.44	16	18	
3.4	7.3	3.71	15	18	
3.8	7.3	3.97	15	18	

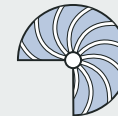


Performance data taken in zero wind conditions

**Note:** Radius reduction over 25% of the normal throw of the nozzle is not recommended

R-VAN18					
Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
<b>270° Arc</b> 	30	16	1.26	0.65	0.75
	35	16	1.35	0.64	0.74
	40	17	1.42	0.63	0.73
	45	17	1.51	0.64	0.73
	50	18	1.57	0.60	0.69
<b>180° Arc</b> 	30	16	0.85	0.65	0.75
	35	16	0.91	0.64	0.74
	40	17	0.98	0.63	0.73
	45	17	1.01	0.64	0.73
	50	18	1.07	0.60	0.69
<b>90° Arc</b> 	30	16	0.42	0.65	0.75
	35	16	0.47	0.64	0.74
	40	17	0.50	0.63	0.73
	45	17	0.50	0.64	0.73
	50	18	0.54	0.60	0.69

R-VAN18						METRIC
Nozzle	Pressure bar	Radius m	Flow l/m	■ Precip mm/h	▲ Precip mm/h	
<b>270° Arc</b> 	2.1	4.9	4.77	17	19	
	2.4	4.9	5.11	16	19	
	2.8	5.2	5.38	16	18	
	3.1	5.2	5.72	16	18	
	3.4	5.5	5.94	15	18	
<b>180° Arc</b> 	2.1	4.9	3.22	17	19	
	2.4	4.9	3.44	16	19	
	2.8	5.2	3.71	16	18	
	3.1	5.2	3.82	16	18	
	3.4	5.5	4.05	15	18	
<b>90° Arc</b> 	2.1	4.9	1.59	17	19	
	2.4	4.9	1.78	16	19	
	2.8	5.2	1.89	16	18	
	3.1	5.2	1.89	16	18	
	3.4	5.5	2.04	15	18	

R-VAN14					
Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
<b>270° Arc</b> 	30	13	0.84	0.64	0.74
	35	13	0.87	0.66	0.76
	40	14	0.92	0.62	0.71
	45	14	0.94	0.60	0.70
	50	15	1.11	0.63	0.73
<b>180° Arc</b> 	30	13	0.56	0.64	0.74
	35	13	0.58	0.66	0.76
	40	14	0.61	0.62	0.71
	45	14	0.63	0.60	0.70
	50	15	0.74	0.63	0.73
<b>90° Arc</b> 	30	13	0.28	0.64	0.74
	35	13	0.29	0.66	0.76
	40	14	0.31	0.62	0.71
	45	14	0.31	0.60	0.70
	50	15	0.37	0.63	0.73

R-VAN14						METRIC
Nozzle	Pressure bar	Radius m	Flow l/m	■ Precip mm/h	▲ Precip mm/h	
<b>270° Arc</b> 	2.1	4.0	3.2	16	19	
	2.4	4.0	3.3	17	19	
	2.8	4.3	3.6	16	18	
	3.1	4.3	3.5	15	18	
	3.4	4.6	4.2	16	19	
<b>180° Arc</b> 	2.1	4.0	2.1	16	19	
	2.4	4.0	2.2	17	19	
	2.8	4.3	2.4	16	18	
	3.1	4.3	2.3	15	18	
	3.4	4.6	2.8	16	19	
<b>90° Arc</b> 	2.1	4.0	1.1	16	19	
	2.4	4.0	1.1	17	19	
	2.8	4.3	1.2	16	18	
	3.1	4.3	1.2	15	18	
	3.4	4.6	1.4	16	19	

**Note:** All R-VAN nozzles tested on 4" (10.2 cm) pop-ups  
 ■ Square spacing based on 50% diameter of throw  
 ▲ Triangular spacing based on 50% diameter of throw

Performance data taken in zero wind conditions  
**Note:** Radius reduction over 25% of the normal throw of the nozzle is not recommended

Spray Nozzles



## Full-Circle Rotary Nozzles

0.6 in/hr Precipitation Rate from 13 to 24 Feet

### Features

- Greater distribution uniformity keeps your landscape green without overwatering
- Thick wind-resistant streams and large water droplets resist prevailing winds and maximize water landing in the target zone
- Low 0.6"/hr precipitation reduces or eliminates run-off on slopes and hard clay soils with 35% less run time than the leading competitor
- Matched precipitation rates enable large and small turf areas to be zoned together by mixing R-Series rotary nozzles, R-VAN, and 5000 Series rotors with the MPR nozzle set
- Three-year trade warranty

### Operating Range

- Spacing: 13 feet to 24 feet (4.0 m to 7.3 m)<sup>1</sup>
- Pressure range: 30 to 55 psi (1.4 to 3.8 bar)
- Recommended Operating Pressure: 45 psi (3.1 bar)<sup>2</sup>

### Models

- Full circle patterns are available to complement the R-VAN product line in two radius ranges:
  - 13' to 18' (4.0m to 5.5m)
  - 17' to 24' (5.2m to 7.3m)

<sup>1</sup> These ranges are based on proper pressure at nozzle

<sup>2</sup> Rain Bird recommends using 1800 P45 Spray Bodies to maintain optimum nozzle performance in higher pressure situations



Full-Circle Rotary Nozzles meet the requirements of the ASABE/ICC 802-2014 standard			
The average DU(LQ) of the applicable products exceed 0.65 distribution uniformity.			
Product	Type	Radius	DU(LQ)
R-Series	Multi-stream, Fixed Arc	13 - 24 ft.	> 0.70

To view the complete document of compliance for Rain Bird products that have been tested to meet the requirements of the ASABE/ICC 802-2014 standard and the California MWELD go to: [www.rainbird.com/agency/california/MWELD.htm](http://www.rainbird.com/agency/california/MWELD.htm)

### How To Specify

**R13-18 F**

Radius Range: 13'-18' (4.0-5.5 m), 17'-24' (5.2-7.3 m)

Pattern: F=Full

Model: Rotary Nozzle

R13-18 Series (Black)					
Arc	Pressure psi	Radius* ft.	Flow gpm	Precip In/h	Precip In/h
	30	16	1.60	0.61	0.70
	35	16	1.73	0.61	0.70
	40	17	1.85	0.61	0.70
	45	18	1.96	0.61	0.70
	50	18	2.07	0.61	0.70
	55	18	2.17	0.61	0.70

R13-18 Series (Black) METRIC					
Arc	Pressure bar	Radius* m	Flow l/m	Precip mm/h	Precip mm/h
	2.1	4.8	6.06	15	18
	2.4	5.0	6.54	15	18
	2.8	5.2	6.99	15	18
	3.1	5.4	7.42	15	18
	3.4	5.5	7.82	15	18
	3.8	5.6	8.20	15	18

R17-24 Series (Yellow)					
Arc	Pressure psi	Radius* ft.	Flow gpm	Precip In/h	Precip In/h
	30	21	3.00	0.65	0.75
	35	22	3.24	0.65	0.75
	40	23	3.46	0.65	0.75
	45	23	3.67	0.65	0.75
	50	24	3.87	0.65	0.75
	55	24	4.06	0.65	0.75

R17-24 Series (Yellow) METRIC					
Arc	Pressure bar	Radius* m	Flow l/m	Precip mm/h	Precip mm/h
	2.1	6.4	11.36	16	19
	2.4	6.7	12.26	16	19
	2.8	6.9	13.10	16	19
	3.1	7.1	13.89	16	19
	3.4	7.3	14.65	16	19
	3.8	7.4	15.37	16	19

**Note:** All Rotary nozzles tested on 4" (10.2 cm) pop-ups  
 ■ Square spacing based on 50% diameter of throw  
 ▲ Triangular spacing based on 50% diameter of throw

Performance data taken in zero wind conditions  
**Note:** Radius reduction over 25% of the normal throw of the nozzle is not recommended

### HE-VAN Series Nozzles

High-Efficiency Variable Arc Spray Nozzles

#### Features

- HE-VAN's even coverage allows you to shorten run times by up to 35%, saving you water and money, while still maintaining a healthy lawn. HE-VAN has more than a 40 percent even-coverage improvement over existing variable arc nozzles
- HE-VAN nozzles have a unique stream pattern, designed for superior coverage and wind resistance. Low-trajectory spray and large water droplets prevent misting and airborne evaporation so the right amount of water is delivered to the right place. Gentle close-in watering eliminates dry-spots around the spray head
- HE-VAN nozzles throw to the exact specified radius, delivering the cleanest edge of any VAN on the market today
- Reduced zone run times, compared to competitive nozzles, help stay within tight watering windows, conserve water, and save money
- With full adjustability from 0° to 360°, you'll be able to efficiently water landscapes of all shapes, while saving time and stocking fewer nozzles
- Matched precipitation rates allow you to install Rain Bird HE-VAN, MPR and U-Series nozzles on the same zone
- HE-VAN nozzles have a tactile click to keep the arc setting from drifting over time
- Three year trade warranty



#### Operating Range

- Spacing: 6 to 15 feet (1.8 to 4.6m) <sup>1</sup>
- Pressure: 15 to 30 psi (1.0 to 2.1 bar)
- Optimum pressure: 30 psi (2.1 bar) <sup>2</sup>

#### Models

- HE-VAN-08: 6 to 8 feet (1.8 to 2.4 m)
- HE-VAN-10: 8 to 10 feet (2.4 to 3.0 m)
- HE-VAN-12: 9 to 12 feet (2.7 to 3.7 m)
- HE-VAN-15: 12 to 15 feet (3.7 to 4.6 m)

<sup>1</sup> These ranges are based on proper pressure at nozzle

<sup>2</sup> Rain Bird recommends using 1800/RD1800 PRS Spray Bodies to maintain optimum nozzle performance in higher pressure situations

#### HE-VAN Nozzles meet the requirements of the ASABE/ICC 802-2014 standard

The average DU(LQ) of the applicable products exceed 0.65 distribution uniformity.

Product	Type	Radius	DU(LQ)
HE-VAN	Spray, Variable Arc	6 - 15 ft.	> 0.70

To view the complete document of compliance for Rain Bird products that have been tested to meet the requirements of the ASABE/ICC 802-2014 standard and the California MWELD go to: [www.rainbird.com/agency/california/MWELD.htm](http://www.rainbird.com/agency/california/MWELD.htm)



Available in popular 8', 10', 12' and 15' models

Stainless steel adjustment screw to adjust flow and radius, up to a 25% reduction in radius

Fits on all Rain Bird® 1800® Series Spray Heads, UNI-Spray™ Series Spray Heads and Rain Bird Shrub Adapters

#### How To Specify

##### HE-VAN-15

##### Radius Range





- 8: 6 to 8 feet (1.8 to 2.4 m)
- 10: 8 to 10 feet (2.4 to 3.0 m)
- 12: 9 to 12 feet (2.7 to 3.7 m)
- 15: 12 to 15 feet (3.7 to 4.6 m)





##### Feature





VAN: Variable Arc





##### Model

High Efficiency Nozzle

8 Series HE-VAN					
24° Trajectory					
Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
	15	5	0.83	3.19	3.68
	20	6	0.96	2.56	2.95
	25	7	1.07	2.10	2.42
	30	8	1.17	1.76	2.03
	15	5	0.62	3.19	3.68
	20	6	0.72	2.56	2.95
	25	7	0.80	2.10	2.42
	30	8	0.88	1.76	2.03
	15	5	0.41	3.19	3.68
	20	6	0.48	2.56	2.95
	25	7	0.53	2.10	2.42
	30	8	0.59	1.76	2.03
	15	5	0.21	3.19	3.68
	20	6	0.24	2.56	2.95
	25	7	0.27	2.10	2.42
	30	8	0.29	1.76	2.03

8 Series HE-VAN						METRIC
24° Trajectory						
Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
	1.03	1.52	0.19	3.14	82	95
	1.38	1.83	0.22	3.62	66	76
	1.72	2.13	0.25	4.05	54	62
	2.07	2.44	0.27	4.43	45	52
	1.03	1.52	0.14	2.35	82	95
	1.38	1.83	0.16	2.72	66	76
	1.72	2.13	0.18	3.04	54	62
	2.07	2.44	0.20	3.33	45	52
	1.03	1.52	0.10	1.57	82	95
	1.38	1.83	0.11	1.81	66	76
	1.72	2.13	0.12	2.02	54	62
	2.07	2.44	0.13	2.22	45	52
	1.03	1.52	0.05	0.78	82	95
	1.38	1.83	0.05	0.91	66	76
	1.72	2.13	0.06	1.01	54	62
	2.07	2.44	0.07	1.11	45	52





10 Series HE-VAN					
27° Trajectory					
Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
	15	7	1.26	2.48	2.86
	20	8	1.46	2.19	2.53
	25	9	1.63	1.94	2.24
	30	10	1.78	1.72	1.98
	15	7	0.95	2.48	2.86
	20	8	1.09	2.19	2.53
	25	9	1.22	1.94	2.24
	30	10	1.34	1.72	1.98
	15	7	0.63	2.48	2.86
	20	8	0.73	2.19	2.53
	25	9	0.81	1.94	2.24
	30	10	0.89	1.72	1.98
	15	7	0.32	2.48	2.86
	20	8	0.36	2.19	2.53
	25	9	0.41	1.94	2.24
	30	10	0.45	1.72	1.98





10 Series HE-VAN						METRIC
27° Trajectory						
Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
	1.03	2.13	0.29	4.78	64	74
	1.38	2.44	0.34	5.52	56	65
	1.72	2.74	0.37	6.17	50	57
	2.07	3.05	0.41	6.76	44	51
	1.03	2.13	0.22	3.59	64	74
	1.38	2.44	0.25	4.14	56	65
	1.72	2.74	0.28	4.63	50	57
	2.07	3.05	0.31	5.07	44	51
	1.03	2.13	0.15	2.39	64	74
	1.38	2.44	0.17	2.76	56	65
	1.72	2.74	0.19	3.09	50	57
	2.07	3.05	0.21	3.38	44	51
	1.03	2.13	0.07	1.20	64	74
	1.38	2.44	0.08	1.38	56	65
	1.72	2.74	0.09	1.54	50	57
	2.07	3.05	0.10	1.69	44	51





Note: All HE-VAN nozzles tested on 4" (10.2 cm) pop-ups  
 ■ Square spacing based on 50% diameter of throw  
 ▲ Triangular spacing based on 50% diameter of throw





Performance data taken in zero wind conditions  
 Note: Radius reduction over 25% of the normal throw of the nozzle is not recommended

Spray Nozzles

12 Series HE-VAN					
23° Trajectory					
Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
<b>360° Arc</b> 	15	9	1.67	1.99	2.30
	20	10	1.93	1.86	2.15
	25	11	2.16	1.72	1.99
	30	12	2.37	1.58	1.83
<b>270° Arc</b> 	15	9	1.25	1.99	2.30
	20	10	1.45	1.86	2.15
	25	11	1.62	1.72	1.99
	30	12	1.77	1.58	1.83
<b>180° Arc</b> 	15	9	0.84	1.99	2.30
	20	10	0.97	1.86	2.15
	25	11	1.08	1.72	1.99
	30	12	1.18	1.58	1.83
<b>90° Arc</b> 	15	9	0.42	1.99	2.30
	20	10	0.48	1.86	2.15
	25	11	0.54	1.72	1.99
	30	12	0.59	1.58	1.83

12 Series HE-VAN					METRIC	
23° Trajectory						
Nozzle	Pressure bar	Radius m	Flow m <sup>3</sup> /h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
<b>360° Arc</b> 	1.0	2.7	0.38	6.33	50.5	58.3
	1.4	3.0	0.44	7.31	47.3	54.6
	1.7	3.4	0.49	8.18	43.7	50.4
	2.1	3.7	0.54	8.96	40.2	46.4
<b>270° Arc</b> 	1.0	2.7	0.28	4.75	50.5	58.3
	1.4	3.0	0.33	5.48	47.3	54.6
	1.7	3.4	0.37	6.16	43.7	50.4
	2.1	3.7	0.40	6.72	40.2	46.4
<b>180° Arc</b> 	1.0	2.7	0.19	3.17	50.5	58.3
	1.4	3.0	0.22	3.66	47.3	54.6
	1.7	3.4	0.25	4.09	43.7	50.4
	2.1	3.7	0.27	4.48	40.2	46.4
<b>90° Arc</b> 	1.0	2.7	0.09	1.58	50.5	58.3
	1.4	3.0	0.11	1.83	47.3	54.6
	1.7	3.4	0.12	2.04	43.7	50.4
	2.1	3.7	0.13	2.24	40.2	46.4

15 Series HE-VAN					
25° Trajectory					
Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
<b>360° Arc</b> 	15	11	2.62	2.08	2.40
	20	12	3.02	2.02	2.33
	25	14	3.38	1.66	1.92
	30	15	3.70	1.58	1.83
<b>270° Arc</b> 	15	11	1.96	2.08	2.40
	20	12	2.27	2.02	2.33
	25	14	2.53	1.66	1.92
	30	15	2.78	1.58	1.83
<b>180° Arc</b> 	15	11	1.31	2.08	2.40
	20	12	1.51	2.02	2.33
	25	14	1.69	1.66	1.92
	30	15	1.85	1.58	1.83
<b>90° Arc</b> 	15	11	0.65	2.08	2.40
	20	12	0.76	2.02	2.33
	25	14	0.84	1.66	1.92
	30	15	0.93	1.58	1.83

15 Series HE-VAN					METRIC	
25° Trajectory						
Nozzle	Pressure bar	Radius m	Flow m <sup>3</sup> /h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
<b>360° Arc</b> 	1.0	3.4	0.59	9.91	52.9	61.1
	1.4	3.7	0.69	11.44	51.3	59.3
	1.7	4.3	0.77	12.79	42.2	48.7
	2.1	4.6	0.84	14.01	40.2	46.5
<b>270° Arc</b> 	1.0	3.4	0.45	7.43	52.9	61.1
	1.4	3.7	0.51	8.58	51.3	59.3
	1.7	4.3	0.58	9.59	42.2	48.7
	2.1	4.6	0.63	10.51	40.2	46.5
<b>180° Arc</b> 	1.0	3.4	0.30	4.95	52.9	61.1
	1.4	3.7	0.34	5.72	51.3	59.3
	1.7	4.3	0.38	6.39	42.2	48.7
	2.1	4.6	0.42	7.00	40.2	46.5
<b>90° Arc</b> 	1.0	3.4	0.15	2.48	52.9	61.1
	1.4	3.7	0.17	2.86	51.3	59.3
	1.7	4.3	0.19	3.20	42.2	48.7
	2.1	4.6	0.21	3.50	40.2	46.5

**Note:** All HE-VAN nozzles tested on 4" (10.2 cm) pop-ups

■ Square spacing based on 50% diameter of throw

▲ Triangular spacing based on 50% diameter of throw

Performance data taken in zero wind conditions

**Note:** Radius reduction over 25% of the normal throw of the nozzle is not recommended

## U-Series Nozzles

Dual orifice spray nozzles that use 30% less water<sup>1</sup>

### Features

- Additional orifice for close-in watering minimizes brown spots around the spray head and eliminates gaps in coverage so the entire watering area is more uniformly covered
- Superior coverage for efficient watering. Use up to 30% less water
- Matched precipitation rate with Rain Bird HE-VAN and MPR nozzles
- Five year trade warranty

### Operating Range

- Spacing: 5 to 15 feet (1.7 to 4.6 m)<sup>2</sup>
- Pressure: 15 to 30 psi (1.0 to 2.1 bar)
- Optimum pressure: 30 psi (2.1 bar)<sup>3</sup>

### Models

- U-8 Series: 8-foot Quarter, Half, Full nozzles
- U-10 Series: 10-foot Quarter, Half, Full nozzles
- U-12 Series: 12-foot Quarter, Half, Full nozzles
- U-15 Series: 15-foot Quarter, Half, Full nozzles

<sup>1</sup> When U-Series dual-orifice nozzles are installed instead of standard nozzles on every spray body in the zone. Results may vary based on site-specific conditions such as sprinkler spacing, wind, temperature, soil and grass type

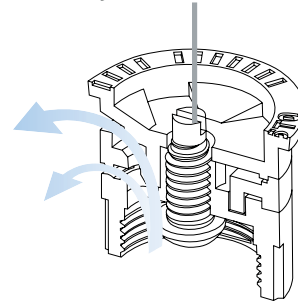
<sup>2</sup> These ranges are based on proper pressure at nozzle.

<sup>3</sup> Rain Bird recommends using 1800/RD1800 PRS Spray Bodies to maintain optimum nozzle performance in higher pressure situations.



U-Series Nozzles

Stainless steel  
adjustment screw to  
adjust flow and radius



Fits all Rain Bird Spray Bodies  
and Shrub Adapters

### U-Series Nozzles meet the requirements of the ASABE/ICC 802-2014 standard

The average DU(LQ) of the applicable products exceed 0.65 distribution uniformity.

Product	Type	Radius	DU(LQ)
U-Series	Spray, Fixed Arc	6 - 15 ft.	> 0.70

To view the complete document of compliance for Rain Bird products that have been tested to meet the requirements of the ASABE/ICC 802-2014 standard and the California MWELO go to: [www.rainbird.com/agency/california/MWELO.htm](http://www.rainbird.com/agency/california/MWELO.htm)



U-Series nozzles offer better, more uniform water distribution. Water flowing from both orifices combines to form a continuous water stream. Eliminates gaps for more uniform coverage throughout the entire watering area



U-Series Nozzle  
with screen

### How To Specify

#### U12H




#### Radius Range




- 8: 5-8 feet (1.7-2.4 m)
- 10: 7-10 feet (2.1-3.1 m)
- 12: 9-12 feet (2.7-3.7 m)
- 15: 11-15 feet (3.4-4.6 m)




#### Model




U-Series Nozzle

Pattern  
F: Full  
H: Half  
Q: Quarter

U8 Series					
10° Trajectory					
Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
 U-8F	15	5	0.74	2.85	3.29
	20	6	0.86	2.30	2.66
	25	7	0.96	1.89	2.18
	30	8	1.05	1.58	1.83
 U-8H	15	5	0.37	2.85	3.29
	20	6	0.42	2.25	2.59
	25	7	0.47	1.85	2.13
	30	8	0.52	1.58	1.83
 U-8Q	15	5	0.18	2.77	3.20
	20	6	0.21	2.25	2.59
	25	7	0.24	1.89	2.18
	30	8	0.26	1.58	1.83

U8 Series					METRIC	
10° Trajectory						
Nozzle	Pressure bar	Radius m	Flow m <sup>3</sup> /h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
 U-8F	1.0	1.7	0.16	2.8	72	84
	1.5	2.1	0.20	3.4	58	68
	2.0	2.4	0.23	3.9	48	55
	2.1	2.4	0.24	4.0	40	46
 U-8H	1.0	1.7	0.08	1.4	72	84
	1.5	2.1	0.10	1.7	57	66
	2.0	2.4	0.12	1.9	47	54
	2.1	2.4	0.12	2.0	40	46
 U-8Q	1.0	1.7	0.04	0.7	70	81
	1.5	2.1	0.05	0.8	57	66
	2.0	2.4	0.06	1.0	48	55
	2.1	2.4	0.06	1.0	40	46

U10 Series					
12° Trajectory					
Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
 U-10F	15	7	1.16	2.07	2.39
	20	8	1.34	2.01	2.32
	25	9	1.50	1.62	1.87
	30	10	1.64	1.58	1.83
 U-10H	15	7	0.58	2.07	2.39
	20	8	0.67	2.01	2.32
	25	9	0.75	1.62	1.87
	30	10	0.82	1.58	1.83
 U-10Q	15	7	0.29	2.07	2.39
	20	8	0.33	2.01	2.32
	25	9	0.37	1.62	1.87
	30	10	0.41	1.58	1.83

U10 Series					METRIC	
12° Trajectory						
Nozzle	Pressure bar	Radius m	Flow m <sup>3</sup> /h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
 U-10F	1.0	2.1	0.26	4.4	52	60
	1.5	2.6	0.30	5.3	47	55
	2.0	3.0	0.34	6.1	41	48
	2.1	3.1	0.37	6.2	40	46
 U-10H	1.0	2.1	0.13	2.2	52	60
	1.5	2.6	0.15	2.6	47	55
	2.0	3.0	0.17	3.1	41	48
	2.1	3.1	0.19	3.1	40	46
 U-10Q	1.0	2.1	0.07	1.1	52	60
	1.5	2.6	0.08	1.3	47	55
	2.0	3.0	0.08	1.5	41	48
	2.1	3.1	0.09	1.6	40	46




**Note:** All U-Series nozzles tested on 4" (10.2 cm) pop-ups




■ Square spacing based on 50% diameter of throw




▲ Triangular spacing based on 50% diameter of throw




Performance data taken in zero wind conditions

Radius refers to recommended product spacing. Actual radii along arc may vary

U12 Series					
23° Trajectory					
Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
 U-12F	15	9	1.80	2.14	2.47
	20	10	2.10	2.02	2.34
	25	11	2.40	1.91	2.21
	30	12	2.60	1.74	2.01
 U-12H	15	9	0.90	2.14	2.47
	20	10	1.05	2.02	2.34
	25	11	1.20	1.91	2.21
	30	12	1.30	1.74	2.01
 U-12Q	15	9	0.45	2.14	2.47
	20	10	0.53	2.02	2.34
	25	11	0.60	1.91	2.21
	30	12	0.65	1.74	2.01

U12 Series						METRIC
23° Trajectory						
Nozzle	Pressure bar	Radius m	Flow m <sup>3</sup> /h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
 U-12F	1.0	2.7	0.40	6.8	55	63
	1.5	3.2	0.48	8.3	47	54
	2.0	3.6	0.59	9.7	46	53
	2.1	3.7	0.60	9.8	44	51
 U-12H	1.0	2.7	0.20	3.4	55	63
	1.5	3.2	0.24	4.2	47	54
	2.0	3.6	0.30	4.8	46	53
	2.1	3.7	0.30	4.9	44	51
 U-12Q	1.0	2.7	0.10	1.7	55	63
	1.5	3.2	0.12	2.1	47	54
	2.0	3.6	0.15	2.4	46	53
	2.1	3.7	0.15	2.5	44	51

U15 Series					
23° Trajectory					
Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
 U-15F	15	11	2.60	2.07	2.39
	20	12	3.00	2.01	2.32
	25	14	3.30	1.62	1.87
	30	15	3.70	1.58	1.83
 U-15H	15	11	1.30	2.07	2.39
	20	12	1.50	2.01	2.32
	25	14	1.65	1.62	1.87
	30	15	1.85	1.58	1.83
 U-15Q	15	11	0.65	2.07	2.39
	20	12	0.75	2.01	2.32
	25	14	0.82	1.62	1.87
	30	15	0.92	1.58	1.83

U15 Series						METRIC
23° Trajectory						
Nozzle	Pressure bar	Radius m	Flow m <sup>3</sup> /h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
 U-15F	1.0	3.4	0.60	9.8	52	60
	1.5	3.9	0.72	11.8	47	55
	2.0	4.5	0.84	13.7	41	48
	2.1	4.6	0.84	14.0	40	46
 U-15H	1.0	3.4	0.30	4.9	52	60
	1.5	3.9	0.36	5.9	47	55
	2.0	4.5	0.42	6.9	41	48
	2.1	4.6	0.42	7.0	40	46
 U-15Q	1.0	3.4	0.15	2.5	52	60
	1.5	3.9	0.18	2.9	47	55
	2.0	4.5	0.21	3.4	41	48
	2.1	4.6	0.21	3.5	40	46

**Note:** All U-Series nozzles tested on 4" (10.2 cm) pop-ups  
 ■ Square spacing based on 50% diameter of throw  
 ▲ Triangular spacing based on 50% diameter of throw

Performance data taken in zero wind conditions  
 Radius refers to recommended product spacing. Actual radii along arc may vary

Spray Nozzles

### VAN Series Nozzles

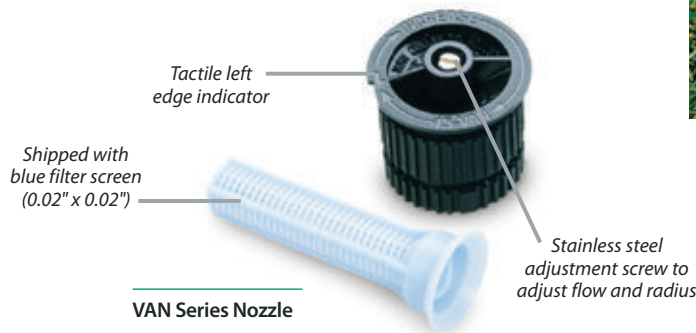
Variable Arc Nozzles

#### Features

- A simple twist of the center collar with no special tools increases or decreases the arc setting making it ideal for watering odd shaped areas
- Quickly identify radius with Top Color-coded™ nozzles even when system is not operating
- 12, 15, and 18-VAN have matched precipitation rates with Rain Bird MPR Nozzles
- Three year trade warranty

#### Operating Range

- Spacing: 3 to 18 feet (0.9 m to 5.5 m)<sup>1</sup>
- Pressure: 15 to 30 psi (1.0 to 2.1 bar)
- Optimum pressure: 30 psi (2.1 bar)<sup>2</sup>



Easy to Adjust

#### How To Specify

##### 8 VAN

Radius Range	Nozzle Type
4: 3-4 feet (0.9-1.2 m)	VAN: Variable Arc Nozzle
6: 4-6 feet (1.2-1.8 m)	
8: 6-8 feet (1.8-2.4 m)	
10: 7-10 feet (2.1-3.0 m)	
12: 9-12 feet (2.7-3.7 m)	
15: 11-15 feet (3.4-4.6 m)	
18: 14-18 feet (4.3-5.5 m)	

4 Series VAN					
0° Trajectory					
Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
330° Arc	15	3	0.62	7.23	8.35
	20	3	0.70	8.17	9.43
	25	4	0.80	5.25	6.06
	30	4	0.88	5.78	6.67
270° Arc	15	3	0.52	7.42	8.57
	20	3	0.58	8.27	9.55
	25	4	0.66	5.29	6.11
180° Arc	15	3	0.32	6.84	7.90
	20	3	0.37	7.91	9.13
	25	4	0.41	4.93	5.69
90° Arc	15	3	0.21	8.98	10.37
	20	3	0.24	10.27	11.86
	25	4	0.26	6.26	7.23
	30	4	0.29	6.98	8.06





**Note:** All VAN nozzles tested on 4" (10.2 cm) pop-ups  
 ■ Square spacing based on 50% diameter of throw  
 ▲ Triangular spacing based on 50% diameter of throw





4 Series VAN						METRIC	
0° Trajectory							
Nozzle	Pressure bar	Radius m	Flow m <sup>3</sup> /h	Flow l/m	■ Precip mm/h	▲ Precip mm/h	
330° Arc	1.0	0.9	0.14	2.3	189	218	
	1.5	1.0	0.17	2.8	183	215	
	2.0	1.2	0.20	3.3	152	176	
	2.1	1.2	0.20	3.3	152	176	
270° Arc	1.0	0.9	0.12	2.0	198	229	
	1.5	1.0	0.14	2.3	187	216	
	2.0	1.2	0.16	2.7	148	171	
180° Arc	1.0	1.2	0.17	2.8	157	181	
	1.0	0.9	0.07	1.2	173	200	
	1.5	1.0	0.09	1.5	180	208	
90° Arc	2.0	1.2	0.10	1.7	139	161	
	2.1	1.2	0.10	1.7	139	161	
	1.0	0.9	0.05	0.8	247	285	
90° Arc	1.5	1.0	0.06	0.9	240	277	
	2.0	1.2	0.06	1.1	167	193	
	2.1	1.2	0.07	1.1	194	224	





Performance data taken in zero wind conditions





**Note:** Radius reduction over 25% of the normal throw of the nozzle is not recommended



6 Series VAN					
0° Trajectory					
Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
330° Arc 	15	4	0.85	5.58	6.44
	20	5	0.96	4.03	4.65
	25	5	1.09	4.58	5.29
	30	6	1.20	3.50	4.04
270° Arc 	15	4	0.79	6.34	7.32
	20	5	0.88	4.52	5.22
	25	5	1.00	5.13	5.92
	30	6	1.10	3.92	4.53
180° Arc 	15	4	0.42	5.05	5.83
	20	5	0.49	3.77	4.35
	25	5	0.55	4.24	4.90
	30	6	0.60	3.21	3.71
90° Arc 	15	4	0.26	6.26	7.23
	20	5	0.30	4.62	5.33
	25	5	0.34	5.24	6.05
	30	6	0.37	3.96	4.57

6 Series VAN						METRIC
0° Trajectory						
Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
330° Arc 	1.0	1.2	0.19	3.2	144	166
	1.5	1.5	0.23	3.8	112	129
	2.0	1.8	0.27	4.5	91	105
	2.1	1.8	0.27	4.5	91	105
270° Arc 	1.0	1.2	0.18	3.0	167	193
	1.5	1.5	0.21	3.5	124	143
	2.0	1.8	0.24	4.1	99	114
	2.1	1.8	0.25	4.2	103	119
180° Arc 	1.0	1.2	0.10	1.6	139	161
	1.5	1.5	0.11	1.9	98	113
	2.0	1.8	0.13	2.2	80	92
	2.1	1.8	0.14	2.3	86	99
90° Arc 	1.0	1.2	0.06	1.0	167	193
	1.5	1.5	0.07	1.2	124	143
	2.0	1.8	0.08	1.4	99	114
	2.1	1.8	0.08	1.4	99	114

8 Series VAN					
5° Trajectory					
Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
330° Arc 	15	6	1.21	3.53	4.07
	20	7	1.36	2.91	3.36
	25	7	1.55	3.32	3.83
	30	8	1.70	2.79	3.22
270° Arc 	15	6	1.11	3.95	4.55
	20	7	1.24	3.24	3.74
	25	7	1.41	3.69	4.25
	30	8	1.55	3.10	3.58
180° Arc 	15	6	0.84	4.49	5.18
	20	7	0.97	3.81	4.40
	25	7	1.09	4.28	4.94
	30	8	1.19	3.58	4.13
90° Arc 	15	6	0.51	5.46	6.29
	20	7	0.59	4.64	5.35
	25	7	0.66	5.19	5.98
	30	8	0.72	4.33	5.00

8 Series VAN						METRIC
5° Trajectory						
Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
330° Arc 	1.0	1.8	0.27	4.6	91	105
	1.5	2.1	0.32	5.4	79	91
	2.0	2.3	0.38	6.3	78	90
	2.1	2.4	0.39	6.4	74	86
270° Arc 	1.0	1.8	0.25	4.2	103	119
	1.5	2.1	0.30	4.9	91	105
	2.0	2.3	0.34	5.8	86	99
	2.1	2.4	0.35	5.9	81	94
180° Arc 	1.0	1.8	0.19	3.2	117	135
	1.5	2.1	0.23	3.8	104	120
	2.0	2.3	0.26	4.4	98	113
	2.1	2.4	0.27	4.5	94	109
90° Arc 	1.0	1.8	0.12	1.9	148	171
	1.5	2.1	0.14	2.3	127	147
	2.0	2.3	0.16	2.7	121	140
	2.1	2.4	0.16	2.7	111	128

Note: All VAN nozzles tested on 4" (10.2 cm) pop-ups  
 ■ Square spacing based on 50% diameter of throw  
 ▲ Triangular spacing based on 50% diameter of throw





Performance data taken in zero wind conditions  
 Note: Radius reduction over 25% of the normal throw of the nozzle is not recommended





**Did you know?**





You can use HE-VAN nozzles to have better coverage and save water vs. VAN nozzles.





- Stronger streams and larger water droplets for increased wind resistance.
- Superior close-in watering and edges provide better coverage.
- Shortened run times saves up to 35% in water



10 Series VAN					
10° Trajectory					
Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
	15	7	1.93	3.80	4.39
	20	8	2.32	3.50	4.04
	25	9	2.52	3.00	3.46
	30	10	2.60	2.50	2.89
	15	7	1.45	3.80	4.39
	20	8	1.75	3.50	4.04
	25	9	1.89	3.00	3.46
	30	10	2.10	2.70	3.12
	15	7	0.97	3.80	4.39
	20	8	1.20	3.50	4.04
	25	9	1.26	3.00	3.46
	30	10	1.45	2.80	3.23
	15	7	0.48	3.80	4.39
	20	8	0.58	3.50	4.04
	25	9	0.63	3.00	3.46
	30	10	0.75	2.90	3.35

10 Series VAN					METRIC	
10° Trajectory						
Nozzle	Pressure bar	Radius m	Flow m <sup>3</sup> /h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
	1.0	2.1	0.44	7.3	96	111
	1.5	2.4	0.53	9.0	89	103
	2.0	2.7	0.57	9.8	76	88
	2.1	3.1	0.59	9.8	63	73
	1.0	2.1	0.33	5.5	96	111
	1.5	2.4	0.4	6.8	89	103
	2.0	2.7	0.43	7.8	76	88
	2.1	3.1	0.48	7.9	68	79
	1.0	2.1	0.22	3.7	96	111
	1.5	2.4	0.27	4.6	89	103
	2.0	2.7	0.29	5.3	76	88
	2.1	3.1	0.33	5.5	71	82
	1.0	2.1	0.11	1.8	96	111
	1.5	2.4	0.13	2.3	89	103
	2.0	2.7	0.14	2.7	76	88
	2.1	3.1	0.17	2.8	73	85

12 Series VAN					
15° Trajectory					
Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
	15	9	1.56	1.86	2.14
	20	10	1.86	1.79	2.06
	25	11	2.12	1.68	1.95
	30	12	2.36	1.58	1.82
	15	9	1.17	1.86	2.14
	20	10	1.39	1.79	2.06
	25	11	1.59	1.68	1.94
	30	12	1.77	1.58	1.82
	15	9	0.78	1.86	2.14
	20	10	0.93	1.79	2.06
	25	11	1.06	1.68	1.95
	30	12	1.18	1.58	1.82
	15	9	0.39	1.86	2.14
	20	10	0.46	1.79	2.06
	25	11	0.53	1.68	1.95
	30	12	0.59	1.58	1.82

12 Series VAN					METRIC	
15° Trajectory						
Nozzle	Pressure bar	Radius m	Flow m <sup>3</sup> /h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
	1.0	2.7	0.35	5.80	48	55
	1.5	3.2	0.44	7.37	43	50
	2.0	3.6	0.52	8.75	41	47
	2.1	3.7	0.54	9.02	40	46
	1.0	2.7	0.26	4.35	48	55
	1.5	3.2	0.33	5.53	43	50
	2.0	3.6	0.39	6.56	41	47
	2.1	3.7	0.41	6.76	40	46
	1.0	2.7	0.17	2.90	48	55
	1.5	3.2	0.22	3.69	43	50
	2.0	3.6	0.26	4.37	41	47
	2.1	3.7	0.27	4.51	40	46
	1.0	2.7	0.09	1.45	48	55
	1.5	3.2	0.11	1.84	43	50
	2.0	3.6	0.13	2.19	41	47
	2.1	3.7	0.14	2.25	40	46

**Note:** All VAN nozzles tested on 4" (10.2 cm) pop-ups  
 ■ Square spacing based on 50% diameter of throw  
 ▲ Triangular spacing based on 50% diameter of throw





Performance data taken in zero wind conditions  
**Note:** Radius reduction over 25% of the normal throw of the nozzle is not recommended





### Did you know?





**You can use HE-VAN nozzles to have better coverage and save water vs. VAN nozzles.**





- Stronger streams and larger water droplets for increased wind resistance.
- Superior close-in watering and edges provide better coverage.
- Shortened run times saves up to 35% in water



15 Series VAN					
23° Trajectory					
Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
360° Arc 	15	11	2.60	2.07	2.39
	20	12	3.00	2.01	2.32
	25	14	3.30	1.62	1.87
	30	15	3.70	1.58	1.83
270° Arc 	15	11	1.95	2.07	2.39
	20	12	2.25	2.01	2.32
	25	14	2.48	1.62	1.87
	30	15	2.78	1.58	1.83
180° Arc 	15	11	1.30	2.07	2.39
	20	12	1.50	2.01	2.32
	25	14	1.65	1.62	1.87
	30	15	1.85	1.58	1.83
90° Arc 	15	11	0.65	2.07	2.39
	20	12	0.75	2.01	2.32
	25	14	0.82	1.62	1.87
	30	15	0.92	1.58	1.83

15 Series VAN						METRIC
23° Trajectory						
Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
360° Arc 	1.0	3.4	0.60	9.8	52	60
	1.5	3.9	0.72	11.8	47	55
	2.0	4.5	0.84	13.7	41	48
	2.1	4.6	0.84	14.0	40	46
270° Arc 	1.0	3.4	0.45	7.4	52	60
	1.5	3.9	0.54	8.8	47	55
	2.0	4.5	0.63	10.3	41	48
	2.1	4.6	0.63	10.5	40	46
180° Arc 	1.0	3.4	0.30	4.9	52	60
	1.5	3.9	0.36	5.9	47	55
	2.0	4.5	0.42	6.9	41	48
	2.1	4.6	0.42	7.0	40	46
90° Arc 	1.0	3.4	0.15	2.5	52	60
	1.5	3.9	0.18	2.9	47	55
	2.0	4.5	0.21	3.4	41	48
	2.1	4.6	0.21	3.5	40	46

18 Series VAN					
26° Trajectory					
Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
360° Arc 	15	14	4.21	2.07	2.39
	20	15	4.70	2.01	2.32
	25	17	4.86	1.62	1.87
	30	18	5.32	1.58	1.83
270° Arc 	15	14	3.16	2.07	2.39
	20	15	3.52	2.01	2.32
	25	17	3.65	1.62	1.87
	30	18	3.99	1.58	1.83
180° Arc 	15	14	2.11	2.07	2.39
	20	15	2.35	2.01	2.32
	25	17	2.43	1.62	1.87
	30	18	2.66	1.58	1.83
90° Arc 	15	14	1.05	2.07	2.39
	20	15	1.17	2.01	2.32
	25	17	1.22	1.62	1.87
	30	18	1.33	1.58	1.83

18 Series VAN						METRIC
26° Trajectory						
Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
360° Arc 	1.0	4.3	0.96	15.9	52	60
	1.5	4.8	1.07	18.0	47	55
	2.0	5.4	1.20	19.8	41	48
	2.1	5.5	1.21	20.1	40	46
270° Arc 	1.0	4.3	0.72	12.0	52	60
	1.5	4.8	0.80	13.5	47	55
	2.0	5.4	0.90	14.8	41	48
	2.1	5.5	0.91	15.1	40	46
180° Arc 	1.0	4.3	0.48	8.0	52	60
	1.5	4.8	0.54	9.0	47	55
	2.0	5.4	0.60	9.9	41	48
	2.1	5.5	0.61	10.1	40	46
90° Arc 	1.0	4.3	0.24	4.0	52	60
	1.5	4.8	0.27	4.5	47	55
	2.0	5.4	0.30	5.0	41	48
	2.1	5.5	0.30	5.0	40	46

**Note:** All VAN nozzles tested on 4" (10.2 cm) pop-ups  
 ■ Square spacing based on 50% diameter of throw  
 ▲ Triangular spacing based on 50% diameter of throw

Performance data taken in zero wind conditions  
**Note:** Radius reduction over 25% of the normal throw of the nozzle is not recommended

**Did you know?**

**You can use HE-VAN nozzles to have better coverage and save water vs. VAN nozzles.**

- Stronger streams and larger water droplets for increased wind resistance.
- Superior close-in watering and edges provide better coverage.
- Shortened run times saves up to 35% in water



### MPR Spray Nozzles

Matched Precipitation Rate Nozzles

#### Features

- Matched precipitation rates across sets and patterns in 5 Series, 8 Series, 10 Series, 12 Series, and 15 Series for even water distribution and design flexibility
- MPR Nozzles are installed by more contractors than all other brands combined
- Quickly identify radius and arc with Top Color-coded™ nozzles even when system is not operating
- Three year trade warranty

#### Operating Range

- Spacing: 3 to 15 feet (0.9 to 4.6 m)<sup>1</sup>
- Pressure: 15 to 30 psi (1 to 2.1 bar)
- Optimum pressure: 30 psi (2.1 bar)<sup>2</sup>

#### Models

- 5 Series: Quarter, Half, Full Nozzles
- 5 Series: Bubbler Nozzles
- 8 Series: Quarter, Half, Full Nozzles
- 8 FLT Series: Designed for lower trajectory applications, such as windy areas
- 10 Series Nozzles
- 12 Series Nozzles
- 15 Series: Quarter, Half, Full Nozzles
- 15 Strip Series Nozzles

<sup>1</sup> These ranges are based on proper pressure at nozzle.

<sup>2</sup> Rain Bird recommends using 1800 PRS Spray Bodies to maintain optimum nozzle performance in higher pressure situations.

Spray Nozzles



Rain Bird® MPR Nozzles, The Industry Standard






MPR Nozzle and Screen

#### How To Specify




5 F

Pattern  
F: Full  
H: Half  
Q: Quarter

MPR Radius Range  
5: 3-5 feet (1.1-1.5 m)  
8: 5-8 feet (1.7-2.4 m)  
10: 7-10 feet (2.1-3.1 m)  
12: 19-2 feet (2.7-3.7 m)  
15: 11-15 feet (3.4-4.6 m)




5 Series MPR						
5° Trajectory						
Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h	
5F 	15	3	0.29	3.10	3.58	
	20	4	0.33	1.99	2.29	
	25	4	0.37	2.23	2.57	
	30	5	0.41	1.58	1.83	
5H 	15	3	0.14	3.00	3.46	
	20	4	0.16	1.93	2.22	
	25	4	0.18	2.17	2.50	
5Q 	15	3	0.07	3.00	3.46	
	20	4	0.08	1.93	2.22	
	25	4	0.09	2.17	2.50	
	30	5	0.10	1.54	1.78	




**Note:** All MPR nozzles tested on 4" (10.2 cm) pop-ups  
 ■ Square spacing based on 50% diameter of throw  
 ▲ Triangular spacing based on 50% diameter of throw




5 Series MPR						METRIC	
5° Trajectory							
Nozzle	Pressure bar	Radius m	Flow m <sup>3</sup> /h	Flow l/m	■ Precip mm/h	▲ Precip mm/h	
5F 	1.0	1.1	0.06	1.1	79	91	
	1.5	1.3	0.08	1.4	51	58	
	2.0	1.5	0.09	1.6	57	65	
	2.1	1.5	0.09	1.6	40	46	
5H 	1.0	1.1	0.03	0.5	76	88	
	1.5	1.3	0.04	0.7	49	56	
	2.0	1.5	0.04	0.7	55	64	
5Q 	1.0	1.1	0.02	0.4	76	88	
	1.5	1.3	0.02	0.4	49	56	
	2.0	1.5	0.02	0.4	55	64	
	2.1	1.5	0.02	0.4	39	45	




Performance data taken in zero wind conditions




**Note:** Radius reduction over 25% of the normal throw of the nozzle is not recommended




8 Series MPR					
10° Trajectory					
Nozzle	Pressure psi	Radius ft.	Flow gpm	Precip In/h	Precip In/h
8F 	15	5	0.74	2.85	3.29
	20	6	0.86	2.30	2.66
	25	7	0.96	1.89	2.18
	30	8	1.05	1.58	1.82
8H 	15	5	0.37	2.85	3.29
	20	6	0.42	2.25	2.59
	25	7	0.47	1.85	2.13
	30	8	0.52	1.56	1.81
8Q 	15	5	0.18	2.77	3.20
	20	6	0.21	2.25	2.59
	25	7	0.24	1.89	2.18
	30	8	0.26	1.56	1.81

8 Series MPR						METRIC	
10° Trajectory							
Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	Precip mm/h	Precip mm/h	
8F 	1.0	1.7	0.16	2.8	72	84	
	1.5	2.1	0.20	3.4	58	68	
	2.0	2.4	0.23	3.9	48	55	
	2.1	2.4	0.24	4.0	40	46	
8H 	1.0	1.7	0.08	1.4	72	84	
	1.5	2.1	0.10	1.7	57	66	
	2.0	2.4	0.12	1.9	47	54	
	2.1	2.4	0.12	2.0	40	46	
8Q 	1.0	1.7	0.04	0.7	70	81	
	1.5	2.1	0.05	0.8	57	66	
	2.0	2.4	0.06	1.0	48	55	
	2.1	2.4	0.06	1.0	40	46	

10 Series MPR					
15° Trajectory					
Nozzle	Pressure psi	Radius ft.	Flow gpm	Precip In/h	Precip In/h
10F 	15	7	1.16	2.28	2.63
	20	8	1.30	1.96	2.26
	25	9	1.44	1.71	1.98
	30	10	1.58	1.52	1.75
10H 	15	7	0.58	2.28	2.63
	20	8	0.65	1.96	2.26
	25	9	0.72	1.71	1.98
	30	10	0.79	1.52	1.75
10Q 	15	7	0.29	2.28	2.63
	20	8	0.33	1.96	2.26
	25	9	0.36	1.71	1.98
	30	10	0.39	1.52	1.75

10 Series MPR						METRIC	
15° Trajectory							
Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	Precip mm/h	Precip mm/h	
10F 	1.0	2.1	0.26	4.2	58	67	
	1.5	2.4	0.29	4.8	50	58	
	2.0	3.0	0.35	6.0	39	45	
	2.1	3.1	0.36	6.0	37	43	
10H 	1.0	2.1	0.13	2.4	58	67	
	1.5	2.4	0.14	2.4	50	58	
	2.0	3.0	0.18	3.0	39	45	
	2.1	3.1	0.18	3.0	37	43	
10Q 	1.0	2.1	0.06	1.2	58	67	
	1.5	2.4	0.07	1.2	50	58	
	2.0	3.0	0.09	1.2	39	45	
	2.1	3.1	0.09	1.2	37	43	




12 Series MPR					
30° Trajectory					
Nozzle	Pressure psi	Radius ft.	Flow gpm	Precip In/h	Precip In/h
12F 	15	9	1.80	2.14	2.47
	20	10	2.10	2.02	2.34
	25	11	2.40	1.91	2.21
	30	12	2.60	1.74	2.01
12H 	15	9	0.90	2.14	2.47
	20	10	1.05	2.02	2.34
	25	11	1.20	1.91	2.21
	30	12	1.30	1.74	2.01
12Q 	15	9	0.45	2.14	2.47
	20	10	0.53	2.02	2.34
	25	11	0.60	1.91	2.21
	30	12	0.65	1.74	2.01




12 Series MPR						METRIC	
30° Trajectory							
Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	Precip mm/h	Precip mm/h	
12F 	1.0	2.7	0.40	6.8	55	63	
	1.5	3.2	0.48	8.3	47	54	
	2.0	3.6	0.59	9.7	46	53	
	2.1	3.7	0.60	9.8	44	51	
12H 	1.0	2.7	0.20	3.4	55	63	
	1.5	3.2	0.24	4.2	47	54	
	2.0	3.6	0.30	4.9	46	53	
	2.1	3.7	0.30	4.9	44	51	
12Q 	1.0	2.7	0.10	1.7	55	63	
	1.5	3.2	0.12	2.1	47	54	
	2.0	3.6	0.15	2.4	46	53	
	2.1	3.7	0.15	2.5	44	51	

Note: All MPR nozzles tested on 4" (10.2 cm) pop-ups  
 ■ Square spacing based on 50% diameter of throw  
 ▲ Triangular spacing based on 50% diameter of throw

Performance data taken in zero wind conditions  
 Note: Radius reduction over 25% of the normal throw of the nozzle is not recommended





Spray Nozzles





15 Series MPR					
30° Trajectory					
Nozzle	Pressure psi	Radius ft.	Flow gpm	Precip In/h	Precip In/h
15F 	15	11	2.60	2.07	2.39
	20	12	3.00	2.01	2.32
	25	14	3.30	1.62	1.87
	30	15	3.70	1.58	1.83
15H 	15	11	1.30	2.07	2.39
	20	12	1.50	2.01	2.32
	25	14	1.65	1.62	1.87
	30	15	1.85	1.58	1.83
15Q 	15	11	0.65	2.07	2.39
	20	12	0.75	2.01	2.32
	25	14	0.82	1.62	1.87
	30	15	0.92	1.58	1.83

15 Series MPR					METRIC	
30° Trajectory						
Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	Precip mm/h	Precip mm/h
15F 	1.0	3.4	0.60	9.8	52	60
	1.5	3.9	0.72	11.8	47	55
	2.0	4.5	0.84	13.7	41	48
	2.1	4.6	0.84	14.0	40	46
	2.1	4.6	0.84	14.0	40	46
15H 	1.0	3.4	0.30	4.9	52	60
	1.5	3.9	0.36	5.9	47	55
	2.0	4.5	0.42	6.8	41	48
	2.1	4.6	0.42	7.0	40	46
	2.1	4.6	0.42	7.0	40	46
15Q 	1.0	3.4	0.15	2.5	52	60
	1.5	3.9	0.18	2.9	47	55
	2.0	4.5	0.21	3.4	41	48
	2.1	4.6	0.21	3.5	40	46
	2.1	4.6	0.21	3.5	40	46

**Note:** All MPR nozzles tested on 4" (10.2 cm) pop-ups  
 ■ Square spacing based on 50% diameter of throw  
 ▲ Triangular spacing based on 50% diameter of throw

Performance data taken in zero wind conditions  
**Note:** Radius reduction over 25% of the normal throw of the nozzle is not recommended

5 Series MPR Stream Bubbler Nozzles			
0° Trajectory			
Nozzle	Pressure psi	Radius ft.	Flow gpm
5F-B 	15	5	1.50
	20	5	1.50
	25	5	1.50
	30	5	1.50
5H-B 	15	5	1.00
	20	5	1.00
	25	5	1.00
	30	5	1.00
5Q-B 	15	5	0.50
	20	5	0.50
	25	5	0.50
	30	5	0.50
5CST-B 	15	5	0.50
	20	5	0.50
	25	5	0.50
	30	5	0.50

5 Series MPR Stream Bubbler Nozzles				METRIC
0° Trajectory				
Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m
5F-B 	1.0	1.5	0.35	5.7
	1.5	1.5	0.35	5.7
	2.0	1.5	0.35	5.7
	2.1	1.5	0.35	5.7
5H-B 	1.0	1.5	0.23	3.8
	1.5	1.5	0.23	3.8
	2.0	1.5	0.23	3.8
	2.1	1.5	0.23	3.8
5Q-B 	1.0	1.5	0.12	1.9
	1.5	1.5	0.12	1.9
	2.0	1.5	0.12	1.9
	2.1	1.5	0.12	1.9
5CST-B 	1.0	1.5	0.12	1.9
	1.5	1.5	0.12	1.9
	2.0	1.5	0.12	1.9
	2.1	1.5	0.12	1.9







**Note:** Indicates adjusted radius at psi shown  
**Note:** Flow at adjusted radius of 5 feet (1.5 m)

### Did you know?







**You can use HE-VAN or U-Series nozzles to have better coverage and save water vs. MPR nozzles.**

- Stronger streams and larger water droplets for increased wind resistance.
- Superior close-in watering and edges provide better coverage.
- Shortened run times saves up to 35% in water





15 Strip Series			
30° Trajectory			
Nozzle	Pressure psi	W x L ft.	Flow gpm
15EST 	15	4 x 13	0.45
	20	4 x 14	0.50
	25	4 x 14	0.56
	30	4 x 15	0.61
15CST 	15	4 x 26	0.89
	20	4 x 28	1.00
	25	4 x 28	1.11
	30	4 x 30	1.21
15RCS 	15	3 x 11	0.35
	20	3 x 12	0.40
	25	4 x 14	0.45
	30	4 x 15	0.49
15LCS 	15	3 x 11	0.35
	20	3 x 12	0.40
	25	4 x 14	0.45
	30	4 x 15	0.49
15SST 	15	4 x 26	0.89
	20	4 x 28	1.00
	25	4 x 28	1.11
	30	4 x 30	1.21
9SST 	15	9 x 15	1.34
	20	9 x 16	1.47
	25	9 x 18	1.60
	30	9 x 18	1.73



W = Width of coverage pattern L = Length of coverage pattern  
**Note:** Radius reduction over 25% of the normal throw of the nozzle is not recommended

15 Strip Series				METRIC
30° Trajectory				
Nozzle	Pressure bar	W x L m	Flow m <sup>3</sup> /h	Flow l/m
15EST 	1.0	1.2 x 4.0	0.10	1.7
	1.5	1.2 x 4.3	0.11	2.0
	2.0	1.2 x 4.3	0.13	2.3
	2.1	1.2 x 4.6	0.14	2.3
	2.1	1.2 x 4.6	0.14	2.3
15CST 	1.0	1.2 x 7.9	0.20	3.4
	1.5	1.2 x 8.5	0.23	4.0
	2.0	1.2 x 8.5	0.25	4.5
	2.1	1.2 x 9.2	0.27	4.6
	2.1	1.2 x 9.2	0.27	4.6
15RCS 	1.0	0.8 x 3.2	0.08	1.3
	1.5	1.0 x 3.9	0.09	1.6
	2.0	1.2 x 4.5	0.11	1.8
	2.1	1.2 x 4.6	0.11	1.9
	2.1	1.2 x 4.6	0.11	1.9
15LCS 	1.0	0.8 x 3.2	0.08	1.3
	1.5	1.0 x 3.9	0.09	1.6
	2.0	1.2 x 4.5	0.11	1.8
	2.1	1.2 x 4.6	0.11	1.9
	2.1	1.2 x 4.6	0.11	1.9
15SST 	1.0	1.2 x 7.9	0.20	3.4
	1.5	1.2 x 8.5	0.23	4.0
	2.0	1.2 x 8.5	0.25	4.5
	2.1	1.2 x 9.2	0.27	4.6
	2.1	1.2 x 9.2	0.27	4.6
9SST 	1.0	2.7 x 4.6	0.30	5.1
	1.5	2.7 x 4.9	0.33	5.8
	2.0	2.7 x 5.5	0.36	6.5
	2.1	2.7 x 5.5	0.39	6.5
	2.1	2.7 x 5.5	0.39	6.5

Performance data taken in zero wind conditions

8 FLT Series MPR					
5° Trajectory					
Nozzle	Pressure psi	Radius ft.	Flow gpm	■ Precip In/h	▲ Precip In/h
8H-FLT 	15	6	0.56	3.36	3.88
	20	7	0.65	2.91	3.36
	25	7	0.72	2.60	3.01
	30	8	0.79	2.38	2.75
8Q-FLT 	15	6	0.28	3.32	3.83
	20	7	0.32	2.87	3.32
	25	7	0.36	2.57	2.97
	30	8	0.39	2.35	2.71

**Note:** All MPR nozzles tested on 4" (10.2 cm) pop-ups  
 ■ Square spacing based on 50% diameter of throw  
 ▲ Triangular spacing based on 50% diameter of throw

8 FLT Series MPR						METRIC
5° Trajectory						
Nozzle	Pressure bar	Radius m	Flow m <sup>3</sup> /h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
8H-FLT 	1.0	1.7	0.12	2.1	87	101
	1.5	2.1	0.15	2.6	71	82
	2.0	2.4	0.18	2.9	62	71
	2.1	2.4	0.18	3.0	60	70
	2.1	2.4	0.18	3.0	60	70
8Q-FLT 	1.0	1.7	0.06	1.1	86	100
	1.5	2.1	0.07	1.3	71	81
	2.0	2.4	0.09	1.4	61	71
	2.1	2.4	0.09	1.5	60	69
	2.1	2.4	0.09	1.5	60	69

Performance data taken in zero wind conditions  
**Note:** Radius reduction over 25% of the normal throw of the nozzle is not recommended

## 1300A-F

Adjustable Full-Circle Bubbler

### Features

- Stainless Steel adjustment screw regulates flow and radius for spacing between from 1 to 3 feet (0.3 m to 0.9 m) apart
- Non-corrosive plastic and stainless steel construction for long life
- Shipped with SR-050 1/2" (15/21) inlet filter screen for easy installation and resistance to debris
- Operates over a wide range of pressures
- Five year trade warranty

### Operating Range


- Flow: 1.0 to 2.3 gpm (3.6 to 8.4 l/m)
- Spacing: 1 to 3 feet (0.3 to 0.9 m)<sup>1</sup>
- Pressure: 10 to 60 psi (0.7 to 4.1 bar)<sup>2</sup>


### Model

- 1300A-F

<sup>1</sup> These ranges are based on proper pressure at nozzle

<sup>2</sup> Rain Bird recommends using 1800 PRS Spray Bodies to maintain optimum nozzle performance in higher pressure situations

1300A-F		
Nozzle	Pressure psi	Flow gpm
F	10	1.0
	20	1.4
	30	1.7
	40	1.9
	50	2.1
	60	2.3

1300A-F		METRIC	
Nozzle	Pressure bar	Flow m <sup>3</sup> /h	Flow l/m
F	0.7	0.23	3.6
	1.0	0.26	4.2
	1.5	0.30	4.8
	2.0	0.34	5.4
	2.5	0.39	6.0
	3.0	0.43	7.2
	3.5	0.48	7.8
	4.0	0.52	8.4
	4.1	0.53	8.4



1300A-F

## 1400 Series

Pressure Compensating Full-Circle Bubblers

### Features

- Low flow rates allow water to be absorbed as needed. Reduces runoff
- Flow will not fluctuate at pressures between 20 and 90 psi (1.4 to 6.2 bar)
- Flow is not adjustable for increased vandal resistance
- Shipped with special SR-050 1/2" (15/21) bubbler filter screen for easy installation and resistance to debris
- Trickle pattern on models 1401 and 1402; umbrella pattern on models 1404 and 1408
- Five-year trade warranty



1400 Series

### Operating Range

- Flow: 0.25 to 2.00 gpm (1.2 to 7.2 l/m)
- Spacing: 1 to 3 feet (0.3 to 0.9 m)\*
- Pressure: 20 to 90 psi (1.4 to 6.2 bar)

### Models

- 1401: 0.25 gpm (0.06 m<sup>3</sup>/h; 0.9 l/m); full-circle, trickle pattern
- 1402: 0.50 gpm (0.11 m<sup>3</sup>/h; 1.8 l/m); full-circle, trickle pattern
- 1404: 1.00 gpm (0.23 m<sup>3</sup>/h; 3.6 l/m); full-circle, umbrella pattern
- 1408: 2.00 gpm (0.46 m<sup>3</sup>/h; 7.2 l/m); full-circle, umbrella pattern

\* These ranges are based on proper pressure at nozzle. Rain Bird recommends using 1800/RD1800 PRS Spray Bodies to maintain optimum nozzle performance in higher pressure situations.

## Pressure-Compensating Modules

Point-Source Medium-Flow Emitters for Watering Larger Shrubs and Trees



PCT-05, PCT-07, PCT-10

1/2" FPT inlet that easily threads onto a 1/2" PVC riser

### Operating Range

- Flow: 5, 7, 10 gph (18.93, 26.50, 37.95 l/h)
- Pressure: 10 to 50 psi (0.7 to 3.5 bar)
- Required filtration: 100 mesh (150 micron)

Refer to page 116 for more information



## 3500 Series

Compact Residential Rotor. Big on Value and Convenience

### Features

- Rain Curtain™ nozzles deliver even distribution over the entire radius including large wind resistant droplets and gentle close-in watering resulting in greener turf using less water
- Oversized wiper seal prevents leaks and protects internals from debris
- Arc adjustment through the top of the rotor requiring only a flat-blade screwdriver
- 3 year trade warranty

### Operating Specifications

- Precipitation rate: 0.37 to 0.83 inches per hour (9 to 21 mm/h)
- Radius: 15 to 35 feet (4.6 to 10.7 m)
- Radius may be reduced up to 25% with radius reduction screw
- Pressure: 25 to 55 psi (1.7 to 3.8 bar)
- Flow rate: 0.54 to 4.6 gpm (2.0 to 17.4 l/m)
- ½" NPT female bottom threaded inlet
- Reversing full- and part-circle adjustment 40° - 360°

### Models

Part-circle units (PC) are adjustable from 40 -360 degrees.

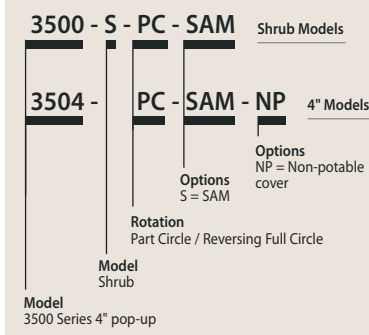
- 3504-PC: 4" part/reverse full circle
- 3504-PC-SAM: 4" part/reverse full circle with SAM™
- 3504-PC-SAM-NP: 4" part/reverse full circle with SAM and NP cover
- 3500-S-SAM: 4" part/reverse full circle shrub model with SAM



3504-PC

- 0.37 to 0.83 in/hr (9 to 21 mm/h)
- 25 to 55 psi (1.7 to 3.8 bar)
- 0.54 to 4.6 gpm (2.0 to 17.4 l/m) (0.12 to 1.04 m³/h)
- 4" (10.2 cm)
- Shrub: 7" (17.8 cm)
- 4": 6 5/8" (16.8 cm)
- ½" (20/27) NPT

### How To Specify



### Superior Distribution Uniformity

The 3500 Series Rotors with Rain Curtain Technology are engineered to deliver a uniform spray pattern, giving you a consistently green lawn throughout.

## 5000 Series

Engineered to be the Industry's Most Reliable and Best Performing Rotor

### Features

- Oversized wiper seal prevents leaks and protects internals from debris
- Rain Curtain™ nozzles deliver even distribution over the entire radius including large wind resistant droplets and gentle close-in watering resulting in greener turf using less water
- A history of proven performance and reliability tested in millions of installations
- Self-flushing arc adjustment port that prevents buildup of debris
- 5 year trade warranty

### Operating Specifications


- Precipitation rate: 0.20 to 1.01 in/hr (5 to 26 mm/h)
- Radius: 15 to 50 feet (4.6 to 15.2 m)
- Radius may be reduced up to 25% with radius reduction screw
- Pressure: 25 to 65 psi (1.7 to 4.5 bar)
- Flow Rate: 0.76 to 9.63 gpm (3.0 to 36.6 l/m; 0.17 to 2.19 m<sup>3</sup>/h)

### Optional Features


- All features of the 5000 Series plus:
  - **Plus (PL) Flow shutoff** – “The Green Top.” Reduce downtime on jobs by flushing and nozzling rotors without running back and forth to the controller or valves
  - **PRS (R)** with flow optimizer technology. The 45 psi pressure regulator lowers water bills, provides exact flow of each rotor, equalizes lateral lines, and eliminates misting and fogging
  - **SAM Seal-A-Matic** check valve
  - **Stainless steel (SS) riser** helps deter vandalism on public turf areas (available on 4 and 6" models)
  - **Purple cover (NP)** for non-potable systems




5000 Series

 0.20 to 1.01 in/hr  
(5 to 26 mm/h)

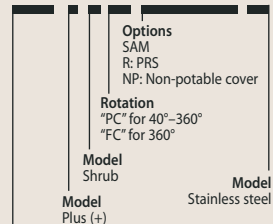
 25 to 65 psi  
(1.7 to 4.5 bar)

 0.76 to 9.63 gpm  
(3.0 to 36.6 l/m)  
(0.17 to 2.19 m<sup>3</sup>/h)

 Shrub: 4" (10.2 cm)  
6" (15.2 cm)  
12" (30.5 cm)  
Shrub: 7 3/4" (19.7cm)  
4": 7 3/8" (18.5 cm)  
6": 9 5/8" (24.5 cm)  
12": 16 7/8" (42.9 cm)  
3/4" (20/27) NPT

### How To Specify

5004-+-S-PC-SAM-R-NP-SS



Note: Certain specifications not available for some rotor series.



Rotors

## 5000 Series MPR Nozzles

Perfectly Balanced Coverage with the 5000 Series Rotor

### Features

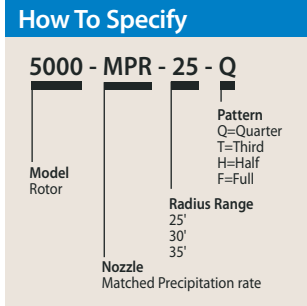
- Rain Curtain™ nozzles deliver even distribution over the entire radius including large wind resistant droplets and gentle close-in watering resulting in greener turf using less water
- Precipitation rate is automatically matched with a uniform radius that does not require stream deflection
- Matched 0.6"/hour precipitation rates enable large and small turf areas to be zoned together by mixing rotors and Rain Bird R-VAN or R-Series rotary nozzles





### Models





- 5000MPRMPK: 5000/5000 Plus Series MPR nozzle tree multi pack- 25', 30', 35' radius in Quarter, Third, Half, Full arc



5000 Series MPR Nozzles



5000-MPR-25 (Red)						
Nozzle	Pressure psi	Radius ft.	Flow gpm	Precip In/h	Precip In/h	
Quarter 	25	23	0.74	0.54	0.62	
	35	24	0.88	0.59	0.68	
	45	25	1.00	0.62	0.71	
	55	25	1.11	0.68	0.79	
	65	25	1.21	0.75	0.86	
Third 	25	23	1.00	0.55	0.63	
	35	24	1.21	0.61	0.70	
	45	25	1.38	0.64	0.74	
	55	25	1.53	0.71	0.82	
	65	25	1.67	0.77	0.89	
Half 	25	23	1.44	0.52	0.61	
	35	24	1.73	0.58	0.67	
	45	25	1.98	0.61	0.70	
	55	25	2.21	0.68	0.79	
	65	25	2.41	0.74	0.86	
Full 	25	23	2.78	0.51	0.58	
	35	24	3.34	0.56	0.64	
	45	25	3.82	0.59	0.68	
	55	25	4.25	0.65	0.76	
	65	25	4.63	0.71	0.82	

5000-MPR-25 (Red) METRIC						
Nozzle	Pressure bar	Radius m	Flow m <sup>3</sup> /h	Flow l/m	Precip mm/h	Precip mm/h
Quarter 	1.7	7.0	0.17	3.0	13.7	15.8
	2.4	7.3	0.20	3.6	14.9	17.3
	3.1	7.6	0.23	3.6	15.6	18.1
	3.8	7.6	0.25	4.2	17.4	20.1
	4.5	7.6	0.27	4.8	18.9	21.9
Third 	1.7	7.0	0.23	3.6	13.9	16.0
	2.4	7.3	0.27	4.8	15.4	17.8
	3.1	7.6	0.31	5.4	16.2	18.7
	3.8	7.6	0.35	6.0	18.0	20.7
	4.5	7.6	0.38	6.6	19.6	22.6
Half 	1.7	7.0	0.33	5.4	13.3	15.4
	2.4	7.3	0.39	6.6	14.7	17.0
	3.1	7.6	0.45	7.2	15.5	17.9
	3.8	7.6	0.50	8.4	17.3	20.0
	4.5	7.6	0.55	9.0	18.9	21.8
Full 	1.7	7.0	0.63	10.8	12.8	14.8
	2.4	7.3	0.76	12.6	14.2	16.4
	3.1	7.6	0.87	14.4	14.9	17.3
	3.8	7.6	0.97	16.2	16.6	19.2
	4.5	7.6	1.05	17.4	18.1	20.9

## Falcon® 6504 Series

Reliable and Economical

### Features

- Ratcheting stem just like standard spray bodies
- 3-port, color-coded Rain Curtain nozzles for optimal long range, mid-range, and close-in watering
- SAM Seal-A-Matic check valve
- Self-adjusting stator does not require replacement when changing nozzles
- Heavy-duty, stainless steel retract spring ensures positive pop down
- 5 year warranty

### Options

- **Stainless steel (SS)** riser helps deter vandalism on public turf areas
- **Purple cover (NP)** for non-potable systems
- **High Speed (HS)** "Tan Top" version for dust suppression

### Operating Specifications

- Precipitation rate: 0.37 to 1.14 inches per hour (9 to 29 mm/h)
- Radius: 39 to 65 feet (11.9 to 19.8 m)
- Pressure: 30 to 90 psi (2.1 to 6.2 bar)
- Flow: 2.9 to 21.7 gpm (0.66 to 4.93 m<sup>3</sup>/h; 10.8 to 82.2 l/m)
- 1" (26/34) female NPT or BSP threaded inlet
- SAM check device holds up to 10 feet (3.1 m) of elevation change
- Rain Curtain™ Nozzles: 04-black; 06-light blue; 08-dark green; 10-grey; 12-beige; 14-light green; 16-dark brown; 18-dark blue


### Models

- 6504-FC: Full-circle
- 6504-PC: Part-circle
- 6504-FC-NP: Full-circle, non-potable cover
- 6504-PC-NP: Part-circle, non-potable cover
- 6504-FC-SS: Full-circle, stainless steel
- 6504-PC-SS: Part-circle, stainless steel
- 6504-FC-SS-HS: Full-circle, stainless steel, high speed rotation
- 6504-PC-SS-HS: Part-circle, stainless steel, high speed rotation
- 6504-FC-SS-NP: Full-circle, stainless steel, non-potable cover
- 6504-PC-SS-NP: Part-circle, stainless steel, non-potable cover


*Note: All models available with BSP threads*




Falcon® 6504 Series

 0.37 to 1.14 in/hr  
(9 to 29 mm/h)


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 30 to 90 psi  
(2.1 to 6.2 bar)

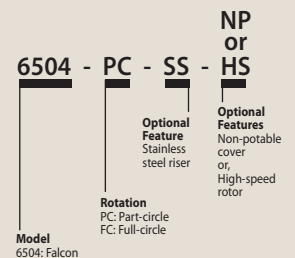
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 2.9 to 21.7 gpm  
(10.8 to 82.2 l/m)  
(0.66 to 4.93 m<sup>3</sup>/h)

---

 4" (10.2 cm)  
8½" (21.6 cm)  
1" (26/34) NPT  
or BSP

### How To Specify



*Note: For non-U.S. applications, it is necessary to specify NPT or BSP thread type.*



## 8005 Series

Protect Your Turf with High Performance, Vandal and Abuse Resistant Rotors from 39' to 81'

### Features

- Vandal resistance, brass reinforced turret for increased side impact durability
- Memory Arc® returns the rotor to its original arc setting
- Non-strippable drive mechanism prevents damage from vandals
- Easy, wet, dry arc adjustment with slotted screwdriver through top of rotor from 50° to 330° part-circle, 360° non-reversing full-circle. Full and part circle operation in one unit
- Left and right side trips adjustable for ease of installation without turning the case and loosening the pipe connection
- SAM Seal-A-Matic check valve
- 3-port, color-coded Rain Curtain nozzles for optimal long-range, mid-range, and close-in watering
- 5 year warranty

### Options

- **Stainless steel (SS)** riser helps deter vandalism on public turf areas
- **Purple cover (NP)** for non-potable systems

### Operating Specifications

- Radius: 39 to 81 feet (11.9 to 24.7 m)
- Precipitation rate: 0.48 to 1.23 inches per hour (12 to 31 mm/h)
- Pressure: 50 to 100 psi (3.5 to 6.9 bar)
- Flow: 3.8 to 36.3 gpm (0.86 to 8.24 m<sup>3</sup>/h; 14.4 to 137.4 l/m)
- 1" (26/34) NPT or BSP female threaded inlet
- SAM check device holds up to 10 feet (3.1 m) of head
- Nozzle outlet trajectory is 25°
- Rain Curtain™ Nozzles: 04 - black; 06 - light blue; 08 - dark green; 10 - gray; 12 - beige; 14 - light green; 16 - dark brown; 18 - dark blue; - 20 - red; 22 - yellow; 24 - orange; 26 - white

**Note:** Flow ranges of 7005 and 8005 are combined into 8005 rotor

### Models


- 8005: 1" NPT female threaded inlet (plastic riser stem)
- 8005-NP: 1" NPT female threaded inlet (plastic riser stem with non-potable cover)
- 8005-SS: 1" NPT female threaded inlet (5" stainless steel covered riser stem)
- 8005-SS-NP: 1" NPT female threaded inlet (5" stainless steel covered riser stem with non-potable cover)
- Optional Sod Cup

**Note:** All models available with BSP threads


**\*\* Note:** Pop-up height is measured from cover to the primary nozzle port. Overall body height is measured popped down




8005 Series

 0.48 to 1.23 in/hr  
(12 to 31 mm/h)

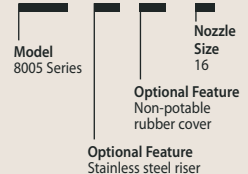
 50 to 100 psi  
(3.5 to 6.9 bar)

 3.8 to 36.3 gpm  
(14.4 to 137.4 l/m)  
(0.86 to 8.24 m<sup>3</sup>/h)

 5" (12.7 cm)  
10 1/8" (25.7 cm)  
1" (26/34) NPT  
or BSP

### How To Specify

**8005 - SS - NP - 16**



*Note: For non-U.S. applications, it is necessary to specify NPT or BSP thread type.*



## 2045A Maxi-Paw™ and 2045-PJ Maxi-Bird™

Dirty Water Applications - Spacing Up to 45 Feet (13.7 m)

### Features

- Proven impact drive with straight-through flow for superior performance in dirty water
- Five standard trajectory and two low angle (LA) color-coded nozzles for matched precipitation and in a wide range of applications
- 360° full-circle OR arc adjustable from 20° to 340°
- Side and combination ½" or ¾" bottom inlet for design flexibility (Maxi-Paw)
- 3 year warranty

### Operating Specifications

- Precipitation rate: 0.28 to 1.21 inches per hour (7 to 31 mm/h)
- Spacing: 22 to 45 feet (6.7 to 13.7 m)
- Flow rate: 1.5 to 8.4 gpm (0.34 to 1.91 m³/h; 0.9 to 0.53 l/s)
- Radius: 22 to 45 feet (6.7 to 13.7 m); 18 feet (5.4 m) with Radius Reduction Screw
- Pressure: 25 to 60 psi (1.7 to 4.1 bar)
- Combination ½" or ¾" female bottom inlet (Maxi-Paw)
- ½" FPT side inlet (Maxi-Paw)
- ½" (15/21) Riser-Mounted (Maxi-Bird)

### Models

- 2045A Maxi-Paw
- 2045A Maxi-Paw-SAM
- 2045A Maxi-Paw-SAM-NP
- 42064: Maxi-Paw Wrench - for removing internal assembly from case
- 2045-PJ Maxi-Bird



2045A Maxi-Paw



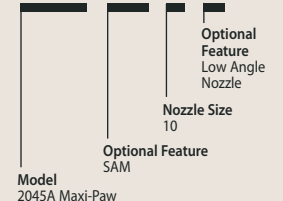
2045-PJ Maxi-Bird



42064

### How To Specify

**2045A- SAM-10- LA**



## DV / DVF Series

Diaphragm Valve – The Industry Leader for Over 25 Years

### Features

- Double-filtered (diaphragm and solenoid) pilot-flow design for maximum reliability and grit resistance
- Buna-N, balanced diaphragm with self-cleaning 90 mesh (200 micron) pilot water filter and captive spring
- Energy-efficient, low-power encapsulated solenoid with captured plunger and 90-mesh (200 micron) solenoid filter
- Unique, easy-to-turn patented pressure assisted flow control mechanism (DVF models only)
- External bleed to manually flush system of dirt and debris during installation and system start-up
- Internal bleed for spray-free manual operation
- Accepts Rain Bird TBOS latching solenoid for use with most battery-operated controllers
- Operates in low-flow and Landscape Drip applications when a 200 mesh filter is installed upstream
- **Not recommended for use with two-wire control systems**

### Specifications

- Pressure: 15 to 150 psi (1,0 to 10,4 bar)
- 075-DV Non-Flow Control Model: 0.2 to 22 GPM (0,05 to 5,0 m<sup>3</sup>/h; 0,01 to 1,39 l/s). For flows below 3 GPM (0,68 m<sup>3</sup>/h; 0,19 l/s) or any Landscape Drip application, use a 200 mesh filter installed upstream
- 100-DV Non-Flow Control Model: 0.2 to 40 gpm (0,05 to 9,085 m<sup>3</sup>/h; 0,01 to 2,52 l/s). For flows below 3 gpm (0,68 m<sup>3</sup>/h; 0,19 l/s) or any Landscape Drip application, use a 200 mesh filter installed upstream
- 100-DVF Flow Control Model: 0.2 to 40 gpm (0,05 to 9,085 m<sup>3</sup>/h; 0,01 to 2,52 l/s); For flows below 3 gpm (0,68 m<sup>3</sup>/h; 0,19 l/s) or any Landscape Drip application, use a 200 mesh filter installed upstream
- Water Temperature: Up to 110° F (43° C)
- Ambient air temperature: Up to 125° F (52° C)
- 24 VAC 50/60 Hz (cycles per second) solenoid power requirement: 0.450A inrush current; 0.250A holding current
- Solenoid coil resistance: 38 Ohms



075-DV



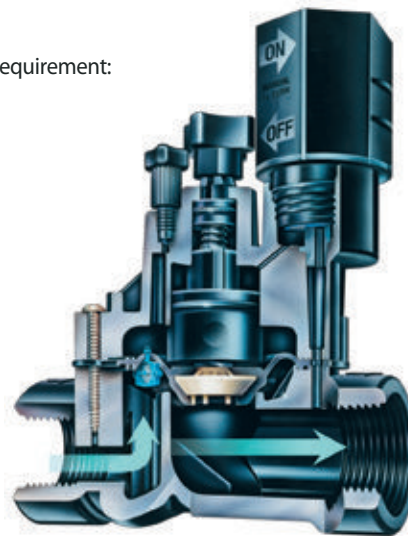
100-DVF-MB



100-DV-A



100-DVF



DVF Cutaway

### How To Specify

100 - DV - MB

Optional Configuration:  
MB: Male x Barb  
A: Angle  
SS: Slip x Slip

#### Model

DV: Remote Control Valve  
DVF: Remote Control Valve with Flow Control

#### Size

075: 3/4" (20/27);  
100: 1" (26/34)

*This specifies a 100-DV valve, 1" (26/34) male x barb with flow control. Note: For non-U.S. applications it is necessary to specify NPT or BSP thread type (1" only).*

## ASVF Series

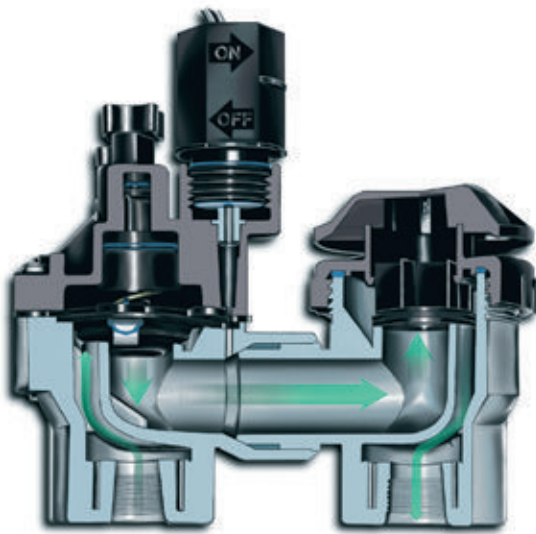
Anti-siphon Valve with Flow Control – The Industry Leader for Over 20 Years

### Features

- Combination of the reliable DVF Angle valve and atmospheric backflow preventer in one unit
- Incorporates all features of DV/DVF Series valves
- I.A.P.M.O. and A.S.S.E listing approved
- City of Los Angeles listing approved
- **Not recommended for use with two-wire control systems**

### Specifications

- Pressure: 15 to 150 psi (1,0 to 10,4 bar)
- 075-ASVF Flow: 0.2 to 22 GPM (0,05 to 5,0 m<sup>3</sup>/h; 0,01 to 1,39 l/s). For flows below 3 GPM (0,68 m<sup>3</sup>/h; 0,19 l/s) or any Landscape Drip products application, use a 200 mesh filter installed upstream
- 100-ASVF Flow: 0.2 to 40 GPM (0,05 to 9,085 m<sup>3</sup>/h; 0,01 to 2,52 l/s). For flows below 3 GPM (0,68 m<sup>3</sup>/h; 0,19 l/s) or any Landscape Drip products application, use a 200 mesh filter installed upstream
- Water temperature: Up to 110° F (43° C)
- Ambient air temperature: Up to 125° F (52° C)
- 24 VAC 50/60 Hz (cycles per second) solenoid power requirement: 0.450A inrush current; 0.250A holding current
- Solenoid coil resistance: 38 Ohms



ASVF Cutaway

### Installation Notes

- Anti-siphon valve must be installed upright
- Anti-siphon unit must be installed at least 6" (15,2 cm) above the highest point of water in the pipe and sprinklers it serves
- No valve can be located downstream of the anti-siphon valve
- Anti-siphon valves must not be subjected to operating pressure for more than twelve (12) hours in any twenty-four (24) hour period
- Uniform Plumbing Code Sec. 1003 (2) 602.2 Consult local codes

### Dimensions

- Height: 6¼" (15.8 cm)
- Length: 6¼" (15.5 cm)
- Width: 3⅓" (8.1 cm)

### Models

- 075-ASVF: ¾" (20/27)
- 100-ASVF: 1" (26/34)

Models available in NPT threads only

### Recommendations

1. Rain Bird recommends flow rates that result in discharge velocities in the supply line not to exceed 7.5 ft/sec (2.3 m/s) in order to reduce the effects of water hammer.
2. Rain Bird residential valves cannot be used with PRS pressure regulating modules.
3. Not recommended for use with two-wire systems.



100-ASVF

### ASVF Valve Pressure Loss (psi)

Flow gpm	075-ASVF ¾" psi	100-ASVF 1" psi
1	2.8	2.9
3	3.4	3.1
5	3.8	3.3
10	4.6	3.9
20	6.5	5.0
30	-	7.8
40	-	13.4

### ASVF Valve Pressure Loss (bar)

		METRIC	
Flow m <sup>3</sup> /h	l/m	075-ASVF ¾" bar	100-ASVF 1" bar
0.23	3.8	0.19	0.20
0.6	10	0.23	0.21
1.2	20	0.26	0.23
3.6	60	0.39	0.31
4.5	75	0.45	0.34
6.0	100	-	0.47
9.0	150	-	0.91

\* Rain Bird recommends flow rates in the supply line not to exceed 7.5 ft/sec (2.3 m/s) in order to reduce the effects of water hammer



## HV Series

High Value Valve. High Performance. Big Savings.

### Features

- Patented, eccentric, balanced pressure, Buna-N diaphragm with self-cleaning 90-mesh (200 micron) pilot water filter and captured stainless steel spring – Eccentric design provides smoother closing, less water hammer
- Only four durable, captured multi-drive bonnet screws that come out with half the number of turns for fast and easy servicing – at least twice as fast as the competition
- Glass-filled polypropylene body for strength (slip by slip model bodies are PVC)
- All popular model configurations available
- Compact design, 2.54" spin radius for tight installations
- Reverse flow, normally closed design
- External bleed to manually flush system of dirt and debris during installation and system start-up
- Internal bleed for spray-free manual operation
- Operates in low-flow and Landscape Drip applications when a 200 mesh filter is installed upstream

### Specifications

- Pressure: 15 to 150 PSI (1,0 to 10,3 bar)
- Flow: 0.2 to 30 GPM (0,05 to 6,82 m<sup>3</sup>/h; 0,01 to 1,89 l/s); for flows below 3 GPM (0,68 m<sup>3</sup>/h; 0,19 l/s) or any Landscape Drip application, use a 200 mesh filter installed upstream
- Operating Temperatures: Water temperature up to 110° F (43° C); ambient temperature up to 125° F (52° C)
- 24 VAC 50/60 Hz (cycles/sec.) solenoid
- Inrush current: 0.290A at 60 Hz
- Holding current: 0.091A at 60 Hz
- Solenoid Coil resistance: 70-85 Ohms (40° F - 110° F)



### HV Valve Pressure Loss (psi)

Flow (gpm)	1" HV (psi)	1" HV-MB (psi)
1	1.57	1.73
3	2.07	2.03
5	2.38	2.25
10	3.33	2.80
20	4.59	4.45
30	6.14	7.85
40	8.23	13.68

### HV Valve Pressure Loss (psi)

HV Valve Pressure Loss (psi)		METRIC	
Flow (m <sup>3</sup> /h)	Flow (l/s)	1" HV (bar)	1" HV-MB (bar)
0.25	0.06	0.11	0.12
0.75	0.21	0.14	0.14
1.00	0.28	0.16	0.16
2.00	0.56	0.23	0.19
5.00	1.39	0.32	0.31
7.50	2.08	0.42	0.54
9.10	2.52	0.57	0.94

\* Rain Bird recommends flow rates in the supply line not to exceed 7.5 ft/sec (2.3 m/s) in order to reduce the effects of water hammer

### Dimensions

- Height: 4.62" (11.7 cm)
- Height (F): 5.62" (14.3 cm)
- Height (MB): 4.50" (11.4 cm)
- Length: 4.4" (11.2 cm)
- Length (MB): 5.68" (14.4 cm)
- Width: 3.1" (7.9 cm)

### Models

- 100-HV-NPT: 1" (26/34) NPT female x female\*
- 100-HV-SS: 1" (26/34) slip x slip
- 100 HV-MB: 1" (26/34) male x barb
- 100 HVF: 1" (26/34) NPT female x female\*
- 100 HVF-SS: 1" (26/34) slip x slip

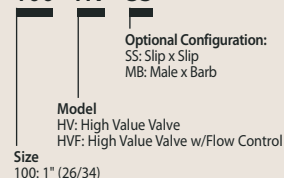
\*Available with BSP threads

### Recommendations

1. Rain Bird recommends flow rates that result in discharge velocities in the supply line not to exceed 7.5 ft/sec (2.3 m/s) in order to reduce the effects of water hammer.
2. Rain Bird residential valves cannot be used with PRS pressure regulating modules.
3. Not recommended for use with two-wire systems.

### How To Specify

100 - HV - SS



Note: For non-U.S. applications it is necessary to specify NPT or BSP thread type (1" only)

## PGA Series

Plastic Globe and Angle Valves. The Toughest, Most Reliable Valves In their Class

### Features

- Water-tight seal between the body and bonnet for maximum confidence, even in the most extreme conditions
- Robust construction and electrical design for quiet performance you can count on
- Filtered pilot flow to resist debris and clogging
- Slow closing to prevent water hammer and subsequent system damage
- Normally closed, forward flow design Accepts latching solenoid for use with Rain Bird battery-operated controllers
- Multi-drive screws (Phillips, flathead, hexagonal) for easy maintenance\*
- Manual internal bleed operates the valve without allowing water into the valve box. This allows the pressure regulator to be adjusted without turning the valve on at the controller
- One-piece solenoid design with captured plunger and spring for easy servicing. Prevents loss of parts during field service
- Three-year trade warranty
- Accommodates optional, field-installed PRS-D pressure regulating dial to ensure optimum sprinkler performance
- Accepts latching solenoid for use with Rain Bird battery-operated controllers
- Optional purple flow control handle for non-potable water applications PGA-NP-HAN1 (1" and 1 1/2"); PGA-NP-HAN2 (2")



### Extreme Durability

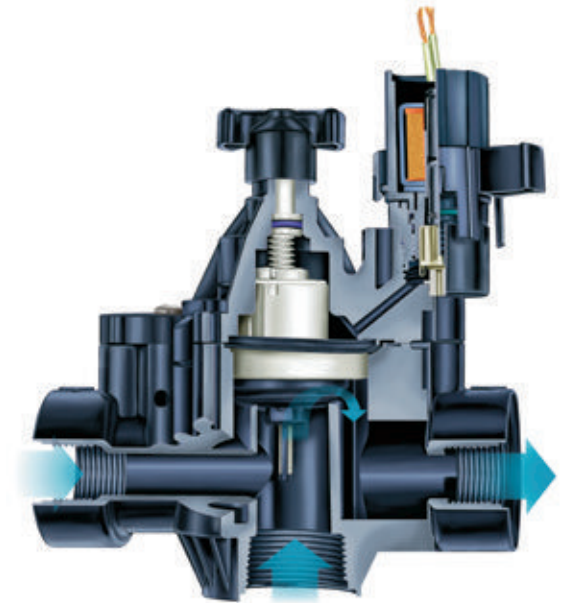
The PGA valve maintains a strong, worry-free seal between the body and bonnet, no matter the conditions. PGA valves were exposed to extreme temperature swings and intense pressures. The result—zero leaks.\*



### Pressure-Resistant Seal

The PGA valve's body-to-bonnet seal is built to overcome the intense water pressure typical of many commercial sites. Faced with repeated pressure surges well into the triple digits, our valves outlasted the nearest competitor more than 2 1/2 times to 1.\*

\* Based on 2013 testing conducted at Rain Bird's Product Research Facility in Tucson, AZ.



PGA Cutaway



150-PGA

### How To Specify

#### 100 - PGA - PRS-D

Model PGA	Optional Feature PRS-Dial: pressure regulating module (must be ordered separately)
Size 100: 1" (26/34) 150: 1 1/2" (40/49) 200: 2" (50/60)	

Note: Valve and PRS-Dial module must be ordered separately. For non-U.S. applications, it is necessary to specify NPT or BSP thread type.

## PEB / PESB Series

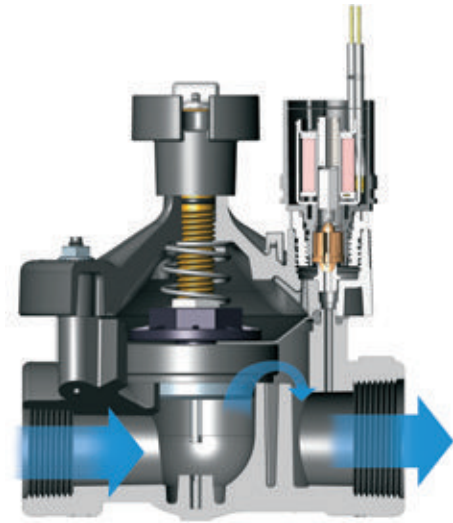
Best-in-class Professional Series Plastic Irrigation Valves

### Features

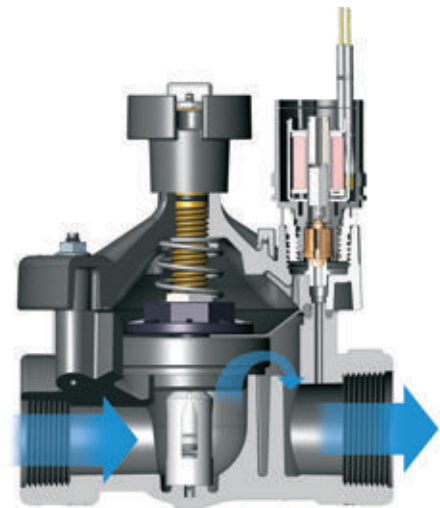
- Durable glass-filled nylon construction with fabric-reinforced rubber diaphragm for long life and reliable performance
- Globe configuration
- Normally closed, forward flow design
- Slow closing to prevent water hammer and subsequent system damage
- Low flow capability for a wide range of applications
- One-piece solenoid design with captured plunger and spring for easy servicing. Prevents loss of parts during field service
- Flow control handle adjusts water flows as needed
- Manual internal bleed manually operates the valve without allowing water into the valve box; allows pressure regulator to be adjusted without turning the valve on at the controller first
- Manual external bleed permits flushing debris from the system. Recommended for system start up and after repairs
- Stainless steel studs molded into the body. Bonnet can be attached and removed more easily and more often without damaging threads
- Nylon scrubber scrapes a stainless steel screen to clean and break down grit and plant material. Prevents debris build-up and clogging (PESB Series only)
- Five-year trade warranty

### Specifications

- Pressure: 20 to 200 psi (1,4 to 13,8 bar)
- Flow without PRS-D option: 0.25 to 200 GPM (0,06 to 45 m<sup>3</sup>/h; 0,02 to 12,60 l/s)
- Flow with PRS-D option: 5 to 200 GPM (1,14 to 45 m<sup>3</sup>/h; 0,32 to 12,60 l/s)
- Temperature: Up to 150° F (66° C)
- 24VAC 50/60Hz (cycles/sec) solenoid power requirement
- Inrush current: 0.41A (9.9VA) at 60Hz
- Holding current: 0.14A (3.43VA) at 60Hz
- Solenoid coil resistance: 30-39 Ohms, nominal



PEB Cutaway



PESB Cutaway



150-PEB



150-PESB

### How To Specify

100 - PEB - PRS-D

Size	Model	Optional Feature
100: 1" (26/34)	PEB	PRS-Dial: pressure regulating module (must be ordered separately)
150: 1½" (40/49)		
200: 2" (50/60)		

Note: Valve and PRS-Dial module must be ordered separately. For non-U.S. applications, it is necessary to specify NPT or BSP thread type.

## PESB-R Series Valves

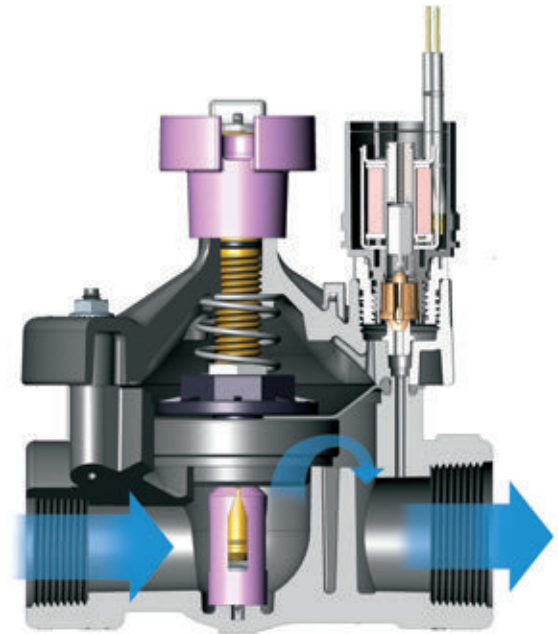
Durable Plastic – chlorine resistant Professional Plastic Irrigation Valves for reclaimed water irrigation applications

### Features

- Plastic diaphragm and scrubber components molded of chlorine- and chemical-resistant plastic material
- Durable glass-filled nylon construction for long life and heavy-duty performance at 200 psi (13,80 bars) pressure
- Stainless steel studs molded into the body. Bonnet can be attached and removed easily without damaging threads
- One-piece solenoid design with captured plunger and spring for easy servicing. Prevents loss of parts during field service
- External bleed protects the solenoid ports from debris when system is flushed
- Internal bleed operates the valve without allowing water into the valve box; allows pressure regulator to be adjusted without turning on the valve at the controller first
- Slow closing to prevent water hammer and subsequent system damage
- Scrubber mechanism scrapes stainless steel screen clean to break down grit and plant material
- Purple flow control handle standard on PESB-R Series valves
- Five-year trade warranty

### Options

- Accommodates optional, field installed PRS-D pressure regulating module to ensure optimum sprinkler performance. Regulates up to 100 psi (6.9 bar)
- Accepts latching solenoid for use with Rain Bird battery-operated controllers up to 150 psi (10,35 bar)
- Compatible with ESP-LXD decoders



PESB-R Cutaway

Valves

150-PESB-R



### How To Specify

#### 100 - PESBR - PRS-D

Size	Model	Optional Feature
100: 1" (26/34)	PESB-R: scrubber model	PRS-Dial: pressure regulating module (must be ordered separately)
150: 1½" (40/49)		
200: 2" (50/60)		

Note: Valve and PRS-Dial module must be ordered separately.

## Quick-Coupling Valves

Convenient water access in potable and non-potable systems

### Features

- Optional locking cover on models 33-DLRC, 44-LRC, 5-LRC, 33-DNP, 44-NP, and 5-NP (use 2049 key to unlock). Metal cover on model 7 only
- One-piece body design (models 3-RC, 5-RC and 7)
- Two-piece body design for easy servicing (models 33-DRC, 44-LRC, 44-RC, 33-DNP, and 44-NP)
- Strong corrosion-resistant stainless steel spring prevents leakage
- Thermoplastic cover for durability
- 33-DNP, 44-NP, and 5-NP covers marked with "Do Not Drink!" warnings in English and Spanish
- Three-year trade warranty

### Specifications

- Pressure: 5 to 125 psi (0.35 to 8.63 bar)
- Flow: 10 to 125 gpm (2.27 to 28.38 m<sup>3</sup>/h; 37.8 to 473 l/m)
- 33-DNP, 44-NP and 5-NP flow: 10 to 70 gpm (2.27 to 15.89 m<sup>3</sup>/h; 37.8 to 265 l/m)

### Dimensions (height)

- 3-RC: 4<sup>1</sup>/<sub>4</sub>" (10.8 cm)
- 44-RC: 6" (15.2 cm)
- 7: 5<sup>3</sup>/<sub>4</sub>" (14.6 cm)
- 33-DRC: 4<sup>3</sup>/<sub>8</sub>" (11.1 cm)
- 44-LRC: 6" (15.2 cm)
- 33-DNP: 4<sup>3</sup>/<sub>8</sub>" (11.1 cm)
- 33-DLRC: 4<sup>5</sup>/<sub>8</sub>" (11.7 cm)
- 5-RC: 5<sup>1</sup>/<sub>2</sub>" (14.0 cm)
- 44-NP: 6" (15.2 cm)
- 5-LRC: 5<sup>1</sup>/<sub>2</sub>" (14.0 cm)
- 5-NP: 5<sup>1</sup>/<sub>2</sub>" (14.0 cm)

### Models

- 3-RC: 3/4" (20/27) Rubber Cover, 1-Piece Body
- 33-DRC: 3/4" (20/27) Double Track Key Lug, Rubber Cover, 2-Piece Body
- 33-DLRC: 3/4" (20/27) Double Track Key Lug, Locking Rubber Cover, 2-Piece Body
- 44-RC: 1" (26/34) Rubber Cover, 2-Piece Body
- 44-LRC: 1" (26/34) Locking Rubber Cover, 2-Piece Body
- 5-RC: 1" (26/34) Rubber Cover, 1-Piece Body
- 5-LRC: 1" (26/34) Locking Rubber Cover, 1-Piece Body
- 7: 1 1/2" (40/49) Metal Cover, 1-Piece Body
- 5-RC-BSP: 1" (26/34) Rubber Cover, 1-Piece Body, BSP threaded
- 5-LRC-BSP: 1" (26/34) Locking Rubber Cover, 1-Piece Body, BSP threaded
- 33-DNP: 3/4" (20/27) Non-potable, Purple Locking Rubber Cover, 2-Piece Body
- 44-NP: 1" (26/34) Non-potable, Purple Locking Rubber Cover, 2-Piece Body
- 5-NP: 1" (26/34) Non-potable, Purple Locking Rubber Cover, 1-Piece Body

**Note:** For non-US applications, it is necessary to specify NPT or BSP thread type

### Quick-Coupling Valves Pressure Loss (psi)

Flow	3-RC	33-DRC 33-DLRC 33-DNP	44-RC 44-LRC 44-NP	5-RC 5-LRC 5-NP	7
gpm	3/4"	3/4"	1"	1"	1 1/2"
10	1.8	2	-	-	-
15	4.7	4.3	2.2	-	-
20	7.2	7.6	4.4	-	-
30	-	-	11.5	4.1	-
40	-	-	-	7.3	-
50	-	-	-	11	1.7
60	-	-	-	15.7	2.5
70	-	-	-	21.5	3.6
80	-	-	-	-	4.9
100	-	-	-	-	8.4
125	-	-	-	-	14

### Quick-Coupling Valves Pressure Loss (bar)

Flow	3-RC	33-DRC 33-DLRC 33-DNP	44-RC 44-LRC 44-NP	5-RC 5-LRC 5-NP	7	METRIC
m <sup>3</sup> /h	l/m	1.9 cm	1.9 cm	2.5 cm	2.5 cm	3.8 cm
2.3	38	0.12	0.12	-	-	-
4	67	0.41	0.42	0.23	-	-
5	83	0.57	0.62	0.40	-	-
6	100	-	-	0.62	-	-
7	117	-	-	0.83	0.30	-
8	133	-	-	-	0.40	-
9	150	-	-	-	0.50	-
10	167	-	-	-	0.61	-
12	200	-	-	-	0.85	0.13
14	233	-	-	-	1.15	0.18
16	267	-	-	-	1.50	0.25
22	367	-	-	-	-	0.54
28	473	-	-	-	-	0.97



Quick-Coupling Valve Cutaway



Quick Coupling Valves

## Valve Keys

Quick-Coupling Keys

### Features

- Key threads into top of quick-coupling valve to provide water access

### Models

- 33-DK: 3/4" (20/27)
- 44-K: 1" (26/34)
- 55-K-1: 1" (26/34)\*
- 7-K: 1 1/2" (40/49)\*

\* Available with BSP threads; specify when ordering



55-K-1

### Corresponding Valve Keys

Valve	Key	Top Pipe Threads	
		Male	Female
3-RC	33-DK	3/4"	1/2"
33-DRC/33-NP	33-DK	3/4"	1/2"
44-RC/44-NP	44-K	1"	3/4"
5-RC/5-NP	55-K-1	1"	-
7	7-K	1 1/2"	1 1/4"

### Corresponding Valve Keys

### METRIC

Valve	Key	Top Pipe Threads	
		Male	Female
3-RC	33-DK	20/27	15/21
33-DRC/33-NP	33-DK	20/27	15/21
44-RC/44-NP	44-K	26/34	20/27
5-RC/5-NP	55-K-1	26/34	-
7	7-K	40/49	33/42

## SH Series

Hose Swivel

### Features

- Attaches water hose to quick-coupling valve key
- Swivels up to 360°
- Allows hose to be pulled in any direction
- Prevents hose damage

### Specifications

- SH-0: 3/4" (20/27) female pipe thread x 3/4" (20/27) male hose thread
- SH-1: 1" (26/34) female pipe thread x 3/4" (20/27) male hose thread
- SH-2: 1" (26/34) female pipe thread x 1" (26/34) male hose thread
- SH-3: 1 1/2" (40/49) female pipe thread x 1" (26/34) male hose thread

### Models

- SH-0
- SH-1
- SH-2\*
- SH-3

\*Available with BSP threads



SH-0

## Locking Cover Key

### Features

- Locks and unlocks the optional locking cover on quick-coupling valves
- Operates the valve marker compression lock
- Compatible with models 33-DLRC, 33-DNP, 44-LRC, 44-NP, 5-LRC, and 5-NP

### Model

- 2049 Cover Key



2049

## Purple Valve Handle Assembly

### Features

- Purple flow control handle identifies valve as part of a non-potable system
- Easily field installed
- Sizes for all Rain Bird Commercial Valves

### Models

- PGA-NP-HAN1 (1" and 1 1/2" PGA Valves)
- PGA-NP-HAN2 (2" PGA Valves)
- PEB-NP-HAN1 (1" PEB/PESB Valves)
- PEB-NP-HAN2 (1 1/2" and 2" PEB/PESB Valves)
- BPE-NP-HAN (3" BPE/BPES Valves)



PEB-NP-HAN PGA-NP-HAN



BPE-NP-HAN

## PVB Professional Series Valve Boxes

The PVB Series valve box provides rugged, no-nonsense dependability, with a price tag that can meet any budget

### Features

- Light & durable construction
- Side ridges for additional side wall support
- Pre-molded pipe slots
- Bottom flanges to help prevent sinking
- Four colors: available in green, black, tan and purple
- Multiple configurations designed to provide tight seals and easy maintenance access
- Earth-friendly, LEED-compliant material made of 100% recycled materials (black boxes and black lids only)



6" Round Valve Box	10" Round Valve Box	Mini Standard Valve Box	Standard Valve Box	Standard Extension	Jumbo Valve Box	Jumbo Extension
<b>SIZE</b>						
Top Opening: 6 1/2" diameter Bottom Opening: 8 3/8" diameter	Top Opening: 10" diameter Bottom Opening: 12 1/8" diameter	Top Opening: 15" L x 9 1/2" W Bottom Opening: 18" L x 12 1/2" W x 10" H	Top Opening: 18 1/4" L x 13" W Bottom Opening: 21 1/4" L x 15 1/8" W x 12" H	Top Opening: 17" L x 11 3/4" W Bottom Opening: 18 7/8" L x 13 3/8" W x 6 3/4" H	Top Opening: 22 1/4" L x 16 3/8" W Bottom Opening: 25 1/4" L x 19 3/8" W x 12" H	Top Opening: 21 3/8" L x 15 7/8" W Bottom Opening: 22 1/8" L x 16 3/8" W x 6 3/8" H
<b>ADDITIONAL FEATURES</b>						
<ul style="list-style-type: none"> <li>• Snap-in overlapping lid</li> <li>• Skid-resistant texture</li> <li>• Body built with three ridges for additional sidewall support</li> </ul>	<ul style="list-style-type: none"> <li>• Overlapping lid with bolt hole and twist lock</li> <li>• Skid-resistant lid texture</li> <li>• Body built with double ridges for additional sidewall support</li> </ul>	<ul style="list-style-type: none"> <li>• Our compact alternative to a standard size box</li> <li>• Drop-in lid</li> <li>• Skid-resistant lid texture</li> </ul>	<ul style="list-style-type: none"> <li>• Drop-in lockable lid</li> <li>• Skid-resistant lid texture</li> <li>• Double ledge lid support</li> <li>• Ridge adds additional support to sidewalls</li> </ul>	<ul style="list-style-type: none"> <li>• Overlapping lockable lid</li> <li>• Skid-resistant lid texture</li> <li>• Body can be used to extend the PVB Standard series</li> <li>• Body can be used as a 6" deep box</li> </ul>	<ul style="list-style-type: none"> <li>• Drop-in lockable lid</li> <li>• Skid-resistant lid texture</li> <li>• Double ledge lid support</li> <li>• Ridge adds additional support to sidewalls</li> </ul>	<ul style="list-style-type: none"> <li>• Overlapping lockable lid</li> <li>• Skid-resistant lid texture</li> <li>• Body can be used to extend the PVB Jumbo series</li> <li>• Body can be used as a 6" deep box</li> </ul>
<b>MODELS</b>						
<ul style="list-style-type: none"> <li>• PVB6RND: 6" round black body &amp; overlapping green lid</li> <li>• PVB6RNDP: 6" round black body &amp; overlapping purple lid</li> <li>• PVB6RNDT: 6" round black body &amp; overlapping tan lid</li> </ul>	<ul style="list-style-type: none"> <li>• PVB10RND: 10" round black body &amp; overlapping green lid</li> <li>• PVB10RNDP: 10" round purple body &amp; overlapping purple lid</li> <li>• PVB10RNDT: 10" round tan body &amp; overlapping tan lid</li> </ul>	<ul style="list-style-type: none"> <li>• PVBMS: 10" mini-standard black body &amp; drop-in green lid</li> </ul>	<ul style="list-style-type: none"> <li>• PVBSTD: 12" standard black body &amp; drop-in green lid</li> <li>• PVBSTDP: 12" standard purple body &amp; drop-in purple lid</li> <li>• PVBSTDT: 12" standard tan body &amp; drop-in tan lid</li> </ul>	<ul style="list-style-type: none"> <li>• STDEXT body can extend the Standard Valve box by 6" in height</li> <li>• STDEXT body can be used as a 6" deep box to reduce digging</li> <li>• PVBSTDEXT: 6" black body &amp; overlapping green lid</li> <li>• PVBSTDEXTT: 6" tan body &amp; overlapping tan lid</li> </ul>	<ul style="list-style-type: none"> <li>• PVBJMB: 12" black body &amp; drop-in green lid</li> <li>• PVBJMBP: 12" purple body &amp; drop-in purple lid</li> <li>• PVBJMBT: 12" tan body &amp; drop-in tan lid</li> </ul>	<ul style="list-style-type: none"> <li>• PVBJBEXT: 6" black body &amp; overlapping green lid</li> <li>• PVBJBEXTP: 6" purple body &amp; overlapping purple lid</li> <li>• PVBJBEXTT: 6" tan body &amp; overlapping tan lid</li> </ul>

**6" Round Lids**

PVB6RNDGL:  
6" round green lid

**10" Round Lids**

PVB10RNDGL:  
10" round green lid

**12" Standard Lids**

PVBSTDGL:  
12" standard green lid

**12" Jumbo Lids**

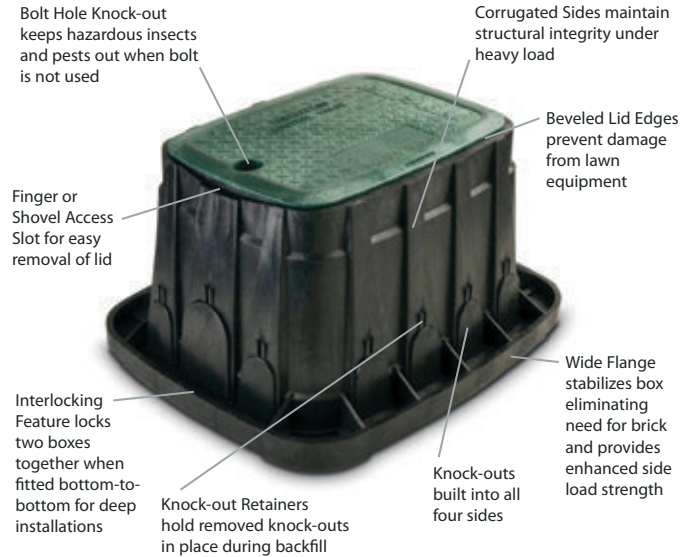
PVBJMBGL:  
12" jumbo green lid

### VB Series Valve Boxes

Commercial grade boxes that are loaded with a rich set of industry-leading features

#### Features

- **Strength and Stability** – Multiple sizes and shapes are designed with corrugated sides and wide flange bases for maximum durability, compression strength, and stability
- **Smart Lid Design** – Designed with no holes to keep out pests, beveled edges to minimize damage potential from turf equipment, and for easy hand and shovel access
- **Flexible Installations** – Interlocking stacking capabilities, extension models and pipe hole knockouts support deeper and flexible installations
- **Environmentally Friendly** – Earth-friendly, LEED-compliant material made of 100% recycled materials (black boxes and black lids only)



7 Inch Round Valve Box	10 Inch Round Valve Box	Standard Valve Box	Standard Extension	Jumbo Valve Box	Jumbo Extension	Super Jumbo Valve Box	Maxi Jumbo Valve Box
<b>SIZE</b>							
Bottom Diameter: 9.9 inches (25,1 cm) Height: 9.0 inches (22,9 cm)	Bottom Diameter: 13.75 inches (34,9 cm) Height: 10.0 inches (25,4 cm)	Length: 21.8 inches (55,4 cm) Width: 16.6 inches (42,2 cm) Height: 12.0 inches (30,5 cm)	Length: 20.0 inches (50,8 cm) Width: 14.75 inches (37,5 cm) Height: 6.75 inches (17,1 cm)	Length: 26.3 inches (66,8 cm) Width: 19.8 inches (50,3 cm) Height: 12.1 inches (30,7 cm)	Length: 24.4 inches (62,0 cm) Width: 17.9 inches (45,5 cm) Height: 6.75 inches (17,1 cm)	Length: 33.1 inches (84,1 cm) Width: 23.8 inches (60,5 cm) Height: 15.0 inches (38,1 cm)	Length: 40.3 inches (102,4 cm) Width: 27.1 inches (68,8 cm) Height: 18.0 inches (45,7 cm)
<b>ADDITIONAL FEATURES</b>							
<ul style="list-style-type: none"> <li>• Easily removable knock-outs simplify pipe placement and reduce installation time</li> <li>• Four equally spaced knock-outs accommodate up to 2.0" diameter pipe</li> </ul>	<ul style="list-style-type: none"> <li>• Easily removable knock-outs simplify pipe placement and reduce installation time</li> <li>• Four equally spaced knock-outs accommodate up to 2.0" diameter pipe</li> </ul>	<ul style="list-style-type: none"> <li>• Two large center knock-outs accommodate up to 3 1/2" (8.9 cm) diameter pipe and eleven knock-outs accommodate up to 2" (5.0 cm) diameter pipe</li> </ul>	<ul style="list-style-type: none"> <li>• Extension models support deeper and more flexible installations</li> </ul>	<ul style="list-style-type: none"> <li>• Easily removable knock-outs simplify pipe placement and reduce installation time</li> <li>• Two large center knock-outs accommodate up to 3.5" diameter pipe. (Extensions do not have knock-outs)</li> </ul>	<ul style="list-style-type: none"> <li>• Extension models support deeper and more flexible installations</li> </ul>	<ul style="list-style-type: none"> <li>• Easily removable knock-outs simplify pipe placement and reduce installation time</li> <li>• Thirteen large knock-outs accommodate up to 3.5" diameter pipe</li> </ul>	<ul style="list-style-type: none"> <li>• Easily removable knock-outs simplify pipe placement and reduce installation time. Six large knock-outs on the ends accommodate up to 5.0" diameter pipe and 12 knock-outs on the sides accommodate up to 3.0" diameter pipe</li> </ul>
<b>MODELS</b>							
<ul style="list-style-type: none"> <li>• VB7RND: 7" Round Body &amp; Green Lid</li> </ul>	<ul style="list-style-type: none"> <li>• VB10RND: 10" Round Body &amp; Green Lid</li> <li>• VB10RNDNB: 10" Round Body Only</li> <li>• VB10RNDGL: Green Lid</li> <li>• VB10RNDPL: Purple Lid</li> <li>• VB10RNDDBKL: Black Lid</li> <li>• VB10RNDH: 10" Round Body &amp; Locking Green Lid</li> </ul>	<ul style="list-style-type: none"> <li>• VBSTD: Standard Body &amp; Green Lid</li> <li>• VBSTDDB: Standard Body Only</li> <li>• VBSTDGL: Green Lid</li> <li>• VBSTDPL: Purple Lid</li> <li>• VBSTDDBKL: Black Lid</li> <li>• VBSTDH: Standard Body &amp; Locking Green Lid</li> </ul>	<ul style="list-style-type: none"> <li>• VBSTD6EXTB: Standard Extension Body Only</li> </ul>	<ul style="list-style-type: none"> <li>• VBJMB: Jumbo Body &amp; Green Lid</li> <li>• VBJMBB: Jumbo Body Only</li> <li>• VBJMBGL: Green Lid</li> <li>• VBJMBPL: Purple Lid</li> <li>• VBJMBBKL: Black Lid</li> <li>• VBJMBH: Jumbo Body &amp; Locking Green Lid</li> </ul>	<ul style="list-style-type: none"> <li>• VBJMB6EXTB: Jumbo Extension Body Only</li> </ul>	<ul style="list-style-type: none"> <li>• VBSPRH: Super Jumbo Body &amp; 2 Lock Green Lid</li> <li>• VBSPRPH: Super Jumbo Body &amp; 2 Lock Purple Lid</li> </ul>	<ul style="list-style-type: none"> <li>• VBMAXH: Maxi-Jumbo Body &amp; 2 Lock Green Lid</li> <li>• VBMAXPH: Maxi-Jumbo Body &amp; 2 Lock Purple Lid</li> </ul>

#### LOCKING SYSTEMS

- VB-LOCK-H: Hex head 3/8" x 2 1/4" (1.0 x 5.7 cm) bolt, washer, and clip
- VB-LOCK-P: Penta head 3/8" x 2 1/4" (1.0 x 5.7 cm) bolt, washer, and clip





## LNK WiFi Module



Irrigation System Control from Anywhere

### Features

- Upgrades WiFi-ready controllers (ESP-Me and ESP-TM2) to make them fully accessible and programmable from iOS or Android compatible devices\*
- Operates like a wireless remote control for your irrigation system while onsite or an internet-based monitoring and control system when offsite
- Streamlines and simplifies initial irrigation timer setup and seasonal adjustment
- Instant access allows for real-time system management and timer settings
- Compatible professional app features allow for simple multi-site management and as well as remote diagnostics by landscape professionals
- Built-in mobile notifications provide troubleshooting access, simplify service calls, and warn of freezing conditions when expected
- Automatic weather adjustments provide daily run time changes, saving up to 50% in water
- Superior programming capabilities that are designed to meet the most stringent water restrictions

### Specifications

- 2.4 GHz (only) WiFi router compatible with WEP and WPA security settings
- Compatible with iOS 8.0 and Android 4.4 (KitKat) or later mobile devices\*
- Operating Temperature: 14° F (-10° C) to 149°F (65°C)
- Storage Temperature: -40°F (-40°C) to 150°F (66°C)
- Operating Humidity: 95% max @ 50°F to 120°F (10°C to 49°C) non-condensing environment

### Electrical Specifications

- Input: 24VAC(RMS) 50/60Hz; 55mA max

### Certifications

- UL, cUL, CE, CSA, FCC Part 15b, WEEE, S-Mark, IP30, IFETEL

### Dimensions

- Width: 1.13" (2,87 cm)
- Height: 1.83" (4,65 cm)
- Depth: 0.48" (1,22 cm)

### Models

- LNKWIFI



LNK WiFi Module



Upgrades Rain Bird ESP-Me and ESP-TM2 Controllers

### ESP-TM2 Series Controller



Simple, Flexible, and Reliable for Residential Applications

#### Features

- Upgradeable for WiFi-based remote monitoring and control via iOS and Android mobile devices (with LNK WiFi Module sold separately).
- Internet-based weather information can be used to make daily adjustments to the irrigation schedule, saving up to 30% in water (with LNK WiFi Module sold separately).
- 4, 6, 8, and 12 station models to meet small or large residential irrigation needs
- Set Permanent Days Off per program to ensure watering never occurs on days when maintenance crews are on site (for Odd/Even/ Cyclic schedules)
- Easy to install indoors or outdoors with pre-installed 6' power cord
- Quick programming in just 3 steps for ease of setup
- 3 available programs with up to 4 start times for each program to meet the needs of varied landscapes
- One-touch manual watering capability for ease of use
- Large back-lit LCD display for improved visibility in low-light and direct sun conditions
- Contractor Default™ allows you to easily save and restore your custom schedule
- Delay Watering up to 14 days and automatically resume watering after the set delay has elapsed
- Bypass Rain Sensor for any station gives you the ability to customize which stations react to a rain sensor
- Seasonal Adjust by program allows you to easily reduce or increase watering by program

#### Specifications

- Operating Temperature: Up to 149°F (65°C)
- Storage Temperature: -40°F (-40°C) to 150°F (66°C)
- Operating Humidity: 95% max @ 50°F to 120°F (10°C to 49°C) non-condensing environment

#### Electrical Specifications

- Input required: 120VAC (±10%) @ 60Hz
- Output: 1A at 24VAC
- Master Valve/Pump Start Relay
- External battery back-up not required. Nonvolatile memory permanently saves the current programming and a 10 year life lithium battery maintains the controllers time and date during power outages

#### Certifications

- UL, cUL, FCC Part 15b, IP24

#### Dimensions

- Width: 7.92 in. (20,1 cm)
- Height: 7.86 in. (20,0 cm)
- Depth: 3.51 in. (9,0 cm)

#### Models

- TM2-4-120V: 4-station 120VAC
- TM2-6-120V: 6-station 120VAC
- TM2-8-120V: 8-station 120VAC
- TM2-12-120V: 12-station 120VAC

#### Optional Accessories

- LNKWiFi: LNK WiFi Module for remote control and notification via iOS or Android device
- WR2 Series Wireless Rain / Freeze Sensors
- RSD Series Rain Sensors



ESP-TM2

## ESP-Me Series Controllers

The industry's most flexible irrigation controller solution.  
Supports up to 22 stations



### Features

- Large LCD display with easy to navigate user interface
- Rain Sensor input with override capability
- Master valve/pump start circuit
- Non-Volatile (100 year) storage memory
- Remotely Programmable under 9V battery power (not included)
- Program based scheduling allows 4 individual programs with 6 independent start times per program for 24 total start times
- Watering schedule options: By days of week, ODD calendar days, EVEN calendar days, or Cyclic (every 1 – 30 days) Advanced Features
- Advanced diagnostics and short detection with LED alert
- Contractor Default™ Program Save/Restore saved program(s)
- Rain Sensor bypass by Station
- Total Run Time Calculator by program
- One Touch manual watering
- Delay Watering up to 14 days (applies only to stations not set to ignore Rain Sensor)
- Manual Watering option by program or station
- Seasonal Adjust applied to all programs or individual program
- Adjustable delay between valves (default set to 0)
- Master Valve on/off by station
- Upgradeable for WiFi-based remote monitoring and control via iOS and Android mobile devices (with LNK WiFi Module sold separately).
- Internet-based weather information can be used to make daily adjustments to the irrigation schedule, saving up to 30% in water (with LNK WiFi Module sold separately).

### Operating Specifications

- Station timing: 1 minute to 6 hours
- Seasonal Adjust: 5% to 200%
- Max operating temperature: 149°F (65°C)

### Electrical Specifications

- Input Required: 120VAC ± 10%, 60Hz  
(International models: 230/240VAC ± 10%, 50/60Hz)
- Master Valve/Pump Start Relay
- Operating Voltage: 24VAC 50/60Hz
- Max Coil Inrush: 11VA
- Max Coil Holding: 5VA
  - Idle/Off power draw 0.06 amps at 120VAC
- Power back-up not required. Nonvolatile memory permanently saves the current programming and a 10 year life lithium battery maintains the controllers time and date during power outages.

### Certifications

- UL, cUL, CE, CSA, C-Tick, FCC Part 15b, WEEE, S-Mark, IP24

### Dimensions

- Width: 10.7" (27.2 cm)
- Height: 7.7" (19.5 cm)
- Depth: 4.4" (11.2 cm)

### North America Models (120VAC)

- Controller Base Models
  - ESP4MEI: 4 station indoor model
  - ESP4ME: 4 station outdoor model\*
- Modules
  - ESPSM3: 3 station module
  - ESPSM6: 6 station module (compatible with ESP-Me Series controllers only)

### Accessories

- LNKWiFi: LNK WiFi Module for remote control and notification via iOS or Android device
- RSD-BEx / RSD-CEX: Wired Rain Sensor
- WR2: Wireless Rain + Freeze Sensors
- PIGTAIL: UL approved pig tail

*\*Also available in 230VAC and 240VAC models*



ESP-Me Series Controller and Modules

### ESP-SMTe Smart Modular Control System

4 to 22 Station Indoor or Outdoor Smart Modular Control System for Residential and Light Commercial Use



#### Features

- English/Spanish Button easily switches the display text between languages
- Weather Sensor sends rainfall and temperature data to the controller
- Large LCD display with easy to use interface
- Non-Volatile (100- year) program memory
- Remotely Programmable under 9V battery power (not included)
- Programming tutorial assures efficient and accurate scheduling
- Watering occurs only as needed and can be restricted to selected days of the week, odd or even calendar days or at set intervals (cyclic)
- Grow-in watering option allows a time based schedule for new plants for a programmed period of time
- Cycle+Soak™ feature for each zone prevents runoff based on soil type, precipitation rate and landscape slope
- Any zone can be switched to Time Based programming (for example, to operate a pond pump)
- Copy Zone to Zone feature allows the contractor to copy a zone program from one zone to another
- Event Days Off allows you to select up to four specific dates to block watering
- Rainfall Shutdown suspends all irrigation if the measured rainfall exceeds a user set threshold
- Cold Weather Shutdown suspends all irrigation to prevent potential freeze damage
- Contractor Default™ allows the controller zone settings to be saved/restored
- Next Irrigation Estimate shows an estimated schedule up to three weeks in advance
- Weather Log holds historical weather data for 30 days
- Event Log by date or by zone
- Manual Watering allows immediate watering of a selected zone or all zones
- Enable or disable Master Valve by zone
- Advanced diagnostics and short circuit detection

#### Operating Specifications

- 2 Watering Windows per zone
- Fine Tune watering adjustment -60% to +60% by zone
- Programmable delay between zones (default set to 3 seconds)

#### Electrical Specification

- Input Required: 120VAC +/- 10%, 60 Hz
- Output: 25.5VAC 1A
- IP 24

- Valve/solenoid capacity (two 24VAC, 7VA solenoids plus a master valve)
- Nonvolatile memory saves programming
- 10 year life lithium battery maintains the controller's time and date
- Master Valve/Pump Start Relay:
  - Operating Voltage: 24VAC 50/60Hz
  - Max Coil Inrush: 11VA
  - Max Coil Holding: 5VA
- Idle/Off power draw 0.06 amps at 120VAC
- Certifications
  - WaterSense approved, meets EPA criteria for high-performing, water efficient products.
  - UL, cUL, FCC Part 15b

#### Dimensions

- Width: 10.7 in. (27.2 cm)
- Height: 7.7 in. (19.5 cm)
- Depth: 4.4 in. (11.2 cm)
- Mounting Bracket
  - Maximum reach: 7.0" (17.8 cm)

#### Models

- Control System Base Models (*includes ESP-SMTe controller & weather sensor*)
  - ESP4SMTEI – 4 station indoor\* - 120V
  - ESP4SMTE – 4 station outdoor\* -120V
- Upgrade Model (*includes ESP-SMTe controller panel & weather sensor*)
  - ESPSMTEUPG – Kit to Upgrade existing ESP-Modular or ESP-Me Controllers\*\*
- Modules
  - ESPSM3 – 3-station expansion module
  - ESPSM6 – 6 station expansion module

\* To expand up to 22 stations, use ESPSM3 or ESPSM6 modules – Station Expansion Modules  
\*\* Applies to ESP-M controllers manufactured after April, 2005

**Note:** All ESP-SMTe models come with a heavy-duty adjustable bracket and 25 feet of 18-2 UV-rated non-burial wire for connection between the controller panel and the weather sensor pod. Up to 200 feet of appropriate wire may be spliced to extend range.



ESP-SMTe Smart Modular Control System

## ESP-LX Basic Controller



The easiest to use commercial controller

### Features

- Two Languages, One Dial: English and Spanish are both on one simple dial making it easy to install and maintain
- Larger Station Count compared to competitive commercial controllers. The ESP-LX Basic base model has 12 stations and has capacity for 48 stations using 12-station modules
- Flexible features and modular options make the controller ideal for a wide variety of applications including large residential, light commercial, and large commercial irrigation systems
- ESP = Extra-Simple Programming user interface and large LCD display with softkey text labels
- Simple, Three-Step Programming can be done using minimal dial positions. Additional programming options can be accessed through the Basic Setup and Station Timing dial positions
- Water Management Features: SimulStations™ (Operate two stations simultaneously), Cycle+Soak™, Station Delay, Seasonal Adjust, Sensor & Master Valve Programmable by Station
- Contractor Default™ allows the user to create a customized default program that can be automatically recalled up to 90 days in the future. This allows a temporary schedule to be created for new seed or a fast fix
- Enhanced Diagnostic Feedback™ with RASTER™ Wiring Test with external alarm light and on-screen messaging alert the user of conditions that may disrupt controller operation
- ESP-LX Basic is not compatible with IQ NCC Cartridges

### Electrical Specifications

- Power Supply Voltage: 120 VAC ± 10%, 60Hz
- Output: 26.5 VAC 1.9A
- Power back-up: Lithium coin-cell battery maintains time and date while nonvolatile memory maintains the programming
- Multi-valve capacity: Maximum two 24 VAC, 7VA solenoid valve simultaneous operation including master valve

### Certifications

- UL, cUL, CE, CSA, C-Tick, FCC Part 15

### Controller Hardware

- Plastic, locking, UV resistant, wall-mount case
- Optional Metal/Stainless Steel Case & Pedestal
- 12-station base unit expandable to 48 stations with 12-Station Modules

### Dimensions

- Width: 14.32 in. (36.4 cm)
- Height: 12.69 in. (32.2 cm)
- Depth: 5.50 in. (14.0 cm)

### Models

- ESPLXBASIC: ESP-LX Basic 12 Station Controller, 120VAC
- ESPLXBFP: ESP-LX Basic Controller Front Panel
- LXBASEMOD: ESP-LX Series Base Module for LX Basic and non flow LXME
- ESPLXMSM8: 8-Station Module for ESP-LXME/F and ESP-LX Basic Controller
- ESPLXMSM12: 12-Station Module for ESP-LXME/F and ESP-LX Basic Controller

### Optional Accessories

- Painted Metal and Stainless Steel Pedestal/Enclosure Options available (see page 94)

**For more information call the ESP-LX Hotline: 1-866-544-1406**

**Note:** The ESP-LX Basic is not compatible with IQ NCC Communication Cartridges



ESP-LX Basic Controller

## ESP-LXME/F Controllers

Modular - Easily expandable from 8 or 12 stations up to 48 stations with 8- and 12-station modules

### Features

- Hot-swappable modules, no need to power down the controller to add/remove modules
- 8- or 12-stations base unit expandable to 48 stations with 8- and 12-Station Modules
- Flow Smart Module™ factory installed (ESP-LXMEF) or field upgradable (ESP-LXME)
- Dynamic station numbering eliminates station numbering gaps
- Master valve/pump start circuit
- Weather Sensor input with override switch
- 6 user-selectable languages
- Standard 10kV surge protection
- Non-Volatile (100-year) program memory
- Front panel is removable and programmable under battery power
- Compatible with Rain Bird Landscape Irrigation and Maintenance Remote
- Plastic, locking, UV resistant, wall-mount case, Optional Metal and Stainless Steel Case & Pedestal

### Water Management Features

- Optional Flow Smart Module™ with Learn Flow utility and flow usage totalizer — standard on ESP-LXMEF
- FloWatch™ protection for high and low flow conditions with user defined reactions (requires flow sensor)
- FloManager™ manages hydraulic demand, making full use of available water to shorten total watering time
- SimulStations™ are programmable to allow up to 5 stations to operate at the same time
- Station sequencing by station numbers or station priorities
- Water Windows by program plus Manual MV Water Window
- Cycle+Soak™ by station
- Rain Delay
- 365-Day Calendar Day Off
- Programmable Station Delay by program
- Normally Open or Closed Master Valve programmable by station
- Weather Sensor programmable by station to prevent or pause watering
- Program Seasonal Adjust
- Global Monthly Seasonal Adjust

### Operating Specifications

- Station run times: 0 min to 12 hrs
- Seasonal Adjust; 0% to 300% (16 hrs maximum station run time)
- 4 independent programs (ABCD)
- ABCD programs can overlap

- 8 start times per program
- Program Day Cycles include Custom days of the week, Odd, Odd31, Even, & Cyclical dates
- Manual station, program, test program

### Electrical Specifications

- Power Supply Voltage: 120 VAC ± 10%, 60Hz (International models: 230 VAC ± 10%, 50Hz; Australian models: 240 VAC ± 10%, 50Hz)
- Output: 26.5 VAC 1.9A
- Power back-up: Lithium coin-cell battery maintains time and date while nonvolatile memory maintains the programming
- Multi-valve capacity: Maximum five 24 VAC, 7VA solenoid valves simultaneous operation including the master valve, maximum two solenoid valves per station module
- Certifications: UL, cUL, CE, CSA, C-Tick, FCC Part 15

### Dimensions

- Width: 14.32 in. (36.4 cm)
- Height: 12.69 in. (32.2 cm)
- Depth: 5.50 in. (14.0 cm)

### Models

- ESP8LXME: 8-Station Controller, 120VAC
- ESP12LXMEF: 12-Station Controller with Flow Smart Module, 120VAC
- IESP8LXME: 8-Station Controller for International Market, 230VAC
- FSMLXME: Flow Smart Module for ESPLXME/F Controller
- ESPLXMSM8: 8-Station Module for ESP-LXME/F Controller
- ESPLXMSM12: 12-Station Module for ESP-LXME/F Controller
- ESPLXMEFP: ESPLXME Controller Front Panel Only

### Accessories

- Painted Metal and Stainless Steel Pedestal/Enclosure Options available (see page 94)
- IQ Communication Cartridge (see page 102)
- Rain Bird FS-Series Flow Sensors (see page 95)

**For more information call the ESP-LX Hotline: 1-866-544-1406**



ESP-LXME Controller

## ESP-LXD Decoder Controller

50 – 200 station capable Two-Wire Decoder  
Commercial Controller

### Controller Features

- 50-station capability standard expandable to 200 stations with optional ESPLXD-SM75 modules
- Four available sensor inputs (one wired plus up to three decoder-managed) with override switch
- Five flow sensors supported
- Supported decoders: FD-101TURF, FD-102TURF, FD-202TURF, FD-401TURF, FD-601TURF
- Supports SD-210TURF sensor decoders (flow sensing and weather sensor support) and LSP-1 line surge protectors (one per 500 feet of two-wire path required)
- Central Control capable with Rain Bird IQ Communications Cartridges and software (see pg. 102)
- Advanced Features From Cycle+Soak™ to Contractor Default Program™, the ESP-LXD offers innovative features proven to cut installation expenses, troubleshooting time and water use
- Program backup and barcode decoder address entry with the optional PBCLXD
- Six user-selectable languages
- Removable front panel is programmable under battery power
- Plastic, locking, UV resistant, wall-mount case, Optional Metal and Stainless Steel Case & Pedestal
- Compatible with Rain Bird Landscape Irrigation and Maintenance Remote - Flow Smart Module™ factory installed or field upgradable
- Plastic, locking, UV resistant, wall-mount case, Optional Metal and Stainless Steel Case & Pedestal

### Operating Specifications

- Station timing: 0 min to 12 hrs
- Program level and global Monthly Seasonal Adjust; 0% to 300% (16 hrs maximum station run time)
- 4 independent programs (ABCD); ABC programs stack, ABCD overlap
- 8 start times per program
- Program Day Cycles include Custom days of the week, Odd, Odd no 31st, Even, and Cyclical dates
- Manual station, program, test program
- Certifications: UL, CE, cUL, C-Tick

### Upgrade Options

- IQ-NCC Network Communication Cartridge
- ESP-LXD-SM75 75-station module
- PBCLXD Programming Backup Cartridge



ESP-LXD Decoder  
Controller



LXMMSSPED Shown  
with ESP-LXD in LXMMSS  
Stainless Steel Cabinet

## ESP-LXD Decoder Controller (cont.)

### Electrical Specifications

- Power Supply Voltage: 120 VAC ± 10%, 60Hz (International models: 230 VAC ± 10%, 50Hz; Australian Models: 240 VAC ± 10%, 50Hz)
- Power back-up: Lithium coin-cell battery maintains time and date while nonvolatile memory maintains the schedule
- Multi-valve station capacity: up to 2 solenoid valves per station; simultaneous operation of up to eight solenoids and/or master valves

### Dimensions (W x H x D)

- 14.32" x 12.69" x 5.50" (36.4 x 32.2 x 14.0 cm)

### Model

- ESP-LXD: 50-station, 120 VAC
- IESPLXD: 50-station for international markets, 230 VAC
- IESPLXDEU: 50-station for Europe, 230 VAC
- IESPLXDAU: 50-station for Australia, 240 VAC

### Accessories

- FD-TURF: two-wire decoders (see pg. 89)
- SD-210TURF: two-wire sensor decoder (see pg. 89)
- LSP1TURF: two-wire line surge protection (see pg. 89)
- DPU-210: two-wire decoder programming unit (see pg. 87)
- Painted Metal and Stainless Steel Pedestal/Enclosure Options available (see pg. 94)
- IQ-NCC: Network Communication Cartridge for ESP-LX Series Controllers (see page 102)
- See page 95 for information on Rain Bird FS-Series Flow Sensors

<sup>1</sup>FD-TURF decoders include peel-off barcode address labels

<sup>2</sup>Barcode scanning pen not included – sold separately; Unitech MS100NRCB00-SG recommended ([www.ute.com](http://www.ute.com))

For more information call the ESP-LX Hotline: 1-866-544-1406

## PBCLXD Programming Backup Cartridge for ESP-LXD

Provides program backup and restore and barcode scanning capability for the ESP-LXD controller (not compatible with ESP-LXME or ESP-LX Basic)

### Upgrade Kit Features

- Provides 8 full backups, including all programs, flow information and decoder addresses – allows you to easily archive 8 different controllers – restoring all information typically takes two minutes or less
- Snaps into the back of the ESP-LXD front panel; installs without tools; no additional enclosures or external wiring required
- Kit includes cable for interface to barcode scanning pen (pen not included) – allows you to quickly scan decoder addresses into the ESP-LXD controller during installation to save you time

### Model

- PBCLXD (works with all versions of the ESP-LXD controller)



PBCLXD Cartridge

## Pigtail

### Features

- 6-feet (1.8 m) long
- Three 16 gauge stranded conductor wires
- 90 degree molded plug type NEMA 5-15P
- Gray color

### Model

- PIGTAIL



PIGTAIL



## Controller Pedestals

Pedestals for ESP-LX Series, ESP-MC, ESP-SAT, ESP-SITE, and CCU

### Features

- Includes all necessary mounting bolts, nuts, and washers

### Specifications

- Material: Powder-coated steel and stainless steel
- Field wiring connection: In controller

### Dimensions

Model	Height	Width	Depth
• LXMM	12 <sup>7</sup> / <sub>8</sub> " (32.7 cm)	14 <sup>1</sup> / <sub>2</sub> " (36.8 cm)	7 <sup>3</sup> / <sub>4</sub> " (19.7 cm)
• LXMPED	28" (71.1 cm)	14 <sup>1</sup> / <sub>4</sub> " (36.2 cm)	7 <sup>1</sup> / <sub>4</sub> " (18.4 cm)
• LXMMSS	12 <sup>7</sup> / <sub>8</sub> " (32.7 cm)	14 <sup>1</sup> / <sub>2</sub> " (36.8 cm)	7 <sup>3</sup> / <sub>4</sub> " (19.7 cm)
• LXMMSSPED	28" (71.1 cm)	14 <sup>1</sup> / <sub>4</sub> " (36.2 cm)	7 <sup>1</sup> / <sub>4</sub> " (18.4 cm)

### Model

- LXMM: Metal Cabinet for ESP-LX Series Controllers\*
- LXMPED: Metal Pedestal for ESP-LX Series Controllers\*
- LXMMSS: Stainless Steel Metal Wall Mount Enclosure for ESP-LX Series Controllers
- LXMMSSPED: Stainless Steel Metal Pedestal for ESP-LX Series Controllers

\* **Note:** Metal cabinets and pedestals are not standard on ESP-LX Series controllers and must be purchased separately. LXMPED requires LXMM, and LXMMSSPED requires LXMMSS.



LXMMSSPED Shown with ESP-LXD in LXMMSS Stainless Steel Cabinet

## FD-TURF Two-Wire Decoders

SiteControl and ESP-LXD with Support for 1, 2, 4 or 6 Decoder Addresses

### Features

- Five different decoder options let you choose the precise amount of landscape irrigation control you need. Select different two-wire decoders to operate one, two, four, or six valves.
- Installed out of sight and protected from the elements and vandalism
- Enables advanced diagnostic and sensor features

### Specifications

- **Mounting:** In valve box (recommended) or direct burial

#### • Power Draw:

- FD-101TURF: 0.5 mA (idle) 18 mA (per active solenoid)
- FD-102TURF: 0.5 mA (idle) 18 mA (per active solenoid)
- FD-202TURF: 1 mA (idle) 18 mA (per active solenoid)
- FD-401TURF: 1 mA (idle) 18 mA (per active solenoid)
- FD-601TURF: 1 mA (idle) 18 mA (per active solenoid)

#### • Dimensions:

- FD-101TURF: Length: 2.77 in. (70 mm), Diameter: 1.5 in. (40 mm)
- FD-102TURF: Length: 3.35 in. (85 mm), Diameter: 1.77 in. (45 mm)
- FD-202TURF: Length: 3.35 in. (85 mm), Diameter: 1.97 in. (50 mm)
- FD-401TURF: Length: 3.94 in. (100 mm), Diameter: 2.56 in. (65 mm)
- FD-601TURF: Length: 3.94 in. (100 mm), Diameter: 2.56 in. (65 mm)

#### • Solenoids:

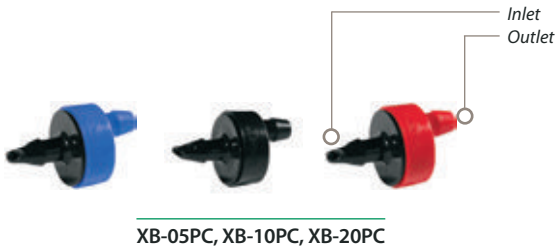
- FD-101TURF: 1 with individual control
- FD-102TURF: 1 or 2 simultaneously
- FD-202TURF: 1 to 4 simultaneously
- FD-401TURF: 1 to 4 with individual control
- FD-601TURF: 1 to 6 with individual control

#### • Wires:

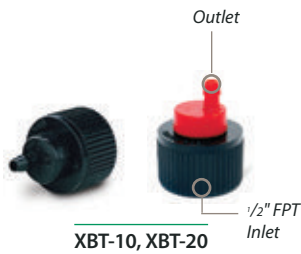
- FD-101TURF: Blue to cable, white to solenoid
- FD-102TURF: Blue to cable, white to solenoid
- FD-202TURF: Blue to cable, white and brown to solenoids
- FD-401TURF: Blue to cable, color-coded to solenoids
- FD-601TURF: Blue to cable, color-coded to solenoids



Decoders



1032-threaded models are specifically designed to be used with PolyFlex Risers, 1032 thread adapters (1032-A), or 1800 Xeri-Bubbler Adapter (XBA-1800)



## Xeriman™ Tool

### Features

- Provides fast, easy, one-step installation of Xeri-Bug™ emitters and PC Modules directly into 1/2" or 3/4" drip tubing, XF Dripline or Landscape Dripline
- Cuts emitter installation time
- All-in-one tool inserts emitters, removes emitters, inserts 1/4" barbed fittings and installs goof plugs

### Model

- XM-TOOL



One Step Xeri-Bug™ Insertion



Xeri-Bug™ Removal



Goof Plug Insertion



## Xeri-Bug™ Emitters

Point-Source Low-Flow Emitters for Watering the Root Zones of Plants, Trees, and Container Plants

### Features

- The only emitters with self-piercing barbs, making them the easiest to install using the Xeriman™ tool
- Widest selection of pressure-compensating emitters, with 3 flow rates and 3 inlet options
- Most compact and unobtrusive emitters
- Flow-rates of 0.5, 1.0 and 2.0 gph (1.89, 3.79 and 7.57 l/h)
  - Pressure-compensating design delivers uniform flow throughout a wide pressure range (15 to 50 psi; 1.0 to 3.5 bar)
- Available with 3 different inlets (1.0 and 2.0 models):
  - Self-piercing barb for quick, one-step insertion into 1/2" or 3/4" drip tubing
  - 10-32 threaded inlet that easily threads into a PolyFlex Riser (see page 124), 1032 Thread adapter (page 124) or 1800 Xeri-Bubbler Adapter (page 124)
  - 1/2" FPT inlet that easily threads onto a 1/2" PVC riser (1.0 and 2.0 gph models)
- Outlet barb securely retains 1/4" Distribution Tubing (XQ)
- Design makes installation and maintenance easy
  - Self-flushing action minimizes clogging
  - Robust design made from highly inert materials that are resistant to chemicals
  - Durable plastic construction is UV-resistant
- Color-coded to identify flow rate

### Operating Range

- Flow: 0.5 to 2.0 gph (1.89 to 7.57 l/h)
- Pressure: 15 to 50 psi (1.0 to 3.5 bar)
- Required filtration: 150 to 200 mesh (75 to 100 micron)

### Models: barb inlet x barb outlet

- XB-05PC: Blue, 0.5 gph (1.89 l/h)
- XB-10PC: Black, 1.0 gph (3.79 l/h)
- XB-20PC: Red, 2.0 gph (7.57 l/h)

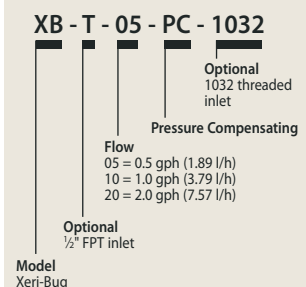
### Models: 10-32 thread inlet x barb outlet

- XB-05PC-1032: Blue, 0.5 gph (1.89 l/h)
- XB-10PC-1032: Black, 1.0 gph (3.79 l/h)
- XB-20PC-1032: Red, 2.0 gph (7.57 l/h)

### Models: 1/2" FPT inlet x barb outlet

- XBT-10: Black, 1.0 gph (3.79 l/h)
- XBT-20: Red, 2.0 gph (7.57 l/h)

### How To Specify



## Multi-Outlet Xeri-Bug™

### Features

- Pressure compensating design delivers uniform flow throughout a wide pressure range (15 to 50 psi; 1.0 to 3.5 bar)
- Six-outlet emitter supplied with one outlet opened. Simply clip the outlet tips open with snips or clippers for additional operational ports
- Barbed outlets retain ¼" Distribution Tubing (XQ)
- Self-flushing action minimizes clogging
- Durable, UV-resistant color-coded plastic housing

### Operating Range

- Flow: 0.5, 1.0 or 2.0 gph (1.89, 3.79 or 7.57 l/h)
- Pressure: 15 to 50 psi (1.0 to 3.5 bar)
- Filtration: 150-mesh (100-microns)

### Models: barb inlet x barb outlet

- XB-05-6: Blue, 0.5 gph (1.89 l/h)
- XB-10-6: Black, 1.0 gph (3.79 l/h)
- XB-20-6: Red, 2.0 gph (7.57 l/h)

### Models: ½" FPT inlet x barb outlet

- XBT-05-6: Blue, 0.5 gph (1.89 l/h)
- XBT-10-6: Black, 1.0 gph (3.79 l/h)
- XBT-20-6: Red, 2.0 gph (7.57 l/h)

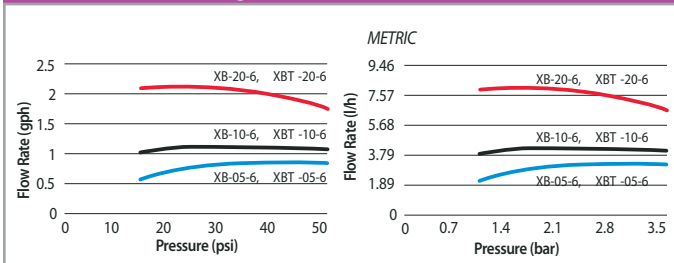


XB-05-6, XB-10-6, XB-20-6



XBT-05-6, XBT-10-6, XBT-20-6

### Multi-Outlet Xeri-Bug Emitter Performance



## 6 Outlet Manifold - EMT-6XERI

### Features

- ½" FPT inlet threads onto ½" riser and provides a manifold with six free-flowing ¼" barb outlets
- Each barb outlet is sealed with a durable plastic cap
- Plastic caps remove easily, allowing for a drip area that can be customized with up to six different emission devices
- Attach ¼" Distribution Tubing (XQ) onto each outlet for use with: Xeri-Bugs, PC Modules, Xeri-Pops, Xeri-Sprays, and Xeri-Bubblers

### Operating Range

- Pressure: 15 to 50 psi (1.0 to 3.5 bar)

### Model

- EMT-6XERI



EMT-6XERI

## ¼" Self-Piercing Barb Connector

### Features

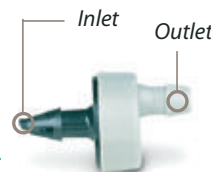
- Used to connect ¼" Distribution Tubing into ½" or ¾" distribution tubing
- Self-piercing barb inlet is easily inserted into ½" or ¾" distribution tubing using a Xeriman™ Tool (XM-Tool)
- Outlet barb accepts ¼" Distribution Tubing (XQ). Gray outlet barb indicates unit has unrestricted flow

### Operating Range

- Pressure: 0 to 50 psi (0 to 3.5 bar)

### Model

- SPB-025



SPB-025

## ½" FPT x Barb Grey Transfer Fitting

### Features

- Grey outlet to designate open flow
- ½" FPT inlet can be easily attached to a schedule 80 riser or the top of an 1800 Retro
- Barbed outlet so ¼" distribution tubing or ¼" drip tubing can be easily and securely attached

### Operating Range

- Pressure: 0 to 50 psi (0 to 3.5 bar)

### Model

- XT025



XT025

## Xeri-Bird™ 8-Outlet Emission Device

The Most Flexible and Feature-Rich Multi-Outlet Device on the Market, Ideal for New Projects and Retrofit Applications

### Features

- The only multi-outlet device on the market with 8 configurable ports and 10 flow options for each port for maximum flexibility
- XBD-80 and XBD-81 models each contain a built-in filter. Makes retro-fitting easy when installed with the optional in-stem pressure regulator (PRS-050 page 155)
- Easy to maintain, because body can be easily removed from riser
- Threads onto any 1/2" riser and delivers water to multiple locations for increased system flexibility
- Each port accepts a Xeri-Bug™ Emitter or PC Module for independent flows from 0.5 to 24 gph (1.89 to 90.84 l/h) or use a self-piercing barb connector (SPB-025) for unrestricted flow
- XBD-80 and XBD-81 models each feature an integral 200 mesh (75 micron) filter which is easily serviceable from the top of the unit
- Eight bottom-mounted, sure-grip barbed outlets securely retain 1/4" Distribution Tubing (XQ)
- Unique union base nut allows removal of Xeri-Bird 8 body from riser for easy installation and maintenance
- Emitters must be installed inside the Xeri-Bird to prevent excess back pressure

### Operating Range

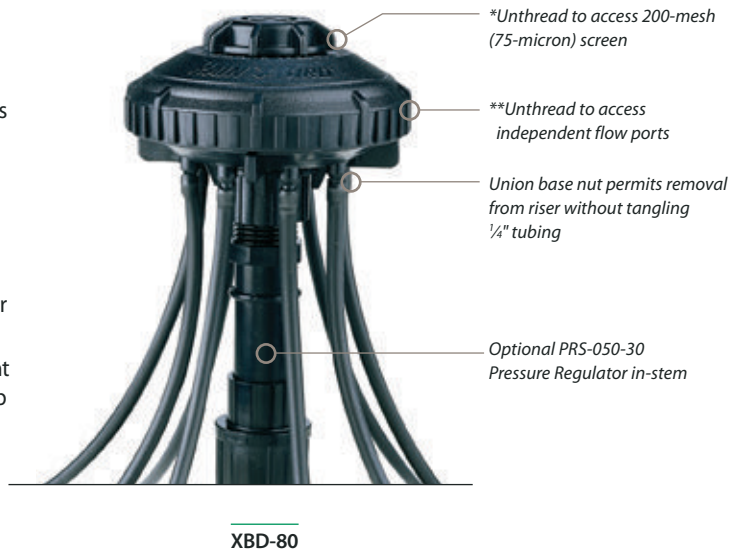
- Flow: 0 to 24 gph (0 to 90.84 l/h) per outlet
- Pressure: 15 to 50 psi (1.0 to 3.5 bar)

### Models

- XBD-80: Xeri-Bird 8 unit (includes 7 removable port plugs and filter)
- XBD-81: Xeri-Bird 8 unit (includes eight 1 gph (3.79 l/h) Xeri-Bug emitters factory installed, and filter)

### Replacement Parts:

- XBD8SCRN: replacement screen and two o-rings



Each port can be configured on the Xeri-Bird™ by installing flow controlled emitters. Above shows a combination of 0.5, 1.0, and 2.0 gph Xeri-Bug emitters.



**Helpful Hint:** Always install emitters with the pointed end (inlet barb) or threaded end up, as shown

\* Must be installed second  
\*\*Must be installed first

## Xeri-Pop™ Micro-Spray

The Xeri-Pop™ Micro-Spray Makes It Easy to Integrate a Durable Micro-Spray into a Low-Volume Irrigation Design

### Features

- The only pop-up spray that works in low-volume low-pressure application, and this is the perfect solution to vandal-prone areas
- Xeri-Pops can be installed and located in nearly any location and are ideal for small, odd-shaped planting beds; the 12" version is perfect for annual flower beds
- Xeri-Pops work with Rain Bird 5' and 8' MPR nozzles and SQ Series Nozzles — nozzles with square spray patterns and adjustable throws of 2.5' and 4'
- The Xeri-Pop can operate with 20 to 50 psi base pressure when water is supplied via 1/4" Distribution Tubing (XQ)
- The flexibility of 1/4" tubing allows the Xeri-Pop to be easily located and relocated as planting conditions dictate
- A durable, plastic snap-collar (on 4" and 6" models) secures the 1/4" tubing to the outside of the Xeri-Pop case
- The Xeri-Pop's 1/4" Distribution Tubing can readily connect to 1/2" or 3/4" polyethylene tubing or to a multi-outlet manifold (EMT-6XERI). Connections to polyethylene tubing are accomplished with either an SPB-025 1/4" Self-piercing barb Connector or an XBF1CONN 1/4" barb Connector
- External parts are UV-resistant and available in 4", 6" and 12" pop up heights

### Operating Range

- Pressure: 20 to 50 psi (1.4 to 3.5 bar)
- Filtration: Depends on nozzle used with Xeri-Pop

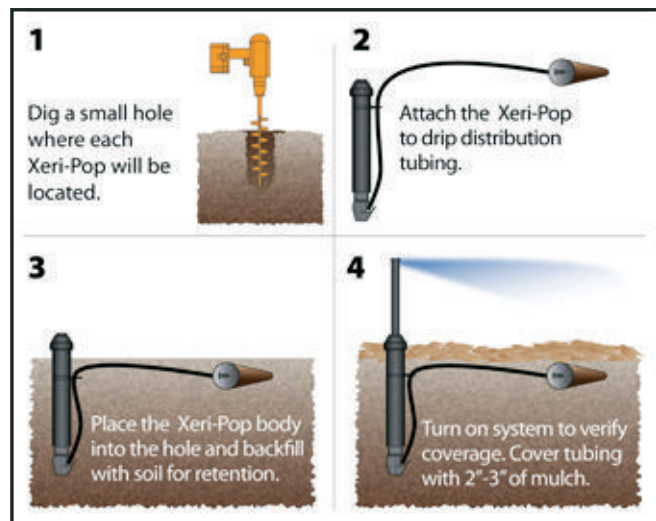
### Models

- XP-400X: 4-inch pop-up
- XP-600X: 6-inch pop-up
- XP-1200X: 12-inch pop-up

### Nozzle Options

- SQ Series Nozzles (page 118)
- 5 Series MPR Nozzle (all configurations)
- 5 Series Plastic Bubbler
- 8 Series MPR Nozzle (8H, 8T and 8Q)

### Installing the Xeri-Pop in 4 Easy Steps



### How To Specify

**XP - 600X**

Model  
Xeri-Pop

Pop-Up Height  
400X = 4" Pop-up  
600X = 6" Pop-up  
1200X = 12" Pop-up

Always install a PCS-010, -020, 030, or -040 Pressure-Compensating Screen whenever a 5B Bubbler Nozzle is installed on a Xeri-Pop.

XP-400X



XP-600X

1/4" distribution tube snap collar

1/4" distribution tube inlet



XP-1200X

