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Importers of complete water management equipments



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IRRIGATION DESIGNERS & SUPPLIERS



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**AQVA STAR**

**XeriTech**  
Conserve water, Conserve life ....

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Website : [www.shiva-kaveri.com](http://www.shiva-kaveri.com)



## Landscape Irrigation Products Catalog



The Intelligent Use of Water.™

## SPARY SPRINKLERS & SPRAY NOZZLES

### UNI - Spray Series

Compact and reliable spray heads for any application

#### Features

- ❖ Small exposed cover makes the unit virtually invisible for more attractive landscapes
- ❖ Constructed of durable materials including corrosion resistant stainless steel, assuring long product life even in high pressure or surge conditions
- ❖ Pressure-activated wiper seal prevents excessive flow-by and water waste and keeps debris from entering upon retraction
- ❖ Two-piece ratchet mechanism allows easy nozzle pattern alignment and provides added durability
- ❖ Three Year Trade Warranty

#### Operating Range (for pre-installed nozzle choices)

- ❖ Spacing:
  - 8' HE-VAN Series: 6 to 8 feet (1.8 to 2.4m)
  - 10' HE-VAN Series: 8 to 10 feet (2.4 to 3.0m)
  - 12' HE-VAN Series: 9 to 12 feet (2.7 to 3.7m)
  - 15' HE-VAN Series: 12 to 15 feet (3.7 to 4.6m)
- ❖ Pressure: 15 to 70 psi (1.0 to 4.8 bar)
- ❖ Optimum pressure: 30 psi (2.1 bar)
- ❖ Adjustable nozzle arc range: 0° - 360°

#### Specifications

- ❖ Flow-by: 0 at 10 psi (0.75 bar) or greater; 0.20 gpm (0.04 m<sup>3</sup>/h; 0.60 l/m) otherwise

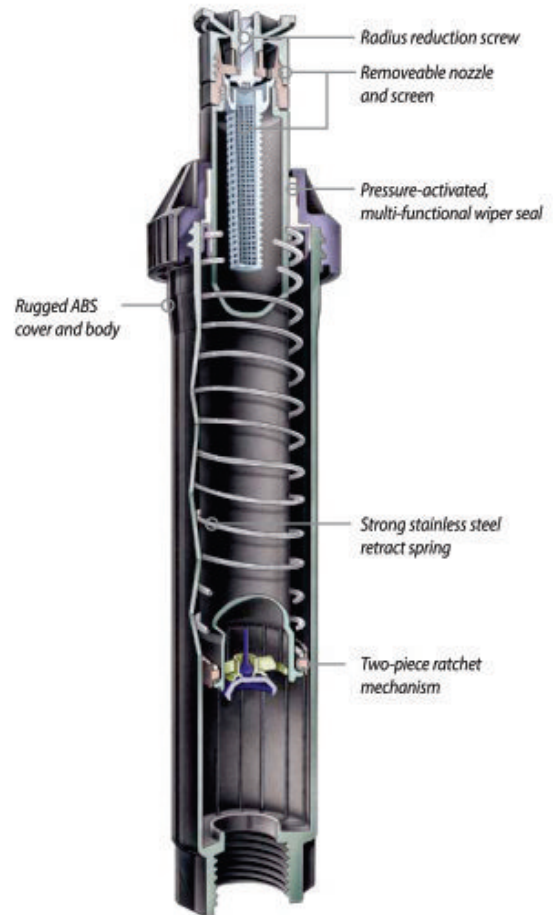
#### Models\*

- ❖ US400: 4" pop-up height (10.2cm)

#### Models with High-Efficiency Nozzles Pre-Attached\*

- ❖ US408HE: 4" pop-up height (10.2cm) with HE-VAN-08 attached
- ❖ US410HE: 4" pop-up height (10.2cm) with HE-VAN-10 attached
- ❖ US412HE: 4" pop-up height (10.2cm) with HE-VAN-12 attached
- ❖ US415HE: 4" pop-up height (10.2cm) with HE-VAN-15 attached

\* The UNI-Spray accepts all Rain Bird nozzles



**High Efficiency Variable Arc Nozzles**  
(8, 10, 12, or 15 feet) are available pre-installed



UNI-Spray

#### How to Specify

**US - 4 - 10HE**

Model  
UNI-Spray

Body  
4" (10.2 cm)

Nozzle Series/Pattern  
HE-VAN nozzle

## 1800 Series

The #1 irrigation spray head in the world

### Features

- ❖ Co-molded wiper seal provides unmatched resistance to grit, pressure and the environment
- ❖ Constructed of time-proven UV-resistant plastic and corrosion resistant stainless steel parts, ensuring long product life
- ❖ Precision controlled flush at pop-down clears debris from unit, assuring positive stem retraction in all soil types
- ❖ Two-piece ratchet mechanism allows easy nozzle pattern alignment and provides added durability
- ❖ Five Year Trade Warranty

### Operating Range

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

### Specifications

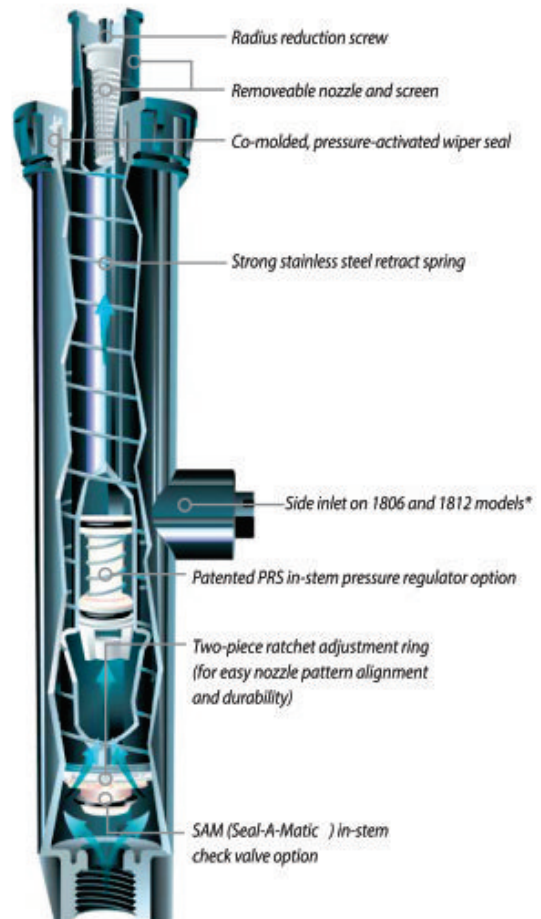
- ❖ Flow-by: 0 gpm at 8 psi (0.6 bar) or greater; 0.10 gpm (0.02 m<sup>3</sup>/h; 0.36 l/m) otherwise

### Dimensions/Models

- ❖ ½" NPT female threaded inlet
- Models and height:
  - 1802: 4" (10.2 cm) body height; 2" pop-up height (5.1 cm)
  - 1804: 6" (15.2 cm) body height; 4" pop-up height (10.2 cm)
  - 1806: 9 ¾" (23.8 cm) body height; 6" pop-up height (15.2 cm)
  - 1812: 16" (40.6 cm) body height; 12" pop-up height (30.5 cm)
- ❖ Exposed surface diameter: 2¼" (5.7 cm)

\* 1806 and 1812-SAM, SAMPRS, and SAM-PRS-45 units do not have a side inlet

\*\* 2.5 to 15 feet with standard Rain Bird Spray Head Nozzles (SQ, U-Series, HE-VAN) 8 to 24 feet with Rain Bird Rotary Nozzles (R-VAN)



1800 Series



### How to Specify

#### 1804 SAM-PRS

##### Option

SAM: Seal-A-Matic™ check valve  
 PRS: Pressure regulator (30psi)  
 P45: Pressure regulator (45psi)

##### Pop-up Height

1802: 2" pop-up height (5.1 cm)  
 1804: 4" pop-up height (10.2 cm)  
 1806: 6" pop-up height (15.2 cm)  
 1812: 12" pop-up height (30.5 cm)

##### Model

1800 Series Spray Bodies

## Spray Accessories

### 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



### 1800<sup>®</sup>-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



### PA-8S-PRS & PA-8S-P45

30 psi and 45 psi Pressure Regulating Shrub Adapters

#### 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 pressure at 30 psi (2,1 bar) or 45 psi (3,1 bar)
  - ❖ 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" female inlet threads
- ❖ Fine top threads accept all Rain Bird nozzles
- ❖ Height: 5 1/4" (13.3 cm)

#### Models

- ❖ PA-8S-PRS
- ❖ PA-8S-P45



### 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





### 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 Birds 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		HE-VAN	U-Series	VAN	MPR
Adjustable Arc (45° - 270°)	Full Circle (360°)	Adjustable Arc	Fixed Arc	Adjustable Arc	Fixed Arc

## R-VAN Nozzles

High Efficiency, Multi-Stream

Rain Bird® R-VAN Adjustable Rotary Nozzles save more water, are easier to use, and are lower priced compared to leading rotating nozzles. R-VANs thick streams and large water droplets cut through the wind to deliver water where you want it. R-VANs are easier to use thanks to its hand-adjustable arc and radius.

### Features

- ❖ Matched precipitation across radius, arcs, and pattern types
- ❖ Low precipitation rate reduces run-off and erosion
- ❖ Adjust arc and radius without tools
- ❖ A pull-up to flush feature clears the nozzle of dirt and debris
- ❖ Maintains efficient performance at high operating pressures without misting or fogging
- ❖ Compatible with all models of Rain Bird spray bodies, risers and adapters
- ❖ Installing with Rain Bird 5000 MPR Series Rotors allows for matched precipitation from 8 to 35 (2.4m to 10.7m)
- ❖ Three year trade warranty

### Operating Specifications

- ❖ Pressure Range: 30 to 55 psi (2.1 to 3.8 bar)
- ❖ Recommended Operating Pressure: 45 psi (3.1 bar)
- ❖ Spacing: 8' to 24' (2.4 to 7.3m)
- ❖ Adjustments: Arc and radius should be adjusted while water is running

### Models

#### 8 - 14 (2.4 to 4.6m)

- ❖ R-VAN14: 45° - 270° Adjustable Arc
- ❖ R-VAN14-360: 360° Full Circle

#### 13 - 18 (4.0 to 5.5m)

- ❖ R-VAN18: 45° - 270° Adjustable Arc
- ❖ R-VAN18-360: 360° Full Circle

#### 17 - 24 (5.2 to 7.3m)

- ❖ R-VAN24: 45° - 270° Adjustable Arc
- ❖ R-VAN24-360: 360° Full Circle

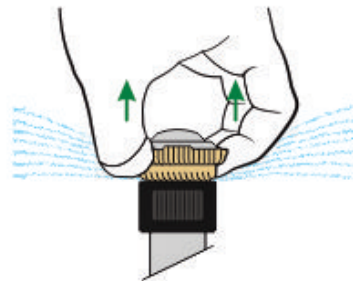
### Strip Nozzles

- ❖ R-VAN-LCS: 5 x 15 (1.5 x 4.6m) Left Corner Strip
- ❖ R-VAN-RCS: 5 x 15 (1.5 x 4.6m) Right Corner Strip
- ❖ R-VAN-SST: 5 x 30 (1.5 x 9.1m) Side Strip

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



R-VAN Nozzles



Pull Up HARD to Flush

For Optimum Performance, Use Rain Bird 1800 45 PSI Regulated or RD1800 45 PSI Regulated Spray Bodies



### How to Specify

#### R-VAN 18-360

##### Radius Range

8 - 14 (2.4 to 4.6m)

R-VAN14: 45° - 270°

R-VAN14-360: 360°

13 - 18 (4.0 to 5.5m)

R-VAN18: 45° - 270°

R-VAN18-360: 360°

17 - 24 (5.2 to 7.3m)

R-VAN24: 45° - 270°

R-VAN24-360: 360°

##### Strip Nozzles

R-VAN-LCS: 5 x 15 (1.5 x 4.6m)

R-VAN-RCS: 5 x 15 (1.5 x 4.6m)

R-VAN-SST: 5 x 30 (1.5 x 9.1m)

##### Model

R-VAN Adjustable Rotary Nozzle



### 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	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 MWS10 go to: [www.rainbird.com/agency/travelo](http://www.rainbird.com/agency/travelo)

## HE-VAN Series Nozzles

High-Efficiency Variable Arc Spray Nozzles

### Features

- ❖ HE-VANs 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)



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

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

For Optimum Performance, Use Rain Bird 1800 30 PSI Regulated or RD1800 30 PSI Regulated Spray Bodies



## 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)
- ❖ 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



## 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 screwdriver
- ❖ 3 year trade warranty

### Options

- ❖ SAM Seal-A-Matic check valve holds up to 7 ft (2.1 m) of elevation change

### 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°
- ❖ Nozzle trajectory of 25°

### Models

- ❖ 3504-PC: 4" part/reverse full circle
- ❖ 3504-PC-SAM: 4" part/reverse full circle with SAM



0.37 to 0.83 in/hr  
(9 to 21 mm/h)

25 to 55 psi  
(1.7 to 3.8 bar)

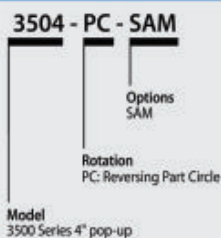
0.54 to 4.6 gpm  
(2.0 to 17.4 l/m)  
(0.12 to 1.04 m³/h)

4" (10.2 cm)  
 4": 6 5/8" (16.8 cm)  
 ½" NPT



Superior Distribution Uniformity

### How to Specify



### 3500 Series Rotors 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)
3500	Rotors	15 - 35 ft.	> 0.75

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 MVELD go to: [www.rainbird.com/agency/california/MVELD.htm](http://www.rainbird.com/agency/california/MVELD.htm)

## 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



0.20 to 1.50 in/hr  
(5 to 37 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 m³/h)

Shrub: 4" (10.2 cm)  
6" (15.2 cm)  
12" (30.5 cm)  
 Shrub: 7 3/4" (19.7 cm)  
4": 7 1/4" (18.5 cm)  
6": 9 3/8" (24.5 cm)  
12": 16 7/8" (42.9 cm)  
 3/4" NPT

### Operating Specifications

- ❖ Precipitation rate: 0.20 to 1.50 in/hr (5 to 38 mm/h)
- ❖ Radius: 25 to 50 feet (7.6 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)
- ❖ Reversing full- and part-circle adjustment from 40° - 360°
- ❖ Standard nozzle trajectory of 25°. Low angle nozzle trajectory of 10°.
- ❖ MPR nozzles varied nozzle trajectory between 12° - 25°.

- S** Shrub Model      **PC** Part Circle & Reversing Full Circle  
**+** Flow Shut-off      **FC** Non-Reversing Full Circle

### Models

Part-circle units (PC) are adjustable from 40° - 360°. Full-circle units (FC) are 360 degrees only.

- 5000SPCSAM: 5000S Shrub Part Circle SAM
- 5000+SPCSAM: 5000S Shrub Plus Part Circle SAM
- 5000+SPCSAMNP: 5000S Shrub Plus Part Circle SAM Non Potable
- 5000+SPCSAMR: 5000S Shrub Plus PRS Part Circle SAM
- 5000+SPCSAMRN: 5000S Shrub Plus PRS Part Circle SAM Non Potable
- 5004PC: 5004 Part Circle
- 5004PC20: 5004 Part Circle w/2.0 Nozzle
- 5004PC30: 5004 Part Circle w/3.0 Nozzle
- 5004PCSAM: 5004 Part Circle SAM
- 5004PCSAM20: 5004 Part Circle SAM w/2.0 Nozzle
- 5004PCNP: 5004 Part Circle Non Potable
- 5004PCR: 5004 Part Circle PRS
- 5004+PC: 5004 Plus Part Circle
- 5004+PC20: 5004 Plus Part Circle w/2.0 Nozzle
- 5004+PC30: 5004 Plus Part Circle w/3.0 Nozzle
- 5004+PCSAM: 5004 Plus Part Circle SAM
- 5004+PCR 5004: Plus Part Circle PRS
- 5004+PCSAMR: 5004 Plus Part Circle SAM PRS
- 5004+PCSAMR20: 5004 Plus Part Circle SAM PRS w/2.0 Nozzle
- 5004+PCSAMR30: 5004 Plus Part Circle SAM PRS w/3.0 Nozzle
- 5004+PCSAMRNP: 5004 Plus Part Circle SAM PRS Non Potable
- 5004+PCSAMRSS: 5004 Plus Part Circle SAM PRS Stainless Steel
- 5004+PCSAMRNS: 5004 Plus Part Circle SAM PRS Stainless Steel Non Potable
- 5004FC 5004: Full Circle

### Optional Features

- ❖ **Plus (+) 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 holds up to 7 feet (2.1 m) of elevation change
- ❖ **Stainless steel (SS) riser** helps deter vandalism on public turf areas (available on 4 and 6" models)
- ❖ **Purple cover (NP)** for non-potable systems

- SAM** Check valve      **SS** Stainless Steel  
**R** Pressure Regulation      **NP** Non-Potable Cover

- 5004+FC 5004: Plus Full Circle
- 5004+FCSAM: 5004 Plus Full Circle SAM
- 5004+FCSAMR: 5004 Plus Full Circle SAM PRS
- 5004+FCSAMRSS: 5004 Plus Full Circle Stainless Steel SAM PRS
- 5006PC: 5006 Part Circle
- 5006PC30: 5006 Part Circle w/ 3.0 Nozzle
- 5006+PC: 5006 Plus Part Circle
- 5006+PCSAM: 5006 Plus Part Circle SAM
- 5006+PCSAMNP: 5006 Plus Part Circle SAM Non Potable
- 5006+PCSAMR: 5006 Plus Part Circle SAM PRS
- 5006+PCSAMRNP: 5006 Plus Part Circle SAM PRS Non Potable
- 5006+PCSAMRSS: 5006 Plus Part Circle SAM PRS Stainless Steel
- 5006+PCSAMRNS: 5006 Plus Part Circle SAM PRS Stainless Steel Non Potable
- 5012+PCSAMR: 5012 Plus Part Circle SAM PRS
- 5012+PCSAMRNP: 5012 Plus Part Circle SAM PRS Non Potable

### 5000 Series Rotors meet the requirements of the ASABE/ICC 802-2014 standard

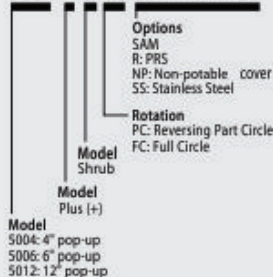
The average DU(LQ) of the applicable products exceed 0.65 distribution uniformity.

Product	Type	Radius	DU(LQ)
5000 Series	Rotors	25 - 50 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 MWSD go to: [www.rainbird.com/agency/california/MWSD.htm](http://www.rainbird.com/agency/california/MWSD.htm)

### How to Specify

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



Note: Certain specifications not available for some rotor series.



## 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
- ❖ 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

### Operating Specifications

- ❖ Reversing full- and part-circle adjustment from 40-360°
- ❖ Precipitation rate: 0.37 to 1.26 inches per hour (9 to 33 mm/h)
- ❖ Radius: 37 to 65 feet (11.3 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" female NPT or BSP threaded inlet
- ❖ SAM Seal-A-Matic check valve holds up to 10 feet (3.1 m) of elevation change
- ❖ Rain Curtain Nozzles: Included with rotor, other sizes available upon request; 10-grey, 12-beige, 14-light green, 16-dark brown, 18-dark blue  
Nozzle outlet trajectory is 25°



Falcon® 6504 Series

0.37 to 1.31 in/hr  
(9 - 33 mm/h)

30 to 90 psi  
(2.1 to 6.2 bar)

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" NPT or BSP

### 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-NP: Full-circle, stainless steel, non-potable cover
- ❖ 6504-PC-SS-NP: Part-circle, stainless steel, non-potable cover



## 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  
Optional Sod Cup

### Models

- ❖ 8005: 1" NPT female threaded inlet
- ❖ 8005-NP: 1" NPT female threaded inlet; non-potable cover
- ❖ 8005-SS: 1" NPT female threaded inlet; stainless steel
- ❖ 8005-NP-SS: 1" NPT female threaded inlet; stainless steel and non-potable cover



8005 Series

0.48 to 1.28 in/hr  
(12 - 32 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)

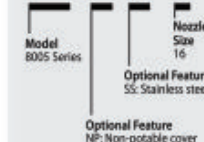
5" (12.7 cm)  
10¼" (25.7 cm)  
1" NPT or BSP

### 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" NPT or BSP female threaded inlet
- ❖ SAM Seal-A-Matic check valve holds up to 10 feet (3.1 m) of elevation change
- ❖ Nozzle outlet trajectory is 25°
- ❖ Rain Curtain Nozzles: Included with rotor, other sizes available upon request; 10-grey, 12-beige, 14-light green, 16-dark brown, 18-dark blue

### How to Specify

**8005 - NP - SS - 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 1/2" or 3/4" 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 m<sup>3</sup>/h; 0.09 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 1/2" or 3/4" female bottom inlet (Maxi-Paw)
- ❖ 1/2" FPT side inlet (Maxi-Paw)
- ❖ 1/2" NPT Riser-Mounted (Maxi-Bird)

### Models

- ❖ 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



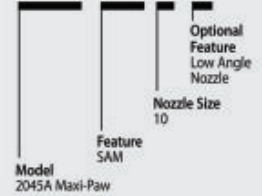
42064 Maxi-Paw Wrench



2045-PJ Maxi-Bird

### How to Specify

2045A-SAM-10-LA



## XLR Series Water Jets

The World's Most Advanced Long-Range Rotor

### Features

- ❖ Constant speed independent of operating pressure and flow rate
- ❖ Water deflector distributes water uniformly for entire throw distance
- ❖ Barrel and nozzle design optimized to maximize throw
- ❖ Nozzle is 54% larger than competition
- ❖ Innovative material selection maximize efficiency of movement
- ❖ Full- and part-circle (20-340°) in one unit
- ❖ Adjustable trajectory model provides ultimate in adaptability
- ❖ 5 nozzle options (sold separately)
- ❖ Only 2 field serviceable components built to last reliably
- ❖ One-year trade warranty

### Operating Specifications

- ❖ Radius: 81 to 202 feet (25 - 62 m)
- ❖ Pressure: 30 to 120 psi (2.1 to 8.3 bar)
- ❖ Flow: 35 to 379 gpm (7.9 to 86.1 m<sup>3</sup>/h)
- ❖ Inlet: 2 NPT, 2 BSP or 2 flange
- ❖ Nozzle trajectory: 24° fixed or adjustable (15° to 45°)
- ❖ Nozzles (sold separately):
  - 0.47 (12 mm)
  - 0.63 (16 mm)
  - 0.79 (20 mm)
  - 0.94 (24 mm)
  - 1.10 (28 mm)

### Options

- ❖ Optional Jet-Breaker for improved distribution uniformity
- ❖ Inlet adapter kits available in flange, NPT and BSP configurations to convert existing inlet

### Models

- ❖ ICLR24: 24° fixed trajectory with flange inlet
- ❖ ICLRADJ: Adjustable trajectory (15-45°) with flange inlet
- ❖ XLR24NPT: 24° fixed trajectory with NPT inlet
- ❖ XLRADJNPT: Adjustable trajectory (15-45°) with NPT inlet
- ❖ XLR24BSP: 24° fixed trajectory with BSP inlet
- ❖ XLRADJBSP: Adjustable trajectory (15-45°) with BSP inlet



XLR24



XLRADJ



## 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 50/60 Hz  
Holding current: 0.091A at 50/60 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

### HV Valve Pressure Loss (bar)

METRIC

Flow m <sup>3</sup> /h	l/m	1" HV bar	1" HV-MB bar
0.25	4.17	0.11	0.12
0.75	12.50	0.14	0.14
1.00	16.67	0.16	0.16
2.00	33.34	0.23	0.19
5.00	83.35	0.32	0.31
7.50	125.03	0.42	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" NPT female x female\*
- ❖ 100-HV-SS: 1" slip x slip
- ❖ 100-HV-MB: 1" male x barb
- ❖ 100-HVF-SS: 1" slip x slip

\* Available with BSP threads. Also available with 9V DC Latching Solenoid.

### 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 2-wire decoder systems like ESP-LXD.

## 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

### 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

### Specifications

- ❖ Pressure: 15 to 150 psi (1.04 to 10.4 bar)
- ❖ Flow without PRS-D option: 2 to 150 gpm (0.45 to 34.05 m<sup>3</sup>/h; 7.8 to 568 l/m)
- ❖ Flow with PRS-D option: 5 to 150 gpm (1.14 to 34.05 m<sup>3</sup>/h; 19.2 to 568 l/m)
- ❖ Water temperature: Up to 110° F (43° C)
- ❖ Ambient temperature: Up to 125° F (52° C)
- ❖ 24VAC 50/60Hz (cycles/sec) solenoid power requirement
- ❖ Inrush current: 0.41A (9.9VA) at 50/60Hz
- ❖ Holding current: 0.14A (3.43VA) at 50/60Hz
- ❖ Solenoid coil resistance: 30-39 Ohms, nominal

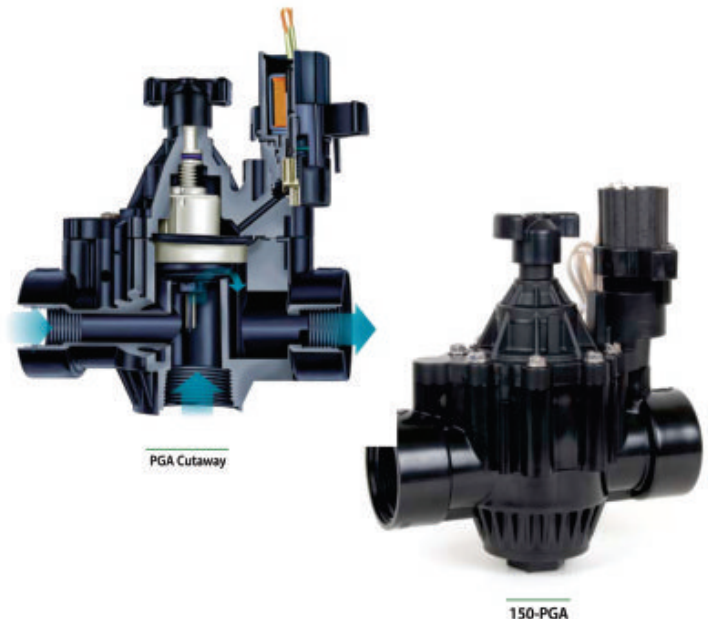
### Dimensions

Model	Height	Length	Width
❖100-PGA	7 ¼" (18.4 cm)	5 ½" (14.0 cm)	3 ¼" (8.3 cm)
❖150-PGA	8" (20.3 cm)	6 ¾" (17.2 cm)	3 ½" (8.9 cm)
❖200-PGA	10" (25.4 cm)	7 ¾" (19.7 cm)	5" (12.7 cm)

### Models

- ❖100-PGA: 1" NPT
- ❖150-PGA: 1 ½" NPT
- ❖200-PGA: 2" NPT

*BSP threads available; specify when ordering*



### 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 valves 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 ½ times to 1.

### PGA Series Valve Pressure Loss (bar)

Flow m <sup>3</sup> /h	Flow l/m	100-PGA Globe 2.5cm	100-PGA Angle 2.5cm	150-PGA Globe 3.8cm	150-PGA Angle 3.8cm	200-PGA Globe 5.1cm	200-PGA Angle 5.1cm
0.5	7.6	0.35	0.30	-	-	-	-
1.2	20	0.38	0.35	-	-	-	-
3	50	0.41	0.38	-	-	-	-
6	100	0.43	0.38	0.10	0.07	-	-
9	150	0.48	0.51	0.22	0.14	0.08	0.07
12	200	-	-	0.38	0.23	0.12	0.07
15	250	-	-	0.61	0.36	0.17	0.10
18	300	-	-	0.86	0.51	0.24	0.13
21	350	-	-	1.16	0.70	0.33	0.18
24	400	-	-	-	-	0.43	0.23
27	450	-	-	-	-	0.54	0.30
30	500	-	-	-	-	0.66	0.36
34	568	-	-	-	-	0.83	0.45

## PGA-IVM Series

Plastic Globe and Angle Valves. The Toughest, Most Reliable Valves In their Class. Now available with the Integrated Valve Module "smart solenoid" (IVM-SOL) preinstalled

### Features

- ❖ **Best in-Class valves** : With industry-leading reliability and performance, the Rain Bird PGA Series of commercial valves are now even better with preinstalled IVM-SOL
- ❖ **Next Generation Two-Wire System** : The ESP-LXIVM Two-Wire Controller is the next leap forwardsimplifying installation, improving reliability and enabling more troubleshooting features that save time
- ❖ **Performance and Reliability** : With 50% fewer connections, an IVM Smart Valve is already 200% more reliable out of the box versus using a valve and decoder
- ❖ Globe and angle configuration for flexibility in design and installation
- ❖ PVC and glass reinforced nylon construction
- ❖ Filtered pilot flow to resist debris and clogging of solenoid ports
- ❖ Slow closing to prevent water hammer and subsequent system damage
- ❖ Manual internal bleed operates the valve without allowing water into the valve box
- ❖ One-piece solenoid design with captured plunger and spring for easy servicing prevents loss of parts during field service
- ❖ Non-rising flow control handle adjusts water flows as needed
- ❖ Normally closed, forward flow design

### PGA-IVM Series (cont.)

#### Options

- ❖ Accommodates optional, field installed PRS-D pressure regulating module to ensure optimum sprinkler performance. Regulates up to 100 psi (6.9 bar)

#### Specifications

- ❖ Pressure: 15 to 150 psi (1.04 to 10.4 bar)
- ❖ Flow without PRS-D option: 2 to 150 gpm (0.45 to 34.05 m<sup>3</sup>/h; 7.8 to 568 l/m)
- ❖ Flow with PRS-D option: 5 to 150 gpm (1.14 to 34.05 m<sup>3</sup>/h; 19.2 to 568 l/m)
- ❖ Water temperature: Up to 110° F (43° C)
- ❖ Ambient temperature: Up to 125° F (52° C)
- ❖ 26.5 Vrms 50/60 Hz (cycles/sec) power requirement
- ❖ Inrush current: <40mA (Peak)
- ❖ Quiescent current: <0.4mA (ave.)
- ❖ Voltage range: 15.6 - 29.2 Vrms
- ❖ Compatible with LXIVM controllers

#### Dimensions

Model	Height	Length	Width
❖IVM100PGA	7 ¼" (18.4 cm)	5 ½" (14.0 cm)	3 ¼" (8.3 cm)
❖IVM150PGA	8" (20.3 cm)	6 ¾" (17.2 cm)	3 ½" (8.9 cm)
❖IVM200PGA	10" (25.4 cm)	7 ¾" (19.7 cm)	5" (12.7 cm)

#### Models

- ❖IVM100PGA: 1" Valve with IVM-SOL
- ❖IVM150PGA: 1.5" Valve with IVM-SOL
- ❖IVM200PGA: 2" Valve with IVM-SOL

BSP threads available; specify when ordering



IVM150PGA



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.



The PGA valves 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 ½ times to 1.

#### PGA-IVM Series Valve Pressure Loss (bar)

Flow m <sup>3</sup> /h	Flow l/m	IVM100		IVM150		IVM200	
		PGA Globe 2.5cm	PGA Angle 2.5cm	PGA Globe 3.8cm	PGA Angle 3.8cm	PGA Globe 5.1cm	PGA Angle 5.1cm
0.5	7.6	0.35	0.30	-	-	-	-
1.2	20	0.38	0.35	-	-	-	-
3	50	0.41	0.38	-	-	-	-
6	100	0.43	0.38	0.10	0.07	-	-
9	150	0.48	0.51	0.22	0.14	0.08	0.07
12	200	-	-	0.38	0.23	0.12	0.07
15	250	-	-	0.61	0.36	0.17	0.10
18	300	-	-	0.86	0.51	0.24	0.13
21	350	-	-	1.16	0.70	0.33	0.18
24	400	-	-	-	-	0.43	0.23
27	450	-	-	-	-	0.54	0.30
30	500	-	-	-	-	0.66	0.36
34	568	-	-	-	-	0.83	0.45

## 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 300 GPM (0.06 to 68 m<sup>3</sup>/h; 0.02 to 18.9 l/s)
- ❖ Flow with PRS-D option: 5 to 300 GPM (1.14 to 68 m<sup>3</sup>/h; 0.32 to 18.9 l/s)
- ❖ Temperature: Up to 150° F (66° C)
- ❖ 24VAC 50/60Hz (cycles/sec) solenoid power requirement
- ❖ Inrush current: 0.41A (9.9VA) at 50/60Hz
- ❖ Holding current: 0.14A (3.43VA) at 50/60Hz
- ❖ Solenoid coil resistance: 30-39 Ohms, nominal

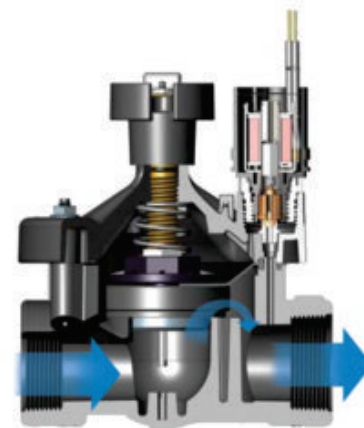
### Options

- ❖ 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
- ❖ Optional purple flow control handle for non-potable water applications PEB-NP-HAN1 (1"); PEB-NP-HAN2 (1 1/2" and 2"); BPE-NP-HAN (3")

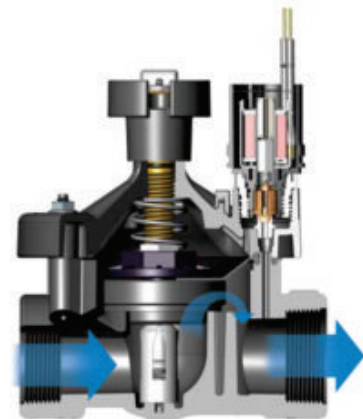
### Dimensions

Model	Height	Length	Width
❖ 100-PEB and 100-PESB:	6 1/2" (16.5 cm)	4" (10.2 cm)	4" (10.2 cm)
❖ 150-PEB and 150-PESB:	8" (20.3 cm)	6" (15.2 cm)	6" (15.2 cm)
❖ 200-PEB and 200-PESB:	8" (20.3 cm)	6" (15.2 cm)	6" (15.2 cm)
❖ 300-PESB:	13 3/4" (34.6 cm)	8" (20.3 cm)	7" (17.8 cm)

**Note:** The PRS-Dial option adds 2" (5.1 cm) to valve height



PEB Cutaway



PESB Cutaway



150-PEB



PEB-NP-HAN



150-PESB

### Models

- ❖ 100-PEB and 100-PESB: 1" NPT
- ❖ 150-PEB and 150-PESB: 1 1/2" NPT
- ❖ 200-PEB and 200-PESB: 2" NPT
- ❖ 300-PESB: 3" NPT

BSP threads available; specify when ordering



## PRS-Dial

Pressure Regulating Module

### Features

- ❖ The PRS-Dial is an excellent means of regulating outlet pressure at the valve regardless of incoming pressure fluctuations. The visible scale makes adjustment quick and easy. The regulator fits all Rain Bird PGA, PEB, PESB, PESB-R, EFB-CP, and BPES series valves
- ❖ Regulates and maintains constant outlet pressure between 15 and 100 psi (1.04 to 6.90 bar) within  $\pm 5$  psi ( $\pm 0.34$  bar)
- ❖ Ergonomic design with snap-tight cover to prevent vandalism
- ❖ Waterproof dial cartridge eliminates fogging and binding
- ❖ Schrader valve connects pressure hose gauge
- ❖ Easy field installation. PRS-Dial threads underneath the solenoid and adapter
- ❖ Corrosion-resistant glass-filled nylon for rugged performance

### Operating Range

- ❖ Pressure: Up to 100 psi (6.90 bar)\*
- ❖ Regulation: 15 to 100 psi (1.04 to 6.90 bar)
- ❖ Flow: Refer to chart

\* While the PRS-Dial unit can withstand pressures up to 200 psi (13.8 bar), accurate pressure regulation can be maintained only up to 100 psi (6.9 bar)

### Model

- ❖ PRSDIAL



PRS-Dial cutaway



150-PEB with PRS-Dial installation



300-BPES with PRS-Dial installation

## 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 1/2" 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" W x 12" H	Top Opening: 17" L x 11 3/4" W Bottom Opening: 18 7/8" L x 13 5/8" W x 6 3/4" H	Top Opening: 22 1/4" L x 16 5/8" W Bottom Opening: 25 1/4" L x 19 5/8" W x 12" H	Top Opening: 21 1/4" L x 15 5/8" W Bottom Opening: 22 1/4" L x 16 5/8" W x 6 5/8" H
<b>MODELS</b>						
PVB6RND: 6" round black body & overlapping green lid	PVB10RND: 10" round black body & overlapping green lid	PVBMS1: 10" mini-standard black body & drop-in green lid	PVBSTD: 12" standard black body & drop-in green lid PVBSTD: 12" standard purple body & drop-in purple lid	STDEXT body can extend the Standard Valve box by 6 in height STDEXT body can be used as a 6 deep box to reduce digging PVBSTDEXT: 6" black body & overlapping green lid PVBSTDEXT: 6" tan body & overlapping tan lid	PVBJMB: 12" black body & drop-in green lid PVBJMBP: 12" purple body & drop-in purple lid	PVBJMBEXT: 6" black body & overlapping green lid

NEW

Works with iQ

Wi-Fi  
READY

Wi-Fi  
READY

Wi-Fi  
READY

NEW

Works with iQ

Works with iQ

Bluetooth

**Major Products**

Primary Applications	ESP-LXIVM/PRO	RC2	ESP-TM2	ESP-ME3	LXME2/ PRO	ESP-LXD	ESP-9V	TBOS BT
Residential								
Light Commercial								
Commercial/Industrial								
<b>Type of Controller</b>								
Battery Operated								
Indoor Location								
Outdoor Location								
<b>Features</b>								
Stations (up to)	60/240	8	12	22	48	200	6	6
Programs (up to)	10/40	3	3	4	40	4	6	3
Station Timing (up to)	96 hr	6 hr	6 hr <sup>1</sup>	6 hr <sup>2</sup>	96 hr <sup>2</sup>	12 hr <sup>3</sup>	12 hr	12 hr
Number of Starts per Program (up to)	8	4	4	6	10	8	6	8
Surge protection								
230VAC Option								
Master Valve/Pump Start	<sup>2</sup>				<sup>2</sup>	<sup>2</sup>	Multi-station models only	
Water Budgeting	<sup>4</sup>				<sup>4</sup>	<sup>4</sup>		
Individual Program /Zone Shut-Off								
Rain Delay								
Mobile App Programmable			<sup>7</sup>					
Sensor Terminals, Status Indicator and Override								
Delay Between Stations (up to)	0 - 60 min.		9 hr s	9 hr s	0 - 60 min.	0 - 10 min.		
Flow Sensing					<sup>5</sup>			
Simultaneous Multi-Station Operation								
Cycle + Soak				<sup>6</sup>				
Overlapping Programs								
Manual On/Off								
Remote Control Compatible								
Diagnostic Test								
Diagnostic Valve Circuit Breaker								
Out-of-Valve Box Programming								
Submersible (up to)							3.3 ft (1 m)	3.3 ft (1 m)
Vandal/Tamper Resistant								
Self-Cleaning Solenoid								
Low Battery Indicator								
Save / Restore Programs								
Master Valve ON/OFF by Station								
Total Run Time Calculator by Program								
Bypass Rain Sensor by Station								
<b>Programming Schedule</b>								
7 Day-of-Week								
1-7 Variable Cycle								
1-31 Variable Cycle								
Odd/Even Cycle								
Odd 31st								
365-Day Calendar								
Event Day Off								
<b>Central Control Compatibility</b>								
iQ Upgradeable								
<b>Cabinet</b>								
Plastic-Indoor								
Plastic-Outdoor								
Powder-Coated Metal Outdoor								
Stainless Steel Pedestal								
Powder-Coated Metal Pedestal								
<b>Hardware/Accessories</b>								
Two-Wire Devices and Accessories								
Rain Sensing (need Rain Sensor)								
Flow Sensing (need Flow Sensor)					LXME2 PRO Only			
SMRT-Y Soil Moisture Sensor								

<sup>1</sup>With water budgeting, timing can be extended <sup>2</sup>Programmable by station <sup>3</sup>6 independent start times per zone <sup>4</sup>Selectable for each program and by month <sup>5</sup>With Pro Smart Module <sup>6</sup>ESP-ME3 only with LNK2 WiFi Module <sup>7</sup>Only with LNK2 WiFi Module

## ESP-LXIVM and LXIVM Pro 2-Wire Controllers

NEW

60/240 Station Capable Two-Wire Commercial Controller

### Controller Features

- ❖ 60-station capability standard expandable to 240 stations with LXIVM Pro Panel
- ❖ Four available sensor inputs (one wired plus up to three on 2-Wire path) with override switch. Eight (Seven plus 1) for LX-IVM Pro
- ❖ Five flow sensors supported (LX-IVM), Ten for LX-IVM Pro
- ❖ Supported Field devices: IVM-SOL, IVM-OUT, IVM-SD, and IVM Smart Valves
- ❖ Supports IVM-SEN sensor devices (flow sensing and weather sensor support) and IVM-SD surge devices (one per 500 feet of two-wire path or every 15 devices required)
- ❖ Central Control capable with Rain Bird IQ Communications Cartridges and software (see pg. 115)
- ❖ Six user-selectable languages
- ❖ 10 independent programs (LX-IVM) or 40 Programs (LX-IVM Pro)
- ❖ Removable front panel is programmable under battery power
- ❖ Compatible with Rain Bird Landscape Irrigation and Maintenance and Third Party Remotes
- ❖ Plastic, locking, UV resistant, wall-mount case, Optional Metal and Stainless Steel Case & Pedestal

### Operating Specifications

- ❖ Station timing: 0 min to 96 hrs
- ❖ Program level and global Monthly Seasonal Adjust; 0% to 300% (96 hrs maximum station run time)
- ❖ 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

### Water Management Features

- ❖ Learn Flow utility and flow usage totalizer help optimize water usage
- ❖ FloWatch protection for high and low flow conditions set by the user
- ❖ FloManager manages hydraulic demand, make full use of available water to turn on as many stations as possible without exceeding water supply and reducing the total time to complete irrigation cycles.
- ❖ SimulStations allows stations to operate at the same time; up to 8 with LX-IVM and 16 with LXIVM Pro
- ❖ Cycle+Soak by station
- ❖ Rain Delay up to 30 days
- ❖ 365-Day Calendar Day Off (up to 5 days)
- ❖ Station Delay by program
- ❖ Normally Open or Normally Closed Master Valves programmable by station; up to 5 with LX-IVM and 10 with LX-IVM Pro
- ❖ Optional Weather Sensors are programmable by station to prevent or pause watering; up to 4 with LX-IVM and 8 with LX-IVM Pro
- ❖ Seasonal Adjust by Program or by Month



ESP-LXIVM Controller

Works with iQ4

Allows users to control/monitor 1 to 1000s of controllers from their computer or mobile device

### Diagnostic Features

- ❖ Alarm light with external case lens
- ❖ 2-Wire diagnostics to simplify and expedite troubleshooting
- External alarm port (0.1A max)
- ❖ Four isolated wire paths prevent full system failure under a single short
- ❖ 2-Wire Mapping: Maps the devices to corresponding wire paths in the controller to help quickly find and resolve issues
- ❖ Trending 12-month electrical history reports and proactive action
- ❖ Self-Healing: Automatically detect fixes to wire path and splice issues and re-start irrigation without reliance on manual intervention
- ❖ Two-Way Communication: with Integrated Valve Modules (IVM) communication happens both ways enabling key features
- ❖ Self-Shutoff : Once loss of power is detected, automatically shutoff valve to avoid leaks

### Certifications

- ❖ cULus, CE, IPX4, UL, CUL, CSA, C-Tick, FCC Part 15. For current certifications visit: [www.rainbird.com/esplxivm](http://www.rainbird.com/esplxivm)

### Accessories

- ❖ IVM Field Devices\* (see next page)
- ❖ Painted Metal and Stainless Steel Pedestal/Enclosure Options available (see pg. 103)
- ❖ IQ-NCC: Network Communication Cartridge for ESP-LX Series Controllers (see pg. 115)
- ❖ See page 105 for information on Rain Bird FS-Series Flow Sensors Pump Start Relays (PSR110-IVM or PSR220-IVM)

\* IVM Field devices include peel-off barcode address labels

### Model

- ❖ ESPLXIVM: Domestic Version 120VC
- ❖ ESPLXIVMP: Domestic Version (Pro) 120V

### Dimensions (W x H x D)

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



LXMMSSPED Shown with ESP-LXIVM in LXMMSS Stainless Steel Cabinet

## LXME2/ PRO Controllers NEW

Modular -Easily upgradeable with a Pro Smart Module for a second booster pump output and flow sensing capability. Quickly expand from 12 stations up to 48 stations using 12 station modules

### Controller Features

- ❖ Large LCD display with easy to navigate softkey user interface
- ❖ Hot-swappable modules, no need to power down the controller to add/remove modules
- ❖ Master valve/pump start circuit
- ❖ Second master valve/Booster Pump start circuit
- ❖ 6 user-selectable languages
- ❖ Program memory retention without power or battery in non-volatile memory
- ❖ Standard 12kV surge protection
- ❖ Front panel is removable and programmable under battery power

### Water Management Features

- ❖ Optional Pro Smart Module with Learn Flow utility and flow usage totalizer and second master valve port
- ❖ FloWatch protection for high and low flow conditions with user defined reactions
- ❖ 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
- ❖ 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

### Diagnostic Features

- ❖ Alarm light with external case lens
- ❖ External alarm port (0.3A max)
- ❖ Program summary and review
- ❖ RASTER station wiring test

### Operating Specifications

- ❖ Station run timing: up to 96 hrs continuous runtime
- ❖ Seasonal Adjust: 0% to 300% (16 hrs maximum station run time)
- ❖ 40 independent programs, programs can overlap
- ❖ 10 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

### Electrical Specifications

- ❖ Input required: 120 VAC  $\pm$  10%, 60Hz
- ❖ Output: 26.5 VAC 1.9A
- ❖ Power back-up: Lithium coin-cell battery maintains time and date while nonvolatile memory maintains the schedule
- ❖ Multi-valve capacity: Maximum five 24 VAC, 7 VA solenoid valves simultaneous operation including the master valve, maximum two solenoid valves per station module

### Certifications

- ❖ 120VAC models: UL, FCC, ISED, NOM

### Dimensions

- ❖ Width: 14.32 in. (36,4 cm)
- ❖ Height: 12.69 in. (32,2 cm)
- ❖ Depth: 5.50 in. (14,0 cm)

### Environmental

- ❖ Operating temperature range: 14° F to 149° F (-10° C to 65° C)
- ❖ Operating humidity range: 95% max at 40° F to 120° F (4° C to 49° C) in a non-condensing environment
- ❖ Storage temperature range: -40° F to 150° F (-40° C to 66° C)

### Models

- ❖ ESPLXME2: LXME2 Controller DOM 120V
- ❖ ESPLXME2P: LXME2 Controller Pro DOM 120V
- ❖ LXME2FP: LXME2 Panel Spare
- ❖ PSMLXME2: LXME2 Pro Smart Module
- ❖ IQPSCMLXM: LXME2 IQ Pro Smart Connection Module
- ❖ ESPLXMSM12: 12-Station Module

### Accessories

- ❖ Painted Metal and Stainless Steel Pedestal/Enclosure Options available
- ❖ IQ Communication Cartridge
- ❖ Rain Bird FS-Series Flow Sensors



Allows users to control/monitor 1 to 1000s of controllers from their computer or mobile device



LXME2/ PRO Controller

## LNK2 WiFi Module

Irrigation System Control from Anywhere

### Features

- ❖ Upgrades WiFi-ready controllers (ESP-ME3, 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 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 6 (Marshmallow) 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

- ❖ cULus, FCC Part 15c, ISED RSS-247, IFETEL, CE.  
For current certifications visit: [www.rainbird.com/connected](http://www.rainbird.com/connected)

### Dimensions

- ❖ Width: 1.13 (2.87 cm)
- ❖ Height: 1.83 (4.65 cm)
- ❖ Depth: 0.48 (1.22 cm)

### Model

- ❖ LNK2WIFI



LNK2 WiFi Module



ESP-ME3 and ESP-TM2

## RC2 Controller

The Complete Smart Control Solution

### Features

#### Worry-Free System Install

- ❖ Schedule templates for easy configurations
- ❖ Quick pair technology
- ❖ Wireless access point for complete system access without WiFi
- ❖ Multi-Lingual to set-up in native language

#### Seamless Remote Management and Control

- ❖ WiFi connected for remote site management.
- ❖ With our free professional app you can use your phone like a wireless remote to water a single zone, all zones, or set a custom schedule
- ❖ Manage and monitor all irrigation events and warnings real-time

#### Smart and Responsible

- ❖ Weather data from local weather sources automatically adjust system run times on a daily basis. Your yard receives only the water it needs while saving up to 50% in water
- ❖ WaterSense certified with superior programming capabilities 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 6 (Marshmallow) 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 @ 40°F to 120°F (4°C to 49°C) non-condensing environment
- ❖ Master Valve Control
- ❖ Pre-Installed Power Cord
- ❖ 8-Station Capacity
- ❖ 3 Programs, 4 Start times/program



### Electrical Specifications

- ❖ Input required: 120V~, 60Hz, 0.23A (International models: 230V~, 50-60Hz, 0.14A)
- ❖ Output: 24V~, 60Hz, 1.0A Maximum (International models: 24V~, 50-60Hz, 1.0A Maximum)

### Master Valve/Pump Start Relay

- ❖ External battery back-up not required. Nonvolatile memory permanently saves the current programming

### Regulatory Compliance

- ❖ 120V Models: UL, FCC, ISED
- ❖ 230V Models: CE, UKCA, ACMA RCM

### Dimensions

- ❖ Width: 7.92 in. (20.1 cm)
- ❖ Height: 7.86 in. (20.0 cm)
- ❖ Depth: 3.51 in. (9.0 cm)

### Models

- ❖ RC2-120V: 8-station 120VAC
- ❖ RC2-230V: 8-station 230VAC
- ❖ RC2-AUS: 8-station Australia

### Accessories

- ❖ WR2-RFC: Rain + Freeze Combo
- ❖ WR2-48: Rain + Freeze Combo with 48-hour hold
- ❖ RSD-BEx: Rain sensor w/ latching bracket, extension wire



RC2 Controller

## ESP-9V Series

Battery-Operated Controller

### Features

#### Controller Features

- ❖ Waterproof case ensures long life, even when installed in a valve box
- ❖ Common programming features are easily accessed on one screen, making programming quick and easy
- ❖ Operates for approximately one full year using one 9-volt alkaline battery, or two years with two 9-volt alkaline batteries
- ❖ Large LCD display with easy to navigate user interface
- ❖ Sensor input with bypass override
- ❖ Mast valve/pump-start circuit (multi-zone units only)
- ❖ Non-volatile (100-year) program memory
- ❖ IP68 certified for protection against dust and water intrusion
- ❖ Plastic controller case has outstanding resistance to weather, yellowing and aging

#### Scheduling Features

- ❖ Dedicated manual watering button for easy operation
- ❖ Automatic zone-stacking ensures that only one valve irrigates at the same time. ESP-9V will automatically irrigate the lower number zone first if zones are scheduled to water at the same time
- ❖ Contractor Rapid Programming automatically copies the start times and watering days from zone 1 to all remaining zones at initial setup
- ❖ Run times, start times, and watering days are customizable by zone
- ❖ 6 start times per zone
- ❖ 4 watering day options per zone: Custom days of the week, Cyclic, and ODD or EVEN calendar days
- ❖ Delay watering (1 to 9 days)

#### Valve Compatibility

- ❖ Rain Bird K80920
- ❖ Hunter 458200
- ❖ Irritrol DCL
- ❖ Toro DCLS-P

#### Controller Dimensions

- ❖ Width: 5.35 (13.59 cm)
- ❖ Height: 4.04 (10.26 cm)
- ❖ Depth: 2.42 (6.15 cm)
- ❖ Weight: 2 lbs (907 g)

#### LCD Screen Size

- ❖ Width: 2.25 (5.72 cm)
- ❖ Height: 1.25 (3.18 cm)

#### Optional Wall Mount Dimensions

- ❖ Width: 4.25 (10.76 cm)
- ❖ Height: 6.930 (17.60 cm)
- ❖ Depth: 1.965 (4.99 cm)
- ❖ Weight: 3.6 oz (107 g)

#### Certifications

- ❖ cULus. For current certifications visit: [www.rainbird.com/esp9v](http://www.rainbird.com/esp9v)

#### Models

- ❖ ESP9V1: 1-Zone ESP-9V Controller
- ❖ ESP9V2: 2-Zone ESP-9V Controller
- ❖ ESP9V6: 6-Zone ESP-9V Controller
- ❖ ESP9V1SOL: 1-Zone + 9V Solenoid



ESP-9V Series  
Battery-Operated Controller



## 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 LNK2 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 LNK2 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 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

- ❖ cULus, FCC Part 15b, CAN ICES-3(B)/NMB-3(B), NOM-001-SCFI-1993, CE.  
For current certifications visit: [www.rainbird.com/esptm2](http://www.rainbird.com/esptm2)

### 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

### Accessories

- ❖ LNK2WIFI: LNK2 WiFi Module for remote control and notification via iOS or Android device
- ❖ WR2 Series Wireless Rain + Freeze Sensors
- ❖ RSD Series Rain Sensors



ESP-TM2



Look for the WaterSense labeled LNK2 WiFi Module and a Rain Bird Rain Sensor to improve the water efficiency capabilities of this controller



## TBOS-BT and TBOS-BTLT

Bluetooth Battery-Operated Controller.  
Install anywhere. Program from a Smartphone.

### Features

#### Rain Bird Mobile App Features for TBOS-BT and TBOS-BTLT

- ❖ Create, review and transmit irrigation programs
- ❖ Capability to set zones or programs to manually irrigate
- ❖ Basic programming includes 3 independent programs A,B and C, each with 8 start times per day
- ❖ Stations can be assigned to several programs with different watering run times
- ❖ Run time is from 1 minute to 12 hours in 1-minute increments
- ❖ Five watering day cycle modes (Custom, even, odd, odd-31, cyclical) selectable by program for maximum flexibility and watering
- ❖ Program and global Monthly Seasonal Adjust; 0% to 300% (1% increments)
- ❖ Delay watering from 1 to 14 days
- ❖ Built-in ID with naming capability. The control module and stations can be individually named.
- ❖ Optional passcode
- ❖ Permanently turn the controller off to prevent irrigation
- ❖ Battery indicator reports the status of the control module's battery
- ❖ Capability to clear the control modules irrigation program

### Controller Features

- ❖ Operates for approximately one full year using one 9-volt alkaline battery
- ❖ Completely potted to obtain IP68 conformity
- ❖ Independent station operation allows sequential start times (with stacking in case of overlap) restriction compliance
- ❖ Master valve output on TBOS BT1, 2, 4, & 6 Control Modules
- ❖ No loss of irrigation program after a battery replacement

### Valve Compatibility

- ❖ Rain Bird TBOS Potted Latching Solenoid (K80920)
  - DV, DVF, ASVF, PGA, PEB, PESB, EFB-CP, and BPES series
- ❖ Hunter 458200
- ❖ Irritrol DCL
- ❖ Toro DCLS-P

### Certifications

- ❖ cULus, FCC Part 15b, ISED RSS-247 Issue 2.0, CE, IP68, ICASA, CITC, ACMA, SUBTEL, SRRC, MIC, IFETEL, CRA, TRA.
- ❖ For current certifications visit: [www.rainbird.com/tbosbt](http://www.rainbird.com/tbosbt)

### TBOS-BT and TBOS-BTLT System Components

#### Rain Bird Mobile App Features for TBOS-BT and TBOS-BTLT

- ❖ Available for Android and IOS devices

### TBOS-BT Models

- ❖ TBOS-BT1: 1 Station, with Infrared Port (Available in Europe Only)
- ❖ TBOS-BT2: 2 Station, with Infrared Port (Available in Europe Only)
- ❖ TBOS-BT4: 4 Stations, with Infrared Port (Available in Europe Only)
- ❖ TBOS-BT6: 6 Stations, with Infrared Port (Available in Europe Only)

### TBOS-BTLT Models

- ❖ TBOS-BT1LT: 1 Station, no Infrared Port
- ❖ TBOS-BT2LT: 2 Stations, no Infrared Port
- ❖ TBOS-BT4LT: 4 Stations, no Infrared Port
- ❖ TBOS-BT6LT: 6 Stations, no Infrared Port (Available in Europe Only)

### Accessories

- ❖ K80920 TBOSPSOL: TBOS Potted Latching Solenoid
- ❖ RSDBEX: RSD Series Rain Sensors
- ❖ Adapter for Non-Rain Bird plastic valves
  - K80510 TBOSADAPP
- ❖ Adapter for Non-Rain Bird brass valves
  - K80610 TBOSADAPB



## RSD-BEx

Wired Rain Sensor

### Features and Benefits

- ❖ Automatic rain shutoff prevents overwatering due to natural precipitation
- ❖ Robust, reliable design reduces service call backs
- ❖ Moisture sensing disks work in a variety of climates
- ❖ Different sensor mounts permit speed and flexibility on the job site
- ❖ Latching hinge maintains alignment

### Mechanical Properties

- ❖ Multiple rainfall settings from 1/8" 3/4" (5 - 20 mm) are quick and easy with just the twist of a dial
- ❖ Adjustable vent ring helps control drying time
- ❖ High-grade, UV resistant polymer body resists the elements
- ❖ Comes with 5" latching aluminum bracket
- ❖ Not compatible with ESP-SMT or ESP-SMTe controllers

## SMRT-Y Soil Moisture Sensor Kit

Accurate Reliable Smart

### Features and Benefits

- ❖ Turns any controller into a water saving smart controller
- ❖ Healthier landscapes less prone to nutrient depletion, fungus and shallow root growth
- ❖ Typical water savings exceed 40%
- ❖ TDT digital sensor enables highly accurate readings that are independent of soil temperature and electrical conductivity (EC)
- ❖ Displays soil moisture content, soil temperature and EC
- ❖ Corrosion-resistant in-ground sensor made of high-grade 304 stainless steel

### Operating Specifications

- ❖ 25 Volts AC at 12W
- ❖ Operating temperature: -4°F to 158°F (-20°C to 70°C)
- ❖ Survival temperature: -40°F to 185°F (-40°C to 85°C)

### Certifications

- ❖ cULus, FCC Part 15b, CE.
- For current certifications visit: [www.rainbird.com/smrty](http://www.rainbird.com/smrty)

### Dimensions

#### Controller Interface

- ❖ W: 3.0" (76mm); H: 3.0" (76mm); D: 0.75" (19mm)

#### In-Ground Soil Moisture Sensor (without wires)

- ❖ W: 2.0" (50mm); L: 8.0" (200mm); D: 0.5" (12mm)
- ❖ 18 AWG wire leads @ 42 in. (106.7 cm) length

### SMRT-Y Kit

#### Includes

- ❖ Controller Interface
- ❖ In-Ground Soil Moisture Sensor
- ❖ Anodized, rust-proof screws, 1.5" (two per package)
- ❖ Wire nuts 5 blue, 2 gray, 1 yellow
- ❖ Multilingual instruction manual, Quick Start Guide and Soil Moisture sticker

#### Models

SMRT-Y: Soil Moisture Sensor Kit

### Electrical Specifications

- ❖ Application: Suitable for low voltage 24 VAC control circuits and 24 VAC pump start relay circuits\*
- ❖ Switch electrical rating: 3A @ 125/250 VAC
- ❖ Capacity: Electrical rating suitable for use with up to ten 24 VAC, 7 VA solenoid valves per station, plus one master valve
- ❖ Wire: 25' (7.6 m) length of #20, 2 conductor UV resistant extension wire
- \* Not recommended for use with high voltage pump start, pump start relay circuits or devices.

### Certifications

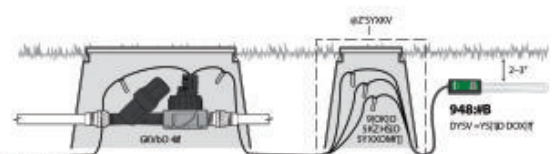
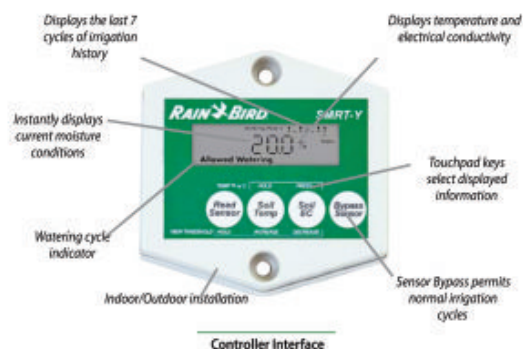
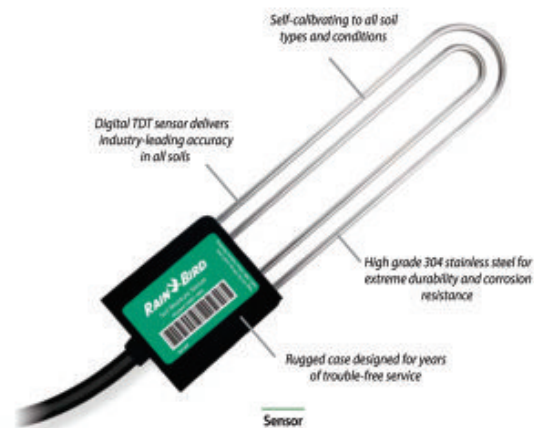
- ❖ cULus, CE, RCM. For current certifications visit: [www.rainbird.com/rsd](http://www.rainbird.com/rsd)

### Dimensions

- ❖ Overall length: 6.5" (16.5 cm)
- ❖ Overall height: 5.4" (13.7 cm)
- ❖ Bracket hole pattern: 1.25" (3.2 cm)

### Model

- ❖ RSD-BEx: Rain sensor w/ latching bracket, extension wire



## IQ4 Central Control Software

Modular Multi-Site Central Control

The IQ Platform offers state-of-the-art command and control features in an easy to learn and use interface. IQ provides advanced water management features saving money and time.

### Applications

All IQ versions provide remote programming, management, and monitoring of ESP-LX Series Controllers from the computer in your office. IQ is the perfect irrigation control solution for parks departments, school districts, property managers, landscape maintenance contractors, and water managers. IQ can manage small single-controller sites as well as large multi-controller sites and supports both ESP-LX Series traditionally-wired and 2-wire controllers.

IQ-Cloud is a cloud based service allowing users to login and control their irrigation system from any internet connected device including desktop computers, tablet computers and mobile smartphones.

IQ-Cloud is ideal for organizations with multiple irrigation system administrators and/or users that require mobility. IQ-Cloud features the ability to use mobile devices providing quick access to all IQ4 features in an interface designed for touchscreen devices found in smartphones or tablets. Users are not restricted to an initial capacity and can add satellites at will. Internet access is required.

### IQ Platform Software Features

- ❖ Compatible with ESP-LXME, ESP-LXME2 and ESP-LXME2 Pro traditionally wired controllers, and ESP-LXIVM, ESP-LXIVM Pro and ESP-LXD two-wire controllers
- ❖ Programming in seconds, minutes, and hours
- ❖ ET station run time adjustments by site, controller or program
- ❖ Scheduled and on-demand reports for Water Management, Configuration and Audits
- ❖ Automated satellite Synchronize & Retrieve Logs
- ❖ Satellite Two-Way Programming (changes made at the satellite can be viewed and accepted in the IQ4 software)
- ❖ IQ Global Weather Internet Service which provides local weather data including rain fall
- ❖ Retrieves minute-by-minute flow logs from flow sensor equipped ESP-LXME2 Pro, ESP-LXIVM and ESP-LXD Satellite Controllers
- ❖ Flow Logs vs. Projected Flow Graphical Report (identifies which programs & stations where running at any point in time)
- ❖ Dryrun irrigation schedule forecasting up to 30 days
- ❖ Automated controller firmware updates
- ❖ Remote diagnostics of controller wiring or two-wire path
- ❖ User selectable languages include English, Spanish, French, German, Italian, Portuguese, Korean, Japanese, Chinese, Vietnamese, and Swedish

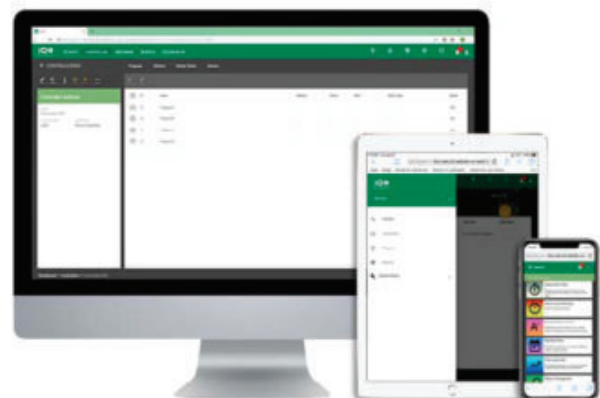
Visit [www.rainbird.com/products/iq4](http://www.rainbird.com/products/iq4) to learn more about the features included in the IQ4 Platform.

### Additional 5-Satellite Capacity Upgrade (IQ-Desktop/Enterprise)

- ❖ IQ Software satellite controller capacity can be upgraded in 5-satellite increments
- ❖ Additional capacity is added through a purchased software activation Keycode

### Recommended Computer Requirements for IQ-Desktop

- ❖ Windows 10, Windows 8, Windows 7 Service Pack 1
- ❖ Intel I5-540M or equivalent processor
- ❖ 8 GB RAM (minimum)
- ❖ 10 GB available disk space
- ❖ 1024 x 768 pixel screen resolution
- ❖ Internet Access
- ❖ Chrome (recommended), Edge, or Firefox browser
- ❖ Network Connection (for Ethernet, WiFi, Cellular)
- ❖ Serial Port or USB to Serial Adapter (for Direct Connect and External Modem communication)

Emission Device	Applications	PC	Spray Pattern	Radius	Flow Rate	Inlet
<b>DENSE PLANTING SCHEME</b>						
<b>Xeri Sprays/ Misters</b> 	Ideal for ground cover, mass plantings, annual flower beds	No	Qtr circle stream	0 to 3.2m	0 to 109.8 l/h @ 2.07 psi	10-32
			Half circle stream			
			Full circle stream	0 to 4.1m		
			Full circle mist			
<b>Xeri 360 True Spray</b> 	Ideal for ground cover, mass plantings, annual flower beds	No	Full circle Fan	0 to 2m	0 to 64 l/h at 100 kPa 0 to 92.7 l/h at 200 kpa	Spike Barb 10-32
<b>SQ Series Nozzles</b> 	Commercial grade Small or defined areas with dense plantings	Yes	Square Pattern Qtr	Adjustable 0.8 m or 1.2 m	6 GPH (22.7 l/hr)	Thread
			Square Pattern Hlf		12 GPH (45.4 l/hr)	
			Square Pattern 3 Qtr		18 GPH (68.1 l/hr)	
			Square Pattern Ful		24 GPH (90.8 l/hr)	
<b>SPARSE PLANTING SCHEME</b>						
<b>Xeri Bug Emitters</b> 	Low flow emitters for watering the root zones of individual plants, shrubs, and trees	Yes	Drip	Drip	3.79 l/h, 7.57 l/h 1.89 l/h, 3.79 l/h, 7.57 l/h 1.89 l/h, 3.79 l/h, 7.57 l/h	15/21 FPT Barb 10-32
<b>Xeri Bug Emitters w/ Check Valve</b> 	Low flow emitters for watering the root zones of individual plants, shrubs, trees, containers and hanging baskets, especially when elevated or on a slope	Yes	Drip	Drip	1.89 l/h, 3.79 l/h, 7.57 l/h	Barb
					1.89 l/h, 3.79 l/h, 7.57 l/h	10-32
<b>Xeri Bug Multi Outlet</b> 	Use for watering the root zones of plants and trees and container plants	Yes	Drip	Drip	1.89 l/h, 3.79 l/h, 7.57 l/h 1.89 l/h, 3.79 l/h, 7.57 l/h	15/21 FPT Barb
<b>PC Modules</b> 	Watering larger shrubs and trees with higher water requirements	Yes	Drip	Drip	18.93 l/h, 26.50 l/h, 37.85 l/h	15/21 FPT
					18.93 l/h, 26.50 l/h, 37.85 l/h	Barb
					45.42 l/h, 68.13 l/h, 90.84 l/h	
					18.93 l/h, 26.50 l/h, 37.85 l/h	10-32
<b>Xeri Bubblers</b> 	Ideal for shrubs, trees, containers and flower beds. Use anywhere clogging is a concern or there is heavy mineral content in the water	No	180 stream	0-0.67m radius	0 to 49.21 l/h at 2.1 bar 0 to 30 l/h at 1 bar	Spike Barb 10-32
			360 stream	0-0.9m diameter	0 to 49.21 l/h at 2.1 bar 0 to 30 l/h at 1 bar	Spike Barb 10-32
			360 umbrella	0-0.9m diameter	0 to 132.48 l/h at 2.1 bar 0 to 98 l/h at 1 bar	Spike Barb 10-32

## Xeri-Bug with Check Valve (XBCV)

Pressure Compensating, Low-Flow Emitters with 10ft of hold back, great for irrigating slopes, elevated zones, potted plants and more.

### Features

#### Efficient Water Usage

Capable of holding back up to 10 feet (3m) of head pressure, XBCV eliminates low-point drainage and provides uniform irrigation throughout the zone

- ✦ In a standard 500-foot (152 m) line with 1/2" (13 mm) internal diameter, 20 gallons (76 L) of water is held in the line instead of draining out
- ✦ With XBCV, only one zone is needed for up to a 10-foot (3 m) elevation change. Fewer zones saves money on valves and time on installation.

#### Holds Water in the Line

By holding water in the line, XBCV:

- ✦ Immediately begins irrigation and reduces zone run times
- ✦ Extends the life of the emitter by preventing calcium build up and clogs in the emitter a problem when a system drains and siphons dirty water

#### Pressure Compensating

A pressure-compensating design offers a consistent flow from 15 to 50 psi (1.0 to 3.5 bar) from the first emitter in the line to the last

#### Self-Cleaning

A self-flushing action cleans the emitters every time the system turns on and off, reducing maintenance and extending the life of the emitter.

#### Durability

Robust design made from UV-resistant materials that are also resistant to chemicals

#### Operating Range

- ✦ Opening Pressure: 15 psi (1.0 bar)
- ✦ Pressure: 15 to 50 psi (1.0 to 3.5 bar)
- ✦ Flow Rates: 0.5, 1.0 or 2.0 gph (1.9 , 3.79 or 7.57 l/h)
- ✦ Filtration Requirement: 200 mesh (75 micron) for 0.5 gph, 150 mesh (100 micron) for all others

### Models

#### Self-Piercing Barb Inlet x Barb Outlet

- ✦ XBCV-05PC: Blue, 0.5 gph (1.9 lph)
- ✦ XBCV-10PC: Black, 1.0 gph (3.8 lph)
- ✦ XBCV-20PC: Red, 2.0 gph (7.6 lph)

#### 10-32 Threaded Inlet x Barb Outlet

- ✦ XBCV-05PC-1032: Blue, 0.5 gph (1.9 lph)
- ✦ XBCV-10PC-1032: Black, 1.0 gph (3.8 lph)
- ✦ XBCV-20PC-1032: Red, 2.0 gph (7.6 lph)

Flow Rate	Color	Bag Qty.	Model Number
0.5 GPH (1.89 l/h)	Blue	25	XBCV05PC
		100	XBCV05PCBULK
		25	XBCV05PC1032
1.0 GPH (3.79 l/h)	Black	25	XBCV10PC
		100	XBCV10PCBULK
		25	XBCV10PC1032
2.0 GPH (7.57 l/h)	Red	25	XBCV20PC
		100	XBCV20PCBULK
		25	XBCV20PC1032
		100	XBCV20PC1032BULK



XBCV-05PC, XBCV-10PC, XBCV-20PC



XBCV-05PC-1032, XBCV-10PC-1032, XBCV-20PC-1032

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

### Xeri-Bug Check Valve Specifications and Models

Model	Inlet Type/Color	Nominal Flow gph	Filtration Required mesh
XBCV-05PC	Barb/Blue	0.5	200
XBCV-10PC	Barb/Black	1.0	150
XBCV-20PC	Barb/Red	2.0	150
XBCV-05PC1032	10-32T/Blue	0.5	200
XBCV-10PC1032	10-32T/Black	1.0	150
XBCV-20PC1032	10-32T/Red	2.0	150

### Xeri-Bug Check Valve Specifications and Models METRIC

Model	Inlet Type/Color	Nominal Flow l/h	Filtration Required micron
XBCV-05PC	Barb/Blue	1.89	75
XBCV-10PC	Barb/Black	3.79	100
XBCV-20PC	Barb/Red	7.57	100
XBCV-05PC1032	10-32T/Blue	1.89	75
XBCV-10PC1032	10-32T/Black	3.79	100
XBCV-20PC1032	10-32T/Red	7.57	100



Xeri-Bug Emitter with Check Valve

## Xeri-Bug Emitters

Pressure Compensating, Low-Flow Emitters for Watering the Root Zones of Plants, Trees, and Container Plants

### Features

#### Pressure Compensating

A pressure-compensating design offers a consistent flow from 15 to 50 psi (1.0 to 3.5 bar) from the first emitter in the line to the last

#### Self-Cleaning

A self-flushing action cleans the emitters every time the system turns on and off, reducing maintenance and extending the life of the emitter.

#### Versatile Installation

- ❖ Self-piercing models feature barbs that make installation easier
- ❖ Models with 10-32 threaded ends can quickly connect to risers or adapters.
- ❖ 1/2" FPT inlet that easily threads onto a 1/2" PVC riser and 2.0 gph models)
- ❖ Outlet barb securely retains 1/4" Distribution Tubing (XQ)

#### Durability

Robust design made from UV-resistant materials that are also resistant to chemicals

#### Operating Range

- ❖ Opening Pressure: 15 psi (1.0 bar)
- ❖ Pressure: 15 to 50 psi (1.0 to 3.5 bar)
- ❖ Flow Rates: 0.5, 1.0 or 2.0 gph (1.9, 3.79 or 7.57 l/h)
- ❖ Filtration Requirement: 200 mesh (75 micron) for 0.5 gph, 150 mesh (100 micron) for all others

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

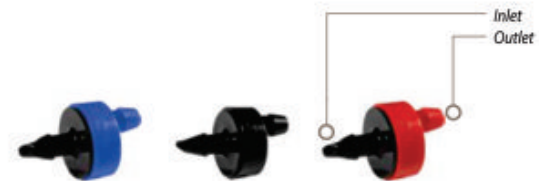
- ❖ XB-05PC-1032: Blue, 0.5 gph (1.89 l/h)
- ❖ XB-10PC-1032: Black, 1.0 gph (3.79 l/h)
- ❖ XB-20PC-1032: Red, 2.0 gph (7.57 l/h)

#### 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)

#### 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)



XB-05PC, XB-10PC, XB-20PC

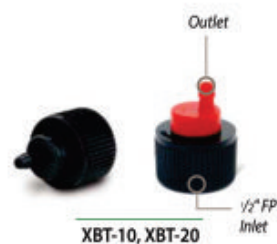


XB-05PC-1032, XB-10PC-1032, XB-20PC-1032

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

#### Xeri-Bug Emitter Bag Quantities and Models

Flow Rate	Color	Bag Qty.	Model Number	
0.5 GPH (1.89 l/h)	Blue	25	XB05PC	
		100	XB05PCBULK	
		8000	XB05MAXPAK	
	25	Black	25	XB05PC1032
			100	XB05PC1032BULK
			8000	XB051032MAXPAK
1.0 GPH (3.79 l/h)	Black	25	XB10PC	
		100	XB10PCBULK	
		8000	XB10MAXPAK	
	25	Red	25	XB10PC1032
			100	XB10PC1032BULK
			8000	XB101032MAXPAK
2.0 GPH (7.57 l/h)	Red	25	XB20PC	
		100	XB20PCBULK	
		8000	XB20MAXPAK	
	25	Black	25	XB20PC1032
			100	XB20PC1032BULK
			8000	XB201032MAXPAK



XBT-10, XBT-20

#### Xeri-Bug Emitter Specifications and Models

Model	Inlet Type/Color	Nominal Flow gph	Filtration Required mesh
XB-05PC	Barb/Blue	0.5	200
XB-10PC	Barb/Black	1.0	150
XB-20PC	Barb/Red	2.0	150
XB-05PC1032	10-32T/Blue	0.5	200
XB-10PC1032	10-32T/Black	1.0	150
XB-20PC1032	10-32T/Red	2.0	150
XBT-10PC	1/2" FPT/Black	1.0	150
XBT-20PC	1/2" FPT/Black	2.0	150

#### Xeri-Bug Emitter Specifications and Models

Model	Inlet Type/Color	Nominal Flow l/h	Filtration Required micron
XB-05PC	Barb/Blue	1.89	75
XB-10PC	Barb/Black	3.79	100
XB-20PC	Barb/Red	7.57	100
XB-05PC1032	10-32T/Blue	1.89	75
XB-10PC1032	10-32T/Black	3.79	100
XB-20PC1032	10-32T/Red	7.57	100
XBT-10PC	1/2" FPT/Black	3.79	100
XBT-20PC	1/2" FPT/Black	7.57	100



Xeri-Bug Emitter, TS025-1/4" stake, and DBC025 Diffuser Bug Cap

## XFD On - Surface Dripline

The Most Flexible, Pressure-Compensating In-line Emitter Tubing Available to Irrigate Ground Cover, Dense Plantings, Hedge Rows and More

### Features

- ❖ Extra flexible tubing for fast, easy installation
- ❖ Dual-layered tubing (brown over black or purple over black) provides unmatched resistance to chemicals, UV damage and algae growth
- ❖ Patent pending emitter design provides for increased reliability  
Longer lateral runs than competition
- ❖ Unique material offers significantly greater flexibility, allowing tighter turns with fewer elbows for easier installation
- ❖ Choice of flow rates, spacing and coil lengths provides design flexibility for a variety of non-turfgrass applications
- ❖ Use an Air/Vacuum Relief Valve Kit when installation is below soil (pg 153)

### Operating Range

- ❖ Pressure: 8.5 to 60 psi (0.58 to 4.1 bar)
- ❖ Flow rates: 0.6 gph and 0.9 gph (2.3 l/h and 3.5 l/h)
- ❖ Temperature: Water up to 100° F (37.8C); Ambient up to 125° F (51.7C)
- ❖ Required filtration: 120 mesh

### Specifications

- ❖ Outside diameter: 0.634" (16.1 mm)
- ❖ Inside diameter: 0.536" (13.6 mm)
- ❖ Wall thickness: 0.049" (1.2 mm)
- ❖ Spacing: 12" or 18"
- ❖ Lengths: 100', 250', and 500' coils
- ❖ Use with XF Dripline Insert Fittings or Rain Bird Easy Fit Compression Fittings



XFD Dripline



XFD Dripline Offers Improved Flexibility for Kink Resistance and Easy Installation. The Dripline Can Bend Down to a 3 Radius Without Kinking.



Self-Dispensing Coil Reduces Layout Time and Improves Ease of Installation



XFD Dripline

## Compatible Fittings



XFD Dripline Insert Fittings (pg. 151)



Easy Fit Compression Fittings (pg. 152)

XFD On-Surface Dripline Models			
Model	Flow gph	Spacing in.	Coil Length ft.
XFD-06-12-100	0.60	12	100
XFD-06-12-250	0.60	12	250
XFD-06-12-500	0.60	12	500
XFD-06-18-250	0.60	18	250
XFD-06-18-500	0.60	18	500
XFD-09-12-100	0.90	12	100
XFD-09-12-250	0.90	12	250
XFD-09-12-500	0.90	12	500
XFD-09-18-250	0.90	18	250
XFD-09-18-500	0.90	18	500

XFD On-Surface Dripline Models			METRIC
Model	Flow l/h	Spacing cm	Coil Length m
XFD-06-12-100	2.30	30.5	30.5
XFD-06-12-250	2.30	30.5	76.5
XFD-06-12-500	2.30	30.5	152.4
XFD-06-18-250	2.30	45.7	76.5
XFD-06-18-500	2.30	45.7	152.4
XFD-09-12-100	3.40	30.5	30.5
XFD-09-12-250	3.40	30.5	76.5
XFD-09-12-500	3.40	30.5	152.4
XFD-09-18-250	3.40	45.7	76.5
XFD-09-18-500	3.40	45.7	152.4

XFD On-Surface Dripline Maximum Lateral Lengths (Feet)				
Inlet Pressure psi	Maximum Lateral Length (feet)			
	12" Spacing		18" Spacing	
	Nominal Flow (gph): 0.6	Nominal Flow (gph): 0.9	Nominal Flow (gph): 0.6	Nominal Flow (gph): 0.9
15	273	155	314	250
20	318	169	353	294
30	360	230	413	350
40	395	255	465	402
50	417	285	528	420
60	460	290	596	455

XFD On-Surface Dripline Maximum Lateral Lengths (meters)				
Inlet Pressure bar	Maximum Lateral Length (meters)			
	30.5 cm Spacing		45.7 cm Spacing	
	Nominal Flow (l/h): 2.3	Nominal Flow (l/h): 3.4	Nominal Flow (l/h): 2.3	Nominal Flow (l/h): 3.4
1.0	83.2	47.2	95.7	76.2
1.4	96.9	51.5	107.6	89.6
2.1	109.7	70.1	125.9	106.7
2.8	120.4	77.7	141.7	122.5
3.5	127.1	86.9	160.9	128.0
4.1	140.2	88.4	181.7	138.7

## XFS Sub-Surface Dripline with Copper Shield Technology

Sub-Surface Drip Irrigation (SDI) perfect for small, narrow and tight planting areas, switchbacks, as well as all turf landscapes

Rain Bird® XFS Sub-Surface Copper-Colored Dripline with Copper Shield Technology is the latest innovation in the Rain Bird Landscape Drip Family. Rain Birds patent-pending Copper Shield Technology protects the emitter from root intrusion, creating a long-lasting, low maintenance sub-surface drip irrigation system for use under turf grass or shrub and groundcover areas.

A proprietary tubing material makes the XFS Sub-Surface Dripline with Copper Shield the most flexible tubing in the industry, and the easiest sub-surface dripline to design with and install.

### Features

#### Simple

- ❖ Rain Birds low-profile emitter design reduces in-line pressure loss, allowing longer lateral runs, simplifying design and reducing installation time
- ❖ Variety of emitter flow rates, emitter spacing and coil lengths provide design flexibility for either sub-surface turf or sub-surface shrub and groundcover applications

#### Reliable

- ❖ XFS Sub-Surface Dripline emitters are protected from root intrusion by Rain Birds patent-pending Copper Shield Technology resulting in a system that does not require maintenance or replacement of chemicals to prevent root intrusion
- ❖ The pressure-compensating emitter design provides a consistent flow over the entire lateral length ensuring higher uniformity for increased reliability in the pressure range of 8.5 to 60 psi

#### Durable

- ❖ Dual-layered tubing (copper over black) provides unmatched resistance to chemicals, algae growth and UV damage
- ❖ Grit Tolerant: Rain Birds proprietary emitter design resists clogging by use of an extra-wide flow path combined with a self-flushing action

#### Operating Range

- ❖ Pressure: 8.5 to 60 psi (0.58 to 4.14 bar)
- ❖ Flow rates: 0.6 and 0.9 gph (2.3 l/hr and 3.5 l/hr)
- Temperature:
  - Water: Up to 100°F (37.8° C)
  - Ambient: Up to 125°F (51.7° C)
- ❖ Required Filtration: 120 mesh

#### Specifications

- ❖ Dimensions: OD: 0.634" (16mm); ID: 0.536" (13.6mm); Thickness: 0.049" (1.2mm)
- ❖ 12" and 18" (30.5 cm and 45.7 cm) spacing
- Available in 500' (152.4 m) coils
- ❖ Coil Color: Copper
- Use with XF Dripline Insert Fittings



XFS Sub-Surface Dripline



XFS Sub-Surface Dripline with Copper Shield Technology



XFS Dripline offers increased flexibility for easy installation



Irrigation Association Show Winner



## XF Dripline Insert Fittings

XF Dripline Insert Fittings offer a unique barb design to reduce insertion force and still retain a secure fit



XF Dripline Insert Fittings

### XFS Sub-Surface Dripline Models

Model	Flow gph	Spacing in.	Coil Length ft.
XFS-06-12-500	0.60	12	500
XFS-06-18-500	0.60	18	500
XFS-09-12-500	0.90	12	500
XFS-09-18-500	0.90	18	500
XFSP-06-12-500 (Purple)	0.60	12	500
XFSP-06-18-500 (Purple)	0.60	18	500
XFSP-09-12-500 (Purple)	0.90	12	500
XFSP-09-18-500 (Purple)	0.90	18	500

### XFS Sub-Surface Dripline Models

METRIC

Model	Flow l/h	Spacing cm	Coil Length m
XFS-06-12-500	2.30	30.5	152.4
XFS-06-18-500	2.30	45.7	152.4
XFS-09-12-500	3.50	30.5	152.4
XFS-09-18-500	3.50	45.7	152.4
XFSP-06-12-500 (Purple)	2.30	30.5	152.4
XFSP-06-18-500 (Purple)	2.30	45.7	152.4
XFSP-09-12-500 (Purple)	3.50	30.5	152.4
XFSP-09-18-500 (Purple)	3.50	45.7	152.4

### XFS Sub-Surface Dripline Maximum Lateral Lengths (Feet)

Inlet Pressure psi	Maximum Lateral Length (feet)					
	12" Spacing			18" Spacing		
	Nominal Flow (gph):			Nominal Flow (gph):		
	0.42	0.6	0.9	0.42	0.6	0.9
15	352	273	155	374	314	250
20	399	318	169	417	353	294
30	447	360	230	481	413	350
40	488	395	255	530	465	402
50	505	417	285	610	528	420
60	573	460	290	734	596	455

### XFS Sub-Surface Dripline Maximum Lateral Lengths (meters)

Inlet Pressure bar	Maximum Lateral Length (meters)					
	30.5 cm Spacing			45.7 cm Spacing		
	Nominal Flow (l/h):			Nominal Flow (l/h):		
	1.6	2.3	3.4	1.6	2.3	3.4
1.0	107.2	83.2	47.2	114	95.7	76.2
1.4	121.6	96.9	51.5	127.1	107.6	89.6
2.1	136.2	109.7	70.1	146.6	125.9	106.7
2.8	148.7	120.4	77.7	161.5	141.7	122.5
3.5	153.9	127.1	86.9	185.9	160.9	128.0
4.1	174.6	140.2	88.4	223.7	181.7	138.7

## XF Insertion Tool

The XF Insertion Tool reduces the effort required to insert the fittings into the tube by 50%.

### Features

- ❖ 50% Less effort required to install fittings than without a tool
- ❖ Firmly locks fittings into place while inserting Dripline
- ❖ Tool helps widen the dripline opening to make the fitting insertion easier
- ❖ Solid grip and comfortable fit in hand

### Model

- ❖ FITINS-TOOL

❖ The XF Insertion Tool works with the following XF Fittings:



XFF-COUP

XFF-ELBOW

XFF-TEE



FITINS-TOOL



The XF Insertion Tool securely locks fittings into place to make inserting dripline easier.



The tool also has a sloped valley to allow room for the dripline when inserting a fitting onto the second side.

## 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



XM-TOOL



One Step Xeri-Bug Insertion



Xeri-Bug Removal



Goof Plug Insertion

## Rain Bird Drainage Products

Ruggedly constructed and designed to work together, these drainage grates, basins, adapters, pipe, and accessories can help you efficiently manage water run-off for virtually any residential, light commercial or municipal site.

### Three-Year Warranty

You need products that will last long after the jobs done. That's why we stand behind our drainage products with the longest warranty in the drainage product category.

**All Rain Bird drainage purchases qualify for valuable Rain Bird Rewards points.**

## Color, Size and Style are Optional. Loose Fits are Not.

No matter the job, you'll have the equipment you need to do it right. We offer grates and basins of varying dimensions, shapes and colors all designed to fit together for tight, worry-free connections.

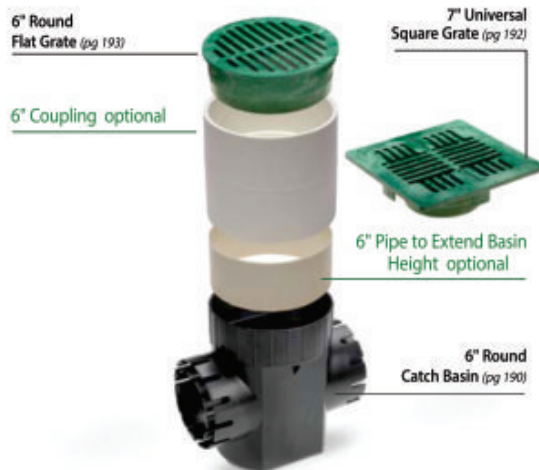
### Recycled Plastics

All drainage models are constructed from 100% recycled plastic and therefore qualify for points on LEED projects.

### Full Compatibility

Any way you put them together, our grates and basins will give you the best fit. For easy upgrades and quick replacements, our products are also compatible with components from most other drainage manufacturers.

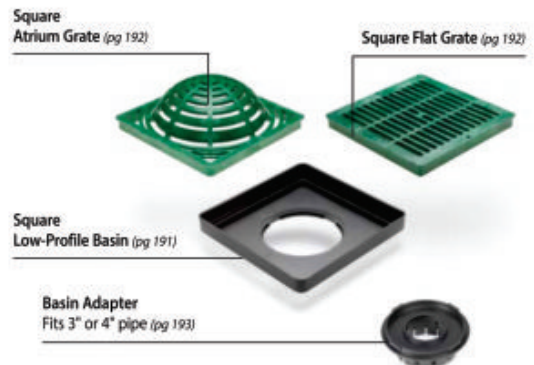
### Round Catch Basin



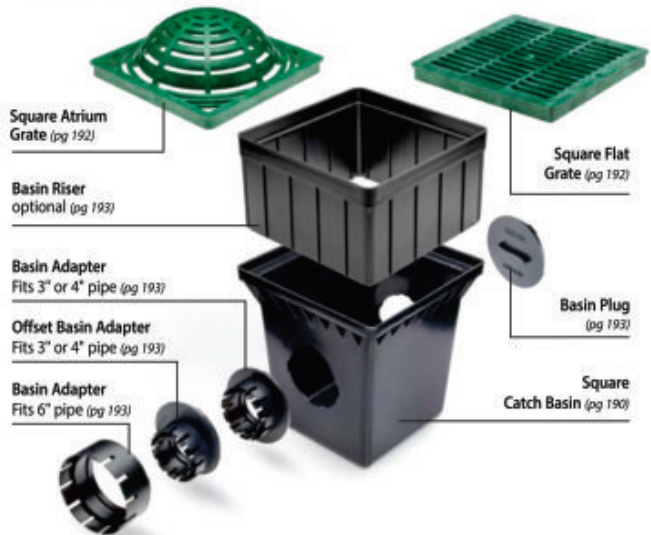
### Compatible Drainage Pipe (not manufactured by Rain Bird)



### Low-Profile Basin




### Square Catch Basin





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**Quote Tool:** Generate a wishlist and submit to your Rain Bird reseller for a quote

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