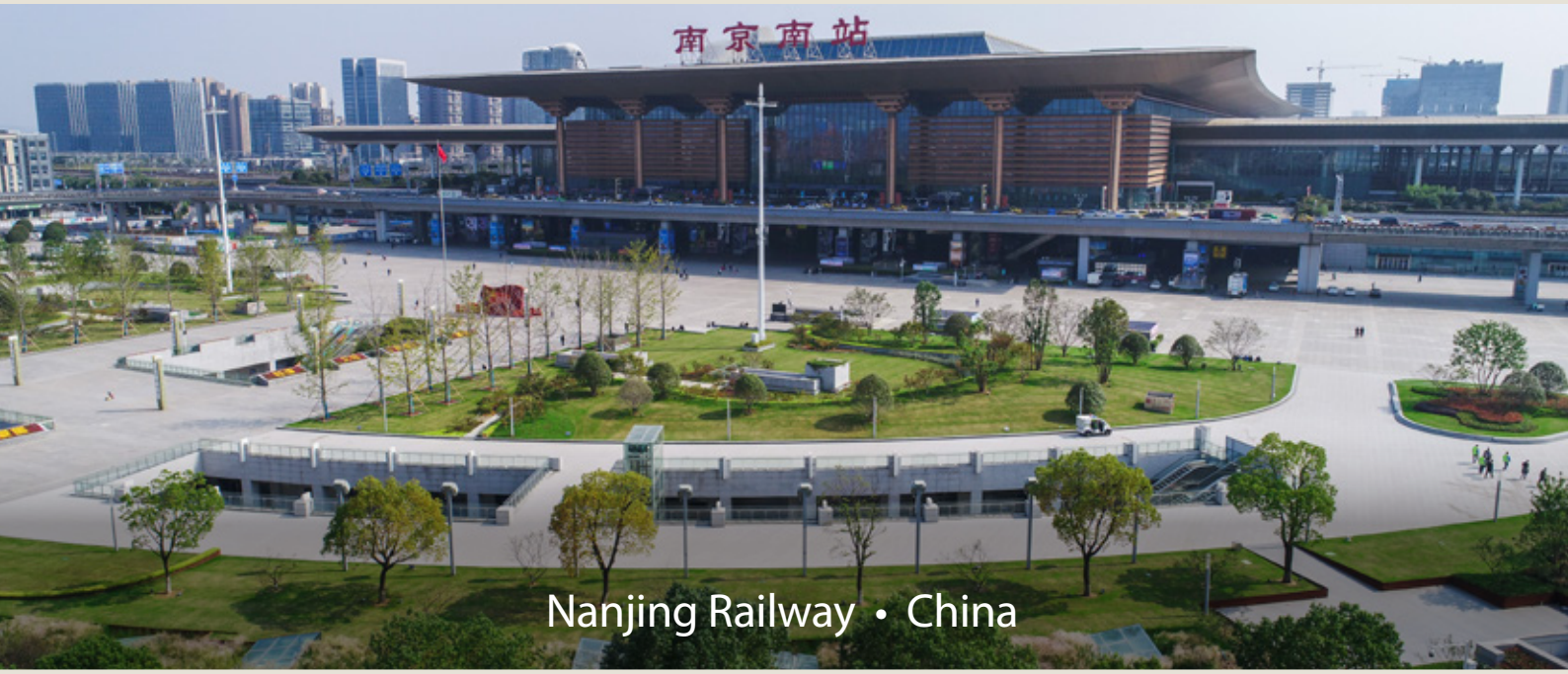
International Landscape Irrigation Products Catalog



Nanjing Railway • China













The Intelligent Use of Water.™

Rain Bird Corporation Sustainability Statement

Since Rain Bird's beginnings in 1933, we have been dedicated to The Intelligent Use of Water™ by developing innovative products and technologies that use water in increasingly efficient ways. Rain Bird's products support sustainable green spaces, landscapes, recreational areas and agricultural production world-wide. Our products utilize many water conserving technologies, including:

Pressure Regulation	Weather Based Irrigation
Sub-Surface Drip Irrigation	Soil Moisture Sensors
Check Valves	Root Watering Systems
Reclaimed Compatibility	Leak Detection and Auto Shutoff
VFD Pump Stations	High-Efficiency Nozzles

Rain Bird's commitment to The Intelligent Use of Water, has grown beyond our products. Today, we partner with customers, designers and municipalities to provide solutions, education and training that help achieve near-term and long-term water resource management goals.
Rain Bird defines sustainability as operating our business in a way that demonstrates environmental stewardship, while continuing to develop products, services and education that promote The Intelligent Use of Water.

Our Top Corporate Goals to help achieve a more sustainable future are:

1. Achieve EPA WaterSense certification for our products for every category in which this certification is available.
2. Ensure 100% of product categories have at least one model that is suitable for use with reclaimed water.
3. Leverage advanced design tools to innovate irrigation emission devices that lead their categories in water conservation performance.
4. Provide global leadership in intelligent irrigation control methods and products, including weather-based irrigation adjustments, leak detection and soil moisture monitoring.
5. Provide the highest quality products that ensure long product life, thereby reducing their total carbon footprint.
6. Increase the amount of recycled resins used year over year.
7. Increase the amount of recycled packaging used year over year.
8. Increase the amount of electronics recycled year over year.
9. Ensure a sustainable work environment for our global work force by providing safe work spaces and health and wellness education to employees.
10. Encourage our suppliers to adopt sustainability and continuous improvement initiatives.
11. Pursue continuous improvement in energy efficiency in all our facilities.
12. Review sustainability goals and results annually.

www.rainbird.com

Water efficient irrigation technology for every landscape application

When you design and install Rain Bird complete irrigation solutions, you can be confident knowing that the system will perform better and last longer for many years to come. No matter what your irrigation needs are, Rain Bird has a solution that will help save water for every application in your next green project.



Spray Bodies
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Sensors & Meters
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Spray & Rotary Nozzles
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Central Controls
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Rotors
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Drip Irrigation
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Valves
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Filtration
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Controllers
Page 67



Resources
Page 146

Not all models are listed. Not all models are available in all markets. Review your regional price list or contact your Rain Bird sales representative for local model availability.

Anatomy of a Water-Efficient* Residential System

This residential design guide highlights Rain Bird product and technology solutions for a healthy landscape that uses less water.



Sprays

In-Stem Pressure Regulation

High Efficiency Nozzles

Seal-A-Matic™ (SAM) Check Valve Devices

Non-Potable Spray Heads

p. 8

Controllers and Sensors

Automatic Controllers with Water Efficient Features

Smart Controller Technologies

Automatic Shut-Off Devices

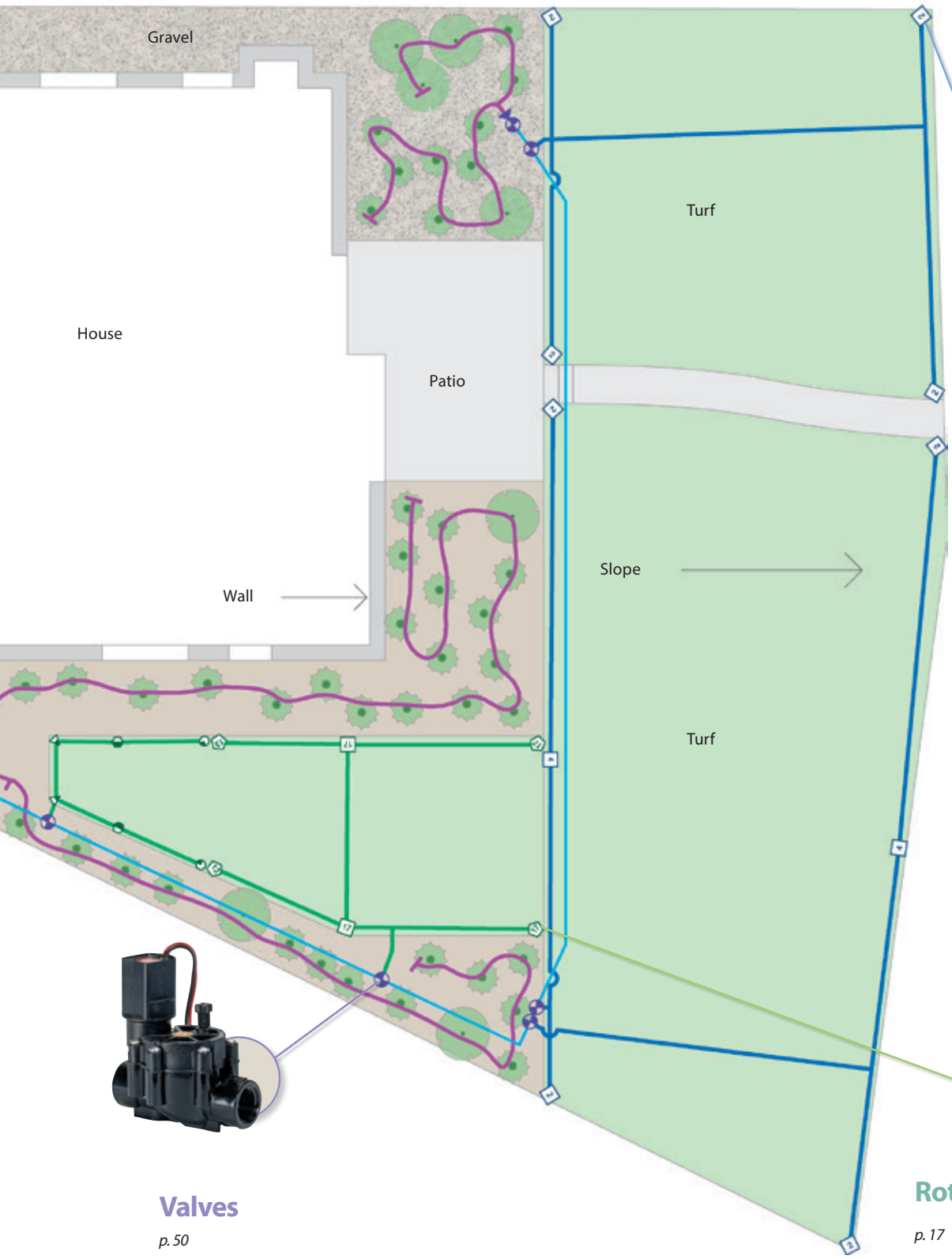
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Landscape Drip

Direct-to-Plant-Root Watering Devices

p. 99

**All claims of water savings dependent on proper design, installation, and maintenance of irrigation products. Actual water savings may vary from user to user depending on weather, irrigation system and site conditions, and previous irrigation practices.*





Rotors

In-Stem Pressure Regulation

High Efficiency Nozzles

Check Valve Devices

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Valves

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Rotary Nozzles

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Anatomy of a Water-Efficient* Commercial System

This commercial design guide highlights Rain Bird product and technology solutions for a healthy landscape that uses less water.



Sprays

In-Stem Pressure Regulation

High Efficiency Nozzles

Seal-A-Matic™ (SAM) Check Valve Devices

Non-Potable Spray Heads

p. 8

Central Control Systems

Automatic ET-Based Scheduling

Flow Management

Flow Monitoring/Leak Detection Cycle + Soak™

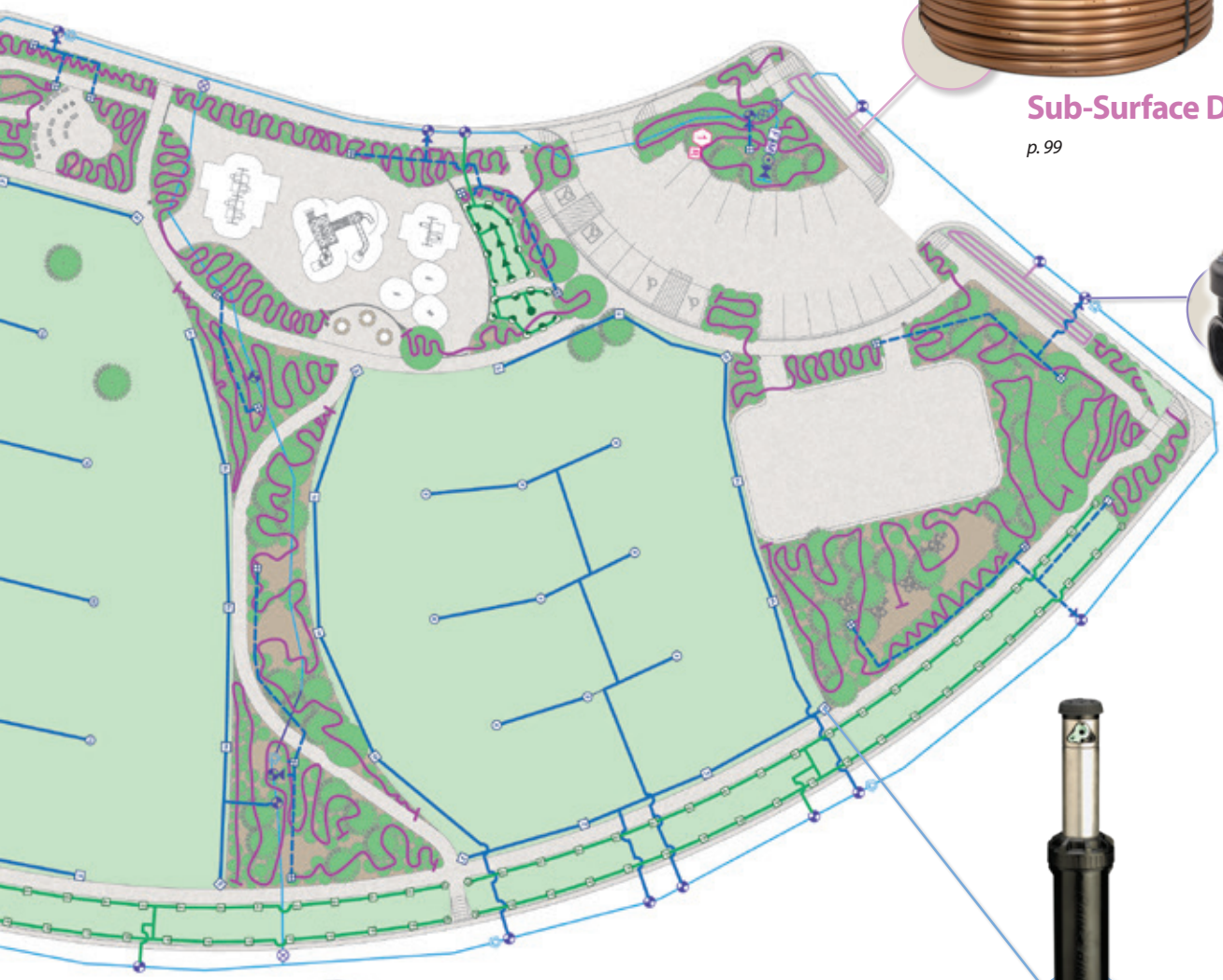
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Landscape Drip

Direct-to-Plant-Root Watering Devices

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**All claims of water savings dependent on proper design, installation, and maintenance of irrigation products. Actual water savings may vary from user to user depending on weather, irrigation system and site conditions, and previous irrigation practices.*





Sub-Surface Dripline

p. 99



Valves

p. 50

Rotors

In-Stem Pressure Regulation

High Efficiency Nozzles

Check Valve Devices

Vandal Resistance

p. 30



Controllers and Sensors

Automatic Controllers with Water Efficient Features

Automatic Shut-Off Devices

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Spray Bodies

Major Products

Primary Applications	1802, 1804, 1806	1812	1800 SAM	1800 SAM-PRS	US-400	1300/ 1400 Bubblers	PA-80 PA-8S	RD-04, RD-06	RD1800 SAM-PRS-F	RD1800 SAM-PRS-45-F
Turfgrass	●		●	●	●			●	●	●
Slopes			●	●					●	●
Ground Cover/Shrubs	●	●	●	●	●	●	●	●	●	●
High Pressure Systems				●		●	●	●	●	●
Low Pressure Systems	●	●			●	●	●	●		
High Wind Areas	●	●	●	●	●	●	●	●	●	●
Non-Potable Water							●	●	●	●
Vandalism/Damage Prone									●	●
Dirty Water								●	●	●

Water Saving™ Water Saving Tips

- The patented, built-in PRS regulator maintains optimal operating pressure and restricts water loss by up to 70% if a nozzle is removed or damaged. It also ends water waste by eliminating misting and fogging caused by high pressure.
- Save water, stop low head drainage, and reduce water hammer by preventing water from draining out of pipes after irrigation with 1800/RD1800 Series Sprays featuring Seal-A-Matic™ (SAM) check valves.
- Exclusive Flow Shield Technology available in the RD1800 Series provides up to 90% reduction in water loss when a nozzle is removed, preventing potentially costly and unacceptable run-off.

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

- Spacing: 0.8 to 7.3m**
- Pressure: 1.0 to 4.8 bar

Specifications

- Flow-by: 0 at 0.75 bar or greater; 0.04 m^3/h; 0.60 l/m otherwise

Models*

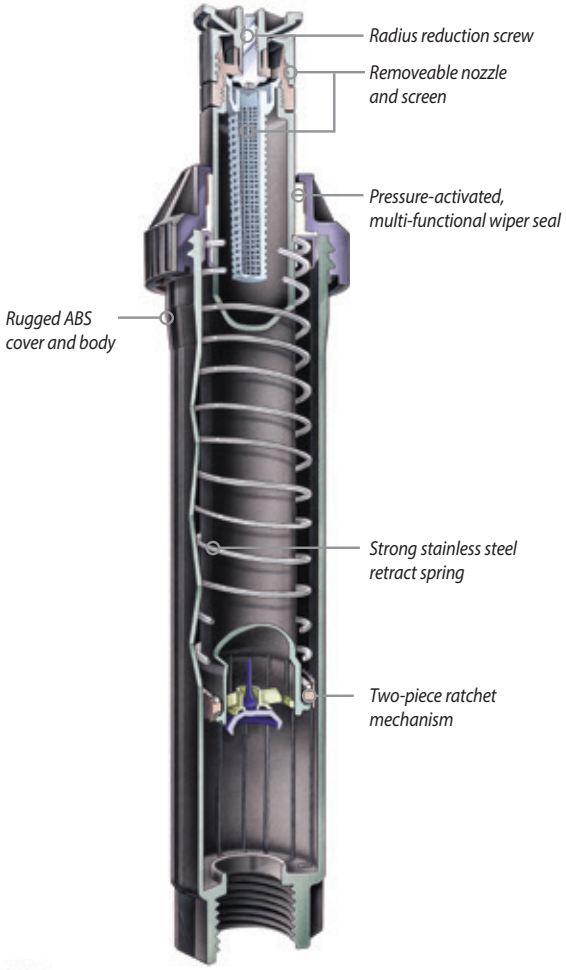
Select models shown. Review your regional price list for complete availability.

- US400: 10 cm (4") pop-up height, body only
- US410: 10 cm (4") pop-up height with VAN-10 attached
- US412: 10 cm (4") pop-up height with VAN-12 attached
- US415: 10 cm (4") pop-up height with VAN-15 attached
- US418: 10 cm (4") pop-up height with VAN-18 attached

Models with High-Efficiency Nozzles Pre-Attached*

- US408HE: 10 cm (4") pop-up height with HE-VAN-8 attached
- US410HE: 10 cm (4") pop-up height with HE-VAN-10 attached
- US412HE: 10 cm (4") pop-up height with HE-VAN-12 attached
- US415HE: 10 cm (4") pop-up height with HE-VAN-15 attached

** The UNI-Spray accepts all Rain Bird nozzles*





High Efficiency Variable Arc Nozzles
(2.4 m, 3.0 m, 3.7 m, or 4.6 m)
are available pre-installed



UNI-Spray™

How to Specify

US - 4 - 10HE

Nozzle Series/Pattern
HE-VAN nozzle
R-VAN18 Nozzle

Body
10.2cm (4")

Model
UNI-Spray

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: 0.8 to 7.3m**
- Pressure: 1.0 to 4.8 bar

Specifications

- Flow-by: 0 at 0.6 bar or greater; 20 l/h otherwise

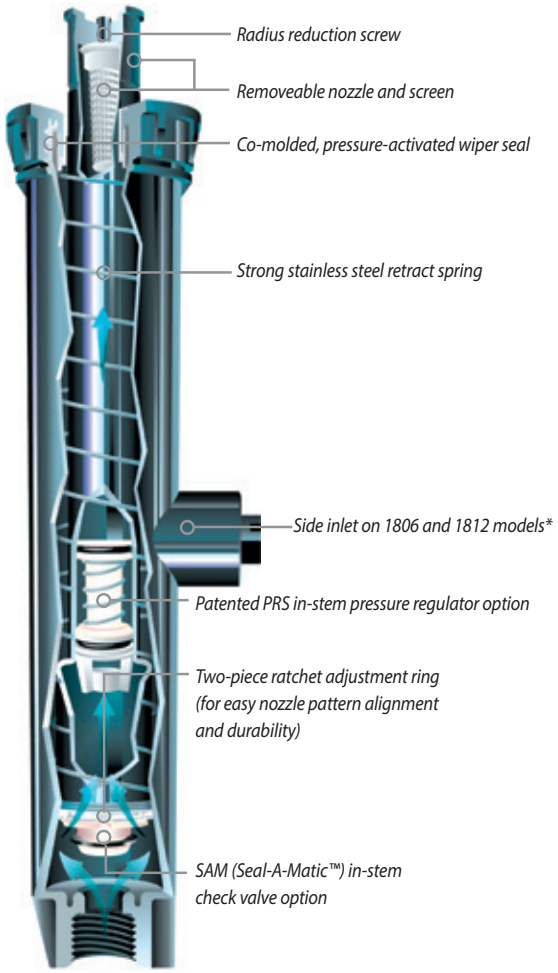
Dimensions/Models

Select models shown. Review your regional price list for complete availability.

- ½" NPT female threaded inlet
- Models and height:
  - 1802: 10 cm (4") body height; 5 cm (2") pop-up height
  - 1804: 15 cm (6") body height; 10 cm (4") pop-up height
  - 1806: 23 cm (9⅜") body height; 15 cm (6") pop-up height
  - 1812: 40 cm (16") body height; 30 cm (12") pop-up height
- Exposed surface diameter: 5.7 cm

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

*** 0.8m to 4.6m with standard Rain Bird Spray Head Nozzles (SQ, U-Series, HE-VAN) 2.4m to 7.3m 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: 5 cm (2") pop-up height
1804: 10 cm (4") pop-up height
1806: 15 cm (6") pop-up height
1812: 30 cm (12") pop-up height

Model
1800 Series Spray Bodies

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

10.2 cm, 15.2 cm, 30.5 cm

Features

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

Specifications

- 10.2 cm, 15.2 cm, 30.5 cm
- SAM capability: holds up to 4.2 m)of head; 0.4 bar
- PRS and P45 models regulate nozzle pressure to an average 2.1 or 3.1 bar with inlet pressures of up to 4.8 bar
- Flow-by: 0 at 0.6 bar or greater; 0.02 m^3/h; 0.36 l/m otherwise
- Installation: side or bottom inlet
- Side inlet installation not recommended in freezing climates
- Five Year Trade Warranty

1800®-SAM Models

- 1804-SAM: 10 cm (4") pop-up height
- 1806-SAM: 15 cm (6") pop-up height
- 1812-SAM: 30 cm (12") pop-up height

1800®-PRS Models

- 1804 PRS: 10 cm (4") pop-up height
- 1806 PRS: 15 cm (6") pop-up height
- 1812 PRS: 30 cm (12") pop-up height

1800®-P45 Models

- 1804 P45: 10 cm (4") pop-up height
- 1806 P45: 15 cm (6") pop-up height
- 1812 P45: 30 cm (12") pop-up height

1800®-SAM-PRS Models

- 1804-SAM-PRS: 10 cm (4") pop-up height
- 1806-SAM-PRS: 15 cm (6") pop-up height
- 1812-SAM-PRS: 30 cm (12") pop-up height

1800®-SAM-P45 Models

- 1804-SAM-P45: 10 cm (4") pop-up height
- 1806-SAM-P45: 15 cm (6") pop-up height
- 1812-SAM-P45: 30 cm (12") pop-up height

Operating Range

- Spacing: 0.8 to 7.3m*
- Pressure: 1.0 to 4.8 bar



1800-SAM



1800-PRS



1800-PRS-45



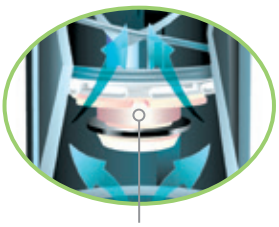
1800-SAM-PRS



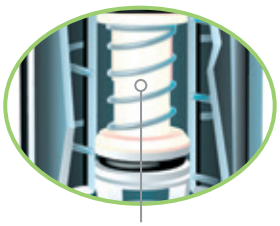
1800-SAM-P45

WaterSense
Meets EPA Criteria
Certified by ICC-ES

When using 2.1 bar and 3.1 bar pressure regulating spray heads



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



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

** 0.8m to 5.5m with standard Rain Bird Spray Head Nozzles (SQ, MPR, VAN, HE-VAN, U-Series), 2.4m to 7.3m with Rain Bird Rotary Nozzles (R-VAN)*

RD1800™ Series Spray Heads

Robust Design for Harsh Applications

Features

- Patented, Triple-Blade Wiper Seal precisely balances flushing, flow-by and debris protection to optimize performance and durability at pop-up and retraction. Precision-controlled flushing at pop-up and retraction clears debris, ensuring positive stem retraction in all soil types
- Unique debris pockets hold grit in place, removing it from circulation and preventing long-term damage. Parts resistant to corrosion in treated recycled water containing chlorine
- **RD1800™ SAM PRS Series:** Incorporates all RD1800 Series SAM and PRS features. Meets the needs of all spray areas, regardless of changing elevation or water pressures
- **RD1800™ SAM P45 Series:** Incorporates all RD1800 Series SAM and P45 features. Ensures maximum spray body and nozzle performance even with varying inlet pressures. Recommended for use with rotary nozzles (R-VAN)
- **RD1800™ Flow-Shield™ Series:** Provides low flow vertical water jet visible from +61 meter line of sight when a nozzle has been removed
- **RD1800™ Non-Potable Water Series:** Provides an alternative to clip-on caps and molded purple covers. Easy-to-read English "DO NOT DRINK", Spanish "NO BEBA" warnings, and international do not drink symbol

Operating Range

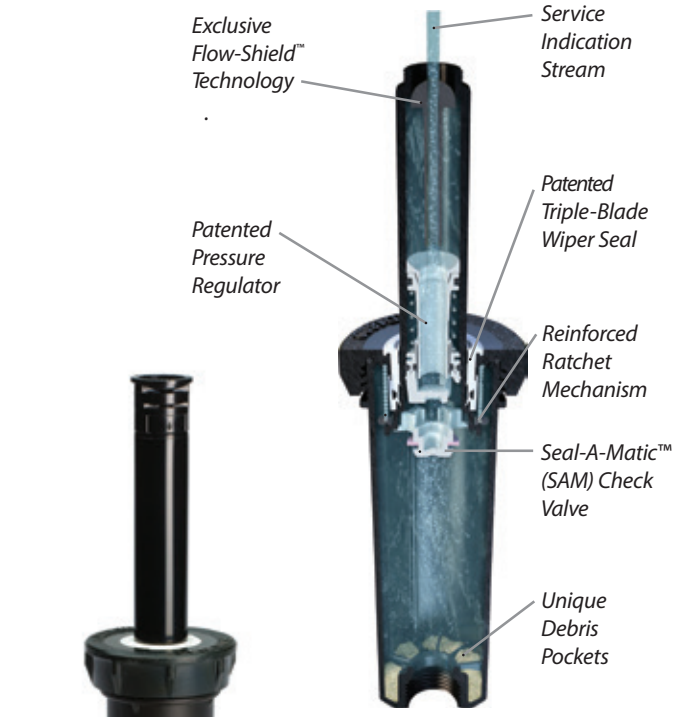
- Spacing: 0.8 to 7.3 m
- Pressure: 1.0 to 6.9 bar

Specifications

- 10.2 cm; 15.2 cm; 30.5 cm
- SAM capability: Holds up to 4.2 m of head; 0.3 bar
- Flow-by: SAM Models: 0 at 1.0 bar or greater; 0.1 m^3/h; 0.03 l/s otherwise
  All Other Models: 0 at 0.7 bar or greater; 0.1 m^3/h; 0.03 l/s otherwise
- SAM-PRS models regulate nozzle pressure to an average 2.1 bar with inlet pressures of up to 6.9 bar
- SAM-P45 models regulate nozzle pressure to an average 3.1 bar with inlet pressures of up to 6.9 bar
- Five-year trade warranty

Dimensions

- ½" NPT female threaded inlet





RD1800 Series

WaterSense Meets EPA Criteria
Certified by ICC-ES

When using 2.1 bar and 3.1 bar pressure regulating spray heads



Standard Cover



Non-Potable Cover

Models

10 cm (4")	15 cm (6")	30 cm (12")
RD04	–	–
RD04-NP	–	–
RD04-S-P-30-NP	RD06-S-P-30-NP	RD12-S-P-30-NP
RD04-S-P-30-F	RD06-S-P30-F	RD12-S-P-30-F
RD04-S-P-30-F-NP	RD06-S-P-30-F-NP	RD12-S-P-30-F-NP
RD04-S-P-45-NP	RD06-S-P-45-NP	RD12-S-P-45-NP
RD04-S-P-45-F	RD06-S-P-45-F	RD12-S-P-45-F
RD04-S-P-45-F-NP	RD06-S-P-45-F-NP	RD12-S-P-45-F-NP

How to Specify

RD-XX - X - Nozzle

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

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

Model
RD-04: 4" (10 cm) pop-up height
RD-06: 6" (15 cm) pop-up height
RD-12: 12" (30.5 cm) pop-up height

Notes:
Specify sprinkler bodies and nozzles separately.

1800® NP Cover

Non-Potable 1800 Spray Head Cover

Features

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

Model

- 1800-NP



1800-NP

PA

Plastic Shrub Adapter

Features

- Adapts Rain Bird Nozzles for use with ½" (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

- ½" (15/21) female inlet threads
- Fine top threads accept all Rain Bird nozzles

Model

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



PA-8S PA-8S-NP

PA-80

Plastic Adapter

Features

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

Dimensions

- Height: 3.8 cm; 2.0 cm above 1800 cap

Model

- PA-80



PA-80

1800®-EXT

Plastic Extension

Features

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

Model

- 1800-EXT



1800-EXT

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

30 psi and 45 psi Pressure Regulating Shrub Adapters

Features

- Adapts nozzles for use with ½" (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 2,1 bar or 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: 1.0 to 4.8 bar
- Flow: 0.05 to 0.91 m^3/h; 0.06 to 15.0 l/m

Specifications

- ½" female inlet threads
- Fine top threads accept all Rain Bird nozzles
- Height: 13.3 cm

Models

- PA-8S-PRS
- PA-8S-P45



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: 1.24 cm
- Operating pressure: 5.5 bar
- Temperature: 43° C

Models

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



SPX-FLEX100



SB Series Spiral Barb Fittings

A Natural Product Complement to SPX Series Swing Pipe

Features and Benefits

- Fittings are made of robust acetal material to make connecting swing pipe fast and easy
- Easy twist-in insertion – no glue or clamps needed for installation
- Aggressive barb lip makes a secure connection that is less likely to leak
- Broad range of shapes and sizes allow the contractor to choose the best fitting for the application
- Extended length and aggressive barb lip prevent blow outs, reducing likelihood of contractor call backs



Specifications

- Operating pressure: 5.5 bar
- Temperature: Up to 43° C

Models

- SB-CPLG: ½" barb x ½" barb coupling
- SBA-050: ½" M NPT x ½" barb adapter
- SBE-075: ¾" M NPT x ½" barb elbow
- SBE-050: ½" M NPT x ½" barb elbow
- SB-TEE: ½" barb x ½" barb x ½" barb tee

SA Series

Swing Assemblies Connect Heads to Lateral Pipes.

Features

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


SA Series

Specifications

- The operating range of the Rain Bird Swing Assemblies matches or exceeds the operating range for most 1.3 cm sprays and 1.9 cm rotors
- Operating pressure: Up to 5.5 bar
- Surge pressure: Up to 15.5 bar
- Temperature: Up to 43° C
- Maximum flow: 0.5 l/sec

Models

Select models shown. Review your regional price list for complete availability.

	Length	Inlet/Outlet
• SA-6050	15.2 cm	½" (1.3 cm)
• SA-125050	30.5 cm	½" (1.3 cm)

How to Specify

SA 12 5050

Inlet/Outlet
050: 1.3 cm x 1.3 cm
5050: 1.3 cm x 1.3 cm
7575: 1.9 cm x 1.9 cm

Length
18" (45.7 cm)
12" (30.5 cm)
6" (15.2 cm)

Model
Swing Assembly


Swing Pipe Flexible Sprinkler Assembly



Spray & Rotary Nozzles

Major Products

	Rotary Nozzles	Variable ARC Sprays		Fixed ARC Sprays	
Primary Applications	**R-VAN** Best	**HE-VAN** Best	**VAN** Standard	**U-Series** Best	**MPR** Standard
Turfgrass	●	●	●	●	●
Slopes	●				
Narrow Strips	●				●
Small Areas	●	●			
Landscape Beds	●	●	●	●	●
High Efficiency	●	●		●	
High Winds	●	●		●	
High Pressure	●	●			

Refer to page 108 for more information on SQ Series, Square Pattern Nozzles

Water Saving™ Water Saving Tips

- Rotary Nozzles have efficient water distribution through rotating streams that uniformly deliver water at a low precipitation rate, significantly reducing runoff and erosion.
- HE-VAN nozzles are fully adjustable from 0 to 360 degrees with high uniformity and efficiency. HE-VAN nozzles can reduce the number of variations that need to be carried to cover just about any field challenge. Available in radii from 2.4m to 4.6m, this high efficient nozzle has you covered.
- U-Series Nozzles are dual-orifice nozzles that have better, more uniform water distribution. Water flowing from both orifices combines to form a continuous water stream and eliminates gaps for more uniform coverage throughout the entire watering area.



What is a High-Efficiency Nozzle?

Typical nozzles – Un-Even Watering

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

High-efficiency nozzles – Even Watering

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

Standard or Low Precipitation Rate?

Low Precipitation Rate Nozzles

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

Standard Precipitation Rate Nozzles

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

Low Precipitation Rate		Standard Precipitation Rate			
High-Efficiency Rotary Nozzles		High-Efficiency Nozzles		Standard Nozzles	
					
					
R-VAN		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.



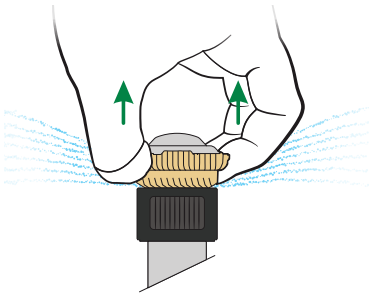
R-VAN Nozzles

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 2.4m to 10.7m
- Three year trade warranty

Operating Specifications

- Pressure Range: 2.1 to 3.8 bar
- Recommended Operating Pressure: 3.1 bar
- Spacing: 2.4 to 7.3m
- Adjustments: Arc and radius should be adjusted while water is running



Pull Up HARD to Flush

Models

2.4 to 4.6m

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

4.0 to 5.5m

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

5.2 to 7.3m

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

Strip Nozzles

- R-VAN-LCS: 1.5 x 4.6m Left Corner Strip
- R-VAN-RCS: 1.5 x 4.6m Right Corner Strip
- R-VAN-SST: 1.5 x 9.1m Side Strip

[1] *Rain Bird recommends using 1800 P45 Spray Bodies to maintain optimum nozzle performance*

For Optimum Performance, Use Rain Bird 1800 3.1 Bar Regulated or RD1800 3.1 Bar Regulated Spray Bodies



How to Specify

R-VAN 18-360

Radius Range

2.4 to 4.6m
R-VAN14: 45° - 270°
R-VAN14-360: 360°

4.0 to 5.5m
R-VAN18: 45° - 270°
R-VAN18-360: 360°

5.2 to 7.3m
R-VAN24: 45° - 270°
R-VAN24-360: 360°

Strip Nozzles
R-VAN-LCS: 1.5 x 4.6m
R-VAN-RCS: 1.5 x 4.6m
R-VAN-SST: 1.5 x 9.1m

Model
R-VAN Adjustable Rotary Nozzle

R-VAN Nozzles meet the standard for high efficiency nozzles.

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

Product	Type	Radius	DU(LQ)
R-VAN	Multi-stream	2.4 to 7.3m	> 0.70



2.4m to 4.6m | **4.0m to 5.5m** | **5.2m to 7.3m** | **Strip Nozzles**



R-VAN14	R-VAN14-360	R-VAN18	R-VAN18-360	R-VAN24	R-VAN24-360	R-VAN-LCS	R-VAN-SST	R-VAN-RCS
45° - 270°	360°	45° - 270°	360°	45° - 270°	360°	1.5 x 4.6m Left Corner Strip	1.5 x 9.1m Side Strip	1.5 x 4.6m Right Corner Strip

2.4 to 4.6m Adjustable Arc Nozzles (45° to 270°)

R-VAN14 2.4 to 4.6m

Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	Precip ■ mm/h	Precip ▲ mm/h
270°	2.1	4.0	0.19	3.18	16	19
	2.4	4.0	0.20	3.29	17	19
	2.8	4.3	0.21	3.48	15	18
	3.1	**4.3**	**0.21**	**3.56**	**16**	**18**
	3.4	4.6	0.25	4.20	16	19
	3.8	4.6	0.27	4.43	17	20
210°	2.1	4.0	0.15	2.46	16	19
	2.4	4.0	0.15	2.57	17	19
	2.8	4.3	0.16	2.73	15	18
	3.1	**4.3**	**0.17**	**2.76**	**16**	**18**
	3.4	4.6	0.20	3.26	16	19
	3.8	4.6	0.21	3.44	17	20
180°	2.1	4.0	0.13	2.12	16	19
	2.4	4.0	0.13	2.20	17	19
	2.8	4.3	0.14	2.31	15	18
	3.1	**4.3**	**0.14**	**2.38**	**16**	**18**
	3.4	4.6	0.17	2.80	16	19
	3.8	4.6	0.18	2.95	17	20
90°	2.1	4.0	0.06	1.06	16	19
	2.4	4.0	0.07	1.10	17	19
	2.8	4.3	0.07	1.17	16	18
	3.1	**4.3**	**0.07**	**1.21**	**15**	**18**
	3.4	4.6	0.08	1.40	16	19
	3.8	4.6	0.09	1.48	17	20

4.0 to 5.5m Adjustable Arc Nozzles (45° to 270°)

R-VAN18 4.0 to 5.5m

Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	Precip ■ mm/h	Precip ▲ mm/h
270°	2.1	4.9	0.29	4.77	17	19
	2.4	4.9	0.31	5.11	16	19
	2.8	5.2	0.32	5.38	16	19
	3.1	**5.2**	**0.34**	**5.72**	**16**	**19**
	3.4	5.5	0.36	5.94	15	18
	3.8	5.5	0.37	6.13	0	18
210°	2.1	4.9	0.22	3.71	16	19
	2.4	4.9	0.24	3.97	17	20
	2.8	5.2	0.25	4.16	16	19
	3.1	**5.2**	**0.27**	**4.43**	**16**	**20**
	3.4	5.5	0.28	4.62	16	18
	3.8	5.5	0.29	4.77	16	19
180°	2.1	4.9	0.19	3.22	17	19
	2.4	4.9	0.21	3.44	16	19
	2.8	5.2	0.22	3.71	16	19
	3.1	**5.2**	**0.23**	**3.82**	**16**	**19**
	3.4	5.5	0.24	4.05	15	18
	3.8	5.5	0.25	4.13	15	18
90°	2.1	4.9	0.10	1.59	17	19
	2.4	4.9	0.11	1.78	16	19
	2.8	5.2	0.11	1.89	16	19
	3.1	**5.2**	**0.11**	**1.89**	**16**	**19**
	3.4	5.5	0.12	2.04	15	18
	3.8	5.5	0.13	2.20	15	18

2.4 to 4.6m Full Circle Nozzles (360°)

R-VAN14-360 2.4 to 4.6m

Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	Precip ■ mm/h	Precip ▲ mm/h
360°	2.1	4.0	0.25	4.16	16	18
	2.4	4.0	0.25	4.24	16	19
	2.8	4.3	0.28	4.62	15	18
	3.1	**4.3**	**0.29**	**4.81**	**16**	**18**
	3.4	4.6	0.32	5.34	15	18
	3.8	4.6	0.33	5.49	16	18

4.0 to 5.5m Full Circle Nozzles (360°)

R-VAN18-360 4.0 to 5.5m

Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	Precip ■ mm/h	Precip ▲ mm/h
360°	2.1	4.9	0.38	6.25	16	18
	2.4	4.9	0.38	6.32	16	19
	2.8	5.2	0.41	6.81	15	18
	3.1	**5.2**	**0.42**	**7.00**	**16**	**18**
	3.4	5.5	0.47	7.76	15	18
	3.8	5.5	0.48	7.99	16	18

Note: *All R-VAN nozzles tested on 10 cm pop-ups*
■ *Square spacing based on 50% diameter of throw*
▲ *Triangular spacing based on 50% diameter of throw*

Performance data taken in zero wind conditions
R-VAN24 and R-VAN24-360: "Do not reduce the radius below 5.2 m
R-VAN18 and R-VAN18-360: "Do not reduce the radius below 4.0 m
R-VAN14 and R-VAN18-360: "Do not reduce the radius below 2.4 m

5.2 to 7.3m Adjustable Arc Nozzles (45° to 270°)

R-VAN24 5.2 to 7.3m						
Nozzle	Pressure bar	Radius m	Flow m^3/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
270°	2.1	5.8	0.41	6.81	16	19
	2.4	6.1	0.44	7.38	16	18
	2.8	6.7	0.52	8.74	15	18
	3.1	**7.0**	**0.57**	**9.54**	**15**	**18**
	3.4	7.3	0.64	10.67	16	19
	3.8	7.3	0.65	10.90	16	19
210°	2.1	5.8	0.32	5.30	16	19
	2.4	6.1	0.35	5.75	16	18
	2.8	6.7	0.41	6.81	15	18
	3.1	**7.0**	**0.45**	**7.42**	**15**	**18**
	3.4	7.3	0.50	8.29	16	19
	3.8	7.3	0.51	8.48	16	19
180°	2.1	5.8	0.27	4.54	16	19
	2.4	6.1	0.30	4.92	16	18
	2.8	6.7	0.35	5.83	15	18
	3.1	**7.0**	**0.38**	**6.36**	**15**	**18**
	3.4	7.3	0.43	7.12	16	19
	3.8	7.3	0.44	7.27	16	19
90°	2.1	5.8	0.14	2.27	16	19
	2.4	6.1	0.15	2.46	16	18
	2.8	6.7	0.17	2.91	15	18
	3.1	**7.0**	**0.19**	**3.18**	**15**	**18**
	3.4	7.3	0.21	3.56	16	19
	3.8	7.3	0.22	3.63	16	19

5.2 to 7.3m Full Circle Nozzles (360°)

R-VAN24-360 5.2 to 7.3m						
Nozzle	Pressure bar	Radius m	Flow m^3/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
360°	2.1	5.8	0.53	8.90	16	18
	2.4	6.1	0.57	9.54	15	18
	2.8	6.7	0.71	11.85	16	18
	3.1	**7.0**	**0.79**	**13.17**	**16**	**19**
	3.4	7.3	0.82	13.67	15	18
	3.8	7.3	0.85	14.16	16	18

Note: *All R-VAN nozzles tested on 10 cm pop-ups*
■ *Square spacing based on 50% diameter of throw*
▲ *Triangular spacing based on 50% diameter of throw*

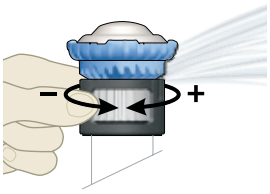
Performance data taken in zero wind conditions
R-VAN24 and R-VAN24-360: "Do not reduce the radius below 5.2 m
R-VAN18 and R-VAN18-360: "Do not reduce the radius below 4.0 m
R-VAN14 and R-VAN18-360: "Do not reduce the radius below 2.4 m

Easy Adjustments

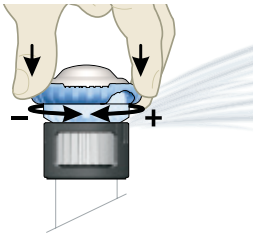
Adjustable Arc Nozzles

R-VAN14, R-VAN18, R-VAN24

RADIUS ADJUSTMENT



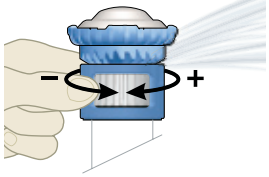
ARC ADJUSTMENT



Full Circle Nozzles

R-VAN14-360, R-VAN18-360, RVAN24-360

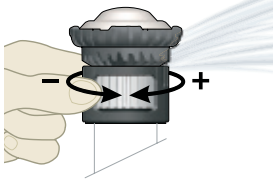
RADIUS ADJUSTMENT



Strip Nozzles

R-VAN-LCS, R-VAN-RCS, R-VAN-SST

SIZE ADJUSTMENT



Did you know?

You Can use R-VAN Nozzles and 5000 Series MPR Rotors on the same zone!

- Matched precipitation rate (MPR) from 2.4m to 10.7m
- Superior coverage – >0.70 DU[LQ]
- Thick, wind-resistant streams – near to far



Strip Nozzles (Left Corner, Side, Right Corner)

R-VAN-LCS 1.5 x 4.6m

Nozzle	Pressure bar	Size m	Flow m³/h	Flow l/m	Precip — mm/h	Precip ▲ mm/h
Left Corner Strip	2.1	1.2x4.3	0.04	0.68	16	16
	2.4	1.5x4.6	0.05	0.83	14	14
	2.8	1.5x4.6	0.05	0.87	15	15
	3.1	**1.5x4.6**	**0.05**	**0.91**	**16**	**16**
	3.4	1.5x4.6	0.06	0.95	16	16
	3.8	1.8x4.9	0.06	1.06	14	14

R-VAN-RCS 1.5 x 4.6m

Nozzle	Pressure bar	Size m	Flow m³/h	Flow l/m	Precip — mm/h	Precip ▲ mm/h
Right Corner Strip	2.1	1.2x4.3	0.04	0.68	16	16
	2.4	1.5x4.6	0.05	0.83	14	14
	2.8	1.5x4.6	0.05	0.87	15	15
	3.1	**1.5x4.6**	**0.05**	**0.91**	**16**	**16**
	3.4	1.5x4.6	0.06	0.95	16	16
	3.8	1.8x4.9	0.06	1.06	14	14

R-VAN-SST 1.5 x 9.1m

Nozzle	Pressure bar	Size m	Flow m³/h	Flow l/m	Precip — mm/h	Precip ▲ mm/h
Side Strip	2.1	1.2x8.5	0.08	1.36	16	16
	2.4	1.5x9.1	0.10	1.67	14	14
	2.8	1.5x9.1	0.10	1.74	15	15
	3.1	**1.5x9.1**	**0.11**	**1.82**	**16**	**16**
	3.4	1.5x9.1	0.11	1.89	16	16
	3.8	1.8x9.8	0.13	2.12	14	14

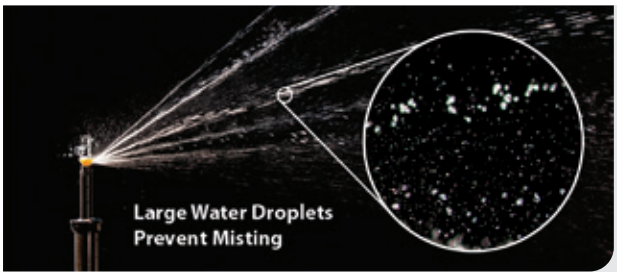
Note: *All R-VAN nozzles tested on 10 cm pop-ups*
Performance data taken in zero wind conditions
– *Straight-line spacing based on 50% overlap of throw for LCS, SST, and RCS*
▲ *Triangular spacing based on 50% overlap of throw for LCS, SST, and RCS*

R-VAN Requires Half the Models to Cover 45° to 360°



Offering Valuable Bottom-Line Savings

- Shorter zone run times save water and energy
- Lower precipitation rates reduce wasteful runoff and costly erosion
- Fewer nozzles needed to cover any area, reducing your inventory costs



Improving Watering Efficiencies Up to 30%

- Gentle, rotating streams create uniform coverage at lower precipitation rates
- Multi-stream technology optimizes absorption for healthier lawns
- Larger droplets and thicker streams cut through wind and keep water in target zone

HE-VAN Series Nozzles

High-Efficiency Variable Arc Spray Nozzles

Features

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

Operating Range

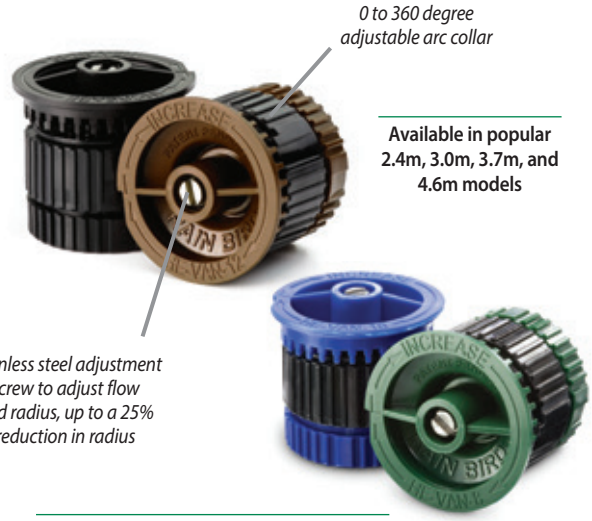
- Spacing: 1.8 to 4.6m [1]
- Pressure: 1.0 to 2.1 bar
- Optimum pressure: 2.1 bar [2]

Models

- HE-VAN-08: 1.8 to 2.4 m
- HE-VAN-10: 2.4 to 3.0 m
- HE-VAN-12: 2.7 to 3.7 m
- HE-VAN-15: 3.7 to 4.6 m

[1] *These ranges are based on proper pressure at nozzle*

[2] *Rain Bird recommends using 1800/RD1800 PRS Spray Bodies to maintain optimum nozzle performance in higher pressure situations*



Available in popular 2.4m, 3.0m, 3.7m, and 4.6m 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 2.1 Bar Regulated or RD1800 2.1 Bar Regulated Spray Bodies



How to Specify

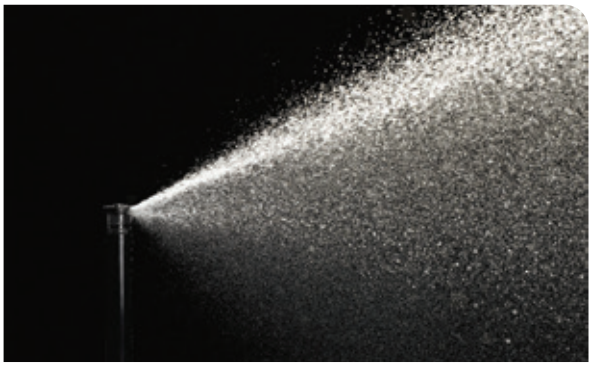
HE-VAN-15

Radius Range
8: 1.8 to 2.4 m
10: 2.4 to 3.0 m
12: 2.7 to 3.7 m
15: 3.7 to 4.6 m

Feature
VAN: Variable Arc

Model
High Efficiency Nozzle





HE-VAN Nozzles meet the standard for high efficiency nozzles.

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

Product	Type	Radius	DU(LQ)
HE-VAN	Spray, Variable Arc	1.8m - 4.6m	> 0.70

8 Series HE-VAN

24° Trajectory

Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
360° Arc	1.0	1.5	0.19	3.14	82	95
	1.4	1.8	0.22	3.62	66	76
	1.7	2.1	0.25	4.05	54	62
	2.1	2.4	0.27	4.43	45	52
270° Arc	1.0	1.5	0.14	2.35	82	95
	1.4	1.8	0.16	2.72	66	76
	1.7	2.1	0.18	3.04	54	62
	2.1	2.4	0.20	3.33	45	52
180° Arc	1.0	1.5	0.10	1.57	82	95
	1.4	1.8	0.11	1.81	66	76
	1.7	2.1	0.12	2.02	54	62
	2.1	2.4	0.13	2.22	45	52
90° Arc	1.0	1.5	0.05	0.78	82	95
	1.4	1.8	0.05	0.91	66	76
	1.7	2.1	0.06	1.01	54	62
	2.1	2.4	0.07	1.11	45	52

12 Series HE-VAN

23° Trajectory

Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
360° Arc	1.0	2.7	0.38	6.33	50.5	58.3
	1.4	3.0	0.44	7.31	47.3	54.6
	1.7	3.4	0.49	8.18	43.7	50.4
	2.1	3.7	0.54	8.96	40.2	46.4
270° Arc	1.0	2.7	0.28	4.75	50.5	58.3
	1.4	3.0	0.33	5.48	47.3	54.6
	1.7	3.4	0.37	6.16	43.7	50.4
	2.1	3.7	0.40	6.72	40.2	46.4
180° Arc	1.0	2.7	0.19	3.17	50.5	58.3
	1.4	3.0	0.22	3.66	47.3	54.6
	1.7	3.4	0.25	4.09	43.7	50.4
	2.1	3.7	0.27	4.48	40.2	46.4
90° Arc	1.0	2.7	0.09	1.58	50.5	58.3
	1.4	3.0	0.11	1.83	47.3	54.6
	1.7	3.4	0.12	2.04	43.7	50.4
	2.1	3.7	0.13	2.24	40.2	46.4

10 Series HE-VAN

27° Trajectory

Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
360° Arc	1.0	2.1	0.29	4.78	64	74
	1.4	2.4	0.34	5.52	56	65
	1.7	2.7	0.37	6.17	50	57
	2.1	3.1	0.41	6.76	44	51
270° Arc	1.0	2.1	0.22	3.59	64	74
	1.4	2.4	0.25	4.14	56	65
	1.7	2.7	0.28	4.63	50	57
	2.1	3.1	0.31	5.07	44	51
180° Arc	1.0	2.1	0.15	2.39	64	74
	1.4	2.4	0.17	2.76	56	65
	1.7	2.7	0.19	3.09	50	57
	2.1	3.1	0.21	3.38	44	51
90° Arc	1.0	2.1	0.07	1.20	64	74
	1.4	2.4	0.08	1.38	56	65
	1.7	2.7	0.09	1.54	50	57
	2.1	3.1	0.10	1.69	44	51

15 Series HE-VAN

25° Trajectory

Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
360° Arc	1.0	3.4	0.59	9.91	52.9	61.1
	1.4	3.7	0.69	11.44	51.3	59.3
	1.7	4.3	0.77	12.79	42.2	48.7
	2.1	4.6	0.84	14.01	40.2	46.5
270° Arc	1.0	3.4	0.45	7.43	52.9	61.1
	1.4	3.7	0.51	8.58	51.3	59.3
	1.7	4.3	0.58	9.59	42.2	48.7
	2.1	4.6	0.63	10.51	40.2	46.5
180° Arc	1.0	3.4	0.30	4.95	52.9	61.1
	1.4	3.7	0.34	5.72	51.3	59.3
	1.7	4.3	0.38	6.39	42.2	48.7
	2.1	4.6	0.42	7.00	40.2	46.5
90° Arc	1.0	3.4	0.15	2.48	52.9	61.1
	1.4	3.7	0.17	2.86	51.3	59.3
	1.7	4.3	0.19	3.20	42.2	48.7
	2.1	4.6	0.21	3.50	40.2	46.5

Note: *All HE-VAN nozzles tested on 10 cm pop-ups*
■ *Square spacing based on 50% diameter of throw*
▲ *Triangular spacing based on 50% diameter of throw*

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

U-Series Nozzles

Dual orifice spray nozzles that use 30% less water[1]

Features

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

Operating Range

- Spacing: 1.7 to 4.6 m [2]
- Pressure: 1.0 to 2.1 bar
- Optimum pressure: 2.1 bar [3]

Models

- U-8 Series: 2.4m Quarter, Half, Full nozzles
- U-10 Series: 3.1m Quarter, Half, Full nozzles
- U-12 Series: 3.7m Quarter, Half, Full nozzles
- U-15 Series: 4.6m Quarter, Half, Full nozzles

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

[2] *These ranges are based on proper pressure at nozzle.*

[3] *Rain Bird recommends using 1800/RD1800 PRS Spray Bodies to maintain optimum nozzle performance in higher pressure situations.*



U-Series Nozzles



U-Series Nozzle with screen



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

For Optimum Performance, Use Rain Bird 1800 2.1 Bar Regulated or RD1800 2.1 Bar Regulated Spray Bodies



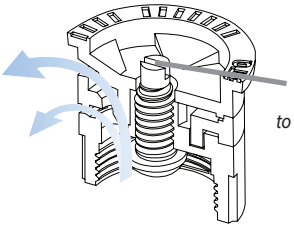
How to Specify

U12H

Pattern
F: Full
H: Half
Q: Quarter

Radius Range
8: 1.7-2.4 m
10: 2.1-3.1 m
12: 2.7-3.7 m
15: 3.4-4.6 m

Model
U-Series Nozzle



Fits all Rain Bird Spray Bodies and Shrub Adapters

Stainless steel adjustment screw to adjust flow and radius



U-Series Nozzles meet the standard for high efficiency nozzles.

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

Product	Type	Radius	DU(LQ)
U-Series	Spray, Fixed Arc	1.8m - 4.6m	> 0.70

U8 Series

10° Trajectory

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

U10 Series

12° Trajectory

Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
U-10F	1.0	2.1	0.26	4.4	52	60
	1.5	2.6	0.30	5.3	47	55
	2.0	3.0	0.34	6.1	41	48
	2.1	3.1	0.37	6.2	40	46
U-10H	1.0	2.1	0.13	2.2	52	60
	1.5	2.6	0.15	2.6	47	55
	2.0	3.0	0.17	3.1	41	48
	2.1	3.1	0.19	3.1	40	46
U-10Q	1.0	2.1	0.07	1.1	52	60
	1.5	2.6	0.08	1.3	47	55
	2.0	3.0	0.08	1.5	41	48
	2.1	3.1	0.09	1.6	40	46

U12 Series

23° Trajectory

Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
U-12F	1.0	2.7	0.40	6.8	55	63
	1.5	3.2	0.48	8.3	47	54
	2.0	3.6	0.59	9.7	46	53
	2.1	3.7	0.60	9.8	44	51
U-12H	1.0	2.7	0.20	3.4	55	63
	1.5	3.2	0.24	4.2	47	54
	2.0	3.6	0.30	4.8	46	53
	2.1	3.7	0.30	4.9	44	51
U-12Q	1.0	2.7	0.10	1.7	55	63
	1.5	3.2	0.12	2.1	47	54
	2.0	3.6	0.15	2.4	46	53
	2.1	3.7	0.15	2.5	44	51

U15 Series

23° Trajectory

Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
U-15F	1.0	3.4	0.60	9.8	52	60
	1.5	3.9	0.72	11.8	47	55
	2.0	4.5	0.84	13.7	41	48
	2.1	4.6	0.84	14.0	40	46
U-15H	1.0	3.4	0.30	4.9	52	60
	1.5	3.9	0.36	5.9	47	55
	2.0	4.5	0.42	6.9	41	48
	2.1	4.6	0.42	7.0	40	46
U-15Q	1.0	3.4	0.15	2.5	52	60
	1.5	3.9	0.18	2.9	47	55
	2.0	4.5	0.21	3.4	41	48
	2.1	4.6	0.21	3.5	40	46

Note: *All U-Series nozzles tested on 10 cm pop-ups*

■ *Square spacing based on 50% diameter of throw*

▲ *Triangular spacing based on 50% diameter of throw*

Performance data taken in zero wind conditions

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

VAN Series Nozzles

Variable Arc Nozzles

Features

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

Easy to Adjust



Operating Range

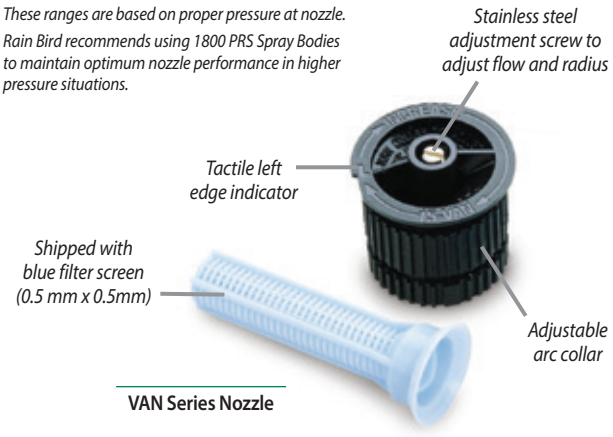
- Spacing: 0.9 m to 5.5 m [1]
- Pressure: 1.0 to 2.1 bar
- Optimum pressure: 2.1 bar [2]

Models

- 4-VAN Series: 0.9 to 1.2 m
- 6-VAN Series: 1.2 to 1.8 m
- 8-VAN Series: 1.8 to 2.4 m
- 10-VAN Series: 2.1 to 3.1 m
- 12-VAN Series: 2.7 to 3.7 m
- 15-VAN Series: 3.4 to 4.6 m
- 18-VAN Series: 4.3 to 5.5 m

[1] *These ranges are based on proper pressure at nozzle.*

[2] *Rain Bird recommends using 1800 PRS Spray Bodies to maintain optimum nozzle performance in higher pressure situations.*



For Optimum Performance, Use Rain Bird 1800-SAM-PRS 2.1 Bar Regulated or RD1800-SAM-PRS 2.1 Bar Regulated Spray Bodies



How to Specify

8 VAN

Radius Range
4: 0.9-1.2 m
6: 1.2-1.8 m
8: 1.8-2.4 m
10: 2.1-3.0 m
12: 2.7-3.7 m
15: 3.4-4.6 m
18: 4.3-5.5 m

Nozzle Type
VAN: Variable Arc Nozzle

4 Series VAN

0° Trajectory

Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	Precip ■ mm/h	Precip ▲ mm/h
330° Arc	1.0	0.9	0.14	2.3	189	218
	1.5	1.0	0.17	2.8	183	215
	2.0	1.2	0.20	3.3	152	176
	2.1	1.2	0.20	3.3	152	176
270° Arc	1.0	0.9	0.12	2.0	198	229
	1.5	1.0	0.14	2.3	187	216
	2.0	1.2	0.16	2.7	148	171
	2.1	1.2	0.17	2.8	157	181
180° Arc	1.0	0.9	0.07	1.2	173	200
	1.5	1.0	0.09	1.5	180	208
	2.0	1.2	0.10	1.7	139	161
	2.1	1.2	0.10	1.7	139	161
90° Arc	1.0	0.9	0.05	0.8	247	285
	1.5	1.0	0.06	0.9	240	277
	2.0	1.2	0.06	1.1	167	193
	2.1	1.2	0.07	1.1	194	224

6 Series VAN

0° Trajectory

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

8 Series VAN

5° Trajectory

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

Note: *All VAN nozzles tested on 10 cm pop-ups*
■ *Square spacing based on 50% diameter of throw*
▲ *Triangular spacing based on 50% diameter of throw*

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

10 Series VAN

10° Trajectory

Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
360° Arc	1.0	2.1	0.44	7.3	96	111
	1.5	2.4	0.53	9.0	89	103
	2.0	2.7	0.57	9.8	76	88
	2.1	3.1	0.59	9.8	63	73
270° Arc	1.0	2.1	0.33	5.5	96	111
	1.5	2.4	0.4	6.8	89	103
	2.0	2.7	0.43	7.8	76	88
	2.1	3.1	0.48	7.9	68	79
180° Arc	1.0	2.1	0.22	3.7	96	111
	1.5	2.4	0.27	4.6	89	103
	2.0	2.7	0.29	5.3	76	88
	2.1	3.1	0.33	5.5	71	82
90° Arc	1.0	2.1	0.11	1.8	96	111
	1.5	2.4	0.13	2.3	89	103
	2.0	2.7	0.14	2.7	76	88
	2.1	3.1	0.17	2.8	73	85

12 Series VAN

15° Trajectory

Nozzle	Pressure bar	Radius m	Flow m³/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
360° Arc	1.0	2.7	0.35	5.80	48	55
	1.5	3.2	0.44	7.37	43	50
	2.0	3.6	0.52	8.75	41	47
	2.1	3.7	0.54	9.02	40	46
270° Arc	1.0	2.7	0.26	4.35	48	55
	1.5	3.2	0.33	5.53	43	50
	2.0	3.6	0.39	6.56	41	47
	2.1	3.7	0.41	6.76	40	46
180° Arc	1.0	2.7	0.17	2.90	48	55
	1.5	3.2	0.22	3.69	43	50
	2.0	3.6	0.26	4.37	41	47
	2.1	3.7	0.27	4.51	40	46
90° Arc	1.0	2.7	0.09	1.45	48	55
	1.5	3.2	0.11	1.84	43	50
	2.0	3.6	0.13	2.19	41	47
	2.1	3.7	0.14	2.25	40	46

15 Series VAN

23° Trajectory

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

18 Series VAN

26° Trajectory

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

Note: *All VAN nozzles tested on 10 cm pop-ups*
■ *Square spacing based on 50% diameter of throw*
▲ *Triangular spacing based on 50% diameter of throw*

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

Did you know?

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

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



MPR Spray Nozzles

Matched Precipitation Rate Nozzles

Features

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

Operating Range

- Spacing: 0.9 to 4.6 m [1]
- Pressure: 1 to 2.1 bar
- Optimum pressure: 2.1 bar [2]

Models

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

[1] *These ranges are based on proper pressure at nozzle.*

[2] *Rain Bird recommends using 1800 PRS Spray Bodies to maintain optimum nozzle performance in higher pressure situations.*



MPR Nozzle and Screen



Rain Bird® MPR Nozzles, The Industry Standard

For Optimum Performance, Use Rain Bird 1800 2.1 Bar Regulated or RD1800 2.1 Bar Regulated Spray Bodies



How to Specify

5 F

Pattern
F: Full
H: Half
Q: Quarter

MPR Radius Range
5: 1.1-1.5 m
8: 1.7-2.4 m
10: 2.1-3.1
12: 2.7-3.7 m
15: 3.4-4.6 m

5 Series MPR

5° Trajectory

Nozzle	Pressure bar	Radius m	Flow m^3/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
5F	1.0	1.1	0.06	1.1	79	91
	1.5	1.3	0.08	1.4	51	58
	2.0	1.5	0.09	1.6	57	65
	2.1	1.5	0.09	1.6	40	46
5H	1.0	1.1	0.03	0.5	76	88
	1.5	1.3	0.04	0.7	49	56
	2.0	1.5	0.04	0.7	55	64
	2.1	1.5	0.05	0.9	39	45
5Q	1.0	1.1	0.02	0.4	76	88
	1.5	1.3	0.02	0.4	49	56
	2.0	1.5	0.02	0.4	55	64
	2.1	1.5	0.02	0.4	39	45

8 Series MPR

10° Trajectory

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

Note: *All MPR nozzles tested on 10 cm pop-ups*
■ *Square spacing based on 50% diameter of throw*
▲ *Triangular spacing based on 50% diameter of throw*

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

10 Series MPR

15° Trajectory

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

12 Series MPR

30° Trajectory

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

15 Series MPR

30° Trajectory

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

Note: *All MPR nozzles tested on 10 cm pop-ups*

■ *Square spacing based on 50% diameter of throw*

▲ *Triangular spacing based on 50% diameter of throw*

Performance data taken in zero wind conditions

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

15 Strip Series

30° Trajectory

Nozzle	Pressure bar	W x L m	Flow m³/h	Flow l/m
15EST 	1.0	1.2 x 4.0	0.10	1.7
	1.5	1.2 x 4.3	0.11	2.0
	2.0	1.2 x 4.3	0.13	2.3
	2.1	1.2 x 4.6	0.14	2.3
15CST 	1.0	1.2 x 7.9	0.20	3.4
	1.5	1.2 x 8.5	0.23	4.0
	2.0	1.2 x 8.5	0.25	4.5
	2.1	1.2 x 9.2	0.27	4.6
15RCS 	1.0	0.8 x 3.2	0.08	1.3
	1.5	1.0 x 3.9	0.09	1.6
	2.0	1.2 x 4.5	0.11	1.8
	2.1	1.2 x 4.6	0.11	1.9
15LCS 	1.0	0.8 x 3.2	0.08	1.3
	1.5	1.0 x 3.9	0.09	1.6
	2.0	1.2 x 4.5	0.11	1.8
	2.1	1.2 x 4.6	0.11	1.9
15SST 	1.0	1.2 x 7.9	0.20	3.4
	1.5	1.2 x 8.5	0.23	4.0
	2.0	1.2 x 8.5	0.25	4.5
	2.1	1.2 x 9.2	0.27	4.6
9SST 	1.0	2.7 x 4.6	0.30	5.1
	1.5	2.7 x 4.9	0.33	5.8
	2.0	2.7 x 5.5	0.36	6.5
	2.1	2.7 x 5.5	0.39	6.5

1300A-F

Adjustable Full-Circle Bubbler

Features

- Stainless Steel adjustment screw regulates flow and radius for spacing between from 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: 3.6 to 8.4 l/m
- Spacing: 0.3 to 0.9 m [1]
- Pressure: 0.7 to 4.1 bar [2]

Model

- 1300A-F

[1] *These ranges are based on proper pressure at nozzle*

[2] *Rain Bird recommends using 1800 PRS Spray Bodies to maintain optimum nozzle performance in higher pressure situations*



1300A-F

1300A-F

Nozzle	Pressure bar	Flow m^3/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

1400 Series

Pressure Compensating Full-Circle Bubblers

Features

- Low flow rates allow water to be absorbed as needed. Reduces runoff
- Flow will not fluctuate at pressures between 1.4 to 6.2 bar
- Flow is not adjustable for increased vandal resistance
- Shipped with special SR-050 ½" (15/21) bubbler filter screen for easy installation and resistance to debris
- Trickle pattern on models 1401 and 1402; umbrella pattern on models 1404 and 1408
- Five-year trade warranty



1400 Series

Operating Range

- Flow: 1.2 to 7.2 l/m
- Spacing: 0.3 to 0.9 m*
- Pressure: 1.4 to 6.2 bar

Models

- 1401: 0.06 m^3/h; 0.9 l/m; full-circle, trickle pattern
- 1402: 0.11 m^3/h; 1.8 l/m; full-circle, trickle pattern
- 1404: 0.23 m^3/h; 3.6 l/m; full-circle, umbrella pattern
- 1408: 0.46 m^3/h; 7.2 l/m; full-circle, umbrella pattern

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

Pressure-Compensating Modules

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



PCT-05, PCT-07, PCT-10

- ½" FPT inlet that easily threads onto a ½" PVC riser

Operating Range

- Flow: 18.93, 26.50, 37.95 l/h
- Pressure: 0.7 to 3.5 bar
- Required filtration: 150 micron

Refer to page 106 for more information



Rotors

Major Products	Gear Driven Rotors				Impact Rotors	
Primary Applications	3500 Series	5000 Series	Falcon™ 6504 Series	8005 Series	2045A Maxi-Paw™ Series	XLR Water Jet Series
Turfgrass 4.6 m to 10.7 m	●	●				
Turfgrass 7.6 m to 15.2 m		●	●	●	●	
Turfgrass more than 15.2 m			●	●		●
Residential	●	●			●	
Commercial	●	●	●	●	●	●
Vandalism/Damage Prone Areas				●		
Slopes	●	●	●	●	●	●
Ground Cover/Shrubs		●				
Athletic Fields			●	●		●
Pressure Regulating		●				
High Wind Areas	●	●	●	●	●	●
Taller Turfgrass		●		●		●
Non-Potable Water		●	●	●	●	●

Water Saving™ Water Saving Tips

- Rain Curtain™ nozzle technology is the standard in water-saving nozzle performance. Rain Curtain™ performance is available in all Rain Bird Rotors.
- 5000 Series Rotors with PRS reduce water waste from 15%-45%. By eliminating pressure variation and/or over pressurization, you'll save water and deliver greener results.
- All rotors with Seal-a-Matic™ (SAM) check valves prevent drainage from heads at lower elevations, stop water waste and eliminate landscape damage due to flooding and/or erosion.

3500 Series

Compact Residential Rotor. Big on Value and Convenience

Features

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

Options

- SAM Seal-A-Matic™ check valves holds up to 2.1 m of elevation change

Operating Specifications

- Precipitation rate: 9 to 21 mm/h
- Radius: 4.6 to 10.7 m
- Radius may be reduced up to 25% with radius reduction screw
- Pressure: 1.7 to 3.8 bar
- Flow rate: 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

Select models shown. Review your regional price list for complete availability.

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



3504-PC

3504 Series Nozzle Performance

Pressure bar	Nozzle	Radius m	Flow m³/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
1.7	0.75	4.6	0.12	2.04	12	14
	1.0	6.1	0.17	2.91	9	11
	1.5	7.0	0.24	4.01	10	11
	2.0	8.2	0.32	5.30	9	11
	3.0	8.8	0.49	8.21	13	15
	4.0	9.4	0.67	11.24	15	17
2.0	0.75	4.8	0.13	2.24	12	13
	1.0	6.2	0.19	3.14	10	11
	1.5	7.0	0.26	4.35	11	12
	2.0	8.2	0.34	5.74	10	12
	3.0	9.1	0.53	8.87	13	15
	4.0	9.7	0.73	12.17	16	18
2.5	0.75	5.2	0.16	2.58	12	13
	1.0	6.4	0.21	3.55	10	12
	1.5	7.0	0.30	4.94	12	14
	2.0	8.2	0.39	6.51	12	13
	3.0	9.4	0.60	10.03	13	16
	4.0	10.1	0.83	13.82	16	19
3.0	0.75	5.2	0.17	2.86	13	15
	1.0	6.4	0.24	3.93	12	13
	1.5	7.3	0.33	5.49	12	14
	2.0	8.2	0.43	7.17	13	15
	3.0	9.4	0.67	11.13	15	17
	4.0	10.6	0.92	15.32	16	19
3.5	0.75	5.4	0.19	3.09	13	15
	1.0	6.6	0.26	4.27	12	14
	1.5	7.3	0.36	5.97	13	15
	2.0	8.4	0.47	7.79	13	15
	3.0	9.6	0.71	11.90	15	18
	4.0	10.7	1.00	16.66	18	20
3.8	0.75	5.5	0.19	3.22	13	15
	1.0	6.7	0.27	4.47	12	14
	1.5	7.3	0.37	6.25	14	16
	2.0	8.5	0.49	8.14	13	15
	3.0	9.8	0.74	12.30	16	18
	4.0	10.7	1.04	17.41	18	21

Precipitation rates based on half-circle operation

■ *Square spacing based on 50% diameter of throw*

▲ *Triangular spacing based on 50% diameter of throw*

Performance data collected in zero wind conditions

Performance data derived from tests that conform with ASABE Standards; ASABE S398.1. See page 150 for complete ASABE Test Certification Statement.

How to Specify

3504 - PC - SAM

Options
SAM

Rotation
PC: Reversing Part Circle

Model
3500 Series 4" (10.2 cm) pop-up

5000 Series

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

Features

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

Operating Specifications

- Precipitation rate: 5 to 38 mm/h
- Radius: 7.6 to 15.2 m
- Radius may be reduced up to 25% with radius reduction screw
- Pressure: 1.7 to 4.5 bar
- Flow Rate: 3.0 to 36.6 l/m; 0.17 to 2.19 m^3/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°.

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 3.1 bar 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 2.1 m of elevation change
- **Stainless steel (SS) riser** helps deter vandalism on public turf areas (available on 5004 and 5006 models)

Models

Consult "How to Specify" table for product models and features. Not all combinations are offered.

- 5004: 4" (10 cm) pop-up
- 5006: 6" (15 cm) pop-up
- 5012: 12" (30.5 cm) pop-up



5000 Series

5 to 37 mm/h

1.7 to 4.5 bar

3.0 to 36.6 l/m
0.17 to 2.19 m^3/h

4": 10 cm
6": 15 cm
12": 30.5 cm

4": 18.5 cm
6": 24.5 cm
12": 42.9 cm

¾" NPT



Both low angle 10° and standard 25° nozzles are included.



All nozzles are numbered in gallons per minute and keyed for easy installation.

Front View



How to Specify

5004 - + - PC - SAM-R-SS

Model
5004: 4" (10 cm) pop-up
5006: 6" (15 cm) pop-up
5012: 12" (30.5 cm) pop-up

Model
Plus (Flow Shut-off)

Rotation
PC: Reversing Part Circle
FC: Full Circle

Options
SAM
R: PRS
SS: Stainless Steel

Note: *Certain specifications not available for some rotor series.*

5000 Series Std. Angle Rain Curtain™ Nozzle Performance

Pressure bar	Nozzle	Radius m	Flow m^3/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
2.0	1.5	10.2	0.28	4.8	5	6
	2.0	10.8	0.36	6.0	6	7
	2.5	10.9	0.44	7.2	7	9
	3.0	11.2	0.55	9.0	9	10
	4.0	11.6	0.71	12.0	11	12
	5.0	12.1	0.91	15.0	13	15
	6.0	12.4	1.05	17.4	15	17
	8.0	11.8	1.45	24.0	32	37
2.5	1.5	10.4	0.31	5.4	6	7
	2.0	11.0	0.41	6.6	7	8
	2.5	11.3	0.50	8.4	8	9
	3.0	11.2	0.62	10.2	9	11
	4.0	12.3	0.81	13.2	11	13
	5.0	12.7	1.03	17.4	13	15
	6.0	13.2	1.21	20.4	14	16
	8.0	13.3	1.63	27.0	24	28
3.0	1.5	10.6	0.34	6.0	6	7
	2.0	11.2	0.45	7.8	7	8
	2.5	11.3	0.56	9.6	9	10
	3.0	12.1	0.69	11.4	9	11
	4.0	12.7	0.89	15.0	11	13
	5.0	13.5	1.13	18.6	12	14
	6.0	13.4	1.34	22.2	13	17
	8.0	13.4	1.79	30.0	23	27
3.5	1.5	10.7	0.37	6.0	7	8
	2.0	11.3	0.49	8.4	8	9
	2.5	11.3	0.60	10.2	9	11
	3.0	12.2	0.74	12.6	10	12
	4.0	12.8	0.97	16.2	12	14
	5.0	13.7	1.23	20.4	13	15
	6.0	14.2	1.45	24.0	13	15
	8.0	14.9	1.93	32.4	20	24
4.0	1.5	10.6	0.40	6.6	7	8
	2.0	11.1	0.52	9.0	8	10
	2.5	11.3	0.64	10.8	10	12
	3.0	12.2	0.80	13.2	11	12
	4.0	12.8	1.04	17.4	13	15
	5.0	13.7	1.32	22.2	14	16
	6.0	14.9	1.55	25.8	14	16
	8.0	15.2	2.06	34.2	21	25
4.5	1.5	10.4	0.42	7.2	8	9
	2.0	10.7	0.55	9.0	10	11
	2.5	11.3	0.68	11.4	11	12
	3.0	12.2	0.84	13.8	11	13
	4.0	12.8	1.10	18.0	13	15
	5.0	13.7	1.40	23.4	15	17
	6.0	14.6	1.64	28.2	15	18
	8.0	15.2	2.19	36.6	19	22

Precipitation rates based on half-circle operation

■ *Square spacing based on 50% diameter of throw*

▲ *Triangular spacing based on 50% diameter of throw*

Performance data collected in zero wind conditions

Performance data derived from tests that conform with ASABE Standards; ASABE S398.1. See page 150 for complete ASABE Test Certification Statement.

5000 Series Low Angle Nozzle Performance

Pressure bar	Nozzle	Radius m	Flow m^3/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
1.7	1.0 LA	7.6	0.17	3.0	6	7
	1.5 LA	8.2	0.26	4.2	8	9
	2.0 LA	8.8	0.33	5.4	9	10
	3.0 LA	8.8	0.51	8.4	13	15
2.0	1.0 LA	8.0	0.18	3.0	6	6
	1.5 LA	8.6	0.28	4.8	8	9
	2.0 LA	9.1	0.36	6.0	9	10
	3.0 LA	9.3	0.55	9.0	13	15
2.5	1.0 LA	8.6	0.20	3.6	5	6
	1.5 LA	9.2	0.32	5.4	8	9
	2.0 LA	9.5	0.41	6.6	9	10
	3.0 LA	10.1	0.62	10.2	12	14
3.0	1.0 LA	8.8	0.22	3.6	6	7
	1.5 LA	9.4	0.35	6.0	8	9
	2.0 LA	9.7	0.45	7.8	10	11
	3.0 LA	10.6	0.68	11.4	12	14
3.5	1.0 LA	8.8	0.24	4.2	6	7
	1.5 LA	9.4	0.38	6.6	9	10
	2.0 LA	9.9	0.49	8.4	10	11
	3.0 LA	10.8	0.74	12.6	13	15
4.0	1.0 LA	8.8	0.26	4.2	7	8
	1.5 LA	9.4	0.41	6.6	9	11
	2.0 LA	10.1	0.52	9.0	10	12
	3.0 LA	11.0	0.80	13.2	13	15
4.5	1.0 LA	8.8	0.27	4.8	7	8
	1.5 LA	9.4	0.44	7.2	10	11
	2.0 LA	10.1	0.56	9.0	11	13
	3.0 LA	11.0	0.84	13.8	14	16

Tools

Holdup Tool with Bubble Level

Features

- Combination holdup tool/ bubble level makes proper installation easier
- Works with 5000, Falcon® 6504, and 8005

Model

- HOLDUPTOOL



HOLDUPTOOL

Rotor Tool

Features

- Flat blade screwdriver and pull-up tool all in one
- Works with 3500, 5000, Falcon® 6504, and 8005

Model

- ROTORTOOL



ROTORTOOL

5000 PRS Std. Angle Rain Curtain™ Nozzle Performance

Pressure bar	Nozzle	Radius m	Flow m³/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
1.7	1.5	10.1	0.25	4.2	5	6
	2.0	10.7	0.34	5.4	6	7
	2.5	10.7	0.41	6.6	7	8
	3.0	11.0	0.51	8.4	8	10
	4.0	11.3	0.66	10.8	10	12
	5.0	11.9	0.84	13.8	12	14
	6.0	11.9	0.97	16.2	14	16
	8.0	11.0	1.34	22.2	22	26
2.0	1.5	10.2	0.28	4.8	5	6
	2.0	10.8	0.36	6.0	6	7
	2.5	10.9	0.44	7.2	7	9
	3.0	11.2	0.55	9.0	9	10
	4.0	11.6	0.71	12.0	11	12.6
	5.0	12.1	0.91	15.0	13	15
	6.0	12.4	1.05	17.4	15	17
	8.0	11.8	1.45	24.0	32	37
2.5	1.5	10.4	0.31	5.4	6	7
	2.0	11.0	0.41	6.6	7	8
	2.5	11.3	0.50	8.4	8	9
	3.0	11.2	0.62	10.2	9	11
	4.0	12.3	0.81	13.2	11	13
	5.0	12.7	1.03	17.4	13	15
	6.0	13.2	1.21	20.4	14	16
	8.0	13.3	1.63	27.0	24	18
3.0	1.5	10.6	0.34	6.0	6	7
	2.0	11.2	0.45	7.8	7	8
	2.5	11.3	0.56	9.6	9	10
	3.0	12.1	0.69	11.4	9	11
	4.0	12.7	0.89	16.8	11	13
	5.0	13.5	1.13	18.6	12	14
	6.0	13.9	1.34	22.2	14	16
	8.0	14.1	1.79	30.0	23	27
3.5 – 5.2	1.5	10.6	0.35	6.0	6	7
	2.0	11.2	0.47	7.8	8	9
	2.5	11.3	0.58	10.2	9	11
	3.0	12.1	0.71	12.0	10	11
	4.0	12.7	0.92	15.6	12	13
	5.0	13.5	1.17	19.2	13	15
	6.0	13.9	1.39	22.8	14	17
	8.0	14.1	1.85	31.2	18	21

Precipitation rates based on half-circle operation

■ *Square spacing based on 50% diameter of throw*

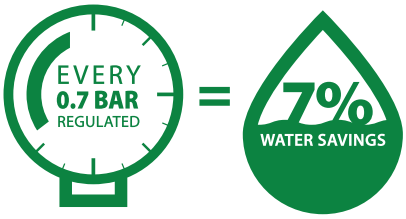
▲ *Triangular spacing based on 50% diameter of throw*

Performance data collected in zero wind conditions

Performance data derived from tests that conform with ASABE Standards; ASABE S398.1.
See page 150 for complete ASABE Test Certification Statement.

5000 PRS Low Angle Nozzle Performance

Pressure bar	Nozzle	Radius m	Flow m³/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
1.7	1.0 LA	7.6	0.17	3.0	6	7
	1.5 LA	8.2	0.26	4.2	8	9
	2.0 LA	8.8	0.33	5.4	9	10
	3.0 LA	8.8	0.51	8.4	13	15
2.0	1.0 LA	8.0	0.18	3.0	6	6
	1.5 LA	8.6	0.28	4.8	8	9
	2.0 LA	9.1	0.36	6.0	9	10
	3.0 LA	9.3	0.55	9.0	13	15
2.5	1.0 LA	8.6	0.20	3.6	5	6
	1.5 LA	9.2	0.32	5.4	8	9
	2.0 LA	9.5	0.41	6.6	9	10
	3.0 LA	10.1	0.62	10.2	12	14
3.0	1.0 LA	8.8	0.22	3.6	6	7
	1.5 LA	9.4	0.35	6.0	8	9
	2.0 LA	9.7	0.45	7.8	10	11
	3.0 LA	10.6	0.68	11.4	12	14
3.5 – 5.2	1.0 LA	8.8	0.23	3.6	6	7
	1.5 LA	9.4	0.36	6.0	8	10
	2.0 LA	9.7	0.47	7.8	10	12
	3.0 LA	10.6	0.70	12.0	13	15



5000 Series MPR Nozzles

Perfectly Balanced Coverage with the 5000 Series Rotor

Features

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

Models

- 5000MPRMPK: 5000/5000 Plus Series MPR nozzle tree multi pack-7.6 m, 9.1 m, 10.7 m radius in Quarter, Third, Half, Full arc



5000 Series MPR Nozzles



Installing Rotors with 5000 series MPR nozzles and Rain Bird R-VAN Rotary Nozzles in the same zone allows for matched precipitation from 2.4m to 10.7m



How to Specify

5000 - MPR - 25 - Q

- **Model** Rotor
- **Nozzle** Matched Precipitation rate
- **Radius Range** 25' (7.6 m) 30' (9.1 m) 35' (10.7 m)
- **Pattern** Q=Quarter T=Third H=Half F=Full

5000-MPR-25 (Red)

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

5000-MPR-30 (Green)

Nozzle	Pressure bar	Radius m	Flow m^3/h	Flow l/m	Precip ■ mm/h	Precip ▲ mm/h
Quarter	1.7	8.8	0.23	3.6	12.0	13.8
	2.4	9.1	0.28	4.8	13.4	15.4
	3.1	9.1	0.32	5.4	15.2	17.6
	3.8	9.1	0.35	6.0	17.0	19.6
	4.5	9.1	0.38	6.6	18.4	21.2
Third	1.7	8.8	0.30	4.8	11.7	13.5
	2.4	9.1	0.37	6.0	13.2	15.2
	3.1	9.1	0.42	7.2	15.1	17.4
	3.8	9.1	0.47	7.8	16.8	19.4
	4.5	9.1	0.51	8.4	18.3	21.1
Half	1.7	8.8	0.49	8.4	12.5	14.4
	2.4	9.1	0.59	9.6	14.1	16.2
	3.1	9.1	0.67	11.4	16.1	18.6
	3.8	9.1	0.75	12.6	17.9	20.7
	4.5	9.1	0.82	13.8	19.6	22.6
Full	1.7	8.8	0.96	16.2	12.3	14.2
	2.4	9.1	1.15	19.2	13.8	15.9
	3.1	9.1	1.31	21.6	15.7	18.1
	3.8	9.1	1.45	24.0	17.4	20.0
	4.5	9.1	1.57	26.4	18.8	21.7

5000-MPR-35 (Beige)

Nozzle	Pressure bar	Radius m	Flow m^3/h	Flow l/m	Precip ■ mm/h	Precip ▲ mm/h
Quarter	1.7	9.8	0.32	5.4	13.4	15.4
	2.4	10.4	0.38	6.6	14.1	16.3
	3.1	10.7	0.44	7.2	15.3	17.7
	3.8	10.7	0.48	7.8	17.0	19.6
	4.5	10.7	0.52	9.0	18.4	21.3
Third	1.7	9.8	0.40	6.6	12.7	14.6
	2.4	10.4	0.49	8.4	13.6	15.8
	3.1	10.7	0.56	9.6	14.7	17.0
	3.8	10.7	0.62	10.2	16.4	18.9
	4.5	10.7	0.68	11.4	17.9	20.7
Half	1.7	9.8	0.62	10.2	13.1	15.2
	2.4	10.4	0.76	12.6	14.1	16.3
	3.1	10.7	0.87	14.4	15.2	17.6
	3.8	10.7	0.96	16.2	16.9	19.5
	4.5	10.7	1.05	17.4	18.4	21.3
Full	1.7	9.8	1.22	20.4	12.8	14.8
	2.4	10.4	1.50	25.2	14.0	16.2
	3.1	10.7	1.72	28.8	15.1	17.5
	3.8	10.7	1.91	31.8	16.8	19.4
	4.5	10.7	2.09	34.8	18.3	21.2

■ *Square spacing based on 50% diameter of throw*

▲ *Triangular spacing based on 50% diameter of throw*

Performance data collected in zero wind conditions

Performance data derived from tests that conform with ASABE Standards; ASABE S398.1.
See page 150 for complete ASABE Test Certification Statement.

Falcon® 6504 Series

Reliable and Economical

Features

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

Options

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

Operating Specifications

- Reversing full- and part-circle adjustment from 40-360°
- Precipitation rate: 9 to 33 mm/h
- Radius: 11.3 to 19.8 m
- Pressure: 2.1 to 6.2 bar
- Flow: 0.66 to 4.93 m^3/h; 10.8 to 82.2 l/m
- 1" female NPT or BSP threaded inlet
- SAM Seal-A-Matic™ check valve check device holds up to 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°

Models

Select models shown. Review your regional price list for complete availability.

- I6504PC: Falcon Series 4" BSP Part Circle
- I6504FC: Falcon Series 4" BSP Full Circle
- I6504PCSS: Falcon Series 4" BSP Part Circle Stainless Steel
- I6504FCSS: Falcon Series 4" BSP Full Circle Stainless Steel
- 6504PC: Falcon Series 4" NPT Part Circle
- 6504FC: Falcon Series 4" NPT Full Circle



Falcon® 6504 Series

9 to 33 mm/h

2.1 to 6.2 bar

10.8 to 82.2 l/m
0.66 to 4.93 m^3/h

4" (10 cm)
21.6 cm
1" NPT or BSP

How to Specify

6504 - PC - SS - NP

- **Model** 6504: Falcon
- **Rotation** PC: Part-circle FC: Full-circle
- **Optional Feature** SS: Stainless steel
- **Optional Features** NP: Non-potable cover

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



Falcon® 6504 Nozzle Performance

Pressure bar	Nozzle	Radius m	Flow m³/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
2.1	4	11.9	0.66	10.98	9	11
	6	13.1	0.95	15.90	11	13
2.5	4	12.3	0.72	11.92	10	11
	6	13.5	1.05	17.56	12	13
	8	14.9	1.50	25.20	13	16
	10	15.5	1.84	30.60	15	18
	12	16.2	2.20	36.60	17	19
	14	16.8	2.57	42.60	18	21
	16	16.8	2.86	47.40	20	24
	18	18.0	3.11	51.60	19	22
3.0	4	12.5	0.78	13.02	10	12
	6	14.1	1.16	19.34	12	13
	8	15.1	1.56	26.04	14	16
	10	15.8	1.92	31.99	15	18
	12	16.4	2.31	38.44	17	20
	14	17.2	2.68	44.63	18	21
	16	17.4	3.00	49.95	20	23
	18	18.0	3.25	54.11	20	23
3.5	4	12.5	0.85	14.09	11	13
	6	14.9	1.26	20.96	11	13
	8	15.5	1.69	28.24	14	16
	10	16.2	2.08	34.70	16	18
	12	16.8	2.52	41.98	18	21
	14	18.0	2.91	48.45	18	21
	16	18.6	3.27	54.53	19	22
	18	18.1	3.53	58.78	22	25
4.0	4	12.5	0.89	14.91	11	13
	6	14.4	1.34	22.33	13	15
	8	15.5	1.83	30.44	15	17
	10	16.6	2.23	37.17	16	19
	12	17.3	2.72	45.28	18	21
	14	18.5	3.12	52.01	18	21
	16	19.1	3.50	58.37	19	22
	18	19.0	3.81	63.45	21	24
4.5	4	12.5	0.96	15.94	12	14
	6	14.6	1.40	23.33	13	15
	8	15.5	1.95	32.43	16	19
	10	17.1	2.37	39.44	16	19
	12	17.7	2.89	48.17	18	21
	14	18.6	3.32	55.38	19	22
	16	19.2	3.71	61.82	20	23
	18	19.5	4.03	67.12	21	24
5.0	4	12.7	1.01	16.84	13	15
	6	14.9	1.47	24.50	13	15
	8	15.7	2.05	34.16	17	19
	10	17.2	2.50	41.64	17	19
	12	18.1	3.04	50.72	19	21
	14	18.6	3.51	58.49	20	23
	16	19.2	3.91	65.11	21	24
	18	19.8	4.23	70.51	22	25
5.5	4	13.1	1.04	17.39	12	14
	6	14.9	1.56	25.79	14	16
	8	16.1	2.13	35.54	16	19
	10	16.8	2.63	43.84	19	22
	12	18.6	3.18	52.92	18	21
	14	18.6	3.67	61.23	21	25
	16	19.2	4.10	68.40	22	26
	18	19.8	4.44	74.07	23	26
6.0	18	19.8	4.79	79.77	24	28
6.2	18	19.8	4.93	82.13	25	29

Precipitation rates based on half-circle operation

■ *Square spacing based on 50% diameter of throw*

▲ *Triangular spacing based on 50% diameter of throw*

Performance data collected in zero wind conditions

Performance data derived from tests that conform with ASABE Standards; ASABE S398.1.
See page 150 for complete ASABE Test Certification Statement.

Low Flow Kit - B81610



Standard Flow Kit - B81620



Falcon® 6504 Rain Curtain™ Nozzles

8005 Series

Protect Your Turf with High Performance, Vandal and Abuse Resistant Rotors from 11.9 to 24.7 m

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

Operating Specifications

- Radius: 11.9 to 24.7 m
- Precipitation rate: 12 to 32 mm/h
- Pressure: 3.5 to 6.9 bar
- Flow: 0.86 to 8.24 m^3/h; 14.4 to 137.4 l/m
- 1" NPT or BSP female threaded inlet
- SAM Seal-A-Matic™ check valve holds up to 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

Models

Select models shown. Review your regional price list for complete availability.

- 8005: 8005 Part/Full Circle, Less Nozzle
- 8005NP: 8005 Part/Full Circle, Less Nozzle W/NP Cover
- 8005SS: 8005 Part/Full Circle, Stainless Steel, Less Nozzle
- 8005NPSS: 8005 Part/Full Circle, Stainless Steel, Less Nozzle w/ NP Cover
- I8005: 8000 Series 1" BSP Part/Full Circle
- I8005NP: 8000 Series 1" BSP Part/Full Circle Non-Potable
- I8005SS: 8000 Series 1" BSP Stainless Steel
- I8005NPSS: 8000 Series 1" BSP Non-Potable Stainless Steel

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



8005 Series

12 to 32 mm/h

3.5 to 6.9 bar

14.4 to 137.4 l/m
0.86 to 8.24 m^3/h

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

How to Specify

8005 - NP - SS - 16

- **Model** 8005 Series
- **Optional Feature** NP: Non-potable cover
- **Optional Feature** SS: Stainless steel
- **Nozzle Size** 16

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



8005 Nozzle Performance

Pressure bar	Nozzle	Radius m	Flow m³/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
3.5	4	11.9	0.86	14.38	12	14
	6	13.7	1.28	21.34	14	16
	8	14.9	1.59	25.50	14	16
	10	16.1	2.10	35.43	16	19
	12	17.5	2.52	42.27	16	19
	14	18.0	2.89	48.18	18	21
	16	18.7	3.28	54.59	19	22
	18	19.2	3.69	61.43	20	23
	20	19.9	4.25	70.83	21	25
	22	20.0	5.08	79.07	25	29
	24	19.3	5.11	85.10	27	32
	26	20.0	5.57	92.67	28	32
4.0	4	11.9	0.93	14.38	13	15
	6	13.7	1.37	22.71	15	17
	8	14.9	1.75	30.44	16	18
	10	16.3	2.30	37.63	17	20
	12	17.7	2.70	44.74	17	20
	14	18.5	3.17	52.85	19	21
	16	19.6	3.54	58.98	18	21
	18	19.7	3.97	66.10	20	24
	20	20.3	4.50	74.95	22	25
	22	21.3	5.23	85.94	23	27
	24	20.7	5.50	91.69	26	30
	26	21.8	6.01	99.26	25	29
4.5	4	11.9	1.00	16.18	14	16
	6	13.7	1.45	24.28	15	18
	8	14.9	1.92	32.99	17	20
	10	16.5	2.40	40.22	18	20
	12	18.0	2.87	47.81	18	20
	14	18.9	3.37	56.12	19	22
	16	20.1	3.77	62.77	19	22
	18	20.1	4.22	70.36	21	24
	20	21.1	4.79	79.87	22	25
	22	22.0	5.51	91.80	23	26
	24	22.0	5.88	98.08	24	28
	26	22.6	6.42	106.44	25	29
5.0	4	11.9	1.06	18.08	15	17
	6	13.7	1.54	25.74	16	19
	8	14.9	2.09	34.83	19	22
	10	16.7	2.50	42.68	18	21
	12	18.3	3.05	50.92	18	21
	14	19.2	3.54	58.96	19	22
	16	20.4	3.99	66.44	19	22
	18	20.6	4.47	74.58	21	24
	20	21.6	5.11	85.08	22	25
	22	22.4	5.84	97.39	23	27
	24	23.0	6.26	104.29	24	27
	26	23.2	6.80	113.28	25	29

Pressure bar	Nozzle	Radius m	Flow m³/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
5.5	4	11.9	1.13	18.90	16	18
	6	13.7	1.62	26.84	17	20
	8	14.9	2.25	37.02	20	23
	10	16.8	2.70	44.60	19	22
	12	18.5	3.23	53.66	19	22
	14	19.2	3.72	61.98	20	23
	16	20.4	4.22	70.28	20	23
	18	21.0	4.74	78.97	21	25
	20	21.6	5.42	90.30	23	27
	22	22.8	6.19	103.15	24	28
	24	23.5	6.62	110.33	24	28
	26	24.1	7.14	119.05	25	28
6.0	12	18.6	3.30	55.07	19	22
	14	19.6	3.96	66.06	21	24
	16	20.9	4.45	74.12	20	24
	18	21.5	4.95	82.56	21	25
	20	22.1	5.65	94.18	23	27
	22	22.9	6.71	108.12	26	30
	24	23.9	6.92	115.31	24	28
	26	24.1	7.50	125.08	26	30
6.2	14	19.8	4.06	67.75	21	24
	16	21.0	4.54	75.70	21	24
	18	21.7	5.04	84.02	21	25
6.5	20	22.5	5.89	98.19	23	27
	22	23.4	6.84	112.73	25	29
	24	24.1	7.22	120.25	25	29
	26	24.3	7.91	131.76	27	31
6.9	20	22.9	6.09	101.43	23	27
	22	23.5	6.97	116.19	25	29
	24	24.1	7.45	124.14	26	30
	26	24.7	8.24	137.39	27	31

Precipitation rates based on half-circle operation

■ *Square spacing based on 50% diameter of throw*

▲ *Triangular spacing based on 50% diameter of throw*

Performance data collected in zero wind conditions

Performance data derived from tests that conform with ASABE Standards; ASABE S398.1.
See page 150 for complete ASABE Test Certification Statement.



Sod Cup for 8005

Low Flow Kit - B81610

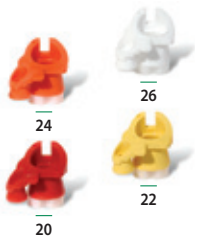


Standard Flow Kit - B81620



Falcon® 6504 Rain Curtain™ Nozzles

High Flow Kit - B81630



Optional High-flow Nozzles for 8005 Series Rotors

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

Dirty Water Applications - Spacing Up to 13.7 m

Features

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

Operating Specifications

- Precipitation rate: 7 to 31 mm/h
- Spacing: 6.7 to 13.7 m
- Flow rate: 0.34 to 1.91 m^3/h; 0.09 to 0.53 l/s
- Radius: 6.7 to 13.7 m; 5.4 m with Radius Reduction Screw
- Pressure: 1.7 to 4.1 bar
- Combination ½" or ¾" female bottom inlet (Maxi-Paw)
- ½" FPT side inlet (Maxi-Paw)
- ½" 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



2045-PJ Maxi-Bird



42064-Maxi-Paw Wrench



2045A Maxi-Paw and 2045-PJ Standard Angle Nozzles



2045A Maxi-Paw and 2045-PJ Low Angle Nozzles

Maxi-Paw and Maxi-Bird Nozzle Performance

Pressure bar	Nozzle	Radius m	Flow m^3/h	Flow l/m	■ Precip mm/h	▲ Precip mm/h
2.0	6	-	-	-	-	-
	07 LA	6.8	0.38	6.0	16	19
	7	10.4	0.55	9.0	10	12
	8	11.0	0.68	11.4	11	13
	10 LA	8.1	0.83	13.8	25	29
	10	11.9	1.01	16.8	14	16
	12	12.3	1.32	22.2	18	20
2.5	6	11.3	0.46	7.8	7	8
	07 LA	7.1	0.44	7.2	17	20
	7	11.4	0.62	10.2	10	11
	8	11.7	0.76	12.6	11	13
	10 LA	8.9	0.92	15.6	23	27
	10	12.5	1.11	18.6	14	16
	12	12.9	1.45	24.0	18	20
3.0	6	11.5	0.51	8.4	8	9
	07 LA	7.5	0.47	7.8	17	19
	7	11.8	0.67	11.4	10	11
	8	12.1	0.83	13.8	11	13
	10 LA	9.4	1.01	16.8	23	27
	10	12.8	1.21	20.4	15	17
	12	13.3	1.59	26.4	18	21
3.5	6	11.6	0.55	9.0	8	9
	07 LA	7.6	0.50	8.4	17	20
	7	12.2	0.72	12.0	10	11
	8	12.4	0.89	15.0	12	13
	10 LA	9.6	1.09	18.0	23	27
	10	13.0	1.30	21.6	15	18
	12	13.6	1.72	28.8	19	21
4.0	6	11.6	0.58	9.6	9	10
	07 LA	7.6	0.54	9.0	18	21
	7	12.5	0.78	13.2	10	11
	8	12.7	0.94	15.6	12	14
	10 LA	9.8	1.19	19.8	25	29
	10	13.3	1.42	23.4	16	19
	12	13.7	1.86	31.2	20	23

LA = Low Angle

Precipitation rates based on half-circle operation

■ *Square spacing based on 50% diameter of throw*

▲ *Triangular spacing based on 50% diameter of throw*

Performance data collected in zero wind conditions

Performance data derived from tests that conform with ASABE Standards; ASABE S398.1.
See page 150 for complete ASABE Test Certification Statement.



2045A Maxi-Paw

How to Specify

2045A- SAM-10- LA

- **Model**: 2045A Maxi-Paw
- **Optional Feature**: SAM
- **Nozzle Size**: 10
- **Optional Feature**: Low Angle Nozzle

25BPJ

Part or Full Circle Bronze Impact Sprinklers. These impact heads are designed to be riser-mounted, They are used to irrigate hedges, shrubs, and flower beds

Features

- Bronze impact drive sprinklers (with die- cast PJ arm on 25)
- Straight through flow
- Precision Jet tube (PJ™) to minimize side splash on PJ models
- Distance control flap (DA) on 25BPJ
- Distance control diffuser pin (ADJ) on model 25BPJ
- Long wearing TNT bearing
- FP trip permits part circle (20° to 340°) or full circle operation
- Brass straight bore nozzle with vane on model 25BPJ

Specifications

- Radius: 11.6 to 12.5 m
- Pressure: 2.1 to 3.5 bars
- Flow: 0.70 to 1.14 m^3/h
- ½" NPT male threaded inlet
- Nozzle outlet trajectory: 25°

Models

Select models shown. Review your regional price list for complete availability.

- 25BPJ-FP-ADJ-DA-TNT: ½" NPT

25BPJ-FP-ADJ-DA-TNT Performance

Pressure bar	Nozzle	Radius m	Flow m^3/h	■ Precip mm/h	▲ Precip mm/h
2.1	09	11.6	0.70	10	12
	10	11.9	0.86	12	14
2.5	09	11.8	0.77	11	13
	10	12.1	0.95	13	15
3.0	09	12.0	0.85	12	14
	10	12.3	1.05	14	16
3.5	09	12.2	0.91	12	14
	10	12.5	1.14	15	17

Precipitation rates based on half-circle operation

■ *Square spacing based on 50% diameter of throw*

▲ *Triangular spacing based on 50% diameter of throw*

Performance data collected in zero wind conditions

Performance data derived from tests that conform with ASABE Standards; ASABE S398.1. See page 150 for complete ASABE Test Certification Statement.



25BPJ

LF Series

Full circle low-flow sprinkler

Applications

The Rain Bird® LF Series Sprinkler is built rugged to withstand the harsh conditions in turf and agricultural applications (nurseries, sod farm…). It has been designed to combine the advantages of an impact sprinkler with stream height flexibility, delivering precise, uniform and unrivalled water distribution.



LF Series

Features

High Distribution Uniformity

- Weighted drive disk provides an increased dwell time between stream interruptions to achieve the maximum distance of throw
- During impact, the Precision Jet (PJ) spoon guides the water stream gently away from the riser

Most Robust Sprinkler in its Class

- Patented Ceramic Radial Bearing (CRB) is longer lasting than conventional counterparts
- Drive disk made of engineered thermoplastic
- Shields and protects brake mechanism from wind-blown debris and freezing
- Springs and pin composed of high-grade stainless steel
- Ultraviolet (UV) stabilizer protects the sprinkler from the sun

• Easy to Use

- No special tools required
- Color coded nozzles and deflectors allow easy identification
- Weed Guard blocks weeds from growing into the sprinkler and stopping the rotation

Specifications

- ½" (13 mm) BSP male pipe thread

Nozzle Sizes

- LF 1200: 270 l/h to 480 l/h (in mm: 1,98 / 2,18 / 2,39 / 2,59/ 2,76)
- LF 2400: 450 l/h to 910 l/h (in mm: 2,76/ 2,97/ 3,18/ 3,38/ 3,63)

Deflector trajectory outlets available

- LF 1200: 6°/ 10°/ 12°/ 16°/ 17°/ 21°
- LF 2400: 10°/ 13°/ 15°/ 22°
- LF 2400 LR: 27°

Common Spacings Range

- 8 m x 8 m to 15 m x 15 m

Models

Select models shown. Review your regional price list for complete availability.

- LF 1200
- LF 2400/LF LR 2400



LF1200 Performance

Deflector	Nozzle	Stream Height (cm)	Flow Rate at Standard Pressures (l/h) / Throw Radius at Standard Pressure (meter)			
			2.1 bar	2.4 bar	2.8 bar	3.1 bar
6 Degree Dark Purple 	**Orange** 44 Drill	35-50	266 / 6.9	286 / 6.9	307 / 7.5	325 / 7.5
	Purple 3/32"	35-53	316 / 7.2	341 / 7.2	366 / 7.8	388 / 7.8
	Yellow 38 Drill	40-53	370 / 7.5	402 / 7.5	429 / 8.1	454 / 8.1
12 Degree Blue 	**Orange** 44 Drill	71-99	266 / 8.1	286 / 8.4	307 / 8.7	325 / 8.7
	Purple 3/32"	71-101	316 / 8.7	341 / 9.0	366 / 9.3	388 / 9.3
	Yellow 38 Drill	76-109	370 / 9.0	402 / 9.6	429 / 9.6	454 / 9.6
17 Degree Sky Blue 	**Orange** 44 Drill	124-152	266 / 9.3	286 / 9.9	307 / 10.2	325 / 10.2
	Purple 3/32"	106-154	316 / 9.9	341 / 10.2	366 / 10.5	388 / 10.8
	Yellow 38 Drill	109-154	370 / 10.2	402 / 10.5	429 / 10.8	454 / 10.8
21 Degree Olive Green 	**Orange** 44 Drill	152-187	266 / 10.2	286 / 10.2	307 / 10.2	325 / 10.5
	Purple 3/32"	127-190	316 / 10.2	341 / 10.5	366 / 10.5	388 / 10.5
	Yellow 38 Drill	134-182	370 / 10.5	402 / 10.8	429 / 10.8	454 / 10.8

LF2400 Performance

Deflector	Nozzle	Stream Height (cm)	Flow Rate at Standard Pressures (l/h) / Throw Radius at Standard Pressure (meter)			
			2.1 bar	2.4 bar	2.8 bar	3.1 bar
10 Degree Lime 	**Tan** 30 Drill	60-96	493 / 9.0	534 / 9.6	575 / 9.9	606 / 10.2
	Red 1/8"	60-104	568 / 9.6	613 / 9.9	656 / 10.2	697 / 10.5
	Silver 9/64" Drill	81-111	743 / 10.2	802 / 10.5	858 / 10.8	913 / 11.1
15 Degree Tangerine 	**Tan** 30 Drill	71-127	493 / 9.9	534 / 10.2	575 / 10.8	606 / 10.8
	Red 1/8"	88-137	568 / 10.2	613 / 10.5	656 / 11.1	697 / 11.1
	Silver 9/64" Drill	106-144	743 / 10.8	802 / 11.1	858 / 11.7	913 / 11.7
22 Degree Dark Green 	**Green** 7/64"	160-241	420 / 11.4	454 / 11.4	488 / 11.4	518 / 11.7
	Tan 30 Drill	162-246	493 / 11.4	534 / 11.7	575 / 12.0	606 / 12.3
	Red 1/8"	170-254	568 / 11.7	613 / 12.0	656 / 12.3	697 / 12.3
	Black 29 Drill	287-304	636 / 12.3	688 / 12.6	738 / 12.6	784 / 12.9
	Silver 9/64" Drill	182-259	743 / 12.0	802 / 12.9	858 / 13.2	913 / 13.5

For complete performance charts, please consult www.rainbird.eu

LFX300/LFX600 Series

The Rain Bird® LFX Low Flow Sprinkler is perfect for a wide varietyof applications

Applications

For Agriculture, Greenhouse, and Nursery applications which require a small footprint or low-volume sprinkler. Optimized for a wide variety of applications including orchard and field irrigation, environmental control, crop cooling, and dust control.

Upgrade to Flow Control (FC) Nozzles to Regulate Application Across Pressure Range.

LFX FC Nozzles control water flow over pressure variation to provide a consistent application rate along laterals or across terrain variation.

- Two flow rates available: 62 to 161 l/h
- Operating range from 1.75 to 3.25 bar
- Flow control mechanism contained in nozzle housing; installs in standard body. No special tools required

Features

- Simple three part sprinkler design includes body, nozzle, and brake assembly with attached deflector
- Easy field maintenance with simple snap-in-place nozzle and brake assembly including visual indicators to ensure correct positioning
- Engineered to provide superior distribution uniformity (under-tree or over-head configuration)
- Color coded nozzles and deflectors for easy identification

Specifications

LFX300 Operating Range

- Pressure: 1.75 to 3.25 bar
- Flow rate: 62 to 161 l/h
- Radius of throw: 6.1 to 7.6 meters

LFX600 Operating Range

- Pressure: 1.75 to 3.25 bar
- Flow rate: 140 to 469 l/h
- Radius of throw: 6.8 to 9.4 meters



Models

Select models shown. Review your regional price list for complete availability.

LFX300

- LFX300 Body LFXBNPT
- LFX300 Nozzles
- LFXN40B
- LFXN45P
- LFXN50G
- LFXN55Y
- LFXN60R
- LFXN3GPM
- LFXN5GPM

LFX300 Break with Deflector

- LFXBR9R
- LFXBR9W
- LFXBR15O

LFX600

- LFX600 Body: LFXBNPT
- LFX600 Nozzles
- LFXN65G
- LFXN70W
- LFXN78B
- LFXN7GPM
- LFXN1GPM
- LFXN860
- LFXN94P
- LFXN102Y

LFX600 Break with Deflector

- LFXBR9B
- LFXBR12P
- LFXBR15P
- LFXBR15G

LFX300 / LFX600 Accessories

- LFX Stream Splitter One Side: LFXSS1
- LFX Stream Splitter Two Side: LFXSS2
- LFX Edge Guard: LFXG



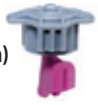
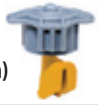
LFX600

LFX300

LFX300 Brake Assembly with Deflector Performance

Deflector	Nozzle	Stream Height (cm)	Flow Rate at Standard Pressures (l/h) Throw Radius at Standard Pressure (meter)						
			1.75 bar	2.0 bar	2.25 bar	2.5 bar	2.75 bar	3.0 bar	3.25 bar
Deflector 9° Red Radius: (6.1 - 6.7 m) 	P/n: 18116940B	50.8 - 58.4	0 0.0	0 0.0	62 6.1	65 6.1	68 6.4	71 6.1	74 6.1
	P/n: 18116945P	48.3 - 63.5	67 6.1	72 6.4	76 6.7	62 6.7	84 6.7	88 6.7	91 6.4
	P/n: 18116950G	53.3 - 73.6	83 6.4	88 6.4	94 6.7	99 6.7	104 6.4	108 6.4	113 6.4
	P/n : 18172135	50.8 - 63.5	79.5 5.5	79.5 5.5	79.5 5.5	79.5 5.5	79.5 5.5	79.5 5.5	79.5 5.5
	P/n : 18212543	50.8 - 63.5	98 6.0	98 6.0	98 6.0	98 6.0	98 6.0	98 6.0	98 6.0
Deflector 9 ° White Radius: (6.4 - 7.6 m) 	P/n: 18116950G	50.8 - 61	0 0.0	0 0.0	94 6.7	99 6.7	104 6.7	108 6.7	113 7.0
	P/n: 18116955Y	43.2 - 63.5	100 6.4	107 6.7	114 7.3	120 7.3	126 7.0	131 7.6	137 7.6
	P/n: 18116960R	43.2 - 63.5	118 7.0	126 7.3	134 7.3	141 7.3	148 7.6	154 7.6	161 7.6
	P/n: 18172150	50.8 - 63.5	113.6 5.5	113.6 5.5	113.6 5.5	113.6 5.5	113.6 5.5	113.6 5.5	113.6 5.5
Deflector 15° Orange Radius: (7.0 - 7.6 m) 	P/n: 18116950G	86.4 - 91.1	0 0.0	0 0.0	94 7.3	99 7.3	104 7.6	108 7.3	113 7.0
	P/n: 18116955Y	91.4 - 106.7	100 7.6	107 7.3	114 7.3	120 7.3	126 7.3	131 7.3	137 7.3
	P/n: 18116960R	83.8 - 104.1	118 7.3	126 7.6	134 7.6	141 7.6	148 7.6	154 7.3	161 7.3
	P/n: 18172150	76.2 - 106.7	113.6 5.5	113.6 5.5	113.6 5.5	113.6 5.5	113.6 5.5	113.6 5.5	113.6 5.5

LFX600 Brake Assembly with Deflector Performance

Deflector	Nozzle	Stream Height (cm)	Flow Rate at Standard Pressures (l/h) Throw Radius at Standard Pressure (meter)						
			1.75 bar	2.0 bar	2.25 bar	2.5 bar	2.75 bar	3.0 bar	3.25 bar
Deflector 9° Blue Radius: (6.8 - 7.9 m) 	P/n: 18116965G	43 - 71	140 7.0	149 7.0	158 7.3	167 7.5	175 7.6	183 7.6	190 7.6
	P/n: 18116970W	56 - 76	161 7.3	172 7.3	182 7.3	192 7.5	202 7.6	211 7.6	219 7.9
	P/n: 18116978B	56 - 76	203 7.6	216 7.6	230 7.6	242 7.6	254 7.6	265 7.6	276 7.9
	P/n : 18212575	48 - 66	170 6.8	170 6.8	170 6.8	170 6.8	170 6.8	170 6.8	170 6.8
	P/n : 18212510	56 - 79	227 7.2	227 7.2	227 7.2	227 7.2	227 7.2	227 7.2	227 7.2
Deflector 12 ° Pink Radius: (7.0 - 9.1 m) 	P/n: 18116978B	58 - 79	0 0.0	0 0.0	230 7.0	242 7.2	254 7.3	265 7.6	276 7.9
	P/n: 18116986O	56 - 81	0 7.9	263 8.5	279 8.7	294 8.8	308 8.8	322 8.8	335 8.8
	P/n: 18116995P	51 - 81	291 7.9	311 8.5	330 8.8	347 8.7	364 8.5	381 8.8	396 8.8
	P/n: 181169102Y	53 - 86	344 8.2	368 8.5	390 9.1	411 9.1	431 9.1	450 8.8	469 8.8
Deflector 15° Purple Radius: (7.3 - 8.8 m) 	P/n: 18116965G	79 - 112	140 0.0	149 0.0	158 6.1	167 6.1	175 6.4	183 6.1	190 6.1
	P/n: 18116970W	79 - 112	161 6.1	175 6.4	182 6.7	192 6.7	202 6.7	211 6.7	219 6.4
	P/n: 18116978B	86 - 114	203 6.4	216 6.4	230 6.7	242 6.7	254 6.4	265 6.4	276 6.4
	P/n: 18212575	79 - 107	170 5.5	170 5.5	170 5.5	170 5.5	170 5.5	170 5.5	170 5.5
	P/n: 18212510	86 - 112	227 6.0	227 6.0	227 6.0	227 6.0	227 6.0	227 6.0	227 6.0
Deflector 15 ° Gold Radius: (7.9 - 9.4 m) 	P/n: 18116986O	69 - 127	246 7.9	263 8.5	279 8,,5	294 8.7	308 8.8	322 8.8	335 9.1
	P/n: 18116995P	97 - 124	291 8.5	311 9.1	330 9.1	347 9.3	364 9.4	381 9.4	396 9.4
	P/n: 181169102Y	104 - 135	344 9.4	368 9.4	390 9.4	411 9.3	431 9.1	450 9.1	469 9.1

For complete performance charts, please consult www.rainbird.eu

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 nozzles options (sold separately)
- Only 2 field serviceable components – built to last reliably
- One-year trade warranty



XLR24

Operating Specifications

- Radius: 25.6 – 57.3 m
- Pressure: 2.1 to 8.3 bar
- Flow: 7.9 to 86.1 m^3/h
- Inlet: 2" NPT, 2" BSP or 2" flange
- Nozzle trajectory: 24° fixed or adjustable (15° to 45°)
- Nozzles (sold separately):
  - 12 mm
  - 16 mm
  - 20 mm
  - 24 mm
  - 28 mm
- Nozzle tool available (sold separately)



XLRADJ

Options

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

Models

- IXLR24: 24° fixed trajectory with flange inlet
- IXLRADJ: 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

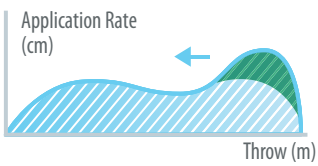
How to Specify

XLR 44 – NPT – XLRJETKIT

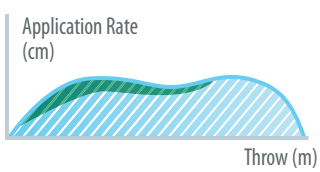
- **Optional Feature*** XLRJETKIT: Jet Breaker Kit
- **Mounting** NPT, BSP, Blank: Flange
- **Model** 24: 24°, 44: 44°, ADJ: Adjustable
- **Model** XLR

Order Separately

Low pressure water distribution profile



Improved distribution uniformity with Dynamic Jet-Breaker in low pressure condition and Solid-Set systems





XLR 24 Nozzle Throw Range | Fixed 24° Trajectory

	12 mm		16 mm		20 mm		24 mm		28 mm	
Pressure bar	Flow m^3/h	Radius m	Flow m^3/h	Radius m	Flow m^3/h	Radius m	Flow m^3/h	Radius m	Flow m^3/h	Radius m
2.0	7.8	24.2	13.8	28.9	21.7	29.4	31.1	30.2	42.3	30.9
2.5	8.7	26.8	15.4	31.3	24.2	33.8	34.7	35.1	47.3	36.5
3.0	9.6	29.4	16.9	33.7	26.5	38.2	38.0	39.9	51.8	42.1
3.5	10.3	31.2	18.2	35.5	28.7	40.4	41.1	42.9	56.0	45.9
4.0	11.1	32.9	19.5	37.3	30.7	42.5	43.9	45.8	59.8	49.7
4.5	11.7	33.9	20.7	38.6	32.5	43.9	46.6	47.6	63.5	52.0
5.0	12.4	34.8	21.8	39.8	34.3	45.2	49.1	49.3	66.9	54.3
5.5	13.0	35.7	22.9	41.1	35.9	46.5	51.5	50.9	70.2	56.2
6.0	13.5	36.6	23.9	42.4	37.5	47.7	53.8	52.5	73.3	58.1
6.5	14.1	37.4	24.9	43.3	39.1	48.7	56.0	53.7	76.3	59.3
7.0	14.6	38.2	25.8	44.2	40.6	49.7	58.1	54.9	79.2	60.6

The performance data were obtained under ideal testing conditions and may be adversely affected by wind and other factors. Pressure refers to pressure at nozzle. A lowered trajectory angle improves the irrigation efficiency in windy conditions. For every 3° drop of the trajectory angle the throw is reduced by aprrox. 3 to 4% Radius = radius of throw in feet. Nozzle at 1.5 m above ground level. Height = maximum stream height in meters above nozzle.

XLR ADJ Nozzle Throw Range | Adjustable Trajectory

- ***For every 3° drop of the trajectory angle, the throw is reduced by approximately 3 to 4%.***
- ***Use the XLR 24 Nozzle Throw Range Table for your pressure and nozzle diameter.***





TSJ/TSJ-PRS Series

Swing Joints Connect ¾" (1.9 cm) and 1" (2.5 cm) Rotors or Quick Coupler Valves to Lateral Pipes

Features

- Preassembled units save the contractor time and reduce installation costs
- Excellent structural integrity from the swept elbow design reduces the costs associated with fatigue related failures
- Double O Ring provides extra protection against leaks and keeps threads clean of debris making hand tightening easy
- The TSJ-PRS combines the great flow characteristics of the Rain Bird turf swing joint with an inline pressure regulating outlet elbow for controlling and maintaining constant pressure right at the rotor inlet

Operating Specifications

- Pressure rating: 21.7 bar at 22.8° C) (per ASTM D3139)
- ¾" joint pressure loss: 0.02 bar at 0.4 l/s
- 1 " joint pressure loss: 0.1 bar at 1,1 l/s; 0.2 bar at 1.5 l/s
- TSJ-PRS maximum flow: 1.41 l/s

TSJ-PRS Application Information

- The TSJ-PRS is not recommended for use in systems where the pressure in the lateral lines is equal to or less than the nominal regulation pressure, as the increased pressure drop may adversely affect the performance of such systems
- To reduce the effects of water hammer, Rain Bird recommends flow rates in the supply line not exceed 1.5 m/s. The TSJ-PRS is not intended to function as a water hammer prevention device
- There are no user-serviceable parts inside. The internal spring is under compression. Do not open the PRS unit under any circumstances

Models

- TSJ-12075: 12" (30.5 cm) long, ¾" M NPT x M NPT swing joint
- TSJ-12: 12" (30.5 cm) long, 1" M NPT x M NPT swing joint
- TSJ-100-PRS: 1" swing joint with 4.8 bar pressure regulator, 12" (30.5 cm) long, 1" M NPT x M NPT inlet and outlet

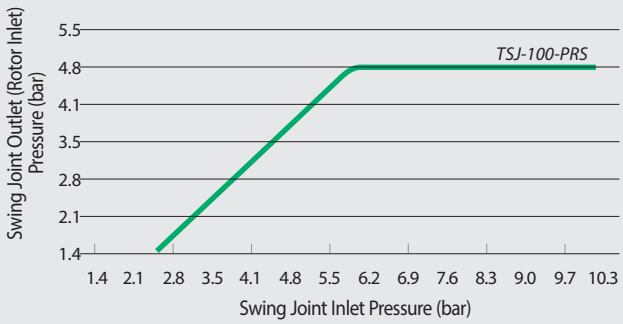


TSJ-100-PRS



TSJ-12075, TSJ-12

TSJ-PRS Pressure Regulation





Valves

Major Products

Primary Applications	LFV	HV	HVF	DV	DVF	ASVF	PGA	PEB/PESB/PESB-R	EFB-CP/BPES	QC
Manual Bleed	I/E	I/E	I/E	I/E	I/E	I/E	I	I/E	I/E	
Flow Control			●		●	●	●	●	●	
Bottom Inlet				DV-A		●	●		BPES	●
Low Flow	●	●	●	●	●	●		●	●	
PRS-Dial Compatible							●	●	●	
Dirty Water								●	●	
Non-Potable Water							●	●	●	●
Sites Requiring Brass									●	●
Sites Requiring Plastic	●	●	●	●	●	●	●	●		
Decoder System Compatible							●	●	●	

• DV/DVF available in globe, angle, slip x slip, and male x barb configurations. • Flows below 0.68 m^3/h; 0.19 l/s install 200 mesh filter upstream. • I/E = Internal/External
• The PESB-R and EFB-CP are specifically designed with chlorine-resistant components for reclaimed water applications.

Water Saving™ Water Saving Tips

- The PRS-Dial is an excellent means of regulating outlet pressure at the valve regardless of incoming pressure fluctuations. It helps ensure optimal pressure performance at the head.
- Rain Bird valves provide excellent filtration characteristics for maximum reliability in a wide range of environments.
- PESB-R and EFB-CP reclaimed valves provide reliable operation in all water conditions. Valve diaphragms are composed of EPDM, a rubber material which is chlorine and chemical resistant.

Low Flow Valves

Valves designed exclusively for the low flow rates of a drip irrigation system (0.2 - 10.0 gpm; 0.6 to 37.8 l/m)

Features

- The only valves in the industry made specifically for drip irrigation systems, making these the only valves that can effectively handle particles at low flow rates – patented design
- These valves contain all of the features of reliable Rain Bird DV valves, coupled with a unique diaphragm design that allows particles to pass through at extremely low flow rates, thereby preventing weeping of the valve
- Allows the filter to be safely placed downstream of the valve since these valves handle all sizes of particles
- Unique "double-knife" diaphragm coupled with 1/2" diameter seat for flawless operation at low flow rates
- Low Flow Valve is available in 3/4" In-line model
- Double-filtered pilot flow design for maximum reliability
- External bleed to manually flush the system of dirt and debris during installation and system start-up
- Internal bleed for spray-free manual operation.

Operating Range

- Flow: 0.20 to 10.0 gpm (0.6 to 37.8 l/m)
- Pressure: 15 to 150 psi (1.0 to 10.3 bar)

Electrical Specifications

- 24 VAC 50/60 Hz (cycles/sec) solenoid
- Inrush current: 0.30 (7.2 VA) at 50/60 Hz
- Holding current: 0.19 A (4.56 VA) at 50/60 Hz

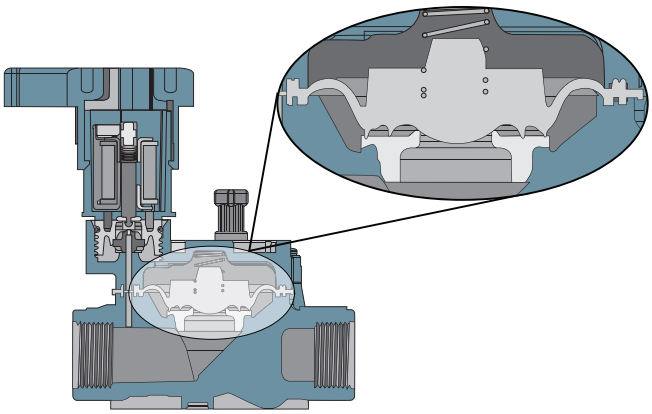
Models

- LFV-075: 3/4" Low Flow DV Valve
- LFV-100*: 1" Low Flow DV Valve

**Available with BSP threads*

Pressure Loss Characteristics

Flow l/m	LFV-075 bar	LFV-100 bar
0.6	0.21	0.21
3.6	0.22	0.23
7.8	0.23	0.26
15.0	0.25	0.34
22.8	0.28	0.44
30.0	0.47	0.52



Unique Diaphragm Design



LFV-075

Note: Also available as part of XCZLF-100-PRF Control Zone Kit

DV / DVF Series

Diaphragm Valve – The Industry Leader for Over 25 Years

Features

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

Specifications

- Pressure: 1,0 to 10,4 bar)
- 100-DV Non-Flow Control Model: 0,05 to 9,085 m^3/h; 0,01 to 2,52 l/s. For flows below 0,68 m^3/h; 0,19 l/s or any Landscape Drip application, use a 200 mesh filter installed upstream
- 100-DVF Flow Control Model: 0,05 to 9.085 m^3/h; 0,01 to 2,52 l/s; For flows below 0,68 m^3/h; 0,19 l/s or any Landscape Drip application, use a 200 mesh filter installed upstream
- Water Temperature: Up to 43° C)
- Ambient air temperature: Up to 52° C
- 24 VAC 50/60 Hz (cycles per second) solenoid power requirement: 0.450A inrush current; 0.250A holding current
- Solenoid coil resistance: 38 Ohms

Dimensions

DV Valves

- Height: 11.4 cm
- Length: 11.1 cm
- Length (MB): 14.6 cm
- Width: 8.4 cm

DVF Valves

- Height: 14.2 cm
- Length: 11.1 cm
- Length (MM): 14.6 cm
- Width: 8.4 cm



I100-DVF



I100-DV

DV and DVF Valve Pressure Loss (bar)		
Flow m^3/h	l/m	100-DV/100-DVF 1" bar
0.23	4	0.23
0.60	10	0.24
1.20	20	0.26
3.60	60	0.32
4.50	75	0.35
6.00	100	0.41
9.00	150	0.59

100-DV Angle, MxB Valve Pressure Loss (bar)		
Flow m^3/h	l/m	100-DV/100-DVF 1" bar
0.23	4	0.17
0.60	10	0.19
1.20	20	0.21
3.60	60	0.26
4.50	75	0.30
6.00	100	0.44
9.00	150	0.86

Note: *DV/DVF Male x barb not recommended for flows exceeding 30 gpm (6.81 m^3/h, 113.56 l/m)*

Models

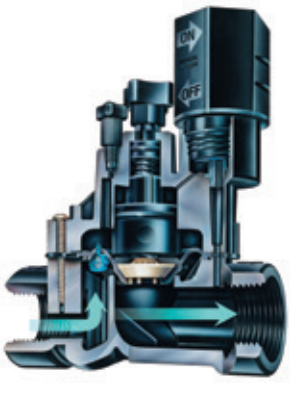
Select models shown. Review your regional price list for complete availability.

- 075-DV: ¾" female threaded inlet and outlet
- I100-DV: 1" BSP female x female*
- I100-DV-MM: 1" male x male*
- 100-DV-MM-9V: 1" male x male, latching solenoid*
- I100-DVF: 1" BSP female x female*

** Available with NPT threads*

Recommendations

1. *Rain Bird recommends flow rates that result in discharge velocities in the supply line not to exceed 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.***



DVF Cutaway

How to Specify

I100 - DV - MM

Optional Configuration
MM: Male x Male
MM-9V: Male x Male, latching solenoid
TBOS: TBOS latching solenoid

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

Size
I100: 1"

This specifies an I100-DV valve; 1" (26/34) male x male.
Note: *For non-U.S. applications it is necessary to specify NPT or BSP thread type (1" only).*

HV Series

High Value Valve. High Performance. Big Savings.

Features

- Patented, eccentric, balanced pressure, Buna-N diaphragm with self-cleaning 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, 6.5 cm 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 74 micron filter is installed upstream

Specifications

- Pressure: 1,0 to 10,3 bar
- Flow: 0,05 to 6,82 m^3/h; 0,01 to 1,89 l/s; for flows below 0,68 m^3/h; 0,19 l/s or any Landscape Drip application, use a 200 mesh filter installed upstream
- Operating Temperatures: Water temperature up to 43° C; ambient temperature up to 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 (4.4° C - 43° C)

HV Valve Pressure Loss (bar)			METRIC
Flow m^3/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 2.3 m/s in order to reduce the effects of water hammer*

Dimensions

- Height: 11.7 cm
- Height (F): 14.3 cm
- Height (MM): 11.4 cm
- Length: 11.2 cm
- Length (MM): 14.4 cm
- Width: 7.9 cm

Models

Select models shown. Review your regional price list for complete availability.

- I100-HV-BSP: 1" BSP female x female
- I100-HVF-BSP: 1" BSP female x female
- I100-HVF-BSP-9V: 1" BSP female x female, 9V DC Latching Solenoid
- I100-HV-MM: 1" male x male
- I100-HV-MM-9V: 1" male x male, 9V DC Latching Solenoid

Recommendations

1. *Rain Bird recommends flow rates that result in discharge velocities in the supply line not to exceed 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.***



100HV



100 HVF

How to Specify

100 - HV - MM

Optional Configuration:
MM: Male x Male

Model
HV: High Value Valve
HVF: High Value Valve w/Flow Control

Size
100: 1"

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

PGA Series

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

Features

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

Options

- Accommodates optional, field installed PRS-D pressure regulating module to ensure optimum sprinkler performance
- Accepts latching solenoid for use with Rain Bird battery-operated controllers up to 10.35 bar
- Compatible with ESP-LXD decoders

Specifications

- Pressure: 1.04 to 10.4 bar
- Flow without PRS-D option: 0.45 to 34.05 m^3/h; 7.8 to 568 l/m
- Flow with PRS-D option: 1.14 to 34.05 m^3/h; 19.2 to 568 l/m
- Water temperature: Up to 43° C
- Ambient temperature: Up to 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



Extreme Durability

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



Pressure-Resistant Seal

The PGA valve's body-to-bonnet seal is built to overcome the intense water pressure typical of many commercial sites. Faced with repeated pressure surges well into the triple digits, our valves outlasted the nearest competitor more than 2 ½ times to 1.*

PGA Series Valve Pressure Loss (bar)

Flow m^3/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

Dimensions

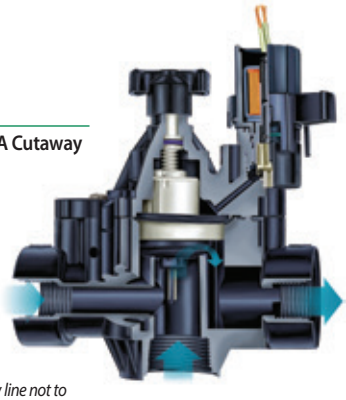
Model	Height	Length	Width
• 100-PGA	18.4 cm	14.0 cm	8.3 cm
• 150-PGA	20.3 cm	17.2 cm	8.9 cm
• 200-PGA	25.4 cm	19.7 cm	12.7 cm

Note: *PRS-Dial adds 5.1 cm to valve height*

Models

- 100-PGA: 1"
- 100-PGA-9V: 1"
- 150-PGA: 1 ½"
- 150-PGA-9V: 1 ½"
- 200-PGA: 2"
- 200-PGA-9V: 2"

BSP threads available; specify when ordering



PGA Cutaway

Recommendations

1. *Rain Bird recommends flow rates in the supply line not to exceed 2.29 m/s in order to reduce the effects of water hammer*
2. *For flows below 1.14 m^3/h; 19.2 l/m, Rain Bird recommends use of upstream filtration to prevent debris from collecting below the diaphragm*
3. *For flows below 2.27 m^3/h; 37.8 l/m Rain Bird recommends the flow control stem be turned down two full turns from the fully open position*



150-PGA

How to Specify

100 - PGA - PRS-D

- **Size** 100: 1" 150: 1½" 200: 2"
- **Model** PGA
- **Optional Feature** PRS-Dial: pressure regulating module *(must be ordered separately)*

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

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

PGA-IVM Series

NEW

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 forward—simplifying 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

Options

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

Specifications

- Pressure: 1.04 to 10.4 bar
- Flow without PRS-D option: 0.45 to 34.05 m^3/h; 7.8 to 568 l/m
- Flow with PRS-D option: 1.14 to 34.05 m^3/h; 19.2 to 568 l/m
- Water temperature: Up to 43° C
- Ambient temperature: Up to 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



Extreme Durability

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



Pressure-Resistant Seal

The PGA valve's body-to-bonnet seal is built to overcome the intense water pressure typical of many commercial sites. Faced with repeated pressure surges well into the triple digits, our valves outlasted the nearest competitor more than 2 ½ times to 1.*

PGA-IVM Series Valve Pressure Loss (bar)

Flow m^3/h	Flow l/m	IVM100 PGA Globe 2.5cm	IVM100 PGA Angle 2.5cm	IVM150 PGA Globe 3.8cm	IVM150 PGA Angle 3.8cm	IVM200 PGA Globe 5.1cm	IVM200 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

Dimensions

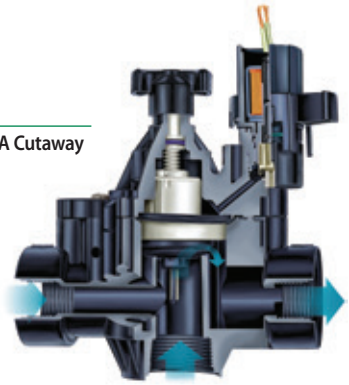
Model	Height	Length	Width
• IVM100PGA	18.4 cm	14.0 cm	8.3 cm
• IVM150PGA	20.3 cm	17.2 cm	8.9 cm
• IVM200PGA	25.4 cm	19.7 cm	12.7 cm

Note: *PRS-Dial adds 5.1 cm to valve height*

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



PGA Cutaway

Recommendations

1. *Rain Bird recommends flow rates in the supply line not to exceed 2.29 m/s in order to reduce the effects of water hammer*
2. *For flows below 1.14 m^3/h; 19.2 l/m, Rain Bird recommends use of upstream filtration to prevent debris from collecting below the diaphragm*
3. *For flows below 2.27 m^3/h; 37.8 l/m Rain Bird recommends the flow control stem be turned down two full turns from the fully open position*



IVM150PGA

How to Specify

IVM100 - PGA - PRS-D

Size
100: 1" NPT
150: 1½" NPT
200: 2" NPT

Model
PGAIVM

Optional Feature
PRS-Dial: pressure regulating module *(must be ordered separately)*

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

PEB / PESB Series

Best-in-class Professional Series Plastic Irrigation Valves

Features

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

Specifications

- Pressure: 1.4 to 13.8 bar
- Flow without PRS-D option: 0.06 to 45 m^3/h; 0.02 to 12.60 l/s
- Flow with PRS-D option: 1.14 to 45 m^3/h; 0.32 to 12.60 l/s
- Temperature: Up to 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
- Accepts latching solenoid for use with Rain Bird battery-operated controllers up to 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")



150-PEB



150-PESB

How to Specify

100 - PEB - PRS-D

Size
100: 1"
150: 1½"
200: 2"
300: 3"

Model
PEB
PESB

Optional Feature
PRS-Dial: pressure regulating module *(must be ordered separately)*

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

Dimensions

Model	Height	Length	Width
• 100-PEB and 100-PESB:	16.5 cm	10.2 cm	10.2 cm
• 150-PEB and 150-PESB:	20.3 cm	15.2 cm	15.2 cm
• 200-PEB and 200-PESB:	20.3 cm	15.2 cm	15.2 cm
• 300-PESB:	34.6 cm	20.3 cm	17.8 cm

Note: *The PRS-Dial option adds 5.1 cm to valve height*

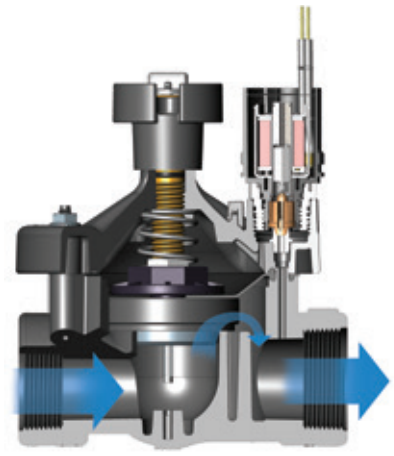
Models

- 100-PEB and 100-PESB: 1"
- 150-PEB and 150-PESB: 1½"
- 200-PEB and 200-PESB: 2"
- 300-PESB: 3" NEW

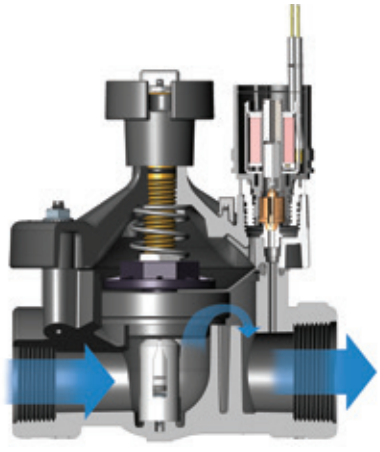
BSP threads available; specify when ordering

Recommendations

1. *Rain Bird recommends flow rates in the supply line not to exceed 2.29 m/s in order to reduce the effects of water hammer*
2. *For flows below 1.14 m³/h; 19.2 l/m, Rain Bird recommends use of upstream filtration to prevent debris from collecting below the diaphragm*
3. *For flows below 2.27 m³/h; 37.8 l/m Rain Bird recommends the flow control stem be turned down two full turns from the fully open position*
4. *For PRS-Dial applications, Rain Bird recommends the installation of a pressure-regulating master valve or inline pressure regulator when the inlet pressure exceeds 6.9 bar*



PEB Cutaway



PESB Cutaway

PEB and PESB Series Valve Pressure Loss (bar)				METRIC
Flow m³/h	Flow l/m	100-PEB 2.5cm	150-PEB 3.8cm	200-PEB 5.1cm
0.06	1	0.06	-	-
0.3	5	0.09	-	-
0.6	10	0.10	-	-
1.2	20	0.12	-	-
3	50	0.15	-	-
6	100	0.32	0.26	-
9	150	0.68	0.24	-
12	200	-	0.26	0.33
15	250	-	0.33	0.32
18	300	-	0.42	0.32
21	350	-	0.57	0.34
24	400	-	0.74	0.41
27	450	-	0.92	0.51
30	500	-	1.14	0.64
33	550	-	1.38	0.77
36	600	-	-	0.90
39	650	-	-	1.04
42	700	-	-	1.18
45	757	-	-	1.34

300 PESB Series Valve Pressure Loss (bar)			METRIC
Flow m³/h	Flow l/m	300-PESB 3" (Globe	300-PESB 3" (Angle)
13.63	227.12	0.46	0.47
18.17	302.83	0.35	0.41
22.71	378.54	0.22	0.24
27.25	454.25	0.12	0.12
31.80	529.96	0.12	0.14
36.34	605.66	0.14	0.14
40.88	681.37	0.15	0.14
45.42	757.08	0.19	0.17
56.78	946.35	0.28	0.23
68.14	1135.62	0.34	0.31

Notes

1. Loss values are with flow control fully open

2. PRS-Dial recommended for use in shaded area only

PE-IVM Series

NEW

Best-in-class Professional Series Plastic Irrigation Valves. 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 PEB/PESB 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 forward—simplifying 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
- Body constructed of durable glass-filled nylon for long life and heavy-duty performance at 13.80 bar pressure
- Stainless steel studs molded into the body. Bonnet can be attached and removed more easily without damaging threads
- One-piece solenoid design with captured plunger and spring for easy servicing. Prevents loss of parts during field service
- External bleed protects the solenoid ports from debris when system is flushed
- Internal bleed operates the valve without allowing water into the valve box; allows pressure regulator to be adjusted without turning on the valve at the controller first
- Low flow operating capability (0.06 m^3/h; 1.2 l/m) for a wide range of applications. For flows below 1.14 m^3/h; 19.2 l/m or any Xerigation® application, install Rain Bird Y filter upstream
- Slow closing to prevent water hammer and subsequent system damage
- **PESBIVM only:** Scrubber scrapes its stainless steel screen clean to break down grit and plant material. Prevents debris build-up and clogging

Options

- Accommodates optional, field installed PRS-D pressure regulating module to ensure optimum sprinkler performance. Regulates up to 6.9 bar
- Optional purple flow control handle for non-potable water applications PEB-NP-HAN1 (1"); PEB-NP-HAN2 (1 1/2" and 2")

Specifications

- Pressure: 1.4 to 13.8 bar
- Flow without PRS-D option: 0.06 to 45 m^3/h; 0.02 to 12.60 l/s
- Flow with PRS-D option: 1.14 to 45 m^3/h; 0.32 to 12.60 l/s
- Temperature: Up to 66° 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



IVM150PESB

PE-IVM Series Valve Pressure Loss (bar) METRIC

Flow m^3/h	Flow l/m	IVM100PEB 2.5cm	IVM150PEB 3.8cm	IVM200PEB 5.1cm
0.06	1	0.06	-	-
0.3	5	0.09	-	-
0.6	10	0.10	-	-
1.2	20	0.12	-	-
3	50	0.15	-	-
6	100	0.32	0.26	-
9	150	0.68	0.24	-
12	200	-	0.26	0.33
15	250	-	0.33	0.32
18	300	-	0.42	0.32
21	350	-	0.57	0.34
24	400	-	0.74	0.41
27	450	-	0.92	0.51
30	500	-	1.14	0.64
33	550	-	1.38	0.77
36	600	-	-	0.90
39	650	-	-	1.04
42	700	-	-	1.18
45	757	-	-	1.34

Notes

1. Loss values are with flow control fully open

2. PRS-Dial recommended for use in shaded area only

Dimensions

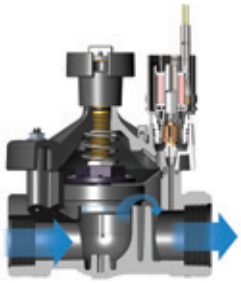
Model	Height	Length	Width
• IVM100PEB / IVM100PESB:	16.5 cm	10.2 cm	10.2 cm
• IVM150PEB / IVM150PESB:	20.3 cm	15.2 cm	15.2 cm
• IVM200PEB / IVM200PESB:	20.3 cm	15.2 cm	15.2 cm

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

Models

- IVM100PEB and IVM100PESB: 1" NPT
- IVM150PEB and IVM150PESB: 1½" NPT
- IVM200PEB and IVM200PESB: 2" NPT

BSP threads available; specify when ordering



PEB Cutaway

Recommendations

1. Rain Bird recommends flow rates in the supply line not to exceed 2.29 m/s in order to reduce the effects of water hammer

2. For flows below 1.14 m^3/h; 19.2 l/m, Rain Bird recommends use of upstream filtration to prevent debris from collecting below the diaphragm

3. For flows below 2.27 m^3/h; 37.8 l/m Rain Bird recommends the flow control stem be turned down two full turns from the fully open position

4. For PRS-Dial applications, Rain Bird recommends the installation of a pressure-regulating master valve or inline pressure regulator when the inlet pressure exceeds 6.9 bar

How to Specify

IVM100 - PEB - PRS-D

Size
100: 1" NPT
150: 1½" NPT
200: 2" NPT

Model
PEBIVM
PESBIVM: Scrubber model

Optional Feature
PRS-Dial: pressure regulating module *(must be ordered separately)*

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

300-BPES Brass Valves

3" Brass Master Valve - Globe and angle configuration

Features

- Unique hybrid construction featuring durable red brass body and glass-filled nylon bonnet for long life at a value price
- Normally closed, forward flow design
- Slow closing to prevent water hammer and subsequent system damage
- Robust solenoid provides dependable performance even during constant operation
- Flow control handle adjusts water flows as needed and incorporates a brass thread insert for longer life
- Manual internal bleed operates the valve without allowing water into the valve box. Allows pressure regulator adjustment without turning the valve on at the controller
- Manual external bleed permits flushing debris from the system. Recommended for system start up and repairs
- Highly efficient operation with extremely low pressure loss
- Patented nylon scrubber scrapes a stainless steel screen to clean and break down grit and plant material. Prevents debris build-up and clogging
- Three-year trade warranty

Options

- Accommodates field-installed PRS-D pressure regulating module to ensure optimum sprinkler performance
- Purple flow control handle for non-potable water applications (BPE-NP-HAN)
- Latching solenoid for use with Rain Bird battery-operated controllers up to 10.4 bar

Specifications

- Pressure: 1.4 to 13.8 bar
- Flow with/without PRS-D option: 13.6 to 68.1 m^3/h; 3.78 to 18.90 l/s)
- Temperature: up to 60° C
- Power: 24 VAC 50/60 Hz (cycles/sec) solenoid
- Inrush current: 0.41 A (9.8 VA) at 50/60Hz
- Holding current: 0.14 A (3.43 VA) at 50/60Hz
- Coil resistance: 30-39 Ohms, nominal

Dimensions

Model	Height	Length	Width
• 300	34.61 cm	20.32 cm	17.78 cm

Models

- 300-BPES: 3" NPT

BSP threads available; specify when ordering

Recommendations

1. *Rain Bird recommends flow rates in the supply line not to exceed 2.29 m/s in order to reduce the effects of water hammer.*
2. *For flows below 1.14 m^3/h; 19.2 l/m, Rain Bird recommends use of upstream filtration to prevent debris from collecting below the diaphragm.*
3. *For flows below 2.27 m^3/h; 37.8 l/m Rain Bird recommends the flow control stem be turned down two full turns from the fully open position.*

BPES 3" Valve Pressure Loss (bar)

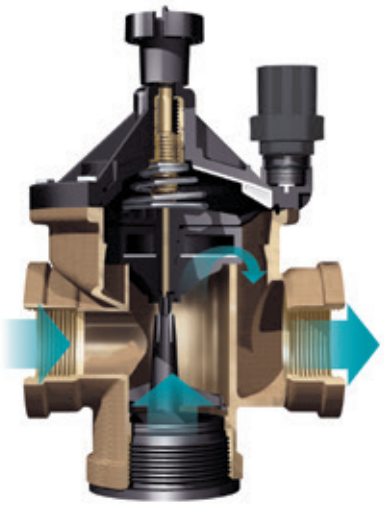
Flow m^3/h	l/s	Globe	Angle
13.6	227	0.46	0.47
24	400	0.19	0.21
36	600	0.14	0.14
48	800	0.21	0.19
60	1000	0.29	0.26
68	1136	0.34	0.31

Notes

1. Loss values are with flow control fully open
2. PRS-Dial module recommended for all flow rates



300-BPES



BPES Cutaway

How to Specify

300 - BPES - PRS-D

- **Size** 3"
- **Model** BPES
- **Optional Feature** PRS-Dial: pressure regulating module *(must be ordered separately)*

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

PVC Manifold System

Complete Male and Female Manifold System

Features

- Telescoping Manifold System allows valve replacement (with different lay lengths) without any cutting or adding new parts
- Big O-Rings to insure no leaking
- Parts are all hand tightened
- Female valve connectors connect directly to male valves without the need for an adapter
- Male Valve Connectors connect directly to female valves without the need for a coupling
- No Teflon® tape needed for assembly

Specifications

- Operating Pressure: 10,5 bar

Models

Select models shown. Review your regional price list for complete availability.

RB 1300 Series - Male Valve Connectors

- RB1301-010: Union Tee 1″ F X 1″ M Swivel X 1″ M
- RB1301-210: 1″ F X 2 outlets 1″ M Swivel X 1″ M
- RB1303-010: Tee double Swivel 2 outlets 1″ M Swivel X 1″ F
- RB1306-010: Union Elbow 1″ M X 1″ M Swivel
- RB1312-010: Union Elbow 1″ F X 1″ M Swivel
- RB1320-010: Union Cross 1″ F X 2 outlets 1″ M Swivel X 1″ M
- RB1330-010: Union Coupling 1″ F X 1″ F
- RB1330-131: Union Coupling 1″ F X ¾″ F
- RB1348-010: Cap 1″ F
- RB1301-310: 3 outlet manifold 1″ F X 3 outlets 1″ M Swivel X 1″ M
- RB1301-410: 4 outlet manifold 1″ F X 4 outlets 1″ M Swivel X 1″ M

RB 1200 Series - Female Valve Connectors

- RB1201-010: Union Tee 1″ F X 1″ F Swivel X 1″ M
- RB1201-210: 1″ F X 2 outlets 1″ F Swivel X 1″ M
- RB1203-010: Tee double Swivel 2 outlets 1″ F Swivel X 1″ F
- RB1206-010: Union Elbow 1″ M X 1″ F Swivel
- RB1212-010: Union Elbow 1″ F X 1″ F Swivel
- RB1220-010: Union Cross 1″ F X 1″ F Swivel X 1″ F Swivel X 1″ M
- RB1234-010: 1″ Euro adapter
- RB1201-310: 3 outlet manifold M 1″ F X 3 outlets 1″ F Swivel X 1″ M
- RB1201-410: 4 outlet manifold M 1″ F X 4 outlets 1″ F Swivel X 1″ M
- RB1239-131: Adapter 1″ M X ¾″ F
- RB1282-010: Adapter 1″ M X 1″ M
- RB1282-131: Adapter 1″ M X ¾″ M


RB1201-010


RB1201-210


RB1203-010


RB1212-010


RB1206-010


RB1220-010


RB1234-010


RB1239-131


RB1282-010


RB1282-131


RB1201-310


RB1201-410

RB 1200 SERIES


RB1301-010


RB1301-210


RB1303-010


RB1306-010


RB1312-010


RB1320-010


RB1330-010


RB1330-131


RB1348-010


RB1301-310


RB1301-410

RB 1300 SERIES

MTT-100

Manifold Tee For Electric Valves

Application

- Manifold tee used to build a valve manifold for 1″ (26/34) BSP female threaded valves

Features

- No tools required
- O-Ring permits watertight connection between tees (no Teflon required)
- Properly spaces valves
- Used to form a valve manifold to accomodate any desired number of valves (1 MTT-100 per electric valve)

Specifications

- Pressure: up to 10 bars
- 1″ male x 1″ (26/34) male (with O-ring) x 1″ (26/34) female BSP

Dimensions

- Length: 12 cm

Model

Select models shown. Review your regional price list for complete availability.

- MTT-100



MTT-100

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 1.04 to 6.9 bar within ±0.21 bar
- Ergonomic design with snap-tight cover to prevent vandalism
- Waterproof dial cartridge eliminates fogging and binding
- Dial cartridge retrofits into all existing PRS-D units
- 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 6.9 bar*
- Regulation: 1.04 to 6.9 bar
- Flow: Refer to chart

* *While the PRS-Dial unit can withstand pressures up to 13.8 bar, accurate pressure regulation can be maintained only up to 6.9 bar*

Model

- PRS-D

Application Information

- Proper operation requires inlet pressure to be a minimum of 1.04 bar higher than desired outlet pressure
- For areas with very high pressure or uneven terrain, install sprinklers with PRS pressure regulating stems and/or SAM check valves
- When inlet pressure exceeds 6.9 bar, a pressure regulating master valve or inline pressure regulator is recommended
- Rain Bird does not recommend using the pressure regulating module for applications outside the recommended flow ranges
- To reduce the effects of water hammer, Rain Bird recommends flow rates in the supply line not to exceed 2.29 m/s
- For flows below 2.27 m^3/h; 37.8 l/m, Rain Bird recommends the flow control stem be turned down two full turns from the fully open position

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

Valve Flow Ranges*

Model	m^3/h	l/m
100-PGA	1.14-9.08	19.2-151
150-PGA	6.81-22.70	113-378
200-PGA	9.08-34.05	151-568
100-PEB	1.14-11.35	19.2-189
150-PEB	4.54-34.05	76-568
200-PEB	17.03-45.40	284-757
100-PESB/PESB-R	1.14-11.35	19.2-189
150-PESB/PESB-R	4.54-34.05	76-568
200-PESB/PESB-R	17.03-45.40	284-757
100-EFB-CP	1.14-11.35	19.2-189
125-EFB-CP	4.54-18.16	76-302
150-EFB-CP	4.54-31.78	76-529
200-EFB-CP	4.54-45.40	76-757
300-BPES	13.62-68.10	227-1136

** These are the valve flow ranges.*



PRS-Dial



PRS-Dial cutaway



150-PEB with PRS-Dial Installation†



300-BPES with PRS-Dial Installation†

RC Series: 5LRC

Brass Quick-Coupling Valves and Keys

Applications

Quick-Coupling valves provide underground water supply outlets for installations ranging from residential lawns to city parks. They are installed flush to grade and are used in conjunction with above grade sprinklers or hose.

Features

- Brass construction
- Key is inserted into top of the valve. A turn of the key opens the valve and releases the water. Remove the key to close the valve
- Thermoplastic cover for durability
- Stainless steel internal valve spring prevents leakage

Specifications

- 5LRC
- Flow: 7.0 to 16.0 m³/h
- Pressure: 0.4 to 8.6 bar

Quick-Coupling Valves Pressure Loss (bar)

Flow (m³/h)	5LRC
7.0	0.30 bar
8.0	0.40 bar
9.0	0.50 bar
10.0	0.61 bar
12.0	0.85 bar
14.0	1.15 bar
16.0	1.48 bar

Dimensions

- 5LRC - Height: 14.0 cm

Models

Select models shown. Review your regional price list for complete availability.

- 33DK: Valve key ¾" male and ½" female threads
- 5LRC: 1" BSP female threaded inlet with locking rubber cover
- 55K-1: Valve key 1" BSP male threads



5LRC

SH Series: SHO and SH2BSP

Brass Swivel Hose Ell

Applications

The SHO/SH2BSP are connected to the 33DK/55K-1 Quick-Coupling Valve keys. Hose can be pulled in any direction - full 360° swivel - without kinking.

Features

- Brass construction
- O-Ring seal
- Used in conjunction with the 33DK/55K-1 keys

Specifications

SH0

- Female threaded inlet: ¾"
- Male threaded outlet: ¾"

SH2BSP

- Female threaded inlet: 1"
- Male threaded outlet: 1"

Models

Select models shown. Review your regional price list for complete availability.

- SHO:Swivel Hose Ell ¾"
- SH2BSP: Swivel Hose Ell 1"



SH0

P-33 Series: P-33 / P-33DK

Plastic Quick-Coupling Valve and Key

Applications

These Quick-Coupling Valves permit easy access to water from an underground piping system and can be used in conjunction with hose for manual irrigation or cleaning driveways, sidewalks, etc.

Features

- Used in conjunction with P-33DK "turn and lock" key with ribbed grip
- Delrin™ valve cage
- 2-piece valve body design. 1-piece key
- Stainless steel spring
- Cover snaps on valve body to keep out debris
- Impact resistant plastic with UV-inhibitors
- O-Ring seal

Specifications

- Maximum operating pressure: 6.2 bars
- Valve: ¾" male threaded inlet
- Key: ¾" male threaded outlet
- ¾" female threaded inlet; ¾" (20/27) male threaded outlet

P-33 Series Quick-Coupling Valves Pressure Loss (bar)

Flow (m³/h)	P-33
2.5	< 0.1
3.0	-0.13
3.5	-0.18
4.0	-0.23
4.5	-0.29
5.0	-0.35

Dimensions

- Height P-33 Quick Coupling Valve: 13.8 cm
- Height P-33DK Key: 18.0 cm

Models

Select models shown. Review your regional price list for complete availability.

- P-33: Quick Coupling Valve
- P-33DK: Valve Key for P-33



P-33



P-33DK

VBA-Series

Polypro Valve Boxes - Valve Boxes with the Best Value for Money.

Applications

Rectangular and round valve boxes made of plastic permit easy access to electric and manual valves and other equipment used in automatic irrigation installations. These valve boxes are highly recommended for residential systems

Features

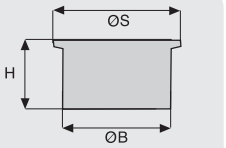
- Boxes made of black polypropylene. Green cover made of same material
- Cover included (except extensions)
- Extensions available for models VBA02674 and VBA02675
- Aesthetic, lightweight, and nest within each other to reduce freight costs
- Lockable cover
- Exclusive T-COVER
- Easy to identify : Molded model number and Rain Bird marking
- Easy to open : Built-in hole and built-in notch for 2 in 1 lifting key
- Pre-cut pipe inlets and outlets. No tools required

Models

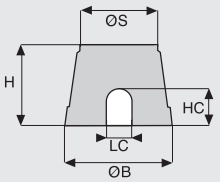
Select models shown (see table below). Review your regional price list for complete availability.

Dimensions

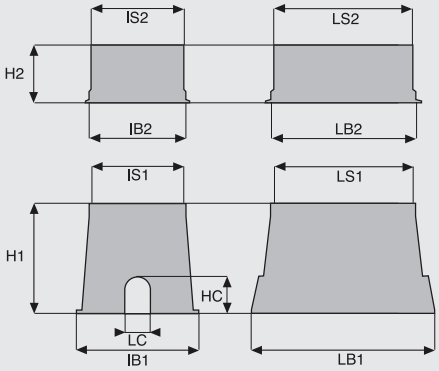
Round valve boxes		VBA17186
ØS	**Diameter**	**210 mm**
ØB	Diameter	180 mm
H	**Height**	**120 mm**



Round valve boxes		VBA02672	VBA02673
ØS	**Diameter**	**160 mm**	**242 mm**
ØB	Diameter	200 mm	335 mm
H	**Height**	**236.5 mm**	**255 mm**
LC	**Slots for pipe (Width)**	**67 mm**	**52 mm**
HC	Slots for pipe (Height)	64 mm	89 mm



Extensions		VBA02676	VBA07777
LS2	**Length**	**382 mm**	**530 mm**
IS2	Width	255 mm	380 mm
H2	**Height**	**180 mm**	**190 mm**
LB2	**Length**	**394 mm**	**550 mm**
IB2	Width	266 mm	380 mm
Rectangular valve boxes		**VBA02674**	**VBA02675**
LS1	**Length**	**386 mm**	**545 mm**
IS1	Width	267 mm	380 mm
H1	**Height**	**305 mm**	**305 mm**
LB1	**Length**	**505 mm**	**630 mm**
IB1	Width	370 mm	480 mm
LC	**Slots for pipe (Width)**	**70 mm**	**80 mm**
HC	Slots for pipe (Height)	105 mm	105 mm





Round irrigation hydrant	7 Inch Round Valve Box	10 Inch Round Valve Box	Standard Extension	Jumbo Extension	Standard Valve Box	Jumbo Valve Box
ADDITIONAL FEATURES						
• Boxes made of black polypropylene. Green cover made of same material • Aesthetic, lightweight, and nest within each other to reduce freight costs • Round irrigation hydrant with built-in ¾" (20/27) valve	• Boxes made of black polypropylene. Green cover made of same material • Cover included • Aesthetic, lightweight, and nest within each other to reduce freight costs	• Boxes made of black polypropylene. Green cover made of same material • Cover included • Aesthetic, lightweight, and nest within each other to reduce freight costs	• Extensions available for models VBA02674 • Aesthetic, lightweight, and nest within each other to reduce freight costs	• Extensions available for models VBA02675 • Aesthetic, lightweight, and nest within each other to reduce freight costs	• Boxes made of black polypropylene Green cover made of same material • Cover included • Extensions available • Aesthetic, lightweight, and nest within each other to reduce freight costs • Lockable cover • Exclusive T-COVER: - Easy to identify : Molded model number and Rain Bird Marking - Easy to open : Built-in hole and Built-in notch for 2 in 1 lifting key • Pre-cut pipe inlets and outlets : No tools required	• Boxes made of black polypropylene Green cover made of same material • Cover included • Extensions available • Aesthetic, lightweight, and nest within each other to reduce freight costs • Lockable cover • Exclusive T-COVER: - Easy to identify : Molded model number and Rain Bird Marking - Easy to open : Built-in hole and Built-in notch for 2 in 1 lifting key • Pre-cut pipe inlets and outlets : No tools required
MODELS						
• VBA17186: Round irrigation hydrant with built-in ¾" (20/27) valve	• VBA02672: Round valve box with bayonet-type cover	• VBA02673: Round valve box with clip-on cover	• VBA02676: Extension for model VBA02674 (less cover)	• VBA07777: Extension for model VBA02675 (less cover)	• VBA02674 : Rectangular valve boxes with bolt lock cover • VBA02674C: Cover for valve box model VBA02674 and for extension VBA02676	• VBA02675: Rectangular valve boxes with bolt lock cover • VBA02675C: Cover for valve box model • VBA02675 and for extension VBA07777

VB Series Valve Boxes

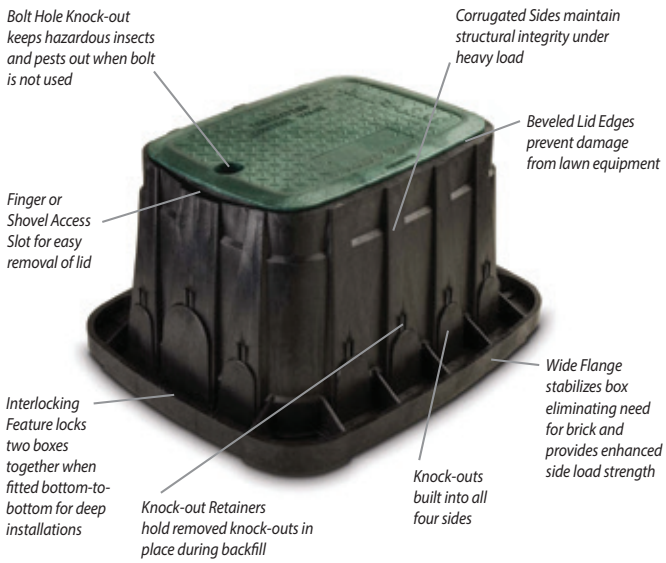
Commercial grade boxes that are loaded with a rich set of industry-leading features

Features

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

Models

Select models shown (see table below). Review your regional price list for complete availability.





7 Inch Round Valve Box	10 Inch Round Valve Box	Standard Valve Box	Standard Extension	Jumbo Valve Box	Jumbo Extension	Super Jumbo Valve Box	Maxi Jumbo Valve Box
SIZE							
Bottom Diameter: 21.4 cm Height: 23.4 cm	Bottom Diameter: 30.0 cm Height: 26.0 cm	Length: 59.0 cm Width: 49.1cm Height: 31.8 cm	Length: 50.8 cm Width: 37.5 cm Height: 17.1 cm	Length: 70.0 cm Width: 53.2 cm Height: 31.6 cm	Length: 62.0 cm Width: 45.5 cm Height: 17.2 cm	Length: 84.1 cm Width: 60.7 cm Height: 38.1 cm	Length: 102.5 cm Width: 68.9 cm Height: 45.7 cm
ADDITIONAL FEATURES							
• Easily removable knock-outs simplify pipe placement and reduce installation time • Four equally spaced knock-outs accommodate up to 5.0 cm diameter pipe	• Easily removable knock-outs simplify pipe placement and reduce installation time • Four equally spaced knock-outs accommodate up to 5.0 cm diameter pipe	• Two large center knock-outs accommodate up to 8.9 cm diameter pipe and eleven knock-outs accommodate up to 5.0 cm diameter pipe	• Extension models support deeper and more flexible installations	• Easily removable knock-outs simplify pipe placement and reduce installation time • Two large center knock-outs accommodate up to 8.9 cm diameter pipe. (Extensions do not have knock-outs)	• Extension models support deeper and more flexible installations	• Easily removable knock-outs simplify pipe placement and reduce installation time • Thirteen large knock-outs accommodate up to 8.9 cm diameter pipe	• Easily removable knock-outs simplify pipe placement and reduce installation time. Six large knock-outs on the ends accommodate up to 12.7 cm diameter pipe and 12 knock-outs on the sides accommodate up to 7.6 cm diameter pipe
MODELS							
• VB7RND: 7" Round Body & Green Lid • VB7RNDB: 7" Round Body Only • VB7RNDBKL: Black Lid • VB7RNDGL: Green Lid • VB7RNDPL: Purple Lid	• VB10RND: 10" Round Body & Green Lid • VB10RNDB: 10" Round Body Only • VB10RNDL: Green Lid • VB10RNDPL: Purple Lid • VB10RNDBKL: Black Lid • VB10RNDH: 10" Round Body & Locking Green Lid	• VBSTD: Standard Body & Green Lid • VBSTDB: Standard Body Only • VBSTDL Green Lid • VBSTDPL: Purple Lid • VBSTDH: Standard Body & Locking Green Lid • VBSTDBKL: Black Lid	• VBSTD6EXTB: Standard Extension Body Only	• VBJMB: Jumbo Body & Green Lid • VBJMBB: Jumbo Body Only • VBJMBGL: Green Lid • VBJMBPL: Purple Lid • VBJMBH: Jumbo Body & Locking Green Lid • VBJMBBKL: Black Lid	• VBJMB6EXTB: Jumbo Extension Body Only	• VBSPRH: Super Jumbo Body & 2 Lock Green Lid	• VBMAXH: Maxi-Jumbo Body & 2 Lock Green Lid

LOCKING SYSTEMS

- VB-LOCK-P: Penta head 1.0 x 5.7 cm bolt, washer, and clip

VANDAL RESISTANT

DBM10

Quick Connect Wire Connectors

Features

- Approved for 30V wet/damp locations
- Allows electrical connections up to 3 wires sized 1.5 mm^2 or 0.8 mm^2
- IP 67 and compact
- Self-stripping.
- Use with insulated copper wire
- One piece metal blade improves the flow of current between conductors
- Translucent Green depression cap allows for visible connections
- UV and impact resistant

Specifications

- Silicone Sealant (-45°C to 200°C)
- Maximum wire voltage: 600V

Model

- DBM10, bag of 10 units



DBM10



KING

Waterproof Wire Connectors

Features

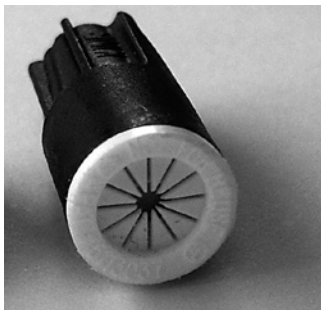
- Spring locks on to wire for tight grip
- Eliminates failures due to moisture and corrosion
- Arrests sparking
- Copper-to-copper wire only. Cannot be reused
- Used for electrical connections in low voltage installations (< 30V)
- Allows electrical connections up to 2 wires sized 2,5 mm2 or 3 wires sized 1,5 mm^2
- Waterproof

Specifications

- Maximum wire voltage: 30V

Model

- KING



KING

WC Series Wire Connector

Connections Made Easy

Features and Benefits

- Install Faster – the WC Series Wire Connectoris quick to install and provides reliable moisture sealing for controller and valve electrical connections you can count on
- Simplify Inventory – This is the only wire connector you'll need! It is ideal for use on two wire decoder control systems
- Avoid Call Backs – Locating and repairing a corroded wire splice costs your business time and money. Avoid unnecessary service call backs
- Use for standard controllers, valve boxes and soil moisture sensors
- Wire combinations ranging from 0.3 mm^2 to 8.4 mm^2
- Use on connections from 24 VAC to 600 VAC
- UL 486D certified for direct burial
- The Strain Relief ensures wires are secure and won't pull apart
- Waterproof silicone sealant protects against corrosion
- UV-resistant material ensures product performance does not degrade even after long periods of exposure to sunlight

Models

- WC20: Direct Bury Silicone Tube, Red Yellow Wire Nut, Bag of 20

Wire Combinations (for solid and stranded wire)	
WC20	
2-3 x 5.3 mm^2	2 x 0.8 mm^2
2-5 x 3.3 mm^2	1 x 8.3 mm^2 w/2 x 0.8 mm^2
2-5 x 2.1 mm^2	3 x 5.3 mm^2 w/1 x 0.8 mm^2
4-6 x 1.3 mm^2	3 x 3.31 mm^2 w/3 x 0.8 mm^2
3 x 2.1 mm^2 w/2 x 0.8 mm^2	

The combinations listed are only a sample of the most common wire combinations.



WC20

Multi-Conductor Irrigation Cable

Applications

Very low voltage (< 30 Volts) multi-conductor cable. Ideal for carrying power supply from controller terminal strips to electric valves.

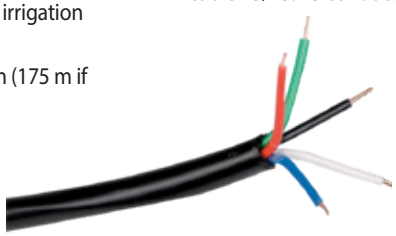
Features

- 3, 5, 7, 9 and 13 conductor models
- Single core multi-conductor cable
- Black polyethylene jacket. Thickness: 0.64 mm. Highly resistant to mechanical stress, chemicals and moisture
- PE jacket with a nylon rip cord to facilitate stripping
- 0.8 mm^2 conductor cross section for any type of residential irrigation installation
- Maximum distance between a controller and a valve: 350 m (175 m if 2 valves)
- Cable Marked " Rain Bird "
- 1-meter incremental marking

Models

Select models shown. Review your regional price list for complete availability.

- Irricable 3/75: 3 conductors, 75 m drum
- Irricable 3/150: 3 conductors, 150 m drum
- Irricable 5/75: 5 conductors, 75 m drum
- Irricable 5/150: 5 conductors, 150 m drum
- Irricable 7/75: 7 conductors, 75 m drum
- Irricable 7/150: 7 conductors, 150 m drum
- Irricable 9/75: 9 conductors, 75 m drum
- Irricable 13/75: 13 conductors, 75 m drum





Multi-Conductor Irrigation Cable

Single Conductor Electric Cable

Applications

Very low voltage (< 30V) single conductor cable. Ideal for carrying power supply from controllers to decoders or valve-in-head rotors.

Features

- Solid bare copper conductor
- Available in single PE insulation cable
- Cross section : 1.5 mm^2
- Thickness : 3 mm.
- Highly resistant to mechanical stress, chemicals, moisture.
- Cable Marked " Rain Bird "
- 1-meter incremental marking

Models

Select models shown. Review your regional price list for complete availability.

- SI 115: 1 x 1.5 mm^2, single PE insulation cable, 500 m drum
- DI 115: 1 x 1.5 mm^2, double PVC-PE insulation cable, 500 m drum



DI 115

Decoder Cable

Applications

Ideal for use as a power and communications/control cable for decoder and SiteControl systems.

Features

- 2 Solid bare copper conductors with a PE insulation jacket
- Cross section : 2.5 mm^2

Model

Select models shown. Review your regional price list for complete availability.

- Decoder Cable 500m drum



Decoder Cable

Wire Stripper Tool

Applications

Multi-function tool for all standard round cables. For quick, safe and precise wire stripping of outer sheathing and wire stripping of inner solid and stranded wires.

Features

- No adjustment of cutting depth necessary
- No damage to conductors
- Stripping range : 0,2 - 4.0 mm^2
- Radial cutting and stripping (up to 20 cm)in one step
- Additional lengthwise slitter for stripping in excess of 20 cm

Model

Select models shown. Review your regional price list for complete availability.

- Wire Stripper



Wire Stripper



Controllers

Water Saving Tips

- A Seasonal Adjust feature is available on all Rain Bird AC-powered controllers, allowing users to easily adjust irrigation schedules to changing seasonal landscape water requirements. The ESP-LX Series Controllers also feature an automated Monthly Seasonal Adjust feature to help save water through automatic adjustments every month of the year. LNK WiFi Module compatible controllers can be adjusted daily with the Automatic Seasonal Adjustment feature in the Rain Bird App.
- Water savings can also be optimized through daily irrigation schedule adjustments which fine-tune watering based on current weather. All ESP-LX series controllers can easily be upgraded to include smart weather-based/ET or soil moisture irrigation control capability by adding a local rain sensor or soil moisture sensor.
- All Rain Bird controllers simplify conservation through a variety of flexible programming features. With the touch of a button, the ESP-ME3 and ESP-TM2 can recall a previously saved "Contractor Default" irrigation program; the ESP-LX Series "Delayed Recall" feature automatically reverts to typical watering programs after a user-set time period.

Major Products	ESP-LXIVM	ESP-TM2	ESP-RZXE	ESP-ME3	ESP-LXME ESP-LXMEF	ESP-LXD	Digital Hose-End Timer	WPX	TBOS BT
Primary Applications									
Residential		●	●	●			●	●	●
Light Commercial	●	●	●	●	●	●	●	●	●
Commercial/Industrial	●				●	●			●
Type of Controller									
Hybrid	●	●		●	●	●			
Solid State							●	●	●
Battery Operated							●	●	●
Indoor Location	●	●	●	●	●	●	●		●
Outdoor Location	●	●	●	●	●	●	●		●
Features									
Stations (up to)	60/240	12	8	22	48	200	1	6	6
Programs (up to)	10/40	3	–	4	4	4	1	6	3
Station Timing (up to)	96 hr	6 hr[1]	199 min.	6 hr[1]	12 hr[1]	12 hr[1]	6 hr	4 hr	12 hr
Number of Starts per Program (up to)	8	4	6	6	8	8	2	6	8
Surge protection	●	●		●	●	●			●
230VAC Option	●	●	●	●	●	●			
Master Valve/Pump Start	●[2]	●	●	●	●[2]	●[2]		Multi-station models only	●
Water Budgeting	●[4]	●	●	●	●[4]	●[4]		●	●
Individual Program/Zone Shut-Off	●	●		●	●	●			
Rain Delay	●	●		●	●	●	●	●	●
Mobile App Programmable	●	●[7]	●	●	●	●			●
Sensor Terminals, Status Indicator and Override	●			●	●	●		●	●
Delay Between Stations (up to)	0 - 60 min.	9 hrs		9 hrs	0 - 10 min.	0 - 10 min.			1 sec. - 1 hr.[6]
Flow Sensing	●			●	●[5]	●			
Simultaneous Multi-Station Operation	●				●	●			●
Cycle + Soak™	●			●[7]	●	●			●[6]
Overlapping Programs	●				●	●		●	
Manual On/Off	●	●	●	●	●	●	●	●	●
Remote Control Compatible	●	●		●	●	●			
Diagnostic Test	●				●	●			
Diagnostic Valve Circuit Breaker	●	●		●	●	●			
Out-of-Valve Box Programming									●
Submersible (up to)								1 m	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	●	●	●	●	●	●		●	
Programming Schedule									
7 Day-of-Week	●	●	●	●	●	●	●	●	●
1-7 Variable Cycle	●	●	●	●	●	●		●	●
1-31 Variable Cycle	●	●		●	●	●		●	●
Odd/Even Cycle	●	●	●	●	●	●	●	●	●
Odd 31st	●	●		●	●	●			●
365-Day Calendar	●	●	●	●	●	●	●	●	●
Event Day Off	●				●	●			
Central Control Compatibility									
IQ™ Upgradeable	●				●	●			●
Cabinet									
Plastic-Indoor		●	●	●					
Plastic-Outdoor	●	●	●	●	●	●		●	●
Powder-Coated Metal Outdoor	●				●	●			
Stainless Steel Pedestal	●				●	●			
Powder-Coated Metal Pedestal	●				●	●			
Hardware/Accessories									
Two-Wire Devices and Accessories	●					●			
Rain Sensing (need Rain Sensor)	●	●	●	●	●	●	●	●	●
Flow Sensing (need Flow Sensor)	●			●	ESP-LXMEF only	●			
SMRT-Y Soil Moisture Sensor		●	●	●					

[1] With water budgeting, timing can be extended [2] Programmable by station [3] 6 independent start times per zone [4] Selectable for each program and by month [5] With Flow Smart Module [6] IQ only
[7] Only with LNK2 WiFi Module

ESP-LXIVM and LXIVM Pro 2-Wire Controllers

NEW

60/240 Station Capable Two-Wire Commercial Controller

Works with iQ4

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



ESP-LXIVM 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 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. 92)
- Six user-selectable languages
- 10 independent programs (LX-IVM) or 40 Programs (LX-IVM Pro)
- Removable front panel is programmable under battery power
- Plastic, locking, UV resistant, wall-mount case , Optional Metal and Stainless Steel Case & Pedestal
- Compatible with Rain Bird Landscape Irrigation and Maintenance 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

Diagnostic Features

- Alarm light with external case lens
- 2-Wire diagnostics to simplify and expedite troubleshooting
- 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 Intelligent 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. For current certifications visit: www.rainbird.com/esplxivm

ESP-LXIVM and LXIVM Pro 2-Wire Controllers (cont.)

Water Management Features

- Learn Flow utility and flow usage totalizer help optimize water usage
- FloWatch™ protection for high and low fl ow 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

Environmental

- Operating Temperature
  - Operating temperature range: 14ºF to 149ºF (-10ºC to 65ºC)
- Operating Humidity
  - Operating humidity range: 95% max at 40ºF to 120ºF (4ºC to 49ºC) in a non-condensing environment
- Storage Temperature
  - Storage temperature range: -40ºF to 150ºF (-40ºC to 66ºC)
- Upgrade Options
  - IQ-NCC Network Communication Cartridge
  - LXIVM Pro Panels (for regular 60 station controllers)

Electrical Specifications

- Power Supply Voltage: 120 VAC ± 10%, 60Hz
- Power back-up: Lithium coin-cell battery maintains time and date while nonvolatile memory maintains the schedule
- Simultaneous operation of up to eight (IVM) or sixteen (IVM Pro) Stations plus any corresponding master valves

Dimensions (W x H x D)

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

Model

- IESPLXIVM: International Version 230V
- IESPLXIVMP: International Version (Pro) 230V
- ILXIVMEU: European Version 230V
- ILXIVMPEU: European Version (Pro) 230V
- ILXIVMAU: Australian Version 230V
- ILXIVMPAU: Australian Version (Pro) 230V

Accessories

- IVM Field Devices* (see next page)
- Painted Metal and Stainless Steel Pedestal/Enclosure Options available
- IQ-NCC: Network Communication Cartridge for ESP-LX Series Controllers (see pg. 92)
- See page 82 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*



LXMMSSPED Shown with ESP-LXIVM in LXMMSS Stainless Steel Cabinet

Field Devices

ESP-LXIVM 2-Wire Field Devices Field Devices are installed along the 2-Wire path to interface with valves and other hardware.

IVM-SOL

- Interfaces with LX-IVM to control station valves and master valves
- Interfaces with PEB, PESB, PGA, EFB-BP and BESP Valves
- Available pre-installed in a SmartValve configuration with PEB and PGA Valves
- Rain Bird WC20 connectors (included) to be used for all splices
- Current Draw: 0.67mA
- Model: LXIVMSOL

IVM-OUT

- Interfaces with LX-IVM to manage 3rd party valves and external gear such as pump stations
- Rain Bird WC20 connectors (included) to be used for all splices
- Current Draw: 0.67mA
- Model: LXIVMOUT

IVM-SEN

- Interfaces with LX-IVM to control weather sensors or flow sensors
- Rain Bird WC20 connectors (included) to be used for all splices
- Current Draw: 6mA
- Model: LXIVMSEN

IVM-SD (Surge Protection)

- IVM-SD provides surge protection on the 2-Wire path
- One every 500ft or 15 field devices
- Rain Bird WC20 connectors to be used for all splices
- Model: LXIVMSD



IVM-SOL



IVM-OUT



IVM-SEN



IVM-SD

Key Specifications

Feature	LX-IVM	LX-IVM Pro
Max Programs	10	40
Stations	60	240
Max Simulstations	8	16 (plus active MV's)
Master Valves	5	10
Flow sensors	5	10
Weather sensors	4	8 (including 1 Local)
Watering windows	1 per program	
Max run time	96 hrs	
Start Times/program	8	
Interstation delay	Up to 1 hour per program	
LCD	2.5"x5" at 127x256 pixels. Monochrome with backlight	
Front Panel Buttons	- All Buttons are back-lit - 5 Programming Button - Dedicated Language, Info and Back Buttons	
Transformer size	1.9 amp (50 VA)	
IVM current draw	720 uA (Standby)	
Sensor current draw	8.4mA (Standby)	
Max wire run	1.65 miles (2.66Km) 14 AWG in Star configuration 6.61 miles (10.63Km) Looped	
No. 2-Wire paths and terminal pairs	4	
Cabinet	Plastic	
FloWatch (flow sensing)	YES - Available Options: Diagnose & Eliminate, Shut Down & Alarm, Alarm Only	
FloManager (flow optimization)	Yes	
Flow Rate	0 to 9999.9 gallons/min. (0.1 gallons/min. resolution)	
Supported Flow Sensors	FS050P, FS075P, FS100P, FS150P, FS200P, FS300P, FS400P, FS100B, FS150B,FS200B, FS350B, FS350SS, Custom	
Surge	20 kV int. - 1 IVM-SD every 500 ft. (or 15 field devices)	
Valve type	DC Latching	
Diagnostics Short Finding	Automatically Detect and Turn Off Wire Path Ability to turn on constant current source for field trouble shooting	
Diagnostics Electrical History	- Daily Values (Last 30 Days) - Monthly Averages (Last 12 Mos.) - Values recorded 11:59 PM daily	
Diagnostics – Field Device Response	List Responding and List Not Responding	
Diagnostics Controller Output	Tracks Current Draw from 2-Wire Path 0.67 mA per IVM-SOL/IVM-OUT 6 mA per IVM-SEN	
Diagnostics Watering Test	Test All Stations 1 to 10 Mins. (per station)	
Central Control Capable	Yes	

LNK2 WiFi Module

NEW

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: -10° C to 65°C
- Storage Temperature: -40°C to 66°C
- Operating Humidity: 95% max @ 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

Dimensions

- Width: 2.87 cm
- Height: 4.65 cm
- Depth: 1.22 cm

Model

- LNK2WIFI



LNK2 WiFi Module

works with the Google Assistant
amazon alexa ENABLED
WORKS WITH ALARM.COM
Download on the App Store
GET IT ON Google Play
Wi-Fi





ESP-ME3, ESP-Me and ESP-TM2

ESP-TM2 Series Controller

Simple, Flexible, and Reliable for Residential Applications

Features

- Upgradeable for WiFi-based remote monitoring and control via iOS and Android mobile devices (with LNK WiFi Module sold separately).
- Internet-based weather information can be used to make daily adjustments to the irrigation schedule, saving up to 30% in water (with LNK WiFi Module sold separately).
- 4, 6, 8, and 12 station models to meet small or large residential irrigation needs
- Set Permanent Days Off per program to ensure watering never occurs on days when maintenance crews are on site (for Odd/Even/ Cyclic schedules)
- Easy to install indoors or outdoors with pre-installed 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 65°C
- Storage Temperature: -40°C to 66°C
- Operating Humidity: 95% max @ 10°C to 49°C non-condensing environment

Electrical Specifications

- Input required: 230 VAC @ 50/60 Hz; 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

- CE, IP24, RCM, IRAM, EAC, ICASA, CMAC, Kvalitet, UkrSEPRO. For current certifications visit: www.rainbird.com/esptm2

Dimensions

- Width: 20.1 cm
- Height: 20.0 cm
- Depth: 9.0 cm

Models

Select models shown. Review your regional price list for complete availability.

- TM2-4-230: 4 Station
- TM2-6-230: 6 Station
- TM2-8-230: 8 Station
- TM2-12-230: 12 Station
- TM2-4-AUS: 4 Station Australia
- TM2-6-AUS : 6 Station Australia
- TM2-8-AUS : 8 Station Australia
- TM2-12-AUS : 12 Station Australia

Accessories

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

Works with LNK WiFi

CE



ESP-TM2

ESP-RZXe Series Controllers

The Rain Bird ESP-RZXe WiFi Compatible Series provides a contractor grade, fixed station irrigation controller for residential and light commercial applications. The ESP-RZXe Controller provides zone based set up that is easier to understand by untrained users. 4, 6 and 8 zone models are available.

Applications

The ESP-RZXe provides flexible scheduling features that make the controller ideal for a wide variety of applications including residential and light-commercial irrigation systems.

Features

Easy to Use

- The ESP-RZXe Controller was designed with ease of use in mind. Zone-based scheduling allows every valve to be scheduled independently; no more explaining "programs" to end users, virtually eliminating call-backs. The large LCD display shows all of the programming for each zone at the same time.
- Simple graphic based user interface is easy to explain and presents every controller feature at your fingertips.

Easy to Install

- The ESP-RZXe Controller requires only two mounting screws. A guide for ½" or ¾" conduit allows for professional installation of field wires into the cabinet.

Controller Hardware

- Plastic wall-mount case
- 2 x AAA batteries for time and date backup
- Wire nuts for outdoor models

Controller Features

- WiFi compatible with the Rain Bird LNK WiFi Module
- Large LCD display with easy to navigate user interface
- Weather Sensor input with software override
- Master valve/pump start circuit
- Non-Volatile (100- year) program memory
- Programmable under battery power

Scheduling Features

- Zone based scheduling, allows for independent schedules assigned to each zone. (Run times, Start Times and Watering Days are customizable by zone)
- Contractor Rapid Programming™ automatically copies the Start Times and Watering Days from zone 1 to all remaining zones at initial set up
- 6 independent Start Times per zone
- 4 Watering Days options by zone: Custom days of week, ODD calendar days, EVEN calendar days, Cyclic (every 1 – 14 days)
- Manually water ALL zones or SINGLE zone on demand

Advanced Features

- Electronic diagnostic circuit breaker
- Contractor Rapid Programming™ and "Copy previous Zone" for faster initial set up
- Contractor Default™ Save / Restore
- Rain Sensor bypass
- Rain Sensor bypass by Zone
- Manual water single or all zones

Operating Specifications

- Zone timing: 0 to 199 min
- Seasonal Adjust; -90% to +100%
- Independent schedule per zone
- 6 Start Times per zone
- Program Day Cycles include Custom days of the week, Odd, Even, & Cyclical dates

Electrical Specifications

- Input required: 230 VAC ± 10%, 50Hz
- Power back-up: 2 x AAA batteries maintain time and date while nonvolatile memory maintains the programming

Certifications

- CE, IRAM, IPX4, RCM.
  For current certifications visit: www.rainbird.com/RZXe

Dimensions

INDOOR

- Width: 16.9 cm
- Height: 15.0 cm
- Depth: 3.9 cm

OUTDOOR

- Width: 20.1 cm
- Height: 19.9 cm
- Depth: 3.9 cm

MODELS

- RZXe4i-230V Indoor, 4 stations
- RZXe6i-230V Indoor, 6 stations
- RZXe8i-230V Indoor, 8 stations
- RZXe4-230V Outdoor, 4 stations
- RZXe6-230V Outdoor, 6 stations
- RZXe8-230V Outdoor, 8 stations

Works with LNK WiFi

CE



Outdoor Model



ESP-RZXE Indoor Model

ESP-ME3 Series Controllers

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

Features

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

Operating Specifications

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

Electrical Specifications

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

Certifications

- CE, IRAM, IPX4, RCM, For current certifications visit: www.rainbird.com/me3

Dimensions

- Width: 27.2 cm
- Height: 19.5 cm
- Depth: 11.2 cm

Models

Controller Base Models:

- ESP4ME3EUR 4-Station indoor / outdoor for international markets except Australia
- ESP4ME3AUS 4-Station indoor / outdoor for Australia

Modules:

- ESP-SM3: 3-station extension module
- ESPSM6: 6-station extension module

Accessories

- LNKWIFI: LNK WiFi Module for remote control and notification via iOS or Android device
- WR2: Wireless Rain + Freeze Sensors
- RSD Series Rain Sensors
- Wired flow sensors

Works with LNK WiFi

CE



ESP-ME3 Series Controller and Modules

Digital Hose End Timer

Faucet attached Controller

Applications

Automate your hose-end sprinklers, drip irrigation system or soaker hose for better scheduling consistency with this easy-to-use digital controller. Along with rugged dependability for season-long outdoor use, this professional grade controller offers sophisticated functions for worry-free watering convenience.

Features

- Extra large readout screen and programming dial make it easy to set and review your watering schedules.
- In operation, the screen also displays program status such as next scheduled cycle and time remaining on a current cycle.
- Advanced features include programming up to two watering times per day on any day(s) of the week, plus "water now" and "cancel" buttons to override programs instantly when desired.
- Ideal for use with Rain Bird drip or any hose end sprinklers . Go automatic with your watering in any area of your yard: gardens, landscaping beds, newly seeded as well as established lawns.

Specifications

- Digital settings allow tailoring schedules for greener results with less water
- Scheduled watering up to twice per day enables water to soak in, even on slopes or with clay soil
- Programming by day of week complies with watering restrictions
- Instant override buttons for Rain Delay (cancel watering) and Water Now (manual watering)
- Specific rain delay up to 96 hours can also be set without affecting the stored program
- Large screen lets you see all settings at a glance.
- Duration of watering time: 1 mn to 6h
- Number of station:1
- ¾" female threaded inlet (BSP)
- ¾" male threaded outlet (BSP)
- Intended for outdoor use with cold water only.
- Working water pressure: 1 bar (minimum) – 6 bar (maximum)
- Working temperature: Keep from freezing –maximum temperature : 43°
  - Mini Flow: 162 L/h
  - Max Flow: 2.2 m3/h
- Uses 2 x 1,5V AA alkaline batteries (not included)

Certifications

- NOM-001-SCFI-1993, CE, RCM.

Model

- 1ZEHTMR



Digital Hose End Timer



WPX 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. WPX 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)

Controller Dimensions

- Width: 13.59 cm
- Height: 10.26 cm
- Depth: 6.15 cm
- Weight: 907 g

LCD Screen Size

- Width: 5.72 cm
- Height: 3.18 cm

Optional Wall Mount Dimensions

- Width: 10.76 cm
- Height: 17.60 cm
- Depth: 4.99 cm
- Weight: 107 g

Certifications

- cULus, CE, IP68. For current certifications visit: www.rainbird.com/WPX

Models

- WPX1: 1-Zone Controller
- WPX2: 2-Zone Controller
- WPX4: 4-Zone Controller
- WPX6: 6-Zone Controller
- WPX1SOL: 1-Zone + 9V Solenoid
- WPX1DVKIT: 1-Zone + 1" DV Valve
- 9VMOUNT: Wall-mount kit





WPX Series
Battery-Operated Controller

Optional wall mount bracket

TBOS-BT

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

Features

Rain Bird Mobile App Features for TBOS BT

- 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 module's 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
- Backwardly compatible with the TBOS-II Field Transmitter

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

TBOS-BT System Components

Rain Bird Mobile App Features for TBOS BT

- Available for Android and IOS devices

Models

- TBOS-BT1 (1 Station)
- TBOS-BT2 (2 Station)
- TBOS-BT4 (4 Station)
- TBOS-BT6 (6 Station)

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



TBOS-BT Bluetooth Battery-Operated Controller and Mobile App



LXME2/ PRO Controllers

NEW

Modular -Easily upgradeable with a Pro Smart Module for a second master valve port and flow sensing capability. Quickly expand from 12 stations up to 48 stationsusing 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
- Non-Volatile (100- year) program memory
- Standard 10kV 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)
- Electronic diagnostic circuit breaker
- 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 ± 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

- TBD (pending)

Dimensions

- Width: 36.4 cm
- Height:32.2 cm
- Depth: 14.0 cm

Environmental

- Operating temperature range: -10° C to 65° C
- Operating humidity range: 95% max at 4° C to 49° C in a non-condensing environment
- Storage temperature range: -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 (see page 92)
- Rain Bird FS-Series Flow Sensors (see page 82)

Works with iQ4

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



LXME2/ PRO Controller

ESP-LXD Decoder Controller

50 – 200 station capable Two-Wire Decoder Commercial Controller

Controller Features

- 50-station capability standard expandable to 200 stations with optional ESPLXD-SM75 modules
- Four available sensor inputs (one wired plus up to three decoder-managed) with override switch
- Five flow sensors supported
- Supported decoders: FD-101TURF, FD-102TURF, FD-202TURF, FD-401TURF, FD-601TURF
- Supports SD-210TURF sensor decoders (flow sensing and weather sensor support) and LSP-1 line surge protectors (one per 500 feet of two-wire path required)
- Central Control capable with Rain Bird IQ Communications Cartridges and software (see pg. 92)
- Advanced Features From Cycle+Soak™ to Contractor Default Program™, the ESP-LXD offers innovative features proven to cut installation expenses, troubleshooting time and water use
- Six user-selectable languages
- Removable front panel is programmable under battery power
- Plastic, locking, UV resistant, wall-mount case, Optional Metal and Stainless Steel Case & Pedestal
- Compatible with Rain Bird Landscape Irrigation and Maintenance Remote - Flow Smart Module™ factory installed or field upgradable
- Plastic, locking, UV resistant, wall-mount case, Optional Metal and Stainless Steel Case & Pedestal

Operating Specifications

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

Certifications

- cULus, WaterSense (when upgraded with ET Manager Cartridge), CE, IPX4, RCM, Smart Approved WaterMark. For current certifications visit: www.rainbird.com/esplxd

Upgrade Options

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

Electrical Specifications

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

Dimensions (W x H x D)

- 36.4 x 32.2 x 14.0 cm

Model

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

Accessories

- FD-TURF: two-wire decoders
- SD-210TURF: two-wire sensor decoder
- LSP1TURF: two-wire line surge protection
- DPU-210: two-wire decoder programming unit
- Painted Metal and Stainless Steel Pedestal/Enclosure Options available
- IQ-NCC: Network Communication Cartridge for ESP-LX Series Controllers (see page 92)
- See page 82 for information on Rain Bird FS-Series Flow Sensors

[1]FD-TURF decoders include peel-off barcode address labels

[2]Barcode scanning pen not included – sold separately; Unitech MS100NRCB00-SG recommended (www.ute.com)



LXMMSSPED Shown with ESP-LXD in LXMMSS Stainless Steel Cabinet



ESP-LXD Decoder Controller



Sensors & Meters

Sensors & Meters Compatibility Matrix

Accessory	Description	ESP9V	TBOSBT	ESPTM2	ESPME	ESPME3	ESPLXME	ESPLXMEF	ESPLXD	ESPLXIVM	ESPLXIVMP
Weather Sensors & Stations											
RSD-BEx	Wired Rain Sensor	●	●	●	●	●	●	●	●	●	●
WR2	Wireless Rain/Freeze Sensor			●	●	●	●	●	●	●	●
SMRT-Y	Soil Moisture Sensor			●	●	●	●	●			
ANEMOMETER	Wind Speed Sensor						●[1]	●[1]	●[1]	●[1]	●[1]
Flow Meters & Sensors											
MJ100B	1" Brass Water Meter					●		●	●	●	●
FS100P	1" PVC Tee Flow Sensor					●		●	●	●	●
FS150P	1-1/2" PVC Tee Flow Sensor					●		●	●	●	●
FS200P	2" PVC Tee Flow Sensor					●		●	●	●	●
FS300P	3" PVC Tee Flow Sensor					●		●	●	●	●
FS400P	4" PVC Tee Flow Sensor					●		●	●	●	●
FS100B	1" Brass Tee Flow Sensor					●		●	●	●	●
FS150B	1-1/2" Brass Tee Flow Sensor					●		●	●	●	●
FS200B	2" Brass Tee Flow Sensor					●		●	●	●	●
FSINSERT	Replacement insert for tee sensors					●		●	●	●	●
FS350B	Insert Flow Sensor					●		●	●	●	●

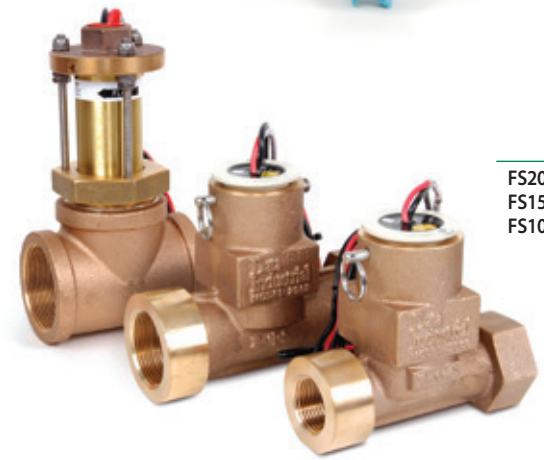
[1] *Requires PT5002 Pulse Transmitter*

Water Saving™ Water Saving Tips

- Properties managed with a flow sensor averaged 35% savings. As part of a two-year study, historical water usage was compared on eight properties to water usage after a flow sensor was installed.
- By installing a Rain Bird flow sensor and a compatible flow-sensing controller, you can quickly identify leaks, shut down damaged areas and prevent costly flooding to your property. Plus, you can monitor your water efficiency over time.
- With cost-effective flow-sensing technology from Rain Bird, you can help avoid small leaks and big issues—building more trust and a stronger reputation for your business.



FS350B



FS200B
FS150B
FS100B



FS150P
FS200P
FS300P
FS400P

FS100P

Flow Meters and Sensors

Compatible with IQ3, IQ4, Maxicom, SiteControl, LINK, Site SAT, ESP- LXD, LXME, LXMEF, ESP-ME3 and LX-IVM Controllers

Features

- Simple six-bladed impeller design
- Designed for outdoor or underground applications
- Available in PVC, brass or stainless steel construction
- Pre-installed in tee or saddle mounted insert versions

Operating Specifications

- Accuracy: +- 1% (full scale)
- Velocity: 1/2-30 feet (0.15 - 9.2 meters) per second depending on model
- Pressure: 400 psi (27.5 bars) (max) on brass models; 100 psi (6.9 bars) (max) on plastic models
- Temperature: 220° F (105° C) (max) on brass models; 140° F (60° C) (max) on plastic models

FS Series Impeller Flow Sensors

- FS350B: Brass Insert Sensor
- FS100B, 150B, and 200B: Brass Sensors
- FS150P, 200P, 300P, and 400P: PVC Sensors
- FS100P: Tee Sensor

For complete Controller/Sensor compatibility information, see the Sensors & Meters Compatibility Matrix on page 81

Rain Bird Flow Sensor Suggested Operating Range

The following tables indicate the suggested flow range for Rain Bird Flow Sensors. Rain Bird Sensors will operate both above and below the indicated flow rates. However, good design practice dictates the use of this range for best performance. Sensors should be sized for flow rather than pipe size.

Model	Suggested Operating Range (Gallons / Minute)	Suggested Operating Range (Liters / Minute)	Suggested Operating Range (Cubic Meters / Hour)
FS150P	5 - 100	19 - 380	1.1 - 23
FS200P	10 - 200	40 - 750	2.3 - 45
FS300P	20 - 300	75 - 1130	4.5 - 70
FS400P	40 - 500	150 - 1900	9 - 110
FS100B	2 - 40	7.6 - 150	0.5 - 9
FS150B	4 - 80	15 - 300	1 - 18
FS200B	10 - 100	38 - 380	2.3 - 23
FS350B	Depends on Pipe Type and Size - please reference Flow Sensors tech spec		

Models and Dimensions

Model	Description	Dimensions
MJ100B	1" Brass Flow Sensor for the ESP-ME3	10.75" x 4.38" x 5.13" (273mm x 111mm x 130mm)
FS100P	1" (25mm) PVC Tee Flow Sensor	3.50" x 3.94" x 1.315" (89mm x 100mm x 33mm)
FS150P	1 1/2" (40mm) PVC Tee Flow Sensor	5.0" x 5.16" x 2.38" (127mm x 131mm x 60mm)
FS200P	2" (50mm) PVC Tee Flow Sensor	5.63" x 5.64" x 2.88" (143mm x 143mm x 73mm)
FS300P	3" (75mm) PVC Tee Flow Sensor	6.50" x 6.83" x 4.23" (165mm x 173mm x 107mm)
FS400P	4" (110mm) PVC Tee Flow Sensor	7.38" x 7.83" x 5.38" (187mm x 199mm x 137mm)
FS100B	1 1/2" (40mm) Brass Tee Flow Sensor	5.45" x 4.94" x 2.21" (138mm x 126mm x 56mm)
FS150B	1" (25mm) Brass Tee Flow Sensor	6.5" x 5.19" x 2.5" (165mm x 132mm x 64mm)
FS200B	2" (50mm) Brass Tee Flow Sensor	4.25" x 8.35" x 2.94" (108mm x 212mm x 75mm)
FS350B	3" and higher, Brass Insert Flow Sensor	7.13" x 3"(diameter) (181mm x 76mm (diameter)
FSTINSERT	Replacement insert for Tee type sensors	

Flow Monitors / Pulse Transmitters

The **PT322 Pulse Transmitter** converts a flow sensor's data output and transmits it through the two-wire path to the Site Controller or to the MaxiLink communication board. Designed for use with Maxicom, SiteControl, Link, and SiteSat systems, the PT322 is easily configurable through your computer, providing real-time flow or wind speed data.

The **PT5002 Flow Monitor/Transmitter** is a state of the art instrument, translating flow sensor data or anemometer wind speed data to display instantaneous and total flow/speed in multiple formats, and transmit data to Maxicom and SiteControl Satellite Controller Systems. It also features two high flow cutoff outputs, closing valves and saving water if a pipe or rotor malfunctions, or a high wind speed alert is set. Replacing the PT3002, the new model features a large backlit display and an improved user interface with easy to program functionality.

Features

PT5002 Flow Monitor/Transmitter

- Large, easy to read backlit display
- Simple menu driven soft-key programming
- Pre-programmed Rain Bird flow sensor k-factor and offset selection
- Flow Sensor or Wind Sensor input
- Instantaneous Flow Rate
- Resettable Total Flow
- Hi Flow / High Wind Master Valve Shutoff
- Pulse Decoder output to various controllers and central controls
- Available in two versions:
  - **PT5002 Panel Mount Kit** I/O terminal connectors, mounting hardware, and 24v power supply included
  - **PT5002NEMA Wall Mount Kit** Weatherproof NEMA enclosure, I/O terminal connectors, mounting hardware, and 24v power supply included

PT322 Pulse Transmitter

- Reliable Solid State design
- Compact, easy to mount
- Secure snap fit connectors
- Two diagnostic Status LEDs
- Programmable from Laptop or Computer

Operating Specifications

- Input required: -12-30 VDC/VAC on PT322-12-24 VAC/VDC on PT5002
- Output: Pulse output
- Operating Temp: -20° C to 70° C

Configuration

- **For ESP-LXD Decoder Systems,** the Flow Sensor is installed with a Two-Wire Decoder Sensor Decoder (SD210TURF)
- **For ESP-LXMEF Systems,** the Flow Sensor is attached to the FSM-LXME Flow Smart Module
- **For ESP-ME3 Controllers**, the Flow Sensor is attached to flow sensor terminals in the controller
- **For (Hard Wire) Two-Wire Satellite Systems (Maxicom²® and SiteControl),** the Flow Sensor is installed with a Pulse Transmitter and a Rain Bird Pulse Decoder (DECPULLR)
- **For Link Radio Satellite Systems (Maxicom² and SiteControl),** the Flow Sensor is installed with a Pulse Transmitter (no pulse decoder required)
- **For ESP-SITE Satellite Systems (Maxicom²),** the Flow Sensor is installed with a Pulse Transmitter (no decoder required)
- **For SiteControl Decoder Systems,** the Flow Sensor is installed with a Two-Wire Decoder Sensor Decoder (SD210TURF)
- Surge protection (FSSURGEKIT) is recommended for Maxicom & SiteControl systems – One at the Pulse Transmitter, and if more than 15.2 meters of wire run, one at the Flow Sensor. FSSURGEKIT is not compatible with ESP-LXMEF and ESP-LXD Controllers



PT5002 Panel Mount Flow Monitor



PT5002 Wall Mount with NEMA enclosure



PT322



FSSURGEKIT

Compatibility Matrix

Product	Description	ESP9V	TBOSBT	ESPTM2	ESPME	ESPME3	ESPLXME	ESPLXMEF	ESPLXD	ESPLXIVM	ESPLXIVMP
PT322	Pulse Transmitter Flow										
PT5002	Flow Monitor/Pulse Transmitter Flow										
PT322	Flow Monitor/Pulse Transmitter Wind						●	●	●	●	●

		IQ with					Maxicom with	Maxicom CCU with		SiteControl TWI with		SiteControl with
		ESPLXME	ESPLXMEF	ESPLXD	ESPLXIVM	ESPLXIVMP	ESPSITE	ESPSAT2	ESPSATL	ESPSAT2	ESPSATL	LDI
PT322	Pulse Transmitter Flow/Wind						●	●*	●	●*	●	●
PT5002	Flow Monitor/Pulse Transmitter Flow/Wind						●	●*	●	●*	●	●

** Requires DECPULLR Decoder for Flow Sensor Input*

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 ⅛"– ¾" (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

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

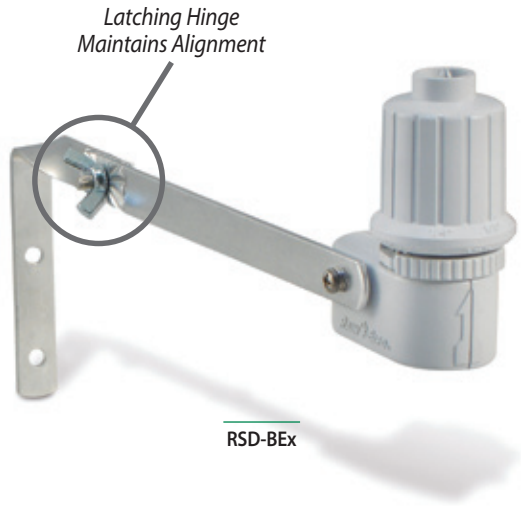
- cULus, CE, RCM. For current certifications visit: www.rainbird.com/rsd

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



RSD-BEx

How to Specify

RSD - BEx

Extension Wire
25' (7.6 m) length

Mounting
BE: Metal Bracket

Model
RSD: Rain Sensing Device

ANEMOMETER Wind Sensor

Maxicom;[2]® SiteControl, IQ™, ESP-LXME, ESP-LXD, ESP-LXIVM, ESP-LXIVM Pro

Features

- Accurate wind speed measurement for high-wind shutdown or interrupt of irrigation programs
- Heavy-duty metal mounting bracket
- Requires PT322 or PT5002 Pulse Transmitter for use with Maxicom[2] System
- Requires PT5002 Pulse Transmitter for use with SiteControl, IQ Systems, ESP-LXME, ESP-LXD, ESP-LXIVM, ESP-LXIVM Pro

Model

- ANEMOMETER



ANEMOMETER

WR2 Series Wireless Rain + Freeze Sensors

Superior responsiveness to rainfall and cold temperatures, save up to 35% on water usage

Features & Benefits

- Enhanced antenna array provides superior signal reliability that overcomes most line-of-sight obstructions
- Sensor signal strength indicator enables one person set up, reducing installation time
- Convenient adjustment and monitoring of rain or freeze settings at the controller interface
- Simple battery replacement without the need to disassemble the sensor
- Highly intuitive icon-driven controller interface simplifies programming
- Easy to install, self-leveling sensor bracket mounts to flat surfaces or rain gutters
- Antennas concealed within the units for greater visual appeal and product robustness
- "Quick Shut Off" interrupts active irrigation cycle during a rain event

Electrical Specifications

- Application: suitable for use with 24 VAC controllers (with or without pump start / master valve)
- Electrical rating suitable for use with up to six 24VAC 7VA solenoids plus an additional master valve or pump start that does not exceed 53VA
- Controller Interface Wire: 30" (76 cm) length of #22 gauge (0.64 mm) UV resistant extension wire
- FCC approved spread spectrum 2 way radio transceivers with FCC Class B approvals
- Signal transmission distance of 700' (213.4 m) Line of Sight
- Battery life: four or more years under normal operating conditions
- 6 KV surge / lighting protection

Certifications

- cULus, FCC Part 15c, ISED RSS-210, CE.
  For current certifications visit: www.rainbird.com/wr2

Mechanical Properties

- Adjustable rainfall settings from 1/8" – 1/2" (3 – 13 mm)
- Adjustable low temperature settings from 33°F – 41°F (0.5° – 5°C)
- Three irrigation modes to select: Programmed, Suspend Irrigation for 72 hours, Override sensor for 72 hours

  Note: *The WR2-48 model replaces the Suspend Irrigation for 72 Hours mode with 48-Hour Irrigation Hold Active mode.*
- "Quick Shut Off" suspends active irrigation cycle within approximately two minutes
- High-grade, UV resistant polymer units resist harmful environmental effects

Models

- North America (916 MHz)
  - WR2-RFC: Rain + Freeze Combo
  - WR2-48: Rain + Freeze Combo with 48-hour hold
- International (868 MHz)
  - WR2-RFC-868: Rain + Freeze Combo



WR2 Series Wireless Rain/Freeze Sensors

Step 1



Program in seconds

Step 2



Determine best sensor location

Step 3



Install sensor easily using mounting bracket

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

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

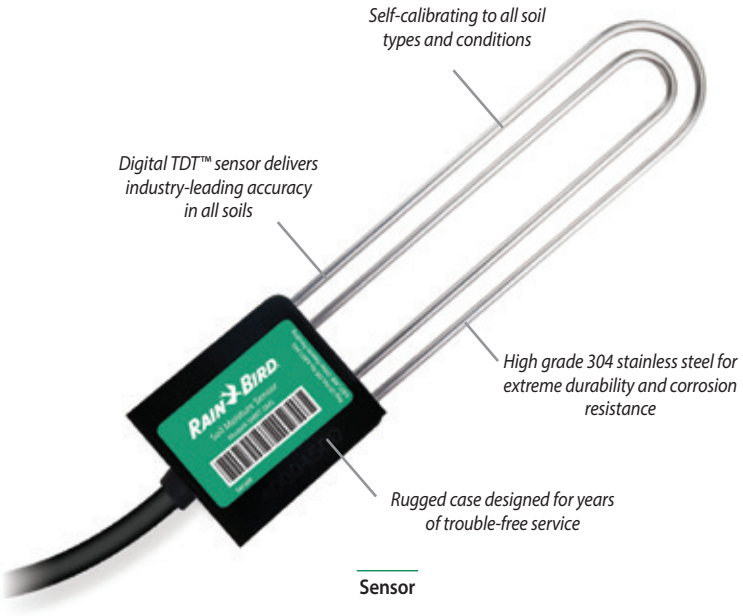
Includes

- 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

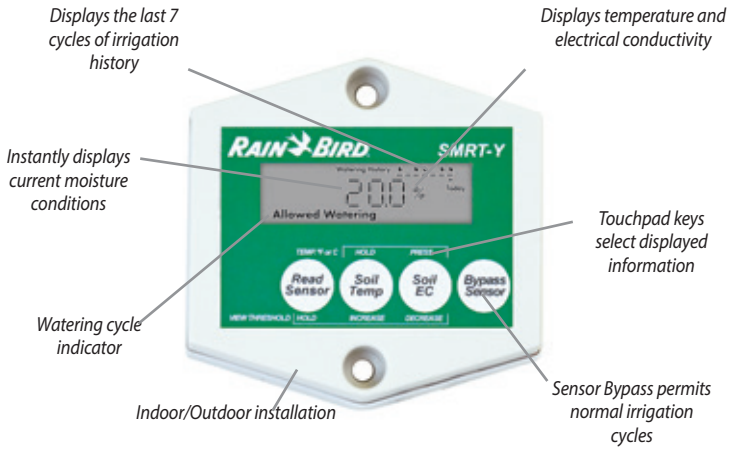
Models

• SMRT-Y: Soil Moisture Sensor Kit

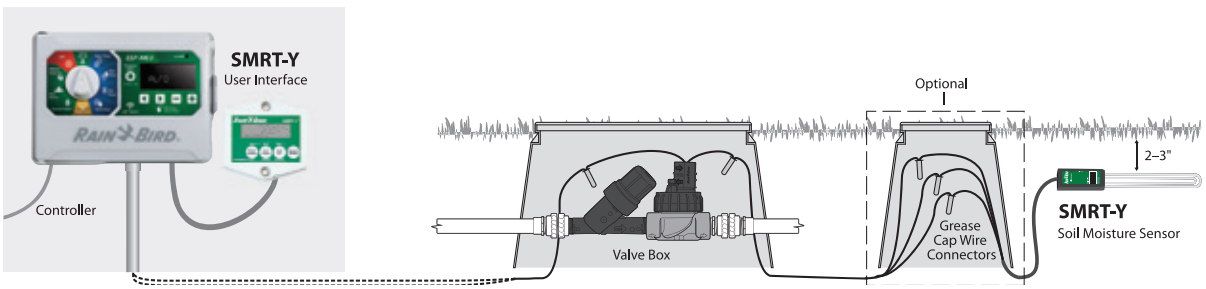
Note: All SMRT-Y models are RoHS compliant



Sensor



Controller Interface





Central Controls

Water Saving Tips

- Maxicom², SiteControl, and IQ™ Systems provide fully-automated ET (evapotranspiration) adjustment of irrigation programs for maximum water savings.
- Maxicom² and IQ™ FloWatch™ utility monitors and records real-time flow and automatically diagnoses and eliminates flow problems caused by broken pipes, vandalism or stuck valves.
- The New Rain Bird® IQ™ Platform. The ultimate tool for remote water management. With no hidden fees, it's the perfect remote water management solution. With the new IQ4-Cloud software, you can control your irrigation system from any device, anywhere with all the features of the full system. With set up that takes less than five minutes, multi-user access and no recurring annual fees, you finally have the option you've been waiting for.

Join the IQ Movement! Visit www.rainbird.com/products/iq4 and take control now.

Major Products

System Name	IQ4 - Cloud	SiteControl	Maxicom ®
System Type	**Modular multi-site central control system**	**Modular single site central control system**	**Multi-satellite central control system**
Traditionally wired or two-wire decoder	Works with both	Works with both	Traditionally wired
Typical applications	Multi-site management with modular features. Ideal solution for water managers, schools, parks, corporate campuses and transportation departments	Single site management with modular features. Ideal for large resorts, cemeteries, shopping centers, theme parks and sports stadiums	Multi-site commercial or industrial irrigation applications. Ideal for municipalities, school districts, homeowner associations and park and recreation departments
Number of sites/system	1000+	1	200+
Local and/or remote site control	Local and remote	Local	Local and remote
Maximum number of simultaneous stations per site/system	5 per ESP-LXME 8 per ESP-LXIVM 8 per ESP-LXD 16 per ESP-LXIVM Pro	3,584 per site	112 per CCU
Number of ET (weather) sources	100	4	16
Program adjustments by ET	Yes	Yes	Yes
Program adjustments by percentage	Yes	Yes	Yes
Programming by volume/gallons	No	No	Yes
Number of programs	4 per ESP-LXME 10 per ESP-LXIVM 4 per ESP-LXD 40 per ESP-LXIVM Pro	100 total per system	999 per CCU
Flow management capabilities	Yes	Yes	Yes
Flow monitoring/recording capabilities	Yes	Yes	Yes
High-flow shutdown	Mainline and laterals	Mainline only	Mainline and laterals
Low- or zero-flow shutdown	Mainline and laterals	No	Mainline and laterals
Alarms/warnings	Yes	Yes	Yes
Sensor input and manual bypass	Yes	Yes	Yes
Number of weather sensor inputs	1 per ESP-LXME 4 per ESP-LXIVM 4 per ESP-LXD 8 per ESP-LXIVM Pro	Up to 200 sensor inputs per system	Up to 56 per CCU
Number of flow sensor inputs	1 per ESP-LXME 5 per ESP-LXIVM 5 per ESP-LXD 10 per ESP-LXIVM Pro	Up to 200 sensor inputs per system	Up to 6 (two wire) or 20 (Link) per CCU
Software/password log-on protection	Yes	N/A	Yes
Remote control capabilities	Yes	Yes, Freedom System	Yes, Freedom System
Cycle+Soak™	Yes	Yes	Yes
Water window by program/schedule	Yes	Yes	Yes
Computer included with software	No	Yes	Yes
Computer programming	Yes	Yes	Yes
24/7 system monitoring	Yes, by the controller	Yes, by the computer	Yes, by the CCU
24/7 communication & feedback	No	Yes, computer to satellites and decoders	CCU to satellite
Remote site telephone, cellular, radio, Ethernet, Wi-Fi communication	All	No	All
Automatic remote site communication	Yes	No	Yes
Satellite controllers or decoders	ESP-LXME ESP-LXIVM ESP-LXD ESP-LXIVM Pro	ESP-SAT Satellites or FD-Series Decoders	ESP-SAT or ESP-SITE Satellites
Modular station capacity	ESP-LXME: 8-48 ESP-LXD: 50-200	No	No
Number of site/system interfaces	N/A – No interfaces required	8	>200
Number of satellites/system	16,000+	896	>5,600
Number of satellites/site interface	Up to 150 satellites per IQNet	Up to 112 per TWI	Up to 28 per CCU
Number of satellite stations/site	ESP-LXME: Up to 7,200 per IQNet ESP-LXD: Upto 30,000 per IQNet ESP-LXIVM: Up to 9,000 per IQNet ESP-LXIVM Pro: Up to 36,000 per IQNet	Up to 21,504 per system	Up to 672 per CCU
Number of decoder addresses per site	Up to 30,000 per IQNet	Up to 4,000	N/A
Interactive map interface	No	Yes	No
GPS, CAD, SHP, BMP Import	N/A	Yes	BMP, PDF, JPEG
Valve control: stations or decoders	Both	Both	Satellite stations only
Estimated/actual water use report	Yes	Yes	Yes
Event recording (station operation)	Yes	Yes	Yes
Projected operation (dry/run) capability	Yes	Yes	Yes
Supported by Global Services Plan	Yes	Yes	Yes
Can also manage lighting and security systems	Yes	Yes	Yes

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-LXIVM and ESP-LXMEF traditionally-wired and ESP-LXD two-wire decoder controllers
- Programming in seconds, minutes, and hours
- ET station run time adjustments by site
- Detailed logs and reports
- Automated satellite Synchronize & Retrieve Logs
- Satellite Two-Way Programming (changes made at the satellite can be viewed and accepted in the IQ4 software)
- Auto-Synchronization of data from IQ to Satellite
- Software uses Irrigation Association terminology and formulas
- IQ Global Weather Internet Service which provides local weather data including rain fall
- Retrieves minute-by-minute flow logs from flow sensor equipped ESP-LXMEF, 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)
- User selectable languages include English, Spanish, French, German, Italian and Portuguese

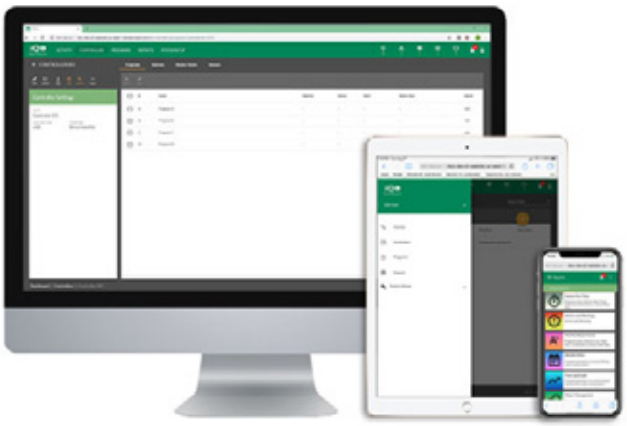
Visit www.rainbird.com/products/iq4 to learn more about the features included in the IQ4 Platform.

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

- 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)



How to Specify

IQ4 SOFTWARE

IQ4-Cloud: IQ4 cloud-based software compatible with all Rain Bird ESP-LX controllers with NCC communications cartridges

TBOS Integration in IQ3 Cloud

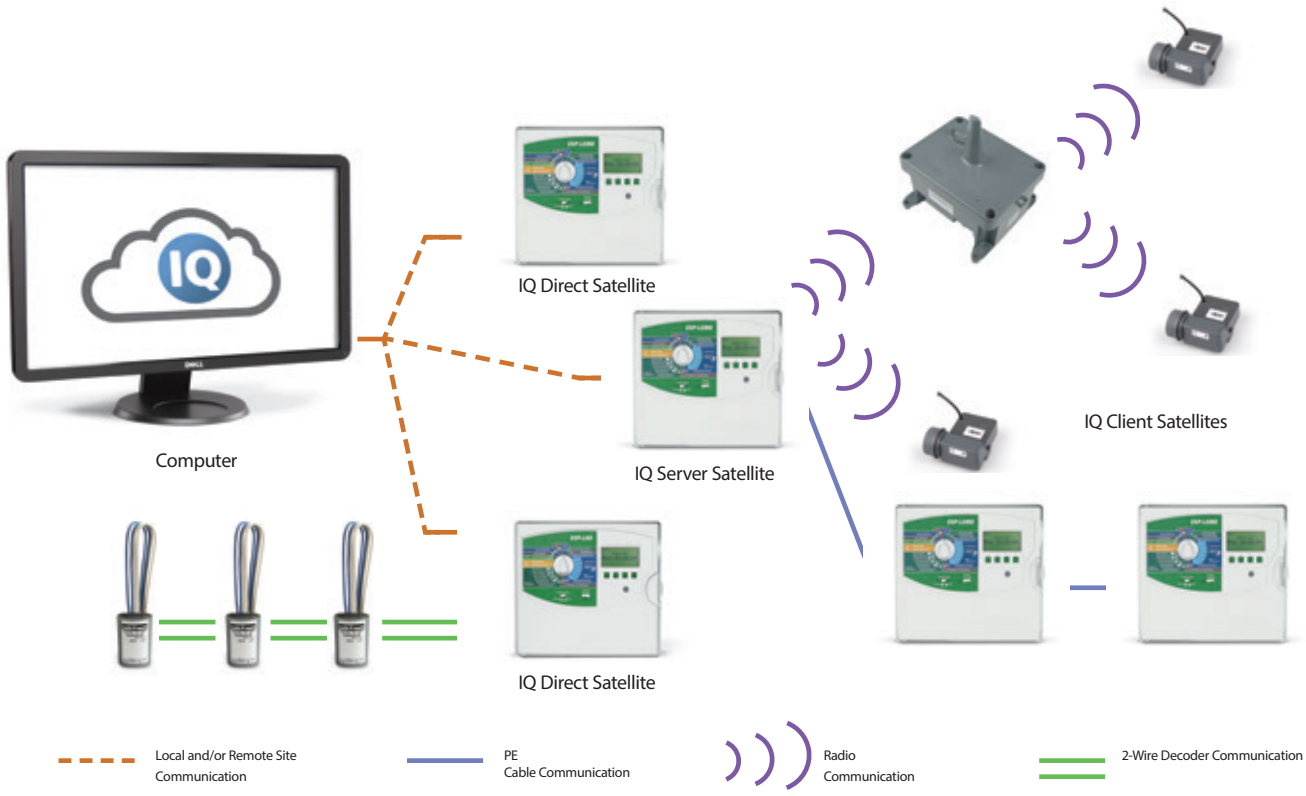
TBOS-II Controller Series enables remote control from IQ3 Cloud via radio communication. This feature is available through installation of an IQ TBOS Master Radio Module into an IQ ESP-LX satellite

Specifications

- IQ3 Cloud enables support of 250 TBOS Networks
- IQ TBOS Master Radio Module is installed in an ESP-LX series server satellite controller to remotely controlled TBOS/TBOS-II control modules in the field
- A TBOS Radio Network consists in one Master Radio Module, zero to fifteen TBOS Radio Relay(s) and one or several TBOS/TBOS-II Control Modules (equipped with TBOS-II Radio Adaptors)
- Each Radio Relay (including IQ TBOS Master Radio Module) can manage up to 32 TBOS/TBOS-II Control Modules via Radio (equipped with TBOS-II Radio Adaptors), for a maximum total of 512 TBOS clients per TBOS Net

Central Control Features

- Backward compatibility: all TBOS control modules can be centralized on IQ3 Cloud if equipped with TBOS-II adapter
- IQ3 Cloud can manage up to 250 IQ TBOS Master Radio Module (1 per SERVER satellite)
- IQ3 Cloud enables to automatically learn TBOS radio network in order to communicate with in-field TBOS/TBOS-II controllers
- IQ3 Cloud enables naming control modules and stations. Reverse Synchronize operation overwrites station and controller names with actual device names on the field
- IQ3 Cloud reflects the battery charge level of TBOS-II control modules, radio adapters and TBOS radio relays
- IQ3 Cloud enables TBOS dry-run
- IQ3 Cloud enables all manual and programming commands: start station, start program, cancel all, test all stations, rain delay, Off command, On command
- IQ3 Cloud enables programming and data synchronization and reverse synchronization
- IQ3 Cloud enables IQ TBOS Master Radio Module and TBOS Radio Relay firmware upgrade
- TBOS-II control module standard sensor connection accommodates dry contract sensors (rain) but when centralized on IQ also accommodates pulse dry contact sensor (flow)
- Flow sensor alerts retrieve in IQ3 Cloud every 12 hours or per user request



Hardware

IQ TBOS Master Radio Module

- IQ TBOS Master Radio Module is installed in an ESP-LX series server satellite controller to remotely controlled TBOS/TBOS-II Control Modules in the field
- It provides:
  - Serial communication with Network Communication Cartridge (send and receive data from remote PC)
  - Radio communication with max. 15 TBOS Radio relays
  - Radio communication with max. 32 nearby TBOS-II radio adaptors
  - Sensor alarm management
  - Installed in one of the 4 ESP-LX station Module slot (max. one per controller)
- Radio communication operates on license free ism bands
- A TBOS net radio network consists in one (1) Master Radio Module, zero (0) to fitting (15) TBOS Radio Relay(s) and one or several TBOS-II Radio adapter
- An IQ TBOS Master Radio Module enables remote control of 32 TBOS/ TBOS-II control modules within its radio range.
  ITBOS MRM EU (P/N: F48320)



IQ TBOS Master Radio Module

TBOS Radio Relay

- Radio operates on license-free ism bands
- IP44 class
- TBOS radio relays are expected to be installed on high points. In some external installations power supply may be available only by night. An internal Battery pack (sealed-lead battery, 6V, 2.5Ah) is included. The battery is delivered disconnected so as to preserve its service life. Once the battery is connected, it switches to "active" mode and needs to be regularly recharged. The following cycle is necessary to fully charge the battery: 8h charging at night on public lighting, 16h discharging during the day (with or without radio traffic)
- Supply between 207V and 244V AC
- Relay input voltage between 12 and 14V
- Radio range in open field:
  - between 2 TBOS Radio Relays: approx. 1200 m
  - between TBOS Radio Relay and TBOS-II Radio Adapter: approx. 300 m
  - -between TBOS Radio Relay and TBOS-II field transmitter: approx. 100 m (ITBOS RR EU)



TBOS Radio Relay

Operation Specifications

- Operating temperature: -10° to +65°C
- Operating humidity: 95% max. at +4°C to +49°C

Electrical Specifications

- Supply between 207V and 244V AC
- Relay input voltage between 12 and 14V

Model

- IQ TBOS: Feature Pack is standard in IQ3 Cloud and optional for IQ Desktop and IQ Entreprise

IQ NCC Network Communication Cartridge

Upgrades any ESP-LX Series Controller to an IQ Central Control Satellite Controller

Features

- 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. IQ NCC cartridges are compatible with the ESP-LXME Controller with 1 to 48-station capacity, ESP-LXD Decoder Controller with 1 to 200-station capacity, ESP-LXIVM Controller with 1 to 60-station capacity and ESP-LXIVM Pro with 1 to 240 station capacity
- IQ NCC cartridges are initially configured through a setup wizard provided in the ESP-LX Series Controller IQ Settings dial position. Communication setting parameters are configured through the IQ software or the NCC Configurator Software designed for netbook/laptop use on the job site

Direct Satellites

- Single controller sites would use an IQ NCC cartridge configured as a Direct satellite. A Direct satellite has an IQ central computer communication connection but no network connections to other satellites in the system

Server & Client Satellites

- Multi-controller sites would use one IQ NCC cartridge configured as a Server satellite and the other NCC cartridges configured as Client satellites. The Server satellite has an IQ central computer communication connection and shares this communication connection with the Client satellites though high-speed data cable or radios. The communication connection between Server and Client satellites is called the IQNet™
- Satellites on a common IQNet can share weather sensors and master valves
- Server and Client satellites using high-speed data cable for IQNet communication require installation of an IQ CM Communication Module. Server and Client satellites using radio communication for IQNet communication require installation of an IQSSRADIO radio. Each cartridge kit includes cables to connect the NCC cartridge to connection module and/or radio

IQ NCC 4G Cellular Cartridge

- Includes embedded 4G Cellular Data Modem with antenna connector
- Includes internal antenna for plastic controller enclosures (optional 4G external antenna available for metal case controller enclosures)
- Requires 4G Cellular data service plan purchased from Rain Bird with cellular service included
- Used for Direct or Server Satellite applications requiring wireless Cellular communication with the IQ central computer
- Available with 1st year of communication service included.
- 4G Cartridge with included communication service not offered in all areas

IQ NCC-EN Ethernet Cartridge

- Includes embedded Ethernet Network Modem with RJ-45 port
- Includes RJ-45e patch cable (requires LAN network static IP address)

IQ NCC-RS RS232 Cartridge

- Includes RS-232 Port for IQ Direct Cable or External Modem communication connection to the IQ central computer, and external modem cable (IQ Direct Cable provided with IQ Software Package)
- Used for Direct or Server Satellite applications requiring direct cable connection or external modem (radio or other 3rd-party device) communication with the IQ central computer, and for Client Satellite applications requiring IQNet high-speed data cable or radio communication with the Server Satellite

IQ FSCM-LXME Flow Smart Connection Module

- Provides IQNet high-speed data cable connections for ESP-LXME Controller
- Includes Flow Smart Module and Base Module functions
- Replaces standard ESP-LXME Base Module

IQ CM-LXD Connection Module

- Provides IQNet high-speed data cable connections for ESP-LXD Controller
- Installs in ESP-LXD 0 (zero) module slot

IQ SS-Radio Radio Modem

- Provides IQNet wireless radio communication between Server and Client satellite controllers
- Can also be used with the IQ NCC-RS RS232 Cartridge for IQ central computer to Direct or Server satellite radio communication
- Includes power supply and external antenna (programming software and cable provided separately)



LX Series Cartridge Panel with IQ-NCC-RS Cartridge Installed

SiteControl

A Full-Featured Central Control System for Single Site Applications

Features

- Advanced Graphical Tracking- Maps generated by GPS technology or AutoCAD recreate your site. Interactive mapping and on-screen graphics show your complete site with location of individual valves and sprinklers allows you to measure and calculate areas from your map
- Smart Weather™ is sesigned to take complete advantage of Rain Bird's most advanced line of weather stations, tracks ET and rainfall via a weather station and reacts to current weather conditions based on user-defined options. Advanced warning system accepts user-defined sensor thresholds. System operator is immediately alerted if thresholds are exceeded
- RainWatch™ uses tipping bucket rain can(s) to detect and suspend irrigation while measuring rainfall. When rain stops, irrigation resumes with run times reduced according to measured rain
- Minimum ET- allows setting minimum ET threshold values for irrigation to take place. Promotes deep watering for optimum turf conditions
- Automatic ET automatically adjust run times in relation to fluctuations in Evapotranspiration (ET) values
- Remote System Control allows you to take control of your system and operate SiteControl from anywhere on your site using the Rain Bird FREEDOM System. Phone (landline or cellular) or radio communication options
- Hybrid System operates Satellite Controllers and/or Two-Wire Decoders
- SiteControl Plus operates four Large Decoder Interfaces (LDI), each capable of operating up to 1,000 solenoids with Hybrid system, can further expand capabilities by combining Two-Wire Decoder and/or Satellite Controller options up to four total interface devices

Superior Monitoring and Scheduling

- Flo-Graph™ allows visibility of real-time graphics with individual station information presented in colorful charts
- Flo-Manager™ balances system demands and maximum capacities with efficiency helping to lower water demand, reduce system wear and tear and save energy
- Cycle + Soak™. Better control the application of water on slopes and in areas with poor drainage
- QuickIRR™ Quick and easy method to build irrigation schedules and programs based on your parameters

Other Features

- Up to 200 points of connection
- Up to 200 pulse sensors
- Water usage logs
- Station run-time logs
- Posted and dry run logs
- ET spreadsheet
- 1 year Global Service Plan included

Models

- SCON: Desktop PC with SiteControl software, includes 1 year Global Support Plan (GSP)

Software Module Options

- Smart Weather
- Rain Bird Messenger (for Smart Weather)
- Automatic ET
- Hybrid Module
- Smart Sensor
- Map Utilities
- Freedom
- 8 Additional Locations
- Additional Wire-Path (2nd)
- Additional Wire-Path (3rd)
- Additional Wire-Path (4th)
- SiteControl Plus
- Smart Pump
- MI (Mobile Interface)

Global Service Plan (GSP)

- Visit rainbird.com/gsp/index.htm for more information.



SiteControl

SiteControl Hardware

TWI Satellite Interface

- Allows real-time, two-way communication between SiteControl Central Controller and field satellites
- Allows use of advanced in-field capabilities of ESP-SAT twowire or LINK versions
- Modular capacity can grow with the site

Two-Wire Decoder Interface

- Allows real-time, two-way communication between SiteControl Central Controller and decoders
- Connects the powerful capabilities of SiteControl with the ease of installation and security of a two-wire decoder system
- System can be set up and expanded according to project needs

ESP-SAT Satellite Controller

- 40 Stations Satellite Controller
- Field Satellite Controller for Maxicom^2 or SiteControl Central Control systems
- The power of an advanced water-management tool, in an easy-to-use package
- All the features and stand-alone capabilities of the Rain Bird ESP-MC Controller line

Spread Spectrum Radio

- Frequency hopping to avoid interference
- Reduced cost of ownership, no FCC license required
- No FCC restrictions on antenna height (User should check local laws)
- Radios can be set up as repeater to achieve great distances and overcome obstacles

Ethernet Devices

- Use Ethernet networks to:
  - Communicate from Central Control Computer to CCUs, SiteSats, TWIs and weather stations
  - Communicate from CCU and TWIs to ESP-Sats

WS-PRO Weather Stations

- Scientific accuracy sensors located three meters above the ground for added vandal-resistance
- Powerful, internal micro-logger for climatic data collection, logging and analysis, constant communication with weather sensors, and storage of 30 days of data
- Rugged yet lightweight metal construction;

Sensor-Pulse Decoders

- Complete feedback system
- Extends central control system versatility
- Color-coded wire leads for ease of installation
- Programmable address codes for individual operation

RAINGAUGE Rain Sensor

- Accurate rain counter switch counts rainfall in 1/100th inch increments
- Heavy-duty metal construction
- Mounting bracket
- Debris screen

ANEMOMETER Wind Sensor

- Accurate wind speed measurement for high-wind shutdown or interrupt of irrigation programs
- Heavy-duty metal mounting bracket
- Requires PT322 or PT5002 Pulse Transmitter/Monitor for use with Maxicom$^{2®}$ System

Maxi Interface Boards

- Upgrades an ESP-MC Controller (wall mount or pedestal) to an ESP-SAT Satellite Controller
- No additional enclosures or external wiring required
- Installs on stand-offs on controller output board

MSP-1 Surge Protection

- Protects central control components from electrical surges on a two-wire communication path
- Can be installed in satellite or CCU pedestal or in valve box in conjunction with MGP-1 (Maxicom$^{2®}$ Grounding Plate)

MGP-1 Surge Grounding Plate

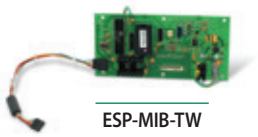
- Provides a mounting location for MSP-1 or other grounding wires directly to a grounding rod or pipe
- Installed on grounding rod or pipe



TWI Interface



ESP-SAT Satellite Controller



ESP-MIB-TW



DEC-SEN-LR DEC-PUL-LR

Maxicom® version 4.5 now available

Multi-Site Central Control Ideal for Large Commercial Systems

- Windows 10 compatibility
- Seek & Eliminate Low Flow (SELF) – Automatically diagnose a low flow problem
- Station Lockout – Quarantine zones that have had high/low flow alarms until the user takes action
- Station Priorities for Flow Manager – allows the user to alter the sequence of irrigation zones by assigning priorities when flow manager is being used
- Queued irrigation max run time limit increased from 99 minutes to 999 minutes
- Adjustable rain can settings
- Seek & Eliminate Excessive Flow (SEEF) improvement to account for manual adjustments
- Database trim setting is no longer fixed and is user-selectable so users can decide how far back the records go
- Phone number/address field works with URL's and longer IP Addresses
- Field Device Configuration Report now includes satellite names and sensor names
- More robust database (SQL Server)

System Features

- Maxicom²® Central Controller Package comes with Maxicom² software, pre-configured computer, Global Service Plan (GSP), and training
- Control hundreds of ESP-SITE-SAT Satellites (single controller sites) and Cluster Control Units (CCUs) which can each control up to 28 individual ESP-SAT Satellite Controllers on multi-controller sites
- Monitor dozens of Weather Sources including WSPRO2 Weather Stations, ET Managers, or rain counting sensors (Raingauge)
- Freedom Remote Control allows manual operation of system through a cellular phone or radio
- Multiple log and water usage reports are generated automatically to track system operation and water savings

Water Management Features

- Cross satellite schedule operation; 999 separate schedules per CCU provides precision watering of areas and microclimates
- ET Checkbook™ manages Evapotranspiration (ET) and automatically adjusts Satellite Controller station run-time or day cycle intervals to match the landscapes water requirements
- FloManager™ manages the total flow demand placed on the water source(s), optimizing both the available water and watering window
- FloWatch™ monitors flow sensors at each water source, records flow, and automatically reacts to problem flows by shutting down the effected portion of the system (individual valve or mainline)
- RainWatch™ monitors rain counting sensors, records rainfall, and automatically reacts to rainfall by interrupting irrigation, waiting to see how much rain has fallen, and determines if the irrigation should be resumed or cancelled

Operational Features

- Communication Control Engine automatically sends updated programming to sites before watering begins and retrieves logs after irrigation is completed; manual operation can be performed at any time
- Start day cycles: Custom (day of the week), Odd/Even, Odd31, or Cyclical and include Event Day Off Calendar scheduling
- Station run-times programmable from 1 minute to 16 hours
- Cycle + Soak™ optimizes water application to soil infiltration rate, reducing runoff and puddling
- Control non-irrigation functions such as lighting, fountains, door locks and gates

Maxicom² Communications Options

- Central Controller to CCU: Phone, direct connect, radio, cellular, network (Ethernet, Wi-Fi, fiber-optics)
- CCU to ESP-SAT2: Two-wire path
- CCU to ESP-SATL: Radio, MasterLink, network (Ethernet, Wi-Fi, fiber-optics)

Global Service Plan (GSP)

- Visit rainbird.com/gsp/index.htm for more information.

Models

- MC2GOLD1: New System - Desktop PC with Maxicom software, includes 1 year Global Support Plan (GSP)
- GSPMCPL3: Current GSP Or Expired GSP Subscribers, Desktop PC with Maxicom software, includes 3 Years Platinum Plus Global Support Plan
- GSPMXPPCIA: Current GSP Subscribers, Desktop PC with Maxicom software, based on 3 Year Platinum Plus Global Support Plan, includes year 1 GSP, requires year 2 and 3 GSP to be purchased separately (M95543A2)
- GSPMXPPCIM: Current GSP Subscribers, Desktop PC with Maxicom software, based on 3 Years Platinum Plus Global Support Plan, includes month 1 GSP, requires month 2 - 36 GSP to be purchased separately (M95544M2)
- GSPMXPPNIA: New GSP or Expired GSP Subscribers, Desktop PC with Maxicom software, based on 3 Years Platinum Plus Global Support Plan, includes year 1 GSP, requires year 2 and 3 GSP to be purchased separately (M95541A2)
- GSPMXPPNIM: New GSP or Expired GSP Subscribers, Desktop PC with Maxicom software, based on 3 Years Platinum Plus Global Support Plan, includes month 1 GSP, requires month 2 - 36 GSP to be purchased separately (M95542M2)
- MC2UPG: Maxicom Upgrade Software - CD Only, upgrade existing Maxicom 1.X, 2.X and 3.X system to latest Maxicom Version



Maxicom

Maxicom²® Hardware

Cluster Control Unit CCU Interface

- Runs real-time operations of a site consisting of up to 28 satellites
- Adapts station sequence to changing conditions for maximum efficiency
- Instantly responds to unexpected conditions and sensor inputs

ESP-SAT Satellite Controller

- 40 Stations Satellite Controller
- Field Satellite Controller for Maxicom² or SiteControl Central Control systems
- The power of an advanced water-management tool, in an easy-to-use package
- All the features and stand-alone capabilities of the Rain Bird ESP-MC Controller line

ESP-SITE-SAT Satellite Controller

- 40 Stations Satellite Controller
- Combines power of a Cluster Control Unit (CCU) with capabilities of a single ESP-Satellite controller for small Maxicom² sites
- Advanced water-management tool, in an easy-to-use package
- All the features and stand-alone capabilities of the Rain Bird ESP-MC Controller line

Spread Spectrum Radio

- Frequency hopping to avoid interference
- Reduced cost of ownership, no FCC license required
- No FCC restrictions on antenna height (User should check local laws)
- Radios can be set up as repeater to achieve great distances and overcome obstacles

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  - - Communicate from CCU and TWIs to ESP-Sats

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- Scientific accuracy sensors located three meters above the ground for added vandal-resistance
- Powerful, internal micro-logger for climatic data collection, logging and analysis, constant communication with weather sensors, and storage of 30 days of data
- Rugged yet lightweight metal construction

Sensor-Pulse Decoders

- Complete feedback system
- Extends central control system versatility
- Color-coded wire leads for ease of installation
- Programmable address codes for individual operation

RAINGAUGE Rain Sensor

- Accurate rain counter switch counts rainfall in 1/100th inch increments
- Heavy-duty metal construction
- Mounting bracket
- Debris screen

ANEMOMETER Wind Sensor

- Accurate wind speed measurement for high-wind shutdown or interrupt of irrigation programs
- Heavy-duty metal mounting bracket
- Requires PT322 or PT5002 Pulse Transmitter/Monitor for use with Maxicom²® System

Maxi Interface Boards

- Upgrades an ESP-MC Controller (wall mount or pedestal) to an ESP-SAT or ESP-SITE Satellite Controller
- No additional enclosures or external wiring required
- Installs on stand-offs on controller output board

MSP-1 Surge Protection

- Protects central control components from electrical surges on a two-wire communication path
- Can be installed in satellite or CCU pedestal or in valve box in conjunction with MGP-1 (Maxicom²® Grounding Plate)

MGP-1 Surge Grounding Plate

- Provides a mounting location for MSP-1 or other grounding wires directly to a grounding rod or pipe
- Installed on grounding rod or pipe



CCU-28-W



ESP-40SAT-2W Satellite



MSP-1



MGP-1



RAINGAUGE

WS-PRO Weather Stations

Maxicom²® (WS-PRO2 only), SiteControl, IQ™ v3.0 (WS-PRO2 and WSPROLT)

Features

- Scientific accuracy sensors located three meters above the ground for added vandal-resistance
- Powerful, internal micro-logger for climatic data collection, logging and analysis, constant communication with weather sensors, and storage of 30 days of data
- Rugged yet lightweight metal construction
- Self-diagnostic test mechanisms: internal moisture, battery voltage level, test port for local sensor check, and simple-to-service sensors and internal components
- State-of-the-art weather software calculates ET values, stores daily and historic ET values, monitors and displays current weather conditions, and graphically displays weather parameters

SiteControl Features

- WS-PRO2 and WS-PRO-LT Weather Station compatibility is standard for SiteControl v3.0 or later software
- SiteControl can interface with up to 6 weather stations
- Automatic communication between Central Controller and Weather Station requires SiteControl Automatic ET Software Module
- SiteControl Smart Weather Software Module enables automatic, user defined reactions to weather events (rain, freeze, high wind, etc.)

IQ™Central Control Features

- WS- PRO2 or WS-PRO-LT Weather stations are compatible with IQ™
- IQ can interface with 100 weather stations

Maxicom²® Features (WS-PRO2 only)

- WS-PRO2 Weather Station compatibility is standard for Maxicom²® v3.6 or later software
- Each site can have its own Weather Station or can share between sites
- Automatic communication standard
- Up to 24 automatic weather data retrievals can be configured per day

Weather Station Sensors

- Air Temperature
- Solar Radiation
- Relative Humidity
- Wind Speed
- Wind Direction
- Rainfall

System Compatibility

- Maxicom² (WS-PRO2 only)
- SiteControl (requires Automatic ET Software Module)
- IQ™ Central Control

Models

- WS-PRO2-DC Direct Connect model – 2-pair wire connection with Central Controller via short-haul modem
- WS-PRO-LT-SH Short Haul model – 2-pair wire connection with Central Controller via short-haul modem



WS-PRO2
Weather Station

Global Service Plans

Support for your Central Control System — Software Support, Hardware Support, Upgrades, Exchanges, System Protection



IQ Software Support

- Professional diagnosis and assistance with toll-free phone support and direct on-line access to your system
- Sharpen your knowledge and stay up to date with the latest technical training and news
- The latest central control software and service packs included
- Piece-of-mind that your system is protected.

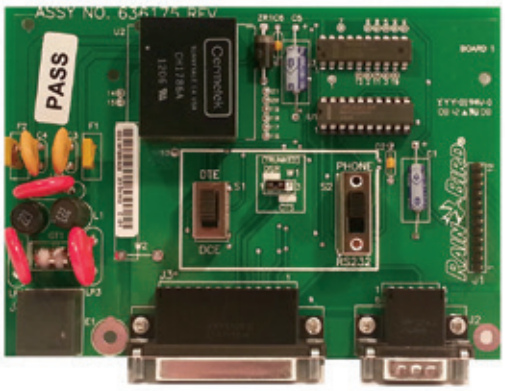
Maxicom and SiteControl Support

- Unlimited toll free GSP phone support
- A Rain Bird GSP Central Control Computer included with most service plans
- Automatic daily database cloud backups available for qualifying plans
- Upgrades to the latest central control software version
- MI Series Software included for SiteControl with most service plan options
- Minimize downtime with rapid hardware replacement and loaner equipment

Rain Bird has several plans and payment options to choose from. You can select from a fully comprehensive coverage plan to a basic coverage plan.

Board Exchange Services

Use Rain Bird factory-tested replacement components to improve and upgrade your controllers. We offer a variety of replacement components for your field controllers, interface devices, and weather stations. These include cables, transformers, pedestals, brackets, enclosures, and sensors. We also carry radios and wireless accessories to support LINK™, 900MHZ, and cellular communication.



- All boards are new or reconditioned with original Rain Bird quality parts
- Most support plans include an additional 20% discount on replacement boards
- Extensive stock of Rain Bird circuit boards including hard to find items

Contact us today at gspmarketing@rainbird.com to learn more about how we can support you.



Drip Irrigation

Broadest Product Line in the Industry

With over 150 products, Rain Bird has the products needed for your application. Systems can be designed to meet any site requirements and offer many exclusive Rain Bird advances including:

Control Zones

- The most complete line of Control Zone Kits on the market, with the components necessary for on/off control, filtration, and pressure regulation—all in one single package.
- With Flow Indicating Basket Filter you can quickly check zone and product performance in just seconds. You can have confidence your drip zone is working without walking the line.

Dripline

- Flexible XF Series dripline with advanced polymers that provide kink-resistance and reduced coil memory for easier installation.
- XFS and XFS-CV dripline with Copper Shield Technology™ for use in sub-surface applications under turf or shrub and groundcover areas. The copper chip effectively protects the emitter from root intrusion.

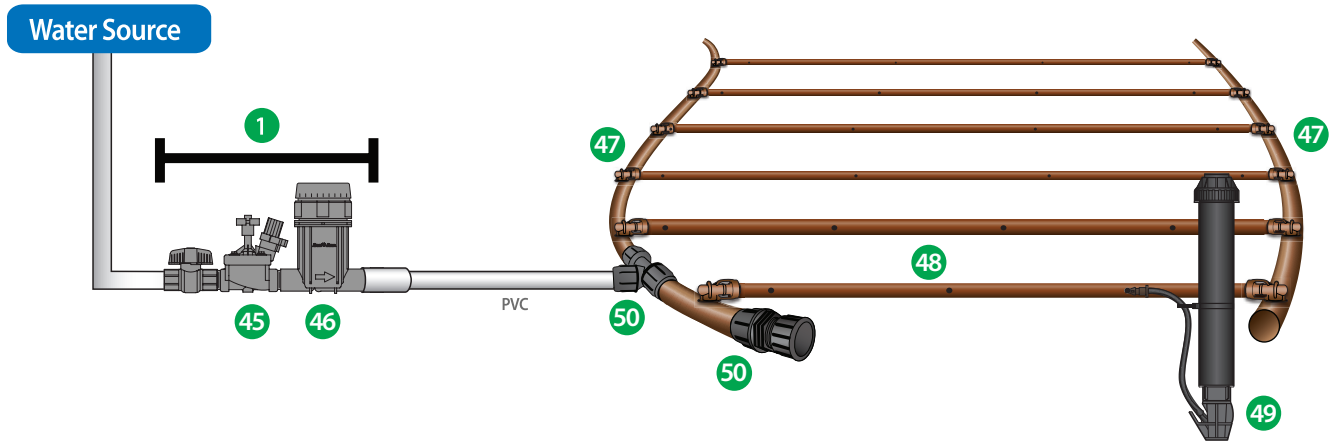
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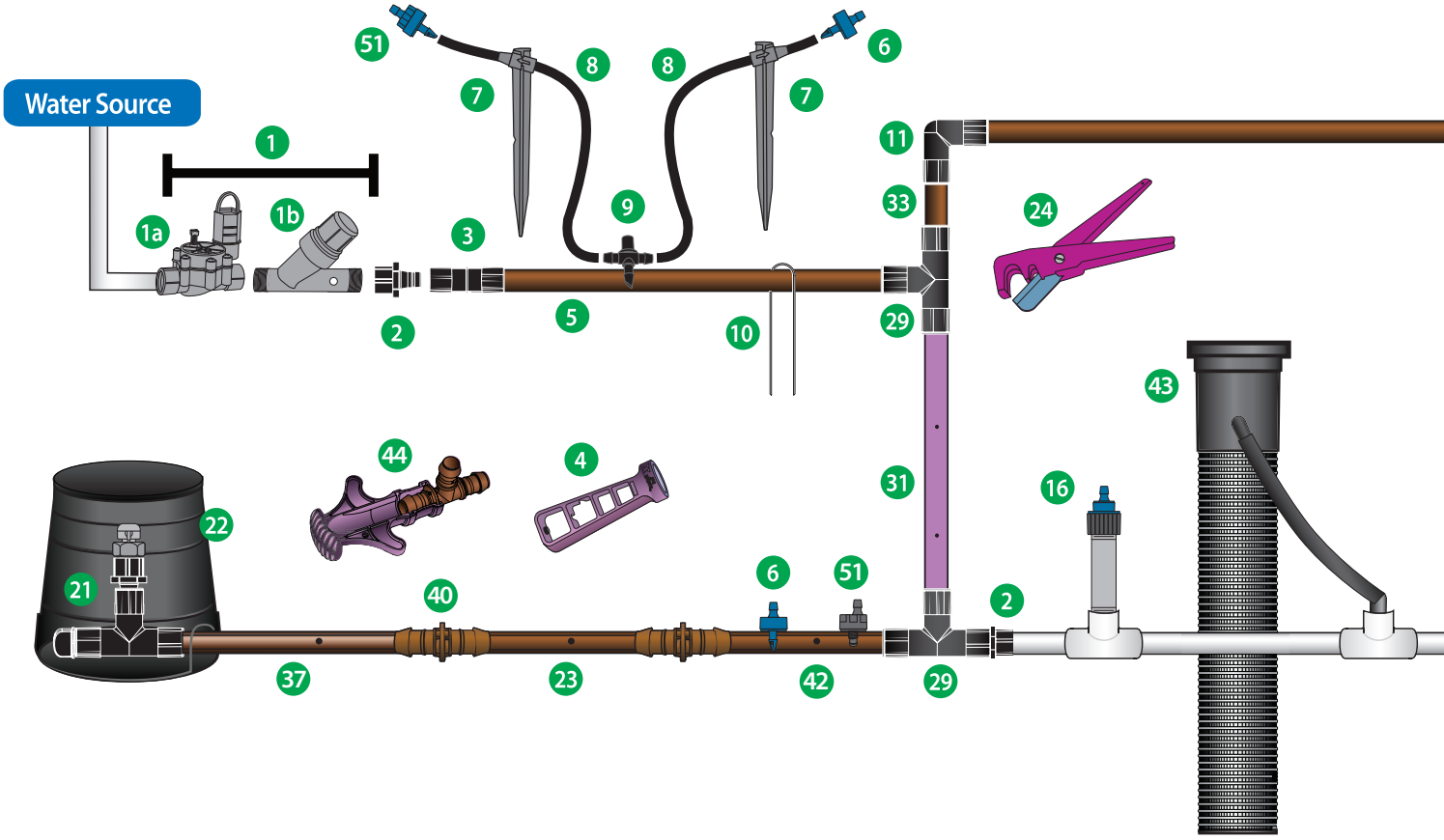
- Precision low-volume SQ micro-spray nozzles that offer a square wetting pattern and adjust to either 2.5' or 4' throw distances.
- Point-source emitters that provide pressure compensation with a wide selection of flow rates and three inlet options (Barb, 1032 threaded, and ½" FPT). Available with a check valve for applications with elevations (e.g. on slopes, and in hanging baskets).

Water Saving Tips

- Drip products deliver water directly to the root zone. Use dripline for dense plantings where it's cost effective to distribute low-volume water evenly. Use a system of precise emitter devices for sparse plantings where it's cost effective to separately irrigate each plant.
- Use drip to eliminate overspray, and you'll eliminate waste. Eliminate unsightly spray stains on buildings and fences. Eliminate soil erosion, water runoff, and potential litigation. Walkways, roads, and vehicles stay dry.
- Ask your tax advisor about capital depreciation when calculating your return-on-investment for a drip retrofit. Save water, and save money at the same time.

Landscape Drip System Overview





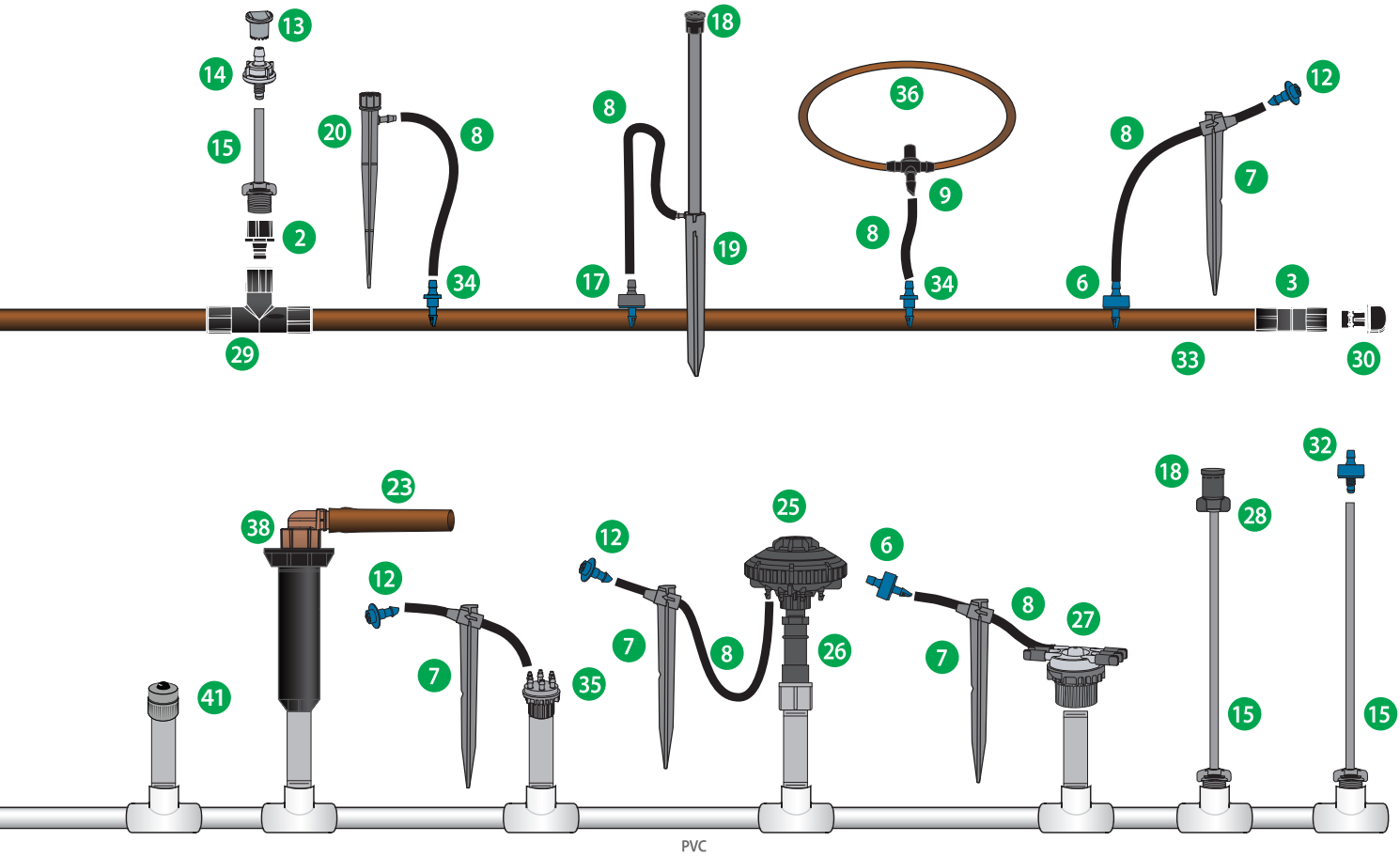
1. Control Zone Kit (pg. 116)
1a. Low Flow Valve (pg. 51)
1b. Pressure Regulating Filter (pg. 129)
2. Easy Fit Female Adapter (pg. 127)
3. Easy Fit Coupling (pg. 127)
4. Xeriman Tool (pg. 101)
5. XF Series Blank Tubing (pg. 128)
6. Xeri-Bug Emitter (pg. 105)
7. ¼" Tubing Stake (pg. 112)
8. XQ ¼" Distribution Tubing (pg. 129)
9. ¼" Barb Tee (pg. 111)
10. Tie-Down Stake (pg. 121)
11. Easy Fit Elbow (pg. 127)
12. Diffuser Bug Cap (pg. 112)
13. PC Emitter Diffuser Cap (pg. 106)
14. PC Module-1032 (pg. 106)
15. PolyFlex Riser Assembly (pg. 112)
16. Xeri-Bug Emitter - ½" FPT (pg. 105)
17. ¼" Self-Piercing Barb Connector (pg. 111)
18. SQ Series Square Nozzle (pg. 108)
19. PolyFlex Riser and Stake Assembly (pg. 112)
20. Xeri-Bubbler SPYK
21. ARV050 Air Relief Valve Kit (U.S. only)
22. SEB-7X Emitter Valve Box (pg.)
23. XFD Dripline (pg. 116)
24. Tubing Cutter (pg. 126)
25. Xeri-Bird 8 (pg. 111)



Targeted Watering with Landscape Drip

Rain Bird Xerigation®/Landscape Drip products are made especially for low-volume irrigation systems. By delivering water at or near the plants' root zones, Rain Bird Xerigation® products offer targeted watering with the following advantages:

- Water conservation
- Greater efficiency (target each plant)
- Design flexibility; simple construction and easily expandable
- Healthier plants
- Reduced liability (e.g. no overspray, no runoff)
- Minimization of weed growth
- Cost savings



26. Retrofit Pressure Regulator (pg. 135)
27. 6 Outlet Manifold (pg. 111)
28. SQ Series Nozzle Adapter (pg. 108)
29. Easy Fit Tee (pg. 127)
30. Easy Fit Flush Cap (pg. 127)
31. Purple XF Dripline (pg. 116)
32. Xeri- Bug Emitter - 1032 (pg. 105)
33. XF Series Blank Tubing (pg. 128)
34. ¼" Barb Connector (pg. 111)
35. Multi-Outlet Xeri-Bug (pg. 104)
36. ¼" Landscape Dripline (pg. 128)
37. XFS Sub-Surface Dripline with Copper Shield Technology (pg. 119)
38. RETRO-1800 Spray-to-Drip Retrofit Kit
39. XT-025 ½" FPT x Barb Grey Transfer Fitting
40. XFF Coupling (pg. 125)
41. PCT Bubbler (pg. 106)
42. XFCV Dripline with Heavy-Duty check valve (pg. 118)
43. RWS (Root Watering System) (pg. 113)
44. XF Insertion Tool (pg. 126)
45. PEB Valve (pg. 56)
46. Flow Indicating Basket Filter
47. QF Dripline Header (pg. 124)
48. XF Series Dripline (XFD/XFS/XFCV) (pg. 116-120)
49. Operation Indicator (pg. 112)
50. Twist Lock Fittings (pg. 112)
51. Xeri-Bug™ with Check Valve (pg. 103)

Emission Device	Applications	PC	Spray Pattern	Radius	Flow Rate	Inlet
DENSE PLANTING SCHEME						
Xeri Sprays/ Misters 	Ideal for ground cover, mass plantings, annual flower beds	No	Qtr circle stream / finger	0 to 3.2m	0 to 109.8 l/h @ 2.07 psi	10-32
			Half circle stream / finger			
			Full circle stream / finger	0 to 4.1m		
			Full circle mist			
Xeri 360 True Spray 	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
SQ Series Nozzles 	Commercial grade Small or defined areas with dense plantings	Yes	Square Pattern Qtr	Adjustable 0.8 m or 1.2 m	Square Pattern Qtr	Thread
			Square Pattern Hlf		Square Pattern Hlf	
			Square Pattern Ful		Square Pattern Ful	
SPARSE PLANTING SCHEME						
Xeri Bug Emitters 	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
Xeri Bug Emitters w/ Check valve 	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
Xeri Bug Multi Outlet 	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
PC Modules 	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
Xeri Bubblers 	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)

NEW

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

Features

Efficient Water Usage

With 3 m of hold-back power, XBCV eliminates low-point drainage and provides uniform irrigation throughout the zone

- In a standard 152 m line with 13 mm internal diameter, 76 L of water is held in the line instead of draining out
- With XBCV only one zone is needed for up to a 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 the emitter — a problem when a system drains and siphons dirty water

Pressure Compensating

A pressure-compensating design offers a consistent flow from 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.
- Outlet barb securely retains 1/4" Distribution Tubing (XQ)

Durability

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

Compact Design

With a diameter less than a dime, the emitter is unobtrusive and easily hidden

Color coded

Color-coded to identify flow rate

Operating Range

- Opening Pressure: 1.0 bar
- Pressure: 1.0 to 3.5 bar
- Flow Rates: 1.9 , 3.79 or 7.57 l/h
- Filtration Requirement: 75 micron for 1.89 l/h, 100 micron for all others

Models

Self-Piercing Barb Inlet x Barb Outlet

- XBCV-05PC: Blue, 1.9 lph
- XBCV-10PC: Black, 3.8 lph
- XBCV-20PC: Red, 7.6 lph

10-32 Threaded Inlet x Barb Outlet

- XBCV-05PC-1032: Blue, 1.9 lph
- XBCV-10PC-1032: Black, 3.8 lph
- XBCV-20PC-1032: Red, 7.6 lph



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 Bag Quantities and Models

Flow Rate	Color	Bag Qty.	Model Number
1.89 l/h	Blue	25	XBCV05PC
		100	XBCV05PCBULK
		25	XBCV05PC1032
		100	XBCV05PC1032BULK
3.79 l/h	Black	25	XBCV10PC
		100	XBCV10PCBULK
		25	XBCV10PC1032
		100	XBCV10PC1032BULK
7.57 l/h	Red	25	XBCV20PC
		100	XBCV02PCBULK
		25	XBCV02PC1032
		100	XBCV02PC1032BULK

How to Specify

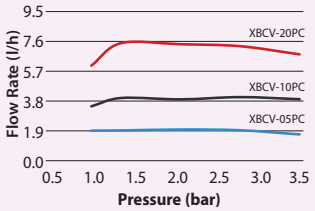
XBCV – 05 PC – 1032

- **Model** Xeri-Bug Check Valve
- **Flow** 05 = 1.89 l/h, 10 = 3.79 l/h, 20 = 7.57 l/h
- **Pressure Compensating**
- **Optional** 1032 = 10-32 Threaded Inlet

Xeri-Bug Check Valve Emitter Specifications and Models

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 Check Valve Emitter Performance





Xeri-Bug™ Emitter with Check Valve

Multi-Outlet Xeri-Bug™

Features

- Pressure compensating design delivers uniform flow throughout a wide pressure range (1.0 to 3.5 bar)
- Six-outlet emitter supplied with one outlet opened. Simply clip the outlet tips open with snips or clippers for additional operational ports
- Barbed outlets retain ¼" (6 mm) Distribution Tubing (XQ)
- Self-flushing action minimizes clogging
- Durable, UV-resistant color-coded plastic housing

Operating Range

- Flow: 4 l/h
- Pressure: 1.0 to 3.5 bar
- Filtration: 100-microns

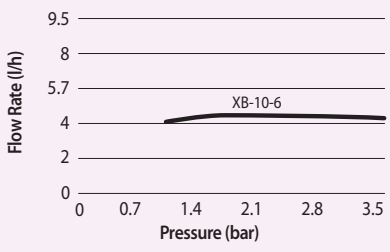
Models: barb inlet x barb outlet

- XB-10-6: Black, 4 l/h



XB-10-6

Multi-Outlet Xeri-Bug Emitter Performance



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 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
- 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

Compact Design
With a diameter less than a dime, the emitter is unobtrusive and easily hidden

Color coded
Color-coded to identify flow rate

Operating Range

- Opening Pressure: 1.0 bar
- Pressure: 1.0 to 3.5 bar
- Flow Rates: 1.9 , 3.79 or 7.57 l/h
- Filtration Requirement: 75 micron for 1.89 l/h, 100 micron for all others

Models: barb inlet x barb outlet

Select models shown. Review your regional price list for complete availability.

- XB-05PC-1032: Blue, 1.89 l/h
- XB-10PC-1032: Black, 3.79 l/h
- XB-20PC-1032: Red, 7.57 l/h

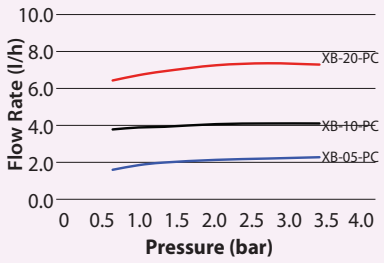
Xeri-Bug Emitter Specifications and Models

Model	Inlet Type/ Color	Nominal Flow l/h	Filtration Required micron/mesh
XB-05PC	Barb/Blue	2	75/200
XB-10PC	Barb/Black	4	100/150
XB-20PC	Barb/Red	8	100/150

Xeri-Bug Emitter Bag Quantities and Models

Flow Rate	Color	Bag Quantity	Model Number
2 l/h	Blue	100 8000	XB05PCBULK XB05MAXPAK
4 l/h	Black	100 8000	XB10PCBULK XB10MAXPAK
8 l/h	Red	100 8000	XB20PCBULK XB20MAXPAK

Xeri-Bug Emitter Performance



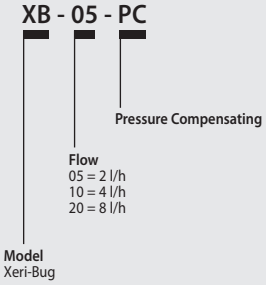


XB-05PC, XB-10PC, XB-20PC



Xeri-Bug™ Emitter, TS025-1/4" (6 mm) stake, and DBC025 Diffuser Bug Cap

How to Specify



Pressure-Compensating Modules

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

Features

Pressure Compensating

Wide selection of pressure-compensating emitters offering 6 different consistent flow rates over a wide pressure range (0.7 to 3.5 bar)

Versatile Installation

- Self-piercing models feature barbs that make installation easier
- 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

Compact Design

With a diameter less than a dime, the emitter is unobtrusive and easily hidden

Color coded

Color-coded to identify flow rate

Operating Ranges*

- Flow: 18.93 to 90.84 l/h
- Pressure: 0.7 to 3.5 bar
- Required filtration: 150 micron

* ***IMPORTANT NOTE:*** *Use a PC Diffuser Cap to eliminate squirting water when using a PC Module staked at the end of 1/4" Distribution Tubing (XQ) or on a PolyFlex Riser (PFR/FRA)*

Models: barb inlet x barb outlet

Select models shown. Review your regional price list for complete availability.

- PC-05 : Light brown, 18.93 l/h
- PC-07 : Violet, 26.50 l/h
- PC-10 : Green, 37.85 l/h
- PC-12: Dark brown, 45.42 l/h
- PC-18: White, 68.13 l/h
- PC-24: Orange, 90.84 l/h



PCT-05, PCT-07, PCT-10
½" (15/21) FPT inlet that easily threads onto a ½" (15/21) PVC riser

Models: ½" (15/21) FPT thread Inlet

Select models shown. Review your regional price list for complete availability.

- PCT-05: Light Brown, 18.93 l/h
- PCT-07: Violet, 26.50 l/h
- PCT-10: Green, 37.85 l/h

How to Specify

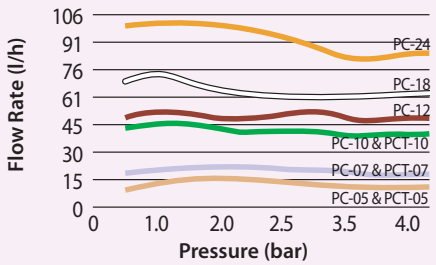
PC - T - 05

- **05** — **Flow** 5 gph (18.93 l/h)
- **T** — 1/2" FPT Inlet
- **PC** — **Model** PC: Pressure-Compensating

Pressure-Compensating Module Models

Model	Inlet Type/ Outlet/Color	Nominal Flow l/h	Filtration Required micron/mesh
PC-05	Barb / light brown	18.93	150/100
PC-07	Barb / violet	26.50	150/100
PC-10	Barb / green	37.85	150/100
PC-12	Barb / dark brown	45.42	150/100
PC-18	Barb / white	68.13	150/100
PC-24	Barb / orange	90.84	150/100
PCT-05	NPT / light brown	18.93	150/100
PCT-07	NPT / violet	26.50	150/100
PCT-10	NPT / green	37.85	150/100

Pressure-Compensating Modules & Bubblers Performance





PC-05, PC-07, PC-10



PC-12, PC-18, PC-24

PC Diffuser Cap

Features

- Cap snaps securely onto the PC Module and XB emitter outlet to create bubbler effect and prevent wash out
- Designed for quick and easy installation
- Made of UV-resistant polyethylene material

Models

- PC-DIFFUSER: Black



PC-DIFFUSER

SXB-360 SPYK and XS-360TS-SPYK

Adjustable Flow Micro-spray on Spike

Applications

These adjustable micro-sprinklers with full circle pattern are shipped ready to install. Ideal for shrub plantings, trees, containers and flower beds

Features

- Micro-Sprinkler mounted on12.7cm spike
- 360° spray pattern
- Adjust flow and radius by turning outer cap
- Shipped with 4-6 mm barb connection for installation into 13-16 mm tubing
- Excellent distribution uniformity

Specifications

- Pressure: 1 to 2.0 bar
- Flow: adjustable from 0 to 49l/h for SXB-360-SPYK and 0 to 90 l/h for XS-360TS-SPYK
- Radius: adjustable from 0 to 46 cm for SXB-360-SPYK and from 0 to 2 m to XS-360TS-SPYK

Models

Select models shown. Review your regional price list for complete availability.

- XS-360TS-SPYK: Adjustable flow micro-spray on spike
- SXB-360-SPYK: Adjustable flow micro-spray on spike



XS-90, XS-180, XS-360 Series

Adjustable Flow Sprays

Applications

These sprays have a uniform emission pattern to provide excellent distribution. Adjustable flow/radius by turning integral ball valve. Ideal for ground cover and annual flower beds

Features

- Uniform emission pattern and excellent distribution
- 10-32 self-tapping threads fit into stake and riser assembly (PFR/RS)

Specifications

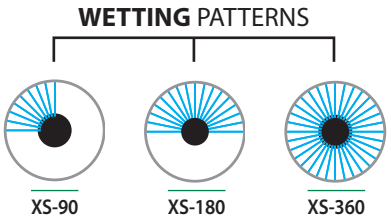
- Pressure: 0.5 to 2.5 bar
- Flow: 0 to 130 l/ h
- Radius:
- XS-90: adjustable from 0 to 3.3 m
- XS-180: adjustable from 0 to 3.4 m
- XS-360: adjustable from 0 to 4.1 m

Models

Select models shown. Review your regional price list for complete availability.

- XS-90: Adjustable flow/radius 90° spray
- XS-180: Adjustable flow/radius 180° spray
- XS-360: Adjustable flow/radius 360° spray





Xeri-Bubbler Performance

Pressure	✳		●	
bar	cm	l/h	m	l/h
1.0	0-19	0-33	0-1.4	0-64
1.5	0-32	0-41	0-1.8	0-78
2.0	0-46	0-49	0-2.0	0-90

Xeri-Sprays™ Performance

Pressure	XS-90 Radius of throw		XS-180 Radius of throw		XS-360 Radius of throw	
bar	meters	l/h	meters	l/h	meters	l/h
0.5	0-1.5	0-53	0-1.9	0-53	0-2.5	0-53
1.0	0-2.4	0-78	0-2.4	0-78	0-3.4	0-78
1.5	0-2.9	0-98	0-3.0	0-98	0-4.1	0-98
2.0	0-3.1	0-115	0-3.2	0-115	0-4.1	0-115
2.5	0-3.3	0-130	0-3.4	0-130	0-3.6	0-130

SQ Series, Square Pattern Nozzles

The Most Precise and Efficient, Low-Volume Spray Solution for Irrigation of Small Areas with Dense Plantings

Features

Precision and Efficiency

- Designed to precisely irrigate small areas.
- Great for corners in narrow planting beds, parking lot islands, walkways, parkways, street medians, and around trees and shrubs
- Commercial grade nozzle is pressure compensating and virtually mist-free – even at the maximum operating pressure. This ensures optimum coverage for non-turf applications from 20 to 50 psi.
- Meets micro irrigation system requirement with less than 26 gph flow rate at 30 psi

Versatile Installation

- Simplify design and installation with the flexibility of applications
- Patented design provides the designer and the installer with the option of 2.5' or 4' throws (0.8 m or 1.2 m)
- Can be installed on a variety of spray heads and risers

Savings on Material and Labor Costs

- Unique edge-to-edge capability reduces the number of nozzles needed, which decreases cost and dramatically reduces installation time
- Square spray pattern and pressure compensation offer increased efficiency and control, reducing overspray, property damage, and liability

Operating Range

- Pressure: 1.4 to 3.5 bar
- Flow rates: 23, 39 and 76 l/h
- Required filtration: 375 micron

Models

- SQ-QTR: SQ Nozzle, quarter pattern (Purple)
- SQ-HLF: SQ Nozzle, half pattern (Brown)
- SQ-3QTR: SQ Nozzle, three-quarter pattern (Gray)
- SQ-FUL: SQ Nozzle, full pattern (Red)
- SQ-ADP: SQ PolyFlex Riser Adapter only



SQ Nozzles with Screens

One Nozzle…Two Throws

With a simple turn of the nozzle to the next preset stop, the Rain Bird SQ Nozzle adjusts from a 0.8 m throw to a 1.2 m throw. It's like having two nozzles in one.



Can be used on…

The SQ Nozzle is an ideal solution for a wide range of difficult-to-design areas, thanks to its compatibility with popular irrigation products.



1800® Series Spray Heads

Xeri-Pop Spray Heads



SQ-QTR

SQ-HLF

SQ-3QTR

SQ-FUL

SQ Nozzle Performance

0.8 m throw @ 0.15 m height above grade

Nozzle	Pressure bar	Throw Radius m	Flow lph	Flow lpm	Precip.Rate w/no overlap mm/h
Q	1.4	0.8	24	0.38	41.66
	2.1	0.8	28	0.45	48.26
	2.8	0.9	28	0.45	33.53
	3.4	0.9	28	0.45	33.53
H	1.4	0.8	39	0.64	33.27
	2.1	0.8	46	0.68	39.88
	2.8	0.9	52	0.68	30.99
	3.4	0.9	52	0.68	30.99
3Q	1.4	0.8	61	1.01	34.77
	2.1	0.8	68	1.14	39.12
	2.8	0.9	79	1.32	31.69
	3.4	0.9	79	1.32	31.69
F	1.4	0.8	76	1.25	32.51
	2.1	0.8	92	1.51	39.37
	2.8	0.9	103	1.74	30.99
	3.4	0.9	103	1.74	30.99

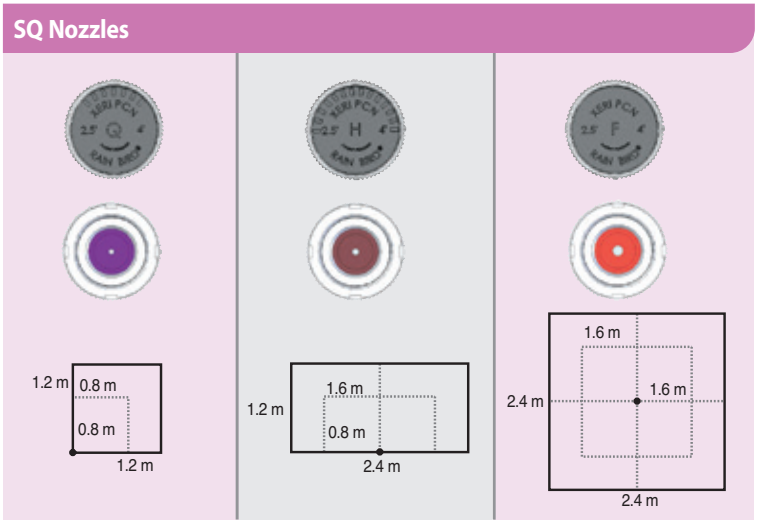
SQ Nozzle Performance

1.2 m throw @ 0.15 m height above grade

Nozzle	Pressure bar	Throw Radius m	Flow lph	Flow lpm	Precip.Rate w/no overlap mm/h
Q	1.4	1.2	23	0.38	16.26
	2.1	1.2	26	0.45	18.80
	2.8	1.4	27	0.45	14.99
	3.4	1.4	27	0.45	14.99
H	1.4	1.2	39	0.64	12.95
	2.1	1.2	40	0.68	15.49
	2.8	1.4	40	0.68	13.72
	3.4	1.4	40	0.68	13.72
3Q	1.4	0.8	61	1.01	13.58
	2.1	0.8	68	1.14	15.28
	2.8	0.9	79	1.32	14.08
	3.4	0.9	79	1.32	14.08
F	1.4	1.2	76	1.25	12.70
	2.1	1.2	92	1.51	15.49
	2.8	1.4	103	1.74	13.72
	3.4	1.4	103	1.74	13.72

Performance data taken in zero wind conditions

SQ Nozzles





SQ Nozzle Installed on PolyFlex Riser with Nozzle Adapter

Using a Barbed Emitter with Drip Tubing

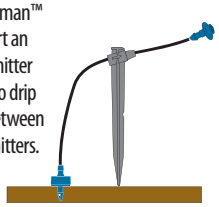


Using a Xeriman™ Tool, insert an barbed emitter directly into drip tubing or between dripline emitters.





Using a Xeriman™ Tool, insert an barbed emitter directly into drip tubing or between dripline emitters.

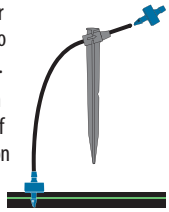


Barbed Connections to Sprays and Bubblers



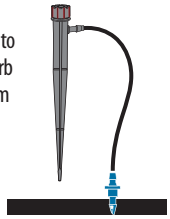
A barbed connector can be punched into distribution tubing.

The emitter is then placed at the end of the 6mm distribution tubing.





Connect a spiked emitter (on a stake) to drip tubing via a barb connector and 6mm tubing

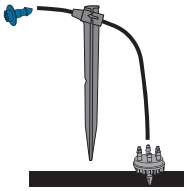


Centralizing Distribution Connections



The Multi-Outlet Xeri-Bug™ provides centralized water distribution for up to six plants with the same flow rate.

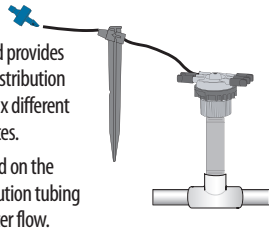
Install as with single emitters, by connecting the 6mm distribution tubing to one of the outlets.





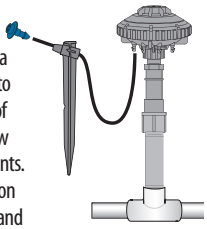
The 6 Outlet Manifold provides a centralized water distribution connection for up to six different emission devices.

The emitter is placed on the end of the 6mm distribution tubing to regulate the water flow.





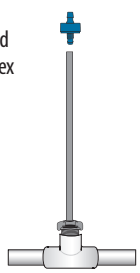
The Xeri-Bird ™ 8 provides a centralized location for up to eight emitters. Use a mix of emitters to provide the flow rates needed for different plants. Tentacles of 6mm distribution tubing, 6mm tubing stakes, and bug caps allow for precise water placement.



Threaded Emitters on Risers

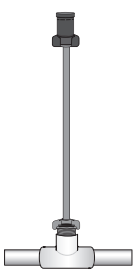


Use a 10-32 threaded emitter with a PolyFlex Riser Assembly





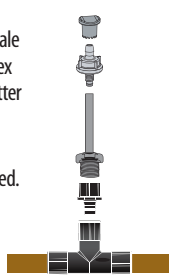
The SQ can be connected to PE or PVC via a PolyFlex Riser Assembly with an SQ ADP adapter.





Use an Easy Fit Tee and Female Adapter, to attach a PolyFlex riser with 10-32 thread emitter to drip tubing.

Add a PC Diffuser Cap to eliminate squirting as needed.



Xeri-Bird™ 8-Outlet Emission Device

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

Features

- The only multi-outlet device on the market with 8 configurable ports and 10 flow options for each port for maximum flexibility
- XBD-81 model contains a built-in filter. Makes retro-fitting easy when installed with the optional in-stem pressure regulator (PRS-050)
- Easy to maintain, because body can be easily removed from riser
- Threads onto any ½" (15/21) riser and delivers water to multiple locations for increased system flexibility
- Each port accepts a Xeri-Bug™ Emitter or PC Module for independent flows from 2 to 90.84 l/h or use a self-piercing barb connector (SPB-025) for unrestricted flow
- XBD-81 model features an integral 75 micron filter which is easily serviceable from the top of the unit
- Eight bottom-mounted, sure-grip barbed outlets securely retain 6 mm Distribution Tubing (XQ)
- Unique union base nut allows removal of Xeri-Bird 8 body from riser for easy installation and maintenance
- Emitters must be installed inside the Xeri-Bird to prevent excess back pressure

Operating Range

- Flow: 2 to 90.84 l/h per outlet
- Pressure: 1.0 to 3.5 bar

Models

- XBD-81: Xeri-Bird 8 unit (includes eight 4 l/h Xeri-Bug emitters factory installed, and filter)

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



XBD-81



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



Each port can be configured on the Xeri-Bird™ by installing flow controlled emitters. Above shows a combination of 2, 4, and 8 l/h Xeri-Bug emitters.

6 Outlet Manifold - EMT-6XERI

Features

- ½" (15/21) FPT FPT inlet threads onto ½" (15/21) riser and provides a manifold with six free-flowing ¼" (6 mm) barb outlets
- Each barb outlet is sealed with a durable plastic cap
- Plastic caps remove easily, allowing for a drip area that can be customized with up to six different emission devices
- Attach ¼" (6 mm) Distribution Tubing (XQ) onto each outlet for use with: Xeri-Bugs, PC Modules, Xeri-Pops, Xeri-Sprays, and Xeri-Bubblers

Operating Range

- Pressure: 1.0 to 3.5 bar
- Required filtration: 100 microns

Model

- EMT-6XERI



EMT-6XERI

¼" Self-Piercing Barb Connector

Features

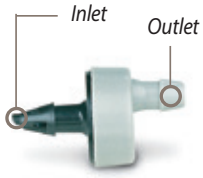
- Used to connect ¼" (6 mm) Distribution Tubing into 1/2" (12 mm) or 3/4" (16 mm) distribution tubing
- Self-piercing barb inlet is easily inserted into 1/2" (12 mm) or 3/4" (16 mm) distribution tubing using a Xeriman™ Tool (XM-Tool)
- Outlet barb accepts ¼" (6 mm) Distribution Tubing (XQ). Gray outlet barb indicates unit has unrestricted flow

Operating Range

- Pressure: 0 to 3.5 bar

Model

- SPB-025



SPB-025

Jet Spike 310-90, 310-180, 310-360

Adjustable Flow Spray on Spike

Features

- Ready to install. It is ideal for flower beds, ground cover and potted plants
- 31 cm spray on spike
- 20 cm extension
- Total height of spike with extension : 51 cm
- Micro-spray head made of acetal, spike made of polyethylene and extension made of HDPE
- 4/6 mm, pre-mounted, flexible PVC connection tube (length: 50 cm)

Specifications

- Pressure : 0.5 to 2.5 bar
- Flow: 0 to 130 litres/hour
- Radius : adjustable from 0 to 4.2 m

Models

- JET SPIKE 310-90: 90° micro-sprinkler on spike
- JET SPIKE 310-180: 180° micro-sprinkler on spike
- JET SPIKE 310-360: 360° micro-sprinkler on spike with 18 jets

Jet Spike 310-90, 310-180, 310-360 Performance

Pressure	90°		180°		360°	
bar	l/h	meters	l/h	meters	l/h	meters
0,5	0 –58	0 – 1,7	0 –58	0 – 1,9	0 –58	0 – 2,5
1,0	0 – 82	0 – 2,5	0 – 82	0 – 2,3	0 – 82	0 – 3,4
1,5	0 – 101	0 – 2,9	0 – 101	0 – 2,7	0 – 101	0 – 3,9
2,0	0 – 117	0 – 3,2	0 – 117	0 – 3,0	0 – 117	0 – 4,1
2,5	0 – 130	0 – 3,5	0 - 130	0 – 3,3	0 – 130	0 – 4,2



Jet Spike 310-90

Diffuser Bug Cap

Features

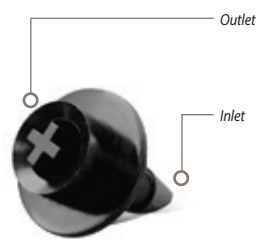
- Prevents bugs and other debris from clogging ¼" (6 mm) Distribution Tubing
- Barbed inlet fits into ¼" (6 mm) Distribution Tubing (XQ)
- Flanged shield diffuses water to minimize soil erosion at emission point

Operating Range

- Pressure: 0 to 3.5 bar

Models

- DBC-025: Black



DBC-025

Universal ¼" Tubing Stake

Features

- Holds ¼" (6 mm) Distribution Tubing and emitter or Diffuser Bug Cap firmly in place at the root zone of the plant
- Designed to securely hold Rain Bird and other manufacturers' ¼" (6 mm) Distribution Tubing — 4 mm to 4.6 mm I.D. and 5.6 mm to 6.4 mm O.D.
- Rigid stake featuring a flat enlarged head designed to withstand hammering into tough soil

Note: If emitter is installed at inlet to distribution tubing, use a Diffuser Bug Cap (DBC-025) at outlet of tubing to prevent bugs from clogging tubing and to help hold tubing in place

Model

- TS-025



TS-025

PolyFlex Riser and Stake Assembly

Features

- 30.5 cm riser that is pre-assembled with a 7" (17.8 cm) stake
- Use with any 10-32 threaded emission device to deliver water directly to a plant. These include Xeri-Bugs, PC Modules, Xeri-Bubblers and Xeri-Sprays
- Saves time and money when installing a low-volume irrigation system
- Extremely rugged and reliable PolyFlex Riser constructed of thick-walled, high-density polyethylene

Operating Range

- Pressure: 1.0 to 3.5 bar

Model

- PFR-RS: 30.5 cm PolyFlex Riser and 7" (17.8 cm) stake



PFR-RS

Drip System Operation Indicator

Features

- Stem rises 15.2 cm for clear visibility
- When stem is extended, drip system is charged to a minimum of 1.38 bar
- Operational Indicator Kit includes three different indication caps: potable, non-potable, or an adjustable 4-VAN spray nozzle
- Includes 40.6 cm of ¼" distribution tubing with connection fitting pre-installed

Model

- OPERIND



OPERIND

RWS (Root Watering System)

Root Watering System promotes deep root growth, healthy tree development, and accelerated growth

Features and Benefits

- Subsurface aeration and irrigation prevents tree and shrub transplant shock
- Highest efficiency solution for tree irrigation - up to 95% emission uniformity with minimal wind, evaporation, or edge control losses
- Aesthetically designed subsurface bubbler contributes to a landscape's natural appearance
- Locking grate at grade deters vandals
- Helps prevent shallow root growth and hardscape damage
- Aesthetically attractive below grade installation
- Self-contained and factory assembled units for assured reliability

For the RWS Model:

- 10.2 cm retaining cap and vandal resistant locking grate tops a 91.4 cm semi-rigid mesh tube
- Factory installed swing assemblies (excluding RWS) with a 1401 (0.95 l/m), or 1402 (0.5 gpm) bubbler on a fixed riser makes connecting to lateral lines easy
- Options: Check valve to keep lines from draining (minimum holdback of 304.8cm)
  Sand sock for use in fine soils

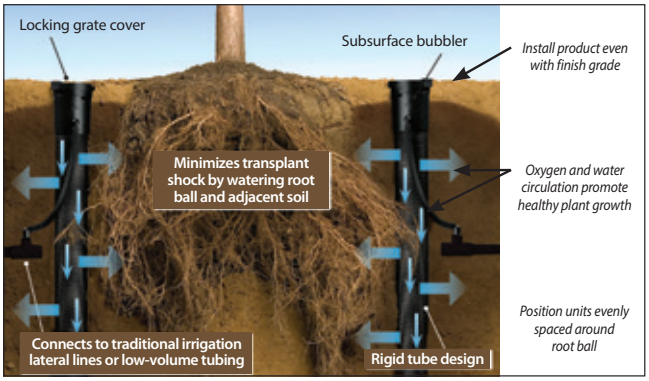
For the RWS - Mini:

- 10.2 cm retaining cap and vandal resistant locking grate tops a 45.7 cm semi-rigid mesh tube
- Factory installed ½" spiral barb elbow with a 1401 or 1402 bubbler makes connecting to lateral lines easy
- Options: Check valve to keep lines from draining
  Sand sock for use in fine soils

For the RWS - Supplemental:

- 5.1 cm snap-on cap and base cap enclose a 25.4 cm semi-rigid mesh tube
- Factory installed ½" spiral barb elbow with PCT or 1401 bubbler makes connecting to lateral lines easy
- Options: Check valve to keep lines from draining
  Sand sock for use in fine soils





Models /Specifications *(Select models shown. Review your regional price list for complete availability.*

Model	Bubbler	Check Valve*	Swing Assembly w/ ½" (15/21) M NPT inlet	Spiral Barb Elbow w/ ½" (15/21) M NPT inlet
91.4 cm Root Watering System (with 10.2 cm vandal-resistant locking grate)				
RWS	Ideal for ¼" drip tubing or customer provided hardware	–	–	–
RWS-B-C-1401	57 l/h	✔ (91.4 cm)	✔	–
RWS-B-1401	57 l/h	–	✔	–
RWS-B-X-1401	57 l/h	–	✔ (45.7 cm with no elbow)	–
RWS-B-C-1402	114 l/h	✔ (91.4 cm)	✔	–
RWS-B-1402	114 l/h	–	✔	–
RWS-B-C-1404	228 l/h	✔ (91.4 cm)	✔	–
41.7 cm Root Watering System - Mini (with 10.2 cm vandal-resistant locking grate)				
RWS-M	Ideal for ¼" drip tubing or customer provided hardware	–	–	–
RWS-M-B-C-1401	57 l/h	✔ (45.7 cm)	–	✔
RWS-M-B-1401	57 l/h	–	–	✔
RWS-M-B-C-1402	114 l/h	✔ (45.7 cm)	–	✔
RWS-M-B-1402	114 l/h	–	–	✔
25.4 cm Root Watering System - Supplemental (with 5.1 cm snap-on cap and base)				
RWS-S-B-C-PCT5	1140 l/h	✔ (25.4 cm)	–	✔
RWS-S-B-C-1401	57 l/h	✔ (25.4 cm)	–	✔
RWS-S-B-1401	57 l/h	–	–	✔
Root Watering - Accessories				
RWS-SOCK (Root Watering Sock)				
RWS- GRATE-P (Root Watering System Purple Grate for RWS and RWS Mini)				

** Check Valve is 4.3 m of holdback, or 0.4 bar*

SQ Series Nozzle with 3/4 Square Pattern

Precise and Efficient, Low-Volume Spray Nozzle for Irrigation Around the Perimeter of Trees or Shrubs

SQ Series Nozzle with 3/4 Square Pattern is pressure compensated ensuring a precise and efficient, low-volume spray for surface watering the perimeter of trees and shrubs, while avoiding the trunk. With the unique edge-to-edge pattern, coverage is achieved with only two nozzles, making them a cost effective solution. Each nozzle can easily switch between a 2.5 ft. or 4 ft. throw to accommodate growth of the canopy over time.

With multiple installation configurations, this product is a versatile option for low volume applications.

Features

Versatile Installations

- Simplify design and installation with the flexibility of applications
- One nozzle throws 2.5' or 4' (0.8 m or 1.2 m)
- Can be installed on a variety of spray heads and risers

Unique Pattern for Trees

- Designed to precisely irrigate around the perimeter of trees and shrubs.
- Also great for corners in narrow planting beds, parking lot islands, walkways, parkways, and street medians

Savings - Water and $

- Meets micro irrigation system requirement with less than 26 gph flow rate at 30 psi
- Unique edge-to-edge capability reduces the number of nozzles needed, which decreases cost and dramatically reduces installation time
- Square spray pattern and pressure compensation offer increased efficiency and control, reducing overspray, property damage, and liability

Nozzle Accessories

- PFR-12: 12" PolyFlex Riser (riser tube only)
- PFR-FRA: 12" (30.5 cm) PolyFlex Riser and 1/2" adapter for PVC (SQ-ADP Nozzle Adapter sold separately)
- PFR-FRA24: 24" (61.0 cm) PolyFlex Riser and 1/2" adapter for PVC (SQ-ADP Nozzle Adapter sold separately)
- PFR-RS: 12" (30.5 cm)PolyFlex Riser and 7" (17.8 cm) stake
- SQ-ADP: SQ Nozzle adapter only (Connects SQ Nozzles to PolyFlex Risers)
- SQ-ADP12: SQ Nozzle adapter with 12" PolyFlex Riser
- XQ-100: 1/4" Distribution tubing for PFR-RS Riser

Operating Ranges

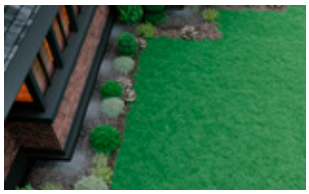
- Flow Rates: 6, 12, 18, and 24 gph (22.7, 45.4, 68.1, and 90.8 l/hr)
- Pressure: 20 to 50 psi (1.4 to 3.5 bar)
- Required Filtration: 40 mesh

Model

- 3QTR: Three Quarter Wetting Pattern







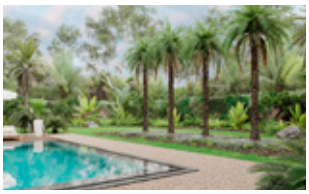
Garden Beds



Sidewalks



Medians



Trees

Installation Options



SQ Nozzle on PolyFlex Riser Assembly (PFR-FRA)



SQ Nozzle on 1800 Spray Body Assembly



SQ Nozzle on Schedule 80 Riser Assembly



SQ Nozzle on Poly Flex Riser and Stake Assembly (PFR-RS)









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 121)



XFD Dripline

Operating Range

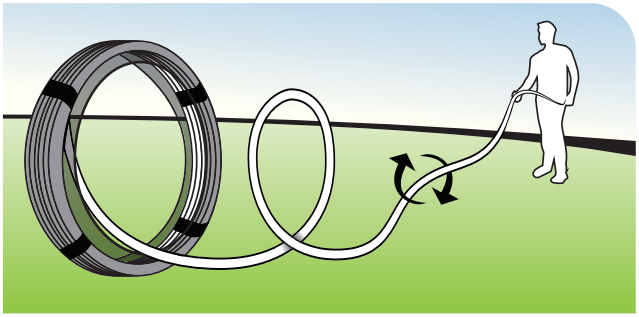
- Pressure: 0.58 to 4.1 bar
- Flow rates: 1.6 l/h, 2.3 l/h and 3.5 l/h
- Temperature: Water up to 37.8° C; Ambient up to 51.7° C
- Required filtration: 125 micron

Specifications

- Outside diameter: 16.1 mm
- Inside diameter: 13.6 mm
- Wall thickness: 1.2 mm
- Spacing: 33, 40 or 50 cm
- Lengths: 50, 100 m coils
- Use with XF Dripline Insert Fittings



XFD dripline offers improved flexibility for kink resistance and easy installation. The dripline can bend down to a 7.62 Cm radius without kinking



Self-dispensing coil reduces layout time and improves ease of installation

Compatible Fittings



XF Dripline Insert Fittings (pg. 125)



Easy Fit Compression Fittings (pg. 127)

XFD On-Surface Dripline Models

Model	Flow l/h	Spacing cm	Coil Length m
XFD1633100	1.6	33	100
XFD2333100	2.3	33	100
XFD2340100	2.3	40	100
XFD2350100	2.3	50	100
XFD233350	2.3	33	50

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-06-18-100	0.60	18	100
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-09-18-100	0.90	18	100
XFD-09-18-250	0.90	18	250
XFD-09-18-500	0.90	18	500
XFDP-06-12-500 (Purple)	0.60	12	500
XFDP-06-18-500 (Purple)	0.60	18	500
XFDP-09-12-500 (Purple)	0.90	12	500
XFDP-09-18-500 (Purple)	0.90	18	500

XFD On-Surface Dripline Maximum Lateral Lengths (meters)

Inlet Pressure bar	Maximum Lateral Length (meters)					
	33 cm			40 cm		50 cm
	Nominal Flow (l/h)					
	1.6	2.3	3.5	1.6	2.3	3.5
1.00	104	79	54	112	85	100
1.70	131	104	77	136	108	129
2.40	146	121	93	153	127	152
3.10	160	135	105	168	141	162
3.80	172	143	116	176	148	169

XFD On-Surface Dripline Maximum Lateral Lengths (Feet)

Inlet Pressure psi	Maximum Lateral Length (feet)			
	12" Spacing		18" Spacing	
	Nominal Flow (gph): 0.6	0.9	Nominal Flow (gph): 0.6	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

XFCV Dripline with Check Valve

Rain Bird® XFCV Dripline with a heavy-duty 0.24 bar check valve for on-surface applications adds a valuable member to the Rain Bird XF Series of Dripline. The XFCV is the most effective dripline in the industry and is ideal for areas where no other dripline will work. When used in applications where elevation changes exist, the patent-pending check valve keeps the dripline charged, holding 8 feet (2.4m) of hold back. Rain Bird's XFCV offers better uniformity and helps to prevent over-watering at the low-point in the zone, avoiding puddling and water draining from the dripline.

It accepts Rain Bird Easy Fit Compression Fittings, XF Dripline Barbed Insert Fittings and other 17 mm barbed insert fittings.



XFCV Dripline for Elevated Applications

Features

Simple

- Rain Bird's patent-pending 0.24 bar check valve technology keeps the dripline charged with water at all times, increasing uniformity of watering, and conserves water by eliminating the need to recharge the line at the beginning of each watering cycle
- Through the use of a proprietary tubing material, the XFCV Dripline with heavy-duty check valve is the most flexible dripline tubing in the industry, making it the easiest dripline to design with and install
- Rain Bird's 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 on-surface areas with or without elevation changes

Made with Recycled Content

- All Rain Bird XF Dripline (XFD, XFS, XFCV) qualify for LEED credit 4.2 because they contain at least 20% Polyethylene post consumer recycled material by cost. These come in an assortment of coil sizes, flow rates and emitter spacing

Reliable

- 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 1.38 to 4.14 bar

Durable

- Dual-layered tubing (brown over black) provides unmatched resistance to chemicals, algae growth and UV damage

Grit Tolerant

- Rain Bird's proprietary emitter design resists clogging by use of an extra wide flow path combined with a self-flushing action

With XFCV's built-in 0.24 bar check valve, all lines are kept charged and up to 2.4 m of water is held back



Operating Range

- Opening Pressure: 1.0 bar
- Pressure: 1.38 to 4.14 bar
- Flow rate: 2.3 l/hr
- Temperature:
  - Water: Up to 37.8° C
  - Ambient: Up to 51.7° C
- Required Filtration: 125 micron

Specifications

- Dimensions:
  - OD: 16 mm
  - ID: 13.6 mm;
- Thickness: 1.2 mm
- 33 cm, 50 cm spacing
- Available in 100 m coils
- Coil Color: Brown
- Use with XF Dripline Insert Fittings or Rain Bird Easy Fit Compression Fittings

Compatible Fittings



XF Dripline Insert Fittings (pg. 125)



Easy Fit Compression Fittings (pg. 127)

XFCV Dripline Models

Model	Flow l/h	Spacing cm	Coil Length m
XFCV2333100	2.3	33	100
XFCV2350100	2.3	50	100

XFCV Dripline Models

Model	Flow gph	Spacing in.	Coil Length ft.
XFCV-06-12-100	2.30	30.5	30.5
XFCV-06-12-250	2.30	30.5	76.2
XFCV-06-12-500	2.30	30.5	152.4
XFCV-06-18-100	2.30	30.5	30.5
XFCV-06-18-250	2.30	30.5	76.2
XFCV-06-18-500	2.30	30.5	152.4
XFCV-09-12-100	2.30	30.5	30.5
XFCV-09-12-250	2.30	30.5	76.2
XFCV-09-12-500	2.30	30.5	152.4
XFCV-09-18-500	2.30	30.5	152.4

XFCV Dripline Maximum Lateral Lengths (Meters)

Inlet Pressure bar	Maximum Lateral Length (meters) 33 cm	50 cm
	Nominal Flow (l/h) 2.3	
1.38	84	93
2.07	102	117
2.76	115	135
3.45	125	155
4.14	137	178

XFCV Dripline Maximum Lateral Lengths (Feet)

Inlet Pressure psi	Maximum Lateral Length (feet) 12" Spacing Nominal Flow (gph): 0.6	0.9	18" Spacing Nominal Flow (gph): 0.6	0.9
20	192	136	254	215
30	289	205	402	337
40	350	248	498	416
50	397	281	573	477
60	436	309	637	529

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 Bird's 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.



XFS Sub-Surface Dripline

Features

Simple

- Rain Bird's 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 Bird's 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 0.58 to 4.14 bar

Durable

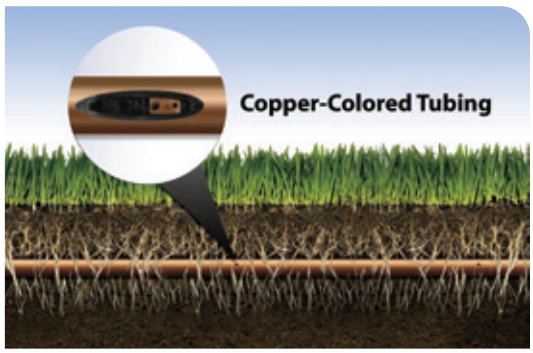
- Dual-layered tubing (copper over black) provides unmatched resistance to chemicals, algae growth and UV damage
- Grit Tolerant: Rain Bird's proprietary emitter design resists clogging by use of an extra-wide flow path combined with a self-flushing action

Operating Range

- Pressure: 0.58 to 4.14 bar
- Flow rates: 1.6 l/h, 2.3 l/hr, and 3.5 l/h
- Temperature:
  - Water: Up to 37.8° C
  - Ambient: Up to 51.7° C
- Required Filtration: 125 micron

Specifications

- Dimensions: OD: 16mm; ID: 13.6mm; Thickness: 1.2mm
- 33 cm spacing
- Available in 100 m coils
- Coil Color: Copper or Purple
- Use with XF Dripline Insert Fittings



XFS Sub-Surface Dripline with Copper Shield™ Technology



Irrigation Association Show Winner



XFS Dripline offers increased flexibility for easy installation

XFS Sub-Surface Dripline Models			
Model	Flow l/h	Spacing cm	Coil Length m
XFS1633100	1.6	33	100
XFS2333100	2.3	33	100
XFSV2333100	2.3	33	100

XFS Sub-Surface Dripline Models			
Model	Flow gph	Spacing in.	Coil Length ft.
XFS-04-12-500	0.42	12	500
XFS-04-18-500	0.42	18	500
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-04-12-500 (Purple)	0.42	12	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

NOTE: *Use only XF Dripline Insert Fittings in Sub-Surface applications.*

XFS Sub-Surface Dripline Maximum Lateral Lengths (meters)		
	Maximum Lateral Length (meters)	
Inlet Pressure	33 cm	
	Nominal Flow (l/h)	
bar	1.6	2.3
1.00	104	79
1.70	131	104
2.40	144	121
3.10	150	126
3.80	175	147

XFS Sub-Surface Dripline Maximum Lateral Lengths (Feet)						
	Maximum Lateral Length (feet)					
Inlet Pressure	12" Spacing			18" Spacing		
	Nominal Flow (gph):			Nominal Flow (gph):		
psi	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

Clamp

For 13-16 mm Tubing

Applications

- Clamps are used for 13-16 mm tubing.

Model *(Available in Europe only)*

- Clamp for 13-16 mm tubing



Clamp

C-12

Tie-Down Stake for 13-16 mm Tubing

Applications

- Used to hold down 13-16 mm tubing to finish grade.

Model *(Available in Europe only)*

- C-12: Tie-Down Stake



C-12

Galvanized Tie-Down Stake

NEW

9-gauge galvanized steel stake to secure distribution tubing, XF Dripline or XBS Tubing to finished grade

Features

- **Durability:** Sturdy 9 gauge galvanized steel provides long-lasting and corrosion resistant hold strength for distribution tubing.
- **Easy installation:** Sharp tips provide easy insertion into all soil types
- **Convenience:** robust packaging options provide ease of transportation and storage

Specifications:

- Size: 15 cm
- Material: galvanized steel
- Thickness: 9 gauge

Models

- TDS-6050: 15 cm galvanized tie down stake (50 piece)
- TDS-6500: 15 cm galvanized tie down stake (500 pieces, pail)





TDS-6050



TDS-6500

700-CF-22

Tubing End Closure

Applications

- Figure 8 end closures are used at the end of 13-16 mm tubing

Features

- Easily installed onto the end of 13-16 mm tubing
- Easily removed for flushing

Specifications

- Pressure: 0 to 3.5 bar

Model

- 700-CF-22: End Closure for 13-16 mm tubing



700-CF-22

Drip Irrigation

XFS-CV Dripline with Heavy-Duty Check Valve

NEW

Rain Bird® XFS-CV Dripline with an improved 0.3 bar check valve delivers 10 feet of hold-back – the highest in the industry.

With pure copper chips in every emitter to protect against emitter root intrusion, XFS-CV dripline is an all-in-one dripline suitable for any application – on-surface, sub-surface, sloped or level-grade.

When used in applications where elevation changes exist, the patent-pending check valve keeps the dripline charged with water, delivering better irrigation uniformity while preventing over-watering and puddling at the low-point in the zone.

It accepts Rain Bird XF Dripline Barbed Insert Fittings, RB 600 Series Twist Lock Fittings, and other 17 mm barbed insert fittings.

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.



XFS-CV Dripline for Elevated Applications

Features

Simple

- Rain Bird's patent-pending 0.3 bar check valve technology keeps the dripline charged with water at all times, increasing uniformity of watering, and conserves water by eliminating the need to recharge the line at the beginning of each watering cycle
- XFS-CV Sub-Surface Dripline emitters are protected from root intrusion by Rain Bird's patent-pending Copper Shield™ Technology resulting in a system that does not require maintenance or replacement of chemicals to prevent root intrusion• Through the use of a proprietary tubing material, the XFS-CV Dripline with heavy-duty check valve is the most flexible dripline tubing in the industry, making it the easiest dripline to design with and install
- Rain Bird's low-profile emitter design reduces in-line pressure loss, allowing longer lateral runs, simplifying design and reducing installation time
- Variety of standard emitter flow rates, emitter spacing and coil lengths provide design flexibility for sub-surface and on-surface areas with or without elevation changes

Made with Recycled Content

- All Rain Bird XF Dripline (XFD, XFS, XFCV, XFS-CV) qualify for LEED credit 4.2 because they contain at least 20% Polyethylene post consumer recycled material by cost. These come in an assortment of coil sizes, flow rates and emitter spacing

Reliable

- 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 1.38 to 4.14 bar

Durable

- Dual-layered tubing (copper over black) provides unmatched resistance to chemicals, algae growth and UV damage

Grit Tolerant

- Rain Bird's proprietary emitter design resists clogging by use of an extra wide flow path combined with a self-flushing action

With XFS-CV's built-in 0.3 bar check valve, all lines are kept charged and up to 3 meters of water is held back







How to Specify

XFS-CV - 06 - 12 - 100

Model
Xeri-Flex Subsurface
CV = Check Valve
CVP = Purple
CVPS = Purple Stripe

Flow Rate
04 = .42 gph (1.6 l/h)
06 = .61 gph (2.3 l/h)
09 = .92 gph (3.5 l/h)

Emitter Spacing
12 = 12" (30.5 cm)
18 = 18" (45.7 cm)

Length of Tubing
100 = 100' (30.5 m)
250 = 250' (76.2 m)
500 = 500' (152.4 m)

Operating Range

- Opening Pressure: 1.0 bar
- Pressure: 1.38 to 4.14 bar
- Flow rates: 1.6 l/h, 2.3 l/h, 3.5 l/h
- Temperature:
  - Water: Up to 37.8° C
  - Ambient: Up to 51.7° C
- Required Filtration: 125 micron

Specifications

- Outside diameter: 16.1 mm
- Inside diameter: 13.6 mm
- Wall thickness: 1.2 mm
- Spacing: 12" (30.5 cm), 13" (33 cm) or 18" (45.7 cm)
- Lengths: 100' (30.5 m), 250' (76.2 m), 328' (100 m) or 500' (152.4 m)
- Coil Color: Copper, Purple or Purple Stripe

XFS-CV Sub-Surface Dripline Models

Model	Flow l/h	Spacing cm	Coil Length m
XFSCV-23-33-100	2.3	33	100

XFS-CV Sub-Surface Dripline Models

Model	Flow gph	Spacing in.	Coil Length ft.
XFSCV-04-12-500	0.42	12	500
XFSCV-04-18-500	0.42	18	500
XFSCV-06-12-100	0.60	12	100
XFSCV-06-12-250	0.60	12	250
XFSCV-06-12-500	0.60	12	500
XFSCV-06-18-250	0.60	18	250
XFSCV-06-18-500	0.60	18	500
XFSCV-09-12-100	0.90	12	100
XFSCV-09-12-250	0.90	12	250
XFSCV-09-12-500	0.90	12	500
XFSCV-09-18-250	0.90	18	250
XFSCV-09-18-500	0.90	18	500
XFSCV-6-18-1000	0.60	18	1000
XFSCVP-4-12-500 (Purple)	0.42	12	500
XFSCVP-4-18-500 (Purple)	0.42	18	500
XFSCVP-6-12-500 (Purple)	0.60	12	500
XFSCVP-6-18-500 (Purple)	0.60	18	500
XFSCVP-9-12-500 (Purple)	0.90	12	500
XFSCVP-9-18-500 (Purple)	0.90	18	500
XFSCVPS-4-12-500 (Purp. Stripe)	0.42	12	500
XFSCVPS-4-18-500 (Purp. Stripe)	0.42	18	500
XFSCVPS-6-12-500 (Purp. Stripe)	0.60	12	500
XFSCVPS-6-18-500 (Purp. Stripe)	0.60	18	500
XFSCVPS-9-12-500 (Purp. Stripe)	0.90	12	500
XFSCVPS-9-18-500 (Purp. Stripe)	0.90	18	500

NOTE: *Use only XF Dripline Insert Fittings in Sub-Surface applications.*



XF Dripline Insert Fittings

XF Dripline Insert Fittings offer a unique barb design to reduce insertion force and still retain a secure fit (p. 125)



XF Dripline Insert Fittings (pg. 125)

XFS-CV Dripline Maximum Lateral Lengths (Meters)

Inlet Pressure bar	Maximum Lateral Length (meters) 33 cm Nominal Flow (l/h) 2.3
1.38	84
2.07	102
2.76	115
3.45	125
4.14	137

XFS-CV Dripline Maximum Lateral Lengths (Feet)

Inlet Pressure psi	Maximum Lateral Length (feet) 12" Spacing Nominal Flow (gph): 0.4	0.6	0.9	18" Spacing Nominal Flow (gph): 0.4	0.6	0.9
20	104	192	136	120	254	215
30	366	289	205	545	402	337
40	461	350	248	645	498	416
50	524	397	281	748	573	477
60	575	436	309	810	637	529

We recommend using the XF Insertion Tool (FITINS-TOOL) which lowers the effort required to insert each fitting by 50% (p. 126)



FITINS-TOOL

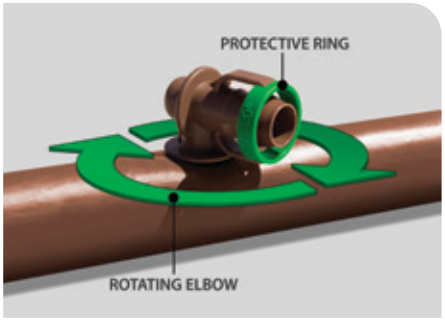
QF Dripline Header

A Quick and Flexible Solution to Dripline Headers

The QF Dripline Header is a patent pending product that is the landscape industry's first pre-fabricated header for dripline installations. A Quick and Flexible replacement for a site-built header, the QF Dripline Header saves time and labor expense. Using a proprietary blend of polyethylene, similar to Rain Bird's XF Series Dripline, the QF Dripline header allows installers to simply roll out the header and attach the dripline at guaranteed 30 cm or 45 cm spacing. Eliminating the need for measuring, cutting, gluing and taping, the QF Dripline Header saves time and money, making projects more profitable.



QF Dripline Header



Features

- The QF Dripline Header elbows rotate 360° and incorporate a protective ring — preventing damage and ensuring a proper seal.
- The ring also provides leverage to make attaching the dripline easier.
- The rotating barb manages trenching misalignment. Move left or right to accommodate the dripline – no need to re-trench.
- Elbows utilize the same design as Rain Bird's popular XFF Fitting requiring 50% less insertion force, and are compatible with the XFF Fittings Tool.

Specifications

	QF Header - 3/4"	QF Header - 1"
• Outside Diameter:	23.9mm	30.5mm
• Inside Diameter:	20.8mm	26.9mm
• Wall Thickness:	1.5mm	1.8mm

Models

Select models shown. Review your regional price list for complete availability.

- XQF7512100: XQF 3/4" Dripline Header (30.5 cm Spacing 30.5 m Coil)
- XQF7518100: XQF 3/4" Dripline Header (45.7 cm Spacing 30.5 m Coil)
- XQF1012100: XQF 1" Dripline Header (30.5 cm Spacing 30.5 m Coil)
- XQF1018100: XQF 1" Dripline Header (45.7 cm Spacing 30.5 m Coil)
- XQF101210P: XQF 1" Dripline Header (30.5 cm Spacing 30.5 m Coil) Purple
- XQF101810P: XQF 1" Dripline Header (45.7 cm Spacing 30.5 m Coil) Purple

Compatible Fittings



XQF compatible fittings



How to Specify

XQF - 75 - 12 - 100

- **Model** — XQF: Xerigation® Quick Flexible
- **Dripline Diameter:** — 75 = 1.9 cm; 10 = 2.5 cm
- **Elbow Spacing** — 12 = 12" (30.5 cm); 18 = 18" (45.7 cm)
- **Coil Length** — 100 = 100' (30.5 m); 10P = 100' Purple

XF Dripline Insert Fittings

Features

- Complete line of 17mm insert fittings to simplify installation of XF Series Dripline
- High quality barbs grab tubing for a secure fit
- Unique barb design to reduce insertion force and still retain a secure fit
- Non-obtrusive colored fittings to compliment natural earth tones

Operating Range

- Pressure: 1.0 to 3.5 bar if using 4.1 bar clamps will be required

Models

Select models shown. Review your regional price list for complete availability.

- XFF-COUP: 17mm Barb x Barb Coupling
- XFF-ELBOW: 17mm Barb x Barb Elbow
- XFF-MA-050: 17mm Barb x 1/2" MPT Male Adapter
- XFF-TEE: 17mm Barb x Barb x Barb Tee
- XFF-TMA-050: 17mm Barb x 1/2" MPT x 17mm Barb Tee Male Adapter
- XFF-MA-075: 17mm Barb x 3/4" MPT Male Adapter
- XFF-FA-050 : low profile barb elbow female adapter 17 mm x 1/2" FPT
- XFF-TFA-050 : low profile barb tee female adapter 17 mm x 1/2" FPT x 17 mm



XFF-TMA-050



XFF-TEE



XFF-MA-050



XFF-FA-050



XFF-COUP



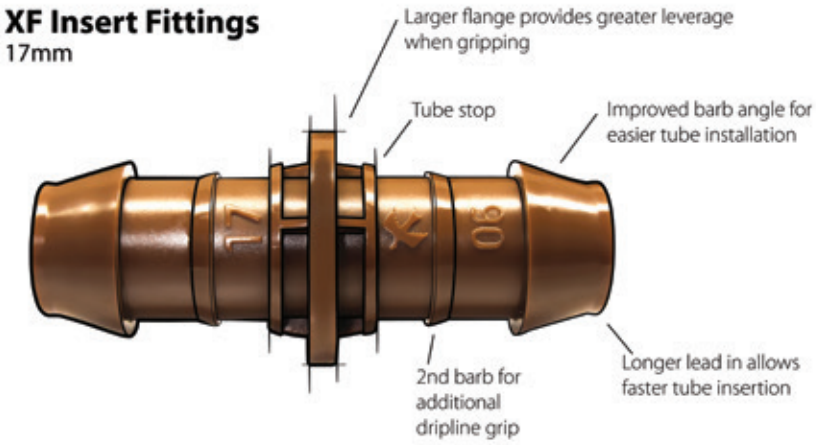
XFF-ELBOW



XFF-MA-075



XFF-TFA-050



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



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.

The XF Insertion Tool works with the following XF Fittings:



XFF-COUP



XFF-ELBOW



XFF-TEE

Xeriman™ Tool

Features

- Provides fast, easy, one-step installation of Xeri-Bug™ emitters and PC Modules directly into ½" or ¾" drip tubing, XF Dripline or Landscape Dripline
- Cuts emitter installation time
- All-in-one tool inserts emitters, removes emitters, inserts ¼" barbed fittings and installs goof plugs

Model

- XM-TOOL



XM-TOOL



One Step Xeri-Bug™ Insertion



Xeri-Bug™ Removal



Goof Plug Insertion

T135SS

Tubing Cutter

Features

- Designed for easy and clean cutting of all distribution tubing used in low volume irrigation installations.

Specifications

- Length: 21.5 cm

Model

- T135SS : tubing cutter



T135SS

BF-1, BF-2, BF-3

Barb Transfer Fittings for 4-6 mm Tubing

Features

- Used to connect 4-6 mm distribution tubing (DT-025-50/ DT-025-1000)
- Rugged plastic construction
- Pressure: 0 to 3.5 bar

Models

- BF-1: barb connector for 4-6 mm tubing
- BF-2: barb x barb elbow for 4-6 mm tubing
- BF-3: barb x barb x barb tee for 4-6 mm tubing



BF-1, BF-2, BF-3

Tubing Goof Plug

Features

- Used to plug unwanted holes in tubing
- New design works with Xeriman™ Tool (XM-TOOL) for a quick, easy installation while inserting self-piercing emission devices into a 13-16 mm tubing

Model

- EMA-GPX



EMA-GPX

Lock Type Fittings

Fittings for 13-16 mm tubing

Applications

- Used to connect 13-16 mm tubing (drip application) and XF Dripline.

Features

- High safety connection for 16mm outside diameter tubing
- Can be used with Dripline and blank tubing. Easy to handle
- Easy-to-use

Specifications

- Made of polyethylene
- Exists in 8 different shapes : union , elbow and tee

Models

These models are available in Europe only. For other twist lock fittings type, please check local availability by consulting your regional price list or contacting your local sales representative.

- BF-12 lock: Quick union coupling
- BF-22 lock: Quick elbow coupling
- BF-32 lock: Quick tee coupling
- BF-82-50 lock: 16 mm quick union coupling x ½" male threaded
- BF-62-50 lock: 16 mm quick union coupling x ½" female threaded
- BF-82-75 lock: 16 mm quick union coupling x ¾" male threaded
- BF-62-75 lock: 16 mm quick union coupling x ¾" female threaded
- BF-plug lock: Quick end-plug for 16 mm tubing
- BF-92: ¾" Lock type
- BF-valve-lock: ¾"' male threaded x lock manual valve



Easy Fit Compression Fitting System

Complete system of compression fittings and adapters for all tubing connection needs in a low-volume system

Features

- Reduces inventory costs: Multi-diameter compression fittings work with a wide range of 16mm - 17mm tubing or dripline
- Saves time and effort: 50% less force is required to connect tubing and fittings versus competitive compression fittings. Adapters swivel for easy installation
- Provides increased flexibility: Just three Easy Fit Fittings and five Easy Fit Adapters are needed to make over 160 combinations of connections, accommodating countless installation and maintenance situations
- Works with all 16-17mm dripline and blank tubing
- Patented fittings and adapters are molded from UV-resistant and durable ABS materials
- Removable flush caps can be used to flush end of line and temporarily cap off lines for later expansion
  - Not recommended with subsurface irrigation

Operating Range

- Pressure: 0 to 4.1 bar
- Accepts tubing with an O.D. of 16 -17mm
- Recommended for use above surface only

Models

Select models shown. Review your regional price list for complete availability.

- **Easy Fit Fittings**
  - MDCF-COUP: Coupling
  - MDCF-EL: Elbow
  - MDCF-TEE: Tee
- **Easy Fit Adapters**
  - MDCF-CAP: Removable Flush Cap For Easy Fit Fittings (Black)

Note: *Easy Fit Adapters are not barbed fittings. They are to be used only with Easy Fit Compression Fittings.*



Friction Loss per Fitting

Flow l/h	Loss bar
0.00	0.00
227.1	0.03
454.3	0.04
681.4	0.06
908.5	0.10
1135.6	0.13
1362.8	0.18

XF Series Blank Tubing

Features

- Greater flexibility is easier to install and saves time
- Brown color matches landscape and blends with mulch. Matches XF Series Dripline inline emitter tubing
- Compatible with XF Series Dripline (13.6 mm I.D. x 16.1mm O.D.)
- Accepts Rain Bird Easy Fit Compression Fittings, XF Dripline Insert Fittings, and lock type fittings

Specifications

- Outside Diameter: 16.1mm
- Inside Diameter: 13.6 mm
- Wall Thickness: 1.2 mm

Models

Select models shown. Review your regional price list for complete availability.

- DBL100: Blank Drip Tubing Black 100 m coil
- XFD1600100: brown blank tubing, 100 m coil



XF SERIES:
Blank brown tubing

XF Blank Tubing Friction Loss Characteristics

O.D. 16.1mm I.D. 13.6mm

Flow l/h	Velocity m/s	Pressure Loss bar
113.56	0.21	0.06
227.12	0.43	0.22
340.69	0.64	0.46
454.25	0.85	0.79
567.81	1.07	1.20
681.37	1.28	1.68
794.94	1.49	2.23
908.50	1.71	2.86
1022.06	1.92	3.56
1135.62	2.13	4.32
1249.19	2.35	5.16
1362.75	2.56	6.06

bar Loss per 100 Meters of Pipe (bar/100m)

Note: *Use of tubing at flows shown in dark shaded area is not recommended, as velocities exceed 1.5 m/s*



DBL: Blank black tubing

¼" (6 mm) Landscape Dripline

Rain Bird ¼" (6 mm) Dripline is a perfect choice for small-sized areas such as planter boxes, container gardens, loops around trees, vegetable gardens and shrubs

Features

- Simple to use, as the flexible tubing makes watering pots and container gardens easy
  - Clog resistance through built-in filtration and two outlet holes, 180 degrees apart
- Brown tubing complements Rain Bird XF Dripline
- Works with Rain Bird ¼" (6 mm) barbed Fittings

Operating Range

- 0.7 to 2.7 bar
- Flow rate at 2.0 bar: 3.0 l/h
- Required filtration: 75 micron

Specifications

- Outside diameter: 6 mm
- Inside diameter: 4 mm
- Wall thickness: 1 mm
- Spacing: 15 cm and 30 cm
- Length: 30 m coils

Models

- LDQ0806100
- LDQ0812100

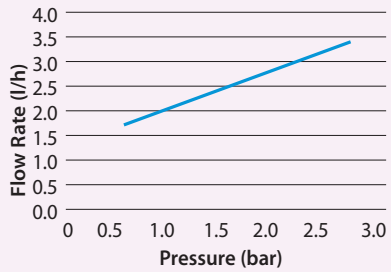


LDQ-08-06-100

Flow Characteristics

Model	Flow at 2.0 bar l/h	Spacing cm	Coil Length m
LDQ0806100	3.0	15	30
LDQ0812100	3.0	30	30

¼" (6 mm) Landscape Dripline Performance



Maximum Length of Run (meters)

Emitter Spacing	Maximum Length of Run
15 cm	5.8 m
30 cm	10 m

XQ ¼" Distribution Tubing

The strongest and most flexible ¼" Distribution Tubing available to extend emitter outlets to desirable discharge locations

Features

- Unique blend of polymers that give it the flexibility of vinyl with hold of poly
- New textured finish improves handling
- Self extracting coiling feature makes it easy to use, store and eliminates waste
- Fits over barbed outlet ports and all Xerigation® emission devices and ¼" (6 mm) transfer fittings
- Extruded from UV-resistant polyethylene resin materials

Operating Range

- Pressure: 0 to 4.1 bar

Specifications

- Outside Diameter: 6.3 mm
- Inside Diameter: 4.3 mm
- Wall Thickness: 1.0 mm
- Lengths: 30 m and 300 m coils

Models

- XQ-100: 30m coil ¼" (6 mm) distribution tubing
- XQ-1000: 300 m coil ¼" (6 mm) distribution tubing
- XQ-1000-B: 300 m coil ¼" (6 mm) distribution tubing in a bucket

XQ ¼" Distribution Tubing Friction Loss Characteristics

O.D. 6.3mm I.D. 4.3mm

Flow m^3/h	Flow l/h	Velocity m/s	Loss bar
0.00	3.79	0.08	0.01
0.01	11.6	0.24	0.09
0.02	18.92	0.41	0.22
0.03	26.50	0.57	0.41
0.03	34.07	0.73	0.66
0.04	41.64	0.89	0.95
0.05	49.21	1.05	1.29
0.06	56.78	1.21	1.69
0.06	64.35	1.38	2.13
0.07	68.13	1.46	2.36
0.07	71.92	1.54	2.61
0.08	75.70	1.62	2.87
0.09	94.63	2.03	4.34
0.11	113.55	2.43	6.08

Bar Loss per 100 Meters of tubing

Note: *Use of tubing at flows shown in dark shaded area is not recommended, as velocities exceed 1.5 m/s)*



XQ-100 and XQ-1000 ¼" (6 mm) Tubing



XQ-1000-B ¼" (6 mm) Tubing

Low Flow Residential Control Zone Kits

- **Optimized for Low Flow:** Includes the field-proven Low Flow Valve, the only valve on the market that can handle low flows (below 3 gpm) without weeping
- **Compact Solution:** Shorter kits with only two components (valve plus pressure-regulating filter) mean that you can fit more Control Zone Kits in a valve box, saving time and money.
- **Long-term Reliability:** These preassembled kits with PR Filters provide on/off control, filtration, and pressure regulation with only two parts; so there is less chance of leakage at the connections, both at installation and over the life of the system

Operating Range

- Flow Range
  - XCZ-075-PRF: 0.8 to 18.91 l/m
  - ICZ-075-9V: 0.8 to 18.91 l/m
- Inlet Pressure: 1.4 to 10.3 bar
- Regulated Pressure
  - XCZ-075-PRF: 2.1 bar
  - ICZ-075-9V: 2.1 bar

Specifications

- Filter Type: Stainless steel screen filter; 75 micron
- Flow Rate Capability*: 4 to 91m of dripline
- Valve Box: Mini-Standard or 10" Round
- Inlet Size:
  - XCZ-075-PRF: 3/4" x 3/4" NPT
  - ICZ-075-9V: 3/4" x 3/4" NPT/BSP
- Warranty: 3 years

Controller Compatibility

- Compatible with traditionally-wired controllers
- Compatible with TBOS / DC controller when used with DC Latching solenoid
- Compatible with IVM controllers (ESP-LXIVM/LXIVMP) when used with IVM SOL
- Not compatible with 2-wire decoder systems like the ESP-LXD controller

Models

- XCZ-075-PRF: ¾" Low Flow Valve with ¾" PR RBY Filter (Assembled)
- ICZ-075-9V: ¾" Low Flow Control Zone Kit with TBOS solenoid (BSP)

Replacement Filter

- RBY-200SSMX (200 mesh stainless steel screen)

**0.9 gph dripline with 12" emitter spacing*

Minimum Inlet Pressure for 2.1 bar outlet pressure

	XCZ-075-PRF or ICZ-075-TBOS
Flow (l/h)	Pressure (bar)
45	2.4
227	2.5
681	2.6
1135	3.0



Four Control Zone Kits in a Standard Valve Box



XCZ-075-PRF (NPT/BSP thread)

Medium Flow Residential Control Zone Kits

- **Versatility:** Preassembled control Zone kit with popular DV Series Valve
- **Compact Solution:** The pressure regulating RBY filter provides the protection of downstream components you need in a low-volume system, in a compact design
- **Long-term Reliability:** These preassembled kits with PR Filters provide on/off control, filtration, and pressure regulation with only two parts; so there is less chance of leakage at the connections, both at installation and over the life of the system

Operating Range

- Flow Range: 11.4 to 56.8 l/m
- Inlet Pressure: 1.4 to 10.3 bar
- Regulated Pressure: 2.8 bar

Specifications

- Filter Type: Stainless steel screen filter; 75 micron
- Flow Rate Capability*: 61 to 304m of dripline
- Valve Box: Mini-Standard or 10" Round
- Inlet Size: 1" x 1" NPT
- Warranty: 3 years

Controller Compatibility

- Compatible with traditionally-wired controllers
- Compatible with TBOS / DC controller when used with DC Latching solenoid
- Compatible with IVM controllers (ESP-LXIVM/LXIVMP) when used with IVM SOL
- Not compatible with 2-wire decoder systems like the ESP-LXD controller

Models

- XCZ-100-PRF: 1" Medium Flow Control Zone Kit
- IXCZ-100-PRF: 1" Medium Flow Control Zone Kit (BSP)
- ICZ-100-9V: 1" Medium Flow Control Zone Kit with TBOS solenoid (BSP)

Replacement Filter

- RBY-200SSMX (200 mesh stainless steel screen)



XCZ-100-PRF / IXCZ-100-PRF

Minimum Inlet Pressure for 2.8 bar outlet pressure	
XCZ-100-PRF/IXCZ-100-PRF/ ICZ-100-9V	
Flow (l/h)	Pressure (bar)
684	3.0
1134	3.0
2274	3.3
3408	3.8

Medium Flow Residential Control Zone Kits (for 2 Wire)

- **Reliable:** Control Zone Kit that includes an extra durable PGA valve
- **Controller Versatility:** 2-wire compatible residential Control Zone Kit
- **Long-term Reliability:** Provides on/off control, filtration, and pressure regulation with only two parts; so there is less chance of leakage at the connections, both at installation and over the life of the system

Operating Range

- Flow Range: 11.4 to 56.8 l/m
- Inlet Pressure: 1.4 to 10.3 bar
- Regulated Pressure: 2.8 bar

Specifications

- Filter Type: Stainless steel screen filter; 75 micron
- Flow Rate Capability*: 61 to 304m of dripline
- Valve Box: Mini-Standard or 10" Round
- Inlet Size: 1" x 1" NPT
- Warranty: 3 years

Controller Compatibility

- Compatible with traditionally-wired controllers
- Compatible with TBOS / DC controller when used with DC Latching solenoid
- Compatible with IVM controllers (ESP-LXIVM/LXIVMP) when used with IVM SOL
- Not compatible with 2-wire decoder systems like the ESP-LXD controller

Models

- XCZ-PGA-100-PRF: 1" Medium Flow Control Zone Kit (for 2 Wire)

Replacement Filter

- RBY-200SSMX (200 mesh stainless steel screen)

0.9 gph dripline with 12" emitter spacing



XCZPGA-100-PRF

Minimum Inlet Pressure for 2.8 bar outlet pressure	
XCZ-PGA-100-PRF	
Flow (l/m)	Pressure (bar)
11.4	3.2
18.9	3.2
37.9	3.5
56.8	4.0

Wide Flow Control Zone Kits with Basket Filter

- **Wide Range:** Includes the flexible and proven PEB/PESB series valve with wide flow range. Model available for Non-potable or recycled water
- **Easy Clean Filter:** Basket filter with "no spill" feature ensures dirt does not fall back into the filter during cleanup operation. Upgrade option to Flow Indicating Basket Filter: provides an additional flow measurement feature
- **Easy Shut Off:** Models including ball valve make shut off water to the valve for maintenance simple, without haven't to shut down from the main source. Convenient for systems with multiple zones.

Operating Range

- Flow Range*: 1.13 to 75.71 l/m
- Min. Diagnostic Flow: XCZ-100-PRBCOM: 3gpm
- Inlet Pressure: 1,0 to 10,3 bar
- Regulated Pressure: 2.8 bar

Specifications

- Filter Type: XCZ-100-PRBCOM: Quick-Check Basket Filter; 75 micron
- Flow Rate Capability**: 6 to 396m of dripline
- Valve Box: Mini-Standard Rectangular
- Inlet Size: 1" x 1" NPT
- Warranty: 3 years

Controller Compatibility

- Compatible with traditionally-wired controllers
- Compatible with TBOS / DC controller when used with DC Latching solenoid
- Compatible with IVM controllers (ESP-LXIVM/LXIVMP) when use IVM SOL
- Compatible with 2-wire decoder systems like the ESP-LXD contr

Models

- XCZ-100-PRBCOM: 1" Wide Flow Control Zone Kit with Quick-Ch Basket Filter

Replacement Filter

- FLOW120M (Green)
- FLOW150M (Blue)
- FLOW200M (White)

** For flows below 5gpm Rain Bird recommends use of upstream filtration to prevent debris from collecting below the diaphragm*

*** 0.9 gph dripline with 12" emitter spacing*

Minimum Inlet Pressure for 2.8 bar Outlet Pressure	
XCZ-100-PRB-COM	
Flow (l/m)	**Pressure (bar)**
1.1	2.8
3.8	2.9
11.4	2.9
18.9	3.0
37.9	3.3
56.8	3.6
75.7	4.3



XCZ-100-PRB-COM (NPT thread)

1.5" High Flow Commercial Control Zone Kits

- **Higher Flow, Less Friction:** The control zone gives you unmatched versatility for commercial drip and spray irrigation applications. The zone combines a high flow range of 15-62 gpm with and preserves water pressure to deliver the prescribed minimum PSI
- **Convenience That's Ready to Go:** Using this kit with the highest maximum flow rate available, you can cover large zones while using fewer kits -- saving money on every job
- **Long-term Reliability:** These preassembled kits provide on/off control, filtration, and pressure regulation with minimal connection points; so there is less chance of leakage at the connections, both at installation and over the life of the system

Operating Range

- Flow Range: 56.8 to 234.7 l/m
- Inlet Pressure: 1.03 to 7.9 bar
- Regulated Pressure: 2.8 bar

Specifications

- Filter Type:
  - XCZ-150-LCS: Large capacity screen filter; 130 micron
  - XCZ-150-LCDR: Large capacity disc filter; 130 micron
- Flow Rate Capability*: 305 to 1209m of dripline
- Valve Box: Jumbo Rectangular
- Inlet Size: 1.5" x 1.5" NPT
- Warranty: 3 years

Controller Compatibility

- Compatible with traditionally-wired controllers
- Compatible with TBOS / DC controller when used with DC Latching solenoid
- Compatible with IVM controllers (ESP-LXIVM/LXIVMP) when used with IVM SOL
- Compatible with 2-wire decoder systems like the ESP-LXD controller

Models

- XCZ-150-LCS: 1.5" High Flow Control Zone Kit w/ Screen Filter
- XCZ-150-LCDR: 1.5" High Flow Control Zone Kit (Non-potable) w/ Disc Filter

Replacement Filter

- XCZ-150-LCS: LGFC120MS
- XCZ-150-LCDR: LGFC120MD

Minimum Inlet Pressure for 2.8 bar Outlet Pressure (+/- 20%)	
XCZ-150-LCS	
Flow (l/m)	**Pressure (bar)**
56.8	2.8
75.7	3.1
94.6	3.1
113.6	3.4
151.4	3.8
189.3	4.8

Minimum Inlet Pressure for 2.8 bar Outlet Pressure (+/- 20%)	
XCZ-150-LCDR	
Flow (l/m)	**Pressure (bar)**
56.8	2.4
75.7	2.8
94.6	2.8
113.6	3.1
151.4	3.4
189.3	4.1
227.1	6.2



XCZ-150-LCS



XCZ-150-LCDR

1" & 1½ " High Flow Inline Pressure Regulators

NEW

High flow Pressure Regulator family that delivers pre-set regulation for a wide flow range (114 to 15900 l/h) providing a solution for most irrigation applications

Features

Flexibility

- Its high flow range (114 to 15900 l/h) capacity allows usage in a wide range of applications, making it ideal for drip or spray applications. It can be installed above or below grade
  - 1" Pressure Regulators flow range: : 114 to 7950 l/h
  - 1 ½" Pressure Regulator flow range: 3408 to 15900 l/h

Reliable Performance:

- Pre-set outlet pressure regulation at either 2.8 bar or 3.4 bar provides worry-free protection for your irrigation installations.

Durability:

- Tested to meet Rain Bird's high-quality standards. High Strength ABS construction and stainless steel springs provide the durability to withstand any job

Operating Range

- Pressure Regulation:
  - PSI-H40X-100: 2.8 bar
  - PSI-H50X-100 : 3.4 bar
  - PSI-H40X-150: 2.8 bar
- Flow Range:
  - PSI-H40X-100 & PSI-H50X-100: 114 l/h to 7950 l/h
  - PSI-H40X-150: 3408 l/h to 15900 l/h
- Inlet pressure: 1.0 bar to 10.3 bar

Specifications

- PSI-H40X-100 & PSI-H50X-100 : 1" Female NPT X 1" Female NPT
- PSI-H40X-150: 1 ½" Female NPT X 1 ½" Female NPT

Dimensions:

- PSI-H40X-100 & PSI-H50X-100: 14.7 cm in Length x 6.8 cm in Width
- PSI-H40X-150: 16.0 cm in Length x 8.4 cm in Width

Models

- PSI-H40X-100: 1" 40 psi inline Pressure Regulator
- PSI-H50X-100: 1" 50 psi inline Pressure Regulator
- PSI- H40X-150: 1½" 40 psi inline Pressure Regulator



1" & 1½ " High Flow Inline Pressure Regulators

How to Specify

PSI – H XX X – 100

- **Model**: Pressure Regulator
- **Pre-Set Pressure Regulation**: 40 = 40 psi (2.8 bar); 50 = 50 psi (3.5 bar)
- **Flow Range Capacity**: H = High Flow (up to15900 l/h)
- **Inlet/Outlet Size**: 100 = 1 in (2.5 cm); 150 = 1½ in (3.8 cm)

Inline RBY Filters

Static filter helps prevent plugging in a drip irrigation system. Pressure regulated models create a simple, efficient control zone when combined with a valve for protection of downstream components in a low-volume irrigation system

Features

- A simple and reliable filter for low-volume irrigation systems
- Simple to clean, as cap has a sealing O-ring and unthreads to provide access to the stainless steel filter element
- Strong and reliable due to its robust design and glass-filled polypropylene construction
- Male x Male threaded connections for direct connection to valves and pressure regulators
- Pressure-regulated models regulate pressure to a nominal 30 or 40 psi (2.0 or 2.8 bar)
- Replacement stainless steel elements are available in 200 mesh (75 micron)

Operating Range

- Flow:
  - PRF-075-RBY: 0.20 to 5.0 gpm (0.8 to 18.9 l/m)
  - PRF-100-RBY: 3.0 to 15.0 gpm (11.4 to 56.8 l/m)
- Inlet Pressure: 20 to 150 psi (1.4 to 10.3 bar)
- Regulated pressure:
  - PRF-075-RBY: 30 psi (2.1 bar)
  - PRF-100-RBY: 40 psi (2.8 bar)
- Filtration: 200 mesh (75 micron)

Models

- PRF-075-RBY: 3⁄4" PR RBY Filter with 200 Mesh Screen
- PRF-100-RBY: 1" PR RBY Filter with 200 Mesh Screen

Stainless Steel Screen

Replacement screen:

- RBY-200SSMX (200 mesh stainless steel screen)

Note: *Filter must be installed downstream of a control valve and not under constant pressure.*
Note: *When installing with emission points more than 5 ft. above the pressure regulating filter, a check valve should be installed after the regulator.*



PRF-075-RBY and IPRB 100 RBY

Pressure Loss Characteristics

Flow Rate		PRF-075-RBY		PRF-100-RBY	
gpm	l/m	psi	bar	psi	bar
0.2	0.8	3.0	0.21	N/A	N/A
1.0	3.8	4.0	0.28	N/A	N/A
3.0	11.4	6.1	0.42	0.8	0.06
5.0	18.9	10.0	0.69	2.0	0.14
8.0	30.3	N/A	N/A	3.8	0.26
10.0	37.9	N/A	N/A	5.2	0.36
15.0	56.8	N/A	N/A	12.0	0.83

Note: *Pressure loss for 200 mesh filter screen*

Inline Pressure Regulators

Features

- Can be installed above or below grade
- Preset outlet pressure: 1.0 to 2.1 bar
- 3⁄4" (20/27) NPT female-threaded inlet and outlet

Operating Range

- Flow
  - psi-L30X-075: 0.8 to 18.9 l/m
  - psi-M30X-075, psi-M40X-075: 7.8 to 37.9 l/m
  - psi-M15-M50: 0.45 to 5 m^3/hr
- Inlet Pressure: 0.7 to 10.3 bar

Models

- PSI-M15: preset outlet pressure: 1.0 bar
- PSI-M20: preset outlet pressure: 1.4 bar
- PSI-M25: preset outlet pressure: 1.8 bar
- PSI-M30: preset outlet pressure: 2.1 bar
- PSI-M40: preset outlet pressure: 2.8 bar
- PSI-M50: preset outlet pressure: 3.5 bar



PSI-M20, PSI-M30

Retrofit Pressure Regulators

Features

- Provides convenient 2.1 bar pressure regulation at the riser for any ½" FPT emission device or compression adapter
- Can be installed above or below grade
- Can be used with Xeri-bird™ 8 Multi-Outlet Emission Device (see page 111)

Operating Range

- Flow: 1.9 to 15.1 l/m
- Inlet Pressure: 1.0 to 4.8 bar

Dimensions

- ½" female-threaded inlet
- Height: 10 cm

Model

- PRS-050-30



PRS-050-30

Flow-Indicating Basket Filter

NEW

All-in-One Flow Measurement, Filtration and Pressure Regulation

Features

All-in-One Zone Protection

- Provides flow measurement, filtration (stainless steel, 100 micron), and 2.8 bar integrated pressure regulation in an all-in-one compact product that protects your irrigation system

Important System Diagnostics

- The Flow-Indicating Basket Filter allows for easy monitoring of changes in the irrigation system with a quick glance at the dial, giving you additional control and peace of mind
- Mark the appropriate flow rate of the zone upon installation to assess proper operation, filter maintenance and excessive or limited flow rate conditions long term

Easy Maintenance & Installation

- Unique upright basket design provides easy access to clean the filter and prevents debris from falling into the downstream line during routine maintenance
- The retrofit model provides the ability to upgrade any Rain Bird Basket Filter model by simply changing the filter and the cap (less than one-minute installation)

Operating Range

- Operating Flow Rate: 11.4 to 75.7 l/m (3.0 to 20 gpm)
- Inlet Pressure: 0 to 10.3 bar (0 to 150 psi)
- Regulated Outlet Pressure: (select models only): 2.8 bar (40 psi)
- Filtration: 100 micron (150 mesh) stainless steel filter included
- Water Temperature: 0.5° to 43°C (33°F to 110°F)

Specifications

- Height: 17.3 cm (6.8″)
- Length: 16.5 cm (6.5″)
- Width: 8.8 cm (3.5″)

Models

- iFLOW-100: 1″ Flow-Indicating Basket Filter

Replacement Stainless Steel Filters

- FLOW120M: 120 mesh / 125 micron (Green)
- FLOW150M: 150 mesh / 100 micron (Blue)
- FLOW200M: 200 mesh / 75 micron (White)

iFlow-100 Pressure Loss Characteristics

Flow Rate		Pressure Drop	
l/m	gpm	bar	psi
1.1	0.3	0.01	0.1
3.8	1	0.01	0.2
11.4	3	0.04	0.6
18.9	5	0.07	1.0
37.8	10	0.10	1.5
60.6	15	0.15	2.0
76.7	20	0.28	4.0



iFLOW-100



Healthy System



Leak in System



Dirty Filter



Pressure Regulating Basket Filters

The only commercial-grade filter with built in pressure regulator for low-volume irrigation zones. Also available with a clean/dirty indicator.

Features

- Reduces maintenance and labor costs - 40% larger filter surface than standard filters means less frequent cleaning
- Provides increased reliability – "No Spill" feature ensures dirt does not fall back into the filter during cleanup operation
- Simplifies installation and maintenance – threaded top with 0-ring makes it easy to remove and clean that stainless steel filter screen
- Efficient design – combines filtration and pressure regulation in one compact unit with fewer connections
- Available in 1" model
- Comes pre-assembled with 75 micron stainless steel screen (other screen sizes available)
- Built-in 2,7 bar pressure regulator

Operating Range

- Flow: 684 to 4542 l/h
- Inlet Pressure: 1.0 to 10.3 bar
- Regulating Pressure: 2.8 bar
- Filtration: 75 micron stainless steel
- Temperature: Up to 66° C

Components of Control Zone Kits Found on pg. 130-138

Models

- IPRB-100: 1" Basket Filter with built-in Pressure Regulator (2.8 bar) and 75 micron stainless steel screen (BSP thread)
- PRB-100: 1" Basket filter with built in Presuure Regulator (2.8 bar) and 200 mesh (75 micron) stainless steel screen (NPT thread)
- IPRB-QKCHK-100: 1" Basket filter with built in Pressure Regulator (2.8 bar) and 200 mesh (75 micron) stainless steel screen (BSP thread)
- PRB-QKCHK-100: 1" Basket filter with buit in Pressure Regulator (2.8 bar) and 200 mesh (75 micron) stainless steel screen (NPT thread)

Flow Inidicating Basket Filter

- X14155: International Flow Sensor Pressure Regulating Basket Filter, 75 mesh. The Basket Filter Body is the 1" BSP
- X14156: International Flow Sensor Pressure Regulating Basket Filter, 120 mesh. The Basket Filter Body is the 1" BSP.
- X14157: International Flow Sensor Pressure Regulating Basket Filter, 150 mesh. The Basket Filter Body is the 1" BSP.
- X14158: International Flow Sensor Pressure Regulating Basket Filter, 200 mesh. The Basket Filter Body is the 1" BSP.

Replacement Filter Screens

- QKCHK-200M: 75 micron stainless steel screen, white

Note: *When installing with emission points more than 1.5 m above the pressure regulating filter, a check valve should be installed after the regulator end.*

Minimum Inlet Pressure for 2.8 bar Outlet Pressure

Flow Rate l/h	Inlet Pressure IPRB-100 bar
684	2.8
1134	2.9
2274	3.3
3408	3.6
4542	4.4

Stainless Steel Screen



IPRB-100



QKCHK-200M



IPRB-QKCHK-100

Large-Capacity Filters

Large-Capacity high flow and low maintenance with a solid disc and screen filters

Features

- Provides extra large filtration capacity for residential, commercial, and municipal applications
- Durable filters can be easily removed for cleaning, significantly reducing cleaning time
- Disc filters can decompress for easy cleaning
- Auxiliary connection with a threaded cap can be drilled to allow draining or depressurization

Operating Range

- 3/4" Model: Maximum flow : up to 5m³/hr
  - Filtering surface (disc): 180 cm²
  - Filtering surface (screen): 160 cm²
- 1" Model: Maximum flow: Up to 6 m³/hr
  - Filtering surface (disc): 180cm²
  - Filtering surface (screen): 160 cm²
- 1.5" Models: Maximum flow: Up to 20 m³/hr
  - Filtering surface (disc): 535 cm²
  - Filtering surface (screen): 490 cm²
- 2" Models: Maximum flow: Up to 25 m³/hr
  - Filtering surface (disc): 525 cm²
  - Filtering surface (screen): 485 cm²
- Maximum Pressure: 8 bar
- Maximum Temperature: Up to 60° C

Specifications

- Inlet / Outlet Size:
  - 3/4" Models: 3/4" BSP
  - 1" Models: 1" BSP
  - 1.5" Models : 1.5" BSP
  - 2" Models : 2" BSP

Models

- ILCRBY100D: 1" Large-Capacity Disc Filter
- ILCRBY100S: 1" Large-Capacity Screen Filter
- ILCRBY150D: 1.5" Large-Capacity Disc Filter
- ILCRBY150S: 1.5" Large-Capacity Screen Filter
- ILCRBY200D: 2" Large-Capacity Disc Filter
- ILCRBY200S: 2" Large-Capacity Screen Filter

Note: *NPT thread options are also available*

Filtration

- Stainless Steel Screen Filter: 130 Micron
- Plastic Filter Discs: 130 Micron

Pressure Loss Characteristics - Disc FIlter

Flow Rate l/m	1" Filter bar	1.5" Filter bar	2" Filter bar
18.93	0.04	0.01	0.01
41.67	0.08	0.01	0.01
83.33	0.18	0.03	0.01
125.0	0.30	0.05	0.02
166.67	—	0.07	0.03
208.33	—	0.10	0.04
250.00	—	0.15	0.06
291.67	—	0.21	0.08
333.33	—	0.27	0.11
375.00	—	—	0.14
416.67	—	—	0.17

Pressure Loss Characteristics - Screen FIlter

Flow Rate l/m	1" Filter bar	1.5" Filter bar	2" Filter bar
18.93	0.06	0.00	0.00
41.67	0.12	0.00	0.00
83.33	0.20	0.03	0.01
125.0	0.28	0.07	0.02
166.67	—	0.10	0.03
208.33	—	0.13	0.04
250.00	—	0.16	0.06
291.67	—	0.19	0.08
333.33	—	0.22	0.10
375.00	—	—	0.13
416.67	—	—	0.16

Note: Body dimensions are available on the Rain Bird website.

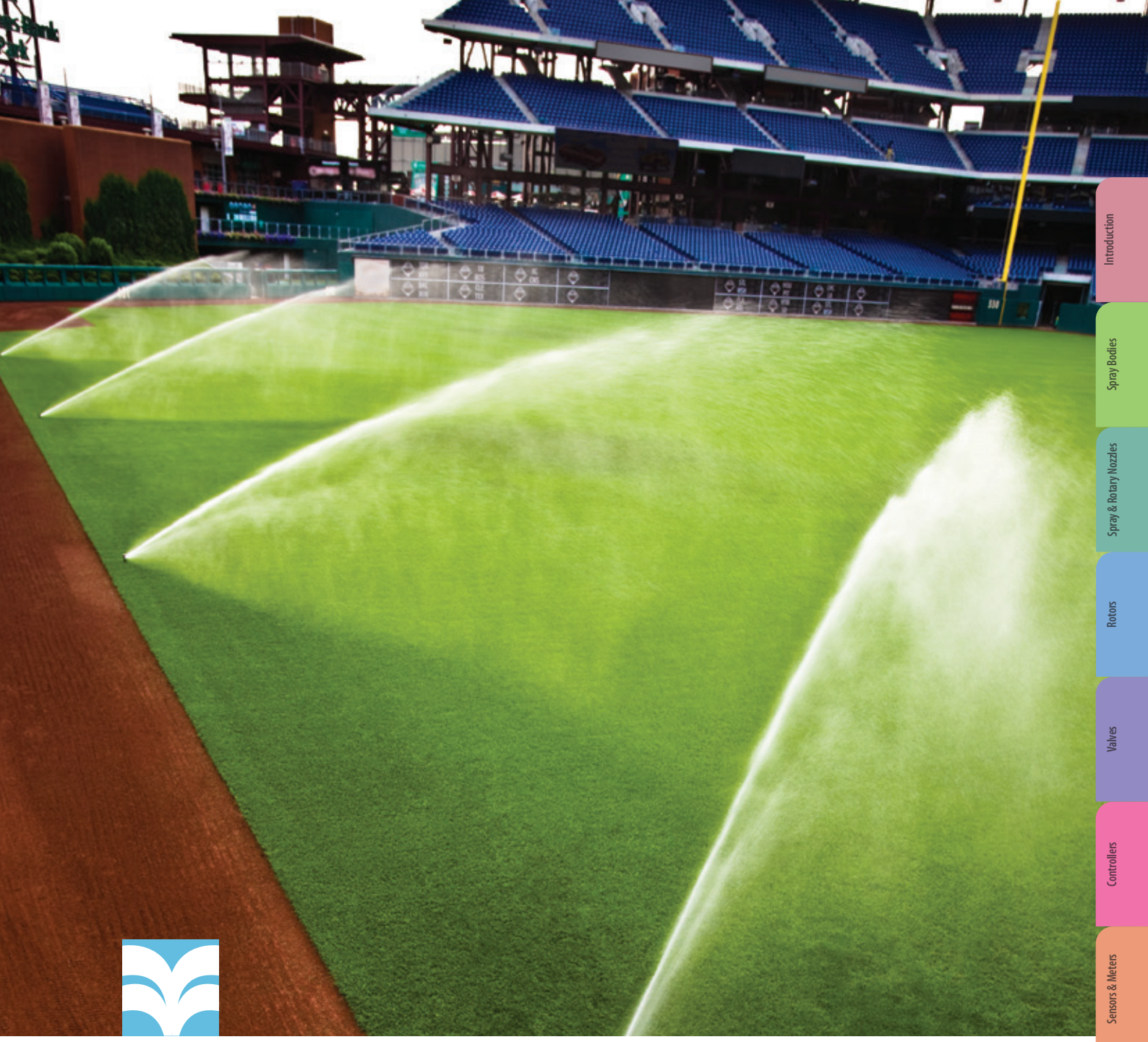
Note: Filter must be installed downstream of the valve, to prevent the filter from being under constant pressure.



ILCRBY200D



Disc & Screen Filters



Filtration

Water Saving Tips

- Backwash for the specified time only. Longer will use more water and will not increase effectiveness - and may cause other operational issues.
- Perform periodic manual cleaning and inspection of your filter to ensure the element is intact. This reduces downstream maintenance and ensures backwash cycles are working as intended.
- Size filtration based on operational specification. Under-sizing the filter will result in a higher backwash rate and higher water usage. For assistance call 520-741-6189 or email filters@rainbird.com.

"G-Series" Hydraulic Suction Scanning Screen Filter

Economy and Value with Lower Backwash Volumes

Features

- Provides worry free medium-flow rate filtered water quality
- Powered by source line water pressure, the filter's backwashing system produces a concentrated high velocity and low volume reverse water flow to systematically clean the screen of any entrapped contaminants
- Models are available as a filter unit only, or as a filter assembly including bypass plumbing and valves for fast and easy installation on site
- Heavy-duty, durable, SS woven wire mesh screen filtration element with PVC support is supplied standard. Optional screen construction including multi-layer sintered SS and wedgewire are also available upon request. HT models only supplied with sintered SS
- Standard: 200 micron. Optional: 50 - 2000 micron. Flow rates will vary with screen size and water source. Max flow assumes good water quality (< 20 ppm solids) and 200 micron screen
- Standard flow rates from 100 to 2,640 GPM
- Standard maximum operating pressure of 150 PSI (higher pressures optionally available)
- Filtered, clean water backwashing initiated automatically by time or pressure differential via integrated Rain Bird F2 AC/DC Controller
- Flanged inlet and outlet standard except on HO-G-02 and HT-G-02 filter only configurations which are threaded. Grooved inlet and outlet configuration optionally available
- Vessel Material (based on model): Powder Coated Carbon Steel or 304 Stainless Steel, 316 SS and Duplex SS optional
- Available as filter only, or as a complete assembly with bypass manifold and valves. Higher pressures optionally available



G-Series
(Shown with integrated bypass assembly and optional wye-strainer)



G-Series
(Shown as filter only)

"G-Series" Suction Scanning Screen Filter Performance Data

Powder Coated Carbon Steel Model Number	Stainless Steel Model Number	SS Mesh Screen Area (in^2)	Sintered Screen Area (in^2)	Max Flow (GPM)	Max Flow (m^3/hr)	Max Pressure (psi)	Inlet / Outlet Flange Size (in)	Flush Valve Size	Minimum Inlet Pressure During Rinse Cycle (psi)
HO-G-02-LE-C	HO-G-02-LE-S	64		100	22.7	150	2	1"	35
HO-G-03-LE-C	HO-G-03-LE-S	120		200	45.4	150	3	1"	35
HO-G-04-LS-C	HO-G-04-LS-S	120		300	68.1	150	4	1"	35
HO-G-04-LE-C	HO-G-04-LE-S	466		500	113.6	150	4	1.5"	35
HO-G-06-LS-C	HO-G-06-LS-S	466		750	170.3	150	6	1.5"	35
HO-G-08-LS-C	HO-G-08-LS-S	648		1300	295.3	150	8	1.5"	35
HO-G-08-LE-C	HO-G-08-LE-S	810		1320	299.8	150	8	2"	35
	HT-G-02-LE-S		216	200	45.4	150	2	1"	35
	HT-G-02-LEX-S		432	300	68.1	150	2	1"	35
	HT-G-03-LE-S		216	200	45.4	150	3	1"	35
	HT-G-04-LS-S		432	500	113.6	150	4	1"	35
	HT-G-04-LE-S		720	600	136.3	150	4	1"	35

Contact Rain Bird for drawings or visit www.rainbird.com to download.

Filter flow is based on 200 micron or greater filtration of clear irrigation water (< 20 ppm solids). Appropriate flow de-ratinig is required for excessive debris loads (silt, organics, algae, etc.), reclaim water and finer screens. Water sources with chlorides over 175 PPM and free chlorine over 2 mg/l require special construction materials.Contact Rain Bird for filter selection assistance for these applications.

Not available in all markets, consult Rain Bird for availability

"I-Series"
Hydraulic Suction Scanning Screen Filter

Irrigation Uses

Self-cleaning, line powered hydraulic water filters for turf, landscape, agriculture, greenhouse, golf course and nursery applications.

Features

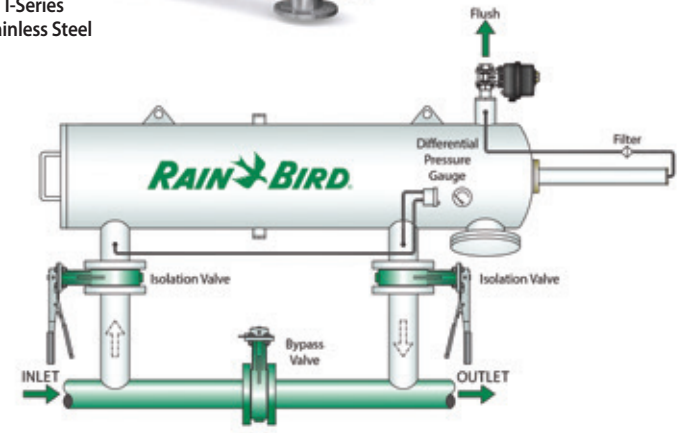
- Flow Rate: 300 – 7,500 gpm
- Max Temperature: 210° F
- Single SS electric ball valve for flushing operations standard
- Heavy-duty, durable, 316 SS woven wire mesh screen filtration element with PVC support is supplied standard. Optional screen construction including multi-layer sintered 316 SS and wedgewire are also available upon request. HT models only supplied with sintered SS.
- Screen opening: 50µ – 2000µ
- Working pressure: 40 – 150 psi
- Vessel Material (based on model): Powder Coated Carbon Steel or 304 Stainless Steel, 316 SS and Duplex SS optional
- Available as filter only, or as a complete assembly with bypass manifold and valves. Higher pressures optionally available.



I-Series Powder-Coated Carbon Steel



I-Series Stainless Steel



"I-Series" Suction Scanning Screen Filter Performance Data

			300	200	120	100	Micron					
			50	75	125	140	Mesh					
Powder Coated Carbon Steel Model Number	Stainless Steel Model Number	Line Size (in)	Std. Flow Rate (gpm)	Std. Flow Rate (gpm)	Std. Flow Rate (gpm)	Std. Flow Rate (gpm)	SS Mesh Screen Area (in^2)	Sintered Screen Area (in^2)	Rinse Duration (Seconds)	Flush Volume (Gallons)	Flush Valve Size (in)	Minimum Inlet Pressure During Rinse Cycle (psi)
HO-I-03-PS-C-M	HO-I-03-PS-S-M	2	300	300	300	260	254	390	12 to 16	≈ 35	1.5	40
HO-I-04-PS-C-M	HO-I-04-PS-S-M	4	500	500	500	420	413	620	12 to 16	≈ 35	1.5	40
HO-I-06-PS-C-M	HO-I-06-PS-S-M	6	750	750	580	420	413	620	12 to 16	≈ 35	1.5	40
HO-I-08-PM-C-M	HO-I-08-PM-S-M	8	1000	830	580	420	413	620	12 to 16	≈ 35	1.5	40
HO-I-08-PS-C-M	HO-I-08-PS-S-M	8	1400	1240	880	650	614	930	12 to 16	≈ 65	2	40
HO-I-10-PS-C-M	HO-I-10-PS-S-M	10	2000	1300	920	675	614	930	12 to 16	≈ 65	2	40
HO-I-12-PS-C-M	HO-I-12-PS-S-M	12	2750	1800	1200	850	826	1240	12 to 16	≈ 65	2	40
HO-I-14-PS-C-M	HO-I-14-PS-S-M	14	3750	1950	1300	875	826	1240	12 to 16	≈ 65	2	40
	HT-I-03-LP-S-M	3	300	300	300	300		360	12 to 16	≈ 12	1	40
	HT-I-04-PE-S-M	4	600	600	600	600		720	12 to 16	≈ 35	1.5	40
	HT-I-06-PE-S-M	6	800	800	800	720		720	12 to 16	≈ 35	1.5	40
	HT-I-08-PS-S-M	8	1400	1400	1400	1000		1008	12 to 16	≈ 35	1.5	40
	HT-I-08-PE-S-M	8	1500	1500	1500	1152		1152	12 to 16	≈ 65	2	40
	HT-I-10-PE-S-M	10	3200	3200	2520	1800		1800	12 to 16	≈ 65	2	40
	HT-I-12-PS-S-M	12	3400	3400	2550	1850		1820	12 to 16	≈ 65	2	40
Bypass Manifold												
I-3-CS-T		3	300									
I-4-CS-F		4	600									
I-6-CS-F		6	800									
I-8-CS-F		8	1500									
I-10-CS-F		10	3200									
I-12CS-F		12	3400									
I-14-CS-F		14	3750									

Contact Rain Bird for drawings or visit www.rainbird.com to download.

Filtered, clean water backwashing initiated automatically by time or pressure differential via integrated Rain Bird F2 AC/DC controller or Filtron 110 controller (based on application).

The calculated flow rates above are based on average clear lake quality water (< 40 ppm solids). For good, poor or bad water contact Rain Bird. Drawings of standard filter models are available at www.rainbird.com. Standard Rain Bird controllers: F2 AC/DC or Filtron 110 (I-series filters integrated with a Rain Bird Pump station are controlled by pump station PLC).

Water sources with chlorides over 175 PPM and free chlorine over 2 mg/l require special construction materials. Contact Rain Bird for filter selection assistance for these applications..

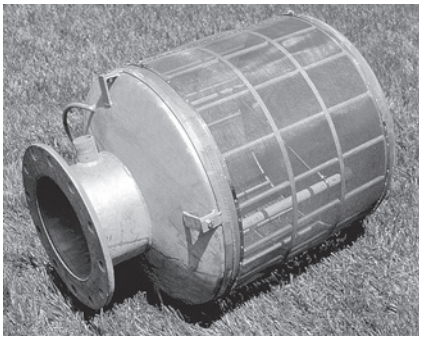
Not available in all markets, consult Rain Bird for availability

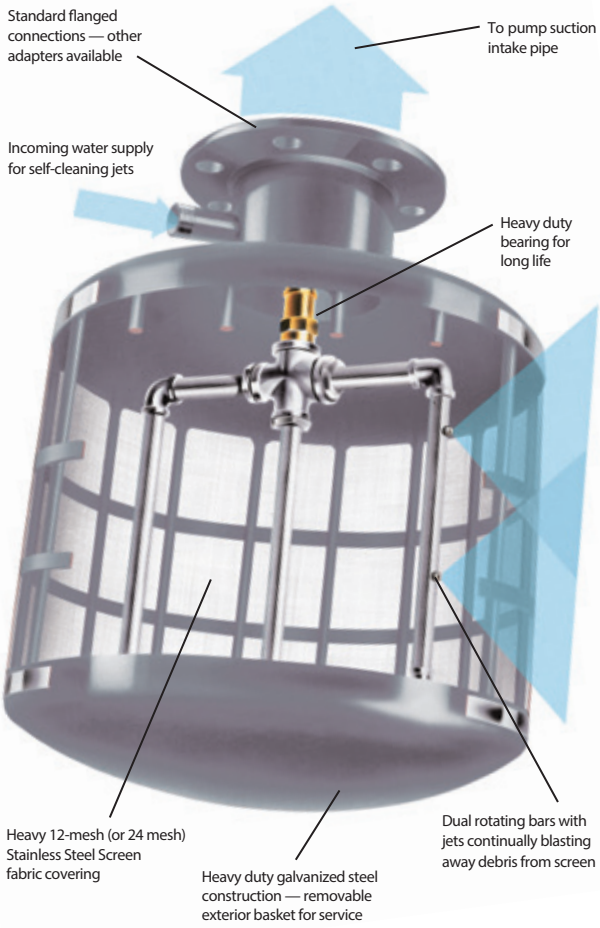
PSS Series
Self-Cleaning Pump Suction Screen

Keep Debris Out of Your Pump and Irrigation System

Features

- Galvanized, Self-Cleaning Pump Suction Screen removes large trash and debris from water sources, saving time and money in energy, pumping efficiency and maintenance costs
- All water must pass through the pump suction screen attached to the end of the pump suction line before entering the pump intake pipe. A small, side-stream from the pump discharge plumbing drives two spray bars that continually rotate, jetting water at the screen and blasting debris away
- Heavy 12 mesh stainless steel screen increases your pump efficiency for many years to come





12 Mesh Self-Cleaning Pump Suction Screen Performance Data

Model Number	Flow US GPM	Flow m^3/Hour	Screen Length (in)	Total Length (in)	Screen Diameter (in)	Flange Size (in)	Return Inlet Pipe Size (in)	Operating Pressure (min - max psi)	Weight Lbs.	Cleaning Spray (GPM)
12 Mesh Filter										
PSS200	325	73.8	11	25	16	4	1.5	35-100	38	20
PSS400	550	124.9	15	28.8	16	6	1.5	40-100	57	20
PSS600	750	170.3	16	32.5	24	8	1.5	40-100	101	20
PSS800	950	215.7	18	34.5	24	10	1.5	45-100	108	20
PSS1000	1350	306.5	23	39.5	24	10	1.5	50-100	116	24
PSS1400	1650	374.6	26	42.5	24	12	1.5	55-100	128	24
PSS1700	1950	442.7	28	44.5	26	12	1.5	55-100	148	24
PSS2000	2350	533.5	32	48.5	26	14	1.5	60-100	160	24
PSS2400	2600	590.2	35	52.5	30	16	1.5	65-100	223	28
PSS3000	3000	681.0	40	57.5	30	16	1.5	40-65	236	44
PSS3500	3500	794.5	40	59.5	36	18	1.5	40-65	283	44
PSS4000	4000	908.0	40	63.5	42	18	1.5	40-65	358	44

Contact Rain Bird for drawings or visit www.rainbird.com to download.

CS Series
Centrifugal Sand Separator

Remove contaminants to minimize required maintenance and increase efficiency

Features

- Capacities of 4 to 8300 gpm
- Simple installation (no electrical power required)
- Efficient pre-filter to reduce sand load on downstream components
- Rain Bird Centrifugal Sand Separators are designed to separate abrasive particles before they can enter the irrigation system, keeping equipment clean and clear of debris, which minimizes the amount of maintenance required and increases operational efficiency
- The separator removes sand and particles that are heavier than water (materials with a specific gravity of 2 or greater)
- Liquids and solids enter the unit and begin traveling in a circular flow. This centrifugal action throws heavier particulates towards the filter walls and eventually downward in a spiral motion to the separation chamber. The particulates collect in the separation chamber and are purged manually from the system. The filtered water is then drawn to the separator's vortex and through the outlet
- An optional automatic purge controller and valve can be used on all applications to automate the purge process, which eliminates the need for manual flushing. Small vertical design separators may be wall mounted or supported by the system piping



Centrifugal Sand Separator

Centrifugal Sand Separators Performance Data

Model Number	Flow* US GPM	Flow m^3/Hour	Inlet / Outlet Line Size (in)	Length (in)	Length (cm)	Weight Lbs.	Max. Particle Size (in)	Flush Valve Size (in)
Vertical Separators								
VCS-R5V	4 -10	0.9 - 2.3	0.5	20	50.8	13	0.625	1
VCS-R7V	10 - 20	2.3 - 4.6	0.75	20	50.8	15	0.375	1
VCS-R10V	18 - 38	4 - 8.7	1	30.5	77.5	26	0.5	1
VCS-R12V	26 - 52	6 - 12	1.25	30.5	77.5	26	0.5	1
VCS-R15V	38 - 79	8.7 - 18	1.5	30.5	77.5	26	0.5	1
VCS-R20V	63 - 120	14.5 - 27.6	2	36	91.4	44	0.5	2
VCS-R25V	100 - 180	23 - 41.4	2.5	44	111.8	55	0.5	2
VCS-R30V	125 - 260	28.8 - 59.8	3	48	121.9	75	0.5	2
VCS-R40V	190 - 345	43.7 - 79.4	4	52	132.1	120	0.5	2
Angled Separators								
ACS-R40LA	200 - 525	46 - 120	4	80	221	280	1.5	2
ACS-R60LA	365 - 960	84 - 220	6	106.25	293.4	493	1.5	2
ACS-R80LA	800 - 1600	184 - 369	8	114	316.9	722	1.5	2
ACS-R100LA	1300 - 2300	299 - 529	10	123.5	342.9	840	1.5	2
ACS-R120LA	2025 - 3400	465 - 782	12	139	396.2	1400	1.5	2
ACS-R140LA	2975 - 5000	684 - 1150	14	148	424.2	1550	2	2
ACS-R160LA	4000 - 6200	920 - 1426	16	160	462.3	1850	2	2
ACS-R180LA	5100 - 8300	1173 - 1909	18	177	462.3	2400	2	3

Not available in all markets, consult Rain Bird for availability

HDF Series
Disc Filters

Automatic self-cleaning disc filtration equipment

Features

- Automatic self-cleaning disc filtration equipment with 2" valves and high density polyethylene manifolds
- Ideal for surface and well water containing both organic (algae) and inorganic materials: rivers, reservoirs, canals, waste water, and well water containing light sand (<3PPM) and other contaminants
- The patented system's helical action provides efficient cleaning
- Manufactured from engineered plastics to resist rust and corrosion from chemicals and water
- All units are factory tested prior to shipment
- Disc elements provide depth filtration -not just surface filtration
- Unit is pre-assembled with HDPE (High –density polyethylene) manifold for easy installation
- DP, time or manual backflush cycle can be imitated from the controller
- Plastic backflush valves are lightweight and corrosion resistant
- Low maintenance and performs reliable backflush
- Filtration disc versatility (filtration grades can be easily changed)
- Available with 100, 130, 200 or 400 micron discs (specify when ordering)

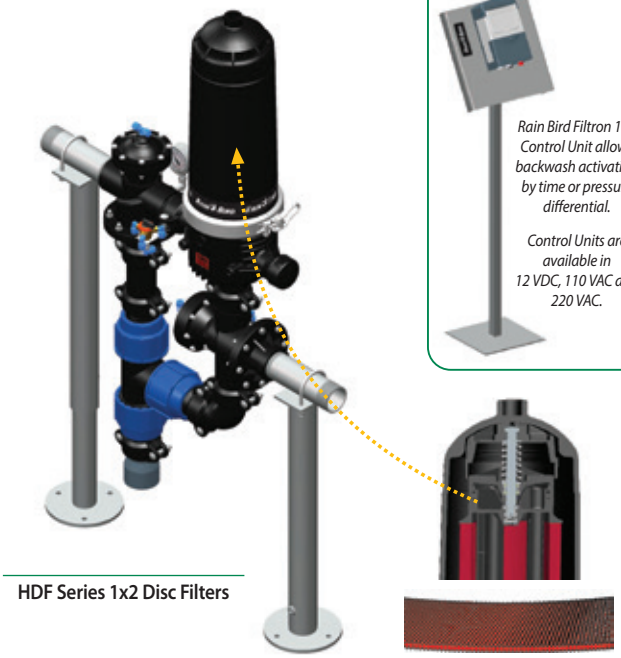
Rain Bird HDF Series 1X2 filter backwash.

- **FILTRATION STAGE:** As water goes through the discs, particles are projected away due to the cyclone effect, reducing the backflushing frequency
- **BACKFLUSHING STAGE:** Water is projected through the discs, expelling the retained particles and evacuating them through the drainage manifold while the rest of the equipment is still in the filtration stage, supplying the remaining installation

Rain Bird HDF Series-2 systems backwashes one station at a time while the remaining elements continue filtering.

- **FILTRATION STAGE:** As water goes through the discs, particles are projected away and kept in suspension due to the cyclone effect, reducing the backflushing frequency
- **BACKFLUSHING STAGE:** Water is projected through the discs, expelling the retained particles and evacuating them through the drainage manifold. The rest of the filters battery continue filtering.

  The filtration process restarts when the discs recompress. The backflush process is controlled by the Rain Bird Control Unit



HDF Series 1x2 Disc Filters

Rain Bird Filtron 110 Control Unit allows backwash activation by time or pressure differential.

Control Units are available in 12 VDC, 110 VAC and 220 VAC.



HDF Series-2 Disc Filters



HDF Series 4 Disc Filters

Specifications

HDF Series 1x2 Disc Filters

- Suited for areas with or without electricity.
- Ideal where manual cleaning is troublesome.
- Compact design fits in tight spaces.
- Control Unit functions on pressure differential or time.
- Automatic self-cleaning 2" filter for low flow ranges.
- Maximum Flow: 106 gpm (24 m^3/h)
- Maximum filtering surface (231 in^2/1492 cm^2).
- Maximum pressure: 145 psi (10 bar)
- Maximum temperature: 140° F (60° C)
- Standard 100 micron : Optional 130, 200 or 400 micron.

HDF Series 2 Disc Filters

- Suitable for surface and well waters containing both organic (algae) and inorganic materials.
  - Rivers, reservoirs, canals and waste water
- Well water containing light sand (<3 PPM) and other contaminants.
- Maximum flow: 848 gpm (192 m^3/h) - 106 gpm (24 m^3/h) per filter element. Max flow is based on 200 micron discs and good water quality source (< 20 ppm solids). Flow is de-rated based on water source and filtration level. Consult Rain Bird for sizing information
- Maximum filtering surface: (231 in^2/1492 cm^2)
- Maximum pressure: 145 psi (10 bar)
- Maximum temperature: 140° F (60° C)
- Standard: 100 micron. Optional: 20, 50, 130, 200 or 400 micron.

Control Units

Rain Bird Filtron 11 O with integrated pressure differential switch allows backwash activation by time or pressure differential. Controllers are available in 12 VDC, 11 O VAC and 220 VAC.

HDF Series 1x2 Disc Filters Specifications

Model Number	Number of Filters	Manifold	Filtering Surface (in)	Filtering Surface (cm)
1X2/2G	1-2"	Inlet: 2" PVC Outlet: 2" NPT Drainage: 2: NPT	231	1492

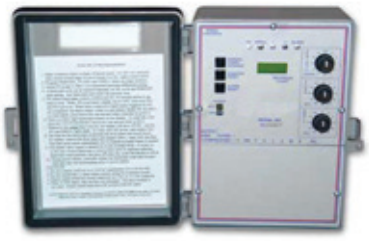
HDF Series 2 Disc Filters Specifications

Model Number	Number of Filters	Manifold	Filtering Surface (in)	Filtering Surface (cm)
2X2/3G	2	3"- GROOVED	463	2,984
3X2/4G	3	4"- GROOVED	694	4,476
4X2/6G	4	6"- GROOVED	925	5,968
5X2/6G	5	6"- GROOVED	1,156	7,460
6X2/6G	6	6"- GROOVED	1,388	8,952
7X2/6G	7	6"- GROOVED	1,619	10,444
8X2/8G	8	8"- GROOVED	1,850	11,936

Drainage manifolds included.
Consult factory for other configurations.
Rain Bird reserves the right to change the characteristics of these products without prior notice.

HDF Series 4 Disc Filtration systems for flows over 848 GPM (192 m^3/h) quoted upon request.

Rain Bird Filtration Controller



F2 AC/DC-P Specifications

INPUT
115 - 230VAC
12 - 15VDC
230VAC (optional)
OUTPUT
24VAC, 12VDC
FEATURES
Up to Two (2) stations plus master valve
Input voltage 115, 230 VAC (optional) 12VDC
Output selectable to operate 24VAC, 12VDC solenoids
Pressure differential (PD) gauge included
Fixed PD delay
Resettable backwash count
Resettable alarm
Plastic outdoor box
Periodic, manual, or pressure differential (PD) actuation
Accurate timing
Simple programming


RAIN BIRD
Homeowners
Professionals
Golf
Agriculture
Industrial
DELL

Resources

Rain Bird Training Services

Dedicated to the Development of Irrigation Professionals

Rain Bird Live and Online

Rain Bird Live Streaming

Rain Bird Brings the classroom to you

- Short pre-scheduled classes that cover relevant irrigation topics
- Make the most of your time and let Rain Bird bring training to you
- Live pre-scheduled training taught by professional irrigation trainers
- Not another sales webinar, we provide interactive virtual classroom training



Rain Bird Online Training

Rain Bird Basics Online

- For people with little to no irrigation experience
- Non-manufacturer specific training, not just Rain Bird
- The basics of irrigation adjustments, repairs and operation

Rain Bird Technical Online

- In-depth technical irrigation training anytime, anywhere
- Best practices for installing, operating, and maintaining irrigation systems
- Pass the Factory Trained exam and you will earn a Factory Trained designation and certificate



Rain Bird Classroom Training

Rain Bird Academy

General Irrigation Skills Training

- Top quality training on many manufacturers' products
- Prepare for Irrigation Association (IA) exams
- The Rain Bird Academy Boot Camp delivers the basics of irrigation in one week
  - Boot Camp classes are part of the IA Select Program

Rain Bird Factory Trained

Comprehensive Training on Rain Bird Products

- Training is exclusive to Rain Bird Products
- Be an expert on installing, managing and maintaining Rain Bird irrigation systems
- Get the designation that proves to your customers that you are the best choice to do the job



To learn more, visit: www.rainbirdservices.com

Controller Compatibility Matrix

Accessory	Description	ESP9V	TBOSBT	ESPTM2	ESPME	ESPME3	ESPLXME	ESPLXMEF	ESPLXD	ESPLXIVM	ESPLXIVMP
Weather Sensors & Stations											
RSD-BEx	Wired Rain Sensor	●	●	●	●	●	●	●	●	●	●
WR2	Wireless Rain/Freeze Sensor			●	●	●	●	●	●	●	●
SMRT-Y	Soil Moisture Sensor			●	●	●					
ANEMOMETER	Wind Speed Sensor						●[1]	●[1]	●[1]	●[1]	●[1]
Flow Meters & Sensors											
MJ100B	1" Brass Water Meter					●		●	●	●	●
FS100P	1" PVC Tee Flow Sensor					●		●	●	●	●
FS150P	1-1/2" PVC Tee Flow Sensor					●		●	●	●	●
FS200P	2" PVC Tee Flow Sensor					●		●	●	●	●
FS300P	3" PVC Tee Flow Sensor					●		●	●	●	●
FS400P	4" PVC Tee Flow Sensor					●		●	●	●	●
FS100B	1" Brass Tee Flow Sensor					●		●	●	●	●
FS150B	1-1/2" Brass Tee Flow Sensor					●		●	●	●	●
FS200B	2" Brass Tee Flow Sensor					●		●	●	●	●
FSINSERT	Replacement insert for tee sensors					●		●	●	●	●
FS350B	Insert Flow Sensor					●		●	●	●	●
Pulse Monitor/Transmitters											
PT322	Pulse Transmitter Flow										
PT5002	Flow Monitor/Pulse Transmitter Flow										
PT5002	Flow Monitor/Pulse Transmitter Wind						●	●	●	●	●
Sensor Decoders/Inputs											
SD210TURF	Sensor Decoder								●		
LXIVMSEN	IVM Sensor Input									●	●
Modules											
ESPSM3	ME 3-Station Module				●	●					
ESPSM6	ME 6-Station Module				●	●					
ESPLXMSM8	LXME 8-Station Module						●	●			
ESPLXMSM12	LXME 12-Station Module						●	●			
LXBASEMOD	LXME Base Module						●				
FSMLXME	LXME Flow Smart Module						●	●			
ESPLXDSM75	LXD 75-Station Module								●		
MOD50LXD	LXD 2-Wire Module								●		
LXIVM2WMOD	IVM 2-Wire Module									●	●
Field Decoders/Output Devices											
FD101TURF	1 Address, 1 Valve per Station Decoder								●		
FD102TURF	1 Address, 2 Valve per Station Decoder								●		
FD202TURF	2 Address, 2 Valve per Station Decoder								●		
FD401TURF	4 Address, 1 Valve per Station Decoder								●		
FD601TURF	1 Address, 1 Valve per Station Decoder								●		
DPU-210	FD-Series Decoder Programming Device								●		
LXIVMSOL	IVM Commercial Valve Solenoid									●	●
LXIVMOUT	IVM Output Device									●	●
Pump Start Relays											
PSR110220	110/220V Single Relay Pump Start Relay	●	●	●	●	●	●	●			
PSR110IC	110V Double Relay Pump Start Relay	●	●	●	●	●	●	●	●		
PSR220IC	220V Double Relay Pump Start Relay	●	●	●	●	●	●	●	●		
PSR110-IVM	110V DC Latching Pump Start Relay									●	●
PSR220-IVM	220V DC Latching Pump Start Relay									●	●
Surge Protection Devices											
LSP-1TURF	FD-Series Decoder Line Surge Protector								●		
LXIVMSD	IVM Surge Device									●	●
Communication Devices											
LNK-WIFI	Wi-Fi Module for Residential Controllers			●	●	●					
IQFSCMLXME	IQ Flow Smart Connection Module LXME						●	●			
IQCMLXD	IQ Connection Module LXD								●	●	●
IQ4G-USA	IQ 4G Cellular Communication Cartridge						●	●	●	●	●
IQNCCEN	IQ Ethernet Communication Cartridge						●	●	●	●	●
IQNCCRS	IQ RS232 Communication Cartridge						●	●	●	●	●
Radios											
IQSSRADIO	900MHz Radio, TCP-IP, Metal Case						●	●	●	●	●
RB-SS-TN9B	900Mhz Radio, TCP-IP, Plastic Case						●	●	●	●	●
IQRADPK	900MHz Radio Programming Kit						●	●	●	●	●
Metal Cabinets & Pedestals											
LXMM	Painted Metal Wall Mount Enclosure						●	●	●	●	●
LXMMSS	Stainless Steel Wall Mount Enclosure						●	●	●	●	●
LXMMPED	Painted Metal Pedestal (requires LXMM)						●	●	●	●	●
LXMMSSPED	Stainless Steel Pedestal (requires LXMMSS)						●	●	●	●	●

[1] *Requires PT5002 Pulse Transmitter*

Central Control Compatibility Matrix

		IQ with				Maxicom with	Maxicom CCU with		SiteControl TWI with		SiteControl with
		ESPLXME	ESPLXMEF	ESPLXD	ESPLXIVM	ESPLXIVMP	ESPSITE	ESPSAT2	ESPSATL	ESPSAT2	ESPSATL	LDI
Weather Sensors & Stations												
RSD-BEx	Wired Rain Sensor	●	●	●	●	●	●	●	●	●	●	●
WR2	Wireless Rain/Freeze Sensor	●	●	●	●	●	●	●	●	●	●	
RAINGAUGE	Tipping Rain Gauge Sensor						●	●	●	●	●	●
ANEMOMETER	Wind Speed Sensor	●[1]	●[1]	●[1]	●[1]	●[1]	●[2]	●[2]	●[2]	●[2]	●[2]	
WSPRO2DC	Weather Station (requires modem)	●	●	●	●	●	●	●	●	●	●	●
Flow Meters & Sensors												
MJ100B	1" Brass Water Meter		●	●	●	●	●[2]	●[2]	●[2]	●[2]	●[2]	●
FS100P	1" PVC Tee Flow Sensor		●	●	●	●	●[2]	●[2]	●[2]	●[2]	●[2]	●
FS150P	1-1/2" PVC Tee Flow Sensor		●	●	●	●	●[2]	●[2]	●[2]	●[2]	●[2]	●
FS200P	2" PVC Tee Flow Sensor		●	●	●	●	●[2]	●[2]	●[2]	●[2]	●[2]	●
FS300P	3" PVC Tee Flow Sensor		●	●	●	●	●[2]	●[2]	●[2]	●[2]	●[2]	●
FS400P	4" PVC Tee Flow Sensor		●	●	●	●	●[2]	●[2]	●[2]	●[2]	●[2]	●
FS100B	1" Brass Tee Flow Sensor		●	●	●	●	●[2]	●[2]	●[2]	●[2]	●[2]	●
FS150B	1-1/2" Brass Tee Flow Sensor		●	●	●	●	●[2]	●[2]	●[2]	●[2]	●[2]	●
FS200B	2" Brass Tee Flow Sensor		●	●	●	●	●[2]	●[2]	●[2]	●[2]	●[2]	●
FSINSERT	Replacement insert for tee sensors		●	●	●	●	●[2]	●[2]	●[2]	●[2]	●[2]	●
FS350B	Insert Flow Sensor		●	●	●	●	●[2]	●[2]	●[2]	●[2]	●[2]	●
Pulse Monitor/Transmitters												
PT322	Pulse Transmitter						●	●[3]	●	●[3]	●	●
PT5002	Flow Monitor/Pulse Transmitter		●	●	●	●	●	●[3]	●	●[3]	●	●
Sensor Decoders/Inputs												
SD210TURF	Sensor Decoder			●								●
LXIVMSEN	IVM Sensor Input				●	●						
DECPULLR	Pulse Decoder							●		●		
DECSENLR	Sensor Decoder							●		●		
Modules												
ESPSM3	ME 3-Station Module											
ESPSM6	ME 6-Station Module											
ESPLXMSM8	LXME 8-Station Module	●	●									
ESPLXMSM12	LXME 12-Station Module	●	●									
LXBASEMOD	LXME Base Module	●										
FSMLXME	LXME Flow Smart Module	●	●									
ESPLXDSM75	LXD 75-Station Module			●								
MOD50LXD	LXD 2-Wire Module			●								
LXIVM2WMOD	IVM 2-Wire Module				●	●						
Field Decoders/Output Devices												
FD101TURF	1 Address, 1 Valve per Station Decoder			●								●
FD102TURF	1 Address, 2 Valve per Station Decoder			●								●
FD202TURF	2 Address, 2 Valve per Station Decoder			●								●
FD401TURF	4 Address, 1 Valve per Station Decoder			●								●
FD601TURF	1 Address, 1 Valve per Station Decoder			●								●
DPU-210	FD-Series Decoder Programming Device			●								●
LXIVMSOL	IVM Commercial Valve Solenoid				●	●						
LXIVMOUT	IVM Output Device				●	●						
Pump Start Relays												
PSR110220	110/220V Single Relay Pump Start Relay	●	●	●			●	●	●	●	●	
PSR110IC	110V Double Relay Pump Start Relay	●	●	●			●	●	●	●	●	●
PSR220IC	220V Double Relay Pump Start Relay	●	●	●			●	●	●	●	●	●
PSR110-IVM	110V DC Latching Pump Start Relay				●	●						
PSR220-IVM	220V DC Latching Pump Start Relay				●	●						
Surge Protection Devices												
FSSURGEKIT	FS-Series Flow Sensor Surge Protector						●	●	●	●	●	
LSP-1TURF	FD-Series Decoder Line Surge Protector			●								●
LXIVMSD	IVM Surge Device				●	●						
Communication Devices												
LNK-WIFI	Wi-Fi Module for Residential Controllers											
PBC-LXD	ESPLXD Programming Backup Cartridge			●								
IQFSCMLXME	IQ Flow Smart Connection Module LXME	●	●									
IQCMLXD	IQ Connection Module LXD			●	●	●						
IQ4G-USA	IQ 4G Cellular Communication Cartridge	●	●	●	●	●						
IQNCCEN	IQ Ethernet Communication Cartridge	●	●	●	●	●						
IQNCCRS	IQ RS232 Communication Cartridge	●	●	●	●	●						
RBDS-MPX	Maxi Link Communication Multiplexer								●		●	
RBDS-PME	Maxi Primary Ethernet Modem						●	●	●	●	●	●
RBDS-SEMET	Maxi Link Secondary Ethernet Modem								●		●	
ESPMIBTW	Maxi Two-Wire Satellite Interface Board							●		●		
ESPMIBLINK	Maxi Link Satellite Interface Board								●		●	
ESPMIBSITE	Maxi Site Satellite Interface Board						●					
Radios												
IQSSRADIO	900MHz Radio, TCP-IP, Metal Case	●	●	●	●	●						
RB-SS-TN9B	900Mhz Radio, TCP-IP, Plastic Case	●	●	●	●	●			●		●	
RADTN9M1B	900Mhz Radio, TCP-IP, Plastic Case								●		●	
IQRADPK	900MHz Radio Programming Kit	●	●	●	●	●			●		●	
Auxillary Terminal Strips												
ESPSATOB24	Maxi 1-24 Station Terminal Strip						●	●	●	●	●	
ESPSATOB40	Maxi 25-40 Station Terminal Strip						●	●	●	●	●	
Metal Cabinets & Pedestals												
LXMM	Painted Metal Wall Mount Enclosure	●	●	●	●	●						
LXMMSS	Stainless Steel Wall Mount Enclosure	●	●	●	●	●						
LXMMPED	Painted Metal Pedestal (requires LXMM)	●	●	●	●	●						
LXMMSSPED	Stainless Steel Pedestal (requires LXMMSS)	●	●	●	●	●						

[1] Requires PT5002 Pulse Transmitter *[2] Requires PT322 or PT5002 Pulse Transmitter* *[3] Requires DEC-Series Decoder for Sensor Input*

How to Use This Catalog

Precipitation Rates

Rain Bird has calculated for you the precipitation rates for our comprehensive lines of impacts, sprays, and rotors. These rates are an indication of the approximate rate at which water is being applied. The equations used to calculate the precipitation rates are as follows:

Square Spacing

U.S.: $PR = \frac{96.3 \times gpm}{S \times S}$

Metric: $PR = \frac{1000 \times m^3/h}{S \times S}$

Triangular Spacing

U.S.: $PR = \frac{96.3 \times gpm}{S \times L}$

Metric: $PR = \frac{1000 \times m^3/h}{S \times L}$

96.3 = Constant (inches/square foot/hour)
1000 = Constant (millimeter/square meter/hour)
gpm = Gallons per minute (applied to area by sprinklers)
m^3/h = Cubic meters per hour (applied to area by sprinklers)
S = Spacing between sprinklers
L = Spacing between rows (S x 0.866)

Specification Information

The information in this catalog was accurate at the time of printing and may be used for proper specification of each product. For the most up-to-date information, go to the Rain Bird web site at www.rainbird.com.

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Reference Charts

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I. Landscape Irrigation and Drainage Products

1800 Series Pop-Up Spray Heads, U-Series Nozzles, PA-8S and PA-8S-PRS Shrub Adapters, 1300 and 1400 Bubblers, 5000 Series Rotors, 5500 Series Rotors, 8005 Series Rotors, Falcon® 6504 Series Rotors, PEB/PESB/PESB-R Plastic Valves, DV/DVF and ASVF Plastic Valves, VB Series Valve Boxes, Internet Connected Water Meters (ICWM), and XF Series Dripline* – 5 years

C2 Power Unit – 2 years

Pump Start Relays – 1 year for controls/electronics, 2 years for enclosure

All other Landscape Irrigation and Drainage products – 3 years

II. Golf Products, Agricultural Products, and Pump Stations

For complete information and details please visit:
http://www.rainbird.com/corporate/CustomerSatisfactionPolicy.htm

III. All Other Products - 1 year

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To find the nearest authorized distributor in your area, visit www.rainbird.eu

** XF Series Dripline - 7 Years on Environmental Stress Cracking (ESCR)*

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Rain Bird Corporation
6991 E. Southpoint Road
Tucson, AZ 85756
USA Tel: +1 (520) 741-6100

Rain Bird International, Inc.
1000 West Sierra Madre
Azusa, CA 91702
USA Tel: +1 (626) 963-9311

Rain Bird Europe SNC
240 rue René Descartes
Bât. A, Parc Clamar, BP 40072
13792 Aix en Provence cedex 3

Rain Bird International
United Arab Emirates
Dubai, JAFZA , Bldg 17, offie # 317

Rain Bird International
KSA Branch Office
P.O. Box 4343, Jeddah 23432
Prince Saud Al Faisal – Al Rawdah
Saudi Arabia

Rain Bird Australia
Level 1, Unit 13, 85 Mt Derrimut Rd
Deer Park, Victoria, Australia, 3023

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