RAIN BIRD®

Landscape Irrigation Products

The Intelligent Use of Water.™

Together, we can make a difference

At Rain Bird, we believe that saving water is a responsibility that we all share. Our industry can have a tremendous impact on water conservation by installing more efficient systems and teaching customers how to use them correctly. By working together, we can really make a difference.

Rain Bird's 25 Ways offers practical, effective tips and advice drawn from the company's 80-plus years of experience in the irrigation industry. Available at 25ways.rainbird.com, these resources can be used anywhere and by anyone who wants to improve their watering efficiency.

Water Saving Tips from Rain Bird

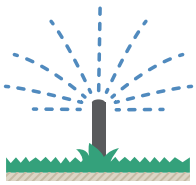
Visit 25ways.rainbird.com for a complete list of water saving tips and techniques in each of the following categories.

Improve Your Existing System

Water Only At The Right Times

Don't Overwater

Use The Right Products



Keep Your Water In Place

Update Your Landscape

Water efficient Irrigation technology for every Landscape turf application

When you design and install Rain Bird complete irrigation solutions you can be confident to know 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.

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

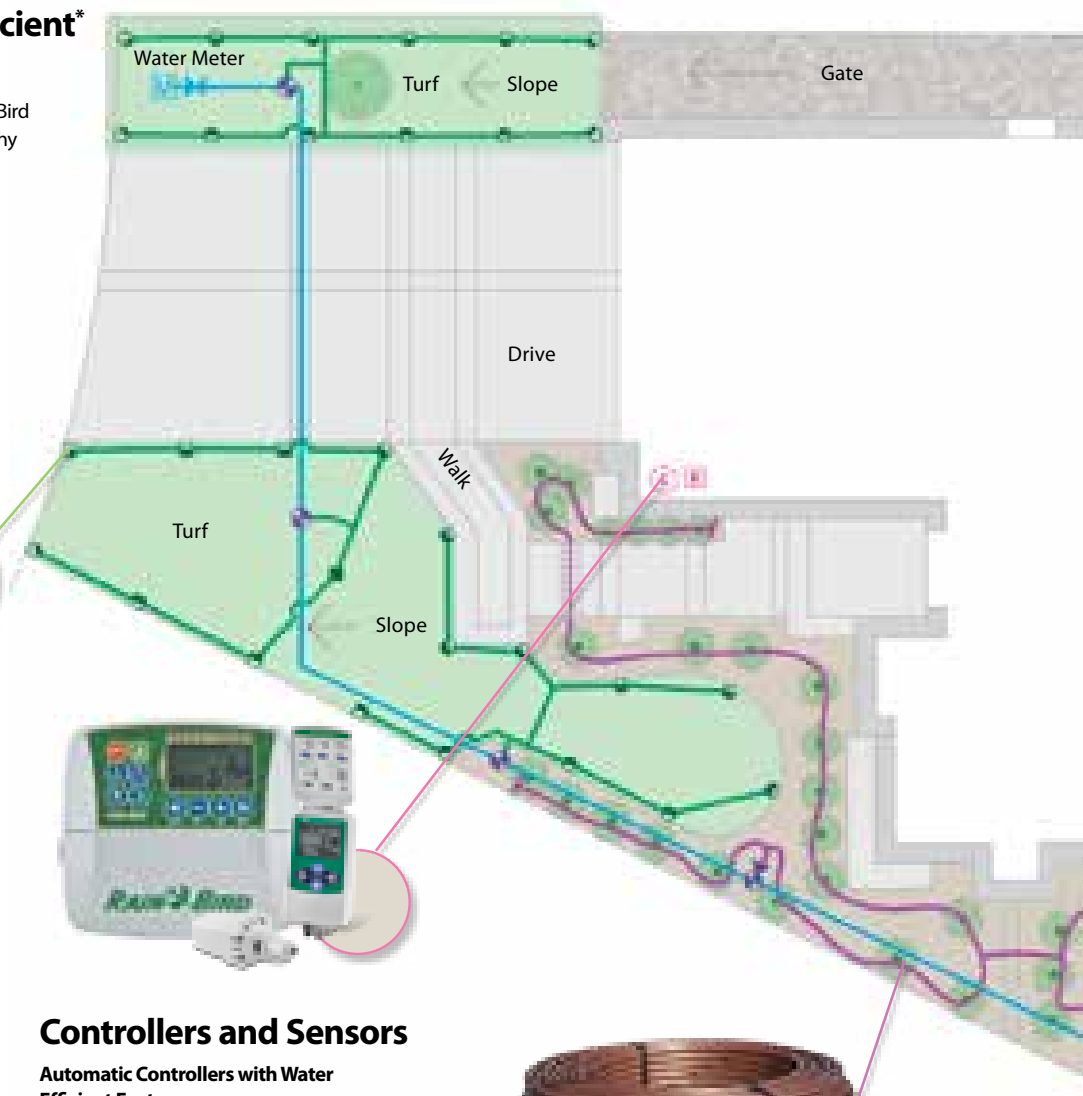
In-Stem Pressure Regulation

High Efficiency Nozzles

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

Non-Potable Spray Heads

p. 35



Controllers and Sensors

Automatic Controllers with Water Efficient Features

Smart Controller Technologies

Automatic Shut-Off Devices

p. 91

Landscape Drip

Direct-to-Plant-Root Watering Devices

p. 9

**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

p. 71

Rotary Nozzles

p.40

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. 35

Central Control Systems

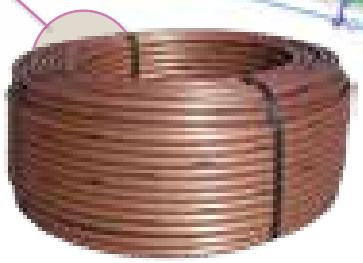
Automatic ET-Based Scheduling

Flow Management

Flow Monitoring/Leak Detection

Cycle + Soak™

p. 120



Landscape Drip

Direct-to-Plant-Root Watering Devices

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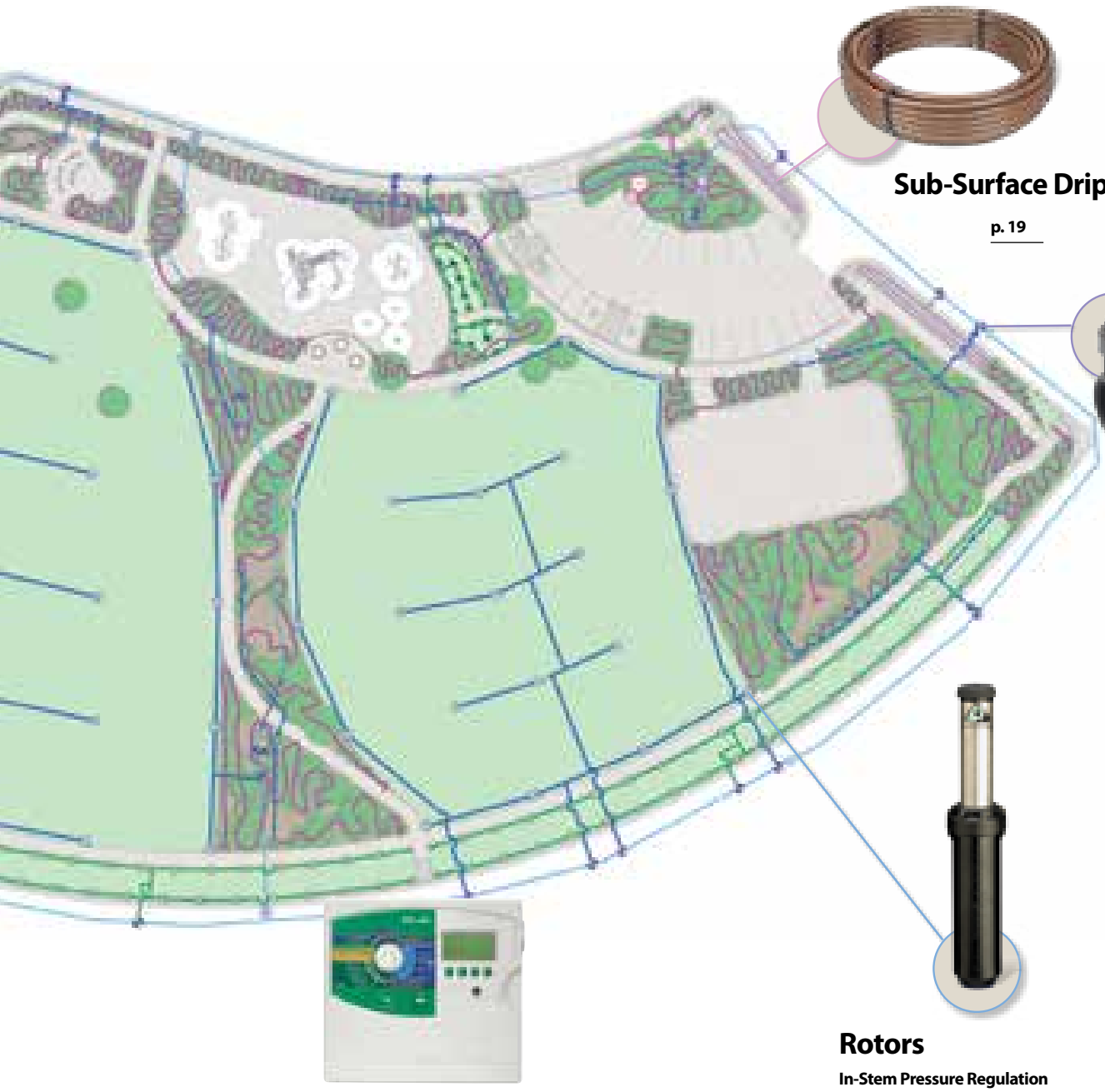

Sub-Surface Dripline

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Valves

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Rotors

In-Stem Pressure Regulation

High Efficiency Nozzles

Check Valve Devices

Vandal Resistance

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Controllers and Sensors

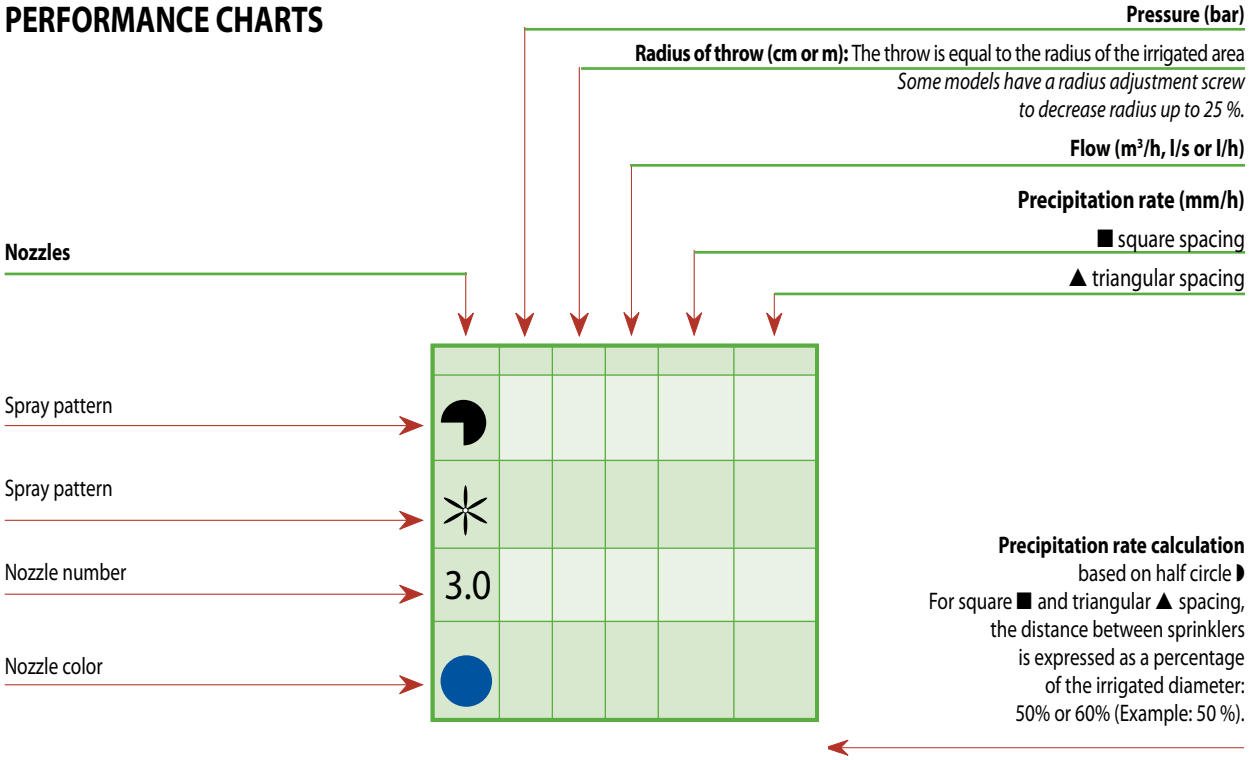
Automatic Controllers with Water Efficient Features

Automatic Shut-Off Devices

p. 91

HOW TO USE THE RAIN BIRD CATALOG

PERFORMANCE CHARTS



Pressure : For all pop-up sprinklers, stated pressure refers to the operating pressure at the base inlet. For all above-grade impact sprinklers, stated pressure refers to operating pressure at the nozzle.
Rain Bird Sprinkler Mfg. Corp. certifies thar pressure, flow rate and radius data for its products were determined and listed in accordance with ASAE Standard S398.1, Procedure for Sprinkler Testi g and Performance Reporting, and are representative of performance of production sprinklers at the time of publication. Actual product performance may differ from the published specifications due to normal manufacturing variations and sample selection. All other specifications are solely the recommendations of Rain Bird Sprinkler Mfg. Corp.

REGISTERED TRADEMARKS

® Registered Trademark of Rain Bird Sprinkler Mfg. Corp.
DELRIN™ is a registered trademark of Dupont de Nemours
WINDOWS™ is a registered trademark of MICROSOFT CORPORATION

LOW VOLUME IRRIGATION

Major Products

Primary Applications	Single outlet emitter	Multi-outlet emitter	Bubbler emitter	Spray	Inline emitter (Dripline)	RWS
Thick bushes		●	●	●	●	
Single bush	●					
Small trees	●	●			●	●
Large trees	●	●	●			●
Ground cover		●		●	●	
Annuals			●	●	●	
Mixed vegetation	●	●			●	
Potted plants	●		●	●	●	
Hedges	●				●	
Vegetation on slopes	●				●	

LANDSCAPE DRIP SYSTEM OVERVIEW

TARGETED WATERING WITH LANDSCAPE DRIP

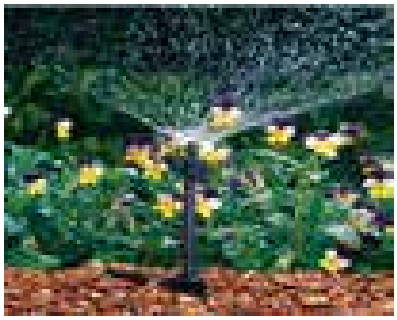
Rain Bird's landscape drip products are made especially for low-volume irrigation systems. By delivering water at or near the plants' root zones, Rain Bird's landscape drip products offer targeted watering with the following advantages:

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

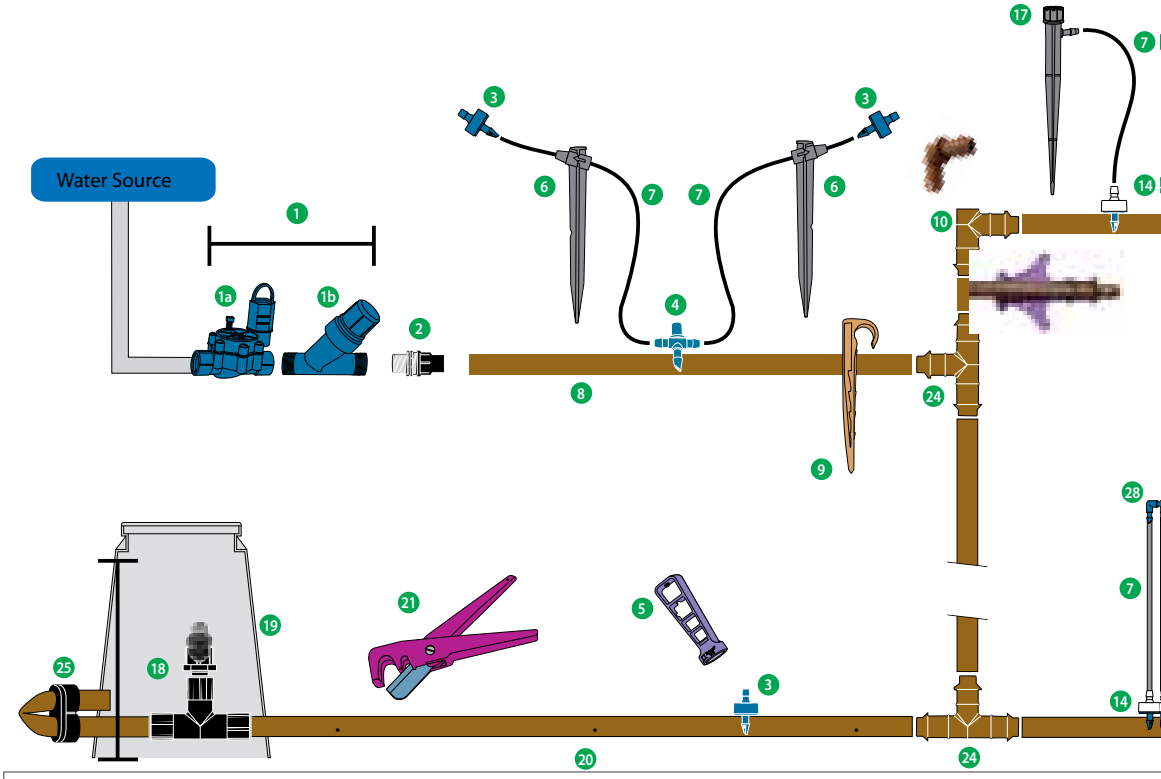
SOLUTIONS FOR DRIP IRRIGATION

Rain Bird's Xerigation products offer the most solutions for drip irrigation. The product line consists of:

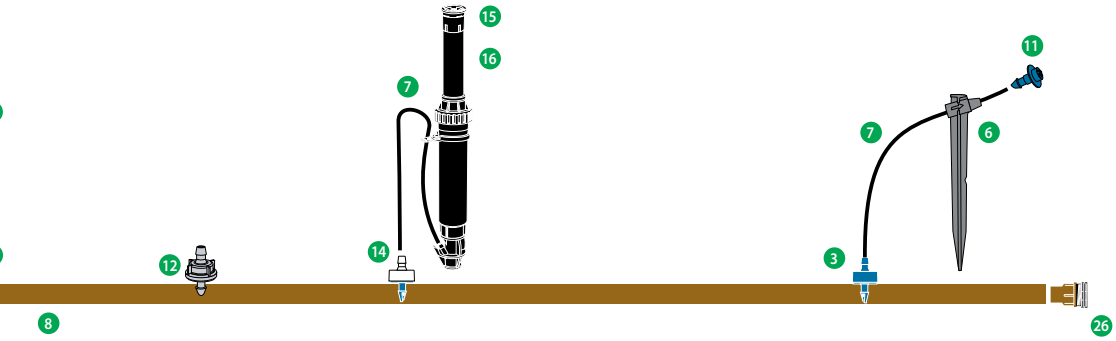
- Emission Devices
- Dripline
- Distribution Components
- Tools
- Control Zone Components

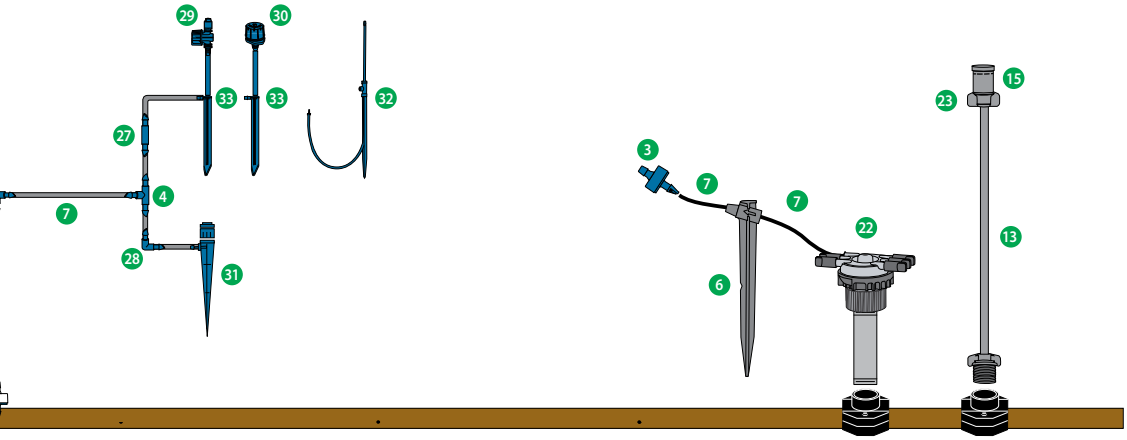


Anatomy of a Xerigation® / Landscape Drip System



1. Control Zone Kit
   1a. Low Flow Valve
   1b. Pressure Regulating Filter
2. Lock Fitting 16mm Quick Union Coupling
3. Xeri-Bug Emitter
4. BF3 T 4-6 mm
5. Xeriman Tool
6. TS-025 6 mm Tubing Stake
7. 4-6 mm Distribution Tubing
8. XF Blank Tubing
9. Tie-Down Stake
10. XFF Elbow
11. Diffuser Bug Cap
12. PC Module
13. PolyFlex Riser Assembly
14. Self-Piercing Barb Connector for 16 mm tubing
15. SQ Series Nozzle





16. Xeri-Pop
17. SXB Series SPYK Micro Sprinkler On Spike
18. ½"Vacuum Breaker
19. Valve Box
20. XF Dripline
21. T135SS Tubing Cutter
22. 6 Outlet Manifold
23. SQ Series Nozzle Adapter
24. XFF Tee
25. 700CF- 22 Tubing End Closure
26. Lock Type BF-Plug
27. BF1 Barb Connector for 4-6 mm tubing
28. BF2 Barb-Barb Elbow for 4-6 mm tubing
29. XS- Series
30. SXB Series
31. XS Series-SPYK Micro Sprinkler On Spike
32. Jet Spike
33. PFR/RS Riser / Stake Assembly

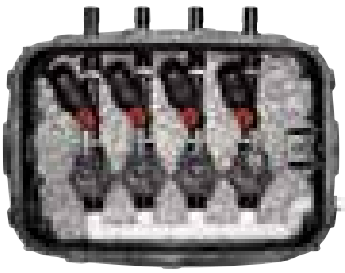
XCZ-075- PRF, XCZ-100-PRF, IXZ-100-LC SERIES

3/4" and 1" Control Zone Start- Up Kits

- Control Zone Kits provide all of the components necessary to control flow, pressure and filtration for a low volume irrigation zone
- These convenient kits provide automatic control of a drip irrigation zone when connected to an irrigation controller (230V or battery-powered controller)
- These control zone kits are available with pre-installed latching solenoid to work with battery-powered controllers

MODELS

XCZ-075-PRF: 3/4" Low Flow Valve + 3/4" Pressure Regulating RBY Filter
XCZ-100-PRF: 1"DV Valve + 1"Pressure Regulating RBY Filter:
IXZ-100-LC: 1" PGA Valve + 1"Pressure Regulating PRB100 Filter
ICZ-075-TBOS: 3/4" Low Flow Valve with latching solenoid + 3/4" Pressure Regulating RBY Filter
IXZ-100-TBOS: 1" DV Valve with latching solenoid + 1" Pressure Regulating RBY Filter



XCZ-075 PRF

IXZ-100-LC

FEATURES

• Easy-to-Install

- Includes a valve and a Pressure Regulating (RBY filter or PRB Filter)
- Simplest control zone kit in the industry with the fewest parts for easy installation and reduced maintenance
- Shorter kits with less components means that you can fit more control zone kits in a valve box

• Reliable

- Most reliable control zone kits on the market with proven Low Flow Valve, DV or PGA valve and fewer threaded connections which mean less chance of a leak both at installation and over the life of the system

SPECIFICATIONS

Pressure: 1,0 to 10,3 bars
Flow:
3/4" units with LF: 45,4 to 1136 liters/hour
1" units with DV: 681 to 3407 liters/hour
1" units with PGA: 1136 to 4524 liters/hour
Filtration: 75 microns
Regulated pressure: 2,0 bar (3/4")
or 2,8 bar (1")

XCZ-075-PRF and ICZ-075-TBOS	
Minimum Inlet Pressure for 2.0 bar Outlet Pressure	
Flow l/h	Inlet Pressure (bar)
48	2,4
228	2,5
684	2,6
1136	3

XCZ-100-PRF and IXZ-100-TBOS	
Minimum Inlet Pressure for 2.8 bar Outlet Pressure	
Flow l/h	Inlet Pressure (bar)
684	3
1134	3
1818	3,2
2274	3,3
3407	3,8

IXZ-100-LC	
Minimum Inlet Pressure for 2.8 bar Outlet Pressure	
Flow l/h	Inlet Pressure (bar)
1136	2,9
2274	3,3
3407	3,8
4542	4,5

SAVE WATER

Control Zone Kits with pressure regulating filters increase efficiency and save water; pre-assembled to eliminate leaks.

LOW FLOW VALVE: DV DRIP

Control Zone Components

- 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 (45,4 to 1136 liters/hour).
- These valves contain all of the features of Rain Bird's reliable DV valve, 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

LFV-075

LFV-075-9V

FEATURES

- **Ease of Service**
  - External bleed to manually flush system of dirt and debris during installation and system startup
  - Internal bleed for spray-free manual operation
- **Reliability**
  - Unique "double-knife" diaphragm coupled with ½" diameter seat for flawless operation at low flow rates.
  - Double-filtered pilot flow design for maximum reliability

SPECIFICATIONS

Flow : 45,42 to 1817 liters/hour
Pressure : 1,0 to 10,3 bars

ELECTRICAL SPECIFICATIONS

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

DIMENSIONS

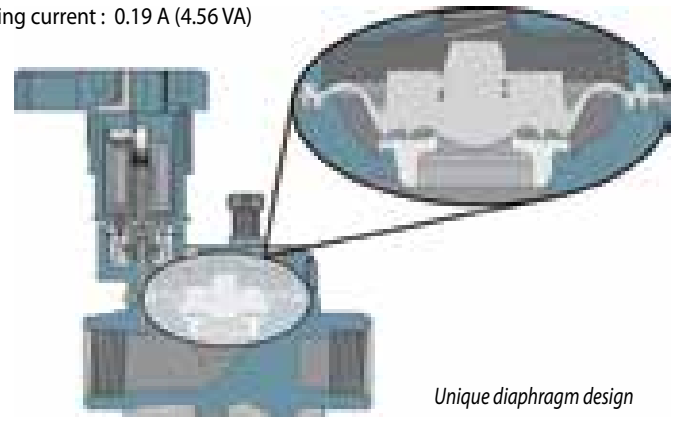
Height : 11,4 cm
Length : 10,7 cm
Width : 8,4 cm

MODEL

LFV-075: DV DRIP 3⁄4" (20/27) female threaded inlet and outlet
LFV-075-9V: DV DRIP 3⁄4" (20/27) female threaded inlet and outlet, latching solenoid

Friction Loss Characteristics

Flow, l/hr	Flow, l/s	LFV-075, bar
45,42	0,01	0,19
227	0,06	0,19
454	0,13	0,24
908	0,25	0,26
1362	0,38	0,30
1817	0,50	0,36



Unique diaphragm design

SAVE WATER

Unique diaphragm design that allows particles to pass through at extremely low flow rates, thereby preventing weeping of the valve.

PRESSURE-REGULATING FILTERS

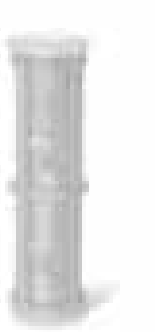
- The Pressure-Regulating (P/R) Filter reduces the number of components in a control zone, making it smaller and easier to install. More control zones can fit in one valve box !
- Combination unit reduces the number of connections, making installation easier and saving time.
- The P/R Filter provides increased reliability-- fewer parts and fewer threaded connections mean less chance of a leak both at installation and also over the life of the system.

FEATURES

- Unique, compact unit that combines filtration and pressure regulation in one unit for protection of downstream components in a drip irrigation system
- P/R RBY Filter Cap has sealing o-ring and unthreads to provide access to the filter element for easy cleaning
- 2 bar pressure regulator is integrated into filter body
- Body and cap made of glass filled nylon, providing 10,3 bar pressure rating
- Works with all valves to create a simple, efficient control zone

SPECIFICATIONS

Pressure: 1,4 to 10,3 bars
Flow:
3/4" units: 45 to 1136 liters/hour
1" units: 681 to 3407 liters/hour
Filtration: 75 microns
Regulated pressure: 2,0 bar (3/4") or 2,8 bar (1")



MODELS

PRF-075-RBY: 3/4" RBY pressure regulating filter
I-PRF-100-RBY: 1" RBY pressure regulating filter

ACCESSORIES

RBY-200MX: 75 micron replacement screen

Friction Loss Characteristics

Flow l/hr	PRF-075-RBY bar	PRF-100-RBY bar
45	0,21	N/A
227	0,28	N/A
681	0,42	0,06
1136	0,69	0,14
1817	N/A	0,26
2271	N/A	0,36
3407	N/A	0,83

PRESSURE REGULATING BASKET FILTER

- Combines filltration and pressure regulation in one unit for protection of downstream components in a drip irrigation system
- The new pressure regulated basket filter reduces the number of components in a control zone, making it smaller and easier to install

FEATURES

- **Easy Installation and maintenance**
  - Threaded top makes it easy to remove and clean the stainless steel screen.
  - "No Spill" feature ensures that the dirt does not fall out of the basket filter element when you remove the screen for cleaning.
  - Combination unit reduces the number of connections, making installation easier and saving time.

SPECIFICATIONS

Pressure: 1 to 10,3 bar
Flow: 681 to 4542 l/h
Temperature: Up to 66°C
Regulated Pressure: 2,8 bar

DIMENSIONS

Length: 17,5 cm
Width: 8,8 cm
Height: 15,5 cm

MODELS

IPRB100: 1" Pressure Regulated Basket Filter
QKCHK-200M: 75 micron screen

LARGE-CAPACITY FILTERS

Large-Capacity high flow and low maintenance with a solid build
Disc & Screen Filters

ILCRBY200D

Disc & 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

- ¾" Model
Maximum flow: Up to 5 m^3/h
Filtering surface (disc): 180 cm^2
Filtering surface (screen): 160 cm^2
- 1" Model
Maximum flow: Up to 6m^3/h
Filtering surface (disc): 180 cm^2
Filtering surface (screen): 160 cm^2
- 1.5" Model
Maximum flow: Up to 20 m^3/hr
Filtering surface (disc): 535 cm^2
Filtering surface (screen): 490 cm^2
- 2" Model
Maximum flow: Up to 25 m^3/hr
Filtering surface (disc): 525 cm^2
Filtering surface (screen): 485 cm^2

Maximum Pressure: 8 bar
Maximum Temperature: Up to 60° C

MODELS

- ILCRBY075D ¾" Large-Capacity Disc Filter
- ILCRBY075S ¾" Large-Capacity Screen Filter
- 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

SPARE PARTS

- SMFC120MS - ¾" - 1" SCRN CART LG CAP 120 m
- SMFC120MD - ¾" - 1" DISC CART LG CAP 120 m
- LGFC120MS - 1½" - 2" SCRN CRT LG CAP 120 m
- LGFC120MD - 1½" - 2" DISC CRT LG CAP 120 m

SPECIFICATIONS

- Inlet / Outlet Size:
Models: ¾" BSP
Models: 1" BSP
Models: 1.5" BSP
Models: 2" BSP

FILTRATION

- Stainless Steel Screen Filter: 120 Mesh (130 Micron)
- Plastic Filter Discs: 120 Mesh (130 Micron)

Pressure Loss Characteristics - Disc FIlter

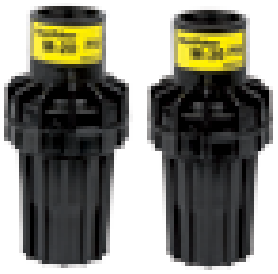
Flow rate (l/min)	1" Filter bar	1.5" Filter bar	2" Filter bar
18.93	0.04	0.01	0.01
41.67	0.08	0.01	0.01
83.33	0.18	0.03	0.01
125.0	0.30	0.05	0.02
166.67	—	0.07	0.03
208.33	—	0.10	0.04
250.00	—	0.15	0.06
291.67	—	0.21	0.08
333.33	—	0.27	0.11
375.00	—	—	0.14
416.67	—	—	0.17

Pressure Loss Characteristics - Screen FIlter

Flow rate (l/min)	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

PSI-M SERIES

Pressure Regulators



APPLICATIONS

These preset pressure regulators are designed to provide a constant outlet pressure in micro-irrigation installations.

FEATURES

- Preset outlet pressure
- Designed for above and below grade use

SPECIFICATIONS

Flow range: 0.45 to 5 m^3/h
Inlet pressure:
- PSI-M20: 1.5 to 7 bar
- PSI-M25: 2.0 to 7 bar

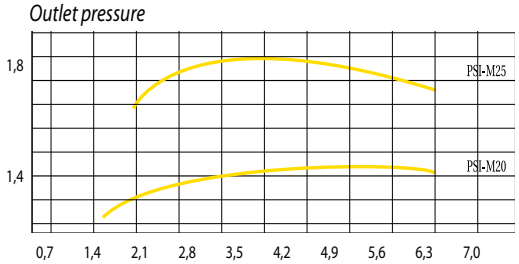
¾" (20/27) female threaded inlet and outlet

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

PERFORMANCE

Outlet pressure



Intlet pressure

BLANK TUBING

16 mm Distribution Tubing

APPLICATIONS

- 16 mm flexible pipe used in drip irrigation system to attach emitters or 16 mm tubing or Dripline.
- High UV resistance and 100% Crack-resistant
- Resists kinks and damage caused by routine landscape maintenance activities
- Important: Do not use any lubricant (grease, soap, oil, etc)

BLANK BLACK TUBING

SPECIFICATIONS

- UV-resistant low-density polyethylene material
- One layer
- Black color
- Operating water pressure rating: up to 4 bar
- 100% crack-resistant
- UVA-resistant. Black carbon = 2%
- Accepts any 16 mm barb insert fitting and lock type fittings

DIMENSIONS

External diameter: 16 mm
Internal diameter: 13,7 mm
Wall thickness: 1,15 mm

XF SERIE: Blank brown tubing

DBL: Blank black tubing

BLANK BROWN TUBING: XF SERIES

SPECIFICATIONS

- Extra flexible tubing for fast, easy installation
- Easier to uncoil the pipe, making it much easier to lay without kinks or loops
- Accepts XF Dripline Insert Fittings
- Lock fittings and 17 mm insert fittings
- Dual-layered tubing (brown over black) provides unmatched Resistance to chemicals, UV damage and algae growth

DIMENSIONS

External diameter: 16.1 mm
Internal diameter: 13.6 mm
Wall thickness: 1.2 mm

MODELS

DBL100: Blank Drip Tubing Black 100 m coil
XFD1600: brown blank tubing, 100 m coil

XF SERIES ON SURFACE DRIPLINE

The Most Flexible, kink-resistant Pressure-Compensating Inline Emitter.

- Designed to irrigate Ground Cover, Dense Plantings, Hedge Rows, Trees and More
- Extra flexible tubing for fast, easy installation
- Patent pending emitter design provides for increased reliability
- Longer lateral runs than competition with fewer components

FEATURES

• Easy-to-Install

- Unique material offers significantly greater flexibility and kink resistance, allowing tighter turns with fewer elbows and fewer stakes to fix the pipe making the installation easier and faster
- Easier to uncoil the pipe, making it much easier to lay without kinks or loops
- Choice of spacing and coil lengths provide design flexibility for a variety of applications
- Accepts XF Dripline Insert Fittings and 17mm insert fittings
- It is recommended to use the vacuum breaker (XBER-12 model) to prevent drip lines from clogging in tough topographic conditions and in sub-surface drip irrigation system.

• Durable

- 1.2 mm. The best mechanical, crush and breakages resistance
- Dual-layered tubing (brown over black) provides unmatched Resistance to chemicals, UV damage and algae growth

• Reliable

- The pressure compensating emitter design provides a consistent flow over the entire lateral length ensuring higher uniformity independently of slopes
- The XF emitter is self flushing. It has a floating diaphragm that will continuously self flush at any time during the irrigation cycle

SPECIFICATIONS

Pressure: 0,59 to 4,14 bar.
Flow rates: 1,6 l/h - 2,3 l/h
Temperature: Water: Up to 38º C
Ambient: Up to 52º C
Required Filtration: 125 micron

DIMENSIONS

Outside diameter: 16,1 mm
Inside diameter: 13,6 mm
Wall thickness: 1,2 mm
Spacing: 33, 40 and 50 cm.

MODELS

XFD1633100: 33 cm spacing, 100 m coil length and 1,6 l/h.
XFD2333200: 33 cm spacing, 200 m coil length and 2,3 l/h.
XFD2333100: 33 cm spacing, 100 m coil length and 2,3 l/h.
XFD2340100: 40 cm spacing, 100 m coil length and 2,3 l/h.
XFD2350100: 50 cm spacing, 100 m coil length and 2,3 l/h.
XFD233350: 33 cm spacing, 50 m coil length and 2,3 l/h.
XFD233325: 33 cm spacing, 25 m coil length and 2,3 l/h.

ACCESSORIES

XF Dripline Insert Fitting (page 22)

Maximum Lateral Length (Meters)		
Inlet Pressure Bar	Maximum Lateral Length (Meters) 33 cm Spacing	
	Nominal Flow (l/h)	
	1,6	2,3
1,0	104	79
1,7	131	104
2,4	144	121
3,1	150	126
3,8	175	147

Maximum Lateral Length (Meters)	
Inlet Pressure Bar	Maximum Lateral Length (Meters) 40 cm Spacing
	Nominal Flow (l/h)
	2,3
1,0	85
1,7	108
2,4	127
3,1	141
3,8	148

Maximum Lateral Length (Meters)	
Inlet Pressure Bar	Maximum Lateral Length (Meters) 50 cm Spacing
	Nominal Flow (l/h)
	2,3
1,0	100
1,7	129
2,4	152
3,1	162
3,8	169

XFCV ON SURFACE DRIPLINE

XFCV Dripline with Heavy-Duty Check Valve

Rain Bird® XFCV Dripline with a heavy-duty 0,24 bar 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 2,4 m 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 Lock 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 checkvalve 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 It accepts Rain Bird Lock Fittings, XF Dripline Barbed Insert Fittings and other 17 mm barbed insert fittings 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.

• 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 rates: 2.3 l/hr
- Temperature:
  Water: Up to 37.8° C
  Ambient: Up to 51.7° C
- Required Filtration: 120 mesh (130 micron)

• Specifications
- Dimensions:
  OD: 16 mm
  ID: 13.6 mm
- Thickness: 1.2 mm
- 30 cm, 45cm spacing
- Available in 30 m coils
- Coil Color: Brown
- Use with XF Dripline Insert Fittings, Rain Bird Lock fittings and 17 mm Insert Fittings

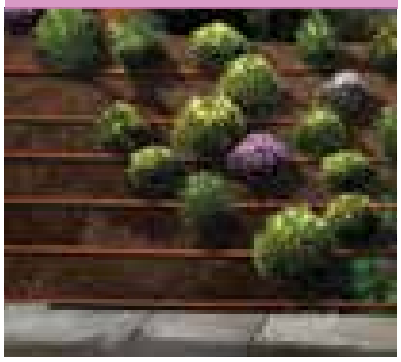
How to specify

XFCV - 06 - 12 - 100

- **Model** XFCV Dripline with Heavy-Duty Check Valve
- **Flow Rate** 06 = (2.3 l/h)
- **Emitter Spacing** 12 = (30 cm) 18 = (50 cm)
- **Length of Tubing** 100 = (30 m)

XFCV Dripline for Elevated Applications

With XFCV's built-in 0,24 Bar check valve, all lines are kept charged and up to 2,5 m of water is held back



XFCV Dripline Models			METRIC
Model	**Flow (l/h)**	**Spacing cm**	**Coil Length m**
XFCV2333100	2.30	33	100
XFCV2350100	2.30	50	100

XFCV Dripline Models		METRIC
Inlet Pressure	**Maximum Lateral Length (Meters)**	
Bar	**30.5 cm**	**45.7 cm**
	Nominal Flow (l/h): 2.3	**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

XFS SERIE SUB SURFACE DRIPLINE

XFS Subsurface Dripline with Copper Shield™ Technology.

- Rain Bird® XFS Sub-Surface Dripline with Copper Shield™ Technology is the latest innovation in the Rain Bird 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.
- The XFS Sub-Surface Dripline with Copper Shield ™ is the most flexible dripline tubing in the industry making it the easiest sub-surface dripline to design with and install.
- It accepts Rain Bird Lock Type Fittings, XFF Dripline Barbed Insert Fittings and other 17 mm barbed insert fittings.

FEATURES

- **Easy-to-Install**
  - Unique material offers significantly greater flexibility and kink resistance, allowing tighter turns with fewer fittings making the installation easier and faster.
  - Longer lateral runs simplifying design and reducing installation time.
  - Easier to uncoil the pipe, making it much easier to lay without kinks or loops.
  - Choice of spacing provides design flexibility for a variety of applications.
- **Reliable**
  - XF Sub-Surface 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.
  - Grit tolerant Emitter. Resists clogging by use of extra-wide flow path combined with a self flushing action (a floating diaphragm that will continuously self flush at any time during the irrigation cycle).
  - The pressure compensating emitter design provides a consistent flow over the entire lateral length ensuring higher uniformity (independently of slopes or position of the emitter in the line).
- **Durable**
  - 1.2 mm wall thickness. The best mechanical crush and breakage resistance.
  - Dual layered tubing (brown over black) provides unmatched resistance to chemicals, UV damages and algae growth.

SPECIFICATIONS

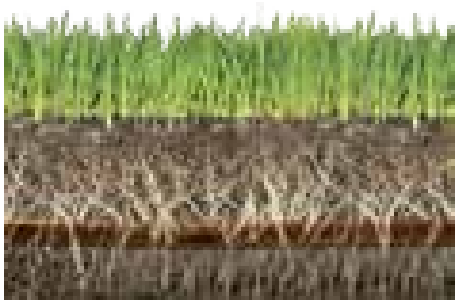
Pressure: 0,59 to 4,14 bar
Flow rate: 2,3 l/h
Temperature: Water: Up to 38º C
Ambient: Up to 52º C
Required Filtration: 125 micron

DIMENSIONS

Outside diameter: 16,1 mm
Inside diameter: 13,6 mm
Wall thickness: 1,2 mm
Spacing: 33 cm

MODELS

XFS2333100: 33 cm emitter spacing and 100 m coil length.
XFSV2333100: 33 cm emitter spacing and 100 m coil length. Purple color.



Maximum Lateral Length (Meters)	
Inlet Pressure Bar	33 cm Spacing
1,0	79
1,7	104
2,4	121
3,1	126
3,8	147

1/4" LANDSCAPE DRIPLINE

NEW

Rain Bird 1/4" 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 1/4" barbed Fittings

OPERATING RANGE

- 0.7 to 2.7 bar
- Flow rate at 2.0 bar: 3.0 l/h
- Required filtration: 200 mesh (75 micron)

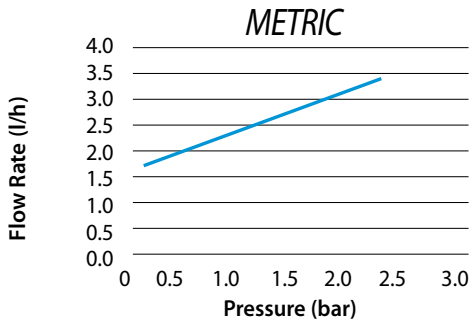
SPECIFICATIONS

- Outside diameter: 6 mm
- Inside diameter: 4 mm
- Wall thickness: 1 mm
- Spacing: 15 cm and 30 cm
- Length: 30 m coils

Flow Characteristics

Model	Flow at (l/h)	Spacing (cm)	Coil Length (m)
LDQ0806100	3.0	15	30
LDQ0812100	3.0	30	30

1/4" Landscape Dripline Performance



Maximum Length of Run (meter)

Emitter Spacing	Maximum Length of Run	Flow @1 Bar
15 cm	5,80 m	3,8l/h - /30 cm
30 cm	10 m	1,9l/h - /30 cm

LDQ

QF DRIPLINE HEADER

A Quick and Flexible Solution to Dripline Headers

NEW

QF Dripline Header

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 ou 45 cm spacing. Eliminating the need for measuring, cutting, gluing and taping, the QF Dripline Header saves time and money, making projects more profitable.

FEATURES

The QF Dripline Header barbs rotate 360º 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.
- Barbs 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

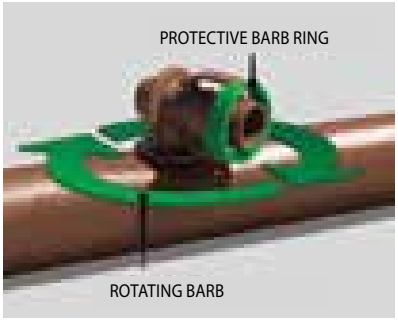
QF Header - 3/4"
Outside Diameter: 23.9 mm
Inside Diameter: 20.8 mm
Wall Thickness: 1.5 mm

MODELS

XQF 3/4" Dripline Header
(30 cm Spacing -30 mCoil)
XQF 3/4" Dripline Header
(45 cm Spacing -30 mCoil)

FITTINGS

The QF Dripline Header is designed to work with ¾" compression fittings, lock fittings and insert fittings with clamps.



How to specify

XQF - 75 - 12 - 100

- **Model** XQF: Xerigation Quick Flexible
- **Dripline Diameter:** 75 = 3/4"
- **Barb Spacing** 12 = (30 cm) 18 = (45 cm)
- **Coil Length** 100 = (30 m)

XFF SERIES

XFF Dripline Insert Fittings

- Brown acetal fittings compatible with XF and XFS Series Dripline and most polyethylene tubing with 17 mm outside diameter.
- Designed to ensure reliability of the pipe fitting union even under hard work conditions.
- As with XF Dripline, brown color blends with landscape.

FEATURES

- Easy-to-Install.
- Complete line of 17 mm inserts fittings to make XF Dripline installation faster and easier.
- Unique barb design coupled with the Inserting Tool reduces the insertion effort by 50%.
- Easier to insert than any other 17 mm acetal fittings even without using the Insertion Tool.
- Made of sturdy, break-resistant and UV-resistant plastic to ensure durability
- Two high barbs grab tubing for the most secure fit without clamps

XFF TMA 050

XFF TEE

XFF MA 050

XFF COUP

XFF ELBOW

XFF MA 075

FITINSTOOL

SPECIFICATIONS

Operating Pressure Range: 0 to 3.5 bar

MODELS

XFF COUP: Barb Connector for XF Dripline and 17 mm Tubing.
XFF ELBOW: Barb Elbow for XF Dripline and 17 mm Tubing
XFF TEE: Barb Tee for XF Dripline and 17 mm Tubing
XFF MA 050: Barb Male Adapter 17 mm x 1/2" for XF Dripline and 17 mm Tubing
XFF MA 075: Barb Male Adapter 17 mm x 3/4" for XF Dripline and 17 mm Tubing
XFF TMA 050: Barb Male Tee Dapter 17 mm x 1/2" x 17 mm for XF Dripline and 17 mm Tubing
FITINSTOOL: Insertion Tool for Rain Bird XFF Barb Fittings.

CLAMP

For 13-16 mm Tubing

APPLICATIONS

Clamps are used for 13-16 mm tubing.

MODEL

Clamp for 13-16 mm tubing.

LOCK TYPE FITTINGS

Fittings for 13-16mm tubing

APPLICATIONS

Used to connect 13-16 mm tubing (drip application) and XF Dripline.

FEATURES

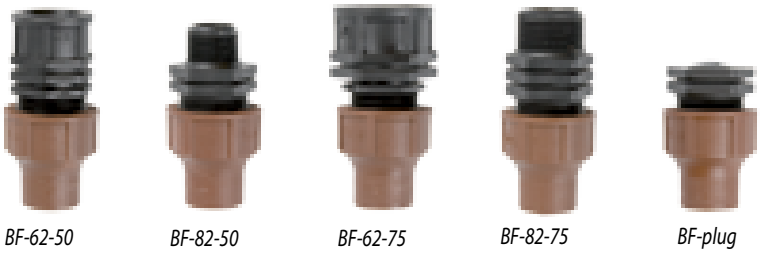
- High safety connection for 16mm outside diameter tubing.
- Can be used with Dripline and blank tubing. Easy to handle.
- Easy-to-use

SPECIFICATIONS:

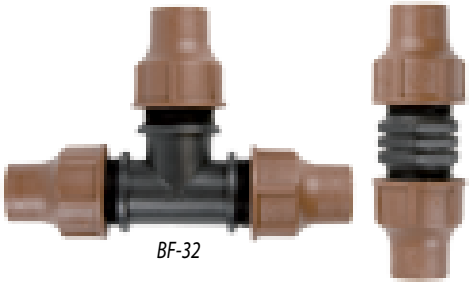
Made of polyethylene .
Exists in 8 different shapes : union , elbow and tee.

MODELS

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



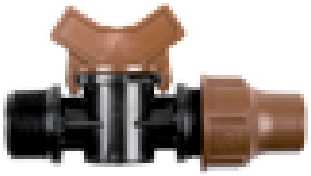
BF-62-50 *BF-82-50* *BF-62-75* *BF-82-75* *BF-plug*



BF-32

BF-12

BF-22



BF-Valve - Lock

BF-92

BF-plug lock: Quick end-plug for 16 mm tubing
BF-92: ¾" Lock type
BF-valve-lock: 3/4" male threaded x lock manual valve

XBER-12

½" Vacuum Breaker for drip irrigation, filters

- Design to prevent clogging of drippers due to dirt suction under vacuum conditions
- Prevent infiltration of toxic substances into the drip system
- Easy to handle and maintain

FEATURES

- **Reliability**
  - Large air passage
  - High resistance to chemicals (all parts are made of plastic)
  - Seals even with damaged or missing seals

SPECIFICATIONS

Size: ½"
End connection: male threading, BSP
To be installed in vertical position
Pressure: 0,1 to 10 bar
Temperature range: water up to 60°C
Material: plastic, with Buna-N seal

DIMENSIONS

Height: 43 mm
Length: 25 mm

MODEL

½" XBER-12

C-12
Tie-Down Stake for 13-16 mm Tubing

APPLICATIONS
Used to hold down 13-16 mm tubing to finish grade.

MODEL
C-12: Tie-Down Stake for 13-16 tubing

700-CF-22
Tubing End Closure

APPLICATIONS
Figure 8 end closures are used at the end of 13-16 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

XM-TOOL
Installation Tool

APPLICATIONS
Used to install Rain Bird low volume irrigation components such as self-piercing emitters with or without 4-6 mm distribution tubing and goof plugs into drip tubing. Also used to easily remove installed emitters.

MODEL
XM-TOOL: Installation tool

T135SS
Tubing Cutter

APPLICATIONS
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

EMA-GPX
Tubing Goof Plug

APPLICATIONS
Used to plug any unwanted holes made while inserting self-piercing emission devices into 13-16 mm tubing.

MODEL
EMA-GPX plug

RAIN BIRD XB PC SERIES

Pressure Compensating Self - piercing Emitters

- Color-coded to identify flow rate
- This pressure compensating emitter provides flow uniformity on uneven terrain
- The only emitters with self-piercing barbs, making them the easiest to install using the Xeriman™ tool

FEATURES

- Deliver precise amounts of water to plant root zones. They are ideal for watering hedges, trees, shrubbery and potted plants
- Outlet barb accepts 4-6 mm distribution tubing (XQ-100, XQ-1000)
- Design makes installation and maintenance easy
  - Self-flushing action minimizes clogging
  - Robust design made from highly inert materials that are resistant to chemicals
  - Durable plastic construction is UV-resistant

SPECIFICATIONS

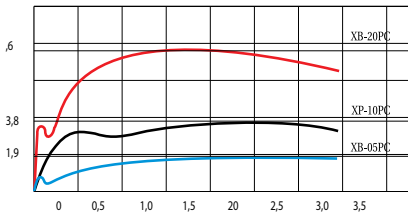
Pressure: 1 to 3.5 bar
Flow: 1.33 l/h to 7.20 l/h

MODELS

XB-05PC (blue): 1.9 l/h pressure compensating selfpiercing emitter
XB-10PC (black): 3.8 l/h pressure compensating selfpiercing emitter
XB-20PC (red): 7.6 l/h pressure compensating selfpiercing emitter

PERFORMANCE

Flow (l/h)



PC-12, PC-18 SERIES

Pressure-Compensating Modules

APPLICATIONS

Point-source medium-flow emitters for watering larger shrubs and trees, and for precisely regulating water flow to Xeri-Bubblers and Xeri-Sprays.

FEATURES

- Pressure-compensating design delivers uniform flow throughout a wide pressure range (0,7 to 3,5 bars).
- Self-piercing barbs for quick one-step emitter insertion into 1⁄2"or 3⁄4" drip tubing
- Inlet and outlet barbs securely retain 1⁄4" distribution tubing(XQ-100, XQ-1000).
- Robust design - durable plastic construction is UV-resistant.
- Made from highly inert materials that are resistant to chemicals.
- Color-coded outlet identifies flow rate.

OPERATING RANGE

- Flow: 45,42 to 63,13l/h
- Pressure: 0,7 to 3,5 bars
- Required Filtration: 150-micron

MODELS

PC-12: (Dark brown) 45,42 l/h
PC-18: (White) 68,13 l/h

ACCESSORY

PC Diffuser Cap: cap snaps securely onto the PC Module outlet to create bubbler effect and prevent wash out

PERFORMANCE

PRESSURE-COMPENSATING MODULE MODEL		METRIC	
Model	Intel RType/ Outlet/Color	Nominal Flow l/h	Filtration Required micron
PC-12	Barb/dark brown	45,42	150
PC-18	Barb/white	63,13	150

XB-10-6

Multi-Outlet

APPLICATIONS

Pressure compensating emitters provide precise and water-conserving irrigation to promote the healthy growth of ornamental plants, shrubs and trees.

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 1/4" distribution tubing (XQ-100, XQ-1000).
- Self-flushing action minimizes clogging.
- Durable, UV-resistant plastic housing.
- Barbed inlet inserts into drip tubing with use of a hole punch tool.

OPERATING RANGE

Flow: 3,79 L/h
Pressure: 1,0 to 3,5 bar
Filtration: 100 micron

MODEL

XB-10-6 : 6-outlet pressure compensating emitter

PCT SERIES PRESSURE COMPENSATING THREADED LOW-FLOW BUBBLERS

Low-Flow Just Got Tougher

- The medium-flow options provide more flexibility for commercial applications
- Color Coded to identify flow rate
- Bubblers are ideal for a variety of applications including shrub plantings, trees, containers, large pots, annual color, and flower beds.

FEATURES

- Durable – Designed for a rugged environment. UV-resistant durable plastic construction with 1/2" threads.
- Flexible – Pressure compensating design delivers uniform flow throughout a wide pressure range (1.03-3.45 bar).
- Easy to Identify – Color-coded caps make identifying the flow rate easy. Light Brown = 18.93 l/h, Violet = 26.50 l/h and Green = 37.85 l/h

SPECIFICATIONS

Flow rates: 18.93 to 37.85 l/h
Pressure: 1.03 to 3.45 bar
Required Filtration: 150 micron

Inlet: 1/2" FPT threads are specifically designed
to be used with:

- 1/2" PVC risers
- Rain Bird 1800 Retrofit kit
- Xeri-Pop spray head
- Shrub adapter

MODELS

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

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

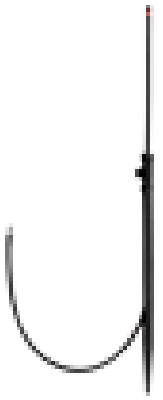
MODEL

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

PERFORMANCE				
	✳		●	
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

JET SPIKE 310-90, 310-180, 310-360

Adjustable Flow Spray on Spike



APPLICATIONS

This adjustable spray comes ready to install. It is ideal for flower beds, ground cover and potted plants.

FEATURES

- 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

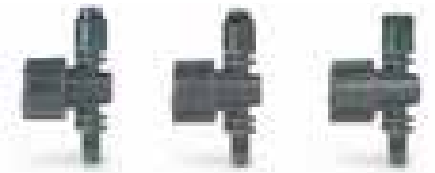
JET SPIKE 310-90: 90° micro-sprinkler on spike
JET SPIKE 310-180: 180° micro-sprinkler on spike
JET SPIKE 310-360: 360° micro-sprinkler on spike with 18 jets

PERFORMANCE

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

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

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

PERFORMANCE

	XS-90		XS-180		XS-360	
bar	m	l/h	m	l/h	m	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

SPB-025

Self-Piercing Barb Connector

APPLICATIONS

Self-piercing transfer fitting can be inserted into a 13-16 mm tubing using your XM-TOOL. Outlet barb accepts 4-6 mm distribution tubing (DT-025-50 / DT-025-1000).

FEATURES

- Gray color indicates unit has unrestricted flow and avoids confusion with XB PC emitters

SPECIFICATIONS

Pressure: 0 to 3.5 bar

MODEL

SPB-025: Transfer fitting for 4-6 mm distribution tubing

PFR/RS

Riser/Stake Assembly

APPLICATIONS

Riser and stake combination is used to install emission devices such as micro-sprays or micro-sprinklers in planter beds.

FEATURES

- The stake and riser combination consists of a riser (PFR-12) mounted on a stake (RS-025)
- The stake is connected to the 13-16 mm tubing by 4-6 mm distribution tubing (DT-025-50/DT-025-1000)
- Easy to install, this combination saves time and money

MODELS

PFR/RS: 4-6 mm barb stake
Micro-irrigation riser: 30 cm long.

XQ-100 / XQ-1000

Micro Distribution Tubing

APPLICATIONS

Extends emitter outlets to desired locations.

FEATURES

- Made of PVC materials

SPECIFICATIONS

Outside diameter: 5,7 mm
Inside diameter: 4 mm

MODELS

XQ-100: 6,00 mm distribution tubing; 30 m coil.
XQ-1000: 6,00 mm distribution tubing; 300 m coil
XQ-1000B: Bucket with 4-6mm distribution tubing (300m coil)

BF-1, BF-2, BF-3

Barb Transfer Fittings for 4-6 mm Tubing

APPLICATIONS

Used to connect 4-6 mm distribution tubing (DT-025-50/DT-025-1000).

FEATURES

- Rugged plastic construction
- Pressure: 0 to 3.5 bar

MODELS

BF-1: barb connector for 4-6 tubing
BF-2: barb x barb ell for 4-6 tubing
BF-3: barb x barb x barb tee for 4-6 tubing

TS-025

Tubing Stake

APPLICATIONS

Used for holding 4-6 mm distribution tubing (DT-025-50/DT-025-1000) in place at the root zone.

FEATURES

- Constructed of UV-resistant plastic material
- Height: 10 cm

MODEL

TS-025: stake for 4-6 mm tubing

DBC-025

Diffuser Bug Cap

APPLICATIONS

Diffuser for 4-6 mm tubing to minimize soil erosion at emission point. It also prevents insects and other debris from clogging 4-6 mm distribution tubing.

FEATURES

- Barb inlet fits into 4-6 mm distribution tubing (XQ-100, XQ-1000)
- Flanged shield directs water to the desired location

SPECIFICATIONS

Pressure: 0 to 1.7 bar

MODEL

DBC-025 diffuser for 4-6 mm tubing

EMT-6X

6 Outlet Manifold

APPLICATIONS

½" (15/21) inlet threads onto ½" riser and provides a manifold with six free-flowing ¼" barb outlets.

FEATURES

- 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.
- Use the EMT-6X with emitters, sprays and bubblers.

OPERATING RANGE

Pressure: 1,0 to 3,5 bar

MODEL

EMT-6X: 6 outlets manifold

1800™ XERI-CAPS™

Caps for Spray Heads

APPLICATIONS

Used to retrofit a spray head system to a Low volume system by capping off any unused spray heads.

SPECIFICATION

Pressure: 0,0 to 4,8 bar

DIMENSIONS

Width: 5,7 cm

MODELS

XC-1800 : Caps for 1800™ Spray Heads

SAVE WATER

Designed specifically for areas with water restrictions, our spray to drip retrofit kit allows use of existing 1800 Series spray bodies as drip irrigation connection points

XERI-POP™

Micro Spray

- The Xeri-Pop™ micro-spray makes it easy to integrate a durable micro-spray into a low-volume irrigation design. The Xeri-Pop is also ideal for applications that require flexibility and ease of installation
- Xeri-Pops can be installed and located in nearly any location and are ideal for small, odd-shaped planting beds.
- Perfect solution to vandal-prone areas

FEATURES

- **Ease of service**
  - The Xeri-Pop's ¼" distribution tubing can readily connect to ½" or ¾" polyethylene tubing or to a multi-outlet manifold (EMT-6XERI). Connections to polyethylene tubing are accomplished with an SPB-025 ¼" self-piercing barb connector.
  - The flexibility of ¼" tubing allows the Xeri-Pop to be easily located and relocated as planting conditions dictate
  - The Xeri-Pop can operate with 1,4 to 3,4 bar base pressure when water is supplied via ¼" distribution tubing (XQ-100, XQ-1000).
  - A durable, plastic snap-collar secures the ¼" tubing to the outside of the Xeri-Pop case.

- **Design Solutions**
  - Xeri-Pops work with Rain Bird's 5-MPR and 8-MPR nozzles and Xeri PC nozzles (0,8 m and 1,2 m).
  - Available in 4" (10 cm) and 6" (30 cm) pop-up heights

- **Durability**
  - External parts are UV-resistant

OPERATING RANGE

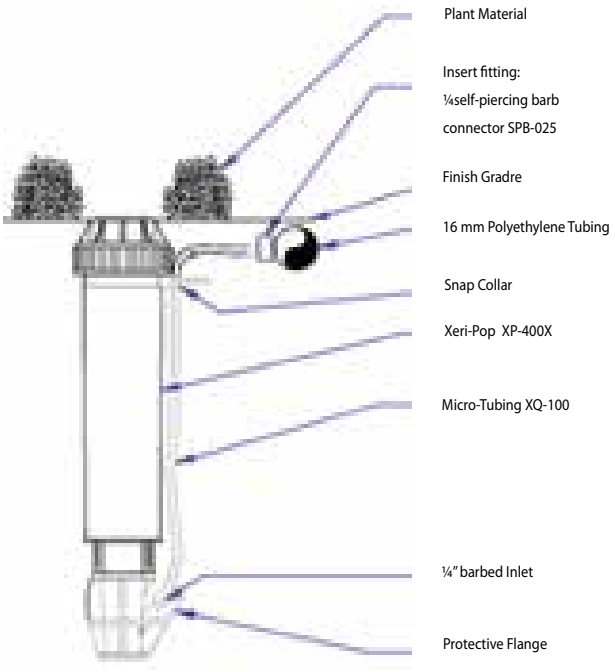
- Pressure: 1,4 to 3,4 bars
- Filtration: Depends on Nozzle used with Xeri-Pop

MODELS

XP-400X: 4-inch pop-up

NOZZLE OPTIONS

- Xeri SQ nozzles
- 5 Series MPR nozzle (all configurations)
- 8 Series MPR nozzle (8H and 8Q)



12˝Xeri-Pop in planting bed

SQ SERIES

Xeri-Pressure compensting Nozzles

- The most precise and efficient, low-volume spray solution for irrigation of small areas with dense plantings
- Pressure compensation and square spray pattern offer increased efficiency and control, reducing overspray, property damage and liability
- Unique edge to edge capability reduces the number of nozzles needed, which decreases cost and dramatically reduces installation time
- Simplify design and installation with the flexibility of applications (one nozzle throws 0,8 m or 1,2 m) and can be used on a variety of spray heads and risers

FEATURES

- Pressure compensation design delivers uniform flow over the pressure range
- Available in 3 models: Quarter, Half and Full patterns with matched precipitation rate
  - Virtual no-mist performance from 1,4 to 3,4 bar
  - 2 throw distances in each nozzle. One simple click lets you adjust from 0,8 m or 1,2 m
  - Shipped with blue filter screen to maintain precise distance of flow, and to prevent clogging
- Square spray pattern with edge-to-edge coverage allows you to easily design and install in small spaces
- Compatible with all 1800 Sprays, Xeri-Pops and UNI-Spray
- PolyFlex Riser adapter sold with 24" PolyFlex Riser

Nozzles with Screens

OPERATING RANGE

Operating Range
Pressure: 1,4 to 3,5 bars
Flow: 22,7, 45,4 and 90,8 l/h
Required Filtration: 375 micron

MODELS

SQ QTR – SQ Nozzle, Quarter Pattern
SQ HLF - SQ Nozzle, Half Pattern
SQ FUL - SQ Nozzle, Full Pattern
SQ ADP24 - SQ Nozzle Adapter with 24"
PolyFlex Riser

SQ Nozzle Performance				
0,8 m throw @ 0,15 m height above grade				
Nozzle	**Pressure bars**	**Throw Radius m.**	**Flow LPH**	**Precip. Rate w/no overlap mm/h**
	1,4	0,8	24	42
	2,1	0,8	28	48
	2,8	0,9	28	34
	3,4	0,9	28	34
	1,4	0,8	39	33
	2,1	0,8	46	40
	2,8	0,9	52	31
	3,4	0,9	52	31
	1,4	0,8	76	33
	2,1	0,8	92	39
	2,8	0,9	103	31
	3,4	0,9	103	31

SQ Nozzle Performance				
1,2 m throw @ 0,15 m height above grade				
Nozzle	**Pressure bars**	**Throw Radius m.**	**Flow LPH**	**Precip. Rate w/no overlap mm/h**
	1,4	1,2	24	16
	2,1	1,2	28	19
	2,8	1,4	28	15
	3,4	1,4	28	15
	1,4	1,2	39	13
	2,1	1,2	46	16
	2,8	1,4	52	14
	3,4	1,4	52	14
	1,4	1,2	76	13
	2,1	1,2	92	15
	2,8	1,4	103	14
	3,4	1,4	103	14

Performance data taken in zero wind conditions.

RWS SERIES

Root Watering System - There's no better way to encourage healthy trees.

- Subsurface aeration and irrigation prevents tree and shrub transplant shock
- Subsurface deep root watering and aeration ensures tree health and promotes accelerated growth
- Highest efficiency solution for tree irrigation - up to 94% distribution uniformity with minimal wind, evaporation, or edge control losses

FEATURES

• Installation and Maintenance

- Save time and assembly labour versus homemade systems because the system comes with pre-installed Rain Bird 1401 Series pressure compensating bubbler
- Compatible with drip tubing systems
- Easy to specify: one model instead of a host of parts

• Healthy trees and shrubs

- Promotes trees and shrub health by allowing water, oxygen and nutrients to reach feeder roots in areas with compacted soil or thick lawns
- Releases trapped gases that may increase plant stress
- Mesh tube are perforated with thousands of holes, allowing water to permeate the ground at the root bulb while providing excellent aeration
- Ideal for urban settings: Subterranean watering encourages roots to remain below surface , tree roots are less prone to damage

• Vandal resistance

- The grate locking feature protects against vandalism
- Aesthetically pleasing because it's installed below grade

• Reliability

- 3-year warranty.
- All units are self-contained and factory assembled

SPECIFICATIONS

• RWS & Mini –RWS models :

- The Rain Bird Root watering device will consist of a grate retainer constructed from high-grade polymer with UV-resistant thermoplastic inhibitors. The grate retainer will also secure the pre assembled system consisting of bubbler and barb fitting
- No adjustment required
- Pre-installed Rain Bird 1401 Series bubbler
- Pressure compensating from 1,5 to 5,5 bar
- Flow rate : 57l/h

• Shrub –RWS model :

- The Rain Bird Root watering device will consist of a snap-on cap and base cap constructed from highgrade polymer with UV-resistant thermoplastic inhibitor. The cap will house the basket weave container. The snap-on cap will also secure the pre installed system consisting of a bubbler and barb fitting.
- No adjustment required
- Pre-installed Rain Bird 1401 Series bubbler
- Pressure compensating from 1,5 to 5,5 bar.
- Flow rate : 57l/h

DIMENSIONS

RWS standard model :
- Height: 91,4 cm
- Diameter : 10,2 cm

Mini-RWS model :
- Height: 45,7 cm
- Diameter : 10,2 cm

Shrub RWS model :
- Height: 25,4 cm
- Diameter : 5,1 cm

MODELS

- RWS-BGX: system with factory pre-installed Rain Bird 1401 Series bubbler, locking grate , spiral barb elbow and 45cm of ½" swing pipe.
- RWS - M - BG : system with factory pre –installed Rain Bird 1401 Series bubbler, locking grate , spiral barb elbow for attachment of ½" swing pipe
- RWS - S - BG : system with factory preinstalled Rain Bird 1401 Series bubbler, snap-on-cap , spiral barb elbow for attachment of ½" swing pipe

ACCESSORIES

RWS-SOCK

Root Watering System Sand Sock

APPLICATION

The RWS-SOCK is designed to fit outside of Rain Bird RWS-BGX. It is for use in sandy soil installations and will deter fine soil from infiltrating into the RWS basket weave canister.

DIMENSIONS

Height: 91,4 cm
Diameter: 10,2 cm

FEATURES

- The « Sand Sock » is used to slip over the RWS-BGX
- Sock made of polypropylene
- Deter fine soil from entering the RWS-BGX basket weave canister

MODEL

RWS-SOCK: Root Watering System Sand Sock

SPRAY HEADS AND NOZZLES

Spray Heads	1802	1804	1806	1812	1800 SAM	RD1800	US-200	US-400	PA-8S	1400
Primary Applications										
Turfgrass	●	●	●		●	●	●	●		
Slopes		●	●	●	●	●	●	●	●	
Ground Cover/Shrubs	●	●	●	●		●	●	●	●	●
High Pressure Systems						●				●
Low Pressure Systems	●	●	●	●		●	●	●	●	●
High Wind Areas						●			●	●
Harsh conditions						●				

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

UNI-SPRAY™ SERIES

Pop-up Spray Heads - Rain Bird quality at Best Price in the Market

- Pressure-activated, multi-functional wiper seal prevents excessive flow-by and water waste. Keeps debris from entering upon retraction
- Durable two-piece stem ratchet allows for quick and easy nozzle pattern alignment
- Rugged cover and body provide durability in high pressure and surge conditions

FEATURES

• Installation, maintenance and inventory

- Small exposed cover makes the unit virtually invisible for more attractive landscapes
- For added convenience, these spray heads are shipped with pre-installed VAN Nozzles.
- Save Time and Speed-Up installation: Variable Arc Nozzles (VAN) allow maximum flexibility.
- UNI-Spray™ accepts all Rain Bird® nozzles and accessories, which simplifies inventory management
- VAN nozzle and screen are easily removable for flushing
- Internal parts removable from the top of the sprinkler for easy servicing
- Flow and throw adjustment screw

• A solution to all applications

- Optional field installable SAM check valve kit holds back up to 1.5 m of elevation difference
- 2 pop-up heights
- US-400: ideal for rotary nozzle

• Durability

- Plastic and stainless steel materials resist corrosion
- Strong stainless steel retract spring

SPECIFICATIONS

Pressure: 1.0 to 2.1 bar
Spacing: 2.1 to 5.5 m

DIMENSIONS

1/2" female threaded inlet
Exposed diameter: 3.2 cm
Body height:
- US-200: 9.6 cm
- US-400: 15.0 cm

Pop-up height:
- US-200: 5.1 cm
- US-400: 10.2 cm

MODELS

US-212: 12-VAN Series nozzles
US-215: 15-VAN Series nozzles
US-410: 10-VAN Series nozzles
US-412: 12-VAN Series nozzles
US-415: 15-VAN Series nozzles
US-418: 18-VAN Series nozzles
US-400: 10,2 cm pop-up height (4")

ACCESSORIES

US-SAM-KIT: This check valve device eliminates runoff, erosion and puddling produced by low head drainage.
PA-8S: Plastic shrub adapter for using UNI-Spray™ Series MPR nozzles on 1/2" (15/21) male threaded risers
1800-EXT: plastic extension extends all UNI-Spray™ Series models an additional 16.5 cm in height

PERFORMANCE

■ 50%
▲ 50%

10-VAN Series

Nozzle					
360°	1,0	2,1	0,44	96	111
	1,5	2,4	0,53	89	103
	2,0	2,7	0,57	76	88
	2,1	3,1	0,59	63	73
270°	1,0	2,1	0,33	96	111
	1,5	2,4	0,40	89	103
	2,0	2,7	0,43	76	88
	2,1	3,1	0,48	68	79
180°	1,0	2,1	0,22	96	111
	1,5	2,4	0,27	89	103
	2,0	2,7	0,29	76	88
	2,1	3,1	0,33	71	82
90°	1,0	2,1	0,11	96	111
	1,5	2,4	0,13	89	103
	2,0	2,7	0,14	76	88
	2,1	3,1	0,17	73	85

12-VAN Series

Nozzle					
360°	1,0	2,7	0,40	55	63
	1,5	3,2	0,48	47	54
	2,0	3,6	0,59	46	53
	2,1	3,7	0,60	44	51
270°	1,0	2,7	0,30	55	63
	1,5	3,2	0,36	47	54
	2,0	3,6	0,45	46	53
	2,1	3,7	0,45	44	51
180°	1,0	2,7	0,20	55	63
	1,5	3,2	0,24	47	54
	2,0	3,6	0,30	46	53
	2,1	3,7	0,30	44	51
90°	1,0	2,7	0,10	55	63
	1,5	3,2	0,12	47	54
	2,0	3,6	0,15	46	53
	2,1	3,7	0,15	44	51

15-VAN Series

Nozzle					
360°	1,0	3,4	0,60	52	60
	1,5	3,9	0,72	47	55
	2,0	4,5	0,84	41	48
	2,1	4,6	0,84	40	46
270°	1,0	3,4	0,45	52	60
	1,5	3,9	0,54	47	55
	2,0	4,5	0,63	41	48
	2,1	4,6	0,63	40	46
180°	1,0	3,4	0,30	52	60
	1,5	3,9	0,36	47	55
	2,0	4,5	0,42	41	48
	2,1	4,6	0,42	40	46
90°	1,0	3,4	0,15	52	60
	1,5	3,9	0,18	47	55
	2,0	4,5	0,21	41	48
	2,1	4,6	0,21	40	46

18-VAN Series

Nozzle					
360°	1,0	4,3	0,96	52	60
	1,5	4,8	1,07	47	55
	2,0	5,4	1,20	41	48
	2,1	5,5	1,21	40	46
270°	1,0	4,3	0,72	52	60
	1,5	4,8	0,80	47	55
	2,0	5,4	0,90	41	48
	2,1	5,5	0,91	40	46
180°	1,0	4,3	0,48	52	60
	1,5	4,8	0,54	47	55
	2,0	5,4	0,60	41	48
	2,1	5,5	0,61	40	46
90°	1,0	4,3	0,24	52	60
	1,5	4,8	0,27	47	55
	2,0	5,4	0,30	41	48
	2,1	5,5	0,30	40	46

How to specify

US - 4 - 15

Model
UNI-Spray

Body
4" (10,2 cm)

Nozzle Series/ Pattern
VAN nozzle with variable arc

1800™ SERIES

Pop-up Spray Heads - N°1 Selling Spray Head for 25 years !

- Co-molded wiper seal is molded into the cap and features an encased plastic "cage" to provide unmatched resistance to grit, pressure, and the environment. Additionally, the pressure-activated, multi-function seal design assures a positive seal without excess "flow-by" which enables more heads to be installed on the same valve
- Strong stainless steel spring provides reliable stem retraction
- Two-piece ratchet mechanism on all models allows easy nozzle pattern alignment and provides added durability

FEATURES

- **Installation & Maintenance**

- Shipped with 1800 Pop-Top™ flush plug to keep out dirt during installation
- All sprinkler components are removable from the top without special tools, providing for quick and easy flushing and maintenance of the sprinkler
- 5 pop-up heights
- Side and bottom inlets featured on 1806 and 1812 models
- Flow and radius adjustment screw
- Wide choice of nozzles (spray pattern, trajectory angle and radius of throw)

- **A solution to all applications**

- Built-in SAM check valve holds back up to 4.2 m of elevation difference on 1804-SAM, 1806-SAM, 1812-SAM, and models. Ideal for turf and flower beds on slopes or in areas with changing elevation.

Seal-A-Matic™ (SAM) check valve to prevent low head drainage

Without SAM check valve

With SAM check valve

- **Durability**

- Precision controlled flush at pop-down clears debris from unit, assuring positive stem retraction in all soil types
- Constructed of time-proven UV-resistant lastic and corrosion resistant stainless steel parts, assuring long product life
- Five-year trade warranty

SPECIFICATIONS

Pressure: 1.0 to 2.1 bar
Spacing: 0.6 to 5.5 m
Flow by: 0 at 0,6 bar or greater; 0,02 m3/h otherwise

DIMENSIONS

1/2" female threaded bottom inlet
Exposed diameter: 5.7 cm
Body height:
- 1802: 10.0 cm
- 1804: 15.0 cm
- 1806: 24.0 cm
- 1812: 40.0 cm

Pop-up height:
- 1802: 5.0 cm
- 1804: 10.0 cm
- 1806: 15.0 cm
- 1812: 30.0 cm

MODELS

1802
1804/1804-SAM
1806/1806-SAM
1812/1812-SAM

ACCESSORIES

PA-8S: Plastic shrub adapter for using 1800™ Series MPR nozzles on 1/2" male threaded risers
1800-EXT: Plastic extension extends all 1800™ Series models an additional 16.5 cm in height
XBA-1800: Adapts XS-90, XS-180 and XS-360 Micro-Sprays and SXB-180 and SXB-360 Micro- Sprinklers to 1800™ Series spray heads

How to specify

1804 - SAM

SAM
Optional Feature
Seal-A-Matic check valve

Model
1804
4" (10,2 cm) pop-up height

RD1800™ SERIES SPRAY HEADS

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

FEATURES

- Patented, Triple-Blade Wiper Seal precisely balances flushing, flow-by and debris protection to optimize performance and durability at pop-up and retraction.
  Precision-controlled flushing at pop-up and retraction clears debris, assuring positive stem retraction in all soil types
- Unique debris pockets hold grit in place, removing it from circulation and preventing long-term damage. Parts resistant to corrosion in treated recycled water containing chlorine

- **RD1800™ SAM PRS Series:** Incorporates all RD1800 Series SAM and PRS features. Meets the needs of all spray areas, regardless of changing elevation or water pressures
- **RD1800™ Flow-Shield™ Series:** Provides low flow vertical water jet visible from +200' line of sight when a nozzle has been removed
- **RD1800™ Non-Potable Water Series:** Provides an alternative to clip-on caps and molded purple covers. Easy-to-read English "DO NOT DRINK", Spanish "NO BEBA" warnings, and international do not drink symbol

Operating Range

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

Specifications

- 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 m3/h; otherwise
- All Other Models: 0 at 0.7 bar or greater; 0.1 m^3/h; otherwise
- SAM-PRS model: Regulates nozzle pressure to an average 2.1 bar with inlet pressures of up to 6.9 bar
- Side inlets featured on non Seal-A-Matic™ (SAM) models only
- Five-year trade warranty

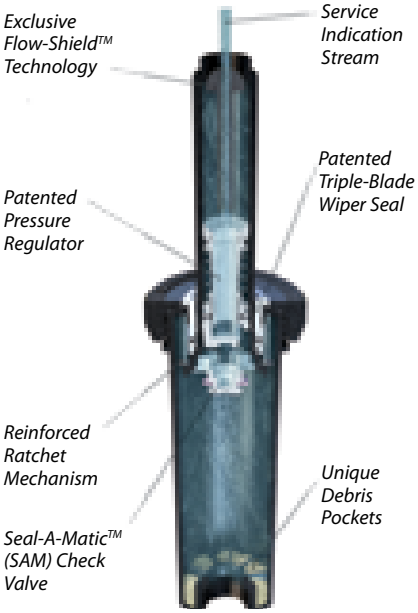
Models

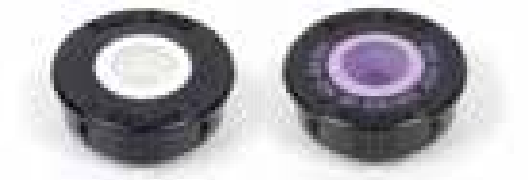
RD-04-S-P30-F: 4" (10 cm) pop-up height, with built-in SAM, PRS (2.1bar) and Flow Shield.
RD-04-S-P45-F: 4" (10 cm) pop-up height, with built-in SAM, PRS (3.1bar) and Flow Shield.
RD-06-S-P30-F: 4" (15 cm) pop-up height, with built-in SAM, PRS (2.1bar) and Flow Shield.
RD-12-S-P30-F: 4" (30 cm) pop-up height, with built-in SAM, PRS (2.1bar) and Flow Shield.

Dimensions

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

RD 1800 Series





Standard Cover *Non-Portable Cover*

How to specify

RD-XX - X

RD-XX	X
04 (10 cm) 06 (15 cm) 12 (30 cm)	P30-F (2.1 bar) P45-F (3.1 bar)

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

What is a High-Efficiency Nozzle?

Typical nozzles – Un-Even Watering

With typical nozzles, some of the lawn may not have enough water some 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.

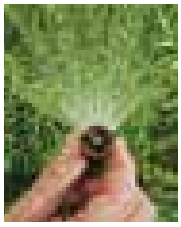
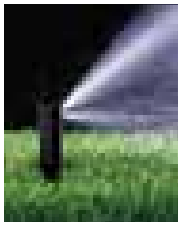
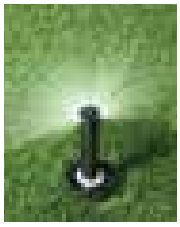
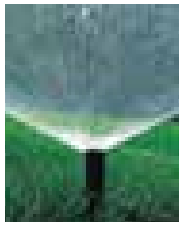
High or Low Precipitation Rate?

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.

High Precipitation Rate Nozzles

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

Low Precipitation Rate		High Precipitation Rate			
High-Efficiency Rotary Nozzles		High-Efficiency Nozzles		Standard Nozzles	
					
					
R-VAN	Rotary	HE-VAN	U-Series	VAN	MPR and SQ
Variable	Fixed Arc	Variable	Fixed Arc	Variable	Fixed Arc

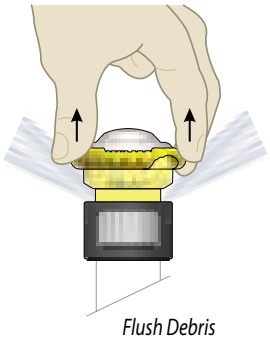
R-VAN SERIES NOZZLES

Variable arc rotary nozzles let you quickly adjust arc and radius by hand

- Hand-adjustable arc and radius – no special tools required
- Low precipitation rate reduces run-off and the potential for erosion
- High uniformity, thick wind resistant streams and larger water droplets ensure efficient performance, even in adverse conditions

Arc adjustment

Radius adjustment



Flush Debris

FEATURES

- Adjustable arc from 45° to 270°
- Meet tight watering windows – R-VAN's optimum precipitation rate strikes the perfect balance between rate of application and infiltration
- Color coded for easy identifaction of R-VAN model
- Compatible with all models of Rain Bird sprays bodies in addition to a wide variety of risers and adapters
- Installing with Rain Bird 5000 Series Rotor matched prescipitation rate (MPR) nozzles allows for MPR irrigation designs from 4.0m to 10.7m
- Three year trade warranty

OPERATING RANGE

Pressure Range: 1.4 to 3.8 bar
Recommended Operating Pressure: 3.1 bar
Spacing: 4 to 7.3m
Adjustments: Arc and radius should be adjusted while water is running

MODELS

R-VAN18
- Beige Rotary Deflector
- 4.0 to 5.5m radius
- 45° to 270° arc

R-VAN1724
- Yellow Rotary Deflector
- 5.2 to 7.3m radius
- 45° to 270° arc

Notes:
- *Single row applications are not recommended.*
- *Operation of radius below minimum radius (per model) is not recommended.*
- *Performance data derived from tests that conform with ASABE Standards; ASABE S398.1*

PERFORMANCE

R-VAN 18

Nozzle	bar	m	m³/h	■ mm/h	▲ mm/h
	1,4	4,0	0,21	18	21
	1,7	4,3	0,25	18	20
	2,1	4,9	0,29	17	18
	2,4	4,9	0,31	16	18
	2,8	5,2	0,32	16	18
	3,1	5,5	0,34	15	18
	3,4	5,5	0,36	15	18
	3,8	5,5	0,37	15	18
	1,4	4,0	0,17	18	21
	1,7	4,3	0,19	18	20
	2,1	4,9	0,19	17	19
	2,4	4,9	0,20	16	19
	2,8	5,2	0,22	16	18
	3,1	5,5	0,23	15	18
	3,4	5,5	0,24	15	18
	3,8	5,5	0,25	15	18
	1,4	4,0	0,08	19	21
	1,7	4,3	0,08	18	20
	2,1	4,9	0,09	17	19
	2,4	4,9	0,10	16	19
	2,8	5,2	0,11	16	18
	3,1	5,5	0,11	15	18
	3,4	5,5	0,12	15	18
	3,8	5,5	0,13	15	18

R-VAN 1724

Nozzle	bar	m	m³/h	■ mm/h	▲ mm/h
	1,4	5,2	0,40	19	22
	1,7	5,8	0,45	18	21
	2,1	6,4	0,51	18	21
	2,4	6,7	0,54	17	19
	2,8	7,0	0,57	16	18
	3,1	7,3	0,61	15	18
	3,4	7,3	0,62	15	18
	3,8	7,3	0,63	15	18
	1,4	5,2	0,28	19	22
	1,7	5,8	0,29	18	21
	2,1	6,4	0,32	18	21
	2,4	6,7	0,35	17	19
	2,8	7,0	0,38	16	18
	3,1	7,3	0,41	15	18
	3,4	7,3	0,43	15	18
	3,8	7,3	0,45	15	18
	,4	5,2	0,13	19	22
	1,7	5,8	0,15	18	21
	2,1	6,4	0,16	18	21
	2,4	6,7	0,17	17	19
	2,8	7,0	0,19	16	18
	3,1	7,3	0,20	15	18
	3,4	7,3	0,22	15	18
	3,8	7,3	0,23	15	18

■ 50%
▲ 50%

Note: Rotary Nozzles tested on 10 cm. pop-ups.
Performance data taken in zero wind conditions.

ROTARY NOZZLES

Multi-Stream, Rotating Nozzles for 1800™ / UNI-Spray™ Series Spray Heads
Reduce your system complexity and cost !

- Low precipitation rate of 15,2 mm/hr reduces run-off and erosion
- With approximately 60% less flow than conventional spray nozzles, Rotary Nozzles allow more heads per zone, reducing overall system complexity and cost.
- Multiple, rotating streams uniformly distribute water throughout the 4,0 to 7,3 m

MODELS

R13-18Q: 5,5 m quarter-circle pattern nozzle
R13-18H: 5,5 m half-circle pattern nozzle
R13-18F: 5,5 m full-circle pattern nozzle

R17-24Q: 7,4 m quarter-circle pattern nozzle
R17-24H: 7,4 m half-circle pattern nozzle
R17-24F: 7,4 m full-circle pattern nozzle

FEATURES

• A Spray Nozzle with Rain Curtain Technology

- large droplets for consistent performance
- Effective close in watering
- Even distribution over the entire radius

• Installation and Maintenance

- Designed for use on Rain Bird 1800™ / Uni-Spray™ Series Spray Heads.
- Color-coded radius reduction plugs for easy identification
- Stainless steel radius reduction screw allows reduction down to 4m on the R13-18 and to 5,2 m on the R17-24 to accommodate varying landscape needs

• Design Solutions

- Matched precipitation rate across radii and pattern simplify the design process
- 15,2 mm/hr Precipitation rate matches Rain Bird 5000/5000 Plus MPR Rotor Nozzles allowing MPR irrigation designs from 4,0 m to 7,3 m
- Highly efficient distribution and excellent wind resistance. Maintains highly efficient performance throughout the 1,4 - 3,8 bar pressure range, with no misting or fogging at high pressures.

• The solution to specific needs

- Low precipitation rate (15,2 mm/hr) reduces run-off and erosion and is ideal for slopes and clay soils
- Ultimate retrofit solution : with approximately 60% less flow than conventional Spray Heads nozzles and a range of 4 m to 7,4 m , Rotary Nozzles can solve system inefficiencies caused by stretched spacing, low pressure, or poor hydraulics.

SPECIFICATIONS

• Pressure range: 1,4 to 3,8 bars
• Spacing: 4 m to 7,6 m

PERFORMANCE

R1318 Series

Nozzle	bar	m	m³/h	■ mm/h	▲ mm/h
●	1,4	4,0	0,29	19	22
	1,7	4,3	0,33	18	21
	2,1	4,8	0,36	15	18
	2,4	5	0,39	15	18
	2,8	5,2	0,42	15	18
	3,1	5,4	0,44	15	18
	3,4	5,5	0,47	15	18
	3,8	5,6	0,49	15	18
◗	1,4	4,0	0,15	19	22
	1,7	4,3	0,16	18	21
	2,1	4,8	0,18	15	18
	2,4	5	0,19	15	18
	2,8	5,2	0,21	15	18
	3,1	5,4	0,22	15	18
	3,4	5,5	0,23	15	18
	3,8	5,6	0,24	15	18
◣	1,4	4,0	0,07	19	22
	1,7	4,3	0,08	18	21
	2,1	4,8	0,09	15	18
	2,4	5	0,10	15	18
	2,8	5,2	0,10	15	18
	3,1	5,4	0,11	15	18
	3,4	5,5	0,12	15	18
	3,8	5,6	0,12	15	18

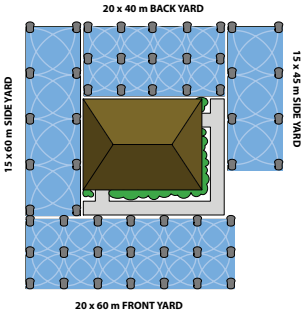
■ 50%
▲ 50%

R1724 Series

Nozzle	bar	m	m³/h	■ mm/h	▲ mm/h
●	1,4	5,2	0,55	20	23
	1,7	5,8	0,62	18	21
	2,1	6,4	0,68	16	19
	2,4	6,7	0,73	16	19
	2,8	6,9	0,78	16	19
	3,1	7,1	0,83	16	19
	3,4	7,3	0,87	16	19
	3,8	7,4	0,91	16	19
◗	1,4	5,2	0,28	20	23
	1,7	5,8	0,31	18	21
	2,1	6,4	0,34	16	19
	2,4	6,7	0,36	16	19
	2,8	6,9	0,39	16	19
	3,1	7,1	0,41	16	19
	3,4	7,3	0,44	16	19
	3,8	7,4	0,46	16	19
◣	1,4	5,2	0,14	20	23
	1,7	5,8	0,15	18	21
	2,1	6,4	0,17	16	19
	2,4	6,7	0,18	16	19
	2,8	6,9	0,20	16	19
	3,1	7,1	0,21	16	19
	3,4	7,3	0,22	16	19
	3,8	7,4	0,23	16	19

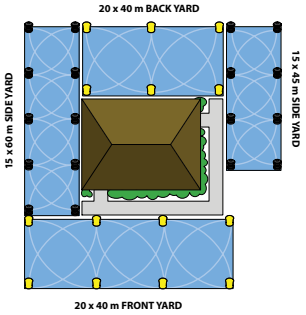
Note: Rotary Nozzles tested on 4 inch pop-ups.
Performance data taken in zero wind conditions.

With Conventional Spray Nozzles



• 6 zones required

With Rotary Nozzles



• 3 zones required

HE-VAN

The world's first high efficiency variable arc nozzle

- 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.
- Rain Bird HE-VAN Nozzles achieve greater than a 70% average DULQ—more than a 40% improvement over existing variable arc nozzles in the market.
- Matched precipitation rates with Rain Bird® MPR and U-Series Nozzles

FEATURES

- Easy arc adjustment from 0° to 360° with a simple twist of the center collar to increase or decrease arc setting.
- ExactEdge™ takes the guesswork out of arc adjustment. As you turn the nozzle to the desired arc setting, you'll feel it lock into place for a clean, consistent edge every time.
- Patent pending Flow Control Technology provides superior close-in watering and uniform coverage across the entire pattern.
- Thicker streams and large water droplets for greater wind resistance.
- Matched precipitation rates with Rain Bird® MPR and U-Series Nozzles.
- A strong top deflector to minimize nozzle damage due to normal wear and tear.
- Stainless steel adjustment screw to adjust flow and radius, up to a 25% reduction in radius.
- Fits on all Rain Bird® 1800® Series Spray Heads, UNI-Spray™ Series Spray Heads and Rain Bird Shrub Adapters

SPECIFICATIONS

- Pressure: 1 to 2.1 bars

Rain Bird® HE-VAN Efficiency Ratings

- Rain Bird® HE-VAN Nozzles deliver an average DULQ of 70%, more than a 40% improvement over typical variable arc spray nozzles.
- Rain Bird® HE-VAN Nozzles deliver a SC ≤ 1.6, which is 35% lower than the typical variable arc spray nozzle.

MODELS

HE-VAN-8: 24° Trajectory
HE-VAN-10: 27° Trajectory
HE-VAN-12: 23° Trajectory
HE-VAN-15: 25° Trajectory

DEFINITIONS

- *Distribution Uniformity (DULQ): DU in irrigation is a measure of how uniformly water is applied to the area being watered. DULQ is calculated by taking the volume in the lowest quarter of catch can measurements and dividing it by the average volume of all catch can measurements.*
- *Scheduling Coefficient (SC): SC is a measure of how long a zone must be run in order to provide adequate water to the driest spot.*

8 Series HE-VAN

Nozzle	bar	m	m³/h	■ mm/h	▲ mm/h
360° Arc	1,0	1,5	0,19	82	95
	1,4	1,8	0,22	66	76
	1,7	2,1	0,25	54	62
	2,1	2,4	0,27	45	52
270° Arc	1,0	1,5	0,14	82	95
	1,4	1,8	0,16	66	76
	1,7	2,1	0,18	54	62
	2,1	2,4	0,20	45	51
180° Arc	1,0	1,5	0,10	82	95
	1,4	1,8	0,11	66	76
	1,7	2,1	0,12	54	62
	2,1	2,4	0,13	45	52
90° Arc	1,0	1,5	0,05	82	95
	1,4	1,8	0,05	66	76
	1,7	2,1	0,06	54	62
	2,1	2,4	0,07	45	52

10 Series HE-VAN

Nozzle	bar	m	m³/h	■ mm/h	▲ mm/h
360° Arc	1,0	2,1	0,29	64	74
	1,4	2,4	0,34	56	65
	1,7	2,7	0,37	50	57
	2,1	3,0	0,41	44	51
270° Arc	1,0	2,4	0,22	64	74
	1,4	2,7	0,25	56	65
	1,7	2,1	028	50	57
	2,1	3,0	0,31	44	51
180° Arc	1,0	2,1	0,15	64	74
	1,4	2,4	0,17	56	65
	1,7	2,7	0,19	50	57
	2,1	3,0	0,21	44	51
90° Arc	1,0	2,1	0,07	64	74
	1,4	2,4	0,08	56	65
	1,7	2,7	0,09	50	57
	2,1	3,0	0,10	44	51

12 Series HE-VAN

Nozzle	bar	m	m³/h	■ mm/h	▲ mm/h
360° Arc	1,0	2,7	0,38	51	58
	1,4	3,0	0,44	47	55
	1,7	3,3	0,49	44	51
	2,1	3,7	0,54	40	47
270° Arc	1,0	2,7	0,28	51	58
	1,4	3,0	0,33	47	55
	1,7	3,3	0,37	44	51
	2,1	3,7	0,40	40	47
180° Arc	1,0	2,7	0,19	51	58
	1,4	3,0	0,22	47	55
	1,7	3,3	0,24	44	51
	2,1	3,7	0,27	40	47
90° Arc	1,0	2,7	0,10	51	58
	1,4	3,0	0,11	47	55
	1,7	3,3	0,12	44	51
	2,1	3,7	0,13	40	47

15 Series HE-VAN

Nozzle	bar	m	m³/h	■ mm/h	▲ mm/h
360° Arc	1,0	3,3	0,59	53	61
	1,4	3,6	0,69	51	59
	1,7	4,2	0,76	42	49
	2,1	4,6	0,84	40	47
270° Arc	1,0	3,3	0,44	53	61
	1,4	3,6	0,51	51	59
	1,7	4,2	0,57	42	49
	2,1	4,6	0,63	40	47
180° Arc	1,0	3,3	0,30	53	61
	1,4	3,6	0,34	51	59
	1,7	4,2	0,38	42	49
	2,1	4,6	0,42	40	47
90° Arc	1,0	3,3	0,15	53	61
	1,4	3,6	0,17	51	59
	1,7	4,2	0,19	42	49
	2,1	4,6	0,21	40	47

VARIABLE ARC NOZZLE (VAN) SERIES

Adjustable 1800™/UNI-Spray™ Series Nozzles
Maximum flexibility to Save Time and Speed-Up installation

APPLICATIONS

These nozzles are ideal for watering irregularly shaped turf and shrub areas because it is easy to increase or decrease arc settings.

FEATURES

- Top Color-Coded™ for easy radius and arc identification
- Easy arc adjustement from 0 to 330° for 4, 6 and 8-VAN and 0 to 360° for 10, 12, 15 and 18-VAN
- Convenient re-sealable bags with separate, detachable nozzle and screen pouches

SPECIFICATIONS

Pressure: 1 to 2.1 bars*
Spacing: 0.9 to 5.5 m

MODELS

4-VAN Series: 0° Trajectory
6-VAN Series: 0° Trajectory
8-VAN Series: 5° Trajectory
10-VAN Series: 10° Trajectory
12-VAN Series: 15° Trajectory
15-VAN Series: 23° Trajectory
18-VAN Series: 26° Trajectory

PERFORMANCE

4-VAN Series

Nozzle	bar	m	m³/h	■ mm/h	▲ mm/h
330°	1,0	0,9	0,14	189	218
	1,5	1,0	0,17	183	215
	2,0	1,2	0,20	152	176
	2,1	1,2	0,20	152	176
270°	1,0	0,9	0,12	198	229
	1,5	1,0	0,14	187	216
	2,0	1,2	0,16	148	171
	2,1	1,2	0,17	157	181
180°	1,0	0,9	0,07	173	200
	1,5	1,0	0,09	180	208
	2,0	1,2	0,10	139	161
	2,1	1,2	0,10	139	161
90°	1,0	0,9	0,05	247	285
	1,5	1,0	0,06	240	277
	2,0	1,2	0,06	167	193
	2,1	1,2	0,07	194	224

6-VAN Series

Nozzle	bar	m	m³/h	■ mm/h	▲ mm/h
330°	1,0	1,2	0,19	144	166
	1,5	1,5	0,23	112	129
	2,0	1,8	0,27	91	105
	2,1	1,8	0,27	91	105
270°	1,0	1,2	0,18	167	193
	1,5	1,5	0,21	124	143
	2,0	1,8	0,24	99	114
	2,1	1,8	0,25	103	119
180°	1,0	1,2	0,10	139	161
	1,5	1,5	0,11	98	113
	2,0	1,8	0,13	80	92
	2,1	1,8	0,14	86	99
90°	1,0	1,2	0,06	167	193
	1,5	1,5	0,07	124	143
	2,0	1,8	0,08	99	114
	2,1	1,8	0,08	99	114

8-VAN Series

Nozzle	bar	m	m³/h	■ mm/h	▲ mm/h
330°	1,0	1,8	0,27	91	105
	1,5	2,1	0,32	79	91
	2,0	2,3	0,38	78	90
	2,1	2,4	0,39	74	86
270°	1,0	1,8	0,25	103	119
	1,5	2,1	0,30	91	105
	2,0	2,3	0,34	86	99
	2,1	2,4	0,35	81	94
180°	1,0	1,8	0,19	117	135
	1,5	2,1	0,23	104	120
	2,0	2,3	0,26	98	113
	2,1	2,4	0,27	94	109
90°	1,0	1,8	0,12	148	171
	1,5	2,1	0,14	127	147
	2,0	2,3	0,16	121	140
	2,1	2,4	0,16	111	128

Note: 4-VAN, 6-VAN, 8-VAN Series, Turning the radius reduction screw may be required to achieve catalog radius and flow when the arc is set at less than the maximum arc.

10-VAN Series

Nozzle	bar	m	m³/h	■ mm/h	▲ mm/h
360°	1,0	2,1	0,44	96	111
	1,5	2,4	0,53	89	103
	2,0	2,7	0,57	76	88
	2,1	3,1	0,59	63	73
270°	1,0	2,1	0,33	96	111
	1,5	2,4	0,40	89	103
	2,0	2,7	0,43	76	88
	2,1	3,1	0,48	68	79
180°	1,0	2,1	0,22	96	111
	1,5	2,4	0,27	89	103
	2,0	2,7	0,29	76	88
	2,1	3,1	0,33	71	82
90°	1,0	2,1	0,11	96	111
	1,5	2,4	0,13	89	103
	2,0	2,7	0,14	76	88
	2,1	3,1	0,17	73	85

12-VAN Series

Nozzle	bar	m	m³/h	■ mm/h	▲ mm/h
360°	1,0	2,7	0,40	55	63
	1,5	3,2	0,48	47	54
	2,0	3,6	0,59	46	53
	2,1	3,7	0,60	44	51
270°	1,0	2,7	0,30	55	63
	1,5	3,2	0,36	47	54
	2,0	3,6	0,45	46	53
	2,1	3,7	0,45	44	51
180°	1,0	2,7	0,20	55	63
	1,5	3,2	0,24	47	54
	2,0	3,6	0,30	46	53
	2,1	3,7	0,30	44	51
90°	1,0	2,7	0,10	55	63
	1,5	3,2	0,12	47	54
	2,0	3,6	0,15	46	53
	2,1	3,7	0,15	44	51

15-VAN Series

Nozzle	bar	m	m³/h	■ mm/h	▲ mm/h
360°	1,0	3,4	0,60	52	60
	1,5	3,9	0,72	47	55
	2,0	4,5	0,84	41	48
	2,1	4,6	0,84	40	46
270°	1,0	3,4	0,45	52	60
	1,5	3,9	0,54	47	55
	2,0	4,5	0,63	41	48
	2,1	4,6	0,63	40	46
180°	1,0	3,4	0,30	52	60
	1,5	3,9	0,36	47	55
	2,0	4,5	0,42	41	48
	2,1	4,6	0,42	40	46
90°	1,0	3,4	0,15	52	60
	1,5	3,9	0,18	47	55
	2,0	4,5	0,21	41	48
	2,1	4,6	0,21	40	46

18-VAN Series

Nozzle	bar	m	m³/h	■ mm/h	▲ mm/h
360°	1,0	4,3	0,96	52	60
	1,5	4,8	1,07	47	55
	2,0	5,4	1,20	41	48
	2,1	5,5	1,21	40	46
270°	1,0	4,3	0,72	52	60
	1,5	4,8	0,80	47	55
	2,0	5,4	0,90	41	48
	2,1	5,5	0,91	40	46
180°	1,0	4,3	0,48	52	60
	1,5	4,8	0,54	47	55
	2,0	5,4	0,60	41	48
	2,1	5,5	0,61	40	46
90°	1,0	4,3	0,24	52	60
	1,5	4,8	0,27	47	55
	2,0	5,4	0,30	41	48
	2,1	5,5	0,30	40	46

■ 50% ▲ 50%

U-SERIES

Plastic Nozzles for 1800™ Series Spray Heads
Dual orifices for close-in watering and optimum water distribution

APPLICATIONS

The U-Series nozzle is the first plastic nozzle with a second orifice for close-in watering and more uniform water distribution. Its unique patented design cuts watering times, saves water and money, and reduces waste.

FEATURES

- Top Color-Coded™ for easy radius and arc identification
- Additional orifice for close-in watering minimizes dry brown spots around spray heads.
- Rain Curtain™ Technology eliminates watering gaps for more uniform coverage throughout the entire watering area.
- Stainless steel adjustment screw to adjust flow and radius.
- Fits all Rain Bird sprinklers and shrub adapters.
- Matched precipitation rates between sets. Provides flexibility in design and installation.
- Convenient re-sealable bags with separate, detachable nozzle and screen pouches

SPECIFICATIONS

Pressure: 1 to 2.1 bars*
Spacing: 2.7 to 4.6 m

MODELS

U-8 Series: 10° Trajectory
U-10 Series: 12° Trajectory
U-12 Series: 23° Trajectory
U-15 Series: 23° Trajectory

PERFORMANCE

U-8 Series

Nozzle	bar	m	m³/h	■ mm/h	▲ mm/h
U-8F	1,0	1,5	0,12	52	60
	1,5	1,9	0,16	47	55
	2,0	2,3	0,22	41	48
	2,1	2,4	0,23	40	46
U-8H	1,0	1,5	0,06	52	60
	1,5	1,9	0,09	47	55
	2,0	2,3	0,11	41	48
	2,1	2,4	0,12	40	46
U-8Q	1,0	1,5	0,03	52	60
	1,5	1,9	0,04	47	55
	2,0	2,3	0,05	41	48
	2,1	2,4	0,06	40	46

U-10 Series

Nozzle	bar	m	m³/h	■ mm/h	▲ mm/h
U-10F	1,0	2,1	0,24	52	60
	1,5	2,4	0,30	47	55
	2,0	3,0	0,31	41	48
	2,1	3,1	0,37	40	46
U-10H	1,0	2,1	0,12	52	60
	1,5	2,4	0,15	47	55
	2,0	3,0	0,15	41	48
	2,1	3,1	0,19	40	46
U-10Q	1,0	2,1	0,06	52	60
	1,5	2,4	0,07	47	55
	2,0	3,0	0,08	41	48
	2,1	3,1	0,09	40	46

U-12 Series

Nozzle	bar	m	m³/h	■ mm/h	▲ mm/h
U-12F	1,0	2,7	0,4	55	63
	1,5	3,2	0,48	47	54
	2,0	3,6	0,59	46	53
	2,1	3,7	0,6	44	51
U-12H	1,0	2,7	0,2	55	63
	1,5	3,2	0,24	47	54
	2,0	3,6	0,3	46	53
	2,1	3,7	0,3	44	51
U-12Q	1,0	2,7	0,1	55	63
	1,5	3,2	0,12	47	54
	2,0	3,6	0,15	46	53
	2,1	3,7	0,15	44	51

U-15 Series

Nozzle	bar	m	m³/h	■ mm/h	▲ mm/h
U-15F	1,0	3,4	0,6	52	60
	1,5	3,9	0,72	47	55
	2,0	4,5	0,84	41	48
	2,1	4,6	0,84	40	46
U-15H	1,0	3,4	0,3	52	60
	1,5	3,9	0,36	47	55
	2,0	4,5	0,42	41	48
	2,1	4,6	0,42	40	46
U-15Q	1,0	3,4	0,15	52	60
	1,5	3,9	0,18	47	55
	2,0	4,5	0,21	41	48
	2,1	4,6	0,21	40	46

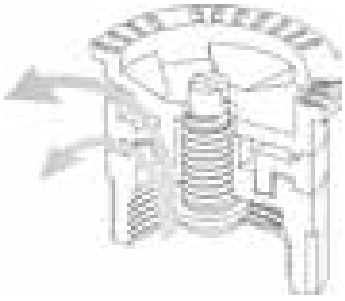
Convenient re-sealable bags with separate, detachable nozzle and screen pouches

■ 50%
▲ 50%

Advanced nozzle technology assures superior water distribution

Advanced nozzle technology assures superior water distribution

Rain Bird U-Series nozzles produce spray patterns from two orifices to form a continuous water stream. The result is that gaps in coverage are eliminated so the entire watering area is more uniformly covered.



MPR SERIES NOZZLES

Plastic nozzles for 1800™ and UNI-Spray™ Series spray heads
Matched Precipitation Rates for design flexibility

FEATURES

- Top Color-Coded™ for easy radius and arc identification
- Flow and radius adjustment screw
- Matched Precipitation Rates
- Easily accessible under-the-nozzle filter screen shipped with nozzle
- Convenient re-sealable bags with separate, detachable nozzle and screen pouches

SPECIFICATIONS

Pressure: 1 to 2.1 bar*
Spacing: 0.6 to 4.6 m

MODELS

5-MPR Series: 5° Trajectory
8-MPR Series: 10° Trajectory
10-MPR Series: 15° Trajectory
12-MPR Series: 30° Trajectory
15-MPR Series: 30° Trajectory

15-MPR Series Strip: 30° Trajectory
5-MPR Series Stream Bubbler nozzles: 0° Trajectory

PERFORMANCE

5-MPR Series

Nozzle	bar	m	m³/h	■ mm/h	▲ mm/h
5F	1,0	0,6	0,02	52	60
	1,5	1,0	0,05	47	55
	2,0	1,4	0,08	41	48
	2,1	1,5	0,09	40	46
5H	1,0	0,6	0,01	52	60
	1,5	1,0	0,02	47	55
	2,0	1,4	0,04	41	48
	2,1	1,5	0,05	40	46
5Q	1,0	0,6	0,01	52	60
	1,5	1,0	0,01	47	55
	2,0	1,4	0,02	41	48
	2,1	1,5	0,02	40	46

8-MPR Series

Nozzle	bar	m	m³/h	■ mm/h	▲ mm/h
8F	1,0	1,5	0,12	52	60
	1,5	1,9	0,16	47	55
	2,0	2,3	0,22	41	48
	2,1	2,4	0,23	40	46
8H	1,0	1,5	0,06	52	60
	1,5	1,9	0,09	47	55
	2,0	2,3	0,11	41	48
	2,1	2,4	0,12	40	46
8Q	1,0	1,5	0,03	52	60
	1,5	1,9	0,04	47	55
	2,0	2,3	0,05	41	48
	2,1	2,4	0,06	40	46

10-MPR Series

Nozzle	bar	m	m³/h	■ mm/h	▲ mm/h
10F	1,0	2,1	0,26	58	67
	1,5	2,4	0,29	50	58
	2,0	3,0	0,35	39	45
	2,1	3,1	0,36	37	43
10H	1,0	2,1	0,13	58	67
	1,5	2,4	0,14	50	58
	2,0	3,0	0,18	39	45
	2,1	3,1	0,18	37	43
10Q	1,0	2,1	0,06	58	67
	1,5	2,4	0,07	50	58
	2,0	3,0	0,09	39	45
	2,1	3,1	0,09	37	43

12-MPR Series

Nozzle	bar	m	m³/h	■ mm/h	▲ mm/h
12F	1,0	2,7	0,40	55	63
	1,5	3,2	0,48	47	54
	2,0	3,6	0,59	46	53
	2,1	3,7	0,60	44	51
12H	1,0	2,7	0,20	55	63
	1,5	3,2	0,24	47	54
	2,0	3,6	0,30	46	53
	2,1	3,7	0,30	44	51
12Q	1,0	2,7	0,10	55	63
	1,5	3,2	0,12	47	54
	2,0	3,6	0,15	46	53
	2,1	3,7	0,15	44	51

15-MPR Series

Nozzle	bar	m	m³/h	■ mm/h	▲ mm/h
15F	1,0	3,4	0,60	52	60
	1,5	3,9	0,72	47	55
	2,0	4,5	0,84	41	48
	2,1	4,6	0,84	40	46
15H	1,0	3,4	0,30	52	60
	1,5	3,9	0,36	47	55
	2,0	4,5	0,42	41	48
	2,1	4,6	0,42	40	46
15Q	1,0	3,4	0,15	52	60
	1,5	3,9	0,18	47	55
	2,0	4,5	0,21	41	48
	2,1	4,6	0,21	40	46

15-MPR Series Strip

Nozzle	bar	m	m³/h
15EST	1,0	1,2 x 4,0	0,10
	1,5	1,2 x 4,3	0,11
	2,0	1,2 x 4,3	0,13
	2,1	1,2 x 4,6	0,14
15CST	1,0	1,2 x 7,9	0,20
	1,5	1,2 x 8,5	0,23
	2,0	1,2 x 8,5	0,25
	2,1	1,2 x 9,2	0,27
15RCS	1,0	0.8 x 3.2	0,08
	1,5	1.0 x 3.9	0,09
	2,0	1.2 x 4.5	0,11
	2,1	1.2 x 4.6	0,11
15LCS	1,0	0.8 x 3.2	0,08
	1,5	1.0 x 3.9	0,09
	2,0	1.2 x 4.5	0,11
	2,1	1.2 x 4.6	0,11
15SST	1,0	1,2 x 7,9	0,20
	1,5	1,2 x 8,5	0,23
	2,0	1,2 x 8,5	0,25
	2,1	1,2 x 9,2	0,27
9SST	1,0	2,7 x 4,9	0,30
	1,5	2,7 x 4,9	0,33
	2,0	2,7 x 5,5	0,36
	2,1	2,7 x 5,5	0,39

Square nozzle spacing based on head-to-head throw (m)
W = Width of coverage pattern
L = Length of coverage pattern

Nozzles

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

■ 50% ▲ 50%

SAVE WATER

Less water is needed and efficient, uniform coverage is achieved by matching precipitation rate across both radii and patterns.

SB SERIES

Spiral Barb Fittings

APPLICATIONS

For use in conjunction with Swing Pipe as a flexible swing joint assembly. Flexible swing joints are used to protect underground sprinklers by absorbing impact caused by cars or turf maintenance equipment. Also used where sprinklers are positioned in hard to trench areas near walls, curbs, sidewalks, and fences.

FEATURES

- 6 models available
- Spiral Barb design permits twist-in insertion without tools, glue or clamps. Simply insert the fitting into the flexible tubing and screw it in hand-tight
- Important: do not use any lubricant (grease, soap, oil, etc.)

SPECIFICATIONS

Operating water pressure rating: up to 5.5 bar

MODELS

SBE-050: ½" (15/21) male x barb elbow
SBA-050: ½" (15/21) male x barb adapter
SBE-075: ¾" (20/27) male x barb elbow
SB-TEE: barb x barb x barb tee
SB-CPLG: barb x barb coupling

SPX-FLEX

Swing Pipe

APPLICATIONS

The flexible swing joint absorbs impacts and any pressure caused by cars or turf maintenance equipment.

FEATURES

- Simplicity : Unique material offers excellent pipe flexibility and greater kink resistance for fast, efficient installation.
- Reliability : The barbed fittings resistance to handling is significantly greater than that of other flexible swing pipe.
- Durability : SPX-FLEX swing pipe are designed to withstand high pressure and pressure spikes. Their easy installation ensures the most reliable connection every time.
- Available in several coil lengths : 30 m or 100 m.
- Linear, low density polyethylene material.
- Kink-resistant, ultra-flexible version.
- Colour : Black with green stripes for easier identification.
- Special packaging : Coil is easier to unroll.

SPECIFICATIONS

Nominal inside diameter : 12.5 mm
Minimum wall thickness: 2.5 mm
Maximum operating pressure and temperature: 5.5 bar and 43°C.

MODELS

SPX-FLEX30: 30 m roll
SPX FLEX100: 100 m roll

1400 SERIES

Pressure Compensating Full Circle Bubblers

APPLICATIONS

These pressure compensating bubblers are designed for trees, flower and shrub areas where low flow rates are required.

FEATURES

- Pressure compensating between 1.5 and 6.2 bar
- Exceptionally low flow rates
- No adjustment required
- Shipped with inlet filter screen
- Durable, non-corrosive plastic and rubber construction
- Used with 1/2" (15/21) male threaded risers

SPECIFICATIONS

Flow: 0.06 to 0.46 m^3/h
Spacing: 0.3 to 0.9 m
Pressure: 1.4 to 6.2 bars

DIMENSIONS

1/2" (15/21) female threaded inlet
Height: 2.5 cm
Top diameter: 2.5 cm

MODELS

1401: 0.06 m^3/h
1402: 0.11 m^3/h
1404: 0.23 m^3/h
1408: 0.46 m^3/h

Models	Flow l/h	Pattern
1401	57	Trickles down the riser
1402	114	Trickles down the riser
1404	227	Umbrella pattern
1408	454	Umbrella pattern

PA-8S

Plastic Shrub Adapter for 1800™ and UNI-Spray™ Series Nozzles

APPLICATIONS

Adapts 1800™ and UNI-Spray™ nozzles for use with 1/2" (15/21) male threaded risers.

FEATURES

- Accepts protective, non-clogging filter screen shipped with nozzles
- 1/2" (15/21) female inlet threads
- Durable, non-corrosive plastic construction
- Fine top threads accept all Rain Bird plastic spray head nozzles

MODEL

PA-8S

1800-EXT

Plastic Extension for Pop-up Spray Heads: 1800™ and UNI-Spray ™ Series

APPLICATIONS

The 1800-EXT extension adds an extra 16.5 cm to the pop-up height of all models to avoid spray interference with taller shrubs

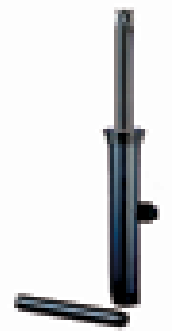
FEATURES

- Rugged thermoplastic construction
- Easily installed. No tools required

- Fits all Rain Bird spray heads and nozzles. Exception : cannot be used with bubblers
- Maximum of 2 extensions per pop-up spray head

MODEL

1800-EXT



XBA-1800

XS Micro-Spray and SXB Micro-Sprinkler Adapter

APPLICATIONS

Adapts SXB-180 and SXB-360 Micro-Sprinklers and XS-90, XS-180 and XS-360 Micro-Sprays to 1800 pop-up spray heads. The XBA-1800 can also be used with the PA-8S shrub adapter for 1/2" (15/21) male threaded riser applications.

FEATURES

- Easy to install. No tools required
- Used with 1800™ spray heads

MODEL

XBA-1800

ROTORS

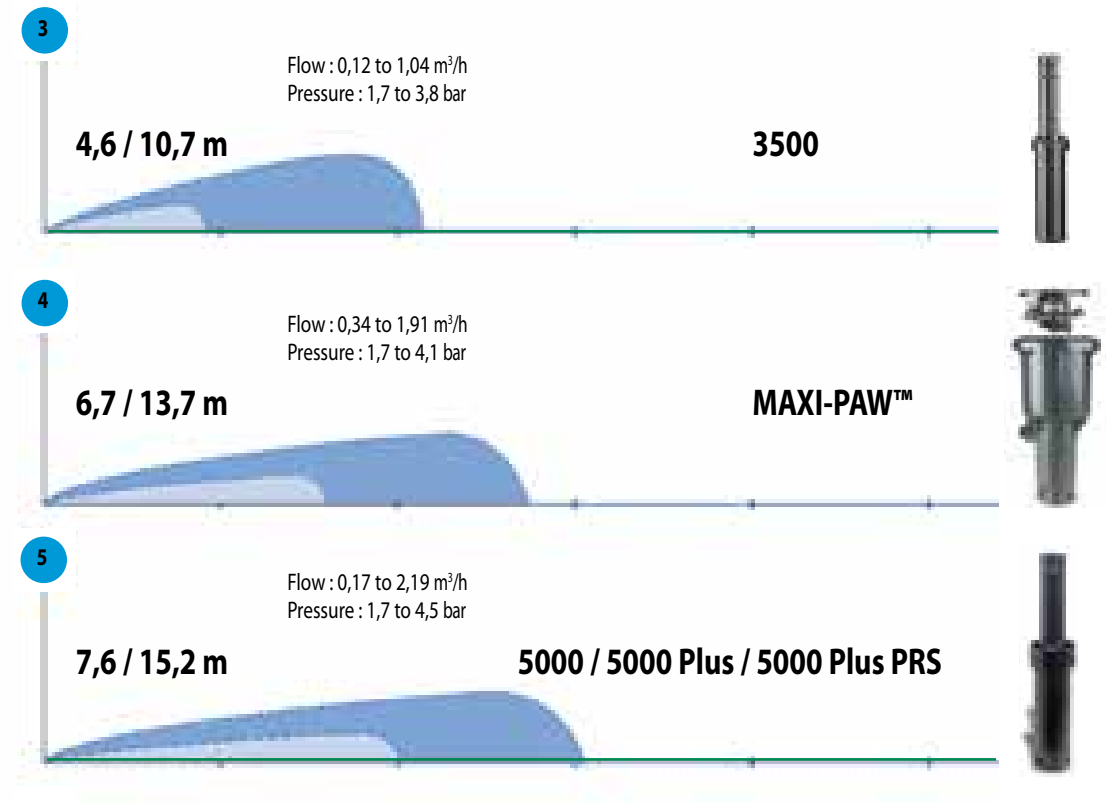
Major Products	Closed Case Rotors				Open Case Rotor
	3500 Series	5000/5000 Plus Series	Falcon™ 6504	8005	2045A Maxi-Paw™
Primary Applications					
Turfgrass 4,5 m to 9 m	●				
Turfgrass 7,5 m to 15 m		●	●		●
Turfgrass more than 15 m		●	●	●	
Residential	●	●			●
Commercial			●	●	●
Vandalism/Damage Prone Areas				●	
Slopes	●	●	●	●	●
Athletic Fields			●	●	
Pressure Regulating		●			
High Wind Areas	●	●	●	●	●
Taller Turfgrass		●		●	

POP-UP SPRINKLER SELECTION GUIDE

Medium Range

A sprinkler's radius of throw is usually the key consideration in selecting a specific model.
This chart helps you make an initial choice among sprinklers in the RAIN BIRD product line. The chart indicates the maximum radius of throw for each sprinkler type under 0 wind conditions. The data refers to:

- the smallest nozzle at the lowest charted pressure
- the largest nozzle at the highest charted pressure



SAVE WATER

- ***3500 Series -*** *Like all Rain Bird rotors, 3500 Series rotors use Rain Curtain™ nozzle technology to deliver the results you have come to expect while managing water wisely*
- ***5000 Series -*** *Want the most water-efficient combination? Select 5000/5000 Plus with SAM, PRS and MPR nozzles. Whether you rely on Rain Curtain Nozzles to deliver water efficiently or MPR nozzles to ensure matched precipitation rates, the 5000/5000 Plus Series Rotor delivers solutions that manage water wisely*
- ***5000 PRS Series -*** *The Pressure Regulating Stem (PRS) regulates incoming water pressure, eliminating misting or fogging at the top of the rotor, which can help save water.*
- ***5000 MPR Nozzles -*** *5000/5000 Plus MPR Nozzles deliver matched precipitation rates within and between radii from 7,6 m to 10,7 m. This eliminates the risks of over or under watering*

3500 SERIES ROTORS

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 flatblade screwdriver
- 3 year trade warranty

3504-PC

SPECIFICATIONS

Radius: 4.6-10.7 m
Radius with radius reduction screw: down to 2.9 m
Pressure: 1.7-3.8 bar
Flow Rate: 0.12-1.04 m³/h
1/2" (15/21) female bottom threaded inlet
Arc adjustment: 40°-360°

MODELS

Models are adjustable from 40-360 degrees
3504-PC: Part circle arc rotation and reversing full-circle rotation
3504-PC-SAM: Part circle arc rotation and reversing full-circle rotation with SAM check valve

PERFORMANCE

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

◗
■ 50%
▲ 50%

Superior Distribution Uniformity

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

How to specify

3504 - PC - SAM

Model
3500 Series 4" pop-up

Rotation
Part Circle / Reversing Full Circle

Options
S = SAM

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

OPTIONAL FEATURES

- All features of the 5000 Series plus:
  - **Plus (PL) Flow shutoff** – "The Green Top." Reduce downtime on jobs by flushing and nozzling rotors without running back and forth to the controller or valves
  - **PRS (R)** with flow optimizer technology. The 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
  - **Stainless steel (SS) riser** helps deter vandalism on public turf areas (available on 4 and 6" models)
  - **Purple cover (NP)** for non-potable systems

SPECIFICATIONS

Radius: 7,6 to 15,2 m
Radius with radius reduction screw: 5,7 m
Pressure: 1,7 to 4,5 bar
Flow rate: 0,17 to 2,19 m³/h
Angle of trajectory :
- Standard angle Rain Curtain™ nozzles : 25°.
- Low angle Rain Curtain™ nozzles : 10°.

¾" female bottom threaded inlet.

OPTION

Matched Precipitation Rate (MPR) nozzles simplify the design process by allowing sprinklers with various arcs and radii to be mixed in the same circuit. Fit Rain Bird 5000 / 5000 Plus / 5000 Plus PRS rotors.

MODELS

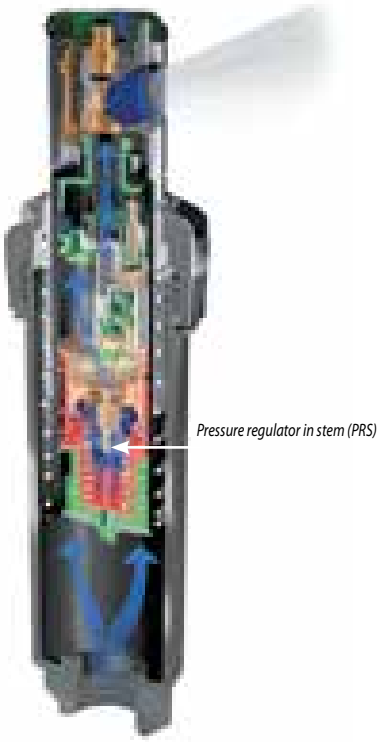
Part Circle units (PC) are adjustable from 40-360°.
Full Circle units (FC) are 360° only
5004PC30: Part Circle 5004
5004PCSAM30: Part Circle with SAM check valve.
5004PCR: Part circle with pressure regulator system and pre-installed nozzle, size 3.0
5004+FC: Full Circle 5004 Plus.
5004+PC30: Part Circle with pre-installed nozzle, size 3.0 5004 Plus.
5004+PCSAMRSS: Part Circle, stainless steel covered riser stem, SAM check valve and pre-installed nozzle, size 3.0.
5006-PL-PC: Part Circle.
5006-PL-PC-PRS-SAM: Part Circle, Stainless steel covered riser stem, SAM check valve.
5012-PL-PC: Part Circle.

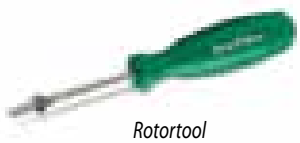
ACCESSORY :

Rotor Pull up screwdriver

5000 Series

5000 (PRS)





Rotortool

How to specify

5004 -+ - PC- SAM - SS

- **Model** 5000 Series 4" pop-up
- **Model** Plus
- **Rotation** «PC» for 40-360 degrees «FC» for 360 degree only
- **Options** S=SAM
- **Option** Stainless steel

5000 RAIN CURTAIN NOZZLES

RAIN CURTAIN™

Standard Angle Rain Curtain™ Nozzles

5000 Series Std. Angle Rain Curtain™ Nozzle Performance

Pressure bar	Nozzle	Radius m	Flow m³/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	12	14
	6.0	12.4	1.05	17.4	14	16
	8.0	11.8	1.45	24.0	21	24
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	19	21
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	13.9	1.34	22.2	14	16
	8.0	14.1	1.79	30.0	18	21
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	14	17
	8.0	14.9	1.93	32.4	18	20
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	15	17
	8.0	15.2	2.06	34.2	18	21
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

Low Angle Rain Curtain™ Nozzles

5000 Series 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	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

◗
■ 50%
▲ 50%

Front view of Rain Curtain Nozzle

Back view of Rain Curtain Nozzle

Install proven Rain Curtain™ technology

There are three elements which create the superior coverage of Rain Curtain nozzle technology.

Large Droplets for Consistent Performance

Rain Curtain technology produces larger water droplets that are far less susceptible to wind, and greatly minimizes misting and airborne evaporation. This competitive advantage assures that the right amount of water goes where it needs to go which saves time, money and equally important, one of nature's most valuable resources: water.

Effective Close-in Watering

Effective and gentle close-in watering eliminates dry spots around the rotor without seed washout.

Even Distribution Over the Entire Radius

Rain Bird's broad range of Rain Curtain nozzles (0,12-8,24 m3/h), (4,6-24,7m)] is engineered to deliver optimum distribution uniformity across the entire radius range. This uniformity compensates for varying environmental conditions, offering flexibility to the designer and assuring green grass results.

5000 MPR NOZZLES

Matched Precipitation Rate Nozzles

APPLICATIONS

Rain Bird MPR Nozzles simplify both the design process and the installation of rotors, because they reliably deliver matched precipitation rates within and between rotor radii from 7,6 m to 10,7 m. Without having to use fixed arc plates, designers and installers can achieve MPR using 5000 Series Rotors. Superior flexibility in arc adjustment minimizes the risks of over- or under-watering.

FEATURES

- Three Nozzle trees of 7,6 m, 9,1 m, 10,7 m radii.
- Each tree contains a Q (90°), T (120°), H (180°), and F (360°) Nozzle.
- No fixed arc plate required.
- Compatible with 5000/5000 Plus/5000 Plus PRS Series.
- Rain Curtain™ Technology provides:
  - Large droplets for consistent performance.
  - Effective close-in watering.
  - Even distribution over the entire radius.
- Precipitation rate of 15,2 mm/hr reduces run-off and erosion.
- Color-coded by radius for easy identification.
- Nozzles are easy to insert and remove.
- Stackable Nozzle trees for convenient storage.

SPECIFICATIONS

- Radius: 7,6 m to 10,7 m
- Pressure range: 1,7 to 4,5 bar
- Flow Rate: 0,17 to 2,09 m³/h

MODELS

5000MPRMPK : bag of 30 units of 5000-MPR nozzle trees : 10 of 5000-MPR-25, 10 of 5000-MPR-30 and 10 of 5000-MPR-35

Mini trees with four nozzles

5000 Series MPR Nozzles

PERFORMANCE

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■ 50%
▲ 50%

5000-MPR-25

Nozzle	bar	m	m³/h	■ mm/h	▲ mm/h
90°	1,7	7,0	0,17	13,7	15,8
	2,4	7,3	0,20	14,9	17,3
	3,1	7,6	0,23	15,6	18,1
	3,8	7,6	0,25	17,4	20,1
	4,5	7,6	0,27	18,9	21,9
120°	1,7	7,0	0,23	13,9	16,0
	2,4	7,3	0,27	15,4	17,8
	3,1	7,6	0,31	16,2	18,7
	3,8	7,6	0,35	18,0	20,7
	4,5	7,6	0,38	19,6	22,6
180°	1,7	7,0	0,33	13,3	15,4
	2,4	7,3	0,39	14,7	17,0
	3,1	7,6	0,45	15,5	17,9
	3,8	7,6	0,50	17,3	20,0
	4,5	7,6	0,55	18,9	21,8
360°	1,7	7,0	0,63	12,8	14,8
	2,4	7,3	0,76	14,2	16,4
	3,1	7,6	0,87	14,9	17,3
	3,8	7,6	0,97	16,6	19,2
	4,5	7,6	1,05	18,1	20,9

5000-MPR-30

Nozzle	bar	m	m³/h	■ mm/h	▲ mm/h
90°	1,7	8,8	0,23	12,0	13,8
	2,4	9,1	0,28	13,4	15,4
	3,1	9,1	0,32	15,2	17,6
	3,8	9,1	0,35	17,0	19,6
	4,5	9,1	0,38	18,4	21,2
120°	1,7	8,8	0,30	11,7	13,5
	2,4	9,1	0,35	13,2	15,2
	3,1	9,1	0,42	15,1	17,4
	3,8	9,1	0,47	16,8	19,4
	4,5	9,1	0,51	18,3	21,1
180°	1,7	8,8	0,49	12,5	14,4
	2,4	9,1	0,59	14,1	16,2
	3,1	9,1	0,67	16,1	18,6
	3,8	9,1	0,75	17,9	20,7
	4,5	9,1	0,82	19,6	22,6
360°	1,7	8,8	0,96	12,3	14,2
	2,4	9,1	1,15	13,8	15,9
	3,1	9,1	1,31	15,7	18,1
	3,8	9,1	1,45	17,4	20,0
	4,5	9,1	1,57	18,8	21,7

5000-MPR-35

Nozzle	bar	m	m³/h	■ mm/h	▲ mm/h
90°	1,7	9,8	0,32	13,4	15,4
	2,4	10,4	0,38	14,1	16,3
	3,1	10,7	0,44	15,3	17,7
	3,8	10,7	0,48	17,0	19,6
	4,5	10,7	0,52	18,4	21,3
120°	1,7	9,8	0,40	12,7	14,6
	2,4	10,4	0,49	13,6	15,6
	3,1	10,7	0,56	14,7	17,0
	3,8	10,7	0,62	16,4	18,9
	4,5	10,7	0,68	17,9	20,7
180°	1,7	9,8	0,62	13,1	15,2
	2,4	10,4	0,76	14,1	16,3
	3,1	10,7	0,87	15,2	17,6
	3,8	10,7	0,96	16,9	19,5
	4,5	10,7	1,05	18,4	21,3
360°	1,7	9,8	1,22	12,8	14,8
	2,4	10,4	1,50	14,0	16,2
	3,1	10,7	1,72	15,1	17,5
	3,8	10,7	1,91	16,8	19,4
	4,5	10,7	2,09	18,3	21,2

MAXI-PAW™ SERIES

Dirty Water Applications - Spacing Up to 13.7 m

7 to 30 mm/h

1.7 to 4.1 bar

0.34 to 1.91 m³/h

7.6 cm

23.6 cm

½" or ¾"

12.7 cm

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

SPECIFICATIONS

Radius: 6.7 to 13.7 m
½" (15/21) female threaded side inlet
Nozzle outlet trajectory:
- 23° for 06, 07, 08, 10 and 12 nozzles
- 11° for 07-LA and 10-LA nozzles
Nozzles: 06 (red), 07(black), 08(blue), 10 (yellow), 12 (beige)
Low-Angle nozzles: 07-LA (black), 10-LA (yellow)

DIMENSIONS

Overall body height: 23.6 cm

MODEL

2045A MAXI-PAW

LA NOZZLES

Nozzles	bar	m	m³/h	■ mm/h	▲ mm/h
07-LA	1,7	6,7	0,34	15	17
	2,0	6,9	0,38	16	18
	2,5	7,1	0,42	17	19
	3,0	7,4	0,46	17	19
	3,5	7,6	0,50	17	20
	4,0	7,6	0,54	19	22
	4,1	7,6	0,54	19	22
10-LA	1,7	7,6	0,77	27	31
	2,0	8,1	0,83	25	29
	2,5	8,7	0,91	24	28
	3,0	9,2	1,00	24	27
	3,5	9,6	1,09	24	27
	4,0	9,8	1,19	25	29
	4,1	9,8	1,23	26	30

◗
■ 50%
▲ 50%

PERFORMANCE
MAXI-PAW MPR NOZZLES

Nozzles	bar	m	m³/h	■ mm/h	▲ mm/h
06	1,7	-	-	-	-
	2,0	-	-	-	-
	2,5	11,4	0,46	7	8
	3,0	11,5	0,51	8	9
	3,5	11,6	0,55	8	9
	4,0	11,6	0,58	9	10
	4,1	11,6	0,59	9	10
07	1,7	9,8	0,50	10	12
	2,0	10,4	0,55	10	12
	2,5	11,0	0,60	10	11
	3,0	11,7	0,66	10	11
	3,5	12,2	0,72	10	11
	4,0	12,5	0,78	10	12
	4,1	12,5	0,79	10	12
08	1,7	10,7	0,64	11	13
	2,0	11,1	0,68	11	13
	2,5	11,5	0,75	11	13
	3,0	12,0	0,82	11	13
	3,5	12,4	0,89	12	13
	4,0	12,7	0,94	12	14
	4,1	12,8	0,95	12	13
10	1,7	11,6	0,95	14	16
	2,0	12,0	1,01	14	16
	2,5	12,3	1,11	15	17
	3,0	12,7	1,21	15	17
	3,5	13,0	1,31	16	18
	4,0	13,3	1,42	16	19
	4,1	13,4	1,45	16	19
12	1,7	11,9	1,25	18	20
	2,0	12,3	1,32	17	20
	2,5	12,7	1,45	18	21
	3,0	13,2	1,58	18	21
	3,5	13,6	1,72	19	22
	4,0	13,7	1,86	20	23
	4,1	13,7	1,91	20	24

ACCESSORY

2045A SAM Kit

TOOL

42064

APPLICATIONS

For removing internal assembly from Mini-Paw® and Maxi-Paw™ rotors.

MODEL

42064

SB SERIES

Spiral Barb Fittings

APPLICATIONS

For use in conjunction with SPX-Flex Swing Pipe as a flexible swing joint assembly. Flexible swing joints are used to protect underground sprinklers by absorbing impact caused by cars or turf maintenance equipment. Also used where sprinklers are positioned in hard to trench areas near walls, curbs, sidewalks, and fences.

FEATURES

- 6 models available
- Spiral Barb design permits twist-in insertion without tools, glue or clamps. Simply insert the fitting into the flexible tubing and screw it in hand-tight
- Important: do not use any lubricant (grease, soap, oil, etc.)

SPECIFICATIONS

Operating water pressure rating: up to 5.5 bar

MODELS

SBE-050: ½" (15/21) male x barb elbow
SBA-050: ½" (15/21) male x barb adapter
SBE-075: ¾" (20/27) male x barb elbow
SB-TEE: barb x barb x barb tee
SB-CPLG: barb x barb coupling

SPX-FLEX

Swing Pipe

APPLICATIONS

The flexible swing joint absorbs impacts and any pressure caused by cars or turf maintenance equipment.

FEATURES

- Simplicity : Unique material offers excellent pipe flexibility and greater kink resistance for fast, efficient installation.
- Reliability : The barbed fittings resistance to handling is significantly greater than that of other flexible swing pipe.
- Durability : SPX-FLEX swing pipe are designed to withstand high pressure and pressure spikes. Their easy installation ensures the most reliable connection every time.
- Available in several coil lengths : 30 m or 100 m.
- Linear, low density polyethylene material.
- Kink-resistant, ultra-flexible version.
- Colour: Black with green stripes for easier identification.
- Special packaging : Coil is easier to unroll.

SPECIFICATIONS

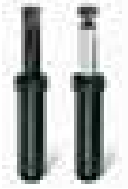
Nominal inside diameter : 12.5 mm
Minimum wall thickness: 2.5 mm
Maximum operating pressure and temperature: 5.5 bar and 43°C.

MODELS

SPX-FLEX30: 30 m roll
SPX FLEX100: 100 m roll

POP-UP SPRINKLER SELECTION GUIDE

Long Range

7	**11,3 / 19,8 m**	Flow : 0,66 to 4,93 m³/h Pressure : 2,1 to 6,2 bar	**FALCON® 6504**	
8	**11,9 / 24,7 m**	Flow : 2,54 to 8,24 m³/h Pressure : 3,5 to 6,9 bar	**8005**	
9	**19,2 / 29,6 m**	Flow : 4,43 to 13,49 m³/h Pressure : 4,1 to 6,9 bar	**EAGLE™ 900/950**	

FALCON® 6504 SERIES

FEATURES

- AUTHORIZED BY THE FRENCH/SWISS FOOTBALL FEDERATION for installation on playing surfaces
- Ratcheting stem just like standard spray bodies
- 3-port, color-coded Rain Curtain nozzles for optimal long range,mid-range, and close-in watering
- Nozzle trajectory angle: 25°
- Easy arc adjustment (part-circle model) through top of rotor from 40° to 360°
- SAM Seal-A-Matic check valve device holds up to 10 feet (3.1 m) of head
- Self-adjusting stator does not require replacement when changing nozzles
- Heavy-duty, stainless steel retract spring ensures positive popdown
- 5 year warranty

Options

- Stainless steel (SS) riser helps deter vandalism on public turf areas
- High Speed (HS) "Tan Top" version for dust suppression

Operating Specifications

- Precipitation rate: 9 to 29 mm/h
- Radius: 11.9 to 19.8 m
- Pressure: 2.1 to 6.2 bar
- Flow: 0.66 to 4.93 m³/h
- 1" (26/34) female BSP threaded inlet
- SAM check device holds up to 3.1 m of elevation change
- Rain Curtain™ Nozzles: 04-black; 06-light blue; 08-dark green; 10-grey; 12-beige; 14-light green; 16-dark brown; 18-dark blue

MODELS

- FALCON-FC: Full-circle
- FALCON-PC: Part-circle
- FALCON-FC-SS: Full-circle, stainless steel
- FALCON-PC-SS: Part-circle, stainless steel
- FALCON-PC-SS-HS: Part-circle, stainless steel, high speed rotation

Falcon® 6504 Series

232693S TOOL

232693S

APPLICATIONS
Stem hold-up tool with bubble level

MODEL
232693S

How to specify

FALCON - PC - SS - HS

- **Model** FALCON: Falcon
- **Rotation** PC: Part-circle FC: Full-circle
- **Optional Feature** Stainless steel riser
- **Optional Feature** High-speed rotor

PERFORMANCE

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

High-Speed Falcon® 6504 Nozzle Performance

Pressure bar		Nozzle	Radius m	Flow m³/h	Flow l/m	Precip mm/h	Precip mm/h
2.1	●	4	11.3	0.68	11.35	11	12
	●	6	11.9	0.98	15.90	14	16
2.5	●	4	12.0	0.75	12.54	10	12
	●	6	12.7	1.22	20.16	15	18
	●	8	14.2	1.49	25.20	15	17
	●	10	14.2	1.83	30.60	18	21
	●	12	14.8	2.24	37.20	20	24
	●	14	16.0	2.58	43.20	20	23
	●	16	15.4	2.85	47.40	24	28
	●	18	16.0	3.15	52.80	24	28
3.0	●	4	12.5	0.81	13.51	10	12
	●	6	13.3	1.33	22.18	15	17
	●	8	14.5	1.57	26.18	15	17
	●	10	14.5	1.93	32.12	18	21
	●	12	15.4	2.35	39.20	20	23
	●	14	16.2	2.71	48.09	21	24
	●	16	15.8	3.00	49.95	24	28
	●	18	16.4	3.29	54.87	25	28
3.5	●	4	12.5	0.85	14.15	11	13
	●	6	13.7	1.28	21.37	14	16
	●	8	14.9	1.72	28.62	16	18
	●	10	14.9	2.11	35.11	19	22
	●	12	16.2	2.56	42.74	20	23
	●	14	16.2	2.95	49.20	23	26
	●	16	16.2	3.27	54.53	25	29
	●	18	16.9	3.57	59.51	25	29
4.0	●	4	12.5	0.93	15.52	12	14
	●	6	13.7	1.38	23.02	15	17
	●	8	14.4	1.85	30.81	18	21
	●	10	14.9	2.27	37.86	20	24
	●	12	16.2	2.76	46.03	21	24
	●	14	16.2	3.17	52.77	24	28
	●	16	16.6	3.50	58.37	25	29
	●	18	17.7	3.83	63.90	24	28
4.5	●	4	12.5	1.00	16.69	13	15
	●	6	13.4	1.48	24.46	16	19
	●	8	14.6	1.97	32.81	18	21
	●	10	15.3	2.42	40.40	21	24
	●	12	16.5	2.95	49.13	22	25
	●	14	16.2	3.36	55.94	26	30
	●	16	17.1	3.73	62.22	26	30
	●	18	18.0	4.07	67.89	25	29
5.0	●	4	12.3	1.06	17.70	14	16
	●	6	13.1	1.56	25.74	18	21
	●	8	15.1	2.08	34.73	18	21
	●	10	15.4	2.57	42.78	22	25
	●	12	16.8	3.12	51,96	22	26
	●	14	16.2	3.54	59.06	27	31
	●	16	17.5	3.96	65.96	26	30
	●	18	18.0	4.30	71.74	27	31
5.5	●	4	11.9	1.11	18.52	16	18
	●	6	13.1	1.61	26.84	19	22
	●	8	15.5	2.20	36.65	18	21
	●	10	14.9	2.70	44.97	24	28
	●	12	16.8	3.27	54.43	23	27
	●	14	16.2	3.74	62.35	29	33
	●	16	18.0	4.17	69.53	26	30
	●	18	18.0	4.53	75.58	28	32
6.0	●	18	18.4	4.75	79.16	28	32
6.2	●	18	18.6	4.84	80.62	28	32

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.

8005 SERIES

Protect Your Turf with High Performance, Vandal and Abuse

FEATURES

- AUTHORIZED BY THE FRENCH/SWISS FOOTBALL FEDERATION for installation on playing surfaces
- Vandal resistance
- Brass reinforced turret for increased side impact durability
- Non-strippable drive mechanism prevents damage from vandals
- Memory Arc returns the rotor to its original arc setting
- Full and part circle operation in one unit
- Easy, wet, dry arc adjustment with slotted screwdriver through top of rotor from 50° to 330° part-circle, 360° non-reversing full-circle.
- 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 device holds up to 10 feet (3.1 m) of head
- 3-port, color-coded Rain Curtain nozzles for optimal long-range, mid-range, and close-in watering
- Nozzle outlet trajectory is 25°
- 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

SPECIFICATIONS

- Radius: 11.9 to 24.7 m
- Precipitation rate: 12 to 31 mm/h
- Pressure: 3.5 to 6.9 bar
- Flow: 0.86 to 8.24 m^3/h
- 1" (26/34) BSP female threaded inlet
- SAM check device holds up to 3.1 m of head
- Nozzle outlet trajectory is 25°
- Rain Curtain™ Nozzles: 04 - black; 06 - light blue; 08 - dark green; 10 - gray; 12 - beige; 14 - light green; 16 - dark brown; 18 - dark blue; - 20 - red; 22 - yellow; 24 - orange; 26 - white

8005 Series

MODELS

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

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

How to specify

8005 - SS - NP

- **Model** 8005 Series
- **Optional Feature** Stainless steel riser
- **Optional Feature** Non-potable rubber cover

Sod Cup for 8005

ACCESORY

Sod Cup

APPLICATIONS

The RainBird Sod Cup is designed to fit the 8005 rotors and allows the addition of a plug of living grass to the top of the riser.
This is an ideal solution for areas where invisible rotors are required. Can be used in a new installations or for retrofit.

MODELS

8005 Sod Cup

8005 SERIES ROTORS

PERFORMANCE

8005 Nozzle Performance

Pressure bar	Nozzle	Radius m	Flow m^3/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 m^3/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

8005 Rain Curtain™ Nozzles

Optional High-flow Nozzles for 8005 Series Rotors

EAGLE™ 900/950 SERIES ROTORS

The Rotor that delivers Long-Term Performance

APPLICATIONS

The EAGLE™ rotors are designed specifically to withstand the rigors of athletic field irrigation applications, including on artificial grass.

FEATURES

- Closed-case design protects drive mechanism from debris
- Water-lubricated drive mechanism
- Unique flushing action keeps debris away from internal parts
- Top-serviceable for easy maintenance
- Heavy-duty retract spring
- Full circle and adjustable part circle model (up to 345°)
- Electric valve-in-head
- Top adjustable pressure regulator. Factory preset at 5.5 bar
- 950 models have 4 Cascade nozzles (18 to 24) for optimum uniformity and 4 standard nozzles (26 to 32)
- "TSRS™": Top-Serviceable Rock Screen™ allows for debris removal at installation or due to buildup over time

SPECIFICATIONS

Operating pressure: 4.1 to 6.9 bars
Flow: 4.43 to 13.49 m^3/h
Radius for EAGLE™ 900: 19.2 to 29.6 m
Radius for EAGLE™ 950: 21.3 to 28 m
Nozzle outlet trajectory: 25°
Maximum stream height: 6.1 m
ACME Female threaded: 1.5" (40/49) ACME

ELECTRICAL SPECIFICATIONS

Solenoid: 24 VAC - 50 Hz
Inrush current: 0.41 A (9.9 VA)
Holding current: 0.30 A (7.2 VA)

DIMENSIONS

Body height: 34 cm
Pop-up height: 8.3 cm
Top diameter: 21 cm

MODELS

EAGLE™ 900E: Full Circle
EAGLE™ 950E: Adjustable part circle

OPTION

RUBBER COVER KIT, ARTIFICIAL GRASS COVER KIT

For EAGLE™ 900/950

APPLICATIONS

When EAGLE™ 950 rotors are used in athletic field applications, these 2 kits provide optimum player safety.

FEATURES

- 2-piece kit: nozzle housing cover and case ring
- Easy to install

DIMENSIONS

Case ring diameter: 19 cm
Rubber case ring height: 3.0 (add 1.5 cm for the artificial grass ring version)

MODELS

Rubber cover kit for:
EAGLE™ 900
EAGLE™ 950
Artificial grass cover kit for :
EAGLE™ 900/950 - 900/950GR.

PERFORMANCE

High Performance Nozzles EAGLE™ 900 SERIES

Nozzle	bar	m	m³/h	■ mm/h	▲ mm/h
44	4,1	19,2	4,85	13	15
	4,5	19,8	5,11	13	15
	5,0	20,7	5,40	13	15
	5,5	21,6	5,59	12	14
	6,0	21,6	5,90	13	15
	6,5	21,9	6,16	13	15
	6,9	22,3	6,35	13	15
48	4,1	22,3	6,56	13	15
	4,5	22,3	6,81	14	16
	5,0	22,4	7,22	14	17
	5,5	22,8	7,72	15	17
	6,0	23,3	7,88	14	17
	6,5	23,5	8,06	15	17
	6,9	23,5	8,22	15	17
52	4,1	22,9	7,25	14	16
	4,5	23,5	7,57	14	16
	5,0	24,2	8,00	14	16
	5,5	24,7	8,41	14	16
	6,0	24,7	8,81	14	17
	6,5	24,9	9,19	15	17
	6,9	25,3	9,49	15	17
56	4,1	24,7	8,60	14	16
	4,5	25,0	8,94	14	17
	5,0	25,5	9,40	14	17
	5,5	25,9	9,87	15	17
	6,0	26,3	10,34	15	17
	6,5	26,8	10,80	15	17
	6,9	27,1	11,15	15	17,7
60	4,1	-	-	-	-
	4,5	26,2	9,47	14	16
	5,0	26,8	10,00	14	16
	5,5	27,7	10,52	14	16
	6,0	27,7	11,03	14	17
	6,5	27,7	11,50	15	17
	6,9	27,7	11,86	15	18
64	4,1	-	-	-	-
	4,5	27,4	10,35	14	16
	5,0	27,9	10,94	14	16
	5,5	28,3	11,56	14	16
	6,0	28,8	12,06	14	17
	6,5	29,2	12,57	15	17
	6,9	29,6	12,97	15	17

● ■ 50% ▲ 50%

Based on full circle

EAGLE™ 950 SERIES

Nozzle	bar	m	m³/h	■ mm/h	▲ mm/h
18-C	4,1	21,3	4,43	19	23
	4,5	21,7	4,64	20	23
	5,0	22,1	4,93	20	23
	5,5	22,5	5,19	20	24
	6,0	22,8	5,44	21	24
	6,5	23,0	5,68	21	25
	6,9	23,2	5,86	22	25
20-C	4,1	21,9	5,22	22	25
	4,5	22,3	5,48	22	26
	5,0	22,7	5,81	23	26
	5,5	23,2	6,12	23	26
	6,0	23,6	6,40	23	27
	6,5	24,0	6,69	23	27
	6,9	24,4	6,93	23	27
22-C	4,1	22,6	6,02	24	27
	4,5	22,9	6,29	24	28
	5,0	23,5	6,66	24	28
	5,5	24,4	7,01	23	27
	6,0	24,8	7,34	24	28
	6,5	25,3	7,64	24	28
	6,9	25,6	7,86	24	28
24-C	4,1	23,2	7,00	26	30
	4,5	23,8	7,32	26	30
	5,0	24,7	7,75	25	29
	5,5	25,6	8,16	25	29
	6,0	26,5	8,56	24	28
	6,5	27,1	8,93	24	28
	6,9	27,4	9,20	24	28
26	4,1	23,8	8,18	29	34
	4,5	24,4	8,50	29	33
	5,0	25,1	8,95	28	33
	5,5	25,6	9,41	29	33
	6,0	26,0	9,73	29	33
	6,5	26,5	10,18	29	33
	6,9	26,8	10,61	29	34
28	4,1	-	-	-	-
	4,5	25,2	9,44	30	35
	5,0	25,8	10,00	30	35
	5,5	26,2	10,72	31	36
	6,0	26,9	10,93	30	35
	6,5	27,4	11,37	30	35
	6,9	27,7	11,86	31	36
30	4,1	-	-	-	-
	4,5	25,2	10,44	33	38
	5,0	25,8	10,92	33	38
	5,5	26,2	11,43	33	39
	6,0	27,1	11,85	32	37
	6,5	27,7	12,30	32	37
	6,9	28,0	12,67	32	38
32	4,1	-	-	-	-
	4,5	25,3	11,17	35	41
	5,0	25,7	11,60	35	41
	5,5	25,9	12,05	36	42
	6,0	26,6	12,46	35	41
	6,5	27,3	13,00	35	41
	6,9	28,0	13,49	34	40

◗ ■ 50% ▲ 50%

TOOLS

VT-DR
APPLICATIONS
Valve insertion tool for EAGLE™ 900/950.

MODEL
VT-DR

SRP
APPLICATIONS
Snap ring pliers for Eagle™ 900/950.

MODEL
SRP

IS-TSRS
APPLICATIONS
Installation socket for Top-Serviceable Rock Screen™ on EAGLE™ valve-in-head rotors

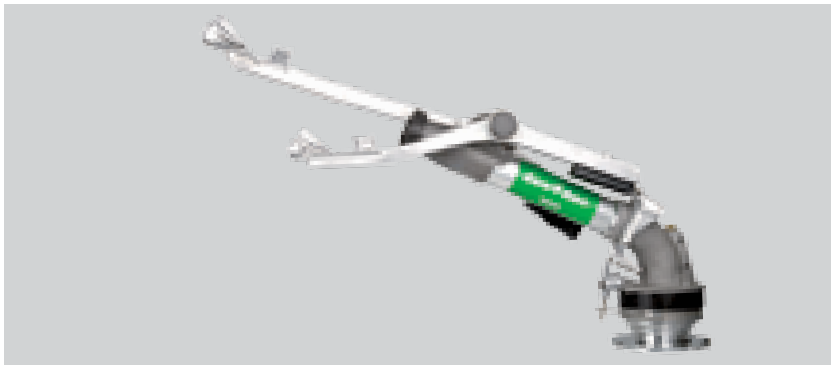
MODEL
IS-TSRS

DR-SVK-7
APPLICATIONS
7" (18 cm) Selector Valve Key; set operating mode off, auto, manual EAGLE™ 900E/950E rotors.

MODEL
DR-SVK-7

RAIN BIRD SR2005/SR3003 SERIES

Slow Reverse Sprinklers

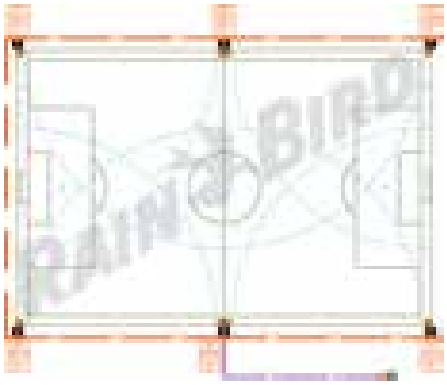


APPLICATIONS

These sprinklers are designed for large irrigation installations: sports field complex, athletic fields (football), etc. Ideal for artificial grass applications.

FEATURES

- Slow reverse
- Trajectory angle: 23°
- Standard irrigation flange mount
- Part circle models with adjustable arc: 40-360°
- Easy arc adjustment, Friction collar settings require no tools
- Single nozzle configuration
- SR2005 is shipped with set of 6 taper bore nozzles (GNS-2005T), Sizes: 21, 23, 26, 28, 30 and 33 mm
- SR3003 is shipped with set of 6 plastic taper bore nozzles (GNS-3003T), Sizes: 14, 16, 18, 20, 22 and 24 mm
- SR3003 features a spoon design with adjustable bracket to increase or decrease rotation speed
- Counterweights available
- Sealed, lubed-for-life ball bearings
- Optional 2" (50/60) female BSP adapter available for SR3003 permits 2"(50/60) riser mount



Design example

MODELS

SR2005: 3" Part circle - Slow reverse
SR3003: 2" Part circle - Slow reverse

PERFORMANCE

SR2005

Nozzles	bar	m	m³/h
21 mm	4,0	44,0	32,1
	4,5	45,7	34,0
	5,0	47,5	35,9
	5,5	48,2	37,6
	6,0	49,0	39,3
	6,5	50,2	40,9
23 mm	4,0	45,0	38,6
	4,5	46,7	40,8
	5,0	48,5	43,1
	5,5	49,5	45,2
	6,0	50,5	47,3
	6,5	51,0	49,2
26 mm	4,0	46,5	50,5
	4,5	48,7	53,0
	5,0	51,0	56,0
	5,5	51,5	58,5
	6,0	52,0	61,1
	6,5	52,2	63,6
28 mm	4,0	50,0	58,1
	4,5	52,5	61,7
	5,0	55,0	65,3
	5,5	56,7	68,3
	6,0	58,5	71,3
	6,5	59,2	74,1
30 mm	4,0	51,5	67,7
	4,5	54,2	71,7
	5,0	57,0	75,8
	5,5	59,2	79,4
	6,0	61,5	83,0
	6,5	63,2	86,4
33 mm	4,0	54,0	82,4
	4,5	56,0	87,3
	5,0	58,0	92,2
	5,5	58,7	96,5
	6,0	59,5	100,9
	6,5	60,5	104,5

SR3003

Nozzles	bar	m	m³/h
14 mm	3,0	32,0	13,0
	3,5	33,5	13,9
	4,0	34,7	14,8
	4,5	36,0	15,7
	5,0	37,5	16,5
	5,5	39,0	17,4
	6,0	40,2	18,2
16 mm	3,0	32,5	16,8
	3,5	34,0	18,0
	4,0	36,0	19,2
	4,5	38,0	20,4
	5,0	38,5	21,4
	5,5	39,0	22,5
	6,0	40,5	23,6
18 mm	3,0	36,0	21,6
	3,5	38,0	23,0
	4,0	40,0	24,5
	4,5	42,0	26,0
	5,0	43,2	27,4
	5,5	44,5	28,8
	6,0	45,5	30,2
20 mm	3,0	40,5	26,5
	3,5	42,0	28,4
	4,0	42,7	30,3
	4,5	43,5	32,2
	5,0	45,0	33,8
	5,5	46,5	35,5
	6,0	48,0	37,3
22 mm	3,0	40,0	31,5
	3,5	41,5	33,8
	4,0	42,5	36,1
	4,5	43,5	38,5
	5,0	46,2	40,5
	5,5	49,0	42,6
	6,0	50,5	44,5
24 mm	3,0	40,0	38,0
	3,5	42,0	40,4
	4,0	43,0	43,1
	4,5	44,0	45,9
	5,0	47,2	48,3
	5,5	50,5	50,7
	6,0	53,0	53,2

RAIN BIRD 1005M-DC SERIE

Fast reverse Sprinklers - Dust Control

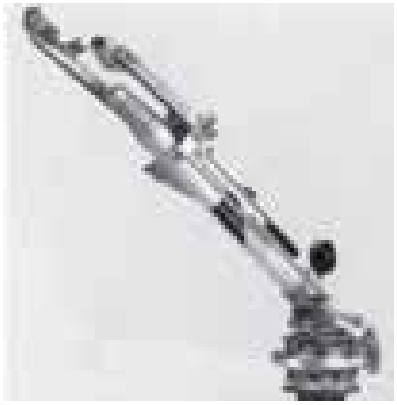
1005M-DC

Part Circle Dust Control Rain Gun Sprinkler Dust control Rain Gun for industrial applications.

- Part and full circle
- 3 in (80 mm) flange mount inlet
- 43° body trajectory
- Used with CS aluminium straight bore nozzles.
- 6 sizes available

MATERIALS

- Body: Cast Aluminum
- Arm: Cast Aluminum
- Bearing Sleeve: Cast Iron
- Flange Adapter: Cast Bronze
- All Springs and Hardware: Stainless Steel
- All Washers: Chemically resistant
- Disk brake: Delrin™



APPLICATIONS

Used for controlling dust in open pit mines, quarries and storage applications.

SPECIFICATIONS

- 1005M-DC - Part circle and full circle
- Bearing Size/Type - 3 in/80 mm Flange Mount, bolt circles diam. 130 mm/6 bolt holes
- Trajectory angle - 43°

1005M-DC (43°) / STRAIGHT BORE NOZZLES

BARS	Nozzle 20,07 mm 0.790"					Nozzle 22,61 mm 0.890"					Nozzle 25,15 mm 0.990"					Nozzle 27,69 mm 1.090"				
	Rad M	V M	Rv M	Flow M^3/h	Flow L/s	Rad M	V M	Rv M	Flow M^3/h	Flow L/s	Rad M	V M	Rv M	Flow M^3/h	Flow L/s	Rad M	V M	Rv M	Flow M^3/h	Flow L/s
4,0	38,3	14,7	23,9	32,1	8,92	40,2	15,0	24,3	40,9	11,36	41,9	15,2	25,5	50,8	14,10	43,4	15,5	26,1	61,7	17,14
5,0	40,4	16,4	26,4	35,9	9,96	42,5	17,0	27,5	45,6	12,67	44,3	17,4	28,1	56,5	15,69	46,1	17,7	29,0	68,6	19,05
6,0	42,3	17,8	28,4	39,3	10,92	44,4	18,7	29,9	50,0	13,87	46,4	19,2	30,4	61,8	17,17	48,2	19,5	31,5	75,0	20,83
7,0	44,1	18,9	30,0	42,6	11,82	46,2	19,9	31,7	54,0	15,01	48,2	20,5	32,4	66,9	18,58	50,1	20,8	33,6	81,1	22,54
8,0	45,8	19,7	31,3	45,6	12,67	47,9	20,8	32,9	58,0	16,10	49,8	21,4	34,3	71,8	19,94	51,7	21,7	35,4	87,1	24,20

BARS	Nozzle 30,23 mm 1.190"					Nozzle 32,77 mm 1.290"				
	Rad M	V M	Rv M	Flow M^3/h	Flow L/s	Rad M	V M	Rv M	Flow M^3/h	Flow L/s
4,0	44,9	15,8	26,8	73,8	20,51	46,2	16,1	27,2	87,1	24,20
5,0	47,7	18,3	30,3	81,9	22,75	49,4	18,7	30,5	96,5	26,80
6,0	50,1	20,3	33,0	89,5	24,86	51,9	20,8	33,3	105,4	29,26
7,0	52,0	21,9	35,0	96,8	26,89	55,4	23,7	37,4	122,5	34,03
8,0	53,5	23,1	36,31	104,0	28,89	55,4	23,7	37,4	122,5	34,03

1005M-DC performance charts include in addition to flow and radius data, stream height data (see legend).

LEGEND

Rad = Radius of throw
V = Maximum stream height above nozzle
Rv = Distance from sprinkler to maximum stream height

NOTE: Radius of throw can vary significantly in windy conditions.

GENERAL NOTE: Performance data are obtained under ideal test conditions and may be adversely affected by wind, hydraulic conditions, and other factors.

2045PJ-08 MAXI-BIRD™

Part or Full Circle Plastic Impact Sprinkler

APPLICATIONS

½" (15/21) riser-mounted impact head used for slopes and large area, above-grade installations.

FEATURES

- Impact drive sprinkler
- Double-weighted impact arm for slower rotation and increased distance of throw
- Straight through flow for superior performance in dirty water
- Low pressure and low flow operation
- Precision Jet tube (PJ™) minimizes side splash
- 5 Matched Precipitation Rate (MPR) nozzles and 2 low-angle (LA) nozzles
- Interchangeable, color-coded bayonet mount nozzles, No tools required
- FP trip permits full or part circle operation (20° to 340°)
- Powerful reverse action

SPECIFICATIONS

Pressure: 1,7 to 4,1 bar
Flow: 0,34 to 1,91 m^3/h
Radius: 6,7 to 13,7 m
½" (15/21) male threaded inlet
Nozzle outlet trajectory:
- 23° for 06, 07, 08, 10, and 12 nozzles
- 11° for 07-LA and 10-LA nozzles

Standard trajectory angle nozzles: 06/red, 07/black, 08/blue, 10/yellow, 12/beige
Low-angle nozzles: 07-LA/black, 10-LA/yellow

MODEL

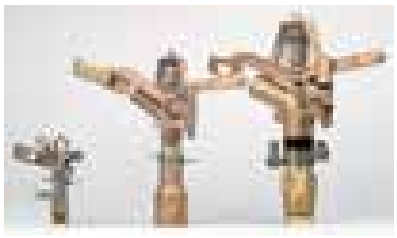
2045PJ-08 MAXI-BIRD

PERFORMANCE

See Maxi-Paw nozzle performances page 55.

25BPJ, 65PJ, 85ESHD

Part or Full Circle Bronze Impact Sprinklers



APPLICATIONS

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, 85 has spoon-style arm
- Distance control flap (DA) on 25BPJ
- Distance control diffuser pin (ADJ) on model 25BPJ
- Long wearing TNT bearing, H on 85ESHD
- FP trip permits part circle (20° to 340°) or full circle operation
- Brass straight bore nozzle with vane on model 25BPJ, 85 has body vane

SPECIFICATIONS

25BPJ

Radius: 11,6 to 12,5 m
Pressure: 2,1 to 3,5 bars
Flow: 0,70 to 1,14 m^3/h
½" (15/21) male threaded inlet
Nozzle outlet trajectory: 25°

65PJ

6 straight bore nozzle sizes are available: 7/32" to 3/8"
Radius: 17,4 to 23,6 m
Pressure: 4 to 5,5 bars
Flow: 2,43 to 8,10 m^3/h
1" (26/34) BSP female threaded inlet
Nozzle outlet trajectory: 27°

85ESHD

10 straight bore nozzle sizes are available: 11/32" to 11/16"
Radius: 19,3 to 35,4 m
Pressure: 2,0 to 6,9 bars
Flow: 4,19 to 29,0 m^3/h
1-1/4" (10/32) BSP male threaded inlet
Nozzle outlet trajectory: 27°

MODELS

25BPJ-FP-ADJ-DA-TNT: ½" (15/21)
65PJ: 1" (26/34)
85ESHD: 1-1/4" (10/32)

PERFORMANCE

25BPJ-FP-ADJ-DA-TNT

Nozzles	bar	m	m^3/h	■ mm/h	▲ mm/h
09	2,1	11,6	0,70	10	12
	2,5	11,8	0,77	11	13
	3,0	12,0	0,85	12	14
	3,5	12,2	0,91	12	14
10	2,1	11,9	0,86	12	14
	2,5	12,1	0,95	13	15
	3,0	12,3	1,05	14	16
	3,5	12,5	1,14	15	17

◗ ■ 50% ▲ 50%

65PJ

bar @ Nozzle	NOZZLE SIZE (Stream Height: 3 m)		
	6.35 mm (1/4")		
	Rad. (m)	Flow (lps)	Flow (m^3/h)
3.5	17.4	0.82	2.93
4.0	17.9	0.88	3.16
4.5	18.5	0.93	3.37
5.5	19.2	0.99	3.55
5.5	19.8	1.04	3.75

85ESHD

Nozzles	bar	m	m^3/h	■ mm/h	▲ mm/h
24 x 14	4,0	23,8	9,25	33	26
	4,5	24,7	9,83	32	26
	5,0	25,4	10,40	32	26
	5,5	26,2	10,95	32	26

◗ ■ 50% ▲ 60%

Additional nozzle sizes are available, Consult Rain Bird

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.

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°

Common Spacings Range:
8 m x 8 m to 15 m x 15 m

MODELS

LF 1200
LF 2400

PERFORMANCES (LF2400)

Deflector 10° (Lime)

Nozzles	bar	m	l/h
30 drill	2,1	9,14	493
	2,4	9,75	534
	2,8	10,06	575
	3,1	10,36	606
8/64"	2,1	9,75	568
	2,4	10,06	613
	2,8	10,36	656
	3,1	10,67	697
9/64"	2,1	10,36	742
	2,4	10,67	802
	2,8	10,97	859
	3,1	10,97	913

Deflector 15° (Tangerine)

Nozzles	bar	m	l/h
2,59 mm	2,1	10,06	493
	2,4	10,36	534
	2,8	10,97	575
	3,1	10,97	606
8/64"	2,1	10,36	568
	2,4	10,67	613
	2,8	11,28	656
	3,1	11,28	697
9/64"	2,1	10,97	742
	2,4	11,28	802
	2,8	11,89	859
	3,1	11,89	913

Deflector 22° (dark green)

Nozzles	bar	m	l/h
7/64"	2,1	11,28	420
	2,4	11,28	454
	2,8	11,58	488
	3,1	11,89	518
30 drill	2,1	11,58	493
	2,4	11,89	534
	2,8	12,19	575
	3,1	12,50	606
8/64"	2,1	11,89	568
	2,4	12,19	613
	2,8	12,50	656
	3,1	12,50	697
29 drill	2,1	12,50	638
	2,4	12,80	688
	2,8	12,80	738
	3,1	13,11	784
9/64"	2,1	12,19	742
	2,4	13,11	802
	2,8	13,41	859
	3,1	13,72	913

PERFORMANCES (LF1200)

Deflector 6° (dark purple)

Nozzles	bar	m	l/h
44 drill	2,1	7,32	266
	2,4	7,62	286
	2,8	7,92	307
	3,1	7,92	325
3/32"	2,1	7,92	316
	2,4	8,23	341
	2,8	8,53	366
	3,1	8,53	388
38 drill	2,1	8,23	370
	2,4	8,53	402
	2,8	8,84	429
	3,1	8,84	454

Deflector 12° (blue)

Nozzles	bar	m	l/h
44 drill	2,1	8,23	266
	2,4	8,53	286
	2,8	8,84	307
	3,1	8,84	325
3/32"	2,1	8,84	316
	2,4	9,14	341
	2,8	9,45	366
	3,1	9,45	388
38 drill	2,1	9,14	370
	2,4	9,45	402
	2,8	9,75	429
	3,1	9,75	454

Deflector 17° (sky blue)

Nozzles	bar	m	l/h
44 drill	2,1	9,45	266
	2,4	10,06	286
	2,8	10,06	307
	3,1	10,06	325
3/32"	2,1	10,06	316
	2,4	10,36	341
	2,8	10,67	366
	3,1	10,67	388
38 drill	2,1	10,36	370
	2,4	10,67	402
	2,8	10,97	429
	3,1	10,97	454

Deflector 21° (olive green)

Nozzles	bar	m	l/h
44 drill	2,1	10,36	266
	2,4	10,36	286
	2,8	10,36	307
	3,1	10,66	325
3/32"	2,1	10,36	316
	2,4	10,66	341
	2,8	10,66	366
	3,1	10,66	388
38 drill	2,1	10,60	370
	2,4	11,00	402
	2,8	11,00	429
	3,1	11,00	454

For complete Performance charts, pls consult www.rainbird.eu

RAIN BIRD SWING JOINT SERIES

Innovative elbow design reduces pressure losses by 50%

APPLICATIONS

Featuring superior flow characteristics and excellent structural integrity, these swing joints are designed to deliver the performance you expect from Rain Bird, They are the perfect complement to our Eagle™ and Impact Series rotors

FEATURES

- Superior flow characteristics through an innovative swept elbow design that reduces pressure loss by 50% over other swing joints
- Excellent structural integrity from the swept elbow design reduces the costs associated with fatigue-related failures
- Double o-ring protection provides a better seal ensuring joints are kept clean and can be repositioned more easily
- Color-coding and distinct size markings reduce costs by eliminating errors and improving installation efficiency with quick size identification at the job site
- Threaded inlets are oversized making hand tightening and blind installations (under water) easier, This also reduces the risk of potential damage caused by over-tightening with a wrench

SPECIFICATIONS

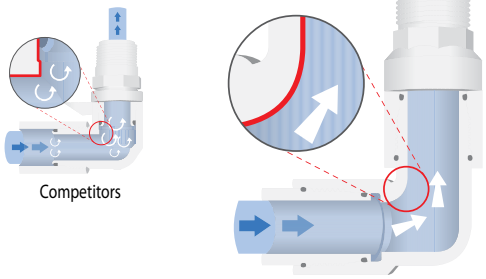
Pressure rating : 21,7 bars at 22,8°C
Diameters : 1" (26/34) and 1,5" (40/49)
Length : 12" (30,5cm) and 18" (45,7cm)
Inlet thread type : BSP
Outlet thread type : BSP

MODELS

SJ-12-100-22 : 30,5cm length, 1" (26/34) diameter Swing Joints
SJ-12-150-22 : 30,5cm length, 1,5" (40/49) diameter Swing Joints
SJ-18-100-22: 45,7cm length, 1" (26/34) diameter Swing Joints
SJ-18-150-22 : 45,7cm length, 1,5" (40/49) diameter Swing Joints

Friction Loss

	1" models		1,5" models	
Flow, m³/h	SJ-12-100-22 bar	SJ-18-100-22 bar bar	SJ-12-150-22 bar	SJ-18-150-22 bar
3,6	0,1	0,1		
5,4	0,2	0,2		
9			0,03	0,03
16,2			0,1	0,1



The rain Bird TSJ Swing Joint's innovative swept elbow design
Significantly reduces pressure loss

41017

Pitot Tube

APPLICATIONS

- Used in conjunction with a pressure gauge to read pressure at the nozzle of a sprinkler in operation

MODEL

41017

Rain Curtain™ Nozzle Cross Reference Guide Hunter® vs. Rain Bird

Hunter vs. Rain Bird – 3/4" Rotors

If replacing:	Use Rain Bird Nozzle	
	By Flow	By Radius
1	-	-
2	-	-
3	-	-
4	1.5	1.5
5	2.0	2.0
6	2.5	2.5
7	3.0	3.0
8	4.0	4.0
9	5.0	5.0
10	8.0	6.0
11	-	8.0
12	-	8.0

Hunter vs. Rain Bird – 3/4" Rotors

If replacing:	Use Rain Bird Nozzle			
	By Flow		By Radius	
I-20	5000 Series	5500	5000 Series	5500
0.5 SR	-	-	-	18S
1.0 SR	-	-	-	18S
2.0 SR	-	18S	-	18S
0.75 SR	-	-	-	22S
1.5 SR	-	22S	-	22S
3.0 SR	-	26S	-	22S
1.0	1.5	-	1.5	30S
1.5	1.5	2	1.5	30S
2.0	2.0	2	2.0	2
3.0	2.5	3	2.5	2
3.5	**3.0**	4	3.0	3
4.0	4.0	5	4.0	3
6.0	5.0	6	5.0	4
8.0	6.0	8	6.0	8

Hunter vs. Rain Bird – 1" Rotors

If replacing:	Use Rain Bird Nozzle			
	By Flow		By Radius	
I-25	6504	8005	6504	8005
4	4	4	4	4
5	6	6	6	6
7	8	8	6	8
8	10	10	8	8
10	12	12	10	10
13	12	12	12	12
15	14	14	14	12
18	16	16	16	14
20	18	18	18	14
23	-	22	-	16
25	-	24	-	20
28	-	26	-	22
I-40	**6504**	**8005**	**6504**	**8005**
40	8	8	6	8
41	12	12	10	10
42	12	12	10	12
43	16	16	14	14
44	18	20	18	16
45	-	22	-	20
I-35	**6504**	**8005**	**6504**	**8005**
9	8	8	8	8
12	12	12	10	10
15	14	14	12	12
18	16	16	14	14
21	18	18	14	14
24	-	22	16	16
27	-	24	16	16
30	-	26	-	20

Rain Curtain™ Nozzle Cross Reference Guide Toro® vs. Rain Bird

Toro vs. Rain Bird – 3/4" Rotors

If replacing:	Use Rain Bird Nozzle	
	By Flow	By Radius
0.5	-	-
0.75	-	-
1.0	1.5	1.5
2.0	2.5	2.0
2.5	3.0	2.5
3.0	4.0	2.5
4.0	5.0	3.0
6.0	6.0	4.0
8.0	8.0	5.0

Toro vs. Rain Bird – 3/4" Rotors

If replacing:	Use Rain Bird Nozzle			
	By Flow		By Radius	
TR50	5000 Series	5500	5000 Series	5500
1.0	-	-	-	-
1.5	1.5	2	1.5	2
2.0	2.0	2	2.0	3
3.0	3.0	3	3.0	3
4.5	4.0	5	4.0	3
6.0	5.0	6	4.0	4
7.5	6.0	8	4.0	4
9.0	8.0	10	5.0	4

Toro vs. Rain Bird – 1" Rotors

If replacing:	Use Rain Bird Nozzle			
	By Flow		By Radius	
Toro 2001	6504	8005	6504	8005
9	10	10	10	10
12	12	12	12	12
15	16	16	14	14
18	18	20	18	16
24	-	22	-	20
TR70	**6504**	**8005**	**6504**	**8005**
7	8	8	-	6
9	8	8	8	8
12	12	12	10	10
16	16	16	14	12
20	-	20	14	14
24	-	20	16	14
27	-	20	18	16
Toro 640	**6504**	**8005**	**6504**	**8005**
40	8	8	8	10
41	10	12	10	10
42	14	14	12	12
43	16	16	14	14
44	18	20	16	14

VALVES

Applications									
Models	LFV-075	075-DV	100-DV	100-JTV	100-HV	PGA	PEB	300-BPES	100 Series
Specifications									
Flow (m^3/h) for 3/4" (20/27)	0,05 to 1,82	0,05 to 5,0							
Flow (m^3/h) for 1" (26/34)			0,05 to 9,08	0,23 to 6,8	0,05 to 6,82	1,14 to 9,08	0,06 to 11,35		
Flow (m^3/h) for 1,5" (40/49)						6,81 to 22,70	4,54 to 34,05		
Flow (m^3/h) for 2" (50/60)						9,08 to 34,05	17,03 to 45,20		
Flow (m^3/h) for 3" (80/90)								13,62 to 68,10	10,00 to 80,00
Pressure (bar)	1,0 to 10,4	1,0 to 10,4	1,0 to 10,4	1,0 to 10,3	1,0 to 10,3	1,0 to 10,4	1,4 to 13,8	1,4 to 13,8	0,7 to 10,0
Configuration									
Male			100-DV-MM	100-JTV-MM	100-HV-MM				
Female	●	●	●	●	●	●	●	●	●
Globe	●	●	●	●	●	●	●	●	
Flange									●
Angle						●		●	
Features									
Scrubber							ALL PESB	300-BPES	
Flow Control			100-DVF	100-JTVF	100-HVF	●	●	●	●
PRS-Dial Option						●	●	●	●
24 VAC Solenoid	LFV-075	075-DV	100-DV	100-JTV	100-HV	100-PGA 150-PGA 200-PGA			
Latching Solenoid	LFV-075 9V	075-DV-9V	100-DV-9V			100-PGA-9V 150-PGA-9V 200-PGA-9V			
Used with dirty water							●	●	●

LOW FLOW VALVE

Control Zone Components

- 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 (45,4 to 1136 liters/hour).
- These valves contain all of the features of Rain Bird's reliable DV valve, 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

LFV-075

LFV-075-9V

FEATURES

• Ease of Service

- External bleed to manually flush system of dirt and debris during installation and system startup
- Internal bleed for spray-free manual operation

• Reliability

- Unique "double-knife" diaphragm coupled with ½" diameter seat for flawless operation at low flow rates.
- Double-filtered pilot flow design for maximum reliability

SPECIFICATIONS

Flow : 45,42 to 1817 liters/hour
Pressure : 1,0 to 10,3 bars

ELECTRICAL SPECIFICATIONS

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

DIMENSIONS

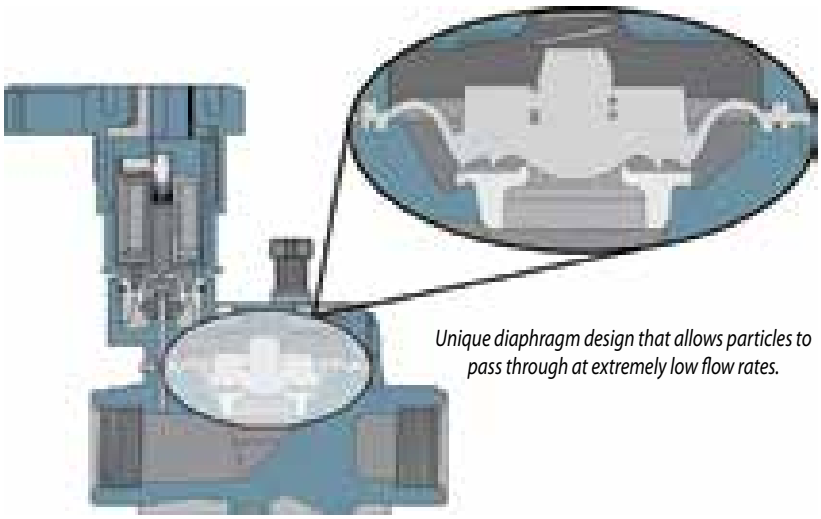
Height : 11,4 cm
Length : 10,7 cm
Width : 8,4 cm

MODELS

LFV-075: 3/4'' (20/27) female threaded inlet and outlet
LFV-075-9V: 3/4'' (20/27) female threaded inlet and outlet, latching solenoid

Friction Loss Characteristics

Flow, l/hr	Flow, l/s	Pressure bars
45,42	0,01	0,19
227	0,06	0,19
454	0,13	0,24
908	0,25	0,26
1362	0,38	0,30
1817	0,50	0,36



Unique diaphragm design that allows particles to pass through at extremely low flow rates.

DV-SERIES

Plastic Electric Valves - The Right Choice in Valves.

- Double-filtered pilot-flow design for maximum reliability
- Balanced-pressure diaphragm for long life
- Energy-efficient, low-power encapsulated solenoid with captured plunger and 200 micron solenoid filter

FEATURES

- **Ease of Service**
  - Flow control mechanism on 100-DVF model
  - Manual ON/OFF control with 1/4-turn of solenoid.
  - Internal bleed for spray-free manual operation
  - External bleed screw to manually flush system of dirt and debris during installation and system start-up
- **Versatility**
  - Globe (DV, DVF and DV-MM models) configurations
  - Available in male x male configuration: 1" BSP 100-DV-MM, 1" BSP 100-DV-MM-9V
  - Also available in 9V solenoid configuration: 3/4" 075-DV-9V, 1" BSP 100-DV-9V, 1" BSP 100-DV-MM- 9V
  - Operates in low-flow and Xerigation® applications when the RBY filter is installed upstream.
- **Reliability**
  - Rugged PVC body
  - Stainless steel phillips head screws

SPECIFICATIONS

Flow: 075-DV: 0.05 to 5 m^3/h
Note: For flows below 0.75 m^3/h or any low volume irrigation application, use PRF-075-RBY filters installed upstream
100-DV, 100-DVF and 100-DV-MM: 0.05 to 9.08 m^3/h
Note : DV male x male not recommended for flows exceeding 6,8 m^3/h
Pressure: 1 to 10.4 bar (23° C)
Temperature: up to 43°C

ELECTRICAL SPECIFICATIONS

Solenoid: 24 VAC - 50 Hz
Inrush current: 0.45 A (7.2 VA)
Holding current: 0.25 A (4.6 VA)
Not for use with decoder system

DIMENSIONS

075-DV and 100-DV: Height: 11.4 cm
Length: 11.1 cm
Width: 8.4 cm

100-DVF: Height: 14.2 cm
Length: 11.1 cm
Width: 8.4 cm
100-DV-MM: Height: 11.4 cm
Length: 13.6 cm
Width: 8.4 cm

MODELS

075-DV : 3/4" (20/27) female threaded inlet and outlet
100-DV : 1" (26/34) BSP female threaded inlet and outlet
100-DV-9V : 1" (26/34) BSP female threaded inlet and outlet, latching solenoid
100-DVF : 1" (26/34) BSP female threaded inlet and outlet with flow control mechanism
100-DV-MM : 1" (26/34) BSP male threaded inlet and outlet
100-DV-MM-9V : 1" (26/34) BSP male threaded inlet and outlet, latching solenoid

ACCESSORIES

MTT-100: Fitting used to build a 1" (26/34) BSP valve manifold
DBRY, DBM, KING wire connectors

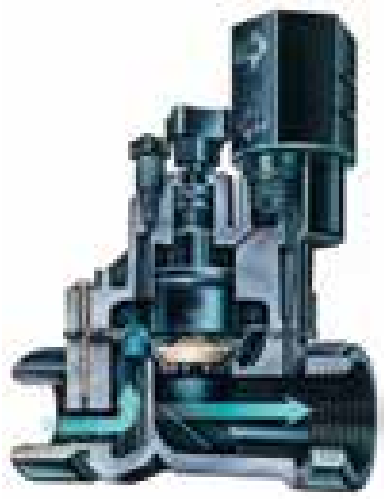
PERFORMANCE: Valve pressure loss (bar)

m^3/h	075-DV	100-DV 100-DVF	100-DV-MM
0,24	0,22	0,23	0,22
0,60	0,26	0,24	0,24
1,20	0,29	0,26	0,26
3,60	0,45	0,32	0,37
4,50	0,53	0,35	0,42
6,00	-	0,41	0,53
9,00	-	0,59	0,87

Pressure loss values are with flow control fully open.

100-DV

100-DV-MM-9V



How to specify

100- DVF- MM

- **Model** *male threaded inlet and outlet*
- **Model** *DV: female threaded inlet and outlet DVF: Flow Control*
- **Size** *075: ¾˝ (20/27) 100: 1˝ (26/34)*

JAR TOP SERIES VALVE

Versatility, Value, Convenience - Maintenance has never been easier !

- Trouble-free in dirty water and maximum reliability thanks to its double-filtered pilot flow design
- Threaded bonnet provides easy removal with no screws
- No lost parts during maintenance thanks to the encapsulated solenoid with captured plunger and Drop-in diaphragm.

FEATURES

• Ease of Service

- Trouble-free service with few parts
- Internal bleed for spray-free manual operation
- External bleed screw to manually flush system of dirt and debris during installation and system start-up

• Versatility

- Operates in low-flow applications when the RBY filter is installed upstream

• Reliability

- Balanced-pressure diaphragm for long life
- Buna-N diaphragm with self-cleaning 200 micron pilot water filter and stainless steel spring
- Energy efficient, low-power encapsulated solenoid with captured plunger

SPECIFICATIONS

Flow :0,23 to 6,8 m^3/h
Note: For flows below 0.75 m3/h or any low volume irrigation application, use PRF-075-BFF or PRF-075-RBY filters installed upstream
Pressure : 1,0 to 10,3 bar
Operating Temperatures:
Water temperature up to 43° C
Ambient temperature up to 52° C

ELECTRICAL SPECIFICATIONS

Solenoid : 24 VAC 50 Hz
Inrush current: 0.30 A (7.2 VA)
Holding current: 0.19 A (4.6 VA)
Not for use with decoder system

DIMENSIONS

Height: 12,7 cm
Length: 100-JTV/JTV9V: 10,2 cm
Width: 7,9 cm

PERFORMANCE: Valve pressure loss

Flow m^3/h	100-JTV
0,23	0,20
0,6	0,23
1,2	0,27
3,6	0,40
4,5	0,49
6,0	0,60
6,8	0,67

Pressure loss values are with flow control fully open.

100-JTV-9V

MODELS

100-JTV: 1" (26/34) Female Threaded Inlet and Outlet
100-JTV-9V: 1" (26/34) Female Threaded Inlet and Outlet with latching solenoid

How to specify

100 - JTV

Model
JTV: Jar Top Valve

Size
1" (26/34)

HV SERIES VALVES

Outstanding performance. Unmatched durability.

- Compact design, 6,5 cm spin radius for tight installations
- Your choice of tools to open valve (nut driver, Phillips head screwdriver, slotted head screwdriver)
- Eccentric diaphragm for smooth closing, less water hammer

FEATURES

• Ease of Service

- Captive multi-drive screws for easier maintenance
- Quick access to diaphragm with only four screws
- Diaphragm locating post for reliable service

• Reliability

- Glass-filled polypropylene body for strength
- Reverse flow normally closed design
- Trouble-free service with few parts
- Buna-N diaphragm with self-cleaning 200 micron pilot water filter and stainless steel spring

• Versatility

- Operates in low-flow and Xerigation® applications when the RBY filter is installed upstream
- External bleed to manually flush system of dirt and debris during installation and system start-up
- Internal bleed for spray-free manual operation

SPECIFICATIONS

Pressure: 1,0 to 10,3 bar
Flow: 0,05 to 6,82 m^3/h;
for flows below 0,68 m^3/h;
or any Xerigation® application,
use RBY-100-200MX filter
installed upstream
Temperature: water temperature up to 43°C; ambient temperature up to 52°C

ELECTRICAL SPECIFICATIONS

24 VAC 50/60 HZ Solenoid
Maximum Inrush Current: 0.45 Amps
Holding Current: 0.25 Amps
Coil Resistance : 70 to 85 Ohms

DIMENSIONS

Height: 11,7 cm
Length: 11,2 cm
Width: 7,9 cm

MODELS

100– HV (female x female)
100– HV-MM (male x male)
100– HVF (female x female)

Valve Pressure loss (bar)	
m^3/h	1" HV (bar)
0,25	0,11
0,75	0,14
1,00	0,16
2,00	0,23
5,00	0,32
7,50	0,42

How to specify

100 - HV - MM

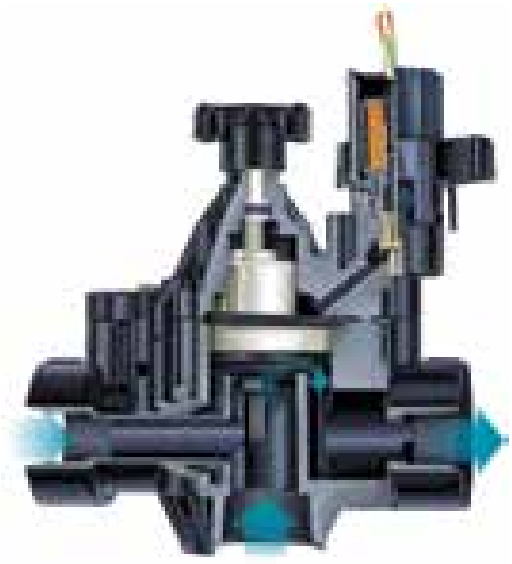
- **Size** *100: 1" (26/34)*
- **Model** *HV: High Value Valves*
- **Model** *Optional Configuration MM: Male x Male*

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



PGA Cutaway

150-PGA

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.

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

How to specify

100 - PGA - PRS-D

Size
100: 1" (26/34)
150: 1½" (40/49)
200: 2" (50/60)

Model
PGA

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

OPTIONS

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

SPECIFICATIONS

- Pressure: 1.04 to 10.4 bar
- Flow without PRS-D option: 0.45 to 34.05 m3/h
- Flow with PRS-D option: 1.14 to 34.05 m3/h
- Water temperature: Up to 43° C - refer to chart
- Ambient temperature: Up to 52° C
- 24VAC 50/60Hz (cycles/sec) solenoid power requirement
- Inrush current: 0.41A (9.9VA) at 60Hz
- Holding current: 0.14A (3.43VA) at 60Hz
- Solenoid coil resistance: 30-39 Ohms, nominal

DIMENSIONS

Model (Height x Length x Width)

- 100-PGA: 18.4 cm x 14.0 cm x 8.3 cm
- 150-PGA: 20.3 cm x 17.2 cm x 8.9 cm
- 200-PGA: 25.4 cm x19.7 cm x 12.7 cm

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

MODELS

- 100-PGA: 1" (26/34)
- 100-PGA-9V: 1" (26/34) with latching solenoid
- 150-PGA: 11/2" (40/49)
- 150-PGA-9V: 11/2" (40/49) with latching solenoid
- 200-PGA: 2" (50/60)
- 200-PGA-9V: 2" (50/60) with latching solenoid

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, Rain Bird recommends use of upstream filtration to prevent debris from collecting below the diaphragm
3. For flows below 2.27 m3/h Rain Bird recommends the flow control stem be turned down two full turns from the fully open position.

PGA Series Valve Pressure Loss (bar)

Flow m^3/h	Flow l/m	100-PGA Globe	100-PGA Angle	150-PGA Globe	150-PGA Angle	200-PGA Globe	200-PGA Angle
0.23	3.8	0.35	0.30	-	-	-	-
0.6	10	0.36	0.32	-	-	-	-
1.2	20	0.38	0.35	-	-	-	-
3	50	0.41	0.38	-	-	-	-
6	100	0.43	0.38	0.10	0.07	-	-
9	150	0.48	0.51	0.22	0.14	0.08	0.07
12	200	-	-	0.38	0.23	0.12	0.07
15	250	-	-	0.61	0.36	0.17	0.10
18	300	-	-	0.86	0.51	0.24	0.13
21	350	-	-	1.16	0.70	0.33	0.18
24	400	-	-	-	-	0.43	0.23
27	450	-	-	-	-	0.54	0.30
30	500	-	-	-	-	0.66	0.36
34	568	-	-	-	-	0.83	0.45

PGA Series Temperature Rating

Water Temperature	Continuous Pressure
23° C	10.4 bar
27° C	9.1 bar
32° C	7.7 bar
38° C	6.4 bar
43° C	5.2 bar

PEB SERIES

Electric Valves - Rain Bird's most durable plastic valve.

- Body constructed of durable glass-filled nylon for long life and reliable performance. Stainless steel studs molded into the body resist thread damage
- Slow closing to prevent water hammer and subsequent system damage
- Fabric-reinforced diaphragm for longer life

FEATURES

• Ease of Service

- One-piece solenoid with captured plunger and spring for easy servicing. Prevents loss of parts during field service
- Flow control handle adjusts water flow as needed
- Manual internal bleed with 1/4-turn of the solenoid operates the valve without allowing water into the valve box. Allows pressure regulator adjustment without turning on the valve at the controller
- Manual external bleed permits flushing debris from the system. Recommended for system start up and after repairs.
- Solenoid with convenient handle

• Versatility

- Globe configuration
- Wide operating pressure range. Low flow operating capability for a wide range of applications
- Accomodates field-installed PRS-Dial pressure regulating modules adjustable from 1.0 to 6.9 bar (to be ordered separately)
- Accepts Rain Bird latching solenoids for use with Rain Bird battery-powered controllers.

Important: do not exceed 10 bar operating pressure when using the latching solenoid

- Compatible with Rain Bird Decoder System

• Reliability

- Self-fushing nylon screen on PEB Series
- Scrubber device on PESB models cleans stainless steel screen every time the valve opens and closes

SPECIFICATIONS

Flow: 0,06 to 45.0 m³/h
Pressure: 1.4 to 13.8 bar (23° C)
Temperature: up to 66° C

ELECTRICAL SPECIFICATIONS

Solenoid: 24 VAC - 50 Hz
Inrush current: 0.41 A (9.9 VA)
Holding current: 0.14 A (5.5 VA)

DIMENSIONS

100-PEB and 100-PESB
Height: 16.5 cm
Length: 10.2 cm
Width: 10.2 cm
150-PEB and 150-PESB
Height: 20.3 cm
Length: 15.2 cm
Width: 15.2 cm
200-PEB and 200-PESB
Height: 20.3 cm
Length: 15.2 cm
Width: 15.2 cm
Note: the PRS-Dial option adds 5 cm to the valve Heigh

MODELS

100-PEB: 1" (26/34) BSP female threaded inlet and outlet
100-PESB: 1" (26/34) with self-cleaning scrubber
150-PEB: 1.5" (40/49) BSP female threaded inlet and outlet
150-PESB: 1.5" (40/49) with self-cleaning scrubber
200-PEB: 2" (50/60) BSP female threaded inlet and outlet
200-PESB: 2" (50/60) with self-cleaning scrubber

ACCESSORIES

PRS-Dial: pressure regulating module with regulating range from 1.0 to 6.9 bar
TBOS™ Latching Solenoïd

PERFORMANCE: Valve pressure loss

m³/h	100-PEB 100-PESB	150-PEB 150 PESB	200-PEB 200 PESB
0,06	0,06	-	-
0,3	0,09	-	-
0,6	0,1	-	-
1,2	0,12	-	-
3	0,15	-	-
6	0,32	0,26	-
9	0,68	0,24	-
12	-	0,26	-
15	-	0,33	-
18	-	0,42	0,32
21	-	0,57	0,34
24	-	0,74	0,41
27	-	0,92	0,51
30	-	1,14	0,64
33	-	1,38	0,77
36	-	-	0,90
39	-	-	1,04
42	-	-	1,18
45	-	-	1,34

Pressure loss values are with flow control fully open.

How to specify

100 - PESB

Model
PESB: scrubber model with self-cleaning scrubber

Size
1" (26/34)

BPES SERIES

3" Electric Valves (hybrid brass + plastic construction) - Unique combination construction of brass body and glass-filled nylon bonnet.

- The reliable brass body and glass-filled nylon bonnet equips these valves to withstand extreme pressure surges, effluent water and clogging debris. For additional protection, the BPES model features a patented scrubber mechanism to actively fight dirt and particles
- Unique hybrid construction featuring durable red brass body and glass-filled nylon bonnet for long life at a value price
- Durable, fabric-reinforced diaphragm for longer life

FEATURES

• Ease of Service

- Globe and angle configuration for flexibility in design and installation
- Flow control handle adjusts water flows as needed and incorporates a brass thread insert for longer life
- Manual external bleed permits flushing debris from the system. Recommended for system start up and repairs

• Versatility

- Wide operating pressure range
- Accomodates field-installed PRS-Dial pressure regulating modules adjustable from 1.0 to 6.9 bar (to be ordered separately)
- Accepts Rain Bird latching solenoids for use with Rain Bird battery-powered controllers.
  Important: do not exceed 10 bar operating pressure when using the latching solenoid
- Compatible with Rain Bird Decoder System

• Reliability

- Slow closing to prevent water hammer and subsequent system damage
- BPES only: Patented nylon scrubber scrapes a stainless steel screen to clean and break down grit and plant material

PERFORMANCE: Valve Pressure Loss

m³/h	Globe	Angle
13,6	0,46	0,47
24	0,19	0,21
36	0,14	0,14
48	0,21	0,19
60	0,29	0,26
68	0,34	0,31

Pressure loss values are with flow control fully open.

each time the valve opens and closes. Prevents debris build-up and clogging
- Robust solenoid provides dependable performance even during constant operation
- Highly efficient operation with extremely low pressure loss.

SPECIFICATIONS

Flow: 13,6 to 68.0 m3/h
Pressure: 1.4 to 13.8 bar (23° C)
Water temperature: up to 43° C

ELECTRICAL SPECIFICATIONS

Solenoid: 24 VAC - 50 Hz
Inrush current: 0.41 A (9.9 VA)
Holding current: 0.28 A (6.7 VA)

DIMENSIONS

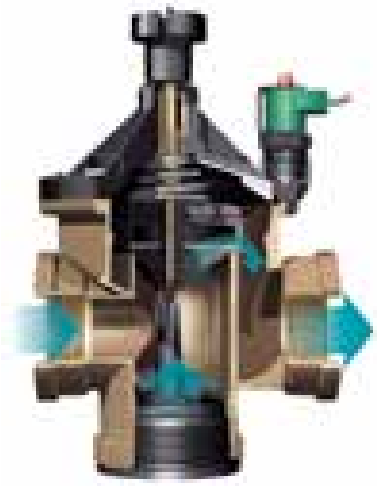
Height: 34.61 cm
Length: 20.32 cm
Width: 17.78 cm
Note: the PRS-Dial option adds 5 cm to the valve Height

MODELS

300-BPES: 3" (80/90) BSP with self-cleaning scrubber

ACCESSORIES

PRS-Dial: pressure regulating module with regulating range from 1.0 to 6.9 bar
TBOS™ Latching Solenoïd



How to specify

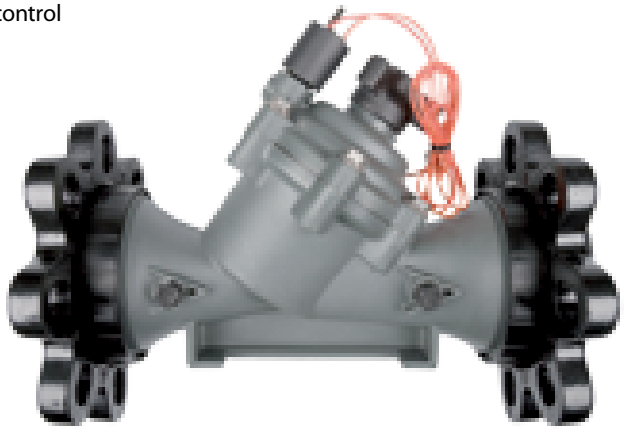
300 - BPES

Model
BPES

Size
3" (80/90)

100 SERIES

High Performance Plastic Hydraulic Control Valves with Solenoid control



- Ultra-high flow capacity with a minimal pressure loss
- Combines simple and reliable construction with superior performance.

FEATURES

- **Ease of Service**
  - Simple design with few parts guarantees easy in-line inspection and service
  - Designed for vertical or horizontal installation
- **Versatility**
  - Requires low actuation pressure
- **Reliability**
  - Durable industrial grade valve design and construction uses glass-filled Nylon material to meet rough service conditions
  - Articulated flange connections isolate the valve from line bending and pressure stresses

SPECIFICATIONS

Flow rate : from 10 to 80 m^3/h
Operating pressure range : : 0,7 to 10 bar
Temperature: up to 60°C

ELECTRICAL SPECIFICATIONS

Solenoid: 24 VAC - 50 Hz
Inrush current: 0.30 A (7.2 VA)
Holding current: 0.19 A (4.6 VA)

DIMENSIONS

Height: 28.6 cm
Length: 30.8 cm
Width: 10 cm
Weight : 4,4 kg (flange) - 1,6 kg (thread)

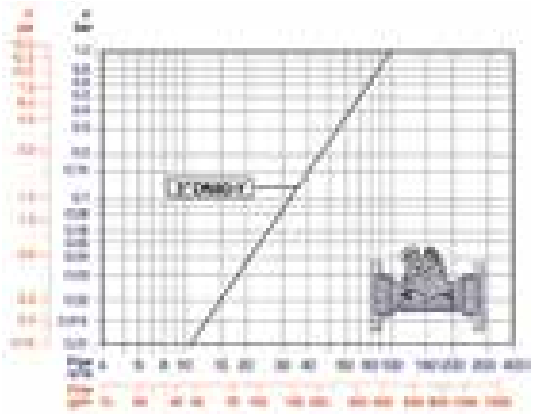
MODELS

100 SERIES : 3"BSP female threaded with DN 80 flange (inlet / outlet)

ACCESSORIES

DBRY and King Connectors

FLOW CHART



DIMENSIONS AND WEIGHTS

Sizes DN	80	
Pattern	Y	Y
End Connections	Threaded 3" BSP	Universal Flange
		Metal
L (mm)	298	308
H (mm)	226	286
h (mm)	50	100
W (mm)	190	100
Weight (kg)	1.6	4.4

PVC MANIFOLD SYSTEM

Complete Male and Female Manifold System

- 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

FEATURES

• Easy-to-Install

- Unique telescoping design for adjustability and easy valve changeouts
- 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

RB 1300 Series - Male Valve Connectors

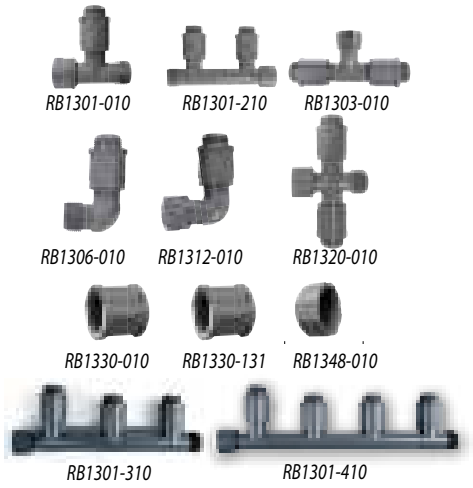
RB1301-010 : Union Tee 1" F X 1" M Swivel X 1" M
RB1301-210 : 1" F X 2 outlets 1" M Swivel X 1" M
RB1303-010 : Tee double Swivel 2 outlets 1" M Swivel X 1" F
RB1306-010 : Union Elbow 1" M X 1" M Swivel
RB1312-010 : Union Elbow 1" F X 1" M Swivel
RB1320-010 : Union Cross 1" F X 2 outlets 1" M Swivel X 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

RB 1200 SERIES

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

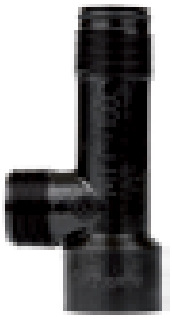
Pressure: up to 10 bars
1" male x 1" (26/34) male (with O-ring) x 1" (26/34) female BSP

DIMENSIONS

Length: 12 cm

MODEL

MTT-100



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 m^3/h
Pressure: 0.4 to 8.6 bar

DIMENSIONS

5LRC - Height: 14.0 cm

MODELS

33DK: Valve key 3/4" (20/27) male and 1/2" (15/21) female threads
5LRC: 1" (26/34) BSP female threaded inlet with locking rubber cover
55K-1: Valve key 1" (26/34) BSP male threads

PERFORMANCE VALVE PRESSURE LOSS

m^3/h	Valve Pressure Loss
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

SH SERIES: SH-O AND SH-2

Brass Swivel Hose Ell

APPLICATIONS

The SH-O/SH-2 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

SH-0

Female threaded inlet: 3/4" (20/27)
Male threaded outlet: 3/4" (20/27)

SH-2

Female threaded inlet: 1" (26/34)
Male threaded outlet: 1" (26/34)

MODELS

SH-0:Swivel Hose Ell 3/4" (20/27)
SH-2: Swivel Hose Ell 1" (26/34)

P-33 SERIES: P-33 AND 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

SPECIFICATIONS

Maximum operating pressure: 6.2 bars
Valve: 3/4" (20/27) male threaded inlet
Key: 3/4" (20/27) male threaded outlet

DIMENSIONS

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

MODELS

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

PERFORMANCE
VALVE PRESSURE LOSS

m^3/h	Valve Pressure Loss
2.5	< 0.1 bar
3.0	-0.13 bar
3.5	-0.18 bar
4.0	-0.23 bar
4.5	-0.29 bar
5.0	-0.35 bar

PSH-0

Plastic Swivel Hose Ell

APPLICATIONS

The PSH-0 Swivel Hose Ell attaches hose to the P-33DK key and allows hose to be pulled in any direction - a full 360° swivel - to avoid hose kinking.

FEATURES

- O-Ring seal
- Used in conjunction with P-33DK Key

SPECIFICATIONS

3/4" (20/27) female threaded inlet
3/4" (20/27) male threaded outlet

MODEL

PSH-0

PRS-DIAL

Pressure Regulating Module

APPLICATIONS

- 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, and BPES series valves.
- Regulates and maintains constant outlet pressure between 1,04 to 6,90 bars within ±0,21 bars.
- Adjustment knob with detents permits fine-tune setting in 0,02 bar increments. Dial cartridge makes installation and adjustment quick, easy and accurate.

FEATURES

- Improved spike reduction capabilities reduce water hammer.
- Ergonomic design with snap-tight cover to prevent vandalism.
- Waterproof dial cartridge eliminates fogging and binding.
- Schrader valve connects pressure hose gauge, ordered separately.
- Easy field installation. PRS-Dial threads underneath the solenoid and adapter.
- Corrosion-resistant glass-filled nylon for rugged performance.

OPERATING RANGE

- Pressure: up to 6,90 bars*
- Regulation: 1,04 to 6,90 bars
- Accuracy: ±0,21 bar
- Flow: refer to chart

** While the PRS-Dial unit can withstand pressures up to 13,80 bars, accurate pressure regulation can be maintained only up to 6,90 bars.*

MODELS

PRS-D

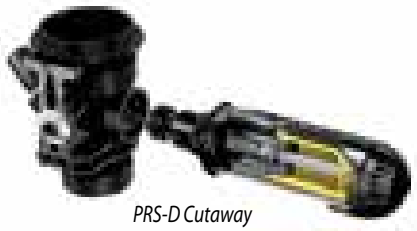
APPLICATION INFORMATION

- Proper operation requires inlet pressure to be a minimum of 1,04 bars 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 6,90 bars, a pressure regulating master valve or inline pressure regulator is required.
- 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 m3/h; Rain Bird recommends the flow control stem be turned down two full turns from the fully open position.

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

Flow		
Models	**m^3/h**	**l/h**
100 PGA 150 PGA 200 PGA	1,14-9,08 6,81-22,70 9,08-34,05	19,2-151 113-378 151-568
100 PEB 150 PEB 200 PEB	1,14-11,35 4,54-34,05 17,03-45,40	19,2-189 76-568
300 BPE 300 BPES	13,62-68,10 13,62-68,10	227-1136 227-1136

**These are the valve flow ranges. The PRS-Dial regulates only up to 6,90 bars.*



PRS-D Cutaway

150-PGA with PRS-D installation

150-PEB with PRS-D installation

300-BPES with PRS-D installation

VBA-SERIES

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

APPLICATIONS

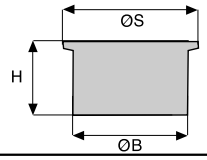
Rectangular and round valve boxes made of plastic permit easy access to electric and manual valves and other equipment used in automatic irrigation installations. These valve boxes are highly recommended for residential systems

FEATURES

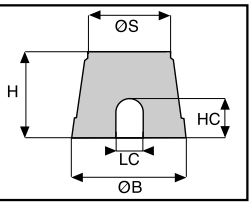
- Boxes made of black polypropylene. Green cover made of same material
- Cover included (except extensions)
- Extensions available for models VBA02674 and VBA02675
- Aesthetic, lightweight, and nest within each other to reduce freight costs
- Lockable cover
- Exclusive T-COVER
  - Easy to identify : 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

DIMENSIONS

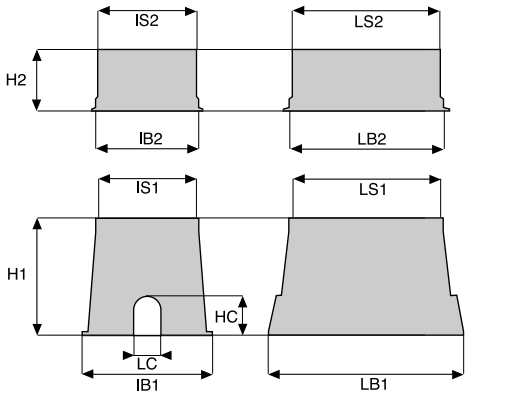
Round valve boxes		VBA17186
ØS	**Diameter**	**210 mm**
ØB	Diameter	180 mm
H	**Height**	**120 mm**



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, light-weight, and nest within each other to reduce freight costs • Round irrigation hydrant with built-in 3/4" (20/27) valve	• Boxes made of black poly-propylene. Green cover made of same material • Cover included • Aesthetic, lightweight, and nest within each other to reduce freight costs	• Boxes made of black polypro-pylene. 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 3/4" (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)

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: 25,1 cm Height: 22,9 cm	Bottom Diameter: 34,9 cm Height: 25,4 cm	Length: 55,4 cm Width: 42,2 cm Height: 30,5 cm	Length: 50,8 cm Width: 37,5 cm Height: 17,1 cm	Length: 66,8 cm Width: 50,3 cm Height: 30,7 cm	Length: 62,0 cm Width: 45,5 cm Height: 17,1 cm	Length: 84,1 cm Width: 60,5 cm Height: 38,1 cm	Length: 102,4 cm Width: 68,8 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 2.0" diameter pipe	• Easily removable knock-outs simplify pipe placement and reduce installation time • Four equally spaced knock-outs accommodate up to 2.0" diameter pipe	• Two large center knock-outs accommodate up to 3 1/2" (8.9 cm) diameter pipe and eleven knock-outs accommodate up to 2" (5.0 cm) diameter pipe	• 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 3.5" 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 3.5" diameter pipe	• Easily removable knock-outs simplify pipe placement and reduce installation time. Six large knock-outs on the ends accommodate up to 5.0" diameter pipe and 12 knock-outs on the sides accommodate up to 3.0" diameter pipe
MODELS							
• VB7RND: 7" Round Body & Green Lid • VB7RNDGL: Green Lid	• VB10RND: 10" Round Body & Green Lid • VB10RNDGL: Green Lid	• VBSTD: Standard Body & Green Lid • VBSTDGL: Green Lid	• VBSTD6EXTB: Standard Extension Body Only	• VBJMB: Jumbo Body & Green Lid • VBJMBGL: Green 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 $\frac{3}{8}$" x $2\frac{1}{4}$" (1.0 x 5.7 cm) bolt, washer, and clip

VANDAL RESISTANT

DBM

"Quick Connect Wire Connectors"

- Used for electrical connections in low voltage installations (< 30V)
- Allows electrical connections up to 3 wires sized 1.5 mm^2
- IP 67 and compact

SPECIFICATIONS

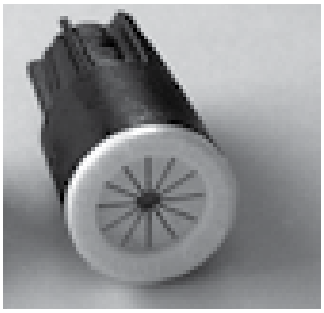
Maximum wire voltage: 30V
Self-stripping. Use with insulated copper wire

MODELS

DBM

KING

Waterproof Wire Connectors



- Used for electrical connections in low voltage installations (< 30V)
- Allows electrical connections up to 2 wires sized 2,5 mm^2 or 3 wires sized 1,5 mm^2
- Waterproof

FEATURES

- **Reliability**
  - 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

SPECIFICATIONS

Maximum wire voltage: 30V

MODELS

KING

DBRY20 SERIES WIRE CONNECTORS

Connections Made Easy

Features and Benefits

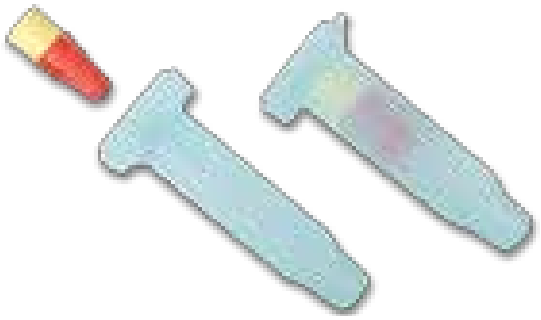
- Install Faster – DB Series Wire Connectors are quick to install and provide reliable moisture sealing for controller and valve electrical connections you can count on
- Simplify Inventory – This is the only wire connector you'll need! It is ideal for use on two wire decoder control systems
- Avoid 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 to 8 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

- DBRY20:
  Direct Bury Silicone Tube,
  Red Yellow Wire Nut,
  Bag of 20

DBR/Y-6

Direct Bury Wire Connectors



- Used for electrical connections in low voltage installations (< 30V)
- One unique reference, up to 3 wires sized 4mm^2
- Waterproof

FEATURES

- **Ease of Use**
  - Connect solid or stranded copper wire
  - Transparent body – Help to check if electrical connections are correctly made
- **Reliability**
  - The DBR/Y-6 kit includes a Performance Plus Wire Connector (R/Y+) and a high impact, UV- resistant polypropylene tube prefilled with moisture-resistant grease

SPECIFICATIONS

Maximum wire voltage: 30V

MODEL

DBR/Y-6 kit

EXAMPLE OF WIRE COMBINATION

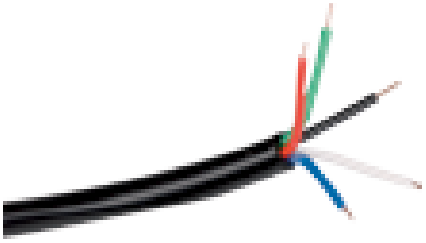
Wire Combination			
Conductor Combination	Quantity	Size	Type
	5-7	0,5 mm^2	Solid/Stranded
	3-7	0,75 mm^2	
	2-7	1,0 mm^2	
	2-7	1,5 mm^2	
	2-5	2,5 mm^2	
	3	4,0 mm^2	
	2	6,0 mm^2	

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



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
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

CONTROLLERS

Water Savings Tips

- A "Seasonal Watering Adjustment" feature is available on all Rain Bird controllers, allowing users to easily adjust irrigation schedules to changing seasonal landscape water requirements. The ESP-LX Me controller also features an automated "Monthly Seasonal Adjustment" feature to help save water through automatic adjustments every month of the year.
- In the event of a prolonged rain, you can easily suspend the irrigation schedule using Rain Delay feature (available on ESP-Me, ESP-LXMe and ESP-LXD controllers), which enables system to stay off for a specified period with an auto-restart.
- All Rain Bird controllers simplify conservation through a variety of flexible programming features. The ESP-RZX and ESP-Me controllers can recall a previously saved "Contractor Default" irrigation schedule; the ESP-LX Modular "Delayed Recall" feature automatically reverts to typical watering schedules after a few days or weeks of heavier watering.

230V CONTROLLER SELECTION GUIDE

MODELS	ESP-RZX	ESP Me	ESP LXMe	ESP-LXD
APPLICATIONS				
Residential	•	•		
Municipal turf areas		•	•	•
Large turf areas			•	•
Athletic fields		•	•	•
FEATURES				
Indoor location	•			
Outoor location (under shelter)	•	•	•	•
SPECIFICATIONS				
Stations	4, 6, 8	4 - 22	8 - 48	50, 125, 200
Programs	-	4	4	4
Station run time (up to)	199 min	6h	12h	12h
Number of starts per day per program	6	6	8	8
Water Budget	•	•	•	•
Manual ON/OFF	•	•	•	•
Rain Delay		•	•	•
Simultaneous multi-station operation			•	•
Overlapping programs			•	•
LCD display	•	•	•	•
PROGRAMMING SCHEDULES				
7 Day-of-week	•	•	•	•
1-6 day variable cycle	•	•	•	•
1-31 day variable cycle		•	•	•
Odd/even cycle	•	•	•	•
365-day calendar	•	•	•	•
Test program		•	•	•
Default program after power outage	•	•	•	•
Station valve capacity	1	2	2	2
Controller valve capacity	1+1	2+1	4+1	7+1
CENTRAL CONTROL COMPATIBILITY				
Central Control Compatibility			•	•
ACCESSORIES				
RSD-BEx Rain Sensor	•	•	•	•
WR2 Wireless Sensor	•	•	•	•
SMRT-Y Soil Moisture Sensor	•	•	•	•

ESP-RZX SERIES CONTROLLER

- Flexible scheduling features that make the controller ideal for a wide variety of applications including residential and light-commercial irrigation systems.
- Zone-based scheduling allows every valve to be scheduled independently; no more explaining "programs" to end users, virtually eliminating call-backs.
- The large LCD screen shows all of the programming for each zone at the same time.

Indoor Model

FEATURES

- **Controller Features**
  - Simple user interface is easy to explain and presents every controller feature on a single screen
  - Requires only two mounting screws
  - 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 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
  - Weather Sensor bypass
  - Weather Sensor bypass by Zone

- **Controller Hardware**
  - Plastic wall-mount case
  - 4, 6 or 8 station units
  - 2 x AAA batteries for time and date backup (included)

SPECIFICATIONS

- Station 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
- Manual SINGLE station
- Manual ALL stations

ELECTRICAL SPECIFICATIONS

- 230 VAC ± 10%, 50Hz
- Output: 24 VAC 650mA
- Power back-up: 2 x AAA batteries maintain time and date while non-volatile memory maintains the programming

DIMENSIONS

INDOOR
Width: 16,9 cm
Height: 15,0 cm
Depth: 3,9 cm

OUTDOOR
Width: 20 cm
Height: 20 cm
Depth: 9 cm

MODELS

RZX4i-230V	Indoor, 4 stations
RZX6i-230V	Indoor, 6 stations
RZX8i-230V	Indoor, 8 stations
RZX4-230V	Outdoor, 4 stations
RZX6-230V	Outdoor, 6 stations
RZX8-230V	Outdoor, 8 stations

Outdoor Model
IPX4 water resistant

ESP-ME SERIES CONTROLLER

New design and an enhanced feature set of the European's preferred modular controller

- Program based scheduling allows 4 individual programs with independent start times per program for 24 total start times
- Advanced diagnostics and short detection with LED alert
- Total Run Time Calculator by program

FEATURES

- Large LCD display with easy to navigate user interface
- Rain Sensor input with override capability
- Master valve/pump start circuit
- Non-Volatile (100 year) storage memory
- Remotely Programmable under 9V battery power (not included)
- Watering schedule options: By days of week, ODD calendar days, EVEN calendar days, or Cyclic (every 1-30 days)
- Contractor Default™ Program Save / Restore saved program(s)
- Rain Sensor bypass by Station
- Total run time calculator by program
- One Touch manual watering
- Delay Watering up to 14 days (applies only to stations not set to ignore Rain Sensor)
- Manual Watering option by program or station
- Seasonal Adjust applied to all programs or individual program
- Adjustable delay between valves (default set to 0)
- Master valve on/off by station

SPECIFICATIONS

4 station Base controller.
Number of programs: 4
Automatic starts: 6 per day per program for up to 24 start time
Programming Schedules:
- 7-day weekly
- Even day
- Odd day +/- 31st
- Cyclic

Permanent day off
Station Timing: 1 minute to 6 hours for all station
Delay between stations from 1 sec to 9 hours
Seasonal Adjust: 5% to 200%
Max operating temperature: 65°C

ELECTRICAL SPECIFICATIONS

- Input required: 230VAC – 50Hz
  Output: 25,5 VAC 1A
- Master Valve/Pump Start Relay
- Max Coil Inrush: 11VA
- Max Coil Holding: 5VA
- Power back-up not required. Non-volatile memory permanently saves the current programming and a 10 year life lithium battery maintains the controllers time and date during power outages.

DIMENSIONS

Width: 27,2 cm
Height: 19,5 cm
Depth: 11,2 cm

MODELS

IESP4MEEU: ESP Modular outdoor, 50Hz

ACCESSORIES

ESPSM3: 3-station extension module
ESPSM6: 6 station extension module (not backward compatible with prior models)
RSD-BEx: Rain Sensor
WR2-RFC: Wireless Rain Combo sensor

SAVE WATER

Four independent programs help conserve water by allowing easy programming of unique irrigation schedules for diverse landscape applications

ESP-LXME CONTROLLER

Upgrade it to an IQ Satellite Controller

CE 0123

- The ESP-LXME Enhanced Controller provides optional flow sensing and water management.
- Modular design for ultimate versatility - Capacity from 8 to 48 stations. Station modules are available in 8- and 12-station models.
- Extra-Simple Programming user interface.

FEATURES

- Large LCD display with easy to navigate softkey user interface
- Weather Sensor input with override switch
- Master valve/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

PROGRAMMING FEATURES

- SimulStations™ are programmable to allow up to 5 stations to operate at the same time
- 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
- Station timing: 0 min to 12 hrs
- Delay between stations : from 1 sec to 9 hours
- Seasonal Adjust; 0% to 300% (16 hrs maximum station run time)
- 4 independent programs (ABCD)
- ABCD programs can overlap
- 8 start times per program
- Program Day Cycles include Custom days of the week, Odd, Odd31, Even, & Cyclical dates
- Manual station, program, test program

WATER MANAGEMENT FEATURES

Optional Flow Smart Module™ adds flow sensing functionality:

- The Flow Smart Module sensor input accepts a direct input from a flow sensor with no flow scaling device required.
- The FloWatch Learn Flow Utility learns the normal flow rate of each station. FloWatch compares the current real-time flow rate to the learned rate and takes user defined actions if high flow, low flow, or no flow is detected. FloWatch automatically determines the location of the flow problem and isolate the problem by turning off the affected station or master valve. FloWatch is compatible with both normally closed and open master valves.
- A Manual Master Valve Water Windows is provided to coordinate day time manual watering with the flow sensing. This Water Windows offers programmable days of the week and manual watering additional

SPECIFICATIONS

- Dimensions (WxHxD): 36,4 x 32,2 x 14,0 cm
- Input required: 230 VAC ± 10%, 50Hz
- Output: 26.5 VAC 1.9A
- Power back-up: Lithium coin-cell battery maintains time and date while nonvolatile memory maintains the programming
- Multi-valve capacity: Maximum five 24 VAC, 7VA solenoid valves simultaneous operation including the master valve, maximum two solenoid valves per station

MODELS

I8LXMEEU: 8-station Base controller
I12ESPLXMEEU: 12-station Base Controller with Flow Smart Module
FSM-LXME: Flow Smart Module

ESP-LXME Station Modules

The ESP-LXME controller has a base station capacity of 8 or 12 stations as well as 3 expansion slots capable of receiving station modules of 8, or 12 stations to create a controller capacity of up to 48 stations. The SM Station Modules are hot-swappable so there is no need to turn off the power to add or remove modules. Dynamic station numbering eliminates station numbering gaps

MODELS

ESPLXMSM8 : 8-station Module
ESPLXMSM12 : 12-station Module

ESP-LXD DECODER CONTROLLER

Two-wire Controller with Flow Management

- The ESP-XD controller has been designed to maintain the look, feel and ease of programming of the ESP-LXM controller but with an interface to a two-wire path for decoder-based irrigation.
- The ESP-LXD controller can manage up to 50 stations but can easily be expanded for use with up to 200 stations.
- Flow Management is also built in to every ESP-LXD controller.

CONTROLLER FEATURES

- UV-resistant, outdoor-rated plastic, locking, wall-mount case
- Supported decoders: FD-101, FD-102, FD-202, FD-401, FD-601.
- Also supports SD-210 sensor decoders (flow sensing and weather sensor support) and LSP-1 line surge protectors (one per 150 m of two-wire path required)
- User-selectable six language
- Support 50-station capability standard expandable via 75-station modules to 200 stations
- Four sensor inputs (one wired plus up to three decoder-managed) with override switch
- Front panel is removable and programmable under battery power
- Front panel is removable and programmable under battery power

WATER MANAGEMENT FEATURES

- Built in to every ESPLXD module is Rain Bird's Flow Smart software for flow management – simply attach 1 to 5 SD-210 sensor decoders and flow meters (not included) to the two-wire path, and the controller will do the rest. A wide variety of flow functionality is available, including user-adjustable Seek and Eliminate Low Flow (SELF) and Seek and Eliminate Excessive Flow (SEEF) capability to allow you to rest easy knowing that in the event of an unusual flow situation, such as a mainline break, your controller will manage the situation for you.
- Cycle+Soak™ by station
- Rain Delay
- Calendar Day Off
- Programmable Delay Between Stations by program
- Master Valve programmable by station
- Sensor programmable by station
- Alarm light with external case lens
- Electronic circuit breaker
- Variable test program
- Two-wire diagnostics to simplify and expedite troubleshooting
- 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

ELECTRICAL SPECIFICATIONS

- Input required: 230 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

Width: 36,4 cm
Height: 32,2 cm
Depth: 14,0 cm

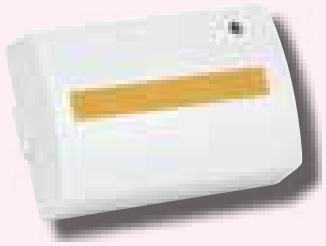
MODELS

IESPLXD: 230V, include one 50-station module

ESPLXD-SM75 Station Module

APPLICATION

The ESP-LXD controller is capable of managing up to 50 stations right out of the box. If additional station capacity is needed, it can quickly and easily be added through the use of ESPLXD-SM75 station modules, each of which adds an additional 75 stations up to a maxi mum of 200 stations. The SM75 modules snap onto the controller backplane.



MODEL

ESPLXD-SM75: 75-station module

FLOW SENSORS

Flow Sensing

- Reliable and simple flow sensors for use with Rain Bird IQ Cloud and Maxi Decoder System
- Rain Bird flow sensors send flow data to central control or stand alone control systems for precise and accurate flow monitoring.

FEATURES

The ESP-LX Series Controllers can accept direct connection of a FS Flow sensor - No transmitter required.
- On the ESP-LXD, the Flow Sensor has to be connected to the integrated Flow Smart Module, with a Sensor Decoder SD-210.
- An ESP-LXM/LXME has to get an optional FSM Module installed.

For Decoder System, FS Flow Sensor has to be installed with a sensor Decoder SD-210 - No transmitter required.

SPECIFICATIONS

- **Sensors**
  - Simple six-bladed impeller design
  - Pre-installed in tee.
  - Designed for outdoor or underground applications.
- **Specifications**
  - Accuracy: ± 1% (full scale)
  - Velocity: 0,15 - 9,2 meters per second, depending on model
  - Pressure: 6,9 bar (max)
  - Temperature: 60° C (max)

MODELS

- **Sensor**
  - FS150PBSP
  - FS200PBSP
  - FS300PBSP
  - FS400PBSP

RAIN BIRD FLOW SENSOR SUGGESTED OPERATING RANGE

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

Models	DN	∅	Operating Range (m^3/h) suggested
FS150PBSP	40	50 mm (40 x 49)	1.1 – 22.7
FS200PBSP	50	63 mm (50 x 60)	2.3 – 45.4
FS300PBSP	80	90 mm (80 x 90)	4.5 – 68.1
FS400PBSP	100	110 mm (102 x 114)	9.1 – 113.6

RSD-BEX

Rain Sensor

APPLICATIONS

The RSD Series Rain Sensor is a rain sensor device suitable residential and commercial applications. It saves water and extends irrigation system life by automatically measuring precipitation and keeping irrigation systems from watering in rainy conditions.

FEATURES

- Works with all 24 VAC controllers, WP and TBOS™ products
- Multiple rainfall settings from 3.2 to 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
- Rugged aluminum bracket and arm extend a full 15.2 cm
- 7.6 m of UV resistant extension wire offer an easy connection to irrigation controllers

SPECIFICATIONS

Not recommended for use with high voltage circuits or devices.
Switch electrical rating: 3A @ 250 VAC
Capacity: Electrical rating suitable for use with up to three 24 VAC, 7 VA solenoid valves per station, plus one master valve
Includes 7.6 m conductor extension wire (2 x 0.5mm^2)

DIMENSIONS

Length: 16.5 cm
Height: 13.7 cm

MODEL

RSD-BEx

SAVE WATER

The RSD-BEx conserves water through automatic rain shut-off and other flexible, quick and easy rainfall settings.

WR2 SERIES

Wireless Rain/Freeze Sensor

- Designed for 24 VAC residential and commercial irrigation systems
- Intelligent irrigation shutoff device. Programming logic within the WRS can suspend irrigation when the amount of rainfall exceeds the rainfall set point. Likewise, the Wireless Rain / Freeze Sensor will suspend irrigation when the system reaches a programmed low temperature set point
- Sensor LED indicator enables one person set up, reducing installation time

FEATURES

• Water Savings

- Saves water and extends irrigation system life by automatically sensing precipitation and interrupting irrigation during rain and low temperature events
- "Quick shut off" feature suspends irrigation during rain events
- Convenient adjustment and monitoring of rain or freeze settings at the controller interface

• Reliability and ease of use

- Highly intuitive icon-driven controller interface simplifies programming
- Enhanced antenna array provides superior signal reliability that overcomes most line-of-sight obstructions
- Simple battery replacement requiring no tools or need to disassemble sensor
- Easy to install, self-leveling sensor bracket mounts to flat surfaces or rain gutters
- High-grade, UV resistant polymer units resist harmful environmental affects

SPECIFICATIONS

Adjustable rainfall settings from 3 to 19 mm
Adjustable low temperature settings from 0.5° to 5°C (Rain/Freeze model only).
Three irrigation modes to select: Programmed, Suspend Irrigation for 72 hours, Override sensor for 72 hours
Interface delivered with 76,2 cm of cable to connect to the controller
WR2 Wireless Sensor communication range: superior to 90 m.

ELECTRICAL SPECIFICATIONS

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: 76 cm length of 0.64 mm UV resistant extension wire
Antenna adjusts to maintain optimal signal strength transmission and reduce power consumption
Battery life: three or more years under normal operating conditions
6 KV surge / lighting protection

DIMENSIONS

WR2 Controller Interface
Width: 7,9 cm
Length: 17,2 cm
Depth: 3,3 cm
Distance between Mounting Holes: 15,9 cm

WR2 Sensor Assembly
Sensor Length: 14,7 cm
Attachment Bracket Length: 11,7 cm
Distance between Mounting Holes: 10,8 cm
Horizontal displacement (WWbracket + fixed ball arm): 14.0 cm

MODELS

WR2-RFC: Rain/Freeze Combo

Step 1

Program in seconds

Step 2

Determine best sensor location

Step 3

Install sensor easily using mounting bracket

SAVE WATER

Choose your own rainfall set points and save up to 35% on water usage while promoting lush, beautiful landscapes

SMRT-Y

Soil Moisture Sensor Kit

- Turns any controller into a smart controller
- Simple, reliable design with two main components (sold as kit):
  - In-Ground Soil Moisture Sensor
  - Sensor Control User Interface
- Digital TDT™ sensor enables highly accurate readings that are independent of soil temperature and electrical conductivity (EC)

FEATURES

• Water Savings

- Adds closed-loop feedback to irrigation systems, conserving water through on-off system control based on digital measurement of the soil's volumetric water content. The sensor takes soil moisture readings every 10 minutes. when the sensor detects dry conditions prior to the normal watering cycle, that cycle is allowed. When the soil is above the set moisture threshold, the watering cycle is suspended to avoid wasting water.
- Typical water savings of 40% or more.

• Digital TDT™ Soil Moisture Sensor

- Precisely measures and displays soil temperature and electrical conductivity (EC)
- Corrosion-resistant in-ground sensor made of high-grade 304 stainless steel
- No maintenance sensor – just bury and forget
- Moisture readings remain stable as soil salinity and temperature change
- Sensor never needs calibration

• User Interface with LCD Readout

- Touchpad keys with digital LCD readout to display: Absolute Volumetric Water Content, 0-100% Soil temperature in Fahrenheit or Celsius Soil conductivity in dS/m Seven-cycle irrigation history suspended/allowed watering indicator Bypass mode indicator
- Automatic moisture threshold setting with increase/decrease adjustment
- Sensor bypass touchpad key for easy deactivation
- Up to two independent zones can be isolated from sensor
- Designed for outdoor installation

SPECIFICATIONS

Operating temperature range:
-20°c to 70°c
Survival temperature range: -40°c to 85°

DIMENSIONS

Sensor Control
Overall width: 76 mm
Overall Height: 76 mm
Overall depth: 19 mm
In-Ground Soil Moisture Sensor
(without wires)
Overall width: 50 mm
Overall Length: 200 mm
Overall depth: 12 mm

MODELS

SMRT-Y Kit: includes Controller User Interface and In-Ground Soil Moisture Sensor

SAVE WATER

By monitoring the amount of moisture at the root zone, the SMRT-Y Soil Moisture Senor Kit delivers signifi cant water saving while promoting healthy landscapes. Designed to interface with virtually any irrigation controller, the SMRT-Y is an economical way to achieve 'Smart' irrigation control.

DBRY20 SERIES WIRE CONNECTORS

Connections Made Easy

Features and Benefits

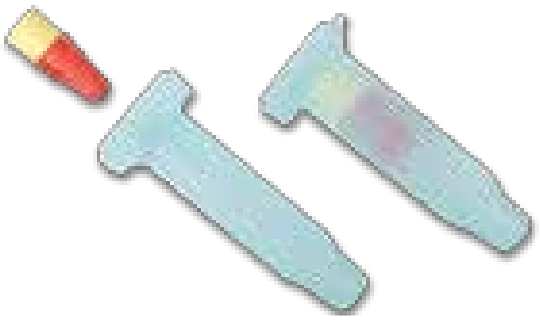
- Install Faster – DB Series Wire Connectors are quick to install and provide reliable moisture sealing for controller and valve electrical connections you can count on
- Simplify Inventory – This is the only wire connector you'll need! It is ideal for use on two wire decoder control systems
- Avoid 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 22ga to 8ga
- 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

- DBRY20: Direct Bury Silicone Tube, Red Yellow Wire Nut, Bag of 20

DBR/Y-6

Direct Bury Wire Connectors



- Used for electrical connections in low voltage installations (< 30V)
- One unique reference, up to 3 wires sized 6mm^2
- Waterproof

See page N° 88

DBM

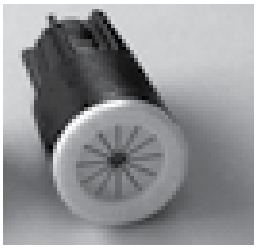
Quick Connect Wire Connectors

- Used for electrical connections in low voltage installations (< 30V)
- Allows electrical connections up to 3 wires sized 1.5mm^2
- IP 67 and compact size

See page N° 87

KING

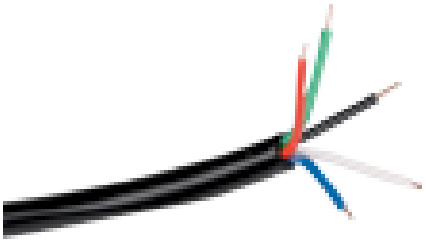
Waterproof Wire Connectors



- Used for electrical connections in low voltage installations (< 30V)
- Allows electrical connections up to 2 wires sized 2,5mm^2 or 3 wires sized 1,5mm^2
- Waterproof

See page N° 87

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

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

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
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

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
Wire Stripper

LPVK-12E

Electrical Surge Protection Kit

APPLICATIONS

This kit protects solid-state, electromechanical, and hybrid controllers from most electrical surges which may cause controller damage or adversely affect controller operation.

FEATURES

- Weatherproof PVC case
- Easy to install
- Works with all 24VAC controllers
- Individual terminals on terminal strip

SPECIFICATIONS

- Protects all controller models with up to 12 stations from electrical surges. For models with 13 to 24 stations, install 2 kits. Over 24 stations, install 3 kits
- Protects controller from electrical surges on 230 V power supply lines.
- Protects controller from electrical surges on 24VAC valve output lines, and master valve/pump start line.

DIMENSIONS

Length: 19 cm
Width: 15 cm
Depth: 7,7 cm

MODEL

LPVK-12E

BAT9AL

Alkaline Batteries

APPLICATIONS

For all battery-powered systems (9V)

FEATURES

- Not rechargeable
- Alkaline battery
- Individual bag (9V)
- Box of 20 units (9V))
- Master carton of 200 units (9V)
- International standards
- 9V: 6LR61/6AM6

MODELS

BAT9AL (9V)

BATTERY POWERED CONTROLLERS

Water Savings Tips

- The Water budget feature allows easy irrigation program adjustments to match seasonal needs.
- With the TBOS-II™ System, Water Budget could be a monthly seasonal adjustment and or a Water Budget by program.
- In the event of a prolonged rain, you can easily suspend the irrigation schedule using Rain Delay feature (available on WP1, WP, WPX series and TBOS-II Control System), which enables system to stay off for a specified period with an auto-restart.
- In case of rain, irrigation schedule is immediately stopped if a Rain Sensor is connected.
- To remotely program and adjust TBOS™ and/or TBOS-II™ Control modules, central control could be done via IQ Cloud.

BATTERY-POWERED CONTROLLER SELECTION GUIDE





MODELS	1ZEHTMR	WPX	WP1	WP	TBOS-II
APPLICATIONS					
Residential	•	•	•	•	
Municipal turf areas		•	•	•	•
Large turf areas					•
FEATURES					
Battery-powered	•	•	•	•	•
Outdoor Location	•	•	•	•	•
Can be installed in the valve box (IP68)		•	•	•	•
Remote Field Transmitter					•
Radio optional capabilities					•
Master valve cable		•		•	•
Assignable Master Valve					•
SPECIFICATIONS					
Stations	1	1, 2, 4, 6	1	2, 4, 6, 8	1, 2, 4, 6
Programs	1	-	1	3	3
Maximum station run time (in hours)	6	4	12	12	12
Number of starts per day and per program (zone for WPX)	2	6	8	8	8
Water Budget		10-200%	0% to 200%	0% to 200%	0% to 300%
Water Budget per Month					0% to 300%
Rain Delay	• (96 H)	1-9 days	•	•	•
1 station can be affected to one or several programs					•
Programming menu	Icon based	Icon based	Icon based	Icon based	8 languages
PROGRAMMING SCHEDULES					
7 day-of-week	•	•	•	•	•
Cyclical (every « x » days)		•			•
Odd/Even-day cycles		•	•		•
365-day calendar			•		•
Calendar Day OFF					With IQ only
Irrigation programs review					•
Save and restore irrigation programs		•			•
Automatic Backup recall (1 to 90 days)					•
Test Program				•	•
Program Templates					•
Delay between station					With IQ only
CENTRAL CONTROL CAPABILITIES					
Central Control compatibility on IQ Cloud					•
SENSORS					
RSD-Bex Rain Sensor		•	•	•	•
Pulse dry contact flow meters/sensors					With IQ only

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°
- Max Flow: 2.2 m^3/h
- Uses 2 x 1,5V AA alkaline batteries (not included)

MODEL

1ZEHTMR

WPX SERIES

Battery-Operated Controller

Easier, tougher and longer lasting battery-operated controller.

Optional wall mount bracket

FEATURES

- Convenient, durable option for providing uninterrupted irrigation when AC-power is not available.
- Waterproof case ensures long life even when installed in a valve box.
- IP68 certified for protection against dust and water intrusion.
- Common programming features are easily accessed on one screen, making programming quick and easy.
- At-a-glance programming eliminates confusion by showing the run-time, start-times and watering days for each zone.
- Dedicated manual watering button for easy operation.
- Automatic zone-stacking ensures that only one valve irrigates at a time. If zones are scheduled to water at the same time, the WPX will automatically irrigate the lower number zone first.
- 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.
- Contractor Default™ save/restore.
- Rain sensor bypass for all zones or bypass by individual zone.
- Manually water ALL zones or SINGLE zone on demand.
- One-touch manual start.
- Large LCD display with easy to navigate user interface.
- Sensor input with bypass override.
- Master valve/pump-start circuit (multi-zone units only).
- Non-volatile (100-year) program memory.
- Mounts in valve box using solenoid mounting bracket or using two screws affixed to the valve box.

OPERATING SPECIFICATIONS

- Operates for one full year using one 9-volt alkaline battery, or two years with two 9-volt alkaline batteries.
- Station Timing: 1 to 240 minutes per start time.
- 6 independent start times per zone
- 4 watering day options per zone: Custom days of week, Cyclic (every 1 to 30 days), ODD calendar days, and EVEN calendar days.
- Delay watering: 1 to 9 days
- Seasonal adjust: 10% to 200%

CONTROLLER HARDWARE

- Solenoid mounting bracket for easy mounting on a valve.
- Rubber cover protects the controller face.
- Optional: Wall mount bracket.

CERTIFICATIONS

cULus, FCC, IC, CE, RCM (AMCA), IP68, RoHS

DIMENSIONS
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

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

WP1/WP1 JTV-KIT

Single-station Battery-Powered Controller
The Compact and Powerful single-station Controller

- Battery-powered : operates with 1 top-grade 9V alkaline battery such as Varta type 6AM6 (international standard) or 6LR6I (European standard). Batteries not included.
- Resists humid and harsh environments, Rated IP68: 100% waterproof and fully submersible.
- Available as pre-assembled kit for faster installation

FEATURES

- **Easy to install and to program**
  - Can easily clip onto a Rain Bird latching solenoid
  - Easy-to-understand LCD display with iconbased design.
  - Ergonomic 3-key keypad for simple and intuitive programming
  - Manual start with adjustable, counted down run time

- **Water saving**
  - Water Budget function adjusts watering time from 0 to 200%
  - Programmable Rain Delay function enables system to stay off for a specified period (1 to 15 days) with an auto-restart.
  - In case of rain, irrigation schedule is immediately stopped thanks to a Rain Sensor.

- **Reliable operation**
  - Solid-state controller.
  - Operates with Rain Bird latching type solenoids used in the TBOSTM system.
  - Battery voltage level icon

SPECIFICATIONS

- 8 start times per day
- Programming Schedules:
  - 7-day weekly
  - Even day / date
  - Odd day / date with or without on the 31st
  - Cyclic: 1/ up to 15 days
- Number of stations:1
- Station timing: from 1 minute to 12 hours in 1-minute increments.
- Operating temperature: -20° to 70° C.
- Maximum operating pressure: 10 bar
- See JTV page for valve specifications

ELECTRICAL SPECIFICATIONS

- Operates with 9V alkaline battery
- Compatible with all Rain Bird valves equipped with a Rain Bird latching solenoid
- Maximum distance between the controller and a latching solenoid using wire sized 1,5 mm^2: 30 m
- Can be connected directly to the RSD-BEx Rain Sensor

DIMENSIONS

Height:10,3 cm
Width: 6,3 cm
Depth: 9,0 cm

MODELS

WP1 : single station 9V controller
WP1-JTV Kit: single station 9V controller with latching solenoid and JTV

RSD-BEx Rain Sensor

WP1-JTV Kit

WP SERIES: WP 2, WP 4, WP 6, WP 8

Electronic Battery-Powered Controller
Multi-station Battery-operated Line

- Battery-powered : operates with 2 top-grade 9V alkaline batteries such as Varta type 6AM6 (international standard) or 6LR6I (European standard). Batteries not included.
- Resists humid and harsh environments, Rated IP68: 100% waterproof and fully submersible.
- Outdoor / indoor wall mount or directly in a valve box.

FEATURES

• Easy to install and to program

- Compact size.
- Easy-to-understand LCD display with iconbased design.
- Ergonomic 5-touch keypad.
- Manual station or cycle start capacity.
- Three independent programs provide versatile irrigation control.

• Water saving

- Water Budget function adjusts watering time from 0 to 200% in 10% increments for both programs.
- Programmable Rain Delay function enables system to stay off for a specified period (1 to 15 days) with an auto-restart.
- In case of rain, irrigation schedule is immediately stopped thanks to a Rain Sensor.

• Reliable operation

- Solid-state controller.
- Operates with Rain Bird latching type solenoids used in the TBOS™ system.
- Test function (2mn, all programmed stations) for system operational testing.
- LCD displays symbol if batteries must be replaced.

SPECIFICATIONS

Number of programs : 3 completely independent
Up to 8 start times per program per day.
Programming schedule: 7-day weekly
Number of stations : 2, 4, 6 or 8
Station timing : 1 minute to 12 hours in 1-minute increments.
Operating temperature: -20° to 70° C

ELECTRICAL SPECIFICATIONS

Operates with 2 9V alkaline batteries.
Compatible with all Rain Bird valves equipped with a Rain Bird latching solenoid.
Station capacity: 1 Rain Bird latching solenoid per station plus a latching solenoid equipped master valve.
Maximum distance between the controller and a latching solenoid using wire sized 1,5mm^2: 30 m
Can be directly connected to the RSD-BEx Rain Sensor.

DIMENSIONS

Height : 18,3 cm
Width : 15,6 cm
Depth : 5,6 cm

MODELS

WP 2 : 2 stations
WP 4 : 4 stations
WP 6 : 6 stations
WP 8 : 8 stations

RSD-BEx Rain Sensor

TBOS-II BATTERY OPERATED SYSTEM

World wild battery operated leader for green urban areas.

- The TBOS battery-operated line of buriable controllers allows the use of automatic irrigation in the absence of AC power
- Rugged case, inside valve box installation, and separation of the transmitter from the control module avoid vandalism and tampering with your programs
- IP-68 rated waterproof case assures reliable operation under water and safeguards your investment
- TBOS and TBOS-II Control Modules are now centralizable on IQ Cloud Platform.

THREE SYSTEMS IN ONE:

INFRARED TRANSMISSION

Program the TBOS-II Field Transmitter just as you would do for any other Rain Bird controllers. Then transmit the program via infrared connection to TBOS or TBOS-II Control Modules.

RADIO TRANSMISSION

The concept is the same. The only difference is that program transmission is by radio. A TBOS-II Radio Adaptor is installed on each TBOS or TBOS-II Control module and program transmission is carried out thru radio. This radio version was developed as an anti vandal system to prevent vandals from finding out the location of controllers or valves. You can transmit or monitor irrigation programs without opening the valve box.
You ask for more distance?
One TBOS Radio Relay can be added between Field Transmitter and Radio Adapter to increase radio transmission range. TBOS Radio relay will act as a repeater and will carry out information, out of the Field Transmitter radio range.

REMOTE TRANSMISSION

The TBOS-II System allows remote central control of the Control Modules (TBOS or TBOS-II) via radio communication (free ISM band). All you need is an IQ Satellite (ESP-LXD or ESP-LXME) equipped with an IQ TBOS Master Radio Module.
Build your own radio network using IQ TBOS Master Radio Modules and up to 15 TBOS Radio Relays.

When centralized on IQ Cloud, TBOS Control Modules can benefit of additional features and all flow sensing utilities from IQ.

IQ Cloud is the first modular Central Control System allowing centralization of traditionally wired 24V Controllers (ESP-LXME), Decoder Controllers (ESP-LXD) and battery-operated controllers (TBOS or TBOS-II) on the same software.

SAVE WATER

TBOS-II offers a large choice of irrigation cycles as well as Seasonal Adjustment per month and per program to facilitate both water conservation and adherence to municipal watering restriction schedules.

TBOS-II FIELD TRANSMITTER

New design, new features, and always more convenient!

- The TBOS-II Field Transmitter has a new user interface in 8 languages.
- Fully backward compatible, it could control your new TBOS-II Control Modules, but also the old ones.
- Now a NEW function: If you are ready for centralization, TBOS-II Field Transmitter will be the tool allowing system setting

FEATURES

- **Backward Compatibility**
  - Fully backward compatible – operates in standard infra-red mode with all Rain Bird's TBOS controller line produced since 1999.
  - Operates in radio mode with TBOS-II Control modules as well as TBOS Control modules equipped with a TBOS-II Radio Adaptor.
- **Infrared and radio Field Transmitter**
  - One TBOS-II field transmitter programs an unlimited number of TBOS-II and/or TBOS Control Modules.
  - You can transmit programs via infrared connection or by radio
- **Easy to program**
  - New user interface with drop down menu and direct access to main screen for easy navigation.
  - User interface in 8 languages: English, French, Spanish, Portuguese, German, Italian, Turkish and Greek.
  - Very complete Manual irrigation mode
  - Built-in ID with possibility of rename (Field transmitter, Control module and the stations names can be customized)
  - Up to 3 Program templates can be saved in the Field Transmitter to ease programming process.
- **Vandal-resistant and reliable**
  - No need to open the valve box on radio mode
  - It is possible to transmit information via radio even if the module is under water.

PROGRAMMING FEATURES

- AM/PM or 24-hour display.
- The low battery indicator warns of failing batteries in the TBOS-II field transmitter or TBOS-II control module or TBOS-II radio Adaptor.
- Possibility of clearing the Control module's irrigation program (individual or all)
- Possibility of reviewing the irrigation program
- 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 time.
- Run time is from 1 minute to 12 hours in 1-minute increments.
- Independent station operation allows sequential start times (with stack process in case of overlapping)
- Program level and global Monthly Seasonal Adjust; 0% to 300% (1% increment)
- Five cycle modes (Customized cycle, even, odd, odd-31, cyclical) selectable by program for maximum flexibility and watering restriction compliance.
- Rain Delay from 1 to 14 days (even if connected by infrared on a TBOS Control module)
- Master valve and Rain Sensor can be affected to each station individually (on TBOS-II Control Module 2, 4 and 6 only)
- 3 TBOS Backup programs could be saved in the TBOS-II Control Module or TBOS-II Radio Adaptor and restored manually or automatically.
- No loss of irrigation program after a battery replacement (an FT connection is only necessary to set the correct date and time)

SPECIFICATIONS

- Field transmitter required for finding, naming and programming control module and Radio marking.
- Monochrome backlight LCD (128x54 pix.)
- Rechargeable battery pack (NiMH 750mAh 2,4V) + Jack connector
- Removable Infra-red cable
- Internal radio antenna
- Operating temperature: -10°to +65°C
- IP44 sealing class: protected against water projections.
- Drop down menu with direct access to Home screen
- Compatible for IR or Radio communication with current TBOS and TBOS-II Control modules if equipped with TBOS-II Radio adapter.
- The Field transmitter is required to find, name and set-up Radio relays in the field and Radio marking when system is centralized on IQ Cloud Plateform.

DIMENSIONS

Height: 16.0 cm
Width: 7.0 cm
Depth: 3.0 cm
Weight: 250 g

MODEL

TBOS-II Field Transmitter

TBOS II™ CONTROLE MODULE

APPLICATIONS

The TBOS-II™ Control Module in conjunction with the TBOS™ Latching Solenoid permits automatic irrigation on sites without an electrical power source. It is ideal for a wide range of turf applications: roundabouts, isolated gardens, road or freeway landscaping, low volume irrigation, greenhouses, master valves, etc.

FEATURES

- Used to open and close valves equipped with a TBOS™ Latching Solenoid.
- Operates with only one high quality 9 V alkaline battery (Varta or equivalent) type 6AM6 (international standard) or 6LR61 (European standard). Battery not included.
- Resists humid and harsh environments – Rated IP68: 100% waterproof and fully submersible.
- Sealed waterproof battery compartment.
- External, encapsulated infrared connector.
- 2 mounting slots.
- Active Rain Sensor immediately stops watering if it rains.

SPECIFICATIONS

- TBOS-II™ Field Transmitter required for programming
- Three programs: A, B, C
- Sequential station operation within a program.
- Maximum wire run between module and TBOS™ solenoid is 10 m using 0.75 mm^2 wire or 30 m using 1.5 mm^2 wire
- Compatible with TBOS-II™ Radio Adaptor.
- Equipped with TBOS-II Radio Adaptor, TBOS™ Control Module will offer new TBOS-II™ Features.

DIMENSIONS

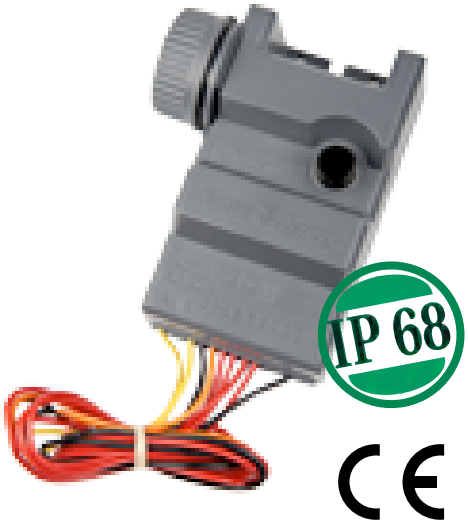
Height: 13.0 cm
Width: 9.5 cm
Depth: 5.3 cm

MODELS

1-station TBOS-II™ Control Module
2-station TBOS-II™ Control Module
4-station TBOS-II™ Control Module
6-station TBOS-II™ Control Module

ACCESSORIES

TBOS™ Latching Solenoid
TBOS-II Radio Adaptor
RSD-BEx Rain Sensor
BAT9AL : 9V Alkaline Battery



TBOS-II EXCLUSIVE

- No loss of irrigation program after a battery replacement (an Field Transmitter connection is only necessary to set the correct date and time)
- In conjunction with IQ Cloud, Sensor Connection accommodates Dry Contact sensor (rain) or Pulse Dry Contact Flow sensor.
- Master Valve/Pump wire connector on 2-, 4- or 6-station Control modules.

PROGRAMMING SPECIFICATIONS

The following features are included on TBOS-II Control module as well a TBOS Control module equipped with a TBOS-II radio adaptor:

- Basic programming includes 3 independent programs A,B and C, each with 8 start times per day.
- Five cycle modes (Customized cycle, even, odd, odd-31, cyclical) selectable by program for maximum flexibility and watering restriction compliance.
- Independent station operation allows sequential start times (with stack process in case of overlapping)
- Stations can be assigned to several programs with different watering run time.
- Run time is from 1 minute to 12 hours in 1-minute increments.
- Rain Delay from 1 to 14 days (even if connected by infrared on a TBOS Control module)
- Program level and global Monthly Seasonal Adjust (cumulative); 0% to 300% (1% increment)
- Master valve and Rain Sensor can be affected to each station individually (on TBOS-II Control Module 2, 4 and 6 only)
- A TBOS Backup program may be saved and restored (manually or automatically) in the Control Module.

TBOS-II RADIO ADAPTOR

FEATURES

- Fully backward compatible – operates with all Rain Bird's TBOS and TBOS-II controller line.
- TBOS-II radio adaptor plugged on a TBOS-II control module is used as a radio antenna.
- TBOS-II radio adaptor plugged on an original TBOS control module is used as an irrigation program controller and a radio antenna and upgrade TBOS Control Module with new features.
- Operates with only one 9V alkaline battery (Energizer and Duracell are recommended) type 6AM6 (international standard) or 6LR61 (European standard): battery not included.
- Resists humid and harsh environments – Rated IP68: 100% waterproof and fully submersible.
- External encapsulated optical connector for communication with the control module.

TBOS™ LATCHING SOLENOID

FEATURES

- Latching type solenoid.
  The TBOS™ Control Module activates the solenoid to open and close the valve
- Filter included
- Two 0.75 mm^2 wires are supplied: 60 cm long
- Works only with Rain Bird valves: JTV, DV, PGA, PEB and BPES Series
- Maximum operating pressure: 10 bar
- Manual opening of Rain Bird valves with 1/4-turn of solenoid

MODEL

TBOS™ Latching Solenoid

RSD-BEx

Rain Sensor

APPLICATIONS

The RSD Series Rain Sensor is a rain sensor device suitable for residential and commercial applications. It saves water and extends irrigation system life by automatically measuring precipitation and keeping irrigation systems from watering in rainy conditions.

FEATURES

- Works with all 24 VAC controllers and TBOS™, WP products
- Multiple user-set rainfall settings from 3.2 to 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
- Rugged aluminum bracket and arm extend a full 15.2 cm
- 7.6 m of UV resistant extension wire offer an easy connection to irrigation controllers

SPECIFICATIONS

Not recommended for use with high voltage circuits or devices.
Switch electrical rating: 3A @ 250 VAC
Capacity: Electrical rating suitable for use with up to three 24 VAC, 7 VA solenoid valves per station, plus one master valve
Includes 7.6 m conductor extension wire (2 x 0.5mm^2)

DIMENSIONS

Length: 16.5 cm
Height: 13.7 cm

MODEL

RSD-BEx

ALKALINE BATTERIES

BAT9AL

CENTRAL CONTROL

Water Savings Tips

- IQ Cloud Platform, Maxicom² and SiteControl Systems provide fully ET (evapotranspiration) adjustment of irrigation programs for maximum water savings
- The IQ Cloud Platform is the first central irrigation control software which can control both conventional ESP-LXME controllers and ESP-LXD decoder controllers, as well as TBOS™ and TBOS-II™ battery-operated controllers.
- IQ Cloud and Maxicom² FloWatch utility monitors and records real-time flow and automatically diagnoses and eliminates flow problems caused by broken pipes, vandalism or stuck valves.
- IQ Mobile offers quickly start and stop irrigation schedules on your smart-phone or tablet.

CENTRAL CONTROL SYSTEMS SELECTION GUIDE

Features	IQ Cloud	SiteControl	Maxicom²
Type of System			
Single-Site	X	X	
Multi-Site	X		X
Battery operated controller compatible	X		
Decoder controller compatible	X	X	
Central Computer	Optional	Included	Included
Mobile Interface (smartphone & tablet)	X	with MI Mobile	
In-field Satellite			
Satellite Type	ESP-LXD, ESP-LXME, TBOS	TWI / ESP-Sat Satellite	ESP-Site
Max. Number of Sites per System	No limit	1	200
Max. Number of Stations or Decoder addresses per system	No limit	5376 stations or 2000 decoder addresses	No limit
Software Features			
Design import		GPS, CAD, SHP, BMP	BMP
Interactive map		X	
Satellite PIN Protection	X		
Satellite 2-way Programming	X		
Satellite Call-in	X		
Automatic ET Adjustment	X	X	X
Global Weather access	X		
Number of programs	4 per ESP-LX Satellite, 3 per TBOS Satellite	100 per system	100 per system
Dry-Run	X	X	X
Flow Management	X	X	X
High Flow shut-off	X	X	X
Rain shut-off	X	X	X
Cycle & Soak	X	X	X
Event Recording	X	X	X
Alarms	X	X	X
E-mail alarms	X	X	X
GSP Contract	Optional	X	X
Site communication	Remote	Local only	Remote
Hardwire	X	X	X
Radio	X		
Phone line			X
GPRS	X		
Wifi	X		
Ethernet	X		

SATELLITES SELECTION GUIDE

MODELS	TBOS-II	ESP-LXMe	ESP-LXD	ESP SAT	ESP SITE
Needed to be converted into satellite	ESP/NCC + IQ TBOS MRM	NCC	NCC	CCU	
Applications					
Residential		X			
Municipal turf areas	X	X	X	X	X
Large turf areas	X	X	X	X	X
Athletic fields		X	X	X	X
Features					
Hybrid		X	X	X	X
Solid State	X				
Battery-powered	X				
Specifications					
Number of Stations	1, 2, 4, 6	8, 12, 16, 20, 24, 28, 32, 36, 40, 44, 48	50,125, 200	24, 40	24, 40
Number of Programs	3	4	4	4	4
Station run time (Up to)	12 h	12 h	12 h	12 h	12 h
Number of starts per day per program	8	8	8	8	8
Water Budget	X	X	X	X	X
Manual ON/OFF	X	X	X	X	X
Rain Delay	X	X	X		
Simultaneous multi-station operation		X	X	X	X
Overlapping programs		X	X		
Programming Menu	8 languages	6 languages	6 languages	Icon based	Icon based
Programming Schedules					
7-Day week	X	X	X	X	X
Variable cycle	X	X	X	X	X
Odd/even cycle	X	X	X	X	X
365-day calendar	X	X	X		
Test program	X			X	X
Default program	X	X	X		
Station valve capacity	1+1	2 + 1	8 + 1	4 + 1	4 + 1
Controller valve capacity	1+1	4 + 1	7 + 1	4 + 1	4 + 1
Cabinet					
Outdoor	X	X	X	X	X
IP68	X				

RAIN BIRD IQ PLATFORM

The new IQ Platform delivers powerful remote water management tools so you have more control over your irrigation systems right from your computer, tablet or smartphone. To use IQ, you will need an ESP-LXME or ESP-LXD Controller with a Network Communication Cartridge (Wi-Fi, Ethernet, Cellular).

COMPARE AND CHOOSE THE IQ SOLUTION THAT IS RIGHT FOR YOU

- **IQ-Cloud for multi-user access.**

Choose IQ-Cloud if you manage a single site, schools, parks, municipal, or other properties that require access by multiple users in your organization.
- Mobile compatible
- No annual fees
- Easy to set up and use

Go to www.rainbird.eu and take control now.

- **IQ-Enterprise lets you implement IQ-Cloud on a private server.**

- Meet strict firewall and security restrictions without sacrificing features and mobility
- No annual fees
- Leverage existing Wi-Fi networks to reduce or eliminate data fees

Please talk to your local Rain Bird sales representative about how to take advantage of IQ-Enterprise.

- **If you are already an IQ user, you can keep using IQ-Desktop. If you want to upgrade for mobile access, go to www.rainbird.eu and sign-up for IQ-Cloud.**

Choose IQ-Cloud if you manage a single site, schools, parks, municipal, or other properties that require access by multiple users in your organization.
- Mobile compatible
- No annual fees
- Easy to set up and use

FEATURES AVAILABLE ON THE IQ PLATFORM

- Manage irrigation schedules based on weather conditions
- Automate e-mail alerts and alarms to manage exceptions
- Know which zones are operating and where, down to the minute
- Create and share reports on total water usage
- Restrict access to the satellite controllers with pin code
- Monitor system performance and identify problems with Flow Watch™
- Remote diagnostics for two-wire systems
- To ensure customer's systems are compatible with future technologies and feature enhancements, hardware upgrades will be required every 5 years.

IQ PLATFORM

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. The IQ Platform consists of three options: IQ-Desktop v. 3.0, IQ-Cloud v. 3.0, and IQ-Enterprise v. 3.0.

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 decoder controllers.

- **IQ-Desktop**

is installed and operated on a single desktop computer. IQ-Desktop is ideal for organizations with one administrator who can control the system from their computer in their office. The IQ-Desktop software package provides 5-satellite controller capacity. IQ software satellite controller capacity can be upgraded in 5-satellite increments with the IQ5SATSWU.

- **IQ-Cloud**

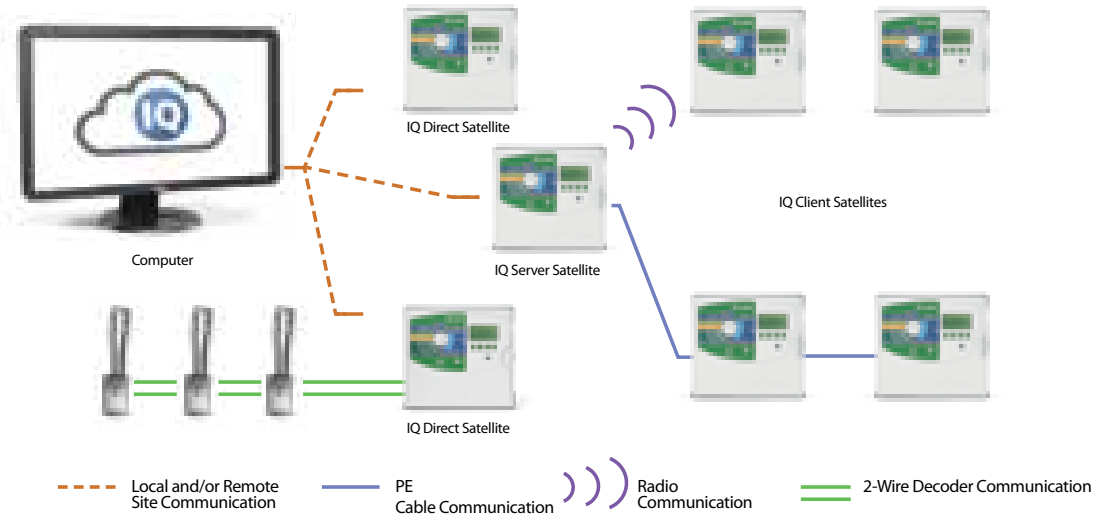
is a cloud based service allowing users to login and control their irrigation system from any internet connected device. IQ-Cloud is ideal for organizations with multiple irrigation system administrators and/or users that require mobility. IQ-Cloud features IQ Mobile which provides quick access to key features in an interfaced 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-Enterprise**

is installed on a server and enables organizations with internet access security restrictions and a robust local area network to install their own private IQ-Cloud. Users can get all the mobility benefits of IQ-Cloud and comply with IT restrictions. IQ-Enterprise software package provides 5-satellite controller capacity. IQ software satellite controller capacity can be upgraded in 5-satellite increments with the IQ5SATSWU.

IQ SOFTWARE FEATURES

- Software 5-satellite controller capacity 5-Satellite Capacity upgradable in 5-satellite increments (Desktop & Enterprise)
- Compatible with ESP-LXM & ESP-LXME traditionally-wired and ESP-LXD 2-wire decoder controllers
- Site, satellite, and station names
- Programming in seconds, minutes, and hours
- Daily or Monthly Seasonal Adjust % or ET station Run time adjustments by site
- Dry-Run™ Graphical Program Review
- Manual Program, Test Program, Station starts
- Detailed logs and reports
- Automated or user initiated satellite Synchronize
- Automated Email Alarm/Warning and Satellite Station Run Time Reports
- Satellite 2-Way Programming (changes made at the satellite can be viewed and accepted in the IQ software)
- Copy/Move Satellite Utility (copy or move a satellite to another site)
- Automated MAD (Management Allowed Depletion) Irrigation Scheduling adjustments



- Software uses Irrigation Association terminology and formulas
- ET/Rainfall Weather Sources include:
  - Rain Bird WSPROLT Weather Station
  - Rain Bird WSPRO2 Weather Station
- IQ Global Weather Internet Service which provides local weather data including rain fall.
- 4 ET Checkbooks per satellite controller
- Export to Microsoft Excel® for customized reports
- Retrieves minute-by-minute flow logs from flow sensor equipped ESP-LXMEF and ESP-LXD Satellite Controllers
- Flow Logs vs. Projected Flow Graphical Report (identifies which programs & stations where running at any point in time)
- Actual Flow Totals added to Satellite Station Run Time Report (included in Automated Email Reports)
- Context-sensitive help system. Click on the help icon available in most screens and be taken directly to the help topic feature you are using.
- User selectable languages include English, Spanish, French, German, Italian, and Portuguese

ADDITIONAL 5-SATELLITE CAPACITY UPGRADE

- 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

- Operating System: Windows® XP, 7 or 8, 32-bit or 64-bit
- Processor: Intel I5-540M or equivalent
- RAM Memory: 3 GB
- Available Hard Disk Space: 10 GB
- CD-ROM Drive: 8X speed minimum
- Display Resolution: 1024 x 768 minimum
- Network Connection (for Ethernet, WiFi, GPRS communication)
- Serial Port or USB to Serial Adapter (for Direct Connect and External Modem communication)

RECOMMENDED SERVER REQUIREMENTS FOR IQ-ENTERPRISE

- Intel I5-540M processor
- 3GB RAM
- 10 GB free disk space
- Windows Server 2008 R2

IQ-MOBILE (AVAILABLE WITH IQ-CLOUD AND IQ-ENTERPRISE)

- Use smartphones and tablets as a remote
- Start stations, start programs, start test programs
- Set Rain delays and turn controllers off/auto
- View current satellite controller status
- View logs
- Accessible from all smartphone and tablet internet browsers

IQ NCC NETWORK COMMUNICATION CARTRIDGE

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

- IQ NCC Network Communication Cartridges upgrade LX-IQ Platform standalone controllers to IQ satellite controllers capable of being controlled by the IQ Cloud.
- The NCC cartridge snaps into the back of the controller faceplate and provides the communication link between the IQ central computer and the remote site controllers.
- IQ NCC cartridges are compatible with the ESP -LXME traditionally-wired controllers with 1 to 48 station capacity and ESP –LXD 2-wire controllers with 1 to 200 station capacity.

- **IQ NCC-GP GPRS/Cellular Cartridge**
  - Used for DIRECT or SERVER Satellite applications requiring wireless GPRS / Cellular communication with the IQ Cloud.
  - Includes embedded GPRS /Cellular Data Modem with antenna connector
  - Includes internal antenna for plastic controller enclosures (optional external antenna available for metal case controller enclosures).
  - Available with SIM card and one year GPRS communication.

- **IQ NCC-EN Ethernet Cartridge**
  - Used for DIRECT or SERVER applications requiring Ethernet LAN network communication with the IQ central computer.
  - Includes embedded Ethernet Network Modem with RJ-45 port.
  - Includes RJ-45e patch cable.
  - Requires LAN network static IP address.

- **IQ NCC-WF WiFi Cartridge**
  - Used for DIRECT or SERVER applications requiring WiFi LAN wireless network communication with the IQ central computer.
  - Includes embedded WiFi Wireless Network Modem with antenna connector.
  - Includes internal antenna for plastic controller enclosures (optional external antenna available for metal case controller enclosures).
  - Requires LAN wireless network static IP address.

- **IQ NCC-RS RS232 Cartridge**
  - In DIRECT Satellite configuration, can only be used for IQ Desktop
  - 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.
  - User in each CLIENT Satellite applications requiring IQ Net high-speed data cable or radio communication with the SERVER Satellite.
  - Includes RS -232 Port for IQ Direct Cable or External Modem communication connection to the IQ central computer.
  - Includes external modem cable (IQ Direct Cable provided with IQ Software Package).

TBOS INTEGRATION IN IQ CLOUD

APPLICATIONS

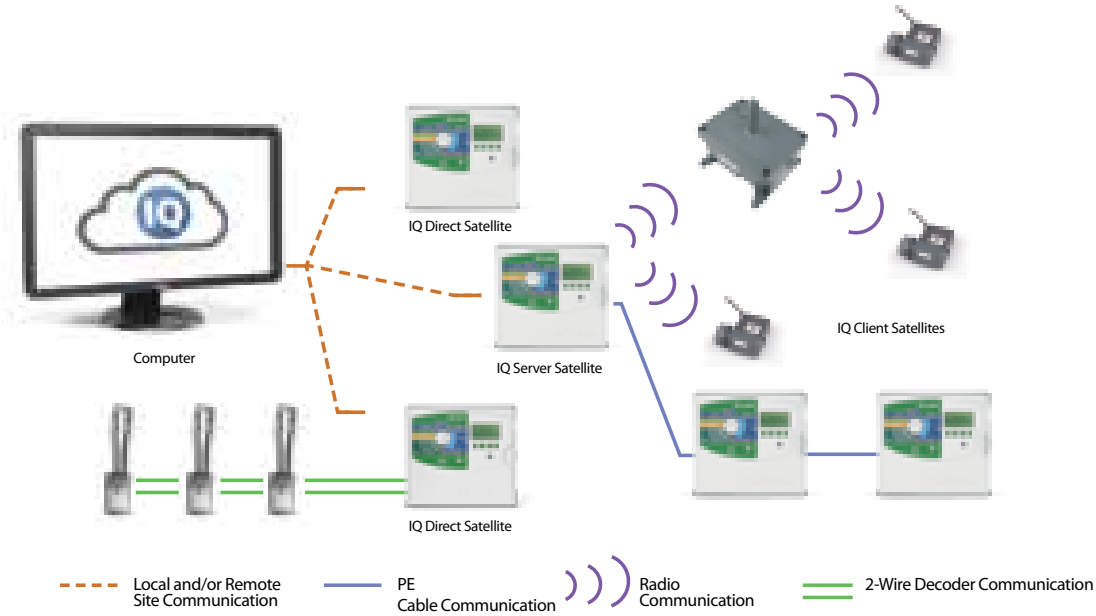
TBOS-II Controller Series enables remote control from IQ Cloud via radio communication. This feature is available through installation of an IQ TBOS Master Radio Module into an IQ ESP-LX satellite.

SPECIFICATIONS

- IQ 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 IQ Cloud if equipped with TBOS-II adapter.
- IQ Cloud can manage up to 250 IQ TBOS Master Radio Module (1 per SERVER satellite)
- IQ Cloud enables to automatically learn TBOS radio network in order to communicate with in-field TBOS/TBOS-II controllers.
- IQ Cloud enables naming control modules and stations. Reverse Synchronize operation overwrites station and controller names with actual device names on the field.
- IQ Cloud reflects the battery charge level of TBOS-II control modules, radio adapters and TBOS radio relays.
- IQ Cloud enables TBOS dry-run
- IQ Cloud enables all manual and programming commands: start station, start program, cancel all, test all stations, rain delay, Off command, On command.
- IQ Cloud enables programming and data synchronization and reverse synchronization.
- IQ 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 IQ 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.

- **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

- **Operation Specifications**
  - Op. temperature: -10° to +65°c
  - Op. 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 IQ Cloud and optional for IQ Desktop and IQ Entreprise.

ESP-LXME CONTROLLER

24V Traditionnal Controller Satellite for IQ Cloud Platform

- Upgrade your controller to IQ Cloud Platform
- Simply add a Network Communication Catridge (GPRS, wifi or Ethernet) and sign up on www.rainbird.eu
- Benefit immediately from IQ Cloud and IQ Mobile for smartphone and tablets

FEATURES

- Large LCD display with easy to navigate softkey user interface
- Weather Sensor input with override switch
- Master valve/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

PROGRAMMING FEATURES

- SimulStations™ are programmable to allow up to 5 stations to operate at the same time
- 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
- Station timing: 0 min to 12 hrs
- Delay between stations : from 1 sec to 9 hours
- Seasonal Adjust; 0% to 300% (16 hrs maximum station run time)
- 4 independent programs (ABCD)
- ABCD programs can overlap
- 8 start times per program
- Program Day Cycles include Custom days of the week, Odd, Odd31, Even, & Cyclical dates
- Manual station, program, test program

WATER MANAGEMENT FEATURES

Optional Flow Smart Module™ adds flow sensing functionality:

- The Flow Smart Module sensor input accepts a direct input from a flow sensor with no flow scaling device required.
- The FloWatch Learn Flow Utility learns the normal flow rate of each station. FloWatch compares the current real-time flow rate to the learned rate and takes user defined actions if high flow, low flow, or no flow is detected. FloWatch automatically determines the location of the flow problem and isolate the problem by turning off the affected station or master valve. FloWatch is compatible with both normally closed and open master valves.
- A Manual Master Valve Water Windows is provided to coordinate day time manual watering with the flow sensing. This Water Windows offers programmable days of the week and manual watering additional

SPECIFICATIONS

- Dimensions (WxHxD): 36,4 x 32,2 x 14,0 cm
- Input required: 230 VAC ± 10%, 50Hz
- Output: 26.5 VAC 1.9A
- Power back-up: Lithium coin-cell battery maintains time and date while nonvolatile memory maintains the programming
- Multi-valve capacity: Maximum five 24 VAC, 7VA solenoid valves simultaneous operation including the master valve, maximum two solenoid valves per station

MODELS

I8LXMEEU: 8-station Base controller
IESPLXMEEU: 12-station Base controller, with Flow Smart Module
FSM-LXME: Flow Smart Module

OPTION

- **IQ FSCM-LXME Flow Smart Connection Module**
  - provides IQ net high-speed data cable connections for ESP-LXME controller
  - includes Flow Smart Module and Base Module functions
  - replaces standard ESP-LXME Base Module

- **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.

ESP-LXD DECODER CONTROLLER

Two-wire Controller Satellite for IQ Cloud Platform

- Upgrade your controller to IQ Cloud Platform
- Simply add a Network Communication Catridge (GPRS, wifi or Ethernet) and sign up on www.rainbird.eu
- Benefit immediately from IQ Cloud and IQ Mobile for smartphone and tablets

CONTROLLER FEATURES

- UV-resistant, outdoor-rated plastic, locking, wall-mount case
- Supported decoders: FD-101, FD-102, FD-202, FD-401, FD-601.
- Also supports SD-210 sensor decoders (flow sensing and weather sensor support) and LSP-1 line surge protectors (one per 150 m of two-wire path required)
- User-selectable six language
- Support 50-station capability standard expandable via 75-station modules to 200 stations
- Four sensor inputs (one wired plus up to three decoder-managed) with override switch

WATER MANAGEMENT FEATURES

- Built in to every ESPLXD module is Rain Bird's Flow Smart software for flow management – simply attach 1 to 5 SD-210 sensor decoders and flow meters (not included) to the two-wire path, and the controller will do the rest. A wide variety of flow functionality is available, including user-adjustable Seek and Eliminate Low Flow (SELF) and Seek and Eliminate Excessive Flow (SEEF) capability to allow you to rest easy knowing that in the event of an unusual flow situation, such as a mainline break, your controller will manage the situation for you.
- Cycle+Soak™ by station
- Rain Delay
- Calendar Day Off
- Programmable Delay Between Stations by program
- Master Valve programmable by station
- Sensor programmable by station
- Alarm light with external case lens
- Electronic circuit breaker
- Variable test program
- Two-wire diagnostics to simplify and expedite troubleshooting
- 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

ELECTRICAL SPECIFICATIONS

- Input required: 230 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

Width: 36,4 cm
Height: 32,2 cm
Depth: 14,0 cm

MODELS

IESPLXD: 230V, include one 50-station module

OPTION

- **IQ CM-LXD Connection Module**
  - provides IQ net high-speed data cable connections for ESP-LXD controller
  - installed in base module slot.

- **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.
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    - 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.

FLOW SENSORS

Flow Sensing

- Reliable and simple flow sensors for use with Rain Bird IQ Cloud and Maxi Decoder System
- Rain Bird flow sensors send flow data to central control or stand alone control systems for precise and accurate flow monitoring.

FEATURES

The ESP-LX Series Controllers can accept direct connection of a FS Flow sensor - No transmitter required.
- On the ESP-LXD, the Flow Sensor has to be connected to the integrated Flow Smart Module, with a Sensor Decoder SD-210.
- An ESP-LXM/LXME has to get an optional FSM Module installed.

For Decoder System, FS Flow Sensor has to be installed with a sensor Decoder SD-210
- No transmitter required.

SPECIFICATIONS

- **Sensors**
  - Simple six-bladed impeller design
  - Pre-installed in tee.
  - Designed for outdoor or underground applications.
- **Specifications**
  - Accuracy: ± 1% (full scale)
  - Velocity: 0,15 - 9,2 meters per second, depending on model
  - Pressure: 6,9 bar (max)
  - Temperature: 60° C (max)

MODELS

- **Sensors**
  - FS150PBSP
  - FS200PBSP
  - FS300PBSP
  - FS400PBSP

RAIN BIRD FLOW SENSOR SUGGESTED OPERATING RANGE

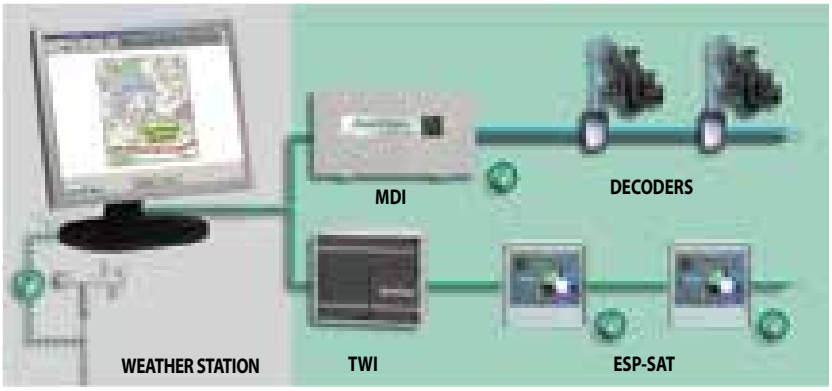
The following table indicates the suggested flow range for Rain Bird Flow Sensors. Rain Bird Sensors will operate both above and below the indicated flow rate. However, good design practice dictates the use of this range for best performance. Sensors should be sized for flow rather than pipe size.

Models	DN	∅	Operating Range (m^3/h) suggested
FS150PBSP	40	50 mm (40 x 49)	1.1 – 22.7
FS200PBSP	50	63 mm (50 x 60)	2.3 – 45.4
FS300PBSP	80	90 mm (80 x 90)	4.5 – 68.1
FS400PBSP	100	110 mm (102 x 114)	9.1 – 113.6

SITECONTROL

The Turf Industry's Only Full-Featured Central Control System

- Interactive, map-based software is easy to use and provides real time decision making
- Unparalleled communications flexibility with decoders and/or satellites
- Advanced water management features maximize landscape conditions and water saving



FEATURES

• Basic Control Features

- From the SiteControl Central Controller, the irrigation system can be scheduled for days to water, run times, linking schedules, sensor starts, cycle and soak schedules, ET sensitized scheduling, etc
- Interactive map allows for maximum control yet easy programming, monitoring and troubleshooting for operator
- Verify programming down to station level with the intuitive dry run feature
- Manual operation of system from central computer via direct manual access
- Operation of non-irrigation applications such as lighting, security gates, fountains, pumps, sensors, etc

• Advanced Graphical Mapping

- Maps generated by GPS technology, AutoCAD or overhead photography recreate your site
- Interactive mapping and on-screen graphics show your complete site with location of individual valves and sprinklers. Extensive status reporting is a click away
- Map Utilities software module allows you to measure distances and areas from your map

• Smart Weather™

- Designed to take complete advantage of Rain Bird's most advanced line of weather stations
- Track ET rates with a weather station and react to current weather conditions through logical sequential steps
- Advanced warning system accepts user-defined sensor thresholds. System operator can be immediately alerted if thresholds are exceeded

• Automatic ET Features

- Automatically adjusts run times in relation to changes in evapotranspiration values
- Minimum ET allows setting threshold for irrigation to occur, promoting deep watering

• RainWatch™

- Provides rain shutdown and then adjusts runtimes based on measured rainfall

• Expanded System Capability

- Can control a single site with up to 8 locations, upgradeable to 16, each consisting of common areas and special areas.
- Flexible: Can operate satellites and/or decoders via a 2-wire path.
- Expandable :
  • The Satellite based System can control 28 up to 112 channels (112 to 448 using SiteControl Plus).
  • The decoder based system can control 500 decoders addresses (up to 2000 using 4 MDI's with SiteControl Plus).

• Remote System Control

- Take control of your system and operate SiteControl from anywhere on your site using the Rain Bird FREEDOM System. Available via phone, cellular phone or UHF radio

• Superior monitoring and programming

- Flo-Graph™ provides 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™ and SimpleIrr™. Quick and easy methods to build irrigation schedules and programs based on your parameters
- Print Office feature prints all monitor log and site information in a clean and concise format for easy site monitoring and troubleshooting
- SmartSensors™ allows monitoring flow and other conditions, as well as setting specific reactions selected by the user

GLOBAL SUPPORT PLAN

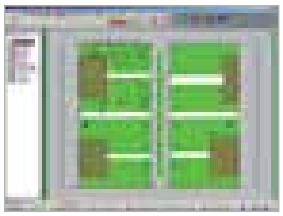
SITE CONTROL Central Control System purchase comes with one-year Global Support Plan (GSP) including: Phone support, Team viewer remote system diagnostics and Data backup if the system configuration allows it, Software update, discount on 48h hardware replacement, discount on Software upgrade.

MODELS

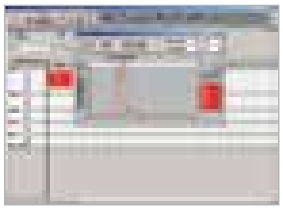
SITECONTROL SATELLITE SYSTEM
SITECONTROL DECODER SYSTEM
Software modules options: See Rain Bird Price List for details

ACCESSORIES

WS-PRO-LT: Weather Station Light
WS-PRO: Weather Station



Interactive map displays your complete site



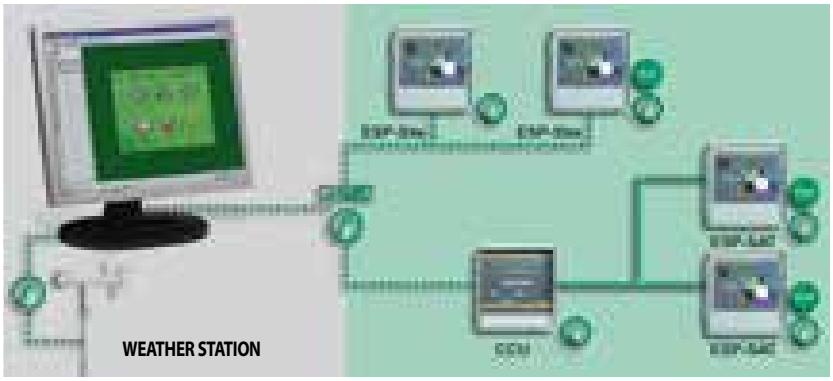
Dry Run feature for testing

Quick and easy method to build irrigation schedules

MAXICOM²®

Multi-Site Central Control System

- From the central controller, irrigation systems at multiple sites can be scheduled for: days to water, run times, cyclical scheduling, linking schedules, sensor starts, Cycle+Soak™ schedules, etc.
- Map view capabilities include now support for jpg and pdf
- Weather sources can be monitored by Maxicom, calculating daily ET values and automatically adjusting station run times to replace only the water used.



FEATURES

• Central software fetures

- System utilizes the Central Controller installed at a primary location. Information is transmitted from this Central Controller to a Cluster Control Unit (CCU) or ESP-Site Satellite in the field.
- Manual operation of system from the central controller or from the field satellite units.
- Up to four manual operation dialog boxes can be opened simultaneously
- Operation of lighting systems (such as athletic field lighting), security gates, fountains, pumps, sensors, or other systems can also be managed from one central Maxicom² location.
- Remote System Control - Take control of your system and operate Maxicom² from anywhere using the Rain Bird FREEDOM System.
- Maxicom² Software pre-installed in a computer supplied by Rain Bird including 1 day of Rain Bird on site assistance/training and 1-year GSP.

• Water management features

- Low Flow Alarm alerts when flow in a designated section of the irrigation system falls below a pre-determined threshold level, or when there is no flow (zero flow) when flow is expected.
- Odd/ Even Scheduling allows system to irrigate on Odd, Even, or Odd31 days; Exclusion Days feature allows designation of weekdays when irrigation should not occur.
- Irrigation start days are easily scheduled to meet complex watering requirements.
- Station operating times can be automatically adjusted in response to changing daily ET values supplied by a Rain Bird Weather Station or user input.
- Irrigation and weather factors, such as soil infiltration rate and rainfall intensity, can be compared to determine the exact effect weather has on irrigation needs.
- Cycle+Soak™ feature optimizes the watering of poor drainage sites, slopes, and heavy soil areas.
- Flo-Watch™ monitors hydraulic conditions in the field, checking for breaks in system piping or valve malfunctions. In the event of an overflow problem (line break, etc), the system will automatically identify where the problem is located, initiate valve or mainline shutdown, and send an alarm message identifying where the problem occurred and the action taken to isolate the problem.
- Flo-Manager™ monitors and sequences valves scheduled to be turned on, so expected demand does not exceed hydraulic capacity.
- Schedules can start, advance, pause, or cancel according to sensor input (rain, wind, etc) from the field.
- Alarm message automatically alerts the user of problems in the field.

• Communication option

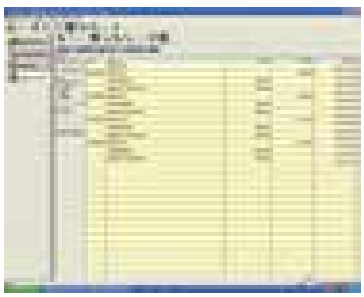
- Direct Hardwire
- Analog phone line
- GSM modem
- Remote System Control - Take control of Maxicom² using the FREEDOM System

GLOBAL SUPPORT PLAN

MAXICOM²® Central Control System purchase comes with one-year Global Support Plan (GSP) including: Phone support, Team viewer remote system diagnostics and Data backup if the system configuration allows it, Software update, discount on 48h hardware replacement, discount on Software upgrade.

MODEL

Maxicom² Software pre-installed in a computer supplied by Rain Bird including 1 day of Rain Bird on site assistance/training and 1-year GSP.



ET values data base

Flexible irrigation scheduling

ESP-SITE / ESP SAT

SiteControl and Maxicom^2 Satellites

APPLICATIONS

The ESP Series Controller is the most versatile satellite controller yet.
The ESP-SAT is the field controller for Maxicom^2 or SiteControl central control systems. Maxicom^2 requires a Cluster Control Unit (CCU) to serve as an interface between the central computer and ESP-SAT Series controllers.
The ESP-Site controller is the Maxicom2 satellite combining the capabilities of the Cluster Control Unit (CCU) with all the power of an ESP Series controller.

FEATURES

- 12-hour watering duration for any or all stations to aid in drip compatibility.
- Operates up to 40 stations.
- Communicates with central controller via hardwire, telephone or GSM.
- Four programs with eight start times each allow mixed irrigation applications in a single controller.
- Two master valve terminals, one programmable by station, provide better control.
- Programs can overlap to maximize hydraulic capacity and minimize watering time.
- 365-day calendar with leap year intelligence for one-time date and time setting.
- Event day off option to set any day of the month as a non-watering day for all programs.
- Programmable rain delay enables system to stay off for specified period with auto-restart.
- Water budget by program provides adjustments from 0-300% in 1% increments.
- Cycle+Soak™ by station allows total irrigation run time to be split into usable cycles, minimizing run-off.
- Manual watering by station or program.
- Sensor override switch with LED to indicate when irrigation is suspended.
- Non-volatile, 100-year memory holds program, date, and time during power outages.
- Automatic fault indication identifies electrical shorts, skips shorted stations, and continues watering remaining program.
- Quick-connect terminal strip speeds installation.
- Battery-programmable controller allows for programming prior to installation.

ESP-SITE SPECIFIC FEATURES

- Combines the function of a Cluster Control Unit (CCU) with an ESP-sat controller.
- Stores and executes schedule instructions from the central controller.
- Includes 2 sensor inputs.

SPECIFICATIONS

- Station timing: A, B, C, D: 0 to 2 hours in 1-minute increments; 2 to 12 hours in 10-minute increments
- Automatic starts: 32 starts total, eight per program per day
- Programming schedule:
  - Odd day watering per program
  - Even day watering per program
  - Cyclical: 1 to 99 days, variable per program
  - Custom day-of-the-week by program
- Test program: Variable 1 to 99 minutes

ELECTRICAL SPECIFICATIONS

- Input required: 230 VAC± 10%, 50Hz
- Output 26.5 VAC, 2.5A
- Station load capacity: Up to two 24 VAC, 7VA solenoid valves per station plus a master valve or pump start relay
- Diagnostic circuit breaker skips and indicates stations with overloaded circuits
- Battery backup: 9VDC, NiCad rechargeable for programming under battery power and for maintaining active program-in-progress during a power outage
- Heavy-duty electrical surge protection

CLUSTER CONTROL UNIT FEATURES

Maxicom$^{2®}$ cluster control Units (CCU) serve as an interface between the central controller and ESP-SAT Series on the Maxicom$^{2®}$ System. The CCU allows control of hundreds of sites from one central controller.

- CCU operates up to 6 or 28 satellites, pulse decoders, or sensor decoders.
- Stores and executes schedule instructions from the central computer.
- Computer to CCU communication options: Telephone modem, GSM modem or Direct connection.

Electrical Specifications

- Input required: 220/240 VAC+/-10% @ 0.35/0.32A, 50Hz
- Output: 26.5 VAC, 50 Hz, .5A
- Poly switch: 0.65A open (steady state), 1.3A open (surge)

DIMENSIONS

(ESP and CCU)
Width: 28,7 cm
Height: 29,2 cm
Depth: 16,5 cm

MODEL

ESP-24SITE-W: 24 stations
ESP-40SITE-W: 40 stations
ESP-24-SAT-TW-WM: 24 stations
ESP-40-SAT-TW-WM: 40 stations
CCU-6-WM: 6-channel filed Cluster Control Unit
CCU-28-WM: 28-channel filed Cluster Control Unit

How to specify

ESP – 24SITE – W

- **Model** *ESP*
- **Number of Stations** *24SITE: 24 stations* *40SITE: 40 stations*
- **Mounting** *W: Metal Wall Mount*

FD-101/FD-102/ FD-202/FD-401/FD-601

Field Decoders

APPLICATIONS

Decoders are installed out of sight to help protect them from the elements and vandalism. Select different decoders to operate one, two, four, or six valves/ solenoids. Five different decoders let you choose the amount of control you need.

FEATURES

- Waterproof resin encapsulated circuitry ensure long and trouble-free life.
- Factory preset address codes.

SPECIFICATIONS

- Installation: in valve box or direct burial.
- Input: 2 blue wires connected to the signal line.
- Output: 2 color cables per address.
- Maximum of 100 meters distance between decoders and solenoids using 1.5 mm wire.
- Power consumption: under 1mA in passive mode or maximum of 18mA per address code in operation.
- Working temperature range: 0° to 50° C.
- Storage temperature range: -20° to 70° C.
- Built-in surge protection for FD-401 and FD-601.

MODELS

FD-101: 1 address, 1 solenoid per station
FD-102: 1 address, 1 or 2 solenoids per station
FD-202: 2 addresses, 1 or 2 solenoids per station
FD-401: 4 addresses, 1 solenoid per station
FD-601: 6 addresses, 1 solenoid per station

PD-210

Pump Decoder

APPLICATIONS

The PD-210 can control either 1 pump or an entire pump station. The PD-210 can also control a booster pump.

SPECIFICATIONS

Input: signal line from ESP-LXD, SiteControl
Output: Dry contact 5A, normally open or normally closed

MODEL

PD-210

DECODER CABLE

APPLICATION

This cable is used for ESP-LXD and SiteControl decoder systems in large municipal turf areas and athletic fields.

FEATURES

- Solid bare copper conductors
- Core insulation: 0.7 mm polyethylene (blue and black)
- Blue polyethylene outer sheath
- European standard: CEI 60502-1
- Cable approved by Rain Bird for ESP-LXD and SiteControl

SPECIFICATIONS

Number of conductors: 2. Cross section: 2.5mm2
Maximum current*: buried 46A, open air 33 A
U= 14.8 V/A/km (cos j =0.8)
Outside diameter: mini 9.5, maxi:11.5
Weight: 162 kg/km

** Based on ambient temperatures of 20°C for buried cable or 30°C for cable in the open air and always carrying power.*

MODEL

Decoder Cable 500 m

MAXICOM² ACCESSORIES DECODERS

Sensor & Pulse

APPLICATIONS

Decoders enable the Maxicom² system to extend its versatility. With the use of decoders, Maxicom² becomes a complete landscape and environmental control system.

FEATURES

Pulse Decoder

- Connected to a Pulse Flow Meter, sends the pulse back to the computer via the field interface (CCU).
- Flow control, SEEF (Search and Eliminate Extra Flow), instant flow measurement.
- Type of flow meter to be used : All types of flow meters sending dry contact Pulses. No voltage, no frequency.

Sensor Decoder

- To connect any type of sensor to the interface (CCU). Rain sensor, moisture sensor, Pump alarm, etc.
- Connected to the 2-wire path, the sensor will communicate to the computer all sensor status changes.
- Used to start, stop, pause or resume irrigation programs.

MODELS

DECSEN – Sensor Decoder
DECPUL – Pulse Decoder

SURGE PROTECTION

APPLICATIONS

MSP-1 protects Maxicom² components from electrical surges on a two-wire communication path. MGP-1 provides a mounting location for MSP-1 or other grounding wires directly to a grounding rod or pipe.

FEATURES

MSP-1 : Can be installed in controller pedestal or underground in conjunction with MGP-1
MGP-1 : Installed on grounding rod or pipe.

MODELS

MSP-1
MGP-1

ACCESSORIES

LAKE MANAGEMENT AERATORS AND FOUNTAINS

A growing global trend is to install surface or subsurface aerators in ponds or lakes that are less than 15 feet (5m) deep. Aerators provide the best vertical circulation to add dissolved oxygen to the water.
When a lake or pond loses its ecological balance, the effects or symptoms are readily apparent:

- Unsightly algae build-up
- Aggressive weed growth
- Unpleasant odor
- Depleted fish populations

If this water source is used to supply an irrigation system, the effects are compounded both functionally and aesthetically:

- Clogged sprinkler heads, valves and pumps
- Damaged Turf
- Loss of water storage capacity
- Odors, fish kills and insect breeding
- Diminished aesthetic appeal

BENEFITS

With the addition of dissolved oxygen into the water and the resulting convection patterns that reduce stratification, aeration systems impacts three factors:

- Oxygen: aerating the water encourages aerobic digestion of nutrients by adding oxygen, which significantly reduces sediments/sludge build-up
- Nutrients: potentially harmful nutrients are kept in ecological balance through oxidation and de-stratification
- Temperature: mixing warmer surface and cooler bottom water with dissolved oxygen breaks down stratification to further enhance the ecological balance of adding carbon dioxide at lower levels

MODELS

- **Aerating Fountains**

Available in 1, 2, 3 and 5 HP and 9 different patterns. Aerating fountains are designed to improve water quality as well as be aesthetically pleasing.

- **Industrial aerators**

Available 1, 2, 3 and 5 HP. Sub-Surface units are designed to work in settings where no fountain feature is desired.

- **Air Flo systems**

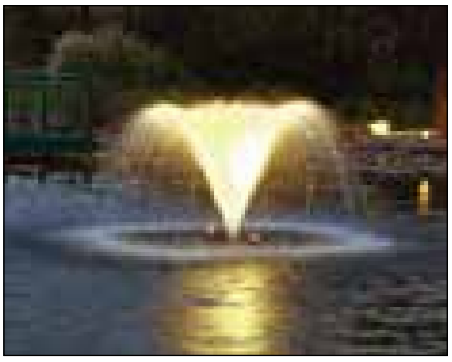
These systems consist of a ¾ HP compressor and diffuser manifolds.

- **Giant fountains**

Available in 10, 15, 25 HP and 5 different patterns

- **1/2hp fractional series**

Aerating Fountain & Mixer Series
Fractional Series comes standard with 5 systems in 1; 4 Aerating Fountain patterns & horizontal Mixer.
Operates in 40cm of water.
The Fractional Series Deluxe features a 2- light set. (LED light).



Fractional series

Industrial aerators

WEATHER STATIONS

APPLICATION

Rain Bird's new line of easy-to-install Weather Stations comes equipped with a full sensor array which provides accurate measurement of six different types of weather data: Air temperature, Wind speed, Solar radiation, Wind direction, Relative humidity, Rainfall. This line is ideal to use in combination with the central control software

COMMON FEATURES

- **Automatic ET Download/Selective Usage:** Automatically download weather data daily and calculate ET to determine irrigation times for the entire system or specific areas or stations.
- **Weather data reports:** Generate reports to show current or past weather conditions by the hour, day, week, month or year.
- **Unlimited data storage:** Store unlimited weather data at the Central Control
- **Cost Savings:** ET adjusted irrigation times apply only the water you need to replace the water lost from the soil reservoir. More efficient irrigation results in less water wasted for non-beneficial reasons resulting in reduced pump station operation, and lower energy costs.
- **Rain Bucket:** Allows rainfall from one day to be carried over to the following day(s) for more accurate ET calculations.

WS-PRO LT

SPECIFICATIONS

- **Compatible Modules :**
- Automatic ET
- Multiple Weather Station
- **Communication options :**
- hardwire up to 6000 meters
- **Power supplied required :**
- 16 to 22 V DC
- optional solar panel
- **Temperature Range :** -40° to +50°C
- **Air Temperature Sensor**
- Operating range : -40° to +50°C
- Accuracy : ±0.5°C
- **Relative Humidity Sensor :**
- Operating range 0-100%
- Accuracy : ±6% - 90% to 100% RH
  ±3% - 0% to 90% RH
- **Rain Gauge Sensor :**
- Resolution 1 mm
- **Solar Radiation Sensor :**
- Accuracy ±2,5%
- **Wind Direction Sensor**
- Range : 360° mechanical, 356° electrical
- **Wind Speed Sensor :**
- Starting threshold 0,78 ms-1

WS-PRO

FEATURES

- **Generate Alarm for ...**
- Rain
- High or Low Ambient temperatures
- High Winds
- Rainfall Intensity
- Soil Temperatures

... that exceed user-defined thresholds in user-defined time periods.

- **Automatic Shut Off/Turn On** – Rain Bird central control systems automatically shut OFF irrigation to the entire system or to specific areas when alarm conditions are detected at the weather station. They also automatically turn ON irrigation when weather conditions return to the acceptable range for irrigation.
- **Automatic Pause/Resume** – Rain Bird central control systems automatically suspend irrigation to the entire system or specific areas when alarm conditions are detected by the weather station. They also automatically resume irrigation when weather conditions return to the acceptable range for irrigation.
- **Automatic Notification** – The WS PRO weather station can automatically notify you at the central control when alarm conditions exist.
- **Weather data reports** – Generate reports to show current or past weather conditions by the hour, day, week, month or year.

SPECIFICATIONS

Communication options
- telephone
- hardwire up to 6000 mts

Power Supply Required
- 9,6 to 16 Vdc
- Optional solar panel

Temperature Range
-25° to +50°C

Air Temperature Sensor
-Operating range -25° to +50°C
- Accuracy ±1.5°C

Relative Humidity Sensor
- Operating 0-100%
- Accuracy ±6% - 90% to 100% RH
±3% - 0% to 90% RH

Rain Gauge Sensor
- Resolution 0,25mm

Solar Radiation Sensor
- Accuracy ±3%

Wind Direction Sensor
- Range 360° mechanical, 356° electrical,
- Accuracy ±4°

Wind Speed Sensor
- Starting threshold 0,4 ms-1

MODELS

WS-PRO
WS-PRO-LT

SELF-CLEANING PUMP SUCTION SCREENS

Self-Cleaning Pump Suction Screens and Float Assemblies

APPLICATIONS

- Aluminum foot valves available in 2", 3", 4", 6", and 8" sizes and in two configurations flanged or flanged on the discharge end with suction intake basket.
- Flanged self cleaning baskets available in 4", 6", and 8" sizes.
- Float assemblies available to accommodate 3", 4", 6", and 8" HDPE pipe complete with float, pipe hanger, and associated stainless steel hardware.

FEATURES

- Float constructed of green high-density thermal plastic polyethylene exterior shell with a closed-cell polyethylene interior providing superior UV degradation protection with reduced mineral deposits.
- Self cleaning intake basket prevents dirt and algae build-up that can cause pump failure due to cavitation.

Self-Cleaning Intake Basket

Performance Data									
Model	Flow m^3/h	Screen Length cm	Total Length	Sreen Diameter cm	Flange Size In	Return Inlet In	Minimum operating pressure bar	Weight Kg	Flow needed for Cleaning Sprays m^3/h
PSS200	74	28	64	41	4	1 1/2	2,4	26,3	4,6
PSS400	125	38	73	41	6	1 1/2	2,8	28,1	4,6
PSS600	170	41	83	61	8	1 1/2	2,8	46,3	4,6
PSS800	216	46	88	61	10	1 1/2	3,1	52,2	4,6
PSS1000	307	58	100	61	10	1 1/2	3,5	55,8	5,4
PSS1400	375	66	108	61	12	1 1/2	3,8	59,4	5,4
PSS1700	443	71	113	66	12	1 1/2	3,8	67,1	5,4

SERVICES

Water Savings Tips

We understand how complex it can be to plan and/or manage an irrigation system. You may not always know what your needs are, and may receive differing input. Correct decisions control costs and produce high quality results. Rain Bird can guide you to the right solution.

- Rain Bird has a complete range of expertise, leading edge technology, and global best practices.
- Proper design, product selection, product installation, product use, and properly trained staff produce aesthetic quality in the landscape environment, result in managed operating costs and efficient use of precious water resources.

RAIN BIRD ACADEMY PROGRAM

Rain Bird Academy offers a comprehensive selection of irrigation training courses for the golf course superintendent. Training classes can be valuable to the success of your organization as it is important to learn new troubleshooting techniques, operations and skills and refresh existing knowledge.

TRAINING PROGRAMS

- **Irrigation System – Level I (1 day)**
  Learn the basics of hydraulics as they apply to an irrigation system. Sizing pipes/valves. Calculate friction loss within pipes and fittings. Calculate system pressure requirement.

- **Programmer implementation - 230 V and 9 V (1 day)**
  All you need to know about controllers.

- **Advanced Irrigation Design – Level II (1 day)**
  High level design course that requires a working knowledge of hydraulics and design.

- **Irrigation systems with decoders (1 day)**
  You will learn how to operate decoder systems.

- **Golf MAXI® software (Stratus™, Nimbus™ and Cirrus™) – level 1 (1 day)**
  This course is designed to support the growth and development of the most advanced users. This level will help users capitalize on the full capability of their irrigation control system.

- **Golf MAXI® software (Stratus™, Nimbus™ and Cirrus™) – level 2 (1 day)**
  Advanced programming of RAIN BIRD Golf centralized management software.

FEATURES

- Our dedicated group of experts have many years of irrigation and training experience.
- Class size can range from 8 to 25, depending on the course
- Fee includes: facilities, lunch and snacks, educational support and materials.
- Contact your Rain Bird representative to get the annual schedule and to learn about our customized training sessions.

Please visit www.rainbird.eu/training
or e-mail services@rainbird.eu

RAIN BIRD ELECTRONIC BOARD STANDARD EXCHANGE PROGRAM

The Rain Bird Electronic Board Standard Exchange Program is a quick, economical and reliable way to replace interfaces or electronic boards of a system that is no longer available. Through distributors and contractors Rain Bird can replace a defective board with a reconditioned and tested board in the shortest timeframe possible.

FEATURES

1/ Operation

As soon as we receive the defective electronic board and the "Standard Exchange Program" order, we agree to:

- Replace the defective eletronic board with an equivalent model.
- Check the operation of the replacement electronic board.
- Ship the replace- ment hardware with in a maximum of 48 hours.

2/ Application Conditions

- Only hardware on the Board Exchange Program list is eligible for the Standard Exchange Program.
- This program is not applicable to hardware with the following defects: Rusted electronic board / Cracked electronic board / Burned electronic board / Damaged tracks / Missing electronic component.

3/ Warranty

- All of our standard exchanges are guaranteed for 6 months from the shipping date, based on the terms and conditions of the Rain Bird warranty.
- The warranty period is indicated on the sticker placed on the hardware. The warranty is void if this sticker is removed or erased.

4/ Terms and Conditions

- The prices indicated include the replacement hardware, packaging and return shipping.
- Cables, housings and connectors are not included in the Standard Exchange Program and, if possible, should not be returned to us.
- Prices are subject to change without notice.
- No credit note will be issued and no hardware will be taken back if exchanged hardware is not used.
- We will do our utmost to ensure that we have the hardware that is eligible for the Standard Exchange Program in stock; however this does not always guarantee immediate availability of all hardware.
- Always guarantee immediate availability of all hardware.
- The replacement hardware provided for the Standard Exchange Program can be new or reconditioned.

GLOBAL SERVICE PLAN

GSP provides you with a comprehensive support plan for your Central Control system and the peace-of-mind that your system is protected. The Global Service Plan is for all Rain Bird Central Controls.

- Your irrigation system will work efficiently and reliably, optimizing water consumption.We keep your investment safe by maintaining your equipment and keeping it in top condition.
- We keep your investment safe by maintaining your equipment and keeping it in top condition.
- We provide expert training and offer permanent support to your team.

Global Service Plan (GSP)	***GSP IQ***	***GSP Classic***	***GSP Plus***	***GSP IQ Premium***	***GSP Premium***
Contract	1 year	1 year	1 year	3 years	3 years
Technology Guarantee to keep your system up to date					
MI temporal license*	N/A	Y	Y	N/A	Y
Software update (within the same software platform)	N	N	N	Y	Y
PC Tower/Tablet renewal every 3 years	N	N	N	Y	Y
New products and new technology Free priority testing	Y	Y	Y	Y	Y
System Integrity to ensure things don't go wrong					
One on-site annual visit (training or start up)	N	N	Y	N	Y
Discount on additional on-site visit	Y	Y	Y	Y	Y
Discount on General Audit	Y	Y	Y	Y	Y
Discount on Irrigation Training	Y	Y	Y	Y	Y
Discount on Pump Station GSP Plan	N	N	Y	Y	Y
Remote Assistance if you need guidance					
Unlimited toll free GSP phone support	Y	Y	Y	Y	Y
Computer remote support	Y	Y	Y	Y	Y
Data system back-up	Y	Y	Y	Y	Y
Discount on Board Exchange Program	N	Y	Y	Y	Y
Discount on GSP Spare Parts	N	Y	Y	Y	Y

**with SiteControl only*

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 Rain Bird's web site at www.rainbird.eu

Abbreviations

The following abbreviations are used throughout this catalog:

Spray Heads

F
Full Circle
H
Half-Circle
LA
Low Angle Nozzle
PRS
Pressure Regulating Stem
Q
Quarter-Circle
SAM
Seal-A-Matic™ Check Valve
SQ
Square
SS
Stream Spray
T
Third-Circle
TQ
Three-Quarter Circle
TT
Two-Third Circle

Rotors

FC
Full-Circle
LA
Low Angle Nozzle
PC
Part-Circle
SAM
Internal Stopamatic®
or Seal-A-Matic™ Check Valve

Impacts

ADJ
Adjustable Distance Control
Diffuser Pin
LA
Low Angle Nozzle
PJ
Precision Jet Tube
TNT
Bearing Designation

Valves

PRS
Pressure Regulating Module

Central Controls

SAT
Satellite Controller
TW
Two Wire Communication
Path
WM
Wall Mount Cabinet

Note:
1: For all impact sprinklers, stated bar refers to the operating pressure at the nozzle.
2: Precipitation rates are given for reference only.
3: For spacing recommendations, consult your irrigation specialist.

The Intelligent Use of Water™

At Rain Bird®, we believe it is our responsibility to develop products and technologies that use water efficiently. Our commitment also extends to education, training and services for our industry and our communities.

The need to conserve water has never been greater. We want to do even more, and with your help, we can. Visit www.rainbird.com for more information about The Intelligent Use of Water™.

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