



# Landscape Irrigation Products

## 2009/2010





“When the well’s dry,  
we know the worth of water.”

– Benjamin Franklin



**In life it’s all about priorities,** and ours is to design and develop irrigation solutions that reinforce our commitment to The Intelligent Use of Water,<sup>™</sup> like our nozzles that reduce water use by up to 30%. Everything we do revolves around water, so we feel it is our responsibility to extend our commitment beyond products and technologies to include educational and training programs that encourage others to conserve. We want to do even more, and with your help we can. To partner with us, visit [www.rainbird.eu](http://www.rainbird.eu)

The Intelligent Use of Water.<sup>™</sup> — [ LEADERSHIP • EDUCATION • PARTNERSHIPS • PRODUCTS ]

**RAIN**  **BIRD**®



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## RAIN BIRD, QUALITY YOU CAN TRUST

### SAVE TIME, SAVE MONEY

*Reliable products that work right out of the box*

*Easy to install*

*Easy to use*

### TESTED QUALITY

All our products are rigorously field and laboratory tested before they are released. The result for you is no call-backs.

### INNOVATIVE PRODUCTS

We continue to develop innovative products such as Rain Curtain Technology™, Central Control Programming Systems and Pump Stations.

In addition, we have a full line of water saving drip irrigation products designed especially for Landscape Applications.

### ONE COMPANY, ONE MISSION: THE INTELLIGENT USE OF WATER™

Since 1933, our research, marketing and manufacturing resources have been committed to developing products and technologies that use water efficiently – we call this The Intelligent Use of Water™.

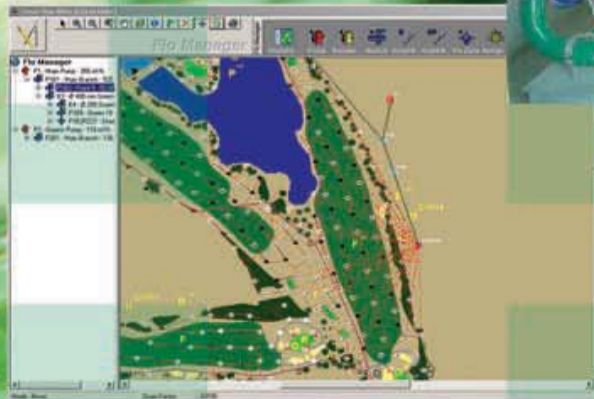
### RAIN BIRD EUROPE

Quality certified since 1994.



### A COMPLETE RANGE

Rain Bird offers water saving efficient irrigation system solutions for all applications: residential, municipal, sports fields, golf and agricultural.



## RAIN BIRD, YOUR INDUSTRY PARTNER



### LISTENING TO YOUR NEEDS

Rain Bird makes a point of quickly answering all your requests.

Call our technical services support team or visit our multilingual web site to get expert advice and the right solutions.

**e-mail: [services@rainbird.fr](mailto:services@rainbird.fr)**

**Website: [www.rainbird.eu](http://www.rainbird.eu)**

### THE SERVICES YOU NEED TO SUCCEED

Rain Bird is uniquely qualified to assist you with our comprehensive service plans and a full range of services to support you in everything from your project design to your daily system maintenance.

In addition, a large part of our service activity is devoted to training. Every year, Rain Bird trains irrigation professionals at all levels all across Europe.

### RAIN BIRD, THE INDUSTRY REFERENCE

**2004 European Championship in Portugal**

**2004 Olympic Games in Greece**

**2006 World Cup in Germany**

**2007 Rugby World Cup in France/U.K.**

**2008 European Championship in Austria and Switzerland**

**2008 Olympic Games in China**



*...in addition to sport complexes, the leading theme parks, municipalities, commercial sites and golf courses in Europe also choose Rain Bird.*

### Landscape Drip



Acetal fittings for 13-16 mm tubing

### Spray Heads



1804 with pre-installed 12-VAN nozzle  
1804 with pre-installed 15-VAN nozzle

### Controllers



STP Series

### Control Systems



IQ™ Central Control Software



ESP-LX Modular Controller

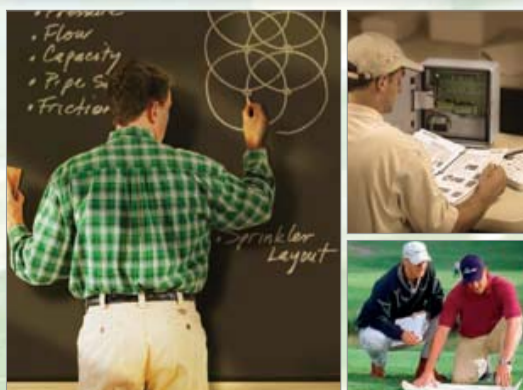


TBOS Sim



MDC 2 – Programming Software

### Services



Rain Bird Academy, Global Service Plan,  
Irrigation System Design, Technical  
Assistance, Standard Exchanges, Spare Parts



## 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](http://www.rainbird.eu)

## Abbreviations

The following abbreviations are used throughout this catalog:

### Spray Heads

**CST**  
Center Strip  
**EST**  
End Strip  
**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

### Central Controls

**SAT**  
Satellite Controller  
**TW**  
Two Wire Communication Path  
**WM**  
Wall Mount Cabinet

### Valves

**PRS**  
Pressure Regulating Module

*Note:*

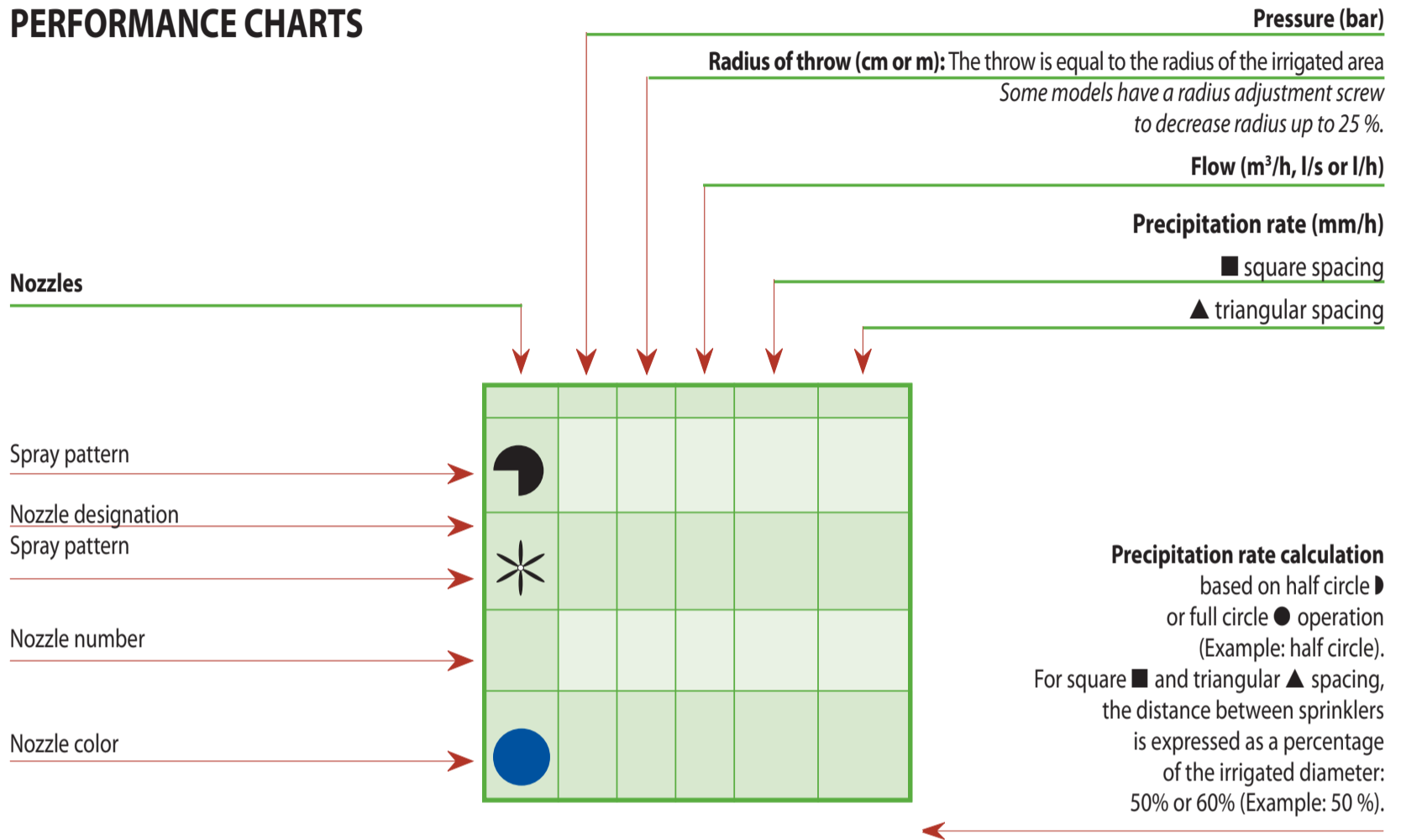
1: For all impact sprinklers, stated bar refers to the operating pressure at the nozzle.

2: Precipitation rates are given for reference only.

3: For spacing recommendations, consult your irrigation specialist.

### 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 that pressure, flow rate and radius data for its products were determined and listed in accordance with ASAE Standard S398.1, Procedure for Sprinkler Testing 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  
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# LOW VOLUME IRRIGATION AND ACCESSORIES



## Major Products

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



## Water Savings Tips

- Drip products deliver water directly to the plant root zone. From large trees to small perennials, using a variety of emitters with different flow rates allows you to accommodate the watering needs of different plant materials.
- The use of drip products eliminates overspray onto buildings, walkways, and roads. Property damage, soil erosion, water run-off and potential litigation caused by overspray are decreased.
- By placing water only where it is needed, drip products do not waste water on open spaces between plants in sparse planting applications. Water evaporation is also reduced.

## 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 RAIN BIRD LOW VOLUME IRRIGATION SYSTEM

1 – Control zone start-up kit

1a: Low Flow Valve

1b: Pressure Regulating Filter

2 – Easy Fit Female Adapter

3 – Easy Fit Coupling

4 – Tubing Cutter: T135SS

5 – Plug: EMA-GPX

6 – Installation Tool: XM-Tool

7 – C-12: 16mm tie-down stake

8 – Easy fit elbow

9 – Barb connector: SPB-025

10 – PC Module

11 – XB-05PC, XB-10PC, XB-20PC drippers

12 – ¼" Tubing Stake

13 – Diffuser Bug Cap

14 – Xeri-Pop

15 – Easy fit tee

16 – Xeri PC Nozzle Adapter with Polyflex Riser

17 – Xeri PC Nozzle

18 – EMT-6XERI

19 – ¼" Tubing

20 – Diffuser Bug Cap

21 – DT-025-1000 Distribution tubing

22 – BF-3 Tee coupling

23 – BF-1 Union coupling

24 – XS-090, XS-180, XS-360 micro Spray

25 – SXB-180, SXB-360 micro sprinkler

26 – PFR/RS Riser/stake assembly

27 – BF-2 Elbow coupling

28 – XS-360TS-SPYK micro spray on spike

29 – SXB-360-SPYK micro sprinkler on spike

30 – Jet Spike micro spray on spike

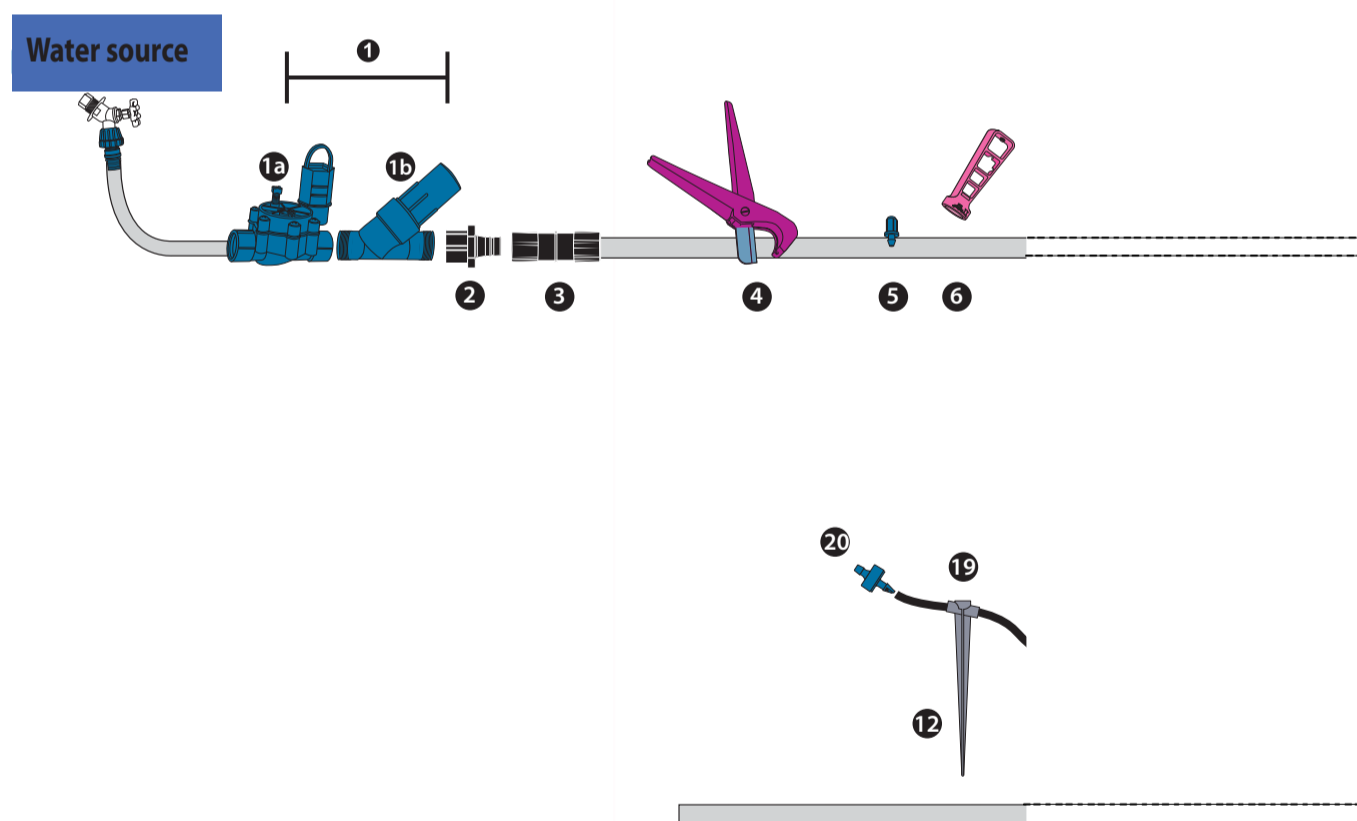
31 – Easy fit removable flush cap

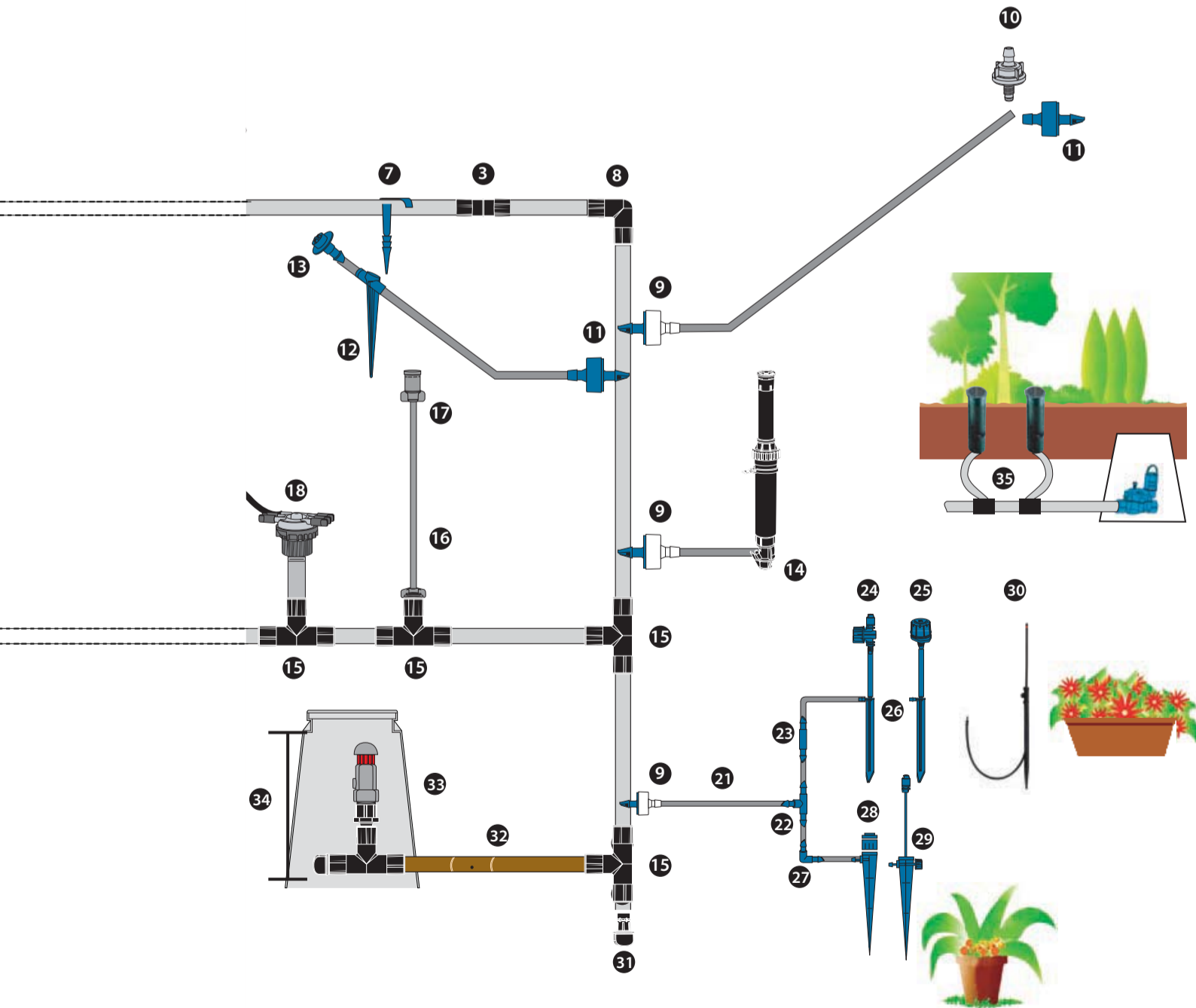
32 – Inline emitter tubing

33 – Air relief valve

34 – Valve box

35 – RWS root watering system





## XCZ-075 PRF, XCZ-100-PRF

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

### APPLICATIONS

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.

### FEATURES

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

### SPECIFICATIONS

Pressure: 1,4 to 10,3 bars

Flow: 3/4" units: 45,4 to 1136 liters/hour; 0,01 to 0,32 l/s

1" units: 681 to 3407 liters/hour; 0,19 to 0,95 l/s

Filtration: 75 microns

Regulated pressure: 2,0 bar (3/4") or 2,8 bar (1")

### MODEL

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



XCZ-075 PRF



XCZ-100-PRF



Minimum Inlet Pressure for 2,8 bar (XCZ-100-PRF) or 2,0 bar (XCZ-075-PRF) Outlet Pressure

XCZ-075-PRF XCZ-100-PRF

Flow, l/hr	Flow, l/s	Bar	Bar
45,4	0,01	2,37	-
227	0,06	2,49	-
681	0,19	2,63	2,96
1136	0,32	2,99	3,04
1817	0,50	-	3,23
2271	0,63	-	3,34
3407	0,95	-	3,81



## 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

### 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 1/2" diameter seat for flawless operation at low flow rates.
- Double-filtered pilot flow design for maximum reliability

### SPECIFICATIONS

Flow : 45,42 to 1136 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)



LFV-075

### DIMENSIONS

Height : 11,4 cm

Length : 10,7 cm

Width : 8,4 cm

### MODEL

LFV-075: 3/4" (20/27) female threaded inlet and outlet

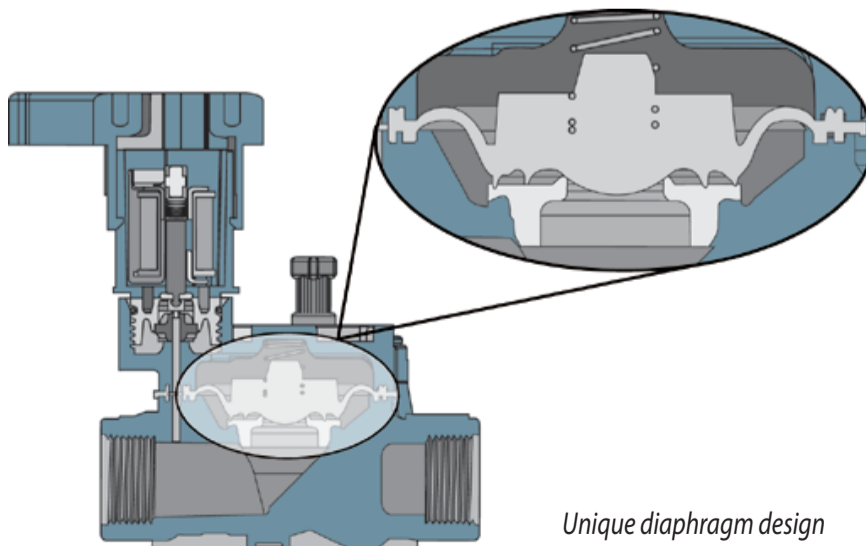
LFV-075-9V: 3/4" (20/27) female threaded inlet and outlet, latching solenoid



LFV-075-9V

### Friction Loss Characteristics

Flow, l/hr	Flow, l/s	LFV-075, 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



### 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
- Available in either the static RBY filter or the self-cleaning Back Flush Filter, each of these units regulates pressure to a nominal 2 bar
  - P/R RBY Filter Cap has sealing o-ring and unthreads to provide access to the filter element for easy cleaning
  - P/R Backflush Filter provides self-cleaning action with every cycle, as debris is flushed every time the system is turned on and off
- 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: 114 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  
 PRF-075-BFF: 3/4" self-cleaning Back Flush Filter with pressure regulator  
 I-PRF-100-RBY: 1" RBY pressure regulating filter  
 I-PRF-100-BFF: 1" self-cleaning Back Flush Filter with pressure regulator



#### ACCESSORIES

RBY-200MX: 75 micron replacement screen  
 BFF-200MX: 75 micron replacement screen

#### Friction Loss Characteristics

Flow l/hr	PRF-075-RBY bar	PRF-100-RBY bar	PRF-075-BFF bar	PRF-100-BFF bar
45	0,21	N/A	0,22	N/A
227	0,28	N/A	0,28	N/A
681	0,42	0,06	0,43	0,03
1136	0,69	0,14	0,71	0,14
1817	N/A	0,26	N/A	0,28
2271	N/A	0,36	N/A	0,37
3407	N/A	0,83	N/A	0,87

### BASKET FILTER

#### APPLICATIONS

This new, innovative filter provides reliability and reduces labor and maintenance costs.

#### FEATURES

- Top contains clear indicator that goes from green to red when filter is full, telling you when to clean the filter. This reduces maintenance and takes the guesswork out of cleaning the filter.
- 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.

#### SPECIFICATIONS

Pressure: 0 to 10.3 bars  
 Flow: 1" Basket Filter: 681 to 4542 liters/hour

#### MODELS

QKCHK-100 (1" Basket Filter)  
 QKCHK-100M (150 micron screen)  
 QKCHK-200M (75 micron screen)

#### Friction Loss Characteristics

##### QKCHK-100

Flow Rate, l/hr	75 micron, bar
681	0,01
1136	0,02
1590	0,04
2044	0,06
2498	0,08
3179	0,14
3861	0,21
4542	0,30







## PLASTIC FILTERS WITH SCREENS OR DISCS

1" ¼ – 1" ½ – 2"

### APPLICATIONS

In-line filters with male thread made of polyethylene, for use in drip irrigation. Allows for optimal quality filtered water for drip irrigation and avoids clogged drip emitters, micro-sprays and microsprinklers.

Two types of filtration available : cartridge with screen or cartridge with disc, depending on water quality.

### FEATURES

- The filter is manufactured from raw materials that make it durable to time, solar radiation and chemicals.
- UV resistant, polyethylene body.
- Very easy to install with easy access to the filter cartridge for cleaning.
- No tool required to open or close the filter.
- Water flow direction clearly indicated on the filter (arrow).
- Easy-to-clean filter.
- 3 sizes available: 1" ¼, 1" ½ et 2"
- 2 types of filtration : disc type or screen type:
- Connection recommended after the valve.
- Sold with red, 125 micron disc type cartridge, or red 125 micron screen type cartridge
- Replacement cartridges for screen or disc types :
  - Screen : 125 or 250 micron for 2" and 1" ½ filters, and 125 micron for 1" ¼ filters
  - Disc : 125 micron for 2", 1" ½ and 1" ¼ filters.
- Cartridges (disc or screen) are colour coded according to size and filtration.

### SPECIFICATIONS

#### 2" Large Filter

Operating Pressure: from 0.5 to 8 bar  
Maximum flow : 20 m<sup>3</sup>/hr with screen cartridge  
25 m<sup>3</sup>/hr with disc cartridge

#### Dimensions

Complete Filter  
Length: 250 mm  
Width: 190.1 mm

Disc Cartridge :  
Height : 186.5 mm  
Width : 82 mm  
Disc surface : 404 sq cm

Screen Cartridge :  
Height : 191 mm  
Width : 80 mm  
Screen surface : 274 sq cm

#### 1" ½ Large Filter

Operating pressure: from 0.5 to 8 bar  
Maximum flow: 14 m<sup>3</sup>/hr with screen cartridge  
14 m<sup>3</sup>/hr with disc cartridge

#### Dimensions

Complete Filter  
Dimensions :  
Length : 232 mm  
Width : 161 mm

Disc Cartridge :  
Height : 186.5 mm  
Width : 82 mm  
Disc surface : 281 sq cm

Screen Cartridge :  
Height : 169.5 mm  
Width : 62 mm  
Screen surface : 185 sq cm

#### 1" ¼ Special Filter

Operating pressure: from 0.5 to 6 bar  
Maximum Flow: 8 m<sup>3</sup>/hr with screen cartridge  
6 m<sup>3</sup>/hr with disc cartridge

#### Dimensions

Complete Filter  
Length : 200 mm  
Width: 142 mm

Disc Cartridge :  
Height : 161 mm  
Width : 50 mm  
Disc surface : 199 sq cm

Screen Cartridge :  
Height : 170 mm  
Width : 59 mm  
Screen surface : 152 sq cm



### MODELS - 2" FILTERS

- 3387/0126 : 2" filter with 125 micron (120 mesh) screen filter
- 3394/0126 : 2" filter with 125 micron (120 mesh) disc filter
- 3381/6120 : 125 micron (120 mesh) screen for 2" filter
- 3481/6060 : 250 micron (60 mesh) screen for 2" filter
- 3484/1206 : 125 micron (120 mesh) disc for 2" filter

### MODELS - 1" ½ FILTERS

- 3387/0125 : 1" ½ filter with 125 micron (120 mesh) screen filter
- 3394/0125 : 1" ½ filter with 125 micron (120 mesh) disc filter
- 3481/5120 : 125 micron (120 mesh) screen for 1" ½ filter
- 3381/5060 : 250 micron (60 mesh) screen for 1" ½ filter
- 3484/1205 : 125 micron (120 mesh) disc for 1" ½ filter

### MODELS - 1" ¼ FILTERS

- 3384/0124 : 1" ¼ filter with 125 micron (120 mesh) screen filter
- 3386/0154 : 1" ¼ filter with 125 micron (120 mesh) disc filter
- 3481/2120 : 125 micron (120 mesh) screen for 1" ¼ filter
- 4482/3242 : 125 micron (120 mesh) disc for 1" ¼ filter

		Screen	Disc	Cartridge Micron size	Pressure atm	Discharge m <sup>3</sup> /h
1" ¼	Complete Filter	X		125	6	8
	Replacement Cartridge (micron)	X	X	125	6	6
1" ½	Complete Filter	X		125	8	14
	Replacement Cartridge (micron)	X	X	125	8	14
		X		250		
2"	Complete Filter	X		125	8	25
	Replacement Cartridge (micron)	X	X	125	8	20
		X		250		



### 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<sup>3</sup>/h

Inlet pressure:

- PSI-M20: 1.5 to 7 bar
- PSI-M25: 2.0 to 7 bar

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

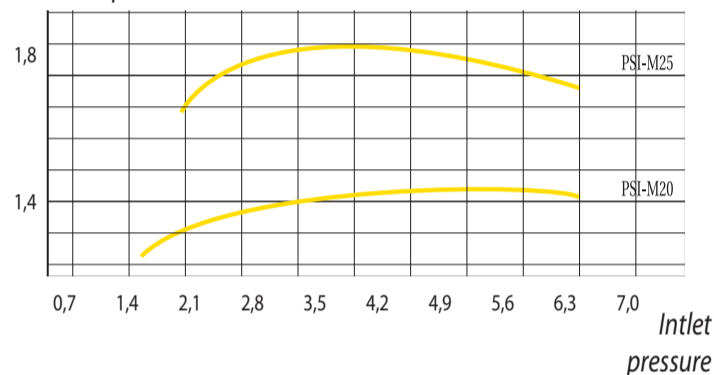
#### MODELS

- 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



### 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
- Accepts any Rain Bird 16 mm barb insert fitting, Rain Bird Easy Fit compression fittings, universal fittings and lock type fittings
- 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%

#### DIMENSIONS

External diameter: 16 mm  
Internal diameter 14.80 mm  
Wall thickness: 1.2 mm

#### BLANK BROWN TUBING

#### SPECIFICATIONS

- UV-resistant low-density polyethylene material
- Two layers: Black internal coating and brown external coating
- Brown color blends with non-turf landscape and/or mulch
- Operating water pressure rating: up to 4 bar
- 100% Crack-resistant
- UVA-resistant. Black carbon = 2.5 %

#### DIMENSIONS

External diameter: 16 mm  
Internal diameter 14.85 mm  
Wall thickness: 1.15 mm

#### MODELS

- DBL025: Blank Drip Tubing Black 25 m coil
- DBL050: Blank Drip Tubing Black 50 m coil
- DBL100: Blank Drip Tubing Black 100 m coil

- DP16025: Blank Drip Tubing Brown 25 m coil
- DP16050: Blank Drip Tubing Brown 50 m coil
- DP1600: Blank Drip Tubing Brown 100 m coil



## RAIN BIRD DRIPLINE SERIES

Inline Pressure Compensating Emitter Tubing:  $\varnothing$  16 mm – Unmatched Performance

- Easy to install, pressure-compensating inline emitter tubing used to irrigate ground cover, mixed plantings, hedge rows and more
- Superior clog resistance ensures plant health and reduces maintenance
- Longer runs can be irrigated with higher uniformity through consistent flow rates over the entire lateral length

### FEATURES

#### • Installation and Maintenance

- Spacings : 33, 40 or 50 cm
- Easier and faster:
  - Larger maximum length, less elements per installation.
  - Easier to uncoil the pipe making it much easier to lay, No kink and Loops
  - 1.15 mm. The balance between a high mechanical damage resistance and good flexibility.
- Cylindrical shape :
  - the emitter 'welds' to the inner circumference of the tubing, keeping the emitter securely in place
  - larger surface area for filtration throughout 360°
  - faster installation because the emitter is easily visible.
- No Automatic Flush Valve needed: Rain Bird Drip Line filter surface throughout its 360° circumference is by far the largest of the market and means water can always be pulled into the emitter.
- Use an Air Relief Valve Kit when installation is below soil (see p.18)

#### • Reliability

- The best clog resistance in the market: Patented pressure compensating system allows that critical water passages remain large and permanent at high pressure and turbulent flow also in the regulated zone.

- Pressure compensation : ensures consistent flow from each inline emitter throughout the entire length of tubing run.
- Turbulent flushing of all compensating water passages. Any contaminant inside the emitter is flushed through the emitter outlets at the beginning and at the end of every watering cycle to assure long-term reliability. Self-Cleaning when clogging occurs.
- Dual outlet ports : eliminate the risk of backsiphoning debris into the tubing.
- Eliminate need for air relief valve when tubing is installed at grade and mulch over. Every dripper act as a micro air relief preventing clogging from back-siphonage.
- Two layers : brown outside and black inside
  - better resistance to U.V
  - less algae formed in the tubing
  - crush-resistant.

### SPECIFICATIONS

Pressure: 0.8 to 4 bar.  
 Coil length: 100 m  
 Flow: 2.2 l/h  
 Recommended filtration: 125 microns  
 Maximum temperature  
 - water: 43 °C  
 - ambient: 51 °C

### DIMENSIONS

Outside diameter: 16 mm  
 Inside diameter: 13.7 mm  
 Wall thickness: 1.15 mm

### MODELS

- DP162233100: 100 m length, 16 mm outside diameter, 33 cm emitter spacing, 2.2 l/h flow
- DP162240100: 100 m length, 16 mm outside diameter, 40 cm emitter spacing, 2.2 l/h flow
- DP162250100: 100 m length, 16 mm outside diameter, 50 cm emitter spacing, 2.2 l/h flow



### PERFORMANCE

#### Maximum run length

Inlet water pressure (bar)	Slope (%)	Flow 2.2 l/h Emitter spacing 33 cm	Flow 2.2 l/h Emitter spacing 40 cm	Flow 2.2 l/h Emitter spacing 50 cm
1,5	-3	91	108	132
	-2	89	105	128
	-1	86	101	123
	0	83	97	116
	1	79	92	110
	2	76	88	103
2,0	3	73	83	97
	-3	107	127	154
	-2	105	124	150
	-1	102	121	146
	0	100	117	140
	1	97	113	135
2,5	2	94	109	129
	3	91	105	123
	-3	119	141	171
	-2	117	138	167
	-1	115	135	163
	0	112	132	158
3,0	1	110	128	153
	2	107	125	148
	3	105	121	143
	-3	129	153	185
	-2	127	150	182
	-1	125	147	178
3,5	0	123	144	173
	1	120	141	168
	2	118	138	164
	3	116	134	159
	-3	138	163	198
	-2	136	160	194
4,0	-1	134	158	190
	0	132	154	186
	1	129	152	181
	2	127	148	177
	3	125	146	173
	-3	145	172	208
4,0	-2	144	170	205
	-1	142	167	201
	0	140	164	197
	1	137	161	193
	2	135	158	189
	3	133	155	185



Diagram of Rain Bird Inline emitter in operation

NOTE: The above chart indicates the maximum permissible dripline run length to obtain a minimum pressure of 0.8 bar at the end of the line.

1. Select the inlet pressure
2. Select the slope (0=flat surface, -1 = downslope of 1%, etc.)
3. Consult the maximum run length in the emitter spacing column.

## MDCF SERIES

Easy Fit Compression Fittings - Make the right connection

### APPLICATIONS

Easy Fit Compression System is designed to work with 16 mm tubing and dripline while reducing effort required to insert the tubing into the fitting by almost 50%. The system offers a simplified inventory program and unparalleled flexibility: 3 Easy Fit Fittings plus 5 Adapters comprise over 160 different configurations!

### FEATURES

- Time and effort are saved: 50% less force is required to connect tubing and fittings versus competitive compression fittings.
- Inventory is reduced: multi diameter compression fittings accept all 16 mm tubing and drip.
- Flexibility is increased: just a few easy fit fittings and adapters are needed to make over 160 connections, accommodating countless installation situations.
- Works with Rain Bird Landscape Dripline and 16 mm tubing.
- Fittings are molded from UV-resistant ABS Material with a Buna Rubber Seal for long-term, leak-free connections.
- Removable Flush Caps can be used to flush end of line and temporarily cap off lines for later expansion.
- Unique patent pending design.

### OPERATING RANGE

Pressure: 0 to 4,1 bar  
Accept tubing O.D. 16-18 mm



### MODELS

Easy Fit Fittings  
MDCF COUP: Coupling  
MDCF EL: Elbow  
MDCF TEE: Tee

### Easy Fit Adapters

MDCF50MPT: 1/2" Male Pipe thread Adapter  
MDCF75MPT: 3/4" Male Pipe thread Adapter  
MDCF50FPT: 1/2" Female Pipe thread Adapter  
MDCF75FPT: 3/4" Female Pipe thread Adapter  
MDCF75FHT: 3/4" Female Hose Thread Adapter  
MDCF CAP: Removable Flush Cap For Easy Fit Fittings

*Note: Easy Fit Adapters are not barbed fittings. They are to be used only with Easy Fit Compression Fittings.*

### PERFORMANCE

#### Friction Loss Per Fitting

Flow (L/h)	Loss (Bar)
227,1	0,03
454,3	0,04
681,4	0,06
908,5	0,10
1135,6	0,13
1362,8	0,18

## 16A-FDV

Filtered Drain Valve  
(see page 86)



## Air/Vacuum Relief Valve

### APPLICATIONS

To ensure optimal performance of sub-surface installation\*, it is important to include an air/vacuum relief valve. The valve will allow air to escape the pipeline, thus preventing water hammer or blockage. The valve will allow air to enter the lines as water evacuates the lines at shutdown. This prevents vacuum suction of dirty water from occurring.

*\*Rain Bird does not recommend sub-surface installation for turf-grass.*

### FEATURES

- Kit includes 3/4" air relief valve, Easy Fit Tee, and Flush Cap.
- Use with Rain Bird Landscape Dripline emitter tubing.
- Made of quality rust-proof materials.

### MODEL

AR Valve Kit





## LOCK TYPE FITTINGS

Fittings for 13-16mm tubing

### APPLICATIONS

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

### 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 1/2" male threaded
- BF-62-50 lock: 16 mm quick union coupling x 1/2" female threaded



- BF-82-75 lock : 16 mm quick union coupling x 3/4" male threaded
- BF-62-75 lock : 16 mm quick union coupling x 3/4" female threaded
- BF-plug lock: Quick end-plug for 16 mm tubing

## BF-SERIES

For 13-16 mm Tubing

### APPLICATIONS

Used to connect 13-16 mm tubing

### MODELS

- BF-32-16: 13-16 mm barb tee
- BF-12-16: 13-16 mm barb connector
- BF-22-16: 13-16 mm barb elbow



## BFA-SERIES

For 13-16 mm Tubing

### APPLICATIONS

Used to connect 13-16 mm tubing, these acetal fittings are more resistant to wear.

### MODELS

- BFA-32-16: 13-16 mm acetal barb tee
- BFA-12-16: 13-16 mm acetal barb connector
- BFA-22-16: 13-16 mm acetal barb elbow



## CLAMP

For 13-16 mm Tubing

### APPLICATIONS

Clamps are used for 13-16 mm tubing.

### MODEL

Clamp for 13-16 mm tubing.



## BF-62, BF-72, BF-82, BF-92, BF-102 SERIES

Manual valves for low-volume irrigation systems

### APPLICATIONS

- BF-62/BF-82: Used to connect 13-16 mm tubing to a water supply point and to manually open and close the system.
- BF-72/BF 92: Used to connect two sections of 13-16mm tubing and to manually open and close the system.
- BF-102: used to open and close your low-volume irrigation system (eg placed before control zone kit)

### FEATURES

Manual valve in polyethylene  
Rapid ¼ - turn on/off control

### MODELS

BF-62: ¾"-female threaded x barb manual valve for 13-16 mm tubing  
BF-72: 13-16 mm manual valve with barbed inlet and outlet  
BF-82: 13-16 mm barb x ¾"-male threaded manual valve for 16 mm tubing  
BF-92: ¾" Lock type  
BF-102: ¾"male threaded x ¾" male threaded manual valve



BF-62



BF-82



BF-72



BF-92



BF-102

## BF-52

¾" Female Adapter for 13-16 mm Tubing

### APPLICATIONS

Can be screwed directly onto a ¾" male faucet to connect 13-16 mm tubing.

### MODEL

BF-52: ¾" female adapter for 13-16 mm tubing.



## R-34 SERIES

¾" Male Adapter for 13-16 mm

### APPLICATIONS

Used to directly connect 13-16 mm or 9-12 mm tubing to a faucet or any distribution component with a ¾" female outlet (filter, electric valves, pressure regulators, etc.).

### MODEL

R-34-16: ¾" male tubing adapter - 13-16 mm tubing





## 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 mm tubing

### FEATURES

- Easily installed onto the end of 13-16 mm tubing.
- Easily removed for flushing

### SPECIFICATIONS

Pressure: 0 to 3.5 bar

### MODEL

700-CF-22: End Closure for 13-16 mm tubing



## End Plug

For 13-16 mm Tubing

### APPLICATIONS

This End-Plug is used at the end of 13-16 mm tubing.

### FEATURES

- Easily installed onto the end of 13-16 mm tubing
- Easily removed for flushing

### MODEL

End Plug 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.

### FEATURES

- Made of bright colored plastic to make it easy to find
- Specially designed for Rain Bird low volume irrigation products



### 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.

### FEATURES

- Lightweight
- Nylon handles
- Stainless steel blades

### SPECIFICATIONS

Length: 21,5 cm

### MODEL

T135SS : tubing cutter



## HOLE PUNCH

For 13-16 mm Tubing

### APPLICATIONS

Emission device installation punch for 13-16 mm tubing.

### MODEL

Hole Punch for 13-16 mm tubing



## 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 (DT-025-50 / DT-025-1000)
- 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

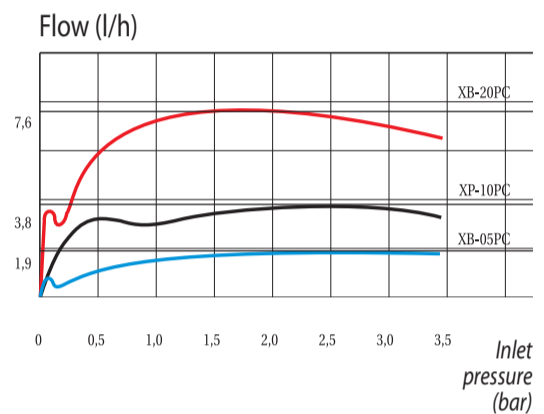
Pressure: 1 to 3.5 bar  
Flow: 1.33 l/h to 7.20 l/h

### 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



## PC-12, PC-18, PC-24 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.

- The only emitters with self-piercing barbs, making them the easiest to install using the Xeriman™ tool.
- Most compact and unobtrusive emitters.

### FEATURES

- Flow-rates from 45,42 to 90,84 l/h.
- 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 (DT-025).
- 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: 37,85 to 90,84 l/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  
 PC-24: (Orange) 90,84 l/h



### 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	68,13	150
PC-24	Barb/orange	90,84	150

Self-piercing barbs for quick one-step emitter insertion into 1/2 or 3/4 drip tubing

## 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 (DT-025).
- 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



## SXB-180, SXB-360 SERIES

Threaded and Barbed Micro-Sprinklers with Distinct Streams and Adjustable Flow

### APPLICATIONS

Micro-sprinklers available in 180° and 360° patterns. Adjustable flow and radius are controlled by turning outer cap. Ideal for mass shrub plantings, trees, containers and flower beds.

### FEATURES

- Distinct streams
- Can be cleaned by unscrewing the cap from base unit
- 10-32 self tapping threads fit into stake and riser assembly (PFR/RS): SXB-180, SXB-360
- Barb connection for installation into 13-16 mm tubing: SXB-360-025

### SPECIFICATIONS

Pressure: 1 to 2 bar

Flow: 0 to 49 l/h

Radius:

SXB-180: adjustable from 0 to 49 cm

SXB-360: adjustable from 0 to 46 cm

SXB-360-025: adjustable from 0 to 46 cm

### MODELS

SXB-180: 180° micro sprinkler;

5 distinct streams (thread)

SXB-360: 360° micro sprinkler;

8 distinct streams (thread)

SXB-360-025: 360° micro sprinkler;

8 distinct streams (barb)



### PERFORMANCE



bar	SXB-180		SXB-360/SXB-360-025	
	cm	l/h	cm	l/h
1,0	0-37	0-33	0-19	0-33
1,5	0-50	0-41	0-32	0-41
2,0	0-63	0-49	0-46	0-49

## SXB-360 SPYK

Adjustable Flow Micro-Sprinkler on Spike

### APPLICATIONS

This adjustable Micro-Sprinkler with full circle pattern is shipped ready to install. Ideal for shrub plantings, trees, containers and flower beds.

### FEATURES

- Micro-Sprinkler mounted on 12.7cm spike
- 360° spray pattern
- Adjust flow and radius by turning outer cap
- Clean by completely unscrewing cap from base unit
- Excellent distribution uniformity

### SPECIFICATIONS

Pressure: 1 to 2.0 bar

Flow: adjustable from 0 to 49l/h

Radius: adjustable from 0 to 46 cm

### MODEL

SXB-360-SPYK: Adjustable flow Micro-Sprinkler on spike



### PERFORMANCE



bar	cm	l/h
1,0	0-19	0-33
1,5	0-32	0-41
2,0	0-46	0-49



## 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

bar	90°		180°		360°	
	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-360TS-SPYK

Adjustable Flow Micro-spray on Spike

### APPLICATIONS

This micro-spray with full circle pattern is shipped ready to install. Ideal for flower beds, ground cover, potted plants, etc.

### FEATURES

- Micro-spray mounted on 12.7 cm spike
- 360° spray pattern
- 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 90 l/h  
Radius: adjustable from 0 to 2.0 m

### MODEL

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



bar	m	l/h
1,0	0-1,4	0-64
1,5	0-1,8	0-78
2,0	0-2,0	0-90

## 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)

### MODELS

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



### PERFORMANCE

bar	XS-90		XS-180		XS-360	
	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.



## RISER STAKE ASSEMBLY

Ultra stake

### APPLICATIONS

Adjustable riser and stake in PE to install devices such as micro-sprays or micro-sprinklers in planter beds. Ideal for landscaped gardens where plant heights and variety of stake lengths are required to raise watering emitters above the plant foliage.

### FEATURES

- The riser and stake is a combination of a stake with an adjustable riser. The riser is connected to the 13-16mm tubing by distribution tubing (DT-025 models). The stakes may be spot placed away from the main supply line where irrigation of plants & shrubs is required.

- Easy to install, it is the perfect product to adapt the watering to plant growth during the season.

### MODELS

Ultra stake 200 mm : Maximum Total Height : 355mm ( Stake : 200 mm + riser 155mm)  
Ultra stake 310 mm : Maximum Total Height : 520mm (Stake 310 mm + riser 210mm)





## DT-025-50 / DT-025-1000

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

DT-025-50: 4-5,7 mm distribution tubing;  
15 m coil.

DT-025-1000: 4-5,7 mm distribution tubing;  
300 m 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  
(DT-025-50/DT-025-1000)
- Flanged shield directs water to the desired  
location

### SPECIFICATIONS

Pressure: 0 to 1.7 bar

### MODEL

DBC-025 diffuser for  
4-6 mm tubing



## 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 1/4" distribution tubing can readily connect to 1/2" or 3/4" polyethylene tubing or to a multi-outlet manifold (EMT-6XERI). Connections to polyethylene tubing are accomplished with an SPB-025 1/4" self-piercing barb connector.
- The flexibility of 1/4" 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 1/4" distribution tubing (DT 025).
- A durable, plastic snap-collar secures the 1/4" tubing to the outside of the Xeri-Pop case.

#### • Design Solutions

- Xeri-Pops work with Rain Bird's 5' 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

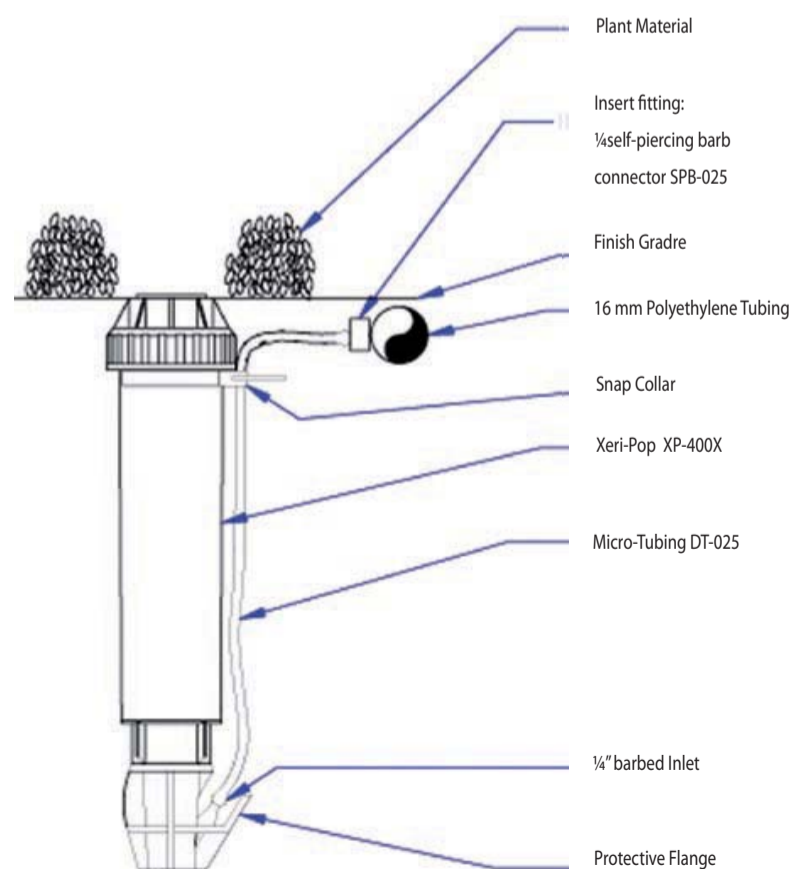
- Pressure: 1,4 to 3,4 bars
- Filtration: Depends on Nozzle used with Xeri-Pop

### MODELS

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

### NOZZLE OPTIONS

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





## EMT-6X

6 Outlet Manifold

### APPLICATIONS

1/2" (15/21) inlet threads onto 1/2" riser and provides a manifold with six free-flowing 1/4" 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™ Retrofit Kit

For 1800™ Spray Heads

### APPLICATIONS

Permits convenient conversion to drip tubing when used with compression adapter.

### FEATURES

- Provides 2,0 bar pressure regulation and 75-micron screen that is easily accessible.
- Internal assembly drops into any 1804, 1806 or 1812 spray head body to easily retrofit existing system to Low Volume application products.
- Can be installed above or below grade.
- If retrofit flow is less than 0,75 m<sup>3</sup>/h, replace electronic valve with Rain Bird Control Zone Kit. (see XCZ-075)

### SPECIFICATION

Flow: 0,11 to 0,91 m<sup>3</sup>/h;  
Inlet Pressure: 1,0 to 4,8 bar

### DIMENSIONS

1/2" (15/21) female-threaded inlet  
1/2" (15/21) male-threaded swivel outlet  
Height: 17,8 cm  
Width: 5,1 cm

### MODELS

1800 RETRO : 1800™ Retrofit Kit



## 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



## XPCN Series

Xeri-Pressure compensating 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



Nozzles with Screens

### FEATURES

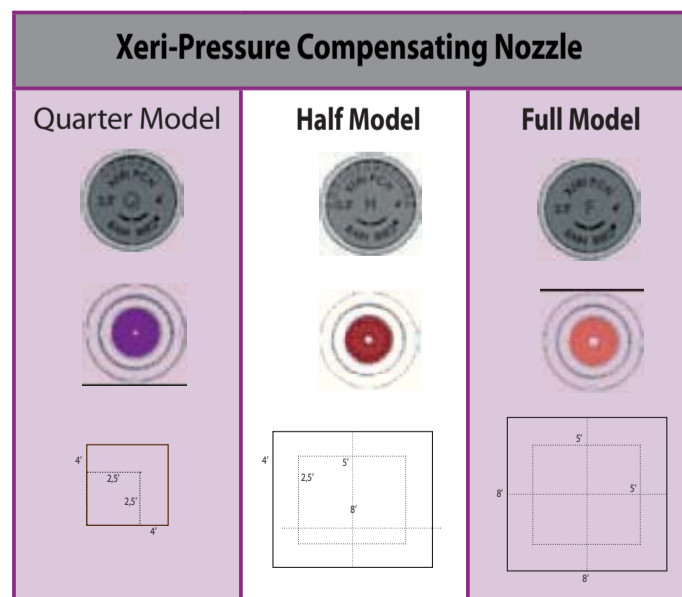
- Pressure compensation design delivers uniform flow over the pressure range
- Available in 3 models: Quarter, Half and Full patterns with matched precipitation rate
- Virtual no-mist performance from 1,4 to 3,4 bar
- 2 throw distances in each nozzle. One simple click lets you adjust from 0,8 m or 1,2 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

### OPERATING RANGE

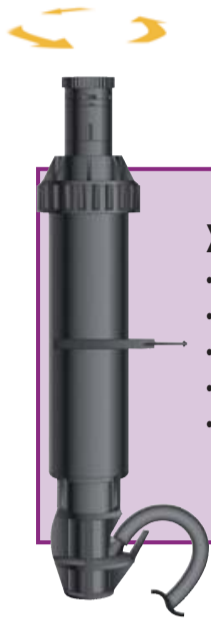
Operating Range  
 Pressure: 1,4 to 3,5 bars  
 Flow: 22,7, 45,4 and 90,8 l/h  
 Required Filtration: 375 micron

### MODELS

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

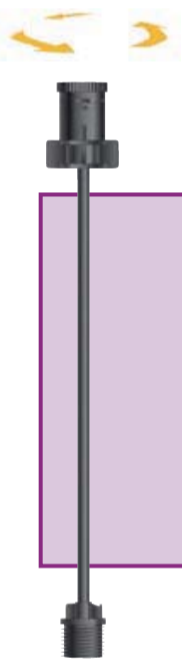






### Xeri-Pop Spray Heads

- Vandal Resistant
- Durable Connection
- PE
- Fed by 1/4" Tubing
- 4" and 6" Models



### Polyflex Riser

- Durable Connection
- PE
- Uses PFR Adapter



### 1800 Series Spray Heads

- Vandal Resistant
- Durable Connection
- PE

#### XPCN 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
Q	1,4	0,8	24	42
	2,1	0,8	28	48
	2,8	0,9	28	34
	3,4	0,9	28	34
H	1,4	0,8	39	33
	2,1	0,8	46	40
	2,8	0,9	52	31
	3,4	0,9	52	31
F	1,4	0,8	76	33
	2,1	0,8	92	39
	2,8	0,9	103	31
	3,4	0,9	103	31

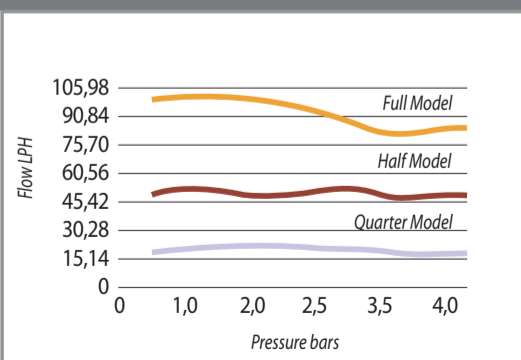
#### XPCN Nozzle Performance

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
Q	1,4	1,2	24	16
	2,1	1,2	28	19
	2,8	1,4	28	15
	3,4	1,4	28	15
H	1,4	1,2	39	13
	2,1	1,2	46	16
	2,8	1,4	52	14
	3,4	1,4	52	14
F	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.

#### XPCN Nozzle Performance



### 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 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 - BCG : system with factory preinstalled Rain Bird 1401 Series bubbler, snaponcap, 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 ACCESSORIES



Major Products											
	1802	1803	1804	1806	1812	1800 SAM	1800 SAM-PRS	US-200	US-400	PA-85	1400
<b>Primary Applications</b>											
Turfgrass	●	●	●	●		●	●	●	●		
Slopes			●	●	●	●	●	●	●	●	
Ground Cover/Shrubs	●	●	●	●	●			●	●	●	●
High Pressure Systems							●				●
Low Pressure Systems	●	●	●	●	●		●	●	●	●	●
High Wind Areas							●			●	●



## Water Savings Tips

- The 1800 PRS spray restricts water loss by up to 70% if the nozzle is removed or damaged and eliminates misting and fogging caused by high pressure which saves water and money.
- The 1800 & UNI-Spray SAM prevents drainage from spray heads at lower elevations, stops water waste, and eliminates landscape damage due to flooding and/or erosion.
- The Rotary Nozzle has efficient water distribution through rotating streams that uniformly deliver water at a low precipitation rate, significantly reducing run-off and erosion.

## POP-UP SPRINKLER SELECTION GUIDE

Spray Heads

1

2,1 / 5,5 m UNI-Spray™



### UNI-SPRAY

Flow : 0,10 to 1,21 m<sup>3</sup>/h  
Pressure : 1,0 to 2,1 bar

2

0,6 / 5,5 m 1800™



### 1800

Flow : 0,01 to 1,21 m<sup>3</sup>/h  
Pressure : 1,0 to 2,1 bar

3

4,0 / 7,6 m ROTARY NOZZLE



### ROTARY NOZZLE

Flow : 0,07 to 0,91 m<sup>3</sup>/h  
Pressure : 1,4 to 3,8 bar



## 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

### PERFORMANCE

#### 10-VAN Series

Nozzle	bar	m	m³/h	■ mm/h	▲ mm/h
	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
	1,0	2,1	0,33	96	111
	1,5	2,4	0,40	89	103
	2,0	2,7	0,43	76	88
	1,0	2,1	0,22	96	111
	1,5	2,4	0,27	89	103
	2,0	2,7	0,29	76	88
	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

### 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

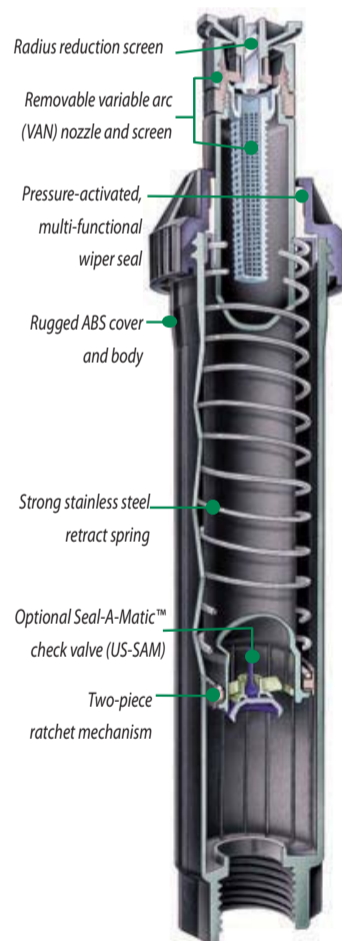
US-215: 15-VAN Series nozzles

US-410: 10-VAN Series nozzles

US-412: 12-VAN Series nozzles

US-415: 15-VAN Series nozzles

US-400: 10,2 cm pop-up height (4")



### ACCESSORIES

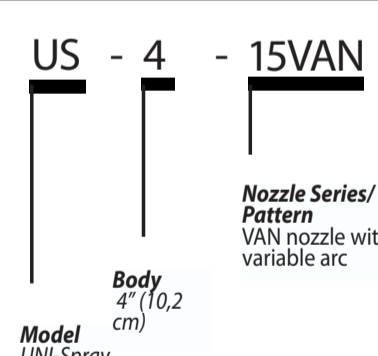
US-SAM-KIT: This check valve device eliminates runoff, erosion and puddling produced by low head drainage.

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

How to specify

US - 4 - 15VAN







Model UNI-Spray

Body 4" (10,2 cm)

Nozzle Series/Pattern  
VAN nozzle with variable arc





#### 12-VAN Series

Nozzle	bar	m	m³/h	■ mm/h	▲ mm/h
	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
	2,1	3,7	0,60	44	51
	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
	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
	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

■ 50%

▲ 50%

#### 15-VAN Series

Nozzle	bar	m	m³/h	■ mm/h	▲ mm/h
	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
	2,1	4,6	0,84	40	46
	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
	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
	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



### 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



With PRS



Without PRS



1802

1803

1804

1806

1812

### 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, 1804-SAM-PRS, 1806-SAM, 1806-SAM-PRS, 1812-SAM, and 1812-SAM-PRS models. Ideal for turf and flower beds on slopes or in areas with changing elevation.
- Built-in stem pressure regulator (factory pre-set at 2.1 bar) on 1804-SAM-PRS, 1806-SAM-PRS and 1812-SAM-PRS models. Ideal for turf and flower beds on slopes or in

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



Without SAM check valve



With SAM check valve

areas with changing elevation/water pressures or in areas exposed to vandalism.

#### • 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 plastic 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  
 - 1803: 12.0 cm  
 - 1804: 15.0 cm  
 - 1806: 24.0 cm  
 - 1812: 40.0 cm  
 Pop-up height:  
 - 1802: 5.0 cm  
 - 1803: 7.6 cm  
 - 1804: 10.0 cm  
 - 1806: 15.0 cm  
 - 1812: 30.0 cm

### MODELS

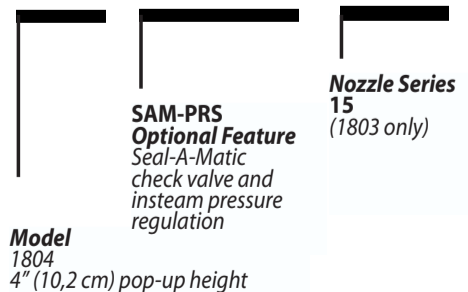
1802  
 1803 with pre-installed 15-VAN nozzle  
 1804  
 1804 with pre-installed 12-VAN nozzle  
 1804 with pre-installed 15-VAN nozzle  
 1804/1804-SAM/1804-SAM-PRS  
 1806/1806-SAM/1806-SAM-PRS  
 1812/1812-SAM/1812-SAM-PRS

### 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-PRS-15VAN





## 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

*\*Rain Bird recommends using 1800 spray heads equipped with PRS system to maintain optimum nozzle performance in higher pressure situations.*

### PERFORMANCE

#### 5-MPR Series

Nozzle	bar	m	m <sup>3</sup> /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
5T	1,0	0,6	0,01	52	60
	1,5	1,0	0,02	47	55
	2,0	1,4	0,03	41	48
	2,1	1,5	0,03	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	m <sup>3</sup> /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
8T	1,0	1,5	0,04	52	60
	1,5	1,9	0,06	47	55
	2,0	2,3	0,07	41	48
	2,1	2,4	0,08	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	m <sup>3</sup> /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
10T	1,0	2,1	0,09	58	67
	1,5	2,4	0,10	50	58
	2,0	3,0	0,12	39	45
	2,1	3,1	0,12	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	m <sup>3</sup> /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
12TQ	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
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
12T	1,0	2,7	0,13	55	63
	1,5	3,2	0,16	47	54
	2,0	3,6	0,20	46	53
	2,1	3,7	0,20	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	m <sup>3</sup> /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
15TQ	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
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
15T	1,0	3,4	0,20	52	60
	1,5	3,9	0,24	47	55
	2,0	4,5	0,28	41	48
	2,1	4,6	0,28	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	W x L (m)	m <sup>3</sup> /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
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

#### 5-MPR Series Stream Bubbler

Nozzle	bar	m	m <sup>3</sup> /h
5F-B	1,0	1,5	0,35
	1,5	1,5	0,35
	2,0	1,5	0,35
	2,1	1,5	0,35
5H-B	1,0	1,5	0,23
	1,5	1,5	0,23
	2,0	1,5	0,23
	2,1	1,5	0,23
5Q-B	1,0	1,5	0,12
	1,5	1,5	0,12
	2,0	1,5	0,12
	2,1	1,5	0,12
5CST-B	1,0	1,5	0,12
	1,5	1,5	0,12
	2,0	1,5	0,12
	2,1	1,5	0,12

Flow at adjusted radius of 1.5 m



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%



### XPCN Series

Xeri-Pressure compensating 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



Nozzles with Screens

#### FEATURES

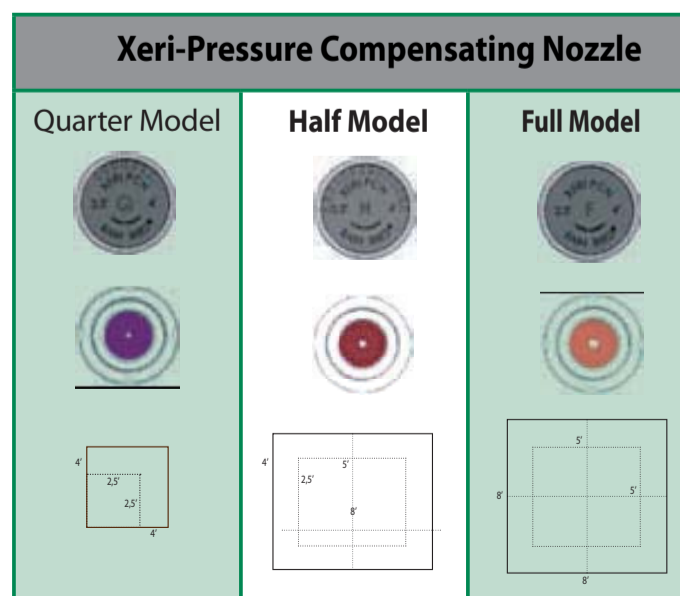
- Pressure compensation design delivers uniform flow over the pressure range
- Available in 3 models: Quarter, Half and Full patterns with matched precipitation rate
  - Virtual no-mist performance from 1,4 to 3,4 bar
  - 2 throw distances in each nozzle. One simple click lets you adjust from 0,8 m or 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

#### SPECIFICATIONS

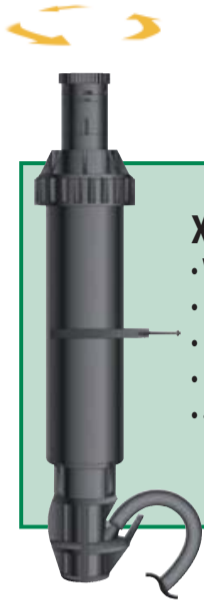
Operating Range  
 Pressure: 1,4 to 3,5 bars  
 Flow: 22,7, 45,4 and 90,8 l/h  
 Required Filtration: 375 micron

#### MODELS

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



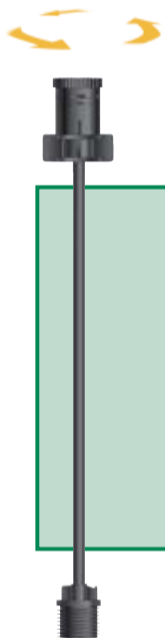




**Xeri-Pop Spray Heads**

- Vandal Resistant
- Durable Connection
- PE
- Fed by 1/4" Tubing
- 4" and 6" Models

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



**Polyflex Riser**

- Durable Connection
- PE
- Uses PFR Adapter

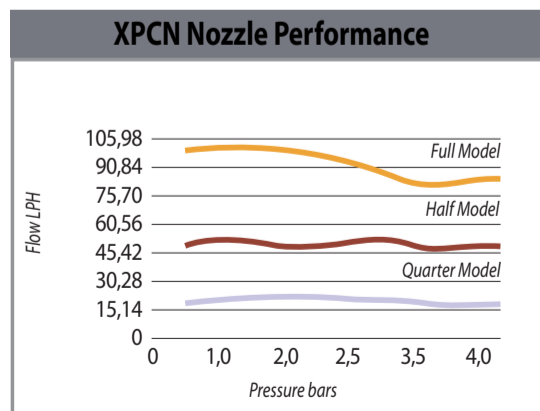
XPCN Nozzle Performance				
1,2 m throw @ 0,15 m height above grade				
	Throw Radius m.	Precip.	Flow LPH	Rate w/no overlap mm/h
Nozzle Pressure bars				
Q	1,4	1,2	24	16
	2,1	1,2	28	19
	2,8	1,4	28	15
	3,4	1,4	28	15
H	1,4	1,2	39	13
	2,1	1,2	46	16
	2,8	1,4	52	14
	3,4	1,4	52	14
F	1,4	1,2	76	13
	2,1	1,2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

Performance data taken in zero wind conditions.



**1800 Series Spray Heads**

- Vandal Resistant
- Durable Connection
- PE





### 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 adjustment 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



\*Rain Bird recommends using 1800 spray heads equipped with PRS system to maintain optimum nozzle performance in higher pressure situations.

#### PERFORMANCE

##### 4-VAN Series

Nozzle	bar	m	m <sup>3</sup> /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	m <sup>3</sup> /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	m <sup>3</sup> /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	m <sup>3</sup> /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	m <sup>3</sup> /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	m <sup>3</sup> /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	m <sup>3</sup> /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	m <sup>3</sup> /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	m <sup>3</sup> /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	m <sup>3</sup> /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	m <sup>3</sup> /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



\*Rain Bird recommends using 1800 spray heads equipped with PRS system to maintain optimum nozzle performance in higher pressure situations.

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

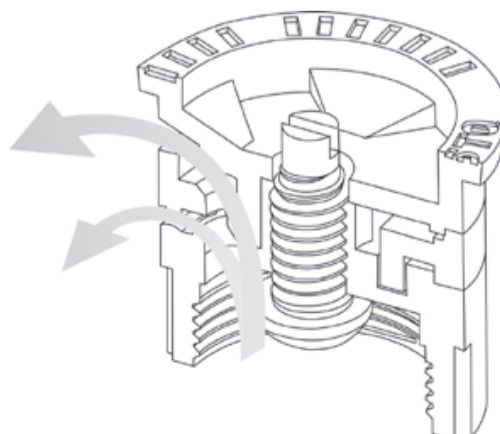
■ 50%  
▲ 50%



## 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.





### 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

#### 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 5,2m 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 4,0m to 7,3m (see page xx)
- 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

#### MODELS

- R13-18Q: 5,5 m quarter-circle pattern nozzle
- R13-18T: 5,5 m third-circle pattern nozzle
- R13-18TT: 5,5 m two-third-circle pattern nozzle
- R13-18H: 5,5 m half-circle pattern nozzle
- R13-18TQ: 5,5 m three-quarter-circle pattern nozzle
- R13-18F: 5,5 m full-circle pattern nozzle

- R17-24Q: 7,4 m quarter-circle pattern nozzle
- R17-24T: 7,4 m third-circle pattern nozzle
- R17-24H: 7,4 m half-circle pattern nozzle
- R17-24TT: 7,4 m two-thirds circle pattern nozzle
- R17-24TQ: 7,4m three-quarter-circle pattern nozzle
- R17-24F: 7,4 m full-circle pattern nozzle



#### 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	0,22	19	22
	1,7	4,3	0,25	18	21
	2,1	4,8	0,27	15	18
	2,4	5,0	0,29	15	18
	2,8	5,2	0,31	15	18
	3,1	5,4	0,33	15	18
	3,4	5,5	0,35	15	18
	3,8	5,6	0,37	15	18
◑	1,4	4,0	0,2	19	22
	1,7	4,3	0,22	18	21
	2,1	4,8	0,24	15	18
	2,4	5	0,26	15	18
	2,8	5,2	0,28	15	18
	3,1	5,4	0,29	15	18
	3,4	5,5	0,31	15	18
	3,8	5,6	0,33	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	0,1	19	22
	1,7	4,3	0,11	18	21
	2,1	4,8	0,12	15	18
	2,4	5	0,13	15	18
	2,8	5,2	0,14	15	18
	3,1	5,4	0,15	15	18
	3,4	5,5	0,16	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

##### 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	0,41	20	23
	1,7	5,8	0,46	18	21
	2,1	6,4	0,51	16	19
	2,4	6,7	0,55	16	19
	2,8	6,9	0,59	16	19
	3,1	7,1	0,62	16	19
	3,4	7,3	0,65	16	19
	3,8	7,4	0,69	16	19
◑	1,4	5,2	0,37	20	23
	1,7	5,8	0,41	18	21
	2,1	6,4	0,45	16	19
	2,4	6,7	0,49	16	19
	2,8	6,9	0,52	16	19
	3,1	7,1	0,55	16	19
	3,4	7,3	0,58	16	19
	3,8	7,4	0,61	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	0,18	20	23
	1,7	5,8	0,21	18	21
	2,1	6,4	0,23	16	19
	2,4	6,7	0,24	16	19
	2,8	6,9	0,26	16	19
	3,1	7,1	0,28	16	19
	3,4	7,3	0,29	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

■ 50%  
▲ 50%

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

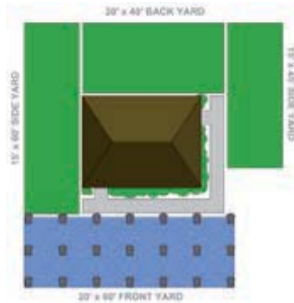


## ROTARY NOZZLES

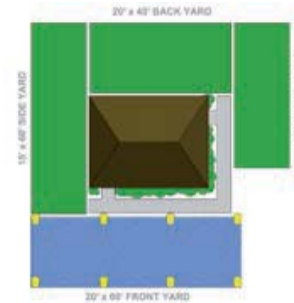
Application examples

### FEWER ZONES, FASTER INSTALL: Residential

**Site Information**  
Available flow = 2,3 m<sup>3</sup>/h  
Pressure = 2,1 bar  
6,1m x 18,3m Front yard



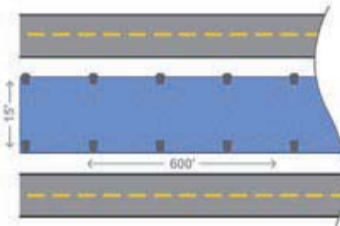
**1. With conventional spray nozzles**  
21 spray heads with 10' MPR nozzles  
Total Flow: 4,3 m<sup>3</sup>/h  
→ 2 zones required



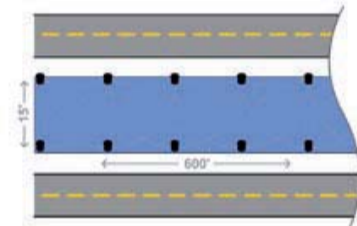
**2. With ROTARY NOZZLES**  
8 spray heads with R17-24 Rotary Nozzles  
Total Flow: 2,04 m<sup>3</sup>/h  
→ Only 1 zone required

### FEWER ZONES, HIGHER EFFICIENCY: Municipal

**Site Information**  
Available flow = 9,1 m<sup>3</sup>/h  
Pressure = 3,1 bar  
4,6m wide x 183m long parkway



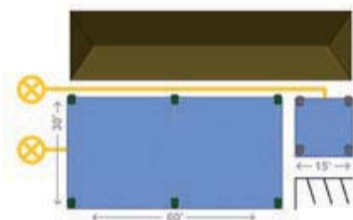
**1. With conventional spray nozzles**  
88 x 1806 SAM-PRS with 15' MPR nozzles  
Total Flow: 33,6 total m<sup>3</sup>/h  
→ 4 zones required



**2. With ROTARY NOZZLES**  
88 x 1806 SAM with R13-18 Rotary Nozzles  
PRS not necessary.  
Total Flow: 14,5 m<sup>3</sup>/h  
→ 2 zones required

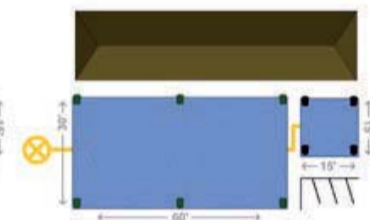
### DESIGN FLEXIBILITY: Combined spray and rotor zones

**Site Information**  
Available flow = 2,3 m<sup>3</sup>/h  
Pressure = 3,1 bar



**1. With conventional spray nozzles**  
**Turf area**  
6 x 5000 Plus with MPR Nozzles  
**Small Turf area**  
4 x 1804 sprays with 15MPR nozzles  
→ 2 separate zones required.

5000 MPR precipitation rate = 15,2 mm/h,  
15MPR spray nozzle precipitation rate= 40,1 mm/h

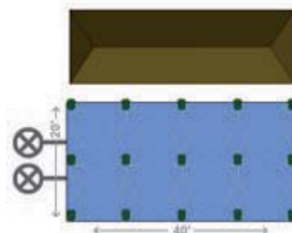


**2. With ROTARY NOZZLES**  
**Turf area**  
6 x 5000Plus with MPR Nozzles with 30'MPR Nozzles  
**Small Turf area**  
4 x 1804 sprays with R13-18 Rotary nozzles  
→ Only 1 zone required.

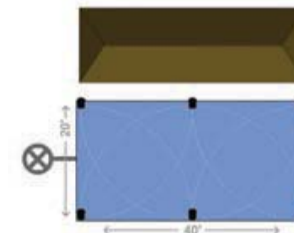
Rotary Nozzle precipitation rate matches with  
5000Plus MPR nozzle precipitation rate and can run  
together.

### EXCELLENT RETROFIT SOLUTION: Improving a spray zone with stretched spacing

**Site Information**  
A 6,1m x 12,2m area was installed with 15MPR  
nozzles spaced at 6,1m.  
Flow: 1,8 m<sup>3</sup>/h available  
Pressure: 2,1 bar



**1. With conventional spray nozzles**  
Correct poor coverage by changing to 10MPR  
nozzles and adding another zone  
**Front yard:**  
15 x 1804 sprays with 10' MPR Nozzles  
Total Flow : 2,9 m<sup>3</sup>/h  
→ Need 9 more spray heads and a new valve to  
correct the coverage



**2. With ROTARY NOZZLES**  
Correct poor coverage by simply changing to  
R17-24 Rotary Nozzles  
**Front yard:**  
6 x 1804 sprays with R17-24 Rotary Nozzles  
Total Flow : 1,3 m<sup>3</sup>/h  
→ Runs off existing zone



### 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, 50 m or 100 m.
- Linear, low density polyethylene material.
- New, 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-FLEX: 30 m roll  
 SPX FLEX: 50 m roll  
 SPX FLEX: 100 m roll



### SP-100

Swing Pipe

#### APPLICATIONS

Used in conjunction with SB Barb Fittings as a flexible swing joint assembly to protect underground sprinklers by absorbing impact caused by cars or turf maintenance equipment.

#### FEATURES

- Linear low-density polyethylene material resists breaks
- Reduces the number of fittings on mainline by allowing easy installation of sprinklers in the corners.
- Easy-to-install: change the height and lateral position of a spray/rotor without modifying the installation.

- Allows fast connection. Important: do not use any lubricant (grease, soap, oil, etc.)

#### SPECIFICATIONS

Inside diameter: 12.5 mm  
 Operating water pressure rating: up to 5.5 bar

#### MODEL

SP-100/30 ( 30m coil)



### SWING ASSEMBLY

Swing Pipe and Fittings Kit For sprinkler installation

#### APPLICATIONS

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

#### FEATURES

- 30 cm Swing Pipe kit with 2 elbow fittings for fast installation.
- Kink-resistant, low density, linear polyethylene
- Reduces the number of fittings on the mainline by facilitating installation of sprinklers in corners.
- Easy to install. The height and lateral position of a spray head/rotor can be adjusted without modifying the installation.
- Fast connection. Important: Do not use any lubricant (grease, soap, oil, etc.)

#### SPECIFICATIONS

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

Mounted with 2 male elbow fittings - 1/2" (15/21) or 3/4" (20X27).

Maximum operating pressure : 5.5 bar

#### MODELS

LSBE050K: SP100 - 30 cm + 2 SBE-050  
 LSBE075K: SP100 - 30 cm + 2 SBE-075



Example of mounting





## SB SERIES

Spiral Barb Fittings

### APPLICATIONS

For use in conjunction with SP-100 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 SP-100 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: 1/2" (15/21) male x barb elbow
- SBA-050: 1/2" (15/21) male x barb adapter
- SB-TEE: barb x barb x barb tee
- SB-CPLG: barb x barb coupling

## PVRA SERIES

Anti-Theft Fittings

### APPLICATIONS

Protects underground sprinklers by preventing the removal of sprinklers from above.

### FEATURES

- Leak-free

### MODEL

PVRA-050: 1/2" (15/21) male x 3/4" (20/27) female



## LEAK-PROOF JOINT

### APPLICATIONS

Substitute for standard Teflon tape as joints for pipe systems.

### FEATURES

- Easy to use. Can be used on plastic & metal threaded products
- Instantly seals (irrespective of ambient temperature) pipe during assembly
- Can be safely used with drinking, waste water (cold and hot water)

- Use it wherever you used tapes and hems/pastes in the past
- Easier and more economical than standard Teflon tape
- Can be re-positioned

### MODEL

Loctite 55: 1 coil of 50 meters



## HOLE CORING TOOL

### APPLICATIONS

Allows you to cleanly pierce a polyethylene pipe when installing a saddle tee during sprinkler installation.

### FEATURES

- Only one compatible model for 1/2" saddle tee.
- Made of PVC
- Cuts with a built-in cutter
- Easy to remove the cut out polyethylene piece.

### MODEL

HCT combo



### 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<sup>3</sup>/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<sup>3</sup>/h  
 1402: 0.11 m<sup>3</sup>/h  
 1404: 0.23 m<sup>3</sup>/h  
 1408: 0.46 m<sup>3</sup>/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

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

#### FEATURES

- Rugged thermoplastic construction
- Easily installed. No tools required

#### 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







Major Products	Closed Case Rotors						Open Case Rotor
	3500 Series	5000/5000 Plus Series	5500 Series	Falcon™ 6504	7005	8005	2045A Maxi-Paw™
<b>Primary Applications</b>							
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		●	●		●	●	



## Water Savings Tips

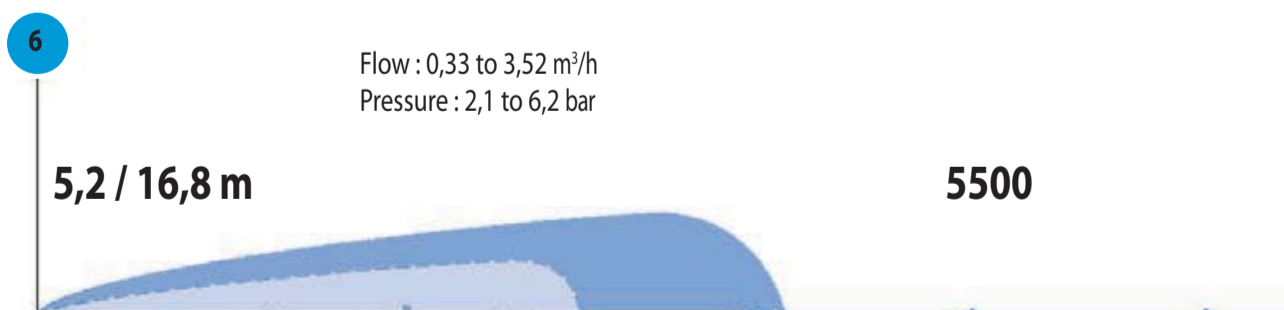
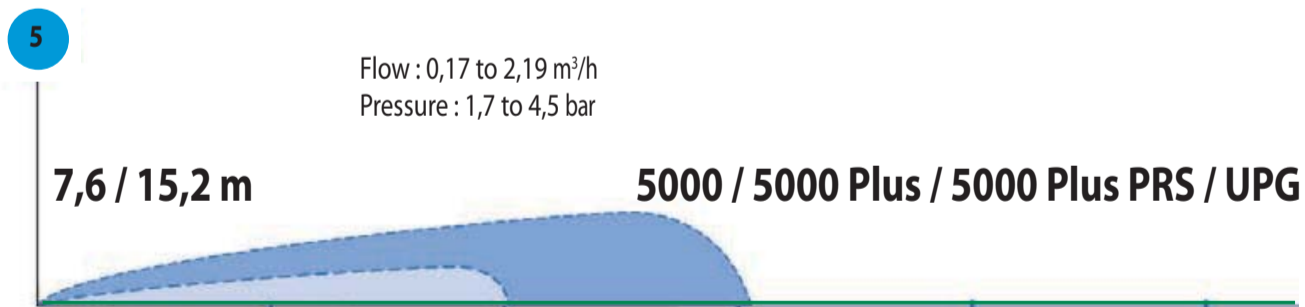
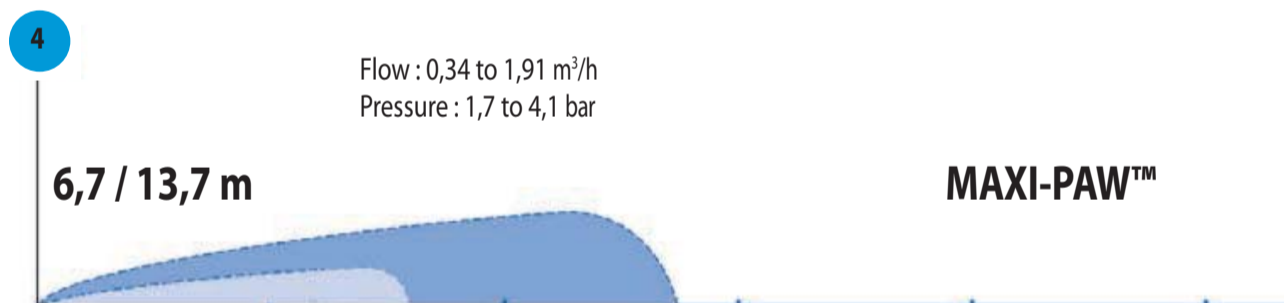
- Rain Curtain™ nozzle technology is the standard in water saving nozzle performance. Rain Curtain™ performance is available in all Rain Bird Rotors.
- 5000 series rotors with PRS will reduce water waste from 15%-45%. By eliminating pressure variation and/or over pressurization, you'll save water and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

## 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



## 3500 SERIES ROTORS

Short to Mid-range Gear-drive Rotor  
Europe's best-selling 1/2" rotor.

- Performance – Rain Curtain™ nozzles.
- True 4" (10,2 cm) pop-up (measured from the cover to the nozzle)
- Reliability – 3-year trade warranty

### FEATURES

#### • Rain Curtain Nozzles Technology

- Attached nozzle tree of six Rain Curtain™ Nozzles provides:
  - Large droplets for consistent performance
  - Effective close-in watering
  - Even distribution over the entire radius

#### • Installation & Maintenance

- Top-adjust arc adjustment requiring only a flat bladed screwdriver
- Radius adjustment screw allows up to 35% radius reduction without changing nozzles
- Quick Check Arc/Fast Forward
- Self-adjusting stator does not require replacement when changing nozzles
- Easily removable filter screen
- Nozzle removal feature

#### • Design Solutions

- The 3500 Series Rotor is available in 4" and SAM™ models
- Optional Seal-A-Matic™ (SAM™) check valve holds up to 2,1 m of elevation change, to prevent puddling and erosion caused by low head drainage
- 40 - 360° Part-circle arc rotation and reversing full-circle rotation in one

#### • Durability

- Rubber cover and self-flushing arc adjustment screw reduce debris intrusion and improve reliability
- Water-lubricated gear-drive design for durable, reliable operation
- Dual action, positive stop wiper seal protects internals from debris and assures positive pop-up and retraction

### 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 m<sup>3</sup>/h  
1/2" (15/21) female bottom threaded inlet  
Arc adjustment: 40°-360°

### DIMENSIONS

Pop-up height: 10.2 cm  
Overall body height: 16.8 cm  
Exposed surface diameter: 2.9 cm  
*Note: pop-up height measured from cover to center of nozzle. Overall body height is measured popped down*

### MODELS

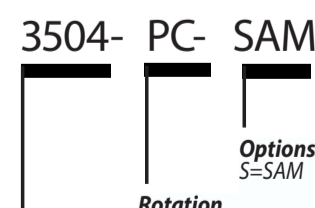
Models are adjustable from 40-360 degrees  
3504-PC: Part circle arc rotation and reversing full-circle rotation  
3504-PC-SAM: Part circle arc rotation and reversing full-circle rotation with SAM check valve



### PERFORMANCE

Nozzles	bar	m	m <sup>3</sup> /h	■ mm/h	▲ mm/h
0,75	1,7	4,6	0,12	12	14
	2,0	4,8	0,13	12	13
	2,5	5,2	0,16	12	13
	3,0	5,2	0,17	13	15
	3,5	5,4	0,19	13	15
	3,8	5,5	0,19	13	15
1,0	1,7	6,1	0,17	9	11
	2,0	6,2	0,19	10	11
	2,5	6,4	0,21	10	12
	3,0	6,4	0,24	12	13
	3,5	6,6	0,26	12	14
	3,8	6,7	0,27	12	14
1,5	1,7	7,0	0,24	10	11
	2,0	7,0	0,26	11	12
	2,5	7,0	0,30	12	14
	3,0	7,3	0,33	12	14
	3,5	7,3	0,36	13	15
	3,8	7,3	0,37	14	16
2,0	1,7	8,2	0,32	9	11
	2,0	8,2	0,34	10	12
	2,5	8,2	0,39	12	13
	3,0	8,2	0,43	13	15
	3,5	8,4	0,47	13	15
	3,8	8,5	0,49	13	15
3,0	1,7	8,8	0,49	13	15
	2,0	9,1	0,53	13	15
	2,5	9,4	0,60	13	16
	3,0	9,4	0,67	15	17
	3,5	9,6	0,71	15	18
	3,8	9,8	0,74	16	18
4,0	1,7	9,4	0,67	15	17
	2,0	9,7	0,73	16	18
	2,5	10,1	0,83	16	19
	3,0	10,6	0,92	16	19
	3,5	10,7	1,00	18	20
	3,8	10,7	1,04	18	21

### How to specify

3504- PC- SAM  
  
**Model**  
3504  
4" (10,2 cm) pop-up height  
**Rotation**  
Part-circle  
**Options**  
S=SAM

## 5000/ 5000 PLUS/ UPG SERIES

The Next Evolution in Rotor Performance  
The World's Best Quality Rotor.

- Greener grass with less water – Rain Curtain™ nozzles deliver superior uniformity
- Faster to install with matched precipitation rate using MPR nozzle set
- The UPG rotor is designed to upgrade existing Hunter PGP™ rotors with the performance characteristics and feature set of Rain Bird's 5004 rotor. It makes it faster and easier to leave the PGP case in the ground and only change out the main part of the rotor.

### FEATURES

#### • Rain Curtain™ Nozzle Technology

- Rain Curtain™ Nozzles standard on all 5000/5000 Plus/UPG rotors
  - Large water droplets for greater wind resistance
  - Effective close-in watering
  - Even distribution over the entire radius
- Tree of nozzles including four low angle (Angle of Trajectory 10°) and eight standard angle Rain Curtain™ Nozzles (Angle of Trajectory 25°) provides 7,6 to 15,2 m distance of throw
- Self-aligning nozzles

#### • Installation & Maintenance

- Slip clutch mechanism for quick adjustment on installation.
- Faster maintenance with a new self-cleaning arc adjustment screw.
- The 5000 Plus features a Flow Shut-Off device to stop the flow of water to a particular head while the system is still in operation.
- Top-adjust arc adjustment requiring only a flat-blade screwdriver.
- Radius adjustment screw allows up to 25% radius reduction without changing nozzles.

#### • Design Solutions

- Optional on 5000 Plus Series :
  - Stainless Steel riser sleeve on SS models.
  - Seal-A-Matic (SAM™) check valve holds up to 2,1m of elevation change.
- The 5000 Plus Rotors is available in 4", 6", 12", and Stainless Steel
- True 4" (10 cm), 6" (15,2 cm) and 12" (30,5 cm) pop-up (measured from the cover to the nozzle)
- 40 - 360° arc rotation and reversing full circle rotation in one. (A non-reversing full circle only unit is also available)
- MPR nozzle set simplifies design and installation by providing matched precipitation from 7,6 to 10,7 m
- Simplify the design process. Nozzles with various arcs and radii can be mixed in the same zone by using MPR Nozzles

#### • Durability

- Standard rubber cover for extra protection. 5000 Plus features a green cover while the 5000 features a black cover
- Heavy-duty cover assembly for extra durability in residential or commercial applications
- Heavy-duty retract spring assures positive pop-down
- Pressure-activated multi-function wiper seal protects internals from debris and assures positive pop-up and retraction
- Additional O-rings and seals for extra protection in "gritty" water
- Five-year trade warranty

### 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 m<sup>3</sup>/h  
 Angle of trajectory :  
 - Standard angle Rain Curtain™ nozzles : 25°.  
 - Low angle Rain Curtain™ nozzles : 10°.  
 ¾" female bottom threaded inlet.

### DIMENSIONS

Pop-up height: (from the cover to center of nozzle):  
 - 5004 /5004 Plus/UPG : 10 cm  
 - 5006 Plus : 15 cm  
 - 5012 Plus : 30 cm  
 Overall body height: (popped down)  
 - 5004 /5004 Plus/UPG : 18,5 cm  
 - 5006 Plus : 24,5 cm  
 - 5012 Plus : 42,9 cm  
 Exposed surface: 4,1 cm

### 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 / UPG rotors.

**Note:** PGP® is a registered trademark of Hunter Industries



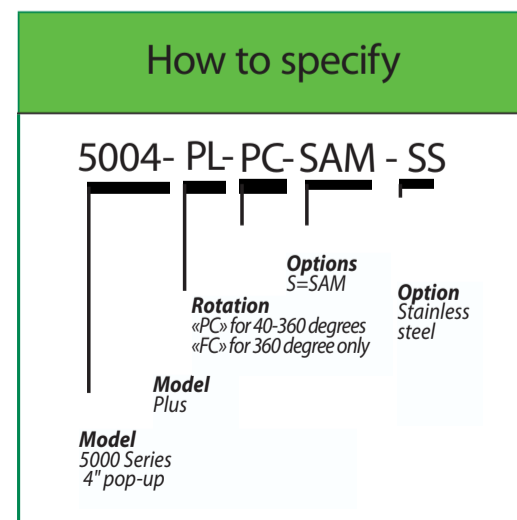
Model 5000 Plus

### MODELS

Part Circle units (PC) are adjustable from 40-360°.  
 Full Circle units (FC) are 360° only  
 5004-PC : Part Circle 5004  
 5004-PL-FC : Full Circle 5004 Plus.  
 5004-PL-PC-3.0 : Part Circle with pre-installed nozzle, size 3.0 5004 Plus.  
 UPGPC : 5000 UPG Series, 4" Part/Reverse Full Circle  
 5004-PL-PC-SS-SAM-3.0 : 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-SS-SAM : Part Circle, Stainless steel covered riser stem, SAM check valve.  
 5012-PL-PC : Part Circle.

### ACCESSORY :

Rotor Pull up screwdriver



## 5000/5000 PLUS PRS SERIES ROTORS

One Step beyond in Rotor Performance !

The World's Best Rotor with an integrated pressure regulating system

### APPLICATIONS

The 5000/5000 PLUS PRS rotor combines Rain Bird's award-winning Rain Curtain™ Technology with an in-stem pressure regulator to provide a new standard in nozzle performance: One Step beyond in Rotor Performance !

### FEATURES

- Five-year trade warranty.
- **In-stem pressure regulator (PRS) reduces operating pressure to 3,1 bars for optimal nozzle performance.**
- PRS saves water by:
  - Eliminating head-to-head pressure variations.
  - Eliminating misting due to high pressure.
  - Improving nozzle distribution uniformity by operating the nozzle at optimum pressure.
- The 5000 PLUS PRS Series Rotor is available in 4" and Stainless Steel /SAM models.
- Standard green rubber cover for extra protection.
- Heavy-duty cover assembly for extra durability in residential or commercial applications.
- For Superior Water Distribution and green grass results, nozzles use Rain Curtain™ Technology.
- Tree of nozzles including four low angle (Angle of Trajectory 10°) and eight standard angle Rain Curtain™ Nozzles (Angle of Trajectory 25°) provides 7,6 to 14,3 m distance of throw.
- **Optional award-winning MPR nozzle set simplifies design and installation by providing matched precipitation from 7,6 to 10,7 m.**
- **The 5000 PLUS PRS features a Flow Shut-Off device to stop the flow of water to a particular head while the system is still in operation.**
- Faster and easier to change nozzles: you have the convenience of shutting off the water flow at the head with only a 180-degree turn of the screwdriver.
- Heavy-duty retract spring assures positive pop-down.
- Top-adjust arc adjustment requiring only a flat-blade screwdriver.
- 40°-360° Arc Rotation and reversing full circle rotation in one.
- You can change the fixed arc of the rotor for ease of installation.
- Radius adjustment screw allows up to 25% radius reduction without changing nozzles.
- True 4" (10 cm) pop-up, measured from the cover to the nozzle.
- Pressure-activated multi-function wiper seal protects internals from debris and assures positive pop-up and retraction.
- Optional stainless steel riser helps deter vandalism on public turf areas.

- Optional Seal-A-Matic (SAM™) check valve holds up to 2,1 m of elevation change, to prevent puddling and erosion caused by low head drainage.

### SPECIFICATIONS

Radius: 7,6 to 15,2 m  
 Pressure: 1,7 to 5,2 bars  
 Flow Rate: 0,17 to 1,85 m<sup>3</sup>/h  
 ¾" female bottom threaded inlet  
 Precipitation rate: 5 to 26 mm/h

### DIMENSIONS

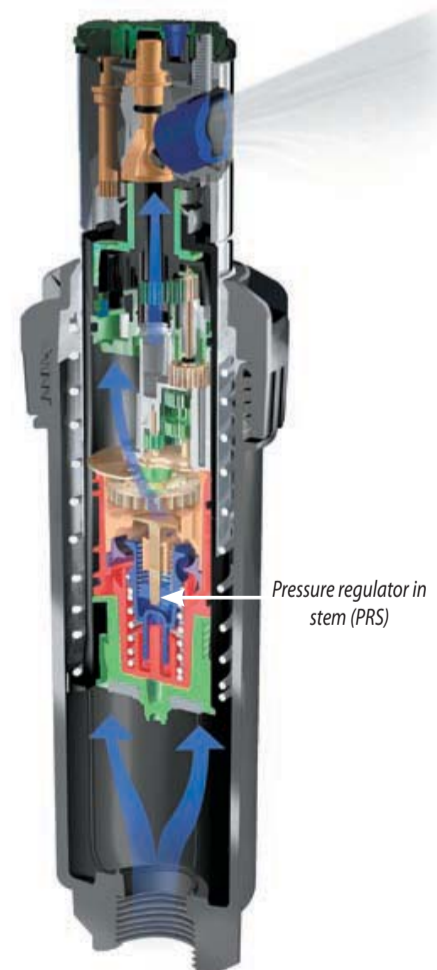
Pop-up height: 10 cm  
 Overall body height: 18,5 cm  
 Exposed surface diameter: 4,1 cm  
*Note: Pop-up height measured from cover to the nozzle.*  
*Overall body height is measured popped down.*

### MODELS

Part circle units (PC) are adjustable from 40–360 degrees.  
 5004PCR: Part circle with pressure regulator system and pre-installed nozzle, size 3.0  
 5004PLUSPCSR: Part circle with pressure regulator system, stainless steel covered riser stem, SAM check valve



5000 (PRS)



## 5000 / 5000 PLUS / 5000 PLUS PRS / UPG NOZZLES RAIN CURTAIN™

### Standard Angle Rain Curtain™ Nozzles

Nozzles	bar	m	m³/h	■ mm/h	▲ mm/h
1,5	1,7	10,1	0,25	5	6
	2,0	10,2	0,28	5	6
	2,5	10,4	0,31	6	7
	3,0	10,6	0,34	6	7
	3,5	10,7	0,37	7	8
	4,0	10,6	0,40	7	8
2,0	4,5	10,4	0,42	8	9
	1,7	10,7	0,34	6	7
	2,0	10,8	0,36	6	7
	2,5	11,0	0,41	7	8
	3,0	11,2	0,45	7	8
	3,5	11,3	0,49	8	9
2,5	4,0	11,1	0,52	8	10
	4,5	10,7	0,55	10	11
	1,7	10,7	0,41	7	8
	2,0	10,9	0,44	7	9
	2,5	11,3	0,50	8	9
	3,0	11,3	0,56	9	10
3,0	3,5	11,3	0,60	9	11
	4,0	11,3	0,64	10	12
	4,5	11,3	0,68	11	12
	1,7	11,0	0,51	8	10
	2,0	11,2	0,55	9	10
	2,5	11,2	0,62	9	11
4,0	3,0	12,1	0,69	9	11
	3,5	12,2	0,74	10	12
	4,0	12,2	0,80	11	12
	4,5	12,2	0,84	11	13
	1,7	11,3	0,66	10	12
	2,0	11,6	0,71	11	12
5,0	2,5	12,3	0,81	11	13
	3,0	12,7	0,89	11	13
	3,5	12,8	0,97	12	14
	4,0	12,8	1,04	13	15
	4,5	12,8	1,10	13	15
	1,7	11,9	0,84	12	14
6,0	2,0	12,1	0,91	12	14
	2,5	12,7	1,03	13	15
	3,0	13,5	1,13	12	14
	3,5	13,7	1,23	13	15
	4,0	13,7	1,32	14	16
	4,5	13,7	1,40	15	17
8,0	1,7	11,9	0,97	14	16
	2,0	12,4	1,05	14	16
	2,5	13,2	1,21	14	16
	3,0	13,9	1,34	14	16
	3,5	14,2	1,45	14	17
	4,0	14,9	1,55	15	17
8,0	4,5	14,6	1,64	15	18
	1,7	11,0	1,34	22	26
	2,0	11,8	1,45	21	24
	2,5	13,3	1,63	19	21
	3,0	14,1	1,79	18	21
	3,5	14,9	1,93	18	20
8,0	4,0	15,2	2,06	18	21
	4,5	15,2	2,19	19	22

### Low Angle Rain Curtain™ Nozzles

Nozzles	bar	m	m³/h	■ mm/h	▲ mm/h
1,0	1,7	7,6	0,17	6	7
	2,0	8,0	0,18	6	6
	2,5	8,6	0,20	5	6
	3,0	8,8	0,22	6	7
	3,5	8,8	0,24	6	7
	4,0	8,8	0,26	7	8
1,5	4,5	8,8	0,27	7	8
	1,7	8,2	0,26	8	9
	2,0	8,6	0,28	8	9
	2,5	9,2	0,32	8	9
	3,0	9,4	0,35	8	9
	3,5	9,4	0,38	9	10
2,0	4,0	9,4	0,41	9	11
	4,5	9,4	0,44	10	11
	1,7	8,8	0,33	9	10
	2,0	9,1	0,36	9	10
	2,5	9,5	0,41	9	10
	3,0	9,7	0,45	10	11
3,0	3,5	9,9	0,49	10	11
	4,0	10,1	0,52	10	12
	4,5	10,1	0,56	11	13
	1,7	8,8	0,51	13	15
	2,0	9,3	0,55	13	15
	2,5	10,1	0,62	12	14
3,0	3,0	10,6	0,68	12	14
	3,5	10,8	0,74	13	15
	4,0	11,0	0,80	13	15
	4,5	11,0	0,84	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.

### 1 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.

### 2 Effective Close-in Watering



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

### 3 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.

## 5000/5000 PLUS/5000 PLUS PRS/UPG 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 either 5000 or UPG 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/UPG 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 m<sup>3</sup>/h

### MODELS

- 5000-MPR-25: Tree of nozzles for 7,6 m radius with Q, T, H, F Nozzles attached
- 5000-MPR-30: Tree of nozzles for 9,1 m radius with Q, T, H, F Nozzles attached
- 5000-MPR-35: Tree of nozzles for 10,7 m radius with Q, T, H, F Nozzles attached.



Mini trees with four nozzles



### PERFORMANCE

#### 5000-MPR-25

Nozzle	bar	m	m <sup>3</sup> /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
120°	4,5	7,6	0,27	18,9	21,9
	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
180°	3,8	7,6	0,35	18,0	20,7
	4,5	7,6	0,38	19,6	22,6
	1,7	7,0	0,33	13,3	15,4
	2,4	7,3	0,39	14,7	17,0
360°	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
	1,7	7,0	0,63	12,8	14,8
360°	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-35

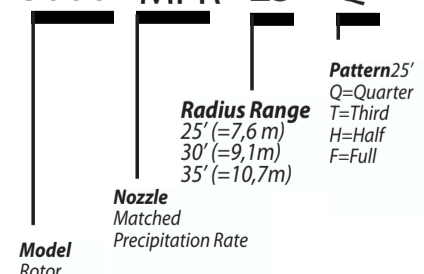
Nozzle	bar	m	m <sup>3</sup> /h	■ mm/h	▲ mm/h
90°	1,7	9,8	0,32	13,4	15,4
	2,4	10,4	0,38	14,1	16,3
	3,1	10,7	0,44	15,3	17,7
	3,8	10,7	0,48	17,0	19,6
120°	4,5	10,7	0,52	18,4	21,3
	1,7	9,8	0,40	12,7	14,6
	2,4	10,4	0,49	13,6	15,6
	3,1	10,7	0,56	14,7	17,0
180°	3,8	10,7	0,62	16,4	18,9
	4,5	10,7	0,68	17,9	20,7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

#### 5000-MPR-30

Nozzle	bar	m	m <sup>3</sup> /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
120°	4,5	9,1	0,38	18,4	21,2
	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
180°	3,8	9,1	0,47	16,8	19,4
	4,5	9,1	0,51	18,3	21,1
	1,7	8,8	0,49	12,5	14,4
	2,4	9,1	0,59	14,1	16,2
360°	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
	1,7	8,8	0,96	12,3	14,2
360°	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

### How to specify

#### 5000 - MPR - 25 - Q



## MATCHED PRECIPITATION RATE NOZZLES (MPR)

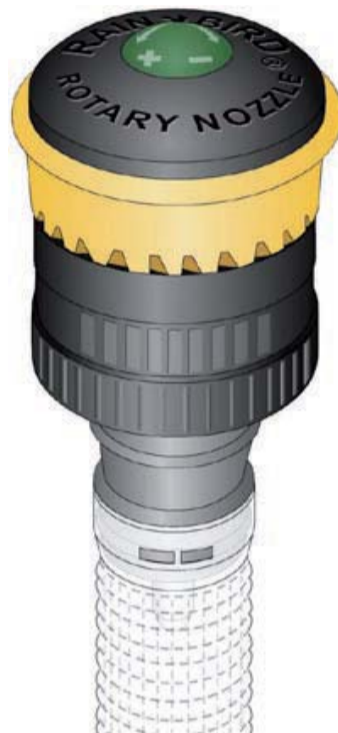
As water efficiency becomes more important, so does the ability to quickly and easily install more efficient sprinkler systems. This is especially true with the installation of rotor zones.

Many installers today already try to match the flow rate of a nozzle with the size of the area (arc pattern) to be covered. The goal is to provide the same precipitation rate over the entire zone.

Fortunately for contractors, the new nozzle options (called matched precipitation rate nozzles) available make it easy for installers to achieve greater water efficiency while also saving time.

These new nozzles simplify both the design process and the installation of pop-ups, because they reliably deliver matched precipitation rates within and between radii from 7,6 m to 10,7 m. These new nozzles allow the installer to match the nozzle to the application and avoid the need for calculations in the field. Furthermore, the superior flexibility in arc adjustment minimizes the risks of over- or under-watering.

The flexibility is even greater when combining Rain Bird® 5000 rotors with MPR nozzles with Rain Bird® Rotary Nozzles. Indeed, rotary nozzles and 5000 /5000 Plus MPR rotors can be zoned together as they have the same precipitation rate (15,2 mm/hr).



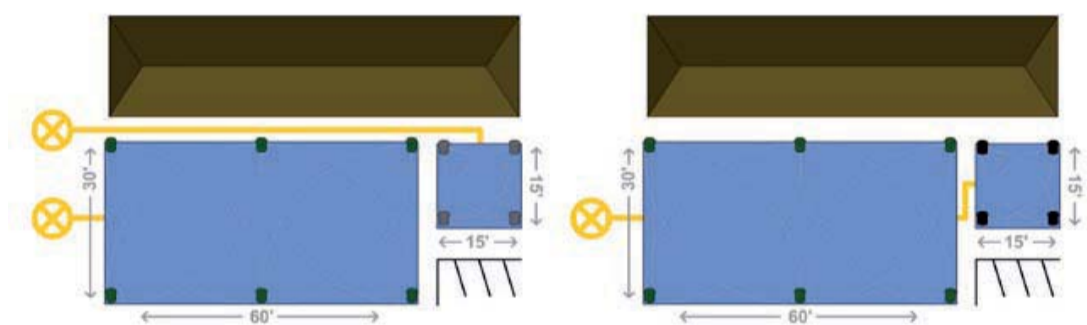
Design flexibility: can be zoned with Rain Bird 5000/5000 Plus MPR Rotor Nozzles, allowing MPR designs from 4,0 to 10,7 meters.

### Application example

#### COMBINED SPRAY AND ROTOR ZONES

##### Site Information

Available flow = 9,1 m<sup>3</sup>/h  
 Pressure = 3,1 bar  
 4,6m wide x 183m long parkway



#### 1. With conventional spray nozzles

**Turf area**  
 6 x 5000 Plus with MPR Nozzles

**Small Turf area**  
 4 x 1804 sprays with 15MPR nozzles  
 → 2 separate zones required.

5000 MPR precipitation rate = 15,2 mm/h,  
 15MPR spray nozzle precipitation rate= 40,1 mm/h

#### 2. With ROTARY NOZZLES

**Turf area**  
 6 x 5000Plus with MPR Nozzles with 30'MPR Nozzles

**Small Turf area**  
 4 x 1804 sprays with R13-18 Rotary nozzles  
 → Only 1 zone required.

Rotary Nozzle precipitation rate matches with 5000 Plus MPR nozzle precipitation rate, and the two can run together.



## MAXI-PAW™ SERIES

Full or Part Circle Impact Rotor Pop-up Sprinkler

A tradition of excellence.

### APPLICATIONS

These heavy duty impact rotors are designed for light commercial and residential automatic irrigation systems. This Series is noted for its superior performance with dirty water.

### FEATURES

- Proven impact drive
- Pop-up height: 7.6 cm
- Interchangeable, color-coded bayonet type nozzles
- 5 Matched Precipitation Rate nozzles
- 2 Low-Angle (LA) nozzles
- Easy nozzle change. No tools required
- Double-weighted arm for slower rotation and increased distance of throw
- Low pressure and low flow operation
- Full/part circle (20° to 340°) in one unit
- Precision Jet tube (PJ™) minimizes side splash.
- Distance control diffuser pin
- Multi-function wiper seal
- FP trip lever for full or part circle operation
- Combination ½" (15/21) or ¾" (20/27) female threaded bottom inlet for installation flexibility
- Serviceable through the top of the case
- Optional SAM Kit



### SPECIFICATIONS

Radius: 6.7 to 13.7 m

Pressure: 1.7 to 4.1 Bar

Flow rate: 0.34 to 1.91 m³/h

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

Exposed top diameter: 12.7 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
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	

### PERFORMANCE MAXI-PAW MPR NOZZLES

■ 50%  
▲ 50%

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
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
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
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
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



## 5500 Series Rotors

All Features and Benefits of 7005/8005 scaled down to a ¾" Rotor !

- Greener grass with less water – Rain Curtain™ nozzles deliver superior uniformity
- Save time and replacement costs with this vandal and abuse resistant rotor
- Lower inventory costs with a continuous 360 full circle and part circle operation in one head

### FEATURES

#### • Rain Curtain™ nozzle technology

- Rain Curtain™ nozzles for optimal distribution and close-in watering resulting in superior uniformity.
- Nozzles are interchangeable from the front with no special tools

#### • Vandal and abuse resistance

- Anti-Vandal protection: the arc setting returns to its original setting after tampering from vandals (Memory Arc®).
- Non-strippable drive mechanism prevents damage from vandals and equipment
- Brass reinforced nozzle turret to riser connection withstands side impact damage
- Optional stainless steel riser model helps deter vandalism on public turf areas

#### • Installation and Maintenance

- Left and right side trips are independently adjustable for ease of installation without turning the case and loosening the pipe connection
- Easy, wet, dry arc adjustment with only a slotted screwdriver through top of rotor from 50° to 330° part-circle, 360° non-reversing full circle
- Self-adjusting stator allows nozzle replacement with no other adjustments required

#### • Design Solutions

- Standard Seal-A-Matic™ (SAM) check device/riser to help prevent low head drainage
- Standard black rubber cover

#### • Durability

- Five-year trade warranty
- Water-lubricated gear drive
- Heavy duty retract spring ensures positive pop-down

### SPECIFICATIONS

- Precipitation Rate: 5,9 to 33,8 mm/h;
- Radius: 5,2 to 16,8m
- Pressure: 2,1 to 6,2 Bars.
- Flow: 0,32 to 3,52 m3/h
- ¾" (20/27) female threaded inlet
- SAM check device holds up to 3,1 m of head
- Nozzle outlet trajectory is 22°

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

### DIMENSIONS

Exposed diameter: 4,4 cm  
Overall diameter: 7,0 cm  
Overall height: 23,5 cm  
Pop-up height: 12,7 cm

### MODELS

5505: ¾" female threaded inlet (12,5" plastic riser stem)  
5505-SS: ¾" female threaded inlet (12,5" stainless steel covered riser stem)  
5512: ¾" female threaded inlet (30" plastic riser stem)

### PERFORMANCE

Nozzle	bar	m	m³/h	■ mm/h	▲ mm/h
2	2,1	10,1	0,32	6,3	7,3
	2,5	10,8	0,35	5,9	6,8
	3,0	11,3	0,38	6,0	6,9
	3,5	11,3	0,41	6,5	7,5
	4,0	11,3	0,45	7,0	8,1
	4,5	11,6	0,48	7,1	8,2
3	5,0	11,9	0,51	7,2	8,3
	5,5	11,9	0,52	7,4	8,5
	2,1	10,7	0,52	9,2	10,6
	2,5	11,4	0,58	8,9	10,2
	3,0	12,1	0,64	8,7	10,0
	3,5	12,5	0,69	8,8	10,2
4	4,0	12,5	0,75	9,7	11,2
	4,5	12,8	0,80	9,7	11,2
	5,0	13,1	0,83	9,7	11,2
	5,5	13,1	0,88	10,3	11,9
	2,1	11,3	0,59	9,3	10,7
	2,5	12,0	0,66	9,1	10,5
5	3,0	12,7	0,74	9,1	10,5
	3,5	13,2	0,80	9,2	10,7
	4,0	13,6	0,85	9,2	10,6
	4,5	13,7	0,90	9,6	11,0
	5,0	13,7	0,95	10,1	11,6
	5,5	13,7	1,00	10,6	12,2
6	2,1	11,3	0,73	11,4	13,2
	2,5	12,0	0,81	11,2	12,9
	3,0	12,9	0,90	10,8	12,5
	3,5	13,8	0,98	10,4	12,0
	4,0	14,2	1,05	10,4	12,0
	4,5	14,3	1,12	10,9	12,6
8	5,0	14,3	1,18	11,5	13,3
	5,5	14,3	1,25	12,2	14,0
	2,1	11,3	0,86	13,6	15,7
	2,5	12,4	0,96	12,5	14,4
	3,0	13,3	1,07	12,1	13,9
	3,5	13,8	1,17	12,3	14,2
10	4,0	14,2	1,25	12,4	14,3
	4,5	14,3	1,33	13,0	15,0
	5,0	14,5	1,41	13,4	15,5
	5,5	14,9	1,47	13,2	15,3
	2,1	10,1	1,23	24,2	28,0
	2,5	11,2	1,37	21,8	25,2
12	3,0	12,3	1,53	20,1	23,2
	3,5	13,2	1,67	19,3	22,3
	4,0	13,6	1,80	19,5	22,5
	4,5	14,0	1,92	19,5	22,5
	5,0	14,5	2,04	19,4	22,5
	5,5	14,9	2,15	19,3	22,3
18S	3,0	13,1	1,74	20,1	23,2
	3,5	14,4	1,83	17,6	20,3
	4,0	15,3	2,12	18,1	20,9
	4,5	15,9	2,38	18,9	21,9
	5,0	16,3	2,60	19,5	22,5
	5,5	16,8	2,74	19,6	22,6
22S	6,0	16,8	2,91	20,7	23,9
	6,2	16,8	2,98	21,2	24,4
	3,0	12,5	2,30	29,3	33,8
	3,5	13,9	2,54	26,5	30,6
	4,0	15,2	2,74	23,8	27,4
	4,5	15,9	2,94	23,3	26,9
26S	5,0	16,3	3,12	23,4	27,1
	5,5	16,8	3,27	23,3	26,9
	6,0	16,8	3,45	24,5	28,3
	6,2	16,8	3,52	25,1	28,9



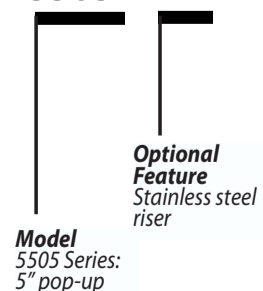
■ 50%  
▲ 50%

### PERFORMANCE 5500 Short Radius Nozzles

Nozzle	bar	m	m³/h	■ mm/h	▲ mm/h
18S	2,1	5,2	0,32	23,7	27,3
	2,5	5,6	0,33	21,5	24,8
	3,0	6,0	0,36	20,2	23,3
	3,5	6,4	0,41	19,8	22,9
	4,0	6,9	0,45	18,8	21,7
	4,5	7,0	0,49	19,9	23,0
22S	5,0	7,2	0,53	20,8	24,0
	5,5	7,6	0,57	19,6	22,6
	2,1	5,8	0,32	19,0	21,9
	2,5	6,2	0,35	18,2	21,0
	3,0	6,6	0,38	17,3	20,0
	3,5	7,1	0,41	16,6	19,1
26S	4,0	7,5	0,45	15,8	18,3
	4,5	7,6	0,49	16,9	19,5
	5,0	7,8	0,53	17,7	20,4
	5,5	8,2	0,57	16,8	19,4
	2,1	7,6	0,32	11,0	12,6
	2,5	7,6	0,39	13,4	15,5
30S	3,0	8,0	0,45	13,8	16,0
	3,5	8,8	0,48	12,3	14,3
	4,0	8,8	0,53	13,6	15,7
	4,5	8,8	0,59	15,2	17,5
	5,0	8,8	0,65	16,7	19,3
	5,5	8,8	0,70	18,0	20,8
30S	2,1	7,6	0,39	13,3	15,4
	2,5	8,4	0,40	11,4	13,2
	3,0	9,1	0,42	10,4	12,0
	3,5	9,5	0,46	10,2	11,7
	4,0	9,9	0,49	9,9	11,5
	4,5	10,4	0,57	10,6	12,2
30S	5,0	10,7	0,65	11,5	13,3
	5,5	10,7	0,70	12,3	14,3

### How to specify

5505 - SS



## 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, 50 m or 100 m.
- Linear, low density polyethylene material.
- New, 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-FLEX: 30 m roll  
 SPX FLEX: 50 m roll  
 SPX FLEX: 100 m roll



## SP-100

Swing Pipe

### APPLICATIONS

Used in conjunction with SB Barb Fittings as a flexible swing joint assembly to protect underground sprinklers by absorbing impact caused by cars or turf maintenance equipment.

### FEATURES

- Linear low-density polyethylene material resists breaks
- Reduces the number of fittings on mainline by allowing easy installation of sprinklers in the corners.

- Easy-to-install: change the height and lateral position of a spray/rotor without modifying the installation.
- Allows fast connection. Important: do not use any lubricant (grease, soap, oil, etc.)

### SPECIFICATIONS

Inside diameter: 12.5 mm  
 Operating water pressure rating: up to 5.5 bar

### MODELS

SP-100/30: 30m coil



## SWING ASSEMBLY

Swing Pipe and Fittings Kit For sprinkler installation

### APPLICATIONS

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

### FEATURES

- 30 cm Swing Pipe kit with 2 elbow fittings for fast installation.
- Kink-resistant, low density, linear polyethylene
- Reduces the number of fittings on the mainline by facilitating installation of sprinklers in corners.
- Easy to install. The height and lateral position of a spray head/rotor can be adjusted without modifying the installation.
- Fast connection. Important: Do not use any lubricant (grease, soap, oil, etc.)

### SPECIFICATIONS

Nominal inside diameter : 12.5 mm  
 Minimum wall thickness: 2.5 mm  
 Maximum operating pressure and temperature: 5.5 bar and 43°C.  
 Mounted with 2 male elbow fittings - 1/2" (15/21) or 3/4" (20X27).  
 Maximum operating pressure : 5.5 bar

### MODELS

LSBE050K: SP100 - 30 cm + 2 SBE-050  
 LSBE075K: SP100 - 30 cm + 2 SBE-075



Example of mounting



## SB SERIES

Spiral Barb Fittings

### APPLICATIONS

For use in conjunction with SP-100/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 SP-100 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: 1/2" (15/21) male x barb elbow
- SBA-050: 1/2" (15/21) male x barb adapter
- SB-TEE: barb x barb x barb tee
- SB-CPLG: barb x barb coupling

## PVRA SERIES

Anti-Theft Fittings

### APPLICATIONS

Protects underground sprinklers by preventing the removal of sprinklers from above.

### FEATURES

- Leak-free

### MODELS

PVRA-050: 1/2" (15/21) male x 3/4" (20/27) female



## LEAK-PROOF JOINT

### APPLICATIONS

Substitute for standard Teflon tape as joints for pipe systems.

### FEATURES

- Easy to use. Can be used on plastic & metal threaded products
- Instantly seals (irrespective of ambient temperature) pipe during assembly
- Can be safely used with drinking, waste water (cold and hot water)

- Use it wherever you used tapes and hems/pastes in the past
- Easier and more economical than standard Teflon tape
- Can be re-positioned

### MODEL

Loctite 55: 1 coil of 50 meters



## HOLE CORING TOOL

### APPLICATIONS

Allows you to cleanly pierce a polyethylene pipe when installing a saddle tee during sprinkler installation.

### FEATURES

- Only one compatible model for 1/2" saddle tee.
- Made of PVC
- Cuts with a built-in cutter
- Easy to remove the cut out polyethylene piece.

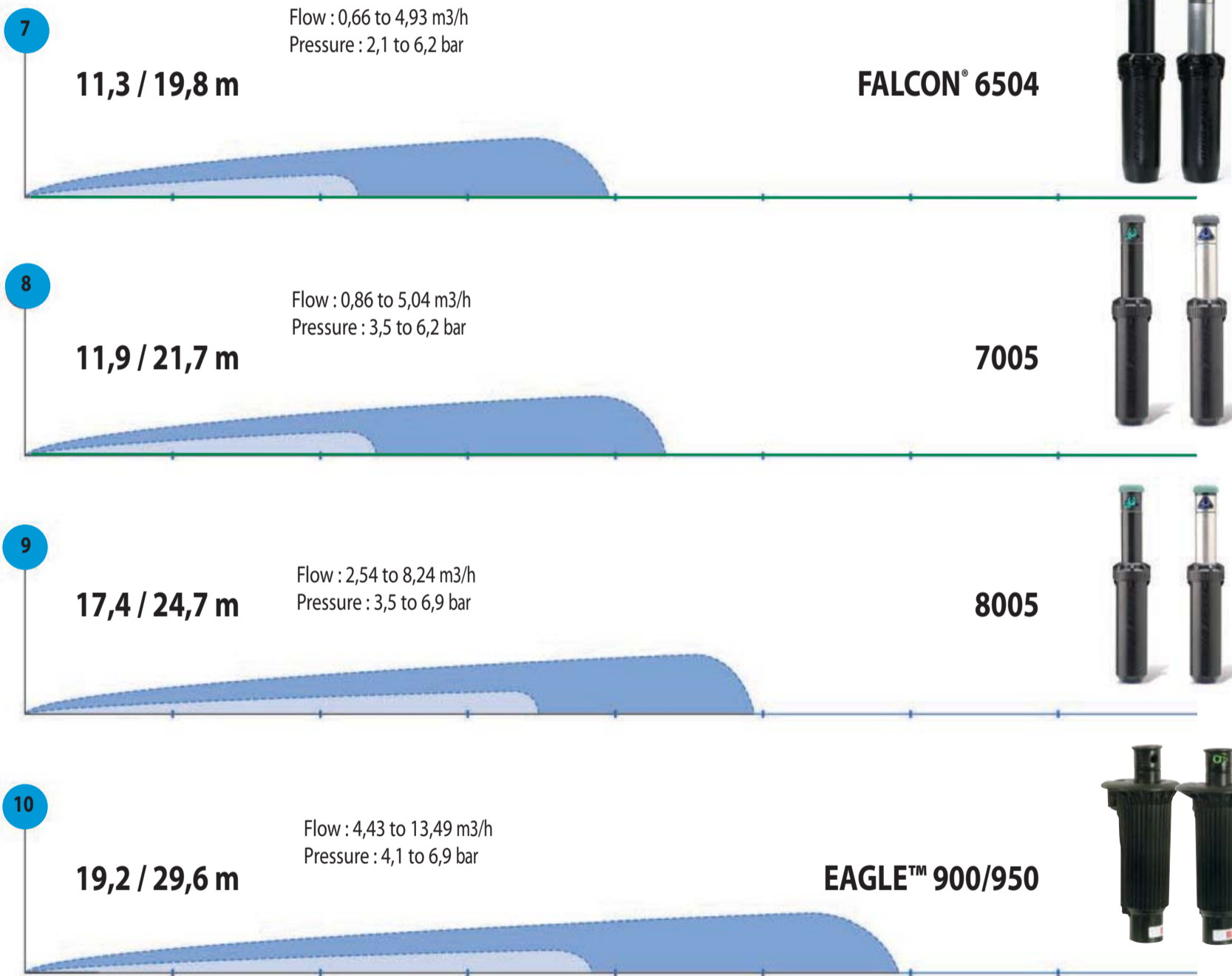
### MODEL

HCT combo



## POP-UP SPRINKLER SELECTION GUIDE

Long Range



## FALCON® 6504 SERIES

Gear-Driven Rotor Pop-up Sprinkler  
Uncompromising performance

- Greener grass with less water – Rain Curtain™ nozzles deliver superior uniformity
- Easy installation and adjustment with a ratcheting stem
- The perfect solution for quick watering or wet-down of clay tennis courts or sports turf infield areas with the optional high speed version (full rotation in approximately one minute)

### FEATURES

#### • Rain Curtain™ nozzle technology

- Color coded Rain Curtain™ nozzles with multiple ports for optimal long-range, mid-range, and close-in watering resulting in superior uniformity
- Nozzles are interchangeable from the front with no special tools

#### • Installation and Maintenance

- Easy arc adjustment (part-circle model) through top of rotor from 40° to 360°
- Self-adjusting stator does not require replacement when changing nozzles
- Radius adjustment screw allows radius reduction up to 25% without changing nozzles

#### • Design Solutions

- Stainless steel riser option helps deter vandalism on public turf areas
- Removable Seal-A-Matic™ (SAM) check device prevents puddling and erosion caused by low-head drainage
- Standard black rubber cover
- Small 5,1 cm exposed diameter reduces possibility of injury in play areas
- High speed option for syringing infield areas or dust control
- True 10,2 cm pop-up height to center line of nozzle clears taller turfgrass

#### • Durability

- Five-year trade warranty
- Water-lubricated gear drive for reliable, durable rotation
- Heavy-duty, stainless steel retract spring ensures positive pop-down
- Patented, pressure-activated wiper seal and tapered riser stem on both plastic and stainless steel models protect internals from debris to ensure positive pop-up and retraction
- Stainless steel trip gears ensure long-term durability

AUTHORIZED  
BY THE FRENCH/SWISS FOOTBALL FEDERATION  
for installation on playing surfaces



### SPECIFICATIONS

Standard Model Radius: 11.9 to 19.8 m  
High Speed Model Radius: 11.3 to 18.6 m  
Flow rate: 0.66 to 4.93 m<sup>3</sup>/h  
Pressure: 2.1 to 6.2 bar  
1" (26/34) BSP female threaded inlet  
SAM check valve device holds back up to 3.1 m of elevation difference  
Nozzle trajectory angle: 25°  
Rain Curtain nozzles: 04 (black), 06 (light blue), 08 (dark green), 10 (grey), 12 (beige), 14 (light green), 16 (dark brown), 18 (dark blue)

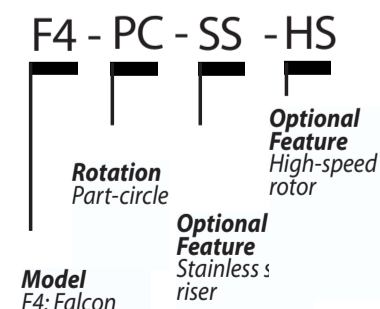
### DIMENSIONS

Pop-up height to nozzle center line: 10.2 cm  
Overall body height: 21.6 cm  
Exposed top diameter: 5.1 cm

### MODELS

F4-FC: full circle  
F4-PC: part circle (40° to 360°)  
F4-FC-SS: full circle/stainless steel riser sleeve  
F4-PC-SS: part circle (40° to 360°) stainless steel riser sleeve  
F4-FC-SS-HS (High Speed): full circle/stainless steel riser sleeve  
F4-PC-SS-HS (High Speed): part circle/stainless steel riser sleeve

### How to specify



**PERFORMANCE**
**FALCON® 6504 Series**

Nozzle	bar	m	m³/h	■ mm/h	▲ mm/h
04	2,1	11,9	0,66	9	11
	2,5	12,3	0,72	10	11
	3,0	12,5	0,78	10	12
	3,5	12,5	0,85	11	13
	4,0	12,5	0,89	11	13
	4,5	12,5	0,96	12	14
	5,0	12,7	1,01	13	15
5,5	13,1	1,04	12	14	
06	2,1	13,1	0,95	11	13
	2,5	13,5	1,05	12	13
	3,0	14,1	1,16	12	13
	3,5	14,9	1,26	11	13
	4,0	14,4	1,34	13	15
	4,5	14,6	1,40	13	15
	5,0	14,9	1,47	13	15
5,5	14,9	1,56	14	16	
08	2,5	14,9	1,50	13	16
	3,0	15,1	1,56	14	16
	3,5	15,5	1,69	14	16
	4,0	15,5	1,83	15	17
	4,5	15,5	1,95	16	19
	5,0	15,7	2,05	17	19
	5,5	16,1	2,13	16	19
10	2,5	15,5	1,84	15	18
	3,0	15,8	1,92	15	18
	3,5	16,2	2,08	16	18
	4,0	16,6	2,23	16	19
	4,5	17,1	2,37	16	19
	5,0	17,2	2,50	17	19
	5,5	16,8	2,63	19	22
12	2,5	16,2	2,20	17	19
	3,0	16,4	2,31	17	20
	3,5	16,8	2,52	18	21
	4,0	17,3	2,72	18	21
	4,5	17,7	2,89	18	21
	5,0	18,1	3,04	19	21
	5,5	18,6	3,18	18	21
14	2,5	16,8	2,57	18	21
	3,0	17,2	2,68	18	21
	3,5	18,0	2,91	18	21
	4,0	18,5	3,12	18	21
	4,5	18,6	3,32	19	22
	5,0	18,6	3,51	20	23
	5,5	18,6	3,67	21	25
16	2,5	16,8	2,86	20	24
	3,0	17,4	3,00	20	23
	3,5	18,6	3,27	19	22
	4,0	19,1	3,50	19	22
	4,5	19,2	3,71	20	23
	5,0	19,2	3,91	21	24
	5,5	19,2	4,10	22	26
18	2,5	18,0	3,11	19	22
	3,0	18,0	3,25	20	23
	3,5	18,1	3,53	22	25
	4,0	19,0	3,81	21	24
	4,5	19,5	4,03	21	24
	5,0	19,8	4,23	22	25
	5,5	19,8	4,44	23	26
	6,0	19,8	4,79	24	28
6,2	19,8	4,93	25	29	

**FALCON® 6504 High Speed Series**

Nozzle	bar	m	m³/h	■ mm/h	▲ mm/h
04	2,1	11,3	0,68	11	12
	2,5	12,0	0,75	10	12
	3,0	12,5	0,81	10	12
	3,5	12,5	0,85	11	13
	4,0	12,5	0,93	12	14
	4,5	12,5	1,00	13	15
	5,0	12,3	1,06	14	16
5,5	11,9	1,11	16	18	
06	2,1	11,9	0,98	14	16
	2,5	12,7	1,22	15	18
	3,0	13,3	1,33	15	17
	3,5	13,7	1,28	14	16
	4,0	13,7	1,38	15	17
	4,5	13,4	1,48	16	19
	5,0	13,1	1,56	18	21
5,5	13,1	1,61	19	22	
08	2,5	14,2	1,49	15	17
	3,0	14,5	1,57	15	17
	3,5	14,9	1,72	16	18
	4,0	14,4	1,85	18	21
	4,5	14,6	1,97	18	21
	5,0	15,1	2,08	18	21
	5,5	15,5	2,20	18	21
10	2,5	14,2	1,83	18	21
	3,0	14,5	1,93	18	21
	3,5	14,9	2,11	19	22
	4,0	14,9	2,27	20	24
	4,5	15,3	2,42	21	24
	5,0	15,4	2,57	22	25
	5,5	14,9	2,70	24	28
12	2,5	14,8	2,24	20	24
	3,0	15,4	2,35	20	23
	3,5	16,2	2,56	20	23
	4,0	16,2	2,76	21	24
	4,5	16,5	2,95	22	25
	5,0	16,8	3,12	22	26
	5,5	16,8	3,27	23	27
14	2,5	16,0	2,58	20	23
	3,0	16,2	2,71	21	24
	3,5	16,2	2,95	23	26
	4,0	16,2	3,17	24	28
	4,5	16,2	3,36	26	30
	5,0	16,2	3,54	27	31
	5,5	16,2	3,74	29	33
16	2,5	15,4	2,85	24	28
	3,0	15,8	3,00	24	28
	3,5	16,2	3,27	25	29
	4,0	16,6	3,50	25	29
	4,5	17,1	3,73	26	30
	5,0	17,5	3,96	26	30
	5,5	18,0	4,17	26	30
18	2,5	16,0	3,15	24	28
	3,0	16,4	3,29	25	28
	3,5	16,9	3,57	25	29
	4,0	17,7	3,83	24	28
	4,5	18,0	4,07	25	29
	5,0	18,0	4,30	27	31
	5,5	18,0	4,53	28	32
	6,0	18,4	4,75	28	32
6,2	18,6	4,84	28	32	



■ 50% ▲ 50%

**232693S TOOL**
**232693S**
**APPLICATIONS**

Stem hold-up tool with bubble level

**MODEL**

232693S



## 7005 SERIES ROTORS

Pop-up Sprinkler – Long Range

The 1<sup>st</sup> worldwide choice for Sport Fields application !

- Greener grass with less water – Rain Curtain™ nozzles deliver superior uniformity
- Save time and replacement costs with this vandal and abuse resistant rotor
- Lower inventory costs with a continuous 360 full circle and part circle operation in one head

### FEATURES

#### • Rain Curtain™ nozzle technology

- Rain Curtain™ nozzles for optimal distribution and close-in watering resulting in superior uniformity.
- Nozzles are interchangeable from the front with no special tools

#### • Vandal and abuse resistance

- Anti-Vandal protection: the arc setting returns to its original setting after tampering from vandals (Memory Arc®).
- Non-strippable drive mechanism prevents damage from vandals and equipment
- Brass reinforced nozzle turret to riser connection withstands side impact damage
- Optional stainless steel riser model helps deter vandalism on public turf areas

#### • Installation and Maintenance

- Left and right side trips are independently adjustable for ease of installation without turning the case and loosening the pipe connection
- Easy, wet, dry arc adjustment with only a slotted screwdriver through top of rotor from 50° to 330° part-circle, 360° non-reversing full circle
- Self-adjusting stator allows nozzle replacement with no other adjustments required

#### • Design Solutions & Safety

- Standard Seal-A-Matic™ (SAM) check device/riser to help prevent low head drainage
- Standard black rubber cover
- Small exposed diameter reduces possibility of injury on play areas
- Optional rubber Sod Cup for player safety on sports field applications

#### • Durability

- Five-year trade warranty
- Water-lubricated gear drive
- Heavy duty retract spring ensures positive pop-down

### SPECIFICATIONS

Radius: 11.9 to 21.7 m



AUTHORIZED  
BY THE FRENCH / SWISS  
FOOTBALL FEDERATION  
for installation on playing  
surfaces

Pressure: 3.5 to 6.2 bar  
Flow Rate: 0.86 to 5.04 m<sup>3</sup>/h  
1" (26/34) BSP female threaded inlet  
SAM check device holds up to 3.1m of head  
Rain Curtain nozzles: 04 (black), 06 (light blue), 08 (dark green), 10 (gray), 12 (beige), 14 (light green), 16 (dark brown), 18 (dark blue)  
Nozzle outlet trajectory is 25°

### DIMENSIONS

Pop-up height: 12.7 cm  
Overall height: 25.7 cm  
Exposed diameter: 4.8 cm  
Overall diameter: 7.9 cm  
*Note: pop-up height measured from cover to center of primary nozzle port. Overall body height is measured popped down.*

### MODELS

7005: 1" (26/34) (BSP) female threaded inlet (plastic riser stem)  
7005-SS: 1" (26/34) (BSP) female threaded inlet (stainless steel covered riser stem)

### ACCESSORY

## Sod Cup

### APPLICATIONS

The Rain Bird Sod Cup is designed to fit the 7005/8005 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

7005/8005 Sod Cup

### How to specify

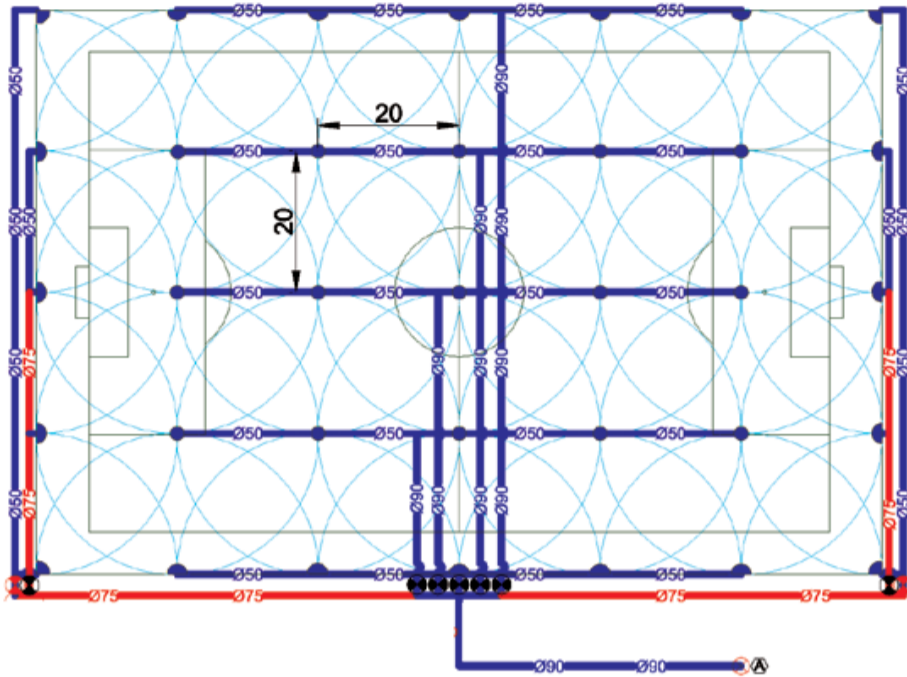
7005 - SS



Model 7005

**Optional Feature**  
Stainless steel riser





Design example  
Authorized by the French / Swiss football federation for installation  
on playing surfaces.

**PERFORMANCE**

Nozzle	bar	m	m <sup>3</sup> /h	■ mm/h	▲ mm/h
04	3,5	11,9	0,86	12	14
	4,0	11,9	0,93	13	16
	4,5	11,9	1,00	14	16
	5,0	11,9	1,06	15	17
06	3,5	13,7	1,26	14	16
	4,0	13,7	1,37	15	17
	4,5	13,7	1,45	15	18
	5,0	13,7	1,54	16	19
08	3,5	14,9	1,59	14	17
	4,0	14,9	1,75	16	18
	4,5	14,9	1,92	17	20
	5,0	14,9	2,09	19	22
10	3,5	16,1	2,12	16	19
	4,0	16,3	2,26	17	20
	4,5	16,5	2,40	18	21
	5,0	16,7	2,54	18	21
12	3,5	17,5	2,52	16	19
	4,0	17,7	2,70	17	21
	4,5	18,0	2,87	18	21
	5,0	18,3	3,05	18	21
14	3,5	18,1	2,92	18	21
	4,0	18,5	3,13	18	21
	4,5	18,8	3,34	19	22
	5,0	19,1	3,54	19	23
16	3,5	19,0	3,29	18	21
	4,0	19,4	3,52	19	22
	4,5	19,8	3,75	19	22
	5,0	20,1	3,98	20	23
18	3,5	19,3	3,70	20	23
	4,0	19,7	3,95	20	24
	4,5	20,1	4,21	21	24
	5,0	20,6	4,46	21	25

■ 50% ▲ 50%

**Standard Rubber Cover with 4,8 cm Exposed Diameter**  
for enhanced safety on playing fields

**Vandal Resistant Tripping Mechanism with Memory Arc®**

**Brass Reinforcing Shaft**  
brass shaft for enhanced protection against vandals

**Non-Strippable Drive Mechanism**

**Seal-A-Matic™ (SAM) Check Device**  
prevents puddling/erosion

**Adjustable Right & Left Trips**

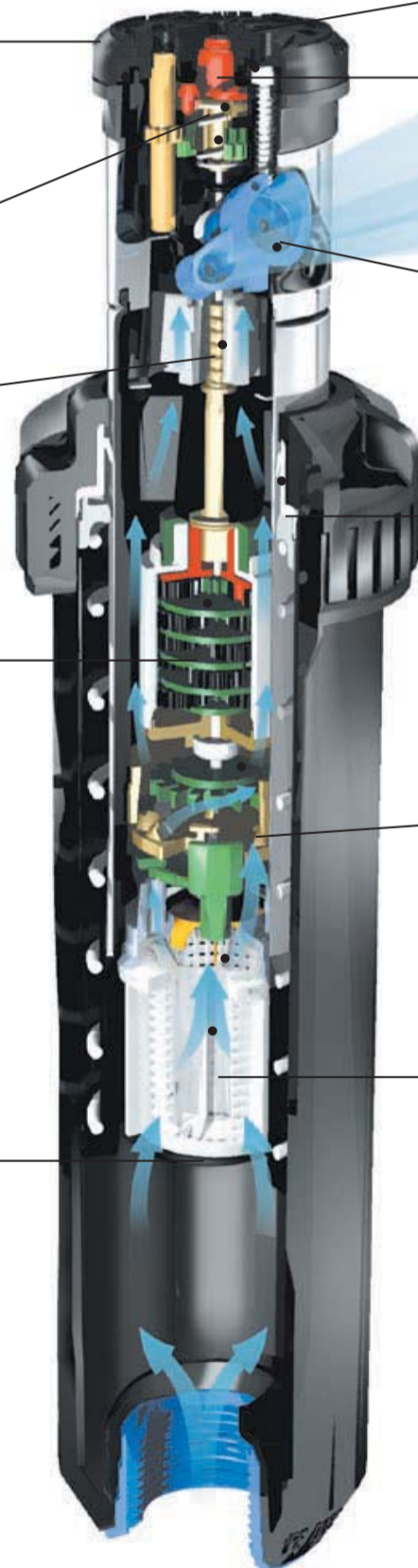
**Adjustment Mechanism**  
for part-circle and non-reversing full-circle operation

**Interchangeable Color-coded Rain Curtain™ Nozzles** for superior water distribution

**Pressure-Activated Wiper Seal** protects the internals from debris

**Self-Adjusting Stator** automatically adjusts when nozzle is changed

**Filter with Built-In Freeze Protection**



## 8005 SERIES ROTORS

Pop-up Sprinkler – Long Range  
A Full-Featured State-of-the-Art Commercial Rotor !

AUTHORIZED  
BY THE FRENCH/SWISS FOOTBALL FEDERATION  
for installation on playing surfaces

- Greener grass with less water – Rain Curtain™ nozzles deliver superior uniformity
- Save time and replacement costs with this vandal and abuse resistant rotor
- Lower inventory costs with a continuous 360 full circle and part circle operation in one head

### FEATURES

- **Rain Curtain™ nozzle technology**
  - Rain Curtain™ nozzles for optimal distribution and close-in watering resulting in superior uniformity.
  - Nozzles are interchangeable from the front with no special tools
- **Vandal and abuse resistance**
  - Anti-Vandal protection: the arc setting returns to its original setting after tampering from vandals (Memory Arc®).
  - Non-strippable drive mechanism prevents damage from vandals and equipment
  - Brass reinforced nozzle turret to riser connection withstands side impact damage
  - Optional stainless steel riser model helps deter vandalism on public turf areas
- **Installation and Maintenance**
  - Left and right side trips are independently adjustable for ease of installation without turning the case and loosening the pipe connection
  - Easy, wet, dry arc adjustment with only a slotted screwdriver through top of rotor from 50° to 330° part-circle, 360° non-reversing full circle
  - Self-adjusting stator allows nozzle replacement with no other adjustments required
- **Design Solutions & Safety**
  - Standard Seal-A-Matic™ (SAM) check device/riser to help prevent low head drainage
  - Standard black rubber cover
  - Small exposed diameter reduces possibility of injury on play areas
  - Optional rubber Sod Cup for player safety on sports field applications
- **Durability**
  - Five-year trade warranty
  - Water-lubricated gear drive
  - Heavy duty retract spring ensures positive pop-down



### SPECIFICATIONS

Radius: 17.4 to 24.7 m  
Pressure: 3.5 to 6.9 bar  
Flow Rate: 2.54 to 8.24 m<sup>3</sup>/h  
1" (26/34) BSP female threaded inlet  
SAM check device holds up to 3.1 m of head  
Rain Curtain nozzles: 12-beige; 14-light green; 16-dark brown; 18-dark blue; 20-red; 22-yellow; 24-orange, 26-white  
Nozzle outlet trajectory is 25°

### DIMENSIONS

Pop-up height: 12.7 cm  
Overall height: 25.7 cm  
Exposed diameter: 4.8 cm  
Overall diameter: 7.9 cm  
*Note: pop-up height measured from cover to center of primary nozzle port. Overall body height is measured popped down.*

### MODELS

8005: 1" (26/34) (BSP) female threaded inlet (plastic riser stem)  
8005-SS: 1" (26/34) (BSP) female threaded inlet (stainless steel covered riser stem)

### ACCESSORY

#### Sod Cup

#### APPLICATIONS

The Rain Bird Sod Cup is designed to fit the 7005/8005 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

7005/8005 Sod Cup

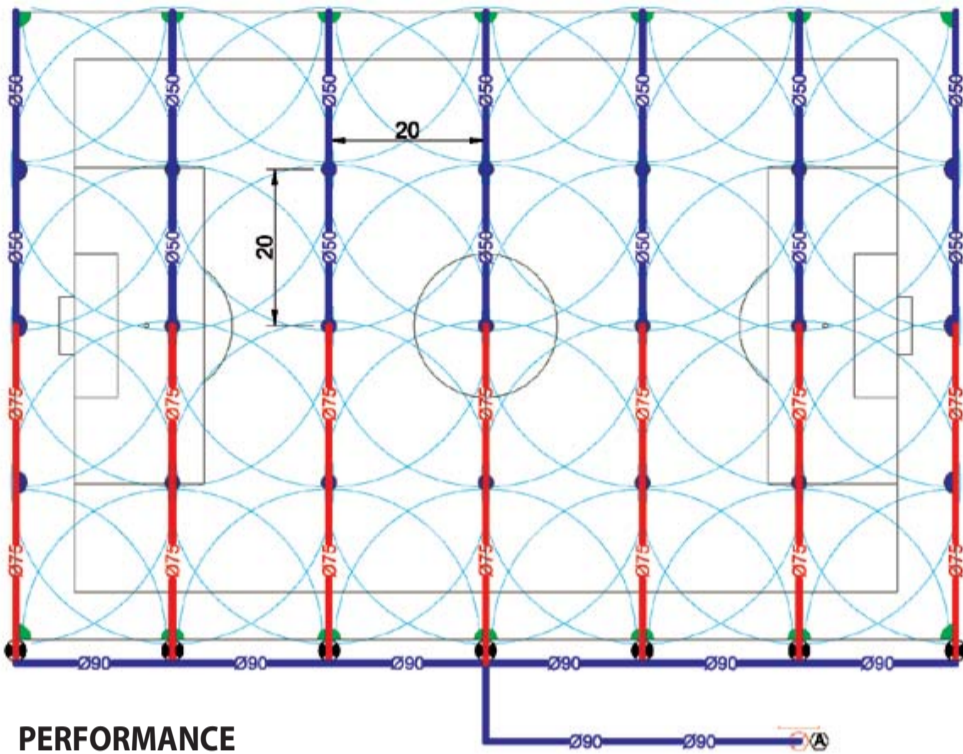


### How to specify

8005 -SS



Model 8005



Design example  
Authorized by the French / Swiss football  
federation for installation on playing surfaces.

**PERFORMANCE**

Nozzle	bar	m	m <sup>3</sup> /h	■ mm/h	▲ mm/h
12	3,5	17,4	2,54	17	19
	4,0	17,9	2,68	17	19
	4,5	18,0	2,87	18	20
	5,0	18,1	3,06	19	22
	5,5	18,6	3,22	19	21
14	3,5	18,0	2,89	18	21
	4,0	18,5	3,17	19	21
	4,5	18,9	3,37	19	22
	5,0	19,2	3,54	19	22
	5,5	19,2	3,72	20	23
16	3,5	18,7	3,28	19	22
	4,0	19,6	3,54	18	21
	4,5	20,1	3,77	19	22
	5,0	20,4	3,99	19	22
	5,5	20,4	4,22	20	23
18	3,5	19,2	3,69	20	23
	4,0	19,7	3,97	20	24
	4,5	20,1	4,22	21	24
	5,0	20,6	4,47	21	24
	5,5	21,0	4,74	21	25
20	3,5	19,9	4,25	21	25
	4,0	20,3	4,50	22	25
	4,5	21,1	4,79	22	25
	5,0	21,6	5,11	22	25
	5,5	21,6	5,42	23	27
	6,0	22,1	5,65	23	27
22	6,5	22,5	5,89	23	27
	6,9	22,9	6,09	23	27
	3,5	20,0	5,08	25	29
	4,0	21,3	5,23	23	27
	4,5	22,0	5,51	23	26
	5,0	22,4	5,84	23	27
24	5,5	22,8	6,19	24	28
	6,0	22,9	6,71	26	30
	6,5	23,4	6,84	25	29
	6,9	23,5	6,97	25	29
	3,5	19,3	5,11	27	32
	4,0	20,7	5,50	26	30
26	4,5	22,0	5,88	24	28
	5,0	23,0	6,26	24	27
	5,5	23,5	6,62	24	28
	6,0	23,9	6,92	24	28
	6,5	24,1	7,22	25	29
	6,9	24,1	7,45	26	30
26	3,5	20,0	5,57	28	32
	4,0	21,8	6,01	25	29
	4,5	22,6	6,42	25	29
	5,0	23,2	6,80	25	29
	5,5	24,1	7,14	25	28
	6,0	24,1	7,50	26	30
26	6,5	24,3	7,91	27	31
	6,9	24,7	8,24	27	31

■ 50% ▲ 50%

**Standard Rubber Cover with 4,8 cm Exposed Diameter**  
*for enhanced safety on playing fields*

**Vandal Resistant Tripping Mechanism with Memory Arc®**

**Brass Reinforcing Shaft**  
*brass shaft for enhanced protection against vandals*

**Non-Strippable Drive Mechanism**

**Seal-A-Matic™ (SAM) Check Device**  
*prevents puddling/erosion*

**Adjustable Right & Left Trips**

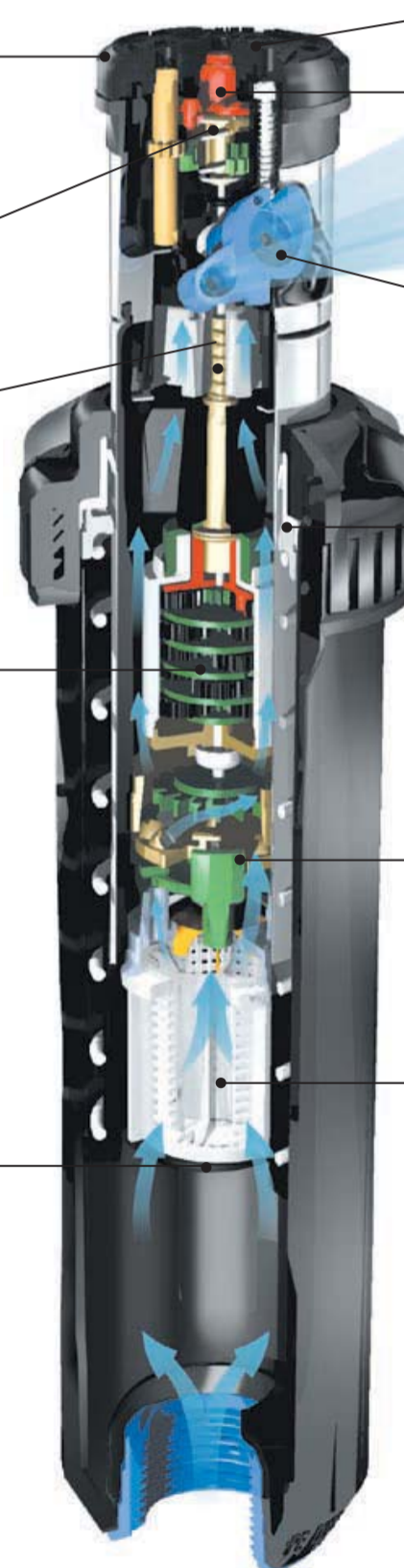
**Adjustment Mechanism**  
*for part-circle and non-reversing full-circle operation*

**Interchangeable Color-coded Rain Curtain™ Nozzles** for superior water distribution

**Pressure-Activated Wiper Seal** protects the internals from debris

**Self-Adjusting Stator** automatically adjusts when nozzle is changed

**Filter with Built-In Freeze Protection**



## 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<sup>3</sup>/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  
 Female threaded inlet: 1.5" (40/49) BSP

### 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  
 Aluminium plate for customized artificial grass installation.



**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%

**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 Rain Gun® Sprinklers

### APPLICATIONS

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

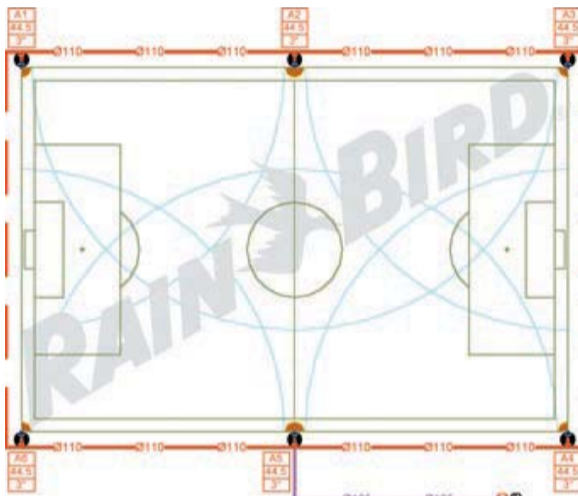
### FEATURES

- 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

### MODELS

SR2005: 3" (80/90) Part circle Rain Gun® - Slow reverse

SR3003: 2" (50/60) Part circle Rain Gun® - Slow reverse



Design example



### 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
16 mm	6,0	40,2	18,2
	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
18 mm	5,5	39,0	22,5
	6,0	40,5	23,6
	3,0	36,0	21,6
	3,5	38,0	23,0
	4,0	40,0	24,5
	4,5	42,0	26,0
20 mm	5,0	43,2	27,4
	5,5	44,5	28,8
	6,0	45,5	30,2
	3,0	40,5	26,5
	3,5	42,0	28,4
	4,0	42,7	30,3
22 mm	4,5	43,5	32,2
	5,0	45,0	33,8
	5,5	46,5	35,5
	6,0	48,0	37,3
	3,0	40,0	31,5
	3,5	41,5	33,8
24 mm	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
	3,0	40,0	38,0
24 mm	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



## TR TRAVELER

Self-propelled sprinkler.

When you can not have underground irrigation, have it above ground !

### APPLICATIONS

The Rain Bird TR Series Traveler is designed to provide an economical solution in situations where supplementary irrigation is required or where underground watering systems are either too costly or impractical, It is ideal for athletic fields, parks and other large turf areas

### FEATURES

- Shipped less Sprinkler with 3/4" female Sprinkler connection
- Enclosed drive gear mechanism
- Precise speed adjustments independent of flow at nozzle
- Automatic shut-down at end of path
- Simple set-up and operation
- Maintenance-free turbine and transmission
- Three year trade warranty
- Built-in pressure gauge
- Simple, durable design
- Shipped less sprinkler
- Shipped less cover

### SPECIFICATIONS

Path distance: up to 90 m or 135 m (depending on model selected)

Speed: adjustable from 9,0 to 23,5 m/hour

3/4" (20/27) BSP female threaded inlet for hose  
3/4" (20/27) BSP female threaded outlet for sprinkler

### WITH SPRINKLER MODEL 35A-PJDA-TNT

Radius: up to 15,6 m

Maximum coverage of up to 166,2 m by 31,2 m per lap

Pressure: 2,1 to 4,1 bar

Flow: 0,89 to 1,77 m<sup>3</sup>/h

### PERFORMANCE

#### 65PJ-TNT

Nozzles	bar	m	m <sup>3</sup> /h
14	4,0	17,4	2,43
	4,5	18,0	2,59
	5,0	18,6	2,73
	5,5	19,2	2,86

### WITH SPRINKLER MODEL 65PJ-TNT

Radius: up to 19,2 m

Maximum coverage of up to 173,4 m by 38,4 m per lap

Pressure: 4,0 to 5,5 bar

Flow: 2,43 to 2,86 m<sup>3</sup>/h

### MODELS

TR-4-90: Four wheels, 90 meter cable

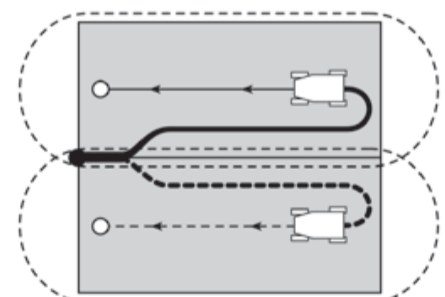
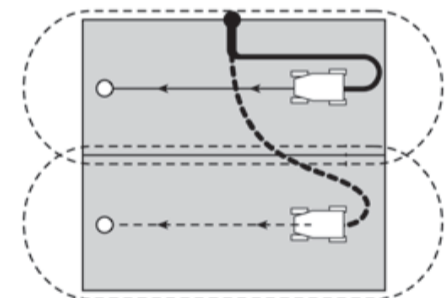
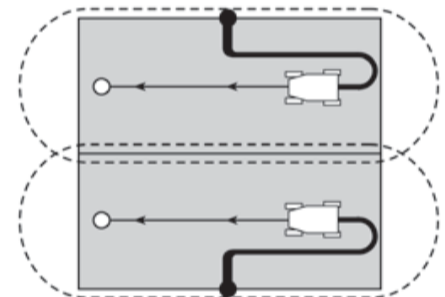
TR-4-135: Four wheels, 135 meter cable

Cover

*Note: Shown with optional cover*

#### 35A-PJDA-TNT

Nozzles	bar	m	m <sup>3</sup> /h
10	2,1	12,8	0,89
	2,5	13,1	0,97
	3,0	13,4	1,05
	3,5	13,7	1,13
	4,0	14,0	1,21
12	4,1	14,0	1,23
	2,1	13,4	1,25
	2,5	13,9	1,37
	3,0	14,5	1,50
	3,5	15,0	1,63
4,0	15,5	1,75	
	4,1	15,6	1,77





### 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 m³/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 59.



### 25BPJ, 35A-PJ, 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/ 35A-PJ
- 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

#### 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 m³/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 m³/h  
 1-1/4" (10/32) BSP male threaded inlet  
 Nozzle outlet trajectory: 27°

#### MODELS

25BPJ-FP-ADJ-DA-TNT: ½" (15/21)  
 35A-PJDA-TNT: ¾" (20/27)  
 65PJ-TNT: 1" (26/34) BSP  
 85ESHD: 1-¼" (10/32) BSP

#### PERFORMANCE

##### 25BPJ-FP-ADJ-DA-TNT

Nozzles	bar	m	m³/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%



#### 85ESHD

Nozzles	bar	m	m³/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 new 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:

8m x 8m to 15m x 15m

### 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](http://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

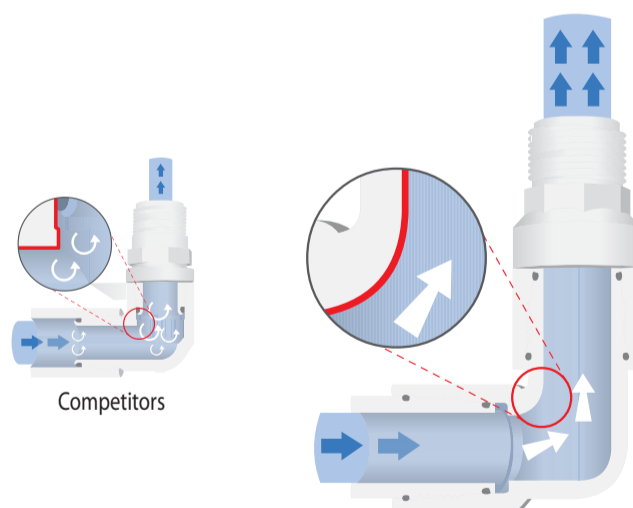
#### MODELS

- 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

Flow, l/s	1" models		1,5" models	
	SJ-12-100-22 bar	SJ-18-100-22 bar	SJ-12-150-22 bar	SJ-18-150-22 bar
1,1	0,1	0,1		
1,5	0,2	0,2		
2,5			0,03	0,03
4,5			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



# VALVES AND ACCESSORIES



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



## Water Savings Tips

- Rain Bird valves provide excellent filtration characteristics for maximum reliability in a wide range of environments.
- 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.
- Rain Bird Low Flow Valve (LFV) is the only valve in the industry made specifically for drip irrigation systems, making this the only valve that can effectively handle particles at low flow rates.

## 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 1/2" diameter seat for flawless operation at low flow rates.
- Double-filtered pilot flow design for maximum reliability

### SPECIFICATIONS

Flow : 45,42 to 1136 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

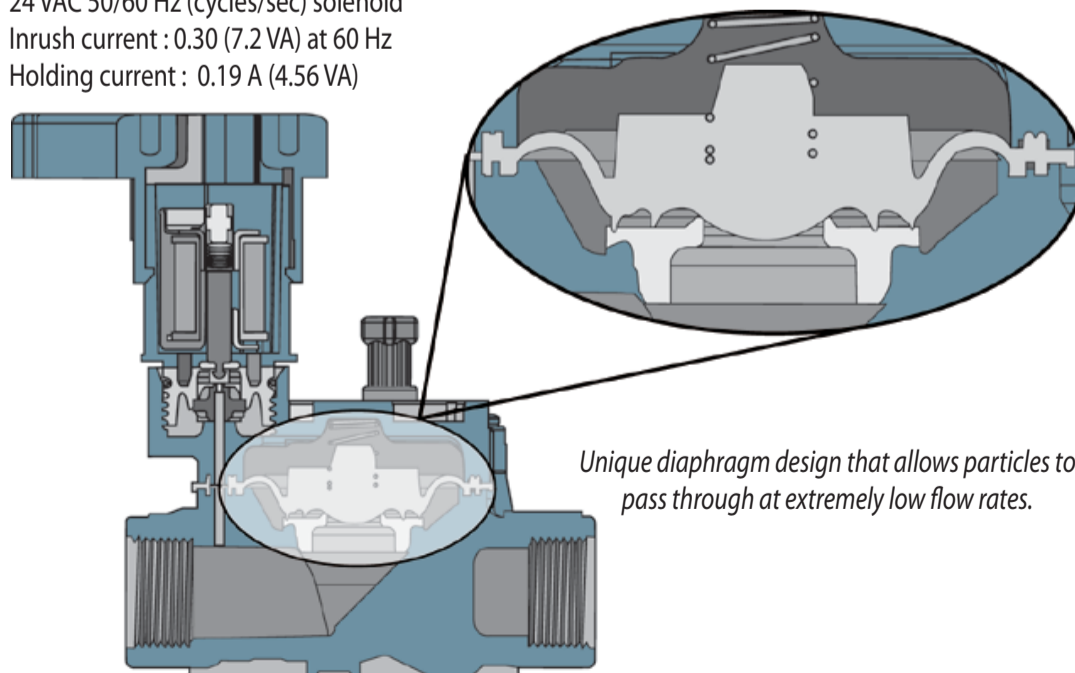
Height : 11,4 cm  
Length : 10,7 cm  
Width : 8,4 cm

### 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: 075-DV/100-DV/ 100-DVF and 100-DV-MM

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: 0.24 to 4,5 m<sup>3</sup>/h

Note: For flows below 0.75 m<sup>3</sup>/h or any low volume irrigation application, use PRF-075-BFF or PRF-075-RBY filters installed upstream

100-DV, 100-DVF and 100-DV-MM:

0.24 to 9.0 m<sup>3</sup>/h

Note: DV male x male not recommended for flows exceeding 6,8 m<sup>3</sup>/h

Pressure: 1 to 10.4 bar (23° C)

Temperature: up to 43°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

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

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

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

DBY, DBR, DBM: Rain Bird «Quick Connect» wire connectors

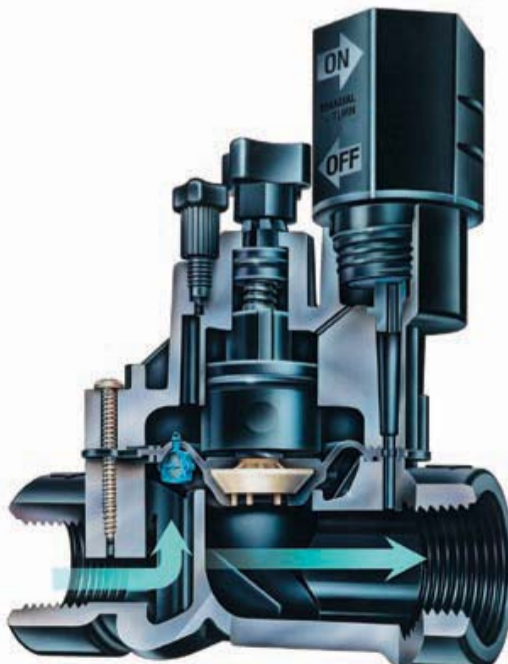
PRF-075-BFF

PRF-075-RBY

### PERFORMANCE: Valve pressure loss (bar)

m <sup>3</sup> /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: 3/4" (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
- Flow control mechanism on 100-JTVF model
- 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

- Available in male x male configuration (100- JTV-MM), with flow control mechanism (JTVF) or with pre-installed latching solenoid (100-JTV-9V)
- 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<sup>3</sup>/h

Note: For flows below 0.75 m<sup>3</sup>/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/JTVF/JTV9V: 10,2 cm

100-JTV-MM: 13,7 cm

Width: 7,9 cm



100-JTV-9V

### PERFORMANCE: Valve pressure loss

Flow m <sup>3</sup> /h	100-JTV 100-JTVF	100-JTV-MM
0,23	0,20	0,26
0,6	0,23	0,30
1,2	0,27	0,32
3,6	0,40	0,40
4,5	0,49	0,46
6,0	0,60	0,58
6,8	0,67	0,66

Pressure loss values are with flow control fully open.

### MODELS

100-JTV: 1" (26/34) Female Threaded Inlet and Outlet

100-JTVF : 1" (26/34) Female threaded inlet and outlet with flow control mechanism

100-JTV-MM: 1" (26/34) Male threaded Inlet and Outlet

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

### ACCESSORY

BW-JTV: JTV bonnet wrench. Used to remove and tighten JTV/JTVF bonnets in hard to reach areas. Can remove bonnet with solenoid installed.



BW-JTV

### How to specify

#### 100 - JTVF- MM

**Model**  
Male threaded Inlet and Outlet

**Model**  
JTV: Jar Top Valve  
JTVF: Jar Top Valve w/ Flow Control

**Size**  
1" (26/34)

## PGA SERIES: 100-PGA/ 150-PGA and 200-PGA

Plastic Electric Valves - Built to last... and last!

- Plastic globe/angle valve for residential/light commercial applications. The PGA Series offers flexibility in design and installation at an affordable price
- Fabric-reinforced diaphragm for longer life
- Long-lasting and reliable operation: Heavyduty PVC construction.

### FEATURES

#### • Ease of Service

- Prevents loss of parts during field service thanks to one-piece solenoid design with captured plunger.
- Non-rising 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
- Solenoid with convenient handle

#### • Versatility

- Accommodates field-installed PRS-Dial pressure regulating modules adjustable from 1.0 to 6.9 bar to be ordered separately)
- Also available in 9V solenoid configuration: 100-PGA-9V, 150-PGA-9V, 200-PGA-9V
- Compatible with Rain Bird Decoder Systems

#### • Reliability

- Slow closing to prevent water hammer and subsequent system damage
- Double filtered pilot flow prevents clogging solenoid ports

### SPECIFICATIONS

Flow: 1,14 to 34.05 m<sup>3</sup>/h  
 Pressure: 1.0 to 10.4 bar (23° C)  
 Temperature: up to 43°C

*Note: the PRS-Dial option adds 5 cm to the valve height*

### PERFORMANCE: Valve Pressure Loss (bar)

100-PGA		
m <sup>3</sup> /h	Globe	Angle
1,2	0,38	0,38
3	0,41	0,41
6	0,43	0,43
9	0,48	0,48

### ELECTRICAL SPECIFICATIONS

Solenoid: 24 VAC - 50 Hz  
 Inrush current: 0.41 A (9.9 VA)  
 Holding current: 0.23 A (5.5 VA)

### DIMENSIONS

#### 100-PGA

Height: 18.4 cm  
 Length: 14.0 cm  
 Width: 8.3 cm

#### 150-PGA

Height: 20.3 cm  
 Length: 17.2 cm  
 Width: 8.9 cm

#### 200-PGA

Height: 25.4 cm  
 Length: 19.7 cm  
 Width: 12.7 cm

*Note: the PRS-Dial option adds 5 cm to the valve Height*

### MODELS

- 100-PGA : 1" (26/34) BSP female threaded inlet and outlet
- 100-PGA-9V : 1" (26/34) BSP female threaded inlet and outlet, latching solenoid
- 150-PGA : 1,5" (40/49) BSP female threaded inlet and outlet
- 150-PGA-9V : 1,5" (40/49) BSP female threaded inlet and outlet, latching solenoid
- 200-PGA : 2" (50/60) BSP female threaded inlet and outlet
- 200-PGA-9V : 2" (50/60) BSP female threaded inlet and outlet, latching solenoid

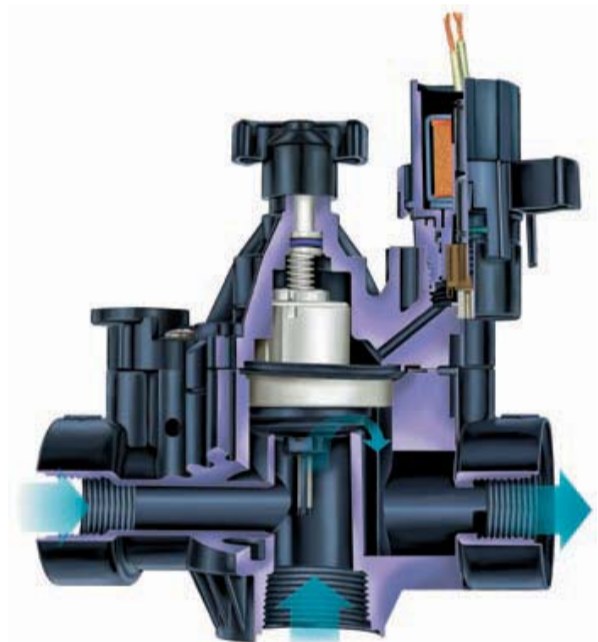
### ACCESSORIES

PRS-Dial: pressure regulating module with regulating range from 1.0 to 6.9 bar

### TEMPERATURE RATING

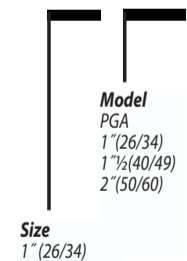
Water temperature	Continuous pressure
23°C	10.4 bars
27°C	9.1 bars
32°C	7.7 bars
38°C	6.4 bars
43°C	5.2 bars

150-PGA		
m <sup>3</sup> /h	Globe	Angle
6	0,10	0,07
9	0,22	0,14
12	0,38	0,23
15	0,61	0,36
18	0,86	0,51
21	1,16	0,70



### How to specify

#### 100 - PGA



200-PGA		
m <sup>3</sup> /h	Globe	Angle
9	0,08	0,07
12	0,12	0,07
15	0,17	0,10
18	0,24	0,13
21	0,33	0,18
24	0,43	0,23
27	0,54	0,30
30	0,66	0,36
34	0,83	0,45

*Pressure loss values are with flow control fully open.*

## PEB SERIES : 100-PEB/ 100-PESB/ 150-PEB/ 150-PESB/ 200-PEB and 200-PESB

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
- Accommodates 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 MDC Decoder System

#### • Reliability

- Self-flushing 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 m<sup>3</sup>/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: 0.23 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

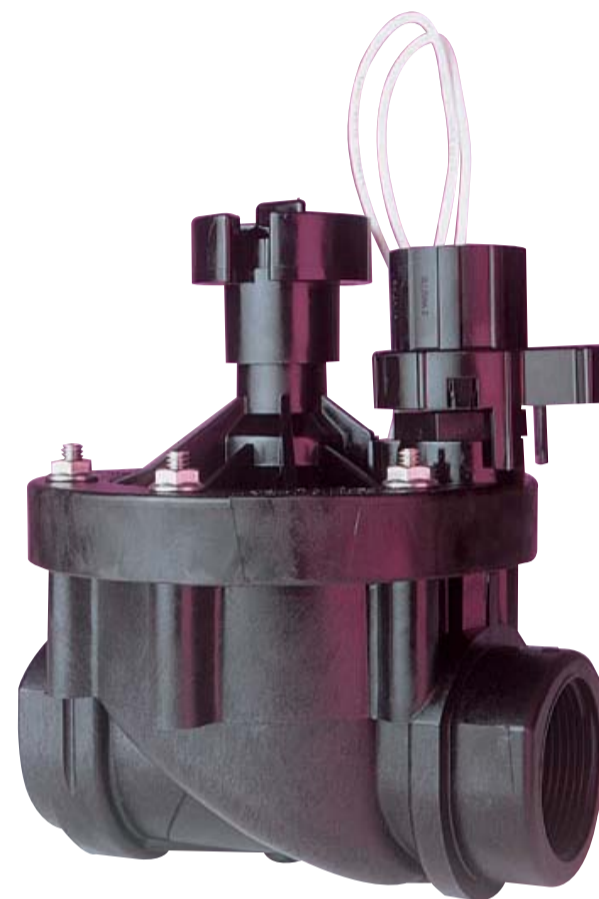
*Note: the PRS-Dial option adds 5 cm to the valve Height*

### 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 Solenoid



### PERFORMANCE: Valve pressure loss

m <sup>3</sup> /h	100-PEB 100-PESB	150-PEB 150-PESB	200-PEB 200-PESB
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)



## BPE SERIES: 300-BPE and 300-BPES

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
- Accommodates 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 MDC 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 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 m<sup>3</sup>/h  
 Pressure: 1.4 to 13.8 bar (23° C)  
 Water temperature: up to 43° C

### ELECTRICAL SPECIFICATIONS

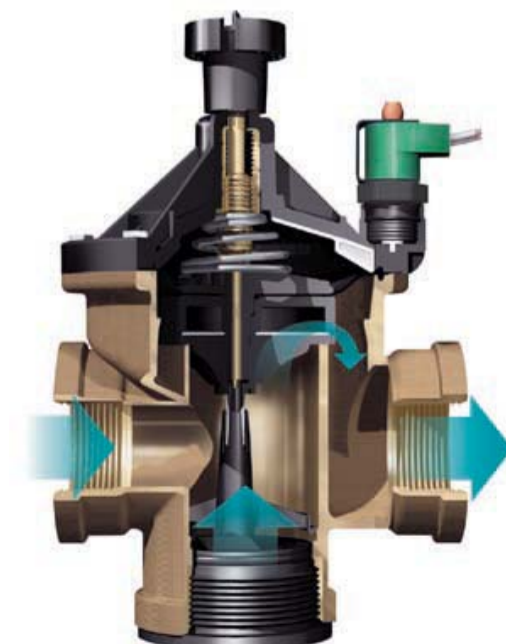
Solenoid: 24 VAC - 50 Hz  
 Inrush current: 0.41 A (9.9 VA)  
 Holding current: 0.28 A (6.7 VA)

### 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-BPE: 3" (80/90) BSP female threaded inlet and outlet  
 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 Solenoid

### PERFORMANCE: Valve Pressure Loss

m <sup>3</sup> /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.*

### How to specify

**300 - BPE**



Model  
BPE

Size  
3" (80/90)

## RC SERIES: 3RC/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

#### 3RC

Flow: 3.0 to 4.0 m<sup>3</sup>/h  
Pressure: 0.4 to 8.6 bar

#### 5LRC

Flow: 7.0 to 16.0 m<sup>3</sup>/h  
Pressure: 0.4 to 8.6 bar

### DIMENSIONS

3RC - Height: 10.8 cm  
5LRC - Height: 14.0 cm

### MODELS

3RC: 3/4" (20/27) female threaded inlet with thermoplastic cover  
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

### ACCESSORY

2049: Key to lock and unlock the cover on 5LRC



### PERFORMANCE VALVE PRESSURE LOSS

m <sup>3</sup> /h	Valve Pressure Loss
<b>3RC</b>	
3.0	-0.25 bar
4.0	-0.42 bar
<b>3LRC</b>	
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)

## HOSE REELS

Get easy access to syringing

### FEATURES

- Rain Bird® Heavy-Duty Hose Reels are designed for heavy-duty applications requiring long hose lengths and make watering with hoses faster, safer and more efficient, saving golf course crews valuable time and money.
- To get easy access to syringing, the underground hose reels are easy to install, use and maintain. Can be fully installed in a few hours.

### SPECIFICATIONS

Hose capacity : 30 m.  
Hose ID : 16 mm.  
Hose OD : 25 mm.  
Weight w/o hose : 72 kg.  
Pressure : 17 bar.

### MODELS

U100058



## 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	
<i>m<sup>3</sup>/h</i>	<i>Valve Pressure Loss</i>
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, BPE and BPES series valves.
- Regulates and maintains constant outlet pressure between 1,04 to 6,90 bars within  $\pm 0,21$  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:  $\pm 0,21$  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 m<sup>3</sup>/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.



150-PGA with PRS-D installation



150-PEB with PRS-D installation



300-BPE with PRS-D installation

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

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



PRS-D Cutaway



## 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
  - New cover design prevents soil and water from entering the valve box.
  - Anti-vandal : Penta head security bolt (in option) prevents vandalism
  - 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



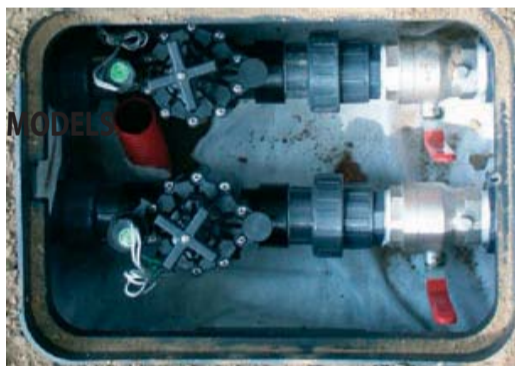
### MODELS

- 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
- VBA02672C and VBA02673C: Covers for valve box models VBA02672 and VBA02673
- VBA02674 and VBA02675: Rectangular valve boxes with bolt lock cover
- VBA02676 and VBA07777: Extensions for models VBA02674 and VBA02675 (less cover)
- VBA02674C and VBA02675C: Covers for valve box models VBA02674 and VBA02675 and for extensions VBA02676 and VBA07777

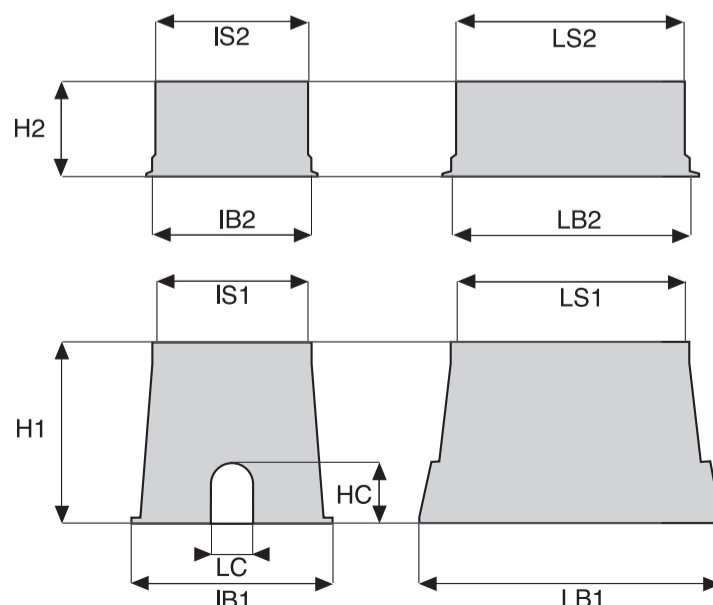
### DIMENSIONS

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



### VB-SERIES

HDPE Valve Boxes -  
The most specified box in the world!

### APPLICATIONS

Rectangular and round valve boxes made of heavy-duty plastic permit easy access to underground electric and manual valves, TBOS™ control modules, decoders and other irrigation equipment. These valve boxes are fast and easy to install which means savings in installation costs.

### FEATURES

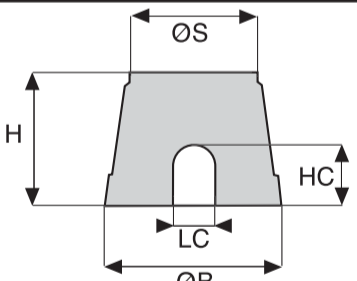
- Constructed of high density polyethylene structural foam
- Valve boxes are shipped with cover (except extensions)
- Factory pierced slots for pipe. Additional slots may be opened with an ordinary handsaw
- Bolt lock cover on models VB910B, VB1419, VB1220, VB1324 and VB1730
- VB1419U valve box cover for TBOS™ Control Module is locked by the Rain Bird 2049 key
- Valve box extensions for models VB1419 and VB1220
- Boxes nest within each other for convenient storage

### SPECIFICATIONS

Tensile Strength at Yield: 21.37-37.92 N/mm<sup>2</sup> (ISO 1926)  
Deflection temperature: 73-82°C (ISO 75-1)  
Density: 0.955 g/m<sup>3</sup> (ISO 8962)

### DIMENSIONS

Round valve boxes	VB708B	VB910B
ØS Diameter	152 mm	250 mm
ØB Diameter	200 mm	335 mm
H Height	233 mm	265 mm
LC Slots for pipe (Width)	65 mm	48 mm
HC Slots for pipe (Height)	65 mm	77 mm



Extensions	VB1419E	VB1220E	-	-
LS2 Length	430 mm	545 mm	-	-
IS2 Width	300 mm	375 mm	-	-
H2 Height	170 mm	180 mm	-	-
LB2 Length	435 mm	610 mm	-	-
IB2 Width	305 mm	440 mm	-	-
Rectangular valve boxes	VB1419	VB1220	VB1324	VB1730
LS1 Length	435 mm	545 mm	640 mm	830 mm
IS1 Width	300 mm	380 mm	400 mm	495 mm
H1 Height	310 mm	315 mm	390 mm	460 mm
LB1 Length	500 mm	610 mm	830 mm	1030 mm
IB1 Width	360 mm	430 mm	590 mm	690 mm
LC Slots for pipe (Width)	73 mm	75 mm	-	-
HC Slots for pipe (Height)	100 mm	100 mm	-	-



### MODELS

- VB708B: Round valve box with cover
- VB910B: Round valve box with bolt lock cover
- VB910C: Round cover for VB910B
- VB1419, VB1220, VB1324 and VB1730: Rectangular valve boxes with cover and bolt
- VB1419E and VB1220E: Extensions less cover for valve box models VB1419 and VB1220
- VB1419C and VB1220C: Rectangular covers for valve boxes VB1419 and VB1220 and extensions VB1419E and VB1220E
- VB1419U: Special TBOS™ cover for valve box VB1419 and extension VB1419E

### ACCESSORIES

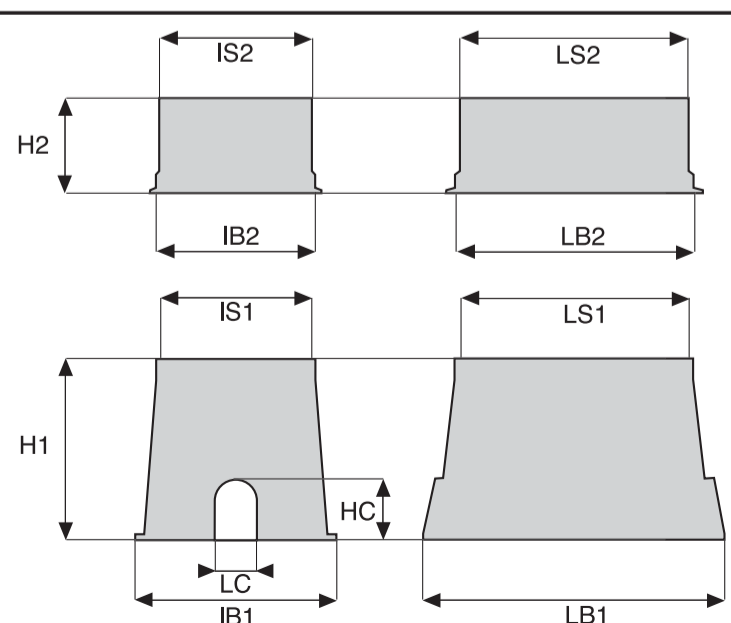
- VB1419U cover with access panel to mount TBOS™ control module
- VB1419CGR: Artificial grass cover for VB1419
- VB1220CGR: Artificial grass cover for VB1220



VB1419U cover with access panel to mount TBOS™ control module



Artificial grass cover





## ANTI-VANDAL ACCESSORIES FOR HDPE VALVE BOXES

### APPLICATIONS

Concrete and Ductile Iron covers for Valve boxes prevent damage from vandals. Recommended for applications in areas (Municipalities) exposed to vandalism.

### FEATURES

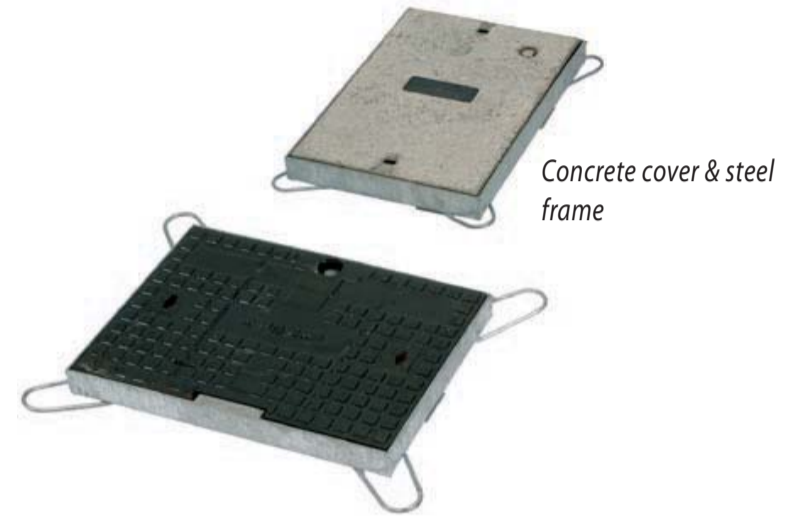
- Concrete and ductile covers compatible with all HDPE Rain Bird valve boxes for standard and Jumbo sizes
- Delivered with Penta head security bolts for locking covers/lids . Penta head security bolt requires the use of the special 2 in 1 lifting key (Penta head key)
- Galvanized Steel cover compatible with HDPE Valve boxes for standard & Jumbo sizes (VB 1419 & VB 1220 ). Not compatible with extensions for VB1419 & VB1220
  - Can be retro-fitted to existing HDPE models. No external fixings required
  - Cost effective and easy to install. Allows full and unrestricted access to the inside of the valve box when removed
  - Alleviates the problem of cracked and broken lids
  - Galvanized Steel cover is fixed on a standard HDPE cover

### SPECIFICATIONS

- Only models VB-STD-CR/ VB-STD-CA/ VB-JMB-CR and VB-JMB-CA meet the requirements of EN 124 class B125 (12,5T) concerning loads when tested in free standing load tests-independent of backfill. Suitable for areas accessible to all slow moving traffic .
- VB-STD-FR and VB-JMB-FR models can be customized with natural grass, stones, etc. for better integration of the valve boxes within your landscape
- Models VB-1419-EPC/ VB-1220-EPC meet the loading requirements of EN 124 class A15 (1,5T) test loads when tested in free standing load tests-independent of backfill. Suitable for areas accessible to pedestrian and cyclists

### MODELS

- VB-2000: Penta head security bolt for all HDPE covers except VB708B
- 71P51186: Lifting key and Penta head security socket ( 2 in 1 )
- VB-STD-CR : Concrete cover & steel frame for standard size
- VB-JMB-CR : Concrete cover & steel frame for jumbo size
- VB-STD-CA: Ductile cover & steel frame for standard size
- VB-JMB-CA: Ductile cover & steel frame for jumbo size
- VB-STD-FR: Recessed cover for standard size
- VB-JMB-FR: Recessed cover for jumbo
- VB-1220: Aluminium
- VB-1419-EPC: Cover compatible with VB 1419
- VB-1220-EPC: Aluminium compatible with VB 1220



Concrete cover & steel frame

Ductile Iron cover and steel frame



Recessed cover



Aluminium cover (inside)



2 in 1 on Lifting Key



Aluminium cover (outside)



Penta Head Security Bolt

## ANTI-VANDAL ACCESSORIES

### DIMENSIONS & COMPATIBILITY

Size	VB MODELS	VB-STD-CA	VB-JMB-CA	VB-STD-CR	VB-JMB-CR	VB-STD-FR	VB-JMB-FR	VB-1419-EPC	VB-1220-EPC
		ductile cover	ductile cover	concrete cover	concrete cover	Recessed cover	Recessed cover	Aluminium cover	Aluminium cover
LxH ( mm )		480X350X45	605X450X45	475X325X45	600X430X45	480X350X45	605X450X45	430x300x110	530x380x110
Standard	VB- 1419	•		•		•		•	
Jumbo	VB-1220		•		•		•		•



### VALVE BOX GRATES

#### APPLICATIONS

Valve box grates constructed of high density polyethylene structural foam. They permit proper installation flush to soil surface.

#### SPECIFICATIONS

Tensile Strength at Yield: 21.37-37.92 N/mm<sup>2</sup> (ISO 1926)

Deflection temperature: 73-82°C (ISO 75-1)

Density: 0.955 g/m<sup>3</sup> (ISO 8962)

#### DIMENSIONS

VB1419G: 53,3 cm x 40,1 cm

VB1220G: 68,3 cm x 49,9 cm

VB1324G: 83,3 cm x 60 cm

VB1730G: 98,5 cm x 65 cm

#### MODELS

VB1419G: Grate for VB1419

VB1220G: Grate for VB1220

VB1324G: Grate for VB1324

VB1730G: Grate for VB1730



Grates

### VALVE BOX ANTI-FROST PLATE

#### FEATURES

- Polystyrene Plate: Insulating plate between the cover and the box to prevent frost damage.

#### MODELS

Anti-frost plate for VBA02674

Anti-frost plate for VBA02675



Valve Box Anti-frost Plate

### 16A-FDV

Filtered Drain Valve

#### APPLICATIONS

Used to automatically drain lines when pressure drops below a certain level. Reduces freeze damage.

#### FEATURES

- The 16A-FDV is installed vertically or horizontally at low points in the system

#### SPECIFICATIONS

1/2" (15/21) male threaded inlet

Average opening pressure when installed vertically: 0.2 bar

Average closing pressure when installed vertically: 0.4 bar

Pressure: up to 8.5 bar

Maximum flow rate before sealing: 0.23 m<sup>3</sup>/h

#### DIMENSIONS

Diameter: 3.5 cm

Length: 2.5 cm

#### MODEL

16A-FDV



### 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 accommodate 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







## KING

Waterproof Wire Connectors

### APPLICATIONS

Ensures waterproof wire connections in low voltage underground installations.

### FEATURES

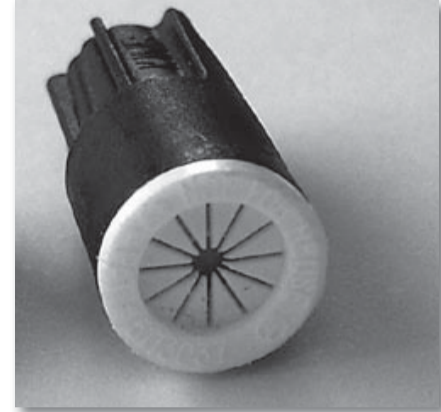
- Copper-to-copper wire only. Cannot be reused.
- Spring locks on to wire for tight grip
- For wet and direct bury
- Eliminates failures due to moisture and corrosion
- Arrests sparking

### SPECIFICATIONS

Maximum voltage : 30V  
Maximum storage temperature : 75°C  
Connects 2 x 2,5 mm<sup>2</sup> or 3 x 1,5 mm<sup>2</sup> wires

### MODEL

KING



## DBM/DBY/DBR

«Quick Connect» Wire Connectors

### APPLICATIONS

Used to make electrical connections in low voltage installations. The waterproof DBY and DBR are used if there is a risk that the connection could be submerged. Example: valve wires. The DBM is used in applications when a moisture-resistant connector is sufficient.

### SPECIFICATIONS

#### DBM

- Maximum wire voltage: 30V
- Maximum storage and utilization temperature: 49°C
- Permits use with up to 3 wires sized 1.5 mm<sup>2</sup>
- Self-stripping. Use with insulated copper wire
- Moisture resistant. Compact size.

#### DBY

- Maximum wire voltage: 30V
- Maximum storage and utilization temperature: 49°C
- Permits use with up to 3 wires sized 2.5 mm<sup>2</sup>
- Waterproof.

#### DBR

- Maximum wire voltage: 30V
- Maximum storage and utilization temperature: 49°C
- Permits use with up to 3 wires sized 4 mm<sup>2</sup>
- Waterproof.

### MODELS

DBM/DBY/DBR



## 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<sup>2</sup>
- Radial cutting and stripping (up to 20 cm) in one step
- Additional lengthwise slitter for stripping in excess of 20 cm
- Marked "Rain Bird"

### MODEL

Wire Stripper



## 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.

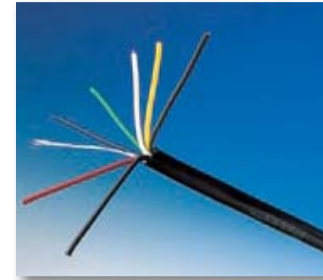
### FEATURES

- 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<sup>2</sup> 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 3/150: 3 conductors, 150 m drum
- Irricable 5/75: 5 conductors, 75 m drum
- Irricable 5/150: 5 conductors, 150 m drum
- Irricable 7/75: 7 conductors, 75 m drum
- Irricable 7/150: 7 conductors, 150 m drum
- Irricable 9/75: 9 conductors, 75 m drum
- Irricable 9/150: 9 conductors, 150 m drum
- Irricable 13/75: 13 conductors, 75 m drum
- Irricable 13/150: 13 conductors, 150 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 and in double PVC-PE insulation cable
- Cross section : 1,5 mm<sup>2</sup> or 2,5mm<sup>2</sup>
- Thickness : 3 mm for 1x1,5 mm<sup>2</sup> single insulation and 4 mm for double insulation cable.
- Highly resistant to mechanical stress, chemicals, moisture.
- Cable Marked " Rain Bird "
- 1-meter incremental marking

### MODELS

- SI 115 : 1x1,5 mm<sup>2</sup>, single PE insulation cable, 500 m drum
- SI 125 : 1x2,5 mm<sup>2</sup>, single PE insulation cable, 500 m drum
- DI 115 : 1x1,5 mm<sup>2</sup>, double PVC-PE insulation cable, 500m drum
- DI 125 : 1x2,5 mm<sup>2</sup>, double PVC-PE insulation cable, 500m drum



## CABLE TIES

Adjustable & releasable ties for electrical cables

### APPLICATIONS

Can be used in valve box and/or with controllers to better maintain and organize group of cables

### FEATURES

- Polyamide collars for electrical cables, UV and weather resistant. Ideal for outdoor applications.
- Easily assembled by hand and simple one hand opening .

### SPECIFICATIONS

- Length: 150mm
- Width: 7,6mm
- Maximum cable diameter: 35 mm

### MODEL

RFT 150





## 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 Modular 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 STP and ESP LX Modular 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 Modular controller, with the touch of a button, 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	STP	ITC	Image	ESP Modular	SI-RR+	HP	Dialog+	ESP-LX Modular
<b>APPLICATIONS</b>								
Residential	•	•	•	•	•	•		
Municipal turf areas				•	•	•	•	•
Large turf areas						•	•	•
Athletic fields				•	•	•	•	•
<b>FEATURES</b>								
Hybrid	•			•		•		•
Solid State		•	•		•		•	
Battery-powered								
Indoor location	•	•	•					
Outdoor location				•	•	•	•	•
Can be installed in a valve box								
<b>SPECIFICATIONS</b>								
Stations	4, 6, 9	2, 4, 6	2, 4, 6	4, 7, 10, 13	4, 8, 12	6, 8, 12	8, 16, 24, 32, 40, 48	8, 12, 16, 20, 24, 32
Programs	-	2	2	3	3	2	3	4
Station run time in hours (up to)	4	4	4	6	12	2	12	12
Number of starts per day per program	4	2	8	4	8	8	8	8
Water Budget	•	•	•	•	•	•	•	•
Manual ON/OFF	•	•	•	•	•	•	•	•
Rain Delay	•				•		•	•
Simultaneous multi-station operation								•
Overlapping programs								•
LCD display	•	•	•	•	•	•	•	•
<b>PROGRAMMING SCHEDULES</b>								
7 Day-of-week	•	•	•	•	•	•	•	•
2,3 and 5-day fixed cycle						•		
1-6 day variable cycle				•			•	•
1-31 day variable cycle								•
1-99 day variable cycle								
Odd/even cycle	•	•		•				•
365-day calendar	•			•				•
Test program		•		•				•
Default program after power outage	•	•	•	•	•	•	•	•
Station valve capacity	1+1	1+1	1+1	2+1	2+1	2+1	3+1	2+1
<b>CENTRAL CONTROL COMPATIBILITY</b>								
Central Control Compatibility					•		•	•
<b>CABINET</b>								
Plastic-indoor	•	•	•					
Plastic-outdoor				•	•	•	•	•
IP68								
Stainless Steel pedestal option								
<b>ACCESSORIES</b>								
RAIN CHECK™ Shutoff Device	•	•	•		•	•	•	•
RSD-BEx Rain Sensor	•	•	•	•	•		•	•
Wind/freeze sensor		•	•	•			•	•

## PROGRAMMING SOLUTIONS FOR WATER CONSERVATION

A few tips to help you save water in your turf areas

- Choose simple and quality products: with 35 years of irrigation experience, Rain Bird provides its customers with product quality acknowledged by professionals all over the world. Products that are reliable, easy-to-install, to use and to explain guarantee an optimal operation and avoid call-backs.
- Divide your landscape into separate irrigation zones to accommodate the watering needs of different plants. For example, many landscapes include turfgrass, shrubs and plant beds. Each of these plant types has different irrigation needs. Landscape drip in particular will be in a separate zone and will have a specific program.
- Use Multiple Start Times and Multiple Independent Programs: allow for shorter and more precise run times based on the individual needs of the plants. This enables the landscape to better absorb water reducing controller run time and water waste. Run-off, a common water waste problem that occurs when water is applied faster than plants and soils can absorb, is avoided.
- Set your controller to operate in the early morning hours: early morning is the best time of day to irrigate (less water lost to evaporation).
- Use the Water Budget function: provides an easy way for users to adjust water applications from 0 to 200% based on seasonal changes without having to modify the complete program.
- Add an automatic shut-off device: rain sensors suspend irrigation in rainy conditions. Adding such a device can result in 15-20% or more in water savings
- Use the Rain Delay Function : allows a user to postpone watering when irrigation is not needed (after rainfall for example) and automatically resume schedules when appropriate



**Prog A B C D F1 F2**

*Multiple Independent Programs*

**%**

*Water Budget function*



*Multiple Start Times*

**rd**

*Rain Delay Function*

## STPi SERIES : STP-400i, STP-600i, STP-900i

The Easiest controller in the irrigation industry to program and operate

- So easy to operate you won't even need to read the instructions
- Simple to use "At-a-Glance" programming allows you to see all of the irrigation schedule information for each specific zone at the same time on the controller
- Independent zone control gives you the flexibility to easily accommodate the diverse watering needs of each zone

### FEATURES

#### • Water Saving

- The Adjust Water feature enables you to easily increase or decrease the irrigation schedule to meet changing water requirements. Can be increased by 100% or decreased down to 90% (10% increment)
- The Water Now feature allows you to simply apply additional water to irrigate a zone manually without impacting that zone's previously set schedule
- In the event of a prolonged rain, you can easily suspend the irrigation schedule up to 72 hours (12 hour increments) using the controller's Rain Delay feature
- To help manage water restrictions, the controller can be set up to only water on specific days of the week or "odd or even" days

#### • Reliable Operation

- Non volatile memory maintains the program during a power outage
- Lithium battery maintains time and date in the absence of AC power
- Overlapping start times will stock to prevent two zones from operating concurrently

#### • Healthy Landscape Through Precise Irrigation

- The STPi controller allows you to use multiple start times per day on an individual zone basis, helping you maintain a healthier lawn and garden



STP-900i

### SPECIFICATIONS

Automatic start times per day per each zone: 4 (15 minute increments)

Programming schedule options:

- EVEN day watering
- ODD day watering
- 7-day weekly cycle with any day ON or OFF setting

Number of stations: 4, 6 or 9

Station timing: 1 minute to 4 hours in 1- minute increments

### ELECTRICAL SPECIFICATIONS

Input required: 230 VAC - 50 Hz

Output: 24 VAC - 50 Hz Capacity: 0.65 A (15.6 VA)

Surge protection :

- Primary input side has built-in MOV (metal oxide vaistor) to protect micro-circuitry
- Output side has 1 built-in MOV for each station

Station capacity: 1 RAIN BIRD solenoid valve (24 VAC) per station plus a master valve or pump start relay

### DIMENSIONS

Width: 18 cm

Height: 17 cm

Depth: 3,5 cm

### MODELS

STP-400i: 4 stations, indoor

STP-600i: 6 stations, indoor

STP-900i: 9 stations, indoor

### ACCESSORIES

LPVK-12E: Electrical Surge Protection Kit

RAIN CHECK™: Automatic Rain Shutoff Device

RSD-BEx : Rain Sensor

## ITC SERIES: ITC 2, ITC 4 AND ITC 6

Dual Program Solid-State Controllers - The Simplest to Use !



### APPLICATIONS

These solid-state controllers are designed to automatically water small lawn areas and can also be used in conjunction with low volume irrigation products to irrigate shrubs and hedges.

### FEATURES

- Solid-State controller
- ON/OFF function
- LCD screen with programming icons
- Ergonomic 6-key touchpad
- Direct access to manual single station or manual program start
- Test program: each station operates for 3 minutes
- Water Budget function adjusts watering time from 0 to 200 % in 10 % increments
- Indoor wall mount
- Easy-to-wire terminal strip
- External transformer
- Automatic diagnostic circuit breaker. LCD shows which station has a short circuit or electrical overload
- Primary input side has built-in MOV surge protection
- Electronic circuit stores program data for 24 hours during power failure. A back-up program operates each program once a day for 10 minutes starting 8 hours after power is restored in case of extended power failure

### SPECIFICATIONS

Number of programs: 2

Automatic starts per day per program: 2

Schedule: 7-day calendar

Number of stations: 2, 4 or 6

Station timing: 1 minute to 4 hours in 1-minute increments

### ELECTRICAL SPECIFICATIONS

Input: 230 VAC - 50 Hz

Output: 24 VAC - 50 Hz

Capacity: 17 VA

Station capacity: 1 RAIN BIRD solenoid valve (24 VAC) per station plus a master valve or pump start relay

### DIMENSIONS

Width: 11.7 cm

Height: 15.7 cm

Depth: 4.2 cm

### MODELS

ITC 2: 2 stations

ITC 4: 4 stations

ITC 6: 6 stations

### ACCESSORIES

LPVK-12E: Electrical Surge Protection Kit

RAIN CHECK™: Automatic Rain Shutoff Device

RSD-BEx : Rain Sensor

V00W1 : Wind/freeze sensor



*Ergonomic 6-key touchpad*



## IMAGE SERIES: IMAGE 2, IMAGE 4 AND IMAGE 6

Dual Program Solid-State Controllers - Engineered To Save Water.



### APPLICATIONS

These solid-state controllers are designed to automatically water small lawn areas and can also be used in conjunction with low volume irrigation products to irrigate shrubs and hedges.

### FEATURES

- No battery required
- Solid-state controller
- Dual program
- LCD display with easy-to-understand programming icons
- Ergonomic 5-key touchpad
- Valve wire terminal strip
- Water budgeting function adjusts watering time from 0 to 200 % in 10 % increments
- Manual station or cycle start capacity
- ON/OFF key permits rainy weather shutoff
- LED lamp indicates presence or absence of 230 V
- Electronic component maintains program up to 24 hours in case of power outage. A default program operates each station once a day for 10 minutes starting 8 hours after power resumes in case of extended power failure
- External transformer
- Indoor wall mount cabinet accepts padlock
- Fast blow fuse

### SPECIFICATIONS

Number of programs: 2  
 Automatic starts per day per program: 8  
 7-day schedule  
 Number of stations: 2, 4, or 6  
 Station timing: 1 minute to 4 hours in 1-minute increments

### ELECTRICAL SPECIFICATIONS

Input required: 230 VAC - 50 Hz  
 Output: 24 VAC - 50 Hz  
 Capacity: 18 VA  
 Station capacity: 1 RAIN BIRD solenoid valve (24 VAC) per station plus a master valve or pump start relay

### DIMENSIONS

Width: 23 cm  
 Height: 17.5 cm  
 Depth: 5.3 cm



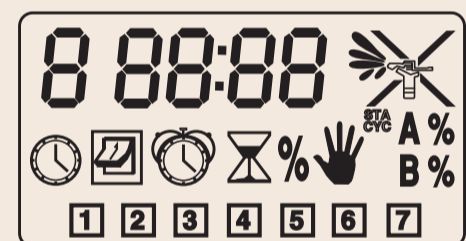
### MODELS

IMAGE 2: 2 stations  
 IMAGE 4: 4 stations  
 IMAGE 6: 6 stations

### ACCESSORIES

LPVK-12E: Electrical Surge Protection Kit  
 RAIN CHECK™: Automatic Rain Shutoff Device  
 RSD-BEx : Rain Sensor  
 V00W1 : Wind/freeze sensor

### PROGRAMMING ICONS



-  Digital display
-  Set current time
-  Water day or day of the week
-  Set water days
-  Set start times
-  Set station run time
-  Set Water Budget
-  Manual station/cycle start
-  Station assignment (program A or B)
-  Watering stopped
-  Watering now



## ESP-MODULAR SERIES

The New Hybrid Controller: solid state and electromechanical -Maximize Your Productivity



- Modularity – Start with the 4-station base controller and easily expand to 13. Minimize inventory; always keep the right station count on hand
- Quality – Built-in reliability; designed with durable parts, superior surge protection and high temperature tolerance
- Easy-to-use ESP-style programming – So simple to set up, time tested and homeowner approved; you'll be on to the next job faster than ever



### FEATURES

#### • Rain Bird's intuitive ESP (Extra Simple Programming) interface with

- Water Budget (0-200%) function adjusts run time of all valves
- Programmable Delay between Stations allows the additional time between stations for water well recovery or slow-closing valves
- Programmable Master Valve/Pump start circuit allows the user to set the pump to operate with specific stations as needed
- Contractor Default™ function saves a customized default program which can be easily accessed at a later date. This is useful for quickly reloading a schedule which has been altered or for temporary use with new seed or sod
- Ideal for operating non-irrigation systems thanks to the Unique Auxiliary Station™ (station 13) that can be set to bypass an active sensor or operate as a normal station
- Three independent programs provide versatile irrigation control
- Permanent Day off feature prevents watering on any day of a week in any cycle mode

#### • All the advantages you've come to expect from Rain Bird controllers

- Non volatile memory maintains the program during a power outage
- 5 year lithium battery maintains time and date for a cumulative life of 5 years in the absence of AC power
- Dedicated sensor terminals allow the user to easily connect a sensor for maximum water efficiency
- Multilingual packaging and overlay to facilitate the programming of the controller

#### • The troubleshooting features you need to save time

- LED light indicates rain sensor status (activated or bypassed)
- Diagnostic self-setting circuit breaker identifies a station with valve or wiring problems and continue watering operable stations
- Enhanced Diagnostic Feedback™ function alerts user to programming errors or conditions that prevent an irrigation station from running
- "Valve Test Terminal" allows the contractor to test the valve wires during installation

#### • Robust design facilitates reliability and durability

- Spacious heavy-duty cabinet with internal junction box for a clean and professional looking installation
- Improved ribbon cable provides better visibility and ease of connection

### SPECIFICATIONS

Number of programs: 3  
 Automatic starts: 4 per day per program for up to 12 starts time  
 Programming Schedules:  
 - 7-day weekly  
 - Even day  
 - Odd day +/- 31st  
 - Cyclic  
 Permanent day off  
 Station Timing: 0 to 6 hours for all station

### ELECTRICAL SPECIFICATIONS

- Input required: 230VAC – 50Hz  
 Output: 25,5 VAC 1A
- Superior surge protection on all terminals protects against power surges . Primary input side has built in MOV (Metal oxide varistor) to protect microcircuitry. Output side has 2 built in MOV for each valve station
- Multi-valve station capacity: up to two 24 VAC, 7A solenoid valves per station plus a master valve.

### DIMENSIONS

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

### MODELS

IESP-4M : ESP Modular outdoor, 50Hz

### ACCESSORIES

3-station extension module  
 RSD-BEx : Rain Sensor  
 V00W1 : Wind/freeze sensor

## SI-RR<sup>+</sup>

Three Program Solid-State Modular Controller - You'll enjoy years of worry-free operation.



### APPLICATIONS

This solid-state controller is designed for automatic irrigation systems installed in medium sized municipal or privately owned landscaped areas. Modular feature offers a wide choice of the number of stations.

### FEATURES

- Solid-state controller
- 4-station modular controller can be upgraded to 12 stations by adding two 4-station extension modules
- Triple program
- Programmable delay-between-stations : 0-99 seconds per program
- LCD display with easy-to-understand programming icons
- LCD displays alarm symbols
- Ergonomic 5-key touchpad
- 2-color LED lamp indicates controller status
- Stacks 1 start time if programs overlap
- ON/OFF function permits rainy weather shutoff
- Manual station or cycle start capacity
- Terminal for sensor hook-up
- Automatic diagnostic circuit breaker: LCD shows which station has a short circuit or electrical overload
- Circuit for rechargeable 9-Volt Ni-MH battery to maintain program in case of power outage. Default program operates each station once a day for 10 minutes starting 8 hours after power resumes in case of extended power failure
- Internal transformer
- Plastic cabinet with latch accepts padlock
- Outdoor wall mount cabinet (install in a sheltered location)
- PC remote ready: by adding a modem, controllers can be connected to TBOS™ SIM system for remote control from a PC.

### SPECIFICATIONS

Number of programs: 3  
 Automatic starts per day per program: 8  
 Programming schedule: 7-day cycle  
 Number of stations: 4 upgradeable to 12  
 Station timing: 1 minute to 12 hours in 1-minute increments  
 Programmable delay-between-stations : 0-99 seconds per program



### ELECTRICAL SPECIFICATIONS

Input required: 230VAC - 50 Hz  
 Output: 26.5VAC - 50 Hz  
 Capacity: 30 VA  
 Multi-valve station capacity: 2 RAIN BIRD 24 VAC solenoid valves per station plus a master valve or pump start relay

### DIMENSIONS

Width: 23,0 cm  
 Height: 18,5 cm  
 Depth: 8,5 cm

### MODELS

SI-RR<sup>+</sup> : 4-station modular controller upgradeable to 12-station capacity  
 SI-RR<sup>+</sup> EXT: 4-station extension module

### ACCESSORIES

LPVK-12E : Electrical Surge Protection Kit  
 RAIN CHECK™ : Automatic Rain Shutoff Device  
 RSD-BEx : Rain Sensor



4-station extension module

## HP SERIES: HP-6, HP-8 AND HP-12

Dual Program Hybrid Controllers - A tradition of excellence



### APPLICATIONS

These controllers are designed to automatically irrigate municipal turf areas and athletic fields.

### FEATURES

- Hybrid controller: solid-state controller with electromechanical programming features
- ON/OFF key permits rainy weather shut-off
- Liquid Crystal Display (LCD)
- Manual station or cycle start capacity
- Water budgeting adjusts watering time from 0 to 200 % in 10 % increments
- Stacks one start time if programs overlap
- Outdoor wall mount cabinet
- HP plastic cabinet with latch accepts padlock
- Internal transformer
- Automatic diagnostic circuit breaker: LCD shows which station has a short circuit or electrical overload
- Valve wire terminal strip
- Circuit for rechargeable 9-Volt Ni-MH battery to maintain program in case of power outage
- Battery (not included) maintains program up to 4 days. After this period, a default program starts 8 hours after power resumes for the selected station run times

### SPECIFICATIONS

Number of programs: 2

Automatic starts per day per program: 8

Schedule: 2, 3, 5 or 7-day cycle

Number of stations: 6, 8 or 12

Station timing: 2, 5, 10, 15, 20, 30 or 45 minutes and 1 or 2 hours

### ELECTRICAL SPECIFICATIONS

Input required: 230 VAC - 50 Hz

Output: 26.5 VAC - 50 Hz

Capacity: 40 VA

Multi-valve station capacity: 2 RAIN BIRD solenoid valves (24 VAC) per station plus a master valve or pump start relay

### DIMENSIONS

Width: 22.9 cm

Height: 17.5 cm

Depth: 7.7 cm

### MODELS

HP-6: 6 stations

HP-8: 8 stations

HP-12: 12 stations

### ACCESSORIES

LPVK-12E: Electrical Surge Protection Kit

RAIN CHECK™: Automatic Rain Shutoff Device

RSD-BEx : Rain Sensor



## DIALOG®+

The Modular Controller for up to 48 stations !

### APPLICATIONS

This controller is used to automatically irrigate parks, turf areas, and athletic fields. Modular feature offers wide choice of number of stations (from 8 to 48 stations)

### FEATURES

- Solid-state controller
- 8-station modular controller. Capacity for 24 stations by adding two 8-station extension modules, and up to 48 stations with the connection of an additional 8-station modular cabinet containing up to two additional 8-station extension modules
- LCD display with easy-to-understand programming icons
- Manual station or cycle start capacity
- Water budgeting function adjusts watering time from 0 to 200 % in 10 % increments
- ON/OFF key for rainy weather shutdown
- Automatic stacking of one overlapped start
- Outdoor wall mount cabinet
- Internal transformer
- Automatic diagnostic circuit breaker
- Sensor terminal on terminal strip
- Circuit for rechargeable 9-Volt Ni-MH battery to maintain program in case of power outage. Default program operates each station once a day for 10 minutes starting 8 hours after power resumes in case of extended power failure
- LCD displays alarm symbols
- Programmable delay-between-stations : from 0 to 999 seconds
- PC remote ready: by adding a modem, controllers can be connected to TBOS™ SIM system for remote control from a PC.
- Special terminal for external ON/OFF switch (dry contact NO type).

### SPECIFICATIONS

Number of programs: 3

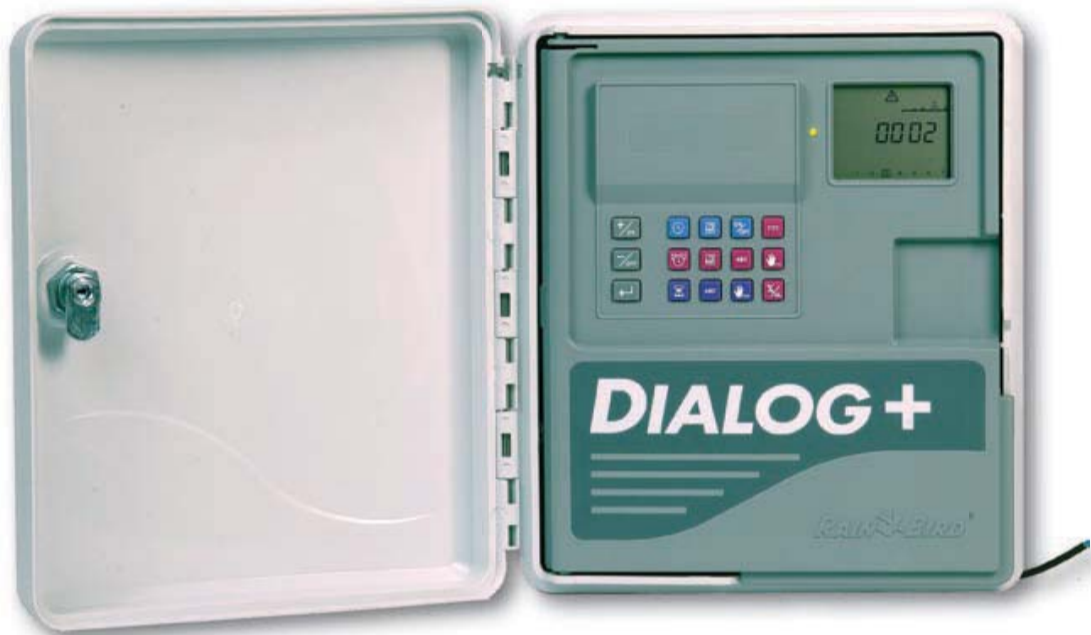
Automatic starts per day per program: up to 8 cycles

Programming schedule

- Weekly : 7-day cycle with watering on any day
- 1 to 6 day cycle with only one watering day (per program)
- Even days / dates of the month
- Odd days / dates of the month (with or without the 31<sup>st</sup>)

Number of stations: 8 upgradeable to 48

- Station timing: 1 minute to 12 hours in 1-minute increments
- Station timing: 1 minute to 5 minutes in 1-second increments



CE

### ELECTRICAL SPECIFICATIONS

Input required: 230 VAC - 50 Hz

Output: 26.5 VAC - 50 Hz

Capacity: 50 VA

Multi-valve station capacity: 3 RAIN BIRD 24VAC solenoid valves per station plus a master valve or pump start relay

Delivered with Electrical Surge Protection Kit

### DIMENSIONS

Width: 24.1 cm

Height: 26 cm,

Depth: 11 cm

### MODELS

DIALOG+: 8-station modular controller with up to 48-station capacity

DIALOG+ Extension module: 8-station extension module

DIALOG+ extension cabinet : modular cabinet for 8 to 24 additional stations

### ACCESSORIES

RAIN CHECK™: Automatic Rain Shutoff Device

RSD-BEx : Rain Sensor

M22 Combination : Key Switch for Dialog +

V00W1 : Wind/freeze sensor



Key Switch for Dialog + : Allows a manual cycle start on Dialog+ controller without direct access to the controller.



Extension Cabinet

## ESP-LX MODULAR SERIES

Power and Ease of Use in a hybrid modular controller

- Flexible – Ideal for the most straightforward installation or for more complex installations requiring custom programs for up to 32 stations
- Reliable – Inside and out, this controller is designed to virtually eliminate callbacks
- Upgradeable to and compatible with the Rain Bird IQ™ Central Control system"

### FEATURES

#### • Rain Bird's intuitive ESP (Extra Simple Programming) interface with

- Water budget by program, adjustable in 1% increments from 0 – 300%, with automatic seasonal monthly adjust
- Rain Bird's exclusive Cycle + Soak™ by station allows total station runtime to be split into usable cycles, minimizing puddling and runoff
- Adjustable Delay Between Stations provides time for water well recovery or time for slow closing valves to turn off completely
- Programmable Rain Delay enables system to stay off for a specified period with an auto-restart.
- Contractor Default™ function saves a customized default program can be easily accessed at a later date or automatically restored at a future date up to 90 days in the future. This is useful for quickly reloading a schedule which has been altered or for temporary use with new seed or sod
- Variable 1 – 99 minute test program
- User-selectable languages: English, Spanish, French, German, Italian and Portuguese.

#### • All the advantages you've come to expect from Rain Bird controllers

- A removable battery-powered front panel makes programming prior to installation quick and easy
- In case of power outage, a lithium coin-cell battery maintains time and date (10 years) while non-volatile memory maintains the schedule (100 years)
- Dedicated sensor terminals with Sensor Bypass for manual override of an active sensor, plus Sensor Override to manually override an active sensor by station

#### • The troubleshooting features you need to save time

- RASTER™ wiring test quickly diagnoses field wiring and solenoid problems
- Enhanced Diagnostic Feedback™ alerts the user to conditions when watering is suspended.
- Built in diagnostic functions let you confirm program information, calculate total program and valve run times, and run a test program to operate all system valves sequentially
- Diagnostic self-setting circuit breaker identifies valve or wire faults and continues to water operable stations

#### • Robust design facilitates reliability and durability

- Eight station base model expandable to up to 32 stations via hot-swappable 4 or 8 station modules
- Spacious heavy duty key locking cabinet with an internal junction box provides ample wiring space for a clean and professional looking installation
- A dedicated master valve/pump start circuit, programmable by station, for optimal irrigation control

### SPECIFICATIONS

- Number of programs: 4 independent programs (D program can be programmed to overlap ABC programs).
- Independent Programming schedule:
  - Weekly: 7-day cycle
  - 1 to 31 day cycle
  - Even days
  - Odd days (with or without the 31st)



- Up to 8 start times per day per program.
- Station timing from 0 to 12 hours:
  - 0 to 120 minutes in 1-minute increments.
  - above 120 minutes in 10-minute increments.
- Number of stations: 8 to 32 stations by adding 4-station or 8-station extension modules.

### ELECTRICAL SPECIFICATIONS

- Input required: 230 VAC -50Hz
- Output: 26,5 VAC 1.9A
- Power back-up: Lithium coin-cell battery maintains time and date (10 years) while nonvolatile memory maintains the schedule (100 years).
- Multi-valve station capacity: Up to two 24 VAC, 7VA solenoid valves per station plus a master valve.

### DIMENSIONS

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

### MODELS

ESPLXMEUR: 8-station controller base  
ESPLXMSM4: 4-station Module  
ESPLXMSM8: 8-station Module





### 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 and TBOS™ products equipped with the TBOS™ Rain sensor interface
- 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 @ 125/250 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<sup>2</sup>)



#### DIMENSIONS

Length: 16.5 cm  
Height: 13.7 cm

#### MODEL

RSD-BEx

### RAIN CHECK™

Automatic Rain Shutoff Device

#### APPLICATIONS

The RAIN CHECK™ is indispensable in all automatic irrigation systems for residential use. It monitors rainfall levels and automatically overrides the controller to prevent unnecessary irrigation cycles.

#### FEATURES

- Works with all 24 VAC output controllers
- Does not change irrigation programs, but automatically interrupts watering cycle when rainfall exceeds pre-selected level. Automatic return to normal watering.
- Water in rain collector pan evaporates faster than soil moisture to permit watering if required

- Easy to install with adjustable mounting base
- Connects to common
- Collector pan can be removed for cleaning
- Adjustable stainless steel sensing probes offer the flexibility of triggering the rain shutoff with as little as 3.2 mm of precipitation or when rainfall reaches or exceeds 12.6 mm

#### SPECIFICATIONS

One RAIN CHECK™ per controller

#### DIMENSIONS

Length: 20.3 cm;  
Height: 10.2 cm;  
Width: 6.4 cm



#### MODEL

RAIN CHECK™

### WIND/FREEZE SENSOR

#### APPLICATION

The Wind/Freeze Sensor is a device suitable for residential and commercial applications. It automatically measures wind and/or temperature (from 1-4°C) and interrupts and/or prevents irrigation during windy and freezing conditions.

#### FEATURES

- Temperature can be adjusted between 1- 4°C.
- Wind Speed can be adjusted between 3-90 km/h
- Reset function: resets the wind timer and the thermometer
- Wind red LED: switches on when the wind speed increases above a set speed.

- Temperature red LED: switches on when the temperature falls below a set temperature
- Works with ITC, Image, ESP-Modular , ESP-LX Modular, Dialog+

#### SPECIFICATIONS

- Main supply : 24 Vac/Vdc
- Power Consumption: 1,2 VA
- Contacts:
  - AC11: 2,5 A – 230 Vac
  - DC11: 5A – 24 Vdc



#### MODEL

V00W1 : Wind/freeze sensor



## PUMP RELAYS AND PROTECTION BOXES

Single phase and three-phase pump starting and protection boxes

### APPLICATIONS

This pump relay is a pump starting relay, but also protects pump against failure in the power supply; and over and/or underload. It is suitable for landscape applications.

### FEATURES

- Starting relay for single –phase (vigilec 1) or for single and three –phase pumps (vigilec 2) surface or submersible pumps.
- Pump capacitor site provided inside control box for submersible pumps (vigilec 1) . Control fuses (vigilec 2) .
- Dry running protection (3 modes):
  - directly without probes\*: dry running detection and time-lag before restarting of 15 minutes
  - 2 probes (low and high level).
  - 1 probe\* (low level) with time-lag before restarting of 15 minutes.
- Electronic overload (alarm trip in 7 s.) and underload (alarm trip in 3 s.) protection relays, adjustable from 0 to 18 A.
- Pump remote control (start/stop) from an irrigation controller and other control devices.
- Supplied with 2 probes (low/high level).
- Pumping flow control.
- Anti-blocking system: every 24 hours, one second running to avoid jammed impeller in long rest period (only AUTO position).
- HAND-0-AUTO selection by push buttons.
- Alarm reset button (RESET).
- Indicator lights of VOLTAGE, PUMP RUNNING, LOW LEVEL WATER and MOTOR ALARM.
- All controls in low voltage (< 24 V) for greater safety.
- Supplied with 2 cable ties for mounting of capacitor.
- Storm proof
- Multicontrol

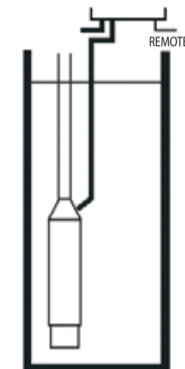
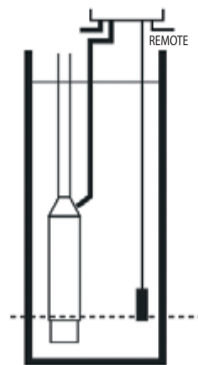
*\*Note: When it is a submersible pump, this unit can operate with low level probe only or without probes.*

### SPECIFICATIONS

- Main supply voltage : 230Vac-50/60 Hz (vigilec 1) - 230/400Vac – 50/60 Hz (vigilec 2)
- Permissible voltage fluctuations : +/- 20% . Auto trigger-off after that +30%
- Maximum current 18Amp AC3(vigilec 1) – 16Amp AC3 (vigilec 2)
- Overload current adjustment :0-18 A (adjustable) for vigilec 1 – 0-16 A (adjustable) for vigilec 2 .
- Low current trigger (underload) :0-18 A (adjustable) for vigilec 1 – 0-16 A (adjustable) for vigilec 2 .
- Probe operating voltage: 24 V
- Probe sensitivity: 9 Kohm.
- Remote control connection: Contact or voltage 6 to 400VAC/VDC



ONE PROBE



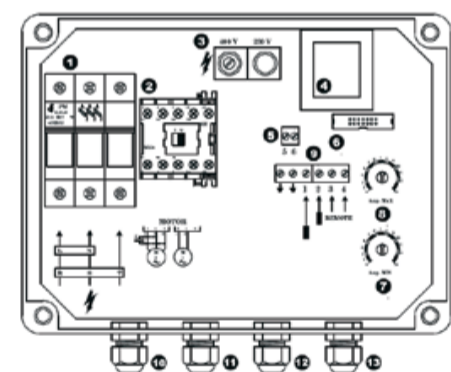
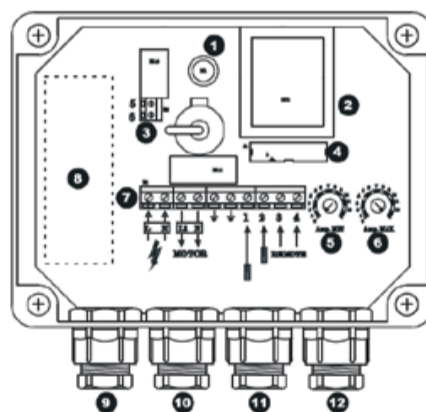
- Terminal blocks: 4 mm<sup>2</sup>
- Mounting: Clevis wall mounting
- Protection: IP56
- Operating temperature range: -10 +55 °C
- Weight : 850g for vigilec 1 – 1,5 Kg for vigilec 2

### DIMENSIONS

Vigilec 1 :	Vigilec 2 :
Width: 20 cm	Width : 25,5cm
Height: 15 cm	Height :19,5 cm
Depth: 7,8 cm	Depth : 9,5 cm

### MODEL

- Vigilec 1 : Single –phase pump starting & protection box
- Vigilec 2 : Single -Three-phase pump starting & protection box



### VIGELEC 1

- 1 Control fuse (0,1 A)
- 2 Transformer
- 3 Air alarm output contact
- 4 Flat cable connector
- 5 Minimum current adjust
- 6 Maximum current adjust
- 7 Terminal block
- 8 Space for capacitor (borehole pump)
- 9 Input main supply gland
- 10 Output motor gland
- 11 Input probes and ground gland
- 12 Input remote gland

### VIGELEC 2

- 1 Main fuses
- 2 Contactor
- 3 Control & selection voltage fuse(0,1 A)
- 4 transformer
- 5 Air alarm output contact
- 6 Flat cable connector
- 7 Minimum current adjust
- 8 Maximum current adjust
- 9 Terminal block
- 10 Input main supply gland
- 11 Output motor gland
- 12 Input probes and ground gland
- 13 Input remote gland



### MULTI-CONDUCTOR IRRIGATION CABLE

#### APPLICATIONS

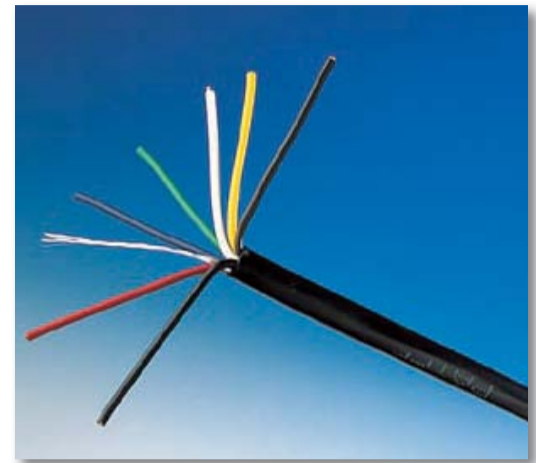
Very low voltage (< 30 Volts) multi-conductor cable. Ideal for carrying power supply from controller terminal strips to electric valves.

#### 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<sup>2</sup> 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 3/150: 3 conductors, 150 m drum
- Irricable 5/75: 5 conductors, 75 m drum
- Irricable 5/150: 5 conductors, 150 m drum
- Irricable 7/75: 7 conductors, 75 m drum
- Irricable 7/150: 7 conductors, 150 m drum
- Irricable 9/75: 9 conductors, 75 m drum
- Irricable 9/150: 9 conductors, 150 m drum
- Irricable 13/75: 13 conductors, 75 m drum
- Irricable 13/150: 13 conductors, 150 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 and in double PVC-PE insulation cable
- Cross section : 1,5 mm<sup>2</sup> or 2,5mm<sup>2</sup>
- Thickness : 3 mm for 1x1,5 mm<sup>2</sup> single insulation and 4 mm for double insulation cable.
- Highly resistant to mechanical stress, chemicals, moisture.
- Cable Marked " Rain Bird "
- 1-meter incremental marking

#### MODELS

- SI 115 : 1x1,5 mm<sup>2</sup>, single PE insulation cable, 500 m drum
- SI 125 : 1x2,5 mm<sup>2</sup>, single PE insulation cable, 500 m drum
- DI 115 : 1x1,5 mm<sup>2</sup>, double PVC-PE insulation cable, 500m drum
- DI 125 : 1x2,5 mm<sup>2</sup>, double PVC-PE insulation cable, 500m drum



### CABLE TIES

Adjustable and releasable ties for electrical cables

#### APPLICATIONS

Can be used in valve box and/or with controllers to better maintain and organize group of cables

#### FEATURES

- Polyamide collars for electrical cables, UV and weather resistant. Ideal for outdoor applications.
- Easily assembled by hand and simple one hand opening .

#### SPECIFICATIONS

- Length: 150mm
- Width: 7,6mm
- Maximum cable diameter: 35 mm

#### MODEL

RFT 150







## KING

Waterproof Wire Connectors

### APPLICATIONS

Ensures waterproof wire connections in low voltage underground installations.

### FEATURES

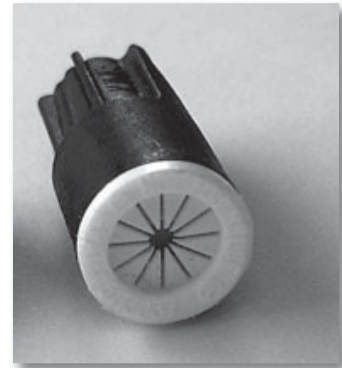
- Copper-to-copper wire only. Cannot be reused.
- Spring locks on to wire for tight grip
- For wet and direct bury
- Eliminates failures due to moisture and corrosion
- Arrests sparking

### SPECIFICATIONS

- Maximum voltage : 30V
- Maximum storage temperature : 75°C
- Connects 2 x 2,5 mm<sup>2</sup> or 3 x 1,5 mm<sup>2</sup> wires

### MODEL

KING



## DBM/DBY/DBR

«Quick Connect» Wire Connectors

### APPLICATIONS

Used to make electrical connections in low voltage installations. The waterproof DBY and DBR are used if there is a risk that the connection could be submerged. Example: valve wires. The DBM is used in applications when a moisture-resistant connector is sufficient.

### SPECIFICATIONS

#### DBM

- Maximum wire voltage: 30V
- Maximum storage and utilization temperature: 49°C
- Permits use with up to 3 wires sized 1.5 mm<sup>2</sup>
- Self-stripping. Use with insulated copper wire
- Moisture resistant. Compact size.

#### DBY

- Maximum wire voltage: 30V
- Maximum storage and utilization temperature: 49°C
- Permits use with up to 3 wires sized 2.5 mm<sup>2</sup>
- Waterproof.

#### DBR

- Maximum wire voltage: 30V
- Maximum storage and utilization temperature: 49°C
- Permits use with up to 3 wires sized 4 mm<sup>2</sup>
- Waterproof.

### MODELS

DBM/DBY/DBR



## 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<sup>2</sup>
- Radial cutting and stripping (up to 20 cm) in one step
- Additional lengthwise slit 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 – BAT1.5AL

Alkaline Batteries

#### APPLICATIONS

For all battery-powered systems (9V) and water timers (1,5V)

#### FEATURES

- Not rechargeable
- Alkaline battery
- Individual bag (9V) or 4 unit pack (1.5V)
- Box of 20 units (9V) or 10X4 units (1.5V)
- Master carton of 200 units (9V) or 100 units of 4 unit pack (1,5V)
- International standards
- 9V: 6LR61/6AM6
- 1.5V : AA-LR6/AM3

#### MODELS

BAT9AL (9V)

BAT1.5AL (1.5V)



### KEY SWITCH FOR DIALOG

#### APPLICATIONS

Allows a manual cycle start on Dialog+ controller without direct access to the controller. Allows a coach to irrigation just before the game thanks to a simple switch for artificial grass Sportsfield for example.

#### FEATURES

- The maximum distance between the switch and the controller using wire sized 0.8mm<sup>2</sup> (IRRICABLE) is 100 m.
- Normally opened with dry contact
- 2 positions : 0 and I
- Operates instantaneously
- Wall mounted key switch
- Completely waterproof (IP66)

#### MODEL

• M22 Combination



### BAT9RE

9V Rechargeable Battery

#### APPLICATIONS

To maintain program in HP, SI-RR+ and DIALOG+ controllers in case of power outage

#### FEATURES

- 9V Rechargeable battery
- Ni-MH technology
- No memory effect
- Rechargeable > 1000 times
- Individual packaging (blister)
- Box of 10 units
- Master carton of 100 units
- International standard IEC 6F22

#### MODEL

BAT9RE



# BATTERY-POWERED CONTROLLERS



## Water Savings Tips

- The Water budget feature allows easy irrigation program adjustments to match seasonal needs
- In the event of a prolonged rain, you can easily suspend the irrigation schedule using Rain Delay feature (available on WP1 and WP series), 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.



## BATTERY-POWERED CONTROLLER SELECTION GUIDE

MODELS	WTA 2875	WTD 2900	Easy Rain JTV™	WP1	WP	TBOS™
<b>APPLICATIONS</b>						
Residential	•	•	•	•	•	
Municipal turf areas			•	•	•	•
Large turf areas						•
Athletic fields						•
<b>FEATURES</b>						
Hybrid	•		•			
Solid State		•		•	•	•
Battery-powered	•	•	•	•	•	•
<b>Indoor location</b>						
Outdoor location	•	•	•	•	•	•
Can be installed in a valve box			•	•	•	•
<b>SPECIFICATIONS</b>						
Stations	1	1	1	1	2, 4, 6, 8	1, 2, 4, 6
Programs	1	8	1	1	3	3
Station run time in hours (up to)	2	24	1h30	12	12	12
Number of starts per day per program	3	6	2	8	8	8
<b>Water Budget</b>						
Manual ON/OFF	•	•	•	•	•	•
Rain Delay				•	•	
Simultaneous multi-station operation						•
Overlapping programs						•
LCD display		•		•	•	•
<b>PROGRAMMING SCHEDULES</b>						
7 Day-of-week		•		•	•	•
Every 2, 3 or 7 days	•					
Every 3, 4, 5, 6, 7 days		•				
1-15 day variable cycle				•		
Odd/even cycle		•		•		
365-day calendar				•		
Test program					•	
Pre-programmed cycles			6			
Pre-programmed run times			7			
Station valve capacity	1	1	1	1	1+1	1
<b>CENTRAL CONTROL COMPATIBILITY</b>						
Central Control Compatibility						•
<b>CABINET</b>						
Plastic-outdoor	•	•	•	•	•	•
IP 68			•	•	•	•
Stainless Steel pedestal option						
<b>ACCESSORIES</b>						
RAIN CHECK™ Shutoff Device						
RSD-BEx Rain Sensor				•	•	•
Pre assembled kit with JTV valve			•	•		



### WTA 2875

Faucet-attached Controller

#### APPLICATIONS

This faucet-attached controller is used to automate low volume irrigation systems.

#### FEATURES

- Front panel dials and knob provide at-a-glance review of the program setting
- Power: 2 x 1,5 V "AA" alkaline batteries
- 3/4" female threaded inlet (BSP)
- 3/4" male threaded outlet (BSP) with quick-click connector

#### SPECIFICATIONS

Waters every 8, 12 or 24 hours or every 2, 3 or 7 days with possibility to set first day for cycle watering  
 Duration of watering time: 30 secs, 1, 3, 5, 10, 15, 30, 60, 90 mn or 2 hours  
 Manual button for immediate watering  
 Manual start of programmed watering duration  
 Low battery indicator  
 Flashing light indicates improperly set dials  
 Number of stations: 1  
 Minimum flow: 18 l/h  
 Operating pressure: 1.0 to 8.4 bars

#### MODEL

WTA 2875

#### ACCESSORIES

1,5 V battery



### WTD-2900

Faucet-attached Controller

#### APPLICATIONS

This faucet-attached controller is used to automate low volume irrigation systems.

#### FEATURES

- Electronic timer with LCD and function keys
- Programs displayed on the LCD
- Power: 2 x 1,5 V "AA" alkaline batteries
- 3/4" female threaded inlet (BSP)
- 3/4" male threaded outlet (BSP) with quick-click connector

#### SPECIFICATIONS

Choice of 8 programs: every day, every other day, every 3, 4, 5, 6, 7 days or 1 day per week or customized weekly watering  
 Up to 6 start times per day  
 Duration of watering time: 1 mn to 24 h  
 Manual key for immediate watering (ON/OFF)  
 Manual start of programmed watering duration  
 Low battery display  
 Number of stations: 1  
 Minimum flow: 18 l/h  
 Operating pressure: 1.0 to 8.4 bar

#### MODEL

WTD-2900

#### ACCESSORIES

1,5 V battery





### EASY RAIN JTV KIT™

Battery-Powered Controller - The Simplest Single-station Controller !

#### APPLICATIONS

The EASY RAIN controller is a professional device designed to automate irrigation on sites where no electrical power is available and where simple watering programs are sufficient. Easy Rain consists of a control module with a factory pre-wired latching solenoid and a Rain Bird 100 JTV valve. The user installs a 9 V battery, selects the first start time, sets the calendar (cycle) and then sets the run time.

#### FEATURES

- Pre-assembled kit for a faster installation
- Powered by a high quality 9V alkaline battery such as Varta type 6AM6 (international standard) or 6LR61 (European standard). Battery not included
- Easy to program: just one programming dial
- User-friendly ON/OFF mode
- Handy «Cycle Indicator» reminds you of the calendar/cycle selected in the controller's program

#### SPECIFICATIONS

- See JTV page for valve specifications

User selects first start time: immediate or 2, 4, 6, 8, 10, 12 hours after battery installation

Choice of 6 schedules (cycles):

- 1 watering / 24 h
- 2 waterings / 24 h
- 1 watering / 48 h
- 2 waterings / 48 h
- 1 watering / 72 h
- 2 waterings / 72 h

Choice of 7 run times: 2, 5, 10, 15, 30, 60, 90 minutes

Soak time between 2 cycles in multi-cycle configurations: 4 hours

Default program if no cycle is validated: 1 watering daily with the programmed run time starting 8 hours after the battery is installed

Valve capacity: 1

Manual ON/OFF

#### SOLENOID FEATURES

Latching type solenoid

Solenoid factory-wired to module

Built-in filter

Compatible only with Rain Bird valves JTV, DV, PGA, PEB and BPE Series

Maximum operating pressure: 10 bar

#### DIMENSIONS

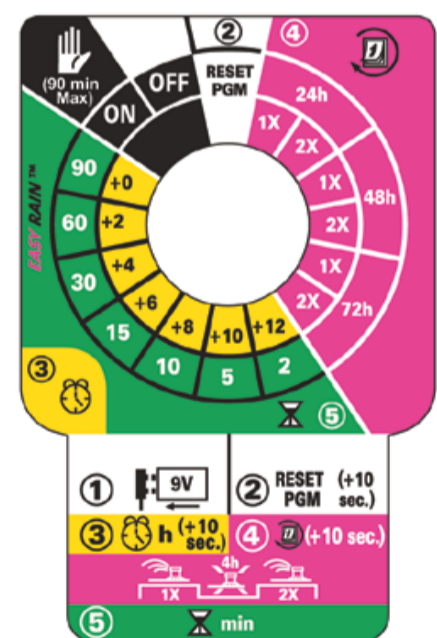
Height: 19,7 cm

Width: 13,6 cm

Depth: 7,9 cm

#### MODEL

Easy Rain JTV Kit™



Easy to program:  
just one programming dial



### 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 6LR61 (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.



RSD-BEx Rain Sensor

- 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<sup>2</sup>: 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



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 6LR61 (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<sup>2</sup>: 30 m  
Can be directly connected to the RSD-BEx Rain Sensor.

#### DIMENSIONS

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

#### MODELS

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



RSD-BEx Rain Sensor





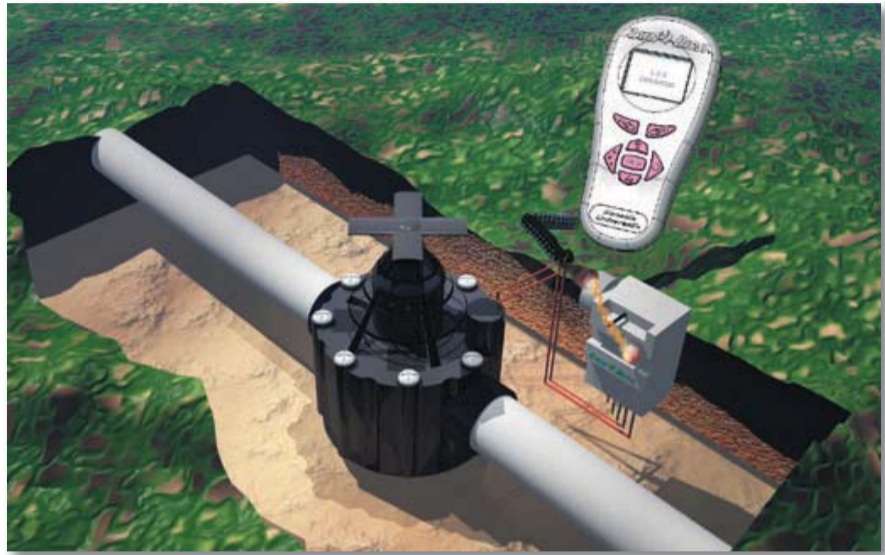
## TBOS™ RANGE CONSISTS OF 3 DISTINCT SYSTEMS

These 3 systems provide 3 different transmission modes - No Power, No Problem !

### TBOS™

#### INFRARED TRANSMISSION

The field transmitter/control module combination works like a conventional controller such as the SI-RR+ or DIALOG+ Series. You program the battery-powered field transmitter just as you would any other Rain Bird controller. Then you transmit the program by infrared connection to the control modules. The control modules carry out the program by activating the TBOS™ latching solenoid mounted on each Rain Bird valve.



### TBOS™ RADIO+

#### INFRARED AND RADIO TRANSMISSION

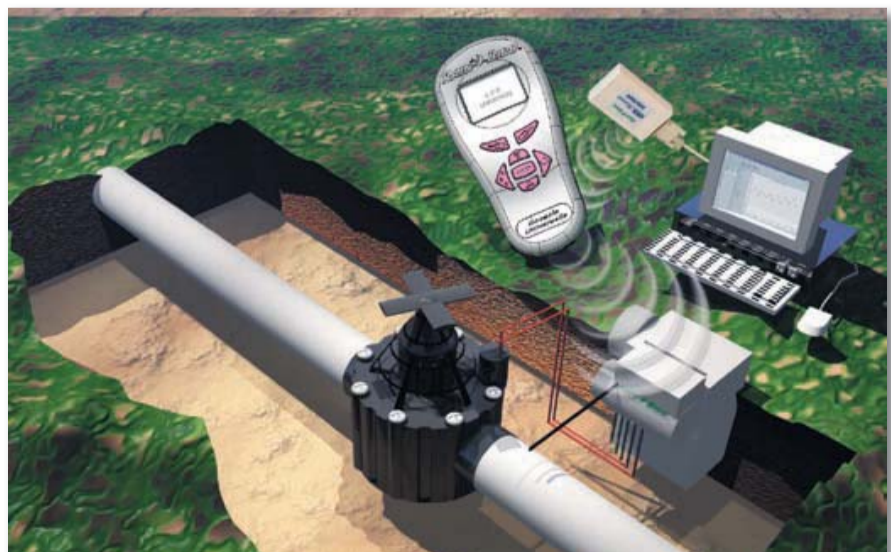
The concept is the same as the conventional TBOS™ system. The only difference is that program transmission is either by infrared or radio. A RADIO+ Interface unit is mounted on an existing TBOS™ control module and program transmission is carried out with a TBOS™ RADIO+ Field Transmitter. This radio version was developed as an anti-vandal system to prevent vandals from finding out the location of the control modules or valves. You can transmit or monitor irrigation programs without opening the valve box.



### TBOS™ SIM

#### RADIO TRANSMISSION AND CENTRALIZED PROGRAMMING

Allows you to transmit the programs entered into the computer to the TBOS™ Field Transmitter. The transmitter is then used on the site to transmit the program information to each battery-powered TBOS™ control module.





### TBOS™ UNIVERSAL FIELD TRANSMITTER

One model does it all !

- 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

#### FEATURES

##### • Universal Field Transmitter

- Can be used with all TBOS systems: TBOS Control Module, TBOS Radio+, TBOS Sim
- It can control all types of TBOS Control Modules: 1, 2, 4, 6-station; old and current modules
- You can transmit programs via infrared connection or by radio
- Infrared transmission also serves as a backup in case it becomes necessary because of dead batteries in a Radio Interface
- Also available in infrared version only

##### • Easy to program

- Ergonomic and compact design
- Large LCD screen with easy to understand function icons
- Scan feature allows you to collect and list all radio module identification numbers within a 200 m radio range
- LCD displays battery status of radio module, TBOS module and field transmitter
- Energy saving LCD automatically goes blank after 1 minute if no keys are pressed
- 2-number confidential code prevents unauthorized radio transmission

##### • Infrared Transmission to TBOS™ Control Modules:

- You program the Universal Field Transmitter just as you would any other Rain Bird controllers. Then you transmit the program via infrared connection to TBOS™ control modules.

##### • Radio Transmission to TBOS™ Control Modules:

- You program the Universal Field Transmitter just as you would any other Rain Bird controllers. Then the only difference is that you transmit the program via Radio to TBOS™ control modules thanks to a Radio+ Interface unit mounted on each existing TBOS™ control module.

##### • PC Assisted Programming and Radio Transmission:

- Transmit programs created with TBOS SIM to the Field Transmitter. The transmitter is then used on the site to transmit programs to each TBOS™ control module.

#### SPECIFICATIONS

- Radio Transmission range: 200 m in open terrain with no electrical interference or natural/ structural obstructions (The range may vary depending on site or weather conditions.)
- 3 independent programs: A, B, and C
- Up to 8 start times per day per program
- Station timing: 1 minute to 12 hours in 1-minute increments
- Programming schedule: 7-day calendar
- Module programs can be displayed and modified
- Field Transmitter can program an unlimited number of TBOS™ Control Modules



- Manual single station or cycle start after a 10- second interval
- Manual functions override all other functions
- ON/OFF mode
- Operating temperature: 0° to 55° C
- Operates with only one high quality brand (Varta or equivalent) 9V alkaline battery type 6AM6 (international standard) or 6LR61 (European standard). Battery not included.

#### DIMENSIONS

Height: 15,75 cm  
Width: 7,35 cm  
Depth: 3,85 cm

#### MODELS

TBOS Universal Field Transmitter  
TBOS Infrared Field Transmitter





## TBOS™ CONTROL MODULE

### APPLICATIONS

The TBOS™ 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 9V alkaline battery (Varta or equivalent) type 6AM6 (international standard) or 6LR61 (European standard). Battery not included.
- Rated IP68: Sturdy, completely waterproof case.
- Sealed waterproof battery compartment.
- External, encapsulated infrared connector.
- 2 mounting slots.
- Backup system maintains program for 5 minutes during battery replacement.
- ON/OFF switch for the underground Rain Shutoff Device can be mounted on the Control Module.
- Direct Rain Sensor connection : No TBOS Rain Sensor Interface needed to connect a sensor.
- Active Rain Sensor immediately stops watering if it rains.

### SPECIFICATIONS

- TBOS™ 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<sup>2</sup> wire

### DIMENSIONS

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

### MODELS

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

### ACCESSORIES

- TBOS™ Latching Solenoid
- TBOS™ Remote Control Relay
- TBOS™ Underground Shutoff
- RSD-BEx Rain Sensor
- BAT9AL : 9V Alkaline Battery



9V battery



RSD-BEx Rain Sensor



### TBOS™ RADIO+ INTERFACE

#### APPLICATIONS

The TBOS™ RADIO+ Interface is used with TBOS™ Universal Field Transmitter to transmit a program to a TBOS™ Control Module by radio. Radio transmission is possible even if the TBOS™ RADIO+ Interface is in a valve box. It is not necessary to open the valve box.

#### FEATURES

- Operates with only one top-grade 9 V alkaline battery (Varta) type 6AM6 (international standard) or 6LR61 (European standard). Battery not included
- Heavy-duty, waterproof plastic case
- Waterproof battery compartment thanks to a screw-on cap equipped with dual seal
- External, encapsulated optical connector for communication with the control module
- Semi-rigid antenna for radio transmission
- 2-number identification code
- The Radio Interface is easy to mount on the Control Module. An elastic band holds it in place. No tools required
- Do not expose to temperatures over 55° C

#### DIMENSIONS

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

#### MODEL

TBOS™ RADIO+ Interface



9V battery

### VRM-1+ RADIO MODULE

#### APPLICATIONS

This 1-station Radio Module belongs to the TBOS™ Series. It is used for automatic irrigation of a small site where no 230 VAC power is available.

#### FEATURES

- Compact module with built-in assembly including:
  - A 1-station TBOS™ Control Module
  - A TBOS™ Radio interface
  - A TBOS™ latching solenoid
- The solenoid is screwed onto the valve. The module is then snapped onto the solenoid.
- Waterproof
- Compatible with Rain Bird JTV, DV, PGA, PEB/ BPES Series valves.

#### SPECIFICATIONS

- TBOS™ Universal Field Transmitter required for programming.
- Programmable 2-digit identification code
- Maximum operating pressure: 10 bar
- Do not expose unit to temperatures over 55° C
- Each VRM-1+ operates with 2 top quality 9V alkaline batteries (Varta) type 6AM6 (international standard) or 6LR61 (European standard). Battery life: 1 year. Batteries not included.

#### DIMENSIONS

Width: 6.0 cm  
Height: 11.0 cm  
Depth: 10.5 cm  
*Note: Antenna adds 17 cm to height*

#### MODEL

VRM-1+ RADIO MODULE: 1 Station



9V battery



### 9V DOC

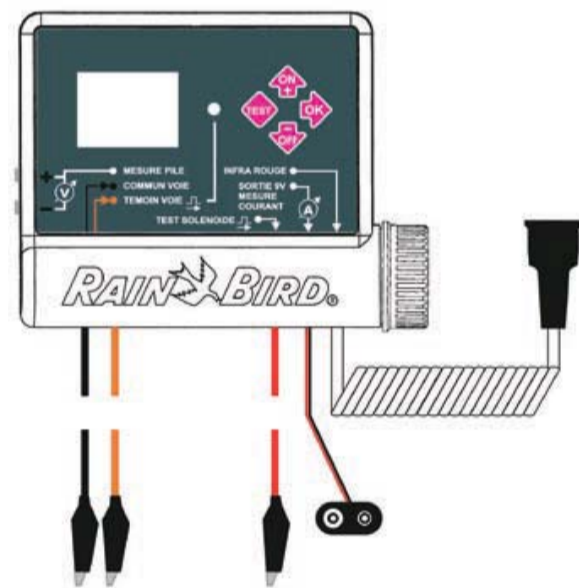
Battery-powered Controllers Test Device - Quickly Test and Troubleshoot 9V Controllers

#### APPLICATIONS

9V DOC is a battery-powered controllers test device. It allows you to quickly troubleshoot an irrigation system using battery-powered controllers. 9V DOC can be used to perform tests on valves, latching solenoids, controller stations, transmission (infrared or radio) and controllers themselves.

#### FEATURES

- Compatible with all Rain Bird battery-powered controllers (TBOS, WP Series)
- The 9V DOC can be used to perform the followings tests:
  - **Program Test:** Device will check if controller is ON, if each valve has a start time, run time and a watering day, if Water Budget is different from 0%, if battery has enough energy.
  - **Valve Test:** Each valve will be tested for 2 minutes, to check if all valves normally open and close.
  - **Transmission Test:** Device will check if radio transmission and infrared transmission work properly.
  - **Solenoid Test:** Device will send ON and OFF pulse to check if a latching solenoid works properly.
  - **Battery Test:** Device will check battery life level and power consumption of battery-powered controllers.



#### ELECTRICAL SPECIFICATIONS

Operates with 2 9V alkaline batteries. Compatible with Rain Bird battery-powered controllers and latching solenoids.

#### MODEL

9V DOC: Battery-powered Controller Test Device

#### DIMENSIONS

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

### 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<sup>2</sup> wires are supplied: 60 cm long
- Works only with Rain Bird valves: JTV, DV, PGA, PEB and BPE Series
- Maximum operating pressure: 10 bar
- Manual opening of Rain Bird valves with 1/4-turn of solenoid

#### MODEL

TBOS™ Latching Solenoid





### TBOS™ REMOTE CONTROL RELAY

#### APPLICATIONS

This TBOS™ relay is designed to activate electrical devices using a TBOS™ Control Module or a WP Series battery-powered controller.

#### FEATURES

- Bi-stable relay
- Contact rating: 10 A, 230 V, 50 Hz
- Relay is connected to a station on a TBOS™ Control Module or a WP Series controller
- Relay is shipped in a heavy-duty, water resistant junction box
- Easy to install

#### DIMENSIONS

Width: 10.7 cm  
Height: 10.7 cm  
Depth: 6.0 cm

#### MODEL

TBOS™ Remote Control Relay



### TBOS™ UNDERGROUND SHUTOFF

#### APPLICATIONS

The TBOS™ Underground Shutoff automatically overrides a programmed irrigation cycle to prevent unnecessary watering on sites equipped with TBOS™ Control Modules.

#### SPECIFICATIONS

Shutoff operates only in conjunction with valves equipped with the TBOS™ Latching Solenoid. Must be installed outside the zone watered by the irrigation system.

#### FEATURES

- Concept: the shutoff device measures the soil moisture level in the area where it is installed. It prevents irrigation as soon as there is enough soil moisture for plants
- The shutoff device allows programmed irrigation to take place as soon as the soil moisture level falls below a factory preset level
- Shipped with ON/OFF switch for system start-up test
- ON/OFF switch is mounted on the Control Module



#### MODEL

TBOS™ Underground Shutoff

### 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 @ 125/250 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<sup>2</sup>)

#### DIMENSIONS

Length: 16.5 cm  
Height: 13.7 cm

#### MODEL

RSD-BEx

### BAT9RE

9V Rechargeable Battery



### ALKALINE BATTERIES

BAT9AL – BAT1.5AL






























## Water Savings Tips

- Maxicom<sup>2</sup> and SiteControl Systems provide fully-automated ET (evapotranspiration) adjustment of irrigation programs for maximum water savings
- Maxicom<sup>2</sup> and IQ Systems provide the tools to manage dozens or even hundreds of irrigation systems across multiple remote sites from a single computer
- Maxicom<sup>2</sup> FloWatch utility monitors and records real-time flow and automatically diagnoses and eliminates flow problems caused by broken pipes, vandalism or stuck valves

## CENTRAL CONTROL SYSTEMS QUICK REFERENCE GUIDE

	Type of site		Type of system			Type of
	 Mono	 Multi	 9V	 230V		Option
<b>IQ</b>						 GSM:
<b>TBOS SIM</b>						GSM:  * 
<b>MDC</b>						 GSM: 
<b>Site Control</b>						 
<b>Maxicom<sup>2</sup></b>						 GSM:

\* Using TBOS field transmitter



Single-Site



Multi-Site



9V Satellite



230V Satellite



Decoder



Radio Communication



Phone Line Communication



GSM Communication



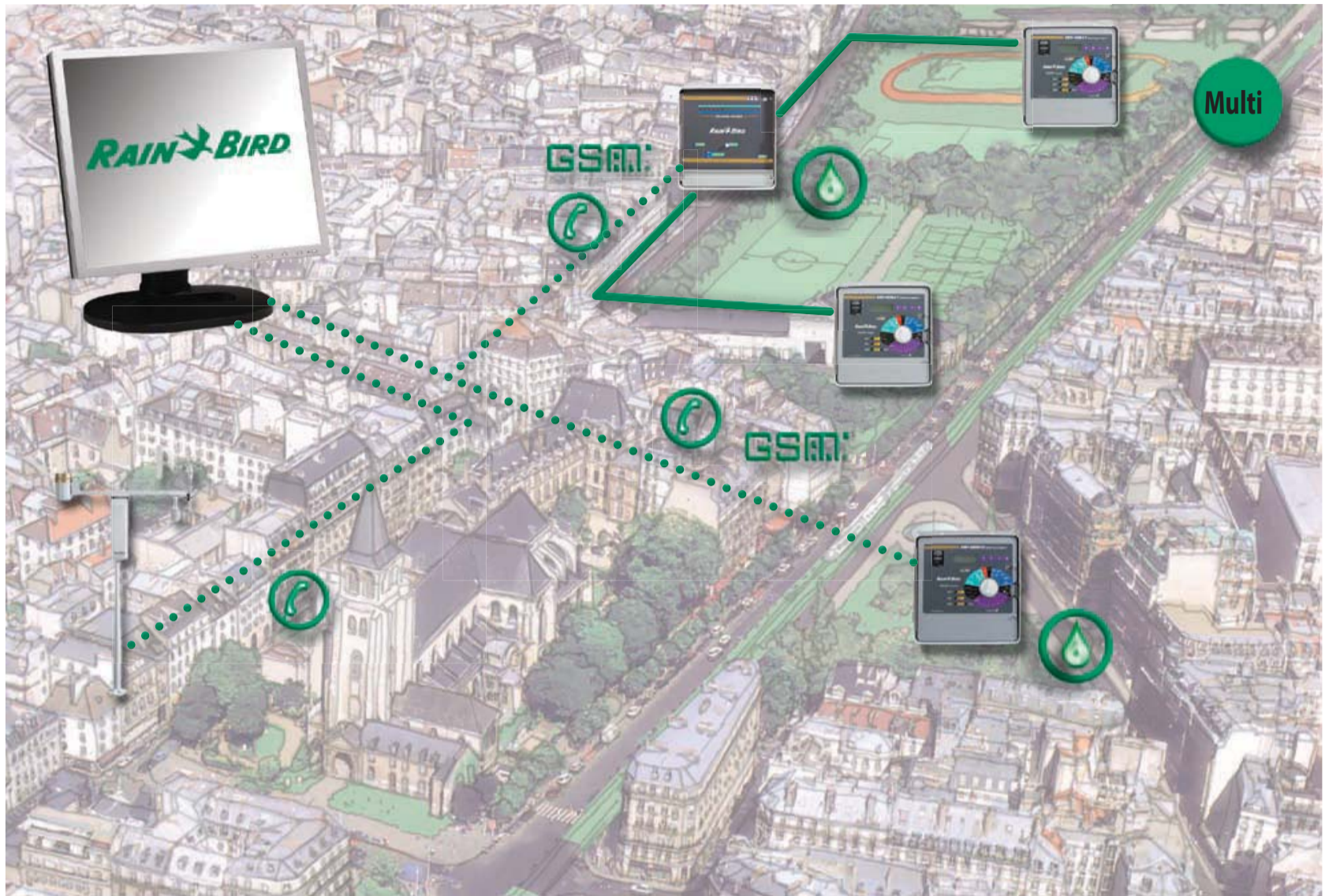
Local Site Communication



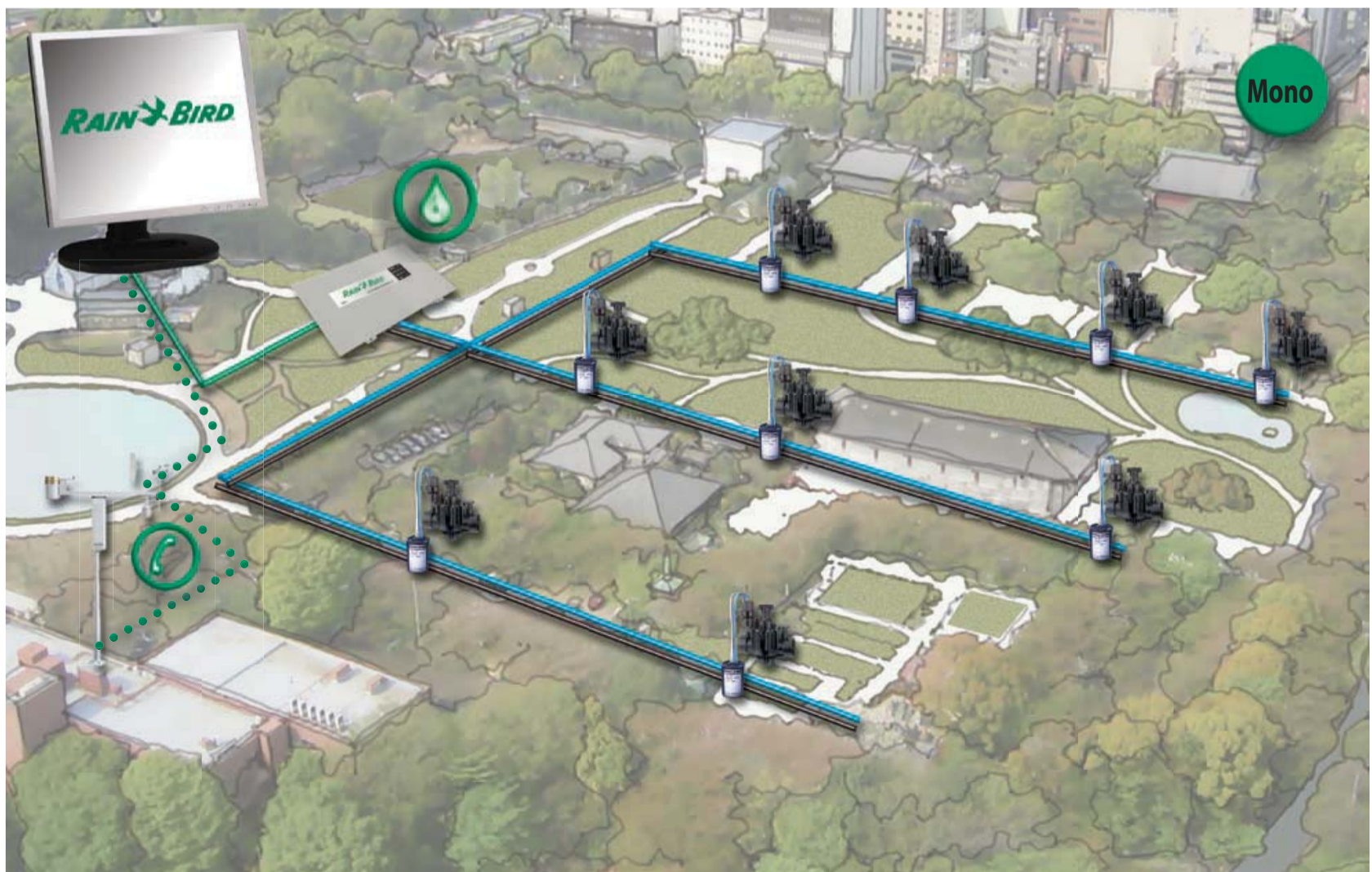
Two-wire Decoder Communication



### TYPICAL MULTI - SITE ARCHITECTURE



### TYPICAL SINGLE - SITE ARCHITECTURE



## CENTRAL CONTROL SYSTEMS SELECTION GUIDE

Features	IQ	TBOS SIM	MDC	SiteControl	Maxicom <sup>2</sup>
<b>Type of System</b>					
Single-Site			X	X	
Multi-Site	X	X			X
9V Satellite		X			
230V Satellite	X	X		X	X
Decoder			X	X	
<b>Central Computer</b>					
PC Included	X	X		X	X
PC Programming	X	X	X	X	X
PC Monitoring	X	X	X	X	X
PC Manual operation	X			X	X
<b>In-field Satellite</b>					
Satellite / Decoder	LXM-DTC Satellite	TBOS & TBOS Radio SI-RR+ / Dialog+	FD Decoder	ESP-SAT Satellite FD Decoder	ESP-Site ESP-SAT & CCU
Max. Number of Sites per System	250	TBOS: 99 SI-RR+/Dialog+: No limit	1	1	200
Max. Number of Stations or Decoder addresses per System	8000 stations	TBOS: 594 stations SI-RR+/Dialog+: No limit	200 decoder addresses	5376 stations or 2000 decoder addresses	No limit
<b>Software Features</b>					
Feedbacks	X	X		X	X
Design Import		BMP, JPG, TIFF		GPS, CAD, SHP, BMP	BMP
Interactive Map				X	
ET Programming	X	X		X	X
Automatic ET Adjustment				X	X
Number of Programs	4 per controller	TBOS: 3 per controller SI-RR+/Dialog+: 12 per controller	11 per controller	100 per system	999 per CCU
Programming Dry-Run	X	X		X	X
Flow Management				X	X
Flow Monitoring		X	X	X	X
High Flow Shut-Off		X	X	X	X
Rain Shut-Off	X	X	X	X	X
Cycle + Soak	X			X	X
Event Recording	X	X		X	X
Alarms	X	X	X	X	X
GSP included				X	X
<b>Communication</b>					
Hardwire	X	X	X	X	X
Radio*		X			
Phone Line	X	X	X		X
GSM	X	X	X		X
Automatic Remote Communication		X		X	X

\* Using TBOS Field Transmitter

**SATELLITES SELECTION GUIDE**

MODELS	LXM-DTC	TBOS	SI-RR+	Dialog+	MDC	ESP SAT	ESP SITE
<b>Applications</b>							
Residential			X				
Municipal turf areas	X	X	X	X	X	X	X
Large turf areas	X	X		X	X	X	X
Athletic fields	X		X	X	X	X	X
<b>Features</b>							
Hybrid	X					X	X
Solid State		X	X	X	X		
Battery-powered		X					
<b>Specifications</b>							
Number of Stations	8, 12, 16, 20, 24, 28, 32	1, 2, 4, 6	4, 8, 12	8, 16, 24, 32, 40, 48	50, 100, 150, 200	12, 16, 24, 32, 40	12, 16, 24, 32, 40
Number of Programs	4	3	3	3	10	4	4
Station run time (Up to)	12 h	12 h	12 h	12 h	999 min	12h	12h
Number of starts per day per program	8	8	8	8	6	8	8
Water Budget	X	X	X	X	X	X	X
Manual ON/OFF	X	X	X	X	X	X	X
Rain Delay	X		X	X			
Simultaneous multi-station operation	X	X			X	X	X
Overlapping programs	X	X			X		
LCD display*	X	X	X	X	X	X	X
<b>Programming Schedules</b>							
7-Day week	X	X	X	X	X	X	X
Variable cycle	X			X		X	X
Odd/even cycle	X					X	X
365-day calendar	X						
Test program						X	X
Default program	X		X	X			
Station valve capacity	2 + 1	1	2 + 1	3 + 1	9 + 1	4 + 1	4 + 1
<b>Cabinet</b>							
Outdoor	X	X	X	X	X	X	X
IP68		X					
<b>Accessories</b>							
Rain Check™ Shutoff Device	X		X	X	X	X	X
RSD-BEx Rain Sensor	X	X	X	X	X	X	X
Wind/Freeze sensor	X			X	X	X	X

\* Using TBOS Field Transmitter



## IQ™ CENTRAL CONTROL SOFTWARE

Multi-Site Central Control for Smaller Sites

- Easy to learn software that's simple to use
- Modular system can grow with your needs
- Water management tools save you time and water

### FEATURES

#### • Central Software Features

- Operates with ESP LX Modular controllers equipped with an Upgrade kit.
- A Quick Start guide walks you through the simple steps to start and configure your software.
- Easy-to-navigate graphical user interface.
- User-defined sites (groups of satellite controllers with common adjustments).
- All ESP-LX Modular stand-alone controller features.
- Can manage up to 250 Satellites.
- Group site adjustments (auto/off, seasonal adjust% or ET).
- Program review with projected start and end time calculations.
- Dry-Run utility graphically displays program operation including flow, time, and warnings for water window and maximum flow violations.
- Real-time Satellite activity status.
- Manual station start, program start, advance, and cancel.
- RASTER™ (RAPid Station TEST Routine) provides station output test to detect and diagnose field wiring or solenoid problems.
- Auto/off dial and sensor active/bypass switch settings override from the Central Control Software.
- The ESP-LX Modular Controller and DTC-LXM Communication Interface Cartridge firmware can be re-flashed from the PC.
- View site logs and alarms on screen or in printed reports.
- Six different languages: English, Spanish, French, German, Italian, Portuguese.

#### • Water Management Features

- Station run times in seconds, minutes, and hours
- Cycle+Soak™ by station
- Program adjust % by program
- Daily seasonal adjust %
- Monthly seasonal adjust % automatically adjusts station runtimes for each month
- Daily ET adjustments
- Monthly ET adjustments automatically adjusts station run time for each month
- Programmable rain delay and calendar day off
- Programmable delay between stations by program



#### • Communication Options

- Analog phone line
- GSM modem
- Direct Hardwire

### MINIMUM COMPUTER REQUIREMENTS

- Windows XP-Professional SP2
- Pentium 1,8 GHz processor
- 512MB RAM memory
- 200 MB free hard drive space
- 1024x768 screen resolution
- CD-ROM
- Communication modem/port
- Computer not included with software package

### MODELS

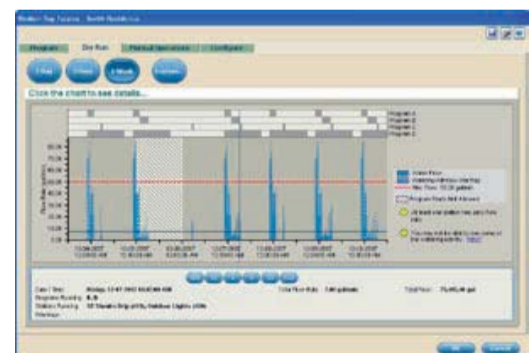
IQSTARTCD: Starter Software Package, 5-Satellite Capacity  
 IQSTDCD: Standard Software Package, 250-Satellite Capacity



Easy-to-navigate graphical user interface



Easy-to-use program screen



Dry-run utility graphically displays program operation



## ESP-LX MODULAR CONTROLLER

Upgrade it to an IQ Satellite Controller!

- Modular design for ultimate versatility
- Single enclosure simplifies installation
- Review, modify programming at the satellite

### FEATURES

- A cost-effective DTC (Direct-to-Central Communication Cartridge) can be added to the ESP-LX Modular Controller, upgrading it to an IQ Satellite Controller. This enables remote programming and monitoring with the use of IQ software.
- Multiple communication options including phone, cellular and direct connect.
- Large LCD display.
- Multiple language support.
- Modular station capacity up to 32 stations.
- Program and station run time review.
- Seasonal adjust % by program.
- Monthly seasonal adjust % automatically adjusts station run time each month of the year.
- Cycle+Soak™ by station.
- Sensor input programmable by station with master bypass switch.
- Master valve/pump start programmable by station.
- Programmable rain delay.
- Programmable delay between station by program.
- Manual station(s), program, test program operations.
- RASTER™ diagnostic test.
- Non-volatile program memory retains programming during a power outage.
- Electronic diagnostic circuit breaker.
- Alarm light visible through outer door.
- Satellite firmware re-flashable from IQ Central.
- Removable faceplate is programmable under battery power.

### SPECIFICATIONS

- Number of programs: 4 independent programs (D program can be programmed to overlap ABC programs).
- Independent Programming schedule:
  - Weekly: 7-day cycle
  - 1 to 31 day cycle
  - Even days
  - Odd days (with or without the 31st)
- Up to 8 start times per day per program.
- Station timing from 0 to 12 hours:
  - 0 to 120 minutes in 1-minute increments.
  - above 120 minutes in 10-minute increments.
- Number of stations: 8 to 32 stations by adding 4-station or 8-station extension modules.



### DIMENSIONS

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

### ELECTRICAL SPECIFICATIONS

- Input required: 230 VAC -50Hz
- Output: 26,5 VAC 1.9A
- Power back-up: Lithium coin-cell battery maintains time and date (10 years) while nonvolatile memory maintains the schedule (100 years).
- Multi-valve station capacity: Up to two 24 VAC, 7VA solenoid valves per station plus a master valve

### MODELS

- ESPLXMEUR: 8-station controller base
- ESPLXMSM4: 4-station Module
- ESPLXMSM8: 8-station Module

## U-DTC-LXM UPGRADE KIT

IQ™ Upgrade Kit for ESP-LX Modular Controllers

### FEATURES

- Upgrades an ESP-LX Modular Controller to an IQ Satellite Controller.
- Modular DTC Communications Interface.
- Cartridge snaps into dedicated bay on back of controller faceplate.
- Installs in seconds with no tools required.
- Ribbon cable connects DTC-LXM cartridge to the controller.
- Status LEDs show current status of communication.
- Upgrade Kit includes DTC-LXM cartridge, IQ Satellite Controller faceplate overlay, communication cables, and manual.
- Communications options include phone modem or RS-232 port for external modem or direct connect.
- DTC-LXM firmware is re-flashable from IQ Central Computer.

### MODELS

- U-DTC-LXM-PR: Phone+RS232 Communication
- U-DTC-LXM-R: RS232 Only Communication



### TBOS SIM

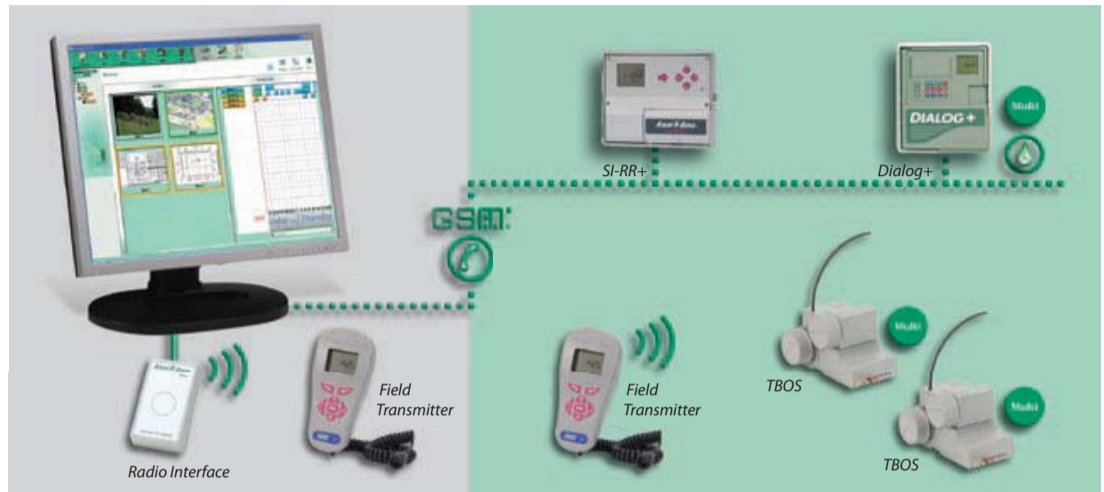
Multi-Site Central Control System for TBOS™ and Controllers

- One unique user interface operates with SI-RR+, Dialog+ controllers and TBOS™ control modules.
- Manage and create programs for all your controllers in a user-friendly Windows environment.
- Displays sites and programs overview at a glance.
- Remotely control your irrigation system by phone or GSM from a central location.
- Manage your water usage and improve your efficiency by programming in runtime mode or based on regional ET

#### FEATURES

##### • Central Software Features

- Operates with SI-RR+, Dialog+ controllers and TBOS™ control modules.
- Software interface design easy to use and user friendly:
  - Display all sites and controllers at-a-glance.
  - Program run times overview chart.
- One unique user interface for managing battery-operated controllers and powered controllers:
  - Assisted Programming System for TBOS™. In-office easy programming system to manage programs of all your TBOS™ modules.
  - Central Control System for SI-RR+ and Dialog+.
- Remotely control your irrigation system by phone or GSM.
- Can manage an unlimited number of sites and controllers.
- Backward compatibility to operate with all TBOS™ models, including 6-station modules.
- Copy function allows you to create a standard site to be copied for easier site set-up.
- Database of all your sites. Collect and sort all your site information: controllers, battery level, address, phone number, contact, etc
- Site follow-up: Print site operation report, control module information, water consumption, alarms, etc.
- Three different flow measurement units: m3 per hour, liters per second, US gallons per minute.
- Seven different languages: English, Spanish, Dutch, French, German, Italian, Portuguese.



##### • Water Management Features

- Manage your water usage and improve your efficiency by programming in run time mode or based on regional ET:
  - Create up to 10 programs in run time mode.
  - Create monthly programs with run time automatically calculated in ET mode.
- Built-in ET database provides precise watering needs throughout Europe.
- The system tracks consumption and shut off immediately in case of excessive volume consumption. (Dialog+ only).
- Follow water consumptions and export data as MS Excel file to calculate water savings. (Dialog+ only).
- Alarms keep you informed about site conditions (leakage, sensor status, electrical short circuits, etc).
- Water Budget function can adjust run time from 0 to 200% in 10% increments per site and per program.
- Rain Delay up to 9 days for SI-RR+ and Dialog+.

##### • Communication Options

- Communicates to SI-RR+ and Dialog+ controllers through:
  - Analog phone line
  - GSM modem
  - Direct Hardwire
- Communicates to TBOS™ control modules through:
  - Radio transmission using TBOS™ Field Transmitter
- Set automatic calls daily, weekly, monthly, etc

#### MINIMUM COMPUTER REQUIREMENTS

- Compatible operating system:
  - Windows 2000 (Pro or Server) SP4 and above,
  - Windows XP (Pro or Family) SP2 and above,
  - Windows VISTA (Home Basic, Home Premium, Business, Enterprise, Ultimate)
- Processor 1 GHz or higher
- 512 MB RAM Memory
- 500 MB free Drive space
- 1024x768 screen resolution
- Peripheral devices: CD-ROM drive, Mouse, Keyboard
- 1 free USB port
- Communication modem/port
- Computer not included with software package

#### MODELS

TBOS SIM PACK: includes 1 Universal Field Transmitter, 1 Radio Transmission Device, 1 Software.

TBOS SIM Upgrade: includes Software only.



Displays sites and programs overview at a glance



Easy and user-friendly to program



## CONTROLLER MODEM

TBOS SIM modem card module

### APPLICATIONS

Modem card module is used for centralized SI-RR+ and Dialog+ controllers with the central control system TBOS SIM

### FEATURES

- Solid state card modem
- Operates only with the TBOS SIM software via an analogical phone line.
- Same model operates with both SI-RR+ and Dialog+ controllers.
- Easy installation in controllers
- Easy set-up, modem is automatically identified by the controller when the power supply is turned on.

### SPECIFICATIONS

Modem is shipped with 5-meter phone line cable. Controller has to be connected to an analogic phone line.

### MODEL

JMOD01 : Modem for SI-RR+ and Dialog+ controllers, compatible with TBOS SIM software.



## GSM MODEM

TBOS SIM GSM Modem

### APPLICATIONS

GSM modem is used for centralized SI-RR+ and Dialog+ controllers with the TBOS SIM system. It allows wireless communication between PC and field controllers.

### FEATURES

- Compact modem shipped with antenna, external transformer and serial cable.
- GSM communication requires use of a GSM modem on the PC and one GSM modem per controller using interface board (JCONB01).
- Same model operates with both SI-RR+ and Dialog+ controllers. Requires interface board when used with controllers.
- Integrated SIM card reader.
- Operating status LED.

### SPECIFICATIONS

- GSM dual band (900/1800 MHz).
- Low power consumption.
- Requires data transfer subscription (SIM card not included).

### DIMENSIONS

- Length : 65 mm
- Width : 74 mm
- Height : 33 mm

### MODELS

JGSM01: TBOS SIM GSM modem.  
JCONB01: Interface board for SI-RR+ and Dialog+ when used with GSM modem



Interface board



TBOS SIM GSM



## MDC 2 – PROGRAMMING SOFTWARE

Two-wire Controller with Decoders for a Single Site

- Heavy-duty plastic cabinet, completely encapsulated electronic decoder components.
- Control and monitor the system locally or remotely via computer. Software provided with controller.
- Modular controller for 50 to 200 decoder addresses by modules of 50 addresses. Can easily be upgraded to a Rain Bird SiteControl system using the same wire.
- Utilizes less wire than conventional satellite systems.
- Simple wiring configuration and absence of protective enclosures keeps cost of installation and maintenance low.

### FEATURES

#### • Central Software Features

- Operates with MDC 50-200 decoder controller.
- This MDC PC software facilitates working with your controller by allowing you to enter Set-up Data and Irrigation Schedules on a PC.
- A Connection wizard will guide you through the set-up of the way your PC communicates with the MDC.
- Step-by-step sequential programming can be done through the MDC PC software.
- Can control 1 master valve and up to 9 booster pumps.
- Manual operation of the controller from the central controller or from the field satellite.



- The MDC PC software allows you to:
  - Send and receive data from the MDC 50-200 controller.
  - Edit Data on the PC.
- An Irrigation Schedules Overview shows if schedules are active or inactive and run times synthesis.
- Management of events:
  - Starting and stopping a valve
  - Starting and stopping a pump
  - Reading a measurement from a flowmeter
  - Starting and stopping an irrigation schedule
  - Power on and power off
- Five different languages: English, Spanish, French, German, Italian.

#### • Water Management Features

- Create up to 10 programs plus one auxiliary
- One direct sensor for automatic on/off for rain or alarm; ten additional decoder sensors can be installed anywhere on line for flow and on/off
- Water Budget to modify application rate: from 0 to 250% in 1% increments
- High flow shut-off
- Rain shut-off

#### • Communication Options

- Communicate to MDC 50-200 through:
  - Direct Hardwire (included)
  - GSM modem
  - Analog phone line
- Communication to the field decoders over two wire path.

## MDC 2 DECODER CONTROLLER

### FEATURES

- Easy to install.
- Large LCD.
- Heavy-duty plastic cabinet.
- Indoor wall mount.
- Communication over two-wire path.
- Used in conjunction with FD-101, FD-102, FD-202, FD-401 and FD-601 field decoders.
- Built-in Line Termination Box (LTB).
- MDC-50-200 can easily be upgraded to a Rain Bird SiteControl system using the same wire.
- Possibility to connect 10 sensors
- Unit automatically cuts off line power in case of short circuit to prevent serious damage to system. LCD warning message appears.
- The MDC has two built-in communications features:
  - Phone Modem
  - Serial RS232 Com Port

- Unit can be connected directly to a local PC through null modem cable (included) or to remote PC via Analog modem or GSM modem (optional).

### SPECIFICATIONS

- Number of programs: 10 plus 1 auxiliary.
- Programming schedule: 14-day cycles.
- Up to 6 start times per day per program.
- Station timing: 0 to 999 minutes in 1-minute increments.
- Modular controller: 50 up to 200 decoder addresses by adding modules of 50 addresses.
- Can Control main pump and up to 9 boosters pumps
- Water budgeting function adjusts watering time from 0 to 250% in 1% increments.



### MODELS

MDC2: including 1 controller 50 addresses + 1 software + 1 direct connection cable PC/MDC





## 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™

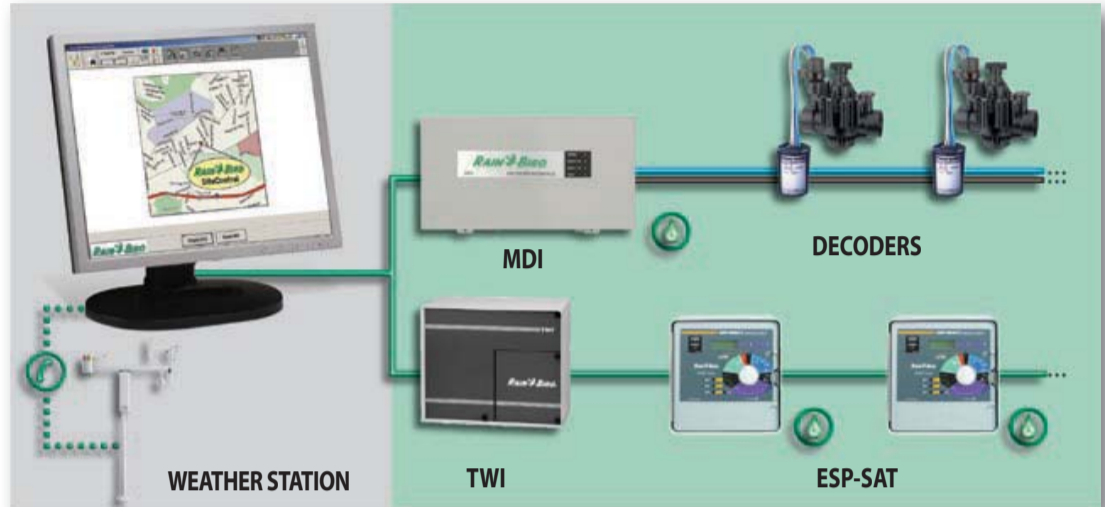
- Designed to take complete advantage of Rain Bird's most advanced line of weather stations
- Track ET rates with a weather station and react to current weather conditions through logical sequential steps
- Advanced warning system accepts user-defined sensor thresholds. System operator can be immediately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

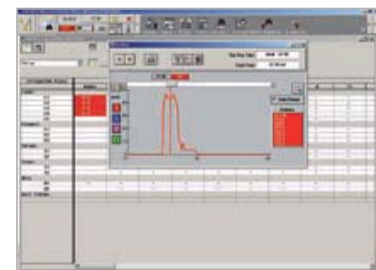
#### ACCESSORIES

WS-PRO-LT: Weather Station Light

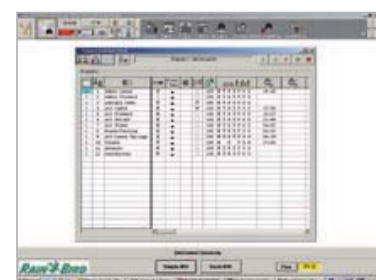
WS-PRO: Weather Station



Interactive map displays your complete site



Dry Run feature for testing



Quick and easy method to build irrigation schedules



### MDI DECODER INTERFACE SERIES

#### APPLICATIONS

MDI Two-Wire Decoder Interface unit serves as an interface between the central computer and the sites Two-Wire Decoders (FD-101, FD-102, FD-202, FD-401, FD-601) on the SiteControl system.

#### FEATURES

- MDI can interface with up to 500 decoder addresses and can activate up to 1000 solenoids.
- MDI come standard with 5 wire paths on LTB-300.
- Computer data path: 9-pin serial cable.
- Decoder data path: 2-wire cable.
- Wall Mount: heavy-duty, plastic, cabinet with a key-lock door.



### 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 MDC-50-200, SiteControl  
Output: Dry contact 5A, normally open or normally closed

#### MODEL

PD-210



### DECODER CABLE

#### APPLICATION

This cable is used for MDC-50-200 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 MDC- 50-200 and SiteControl



#### SPECIFICATIONS

Number of conductors: 2. Cross section: 2.5mm<sup>2</sup>  
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 or 1000m



## ESP SAT SERIES

Satellite Controller for Maxicom<sup>2</sup> or SiteControl

### APPLICATIONS

Field Satellite Controller for Maxicom<sup>2</sup> or SiteControl central control systems.

The power of an advanced water-management tool in an easy-to-use package.

### FEATURES

- 12-hour watering duration for any or all stations to aid in drip compatibility.
- 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.
- Independent day cycle by program.
- 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.
- Universal remote ready: pre-installed connectors for addition of remote products.
- Heavy-duty transformer for simultaneous operation of up to nine 24 VAC, 7VA solenoids.
- Battery-programmable controller allows for programming prior to installation.

### 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; 4. Custom day-of-the-week by program)
- Test program: Variable 1 to 99 minutes.

### ELECTRICAL SPECIFICATIONS

- Input required: 230 VAC $\pm$  10%, 50Hz
- Output 26.5 VAC, 2.5A
- Station load capacity: Up to two Rain Bird 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
- Single-point ground bus bar.

### DIMENSIONS

Width: 28,7 cm  
 Height: 29,2 cm  
 Depth: 16,5 cm



### MODELS

ESP-12-SAT-TW-WM: 12 stations,  
 ESP-16-SAT-TW-WM: 16 stations,  
 ESP-24-SAT-TW-WM: 24 stations,  
 ESP-32-SAT-TW-WM: 32 stations,  
 ESP-40-SAT-TW-WM: 40 stations,

## TWI SERIES TWO-WIRE INTERFACE

CCU Series for Maxicom<sup>2</sup>

### APPLICATIONS

The Two-Wire Interface (TWI) serves as an interface between the Central Controller and ESP-SAT Satellite Controller on the SiteControl System.

### FEATURES

- TWI operates up to 28 satellite controllers, pulse decoders or sensor decoders per wire group.
- TWI comes standard with one wire-path, upgradeable to 4 wire paths with the purchase of an "additional wire path" module.
- Wall Mount: drawn steel, seamless, cabinet with hinged front panel.
- Computer data path: hardwire cable.
- Satellite data path: hardwire/2-wire cable.

### ELECTRICAL SPECIFICATIONS

- Input required: 230VAC  $\pm$  10% @ 5A 50Hz
- Output: 2 x 26,5VAC @ 0,9A 50Hz or 4 x 26,5VAC @ 0,9A 60Hz



### DIMENSIONS

Width: 39,4 cm  
 Height: 31,7 cm  
 Depth: 15,2 cm

### MODEL

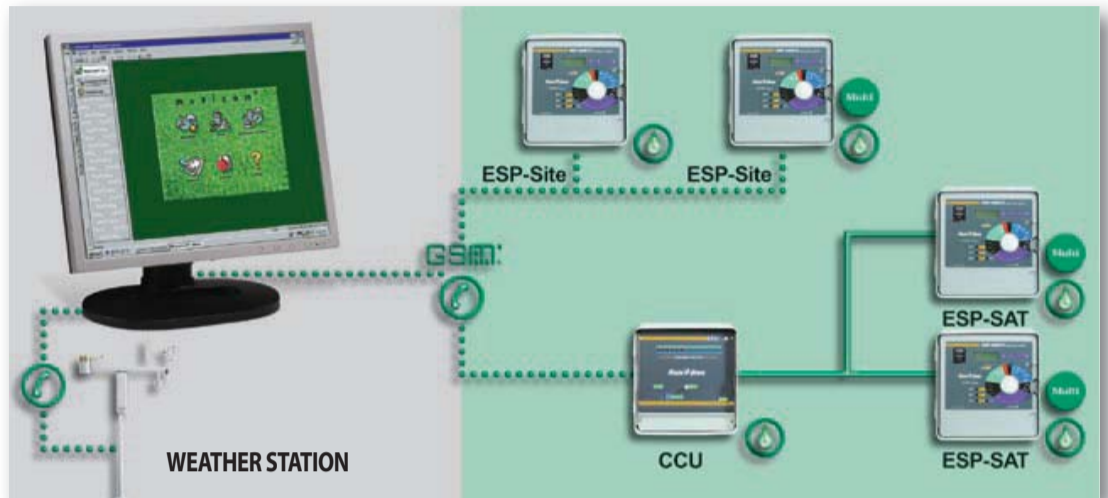
TWI: Two-Wire Interface



## MAXICOM<sup>2</sup>®

### 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.
- In addition to flexible irrigation scheduling, operation of lighting systems (such as athletic field lighting), security gates, fountains, pumps, sensors, or other systems can also be managed from one central location.
- 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 features

- 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.
- Operation of lighting systems (such as athletic field lighting), security gates, fountains, pumps, sensors, or other systems can also be managed from one central Maxicom<sup>2</sup> location.
- Remote System Control - Take control of your system and operate Maxicom<sup>2</sup> from anywhere using the Rain Bird FREEDOM System.
- Maxicom<sup>2</sup> 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 Maxicom<sup>2</sup> using the FREEDOM System



### GLOBAL SUPPORT PLAN

MAXICOM<sup>2</sup> Central Control System purchase comes with one-year Global Support Plan (GSP) including: Phone support, Ultra VNC remote system diagnostics and Data backup if the system configuration allows it, Software update, discount on 48h hardware replacement, discount on Software upgrade.

### MODEL

Maxicom<sup>2</sup> Software pre-installed in a computer supplied by Rain Bird including 1 day of Rain Bird on site assistance/training and 1-year GSP.

Station	ET	ET	ET	ET	ET	ET	ET	ET	ET
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

ET values data base

Station	Start Time	End Time	Start Time	End Time	Start Time	End Time	Start Time	End Time
1	06:00	18:00	06:00	18:00	06:00	18:00	06:00	18:00
2	06:00	18:00	06:00	18:00	06:00	18:00	06:00	18:00
3	06:00	18:00	06:00	18:00	06:00	18:00	06:00	18:00
4	06:00	18:00	06:00	18:00	06:00	18:00	06:00	18:00
5	06:00	18:00	06:00	18:00	06:00	18:00	06:00	18:00
6	06:00	18:00	06:00	18:00	06:00	18:00	06:00	18:00
7	06:00	18:00	06:00	18:00	06:00	18:00	06:00	18:00
8	06:00	18:00	06:00	18:00	06:00	18:00	06:00	18:00
9	06:00	18:00	06:00	18:00	06:00	18:00	06:00	18:00
10	06:00	18:00	06:00	18:00	06:00	18:00	06:00	18:00

Flexible irrigation scheduling



## ESP-SITE SERIES

Maxicom<sup>2</sup>® Satellite

### APPLICATIONS

The ESP-Site Satellite controller is the most versatile satellite controller yet. This controller combines the capabilities of the Cluster Control Unit (CCU) with all the power of an ESP-SAT controller. Powerful enough for large sites yet flexible for smaller applications.

### 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.
- 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.
- 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 runoff.
- 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.
- Universal remote ready: pre-installed connectors for addition of remote products.
- Battery-programmable controller allows for programming prior to installation.

### 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

### DIMENSIONS

Width: 28,7 cm  
Height: 29,2 cm  
Depth: 16,5 cm

### MODELS

- ESP-12SITE-W: 12 stations
- ESP-16SITE-W: 16 stations
- ESP-24SITE-W: 24 stations
- ESP-32SITE-W: 32 stations
- ESP-40SITE-W: 40 stations

**How to specify**

**ESP** — **24SITE** — **W**

**Model**  
ESP

**Number of Stations**  
12SITE: 12 stations  
16SITE: 16 stations  
24SITE: 24 stations  
32SITE: 32 stations  
40SITE: 40 stations

**Mounting**  
W: Metal Wall Mount



### ESP SAT SERIES

Satellite Controller for Maxicom<sup>2</sup> or SiteControl

#### APPLICATIONS

Field Satellite Controller for Maxicom<sup>2</sup> or SiteControl central control systems.

The power of an advanced water-management tool in an easy-to-use package.

#### FEATURES

- 12-hour watering duration for any or all stations to aid in drip compatibility.
- 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.
- Independent day cycle by program.
- 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.
- Universal remote ready: pre-installed connectors for addition of remote products.
- Heavy-duty transformer for simultaneous operation of up to nine 24 VAC, 7VA solenoids.
- Battery-programmable controller allows for programming prior to installation.

#### 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; 4. 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 Rain Bird 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
- Single-point ground bus bar.

#### DIMENSIONS

Width: 28,7 cm  
Height: 29,2 cm  
Depth: 16,5 cm



#### MODELS

ESP-12-SAT-TW-WM: 12 stations,  
ESP-16-SAT-TW-WM: 16 stations,  
ESP-24-SAT-TW-WM: 24 stations,  
ESP-32-SAT-TW-WM: 32 stations,  
ESP-40-SAT-TW-WM: 40 stations,

### CLUSTER CONTROL UNIT

CCU Series for Maxicom<sup>2</sup>

#### APPLICATIONS

Maxicom<sup>2</sup> Cluster Control Units (CCU) serve as an interface between the central controller and ESP-SAT Series on the Maxicom<sup>2</sup> system. The CCU allows control of hundreds of sites from one Central Controller.

#### FEATURES

- CCU-28 operates up to 28 satellites, pulse decoders, or sensor decoders.
- CCU-6 operates up to 6 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

Width: 28,7 cm  
Height: 29,2 cm  
Depth: 16,5 cm

#### MODELS

CCU-6-WM: 6-channel field Cluster Control Interface  
CCU-28-WM: 28-channel field Cluster Control Interface





## THE FREEDOM™ SYSTEM

### APPLICATIONS

A remote control system designed specifically for the Maxicom<sup>2</sup> Central Control System. This easy-to-use device can control your irrigation system from a handheld radio, GSM, or phone line.

### FEATURES

- Provides remote communication with and operation of the Central Control system through telephone or radio (Radio Kit required).
- Allows user to start, stop, pause and resume stations, areas, programs and schedules.
- Allows user to manually turn system to off or auto mode.
- External transformer 220V/12V with power cord included.
- RS232 Serial cable for connection with PC included.
- Direct connection to telephone line through standard RJ11 cable, included. (Requires direct outside phone line).

### SPECIFICATIONS

- Power supply: 220V/12V external transformer.
- Connection to PC serial port: standard RS232 cable.
- Connection to telephone line: standard RJ11 phone cable.
- Connection to optional Radio Kit: through specially designed connecting cable, built-in analog modem and DTMF interpreter.
- Colored LED's indicate:
  - Flashing green: power on
  - Continuous green: active phone connection
  - Yellow: data in
  - Red: data out



Connecting cable to Freedom: DIN plug 5 pin 180° to Motorola connector accessory reference HLN9457A.

Radio license with frequency must be obtained from local radio authorities.

### MODELS

**Freedom™** - Interface includes Phone and PC connecting cables. Shipped with external transformer.

**Radio Kit** - Includes 230V stabilized power supply, base radio, handheld with charger, external antenna, 30 meters antenna cable and connecting cable to the Freedom interface.

### OPTIONAL RADIO KIT

Stabilized Motorola Power Supply GPM6134B.  
 Base Radio Motorola type GM340 reference GDM340UHF.  
 TAIT Handheld radio type ORCA with keyboard (Will also work with Motorola handheld GP380mUHF or VHF).  
 30 meters antenna cable RG-8/N coaxial.  
 Antenna ROA-45/2,5db.

## GSM Module Kit

### APPLICATIONS

GSM modem is used for centralized satellite controllers with the Maxicom<sup>2</sup>/TBOS SIM system. It allows wireless communication between PC and field satellites.

### FEATURES

- Compact modem shipped with antenna, external transformer and serial cable.
- Integrated SIM card reader. (SIM card not included).
- Operating status LED.

### DIMENSIONS

- Length: 65 mm
- Width: 74 mm
- Height: 33 mm

### MODELS

GSM Module Kit – Kit includes modem, external transformer, antenna, connecting cable.



## MAXICOM<sup>2</sup> ACCESSORIES DECODERS

Sensor & Pulse

### APPLICATIONS

Decoders enable the Maxicom<sup>2</sup> system to extend its versatility. With the use of decoders, Maxicom<sup>2</sup> 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

DECSN – Sensor Decoder  
 DECPUL – Pulse Decoder

## SURGE PROTECTION

### APPLICATIONS

MSP-1 protects Maxicom<sup>2</sup> 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





## 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 Site Control

### 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 :**
  - wireless 2.4ghz radio up to 400 meters
  - 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

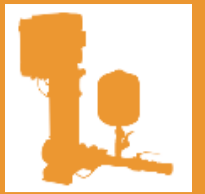
#### MODELS

WS-PRO

WS-PRO-LT



# PUMP STATIONS AND AERATORS



## Water Savings Tips

- Newer high-efficiency motors are able to convert a higher percentage of their electric input to useful mechanical work resulting in energy and cost savings
- Rain Bird's variable frequency drive (VFD) pump stations save energy while delivering the water pressure necessary to ensure maximum water use efficiency
- The Smart Pump™ software optimizes the irrigation cycle by adjusting the flow of the pump station to real conditions measured in the field.

### SINGLE PUMP STATIONS

#### APPLICATIONS

Rain Bird single pump stations are designed for use on athletic fields and other commercial applications. They will provide the required flow rate and pressure to operate the irrigation system. Rain Bird single pump stations are pre-assembled and easy to install and operate. All pump stations are fully water tested and calibrated at our facilities in Sweden.

#### PRODUCT LINES

We offer two single pump station lines: **Soft Start** or **Variable Frequency Drive (VFD)**.

**Soft Start** models are suitable in applications where the flow rate is relatively constant, for example athletic fields. A soft starter is an electronic unit that reduces current peak at start-up. Without Soft Start, the current peak at start-up will be about 5 times the operating current, with Soft Start only about 2 to 3 times the operating current.

**VFD** models are used in applications with varying flow rates during certain periods where a constant pressure is required. VFD continuously controls the motor speed, which makes it possible to set the pump station to operate at any duty point and adjust the performance to a given requirement. VFD models have no current peak at start-up.

#### FEATURES

**Soft Start models:** The specially designed soft starter cabinet ensures a smooth start and stop of the pump. This helps to avoid damage to the irrigation equipment caused by water hammer and lowers the current peak at start-up.

**VFD models:** Variable speed control provides smooth automated starts and stops of the pump and adjusts the performance to meet the pressure required at an extremely quiet low vibration operation. **VFD** reduces starting current, saves energy, minimizes system wear and tear, and prevents cavitation on pump starting and water hammer on pump stopping.

#### SPECIFICATIONS

##### Soft Start Series

- The Soft Start cabinet is mounted on the pump
- Polyester enclosure, 380x300x120mm, IP54.
- Started directly by irrigation controller through built-in 24V relay.
- Also accepts signal from external device (e.g. level switch, pressure switch)
- Built-in motor circuit breaker
- Standard multi-function timing relay with On-delay/Off-delay function mode
- Level control with remote input contact mode for use with water level probes (included)
- Man-0-Auto Selector switch
- Round signal lamps (Green: Motor Running / Red: Motor Alarm)

##### VFD Series

- The VFD unit is mounted on the pump with motors up to 5,5 kW and delivered with 5 m of cable for wall mounting with larger motors.
- Welded steel enclosure, size depending on pump, IP54
- Speed regulation by 4-20mA signal from pressure transmitter
- Pressure transmitter in stainless steel
- Built-in overload protection
- Operator's panel for adjustment of settings (desired pressure, operating margins, time delay etc.)
- Pressure shown in operator's panel
- Build in PTC resistor in motor protects the motor from overheating caused by overload or low voltage
- Pressure tank included



*Soft Start series with optional pressure tank and strainer*



*Standard VFD series with optional strainer*

#### All models

- Grundfos CR pumps with high efficiency class EFF1 motors, IP55, 3Ph, 400V, 50Hz, 2950 RPM
- Manifold in galvanized steel
- Danfoss/Socla check valve
- Main isolation valve on pump station outlet
- In/outlet DN25 incl. ball valve
- Pressure gauge installed on manifold
- Protective thermostat on the pump prevents pump from running too hot

Options			Description
PRV	DN25		Over pressure Relief Valve Opens and closes as needed to protect system from shock due to surges
Strainer	DN40	CR10	Brass or cast iron Y-strainer. Mesh size or 1,5 mm. Manual flushing valve included.
	DN50	CR15-CR20	
	DN65	CR32	
	DN80	CR45	
	DN100	DN64-CR90	
Suction	PE-50	CR10	Suction pipe assembly. Includes foot valve, fitting, connector to pump and parts for manual priming. PE-pipe is not included
	PE-65	CR15-CR20	
	PE-90	CR32	
	PE-110	CR45	
	PE-160	CR64-CR90	

Note! All flows and pressures are based on Grundfos specification. Add at least 0,5 bar to your pressure requirement for pressure losses in the suction and discharge.



Performance table - flow in m <sup>3</sup> /h at different pressures													
Rain Bird Model		Discharge size	Pressure in bar										
Type	kW		2	3	4	5	6	7	8	9	10	11	12
CR10-1	0,37	DN40											
CR10-2	0,75	DN40											
CR10-3	1,1	DN40	11										
CR10-4	1,5	DN40		10	5								
CR10-5	2,2	DN40			10	5							
CR10-6	2,2	DN40			11	9	5						
CR10-7	3	DN40				11	9	5					
CR10-8	3	DN40				12	11	8	5				
CR10-9	3	DN40				13	12	10	8	5			
CR10-10	4	DN40					13	11	10	8	5		
CR10-12	4	DN40						13	12	10	9	8	5
CR15-1	1,1	DN50											
CR15-2	2,2	DN50	19										
CR15-3	3	DN50		19	8								
CR15-4	4	DN50			19	13							
CR15-5	4	DN50				19	14						
CR15-6	5,5	DN50					19	15	9				
CR15-7	5,5	DN50						19	16	11			
CR15-8	7,5	DN50							19	17	13		
CR15-9	7,5	DN50								20	17	14	
CR15-10	11	DN50									20	17	15
CR15-12	11	DN50										23	20
CR20-1	1,1	DN50											
CR20-2	2,2	DN50	23										
CR20-3	4	DN50		24	14								
CR20-4	5,5	DN50			24	18							
CR20-5	5,5	DN50				24	20						
CR20-6	7,5	DN50					24	20	16				
CR20-7	7,5	DN50						25	21	17			
CR20-8	11	DN50							25	22	19	14	
CR20-10	11	DN50									25	23	20
CR32-1-1	1,5	DN65											
CR32-1	2,2	DN65											
CR32-2-2	3	DN65	32	18									
CR32-2	4	DN65	39	29									
CR32-3-2	5,5	DN65		35	28								
CR32-3	5,5	DN65			33	24							
CR32-4-2	7,5	DN65			36	31	25						
CR32-4	7,5	DN65				35	29	20					
CR32-5-2	11	DN65					34	29	23				
CR32-5	11	DN65						33	27	20			
CR32-6-2	11	DN65						35	31	27	21		
CR32-6	11	DN65							34	30	25		
CR32-7-2	15	DN65								33	30	26	20
CR32-7	15	DN65								35	32	28	24
CR32-8-2	15	DN65									34	31	28
CR32-8	15	DN65									36	33	30
CR45-1-1	3	DN80	25										
CR45-1	4	DN80	42										
CR45-2-2	5,5	DN80	56	45	27								
CR45-2	7,5	DN80		55	43								
CR45-3-2	11	DN80			54	46	36						
CR45-3	11	DN80				53	44	31					
CR45-4-2	15	DN80					52	46	38	27			
CR45-4	15	DN80						51	44	36			
CR45-5-2	18,5	DN80							51	46	40	32	
CR45-5	18,5	DN80							55	50	45	38	30
CR45-6-2	22	DN80									51	46	41
CR45-6	22	DN80									54	50	45
CR64-1-1	4	DN100	29										
CR64-1	5,5	DN100	69										
CR64-2-2	7,5	DN100	78	62									
CR64-2-1	11	DN100		78	57								
CR64-2	11	DN100			73	48							
CR64-3-2	15	DN100			79	68	52						
CR64-3-1	15	DN100				76	63	45					
CR64-3	18,5	DN100					75	60					
CR64-4-2	18,5	DN100						79	70	59	44		
CR64-4-1	22	DN100							74	68	56		
CR64-4	22	DN100							82	75	65	51	
CR90-1-1	5,5	DN100	59										
CR90-1	7,5	DN100	90										
CR90-2-2	11	DN100		90	64								
CR90-2	15	DN100			95	67							
CR90-3-2	18,5	DN100				92	77	54					
CR90-3	22	DN100					98	81	60				

Indicates highest efficiency



### OPTIONS

- **Pressure tank with pressure switch:** Soft Start series can be supplied with a pressure tank. Tank allows pump station to start when system pressure drops, for example, with manual watering. Capacity: 18 liters at maximum 10 bar or 12 liters at maximum 16 bar pressure.
- **Pressure relief valve:** Opens and closes as needed to protect system from stress due to surges
- **Y-Strainer:** Brass Y-strainer for CR10-CR20 series and cast iron Y-strainer for CR32 - CR90 series. Drain valve included
- **Suction pipe assembly:** Includes foot-valve and connector to pump as well as parts needed for manual priming. PE-pipe not included

### MODELS AND CAPACITY

- Pressure from 2 to 12 bars
- CR10 Series : from 5 to 13 m<sup>3</sup>/h
  - CR15 Series : from 8 to 20 m<sup>3</sup>/h
  - CR20 Series : from 14 to 25 m<sup>3</sup>/h
  - CR32 Series : from 18 to 36 m<sup>3</sup>/h
  - CR45 Series : from 25 to 56 m<sup>3</sup>/h
  - CR64 Series : from 29 to 82 m<sup>3</sup>/h
  - CR90 Series : from 54 to 98 m<sup>3</sup>/h

Contact Rain Bird for complete capacity table.



Pressure tank with pressure switch



Pressure relief valve



Suction pipe assembly



Y-Strainer

## SELF-CLEANING PUMP SUCTION SCREENS

### Self-Cleaning Pump Suction Screens and Float Assemblies

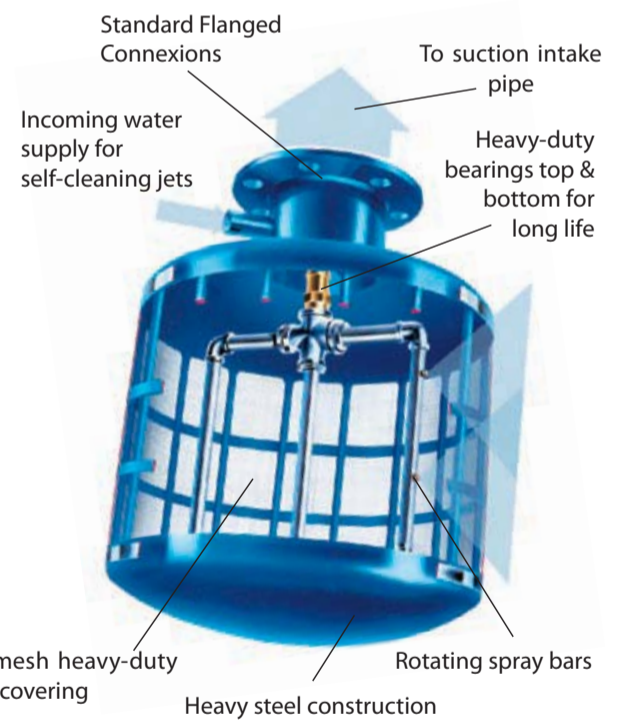
#### APPLICATIONS

- 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 <sup>3</sup> /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 <sup>3</sup> /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



## V-SERIES VERTICAL CENTRIFUGAL PUMP STATIONS

### V-3100 SERIES

#### The economy Line

Standard configuration has 2 or 4 pumps.

Available flow range up to 400m<sup>3</sup>/h.

Standard features include:

- Grundfos CR Vertical multistage centrifugal pumps.
- Closed type, High Efficiency, EFF1 motors, IP55, 3 X 400V, 50Hz, 2950rpm.
- Green powder coated steel base frame.
- Galvanized steel suction and discharge manifolds.
- Isolation valve for each pump.
- Check valve for each pump.
- Protective thermostat on each pump prevents motor from running too hot.
- Pressure transmitter in stainless steel.
- Hose point connection.
- Touch-button user interface shows actual operating conditions and alarms and allows for easy pressure setting adjustment.



### V-3200 SERIES, THE ECONOMY LINE

#### The most commonly used line that is suitable for most golf course applications.

Standard configuration has 2 to 6 pumps.

Available flow range up to 600m<sup>3</sup>/h.

Additional standard features include:

- Flow meter with electronic signal to the Control Cabinet. Allows maximum flow setting. In the event of this threshold being exceeded (for example a pipe burst) the pumps will automatically shut down.
- Automatic self-flushing cast-iron Y-strainer with PLC-controlled Over Pressure Relief valve. Adjustable flushing.
- Geared Main Isolation valve on pump station outlet.
- Jockey pump included for pump sizes CR64 and larger.
- Advanced touch-button user interface shows actual water flow, operating conditions and alarms and allows for easy pressure setting adjustment.

### V-3300 SERIES

#### The high end line

Standard configuration has 2 to 6 pumps.

Available flow range up to 600m<sup>3</sup>/h.

Additional standard features include:

- Independent Over Pressure Relief Valve.
- Jockey pump included for pump sizes CR45 and larger.
- Water-cooled heat exchanger on the control cabinet.
- RBSv Pump Manager software with modems.
- Advanced 3-phase control. Shows voltage and amperage and protect for over/under voltage, phase loss and phase reversal.
- Heat sensors in motors.
- Floating low water level switch.
- State of the art colour Touch-screen user interface shows actual operating conditions and alarms.





## LAKE MANAGEMENT AERATORS AND FOUNTAINS

### APPLICATIONS

A growing global trend is to install surface or subsurface aerators in ponds or lakes that are less than 15 feet (5 m) deep. The primary reason is that aerators provide the best vertical circulation to add dissolved oxygen to the water. This circulation helps to maintain an ecological balance, which in turn assures sufficient water quality.

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

Lake Management Aerators effectively work to maintain an ecological balance in lakes or ponds less than 15' (5 m) deep. With the addition of dissolved oxygen into the water and the resulting convection patterns that reduce stratification, aeration systems provide a number of practical, economic and aesthetic benefits by impacting three factors:

- Oxygen— aerating the water encourages aerobic digestion of nutrients by adding oxygen, which significantly reduces sediment/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

The introduction of oxygen by aerators effectively prevents anaerobic digestion, which in turn dramatically reduces foul odors. Oxidation also reduces iron in irrigation water, which often causes staining on sidewalks and buildings. A properly sized aerator will lower iron concentrations to less than 0.1 mg/L.

### 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 in 1, 2, 3 and 5 HP and as a High Volume surface or Triton sub-surface unit. Sub-Surface units are designed to work in settings where no fountain feature is desired.

#### Large aerating fountains

Available in 7,5 and 10 HP and 6 different patterns

#### Air Flo systems

These systems consist of a 3/4HP compressor and diffuser manifolds.

#### Aqua series

These units have limited water management capabilities and are designed for smaller ponds in large gardens and small parks. Available in 1/4HP and 1/2HP. Units have two interchangeable spray patterns.

#### Instant Fountains

These floating fountains have limited water management capabilities. Available in 1/2HP. Units have three attractive interchangeable spray patterns.



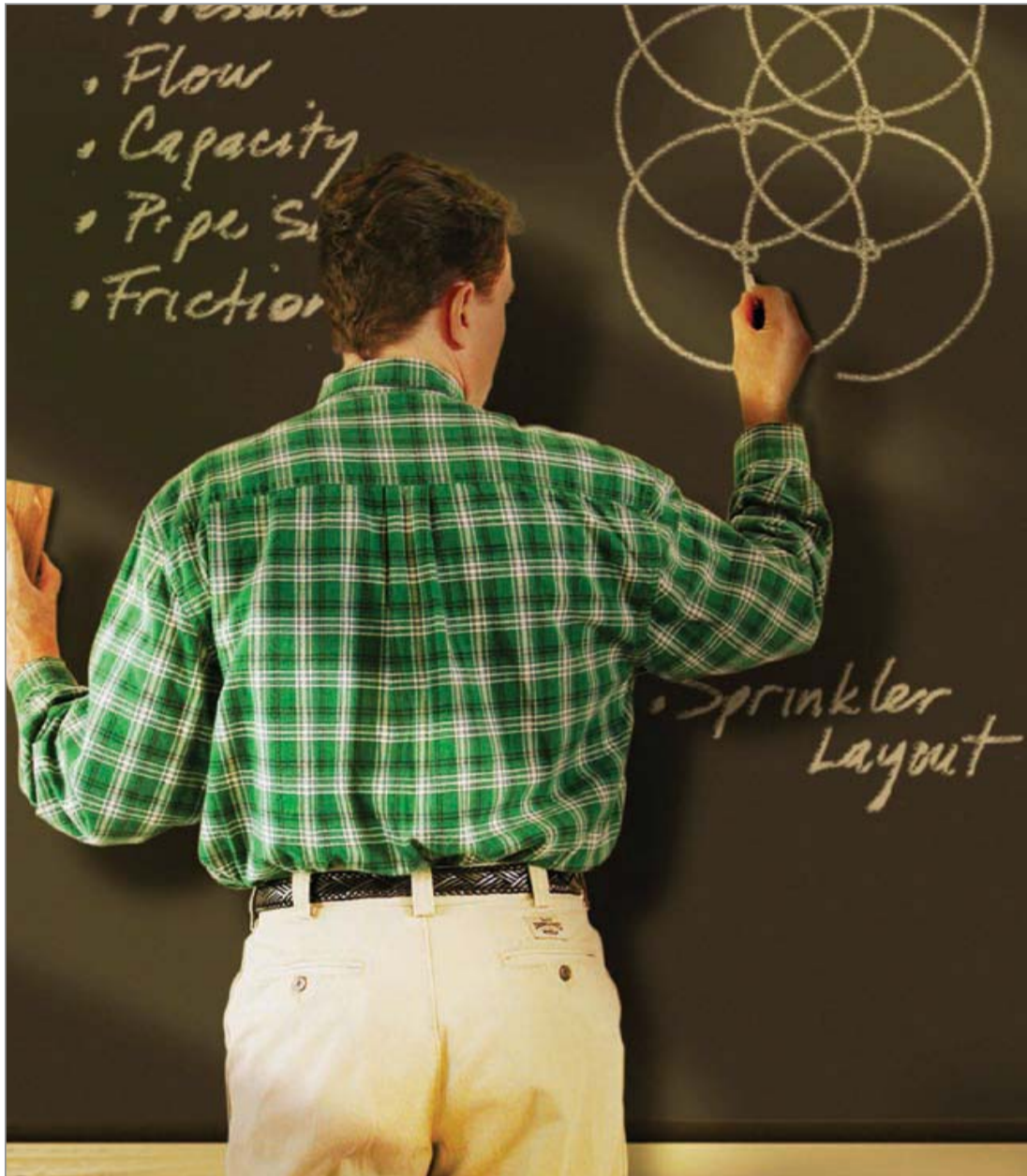
*Tristar aerating fountain*



*Before aeration*



*After aeration*



## Water Savings Tips

- Rain Bird Academy provides the necessary skills for design, operation and maintenance. The classes ensure that your individual designs provide the most efficient and cost-effective irrigation by promoting water efficient products and learning the factors that influence water consumption for grass areas.
- Rain Bird service plan ensures the proper functioning and the reliability of your central control system and your pump station. Your irrigation system will work efficiently and reliably, optimizing water consumption for crops.
- Rain Bird provides irrigation system design based on water-saving principles and incorporated the concept of Intelligent Use of Water long before this ideology became widespread.

**Consult your local Rain Bird Sales Representative for service availability  
[services@rainbird.fr](mailto:services@rainbird.fr)**

## RAIN BIRD ACADEMY

Each year, Rain Bird organizes local training programs and custom designed training sessions :

- Initial Training
- Skills Enhancement
- Additional Training



### FEATURES AND BENEFITS

- Rain Bird's training department offers you the expertise of its employees, a unique infrastructure and the complete array of tools required for training.
- The objective is to provide the necessary skills for design, operation and maintenance.
- The training involves theory tuition followed by practical exercises.
- Rain Bird Academy training courses are organized according to an annual program, including :
  - Preparation and logistics
  - Facilitating
  - Lunch and recreation breaks
  - Educational support material
- Customized on-site training days are available and each session can be tailor made according to customers' requirements.



### PROGRAM DESCRIPTION

#### • Irrigation System Design – Level 1 (1 day)

Basic principles and techniques for designing irrigation systems within industry guidelines. (Course Ref : A1)

#### • Irrigation Equipment Choices and Settings (1 day)

A theoretical and practical approach to using irrigation equipment. (Course Ref : A2)

#### • Programmer Implementation - 230 V and 9 V (1 day)

All you need to know about controllers. (Course Ref : A3)

#### • Irrigation System Design – Level 2 (1 day)

This course builds on the basic principles to ensure that your individual designs provide the most efficient and cost-effective irrigation. (Course Ref : B1)

#### • Installation of sprinkler and drip irrigation systems (1 day)

Small group work using practical exercises. (Course Ref : B2)

#### • Irrigation Systems with Decoders (1 day)

You will learn how to operate decoder systems. (Course Ref : B3)

#### • Water Conservation and Management (2 days)

Learn and master the factors that influence water consumption for grass areas in order to optimize irrigation. (Course Ref : C)

#### • Pumping Systems (1 day)

Learn how to choose, install and maintain a pumping station (Course Ref : D)



## GLOBAL SERVICE PLAN

A Rain Bird service plan ensures the proper functioning and the reliability of your central control system and your pump station

- 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 provide expert training and offer permanent support to your team.

### FEATURES AND BENEFITS

#### • Technical telephone support

Rain Bird's technical support gives you direct and preferential access to our irrigation system and central control system experts. In addition to telephone support, our specialists can also fax or e-mail you any written document issued from our Rain Bird technical library.

#### • Remote System Diagnostics

allows you to connect to a remote system to execute diagnostics, preventative maintenance or corrective maintenance in real time

#### • Data storage

carried out during Remote System Diagnostics, it allows you to protect and reuse your data.

#### • Software Service Packs

give you the newest central control service packs at no extra charge.

#### • Discounts For Board Exchange

48 hour replacement of main components of the system.

#### • Central Control Software Upgrade Discount

reduces the expense of upgrading your system

#### • Guaranteed annual subscription price for the duration of the contract

(with a multi-year binding subscription)

#### • One on site maintenance visit per year

to provide on site central control system and pump station maintenance. Our specialist will come to your site on a predetermined date to carry out annual preventative maintenance on the central system or the pump station. The specialist will perform functional tests, diagnostics and adjustments, as well as provide additional training.

Companies that subscribe to the GSP Annual Maintenance Contract are given priority status for planning interventions for corrective maintenance. They also receive a preferential rate on the charges



#### • The Options Include :

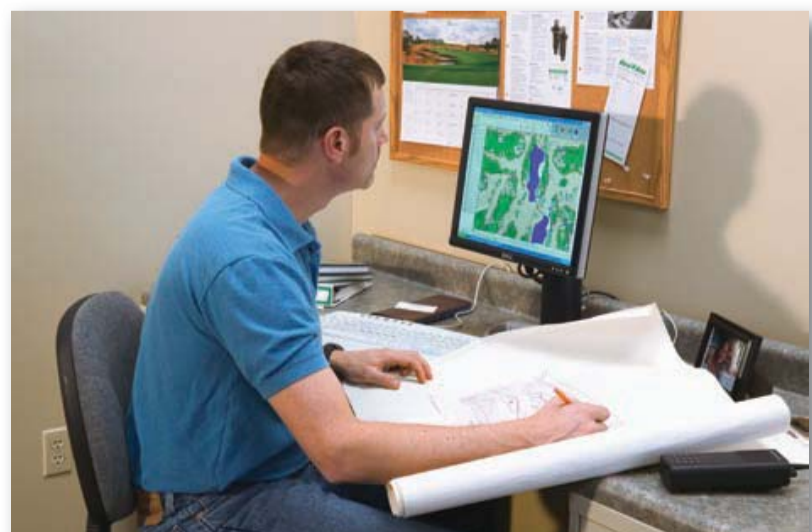
- Provision of a new computer and new peripherals, installed in our facility and the transfer of data from the existing system during the last year of the contract.
- Exclusively for new systems, we offer the option to subscribe to a PC 5 Year Plan, which provides a **2 year warranty extension** on the main components of the system, according to the terms and conditions of the Rain Bird warranty. Subscription to one of the basic contracts for 3 to 5 years is a requirement for these options.

#### • Off-site Service Plan

- Telephone support
- Remote off-site assistance
- Data backup
- Software update
- Discount on 48h interface exchange
- Discount on software upgrade

#### • On-site Service Plan

- Off-site Service Plan agreement
- + Central Control annual site visit
- Pump Station annual site visit



## IRRIGATION SYSTEM DESIGN BY RAIN BIRD

Wide-ranging experience: residential, public, building and hotel complexes, sports fields and farming.

- The leader in the field of pumping stations and central control systems.
- Rain Bird's comprehensive product range ensures the best technical solutions.
- Design rules based on water-saving principles : RAIN BIRD's designs incorporated the concept of Intelligent Use of Water long before this concept became widespread.

### FEATURES AND BENEFITS :

#### • Irrigation system layout design with :

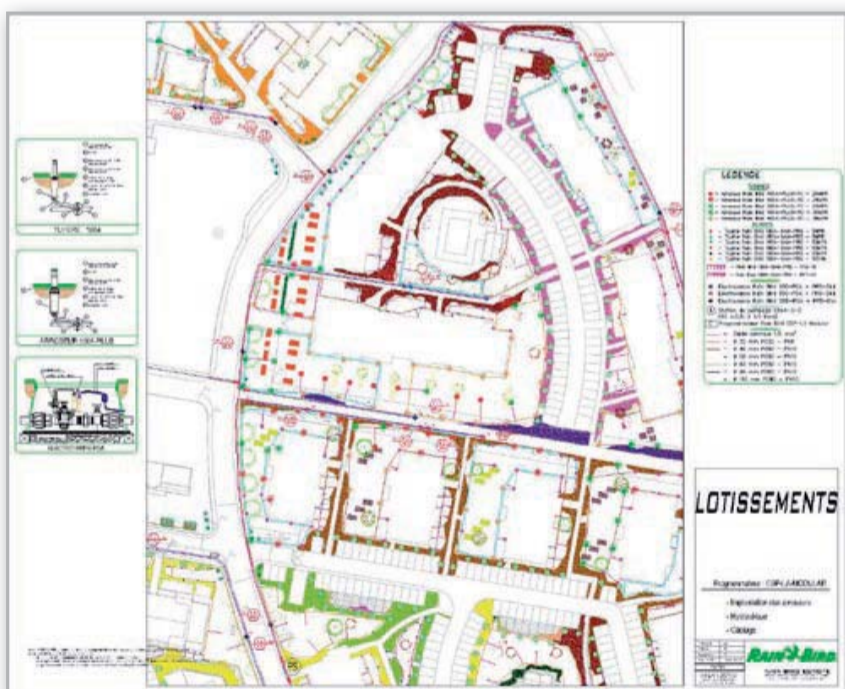
- The sprinkler and drip position
- The position and size of water supply lines and the main line isolation valves
- The controller, the electric valves, the 24V cable layout
- The water supply point or the pumping station with the required flow and pressure values
- The drawing of the sprinklers and solenoid valves installation

#### • Detailed bill of quantities with all the products necessary for the project :

- The number and type of sprinklers, of spray heads, with the breakdown by nozzle type
- The linear length of each diameter of pipe, of dripline and of 24V or signal cable
- The number and type of electric valves and valve boxes
- The quantity of each of the main accessories : isolation valves, vents, drain valves, etc
- The type of controller and accessories

#### • Hydraulic calculations, including:

- Calculations of water supply requirement, flow rate and irrigation run times
- Calculation of the total hydraulic head and of the dynamic pressure
- Calculation for each valve e.g. the number of sprinklers and nozzles and flow rates, of the electric valves, of the pipes and the manual valves



#### • Option 1 Specification:

This document describes the equipment required and gives detailed technical requirements for installation of: trenches pipes and cables sprinklers, electric and isolation valves pump station technical data control system and accessories bill of quantities

#### • Option 2 Operating guide:

This guide explains, in laymen's terms, the basic data, assumptions and the methods used for designing the project. It also provides the information necessary for operating the system and optimizing water management, such as: instructions, exploded views, tips, winterization instructions, start-up instructions.

#### • Option 3 As-built drawing:

Produced from a marked-up paper drawing containing the necessary information.

## TECHNICAL ASSISTANCE

Rain Bird offers you the expertise to ensure your system functions properly which protects your investment and manages costs.

- On site assistance
- Mapping
- PC pack for central control
- Irrigation system audit

### FEATURES AND BENEFITS :

#### • On Site Assistance :

- Our experts can provide audits, technical assistance, start-ups and maintenance requirements.
- Includes preparation, travelling costs, accommodation and a site report.

#### • Mapping :

- Transfer of designs into a format suitable for use in the graphic interface of one of our central control systems.

#### • PC Pack for Central Control Systems:

- Providing a PC and its peripherals
- Installation of applications and peripherals in our facilities
- Transferring your database if necessary
- The last update of your version of the software
- One day on site for start-up and user training

#### • Irrigation system audit

- The purpose of an audit is to optimize the water consumption through an irrigation general check up.
- An on site visit, followed with a turf manager meeting or with a contractor in charge of the site maintenance.
- In addition:
  - An installation general check up is carried out from the water station to the rotors, as well as the control system
  - A check of water distribution efficiency
  - Settings and programs check up
  - Functional check up
- Complete Audit report :
  - Proposition of modification on existing system in order to improve performance and decrease water consumption.
  - Preparation of a watering program that takes the precipitation rate into consideration as well as plants' water requirements.
  - Maintenance recommendations
  - Operating recommendations
  - Water saving studies





## 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. Rain Bird replaces your defective board with a reconditioned and tested board in the shortest timeframe possible.

### FEATURES AND BENEFITS

#### • Operation

- As soon as we receive the defective electronic board and the "Standard Exchange Program" order, we agree to:
- Replace the defective electronic board with an equivalent model
- Check the operation of the replacement electronic board
- Ship the replacement hardware within a maximum of 48 hours

#### • Application Conditions

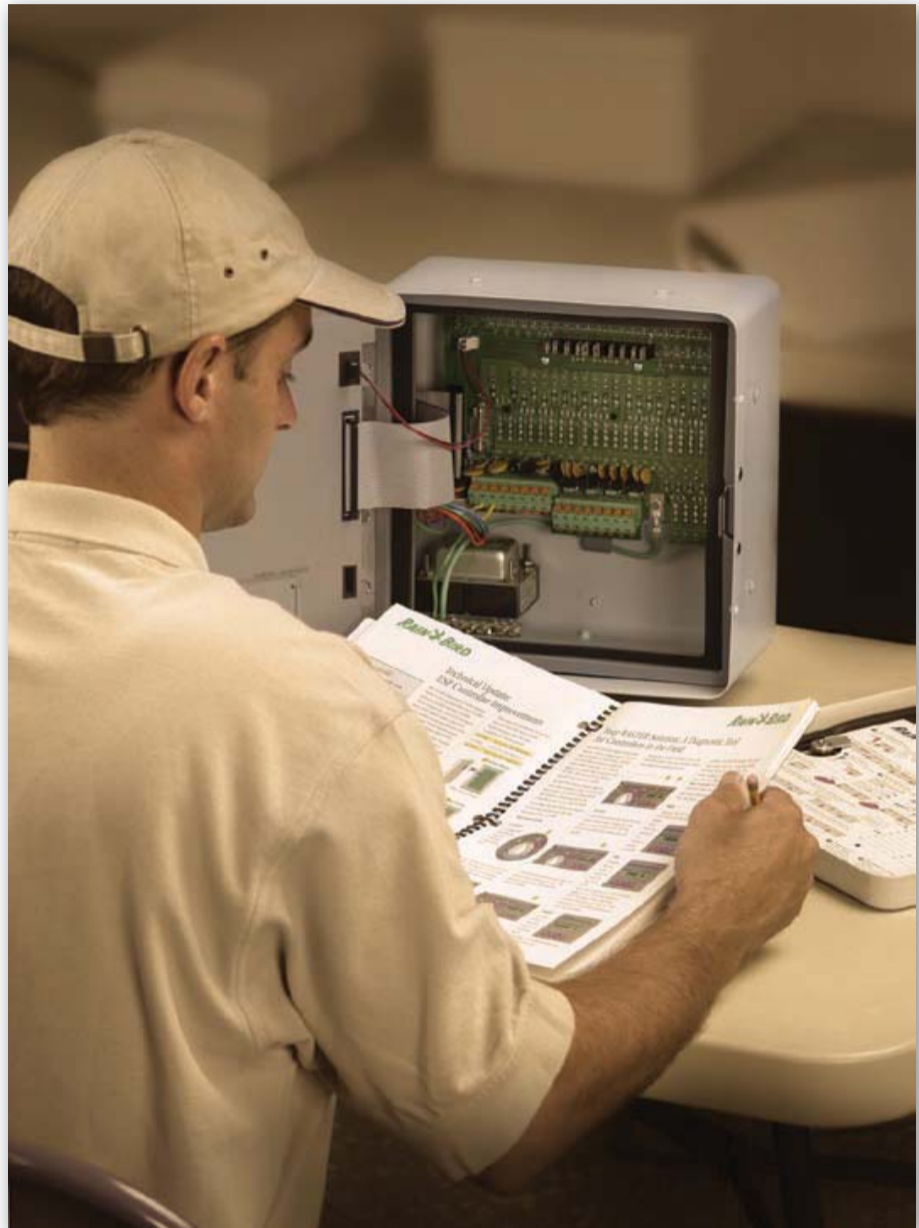
- Only hardware on the BEP list is eligible for the Standard Exchange Program
- This program is not applicable to hardware with the following defects :  
Rusted electronic board / Cracked electronic board / Burned electronic board / Damaged tracks / Missing electronic component

#### • 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

#### • Terms and Conditions

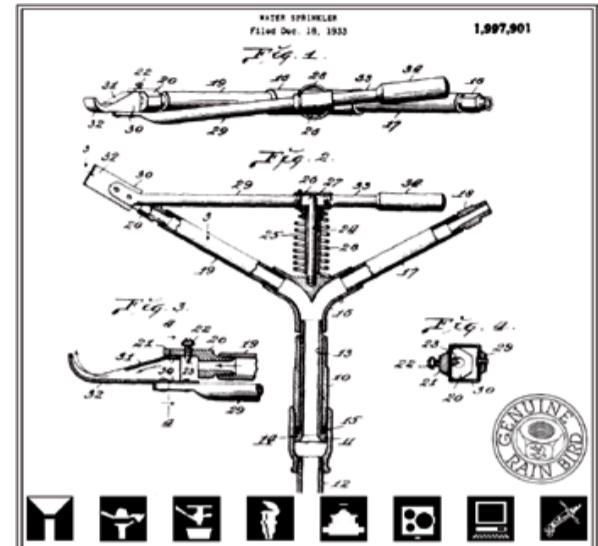
- The prices indicated include the replacement hardware, packaging and return shipping
- Cables, housings and connectors are not included in the Standard Exchange Program and, if possible, should not be returned to us
- Prices are subject to change without notice
- No credit note will be issued and no 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
- The replacement hardware provided for the Standard Exchange Program can be new or reconditioned



## SPARE PARTS

Rain Bird has in stock spare parts which are necessary to maintain your irrigation system operational.

You will find below the most commonly used references. To check the selected reference, please consult the spare parts section on the Rain Bird Website: [www.rainbird.eu](http://www.rainbird.eu)



<i>Code Article</i>	<i>Designation</i>
71P50642	TRANSFORMER ITC/IMAGE/IRRI/IRC
71P01037	TRANSFORMER HP/CC/SI-RR
71P50268	TRANSFORMER DIALOG
71P51469	TRANSFORMER ISM
634152	TRANSFORMER EC
633987	TRANSFORMER E-CLASS
635659S	TRANSFORMER ESP-MODULAR
71P10037	FUSE IMAGE 0.5A
20858801	SOLENOID DV/DVF/JTV
20953202	SOLENOID PGA/PEB/EFB
20692001	SOLENOID PE/EFA/DR/EAGLE
602118	GREEN COIL PE/EFA/DR/EAGLE
210331	EXTERNAL BLEED SCREW DV/DVF/JTV
204152	EXTERNAL BLEED SCREW 150/200 PE/PEB
21074603	DIAPHRAGM KIT 075/100-DV/DVF
209792	DIAPHRAGM KIT 100-PGA
209675	DIAPHRAGM KIT 150-PGA
209005	DIAPHRAGM KIT 200-PGA
208143	DIAPHRAGM KIT 100-PE/PEB
208605	DIAPHRAGMKIT 150/200-PE/PEB





## General



Rainbird - Video



Low Volume Irrigation - video



Advice introduction - video

## Landscape drip



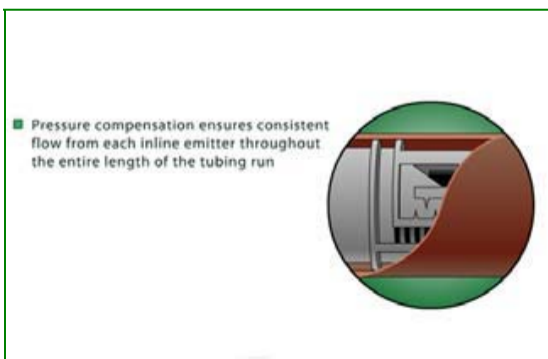
RB Low Flow Valve (LFV)



RB Basket filter



RB Pressure Regulating Filters



RB Dripline



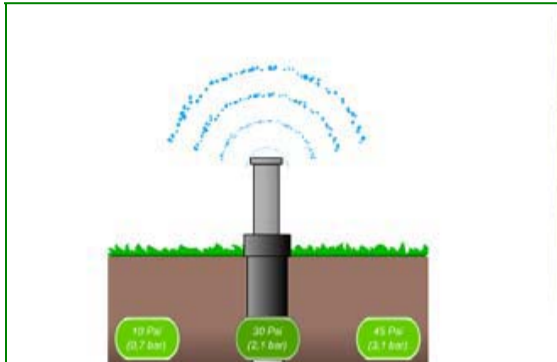
RB XPCN



RWS Series



## Spray heads & rotors



RB UNI-Spray & 1800 Spray Heads



RB UNI Spray - Video



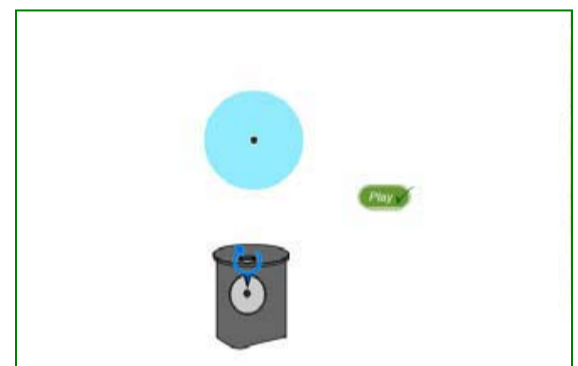
RB 1800 - Video



RB Rotary nozzles



RB Rotary nozzles - Video



RB 3500 Rotors



RB 3500 Rotors - Video



RB 5000 Rotors

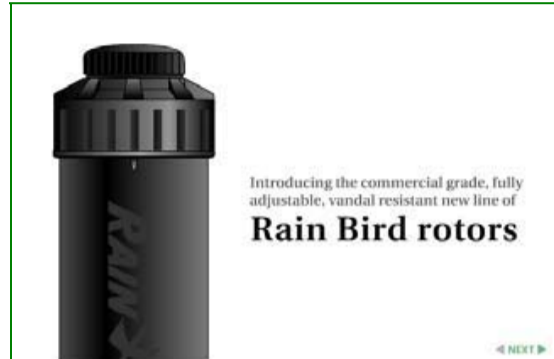


RB 5000 Rotors - video

## Spray heads & rotors



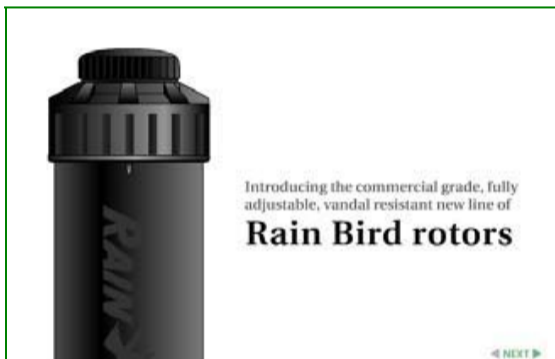
RB Maxi Paw - video



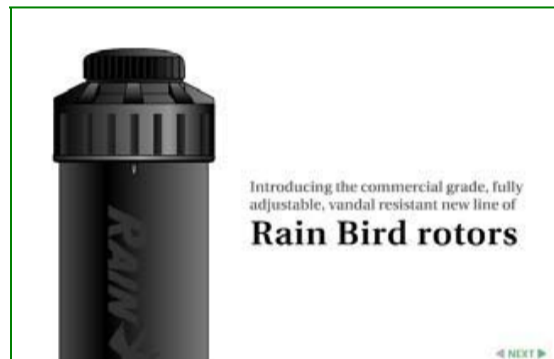
RB 5505 Rotors



RB 5000 Plus Rotors



RB 7005 Rotors

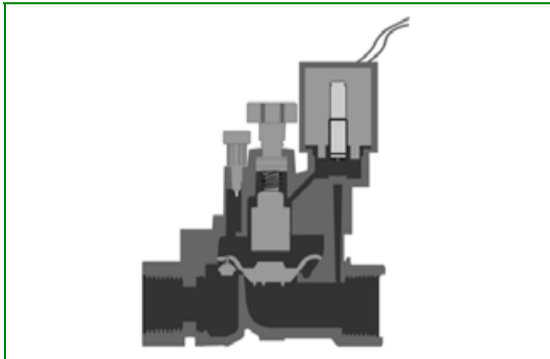


RB 8005 Rotors



RB Swing Joint

### Valves and controllers



RB DV Valves



RB DV Valves - video



RB JTV Valve - video



RB PGA Valve - video



RB PEB Valve - Video



ESP Modular



ESP Modular - Video



ESP LX Modular

### Manuals

#### ROTORS

3500	p.49
5000	p.50
5000 Plus	p.50
5004 UPG	p.50
5500	p.56
Falcon	p.60
7500	p.62
8500	p.64
Eagle900	p.66
Eagle950	p.66
SR 2005	p.68
SR 3003	p.68
Traveler	p.69

#### VALVES

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JTV	p.76
PGA	p.77
PEB	p.78
BPE	p.79
PRS Dial	p.82

#### 230V CONTROLLERS

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ESP Modular	p.95
SI RR+	p.96
HP	p.97
Dialog+	p.98
ESP LX Modular	p.99
Vigilec Mini	p.101
Vigilec Mono	p.101

#### 9V CONTROLLERS

WTA 2875	p.107
WTD 2900	p.107
Easy Rain	p.108
WP1	p.109
WP	p.110
TBOS Universal Field Transmitter	p.112
TBOS Control Module	p.113
TBOS IR Field Transmitter	p. 112
TBOS Field Transmitter Manager	-
TBOS Underground Shutoff	p.116
TBOS Radio	p.114
VRM1	p.114
9V Doc	p.115
TBOS Relay	p.116

### Spare parts

#### SPRAY HEAD

1800	p.36
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#### ROTORS

5500	p.56
Falcon	p.60
7005	p.62
8005	p.64
SR 2005	p.68
SR 3003	p.68
25	p.70
35	p.70
65	p.70
85EHD	p.70
91DHL	-
MiniPaw Maxi Paw	-
Talon	-

#### GOLF ROTORS

47D	-
51D	-
91D	-
95D	-
Eagle500	-
Eagle550	-
Eagle700	-
Eagle750	-
Eagle900	p.66
Eagle950	p.66
Eagle1100 Internal	-
Eagle1150 Internal	-
TG25	-

#### RAIN GUNS

104C 1004C	-
105C 1005C	-
1004M	-
1005M	-
1005MDC	-
F2004 97-98	-
F2004 99	-
F2004 2000	-
F3200 97-98	-
F3002 99	-
F3002 2000	-
SR2005 97 98	-
SR2005 99	-
SR2005 2000	-
SR3003 97-98	-
SR3003 99	-
SR3003 2000	-

**Spare parts**

<b>VALVES</b>	
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JTV	p.76
PGA	p.77
PEB	p.78
BPE	p.79
PRS Dial	p.82
AG	-
EF CP EFA CP	-
PE PES	-
3RC	p.80
5RC	p.80
7	-

<b>230V CONTROLLERS</b>	
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Image	p.94
ESP Modular	p.95
SI RR+	p.96
HP	p.97
Dialog+	p.98
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Vigilec Mono	p.101
SI RR+ Radio	-
Battery	p. 104
CC4 12	-
Dialog (previous version)	-
EC	-
ESP MC2	-
HP (previous version)	-
Image (previous version)	-
ITC (previous version)	-
Master 3	-
Master II Junior	-
RC BI	-
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<b>9V CONTROLLERS</b>	
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WP Series	p.110
TBOS Universal Field Transmitter	p.112
TBOS IR Field Transmitter	p.112
TBOS Radio Field Transmitter	-
TBOS Module VRM1	p.114
9V Doc	p.115
9V 2000	-