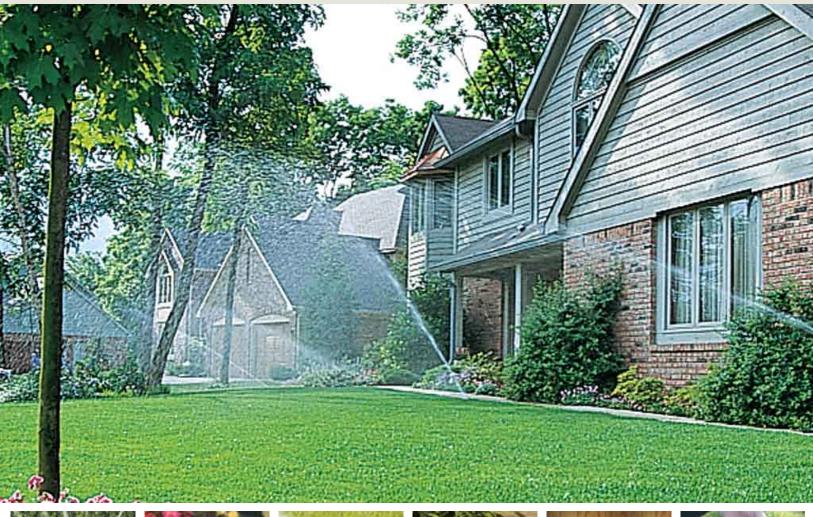


## **Consumer Products Catalog**

















#### The Intelligent Use of Water™



Water. It's what keeps the world alive. As the world's largest manufacturer of irrigation products, we believe it is our responsibility to develop technologies that use water efficiently. Over the past seven decades, our pioneering efforts have resulted in more than 130 patents. From central control systems and automatic shut-off devices to pressure regulating components and low volume drip irrigation, Rain Bird designs products that use water

wisely. And our commitment extends beyond products to education, training and services for our industry and our communities.

The need to conserve water has never been greater. We want to do even more, and with your help, we can.

Visit www.rainbird.com for more information about The Intelligent Use of Water™.



#### ▶ The first name in sprinklers

It started back in 1933, when Rain Bird patented the first impact sprinkler, forever changing the way we water. Our world has been greener ever since.

Over the years, Rain Bird has been awarded hundreds of patents for products that are found across the globe. In fact, we're the world's largest manufacturer of irrigation products, employing thousands of people in our factories, distribution centers and offices in more than 20 nations.

#### ▶ Trust and Credibility

With twice the brand awareness over our closest competitor, Rain Bird offers the contractor, designer, home owner and retailer a level of trust and credibility like no other brand.

There's value in knowing the company you grew up with is still here and better than ever.



#### ▶ Technical support when you need it

Irrigation simplified: Our customer support service for the professional and the do-it-yourselfer is there when you need it — before, during and after installation. With our daytime toll-free Technical Service or Design Service Hotline numbers, and our always-available Rain Bird Website, immediate access to expert advice and solutions is yours for virtually any irrigation challenge.

Our Sprinkler System Design Service is available to anyone needing expert design service 1-800-426-7782.



#### ▶ How to Order

This catalog includes product features, specifications and characteristics of the consumer product line. If you would like to order products that are listed in this catalog please call 1-800-RAIN BIRD.









## Automatic Underground Irrigation Systems

Convenient and cost effective solutions to water precisely and consistently improving the health, and look of any landscape while conserving water.

- Once a watering schedule is set, the landscape is watered whether or not you are at home.
- A consistent watering schedule results in healthier plants and greener more uniform lawns.
- Irrigation systems make it easy to comply with local water conservation ordinances.
- Water only where, when and how long you set, helping reduce water waste and saving money.
- ▶ The money saved will offset the cost of the system overtime.



## **Irrigation Systems Components**



#### **Pop-Up Spray Heads**

- Use to water small lawn or shrub areas
- Available with or without nozzles
- Many different patterns to choose from



#### **Automatic Valves**

- Use to turn the water on and off to the sprinklers of each zone
- In-Line or Anti-siphon models are available, choose the type required by your local codes



#### **Rotors**

- Use to water medium to large lawn and shrub areas
- Closed case design helps keep out dirt and debris
- Fixed or adjustable arc models area available



#### **Timers**

- Use to control when, and how long to water
- Timer models are available to control from 4-9 valves



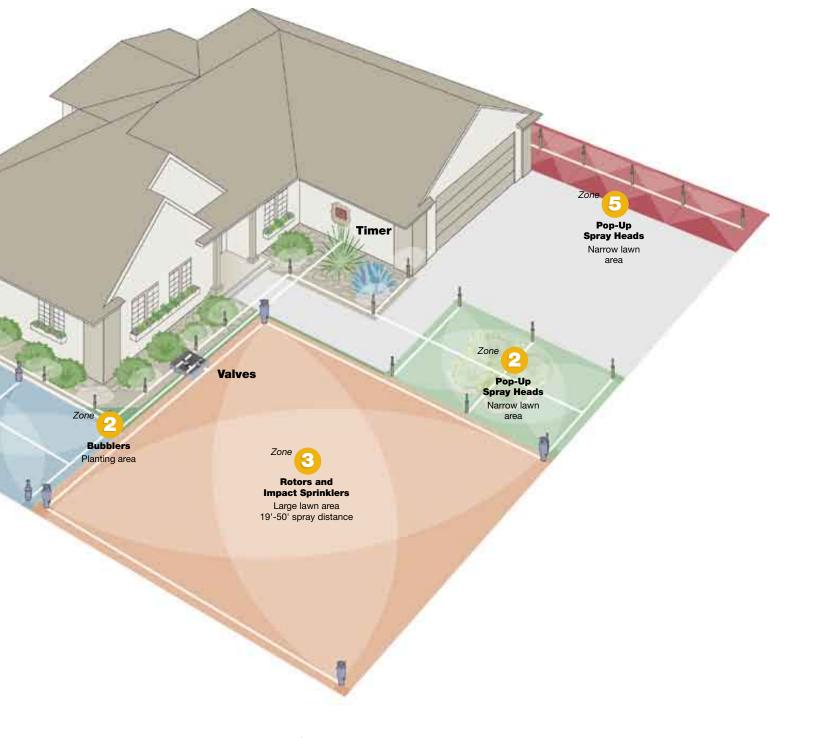
#### **Impact Rotors**

- Use to water large lawn and shrub areas
- Ideal for reclaimed water or heavy mineral conditions
- Adjustable arc capability

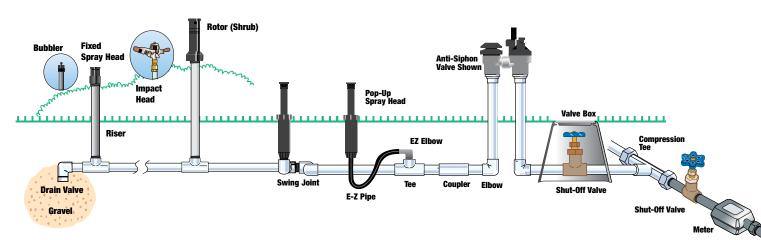


#### **Tools & Accessories**

- Optimize system performance
- Simplify maintenance and installation



## System Overview In-Ground Sprinkler Installation



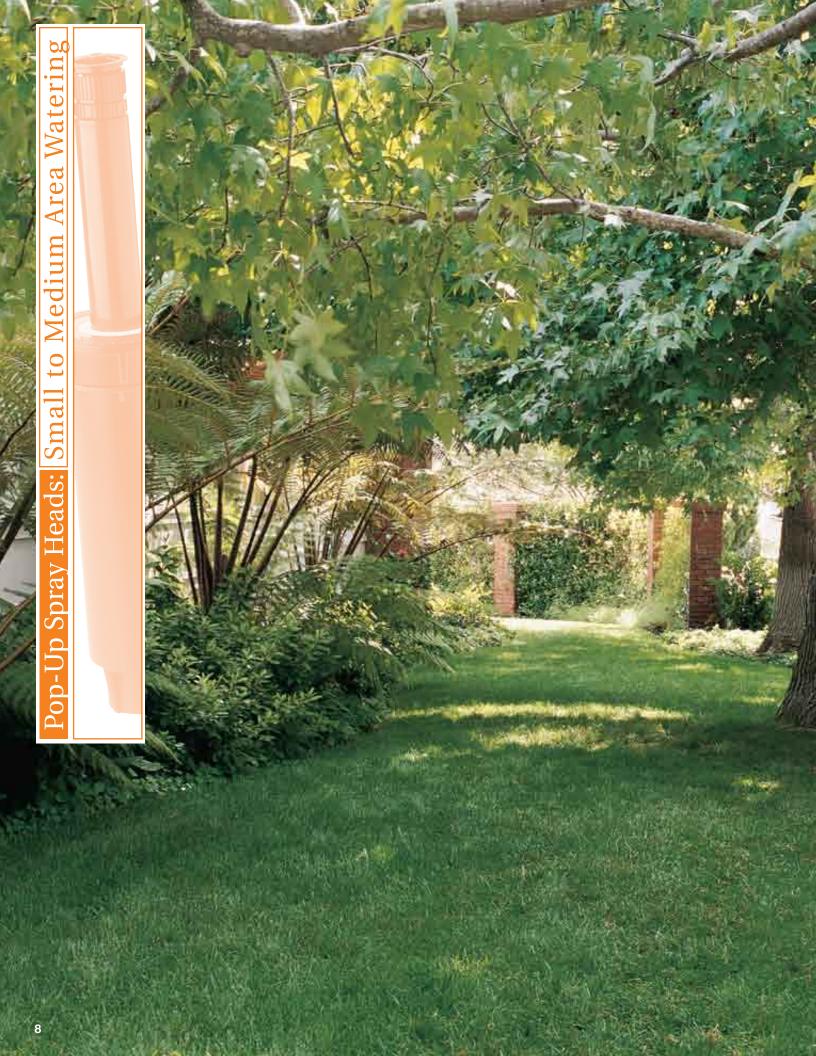
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Sprinklers:	Rotors	s			Impac	t Rotors				Spray	Heads		
Primary Applications	22.54	3284	42SA+	52SA	ЕЭТ	AG5	25-PJDA-C	P2R	PSR	1800 Series	1200 Series	600 Series	
Lawn Areas 6' to 15'										•	•	•	
Lawn Areas 15' to 40'	•	•	•										
Lawn Areas 30' to 40'				•	•	•	•	•	•				
Lawn Areas 40' to 45'				•		•							
Lawn Areas 45' to 50'				•									
Slopes		(Shrub)		•		•	•	•	•	•		•	
Ground Cover/Shrubs		•		•			•	•	•	•	•	•	
Low Pressure Systems		•			•	•		•		•	•	•	
High Wind Areas	•		•	•	•	•	•	•	•	•	•		
Dirty Water		•			•	•	•	•	•				
Sandy Soil	•	•	•	•									
For Use With Riser		(Shrub)					•	•	•				

Valves:	Anti-Siphon		In-Line	
	DAS-ASVF	JTV AS / ASF	CP / CPF	JTV CP / CPF
Primary Applications				
For Above Ground Built-In Back Flow Prevention	•	•		
For in Ground Installation With-out Back Flow Prevention			•	•
Flow Control	•	•	•	•
Drip Applications	•	•	•	•

Timers					
	SST-400i	SST-600i	SST-900i	SST-600o	SST-1200o
Primary Applications					
4 Stations	•				
6 Stations		•		•	
9 Stations			•		
12 Stations					•
Water Budgeting	•	•	•	•	•
Drip Compatible	•	•	•	•	•
Pump Control Relay	•	•	•	•	•
Master Valve	•	•	•	•	•
Outdoor installation				•	•



## 1800<sup>®</sup> Series

## Pop-Up Spray Heads

## commercial-quality irrigation for any landscape

Installed in parks and backyards across the globe, Rain Bird's 1800 Series is the #1 commercial-grade irrigation brand in the world. The choice of more professional landscape contractors over any other pop-up sprinkler. Chosen for its reliability, heavyduty materials and versatility, the 1800 Series offers a broad selection of spray heads for watering shrubs, small lawns and irregularly shaped planting areas. Precision spray heads and nozzles customize your watering system to cover virtually any configuration of lawn or garden - not the sidewalk or driveway! The 1800 Series offers Rain Bird's patented pop-up mechanism for out-of-sight retraction into the lawn when not in operation, full, partial circle coverage and infinite pattern adjustment for optimum headto-head coverage.

- Patented pressure-activated co-molded wiper seal prevents wasteful water leakage and assures long life.
- ▶ Heavy-duty stainless steel spring assures flush retraction, every time.
- Multiple pop-up heights for maximum design flexibility.
- ▶ U.V. resistant plastic reduces fading.
- ▶ Operates efficiently at low water pressure.
- ▶ 1/2-inch inlet size.

#### 1800 Series -

#### professional series

Spray distance from 6 to 15 feet

- 4" pop-up available with full, half, quarter and adjustable pattern nozzles pre-installed
- Directional adjustment feature lets you aim the spray pattern by hand
- Wide range of nozzles for distance of throw and arc pattern
- Available with and without nozzle for customized watering
- Simple, top adjustment screw decreases spray distance
- No tools needed to change nozzles

#### 1802-LN less nozzle

• 2-inch pop-up clearance

#### 1803-LN less nozzle

• 3-inch pop-up clearance

#### 1804-LN less nozzle

• 4-inch pop-up clearance

#### 1806-AP

 6-inch pop-up sprinkler with adjustable pattern nozzle

#### 1812-AP

• 12-inch pop-up sprinkler with adjustable pattern nozzle









## Pop-Up Spray Heads

#### economical spray heads with Rain Bird<sup>®</sup> reliability

Rain Bird's line of Pop-Up sprinklers features a complete selection of spray heads for watering shrubs, small lawns and other irregularly shaped planting areas. Where precision watering is key, Pop-Up sprinklers offer head-tohead coverage even in configurations where larger heads produce overspray and waste. The affordable Pop-Up series offers Rain Bird's patented pop-up mechanism for watering and out-of-sight retraction into the lawn when not in operation. A variety of spray nozzles are available, including full circle, part circle end strip, side strip, center strip, square and adjustable patterns.

- Pop-up mechanism for watering and retraction into lawn when not in operation.
- Patented stem seal keeps debris out, prevents pressure loss from flow-by and ensures pop-up at low water pressure.
- ▶ Reliable, low-pressure operation.
- Small foot print.
- Simple, top adjustment screw allows reduction of watering spray up to 25%.
- ▶ 1/2-inch inlet size.

## Dual Spray™ 1200 Series — 2 ½" and 4" pop-up sprinklers

- Includes Dual Spray™ nozzles for close-in watering, minimizes dry brown spots around the head for uniform coverage throughout the entire watering area
- · Easy to grip and install design
- Stronger spring to retract sprinkler into ground and flush out dirt and debris
- Available in full, half and quarter circle models, for both 2 1/2" and 4" heights

#### Sure Pop® 600 Series -

2 1/2" and 4" pop-up sprinklers

Spray distance from 8 to 15 feet

- 2 ½" or 4" Pop-up heights are available for different types of grass varieties
- Pre-installed nozzles that water in different patterns including the Infinite arc™ adjustable arc model, the only pop-up that waters from 0°-360° to fit almost any shape of lawn or planting area
- All models include matched precipitation rate (MPR) nozzles allowing sprinklers with various arcs to be mixed within the same zone providing an equal amount of water

## Spray Head Nozzles



#### A-17 Series

#### shrubbery spray nozzles

- Mounts above ground on a riser tall enough to clear tall plantings
- 7 fixed patterns are available; full, half, quarter, end strip, center strip, side strip, and adjustable, Infinite Arc™ pattern
- Matched flow rate nozzles assure uniform watering even when different patterns are mixed in the same zone

#### 15, 12 and 8 Series -

#### spray nozzles

Choose the type of nozzle that best fits your needs

- Spray distances range from 4' to 15'
- Matched flow rate nozzles assure uniform watering even when different patterns are mixed in the same zone
- Available watering patterns for most any shape: full circle, half circle, quarter circle, one third circle, two thirds circle and three quarters circle patterns

#### 15 and 9SST Series -

#### specialty spray nozzles

Choose the special nozzle pattern that best fits your needs

- Spray areas range from 14' x 14' to 9' x 18'
- Matched flow rate nozzles assure uniform watering even when different patterns are mixed in the same zone
- Available watering patterns for most any shape: end strip, center strip, side strip and square patterns

#### 18, 15, and 12 AP Series

#### adjustable spray nozzles

Change watering arc with just a twist

- Spray distances range from 7' to 18'
- Features Infinite Arc<sup>TM</sup> Nozzle the only 0° to 360° adjustable spray in the market
- Matched flow rate nozzles assure uniform watering even when different patterns are mixed in the same zone

#### 1300 -

#### flower bubbler

- Full circle pattern only
- Adjustment screw regulates spray distance for spacing 1' to 3' apart
- Filter screen included



#### **Dual Spray™ Series**



## Going head-to-head against the competition

The benefit of Rain Bird® Dual Spray nozzles is clearly visible in side-by-side comparisons with standard, single-orifice spray nozzles. The second orifice on the Dual Spray allows for superior close-in watering. With the efficiency of Dual Spray nozzles, you may reduce watering times by more than 30%¹.

Dual Spray™ Nozzle



#### **Patented Dual Spray**

Water flowing from both orifices results in a lower scheduling coefficient. This efficient design conserves water, saves money and reduces waste. Competitor nozzles fail to provide efficient close-in watering which results in a higher scheduling coefficient.

#### What is Scheduling Coefficient?

Scheduling Coefficient (SC) is a measure of irrigation uniformity developed for turf grass<sup>3</sup>.

- SC measures how much more you must water the entire area for the driest sections to receive sufficient water.
- The lower the SC, the better the spray head nozzle distributes water.
- Your results may vary based on site-specific conditions such as sprinkler spacing, wind, temperature, soil and grass type.
   Based on tests conducted at Rain Bird's Product Research Center in
- 2 Based on tests conducted at Rain Bird's Product Research Center in Glendora, CA. Tests conducted on Rain Bird and principal competitors' part circle nozales
- 3 Certified Landscape Irrigation Auditor Manual, The Irrigation Association, August 2000.

## Spray Head

## **Nozzles**

#### assures superior water distribution

#### **Dual Spray**<sup>TM</sup> **Series**

spray nozzles

- Spray distance from 7' to 12'
- Patented close-in watering for most efficient uniform water coverage, resulting in the elimination of dry brown spots
- Cuts watering times, saves water and money
- · Reduce water waste in windy conditions
- Three different watering patterns available: full, half and quarter circle

Rain Bird<sup>®</sup> Dual Spray 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.







Dual Spray nozzles (right), with an additional orifice for close-in watering, minimize dry spots around the spray head for more uniform coverage throughout the entire watering area.

## This example uses a 675 square foot (53 m<sup>2</sup>) turf grass area in Southern California.

The following example shows the time- and watersaving advantages of installing Rain Bird® Dual Spray nozzles instead of standard spray head nozzles.

Watering time needed with standard

spray head nozzles 52 minutes/week

Watering time needed with

Dual Spray nozzles 36 minutes/week

Time Saved 16 minutes/week

A 30% reduction in watering time!

Multiplied by: Spray zone flow 10.4 gpm

Multiplied by: Watering weeks/year 46

Gallons Saved Per Year 7,654

To calculate your own savings please visit:

www.rainbird.com/calculators/index.htm

## Spray Head Patterns

Eleven different patterns are available. All nozzles and set pattern spray heads are color coded for easy identification. Choose the pattern that best fits the shape of your lawn or yard.





Adjustable 0 to 360°









Full









Quarter







Three-Quarters



One-Third









Side Strip

Two-Thirds



**End Strip** 









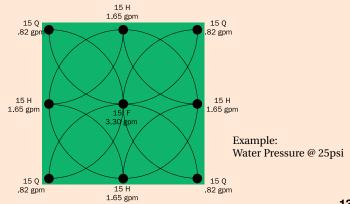
Center Strip

Square

## **Matched Precipitation Rate**

Matched Precipitation Rate (MPR) nozzles simplify the design process by allowing sprinklers with various arcs and radii to be mixed within the same zone. This allows them to spray an equal distance, and to provide an equal amount of water to a given area.





## Pop-Up Spray Head and

## Nozzle Selection Guide

RAIN BIRD SERIES	MODEL	SPRAY PATTERN	SPRAY DISTANCE	POP-UP HEIGHT	TYPE OF AREA TO WATER	WATER FLOW RATE	OTHER FEATURES
POP-UP SPRAY HEADS 1800® Professional Series	1802LN 1803LN 1804LN 1804LNB5 1804VAN 1804F 1804H 1804Q 1806AP 1812AP	Use with 11 different pattern nozzles Adjustable 0-360° Full circle Half circle Quarter circle Adjustable 0-360° Adjustable 0-360°	4'-18' w/ nozzle 4'-18' w/ nozzle 4'-18' w/ nozzle 4'-18' w/ nozzle 4'-15' 8'-15' 8'-15' 8'-15' 8'-15' 8'-15' 8'-15'	2" 3" 4" 4" 4" 4" 4" 6"	Lawn or shrubs	Low	The number 1 Spray head used by professionals world-wide  Spray heads per bag for 1804LNB5 models  Selected models include Matched Precipitation Rate (MPR) for even water distribution, even when mixing different patterns  Nozzles sold separately for all LN models  Patented Co-molded wiper seal prevents leaks, pressure loss and keeps out dirt and debris
Dual Spray <sup>™</sup> 1200 Series	1240DSF 1240DSH 1240DSQ 1225DSF 1225DSH 1225DSQ	Full circle Half circle Quarter circle Full circle Half circle Quarter circle	8'-15'	4" 4" 4" 2.5" 2.5"	Lawn or shrubs	Low	Includes unique Dual Spray <sup>TM</sup> nozzle technology for close-in watering providing the most efficient water coverage     Cuts watering times, money and reduces water waste in windy conditions
Sure Pop® 600 Series SP40 Models	SP40AP SP40F SP40H SP40Q SP40SQ SP40EST SP40EST SP40CST	Adjustable 0-360° Full circle Half circle Quarter circle Square End strip Side strip Center strip	8'-15' 14' x 14' - 23' x 23' 3' x 10' - 4' x 15' 3' x 20' - 4' x 30' 3' x 20' - 4' x 30'	4" 4" 4" 4" 4" 4"	Lawn or shrubs	Low	Sure-Pop® Technology for reliable Pop-up retraction even with low pressure conditions
Sure Pop® 600 Series SP25 Models	SP25AP SP25F SP25H SP25H SP25Q SP25SQ SP25SST SP25SST SP25CST	Adjustable 0-360° Full circle Half circle Quarter circle Square End strip Side strip Center strip	8'-15' 14' x 14' - 23' x 23' 3' x 10' - 4' x 15' 3' x 20' - 4' x 30' 3' x 20' - 4' x 30'	2.5" 2.5" 2.5" 2.5" 2.5" 2.5" 2.5" 2.5"	Lawn or shrubs	Low	Sure-Pop® Technology for reliable Pop-up retraction even with low pressure conditions 2 ½" Pop-up for shorter grass varieties
SPRAY HEAD NOZZLES							
Dual Spray™ Series	12DSF 12DSH 12DSQ	Full circle Half circle Quarter circle	9' - 12'	-	Lawn or shrubs	Low	Dual Spray nozzles for superior close-in coverage     Saves water and eliminates brown spots     Compatible with all Rain Bird Pop-up Spray head sprinklers
MPR Series Nozzles	18APC1 15APC1 15FC1 15FC1 15HC1 15OC1 15CSTC1 15CSTC1 15SSTC1 15TC1 15TC1 15TC1 12APC1 12PC1 12PC1 12PC1 12PC1 12PC1 8FC1 8HC1 8HC1 8DC1	Adjustable 0-360° Adjustable 0-360° Full circle Half circle Quarter circle Center strip End strip Square Side strip Three quarters Two quarters Two thirds Adjustable 0-360° Full circle Half circle Quarter circle Side strip Full circle Half circle Quarter circle Quarter circle Quarter circle Quarter circle	10.5' - 18' 8' -15' 8' -15' 8' -15' 8' -15' 3' x 20' - 4' x 30' 3' x 10' - 4' x 15' 14' x 14' - 23' x 23' 3' x 20' - 4' x 30 8' - 15' 8' - 15' 8' - 15' 7' - 12' 7' - 12' 7' - 12' 7' - 12' 7' - 12' 7' - 12' 8' x 11' - 9' x 18' 4' - 8' 4' - 8'	-	Lawn or shrubs	Low - Medium	Matched Precipitation Rate (MPR) for even coverage     Adjustable distance screw     Compatible with all Rain Bird Pop-up Spray head sprinklers
17 Series Shrub Nozzles	A17APC1 A17F A17H A17Q A17SST A17CST A17EST	Adjustable 0-360° Full circle Half circle Quarter circle Side strip Center strip End strip	8' - 15'	-	Flowers and shrubs	Low	Matched Precipitation Rate (MPR) for even coverage     Mounts on male 1/2" risers     Adjustable distance screw
13 Series	1300	Full circle	1' - 3'	-	Flowers and shrubs	Medium	Mounts on male 1/2" risers

## Nozzle Performance

## **Spray Heads**



30° Traje	ctory			•	<b>A</b>
Nozzle	Pressure psi	Radius ft.	Flow GPM	Precip In/h	Precip In/h
12F	15	9	1.80	2.14	2.47
	20	10	2.10	2.02	2.34
	25	11	2.40	1.91	2.21
	30	12	2.60	1.74	2.01
12H	15	9	0.90	2.14	2.47
	20	10	1.05	2.02	2.34
	25	11	1.20	1.91	2.21
	30	12	1.30	1.74	2.01
12Q	15	9	0.45	2.14	2.47
	20	10	0.53	2.02	2.34
	25	11	0.60	1.91	2.21
	30	12	0.65	1.74	2.01

30° Traje	ctory			•	<b>A</b>
Nozzle	Pressure psi	Radius ft.	Flow GPM	Precip In/h	Precip In/h
15F	15	11	2.60	2.07	2.39
	20	12	3.00	2.01	2.32
	25	14	3.30	1.62	1.87
	30	15	3.70	1.58	1.83
15H	15	11	1.30	2.07	2.39
	20	12	1.50	2.01	2.32
Ŭ	25	14	1.65	1.62	1.87
	30	15	1.85	1.58	1.83
15Q	15	11	0.65	2.07	2.39
	20	12	0.75	2.01	2.32
	25	14	0.82	1.62	1.87
	30	15	0.92	1.58	1.83

23° Trajed	tory				<b>A</b>
Nozzle	Pressure psi	Radius ft.	Flow GPM	Precip In/h	Precip In/h
12DSF	15	9	1.80	2.14	2.47
	20	10	2.10	2.02	2.34
	25	11	2.40	1.91	2.21
	30	12	2.60	1.74	2.01
12DSH	15	9	0.90	2.14	2.47
	20	10	1.05	2.02	2.34
	25	11	1.20	1.91	2.21
	30	12	1.30	1.74	2.01
12DSQ	15	9	0.45	2.14	2.47
	20	10	0.53	2.02	2.34
	25	11	0.60	1.91	2.21
	30	12	0.65	1.74	2.01

10° Trajed	ctory			•	<b>A</b>
Nozzle	Pressure psi	Radius ft.	Flow GPM	Precip In/h	Precip In/h
8F	15	5	0.54	2.07	2.39
	20	6	0.75	2.01	2.32
	25	7	0.82	1.62	1.87
	30	8	1.05	1.58	1.83
8H	15	5	0.27	2.07	2.39
	20	6	0.38	2.01	2.32
	25	7	0.41	1.62	1.87
	30	8	0.52	1.58	1.83
8Q	15	5	0.13	2.07	2.39
	20	6	0.19	2.01	2.32
	25	7	0.21	1.62	1.87
	30	8	0.26	1.58	1.83

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

SPECIALTY NOZZLES

Nozzle	Pressure psi	WxL ft.	Flow GPM
15SQ	15	18 x 18	2.68
	20	19 x 19	3.06
•	25	21 x 21	3.42
	30	23 x 23	3.73
15EST	15	4 x 13	0.45
V	20	4 x 14	0.50
8	25	4 x 14	0.56
	30	4 x 15	0.61
15CST	15	4 x 26	0.89
V	20	4 x 28	1.00
	25	4 x 28	1.11
	30	4 x 30	1.21
15SST	15	4 x 26	0.89
	20	4 x 28	1.00
ľ	25	4 x 28	1.11
	30	4 x 30	1.21
9SST_	15	9 x 15	1.34
	20	9 x 16	1.47
Î	25	9 x 18	1.60
	30	9 x 18	1.73

15° Trajectory ■ ▲								
Nozzie	Pressure psi	Radius ft.	Flow GPM	Precip In/h	Precip In/h			
360° Arc	15	9	1.8	2.14	2.47			
	20	10	2.1	2.02	2.34			
	25	11	2.4	1.91	2.21			
	30	12	2.6	1.74	2.01			
270° Arc	15	9	1.35	2.14	2.47			
	20	10	1.58	2.02	2.34			
	25	11	1.8	1.91	2.21			
	30	12	1.95	1.74	2.01			
180° Arc	15	9	0.9	2.14	2.47			
	20	10	1.05	2.02	2.34			
v	25	11	1.2	1.91	2.21			
	30	12	1.3	1.74	2.01			
90° Arc	15	9	0.45	2.14	2.47			
	20	10	0.53	2.02	2.34			
	25	11	0.6	1.91	2.21			
	30	12	0.65	1.74	2.01			

15 Sei	ies AP				
23° Trajec	tory			•	<b>A</b>
Nozzle	Pressure psi	Radius ft.	Flow GPM	Precip In/h	Precip In/h
360° Arc	15	11	2.60	2.07	2.39
	20	12	3.00	2.01	2.32
	25	14	3.30	1.62	1.87
	30	15	3.70	1.58	1.83
270° Arc	15	11	1.95	2.07	2.39
	20	12	2.25	2.01	2.32
	25	14	2.48	1.62	1.87
	30	15	2.78	1.58	1.83
180° Arc	15	11	1.30	2.07	2.39
	20	12	1.50	2.01	2.32
	25	14	1.65	1.62	1.87
	30	15	1.85	1.58	1.83
90° Arc	15	11	0.65	2.07	2.39
	20	12	0.75	2.01	2.32
	25	14	0.82	1.62	1.87
	30	15	0.92	1.58	1.83

26° Trajec	tory			-	<b>A</b>
Nozzle	Pressure psi	Radius ft.	Flow GPM	Precip In/h	Precip In/h
360° Arc	15	14	4.21	2.07	2.39
	20	15	4.70	2.01	2.32
	25	17	4.86	1.62	1.87
	30	18	5.32	1.58	1.83
270° Arc	15	14	3.16	2.07	2.39
	20	15	3.52	2.01	2.32
	25	17	3.65	1.62	1.87
	30	18	3.99	1.58	1.83
180° Arc	15	14	2.11	2.07	2.39
	20	15	2.35	2.01	2.32
<u></u>	25	17	2.43	1.62	1.87
	30	18	2.66	1.58	1.83
90° Arc	15	14	1.05	2.07	2.39
	20	15	1.17	2.01	2.32
	25	17	1.22	1.62	1.87
	30	18	1.33	1.58	1.83

- Square spacing based on 50% diameter of throw.

  ▲ Triangular spacing based on 50% diameter of throw.
  Performance data collected in zero wind conditions.
- \* Turn nozzle screw clockwise to reduce spray distance up to 25%.



## Rain Bird<sup>®</sup> Family of Rotors



## Rotors

#### engineered for proven reliability

We build our closed-case rotor sprinklers for long life, quiet operation and maximum design flexibility. The protected closed-case design makes these sprinklers ideal for "creeping" grasses, sandy soil and other harsh surroundings. Water lubricated gear or ball-driven operation is quiet and maintenance free. The many safeguards and trouble-free features built into our closed-case rotor sprinklers make them the perfect choice for any home landscape.

▶ Closed-case design assures trouble-free performance by keeping out dirt and debris.

#### rotor for small and medium size yards

#### **22SA**

Spray distance from 17 to 24 feet

- Multiple rotating streams distribute water uniformly
- Efficient watering reduces potential run-off
- Requires lower flow than other rotors, resulting in fewer zones to simplify installation and cost
- Pressure activated, wiper seal prevents excessive flow by, water waste and keeps debris from entering upon retraction
- Can be installed in the same zone as large rotors
- · No misting or fogging at high pressures
- 6" pop-up height
- 1/2" -inlet

#### 22SA F RotorFull circle pattern

#### 22SA H Rotor

#### 22SA Q Rotor

- Half circle pattern
- Quarter circle pattern









## Rotors

easy to use

#### 32**SA**

Spray distance from 19 to 32 feet

- Easy arc and radius adjustment from the top of sprinkler
- Full and part circle in one sprinkler
- Quiet water lubricated gear drive operation
- Superior Rain Curtain<sup>™</sup> nozzle performance to ensure even water distribution
- Heavy-duty stainless steel spring assures positive retraction
- 4" pop-up to clear tall grass
- Non-strippable drive mechanism
- Adjustable spray pattern for 40° 360° coverage
- 1/2-inch inlet

#### universal shrub rotor

#### 32SA-SHB

Spray distance from 19 to 32 feet

- Superior Rain curtain™ nozzle performance ensures uniform water distribution even in windy conditions
- Mounts on a 1/2" or 3/4" riser to clear tall shrubs and planting areas
- Perfect for watering hillsides, ground cover and large areas of shrubbery
- Simple spray distance and pattern adjustments requires no special tools
- Water lubricated gear drive design for durable reliable operation
- Bottom screw allows user to "lock" the rotor to the riser and prevent theft
- Adjustable spray pattern for 40° 360° coverage

#### heavy duty

#### 42SA+

Spray distance from 26 to 38 feet

- Professional Quality Rain Curtain<sup>™</sup> nozzle with enhanced "Micro Ramps" for superior close-in watering
- Easy arc adjustment from the top requiring only a flat blade screwdriver
- Professional gear drive: durable, reliable and water lubricated
- Reversing full and part circle rotation from 40° to 360° arc adjustment
- Multi-function wiper seals that protect the internals from debris and assures positive pop-up and retraction over the life of the rotor
- 3/4-inch inlet

#### premium stainless steel rotor

#### 52SA -

Spray distance from 25 to 50 feet

- Top-of-the line rugged design with stainless steel shaft for a longer life
- Professional Quality Rain Curtain™ nozzle with enhanced "Micro Ramps" for superior close-in watering
- Nozzle set available to customize watering and achieve uniform water distribution
- Full and part circle in one sprinkler, part circle pattern is adjustable from 40° to 360°
- Water lubricated gear drive design for durable reliable operation
- 4" Pop-Up to clear tall grass
- 3/4" -inlet

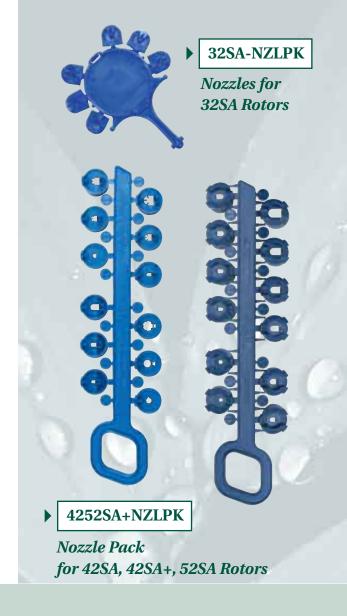
## Rotor

## Nozzle Sets

Rain Bird® nozzle sets for the 32, 42SA, 42SA+ and 52SA are designed to save water with even and efficient coverage. Rotors apply different amounts of water depending on the pattern that they are set to water. A rotor set to water just 1/4 of a full circle applies more water than a rotor set to water a full 360°, assuming the nozzles are the same. Changing nozzles can help even out the amount of water being sprayed between rotors that are set for different patterns.

This will help maintain a healthier lawn and save water.

- Matched flow rate nozzle sets.
  - Correct nozzle size to match set pattern of rotor for efficient watering.
  - Saves water.
- ▶ Low pressure/Low flow nozzle sets.
  - Customize rotor performance for slopes and or low pressure conditions.
- ▶ Specialty nozzles (4252SA+ set).
  - Low angle nozzles to stay clear of tree canopies or windy conditions.
  - Plus nozzles for longer distance performance.



## Rain Curtain™ Nozzles for Superior Water Distribution

Only Rain Bird<sup>®</sup> rotors have Rain Curtain<sup>™</sup> nozzle technology that features larger water droplets for resistance to windy conditions, effective close-in watering to eliminate dry spots near the rotor and even distribution over the entire radius range. In side-by-side comparisons with the competition, the clear advantages of Rain Curtain technology can be seen with the naked eye.

#### **How is Nozzle Performance Measured?**

Scheduling Coefficient (SC) is one of the most accurate ways to measure water distribution.

- SC measures how much longer you must water the entire area for the driest sections to receive sufficient water.
- The lower the SC, the better the rotor distributes water.
- Test results from side-by-side comparisons with competitive nozzle products prove that Rain Curtain technology consistently outperforms the competition with the lowest scheduling coefficients—as low as 1.1.\*

An SC of 1.0 represents perfect uniformity. Tests show that even rain has an SC greater than 1.0.\*\*





Rotors tested at consistent psi with no physical disruption of the stream.

\*Based on tests conducted at Rain Bird's Product Research Center in Glendora, CA. Test results reflect a comparison of Rain Bird's products with those of its principal competitors.\*\*Based on a report published by The Center for Irrigation Technology.

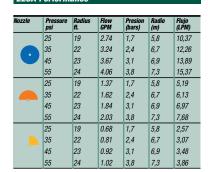


Rotor Selection Guide

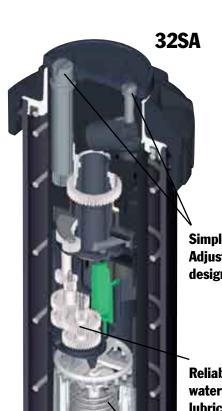
RAIN BIRD SERIES	6 MODEL	PATTERN	SPRAY DISTANCE	TYPE OF SPRINKLER	TYPE OF AREA TO WATER	WATER FLOW RATE	OTHER FEATURES
GEAR DRIVEN RO	TOR HEADS						
Simple Adjust Series	22SAF 22SAH 22SAQ	Full circle Half circle Quarter circle	17'-24'	Pop-Up Rotor	Lawn	Low with pre-installed nozzle	Less flow than other rotors allowing more heads per zone, reducing overall system complexity and cost.
Simple Adjust Series	32SA	40° - 360°	19'-32'	Gear Driven Rotor	Lawn	Low-High with 32SA nozzle tree	Quiet operation     Simple adjust pattern & distance     Full and part circle adjustments
Simple Adjust Series	32SA-Shrub	40° - 360°	19'-32'	Gear Driven Rotor	Shrub	Low-High with 32SA nozzle tree	Quiet operation     Simple adjust pattern & distance     Full and part circle adjustments
Simple Adjust Series	42SA+	40° - 360°	26'-38'	Gear Driven Rotor	Lawn	Low-High with 4252SA+NZLPK nozzle tree	Quiet operation     Simple adjust pattern & distance     Full and part circle adjustments
Simple Adjust Series	52SA	40° - 360°	25'-50'	Gear Driven Rotor	Lawn	Low-High with 4252SA+NZLPK nozzle tree	Rugged design with stainless steel shaft for a longer life Quiet operation Simple Adjust pattern distance Full and part circle adjustments Nozzle tree included
ROTOR NOZZLE S	ETS						
Rotor Nozzle Sets	32SANZLPK	-	11'-35'	Use with 32SA Gear Drive Rotor	Lawn	Low-High	Low pressure/Low flow nozzle sets     Customize rotor performance for slopes and or low pressure conditions.
Rotor Nozzle Set	4252SA+NZLPK	-	With 42SA Rotor 19' - 50' With 52SA Rotor 25'- 50'	Use with 42SA+ and 52SA Gear Drive Rotors	Lawn	Low-High	Specialty nozzles (4252SA+ set)     Low angle nozzles to stay clear of tree canopies or windy conditions.     Plus nozzles for longer distance performance.

## Rotor

## Performance



Pressure psi	Nozzle	Radius ft.	Flow GPM
25	.75	15	0.5
	1.0	20	0.8
	1.5	23	1.1
	2.0	27	1.4
	3.0	29	2.2
	4.0	31	3.0
45	.75	17	0.8
	1.0	21	1.1
	1.5	24	1.5
	2.0	27	1.9
	3.0	30	3.0
	4.0	35	4.1
55	.75	18	0.9
	1.0	22	1.2
	1.5	24	1.7
	2.0	28	2.2
	3.0	32	3.3
	4.0	35	4.6



**Simple Adjust** design.

Reliable waterlubricated, gear-driven rotor.

**Stainless steel** retraction spring, for years of reliable popup/retraction.

42SA+	Nozzle	Perforn	nance
		jle nozzies)	
Pressure psi	Nozzle	Radius ft.	Flow GPM
25	1.0	25	0.7
	1.5	27	1.1
	2.0	28	1.5
	3.0	29	2.2
35	1.0	28	0.9
	1.5	30	1.4
	2.0	31	1.8
	3.0	33	2.7
45	1.0	29	1.0
	1.5	31	1.6
	2.0	32	2.0
	3v.0	35	3.1
55	1.0	29	1.1
	1.5	31	1.8
	2.0	33	2.2
	3.0	36	3.4
65	1.0	29	1.2
	1.5	31	2.0
	2.0	33	2.4
	3.0	36	3.7

Pressure   Nozzie   Radius   Flow   Radius   Flow   Radius   Flow   Radius   Flow   Radius   Flow   Radius   Radius	,
1.5	
2.0 35 1.5 2.5 35 1.8 3.0 36 2.3 4.0 37 2.9 5.0 39 3.7 6.0 39 4.2 8.0 36 5.9 35 1.5 34 1.3 2.0 36 1.8 2.5 37 2.2 3.0 38 2.7 4.0 40 3.5 5.0 41 4.5 6.0 43 5.2 8.0 43 7.1 45 1.5 35 1.5 2.0 37 2.1 2.5 37 2.5	
2.5 35 1.8 3.0 36 2.3 4.0 37 2.9 5.0 39 3.7 6.0 39 4.2 8.0 36 5.9 35 1.5 34 1.3 2.0 36 1.8 2.5 37 2.2 3.0 38 2.7 4.0 40 3.5 5.0 41 4.5 6.0 43 5.5 8.0 43 7.1 45 1.5 35 1.5 2.0 37 2.1 2.5 37 2.5	
3.0 36 2.3 4.0 37 2.9 5.0 39 3.7 6.0 39 4.2 8.0 36 5.9 35 1.5 34 1.8 2.0 36 1.8 2.5 37 2.2 3.0 38 2.7 4.0 40 3.5 5.0 41 4.5 6.0 43 5.2 8.0 43 7.1 45 1.5 35 1.5 2.0 37 2.1 2.5 37 2.5	
4.0     37     2.9       5.0     39     3.7       6.0     39     4.2       8.0     36     5.9       35     1.5     34     1.3       2.0     36     1.8     2.5       3.0     38     2.7     4.0     40     3.5       5.0     41     4.5     6.0     43     5.2       8.0     43     7.1       45     1.5     35     1.5       2.0     37     2.1       2.5     37     2.5	
5.0     39     3.7       6.0     39     4.2       8.0     36     5.9       35     1.5     34     1.3       2.0     36     1.8     2.5       3.0     38     2.7     4.0     40     3.5       5.0     41     4.5     6.0     43     5.2       8.0     43     7.1       45     1.5     35     1.5       2.0     37     2.1       2.5     37     2.5	
6.0     39     4.2       8.0     36     5.9       35     1.5     34     1.3       2.0     36     1.8       2.5     37     2.2       3.0     38     2.7       4.0     40     3.5       5.0     41     4.5       6.0     43     5.2       8.0     43     5.1       45     1.5     35     1.5       2.0     37     2.1       2.5     37     2.5	
8.0         36         5.9           35         1.5         34         1.3           2.0         36         1.8           2.5         37         2.2           3.0         38         2.7           4.0         40         3.5           5.0         41         4.5           6.0         43         5.2           8.0         43         7.1           45         1.5         35         1.5           2.0         37         2.1           2.5         37         2.5	
35 1.5 34 1.3 2.0 36 1.8 2.5 37 2.2 3.0 38 2.7 4.0 40 3.5 5.0 41 4.5 6.0 43 5.2 8.0 43 7.1 45 1.5 35 1.5 2.0 37 2.1 2.5 37 2.5	
2.0 36 1.8 2.5 37 2.2 3.0 38 2.7 4.0 40 3.5 5.0 41 4.5 6.0 43 5.2 8.0 43 7.1 45 1.5 35 1.5 2.0 37 2.1 2.5 37 2.5	
2.5 37 2.2 3.0 38 2.7 4.0 40 3.5 5.0 41 4.5 6.0 43 7.1 45 1.5 35 1.5 2.0 37 2.1 2.5 37 2.5	
3.0 38 2.7 4.0 40 3.5 5.0 41 4.5 6.0 43 5.2 8.0 43 7.1 45 1.5 35 1.5 2.0 37 2.1 2.5 37 2.5	
4.0 40 3.5 5.0 41 4.5 6.0 43 5.2 8.0 43 7.1 45 1.5 35 1.5 2.0 37 2.1 2.5 37 2.5	
5.0 41 4.5 6.0 43 5.2 8.0 43 7.1 45 1.5 35 1.5 2.0 37 2.1 2.5 37 2.5	
6.0 43 5.2 8.0 43 7.1 45 1.5 35 1.5 2.0 37 2.1 2.5 37 2.5	
8.0 43 7.1 45 1.5 35 1.5 2.0 37 2.1 2.5 37 2.5	
45 1.5 35 1.5 2.0 37 2.1 2.5 37 2.5	
2.0 37 2.1 2.5 37 2.5	
2.5 37 2.5	
3.0   40   3.1	
4.0 42 4.0	
5.0 45 5.1	
6.0 46 6.0	
8.0 47 8.0	
55 1.5 35 1.7	
2.0   37   2.3	
2.5 37 2.8	
3.0   40   3.5	
4.0 42 4.4	
5.0 45 5.7	
6.0 47 6.6	
8.0 50 8.9	
65   1.5   34   1.9	
2.0 35 2.5	
2.5 37 3.0	
3.0 40 3.8	
4.0 42 4.8	
5.0 45 6.2	
6.0 48 7.2	
8.0   50   9.7	

Pressure psi	Nozzle	Radius ft.	Flow GPM
35	1.5	34	1.35
	2.0	36	1.81
	2.5	37	2.17
	3.0	38	2.71
	4.0	40	3.50
	5.0	41	4.47
	6.0	43	5.23
	8.0	43	7.06
45	1.5	35	1.54
	2.0	37	2.07
	2.5	37	2.51
	3.0	40	3.09
	4.0	42	4.01
	5.0	45	5.09
	6.0	46	6.01
	8.0	47	8.03
55	1.5	35	1.71
	2.0	37	2.30
	2.5	37	2.76
	3.0	40	3.47
	4.0	42	4.44
	5.0	45	5.66
	6.0	47	6.63
	8.0	50	8.86

**Gear Drive** 

**Mechanism** 

System Tips ) Customizing Spray Patterns

Most rotors adjust from full to part circle, giving you complete control to put water where you need it, and ensuring head-to-head coverage.

To ensure proper watering and reduce the chance of brown spots in your lawn, adjust your rotor spray pattern to get head-to-head coverage.





## Impact

## Rotors

#### precise operation with industrial quality

A popular tradition for underground watering systems, Rain Bird pop-up impact sprinklers provide the convenience and reliability homeowners want and retract out of sight for high traffic areas. These heavy-duty impacts have the strength and performance of industrial and commercial products, yet are easy to install and operate. Pop-up impact sprinklers are long-lasting and particularly noted for their performance with heavy-mineral content, such as hard water and well water, that can clog and corrode other sprinklers. Also an excellent choice for reclaimed water irrigation systems in drought areas.

- ▶ Simple, straight through-flow design for superior performance in dirty water.
- ▶ Full and part circle coverage, with infinite pattern adjustment.
- ▶ Grit-proof bearing for reliable operation.
- Diffuser screw breaks water into smaller droplets for uniform watering.

## works efficiently with most pressures

#### AG-5 / Maxi Paw-

Spray distance from 24 to 45 feet

- Heavy-duty rolled-lip case design assures proper installation height, prevents vegetation from growing into head, and minimizes backwash
- 5 interchangeable nozzles for maximum design flexibility
- Double-weighted arm provides slower rotation for increased distance of throw
- Water-Saving PJ<sup>™</sup> spray-guiding arm controls stream to prevent side splash onto buildings and walkways
- No tools needed to change nozzles
- 1/2-inch side and combination 3/4, 1/2-inch bottom inlets

#### LG-3 / Mini Paw

low gallonage

Spray distance from 25 to 36 feet

- Water-Saving brass-weighted PJ™ spray-guiding arm controls stream to prevent side splash onto buildings and walkways.
- Simple, single nozzle selection.
- 1/2-inch bottom and side inlets.







## Brass

## **Impact Rotors**

for years of reliable performance



Patterned after our original impact sprinkler, first patented by Rain Bird in 1933, with all the features and durability of modern engineering. Constructed of heavy-duty bronze and stainless steel, these impact heads deliver reliable performance season after season.

- ▶ Traditional favorite with classic impact sound.
- ▶ Straight through water flow design for superior dirty water performance.
- Easy to install and adjust.

#### #1 best selling brass impact

**25-PJDA-C** 

Spray distance from 20 to 41 feet

- Brass, bronze and stainless steel construction lasts up to 5 times longer than competitor's zinc sprinklers
- Adjustable deflector flap adjusts stream length
- Diffuser screw helps prevent brown spots by breaking water into smaller droplets for more uniform watering
- Water-Saving PJ<sup>™</sup> spray-guiding arm controls water stream and prevents wasteful side splash onto buildings and walkways
- Full and part circle coverage, with infinite pattern adjustment
- High-gallonage output
- 1/2-inch (MPT) inlet

## Polymer Impact Rotors



Our popular line of polymer impact heads proves that Rain Bird continues to lead the industry in engineering and design innovation. Modeled after our top-selling brass impact line, these impact heads are crafted from high-impact, heavy-duty polymer providing years of reliable watering use.

- Durable high-impact polymer and stainless steel construction.
- ▶ Full and part circle coverage, with infinite pattern adjustment.
- ▶ Water-Saving PJ<sup>TM</sup> spray-guiding arm controls water stream and prevents side splash onto buildings and walkways.

#### #1 best selling polymer impact

P5R

Spacing from 25 to 41 feet

- Weighted arm for slower rotation and better watering coverage
- Straight through flow for superior performance in dirty water conditions
- PJ™ arm controls water stream, avoids water waste and side splash
- Full or part circle operation 360° or 20° to 340°
- Removable, bayonet nozzle for maximum easy cleaning

#### low pressure and flow start-up

**P2R** -

Spacing from 22 to 38 feet

- Low pressure and low flow operation
- Weighted arm for slower rotation and better watering coverage
- Straight through flow for superior performance in dirty water conditions
- PJ™ arm controls water stream, avoids water waste and side splash
- Full or part circle operation 360° or 20° to 340°
- Removable, bayonet nozzle for maximum easy cleaning







# Impact Rotor Selection Guide

RAIN BIRD SERIES	MODEL	SPRAY DISTANCE	TYPE OF SPRINKLER	TYPE OF AREA TO WATER	WATER FLOW RATE	OTHER FEATURES
POP-UP IMPACT HEADS						
PAW Series Impact Sprinklers	AG5 MAXIPAW	24'-45'	Traditional Pop-up, Impact Sprinkler	Lawn	Low-High	Dirty water tolerant design     Full and part circle adjustment
PAW Series Impact Sprinklers	LG3 MINIPAW	25'-36'	Traditional Pop-up, Impact Sprinkler	Lawn	Low	Dirty water tolerant design     Interchangeable nozzles for different flow rates     Full and part circle adjustment
P Series Impact Sprinklers	25PJDA-C	20'-41'	Traditional Riser mounted Impact Sprinkler	Lawn or shrubs	Medium	Heavy duty brass construction for reliable performance     Full and part circle adjustments
P Series Impact Sprinklers	P5R	25'-41'	Traditional Riser mounted Impact Sprinkler	Lawn or shrubs	Medium	Durable high Impact polymer and stainless steel construction     Full and part circle adjustments
P Series Impact Sprinklers	P2R	22'-38'	Traditional Riser mounted Impact Sprinkler	Lawn or shrubs	Low	Low water pressure design

## Impact

## Performance

				•	•
Pressure psi	Nozzle	Radius ft.	Flow GPM	Precip In/h	Precip In/h
25	06	-	-	-	-
	07	32	2.2	0.41	0.48
	08	35	2.8	0.44	0.51
	10	38	4.2	0.56	0.65
	12	39	5.5	0.70	0.80
35	06	37	2.0	0.28	0.32
	07	37	2.7	0.38	0.44
	08	38	3.3	0.44	0.51
	10	41	4.8	0.55	0.64
	12	42	6.3	0.69	0.79
45	06	38	2.3	0.31	0.35
	07	39	3.0	0.38	0.44
	08	40	3.7	0.45	0.51
	10	42	5.4	0.59	0.68
	12	44	7.1	0.71	0.82
55	06	38	2.5	0.33	0.39
	07	41	3.3	0.38	0.44
	08	41	4.1	0.47	0.54
	10	43	6.0	0.62	0.72
	12	45	7.9	0.75	0.87
60	06	38	2.6	0.35	0.40
	07	41	3.5	0.40	0.46
	08	42	4.2	0.46	0.53
	10	44	6.4	0.64	0.74
	12	45	8.4	0.80	0.92

Pressure psi	Radius ft.	Max. Spacing ft.	Output GPM
25	33	33	1.9
30	34	34	2.0
40	36	36	2.3
50	36	36	2.6

Pressure PSI	Radius Feet	Output GPM	Pressure Bars	Radio(m) Meters	M <sup>3</sup> /h
25	35	2.8	2,0	11,0	0,68
35	38	3.3	2,5	11,7	0,78
45	40	3.7	3,0	12,1	0,83
55	41	4.1	3,5	12,5	0,89

25PJD	A-C Per	formand	e Chart		
Pressure PSI	Radius Feet	Output GPM	Pressure Bars	Radio(m) Meters	M³/h
25	38	3.4	2,0	11,5	0,69
30	39	3.8	2,5	11,7	0,78
40	40	4.4	3,0	11,9	0,85
50	41	5.0	3,5	12,2	0,92

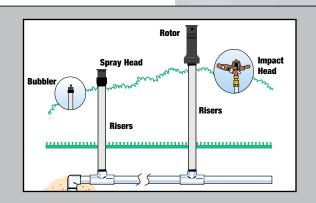
Pressure PSI	Radius Feet	Output GPM	Pressure Bars	Radio(m) Meters	M³/h
15	30	1.5	1,0	8,0	0,33
20	32	1.7	1,4	9,5	0,38
25	34	1.8	2,0	10,4	0,40
35	37	2.0	2,5	11,3	0,45
35	38	2.3	3,0	11,6	0,51

P2R Performance Chart

Precipitation Rates based on half-circle operation.
Performance best at pressures of 40 psi or higher.
Optimum water distribution achieved at 40 to 50 psi.
Performance data collected in zero wind conditions.

## ? System Tips Using a Riser

A riser is a threaded pipe used to connect a sprinkler head or nozzle directly to the pipe. Risers are used to position a sprinkler head above obstructions. They are especially helpful when watering above the shrub line, or watering hillsides and sloping landscapes. Impacts with their long throw are particularly useful for large areas.





## In-Line Valves

Rain Bird manufactures only the highest quality In-Line valves. Use In-Line valves in locations where the use of a pressure vacuum breaker (PVB) or a double-check valve is required by city codes to protect against backflow. Check your local city codes to determine what type of valves are required. In-Line valves are installed below ground in a valve box down stream from the main line from a PVB or double-check valve. In-Line valves will not prevent back flow on their own, they need the help of a back flow prevention device.

- Designed for below ground installation, out of sight and protected from potential damage or tampering.
- ▶ In-Line design minimizes pressure loss.
- Energy-efficient, low power encapsulated solenoid with captured plunger.
- ▶ Operate manually or automatically.
- External bleed to manually flush system of dirt and debris during installation and system start-up.

#### in-line valves

#### CP/CPF

- Buna-N diaphragm offers superior performance in harsh water environments
- Long lasting diaphragm with captive spring extends valve life and reliability
- · Heavy duty construction with stainless steel screws
- Flow control models include easy-turn pressure assisted flow control mechanism

#### CP-075 3/4-inch valve

• 3/4-inch female pipe thread inlet and outlet

#### CP-100 1-inch valve

• 1-inch female pipe thread inlet and outlet

#### CPF-075 3/4-inch valve with flow control

• 3/4-inch female pipe thread inlet and outlet

#### CPF-100 1-inch valve with flow control

• 1-inch female pipe thread inlet and outlet

#### in-line jar-top valve

#### $\mathbf{ITV}$

- Jar-Top Bonnet for easy cleaning and maintenance
- External bleed to flush dirt and debris
- 24 volt AC solenoid works with all controllers
- Threaded bonnet provides easy removal with no screws
- Trouble-free service with few parts
- Drop-in diaphragm for effortless maintenance
- Reverse-flow feature ensures valve shuts off if the diaphragm tears or rips - reduces risk of landscape flooding

#### JTV 100 Jar-Top Valve

• 1-inch female pipe thread inlet and outlet







## Anti-Siphon

## **Valves**

Rain Bird manufactures only the highest quality Anti-Siphon valves. Use Anti-Siphon valves in locations where the use of a pressure vacuum breaker (PVB) or double-check valve is *not* required by city codes. Check your local city codes to determine what type of valves are required. Anti-Siphon valves are installed above ground and will prevent backflow if properly installed. Anti-Siphon valves should always be installed at least 6" above the highest head on the valve line, and should never have another valve installed further down the line from the main valve.

- ▶ Trouble-free construction engineered from durable, non-corrosive thermoplastic with ultraviolet inhibitors.
- ▶ Spray-free internal bleed for manual operation.
- ▶ Combination Electric Remote Control Valve and Atmospheric Backflow Prevention in one unit.
- ▶ Long-lasting diaphragm with water filter and captive spring.
- ▶ For outdoor use only.

## professional grade anti-siphon valve

#### **DAS-ASVF**

With flow control

- DIIO IIOVI
- Heavy-duty construction with stainless steel screws
  Easy-turn, pressure-assisted precision flow-control mechanism
- Energy-efficient, low-power encapsulated solenoid with captured plunger
- External bleed to manually flush system of dirt and debris during installation and system start-up
- · Reverse-flow designed for added reliability

#### DAS-ASVF-075 3/4-inch valve

• 3/4-inch female pipe thread inlet and outlet DAS-ASVF-100 1-inch valve

• 1-inch female pipe thread inlet and outlet







#### JTVAS/ASVF -

#### jar-top anti-siphon valve

- Easy cleaning and maintenance with one-piece jar-top bonnet
- Rain Bird exclusive fail-safe design
- Heavy duty, professional design for a life-time of trouble-free operation
- Flow control models regulate the flow of water to sprinklers to avoid misting
- Vacuum breaker prevents backflow contamination to keep drinking water safe
- External bleed to manually flush system of dirt and debris during installation and system start up
- Meets I.A.P.M.O. listing specifications
- Operates automatically with any standard 24 volt sprinkler timer

#### JTV/AS-075 3/4-inch (19mm) valve

• 3/4-inch female pipe thread FPT inlet and outlet

#### JTV/ASF-075 3/4-inch (19mm) valve

• 3/4-inch female pipe thread FPT inlet and outlet

#### JTV/AS-100 1-inch (25mm) valve

• 1-inch female pipe thread FPT inlet and outlet

#### JTV/ASF-100 1-inch (25mm) valve

• 1-inch female pipe thread FPT inlet and outlet



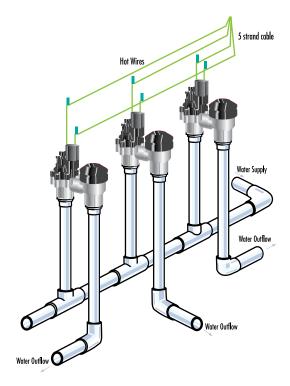


## Valves **Quick Guide**

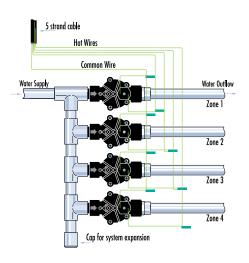
### Typical Hook-ups of Valves and Timers

Valves connect to your timer with simple wiring. Each valve has two wires, choose one as the Station wire, and another one as the Common wire. Place your valves in a convenient location to minimize the amount of wiring and pipe you need to install (Wire sold separately).

# Anti-Siphon



# In-Line



Water Meter Size	Service Line Size	Maximum Household Water Capacity (GPM)			
5/8"	3/4"	7	10	10	10
5/8"	1"	9	12	13	15
3/4"	3/4"	9	10	10	10
3/4"	1"	11	15	15	15
3/4"	1 1/4"	13	17	19	21
1"	3/4"	q	10	10	10

Water Pressure (PSI): 40-49 50-59 60-69

13 15 15 15 22 24 24 1 1/4"

#### PVC Pipe Class 125/Class 200

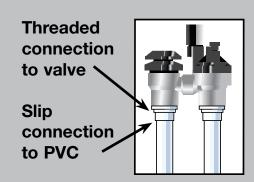
Maximum	Pipe	Valve				
GPM Flow	Size	Size				
0-10	3/4"	3/4"				
>10-15	1"	1"				
45.04	44/42	4.11				

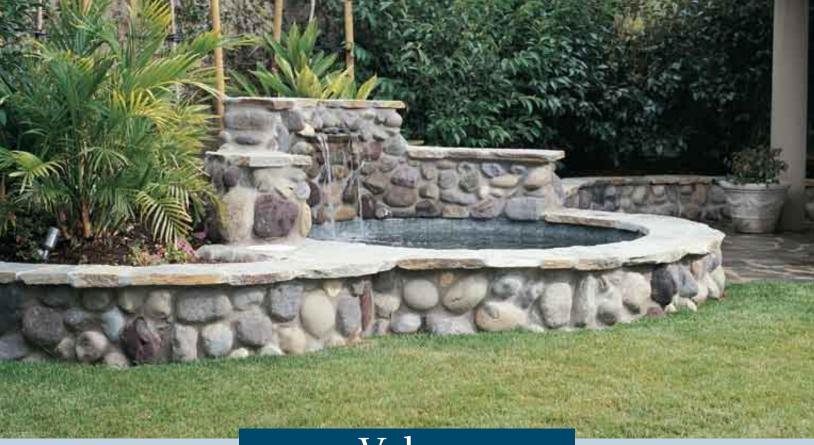
#### Polyethylene & Galvanized Pipe

Maximum	Pipe	Valve		
GPM Flow	Size	Size		
0-8	3/4"	3/4"		
>8-12	1"	1"		
>12-22	11/4"	1"		

## System Tips ) Connecting Valves to PVC

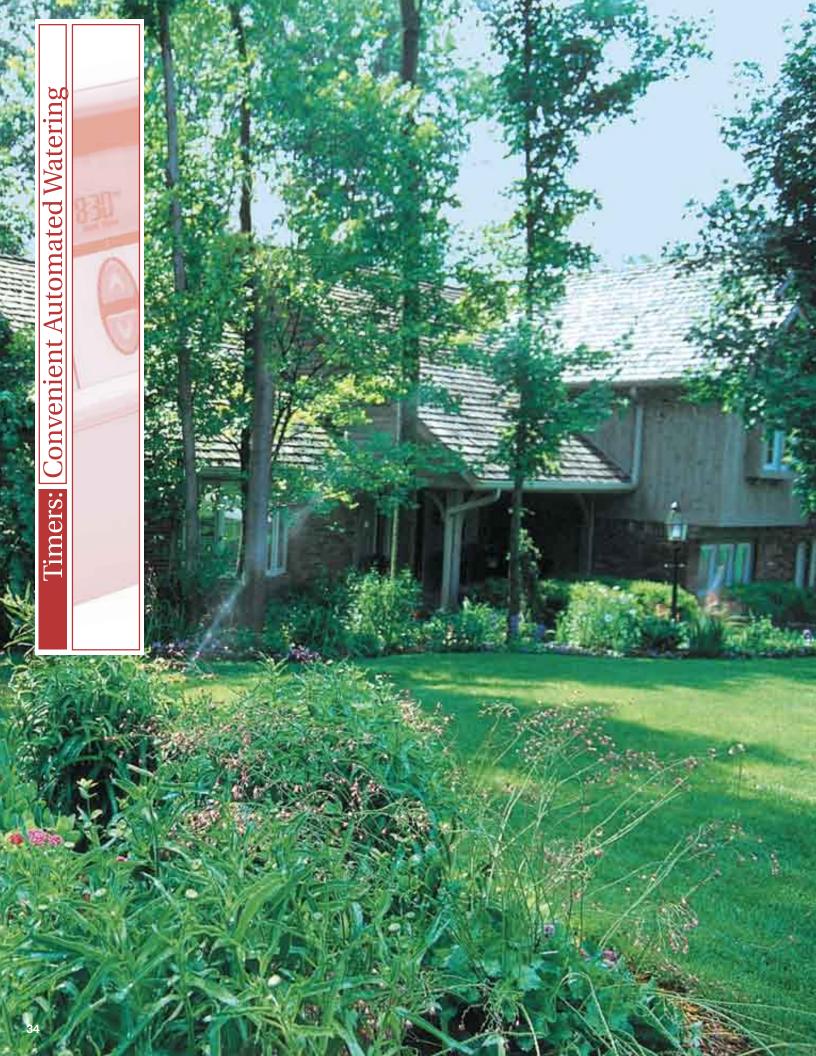
Valves connect to your main water supply and turn your sprinklers on and off. Valves are typically installed in a group, called a manifold. Use PVC pipe and fittings to build your manifold. Place your manifold in a convenient location to minimize the amount of wiring and pipe you need to install. Most valves will connect to the sprinkler system with a PVC connector with male threads. Simply screw the male connector into the valve. Then use primer to prepare pipe and fitting and then glue the other end of the PVC connector to the rest of the pipe flowing to your system. Do not use pipe dope on any threaded fitting.





# Valve Selection Guide

RAIN BIRD SERIES	MODEL	ТҮРЕ	CONNECTION	FLOW CONTROL	OTHER FEATURES
BELOW GROUND (IN-LINE)					
CP Series	CP-075 CP-100	In-Line (Below ground)	3/4" Threaded 1" Threaded	NO	Spray free external bleed
CPF Series	CPF-075 CPF-100	In-Line (Below ground)	3/4" Threaded 1" Threaded	YES	Spray free external bleed
JTV Series	JTV-100	In-Line (Below ground)	1" Threaded	NO	• Easy servicing Jar Top bonnet
ABOVE GROUND (ANTI-SIPHON)					
JTV Series	JTV/AS-075 JTV/ASF-075 JTV/AS-100 JTV/ASF-100	Anti-Siphon (Above ground)	3/4" Threaded 3/4" Threaded 1" Threaded 1" Threaded	NO YES NO YES	• Easy servicing Jar Top bonnet
DAS Series	DAS-ASVF-075 DAS-ASVF-100	Anti-Siphon (Above ground)	3/4" Threaded 1" Threaded	YES	Heavy duty construction     Stainless steel screws     Backflow prevention



## **Timers**

#### full-featured watering schedules

Add more value, versatility and convenience to your underground watering system with a Rain Bird Automatic Timer. Rain Bird offers a full range of timers to customize watering schedules tailored to your unique landscape, while dramatically conserving water and improving lawn and plant health. Rain Bird automatic timers offer maximum versatility and efficient watering with waterconscious features like Automatic Rain Shut-off to stop operation during rain. Our timers can even be easily linked to existing drip watering systems.

- Compatible with major brand valves and sprinkler systems.
- Pre-set schedules can easily be modified to meet your specific requirements.

#### SST

#### simple to set timer

- So simple to use, you can forget the instructions! But also capable enough to handle the needs of any residential or light commercial irrigation system
- · Set each zone independently for maximum flexibility
- Superior surge protection for long-lasting durability
- No battery backup required. All settings stored in permanent memory
- Built-in trouble-shooting of valves and wiring
- Rain Delay command for manual suspension of a watering cycle
- Seasonal Adjust to increase watering in hot, dry months and reduce it in rainy seasons
- Sealed from the environment for longer life
- Simple color coded wiring connections
- · Available models in 4, 6, 9 and 12 stations



## Timer

## Selection Guide

RAIN BIRD SERIES	MODEL	MAXIMUM NUMBER OF VALVES	MOUNTING	SCHEDULING	OTHER FEATURES
TIMERS					
SST Series	SST-400i SST-600i SST-900i SST-6000 SST-12000	4 Valves 6 Valves 9 Valves 6 Valves 12 Valves	Indoor Indoor / Outdoor	Each zone scheduled independently for maximum flexibility	So simple to use, you can forget the instructions     No batteries or fuses to replace     Sealed against damage from water, dust and grime



# Tools



Ever noticed how difficult it is to change or install nozzles? This easy to use tool allows you to pull the stem upwards and keep it from retracting.

Once the spray head is installed in your system you can easily replace or install nozzles by using the Pull Up Tool.

# PTC-1 Spray Head Pull Up Tool -

- Use for replacing, removing and installing nozzles
- Pulls up sprinklers with or without nozzles
- Corrosion resistant



# 42064 Impact sprinkler wrench

- Repair and replace without digging sprinklers out of the ground
- Removes damaged impact sprinklers assemblies
- Allows assemblies from new sprinklers to be placed in existing cases
- Compatible with Rain Bird LG, AG and MG family of pop-up sprinklers
- Sprinkler maintenance is quick and easy



# **Wrench Instructions**

Remove sprinkler assemblies and leave the case in the ground



Take assemblies from new sprinklers...



... and place in existing cases





# Accessories





#### **P2A Pressure gauge -**

• Use to measure pressure during or before installation

### 16A-FDV-C1 1/2" Filtered Drain Valve -

• Eliminates cracked heads caused by water freezing inside unit

### Swing Pipe Assembly -

- Connects sprinkler heads to lateral pipes
- Saves time and improves the quality of your installation

SA5

**SA75** 

• 6" x 1/2" x 1/2"

• 6" x 1/2" x 3/4"

• 6" x 3/4" x 3/4"

### 1/2" Threaded RISERS -

• Connects sprinklers above ground level to water high shrubs or plants

RISER2

**RISER3** 

RISER12

• 2" threaded riser • 3" threaded riser • 12" threaded riser

### **CPLG PVC coupling -**

• Use to Connect Two Pieces of 1/2" PVC Tubing















## RISERCLO5 1" x 1/2" closed thread riser

• Use to connect sprinklers to irrigation fittings

# RISERCO6 6" x 1/2" Cut-off riser

- Use to connect sprinklers to water supply pipes
- Cut riser to the desired height

### **EZ Pipe -**

Flexible tubing for easy installation of sprinklers
 EZP2

• 2' E-Z Pipe

**EZP100** 

• 100' E-Z Pipe

# **EZ Pipe Adapters -**

• Use with E-Z pipe to create adjustable fittings

#### **EZA075**

• 3/4" Male NPT x 1/2" Barb Adapter

#### **EZE075**

• 3/4" E-Z Pipe Elbow

#### **EZA050**

• 1/2" Male NPT x 1/2" Barb Adapter

#### EZE10

• 1/2" E-Z Pipe Elbow

#### EZT1/2 TEE

• 1/2" E-Z Barb TEE

#### **EZF050**

• 1/2" Female Elbow





# Replacement & Repair



# DRK-CP/CPF Diaphragm Replacement Kit .

• Diaphragm replacement kit for Rain Bird CP and DAS series Valves

# DRK-JTV Diaphragm Replacement Kit -

• Diaphragm replacement kit for Rain Bird Jar Top Valves

### PRK-100 Piston Replacement Kit -

 Replaces piston assembly for AVA-100 and all 3/4-inch and 1-inch APAS Series valves

### SRK Solenoid Replacement Kit -

• Replaces solenoid for 3/4-inch and 1-inch Rain Bird residential valves

## **UT-1 Replacement Transformer -**

• Replaces most transformers for timers up to 9 stations





# Landscape Dripline System

#### Precise watering for healthy, beautiful landscaping

Unlike soaker hoses, the Rain Bird® Landscape Dripline System is clog resistant and waters evenly from beginning to end over much longer distances – up to 300 feet! It connects easily to any outside faucet, garden hose or an existing underground sprinkler head or 1/2" riser.

#### The faster, smarter way to Drip Irrigate!

This versatile system is simple to cut, connect and place without digging. It conforms to your landscaping and can be staked and covered with mulch. For plants that need extra water, you can insert Spot Watering Emitters, tapping off of the main 1/2" Tubing lines to reach trees, potted plants or other targeted areas.

# **Drip Systems Components**



 Easily connect from your water source to distribute water to the entire drip irrigation system.



 Run water to Emitter Tubing or use with Spot Watering Emitters.



 Works like a soaker hose, only better! Place in planting areas to water plants uniformly with pre-installed, pressure compensating emitters.



**Fittings & Tools** 

- Use these accessories to apply water, cut, connect and secure tubing and emitters to individual plants.
- Facilitates and assures a fast and convenient installation.



#### **Drip Kits**

 Ideal for first time drip users. Avoids confusion of multiproduct-selection by providing all the necessary parts in one simple to use kit or as an addition to your drip system.









# Water Connections





### FC-KIT

### faucet connection kit

- Connect a tubing system to any outdoor faucet
- · Simplest connection method
- Multi-function kit ensures proper operation of your drip irrigation system
- · Connect a tubing system to any outdoor faucet
- Includes backflow preventer, 25 psi regulator and 150 mesh filter

#### RC-KIT -

### riser connection kit

- Connect a Rain Bird® 1800 series spray head or a riser to a tubing zone
- Replace an underground irrigation spray head or mount on any riser
- Sized for easy conversion of a Rain Bird® 1800 pop-up spray head
- Also connects to other standard 1/2" irrigation fittings
- All-in-one unit includes filter, 30 psi regulator and swivel tee

# **Tubing**



#### T63-100-BULK-

# 1/2" tubing 100 ft.

 Use to run water to 1/2" Emitter Tubing or tap off with 1/4" fittings or Spot Watering Emitters

#### T63-50-BULK -

# 1/2" tubing 50 ft.

 Use to run water to 1/2" Emitter Tubing or tap off with 1/4" fittings or Spot Watering Emitters

#### T22-100

# 1/4" tubing 100 ft.

• The 1/4" Tubing is used with Spot Watering Emitters and can be used to run water to Emitter Tubing

#### T22-50

### 1/4" tubing 50 ft.

 The 1/4" Tubing is used with Spot Watering Emitters and can be used to run water to Emitter Tubing

# Emitter Tubing





#### ET63918-100

# 1/2" emitter tubing 100 ft.

- Emitter Tubing waters plants uniformly with pre-installed, pressure compensating emitters spaced every 18"
- The emitters are designed for clog-resistant flow at 0.9 GPH (gallons per hour) to ensure even, reliable watering

# ET25512-50

# 1/4" emitter tubing 50 ft.

- Flexible 1/4" Emitter Tubing is ideal for extending watering to narrow planting areas and container plants
- Each emitter is spaced 12" apart and emits 1 GPH (gallons per hour) of water

# EZFit- Fittings



- ▶ Requires up to 50% less force to install tubing
- A faster, more convenient way to make more drip connections in a lot less time
- Works with virtually any manufacturer's 1/2" tubing
- ▶ Fits all brands.

# EZFITC \_\_\_\_\_\_\_\_1/2" easy fit coupling

• Easy push-together straight assembly

EZFITT 1/2" easy fit tee

1/2" easy fit elbow

• Easy push-together "T" assembly

EZFITE —

Easy push-together "L" assembly





# 1/2" Fittings











EC50-2PK-

1/2" end closure

• Use with 1/2" tubing to allow easy flushing and draining of the system

GS50-10PK -

galvanized stakes

• Secures 1/2" Tubing to the ground

BC50-4PK-

1/2" barbed couplings

• Connect 2 pieces of 1/2" tubing

BT50-4PK-

1/2" barbed tees

• Connect 3 pieces of 1/2" tubing in a "T" shape

**BE50-4PK** 

1/2" barbed elbows

• Connect 2 pieces of 1/2" tubing in an "L" shape

# 1/4" Fittings











## BC25-10PK -

# 1/4" barbed couplings

• Connect 2 pieces of 1/4" Tubing or tap into the side of 1/2" Tubing

# BT25-10PK-

# 1/4" barbed tees

• Connect 3 pieces of 1/4" Tubing in a "T" shape or tap into the side of 1/2" Tubing

### TP25-10PK-

# 1/4" tubing plugs

• Use as an end closure for 1/4" Tubing or as a side plug for 1/2" Tubing

# TS25-10PK-

# 1/4" tubing stakes w/ bug guard

• Stake 1/4" tubing at desired locations or secure Spot Watering Emitters

# MCLIP-10PK-

# mounting clip

• Fastens 1/4" tubing to deck or siding







# Watering Devices









SW10-10PK-

spot watering emitters 1.0 GPH

• Add supplemental watering to individual plants

SW20-10PK —

spot watering emitters 2.0 GPH

• Add supplemental watering to individual plants

MBF-4PK-

micro-bubbler, full circle

• Connect to 1/2" Tubing with barbed coupling (included) and 1/4" Tubing

MBH-4PK-

micro-bubbler, half circle

• Connect to 1/2" Tubing with barbed coupling (included) and 1/4" Tubing





# **MANIF-2PK-**

# 6-outlet manifold

• Connects up to 6 micro-watering devices to a sprinkler riser

# MSF-2PK micro-spray, full circle, 0 to 31.0 GPH

- 0-13.4 ft. radius @ 30 psi
- Ideal for mass plantings, ground cover, annual flower beds and containers

# MSH-2PK micro-spray, half circle, 0 to 31.0 GPH

- 0-10.6 ft. radius @ 30 psi
- Ideal for mass plantings, ground cover, annual flower beds and containers

#### RISER-1PK-

riser & stake

• Use with micro-watering devices

# Tools





ET-1PK emitter tool

 Provides fast, easy, one-step installation of drip emitters, goof plugs and 1/4" barbed insert fittings directly into 1/2" or 3/4" drip tubing

# TC-1PK tubing cutter

• Stainless steel blade cuts drip tubing cleanly and conveniently





# **57-Piece System Starter** or Expansion Kit includes:

- 5 1/4" Barbed Couplings
- 10 Spot Watering Emitters 1 GPH
- 10 Spot Watering Emitters 2 GPH
- 1 Micro Bubbler Full Pattern
- 2 Micro Bubblers Half Pattern
- 7 1/4" Barbed Tees
- 1 Install Tool
- 50' 1/4" Tubing
- 10 1/4" Tubing Stakes
- 10 1/4" Tubing Plugs (Goof Plugs)



### **Complete 42 Piece Kit Includes:**

- 1 Pressure Regulator with 1/4" Tubing Adaptor
- 25' 1/4" Tubing
- 10 1/4" Stakes with Bug Caps
- 2 1/4" Barbed Couplings
- 10 Tubing Mounting Clips
- 5 Spot Watering Emitters 2 GPH
- 8 1/4" Barbed Tees
- 5 Spot Watering Emitters 1 GPH

# **Drip Kits**



#### **LNDSW-KIT-**

landscape drip watering kit

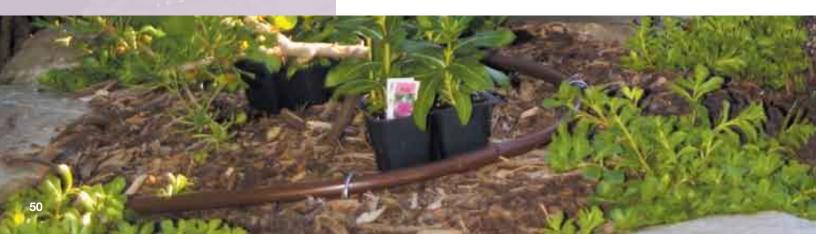
- Easily connects to existing 1/2" drip irrigation tubing
- Adds spot watering for 23 or more widely spaced plants
- Applies water directly to the root zone, reduces evaporation



### PATIO-KIT -

patio plant watering kit

- Produces longer lasting blooms, greener leaves
- Eliminates watering by hand
- Attaches easily to your outdoor faucet





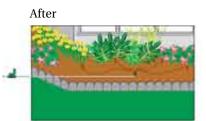
Easily convert your pop-up Spray head to a drip unit and avoid water waste, saving time and money. With more water restrictions and regulations the DC-6 retrofit drip kit offers the consumer an easy to use solution that is unique and convenient.

# DC-6 -

# drip irrigation retrofit kit

- · Deliver water directly to base of plants
- · Reduce evaporation, eliminate puddling
- Plants get proper watering amounts
- · Dramatically reduces your water usage and cost
- All-in-one design includes all parts for one drip irrigation unit
- Serves up to 6 plants







# **GRDNR-KIT**

# gardener's drip kit

- The most complete landscape drip line kit
- Includes Faucet Connection Kit, 1/2" Emitter Tubing, 1/2" Tubing, 1/4 Tubing, Fittings and Emitter Tool
- For applications up to 75 sq ft.
- 60% savings



### **Each DC-6 Kit Includes:**

- Pressure compensating 6-outlet manifold
- 1 1800 retro sprayhead with filter and pressure regulator
- 50' 1/4" distribution tubing, cut to length
- Bug Caps allow flow and prevent insects from entering
- Stakes to direct flow at each plant



# **Each Gardener's Drip Kit Includes:**

- 50 1/2" Emitter tubing
- 50' 1/2" Tubing
- 25' 1/4" Tubing
- 2 1/2" Barbed tees
- 1/2" Barbed elbows
- 1 1/2" End closure
- Faucet connection kit 10 Galvanized stakes
  - 1/4" Tees
  - 2
  - 1/4" Couplings • 5 1/4" Tubing stakes
  - 10 1/4" Goof plugs
  - 5 1.0 GPH emitters
  - 1 Install tool

# Drip Selection Guide



# **Emitter Tubing**



**Water Connections** 



<b>Emitter</b>	Tubica	
Emucer		

	Model and Description	Installation	Suggested Qty:
	1/4" Emitter Tubing ET25512-50	Place in planting areas	100 ft. coil
2007	1/2" Emitter	Place in planting	50 ft. coil

	Model and Description	Installation	Suggested Qty:
	Faucet Connection Kit FCKIT-1PK	Connect system to any outdoor faucet	1 per zone
	Riser Connection Kit RCKIT-1PK	Convert an 1800® spray head or a riser to a drip zone	1 per zone



**Tubing** 



areas

Tools			
	Model and Description	Installation	Suggested Qty:
	Emitter Tool ET-1PK	Simplifies adding or removing Spot Water Emitters, 1/4" fittings and plugs	1
3	Tubing Cutter TC-1PK	Stainless steel blade cuts drip tubing cleanly and conveniently	1





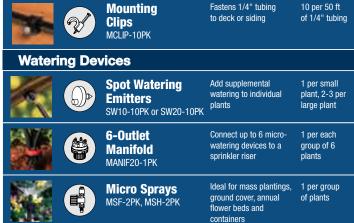
**Tubing** ET63918-100

Watering Emitters or to run water to Emitter Tubing

#### 1/4" Fittings

Model and Description	Installation	Suggested Qty:
1/4" Barbed Couplings BC25-10PK	Connect 2 pieces of 1/4" tubing Emitter Tubing	2-4 per 50 ft of 1/4" tubing (avg.)
1/4" Barbed Tees BT25-10PK	Connect 3 pieces of 1/4" tubing in a "T" shape or tap into the side of 1/2" tubing	2-4 per 50 ft of 1/4" tubing (avg.)
1/4" Tubing Stakes TS25-10PK	Stake 1/4" tubing or secure Spot Watering Emitters	10 per 50 ft of 1/4" tubing
	1/4" Barbed Couplings BC25-10PK 1/4" Barbed Tees BT25-10PK 1/4" Tubing Stakes	1/4" Barbed Couplings BC25-10PK  1/4" Barbed Tees BT25-10PK  Connect 3 pieces of 1/4" tubing in a "T" shape or tap into the side of 1/2" tubing  1/4" Tubing Stake 1/4" tubing or secure Spot Watering Emitter  1/4" Tubing Stakes

1/2" Fittings			
	Model and Description	Installation	Suggested Qty:
	<b>1/2" Elbows</b> BE50-4PK	Connect 2 pieces of 1/2" tubing in an "L" shape	4 per planting area
	<b>1/2" Couplings</b> BC50-4PK	Connect 2 pieces of 1/2" tubing	2-4 per 50 ft of 1/2" tubing (avg.)
	<b>1/2" Tees</b> BT50-4PK	Connect 3 pieces of 1/2" tubing in a "T" shape	4-6 per 50 ft of 1/2" tubing (avg.)
	1/2" EZ Fit Coupling Leak-free, universal fit	Connect 2 pieces of 1/2" tubing	4 per planting area
	1/2" EZ Fit Tee Leak-free, universal fit	Connect 3 pieces of 1/2" tubing in a "T" shape	2-4 per 50 ft of 1/2" tubing (avg.)
	1/2" EZ Fit Elbow Leak-free, universal fit	Connect 2 pieces of 1/2" tubing in a "L" shape	4-6 per 50 ft of 1/2" tubing (avg.)
	1/2" End Closure	Use with 1/2" tubing	1 per zone







**Micro Bubblers** MBF-4PK, MBH-4PK

Ideal for closely spaced plants, shrubs or trees where individual spot watering would be impractical

1 per each small group of plants





EC50-2PK

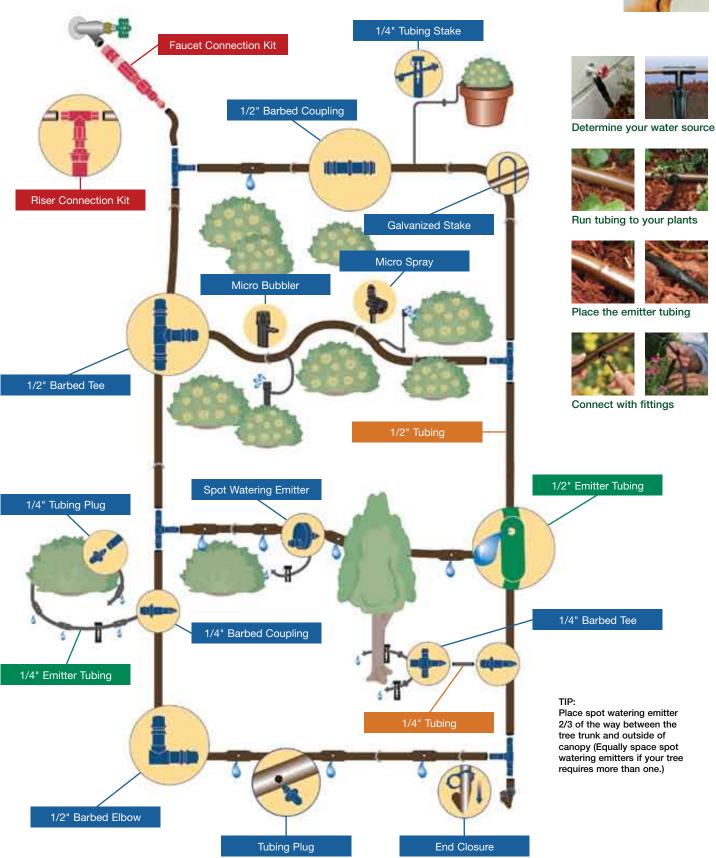
Secures 1/4" or 1/2" 10 per 50 ft of 1/2" tubing tubing to the ground

to allow flushing and

draining of the system

# Cut & Connect!





Plug holes with 1/4" Tubing Plug

After flushing out system, use the Figure-8

End Closure to close the end of line.



# Sprinkler System Design Guide

For planning, purchasing and installing your home automatic sprinkler system. The Rain Bird<sup>®</sup> Sprinkler System Design Guide provides installation tips and product specs that help you understand and even design your own irrigation system. Or if you prefer, information sheets are included in the booklet to request a design made by irrigation professionals, just follow these three easy steps.



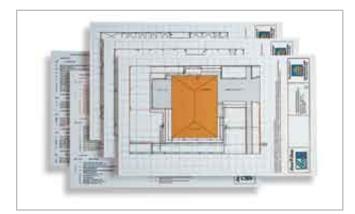
Measure your yard.



Sketch your yard.



Mail or fax your plans.



Receive your design package.

Our Sprinkler System
Design Service is available
to anyone needing expert
design service.





designservice@rainbird.com www.rainbird.com

(800)-426-7782



# An automated irrigation system saves you water and much more!



#### Save water

The system is more convenient and efficient than manual watering-only the right amount of water is applied, where and when it is needed, which minimizes waste.



#### Save time

The system operates automatically—on a pre-programmed schedule-to efficiently water your landscape, even when you're away from home.



### Increase your property value

According to the National Association of Realtors, housing resale values increase by up to 15% when landscapes are well maintained—and an automated irrigation system is the most efficient way to get those results.

# Here are some practical tips to help you have a lush, green landscape...

#### **Don't Drown**

The greatest waste of water comes from applying too much, too often—much of the water is never absorbed. Instead of watering for one long session, water a few times for shorter periods and take 15-minute breaks in between each session. This will allow water to soak in, while minimizing runoff.

### **Divide By Zones**

Different plants need different amounts of water. Divide your yard and landscape areas into separate irrigation zones so that grass can be watered separately and more frequently than groundcovers, shrubs and trees. Both sprinkler and drip irrigation can be incorporated to achieve more efficient use of water.

#### **Consider Dripping**

When it comes to watering individual trees, flowerbeds, potted containers or other non-grassy areas, consider applying water directly to the roots using low volume drip irrigation. This will reduce water waste through evaporation or runoff, and will prevent unwanted weeds from growing.

#### **Be Rain Smart**

Adjust your irrigation system as the seasons and weather change-or better yet-install a shut-off device that automatically detects rain or moisture.

# ... while using less water!

These devices are inexpensive and enable you to take advantage of the water without having to pay for it.

#### **Watch The Clock**

Water between 5 a.m. and 10 a.m.-when the sun is low, winds are calm and temperatures are cool. Midday watering tends to be less efficient because of water loss due to evaporation and windy conditions during the day. Watering in the evening isn't a good idea either because leaves can remain wet overnight-an open invitation for fungus to grow. By watering in the morning, leaves have a chance to dry out during the day.

#### **Water Only Things That Grow**

If you have an underground sprinkler system, make sure the sprinkler heads are adjusted properly to avoid watering sidewalks and driveways. A properly adjusted sprinkler head should spray large droplets of water instead of a fine mist to minimize evaporation and wind drift.

#### Do Routine Inspections

Since lawns and gardens should be watered in the early morning hours, a problem may not be discovered until it is too late. Periodically check your sprinklers to make sure everything is working properly. A clogged head or a broken line can ruin your landscape and water bill.

# The Intelligent Use of Water.™

LEADERSHIP • EDUCATION • PARTNERSHIP • PRODUCTS

At Rain Bird®, we believe it is our responsibility to develop products and technologies that use water efficiently. Our commitment also extends to education, training and services for our industry and our communities.

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