

### RWS Series - Root Watering System

#### Primary Application

The Rain Bird RWS Root Watering System enables vital water, air, and nutrients to bypass compacted soil and directly reach tree and shrub root systems. Its patented basket weave canister allows ground installation to a depth of 36" (91,44 cm) for the RWS, 18" (45,72 cm) for the Mini-RWS, and 10" (25,4 cm) for the Shrub-RWS. This system is intended for use with water dispensing devices, such as a bubbler head or an emitter. This system can be customized by the end user to meet their specific required irrigation needs or can be purchased with pre-installed bubbler and ACV-050 check valve options.

#### Benefits

- Patented basket weave canister design —
  - Promotes tree 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.
- Ideal for urban settings —
  - Subterranean watering encourages roots to remain below surface.
  - Tree roots are less prone to damage. The grate locking feature protects against vandalism.
- Compatible with either drip tubing systems or customized irrigation hardware, or can be purchased with pre-assembled bubbler/check valve options.
- Saves time because the system comes pre-configured.
- Saves assembly labor versus homemade systems.

#### Models

##### RWS

**RWS-G** — Basic RWS system, 36" (91,44 cm) long, 4" (10,16 cm) diameter with locking grate comes ready for customer-provided irrigation hardware

**RWS-BG** — RWS-G with factory installed 1401 (.25 GPM; 0,2 l/s) bubbler, internal plumbing, 12" (30,48 cm) swing assembly and ½" (15/21) male NPT inlet

**RWS-BG02** — RWS-G with factory installed 1402 (.50 GPM; 0,3 l/s) bubbler, internal plumbing, 12" (30,48 cm) swing assembly and ½" (15/21) male NPT inlet

**RWS-BCG** — RWS-G with factory installed 1401 (.25 GPM; 0,2 l/s) bubbler, check valve, internal plumbing, 12" (30,48 cm) swing assembly and ½" (15/21) male NPT inlet

**RWS-BCG02** — RWS-G with factory installed 1402 (.50 GPM; 0,3 l/s) bubbler, check valve, internal plumbing, 12" (30,48 cm) swing assembly and ½" (15/21) male NPT inlet

**RWS-BGX** — RWS-G with factory installed 1401 (.25 GPM; 0,2 l/s) bubbler, internal plumbing and attached 18" (45,72 cm) length of ½" (15/21) swing pipe

**RWS-SOCK** — 34" (86,36 cm) sand sock made from polypropylene landscape fabric

##### RWS-Mini

**RWS-M-G** — Basic RWS-M system, 18" (45,72 cm) long, 4" (10,16 cm) diameter with locking grate comes ready for customer provided irrigation hardware.

**RWS-M-BG** — RWS-M-G with factory installed 1401 (.25 GPM; 0,2 l/s) bubbler, internal plumbing, and ½" spiral barb elbow for attachment to ½" swing pipe

**RWS-M-BG02** — RWS-M-G with factory installed 1402 (.50 GPM; 0,3 l/s) bubbler, internal plumbing, and ½" spiral barb elbow for attachment to ½" swing pipe

**RWS-M-BCG** — RWS-M-G with factory installed 1401 (.25 GPM; 0,2 l/s) bubbler, check valve, internal plumbing, and ½" spiral barb elbow for attachment to ½" swing pipe

**RWS-M-BCG02** — RWS-M-G with factory installed 1402 (.50 GPM; 0,3 l/s) bubbler, check valve, internal plumbing, and ½" spiral barb elbow for attachment to ½" swing pipe



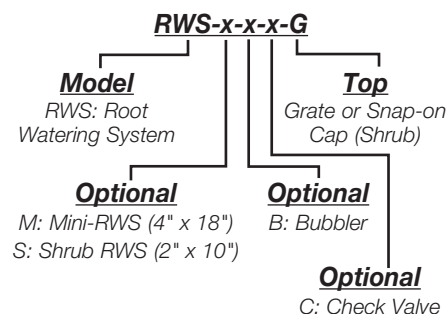
##### RWS-Shrub

**RWS-S-G** — Basic RWS-S system, 10" (25,4 cm) long, 2" (5,08 cm) diameter with snap-on cap and base cap comes ready for customer provided irrigation hardware.

**RWS-S-BG** — RWS-S-G with factory installed 1401 (.25 GPM; 0,2 l/s) bubbler, internal plumbing, and ½" spiral barb elbow for attachment to ½" swing pipe

**RWS-S-BCG** — RWS-S-G with factory installed 1401 (.25 GPM; 0,2 l/s) bubbler, check valve, internal plumbing, and ½" spiral barb elbow for attachment to ½" swing pipe

#### How to Specify/Order:



## RWS Root Watering System Usage Guide

**Large Specimen Trees**



**Mature Native & Non-Native Trees**



**Young Trees**



**Small Trees & Large Shrubs**



**Shrubs**



RWS

RWS-Shrub

RWS-Mini



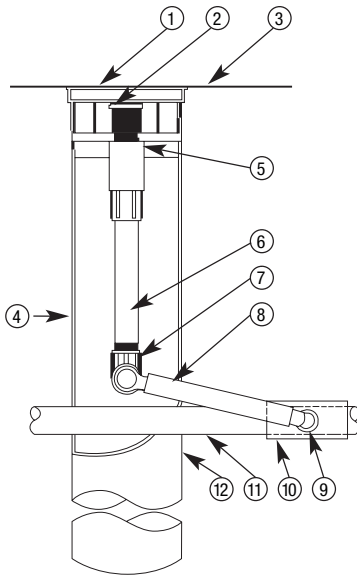
Top view of the RWS and the Mini-RWS with optional bubbler



### RWS Sand Sock

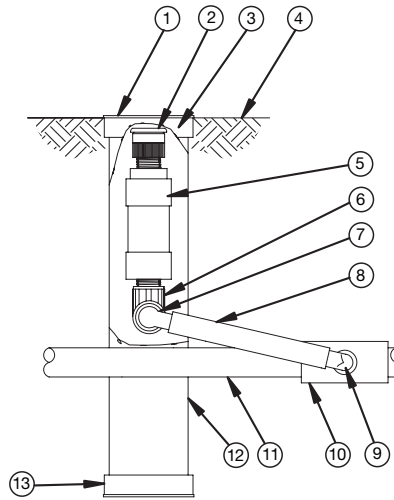
Designed to fit the RWS and Mini-RWS units. Ideal for use in sandy and silty soil, it will deter fine soil and sand from infiltrating into the RWS canister.

## RWS-BCG and RWS-M-BCG models



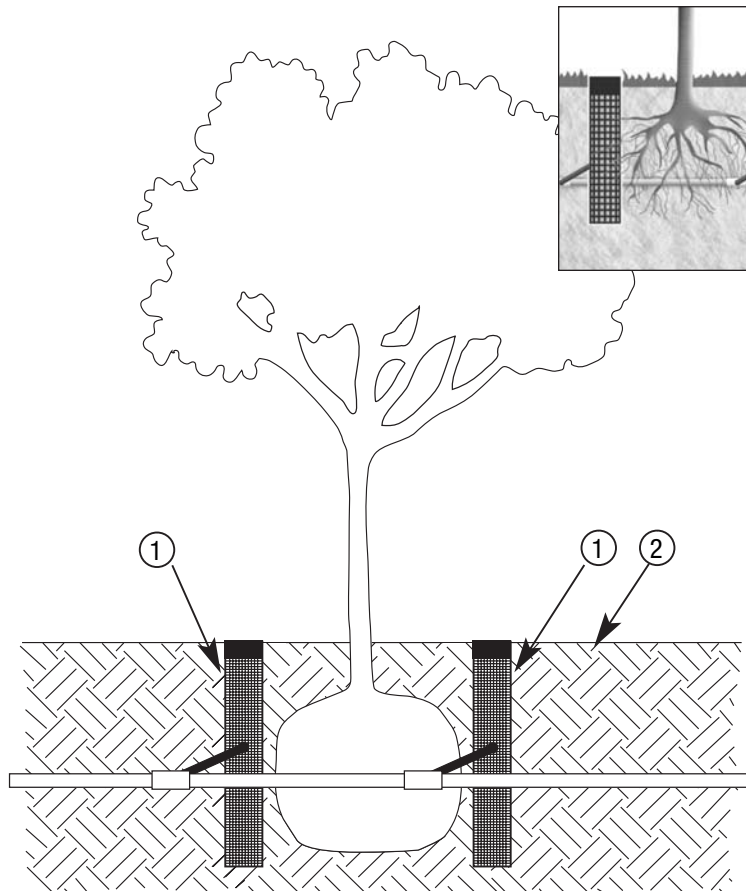
- ① 4-INCH GRATE
- ② BUBBLER
- ③ FINISH GRADE
- ④ ROOT WATERING SYSTEM: RAIN BIRD RWS-BCG (INCLUDES BUBBLER, CHECK VALVE AND GRATE)
- ⑤ CHECK VALVE
- ⑥ 1/2-INCH PVC SCH 80 NIPPLE
- ⑦ 1/2-INCH 90-DEGREE ELBOW
- ⑧ SWING PIPE, 12-INCH SWING ASSEMBLY
- ⑨ 1/2-INCH MALE NPT INLET (OPTIONAL FOR RWS-M)
- ⑩ PVC SCH 40 TEE OR EL
- ⑪ LATERAL PIPE
- ⑫ 4-INCH BASKET WEAVE CANISTER

## RWS-S-BCG model



- ① 2-INCH SNAP-ON TOP CAP (INCLUDED)
- ② BUBBLER: RAIN BIRD 1401 0.25 GPM (INCLUDED)
- ③ ROOT WATERING SYSTEM: RAIN BIRD RWS-S-BCG (INCLUDES 1401 0.25 GPM BUBBLER WITH CHECK VALVE, TOP AND BASE CAP, 1/2" ELBOW, 1/2" MALE SPIRAL BARB, AND BASKET CANISTER)
- ④ FINISH GRADE
- ⑤ 1/2-INCH CHECK VALVE (INCLUDED)
- ⑥ 1/2-INCH 90-DEGREE ELBOW (INCLUDED)
- ⑦ 1/2-INCH SPIRAL BARB FITTING (INCLUDED)
- ⑧ 1/2-INCH SWING PIPE: RAIN BIRD SP SERIES
- ⑨ 1/2-INCH MALE NPT x .490-INCH BARB ELBOW: RAIN BIRD SBE-050
- ⑩ PVC SCH 40 TEE OR ELBOW
- ⑪ LATERAL PIPE
- ⑫ 2-INCH BASKET WEAVE CANISTER (INCLUDED)
- ⑬ 2-INCH SNAP-ON BASE CAP (INCLUDED)

## Installation Diagram



- ① ROOT WATERING SYSTEM: RAIN BIRD RWS-BCG (INCLUDES BUBBLER, CHECK VALVE AND GRATE)
- ② FINISH GRADE

### NOTE:

POSITION UNITS EVENLY SPACED AROUND ROOT BALL. INSTALL PRODUCT WITH TOP EVEN WITH GROUND SURFACE.



## Specifications

### 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 fasten standard ¼" (6,4 mm) flexible tubing and will house the patented basket weave canister. The grate retainer will also secure an optional preassembled hard-piping system consisting of bubbler, check valve, and nipple.

The RWS-BG, RWS-BG02, RWS-BCG, and RWS-BCG02 models will include pre-installed swing pipe, spiral barb fittings, and a ½" (15/21) NPT inlet.

The pre-installed swing pipe on the RWS-BG, RWS-BG02, RWS-BCG, and the RWS-BCG02 will be a Rain Bird flexible black tubing constructed of polyethylene material. The 12" (30,5 cm) tubing will have a wall thickness of 0.085" (2,16 mm) and nominal inside diameter of 0.490" (12,45 mm). The RWS-BGX will have an 18" (45,72 cm) length swing pipe attached.

The patented basket weave canister will be a highgrade polymer rigid mesh cylinder 34" (86,36 cm) in length.

### Mini-RWS Models

The Rain Bird Mini-Root Watering device will consist of a grate retainer constructed from high-grade polymer with UV-resistant thermoplastic inhibitors. The grate retainer will accept and fasten standard ¼" (6,4 mm) flexible tubing and will house the basket weave container and will also secure an

optional pre-assembled hard-piping system consisting of a bubbler, check valve and nipple.

The pre-installed spiral barb fitting on the RWS-M-BG, RWS-M-BCG, RWS-M-BG02, and the RWS-M-BCG02 will be a Rain Bird SBFE series. The fitting will have a maximum operating water pressure of 80 psi (5,5 Bars) and 8 GPM (0,50 l/s), and provide a ½" spiral barb elbow for attachment to ½" swing pipe.

The basket weave canister will be a high grade polymer rigid mesh cylinder. The unit stands about 18" (45,72 cm) tall.

### Shrub - RWS Models

The Rain Bird Shrub-Root Watering device will consist of a snap-on cap and base cap constructed from high-grade polymer with UV-resistant thermoplastic inhibitors. The cap will house the basket weave container. The snap-on cap will also secure an optional pre-assembled hard-piping system consisting of a bubbler, check valve, and barb fitting.

The pre-installed spiral barb fitting on the RWS-S-BG and RWS-S-BCG will be a Rain Bird SBE series. The fitting will have a maximum operating water pressure of 80 psi (5,5 Bars) and 8 GPM (0,50 l/s), and provide a ½" spiral barb elbow for attachment to ½" swing pipe.

The patented basket weave canister will be a high grade polymer rigid mesh cylinder.

### Installed Options

The optional pre-installed bubbler will be either a Rain Bird 1401 (0.25 GPM, 0,2 l/s) or 1402 (0.50 GPM, 0,3 l/s)(RWS, RWS-M only) series pressure compensating bubbler or with full circle trickle pattern. It will have a maximum 760-micron filter screen preinstalled ahead of the bubbler.

The optional pre-installed check valve will be a Rain Bird ACV-050 series check valve, field adjustable from 5' to 32' (1,5 m to 9,8 m) of pressure head, and factory adjusted to 12' (3,7 m) of pressure head.

The pre-installed ½" (15/21) nipple will be Schedule 80 PVC construction.

The Root Watering System shall be as manufactured by Rain Bird Corporation, Glendora, CA.

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### Technical Service and Support

(800) RAINBIRD (U.S. and Canada only)

### Specification Hotline

(800) 458-3005 (U.S. and Canada only)

[www.rainbird.com](http://www.rainbird.com)

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