



## Root Watering System

Healthy tree growth right out of the box.



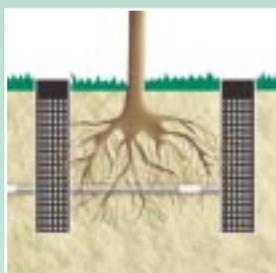


## Install Confidence.™ Install Rain Bird® RWS Series Root Watering System.

There's no better way to encourage healthy trees.

### *The Rain Bird® RWS Series Root Watering System:*

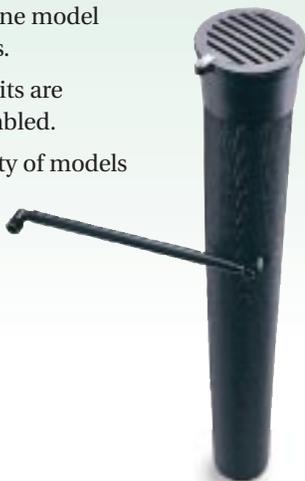
- Enables vital water, air and nutrients to bypass compacted soil and directly reach tree and shrub root systems.
- Releases trapped gases that may increase plant stress.
- Encourages roots to grow down below the surface and out of harms way.



Until now, most root watering devices have been made from PVC pipe in the shop or on-site. But those homemade devices are prone to clogs, time-consuming to build and lead to less healthy trees and wasted money. The Rain Bird RWS Series Root Watering System is specially designed to deliver water, air and nutrients at the root level without clogging, even after years of use.

### *RWS Benefits*

- Promotes health in trees and shrubs, contributing to the success of your landscape designs.
- Aesthetically pleasing because it's installed below grade.
- Easy to specify. You just specify one model number instead of a host of parts.
- Assured reliability because all units are self-contained and factory assembled.
- Design flexibility because a variety of models are available to accommodate your installation requirements.



Patented design saves time, money and trees.

All Rain Bird Root Watering System products are pre-assembled and ready to install. You'll save time and labor, your trees are more likely to develop deep and robust root growth, and your customers will be satisfied with the results.

- Retaining cap and locking grate tops a 36" semi-rigid mesh tube that can be cut to length (15" minimum).
- Factory installed swing assemblies with a 1401 or 1402 bubbler on a fixed riser (standard on models with a "B" in their model number) makes connecting to lateral lines easy.
- Innovative design with locking grate feature protects system from vandalism.
- Compatible with drip emitters, or can be purchased with pre-installed bubbler and check valve options.
- Many different models to meet any need.



## Specifying tree irrigation is easy with Rain Bird RWS.



**Case Study:** Boise, Ida., State Veterans Cemetery.

**Specifier:** Ross Rooper, Beck & Baird Landscape Architecture, Boise.

**Challenge:** *Specifying an appropriate irrigation system for more than 600 young trees transplanted to roughly 12 acres of sandy soil that is not naturally conducive to tree growth.*

### Project:

Until 2004, Idaho was the only state without a state-run veterans cemetery. Thanks to a generous land donation, however, Idaho was finally able to get federal grant money to make the cemetery a reality.

The donated land featured a slope with grades ranging from 15-60° and required significant reshaping and stabilization through the planting of trees, shrubs, grass and other groundcover. Not only that, it became apparent that irrigation would be a challenge because the soil was so sandy that not a single rock was found as construction and landscaping crews excavated more than 1,000 cubic yards of soil.

Landscape architect Ross Rooper knew his best bet was to focus on as much indigenous vegetation as possible, so most of the cemetery was replanted in naturally growing Idaho fescue and sagebrush. Although the soil in this particular location wasn't naturally compatible with trees, more than 600 young trees were designed into the plan as a tribute to the forests that shape Idaho's horizons. Irrigating the trees was an absolute necessity.

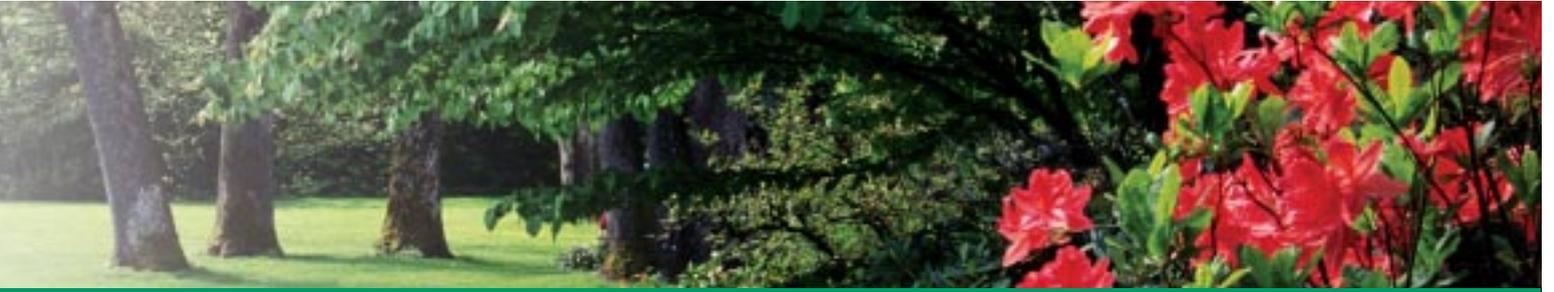
Ross was planning to design a custom tree irrigation system when Rain Bird supplier Chaz McCallister of Horizon Landscape & Irrigation Solutions showed him the new Rain Bird RWS. "My first impression of the RWS was that it was the perfect ready-made solution for the cemetery project," Ross recalled.



He immediately specified 1,250 Rain Bird RWS-BCG units with sand socks. Because of the sandy soil, he needed the units to encourage lateral root growth, so each RWS was cut to 24 inches. He also specified the sand socks to prevent the sand from infiltrating the RWS mesh tube.

### Result:

***Ross is pleased with the self-contained nature of the Rain Bird RWS*** because he didn't have to specify a host of small parts for each root watering unit. Also, "Rain Bird has a really good reputation," he said. "I knew I was specifying a good product."



## *Contractors prefer the Root Watering System's fast, easy installation.*



**Case Study:** Downtown Detroit, Mich., urban landscaping for the Greek Town Casino.

**Contractor:** Ron Bywalec, D & B Landscaping, Inc., Detroit.

**Challenge:** *Quickly installing an irrigation system for approximately 40 newly planted trees on a short timetable without interfering with the other construction projects in process.*

### **Project:**

Time was of the essence when contractor Ron Bywalec was asked to run irrigation to a series of newly planted trees in downtown Detroit. There was already an army of people working to get the Greek Town Casino open on schedule, plus a fleet of heavy equipment on site. Ron's team had to get in, install a tree irrigation system as quickly as possible, then get out of the way.

In the past, Ron would have assembled a homemade irrigation product to suit the needs of the project, even though standing in the shop drilling holes in PVC pipe and inserting a bubbler wasn't a particularly good use of his time. For this project, Ron needed an off-the-shelf solution.

He decided to try Rain Bird's new Root Watering System (RWS) product. The units are all factory-assembled and self-contained, which was a big time saver. And the built-in swing assembly is flexible for fast, easy coupling with lateral lines — there is no need to have everything perfectly measured and exactly aligned in order to make the connection.



Armed with 80 RWS-BG units (two per tree) and a gas-powered post hole digger, Ron and his team got to work. The project progressed quickly. They dug holes, installed the RWS units, surrounded them with gravel, then back-filled without a hitch. According to Ron, "It was definitely the best choice for this job."

### **Result:**

***Ron met his tight deadline with the help of the Rain Bird RWS,*** and now he'll never go back to making his own versions. "The time I save in the shop is better spent on other things," he said.



## *Rain Bird RWS improves tree health and survival rate.*



**Case Study:** Folsom, Calif., housing and commercial development project.

**Contractor:** Greg Houck, Ad Land Venture, Rancho Cordova, Calif.

**Challenge:** *Planting oak seedlings on 20 acres of coarse, rocky soil that prevents uniform distribution of water.*

### **Project:**

As this housing and commercial development was completed, tree planting became a major undertaking because California state law requires developers to replace all trees removed during construction. The task fell to contractor Greg Houck. With 200 valley oak seedlings to plant on a 20-acre site, he needed an efficient irrigation method that would help the oaks survive in fairly unfriendly terrain and soil conditions.

Conventional irrigation systems were not an option, due to high levels of water evaporation and inadequate moisture distribution to the roots of the transplanted trees. Drip irrigation was also ruled out because it could not provide enough moisture to establish deep tree roots in this particular application.

On previous projects, Greg had installed a plastic tube with about a dozen hand-drilled holes and a retrofitted bubbler, but he was never completely satisfied with this do-it-yourself method. Then Rain Bird introduced the Root Watering System (RWS), specifically designed to bring water, air and



nutrients to tree roots. Greg selected the RWS with a 1401 bubbler, check valve and grate (RWS-BCG) for his project.

Each RWS unit is made of a 36-inch long perforated mesh tube, which can be cut to length. The tube is perforated with more than 14,000 holes, allowing water to permeate the ground at the root bulb while providing excellent aeration. The design encourages trees to develop long, deep roots, which helps them become established, even in soil that is less than ideal for tree transplants.

### **Result:**

***One year after planting, the trees show “extremely good vitality,”*** according to Greg. In a typical transplant project like this, as many as 20% of the trees do not survive, but Greg only lost one tree out of the 200 planted, thanks to the Rain Bird RWS. “If you’re looking for long-term vitality and healthy trees,” Greg concluded, “this is an excellent tool.”

# Rain Bird® RWS Series Root Watering System Product Family

MODEL	DESCRIPTION
RWS-G	Basic system with locking grate comes ready for customer-provided irrigation hardware.
RWS-BG	RWS-G with factory installed 1401 bubbler, internal plumbing, 12" swing assembly and 1/2" (15/21) male NPT inlet.
RWS-BG02	RWS-G with factory installed 1402 bubbler, internal plumbing, 12" swing assembly and 1/2" (15/21) male NPT inlet.
RWS-BCG	RWS-G with factory installed 1401 bubbler, check valve, internal plumbing, 12" swing assembly and 1/2" (15/21) male NPT inlet.
RWS-BCG02	RWS-G with factory installed 1402 bubbler, check valve, internal plumbing, 12" swing assembly and 1/2" (15/21) male NPT inlet.
RWS-BGX	RWS-G with factory installed 1401 bubbler, internal plumbing, 18" swing assembly and 1/2" (15/21) male NPT inlet.
RWS-SOCK	Full length sand sock made from polypropylene landscape fabric, for use in sandy soil conditions.
RWS-GRATE	Replacement grate.

Visit [www.rainbird.com](http://www.rainbird.com) for additional details about the RWS Series Root Watering System that promotes healthy tree growth in one complete, right-out-of-the-box package.

**Install Confidence.™ Install Rain Bird.®**



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