

Root Watering Series

Primary Application

The Rain Bird® Root Watering Series (RWS) enables vital water, air and nutrients to bypass compacted soil and directly reach tree and shrub root systems. Its factory assembled irrigation hardware and patented basket weave canister allow ground installation to a depth of 36" (91 cm) for the RWS, 18" (46 cm) for the RWS-Mini, and 10" (25 cm) for the RWS-Supplemental. 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 check valve options.

Features and Benefits

Investment protection

- Deep and broad roots yield transplantation survivability, stability in high winds, fast and healthy growth

Watering efficiency

- Subsurface irrigation minimizes run-off and evaporation

Landscape aesthetics

- Installs at grade and helps minimize damage to hardscapes

Models

RWS

RWS-B-C-1401 — Root Watering with 0.25 GPM (1,2 l/m) bubbler & check valve on riser, 4" (10 cm) grate, versatile swing assembly with ½" (15/21) M NPT inlet

RWS-B-1401 — Root Watering with 0.25 GPM (1,2 l/m) bubbler on riser, 4" (10 cm) grate, versatile swing assembly with ½" (15/21) M NPT inlet

RWS-B-X-1401 — Root Watering with 0.25 GPM (1,2 l/m) bubbler on riser, 4" (10 cm) grate, 18" (46 cm) open swing assembly with ½" (15/21) M NPT inlet

RWS — Root Watering Basic, 4" (10 cm) grate, ready for customer-provided irrigation hardware

RWS-B-C-1402 — Root Watering with 0.50 GPM (1,8 l/m) bubbler & check valve on riser, 4" (10 cm) grate, versatile swing assembly with ½" (15/21) M NPT inlet

RWS-B-1402 — Root Watering with 0.50 GPM (1,8 l/m) bubbler on riser, 4" (10 cm) grate, 12" (31 cm) versatile swing assembly with ½" (15/21) M NPT inlet

RWS-B-C-1404 — Root Watering with 1.00 GPM (3,6 l/m) bubbler & check valve on riser, 4" (10 cm) grate, versatile swing assembly with ½" (15/21) M NPT inlet

RWS-Mini

RWS-M-B-C-1401 — Mini Root Watering with 0.25 GPM (1,2 l/m) bubbler & check valve on riser, 4" (10 cm) grate, ½" (15/21) M NPT inlet spiral barb elbow

RWS-M-B-1401 — Mini Root Watering with 0.25 GPM (1,2 l/m) bubbler on riser, 4" (10 cm) grate, ½" (15/21) M NPT inlet spiral barb elbow

RWS-M-B-C-1402 — Mini Root Watering with 0.50 GPM (1,8 l/m) bubbler & check valve on riser, 4" (10 cm) grate, ½" (15/21) M NPT inlet spiral barb elbow

RWS-M-B-1402 — Mini Root Watering with 0.50 GPM (1,8 l/m) bubbler & check valve on riser, 4" (10 cm) grate, ½" (15/21) M NPT inlet spiral barb elbow

RWS-M — Mini Root Watering Basic with 4" (10 cm) grate, ready for customer provided irrigation hardware

RWS/RWS-Mini Accessories

RWS-SOCK — Root Watering Sock (6 per bag)

RWS-GRATE-P — Root Watering 4" (10 cm) Purple Grate

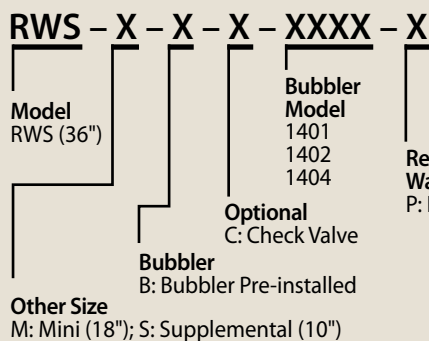
RWS-Supplemental

RWS-S-B-C-1401 — Supplemental Root Watering with 0.25 GPM (1,2 l/m) bubbler & check valve on riser, 2" (5 cm) snap-on cap and base, ½" (15/21) M NPT inlet spiral barb elbow

RWS-S-B-1401 — Supplemental Root Watering with 0.25 GPM (1,2 l/m) bubbler on riser, 2" (5 cm) snap-on cap and base, ½" (15/21) M NPT inlet spiral barb elbow



How to Specify



Specifications

The RWS is the smart watering product line designed to maximize tree and shrub transplanting survivability. It shall consist of a perforated polyethylene cylinder in three different lengths—36" (91 cm) for large trees, 18" (46 cm) for small trees, and 10" (25 cm) for shrubs and row plantings—and two different widths—4" (10 cm) for trees and 2" (5 cm) for shrubs and row plantings. The rigid mesh material shall help support the horizontal movement of water and air into the root zone and adjacent soil. The cylinder shall support pea gravel fill to provide better top-to-bottom water dispersion and firmness against root compression.

RWS shall be designed with an integrated bubbler and optional check valve. The water being emitted from the bubbler will help train roots away from surfaces and hardscapes, minimize surface erosion and reduce waste due to run-off. The factory-assembled RWS shall come configured with swing assemblies and/or spiral barbed fittings in order to promote irrigation design flexibility, accommodate all tree and shrub sizes, and help save installation time by being ready to install out of the box. The assemblies and fittings shall enable RWS to be directly connected to PVC or polyethylene lateral lines.

The bubblers on the 18" and 36" RWS models may be replaced with Rain Bird's 6-outlet drip manifold (EMT-6XERI) allowing use of the RWS as a drip distribution hub. RWS shall include two ports allowing distribution of XQ ¼" drip tubing to surrounding RWS units or other drip irrigation emitters. Rain Bird's Drip System Operation Indicator (OPERIND) may be optionally used to indicate active RWS irrigation. Models shall be provided without fittings and bubblers that support integration with drip line.

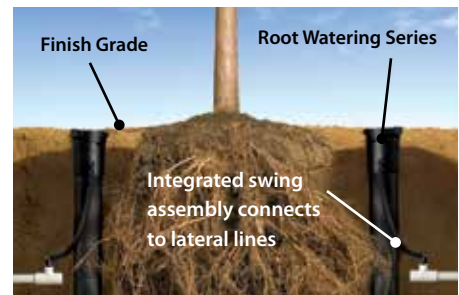
The RWS, including the RWS-M and RWS-S models, must protect the investment property owners make in trees and shrubs. It shall help trees and shrubs establish deeper and broader roots for better stability against high winds and quicker, healthier growth. The subsurface irrigation design shall improve watering efficiency by minimizing the total volume of water used to irrigate trees and shrubs and minimize water lost due to evaporation and run-off. It shall improve the aesthetics of the landscape by installing at finish-grade level and minimizing root damage to hardscapes.

RWS shall support an extra-wide molded collar to provide convenient access to the bubbler and drip line fastener. It shall support a locking grate cover to help

deter vandalism. It shall offer a purple, reclaimed water grate cover option. It shall offer a sock option in order to prevent small particles from penetrating the RWS cylinder. RWS shall be designed with a peripheral watering feature which allows water to flow along the perforated cylinder resulting in the wetting of soil along the vertical distance of the cylinder.

RWS units should be installed on their own watering zone in order to improve irrigation efficiency and management.

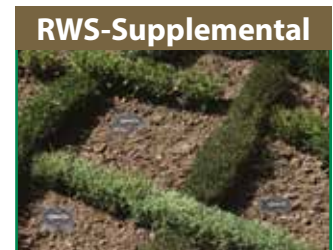
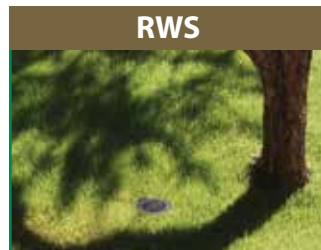
Installation Diagram



- Position units evenly spaced, adjacent to the root zone and within the canopy of the tree.
- Consider filling canisters with pea gravel fill to provide better top-to-bottom water dispersion and firmness against root compression.
- Optional soil sock should be used to prevent particle intrusion into cylinder.
- Optional purple grate cover should be used for non-potable water sources.
- For long-term deep and broad roots, consider installing two RWS perimeters on separate zones—running the inner zone for the first couple of years and the outer zone in subsequent years.

RWS Usage Guide

- 2–3 RWS units for large trees
- 1–2 RWS-Mini units for small trees
- 1–2 RWS-Supplemental units for shrubs



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