Hunter Product Written Specification Template (RZWS)

**Part 1 – General**

* 1. General Description of Product and Function

The Root Zone Watering System is a subsurface irrigation product for trees and shrubs. The Root Zone Watering System shall be pre-assembled and constructed of a plastic mesh tube with a removable, perforated end cap. It shall have an internal baffle system to aid in dispersing the water throughout the root zone. The system shall be available in 3 different heights: 10 inch (25 cm), 18 inch (45 cm), and 36 (90 cm) inch. The 18 inch (45 cm) and 36 inch (90 cm) models shall have a locking cap to body design which attaches to the tubing. The cap for the 10 inch (25 cm) model shall attach directly to the tubing. When specified with an integral bubbler, a pre-fabricated ½-inch male threaded swing joint shall be included on the assembly, and the bubbler options shall be either a 0.25 GPM (0.946 l/min) or a 0.50 GPM (1.89 l/min) pressure compensating bubbler, depending on the flow rate desired. An optional filter fabric sleeve shall be available for field installation for use in sandy soil conditions. An optional adjustable check valve shall also be available. When used in reclaimed water situations, all models shall have a purple colored cap available.

**Part 2 – Parts and Material**

1. RZWS shall be available in the following options:

|  |  |  |
| --- | --- | --- |
| 10" (25 cm) RZWS | 18" (45 cm) RZWS | 36" (90 cm) RZWS |
| RZWS-10 | RZWS-18 | RZWS-36 |
| RZWS-10-R | RZWS-18-R | RZWS-36-R |
| RZWS-10-25 | RZWS-18-25 | RZWS-36-25 |
| RZWS-10-25-R | RZWS-18-25-R | RZWS-36-25-R |
| RZWS-10-50 | RZWS-18-25-CV | RZWS-36-25-CV |
| RZWS-10-50-R | RZWS-18-25-CV-R | RZWS-36-25-CV-R |
| RZWS-10-25-CV | RZWS-18-50 | RZWS-36-50 |
| RZWS-10-25-CV-R | RZWS-18-50-R | RZWS-36-50-R |
| RZWS-10-50-CV | RZWS-18-50-CV | RZWS-36-50-CV |
| RZWS-10-50-CV-R | RZWS-18-50-CV-R | RZWS-36-50-CV-R |

1. Cap Description
2. RZWS-10 models: The cap attaches directly to the tubing. It shall be made of a UV resistant polypropylene material.
3. RZWS-18 and -36 models: The cap locks onto the body and requires a tool for removal. It shall be made of a UV resistant ABS material.
4. Body Description
5. RZWS-10 models: There is no body component.
6. RZWS-18 and -36 models: The body is the connection point for the RZWS components. The tubing, locking cap, swing joint, baffle, and bubbler all assemble onto the body. It shall be made of a UV resistant ABS.
7. Tubing Description
   1. The tube shall be perforated to allow for lateral movement of water along the root zone. It shall be made of a polyethylene material.
   2. RZWS-10 models shall be approximately 10 inches (25 cm) from the top of the cap to the base of the tube.
   3. RZWS-18 models shall be approximately 18 inches (45 cm) from the top of the cap to the base of the tube.
   4. RZWS-36 models shall be approximately 36 inches (90 cm) from the top of the cap to the base of the tube.
8. Baffle Description
9. The baffle system diverts water to different levels of the root zone. It shall be made of a recycled polypropylene material.
10. Swing Joint Description
    1. RZWS-10 models
       1. Hunter SJ-506: ½” threaded x 6” length
       2. Materials: acetal, LDPE, flex tubing
    2. RZWS-10 models
       1. Hunter SJ-512: ½” threaded x 12” length
       2. Materials: acetal, LDPE, flexible tubing
11. Bubbler Description
12. 0.25 or 0.50 GPM pressure compensating bubbler
13. Materials: UV resistant ABS, PVC, polyethylene
14. Check Valve Description
15. Hunter HCV-50F-50M: ½” female inlet x ½” male outlet
16. Materials: UV resistant ABS
17. RZWS Dimensions
18. RZWS-10 models
    1. Diameter = 2 in (5.1 cm)
    2. Length = 10 in (25 cm)
19. RZWS-18 models
    1. Diameter = 3 in (7.6 cm)
    2. Cap Diameter = 4.75 in (12 cm)
    3. Length = 18 in (45 cm)
20. RZWS-36 models
    1. Diameter = 3 in (7.6 cm)
    2. Cap Diameter = 4.75 in (12 cm)
    3. Length = 36 in (90 cm)
21. Warranty
22. 2 year warranty period

**Part 3 – Function and Operation**

1. Operating Pressure
2. The RZWS shall operate between 15 to 70 psi (1.0 to 4.8 bar; 100 to 480 kPa)
3. Flow Rates
4. When specified with an integral bubbler, the flow rates shall be either 0.25 or 0.50 GPM (0.946 l/min or 1.89 l/min). The RZWS can be specified without a bubbler for a user installed option.
5. Baffle System Operation
6. The baffles divert water to different levels of the root zone.
7. Serviceability
8. To service the RZWS-10 models, pull the cap off of the tubing to access the irrigation hardware.
9. To service the RZWS-18 and -36 models, use a screwdriver or other tool to move the two snap features from the cap and pull off the cap. This will allow access to the irrigation hardware.