SECTION 07: MICRO

SUBSURFACE APPLICATION

SUBSURFACE SUSTAINABILITY

Advanced technology outperforms plain dripline with unbeatable distribution uniformity and efficient water use.

SMALL SPACES

Eco-Mat® fits in tight areas that are too small for most overhead irrigation products.

ROOFTOP

Eco-Mat is particularly suited to work well with lightweight planting media. It's the perfect choice for green roofs.

EFFECTIVE YET OUT OF SIGHT

The space can be used even while the system is running. Eco-Mat will never produce overspray onto hardscape, furniture or other structures.

COMPLEMENTARY PRODUCTS

Our Professional Landscape Dripline and full range of micro irrigation products offer water-saving options for many applications.

PLANT TYPE	PLD	ECO-WRAP®	ECO-MAT
TEMPORARY IRRIGATION	●		
GROUNDCOVER, SHRUBS, TREES AT GRADE (LESS THAN 15 CM DEEP)	●		
SUBSURFACE: TURF		○	●
SUBSURFACE: SMALL SHRUBS, PLANTS AND GROUNDCOVER		●	●
SUBSURFACE: TREES AND LARGE SHRUBS		●	
SPREADING SUCCULENTS, MOSS, AND MAT PLANTS		○	●
LANDSCAPE TYPE			
LOW TRAFFIC AREAS	○	○	○
HIGH TRAFFIC AREAS		○	○
SPORT, AND LARGE TURF AREAS		○	●
SMALL, NARROW, IRREGULAR AREAS	○	○	○
ROOFTOP LANDSCAPES		○	●
LIVING WALLS	○	○	○
CURVED AREAS AND BORDERS	○	○	○
PARKING LOT ISLANDS	○	○	○

○ = Good choice for application
● = Best choice for application

ECO-MAT®

UNMATCHED UNIFORMITY AND WATER SAVINGS

Subsurface Irrigation: **Under Turf, Gardens, Small Shrubs**

FEATURES

- Unique combination of dripline and fleece to achieve outstanding water distribution
- The polypropylene wrap protects against root intrusion without using toxic chemicals or metal byproducts
- Water holding capacity of 1.89 l/m²
- Pressure compensating
- Check valves keep the line charged up to 1.5 m and prevent low point drainage
- Recommended for use with all Hunter Drip Control Zone Kits
- For maximum water savings, use with Hunter Soil-Clik®
- Warranty period: 5 years (2 additional years for environmental stress cracking)

OPERATING SPECIFICATIONS

- Minimum flitration 120 mesh; 125 microns
- Operating pressure range: 1.0 to 3.5 bar; 100 to 350 kPa
- Compatible with 16 mm and 17 mm insert barb fittings
- Recommended installation depth range 10 cm to 30 cm

ECO-MAT TECHNICAL SPECIFICATIONS

	16 MM	17 MM
Flow	2.2 l/hr; 0.13 m³/hr	2.2 l/hr; 0.13 m³/hr
Roll Length	100 m	90 m
Width	0.80 m	0.80 m
m²	80	60
Operating Pressure	1.0 to 3.5 bar; 100 to 350 kPa	1.0 to 3.5 bar; 100 to 350 kPa
Minimum Filtration	120 mesh; 125 microns	120 mesh; 125 microns
Emitter Spacing	30 cm	30 cm
Lateral Row Spacing	35 cm	35 cm

PREPARE THE SITE

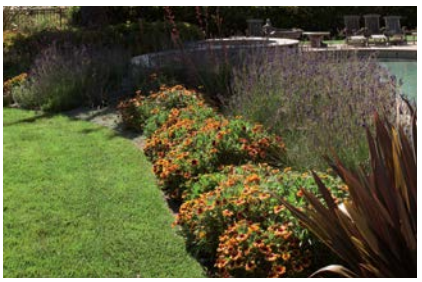
Excavate the area to the proper depth based on plant type, install the necessary plumbing, and make the Eco-Mat connections.

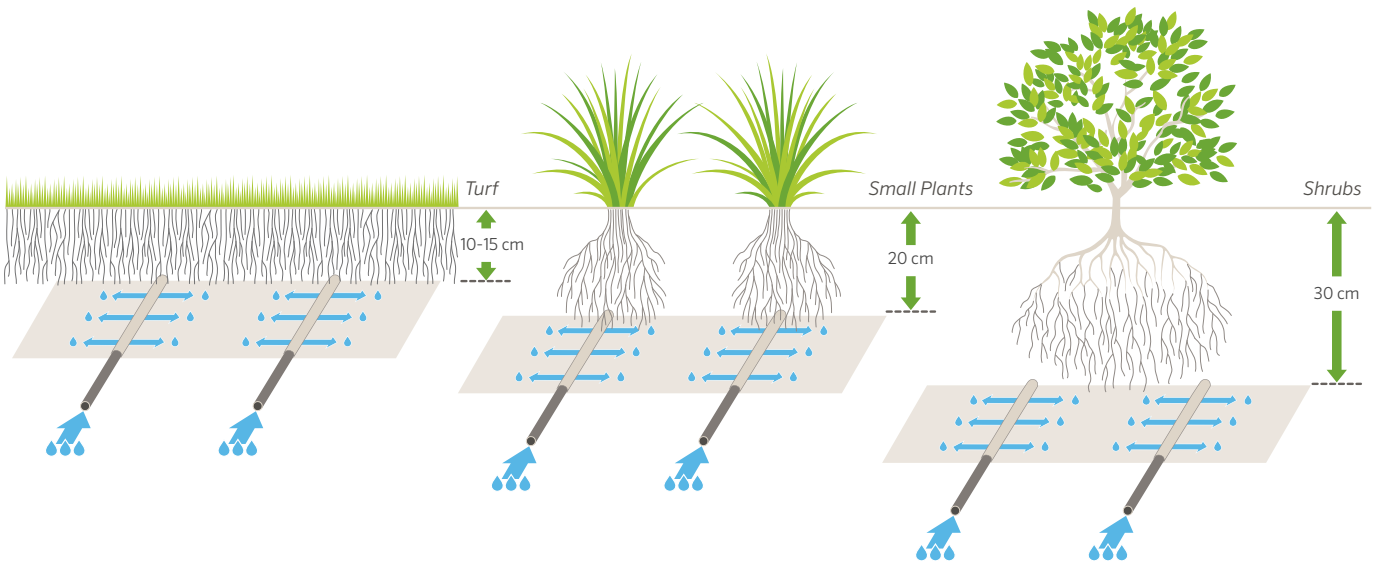
ADD THE SOIL

Cover the Eco-Mat with clean soil, arrange the plants, and apply mulch.

ENJOY THE BEAUTY & WATER SAVINGS

Begin watering the new installation using the Eco-Mat and watch the plant life thrive with this unique subsurface water-conserving solution.





ECO-WRAP™

Subsurface Irrigation: **Under Turf, Gardens, Shrubs, Trees**

FEATURES

- Fleece-wrapped professional landscape dripline
- Transports water faster and more efficiently than bare dripline
- Pressure compensating
- Check valves keep the line charged up to 1.5 m and prevent low point drainage
- Fleece fully moistens in less than 3 minutes allowing far better uniformity than bare dripline
- Recommended for use with all Hunter Drip Control Zone Kits
- Warranty period: 5 years (2 additional years for environmental stress cracking)

OPERATING SPECIFICATIONS

- Minimum filtration 120 mesh; 125 microns
- Operating pressure range: 1.0 to 3.5 bar; 100 to 350 kPa
- Compatible with 16 mm and 17 mm insert barb fittings

ECO-WRAP TECHNICAL SPECIFICATIONS

	16 MM	17 MM
Flow	2.2 l/hr; 0.13 m^3/hr	2.2 l/hr; 0.13 m^3/hr
Roll Length	100 m	76 m
Operating Pressure	1.0 to 3.5 bar; 100 to 350 kPa	1.0 to 3.5 bar; 100 to 350 kPa
Minimum Filtration	120 mesh; 125 microns	120 mesh; 125 microns
Emitter Spacing	30 cm	30 cm

Eco-Wrap

PRESSURE REGULATION

All Hunter dripline products feature built-in pressure compensation, allowing an inlet pressure of 1 to3.5 bar; 100 to 3,500 kPa. For mainline pressures exceeding 3.5 bar; 3,500 kPa, use a pressure regulator downstream of the valve and filter.

LATERALS

Laterals moving water from the valve to the header(s) must be sized to accommodate the full flow of each area they serve. Industry standards are not to exceed a velocity of 1.5 m/s. Laterals are typically PE or PVC pipe. The may also be constructed of blank dripline tubing for smaller areas.

SIZING LATERALS AND HEADERS

Sizing supply headers and laterals is crucial to the proper operation of all dripline systems. Perform a pressure loss calculation from the point of connection to the farthest end of each supply header. Size the header to provide the flow needed for the entire zone. Improperly-sized headers and laterals may not allow proper emitter function.

SUPPLY HEADER

Each supply header must be sized to accommodate the full flow of the entire area it serves. Headers may be either end-feed or center-feed configurations.

BARBED FITTINGS

Barbed insert fittings provide a positive connection to dripline tubing. Hunter 17 mm insert fittings are colour-matched with PLD, are UV resistant, handle pressures up to 14 bar; 1,400 kPa, and provide a positive, easy-to-install, watertight connection without using tools, clamps, or glue.

AIR/VACUUM RELIEF (AVR) VALVE

While Hunter dripline emitters are designed to release air from the system and block back siphonage, AVR valves speed the process and provide an immediate path for large volumes of air to escape. They should be installed at the highest position of each contiguous area of dripline tubing. AVR valves must be used when automatic flush valves are specified to prevent back-siphonage through emitters during the initial flush cycle.

EXHAUST HEADER

The exhaust header serves to equalize pressure and flow between runs of dripline tubing and provide an outlet path for flushing. The exhaust header does not need to be sized to equal the supply header, but must be able to accommodate the flow rate of the flush valve, without exceeding 1.5 m/s.

PLD

PROFESSIONAL LANDSCAPE DRIPLINE

Flow: **1.4, 2.3, 3.8 l/hr**
Surface Irrigation: **Shrub Rows, Gardens, Tree Rings**

FEATURES

- Check valves keep the line charged up to 1.5 m and prevent low point drainage
- Pressure compensating emitters
- Flow rates of 1.4, 2.3, 3.8 l/hr
- Emitter spacing at 30 cm, 45 cm, 60 cm
- Anti-siphon prevents debris from entering emitters when used subsurface
- Available without emitters (blank)
- Strong UV resistance
- Warranty period: 5 years (2 additional years for environmental stress cracking)

OPERATING SPECIFICATIONS

- Pressure compensating, non-draining emitters
- Operating pressure range: 1.0 to 3.5 bar; 100 to 350 kPa
- Recommended filtration 120 mesh; 125 microns

Precipitation Rate and Maximum Line Length charts on page 200

PLD

PLD 16 MM – SPECIFICATION BUILDER: ORDER 1 + 2 + 3

1 Model	2 Spacing	3 Length
PLD-22 = 2.2 l/hr Flow	**30 cm**	**100 m**
PLD-38 = 3.8 l/hr Flow	**50 cm**	**200 m**
		400 m

Examples:
PLD-22 - 30 - 100 = 2.2 l/hr landscape dripline with 30 cm spacing in a 100 m roll
PLD-22 - 50 - 200 = 2.2 l/hr landscape dripline with 50 cm spacing in a 200 m roll
PLD-38 - 50 - 400 = 3.8 l/hr landscape dripline with 50 cm spacing in a 400 m roll

PLD 17 MM – SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4

1 Model	2 Spacing	3 Length	4 Options
PLD-04 = 1.4 l/hr Flow	**12** = 30 cm	**100** = 30 m*	**(blank)** = Female NPT
PLD-06 = 2.3 l/hr Flow	**18** = 45 cm	**250** = 75 m	**R** = Reclaimed (available in 2.3 and 3.8 l/hr models only)
PLD-10 = 3.8 l/hr Flow	**24** = 60 cm	**1K** = 300 m	
PLD-BLNK = Blank			

Example:
PLD-04 - 12 - 250 = 1.4 l/hr landscape dripline with 30 cm spacing in a 75 m roll

* = 30 m rolls available only in models PLD-BLNK-100, PLD-06-12-100, PLD-10-12-100, and PLD-10-18-100

PLD Reclaimed
Optional colour for reclaimed water sources, available for 17 mm only

PLD FITTINGS

Fittings: **All 16 and 17 mm Dripline**

FEATURES

- Polypropylene material
- Dual barb provides stronger hold than single barb
- Ideal for use with Eco-Mat®, Eco-Wrap™, PLD
- Brown colour to match PLD dripline
- No clamps necessary

OPERATING SPECIFICATIONS

- Maximum pressure: 3.5 bar; 350 kPa

Easy-to-install fittings for quick connections and tight curves

16 MM FITTINGS

PLD-CPL-16
16 mm Barb x Barb

PLD-050-16
½" MPT x 16 mm Barb

PLD-ELB-16
16 mm Barb x Barb Elbow

PLD-TEE-16
16 mm Barb x Barb Tee

PLD-BV-16
16 mm Barb x Barb Ball Valve

17 MM FITTINGS

PLD-075
¾" MPT x 17 mm Barb

PLD-050
½" MPT x 17 mm Barb

PLD-ELB
17 mm Barb Elbow

PLD-CPL
17 mm Barb Coupling

PLD-CAP
17 mm Barb x ½" MPT with Cap

PLD-TEE
17 mm Barb Tee

PLD-075-TBTEE
17 mm Barb Tee x ¾" Thread

PLD-BV
17 mm Barb Shut-off Valve

PLD-AVR
½" Air/Vacuum Relief Valve

MICRO

POINT SOURCE EMITTERS

Pressure Compensating Flow: **2, 4, 8, 15, 23 l/hr**

FEATURES

- Pressure compensating
- Colour-coded by flow
- Three inlet variations: ¼" barb, 10/32" thread, ½" FPT
- Coined edges for easy grip
- Flow rates of 2, 4, 8, 15, 23 l/hr
- Self-piercing barb
- Assembled in the USA
- Optional diffuser cap
- Self-flushing diaphragm
- Warranty period: 2 years

OPERATING SPECIFICATIONS

- Recommended pressure range: 1.0 to 3.5 bar; 100 to 350 kPa
- Minimum filtration 150 mesh; 100 microns

POINT SOURCE EMITTERS – SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4

1 Model	2 Flow Rate	3 Inlet	4 Qty./Bag
HE	**050** = 2 l/hr	**B** = Self-piercing Barb*	25
HEB	**10** = 4 l/hr	**T** = 10/32" Threaded*	100
	20 = 8 l/hr	**(blank)** = ½" Female Thread	
	40 = 15 l/hr		
	60 = 23 l/hr		

* For HE only (not HEB)

Example:
HE-20 - T - 100 = 8 l/hr Point Source Emitter with 10/32" thread in a bag of 100
HEB-050 - 100 = 2 l/hr Point Source Emitter with ½" female thread in a bag of 25

Inlet Options

① Self-piercing Barb

② 10/32" Thread

③ ½" Female Thread

EMITTER MODEL CHART

	Model	Inlet Type	Flow (l/hr)
Blue	HE-050-B	Self-piercing Barb	2.0
Black	HE-10-B	Self-piercing Barb	4.0
Red	HE-20-B	Self-piercing Barb	8.0
Tan	HE-40-B	Self-piercing Barb	15.0
Orange	HE-60-B	Self-piercing Barb	23.0
Blue	HE-050-T	10/32" Thread	2.0
Black	HE-10-T	10/32" Thread	4.0
Red	HE-20-T	10/32" Thread	8.0
Tan	HE-40-T	10/32" Thread	15.0
Orange	HE-60-T	10/32" Thread	23.0
Blue	HEB-05	½" Female Thread	2.0
Black	HEB-10	½" Female Thread	4.0
Red	HEB-20	½" Female Thread	8.0
Tan	HEB-40	½" Female Thread	15.0
Orange	HEB-60	½" Female Thread	23.0

DIFFUSER CAP
Gently diffuses water on higher flow emitters to prevent erosion.

MICRO SPRAYS

Uses: **Trees, Shrubs, Containers, and Flower Beds**

SOLO-DRIP

- Eight streams of water for accurate watering
- Fingertip cap control for flow and radius adjustment
- Operating specifications: 1.0 to 2.5 bar; 100 to 250 kPa
- Warranty period: 1 year

HALO-SPRAY

- Large diameter, umbrella of water
- Adjust radius as needed
- Combine several for a “blanket” of water
- Operating specifications: 1.0 to 2.5 bar; 100 to 250 kPa
- Warranty period: 1 year

TRIO-SPRAY

- Full-, half-, and quarter-circle configurations
- Functions like big sprays on a micro level
- Control knob for specific adjustment
- Operating specifications: 0.5 to 2.5 bar; 50 to 250 kPa
- Warranty period: 1 year

SOLO-DRIP PERFORMANCE DATA

Pressure bar	Flow l/hr	Throw Diameter (m)
1.0	0 - 40	0 - 0.5
1.5	0 - 50	0 - 0.6
2.0	0 - 60	0 - 0.8

Note: Adjustable to Maximum (approx. 20 clicks)

HALO-SPRAY PERFORMANCE DATA

Pressure bar	Flow l/hr	Throw Diameter (m)
1.0	0 - 52	0 - 1.7
1.5	0 - 65	0 - 2.8
2.0	0 - 74	0 - 3.4

Note: Adjustable to Maximum (approx. 14 clicks)

TRIO-SPRAY PERFORMANCE DATA

Pressure bar	Flow l/hr	Spray Pattern (m)		
		Diameter in Throw	Radius of Throw	
		360° x 18 Hole	180°	90°
0.5	0 - 54	0 - 5.0	0 - 2.0	0 - 1.5
1.0	0 - 77	0 - 5.8	0 - 2.5	0 - 2.1
1.5	0 - 94	0 - 6.4	0 - 2.9	0 - 2.6
2.0	0 - 105	0 - 7.0	0 - 3.2	0 - 3.0
2.5	0 - 119	0 - 7.5	0 - 3.5	0 - 3.3

SOLO-DRIP

[A] SD-T: 2.4 cm H x 2.0 cm W x 1.6 cm D
[B] SD-B: 2.4 cm H x 2.0 cm W x 1.6 cm D
[C] SD-B-STK: 15.2 cm H x 4.3 cm W x 1.6 cm D

HALO-SPRAY

[A] HS-T: 2.4 cm H x 2.0 cm W x 1.6 cm D
[B] HS-B: 2.4 cm H x 2.0 cm W x 1.6 cm D
[C] HS-B-STK: 15.2 cm H x 4.3 cm W x 1.6 cm D

TRIO-SPRAY

[A] TS-F: 3.8 cm H x 2.3 cm W x 1.5 cm D
[B] TS-H: 3.8 cm H x 2.3 cm W x 1.5 cm D
[C] TS-Q: 3.8 cm H x 2.3 cm W x 1.5 cm D

MICRO SPRAY MODELS

Model	Description
SD-T	Solo-Drip with 10-32 Threads, 360°
SD-B	Solo-Drip with Barb, 360°
SD-B-STK	Solo-Drip with Barb with stake, 360°
HS-T	Halo-Spray with 10-32 Threads, 360°
HS-B	Halo-Spray with Barb, 360°
HS-B-STK	Halo-Spray with Barb with stake, 360°
TS-T-F	Trio-Spray with 10-32 Threads, 360°
TS-T-H	Trio-Spray with 10-32 Threads, 180°
TS-T-Q	Trio-Spray with 10-32 Threads, 90°

DRIP CONTROL ZONE KITS

Kits: **Residential and Light Commercial**
Flow: **2 to 55 l/min**

FEATURES

- Convenient kit with all necessary parts
- Highest quality components
- Saves on installation time
- Comes factory assembled
- Warranty period: 2 years

FACTORY INSTALLED OPTIONS

- 1.7 or 2.8 bar; 170 or 280 kPa regulator

USER INSTALLED OPTIONS

- Reclaimed water ID handle for PCZ-101 (P/N 269205)

PCZ-101

- Pressure regulation: 1.7 or 2.8 bar; 170 or 280 kPa
- Flow: 2 to 55 l/min
- Operating pressure: 1.4 to 8.0 bar; 140 to 800 kPa
- Operating temperature: up to 66° C
- 150 mesh; 100 microns stainless steel screen

SOLENOID OPERATING SPECIFICATIONS

- Heavy-duty solenoid 24 VAC
  - 350 mA inrush current, 190 mA holding current, 60 Hz
  - 370 mA inrush current, 210 mA holding current, 50 Hz

* PCZ performance chart on page 201

PCZ-101
Height: 18 cm
Width: 7 cm
Length: 26 cm
1" (25 mm) inlet x ¾" outlet

DRIP ZONE CONTROL KITS – SPECIFICATION BUILDER: ORDER 1 + 2

1 Model	2 Options
PCZ-101 = 1" (25 mm) PGV globe valve with 1" (25 mm) HY100 filter system	**25** = 1.7 bar regulator **40** = 2.8 bar regulator

Examples:
PCZ-101 - 25 = 1" (25 mm) PGV globe valve with 25 mm HY100 filter system, and 1.7 bar regulator
ICZ-101 - 40 = 1" (25 mm) ICV globe valve with 25 mm HY100 filter system, and 2.8 bar regulator

PCZ-101 Installed

FILTER REGULATOR

System: **Regulation and Filtration, All in One Component**

FEATURES

- Factory-assembled and water-tested
- Highest quality components (stainless steel filter screen, standard flush cap, top-of-the-line regulator)
- Wide flow range to cover most micro irrigation applications
- Warranty period: 2 years

HFR-075

- Pressure regulation: 1.7 or 2.8 bar; 170 or 280 kPa
- Flow: 2 to 55 l/min
- Operating pressure: 1.4 to 8.0 bar; 140 to 800 kPa
- Operating temperature: up to 66° C
- 150 mesh; 100 microns stainless steel screen

HUNTER Y-FILTER

- Filter HY-075 ¾" Male

HUNTER FILTER REGULATOR KIT MODELS

Model	Description
HFR-075-25	¾" filter system, and 1.7 bar; 170 kPa regulator, ¾" outlet
HFR-075-40	¾" filter system, and 2.8 bar; 280 kPa regulator, ¾" outlet

HFR-075-25
HFR-075-40
Height: 18 cm
Width: 7 cm
Length: 16 cm
¾" inlet x ¾" outlet

HY-075
Height: 15 cm
Width: 7 cm
Length: 13 cm

RZWS

Size: **25, 45, 90 cm**
Flow: **0.9 l/min or 1.9 l/min**

FEATURES

- Built-in Hunter Swing Joint for direct installation to ½" PVC fitting
- Patented StrataRoot™ baffles divert water to root zone while adding strength to the unit
- Locking cap
- Warranty period: 2 years

DIMENSIONS

- 25 cm: 5.1 cm diameter x 25 cm length
- 45 cm: 7.6 cm diameter x 45 cm length
- 90 cm: 7.6 cm diameter x 90 cm length

OPERATING SPECIFICATIONS

- Bubbler flow rates: 0.9 l/min or 1.9 l/min
- Recommended pressure range: 1.0 to 4.8 bar; 100 to 480 kPa

FACTORY INSTALLED OPTIONS

- Check valve
- Locking reclaimed purple cap

USER INSTALLED OPTIONS

- Sleeve: Fabric sleeve that helps prevent soil intrusion in sandy areas. For 45 cm and 90 cm models (P/N RZWS-SLEEVE)
- Replacement cap 45 cm and 90 cm only (P/N RZWS-CAP)
- Locking reclaimed purple cap 45 cm and 90 cm only (P/N RZWS-RCCAP)
- Reclaimed purple cap for 25 cm (P/N RZWS10-RCC)

Standard and reclaimed models available

Reclaimed models available
Purple reclaimed cap spare part (P/N RZWS-RCCAP for 45 cm and 90 cm models, P/N RZWS-10RCC for 25 cm models)

ROOT ZONE WATERING SYSTEM – SPECIFICATION BUILDER: Order 1 + 2 + 3

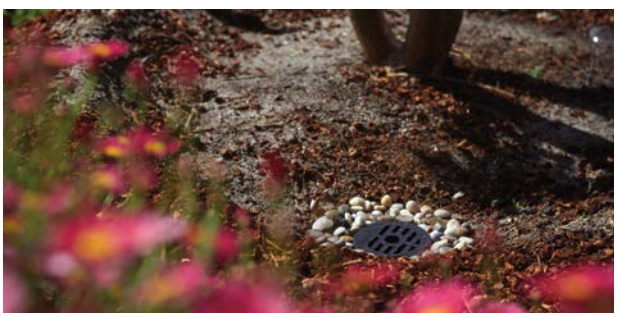
1 Model	2 Bubbler Flow Rate	3 Options
RZWS-10 = 25 cm Root zone watering system	**25** = 0.9 l/min	**(blank)** = No option
RZWS-18 = 45 cm Root zone watering system	**50** = 1.9 l/min	**CV** = Check valve
RZWS-36 = 90 cm Root zone watering system	**(blank)** = no bubbler or swing joint	**R** = Reclaimed cap *(excluding RZWS-10 models)*
		CV-R = Check valve with reclaimed cap

Examples:
RZWS-18 - 25 - CV = 45 cm Root zone watering system at 0.9 l/min, with check valve
RZWS-10 - 50 - R = 25 cm Root zone watering system at 1.9 l/min, with reclaimed cap
RZWS-36 - 25 - CV-R = 90 cm Root zone watering system at 0.9 l/min, with check valve and reclaimed cap

ADDITIONAL OPTIONS (SPECIFY SEPARATELY)

RZWS-SLEEVE = Field installed sleeve made from filter fabric
RZWS-CAP = Replacement cap for 45 cm and 90 cm models
RZWS-10RCC = Reclaimed water replacement cap for 25 cm models
RZWS-RC-CAP = Reclaimed water replacement cap for 45 cm and 90 cm models

Root Zone Watering System



EFFICIENT WATERING SOLUTIONS

For the Most Challenging Spaces

Narrow landscaping beds, green roofs, grass pavers, and more can present irrigation design challenges. Our latest micro irrigation products are a flexible solution for difficult areas. From professional landscape dripline and emitters to subsurface solutions, our products give you the flexibility to design around obstacles and hardscape limitations without sacrificing any beauty.