# ECO-MAT™ AND PLD-ESD

Subsurface Irrigation

**RESIDENTIAL & COMMERCIAL IRRIGATION**

*Built on Innovation*

# TWO BOLD NEW INNOVATIONS IN SUBSURFACE IRRIGATION

The Eco-Mat and PLD-ESD are new irrigation tools for the landscape professional that solve a number of above ground watering challenges.

Designed to suit a variety of hard-to-irrigate areas, these tools use a specially engineered combination of inline emitter tubing and fleece, which evenly disperse water from under the surface. From the rooftop, to the city park, to the schoolyard, and pretty much anywhere else overhead irrigation is challenging, Eco-Mat provides the perfect solution.


**Eco-Mat** *(left)*

① Dripline cover (special polypropylene fleece)
② Mat made of special polypropylene fleece
③ PLD dripline

**PLD-ESD** *(right)*

Fleece-wrapped inline emitter tubing

Eco-Mat is installed below the surface, so spaces can be used all day, every day with no worries of vandalism or downtime due to irrigation.

# THE PINNACLE OF EFFICIENCY...
## *Irrigating at the Root*

Because of common problems like irregular distribution, the capillary rate of soils, and root intrusion into drip emitters, typical subsurface irrigation with bare emitter tubing is seldom regarded as a viable solution. Eco-Mat not only makes subsurface drip a viable solution, it makes it a great one. And it solves all of these traditional problems with efficiency-minded innovations.

### *Here's how it works*

The Eco-Mat consists of Hunter's fleece wrapped inline emitter tubing (PLD-ESD), mounted on top of specialized fleece. Eco-Mat is then installed in the soil to be irrigated, directly under the plant material. When water is emitted, the PLD-ESD fills and in turn saturates the Eco-Mat. Each square yard of mat can hold up to a half gallon of water. With Eco-Mat covering the entire area, water is always available to all the roots, accelerating the capillary effect of the soil.

### *A world of new possibilities*

Where legislation has restricted overhead irrigation, Eco-Mat is the answer. Since there's never water on the surface, high-traffic public turf areas can be used all day with no need to worry about vandalism or damage. And because the Eco-Mat can be customized to fit any area, even the oddest shaped designs and most unique rooftops can grow healthy plants and grass.

**Outstanding water savings.** Besides versatility, the Eco-Mat has another huge benefit—conservation. This product's water saving qualities include eliminating wind, evaporation, and run-off water loss while delivering near-perfect distribution.

**ecoinnovation**

### *Applications*

- Landscaping in arid and semi-arid climates, where water conservation is crucial
- Sites with municipal above-ground irrigation restrictions
- Border and median landscapes of roads and avenues
- Rooftop greening systems, especially in warm climates
- Sloped areas, significant undulation
- Oddly shaped areas

### *Water Usage Benefits*

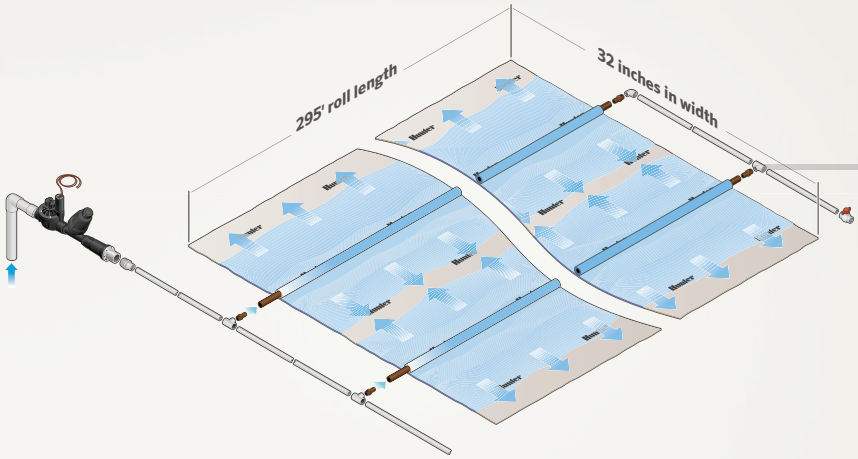
- No water loss due to wind
- Minimal water lost through evaporation
- Almost 100% even water distribution
- No run-off
- Ability to water any time of day

### *Vegetation Growth Benefits*

- Water supplied directly at the roots means deeper, healthier roots
- Possible supplementation with liquid fertilizer
- Increased water storage capacity of soil
- Reduction of soil erosion and improved vegetation greening
- No stagnant water
- Enhanced soil capillary action
- Uniform amounts of water provided to all mat areas

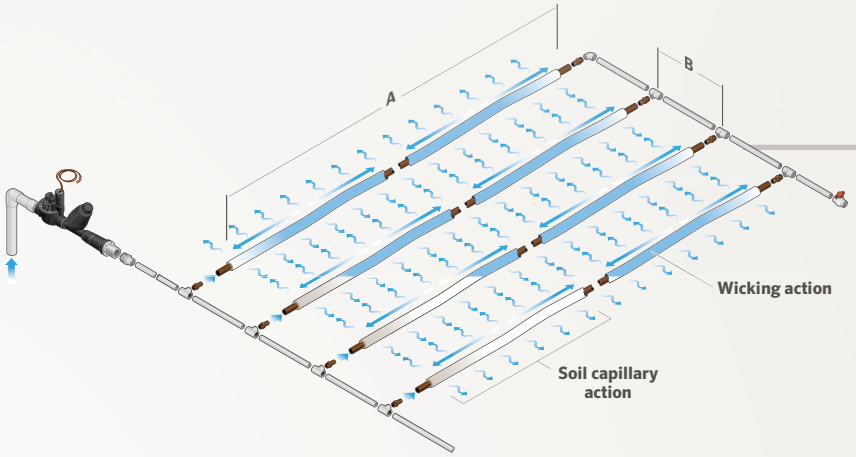
### *Practical Benefits*

- Reduced risk of component damage during maintenance
- Turf can be watered and used at the same time
- Eliminates risk of vandalism, especially in high-traffic public areas




## Eco-Mat

The Eco-Mat is composed of Hunter's specialized fleece-wrapped drip tubing (PLD-ESD), and root zone irrigation mat made of polypropylene fleece.

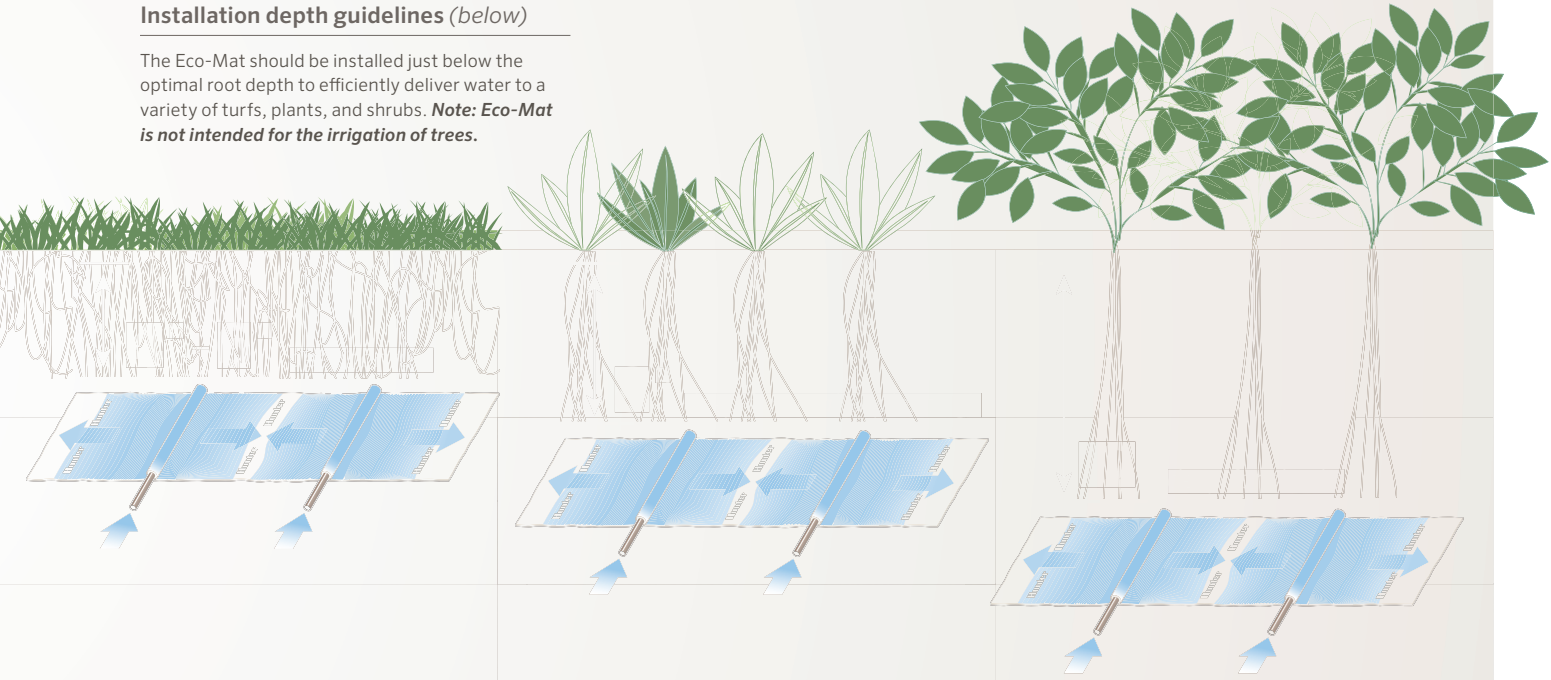



## PLD-ESD

The PLD-ESD provides enhanced lateral water movement, which is dramatically more efficient than unwrapped drip tubing where water is drawn downward into the ground.Length A and row spacing B are dependent on design and site conditions.

## Installation depth guidelines *(below)*

The Eco-Mat should be installed just below the optimal root depth to efficiently deliver water to a variety of turfs, plants, and shrubs. ***Note: Eco-Mat is not intended for the irrigation of trees.***



## PROJECT PROFILE

*Project:* Marco Polo Terraces
*Location:* Hamburg, Germany
*Client:* HafenCity Hamburg

Hamburg, Germany, is getting an urban facelift of epic proportions. Located on the waterfront in the historic port city, the HafenCity area is being built to define a new kind of city sector in both planning and architectural terms.

# WITH ECO-MAT, LIFE GOES ON
## *Uninterrupted*

The Marco Polo Terraces featured is one of the central plazas of HafenCity and has become a marquis attraction for tourists and popular hangout for locals.

**With high local water rates, keeping water use low was crucial. The clear irrigation solution was subsurface drip irrigation using mat technology.**

While beautifully designed and appointed, irrigating the terrace using conventional overhead irrigation proved impractical. Challenges included the winding sidewalks adjacent to turf, near 24/7/365 foot traffic, unique hardscape and benches, and several steep grass slopes. With high local water rates, keeping water use low was crucial. The clear irrigation solution for these challenges was subsurface drip irrigation using mat technology.

Since all watering is done under the surface, the turf is usable all day, every day. And because water usage is more efficient, annual irrigation costs are kept to a minimum. Thanks in part to the versatility and efficiency of this new irrigation innovation, Marco Polo Terraces continues to be one of HafenCity's crowning achievements in landscape architecture. ■

## Technical Specifications

**ECO-MAT™ TECHNICAL SPECIFICATIONS**

| Model | Flow & Spacing | Roll Length | Width | $Ft^2$ | Operating Pressure | Mimimum Filtration | Tubing Row Spacing |
|---|---|---|---|---|---|---|---|
| **Eco-Mat 17 mm** | 0.6 GPH/12" | 295' | 32" | 785' | 20–50 PSI | 120 mesh/125 micron | 14" |
| **PLD-ESD 17** | 0.6 GPH/12" | 250' | N/A | N/A | 20–50 PSI | 120 mesh/125 micron | N/A |

**Learn more.** Visit hunterindustries.com/ecomat, or talk to your local field manager.

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Richard E. Hunter, CEO of Hunter Industries

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