



CAPILLARY HYDROPONICS

A full-scale hydroponic system that ensures premium turf quality and ease of maintenance

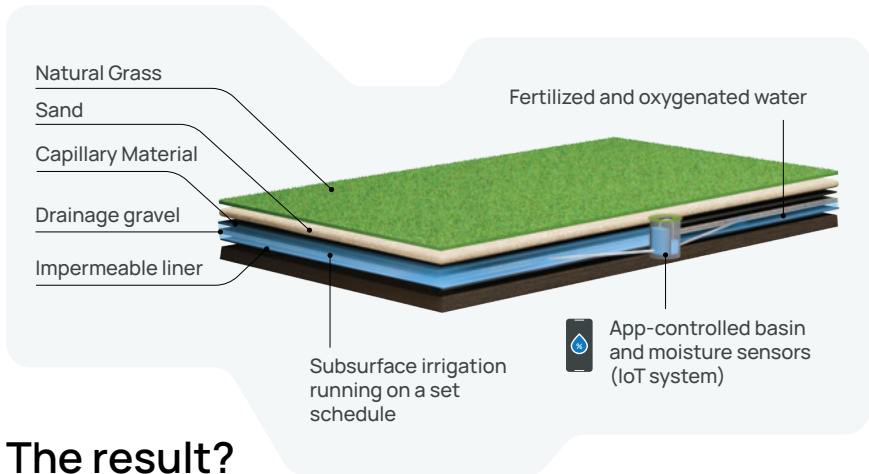
Redefining the construction and maintenance of **high-traffic turfgrass areas** in golf courses










HOW IT WORKS

Our automated hydroponic irrigation system **optimizes the conditions** required for the efficient growth of grass

The Capillary Hydroponics subsurface irrigation system moves water laterally between two sections on a set schedule, enhancing gas exchange in the sand root zone while also keeping it evenly moisturized. This promotes efficient grass growth.



The result?

-  Greens & tees with remained design integrity
-  Significantly less mainenance and renovations
-  Superior drainage with only sand in the root zone
-  Less organic materials in the root zone and no surface water reduce weed & disease pressure
-  Subsurface irrigation that consumes 85% less water than traditional irrigation methods
-  Easy to fit your renovation schedule
-  Stronger and healthier grass with deeper roots

Proven water savings of up to 85%

The Capillary Hydroponics system efficiently distributes irrigation water from below, minimizing surface water evaporation and enabling the collection and reuse of rainwater. Overall, it consumes up to 85% less water than traditional irrigation methods



Download E-book

Read the research



Designed to decrease maintenance and increase the life span significantly

Capillary Hydroponics frees golf course staff from tedious maintenance and costly renovations, providing lasting benefits for decades

	Capillary Hydroponics	Industry standard with overhead irrigation
Drainage efficiency	★★★★	★★
Water savings	★★★★	★★
No deterioration of performance over time	★★★★	★★
Remained design integrity	★★★★	★★★★
Easy monitoring of turf health	★★★★	★★
Control of grow-in time	★★★★	★★
Installation time	★★	★★★★
Utilization rate	★★★★	★★

HYDROPONIC TEE BOXES

Tee boxes with greater wear tolerance and requiring less maintenance

Capillary Hydroponics enables you to maintain flat and level tee boxes for years to come while consuming **up to 85% less water** than traditional methods

Works well for



Grass driving ranges



All types of turfgrasses



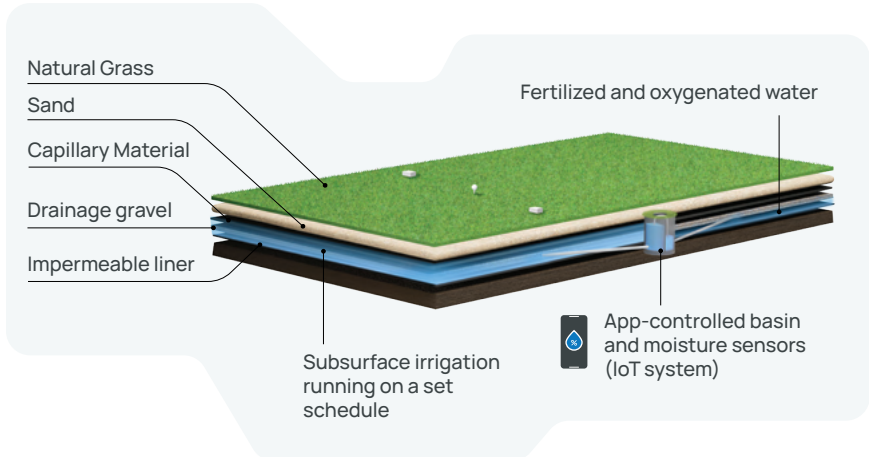
Warm and cold climates & seasons



High-traffic tee boxes



Areas with water consumption restrictions



Flat and level - No compaction, settling or migration of particles

Our proprietary Capillary Material maintains flat and level tee boxes for over 15 years by preventing the ground from settling and particle migration, reducing the need for renovations.



Efficient and consistent spot irrigation

The system irrigates only the desired area, improving ease of tee alignment, while also reducing over watering tee surroundings.



Reduced maintenance and renovations

The Capillary Hydroponics system maintains the turf area's original design, minimizing the need for reshaping tees every decade. By providing a consistently level base, the Capillary Material also reduces the need for as frequent top dressing or renovations.



Subsurface irrigation that consumes 85% less water than traditional irrigation methods

According to independent studies, Capillary Hydroponics consumes up to 85% less water than overhead irrigation systems, making it a perfect choice for arid regions with stringent water consumption limits.



Lifespan +15 years with our guarantee

At CapillaryFlow, we stand behind the quality and performance of our installed tees, offering a 15 year performance guarantee for our Capillary Material and 3 years for our basin.



Stronger grass reduces the need for expanding the tee surface size

The system, optimized for growing stronger and more wear-tolerant playing surface, allows for a smaller tee surface area while maintaining the highest quality playing surface.



Easy to fit your renovation schedule

Our hydroponic tee box takes the same amount of time to install as a conventionally constructed tee box. So, install one or several per year!



HYDROPONIC GREEN

Design greens with pure sand as the growing medium

Ensure optimal drainage, consistent playing characteristics, and easier maintenance – all while consuming up to 85% less water

Works well for

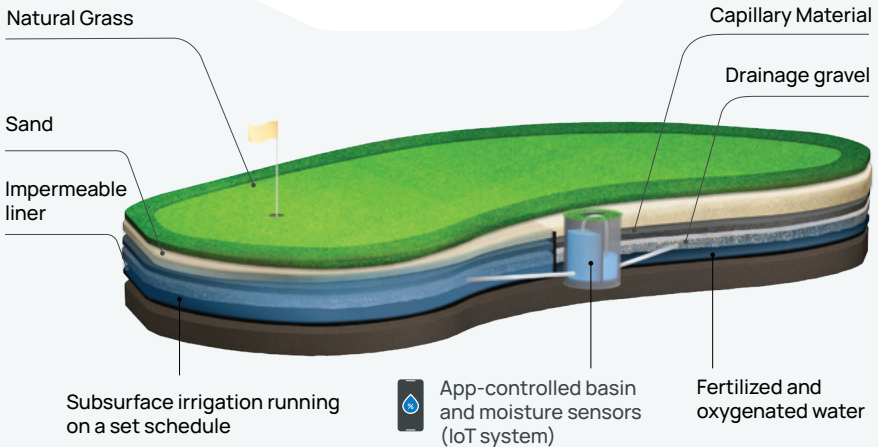
 Undulated greens

 Practice areas requiring high uptime

 Warm and cold climates & seasons

 All types of turfgrasses

 Areas with water consumption restrictions





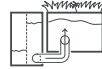
Root zone with even moisture holding capacity

The constantly moving water table, coupled with the presence of sand in the root zone and the absence of organics, ensures the even moisturization of the root zone, promoting deep root growth, and reducing the likelihood of dry spots on the turf's surface.



Less susceptible to thatch, fungus and turf diseases

With an optimal drainage rate and the absence of surface irrigation water, the turf is less prone to the establishment of deep thatch, fungus, and other turf diseases commonly associated with overhead irrigation and poor drainage.



Automatic distribution of fertilizers and plant protections

Efficient distribution of fertilizers and pesticides via the subsurface system, with virtually no leaching, lowers the materials bill and your environmental footprint.



Reduced maintenance

As the system promotes efficient grass growth, common maintenance practices such as deep loosening, core aeration, verticutting, slitting, and top dressing can be performed less frequently.



Extended playing and growing season

Capillary Geothermal technology uses subsoil energy to warm or cool irrigation water, extending the playing season and reducing winter damage on the turf.



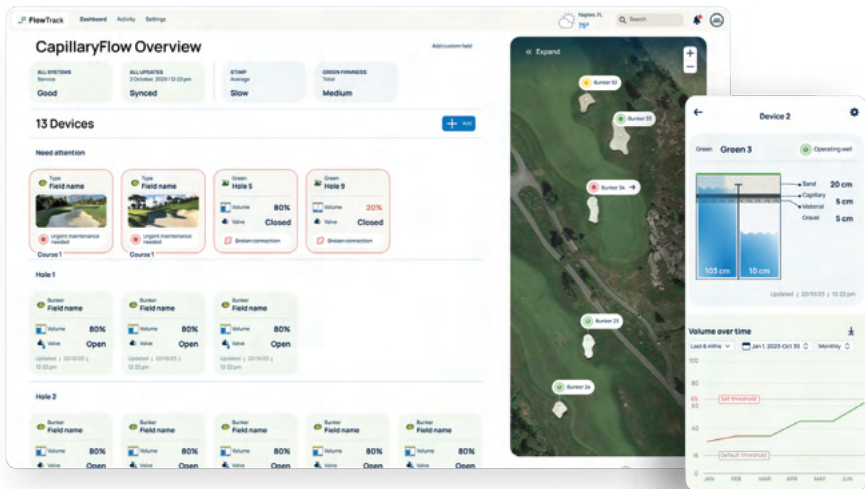


Learn more

Monitor and Control

Smart moisture and playability control system

Monitor & maintain the best performing bunkers, greens and tees from the comfort of your club house



Data-driven decisions

Adjust maintenance decisions based on historical data and performance

Control playing characteristics

By simply adjusting moisture levels

Remote monitoring

Mobile and web access all FlowTrack devices

Showcase custom set data

Such as Stimp, green firmness and bunkers' moisture level

What a project looks like

Installation process: Capillary Hydroponics

- 1 Preparation of the Installation Area:** The ground is excavated and leveled to match the specifications of the installation. This includes preparing for placement of pipes and the hydroponic basin.



- 2 Installation of Components:** The pipes and hydroponic basin are installed, followed by the connection of water and electrical systems to the hydroponic system.

- 3 Subgrade Preparation and System Testing:** Gravel and the Capillary Material are added for subgrade preparation. The system's functionality is tested prior to the introduction of sand, serving as the growing medium, and grass.



- 4 Grass Establishment:** Grass is established through seeding, sodding, or sprigging. The capillary hydroponics system is compatible with all these methods and aids in rapid grass establishment.

- 5 System Setup and Optimization:** The technical system is configured to monitor and control the hydroponic setup via mobile or web interfaces. Final adjustments are made to optimize the system according to the specific requirements of the installation area. The grass becomes usable within a few months, depending on the use case, location, and season.



Capillary Hydroponics
installation guide



Capillary Hydroponics
installation video



Capillary Hydroponics
Explained



ABOUT US

We enhance performance and optimize playing conditions for sports grounds

We are a technology company whose patented innovations are enabling golf courses, sports grounds, and other leisure spaces like city parks to build long-lasting and low maintenance greens, bunkers and grounds.

Controlling the water, carbon dioxide and oxygen levels for various soil profiles in these spaces is a major challenge. Our proprietary CapillaryFlow technology offers a simple solution that ensures optimal moisture levels and good drainage regardless of the weather conditions.

Capillary Material is the common factor across most of our solutions including Capillary Bunkers, Capillary Hydroponics, and Capillary Geothermal. It is a patented and engineered polymer-based cement that is the only building material that can move water both up and down to precisely regulate the moisture content of any adjacent material, such as sand or soil.

Our solutions have been installed in more than 1500 venues in 46 countries across the world

HQ

Gothenburg,
Sweden

US OFFICE

Wellington,
Florida

Number of installed venues

1500+

Number of current partners

70+

Number of countries installed in:

46



Read more!



ABOUT US

Our products and solutions

Golf

- Bunker liners
- Hydroponic greens, tees and fairways with geothermal heating and cooling
- Capillary Bunker Edge
- Capillary Wash Box
- Cart paths



Equestrian

- Grass arenas with geothermal heating and cooling
- Sand arenas with Capillary Wash Box
- Turnouts



Football/Soccer

- Hydroponic fields and pitches with geothermal heating and cooling



Baseball

- Infields and outfields with geothermal heating and cooling



Cities

- Hydroponic grass with geothermal heating and cooling





Our turf promise

Less water consumption

Less maintenance

Improved durability and turf quality

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