



SUSTAINABLE DRAINAGE SYSTEM

A sustainable modular drainage system for golf courses, tees, fairways, bunkers, greens, pathways, edges, car parks and roads.

Hydrotrench® is manufactured in the UK from recycled tyre rubber. The system's modular design, reduced trench size and the high permeability delivers long-lasting water management solutions.

How it works

- Working back from outfall, a narrow trench network is excavated in tees, fairways, bunkers, greens or landscape / features.
- The trench is backfilled with native soil, bunker sand and/or finished with a free-flowing material/surface.
- Water immediately enters down and into the void space of low-pressure created by the system, which is entirely porous on all sides (unlike a perforated pipe or channel drain).
- Clay and very fine particles easily pass through the product, while larger particles like soil and sand are held back. This enables the system to work highly effectively in golf course environments.
- These unique properties invoke more responsive and persistent drainage flows, significantly increasing design options for effective water management.

Features and benefits

Hydrotrench® has been designed to provide:



Long-lasting integrated drainage solutions.



Reduced excavation, improved course / spoil management.



Increased drainage connectivity, attenuation and climate change resilience.



Optimised land use, strengthened courses and features, carbon benefits, ecology preservation, and Biodiversity Net Gains.

Design

The Hydrotrench® sustainable drainage system is supported by technical specification documents, including independently verified hydraulic performance data and pipe size equivalents using the latest hydraulic modelling software packages.

Build

- Intercept and remove surface and groundwater within:
 - Tees
 - Fairways
 - Bunkers
 - Greens and Ring Drains
 - Landscapes, Grass Verges, Paths and Edges
 - Driveways, Car Parks and Roads
- Scale-up drainage designs to address small and large areas using the versatile range of drainage panels, troughs and slab units.
- Connections are available in a range of sizes for silt traps, chambers and catch pits.
- Fully compatible with geotextile materials, geocomposites, impermeable membranes and other water/soil/erosion control materials.

Technical Data

- Porosity/void ratio: average 45%
- Water permeability: 49 l/m²/s
- Predicted design life: 60+ years
- Chemical resistance: petrol, diesel, de-icer, salt
- Toxicology and environmental: heavy metals, PAH, environmental safety passed

HYDRO TRENCH



Testing Standards and Awards

Test Standards

- ASTM C642: porosity/void ratio
- ASTM D4065: water temperature resistance
- BS EN ISO 604: compressive strength
- BS EN ISO 11058: water permeability
- BS EN ISO 12958: in-plane water flow
- DEF STAN 00-035 Part 3: chemical resistance
- NF P90-112: toxicology

Awards

- DfT Rural Transport Accelerator Sustainability Award 2025
- Rural Transport Accelerator Grant 2024
- Rail Business Awards Supplier & Contractor Excellence 2023
- PWI Climate Change & Decarbonisation 2022
- RailTech Europe Innovation Awards 2021



Hydrotrench® highly-permable drainage unit manufactured in the UK from recycled tyre rubber



Highly effective herringbone design in bunkers



Easy connection to existing drainage systems



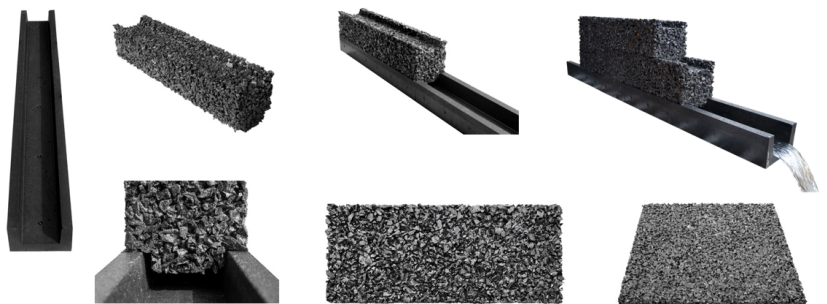
Narrow trenches, modular and easy to handle



Build in resilience against storm events



Full range of connection options available



Hydrotrench® sustainable drainage system with complete suite of drainage unit options

Hydrotrench® is a system of Civil Water Management Ltd with drainage units manufactured by Rosehill Polymers Group.
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