HYDRO TRENCH

MADE IN THE UK FROM RECYCLED TYRE RUBBER

SUSTAINABLE DRAINAGE SYSTEM

A sustainable modular drainage system for landscapes, gardens, hard standings, paved areas, pathways and edges.

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 the land and/or at edge lines to enable efficient installation of the system.
- The trench is backfilled with native soil 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).
- Fine clay and silt particles easily pass through the product, enabling it to work very effectively in these soil conditions..
- These unique properties invoke more responsive and persistent drainage flows, significantly increasing value engineering and design options for effective water management.

Features and benefits

Hydrotrench® has been designed to provide:

- Long-lasting integrated drainage solutions.
- Reduced excavation, spoil management and carbon footprint benefits.
- Increased drainage connectivity, attenuation and climate change resilience.
- Optimised land use, nature-based solutions, 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:
  - Constrained boundary lines/perimeters
  - Crests and embankment toes
  - Landscapes, public spaces, parks and gardens
  - Paths, drives, paved areas, edges and verges
- Scale-up drainage designs to address any size of catchment 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

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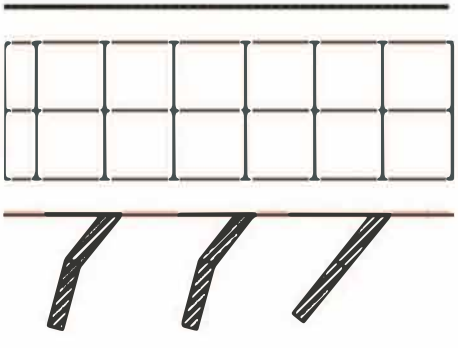
Hydrotrench® highly-permable drainage unit manufactured in the UK from recycled tyre rubber

Modular drainage layers deliver Avg. 45% void space

Combined drainage edges and drainage spurs

Path with integrated sustainable drainage

All-in-one surface forming drainage edges



Hydrotrench® long-lasting drainage solutions for hard standings, paved areas, paths, edges and verges

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

Full range of drainage units and rubber troughs available

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