

MODULAR DRAINAGE SYSTEMS

Advanced drainage solutions for constrained environments.

Delivering surface water management where excavation is limited. Our award-winning solutions enable active travel routes through sensitive landscapes and restricted sites, overcoming constraints of conventional drainage.



Modular Drainage Systems

A unique suite of modular drainage edges/spurs, mats, stacker and trough units designed to solve demanding surface water runoff, flood resilience and erosion protection challenges in active travel, cycle route, footpath and public realm environments.

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 enhancing project approvals and design options for effective water management.

Features and benefits



Long-lasting integrated drainage solutions.



Reduced excavation, spoil management and carbon footprint benefits.



Increased drainage connectivity, attenuation and climate change resilience.



Optimised project approvals, land use, nature-based solutions, ecology preservation, and Biodiversity Net Gains.

Design

Modular drainage systems are supported by comprehensive technical specification documents, including independently verified hydraulic performance data and pipe size equivalents using the latest hydraulic modelling software packages.

Build

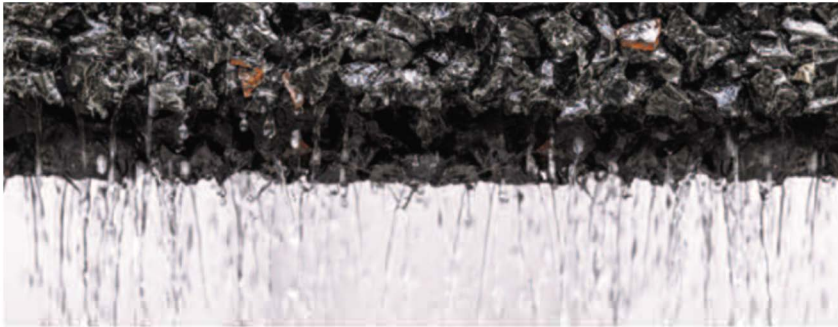
- Intercept and remove surface and groundwater within:
 - Constrained cycle route and footpath corridors
 - Use drainage edge/spur units to frame the path construction body, replace timber edges and tackle low spots and/or check-dams
- Scale-up drainage designs to address any size of catchment using the versatile range of drainage edges/spurs, mats, stacker and trough 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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Modular drainage systems manufactured in the UK using cold-cure tyre rubber encapsulation



Modular drainage layers deliver Avg. 45% void space



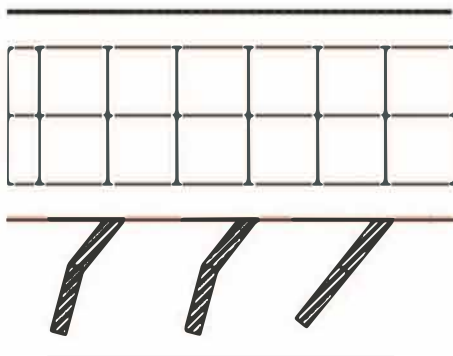
Combined drainage edges and drainage spurs



Path with integrated sustainable drainage



All-in-one surface forming drainage edges



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