aquaspira

The Future of Water Infrastructure. Now.

Steel-reinforced HDPE pipe systems, access solutions and bespoke fabrications for drainage, stormwater and wastewater infrastructure. Manufactured in the UK and engineered to improve installation efficiency, site safety and sustainability.

- Up to 95% lighter than concrete
- Up to 25% less excavation
- Up to 60% fewer deliveries
- 120+ year design life

wrc approved

ada Representing Drainage Water Level & Flood Risk Management Authorities

NBS Source
A Hubexo Product

Why Aquaspira?

Aquaspira supplies steel-reinforced HDPE pipe systems, access solutions and bespoke fabrications for modern infrastructure projects.

Designed to provide a practical alternative to traditional concrete systems, Aquaspira products help reduce installation time, minimise excavation, improve site safety and lower embodied carbon.

Manufactured in the UK, our products can be specified individually or as part of an integrated system, giving customers the flexibility to deliver efficient, durable infrastructure across multiple sectors.

Low Carbon - Up to 95% reduction in product mass and significantly lower embodied carbon compared to concrete solutions.

Improved safety - Lightweight systems reduce lifting risks, excavation requirements, and time spent in trenches.

Faster Installation - Push-fit integrated systems dramatically reduce installation time and minimise disruption on site. No welding required which minimises disruption on site.

Reduced Programme Time - Smaller excavations and prefabricated access systems help accelerate construction schedules.

95% Lighter **25% Less Excavation** **60% Fewer Deliveries**

The Aquaspira Advantage

Performance

- Inert HDPE materials resistant to sulphide corrosion
- Low embodied carbon
- Push-fit socket & spigot joints
- Integral seal on all sizes

Installation

- Up to 95% lighter than concrete
- Smaller plant and lifting equipment
- Quick and simple installation
- Reduced programme time

Construction

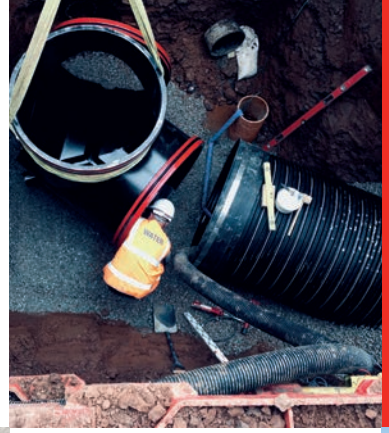
- Up to 25% less excavation
- Reduced backfill requirements
- Reduced transport movements
- Minimal overall footprint

Whole Project Benefits

- Improved site safety
- Integrated access systems
- Compatible product range
- Technical support

Our Products

Aquaspira manufactures steel-reinforced HDPE systems for drainage, stormwater and wastewater infrastructure. Products can be specified individually or combined into an integrated solution, providing a practical alternative to traditional concrete systems.



Storage Tank Systems

Large diameter attenuation and storage systems for stormwater and foul water applications, manufactured using push-fit components for efficient installation and long-term performance.

Pipeline Access Systems

Prefabricated access units designed to integrate directly with large diameter pipelines, simplifying installation, improving site safety and reducing construction time.

Pollution Containment Systems

Watertight containment systems for environmental protection applications, including battery energy storage (BESS), firewater storage and industrial containment, supporting compliance with CIRIA C736.

Large Diameter Pipe Systems

Steel-reinforced HDPE push-fit pipe systems, available in diameters from 600 – 2250 mm, combine the strength of steel with the durability of HDPE. Manufactured in the UK, Aquaspira pipe systems support faster installation, improved site safety and lower embodied carbon. An integral rubber seal and visual insertion marker ensure fast, reliable installation and long-term watertight performance.

600-2250mm
diameters

Up to 95%
lighter than concrete

Push-fit
sockets & spigot joint

Integral
rubber seal

Visual
insertion marker

120+ year
design life

Jointing Frames

Available for all Aquaspira pipe diameters, our purpose-designed jointing frames enable fast, controlled installation of push-fit socket & spigot joints. The system removes the need for traditional jointing methods, allowing joints to be safely assembled using the excavator with minimal manual handling and maximising on-site health and safety.

- Available for 600-2250mm pipe systems
- Faster, safer joint assembly
- Eliminates traditional jointing methods
- Reduces manual handling on site
- Reusable across multiple installations

Bespoke Aquaspira Fabrications

Manufactured Around Your Project

Not every project can be delivered using standard products.

Aquaspira's in-house fabrication capability enables the manufacture of bespoke drainage, storage and access solutions tailored to individual project requirements. Working closely with contractors, consultants and designers, we provide practical solutions that integrate seamlessly with our standard product range.

From project-specific access chambers to large-scale attenuation systems and custom fabrications, Aquaspira delivers flexible, UK-manufactured solutions for complex infrastructure projects.

Fabricated Access Systems

Custom access chambers and integrated units manufactured to suit project-specific requirements.

Storage & Attenuation Systems

Bespoke stormwater and wastewater storage solutions manufactured to meet site constraints and performance requirements.

Custom Fabrications

Project-specific fabricated products designed to accommodate complex layouts, interfaces and installation requirements.

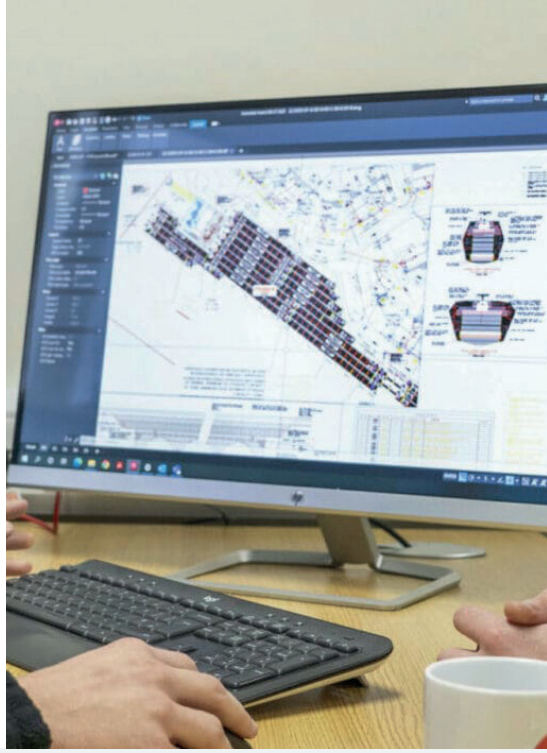
Bespoke Solutions

Fabricated components designed to work alongside Aquaspira pipe systems, providing complete below-ground infrastructure solutions from a single manufacturer.

Design Support

Aquaspira provides technical support to help customers identify the most appropriate products and systems for their project requirements.

Working alongside contractors, consultants, developers and utilities, our experienced team offers practical guidance on product selection, system layouts and installation considerations. While we can suggest alternative approaches and product configurations, the responsibility for the final design and specification remains with the project designer.



- **Technical Support**
  Product guidance and technical advice to assist with the selection and application of Aquaspira systems.
- **CAD & Drawing Support**
  2D and 3D drawings to support project coordination, planning and product integration.
- **Specification Assistance**
  Support with product selection, system compatibility and technical information to assist specification development.
- **Project Collaboration**
  Working with contractors, consultants and utilities throughout project delivery to help address practical installation and construction challenges.
- **Installation Guidance**
  Technical guidance and product information to assist contractors with the installation of Aquaspira systems.

Built for Modern Infrastructure

Aquaspira products are specified across infrastructure projects throughout the UK and Ireland, providing practical alternatives to traditional concrete systems across multiple sectors.

Water Utilities - CSO programmes, sewer upgrades, stormwater and foul water storage, wastewater treatment works and network infrastructure. Awarded preferred supplier for United Utilities.

Residential & Housing - Integrated drainage, attenuation and storage systems for residential and mixed-use developments.

Transport Infrastructure - Drainage and storage solutions for highways, rail, airports and other transport infrastructure projects.

Renewables - Hydro energy pipelines and culverts for wind farms or new power network infrastructure.

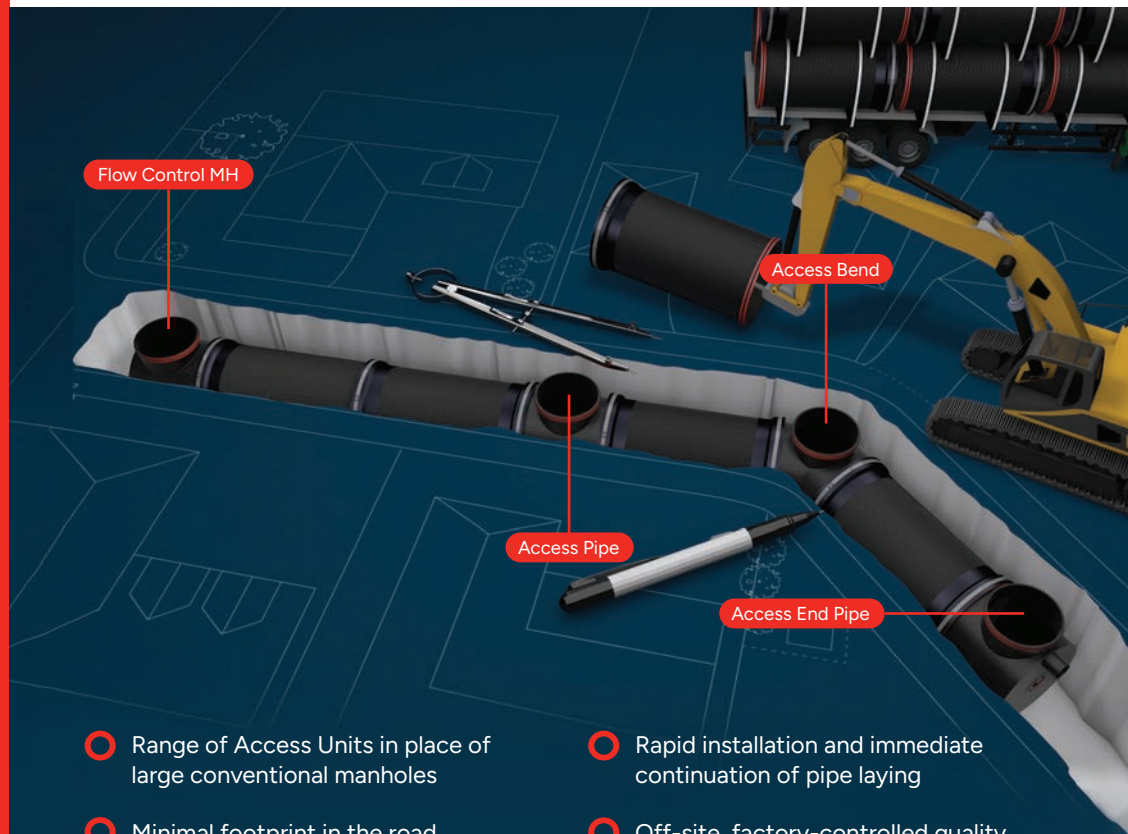
Commercial - Integrated drainage, sewer and stormwater systems support efficient delivery across large-scale commercial infrastructure developments.

Environmental - Containment and drainage systems for battery energy storage (BESS), renewable energy and environmental protection applications.

Optimised Design for Pipeline Access systems

Historically, designing and installing large diameter online sewer systems has been restricted due to the excessive footprint, size and weight of conventional concrete manholes and pipes.

Aquaspira's integrated Pipe and Pipeline Access system opens the way to maximise storage in roads within a minimal, streamlined footprint, using pipes and access units that can be safely and quickly installed with standard site machinery.



- Range of Access Units in place of large conventional manholes
- Minimal footprint in the road (same width as pipe)
- Rapid installation and immediate continuation of pipe laying
- Off-site, factory-controlled quality
- Improved health and safety

Case Studies

Aquaspira systems have been used on a wide range of infrastructure projects, delivering solutions for water, wastewater and energy applications.

Dunoon Road Sewer Storage Upgrade

South East London, Thames Water

THE CHALLENGE

Thames Water required 325m³ of additional sewer storage within a constrained urban highway while minimising excavation, disruption to residents and conflicts with existing utilities.

THE SOLUTION

Aquaspira supplied 93m of 2100mm steel-reinforced composite pipe. Its slimline profile reduced trench dimensions, while prefabricated access units and push-fit joints accelerated installation and minimised disruption.

PROJECT OUTCOME

- 325m³ additional sewer storage capacity
- 93m of 2100 mm pipeline installed
- 500mm reduction in trench width
- 50% + fewer delivery vehicle movements
- 25% reduction in excavation volumes

Perth Super Sewer

Perth, Scotland

THE CHALLENGE

Scottish Water required increased sewer capacity for Perth while minimising disruption, reducing excavation and supporting carbon reduction targets.

THE SOLUTION

Aquaspira supplied 470m of 2250mm steel-reinforced composite pipe. The reduced outside diameter minimised excavation and highway disruption, while lightweight construction significantly reduced deliveries and embodied carbon.

PROJECT OUTCOME

470m
diameter sewer installed

75%
fewer deliveries into Perth city centre

96%
reduction in material weight

- Reduced excavation - smaller construction footprint
- Lower Carbon - reduced whole-life embodied carbon

Hams Hall BESS

Hams Hall, Warickshire

THE CHALLENGE

A firewater storage tank was required for the Hams Hall Battery Energy Storage System (BESS) within a constrained site while meeting stringent watertightness requirements.

THE SOLUTION

Aquaspira replaced the original concrete design with a bespoke 237m³ three-leg storage tank using steel-reinforced composite pipe. Longer 6m pipe lengths, a flanged manifold system and welded joints delivered fast installation and reliable watertight performance.

237m³
firewater storage capacity

30%
reduction in installation footprint

6m
pipe lengths used to reduce the number of joints

Swalecliffe Wastewater Treatment Works Upgrade

Kent, UK

THE CHALLENGE

Southern Water required additional wastewater storage to reduce storm overflows while meeting a constrained construction programme and delivering carbon savings.

THE SOLUTION

Aquaspira supplied 170m of steel-reinforced composite pipe and fittings (825–1200mm), including a bespoke flange adaptor that simplified connections to the existing tank, accelerating installation and reducing on-site complexity.

PROJECT OUTCOME

- 170m pipework and fittings installed
- 825 - 1200mm diameter pipe sizes supplied
- 60% Fewer site deliveries
- 25% Improved installation efficiency
- Bespoke Connection

Smarter Drainage Starts Here.

Aquaspira is helping contractors, developers and utilities build safer, faster and more sustainable infrastructure across the UK.

Speak to our Technical Team

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