

BHR GROUP WATER & WASTEWATER TREATMENT SERVICES



At BHR, we have a strong track record of working with water and wastewater contractors and operators. We specialise in fluid engineering, using tools such as physical and computational modelling integrated with process engineering knowhow. This means that our team has the right blend of specialist knowledge and practical ability to advise on both the complex hydraulic and chemical processes that are vital for safely and effectively managing the water treatment cycle.

From optimising networks and structures at the design stage, making better use of existing structures or developing smart network infrastructure for the future, our team of experts help water companies maximise the returns on their investments at all stages of the asset lifecycle.

Existing Plant

Our aim is to improve understanding of current operations, reduce ongoing operation and maintenance costs and reduce 'All of Life' costs for the plant, with a focus on throughput and efficiency improvements:

- Investigation of effectiveness / efficiency of chemical dosing and mixing
- Development of improved mixing regimes to increase quality or throughput
- Determination of flow characteristics and identification of improvements for better flow distribution
- Identification of improvements for equipment / structure protection
- Development of current operational statistics
- Right-sizing of new / replacement equipment
- General trouble shooting and plant 'tune up'

New Plant and Remodelling

Our aim is to ensure that a new design is the most efficient possible, meets all required standards and regulations and has best possible 'All of Life' cost, through design validation and testing:

- Independent design validation
- Improvement of overall performance through specifying better operational hydraulics
- Identification of the most effective / efficient mixing process
- Right-sizing of equipment
- Definition of effect on existing plant and operations

Tracer Testing

Inefficient mixing and grit accumulation are the main factors that can impact the efficiency of a digestion process. This can result in energy loss, reduction in effective volumes, sludge residence time and reduction in pathogen performance. We can help avoid costly shutdowns and help you maximise the efficiency of your digestion process through our site testing and computational analysis.

Optimising Sludge Stream Design

From identifying the best pump, valve and pipeline solutions to calculating energy requirements and optimisation opportunities, SLOT 2.0 enables engineers to reduce risk of asset failure and maximise TOTEX. Underpinned by the world's largest collection of rheograms, our online software solution is intuitive and easy to use.