

# In the company of... SOLVERS



**Business area:** Infrastructure

**Requirements:** On track to achieve a degree Chemical or Process Engineering. Please refer to team details below for specific requirements.

## Our teams and what they do

### Design and Advanced Technology - Water

**Degree requirements:** On track to achieve a minimum of a 2.2 Master's/MEng degree in Chemical Engineering or Process Engineering.

**Industrial year placement locations:** Epsom

**Summer placement locations:** Manchester

As a Process Engineering Placement Student within our Design and Advanced Technology - Water team you'll help to support our clients across the Water sector in the UK and internationally.

Our team provides Civil, Mechanical, Electrical, ICA (Instrumentation, Control and Automation) and Process engineering skills and expertise to water companies, supporting their capital (both new build and refurbishment) and operational (problem solving on existing sites) projects and programmes.

You could get opportunities to develop your capability in a wide range of exciting projects, with a focus on water and wastewater treatment, sludge treatment, and bioresource recovery from Anaerobic Digestion (AD). Water, both clean and dirty, is a critical asset needing careful management and you could play a key part in this!

Key activities could include:

- Working within multidisciplinary teams to help produce feasibility studies and outline designs through to detailed design work for water industry projects
- Working with and assisting with the development of process tools such as mass balances and process flow diagrams
- Supporting with the development of design solutions for clean and wastewater applications, as well as reviewing the performance of existing processes at treatment sites
- Collaborating with clients to understand and help them achieve their carbon and net zero ambitions
- Assisting with technical report writing
- Contributing to strategic planning to provide long-term innovative solutions for clients

### Net Zero Energy

**Degree requirements:** On track to achieve a minimum of a 2.2 BEng in Chemical Engineering or Process Engineering

**Industrial year placement locations:** Bristol, Glasgow, Stockton

**Summer placement locations:** Bristol, Glasgow

As a Process Engineering Placement Student within our Net Zero Energy team you'll help to support our clients across the Net Zero Energy process engineering team in the UK and internationally.

Our team provides consultancy advice and engineering design work for new build projects, alongside improvement and maintenance services for clients' existing assets. Our portfolio of clients encompasses a variety of energy sectors, from conventional power to new low carbon technologies, with a particular focus on decarbonisation projects in both large scale and decentralised energy assets.

You could get opportunities in helping drive real projects, gaining hands-on experience and growing your responsibilities as your confidence and skills develop. The diversity of our client portfolio means you'll have opportunities to contribute to a variety of projects - from large interdisciplinary design projects to concept studies to supporting clients with discipline specific technical advice.

Typical projects include:

- Early design study for a hydrogen production facility
- Input into a multi-disciplinary concept study for hydrogen purification in subsurface hydrogen storage (i.e. in caverns)
- Concept development modelling study of carbon capture and storage (CCS) technologies
- Detailed process modelling to optimise an existing asset's performance (i.e. creation of a process digital twin)
- Development of a decarbonisation roadmap for hard-to-abate industrial sites
- Safety support including consequence modelling and risk assessments for a variety of plants including power generation, low carbon technologies and chemicals/refining
- Operational support and process studies to support the existing operation of high hazard industrial assets, including process integrity studies, process simulation and safety studies

The experience you gain will provide you with a broad experience of process engineering work and training opportunities.

Key responsibilities may include performing engineering calculations, carrying out process modelling using various engineering software packages, producing technical reports, carrying out site visits and working closely with clients. Along with the technical focus, you'll also be developing a variety of soft skills through technical report writing, client presentation, vendor engagement, proposal development, STEM outreach and internal process improvement which will help you grow into a well-rounded engineering professional.

We're looking for candidates with a keen interest in delivering engineering projects for clients in the net zero energy systems market. A desire to learn and develop your technical understanding, to apply process engineering concepts and solve complex problems for our clients is key. We value team players who act with integrity, take pride in doing the right thing, and are committed to delivering high-quality work that strengthens our client relationships and company reputation.

**To apply, please return to the main job specification**