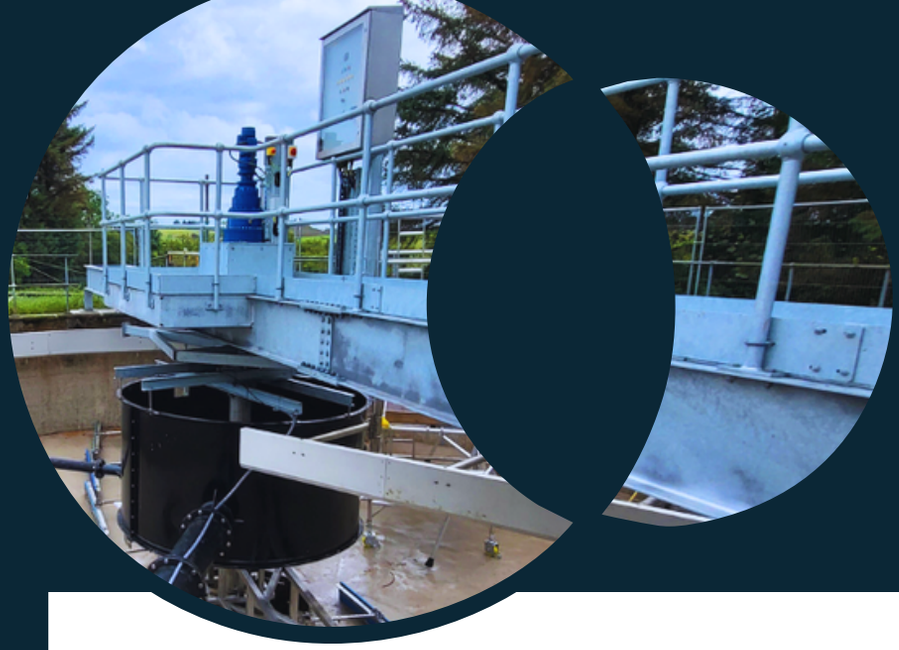
Case Study

Eaglesham Wastewater Treatment Works



Client:
Scottish Water

Principal Contractor:
WGM Engineering Ltd

M&E sub-contractor:
Colloide

Location:
Eaglesham, Scotland

Project:
Bridge Scraper

Colloide Engineering Systems was contracted by Scottish Water to undertake the project at Eaglesham, Scotland. The task at hand was to install and commission a state-of-the-art 14000mm rotating Bridge Scraper.

Bridge Scrapers allow for clearing sediment into a sludge collector pit or alternatively for depositing floating substances into a scum removal container efficient treatment for environmental sustainability.

Technical information

The main components of the system

- **Bridge Rotation:**

The bridge rotates consistently to gather settled sludge at the tank's central hopper.

- **Diffusion Drum:**

This component evenly distributes and diffuses wastewater, optimizing its treatment.

- **Junction Box and Scum Removal System:**

A bridge-integrated junction box aids contractor termination from the MCC. A scum removal system with blade and beach mechanism efficiently extracts tank surface scum.

- **Scraper Blades, Scum Baffle, and Weir Plates:**

Premium scraper blades, scum baffle, and weir plates enhance sludge and scum removal efficiency for effective wastewater treatment.

Operation and Safety Features

The tank's full bridge scraper operates meticulously for optimal performance. Key functions include:

1. Sludge Removal: Collected sludge at the tank's center is discharged via gravity by opening a valve, allowing smooth flow into the collection chamber.
2. Scum Disposal: Scum is efficiently drawn from the tank's surface using a scum blade and a specialized removal system.
3. Emergency Stops and Safety: The bridge scraper features a STOP function on the control panel, along with two strategic emergency stops on the bridge for swift responses. The bridge remains inactive until emergencies are cleared through the MCC.