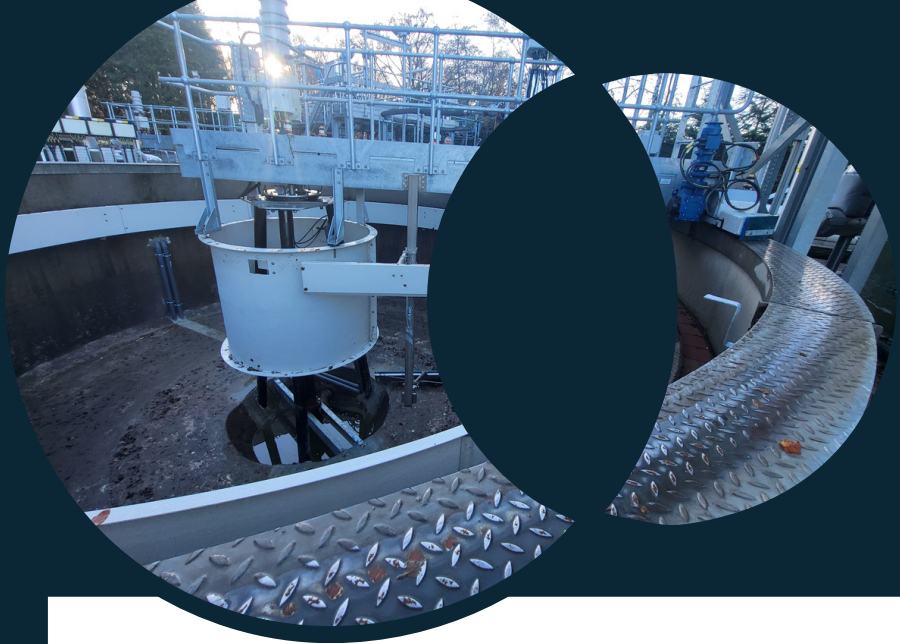


## Case Study

# Alford Wastewater Treatment Works



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**Client:**  
Scottish Water

**Principal Contractor:**  
Ross-Shire Engineering

**M&E sub-contractor:**  
Colloide

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**Location:**  
Aberdeenshire,  
Scotland

**Project:**  
Bridge Scraper System

Colloide have been sub-contracted by Ross-Shire Engineering for the construction and installation of 2No rotating half bridge scrapers 9220mm in diameter for Scottish Water.

The bridge scraper operates at a consistent speed to facilitate the gathering of settled sludge in the central hopper of the tank.

Subsequently, the sludge can be efficiently discharged by opening the corresponding valve, enabling a gravitational flow from the tank to the collection chamber. The scum blade, along with a beach and blade scum removal system, is employed to extract scum from the tank's surface.

# Technical information

## The main components of the system

The bridge will be equipped with a heating element to avoid the accumulation of ice on the tank wall. This heating element will remain active during the operation of the bridge.

Additionally, the system comprises the following components:

- **Bridge Rotation:**

The bridge maintains a steady rotation to collect settled sludge at the central hopper of the tank.

- **Diffusion Drum:**

This component ensures the even distribution and diffusion of wastewater, thereby optimising its treatment.

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

High-quality scraper blades, a scum baffle, and weir plates enhance the efficiency of sludge and scum removal, contributing to the overall effectiveness of wastewater treatment.

- **Remote Outstation**

Located at the end of the bridge in front of the drive carriage is the remote outstation. This stand houses the E-stop and the isolator switch for the drive motor power.

- **Folding Ladder Operation**

For access onto the bridge, a rotating ladder has been installed. When accessing the bridge

