

Case Study

Kingstone & Madley Chemical Dosing Plant



Client:
Welsh Water

Principal Contractor:
Morgan Sindall

M&E sub-contractor:
Colloide

Location:
Kingstone Madley,
Herefordshire

Project:
Chemical Dosing
Treatment

Colloide were contracted for Kingstone and Madley Wastewater works to provide a chemical dosing system for Welsh Water working with Morgan Sindall to satisfy the phosphorus removal requirements of the project.

Chemical dosing is the adding of chemicals into water/fluid or sludge to achieve required conditioning and in this case Ferric Sulphate is used in removing phosphorus.

Technical information

The main components of the system

The chemical dosing system consists of a chemical storage tank, chemical fill point and dosing kiosk.

Chemical Fill Point Kiosk

The fill point kiosk functions as the designated area for chemical delivery into the storage tank. Its primary purpose is to ensure that chemicals are introduced at the right location, thus maintaining the dosing process's efficiency. The kiosk is equipped with various control and warning systems to ensure the smooth operation of the dosing process.

Chemical Storage Tank

Inside the storage tank, you'll find additional equipment, including fill pipework, outlet pipework, an overflow pipe, a drain valve, a vent, a level transmitter, and a pressure gauge. These components facilitate the tank's proper functioning, chemical handling, and safety during dosing.

Dosing Kiosk

The dosing kiosk is designed to handle the precise and safe dosing or dispensing of chemicals. It consists of the following components:

- Dosing pumps
- Storage tanks for chemicals
- A control system
- Sensors for measurements
- Safety features (leak detection, pressure relief)
- Pipework
- Valves
- User-friendly interface.

