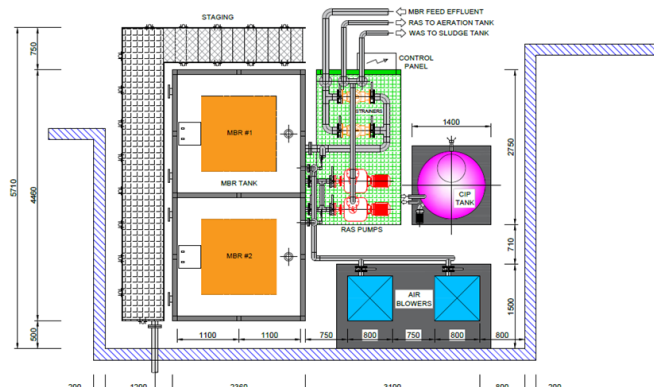


RECORDATI MBR

Installation of a membrane bioreactor

Recordati is a global international pharmaceutical group. Their site in Ringaskiddy, Cork, experienced a significant increase in production, which combined with new BAT (Best Available Technology) conclusions, led the site to upgrade their old sequencing batch reactor (SBR). This project involved the design, equipment supply, mechanical and electrical installation, and commissioning of a new membrane bio reactor (MBR) module.

CLIENT: RECORDATI LTD
LOCATION: RINGASKIDDY, CORK, REPUBLIC OF IRELAND
PROJECT VALUE: CONFIDENTIAL
DURATION: 5 MONTHS
SERVICES PROVIDED: DESIGN, EQUIPMENT SUPPLY, M&E INSTALLATION, COMMISSIONING



FLI CAP Technology Role:

The consultant WEW Engineering partnered with Recordati to develop a total solution to upgrade the existing pharmaceutical wastewater treatment plant. Within the total scheme of works, FLI CAP Technology were selected to deliver a new membrane separation system.

The project involved all aspects of the design, equipment supply, mechanical and electrical installation, and commissioning of the new MBR separation system. A dual chamber prefabricated stainless steel tank was installed, to house two Alfa Laval MFM-120 membrane cassettes. This was located separately to the main biological aeration tank. The total filtration area of the two membrane cassettes enabled a peak flow rate through the membranes of 5m³ per hour to be achieved. The treated effluent discharged by the membranes is less than 10mg/l TSS.

Surrounding the membranes and their separation tank, a duty / standby inlet basket strainer arrangement was installed to prevent ingress of large solid particles into the membrane separation tank. To scour the membranes, duty / standby Aerzen blowers were installed, whilst a dedicated CIP cleaning system, activated sludge return pumps, valves

and instrumentation were all mounted onto a prefabricated skid with all local pipework and electrical cabling pre-installed prior to dispatch to site. A new PLC control panel system with touch screen HMI was also installed as part of the project to enable operators to have full visibility and control of the new equipment.

The installation work was undertaken during the height of the COVID-19 pandemic. Compliance with stringent Government and Recordati site regulations was necessary at all times. A prefabricated installation technique was used which greatly reduced the duration of the installation work on site, and therefore reduced the risk of transmission. Due to travel restrictions, FLI CAP Technology were unable to travel to site to commission the unit. Working closely through a remote connection with our on-site contractor and WEW Engineering, we were able to successfully complete the commissioning with no disruption.

The completed plant was completed according to an agreed programme, on budget, and fully achieved the agreed performance targets.