

Lochaline WTW (TTU)

This works involved the design, construction, installation and commissioning of a new 195m³/d Nano-filtration Transportable Treatment Unit (TTU) membrane plant to replace the existing system on site including CWT & Aline Park Pumps.

An innovative design approach was required due to site topography and access constraints, this allowed for the incorporation of a modularised welfare unit to accommodate all of Scottish Water's operational requirements, and has been well received by our clients.

Utilising our group manufacturing capability ensured a collaborative approach for our clients. As principle contractor RSE also manufactured and produced the TTU, engaging PSI to manufacture a modular solution for the Sodium Hypochlorite dosing.

PSI adopted a pioneering approach which led to them bringing the main process line within the dosing unit, negating the need for extensive pipework runs and reduced the installation and maintenance requirements.

The TTU was designed, assembled and commissioned at Ross-shire Engineering's Muir of Ord facility. It was then divided into modules and carefully prepared for the 118 mile journey by road and ferry to the site location at Lochaline.



Project Title: Lochaline WTW (TTU)

Client: ESD for Scottish Water

Project Value: £3.1M

Award Date: July 2016

Project Commenced: July 2016

Project Completed: Phase 1 – June 2017
Phase 2 – Jun 2018

“The advantage of a transportable treatment unit is that the programme is reduced and the amount of traffic is kept to a minimum, meaning less disruption for the local community.”

JEFF FORRESTER, Project Manager from ESD

Scope Summary

- Membrane Plant building including welfare facilities
- Membrane Filter Feed Pumps
- Strainers
- Membrane Filtration Modules
- Membrane Clean In Place (CIP) and Neutralisation facility
- Permeate Tank
- Permeate Pumps
- Disinfection
- pH Correction
- Relift Pumps
- Final Water Flow Monitoring
- Water Quality Sampling for control and Regulatory purposes
- Motor Control Centres
- Local Control Panels
- Telemetry.



“This project is a great example of Scottish Water, ESD and Ross-shire Engineering working together to deliver a positive result for our customers.”

GAVIN STEEL, Scottish Water's Regional Communities Manager for the Highlands