



WATER TREATMENT

ADVANCED MEMBRANE FILTRATION TECHNOLOGY

We're making the world safer,
healthier & more productive.



PCI Membranes
Filtration Group®

PCI Membranes specialises in the design and manufacture of easily integrated membrane filtration plants that can range from simple manually operated systems to fully automatic operations that require minimal operator support. We provide chemical cost effective solutions to minimizing water use and waste-disposal costs.

PCI offers process solutions using Microfiltration, Ultrafiltration, Nanofiltration & Reverse Osmosis technologies for a wide variety of applications including:

- Chemical Industries
- Drinking Water
- Food & Beverage
- MBR
- Pharmaceutical & Biotech

Water Treatment

Membrane treatment plants provide a robust and reliable treatment process for use in remote locations. Operator input is minimal and only required to batch-up chemicals, take regular samples and occasionally chemically clean the membranes.

Package Membrane Plants: PCI's Package Membrane Plants for the Fyne process, include innovative designs that:

- Reduce costs & delivery times
- Are performance-tested prior to shipping, minimizing on-site commissioning
- Easily installed in remote locations
- Have single phase electrical supplies to power small sites
- Come with a minimal footprint

C10 Series Tubular Membrane Modules are suitable for high water quality in applications for municipal and industrial sites

The C10 Series allows the use of tubular membranes in areas of remote location, with no option for mains water pipeline supply. The module is provided as part of a module stack which includes support frames, manifolds and connectors. The C10 Series can be used in systems designed for operation up to 12 Bar at 20°C.

Product Features Include:

- ABS construction – lightweight & robust
- Simple manifold connections – easy maintenance, reduced downtime
- Open channel design – suitable for high levels of colloids & suspended solids
- Foam ball cleaning – reduces chemical consumption & operator supervision
- Compact design – easy installation

DID YOU KNOW:

For more than 50 years, PCI Membranes has set the standard for engineering capabilities, high quality products, reliability and solution-led approaches.



A WATER TREATMENT CASE STUDY

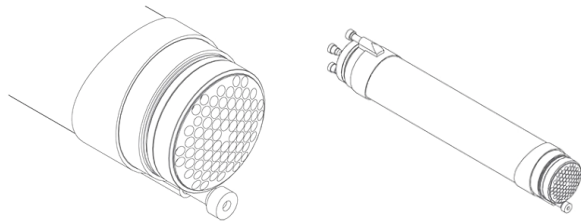
Scottish Water has completed a Multimillion Pound Project to provide a potable water quality for inhabitants of North Uist and Berneray, which are islands forming the Western Isles, Scotland. The main driver for a new Water Treatment plant located in the largest settlement called Lochmaddy was to remove:

Waterborne pathogens, microbes and viruses including Cryptosporidia Oocysts. Dissolved organic materials (mostly humic and fulvic acids) that, after chlorination yield harmful disinfection by-products such as trihalomethanes (THM's) and haloacetic acids as well as metals including Aluminum residuals.

The main process uses PCI tubular ultrafiltration membranes with molecular weight cut-off in the region of 2,000 to 4,000 Daltons to provide filtration barrier to numerous harmful and undesirable contaminants commonly found in surface water sources. Water passing through the membrane (the filtrate) is purified to potable standards in a single process stage, whilst contaminants are held back and concentrated in a "retentate" stream.

ULTRAFILTRATION (UF)

UF is a membrane filtration method that removes many types of large molecules and ions from solutions by applying pressure to the solution when it is on one side of a selective membrane. The result is the solute is retained on the pressurized side of the membrane and the pure solvent is allowed to pass to the other side.



The Fyne Process – Municipal water processing that keeps up with the evolving needs of the industry

The Fyne Process is a simple, multi-stage process using advanced membrane filtration technology with screening, post-conditioning and disinfection to treat poor quality, variable water sources in small rural communities. It has proven to provide the least expensive operating costs for small-to-medium sized systems ranging from 3m³/day to 2000 m³/day.

CROSSFLOW MEMBRANE TECHNOLOGY



Reduces pollutants & contaminates



Provides a cost effective method to treat surface water to potable water quality with minimal operator support.



Designed to meet specific site demands including fluctuations in volumes & composition



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