

Compact Modular Treatment Plant

Municipal Treatment Range

ross-eng.com

Nanofiltration Plant









An Introduction

Compact Modular Solutions



RSE offers its clients a complete modular design, build and installation engineering and construction service.

RSE is the market leader in the design, fabrication and delivery of award winning water treatment plants. Our specialist water treatment division has successfully delivered multiple modular plants offering tremendous environmental, quality and health and safety benefits over traditional on-site fabrication and assembly.

The RSE modular water treatment range offers a simple, robust solution. Our technologies include nanofiltration and ultrafiltration, reverse osmosis and other specialist processes for the supply of top quality water from poor quality raw water envelopes.

What we offer

Project cost certainty – offsite build means minimal site time

Programme efficiency and certainty – weather, site and logistical dependencies removed

Treatment processes tailored to individual site conditions

Consistently high build quality

Health and safety benefits from construction in a factory environment

Environmental benefits from offsite factory construction

Proven process engineering, factory tested

Standardisation for O&M's and commonality of spares

Guaranteed whole life costs

Inbuilt redundancy / supply resilience

Fully wet tested and pre-commissioned before load-out

Base unit replaces intrusive on-site civil works

Energy efficient plant reducing opex costs

Remote supervision and support facilities

Accelerated regulatory compliance, delivering top quality potable water

Guarantees customer satisfaction

Transportable treatment units are a relocatable investment



The Water Treatment Experts

Compact Modular

Nanofiltration Plant

 $50 < 500 \text{ m}^3 / \text{DAY}$



The following ancillaries/ enhancements can be provided:

- Reverse osmosis
- Chloramination
- Plumbosolvency dosing
- UV disinfection
- Soda ash dosing (pH correction)
- Mess facilities



Our Compact Modular Treatment range includes the following as standard:

- BIM compliant autodesk inventor 3D model
- Factory assembly
- Factory testing and commissioning
- Duty standby equipment
- Water quality sampling instruments

- Integrated HMI (human machine interface)
- Telemetry
- IMCC (intelligent motor control centre)
- Profibus communications network
- Remote plant control

Transportable Treatment Units

This range is particularly suited to municipal water supplies and industrial applications. Typical plant capacities range from 50 to 500m³/day. Each plant is contained within an innovative Transportable Treatment Unit (TTU). This is a plug and play water treatment plant housed within a steel frame building and base frame which can be fully assembled, factory tested and commissioned within our purpose built facility. All plants are fully proven before leaving our premises.

A range of robust solutions based on Nanofiltration treatment for the supply of excellent quality water from extremely poor quality raw water sources.

Integrated Components:

01

Sodium Hypochorite Skid

Muir of Ord Install

algety Bay

Design Fabricated

Electrical Fit Out

Muir of Ord Design

Fabricated Install

Stainless Steel Pipework

Muir of Ord

Design Fabricated Install

Instrument Sample Boards

Design Fabricated Install

05

Motor Control Centre

Muir of Ord Install

Saftronics Design Fabricated 06

Welfare Facility

Muir of Ord
Design
Fabricated

Install 07

Sodium Carbonate Batching System

Fabricated Install

Cumbernau Design

08

Sodium Carbonate Dosing Skid

Install

Design Fabricated

Stainless Steel Pump Skid

Design Fabricated Install

The Modular

Water Treatment Experts

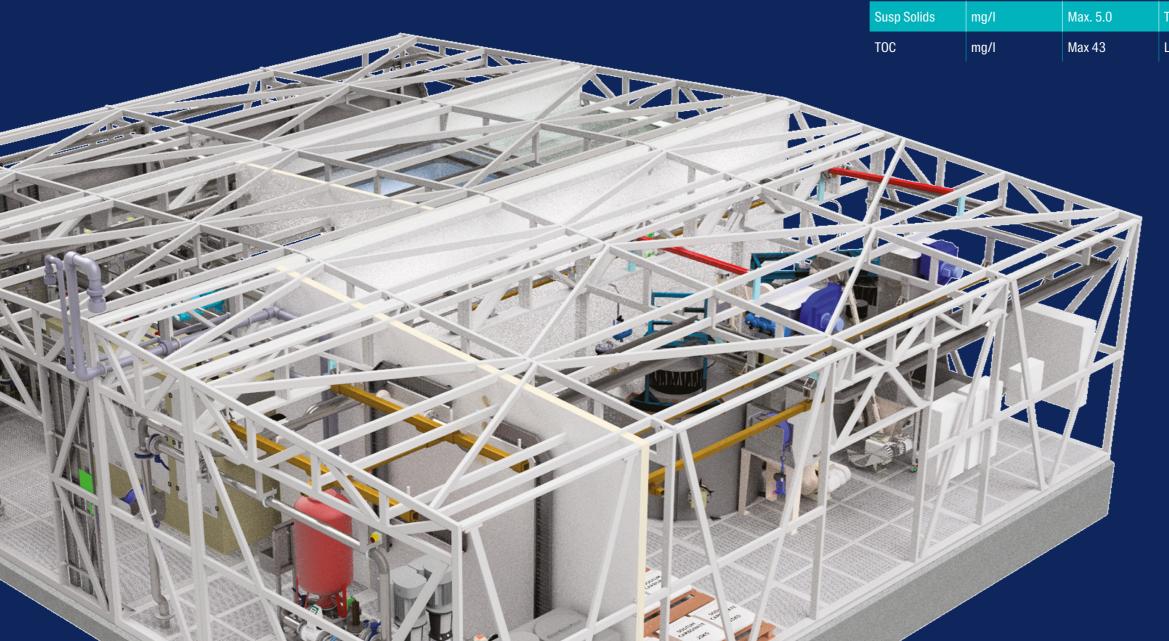


Nanofiltration Table of Treatment

Parameter		Raw Water	Final Water
рН		2.0>9.5	Typically 8.0
Turbidity	FTU	Max. 10	Less than 0.2
Colour	Deg H	Max. 430	Less than 2
Iron	μg/l	Max. 3670	Less than 7
Total Mn	μg/I	Max. 430	Less than 10
Total Al	μg/l	Max. 860	Less than 9
Susp Solids	mg/l	Max. 5.0	Trace
TOC	mg/l	Max 43	Less than 10

Why Nanofiltration?

No chemical / sludge removal			
Fully automated membrane cleaning system			
Low chemical usage			
Unmanned operation			
Remote monitoring			
Profibus enabled			
Duty stand-by system			
Energy efficient management system			





For more information and contact details visit

ross-eng.com