



Reverse Osmosis Components

Forward thinking in ...

**reverse osmosis solutions**

# AT A GLANCE

## Company profile

Since the beginning of 2004, ROC Components Ltd. has been a global supplier and distributor of reverse osmosis water treatment products and components. Our experts provide full technical support, as well as projection and design of RO/NF/UF desalination plants.

In addition to offering a wide range of RO/NF/UF membrane modules and the corresponding pressure vessels, ROC Components Ltd. also supplies turbochargers (pressure boosters), which allow for a unique and specialized energy recovery solution in RO plants. ROC Components Ltd. also provides water treatment chemicals, biocides, antiscalants, and cleaning chemicals for RO/NF/UF membranes.

## Market segments & focus

### Desalination markets:

- Seawater
- Brackish water
- Ultra pure water
- Potable water
- Recovery of valuable materials
- Industrial process water

### Chemical products:

- Antiscalants
- Membrane cleaning chemicals
- Coagulants
- Biocides
- Membrane conservation

### Other plant components:

- Energy recovery & pressure boosting
- Flexible couplings & manifolds
- Cartridge filters & housings
- High pressure pumps
- Other components & accessories



## CCS™ - Customized Consulting Services

ROC Components Ltd. developed this unique service package to assist its customers in plant design projection and optimization. A key aspect of the service is an objective and professional recommendation of products and components that meet the customer's needs and to achieve the best possible plant performance. Through CCS™ – a highly specialized and innovative concept – ROC Components Ltd. brings its expertise and experience of over 20 years directly to the RO desalination plant manufacturers.

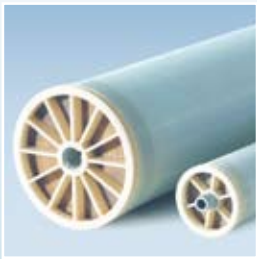
### **CCS™ consists of the following key services:**

- Optimized design projection cases and selection of appropriate RO/NF/UF membrane elements
- Definition of chemicals for all stages (pre-treatment, membrane cleaning, and membrane conservation)
- Analysis and evaluation of the energy recovery performance
- Pressure vessel design package (end-port or side-port configuration in FRP and SS)
- Integration of turbo chargers into the RO system for optimization of energy recovery performance and cost efficiency
- Optimization of microfiltration

# PRODUCT OVERVIEW

## Membrane elements (RO/NF/UF)

RO/NF spiral-wound polyamide composite membranes are ideal for desalination of river water, underground water, city water, sea water and industrial waste water. These elements are highly effective in removing dissolved salts, organic substances and micro-particles. Consequently, they are ideal for a wide range of applications such as the production of industrial water, ultra pure water, and potable water.



UF membranes are mainly used for the removal of bacteria, fungi, and parasites. This makes it an ideal and cost-effective solution for the production of potable water.



## Pressure vessels

As with all other products from ROC Components Ltd., we provide top of the line pressure vessels to ensure the best possible performance of every water treatment plant. Choose from a broad range of models and configurations to match your needs. This includes the choice of an end-port or side-port connector, a diameter range from 2.5" to 8", and length between 25 cm and 800 cm!

The pressure vessels are available in various colors and materials, such as FRP or stainless steel, and are manufactured to operate in a pressure range between 10 and 85 bars.

## Turbo chargers



Turbo chargers, or pressure boosters, represent a technological breakthrough in the RO energy recovery process. Turbo chargers offer many important advantages to RO system users and plant operators. Through the integration and use of turbo chargers in RO water treatment plants, the cost of energy can be greatly reduced! Further advantages are the simplicity of design and operation, efficiency, reliability, ease of field servicing, small footprint, and versatility of use.

## Chemicals

**Antiscalants** are used to effectively control the scaling of poorly soluble salts such as calcium carbonate, calcium sulfate, barium sulfate, strontium sulfate, silica and others. These chemical products are compatible with most of the leading desalination membrane brands.

**Cleaning chemicals** ensure the most effective removal of inorganic, organic and biological fouling. These products can be supplied in powder and/or liquid form.

Other chemicals, such as de-chlorinating agents, membrane conservation chemicals and biocides can be provided upon request.



# PRODUCT OVERVIEW

## Cartridge filters & housings



Cartridge filter systems offer an increasingly popular and attractive filtering solution across different market segments. They are very cost-effective and efficient, and deliver a high level of pre-treated water quality.

Thanks to their unique characteristics, cartridge filters from ROC Components Ltd. are incorporated into a broad spectrum of filtering applications ranging from potable water, residential, biotechnological, pharmaceutical and cosmetics to power plant water supply.



## Accessories



ROC Components Ltd. offers a full range of accessories necessary in building and running an RO water treatment plant. Among our products are flexible couplings and connecting pipes, both available in different materials, sizes, and configurations. The materials available for flexible couplings are 304/316L, Duplex, Super Duplex and 2.54 SMO. ROC Components Ltd. can provide them in various types of finish – galvanized or painted.

The connecting pipes and manifolds of different shapes and dimensions are also available in various materials – similar to the flexible couplings.

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