

# HYDREX™

Protection Of Your RO Plants

## Preventive Solutions and Safety Programs

The Hydrex 4000 range is specifically formulated for membrane treatment systems. It protects the membranes from scale and bacterial growth and aids in extending membrane life. Hydrex chemicals optimize operational costs, protect the expensive membrane modules and ensure consistent and efficient operation. A comprehensive line of cleaners are used to effectively clean the membranes.

*The Hydrex 4000 product line is approved by leading international membrane manufacturers for use with their products.*

### HYDREX™ 4000 SERIES

- **Scale inhibitors**
  - Phosphonates
  - Polycarboxylic polymers, sulfonated polymers
- **Biocides**
  - Isothiazolone, DBNPA and others
- **Cleaning**
  - Alkaline cleaners, acidic cleaners
  - Surfactants
- **Chlorine removal**

Veolia Water Technologies offers the right Hydrex chemistry including chlorination and de-chlorination agents, disinfectants, antiscalants and cleaners for all types of membranes:

- Reverse osmosis
- Nanofiltration
- Ultrafiltration
- Microfiltration

**Examples of Hydrex products:**

- Hydrex 4104 is a multi-functional scale inhibitor for calcium carbonate, calcium sulphate and other mineral scales
- Hydrex 4102 is a very cost effective scale inhibitor primarily targeting calcium carbonate
- Hydrex 4104 and 4109 are scale inhibitors for water with high silica content



Hydrex 4101, 4102, 4103, 4105, 4106, 4107, 4109, 4115 and 4116 products are ANSI/NSF60 approved.

# A Global Packaged Offering for Reverse Osmosis



## Analytical laboratory services

### Specific ASDC software for RO applications

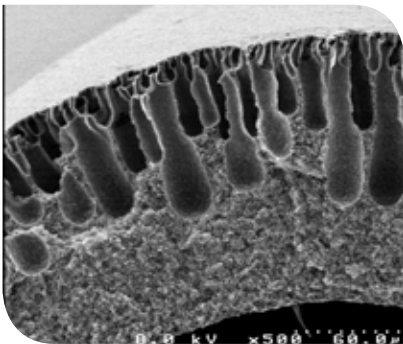
- Balancing the ionic composition of the feedwater
- Determining scaling potential of various salts at designed recovery and pH
- Offering options of Hydrex products to be used to prevent scale formation
- Defining dosage of chosen Hydrex product
- Generating final report



## Membrane autopsy

The physical dissection of an RO membrane and the laboratory analysis of its foulants can be one of the most definitive methods of troubleshooting an RO system. It includes a wide range of procedures.

- External and internal visual examination
- Test of the element performance
- Chemical identification of the surface foulants
- Loss on ignition test
- Cell and dye test
- Summary and recommendation



## Test rig for selection of cleaners

- Testing to develop best preventive/corrective cleaning sequences adapted to specific foulants



## Hydrex is available worldwide

Contact your local Veolia representative for more information.