



EUROWATER

A GROUP OF CO-OPERATING EUROPEAN WATER TREATMENT SPECIALISTS

REVERSE OSMOSIS

EUROTEC SERIE L4 REVERSE OSMOSIS PLANTS

- DEMINERALIZED WATER WITHOUT ACID & CAUSTIC REGENERANTS
- REMOVES PYROGENS AND BACTERIA
- LOW OPERATING COSTS
- NO EFFLUENT NEUTRALIZATION REQUIRED
- NO HANDLING WITH HAZARDOUS REGENERANTS
- NO REGENERATION DOWN TIME
- ELECTRONIC QUALITY CONTROL
- COMPACT DESIGN FOR FLOOR OR WALL INSTALLATION



TYPE L4-2

APPLICATION FIELDS

- PROCESS WATER FOR FOOD AND DRINK INDUSTRIES
- PROCESS WATER FOR PHARMACEUTICAL AND CHEMICAL INDUSTRIES
- PROCESS WATER FOR METAL FINISHING AND PAINT INDUSTRIES
- RINSE WATER FOR THE PRODUCTION OF ELECTRONICS, GLASS AND MIRRORS
- FEED WATER FOR HUMIDIFICATION
- RINSE WATER FOR DISH WASHING MACHINES
- HOSPITALS AND DIALYSIS CENTRES
- PUBLIC AND PRIVATE LABORATORIES

REVERSE OSMOSIS PLANTS

PRINCIPLE OF OPERATION

Pretreated water is pumped into the membrane housings along the membrane surface. Pure water is permitted to pass through the membrane while ionic, organic, colloidal and bacterial contaminants are swept away in a concentrated solution. Consequently, a reverse osmosis system always creates two continuous exit streams: pure water (permeate) and brine (concentrate). Normally 75 percent of the feed water can be recovered as permeate for the EUROTEC L4.

DEMINERALIZATION

Salts are repelled from the surface of the membrane while water molecules are allowed to diffuse freely through the membrane creating a purified product stream. Higher valence ions (salts) are rejected to a greater degree. Average rejection of dissolved salts ranges between 95 and 99 percent.

PRETREATMENT

In order to protect the RO membranes against foulants a complete reverse osmosis system usually consists of a softening plant as pretreatment and a reverse osmosis plant equipped with a prefilter. An activated carbon filter has to be added if free chlorine is present in the feed water.

POSTTREATMENT

When high purity water is needed a polishing of the permeate in a mixed-bed unit is normally required.

PROJECTING

Besides a wide range of reverse osmosis plants in the EUROTEC series EUROWATER has a complete program for pretreatment of RO feed water and posttreatment of permeate. Consequently, the complete water treatment system can be designed by EUROWATER.

EUROTEC - L4 SERIES

SYSTEM DESIGN

Softened water is prefiltered (1µm) in a cartridge filter and flows through an inlet solenoid valve to a high-pressure pump which drives the water through the membranes. The permeate stream as well as the concentrate stream are led through flow meters to the outlet and the drain connections, respectively. The connections are made to brass (inlet) and PVC (outlet and drain). The EUROTEC L4 plants can be either floor mounted or wall mounted.

SAFETY AND QUALITY DEVICES

A comprehensive set of interlocks is provided to control and protect the membranes, e.g. prerinse, quality rinse, postrinse as well as continuous quality monitoring and low pressure cut-off.

CONTROL PANEL

The electronic control panel can be programmed according to actual demand. The duration of prerinse, quality rinse, and postrinse can be individually. The conductivity meter continuously indicates the quality of permeate measured in µS/cm.

Special features include various control and alarm lamps as well as potential-free contacts for external signals and for remote alarm. The control panel operates on low voltage (12V).

OPERATION AND MAINTENANCE

It is recommended to clean and disinfect the membranes periodically in order to avoid malfunction of the plant. The frequency of cleaning depends on the composition of the raw water and on the type of pretreatment applied to the feed water. Cleaning and disinfection unit is offered by EUROWATER.

SPECIFICATIONS

TYPE	CAPACITY* l/h	PUMP MOTOR** kW	CONNECTIONS				FRAME MEASURES***		
			INLET BSP	OUTLET mm PVC	DRAIN mm PVC	RINSE mm PVC	HEIGHT mm	LENGTH mm	DEPTH mm
L4-1	80- 90	0.55	3/8"	20	20	20	1450	875	430
L4-2	160-175	0.55	3/8"	20	20	20	1450	875	430

* The capacities are stated under the following conditions:

Pressure: 14 bar. Salt content: 500 mg/l. Temperature: 10°C. Recovery: 75%.

** Wiring: 3 × 400 V, 50 Hz.

*** If the EUROTEC L4 plant is mounted on a wall the depth is only 270 mm.
For RO-plants for higher capacities please ask for separate leaflet.