

ELECTRODIALYSIS STACK EDR-IF/250

APPLICATION

Process core of electrodialysis technology for high salinity water treatment in industrial applications:

- RO brine concentration
- Pre-concentration before evaporation
- ZLD applications
- Different types of industrial waste waters

DESCRIPTION

The new generation of EDR stacks utilizes our first-hand experience from the field and more than 30 years of research and production of industrial electrodialysis units.

The new EDR-IF stack is a supplement to the existing portfolio of EDR stacks by MEGA, with its main benefit in treatment of water with higher salt concentration.

ADVANTAGES

Up to 40 % higher performance compared to the existing state-of-the-art stacks

EDR-IF stacks are removing all issues limiting higher efficiency of existing EDR stacks. We have increased the performance of the stacks to a new level.

Reduction of downtime for EDR technology

The need for regular membranes and spacers replacement has been highly reduced giving more days of uninterrupted operation to the customer. There is no need for external rinsing of incrustations.

Up to 30 % layout reduction for EDR systems

Higher performance of the stacks allows reduction in number of stacks used in application, reducing the number of used systems as well.

No internal or external leakages

MEGA is proud to produce one of a few electrodialysers with the smallest possible leakages on the market. Further development of our technology in this area assures no loss of product water. This enhances both the desalinated water quality as well as water recovery.

Cost reduction

Capital investment is minimized by reducing the number of systems.

Robust design

Stacks retain the capability of being dismantled and manually cleaned by water jet without any harm to the stacks. This allows operators to carry on with production without the need of module replacement.





Specifications	
Parameter	EDR-IF/250
Number of membrane pairs	250
Anion-exchange membrane	RALEX® AM(H)
Cation-exchange membrane	RALEX® CM(H)
Spacer thickness [mm]	0.8
Electrodes	4 pcs, Ti/Pt
Stack dimensions – length × width × height [mm]	1130 × 710 × 2030
Weight of empty/filled stack [kg]	1120/1290
Hydraulic connection D, C [mm]	d 90
Hydraulic connection E [mm]	d 20

Specification of ion-exchange RALEX® membranes	
Parameter	EDR-IF/250
Dimensions of swollen membranes – length × width × thickness [mm]	1370 × 420 × 0.6
Total installed area of membranes [m ²]	287.9

Operating and limit parameters	
Parameter	EDR-IF/250
Max. voltage [V]	500
Max. current [A]	180
Operating flow rate D, C [m ³ /h]	15–25
Operating flow rate ES [m ³ /h]	2 × 1.0–1.5
Salt removal [%]	30–75
Max. inlet pressure [kPa]	400
Pressure loss of D, C on 25 °C [kPa]	15–60



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