

ED(R)-II

ELECTRODIALYSIS STACK

PROCESS CORE OF ED TECHNOLOGY FOR WATER TREATMENT
APPLICATIONS:

- Food&beverage liquids treatment Green chemicals
- Metal recovery
- Different types of medium to high industrial wastewater
- Different types of liquids with high organic content

DESCRIPTION

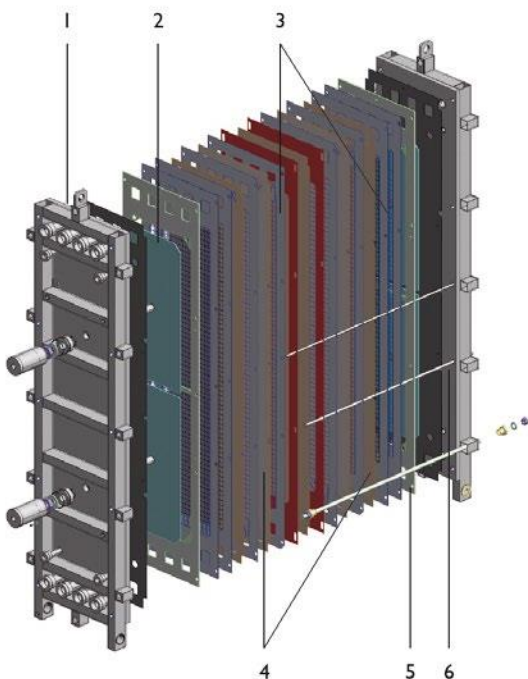
Electrodialysis stack of desk type with possibility of electrode polarity reversing to decrease fouling and scaling risks; operating in batch, feed and bleed or single pass mode.

CAPACITY

Operating flow rate up to 20 m³/hour.

STRUCTURE

1. Tightening boards with built in electrodes and collectors
2. Electrodes
3. RALEX ion exchange Membranes
4. Spacers
5. Tie rods, washers and nuts
6. Assembly pins



Electrodialysis stack ED(R)-II



FEATURES

- High performance
- Gravity liquid discharge
- Increased electrical stability
- Increased current density applications
- Modular design up to 250 cps
- Minimized internal and external leakages
- Minimized maintenance
- Low organic fouling

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ELECTRODIALYSIS STACK

SPECIFICATIONS

Parameter	ED(R)-II 200-0.8	ED(R)-II 250-0.8
Number of membrane pairs	200	250
Anion exchange membrane	RALEX AM(H) PES	RALEX AM(H) PES
Cation exchange membrane	RALEX CM(H) PES	RALEX CM(H) PES
Spacer thickness [mm]	0.8	0.8
Electrodes – ED version	2 pcs, Ti/Pt 2 pcs, stainless steel	2 pcs, Ti/Pt 2 pcs, stainless steel
Electrodes – EDR version	4 pcs, Ti/Pt	4 pcs, Ti/Pt
Stack dimension – length x width x high [mm]	722 x 510 x 1,860	920 x 510 x 1,860
Weight of empty/water filled stack [kg]	400/600	460/700
Hydraulic connection D,C [mm]	d 40 (d 50 push part)	d 40 (d 50 push part)
Hydraulic connection E [mm]	d 25 (d 40/32 push part)	d 25 (d 40/32 push part)
Dimensions of swollen membranes length x width x thickness [mm]	1,590 x 400 x 0.65	1,590 x 400 x 0.65
Total installed area of membranes [m ²]	254	318

OPERATING AND LIMIT PARAMETERS

Parameter	ED(R)-II 200-0.8	ED(R)-II 250-0.8
Max. voltage [V]	240	300
Max. electric current [A]	120	120
Operating flow rate D,C [m ³ /hour]	9.5	12
Min./max. flow rate D,C [m ³ /hour]	6.5/15	8/20
Operating flow rate E [m ³ /hour]	2x 1	2x 1
Min./max. flow rate E [m ³ /hour]	2x 0.5–2	2x 0.5–2
Operating desalination cut [%]*	45–60	45–60
Min./max. desalination cut [%]*	20/75	20/75
Max. inlet pressure [kPa]	250	250
Pressure loss of D,C on 25 °C [kPa]	100	100
Max. pressures difference in D,C [kPa]	10	10

* desalination cut is bound to feed water composition and temperature. Scale Lab projection must be completed by MEGA personnel for proper system design and performance guarantee.