

RALEX® EDI STACK MPure™ 36

APPLICATION:

MPure™ electrodeionization (EDI) stacks are used for the production of high purity water for the power, semiconductor and chemical industry.

EDI produces high purity water continuously without the use of hazardous regeneration chemicals required for a mixed bed process.

DESCRIPTION:

MPure™ stacks are building on MEGA's ion-exchange membrane manufacturing capability and extensive electroseparation experience. All stacks include RALEX® ion exchange membranes developed by MEGA.

The novel MPure™ stack produces 16 to 18 MΩ-cm product water quality at very high recovery. These stacks are designed to replace mixed bed ion exchange at flow rates from 5 to 500 m³/h (20 to 2000 gpm) and beyond.

FEATURES:

- Stack interconnection capability for low cost system construction
- High flow rate blocks, flows up to 45 m³/h (200 gpm) per block
- High deionization with recovery up to 97.5 %
- Robust design: no internal or external leaks
- Small footprint: ideal for operation inside containers
- Voltage stability
- Effective replacement for competing EDI technology
- Complete OEM engineering package



MPure™ 36 stack



RALEX® EDI STACK MPure™ 36

Physical Specifications		
Number of cell pairs		36
Dimensions (W×H×D)		582×802×697 mm (22.9×31.6×27.4 inch)
Shipping weight		300 kg (661 lbs)
Operating weight		325 kg (717 lbs)
Hydraulic Connections	D	2½" (73 mm) victaulic
	C	1¼" (42.4 mm) victaulic
	E	¾" (29.6 mm) victaulic

Performance	
Flow nominal	10 m³/h (44 gpm)
Flow maximum	15 m³/h (66 gpm)
Flow minimum	5 m³/h (22 gpm)
Concentrate flow	>0.3 m³/h (>1.3 gpm)
Electrode flow	>0.1 m³/h (>0.4 gpm)
Recovery	<97.5 %
Feed pressure	<7 bar (<102 psi)
Pressure drop D at nominal flow	1.3–2.3 bar (19–33 psi)
Pressure difference D>C	>0.3 bar (>4 psi)
Temperature	5–40 °C (41–104 °F)
Current	<16 A
Voltage	<300 V
Product water quality	>16 MΩ·cm*
Silica removal	>96 %

Feed water specifications	
TEA and TEC	<25 ppm as CaCO ₃
Feed water source	RO permeate or better
Free Cl ₂	<0.01 ppm Cl ₂
Oxidizing agents	N.D.
Fe, Mn	<0.01 ppm
Sulfide	<0.01 ppm H ₂ S
Oil	N.D.
Turbidity	<0.1 NTU
SDI	<1
pH	4–10
Total hardness	<1 ppm as CaCO ₃
Total organics	<0.5 ppm TOC
Silica	<1.0 ppm SiO ₂

*Actual performance will depend on site conditions. Please use MEGA's software to determine actual performance.

