

NEXED – High Flow Electrodialysis Modules

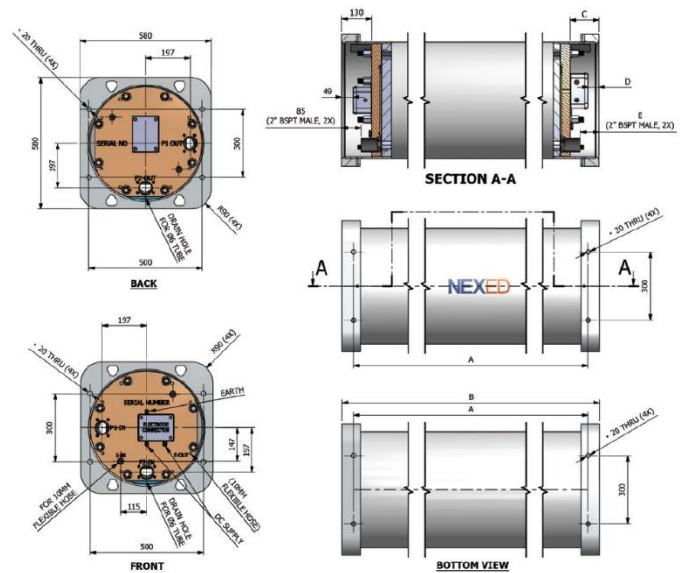
NEXED MODULE 3, 6, 12 m³/h

The NEXED™ Modules provide a foundation to reimagine the possibilities of electrodialysis. Three modules ranging from 1,7 – 13,6 m³/hr (7,5 - 60 gpm) represent a substantial increase in efficiency and cost competitiveness for ED/EDR in higher salinity brackish water desalting applications. Proprietary flexmount connectors create a support for additional modules which simplifies skid construction.

Multiple modules can be used in parallel and series to meet brackish water salinity desalting requirements for flow rates of hundreds cubic meter per hour.

NEXED Module Series Features

- Tunable control for selective water quality
- Flexible design to optimize for low flow energy or small footprint
- State-of-the-art ion-selective membranes
- High membrane utilization cross-flow design
- Automated manufacturing to optimize performance
- High recovery capability
- Low operating pressure reduces cost
- Can be operated in horizontal or vertical orientation
- On-board junction box



Model	A	B	Flow range m ³ /h (gpm)
NEXED3-4A-1	620 mm (24,4 inch)	720 mm (28,35 inch)	1,7 – 3,4 (7,5 – 15)
NEXED6-8A-1	994 mm (39,1 inch)	1094 mm (43,1 inch)	3,4 – 6,8 (15 – 30)
NEXED12-16A-1	1740 mm (68,5 inch)	1840 mm (72,45 inch)	6,8 – 13,6 (30 – 60)

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Engineering purity



INTERNATIONAL IONPURE MASTER SERVICE PROVIDER

NEXED High Flow Electrodesalination Modules

Operating environment

Installation should be indoors with no direct sunlight and it should have a maximum ambient temperature of 45°C (113°F).

Material of construction

1. Wetted product water components of the NEXED module consist of: PVC, PPE / PPO / polystyrene, polypropylene, silicone, epoxy resin, ion-selective membranes.
2. Housing is fiberglass reinforced plastic (FRP). Standard colour is light grey / blue with a glossy finish.
3. The proprietary Flexmount bracket/end-block assembly is an epoxy painted aluminum casting suitable for securing modules to the frames and/or each other in system's approved configurations.

Ordering Information

Use model number NEXED12-16A-1, NEXED6-8A-1 and NEXED3-4A-1 when ordering for horizontal or vertical installation.

Each NEXED module has 6 process connections; feed, concentrate feed, product, concentrate, electrode inlet and electrode outlet. Note: polarity reversal applications utilize an A : B operation that changes the orientation of feed, concentrate feed, product and concentrate to mitigate fouling. PVC plugs and dust covers are provided with the module.

Module electrical connections are made through a single on-board junction box.

Dimensions		
Diameter	Width	Height
510 mm (20 in)	580 mm (22,8 in)	580 mm (22,8 in)

Maximum Feed Water Specifications	
Feed water salinity	< 15.000 ppm optimal
Product water salinity minimum	100 ppm
Temperature	5 - 45°C
Inlet pressure	≤ 1,7 bar
Total Chlorine (as Cl ₂)	0,5 mg/l continuous 30 mg/l intermittent
Iron (as Fe)	< 0,3 mg/l
Manganese (as Mn)	< 0,1 mg/l
pH	3 - 12
Total hardness (as CaCO ₃)	less than saturation limits
Total organic carbon (as C)	< 15 mg/l optimal
Total suspended solids (size µm)	< 25 µm
COD (as O ₂)	< 50 mg/l
Grease or oil (IR method)	< 2,0 mg/l

Typical Module Operating Parameters	
DC voltage	0 - 600
DC amperage	0 - 13,2
Recovery	up to 95%

Flows and Weights					
Model number	Product Flow Min m ³ /h (gpm)	Product Flow Nominal m ³ /h (gpm)	Product Flow Max m ³ /h (gpm)	Shipping weight	Operating weight
NEXED3	1,7 (7,5)	3 (13)	3,4 (15)	100 kg (221 lbs)	114 kg (252 lbs)
NEXED6	3,4 (15)	6 (26)	6,8 (30)	131 kg (289 lbs)	159 kg (351 lbs)
NEXED12	6,8 (30)	12 (53)	13,6 (60)	192 kg (424 lbs)	248 kg (547 lbs)

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