

Eco LabPure

RO EDI water treatment plant



The Eco LabPure, from Envirogen Group, is an energy efficient skid-mounted reverse osmosis, CO₂ degasser, electro-deionisation water treatment plant. It's compact design delivers small volume, high purity water requirements.

This compact multi-technology solution is designed to provide 150 to 1000 l/hr flow rates of high purity water for central laboratories, research and development, pharmaceutical, electronics and general manufacturing applications. Eco LabPure incorporates a three-stage, chemical-free process, including reverse osmosis (RO) technology followed by degas membrane contactors for CO₂ removal, and electro-deionisation (EDI) system treatment.



Features and Benefits

- Continuous operation, chemical free generation of ultra-pure water
- Inlet carbon filter to reduce chlorine levels and particulates
- Integral type AB air gap raw water break tank
- High efficiency, low energy RO membranes with water rejection rates of up to 96-98%
- Degas membrane contactors for CO₂ removal for improved process efficiency
- High flow rate EDI module to reduce plant foot print
- Bespoke EDI controller to ensure EDI stack is monitored and operated efficiently
- PLC & HMI control system for intelligent monitoring and operation
- System incorporates high quality instrumentation package
- Compact pre-packaged, skid-mounted system minimises installation, commissioning, start-up time
- Service and maintenance with access to a network of nationwide after-sales support teams
- Remote monitoring with trending capabilities & SMS/email messages.

Additional Options

- Treated water tank and distribution skids available.

Technical Specification

Model		150	250	500	750	1000
Nominal Permeate Performance*	l/h	150	250	500	750	1000
Rejection Rate (Nom)**	%	96-98				
System Inlet Pressure (Min/Max)	Bar	1.5-6				
Ambient Temperature	°C	5-35				
RO Membrane	Num	2	2	2	3	4
Degasser Membrane Contactor	Num	1	1	1	1	2
EDI Module	Num	1	1	1	1	1
Feed Water Inlet (Flange)	DN	15	15	15	15	20
Permeate Outlet (Flange)	DN	20				
Concentrate Outlet (Flange)	DN	20				
Tank Overflow	DN	32				
Length	mm	770	770	770	900 ¹	900 ¹
Width	mm	720	720	720	900 ¹	900 ¹
Height	mm	1840				
Weight (Dry) (approx.)	Kg	300	300	400	450	500
Electrical Supply	V/ph/Hz	415/3/50				
Fuse Rating	A	20	20	32	32	32
Power Consumption	kW / A	7.5 / 11	7.5 / 11	17 / 25	20 / 29	20 / 29
Protection Class	IP	54				

* For water quality of 10°C, 3.0 Bar. TDS ≤ 500mg/l ± 15%, SDI ≤ 3.0, oxidants ≤ 0.5 mg/l.

** Based on water quality of TDS ≤ 500 mg/l, with softening as a pre-treatment.

¹ Length and width subject to change due to continued improvement.

Performance Specification

Performance Specifications	
Inorganics	1 to >15 MΩ-cm at 25°C
TOC	<50 ppb
Bacteria	<1 CFU/ml
Particles	0.2 µm filter
pH	Effectively neutral

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