

E8 Series 50 Hz

reverse osmosis machine 9-23 cubic meters per hour



Figure 1: E8 Series

When you mention reverse osmosis (RO), SUEZ is the first name to come to mind. Our E-series RO machines (Figure 1) are designed for durable operation, high quality product water production, easy installation, and straightforward control.

general properties

Typical Applications

- Process ingredient water
- Safe drinking water
- Boiler feed water
- Ion exchange pre-treatment

Standard Economy Features

- Energy saving 37.2 m² (400 ft²) membrane elements
- SS high-pressure piping
- 1-micron pre-filter with SS housing
- Automatic inlet shut-off valve

- Accutrak RO microprocessor controller
 - Permeate and concentrate paddlewheel flow sensors
 - Permeate conductivity sensor
 - Permeate tank level monitoring
 - SD card for collection of operating data
 - ALARMS: Low inlet pressure, high concentrate pressure, high temperature, high permeate conductivity, motor fault, and fill-time exceeded
 - Remote machine on/off capability
- Feed water flush on shut down
- Panel-mounted pre-filter, post-filter, primary, and final pressure gauges

Deluxe (DLX) Features – in addition to ECN features

- Inlet pH sensor
- Chemical dosing pump for antiscalant dosing or pH adjustment
- Clean-In-Place pump plumbed, wired, and mounted; remote tank
- ALARMS: Same as above plus high/low pH, high permeate pressure

Table 1: Operating Parameters

Operating Pressure	14-15 bar
Maximum Recovery	75%
Nominal Rejection	95-98%
Operating Temperature	13-30 °C (55-85 °F)
Minimum Inlet Pressure	2 bars (30 psig)
Design Temperature	25 °C (77 °F)

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Table 2: Materials of Construction

Frame	Painted Carbon Steel
Membrane Elements	AG8040F
Membrane Housing	FRP
Low Pressure Pipe	Schedule 80 PVC
High Pressure Pipe	Stainless Steel
Motor Starters	NEMA 4

Table 3: Pump and Motor

Pump Manufacturer	Tonkaflo
Pump Type	Multi-stage, centrifugal
Materials	SS shell/housing, Noryl* internals
Castings	SS inlet/discharge
Motor	3-phase, TEFC, 380 VAC

Table 4: E8 Specifications - 50 Hz

Model	E8-57K	E8-86K	E8-108K	E8-144K
ECN	1202845	1202849	1202831	1202834
DLX	1202292	1202294	1202295	1202296
Flow Specifications				
Recovery Range:	66-75%	66-75%	66-75%	66-75%
Permeate Rate: m ³ /h (gpm)	9 (40)	14 (60)	17 (75)	23 (100)
Concentrate Rate: m ³ /h (gpm)	5-3 (21-13)	7-5 (30-20)	9-6 (39-25)	12-8 (52-33)
Pump and Motor				
RO Pump Model	SS8516KB	SS12512KC	SS24009KE	SS24009KE
RO Motor: KW (HP)	11.2 (15)	18.7 (25)	29.8 (40)	29.8 (40)
CIP Pump Model: (DLX only)	SS5504G	SS5504G	SS12502G	SS12504D
CIP Motor: KW (HP)	2.2 (3)	3.7 (5)	5.6 (7.5)	5.6 (7.5)
Membrane Elements and Filters				
Membrane Quantity	8	12	15	21
Array	1-1-1	2-1-1	3-2	3-2-2
Pre-Filter Quantity	7, RO.Zs 01-40-XK	7, RO.Zs 01-40-XK	7, RO.Zs 01-40-XK	7, RO.Zs 01-40-XK
Connections				
Inlet: cm (inch)	5.1 (2.0)	5.1 (2.0)	5.1 (2.0)	7.6 (3.0)
Permeate: cm (inch)	3.8 (1.5)	5.1 (2.0)	5.1 (2.0)	5.1 (2.0)
Concentrate: cm (inch)	3.8 (1.5)	3.8 (1.5)	3.8 (1.5)	3.8 (1.5)
Dimensions & Weights				
Height: cm (inch)	193 (76)	193 (76)	193 (76)	193 (76)
Width: cm (inch)	388 (153)	388 (153)	388 (153)	388 (153)
Depth: cm (inch) ECN	107 (42)	107 (42)	107 (42)	107 (42)
Depth: cm (inch) DLX	231 (91)	231 (91)	231 (91)	262 (103)
Shipping Weight Estimate: kg (lb)	ECN 1200 (2600)	1360 (3000)	1500 (3400)	1750 (3800)
Shipping Weight Estimate: kg (lb)	DLX 1300 (2800)	1500 (3300)	1700 (3700)	1900 (4200)