

E8 Plus Series 50/60 Hz

Reverse Osmosis Machine 216,000 to 288,000 gallons per day
(34-45 m³/hr)



Figure 1: E8 Series

GE's 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 400 ft² (37.2 m²) membrane elements
- SS high-pressure piping
- 1-micron pre-filter and SS housing
- Automatic inlet shut-off valve
- Burkert mxCONTROL 8620 controller with PC Ethernet
 - 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 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 inlet pH, high permeate pressure, high concentrate pressure

Table 1: Operating Parameters

Operating Pressure	200-250 psig (13.8-17.2 bar)
Maximum Recovery	75%
Nominal Rejection	95-98%
Operating Temperature	55-85 °F (13-30 °C)
Minimum Inlet Pressure	30 psig (2 bar)
Design Temperature	77 °F (25 °C)



Table 2: Materials of Construction

Frame	Painted Carbon Steel
Membrane Elements	AK-400
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 (60hz)	3-phase, TEFC, 460 VAC 60hz
	3-phase, TEFC, 380 VAC 50hz

Table 4: E8+ Specifications

Model	E8-216K-60hz	E8-288K-60hz	E8-216K-50hz	E8-288K-50hz
ECN	3061456	3061460	3061455	3061459
DLX	3061454	3061458	3061453	3061457
Recovery Range:				
	66-75%	66-75%	66-75%	66-75%
Permeate Rate: gpm (m³/h)				
	150 (34)	200 (45)	150 (34)	200 (45)
Concentrate Rate: gpm (m³/h)				
	77-50 (17-11)	103-67 (23-15)	77-50 (17-11)	103-67 (23-15)
RO Pump Model				
	SS24008KZE	AS40407KZE	SS240013-50	AS40412-50
RO Motor: HP (KW)				
	50 (37.3)	60 (44.7)	50 (37.3)	60 (44.7)
CIP Pump Model: (DLX only)				
	SS12502G	SS12503D	SS12504D-50	SS24004D-50
CIP Motor: HP (KW)				
	7.5 (5.6)	10 (7.5)	7.5 (5.6)	15 (11.2)
Membrane Quantity				
	30	36	30	36
Array				
	3-2	4-2	3-2	4-2
Pre-Filter Quantity RO.Z 01-40-XK, 3027255				
	14	21	14	21
Inlet: inch (cm)				
	4.0 (10)	4.0 (10)	4.0 (10)	4.0 (10)
Permeate: inch (cm)				
	3.0 (7.6)	4.0 (10)	3.0 (7.6)	4.0 (10)
Concentrate: inch (cm)				
	3.0 (7.6)	3.0 (7.6)	3.0 (7.6)	3.0 (7.6)
Height: inch (cm)				
	76 (193)	76 (193)	76 (193)	76 (193)
Width: inch (cm)				
	273 (693)	273 (693)	273 (693)	273 (693)
Depth: inch (cm) ECN				
	42 (107)	42 (107)	42 (107)	42 (107)
Depth: inch (cm) DLX				
	103 (262)	103 (262)	103 (262)	103 (262)
Shipping Weight Estimate: lb (kg)				
	ECN	6250 (2835)	6250 (2835)	6925 (3141)
Shipping Weight Estimate: lb (kg)				
	DLX	6380 (2894)	6380 (2894)	7270 (3298)

