Water Technologies & Solutions
fact sheet

mobile E-Cell* trailer

description and use

Mobile E-Cell trailers from SUEZ provide emergency, interval, or long-term service for de-ionized water needs. The E-cell trailer produces high purity water using electro-deionization (EDI) technology. Water is de-ionized using electrically regenerated high purity ion exchange resins. No regenerant acids or caustics are required. The Mobile E-Cell trailer contains all the necessary hardware to produce and monitor up to 300 gpm (68 m^3/h) of quality water. Monitored parameters include concentrate and permeate conductivity, e-flow, concentrate loop and concentrate recycle flow meters; and feed, product, concentrate loop and pump discharge pressure transmitters. The data gathered is monitored to ensure the Mobile E-Cell trailer is running optimally.

general properties

Features

- Up to 300 gpm (68 m^3/h) flow rate
- 16 MOhm.cm (0.06 µmhos) product water
- Able to combine with other SUEZ Mobile Products to enhance system capability
- SUEZ Technician operates trailer
- Emergency, Interval and long-term service for E-Cell water needs
- No regenerant acids or caustics required

Table1: Trailer Specifications

Dimensions	
Trailer Length	48 ft (14.6 m)
Trailer Height	13 ft, 6 in. (4.1 m)
Trailer Width	8 ft, 6 in. (2.6 m)
Shipping Wt.	@ 40,000 lb (18,143kg)
Operating Wt.	@ 50,000 lb (22,680kg)
System on Board	
Flow Rate	Up to 300 gpm (68 m^3/h)
Product Water quality	Resistivity 16 MOhm.cm (Cond. 0.06 µmhos)
Nominal Recovery	90 - 95%
Cartridge Filter	5 µ nominal to prevent contamination from external supply
Rectifiers	Redundant Rectifiers
Max. Water Temp.	100°F (38°C)
Min. Water Temp.	45°F (7.2°C)
Nom. Water Temp.	60°-75°F (16°-24°C)
Max. Inlet Pressure	100 psig (6.9 bar)
Min. Inlet Pressure	45 psig (3.1 bar)
HVAC	
The Mobile E-Cell Trailer is climate controlled with an electric HVAC unit.	
Product Water	
Silica	<25 ppb*
Sodium	<2 ppb
Boron	<0.1 ppb
*10 ppb when fed by two-pass RO	
Feed Water (RO Permeate or Equivalent)	
Feed TEA	<25 ppm
Silica	<0.5 ppm
TOC	<0.5 ppm
Hardness	<0.5 ppm

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Table1: Trailer Specifications (continued)

Connections (Stainless Steel)	
Connection Type	Flange with adapters for Victaulic* and Fire Hoses
Feed Water Inlet	6-in. (152-mm)
Outlet (Product)	6-in. (152-mm)
Clean In Place Inlet	6-in. (152-mm)
Rinse/Divert Outlet	6-in. (152-mm)
Clean In Place Outlet	6-in. (152-mm)
Conc. Bleed	1.5-in. (38.1-mm)
Electrode Outlet	1-in. (25.4-mm)
Electrical	
Power re-quirements	One drop of 240 amp 3-phase power (460 VAC)
Breaker size	250 Amp 3-phase (min.)
Installed KVA	200 KVA
Nom. DC Power Consumption	0.2 - 1.5 KWh/1000 gal (0.05 - 0.4 KWh/m^3)
Instrumentation	
PLC	GE Fanuc[1] PLC
Customer tie-in	Analog (4-20 mA) and/or discrete tank level for automatic shut down

Parameters	Feed	Product (Outlet)	Concentrate
(Waste)			
Flow		X	X
Temperature	X		
Resistivity (Conductivity)	X	X	
Pressure	X	X	X
Silica		X	

[1] GE Fanuc is a trademark of General Electric Company.

safety precautions

A Material Safety Data Sheet containing detailed information about this product is available on request.