

**LB-14,000 F - Large Scale Brackish Water Solution**



**PRODUCT SPECS**

Article Number	<b>LB-14000F-230</b>
Salt Rejection	99.5%
Technology	High energy-efficient Reverse-Osmosis (RO)
Production per Day	53 m <sup>3</sup> /d (14,000 gpd)
Production per Hour	2207 lph (583 gph)
Recovery Rate	55%
Feed Water Source	Brackish
Feed Flow Rate	Feed Flow is 75 lpm (20gpm) at 2 bar (30 psi) Note that the feed pressure needs to be adjustable to optimize pump performance for the pre-filtration system utilized.
Voltage Options	208-240VAC, single or three phase
Power	<4 kW
Watt per Liter	2
Water Temperature Limits	Max 43°C (110°F) / Min 2°C (36°F)
Sound Pressure Level	79 dB at 1 meter
Weight	760 kg (1675 lbs)
Frame Dimensions	178 cm x 88 cm x 107 cm (70" x 34.5" x 42")

**FEATURES**

- Optimized for use with Brackish water (Total Dissolved Solids under 24,000 PPM)
- Spectra Connect Controller for automated operation and LAN enabled remote monitoring and control
- Extremely energy efficient, requiring typically less than 4 kW to purify seawater
- Soft-start speed control, no start-up spike
- Rugged, powder coated 304 stainless steel frame
- Fixed freshwater recovery ratio for easy operation, optimized for long RO membrane life
- Perfectly pairs with wind or solar power due to high energy efficiency
- Significantly quieter than conventional RO watermakers
- Patented energy recovery design and automated controls eliminate the need for constant monitoring by an operator.
- Membranes are protected from overpressure and scaling by design and can last 8-10 years or more with proper maintenance
- Spectra’s renowned customer service and support with technicians available by Skype, phone and e-mail in North America and Europe

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1	Product Quality + Feed Flow Gauges
2	Product Water Out
3	Spectra Connect Control Panel
4	Boost Pressure Gauge
5	Membrane Pressure Gauge
6	Service Port
7	Brine Pressure Gauge
8	Brine Port
9	Water Inlet
10	Rugged 304 Stainless Steel Frame
11	5HP 220V Motor

12	Pearson Pump Energy Recovery Device
13	4"x 40" Membranes
14	VFD Speed Control



**SYSTEM SHIPPING LIST**

<b>System</b>
LB-14,000 in Powder Coated Stainless Steel Frame
<b>Components Built into Frame Assembly</b>
Pearson Pump Energy Recovery System
4 1000psi composite high pressure vessels w/ Filmtec 8x40" seawater RO membranes
5hp Motor, 220vac single phase
Spectra Connect Control System
Powder Coated 304 Stainless Steel frame
<b>Installation Kit</b>
Service Hoses and Filter Wrench
Hand-held TDS/Salinity Meter
User Manual
Log Book

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**SPARE PARTS AND CONSUMABLES**

Article Number	Product
<b>FT-FTC-5BB20</b>	5 micron 4x20" cartridge filter
<b>FT-FTC-10BBCALCITE</b>	10" Big Blue Calcite filter - For optional remineralization of drinking water
<b>EL-SWT-SMLV</b>	Tank level switches. For use with Spectra Connect Controller
<b>KIT-SP5C-30R2K5</b>	2,500 hr Pearson Pump rebuild kit
<b>KIT-SP5C-30R10K</b>	10,000 hr Pearson Pump rebuild kit
<b>PP-20-BD-540H</b>	SPP20 540H150 drive belt
<b>KIT-CHEM-SC2</b>	Spectra alkaline membrane cleaner
<b>KIT-CHEM-SC3</b>	Spectra acid cleaner
<b>KIT-CHEM-SC1</b>	Spectra membrane preservative

**OPTIONAL COMPONENTS**

Article Number	Product	Description
<b>EL-CHE-3GPD220A</b>	Anti-scalant Chemical Injection System	On/off control integrated with main desalination system control for automatic operation. Tank level switch indicates low chemical level, composite construction for long life. Stroke and frequency adjustments for easy setup and operation.
<b>FT-MD-AG16X65</b>	Multi-media Prefiltration System	Electronically automated media valve heads allow for autonomous operation. Manually or scheduled automatic backwash standard, backwash on differential pressure available with differential pressure switch option, below. Two units are required per installation.
<b>KIT-LB-BP-20SC</b>	Shallow Well Jet Pump	Self priming up to 10ft (3m), composite construction, motor speed control to allow for maximum efficiency.
<b>FT-MD-AG16X65</b>	Automated Prefilter-System	This media filter is configured for seawater and optimized for easy backflushing
<b>SUB-X-CB-MNRFA</b>	Remineralizer and ph-correction	A calcite cartridge is used to balance the Ph and remineralize the product water in brackish water systems (not needed with seawater feed)
<b>EL-CHE3GPM220A</b>	Chlorine or Chemical Injection System	This unit precisely meters the 50 litre (15 g) concentrate into the product water
<b>FT-UV-3GPM24</b>	UV Post Treatment	Available when required by local regulations

## List of all Portable Desalination and Purification Systems

### AQUIFER SERIES

Article Number	Product	Product Information	Output
<b>AF-200-DC</b>	Aquifer 200	Highly portable water purification/desalination system. External power required.	30l/h, 8gph
<b>AF-200-EX-FL</b>	Aquifer 200 Expedition	External power required, compatible with optional Solar Power Pack (KIT-AF-FLRPS2P24).	30l/h, 8gph
<b>AF-200-PPS</b>	Aquifer 200 Power Pack Solar	Includes Solar Panel. A self-sufficient offgrid water purification/desalination solution that fits in a single case.	30l/h, 8gph
<b>AF-FLR-200</b>	Aquifer 200 Flight Ready	Complete portable watermaker system, 3 cases include watermaker, feed pumps and solar panels. Weight managed for commercial flights.	30l/h, 8gph
<b>AF-360-EX-FL</b>	Aquifer 360 Expedition	Portable with higher output. External power required, compatible with optional Solar Power Pack (KIT-AF-FLRPS3P24).	55l/h, 15gph
<b>AF-FLR-360</b>	Aquifer 360 Flight Ready	Complete portable watermaker system, 3 cases include watermaker, feed pumps and solar panels. Weight managed for commercial flights.	55l/h, 15gph
<b>KIT-AF-FLRPS2P24</b>	2 Panel Power Supply Case	Power supply case with options for 12/24v DC, 100-240c AC 50/60 Hz as well as included Solar Panels. Compatible with AF-200-EX-FL.	n/a
<b>KIT-AF-FLRPS3P24</b>	3 Panel Power Supply Case	Power supply case with options for 12/24v DC, 100-240c AC 50/60 Hz as well as included Solar Panels. Compatible with AF-360-EX-FL.	n/a

### LANDBASED SERIES

Article Number	Product Information	Watts Used*	Output
<b>LB-400</b>	Compact, modular purification/desalination	300	64l/h, 17gph
<b>LB-1800F-220M</b>	Framed watermaker with manual controls	800	285l/h, 75gph
<b>LB-1800C-220</b>	Framed watermaker with automated Spectra Connect controller	800	285l/h, 75gph
<b>LB-2800F-220M</b>	Framed watermaker with manual controls	1200	435l/h, 115gph
<b>LB-2800C-220</b>	Framed watermaker with automated Spectra Connect controller	1200	435l/h, 115gph
<b>LB-10000-F-MS</b>	Framed watermaker with manual controls	3800	1,575l/h, 420gph
<b>LB-10000F-230S</b>	Framed watermaker with automated Spectra Connect controller	3800	1,575l/h, 420gph
<b>LB-20000 Container</b>	Containerized community-level watermaker built into a standard shipping container. Ready to combine with a solar power system.	< 8kW	3,155l/h 833gph
<b>LB-4000F-220M</b>	Brackish Water system, framed with manual controls	1200**	680l/h, 180gph
<b>LB-4000C-220</b>	Brackish Water system, framed with automated Spectra Connect controller	1200**	680l/h, 180gph
<b>LB-14000F-M-BR2S</b>	Brackish water system, framed with manual controls	5300**	2,208l/h 583gph
<b>LB-14000F-230</b>	Brackish water system, framed with automated Spectra Connect controller	5300**	2,208l/h 583gph

\*Using Seawater feed at 32,000 ppm and 25°C (77° F).

\*\* 25,000 ppm maximum salinity for these brackish water systems

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