

LB-400 - Stationary Modular Water Solution



PRODUCT SPECS

Article Number	LB-400
Salt Rejection	99.5%
Technology	High energy-efficient Reverse-Osmosis (RO)
Production per Day	1.5 m ³ /d (400 gpd)
Production per Hour	64 lph (17 gph)
Recovery Rate	10%
Feed Flow Rate	Recommended Feed Flow rate is 10.5 lpm (2.8gpm) at 7.5 bar (100psi).
Feed Water Source	Fresh, brackish, seawater
Voltage Options	24v DC, 48v DC, 110v AC, 220v AC
Power	300-600w (contingent on feed pump selection)
Watt per liter	4
Water Temperature Limits	Max 43°C (110°F) / Min 2°C (36°F)
Weight	34.5 kg (76 lbs)
Dimensions	120 cm x 59 cm x 46 cm (47" x 23" x 18")

FEATURES

- Simple analog controls and gauges, no electronics
- Super efficient, requiring as little as 350 watts to purify seawater, ideal for solar and wind power
- Fixed water recovery ratio for easy operation, optimized for long RO membrane life
- Perfectly pairs with wind or solar power due to high energy efficiency
- Patented energy recovery design and automated controls eliminate the need for constant monitoring by an operator
- Composite construction for superb corrosion resistance
- 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

LB-400 - Stationary Modular Water Solution



1	Clark Pump Energy Recovery Device
2	Reverse Osmosis Membrane
3	Pressure Accumulator
4	Prefilter Assembly
5	Flow and Pressure Gauge
6	DC Power Connection
7	Mil-Spec Plastic Case
8	Flow and Pressure Gauges



SYSTEM SHIPPING LIST

System
LB-400
Included Components
Clark Pump pressure intensifier, 10% recovery rate
Spectra 1000 psi composite pressure vessel with SW30-2540 seawater RO membrane
2.5" X 10" 5 and 20 micron pre-filters (1)
Analog gauges and controls
Modular construction for versatile installation options.
Product, Feed and Brine hoses
Feed Pump is not included with this system
Installation Kit
Filter Wrench
Hand-held TDS/Salinity Meter
User Manual

Special Note
This system does not include a feed pump.
A single LB-400 unit requires a feed flow of 10.5 lpm (2.8 gpm) at a pressure of 7.5 bar (100 psi) which works well with a Procon 140 pump (KIT-LB400-FPS24) and a 24 VDC motor with a variable speed control.
Two LB-400 units require a feed flow of 21 lpm (5.6gpm) at 7.5 bar (100 psi) which works well with a single Procon 240 pump (KIT-LB-CP-FPS220) 110 or 220 VAC motor with a variable speed control.

LB-400 - Stationary Modular Water Solution

SPARE PARTS AND CONSUMABLES

Article Number	Product
FT-FTC-5	5 micron cartridge filters
FT-FTC-20	20 micron cartridge filters
FT-FTC-CC	10" Carbon Block Filter Cartridge
FT-FTC-CAL	Calcite filter cartridge 10" BB
KIT-HP-S&O	Seal and O-ring kit for Clark Pump
KIT-HP-10UD	10% Clark Pump rebuild kit
KIT-CHEM-SC2	Spectra alkaline membrane cleaner
KIT-CHEM-SC3	Spectra acid cleaner
KIT-CHEM-SC1	Spectra membrane preservative

OPTIONAL COMPONENTS

Article Number	Product	Description
FT-MD-AG14X65	Multi-media Prefiltration System	Electronic media valve heads allow for autonomous operation. Manually or scheduled automatic backwash standard. Note: systems using this filter may require a larger feed pump to meet the 10gpm backwash requirement.
KIT-LB-BP-6SC	Shallow Well Jet Pump	Self priming up to 25ft (7.5M), composite construction, motor speed control to allow for maximum efficiency. Includes ACTech speed control and box. Note: max well depth 15ft (4.5M) if using as media backwash pump.
Feed Pumps		
KIT-LB400-FPS24	24VDC Feed Pump Assembly	With Procon 140 mag drive seawater vane pump, variable speed control, 1 hp Leeson DC motor.
KIT-LB-CP-FPS220	110 Or 220 VAC Feed Pump Assembly	With Procon 240 mag drive seawater vane pump, vfd speed control and 3/4 hp 220VAC three phase motor.
Post Treatment Options		
KIT-FLT-CALCTBB	PH Correcting Filter System	Automatically remineralizes and corrects the ph of RO permeate. Recommended for fresh or brackish water systems. 10" Big Blue calcite filter and housing.
EL-CHE-3GPD220A	Chlorine/chemical Injection System	Manual on/off controls. Tank level switch indicates low chemical level, composite construction for long life. Stroke and frequency adjustments for easy setup and operation.
FT-UVS-3GPM24	UV Post-treatment System	16Mj/cm2 standard dose rate 40mj/cm2 available, request a quote if required.
KIT-FWF-MN	Carbon Filter	For fresh water flush- circuit eliminates chlorine from flush water
Additional Accessories		
KIT-HHM	Hand held conductivity tester	W/calibration solution
EL-SLT-INCPMNT2	Inline salinity monitor	(Push to check)
KIT-LB-FWFM	Fresh water flush module	For systems without pressurized product water, specify voltage

List of all Portable Desalination and Purification Systems

AQUIFER SERIES

Article Number	Product	Product Information	Output
AF-200-DC	Aquifer 200	Highly portable water purification/desalination system. External power required.	30l/h, 8gph
AF-200-EX-FL	Aquifer 200 Expedition	External power required, compatible with optional Solar Power Pack (KIT-AF-FLRPS2P24).	30l/h, 8gph
AF-200-PPS	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
AF-FLR-200	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
AF-360-EX-FL	Aquifer 360 Expedition	Portable with higher output. External power required, compatible with optional Solar Power Pack (KIT-AF-FLRPS3P24).	55l/h, 15gph
AF-FLR-360	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
KIT-AF-FLRPS2P24	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
KIT-AF-FLRPS3P24	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
LB-400	Compact, modular purification/desalination	300	64l/h, 17gph
LB-1800F-220M	Framed watermaker with manual controls	800	285l/h, 75gph
LB-1800C-220	Framed watermaker with automated Spectra Connect controller	800	285l/h, 75gph
LB-2800F-220M	Framed watermaker with manual controls	1200	435l/h, 115gph
LB-2800C-220	Framed watermaker with automated Spectra Connect controller	1200	435l/h, 115gph
LB-10000-F-MS	Framed watermaker with manual controls	3800	1,575l/h, 420gph
LB-10000F-230S	Framed watermaker with automated Spectra Connect controller	3800	1,575l/h, 420gph
LB-20000 Container	Containerized community-level watermaker built into a standard shipping container. Ready to combine with a solar power system.	< 8kW	3,155l/h 833gph
LB-4000F-220M	Brackish Water system, framed with manual controls	1200**	680l/h, 180gph
LB-4000C-220	Brackish Water system, framed with automated Spectra Connect controller	1200**	680l/h, 180gph
LB-14000F-M-BR2S	Brackish water system, framed with manual controls	5300**	2,208l/h 583gph
LB-14000F-230	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

Katadyn Desalination, LLC

2220 S. McDowell Blvd | Petaluma, CA 94954 | U.S.A.

Tel: +1 415 526 2780 | Fax: +1 415 526 2787

sales@spectrawatermakers.com | www.spectrawatermakers.com

Spectra reserves the right to make changes to this fact sheet.