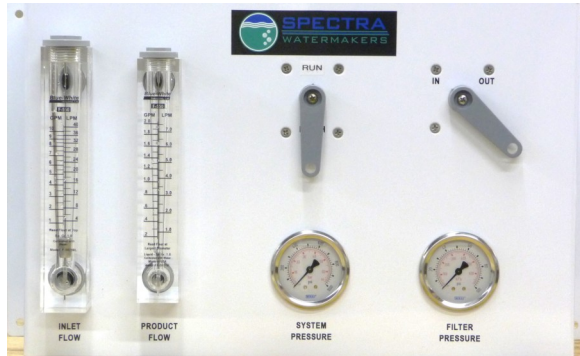


Spectra LB 1800 and 2800 Datasheet

The **LB-1800** and **LB-2800** are extremely energy efficient reverse osmosis desalination plants designed for stationary or industrial applications. They are supplied as modular kits to be installed in an existing building. There are three main components, the Pearson Pump module, the Gauge- flowmeter panel and an electrical control box. Also included are pre-filters and a basic installation kit. These systems can treat high salinity brackish water or seawater using just a fraction of the energy of conventional small plants. In fact, the Spectra LB machines are so efficient they are often powered from renewable energy. Using simple analog monitoring and controls, these economical units are perfectly suited to remote applications that require the ultimate in reliability.



These units are built using Spectra's revolutionary and proprietary new **Pearson High Pressure pump**.



**Pearson Pump with Spectraflux™
Membrane assembly for 1800**

The **Pearson Pump** is a breakthrough reciprocating pump design. This unique high pressure pump combines feed stream pumping and energy recovery into a single unit. The "Energy Recovery" feature of the **Pearson Pump** takes the energy entrained in the brine reject stream from the RO mem-

branes and recaptures it, dramatically increasing the overall efficiency. This results in bringing energy requirements down to an impressive 8-11 Watt Hours per Gallon (2.6 KWH per Cubic Meter) on seawater, a major improvement for small scale water desalination. The system does not require continuous monitoring and pressure adjustment as it stays inherently in balance at all times, providing a constant product flow and recovery ratio. The product flow can be controlled via the variable speed drive to the motor.

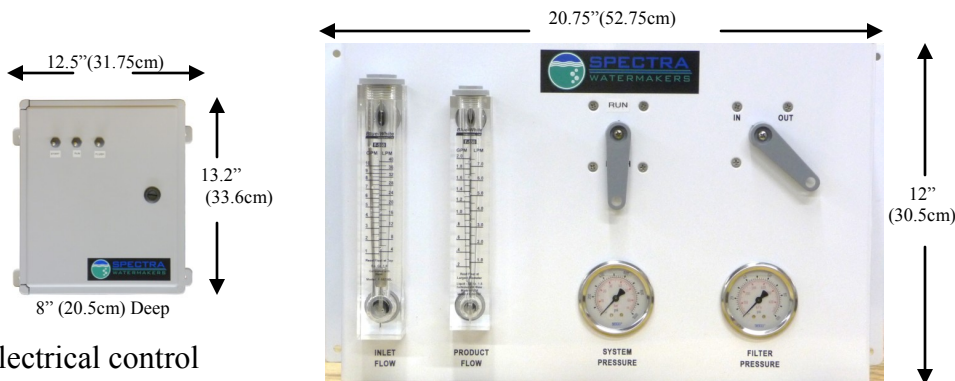
The **Pearson Pump** is manufactured from engineered composites and super duplex stainless steel for extreme corrosion resistance. Spectra's innovative oil filtration system allows for long maintenance intervals.

Technical Specs: Seawater

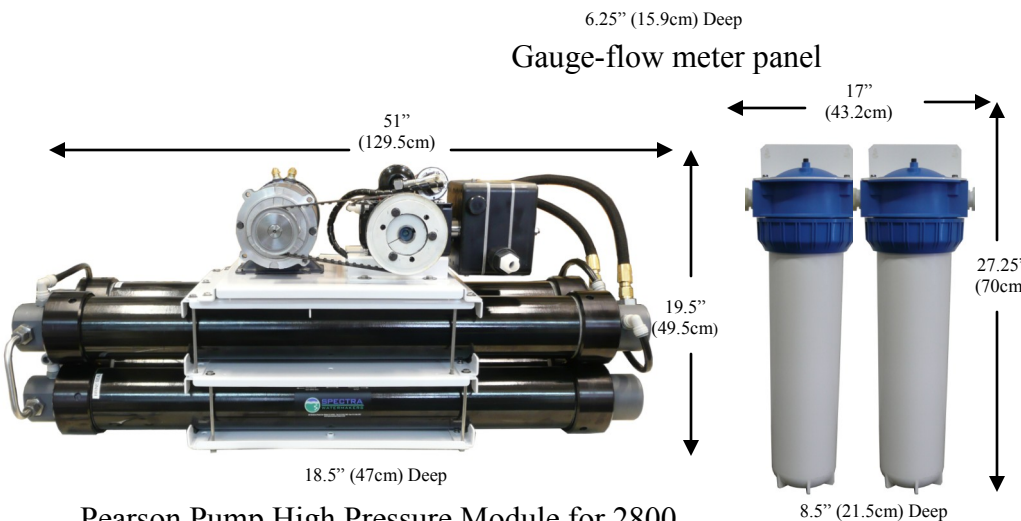
LB-1800 GPD
75 GPH (285 LPH)
Treats Seawater
or Brackish
Approx 800W
Available in 24V DC
48VDC, 120VAC,
240AC

LB-2800 GPD
116 GPH (444 LPH)
Approx 1200W
Available in 48VDC
240VAC

Spectra LB 1800 and 2800 Datasheet



Electrical control and motor drive



Pearson Pump High Pressure Module for 2800

Spinning Filter Set

Features

- **Pearson Pump**-the most energy efficient desalination pump on the planet!
- **Pearson Pump** integrated with Spectra's exclusive oil filtration system for extended service periods.
- Motor speed control with external heat sink for total command over motor speed and product flow.
- Three way valves for service and basic install kit included.
- Hand held salinity meter to check product water included.
- 20 and 5 micron Spinning™ Industrial prefilter set protects the membranes. Water delivery and pretreatment is site specific and will be engineered for your particular application. Multimedia filters and Ultra filtration options are available from Spectra.
- Spectra engineered pressure vessels with proprietary Spectraflux™ membranes.
- Totally enclosed fan-cooled motors for long service life.

Spectrawatermakers engineers and builds a full line of marine, mobile and land based desalination systems for sea and brackish water. Many of our systems are custom built to meet our customer's needs and application.

Please contact the factory with your requirements.

LB-1800

Feed water recovery 20%
Salt rejection 99.4% minimum
Feed flow 6 GPM (23 LPM)
Required inlet pressure 20 PSI (1.4 bar).

Membranes 2 ea. Spectraflux TFC 4"x40"

Seawater RO.

Pearson pump constructed of glass epoxy composites and super duplex SS.

Filters 1ea. 20" 20 micron, 1ea. 20" 5 micron.

LB-2800

Feed water recovery 30%
Salt rejection 99.4% minimum
Feed flow 6 GPM (23 LPM)
Required inlet pressure 20 PSI (1.4 bar).

Membranes 3ea. Spectraflux TFC 4"x40"

Seawater RO.

Pearson pump constructed of glass epoxy composites and super duplex SS.

Filters 1ea. 20" 20 micron, 1ea. 20" 5 micron.



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