

Spectra LB 4000 Analog Datasheet

Technical Specs:

The **LB-4000** is an extremely energy efficient reverse osmosis desalination plant designed for stationary or industrial applications. The LB-4000 can treat high salinity brackish water using just a fraction of the energy of conventional small plants. The LB-4000 unit is supplied as a modular kit to be installed in an existing building. There are three main components, the Pearson Pump-membrane module, The Gauge-flow meter panel and an electrical control box. Using simple analog monitoring and controls, these economical units are perfectly suited to remote applications that require the ultimate in reliability and efficiency. In fact, the Spectra LB machines are so efficient they are often powered from renewable energy.



LB-4000 GPD
180 GPH (685 LPH)
Treats Brackish water from 1000-24,000 TDS
Available in 24V DC, 48VDC, 120VAC, 240VAC 50/60 hz

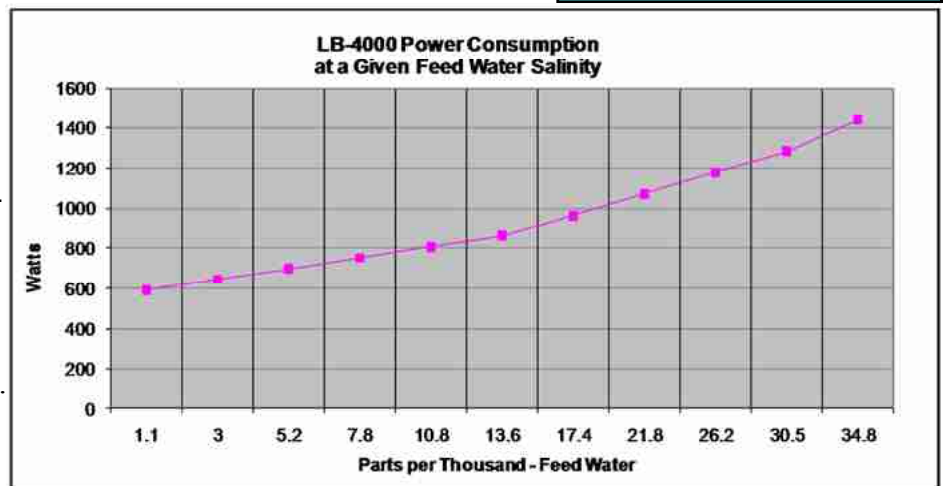


Pearson Pump with Spectraflux™ Membrane assembly

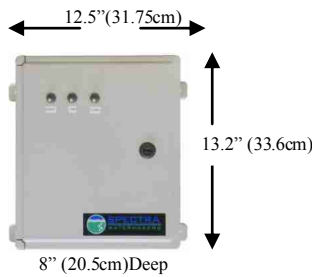
The **Spectra Pearson Pump** is a breakthrough pump design. This unique high pressure pump combines feed stream pumping and energy recovery into a single unit. The “Energy Recovery” feature of the **Pearson Pump** takes the energy entrained in the brine reject stream from the RO membranes and recaptures it, dramatically increasing the overall efficiency. 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. Having a fixed recovery ratio is critical for brackish water applications as it prevents operators from tampering with the recovery ratios and damaging the membranes.

The **Spectra Pearson Pump** is manufactured from engineered composites and super duplex stainless steel for extreme corrosion resistance.



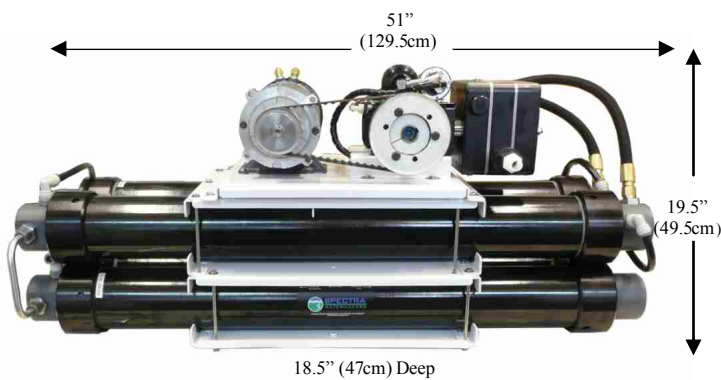
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Electrical control and motor drive



Gauge-flow meter panel



Pearson Pump high Pressure Module



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Features

- **SpectraPearson Pump**-the most energy efficient desalination pump on the planet!
- **The Spectra Pearson Pump** integrated with Spectra's exclusive oil filtration system for extended service periods.
- Motor speed control with external heat sink capable of operating in extreme environments.
- Fixed recovery ratio prevents operator from tampering with recovery.
- 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.
- Analog monitoring and control provides the ultimate in reliability and remote serviceability.
- Service valves, service ports and basic installation kit included.
- Simple cost effective system

Spectra Watermakers 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 customers applications.

Please contact the factory with your requirements.

LB-4000

Feed water recovery 50%

Salt rejection 99.4% minimum

Feed flow 6 GPM (23 LPM)

Required inlet pressure 20 PSI

(1.4 bar).

Membranes 4 ea. Spectraflux

TFC 4"x40"

Seawater RO.

Filters 1 ea 20" 20 micron

1ea. 20" 5 micron

Pearson pump constructed of

glass epoxy composites and

super duplex SS.



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