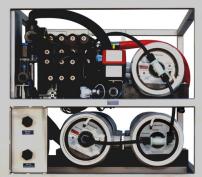# Cabo 10,000

The Cabo 10,000 is an extremely energy efficient reverse osmosis desalination plant designed for Marine applications. This unit can desalinate seawater water using just a fraction of the energy of conventional small plants. In fact, the Spectra Cabo system is so efficient that it can reduce the size and the wattage requirement of the onboard generator plant. This unit is built using Spectra's revolutionary and proprietary new Spectra SP-20 Pearson Pump.

The Cabo 10,000 has a microprocessor based control system for fully automated control and monitoring. Water piping connections are made with flex hose and "camlock" fittings for ease of installation and service.

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 set recovery ration 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.

The Cabo 10,000 is customizable and Spectra can design a complete operating system to suit your specific needs.

Features
- The Spectra Pearson Pump is the most energy efficient desalination pump of its size on the planet! As little as a tenth of the power required!
- The Spectra Pearson Pump is integrated with Spectra's exclusive oil filtration system for extended service periods.
- Available with a microprocessor based controller with keypad display to monitor and control all functions. Readouts include digital based flow and pressure as well as filter condition and operational hours. A conductivity controller monitors product water quality and automatically rejects poor product water on startup. A high quality diversion valve with manual bypass is standard. Tank switches can be integrated to automatically start and stop the system.
- Soft start motor speed control with external heat sink capable of operating in hot engine rooms.
- Fixed recovery ratio prevents operator from tampering with recovery.
- Service ports integrated into the system for ease of maintenance.
- Five micron Spinring™Industrial prefilter set protects the membranes. Water delivery and pretreatment is vessel specific and will be engineered for your particular application.
- Multimedia filters and Ultra filtration options are available from Spectra.
- Rugged 304 Stainless steel welded frame.

Cabo 10,000 Specifications

Production	Production / Day	Production / Hour	Production / Minute
	38m³ / 10,000	1575 L / 420 G	27 L / 7 G

Membranes	3 Ea 8" x 40" High Rejection Spiral Wound Polyamide

Power Requirement	3.5 KW	FLA 16A	220V / 240 V	50 / 60 hz
			Specify Single or Three Phase	

Motor	5 HP TEFC 3Ø
Recovery	35% Set
Salt Rejection	Minimum 99.2%
Performance	Rated Performance / Product Water Produced +-15% **regardless of water temperature**
Temperature Range	Max 120° F / 49° C Min 36° F / .2°
System Feed Water	75 LPM / 20 GPM
Chlorine Tolerance	0.1 PPM
pH Range	3-11 (Typical Seawater pH is 8)
System Pressure	Feed Water: 1.4 Bar / 20 PSI Minimum Requirement
External Installation Water Connections	Pipe sizes to be supplied by the installer for connection of the SRC supplied components. The below pipe threads are all US Standard

	Feed Inlet	1" Camlock
	Brine Discharge	1" Camlock
	Product	1" Hose Barb

Dimensions	178 cm L x 78 cm H x 88 cm D	70 in L x 31 in H x 34.5 in D
Weight	725 kg / 1598 lbs	

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