

NEWPORT 400 MKII



SPECTRA
WATERMAKERS



400 Gallons of Delicious Fresh Water per Day

Newport 400 MKII & 400 MKIIC

Simple to Use, Easy to Install, Long Reliable

Spectra Watermakers' **Newport 400 MKII** is the most technically advanced marine desalination system available today. Utilizing the experience gained from over eight years of building the world's most automated and energy efficient watermakers, Spectra has again taken a quantum step in developing the next generation in the Newport series, the Newport 400 MKII. The Newport 400 MKII is designed and engineered for maximum reliability, efficiency, and ease of service. As with our other systems the MKII comes complete with Spectra's proprietary **Clark Pump** high pressure intensifier which maintains the proper pressures in the membrane throughout a wide range of ocean temperatures and water conditions without any adjustments or loss of product water output. Its composite construction is corrosion resistant and convenient to use because there are no flow or water pressure adjustments. The Newport 400 MKII is available in both 12V and 24V to allow the versatility and safety of low voltage operation and the most quiet watermaking available.

Newport 400 MKII Innovations in Watermaking

The **MKII** is more compact than its predecessor because the 50 micron filter has been eliminated in favor of a small filtration boost pump. This arrangement allows the system to be mounted in a wider variety of locations and enhances the filtration to the feed pump module. Installation is also easier and faster because the MKII's have less wiring and a centralized plumbing manifold. The MKII features the same stalwart Spectra MagDrive™ feed pump as the Newport 400 MagDrive coupled to an enclosed, fan cooled, heavy duty DC motor. The feed pump and control module have an integrated MPC 5000 control display for touch pad operation at the equipment mounting location, as well as a convenient remote location. The Newport 400 MKII has multispeed capability which allows machine operation on high mode for maximum product flow, or low mode for maximum efficiency. This feature is ideal for onboard power management. Run the system and make lots of water when the engine or generator is running, but when the system is running on batteries or alternative energy, the MKII has the capability to drop into the lower speed mode for lower current and higher efficiency operation. No other system has this feature!

A Revolutionary Backwash System

Another innovative feature of the Newport 400 MKII is its pre-filter backwash system. The MKII backwash system actually creates a freshwater flow backward through the prefilters and strainer. Most systems that flush with fresh water only allow flow in one direction, trapping material in the filters. The MKII will produce flow in both directions, backward through the filters and forward to flush the pump and membrane. Backwashing the filters with fresh water helps prevent anaerobic bacteria formation, eliminating odors and extending filter life.

MPC 5000 Controller and Monitor

Spectra's most recent major technological advancement in control systems is the new MPC 5000. The MPC 5000 has all of the features of the well known industry standard MPC 3000, but with more accurate instrumentation, more features, and enhanced reliability. Just set the desired run time and the MPC 5000 controller will do the rest. All of the control and instrumentation functions are displayed both on a panel located on the machine and in a convenient space such as your navigation area away from the watermaker. The MPC 5000 displays pre-filter condition, feed water pressure, water tank full status (with optional tank switch), product water quality, product flow rate and total system hours. The display can be set for either imperial or metric readouts. One touch to the MPC 5000 touch pad sets the Newport 400 MKII in motion. During startup, product water is automatically diverted back to the ocean until it meets quality standards, then the desired amount of water fills the storage tanks and shuts itself off. The MPC 5000 controller can keep the MKII in a fresh water storage state by backwashing every five days as long as needed. Multiple control display panels are standard for even more monitoring convenience. Just set it and forget it! The MPC 5000 is fully programmable in the field by the owner or technician without special tools or computer connection. With its "mission critical" design, the MPC 5000 is engineered to keep the machine running even in the event of a plugged filter or critical alarm state. If the MPC 5000 senses a dirty filter or high pressure alarm state, it simply switches to "low" mode and keeps on running.

The MKII is fitted with an industrial high quality product water diversion valve that has a manual bypass in case of an electrical fault. The system also has a full manual override in the rare event of a total control failure.

Dynamic Modular Design Installs Easily

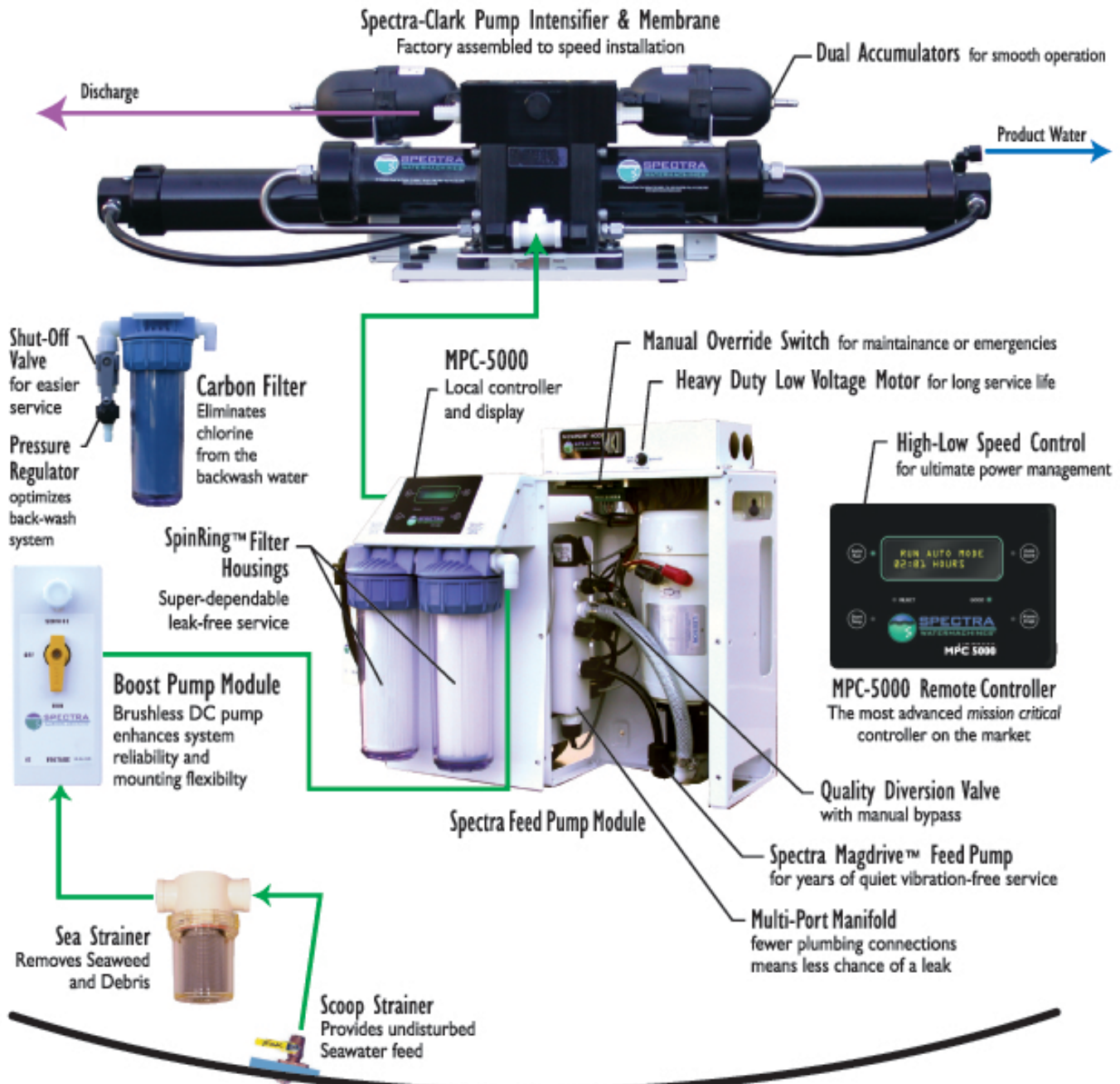
The Newport 400 MKII can be mounted in a variety of configurations to meet the needs of almost any vessel. Designed with easy installation in mind, the system modules are pre-plumbed and pre-wired to save time and installation costs. All Spectra systems come with a complete installation kit, adding value and saving time in parts procurement. For the most cramped installations, specify the **Newport 400 MKIIC** (Compact). The compact version of the MKII uses two 21" membranes coupled to the Clark Pump in a shorter pre-mounted module that makes fitting possible on any vessel.

Z-Brane™ Keeps Your Newport 400 MKII Clean

Z-Brane™ keeps your system clean without chemicals. Complete the Newport 400 MKII system with a Z-Brane™. Spectra's exclusive Z-Brane™ technology keeps the MKII free of bio-fouling and scaling. Cleaning with chemicals substantially shortens the usable life of reverse osmosis membranes. Spectra's Z-Brane™ eliminates the need for harsh chemicals.

For more information ask your distributor or call 415 526-2780

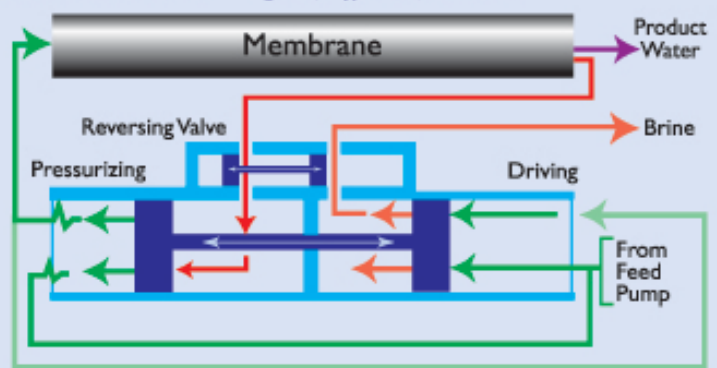
Anatomy of the World's Best Desalinator



Spectra's Exclusive Intensifier – Quiet, Efficient, Reliable

Spectra's Exclusive Two Stage Intensifier System Revolutionary Watermaking Development

In 1997 Spectra pioneered a new and highly efficient watermaker system. The Spectra Intensifier reduces energy consumption by as much as 75% over conventional systems. Units are constructed of modern composites and engineered plastics to deliver many years of quiet, reliable service. Spectra has tens of thousands of hours of field experience and a worldwide service network.



Got an unusual application? Call a Spectra Tech at 415 526-2780

Continued on reverse side

Newport 400MKII & Newport 400 MKIIC

Rated Capacity

Newport 400 MKII & Newport 400 MKIIC 400 GPD (1500 LPD) 16.5 GPH (62 LPH)
(Rated at 77°F (25°C) Seawater Temperature at 35,000 PPM Dissolved Solids +/-15%)

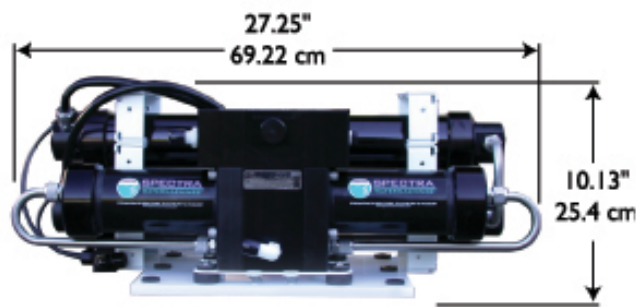
Power Requirements

Newport 400 MKII & Newport 400 MKIIC Current Draw 12VDC/26A or 24VDC/13A

Dry Weight

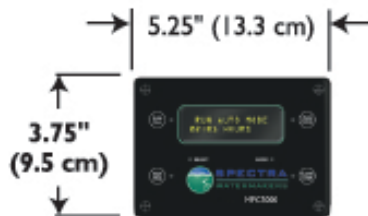
Newport 400 MKII 76 Lbs (34.47 kg) Add 17 lbs (7.7 kg) for all AC Systems

Newport 400 MKIIC 79 Lbs (35.83 kg) Add 17 lbs (7.7 kg) for all AC Systems



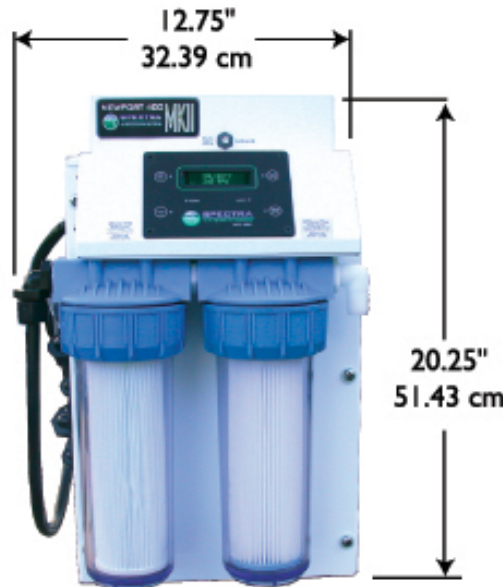
Depth = 11" (27.25 cm)

Compact Spectra Clark Pump Intensifier



Depth = 1.625" (13.3 cm)

MPC-5000 Remote Controller



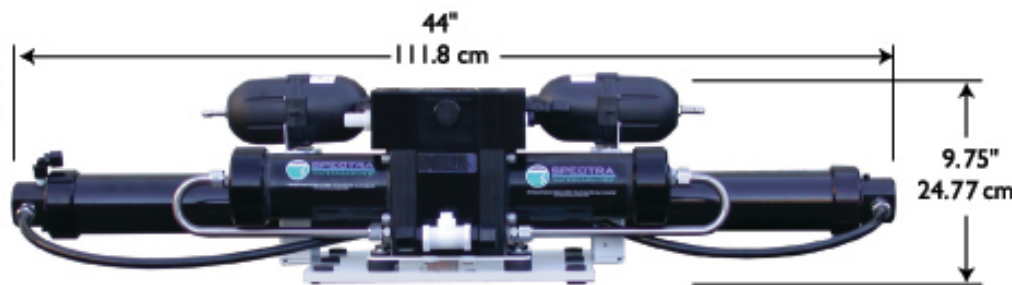
Depth = 12.5" (31.75 cm)

Feed Pump Module



Depth = 6" (15.24 cm)

Carbon Filter



Depth = 11" (27.25 cm)

Spectra Clark Pump Intensifier



Depth = 7" (17.78 cm)

Boost Pump Module



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