

SPECTRA 200-C & 380-C MODULAR SYSTEMS

Modular Flexibility



SPECTRA 380-C SYSTEM

The 200-C and 380-C are the most basic watermaker systems in our product line. These systems are built around the patented Clark High-Pressure Pump technology. Since its inception, Spectra has proved that efficient and reliable watermakers aboard cruising yachts can become a reality. Spectra's efficiency is unparalleled and almost three times that of our nearest competitor. Thousands of real world hours of operation in all the major oceans of the world have proven the reliability of our composite high-pressure pump.

Compared with conventional watermaker systems, the Clark High Pressure Pump technology can:

- ?? Eliminate the Need To Adjust Pressure
- ?? Eliminate Oil Changes
- ?? Eliminate Heat Generation
- ?? Reduce Power Consumption
- ?? Eliminate Vibration
- ?? Meet Rated Output in 50° F Water
- ?? Eliminate the Need for AC Generators
- ?? Easily Run on Alternative Energy Systems

DC Voltage versus AC Voltage Systems

Watermakers that are powered by AC or engine drives are limited just to those sources. If the genset or engine fails, so does the fresh water supply. The ship's batteries are usually charged from multiple sources. The high output, low energy DC Spectra Watermakers can take advantage of this kind of built in redundancy.

The Clark High Pressure Pump Technology

Spectra Watermakers incredible efficiency and reliability are achieved by our exclusive use of the patented Clark High Pressure Pump. The Clark High Pressure Pump technology simply combines time tested hydraulic principles in a unique way to generate high pressure without wasting energy. Its few moving parts operate in slow motion and are made of space-age plastics and composites for long life and strength in marine environments. The Clark High Pressure Pump operates on water pressure from a low voltage diaphragm pump (feed pump). It boosts the low pressure from this feed pump to the high pressure needed for reverse osmosis. For a detailed description of Spectra's pump technology, please visit our web site at www.spectrawatermakers.com.



Spectra systems will operate over a wide range of water temperatures and salinity without any appreciable change in system capacity. The Spectra pumping system operates quietly and efficiently without putting a large load on the vessel's electrical system.

Spectra Modular series watermakers have been designed to install on vessels without the space to accommodate larger pre-packaged versions of our system. The system components can be built into almost any space available. The systems are sold with complete installation kits including all the plumbing, hose, and fittings required. All you have to supply is the thru-hull fittings, water tank, DC power and a cleaning bucket.

Performance Specifications

50°F (10°C) Sea Water	77°F (25°C) Sea Water	90°F (32°C) Sea Water
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Spectra 200-C

DC Voltage	Feed Flow GPM (LPM)	Feed Pressure	Membrane Pressure	Product GPH (LPH)	Amperage	Feed Pressure	Membrane Pressure	Product GPH (LPH)	Amperage	Feed Pressure	Membrane Pressure	Product GPH (LPH)	Amperage
12.5	1.5 (5.7)	76 (5.2)	650 (44.2)	8.0 (30.0)	9.0	64 (4.3)	550 (37.4)	8.3 (31.4)	8.0	64 (4.3)	530 (36.0)	8.5 (32.2)	7.9
13.8	1.6 (6.0)	82 (5.6)	685 (46.6)	9.5 (35.2)	9.6	68 (4.6)	570 (38.8)	9.3 (36.0)	8.5	68 (4.6)	550 (37.4)	9.5 (35.9)	8.4
14.4	1.7 (6.4)	84 (5.7)	700 (47.6)	10.0 (37.8)	10.0	70 (4.8)	580 (39.4)	10.0 (37.8)	8.8	70 (4.7)	560 (38.0)	10.3 (39.0)	8.9

50°F (10°C) Sea Water	77°F (25°C) Sea Water	90°F (32°C) Sea Water
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Spectra 380-C

DC Voltage	Feed Flow GPM (LPM)	Feed Pressure	Membrane Pressure	Product GPH (LPH)	Amperage	Feed Pressure	Membrane Pressure	Product GPH (LPH)	Amperage	Feed Pressure	Membrane Pressure	Product GPH (LPH)	Amperage
12.5	2.1 (7.9)	104 (7.0)	845 (57.5)	14.0 (53.0)	20.0	92 (6.2)	670 (45.6)	15.0 (56.8)	18.5	92 (6.2)	645 (43.9)	15.3 (57.9)	18.2
13.8	2.6 (9.8)	110 (7.5)	880 (59.8)	15.0 (56.8)	21.2	98 (6.6)	700 (47.6)	16.5 (62.4)	19.6	98 (6.6)	665 (45.2)	17.0 (64.3)	19.1
14.4	2.7 (10.2)	112 (7.6)	900 (61.2)	15.5 (57.8)	21.5	102 (6.9)	710 (48.3)	17.0 (64.3)	20.0	100 (6.8)	675 (45.9)	17.5 (66.2)	19.5

Pressures are in PSI (BAR). Numbers based on water salinity at 35,000 parts per million TDS.

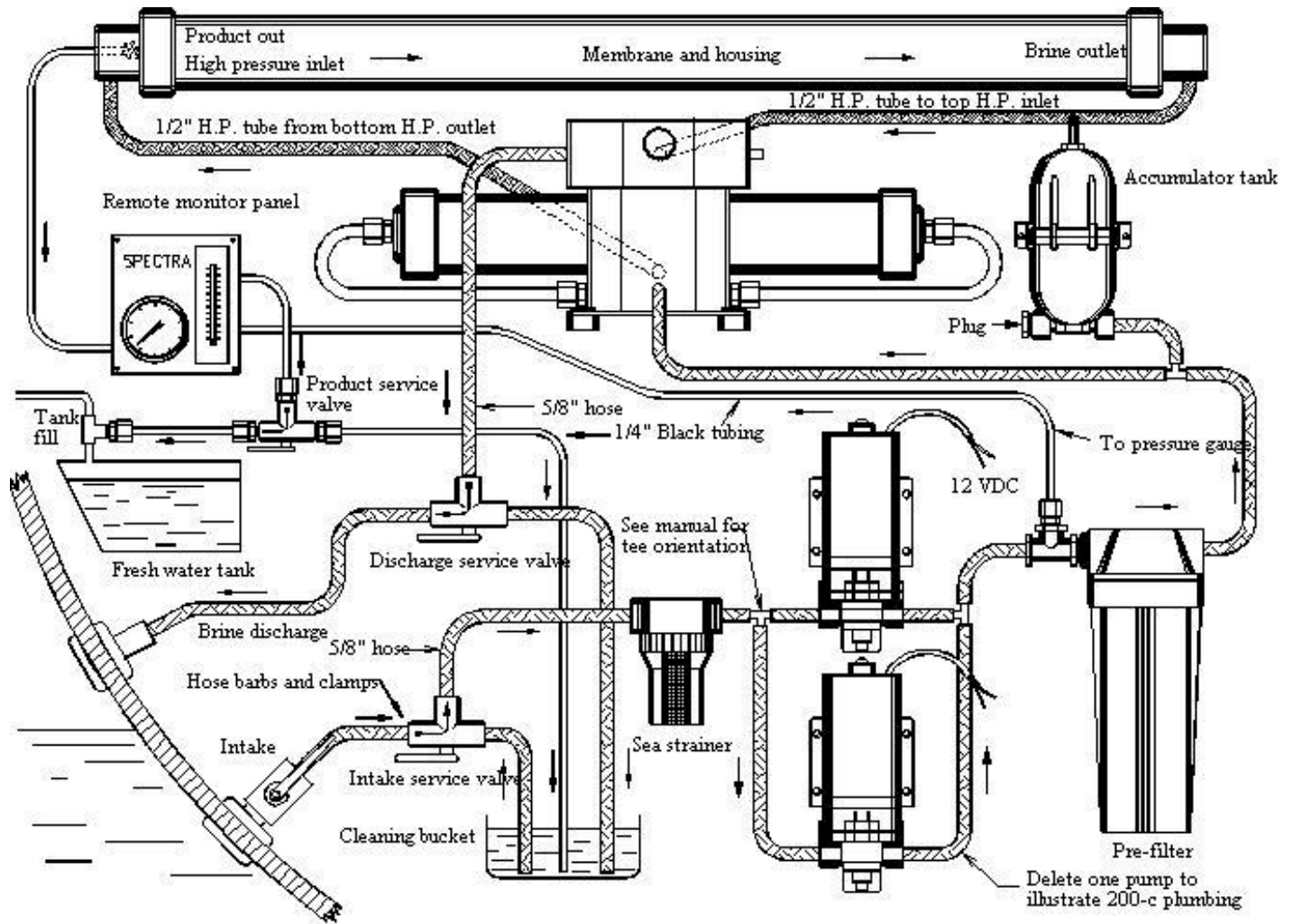
Salt rejection 99.4% ~ 99.6% Typical purity test at 400 mhos, 200 ppm, 99.4% pure.

Performance Tolerance ? 10%.

Weights and Dimensions 380-C

	Weight Lb. (kg)	Length “ (cm)	Height “ (cm)	Depth “ (cm)
Clark Pump	18.0 (8.18)	27.25 (96.3)	9.25 (23.5)	6.5 (16.4)
Membrane	13.0 (5.91)	43.25 (112.5)	3.25 (8.9)	3.25 (8.9)
Feed Pump (X2)	14.5 (6.6)	10.0 (25.4)	4.0 (10.2)	4.0 (10.2)
Control Panel	1.0 (0.45)	5.0 (12.7)	5.5 (14.0)	3.0 (7.6)
Strainer	0.5 (0.23)	3.5 (8.9)	5.0 (12.7)	2.75 (7.3)
Pre-Filter	2.5 (1.14)	4.5 (11.4)	12.0 (30.4)	4.875 (12.4)
Hose & Fittings	3.5 (1.6)			
TOTAL WEIGHT	53.0 (24.11)			

Modular System Plumbing Diagram



Spectra 380-C Plumbing

Optional Accessories for Modular Systems

- Two 20 inch Membranes (for 200-C system only)
- Automatic Salinity Control with Remote Control Panel
- Automatic Salinity Control & Automatic Fresh Water Backflush with Remote Control Panel
- Plankton Filter with Cleanable SS Mesh Screen
- Pre-Filtration (add an additional pre-filter housing and 20 micron filter)
- Charcoal Filter Kit for Product Water (removes odor)
- UV Sterilizer for Product Water
- Bulkhead Mounting Bracket for Clark High Pressure Pump
- Overhead Mounting Bracket for Clark High Pressure Pump
- Basic Cruise Kit
- Offshore Kit
- Additional Tubing and Hose
- Additional Remote Control Panel with 25ft. Cable Harness (requires Salinity Control)

Accessories (cont.)



Upgrade Kit to 380-C



Valve Mounting Bracket Kit



20" Membranes



Remote Control Panel

Typical Installations



Land Based Installation



Boat Installation

Authorized Dealer

