# APPLIED® SYSTEMS USA

# Maritime Series Watermakers – 150 to 1,600 GPD Seawater Systems

Our Maritime Series Watermakers convert seawater to drinking water. Their compact design makes them ideal for use on yachts, boats, cruise ships and resorts.

## Key Features

- 38 years of experience in seawater desalination
- Compact powder coated aluminum frame
- High quality, proven components
- Engineered for reliable, long term performance
- Factory tested to ensure trouble-free operation
- Available with a wide variety of optional accessories to customize and improve system performance (page 6-21)

## Standard Equipment

- Thin Film Composite Membranes
- FRP Membrane Housings
- Stainless Steel High Pressure Pump
- Permeate Flow Meter
- Low and High Pressure Shutoff Switches
- Compact Aluminum Frame with Powder Coated Finish
- Stainless Steel Back Pressure Control
- 5 Micron Sediment Filter and Housing
- Differential Gauge Showing Filter Life
- High Pressure Relief Valve
- Liquid Filled System Pressure Gauge
- Product TDS with Digital Display Readout
- Fresh Water Divert: Monitors Permeate Quality and diverts to drain if it falls below a pre-set set point
- Booster Pump and Raw Water Strainer
- Fresh Water Flush Module
- Installation Kit

## Microprocessor Controller for Automatic Operation

### Monitors and/or Controls:

- Permeate Quality (TDS)
- Water Temperature
- Operating Hours
- Operating Status
- Alarm Condition
- Booster Pump
- Delayed start-up of high pressure pump
- Low and high pressure switches
- On/Off with storage tank level*
- Permeate TDS with alarm set-point
- Fresh water flush
- Automatic product water diversion
- Pretreatment lock-out

### Controller Features:

- NEMA 4X Enclosure
- Remote Control Operation *(optional)*

### LED Display:

- Backlit LED Display
- Multi-function Keypad
- Visual and Audible Alarm
- Programmable Time Delays, Set-Points and Flush Modes
- Visual Indicator Alarm Light
- Low Pressure Automatic Restart

| Model No. | System Capacity | | Membrane Elements | | Line Sizes (NPT, Inches) | | | System Dimensions (in/cm) | | | Approx. Shipping Weight (Lb/Kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | GPD | LPD | Qty. | Size (Dia.×L) | Inlet | Perm. | Conc. | Width | Depth | Height | |
| Maritime 150 | 150 | 567 | 1 | 2.5 x 21" | ¾ | ¼ | ½ | 25.1/63.8 | 19/48.3 | 12.5/31.6 | 110/50 |
| Maritime 300 | 300 | 1135 | 2 | 2.5 x 21" | ¾ | ¼ | ½ | 25.1/63.8 | 19/48.3 | 12.5/31.6 | 115/52 |
| Maritime 400 | 400 | 1514 | 1 | 2.5 × 40" | ¾ | ⅜ | ½ | 44.2/112 | 19/48.3 | 12.5/31.6 | 130/60 |
| Maritime 800 | 800 | 3028 | 2 | 2.5 × 40" | ¾ | ⅜ | ½ | 44.2/112 | 20/50.8 | 18/45.7 | 140/65 |
| Maritime 1200 | 1,200 | 4542 | 3 | 2.5 × 40" | 1 | ⅜ | ½ | 44.2/112 | 20/50.8 | 18/45.7 | 150/70 |
| Maritime 1600 | 1,600 | 6056 | 4 | 2.5 × 40" | 1 | ⅜ | ½ | 44.2/112 | 20/50.8 | 18/45.7 | 180/80 |

| Model No. | System Pressure | | Power | | Motor | | | Electrical | | | Fully Automated |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Normal PSI/BAR | Max PSI/BAR | kW | Amps | HP | FLA | Type | Voltage | Freq | Phase | |
| Maritime 150 | 700/48 | 1000/69 | 0.65 | 7/3.5 | 1 | 12.8 | TEFC | 115/240 | 50/60 | 1 | Yes |
| Maritime 300 | 800/55 | 1000/69 | 0.75 | 8.1/4 | 1 | 12.8 | TEFC | 115/240 | 50/60 | 1 | Yes |
| Maritime 400 | 700/48 | 1000/69 | 0.95 | 12.5/6.25 | 1.5 | 23/11.5 | TEFC | 115/240 | 50/60 | 1 | Yes |
| Maritime 800 | 750/52 | 1000/69 | 1.4 | 15.5/7.75 | 2.5 | 23/11.5 | TEFC | 115/240 | 50/60 | 1 | Yes |
| Maritime 1200 | 800/55 | 1000/69 | 1.5 | 16.5/8.25 | 2.5 | 23/11.5 | TEFC | 115/240 | 50/60 | 1 | Yes |
| Maritime 1600 | 800/55 | 1000/69 | 2.1 | 22/11 | 2.5 | 23/11.5 | TEFC | 115/240 | 50/60 | 1 | Yes |

## Notes and Voltage/Ordering Information

* Requires the use of optional tank float switches
- All dimensions and weights are approximate and subject to change. Performance Based on 32,000 ppm seawater at 77°F (25°C).
- **Voltage:** *Please add our voltage codes to the end of the model number when ordering.* Example: Maritime 150-216.

Voltage Codes:
- **116** = 110v, 1ph, 60hz
- **216** = 220/230v, 1ph, 60hz
- **215** = 220/230v, 1ph, 50hz
- **236** = 220 or 230v/ 3ph/ 60hz
- **235** = 220v/3ph/50hz

# MEMBRANES INC.®

Industry Leader in RO Expertise and Membrane Applications Since 1983™

ISO 9001:2015 CERTIFIED COMPANY · NSF CERTIFIED · MEMBER Water Quality ASSOCIATION · 100% PERFORMANCE TESTED · Made in USA

# APPLIED® SYSTEMS USA

# Voyager Modular Watermakers – 150 to 1,600 GPD SWRO

Our Voyager Watermakers convert seawater to drinking water and are designed for applications with limited space. Instead of a traditional one-piece frame, these space-saving systems are sold in several modules which can be installed into smaller spaces and connected together. This design makes them ideal for use on yachts, boats, or cruise ships with limited space.

## Key Features

- 38 years of experience in seawater desalination
- High quality, proven components
- Engineered for reliable, long term performance
- Factory tested to ensure trouble-free operation
- Compact gauge panel with control valve
- Available with a wide variety of optional accessories to customize and improve system performance (page 6-21)

## Standard Equipment

- Thin Film Composite Membranes
- FRP Membrane Housings
- Stainless Steel High Pressure Pump
- Permeate Flow Meter
- Low and High Pressure Shutoff Switches
- Compact Gauge Panel with Powder Coated Finish
- Stainless Steel Back Pressure Control
- 5 Micron Sediment Filter and Housing
- Differential Gauge Showing Filter Life
- High Pressure Relief Valve
- Liquid Filled System Pressure Gauge
- Product TDS with Digital Display Readout
- Fresh Water Divert: Monitors Permeate Quality and diverts to drain if it falls below a pre-set set point
- Booster Pump and Raw Water Strainer
- Fresh Water Flush Module
- Installation Kit

## Microprocessor Controller for Automatic Operation

### Monitors and/or Controls:

- Permeate Quality (TDS)
- Water Temperature
- Operating Hours
- Operating Status
- Alarm Condition
- Booster Pump
- Delayed start-up of high pressure pump
- Low and high pressure switches
- On/Off with storage tank level*
- Permeate TDS with alarm set-point
- Fresh water flush
- Automatic product water diversion
- Pretreatment lock-out

### Controller Features:

- NEMA 4X Enclosure
- Remote Control Operation *(optional)*

### LED Display:

- Backlit LED Display
- Multi-function Keypad
- Visual and Audible Alarm
- Programmable Time Delays, Set-Points and Flush Modes
- Visual Indicator Alarm Light
- Low Pressure Automatic Restart

| Model No. | System Capacity | | Membrane Elements | | Line Sizes (NPT, Inches) | | | System Concentrate Flow Rate | | Approx. Shipping Weight (Lb/Kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| | GPD | LPD | Qty. | Size (Dia.×L) | Inlet | Perm. | Conc. | GPM | LPM | |
| Voyager 150 | 150 | 567 | 1 | 2.5 x 21" | ¾ | ¼ | ½ | 1.40 | 5.3 | 110/50 |
| Voyager 300 | 300 | 1135 | 2 | 2.5 x 21" | ¾ | ¼ | ½ | 1.29 | 4.9 | 115/52 |
| Voyager 400 | 400 | 1514 | 1 | 2.5 × 40" | ¾ | ⅜ | ½ | 2.23 | 8.4 | 130/60 |
| Voyager 800 | 800 | 3028 | 2 | 2.5 × 40" | ¾ | ⅜ | ½ | 2.35 | 8.9 | 140/65 |
| Voyager 1200 | 1,200 | 4542 | 3 | 2.5 × 40" | 1 | ⅜ | ½ | 2.67 | 10.1 | 150/70 |
| Voyager 1600 | 1,600 | 6056 | 4 | 2.5 × 40" | 1 | ⅜ | ½ | 4.80 | 18.2 | 180/80 |

| Model No. | Amps (DC Systems) | | Power (AC Systems) | | AC Motor | | | AC Electrical | | | Fully Automated |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 12v | 24v | kW | Amps | HP | FLA | Type | Voltage | Freq | Phase | |
| Voyager 150 | 45 | 23 | 0.65 | 7/3.5 | 1 | 12.8 | TEFC | 115/240 | 50/60 | 1 | ✓ Yes |
| Voyager 300 | 45 | 23 | 0.75 | 8.1/4 | 1 | 12.8 | TEFC | 115/240 | 50/60 | 1 | ✓ Yes |
| Voyager 400 | n/a | n/a | 0.95 | 12.5/6.25 | 1.5 | 17.2/8.8 | TEFC | 115/240 | 50/60 | 1 | ✓ Yes |
| Voyager 800 | n/a | n/a | 1.4 | 15.5/7.75 | 2.5 | 23/11.5 | TEFC | 115/240 | 50/60 | 1 | ✓ Yes |
| Voyager 1200 | n/a | n/a | 1.5 | 16.5/8.25 | 2.5 | 23/11.5 | TEFC | 115/240 | 50/60 | 1 | ✓ Yes |
| Voyager 1600 | n/a | n/a | 2.1 | 22/11 | 2.5 | 23/11.5 | TEFC | 115/240 | 50/60 | 1 | ✓ Yes |

## Notes and Voltage/Ordering Information

- *Requires the use of optional tank float switches
- See page 6-22 for Dimensions. All dimensions and weights are approximate and subject to change.
- Performance Based on 32,000 ppm seawater at 77°F (25°C).
- **Voltage:** *Please add our voltage codes to the end of the model number when ordering.* Example: **Voyager 150-216**.
  - **116** = 110v, 1ph, 60hz
  - **216** = 220/230v, 1ph, 60hz
  - **215** = 220/230v, 1ph, 50hz
  - **12** = 12V DC *(Available for Voyager 150 & 300 Only)*
  - **24** = 24V DC *(Available for Voyager 150 & 300 Only)*
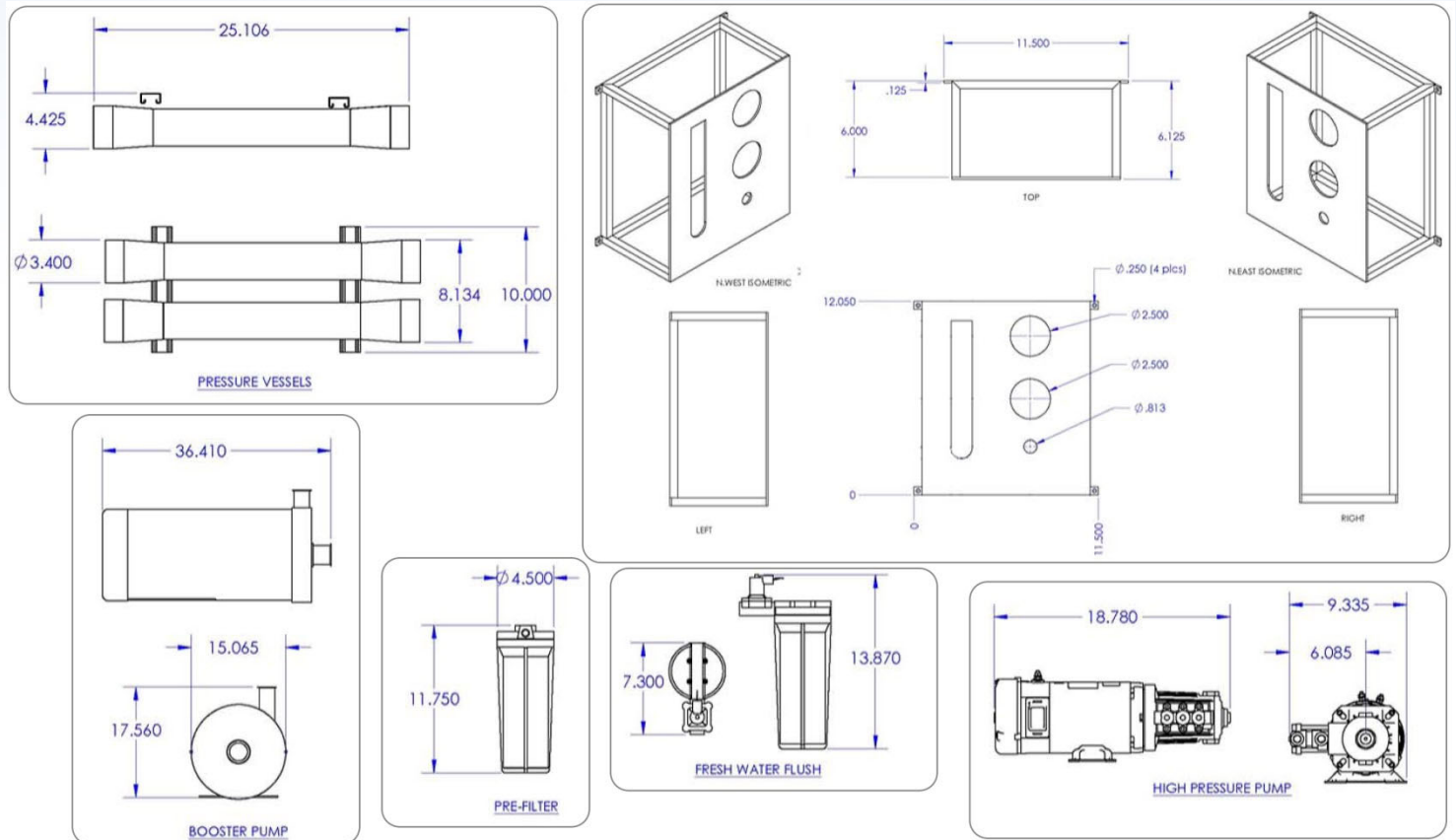
# APPLIED MEMBRANES INC.®

Industry Leader in RO Expertise and Membrane Applications Since 1983™

Phone: (760) 727-3711 • Fax: (760) 727-4427 • www.appliedmembranes.com • sales@appliedmembranes.com

# APPLIED® SYSTEMS USA

# Optional Accessories for Maritime & Voyager Systems

AMI's Maritime and Voyager Watermakers are available with a wide variety of optional add-on accessories. These accessories are designed to customize any system to fit your needs. Many will even work on competing brands of watermakers!

*Have a special application? We have a team of experienced design engineers that can help you come up with a solution.*

## Plankton Filter

Removes plankton and other large particles from the feed water to provide additional protection and extended life of the system prefilter. 100 Micron 10" Filter Cartridge in a clear housing on a powder coated mounting bracket. Includes isolation valves for easy cartridge change.

*Model # A629*

## Remote Control

Connects to the main control board with a standard Cat5 cable, allowing you to start, stop, and monitor your watermaker from nearly anywhere. Designed for easy installation at a navigation station, galley, or pilothouse. Simple LED's show system status.

*Model WMC-1-RMC*

## Oil Water Separator

Nothing fouls a membrane faster than oil. Protect your RO System & Membranes from oily or polluted water. 20" Filter Cartridge in a Big Blue housing on a powder coated mounting bracket. Includes isolation valves for easy cartridge change.

*Model # A630*

## Membrane Preserving Cartridges

Pickling your system using AMI's exclusive preservative has never been simpler. Install this filter cartridge into your system and preserve the membranes in-place for extended periods of system shut-down. No more messing around with hoses, valves and plumbing connections.

*Cartridge for 10" Std.: C-C2510-A88*

## Commercial Prefilter

The commercial sized filter cartridge has a dual-micron rating for extended life, and will provide longer intervals between changing the system prefilter. The outer layer will trap particles larger than 75 Micron, while the inner layer traps particles of 25 Micron. 20" Filter Cartridge in a Big Blue housing on a powder coated mounting bracket. Includes isolation valves for easy cartridge change.

*Model A711*

## Membrane Cleaning Cartridges

Just like membrane preservative cartridges shown above, but with chemicals designed to remove scale and bio-fouling from membranes. Clean membranes without removing them from your system, or altering valves, hoses or plumbing connections. Reduce downtime, maintain system performance, and prolong membrane life.

*10" Std. (removes Scale): C-C2510-A11*
*10" Std. (removes organics): C-C2510-A22*

## Media Filter

Removes suspended solids larger than 30 microns to greatly extend prefilter life and provide additional protection to the system. The 8x18" media tank is mounted on a powder coated frame with in/out pressure gauges and a valve for manual backwash. Multiple sizes available for higher flow rates.

*Up to 3gpm: Model W-MB0818*

## Replacement Filters

We carry a large range of filters and housings manufactured under the AMI® label. These high quality products use the same materials and produce similar performance specifications as the equivalent filters of other well-known brands.
*Carbon Block: 300106*
*Pleated 10" 5 Micron: 300105*
*Other Sizes Available*

## pH Neutralizer

Neutralizes the pH of the Fresh Water stream from the RO system. AMI calcite filters are self-limiting: they will correct pH only enough to reach a non-corrosive equilibrium, and will not over-correct. 10" Calcite Filter Cartridge in a blue housing on a powder coated mounting bracket. Includes isolation valves for easy cartridge change.

*Model H-F251CALCITE*

## Ultraviolet (UV) System

Ultraviolet Water System for the fresh water stream to sterilize 99.8% of all micro-organisms including reproducing bacteria and viruses.

*2GPM UV Sterilizer, 12v: 300561*
*5GPM UV Sterilizer, 12v: 300562*

**All assemblies include hardware and mounting equipment for easy upgrade to your new or existing system installation.**

# APPLIED MEMBRANES INC.®

Industry Leader in RO Expertise and Membrane Applications Since 1983™

ISO 9001:2015 CERTIFIED COMPANY · NSF INDEPENDENTLY CERTIFIED · MEMBER Water Quality ASSOCIATION · 100% PERFORMANCE TESTED · Made in USA

# Dimensions for Voyager Modular Watermakers

## Dimensions of Voyager 150 – 300 Modular Watermakers



PRESSURE VESSELS

BOOSTER PUMP

PRE-FILTER

FRESH WATER FLUSH

HIGH PRESSURE PUMP

N.WEST ISOMETRIC

N.EAST ISOMETRIC

TOP

LEFT

RIGHT

## Dimensions of Voyager 400 – 1600 Modular Watermakers



PRESSURE VESSELS

BOOSTER PUMP

PRE-FILTER

FRESH WATER FLUSH

HIGH PRESSURE PUMP

N.WEST ISOMETRIC

N.EAST ISOMETRIC

TOP

LEFT

RIGHT

Phone: (760) 727-3711 • Fax: (760) 727-4427 • www.appliedmembranes.com • sales@appliedmembranes.com