

REVERSE OSMOSIS WATERMAKERS



THEUNISSEN TECHNICAL TRADING BRANDS



LIGHTING ON BOARD

Technical | Navigation | EX | LED assortment | Floodlights



PIPE- AND CABLE TRANSITS

Water- and gastight | EMC | ATEX



COMMUNICATION ON BOARD

Telephone | Intercom | PA | GA | EX | Wireless



ELTEK POWER CONVERSION

UPS | Rectifiers | Inverters | Battery banks



FIRE DETECTION

Complete systems | Conventional | Adressable



REVERSE OSMOSIS WATERMAKERS

650 - 1.200.000L a day



SINGLE PIPE- AND CABLE TRANSITS

ASTM | DIN | DH-AP | PVC



LOUDSPEAKERS

Horn | Cabinet | Music | Ceiling | Projector | Voice Alarm | Clean Room | EN54-24 | EX



SIGNAL COLUMNS

Configurable as desired



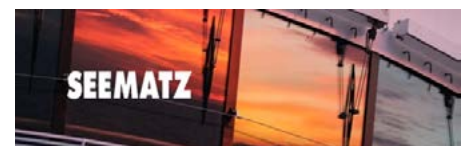
EMERGENCY TELEGRAPHS

two wire based



SEARCHLIGHTS

Halogen | Xenon | LED



WINDOW WIPERS

straightline wipers, custom sizes



MARINE HEATERS

Elektrical | IP44 | 250-2000W

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REVERSE OSMOSIS WATERMAKERS

Sea Recovery was established in 1982 and became one of the first manufacturers of compact, economic desalination systems for use in the marine industry. A brilliant vision and innovative engineering allowed Sea Recovery to create a very reliable and durable product that can operate in the most difficult environmental conditions. The systems, based on the principle of reverse osmosis, are packaged conveniently for the end-user, providing a user-friendly interface to operate with valves and automated controls.

- Functions perfectly in harsh environmental conditions, such as marine environments
- ABS approval certificate since 1985
- Compact
- User-friendly
- Watermaker range of 600 up to 1,200,000 liters potable water per day
- All fittings are high-pressure components (stainless steel 316L and duplex stainless steel)
- Detailed operation and maintenance manual available
- Long corrosion resistance
- Reliable and durable watermakers
- Worldwide market leader



Sea Recovery at TTT

Theunissen Technical Trading BV (TTTBV) focuses on both smaller yachts and the bigger commercial ships. Compact watermakers are available for smaller ships. Some of the systems are operating on 12 or 24 VDC. The Aqua Mini 170, for example, makes 27 litres of potable water per hour, based on 12 or 24 VDC power supply. This watermaker is ideal for smaller yachts (approximately 30 to 50 foot).

But ship owners who need more than 1,000 litres per hour can find what they need at TTTBV as well. The Coral Sea watermaker is extremely suitable for that amount.

TTTBV can deliver the spare parts and consumables from own stock of various types of watermakers. Furthermore, TTTBV has its own service department for onboard engineering

SEA RECOVERY - HRO - VILLAGE MARINE

Sea Recovery is the most sold brand of watermakers worldwide, but within the company, two other brands of watermakers have also become available in recent years: HRO and Village Marine.

HRO, an abbreviation for Horizon Reverse Osmosis, is an interesting alternative to the Sea Recovery leisure models, or the range that is aimed at pleasure craft. The HRO systems are more favorably priced compared to the Sea Recovery systems, mainly due to less far-reaching automation of the systems and a simpler construction of the watermaker. For those who are looking for a high-quality watermaker at a competitive price, and a greater degree of manual operation of the machine is not a problem, the range of HRO watermakers is particularly interesting.

The Village Marine watermakers are extremely robust and simple machines, which were developed primarily for military purposes. For this reason, we are able to meet Village Marine's often complex and extensive requirements, for instance with regard to documentation and availability of spare parts, from the navy.

Many of the consumables, the consumables such as filters and cleaning products, are the same for all three brands. They can all be easily ordered online (www.searecovery.org).





Industrial Water Systems

Products & Company Brochure

aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding



ENGINEERING YOUR SUCCESS.

Parker Sea Recovery: Three Decades of Proven Performance

Since its inception more than 30 years ago, Parker Sea Recovery has evolved into the world's leading watermaker manufacturer. Today, it is recognized globally for providing outstanding reverse-osmosis products, service and support to a broad scope of markets that includes commercial marine; offshore; oil and gas; military; and land-based organizations.

Dedicated to developing the most advanced industrial watermakers in its markets, Parker Sea Recovery engineers watermakers that are easy to use and maintain, yet are robust enough to withstand even the most challenging environmental conditions. Parker Sea Recovery systems offer advanced features including full-color touch screens, oil-free pumps, intelligent software and standard MODBUS communications that allow customers full system control and monitoring from a remote location.

Each Parker Sea Recovery system is backed by a global network of agents, distributors and service dealers, all focused on exceeding customer expectations.

Service-focused global network

Parker Sea Recovery customers are supported by a global network of factory-trained technicians that stand ready to deliver outstanding maintenance and repair, wherever and whenever a need occurs. In addition, Parker Sea Recovery distribution and service partners have experienced, helicopter-certified technicians capable of handling repair and maintenance requests, no matter the location.

Expedited worldwide delivery

Parker Sea Recovery stocks and manages an impressive inventory of replacement parts and consumables that are all tested and ready to ship as needed to any part of the world.

Whether it's an emergency situation or a tight schedule, customers can count on Parker Sea Recovery to get the job done. With a LEAN manufacturing facility that is able to deliver on short notice, Parker Sea Recovery can provide most single systems less than a month from the date of purchase.

Intuitive technology

Nearly all Parker Sea Recovery systems are designed to be completely automated. Water production runs smoothly without the need of an operator, reducing overhead expense. Self-cleaning features and options minimize maintenance needs and prolong the life of the watermaker.



A Solid Past, An Exciting Future

A leader in reverse-osmosis technology joins a leader in innovative engineering

As part of Parker Hannifin – recognized worldwide for excellence in product engineering across a number of industries, including reverse-osmosis systems for clean-water applications – Sea Recovery brings its own legacy of reverse-osmosis engineering excellence to the Parker organization. Now known as Parker Sea Recovery, the division operates in 48 countries, providing customers with outstanding, situation-specific solutions to their unique watermaker needs.



Parker Headquarters,
Cleveland, Ohio, USA

Parker Sea Recovery products are tested & certified to comply with all pertinent environmental and global safety standards.

Parker Sea Recovery has been approved by commercial and industrial independent product safety standards including UL, IEC and CE. Parker Sea Recovery is also compliant with ISO 9001:2008 and ISO 14001:2004 standards and meets the criteria for ABS Type Approval.

Parker Sea Recovery continuously improves its products as it maintains best-in-class business practices designed to safeguard the environment, including:

- Manufacturing and distribution efforts that not only reduce pollution but also result in continuous and measurable improvements to the environment;
- Production processes that are sensitive to the individual employee, the work environment and the surroundings;

- Production facilities that comply with ISO 14001 standard, local environmental and work environment legislation.

Conformance to Global Standards and Requirements

Parker Sea Recovery products and processes adhere to global standards and requirements such as ATEX, NORSOK, IEEE and NEC.

Strict compliance with these global standards means customers can have confidence in the functionality and integrity of every Parker Sea Recovery product and service they purchase. Not only does conformance ensure that all system components meet established criteria for reliability and safety, but it also bolsters the quality and effectiveness of the overall Parker Sea Recovery system.



The Parker Sea Recovery Pledge

Valued customers

Parker Sea Recovery endeavors to delight its customers by providing products, service and support that meet or exceed each client's unique situation. By partnering with customers, Parker Sea Recovery can better discover and respond to the circumstances of each order. Ultimately, this approach means Parker Sea Recovery delivers performance-specific systems that not only address job circumstances, but also help support real and measurable productivity and profitability.

Code of conduct and ethical business practices

Parker Sea Recovery's solid industry reputation and good name – as well as the company's history of success – rests on a foundation made strong by thousands of dedicated Parker employees. Each of these professionals takes seriously a commitment to act responsibly and with integrity throughout every aspect of their work, from design and engineering through sales and support.

Promoting a safe, productive workplace

Parker Sea Recovery is committed to providing a healthy and safe working environment for each of its employees. Further, employees are charged with following all health and safety rules that apply to their jobs, and for taking all reasonable precautions to protect themselves and co-workers from accidents, injuries or unsafe conditions. This pledge to health and safety includes encouraging employees to report any unsafe practices or conditions so that those can be expediently remedied.

The environment

A leader in environmental stewardship, Parker Sea Recovery continually improves its product design and its manufacturing processes to benefit customers, suppliers, employees and shareholders as well as its local and global communities. Constantly striving to comply fully with all applicable environmental laws, Parker Sea Recovery is dedicated to safeguarding the environment in and around plants and properties.

Supplier pre-qualification

Parker Sea Recovery understands the vital role that suppliers play in the

satisfaction of its end users.

As an extension of its own operations, Parker Sea Recovery charges its suppliers to provide materials, products and services that meet or exceed the requirements of contracts, applicable specifications and quality standards. In addition, Parker Sea Recovery requires that suppliers adhere to a strident code of conduct addressing ethical, legal, environmental and social responsibilities, further bolstering customer confidence in Parker Sea Recovery products and services.



Parker Sea Recovery System Benefits

With features such as intuitive controls, versatile design, automated self-maintenance and energy efficiency, Parker Sea Recovery's watermakers can accommodate a spectrum of conditions and circumstances, making them an ideal fit for nearly any industry need.

Modern user interfaces

Parker Sea Recovery user interfaces are certified to perform under even the most demanding conditions. They offer innovative industrial PLC controls featuring integrated performance-monitoring software. These features enable real-time remote monitoring of process instrumentation and system performance, as well as remote notification of detected system errors and detailed maintenance requests. Parker Sea Recovery systems are easy to operate with one-touch automatic start up and shutdown functions.

Parker Sea Recovery's watermaker systems offer versatility in design to accommodate a range of needs. Product lines include compact configurations with a minimal footprint as well as modular configurations with design flexibility to fit virtually any type of space restriction.

Energy savings

Energy savings and self maintenance are vital features of Parker Sea Recovery's line of watermakers. Automated fresh-water flushes prolong system life and maintain performance integrity, while water-lubricated pumps require little to no maintenance, reducing repair expense and down time.

Parker Sea Recovery's largest production system, the Atlantic Sea, uses the I-Save energy

recovery pump, which can curtail energy consumption by up to 49 percent. This energy savings helps reduce running costs – and the vessel's carbon footprint.

Engineered to withstand nearly any type of condition, Parker Sea Recovery's line of commercial systems are a recognized standard in the production of clean water.

Containerized solutions

Ideally suited for oil and gas production, mining, military applications and disaster relief situations as well as for a variety of land-based applications where pre-configured structures must comply with environmental and logistical conditions, Parker Sea Recovery containerized systems are pre-assembled and fully

tested to ensure integrity and reliability. These turnkey products offer a plug-and-play solution for challenging circumstances.

Technical water capabilities

Parker Sea Recovery dual-pass watermakers are engineered to meet the most demanding requirements. Blending superior performance with full code compliance, Parker Sea Recovery's unique designs can provide potable and technical water from the same skid, minimizing the system footprint while improving power efficiency and lowering the total cost of ownership.

For applications where contaminants result in deposits, corrosion and carryover, Parker Sea Recovery offers reverse-osmosis systems featuring electrode-deionization mixed-bed ion exchange (MBDI) to product the highest quality demineralized water.

Parker Sea Recovery uses standard modules that can be custom engineered to deliver optimum performance and reliability.



Above: System control and color touch screen. Below: I-Save Energy Recovery Pump

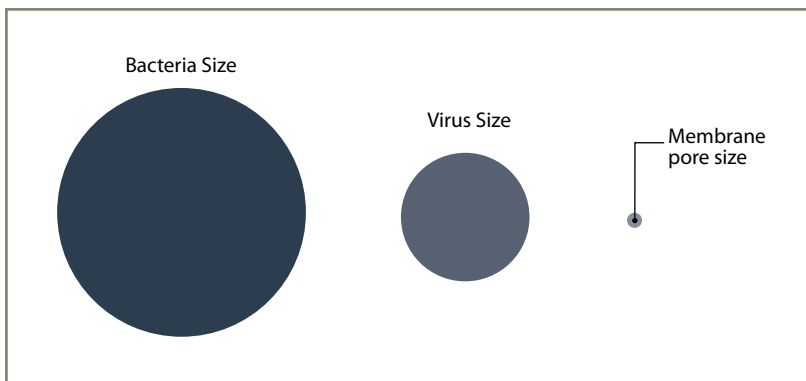
Reverse Osmosis Filtration: Advantages

Reverse osmosis effectively removes 99.98 percent of all impurities from water, and is much safer than evaporation in eliminating contaminants. Parker Sea Recovery water purification systems feature high-yield, low-tolerance membranes with pores that are approximately 0.0001 micron. These membranes

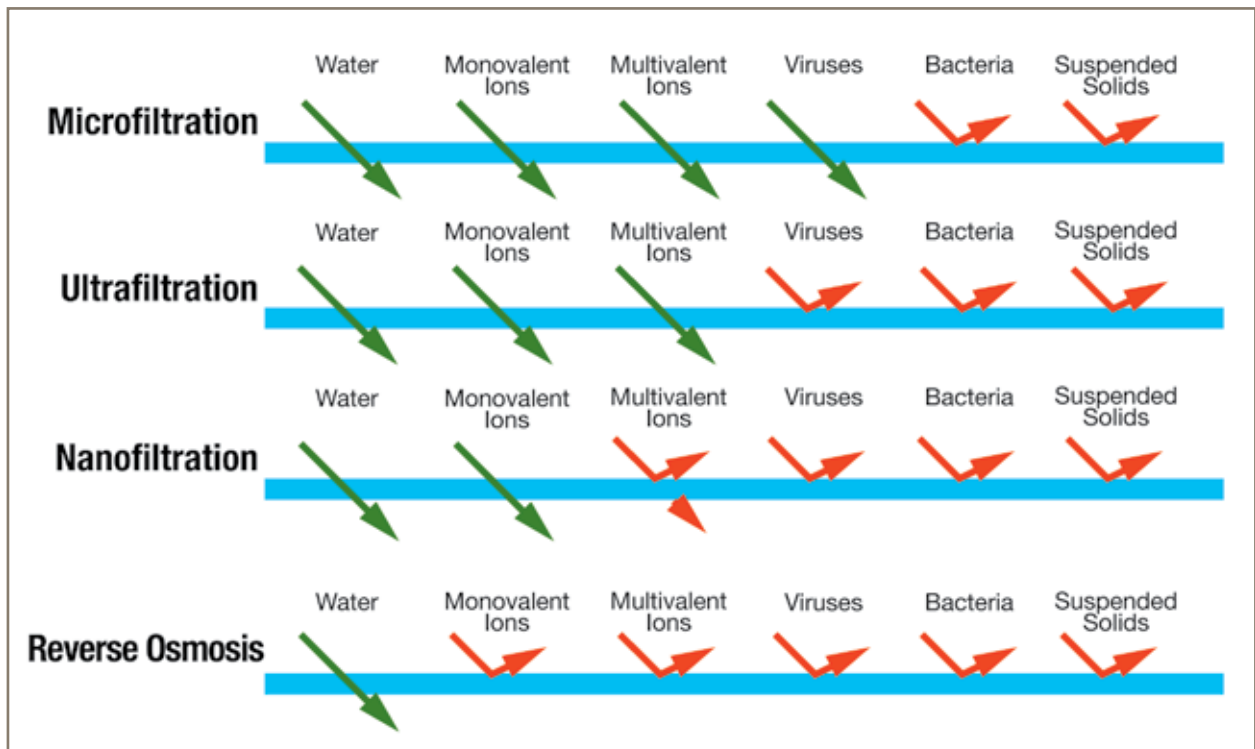
successfully eliminate the harmful effects of lead, heavy metals, chlorine, chemical contaminants, pesticides, pathogens, bacteria, viruses and radioactive materials.

Integrated pre- and post-filtration processes, when coupled with the option to disinfect water using a UV

Disinfection System, makes Parker Sea Recovery system water the safest water produced.



Comparison between bacteria and virus and Parker Sea Recovery's membrane pore size.



Membrane Process Characteristics

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Industrial Series Controller

Three configurations for a variety of needs



The Parker Sea Recovery industrial controller is an innovative solution for beginning and experienced water-system operators.

Basic semi-automatic control system

Prevent potential problems with performance monitoring that automatically shuts down when the product tank is full. The touch-screen interface is able to display multiple warning messages that aid in basic maintenance, extending the life of the water system.

Digital control system

A multi-colored touch-screen interface displays maintenance alerts and provides an on-screen help guide. The system also performs automatic start-ups and shutdowns depending on the level of water in the product tank.

Fully automatic control system

This truly automated configuration practically eliminates the need for an operator. Its MODBUS communications package integrates with hosted control systems that allow remote monitoring, ensuring smooth operation.



Basic Control System

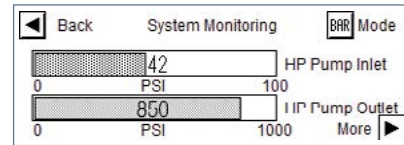
Digital Control System

Interior door / electrical

Controller Features

Basic controller standard features

- 101.6mm touch screen interface
- Single point tank level control
- Product salinity monitoring
- Multiple warning messages
- Performance monitoring and alerts
- Automatic start up / shut down function
- Optional basic MODBUS communication package

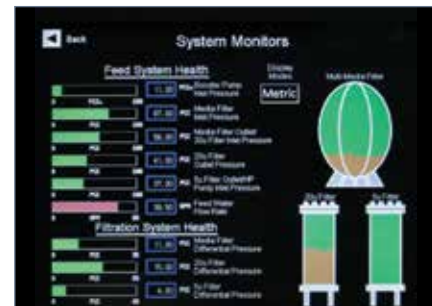


(System pressure monitoring screen)

Digital controller standard features

Includes all basic control standard features plus:

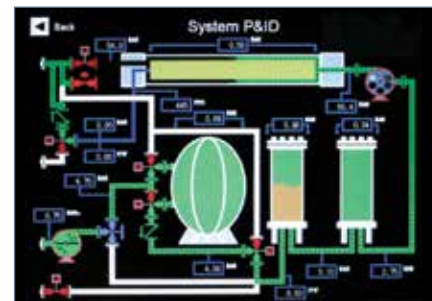
- 203.2mm 65K color touch screen interface
- Digital display of all system pressures, flow rates automated valve positions, and filtration system blockages
- Maintenance detection and interactive on-screen help
- Multi-point tank level control
- Chemical injection controls
- Optional multi media filter automation
- Optional full MODBUS communication package



Fully automatic controller standard features

Includes Basic and Digital control standard features plus:

- Automatic fresh water flush
- Automatic media filter backwash
- Automatic pre and post-treatment
- Automatic system pressure regulation
- Automatic back pressure regulation
- Filter element blockage prediction
- Full MODBUS communications package



Available Voltages

Phase	Three	Three	Three	Three	Three	Three
Hz	50	50	50	60	60	60
VAC	220	380	440	208	230	460
FLA	35	35	35	30	30	30
Circuit Breaker Size	125 Amperes	100 Amperes	100 Amperes	125 Amperes	125 Amperes	100 Amperes

Java Sea Series

Large capacity production, small footprint



Parker Sea Recovery's revolutionary Java Sea is engineered to be easier to use and more reliable than conventional watermakers. Featuring the latest technology, the Java Sea is able to regulate and monitor system functions without the need of an operator. With one touch, the Java Sea will start and finish water production automatically.

Automated functions

Standard watermakers require pressure adjustments for water conditions and to produce fresh water - a process that can be very time consuming. Parker Sea Recovery solves this problem by incorporating an automatic pressure regulating system into the Java Sea, allowing the watermaker to balance pressure levels automatically. This feature maximizes operator comfort and convenience.

Longer lifespan, minimal maintenance

The Java Sea's features allow operators to extend its service life. The automatic fresh-water flush and LCD monitoring system optimizes pre-filter and membrane performance. This system will flush every seven days, whether the watermaker is producing water or on standby.



Product features

- **Maximum production:**
3.5 to 12 cubic meters per day (24 hours)
- **Automatic pressure regulating system**
- **High-efficiency booster pump for extended pre-filter life**
- **Automatic fresh-water flush**
- **One-touch operation**
- **Intuitive, full-color LCD touch screen interface**

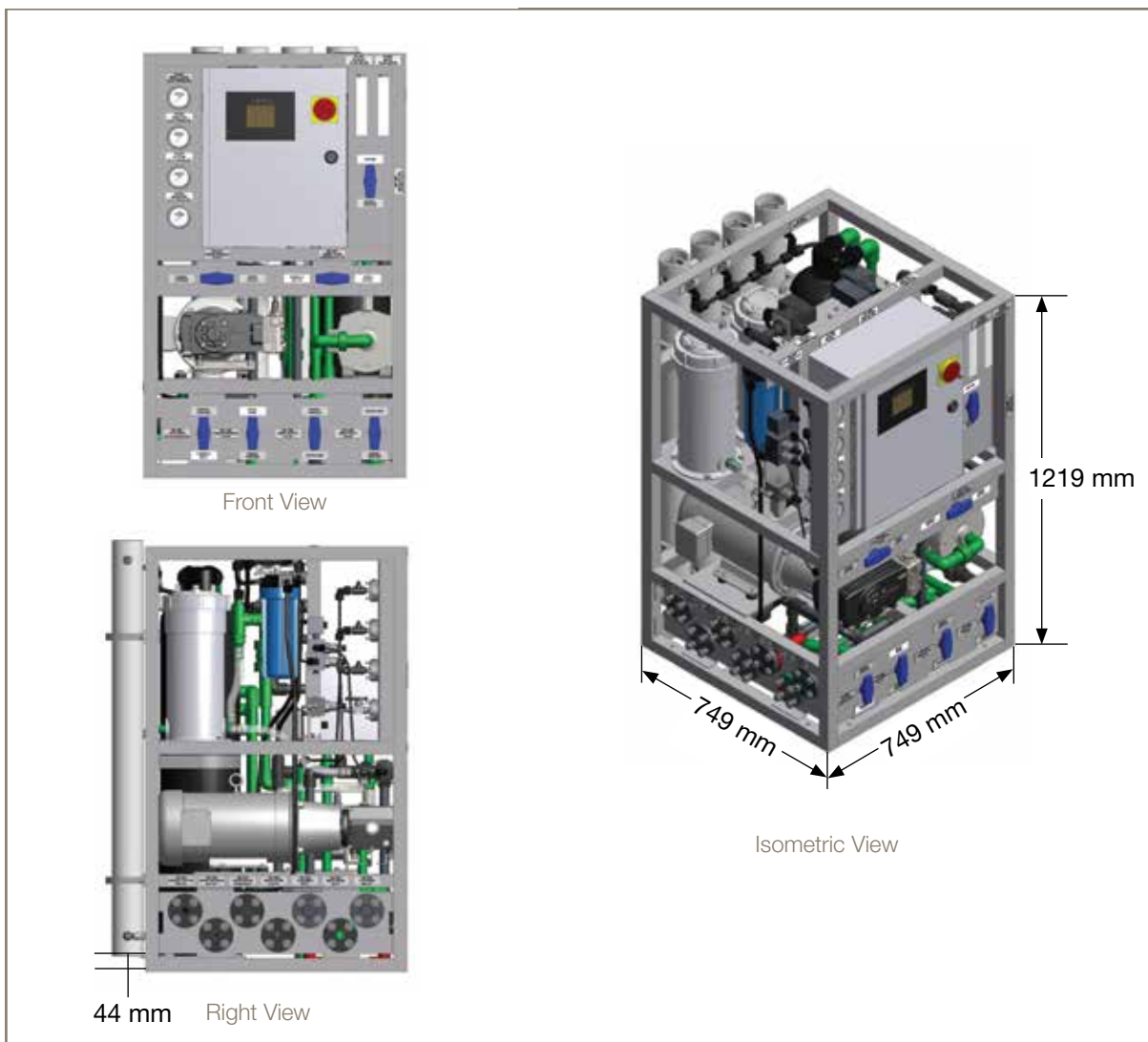
Java Sea System Specifications

Model	Vessel Size	Membrane Config.	Production Per Hour	Production Per 24 Hrs.	Weight
3.5m ³	76.2mm	Single	0.14 m ³	3.5 m ³	195 kg
7m ³	76.2mm	Single	0.29 m ³	7 m ³	195 kg
10m ³	76.2mm	Single	0.41 m ³	10 m ³	195 kg
12m ³	76.2mm	Single	0.5 m ³	12 m ³	195 kg

Electrical Requirements

Power	HP Pump	Booster Pump	FLA
220 / 50 Hz / 1 PH	3.7 KW	.75 KW	39
230 / 50 Hz / 1 PH	3.7 KW	.75 KW	32
220 / 50 Hz / 3 PH	3.7 KW	.75 KW	29
380 / 50 Hz / 3 PH	3.7 KW	.75 KW	15

Java Sea Dimensions



Coral Sea Series

State-of-the-art versatile design



Operators will get more out of the new Coral Sea Series of watermakers. Designed in three different configurations, the Coral Sea Series offers flexible installation options, a choice of basic or digital controller configurations, and the reliability, safety and quality that could only be delivered by Parker Sea Recovery

Vertical, horizontal or modular configurations

The Coral Sea Series is available in three different design configurations that accommodate any space. The vertical and horizontal compact aluminum frames are lightweight and corrosion resistant. The modular design allows individual component mounting, perfect for retrofits or new builds.

Industrial PLC control

Integrated performance monitoring and optimization software allows the Coral Sea to display local warnings of potential problems before they become significant performance issues. A one-touch automatic start up/ shutdown function lets operators walk away knowing the system will continue to run at peak efficiency.



Product features

- **Small-footprint, large-volume production, from 10.59 to 25.73 cubic meters per day**
- **Radial axial pump does not require oil change**
- **Basic and digital controller options**
- **Industrial PLC control**
- **User-friendly color touchscreen**
- **Optional ethernet/MODBUS communication**

Coral Sea System Specifications

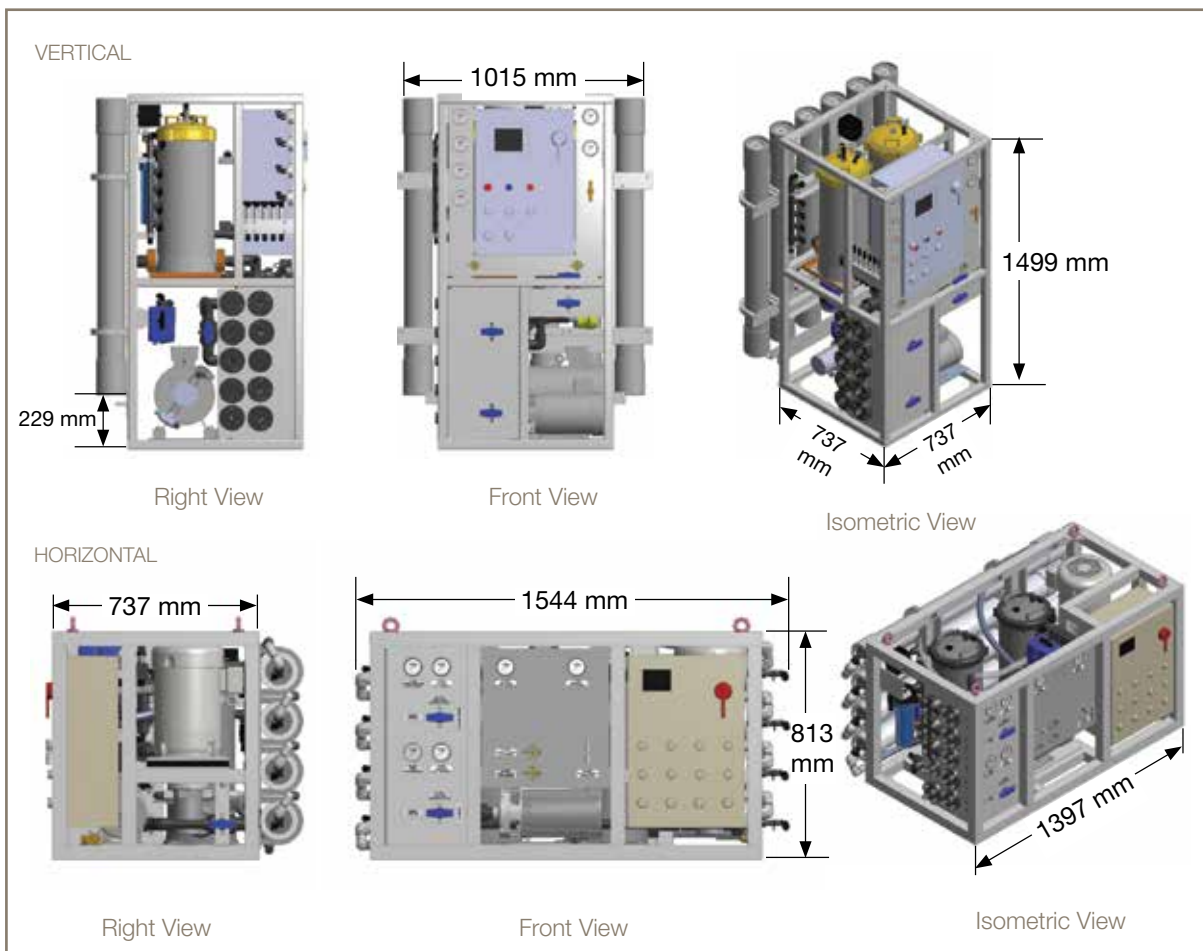
Model	No. of Vessels	Vessel Size	Production / Hour	Production / 24 Hrs.	Weight
2800	4	76.2mm	442 lit	10.59 m ³	445 kg
3600	4	76.2mm	568 lit	13.62 m ³	445 kg
4200	3	101.6mm	662 lit	15.89 m ³	445 kg
5200	4	101.6mm	820 lit	19.68 m ³	454 kg
6200	5	101.6mm	978 lit	23.46 m ³	463 kg
6800	6	101.6mm	1,073 lit	25.73 m ³	477 kg

*All models available in Vertical, Horizontal, or Modular configurations

Electrical Requirements

Model 2800 - 3600				Model 4200 - 6800			
Power	HP Pump	Booster	FLA	Power	HP Pump	Booster	FLA
220 / 50 Hz / 1 PH	5.5 KW	1.5 KW	48	230 / 60 Hz / 1 PH	N/A	N/A	N/A
220 / 50 Hz / 3 PH	5.5 KW	1.5 KW	36	208 / 60 Hz / 3 PH	7.5 KW	1.5 KW	39
380 / 50 Hz / 3 PH	5.5 KW	1.5 KW	17	230 / 60 Hz / 3 PH	7.5 KW	1.5 KW	21

Coral Sea Dimensions



Tasman Sea T-2

Reliable service, new modern controls



The Tasman Sea T-2 offers semi-automatic to fully automatic configurations - all complete with touch-screen controls and optional Ethernet and MODBUS remote communication. The Tasman Sea T-2 requires minimal maintenance and is backed by a global team of factory-trained technicians. Parker Sea Recovery continues the tradition of using high-quality parts that have been tested and proven to exceed industry safety standards, giving customers the confidence of choosing the world's most trusted watermaker.

Choose the level of control

Choose from basic, semi-automatic or fully automatic control options. The basic control option features a performance- and error-detection function that displays multiple different user warning messages, helping to prevent major maintenance issues.

Parker Sea Recovery's integrated performance monitoring and optimization software allows the Tasman Sea to display local warnings of potential problems before they become significant performance issues. Its one-touch automatic start up/shutdown function lets operators walk away knowing the system will continue to run at peak efficiency.



Product features

- **Small footprint, large volume production, from 25 to 90 cubic meters per day**
- **Radial axial pump does not require oil change**
- **Available with basic, semi-automatic and automatic controller options**
- **Industrial PLC control User-friendly color touchscreen**
- **Optional ethernet/MODBUS communication**

Tasman Sea System Specifications

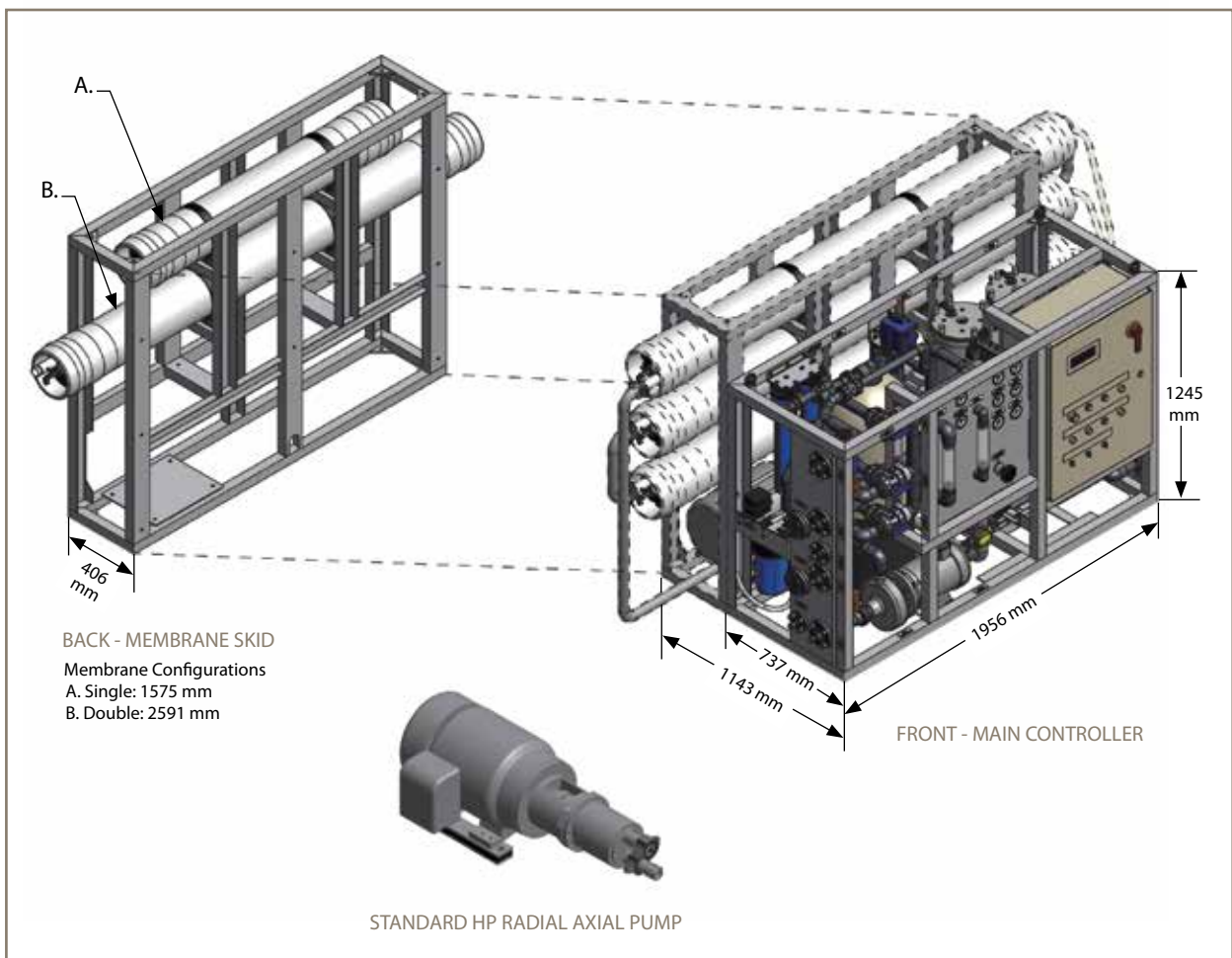
Model	No. of Vessels	Membrane Configuration	Production / Hour	Production / 24 Hrs.	Weight
25m ³	1	Single	1.05 m ³	25 m ³	861 kg
45m ³	2	Single	1.87 m ³	45 m ³	953 kg
45m ³	1	Double	1.87 m ³	45 m ³	953 kg
60m ³	3	Single	2.49 m ³	60 m ³	998 kg
72m ³	4	Single	2.99 m ³	72 m ³	1,089 kg
72m ³	2	Double	2.99 m ³	72 m ³	1,089 kg
90m ³	6	Single	3.74 m ³	90 m ³	1,089 kg
90m ³	3	Double	3.74 m ³	90 m ³	1,089 kg

Electrical Requirements

Systems: 25m³ - 90m³

Power	HP Pump	Booster Pump	FLA
220 / 50 Hz / 1 PH	18.5 KW	5.5 KW	90
380 / 50 Hz / 3 PH	18.5 KW	5.5 KW	52
440 / 50 Hz / 3 PH	18.5 KW	5.5 KW	47

Tasman Sea Dimensions



North Sea Modular

Easy installation, large production, complete control



In the effort to accommodate the needs of the retrofit market, Parker Sea Recovery has created the North Sea Modular Series. The North Sea Modular Series provides a reliable source of fresh water at large production capacities, with minimal space and maintenance requirements. Its configuration provides maximum utility of space while incorporating ease of control and safety standards.

Modular configuration - perfect for retrofit

The North Sea Modular Series is built to fit through waterproof doors and hatches. This conserves the vessel's original form by virtually eliminating the need for cutting - saving time and money.

Perfect for retrofit or new builds, the North Sea Modular's separate component installation feature accommodates space restrictions. Its robust aluminum frame allows access from any angle for easy maintenance.



Product features

- **Small footprint, large volume production, from 45 to 200 cubic meters per day**
- **Radial axial pump does not require oil change**
- **Available with basic, semi-automatic and automatic controller options**
- **Industrial PLC control**
- **User-friendly color touchscreen**
- **Optional ethernet/MODBUS communication**

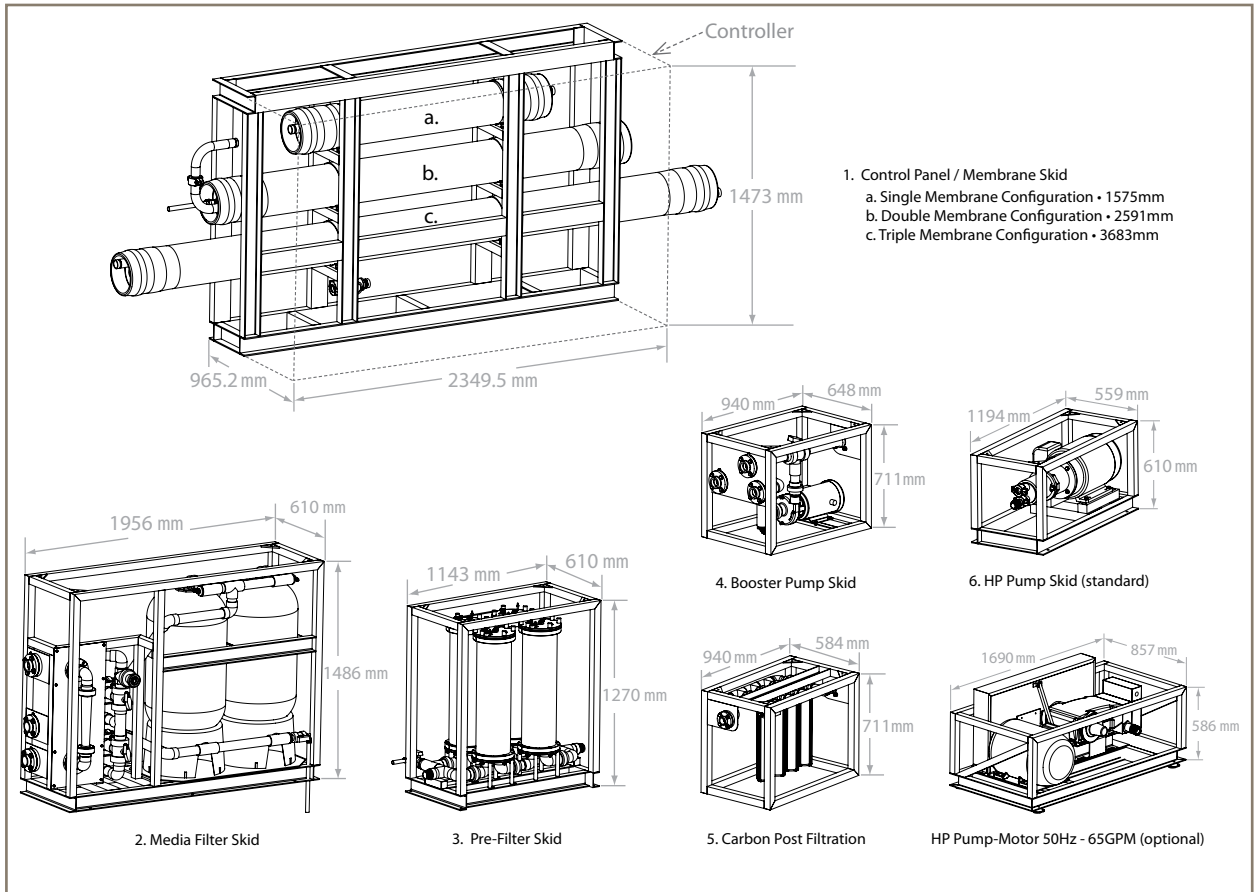
North Sea Modular System Specifications

Model	No. of Vessels	Membrane Configuration	Production / Hour	Production / 24 Hrs.	Weight
45m ³	1	Double	1.87 m ³	45 m ³	1,679 kg
85m ³	2	Double	3.53 m ³	85 m ³	1,815 kg
105m ³	3	Double	4.37 m ³	105 m ³	1,951 kg
145m ³	4	Double	6.03 m ³	145 m ³	2,177 kg
175m ³	6	Double	7.29 m ³	175 m ³	2,178 kg
175m ³	4	Triple	7.29 m ³	175 m ³	2,450 kg
200m ³	6	Triple	8.33 m ³	200 m ³	2,858 kg

Electrical Requirements

System	Data	220/50Hz/3PH	380/50Hz/3PH	440/50Hz/3PH
45m ³	Full Horse Power - HP Pump	18.5 KW	18.5 KW	18.5 KW
	Full Horse Power - Booster	5.5 KW	5.5 KW	5.5 KW
	FLA	93	54	47
85m ³ • 105 m ³	Full Horse Power - HP Pump	18.5 KW	18.5 KW	18.5 KW
	Full Horse Power - Booster	5.5 KW	5.5 KW	5.5 KW
	FLA	93	54	47
145m ³ - 200m ³	Full Horse Power - HP Pump	37 KW	37 KW	37 KW
	Full Horse Power - Booster	5.5 KW	5.5 KW	5.5 KW
	FLA	135	79	68

North Sea Modular Dimensions



North Sea N-2 Series

The reliable choice for unlimited fresh water production



The North Sea N-2 Series is the top choice of the offshore and commercial marine industry. It has the capacity to provide up to 200 metric tons of fresh water per day. With minimal space and maintenance requirements, the new North Sea N-2 has multiple controller configuration options, and provides maximum utility of space while incorporating ease of control and safety standards.

Choose the level of control

Choose from basic, semi-automatic, or fully automatic control options. The basic control option features a performance- and error-detection function that displays multiple user warning messages to help prevent major maintenance issues.

The North Sea N-2 high pressure pump is the most compact and efficient pump on the market. This HP pump has flexible installation options that don't require frames, belt drives or gear boxes. The HP pump is water lubricated, corrosion resistant (Super Duplex), and completely eliminates membrane fouling caused by oil leaks. This innovative HP pump provides constant flow regardless of variations in pressure while delivering a total efficiency of up to 97 percent.



Product features

- **Produces 45 to 200 cubic meters per day**
- **Radial axial pump does not require oil change**
- **Available with basic, semi-automatic and automatic controller options**
- **Industrial PLC control**
- **User-friendly color touchscreen**
- **Optional ethernet/MODBUS communication**

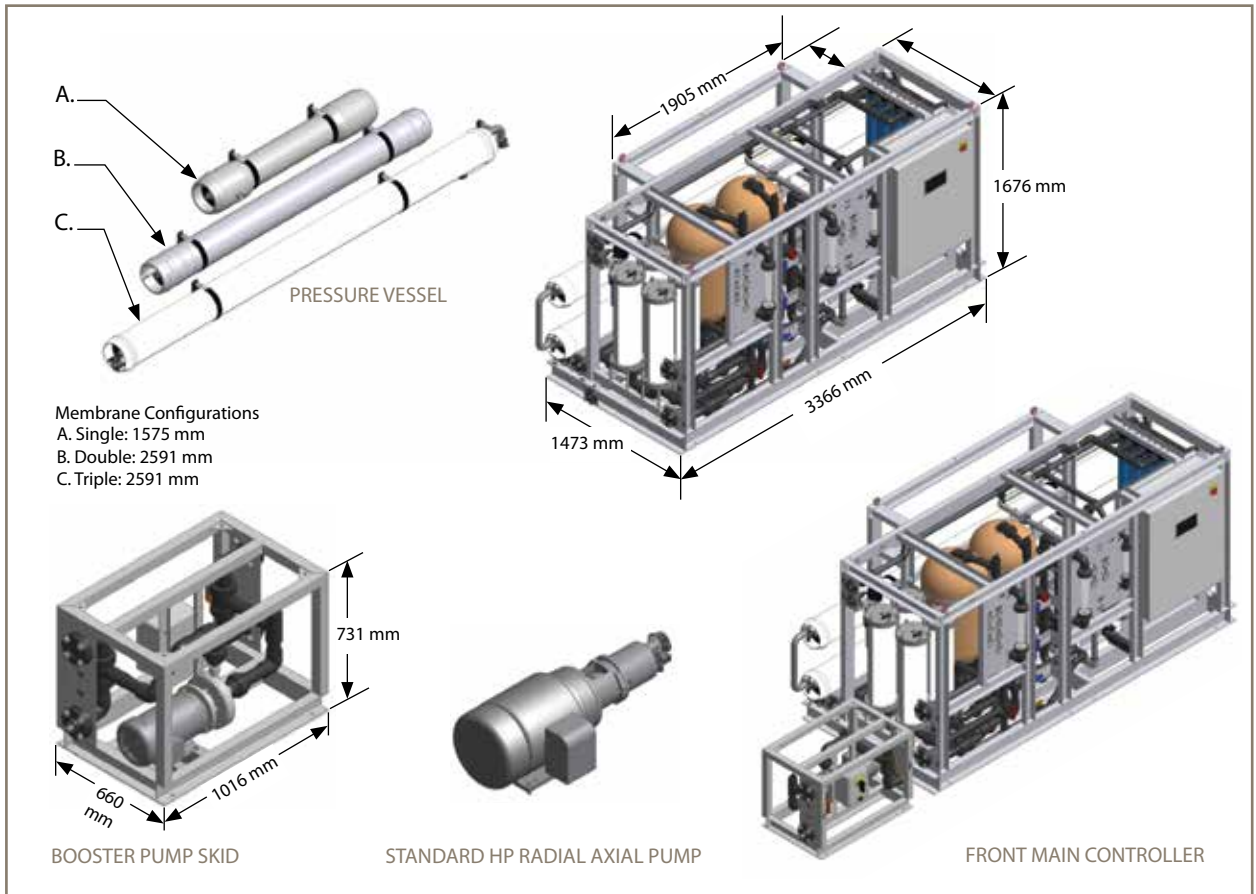
North Sea N-2 System Specifications

Model	No. of Vessels	Membrane Configuration	Production / Hour	Production / 24 Hrs.	Weight
45m ³	1	Double	1.87 m ³	45 m ³	1,679 kg
85m ³	2	Double	3.53 m ³	85 m ³	1,815 kg
105m ³	3	Double	4.37 m ³	105 m ³	1,951 kg
145m ³	4	Double	6.03 m ³	145 m ³	2,177 kg
175m ³	6	Double	7.29 m ³	175 m ³	2,178 kg
175m ³	4	Triple	7.29 m ³	175 m ³	2,450 kg
200m ³	6	Triple	8.33 m ³	200 m ³	2,858 kg

Electrical Requirements

System	Data	220/50Hz/3PH	380/50Hz/3PH	440/50Hz/3PH
45m ³	Full Horse Power - HP Pump	18.5 KW	18.5 KW	18.5 KW
	Full Horse Power - Booster	5.5 KW	5.5 KW	5.5 KW
	FLA	93	54	47
85m ³ • 105 m ³	Full Horse Power - HP Pump	18.5 KW	18.5 KW	18.5 KW
	Full Horse Power - Booster	5.5 KW	5.5 KW	5.5 KW
	FLA	93	54	47
145m ³ - 200m ³	Full Horse Power - HP Pump	37 KW	37 KW	37 KW
	Full Horse Power - Booster	5.5 KW	5.5 KW	5.5 KW
	FLA	135	79	68

North Sea N-2 Dimensions



Atlantic Sea Series

Safe, reliable and supported
anywhere in the world



The Atlantic Sea is Parker Sea Recovery's largest series of SWRO systems. Its features include a small footprint and fully automatic controls with the capability to produce up to 1,200 metric tons per day. The Atlantic Sea also boasts the lowest consumption of energy per ton of water produced. This system is perfect for those who require an unlimited amount of fresh water anywhere at anytime.

Efficiently productive

From its fully automated controller to its low maintenance HP pump and its I-Save energy recovery system, the Atlantic Sea flawlessly delivers high production capacities. Its automated controller is easy to operate and allows real-time remote monitoring of essential system functions.

The Atlantic Sea's high pressure pump is the most compact and efficient pump on the market. Its flexible installation doesn't require frames, belt drives or gear boxes. The HP pump is corrosion resistant and completely eliminates oil leaks and membrane fouling caused by oil leaks.

The Atlantic Sea is capable of instant-on start-up that allows the system to produce usable, fresh water within minutes.



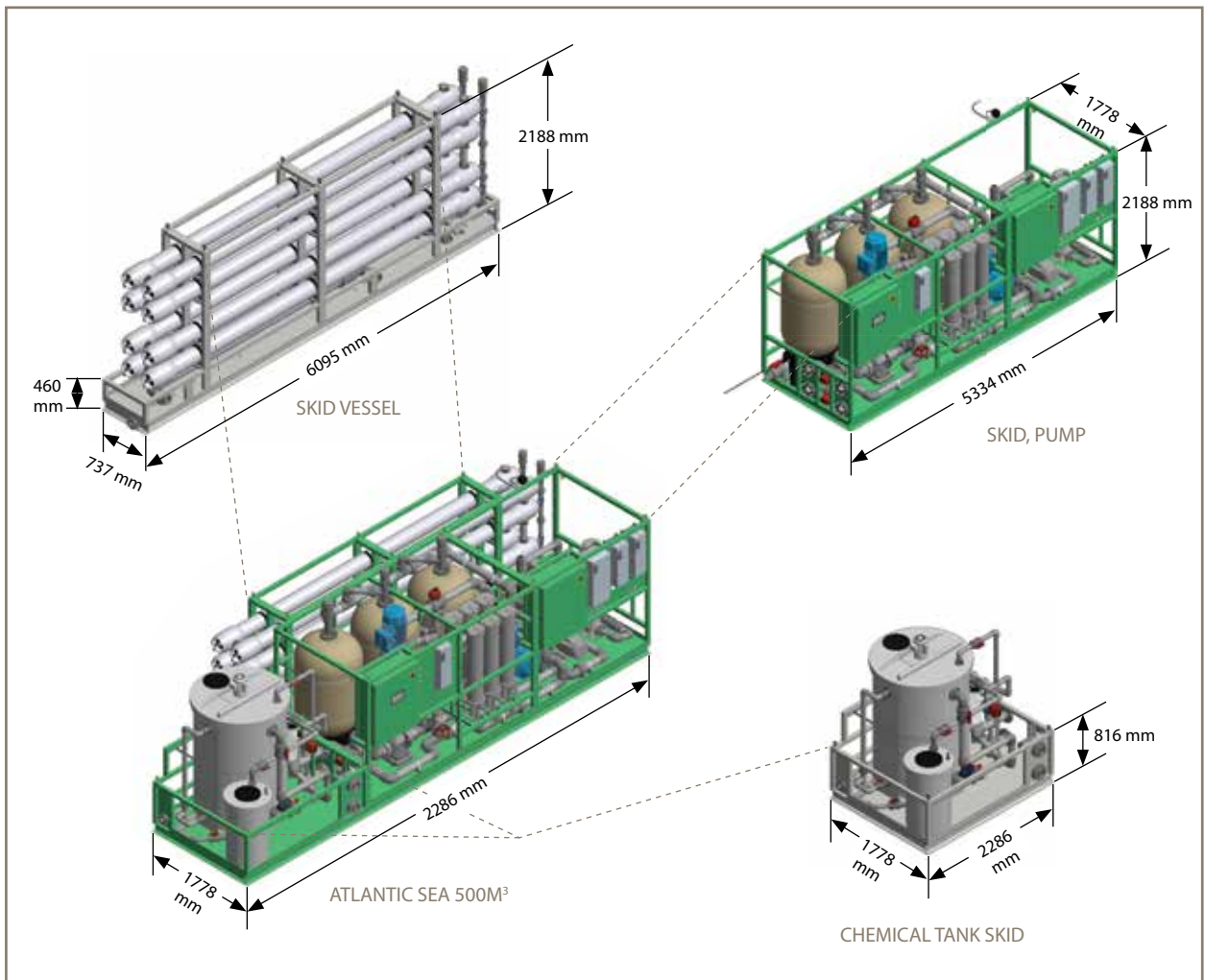
Product features

- **Mega production - up to 1,200 metric tons per day**
- **Digital control with standard MODBUS**
- **Low-maintenance HP pump**
- **I-Save energy recovery system**
- **One-touch start up with instant-on feature**

Atlantic Sea System Specifications

System Production	Energy Recovery Available / Type	No. of Membranes	Production / Hour	Production / 24 Hrs.	Estimated Energy Savings Per M ³ of Water Produced
250 M ³	YES / I-SAVE	12	10,417 lit	250,000 lit	40%
300 M ³	YES / I-SAVE	16	12,500 lit	300,000 lit	40%
400 M ³	YES / I-SAVE	20	16,667 lit	400,000 lit	44%
500 M ³	YES / I-SAVE	30	20,833 lit	500,000 lit	44%
600 M ³	YES / I-SAVE	50	25,000 lit	600,000 lit	44%
750 M ³	YES / I-SAVE	60	31,250 lit	750,000 lit	44%
1000 M ³	YES / I-SAVE	100	41,667 lit	1,000,000 lit	48%
1200 M ³	YES / I-SAVE	120	50,000 lit	1,200,000 lit	49%

Atlantic Sea Dimensions



Customized Systems

Custom designed to meet your needs

Parker Sea Recovery's advanced water systems are capable of being customized to the special needs of individual customers. The company works closely with customers to meet all specifications, whether it's for customized parts, production capacities or a complete customized re-design. Parker Sea Recovery's customized reverse-osmosis water systems provide the same advanced technologies as standard systems and are delivered and commissioned to any location in the world. A typical delivery time for customized systems ranges from 10 to 12 weeks.

Design

After receiving specifications, Parker Sea Recovery's engineers and system designers create a system that is designed to meet or exceed client specifications. Once the final design is approved by the customer, the dedicated Parker Sea Recovery team of specialists begins building a system that will look and function to agreed standards.

Build

Customized systems are given as much attention as our standard systems. Always at

the lead in industry standards, Parker Sea Recovery water systems are built with quality components and materials, incorporating advanced electronics and modern user interfaces that allow ease of operation and maintenance. The Parker Sea Recovery development process also includes extensive testing to the system will run flawlessly and adhere to safety standards once in full operation.

Delivery and Commissioning

Parker Sea Recovery's local sales representatives work closely with customers to ensure their system is delivered and commissioned promptly and properly. With service specialists located in every part of the world, Parker Sea Recovery has local assistance always at the ready. Typically a completely re-designed custom system can be delivered in about 12 weeks.



Accessories and Consumables



Fresh Water Flush
Prolong membrane life at the touch of a button.



pH Neutralizer
Restore product water to a neutral state or level.



Hydrocyclone Separator
Has no filters or moving parts and extends the life of pre-filters and elements.



Chemical Cleaning Tank
Restore membrane productivity and reduce bio-fouling.



UV Sterilizer
Eliminates 99.8 percent of bacteria and viruses from the feed water.



Chemical Injection
Control the chemistry of the feed water to reduce and prevent fouling..



Media Filter
Traps suspended solids larger than 30 microns. Helps extend pre-filter element life.

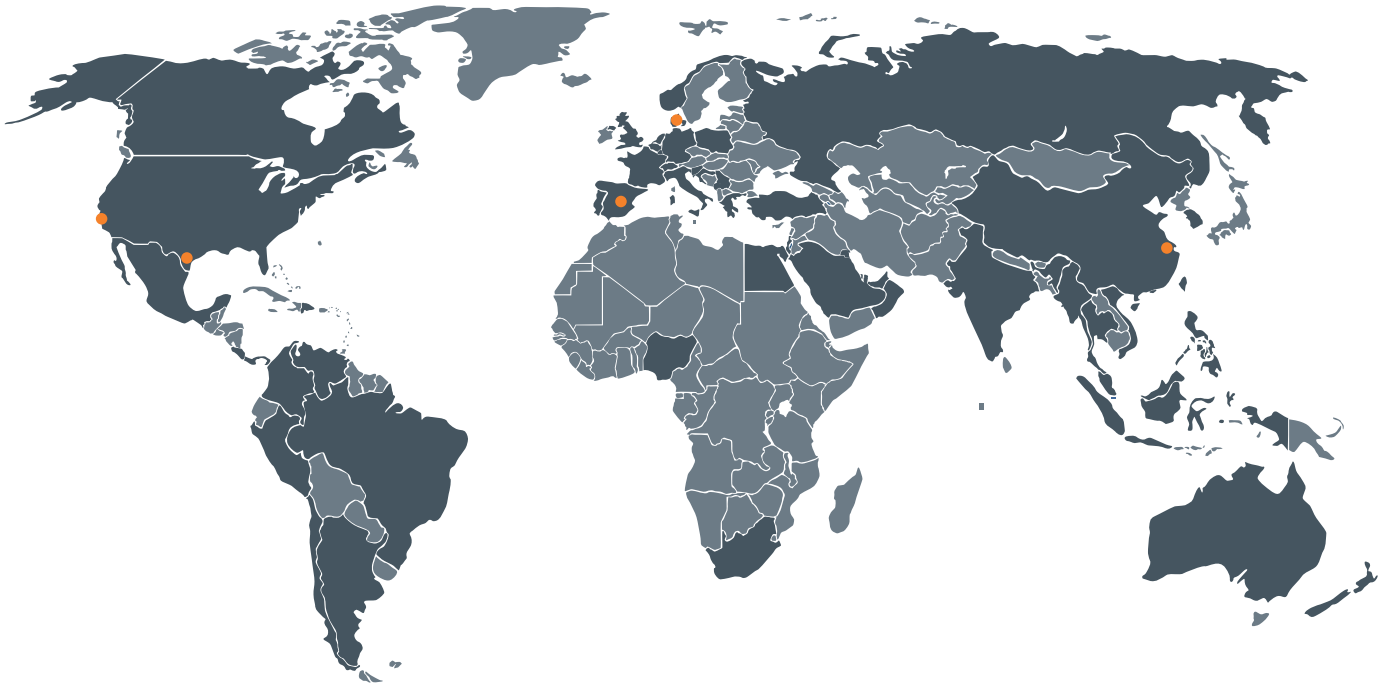
Consumables and Spares

Only Parker Sea Recovery's genuine replacement consumables and spares will ensure the quality and function of each Parker Sea Recovery watermaker system. Cleaning and storage compounds help prolong the life of the watermaker, and eliminate unnecessary buildup that can lead to extra maintenance. Contact a Parker Sea Recovery dealer to order spare replacements.



To find a dealer or for service and parts, contact Parker Sea Recovery
Tel: 1 (800) 354-2000 | Email: sales@searecovery.com

Worldwide Agents and Dealers



● Local Factory Sales Offices

■ Agents and Distributors

Visit our website to find a dealer, agent or service technician near you.

www.searecovery.com



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SANTA MARIA T



Name ship:	Santa Maria T
Type ship:	Yacht
Owner:	Private
Shipyard:	Wim van der Valk
Installation:	Van der Valk Continental Yachts

With a length of more than 36 meters, the Santa Maria T is the largest yacht built by Van der Valk so far. The Santa Maria T has a steel hull and aluminum interior structure and is the first of a new generation of designs made by Guido de Groot.

Due to a well thought-out design of the hull, the Santa Maria T is resistant to the most severe weather conditions. Due to the large fuel capacity, the Santa Maria T has the range for a trans-Atlantic crossing.

The Aqua Matic water maker supplied by TTT and installed by Sea Recovery certainly contributes to the comfort with which this crossing can be made. Without worries about (sufficient) clean drinking water on board, the Santa Maria T can sail and go wherever she wants.

HELIAD II



Name ship:	Heliad II
Type ship:	Yacht
Owner:	Calypso Yachting
Shipyard:	Scheepswerf Made
Installation:	Linx Yachts

The 33-meter long Heliad II built in the Netherlands offers luxurious accommodation for up to 12 guests, in a lay-out that is usually found at 45-meter super-yachts. Her interior, as well as the outdoor deck, offer plenty of space to guests for a very comfortable, stylish and luxurious stay on board. Designed by Diana Yacht Design, Heliad II offers a light, modern interior with light woods and natural light as the main ingredients.

TTT has supplied two Reverse Osmosis watermakers and water disinfection systems for Heliad II. A watermaker on board ensures great freedom and little worries about clean (drinking) water on board. The local intake of bunker water, whose quality can vary considerably depending on the location, has become completely redundant.

OCEAN WARRIOR



Name ship:	Ocean Warrior
Type ship:	Fast Crew Supplier
Owner:	Sea Shepherd Conservation Society
Shipyard:	Damen Shipyards
Installation:	Damen Shipyards BV

"She is fast, modern, economical and affordable. A real game changer "according to Adam Meyerson, captain of Ocean Warrior. "This is the fastest ship Sea Shepherd has ever had. And that is necessary to keep up with the Japanese whalers. "The maximum speed is over 30 knots. Two thirds of the ship is confiscated by the four engines, machines and storage of fuel, which allows the ship to stay at sea for three months without intermediate stops.

Because the Ocean Warrior is months away, often in the Antarctic, far from the mainland, and also because there is limited space available on board, an automatic watermaker from Sea Recovery is a perfect match for this ship.

TTT supplied the Aqua Matic watermaker and put it into operation. In this way we ensure optimum system operation with minimal maintenance of personnel during the journey.



Name ship:	Miranda
Type ship:	Multipurpose Support Vessel
Owner:	Van Laren Maritiem
Shipyard:	Schipyard Trico
Installation:	Electric marine support binnenvaart BV

Van Laar Maritime owns and operates a growing fleet of 30 watch, follow and (seismic) support vessels worldwide. The 'Miranda' is a 37m long multipurpose support vessel sailing under the flag of the Bahamas.

TTT has supplied an Aqua Matic watermaker for the Miranda and put it into operation, making it possible to use the always available drinking water on board without any problems. With over 30 years of experience Sea Recovery has become a world leader in the design and production of reverse osmosis watermakers.



Name ship:	Defender II
Type ship:	Fast Crew Supplier
Owner:	Nigerian government
Shipyard:	Damen Shipyards
Installation:	Damen Shipyards BV

Defender II is a fast crew supplier 3307 from Damen Shipyards. These vessels of Dutch origin are used worldwide. One of the characteristics of a fast crew supplier is that the ship is built as light as possible. The bunkering of water in bottles or tanks is therefore not desirable. Damen Shipyards consciously chose a watermaker from Sea Recovery.

TTT has supplied and commissioned an Aqua Matic watermaker system for the Defender II. In addition to commissioning, TTT is also a partner for maintenance, repair and spare parts.



Name ship:	Duward Knowles
Type ship:	Stan Patrol Vessel
Owner:	Sea Shepherd Conservation Society
Shipyard:	Damen Shipyards
Installation:	Damen Shipyards BV

The "Durward Knowles" is a Damen Stan Patrol Vessel 4207, built for the Royal Bahamas Defense Force (RBDF) to protect its territorial waters. Since the Bahamas have no army or air force, the Navy is the only form of military protection for the Bahamas. The Durward Knowles is one of the patrol vessels of the RBDF and carries out the assignment as defender of the Bahamas, protector of its territorial integrity and also patrolling, offering assistance in times of disaster and law enforcement in collaboration with other agencies in the Bahamas. .

TTT has delivered and commissioned an Aqua Matic watermaker system for the Duward Knowles. Because of its high reliability and relatively compact housing, the fully automated Aqua Matic from Sea Recovery is very suitable for the waters of the Bahamas.

