

Reverse Osmosis Watermakers

General Catalog
Marine & Offshore



TECNICOMAR[®]
WATERMAKERS - SEWAGE TREATMENT PLANTS

When unconditioned reliability is imperative

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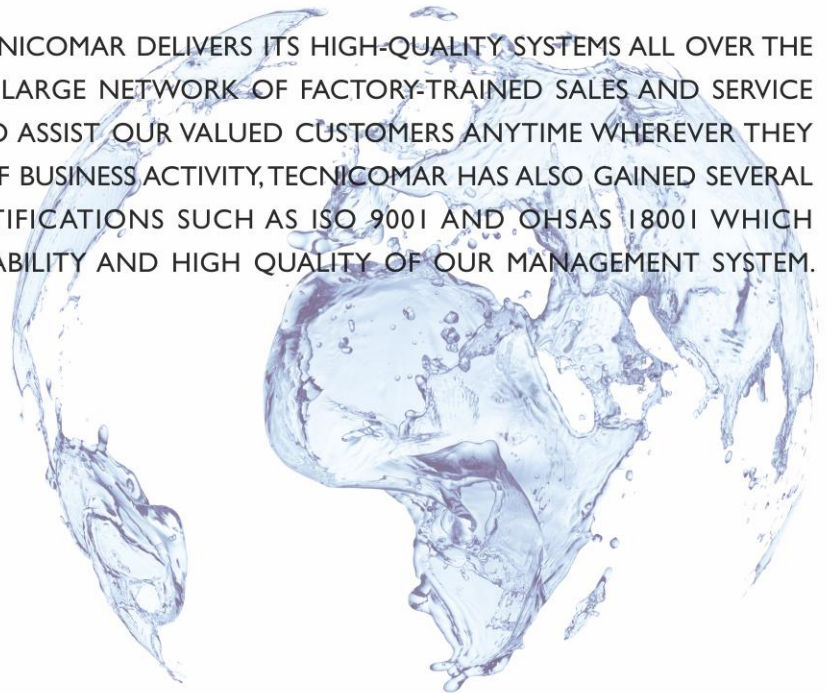


40 years of experience in providing solutions for every demand of water treatment, anytime and everywhere.

ESTABLISHED IN 1978 BY MR. FRANCESCO DE VITA, TECNICOMAR S.P.A. SHORTLY BECAME A LEADING COMPANY DESIGNING AND MANUFACTURING REVERSE OSMOSIS WATERMAKERS AND WATER PURIFYING SYSTEMS FOR YACHTING, NAVAL, OFFSHORE, INDUSTRIAL AND RESIDENTIAL APPLICATIONS.

SINCE THEN, TECNICOMAR HAS BUILT A STRONG REPUTATION WITHIN MARITIME INDUSTRY SUPPLYING A WIDE RANGE OF PRODUCTS MEETING ANY DRINKABLE WATER NEED AND ENGINEERED TO BE THE MOST RELIABLE, LONGER LAST AND MORE CONVENIENT BECAUSE GREEN TECHNOLOGY BASED GIVING UP TO 60% MORE OF FRESH WATER AND 35% LESS OF ENERGY CONSUMPTION.

NOWADAYS, TECNICOMAR DELIVERS ITS HIGH-QUALITY SYSTEMS ALL OVER THE WORLD THROUGH A LARGE NETWORK OF FACTORY-TRAINED SALES AND SERVICE READILY AVAILABLE TO ASSIST OUR VALUED CUSTOMERS ANYTIME WHEREVER THEY ARE. OVER 40 YEARS OF BUSINESS ACTIVITY, TECNICOMAR HAS ALSO GAINED SEVERAL OUTSTANDING CERTIFICATIONS SUCH AS ISO 9001 AND OHSAS 18001 WHICH HIGHLIGHT THE RELIABILITY AND HIGH QUALITY OF OUR MANAGEMENT SYSTEM.

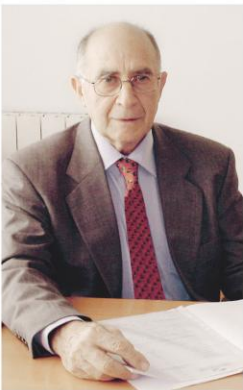


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THE HISTORY

1978



Mr. Francesco De Vita founds Tecnicomar with the manufacture of the first Reverse Osmosis watermaker ever made in Europe and designed for Yachting application. Shortly, the company starts approaching new fields such as Offshore, Defense and Industrial, getting experienced with big units suitable to work in hard conditions and compliant with military standards.



1990



With the new General Manager Tommaso De Vita the company strengthens the presence on international markets and improving the standard quality.

2001

Given the great results soon achieved thanks to the reliability and high performance of its products, Tecnicomar is awarded the UNI EN ISO 9001:2000 Quality Certification.



2004

Tecnicomar launches a new product line in the field of waste water treatment, represented by an innovative Sewage Treatment Plant, called the ECOmar which shortly becomes the state-of-the-art system, fully compliant with several international standards and approved by the U.S. Coast Guard.



2008

Tecnicomar moves its headquarters and production into a 4500 sqm facility based in Marsala (Italy) to better face an increasing demand and to assist its clients more properly and timely.





2014

Tecnicomar succeeds in most of its markets, driven by innovative products, continuous R&D and a strong network of distributors operating over 40 countries which lead the company to achieve brilliant results.

Tecnicomar is awarded the UNI EN ISO 9001:2000 Quality Certification in 2001, the OHSAS 18001:2007 Safety Certification and the FPAL Certification.



COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV GL # ISO 9001 #



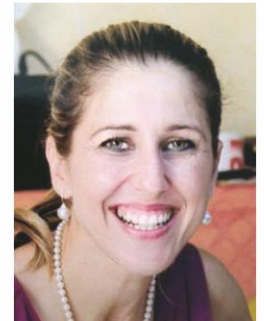
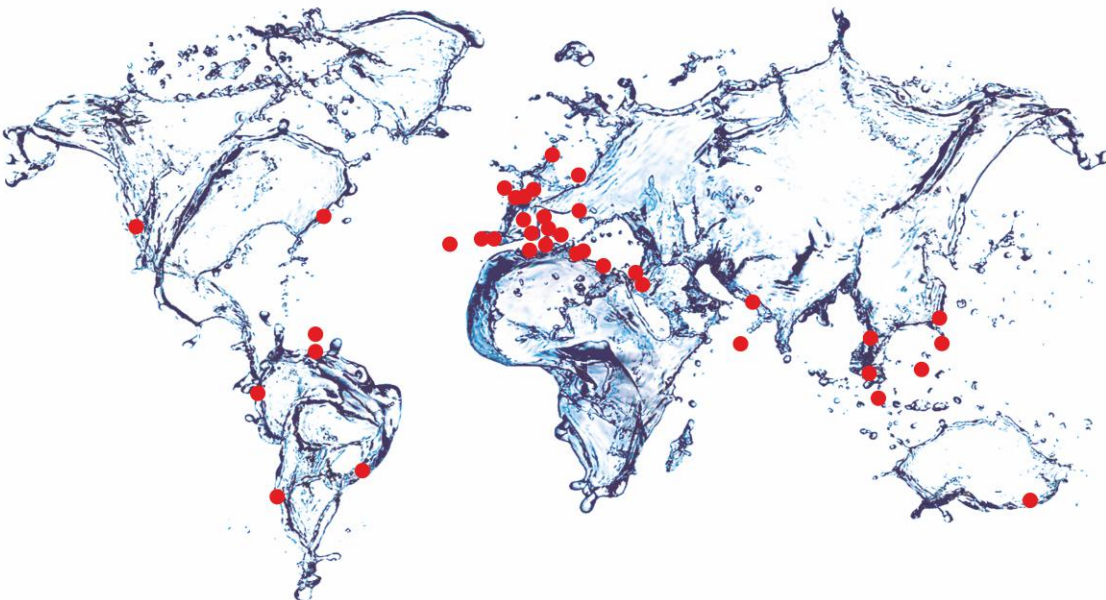
COMPANY WITH SAFETY SYSTEM CERTIFIED BY DNV GL # OHSAS 18001 #



2016

Tecnicomar builds a sister facility of 3000 sqm. next to the current one to increase the production. Also, Mrs. Laura De Vita becomes the Sole Administrator & General Manager of Tecnicomar S.p.A. -march, 2016-

OUR INTERNATIONAL PRESENCE:



CERTIFICATIONS

Over 40 years of business activity, Tecnicomar got several different certificates about Quality Management System, issued by some of the most important international Authorities such as DNV, for UNI EN ISO 9001:2015 Quality Certification, OHSAS 18001:2007 Management System Certification and FPAL Certification.

Company Certifications:



COMPANY WITH
QUALITY SYSTEM
CERTIFIED BY DNV GL
= ISO 9001 =



COMPANY WITH
SAFETY SYSTEM
CERTIFIED BY DNV GL
= OHSAS 18001 =



Components & Products are Approved by:



The Company is Member of:



Reverse Osmosis Watermakers



TECNICOMAR[®]
WATERMAKERS - SEWAGE TREATMENT PLANTS

When unconditioned reliability is imperative

Reverse Osmosis Watermakers

STANDARD FEATURES

- Compliance with Offshore and Defense standard for electrical and mechanical components
- Well designed for extremely hard conditions operation
- Double prefilter with reusable high flow rate cartridge filtration, 30 and 5 micron, allowing a reduced maintenance
- Carbon fibre pressure vessels TÜV certified for BiCompact, Sailor and Oasi models (reinforced fiberglass vessels, A.S.M.E. certified, for Essential, Sailor Special 2/44 and 3/44, STDC SY and SW8 watermakers)
- Reverse Osmosis membranes Filmtec/Dow with high chemical resistance, spiral wound type in thin film composite. FDA and NSF/ANSI standards compliant
- CAT high pressure pump with solid ceramic plungers and AISI 316L stainless steel pump head for continuous duty. Duplex and Super Duplex high pressure pump for high salty water applications.
- Feed pump in bronze for marine applications, highly resistant to corrosion. On demand available in AISI 316L stainless steel
- Delayed starting of the high pressure pump avoids the overload during system start
- Direct motor-pump coupling system with vibration dampers, reducing noise and vibration
- Tropicalized motor with low electric consumption, high ambient temperature resistant
- Double instrumentation for analogical and digital readings (standard for Sailor Compact, Sailor Special, Bicomcompact). On request for all other plants.
- Compact frames in Stainless Steel skid 316L, with anticorrosive protective paint
- Electronic monitoring of produced water quality with the automatic deviation out of board when quality does not reach the preset values
- High pressure pipes and fitting in AISI 316L stainless steel. Duplex and Super Duplex for special salty water applications.
- Pressure and vacuum pressure gauges in Stainless Steel 316L, glycerine filled
- Manual three way valve for easy membrane cleaning/flushing
- Predisposition for automatic membrane flushing after each watermaker stop
- Automatic pressure regulation device (standard for Sailor Special, Bicomcompact). On request for all other plants.
- Predisposition for final filtration with activated carbon filter -on demand-
- Operating hours meter for easy scheduling of ordinary maintenance
- Running signals and alarms available for system monitoring
- Electronic microprocessor control panel with LCD display (for BiCompact and Sailor models): *readings produced water salinity / low and high pressure / effective water production / fresh water production since last starting / electric absorption / temperature / starting-meter and hour-meter for easy maintenance programmation / failure*
- Electro-mechanical control panel for STDC/SY and SW8: high reliable and resistant to extreme conditions: *readings high salinity of the produced water / high electric power consumption / high or low pressure / oil change (for CAT high pressure pump). Electronic microprocessor control panel with LCD display available on request.*
- Remote controls: the electronic control panel is designed for the link with LCD display panel / on board Personal Computer / 7" LCD touch-screen display / optional remote control by Satellite link, for diagnosis, setting, maintenance and operation
- Complete installation kit, with hoses and fittings
- Low pressure circuit with pipes, flexible hoses and Stainless Steel 316L fittings in alimentary use material for potable water

SPECIAL GREEN SERIES:

The new Tecnicomar ECO watermakers produce up to 60% more fresh water and consume up to 35% less of energy consumption than others, based on the same size!

OPTIONAL FEATURES

- Bronze water strainer to prevent clogging of coarse filter and cartridge filters from marine debris
- Semi-automatic self-cleaning prefilter based on a swirl effect obtained by means of a propeller at the filter inlet, preserving the prefilter elements on the Reverse Osmosis system from marine debris
- Multimedia sand filter to reduce the level of suspended solids (turbidity) in incoming feed water
- Antiscalant dosing system to prevent the formation of scale on the membrane surfaces and membrane fouling avoiding premature membrane replacement
- Heating group, by electrical resistance and/or heat exchanger, for raising the temperature of sea water and potable water
- Cleaning/flushing system for assuring a longer membranes life.
- Booster system for produced fresh water
- Energy recovery system for low energy consumption and high performances
- Mineralizing filter to adjust the pH value of fresh water
- Automatic dosing systems for the water sterilization by chemicals dosage
- Carbon (de-chlorinating) filter to remove sediment and excessive chlorine content in the water, to improve taste and removes smell before use
- UV sterilizers, available with flow control device in case of any alarms
- Multi-purpose Reverse Osmosis units, for fresh water and technical water production
- Customized modules depending on available space
- Containerized package
- Special military equipments
- Availability of shock, noise and vibration tests on demand
- Special ATEX plants

Reverse Osmosis Watermakers

SW8 SPECIAL GREEN

SPECIAL GREEN SERIES:

The new Tecnicomar ECO watermakers produce up to 60% more fresh water and consume up to 35% less of energy consumption than others, based on the same size!

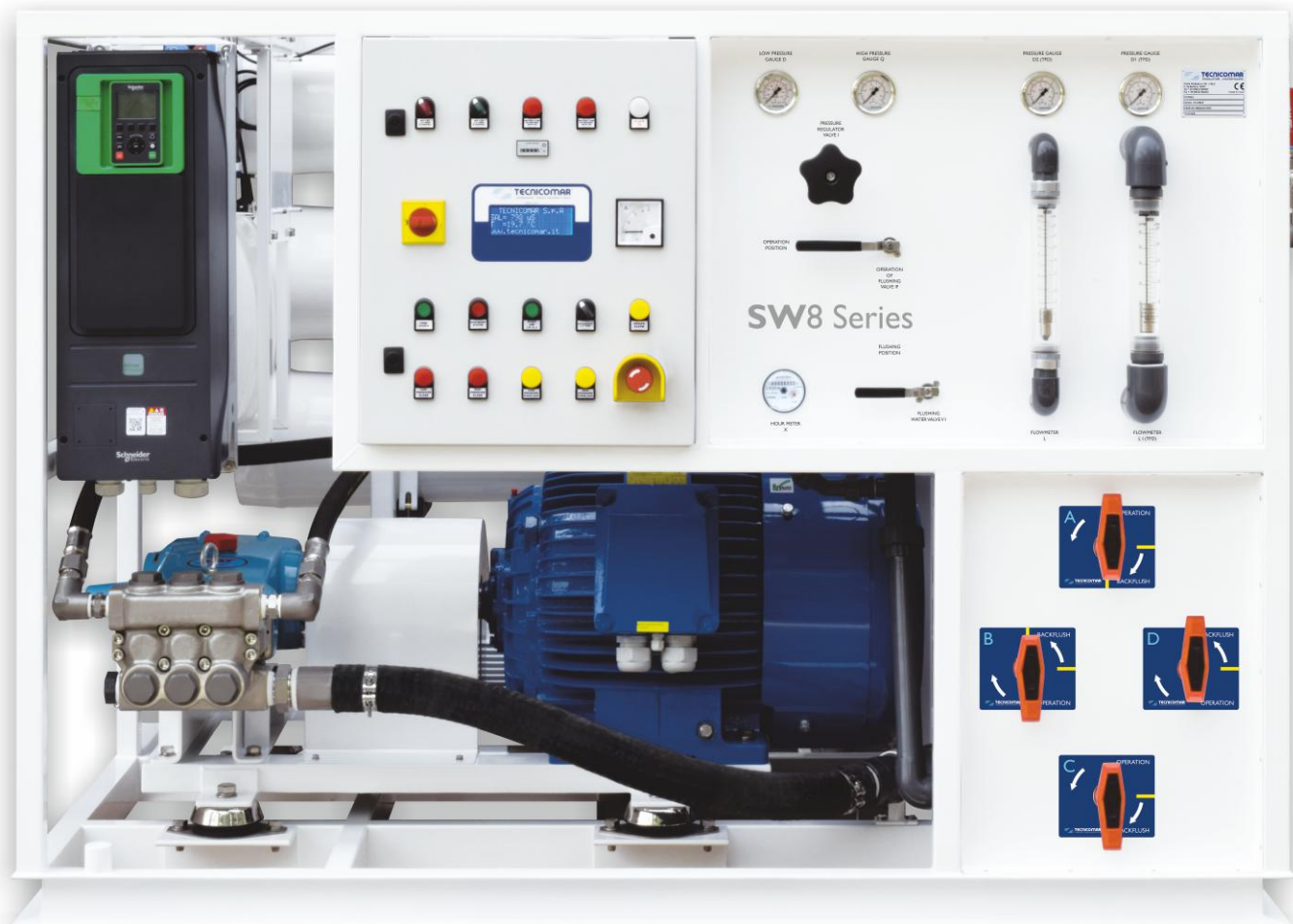
The Tecnicomar SW8 series is designed to produce high quantity of fresh water starting from 1.5 m³/hour. Ideal for offshore platforms, jack-up rigs, bulk carriers and other types of commercial vessels, the SW8 Reverse Osmosis watermakers are made up of high quality components that perfectly fit for marine applications, ensuring high performance in continuous operation even in hard environment conditions.

These systems are equipped with an emergency recovery system which allows a significant decrease of power consumption as well as an increase of system efficiency. The SW8 Reverse Osmosis watermakers also comes complete with an electro-mechanical control panel which gives the maximum reliability of correct operation in any conditions. The ASME approved pressure vessels are made up of reinforced fiberglass.



HIGHER FLOW RATE AVAILABLE ON DEMAND

SW8-50



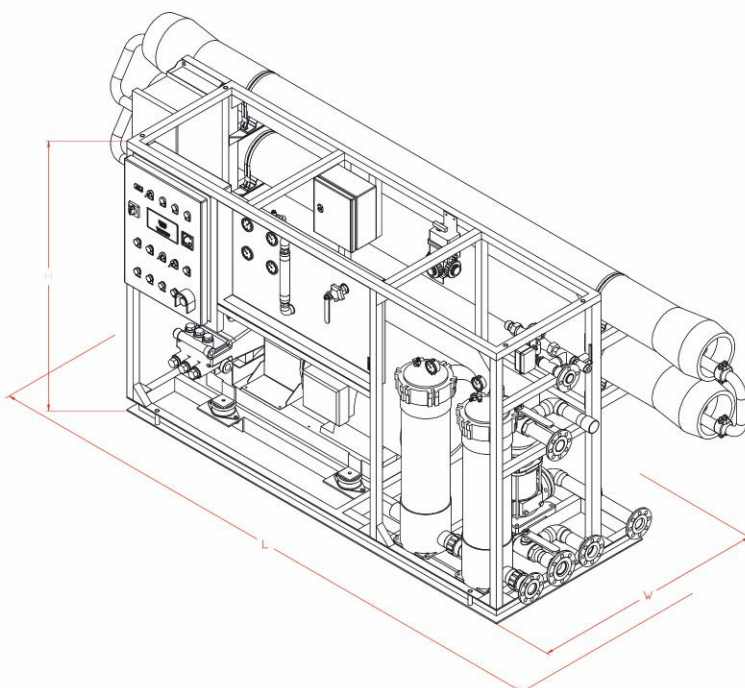


SW8-100

TECHNICAL DATA

| Model | Production by hour (litres / gallons) | Production by day (litres / gallons) | Power supply (Volt) / Frequency (Hz) Installed power (kW) | Max dimensions -W x D x H- (mm) | Weight (kg) |
|---------|--|---|--|------------------------------------|----------------|
| SW8-30 | 1250 / 330 | 30000 / 7290 | 400 V AC - 50 Hz 3-phase* - 15 kW | 1930 x 1150 x 1360 | 300 |
| SW8-50 | 2100 / 555 | 50400 / 13320 | 400 V AC - 50 Hz 3-phase* - 18.5 kW | 1930 x 1150 x 1360 | 360 |
| SW8-60 | 2500 / 660 | 60000 / 15840 | 400 V AC - 50 Hz 3-phase* - 18.5 kW | 2050 x 1067 x 1443 | 930 |
| SW8-75 | 3000 / 792 | 72000 / 19008 | 400 V AC - 50 Hz 3-phase* - 22 kW | 2050 x 1067 x 1443 | 1010 |
| SW8-100 | 4000 / 1056 | 96000 / 25344 | 400 V AC - 50 Hz 3-phase* - 30 kW | 4000 x 950 x 1380 | 1070 |
| SW8-150 | 6000 / 1585 | 144000 / 39474 | 400 V AC - 50 Hz 3-phase* - 37 kW | 4930 x 950 x 1380 | 1460 |
| SW8-250 | 10000 / 2642 | 240000 / 63408 | 400 V AC - 50 Hz 3-phase* - 55 kW | 5950 x 950 x 1380 | 2000 |
| SW8-∞ | PLANNED ON DEMAND - UNLIMITED PRODUCTION | | | | |

* other voltages and frequencies available on demand



Reverse Osmosis Watermakers

STDC SY SPECIAL GREEN

SPECIAL GREEN SERIES:

The new Tecnicomar ECO watermakers produce up to 60% more fresh water and consume up to 35% less of energy consumption than others, based on the same size!

Tecnicomar STDC SY are an automatic Reverse Osmosis systems ideal for the production of high quantities of fresh water from sea water. The STDC SY Special Green series is highly reliable for a non-stop continuous operation and designed to work under extreme conditions like high and low temperatures and vibrations. The watermakers can be customized for specific

exigencies and are assembled on a solid stainless steel frame. Tecnicomar STDC SY fresh water generators are equipped with an electro-mechanical control panel with display that allows to manage all functions in an intuitive mode. They can run in manual mode in case of temporary failure. The ASME approved pressure vessels are made of reinforced fiberglass.



STDC SY 6000

TECHNICAL DATA

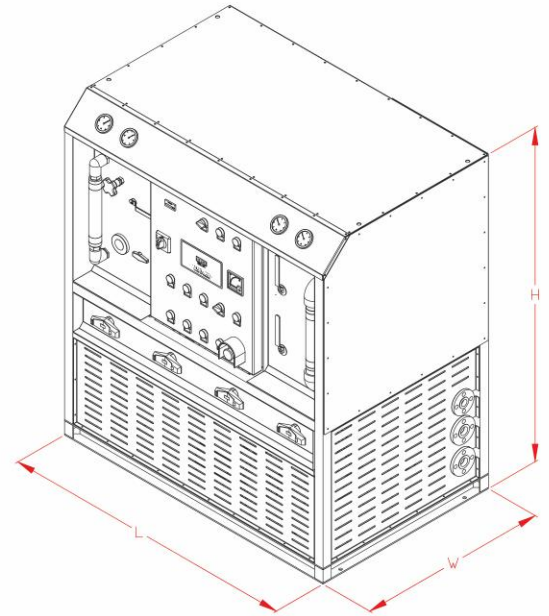
| Model | Production by hour (litres / gallons) | Production by day (litres / gallons) | Power supply (Volt) / Frequency (Hz) Installed power (kW) | Max dimensions -L x W x H- (mm) | Weight (kg) |
|--------------|--|---|--|------------------------------------|----------------|
| STDC SY 3000 | 600 / 158 | 14400 / 3805 | 400 V AC - 50 Hz 3-phase* - 5.5 kW | 1250 x 800 x 1520 | 425 |
| STDC SY 4500 | 800 / 211 | 19200 / 5073 | 400 V AC - 50 Hz 3-phase* - 5.5 kW | 1250 x 800 x 1520 | 445 |
| STDC SY 6000 | 1000 / 264 | 24000 / 6340 | 400 V AC - 50 Hz 3-phase* - 7.5 kW | 1250 x 800 x 1520 | 465 |

* other voltages and frequencies available on demand

CONFIGURATION:

Assembled on common frame with the following parts:

- SEAWATER STRAINER
- FEED PUMP
- COARSE BACKWASHABLE FILTER
- CARTRIDGE PREFILTER GROUP
- ANTISCALANT DOSING SYSTEM
- HIGH PRESSURE MOTOR-PUMP SET
- PRESSURE VESSEL GROUP
- CONTROL PANEL WITH CONTROL BOX
- ACTIVATED CARBON POST-FILTER
- CLEANING/FLUSHING SYSTEM



Reverse Osmosis Watermakers

TECNICOMAR BICOMPACT

SPECIAL GREEN SERIES:

The new Tecnicomar ECO watermakers produce up to 60% more fresh water and consume up to 35% less of energy consumption than others, based on the same size!

BiCompact is Tecnicomar's duplex watermaker range combining two independent systems on a common stainless steel frame: 2x250 liters/hour (2x1,581 gpd) or 2x350 liters/hour (2x2,213 gpd).

This space & energy saving solution is the first choice when redundancy is needed or the quantity of fresh water is doubling occasionally, on weekends or during high season as the systems can work simultaneously or autonomously. Each unit is fully automatic, but can be switched to manual mode if necessary.

The high reliability and flexibility make it suitable

both for military and research vessels as well as for Superyachts.

The electronic control panel allows a simple control of all operating functions from the main display or via remote control (optional). The light and resistant carbon fibre vessels (TÜV certified) are installed on the top on an overturnable system for easy maintenance and, in case of particular space restraints, they can be removed easily and installed separately.

Ready to be fitted with an automatic membrane flushing system.



DUPLEX - HIGH PRODUCTION





BICOMPACT S6/40

**VERY EASY TO USE:
FULLY AUTOMATIC
LOW NOISE OPERATION
ONE-TOUCH TECHNOLOGY**



Overturnable carbon fibre vessels pack



Accessories



Optional 7" LCD touch-screen display



Optional Automatic membranes flushing filter



Optional Re-hardening filter TCC-SL10



Optional Carbon filter TCA-SL10



Optional CDMAR-2 Remote Control

MODBUS protocol available

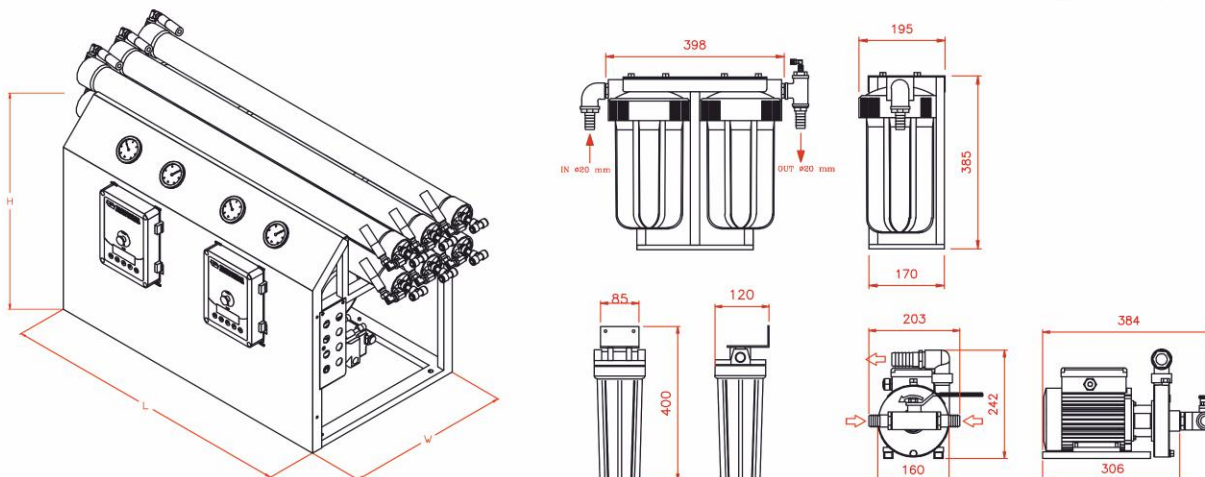


Optional Remote Control by on-board PC

TECHNICAL DATA

| Model | Production per hour (litres / gallons) | Production per day (litres / gallons) | Voltage (Volt) / Frequency (Hz) Installed Power (kW) | Max dimensions -L x W x H- (mm) | Weight (kg) |
|------------------|--|---------------------------------------|--|---------------------------------|-------------|
| BICOMPACT S 4/40 | 500 / 131 | 12000 / 3162 | 400V AC - 50 Hz three-phase* - 2 x 4 kW | 1190 x 525 x 590 | 124 |
| BICOMPACT S 6/40 | 700 / 184 | 16800 / 4426 | 400V AC - 50 Hz three-phase* - 2 x 4 kW | 1190 x 525 x 590 | 130 |

* other voltages and frequencies available on demand



SAILOR SPECIAL COMPACT GREEN

SPECIAL GREEN SERIES:

The new Tecnicomar ECO watermakers produce up to 60% more fresh water and consume up to 35% less of energy consumption than others, based on the same size!

Tecnicomar Sailor Special Green series has been designed with the scope to reduce the energy demand per produced liter/gallon.

Thanks to an overall process improvement and to the installation of highly innovative membranes, the system allows energy savings of 35% compared to other conventional desalination equipments. It is equipped with an advanced microprocessor controlling all functions and sensors. One-touch-operation system that can be switched to manual operation, if needed.

The Tecnicomar Sailor Special Green stands out for simplicity of use and high quality components like the stainless steel high pressure pump with solid ceramic plungers, the powder coated stainless steel frame, FDA compliant filters and ASME & TÜV certified pressure vessels.

The standard configuration includes a full-featured, ready to install watermaker with automatic pressure regulation and installation kit. On request, the system can be supplied with automatic membrane flushing and a remote control.



SAILOR SPECIAL GREEN 3/44

- EASY USE: FULL AUTOMATIC
- LOW NOISE OPERATION
- MODULAR CONFIGURATION AVAILABLE



SAILOR COMPACT 3/40 WITH ALUMINIUM FRAME



BOOSTER PUMP

TECHNICAL DATA

| Model | Production per hour (litres / gallons) | Production per day (litres / gallons) | Voltage (Volt) / Frequency (Hz) Installed Power (kW) | Max dimensions -L x W x H- (mm) | Weight (kg) |
|---------------------|---|--|---|------------------------------------|----------------|
| SAILOR SPECIAL 2/21 | 100 / 28 | 2400 / 634 | 400 V AC - 50 Hz 3-phase - 2.2 kW | 750 x 520 x 360 | 52 |
| SAILOR SPECIAL 3/21 | 160 / 42 | 3840 / 1024 | 400 V AC - 50 Hz 3-phase - 2.2 kW | 750 x 520 x 360 | 55 |
| SAILOR SPECIAL 2/40 | 250 / 66 | 6000 / 1585 | 400V AC - 50 Hz 3-phase - 4 kW | 1170 x 520 x 360 | 64 |
| SAILOR SPECIAL 3/40 | 350 / 92 | 8400 / 2219 | 400 V AC - 50 Hz 3-phase - 4 kW | 1170 x 520 x 360 | 68 |
| SAILOR SPECIAL 2/44 | 600 / 158 | 14400 / 3794 | 400 V AC - 50 Hz 3-phase - 5.5 kW | 1270 x 600 x 440 | 95 |
| SAILOR SPECIAL 3/44 | 800 / 210 | 19200 / 5059 | 400 V AC - 50 Hz 3-phase - 5.5 kW | 1270 x 600 x 600 | 110 |

other voltages and frequencies available on demand

Accessories



Optional 7" LCD touch-screen display



Optional Automatic membranes flushing filter



Optional Re-hardening filter TCC-SL10
Optional Carbon filter TCA-SL10

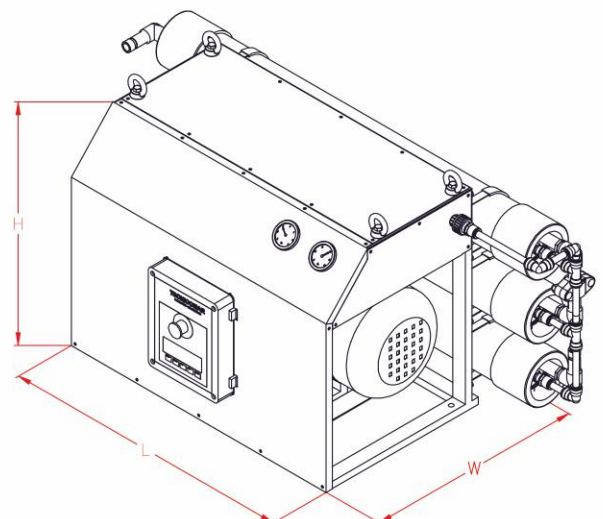


Optional CDMAR-2 Remote Control

MODBUS protocol available



Optional Remote Control by on-board PC



Reverse Osmosis Watermakers

SAILOR COMPACT

The Sailor Compact series is ideal for all sailing and motor boats as well as for superyachts and vessels requesting a considerable quantity of fresh water and the comfort of a microprocessor controlled, one-touch-operation system that can be switched to manual operation, if needed.

The Sailor Compact stands out for simplicity of use and high quality components like the stainless steel high pressure pump with solid ceramic plungers, the powder coated aluminium frame and

the TÜV certified corrosion free and lightweight carbon fiber pressure vessels.

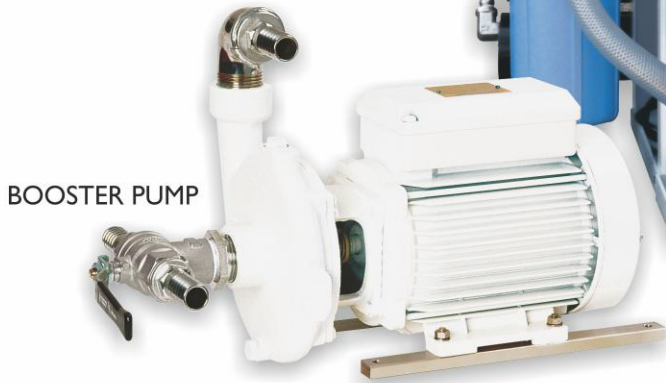
The standard supply includes a full-featured, ready-to-install watermaker with manual pressure regulation and installation kit. On request, the system can be supplied with automatic membrane flushing.

Available in two configurations to ease the installation: compact and modular (Sailor Compact Slim version) for tight spaces.

LIGHTWEIGHT FRAME **NEW!**



SAILOR COMPACT 600 WITH ALUMINIUM FRAME



BOOSTER PUMP



- EASY USE
- SEMI-AUTOMATIC
- LOW NOISE OPERATION
- MODULAR CONFIGURATION AVAILABLE



SAILOR COMPACT SLIM 1500



TECHNICAL DATA

| Model | Production per hour (litres / gallons) | Production per day (litres / gallons) | Voltage (Volt) / Frequency (Hz) Installed Power (kW) | Max Dimensions -L x W x H- (mm) | Weight (kg) |
|---------------------|--|---------------------------------------|--|---------------------------------|-------------|
| SAILOR COMPACT 400 | 70 / 18.5 | 1680 / 443 | 230 V AC - 50 Hz* - 1.1 kW | 750 x 520 x 360 | 52 |
| SAILOR COMPACT 600 | 100 / 26.4 | 2400 / 634 | 230 V AC - 50 Hz* - 1.1 kW | 750 x 520 x 360 | 55 |
| SAILOR COMPACT 1000 | 160 / 42.2 | 3840 / 1014 | 230 V AC - 50 Hz* - 2.2 kW | 1170 x 520 x 360 | 64 |
| SAILOR COMPACT 1500 | 220 / 58.1 | 5280 / 1395 | 230 V AC - 50 Hz* - 2.2 kW | 1170 x 520 x 360 | 68 |

other voltages and frequencies available on demand

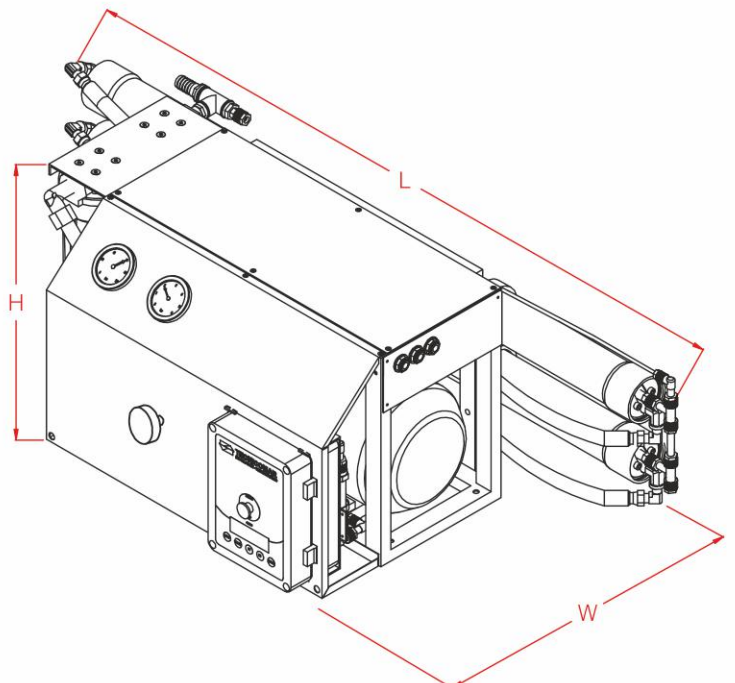
Accessories



Optional automatic membranes flushing filter

Optional Re-hardening filter TCC-SL10

Optional Carbon filter TCA-SL10



Reverse Osmosis Watermakers

LIGHTWEIGHT FRAME **NEW!**

ESSENTIAL

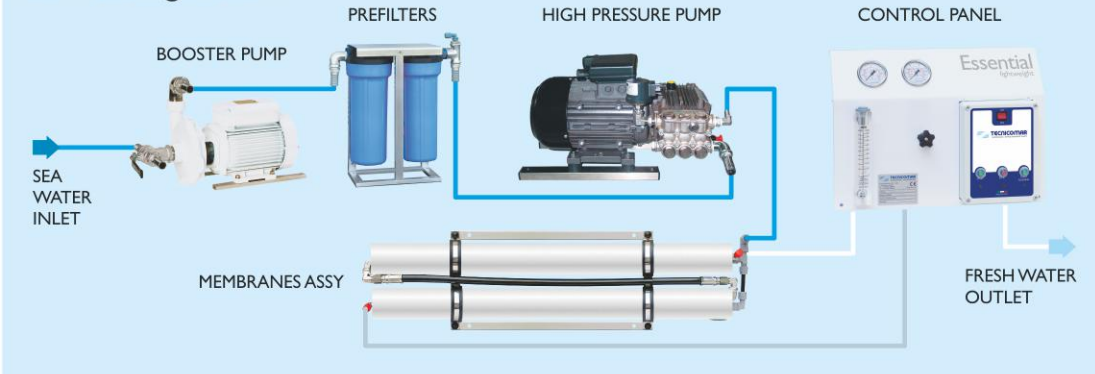
The Essential is a watermaker with production of 100 or 160 litres per hour, ideal for small boats. It is suitable for everyone who can do without electronic and remote controls and just wants a small and reliable system producing safe water. An automatic membrane flushing system is available as an option. The watermaker is mounted in a powder coated solid light alloy frame (compact version) or ready for modular installation in tight spaces (Essential Slim configuration). The compact version allows to install the membrane pack separately. Available for different electrical voltages and frequencies, on demand.



ESSENTIAL 400



Slim Configuration



Accessories

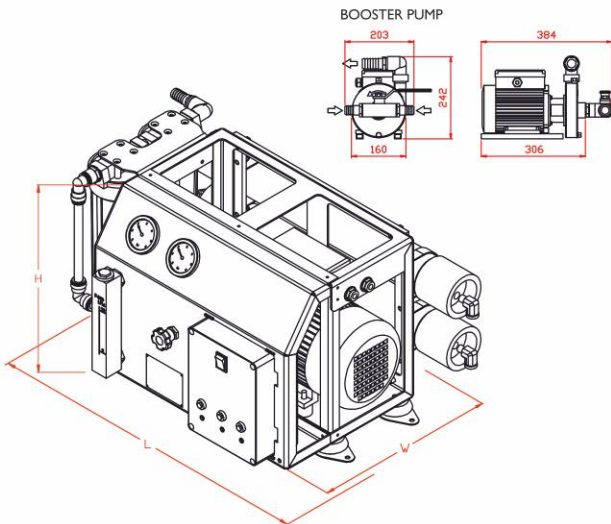


TECHNICAL DATA

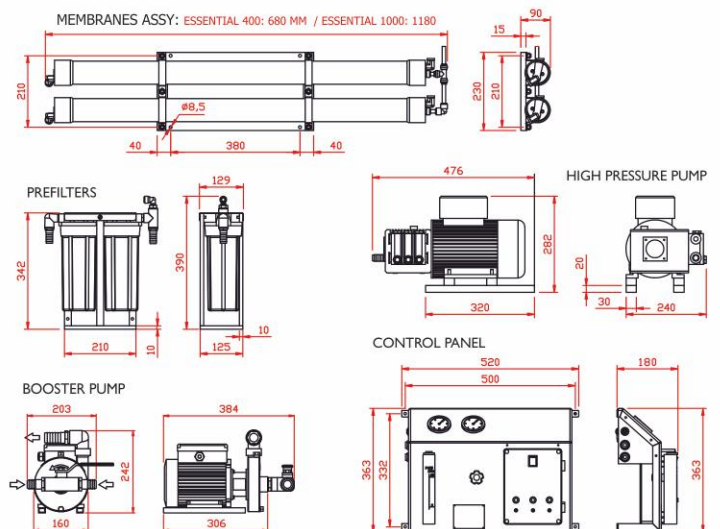
| Model | Production per hour (litres / gallons) | Production per day (litres / gallons) | Voltage (Volt) / Frequency (Hz) Installed Power (kW) | Max Dimensions -L x W x H- (mm) | Weight (Kg) |
|----------------|---|--|---|------------------------------------|----------------|
| ESSENTIAL 400 | 100 / 26.6 | 2400 / 639 | 230 V AC - 50 Hz* - 1.8 kW | 680 x 406 x 260 | 43 |
| ESSENTIAL 1000 | 160 / 42 | 3840 / 1014 | 230 V AC - 50 Hz* - 1.8 kW | 1180 x 406 x 260 | 49 |

* single phase - other voltages and frequencies available on demand

MODULAR CONFIGURATION



SLIM CONFIGURATION



Reverse Osmosis Watermakers

OASI

The small Oasi Reverse Osmosis desalination plants are the units of choice when power or space is an issue. They can be run from a yacht's batteries, solar or wind power without the need for a generator and are popular on smaller sailing and motor boats that want to stay free from the constraints and expenses of marinas.

These new-generation watermakers use a low-pressure pump to raise water pressure to only about 15 bar. The high pressure necessary to activate the reverse osmosis process (55-60 bar) is reached through an hydraulic pressure intensifier. The system allows energy savings of up to 80% compared to conventional desalination plants as it requires only the initial energy of the low pressure pump to bring the water into the watermaker.

The OASI excels for hands-on simplicity and high quality components like the stainless steel base, clamps and high pressure fittings, FDA compliant membranes and filters and TÜV certified lightweight carbon fiber pressure vessels. On request, the OASI can be supplied with automatic membrane flushing, electronic control box and a remote control for major comfort as well as with an activated charcoal filter to improve the taste of the produced water.



STANDARD FEATURES:

- Low electric power consumption: 4.8 W/liter (average)
- Automatic pressure regulation
- High and low pressure gauges
- Available voltages: 12 / 24 V dc
- Easy installation, control and maintenance



CONFIGURATION:

- 1 - SEA COCK VALVE
- 2 - CHECK VALVE
- 3 - SEA STRAINER
- 4 - 12-24 V dc MOTOR PUMP
- 5 - PREFILTER 5 μ
- 6 - OASI PUMP
- 7 - REVERSE OSMOSIS MEMBRANE PACK
- 8 - PRODUCED WATER
- 9 - BRINE WATER
- 10 - CONTROL PANEL



ACCESSORIES:

Micro-processor control panel



CDMAR-2 remote control
7" LCD touch-screen remote control



Automatic membranes flushing system



TECHNICAL DATA

| Model | Production per hour (litres / gallons) | Production per day (litres / gallons) | Installed Power (kW) | Voltage (Volt) | Current drain (Amps) | Weight (kg) |
|---------|---|--|-------------------------|-------------------|-------------------------|----------------|
| OASI 30 | 35 / 9.2 | 840 / 220 | 0.2 | 12 / 24V DC | 14 (12V) / 8 (24V) | 26 |
| OASI 60 | 60 / 15.8 | 1440 / 379 | 0.55 | 12 / 24V DC | 38 (12V) / 20 (24V) | 37 |



Water Treatment Systems

Tecnicomar designs and manufactures a wide range of products for the pre and post-treatment of the water and for the maintenance of the plants. Every accessory is designed to work in perfect harmony with each watermaker, with the same quality and reliability, even in extreme conditions of work, whether standard of customized. In addition to the pre and post-filtration products, the Technical Department develops management systems and electronic controls for the automation and the remote control of Tecnicomar systems for water treatment.

Pre-treatment

SEAWATER STRAINER
to prevent clogging of sand filters and prefilters



MULTIMEDIA SAND FILTER
to reduce the level of suspended solids (turbidity) in incoming feed water



TFD SEMI-AUTOMATIC HELICOIDAL FLOW FILTER
to preserve prefilter cartridges on the R. O. system from marine debris

OIL-WATER SEPARATOR
for sediment filtration and to reduce dispersed and dissolved oil from water



A316L STAINLESS STEEL HYDRO-CYCLONE FILTER
removes large particles from the feed water extending the life of the prefilters and R. O. membranes



ANTI-SCALANT DOSING SYSTEMS
to prevent the formation of scale on the membrane surfaces and membrane fouling



Water Treatment Systems

Post-treatment



CHLORINE DOSING SYSTEM
for disinfection of fresh water by chlorine dosage



A316L STAINLESS STEEL U.V. STERILIZERS
to kill bacteria, virus, pathogenic microorganism and prevent their further reproduction



A316L STAINLESS STEEL FILTER WITH BACKWASH AND BY-PASS
for mineralizing filters and carbon (de-chlorating) filters



SILVER ION STERILIZER
for the disinfection of drinking water by dosing silver ions

REVERSE OSMOSIS DEMINERALIZER PLANTS
reduce drastically dissolved solids on fresh water to obtain technical water



ULTRA-FILTRATION WATER PURIFIERS
to get bacteria-free potable water with low content of salt from quay and river water



WATER SOFTENERS
to eliminate completely or partially calcium and magnesium to reduce water hardness

CHILLERS AND CARBONATORS
for fresh osmotized water



REVERSE OSMOSIS WATER PURIFIERS
for fresh and technical water production



Maintenance



AUTOMATIC MEMBRANES CLEANING AND FLUSHING SYSTEMS
assures a longer membranes life by a button on control panel



MAINTENANCE KIT: MEMBRANES WASHING AND STORAGE KIT
prolong the watermaker life, by cleaning and replacing components

DOSING SYSTEMS

COMPACT AUTO-PROPORTIONAL DOSING SYSTEM:

Programmable membrane dosing pump, microprocessor controlled for dosing of chlorine and silver ions in manual mode / proportional injection multiplier (1xn) / proportional injection multiplier with memory (1xn-M) / proportional injection divisor (1:n). Complete with 10 / 20 / 30 / 60 / 100 / 230 / 315 / 500 and 1000 litres polyethylene tank, dosing pump and level probe to stop the dosing pump in case of lacking chemical.

Easy connection to an injection counter and to a float gauge (optional).



FRESH WATER SILVER ION STERILIZER

Dosing unit that can sterilize up to 20 m³/h by mean of Ag⁺ ion generated by the water flow passage. It is equipped by a detachable instrument panel and twin silver plates double the operating life time and automatic batch operation for bunkered water.

Continuous polarity change prevents clogging. The dosing unit is available with dual mode inputs for two fresh water generators. Reduced maintenance for the electrode replacement.



Water Purifiers

ULTRAPUR

The Tecnicomar UltraPUR water purifier is designed to get bacteria-free potable water with low content of salt from quay and river water.

Low electrical power consumption, easy to move, the water purifier is mounted in a stainless steel frame with wheels. UltraPUR is equipped with sediment and carbon prefiltration to remove impurity and chlorine from the water, with high and low pressure control, flowmeter, pressure regulator, pump for osmotic counterbalance and chemical resistant semipermeable membranes.

The display of the control panel shows the quality of the produced water in terms of conductivity.



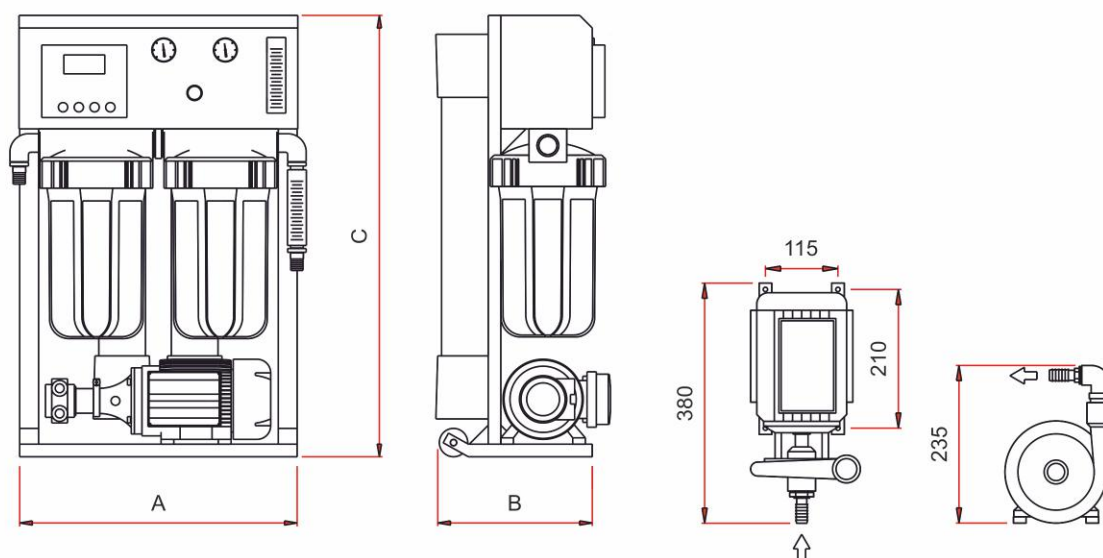
STANDARD BOOSTER PUMP



TECHNICAL DATA

| Model | Production per hour (litres / gallons) | Production per day (litres / gallons) | Installed Power (kW) | Power supply (Volt / frequency) | Max dimensions -A x B x C- (mm) | Weight (kg) |
|-----------------|---|--|-------------------------|------------------------------------|------------------------------------|----------------|
| UltraPUR 800-2 | 120 / 31 | 2,280 / 760 | 0.67 | 230 VAC - 50 Hz* | 500 x 280 x 700 | 28 |
| UltraPUR 1200-3 | 180 / 48 | 4,320 / 1,142 | 0.67 | 230 VAC - 50 Hz* | 500 x 280 x 700 | 32 |
| UltraPUR 2000-2 | 350 / 92 | 8,400 / 2,119 | 1.3 | 230 VAC - 50 Hz* | 500 x 280 x 1140 | 37 |
| UltraPUR 3000-3 | 480 / 126 | 11,520 / 3,043 | 1.3 | 230 VAC - 50 Hz* | 500 x 280 x 1140 | 40 |
| UltraPUR 5000-2 | 750 / 198 | 18,000 / 4,755 | 1.65 | 230 VAC - 50 Hz* | 670 x 330 x 1200 | 44 |
| UltraPUR 7500-3 | 1,150 / 300 | 27,600 / 7,291 | 1.65 | 230 VAC - 50 Hz* | 670 x 330 x 1200 | 48 |

*single-phase - other voltages and frequencies on demand



Semi-automatic Swirl-effect Filter

TFD FILTERS

The Tecnicomar semi-automatic TFD filter represents an exclusive water filtration system based on a swirl effect. That allows a drastic reduction in the number of washes, saving water, energy and labor costs. The swirl is obtained by means of a propeller at the filter inlet. The propeller creates a twisting motion to the incoming water flow. The suspended particles against the walls centrifuging away from the filtering element. This reduces the frequency of washing. Standard automatic backflush.

APPLICATIONS:

- Used for filtration of all types of water
- Application in marine sector, industrial processes, agriculture, landscape gardening, etc.

BENEFITS:

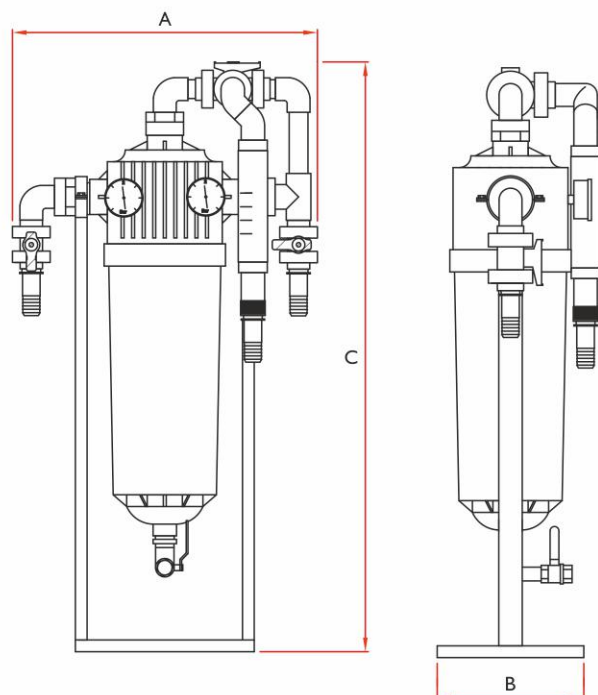
- FILTRATION SYSTEM WITH A HELICAL FLOW
- MODULAR, VERSATILE AND EASY MAINTAINANCE
- MADE OF REINFORCED NYLON WITH FIBERGLASS
- SAVES WATER AND ENERGY
- HIGH RESISTANCE TO CLOGGING
- EASY AND QUICK CONNECTION
- HYDROCYCLONE EFFECT



TECHNICAL DATA TFD SEMI-AUTOMATIC

| Maximum Flow (m ³ /hour) | IN / OUT Backwash | DRAIN | Dimensions (cm) | | | Weight (kg) |
|--|----------------------|-------|-----------------|----|----|-------------|
| | | | A | B | C | |
| 2.2 | 1" | 1/2" | 52 | 25 | 89 | 14 |
| 3.6 | 1" | 1/2" | 52 | 25 | 89 | 14 |
| 6 | 1" 1/4" | 1/2" | 52 | 25 | 89 | 14 |
| 9 | 1" 1/2" | 1/2" | 52 | 25 | 89 | 14 |
| 12 | 2" | 1/2" | 52 | 25 | 89 | 14 |

Available with 20 μ, 50 μ & 100 μ filtration



Water Treatment

BFS FILTERS

BFS FILTERS FOR EMBARKING & DELIVERING OF WATER: suitable for filtration of fresh and sea water in marine application and industry. Mounted on stainless steel stand or with mounting brackets.

- BFS 1: one filter housing with single or double filtration cartridge 10" or 20"
- BFS 2: two filter housings with filtration cartridges 10" or 20"
- BFS 3: three filter housings with double filtration cartridges 10" or 20"

For the BFS 2 and BFS 3 we suggest to combine a single or double filtration cartridge (BIG BLUE) and one with activated carbon. The BFS series can be used also as oil/water separator with coalescent cartridges. The flow rate may vary depending on the feed pressure and the cartridge type.



BFS 1 20"



BFS 3 20"



BFS 2 10"



BFS 2 20"



BFS 2 10"



R30-20"-BB:
30 µm
filtration



DGD-5005-20"-BB:
2-stages filtration,
50 & 5 µm filtration



EPM-20"-BB:
activated carbon,
10 µm filtration



CP5-20"-BB:
5 µm
filtration



BC-10" & 20"-BB:
oil-water
separator



R30-10":
30 µm
filtration



P5-10":
5 µm
filtration

TECHNICAL DATA

| Model | Max flow rate per hour (litres/gallons) | Fittings (inch) | Dimensions (mm) -L x W x H- | Weight (kg) |
|--------------|--|---------------------------|--------------------------------|----------------|
| BFS 1 10" | 9,000 / 2,377 | 1/4" - 3/8" - 1/2" - 3/4" | 130 x 150 x 370 | 4 |
| BFS 2 10" | 9,000 / 2,377 | 1/4" - 3/8" - 1/2" - 3/4" | 280 x 150 x 370 | 6 |
| BFS 3 10" | 9,000 / 2,377 | 1/4" - 3/8" - 1/2" - 3/4" | 420 x 150 x 370 | 8 |
| BFS 1 10"-BB | 16,000 / 4,227 | 1" - 1 1/2" | 190 x 220 x 400 | 5 |
| BFS 2 10"-BB | 16,000 / 4,227 | 1" - 1 1/2" | 380 x 220 x 400 | 8 |
| BFS 3 10"-BB | 16,000 / 4,227 | 1" - 1 1/2" | 580 x 220 x 400 | 12 |
| BFS 1 20"-BB | 16,000 / 4,227 | 1" - 1 1/2" | 190 x 220 x 670 | 7 |
| BFS 2 20"-BB | 16,000 / 4,227 | 1" - 1 1/2" | 380 x 220 x 670 | 10 |
| BFS 3 20"-BB | 16,000 / 4,227 | 1" - 1 1/2" | 580 x 220 x 670 | 14 |

FILTER CARTRIDGES MADE IN U.S.A.

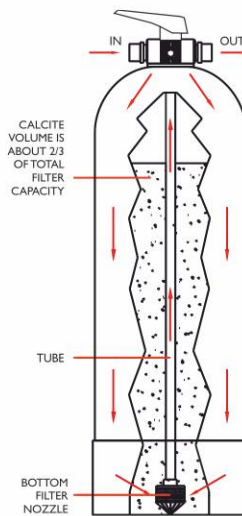


Filtration

TCA CARBON FILTER

Tecnicomar TCA activated carbon filters are effectively removing contaminants and impurities from water, such as chlorine, volatile organic compounds (VOCs) and sediments. Chlorine is irritating skin and the respiratory system: installing this de-chlorinating filter, you will immediately notice the difference when taking a shower or preparing your coffee.

Assuring regular backwashing, the filtered water is safe, odor free and has an improved taste. If the water used for backwashing does not contain any chlorine, it is recommended to install a UV Sterilizer after the Carbon Filter to perfectly disinfect the water.



CARBON & CALCITE FILTERS IN REINFORCED FIBERGLASS



CARBON FILTER - TECHNICAL DATA

| Model | Treated Water (liters/gallons per hour) | Treated Water (liters/gallons per day) | Max dimensions (mm) |
|-------|---|--|----------------------|
| TCA1 | 1,000 / 264 | 24,000 / 6,332 | diameter 220 x 948 |
| TCA2 | 1,500 / 395 | 4,320 / 9,498 | diameter 310 x 1,230 |
| TCA3 | 3,000 / 791 | 72,000 / 18,997 | diameter 380 x 1,308 |

OTHER MODELS AVAILABLE ON REQUEST

- Tecnicomar uses only first quality activated carbon:
- EN12915 Compliant
 - KIWA ATA Certificated
 - United Kingdom Drinking Water Inspectorate Approved



CARBON & CALCITE FILTERS IN A316L STAINLESS STEEL



TCC CALCITE FILTER

Tecnicomar TCC calcite filters neutralize the pH value to a non-corrosive equilibrium, making it safe for the human organism. While passing through the filter, the water is enriched with Magnesium carbonate and Calcium.

This re-hardening procedure prevents the potential leaching of copper, lead and other metals typically found in plumbing systems. The calcite bed needs to be periodically replenished as the minerals are depleted.

CALCITE FILTER - TECHNICAL DATA

| Model | Treated Water (liters/gallons per hour) | Treated Water (liters/gallons per day) | Max dimensions (mm) |
|-------|---|--|----------------------|
| TCC1 | 1,000 / 264 | 24,000 / 6,332 | diameter 217 x 948 |
| TCC2 | 1,500 / 395 | 4,320 / 9,498 | diameter 260 x 980 |
| TCC3 | 3,000 / 791 | 72,000 / 18,997 | diameter 390 x 1,308 |

OTHER MODELS AVAILABLE ON REQUEST

WATER SOFTENERS with Chlorine Generator

The Tecnicomar water softeners are ideal for nautical applications in order to eliminate completely or partially calcium from the tap water to reduce hardness, cause of scaling in pipes and appliances.

With the passage of water through a bed of synthetic resins, calcium and magnesium salts are retained. The resin regeneration is done automatically by cyclic flushing-scheduled either after a set period of time or volume- with a saturated salt solution contained inside a reservoir connected to the softener. The Tecnicomar automatic water softeners are available in a double-body (with a separated salt container), all-included case and portable models.

STANDARD EQUIPMENT:

- REINFORCED FIBERGLASS CASE
- 5-CYCLES VOLUME FLECK VALVE
- MANUAL BY-PASS VALVE FOR WATER SOFTENER EXCLUSION
- AUTOMATIC REGENERATION AT A VOLUME PRE-SET
- 1 "F GAS BRASS FITTINGS
- MANUAL BY-PASS DEVICE TO SET THE DESIRED DEGREE OF HARDNESS
- SELF-DISINFECTION SYSTEM TO PURIFY THE RESINS AT EVERY FLUSHING CYCLE
- LOW SALT LEVEL INDICATOR
- SALT TANK



SPF 10 C SEMI-AUTOMATIC



AD/APX



AD/APX



TECHNICAL DATA

| Model | MAX FLOW (m ³ /hour) | CYCLIC CAPACITY (m ³ /F) | RESIN CAPACITY (litres) | SALT CONSUMPTION PER CYCLE (kg) | TANK DIMENSIONS (diam.xH - mm) | SALT CONTAINER DIMENSIONS (LxFxH - mm) | SALT CAPACITY (litres) | CABINET DIMENSIONS (LxWxH - mm) | TOTAL DIMENSIONS (LxWxH - mm) | IN/OUT (") | TOTAL WEIGHT (kg) |
|---|---------------------------------|-------------------------------------|-------------------------|---------------------------------|--------------------------------|--|------------------------|---------------------------------|-------------------------------|------------|-------------------|
| SPF SOFTENERS WITH MANUAL REGENERATION | | | | | | | | | | | |
| SPF 7 -HORIZONTAL- | 0.7 | 40 | 7 | 1.3 | 210 x 480 | 120 x 120 x 300 | 3.7 | - | 690x330x330 | 1/2 | 15 |
| SPF 7 -VERTICAL- | 0.7 | 40 | 7 | 1.3 | 210 x 480 | 120 x 120 x 300 | 3.7 | - | 325x325x490 | 1/2 | 15 |
| SPF 10 -HORIZONTAL- | 1 | 60 | 10 | 1.8 | 181 x 645 | 120 x 120 x 300 | 3.7 | - | 850x310x310 | 1/2 | 18 |
| SPF 10 -VERTICAL- | 1 | 60 | 10 | 1.8 | 181 x 645 | 120 x 120 x 300 | 3.7 | - | 295x295x650 | 1/2 | 18 |
| SPF 10 C SEMI-AUTOMATIC | 1 | 60 | 10 | 1.8 | 181 x 646 | 120 x 120 x 300 | included | 320x520x740 | 320x520x740 | 3/4 | 91 |
| SPF 16 -VERTICAL- | 1.6 | 90 | 16 | 2.9 | 181 x 910 | 120 x 120 x 300 | 3.7 | - | 295x295x920 | 1/2 | 26 |
| SPF 28 C SEMI-AUTOMATIC | 2.8 | 160 | 28 | 5 | 260 x 910 | 120 x 120 x 300 | included | 320x520x1160 | 320x520x1160 | 3/4 | 136 |

| Model | MAX FLOW (m ³ /hour) | CYCLIC CAPACITY (m ³ /F) | RESIN CAPACITY (litres) | SALT CONSUMPTION PER CYCLE (kg) | TANK DIMENSIONS (diam.xH - mm) | SALT CONTAINER DIMENSIONS (LxFxH - mm) | SALT CAPACITY (litres) | CABINET DIMENSIONS (LxWxH - mm) | TOTAL DIMENSIONS (LxWxH - mm) | IN/OUT (") | TOTAL WEIGHT (kg) |
|--|---------------------------------|-------------------------------------|-------------------------|---------------------------------|--------------------------------|--|------------------------|---------------------------------|-------------------------------|------------|-------------------|
| DUPLEX SOFTENERS WITH CHLORINE GENERATOR AND VOLUME CONTROLLED REGENERATION | | | | | | | | | | | |
| AD/APX 15/2 | 3 | 180 | 30 | 5.4 | 181x910 | 340x900 | 75 | - | 480x215x1090 | 1 | 130 |
| AD/APX 30/2 | 6 | 360 | 60 | 10.8 | 260x910 | 460x760 | 100 | - | 620x300x1090 | 1 | 200 |
| AD/APX 50/2 | 6 | 600 | 100 | 18 | 310x325 | 460x760 | 100 | - | 720x350x1500 | 1 | 245 |
| AD/APX 60/2 | 6 | 720 | 120 | 21.6 | 310x1100 | 540x1010 | 200 | - | 720x350x1280 | 1 | 385 |
| AD/APX 75/2 | 11 | 900 | 150 | 27 | 360x1185 | 540x1010 | 200 | - | 820x400x1370 | 1 | 430 |
| AD/APX 100/2 | 11 | 1200 | 200 | 36 | 360x1690 | 840x1010 | 400 | - | 820x400x1880 | 1 | 705 |
| AD/APX 150/2 | 11 | 1800 | 300 | 54 | 410x1665 | 840x1010 | 400 | - | 900x450x1850 | 1 1/2 | 830 |
| AD/APX 200/2 | 31 | 2400 | 400 | 72 | 475x1900 | 1000x1370 | 800 | - | 1050x515x2220 | 1 1/2 | 1385 |
| AD/APX 300/2 | 31 | 3600 | 600 | 108 | 610x1880 | 1160x1540 | 1000 | - | 1330x660x2200 | 2 | 1560 |

UV ANTI-BACTERIA SYSTEMS

The Tecnicomar U.V. anti-bacteria systems can eliminate 99% bacteria and viruses from the fresh water and get bacteria free water without adding chemicals like chlorine. The UV anti-bacteria systems are equipped with a sediment prefilter to increase efficiency of the UV rays, and an activated carbon filter to remove bad smell and taste from the water. Can be installed on the produced fresh water outlet of the watermaker or after the pressure tank on the water distribution pipeline.

The lifetime high intensity anti-bacteria UV lamp is estimated in 9,000 hours of continuous service.



FILTER CARTRIDGES MADE IN USA



TECHNICAL DATA

| Model | Litres/min. | Litres/hour | Filtration type | Absorption (Watt) | Power supply (Voltage / Frequency) | In/Out (inch) | Dimensions (mm) -L x W x H- |
|---|-------------|-------------|-------------------------------------|-------------------|------------------------------------|---------------|-----------------------------|
| SERIE UV (4 l/min. - max. pressure 4 bar) | | | | | | | |
| UV1-CBC | 4 | 240 | activated carbon 0.5 µm | 10 W | 230 Volt AC / 50 Hz* | 1/2 | 120x120x400 |
| UV1-EPM | 4 | 240 | activated carbon 10 µm | 10 W | 230 Volt AC / 50 Hz* | 1/2 | 120x120x400 |
| UV2-SD/CBC | 4 | 240 | PP 5 µm + activated carbon 0.5 µm | 10 W | 230 Volt AC / 50 Hz* | 1/2 | 240x120x400 |
| UV2-SD/EPM | 4 | 240 | activated carbon 10 µm | 10 W | 230 Volt AC / 50 Hz* | 1/2 | 240x120x400 |
| SERIE B (8 l/min. - max. pressure 4 bar) | | | | | | | |
| UVB1-CBC | 8 | 480 | activated carbon 0.5 µm | 10 W | 230 Volt AC / 50 Hz* | 3/4 | 130x150x400 |
| UVB1-EPM | 8 | 480 | activated carbon 10 µm | 10 W | 230 Volt AC / 50 Hz* | 3/4 | 130x150x400 |
| UVB2-SD/CBC | 8 | 480 | PP 5 µm + activated carbon 0.5 µm | 10 W | 230 Volt AC / 50 Hz* | 3/4 | 280x150x400 |
| UVB2-SD/EPM | 8 | 480 | activated carbon 10 µm | 10 W | 230 Volt AC / 50 Hz* | 3/4 | 280x150x400 |
| SERIE 20 (38 l/min. - max. pressure 4 bar) | | | | | | | |
| UV20-I | 38 | 2,280 | | 18 W | 230 Volt AC / 50 Hz* | 3/4 | 280x160x630 |
| UV20-2/SD | 38 | 2,280 | PP 50/5 µm | 18 W | 230 Volt AC / 50 Hz* | 3/4 | 280x160x630 |
| UV20-2/EPM | 38 | 2,280 | activated carbon 10 µm | 18 W | 230 Volt AC / 50 Hz* | 3/4 | 280x160x630 |
| UV20-3/SD/EPM | 38 | 2,280 | PP 50/5 µm + activated carbon 10 µm | 18 W | 230 Volt AC / 50 Hz* | 3/4 | 420x160x630 |
| SERIE BIG BLUE (57-114 l/min. - max. pressure 6 bar) | | | | | | | |
| UVBB-I | 57 | 3,420 | | 18 W | 230 Volt AC / 50 Hz* | 1 1/2 | 200x240x760 |
| UVBB-2/SD 20" | 57 | 3,420 | PP 50/5 µm | 18 W | 230 Volt AC / 50 Hz* | 1 1/2 | 640x240x760 |
| UVBB-2/SD 20" X 2 | 57+57 | 6,800 | PP 50/5 µm | 18 W | 230 Volt AC / 50 Hz* | 1 1/2 | 640x480x760 |
| UVBB-2/EPM | 57 | 3,420 | activated carbon 10 µm | 18 W | 230 Volt AC / 50 Hz* | 1 1/2 | 380x210x720 |
| UVBB-3/SD/EPM | 57 | 3,420 | PP 50/5 µm + activated carbon 10 µm | 18 W | 230 Volt AC / 50 Hz* | 1 1/2 | 640x240x760 |

*other voltages and frequencies available on demand

Water Treatment

STAINLESS STEEL UV STERILIZERS

The Tecnicomar stainless steel UV systems made in AISI 304L stainless steel (or AISI 316L if required) with high intensity low voltage UV lamp can eliminate 99.9% of bacteria and viruses from the fresh water. Suitable for high rates exigencies, they are usually installed after the pressure tank and can be supplied with a prefiltration system to obtain a better efficiency of the UV radiations. The lifetime high intensity anti-bacteria UV lamp is estimated in 9,000 hours of continuous service.

Suitable for marine, home, commercial and industrial use, they can be power supplied 220/240V a.c. - 50/60 Hz. Also available in polypropilene.



TECHNICAL DATA

| Model | Litres/min | Litres/hour | Absorption (Watt) | Power supply (Voltage / frequency) | In/Out (inch) | Dimensions (mm) -L x W x H- | Weight (kg) |
|---|------------|-------------|-------------------|------------------------------------|---------------|-----------------------------|-------------|
| TC SYSTEM INOX (Max pressure: 8 bar) | | | | | | | |
| TC-1000 | 17 | 1,000 | 40 | 230 VAC / 50 Hz* | 3/4" | 130 x 160 x h 950 | 7 |
| TC-2500 | 40 | 2,500 | 40 | 230 VAC / 50 Hz* | 1" | 130 x 160 x h 950 | 9 |
| TC-2500 BB 20" | 40 | 2,500 | 40 | 230 VAC / 50 Hz* | 1" | 130 x 160 x h 950 | 11 |
| TC-5000 | 83 | 5,000 | 80 | 230 VAC / 50 Hz* | 1" | 130 x 160 x h 950 | 16 |
| TC-5000 BB 20" | 76 | 4,560 | 80 | 230 VAC / 50 Hz* | 1" | 130 x 160 x h 950 | 18 |
| TC-8000 | 133 | 8,000 | 165 | 230 VAC / 50 Hz* | 1 1/4" | 130 x 160 x h 950 | 17 |
| TC-9000 | 150 | 9,000 | 250 | 230 VAC / 50 Hz* | DN 40 | 130 x 160 x h 950 | 35 |
| TC-13000 | 217 | 13,000 | 500 | 230 VAC / 50 Hz* | DN 50 | 130 x 160 x h 950 | 35 |

| Model | Flow rate | Lamp power | Power supply (Voltage / frequency) | Dimensions (mm) -L x W x H- | Weight (kg) |
|---------------------|--|-------------------------|------------------------------------|--|------------------------|
| TC AF SERIES | from 64.3 l/min to 6,433 l/min from 3,860 l/hour to 386,000 l/h | from 55 W to 3,160 W | 230 VAC / 50 Hz* | from 330 x 200 x 120 mm to 760 x 760 x 300 mm | from 8 kg to 206 kg |

*other models, voltages and frequencies available on demand

Water Treatment

WATER PURIFIERS

AquaPUR is a line of Reverse Osmosis water purifiers with direct fresh water production from 70 to 100 liters/hour. No more bottles of mineral water need to be carried on board. Available in 4 different dimensions, it is contained in a solid stainless steel frame and provides safe water for drinking, washing fruits, vegetables and cooking, directly from the tap. It features a dual filtration system with a 5 micron polypropylene pre-filter and a granular activated carbon pre-filter of 25 microns which guarantee - together with the Reverse Osmosis membrane- the removal of suspended particles such as sand, rust, sediments, chlorine, nitrates, bacteria, viruses, pesticides and any other pollutants that might be dissolved in the water, keeping unchanged the salinity balance and making the water pure from any chemical and bacteriological pollution. AquaPUR is also recommended for ice makers, coffee machines and for the production of beverages. Easy installation, even in tight spaces. Standard kit for installation and oversink tap.



AQUAPUR



AQUAPUR SLIM



AQUAPUR FLAT



AQUAPUR PLUS & CARBONATOR:
FRESH WATER & SPARKLING WATER

Oligomineral water always available on board!

ACCESSORIES:

- Additional tap for water at room temperature
- Filtration and chlorination system with U.V. sterilizer
- CO₂ gasification system
- Electronic control panel with LCD display for visual monitoring of the water conductivity -optional-

AquaPUR is equipped with filtering cartridges and membranes
MADE IN U.S.A.



CONTROL OF DRINKING WATER CONTAMINANTS WITH AquaPUR

INORGANIC CONTAMINANTS

| | | | |
|-----------|--------|---------------|--------|
| Sodium | 90-95% | Lead | 93-98% |
| Calcium | 93-98% | Chlorides | 90-95% |
| Magnesium | 93-98% | Bicarbonate | 90-95% |
| Potassium | 90-95% | Nitrates | 85-90% |
| Aluminium | 93-98% | Fluoride | 90-95% |
| Copper | 93-98% | Phosphates | 93-98% |
| Nickel | 93-98% | Chromate | 90-95% |
| Zinc | 93-98% | Cyanide | 90-95% |
| Strontium | 93-98% | Sulfates | 93-98% |
| Cadmium | 93-98% | Boron | 55-60% |
| Silver | 93-98% | Arsenic +3 | 70-80% |
| Mercury | 90-95% | Arsenic +5 | 93-98% |
| Barium | 93-98% | Selenium | 93-98% |
| Chromium | 93-98% | Radioactivity | 93-98% |

ORGANIC CONTAMINANTS AND PARTICLES

| | | | |
|-----------|------|-----------|------|
| Bacteria | >99% | Asbestos | >99% |
| Protozoan | >99% | Sediments | >99% |
| Giardia | >99% | Turbidity | >99% |

ORGANIC CONTAMINANTS

| | |
|--|------|
| Organic molecules with molecular weight >300 | >99% |
|--|------|

Technical Data

| Model | Production by hour (litres) | Production by day (litres) | Power supply (Volt) - Frequency (Hz) Installed power (W) | Max dimensions -W x D x H- (mm) |
|---------------------------|-----------------------------|----------------------------|---|---------------------------------|
| AquaPUR | 100 | 2,400 | 230 V AC - 50 Hz - 370 W | 330 x 470 x 315 |
| AquaPUR Slim | 70 | 1,680 | 230 V AC - 50 Hz - 187 W | 330 x 405 x 220 |
| AquaPUR Flat | 70 | 1,680 | 230 V AC - 50 Hz - 150 W | 420 x 410 x 95 |
| AquaPUR Plus + Carbonator | 70 | 1,680 | 230 V AC - 50 Hz - 187 W | 245 x 380 x 375 |

HOUSEHOLD DEVICES FOR THE TREATMENT OF DRINKABLE WATER ACCORDING TO THE ITALIAN MINISTRY OF HEALTH (DECREE NO. 443 1990/12/21th)

Water Purifiers

OSMOFRESH 200

REVERSE OSMOSIS CHILLERS

Tecnicomar OsmoFRESH 100 & 200 are a pedestal cooler with a Reverse Osmosis system ideal for ships, communities, company canteens, offices, schools and wherever safe drinking water is needed. They are made of a sturdy plastic-coated galvanized steel and stainless steel for maximum durability and has no storage tank! The Reverse Osmosis system produces 35 or 60 liters/hour of fresh water that is instantly chilled through a cooling coil in less than 3 minutes with a cooling capacity of 450 Kcal/h, with 70% energy saving. A second dispenser provides fresh water at ambient temperature.

OsmoFRESH has got a cooling chamber with silver particles and antibacterial sanitizing properties. Refrigeration is in full compliance with environmental regulations: the gas refrigerant is environmentally friendly HFC 134A with zero ODP (Ozone Depletion Potential). OsmoFRESH 200 has a frontal compartment for optional filters for purification. It is equipped with a special system to operate at ambient temperatures up to 43 °C.



OSMOFRESH 100



| | OsmoFRESH 100 | OsmoFRESH 200 |
|-----------------------------|----------------------|------------------|
| Production (liters/hour) | 35 | 60 |
| Chilled water temperature | 10 °C | 10 °C |
| Power supply and absorption | 230V AC - 300 W/hour | |
| Dimensions (cm) | 31 x 31 x 105 cm | 35 x 35 x 125 cm |

ambient temperature at 27 °C and max 1,000 ppm TDS

AQUAMIX I TOP

AQUAMIX I UNDER

CHILLERS + CARBONATORS

Tecnicomar AquaMIX and AquaMIX I (Top & Under versions) is a compact, high performing and automatic system that supplies instant fresh water: chilled, sparkling and at room temperature. Aquamix I Top is the only device that has got a front compartment for housing the front purification filter (optional) and CO2 cylinder, with easy access that allows a simple maintenance by user. It has got quick and simplified connectors for easy oversink installation. The Aquamix I Under model, with the same characteristics, is designed to be installed under the sink. No external water tank! For high production, AquaMIX is the ideal solution on board for your chilled and sparkling fresh water.



AQUAMIX UNDER
-UNDERSINK-

AQUAMIX TOP



AquaMIX & OsmoFRESH are equipped with filtering cartridges and membranes MADE IN U.S.A.

TECHNICAL DATA

| | AquaMIX I Top | AquaMIX I Under | AquaMIX (Top & Under versions) |
|---|----------------------|-------------------------|--------------------------------|
| Power supply (voltage / frequency) | 230 V AC - 50 Hz | 230 V AC - 50 Hz | 230 V AC - 50 Hz |
| Power consumption (Watt / hour) | 240 W | 110 W | 370 W |
| Type of refrigerant gas | HFC 134A | HFC 134A | HFC 134A |
| Dimensions (w x d x h - cm) - Weight (Kg) | 38 x 24 x 52 - 24 Kg | 38.5x 24 x 32.5 - 21 Kg | 30 x 38 x 28 - 23 & 17 Kg |

COOLING CAPACITY

| | | | |
|--|----|----|-----|
| Liters of cold water per hour at 18 °C | 19 | 19 | 40 |
| Glasses of cold water of 200 CC per hour | 95 | 95 | 200 |

Reverse Osmosis Watermakers

CUSTOMIZED SYSTEMS

Tecnicomar designs and manufactures Reverse Osmosis fresh water generators, Water Treatment Systems and Sewage Treatment Plants, tailor-made according to customer's needs. High flow rate, continuous operation, suitability to hard working environments, customized configurations: all these are the main features of Tecnicomar's equipment.

A team of talented engineers and experienced technicians are at your service anytime to develop the best solutions to comply with your requests.



REFERENCES

The Tecnicomar's Professional Systems are ideal for Naval and Marine applications being designed on purpose to work on the most hard conditions of duty, ever with high production of fresh water and maximum reliability.

Some international outstanding clients among the most important shipyards worldwide using Tecnicomar's Reverse Osmosis Watermakers.



REFERENCES

ALLOY YACHTS

AZIMUT

BALTIC YACHTS

BENETEAU

BENETTI

BHARATI SHIPYARD

BILGIN YACHTS

BOURBON

BRODOSPLIT

CERRI

CHRISTENSEN

CNB

CODECASA

DAMEN

DOMINATOR ILUMEN

EGE YAT

EMIRATES BOATS

ENIMED

FERRETTI

FILIPPETTI YACHTS

FINCANTIERI

GRANDWELD

GULF CRAFT

HINDUSTAN

HORIZON YACHT

HUDSON

INTERMARINE

ISA GROUP

LARSEN & TOUBRO

LIBERTY LINES

MENGIYAY

MONTE CARLO YACHTS

NUMARINE

OCEA

OKA SHIPYARD

PERMARE

PRINCESS YACHTS

RELIANCE DEFENSE

SAN LORENZO

SHOFT

SEA CREST MARINE

SUNSEEKER

ULISSE CANTIERI NAVALI

VITTERS

WEST SEA



FINCANTIERI DAMEN



EMIRATES BOATS



REFERENCES

The Tecnicomar's Professional Systems are ideal for Navy, Naval & Oil & Gas applications being designed on purpose to fully comply with electrical, mechanical, shock, noise and vibration standards to fit for all environment.

Some international outstanding clients among the most important companies worldwide using Tecnicomar's equipment:



88 PARSEC - Cruise vessel:
SAILOR C 2000 R. O. Watermaker



ABG - Oceanographic research:
ECOMar 6 STP System



ABU DHABI SHIP BUILDING - Petrolling:
SAILOR SPECIAL 3/40 R. O. Watermaker

ABU QIR PETROLEUM - Jack-up rig:
STDC SY 3000 R. O. Watermaker



AJANG SHIPPING SDN BHD - Cargo ship:
SAILOR MD 2000 R. O. Watermaker

AKRON TRADE & TRANSPORT - Crew vessel:
STDC SY 3000 R. O. Watermaker



ARCHTREST - Scientific vessel:
SAILOR SPECIAL 2/40 Slim R. O. Watermaker

BELFREIGHT - Scientific vessel:
SAILOR SPECIAL 3/40 R. O. Watermaker
ECOMar 16 STP System



BHARATI SHIPYARD - Interceptor boat:
ECOMar 6 STP System

BLUE FERRIES (ITALIAN FERRIES GROUP) -
Passenger ship:
ECOMar 20 STP System



BOURBON OFFSHORE - Multipurpose vessel:
ECOMar 8 STP System

CARONTE&TOURIST - Passenger ship:
ECOMar 50 STP System



CHILEAN NAVY - Antarctic base Punta Arenas:
ECOMar 145 STP System

CMHI MPV OFFSHORE
STDC SY 12000 R. O. Watermaker

COSCO - Havyard 832:
STDC SY 6000 R. O. Watermaker

COSCO (DALIAN) - Jack-up drilling platform:
SW8-60 R. O. Watermaker

COSCO (NANTONG) SHIPYARD CO. LTD - Float
accommodation unit / DP3 pipelay heavy lift - offshore
construction:
SW8-60 & SW8-75 R. O. Watermaker
TCA/7X / TC4AF400T Post-treatment water system

COSCO (NANTONG) DANA PETROLEUM - FPSO
STDC SY 9000 R. O. Watermaker
ECOMar 16 STP System

**CSSC GUANGZHOU HUANGPU SHIPBUILDING
CO., LTD.** - Dive support offshore vessel:
STDC SY 6000 R. O. Watermaker

DAMEN SHIPYARDS - Hardinxveld - Tug vessel:
ECOMar 70 STP System

DAMEN SHIPYARDS - SeaXplorer:
ECOMar 70 STP System

ENIMED - Gela 1 Platform:
ECOMar 70 STP System - ATEX

ENIMED - Perla Platform:
ECOMar 70 STP System - ATEX

ERAM - ESTALEIRO RIO AMAZONAS LTD. - Work
boat / river ferry:
TC 84 R. O. Watermaker

FINCANTIERI S.p.A. DIREZIONE NAVI MILITARI -
Norwegian polar research vessel:
Charcoal paper filter units

FINCANTIERI S.P.A. - Multipurpose Offshore Patrol
Vessels (PPA):
Drink Water Treatment Systems

FLENSBURGER NB765 - Offshore vessel:
ECOMar 120 STP System

FLINTER MANAGEMENT B.V. - Cargo vessel:
ECOMar 8 STP System

GRANDWELD MATAF - Victory & Pride vessel:
ECOMar 8 STP System

GRANDWELD SHIPYARD - Offshore crew boats:
ECOMar 8 STP System

GUANGZHOU SHUNAI SHIPYARDS LTD. -
Commercial vessel:
SAILOR SPECIAL 2/44 R. O. Watermaker

GULF PIPING COMPANY - Landing craft:
STDC SY 6000 R. O. Watermaker

HALUL OFFSHORE - Jack-up RIG:
SW8-100 R. O. Watermaker

HINDUSTAN SHIPYARD LTD - Indian Navy ocean
surveillance ship:
STDC SY 9000 R. O. Watermaker

INTERMARINE S.P.A. - Cacciamine:
APX- 75/2 Automatic Water Softener

INTERMARINE S.P.A. - UNPAV (High-speed multi-
purpose patrol vessels):
ECOMar 70 STP System
Sailor C S 3/21 R. O. Watermaker

JINGLING SHIPYARD - 9000 DWT Cement carrier:
ECOMar 340 STP System

JSC ALMAZ SHIPBUILDING - Patrol vessel / Rescue
boat:
SAILOR SPECIAL 2/44 R. O. Watermaker
ECOMar 16 STP System

LARSEN & TOUBRO LTD - Indian Coast Guard:
Sailor C S 3/44 R. O. Watermaker

LEVINGSTON MIDDLE EAST - Mobile offshore units
& liftboats:
ECOMar 50 STP System

LIBERTY LINES S.P.A. - Ship passenger:
ECOMar 45 STP System

LUMABEDA TOURS LTDA. - Passenger ship:
ECOMar 16 STP System

MERINEQUA SA - Passenger ship:
ECOMar 16 STP System

MICOPERI 30 GL - Barges / Pipe lay crane vessel:
ECOMar 24 STP System
STDC SY 9000 R. O. Watermaker

NEPTUN TOPAZ 1700 - Container ship:
ECOMar 50 STP System

OKA SHIPYARD - Russian Navy - Communication ship:
ECOMar 6 STP System

OUHUA SHIPYARD - Container ship:
ECOMar 145 STP System

P&O FERRIES - Passenger ferry:
ECOMar 120 STP System

PETROFAC JSD 6000 - Deep water derrick lay
vessel:
ECOMar 120 STP System
STDC SY 4500 R. O. Watermaker

PT MUJI LINES - Cruise ship:
STDC SY 12000 R. O. Watermaker

PT. DAYA RADAR UTAMA - 60m fast patrol
boats:
SAILOR C S 2/44 R. O. Watermaker
ECOMar 24 STP System

RELIANCE DEFENCE - Indian Coast Guard:
Sailor C S 3/44 R. O. Watermaker

ROSKAMRYBA - Fishing trawler:
ECOMar 8 STP System

SAIPEM - Kaombo FPSO:
Potable water treatment

SAIPEM - Perro Negro 2 & 3 Offshore platform:
ECOMar 120 STP System

SEA CREST MARINE CO. LTD - Police Patrol -
Aluminium Catamaran Thailand:
Sailor C 600 R. O. Watermaker

SEVSUDOREMONT - Passenger vessel:
ECOMar 24 STP System
SAILOR S 3/40 R. O. Watermaker

SHANNON FERRIES GROUP - River ferry:
ECOMar 16 STP System

SHIPYARD ZVEZDOCHKA, ASTRAKHAN -
Multipurpose vessel:
ECOMar 50 STP System

SHOFT SHIPYARD - Navy ammunition barges:
ECOMar 6 STP System

SOKOLSKAYA SHIPYARD - Communication ship:
ECOMar 24 STP System

SRETENSKIY SHIPYARD - Cargo ship:
ECOMar 16 STP System

THE CHINA NAVIGATION - MPV offshore:
ECOMar 16 & ECOMar 50 STP System

UAE NAVY - Petrolling:
SAILOR SPECIAL 3/44 R. O. Watermaker

WEST SEA SHIPYARD - C012 River Vessel -
Douro Azul:
TCB 345 Potable water treatment

YUGMORGEOLOGIA - Scientific vessel:
ECOMar 6 STP System

ZELENODOLSK SHIPYARD - Floating dock:
ECOMar 24 STP System

ZNT SHIPYARD - Diving boat:
ECOMar 6 STP System

REFERENCES





GPS Coordinates:
37°45'9.78"N - 12°28'46.14"E



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