



epe

Engineered to Respond

POTABLE WATER SOLUTIONS

No plastic bottles on board. **Pure** Water. **Zero** Waste

Environmental Protection Engineering S.A.

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8 million tons

of plastic bottles in the sea
each year.



THE PROBLEM

Plastic bottles pose a significant threat to our oceans, contributing to a pervasive environmental crisis. Each year, millions of plastic bottles find their way into our seas, polluting marine ecosystems, endangering wildlife, and disrupting delicate ecological balance. Addressing this pressing issue demands urgent action and innovative solutions to curb plastic pollution and safeguard the health of our marine environments.



No plastic bottles on board with EPE's potable water solutions.



EMBRACE ESG AND SUSTAINABILITY

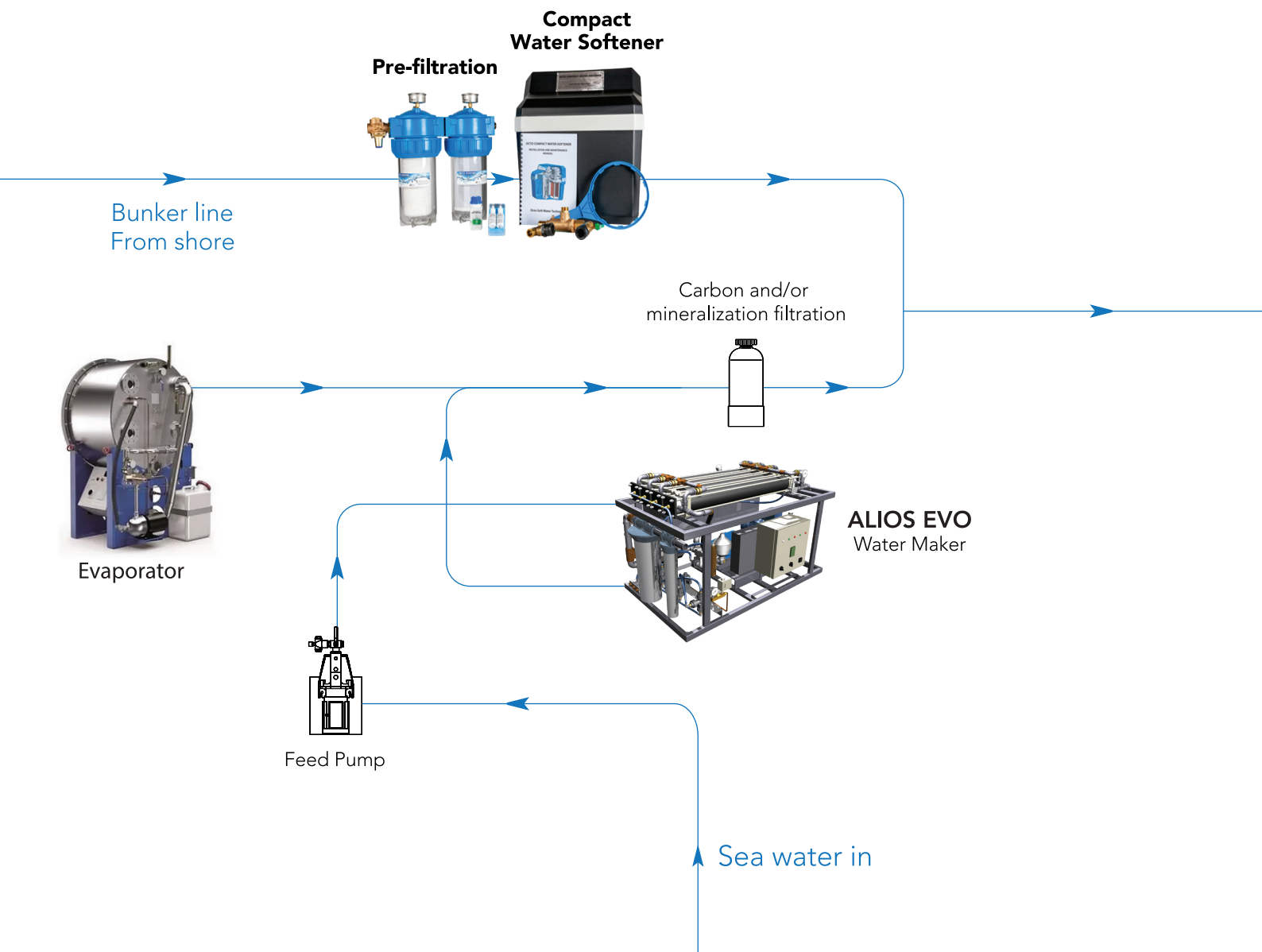
In response to the imperative of mitigating climate change and preserving dwindling resources, companies are progressively acknowledging the urgency of embracing sustainable practices. This is exemplified by our commitment to 'no plastic on board' by offering alternatives to plastic water bottles, we enable vessel owners to significantly reduce plastic consumption onboard, demonstrating our dedication to environmental stewardship and long-term viability.



BENEFITS OF EPE'S POTABLE WATER SOLUTIONS

- ◆ Eliminating the need of plastic bottles onboard
- ◆ Reducing environmental footprint
- ◆ Saving costs related to purchasing plastic bottles & waste disposal
- ◆ Securing high quality drinking water which fulfills the highest standards
- ◆ Being pioneers by adopting innovative solutions
- ◆ Reducing logistics complexity
- ◆ Established technology with proven record across demanding applications

THE IDEAL WATER TREATMENT PROCESS



Freshwater treatment onboard is divided in two levels. The first level includes sterilizing the water that comes onboard through the dock, or through the sea and the desalination system. Sterilization happens prior to freshwater storage tank to ensure residual sterilization across the network.

TAILORED TO YOUR NEEDS

**Bifipro water
Sterilizer**
OR
**Hydrasil® Treatment
Sterilizer**



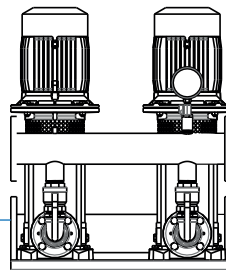
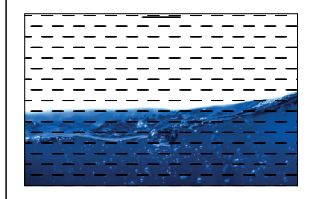
**Sllimline Five Stage
Filtration System**



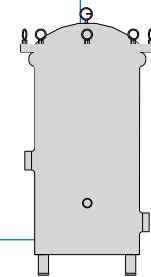
M70 Soda



Fresh Water Tanks



Distrubution pumps



**Multi-cartridge
filter bath**

The second level consists of filtration to improve the taste and odor and produce 100% safe to drink and mineral water. When complementing with a chiller, cold and sparkling water is produced.

EPE COMPACT WATER SOFTENER

ENHANCES TASTE, SMELL, AND APPEARANCE OF WATER

Constant Soft Water: Fully Volumetric, our systems regenerate based on actual usage. You won't waste water or salt, but you will have clean, soft water whenever you need it.

High Flow Rate: Systems keep up with the water needs of demanding wash-downs and are perfectly suited to fill the vessels storage tanks, ensuring pipework, water heaters, kettles coffee and ice machines remain scale free.

Soft Water, Counter-current Regeneration: You'll enjoy the benefits of our water softeners regeneration efficiency, with less water and salt used than any other system.

Twin Tank System: One tank is always in service, even during regeneration, for an unlimited supply of clean, soft water.



EASY WASH

Soft water from the EPE Compact water softener makes washing and drying a little more fun.

EASY RINSE

Saving you time, softened water leaves less marks during rinse down.

COMES COMPLETE WITH:

- Pressure Regulator
- High flow filter housing
- 25µ Particle Filter
- Carbon VOC Filter
- 2 Stainless glycering filled gauges
- Back pressure regulator
- 25kg HQ Salt tablets
- 125ml Resin Sterilizer



The EPE Compact Water Softener stage incorporates the following:

1. Fully volumetric, regenerates based on actual usage
2. No electrical connections required, works with water pressure
3. Supplied with water hardness test kit, in order to adjust its parameters according to intake water quality
4. Improves taste, smell and looks of water
5. Ensures all freshwater piping and appliances remain scale free
6. Incorporates pre filtration systems for supreme freshwater quality
7. Small footprint (L480mm X W400mm X H510mm)

SERVICES

COMPREHENSIVE WATER QUALITY SERVICES AND ONBOARD TESTING SOLUTIONS

Potable water Analysis to a certified Laboratory

Water is tested for microbiological, legionella and physicochemical analysis in our certified laboratory. A detailed analysis and report are generated, accompanied by a certificate that indicates that the water is safe to drink.

Chemical Disinfection to the vessel's distribution system

What is Chemical Disinfection? Reduction of microorganisms and elimination of biofilm of a vessel's entire freshwater distribution system by performing a treatment using Hydrasil Ag+.

Freshwater Safety Plan

EPE's expert team generates the Freshwater Safety Plan of the vessel, in order to identify possible issues and ensure the safety and acceptability of a potable water supply onboard.

Onboard testing Instrument Kits

EPE supplies various handheld testing instrument for weekly monitoring of the vessel's water quality, by measuring key aspects of freshwater such as pH, TDS, temperature, and Residual Sterilization.



BIFIPRO® MARINE 60LPM (3600LPH)

SILVER & COPPER IONIZATION SYSTEM STERILIZER

The Bifipro marine system uses a unique patented, technologically superior method of silver and copper ionization to remove bacteria and biofilms from potable water distribution systems and holding tanks, helping to prevent infection from bacteria.

The use of separate treatment cells, employing separate power supplies, enables ions to be formed without direct complexation, these are continuously measured and controlled, by a PLC with an integral data acquisition system, to enable past and present history to be checked, providing an audit trail.



TECHNICAL DATA

- The Bifipro® marine treatment system is intended for drinking water applications and uses medical grade electrode silver and copper electrodes.
- Loss of pressure per ionization chamber at a flow rate ≤ 100 l/min is ≤ 500 mbar.
- The treatment system has been designed to enable easy replacement and maintenance of the electrodes.
- The control unit constantly measures the flow and conductivity of the water supply and controls the ion release, using the internal PLC it also provides data acquisition of the treatment process.
- All components of the Bifipro® Marine are approved for drinking water applications.
- Control Box (Height) 500 x (Width) 400 x (Depth) 217mm
- Treatment Cell (Height) 650 x (Width) 600 x (Depth) 120mm

Components	Explanation
Inlet	Water Inlet from bunker and water maker supply
Outlet	Treated water to tank
Silver electrode chamber	Treat cell containing two silver electrodes 9.999% pure
Copper electrode chamber	Treat cell containing two copper electrodes 9.999% pure
Flow Meter	High accuracy digital flow meter
Main Switch	Power on/off
Display	Touch Screen Display interface
Control Box	Containing the PLC controller and data logger

EPE ADVANCED TREATMENT SYSTEM

POTABLE WATER STERILIZATION WITH PROPORTIONAL DOSING

The EPE Advanced Treatment System incorporates the use of chlorine to effectively prevent any infection in the freshwater network onboard.

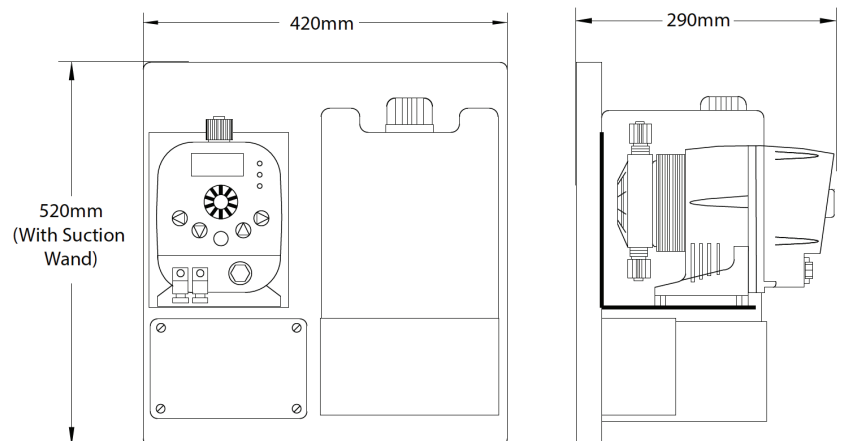
It incorporates a microprocessor-controlled dosing pump, low chemical level sensor, NO/NC alarm outlet and a pulse emitting flow meter with accumulated treated volume counter along with injection valve.

The ratio of the chlorine introduced to the water is determined by the K 0,25 Pulse emitting flow meter which will withstand high static and dynamic pressure.



All EPE Advanced Treatment Systems come ready to plug and use, all parameters are preprogrammed to which ever chemical a client wishes to use.

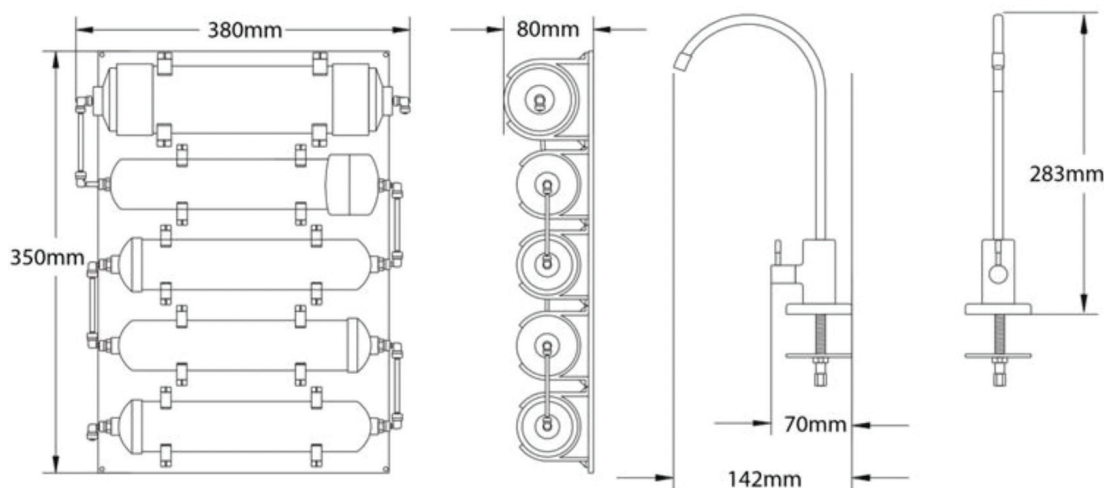
The EPE dosing pump is a complete and versatile pump with advanced microprocessor electronics.



EPE SLIMLINE 5 STAGE TREATMENT SYSTEM

DRINKING WATER SYSTEM DESIGNED TO MEET YOUR NEEDS

Trusted and used by thousands of seafarers, the Slimline Five Stage Filtration System ensures 100% safe to drink mineral water, while improving both taste and odor. With minimal footprint, the filtration system can be easily installed under any counter onboard, while the supplementary freshwater tap ensures that potable water goes through the filters, thus prolonging their life.



The EPE Slimline 5 stage system incorporates the following:

1. 5 Micron prefiltration to clean the water
2. Carbon filter for Chemical removal and taste, odour enhancement
3. Miner Filter to revitalize and minerals
4. Bio-ceramic far infrared filter to stimulate blood circulation, activate somatic cells and improve the body's metabolism
5. Ultra-filtration membrane 0.01 μ to remove organic and inorganic polymeric molecules, bacteria, viruses and cysts.

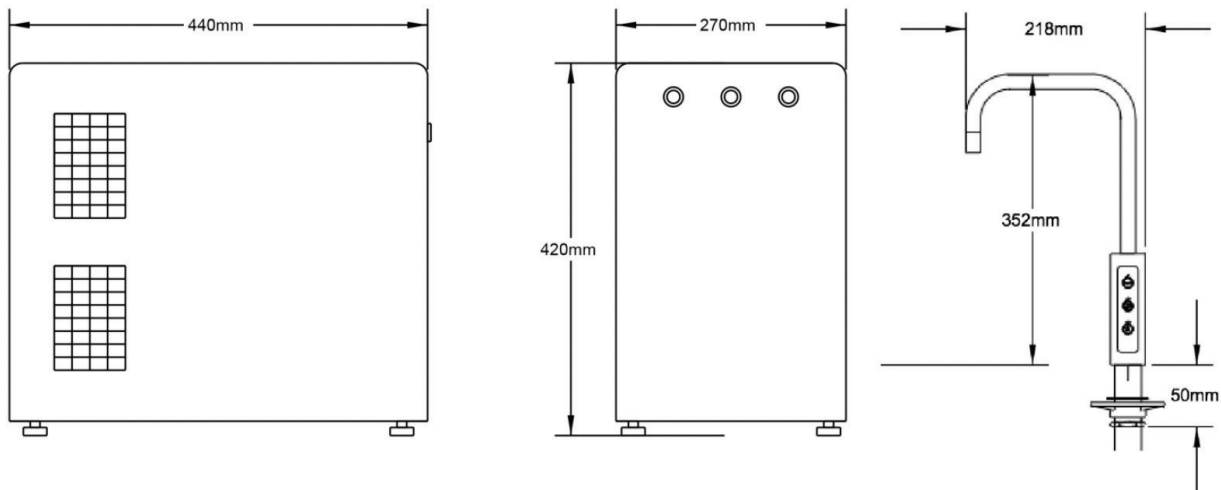
M70 SODA – UNDER COUNTER WATER DISPENSER

CHILLED, SPARKLING AND AMBIENT DRINKING WATER

Enhancing the Slimline System with Cold & Sparkling Water Production

The M70 Soda Chiller is an addition to the Slimline Five Stage Filtration System to provide cold and cold sparkling water on the spot. Utilizing an ice bank, it provides cold and cold sparkling water through an ergonomically designed electronic faucet.

With its small footprint (W280mm X D453mm X H420) and stainless-steel materials, M70 Soda is the ideal solution for Superyachts.



The M70 SODA system incorporates the following:

1. Ideal for serving high number of crew and guests
2. Durable unit, made of stainless steel
3. Includes ergonomically designed electronic faucet
4. Supplied with CO2 bottle
5. Can be combined with the Slimline
6. Small footprint (W280mm X D453mm X H420mm)

DEFINING

ENVIRONMENTAL PROTECTION

SINCE 1977

Environmental Protection Engineering S.A.

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