



Water purification for the global maritime industry



Providing your crew with safe and healthy
drinking water, **anytime, every day.**

Saving the environment from plastic waste and saving your company money



AQUAREX and the C100

Shipping companies all over the world are facing a major challenge when it comes to reducing single-use plastic. A vessel with a standard crew size of 20-25 can use up to 12,000 single-use plastic drinking water bottles a year!

When it comes to single-use plastic drinking water bottles, many organisations are seeking to remove them completely from their fleet. It is widely expected that regulations will soon be enforced to reduce and ultimately remove such plastics from ships. It's time to act now!



A Global Network

AQUAREX operate a truly global network in the shipping industry. Our head office is based in Cyprus and we operate with warehouses, distributors and partners across Europe and Asia.

You'll always be guaranteed a consistent and efficient service for your fleet by our trained and professional AQUAREX teams.



Trusted

AQUAREX is the premier partner for on board water purification systems. We are trusted by more than 20,000 seafarers and their companies to deliver safe and healthy drinking water every day they are at sea. This brochure explains how our systems work and how they ensure that together, we provide long-lasting water purification for drinking and cooking onboard.

Assisted by C100 you can meet the EU directive 2020/2184 of the European Parliament and of the Council of 16 December 2020 on the quality of water required for human consumption, which is considered the strictest water directive in the world.



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Trusted and Proven by more than 20,000 seafarers, **each day, every day!**

Buy or Lease we've got you covered.

We understand that making a capital purchase can sometimes be a wider consideration for a shipping company, although our systems represent a highly competitive investment purchase, we also provide an easy lease option.



WaaS™ **Water as a Service. AQUAREX's lease option**

We provide the equipment and spares as well as the consumables needed to ensure your crew are covered 365 days a year, all under a simple, fixed, flat, monthly lease fee.

BUY

Alternatively, you can choose to purchase our water purifier systems and then order the spares and consumables from our network, as and when you need them.

We're here

Whether you choose our lease option or a purchase plan we're here to guide you through the process and support you on your journey to onboard safe and healthy drinking water purification.



Superior state-of-art technology.
incl. RO, UV and remineralisation



Proven each day by more than
20,000 seafarers



Includes multiple stock points,
consumables, spares and
exchange units



Our water purifier systems are
CE marked and help you to meet
the EU Directive 2020/2184 of the
European Parliament and of the
Council of 16 December 2020 on
the quality of water intended for
human consumption. We focus
on safe water purification.



Technical support and NO
CAPEX! Pay-as-you-consume

AQUAREX C100 benefits



SAFER

- Our water purifier systems are CE marked and help you to meet the EU Directive 2020/2184 of the European Parliament and of the Council of 16 December 2020 on the quality of water intended for human consumption. We focus on safe water purification.
- We use RO and UV technology that provides our water purifiers with a safe double bio barrier against bacteria and viruses. Further, all solid particles, smell, color, taste, metals, chemicals, microorganisms etc., basically EVERY foreign particle or substance is removed from the water by means of the 6-stage purification system.
- Water in single-use plastic bottles are often stored on-shore for many months under unknown conditions i.e., changing temperatures, UV radiation exposure from the sun etc., causing chemicals from the plastic bottle to dissolve into the water in the bottle. Purified water is simply safer!



GREENER

- A vessel can easily produce more than 12.000 single-use plastic drinking water bottles per year. By replacing plastic bottled water with purified water, the plastic waste onboard is reduced significantly.
- The on-shore transportation of water in plastic bottles causes an enormous negative environmental impact. Water is present everywhere – get closer to the source with our water purifier systems.
- The implementation of purified water onboard is a solid and very concrete initiative for the annual ESG reporting.

Did you know?

Purified drinking water based on fresh water produced by the vessels desalination plant is **great drinking water**.

Unlike plastic bottled water, **purified water is fresh and of very high quality**.

Eliminate the daily need for plastic bottled drinking water onboard by purifying fresh water from the vessels fresh water tank.





BETTER

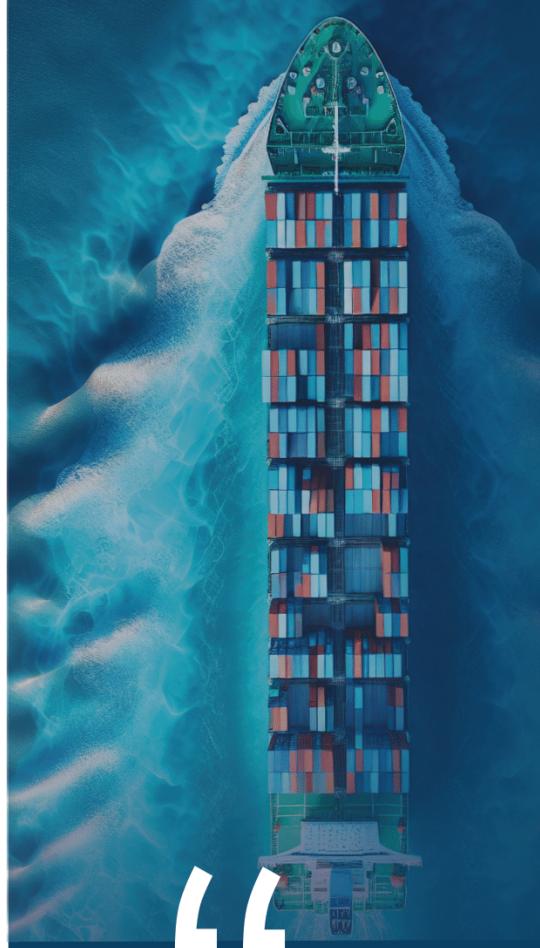
- We supply all components needed for installation and commissioning with the initial delivery – no need for local purchases and expensive service visits onboard to get started and no hidden installation costs.
- Our equipment is stocked across Asia and Europe. We deliver from day-to-day and stock committed equipment free of charge, till you can get it onboard. Consequently, your vessel can load in a convenient port with very short notice, at any time. No extra logistic costs.



EASY

- Crew can install, commission and maintain the water purifier system. Maintenance and most repairs can be made without tools - all is click-in, click-out couplings.
- Crew will have access to unlimited amounts of high-quality drinking water – safely produced by our water purifier systems onboard.
- With AQUAREX water purifier systems you will provide safe and healthy, high-quality drinking water onboard while you become compliant in the fight against single use plastic. All to benefit of your crew, your brand and the blue planet.

Safe and healthy drinking water onboard...



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It is expected that IMO will ban single-use plastic at sea. **With AQUAREX C100** any vessel can be equipped to offer **high-quality drinking water onboard without** any associated **plastic bottle waste.**

Water purifier systems - options



C100



T100

	C100	T100
Installation	Under counter - requires access to drain and electricity	Free standing tower - requires access to drain and electricity
Tank capacity	10 + 16 ltr	Hot: 2 ltr. Cold 3,5 ltr. Ambient 8 ltr.
Extra tank	Standard	Optional
Purification capacity	High	High
Filtration stages	Usually 6 but optional	Usually 6 but optional
Sediment 5 micron filter	Yes	Yes
Granular Active Carbon filtration	Double	Double
Reverse Osmosis	Yes	Yes
UV disinfection	Yes	Yes
Remineralization	Yes	Yes
Filter change alarm	Yes	No
Alarm system	Yes	Yes
Faucet	Yes	No
Can be combined with existing water cooler onboard	Yes	No
Factory tested and ready for installation	Yes	Yes
Water cooler	No	Yes
Water heater	No	Yes
Easy filter replacement and installation	Yes	Yes
Cooling gas	NA	R600



Filter change schedule - **C100 and T100**



Already installed

- 1x 5 micron sediment filter
- 2x Carbon GAC prefilter
- 1x Remineralizer
- 1x GAC post filter (alternative)
- 1x RO membranefilter
- 1x UV-c lamp

SMALL filter-kit

- 1x 5 micron sediment filter
- 2x Carbon GAC prefilter
- 1x Remineralizer
- 1x GAC post filter (alternative)

BIG filter-kit

- 1x 5 micron sediment filter
- 2x Carbon GAC prefilter
- 1x Remineralizer
- 1x GAC post filter (alternative)
- 1x RO membranefilter
- 1x UV-c lamp

SMALL filter-kit

- 1x 5 micron sediment filter
- 2x Carbon GAC prefilter
- 1x Remineralizer
- 1x GAC post filter (alternative)

C100 fits in everywhere!

The water purifier systems only requires access to a water outlet, a drain and electricity.



✓ BRIDGE



✓ MESSROOMS



✓ GALLEY



BIG filter-kit

- 1x micron sediment filter
- 2x Carbon GAC prefilter
- 1x Remineralizer
- 1x GAC post filter (alternative)
- 1x RO membranefilter
- 1x UV-c lamp



✓ ENGINE
CONTROL ROOM

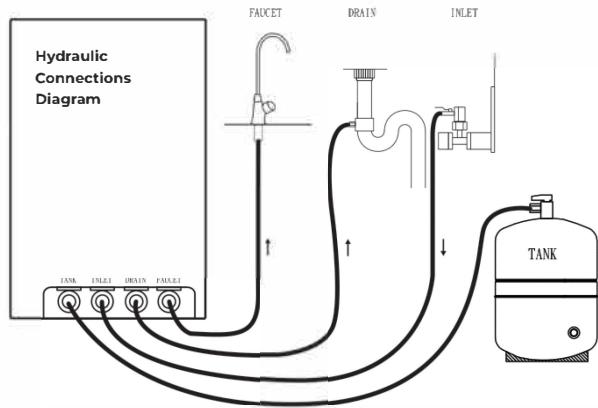
A few technical highlights - C100



Installation

Installation of the C100 is easy and can be done by the crew onboard. The purifier unit only requires access to a fresh water outlet, a drain and electricity.

Due to the compact size, the C100 fits perfectly under a zink in the mess room or connected to an existing water fountain or water cooler.



Technical Specification

GENERAL:

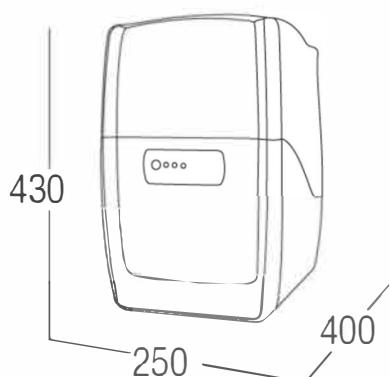
6-stage treatment - 1x 5um filtration, 2x GAC carbon, 1x RO filtration, post-treatment and UV sterilization. Built-in 10 liter tank plus an extra external 16 liter tank.

OPERATING PARAMETERS:

Inlet water with a maximum salinity of 1000 ppm.

CAPACITY:

approx 100 GPD
(380 liters)
per day.



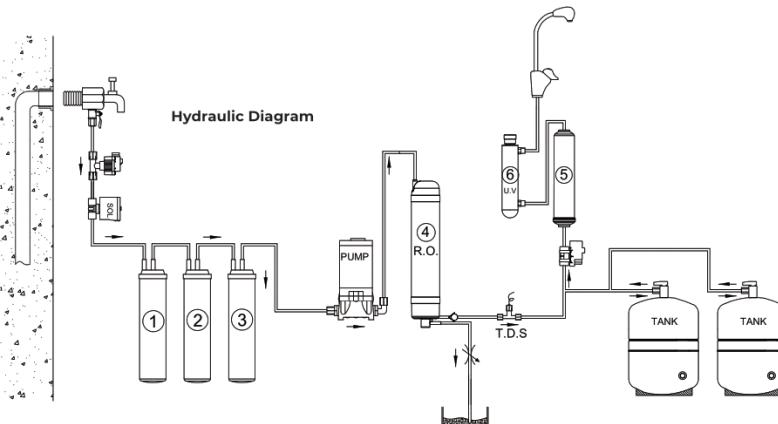
HOW THE EQUIPMENT WORKS

The water purifier is connected to vessels domestic freshwater distribution system. The freshwater is forced through a filter protection valve into the 5 micron filter and onwards through two granular active carbon filters, during this filtering stage, chlorine, its derivatives and other organic compounds are retained.

After the initial filtering stages the pressure of the water is raised by the pump and forced through the reverse osmosis membrane. This filtration stage filter out bacteria, organic and inorganic substances as well as all other contaminants that potentially can be found in the water. Whenever the pump is switched on, the reverse osmosis membrane disposes off contaminants via the drain water.

The treated water is stored in the internal and external tank for its subsequent use. The filling of the tank is controlled by a high pressure switch.

When the faucet is opened, the water flows through a post-filtering stage (remineralisation or post GAC) which eliminate any remaining odors and make a final pH adjustment before the water passes the UV lamp and finally is being dispensed.



No need for service visits,
the crew can easily replace filters - no tools needed.



Safety Highlights

Any water purifier must be assembled from components that are certified for use in food and beverage processing. Further, it must meet certain electrical standards.

AQUAREX water purifier systems goes far beyond these standard requirements by using state-of-art filtration concepts, by using double bio barrier, by following strict disinfection procedures in the manufacturing process and by tracking all our water purifier systems by serial numbers.

Moreover, AQUAREX water purifier systems are also designed with an alarm system to assist the crew in the maintenance and warn about abnormalities.

The only valid way to test and certify purified water is to make a water analysis of the purified water, while the water purifier is in use onboard!

Only in this way the feedwater to the purifier, the actual purification process including all its sub-processes, are verified and certified for a specific water purifier unit.

For this reason, we strongly recommend frequent water analysis carried out by an accredited laboratory, according to WHO test standards.



6-stage purification includes

- 5 micron sediment filtration
- Granular Active Carbon filtration
- Reverse Osmosis filtration
- Remineralisation
- UV
- Double bio barrier (RO+UV)

Factory tested

- Functionality test
- Alarm test
- Disinfection

Alarm system

- Water quality alarm
- Leakage alarm
- UV malfunction alarm
- Filter change alarm
- LED and acoustic alarms

Controlled deployment

- All units tracked by serial number

Certification

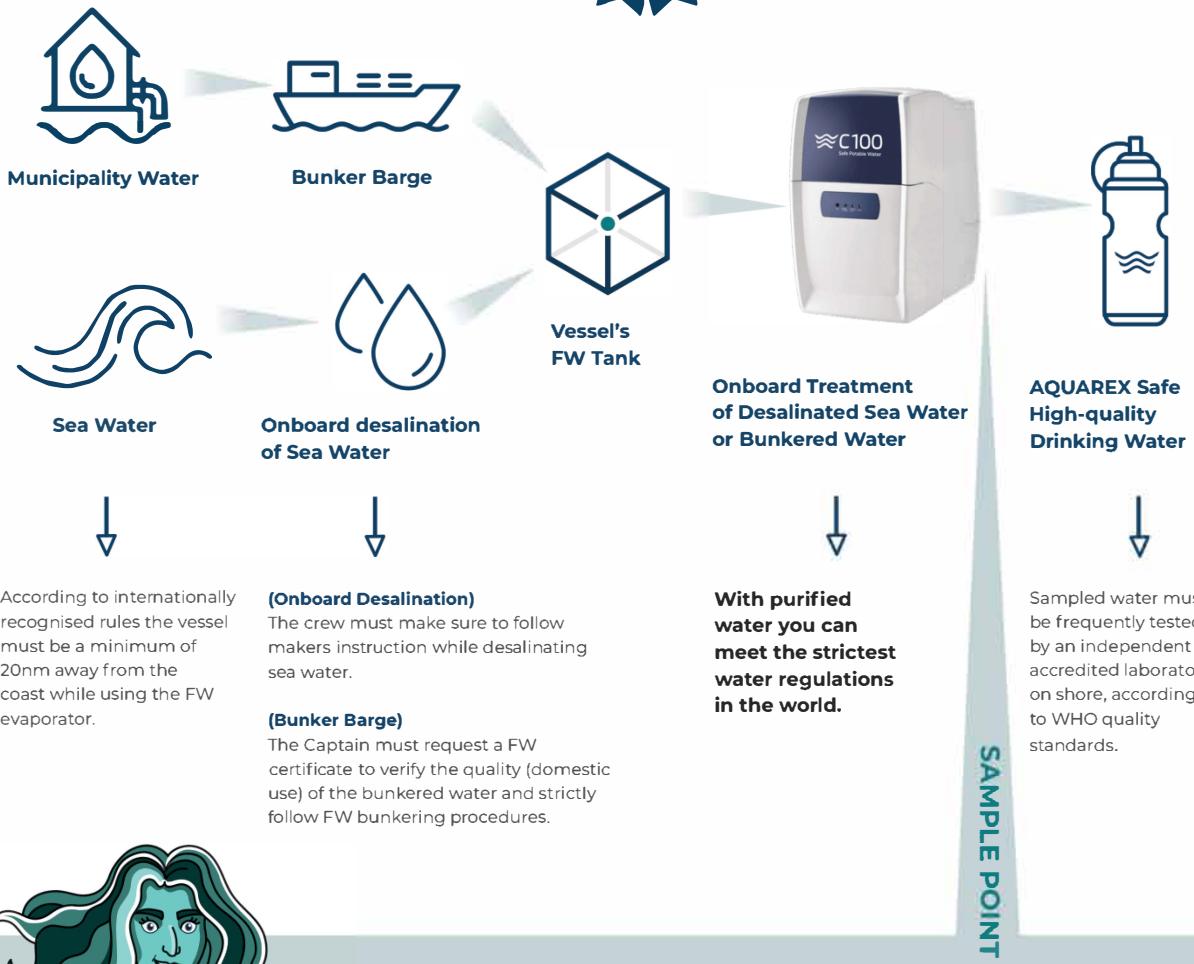
- Internal parts are NSF certified
- CE approved
- Quality controlled
- Conformity certified

Benefits of safe purification

Purified drinking water



Origin / Storage is known and the water is frequently tested!



Sampling and testing of drinking water

- **SAMPLE POINT** - after the water purifier
- **SAMPLING** - Use single-use bottle / gloves
- **TESTING** - Use an accredited laboratory



World Health Organization

Proper drinking water analysis contains many quality parameters - we recommend to test frequently via an accredited laboratory on-shore, according to WHO standards.



 **AQUAREX**

C100
Safe Potable Water

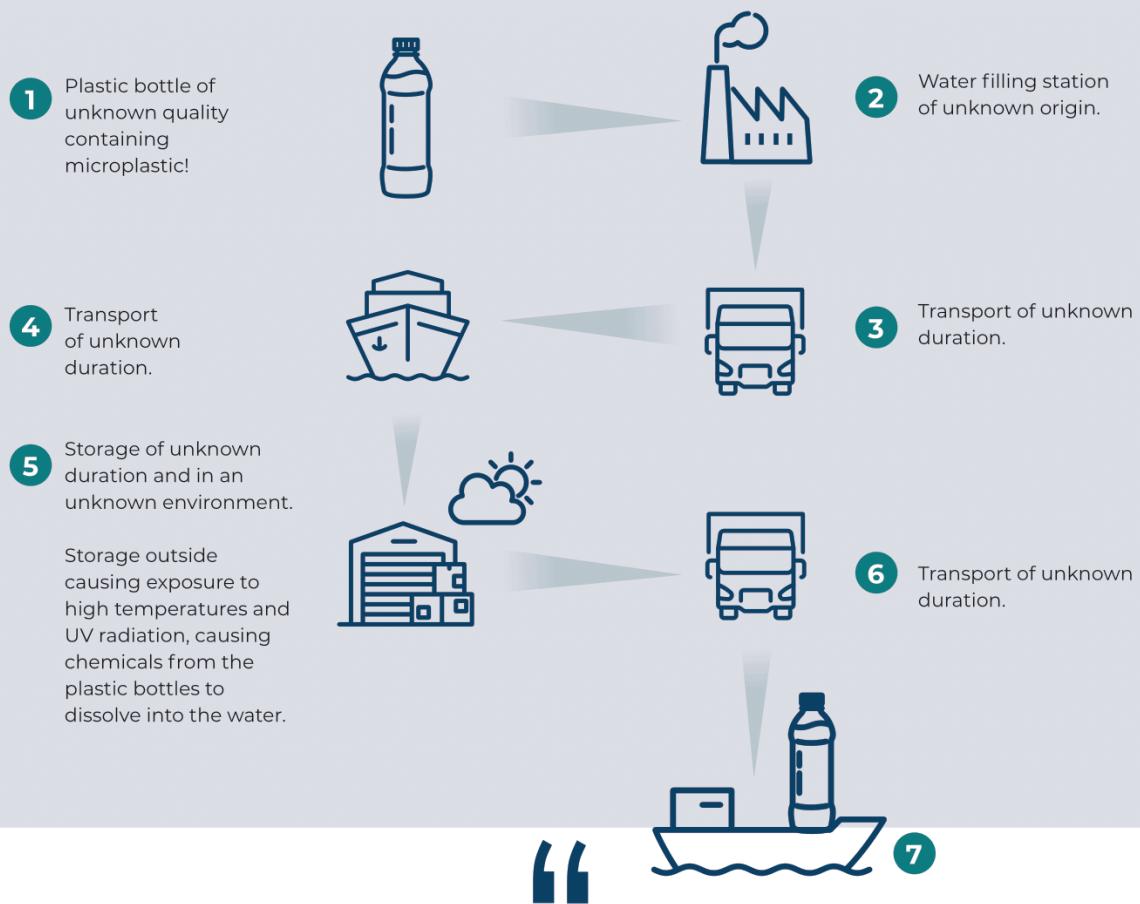
the trusted solution for a happy crew

What are the **health and safety concerns** of water in **single-use plastic bottles**?

Plastic bottled drinking water



Origin / Storage is **UNKNOWN** and the water is **NOT** frequently tested!



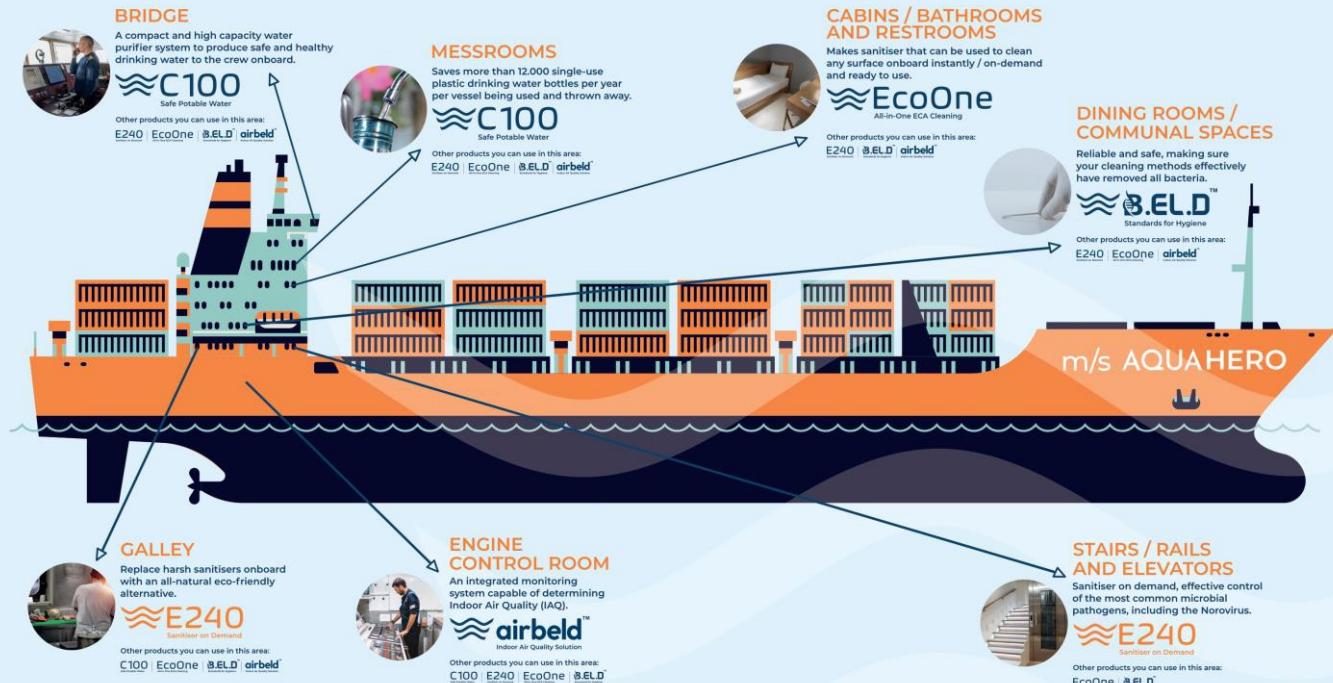
The on-shore transportation of water in **plastic bottles causes an enormous negative environmental impact**. With AQUAREX water purifier systems you will **provide safe, healthy and high-quality drinking water onboard** while you become compliant in the fight against single use plastic.

AQUAREX

aquarex-international.com

We've got you covered.

Trusted solutions for a happy crew



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