



# Time to re-think your Hydration Situation?

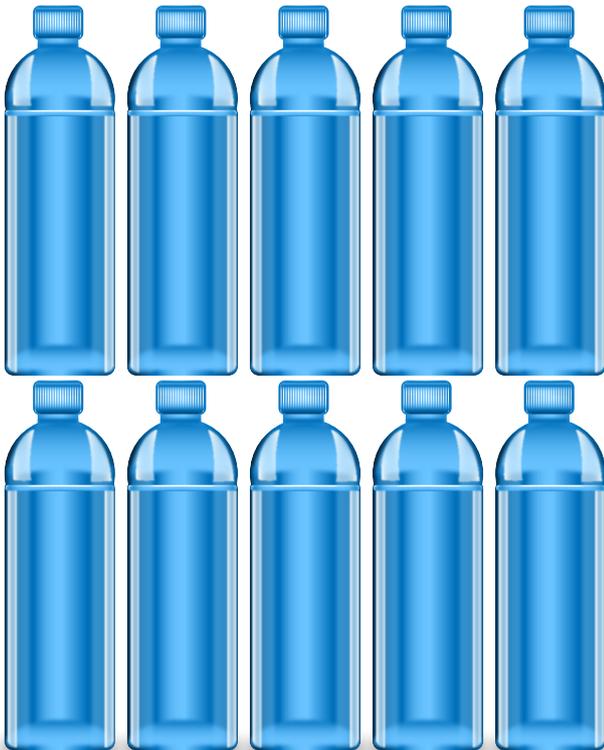


## Bottled Water

Requires regular and constant purchase, delivery, and replenishment\*.

Requires extensive storage capacity at every stage of life-cycle.

Empty bottles require disposal/recycling.



\*The National Academies of Sciences recommends a safe daily intake of **3.5 litres of water per person, per day.**

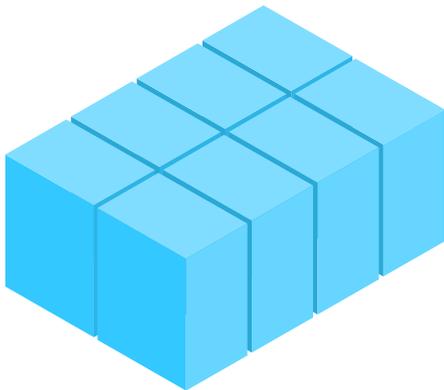
**ALCONA Advanced Hydration System**  
Produces 15 litres per hour/ 360 litres per day  
of 100% safe, clean-tasting, potable water.  
Purchase, deliver and install just once\*.



1165mm

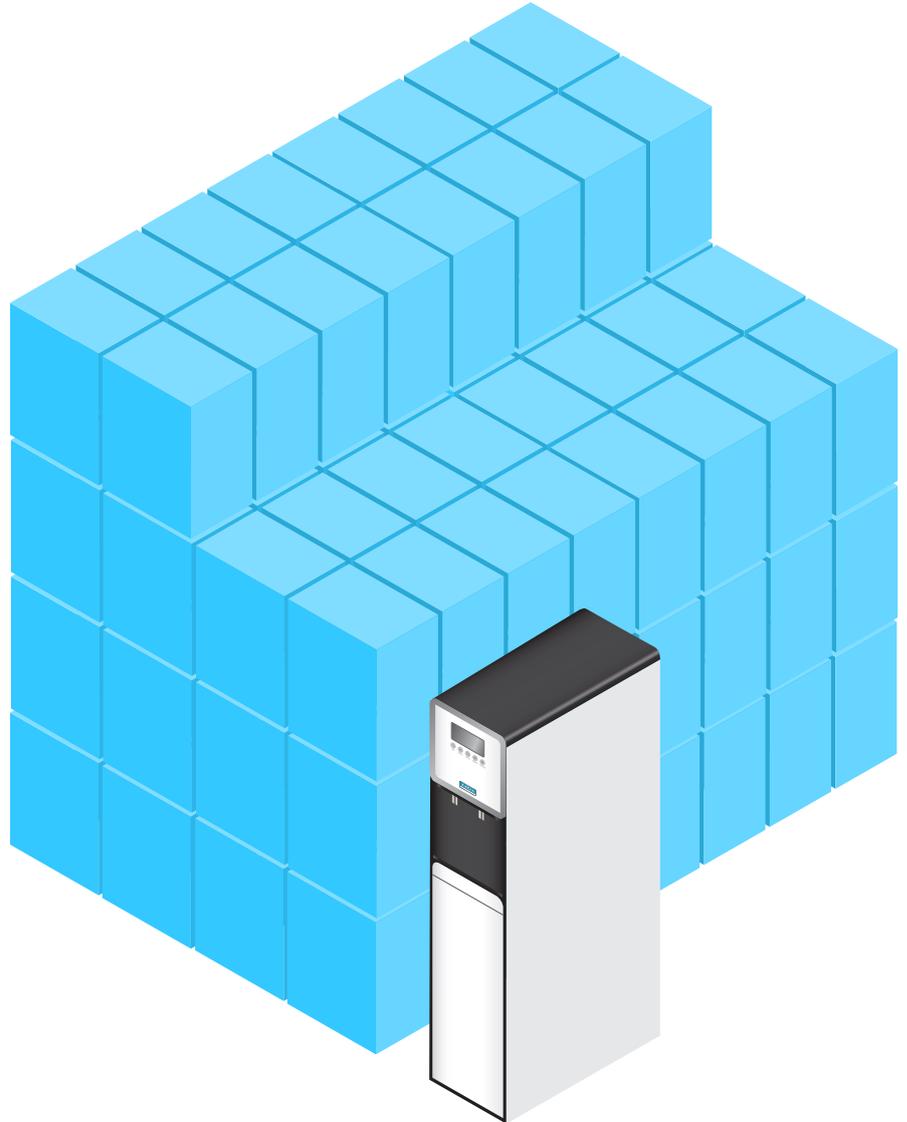
\*Dispenser unit plumbs into vessel's on-board water supply.

# Are you and your crews winning “The Space Race”?



## One Day's Consumption of Bottled Water

20 Man Crew  
3.5 Litres per Man  
48 x 1.5 Litre Bottles



## 14 Day's Consumption of Bottled Water

672 x 1.5 Litre Bottles / 1,000 Litres

**v**

## 1 ALCONA AHS Unit

Capable of delivering 360 Litres per Day  
100% Safe, Clean, Mineralised Water.

**Benefits of the ALCONA Advanced Hydration System (AHS)**



**1. Increased Safety & Consistency** - Not all bottled waters are created equal, which is why consistency is important. Some sources of bottled water may contain contaminants. Water may be stored for prolonged periods in hot sunlight during transport or warehousing. It's difficult to monitor and manage all of these variables across a global supply chain.

The ALCONA AHS unit works directly with water from your own vessel and applies constant, certified-safe levels of filtration, at source, to ensure water that is guaranteed to be consistent, clean and safe to drink, or cook with, wherever you are in the world.



**2. Minimise Logistics** - It is recommended that adults consume at least 3.5 litres of water per day, this amount increases for crews working in hot conditions. Consequently, providing bottled water for your work crews requires constant replenishment, administration, logistical effort and massive amounts of storage space at every staging point.

With the ALCONA AHS your water source is right where it's needed 24/7, virtually eliminating your logistical and storage problems and saving the manpower and cost required for administration, transport, loading, warehousing, on-board distribution and finally, waste disposal and recycling.



**3. Clear Cost Savings** - It's easy to see that the ALCONA AHS will deliver an incomparable cost-per-litre compared to bottled water alternatives.

After the one-time cost-of-purchase and installation, the only ongoing cost is the replacement filters which are compact in size, require minimal logistical and storage expense and are readily available for resupply from AMOS.



**4. Reduce Plastic Waste** - At AMOS we are keen advocates of waste reduction, especially the elimination of plastic bottles in the workplace\*.

Aside from the obvious environmental benefits of reducing plastic waste there's also the added trail of environmental costs associated with supplying bottled water; transporting, storing, loading, unloading - all of which consumes energy and contributes to harmful emissions. The ALCONA AHS puts clean potable water on-board your vessel, right where it's needed 24/7, virtually eliminating the logistical tail and the associated waste altogether.

\* AMOS offers a selection of non-plastic, refillable/reuseable personal water bottles for crews.

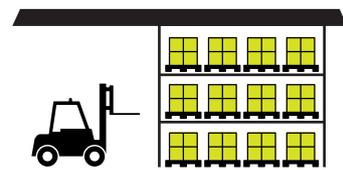
**S T R O N G   B U S I N E S S   C A S E**



Minimise Re-Ordering & Admin



Eliminate Constant Shipping & Delivery



Eliminate Costly Handling & Storage

## The ALCONA AHS | 8-Stage Filtration Process Explained

### WATER TREATMENT



**Stage 1 - Poly Polypropylene Filter (PPF):** Removes coarse sediment and contamination particles greater than 5 microns.

**Stage 2 - UDF:** Commonly referred to as the Granular Activated Carbon Filter, these help remove chemical pollutants often found in water such as Lead, Chlorine or Cadmium. The filter also removes particles greater than 0.03 microns

**Stage 3 - Chlorine, Taste and Odour (CTO):** Helps improve taste and provide clearer water. This filter removes particles greater than 0.1 microns.

**Stage 4 - Reverse Osmosis (RO):** Removes 99.9% of all water born particles including bacteria, heavy metals, and organic substances. This filter removes particles greater than 0.0001 microns.

**Stage 5 - T33:** Commonly known as the polishing filter, this is the final filtration stage before the water is dispersed. The T33 is able to adsorb even the tiniest amounts of plastic flavour that may be produced by the storage tank and piping inside the AHS unit.

### Reverse Osmosis DEFINITION

*“A water purification process that uses a series of partially permeable membranes to remove unwanted particles, chemicals and bacteria from drinking water.”*

### POST-TREATMENT & REPLENISHMENT



**Stage 6 - Alkaline Water Filter Cartridge:** The Alkaline filter helps reduce acidity and rebalance the PH levels in the water.

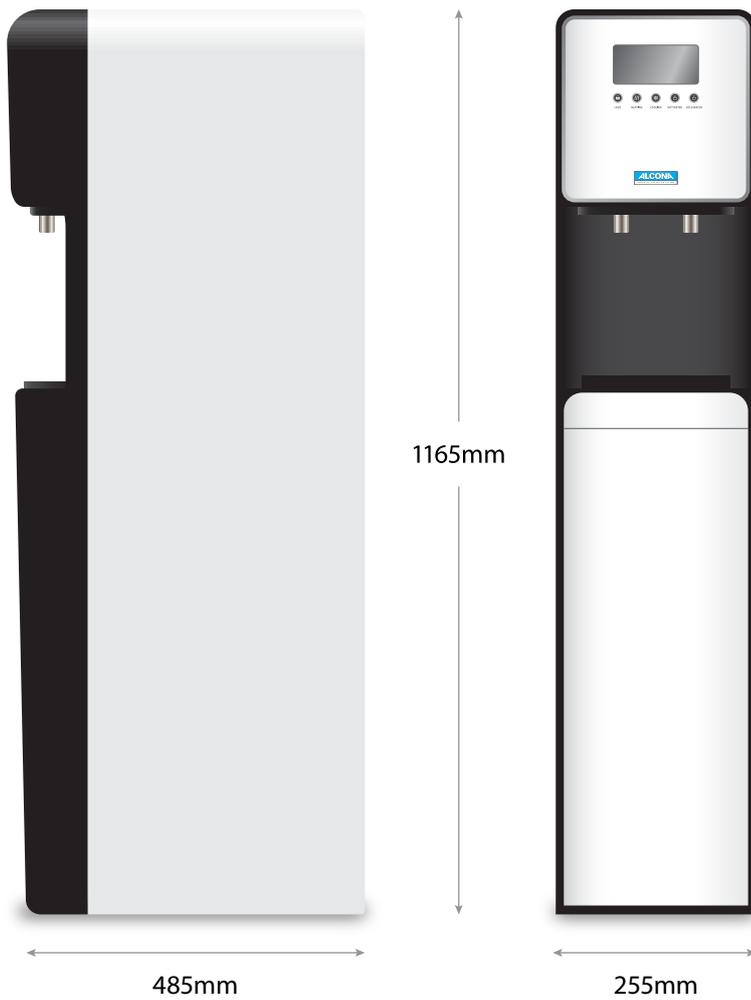
**Stage 7 - Mineralising Filter:** This filter is designed to re-introduce natural minerals into the drinking water. Minerals added include calcium, potassium, sodium, and magnesium.

- **Sodium** (Na<sup>+</sup>): beneficial for hydration and balanced acidity throughout the human body.
- **Calcium** (Ca<sup>2+</sup>): beneficial for bones, teeth and heart and muscle function.
- **Magnesium** (Mg<sup>2+</sup>): benefits the immune and nervous systems which play a crucial role in chemical processes within the human body.
- **Potassium** (K<sup>+</sup>): helps maintain human body pH balance.

### FINAL DISINFECTANT



**Stage 8 - Ultraviolet (UV):** This is the final phase of the AHS system, effectively disinfecting all remaining bacteria from the water. UV rays penetrate harmful pathogens and micro-organisms by attacking and eliminating their genetic core (DNA).



LED displays water level and filter lifespan and replacement warnings



Dispenses hot & cold water

Unit capable of producing up to 15L of safe drinking water per hour - 10L storage tank

Front panel opens for easy access during maintenance and filter replacement

Compact footprint for easy installation in galleys and crewspaces

## FILTERED WATER DISPENSER

Compact water dispenser unit with 8-stage filtration, providing 100% safe, mineralised drinking water.

Unit can easily be connected to on-board (240v) electricity and non-filtered water supply. Unit can process up to 15 litres of hot or cold water per hour and has a 10 litre storage tank. Front LED panel displays water level and filter lifespan/replacement warnings.

Filters can be easily accessed and replaced via the front cabinet door.

**1 Year Product Warranty.**

### SPECIFICATIONS

<b>Dimensions</b>	1165 x 485 x 255mm	<b>Capacity</b>	10 Litre Storage
<b>Voltage</b>	240v	<b>Max Output</b>	15 Litres per Hour
<b>Certifications</b>	<b>Appliance:</b> CE Approved <b>Filters:</b> GB/T 5750-2006 & GB 5749-2006		

## FAQ

### Why the need for such a system?

Several studies have suggested that as much of USD8,000 – USD14,000 per year is spent by each ship on buying, storing, transporting and disposing of bottled water (sources - WHO, IMO and IMPA). Around 18,000 water bottles including caps and labels are discarded each year by each vessel. With 25 crew on board consuming 3.5 litres of water per day, each ship produces up to 400KG per year of plastic waste with a great deal of this finding its way into our oceans.

Maritime initiatives have been setup to tackle this problem, including the latest one from IMPA in which a number of ship managers and owners have signed up for.

### Why not simply drink the onboard fresh water?

This is a complex question. Many vessels are transferring fresh water from on shore facilities and suppliers with no way of knowing purity. The piping and water storage systems on vessels are old, multi-purpose and are many times not adequately maintained, thereby resulting in potential water contamination.

### What is the ALCONA Advanced Hydration System (AHS)?

The ALCONA Advanced Hydration System (AHS) is a solution that treats a vessel's onboard fresh water supply through up to 8 stage filtration and disinfection system to provide crew with clean, fresh, PH optimized, and mineralized drinking water.

### How can I trust that the water is drinkable?

The system has been independently verified by SGS a globally recognized testing laboratory which has been operating for over 140 years to meet multiple national and global standards.

### How many and what filters are used?

The AHS solution utilizes eight filters all with a unique role to play (please see separate brochure for individual filter descriptions)

### How much drinking water can each filtration unit provide?

The AHS has the capacity to produce 360 litres of fresh mineralized water per day

### How many AHS units does each vessel require?

In order to provide readily available water to all the crew at all times, it is recommended to have 3-5 AHS units per vessel, fitted in the following locations: Bridge, Galley, Engine Room, Crew Change Room, and Accommodation Deck. To ensure the availability of drinking water to the crew, a minimum of three units is recommended – in the Bridge, Galley and Engine Room.

Each AHS unit can satisfy a crew of 25 on all their drinking needs even if they get their drinking water from only one of these locations. Assuming the World Health Organisation's recommendation of having each crew member drink 3.5 litres of drinking water per day the total requirement of a crew of 25 is 87.5 litres per day. Each AHS can produce 360 litres of drinking fresh drinking water per day.

### How complex is the installation and who can do it?

The AHS systems are easily installed by the crew on board. Simply connect to the vessel's fresh water supply into the unit (manual provided) and plug the AHS unit's power cable into the power mains on board. The AHS is a universal solution that comes in both 110v & 220/240v versions.

### What is the warranty for the AHS?

12 months warranty from installation on board your vessels. All parts included.

### Do the filters need to be changed?

Yes, the filters have a set lifetime. The AHS unit is provided with an intelligent inbuilt monitor that informs the crew via the integrated LED display. This will show that which filters need to be changed and when.

### How many filters are included in the system that we provide?

The system comes with additional filters which have been calculated to last one full year per AHS.

### How do I order the system and how will they be fulfilled to our vessels?

The AHS is available through pre-order and through your current purchasing arrangement with AMOS. The systems can then be consolidated with either your technical or provisioning orders in our current hubs – Shanghai, Singapore, Busan, and Hong Kong. Alternatively, we can have these systems available to be consolidated and fulfilled at your preferred locations, and logistics costs vary depending on location.

**Where can I buy additional filters?**

AMOS will currently stock filters in Singapore and Shanghai. For other locations we can arrange express delivery services. However, it is recommended to carry more filters to make sure the system is always ready to use.