



Sustainable water security for independent
living now and in the future.







Clean water. Anywhere. Anytime.

Ahbstra is redefining water security.

Using cutting edge nano-technology, our groundbreaking Atmospheric Water Generators extract water molecules from the air in the driest climates to produce high quality mineralised water, empowering self-sufficient living.

Designed for homes, developments, and communities alike, Ahbstra's patented technology provides autonomy without aesthetic or lifestyle compromise.

Introducing the Ahbstra ARK[®]

True off-grid/rural performance

No reliance on municipal water infrastructure – just clean, independent access whenever it is needed.

Engineered for extremes

Built to perform in the world's most demanding climates, from arid deserts to mediterranean coastlines.

Water Independence, redefined

The Ahbstra ARK[®] delivers total water autonomy, whilst maintaining the lowest environmental footprint.



Stats

Daily water output: Up to 508 litres	Temperature versatility: 10°C to 45°C	Relative Humidity Operating Range: 10% – 80%	Acoustic: < 80 dB
Energy consumption: 0.70 kWh per litre	Power Consumption Nominal: 16kW	Dimensions: L 5.7m x W 2.5m H 2.7m (without casing)	Weight: 4,000kg



Ahbra is a prescient solution for a global problem

Access to clean water is, and always will be, a necessity. Existing solutions are becoming less viable. Groundwater is depleting, municipal supply is unreliable and trucked water is unsustainable.

Ahbra has set a new standard: independent, reliable access to clean water. Anywhere. Anytime.

A changing world:

Regions are seeing declining rainfall and aquifers running dry.

Unreliable alternatives:

Homes rely on inconsistent, sub-optimal sources at inflated costs.

Increasing shortages:

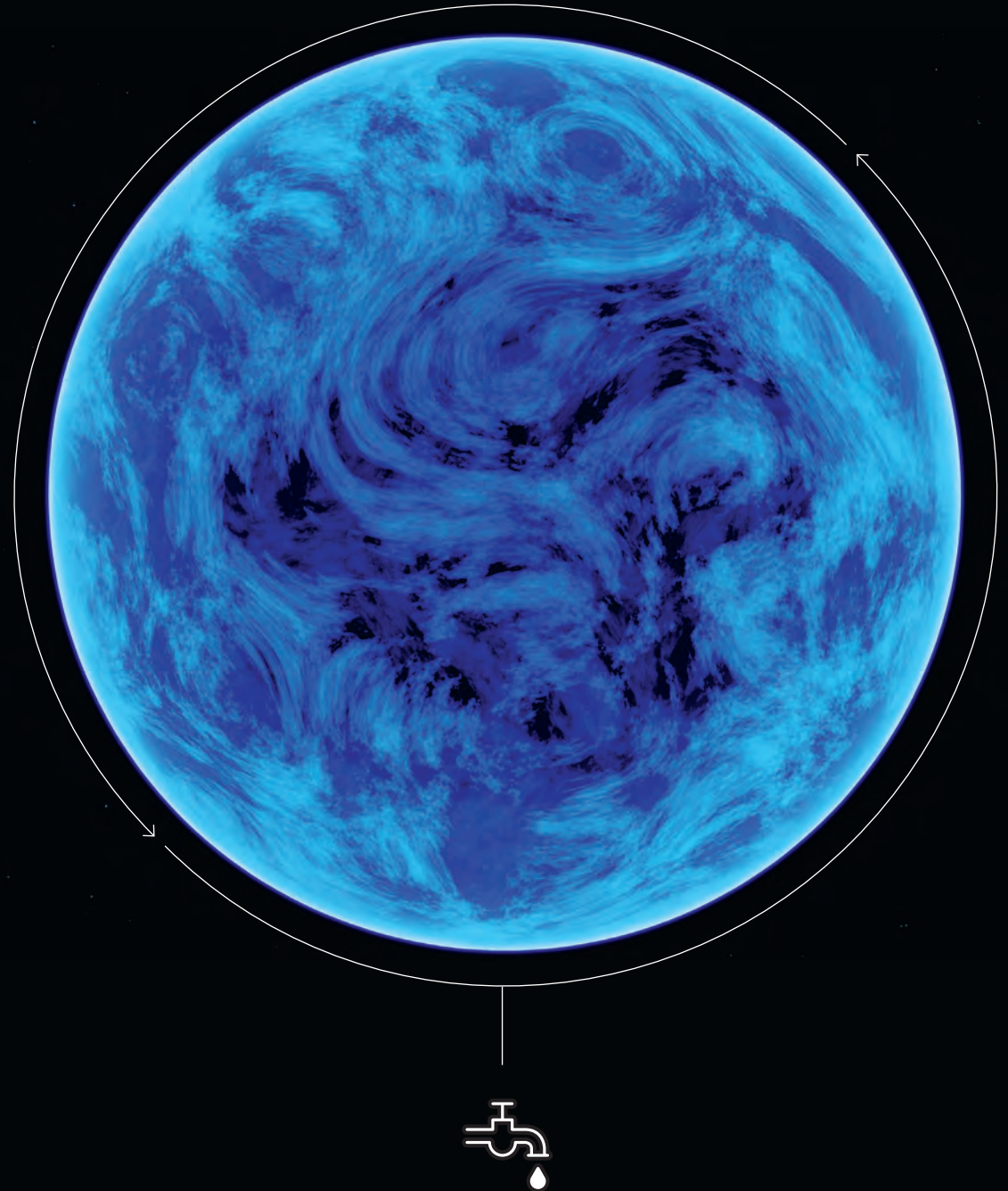
Summer deficits reaching 40%, leaving residents without options.

Ahbra eliminates supply risk by delivering a self-sufficient, clean water solution. Unlike conventional AWGs, the Ahbra ARK® functions effectively in the world's driest climates, consuming far less power, whilst eliminating reliance on failing water infrastructure or costly water alternatives.

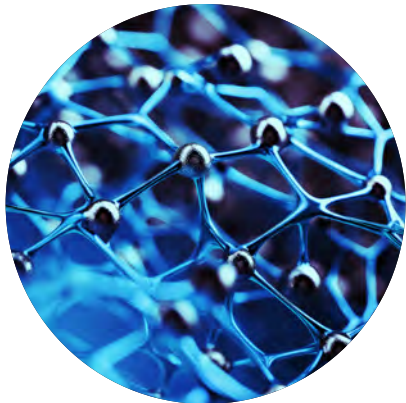
True water independence

Ahbstra has pioneered the commercial use of Metal-Organic Frameworks to engineer a stand-alone product that generates water from air.

Now, water is a guarantee, regardless of location, humidity or temperature. For the first time ever.



A smarter approach to water autonomy



Breakthrough
Efficiency

Our Metal-Organic Framework (MOF) technology extracts water even in low humidity, outperforming conventional AWG systems.

Energy
Optimisation

Ahbra utilises over 50% less energy per litre than standard alternatives.

Seamless
performance

Future-proofed engineering, built for peace of mind.



A solution for every vision

Ahbra's technology is adaptable to various needs and industries:



Architects:

Designed for the most arid environments to ensure exceptional architecture isn't limited by location.



Developers:

Meet and exceed sustainability standards with technology that elevates your developments.



Villa Owners:

Achieve water security and future-proof your home.



Ahbra for Homeowners

Live Without Compromise:
Water security for the modern Homeowner.

Independence:

Experience the confidence of self-reliance, independent of municipal water infrastructure.

Engineered for the future:

Systems designed to integrate seamlessly into any environment with minimal maintenance.

Pioneering innovation:

Cutting-edge technology quietly transforms the atmosphere around you into an unlimited water source.



Ahbra for Developers

Empowering design:
Scaleable technology for visionary developments and projects.

Water security you can count on:
Functions in humidity as low as 10%, ensuring performance even in the driest climates.

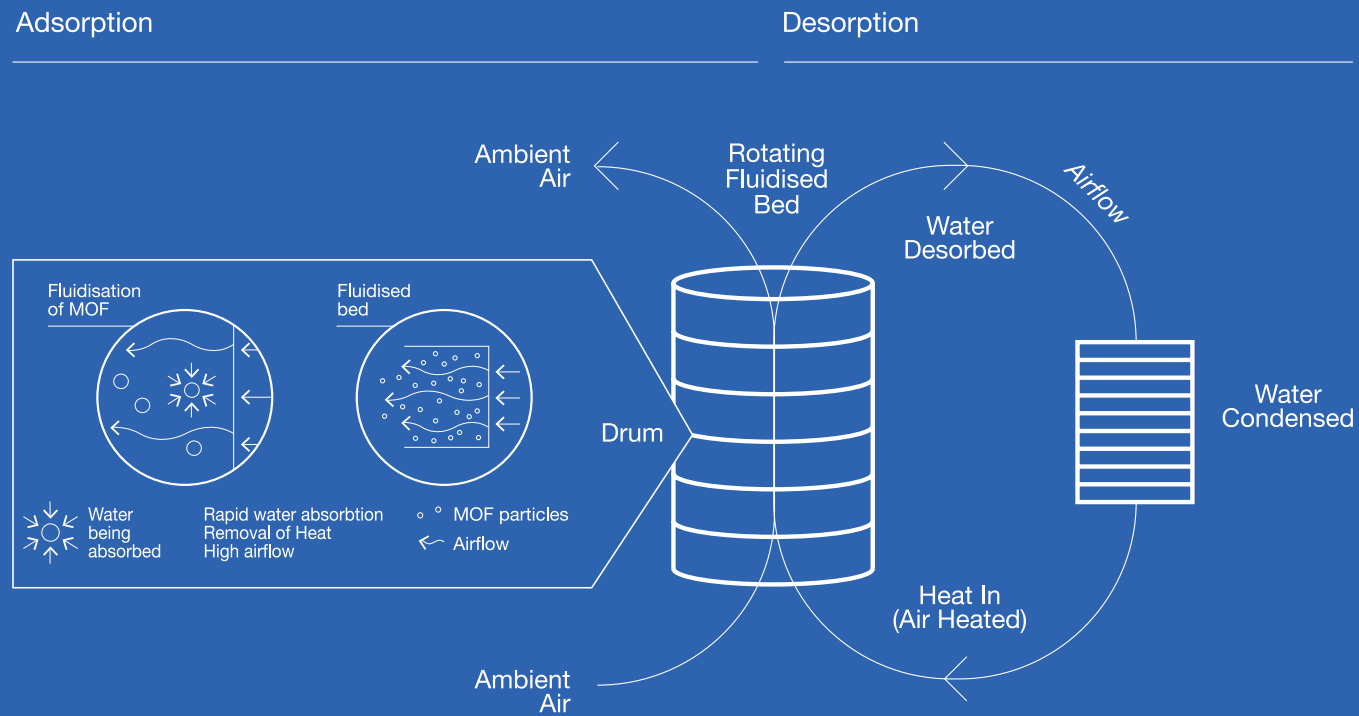
Designed for projects of any size:
Innovative modular technology puts your development at the forefront of innovation and independence.

Sustainability:
Elevating projects with systems aligned to green building certifications like LEED & BREEAM.

Future-proof:
Enabling autonomy and resilience in the face of changing climates.



Patented technology at work



Ahbstra's technology outperforms traditional Dewpoint technology

Dewpoint machines collapse in arid climates - our system thrives, generating 3 - 5 x more water where it matters most.

Ahbstra's MOF-based AWG technology has revolutionised water generation.

Across some of the world's most water stressed regions - from Southern Spain to Saudi Arabia to Arizona - the ARK® consistently produces 3 - 5 times more water than leading market alternatives, under the same climatic conditions.

Unlike traditional dewpoint AWGs, which struggle in hot and arid environments, our MOF-based system achieves high efficiency and sustainable performance precisely where new solutions are needed most.

Results in water crisis zones

Balearics, Spain

TEMPERATURE: 20°C / HUMIDITY: 60%

Ahbstra Performance:	Dewpoint Performance:
428 L / day	145 L / day
0.70 kWh / L	0.85 kWh / L

295%
more water generated than
traditional dewpoint systems

Riyadh, Saudi Arabia

TEMPERATURE: 40°C / HUMIDITY: 25%

Ahbstra Performance:	Dewpoint Performance:
483.5 L / day	153.8 L / day
0.72 kWh / L	0.93 kWh / L

314%
more water generated than
traditional dewpoint systems

Phoenix, Arizona

TEMPERATURE: 30°C / HUMIDITY: 30%

Ahbstra Performance:	Dewpoint Performance:
508 L / day	105 L / day
0.70 kWh / L	1.00 kWh / L

484%
more water generated than
traditional dewpoint systems

A plug and play solution

Plumbing System

Standard PEX or Copper Plumbing
Easy Integration

Water Filtration

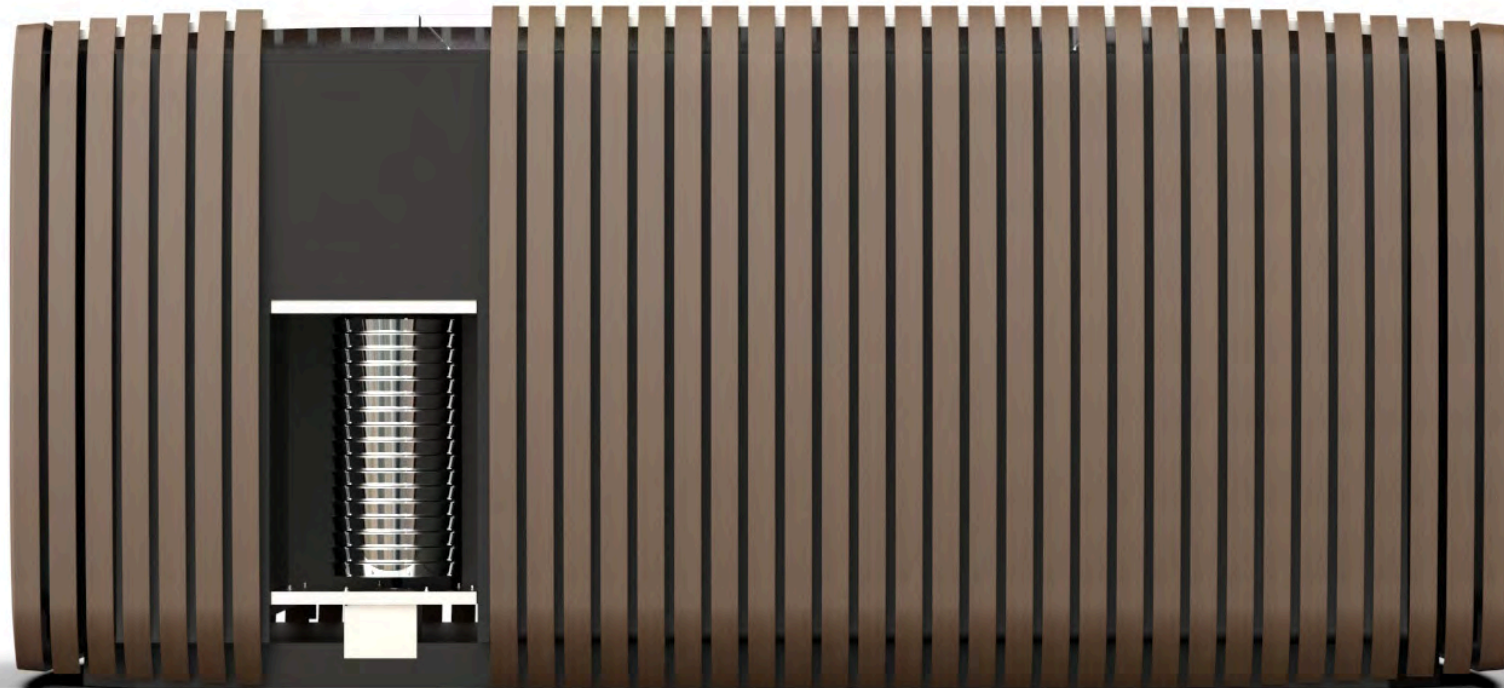
Thorough multi-step process:
Micron filter > Activated carbon >
Mineralisation process > UV filtration tank
> Pure drinking water

Air Filtration

(G4 + F9)
+ Pleated Filters

Simple Installation

Site assembled
Requires level hard standing



Ahbstra's Technology Associates

Cambridge Consulting



Groundbreaking science-led manufacturers.

Ahbstra is proud to work with Cambridge Consultants (CC) in developing a fully operational prototype completed Q4 2025.

A global leader in cutting-edge R&D and strategic innovation, CC collaborates with top-tier clients across industries like artificial intelligence, satellite technology, and sustainability.

CC's technical team brings over 50 years of expertise in mechanics, fluid dynamics, and thermofluidics, alongside advanced capabilities in laboratory-scale industrial equipment and precision instrumentation.

Supported by specialists in manufacturing, product design, software engineering, and regulatory compliance, they ensure smooth progression from concept to market.

Promethean Particles



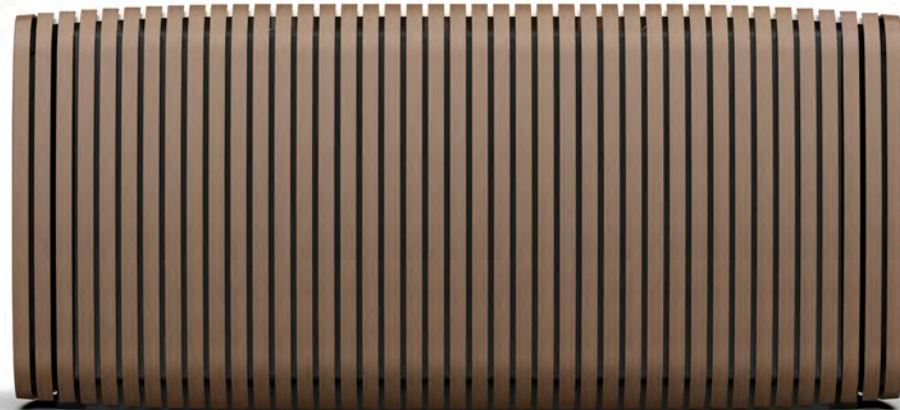
World leaders in technology development.

Promethean Particles is revolutionizing water generation by supplying high-performance MOFs, which efficiently capture molecules like water.

With immense surface areas - one gram covering a football field - MOFs enable breakthroughs in carbon capture, biogas upgrading, and atmospheric water harvesting. With 100,000+ structures, MOFs excel in water adsorption.

Promethean's continuous-flow reactors overcome cost and scalability barriers, producing MOFs in minutes at lower costs and up to 1,000 tonnes annually.

Their reactors ensure quality, reduce energy use, and enable our machines to transform water access in arid climates.



FAQs

1. How does the Ahbstra generate water?

By capturing moisture from the air using MOF technology, even in arid climates.

2. What is MOF technology?

MOFs are highly porous materials that absorb moisture efficiently, making them ideal for sustainable water capture.

3. How much water can the Ahbstra ARK® produce daily?

The Ahbstra ARK® generates up to 508L of fresh drinking water per day.

4. Is it suitable for off-grid locations?

Yes, it is entirely self-contained and compatible with renewable energy sources.

5. What makes this technology sustainable?

It minimizes reliance on municipal sources and single-use plastics, using renewable power for an eco-friendly footprint.

6. How is it installed?

The Ahbstra ARK® is a plug-and-play unit, easily installed by certified technicians.

7. What climate does it operate in?

Its advanced design ensures it works effectively in dry, hot conditions where water is most needed.

8. When will the Ahbstra ARK® be available?

Available for pre-order, with full release scheduled for 2026.

9. What is the energy cost per litre?

The Ahbstra ARK® consumes only 0.70 kWh/L, making it one of the most efficient systems on the market.

10. Is maintenance required?

Regular maintenance is recommended and can be arranged through Ahbstra's certified technicians.

11. Is seawater desalination a more cost-effective solution than atmospheric water generation?

While desalination is cost effective at scale, it has environmental drawbacks. The Ahbstra ARK® offers a sustainable, decentralized alternative – ideal for any remote or off-grid areas, requiring no plumbing or coastline access.

We complement, not replace, existing water infrastructure.

12. Wouldn't drilling a new or deeper well be cheaper than extracting water from the air?

Wells can be costly, regulated, and risk contamination.

The Ahbstra ARK® provides a clean, legal, and eco-friendly alternative – ideal for remote or drought-prone areas with limited groundwater access.

13. What sets the Ahbstra ARK® apart from other Atmospheric Water Generators?

The Ahbstra ARK® uses a proprietary MOF-based desiccant to produce water even in low-humidity climates.

With up to 508L daily output, it is energy efficient, low-maintenance, and ideal for off-grid living, eco-resort and humanitarian use.



Scan QR code for order details



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