



Skywater OASIS

Atmospheric Water Generator





Connecting Japan
to the World

J AND W TRADING CO., LTD.

Pure Water from Air: Bridging the Future with Precision and Technology



Skywater OASIS is crafted with meticulous care in Japan using refined technology. Our dedicated team of skilled artisans continually enhances the technology, striving daily to improve quality and innovation. Our mission is clear: to provide safe and reliable water to people around the world.



Skywater OASIS – Technology That Creates Water from Air

Skywater OASIS is a product based on atmospheric water generation technology developed by Island Sky in the United States, with unique improvements made in Japan. Thanks to the latest advancements in fluid and thermal control technologies, it offers significantly reduced energy costs and increased water production compared to previous models. Additionally, it boasts enhanced durability, ease of operation, and maintenance, making it a long-term solution for water generation.

With water scarcity becoming a critical issue worldwide, approximately 500 million people are currently in dire situations, and 1.5 billion are facing water stress. Even in Japan, groundwater depletion and contamination are growing concerns. At Skywater Japan, we are committed to addressing these challenges.



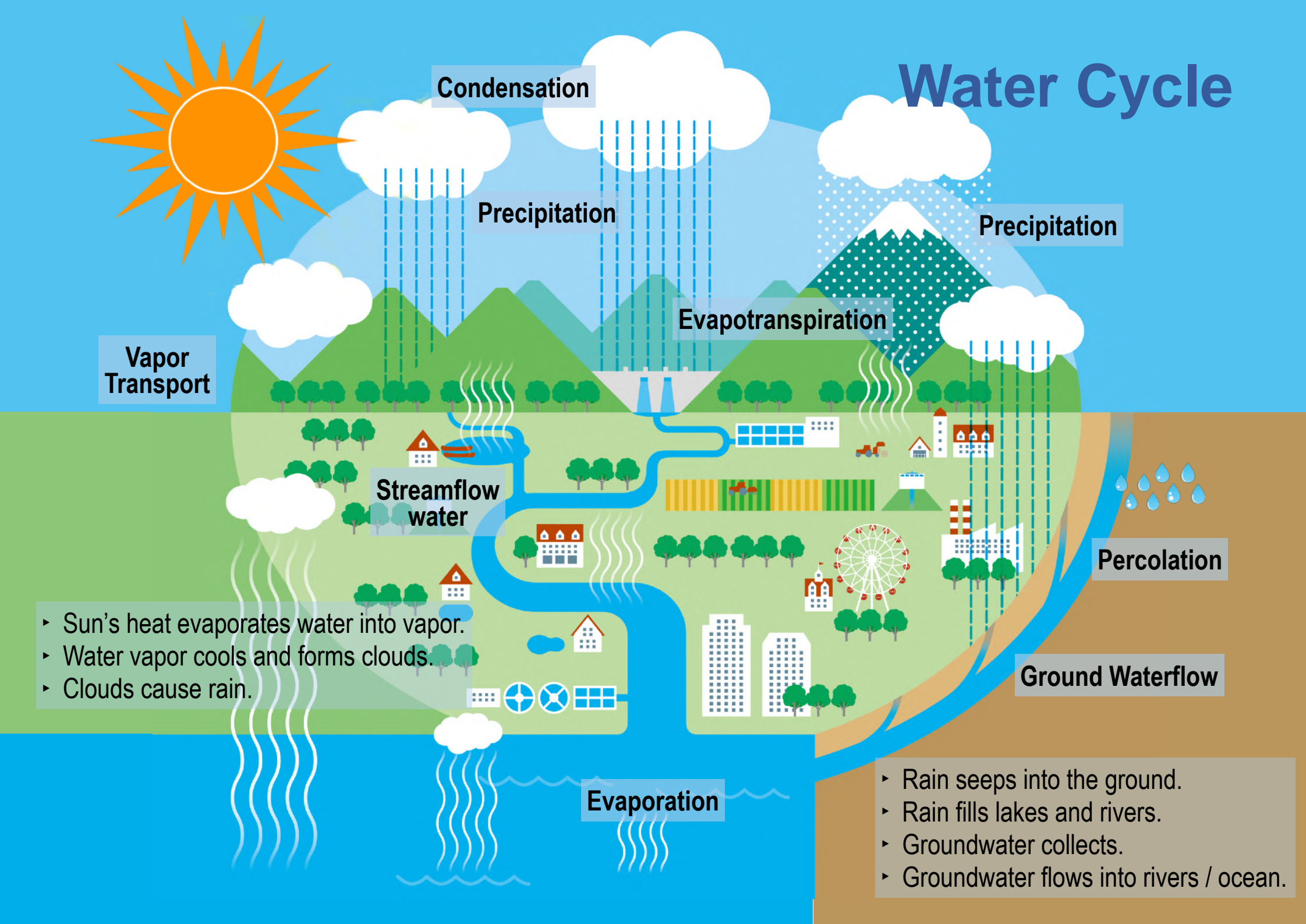
How Atmospheric Water Generators Work

Skywater OASIS utilizes advanced atmospheric water generation technology, originally developed by Island Sky in the United States and further refined in Japan. By incorporating state-of-the-art fluid and thermal control systems, this device achieves lower energy consumption and higher water production than earlier models. It is designed for long-term use, with improvements in durability, operational efficiency, and maintenance.

With global water shortages affecting millions and water stress impacting over a billion people, the need for sustainable solutions has never been greater. Skywater Japan is dedicated to tackling these issues, providing clean water where it's needed most.



Water Cycle



- Sun's heat evaporates water into vapor.
- Water vapor cools and forms clouds.
- Clouds cause rain.

- Rain seeps into the ground.
- Rain fills lakes and rivers.
- Groundwater collects.
- Groundwater flows into rivers / ocean.

The Principle of Atmospheric Water Generators

Understanding Condensation: The Science Behind Water Droplets on a Glass

Basic Observation: Pouring ice water into a glass cools the glass and nearby air, causing water droplets to form—not from leakage, but from condensation.

Moisture in Air: Air contains invisible water vapor; the amount depends on temperature.

Saturation Point: Defined as the maximum water vapor air can hold at a given temperature, measured in g/m³.

Dew Point Temperature: The critical temperature at which water vapor begins to condense into liquid.

Condensation Process:

- Air reaches 100% humidity at the dew point.
- Below this temperature, excess vapor condenses into droplets.
- This is the same process that causes windows to fog.



Diverse Applications of Atmospheric Water Generators

- **Agricultural Use:** For hydroponic cultivation and irrigation.
- **Livestock/Fisheries:** Used for drinking water for livestock, cleaning livestock barns, and land-based aquaculture.
- **Medical Use:** For dialysis equipment, drinking water in hospitals, and hygiene practices.
- **Remote Island Measures:** As a substitute in cases of groundwater depletion or water pipe failure.
- **Onboard Use:** For vessels.
- **Villas:** For locations where water drainage is not possible.
- **Production of Hydrogen Fuel:** Through the electrolysis of water.
- **Disaster Response:** For use in refuges, water tanker operations, and residential supplies.



Diverse Applications of Atmospheric Water Generators

In addition to producing drinking water, AWGs are useful in a variety of future applications, including food production, aquaculture, energy, and disaster response.



Hydroponics



Land-based Aquaculture



Washing Process



Hydrogen Generator



Water Supply

Exploring the Skywater OASIS: What Is It?

Founded in Florida, USA, in 2004, Island Sky has revolutionized access to clean water with Skywater, an advanced system that efficiently converts atmospheric water vapor into drinking water using patented technology. Skywater excels in diverse environments, using less energy than any comparable system worldwide. It is specifically designed to provide safe, secure drinking water in disaster-stricken, remote, drought-prone, or polluted areas.

Committed to solving the global water crisis, the Skywater system provides affordable, high-quality drinking water across the globe. We proudly supply our enhanced Skywater product, Skywater OASIS, manufactured in Japan, to meet global needs.



Skywater
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Skywater Team Triumphs in 2018 XPRIZE Contest



The Skywater team achieved global recognition by winning the 2018 XPRIZE competition, aimed at solving critical global challenges through innovation. Sponsored by prominent corporations like ANA in Japan, and backed by renowned business leaders, the XPRIZE Foundation, founded by Peter Diamandis, rewards groundbreaking solutions with significant prize money.

In 2016, the Skysource/Island Sky team won the Water Abundance XPRIZE, earning \$1.5 million for their WEDEW (Wood to Energy Deployed Water) system. This device produces 2,000 liters of water daily from the atmosphere using renewable energy and biomass materials. By condensing moisture and using pyrolysis from materials like wood chips, the system generates water, reduces wildfire risks, and prevents greenhouse gas emissions. The prize funds are now supporting further development and deployment of this technology in water-scarce regions.



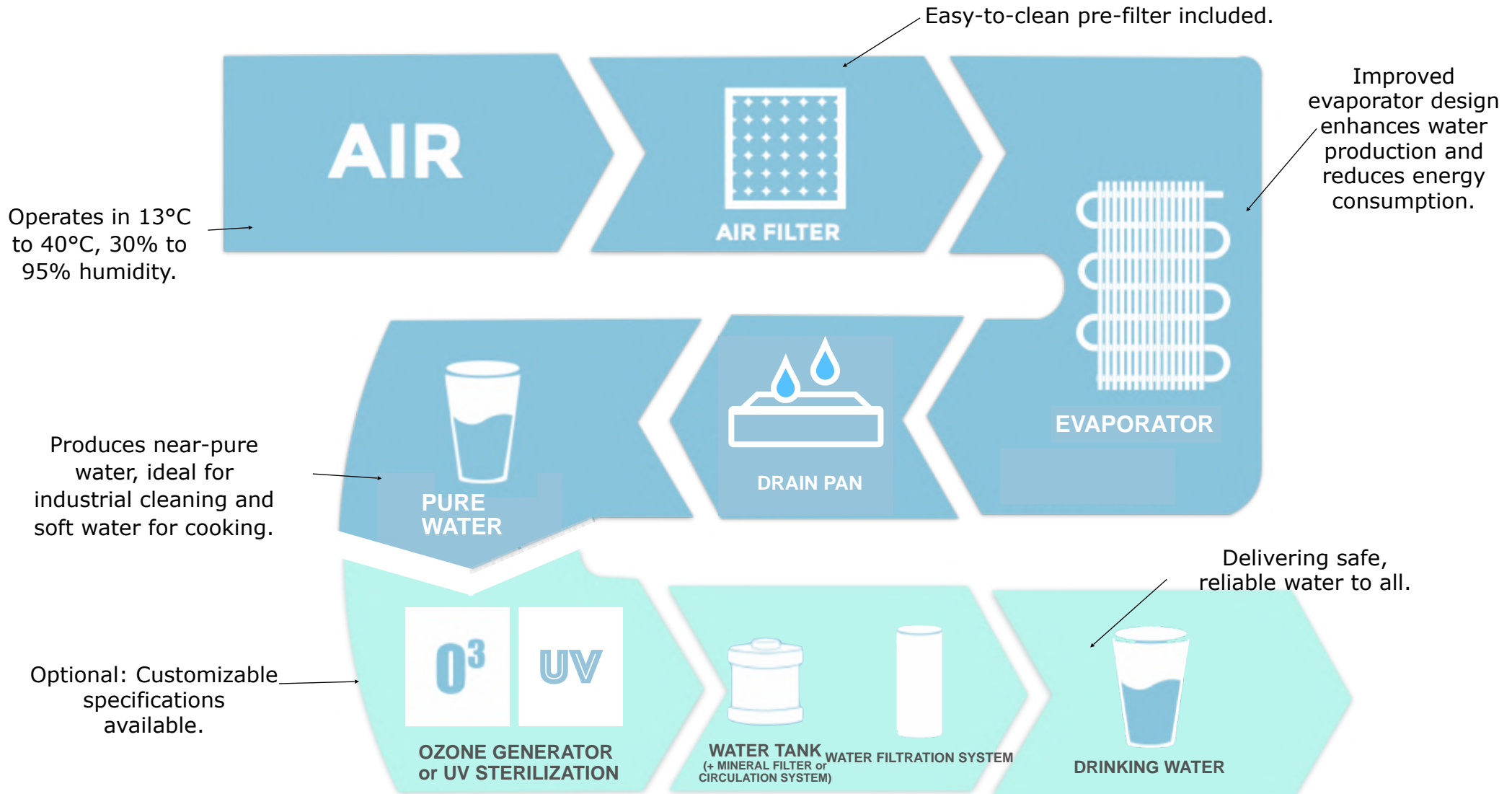


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Skywater OASIS A1
Atmospheric Water Generation System

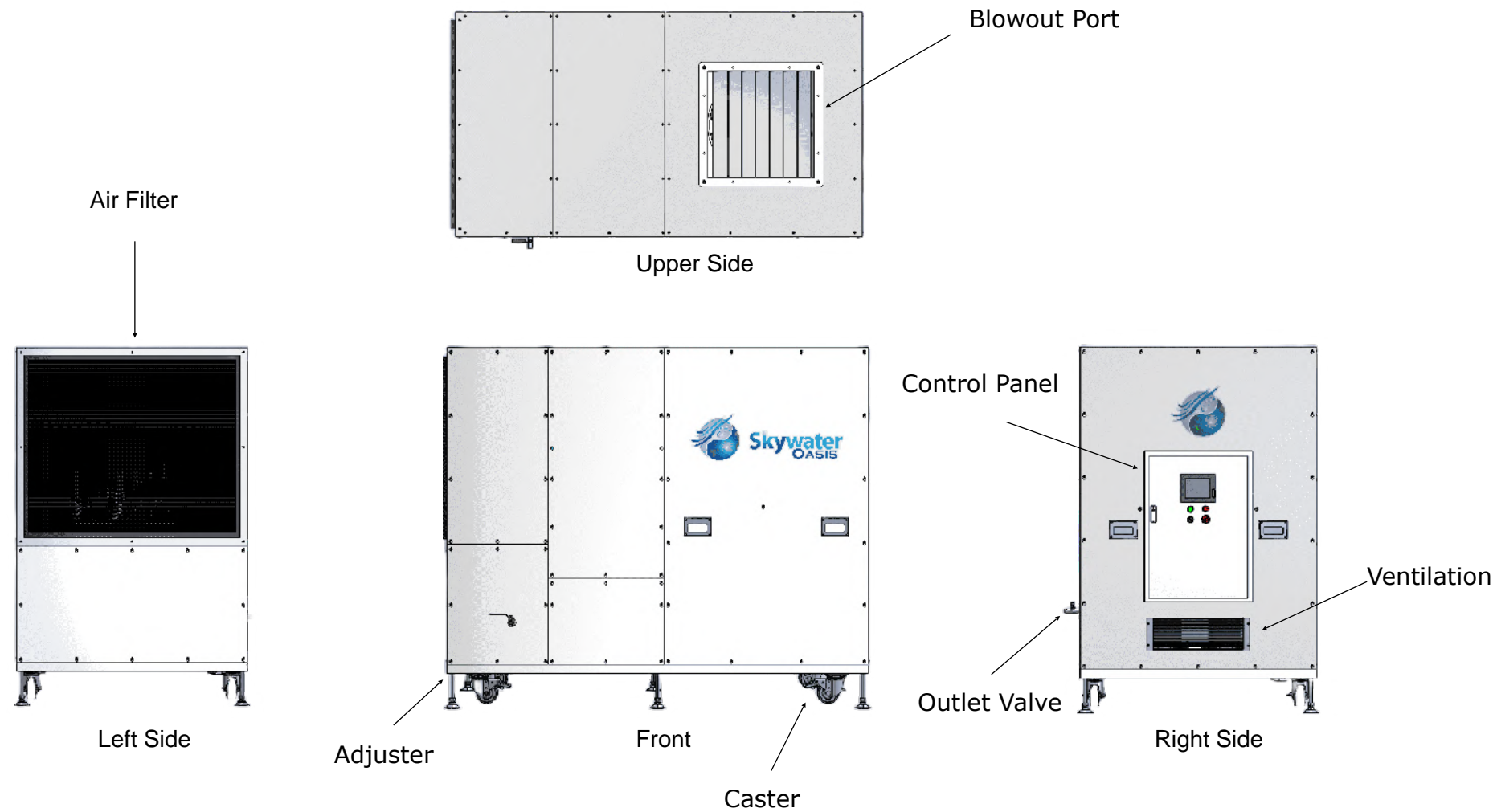
Atmospheric Water Generation Process



* Sterilization water filtration system for drinking water will be available as dedicated cartridges

Skywater
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Skywater OASIS Body Parts



Skywater Specification

Item		Skywater OASIS A1	
Operating Temperature Range		°C[DB]	13 ~ 40
Operating Humidity Range		%RH	30 or More
Water Production Capacity *1		L/h	25~35
Electrical Characteristics *2	Power Consumption	kW	6.7~8.0
	Operating Current	A	22~26
	Power Factor	%	89
Starting Current		A	50~60
Power Supply		-	Three-phase 200V 50Hz / 60Hz
Compressor	Type		Total enclosed scroll type ×2 units
	Motor Nominal Power	kW	2.98 × 2 units
Ventilator	Type		Plug Fans/Propeller Fans
	Power Consumption	kW	0.63 / 0.33
	Standard Air Volume	m³/min	80
Refrigerant Oil		L	Built-in compressor (no initial filling required)
Refrigerant	Inclusion Amount	kg	R407C×8
	Refrigerant Control		Electronic Expansion Valve
Defrosting Method			Off-cycle System
Air Filter			Saranhoneycomb <Water Washing Type>
Operating Noise *3		dB(A)	60.0 (55.0)
Safeguard			Thermal Overcurrent Relay (compressor, blower) High Pressure Switchgear, Low Pressure Switchgear
Paint Color <Munsell Symbol>			Uncoated, Panel: Stainless steel
External Dimensions <H x W x D> *4		mm	1,684 × 2,000 × 1,100
Weight		kg	700

*1. Water production capacity is based on 25°C [DB] and 80% relative humidity.

*2. Electrical characteristics are based on 25°C [DB]. Values for *1 and *2 may vary with local conditions.

*3. Noise level is measured at 25°C [DB], 80% humidity, and 0 Pa. Values in () are for fan operation only.

*4. Height includes casters; without casters: 1,504 mm.

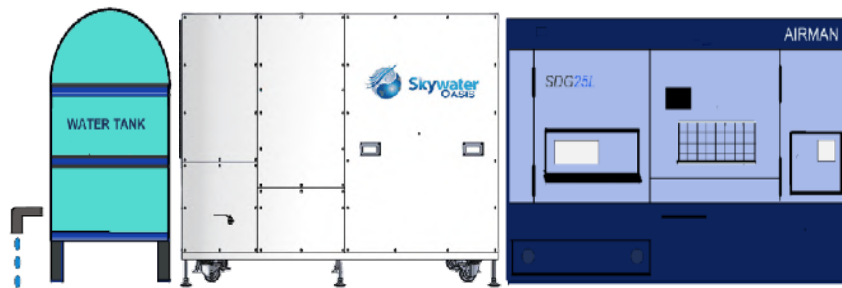
Values are for 60Hz operation. Specifications may change without notice.



Skywater OASIS A1

Combining Skywater OASIS with AIRMAN: Water and Power Anywhere

The integration of Skywater OASIS and AIRMAN enables the generation of both water and electricity in locations lacking infrastructure. Designed for resilience, both products support the needs of many people in harsh environments. Consider this innovative solution for your essential utility requirements.

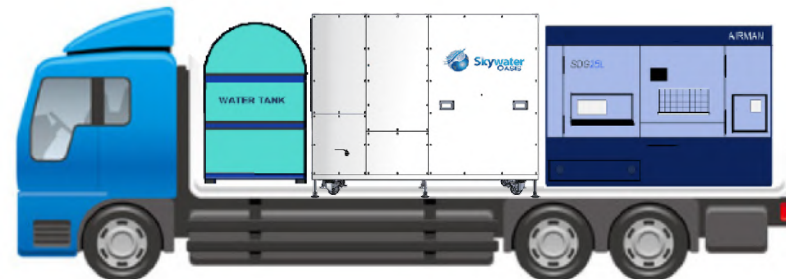


Stationary Type

AIRMAN®



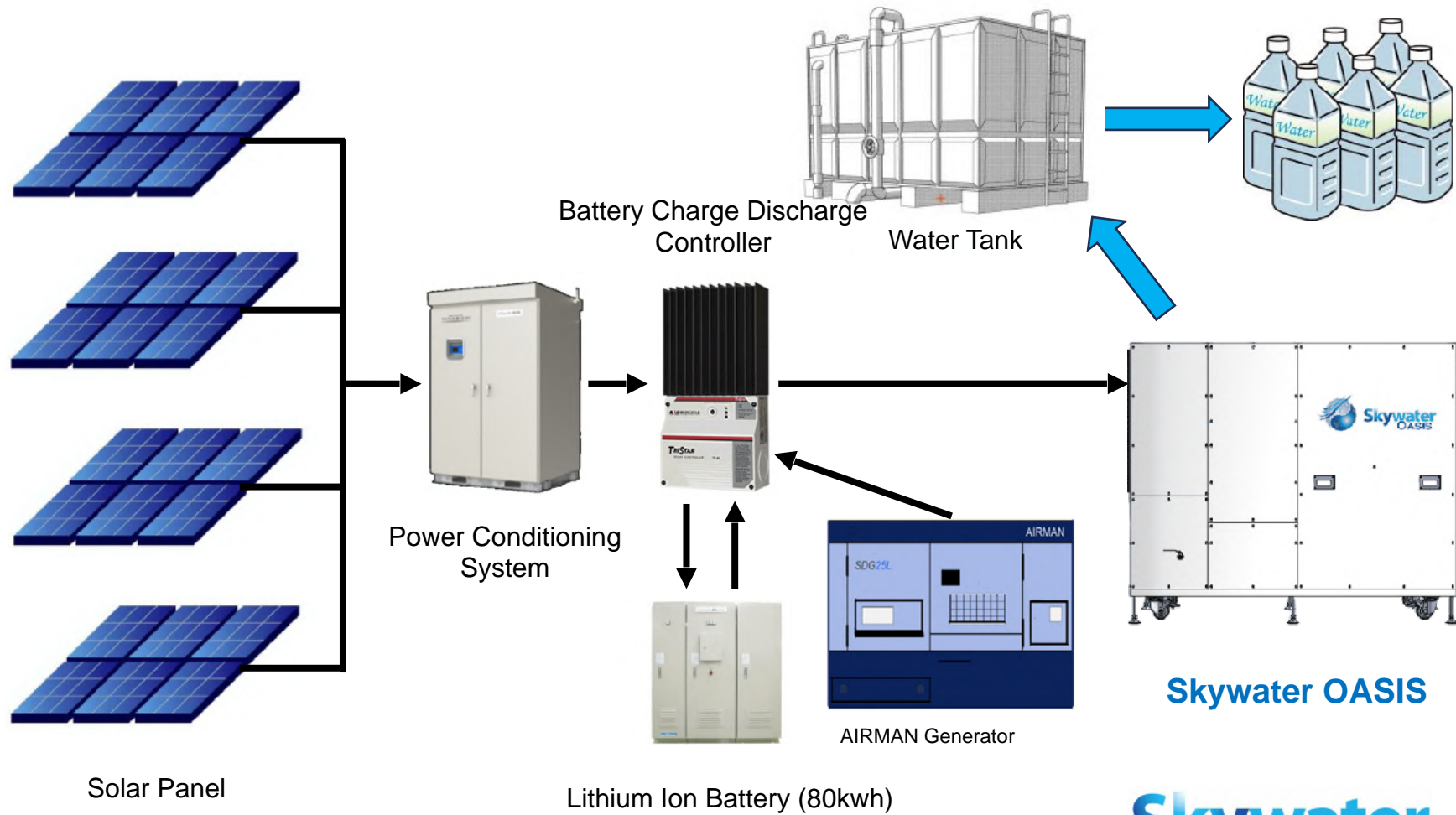
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Mobile Type

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Combination With Solar Power Generation



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Skywater OASIS



Sole Distributor



Skywater Japan, LLC.

Japan Obase T.S.C Building, 13-5 Obase-cho,
Tennoji-ku, Osaka, 543-0028, Japan
<https://www.skywater-japan.com/en/>

Manufacturer



J and W Trading Co., Ltd.

6th floor, Kobe MK Building, 6-1-9 Isogami-Dori
Chuo-ku, Kobe, Hyogo 651-0086, Japan
<https://jandwtrading.co.jp/en/>