

Harnessing Water Naturally

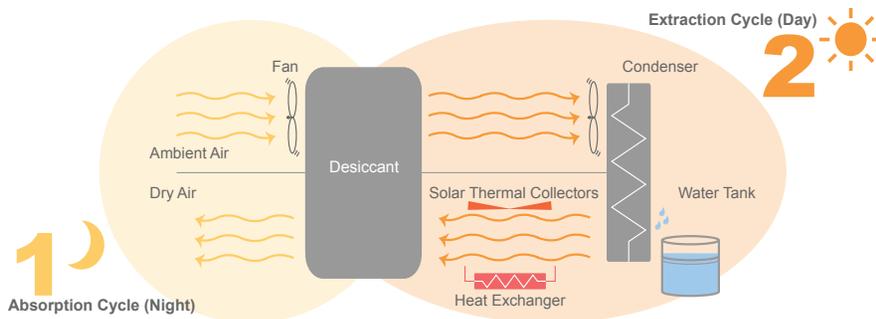
At SunToWater, our mission is to create an environmentally friendly new source of drinking water. Our innovation enables us to harness the water from air in the most energy efficient and cost effective manner possible.

The Hydrair Field

Our unique two stage SunToWater Desiccant System is an environmentally-friendly source of water packaged in a compact module. Modules can be used alone to produce up to 40 gallons of water per day, or daisy-chained together to generate 20,000 gallons of water per day for municipalities or commercial applications. Each Module extracts water from the air using solar energy.



The SunToWater Desiccant System



Our unique system operates in two modes to leverage the Earth's daily dew cycle. At night, when the relative humidity in the air is high, the Absorption Cycle takes place

and water is absorbed into desiccant trays. During the day, the system switches into the Extraction Cycle to condense drinkable water out of the trays.

Most energy efficient

SunToWater consumes the lowest kWh of power per gallon of water output in the industry.

Off-the-grid operations

Each Module can operate completely "off-the-grid" using solar thermal collectors and photovoltaic panels.

Environmentally friendly

The SunToWater system uses a non-toxic desiccant to extract water from air. Its only byproduct is extremely dehumidified air — combating global warming.

Broad range of operations

Our Modules work in the most arid regions of the world.

Scalable

Modules can be daisy-chained together to scale-up water volume output as needed to meet demand.

SunToWater

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Physical Specifications

Module size (length x width x height)	4.5' x 5.0' x 4.25' (1.4 m x 1.5 m x 1.3 m)
Module unit shipping weight (dry)	1018* lbs (462* kg)
Module unit operational weight (wet)	1561* lbs (708* kg)
Deployment flexibility	Outdoor

Durable to withstand typical outdoor environmental conditions like rain, wind, snow

Atmospheric Water Generation

Desiccant	ACS grade (non-toxic) salt
Temperature range	35F - 130F (1C - 55C)
Relative humidity range	14% - 99%
Power sources	Solar thermal collector, Solar PV panels
Voltage / Frequency	110V / 60Hz
Water output	30-40* gallons/day (114-151* litres/day)
Water output per solar area	1972-2630* gallons/acre (935-1501* litres/sq.km)

Modular design can run off grid via solar power or via variety of power sources (ie. plug-in to a 110/220 V outlet, wind energy, heat reclaimers)
Design can easily be modified for regions supporting 220V / 50Hz
Output varies based on local climatic conditions

Energy Consumption

Total electrical energy required	18* kWh/day
Required thermal energy from solar collectors	108* kWh/day
Total energy to generate water	126* kWh/day
Electrical energy efficiency	0.510* kWh/gallon (1.91* gallons/kWh)

Consumption from solar cells for electronics components
100% solar powered; 0 grid energy consumption required
Electrical energy required per gallon of water

Solar subsystem

Number of 100W solar PV panels	41
Number of solar collector panels	15
Solar collection footprint	35* sq.y (30* sq.m)
Solar PV panels footprint	38* sq.y (32* sq.m)

Using Sunrain FPC1200A solar collectors
Assuming 13% efficient PVs

Control system

I/O software control

Embedded controller optimizes the system

Certification

FDA, EPA, WHO, NSF, UL, CE, CSA, Apha, AWWA, US Military, NATO

All NSF certified wetted material and filters are used

Commercial device to meet or exceed relevant electronics and water certifications required per region

* Estimates