

What is SOURCE?

SOURCE is a solar-powered and infrastructure-free drinking water solution. As a non-extractive water resource, SOURCE Hydropanels represent a first in transparency, resiliency, security and quality. Whether at homes, schools, hospitals, or other institutions, SOURCE advances drinking water ownership, bypassing the need for other drinking water alternatives.

SOURCE is powered by an integral combination of solar photovoltaics and high-efficiency solar thermal. The electrical and thermal power is used to efficiently produce high-purity water in a modified psychrometric cycle even in some of the driest deserts in the world.



- Ambient air is drawn into SOURCE and water vapor in the air adsorbs onto advanced hygroscopic materials
- Solar thermal power desorbs water from the hygroscopic materials into amplified water vapor cycling within the Hydropanel resulting in liquid water formation, flowing into the reservoir
- The collected pure water is mineralized for optimal health and taste, and the reservoir is actively managed for cleanliness
- Water pumps from the onboard reservoir through a polishing cartridge and to a dispenser
- Each Hydropanel connects to a cloud-based network and is monitored for performance and quality

Hydropanel Front View

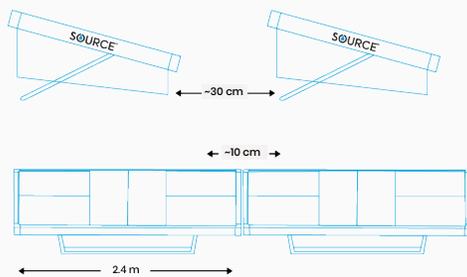


Hydropanel Side View

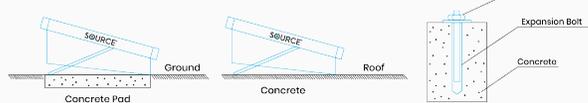


Installation

BASIC ARRAY DIMENSIONS



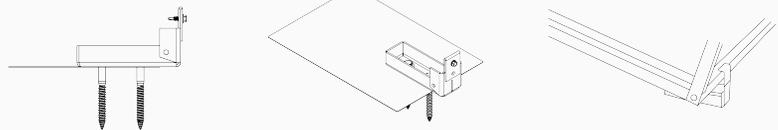
Ground Concrete Roof



Weight: 340 lbs.

PANEL MOUNTING

Mounting brackets are provided to be used for all installations including ground and roof applications. Additional mounting options are available for tile roofs.



WIND LOAD CONSIDERATIONS

When considering wind loads alone (w/o snow or seismic load combinations), the following correlates to max tilt angles. Note that to optimize performance, the SOURCE frame pivots to match local latitude.

- No limitations from 0-150km/hr
- 35° @ 180km/hr
- 25° @ 210km/hr
- 20° @ 240km/hr

World-Class Reliability

- All components of the Hydropanel are tested to IEC 61215 equivalency beyond Hydropanel lifetime:
 - Solar-Thermal Assembly
 - Lower Housing Assembly
 - Internal Components
 - Reservoir Base Assembly
- The body and frame of the Hydropanel are powder-coated steel.
- The Hydropanel passes EPA air quality testing to EPA methods 8260, 8270C_SIM, 8015D

Network Operations Center

- Each SOURCE Hydropanel connects to the Zero Mass Water Network Operations Center (NOC)
- Data returns from each Hydropanel to the NOC and stores in the cloud with redundancy
- Hydropanel performance remotely optimizes using machine learning
- The NOC resolves any alerts remotely or deploys the field service team as needed
- Cellular Module is FCC, ANATEL, and IC certified
- Hydropanels optimizes to hibernate in freezing temperatures to protect pump and returns to full operation when safe to do so

Required Maintenance

Annual

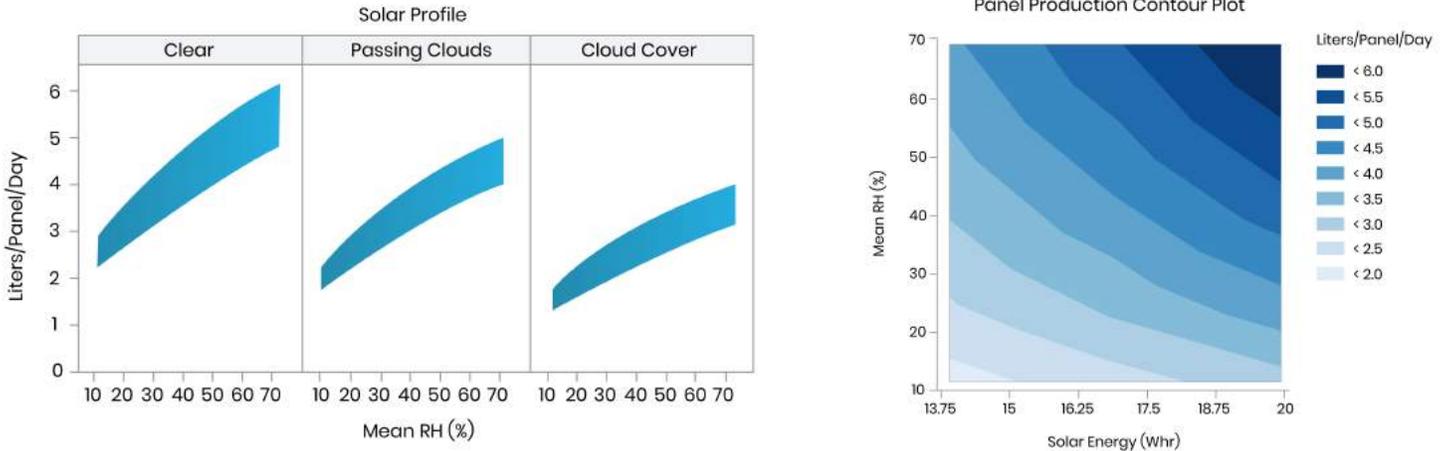
- Air Filter
- Water Filter (3650 liters)

5 Years

- Mineral Cartridge (9125 liters)
- Standard Warranty – 1 year
- Extended Warranty – 5 years
- Hydropanel Lifetime – 15 years

Water Production

Production of water by SOURCE Hydropanels is dependent on local measures of relative humidity (RH) and solar energy (kWh). SOURCE Hydropanels produce an average of 2-5 liters of water daily.



The Highest Commitment to Water Quality

By design and as tested, SOURCE water quality is not impacted by air quality.

	Parameter	US EPA Limit	SOURCE Standard of Excellence	SOURCE Test Result
Microbial Parameters	Escherichia coli - MPN/100mL	0	0	Not Detected
	Coliform, Total - MPN/100mL	0	0	Not Detected
	2 Others	-	-	Not Detected
Inorganic/Chemical Parameters	Alkalinity	Not Established	10-250	10-94
	Bicarbonate Alkalinity	Not Established	10-250	10-94
	Calcium	Not Established	0-30	2.4-23
	Total Dissolved Solids	500**	20-250	20-240
	Hardness as Calcium carbonate	Not Established	< 200	6.0-100
	Magnesium	Not Established	0-30	Not Detected-11*
	Silica	Not Established	Not Established	Not Detected-2.0*
	Turbidity - NTU	1.0**	0-2.5	0.29-1.7
	Nitrate as N	10	10 (Nitrate-N)	0.16-7.2
	Silver	0.1**	0.01	Not Detected-0.086*
	Barium	2	0.7	0.0027 - 0.017
	Nickel	Not Established	0.02	Not Detected-0.0060*
	pH - SU	6.5-8.5	6.5-9.0	>7
	Sodium	None	150	Not Detected-5.2*
	Copper	1.0**	1.0	Not Detected-0.0027*
	Uranium	0.03	0.017	Not Detected-0.0016*
	Aluminum	0.05-0.2**	0.2	Not Detected-0.11*
	Zinc	5.0**	3	Not Detected-0.017*
Nitrite as N	1	1 (Nitrite-N)	Not Detected-0.63*	
31 Others	-	-	Not Detected	
Volatile/Semi-Volatile Parameters	Benzene	0.005	0.001	Not Detected
	Toluene	1	0.7	Not Detected
	138 Others	-	-	Not Detected
Radiochemical Parameters	Gross Alpha	15	13.5	Not Detected
	Radium 226 - pCi/L	5	5	Not Detected
	Radium 228 - pCi/L	5	2.7	Not Detected
	Gross Beta	4	4	Not Detected
Miscellaneous Parameters	Asbestos - MFL	7	7	Not Detected
	1613B - Dioxin	3x10 ⁻⁸	3x10 ⁻⁸	Not Detected
	8 Others	-	-	Not Detected

* Range represents min and max test result of ZMW's routine water monitoring and testing

** Secondary standard - non-mandatory water quality standards set by the US EPA