



Why Watercone®?

For ecological, economical, geographical and / or political reasons, 40% of the world's population (2.8 Billion humans) has no access to clean potable water!

In a most simple manner, the Watercone® – technically a solar still – enables anyone, to generate potable water from sea water or brackish water, on the basis of solar-irradiated evaporation/condensation.

This invention represents a conical, self-supporting and stackable unit made from transparent, thermoformed and FDA-approved polycarbonate (same as 5 gallon water cooler bottles) outfitted with a screw cap spout at the tip and an inward shaped circular collection trough at the base. Along with it comes a black plastic base pan, which holds the sea water or brackish water. Technically speaking it is a solar still.

5 Reasons for global distribution of the Watercone®

- Ultimately, much cheaper than bottled water (generated from free sea water)
- Absolutely lightweight, low concept and low tech (any child starting age 7 can handle and use it)
- Perfect for coastal dwellers (hundreds of millions are in a daily battle to source minimum quantities of potable water)
- Teaches independence (enables mobility and fosters self-responsibility for own water generation)
- Creates jobs (water merchants can farm them; affordability through micro-credits)

Function

	<p>1. Users place the base pan under direct sunlight, fill the base pan with saltwater, float the cone on top of it and wait for the sun to evaporate the saltwater.</p>
	<p>2. The water condenses onto the inner wall of the cone and drops trickle down into a collection trough at the base of the cone.</p>
	<p>3. Once evaporation has ended, the cap is unscrewed and the cone is flipped upside down so that the desalinated water can then be poured out into a clean vessel.</p>
	<p>4. Harvest: under ideal conditions up to 1.7 Liters (or nearly 2 Quarts) of potable water in 24 hours.</p>

For questions regarding Watercones – for USA, Canada, Mexico and Caribbean Islands without French Territories – please contact:

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Evaporation based solar desalination systems For conversion of all salt waters into drinking water

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Why SAL-MEH?

Only large cities or metropolitan clusters facing water shortages get the benefit of being supplied by large, powerful and reliable desalination plants – with capacities from 5’000 up to 120’000 m³ per day. Management of this water and its distribution to consumers obviously needs an equally reliable and powerful management & distribution network.

These types of outputs are not feasible for dispersed settlements on the countryside. For the supply of decentralised, remote locations – even with low infrastructure or without permanent grid connection – MAGE WATER MANAGEMENT has developed reliable, autonomous and self-sufficient MEH desalination systems.

The water produced through the MEH (Multi-Effect-Humidification) process is fresh water in its purest form: condensate with virtually no dissolved solids (minerals, metals, etc.), free of any bacteria or any other organic contamination.



Advantages in using MEH-Technology

- Low temperature heat of approximately 85°C (185 °F) is used for evaporation
- The absence of moving parts within the distillation chamber, ensures low maintenance requirements
- The self-adjusting natural convection loop enables best energy recovery ratios (up to 8 fold)
- Sophisticated geometrical design allows easy maintenance and optimum performance at the same time
- No pre-treatment of raw water is needed. The process is insensitive to high salt contents.
- Modular set-up
- Low maintenance requirements and maintenance costs for all parts

Yield capacities of fresh condensed water per day

MiniSAL™ 1’000	1’000 Liters (approx. 265 Gallons)
MidiSAL™ 5’000	5’000 Liters (approx. 1,320 Gallons)
MegaSAL™ 10’000	10’000 Liters (approx. 2,650 Gallons)

Field of application

- Non-Government Organizations (NGOs)
- Tourism related applications
- Public authority water supply
- Private usage
- Corporate charity
- Defense

Comparison MEH with Reverse Osmosis (R.O.):

Type of Technology	MEH	R.O.
Technology complexity	low	high
Engineering layout level	high	extensive
Electrical energy requirements	low	high
Transformation of high-saline raw water into drinking water	in just one run	multiple stages needed
Quality of the generated water	clear fresh water	< 1000 ppm water; chemical residuals possible
Maintenance requirements	very low	very high
Pre-treatment	none	bulky
Spare part costs	very low	high
Personnel required	unskilled labor	expert needed

For questions regarding SAL-MEH-Systems please contact:

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