SolarRO **PRO 1000**

Clean quality drinking water from sea water, lakes, rivers and boreholes using free solar energy.

Designed for demanding island and desert conditions. The power source can be switched to an electrical grid or a generator.

Production capacity from the sea 700 litres/hour, from lakes, rivers and boreholes 1000 litres/hour.

The power source can be easily switched to an electrical grid or a diesel generator during non-solar hours.

Operating costs reduced up to 90%.

Cost-efficient and sustainable water production in remote locations

The SolarRO Pro 1000 operates 100% with solar energy without any fossil fuels or expensive batteries. The payback period is 2-4 years only by saving the fuel costs.

Self-sufficient water production for drinking and showering. Ideal for houses, small businesses and villages in remote locations. The unit is mobile and easy to relocate. Suitable as a backup-emergency water supply solution for municipalities. The power source can be easily switched to an electrical grid or a diesel generator as a back-up system during non-solar hours.

Easy to operate with low maintenance

The SolarRO Pro 1000 is easy to install with solar panels, generator or electrical grid. Depending on user case, the pre-treatment filters should be changed 2-4 times per year. We recommend changing the membranes every two years. The pump is self-priming and runs up to 6,000 hours without any maintenance. It can run dry without damage. All components are very easy to replace.

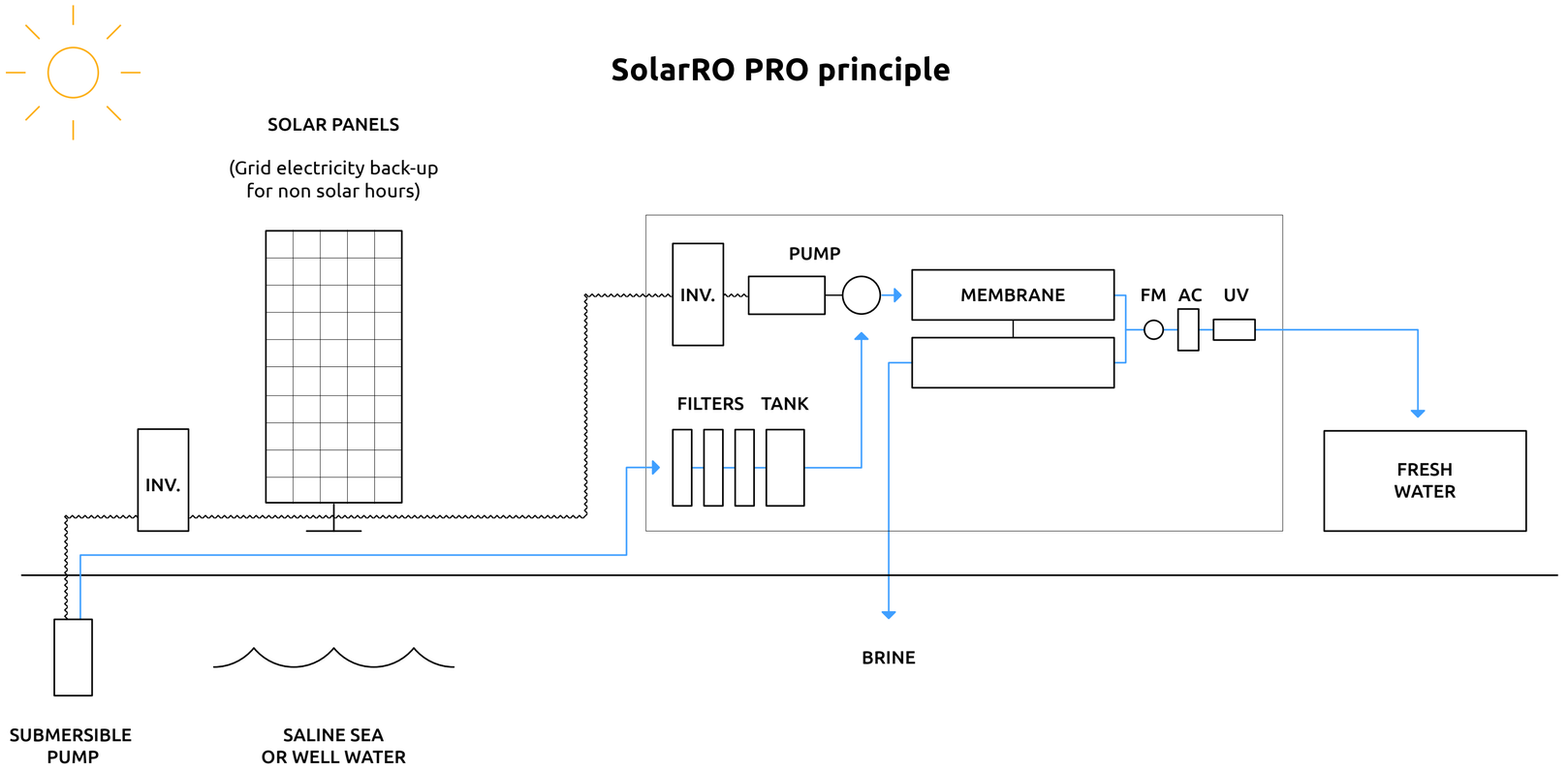
Safe and durable solution

In our products, we only use the best-quality components combined with the most modern technological solutions.

In our systems, we use reverse osmosis (RO) technology. All impurities, bacteria, viruses and other contaminants are removed leaving only high quality water as the end product. UV-disinfection is used at the end of the purification process. Product research and testing have been done in close collaboration with Aalto University in Finland.

- Operates 100% with solar energy
- Can be switched to grid or generator as back-up
- Competitive investment cost – no batteries or energy storage needed.
- Operational costs reduced up to 90%
- Easy to install, plug & play system
- The system can run dry
- Fully automatic system
- Compact and mobile
- Self-priming pump (up to 3m)
- Low maintenance
- Low energy consumption
- Weather proof
- Designed, built and tested in Finland

SolarRO PRO principle



SolarRO **PRO 1000**

Technical Specifications

Feed water type	**Brackish water**	**Pacific Ocean**	**Atlantic**	**Mediterranenan**	**Arabian Gulf**
Tested average permeate flow	1000 L/h	750L/h	700L/h	650L/h	560L/h
Feed water TDS mg/L	<10.000	<33.000	<36.000	<39.000	<45.000

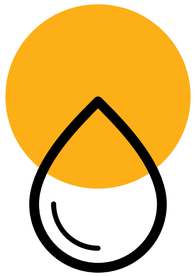
Salt Rejection	99,40 %
Motor	3 kW; 400VAC, 50Hz
Pump	RO high pressure pump feed max. 30 LPM
System pressure	17bar - 51bar
Pressure Vessels	4040 / 600psi or 1000psi
Membranes	4 x 4040 BW or 4040 SW
RO tubing	SS 316L
Prefilters	3 x 20” (100µm, 25µm, 5µm)
Permeate post treatment:	
Ultra violet lamp	400 J/m2
Ultraviolet lamp rated life	10 000 h
Product water:	
Water (permeate) quality	pH 6.5 -8.5; TDS < 270 mg/L; 100% disinfected

Power Supply:	
Solar PV panels needed	≈ 18 x á 250Wp
Solar Inverter	3kW
Alternative/ Back-up power supply:	
3-phase AC supply	380 - 480VAC
Dimensions and weight:	
RO Unit Stand	Length 158cm x Width 50cm x Height 84cm
Warranty	1 Year (filters & membranes not under warranty)

SolarRO **PRO 1000**

Optional equipment & accessories

- Submersible pump
- Feed water supply pump
- Feed water hose 20m or 50m
- Water storage tanks for permeate
- PV panel package + inverter according to customer requirements
  Filtration maintenance package (3 pcs PPT filters + 1 pc membrane)



Manufacturer: **Solar Water Solutions Oy**

Contact details and distributors. See more at: **www.solarwatersolutions.fi**