

Technical Data Sheet MiniSal™ 1.000 System

Autonomously operating Multi-Effect-Humidification unit. Capacity (nominal) 1000 Litres per day.

Includes a patented, clever designed arrangement of corrosion free condensation and evaporation subunits enhancing best energy recovery ratios.

All components in contact with salt water are made from corrosion free materials. Condenser / Evaporator are made of taste-free, beverage-conform PolyPropylen material. Casing of the humidification chamber and collection basins are made of highly graded stainless steel.

<u>Casing of Desalination unit</u> Dimensions:	Dismantled isolation box, set up on site requested Base area: central unit 1.08 m x 2.37 m, attached controller box 0.5 m x 0.9 m, Height 2.70 m
<u>Weight</u> Transportation Operation	480 kg 650 kg
<u>Connection Raw Water supply</u> Flange 4 holes, 1" d 32 DIN 2501	Required capacity supplied to the system, pressure 0.2 bar: a) min. 0.5 m ³ /h, if system operates without add. cooling tower b) 0.1 m ³ /h using additional external cooling tower*
<u>Specification of Raw Water quality</u>	Any not turbid raw water of nearly any source as: Sea water, brackish water, water from polluted wells
TDS Conductivity Turbidity	Max. 100 000 ppm Max. 120 000 µS/cm No suspended substances (mechanical filtration at 50 Micron)
<u>Connection for Heating Power</u> Flange 4 holes 1" d32 DIN 2501	Nominal power: 4.5 kW _{thermal} Temperature: Supply line 85 °C (185 °F) / Return 75 °C (167 °F)
a) Heating Supply by Solar Collectors	e.g. 35...45 m ² highly efficient Solar Thermal Collectors (solar water heaters),
b) Heating Supply by waste heat	Using waste heat from primary cooling circuit of Diesel or Gas Motor - Corresponding minimum el. nominal power 10 kW _{electrical}
c) Heating supply by gas burner	5.5 kW _{thermal} bulk load
<u>Connection for electrical energy supply</u>	Electrical grid connection 230 V AC, 50/60 Hz, 10A, nominal power 200 Watt
Alternative Photovoltaic set	1.2 kW _{peak} Photovoltaic system including 24 hours storage, inverters, controllers*
<u>Specification of product water</u> Salinity (TDS) Conductivity Temperature Max. Bacteria (Colony count 36°C)	Re-mineralization of produced distillate using add. drinking water supply unit* < 50 ppm < 20 µS/cm max. 40°C < 30/ml directly after production (permanent 5/ml with add. UV-disinfection system*)
<u>Specification of disposed brine</u> Temperature TDS	Free flux without tailback needed, 2.3 m ³ /h without or 0.3 m ³ /h with cooling tower* Max. 45°C Max. concentration 150 000 ppm TDS

*Additional accessories kit available

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