

MEH System

Technical Data Sheet DWC MEH 10,000 System

Autonomously operating Multi-Effect-Humidification unit. Capacity (nominal) 10,000 Liters per day. Includes the 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.

Casing of Desalination unit

Dimensions: 40" CSC Container
Base area: central unit 2.44 m x 12.1 m,
Overall Height: Transportation 2.59 m, Set Up 3.09 m

Weight

Transportation app. 9,800 kg
Operation app 11,400 kg

Connection Raw Water supply

Flange 4 holes, 1.5" d 40 DIN 2501

Required capacity supplied to the system, pressure 0.2 bar:
a) min. 5.0 m3/h, if system operates without add. cooling tower
b) 1.0 m3/h using additional external cooling tower*

Specification of Raw Water quality

Any not turbid raw water of nearly any source as:
Sea water, brackish water, water from polluted wells

TDS Max. 100 000 ppm
Conductivity Max. 120 000 µS/cm
Turbidity No suspended substances (mechanical filtration at 50 Micron)

Connection for Heating Power

Flange 4 holes 1.5" d40 DIN 2501

Nominal power: 40 kW thermal
Temperature: Supply line 85 °C (185 °F) / Return 75 °C (167 °F)

- a) Heating Supply by Solar Collectors
- b) Heating Supply by waste heat
- c) Heating supply by gas burner

e.g. 320...380 m² highly efficient Solar Thermal Collectors (solar water heaters),
Using waste heat from primary cooling circuit of Diesel or Gas Motor
-Corresponding minimum el. nominal power 60 kW electrical
50 kW thermal nominal power

Connection for electrical energy supply

Alternative Photovoltaic set

Electrical grid connection 220-240 V AC, 50/60 Hz, 10A, nominal power 850 Watt
5.5 kW peak Photovoltaic system including 24 hours storage, inverters, controllers*

Specification of product water

Salinity (TDS) < 50 ppm
Conductivity < 20 µS/cm
Temperature max. 40°C
Max. Bacteria (Colony count 36°C) < 30/ml directly after production (permanent 5/ml with add. UV-disinfection system*)

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*)

Specification of disposed brine

Temperature Max. 45°C
TDS Max. concentration 150 000 ppm TDS

*additional accessories kit, available with the system

