



C/ Anabel Segura, 11, Edificio A, 1ª planta, Alba 3 28108 Alcobendas (MADRID) Tel: +34 917 342 058 Fax: +34 917 903 734 lomisa@lomisa.com

BUREAU VERITAS

SOLAR DESALINATION PLANT 5 m3/day SEMI-FIXED (DSSF5)

Semi-Fixed water treatment plant DSSF5, of sea water by reverse osmosis and fed mainly by photovoltaic energy.

It consists of a hydraulic block to treat water and an energy block for providing electrical power to the plant, with an assembly time of less than 15 days.

The hydraulic block is a water treatment plant; it transforms seawater providing drinking water treated with chlorine for human use, mounted on 20-foot container.

The energy block uses solar energy (solar panels) or conventional energy (generator or electric grid connection) to power the hydraulic block.

PLANT CHARACTERISTICS

SOURCE OF THE WATER TO BE TREATED: Sea water in tank, minimum 20 m³ / day

PRESSURE OF THE WATER TO BE TREATED: 2,5 bar (1,62 m³ / hour)

TDS. POWER: 42.000 mg/l

TDS. PERMEATED: <350 ppm

TREATED FLOW: 5 m 3 / day

DUTY CYCLE: 10 hours a day.

ENERGY CONSUMPTION: 33 kWh / day

SOLAR PLANT SURFACE: 24 m X 3 m

The energy block allows operation during 10 hours a day, time needed to treat water, keeping sewage service even at night, thanks to the electric batteries that are recharged daily.

On days when solar energy is insufficient, the water treatment plant stops, being the water supply determined by the capacity of the regulating reservoir. This reservoir can absorb water consumption peaks, specific solar lacks and keep residual chlorine required for human consumption. The ideal capacity of the reservoir according to the drinking water production of the plant is 20 m3.





OFICINA CENTRAL C/ Anabel Segura, 11, Edificio A, 1ª planta, Alba 3 28108 Alcobendas (MADRID) Tel: +34 917 342 058 Fax: +34 917 903 734 lomisa@lomisa.com





3. PHOTOVOLTAIC TREATMENT PLANT, COMPONENTS AND SYSTEMS

