

Nordtec New Fresh Water Generators

The Nordtec Fresh Water Generator utilizes the heat from diesel engine jacket cooling water to produce pure drinkable water by evaporation seawater under high vacuum, enabling the feed water to evaporate at temperatures below 40-50°C. Steam can also be used as heat source instead of hot jacket water. The Freshwater Generator is based on two Titanium Plate Heat Exchangers, one for evaporating the seawater, the other for condensing the freshwater vapour.

- Sea water to fresh water
- From 20 to 250 t/day one/two and tree step stage
- Low running cost- special plate design - free flow/tube channels
- Minimum of scaling on the plates.

The evaporator chamber is kept under vacuum by a water ejector driven by the seawater from the condenser. Part of the heated seawater is used as feed water for the evaporator. On entering the evaporating chamber this water evaporates due to the vacuum. A deflector and built-in de-mister removes any salt remainings in the water droplets. These salt remainings fall back into the brine, which is extracted from the sump by an ejector pump. The desalted water vapour is condensed in the plate condenser using cold seawater. A salinity controller monitors the salt contents of the water.

If the salinity exceeds a specified level (1-5 ppm), the water is automatically returned to the feed line. The unit is delivered skid mounted and is complete with ejectors, sea water and fresh-water pumps, salinometer, watermeter, control panel, valves and internal pipe-work.

We are able to supply all spares for Heat Exchangers.

