

Presentation of Doraleh's Desalination Plant



Presentation of the desalination plant

- Type of plant :
 - Reverse Osmosis
- Production capacity :
 - 22 500 m³/day (phase 1)

Intake of sea water and discharge of brine

- Intake

- DN 1400 mm
- 50 000 m³/day

- Reject

- DN 800 mm
- 27 500 m³/day



Intake of sea water and discharge of brine



Pre-filtration Sand filters



- 2 stages of filtration

- 1st : 6 sand filters
- 2nd : 4 sand filters

Pre-filtration Cartridges filters



- 3 cartridges filters
 - 450 cartridges per filter

Filtration Reverse Osmosis



- 2 Racks of RO
 - 11 250 m³/day/rack

Filtration Reverse Osmosis



- 1 Rack
 - 138 Pressure vessels
 - 7 membranes per vessel



Post Filtration



- CO₂
- Calcium filters
- Dosage of chloro

Post Filtration



- CO₂
- Calcium filters
- Dosage of chloro

Transfer of water to Farah Had



- 22 500 m³/day
- DN 700 mm GRP pipeline - 10 km

Main electrical building ground floor



- Incoming 20 kV, medium voltage
- VFD



Main electrical building first floor



- Low voltage

Intake electrical building



- Breakers of 3 intake pumps
- VFD



Expedition electrical building



- Breakers of 3 Potable water pump

Laboratory



- Quality of intake water
- Quality of water after sand filters
- Quality of water from racks
- Quality of water after calcium filters
- Quality of the potable water
- Quality of Brine water

Control room



- Control of Plant is completely carried in the control room

