

Marafiq Waste Water Treatment Plant, Jubail - KSA

MARAFIQ

It is the utility lifeline to the industrial cities of Jubail and Yanbu. These two cities are a beacon of light on Kingdom's journey of national economic development and privatisation. Marafiq's focus on industrial wastewater & its waste in Jubail -1, is the main theme to care the mother earth's flora & fauna being one of the industrialised zone in middle-east.

**PLANT
CAPACITY**
4 x 8 m³/hour

Sludge Dewatering Project

The purpose of Marafiq's industrial treatment systems is to treat industrial waste sludge into thin flakes of drip free wet cakes (of above 23 % dry solid content from 3- 5 % inlet sludge).

Origin of sludge is from different industrial wastewater, upon physiochemical & biological treatment. Generated sludge is aerated again & subject to store in open lagoon & proceeded with dewatering by the Containerized Mobile Sludge Dewatering Units.

MENA-Water Scope

MENA-Water inked an agreement with enduser to provide the complete package interns of engineering, procurement, construction of 4 number mobile dewatering units on containerized trailers within 24 weeks, delivery to KSA site through road, testing & commissioning, startup & performance, including guarantee run for 1 week at Jubail IWTP. Plant capacity of each container is 8 m³/h.

The vital unit equipment provided are GRP pontoon with IP 68 type heavy duty sludge transfer pump, 40 ft HC container, trailer, SS316L sludge holding & conditioning tank, belt filter press, automated polymer solution preparation unit, progressive screw pumps, shaftless screw conveyor, slow speed agitator, electric water heater, sound & weather proof DG set with integrated fuel tank, ATS panel & IP55 electric control panel. Reliability & efficiency are the results of the containerized mobile sludge dewatering units.



Equipment	Application
GRP pontoon	Position pump in lagoon
Heavy duty sludge pump	To transfer sludge from lagoon to container
Belt filter press	Dewatering to 25 % dry solid
Polymer solution preparation unit	Automated polymer solution preparation
Screw Conveyor	Discharge sludge into skips
DG Set	To operate in remote area
ATS Panel	Flexible power connection.
Trailer with container	In-house dewatering unit arrangement



Plant View at Site



1. container plant at site
2. integrated power generator
3. floating pontoon sludge intake
4. outlet of dry sludge cake
5. belt press
6. complete plant control