EQUIPMENT
AND TECHNOLOGIES
for wastewater treatment

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SOAPBERRY WWTP

Kingston, Jamaica

MODEL OF DEHYDRATOR	MDQ-353 C
START OF OPERATION	2020 February

ISSUE

Soapberry WWTP located near Kingston Harbour has been operated since 2004. Biological wastewater treatment process is based on wetland lagoons. The WWTP has not previously had any sludge processing equipment, therefore since the start-up of the plant lagoons have been gradually filled with dry solid particles. As a result, sludge accumulation had impact on biological process efficiency, because of the reduced effective volume of the lagoons. For this reason, customer was looking for the solution to clean the bottom of the lagoons and process the sludge.

SOLUTION

The lagoons cover an area of nearly 6 km². Bottom sludge from the lagoons is removed by remote controlled dredger supplied by Dragflow. For this reason, EKOTON offered Mobile dewatering complex based on Multi-disc Screw Press Dehydrator MDQ-353 C. The complex includes mechanical screen, sludge tank, influent sludge feed pump, polymer solution preparation unit, polymer dosing pump, water tank, water pump and screw conveyors. All the equipment is mounted on the common platform. The complex can be fitted in a standard 40' container or on a trailer, which allows an easy relocation.

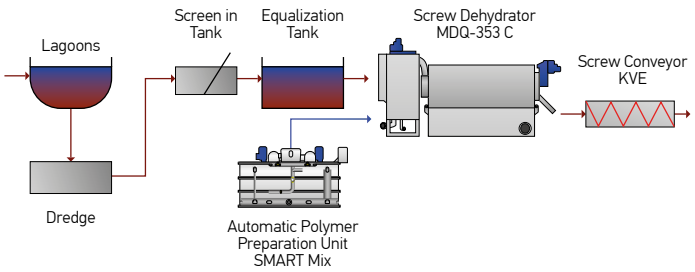

Figure 1. *Technological scheme*

RESULTS

TYPE OF SLUDGE	biologically digested lagoon sludge
OPERATING TIME	up to 23 h/day
INITIAL SLUDGE CAPACITY	10-15 m³/h
INLET SLUDGE DS CONTENT	2-3 %
CAKE DS CONTENT	approx. 23-26 %
POLYMER POWDER CONSUMPTION	1-2 kg/tonDS
TSS CONCENTRATION IN FILTRATE	100 ppm
DS CAPTURE RATE	more than 99 %