

## Technical specification

The raw wastewater is entered to mechanical fine screen with bar space 10 mm and manual coarse screen with bar space 25 mm which is considered as mechanical fine screen stand by. Collected screening is transferred to screw compactor. The screens are compacted and transferred to rubbish mobile container.

The screened wastewater is entered to grit chamber. In aerated grit chamber air is introduced along one side of a rectangular tank. The separation of grit from wastewater is usually accomplished in separate grit chamber designed to physically separate heavy grit particles from lighter organic solids. The grit accumulated on tank hopper through traveling bridge is pumped to grit collecting tank by submersible pumps that are installed on grit removal unit scrapers.

By forces aeration, the grease and scum is floated to liquid surface of grease removal part. The required air for aeration is supplied by grit removal blowers. Grit removal effluent is entered to pump station. In this pump station, there are five screw pumps (4 active and 1 standby) for transferring wastewater to the next unit (biological treatment).

The selected biological process is an aerated lagoon method that allows continuous inflow of wastewater into the treatment tanks.

Pretreated wastewater is carried to a division box that distributes it into two aerated lagoons (Step 1) by 4 pipes path DN600. First step aerated lagoon effluent is entered to two aerated lagoons (Step 2) by 4 pipes path DN600. Each aerated lagoon is equipped with nine surface aerators which transfer oxygen by breaking up the wastewater into a spray of particles, creating more surface area for atmospheric pressure to drive oxygen into the wastewater. At the same time, the oxygen-enriched water is dispersed and mixed, resulting in highly effective aeration for wastewater treatment. The next unit is sedimentation, wastewater is led to two circular sedimentation unit by gravity.

Produced sludge is collected by peripheral scraper into the hopper and then it is entered to sludge pump station by gravity. Some part of sludge is pumped to biological treatment unit by three submersible returned activated sludge pumps and wasted activated sludge is transferred by WAS pumps to long term sedimentation lagoon. Clarified effluent is sent to chlorination contact tank and chlorine gas as disinfectant agent. Disinfected wastewater is pumped through dry centrifugal irrigation water pumps in order to use for irrigation.