Application of MBBR Technology In Food Wastewater Treatment





Case study Food Wastewater

Start Up October 2016

Capacity 1,300 m³/d

Location Samara Russia

Overview

Danone company's headquartered in Paris France. It is a diversified multinational food companies, the business spead to six continents, and products are marketing in more than and 100 countries.



The new Waste Water Treatment Plant will

be built at production facility of Danone, in Samara Russia. The Plant is intended to clean the waste water produced by the production facility, so that it can be discharged into sewer.

Branch: Milk

Quantity of waste water: 1,300 m³/d COD loading: 4,303 kg/d Discharge: into sewer

Challenge

The WWT plant is based on a standard modular concept, fully removable structures, and «standard» solution which can be expand to others plants. The plant concept is characterized by the following features:

- Permit capability according to the present legal standards in Russia
- High operational reliability by using tried-and-tested technology
- High level of automation and user-friendly operation
- Energy-saving, economical operation
- CO₂ saving by utilization of energy efficient machinery

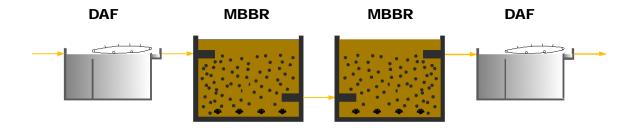


The Inlet and outlet values of the WWT plant as follows:

Parameter	Unit	Inlet values	Outlet values
COD	mg/L	3,310	200
BOD ₅	mg/L	1,842	185
NH ₄ -N	mg/l	≤ 50	≤ 25
N _{total}	mg/l	100	-
P _{total}	mg/l	20	-
Total suspended solids	mg/l	2000	≤ 100
Waste water temperature	°C	20	-
рН		2~12	6.5~9

Solution

Flow Chart of the Process:



Results

The plant operates efficiently since the start up. Consistently exceeding COD and NH_4 -N requirements.



