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MOVING BED BIO REACTOR

Optimization of conventional anaerobic & aerobic treatment by adding a medium / carrier that continuously moving in the wastewater

POMEOXY

Waste water treatment system specifically designed for Palm Oil Mill Effluent (POME)

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MOVING BED BIO REACTOR

Optimization of conventional anaerobic & aerobic treatment by adding a medium / carrier that continuously moving in the wastewater. This carrier significantly increases the surface area for bacteria to inhabit

WHY MUST MBBR?

MORE THAN PLASTICS

The carriers are made of a material with a density close to the density of water. Surface area varies from 550 - 5500 m2 / m3

BEST SOLUTION

Faster HRT, Less Sludge, No RAS Pump Needed, Easy to control, Flexible Design

MBBR APPLICATION

- Municipal, POME,
- Industrial : Textile, Meat Processing, Food & Beverage, Plastic Chemical Manufacture, , Petrochemical, Pulp & Paper, Pharmaceuticals, Etc
- Expand System/Upgrading

POMEOXY

PALM OIL MILL WASTEWATER TREATMENT

PomeOxy is a waste water treatment system specifically designed for palm oil mill effluent (POME).

The capacity will be designed and adjusted to the capacity of existing palm oil mills.

General Specifications	Unit	PomeOxy® M30	PomeOxy® M45	PomeOxy® M60	PomeOxy® M90	PomeOxy® M120
PKS capacity	Ton FFB/hour	30	45	60	90	120
Waste Capacity / POME	M3/hour	21,0	31,5	42,0	63,0	84,0
Operating Time	Hour	20	20	20	20	20
Waste Capacity / POME	M3/hour	420	630	840	1260	1680
Land requirements						
Total	m2	< 250	< 350	< 450	< 650	< 870

BOD inlet : 5000 ppm
COD inlet : 12000 ppm

BOD outlet : < 100 ppm
COD outlet : < 350 ppm

Removal Rate : 98,5 +++

Conventional VS PomeOxy

Generally, palm oil mill effluent is treated by making several processing units using cooling ponds, several anaerobic tanks followed by several aerobic ponds.

The basis of PomeOxy is to treat wastewater released by the anaerobic reactor. Usually COD at the inlet is up to 60.000 ppm and after pass through anaerobic reactor became 12.000ppm

The COD values of 12000 ppm & BOD values of 5000 ppm are the basic design of this Pomeoxy system

Pomeoxy Type M

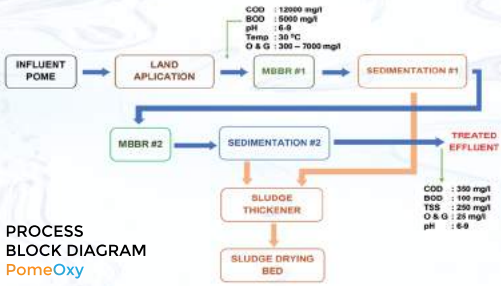
PomeOxy using MBBR as the mainstay of the process. Have a better performance. The media carries (MBBR) keep suspended in the water by using an air diffuser so that an air blower and piping are required. Aeration process do in 2 steps to ensure the result of waste water is meet the regulation standard. Sedimentation tank is needed after every aeration process. This process only generates small amount of waste activated sludge. No RAS pump needed in this process

Pome Oxy Type E

Using extended aeration (planned based on local conditions). More economically solution.

Benefit

+ Process Flexibility (Upgrade / New)
+ Fast Processing
+ Small Land Requirement
+ No Need for RAS
+ Easy to Operate
+ Flexible loading rates



PROCESS BLOCK DIAGRAM PomeOxy