Application of MBBR Technology In Chemical Wastewater Treatment

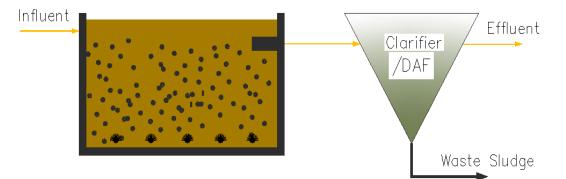




Case study	Chemical Wastewater		
Start Up	July 2014		
Capacity	28,800 m³/d		
Location	Shandong China		

About MBBR Technology

The main characteristic of Moving Bed Biological Reactor (MBBR) configurations is that there is no sludge recycle from a secondary clarifier. MBBR is essentially a simple, once-through process, where all of the biological activity takes place on the biomass carriers. MBBR is usually followed by a solids separation system such as a secondary clarifier or DAF, in order to separate bio-solids produced in the process from the final effluent. The main advantage of MBBR is robust and simple reduction of soluble pollutants (soluble BOD or COD, NH₄ ⁺, etc.), with minimal process complexity, utilizing a significantly smaller footprint when compared to conventional aerobic treatment methods. MBBR is typically used for either high load industrial applications or for robust simple-to-operate municipal facilities.





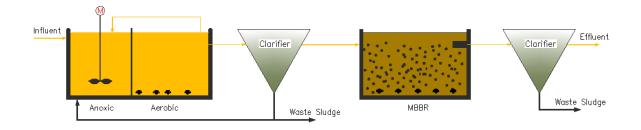
Challenge

The design capacity of the WWTP is 1,200,m³/h, below data shows the influent and effluent parameters of the plant:

Project	Unit	Influent	Effluent
COD	mg/L	1,200	60
BOD	mg/L	400	10
Cl	mg/L	16,500	-
Ca ²⁺	mg/L	6,000	-

Solution

The post MBBR process, for further degradation of refractory organic matters.



Results

The MBBR Influent COD 80~100mg/l, Effluent COD 50~60mg/l, remove rate is more than 30%.





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