

Successful replacement of Orbal Disc Aerators with FUCHS OxyStar Aerators

In 2011 a new wastewater treatment plant was commissioned in an industrial park in Hebei province, China. The wwtp mainly consists of a coarse screen followed by a fine screen, activated sludge basin (A2O process), final clarifier as well as sludge dewatering. Orbal disc aerators were applied to aerate the activated sludge tank. For proper mixing additional agitators were installed.

After three years of operation failures of the existing orbal disc aerators forced the investor to either repair the aerators or replace them by new equipment.



Technical Data

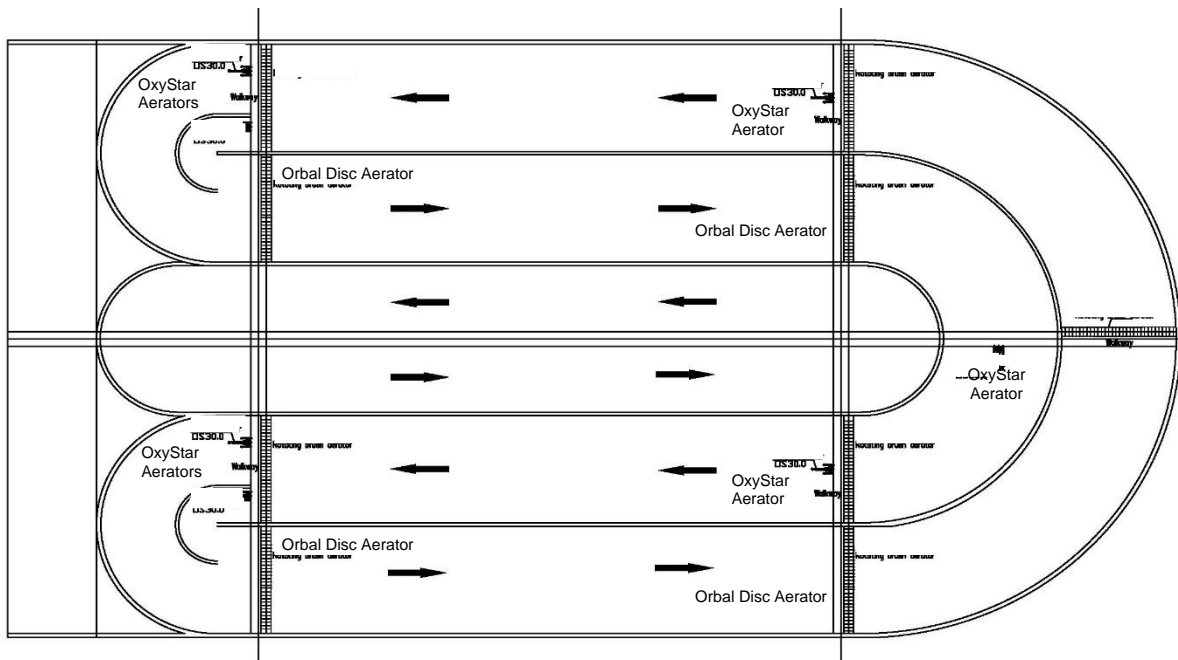
Design capacity:	10,000	m ³ /d
BOD ₅ concentration (actual):	123	mg BOD ₅ /l
Effluent quality:	7	mg BOD ₅ /l

Existing aeration equipment of two ditches

12 pcs	orbal disc aerator:	45	kW (each)
6 pcs	orbal disc aerator:	36	kW (each)
12 pcs	agitators:	7.5	kW (each)

Finally, FUCHS OxyStar Aerators were chosen. Apart from combining excellent aeration and mixing with a sturdy design OxyStar Aerators also offer easy installation. This is a valued aspect for retrofits.

After installing seven sets of FUCHS OxyStar Aerators (30 hp / 22.0 kW each) in 2014, the customer is now planning to use also FUCHS OxyStar Aerators in future expansion.



Arrangement sketch

FUCHS OxyStar Aerators are available in various sizes. They can be bridge or wall mounted or mounted on floats. Due to their sturdy design OxyStar Aerators are highly reliable and almost maintenance free.

Advantages of FUCHS OxyStar Aerators at a glance

- Efficient aeration
- High mixing and circulation capability and flexibility
- Outstanding quality of material and production
- Almost maintenance free – no lubricating or greasing required
- Versatile and simple modes of installation
- Easy handling and installation due to low weight
- No spray water
- Low noise emission

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