

Successful replacement of venturi-type aerators with FUCHS OxyStar Aerators

In May 2006 a British public company providing water services asked for a proposal to quickly solve ongoing performance problems in one of its wastewater treatment works. The existing aerators were failing frequently and did not supply sufficient oxygen. Accordingly, the inquiry focused on reliability and improved oxygen transfer.



Technical Data

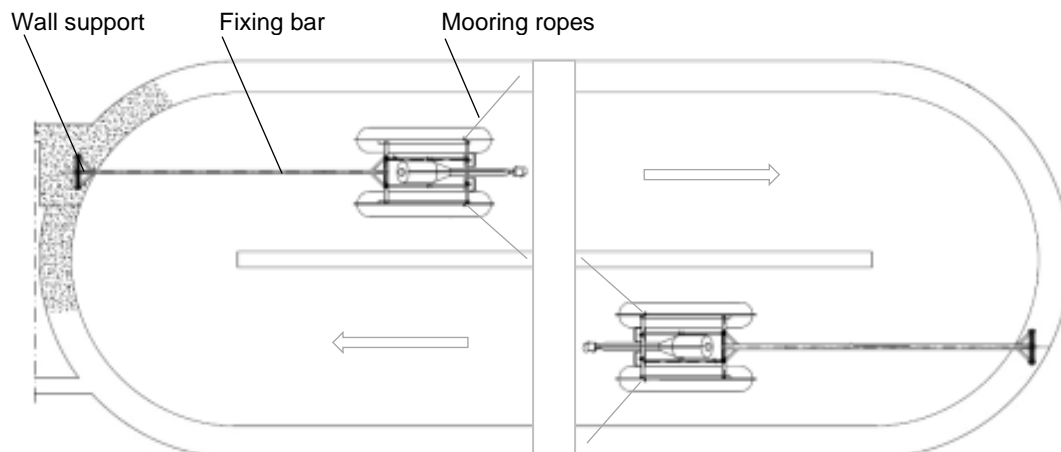
Organic load (average):	750	kg COD/d
Organic load (max):	1,000	kg COD/d
Average flow:	2,100	m ³ /d
Effluent quality:	25	mg BOD ₅ /l
Ditch volume:	513	m ³

Existing equipment (before replacement)

2 pcs	venturi aerators	20 kW
2 pcs	submerged mixers	3 kW

FUCHS supplied two OxyStar Aerators with a nominal power of 15.0 kW and 18.5 kW respectively. The aerators proved enhanced performance at reduced power input. Operating parameters quickly returned to normal values. Accordingly, the client decided to purchase the units after a short period of trial.

For ease of installation the aerators were mounted on float assemblies.



Arrangement sketch

After some years of successful operation the WWTW was upgraded to meet increasing loads and enable ammonia removal. A second oxidation ditch of similar type was built and equipped with two OxyStar Aerators, rated power 15.0 kW each.

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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