

## Ete Flores Brazil WWTP - Case Study

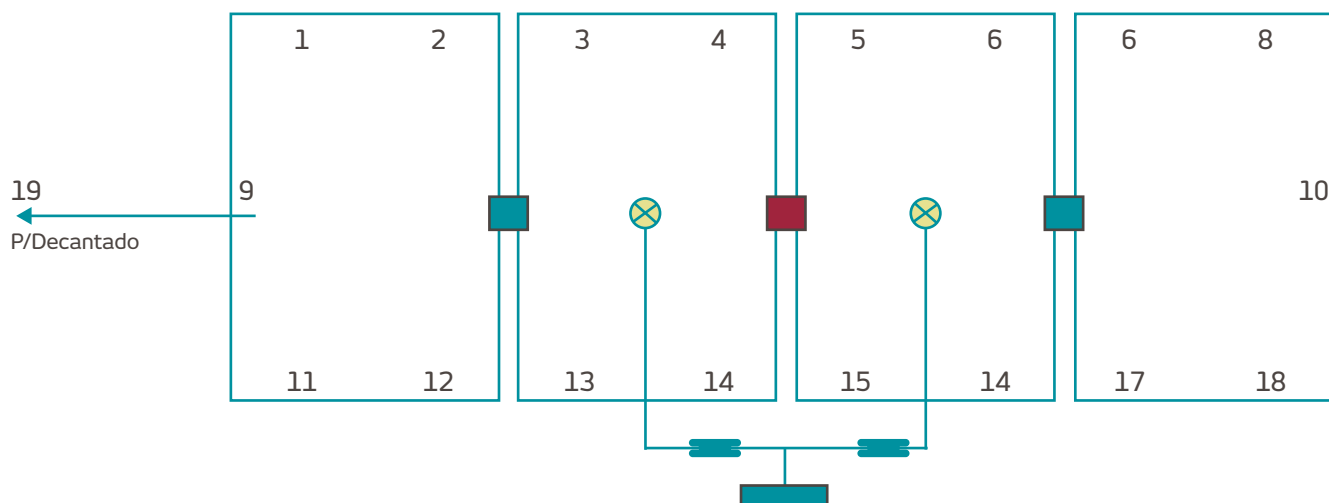
### Client

FOZ DO BRAZIL, large infrastructure contractor in Brazil

### Problem

The Client (Foz do Brazil) had suffered excessive energy costs due to high electricity consumption for the operation of the FLORES Waste Water Treatment Plant, in São Paulo state, where the plant used fixed mechanical surface aerators.

The Flores WWTP treats more than 2 million m<sup>3</sup> of municipal waste water annually with the average daily flow rate of 5,788 m<sup>3</sup>/day.



One 22kw surface aerator (colored red) with actual energy consumption of 19.42 kWh, was turned off and was replaced by 2 of Mapal's FFBA units connected to 12.5kw blower with actual energy consumption of 11.01kWh.



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### Solution

- ENERGY SAVINGS OF MORE THEN 50%
- Total Payback time for all 3 surface aerators replacement - 2.3 years
- Installation was fast and simple and operation runs with no problems.
- There was a noticeable reduction of ambient treatment odours around the biological reactor after the installation.
- Mapal's 'wet installation' feature meant that there was no need to stop the plant, which saved time and money without any impact to the process.

Date	Efficiency of COD removal	Efficiency of BOD removal	Efficiency of TSS removal
Before Mapal 15/10/2012	70%	82%	43%
Before Mapal 11/11/2012	58%	86%	76%
After Mapal AVG 20/11-25/2012	82% (1)	74% (2)	90% (1)