

# Xiamen wastewater treatment plant



Running at full capacity since 2006, the Xiamen wastewater treatment plant is the largest biofiltration unit in China.

Integrated in its urban environment with a compact footprint, the Xiamen plant daily discharge 300,000 m<sup>3</sup> of highly depolluted effluent to the sea, thanks to nitrification – denitrification treatment through Biofor<sup>®</sup> technology. The plant is the result of a fruitful collaboration between the city of Xiamen (Fujian province) and SUEZ, started in 1992 with the construction of a conventional primary treatment line, followed by another 100,000 m<sup>3</sup>/d primary treatment line through Sedipac<sup>®</sup> 3D technology.

Construction of the biological treatment phase began in April 2004 and was completed in December 2006. SUEZ's scope of works in the contract includes process design, project management, delivery of equipment to site, civil works checking, supervision of erection, commissioning and training.

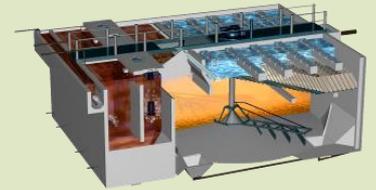


## water treatment line

- Primary clarification
  - primary clarifiers
  - 2 x 3 Sedipac® 3D: 225 m<sup>2</sup>/unit
- Biological treatment:
  - 2 x 7 Biofor® DN: 86.5 m<sup>2</sup> / unit
  - 2 x 14 Biofor® CN: 86.5 m<sup>2</sup> / unit
  - 2 x 4 aeration system - Q = 25 000 Nm<sup>3</sup>/h per line
  - Backwash system
- Dissolved air flotation (for dirty Biofor® wash water):
  - 2 x Sediflotazur DAF system: Ø 20 m, 314 m<sup>2</sup>/unit
- Chemical dosing:
  - methanol, ferric chloride, polymer

## Sedipac® 3D

- 3 processes in one :
  - sand removal
  - grease removal
  - primary settling
- Compact pretreatment
- Chemical free
- Ease of maintenance



## performance characteristics

<b>Flow rate</b>	300,000 m <sup>3</sup> /d (650,000 PE)	
<b>Average flow rate</b>	12,500 m <sup>3</sup> /h	
<b>Peak flow rate</b>	16,250 m <sup>3</sup> /h	
	<b>Raw water</b>	<b>Treated water</b>
<b>Suspended solids</b>	180 mg/l	6 mg/l
<b>COD</b>	300 mg/l	26 mg/l
<b>BOD<sub>5</sub></b>	130 mg/l	6 mg/l
<b>N-NH<sub>3</sub></b>	35 mg/l	0.9 mg/l
<b>TN Total nitrogen</b>		19.2 mg/l
<b>TP Total phosphorus</b>	3.5 mg/l	0.9 mg/l

## Biofor®

- A flexible solution that can adapt rapidly to high flowrate and pollution loads variations
- A compact technology that allows optimization of plant footprint
- High treatment performance
- A completely automated process, easy to operate

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Since March 2015, all the Group brands (Degrémont, Ozonia, Aquasource, Ondeo IS, Ameriwater, Infilco, Poseidon...) became SUEZ.

Meanwhile, from now on, the technologies and know-how of our Treatment Solutions offer will be distinguished with the label **degrémont®**.