

## *Refurbishment of an existing plant*

# Selected BTA References Barcelona Ecoparc 1



**Client:** UTE ECOPARC  
Polígono Industrial  
C/A Zona Franca 26  
08040 Barcelona – Spain

**Capacity and Materials processed:**

- 250,000 tons/year municipal solid waste
- 50,000 tons/year biowaste
- 50,000 tons/year proceeded into BTA® Hydromechanical Pre-treatment

**Start-up:**

- 2001 first start-up
- 2008 start-up after refurbishment by BTA / BIOTEC

**Original plant design:**

- mechanical pre-treatment with sieving drum (>120mm)
- wet-mechanical pre-treatment, mainly consisting by suspenser and sieving drum
- wet anaerobic digestion

**Operation problems:**

- insufficient elimination of contaminants
- resulting problems in processing and digestion

**BTA refurbishment:**

- BTA® Hydromechanical Pre-treatment
- BTA® Gas Mixing System for one digester
- BTA® Process Control System



More Information  
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# Barcelona Ecoparc 1

## Description

### Problems of original design

- insufficient elimination of contaminants
- constantly clogged pipes
- floating layers and massive sediments in digesters
- inefficient mixing of digesters
- high loss of organics in the separation resulting in a too low biogas yield
- unacceptable quality of the separated residues
- too high fraction to be landfilled

### Refurbishment by BTA/BIOTEC

The operator UTE Ecoparc decided to remove the existing pre-treatment and also to refurbish the digestion itself. Thus, BTA via its licensee BIOTEC was assigned to integrate a complete new BTA® Hydromechanical Pre-treatment, to re-engineer one 6,000 m<sup>3</sup> digester and to equip it with the BTA® Gas Mixing System. Finally the BTA® Process Control System was installed.

The BTA® Hydromechanical Pre-treatment consists of 3 x 32 m<sup>3</sup> BTA® Waste Pulpers, the corresponding light fraction presses and 4 BTA® Grit Removal Systems.

### Conclusion

Ecoparc 1 is a good example for the importance of the pre-treatment for a reliable removal of the waste contaminants and a complete proceeding of the organics in the biogas production.

Efficient separation of these fractions

- increases reliability and availability
- results in maximum biogas yield
- reduces the costs for landfill or combustion.

Therefore, the BTA® Hydromechanical Pre-treatment is the key for an economic and successful waste treatment.

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