

Winery Plants

Winery Dinastía Vivanco, Briones, La Rioja.

2 ES 150 modules

Bodega Dinastía Vivanco had an Activated Sludge Wastewater Plant that, because of the progressive growth of the enterprise, became small. Before this situation was reached and following the company's environmental policy, it was decided to reuse the wastewater effluent for the irrigation of the green zones of the winery. Bearing in mind that the winery's wastewater has a high concentration in COD, the adoption of a Membrane Bioreactor (MBR) permitted a reduction on civil costs to compensate its higher cost on technology, thus also obtaining higher effluent quality than with conventional systems.

Principal characteristics of the plant:



Fig 1.- General view of the winery and the vineyard with the town of Briones at the back.

- Treatment flow: 75 m³
- Pollutant loads:
COD inlet: 6.000 / **COD outlet: 160 mg/l**
BOD inlet: 3.000 / **BOD outlet: 40 mg/l**
SS inlet: 800 / **SS outlet: 80 mg/l**
- Tertiary treatment: ultraviolet

Other interesting data:

- Volume of the mixing tank: 220 m³
- Retention time (RT): 3 days
- Volume of the Reaction Tank: 150 m³
(2 chambers)
- Volume of the membrane chamber: 95 m³
- N° of modules: 2 x ES 150
- N° cartridges: 300
- Total membrane surface: 240 m²
- Centrifuge drying sludge decanter



Fig 2.- Aerial view of the double biological reactor and the membrane chamber.