

# Winery Plants

## Winery San Miguel Sociedad Cooperativa, Ausejo - La Rioja, Spain

### 2 ES 100 modules

The client, Bodega San Miguel, was looking for a compact solution due to space limitation problems, and safe enough for the treatment of their wastewaters. The site is located by Ausejo's main road, residences being less than 20 m away from it, thus minimisation of visual and odour impact were important issues. The reduced civil engineering needs (just a concrete plinth for the installation of 2 steel tanks) was also an important aspect on the decision of the client.

#### Compact MBR



Fig 1.- General view of the plant



Fig 2.- Detail of the membrane reactor.

- Compact and small wastewater plant that fitted perfectly on the short space given by the property.
- MBR technology to obtain better treated effluent quality than with conventional systems
- Effluent quality meets the standards for reuse on crop irrigation.

#### Plant data:

Reactor Dimensions	9m L x 3m W x 3,5m
Nº. of tanks	2
Nº of membrane modules	2 modules
Nº. Cartridges/modules	100 units.
Total membrane surface area	160 m <sup>2</sup>

#### Design parameters:

Average flow design	43 m <sup>3</sup> /day
COD inlet / <b>COD outlet</b>	10.000 / < 160
BOD inlet / <b>BOD outlet</b>	5.000 / < 40
SS influent / <b>SS outlet</b>	2.000 / < 5