

## NEW SCREENS FOR THE LISBON WASTEWATER TREATMENT PLANT

### CASE STUDY



#### THE CLIENT

The WWTP Alcantara treats 42% of the catchment area around Lisbon, Oeiras and Amadora.

As part of an upgrade for Portugal's largest wastewater treatment plant for 630,000 PT, three HUBER ROTAMAT Wedge Sections Screens Ro2 3000 x 6mm were installed

#### UPGRADE OVERVIEW

After mechanical preliminary treatment and pre-clarification the whole wastewater is discharged into the Tagus without prior biological treatment.

To improve this situation the wastewater authority SIMTEJO, the plant operator, commissioned main contractors with the first step of modernisation, the replacement of the 15 mm screen by three HUBER ROTAMAT Wedge Section Screens Ro 2 with 3000mm diameter and 6.0 mm bar spacing. The wastewater

treatment plant is designed for the maximum storm weather flow of 4500 l/s. This flow can be handled by two HUBER ROTAMAT Wedge Section Screens Ro 2 3000 x 6 mm. One screen is installed as a standby unit..

A main advantage of the HUBER machines compared with the customer's previous system is, in addition to the smaller bar spacing, the fact that the machines combine four functions in one unit: solids/liquid separation, integrated screenings washing (IRGA), screenings transport and screenings compaction to approx. 50% so that a dewatering efficiency of approx. 35% DS is achieved.

The heavy screens were a challenge that exceeded even the crane capacities of the modern HUBER factory with a size of meanwhile 21,500 m<sup>2</sup>. The excess width caused also transport problems but these could be solved by delivering the accessory parts on trucks and ship the machines themselves by sea freight.

According to Weber Engineers Pforzheim who are responsible for the complete project planning in cooperation with Weber Engineers Portugal, the next challenge will be placing the biological treatment stage on the scarce available space.

