

## Careening water treatment plant

Cale de la Salinière – LA BAULE (44)



*Without knowing it, we all know " the docks ", these slipway arrangements that give direct access to the sea with a gentle slope. They are used in particular for maintaining and cleaning boats. At high tide, the vessels go up these slopes, then are positioned on the invert when the sea drops back down, at the same time as a layer of vase and sediment. How can we prevent sending the cleaning water, chips of paint and various pollutants into the sea? The experience with the Cale de la Salinière at La Baule.*

### APPRAISAL

In light of the shape of the slipway, we decided top design a set of 4 tilting tanks, positioned at the top of the slope, which carries out the rinsing after each high tide. As soon as the sea moves out, and before any careening operation, these tanks pivot and pour onto the slipway the volume of rinsing water required to remove the sediment. The raw effluents then transit into a physical-chemical treatment unit that treats 54 m<sup>3</sup> /h.

Date of commissioning	2013
Client	Port de La Baule – Le Pouliguen
Contractor	Artelia
Companies	Charier GC (Mandataire)

### DESIGN

#### Strong points of the treatment unit :

- Resistance to sea water: structure made of composite material and settling on polypropylene honeycomb cells
- Efficiency of the treatment: coagulation-flocculation followed by lamellar settling, and post-filtration on absorbant and adsorbant media

#### Advantages of tilting tanks :

- 4 entirely independent tanks, made of stainless steel
- Automated operation via a control cabinet
- Possibility of triggering each tank manually

### BUILDING

#### Treatment unit :

- Made from glass fibre reinforced polyester
- Dimensions : Ø 2.50 m x L 8.50 m

#### Tilting tanks :

- Compactness : Unit volume of each tank of 6.8 m<sup>3</sup>
- Dimensions : Ø1.20 m x L 6.25 m per tank

### LE SUIVI

Operating tests of the tanks demonstrated the genuine advantage of the technical solution proposed in the efficiency of the rinsing and the removal of harbour sediment. The treatment unit brings its technicality to the treatment method, as shown by the limpidity of the water above the lamellar system.



High tide flushing tank

Quality of the treated water



Flushing effect