

## Equipping a concrete structure with a settling tank Crève-Cœur – MONTGERON (91)

The catchment area drained by the rainwater network of the rue des Près in Montagne Crève-Cœur has a total surface area of 24.4 ha, with a steep slope of 21.7 mm/m. The installation area for the treatment structure is located in a residential area, on a hillside. It is in this extremely narrow context and with a substantial slope that Saint Dizier Environnement designed and created a lamellar settling tank solution in a concrete structure.



### APPRAISAL

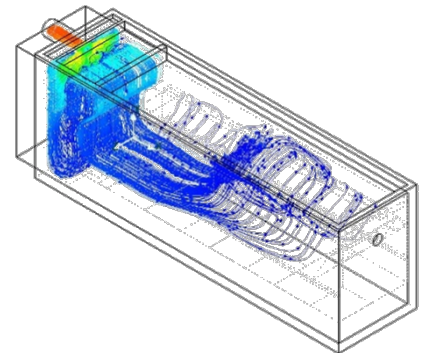
Due to the little space available on the site, we opted to build an external structure from reinforced concrete, equipped with our lamellar settling tank concept. All of the dimensioning was validated through hydraulic simulation, representing the flow velocities inside the structure..

Date of commissioning	2008
Client	SIARV
Contractor	SECTEUR
Company	HP BTP

### LA CONCEPTION

#### Strong points of the structure :

- Complete accessibility above the blades via duckboard and guardrails
- Structure is buried and secured by an access hatch on the ground
- Effectiveness of the settling: Counter-current lamellar settling on aluminium blades in order to increase the compactness of the structure
- Sludge management via storage in cones under the cells
- Flow rate control via a flow regulator with floater
- Retention of coarse waste by a stainless steel grid
- Delivery as unassembled parts for all of the equipment, linked to site access constraints



Hydraulic simulation of flows

### BUILDING

#### Creation :

- Tailored structure : L 12.60 x l 3.00 x H 6.65 m internal dimensions
- Technical data: 160 l/s with a SHL of 1 m/h
- Supports: all of the beams and joists made of 304L stainless steel to support the internal equipment

#### Internal equipment :

- Large lamellar surface : 576 m<sup>2</sup> of projected area
- All of the partition walls and deflectors for balancing the hydraulic flow
- Sludge withdrawal columns



Floor of the lamellar device



Inside view of the settler

### FOLLOW-UP

The assembly and commissioning for the unit was carried out by our works department.

#### Saint Dizier environnement

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