

Invert rinsing via vacuum flushing

Storage basin – MONTMEYRAN (26)

As the treatment plant of the city of Montmeyran was no longer able to meet the environmental constraints defined by law, the community of greater Valence decided to do away with it and to connect the wastewater network to the Portes-Lès-Valence plant. In order to store the combined overflows during storms, an above-ground storm water basin was created in place of the old plant. The sludge deposited on the invert is rinsed by a flushing system set up by Saint Dizier Environnement.



APPRAISAL

Due to the poor geotechnical quality of the ground, the storm water basin is located above ground and is supplied via pumping. In order to get around the deposits of sludge on the invert at each drainage, we studied setting up a flushing system by generating a depression in a tank in the centre of the basin. This design is suitable for the above-ground installation and the equipment in the basin..

DESIGN

Advantages of our system :

- Efficiency of the rinsing: systematic each time the basin is solicited
- No usage of drinking water: rinsing is done with the water of the basin
- Seal of the tank: setting up of a PRV flushing tank Ø 2.50 m
- Control of the levels: the state of filling of the basin is checked with an ultrasound probe and of the tank with a float switch
- The device can be accessed via a walkway without having to go down into the basin

BUILDING

General data on the basin :

- Circular reinforced concrete basin with a capacity of 1100 m³
- Øint : 19 m, or 1 single rinsing track

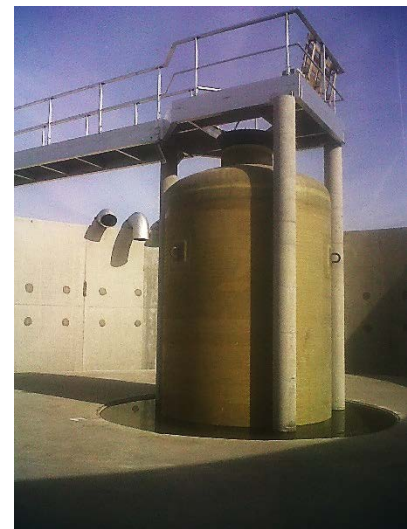
Characteristics of the system :

- Compact device on the flushing tank comprising a release valve
- Automated management of the filling and of the flushing tank via a vacuum pump and a set of mini-valves, controlled by a control panel with an automaton

FOLLOW-UP

Seal tests on the flushing tank revealed a maintaining of the water height without loss of level for more than 5 hours. This solution also showed its effectiveness on the quality of the rinsing of the invert.

Date of commissioning	2013
Client	Valence Agglo Sud Rhône-Alpes
Contractor	GéoPlusEnvironnement
Companies	RIVASI / Pompage Rhône-Alpes



PRV flushing tank



Release valve



Equipment in the equipment room