

# SOLUTION FOR RAINWATER FLOODING

### **CHARCATERISTICS**

For a long period of rain, is becoming more frequent to get floods by the loss of permeability of the ground (buildings, parking lots, streets, etc). To solve this problem infiltration systems exist, that allow drainage of rainwater with a slow infiltration into the ground.

Presenting many disadvantages,

Therefore we have developed the following systems:

#### Storage tank:

Stores rainwater, and gradually pumps to the sewage system or outside. The system consists in a tank in which there is a float inside that works an air pump. The air pump starts up an airlift, with a medium capacity of 9 I / min.

#### **Block Storage:**

Collects rainwater and allows the evacuation to the sewerage network or to the exterior by gravity.

To determine the volume capacity the user must define the "factor". There is no theoretical volume capacity that ensures 100% of cases, having to take into account the possibility of extreme rainfall. It is the user who chooses the time of discharge, entering the tables we will obtain the required volume capacity.

Based on our experience:

- Private use: 10 | / m 2 max. precipitation during 15 min. and 14 | / m 2 during 1 hour.
- In industry: 40 l/m2 max. precipitation during 15 min. and 56 l / m 2 during 1 hour.

Volume capacity, for a roof area of 100 m<sup>2</sup>

	Returning period of an overflow		
	1/2 year	1 year	5 years
Private	1 m <sup>3</sup>	1,5 m <sup>3</sup>	2,75 m <sup>3</sup>
Industrial	4 m <sup>3</sup>	6 m <sup>3</sup>	11 m <sup>3</sup>

Not suitable for industrial use with roof  $> 100 \text{ m}^2$ .

Range available:

## Storage tank

Description	Remaining volume	Buffer volume
Bt 2.400	1.200	1.200
Bt 3.300	1.650	1.650
Bt 6.000	3.000	3.000

## **Block Storage**

Description	Storage volume
BB 1.320	1.200
BB 1.760	1.650
BB 2.200	3.000



## **FUNCTIONING**

Equipped with a float type tank, at the time that rainwater enters the tank, the small pump of 40w activates. This pump starts up an airlift, which carries the water to the exit. The pump increases efficiency, this means, the outflow will increase, in proportion to the stored water column.