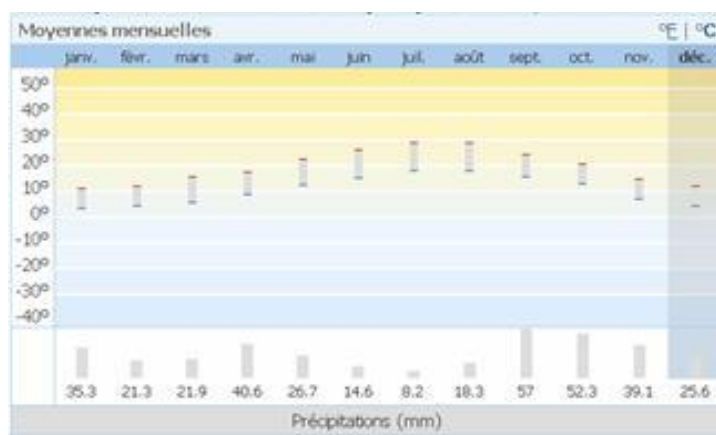


# Project 1: CIAT subsidiary building in Septemes les Vallons, France

## Location, climate:

The heat pump will be installed in the south of FRANCE at Septemes les Vallons.

The temperature during the winter fluctuates between 5 to 13 °C, and the rainfall between 20 to 40 mm. during the summer the temperature fluctuate between 16 to 30 °C and the rainfall 8 to 26 mm. You can see the temperature and rainfall evolution on the next graph. It is a Mediterranean climate.



## Type of building:

This site is mainly an office building which will be retrofitted in 2009/2010 :

- customers service
- sales office

## Reasons, expectations:

All the cooling and heating system will be replaced:

- The heating and cooling distribution
- The heating and cooling production

At that time there is on this site :

- Air to water heat pump
- 12 Fan coil units
- 2 Air heaters

This system is very old (20 year old) and has a bad efficiency.

The aim of the new system is to reduce the electric consumption, so increase the system efficiency, and also increase the comfort in the building.

## Purpose:

The new heat pump and auxiliary which be installed on this demo site will provide the heating and cooling need throughout the year. The new system does not provide the domestic hot water.

**Type of new system:**

Next system to be installed on the demo site is planned to be the following :

- water to water heat pump
- borehole heat exchanger
- air handling unit
- cassette with Coanda effect in each room
- air heaters in the workshop
- variable speed pumps

**Monitoring concept:**

A heat pump monitoring is foreseen to evaluate the efficiency in a first approach of the heat pump and in a second aspect of the system.

**Estimated of the cost figures, subsidies:**

No figures available at that time.

**Time schedule:**

Auxiliary installation: April 2010

Heat pump installation: October 2010

**Pictures:**

