

SEAWATER FOR TEMPERATURE CONTROL IN CAVALAIRE-SUR-MER

The sea is my heat pump



Pre-insulated Flexalen pipes



Certificates



OBJECTIVES

Cavalaire-sur-Mer is a French municipality with just over 7,000 inhabitants. It is located at the Côte d'Azur between Saint-Tropez and Le Lavandou. Its location in the Mediterranean Sea sparked the innovative idea to use the seawater for heating and cooling. For this ambitious project, Thermaflex could provide a solution for the thermal water distribution, using Flexalen pre-insulated pipes to secure reliable, and sustainable heating and cooling for the post office building in the city. In summer the seawater is used for cooling, and in winter for part of the heating. So the system functions as a heat pump.

PROCESS

Beside the establishment of new buildings and the restoration of the town hall, a 'high environmental quality' approach could be realized: improve the comfort of users at affordable cost, by efficiently maximizing the use of renewable energy. To achieve this, the alternative chosen by the city was a geothermal heat pump using seawater.

RESULTS

The pipes were installed in a channel from the sea to the connection point at the post office. The pipes had to run underneath two roads and a pedestrian area. For the flow pipe, the choice was made for 125 mm because of the pressure loss due to the length of the pipe and the difference of height in the trajectory. Several coils were supplied for this project, and electrofusion welding applied for the connection between these coils. On various points along the trace of the pipe, fixation points were made for the installation and welding, as well as securing the pipes from moving.

PROJECT INFORMATION

- 📍 Cavalaire-sur-Mer, France
- Realization in 2012
- Initiator: of the Project: Municipality of Cavalaire-sur-Mer
- Contractor: Cabinet "Grégoire & Matteo", Sud Equip
- Installer: SNEF from La Seyne-sur-Mer

APPLICATIONS

- Heating & Cooling Networks
- Heat pumps

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