



NAUTICAL CENTER HQE®



DECINES - CHARPIEU / FRANCE

building

The Town of Décines-Charpieu built a nautical center delivered in 2005. It had been designed according to the step of "High Environmental Quality".

This equipment contains many architectural and technical qualities to durably minimize its environmental impacts (management of water and energy, choice of materials) and to ensure the comfort of the users.

In a preoccupation with recouring to renewable energies and saving energy, the insulation of the building was reinforced.

The pre-heating of the showers is ensured

by thermal solar collectors.

A heat pump manages the dehumidification and the recovery of heat.



Design features

- Surisolation of the envelope.
- Not very emissive glazings and translucent panels with 6 rows of cells.
- Power supply of the water basins of tablecloth starting from a vertical drilling of 140 Mr.
- Air-to-air Heat pump in dehumidification + exchanging statics.
- 50 m² of tilted thermal solar collectors with 45° on southern frame directed, with storage towards balloon of 2 500 liters and supplement gas
- Acoustic correction of the walls by rockwool under blades out of wooden
- Tube Illumination high output (TL5) and naturalness by saw-tooth glazed parts.
- Visual and acoustic Protection by withdrawn ground and slope.
- "Green" Building site with guide practises with the use of the personnel of the building site.
- Interior trims and outsides made mainly out of wood.
- Reduction in chloramines in the ambient air (high and low ventilation), and protection antilégionelles of the ECS.

Awaited results

- Annual Economies generated by measurements: 1 500 MWh, is 51 000 €.
- Annual solar Production: 28 000 kWh i.e. 20% of the requirements out of domestic hot water
- Environmental Profit: substitution of the equivalent of approximately 270 CO₂ tonnes/an

Financial plan

- Total investment : ~ 10 500 000 € HT
- Specific "high Environnement Quality" investment : ~ 800 000 € HT (dont ~ 42 000 € for solar).
- Projected financial contribution of ADEME : ~ 24 000 €
- Financial contribution of ADEME and Région Rhône-Alpes : 60% of solar installation (~ 25 000 €).

Partners

- Architects : BVL (Bouet - Vidal - Laroudie / Paris - 75) - Madignier et Maucourt (Lyon - 69)
- Engineering and design department : Saunier et associés (Nanterre - 92) + Hubert Pénicaud (Paris - 75)
- Programmiste : Bati Programme - AMO HQE : Scan Ingénierie
- Capteurs solaires : De Dietrich (Mertzwiller - 67)

