

Büyük Club - Cercle d`Orient

The Büyük Club was established in 1882 as a social club, under the name of Cercle a `Pera (renamed Cercle d`Orient in 1884), by British Ambassador Sir Alfred Sanderson and 29 other founding members, including administrators, diplomats and businessmen. Today the membership has grown to 7,000 and has politicians, senior bureaucrats and distinguished members from the world of business, science and the arts amongst its clients.

Over its 130 year history the club has grown to a complex site incorporating three main buildings each with three or four floors and has a mix of heating and cooling systems .



In 2010 the giant Tupras Oil Refinery had installed Hydromx in their social facility with excellent results (see separate Case Study). This successful installation prompted the Büyük Club to investigate the benefits of Hydromx and in June 2011 the energy savings solution was installed throughout the complex .

However, the buildings were not well insulated , with a heating system that was old and in need of repair. Consequently, as often occurs, the red organic pigment in Hydromx identified a significant but previously unknown leak during the installation. Subsequently, a twelve meter section of pipe was replaced .



A total of 12 tonnes of Hydromx was installed throughout the whole site, which included three chillers (Macquay and Alarko Carrier) and four boilers (Viessman). During the leak repair phase 600 litres (5%) were reinstated with no further leaks occurring.

All of the Büyük Club fan coils are aluminium requiring careful pH control to avoid corrosion and dissolution. The correct Ph level was achieved using the standard 50:50% Hydromx -Water solution required for energy efficiency reduction. Regular Ph controls are conducted with no need for any adjustment or top up of the Hydromx.

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The period after the installation of Hydromx compared energy use during the five month heating season of October 2010 – February 2011 with that of the same period in 2011 – 2012. Using Degree Days analysis (applying Meteorological Data from Turkish MET office) it was calculated that during the 2011 -2012 period an energy saving of 22% was achieved and a return of investment of less than eighteen months was delivered. The system has been operating with no negative effects since the installation in June 2011 .

This successful installation and the leakage problems experienced during the installation prompted the Büyük Club technical team to conclude that a full maintenance overhaul of their buildings was necessary if they were going to make additional energy savings and cost cuts, and reduce greenhouse gas emissions.

From June 2011 to today the Club reports an average energy saving of between 30% - 32%.

The Büyük Club, in collaboration with the Tupras Oil Refinery have made a presentation regarding the successful installation of Hydromx to its members, many of whom have their own factories, commercial and domestic buildings. As a result several members are now starting to apply Hydromx to their own facilities.

Hydromx Summary , Büyük Club

- 3 x 700.000 kcal Viessman boilers
- 1 x 450.000 kcal Viessman boiler
- 2 x Macquay Chillers
- 1 x Alarko Carrier Chiller
- 12 tonnes of Hydromx applied
- 25-30% energy Saving
- ROI < 2years
- TSE 825 Thermal Insulation Rules (Turkish Standards Institute)
- BIN Method
- Büyük Club Monthly Gas Bills
- Meteorological Data from Turkish MET office.



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