



PROJECT:
The Oval

LOCATION:
Limassol, Cyprus

COMPLETION:
2017

APPLICATIONS:
HVAC, renewables, potable water

PRODUCTS:
aquatherm blue pipe
aquatherm green pipe

THE CHALLENGE

In the office building, a system was to be installed for the piping of the heating and cooling circuits including a connection to the geothermal system and the heat exchangers, which would guarantee decades of smooth operation and could be installed quickly.

THE SOLUTION

Products of aquatherm scored with their virtually leak-free material-locking connection. In addition, the customer saved a lot of time during the installation due to many prefabricated components which were delivered to the construction site ready for installation.

AQUATHERM ADVANTAGES:

- Safe piping of the entire heating and cooling circuits in the building
- Significant reduction of assembly times due to prefabricated elements

OFFICE BUILDING WITH ADVANCED TECHNOLOGIES FOR ENERGY AND WATER SAVING

The Oval in Limassol promises to be both progressive and sustainable. This was the premise according to which the planners approached the technical building equipment of the office building in Limassol, Cyprus. The result is convincing.

The design was made by internationally acclaimed architects Atkins in collaboration with WKK and Armeftis Associates. The electro-mechanical design of the project was provided by Yfantis Engineering, and the installing contractor was Sychem.

The Oval is not only an outstanding office building, inspired by the pebble beaches in front of the building, but also a state-of-the-art technological facility with advanced energy and water saving technologies. Dynamic flow control, condensate recovery and several cutting-edge technologies make it a sustainable building that sets new standards in terms of environmental friendliness in Cyprus and throughout Southern Europe. Products from aquatherm have contributed significantly to this.

The Oval has a bioclimatic design with a specific orientation towards the sun and an insulation to minimise energy consumption and provide comfortable working conditions. All lighting is LED. It is the first multi-story building in Cyprus that received a Class A energy efficiency rating and the first building in Southern Europe with a decentralised open-loop geothermal exchange system.

There are eight boreholes in the perimeter of the plot. The water is pumped at a temperature of 19-22 °C, passes through the heat exchangers in the basement of the building, and then

returns to the re-entry boreholes. Starting from the engine room, a piping network riser feeds the heat pumps of each office. Each office has a small engineering room, hidden inside a cabinet, providing cooling, heating and hot water production.





The entire piping of the heating and cooling circuits in the building including the connection to the geothermal system and the heat exchangers was realized with products from aquatherm: aquatherm blue pipe and aquatherm green pipe.

For the customer this not only meant considerable time savings, but also a reduction in the effects of the skilled workers shortage in the region. Only the pre-assembled sections had to be connected on site, so fewer skilled workers were needed.

Thanks to the material polypropylene, the piping systems are not only corrosion-free, but also guarantee a smooth, virtually leak-free operation for decades due to their secure, material-locking connection.

Many components of this project were prefabricated in the aquatherm factory and delivered to the construction site ready for installation.



aquatherm
state of the pipe

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