

## References

# KULMER's castle



## Uponor involvement



3000

## KULMER's castle

A replica of Kulmer's castle was constructed based on a project designed by a renowned Zagreb architect Branko Kincl.

### Project Facts:

Location

Zagreb, Croatia

Completion

2007

Building Type

Municipal

Product systems

Radiant Heating & Cooling

Address

Šestine

Project Type

Renovation

### Partners

#### architect

Branko Kincl, dipl.ing. arhitekture

Zagreb

Croatia

#### developer

Kugler Inženjering d.o.o.

Domjanićeva 13

Croatia

The castle, whose integral part dates back to the 16th century, was once an important cultural landmark. It was also the feudal estate that was closest to Zagreb. The enormous castle covers two thousand square meters, it is 450 meters long and it is two stories high. The once beautiful castle with a renaissance façade laid in ruins for many years, while the location was used as a dump site through several decades. The reconstruction budget amounted to €2.7 million.

The photos that were collected and published by Mladen Obad-Šćitaroci played a key role in the rebuilding process. They display old classic furnaces and furniture from the early German renaissance period, and it is believed that it was acquired during the refurbishing process that took place during the last few decades of the 19th century.

Branko Kincl, an architect and a professor at the Architecture college followed strict rules of restoration of protected cultural landmarks when he accepted this project. Even though the castle was rebuilt with modern, not traditional, construction techniques which is exemplified by a multilayered roof, original dimensions and thickness of walls were adhered to. Rebuilding the castle was no easy task because various owners redesigned it throughout four centuries, and there was also hardly any information regarding the architecture of the castle.

The project of restoring Kulmer's castle involved many experts from various fields, and the Municipal Institute of Preservation of Cultural Landmarks of Zagreb was included from the very start. The estate was once prominent for its plentiful vineyards.

Because of this, the castle will include reception ballrooms and training chambers, and Kulmer's wine cellars will be refurbished according to their original style. Great attention will be given to the restoration of the once immensely famous wine boutique that was characterized by its barrel-shaped arches. It will be a showroom for official guests, while smaller portion will be used for residential purposes. The famed park with vineyards and orchards in the castle's surroundings will be renewed. In fact, the renewal process will include 70 thousand square meters of the entire estate. One of the ideas includes a construction of a water fountain in the center of the park.

Also, the estate includes terraces, rest platforms and gazebos that overlook Šestine, with Zagreb serving as a beautiful backdrop. The interior of the castle has been slightly modified, only to allow proper functioning of a modern kitchen and sanitary works. The underground floor includes a swimming pool, saunas and other contents for recreation and health care, as well as a garage.

Although castle renewals are rare in Croatia – it all began 20 years ago with the Miljana castle, and afterwards with castles Štakorovec, Bela and Tabor.

The reconstruction of the castle itself could not resolve the issue of quality of living, and this is why floor heating, floor and ceiling cooling, and ventilation systems have been implemented in order to meet modern definitions of quality living. This implied the implementation of quality Uponor heating and cooling. Since this project involved numerous rooms of various purposes (business, residential, swimming pool and recreational), specific and most advantageous cooling/heating systems were installed in each of them (Uponor Tecto), according to purpose.

Total area covered with floor heating extends over 3000 square meters. 10/15 centimeter raster frames were used according to specific demands. The floor heating installations were used in this case for cooling purposes as well. The source of heat energy is a gas boiler, while an adequate cooler was used for cooling.

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**uponor**

Uponor Pte. Ltd.

**Uponor Pte. Ltd.**  
38 Maxwell Road  
#02-01, AirView Building  
Singapore 069116

Phone +65 6977 6518  
Email [inquiry.asia@uponor.com](mailto:inquiry.asia@uponor.com)  
W [www.uponor.com](http://www.uponor.com)