

# HAYDAU - BIOGAS TO WARM AND COOL THE HOTEL

Innovative heating technology combines medieval and modern



Pre-insulated Flexalen pipes



Certificates



## GOALS

Supply the historical building with an efficient heating and cooling solution, while preserving the historic spatial effect as well as possible. For efficient energy transport, the pipes had to be well insulated to minimize energy loss, and protected against corrosion. To keep the construction and operating costs to a minimum, only system-tested pipelines were to be chosen. The pipes should be easy to install, require no maintenance, and function safely for decades to come.

## PROJECT PROCESS

The energy for heating and cooling of the monastery complex is provided by a new, highly efficient biogas plant, which is located approximately two miles from the convention center. It does not only provide the basic heat supply for the buildings, but it also produces electricity, which is fed into the regional electricity grid. Our innovative, installation-friendly Flexalen system proved ideal for the job. The Polybutene medium pipes and connectors form a high-performance system that is pressure- and temperature-resistant up to 95° C and 8 bar.

## RESULTS

Because of the conservation provisions, the reconstruction works were very demanding. To preserve the historic spatial effect as far as possible, the historic building was supplied with a modern temperature control unit during the rehabilitation work. The virtually invisible installed system provides radiant heat through the building envelope, which makes a particularly constant room temperature control possible. At the same time, the building structure is permanently protected from moisture. The grounds of the monastery's newly-built hotel complex were equipped with a modern heating system and air conditioning.

As the Flexalen pipes are very flexible, the laying of a coil in practice turned out to be very installation-friendly. The installation of all refrigeration and heating lines could be done quickly and easily with just a few pipe joints. The connections were made by homogeneous welds on a tailor-welded fitting system. For the energy supply of the conference hotel and monastery, approximately 2.100 meters of our hassle-free and maintenance-free Flexalen system could be installed in no time.

## PROJECT INFORMATION

- 📍 Morschen, Germany
- Year of the project: 2013
- 2,100 meters of Flexalen
- 260 KW to meet the needs
- 136 hotel rooms and apartments and 27 meeting rooms

## APPLICATIONS

- Heating & Cooling Networks

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