



REFERENCE

INNOVATIONS IN APPARATUS & PLANT ENGINEERING

Heating plant | CERN, Meyrin-Genf

Heating plant with 3 UT-M 60x13 hot water boilers with a total output of 44.100 kW (3 x 14.700 kW) for heating the entire site



PROJECT | INITIAL SITUATION

Apaco was contracted by CERN, the European Organization for Nuclear Research located near Geneva, partly in France and partly in Switzerland, to supply the complete heating system consisting of 3 hot water boilers with accessories for the heating of the entire site in Switzerland. The order included the design, manufacture, delivery, installation and commissioning of the 3 boiler plants with the respective FAT and SAT tests including performance acceptance and the overall conformity of the complete plant with the notified body.

TASK | TARGET

The heating capacity specified and required by the customer was 3 x 14.700 kW at a maximum permissible operating temperature of 125°C. The special requirements here, in addition to the high operating temperatures, were the local conditions with the required environmental regulations. The complete plant was not allowed to exceed NOx emissions of 110 mg/Nm³ for natural gas or 150 mg/Nm³ for light oil at a plant efficiency of 97% in accordance with the latest LRV regulations in the complete output range.

SOLUTION | MEASURES

Bosch boilers and boiler house components are factory insulated and where possible completely prewired. Due to the high degree of automation, operation without manual intervention (BoME) is possible, which is characterized by reduced personnel requirements and fewer errors than with manual operation. Thanks to the multi-fuel firing system,



the plant can be operated either with natural gas or fuel oil. User-friendly boiler control is ensured by the intuitive user interface of the plant management system BCO with interface transfer to the process control system. All data such as fuel consumption, hot water outlet temperature, pressure curve or the number of burner starts can be called up, analyzed and optimally adjusted in terms of energy by touch screen. The modern hot water boiler system from Bosch is intelligently controlled and convinces with its reliable and energy-efficient operation. Thanks to its modular design, the energy system can be expanded at any time if capacity increases.

CONCLUSION | FUTURE

Thanks to a successful, qualitatively demanding and at the same time very pleasant cooperation with our customer, Apaco was able to deliver and commission the specified heating system on time. Apaco would therefore like to thank CERN for the trust they have placed in us and looks forward to further successful cooperation.