

Schwank case studies: Cost-efficient heating of existing facilities: Tube heaters replace boiler plant 15 years full-service guarantee



„Installation and commissioning went smoothly. One thing that made me especially happy, the offer and the invoice were consistent and without any surprises. We felt and still feel competently consulted.“

Brigitte Biffar, CEO Biffar GmbH & Co. KG



The project

For more than 50 years the Biffar GmbH & Co. KG has been manufacturing resistant, high-quality and customised entrance doors, canopies and aluminum windows in Edenkoben, Rhineland-Palatinate, Germany. In all that time the company has manufactured their products at the same production facility. Only the warehouse and the goods in area are newer builds. „It is not unusual for traditional manufacturing companies,” reveals Torsten Koopmann, sales engineer of Schwank GmbH. “Existing production areas often have to be modernised during ongoing operations. Only a few companies have the necessary conditions to build new extensions and move their production. For most companies a new building would mean an interruption of production processes for several months.

It was similar with Biffar. While production machines, paint shops or electroplating sections are up-to-date, the building itself had been mainly unaffected until a few years ago.

The assignment

Due to increasing heating costs and more and more frequent maintenance measures, the replacement of the heating system was unavoidable. Until now the production area and the high-bay warehouse had been heated with indirectly operated warm air heaters. A 750 kW boiler, fired by wood wastes from the production, was providing the hot water. A further natural gas-powered boiler was installed as a reversible system and to intercept peak loads. The necessary process heat was also coupled with heating system. The complexity of the control of the heating systems and the process heat is obvious.

Within the course of the modernisation, Biffar began to search for an effective and economic heating solution, which was also easy to operate.



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The implementation

With the collaboration of Biffar, Schwank accepted the project with all terms and conditions and developed a heating concept based on infrared tube heaters.

In general, 21 high performance "calorSchwank" tube heaters were installed within the five building sections. While the production area, the veneer area and the incoming goods area were fully heated, other areas used zone heating. The carpenter's shop was also heated by tube heaters. Here, where the warm air used to be sucked out immediately by the extraction system, the advantages of an infrared heating system were most impressive.

In coordination with the production manager, the installation of the heaters, the gas pipelines and the electrical installations were executed without any restrictions for the production process.

The result

Biffar replaced the 1.5 MW gas boiler and saves energy costs through this restructuring exercise.

Michael Erb, purchase manager of Biffar: "The new tube heaters saved over 19 % energy costs within the first year, which started in March. This is exactly consistent with the information that Schwank provided before the project started. Additionally, the new and precise heating control system made our facility management relax. Also the well-being of our employees has increased." Regarding the Schwank heating system Biffar has nothing to worry about for the next 15 years.

By accepting the premium service packet Gara plus the Schwank warranty has been extended automatically up to 15 years.



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