INTEC Engineering GmbH

Turnkey Heating Systems for finger food producer in Germany

INTEC Engineering GmbH, together with its cooperation partner THS energy GmbH, supplies turnkey heating systems for process heat to a customer in Rietberg.

This customer is by far the market leader in Europe in the production of finger food products and supplies the top companies in its sector.

Reliability and a guarantee of supply capability are decisive factors for the entire production chain, which is why the production was reorganized redundantly - also with regard to the necessary process heat.

Among other things, this investment was used to set up new production lines for the production of mozzarella sticks, which are becoming increasingly popular.
The process heat required for this is generated by process engineering systems from INTEC Engineering GmbH in Bruchsal.
A horizontal INTEC thermal oil heater in 3-pass design with an output of 1.0 MW was planned, designed and manufactured. The thermal oil is heated by a natural gas burner. The heat transfer medium is heated to approx. 280°C in the pipe coils of the heater and supplied to various production lines. In this case, the heat transfer medium is thermal oil (Fragoltherm FG35), which meets the purity requirements of FDA regulation 21 CFR 172.878 and is listed by NSF International as a registered thermal oil of category HAT-1.

In order to fry the various products, the temperature must be heated to very precise levels and it must be ensured that it is not exceeded. To achieve this, the control is realized via a volume flow control, in which the amount of thermal oil to the heat exchanger is controlled via a 3-way valve.
(Depending on the production volume and the resulting fluctuating heat absorption by the fryers, the valve is opened or closed in the

direction of the heat exchanger in order to regulate the amount of thermal oil in the direction of the heat exchanger accordingly). This allows the temperature to be controlled to within one degree.
In addition to the technical production challenges, it was also necessary to meet the environmental requirements in terms of efficiency and pollutant emissions.
efficiency and pollutant emissions, which we ensured with the latest Weishaupt burners thanks to their modulating burner technology.
As the available space was limited and production reliability also needed to be increased, the new heaters and the necessary accessories were installed in 40'' containers, the whole thing was double-structured and spatially separated.
In the event of an operational fault, each container system can maintain production on its own.

INTEC Engineering GmbH and THS energy GmbH appreciate the cooperation with this customer and look forward to further joint projects.

The photo shows the commissioning phase, whereby the mobile boiler house was also equipped with an automatic fire extinguishing system for even greater safety.