

VAU gets the steam up!

Delivery and installation of worldwide unique six-stage hybrid plate heat exchanger completed in record time

After just 13 months production time, it's done: Six hybrid plate heat exchangers with a total of more than 6,000 square meters of heating surface at a weight of 19 tons each were delivered with additional containers in full and on time to BENEQ. Thanks to the precise and complete planning by VAU Thermotech, all equipment and containers were installed within a few hours after they had been delivered to the customer.

For the gentle evaporation the customer demanded a plate falling film evaporator that works with a precise consideration of substance-specific properties. The project was given additional complexity due to the local conditions at the factory, as limited space was available at construction site.

The customer finally decided on fully welded hybrid plate heat exchangers from VAU Thermotech. These are a combination of tube bundle and plate heat exchangers. Compared to standard tube bundle heat exchangers, they offer a much more compact form factor with a higher heating surface density.

The compact design is achieved on the one hand by stacked shaped sheets that form the side of the shaft - that is a wave-shaped flow channel. On the other hand, the tube side is created by placing two shaped sheet metal elements welded together, which in turn are surrounded by two corrugated channels. Since neither soldering points nor seals or other wear parts are installed, this increases the durability of the product and reduces maintenance costs.

VAU Thermotech took the lead on this project. Specifically, the services provided consisted of several subsections, such as the balancing of the evaporators for different load cases, design of all apparatus, engineering services, coordination of an engineering office and a container manufacturer, entire commercial processing and delivery logistics.

The heart of the overall system consists of more than 6,000 square meters of evaporator surface, which were manufactured in the VAU Thermotech own factory as fully welded plate packs made of stainless steel.

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