

## ABP Induction modernizes customer system at Olbersdorfer Guß GmbH during the pandemic

*Customer from Olbersdorf near Zittau prepares for the future through modernization*

**ABP Induction's service portfolio not only includes the planning, development and installation of systems for foundry operations, but also comprehensive consulting services for repairs and system modernization - even during the pandemic. ABP customer Olbersdorfer Guß GmbH has chosen to modernize its own system for this reason and, despite the coronavirus pandemic, has invested in upgrading its own system with the aim of being better able to address market requirements and respond more flexibly to inquiries. A further key benefit: After the modernization, the system corresponds to the latest state of the art and thus sustainably reduces operating, service and maintenance costs.**

Consultation regarding the modernization of the existing system near Zittau took place in early November 2020. Engineering activities started immediately, and delivery of the components is currently scheduled for the beginning of July 2021. During installation and commissioning, the ABP experts see to it that the customer encounters as little downtime as possible. Therefore, these steps will mainly take place during the customer's shutdown period at the end of July/beginning of August 2021.

A system consisting of two ITMK 6,000 (3 t) induction furnaces with 2,500 kW (250 Hz) and TWIN-POWER® thyristor converters will be upgraded and modernized. A new transformer, the DICU3 digital inverter control and the PRODAPT® Enterprise melt processor have been provided for the modernization project. A further element of the modernization is the conversion to a dual-circuit system with air/water cooler to handle the increase in system output. Olbersdorfer Guss had previously worked with an evaporative cooling tower. This cooling unit is outdated and, given the new obligations of the 42nd BImSchV (Federal Immission Control Ordinance) on the prevention of legionella since August 2017 for all operating companies of evaporative cooling systems, cooling towers and wet separators, has resulted in a tremendous increase in expenses.

The expansion of the existing furnace system with a third MF crucible furnace type FS 15 ( $P_{max}$  800 kW), connected via a furnace flow switch tower, is also an important factor for the customer. The customer purchased the furnace in order to be able to produce smaller batch sizes for special steels. The objective is to achieve greater flexibility for niche products and to improve the cost-effectiveness of the melting operation. A further key factor was the potential for more cost-effective and environmentally friendly production.

A major challenge that the ABP engineers faced was the connection of the smaller crucible furnace to the existing converter power supply, which was oversized for the small furnace. This task was solved by an optimized adaptation of the oscillating circuit of the new furnace, type FS 15.

Another task: The old, problematic transformer is replaced by a new, more powerful transformer. This also includes the opportunity to change the voltage level of the supply network. The modernization will increase the output of the furnace system from the previous 1,900 kW to 2,500 kW.

The example clearly shows: all in all, despite the current pandemic, there are many reasons to invest in system modernization. Like Olbersdorfer Guß here, customers with the latest technology components from ABP Induction are ideally positioned for success in the current competitive environment: the

PRODAPT® melt processor calculates energy requirements based on furnace content and automatically controls the energy supply for the melting and holding operation. The DICU3 digital converter control electronics achieves a technological leap in comparison to its predecessor DICU2, among other things due to the new processor technology and the potentials resulting from the remote maintenance now possible. The DICU3 is M2M-ready, so that error analysis can be performed via remote service. This makes customers' systems Industry 4.0-capable.

Adding intelligent solutions, such as in this case the additional connection of the smaller crucible furnace, with an aim of opening up further customer and market potential, results in the perfect modernization of an existing system, ensuring reliable and effective operation for the future.

#### **About ABP Induction**

ABP is a leading manufacturer of induction furnaces and systems for inductive melting and holding for the metal and metalworking industries. ABP is an expert in melting, pouring, holding and heating iron, steel and non-ferrous metals with design, production, assembly and services for foundries, forges and steelworks. The ABP Induction Group with over 400 employees has companies in the USA, Mexico, Sweden, Germany, South Africa, Russia, India, Thailand and China. It is represented by service and sales partners in most of the world's industrialized countries.

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