HARDTOP GmbH

HARDTOP invests in the future: More castings for the cement industry

HARDTOP GmbH reports on two recent projects that have expanded its new and spare parts production capabilities in Europe and Asia.

In the cement production and mining sectors, there are usually very high requirements in terms of wear and heat resistance. This applies above all to wear-resistant cast parts for crushers and mills as well as heat-resistant cast parts for the kiln, cooler and heat exchanger. HARDTOP Gießereitechnologie GmbH traditionally produces and supplies new and spare parts for this, such as hammers for raw material crushers, hammer mills and clinker crushers as well as blow bars and linings for im-

pact mills, drag chain links, grate bars, clinker cooler plates, impact plates, armoured roof and corner plates, bunker linings and impact plates, to name just a few.

Over more than 20 years HARDTOP has established itself as a competent and reliable partner for new and spare cast parts. This meant that the company had reached its capacity limits and an urgent capacity expansion was inevitable. As a result, investments were made in two projects.

HARDTOP Centrum Odlewnictwa, Poland

HARDTOP Centrum Odlewnictwa, founded in 2006, is located in Miechów-Charsznica, approximately 45km north of Kraków in the south of Poland. Here, around 70 employees currently produce 1000t/yr of castings. The range of materials is extremely diverse and, in addition to the company's product speciality, HARDTOP® bimetallic cast, spans from heat-treated steel castings and heat-resistant, corrosion-and acid-resistant cast steel to wear-resistant castings.

In order to overcome the capacity limits, neighbouring properties of around 13,500m² were purchased. The expansion of the facility area now enabled the planning and construction of new production workshops and storage hall comprising an area of 1840m². After completion of the project, annual production capacity should be increased to 3000t/yr of castings, a tripling of its capacity.



Left: Outside HARDTOP Centrum Odlewnictwa site in Poland, seen after the addition of a second storey.



Left: The first construction phase for the new production workshops in Poland.



Castings weighing 1150kg are targeted as the largest single cast-piece weight. This will be made possible by installing a modern melting shop with two medium-frequency furnaces of 800kg each and a medium-frequency furnace with a capacity of 1t. These will supplement the four current melting furnaces.

An increase in the office-building size has already been realised as part of a planned first step. Further construction phases, including the construction of the workshop, are currently being worked on, along with the installation of the equipment. Among other things, modern sand processing and effective posttreatment of the castings are planned here. In the last construction phase, the mechanical processing of the cast parts is planned in-house in order to minimise dependence on processing companies. Of course, the introduction of new, modern technologies, such as metal matrix composites, is also on the agenda. The aim is to

constantly react flexibly to customer needs and to provide customers with the best possible solutions for their casting challenges.



HARDTOP castings (Zibo), China

The second HARDTOP joint venture in China is located in Zibo City in Shandong Province, approximately 450km south of Beijing. HARDTOP



Right: In the shell of the new production workshop in China.

Far Right: Castings emerge from the heat-treatment furnace.









Above: Semi-automatic casting for bi-metal hammers.

castings (Zibo) Co., Ltd. was founded in July 2019 and began production in December 2019. This became a reality thanks to the acquisition of an old, disused foundry with, by Chinese standards, a rather small plot of approximately 11,400m². As a result, an additional production workshop of 750m² had to be built on the site, with the buildings renovated and equipment installed. Today around 50 employees produce 1400t/yr of castings at the site. In contrast to the Polish foundry, these are almost exclusively bimetallic hammers, as China, as the world's largest cement producer, has the greatest demand for them.

The heart of the process is the melting operation in which there are one 2t and two 1t medium-frequency furnaces. In the further expansion stage, this enables an annual capacity of up to 4000t/yr of bimetal casting. The capacities for heat treatment with two electric heat treatment furnaces are also being adapted to suit the plant's requirements.

Summary

With this two-project extension in Poland and the new establishment in China, HARDTOP has laid the foundation for positive future development. Our customers, especially in the cement industry, can benefit from this in the future.



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