



Interview by Peter Edwards, Global Cement Magazine

In discussion: Irina Ißleib-Lubojanski, HARDTOP Gießereitechnologie GmbH

Peter Edwards recently spoke to Irina Ißleib-Lubojanski from HARDTOP Gießereitechnologie about the company's history and products and about wear part trends in the cement sector.



Above: Irina Ißleib-Lubojanski, Managing Director of HARDTOP Gießereitechnologie GmbH, with one of the company's bi-metallic wear parts.

Global Cement (GC): Please could you briefly introduce HARDTOP?

Irina Ißleib-Lubojanski (II-L): HARDTOP Gießereitechnologie GmbH was established in September 1997 with its headquarters in Magdeburg, Germany. Over the past 20 or so years it has since emerged to be a renowned supplier of castings. Alongside our specially-developed bi-metallic castings, we supply castings of wear parts and heat-resistant materials.

GC: Can you outline the production process of a bimetallic part?

II-L: The company's speciality product is HARDTOP® bi-metallic cast. During its production two completely different metals are combined in a single casting process. The distinguishing feature of this method is the substance-to-substance bond of a ductile base material with an extremely hard wear material.

The bond between the materials meets the highest demands. It is possible, for instance, to use an impact-resistant, heat-treated steel of high mechanical strength for the areas that are prone to fracture and an extremely hard chromium cast iron for the areas that are subject to heavy abrasion.

This approach is advisable whenever different areas of a component are exposed to different kinds of stress. That way the selection of materials is optimised for the stresses present inside a given component.

GC: Which industries does the company supply?

II-L: The castings we supply are mainly used in the cement industry, the mining industry, the power industry and construction machinery. With a ~36% proportion of our clients, the cement industry is by far the most important single sector.

GC: What are the predominant types of product that HARDTOP supplies to the cement sector?

II-L: The castings supplied to the cement industry include, for example, castings for various crushers, cyclone preheaters, rotary kilns and clinker coolers.

GC: How are client demands changing with time?

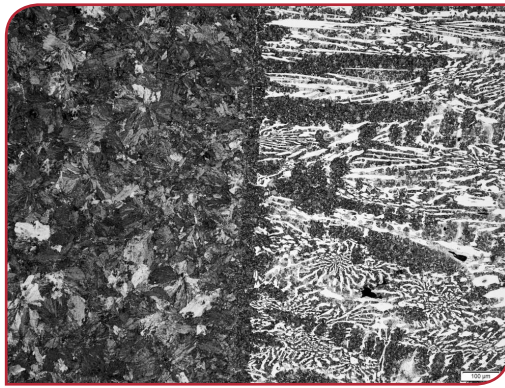
II-L: We have improved our products with time to accommodate the increasing demands placed on cement production equipment. In the past few years, the equipment for crushing and clinker cooling has shown great progress. Crushing technologies have evolved in particular. To keep up with these technical advances, we regularly



Right: Casting of a bimetallic wear part in the HARDTOP foundry.



Right: Close-up microstructure of the bond between the two elements of a HARDTOP bi-metallic wear part.



Right: A 90kg bi-metallic hammer for the cement sector.

update our product range. This does not necessarily concern the quality of our products, but rather we must consider the technical environment in which they are used.

GC: Which regions are experiencing the most demand for bi-metallic castings at present?

II-L: Thanks to the high wear resistance of our bi-metal hammers the products are widely used in Europe, the USA, North Africa, the Middle East and Asia. The markets in the Middle East and Asia have experienced rapid growth in the past few years.

In China, there is an increasing demand for bimetal products. However, due to comparatively high production cost in Europe and Chinese import regulations, we are not really competitive in that market at present, but progress is being made.

Right: Crushers have been the focus of increasing client demands in recent years.



Far right: Analysing materials in the laboratory.

GC: What major trends do you expect to see in demand for your products in the future?

II-L: Due to the increasing trend of globalisation the advancement of our products is becoming more and more important. HARDTOP is working on a new development for wear parts with improved wear characteristics. It is a composite material, which has an exceptionally high hardness and wear resistance. This new product generation will be available for wear parts with small and medium casting weight.



GC: Does the company have plans for expansion, new locations or capabilities?

II-L: China has the largest cement industry in the world. To win this market, a joint venture, HARDTOP HUAHENG (Shanxi) Wear-Resisting Castings Co., Ltd, was established in 2015. This is helping us to penetrate the difficult-to-reach Chinese market.

GC: Thank you for your time today.

II-L: You are very welcome!

