

Salvatore Musso: “We are expanding the range of available ceramic materials.”



Salvatore Musso leads the Sulzer Metco production facility in Barchfeld, Germany. He reports on the recent expansion of this site and its significance for the coating market.

What is special about the facility in Barchfeld?

Sulzer Metco produces coating materials worldwide at a total of four locations: in the USA, in Canada, here in Germany, and, in the near future, also in China. Our operation in Barchfeld is the technology center for spray drying and sintering processes within Sulzer Metco Materials. With these process technologies, we produce so-called agglomerated sintered coating materials that can be applied by thermal spray processes.

What is special about this production process?

We produce carbide and ceramic coating powders with this process in Barchfeld. The special feature of this process is that complex homogeneous materials can be produced from several starting materials

with different properties. We are therefore able to combine material properties individually for many different applications.

Which applications do you concentrate on?

Sulzer Metco focuses in particular on coating solutions for critical components—to extend their service life and increase their efficiency.

In the case of the carbide coating powders, we focus in particular on coating solutions for wear and corrosion protection. By increasing the quality of the sprayed surfaces, our customers can considerably reduce or even eliminate cost-intensive post-treatments, such as grinding and polishing.

With our new production line for ceramic coating powder, we are opening up new industries for the facility at Barchfeld. In addition to carbides, which are used in particular in the oil and gas, machine construction, mining, and the paper industries, we can now also process oxide ceramics. These are used in fuel cells, solar technology, semicon-

ductors, aircraft turbines, and industrial gas turbines. With ceramic coatings, turbines can, for example, be operated at higher temperature ranges and can thereby achieve higher efficiency. The fuel consumption and the emissions are also significantly reduced, which increases the economic efficiency.

What are the particular challenges in producing agglomerated, sintered coating materials?

Customers who visit us and see our powder production in Barchfeld are often impressed by the amount of work and the expertise that stand behind the operation. There are challenges in the areas of the environment and the protection of health, and, of course, especially in the optimization of the production processes through improved process control and automation. Our research-and-development lab and our application center are responsible for quality assurance and for new developments. Together with the Coating Solution Centers, which we make available to our customers within Sulzer Metco, we indi-

With its new production facility in Barchfeld, Germany, Sulzer Metco can now manufacture agglomerated sintered oxide ceramics.

Metco has left the Sulzer Group and is now part of the Oerlikon Group.

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vidually determine the necessary coating parameters for each type of material in combination with the respective coating system.

Whereby your many years of experience in this area help you...

Yes, even before its takeover by Sulzer in 2004, the then WOKA GmbH was a leader in the agglomeration and sintering of carbide materials. The operation was established in Barchfeld at the end of the 90s and grew rapidly from eight to forty employees. The region had previously been well known for its hard-metal industry, which uses process technologies similar to those used to produce agglomerated sintered coating materials. The operation profited from this and established itself worldwide as a producer of high-quality carbide powders.

What motivated Sulzer to enter the carbide business?

Sulzer Metco recognized the growth potential of carbide materials and supplemented its own technology portfolio through the acquisition of WOKA GmbH in Barchfeld. Its goal was to further expand its portfolio and capacity with the help of the global market access of Sulzer Metco and the financial resources of the Corporation. This strategy has clearly been successful. Around 120 people work here today, which corresponds to a three-fold increase since 2004. The sales volume has thereby more than quadrupled. The product portfolio has grown strongly, and we have been the market leader in agglomerated, sintered carbide materials for many years.

What were the reasons for expanding the site?

After the impressive growth in the carbide business, Sulzer pursued a similar strategy with the oxide ceramics—with the difference that, this time, we built up the capacities ourselves instead of acquiring them. Sulzer Metco in Westbury already produced these materials through plasma densification and held a leading position in the market. Sulzer now also wanted to produce this ceramic as an agglomerated sintered powder, in order to ultimately complement the existing product portfolio in a targeted manner. In 2007, working with major OEMs (original equipment manufacturers), we started to develop the first products in a very customer-oriented

way and to produce test quantities in the laboratory. We then

began to build up a small pilot system at the Barchfeld site in 2008, whose capacity soon became insufficient. With the considerably increased production capacity stemming from the new investment, we are now able to introduce a wide range of products into the market and to produce flexibly. Because the main market for agglomerated sintered oxide ceramics is in Europe, many customers benefit from the production facility in Barchfeld.

How large is the capacity after the expansion?

The new production hall is 2700 m² in size and offers space for four production lines. Three new production lines are already in operation: two lines for

large-scale production and one for medium capacities. With the fourth production line, which is also designed for medium capacities, we expect to conclude the expansion step by the end of 2013.

What are the plans for the future of this site?

Our target is, of course, to fully utilize the new capacity. We can only achieve this if we can succeed in keeping our customers satisfied and if we continue to successfully establish market-oriented new developments. A customer and/or a clear customer benefit stands behind every development. We have long-term partnerships with some customers, because the development of innovative

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coatings often takes a long time. Together with our customers, we develop certain solutions, for example, in the aviation industry that will only be used in a few years' times.

You have been responsible for the operation in Barchfeld for four years. What do you like most about your job?

Altogether, I have been working for Sulzer Metco for eight years at various locations around the world. I like the dynamics of the coating business and the rapid development of the site here in Barchfeld. We have achieved incredible, high-two-digit growth rates. It is very exciting to contribute to this and also very challenging. In addition, my family and I enjoy the fact that conditions here are optimal for a good life.

Interview: Tünde Kirstein

Salvatore Musso

studied industrial engineering at the University of Munich, Germany. He then worked for a total of five years as a company consultant in the fields of mergers & acquisitions and restructuring. Before taking over the management of Sulzer Metco WOKA GmbH in Barchfeld, Germany, he worked internationally for Sulzer Metco in various management positions.

In addition to his position as managing director, he is also a member of the management team of the materials business unit of Sulzer Metco as Vice President Operations.

