Strong partners continue success story with HiPIMS

CemeCon and Horn want to further expand their cooperation in the future

The tool manufacturer Horn has been coating its cutting tools with HiPIMS high-performance coatings in its own coating center since 2015. From the very beginning, the company has relied on market-ready solutions from CemeCon. Now Horn has received seven new CC800® HiPIMS systems for its in-house coating center - including peripherals for pre- and post-treatment of shank tools.

The quality of its cutting tools is the key to the market success of Paul Horn GmbH. In 70 countries on all continents, companies in the automotive industry, chemicals, aerospace, medical technology or in tool and mold making use the precision products of the Tübingen-based company.

The high-performance coatings of the tools also play a major role in the success. The company's own coating center at the company site offers Horn maximum flexibility, for example in the development of new coating solutions. And what makes many of the tool manufacturer's customers particularly happy is that fast delivery times are also possible for special tools and specific small series. From the very beginning, the partner for the operation of the systems has been the specialist CemeCon, which has developed the HiPIMS high-performance coatings to market maturity and economic efficiency. “For the current expansion and modernization of our coating lines, it was therefore out of the question for us not to once again rely on proven expertise,” says Managing Director Markus Horn, appreciating the cooperation with the technology and market leader.

Horn has expanded its in-house coating centre with seven new CC800®-HiPIMS systems.

Complete coating center from a single source

With seven new CC800® systems, Horn is sustainably expanding its coating capacities in HiPIMS technology. Major parts of the periphery for the pre- and post-treatment of shank tools, such as cleaning systems, blasting technology and quality control, also come from the plant manufacturer CemeCon. Horn intends to take full advantage of the “more” in autonomy and performance gained with the support of its strong partner. CemeCon will continue to supply all consumables and take over maintenance services as well as individual user training and support. Furthermore, in addition to the operational business, the joint focus is on the expansion of the cooperation in research and development as well as the united strategic development of new business fields for Horn's cutting tools. Managing Director Markus Horn is firmly convinced “It is such key partnerships with innovative strength that pave the way for us to remain successful in a dynamic market.”

Because at CemeCon, too, they know the challenges of manufacturing precision tools very well. “A large proportion of the tools manufactured at Horn are solutions that are directly adapted to specific machining processes,” knows Inka Harrand, the responsible product manager at CemeCon. The right premium coating is just as important as the geometry and the material of the tool itself: “Only the interaction creates a solution that guarantees quality and enables productivity and durability.”

Strong partners (from left): Dr.-Ing. Matthias Luik, Head of Research and Development Paul Horn GmbH, Maurizio Colecchia, Head of Coating Department Paul Horn GmbH, Dr.-Ing Christoph Schiffers, Product Manager Technology CemeCon AG, Thomas Schaaff, Sales Manager CemeCon AG and Frederic Neumann, Deputy Head of Coating Department Paul Horn GmbH

Efficient in day-to-day business – highly flexible in coating material development

With their open technology, the new CC800® HiPIMS systems are ideal for the changing requirements that characterize everyday life at the Tübingen coating center. Clear user interfaces and fast batch changes make work efficient even with small batch sizes and complex tool shapes. Handling the original CemeCon targets, which are an elementary module for the production of the coating materials, is also very easy. As a result, completely smooth, droplet-free and low residual stress coatings with maximum adhesion and uniform coating thickness distribution of 1 to 8 µm are produced for all tool sizes - technically possible even up to 12 µm.

„It is KEY PARTNERSHIPS like this with INNOVATIVE STRENGTH that pave the way for us to remain SUCCESSFUL in a dynamic market.“

Markus Horn, Managing Director Paul Horn GmbH

There are almost no limits to HiPIMS technology: New coating materials can be developed quickly, precisely and economically from combinations of many elements of the periodic table. Coatings can be finished directly on an industrial scale. “In this way, we as a tool manufacturer have the flexibility to react immediately to changing market conditions and new customer requirements. Yes, even to cover completely new fields of application,” says Dr.-Ing. Matthias Luik, Head of Research and Development at Horn, who is delighted with the potential of the HiPIMS coating systems. “We are thus securing important competitive advantages in the market and creating tangible benefits for our customers.”

Paul Horn GmbH

Since 1969, **Paul Horn GmbH**, based in Tübingen, Germany, has been developing and producing grooving, longitudinal turning and slotmilling tools that impress with their performance and reliability. The high-performance tools are used in a wide range of industries such as the automotive industry and its suppliers, aerospace, hydraulics/pneumatics, the jewelry industry, medical technology and mechanical engineering. In Germany, the company has already been the market and technology leader for years – not least thanks to the continuous advancement and optimization of processes and products. Thanks to the cooperation with the international locations as well as the numerous partners around the globe, Horn is able to reliably support customers worldwide.

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Paul Horn

Coating technology

CC800® HiPIMS

In-house coating

HiPIMS

Premium Coating

12 µm

High performance coatings

Coating material development

Automotive industry

Aerospace

Medical technology

Tool and mould making