

First-class tools thanks to good networking



CemeCon coatings are often a central component of the successful tool solutions from SARTORIUS, as in the case of the ATORN RockTec PRO end mill for hard machining.

Sartorius end mill with HiPIMS coating for hard machining

Tools of the highest quality are required to ensure economical and reliable production in hard machining. The right partner for such demanding projects is SARTORIUS Tools GmbH & Co. KG. Thanks to extensive know-how in all aspects of machining and close cooperation with numerous experts, they help users to find the best possible tool solution – including coating technology from CemeCon.

The SARTORIUS Tools GmbH & Co. KG is more than just a tool dealer. Among experts, the Ratingen-based company is regarded as a center of excellence in the field of machining. Users from mechanical engineering, tool and mold making, plastics processing, track technology and the automotive industry rely on the experts' extensive process know-how. “Our customers know: Only supplying outstanding tools is not enough for us. Together with our customers, we develop machining solutions for their production goals. That's why we train our employees, for example in our SARTORIUS Academy, to turn tool vendors into suppliers of manufacturing benefits,” says Cristóvão Belchior, Product Manager Cutting Tools at SARTORIUS.

The key to SARTORIUS' success also lies in close cooperation with the manufacturing companies, tool manufacturers and coating experts such as CemeCon. “The specialists at SARTORIUS bring a great deal of know-how to the table, particularly with regard to coatings, and provide the user with direct access to this know-how through their competent advice. In this way, they help them to find the best coating solution and thus to achieve greater process reliability for their application,” says Christoph Heller, Sales Manager at CemeCon. Thanks to these competencies, SARTORIUS is also much more involved in the development process with the tool manufacturer. This creates trust and a significantly higher performance of the jointly developed precision tools.

„The HiPIMS TECHNOLOGY has shown new potentials in HARD MACHINING. The best example are our ATORN RockTec PRO END MILLS. The precisely matched HiPIMS coating helps the tools to achieve BEST PERFORMANCE in materials UP TO 65 HRC.“

Cristóvão Belchior, Product Manager Cutting Tools at SARTORIUS Tools GmbH & Co. KG.

CemeCon coatings are often a central component of the successful tool solutions from SARTORIUS: “On the one hand, we work directly with the CemeCon Coating Service to have precision tools ‘refined’ with the patented diamond coatings. On the other hand, our manufacturer partners, who for example realize our premium lines for drilling, turning and milling – the SARA and ATORN own brands – use CemeCon coating systems in their own production. In addition, we also offer tool systems from CemeCon technology partners. For Palbit, for example, we have taken over the exclusive representation in Germany in 2019,” Cristóvão Belchior describes the numerous points of contact.

HiPIMS technology brings decisive advantages

Different rules apply to hard machining than to the machining of “normal” materials: wear and heat development due to enormous feed rates and cutting speeds of up to 250 m/min are very high when machining hardened steels and require tools of uncompromising quality. Cristóvão Belchior says: “The HiPIMS technology has shown new potentials in hard machining. The best example are our new ATORN RockTec PRO end mills. The HiPIMS coating, which has been precisely matched and specially developed for this application, impresses with extreme hardness and low friction thanks to a super smooth surface, and helps the tools to achieve top performance in materials up to 65 HRC”. In a comparative test of the Gesellschaft für Fertigungstechnik und Entwicklung Schmalkalden e.V. (GFE) – milling tool steel 1.2379 (X153 CrMoV12) with a hardness of 58 HRC – the ATORN RockTec PRO end mill with the longest tool life clearly stood out from the competition. They scored with low flank wear, few chipping, hardly any built-up edges and minimal coating abrasion.

SARTORIUS Tools

The [SARTORIUS Tools GmbH & Co. KG](#), with its headquarters in Ratingen and a branch office in Velbert, is one of the leading suppliers of high-quality cutting tools for the metalworking and processing industry. The company, which has approximately 160 employees, was founded in 1879 in Düsseldorf's Old Town and has been part of the Würth Group since 1989. With its high level of manufacturing competence and comprehensive consulting services, SARTORIUS occupies a special position there as a specialist for

premium cutting solutions. In addition to representing well-known tool manufacturers, SARTORIUS also repeatedly demonstrates extensive process know-how with its own brands ATORN and SARA.

<https://www.saratools.com/>

Low friction

hardmachining

development process of the tool

Patented diamond coating

Tool solution

Wear

heat development

feed rate

Cutting speed

hardness

Sartorius