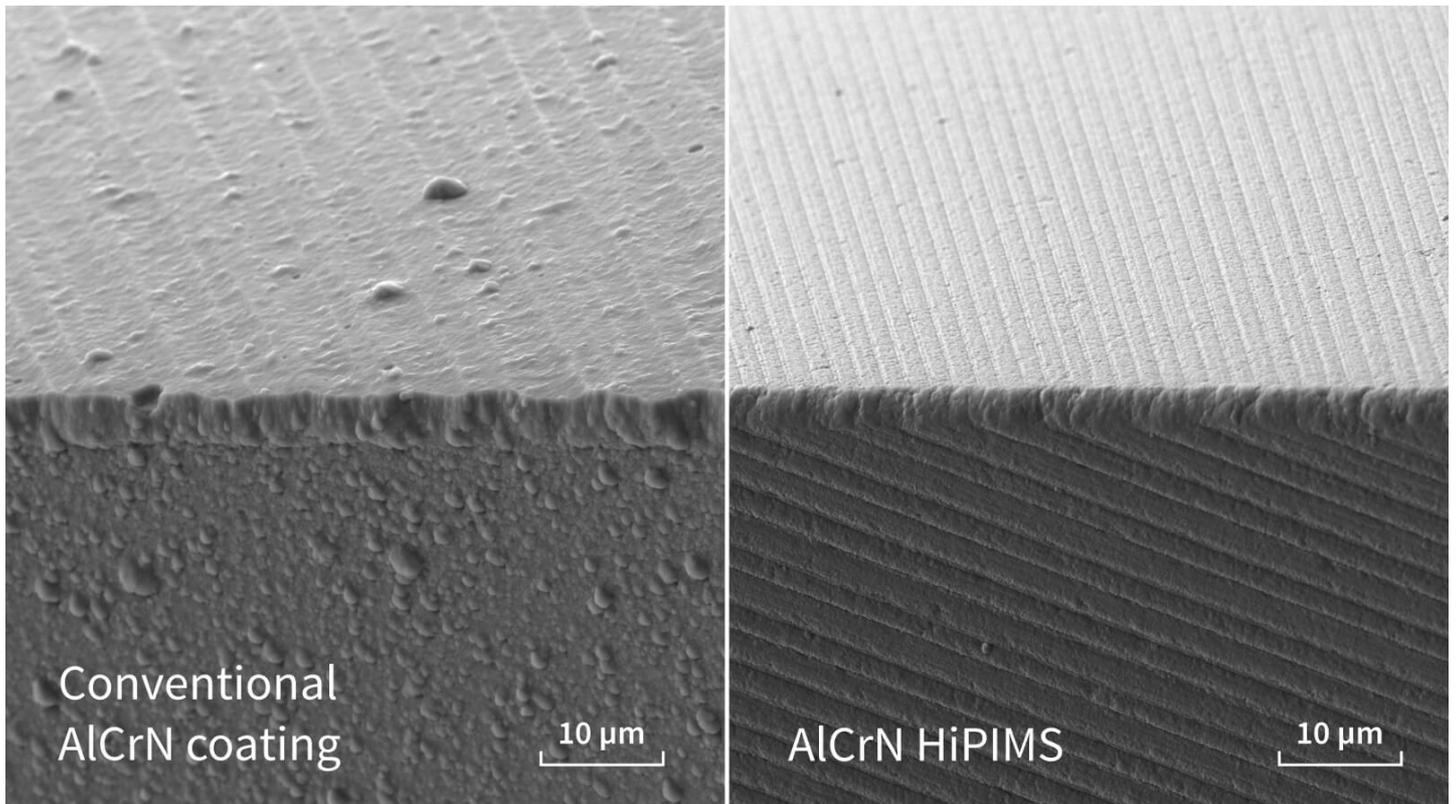


Everything but ordinary: universal tools with premium coatings



HiPIMS enables extremely smooth AlCrN coatings—these do not exhibit any droplets, which are unavoidable with conventional processes

Hydraulic components today, gearboxes tomorrow, sensor mounts the day after tomorrow—in many manufacturing companies, machining tasks cover an enormous range. Instead of long-planned series with clearly defined materials and geometries, changing materials and a wide variety of machining processes characterize the everyday work of many users. A challenging production environment in which the universal applicability of tools is becoming increasingly important. This is where CemeCon's HiPIMS coating materials come into their own in a very special way: they enable tools with outstanding flexibility—combined with consistent process reliability, high precision, and long tool life.

Agility as an economic success factor

Even for universal applications, milling cutters and drills with CemeCon coatings are always custom-made. Dr. Christoph Schiffers, Product Manager Technology at CemeCon: “Designed for a wide range of machining applications, our high-quality coatings are a key factor in achieving greater productivity and cost efficiency while maintaining maximum quality.” This crucial factor paves the way for flexible and fast manufacturing processes at all times: the focus of tools and coatings to a variable product range enable tool makers and end users to adapt quickly in dynamic market environments.

Material:
tempered steel
1,400N/mm²

Tool:
solid carbide mill, Ø 8 mm

$v_c = 150$ m/min

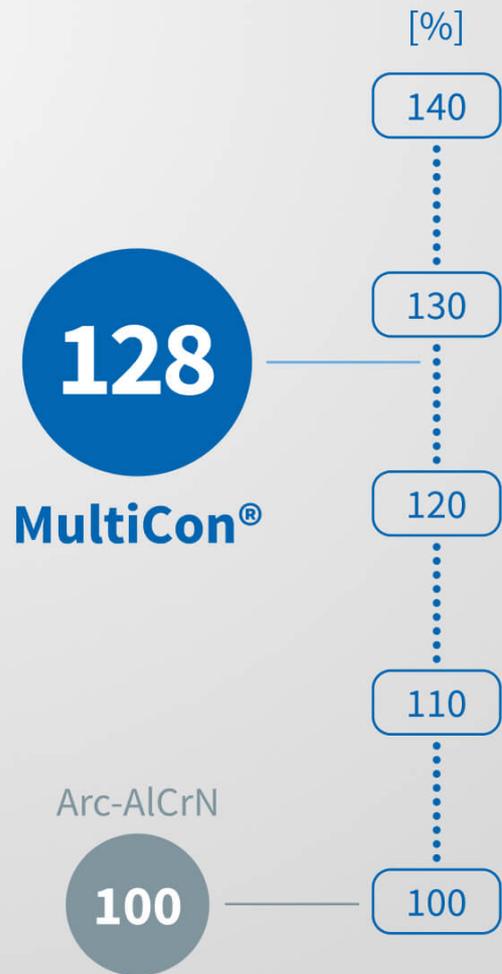
$n = 6,460$ min⁻¹

$f_z = 0.085$ mm/tooth

$a_p = 0.028$ mm

$a_e = 0.5$ mm

Cooling: **emulsion**



Ideal application of CemeCon's HiPIMS coating material: MultiCon® offers a particularly smooth surface with a dense and homogeneous coating structure with excellent adhesion and optimized wear behavior.

Personal and practical advice is our passion

To make this possible, every order of our customers at the CemeCon coating center is tailored individually, regardless of batch size or degree of specialization. Every batch meets consistently high premium requirements: from cleaning to the selection of the coating material and the engineering of the coating to the final quality control. Personal contact persons with an understanding of technology and application provide practical advice and deliver solutions that are economical and efficient in real-world manufacturing environments and not just on a datasheet.

High-end expertise in universal use

The HiPIMS AlCrN coating MultiCon® is a high-performance coating material that offers a wide range of applications for steel processing. HiPIMS enables an extremely smooth AlCrN coating without the droplets typical of traditional processes. It effectively reduces friction and improves chip evacuation—a major advantage when working with frequently changing materials. HiPIMS creates a particularly dense and homogeneous coating structure with excellent adhesion and optimized wear behavior.

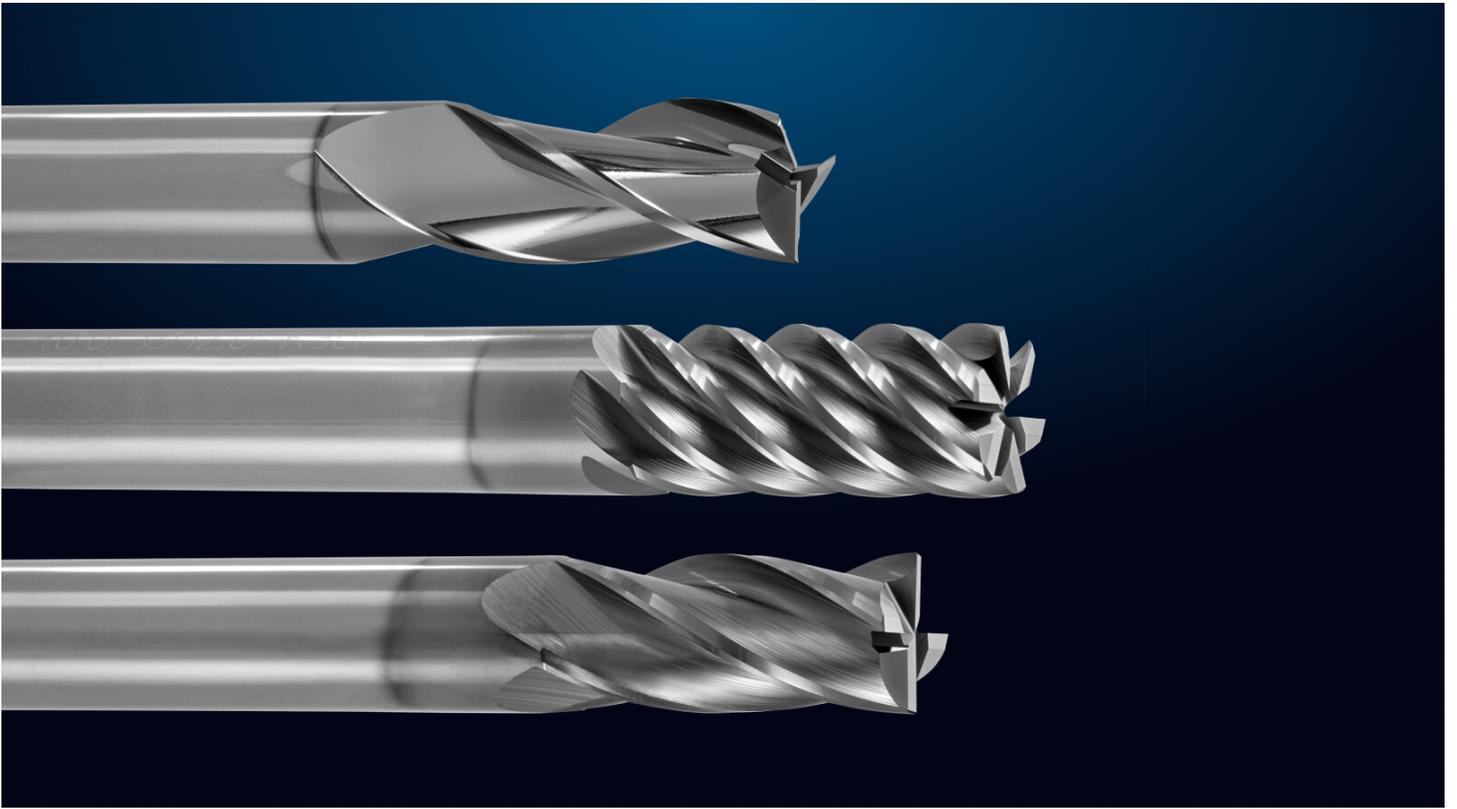
This paves the way for tool manufacturers to differentiate their cutting tools from the competition: The universal coating material MultiCon® significantly increases productivity, enables reproducible, longer service life at the highest level, and increases process reliability compared to arc technology. The example of MultiCon® impressively demonstrates how CemeCon directly incorporates its decades of experience in highly specialized high-end machining into coating solutions that are designed for universal use.



At the CemeCon coating center, every customer order is tuned individually, regardless of batch size or degree of specialization

Customized solutions unlock potential

“The competitive situation in the market for tools for universal applications is very challenging. And the rapidly rising material prices for carbide also call for innovative and efficient solutions. Makers of tools for contract manufacturers or suppliers who do not want to commit to narrow application windows can use a universal HiPIMS coating from CemeCon to significantly increase the performance and quality of their tools. Thereby they will set themselves apart from their competitors,” explains Marco Furrer, Sales Manager at CemeCon. The user support which CemeCon offers as a service to all tool manufacturers for solving machining tasks in a team—this service is often a decisive argument in favor of choosing a HiPIMS coating from Würselen. “This gives our customers the certainty that they are well equipped for any requirement—regardless of what machining task tomorrow may bring,” concludes Furrer.



The high-performance HiPIMS coating material MultiCon® enables shank tools to be used in a particularly wide range of applications in steel processing