Performance leap with MultiCon®

With the latest HiPIMS MultiCon® coating material, CemeCon offers a high-performance solution specifically for milling and drilling cast iron and steels between 30 and 50 HRC.

AlCrN goes HiPIMS: The new all-rounder for steel machining

Steel is omnipresent in industrial production and demands top performance from tools and coatings. With the latest HiPIMS coating material MultiCon®, CemeCon offers a high-performance solution especially for milling and drilling cast iron and steels between 30 and 50 HRC – for both wet and dry machining.

“This is where HiPIMS technology comes into play: it produces extremely smooth, dense and homogeneous coatings with high adhesion. This opens up new potential in steel machining. The new HiPIMS coating material MultiCon® is the logical evolution of our AlCrN sputter coatings – with clear advantages in terms of performance and tool life, especially compared to arc variants,” says Manfred Weigand, Product Manager Round Tools at CemeCon.

Tailor-made for steels from 30 to 50 HRC

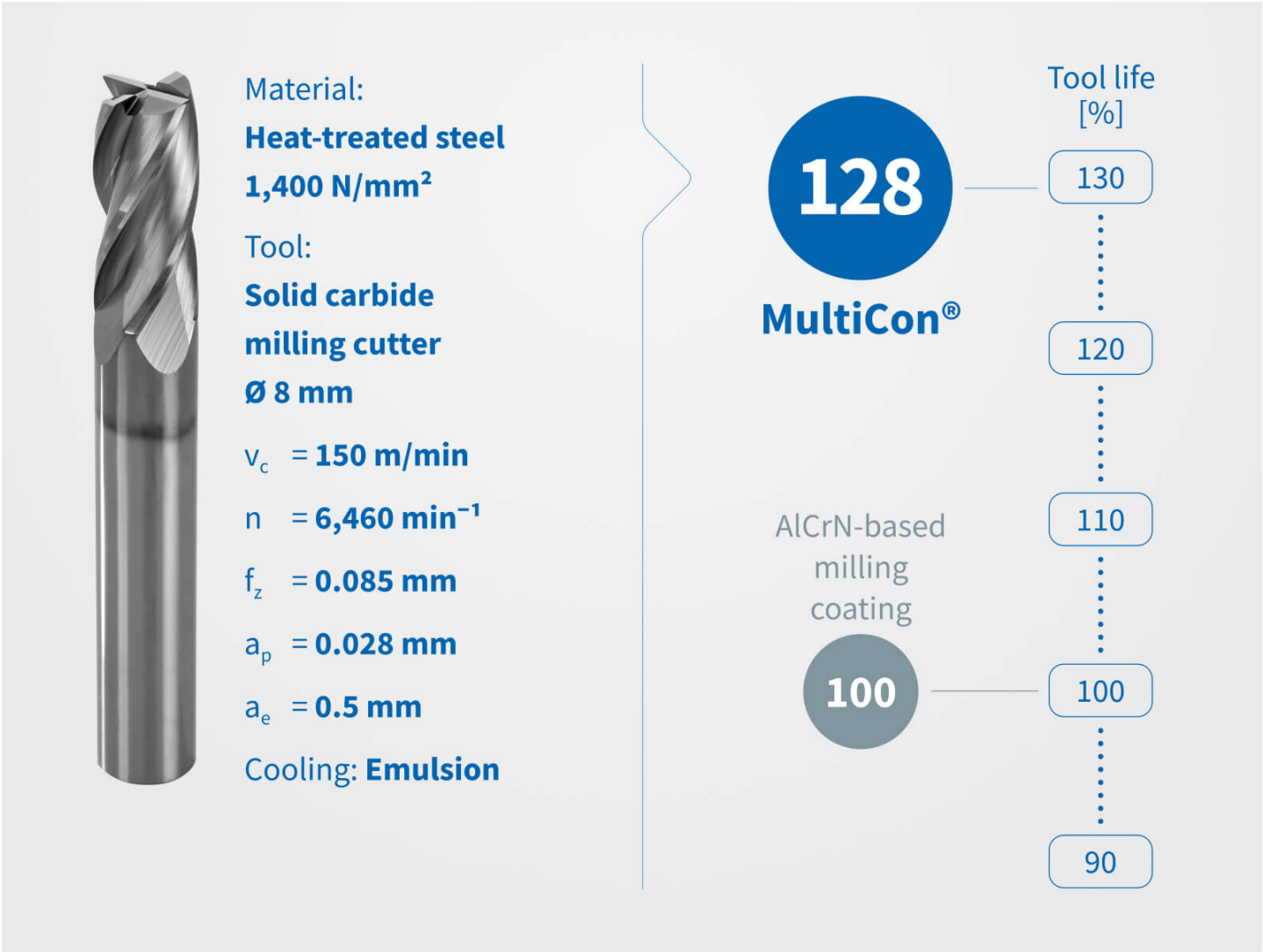
With MultiCon®, CemeCon closes the gap between the HiPIMS coating materials FerroCon® and InoxaCon®. While FerroCon® is ideal for soft steels and InoxaCon® for the upper range of medium steels and stainless steels, MultiCon® was developed for steels with a hardness between 30 and 50 HRC.

Performance enhancements convincing

Practical examples from steel processing show how MultiCon® increases productivity. When milling tempered steel (1,400 N/mm²) with a solid carbide milling cutter, tool life increases of approx. 30 percent were achieved compared to an AlCrN coating deposited using arc technology. Manfred Weigand: “And that’s not all: some users even report tool life improvements of between 50 and 80 percent.”

These outstanding results are made possible thanks to the combination of optimally matched tool geometry and adapted HiPIMS coating, which is developed in close cooperation between CemeCon and the respective tool manufacturer. This allows MultiCon® to develop its full potential.

MultiCon® sets new standards



Practical examples show how MultiCon® increases productivity. When milling heat-treated steel (1,400 N/mm²), the tool life was increased by almost 30 percent compared to an AlCrN coating deposited using arc technology.

“MultiCon® is the ideal solution for companies that require maximum process stability in steel machining. The coating combines the properties of AlCrN coatings with the advantages of HiPIMS technology and raises the performance of milling and drilling tools to a new level. With MultiCon®, CemeCon offers a future-proof solution that meets the requirements of modern manufacturing,” summarizes Manfred Weigand.

MultiCon® at a glance

AlCrN-based coating material

HiPIMS coating technology

for milling and drilling cast iron and steels between 30 and 50 HRC

for wet and dry machining

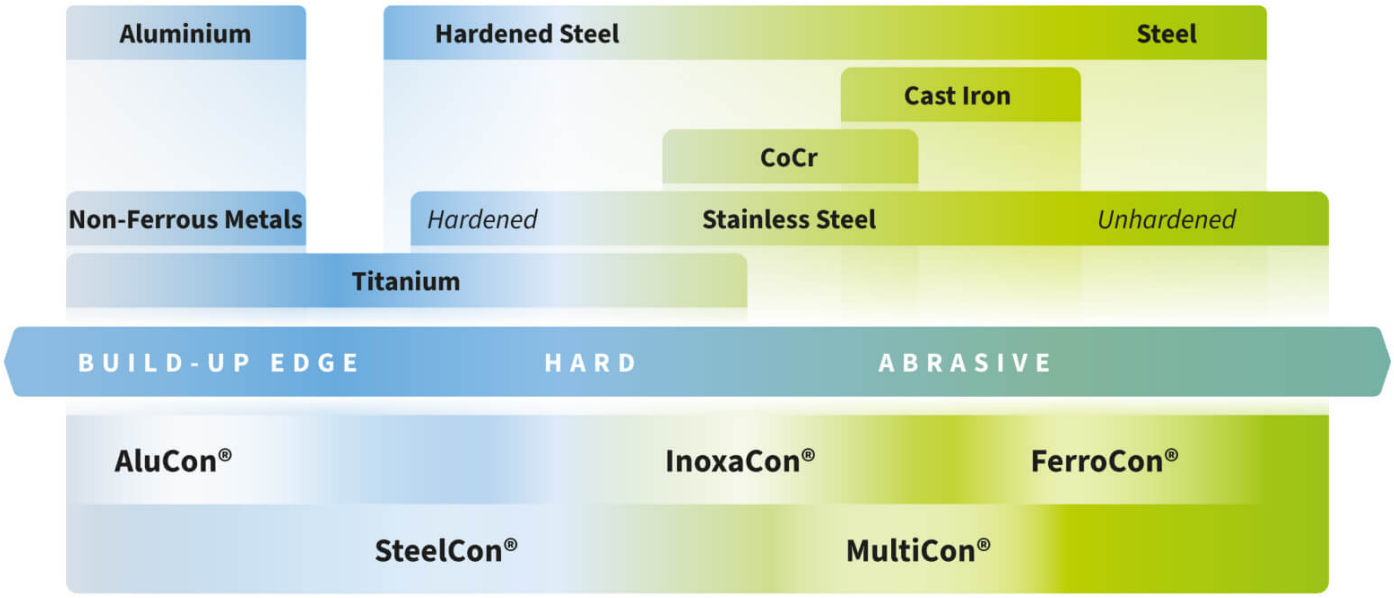
optimum wear behavior, excellent adhesion, extremely smooth

maximum operating temperature of 1,100 °C

dark grey color

available in 3 µm coating thickness for round tools

Workpiece Material



Recommended Coating Material

Hardened steel, stainless steel, cast iron or even titanium and aluminum - CemeCon always offers the right solution. With MultiCon®, CemeCon closes the gap between the HiPIMS coating materials FerroCon® and InoxaCon® for steel processing.

HiPIMS

Steel

Casting

Steel Cutting