

## AlCrN goes HiPIMS: Performance leap with MultiCon® The new all-rounder for steel machining from CemeCon

*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

“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

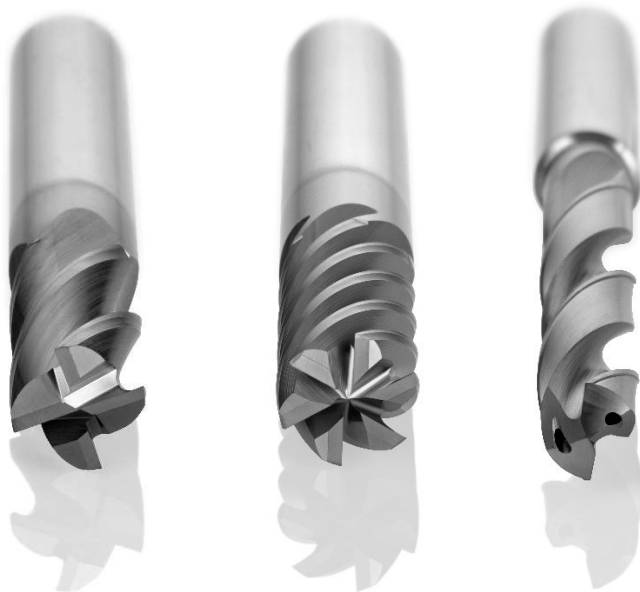
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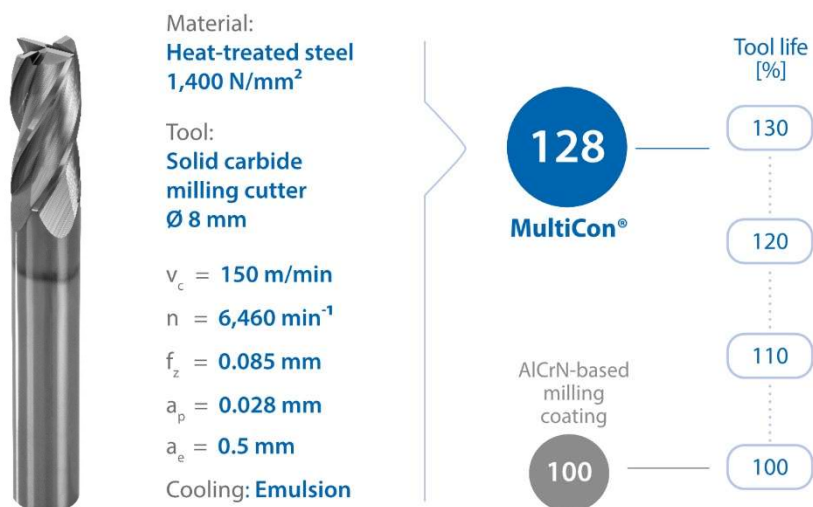
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- for wet and dry machining
- optimum wear behavior, excellent adhesion, extremely smooth
- maximum operating temperature of 1,100 °C
- dark grey color
- available in 3 µm coating thickness for round tools

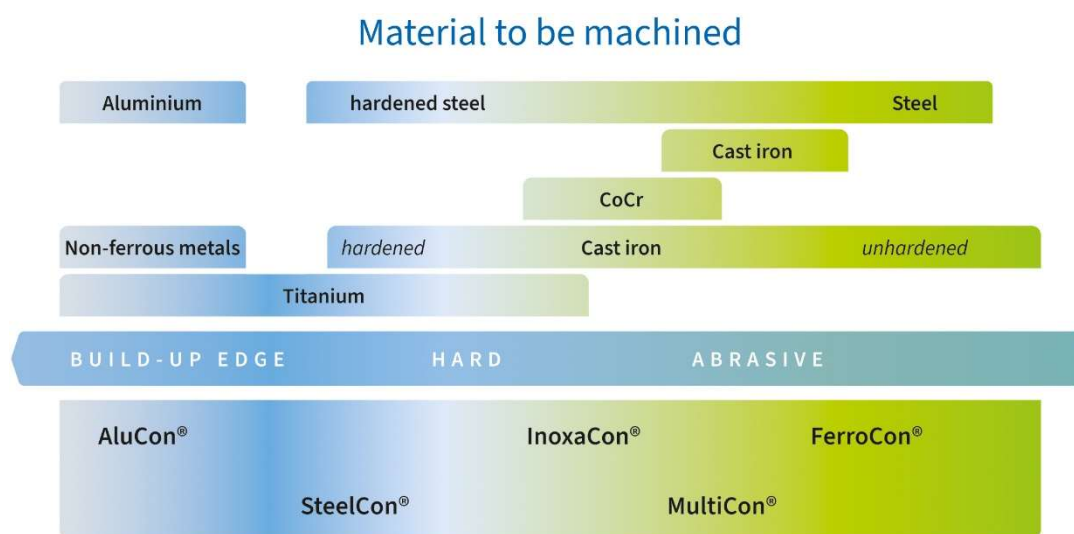


With the latest HiPIMS MultiCon® coating material, CemeCon offers a high-performance solution specifically for milling and drilling cast iron and steels between 30 and 50 HRC.

### Milling application example



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.



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.

Photos: CemeCon AG

Numb. of char: 2,673 (characters, including spaces)

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### **Metadata:**

#### **Meta-title**

New HiPIMS coating material MultiCon® from CemeCon for maximum performance in steel processing

#### **Meta-Description**

MultiCon®, the new HiPIMS coating material from CemeCon based on AlCrN for milling and drilling steels (30-50 HRC), ensures long tool life and maximum performance.

#### **Tags / Keywords**

MultiCon, HiPIMS, CemeCon, AlCrN, steel cutting, milling tools, drilling tools, steel machining, coating technology, tool life stabilization, tool coating, wet machining, dry machining, wear protection, tool technology, industrial manufacturing

## About CemeCon AG

CemeCon is the world market leader in diamond coating and technology leader in PVD coating of precision tools for machining. The coating materials required for premium coatings are produced within the coating systems developed by CemeCon.

Customers make use of the company's expertise in both coating services and plant engineering. Renowned tool manufacturers worldwide use the technology and expert knowledge of CemeCon for their own competitive advantage and to open up new business areas.

CemeCon has brought the future technology HiPIMS to market maturity. It combines the advantages of all common PVD coating processes – and that with high economic efficiency. With HiPIMS, maximum performance and a significantly longer tool life are possible even when machining materials that are extremely difficult to machine. Maximum productivity in the machining of innovative materials – such as fibre-reinforced plastics, ceramics or graphite – is guaranteed by the patented multilayer technology in diamond coating developed by CemeCon.

Founded in 1986 by Dr. Toni Leyendecker, CemeCon AG has expanded continuously over three decades. At its headquarters in Würselen, the company operates the world's largest coating center. All important international markets are served from there and from the centers in the USA, China and Japan as well as by our sales partners in the Czech Republic, Denmark, Taiwan, Korea, India and Russia.

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