

More business in stainless steel? Cutting inserts with InoxaCon®!

With the CC800® HiPIMS, Achteck takes stainless steel processing to a new level

The company name Achteck is closely linked to the lucky number in China. The manufacturer from Ganzhou, China, proved to have a lucky hand with its cutting inserts for machining stainless steel – with a CC800® HiPIMS and the coating material InoxaCon®.

„The formula for success for our inserts for stainless steel machining: our CARBIDE, a carefully designed GEOMETRY and HiPIMS. The ACHECK CUTTING INSERT with INOXACON® processes 25 PERCENT MORE stainless steel connectors than the competition.“

— Shi Haidong, Vice President Production
at Ganzhou Achteck Tool Technology Co., Ltd.

Compromises do not fit into the premium strategy of Ganzhou Achteck Tool Technology Co, Ltd. equipment, technology and staff training: Only the best is good enough. When it came to stainless steel machining, Shi Haidong, Vice President Production at Achteck, was not satisfied with what had been achieved. He was looking for the plus to the premium. "Many can machine carbon steel, stainless steel is in a completely different league. When milling stainless steel, high temperatures are generated at the cutting edge, which damages the tool, resulting in poor surface quality on the product. On top of that, stainless steel tends to smear and form built-up edges. We had high-quality carbide and coordinated geometries – the unique selling proposition on the market lacked an outstanding coating," says Shi Haidong.

The best? InoxaCon® from the CC800® HiPIMS!

A screening of all available technologies on the market by Achteck's perfectly equipped R&D department was to determine the best solution. A clear leader emerged: the CC800® HiPIMS from CemeCon. "With no other system can HiPIMS be tailored so specifically to the requirements of stainless steel processing – for outstanding results in cutting," confirms Shi Haidong.

The HiPIMS coating InoxaCon® raises the milling of stainless steel to a new level. Jimmy Zhang, Sales Manager at CemeCon China, says: "InoxaCon® has a low affinity to stainless steels and is extremely smooth. This reliably prevents built-up edges and ensures process reliability. Thanks to its high temperature stability, InoxaCon® optimally protects the tool against heat in the cutting process, as the heat is conducted into the chip".

Thick coating and sharp cutting edge

Thick layers on the sharp edges typical for stainless steel inserts? A contradiction? Not with HiPIMS! Joe Ni, Sales Manager at CemeCon China: "The high density of the HiPIMS layers and targeted management of the residual stresses in the coating make the technological leap".

"The formula for success for our inserts for stainless steel machining: our carbide, a carefully designed geometry and HiPIMS. The Achteck cutting insert with a 5 µm thick InoxaCon® layer processes 25 percent more stainless steel connectors than the competition," says Shi Haidong happily.



Qiu Lianchang (center) together with other Achteck employees in front of the CC800® HiPIMS.

And that's not all. "We are working on cutting inserts with AluCon® for milling TiAl6V4 for the aerospace industry," says Qiu Lianchang, R&D team leader at Achteck. "One can be looking forward to further premium results. "

Ganzhou Achteck Tool Technology co., ltd.

Ganzhou Achteck Tool Technology Co, Ltd, a subsidiary of Chongyi Zhangyuan Tungsten Co, established in 2007, develops and produces high-performance and precise cutting inserts for milling, turning and drilling such as steel, stainless steel, cast iron, aluminum alloys, superalloys and hardened steel. Following its motto "Top level of technology, equipment and automation around the world", the company continuously invests in advanced production technology. In addition to cutting inserts, Achteck also produces carbide blanks for solid carbide tools in various designs and sizes. A modern measuring laboratory (below) ensures CemeCon's equally high quality standards worldwide.

www.achtecktool.com/en/

Stainless steel | Cutting inserts | Milling | High temperature | R&D | Thick layers | Thermal stability | Coating stress | Residual stress management | CC800® HiPIMS | Aircraft industry | Aerospace | Ganzhou Achteck Tool Technology | China | HiPIMS | PVD | InoxaCon® | AluCon®