

Best Performance in PCB Machining with HiPIMS and Diamond Coatings



Reliable and economic coating technology:

AI computing, 5G cell phones, EV mobility

Ensure the efficiency, quality and durability of your PCB tools
with high-quality and reproducible CemeCon coatings.

HiPIMS Coating Technology

- ✓ Extraordinarily smooth
no droplets
- ✓ Faster than other technologies
- ✓ Best machining results for
PCB boards
- ✓ Absolutely homogeneous
and consistent coatings
- ✓ Consistent coating quality
over the entire batch

HiPIMS deposits smooth, droplet-free coatings with low residual stresses in an almost unlimited variety.

HiPIMS coatings are both hard and tough at the same time thanks to the dense and nearly amorphous coating structure. The coating thickness and its distribution around three-dimensional objects like the cutting edge of a PCB tool is fully consistent and homogeneous. This facilitates optimal tool life for small cutting tools like PCB drills and routers.

In terms of technology means maximum flexibility and highest productivity with a deposition rate of up to 2 $\mu\text{m}/\text{h}$.

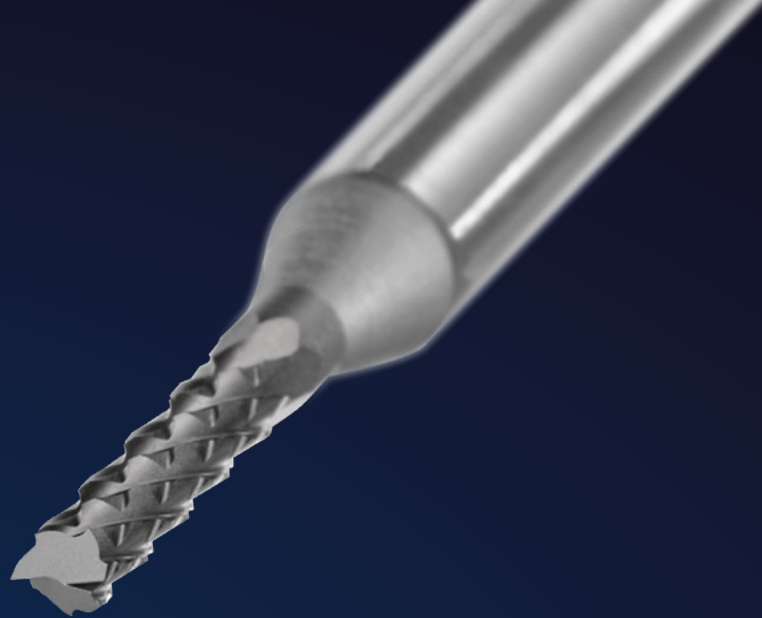


Diamond Coating Technology

- ✓ Diamond is the hardest of all materials
- ✓ The coating for the next generation PCB boards with ceramic fillers and glass layers
- ✓ Largest system capacity on the market
- ✓ Extremely wear-resistant
- ✓ High thermal conductivity

CemeCon is the pioneer of diamond coating and has been offering its customers the advantages of this technology for more than 25 years.

With its compact external dimensions, the CC800® Diamond is a fully automatic system for diamond coatings and offers the market's largest capacity. Three independently operating coating chambers make this system very flexible and economical.



Best coatings, best machining results

Among the range of CemeCon coating materials, we recommend you take a detailed look at the following two products when coating your tools for processing PCBs.

HiPIMS MultiCon®

MultiCon®, an AlCrN-based HiPIMS coating, significantly improves tool performance of drills and routers due to its smoothness and being 100 % free of any droplets.

cemecon.com/multicon

Material: **EM-390**

Tool: **PCB drill – Ø 0.25 mm**



- ✓ High hardness and wear resistance: Reduces wear during processing, extending tool life.
- ✓ Excellent heat resistance: Maintains stable performance under high-temperature, high-speed machining.
- ✓ Low friction coefficient: Minimizes material adhesion, enhancing machining precision.

CCDia® Series

CemeCon's CCDia® Series diamond coatings are the key to machining of high-end printed circuit boards with ceramic fillers or glass layers. The world's leading diamond technology for the gold standard in the PCB industry.



Talk to an expert



cemecon.com/contact