

For 20 years DATRON has been developing and delivering carbide tools of the highest quality. As a manufacturer of high-quality CNC milling and engraving systems, we have always given a lot of attention to cutting technology. The technological design and the quality of the CNC tools greatly influence the efficiency and quality of the CNC machining. As a result of our own developments and tests, as well as the experience of our customers, we can offer you optimised CNC tools especially for high-speed machining.

Made in Germany

High surface quality

Burr-free

Extremely long tool lives



**Order now at:**

Order hotline: **+49 (0) 61 51 - 14 19 - 111**

Tool consulting service: **+49 (0) 61 51 - 14 19 - 480**



**By e-mail:**

[tools@datron.de](mailto:tools@datron.de)



**Or in our online shop:**

[www.datronshop.de](http://www.datronshop.de)

## DATRON CVD diamond cutter

Milling composites and abrasive plastics even more effectively

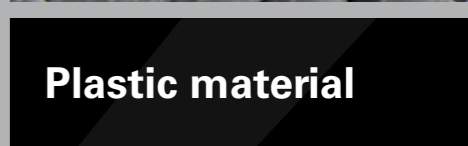
Significantly increased tool lives and improved manufacturing quality – with DATRON CVD diamond tools, you can achieve exceptional results. This is particularly true for demanding materials.



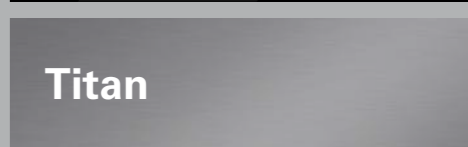
**CRP (carbon)**



**GRP (fibre glass)**



**Plastic material**



**Titan**

# Diamond milling cutters from DATRON

– Customised milling cutters for machining of CRP and GRP

The new CVD cutting material for GRP, CRP, PCBs and plastics performs better than conventional PCD cutting material in the areas of wear resistance, tool life and surface quality.



## Tool life test on a CRP component.

The illustrated sample keyboard (left) made of carbon fibre reinforced plastic was milled in a DATRON CNC machine. In direct comparison, a DATRON CVD diamond milling cutter achieved a tool life of about three times longer than a conventional PCD milling cutter. Strikingly, the tool life was about 25-times longer when compared to solid carbide tools.

## Your tool life advantage

	<b>DATRON CVD-Milling cutter</b>	50 parts manufactured with one milling cutter
	<b>PKD-Milling cutter</b>	15 parts manufactured with one milling cutter
	<b>Solide carbide milling tool</b>	2 parts manufactured with one milling cutter

## Your price advantage

<b>CVD</b>	<b>-Milling cutter</b>	Tool costs per 50 workpieces = € 371.50
<b>PKD-Milling cutter</b>		Tool costs per 50 workpieces = € 576
<b>Solide carbide milling tool</b>		Tool costs per 50 workpieces = € 798

# Perfected DATRON technology

– Your valuable advantage

### Profit from our know-how:

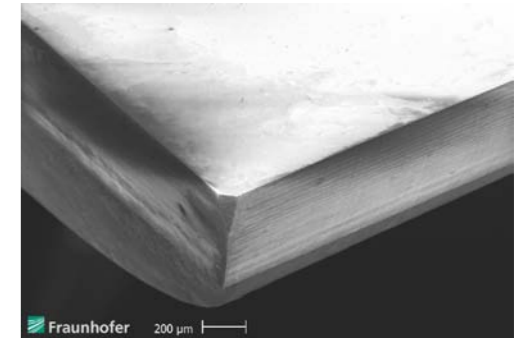
With more than 3,000 installed milling machines around the world and 20 years of growing expertise in high-speed machining, DATRON is the specialist when it comes to milling with small tools.

The special feature of the CVD cutting material is in the extraordinarily long tool lives. This is especially true when machining abrasive materials.

### This is made possible by the diamond cutters' special manufacturing process:

Conventional PCD cutting edges are manufactured by pressing. CVD cutting edges, however, are constructed by layers using chemical vapour deposition. This leads to an unexcelled homogeneous and low-stress structure. This reduces micro disruptions on the cutting edge to a minimum, thereby slowing wear considerably.

A further advantage is in the high-quality cutting due to the microscopically smooth cutting edge. The machining of these highly abrasive materials has until now been characterised by enormous wear and tear on tools. With the DATRON CVD tools, 500 metres of cutting length in these materials could be quickly realised. That saves many tool changes and offers a significant advantage in process reliability.

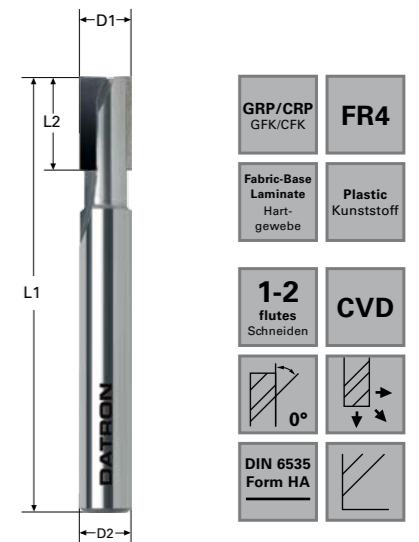


The grid electronic microscope makes the high surface quality of the CVD cutting edge clear. (Image: Fraunhofer Institut)

## DATRON diamond milling cutter for CRP and GRP

- Solid carbide shaft cutter with soldered-on diamond cutting edge
- With one or two cutting edges and flat polished end section
- Shaft without clamping surface, DIN 6535-HA

With this especially developed CVD diamond milling tool, high traversing speeds with extremely long tool lives can be achieved for the milling of CRP or GRP compared to solid carbide tools.



Art.-No.	D1 (mm)	D2 (mm)	L1 (mm)	L2 (mm)	S F	€
00781203	3.0	6.0	50.0	5.0	1	313,70
00781204	4.0	6.0	50.0	6.0	2	378,90
00781206	6.0	6.0	50.0	10.0	2	390,40
00781208	8.0	8.0	50.0	12.0	2	514,30
00781210	10.0	10.0	60.0	8.0	2	536,00
00181510	10.0	10.0	60.0	8.0	3	238.00
00181508	8.0	8.0	60.0	15.0	3	214.30