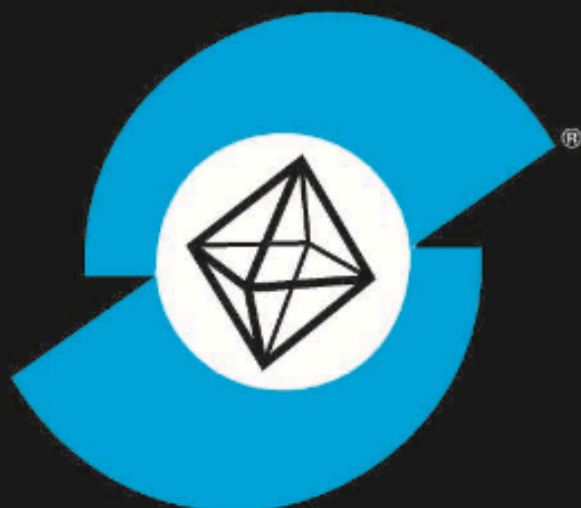


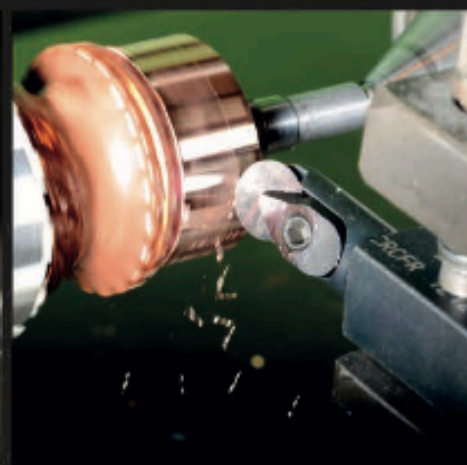


*since*

**1922**



**LdCH**  
**Diamant**

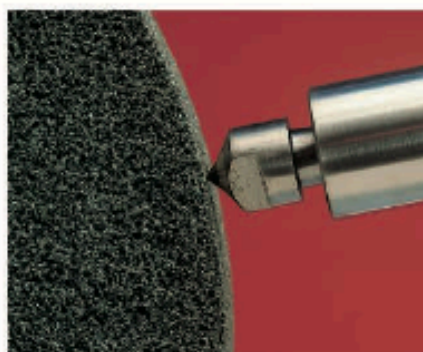


# LACH DIAMANT® Production Programme

LACH DIAMANT®  
Technology – Always  
one step ahead ...  
when dressing,  
grinding, lapping,  
polishing, cutting,  
turning, drilling,  
milling abrasive  
and hard materials,  
and even when  
processing the  
hardest of all -  
diamond.

## Diamond Dressing Tools

Single-point Dressers  
Multi-point Dressers  
Diamond Dressing Rolls



Dressing and profiling of grinding  
wheels

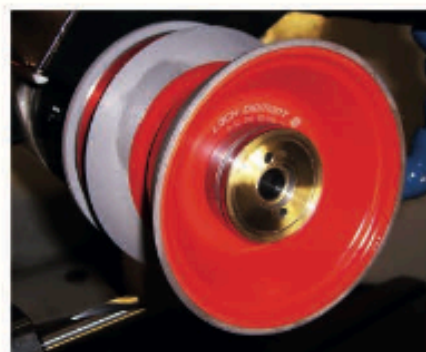
Single-point and profile  
diamond dressers, Diaform™  
diamonds, »Dia-Fliese-perfect«,  
»drebodress® dressing tools, medical  
cover glass, engraving and scoring  
diamonds, diamond chisels, hardness  
testing diamonds.

**New:** drebojet-plus® precision dressing  
rolls for CNC dressing of conventional  
grinding wheels.

Natural diamonds from own imports.

**Resetting and regrinding service**  
for all brands in own diamond cutting  
facility since 1922.

## Diamond and CBN Grinding Wheels in Resin, Metal, Ceramic and Hybrid Bonds

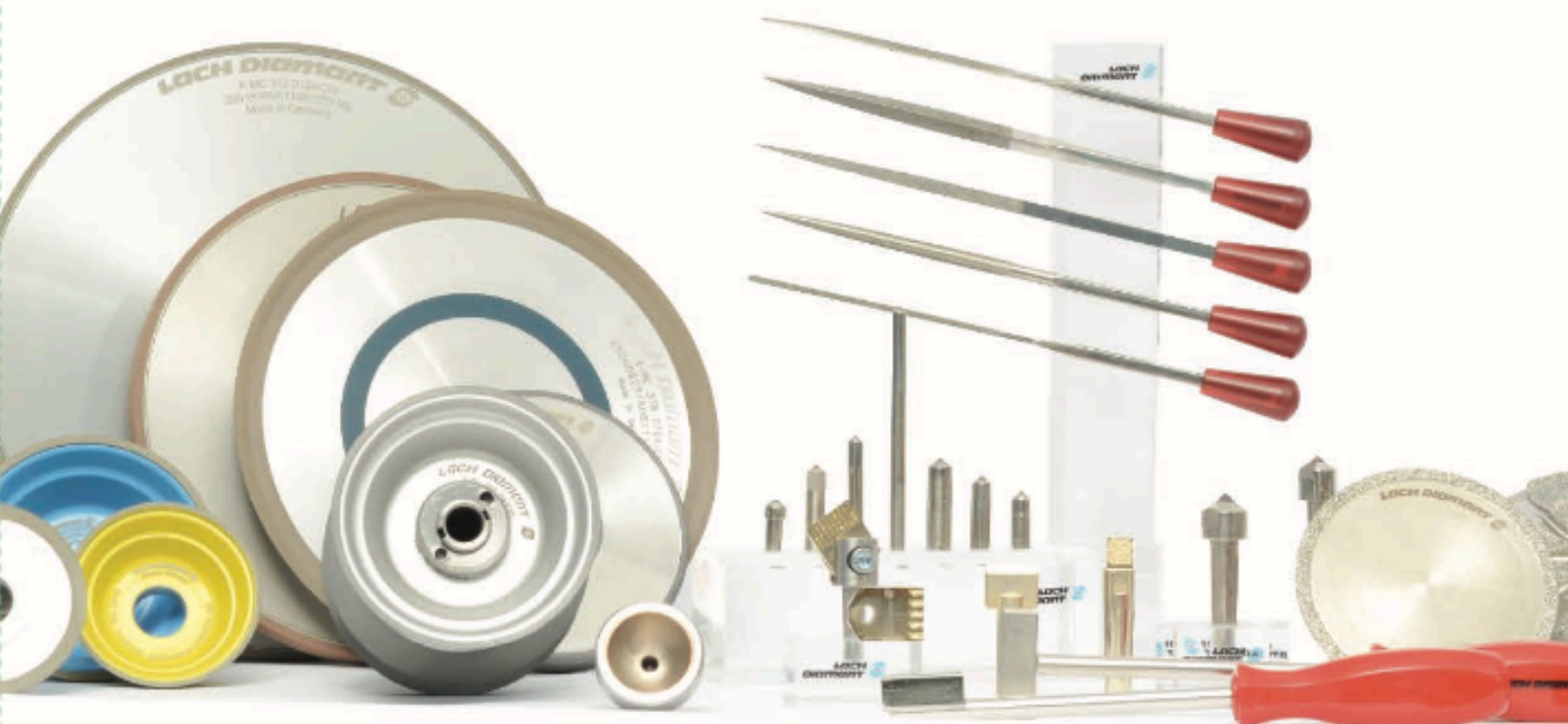


Efficient grinding of carbide, HSS,  
hardened steels, technical ceramics  
and PCD etc. – up to high speed  
grinding

LACH diamond and CBN grind-  
ing wheels and pins in multiple  
bond varieties are used in  
production, tool manufacturing and tool  
grinding.

**New:** »contour-profiled«  
metal bond diamond and CBN profile  
grinding wheels concave and convex  
with profile accuracies up to 0,005 mm.

**Regrinding service** for diamond and  
CBN grinding wheels.






## Diamond and CBN Grinding, Cutting and Deburring Tools in Electro-plated Bond



Grinding – profiling – deburring –  
cutting with electro-plated diamond  
tools

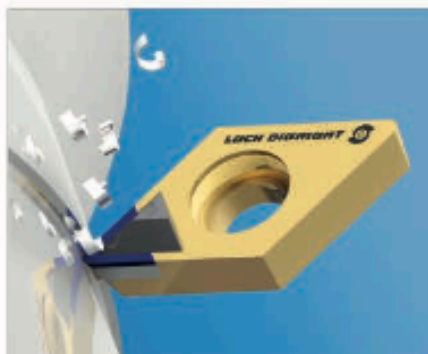
 Beginning from „little helpers“  
in tool and mould making up  
to series production as  
cutting-off wheel for processing compo-  
site materials GRP – CFRP.

Special advantage: Almost all shapes  
of electro-plated steel bodies are  
possible.


**Service:** Recoating of used diamond/  
CBN coats.

Lapping and polishing with LACH  
DIAMANT Spray »MF« and diamond  
pastes from 1/4 to 90 µm.

## PCD and CBN Cutting Tools dreborid®



Controlled chipbreaking of long-  
chipping aluminium alloys with active  
»chipbreaker« (patented)

 Since 1973 – when poly-  
crystalline cutting materials  
were first available - LACH  
DIAMANT has developed dreborid®  
cutting tools for the automobile, aviation,  
and accessory industries and machine  
construction. These tools are mainly  
used for cutting non-ferrous metals,  
hardened steels, fibre composites  
- GRP - CFRP, and green ceramics and  
green carbide.

### Specialties:


- PCD chipbreaker »IC-plus«
- CBN-DUO-power turning tools
- engraving and scoring tools
- PCD wear parts
- Cu commutator tool programme

**Regrinding service** Hanau, Lichtenau/  
Chemnitz, Grand Rapids/Michigan/USA

## PCD Diamond Milling Tools dreborid®



From end mills to monoblock and  
cartridge milling cutters – superior  
due to advanced LACH DIAMANT  
technology - example: »Cool  
Injection« and chipbreaker (several  
patents)

 LACH DIAMANT has the  
know-how and long-time  
experience for the efficient  
machining of aluminium, composite  
materials, such as GRP – CFRP,  
and all wooden materials.


**Regrinding service** Hanau, Lichtenau/  
Chemnitz, Grand Rapids/Michigan/USA



## PCD Diamond Drills and Step Drills dreborid®



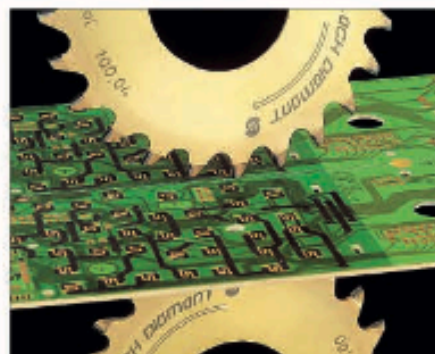
Drilling of fibre composite materials - GRP, CFRP, graphite and aluminium, green ceramics and green carbide

 dreborid® diamond drills and step drills for the aviation, wind power, automotive and accessories industries and for carbide and ceramic (green carbide) production.


**Regrinding service** Hanau, Lichtenau/ Chemnitz, Grand Rapids/Michigan/USA

## PCD Diamond and Carbide Tools

for the Manufacturing of  
Printed Circuit Boards  
(PCB)



Milling, scoring, profiling, cutting, edge processing, deep milling of all circuit board materials (PCB), aluminium, Cu, StarFlex® etc., depaneling saws programme

 Once again a pioneering success from LACH DIAMANT.

During the premiere of Productronica in Munich in 1977, LACH DIAMANT showed milling and cutting of circuit board materials.


LACH DIAMANT is your partner with the most experienced know-how worldwide.

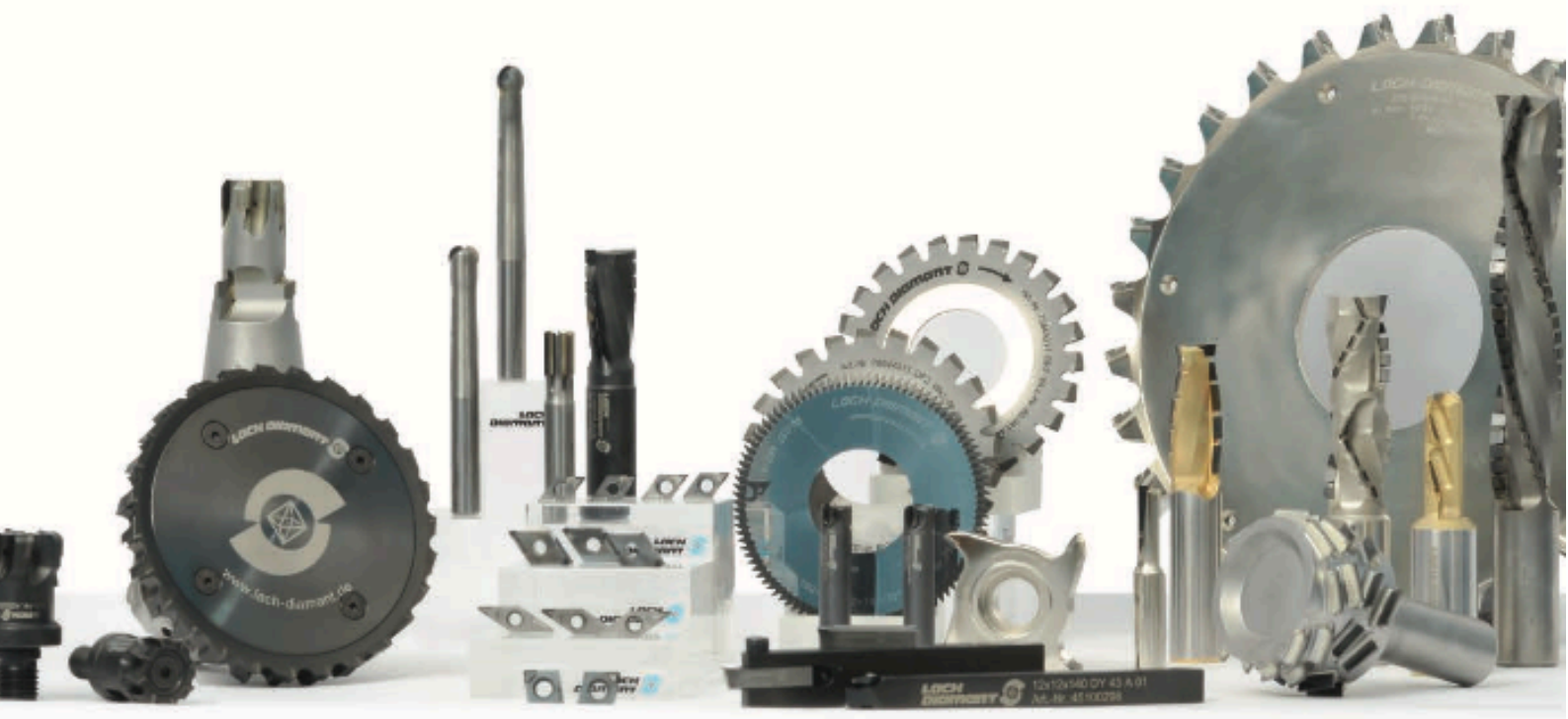
**Regrinding service** for diamond (PCD) and carbide tools in Hanau, Lichtenau/ Chemnitz, Grand Rapids/ Michigan/USA

## Sharpening Machines for PCD-tipped Tools



CNC-controlled sharpening of all diamond tools for wood and plastic machining – tooth for tooth automatically – according to the original LACH-EDG®- spark erosion process

 Since 1979 LACH DIAMANT has manufactured universal automatic diamond sharpening machines, top and side grinders for PCD tools.





## Committed to Tradition and Progress

### LACH DIAMANT – Founded in 1922

LACH DIAMANT® – worldwide one of the leaders in manufacturing and developing diamond and CBN tools

**Example: »Cool Injection« - Direct Cooling (Patented) -**  
❄ The process from emulsion to the final ice crystal (CO<sub>2</sub>)



signals new strategies for efficient cutting with PCD – not only of non-ferrous metals but also of cast materials, special alloys and even titanium.

Worldwide, LACH DIAMANT stands for progress, precision and quality, quite simply with LACH DIAMANT knowledge.

Whoever is searching for the answer to the question of "why" and "how" will find it in innovative processing methods for diamonds and new super-hard materials, especially polycrystalline diamonds (PCD) and cubic boron nitride (CBN) as well as monocrystalline diamonds (MCD and CVD). The results are superior tools and grinding wheels.

#### The history of LACH DIAMANT 1922 until today:

**In 1922 Jakob Lach founded the company.**

In Hanau, a town that was well known for precious jewellery in the past, up to 600 diamond cutters cut diamonds to exquisite brilliants. Industrial diamonds were added in 1932 and they completely replaced the "jewellery diamonds" in the mid 1950's.

With modern technologies – especially the development of synthetic diamonds - LACH DIAMANT became worldwide one of the top manufacturers of diamond and CBN tools.

**Innovations that have gone around the world.**

For good reasons, LACH DIAMANT today is considered to be the pathfinder of indispensable pioneering work. The company history reads like a who's who in the world of diamond and CBN tools:

**1963** Start of the manufacturing of diamond grinding wheels in metal and resin bonds.

**1969** LACH DIAMANT was the first manufacturer worldwide to present CBN-BORAZON® grinding wheels for grinding HSS tools and high-alloy hardened steels.

**1973** At the Hanover Spring Trade Show, LACH DIAMANT demonstrates for the first time its superior turning of aluminium and copper (commutators) with polycrystalline diamonds (PCD).

**1974** Hanover Trade Show: Presentation of the first PCD diamond milling tool for the cutting of aluminium, wood and plastic materials.

**1975** Hanover Trade Show: First presentation of polycrystalline boron nitride tools (PCBN) for the turning of high-alloy hardened steels.

**1977** Productronica Munich: Cutting, scoring, sawing, edge processing of circuit board materials (PCB) is introduced for the first time.

**1979** LIGNA Hanover: Worldwide the first presentation of diamond tools (PCD) for the processing of wood, all wood and plastic materials.

**1980** FAMETA Essen: Worldwide presentation of the first PCD monoblock milling cutter for aluminium machining.

**1981** EMO Hanover: Presentation of the patented mill dressing roll with polycrystalline diamonds (PCD) for profiling conventional ceramic bond grinding wheels.

**1982** Foundation of LACH DIAMOND INC., Grand Rapids/ Michigan/USA.

**1987** LIGNA Hanover: Introduction of the new universal sharpening machine EDG for the spark erosion processing of PCD – which had mainly been developed for initial use since 1978.

**1999** A patented »chipbreaker« for "short-chip turning" of aluminium is presented.

**2004** The monoblock diamond milling cutter receives the Hessian Innovation Award.

**2006** LACH DIAMANT receives the Airtec Award for special developments for the processing of fibre composites.

**2010** Patent for »Cool Injection« direct cooling system.

**2017** EMO Hanover: World novelty: super chipbreaker »IC-plus«, metal bond profile grinding wheels »contour-profiled«, »PS« and »PS-plus« PCD spiral drills for the processing of composite and green carbide.



**LACH DIAMANT®**

**Your Innovative Partner**

**Reliable, Customer-oriented, and Ready to Provide Customized Solutions**

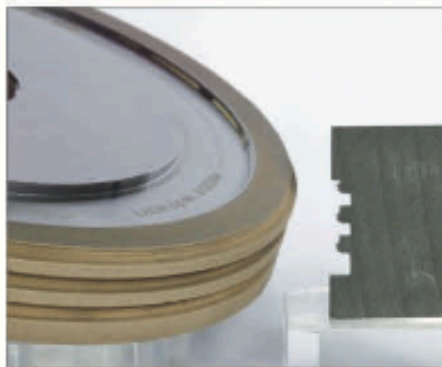


**Head Office and Plant in Hanau near Frankfurt, Germany**



**Plant in Lichtenau near Chemnitz, Germany**

Built in 1997 – Plant for polycrystalline diamond and CBN tools (PCD and PCBN)



**LACH DIAMANT  
Innovations**

»Contour-profiled« metal bond diamond and CBN profile grinding wheels concave and convex open a new dimension. Even during deep grinding of carbide, hardened steels and ceramics almost any profile can be generated with an accuracy of up to 0,005 mm.



**LACH DIAMANT  
Service**

Resharpener and regrinding service for all PCD and CBN (PCBN) tools, MCD and CVD, and natural diamonds. Reprofile of diamond and CBN grinding wheels, recoating of electroplated diamond tools.



**LACH DIAMOND INC.,  
Grand Rapids/Michigan/USA  
founded 1982**

Production and service facility of polycrystalline diamond and CBN tools for the automobile and aviation industries and for the wood, plastic and composite industries.

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