

since
1922



LOCH
Diamant

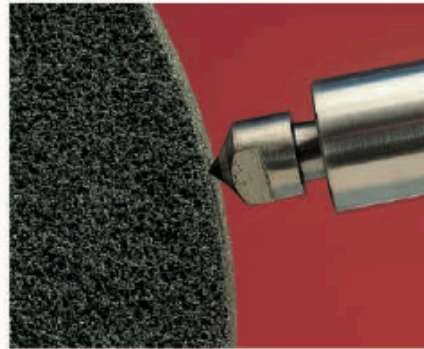


LACH DIAMANT® Production Programme


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

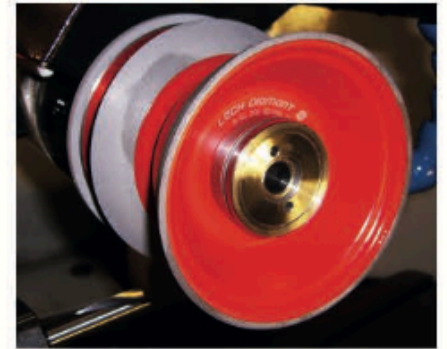
 Single-point and profile
diamond dressers, Diaform™
diamonds, »Dia-Fliese-perfect«,
»drebodress® dressing tools, medical
cover glass, engraving and scoring
diamonds, diamond chisels, hardness
testing diamonds.

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

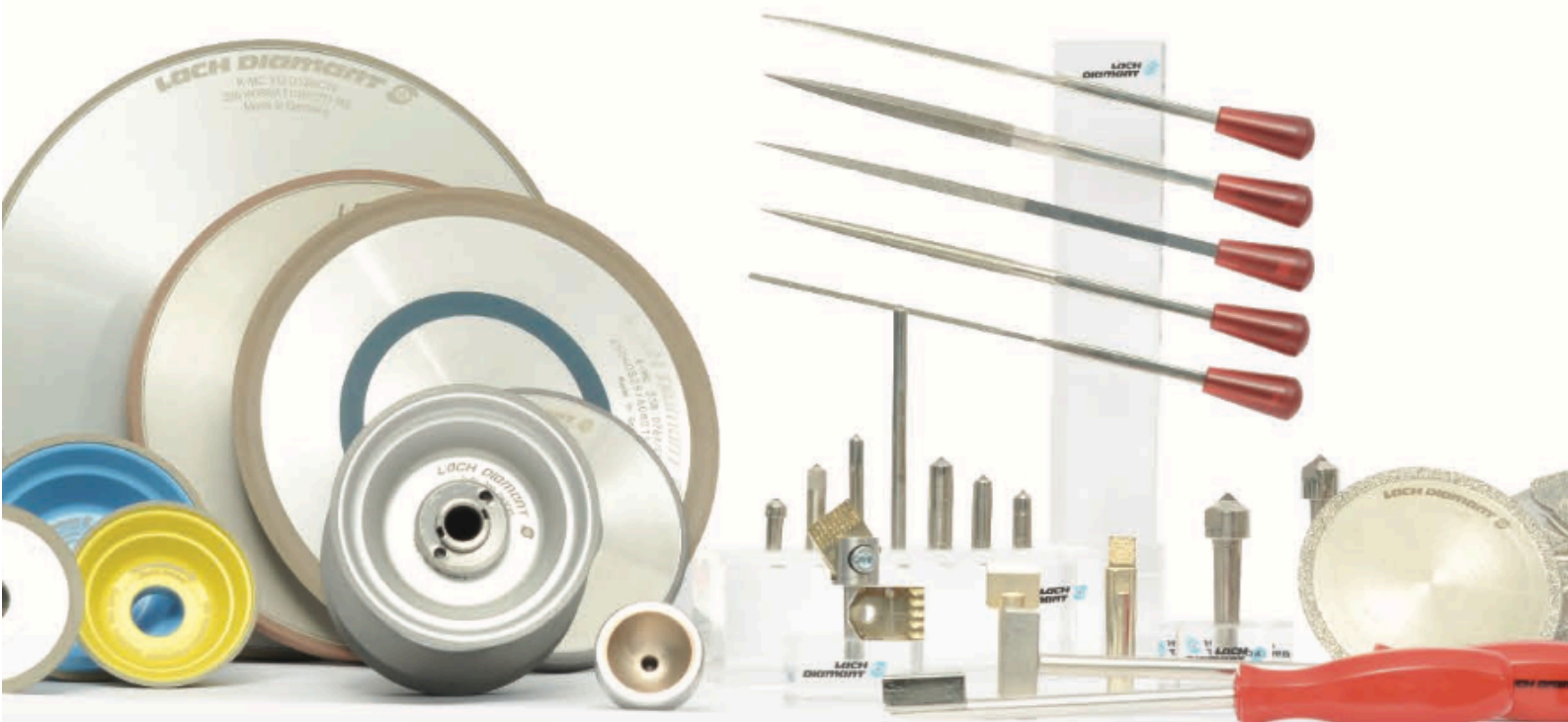


Efficient grinding of carbide, HSS,
hardened steels, technical ceramics
and PCD etc. – up to high speed
grinding

 LACH diamond and CBN grin-
ding 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

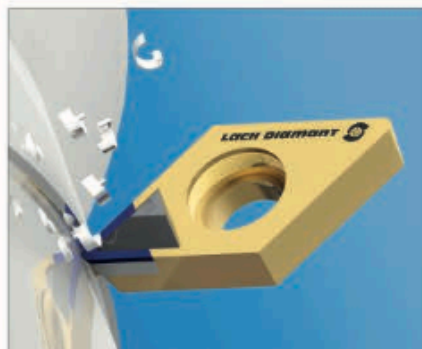
 Beginning from „little helpers“
in tool and mould making up
to series production as
cutting-off wheel for processing compo-
site materials GRP – CFRP.

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/
Chernitz, 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/
Chernitz, Grand Rapids/Michigan/USA



PCD Diamond Drills and Step Drills dreborid®

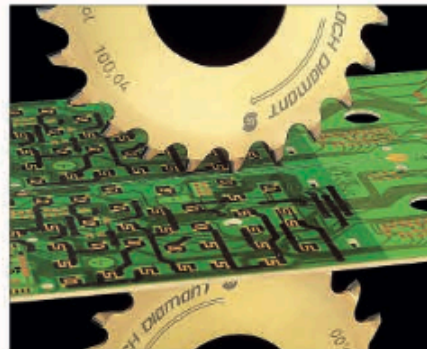


Drilling of fibre composite materials - GRP, CFRP, graphite and aluminium, green ceramics and green carbide


 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.

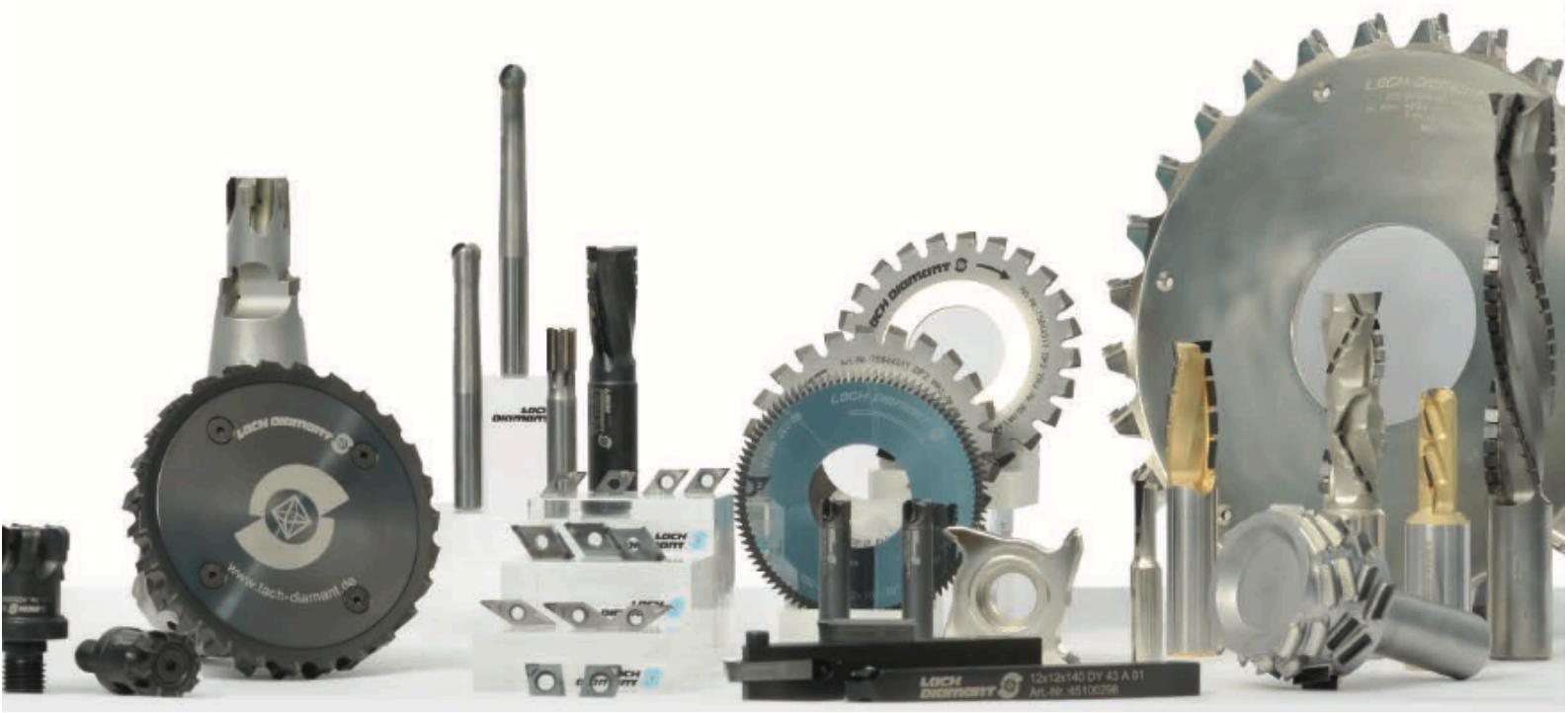
Regrinding service for diamond (PCD) and carbide tools in Hanau, Lichtenau/ Chemnitz, Grand Rapids/ Michigan/USA

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 (CO₂)



**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

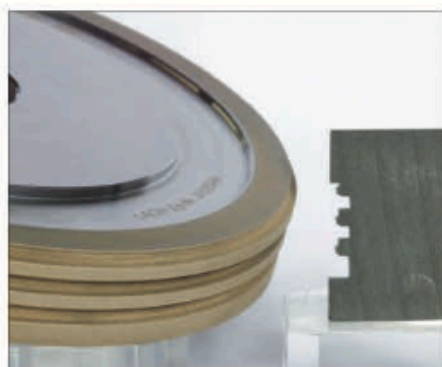
Reliable, Customer-oriented, and Ready to Provide Customized Solutions



LACH DIAMOND INC., Grand Rapids/Michigan/USA



Head Office and Plant in Hanau
near Frankfurt, Germany



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. Reprofilng of diamond and CBN grinding wheels, recoating of electro-plated diamond tools.



Plant in Lichtenau near Chemnitz, Germany

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

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