Diamond and CBN tools

Diamonds are (not only) a girl's best friend: 100 years Lach Diamant

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100 years ago, Lach Diamant started out as a company for cutting diamonds for jewelry. After WWII, the family business from Hanau, Germany, discovered the benefits of diamonds for cutting a variety of materials. A century later, the manufacturer is known for his cutting-edge grinding and cutting solutions.

Robert Lach, CEO and managing director, congratulates his father Horst Lach for 62 years of service to the company so far.
(Source: Lach Diamant)

In 1922, Lach Diamant was founded by Jakob Lach as an enterprise for cutting diamonds to jewelry diamonds — brilliants. War turmoils and then the strong German Mark brought cutting of diamonds to brilliants in Germany to a standstill until the mid 1950s — it was too expensive for foreign customers.

This ushered in a crucial shift: "Diamonds are not only a girl`s best friend!" From the white brilliants to brownish and yellow — the no longer quite so clean octahedron industrial diamond. The business purpose of Lach Diamant had changed. At the age of 61 Jakob Lach, born in 1894, accepted the challenge of starting a new line of business. Initially still alone with a suitcase full of diamonds — divided and sorted by price-qualities and different weights. New customers included companies like Kugelfischer, Bosch and SKF. On October 1, 1960, Jakob Lach's son Horst started working at the company.

Twenty years later — at the presentation of the technology developed for the first time by Lach Diamant Diamond — polycrystalline diamond tools for the superior processing of wood and composite materials in the furniture, flooring and plastics industries — the now 86-year-old Jakob Lach should said: "When I held my first diamond in my hand in 1908, I would not have imagined that one day diamonds would be used not only in the automobile industry but also for the machining of wood and plastics."

From trading in industrial diamonds the company had in the meantime developed into a manufacturer of diamond dressing tools, diamond turning tools for copper collectors in the electronic industry, resin-bonded diamond and CBN-(Borazon) grinding wheels, PCD cutting tools for the processing of aluminium, carbon fibre (CFRP) and glass fibre (GRP). The number of registered patents to date show the pioneering spirit and the uniqueness that made the company a global forerunner in many areas of newly applied manufacturing processes.

Horst Lach describes and pays tribute to his father Jakob Lach as founder of the enterprise in difficult times, his life`s work and his special role as a gifted specialist in diamonds. *(Source: Lach Diamant)*

Asked for the source of all these Lach Diamant successes Horst Lach says: "Everything started with the synthetic diamond. In 1957 it was offered for the first time by an American manufacturer as so-called "Man-made Diamond" in grits as abrasive material for the production of diamond grinding wheels. This fascinated me, particularly because I was — so to speak — born into the transition in my father's enterprise from jewelry diamonds to industrial diamonds".

In 1969 synthetic diamonds were followed by grits with cubic boron nitride (CBN) under the name of Borazon, Lach Diamant made from it the first CBN grinding wheel for grinding HSS tools.

This was followed in 1973 by a new diamond-containing cutting edge material — polycrystalline synthetic diamond (PCD), in 1974 came the polycrystalline boron nitride cutting insert (BZN) — for the turning of high-alloy hardened steels. All these new superabrasive materials inspired the development of Lach Diamant. The groundbreaking invention of spark erosion/electrical discharge machining ultimately allowed the forcing of the NC/CNC technology in the machine tool industry and thus in series production. This enabled the cost-effective manufacturing of polycrystalline diamond tools not only for machining wood and composite materials but also tor applications in the automobile and automotive accessories industry

The now possible installation of light materials in automobiles and aircrafts, and ultimately the actually discussed and needed wind turbines which the company can proudly write on its banner, created at an early stage a boost of energy while at the same time being climate friendly.

At the fairs of the year 2022 — like Grinding Hub and AMB in Stuttgart — the company showed that it is still ready to face today's and tomorrow's challenges at the service of the industry and thus to confirm its reliability.