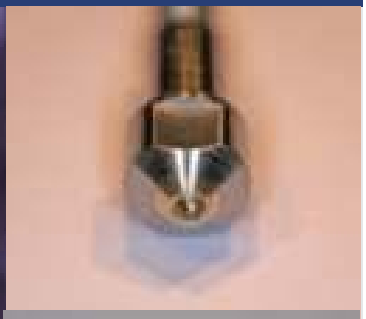
DIAMONDTOOLS

Hardness | Sharpness | Precision

Best
FLEXIBLE SOLUTIONS
to any cutting challenges

NATURAL DRESSING TOOLS & PCD WEAR PARTS

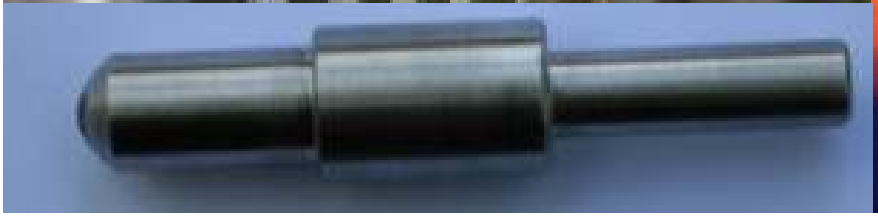


MINING INDUSTRY

customised PCD tools

AEROSPACE

Where innovation drives the next technological advancement, more dynamic and detailed parts, regulations and environmental restrictions create a challenging environment to keep the aerospace industry flying high. SL Diamond Tools manufactures and supplies cutting and grinding solutions for many applications in the aerospace industry when high performance, flexibility and versatility matter most.



MEDICAL

With highly-engineered solutions, SL Diamond Tools supports manufacturers to reach ultimate precision for cutting and grinding of medical devices and surgical implants.

Market Challenges:

SL Diamond Tools provides the highest quality solutions with such products as abrasive grinding wheels to handle the most demanding and precise hard machining applications: surgical implants, heart stents, pacemakers, hearing aids, joint replacements, dental implants, surgical bone drills, and medical skull implants. These superabrasive materials offer a cost-effective alternative to conventional cutting tools and abrasive grinding wheels for high-metal removal rates, improved finishes, and extended tool and wheel life in machining ferrous and non-ferrous work pieces. SL Diamond Tools strives to maximize efficiency and quickly deliver effective and customized solutions for specific applications.

SL Diamond Tools and its engineering expertise in cutting tools are by your side to carry out your toughest applications all over the world. SL Diamond Tools cutting and grinding solutions in the medical industry:

Cutting and Dressing Tools

SL Diamond Tools , brings the most advanced tools for tooling, turning, boring, grooving, parting, milling and drilling of medical parts.

OIL | ENERGY | GAS

The vast and diverse energy market has yet to discover all of its dynamic and feasible answers to maintaining competitive and dependable in a constantly evolving environment. With untapped resources discovered every day, the energy market is continually seeking technological advancements and cutting edge solutions to meet the demands of the diverse market. Relying on SL Diamond Tools cutting and grinding solutions gives customers the ease of mind knowing that each process is expertly analyzed and a rapid tooling solution is then optimized and tested for optimum performance, precision and reliability. Whether in the mining, oil field or wind energy market, rely on SL Diamond Tools for efficient and effective time tested results.

Cutting and Dressing tools: SL Diamond Tools, brings the most advanced tools permitting to meet all energy sectors requirement, in tooling, turning, boring, grooving, parting, milling and drilling.

SL Diamond Tools deliver all the performance expected all energy sectors, to hold tight tolerances with minimal downtime for dressing and wheel changes. SL Diamond Tools cutting solutions for the energy industry are designed for: Gates, valves, compressors, bearings, cutter blades...

RAILWAY

Synthetic Diamonds for use in the Automotive Industry

SL Diamond Tools supermaterials enable precise and reliable automotive production processes. SL Diamond Tools supermaterials are designed, developed and manufactured for use in a large number of precision machining applications in the automotive industry. The reliability requirements for each automotive component demands stable, precision production processes. SL Diamond Tools supermaterials deliver extreme performance in boring, milling, machining, grooving, reaming and turning applications. SL Diamond Tools materials are used throughout automotive manufacturing, including the production of critical engine and gearbox components, constant velocity (CV) joints, wheel and brake disc assembly, window manufacture and mold and die production as used for example, in the production of body panels.

Our machining, milling and finishing solutions

SL Diamond Tools PCD materials are used across the automotive production process, from alloy wheel, cylinder block, cam and crank shaft casing machining, to milled, bored and reamed gearbox housings. In addition, PCD is the only viable material solution for the finishing of new generation ceramic metal matrix composite brake discs.

AUTOMOTIVE INDUSTRY

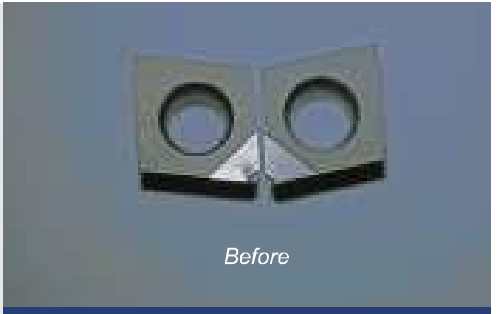
(customised PCBN threading insert)

Engraving point

SL Diamond Tools is a manufacturer of PCD/PCBN tools, natural dressing tools and PCD wear parts since 2009. Our growth for the past 5 years has been through great service and delivery. We provide cost effective, flexible solutions to any cutting challenges.

As a special service we offer the re-grinding/ re-sharpening of PCD/PCBN Inserts. In many cases the edge of the tool gets chipped or loses its sharpness. As a result the surface finish loses its quality. Instead of just throwing the Insert away and use a new one it can in many cases just be re-ground/re-sharpened to give it a "new-like" cutting edge at a fraction of the price of a new Insert.

In addition we offer service on natural Diamond Tools such as Diaform Dressers, Contact Lense Tools and Diamond LatheTools. If the cutting edge is not broken but has just gone blunt it can be re-sharpened which is a huge cost saving.

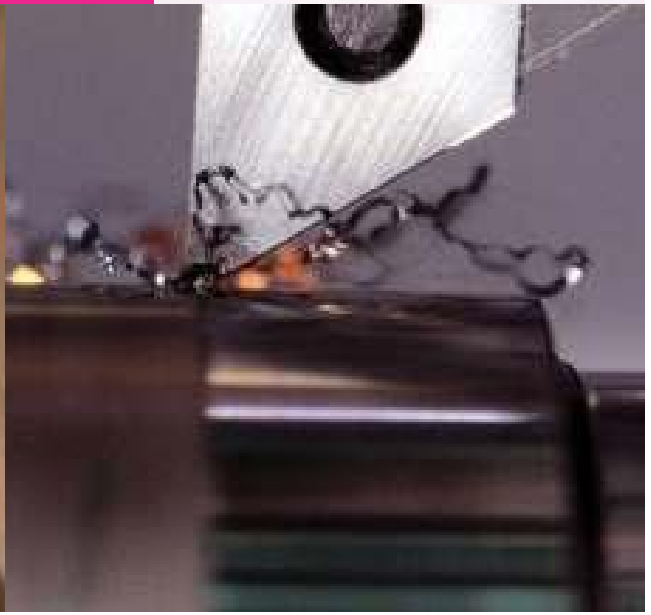


Before

RE-GRINDING/RE-SHARPENING OF PCD/PCBN INSERTS

After

COST EFFECTIVE & FLEXIBLE SOLUTIONS



CUBIC BORON NITRIDE – CBN

CBN is an artificially synthesized material exceeded in hardness only by diamond. Unlike diamond, CBN is stable under conditions of high temperature (up to 1000 degrees). Normally, CBN is suitable to machine the hardened ferrous or super alloy materials. Like polycrystalline diamond, CBN is available in many shapes and sizes, also different grades is for different applications.

CBN tools permit metal cutting at feed and speeds, much higher than conventional cutting tool materials. CBN tools are very good at turning, boring the hard materials, which otherwise can be formed only by grinding. Because CBN tools maintain a Shape cutting edge, surface finishing are excellent, close tolerance and dramatic productivity increases can be guaranted.

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