

# The pioneer in diamond tools announces a breakthrough in polycrystalline diamond tooling

of diamond tooling over carbide, LACH Diamond has undoubtedly proven that it is possible to machine solid wood with diamond cutting tools as one of the major applications besides MDF and particleboard.

## Breakthrough in diamond tooling

Up until 1987, it was not economical for diamond tool users to resharpen those tools in their own shop or plant. Various processes were used to resharpen polycrystalline diamond tools, such as standard tool grinders and Wire EDM machines. But these technologies did not bring real success. The standard grinding process with diamond wheels is too expensive; and cutting diamond with Wire EDM heats the diamond too much, resulting in a decreased quality of cutting edge.

During more than 14 years of manufacturing polycrystalline diamond tooling, LACH developed its own sharpening process. In 1987, Horst Lach decided that this PCD grinding process should be offered to the users of LACH Diamond tooling in order to make the application of diamond tools in plants even more economical by enabling them to service their tools in their own facilities. Since March 1987, LACH Diamond, Inc., has been offering not only high quality diamond tooling but also the LACH Automatic PCD Grinding Machine as part of the LACH Diamond Tooling System.

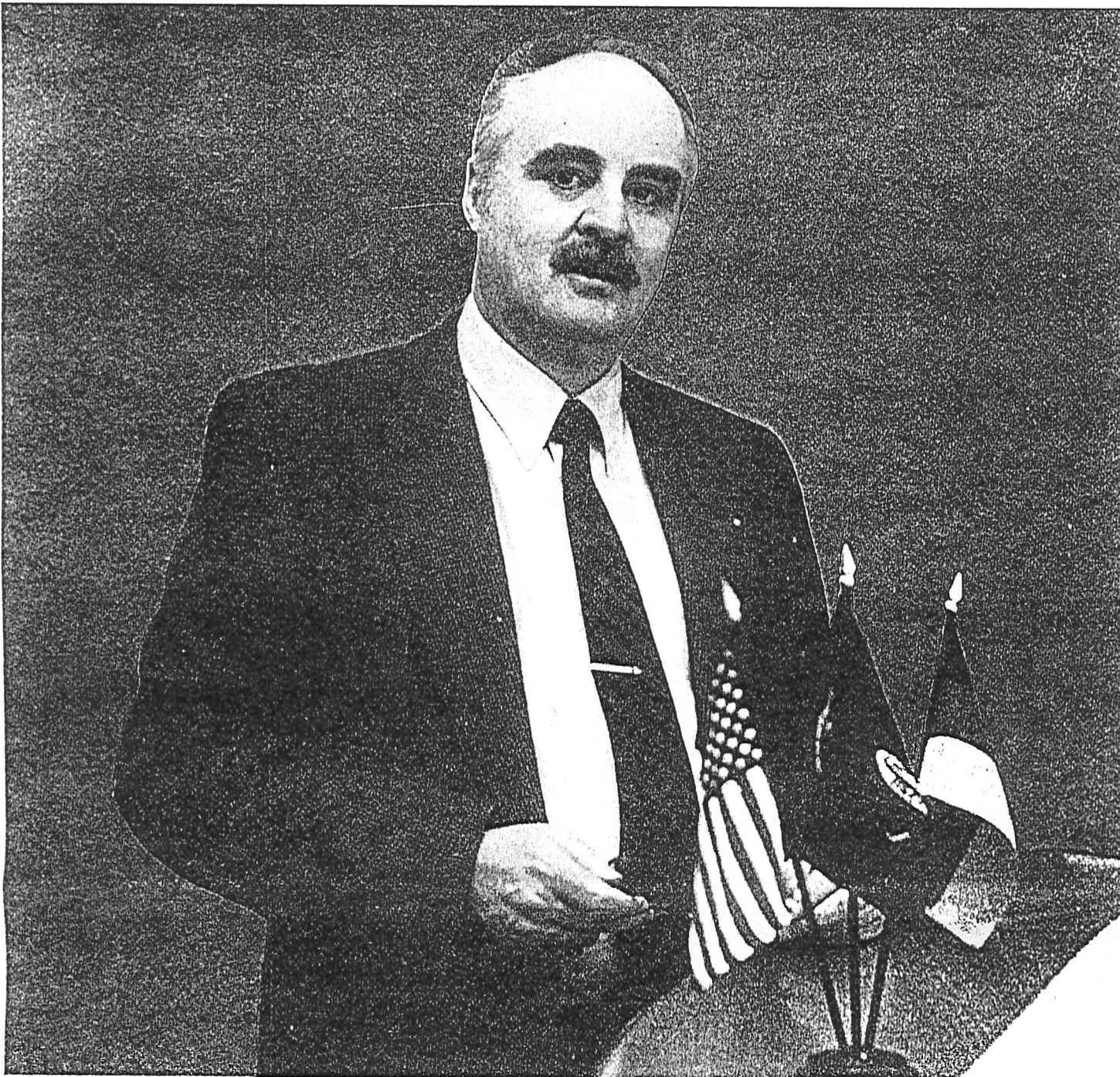
The LACH Automatic PCD Grinding Machine is a state-of-the-art high-tech EDG (Electrical Discharge Grinding) machine. In its sixth generation, this unique machine has been successfully applied over many years of manufacturing and resharpening the well-known high quality LACH Diamond tooling.

This new LACH Diamond Tool System will be another milestone in the history of cutting tools set by LACH Diamond, Inc. Not only diamond, but carbide and HSS tools as well, can be economically machined on this exciting new machine.

The top of the line Model M-1050 even has a surface grinding mode, besides the capability of machining the most complicated shapes of profiles, including helix machining.

Woodworking manufacturers can now start thinking about investing in this complete LACH Diamond Tooling System. The investment in diamond tooling frees manufacturers from costly machine downtime and secondary sanding operations. With the LACH Automatic PCD Grinding Machine you can become independent from outside resharpening services for diamond tooling.

This is truly a breakthrough in diamond tooling, allowing high volume diamond tool users to reach a new level of independence and effectiveness in their production with the pioneer and innovator in diamond tooling, LACH Diamond, Inc.



Horst Lach, President, Lach Diamond, Inc.

**D**iamonds are no longer only "a girl's best friend." Since the discovery of synthetic or "man-made" diamonds by General Electric in 1957, a whole new world of industrial applications has been uncovered.

The very first cutting tool made with polycrystalline diamond was introduced by "LACH Diamant" in 1973. This dramatic development, marked by many exciting innovations, has led LACH Diamond to become the world's largest manufacturer of diamond cutting tools today.

One of the innovative breakthroughs was Horst Lach's idea to cut wood with diamonds.

As an addition to the LACH Diamond Group originally founded in 1922, a new company, LACH Spezial Werkzeuge GmbH was started in 1979. This new company specialized in diamond tooling for the woodworking industry.

The exceptional success of LACH diamond tools in the European woodworking industry has also generated a high interest and phenomenal demand for diamond tooling among American woodworkers. This in turn led Lach to the decision to start LACH Diamond, Inc. in the United States.

Since 1982, LACH Diamond, Inc. has been serving the American market from its headquarters in Grand Rapids,

Michigan.

From the beginning, LACH Diamond tools have won the trust of the American woodworking industry. The outstanding demand for LACH Diamond tooling has made it necessary for Horst Lach to make an even stronger commitment by establishing a complete manufacturing and service facility in Grand Rapids in 1986. Today, a crew of more than 50 employees are manufacturing high quality diamond tooling made in the U.S.A.

## Diamond tools for woodworking

The polycrystalline diamond is over 125 times more abrasion-resistant than any carbide. This superior feature of the polycrystalline diamond means that a diamond tool outlasts the tool life of a conventional carbide tool by 200 to 300 times.

For example, in the kitchen cabinet industry, a carbide tool on a double end tenoner has to be changed every two to three hours for resharpening; whereas a diamond tool can run 4 to 6 months without any tool change or resharpening.

This stands for enormous time savings by minimizing the downtime for tool changes on your expensive machinery. In addition to time savings, secondary operations like sanding are virtually eliminated because of the

excellent finish achieved by machining with the diamond cutting edge.

Over a period of more than eight years of manufacturing diamond tooling for the woodworking industry, LACH Diamond tools were successfully applied on routers, shapers, moulders, jointers, carvers, planers, double end tenoners and table saws for the machining of conventional and exotic materials like hardwood, tropical wood, plastics, duro-plastics, fiberglass reinforced materials, parquet woods, chipboard, particleboard, laminates, composites, laminated boards, softwood, medium density fiberboard, tempered and untempered hardboards, plywoods, graphite, gypsum, cemented particleboard and fire-resistant particleboard.

These are only a few examples from a steadily increasing field of applications for diamond tooling.

Despite the doubts of people who have not yet had a chance to experience the enormous advantages

### Inside:

- Diamond tooling at Miller Desk
- LACH means savings at Cochrane
- Plaque maker loves LACH
- New grinder is time, money saver