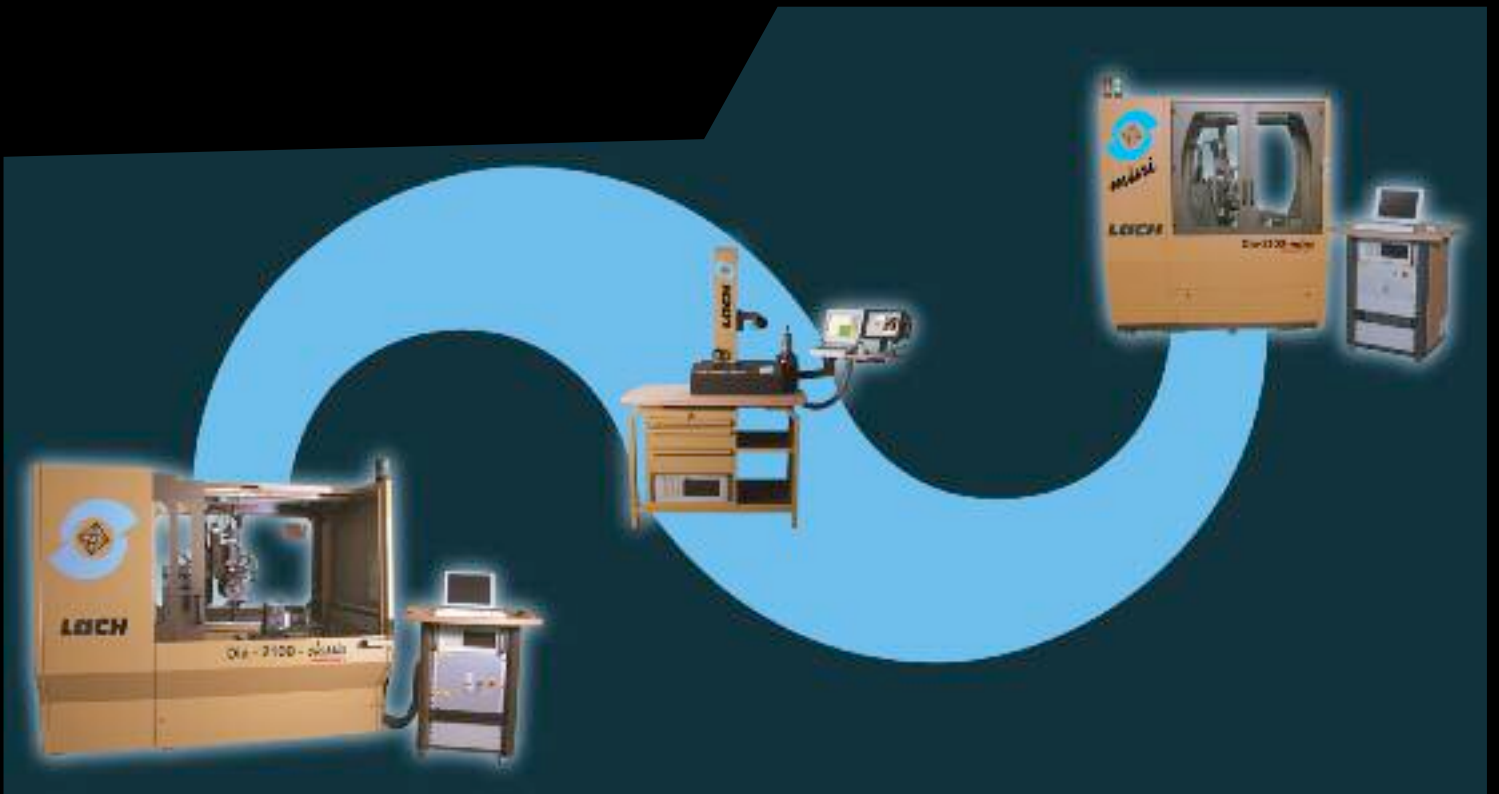


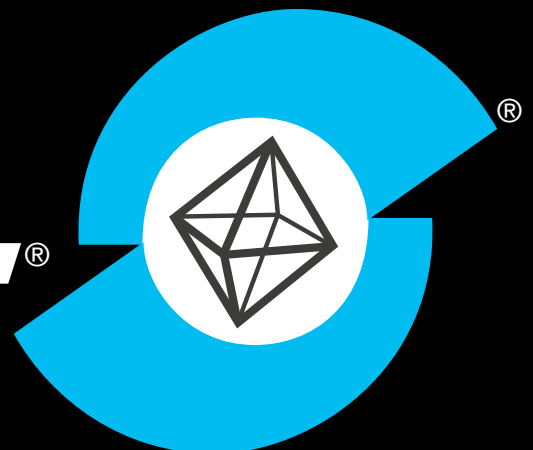
»*dia-ToolNet*«

*The network for all LACH DIAMANT
CNC universal sharpening machines*



**LACH
DIAMANT**[®]

established 1922



Leader in Diamond Grinding Technology



»dia-ToolNet

the Network for a

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The »dia-ToolNet« and the »dia-ToolNet« Station

The »dia-ToolNet« is a modern universal measuring and pre-positioning device with an integrated tool server comprising the »dia-ToolNet« Station that can be connected so as to form a network with all the CNC-controlled LACH DIAMANT universal sharpening machines.

The *measuring system* is based on a high-precision telecentric camera with maintenance-free LED illumination. All the images taken by the measuring camera are evaluated by a computer in real time and displayed on the 10" TFT monitor.

As easy handling was a top priority for the software developers it is possible to operate the measuring system after only a few minutes of instruction.

Classical measuring errors – such as the parallax error – which are common when using the projector-based measuring devices, have been eliminated with the »dia-ToolNet« Station. This system allows for error-free and fast gauging of measuring profile radii, angles and tolerances of dia-cutting edges (and of course also carbide, Stellite, CBN cutting edges, etc). Furthermore, the top illumination, that can be additionally activated, enables very exact determination of dia-cutting edge breakage.

The »dia-ToolNet« station, however, is more than just a classical measuring device. With a second 10" TFT monitor the normal *tool editor* of the »Dia-2100-mini« and the »Dia-2100-classic« is always available. The operator can thus define new tools for the LACH DIAMANT sharpening machines already on the measuring machine. For example, starting with customer or job data, through the tool geometries to the exact calibration data, thus eliminating errors in the setting up of the machine right from the start.

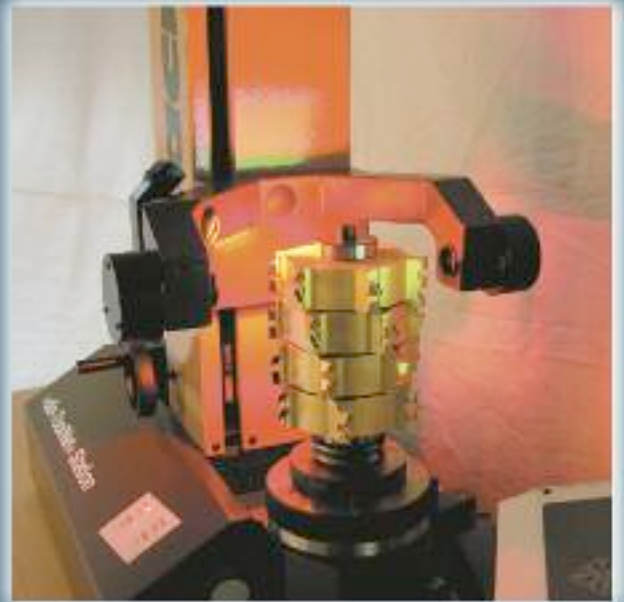


»dia-ToolNet

Universal measuring and p integrated tool server – the he

»dia-ToolNet«

LACH DIAMANT CNC Universal Sharpening Machines



The chief attraction of this *tool editor* is its ability to communicate directly with the measuring software of the camera measuring system! All the measured cutting positions are automatically recorded in the tool editor. Manual transfer, the writing and typing in of data, which is usual for example with normal measuring devices where it represents a major source of errors, does not exist with the »*dia-ToolNet*« station.

The »*dia-ToolNet*« station is thus the optimal device for job preparation and quality check of dia-tools.

The »*dia-ToolNet*« station also features an *integrated server*, which provides tool data to all LACH DIAMANT CNC sharpening machines.

The *server* is a Windows®-based industrial PC with an integrated RAID harddisc. With this system no data can be lost, not even if the harddisc is damaged !

Several possibilities are available for data exchange: the Ethernet based network »*dia-ToolNet*«, modern USB (memory-)sticks and the classical diskettes.

»dia-ToolNet« Station -

pre-positioning device with
part of the »*dia-ToolNet*« system



»dia-ToolNet«

Technical specifications »dia-ToolNet« Station

Axes

X-axis	210 mm
Z-axis	420 mm
C-axis	360°

Tool holding fixture	ISO 50/SK 50
Incl. reduction	ISO 50/SK 50 to ISO 40/SK 40
Optional reduction	ISO 50/SK 50 to HSK 50
Maximal tool diameter	400 mm

»dia-ToolNet« server

Industrial PC	
Operation system	Windows® 2000
Screen	2 x 10" TFT monitor
Network board	Ethernet Twisted Pair 10/100 MBit
Harddisc	Raid level 1 (mirroring)

Measuring system

Telecentric camera with LED illumination	
Measuring accuracy linear	< 0.2°
Measuring accuracy angle	± 0.2 µm

Dimensions

Machine	1800 x 700 x 1750
Work space	2000 x 2000 x 2500
Weight	300 kg

Electrical data

Input voltage	2KW 230V – 50Hz
Fuse	230V / 10A
Air pressure	7 bar

Color

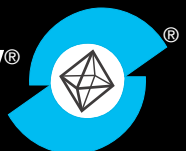
Sand RAL 1011, brown RAL 8014

The »dia-ToolNet« can be directly accessed from all Windows®-based LACH DIAMANT sharpening machines. In other words, the machine operator can start a search for any information regarding all the tools on the »dia-ToolNet« station and eventually load the required tool data. The cumbersome loading functions, such as the classical *uploading* of tool data from a PC to the CNC machines, does not exist with LACH DIAMANT.

The previous generations of LACH DIAMANT CNC sharpening machines were taken into consideration when developing the »dia-ToolNet« station. Even if there is no network available for these machines, data can be exchanged by diskette without any difficulty, e.g. in case of the M-2050-CNC, M-4040-CNC and Dia-2100-CNC. The »dia-ToolNet« station is thus compatible with all LACH DIAMANT CNC sharpening machines!

LACH-DIAMANT reserves the right for product improvement and technical changes !

LACH DIAMANT®



Donaustr. 17 • D-63452 Hanau, Germany • Phone (+49) 61 81 1 03-0 • Fax (+49) 61 81 1 03-860
office@lach-diamant.de • www.lach-diamant.de

Sales and Service for USA and Canada:

East Coast: 1-888-777-2729 West Coast: 1-800-252-6355
www.csaw.com info@csaw.com

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