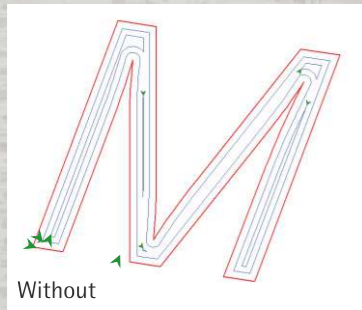
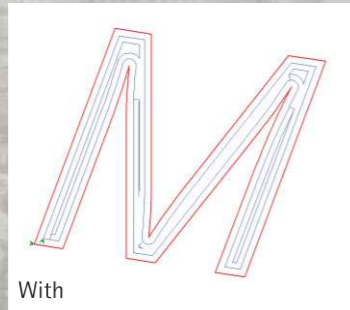


Surface quality

- ✓ Selection of the most suitable submersion strategy
- ✓ Reduction of submerging positions (increasing of surface quality by minimization of submerging/emerging movements)



Without

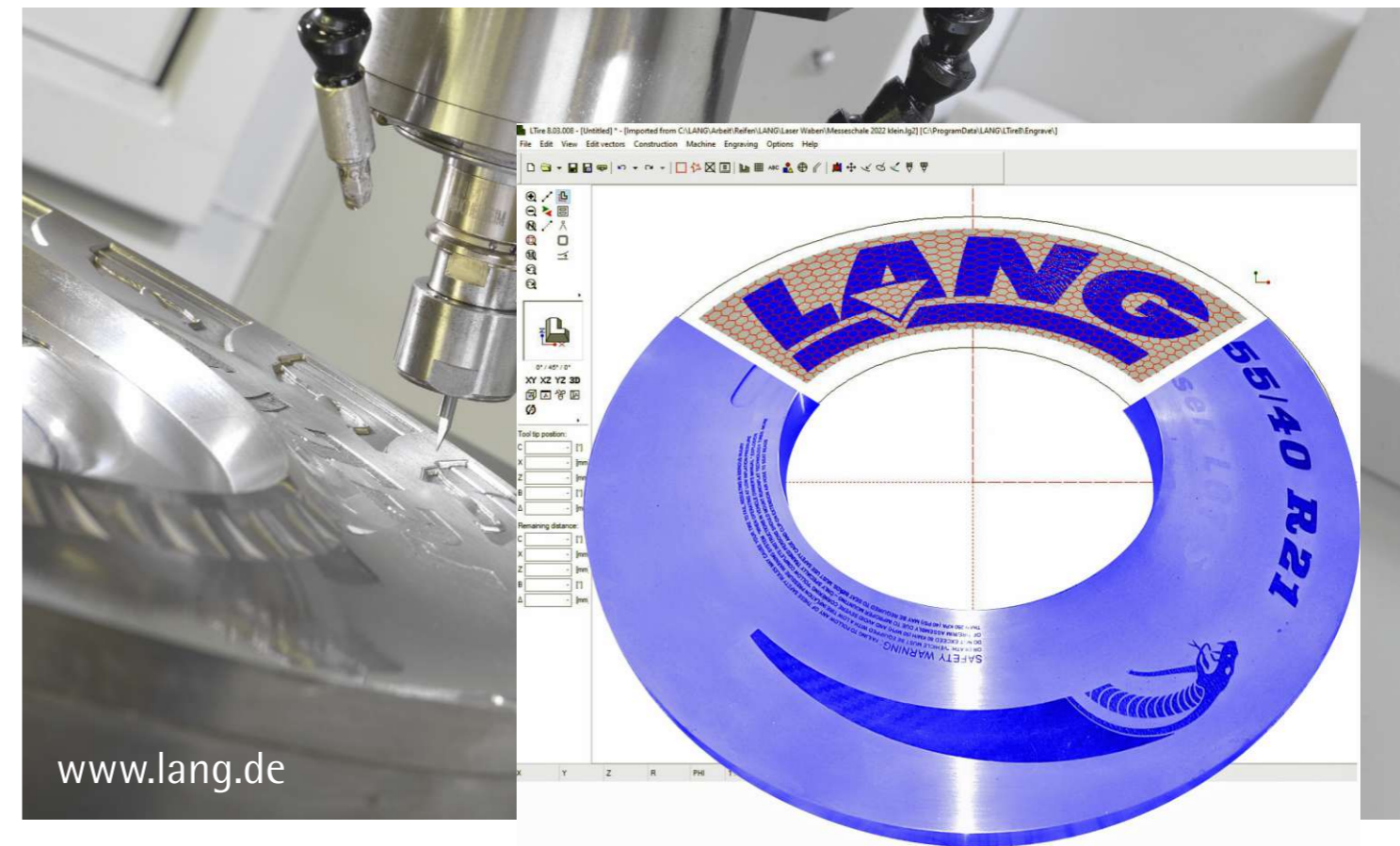


With

Reduction of submerging positions

CAM calculation for milling/engraving and laser machines

- ✓ For conventional CNC engraving and milling machines or laser engraving systems, the ideal creation of CAM data from the same source data is ensured for each system
- ✓ Milling/engraving: Clearing, corner and contour milling cutters in 2D and 3D can be combined in one data set
- ✓ Lasers: On free-form areas, lettering, 3D engraving, frosting, 2D reliefs
- ✓ Manufacturing simulation



www.lang.de

SOFTWARE FOR ENGRAVING OF TIRE SIDEWALL MOLDS

LTIRE

- ✓ Optimal output quality with minimized milling times and tool wear
- ✓ Text layout functions
- ✓ Engraving of arbitrary free-form surfaces or reliefs (also grayscale images)
- ✓ Convenient layer, tool and object management
- ✓ Digitizing of surfaces directly on the tire sidewall mold
- ✓ GUI with UniCode support in all languages
- ✓ Drilling with LANG drilling cycles
- ✓ Individual generation of pocket stamps
- ✓ Easy creation of CAM data
- ✓ Submerging strategies for low tool wearing
- ✓ Direct import of DXF, DWG and IGES vector data
- ✓ Multipositioning
- ✓ Programming with the same software on the CAD-PC and on the machine



LANG

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PRÄZISION IST UNSERE WELT...

LANG

LTire is a special LANG software running under Microsoft® Windows™. The software is for quickly and efficiently constructing the complete design of a tire sidewall mold as well as operating LANG 4-axis machines for rotational-profile symmetrical molds. The program offers the usual CAD functions and furthermore a wide range of automated functions particularly adapted to the construction of a tire sidewall design.

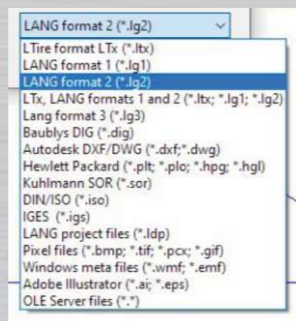
LTire runs on the machine PC with its graphical interface, guaranteeing easy and intuitive operation of the machine.

Performance features

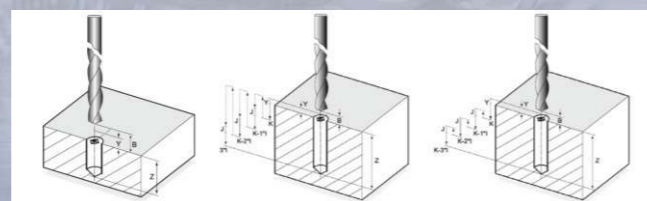
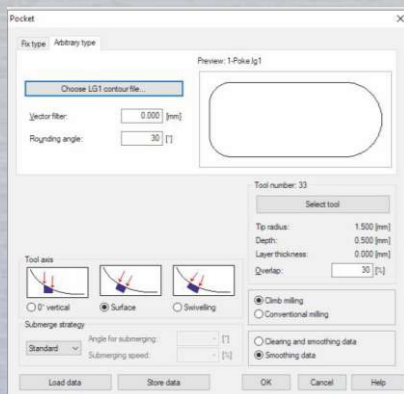
- ✓ One software for engraving and laser processing
- ✓ Workshop and PC programming with the same software
- ✓ Digitizing of surfaces directly on the tire sidewall mold (checking for collisions is redundant)
- ✓ The current cutter position is displayed in the main screen during output

Software functions

- ✓ GUI with UniCode support in all languages
- ✓ Extensive import options
 - direct import of DXF, DVGW and IGES vector data
 - also batch conversion is possible
 - Downward compatible with all LANG LTire data
- ✓ Individual generation of pocket stamps
 - from free definable contours



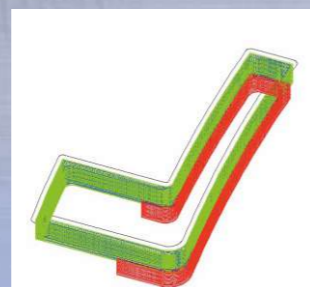
- Minimized tool wear



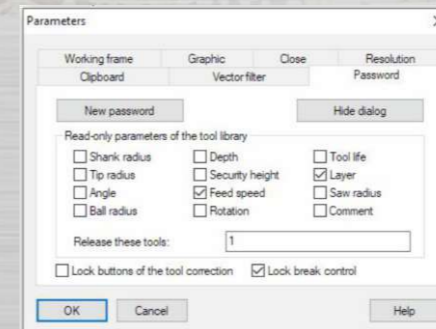
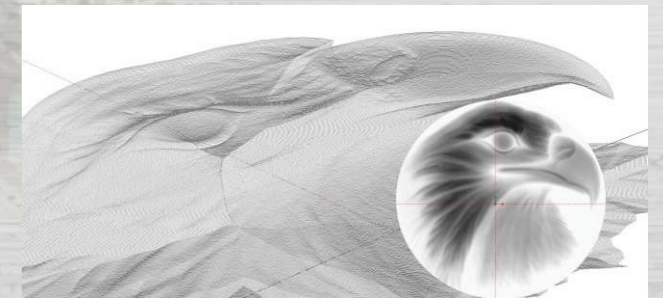
- ✓ Drilling with LANG drilling cycles
 - creating drell patterns with a drilling cycle assigned
 - available cycles: simple drilling, chip breaking and chip removal, submerging
 - flexible adjustment of drilling angle, absolute or related
 - generating of dottings as drilling object

- ✓ Output of the cutter lengths in report of tool break control according to the set unit

- ✓ Easy creation of CAM data for deep letters

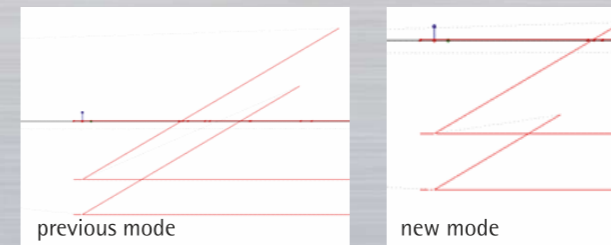


- ✓ Engraving of reliefs from grayscale images (requires LANG software Relief-Designer)
- ✓ Multipositioning
 - In addition to the full circle, also on any pitch circles
 - Distance by angle or length (pitch distance)
- ✓ Hotkeys for individual GUI
- ✓ Multilevel password protection for tool break control



Reduction of milling times

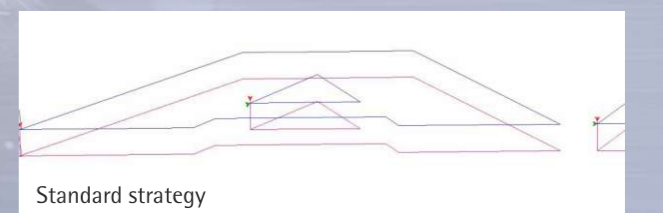
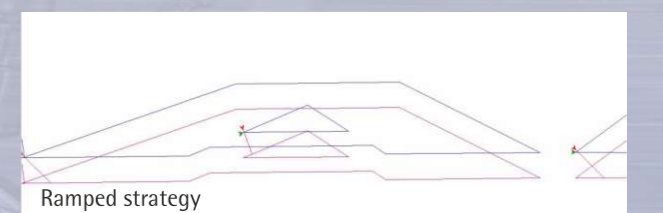
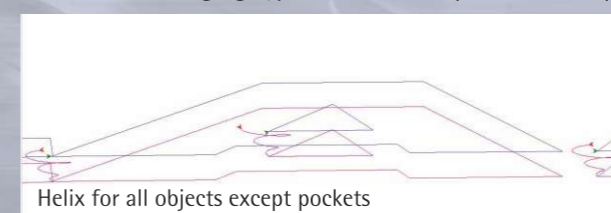
- ✓ Minimal submerging movements due to optimized retraction between layers



- ✓ Automatic optimization of milling paths after data import
- ✓ Fast drawing even of large data sets
- ✓ NC code optimized output

Minimization of tool wear

- ✓ Submerging strategies
 - ramped or vertical submerging adjustable (submerging feed is adjustable for each object)
 - optimized start up movement for milling and finishing of pockets
 - various submerging types as Helix/Ramped/Standard possible



- ✓ Tool life monitoring
 - on emerging positions as well as in material
 - optimal position for tool change is calculated within a userdefined tolerance range