

# LASER MATERIAL PROCESSING

LASAG AG, KLS 246 - 124

Pulsed Nd:YAG laser (1 064 nm) completed with CNC guided linear XYZ positioning table is usable for wide range of the application of laser material interaction. Focusing lens 100 mm is mounted in fixed processing head. Motion of linear axis is guided by G codes in SPL file edited by user requirements.

## APPLICATION

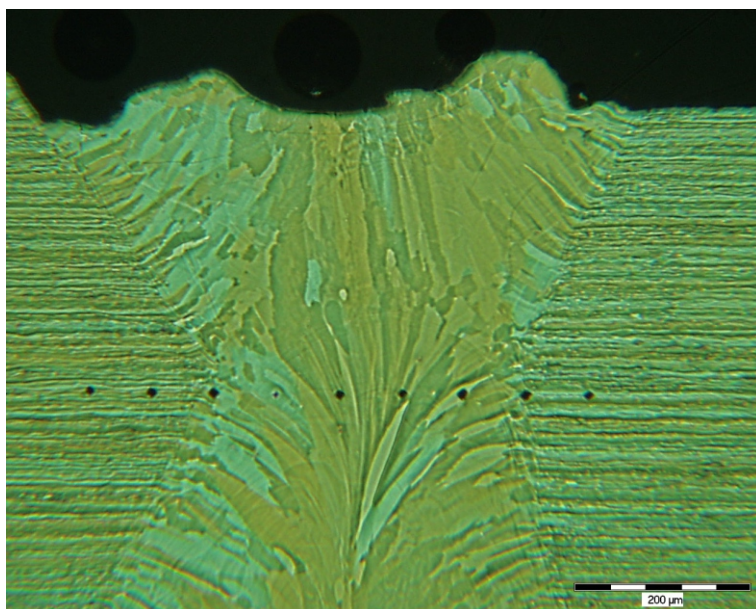
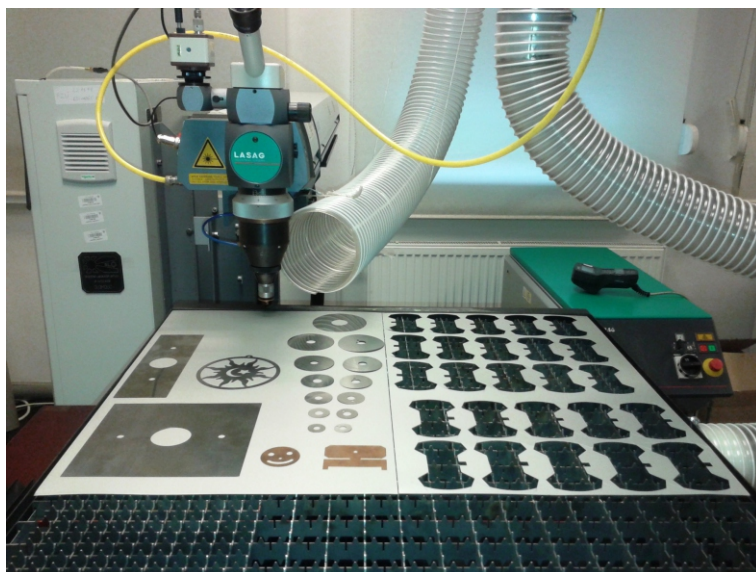
- > Spot and overlapped welding
- > Single pulse and percussion drilling through holes in metal and non-metals
- > Engraving labels and shapes to all surfaces
- > 2D cutting of the metal sheets
- > Scribing and texturing of non-metals
- > Overlapped metal surface remelting

## MATERIAL/SUBSTRATE TYPES

- > Metal foils from 0.1 mm to 1 mm – steel, cooper alloys, aluminum, titanium
- > Non-metal materials – paper, leather, glass, ceramics, silicon

## MODES, CONDITIONS AND PRECISION

- > Maximal power 150 W in welding mode, focus diameter 0.6 mm
- > Maximal power 60 W in cutting and drilling mode, focus diameter 0.2 mm
- > Maximal power 45 W with fine engraving mode, focus diameter 0.15 mm
- > XY linear axes range 500 mm x 500 mm
- > Processing speed up to 50 mm/s
- > Minimal step of motion 0.01 mm
- > Minimal shape dimensions tolerances +/- 0.05 mm



Cross-section of the aluminium weld.

DETAILED INFORMATION ON REQUEST



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