

microSTRUCT™ mini

Compact and Cost Efficient Laser Micromachining System

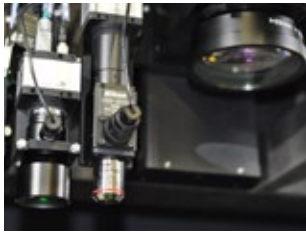
3D-Micromac's microSTRUCT™ mini is a compact and highly flexible laser micromachining system used in industrial production, product development and applied research. Superior flexibility and cost efficiency make the system ideally suited for laser structuring, cutting, drilling and welding applications on a variety of substrates, e.g. metals, alloys, transparent and biological material, ceramics and thin film compound systems.

microSTRUCT™ mini offers:

- One free configurable working area
- Integration of different laser sources
- Various optical setups
- Quick changing of work piece clamping unit
- User-friendly, flexible, upgradeable system control
- Automatic handling on request



microSTRUCT™ mini - System Configuration



Configuration packages

- Welding package
- Glass cutting package
- Sub-surface marking package (security features)
- Customized solutions

Options

- Automatic handling system
- Loading- and unloading handling according to customer's specification
- RFID or Data matrix reader (DMC)

Laser sources	<ul style="list-style-type: none"> • The system is prepared for integration of one laser source • Available laser types: ps, ns, fs, Excimer, CO₂, fiber lasers
Beam delivery unit	<ul style="list-style-type: none"> • Beam path for different lasers and wavelengths (1064, 532, 355 nm) • 2D and 3D galvo scanner models or fixed optics available • Power measurement at work piece level
Positioning system	<ul style="list-style-type: none"> • Direct-driven XY positioning system • Travel distance 300 mm x 150 mm and z up to 150 mm • Positioning accuracy ± 0.015 mm • Repeatability ± 0.005 mm
Working area	<ul style="list-style-type: none"> • One working area • Max. Substrate size 200 x 100 mm (larger substrates on request)
Alignment	<ul style="list-style-type: none"> • Manual, semi-automated or fully-automated work piece alignment with XY system • Optical z-measurement on request • Automatic Z positioning (depending on configuration packages)
Software microMMI	<ul style="list-style-type: none"> • Control and supervise of all hardware components and machining parameters • Different user levels (administrator, supervisor, operator) • Data input file types: DXF, CSV, Gerber, CLI, others on request
Safety	<ul style="list-style-type: none"> • Laser class 1 housing • Certified laser window or overview camera (webcam) • Active exhaust system included
Dimensions	<ul style="list-style-type: none"> • 2500 x 1100 x 2100 mm³ (L x W x H) • Approx. 1 t

Changes in accordance to technical progress are reserved.