

microSTRUCT™ vario

Upgradable laser system for micromachining of various materials

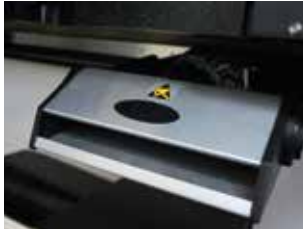
The microSTRUCT™ vario system is 3D-Micromac's most flexible laser micromachining system, predominantly used in product development and applied research. Free configurable working areas ideally equip the system for laser structuring, cutting, drilling and welding applications on a variety of materials, e.g. metals, alloys, transparent and biological material, ceramics and thin film compound systems.

microSTRUCT™ vario offers:

- Up to three independent and free configurable working areas
- One single work piece fixation for all working areas
- Integration of up to three different laser sources
- User-friendly, flexible, upgradeable system control



microSTRUCT™ vario - System Description



Basic

- Two working areas
- Prepared for one laser source with three wavelengths

Advanced

- Two working areas
- Prepared for two laser sources with up to three wavelengths

Superior

- Three working areas
- Prepared for two laser sources with up to three wavelengths and one additional laser source with one wavelength

Options

- Different option packages available:
 - Excimer laser package
 - High accuracy package
 - Multi-axis positioning package
 - Other options on request

Laser sources	<ul style="list-style-type: none"> • Up to two laser sources simultaneously • Available laser types: ps, ns, fs, fiber-/disc laser, excimer, etc.
Beam delivery unit	<ul style="list-style-type: none"> • Up to three beam paths for different wavelengths • 2D and 3D galvo scanner models or fixed optics available
Positioning system	<ul style="list-style-type: none"> • Direct-driven XY positioning system • Travel distance 1200 mm x 450 mm • Positioning accuracy ± 0.002 mm • Repeatability ± 0.001 mm
Working area	<ul style="list-style-type: none"> • Three separate working areas • Max. substrate size 450 x 450 x 60 mm³
Alignment	<ul style="list-style-type: none"> • Manual, semi-automated or fully-automated work piece alignment with XY system and optical measurement system available • Automatic separate Z positioning
Software microMMI	<ul style="list-style-type: none"> • Control and supervise of all hardware components and machining parameters • Different user levels (service, 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"> • 2900 x 1700 x 1960 mm³ (L x W x H) • Approx. 4,8 t