

micar

The new generation  
USP-machines

micar C-series

# micar C-Baureihe

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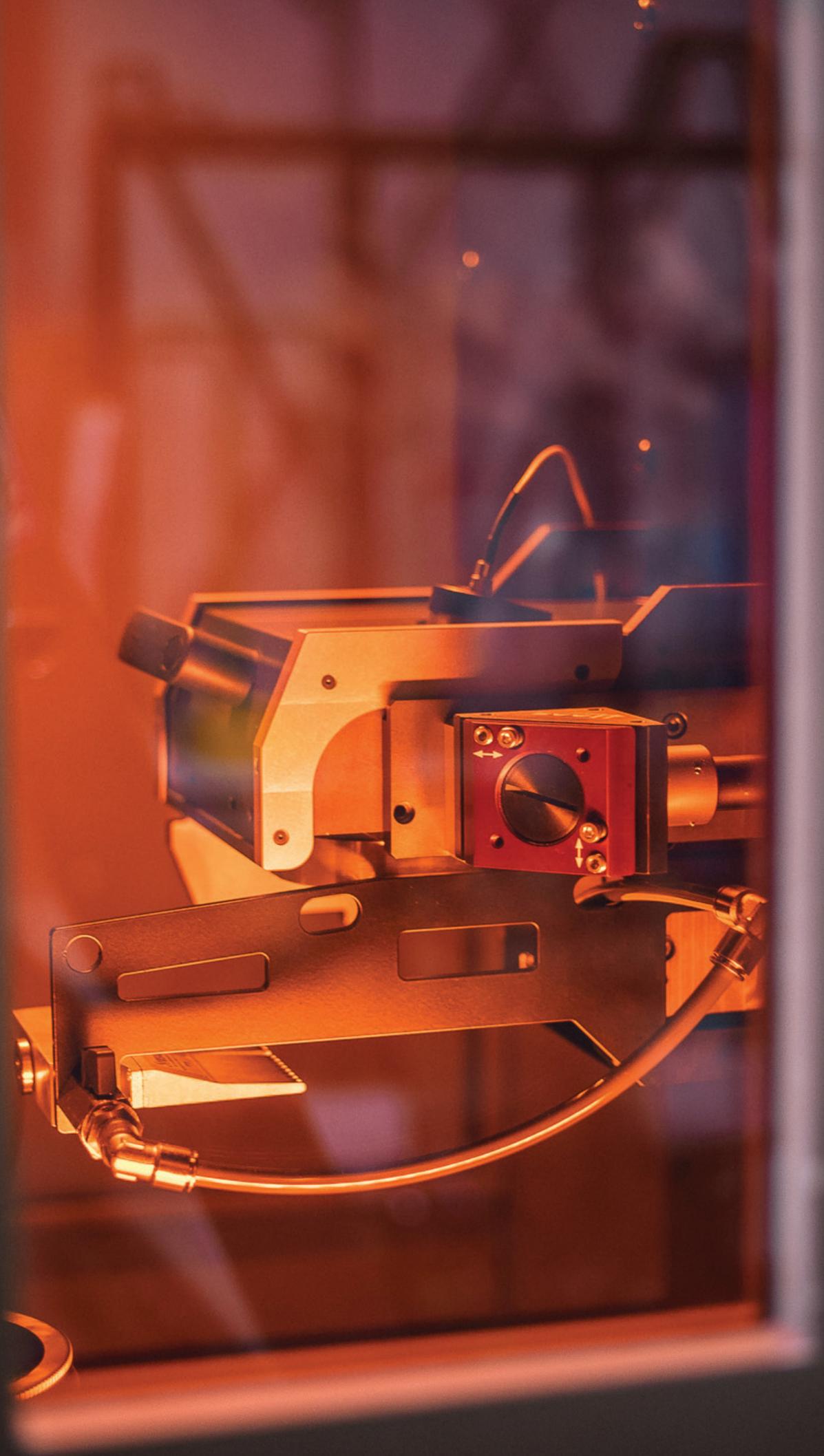
The C-series is standing for a compact and modular USP laser machine system with multiple and individual adaptations.

The configuration extends from the compact stand-alone solution to the complex machine with integrated automation.

The standard version has maximum paths of 500 mm in X-/ Y- direction and 400 mm in Z-direction. The system can be extended by a rotating and a rotating-swivel unit. This creates the condition for a configuration with up to five axes.

The simple integration of different processing modules allows to cover a great variety of USP processes. Therefore the C-series with its modularisations is adaptable for the individual requirements of drilling, cutting or structuring processes with ultrashort pulse lasers.





# Characteristics

Machine frame	The machine frame C554.1 consists of one module
Machine axes	motorised machine axes: XY-cross table z-axis (vertical mounted, break) typical volume of work 500x500x400 mm <sup>3</sup> repeat defects: < 20µm to < 2µm type: precision ball screw or linear motor drive
Optical system	galvanometer scanner, focusing object f = 60-160 mm wavelengths: 255nm, 532nm, 1064nm options: multibeam processing, beam formationioning modul
Laser sources	pulse durations: nanosecond - picosecond - femtosecond laser output power: up to 400W
Software	machine control: Photonic Elements CAD: Rhinoceros Rhino 3D CAM: Photonic Vectors
Hardware - control	fieldbus system (RS232/485, analog I/O, digital I/O, USB)
Measurement technology	camera system CM-R1 (coaxial laser pointer, LED-field illumination) sensors: beam profile, laser power, conditioning monitor, probe sensor
Accessories	vacuum fixing system, zero point fixuring system, rotating swivel unit, extraction system, process gas system
Service	feasibility studies, application development, CAD/ CAM training, remote maintainance, software development

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# About micar

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micar unites the longtime experience of three companies with high-level expertise in laser microprocessing, machine design and the production as well as the numeric simulation for laser machine construction. The efficiency of micar is based on the integration into a company group that has been working as an engineering supplier since the early 1980s. Today a total of 109 employees, including 15 trainees, are working in the environment of mica

On 5.000 m<sup>2</sup> of production area about 1.000t of steel are processed to approx. 800 machine frames every year. The sales in this segment increased by more than double in the last 8 years. After 2015 also USP machines like micar C554.1 belong to this segment.

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