



Advanced Laser Micromachining Systems for Exceptional Work

Empowering scientific and production breakthroughs from nearly 50 years of industry experience and micromachining process knowledge - We deliver cutting-edge performance from our ultra-high precision systems.

C Series - Production Powerhouse

Heavy duty work horse for ultra-precise high-volume production micromachining



Highlights

- Ultra-high precision micromachining for high throughput 24/7 production manufacturing
- Larger and highly configurable workspace, option to integrate automated handling systems
- Extensive range of applications (cutting, drilling, milling, scribing, thin-film patterning, microwelding, texturing) as standard
- Fully integrated real-time control of all system elements with Cimita™ software including user access controls, CAD/CAM / post processor packages and pre-programmed functions for standard operations
- Wide range of laser sources, optics and accessories available to suit any material / process

We Make it Easier for You - Training & Support

Comprehensive training is provided at installation to ensure that individuals of all experience levels can quickly and easily become confident users. An optimised set of laser parameters will be provided for your primary application and a variety of training, support and warranty packages are available for you to benefit from our extensive laser processing knowledge, and to maximise the return on your investment over the full lifetime of your system.

C Series Systems - Specification Overview

The Right Tool for the Right Job: Talk to us about your application and we will discuss the best choice to achieve your goals.

Laser Options	Available with an extensive range of nanosecond, picosecond or femtosecond laser sources in ultraviolet, visible or infrared wavelengths to suit your application.
Material Processing Capabilities	Micromilling, drilling, cutting, scribing, etching, surface texturing, thin-film patterning, welding
Beam Delivery Options	<ul style="list-style-type: none"> • Dual axis high-speed galvo scanner with telecentric lens for larger field of view • Range of fixed optics including microscope objective for ultimate precision* • Integrated system for easy lens swap and alignment* • 150 mm Z-axis servo motor stage and brake, 1 µm resolution, +/-1 µm repeatability • Power measurement at the workpiece
Workspace Stability	Substantial granite load frame mounted on steel chassis with anti-vibration feet for ultimate thermal and mechanical stability
Positioning System	400 mm x 400 mm XY servo motor stages, 0.005 µm resolution, +/-0.5 µm repeatability
Working Area	Configuration specific, typically 250 mm x 300 mm minimum
Workpiece Holding	<ul style="list-style-type: none"> • General purpose clamping jig suitable for a range of materials and sizes • Optional vacuum jig • Custom / application-specific fixtures available on request
Alignment Systems	Manual or fully automated workpiece alignment via: <ul style="list-style-type: none"> • AutoAlign: vision-based integrated software system to align to local or global fiducials • AutoFocus: Surface measurement system with options for matte or highly reflective / transparent materials • Automatic Z height positioning
Vision Systems	<ul style="list-style-type: none"> • On-axis camera for direct observation through the processing lens • High-resolution off-axis camera for feature inspection / measurement without having to remove the workpiece • Workspace view camera for a live overview of the entire work area
Software	<ul style="list-style-type: none"> • Fully integrated real-time control of all system elements via Cimita™ software • User access controls to define operator permission levels • CAD/CAM / post processor packages optimised for laser micromachining, accept all common CAD file formats • Pre-programmed functions for standard / repeat operations
Safety	Laser Class 1 enclosure, fully interlocked with integrated fume extraction
Dimensions	2800 mm W x 1700 mm D x 2040 mm H
Weight	Approx. 2700 kg (dependent upon options)

* Femtosecond laser version only

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version: 21 May 2026