



μMETA

Fiber laser
marking
workstation

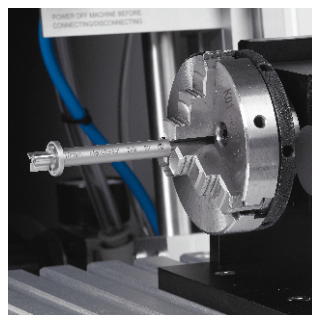
*Technology this good has
never been so affordable*



www.csionline.co.uk
WWW.LOTUSLASER.COM

What is μMeta?

μMeta is a laser marking workstation commonly used for permanently marking parts that are manufactured from most metals and some plastics with logos, general text, serial numbers and many formats of coding.



We know of no other comparable system on the market today at this price point that delivers the performance and functionality of μMeta.

By far our best selling 1μm laser marking machine, μMeta has almost all of the features found on our flagship Meta-C model but at a significantly lower price and a smaller footprint.

The Class 2 laser safety rating of μMeta allows it to be used in most work environments including public places.



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Standard Features

RELIABLE LASER SOURCE

At the heart of μMeta is a Raycus 20w 1μm Q-switched pulsed fiber laser with a proven record of consistent and reliable operation.



▲ PROGRAMMABLE Z-AXIS

The Z-axis that we fit into μMeta is 100% our design and build and comes with a proven track record of intensive use over many, many years. Controllable by software our Z-axis provides for super fast job set-up and job recall as well as the ability to mark objects at multiple heights in a single job.

EXCELLENT SOFTWARE

μMeta comes with powerful Lotus Mark software. In the more than 20 years that we have been building laser marking machines we know of no other laser marking software that's as feature enriched or easy to use.



▲ INTERCHANGEABLE LENSES

Using lenses of variable focal length, scan area and focal point provides for maximum optimisation of mark effect, output quality and process speeds. μMeta comes with a 110mm lens as standard and can be fitted with 70mm and 180mm options.



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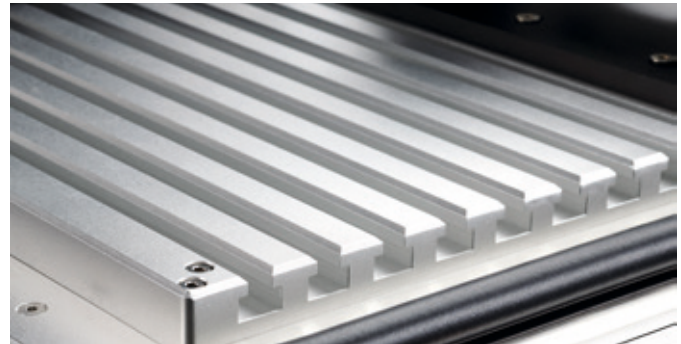
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Standard Features



▲ PNEUMATIC ACCESS PANELS

All of our Class 2 workstations incorporate pneumatically operated access panels for hands free, low noise and minimal wear/tear operation. Our design not only delivers convenience but automatically raises to give the operator an instant indication as to when the marking process is complete. The speed and design of our access panel can significantly contribute to reducing jobs times.



▲ T-SLOT TABLE & POINTING LASER

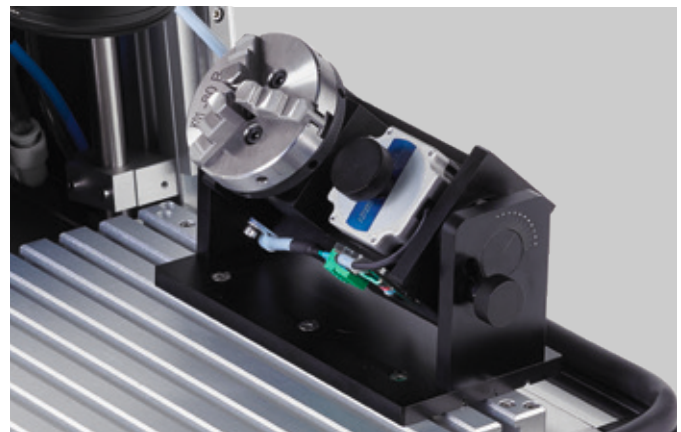
Accurate and stable fitting of jigs is essential for error free operation. That's why we incorporate to μMeta a T-Slot worktable that's CNC cut from a solid block of aluminium. Coupled with a pointing laser delivered through the lens, set-up times can be reduced from many minutes to just a few seconds.

Optional Features



▲ EXTERNAL START

For extra convenience μMeta can be fitted with an external push button or foot switch to activate the marking process.



▲ ROTARY DEVICE

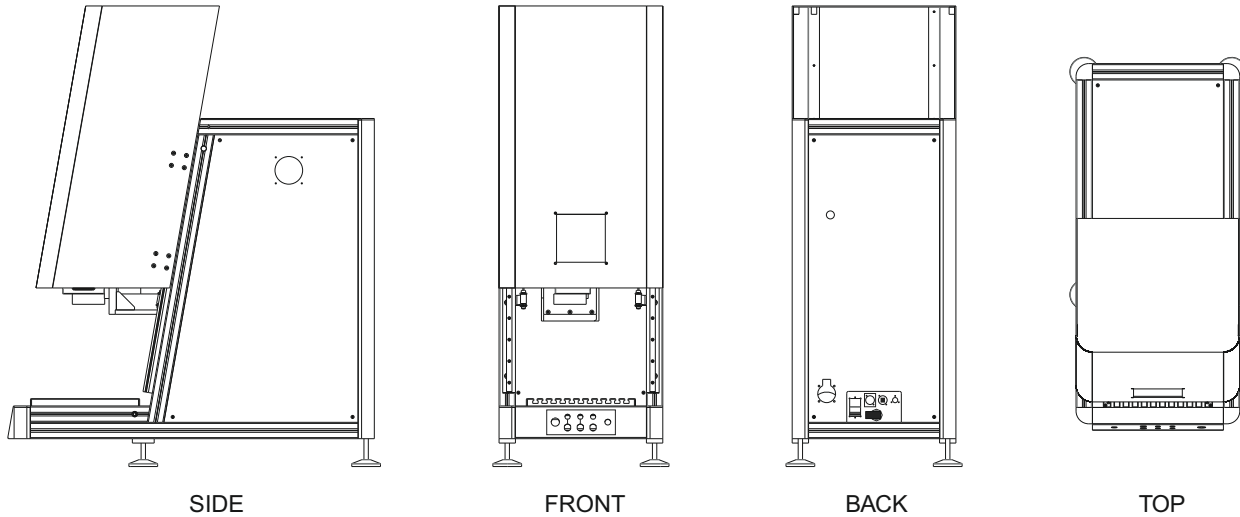
For marking cylindrical objects the μMeta rotary device grips the part while turning it during the marking process to hold an accurate focal point

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General Technical Data



WEIGHT & DIMENSIONS

Width	450mm
Depth	1,005mm
Height	980mm; 1300mm with door open
Weight	90kg approx
Foot (x4) adjustability	Height plus 40-75mm

LASER SOURCE

Q-switched fiber laser
1060-1070nm optically isolated with random polarization
Pulse energy 0.67mJ @ 30kHz, M2 <1.5
PRR 30-60kHz
Pulse width <120ns
Integrated (red) pointer <0.99mW @655nm

POWER REQUIREMENT

Single phase auto switching	
230 VAC 50Hz	Consumption <1A 180W approx
120 VAC 60Hz	Consumption <1A
Air Cooled	

COMPUTER

Operating System	Windows
Connection	USB max 2.5m

AIR REQUIREMENTS (FOR PNEUMATIC DOOR)

Connecting port	12mm female push-fit
Pressure	Regulated 4 bar max
Oil/Moisture	Must be removed
Flow negligible	Recommended receiver 24L

MAXIMUM PART LOAD USING T-SLOT

X	300mm
Y	300mm
Z with 110mm lens	300mm
Z with 180mm lens	200mm
Weight	30kg

MAXIMUM PART LOAD USING ROTARY, AXIS (OPTION)

X	200mm
Diameter	100mm
Weight	2kg depending on fixture

SAFETY & SECURITY

Laser class	2
Emergency stop	Standard
Keyswitch power on/off	Standard
Keyswitch maintenance (Class 4)	Standard
Laser safe viewing window	135x135mm
CE and RoHS	Compliant
FDA	Approved 1320021-000

MISCELLANEOUS

T-slot size	300x300x20mm
Integrated start button	
Standard lens scan area	110mm
Optional lens scan area	180mm & 70mm SO
Pneumatic door	Standard
Z-axis programmable by software	Standard
Lotus mark control software	1 copy
Rotary axis with chuck	Optional
Fume extraction	Mandatory – at extra cost depending on application

WARRANTY (T&C APPLY)

Main system	2 years
Laser source	2 years
Labour	Variable by territory
Warranty extensions	Optional up to +3 years
Service Contract	Optional

PERFORMANCE

Scan Head signal	Digital
Standard head max velocity	3000mm/sec

ENVIRONMENTAL REQUIREMENTS

Ambient temp. (min/max)	15°C to 30°C
Fume extraction rate	Apps dependant, seek advice
Protect from direct sunlight, vibration, high humidity, dampness, unstable power supply.	