



LOTUS
LASER SYSTEMS

μMETA

FIBER LASER MARKING WORKSTATION

Technology this good has never been so affordable

www.lotuslaser.com

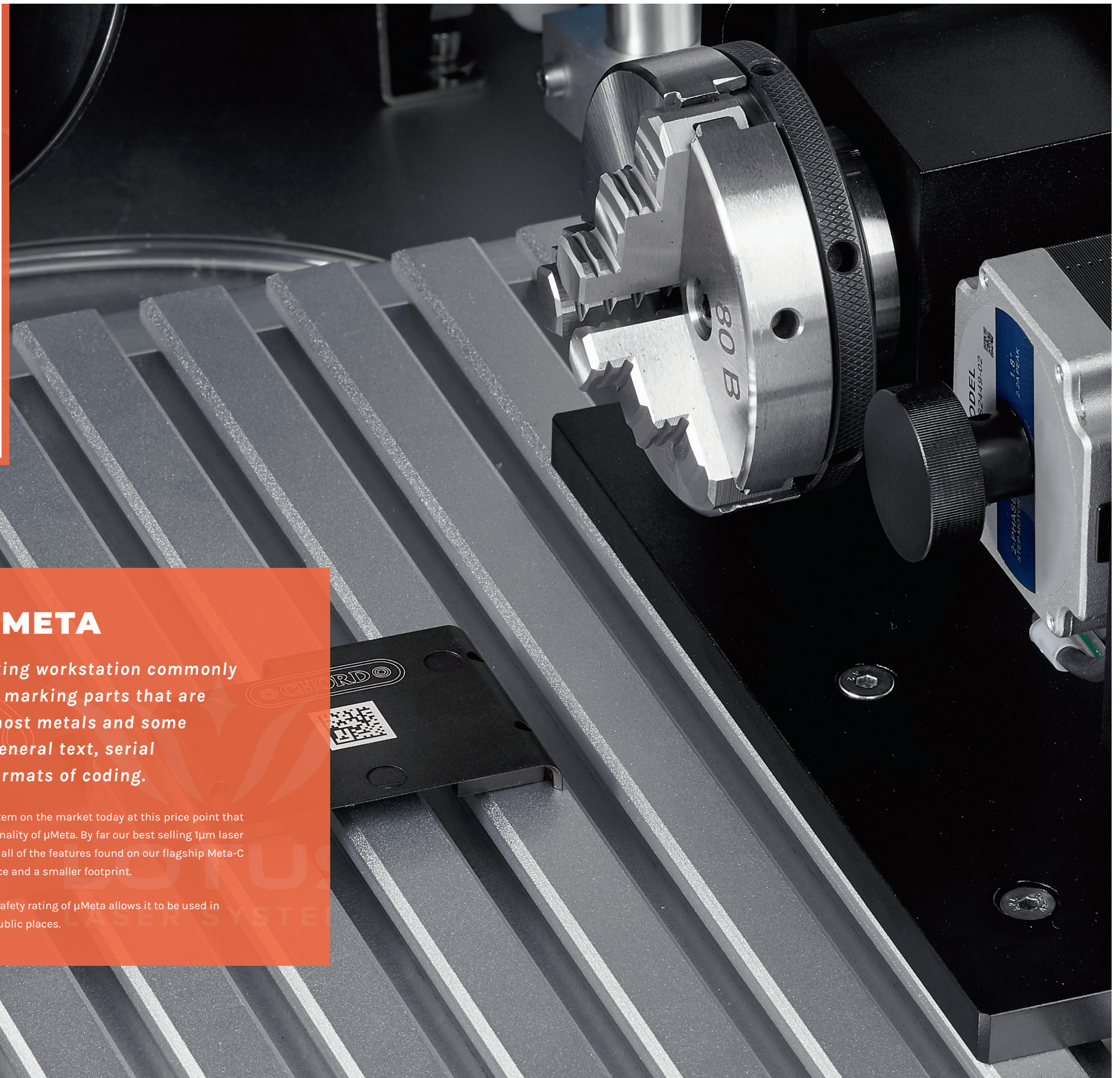


WHAT IS μ META

μ Meta 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 μ Meta. By far our best selling 1 μ m laser marking machine, μ Meta 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 or optional Class 4 laser safety rating of μ Meta allows it to be used in most work environments including public places.



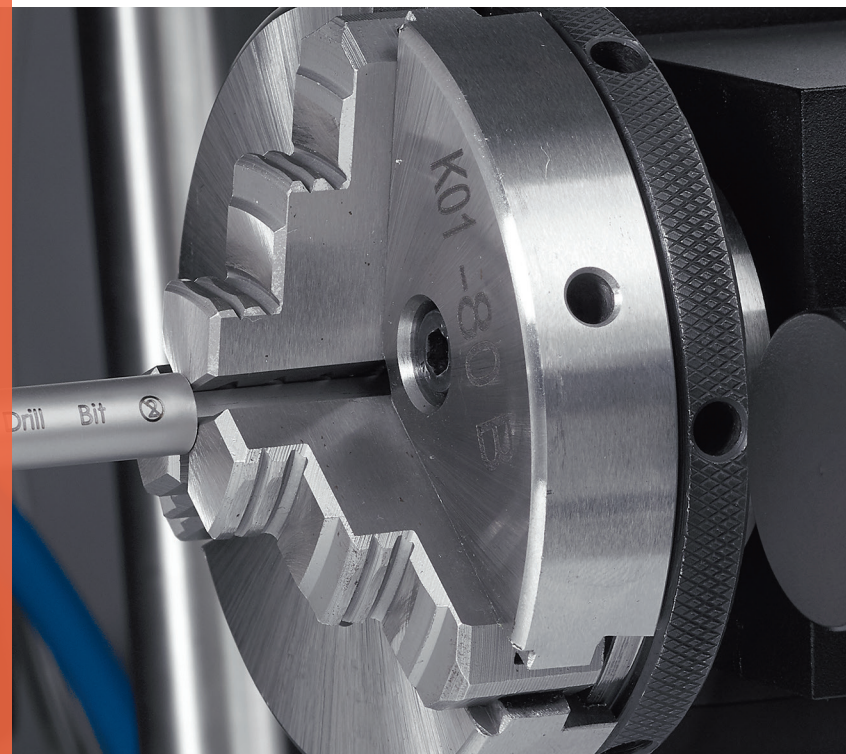
STANDARD FEATURES

What makes a Meta workstation so special?

Let us tell you...

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, 180mm and 220mm options.

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.

RELIABLE LASER SOURCE

At the heart of µMeta is a powerful JPT 20w or 30w MOPA Fiber, or a budget conscious Raycus 20w or 30w 1µm Q-switched pulsed fiber laser, both with a proven record of consistent and reliable operation.

STANDARD FEATURES



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.



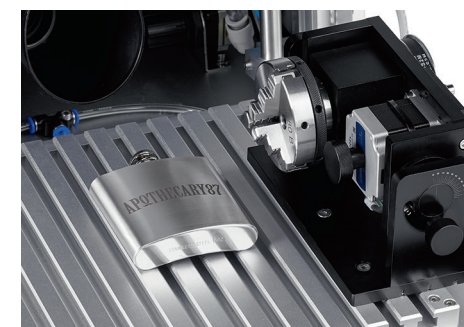
EXTERNAL START

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



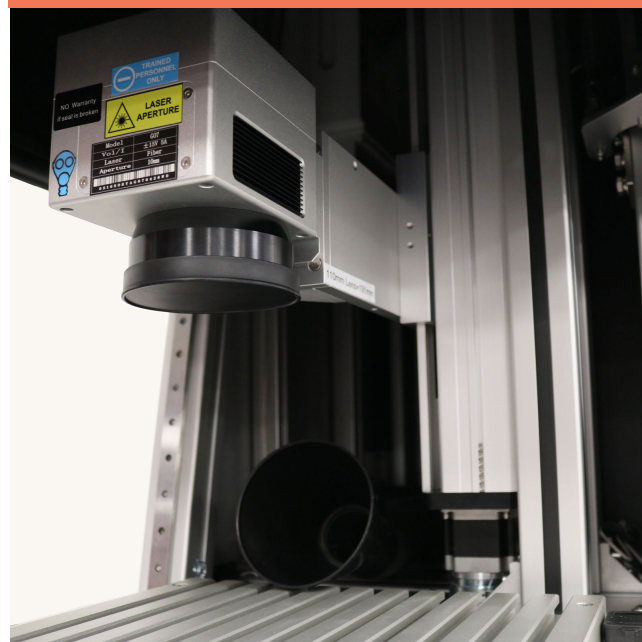
PNEUMATIC ACCESS PANELS

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.

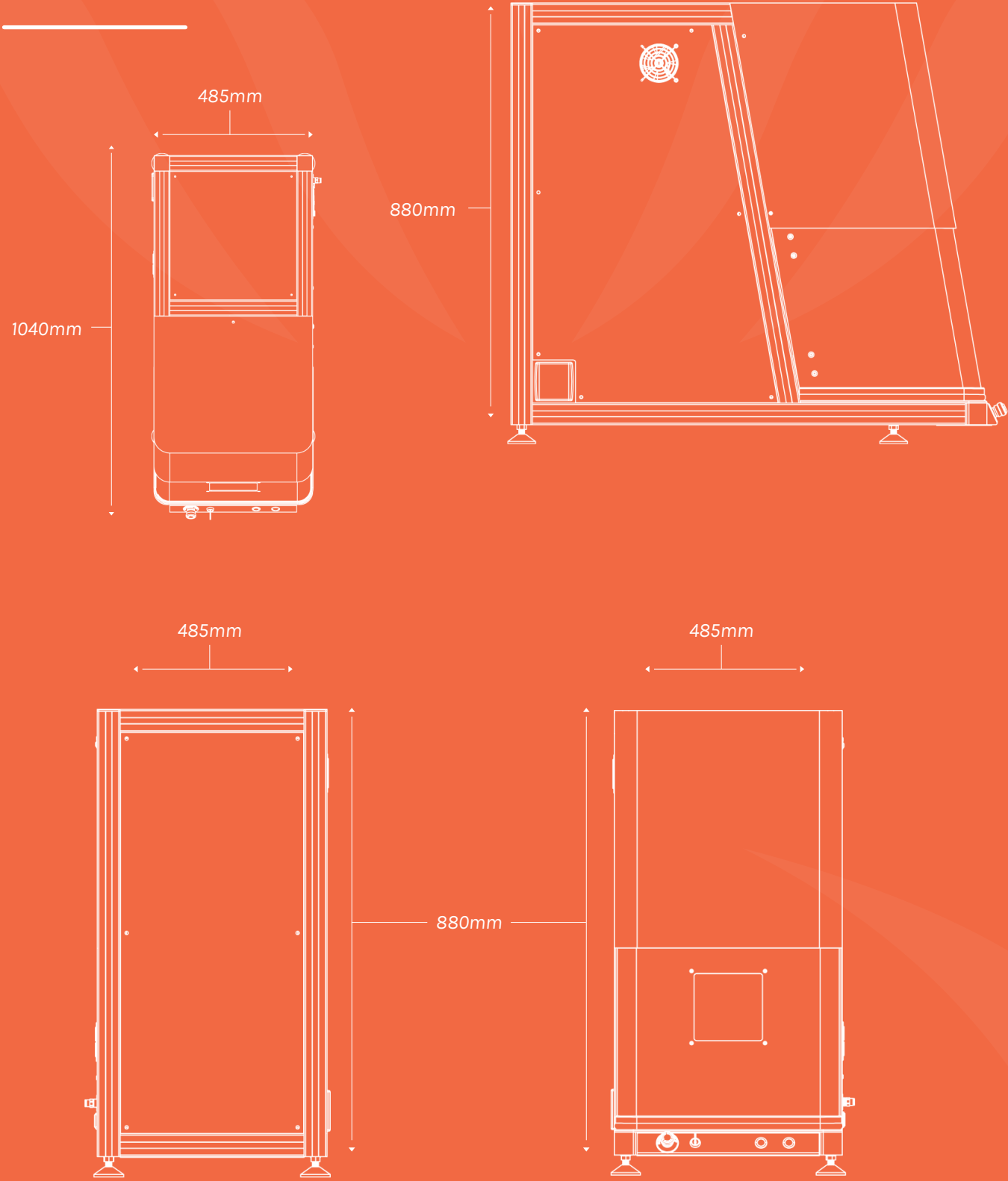


ROTARY DEVICE

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



GENERAL
TECHNICAL
DATA



WEIGHT & DIMENSIONS	
Width	485mm
Depth	1040mm
Height	880mm
Weight	90kg approx
Foot (x4) adjustability	Height plus 20-40mm

LASER SOURCE: Raycus 20w Q-Switched option	
Q-switched fiber laser	
1060-1085nm optically isolated with random polarization	
Pulse energy 1mJ @ 20kHz, M2 <1.5	
PRR 20-60kHz	
Pulse width <120ns	
Integrated (red) pointer <0.99mW @655nm	

POWER REQUIREMENT	
Single phase auto switching	
230 VAC 50Hz	Consumption <1A 200W 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 4-7 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	290mm
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	Class 2 with Class 4 option
Emergency stop	Standard
Keyswitch power on/off	Standard
Keyswitch maintenance (Class 4)	Standard
Laser safe viewing window	135mmx135mm
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	220mm, 180mm & 70mm S0
Pneumatic door	Standard
Z-axis programmable by software	Standard
Lotus mark control software	Standard
Rotary axis with chuck	Optional
Fume extraction	Application dependent - additional cost

WARRANTY (t&c apply)	
Main system: 3 years	Labour: Variable by territory
Laser source: 3 years	Optics: 3 months
Warranty extensions Optional up to +5 years	
Service contract Optional	

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

ENVIRONMENTAL REQUIREMENTS	
Ambient temp. (min/max)	0°C to 40°C
Fume extraction rate	Apps dependant, seek advice
Protect from direct sunlight, vibration, high humidity, dampness, unstable power supply.	

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