

Laser Technologies From The UK's Leading Distributor

LASER MARKING

LASER WELDING

LASER CUTTING

LASER 3D PRINTING

LASER HARDENING & CLADDING

LASER MICRO MACHINING

LASER CLEANING



World leading laser technology and expertise

TLM laser has built up a comprehensive range of complementary laser technologies from some of the worlds most respected suppliers.

These partnerships, together with our expertise and reputation for excellent customer support and service, has established TLM as a valued supplier to many of the UK's manufacturers across multiple sectors.

UNIVERSAL
LASER SYSTEMS

ALPHALASER

FOBA
Laser at your service

INNOLAS

InssTek

LasX
The Laser Experts

swisstec
micromachining

UNIVET
OPTICAL TECHNOLOGIES

EVOSYS
LASER SOLUTIONS

bodor
laser

BOFA

4JET
LASER SYSTEMS SERVICES

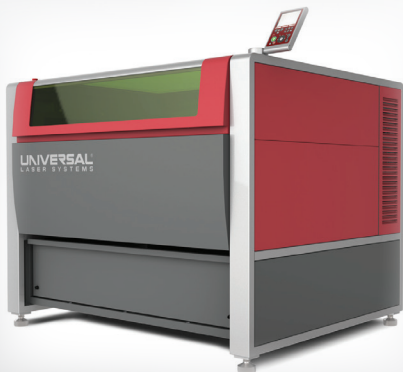
Our Technologies:



Laser Marking — ✨



Laser Cutting Metals — ✨



Laser Cutting & Marking — ✨

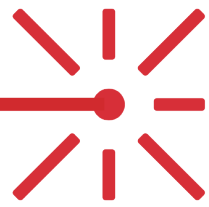


Hardening & Cladding — ✨



Plastic Laser Welding — ✨

LASER MARKING

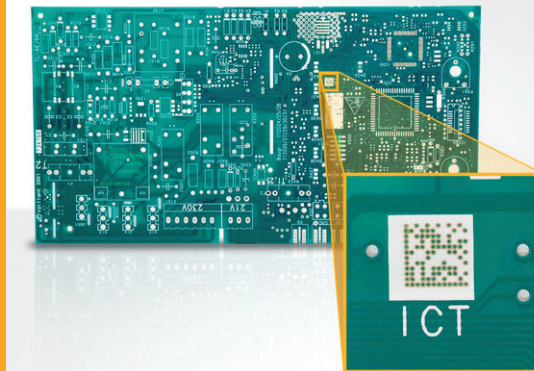
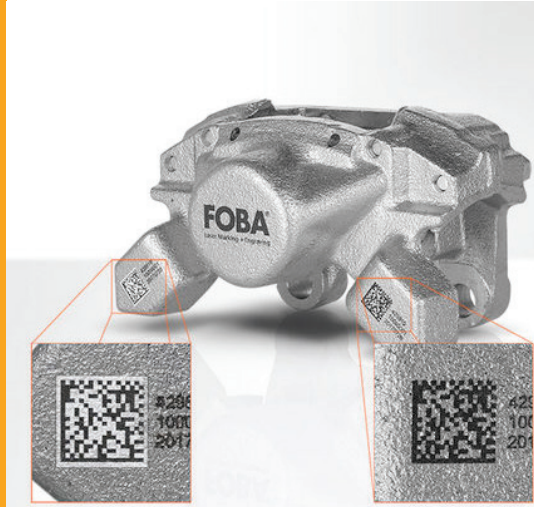


Laser Marking has a wide range of applications in industry, especially in the manufacturing of medical equipment, aerospace components and auto industry parts where traceability is one of the essential requirements.

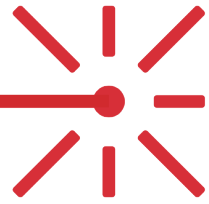
The flexibility and consistency of the laser marking has made it the process of choice for a growing number of manufacturers.

TLM offers a wide range of laser marking systems, suitable for for processing various materials including:

- Metals
- Plastics
- Organic Materials



PLASTICS LASER WELDING



Laser Welding plastic is cleaner, safer, more accurate and more repeatable than other more traditional methods of welding plastic components.

EVOSYS produces highly reliable systems for the automotive and other industries. The systems are suitable for a variety of batch and component sizes. The machines can either stand alone or be integrated into your production line using EVOSYS systems. Ideal for:

- laser welding plastic components
- laser welding plastic film
- laser welding plastic parts
- laser welding plastic tubing

Stand-alone Plastic Welding Systems

One of the more recognisable applications of plastic laser welding technology is the production of tail lights for the automotive industry. This laser welding of these plastic parts can be achieved using stand alone EVOSYS laser welding equipment.

Full Production Line Integration

If you would like to integrate a machine into your round the clock production line, EVOSYS offers high availability plastic welding machines through TLM Laser, EVOSYS UK distributor of laser plastic welding systems.



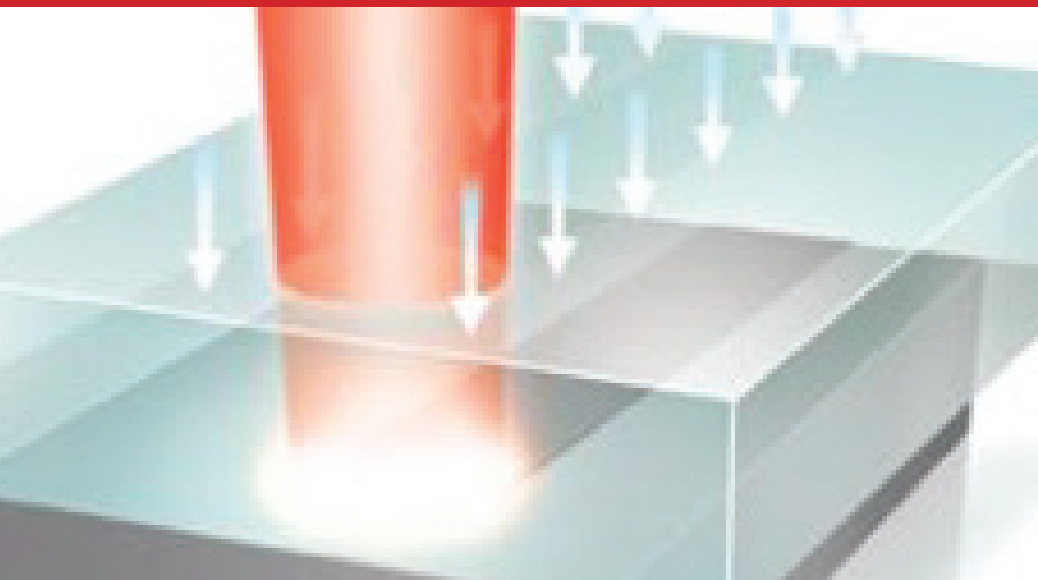
EVO 0600 - Plastic Welding with Fixed Optics



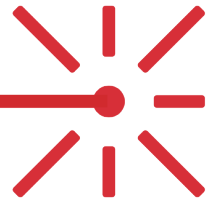
EVO 0700 - Radial Plastic Welding



EVO 0800 - High Volume Plastic Welding



LASER CUTTING



Lasers can cut a wide variety of industrial materials of varying thickness to just about any shape. Quick, clean, accurate and adaptable, laser cutting is the preferred method for many businesses across a wide range of industries.

Materials which can be cut by laser include:

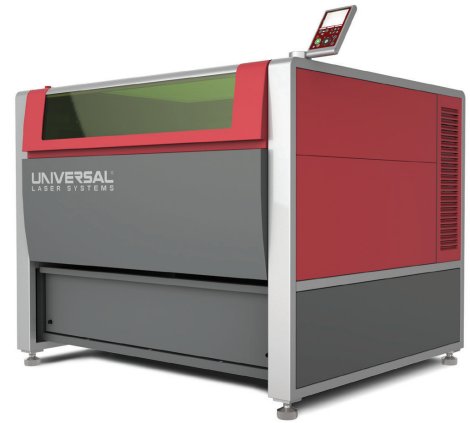
- Stainless steel up to 3mm (dependant on source used)
- Aluminium up to 2mm (dependant on source used)
- Mild steel up to 6mm
- Wood, textiles, organics (leather, cork, wax, etc) plastics and wood up to 25mm
- Labels, signs, paper, cardboard, composites, flexible circuits

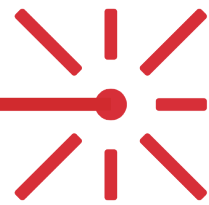
Industrial laser cutting machines can:

- Cut almost any shape imaginable with the highest flexibility
- Produce small kerfs of only 0.15mm
- Cut fine details and the smallest pieces with the highest precision
- Allow to produce inlays without gaps
- Avoid burning or breaking
- Save costs due to much less waste of material



Flat Bed Laser Cutting Systems Available From TLM





Laser Welding

TLM Laser Ltd is the UK and Ireland distributor of Laser Welding Machines and Systems from ALPHA LASER GmbH.

ALPHA LASER develops and supplies laser welding machines to a broad range of industry sectors. These sophisticated systems are designed to provide the user with a tool which renders welding work faster and more precise. Particularly in the field of mobile laser welding.

Typical fields of application are:

- Mould and tool construction / repair
- Thin sheet / precious steel production
- Repair in machine construction – turbine blades, machine components, housings
- Medical technology – medical part welding and production
- Sensor production (micro-welding, sheath tube cutting and scribing)
- Precision Engineering
- Dental Laboratories
- Jewellery Repair and Production

ALPHA Lasers have the solution to fit your requirements – whether it is a fixed or mobile system.

This technology is backed up by a team of industry experts, in conjunction with TLM, to provide the right solution and training to maximise your production, a first class service and the necessary spares.



Mobile Laser Welding Systems

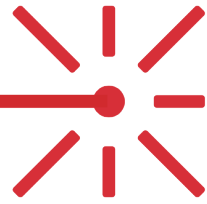


Enclosed Laser Welding Systems



Open Laser Welding Systems

3D LASER PRINTING



3D Laser Printing or more specifically, laser-aided Direct Metal Tooling (DMT) is a 3D metal printing technology that produces complex and functional 3D metal parts and structures using high power laser and commercially available metal powders.

According to the standard of ASTM (American Society for Testing and Materials), DMT technology is to be categorized as `Directed Energy Deposition`. But regardless of what it is called it provides a wide range of technical solutions for manufacturing businesses.

InssTek's 3D laser printers encompass all the features and technologies that allow customers to maximise the use of DMT technology. Following the motto "easy & simple to use" InssTek strive to make operations easier but more versatile.

The product range can be divided into 3 groups - DMT 3D metal printers, Special Purpose DMT Machines and DMT Engineered Machines.



The MX 400 is the entry level machine with a 500W Ytterbium Fiber Laser



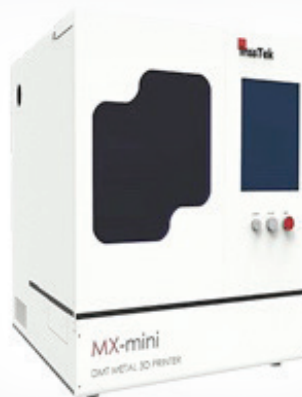
A DMT® 3D printer for small & medium sized metal products. The machine boasts 3 and 5 axis options and comes with a 1 kW Ytterbium Fiber Laser



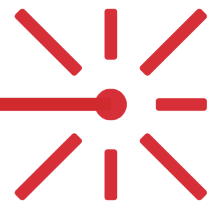
InssTek can provide standard or bespoke machines that will print your metal components in up to a 4 cubic meter working envelope



DMT® 3D metal printer for cladding orthopedic implants with a 500W Ytterbium Fiber Laser



Developed for the production of small metal parts, InssTek has launched the first 3D Metal printer that will sit on your Desktop



TLM are the UK partner for Swisstec 3D

Swisstec are at the very forefront of laser micro machining. They design and build high-end, laser machining systems for super-precision cutting, drilling and welding of micro parts.

They are committed to helping companies implement innovative machining solutions to expand micromachining capabilities, and develop new business areas, with new standards of quality, performance and productivity.

As a true Prime Solution provider, Swiss Tec works closely with its customer to ensure expectations are met and future technological developments are highlighted.

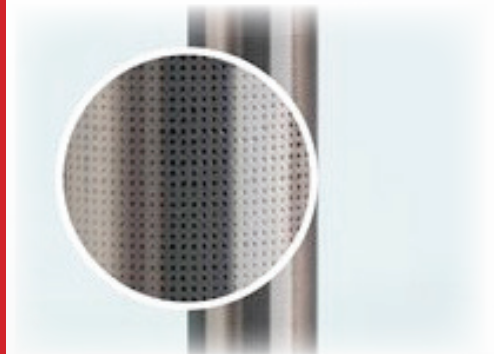
All machining systems are designed and built in Switzerland; the platforms consist of modular components which are configured according to individual application requirements.

In the applications lab, 'Proof of Principle' samples are produced; individual work samples are processed in our international Application Labor (depending on application) for various materials including:

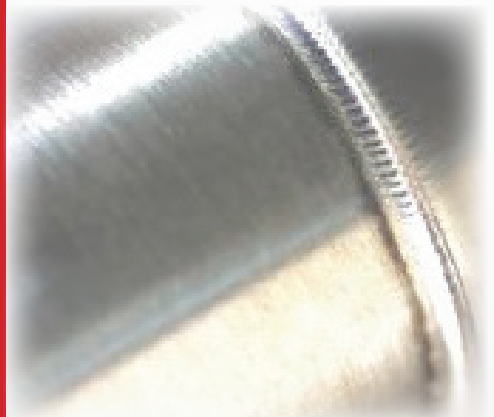
- Aluminum
- Ceramic
- Platinum
- Bronze
- Copper
- Ruby
- Diamond
- Brass
- Sapphire
- High-grade steel
- Molybdenum
- Silver
- Gold
- Nitinol
- Tantalum
- INOX
- Silicon
- Titanium



Micro Cutting - for precision medical equipment such as biopsy needles



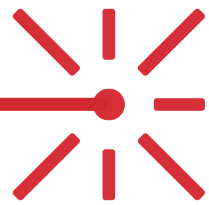
Micro Drilling - holes from approx. 20 μm for micro filter tubes



Micro Welding - pulsed fiber laser welding of stainless steel



LASER CLEANING



Fast Industrial Laser Cleaning from 4JET

Fast laser cleaning for tyre manufacturers and automotive OEMs with solutions for surface cleaning, coating removal and part marking in the tyre production industry. 4Jet systems provide non-abrasive mould cleaning, permanent tire marking and other laser cleaning applications.

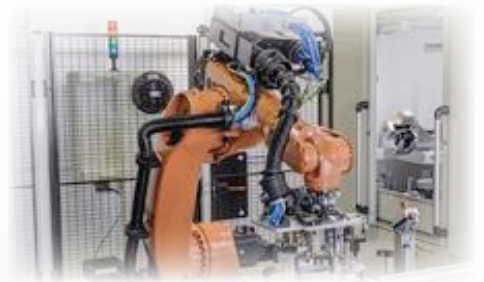
Cleaning with a laser is precise and delivers high levels of repeatability. The dry and contact free process does not damage the underlying substrate and eliminates the use of hazardous and expensive consumables such as chemicals or blasting media.

Laser cleaning with JETLASER provides manufacturers with unique advantages:

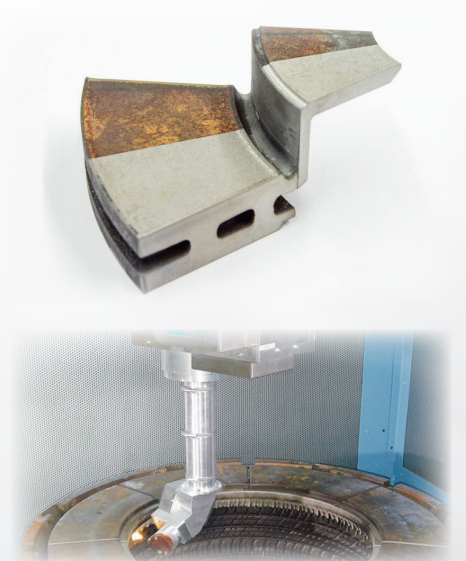
- Damage-free removal of surface coatings
- Dry process without hazardous chemicals
- Rugged, compact award winning design
- Resigned for harsh operating environments



Hand held laser cleaning system



Robotic laser cleaning system





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