



evolu**Z**ion

**EXPERTS IN TECHNOLOGICAL INNOVATION
HYBRID MANUFACTURING SOLUTION
MACHINING AND ADDITIVE**

The combination of LAGUN machining centres and MELTIO's additive technology. The most affordable hybrid manufacturing solution. Machining and Additive. Manufacturing Platform, enable metal 3D printing and machining of complex geometries in a single process step. The ideal for near net shape manufacturing, repair and feature addition.

LAGUN
MAHER HOLDING

We have been manufacturers of machine tools since 1928



We are pioneering change to support our customers into the future with innovative solutions in demanding sector.



MELTIO

Wire-Laser Metal 3D Printing Specialist



Disruptive Technology
A cost-effective wire laser metal deposition technology. LMD is a Directed Energy Deposition (DED) process that functions by precisely stacking layers of weld beads when introduced into the laser-generated melt pool.



In-house design and know-how on manufacturing machining centres

Culture of close and honest service

Our solutions are **reliable, safe and easy to use**, continually reinforcing our status as disruptors

High level of satisfaction and high rate of repeat purchases by our customers

More than 120 Professionals, everything is made possible by our people

Meltio Ecosystem, building a family across hardware, software and material partners together with, sales, integration, research and industrial companies



LAGUN L1600 machining centre

- Traverses
 - Longitudinal traverse (X) 1.620 mm
 - Cross traverse (Y) 700 mm
 - Vertical traverse (Z) 640 mm
- CNC FANUC Oi MF PLUS
- Chip conveyor
- Main spindle with 10.000rpm with oil cooler and belt-pulley transmission
- Laser safety polycarbonates
- Remote Digital Assistance



MELTIO Engine Control Unit 1.2kw + CNC Deployment Integration Hardware

- Commodity welding wire
- Laser Type: 6 x 200W direct diode lasers
- Laser Wavelength: 976 nm
- Total Laser Power: 1200 W
- Traverses
 - Longitudinal traverse (X) 1.290 mm
 - Cross traverse (Y) 700 mm
 - Vertical traverse (Z) 640 mm
- Cooling: Active water-cooled chiller included
- Power Input: 230 V single phase or 400 V three phase
- Power Consumption: 7.5 kW peak depending on selected options
- Printhead: Deployable additive hardware where the deposition head is stored in a sealed enclosure when not in use and automatically deployed when needed

BENEFITS OF THE HYBRID TECHNOLOGY

- 3D print to near net shape and finish machining in a single part setup
- Repair or modify machine parts adding material just where it's needed
- Manufacture complex parts not previously possible
- Quickly make prototypes to prove out new designs
- Apply different additive materials to the same part for best design, weight and strength
- React quickly and cost-effectively to market needs with faster lead times
- Produce high-density parts with superior resolution in a clean working environment with wire laser DED
- Less material waste
- Less tool wear from the CNC machine
- No stock in billets of different sizes, just welding wire
- Only machine to spec the critical areas of a part, not the whole part
- Use of wire instead of powder, CNC accuracy does not suffer
- Compact heat-affected zone is ideal for Hybrid (WAAM deforms the parts)

APPLICATIONS



Aircraft Bracket
Titanium 64
Size: 109.6 x 160.8 x 34.8 mm
Weight: 2 kg



Injection Mold Half
SS316L
Size: 140 x 140 x 297 mm
Weight: 15 kg



Watch Bezels
Titanium 64
Size: 50 x 45.9 x 12.7 mm
Weight: 0.25 kg



Rotary Screw Compressor
SS316L
Size: 75 x 75 x 230 mm cladded
Weight: 3 kg

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