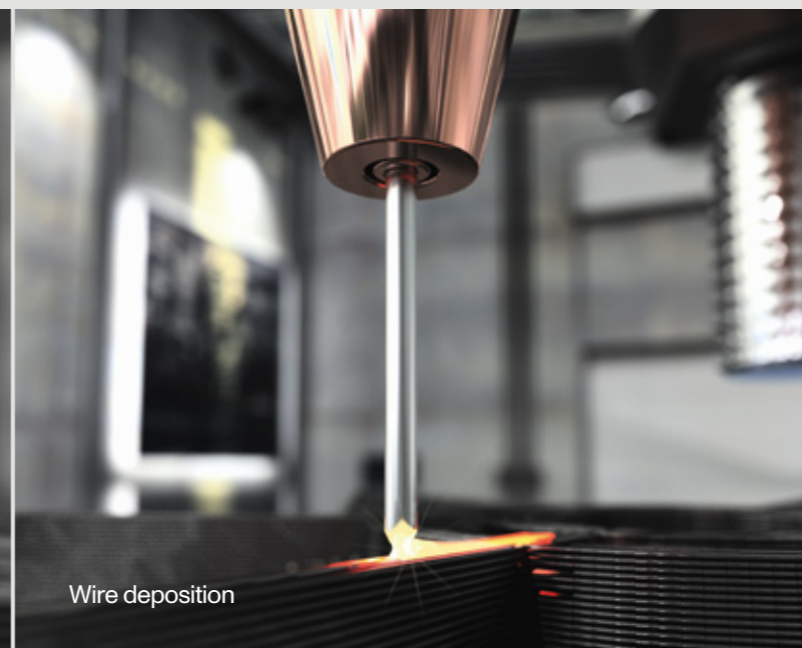
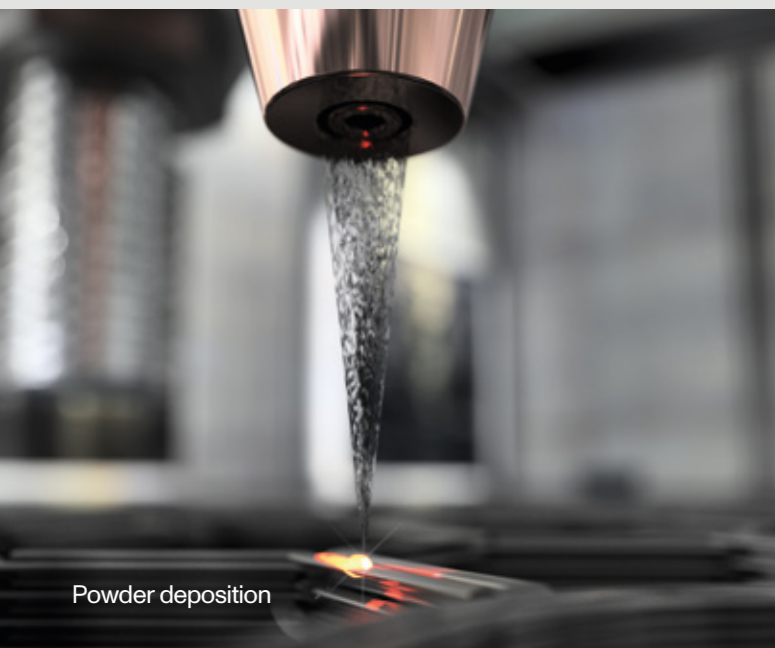


## Technical features

<b>Dimensionality</b>	
Dimensions	550 x 550 x 1200 mm
Print envelope	Governed only by the working dimensions of the machine to which it is coupled
Mass	c. 200 kg. kg, depending on options
<b>Lasers</b>	
Laser power	600 W to 9 kW
Number of lasers	3+
Laser type	Solid state diode
Laser beams	3+
<b>Wire</b>	
Wire feedstock	0.8 to 1.2 mm diameter wire
Wire feeds	Up to 2 x K200 spools / optional wire drum configuration
<b>Powder</b>	
Powder feedstock	45 µm to 90 µm particle size
Powder feeds	Unlimited external plug and play feeders
<b>Input power</b>	
Input power	230 V single-phase / 400 V three-phase
<b>Process chiller</b>	
Process chiller	Active water-cooled, process interlocked
<b>Process control</b>	
Process control	Closed-loop, laser, wire and powder modulation
<b>Interface</b>	
Interface	USB, ethernet, wireless datalink
<b>Other features</b>	
Other features	Optional CNC integration package



# MELTIO

ADVANCED 4D MANUFACTURING



## MELTIO ENGINE

LMD module for metal 3D printing with hybrid systems

# MELTIO ENGINE

LMD module for metal 3D printing with hybrid systems

## Unique technology

Meltio Engine can produce complex metallic components from both wire and powder feedstock. The ability to produce parts from wire makes operation and material handling very clean, as well as ensuring 100% material efficiency. Being able to process powder fills the gap to conventional LMD and brings the ability to mix alloys on the fly.

## Low-cost entry solution for professional metal 3D printing

Meltio Engine provides a low-cost entry to metal additive manufacturing. It can use any commercially available metal wires and powders in the market and the cost of both the equipment and the spare parts is substantially lower compared to competing technologies. Because the Engine can be used to retrofit current machines (CNC machines, robots and gantry systems), it is highly flexible and versatile.

## Unconstrained build envelope

The Meltio Engine can print full density metal parts to any size allowed by the system to which it is integrated. This provides a high degree of capability and flexibility. Furthermore, the highly compact dimensions of the Engine (550x550x1200 mm) ensures seamless integration, without the typical hassle of common and bulky industrial hardware.

## MELTIO ENGINE INTEGRATIONS

### CNC HYBRID MANUFACTURING

Offers a wide range of hybrid manufacturing systems powered by its Engine technology

Customer selects a CNC mill

Meltio performs seamless integration

Customer prints using metal wire and/or powder

Ideal for 3D parts or repair of machined parts



**MULTI-LASER HEAD PROCESSES WIRE AND POWDER**



Patented arrangement of multiple off-axis diode lasers and on-axis material feeds.

Highly Compact Deposition Head:  
150 mm (W/D) x 265 mm (H)



Plug-Play Powder Feeder

## ENABLE 3D PRINTING WITH YOUR CURRENT CNC MACHINE, ROBOT OR GANTRY SYSTEM

Meltio Engine is a sophisticated and powerful device which enables 3D printing of full density metal parts with CNC machines, robots and gantry systems. The Engine enables the printing of parts from wire and powder in the same machine, by using a patented multi-laser technology. It's able to automatically use metal wire, metal powder or both simultaneously without changing the nozzle.

## GREAT RESULTS AND VERSATILITY

The specially designed deposition nozzle facilitates optimized argon diffusion over the meltpool substantially reducing oxidation and enabling 3D printing of reactive metals in an open atmosphere environment. The Engine enables not only metal 3D printing of full density parts, but also an all-in-one additive manufacturing solution for repairing parts, laser cladding, laser welding (autogenous and with filler), laser cutting, laser texturing and polishing.

## Easy to use software

The Engine features a powerful on-board computer with integrated touchscreen and a feature rich GUI with advanced custom designed software to allow easy access to process parameters. The Engine can also be controlled via a tablet or computer through a local wireless network or via an Ethernet connection.



**Dimensions** 40mm x 130mm  
**Mass** 300 g  
**Material** Stainless Steel 308 Wire  
**Material Cost** \$2  
**Print Time** 1 hour  
**Laser Power** 500 W

### ROBOTIC INTEGRATION

Easy integration with robotic systems for 3D printing, laser cladding and laser welding

Highly compact architecture and mountable deposition head

Configured for metal wire, metal powder or wire and powder simultaneously

Powerful multi laser-configuration enables high process rates



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