

MELTIO

ADVANCED 4D MANUFACTURING



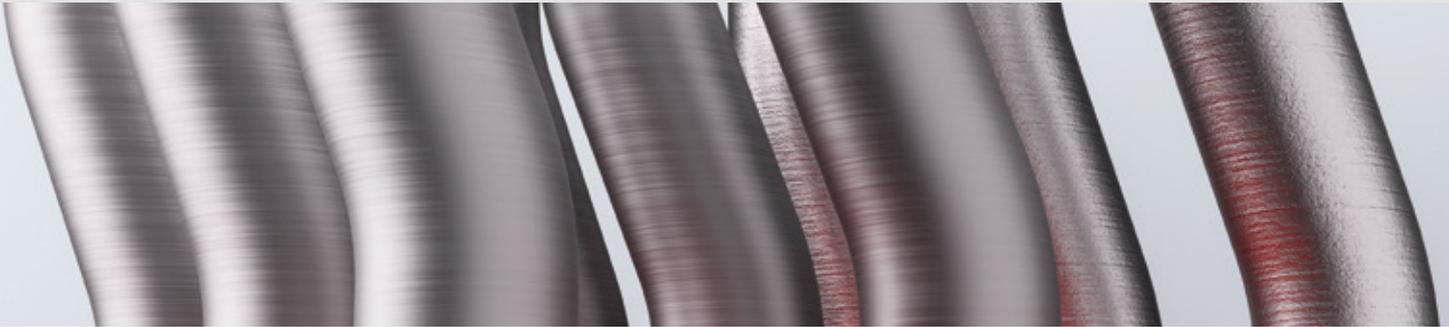
MELTIO M450

Small footprint LMD 3D printer

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Meltio M450 is the world's first metal 3D printer capable of building fully dense 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.



Unique technology

Meltio M450 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

M450 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.

Amazing build envelope in a compact format

Despite its compact outer dimensions Meltio M450 features a significant print envelope of 150x200x450 mm. The printer is clean and safe, without the typical hassle of common and bulky industrial hardware.

Great results and versatility

Its sealed atmosphere eliminates oxidation, enabling 3D printing of reactive metals. M450 features not only metal 3D printing of full 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 printer features a powerful on-board computer with 17" touchscreen and a feature rich GUI with advanced custom designed software to allow easy model slicing and access to process parameters. The printer can also be controlled via a tablet or computer through a local wireless network or via an Ethernet connection.



Technical features

Dimensions	550 x 600 x 1400 mm
Print envelope	150 x 200 x 450 mm
Enclosure	Laser - safe, controlled atmosphere
Mass	c. 200 kg, depending on options
Laser power	600w to 1.5 kw
Number lasers	3+
Laser type	Solid State Diode
Laser beams	3+
Input power	230 V single - phase 400 V three - phase
Wire feedstock	0.8 to 1.2 mm diameter wire

Tested Materials	Stainless steel, aluminum, inconel, titanium and copper
Wire feeds	Up to 2 x K200 spools
Powder feedstock	45 µm to 90 µm particle size
Powder feeds	Unlimited external plug and play feeders
Process chiller	Active water - cooled, process interlocked
Process control	Closed - loop, laser, wire and powder modulation
Interface	USB, ethernet, wireless datalink
Other features	Hot wire feed, heated build plate, live HD video