Let’s 3D print something great together.

Discover Meltio’s state-of-the-art wire-laser metal 3D printing technology - either as a standalone metal 3D printer or integrated into a CNC machine or a robot arm. Our metal additive manufacturing solutions bring unprecedented possibilities to enjoy 3D printing advantages in everyday part production.

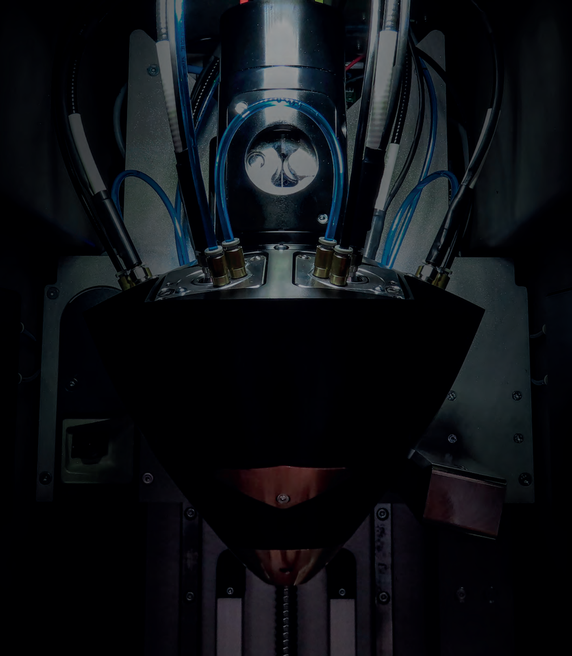
Our mission is to delight customers, partners, employees and shareholders by pioneering the development of affordable metal 3D printing systems that are reliable, safe and easy to use, continually reinforcing our status as disruptors.

MELTIO

impac SYSTEMS ENGINEERING

Get to know us!

Write your website here



MELTIO

Wire-Laser Metal 3D Printing

Laser Metal Deposition

Multi-laser Deposition Head

LMD is a Directed Energy Deposition (DED) process that functions by precisely stacking weld beads on top of one another, in wire form, when introduced into the laser generated melt pool.

Meltio’s technology comes packaged in a compact deposition head, host of multiple lasers, capable of processing commodity welding wires independently and simultaneously.

Meltio M450

Turn-key Metal 3D Printer

Designed for industry without the need for industrial infrastructure; affordable, reliable, safe and easy-to-use metal 3D printer. Ideal for small to medium size part fabrication and multi-metal 3D printing research.

The Meltio M450 allows users to produce metal parts of very high density in a single-step process on a very compact footprint.

Reliable **Safe** **Easy-to-use** **Affordable**

Technical Specifications

Dimensions (WxDxH):	560x600x1400 mm
Print Envelope (WxDxH):	145x168x390 mm
System Weight:	250 kg
Laser Type:	6 x 200W direct diode lasers
Laser Wavelength:	976 nm
Total Laser Power:	1200 W
Power Input:	208/230 V single phase or 400 V three phase
Power Consumption:	2-5 kW peak depending on selected options

Process Control:	Closed-loop, laser and wire modulation
Enclosure:	Laser-safe, sealed, controlled atmosphere
Interface:	USB, ethernet, wireless datalink
Cooling:	Active water-cooled chiller included
Wire Feedstock:	Diamenter: 0.8-1.2 mm Spool Type: BS300
Accesories:	Laser Alignment System, Hot Wire and Dual Wire

Meltio M450 Applications

Aircraft Bracket

Size:	109.6 x 160.8 x 34.8 mm
Weight:	1.5 kg
Material:	Titanium 64

Dual Material Pipe

Size:	108 x 108 x 150 mm
Weight:	4.554 kg
Material:	Stainless Steel 316L + Nickel 718

Learn more!

Meltio Engine CNC Integration

Hybrid Manufacturing Integration

The most affordable hybrid manufacturing solution, fitting almost any CNC machine on the market. Enable metal 3D printing and machining of complex geometries in a single process step.

The Meltio Engine is the ideal CNC complement for near net shape manufacturing, repair and feature addition.

Hybrid **Retrofitting** **Geometry Freedom** **Part Repair**

Technical Specifications

Dimensions (WxDxH):	390x700x1025 mm
Print Envelope (WxDxH):	Depending on the integration
System Weight:	142 kg
Laser Type:	6 x 200W direct diode lasers
Laser Wavelength:	976 nm
Total Laser Power:	1200 W
Power Input:	208/230 V single phase or 400 V three phase
Power Consumption:	2-5 kW peak depending on selected options

Process Control:	Closed-loop, laser and wire modulation
Cooling:	Active water-cooled chiller included
Printhead Retracted Size (WxDxH):	255x320x872 mm
Printhead Unretracted Size (WxDH):	255x320x1045 mm
Printhead Weight:	46.5 kg
Wire Feedstock:	Diamenter: 0.8-1.2 mm Spool Type: BS300 or wire drums
Accesories:	Laser Alignment System, and Dual Wire

Meltio Engine CNC Integration Applications

Watch Bezels

Size:	53,37 x 44,59 x 10,85 mm
Weight:	0.245 kg
Material:	Titanium 64

Elbow

Size:	ext. 70 Ø mm - int. 50 Ø mm
Weight:	0.515 kg
Material:	Stainless Steel 316L

Learn more!

Meltio Engine Robot Integration

Large-scale Metal 3D Printing

Turn a robot arm into a metal 3D printing system with no inherent size constraints. The Meltio Engine Robot Integration is the perfect platform for large and complex 3D printing, repair, cladding and feature addition.

The Meltio Engine integrates with any robot arm manufacturer and interface on the market.

Large-Scale **Geometry Freedom** **Part Repair** **Cladding**

Technical Specifications

Dimensions (WxDxH):	390x700x1025 mm
Print Envelope (WxDxH):	Depending on robot reach
System Weight:	142 kg
Laser Type:	6 x 200W direct diode lasers
Laser Wavelength:	976 nm
Total Laser Power:	1200 W
Power Input:	208/230 V single phase or 400 V three phase
Power Consumption:	2-5 kW peak depending on selected options

Process Control:	Closed-loop, laser and wire modulation
Cooling:	Active water-cooled chiller included
Printhead Size (WxDxH):	202x297x784 mm
Printhead Weight:	15.5 kg
Wire Feedstock:	Diamenter: 0.8-1.2 mm Spool Type: BS300 or wire drums
Accesories:	Laser Alignment System, Hot Wire and Dual Wire

Meltio Engine Robot Integration Applications

Rotary Screw Compressor

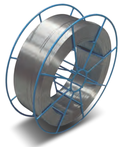
Size:	75x75x230 mm cladded
Weight:	2.550 kg
Material:	Stainless Steel 316L

Pipe Manifold

Size:	205 x 360 x 473 mm
Weight:	5.22 kg
Material:	Stainless Steel 316L

Learn more!

Metal 3D Printing Wire



Single Wire and Dual Wire Metal 3D Printing

Meltio's Laser Metal Deposition process achieves exceptional material mechanical properties using single wire and dual wire.

Choose the ideal welding wire for your application: unlimited third-party commodity material or qualified Meltio Wire Materials that secure the user experience.

Clean **Safe** **Affordable**

Meltio Wire Materials

Meltio Stainless Steel 316L	Qualified	**Meltio Tool Steel H11**	Qualified	**Meltio Nickel 718**	Qualified
Meltio Stainless Steel 308L	Qualified	**Meltio Invar**	Qualified	**Meltio Nickel 625**	Qualified
Meltio Stainless Steel 17-4PH	Qualified	**Meltio Mild Steel ER70S**	Qualified	**Meltio Titanium 64**	Qualified

Metal 3D Printing Software

Meltio provides an open platform for software that meets a variety of industrial application demands as well as proprietary software tailored to the wire-laser metal 3D printing process which is seamlessly integrated with Meltio's hardware and material portfolio.

Meltio Horizon

It's a proprietary toolpath generator software for 3-axis metal 3D printing, tailored specifically to our wire-laser deposition process with the Meltio M450 metal 3D printer.

Meltio Space

It's a toolpath generator software for the Meltio Engine Robot Integration with an easy-to-use interface for planar, non-planar and variable extrusion toolpaths. It also includes 2-axis workpiece positioner interpolation, kinematics simulation, collisions check and cell configuration.

Discover more!