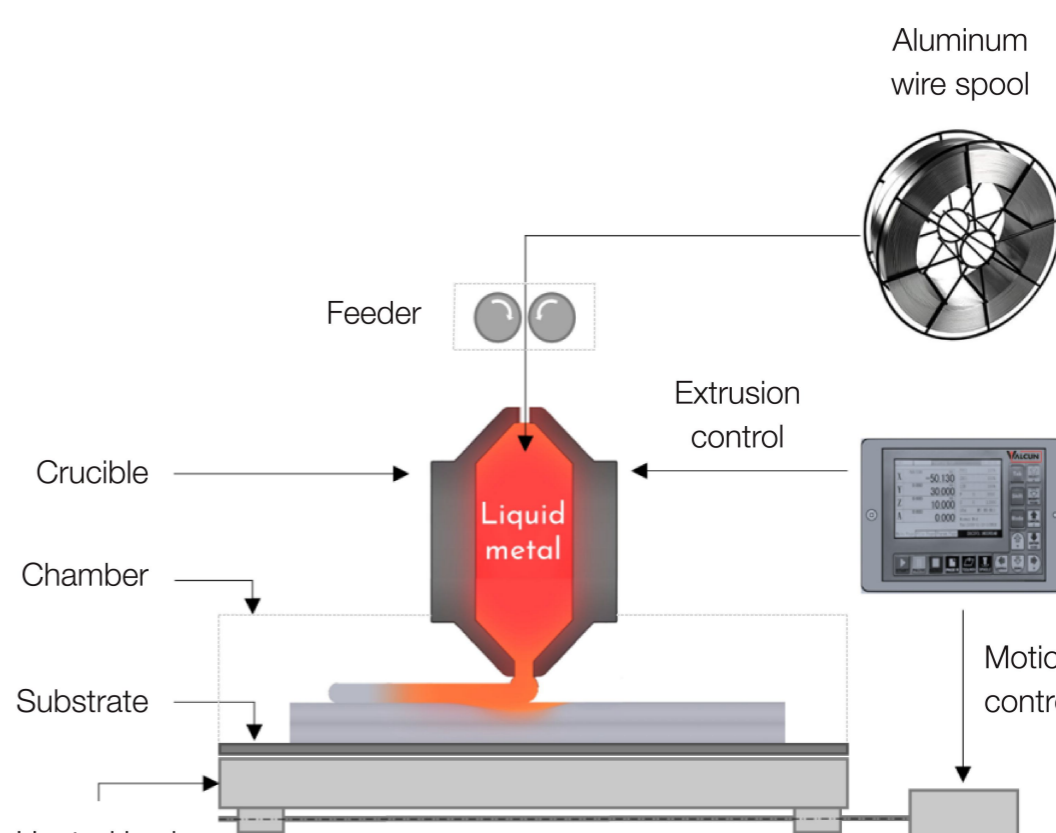


Minerva



A new technology

Using our proprietary **Molten Metal Deposition (MMD) technology**, the Minerva printer enables sustainable, production-ready aluminum 3D printing, similar to Fused Filament Fabrication (FFF) for polymers. Our mission is to make metal additive manufacturing accessible with a deployable, safe, and user-friendly solution for industry.



With exciting benefits

DEPLOYABLE

Fits through a normal doorway, has a regular 220V plug, single step process using regular aluminum wire, and is safe to operate in any environment.

TRUSTED MATERIALS

We aim for the unmodified aluminium alloys, known and trusted by the industry. Extension towards copper, magnesiums and polymers ensures material flexibility.

COST-EFFECTIVE

Achieving a 75-90% cost reduction compared to other AM solutions through process-wide cost-effectiveness.

Printer specifications

Weight:	1.1 tons
Machine Footprint:	780 mm x 1600 mm (2.56 ft x 5.25 ft)
Machine Height:	2280 mm (7.48 ft)
Feedstock provision:	BS300 wire spool for 1.2 mm
Movement system:	4 axis: Cartesian XYZ + C-axis rotation
Environmental control:	Local shielding gas, max 2.5 bar, 2.5 L/min
Build volume:	<ul style="list-style-type: none"> ø 125 mm x 200 mm (ø 4.9 in x 7.9 in) ø 200 mm x 200 mm extension kit (ø 7.9 in x 7.9 in)
Enclosure:	Enclosed build chamber up to 200°C
Energy consumption:	Rated 2.5 kW, nominal 1.3 kW
Cooling:	950 W chiller included
Interface:	Touch screen
Connectivity:	USB, WiFi, Ethernet, cloud based data access



Process specifications

Throughput:	Max build rate of 820 cm ³ /h
Dimensional accuracy:	<ul style="list-style-type: none"> Track width: 0.8 – 4 mm Layer height: 0.5 – 2.5 mm
Max overhangs:	75° overhang, 25 mm bridge

Applications & Collaborations

Molten Metal Deposition (MMD) offers a range of applications for research institutions and universities. Think material science research, engineering applications, sustainable manufacturing practices, automation, as well as more interdisciplinary applications.

CLIENT SPOTLIGHT:

Sirris, a Belgian research institute, is currently using our Minerva printer to develop business cases for its clients.



OTHER COLLABORATIONS:

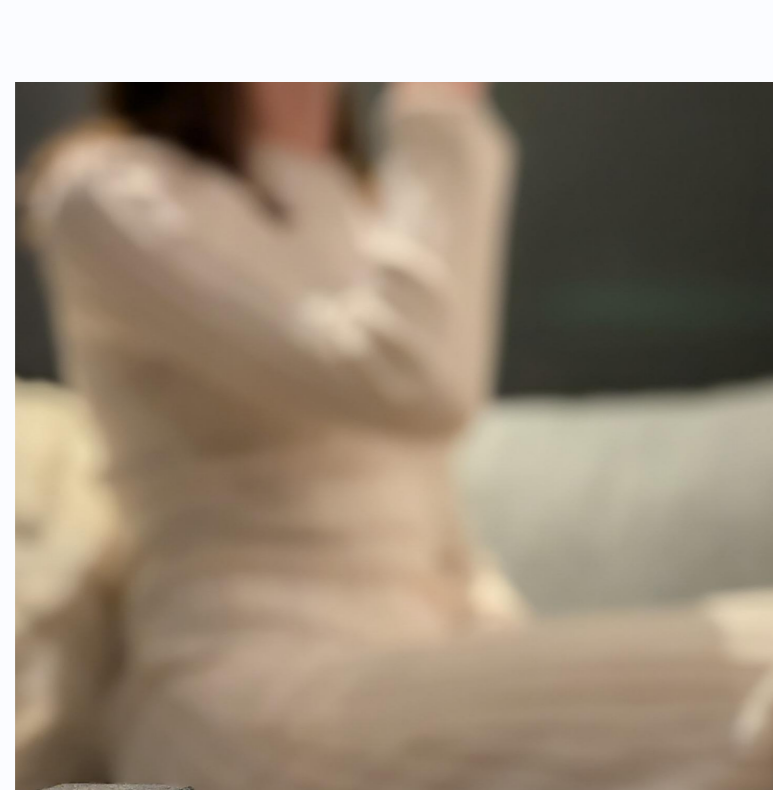
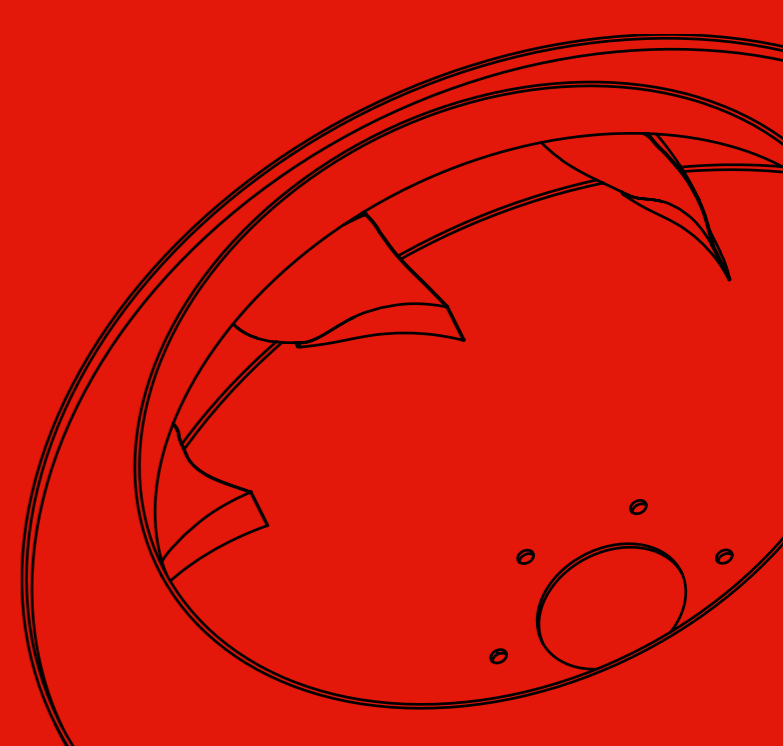
We're also involved with several other projects that aim to push the envelope of 3D printing and additive manufacturing. Projects like as 3DoP, DIAMETER, LEVIATAD, and GreenAM, as well as a collaboration with the European Space Agency (ESA).



CASE SPOTLIGHT

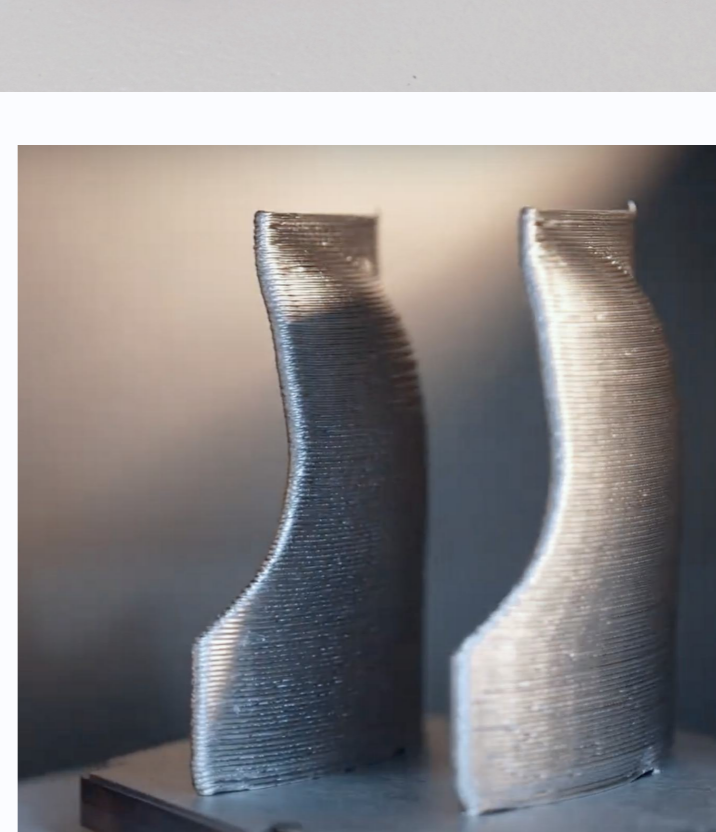
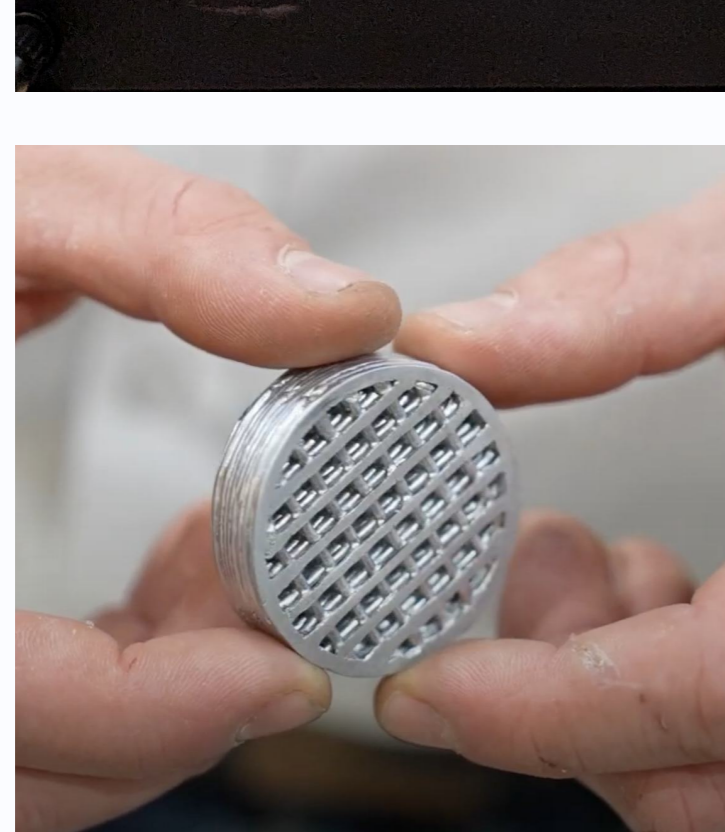
Application: ValCUN fan blades save Data Center Customer \$6M/year.

ValCUN's 3D-optimized fan blades boost efficiency by 10%, generating over €6 million in annual electricity savings across 7,000 fans in more than 10 data centers. ValCUN's technology delivers these results with cost-effective investment for manufacturers.



“Metal AM can unlock a new era for industrial manufacturing, but only with a deployable and cost-effective solution. This is what ValCUN does!”

Dr. ir. JONAS GALLE, CEO



Have any questions or interested in a **discovery call**? Feel free to leave us a message, and our team will get back to you as soon as possible to provide the information you need.



Langerbruggestraat 33, 9041 Ghent, Belgium

info@valcun.be