ROVALMA
THE STEEL INNOVATOR

TOOLING SOLUTIONS

METAL 3D PRINTED COMPONENTS

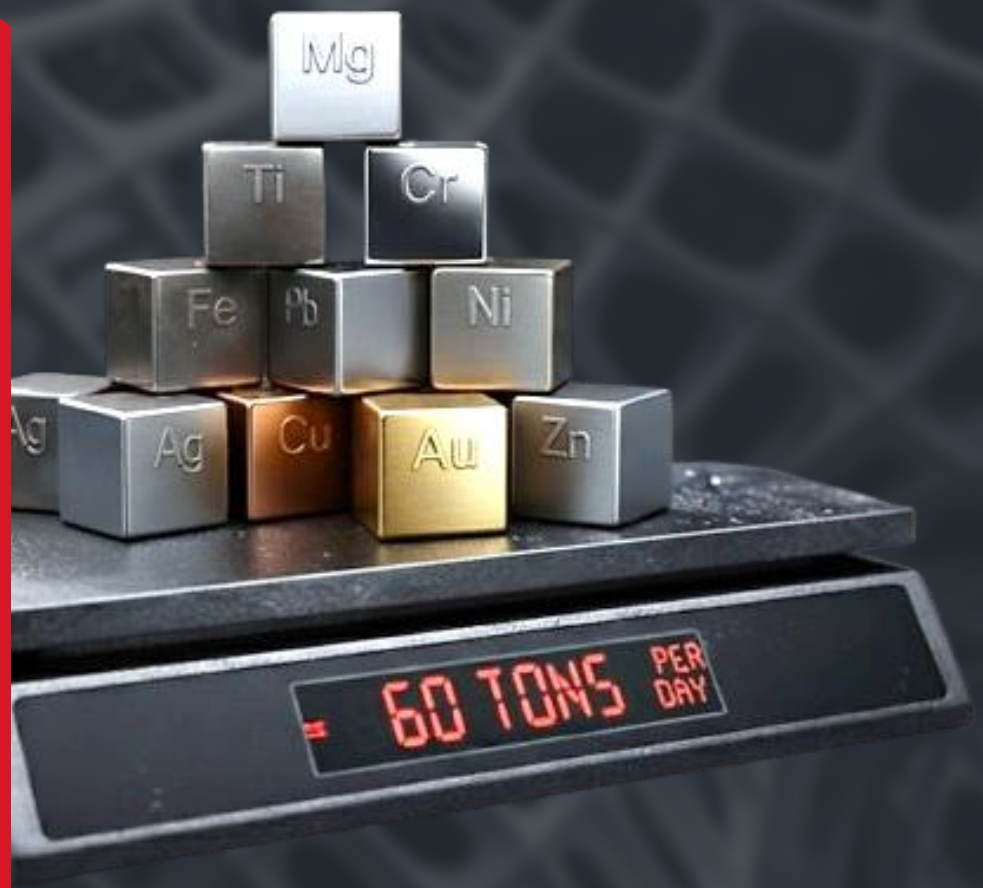
Parts / Tools / Service 2025

Leading the NEXT BIG TECHNOLOGY LEAP

Unlocking today tomorrow's opportunities

*"We can 3D print up to **60 tons of metal per day** with a single printer"*

*"With our **breakthrough metals,** we unlock new possibilities beyond limits"*



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Company
Key dates

Foundation & Development

1977	**Foundation** as Tool Steel Trading company
1994	**Material Development Department**
2001	First tool steel developments (**HWS® grades &** production technology)

Innovation & International Expansion

2003	Start of **International Expansion**
2006	**HTCS® grades** (High Thermal Conductivity Steels)
2008	Start **of Development of Powders for Additive Manufacturing**
2009	**STM Stahl** becomes **distribution partner for Germany, Austria, Switzerland**
2012	New Distribution center for **Southern Europe** & **New In-house Production**
2016	New **Barcelona** factory & Next Generation high TC grades - **FASTCOOL®**
2017 - 2023	**Distribution partners** in **South, Central & Eastern Europe, North Amercia & ASIA**

MAM Innovation & Leadership

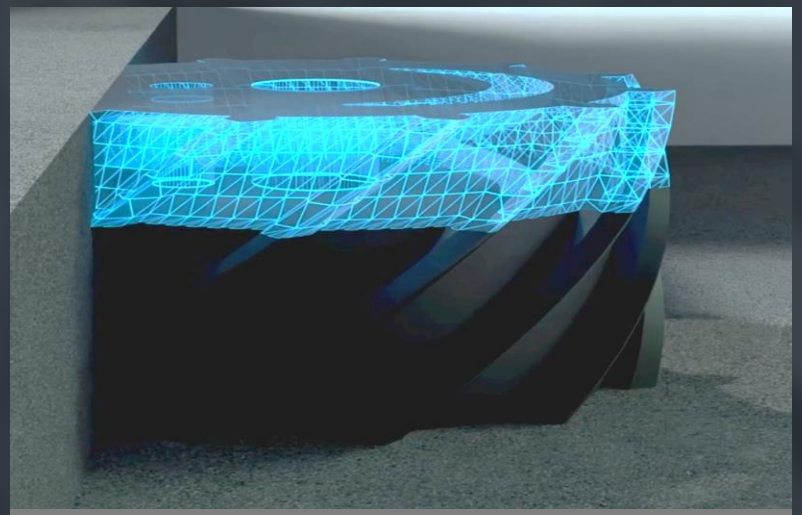
2017+	First **validations of ROVALMA® MAM** parts
2022	Expansion of pilot projects **across different application segments**
2024	**Serial and industrial uptake projects** across key industry sectors

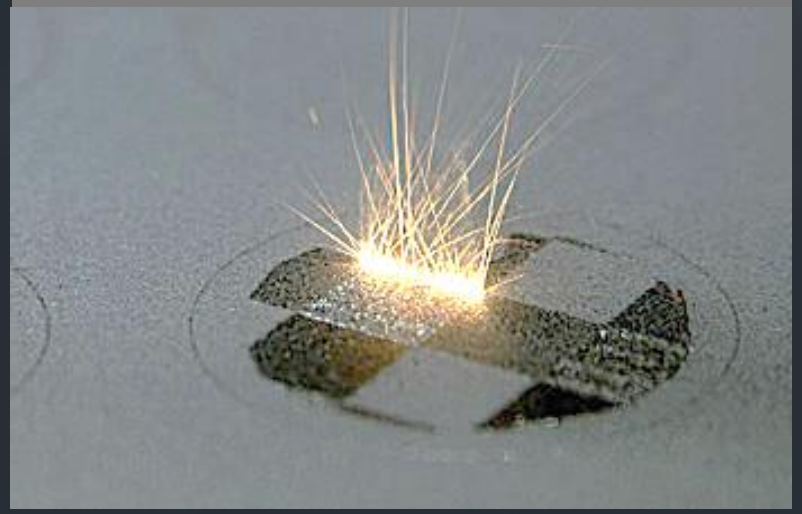
ROVALMA® MAM

Disruptive Metal Additive Manufacturing technology

From lines & layers

- Competitor's state of the art (PBF) sinters points with lasers, tracing layers of 50 µm
- Results in expensive & weaker parts than conventionally manufactured parts





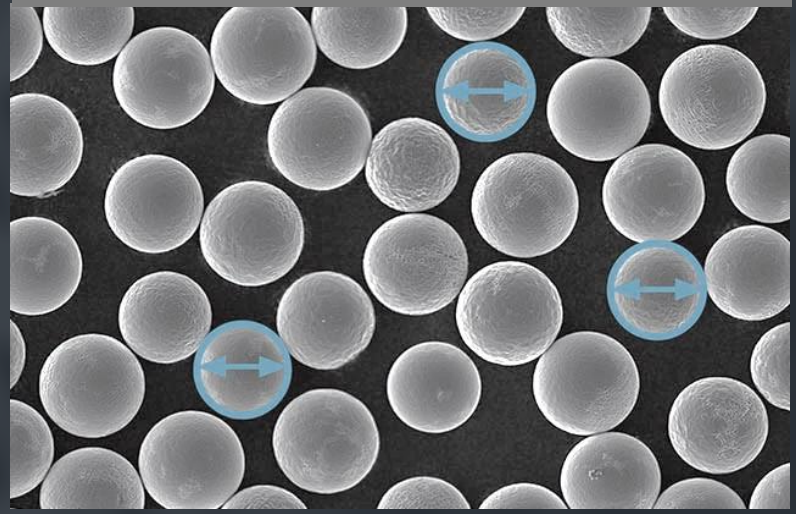
To 3D hologram printing

- 1.000 times faster than SOTA*
- No porosity
- Isotropic
- No layer pattern, fine surface
- No auxiliar supports required
- Serial production competitive

**State of The Art*

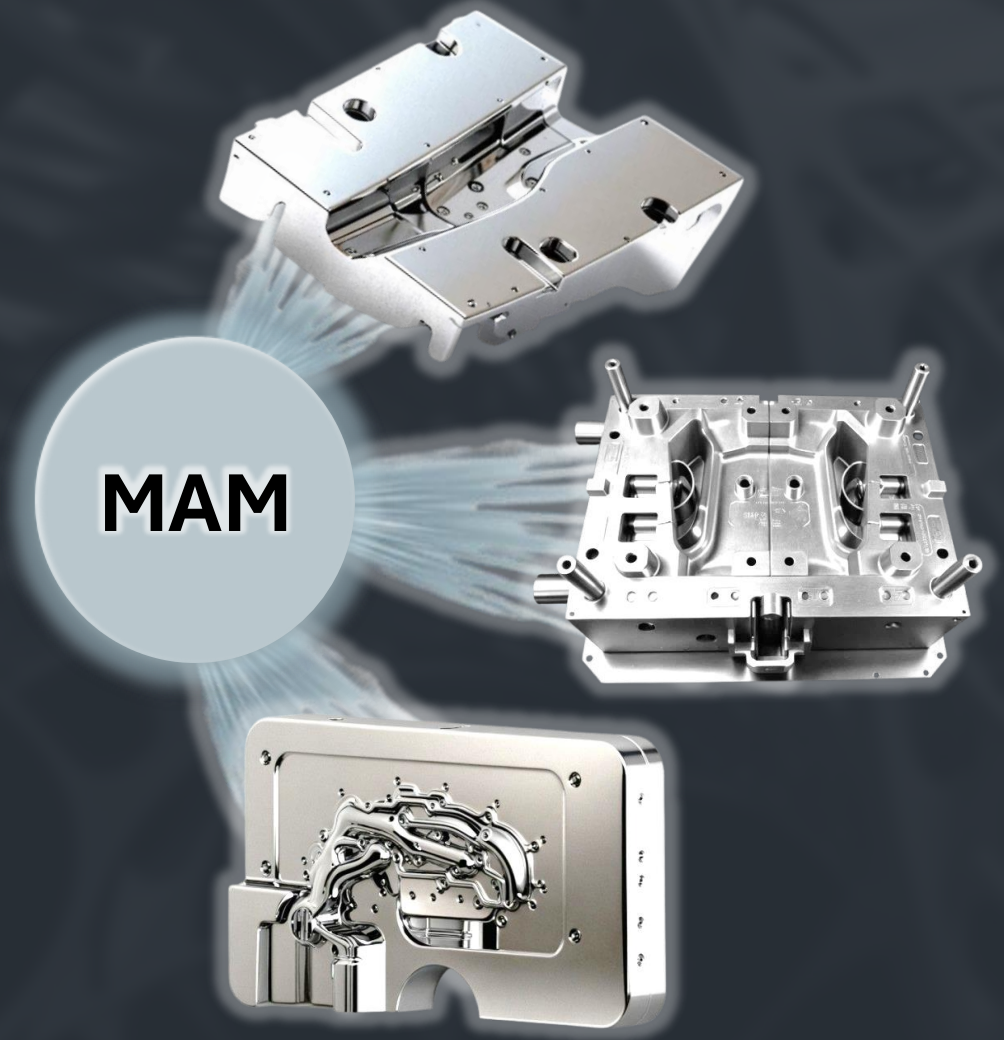
Combined with our high expertise in materials

- Quantum physics and AI are leveraged to enhance the thermo-mechanical properties
- Disruptive high morphological quality powder



ROVALMA® MAM

Disruptive Metal Additive Manufacturing technology



Quantum mechanics and AI are leveraged to achieve unprecedent **thermal conductivity** and **superior mechanical properties**

Any size up to 2000 x 700 x 600 mm*
Unmatched design freedom**, no auxiliar supports**
Ultra fast printing time through 3D holograms

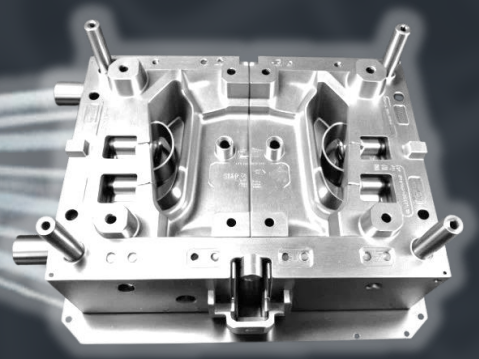
Lightweight like never before:
aggressive topological optimizations & parts consolidation are now possible

Unprecedent **CO_2 savings** thanks to low energy consumption and low material waste

**Larger printing volumes will be available upon request*

TOOLING solutions

Overview



The real 3D printing

MAM

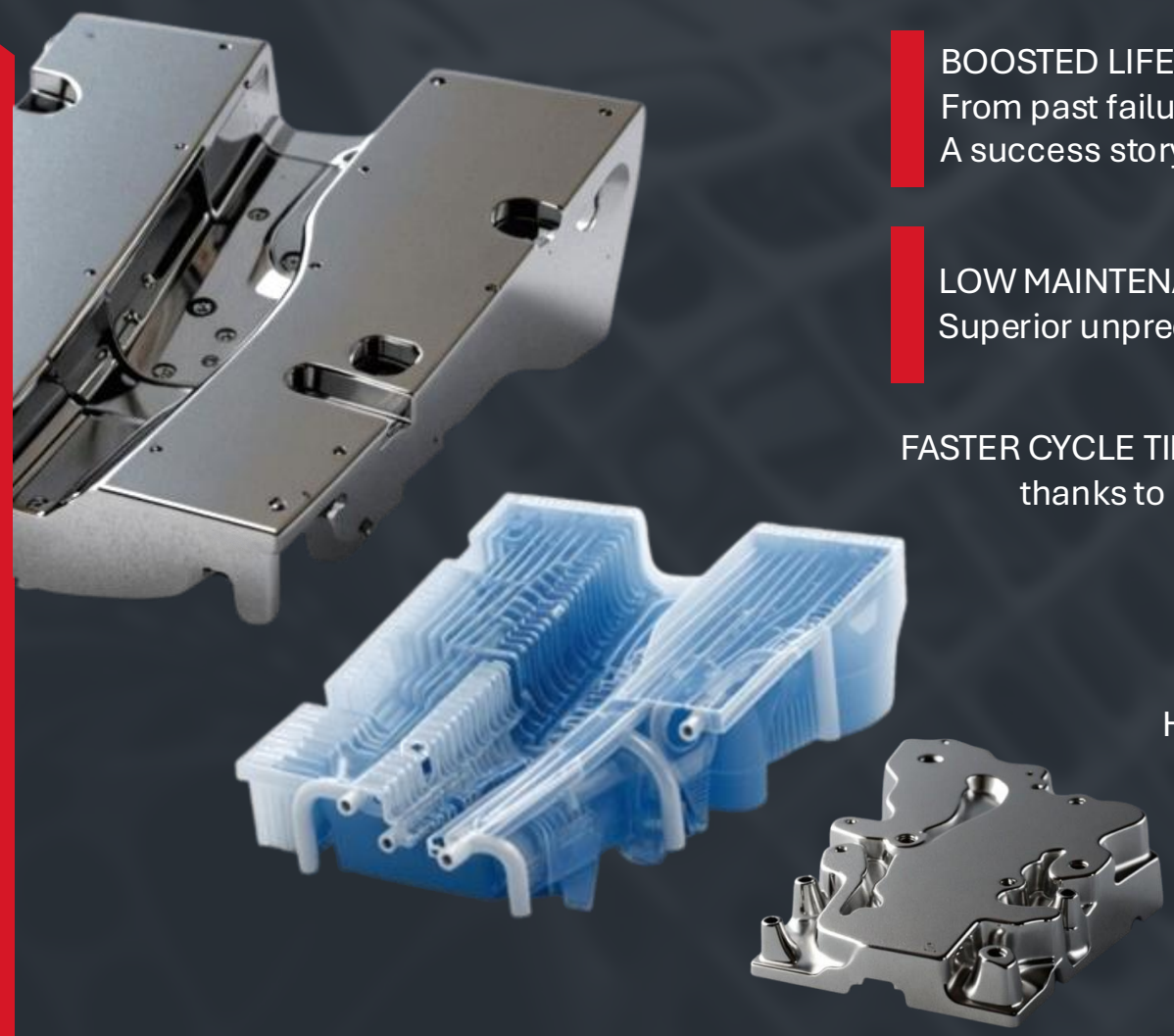
HOT STAMPING

PLASTIC INJECTION MOLDING

DIE CASTING

HOT STAMPING

NEW ERA OF HOT STAMPING DIES



BOOSTED LIFE SPAN
From past failures to reliable performance
A success story powered by MAM technology

LOW MAINTENANCE COSTS
Superior unprecedented properties, reduced maintenance

FASTER CYCLE TIMES. GREATER DIMENSIONAL STABILITY
thanks to high thermal conductivity tool steels and organic conformal cooling channels

UNMATCHED DESIGN FREEDOM
No auxiliar supports are required
High efficiency geometries can be printed

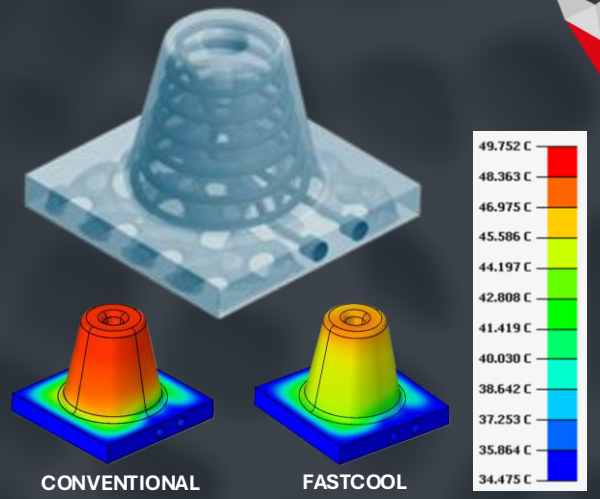
ENERGY AND CO_2 SAVINGS
by only printing the required material and minimizing machining operations

PLASTIC INJECTION MOLDING

THE NEXT GENERATION OF PLASTIC INJECTION MOLDS

CYCLE TIME REDUCTION thanks to FASTCOOL® MATERIAL and conformal cooling channels

ENHANCED PART QUALITY
Warpage control thanks to homogeneous temperature distribution



LIGHTER MOLDS, COMPLEX DESIGNS
Unprecedent weight reduction thanks to organic topological optimizations beyond design constrains

UNPRECEDENT SUSTAINABILITY
Minimizing Environmental Impact from tool making to plastic part production (up to 80% CO_2 savings), less energy, less material, less machining operations

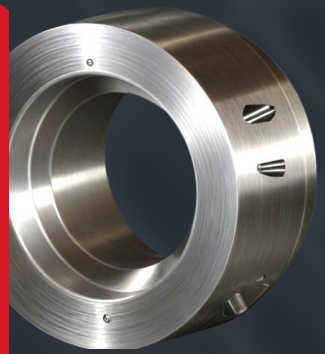
Optimized Production Efficiency and COST SAVINGS achieved through reduced cycle time & reduced maintenance

DIE CASTING

TRANSFORMING COMPLETE DIE CONCEPTIONS

GATE DIFFUSERS

GATE RINGS



UNPRECEDENT PRODUCTIVITY
Shorter cycle times thanks to high thermal conductivity die material & conformal cooling channels

OUSTANDING CASTING QUALITY
Component's mechanical resistance improved though better solidification rate & porosity distribution

PRODUCTION STABILITY
Production stabilized thanks to reduction of both soldering and hot zones

IMPROVED DURABILITY
Reduced thermal fatigue and thermal shock

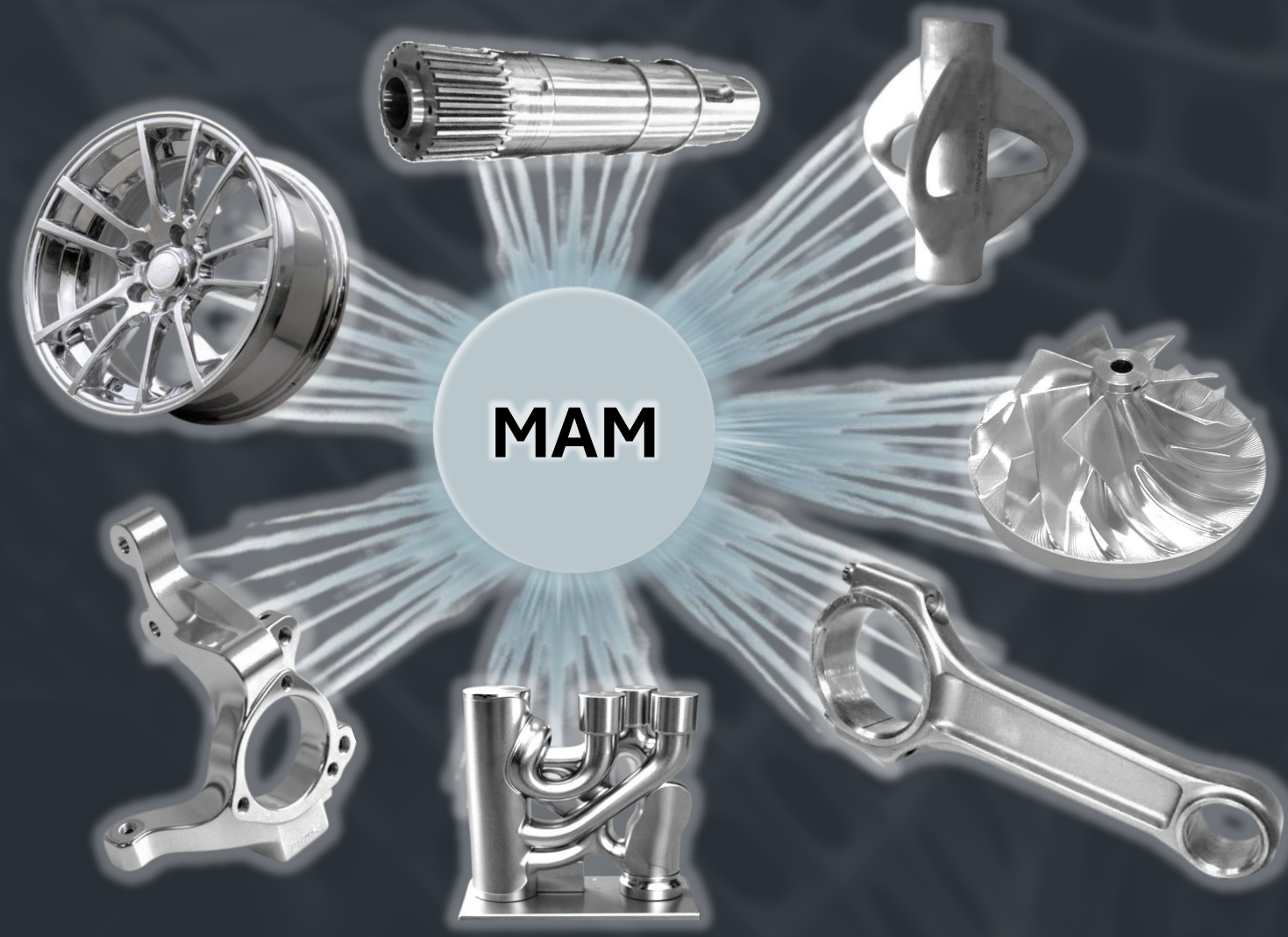
ECO-EFFICIENT MANUFATURING
Low-impact, lightweight manufactured dies

3D PRINTED PARTS

We accept orders for 3D printed casting & forging-like parts

*"**Avoid tooling**: any steel casting & forged-like component can be printed in any of our oustanding steel alloys*"*

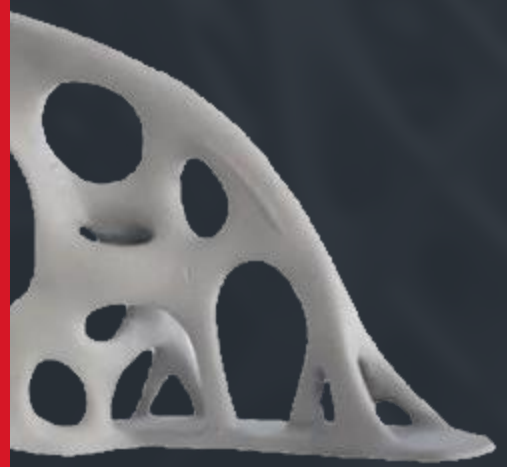
**Materials' list on slide 14*



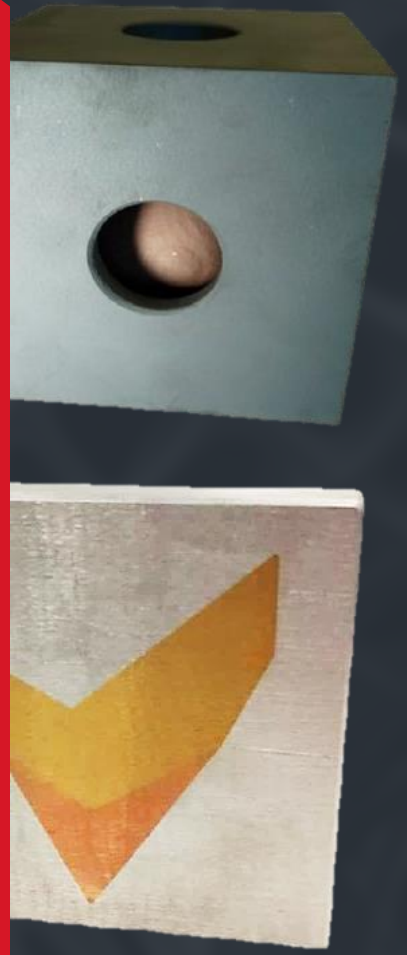
R&D Projects

We can develop any geometry in any metal. Let’s push the boundaries together!

“Unlocking complex geometries in any metal. We can develop solutions together for lightweighting, consolidating assemblies, etc.”



“Even multi-material is possible, comprising single solid or movable assemblies”



How to work with us

Volumes, sizes, process

1. SHARE YOUR PART

NDA/IP confirmed, Files (STEP/IGES/STL + drawing), expected **annual volume**, target **unit cost**, purpose (prototype/pilot/series), required **lead time**.

2. WE REVIEW & PROPOSE

DFM notes, risks, **material** recommendation, **tolerance/surface** options, **quote + timeline**

3. KICK-OFF

PO, **first article** plan, QA/inspection method, logistics & Incoterms

Capability	Standard	Notes
Lot sizes	Prototype: 1-3 pcs · Pilot: up to 9 pcs · Series: ≥10 pcs	Series under request (max 50k units/year)
Build envelope	2000 × 700 × 600 mm* **Larger printing volumes will be available upon request*	Max part weight 1.800 kg*
Wall thickness	≥ 2 mm [0.15 mm in R&D projects]	Material-dependent
Surface finish	Ra ≥ 5µm [1µm in R&D projects], blasted; machined; coated	Custom on request
Materials	Link to materials portfolio	Additional materials are under calibration. AD-HOC under request (R&D Project)
Lead time	Prototypes: 6-8 workweeks Series: Case by case	Expedite: yes
Quality	ISO / ASTM / JIS / IATF / …	NDT / DT under request
File intake	By mail up to 20 Mb By sharing portal from 20 Mb	

***Out-of-scope** geometries in 2025: sheet metal forming-like and lattice structures*

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If you are interested in learning how our breakthrough technology can benefit your business or improve operational efficiency, we invite you to contact our sales team. We are ready to support you with tailored solutions and professional advice.

Your next step toward higher performance and innovation begins here!

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