

Manufacturing Possibilities



AMT 3D, was engineered to fuse an award-winning history in metal processing with a state-of-the-art design team to help companies drive innovations within their manufacturing efforts.



3D Metal Printing Innovations and Solutions

AMT 3D's comprehensive suite of 3D metal printing and processing solutions are providing modern, quality, and revolutionary parts to a variety of industries including healthcare, tooling, aerospace, automotive, machining, telecommunications, and oil and gas. Whether working with AMT 3D designers during ideation and concept development, new programs, or rapid prototype testing and mainstream parts production, AMT 3D is manufacturing possibilities for companies worldwide.



“3D metal printing helps our clients optimize their design verification, small volume production as well as on-going engineering innovations within their company to stay competitive.”

Zulkefli Zainal, Director of Marketing

3D Metal Printing Consulting and Implementation

With more than 30 years of experience in the manufacturing environment, our team of engineers can help you drive innovation and bring your concept to production.



More specifically we can help you:

- Provide consulting on the viability of 3D metal printing as part of your innovation process.
- Examine solutions and perform simulations for parts designs that will drive the desired outcome for your company.
- Advice on 3D metal printing implementation planning. This includes a step-by-step review, prior to printing, of each phase of the production process and how they impact the final part.

Conformal Cooling Channel in Tooling Insert

Another specialize area for AMT 3D printing is in fabrication of tooling insert with conformal cooling technology. These are cooling channels made close to the hot spots to ensure rapid cooling.



Advantages of Conformal Cooling:

- **Reduced Cycle Time:** Up to 60% reduction in cycle time allowed the company to produce more in the same amount of time.
- **Increased Profit Margins:** Accelerated production enabled the company to manufacture more and increase profit margins.
- **Reduced Investment Needs:** With an increase in capacity, investment in additional plastic injection molding machines can be minimized.
- **Improved Quality:** With more efficient cooling, less warping is encountered on the plastic part, leading to improved product quality.

Rapid Prototype Development

Bringing innovation to life quickly is critical in order to implement improvements that will differentiate your product and/or your place in the market in a timely manner.



As part of this process we help you:

- Create various design concepts and quickly determine the best solutions for manufacturing challenges.
- Develop complex and custom parts in a fraction of traditional methods' time to support quick testing and implementation schedules.
- Build parts from a variety of metals to ensure structural materials and functional testing can be completed.

Flexible Modern Manufacturing

Equally important as innovation is the ability to adapt toward more dynamic manufacturing techniques. AMT fully understands the complexities of production and that your needs will change quickly.

We are able to adapt to your low and mid volume production demands without compromising the quality you expect from AMT.



To do this, we:

- Provide complete manufacturing process and secondary operations (i.e support removal, polishing, heat treatment, etc.) to deliver the final part.
- Offer a highly flexible and revolutionary manufacturing service capable of producing complex metal parts in small batches.
- Follow rigorous testing guidelines and procedures that will ensure you reach and/or exceed key metal manufacturing and specific industry compliance levels.

3D Metal Printing Process Range of Materials



Material	Classifications
Stainless Steel	316L
	17-4PH
Tool Steel	Maraging Steel 1.2709
Cobalt Chrome	Cobalt Chrome (F75)
Titanium	Ti6Al4V
Inconel	Inconel 718
	Inconel 625
	Inconel HX
Aluminium	AlSi10mg

3D Metal Printing Process Specifications

Parameters	Specifications
Dimension Tolerance	± 0.1mm
Maximum Build Size	280 x 280 x 350mm
Surface Finishing (As build)	Approx Ra 8 micron
Surface Finishing (Shot Peening)	Approx Ra 4 micron
Surface Finishing (Polishing)	Approx Ra 0.4 micron (High Gloss)
Density	More than 99%
Wall Thickness	Min 0.15mm

We are Committed to Excellence

In-house team of designers, engineers, machinists and managers focused on production and customer service details.



Flexible Modern Manufacturing

Award-winning metal manufacturing matched with state-of-the-art innovation to meet today's demands.



Time-to-Market Focus

Business-oriented engineers that understand and are driven by expedience and competition.



Quality Metal Processing

Expert modeling, 3D metal printing and testing of developed parts to meet ISO and industry-specific standards.



Fast Turnaround

From planning to printing to support structure removal. Quick turnaround on new parts to facilitate implementation of modern solutions.



Production Efficiency

Smart engineering and rapid prototyping that optimizes overall manufacturing operations.



ISO Standard Certification

Our QMS runs parallel with our manufacturing efforts to bring you quality and excellence.



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