

Your flexible  
gateway to  
metal AM

MetalFab™  
300 Flex



# Introducing the MetalFab 300 Flex by Additive Industries

Step into the world of additive manufacturing (AM) with our new, affordable metal 3D printer. Revolutionise your production: boost productivity & discover unmatched flexibility with our proven, cutting-edge technology.



Flexibility  
of size on  
demand



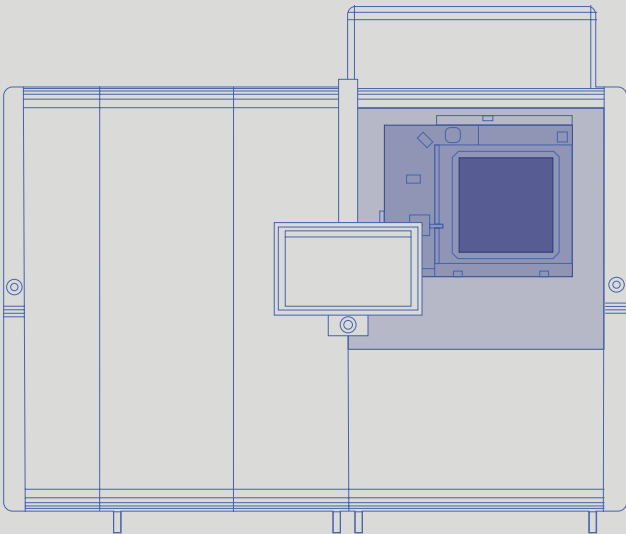
Affordable  
access to large  
frame printing



Certainty of a proven  
& reliable system  
architecture



Controlled & safe  
operation, handling  
and powder control



**The global additive manufacturing market is projected to reach \$83.56 billion by 2030, experiencing a compounded annual growth rate of 21.2% during this period**

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### **The only printer with a flexible build area**

Our latest innovation, the MetalFab 300 Flex, is designed for businesses ready to embrace the benefits of additive manufacturing. The MetalFab 300 Flex lowers the barrier of entry to metal additive manufacturing without compromising on part sizes and other printer capabilities. This revolutionary new system leverages our twelve years of industry-leading experience, along with the heritage and proven architecture of our existing printer line. The MetalFab 300 Flex not only opens a pathway into AM, but due to its lower cost, it significantly reduces investment risk, all while delivering the superior quality and performance for which our brand is known.

### **Additive manufacturing: Reshaping modern production**

Metal 3D printing has transformed the industrial manufacturing landscape by setting new benchmarks in productivity, cost-effectiveness and safety. From speeding up design validation through rapid prototyping to enabling the production of complex geometries that are beyond the capabilities of conventional methods, the benefits of metal 3D printing are immense.

### **Why choose Additive Industries' MetalFab 300 Flex?**

We developed the MetalFab 300 Flex to meet the needs of those new to additive manufacturing. It offers an accessible entry

point and minimises the cost of under-utilisation during product development and initial low-rate production phases. MetalFab 300 Flex is the only printer that lets you increase your build area on demand. For more affordable and accessible metal additive manufacturing.

## **The power of tailored flexibility & productivity**

### **Adaptable build volume**

Reflecting manufacturing's fluid demands, the MetalFab 300 Flex offers a unique, adaptable build volume that can expand from 300×300×400mm to 420×420×400mm. This upgrade is available through a licensing service, allowing for flexible accommodation of larger parts and diverse production volumes as your needs evolve – and without a long-term commitment. This unique on-demand platform size eliminates the need to choose between a small and large frame printer when starting your metal AM journey.

### **Proven, industry-leading technology**

With more than 1 million production hours clocked in the Additive Industries fleet so far, our technology stands out for its exceptional consistency and quality. This level of performance is maintained across the whole build area in our printers through laminar and consistent gas flow, refined by years of real-world operational use.

# MetalFab 300 Flex

## technical specifications:



Additive Industries

	Base Specification	Flexibility Option
Laser	2 × 500W Yb-fiber Laser	4 × 500W Yb-fiber Laser (Field upgrade available)
Focus diameter	110µm	
Optical Calibrations	In-line, automated laser-2-laser & focus	
Accuracy / Reproducibility	<0.05 mm	
Build Volume (x,y,z)	300 × 300 × 400 mm (11.81 × 11.81 × 15.75 in)	420 × 420 × 400 mm (On demand scan field license) (16.54 × 16.54 × 15.75 in)
Layer thickness	20-120 µm	
Machine Size (w x d x h)	2.8 × 1.9 × 2.5 m (9.19 × 6.23 × 8.20 in)	
Machine Weight	5000 kg	
Build Plate	Automated levelling and positioning	
Powder Handling	Fully internal automated extraction, sieving & recycling	
Build Platform Heating	Fully controllable to 175°C	
Shielding Gas	Argon or Nitrogen	
Compressed Air Supply	6-10 bar / 1000Ndm <sup>3</sup> /min	
Power Supply	3 × 63 A + 3 × 16 A	
Software	Additive Industries Build Processor (powered by Materialise), Autodesk Netfabb, Dynamic Laser Assignment (DLA), Additive Industries Pre-Processor, Additive Industries Machine Control	
Materials	Aluminium Alloy AlSi10Mg, AlSi7Mg0.6 / Copper Alloy GRCop-42 / Nickel Alloy IN718, IN625 / Stainless Steel Alloy 316L (1.4404) / Tool Steel Alloy M300 (1.2709), M789 / Titanium Alloy Ti6Al4V Grade 5, Ti6Al4V Grade 23	

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