

WE ARE AMS, YOUR PARTNER IN
ADVANCED MANUFACTURING

**Making additive
manufacturing
accessible**



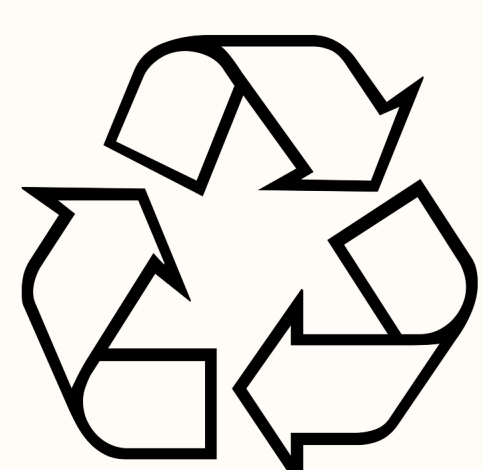
| Tornado 2 Tempest

Our involvement within this ground-breaking project, is some of our most proud work to date. Collaborating with the UK Ministry of Defence (MoD) and Rolls Royce PLC, we took retired tornado parts due to be scrapped and, in a world first, remelted and converted them to powder to produce a new part via additive manufacturing. This part subsequently underwent inspection and test before being used on a Rolls Royce test engine. Once an aerospace/automotive part reaches its end of life, it often goes to waste and is not recycled. AMS saw the problem here and jumped at the opportunity to break the cycle of decline and creating a resilient supply of critical minerals. By re-atomising the retired parts, we had created a metal powder feedstock for our SLM280 laser powder bed machine. We then selectively melted new parts - which passed integrity tests, proved to be suitable for the Orpheus test engine, a trial engine for the next generation fighter jet - Tempest. We believe in sustainability and strive for a future where manufacturing is a clean, environmentally friendly and sustainable process.

| Key Principles

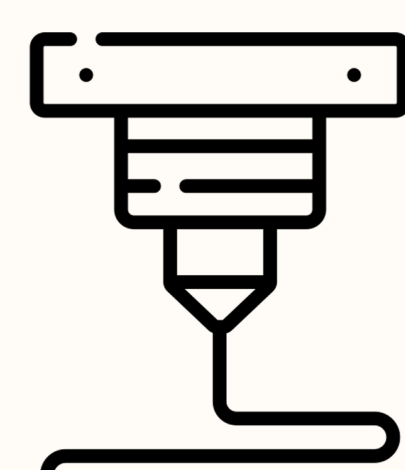
Sustainable Materials

Retired aircraft are being disassembled for their parts, which contain critical metals such as titanium and nickel. This material acts as a feedstock for future aerospace programs, rather than increasing the volume of waste. We are proud to have made this leap, and set a precedent for circular economy practices within the industry. The future of manufacturing could be much more sustainable if this practice is implemented elsewhere.



Advanced Manufacturing

By leveraging cutting-edge processes, we're transforming traditional production methods into sustainable, efficient, and innovative solutions. We have powder based metal AM capability in house via laser powder bed fusion. From parameter development to production, we can support in house. At AMS we aim to provide an all-inclusive engineering partner approach. Here we can supply and support from new material development, through metallic additive manufacture, post processing and qualification/validation.



Defence Supply Chain

The Tornado 2 Tempest project is transforming the defence supply chain by introducing sustainable and circular practices. It recovers valuable materials from retired aircraft and repurposes them through advanced manufacturing techniques like metal powder production and 3D printing. This reduces reliance on raw material imports and strengthens the UK's self-sufficiency in defence production. The project also fosters collaboration between government, industry, and academia to modernize and future-proof the supply chain.

