

Certified, precision and responsive advanced manufacturing

Services & Differentiators

1. High-performance thermoplastics and metals 3D printing applications:
 - + Custom / low volume, lightweight ergonomic training armour, helmet brackets, electronic housings and small arms accessories in soldier systems
 - + Strength, weight, power, cost (SWaP-C) optimised products in unmanned systems, land vehicles, marine vessels, satellites, weapons and aircraft
2. Stronger 3d printed thermoplastics with 15% higher fatigue limits (client-tested)
3. Consistently higher than industry average UTS for aerospace grade titanium Ti6Al4V (research verified) –better than investment casting, comparable to forged parts
4. Responsive 1-2 day turnaround of one-off replacement parts for after market sustainment as well as tooling for carbon fibre components
5. Certified materials and manufacturing process for FAA-approved airworthy products
6. Scalable manufacturing : tooling, CNC machining, injection moulding, and vacuum casting

Capabilities

1. Design application of lattice structures to increase surface area, reduce mass, vibration dampening, manage heat / sound signatures; applicable in battery / electronics conformal cooling, heat exchangers, gearboxes and suppressors
2. 12x industrial 3D printing machines (4 metal, 2 nylon, 6 resin)
3. 531 sqm production facility, In-house post-processing, heat treatment and cnc machining, manufacturing done in clean environment
4. Print resolutions $\pm 0.2\text{mm}$
5. Material specialties: titanium aerospace grade 23 (Ti6Al4V), stainless steel 17-4PH, stainless steel 316, cobalt chrome alloy, Inconel, AlSi10Mg, hastelloy, biocompatible (food safe and sterilisable) PA2200, Ultem, PEEK and PEKK
6. Experienced in aerospace first article inspection reports (FAIR), manufacturing QMS includes certificates of conformance

Key Customers & Partners

GE, EOS, GA-AS, Optisys, Hanwha, Ronson Gears, Lyka Smith, Biosafe Innovations



Quality standards & accreditations

- DISP supplier, personnel with baseline security clearance
- ISO9001:2015 QMS standards
- Production modelled after ISO13485 for medical devices (client-audited) and AS9100 standards in progress
- Material certifications:
 - Cobalt chrome to ASTM F75, UNSR30075, excellent corrosion + wear resistance, highly regulated for aviation
 - Titanium alloy Ti-6Al-4V to ASTM F136-02a (ELI Grade 23)
 - Stainless steel 17-4PH to ASTM A564/A564M – 13 UNS S17400 / SUS 630
 - PA2200 certified under EN ISO 10993-1 USP/level VI/121°C



Contact details

Mich Mak
Head of Marketing
+61 422 610 308

mich@additiveengineering.com.au
Factory 1, 42 McArthurs Road,
Altona North VIC 3025
Additiveengineering.com.au