

Our Company

In various guises in New Zealand and Australia Sean Managh and Seanezzi has been manufacturing composites for 36 years. We have repaired, developed and manufactured parts for customers as diverse as World Champion Sailors, works racing car teams, RPT Airlines and Defence Primes. We are a privately help Australian company with DISP accreditation.

Design

Internationally awarded for design of composite components, Seanezzi deploys this expertise and experience in the manufacture of composites to design your part, tooling and manufacturing process. With a library of proprietary empirical data our FEA simulation is 'real world' and a powerful tool at your disposal. New material swatch testing is conducted by Melbourne Testing Services to NATA standard.

As Design Rights Holder we know what it takes to traverse ideation to manufacture, and our experience and professional qualifications will help smooth your path to production and compliance to the most rigorous standards.

Prototype, R&TD

Deploying powerful design and simulation tools – SolidWorks 2023 and Altair – allied to in-house tooling design and production means a partnership with Seanezzi for your R&TD programme will yield a rapid, successful pathway to First Article.

As an OEM of aviation and Defence products we understand the need for prototyping that reflects eventual series production. Having in-house autoclave, High Pressure RTM, RTM Lite, 3D printing and CNC kitting / cutting / coring capabilities allows us to help develop your project - replicating the technology, quality and mechanical specifications of your finished part during initial testing and validation.

Manufacturing

We manufacture series production parts and complete assemblies to ISO9001 and AS9100 (pending) and CASA Part 21 Standard including the integration of inserts, CNC features and post bonding of assemblies. High tolerance, complex geometry, multi-faceted reinforcements are our stock and trade. With a highly skilled and flexible workforce of engineers and technicians we manufacture and release to the required Standard, on budget, on time.

We offer in-house CNC tooling manufacture, CNC post process machining, in and out of autoclave pre-preg manufacture. Our High Pressure RTM line offers high cycle times and unrivalled dimensional accuracy and double face surface quality. PID controlled curing ovens up to 6 metres allow us to build or assemble and post cure large assemblies. For finishing we offer PPG Aerospace materials and qualified painters.

For non-CAW CofC Release we can offer, NDT Level 2 validation - Airworthiness Authority A601608 and CMM validation to ISO 17025 Standard through a NATA accredited laboratory.

Sustainment

Seanezzi is happy to help support customers maintain or extend the life of their composite parts. Sustainment of aviation components is completed via a CASA Part 145, CAR30 and MITCOM / FITCOM process, replacement parts can be released under EO from your Form 1 or from ours.

Programmed service and maintenance of aviation composite is core business at Seanezzi. AOG support is available.

Non-aviation parts / assemblies can be maintained in field or returned to our factory for repair or upgrade. With in-house engineering and a global supply chain we can re-engineer material specifications to replace superseded or unavailable materials with suitable alternatives with the same or better properties.

Our People

We are very proud of our people, veteran and civilian. We are a flexible, agile, scalable team (FAST) of 9 to 12 staff.

Key positions are:

- Chief Engineer – Tim Adam, MechEng (Hons) with composite and FEA speciality.
- Quality Manager – Carl Cubitt, PHD candidate and ex CSIRO scientist
- Accountable Manager – Sean P Managh
- Project Manager – Dr Lawrence Wong, PHD – CFD Test Evaluation
- Safety Systems Management Manager – Capt. Rob McDonald (Rtd) rotary and fixed wing military pilot
- Technical Records Officer – Hunter Ingrassia, ISO Certified Auditor.

All staff met applicable CASA requirements for Human Factors and MEAST001 and MEA41322, Certificate IV in Aeroskills (Structures) or equivalent.

Our Infrastructure

- Factory with gross floor area 1200m² of flexible assembly and manufacturing space
- 1900 x 850 Autoclave certified to 6 bar. PID controlled with real time data logging tagged to individual job numbers. Independent atmospheric temperature, mold temperature (if separate mold heaters (up to 6kW) are fitted) and in-part temperature read via three separate input channels. 50 independent preprogrammed process profiles for different tools and materials. Sub-degree temperature control on all 3 temperature inputs and 10kPa pressure control. Dedicated N₂ generating plant.
- High Pressure Resin Transfer Moulding (RTM) line with 650 x 650 x 600 throat capable of 200C. Hysteresis 'one degree' controlled temperature and real time data logging tagged to individual job numbers. Max clamp 150 tonnes in 2 tonne increments. RTM line is fed by dedicated 4.5 bar hydraulic line pump and 15L vacuum chamber with 2-stage mixing machine.
- 6m x 2.2m x 2.4m 180C curing oven. NATA Certified, PID controlled with real time data logging tagged to individual job numbers, plumbed with vacuum lines.
- Environmental control cabinets for, chemicals, resin systems and tool pre-heating.
- Walk in freezer capacity for 20 rolls prepreg at -5 degrees.
- 6m gas heated spray booth.
- Dedicated cutting room fitted to Nedderman dust extraction system. Room fitted with supplied air respirators for operators.
- 4600 x 1220 hysteresis 'one degree' controlled heated aluminium platen and roll out machine for pre-preg flat panel or cored panel manufacture. Table fitted with dedicated vacuum pump.
- Custom debulking machine to combine and condense up to four different materials prior to kitting or laying as flat panel. Used to apply resin film to dry fabric to create short runs of custom pre-pregs.
- 1200 x 1300 x 65 CNC router.
- 1220 x 2440 x 90 CNC router.
- PID controlled re rolling machine to unroll bulk rolls into job lots.
- Universal CO₂ gas laser.

Our qualifications and accreditations

- CASA Part 145 and APMP Manufacture (pending) for composite aviation components
- Composite aircraft components to FAA137
- ISO 9001-15, ISO14001 and AS9110C (Pending)
- SolidWorks 2019 global Entrepreneurs Award Winner
- Deakin University ManuFutures partner
- Australian Missile Corporation Partner