



RAPID RESPONSE.
PRECISION TECHNOLOGY.

MACH ENGINEERING
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MACH Engineering is a division of Foodmach Pty Ltd, **Australia's largest** independent manufacturer of automation solutions for materials handling and logistics. Based in Echuca, Victoria, we're 100% Australian-owned with a national footprint. With 100 team members, we use our 50+ years of experience **solving automation challenges** for global food, beverage and industrial manufacturers to support defence contractors.

Our award-winning team of software and mechatronics engineering specialists designs and delivers complex assignments with confidence. We provide **all machining, fabrication, assembly and design services in-house**, including mechanical, electrical, software and systems engineering.

Capabilities

Engineering

- 2D/3D Mechanical Design
- Electrical Design
- PLC Software Development
- SCADA Software Development
- Project Management
- Site Installation
- Commissioning
- National Technical Support

Manufacturing

- 7,100 sqm Factory Space
- 4.0 kW Fibre LME Laser Cutter
- CNC Brake Press
- CNC Router
- CNC Lathe
- Milling Machines
- Welding Shop / MIG and TIG welders
- 5 / 10-tonne Overhead Cranes
- Sandblasting / Electrostatic Painting

Products and Services

MACH Engineering is a full-service engineering manufacturer specialising in the design, fabrication, installation, commissioning and life-cycle support of:

- Robotic Automation
- Vision-Guided Robotics
- Materials Handling
- Conveying and Logistics Equipment
- Bespoke Machine Design and Manufacture
- Jigs, Fixtures and Tooling

We also provide:

- Component and Sub-Assembly Supply Contracts
- Rapid-Turnaround Machining Services

Due to our significant in-house capabilities and deep supplier relationships, we have **total control of cost, quality and leadtime variables**.

Quality and Accreditation

- **DISP Membership:** Submission completed
- **ISO 9001:** In Progress
- **Netsuite (ERP) and Total ETO (MRP) systems**
- **Winner of APPMA Awards of Excellence:**
 - Community Contribution 2022: for Covid Defence Project
 - Customer Systems Integration 2024: Pernod Ricard
 - Australian Machinery Manufacturer, Corporate 2024: Palletising
- **Victorian Manufacturing Hall of Fame Awards**
 - Innovative Product Development, 2022: Winner, Leader in Innovative Product Development and Commercialisation.



ODIS
Office of Defence Industry Support



WWW.MACH.AU

Key Customers, Partners and Suppliers:



CASE STUDY:

COVID DEFENCE PROJECT



Background

In March 2020, as the COVID-19 pandemic escalated, Australia faced a critical shortage of surgical masks due to disrupted global supply chains. The MACH team worked side by side with the Australian Defence Force to recreate the nation's only mask-making machines, which were over 40 years old.

Challenges

Time Constraints: The project required completion in sixty days, a process that would typically span four to five months, and involved more than 10,000 labour hours.

Insufficient Documentation: The original machine drawings were missing. There were knowledge gaps around material specifications and tolerances and the design had to be updated to current safety, controls and interfacing standards.

Complexity: Nearly 14,000 parts were made or procured to complete the project, 850 of which were unique. Although much of that was manufactured in-house, there were still 52 subsuppliers to manage.

Solution

MACH's multidisciplinary team worked around the clock, implementing the following strategies:

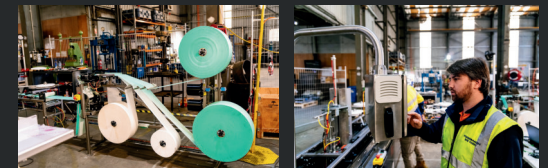
Reverse Engineering: Collaborated with the ADF and engineers familiar with the original design to recreate and modernise the machines.

Rapid Prototyping: Utilised in-house machining capabilities to quickly produce and test components.

Production Control: Complete control of all manufacturing and procurement flow processes through our advanced Engineering-to-Order MRP system.

Results

The first machine was delivered two weeks ahead of schedule with a one-day commissioning. Mask production started almost a month ahead of schedule, and all seven new machines were operational before the deadline. By the end of 2020, 59 million masks had been made, with an annual capacity of 200 million. The collaboration between the MACH team and government agencies reinforced the importance of local production capabilities in ensuring national security.



"[FOOD]MACH has a unique story as a pioneer of food production machinery, but they pivoted to this vital national task."

Australian Federal Minister for Industry, Science and Technology, The Hon Karen Andrews (ABC Press Club Speech, May 2020)