



Complete Engineering & Manufacturing Service

Profiling capability, capacity and facilities.

C-Mac Industries (Aust) Pty Ltd.

Established in 1966 C-Mac is a private Australian company focused on providing a complete engineering service, from small components to complex special purpose machines and detailed fabrication. The range of engineering processes has been segregated into three operating divisions: -

- ❖ **C-Mac Engineering & Gearcutting**
- ❖ **C-Mac Sheetmetal**
- ❖ **C-Mac Nursery Equipment & Materials Handling**

Grouping these core competencies/trades and equipment creates a complete manufacturing facility, concentrating on providing advice to customers for their requirements, in a bid to satisfy part or all of their contract needs.

To drive the advanced range of computer controlled equipment, a range of software products has been installed enabling machinery to optimize manufacturing methods, accuracy and repeatability and track materials, minimize drawing and programming times, efficiently handle process control (barcode tracking of jobs), design, accounts, office and customer relationship requirements along with internet and e-mail. This means all customer records created can be controlled efficiently thus allowing effective transfer of manufacturing information and reducing on-going manufacturing costs.

C-Mac have addressed the service aspects of the manufacturing process to ensure customer requirements, involvement, and access to key staff remain the priority, this also extends to the quality system, where C-Mac is accredited to ISO9001. C-Mac's Company Manual is constantly being reviewed with procedures and control systems for the factory and through to the accounts department. Keeping up with modern management and manufacturing processes, training of staff and apprentices, OH&S, environmental issues and other statutory and legal requirements, is an ongoing and improving process.

With a significant investment in buildings & yard area, plant equipment and expertise of staff, C-Mac are ideally suited for manufacture of new and replacement parts, prototypes and short run production through to project work. C-Mac has a diverse customer base and service a wide range of industries at all levels of supply.

C-Mac Engineering, New and Replacement Machined Parts

(Also Import Replacement)

Although CNC machines dominate the factory there is also a full range of machines considered essential to a general engineering shop. Secondary processes include radial arm drilling, milling, turning, slotting and cutting.

Area: Engineering workshop - 510m² Office- 36m² Yard - 2,000m²

Equipment:

- CNC Vertical Machining Centre (Hitachi) Travel x = 560mm, y = 410mm z = 410mm. 20 Tool changes
- CNC Turning Lathes (Hitachi) Up to 620mm dia. x 1100mm between centres, 110mm dia. spindle bore, Max.OD Turning 910mm dia. x 250mm long, With special tooling: 780mm throat x 480mm thickness.
- Vertical bandsaw (Pehaka) 250mm capacity
- Automatic Saw (Kasto) 55mm dia. capacity x 1.5metres
- Mas Radial Arm Drilling 55tonne x 600mm stroke
- OTC Hydraulic Press
- Universal & Turret Mills, Centre lathes, Tool & Cutter grinders, drill presses, tap removal, and other allied pieces of equipment.
- Extensive range of measuring equipment and gauges.

Materials: Incolloys, plastics, stainless steel, copper brass and bronze, alloy steels, aluminum, castings and forgings. Plastics, Felt and synthetic materials including urethane and rubber.

Products: vibrators, fan shafts, gears, turned components.

Facilities: 3.2 tonne overhead crane (*wall to wall coverage*). Range of steel stock.

C-Mac Gearcutting, *additional services*

The range of gear manufacturing machinery parallels the engineering capability. Engineering makes the gear blanks and shafts; gear cutting completes the service.

Area: Gearcutting workshop - 260m²

Processes: Keyways, slotting, gear hobbing & shaping in spur and helical forms, internal and external splines, broaching, tooth rounding, tooth deburring.

Equipment:

- Slotting machines Up to a throat depth of 600mm x 280mm stroke
- Fellows gear shaping Internal gears up to 6 Module x 400mm ID max. External gears up to 3 Module x 450mm OD max.
- Gear hobbing 2.5 to 10 module x 600mm OD max.
- Over 320 hobbing cutters covering a large range of tooth profiles.
- Splines up to 80mm dia.
- Broaches for internal splines straight sided and involute: up to 50mm dia. x 1.2m broaches

Materials: Steel, castings, bronze, composite fibre and engineered plastics.

Products: Gear types manufactured include Spur and helical gears, in metric and imperial sizes, worm gears, splines and pinions. Heat treatment and gear grinding organised.

C-Mac Sheetmetal – Detailed sheetmetal fabrication

Having the facility to cut sheet material economically is considered the core of the sheetmetal fabrication shop. The High Definition Plasma cutting machine with its large bed taking sheets up to 2.4 x 6.0m is used for profiling parts up to 36.0mm in thickness. The skilled tradesmen in the sheetmetal shop then fold, roll, shape and weld to suit the application as detailed and specified by the design engineers and/or customer.

Area: Sheetmetal workshop - 1,550m² office - 234 m² yard - 2000 m²

Processes: Every aspect of sheetmetal fabrication including folding, notching, pressing, perforating, guillotining, punching, TIG, MIG and Oxy welding, bending, forming, rolling, lock seaming, cropping, drilling and painting.

Equipment:

- Kinetic High definition Plasma Profiling Capacity - Sheet size 6m x 2.4m, 0.45 to 36mm thick.
- Cincinnati NC Brake presses 50 & 200 tonne x 3.66metres
- Automatic Internal Welding Machine 25 to 500mm dia. holes.
- Cincinnati Guillotine with digital back stops Capable of cutting 6.0mm x 3.0m
- Welding machines For MIG, TIG, Oxy and Spot Welding processes.
- Notching Tool Capable of a 300mm notch.
- Rolling machines for bar, angle and sheet for cones cylinders and tubes up to 3mm thick x 2.44m long.
- Seaming and lock forming equipment.
- Cropping machine for bar & angle
- Pipe and tube bending (*hydraulic and mechanical*)
- Overhead travelling Cranes 3 tonne and 6.4 metres under the hook, all lifting equipment is certified and inspected.
- Cold Sawing, punch presses, bar bender, Pan Brakes and a host of other allied equipment and accessories.

Materials: Mild steel, galvanized sheet, stainless steel, aluminum, copper, zinc anneal are available in sheet, BHP sections and tube.

Products: Enclosures, cubicles, tanks, hoppers, chutes, air and dust ducting, housings, panels, racking, screens, drip trays, architectural work, machine covers and guards, bench tops and machinery.

Facilities: Multiple welding bays with fume extraction, Large piped compressed air facility, Semi-trailer access, 3 tonne overhead crane (*wall to wall coverage*), yard crane. Large hard standing area. Gas yard with various gases piped throughout factory to work welding bays. Spray booth with fume extraction 4m wide x 6m deep x 2.5m high. Range of steel stock.

C-Mac Engineered Products

C-Mac also extends its capability into assembly of finished products. The in-house ability to produce machined parts such as transmissions, and drive mechanisms and then build frames, hoppers and enclosures means we can provide a full conversion service, producing complete assemblies from components manufactured in the divisions to suit customer specifications.

For companies and overseas organizations

- ❖ Undertaking engineering activities that are not core to their business and are looking for a solution, C-Mac can offer an alternative.
- ❖ Requiring a proto-type capable facility, C-Mac has the know-how and facilities under one roof.
- ❖ Importing manufactured products or machinery and finding prices escalating we can reverse engineer and make the goods locally in Australia.
- ❖ We can manufacture under license and undertake distribution using our sales and local knowledge of companies and markets.
- ❖ Engineering design and drawing service in house.

Processes: Design, construction, assembly and testing. Installation and after sales service.

Equipment: Engineering, gearcutting and sheetmetal facilities

Materials: as required for the projects

Other Products:

- C-Mac also provides a range of materials handling equipment and “tailored solutions” for the Nursery, Horticultural Sand & Soil Industries, recycling and industry in general.

Additional Services

- 1 tonne pick-up & delivery vehicles
- 2.5 t Container packing Komatsu Forklift
- Sales Engineers with utes on the road, available for Customer Service.
- Modern offices and conference facilities.
- Bankcard, Visa and MasterCard facilities.
- Website with comprehensive information

www.cmac.com.au

Phone : (02) 9631 6000

Engineering Fax: (02) 9896 1806 Admin. & Sheetmetal Fax: (02) 9688 4679

C-Mac Industries (Aust). Pty Ltd.

Divisions:

C-Mac Sheetmetal

C-Mac Engineering & Gearcutting

C-Mac Nursery Equipment

