



we shape innovative design



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**mouldCAM** provides new tools and new thinking to global manufacturers who want to operate more effectively in a fiercer, more competitive world by embracing 3D composite solutions... faster, smarter and with more dynamic flexibility than ever before, now through our price-competitive, advanced technology, network-based facilities.

A big claim, we know.

Spend a few minutes exploring just what we can do and how we make the difference to the results you can achieve in your markets by bringing innovative design into reality sooner.



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# mouldCAM

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# we understand your market

- **Marine**
- **Automotive and transport**
- **Architectural / Industrial design**
- **Entertainment / Film / Events**
- **Mining and resources**

**mouldCAM** doesn't just help build new generation boats from advanced composites, or exciting props for action movies, or help innovative public transport enterprises serve growing cities with better mass transit... we do all of these and more with synergistic benefits for each market. The lessons learned by our 'Solutions Engineers' across these diverse markets help us meet the challenges and achieve breakthroughs by bringing fresh thinking and astute skills to your specific project.

- **Marine designs** – probably the most innovative users of composite material manufacturing on the planet are marine manufacturers who have moved from timber and steel vessels of yesteryear to GRP to meet the demands of this harsh environment where strength and integrity are prime requisites. **mouldCAM** supplies productive tools to world leaders in building cruising yachts, racing yachts, motor cruisers (sports, fishing and commercial) and work vessels from its headquarters in Tingalpa-Queensland, Australia.

- **Automotive and transport applications** – the quest to reduce emissions and resources consumption through lower weight replacements for steel in vehicles is quickly developing Polymer Matrix Composites made from glass, carbon and aramid fibre re-enforcements. The research has been done. Reducing vehicle weight by just 25% would save over 1.2 million barrels of oil per day in the USA alone, reducing fuel consumption by 13-20% and reducing CO<sub>2</sub> emissions by several hundred million tonnes per annum. Plastic cars and transports are coming. **mouldCAM** has the expertise to assist with tooling up for composite production systems for both private and public transports. [more >](#)



# we understand your market



- **Architectural / industrial design applications** – Carbon fibre composite bearers are extending roof spans while reducing weight with spectacular sculptural possibilities. Fibre re-enforced polymers are providing new shapes for designers to create new looks for external and internal surfaces with a lower environmental impact and good longterm performance over other materials. **mouldCAM** offers practical build solutions for the fertile minds of designers in architecture and industry with ‘big’ ideas and lateral solutions to create inspiring new spaces and forms.



- **Entertainment / fim / event solutions** – Today’s visual-based society is totally into exciting and ‘big things’... giant apes in movies, giant characters at theme parks, giant dolls at rave parties. **mouldCAM**’s experience in producing lifesize (animatronic crocodiles for feature films) or bigger than life objects from scale models, drawings and other references has created some visually exciting results for clients with a big vision. Event producers now have a real option to create that exciting centrepiece whether it’s for a sporting grand final, a city / community celebration, a music festival or a 3D advertising icon. Film props can give your production team the speed and budget edge when they need a full size stealth jet for example, versus the time and cost of even accessing the channels to begin discussing it. **mouldCAM** brings creative imaginations into 3D reality sooner.



- **Mining and resources applications** – If you build big metal equipment for Australia’s mine and resource production centres then **mouldCAM** can rapidly make high tolerance patterns, moulds & plugs to support your foundry and machining needs. Or if the need is for extreme condition composite solutions in offshore oil and gas applications and the like, where strength and reduced weight are important elements, **mouldCAM** has the techniques and knowledge.

# boats are our first love



While **mouldCAM** operates in diverse markets, and has built a substantial knowledge-bank by tackling 3D problems in automotive, architectural, entertainment and resource industries, it is the marine market where our depth of experience has been forged. This understanding, know-how and enthusiasm has resulted in us winning major projects for marine brand leaders in Europe, South East Asia, the Americas and in our home territory Australia.



- **Production boats**
- **Grand Prix racers**
- **One-off vessels**

## Shaping 'production boats' for global & niche markets

Clearly the outstanding trend in production boat manufacture today is the shrinking timeframe available for development of new designs and the imperative to build fast and deliver before client minds and tastes move on. Yes the commercial pressures today are great, but the productivity opportunity to tap market trends through intelligent CAD design and CAM tooling are proving to be winners for an expanding list of **mouldCAM** clients. Together we are delivering better solutions across the world because we understand boat production systems and work with you as a collaborative team.

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# boats are our first love



## Grand Prix ocean racers demand the ultimate

Custom built racing yachts require precision, special materials and scientific artistry to find, test and prove those winning innovations that result in that next step-up in performance level. **mouldCAM** has lived and breathed those campaigns to find the quantum leaps through techniques such as high-temperature curing of special composite materials, or testing design of new generation foils, by working with marine boutiques to refine systems via the power of our CAM systems for the very top levels of yacht racing syndicates.



## One-of-a-kind vessels

Working in collaboration with naval architects and marine designers **mouldCAM** provides the ability to develop truly unique vessels... by testing the design performance with models at any scale, or running CFD (Computational Fluid Dynamics) programmes and emulations, and much, much more. Our finessed CAD/CAM systems help to ensure the finished vessel looks and works as well as the seed of the idea that generated the clients commission. **mouldCAM's** 3D CAM techniques allow marine designers to test the look and performance at a fraction of the project cost before the final build. Not to mention build quality that is second to none with 0.5 of a millimetre tolerances. Your clients satisfaction and comfort factor can be enhanced in this one-off experience by seeing the development process at more interim steps, in a meaningful way, to lower the risk of mis-interpretation of the design concept. **mouldCAM** really does bring you 'handcrafted solutions by robot'.



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# harness these 6 breakthrough benefits by leveraging CAM

We all understand and accept that computers have radically changed the way we work and communicate with business partners, associates and friends in just a little over two decades since the first desktops began appearing. CAM (Computer Aided Manufacture) is a natural extension of the Industrial Revolution that began almost 200 years ago. CAM (some call this CNC too – Computer Numerical Control) is a highly evolved productivity tool that revolutionises once complex processes, delivering more options in less time for your customers.

mouldCAM is expert in providing manufacturers of ‘composite based products’ with arguably the most innovative suite of support services on this side of the planet, or the other side.

Perhaps you’re unconvinced about technology. Perhaps you are a sceptic of these new processes and favour the hand-crafted approach. Respectfully, we ask you to consider how applying the six new dimensions below to your existing process would give your enterprise vastly superior market appeal and new growth options.

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# harness these 6 breakthrough benefits by leveraging CAM



**1 Speed to market brings stronger competitiveness.** To win customer minds and hearts you need to be able to anticipate and respond to market opportunities swiftly. mouldCAM generated 'plugs & moulds' shorten development timeframes by a factor of ten. Six months to develop a new model becomes six weeks. And reducing production timeframes can minimise up-front investment costs (ask about our breakthrough CAMtools Finance System developed in conjunction with Finlease) which accelerates cash flow back into your operations for shorter ROIs.

**2 Better quality through precision.** Applying mouldCAM's computer modelled and precision cut tools means every part fits... decks fit to hulls, wings integrate seamlessly to fuselages, doors close snugly to chassis frames, every time, first time, because the accuracy of the process reduces tolerances to half-a-millimetre over tens of metres of surface. And sub-components made in distributed production facilities join together reliably every time to reduce further your build time and lift the quality of finish. Precision modularity allows us to ship de-constructed moulds to anywhere in the world price-competitively too.

**3 Any size you can imagine.** mouldCAM's unique 5-axis router is the biggest system of its kind in Australia, in fact in SE Asia, with a working volume envelope of 3 metres x 4 metres x 12 metres. Objects up to 144 cubic metres can be cut / shaped / tooled in a single piece using our unique basal-platten system to improve the accuracy of this router heads cutting performance.

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# harness these 6 breakthrough benefits by leveraging CAM

This envelope size can in fact be further extended for larger surfaces through absolute symmetry of curved surface production and precise modular repetition.

**4 Flexibility to provide custom solutions.** Accuracy of cut surfaces down to 0.5 mm over large envelopes means you can provide integration of variant sub-components with confidence: three different deck configurations for a new hull, different seating densities of a train carriage seating plan to suit specific load factors, variation of architectural street furniture components to create landscape design differentiation. Whatever your designers can imagine we can deliver more. Such systematised flexibility also reduces tooling costs.

**5 Complexity made childs play.** Once jobs thought too complex can now be achieved in a single process because CNC / CAM can take multiple complex individual components and integrate them into a single body, pan, chassis, hull or roof structure... reduce process steps and man-hours previously needed. Free up your skilled labour and floor space to build more product.

**6 Return on investment... sooner.** The greater cost of producing CAD / CNC tooling systems is recovered more quickly via enhanced throughput, reduced build times, and saved intellectual property in a reliable, non-temperamental, switch-onable workforce. Outsourcing your tooling also saves on capital employed. And a specialist outsourced team provides solutions to challenges sooner because we have the commercial motivation to get it finished on time.



# service and thinking... in one package

- **2D and 3D profiling**

High precision forms and templates in 2 & 3 dimensions can be cut via our one of a kind 5-axial router, using fast data processing techniques to deliver a cut envelope to 0.5 mm tolerance over a 144 cubic metre work space, with all non-metallic materials.

- **Plug and Mould completion**

Precision male and female moulds of any size can be swiftly produced as masters in vinylester or polyester, and more advanced finishes if required for high-temperature applications. We can produce direct to female CNC moulds and master moulds for high-level production runs.

- **Design - CAD modelling and drafting**

Model generation, design modification in 3D, 2D drafting, extrapolation and output from all major CAD and modelling softwares via our in-house CAD facilities.

- **Reverse engineering - reality to theory**

We can translate an existing physical object, no matter how complex a form, into full 3D CAD-ready files using digital scanners and Faro arm measurement to create the file for your next generation model, or a precise clone of your prototype.

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service and thinking... in one package

- **Project consulting**

Our engineers can put their vast experience to work for you to leverage faster, lateral solutions. But first you have to call us and outline the challenge.

- **In-house production facility implementation**

Having built the largest and arguably most sophisticated CAD-driven router in Australia from state-of-the-art components gathered from around the world, then testing, refining, enhancing production methods, together with the latest in software development, we can build, install and commission your planned in-house system before your designated Project Manager will have even completed a survey of what is available on the market. Use our know-how to get started sooner if an in-house tools production path is the chosen management direction for your enterprise. We can help you realise a smarter production system, sooner.

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# the mouldCAM difference

- ⬭ Engineers with imagination
- ⬭ Marketing people with financial grasp
- ⬭ Production people who are results driven

We are not a bunch of technology fixated nerds who have a big, sophisticated, computer-controlled, manufacturing play thing... but yes we talk to engineers in their language about the latest 3D technology production processes.

We are not a gaggle of marketing ideas people who promise much, but delivering is another issue... but yes we talk with designers, architects, and business managers who have a vision of new markets they want to succeed in.

We are not a pack of "time-and-motion" accountants who run the dollar ruler over every bit of production output... but we do have innovative tooling finance solutions that make real sense to business owners who want to have better tools to aid faster production without large working capital injections.

mouldCAM is a fresh Australian enterprise formed by globally experienced managers who understand service, technology and today's marketing challenges. We are accessible. The principals are involved. The team is growing. Visit our [website](#) to see a detailed profile of our talented team that make the difference.

# contacts

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Find out more, send us a brief, find a job,  
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