



**ANCA DESIGNED  
AND DEVELOPED  
SOPHISTICATED CNC TOOL-  
GRINDING MACHINES BY  
COMBINING OPERATING  
SIMPLICITY WITH LEADING-  
EDGE TECHNOLOGY.**

# Precision Performance

**PRECISION, VERSATILITY, PRODUCTIVITY AND CONFIDENCE – THESE VALUES FORM THE CORE OF ANCA’S DEDICATION TO DELIVERING INNOVATIVE, LEADING-EDGE PRODUCTS TO CUSTOMERS WORLDWIDE.**

Originating in Australia, ANCA is now a global leader in cutting-edge manufacturing technology, using innovative ideas to deliver advanced products to customers. The company produces a range of computer numerical control (CNC) tool and cutter grinders to meet large-scale manufacturing and entry-level production requirements. ANCA’s products easily match the demands of diverse production by using flexible tool-design software. This enables customers to produce a variety of complex tools: profile cutters, end mills, burrs, and punches.

Established in 1974, the two founders of the company, Pat McCluskey and Pat Boland, combined their different engineering backgrounds to form a company that produced world-class computer numerical controls. One engineer had the technical and trade know-how; the other had the academic background – together they were able to create a successful engineering enterprise.

In the early 1980s, ANCA applied its high-level engineering and mathematical skills, previously used for programming, to expand the company and develop complete machine tools. ANCA designed and developed sophisticated CNC tool-grinding machines by combining operating simplicity with leading-edge technology.

Consistent growth launched ANCA into the global marketplace, and the company rapidly expanded its operations into countries around the world. ANCA constructed a sophisticated machine-tool factory and employed highly skilled and specialised staff to supplement the growth of the company. Today, the company continues to invest in factory equipment, research and development, and sales-support infrastructure to cement the company’s continuing success.

Offering a broad range of machines that have been specially designed and manufactured for various applications, the company provides solutions for key components such as CNC controls and

spindle and servo drives. ANCA develops its own system and application software, and manufactures all the main mechanical components. The final products are assembled and tested to international machine-tool standards. ANCA offers extreme flexibility to customers, being able to design and produce custom-built products from short lead times.

The company’s CNC tool and cutter grinders are used worldwide for a range of applications. Composite and waveform cutters are used for aerospace applications, while dental drills and bone rasps are common medical tools. Profile blades and compression routers are used for a range of woodworking purposes, and

the cutting tool application can be used for a wide range of functions.

With so many different tools being manufactured, and such a strong global client base, ANCA recently expanded its manufacturing operations. Two additional manufacturing plants – in Thailand and Taiwan – now complement the company’s main manufacturing site in Melbourne. To efficiently run the three sites, the company’s supply chain must always be running to optimal efficiency. “The machines we build are very complex, so we have a very large, intricate supplier base,” reports Patrick Boland, CEO of ANCA. “We have to source a range of products from semiconductors and ▶



cast-iron products through to bearings. Our three manufacturing sites are all interlinked in terms of supply chain and supplying to one another."

Identifying the most appropriate suppliers to work with ANCA is important for consistent manufacturing quality. "We look at all the usual elements, such as quality, cost, delivery, and performance; however, it all depends on what product we need to source," relates Patrick. "With our key technology suppliers, it is essential for us to locate leading-edge technology to help us in the marketplace. Our purchasing managers and engineers work closely together in designing products, and they identify which suppliers will be able to supply the materials we need. This means that a lot of our suppliers are selected in the design stage of production."

ANCA, understanding the benefits of maintaining an efficient supply chain, aims to promote long-term relationships with its suppliers. "We've been maintaining a fairly solid supply chain in Australia, keeping our suppliers very busy," notes Patrick. "Most of our suppliers have been with us long

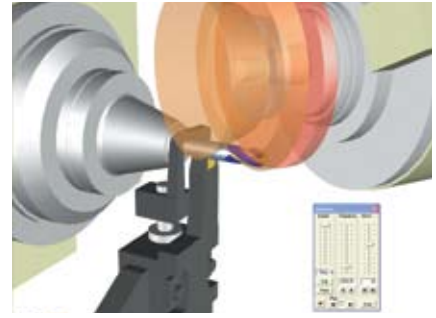
**"ONCE WE HAVE DEVELOPED NEW TECHNOLOGIES, IT'S NOT EASY TO CHANGE SUPPLIERS – BECAUSE THEY BECOME AN INTEGRATED PART OF THE ELECTRONICS DESIGN."**

- PATRICK BOLAND

term, and they appreciate how much work we give them. Due to our industry and the high level of advanced technology that we are dealing with, it is far more beneficial to stay with the same suppliers. For example, since we involve our suppliers at the development stage of production, it tends to be almost a marriage between the supplier and the product; they are committed to each other. Once we have developed new technologies, it's not easy to change suppliers – because they become an integrated part of the electronics design. It would be extremely expensive and inconvenient to change suppliers, so we actively work to keep our relationships with current suppliers strong and positive."

Two significant factors in maintaining effective supplier relationships are conducting regular reviews and staying on top of any problems that may arise. "Our review processes vary between suppliers," explains Patrick. "Generally, we do customer audits and reviews evaluating delivery, performance and product quality. We have supplier improvement processes in place, so that any unusual products are detected during manufacturing. There are a variety of aspects we can consider, but we generally just focus on the more predominant issues."

The company's global success and high product demand are strong testaments to the successful management of the company's manufacturing processes. Working alongside suppliers who can aid in the development of advanced technological equipment is a factor that has contributed to ANCA's innovative leadership.



**THE ANCA DIFFERENCE**

ANCA has won over 25 industry awards in recognition of its engineering excellence and export achievements. Some of these awards include an Australian design award, being named Australian Exporter of the Year, and an Innovation Excellence Industry Award from Advanced Manufacturing Australia. ANCA has also been inducted into the Victorian Manufacturing Hall of Fame.

The reputation of ANCA has been based upon the company's dedication to remaining at the forefront in technological innovation and its commitment to being an industry leader. The company boasts a range of achievements that have contributed to its success in remaining at the industry forefront. Some examples of these include ANCA being:

- first to design and manufacture an Australian CNC
- first to introduce a probe for digitising tools in a CNC tool and cutter grinder
- first to introduce a modem for support and diagnostics in a CNC tool and cutter grinder
- first to introduce soft axes for significantly simplified programming of a CNC tool and cutter grinder
- first to introduce MPG Feed for safe debugging and testing
- first to introduce Windows-style graphical users interface and real-time operating systems in a CNC tool and cutter grinder
- first to introduce a CNC tool and cutter grinder with all rotary and linear axes being directly driven
- first to introduce industry-standard statistical process control (SPC) in a CNC tool and cutter grinder
- first to introduce iBurr software for burr grinding (which uses an active graphical user interface)
- first to introduce full- and true-3D simulation of the grinding process, CIM3D (patented in Australia and the United States).





### TECHNOLOGICAL BRINK

ANCA's tools stand at the industry edge in advanced and innovative technology. Some of the common features of the tools include:

**Polymer Concrete Base** – This base provides a unique vibration dampening that is significantly better than cast iron, and an excellent thermal stability with rigidity. This directly contributes to the precision of the tools produced on ANCA machines.

**Direct Drive** – ANCA pioneered direct-drive technology in CNC tool and cutter grinders and remains the leader in this field. All linear and rotary axes, as well as grinding spindles, are directly driven. The company does not use gears, pulleys or belts, and this leads to the best possible energy transmission, high reliability due to less moving parts, naturally high precision, and the best surface finish.

**Axes Configuration** – Placing the grinding wheels close to the centre of rotation means that the machines are compact, yet offer a large working area that ensures grinding of very small radii is achieved with high accuracy. It also ensures minimum overhang while grinding.

**MPG Feed** – MPG Feed is a patented invention that enables the operator to test programs very quickly and safely. Rotating the MPG hand-wheel moves all machine axes along the programmed path, both forwards and backwards.

The quality of the products that ANCA manufactures is reflected in the various testimonials by clients on the company's website. The letters attest not only the product quality and ease of use, but also the level of customer support that ANCA provides to its clients globally. One testimonial, from Maurice O'Neill, Managing Director of Carlow Precision Ltd in Ireland, reported that the ANCA RGX tool grinder was the best purchase he'd ever made, and was doubly delighted by the first-class level of customer service and after-sales support that he received from the ANCA team in Ireland.

Contributing to ANCA's commitment to its clients is *The Sharp Edge*, the company's annual magazine that it publishes and distributes. This publication contains updates and information on ANCA products and services as well as profiles of major customers and application briefings. The magazine is a key tool for ANCA to stay in touch with clients; it lets them know about the latest developments in technology and products.

The ANCA difference is that the company is dedicated to manufacturing precision equipment using the most cutting-edge innovative technology. The excellent product quality and dedicated customer service sets ANCA apart from industry competitors, and the company will continue to remain industry leaders well into the future. ●



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