

It's time for manufacturers to think smart

By James Abbott

Australian manufacturers must challenge existing methods and technology to be globally competitive.

Churning out product using traditional methods may have been competitive in the good times – but not anymore.

Manufacturers must now find more cost-effective cutting-edge innovative solutions to complex manufacturing problems.

Producing CNC machined components to meet individual requirements is a prime example.

Manufacturers are now seeking high quality products at cost efficient prices.

It's now all about technology and how to use that technology to gain full advantage.

Any manual steps in CNC production must be removed.

In Australia we must all embrace continuous improvement, always seek to fine tune processes from one run to the next. Learn from experience and keep a step ahead of competitors. Keep up with technology and new methodologies.

Better finished product means increased customer satisfaction at competitive prices. A faster production run also means that customers

can meet their own deadlines and add value for their customers.

This is where a well-rounded engineering skill set is required.

For example, consider a ring with a hole drilled off centre. This particular part had always been turned on a CNC lathe and de-burred by hand. At least a dozen were clamped together and drilled. The result – pretty average.

'No excuses for poor quality'

What if you could turn, deburr, and drill the hole in a single operation? No? Well, using a bit of Australian ingenuity I have found a way.

It's a good lesson for all manufacturers.

Where there's a will, there's a way.

The next generation of engineering companies must be dynamic innovators.

The economic downturn has been a cruel teacher. Attitudes must change.

Recently when I suggested a new setup enabling a part to come off the machine in one go, CNC machinists with some 20 years

experience told me it couldn't be done.

Yet, the change has proved successful.

A common belief is that CNC machines do the work for you. What about the process? An innovative process means more can be done on the machine in the one setup long after everyone has gone home for the evening – "lights out machining".

Quality is a given these days. If you can't get it right first time round, you get it back.

Technology these days leaves no excuses for poor quality. Tolerances of 0.05mm were once something to brag about. Now they're the norm, even after "lights out".

Customers are also demanding faster deliveries and a better product. This is becoming increasingly difficult using traditional methods.

It needs "outside the box" thinking. Perhaps Six Sigma and Lean Thinking could help stimulate change in this area.

What is required for a change in attitude is a top-down approach from management.

Staff must be encouraged to analyse and improve each process every time they finish a



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run. Management also needs to keep up to date with global industry trends and developments.

It's time for the manufacturing industry in Australia to challenge the status quo.

It's time to "value add" to your business by applying some smart thinking.

** James Abbott is general manager for Apex Manufacturing at Guildford in Western Sydney. Apex produces quality CNC machined components to suit any specification.*