

More than five steps is a waste

Veteran manufacturer Frank Cristiano firmly believes Australian manufacturers can successfully compete in today's global economy.

The general manager of Victorian-based composites manufacturer Tricomposite, Mr Cristiano says staying competitive is all about streamlining processes, introducing efficiencies that support ramping up production-rates and reducing costs while ensuring quality.

Since joining Tricomposite three years ago, he has increased monthly component output by 73 per cent to its current rate of 1700 parts per month for primary customer, RV manufacturer Jayco.

Mr Cristiano puts the efficiency gains, and quality improvements, down to a rigorous measurement regime, adoption of a Kaizen (continuous improvement) strategy supported by management and employee training in Lean Manufacturing. Also, joining the High Performance Consortium has personally given him access to senior managers and business owners from diverse industry sectors, all committed to sharing their expertise and knowledge to advance their businesses.

Above all the focus is on customer service, reinforced by exposure to the principles of design-led innovation. "It is looking at the business from the customer's perspective: how can we better meet their needs, help them with efficiencies in their processes," says Mr Cristiano.

"To do that, we had to be agile. We had to have procedures and processes to be able to identify issues early, resolve, assess the impact on our customer's production schedule and keep them informed. Then there is the analysis of the cause behind the issue and how it can be prevented."

Mr Cristiano joined Tricomposite as manager in 2013, taking on the general manager role a year later. Coming from a background in hydraulic



Robotic water-jet cutters contribute to quality consistency and efficiency.

Below right.

Tricomposite general manager Frank Cristiano believes Australian manufacturing can have a strong future.

Below.

Improvements in the LRTM and gelcoat areas have led to a 73 per cent increase in parts production / month compared with three years ago.

engineering and OEM manufacturing in Australia and Asia for the automotive sector, he brought to Tricomposite expertise in advanced manufacturing processes for mass production. The plant currently has one robotic cell with two water-jet cutters and he looks forward to production volumes increasing to a point that justifies further investment in technology.

"You also can't engulf people in high technology straight away. You have to learn to crawl, walk and then run. Introducing change is a progressive process. Today it's about asking, what can we do better.



“It has been the massive improvements in the gelcoat and LRTM areas that have brought us up to 1700 parts per month from 983 three years ago.”

Joining the High Performance Consortium (HPC), Mr Cristiano introduced training in Lean Manufacturing principles for his 50 employees, setting out to eliminate waste across the production-line.

“If someone has to walk more than five steps to get the equipment or materials they need to do a job, it’s a waste. So we have introduced trolleys to each work station with a person responsible for keeping them stocked. It’s better managing the temperature of the vacuum moulds to reduce curing times. Simple things can bring about rapid improvements in productivity,” says Mr Cristiano.

“We weigh all materials and measure, measure, measure down to the electronic counter recording the number of strokes to apply the resin for each part. There is full traceability on every part that leaves the plant and if there’s a fault identified we can find the cause, develop or revise the SOP and that leads to training.

“When we started with HPC the “action board” was full of areas the staff (and I) identified for improvement and now it’s almost empty.”

And if it is a change he can personally make, such

as the electric winches and block and tackle that now hold the weight of each spray gun unit, Mr Cristiano is quick to source and personally install.

“Our people are our best asset and you have got to look after them. These injection hoses are heavy. Imagine pulling them about all day. These (the electric pulleys) reduce fatigue and they can be more productive.

“HPC has been a good partnership for training the guys on all aspects of Lean. I needed the staff to come with me on this journey. Now we have a clean, efficient and safe workplace and a process for continuous improvement and we have more quality control and more ownership from the Team Leaders and team members.

Interestingly some of the rapid improvements have come from suggestions from fellow members of the Consortium – business owners and senior managers from unrelated business – who visited the Tricomposite plant to share ideas, knowledge and experiences.

“They see things we don’t see,” says Mr Cristiano.

“From my perspective, Australian manufacturing has a strong future. We can mass produce, high quality, cost efficient products and back our products with excellent customer service. We just need to step up and do what we do well, better.”



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