

Manufacturing process turned on its head

Brisbane-based Bremco Metal Products was like most manufacturing operations: produce in bulk and stockpile for future orders.

Owner and managing director Brett Moody, who established the family business at Archerfield in 1995, assumed that was the most economical way – both cost effective and labour saving.

But, thanks to QMI Solutions, Moody and Bremco have discovered a new way. Implementing a new work system based on Lean Manufacturing principles has turned the manufacturing operation on its head – and improved profits by 5% almost immediately.

The company, which employs 17 staff, now applies the Kanban method – Japanese for just-in-time – making Bremco a lean, mean manufacturing machine.

The process involves a production system focused on the order at hand. There is no more mass production and stockpiling, just one order at a time.

The 180-degree shift enabled Bremco to win a major contract with Korean tyre company Hankook to supply its Sydney plant with 1200 tyre storage racks.

Just six weeks into the 16-week job, Bremco was well ahead of schedule.

"That would not have been the case a year ago, and we have QMI Solutions to thank for that," Moody said.

Bremco specialises in custom manufacturing and manufacturing materials-handling equipment, such as forklift attachments, pallet cage

and stillage systems, warehouse trolleys, pallet cages and drum-handling equipment.

"We are an Aussie family business operating since 1995 and Bremco's aim is to manufacture products in Australia and keep the money local," Moody said.

Ideal supplier compared

He turned to QMI Solutions in August 2012, seeking greater control of operations.

Bremco completed the Major Projects Supplier Program, which analyses a company's business, compares it to an ideal supplier profile and makes recommendations on how the company might better position itself to meet the needs of project owners or major contractors.

"The new system eliminates waste and keeps customers happy."

- Bremco Metal Products owner and managing director Brett Moody.

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Bremco wanted more help so it then engaged QMI Solutions for a second project six months later. A QMI Solutions consultant said initially a manufacturing strategy was developed for Bremco using benchmark results as input.

The outcome was recognition of the need to compete on reliability and responsiveness while remaining cost competitive.

Moody implemented more Lean Manufacturing processes, aimed at improving productivity and reducing waste.



QMI introduced him to Value Stream Mapping, which identifies specific methods for reducing waste, including energy and resources, to ensure long-term business sustainability.

A new sales, planning and operational structure was developed that clarified roles. Key to that was establishing a set of business rules and getting buy-in from all staff.

Training was done on the basics of pull systems and eliminating the seven lean wastes: over-production, waiting, transportation, inventory, motion, over-processing and defective units.

The factory was reorganised to accommodate the Kanban managed flow system.

Eliminate waste

The QMI consultant said: *"The business rules have enabled manufacturing to focus on eliminating all forms of waste. Measures were established to provide the team with information on progress against the wastes."*

The new, leaner business model has resulted in a 46% reduction in non-value-add time wasted on jobs and an efficiency increase of 10%, which is trending up.

There has also been a reduction in the average lead time to less than 20 days. Lead times are now agreed with customers up front. *"It is most often much less than 20 days for one-off orders and large orders are delivered according to customer requirements,"* the consultant said.

Moody said because the Kanban method was so foreign to traditional manufacturing in Australia, staff were slow on the uptake and he admitted "butting heads" with QMI Solutions.

"I just could not get my head around the concept. I was used to producing large batches and stock-piling them. Our previous business model was always about keeping a maxed-out amount in inventory," he said.



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"But, when QMI Solutions looked at our operations, they suggested only producing what you have orders for... it puts pressure on the workforce to pull each job through."

Moody said it eliminated waste and kept customers happy.

Lead times reduced

In the past, there had been occasions when Bremco received an order for a certain number of items, but made a larger batch to stockpile extras and that caused the order to be late. Customers were unhappy; some delayed payments or cancelled orders altogether.

"We promised to deliver in 20 days, and talked it up, but this was often not the case. Now we have a lead time of 20 days and sometimes less. We are pulling jobs through a lot quicker,"

Moody said.

He said the new manufacturing process had cut debtor days – the average number of days it takes a company to receive payment from customers – in half.

The goal was not to wait until the end of production before invoicing, but to send parcels of the order through to the customer as the customer required.

Feedback was that customers were delighted to receive orders within days rather than weeks. It also enabled Bremco to find smaller premises to stockpile products as it no longer had

such a big inventory, which was another cost-saving outcome.

"The only thing you have to watch for is that budgeted hours for each job do not blow out. QMI Solutions has put that back in my lap and it is part of the auditing process."

"My staff have bought into the systems and it seems to be working. The accountant advised that our gross profit margin had grown 5% over the period since engaging in the lean manufacturing process."

Moody must compete with the Chinese market, which traditionally produces goods in bulk. *"The Chinese would be loathe to do what we have done. They would never get their heads around it. I am proud of what we have been able to achieve with the help of QMI Solutions."*

Moody had attended QMI Solutions seminars several years ago and was aware of the processes and successful outcomes before taking them on board fully in 2012. He said Bremco aimed to engage QMI Solutions for another six-month block of assistance in 2014.



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