



*A lean approach to manufacturing has led Reliance Worldwide to Iscar's tool management system.*

By using Iscar's tool management system Reliance eliminates non-value adding activities in the factory. Photos: Iscar

# Reliance on Iscar

Staying ahead of the game in the way management thinks about production and technology used has given Brisbane based waterflow and metering equipment manufacturer Reliance Worldwide a jumping off point to the rest of the world. Keeping a close eye on technology and processes has seen an ultra lean manufacturing environment installed at Reliance, which has enabled its products to penetrate the UK, Europe, the United States and Hong Kong. It also helps when you have a market-leading product like Reliance's temperature control flow valves, which are acknowledged as a premium product and an industry benchmark.

From day one in the 1940s, Reliance has sought to continually improve the way its products are produced, not just giving lip service to lean manufacturing but putting the philosophy at the centre of everything the company does. Its approach meant that Reliance quickly outgrew its own backyard, forcing the company into international markets.

**BY JEREMY MINNIS**

"The way we operate has to be at absolute global standard. Towards that we've adopted quality assurance processes and a responsive approach to adopting new equipment and manufacturing processes," Production Manager at Reliance John Russell says. "After our latest visit to the National Manufacturing Week, two high-end machines on offer on the exhibition floor ended up in our factory; a Miyano lathe and a Haas 5-axis machining centre. It's no use identifying a competitive advantage if you're slow to implement it," he says.

The same approach extends to all of the activity on Reliance's factory floor with the company recently deciding to adopt Iscar's commodity and tool management services (CTMS) tool inventory management and tracking system. The CTMS system offers a better way of doing things, dispensing tools through a vending machine and keeping


track of where the tool has gone, what it has been used for and its condition, which both optimises inventory held and production performance.

"In plain terms, the Iscar CTMS takes the hassle out of everything. By using the system we're both optimising our purchasing and eliminating non-value adding activities in the factory, not the least of which is searching through racks of tools to find the right one for the job. Inventory reports are sent to Iscar and the machine is restocked every week. That means we're never short of a particular tool or carrying too many. We're constantly trying to do things leaner and better and the Iscar CTMS system is certainly one way of achieving that," Mr Russell says.

Iscar also consults on Reliance's mould making activities, smoothing the manufacturing process with the optimisation of production equipment through correct tool selection. "Iscar has a very similar approach to ours; Iscar always seems to be on the move,



**Automated tool management systems allows for flexible storage solutions.**

coming up with new products and better ways of manufacturing, which is a good fit with our way of doing business.” 

**Iscar Australia Pty Ltd**  
[www.iscar.com.au](http://www.iscar.com.au)

**Reliance Worldwide**  
[www.relianceworldwide.com.au](http://www.relianceworldwide.com.au)

## A totally new approach in automated tool management

The tool management system Matrix can store hundreds of different stock items in one compact cabinet. Flexibility is the key to any storage solution. Matrix offers a variety of drawer and bin configurations that can be swapped-in-out. Add-on cabinets are connected with a click of cable. Multiple cabinets can be deployed in different locations and networked to run off one common database. A truly modular system that grows with you as your needs change.

Access to Matrix is electronically controlled by the management software according to pre-defined authorisations.

### Matrix technology

- Dual locking
- Large touch screen

- Plug & play “smart” electronics
- Ergonomic design
- Remote diagnostics

### Matrix intelligence

- Sloped back ergonomic design for easy viewing of stored items
- Double security - each drawer and bin is locked to prevent unauthorized use
- Computer and electronic components are accessible from the front
- Easy to transport
- Manual override - so your production never stops even in cases of power failure.
- Bar code reader for quick and reliable issuing

# High-speed servo toolholder


The PushCorp model STC1615 high-speed servo toolholder has a powerful 11.2kW and 16,000 rpm servo motor with integral tool clamping to perform robotic grinding, drilling, and machining operations with ease. According to supplier Romheld Australia, the STC1615 is designed to use standard BT30 toolholders thus making a very wide variety of machine tools available for use. The keyed shaft also prevents the toolholder from slipping and thereby allowing full torque to be applied.

The STC1615 is designed to be mounted on the PushCorp AFD1100/80 series compliant force devices. The STC1615 may also be rigidly mounted directly to a high-capacity robot with no compliant device, to provide a low cost 6-axis machining centre with a large work volume.

PushCorp, is the world leader in force control technology, offering both passive and active force control compliance devices. The active force instruments maintain the applied force of the material removal tool. Should any variation in the force be sensed by the system, it will adjust accordingly. This device is capable of compensating for acceleration and gravity for a given force applied to the surface of the piece

being worked. According to Romheld, this facilitates the use of higher tool speeds, particularly when the surface has an irregular shape or profile.

The PushCorp range of products includes compliance units and controllers, high-speed servo tool changers, servo weld shavers and glass grinders, plus active compliance wet sanders to enable complete robot end-of-arm system solutions. In addition there are system support products such as servo back stands with pneumatic belt tensioning and storage units for managing up to 30 sanding discs for continuous operation.

Romheld Australia distributes PushCorp ([www.pushcorp.com](http://www.pushcorp.com)) products, along with a complete range of robot grippers and end-of-arm tooling, throughout Australia and New Zealand. 

**Romheld Australia**  
[www.romheld.com.au](http://www.romheld.com.au)

**PushCorp, Inc.**  
[www.pushcorp.com](http://www.pushcorp.com)



**PushCorp servo toolholder supports BT-30 tools for robotic machining.**  
**Photo: Romheld**