

## RIDING THE TIDE OF CHANGE WITH AUTOMATION

What does it take to run a 40-year-old manufacturing business? Mech Marine shares how automation has boosted its productivity by 80 percent. Article by **Yamazaki Mazak**.

ounded in 1978 by Anthony
Koh, in Singapore, Mech Marine
Industrial Engineering and Pte
Ltd has served the marine and offshore
industry for 40 years, specialising in
marine pipes and fittings and a range
of comprehensive engineering services.

Starting the business as a homebased office, Anthony Koh purchased a small factory in Minangkabau Kampung Arang within a short span of six months. Business expanded further and in 1999, the company moved to Jurong's industrial district where they are currently located. Riding the tides of change, Kevin Koh joined the family business in 2002 to build a sustainable multi-generation business.

Today, Mech Marine is the leading stockist for Copper Nickel pipes and fittings in Asia as well as one-stop solution provider of marine engineering services, with a strong presence beyond Singapore borders, in Thailand, China, Australia, Hongkong and the Middle East.

## **Changing Landscape**

Over 17 years in the business, the company has witnessed the evolution of the marine offshore and oil & gas industries, driven by rising costs in Singapore's changing economic landscape. Anthony Koh believes that one should never be stagnant, else will be stampede over.

Mech Marine carries many different parts, and requirements from customers varies. Urgent requests for small quantities of various different parts and long casting times, add up to the cost to fabricate from a solid material. What customers needed were cost effectiveness and efficiency.

With the increase in orders and demands, the company decided to kick-start its technology journey and eliminate the manual process, by taking simple steps to automate current processes and improve productivity. Taking on the challenge of manufacturing high mix low volume parts, they looked into various

processes and available technologies to help them on their journey.

## **Automating Processes**

Mech Marine turned to Yamazaki Mazak Singapore, the leading manufacturer of advanced technology solutions. Leveraging on the Productivity Solutions Grant (PSG) which supports companies whom are keen on adopting IT solutions to enhance business processes, they invested in a new machine—the MAZAK INTEGREX j-200, to fabricate their copper nickel products.

A good fit for its requirements, the machine is fully automated and incorporates three machines capabilities into one. The company has since seen an 80 percent increase in productivity with the new automated system, compared to its previous manual system.

The INTEGREX j-Series multitasking machines is designed to provide maximum value, processing flexibility while offering a cost-effective alternative for those seeking accurate turning, and angular milling capability.

It covers all by one machine and provides technological innovation, higher quality and productivity which contributes to more effective overall management.

In addition to automatic tool changing, a large machining area, and convenient operation—the j-series fills the demand for a robust, multitasking machine to deliver on a wide variety of production requirements, especially for users:

- Who are interested in multi-tasking machines—but feel that they are too complicated to operate and are expensive.
- Need for multi-tasking machines with a long Y-axis stroke.
- Need for high performance machines in order to quickly produce high value-added components.

