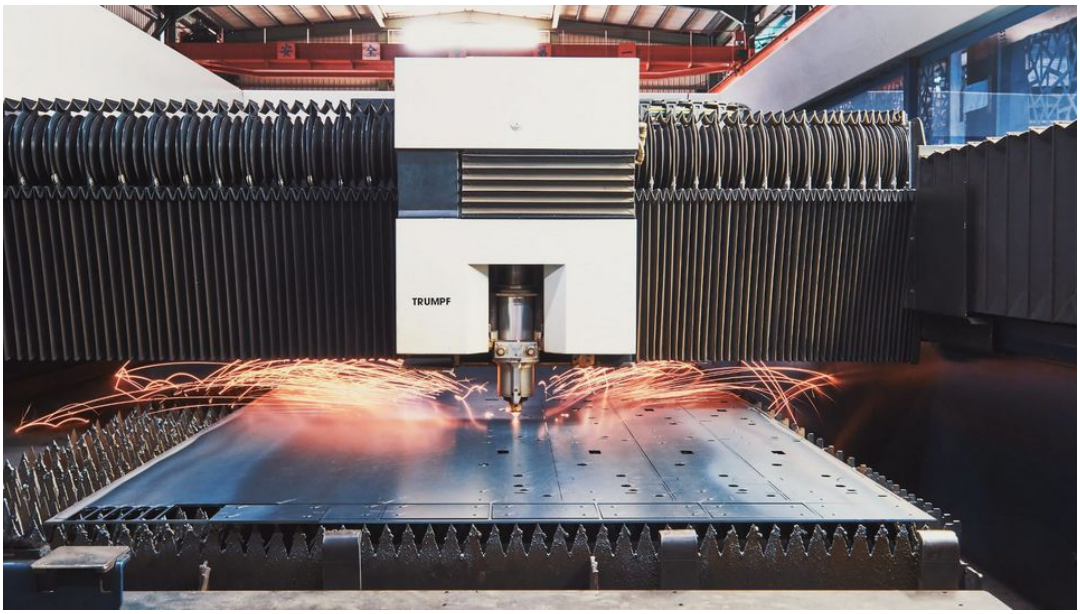


MIRA BURGBACHER

Automation in Taiwan

A clever automation solution has allowed Taiwanese laser specialist company CHUN-LIN to take the first step towards a Smart Factory.

The Taiwanese economy has also taken off in the past few decades. Within just one generation, the country known as one of the "Four Asian Tigers" and previously dominated by agriculture, has transformed into a technology-based national economy that creates value. In 2017, Taiwan was ranked 22nd most powerful economy, with a gross domestic product of 579 billion USD. The metal processing industry, of which CHUN-LIN is a part, had a large share in this as well. It was founded in 1998 with five employees, and in the past few years the Taichung City-based job shop has developed to become a specialist in the development and manufacture of complex assemblies for the electronics, machine and plant engineering, and food industries.



CHUN-LIN was founded in 1998 with five employees. Since then the Taichung City-based job shop has developed to become a specialist in the development and manufacture of complex assemblies for the electronics, machine and plant engineering, and food industries.
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With automation to success

When Liang Sheng Chih, the General Manager at CHUN-LIN Laser Co. Ltd, gazes over his production site, he knows that he has made the right decision. A TruLaser 3030 fiber with connected TruStore 3030 compact store is part of production. He explains: "Automation is key to our future success because it makes us more resilient against external influences which can slow our productivity. To optimize our processes further we must establish Smart Factory solutions in our company in steps.



As an introduction to automated production, CHUN-LIN decided on a TruLaser 3030 fiber with connection to a TruLaser 3030 universal storage system. The connected universal storage system has two storage towers with 31 pallets for large sheets with maximum dimensions of 3,000 x 1,500 millimeters.
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Challenge: shortage of skilled specialists

Since the Taiwanese government introduced the 40-hour week at the start of 2016, production at CHUN-LIN, which runs on a 3-shift operation, faced new challenges. With an unemployment rate of 3.63 percent as of January 2018, the country is experiencing a shortage of skilled specialists.

Since we installed the storage system, we have been able to increase our productivity by 100 percent.

Liang Sheng Chih, General Manager of CHUN-LIN Laser Co. Ltd

Introducing automated production was therefore not only a logical step for the company, but an incredibly necessary one as well. Liang Sheng Chih: "Qualified workers are expensive and difficult to find. In the future, we must deploy staff more purposefully, and ensure that specific productions steps can be managed by employees with less training, in order to remain competitive and able to react."



Liang Sheng Chih: "We will soon invest in a second store, as well as an automated bending cell. The TruStore solution has shown us that automation not only makes us more flexible, but also more profitable. Our turnover compared to the previous year has increased by 20 percent."
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An increase in productivity of 100 percent

As an introduction to automated production, CHUN-LIN decided on a TruLaser 3030 fiber with connection to a TruLaser 3030 universal storage system. The flexible TruLaser 3030 fiber makes it possible to cut thin sheets especially quickly, and with the utmost edge quality. The connected TRUMPF TruStore 3030 universal storage system at CHUN-LIN has two storage towers with 31 pallets for large sheets. An independent pallet picker crane communicates with the machine control by means of integrated storage software. This allows operators to enter travel commands and material requests. Both can also be saved during programming to allow for unattended operation."Since we installed the storage system, we have been able to increase our productivity by 100 percent," says Liang Sheng Chih, happily. "Additionally, the system is easy to operate without specialized training, and offers the flexibility which we'll need as we take our first steps towards a Smart Factory."

An increase in turnover of 20 percent

In addition to the TruLaser 3030 fiber with TruStore, CHUN-LIN also has three TRUMPF standalone lasers, one laser from a different vendor, one TruLaser Tube 7000 fiber as well as one punching, and four bending machines by TRUMPF. The production control software TruTops Fab provides transparency during production. Liang Sheng Chih says: "This allows me to keep an eye on the status of manufacturing orders at all times, and optimally control the processes." The TruTops Monitor software module reduces idle times, and allows operators to react quickly to error messages, pauses, malfunctions, and idle states.

Liang Sheng Chih is convinced that additional measures must follow. "We will soon invest in a second store, as well as an automated bending cell. The TruStore solution has shown us that automation not only makes us more flexible, but also more profitable. Our turnover compared to the previous year has increased by 20 percent."



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