

GOSA increases production efficiency

As part of GOS Australia's plans to expand its joinery business into 4500m² of new storage facility, the company is making major efforts to increase its level of automation and improve throughput and batch changeover times.

To help achieve its goal it has recently invested in a second CNC Holzher edgebanding machine, also supplied by Weinig Australia, including a cartridge glue loading station and an automated barbaric work handling system, which stacks, un-stacks, returns and rotates the board so that it is orientated correctly for stacking or for reintroduction to the machine.

The new facility, which is just next door, will give them 'ahead of time' manufacturing capability, empowering them to provide their clients with guaranteed on time delivery.

GOS Australia (GOSA), formerly known as Graphic Office Systems, was started 25 years ago by Collin Ellul. Today, it is a highly productive modern facility occupying 3500m² of shopfloor space at Heidelberg Heights, Melbourne. It manufactures a wide range of commercial joinery for major apartment fit-outs, hospitals, hotels, universities and laboratories.

The machine shop comprises numerous high speed CNC sawing tables, flatbed routing machines, enclosed spraying equipment and, of course, the two Holzher edgebanders, which sequentially square up the edges of each panel before applying glue.

To help GOSA manage the complex logistics of running such a diverse company, they have developed a very sophisticated in-house data base, which allows them to reliably track any job going through the system. There are no shortcuts, in keeping with the company's general philosophy and GOSA treats all projects the same regardless of size. Furthermore, everything is traceable down to who listed the job, cut it, made it, delivered it and installed it, right the way down the line.

Having gained a better understanding of why GOSA would benefit from increasing its level of automation I went on to ask Charles (Charlie) Caruana what had attracted him to purchase Holzher edgebanders in the first place.

"We were well aware of Holzher's range of edgebanders. We knew their capability as they have had a presence in the market for some time now. In fact, our very first edge bander was a Holzher," said Charlie.

"Craig Stevens, Holzher's technical sales representative, came to see me and showed me Holzher's cartridge system, which can easily utilise PUR and coloured glues, and that got us thinking about

how it could complement our edgebanding line.

"We went to see the machine in action at the AWISA show in Sydney a couple of months later and, based on the demo and the chat we had with the representatives at Holzher Australia, we purchased the Arcus 1336 on the spot."

Holzher Australia, which is based in Sydney, NSW, is 100% part of the Weinig group and not simply an Australian agent, allowing it to offer all the advantages of its international German parent company. The company has premises and technical staff in both Melbourne and Sydney, which handle all business in Australia directly.

This was GOSA's first machine with a cartridge system, which has many advantages over the more traditional glue pot system, including less mess, shorter heat up times, PUR glues and a range of colours. PUR glues are water-proof, heat

proof and solvent proof and have a much stronger bond. They are also insensitive to weathering, have a near invisible glue line, do not require primers for laminates or solid timber and can also be used with aluminium edging.

Charlie said they had bought it with a view to buying a second one if everything worked out as expected. They were planning a new line for the newly acquired facility with an automated work handling system. In fact, everything worked out so well that within four months GOSA had the second machine, an Arcus 1334, up and running in the new facility. The machine works in conjunction with the automated barbaric sorting loader, which enables it to be operated effectively with just one person. The first edgebander remains in the main workshop and is kept in constant use.



"We needed something that was easy to set up, easy to change and adjust and also took advantage of the cartridge system", continued Charlie. "Because of the reduced labour required and the ease of set-up, it will give us a quick return on our investment."

"Reliability was also a key factor. Although we only had the first machine for a few months before buying the second, we had already seen the potential of the machine and that they were well designed and easy to maintain."

"Holzher has successfully introduced CNC server motor control systems, typically only seen on larger machines, which is fantastic. Everything is nicely organised with ample space between each of the stations."

"Switching between PUR and standard glue is straightforward; you simply

put a purging cartridge in front of the glue cartridge you wish to change over to. This flushes the system through ready for the new glue cartridge – there is no mess."

"Another huge advantage of Holzher's cartridge glue system is the reduced start up time required. You can come in on a cold morning, start the machine up, and within a few minutes you are ready to go. With machines reliant on a glue pot, you have got to wait a good 20 minutes for the glue pot to heat up before you can effectively use the machine. Coloured glues can also be easily utilised, by simply changing over slugs."

Charlie believes having true CNC control is also a great advantage over more traditional analogue systems with pneumatic actuators. It makes setup and line adjustment straightforward.

"With the machine as it is we can do minor adjustments on the fly. We do not have to stop the machine, wait for the pneumatic locks to disengage, open the doors, adjust it, close it, re-start the machine and do this all again if it is no good," said Charlie. "At the end of the day the operator does a bit of maintenance, which includes cleaning the combs, a general blow-down of the machine and then anything that needs doing from the general maintenance

schedule such as greasing any actuator slides."

The installation was carried out smoothly and successfully. All the training was done in-house on actual jobs using the same materials used in larger batch runs.

At present, GOSA are edging between 22,000 and 30,000 metres a month using the two machines, but it really depends on what they are doing. If, for example, there are many different colours and glue changes, it might be less, but if they are doing runs on carcasses, which is where the metres soon add up, it works out to about 1200m per day. Because the glue cartridges are held in a four to five cartridge magazine, there's never any need to stop the machine.

"Operating the machine is simple and can be done by a general labourer, but you need a skilled operator to get things up and running if there is ever a problem," said Charlie. "Sometimes problems can be fixed with a simple call to Holzher, for example, if the drive software needs tweaking."

"We have been very pleased with Holzher's after sales service, which was a key factor in our decision to purchase these machines. Of course, this is very important, if these machines are not working, there is no work being sent out to the fitters."

"We limit the risk by having the second edgebander but, in our experience, any issues we have had have been dealt with immediately and effectively," concluded Charlie. ●



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Weinig Australia Pty Ltd
Phone +61 2 9609 5911
Email weinig@weinig.com.au