

GLA-WEL - GERMANY

DIGITAL TRANSFORMATION

German company GLA-WEL GmbH has taken significant strides towards creating an automated, digitalised workflow after integrating LVD bending technology and software into its production processes.

Leaner processes

Based in Melle, Lower Saxony, GLA-WEL is a medium-sized, family-run business that is focused on sheet metal cutting, forming and fabrication. What sets it apart from its peers is that it has its own software house, Octoflex, which has created an ERP system that is currently being used by about 100 customers.

GLA-WEL runs three LVD bending systems, a 220 ton *ToolCell* with automatic tool changer, and two *Easy-Form* press brakes, 135 and 320 tons. It is also making extensive use of LVD's CADMAN®-SDI file

importing and calculating software, CADMAN-B offline programming software and CADMAN-JOB workflow software.

Commercial Director Marcel Kemner says that, as a family business, GLA-WEL is run in a very person-to-person way, which means it can be very flexible and responsive.

"We do a lot of small series work to short timescales, so this is important. But the bigger we got, the less flexible we became. So the most important thing is to make our processes leaner so we can manufacture more quickly and efficiently.

"That is where digitalisation comes into play. Building on our Octoflex ERP system, we are creating a digital process flow so that we can automate a lot of our operations and administrative tasks." He says that the decision to work with LVD fundamentally came down to the ability of its software to support this.

"The LVD press brakes are superb, the technological market leaders, but what is unique is LVD's software."

Stephan Glahs and Simon Welkener are two of the Managing Directors of the business, who also head up Octoflex. Mr Glahs explains:

"We saw that the connectivity of the LVD software could significantly improve our manufacturing capabilities."

“We deal with a lot of customers in the sheet metal sector and have to integrate our ERP system with different manufacturers’ software. LVD’s CADMAN software is not just a bit better than the others, it is in a league of its own. We saw that the connectivity of the LVD software could significantly improve our manufacturing capabilities. For example, it would also allow us to connect to non-LVD laser cutting machines.”

Significant time savings

Stephan Glahs says that in terms of digitalisation and integration with ERP, in the past, the focus was always just on the laser cutting machines. Bending was an external process that relied on shop floor data input by the operator to link it back into the ERP system. That meant costs, times and so on, had to be estimated at the planning stage rather than based on hard data. This reliance on a manual skilled process

was a big challenge for GLA-WEL.

Simon Welkener says: “Now, with CADMAN-SDI, when you put a job into the ERP system, the files are automatically transferred to SDI in the background and you immediately get back the production time and the development for the laser-cut blank. So two steps that would previously have been done more or less manually are now carried out completely automatically.”

Marcel Kemner adds: “You can’t simply measure the throughput time based on how long the part spends in the bending department. It starts when the customer places the order and ends when you deliver it. The bending itself is only a very small part of that. The cost comes as much from the preparation time as from the bending itself.”

“Before we had the LVD press brakes, the customer placed an order, the sales administrator

Profile

Company GLA-WEL GMBH

Since 1996

Industry:

Sheet metalworking subcontractor to a wide range of industries: wastewater technology, automotive, sports equipment, machines and special systems

Works with:

Mild steel, stainless steel, aluminium

Equipped with:

Easy-Form 135/30

Easy-Form 320/45

ToolCell 220 Plus/40

Software: CADMAN-SDI, CADMAN-B, CADMAN-JOB

Website www.gla-wel.de



“Easy-Form® Laser not only ensures accuracy, but it also gives further time savings.”

created an order in the system, then production planning set out the production stages. Next, the order went into design engineering where they calculated the laser blank geometry. Then it went back to production planning to release it to the shop floor.

“Now, when we get an order from a customer, if they can supply STEP files we can go straight into production. In the past we needed two days just for administration before we could start making an item. We can now eliminate these two days. We only need to put the order in the system, check that the drawings are OK, and we can send it straight into manufacturing. We have saved 50% of our administration

time.” The next significant time savings come from automated offline programming in CADMAN-B.

“We used to program at the machine, so you can image how that has improved our production times and capacity,” says Stephan Glahs. “Now you simply import the STEP file and it is done. The amount of time you save across all these areas is enormous.”

CADMAN-JOB comes into play when the order goes into production. “Because you define the flow of jobs that have to be completed on a machine in CADMAN-JOB you can re-arrange them to suit current requirements and machine availability and minimise non-productive time,” says Stephan Glahs.

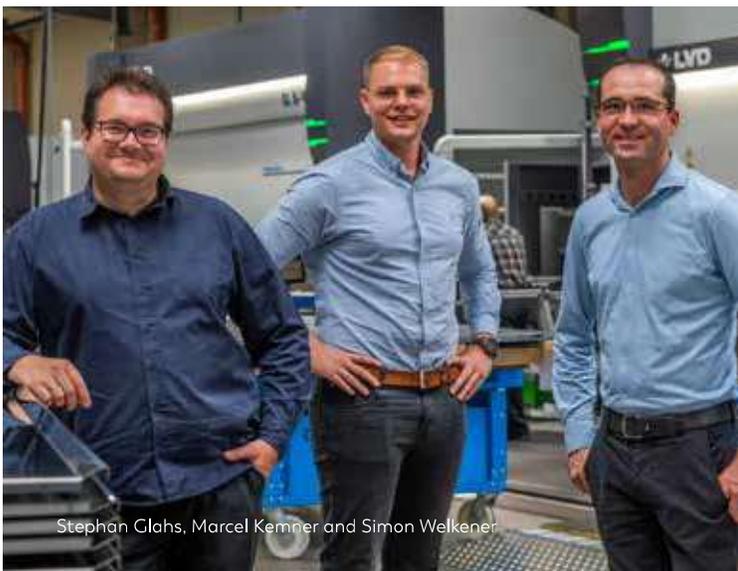
Coming back to the press brakes themselves, the original intention had just been to buy the ToolCell, which was ideal for automating fast turnaround, small batch work, but, says Marcel Kemner, “In the end we bought three machines

because the *Easy-Form® Laser* angle measurement system was clearly much better than the nearest competition.” This not only ensures accuracy, but it also gives further time savings. “In the past we would bend the part, take it out, measure it, bend it again, sometimes three or four times. With the *Easy-Form* you bend it, take it out, and it is finished.”

Overall, GLA-WEL says that on the first of the LVD press brakes to be installed there has been an 18.52% increase in productivity compared to a competitor’s two-year-old machine.

Octoflex customer portal

The next step is to take digitalisation even further, says Stephan Glahs. “We have a customer portal where the customer can upload their drawings, can get a quote and order complete laser-cut and formed parts. That comes through automatically into our production. Now, we have also started to offer the Octoflex package to other sheet metalworking companies so they can



Stephan Glahs, Marcel Kemner and Simon Welkener





use the ERP system and portal for their customers. When you combine an ERP system that is specialised in sheet metal with the LVD software suite, then you have something that is quite unique.”

Project in the picture

The LakeLab in Lake Stechlin of Brandenburg, Germany, is a large experimental setup of the Leibniz Institute of Freshwater Ecology and Inland Fisheries (IGB). The metal construction of the 24 lake-water basins was designed and manufactured in close cooperation with GLA-WEL. The floating enclosures of nine metres diameter were made entirely of lakewater-resistant aluminium.

