HLT – BELGIUM

SWEET RETURNS

Automation and Industry 4.0 are the future for many industries, something that Belgium-based Hayen Laser Technology knows only too well. Manager Maurice Hayen is ahead of the curve, "Having the full CADMAN® suite has helped us to increase returns considerably".

Maurice Hayen

Automated production

HTL primarily operates in laser and waterjet cutting, bending, welding and finishing. The extensive range of machinery includes three *Easy-Form* press brakes, an *Electra* fiber laser with *Flexible Automation* (FA-L), a water-jet cutting machine, a robotised welder, and a spray booth. The *CADMAN* suite has increased returns by:

- creating accurate cost estimates quickly
- increasing efficiency and saving material by bundling jobs
- detecting errors and reproducing parts rapidly
- carrying out recalculations based on actual production times

"We installed the *CADMAN* suite in March last year," explains Maurice. "Automation of the work preparation process as well as nesting in 2D and creating bending programs for 3D pieces has significantly reduced stress on the shop floor, and flow and throughput times have really improved."

"Our ERP system communicates with *CADMAN-SDI*, which imports drawing formats and feeds the data back into the ERP system to help calculate costs. ERP then automatically gives us an accurate quotation, based on the actual cutting times of the machine."

Preliminary calculation and recalculation

The times forwarded by the machine for quotations are estimates based on past jobs. "The software also records the actual production times, so the setup time as well as the production time, taking into account any downtime. I can then use this information to carry out recalculations," says Maurice.

"The longer you work with the system, the smarter it becomes," explains Patrick Peel, LVD's sales representative. "Having the estimated production times on the control allows the operators to determine for themselves what other work they might be able to do in between the various jobs."

Bundling jobs

CADMAN-JOB has made organising production much easier than before. Maurice explains: "In the past, production used to be order-driven, but production is now driven by the materials and sheet thickness. We now work more efficiently and we have fewer remnants. Pieces for which we don't need a full sheet are saved until last."

"The program is generated and automatically set in the job list for the operator."

"With *CADMAN-JOB* you can run through the status of every order", says Patrick. "The delivery date for the piece in both its 2D form and 3D form is, of course, top priority. The production operator can filter data in various ways in order to bundle jobs."

Sorting and validating

After cutting, the pieces are moved to the machine table or unloading pallet for sorting. LVD has provided a sorting function for this operation, which is controlled from a tablet, the *Touch-i4*. The tablet provides information on the various pro-duction orders in the nesting, i.e., the number of pieces, the position in the nesting, and the following operation.

"As the sorting operator is the first to 'touch' the pieces, he is required to validate them too, and to indicate how many are available," explains Maurice. "Suppose that there are 10 pieces of a certain model, and that one of those pieces is somehow faulty. The operator can control this

Touch-i4
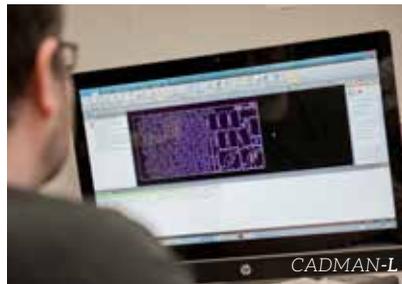
CADMAN-L

piece from the tablet. It's then taken back into *CADMAN-JOB* in real time to be remade."

"The same tablet can also be used to assign the pieces to a location or carrier during the sorting process. This allows us to integrate external operations in our software, such as tapping, brushing and spraying", explains Patrick.

Foreign machines

The *CADMAN* software does not only generate programs for LVD machines, but also machines made by other manufacturers. The 'foreign machines' for which *CADMAN* can prepare cutting operations can be integrated in *CADMAN-JOB*.

The forwarding of the programs to the machines brings significant advantages. Once the nestings on the 'foreign' water-jet cutting machine have been cut, these sorting jobs are readied on the *Touch-i4*. "That's right," says Patrick, "the difference is that the LVD machines feed back their status and

all production information directly to the database via the machine control. But when you're working with 'foreign machines' or older LVD machines without control, the operator has to send the stop signal."

Automating digital processes

Software is, therefore, becoming increasingly important, but what comes next? Maurice: "Connect everything to our stock. When we receive an order, I'd like to use the LVD software to see an overview of what is needed and what orders I need to place with my supplier. And then afterwards, I'd like to be able to see what material was actually used.

"We also want to improve the customer portal. Customers themselves will be responsible for the quality of the drawing, which will help to bring production costs down. Customers will be able to upload drawings through the portal, then they'll get a quotation by e-mail a few minutes later. It's a win for us and the customer, who would otherwise have to start working on his quotations after finishing a day's work", explains Maurice.

"After machine automation comes computerisation. Digital communi-cation first, then automation of the digital processes. This is the challenge for many companies," concludes Patrick.

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