FLEXIBLE ALL-ROUNDERS

The Austrian company Franz Wöss is a family business, founded in 1993 by Franz and Elisabeth Wöss. Successful in planning, carpentry and metal processing, Wöss is also a supplier for the gastronomy and food sectors, office and shop concepts. With two new LVD fiber laser cutting machines with Compact Tower automation, Wöss is positioned to thrive.

Eliminate boundaries

"We were no longer able to meet the demand for parts with our outdated laser cutting system in terms of speed and quality," observes engineer Dominic Wöss, successor to father Franz. Since 2010, Wöss has had the best experience in bending with an LVD press brake provided by Schachermayer, the official sales partner of LVD in Austria. Therefore, it was obvious for Wöss to rely on a laser cutting machine from the same manufacturer: "We are familiar with the software and control of LVD machines and are fond of the simple operation and clear visualisation."

Efficient and economical cutting

With the *Phoenix FL-3015* 4 kW fiber laser, Wöss chose a universal all-rounder. "The focus position and focus diameter are automatically regulated by the controller. These features, combined with the capacitive height sensing and collision protection for the cutting head, makes the *Phoenix* a very flexible fiber laser," emphasises Robert Langthaler, Product Manager for Sheet Metal Processing at Schachermayer. Dominic Wöss confirms this: "We mainly process sheet thicknesses of up to 5 mm. Should the machine occasionally work with 20 mm thick steel, it also masters this with flying colours."

Due to an extra demand for processing thin metal sheets for electrical generators, 1000 tons per year, Wöss purchased another fiber laser, a high-speed *Electra FL-3015* 8 kW

this time. "A very powerful machine that effortlessly processes both thin materials and stainless steel from 5 to 15 mm at maximum speed. With the two fiber lasers we process about 1600 tons of sheetmetal per year now, for our own products and contract manufacturing. As a result, the capacity has more than doubled."

several cutting jobs, in different sheet thicknesses, one after the other without any human intervention."

As the next step in its automation, Wöss added a 6-axis robot to the *Electra* laser in order to remove finished parts directly from the shuttle tables. The robot is used

> *"From 2 pm through the night until 6 am the machines run unassisted to process the large quantities of thin sheet."*

Automation maximises productivity

Various laser orders are processed daily from 6 am to 2 pm by equipment operators. From 2 pm through the night until 6 am the machines run unassisted to process the large quantities of thin sheet. The LVD *Compact Towers* load the laser cutting machines with material and remove and store finished parts. Dominic Wöss: "With the towers we maximise the productivity of the lasers. Equipped with an automatic nozzle changer, they can perform for large series. The tower handles skeletons. "This saves considerable effort for our personnel when sorting out parts from the unloading pallets," explains Dominic Wöss.

Smart production

Wöss also shows his enthusiasm for the functionality of the database-driven software package *CADMAN*® Suite. "The software is truly pure luxury. Starting with *CADMAN-JOB*, the laser cutting software *CADMAN-L* imports the flawlessly unfolded flat parts from the *CADMAN-B* bending software and then automatically nests them according to the corresponding work order." It is, of course, possible to make corrections directly on the touchscreen of the machine control system. For example, the operator can easily add cutting lines for skeletons, change the type and position of the lead-in or create micro-joints, if necessary.

Error-free production

"In just the production of electrical generator parts, we process up to three tons of material per day with the laser. In order to produce such high quantities of complex parts at such a high quality, two things are needed: Experience, which we've gained along the way, and ultra-fast and high-precision fiber laser cutting machines that run absolutely error-free. The LVD *Phoenix* and *Electra* are simply so!", concludes Dominic Wöss.

Engineer Norbert Novotny, x-technik