MESSER
Cutting Systems

SILKE FISCHER STAHLBEAR-BEITUNG

With major investments trhough the crisis

Digitisation in the metalworking industry

With innovative, tailored solutions, a highly efficient modern machinery as well as the skilled knowledge of experienced craftsmen, Silke Fischer Stahlbearbeitung has been implementing projects for their customers since 2010. The wide range of performance includes cut parts, welded parts, and all jobs in the metal processing field.

Strategically into the Crisis

Managing Director of Silke Fischer Stahlbearbeitung e.K. (Mudau, Germany) knows how a woman can lead a company through the crisis. In the last economic crisis, she had already led safely through turbulent waters thanks to her far-sightedness. Now she defies the Corona crisis with a major investment in Industry 4.0 with four new flame cutting machines and digital solutions from Messer Cutting Systems.

Five old machines had done their duty for many years and could not keep up with the success story of the company any longer. A new, modern, more powerful, and digital solution should change that. Works Manager and Procurator Christian Baranski took responsibility for the major project.

He took over the selection of the overall solution from the cutting machines through the digitalisation of the production, the environmental technology with tables and fume extraction plant, the gas supplies to the machines right up to the service contracts and the training of staff.

Industry 4.0 in pure form

“Digitalisation of the production was also a major target for us,” explained Fischer. “We have networked the machines and systems with the aid of the software. With the new software we have all relevant information from different sources always instantly available.”

In operation are OmniWin, OmniBevel as well as OmniFab. OmniWin is the ideal tool for production planning. OmniFab supplies the company with valuable information about the machines. Alongside data about the jobs currently being produced or the shift on duty, the loading of the machines as well as the number and types of errors which have occurred on the machines are visible. This means Works Manager Christian Baranski can recognize errors as early as possible and take appropriate action.

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SOLUTION ANS IMPLEMENTATION

Highest demands on quality and productivity

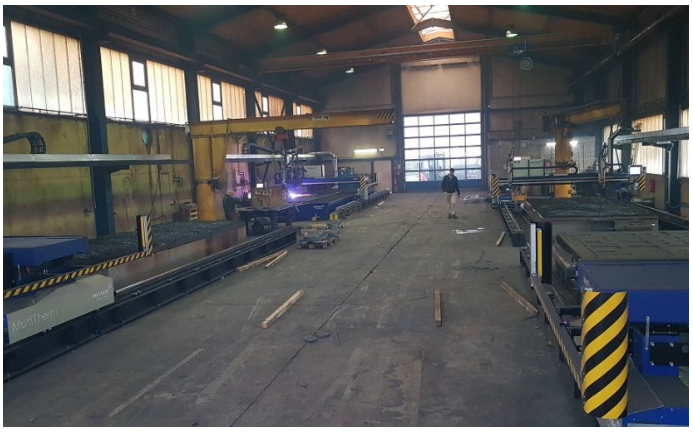
Baranski and his boss decided on four MultiTherm® 4000 machines with different equipment. Two are equipped with two ALFA torches each, and feature a working area of 3,000 x 6,000 mm and can process a material thickness of 8 - 200 mm. The third MultiTherm® 4000 with one ALFA torch manages an area of 2,000 x 15,000 mm and a material thickness range of 10 - 300 mm.

The fourth MultiTherm® 4000 is a combination machine with plasma and oxyfuel torches. Its equipment includes a power source XPR 300 Core, a marking system, ALFA oxyfuel torch and plasma bevel system Skew Rotator Delta. It cuts material thicknesses of 8 – 200 mm with flame cutting and 2 – 30 mm with plasma over an area of 3,000 x 10,000 mm. The last two machines run on a track with a length of18 meters.

Caption 1: Equipped for complex cutting tasks: Thus, for example, internal contours can be cut with oxyfuel and outer contours with plasma in combination.

RESULT

Equipped even for complex cutting tasks



Caption 2: Silke Fischer steel processing workshop with machinery from Messer Cutting Systems

“With the plasma bevel head Skew Rotator Delta and the ALFA oxyfuel torch we are also equipped for complex cutting tasks. So, for example, internal contours can be cut with oxyfuel and outer contours fast and cleanly with plasma. What is more, bevels for weld edge preparations are possible,” explained Baranski.

The plasma system is about 8.5 times faster than the old one. In the “cutting shop” a drastically higher throughput and significantly more economical production is now possible. The large working areas and flexible equipment options facilitate a wealth of applications, from the single production of thick plates up to mass production out of large sheets.

The workpiece can be processed in one single setting and does not need to be rejigged and programmed each time, which took much time. This saves costs and minimises the error quota.

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Caption 3: Production halls Silke Fischer Stahlbearbeitung

Man-poor production

The machine now takes over many tasks itself such as setting up for the material thickness or the gas pressures. Its high speed and the innovative programming save a lot of time. The machines are now also more accessible for the operators The latter can now work overall much more economically, concentrate on other duties, and take on more of them.

“And instead of 8 hours we now need only two for an order!” Baranski is pleased about.

What benefits the customers have from all this

“We can offer our customers more, as we now cut the most common materials up to 30 mm instead of only up to 12 mm. And instead of 8 hours we now need only two for an order!” rejoices Baranski.

The reliable process operation from the software is advantageous to the customers. In particular, the management of stock and off-cut plates is highly effective as it saves much time and offcuts no longer need to be measured manually.

“With our new, highly efficient machinery we guarantee the highest level of economy, flexibility and on-time delivery,” stresses Silke Fischer. “Our customers have already noticed the improvement and given us very positive feedback about the cut quality, accuracy and smooth cut edges.”

OUTLOOK

The project was a total success

“On reflection” thinks Baranski “the project was a total success for us. The Remote Service was very advantageous for us, especially in the introduction phase. Messer Service connected directly with the machine and solved the problems with error messages without delay. We no longer lose any time.” Everything went quickly and smoothly, also the interaction of the various Messer divisions.

Solution from a single source

“For us, it showed clearly that single source solutions with one contact partner for all parts of the project saves much time and aggravation,” was Baranski’s summing up. “Thus, the decision for Messer Cutting Systems was spot on for us.”

Digitalisation brings competitive advantages

Asked for the upshot, he replied: “The digitalisation of production is important and brings significant competitive advantages. You cannot stand still but must keep developing further.”

After the major investment, if should now, however, be a little quieter for a while at Silke Fischer Stahlbearbeitung. “We are still looking at purchasing a new materials handling technology with a new belt feeder table. This should take over the slag removal by itself. But: one thing after another.”

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