

Silke Fischer Stahlbearbeitung e.K.:

WITH MAJOR INVESTMENT THROUGH THE CRISIS

Digitalisation in the metalworking industry

Mudau, Germany, 10/13/2021. Silke Fischer, Managing Director of Silke Fischer Stahlbearbeitung e.K. (Silke Fischer Steel Processing) in Mudau, knows how a woman can lead a company through the crisis. In the last economic crisis, she had already led the then Fischer Metallbau GmbH 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.

Strategically into the Crisis

Silke Fischer is experienced in crises. She has two crises behind her already and knows what to do: "We can only be more competitive after the crisis with innovative technology. We must do something. With the modern technology, we can serve our customers quickly and efficiently. That is precisely what is now important."

The Corona Crisis did not pass over Silke Fischer Stahlbearbeitung e.K. and its twenty employees without leaving any trace. But for just that reason the company has decided to invest courageously in the future and, with Messer Cutting Systems as partner, to enter the world of digitalisation.

Innovative technology as the complete solution

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.

Everything happened extremely fast

In this, everything went very quickly: Christian Baranski was convinced of the Messer quality from the very start. "Other suppliers no longer came into question after my short but intensive market survey." Thus, he recalled the start of the project.

"Once I had got informed about the offering from Messer Cutting Systems, contact was quickly established. Our direct contact also had the perfect solution for us on hand at once so that only two months passed from first contact to order placement."

Highest demands for 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 of 18 metres.

The existing environmental solutions with flame cutting tables and fume extraction plant were taken over for three of the new machines. The plasma system received a new standard cutting table and a fume extraction system. Considering the previous pollution of ambient air, it was important to find fume extraction solutions which permitted pleasant working in the hall and were not harmful to health. In addition, the gas supply was renewed by Messer Cutting Systems and changed over to Messer Gasses.

Industry 4.0

"Digitalisation of the production was also a major target for us," explained Frau Fischer. "We have networked the machines and systems with the aid of the software. In that way, we ensure that we are taking the best decisions possible. With the new software we have all relevant information from different sources always instantly available."

Silke Fischer Stahlbearbeitung deploys OmniWin, OmniBevel as well as OmniFab Machine Insight. OmniWin is the ideal tool for production planning when cutting with oxyfuel, plasma and laser cnc machines. It takes over all cutting jobs which are due, coordinated for order based production.

OmniFab Machine Insight supplies the company with valuable information about the machines whilst production is running. 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 recognise errors as early as possible and take appropriate action. With the powerful Reporting-App in Machine Insight he can create meaningful reports on a configurable time basis such as shifts, weeks or months.

Over the weekends

The special challenge with the implementation of the wide ranging solution was to keep production running to the maximum during the changeover to meet customer demands and not interrupt production. "It was good that we are a dedicated team here. Almost like a large family," states Baranski and recalls the weekends on which he, with his colleagues, worked together to dismantle the old machines and prepare for the new ones to be built up.

"We learnt a lot with each machine and gained experience," he added. Thanks to training at Messer Cutting Systems and on site at Fischer everyone could start work at once on Monday morning on the new machines.

And what has it achieved now?

The MultiTherm® has proved itself in the shortest time at Silke Fischer Stahlbearbeitung as a versatile cutting system for oxyfuel and plasma cutting. The high powered drives for speeds of up to 50 m/min achieve a high positioning and cutting speed even with fine contours. On top of this, the gantry cutting machine with the plasma source XPR 300 Core offers tremendous cutting quality on alloyed and unalloyed steels as well as with Aluminium.

"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.

“The new solution brings us daily benefits,” is the opinion of Baranski. 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.

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.

Everything has become much clearer too. Through the opposed positioning of the machines one person can now monitor two machines. Procedures are now optimised and, in the meantime, so established that there are no longer any friction losses.

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.”

Looking backwards and forwards

“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.

“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.”

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, it 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.”



Caption 1:
Silke Fischer (Managing Director) and Christian Baranski (Factory Manager and Procurator)
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Caption 2: Equipped for complex cutting tasks: Thus, for example, internal contours can be cut with oxyfuel and outer contours with plasma in combination.

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PRESS RELEASE



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MESSER CUTTING SYSTEMS:

Messer Cutting Systems is a global supplier of cutting edge technology for the metalworking industry. With over 900 employees worldwide in over 50 countries, we maintain a constant dialogue with our customers to achieve sustainable user oriented innovation.

Our portfolio embraces the themes PRODUCT, DIGITAL, SERVICES, AUTOMATION and KNOW HOW. We will live up to our claim "creating solutions beyond machines" not just with the most modern cutting systems and solutions for oxyfuel technology. Appropriate services and training, our own software applications as well as the integration of solutions from our technology partners, e. g. in the field of automation, complete the machine to give forward looking total solutions.

Our Know how combined with our customer oriented attitude and actions make us the world-wide partner of choice for innovative total solutions on all aspects of cutting systems since more than 120 years

SILKE FISCHER STAHLBEARBEITUNG E.K.

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. Only checked and error free precision parts to DIN EN ISO 9001 leave the factory.

The wide range of performance includes cut parts, welded parts, and all jobs in the metal processing field. This includes heat treatment as well as surface treatment by disc friction grinding, complete processing in the milling shop or shot blasting.

The company has grown strong since 2012 under the leadership of Silke Fischer and employs over 20 staff. Quality, reliability, economy, flexibility, on-time delivery, motivation, and know-how are the pillars of success here.

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