

Continuous production from the coil – increasing production efficiency

There are not just numerous customers interested in tractors and agricultural technology from Fendt but also real fans. The traditional brand with its characteristic green color is now part of the American agricultural technology group AGCO Corporation. The external cladding for the cabs and hoods is produced at the plant in Asbach-Bäumenheim in Bavaria, Germany. Florian Hammel works in the Plant Planning department on site and explains: "We wanted to increase the output of the contour cutting process without having to increase the size of the production area." The idea was to cut directly from the sheet metal coil. Fendt is the first customer to have a TruLaser 8000 Coil Edition that reduces the work processes and increases the number of components produced, while also reducing the amount of scrap and the material costs.



AGCO GmbH / Fendt

www.fendt.com

Fendt is one of the best known high-tech brands for agricultural machines, such as tractors or harvesting machines. The company was founded in 1930 and since 1997 has been part of the American agricultural technology group AGCO Corporation, one of the largest manufacturers of agricultural machines and technology. In a competitive market, the company relies on highly productive production methods.

INDUSTRY	NUMBER OF EMPLOYEES	SITE
Agricultural technology	7,800	Parent plant: Marktoberdorf (Germany)

TRUMPF PRODUCTS	APPLICATIONS
■ TruLaser 8000 Coil Edition	■ Laser blanking ■ 2D laser cutting ■ Punch laser machine ■ 3D laser tube cutting ■ Bending machine ■ Laser welding

Challenges

Fendt previously worked with traditional laser cutting systems that were loaded with sheets. The only way the company could increase its output was to install more machines in a larger production area. "However, this type of expansion had been ruled out. We had to be able to increase productivity in the same production area," explains Hammel. We also had to take the number of journeys required to store

the sheet stacks into consideration. "Overall, we were hoping to reduce this. We were looking for a highly automated solution that relieved workers of monotonous tasks. Unfortunately in our region it is very difficult to find good workers."



"We wanted to increase our laser cutting output and have managed to achieve this."

FLORIAN HAMMEL (LEFT)

STRATEGIC PLANT PLANNING AND
TECHNOLOGY DEVELOPMENT AT FENDT



Solutions

The offer from TRUMPF to become the first customer to receive the TruLaser 8000 Coil Edition came at exactly the right time for Fendt. However, Hammel and his project team only agreed once they had accurately calculated the expected results. And the results were promising – "When it comes to the loading and discharge times we are saving around 600 working hours a year. Cutting from the coil means that the material hardly has to be changed, thus increasing the productive time of the system by around 14 percent in comparison to previous laser systems." However, the largest savings are made on the material. As the coil, in comparison to a sheet, does not come to an end after three or four meters, lots of components, even large ones, can be nested on the laser bed far more efficiently. "At the end of the day, we are saving around 20 percent of the material, but have increased our output." Fendt and Hammel are reaping the benefits. The hall for the TruLaser 8000 Coil Edition is being prepared.

Implementation

It's time to get started in 2023. The first truck loaded with coils drives directly to the plant. An overhead crane loads the TruLaser 8000 Coil Edition. The sheet metal unwinds and is pulled into the cutting chamber. Here the laser head zooms across the sheet metal implementing the contours. Following the cutting chamber, two discharging robots remove the components from the coil strip and carefully place them down. The small amounts of scrap are automatically transported to a container outside. The part production process continues. Florian Hammel is happy: "The nesting process ensures we use the sheet metal efficiently. And we have simply increased our output but complete less work."



Forecast

Hammel would like to highlight another point about the transition to continuous production: "The fact that we no longer have to store any sheet panels and do not have to transport them around the plant, means that we save around 2400 journeys with the forklift truck per year." All these savings soon add up. "The laser blanking system has paid for itself very quickly," adds Hammel smiling. "Of course, I won't be saying how quickly. But I worked that out as well, and it really is quick."

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