

Endless production from coil – efficiency boost for manufacturing

Tractors and agricultural machinery from Fendt not only have lots of customers, but also real fans. The traditional brand with the characteristic green colour is now part of the American agricultural machinery group AGCO Corporation. The outer body panels for cabs and canopies are produced at the plant in Asbach-Bäumenheim, Bavaria. Florian Hammel works here in plant planning and explains: "We wanted to increase the output of contour cutting without increasing the production area." The idea: cutting directly from the sheet metal coil. Fendt is the first customer for the TruLaser 8000 Coil Edition, streamlining work processes, increasing component output and reducing waste and material costs.

AGCO GmbH / Fendt

www.fendt.com



Fendt is one of the best-known high-tech brands for agricultural machinery such as tractors and harvesters. Founded in 1930, since 1997 the company has been part of the US agricultural machinery group AGCO Corporation, one of the largest manufacturers of agricultural machinery and technology. In a competitive environment, the company relies on highly productive manufacturing methods.

INDUSTRY

Agricultural technology

NUMBER OF EMPLOYEES

7,800

LOCATION

Main plant:
Marktoberdorf
(Germany)

TRUMPF PRODUCTS

- TruLaser 8000 Coil Edition

APPLICATIONS

- Laser Blanking
- 2D laser cutting
- Punch laser machine
- 3D laser tube cutting
- Bending machine
- Laser welding

Challenges

Previously, Fendt worked with classic laser cutting systems that were loaded with metal sheets. The company could only achieve higher output here with more machines in a larger production area. "But expansion was out of the question. So we had to become more productive in the same space," says Hammel. Added to this was the effort involved in the many trips to put the sheet metal packages into

storage. "We wanted to at least see a reduction here. Overall, we envisaged a highly automated solution that would relieve employees of monotonous tasks. Because it is difficult to find good staff in our region."



"We aimed for increased output from laser cutting, and we achieved it."

FLORIAN HAMMEL (LEFT)
STRATEGIC PLANT PLANNING AND TECHNOLOGY
DEVELOPMENT AT FENDT



Solutions

TRUMPF's offer to become the first customer for the TruLaser 8000 Coil Edition came just at the right time for Fendt. However, Hammel and his project team only accepted once they had precisely calculated the anticipated effects. And the results were promising: "We save around 600 working hours a year on loading and unloading times. And since there is hardly any material changeover when cutting from the coil, the productive time of the system is increased by around 14 per cent compared to the previous laser systems." However, the material savings represent an even greater proportion. Since the coil – unlike a sheet – does not end after three or four metres, many components, even large ones, can be nested much more efficiently on the laser bed. "In the end, we save around 20 per cent on material – with higher output!" Fendt and Hammel are making an impact. The hall is being prepared for the TruLaser 8000 Coil Edition.

Implementation

2023 is the year. The first truck with coils on the loading bed drives directly to the plant. An overhead crane loads the TruLaser 8000 Coil Edition. The sheet unwinds and is pulled into the cutting chamber. Here, the laser head speeds over the sheet metal and applies the contours. After the cutting chamber, two unloading robots remove the components from the conveyor belt and set them down carefully. The small amount of waste is automatically transported to the container outside. Parts production keeps on running. Florian Hammel is content: "The nesting allows us to utilise sheet metal so efficiently. And we simply have more output with less effort."



Forecast

Hammel would also like to mention another aspect of the changeover to endless production from the coil: "The fact that we no longer have to store sheet goods and drive them around the plant means that we save around 2,400 journeys with the forklift truck each year." All of these savings add up. "The laser blanking system very quickly pays for itself." Hammel grins. "Of course, I won't tell you how quickly. But I've worked that out too: it's really fast."

Date: 26/03/2024

