

Simple tube programming: the 3D Programming Tube software sets standards

The family company Eirenschmalz Maschinenbaumechanik & Metallbau GmbH was founded in 1990 and offers the entire sheet metal process chain at two sites in Augsburg and Schwabsoien. Around 35 tons of material are processed daily in Schwabsoien. The emphasis is on 3D laser cutting and welding as well as tube processing. When Markus Eirenschmalz invested in the first laser tube-cutting machine from TRUMPF in 2000, he was one of the first to establish the technology in his production process. Not surprising that the company has accumulated many years of experience and know-how. TRUMPF software developers made the most of this and asked Eirenschmalz to test the 3D Programming Tube software. Markus Eirenschmalz, Head of Product and Technology Development, agreed along with Stefan Janetzki, team leader at Eirenschmalz, and both were soon impressed by the software which not only makes programming easier and safer but also quite a bit quicker.



Eirenschmalz Maschinenbaumechanik & Metallbau GmbH

www.eirenschmalz.de

With its two sites in Schwabsoien and Augsburg in Bavaria, Eirenschmalz Maschinenbaumechanik & Metallbau GmbH, founded in 1990, offers the entire sheet metal process chain. Around 35 tons of material are processed daily in Schwabsoien. The emphasis is on 3D laser cutting and welding as well as tube processing. Eirenschmalz was one of the pioneers of laser tube processing and benefits today from years of experience and know-how in this technology. This is what impresses numerous industrial sectors about the company, sectors such as mechanical engineering, the food and pharmaceutical industry as well as furniture manufacturers. The company supplies these industries with single parts and complete welded assemblies.

INDUSTRY	NUMBER OF EMPLOYEES	LOCATION
Metal processing	Around 400	Schwabsoien (Germany)

TRUMPF PRODUCTS

- TruLaser Tube 7000
- TruLaser Tube 7000 fiber
- TruLaser 330
- LiftMaster
- TruMatic 7000
- Tool Master
- TRUMPF VectorMark
- TRUMPF angle sensor system
- TruLaser Cell 2040

APPLICATIONS

- Laser tube-cutting
- software

Challenges

Laser tube-cutting has been an important business area for Eirenschmalz from as early as 2000. Today, two TruLaser Tube 7000 laser tube-cutting machines from TRUMPF process round, square, rectangular and profile tubes with outer circles of 10 to 254 millimetres and wall thicknesses of up to 10 millimetres in 3-shift operation. Markus Eirenschmalz and Stefan Janetzki are extremely satisfied with the technological development of their systems, but they are also straight on board when it comes to helping TRUMPF software developers make programming easier, safer and quicker. "For our customers, the emphasis is on quality and quick delivery times. It will therefore have an impact if we can spend less time programming," explains Markus Eirenschmalz. The great potential of the Programming Tube software is already clear, even during the test period. "We are approximately 50 per cent faster across all our parts," says Janetzki enthusiastically.



"Automatic specification of the processing sequences, the improved loading and unloading strategies as well as the simplified programming of special profiles are the cornerstones of this software."

STEFAN JANETZKI

TEAM LEADER, EIRENSCHMALZ
MASCHINENBAUMECHANIK & METALLBAU GMBH



Solutions

By automating processes, the 3D Programming Tube software makes programming tube-cutting machines easier and safer in many respects. When programming a thread in the past, for example, programmers had to specify holes individually for each one by clicking with the mouse, and then they had to select the corresponding tool combination. Then the correct processing sequence had to be specified to prevent collisions. Using the thread parameters, the new Programming Tube software

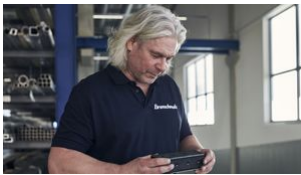
creates the NC program automatically, including all required tools and the processing sequence.

The interaction between Tube Design, Programming Tube and processing on the machine works perfectly now too. Programming Tube creates NC programs automatically based on the 3D CAD construction in Tube Design. Production at the machine then runs up to 99 per cent without manual interventions. If changes do have to be made to the design, Programming Tube does this automatically.

Programming Tube also sets new standards in terms of operator convenience: By editing directly, the programmer can move an object to the desired position and then ensure that processing is error-free with an automatic simulation. The program corrects faulty data as well as rounding radii. Positioning aids and bend connections can be inserted with just a few clicks. Janetzki: "Automatic specification of the processing sequences, the improved loading and unloading strategies as well as the simplified programming of special profiles are the cornerstones of this new software. We can use it to program almost all our components quickly and safely so that they exit the machine error-free."

Implementation

"During the test period, we were in close contact with the software developers from TRUMPF," says Stefan Janetzki and adds: "Our input from the daily work routine was important for TRUMPF and I think that we all benefited and learned a lot during the test run. It was fun to watch the software change over time and to see how it continued to improve."



Forecast

Markus Eirenschmalz wants to continue working with TRUMPF: "We are always in touch with TRUMPF concerning our machines and always have been throughout the course of new developments. We feel they take us seriously as a customer. That makes it a valuable collaboration."

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