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 integrate this technology into their processing. The company has accumulated many years 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 make programming easier and safer, but also quite a bit quicker.

Eirenschmalz Maschinenbaumechanik & Metallbau GmbH

www.eirenschmalz.de

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INDUSTRY	NUMBER OF EMPLOYEES	SITE
Metal processing	Approx. 400	Schwabsoien (Germany)

TRUMPF PRODUCTS

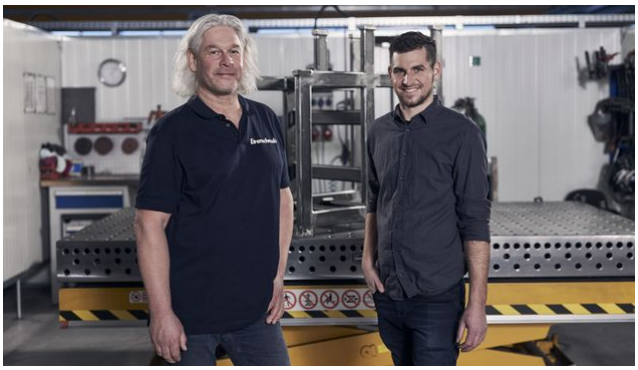
- TruLaser Tube 7000
- TruLaser Tube 7000 fiber
- TruLaser 330
- LiftMaster
- TruMatic 7000
- Tool Master
- TRUMPF VectorMark
- TRUMPF angle sensor system
- TruLaser Cell 2040

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 a 10 to 254 millimeter outer circle and wall thicknesses of up to 10 millimeters with 3-shift operation. Markus Eirenschmalz and Stefan Janetzki are extremely satisfied with the technological development of their systems, but are currently 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 percent faster across all our parts", says Janetzki enthusiastically.



"The automatic specification of 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 pasty, for example, programmers had to specify holes individually for each one by clicking with the mouse and then they had to select the suitable 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

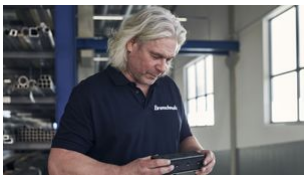
program automatically, including all required tools and the processing sequence.

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

The Programming Tube also sets new standards in terms of operator convenience: By editing directly, the programmer can move the object to the desired position and then ensure that processing is error-free with an automatic simulation. The program corrects incorrect data and rounding radii. Positioning aids and bend connections can be pasted with only a few clicks. Janetzki: "Automatic specification of 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 our components quickly and safely so that they exit the machine error-free."

Implementation

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



Looking ahead

Markus Eirenschmalz wants to continue working together with TRUMPF: "We have always been in contact with TRUMPF concerning our machines and 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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