



### **First of its kind: nibbler for fiber composite materials**

#### **Handheld TRUMPF power tool punches CFRP // Drastic reduction in emissions // Long service life of wear parts**

*Ditzingen, April 2017 – TRUMPF has developed a new nibbler that is the first of its kind worldwide, capable of separating various fiber composite materials: the TruTool FCN 250. This innovation will allow companies to leverage the benefits of nibbling in new fields of application.*

People have traditionally relied primarily on saws, milling cutters and angle grinders to separate fiber composite components as thick as 2.5 millimeters. Unfortunately, smooth cut edges and high-precision results are extremely difficult to achieve using these tools. In addition, saws, milling cutters and angle grinders emit a lot of smoke and hazardous dust. Operators who use the TRUMPF nibbler to separate fiber composite materials use in the most of the cases no personal protective equipment as there is only a small amount of dust.

The TruTool FCN 250 will go on the market in early summer 2018. It can separate thermosetting plastics and thermoplastic polymers as well as carbon-fiber reinforced plastics (CFRP), glass-fiber reinforced plastics (GFRP) and aramid-fiber reinforced plastics (AFRP). How did TRUMPF accomplish this feat of engineering? Stefan Anshelm, international sales manager for Power Tools, explains that the company modified the nibbler's cutting geometry and cutting tools to accommodate fiber composite materials. "We managed to adapt nibbling technology, traditionally used for metalworking, so that customers can use the TruTool FCN 250 for fiber composite materials." This nibbler is suitable for any sector that uses fiber composite materials to manufacture pioneering lightweight components. Examples include aerospace, automotive and prototype manufacturing as well as the production of equipment for sports or leisure activities.



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Nibbling is a type of cold working, as heat does not play a role. A nibbler comprises a punch, which executes punching strokes in rapid succession, and a die, which absorbs the force of punching. Thanks to the high-quality, coated cutting tools of the TruTool FCN 250, users can create edges of superior quality. They also avoid delamination (interlaminar separation) and frayed cut edges.

The easy-to-operate TruTool FCN 250 achieves a high working speed of 1.9 meters per minute. Because the tool provides users with a clear view of the work surface, they can make precise separating cuts along a scribed line as if they were using a template. In addition, the user can nibble in a straight line or a tight radius. And the tool carrier can be rotated 360°, simplifying tasks in hard-to-reach areas.

Yet another benefit of TRUMPF's TruTool FCN 250 lies in the long service life of its wear parts – thanks to a special coating. Just one die, for instance, will nibble some 300 meters of GFRP or CFRP two millimeters thick before it must be replaced; the manufacturer recommends replacing the punch after about 150 meters. Service life is considerably longer for thinner materials. Compared to other slitting processes, this nibbler's per-meter costs are lower by as much as 50 percent. Moreover, replacing the punch is simple and requires no additional equipment. Stefan Anshelm adds: "As with our thin-sheet nibblers, the user can replace the punch in our nibbler for fiber composite components in a matter of seconds."

And a wealth of experience indicates that people can cut sheets with nibblers for a long time while experiencing little or no fatigue. This is due in large part to the compact size and ergonomic operation of nibblers, which do not require users to actively push them forward through the workpiece. TRUMPF engineers have furthermore optimized the distribution in weight of the operating head and the motor, making for a truly ergonomic grip.

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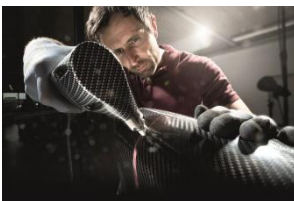
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[www.trumpf.com/presse/medienservice](http://www.trumpf.com/presse/medienservice)



In short, TRUMPF has developed a new nibbler that is the first of its kind worldwide, capable of separating a tremendous variety of fiber composite materials: the TruTool FCN 250.  
Images: TRUMPF



The easy-to-use TruTool FCN 250 provides the user with a clear view of the work surface, thus facilitating precise separating cuts.



Stefan Anshelm, international sales manager for power tools at TRUMPF, says: “Customers can utilize this new nibbler in any sector that uses fiber composite materials to manufacture lightweight components.”

### **About TRUMPF**

TRUMPF is a leading global high-technology company that produces machine tools, lasers, and electronics for industrial applications. Products manufactured with the company’s technology can be found in almost every sector of industry:



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vehicle and building technology, mobile devices, and modern energy and data storage. TRUMPF is the world technological and market leader for machine tools used in flexible sheet metal processing, and also for industrial lasers.

In 2014/15 the company – which has approximately 11,000 employees – achieved sales of 2.72 billion euros. With some 70 subsidiaries, the TRUMPF Group is represented in almost all the countries of Europe, North and South America, and Asia. It has production facilities in Austria, China, the Czech Republic, France, Germany, Great Britain, Italy, Japan, Mexico, Poland, Switzerland, and the USA.

### Power tools from TRUMPF

Power tools for sheet metal processing have long been part of the TRUMPF tradition. In 1934, the company introduced the first motor-operated hand shears for cutting sheet metal, thus laying the foundation for the comprehensive sheet metal expertise of the entire corporate group. As with stationary machines for punching and molding, for laser processing and bending, the sheet metal specialists have also set standards as leaders in innovation for professional power tools.

The TRUMPF Power Tools business is headquartered in Grüşch, Switzerland. Its current product range covers power tools for cutting and joining sheet metal as well as forming weld edges. TRUMPF's portable, easy-to-use tools are used around the world both by customers in industry and by craftspeople.

For more information about TRUMPF go to [www.trumpf.com](http://www.trumpf.com)

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If you have questions concerning the text or photographs, please contact k+k-PR GmbH.

For more information about the company, technology and products, please approach TRUMPF Werkzeugmaschinen GmbH + Co. KG directly.

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