

**Boehlerit GmbH & Co.KG**

Werk VI-Straße 100  
8605 Kapfenberg  
Austria  
Phone +43 3862 300-0  
Fax +43 3862 300-796  
info@boehlerit.com

## New technologies for carbide milling

Kapfenberg / Styria, 05/07/2021

Up until now, the production of pressing tools - dies and punches for the pressing of indexable inserts - was a multi-stage process at Boehlerit that required work on several different machines. The individual manufacturing steps included coordinate grinding, electrode milling and die sinking, all before the laborious manual polishing, the final step. *"The option of milling carbide pressing tools hasn't been around very long, as diamond milling tools for these sort of applications simply didn't exist on the market"*, explains Martin Willinger. *"Boehlerit wanted to utilise this technology, with the goal of completing milling and grinding operations directly on a single machine."* The company has now put this plan into action with the new precision 5-axes milling machine Rödgers RXP601 DSH, which comes with state-of-the-art linear drive technology and an innovative package for coordinate grinding. Dies may now be ground around their circumference and the face geometry may be milled directly on the carbide, using diamond-coated milling tools. The outstanding performance of these milling tools ensures an excellent surface quality that has eliminated the need for a laborious manual grinding process. In addition, the geometric inspections required between the individual work steps are completed automatically in the machine, which has increased precision enormously as there is no need for clamping and declamping. The investment in the Westcam Hypermill programming system completes the system.

### Surface quality is key

All these advantages may now be leveraged during production and refreshment of all pressing tools, which is crucial when it comes to the indexable insert production of Boehlerit. At the moment, around 3,500 different pressing tools are in active use at the Kapfenberg plant. Between 100 and 120 tools are made from scratch every year, while several hundred are refurbished and/or repaired. Throughput times for all these processes were reduced massively, while improving the surface quality of the pressing tools and reducing costs at the same time. Boehlerit is also thinking about making the technology available to other businesses as a service feature.

## Press release

### The company

Boehlerit, headquartered in the Austrian town of Kapfenberg, sets global standards with carbides and tools for the processing of metal, wood, plastics and composites. With cutting materials, semi-finished products, precision tools and tool systems for milling, turning, drilling and forming, Boehlerit ensures process safety and efficiency on a global scale. The company's extensive product portfolio includes highly specialised tools for the machining of crankshafts as well as for the mining industry, for bar peeling, tube and sheet metal processing and heavy-duty machining. The Boehlerit product range also features carbides for construction components and wear protection. When it comes to coating technology, Boehlerit holds a global monopoly, ranging from the first-ever nano-CVD bonding layer to the hardest diamond layer worldwide. With its many years' experience in metallurgy, coating technology and state-of-the-art press technology, Boehlerit is a highly competent development partner for toolmakers.

### Press/media contact

Manuel Hofstadler

Mag.

Head of advertisement

Phone: +43 3862 300-586

Fax: +43 3862 300-793

E-Mail: [manuel.hofstadler@boehlerit.com](mailto:manuel.hofstadler@boehlerit.com)

## Pictures

**Fig. 1:** Thanks to a new technology, carbide pressing tools may now also be milled. The 5-axes Rödgers milling machine for high-performance milling, grinding and inspecting.



Pictures

Fig. 2: Maximised precision for inspection processes as there is no need for clamping and declamping.

