**AMB Stuttgart**

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**Hall 1 | Stand 1I16**

**Combining strengths: Sales cooperation between Horn and Boehlerit**

At AMB 2016 in Stuttgart – Europe’s second most important metalworking trade fair after EMO – Horn will be unveiling a strategic innovation. Two independent carbide and tool manufacturers are about to embark on a joint sales cooperation for ISO turning and milling tools: Horn in Tübingen and Boehlerit in Kapfenberg (Styria, Austria). As part of this, Horn will be responsible for selling Boehlerit-branded ISO turning and milling tools in Germany, France, the UK, the USA and China.

The aim of this sales cooperation is twofold. Firstly, it will enable the two medium-sized companies to combine the product and sales synergies of their organisations and, secondly, it is an opportunity for the family-run businesses to grow together on carefully targeted markets. As far as Horn is concerned, the Boehlerit range of ISO turning tools perfectly complements the products from its own internationally leading grooving range. Similarly, the new Boehlerit milling range will enable Horn to enhance its own portfolio of high-performance products by introducing a wide selection of top-performing and highly productive milling tools. In this way, Horn will be able to build on its leading position as a supplier of tools for technically demanding applications by establishing itself in the area of general machining as well.

**The Boehlerit range of ISO turning products**

In addition to the carbide and coating used, the new geometries that Boehlerit has developed in what it calls the “chip channel” will also play a key role in improving cost-effectiveness. They used a high-speed camera to carry out a precise chip breaking analysis for each turning application so that the best possible chip flow characteristics could be developed. This has resulted in optimum turning geometries for machining steel and even in solutions for the problems posed by special steel grades and superalloys. A new and harder gradient carbide ensures a high degree of machining reliability and a much more wear-resistant MT-CVD carbide coat results in higher cutting speeds. Primarily, this is achieved by increasing the percentage of the TiCN layer. The patented Nanolock TiCN bonding layer safely bonds the significantly harder Alpha-Al2O3 (HV2700), which has better insulating properties, and increases the service life by 60 per cent for a high degree of universality in steel machining.

The new LCM20T turning grade for indexable inserts enables cutting speeds of more than 200 m/min to be achieved when turning stainless steels. The reliable, heat-resistant carbide of the new turning grade exhibits high stability against plastic deformation, as does the BCS20T titanium grade. The peripherally ground CNGG 120408-BCU inserts, which are available in the Steeltec grades LCP15T and LCP25T, offer a high degree of machining reliability for an extremely wide range of steel materials, as does the Supertec LC415Z grade, which has proven itself to be ideal for superalloys and stainless steel.

**The Boehlerit range of milling tools**

Boehlerit’s range of high-end milling tools is based on eight innovative tool systems. These include two multifunctional tool systems that support two different machining operations with just one main body, thereby cutting the body-related and storage costs. What’s more, the range also encopasses everything from extremely economical high-feed tools through to face milling cutters with indexable inserts whose technical features include 16 cutting edges in the rotation direction. In total, there are 12 new milling grades that are perfect for the many milling tasks encountered when face milling and corner milling all the latest materials. These manage to combine machining reliability with cost-effectiveness. One particular highlight of the new milling range is the patented and innovative TERAspeed 2.0 AlTiN layer. The high aluminium content of this layer and its innovative nanostructure have made it possible to combine conflicting properties for the first time ever – such as remarkable toughness, extreme layer thickness and wear resistance. Another innovative carbide coat that has been specifically designed for milling is the thick PVD AlTiN Goldlox top coat; with its high wear resistance at high temperatures, this improves tool life significantly when working with various types of steel. Other positive features of the range are the tough and wear-resistant grades for stainless steel and superalloys.

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**Image caption:**



**Image 1:** The HORN range is to be supplemented by milling cutters from Boehlerit.



**Image 2:** Boehlerit ISO inserts are being used to complement Horn’s grooving products.

**Image credits:** Paul Horn GmbH, Nico Sauermann

Text and further information:

Hartmetall-Werkzeugfabrik Paul Horn GmbH, Mr Christian Thiele

Unter dem Holz 33-35, 72072 Tübingen, Germany

Tel.: +49 (0) 7071 7004-1602, Fax: +49 (0) 7071 72893

E-mail: [christian.thiele@phorn.de](mailto:christian.thiele@phorn.de), [www.phorn.de](http://www.phorn.de/)