

Press information

Carbides and precision tools

Boehlerit GmbH & Co.KG

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Performance where it really matters

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With its latest indexable insert geometry MRM, Boehlerit has added yet another innovation to its ISO turning programme for the medium to rough machining of stainless materials, setting new standards in the process and making optimised indexable inserts available for a wide range of applications using stainless steels. The new MRM chip breaker complements the BMRS geometry, which is well established on the market and covers a similar feed rate range but differs in terms of micro geometry due to the deeper chipping angle. In this way, the cutting forces are reduced, resulting in increased process safety and tool life on stainless steels with high hardness levels.

In addition, the new chip former with feed rates of 0.20 - 0.50 mm/rot is the ideal addition to the successful MM geometry with an overlapping feed rate range of 0.15 - 0.35 mm/rot.

The following material grades are available for the new MRM indexable insert geometry:

LCM20T	medium substrate with thin CVD coating
BCM25T	medium substrate with thick PVD coating
BCM40T	tough substrate with thick PVD coating

The LCM20T is used in stable operating conditions and with high cutting speeds. In combination with the MRM geometry, increases in cutting speeds and feed rates of 5-10% are achievable, compared to standard grades of ISO class M20-M25.

The most universal grade for use on stainless steels is material grade BCM25T in the MRM geometry. It is ideally suited for medium machining, but also for use on frequently changing workpieces and the altered conditions that this entails. Furthermore, the BCM25T grade is the perfect choice for smooth and partially interrupted cutting, i.e. machining conditions typical for turning operations on forging skin.

For top performance in difficult operating conditions, the tougher BCM40T grade was developed. Interrupted cutting, unstable or vibration-prone applications are no longer a problem with this material grade. In combination with the BCM40T grade, the MRM indexable insert geometry displays not just high feed rates and low cutting speeds, especially with smooth cutting, but also excellent dry-running properties – all factors that make for a prolonged lifespan. With the new MRM geometry for medium roughing on stainless steels, the carbide and tool specialists from Kapfenberg have launched the perfect addition to its already comprehensive ISO turning programme. Users who want to keep an eye on costs for their roughing operations and are looking for a cost-effective solution will make the right choice with the Boehlerit MRM geometry.



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The company

Boehlerit, a family business that is part of the Brucklacher group (Leitz, Bilz and Boehlerit) and 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 occupies a unique position worldwide, 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.

Editorial queries

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Images:

Fig. 1: MRM geometry Image

