

Press release

Working to the last micron

New GARANT micro milling cutters offer very high precision and process reliability for toolmaking and mould making

Hanover/Munich, 18th September 2017 – Micro-milling means working to the last micron. The [Hoffmann Group](#) has therefore developed a new generation of high-precision micro-milling cutters capable of extreme repetition accuracy. The new GARANT solid carbide micro-milling cutters have a tolerance band of just 0 to -0.005 millimetres, and are intended for toolmaking and mould making. At EMO 2017 in Hall 3, Stand D14 the Hoffmann Group will be exhibiting for the first time cutter versions for machining aluminium and copper alloys and for all graphite and composite materials. Examples of the application areas include the production of miniature aluminium components, graphite and copper electrodes, semiconductors and dental ceramics.

The new GARANT micro precision milling cutters are available in three versions: sharp-edged slot drills, torus cutters (in 5 variants) and copy slot drills. Specially developed micro geometries confer extremely high cutting edge stability on the milling cutters. Optimised tip angles and up to twenty percent more chip flute volume ensure directional chip formation and markedly better chip evacuation. Thanks to the latest carbide substrates the new GARANT micro milling cutters also offer very good process reliability.

For coating the micro-milling cutters, the Hoffmann Group relies on the new GARANT DLC and diamond coatings. DLC coatings create extremely smooth surfaces with thicknesses of 1 to 2 microns and a hardness of at least 6000 HV. Thus the cutting edges remain extremely sharp and even long-chipping materials such as aluminium and copper alloys can be machined without problems. At around 10,000 HV the diamond coatings on the other hand are extremely hard. They have a coating thickness of 3 and 4 microns and are optimised for machining composite materials and abrasive materials such as graphite.

All new GARANT micro milling cutters are available with both DLC and also diamond coatings and can be ordered immediately from the Hoffmann Group [eShop](#) and the 2017/2018 catalogue.

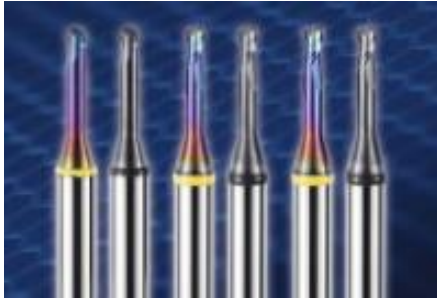


Image caption:

The new generation of GARANT micro precision milling cutters offer impressive tolerance bands of 0 to -0.005 millimetres, repetition accuracy, good process reliability and a wide range.

Hoffmann Group

As Europe's leading system partner for quality tools, the [Hoffmann Group](#) combines commercial expertise with both manufacturing and service competence. To more than 135,000 customers this combination guarantees reliability in supply, quality and productivity, in the tooling sector and also in the workstations and storage sector. Optimum and reliable advice, from individual needs analysis through to efficient use of products, is assured at all times. Alongside tools for machining, clamping, measuring, grinding and cutting, the portfolio also comprises hand tools, protective work-wear, workstations and storage and workshop accessories. Customers include major listed companies as well as medium-sized and small companies in more than 50 countries. In 2016, the Hoffmann Group generated a worldwide turnover of more than one billion euros. Including [GARANT](#), its own premium brand, the Hoffmann Group offers 75,000 quality tools from the world's leading manufacturers. With comprehensive customer service and 99 percent delivery quality certified by the TÜV, the tooling specialist, headquartered in Munich, is a reliable and efficient partner for its customers.

See www.hoffmann-group.com for further information

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