

Press release

Full slot milling in steel at a high feed rate

The new solid carbide end mill from the GARANT MasterSteel product range offers 5 cutting edges and a new type of knuckle form profile, thereby achieving particularly high performance

Munich, 2 November 2016 – The new GARANT MasterSteel SlotMachine from the Hoffmann Group is a solid carbide roughing end mill which achieves high feed rates when slot milling from solid in steel. The innovative knuckle form profile produces extremely compact swarf. Therefore, the Hoffmann Group was able to construct the milling cutter with five cutting edges. As a result, at a constant feed rate per tooth the new five-edge end mill achieves 25 percent higher process efficiency than a classic four-edge end mill. Thanks to the innovative knuckle form profile, the cutting pressure is lower and higher feed rates can be obtained with a constant load. Due to the compact chips and the lower cutting forces, the new GARANT MasterSteel SlotMachine high-performance end mill is particularly suitable both for milling deep slots from solid and also for machining delicate components.

Based on its unusual geometry, the new GARANT MasterSteel SlotMachine solid carbide end mill produces chips that are very short, very fine and particularly tightly rolled. These are easily cleared by the flat chip-breaker recesses. The directional chip discharge increases the process reliability, the extremely sturdy core diameter the tool stability.

The GARANT MasterSteel SlotMachine permits plunge angles up to ten degrees. The cutting edge design includes honing to minimise the risk of break-aways. The ultra-fine grain substrate greatly increases the resistance to breakage; whilst the enhanced coating also optimises the wear characteristics and reduces the rate of heat input. The unequal spacing ensures a smooth cutting action.

The new GARANT MasterSteel SlotMachine solid carbide end mill extends the GARANT MasterSteel product range, which currently includes the existing classic four-edge end mills and also the GARANT MasterSteel PickPocket universal end mill plus two solid carbide drills. With these the Hoffmann Group offers state-of-the-art high-performance tools for every application.

The GARANT MasterSteel SlotMachine achieves a feed rate per tooth up to 0.1 millimetre at a cutting depths up to twice the tool diameter (2xD). It is available with cutter diameters from 4 to 20 millimetres and can be ordered immediately both from the Hoffmann Group eShop www.hoffmann-group.com and the usual sales channels.

Further information is available online using the following links:

- Video: "GARANT MasterSteel SlotMachine": http://ho7.eu/slot_en



Image caption

The new GARANT MasterSteel SlotMachine is suitable both for milling deep slots from solid and also for machining delicate components.



Image caption

The new GARANT MasterSteel SlotMachine five-edge end mill offers up to 25 percent higher process efficiency than a four-edge end mill. The innovative knuckle form profile minimises the cutting pressure, putting less load on the component.

The 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 2015, the Hoffmann Group generated a worldwide turnover of more than 1.1 billion euros. Including [GARANT](#) its own premium brand, the Hoffmann Group offers 70,000 quality tools from the world's leading manufacturers. With comprehensive customer service and 99 percent delivery quality certified by the TÜV, the tooling specialist with its head office in Munich is a reliable and efficient partner for its customers.

See www.hoffmann-group.com for further information

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