**AMB Stuttgart**

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**Hall 1 | Stand 1I16**

**Process Horn turbo whirling® – pre-whirling and finish-whirling in one single process**

The newly developed Horn turbo whirling process optimises machining during thread whirling and increases cost-effectiveness. Horn has developed a set of cutting tools for whirling that feature a new cutting division concept. These are specifically designed for machining threads with a larger allowance. To this end, individual cutting edges work as pre-cutters and machine the workpiece to the defined external diameter. In the case of nine-insert tool, the cutting division concept allows the machining work to be divided up so that each cutting edge is subject to equal load, meaning that individual cutting edges can achieve significantly longer service lives. The finishing cutting edges produce the finished thread flanks within the optimised working range. Regardless of the external workpiece diameter, combining a range of cutting edge profiles creates an optimum thread with reproducible tool lives.

Horn turbo whirling can be used to produce single-start and multi-start threads and profiles. What's more, the S271 precision-ground double-edged indexable inserts are tailored to the respective thread profile and the material to be machined. The indexable inserts are clamped in positive-fit, highly stable insert seats, either in the new modular whirling heads with optimised handling during insert replacement or conventionally in the Mono block tools.

*1,449 characters incl. spaces*

**Image caption:**



**Image 1 and 2:** During turbo whirling with the nine-insert whirling tool from Horn, the pre-cutters machine the workpiece to the defined external diameter. The finishing cutting edges then ensure that the thread flanks are geometrically flawless.

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

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