**Preliminary report**

**AMB 2018, Stuttgart**

**Hall 1, Stand 1J18**

**Innovation for groove milling**

Adjustable side milling cutter for 406 and 409 systems

Paul Horn GmbH has developed a side milling cutter for stepless adjustment of groove width. Users will no longer have to rely on a cassette solution or spend time and effort setting different groove widths. The milling body therefore boasts a USP and reduces tooling costs. There is a central sleeve that enables the required groove width to be adjusted easily on a pre-setter. Dimensional accuracy, stability and process reliability are assured, as the torque generated is dissipated into the main body by the adjustable disc.

Horn offers two types of main body: The first has a cutting edge diameter of 100 mm and is equipped with type 406 indexable inserts. The 14 cutting inserts produce seven effective cuts. The cutting width ranges from 9.6 mm to a maximum of 12.9 mm. The milling depth using this body is 20 mm. The second body type is equipped with 12 cutting inserts of type 409 and has a cutting edge diameter of 125 mm. On this type of body, the cutting width with six effective cuts can be adjusted between 12.9 mm and 18.8 mm. The maximum milling depth is 32.5 mm.

Horn has chosen tried-and-tested 406 and 409 type indexable inserts for this body. They are precision-ground and can achieve outstanding surface quality at the base of the groove and on the flanks. Positive cutting and axial angles enable a soft cut. The tangentially screwed cutting insert's secondary cutting edge with integrated trailing chamfer produces outstanding surfaces. An additional free-formed surface chamfer provides a stable wedge angle and a very smooth milling process.

*1.619 characters incl. spaces*

**Image caption:**

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**Image 1:** The groove milling cutter is a user-friendly tool for stepless adjustment of groove width.

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