

NEW!

Nominated for BEST OF
INDUSTRY AWARD 2023

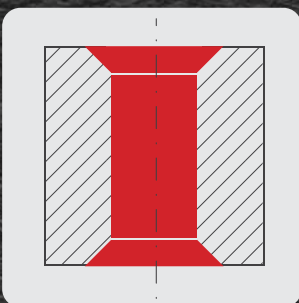
HEULE+
PRECISION TOOLS



Module Line

SNAP18 Module

Your Drill Body. Our Chamfering Module. Your Time-Saving.



ONE OPERATION



With the SNAP modules, drill bodies from **bore-Ø 18.0 mm** can be turned into combination tools. The operations drilling and chamfering are thus carried out in just one single operation. This reduces the number of working steps, process times and costs.

- Drill bodies from **bore-Ø 18.0 mm**
- Chamfer size **from 0.5 to 1.0 mm** – depending on the blade used
- Module dimensions: **16.0 x 3.5 x 5.0 mm**
- Position behind the drill head: approx. 25.0 mm
- 1 or 2 modules per drill body
- Compact design with very few wearing parts
- Not possible to integrate into solid carbide drills

Operating Principle and Applications

Efficient and economical

Due to the compact size of the chamfering module, it can be installed directly behind the drill head. This reduces traverse distances, allows drilling and chamfering to be carried out simultaneously, enables longer drilling depths and reduces obstruction by chips during chamfering. To enable higher feed rates and further optimise the process time, two modules can be integrated into one drill body.

Easy installation and maintenance

To accommodate the SNAP Module, the customer will machine a recess into the existing drill body (in consultation with the drill body manufacturer). The module is fixed to the drill body with a single screw. The blade can be replaced in just a few quick steps using an assembly tool.

Repeatability

The mechanical, spring-controlled operating principle of the SNAP system ensures a reliable process. The blades are available with various coatings depending on the workpiece material and are manufactured to an accuracy in the micron range.

Robust construction

The module as well as the blades were developed for a harsh industrial environment and designed for series production. The compact design of the module has very few wearing parts.

SNAP technology as the basis:

- The blade automatically retracts into the tool body due to its geometry when the chamfering size is reached. Inaccurate workpieces such as castings with their typical tolerance variations can now be machined reliably and with a consistent chamfering result.
- The specially designed sliding section of the blade prevents damage to the surface of the bore.



Image 1: Due to the compact size of the chamfering module, it can be installed directly behind the drill head for maximum efficiency.

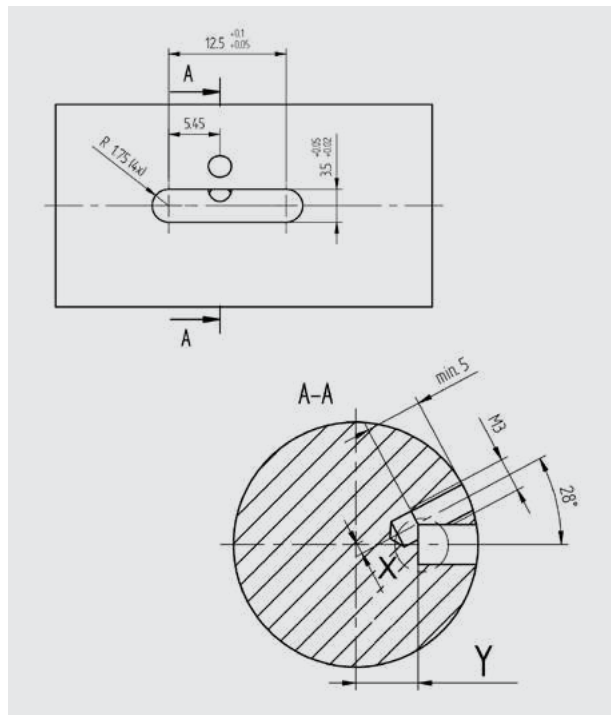
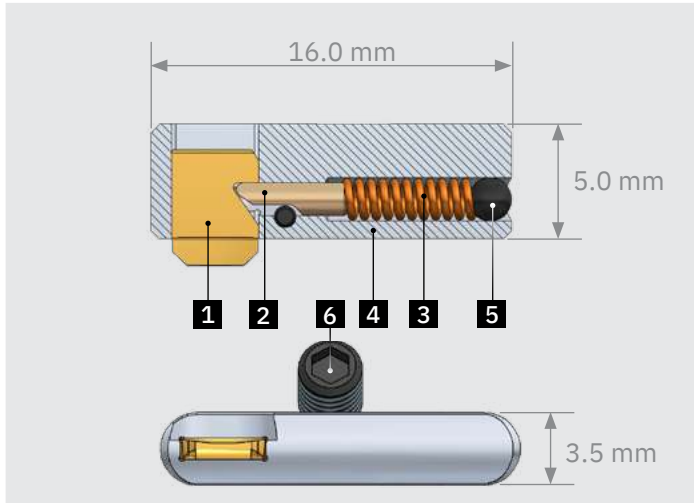


Image 2: To accommodate the SNAP Module, the existing drill body is to be modified with a pocket by the customer

Tool Concept



- 1 Blade
- 2 Control bolt
- 3 Pressure spring
- 4 Tool body
- 5 Locking bolt
- 6 Fixing screw

Calculation example of time saving

Workpiece: Bore-Ø 18 mm / height 25 mm drilled & chamfered on both sides / 42CrMo4S

Machine: CNC Mori Seiki

Old: Drilltool+countersinkingtool + manual turning (workpiece)

New: Drill tool with integrated SNAP18 Module

Cycle time reduction: **51%**

Further savings:

- No need to rotate the workpiece
- Only 1 instead of 2 tools in the machine
- Simpler tool management
- Elimination of manual machining



Cutting Data

www.heule.com/en/tools/drilling-combined/snap-module

Your tool solution

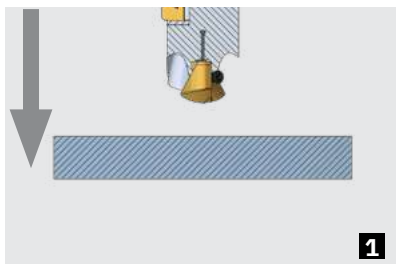
Do you have an application for the SNAP Module? We would be happy to check the feasibility and find a solution for you.



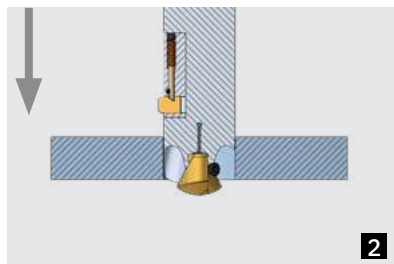
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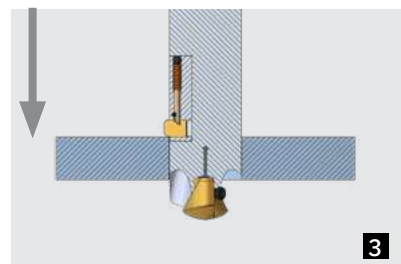
Sequence of Operation / Programming



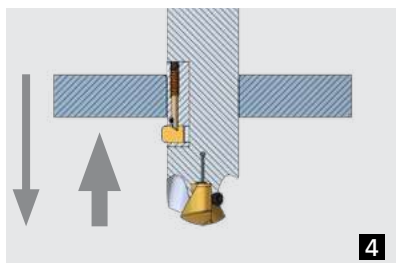
During the entire machining process, neither a change in the direction of rotation nor a spindle-stop is necessary. Rapid feed of the tool to just above the surface of the workpiece.



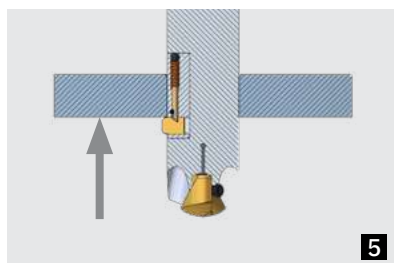
Carry out the drilling operation (according to the manufacturer's cutting data) until the SNAP blade is just above the upper edge of the bore. *Note: Drilling and chamfering can be performed simultaneously.*



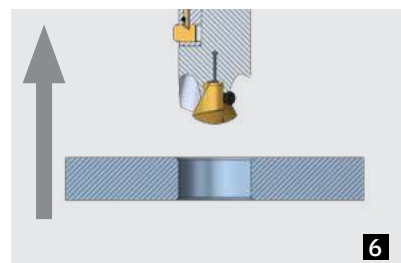
Carry out chamfering (according to HEULE cutting data) until the blade is fully retracted into the tool body (chamfering depth +1mm).



Complete the drilling operation and then move in rapid feed to the starting position for reverse chamfering (burr height + 1mm).



Carry out chamfering until the blade is fully retracted into the tool body (chamfering depth +1mm). **IMPORTANT! To avoid blade breakage, the blade must always enter the bore with rotating spindle and at working feed (even after a machine stop!).**



Exit from the workpiece in rapid feed and move to the next bore.

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