

The image features a 3D rendering of a diamond saw cutting through a silicon wafer. The wafer is shown in a cross-section, with the top surface being a light grey color and the bottom surface being a darker, metallic grey. The saw blade is positioned at the top, and the cut is shown as a series of curved, metallic-looking segments that are being pushed away from the main body of the wafer. The background is a bright, white-to-yellow gradient, suggesting a clean, industrial environment. The SIMTEK logo is located in the upper left corner, consisting of the word "SIMTEK" in a bold, blue, sans-serif font, with a small triangle above the letter "I".

**SIMTEK**

Controlling chips.  
Increasing productivity.  
**Reducing costs.**

## Reduce your costs with 3D-lasered chip forming geometries

SIMTEK precision tools stand for high performance and process reliability.

Thanks to 3D-lasered chip forming geometries, we increase this performance and process reliability even within the most difficult machining conditions.

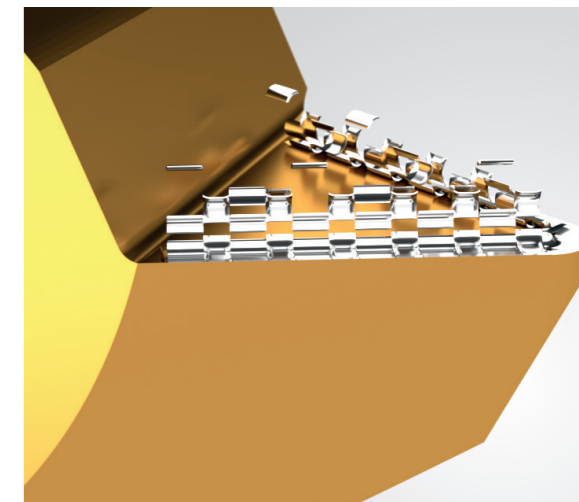
The basis remain precision-ground carbide tools from SIMTEK, in the quality you know and expect from us since 1994.

Depending on the application, we expand these with 3D-contoured, lasered chip forming geometries. These geometries follow a wide variety of objectives, but mainly two: **to reduce your costs and increase your productivity.**

Hundreds of challenging customer-specific machining applications have already been solved with SIMTEK's lasered chip forming geometries in the recent past.

On the following pages we show you exemplary solutions.

Feel free to contact us any time.

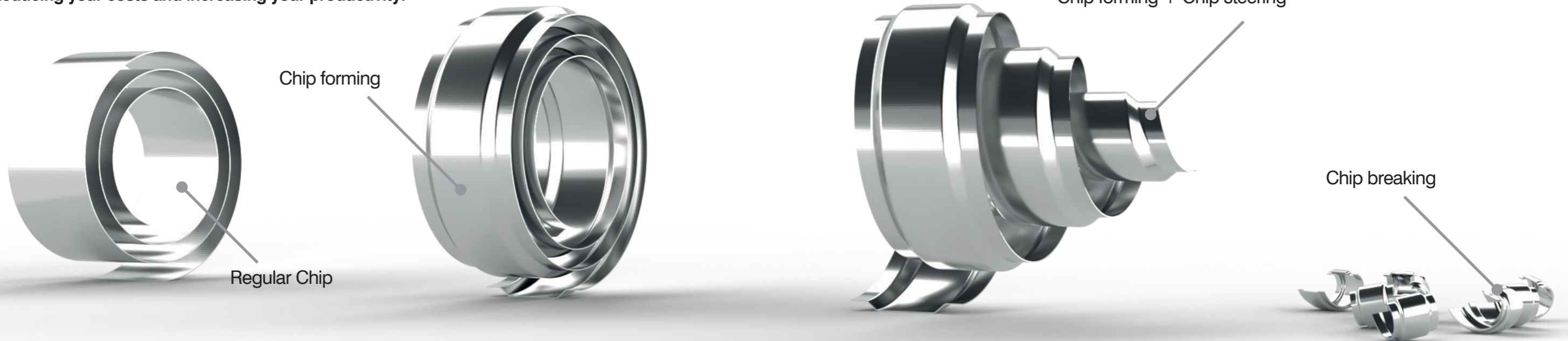


**Optimum chip control is of decisive importance for economical machining.**

Reducing non-productive time, avoiding 100% controls: there are many reasons to ensure optimum chip control in series production. SIMTEK offers highly precise, 3D-lasered chip forming geometries, which are specifically adapted to your machining application. According to the requirements, the chips are shaped, steered, segmented, broken or, by combinations of these control mechanisms, removed from the machining area.

During the whole process, we focus on two things above all:  
**Reducing your costs and increasing your productivity!**

*+ Reducing costs  
+ Increasing productivity*

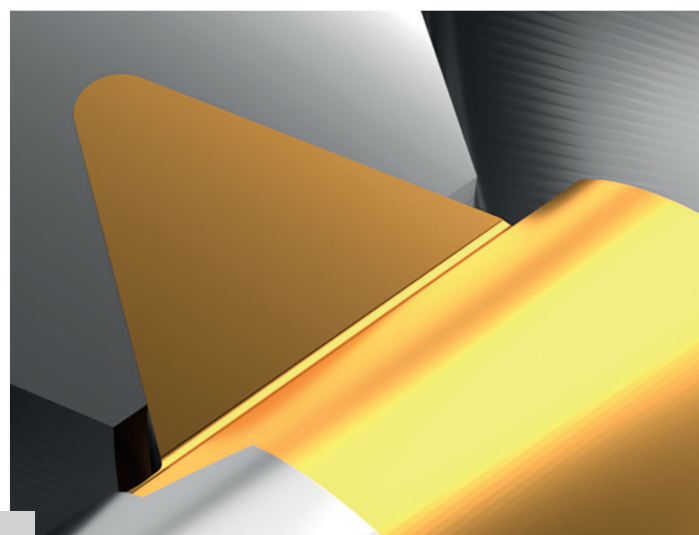


Exemplary application

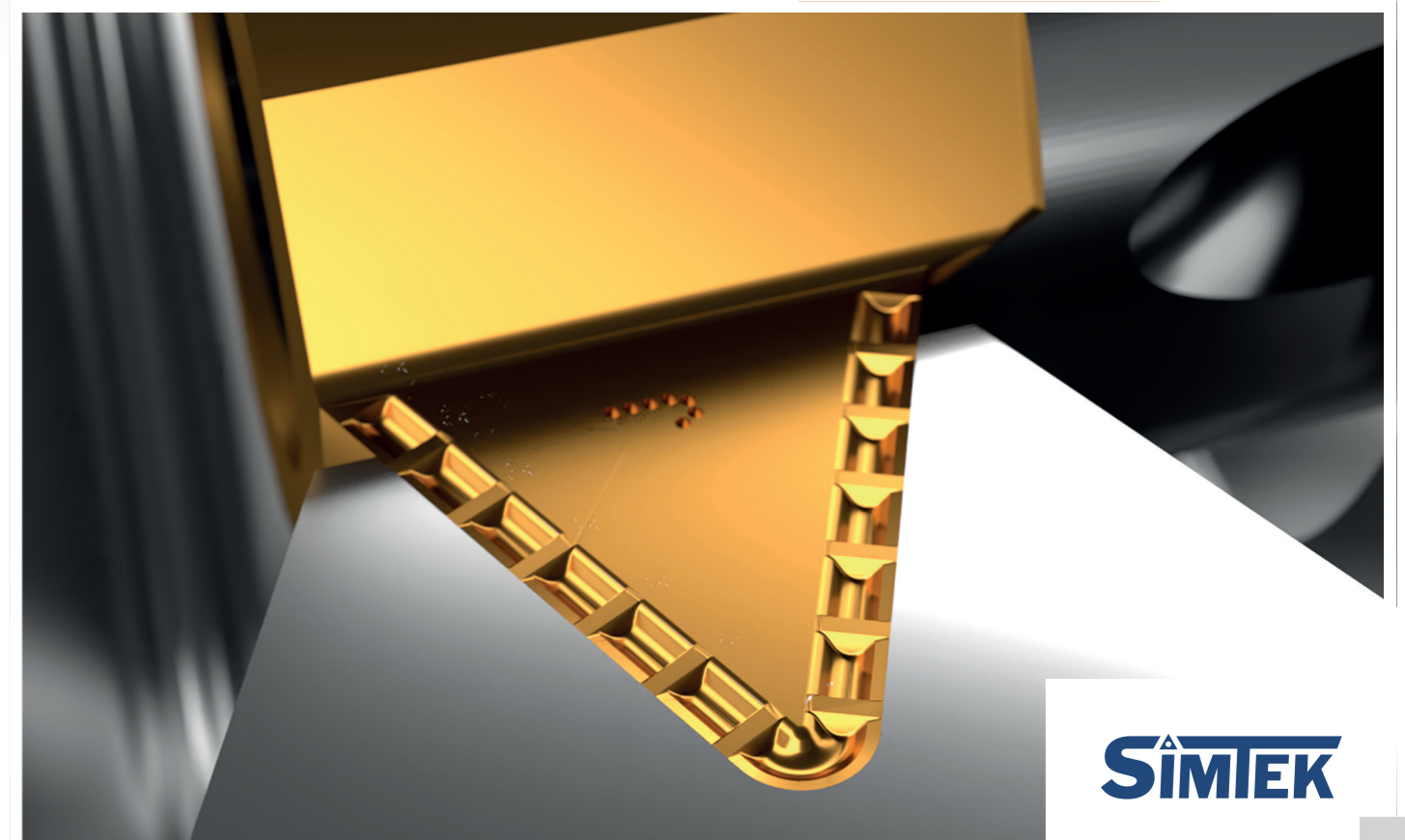
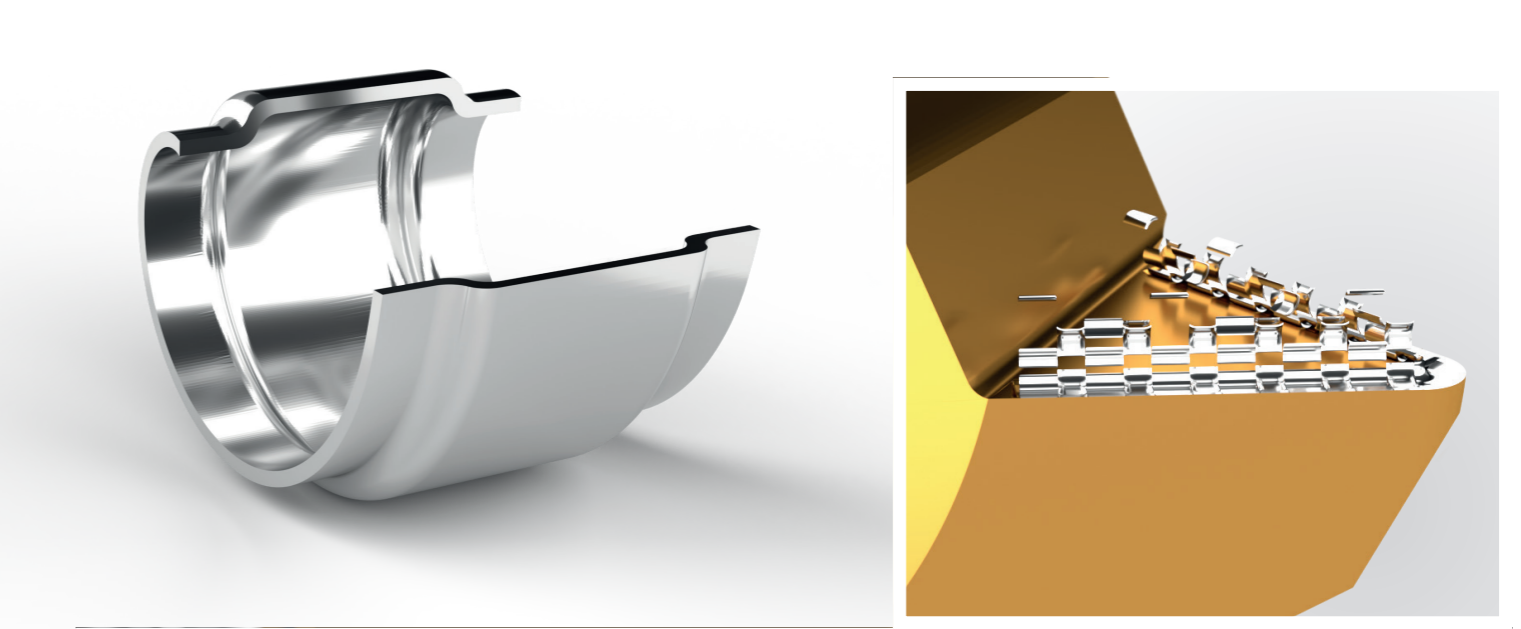
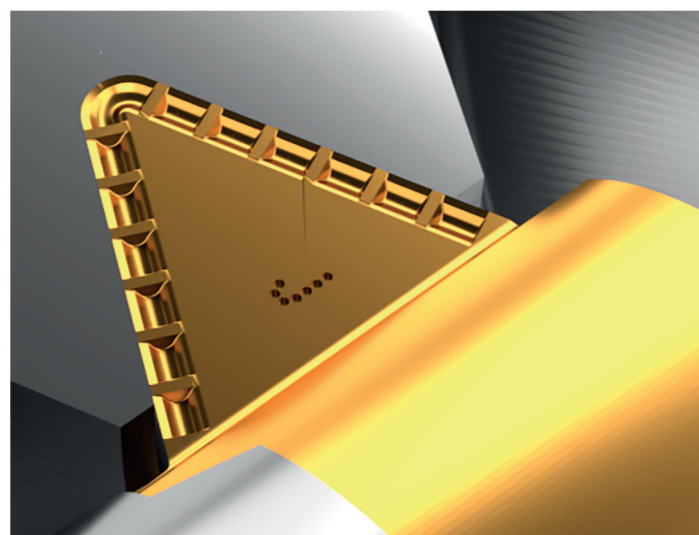
## Segmenting, forming and breaking of the chip thanks to 13 lasered chip forming pockets.

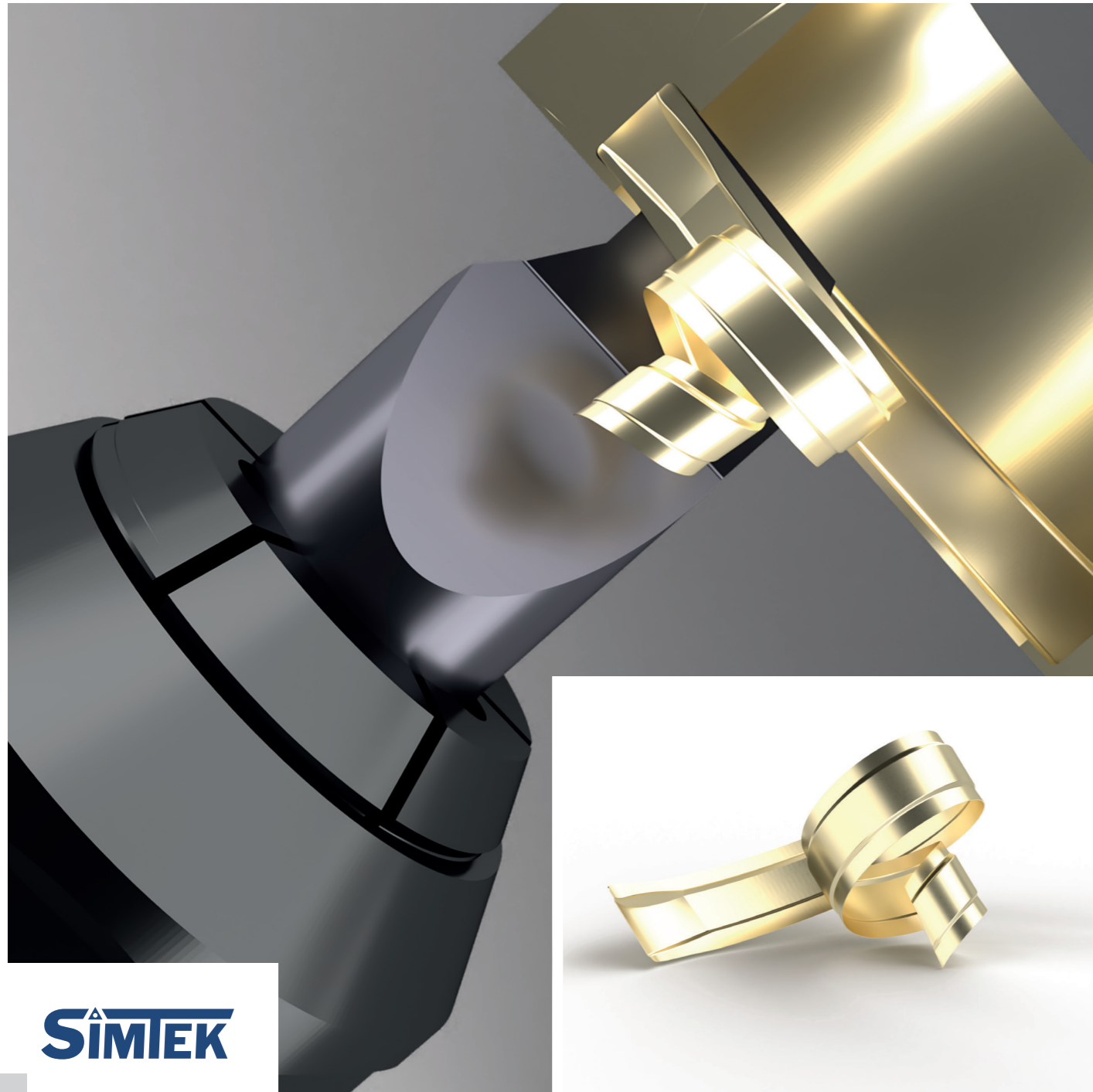
The conversion of this customized threading application was carried out with the goal to reduce non-productive times. The reason for the previously high nonproductive times was a chip forming that was difficult-to-control and could not be solved with conventional methods for chip control.

Initial situation



Application-specific chip control using 13 lasered chip forming pockets



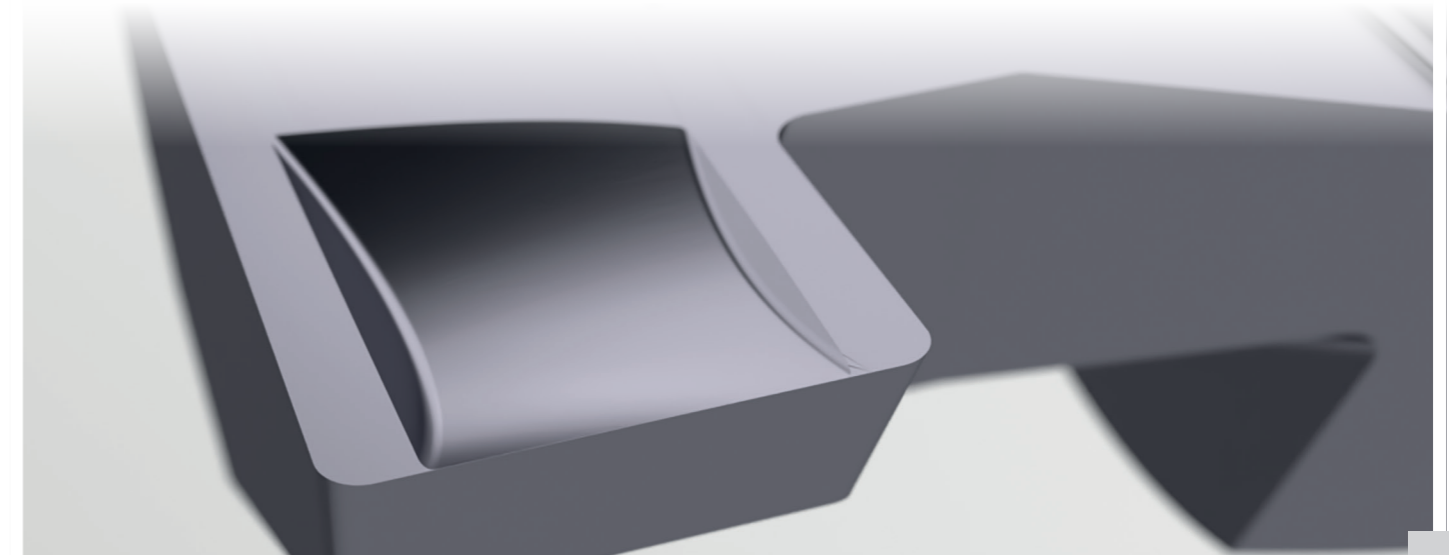


Exemplary application

### **Controlled steering of long-chipping materials thanks to 3D-contoured, lasered chip forming pocket**

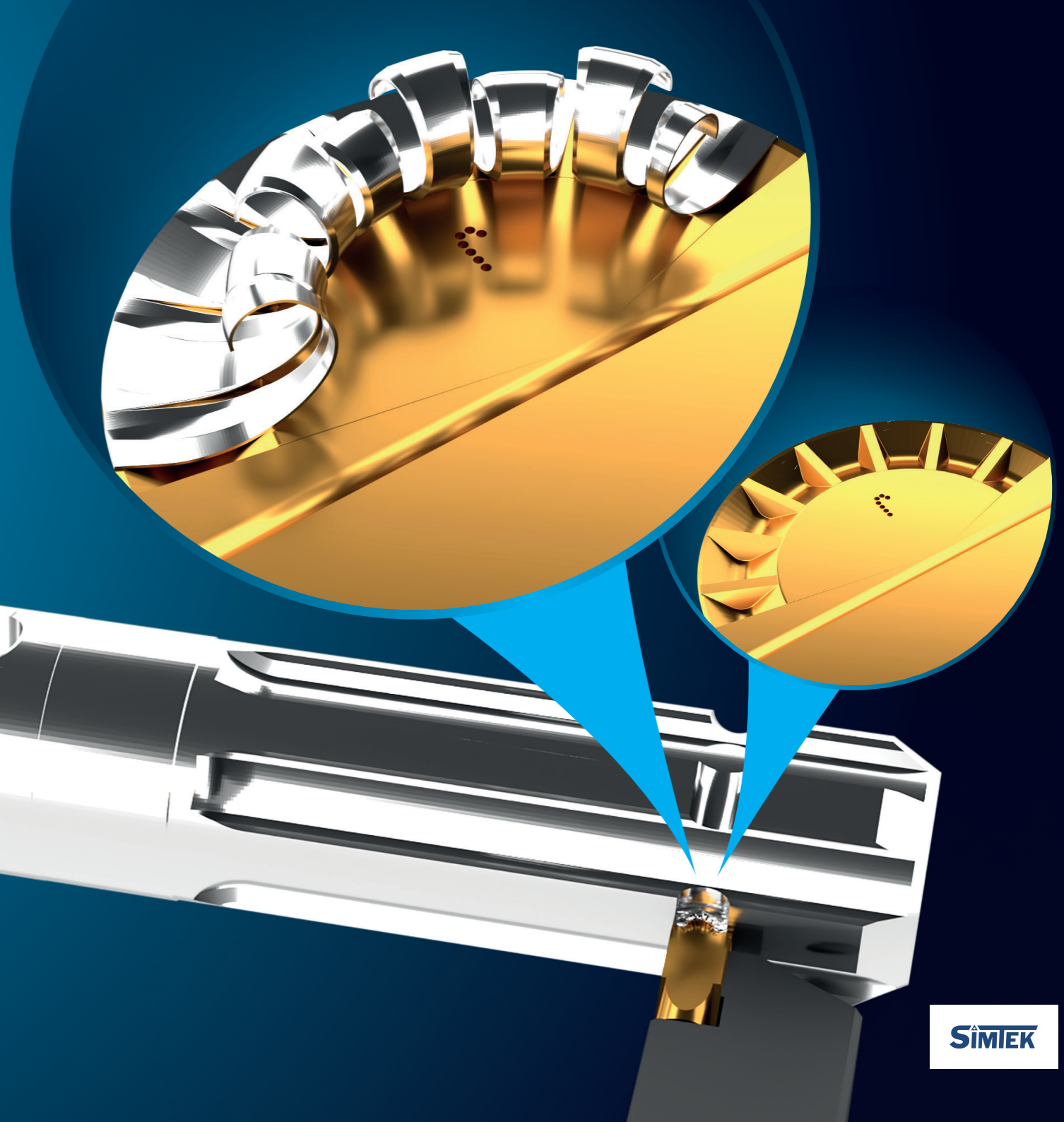
For long-chipping and difficult-to-control materials, such as lead-free copper and brass, 3D-contoured, lasered chip forming pockets are exceptionally suitable. Especially during internal machining applications with small bore diameters, chips can be steered out of the component in a safe and controlled manner this way. Machine downtimes can be significantly reduced or even avoided altogether as a result.

3D-contoured, lasered chip forming pocket



Controlling chips.  
Increasing productivity.  
Reducing costs.

Contact us, we will be glad to be at your service:  
[www.simtek.com/contact](http://www.simtek.com/contact)



# We defeated the chip!



SIMTEK Group:  
Home of **Small Part**  
Machining Tools

## Maximum chip control – with standard tools too!

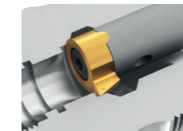
Tools with 3D-lasered chip forming geometries can be found in the SIMTEK standard range for the following applications:

**simturnAX**  
SIMTEK small part machining type AX



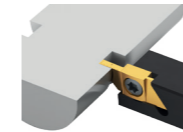
Single-edged cutting inserts for the boring of bores as of  
Ø 4.2 mm

**simturnDX**  
SIMTEK small part machining type DX



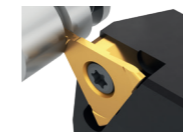
Single-edged cutting inserts for the boring of bores as of  
Ø 7.0 mm

**simturnK2**  
SIMTEK small part machining type K2



Double-edged indexable cutting inserts for grooving and  
longitudinal turning

**simturnFX**  
SIMTEK small part machining type FX



Triple-edged indexable inserts for grooving and profiling



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