

## Advantages

### ■ 1) A secure machining operation

Minimal risk for machining stops as the cutting forces are low and the chips are short. Should there be an accident, the work piece will not be destroyed, as the tool will not be caught since the diameter of the thread mill is less than the thread.

### ■ 2) Threading in difficult machined materials

The excellent cutting conditions makes it possible to thread mill materials such as hardened steel up to HRC 65, Titanium and other difficult machined materials.

### ■ 3) Higher thread quality

The cutting conditions are extremely good when you are thread milling. The result of the thread is a higher quality of surface finish, tolerance, angle, etc. compared with other threading methods.

### ■ 4) Flexible tool

Same cutter can be used for right hand and left hand thread. Threads with different diameters can be made with the same tool as long as the pitch is the same. The same thread mill can be used for blind holes and through holes. W, BSPT, PG, NPT, NPTF and NPSF are thread profiles where you can use the same tool for external and internal thread.

### ■ 5) Threading in blind holes

When thread milling you will get a complete thread profile to the bottom of the hole. When tapping it's necessary to drill much deeper as it's not until the third thread the tap will make a complete thread profile. Sometimes you are able to change the construction as you don't have to take the deep hole into consideration.

### ■ 6) Less wear on the machine spindle

Thread milling will give you longer life to the machine spindle compared with tapping as the rotation on the spindle doesn't need to be stopped and reversed for every thread.

### ■ 7) Energy-saving production

Low energy consumption as the machine spindle doesn't need to be stopped and started after each thread.

### ■ 8) Thread Milling in a lathe with live tools

Reduced machining time compared with thread turning. Excellent chip control.

### ■ 9) Threading without burrs

The thread entrance will be burr free when using ThreadBurr. Threading and deburring in one operation. No additional time for deburring.

### ■ 10) Shorter machining time

The machining time will be short as you don't need to chamfer the thread while using ThreadBurr. Big diameters, fine pitches and long holes saves the most time compared with thread tapping.

### ■ 11) Correct Thread Diameter right away

The Pitch diameter has been optically measured on thread mills from SmiCut and the theoretical external diameter has been individually laser marked on each cutter so you will get a correct thread straight away. When the tool starts to wear it's possible to make adjustments in the CNC-program.

Deburring of the thread

