

### Geared tools for Swiss type lathes

New technologies in the field of cutting tools enable ever higher cutting speeds.

However, these often cannot be achieved due to insufficient drive speeds of the machine. With the use of high-speed spindles this is no longer a problem and you can fully exploit your production potential.

With a ratio of  $i = 1:4$ , depending on the machine, speeds up to 32,000 rpm can be implemented. This means that you can use our high-speed spindles to achieve the required cutting speeds even for tools with small diameters.

### Innovative gear-technology

For all high-speed spindles, W&F relies on the latest gear technology with a multi-speed gear compact design. Thanks to the multi-stage design of the gearing, it is possible to achieve sufficient stability and rigidity of the outlet spindle. The bearing arrangement is designed in such a way, that there is sufficient bearing clearance. This also made it possible to integrate internal cooling without any loss of stability.

**In contrast to planetary gear technology, the multi-stage gear we use, results in a significantly reduced susceptibility of the tool holder to failure.**

### Advantages of internally cooled high-speed spindles

- increased productivity
- reduced tool wear
- higher cutting speeds
- better surface quality
- more stable processes

### More efficient through internal cooling

Due to our many years of experience in the field of internally cooled tools, it was a logical step for us to develop our high-speed spindles with internal cooling. Thanks to our proven sealing technology, coolant pressures of up to 80 bar can be achieved.

