

Machining technology

Shaving and Skiving



For achieving highest surface finish quality and tightest tolerances.

Schwab

Shaving and Skiving with Schwanog:

For achieving highest surface finish quality and tightest tolerances!

In the machining of precision parts, in cases with particularly tight tolerance and surface finish requirements as well as process reliability, turned part manufacturers often reach their limits with usual turning and grooving operations. In such cases, shave tools on multi-spindle automatic lathes and skiving on single spindle and CNC machines offer a perfect solution with convincing process advantages.

Shaving:

Shaving, also called tangential finishing, can be applied on all multi-spindle automatic lathes. The Schwanog shave tools are available in cutting widths up to 50mm. The stabilization of the turned part is carried out system-specifically by counter rollers or counter guidances. The pitch errors of the spindle drum which occur on multi-spindle automatic lathes are balanced by the shave tool holder. The Schwanog tool holders are tuned exactly to all common shave tool holders currently on the market and thus provide impressive process reliability. The Schwanog system obtains highest productivity with quick interchangeable (insertable) form tools, without having to readjust the holder.

Skiving:

Skiving, also called peeling, is used in a technically similar function on single spindle and CNC machines. Due to space limitation a shave tool holder cannot be applied to these machines. Skiving on the other hand does without counter rollers and counter guidances and is therefore predestined for these applications because of its compact design. Schwanog skiving tools are also available in cutting widths up to 50mm.

The major advantage of the skiving process is that the cutting edge is only selectively in use during feeding, leading to a lower cutting pressure, and thus to visibly superior surface finishes and achieving considerable tighter tolerances when compared to the grooving (plunge-cutting) process. The quick tool changeover of the insertable tools paired with high repeatability is the basis for a significant reduction of the part costs, a reduction which often amounts into double figures.

Economical advantages:

- Part cost reduction by up to 40%
- Elimination of tool adjustment after tool changeovers due to high system repeatability
- Significant time savings during tool changeover due to insertable tool
- Increased productivity up to 80%
- Increased process reliability

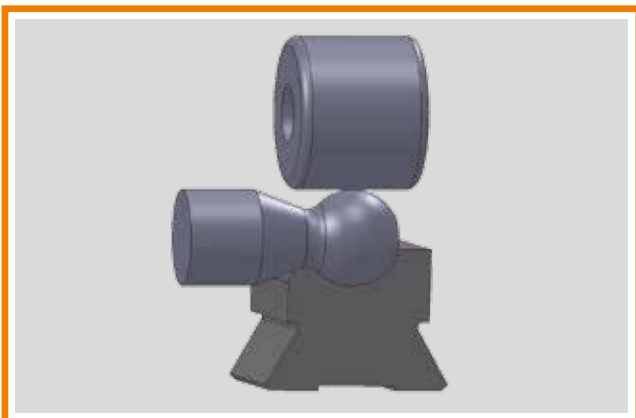
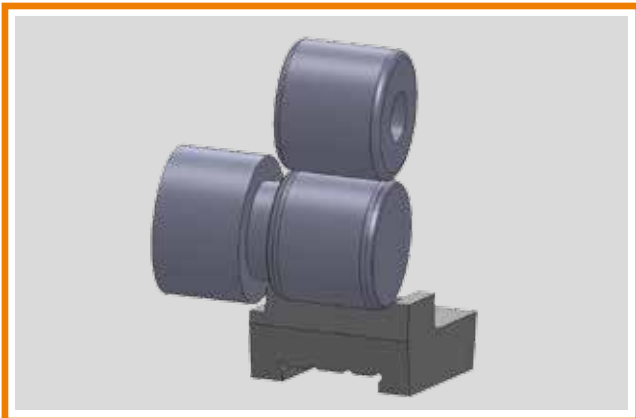
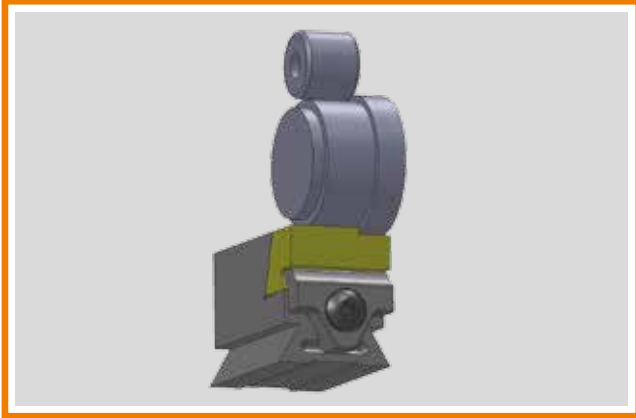
Technical facts:

- Shave and skiving tools for cutting widths up to 50 mm
- Shave tools specifically for multi-spindle automatic lathes
- Skiving tools for use on single spindle and CNC machines
- Superior surface finishes due to low cutting pressure
- Achieving significant tighter tolerances

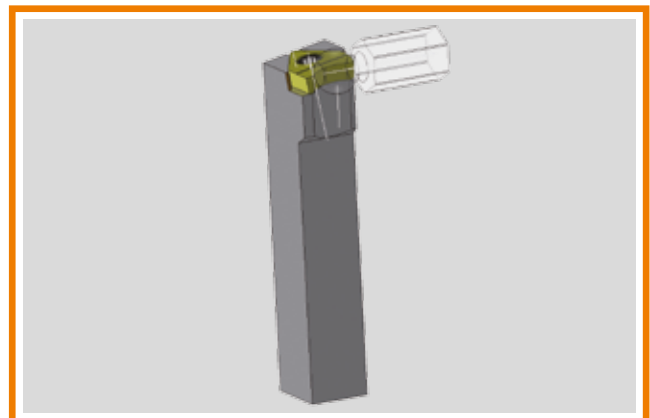
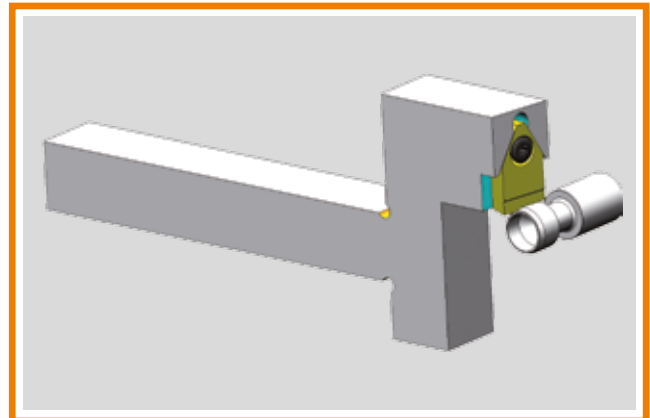
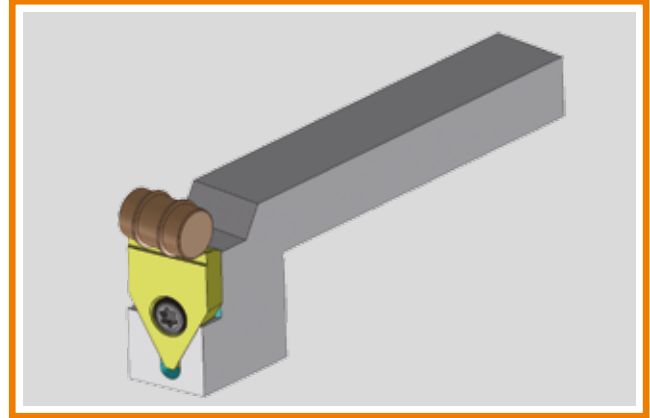


Application examples

Shave tools:



Skiving tools:



Visit our website at www.schwanog.com and watch the 3D animations for both systems.

There is a perfect solution for every manufacturing process! Take this opportunity and use our capability to lower your part costs and thus increasing your profitability. We are looking forward to show you how, just call or email us your application along with part drawing.

Insertable tooling systems.



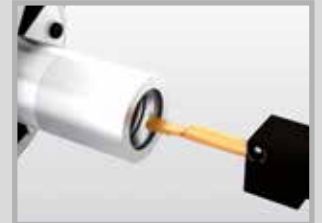
OD Grooving



OD Grooving for rotary transfer machines



ID Grooving



ID Grooving and turning with WSI



Form drilling



Shave Tools



Skiving Tools



Polygon turning



Broaching of Serrations




OD Whirling





ID Whirling Tools (Thread Mills)




Selector system

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