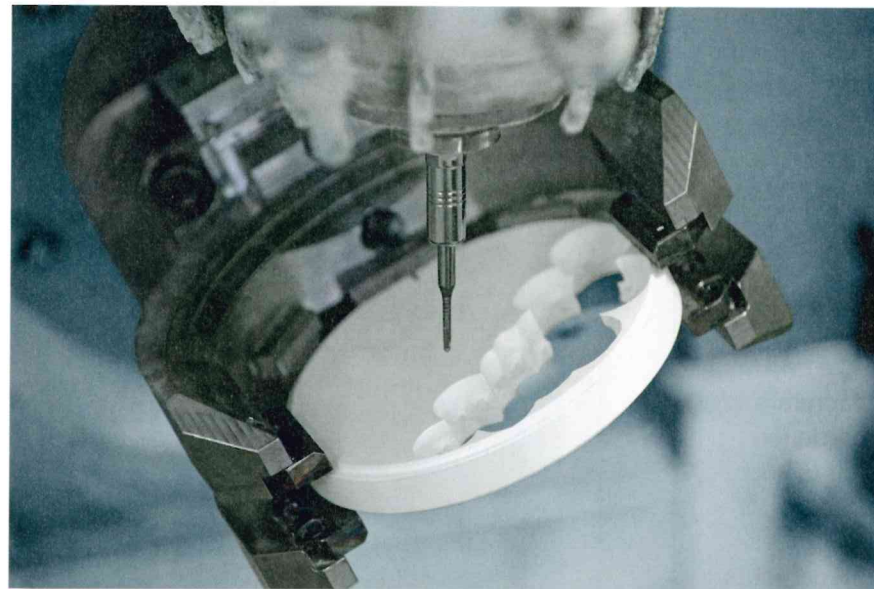


Toolholding systems

Special program for micro cutting



1/ In the field of dental technology the Tribos polygonal technology is used for milling zircon at maximum precision

No matter where toolholders are used: mold making, dental technology, medical technology, clock- and jewelry industry – the number of high-precision applications in the field of micro cutting has enormously increased in the past few years. Since conventional clamping systems most often reach their limits, Schunk, the competence leader of clamping technology and gripping system has enlarged its precision toolholder program for micro cutting. New interfaces and a higher degree of standardization will help the user increase process reliability and efficiency of demanding precision applications.



2/ In the mold making industry the Tribos-RM is used for presenting fine structures very precisely

Schunk developed and patented their Tribos polygonal clamping technology which was specifically made for micro cutting. At a true-running and repeat accuracy of less than 0.003 mm at an actual clamping length of 2.5 x D, and a balancing grade of G 2.5 at 25.000 rpm, the HSC-compatible toolholders of the Tribos family measure up to highest standards. They are suitable for every tool shank of h6 quality, and depending on the type, they were tested at up to 205.000 rpm. Since the mountings have no moving parts, they are mechanically sound, and therefore clamping is almost maintenance and wear-free. Even after several thousand clamping cycles no material fatigue occurs. This is a decisive advantage towards other clamping technologies, where the true-running accuracy diminishes in the course of time. Since a hydraulic clamping device is used, tool change with the Tribos can be done in a few seconds.

High performance for 5-axis machining

"With the special program for micro cutting Schunk has responded to the strongly increasing demand", said Heino Kostner, Head of Product and Portfolio Management Clamping Technology at Schunk in Lauffen. "Many users have recognized that the high absolute accuracy, dynamics, and the excellent rigidity and damping values of Tribos help to achieve best surface qualities and long tool lives. It is our aim to enlarge our standard program in one single step as far as possible so that most of these enquiries



3/ The SVP-Mini ensures a process-reliable tool change in no time at all

are covered right from the start." And the results tell its own story: The Tribos-Mini which has been designed for rapid micro applications, will be soon available for the trend-setting high-speed spindle interface HSK-E 20. The newly standardized interface achieves an excellent precision at high speeds, which many steep taper interfaces cannot keep up with. Moreover, its special requirement is lower than of the HSK-E 25 interface. Particularly for highly efficient 5-axis machining, Schunk offers the robust Tribos-RM version with an extended L1 dimension of 78 mm. The overlong high

performer is versatile in use: in addition to direct clamping, it is also suitable for clamping smaller shank diameters. In this case they are combined with the standardized intermediate sleeves GZB-S. In order to ensure precise machining in areas which are difficult to access, the mounting can be also combined with the standardized tool extension Tribos-SVL Mini. In the first step, the universal 5-axis expert is available for interfaces HSK-A 32, HSK-A40, HSK-E 32 and HSK-E 40, and they have a shank diameter of 12 mm.

Further interfaces

Beside the two new products, Schunk has enlarged its program so that, many former special solutions are now standard products. Therefore they can be ordered faster and more efficiently. Tribos-Mini with $\varnothing$ 1 mm, 1.5 mm, 2 mm, 3 mm, 4 mm, 6 mm and 1/8" will be standardized, as well as the robust Tribos-RM with $\varnothing$ 3 mm, 4 mm, 6 mm, 8 mm, 10 mm, 12 mm and 1/8". In addition to the available interfaces HSK-A 25, -A 32, -A 40, -E 25, -E 32, -E 40 both mountings will be also offered for HSK-E 20, HSK-F 32, BT 30, and SK 30 in the future. In the field of dental technology it is important that no chips or grinding dust seep into the mounting or spindle. For this purpose, Schunk will continue to offer high-precision mountings in a sealed version. The Schunk program also includes handy and cost-efficient clamping devices, which quickly allow a process reliable tool change.

(Pictures: Schunk GmbH & Co. KG, Lauffen/Neckar)

Custom-made labels by Meusburger

The new label designer enables perfect marking of moulds

Customers of Meusburger may now profit from a totally new service. With the new label designer by Meusburger, they can now create their own labels for moulds and tools. For this purpose, a special tool enabling simple and custom-made label design has been included in the Meusburger online catalogue. Users may choose from nine different sizes of plaques and freely arrange picture and text elements, like company logos or

mould dimensions, within a defined area. Labels by Meusburger are available with white or silver coating. The high-grade, photo-quality printing even makes it possible to print legible EAN codes.

(Picture: Meusburger Georg GmbH & Co KG, Wolfurt, Austria)

