



INNOVATIVE CLAMPING TECHNOLOGY FROM KÖNIG-MTM FOR HIGH-PRECISION GRINDING PROCESSES

The market for robotics and automation technologies is experiencing a real boom worldwide, which is also increasing the demand for precision drives. High-precision cycloidal gearboxes are often used here. König-mtm has developed and manufactured an innovative clamping solution for important components of the gearboxes - the cycloidal disk - which can be used to further increase the stringent requirements.

Cycloidal gearboxes are very robust against shock loads and also provide excellent positioning accuracy due to their very low backlash and high torsional stiffness.

Most cycloidal disks, have been provided with a qualified central bore for grinding the cycloidal profile, for technical production reasons. This bore, however, is not relevant for the function, and generates increased manufacturing costs. With the new clamping solution, this bore can be eliminated and the clamping takes place directly in the functionally relevant reference bores on the pitch circle, which also serve as the basis in the assembly.



Illustration 1: Königsdorn® equipped with cycloidal disk

This can shorten the pre-processing time and improve the quality with the help of the reference-accurate pick-up.

True to the motto: "It doesn't always have to be centric."

The two eccentrically arranged clamping arbors integrated in the Königdom® each have their own clamping zone. By actuation via the hydraulic pressure of the machine, they are actuated simultaneously and do not have to be actuated separately. This ensures precise centering. The cycloidal disks are loaded as a package onto the fixture, precisely centered and clamped. Tailored to the application and the machines, different actuation types and connection geometries can be realized.

Even with this demanding clamping concept, König-mtm guarantees a corresponding positional accuracy in order to be able to produce the components in a highly accurate and repeatable quality. This type of clamping system is also transferable to all other applications, such as coordinate machining.



Illustration 2: Königdom® without workpiece

Our Application Engineers are available for you and will be happy to advise you.



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