



CLAMPING DEVICE FOR GRINDING OF GEARS ON A DIFFERENTIAL HOUSING

The Grinding Hub is considered the new hub of international grinding technology and will take place for the first time from 17.05 – 20.05.2022 at the Stuttgart exhibition center. At the premiere of the Grinding Hub, König-mtm GmbH exhibit its clamping technology and provide information and news regarding the possibilities of hydraulic and mechanical clamping technology, as well as clamping devices for the grinding of tools, bevel gears and cams.

Clamping device for gear grinding

At the Grinding Hub, König-mtm, Spanntechnik will be presenting, for example, a clamping device for grinding of gears on a differential housing. By maintaining highest runout of less than 0,005 mm, the G4-multi-taper chuck is achieving the necessary torque for grinding of helical gear. The workpiece is properly centered and clamped by a multi-taper collet.



Illustration 1: Clamping device with workpiece on quick-change system

Workpiece support and damping

The axial contact of the differential housing takes place on the face of the bearing seat – if necessary the device is equipped with part present control. An integrated damping unit – spring loaded or hydraulic – supports the spline on the gear face below the root diameter to avoid vibrations during the grinding process.

Details at a glance

- Clamping chuck with G4 thread clamping technology
- Tailstock clamping via M4 single taper
- Clamping of the differential housing at both bearing positions
- Workpiece support with part present control
- Use of the clamping device on a quick-change chuck

Tailstock-side

The differential housing is centered on the second bearing seat with an additional collet – Type M4. The actuation takes place only over the stroke of the tailstock, no additional actuation necessary.

Dirt resistant

For sealing of the workpiece from dirt a protection bell can be mounted to the tailstock unit. The actuation of the multi-taper chuck from the machine side can be solved over different styles. The use of the clamping concept is even possible on a quick-change chuck to reduce setup time.

Our application engineers are available for you and will be happy to advise you.



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