

Press release

13. August 2021

In a new league: the Toplus premium chuck with $\leq 5 \mu\text{m}$ accuracy

With a new development in the hexagonal chuck series from Hainbuch, the clamping device manufacturer from Germany, enters the next round. In 2006, the first Toplus chuck with hexagonal clamping geometry began its career. Just one year later, the Toplus IQ with integrated measuring technology followed, and in 2012, the mini version with a smaller interference contour and lower weight was born. Now Hainbuch presents its latest development: The highest precision Toplus premium chuck is available from stock and points with many additional advantages.

High precision without alignment

Hainbuch's chucks have always been very precise. Once the chucks are aligned, the run-out is close to zero for repeat clamping. If the various chuck heads are then changed, the run-out is usually between 3 to 7 μm without alignment. With the new Toplus premium chuck, Hainbuch always guarantees a run-out of $\leq 5 \mu\text{m}$ without alignment – regardless of which clamping head is used. Until now, this was only possible with a high-priced hydraulic expansion or diaphragm chuck with the drawbacks entailed by their design. In many cases, a run-out of $\leq 10 \mu\text{m}$ is perfectly sufficient. However, components or machining processes with a run-out of $\leq 5 \mu\text{m}$ are increasingly becoming the standard. Using a Toplus premium chuck with the associated premium clamping heads and by clamping against the workpiece stop, this level of accuracy is always achieved. This means that manufacturers don't lose time making alignments for small batch sizes and they can be highly flexible, because it is just as accurate as a chuck aligned for series production.

Easier automatic loading

To save time and costs, a robot is often used to load the workpieces in the machine. This can become a problem if the clamping stroke is too small. With the Toplus premium chuck combined with a clamping head, the stroke is large enough, and makes loading easier, even if the robot

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works somewhat imprecisely. In addition, it is very robust and not as sensitive as some other clamping devices. A slight contact with the workpiece during loading has no effect on the chuck. The process remains stable. It is also sealed against contamination and vibration. With the Toplus premium, both thin-walled and solid parts are clamped securely with no centrifugal losses. And last but not least: the Toplus premium – like all chucks – is available in the Hainbuch system. This means that changing from O.D. to I.D. or jaw clamping takes no more than two minutes.

Pictures:

01-Hainbuch-chuck-TOPlus-premium.jpg

The $\leq 5 \mu\text{m}$ accurate Toplus premium chuck with premium clamping head.

02-Hainbuch-chuck-TOPlus-premium-with-workpiece.jpg

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