

KERN Evo CNC machining center

The result of intelligent evolution



As the name suggests, the KERN Evo is the product of many years of consistent development. The result of these ongoing improvements is the highest precision and productivity when milling with high and medium part quantities.

The machine's design allows maximum smoothness and an excellent surface finish ($<1 \mu\text{m}$) even at high speeds and acceleration values.

Short distances between components and drives ensure minimal angle errors, while high-resolution direct measuring systems guarantee maximum repeat accuracy. The KERN Evo can be optionally equipped with a 4th and 5th axis without compromising the stability and precision of the basic machine.

High-quality components in all peripheral modules in addition to the machine's compact design have enabled the KERN Evo to prevail in many different industries. The KERN Evo is the first choice whenever the application requires high productivity and series-tested precision on the workpiece. Its versatility and outstanding performance make the KERN Evo the most cost-effective solution in the world of high-precision machining centers.

Features and benefits at a glance:

- **High precision on the workpiece**

The axes are designed for extreme precision and provide the basis for the machine's outstanding basic accuracy. Ongoing improvements in the components and control processes help to further increase precision on the workpiece and manufacturing productivity.

- **Outstanding surface quality**

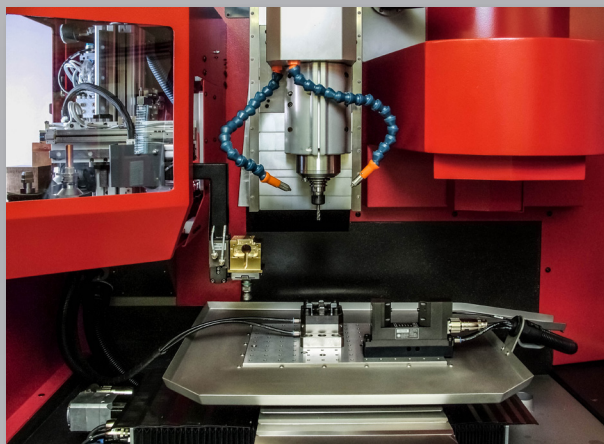
Its unique machine frame made of mineral casting gives the KERN Evo a high degree of stiffness that is essential when machining high-precision surfaces. It is insensitive to thermal influences and up to ten times better at vibration damping than conventional GG20. In addition to the quality of the installed components and the solid installation, these factors provide the basis for exceptional surface quality on the machined parts.

- **Optimal ergonomics**

The clear and balanced machine design allows full access to the working space as well as free access to the clamping surface. Thus, efficient operation is easily ensured - even in non-automated production.

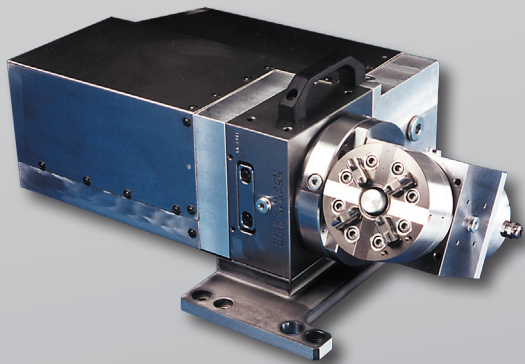
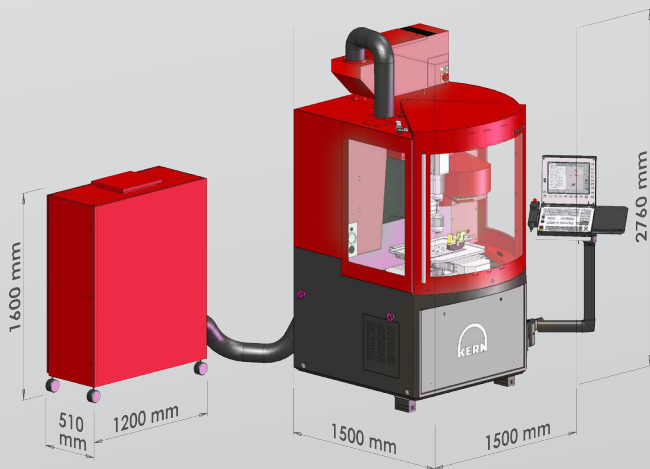
- **Flexible and fully automatable**

A comprehensive range of modules and accessories enables the KERN Evo to be tailored to your requirements and applications. Automatic workpiece loading systems can be integrated seamlessly into the machine and optimized for each application. Even after delivery, we are ready to support you with process creation and production optimization.



Workpiece loading in the workspace

Technical specifications KERN Evo



CNC precision indexing head (4th/5th axis)



Watch plates in 6-fold clamping

Axes

Traverse paths X/Y/Z: 300/280/250 mm
Max. clamping surface: 350 x 230 mm
Max. workpiece weight: 50 kg

4th and 5th axis

Rotary axis: 360° continuous
Swivel axis: -10° to +100°

Spindle

HSK 25: 50,000 rpm, 6.4KW

Workpiece size

280 x 260 mm

Tool changer

HSK 25: 32, 63 or 95 capacity
Max. tool diameter: 50 mm
Max. tool length: 105 mm
Chip-to-chip time: 5.5 s

Technical concept

Mineral-cast stand in monoblock design
Optional CNC precision indexing head (4th/5th axis)
Heidenhain iTNC 530 controller

Dimensions and weight

Weight: 3,100 kg
Space requirements min. W/D/H: 2.50 x 2.80 x 2.20 m



Technical changes reserved