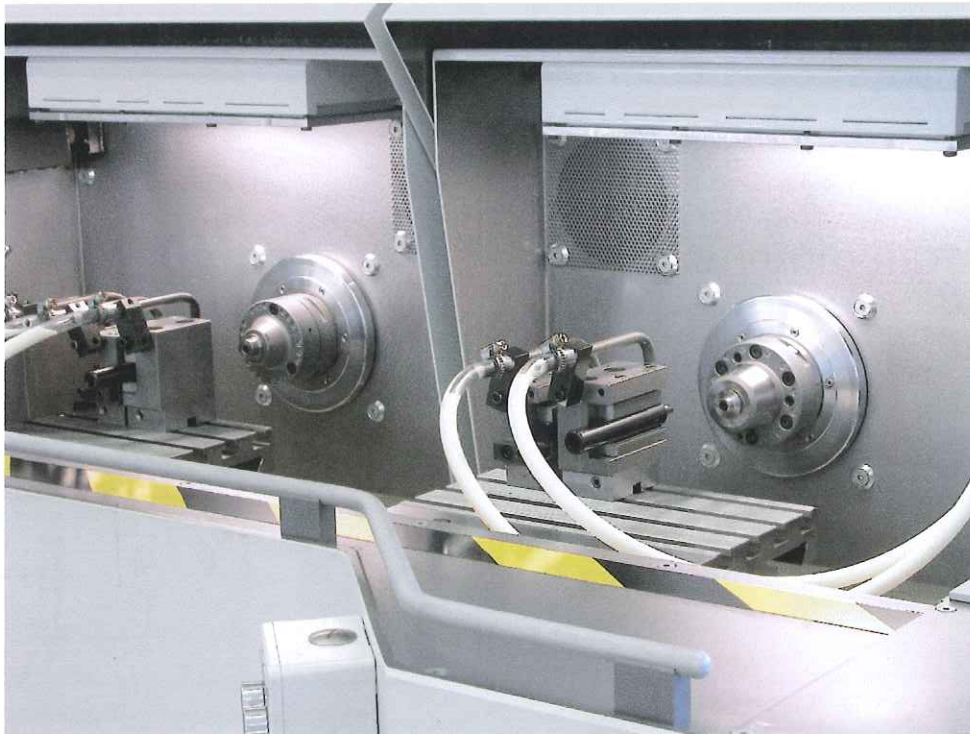


kummer® k65

High precision
high productivity
double spindle chucker



8000 rpm
K65 speed



12000 rpm
K65 microspeed
K65 hydrospeed

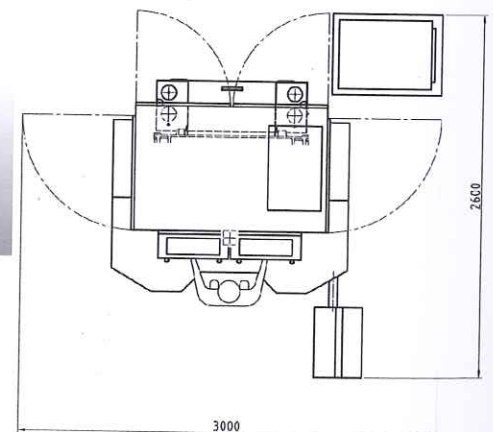
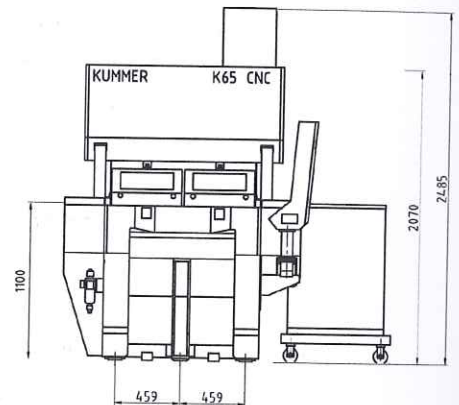
Machine including 2 completely autonomous and independent manufacturing units on a same base. Finish-turning or hard turning of parts subject to particularly severe requirements for surface finish, dimensional and geometrical tolerances and profile accuracy. Complete machining of slugs, castings, forgings, stamped or sintered blanks ...

A line of machines

Double spindle high precision high productivity front loading chucker			
Spindles characteristics	Available strokes (mm)	X=65	X=65+50 *
		Z=40	Z=40
Headstocks mounted directly on the base. Spindles with direct drive, mounted on UP-class angular-contact ball bearings. Spindle speed up to 8000 rpm.		K65 speed	K65-50 speed
Headstocks mounted directly on the base. Spindles with direct drive, mounted on UP-class ceramic ball bearings. Spindle speed up to 12000 rpm.		K65 microspeed	K65-50 microspeed
Headstocks mounted directly on the base. Spindles with direct drive, mounted on hydrostatic bearings. Spindle speed up to 12000 rpm.		K65 hydrospeed	K65-50 hydrospeed

* Cross-slides with 2-position radial linear revolver. Hydraulically controlled.
Distance between both position : 50mm.

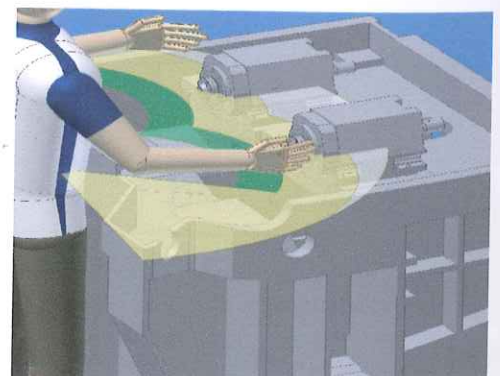
Overall dimensions



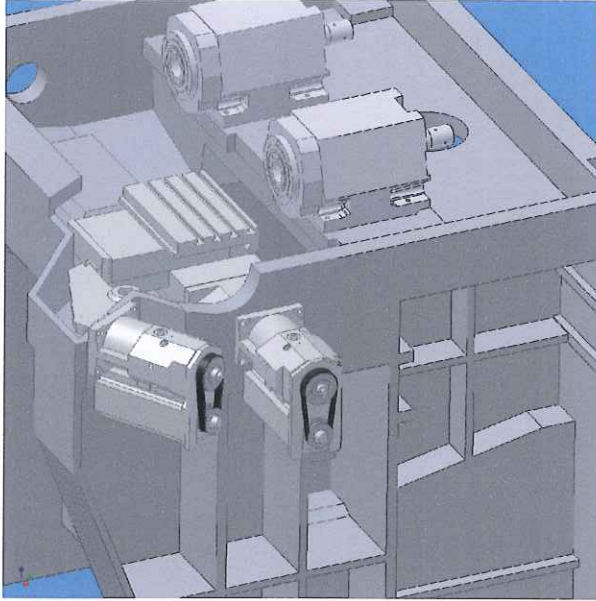
Minimum floorspace : two production units including electrical cabinet mounted on one single base (approx. 3 m² total floor area for a manual loading type).

Ergonomic work conditions

The symmetrical spindle configuration and cutaway bed is particularly well adapted to human morphology. This configuration is allowing easy access to chucks and tools in a natural movement for dynamic set ups and parts handling. The very fast automatic mobile guards opening and closing system saves time and efforts in loading and unloading, and puts the K65 squarely in the category of production machines.



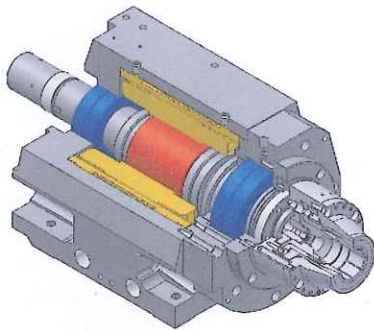
Components



Two independent production units mounted on a **rigid high-grade cast iron** (single casting), offering optimal static and dynamic rigidity. It rests on 3 support pads without need of foundation ties.

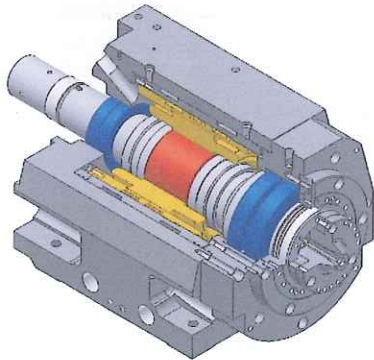
Cross-slides mounted on preloaded and life lubricated linear needle bearings. Internally protected from coolant and dust by a pressurized environment.

Cross slides driven by an AC motor, preloaded high precision ball screws, lubricated in a permanent oil bath in a sealed housing. Measuring system by rotating encoder. Direct drive for the X-axis, indirect drive over a lever for the Z-axis to permit optimal access to the spindles for part loading and tool setting purpose.



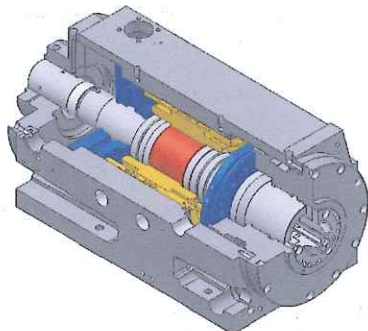
speed spindle 8000 rpm

Headstock mounted directly on the base, spindle with integrated asynchrone motor drive, mounted on UP-class preloaded and life lubricated angular-contact ball bearings. Rotating air cylinder directly mounted on the spindle. Encoder mounted directly on the spindle.



microspeed spindle 12000 rpm

Headstock mounted directly on the base, spindle with integrated synchrone motor drive, mounted on UP-class preloaded and life lubricated ceramic ball bearings. Cylinder integrated in the chucking device. Rotating distribution unit mounted on the back of the spindle. Encoder mounted directly on the spindle.



hydrospeed spindle 12000 rpm

Headstock mounted directly on the base, spindle with integrated synchrone motor drive, mounted on hydrostatic bearings. Cylinder integrated in the chucking device. Rotating distribution unit mounted on the back of the spindle. Encoder mounted directly on the spindle.

Thermal stability

To maintain uniform production of high precision parts, it is important to master and neutralize the effects of temperature variations caused by heat generation from motors, spindles and particularly chips during machining.

The motors and drives are mounted on the side of the bed, outside the machining area. These heat sources have thus very little influence on the thermal behaviour of the machine.

The thermal stability of the headstocks with integrated motor is ensured by refrigerated coolant circulation.

In the case of a machining with coolant, the mounting surfaces of the cross-slides and headstocks are constantly irrigated by coolant, circulated by two auxiliary pumps.



Outstanding features

Highly efficient, cost-cutting production : a single machine, two production units, two simultaneous operations in one handling by one non-specialized operator.

Ultra-productive tool path, through maximum reduction of unproductive time and optimal exploitation of the short stroke gang tooling concept which again turns out to be the fastest and the most accurate.

High machining and repetition accuracy, achieved by designed-in rigidity, meticulous manufacturing and high thermal stability of the entire machine.

Superior surface finish and geometric accuracy of parts, resulting from outstanding spindle suspension on preloaded, ultraprecision (UP-class) angular-contact ballbearings and cross-slides moving on preloaded needle bearings. In addition, the integrated spindle-drive concept (on all machine types) increases spindle accuracy and rigidity as well as the machine's smooth running. The hydrospeed version, with their spindles suspended on hydrostatic bearings, is especially appropriate for all your turning applications requiring extreme geometrical and surface finish quality.

Full utilization of latest cutting tool potential, due to compact, rigid headstock for spindle speeds up to 12000 rpm according to the specific chucking possibilities to your application.

Long machine life, sound reliability, minimum maintenance : life lubricated spindles and cross-slides, contaminant-free by pressurized air system.

kummer