KNECHT

USK 230 B - HV 208 II

Automatic Sharpening Machine



Best product quality

Fully automated and shape-accurate grinding of cutter knives



Mounting the cutter knife



Grinding the cutter knife

Sharpness, cutting edge angle, shape and profile of a cutter knife have large influence on the quality of the products fabricated.

High cutting speeds (up to 180 m per second, which equals 650 km per hour or 404 mph) and side pressure put a substantial amount of mechanical strain on the cutter knives. Thus, the polished edge of a cutter knife has a direct impact on its break resistance.

The USK 230 B - HV 208 II ensures exact and precisely angled edges as well as the preservation of the cutting profile and the original blade shape – and all that throughout the entire operating life of the cutter knives.



Copy grinding plate SP 110

The plate contains all necessary information about the shape and size of the knife. Each knife type receives its own custom-made copy grinding plate. Inconvenient programming and adjusting is unnecessary. This means simple and fast handling. It only takes one minute to convert the machine to a different knife type.

Knife types

Linear-shaped cutter knives as well as sickle-shaped cutter knives can be ground. The maximum knife size is approx. 380 mm (14.9 in), that equals a cutter knife of around 500 l.

High production safety

Gentle grinding process and simplest handling



Polishing and deburring the cutter knife



Control panel

The USK 230 - HV 208 II sharpens up to 100 cutter knives (500 l) per 8 hour shift, fully automatically. The average sharpening and polishing time per knife run from 2 – 3 minutes, depending on the blade size.

With each regrinding, the complete blade profile is processed. There is very little material removal from the knife. A 500 l cutter knife can be reground up to 40 times.

Abrasives

Water resistant wet-grinding belts are used to grind the knives. The grinding abrasion is bound by the coolant water. This means that it doesn't get into the environment. Up to 40 cutter knives (500 l) can be ground with one belt.

Sharpening principle

The operator moves the first knife of the set by tip operation into the grinding position. Pressing the start push button a second time activates the chosen sharpening program. The following blades of the knife set are moved automatically to the detected grinding position. From there, they are sharpened with the selected sharpening program.

Coolant unit

A coolant unit prevents the cutting tools from overheating during the grinding process. The flow rate is measured by a flow detector. If cooling is insufficient, the coolant monitor shuts the machine off.

Polishing and deburring

During the automatic grinding process, the operator polishes and deburrs the knife on the 340 mm (13.4 in) big finned brush. The precisely matched peripheral speed and the optimally balanced brush resistance compensate operational mistakes.

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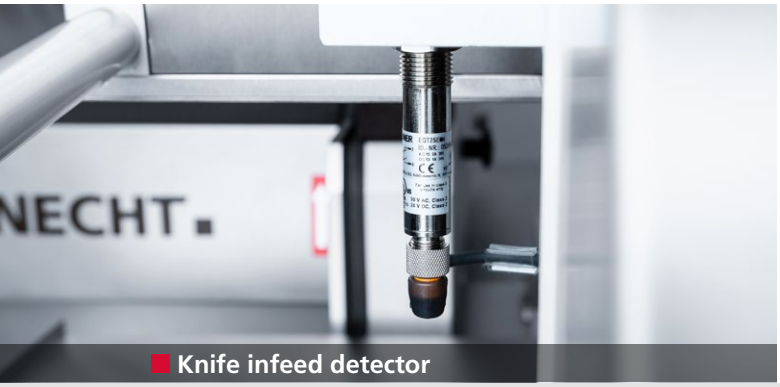
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High operational safety

Active monitoring of knife infeed and coolant flow rate



Knife infeed detector



Coolant flow detector

The USK 230 B - HV 208 II is very easy to use. The operator determines the most important functions, such as the number of the grinding cycles and the camber of the knives, via touch panel directly on the machine. This means that with every resharpening, the blade is given a cutting edge tailored exactly to the product.

The created grinding programs are stored in the data memory of the machine. The number of grinding programs is unlimited. Updates and new programs are loaded onto the HV 208 online.



1 LED work light

2 Polishing wheel

3 Wet-grinding belt

4 Copy grinding plate SP 110 with mounted cutter knife

5 Control panel with touch screen

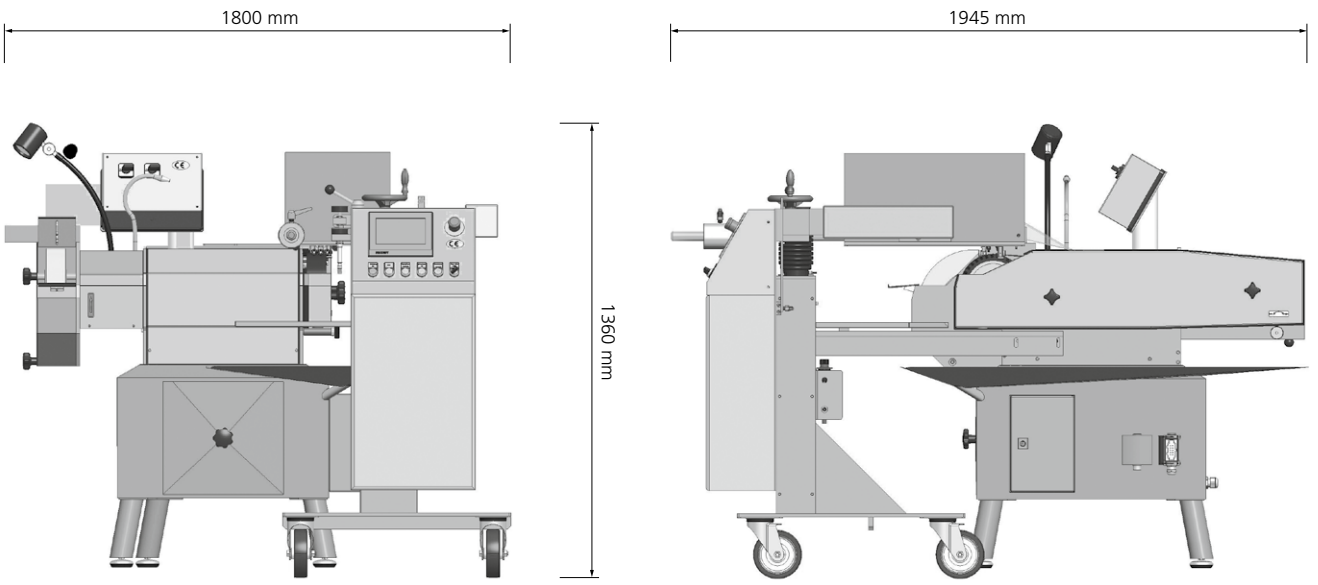
USK 230 B - HV 208 II

Technical specifications and space requirements*

Depth	1945 mm
Width	1800 mm
Height	1360 mm
Weight	approx. 320 kg
Depth*	2800 mm
Width*	2800 mm
Height*	2000 mm
Electrical supply**	2.8 kW 3x 400 V 50 Hz
Back-up fuse**	16 A
Compressed air supply according ISO 8573-1:2010 [1:4:2]	6 bar
Air consumption	< 50 l per minute
Emission sound pressure level according EN ISO 11201:2010	approx. 92 dB(A)
Internet connection	RJ45
Largest cutting tool	approx. 380 mm (14.9 in), cutter knife around 500 l
Performance (cutter knives 500 l)	100 knives per 8-hour shift

**) This information may change depending on the electrical power supply

The machine meets the EC safety and health requirements and is provided with the CE-symbol.
As at 2026.11 | Subject to technical modifications.



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