

Dressing machine

 **ULMER**  
WERKZEUGSCHLEIFTECHNIK

# K43C KIRNER

Discipline: Discs



# K43C KIRNER

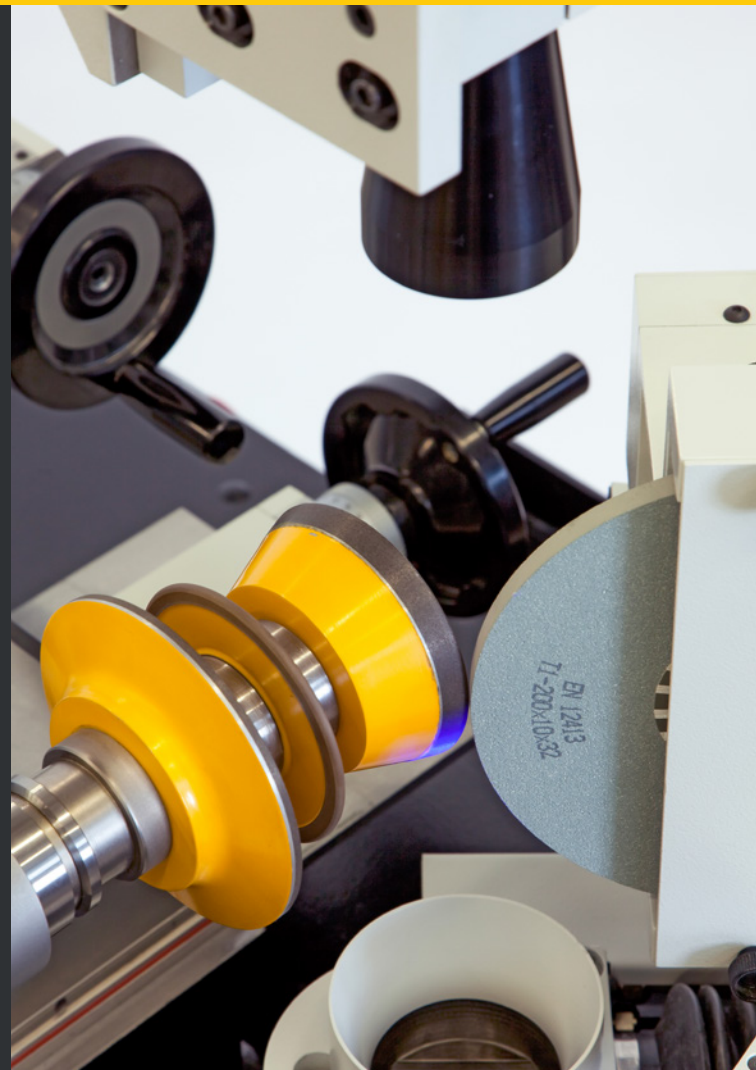
## All about the wheels

Dressing and profiling of diamond and CBN grinding wheels with a diameter of up to 400 mm and weighing up to 50 kg.



### Good to know

- Stable dressing process due to heavy weight of machine.
- High rigidity thanks to pre-stressed roller guides in all axes.
- Dressing and profiling of diamond and CBN grinding wheels.
- Machining of single wheels and wheel packs.
- Fast and simple dressing due to variable teach-in of the oscillating actuator using the handheld controller.
- Creation of precise profiles with an optimal radial run-out.
- Interface: mounting ISO 40 (HSK 50 optional).
- Additional options such as integrated displacement measurement system for axes X/Y and automatic infeed.

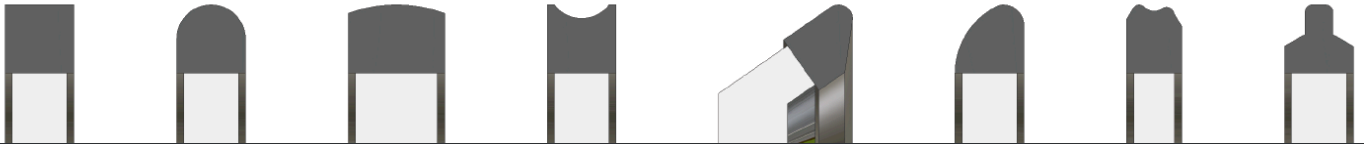


### Extremely precise sharpening and shaping in one process

Optimally adjustable process parameters:

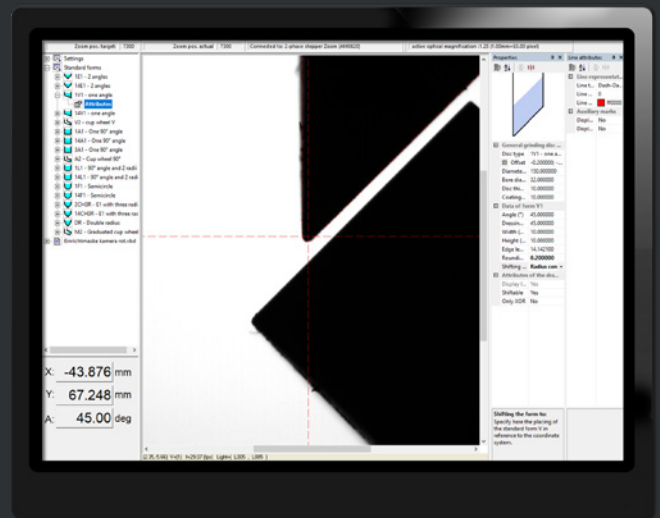
- Relative speed adjusted to the grinding wheel specification.
- Dressing in rotation and counter-rotation.
- Oscillation stroke with automatic infeed (optional).

## Example use cases of possible grinding wheel profiles



### Optical system

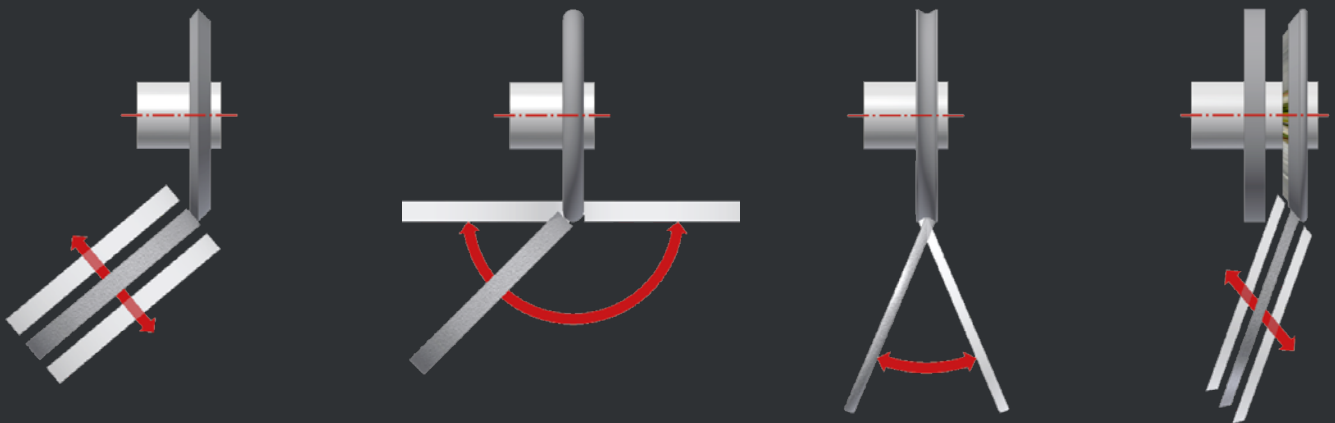
- Extremely small radii of down 0.04 mm are visualized and can be reliably profiled.
- Reproduction of geometries nearly without distortions (telecentric).
- High resolution camera with high frame rate (30 frames/sec) for an image virtually in real time.
- Zoom range from 9x to over 100x.
- Very small geometries can be profiled and visualized.



### KirCam – visualization software

- Extensive database of profile templates.
- DXF import of profiles produced in-house.
- Available and imported profiles can be processed directly on the machine.

### Dressing variants



Double-sided dressing of chamfers

Swivel range  $\pm 96^\circ$  for dressing radii

Dressing of shaped wheels with inner radius

Dressing of wheel packs

# K43C KIRNER

## Technology

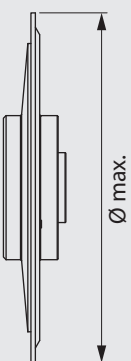
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### K43 C performance data

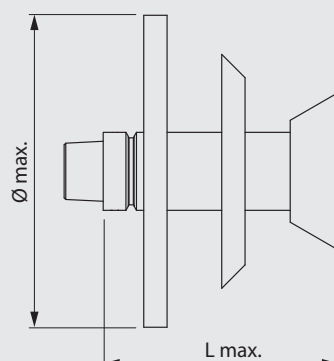
<b>Workpiece spindle</b>	Mounting	100 x 160 mm
	Taper	ISO 40 (HSK 50 optional)
	Continuously variable speed	100 - 1,000 rpm
	Direction of rotation	Rotation/counter-rotation
<b>Table coordinates</b>	Travel X-axis	150 mm
	Coarse adjustment X-axis	80 mm
	Travel Y-axis	130 mm
	Coarse adjustment Y-axis	70 mm
<b>Dressing unit</b>	Dressing disc $\varnothing$ max.	200 mm
	Dressing disc width max.	20 mm
	Continuously variable speed	1,000 - 3,000 rpm
	Mounting hole	32 mm
	Swivel range	$\pm 96^\circ$
	Oscillation stroke	42 mm
	Infeed	manual/automatic
<b>Camera monitor system</b>	Monitor	19" industrial TFT
	Camera zoom range	9x, 20x, 40x, 55x and 100x
<b>Machine</b>	Connected load	12 kVA
	Voltage/frequency	400 V/50 Hz
	Dimensions W x D x H (protection cover closed)	1,500 x 1,500 x 2,200 mm
	(protection cover opened)	1,500 x 1,500 x 2,800 mm
Weight	1,000 kg	

### Workpiece dimensions

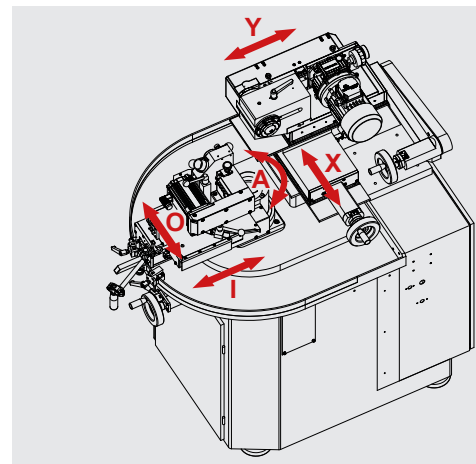
**Single wheel**  
 $\varnothing$  max. 400 mm  
 Weight max. 50 kg



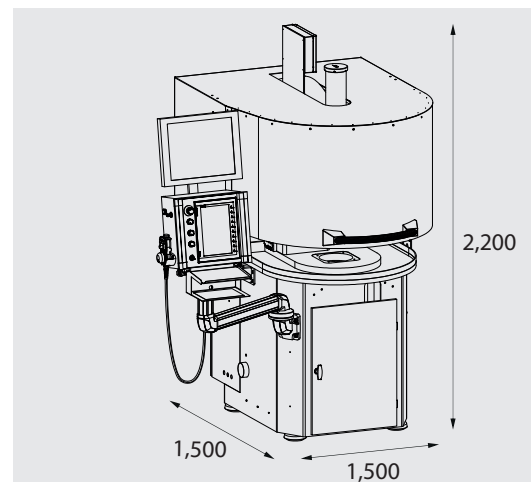
**Grinding wheel pack**  
 Length max. 150 mm /  $\varnothing$  max. 350 mm  
 Weight max. 50 kg



### Kinematics



### Dimensions [in mm]



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