

precision grinding machines for industrial knives



Recommendation



Text translation from the right

We bought the grinder GR from GRAFS company and we are very satisfied with it.

- we use the machine to sharpen chipper knives and planer knives
- the machine's construction is very robust and precise
- the control with german's language touch panel is simple and intuitive
- the delivery time was as agreed
- the commissioning was simple and we could handle it ourselves, thanks to the clear user manual
- for us, it is important that we grind not only chipper knives and planer knives but also all other fl at surfaces. In particular, the guides for our saw frames (EWD HDN-600) can be resharpened very precisely. It is an advantage for us to be able to do this all ourselves.

DI. Johannes Zwickl



Holztechnik Zwickl GmbH
 Bahnstraße 60
 A-3943 Schrems
 Austria
 02853/77378
 www.1aholz.at

	grinding lengths	1200/1800/2000/2400 mm
	grinding tools	segment grinding wheel with 8 Corundum segments, CBN grinding wheel, Diamond Grinding wheel, Corundum Wheel
	clearance height	110-160 mm
	grinding motor power	4 kW, 5,5 kW, 7,5kW, 11kW
	swiveling table	electromagnetic chuck table, fastening table with clamps

Following parameters of the grinder can be adjusted to client's needs

Why is the purchase of our machine profitable ?

If you spend monthly 500 € for sharpening industrial knives, the investment in the purchase of the grinder will pay off after 4 years!

Our grinders are the best for sharpening:

cutter knives
vener knives
plywood knives
chipper knives

crusher knives
shredding knives
mill knives
granulator fixed knives

paper guillotine knives
bottom knives
trimmer knives
cutter knives



	SR	GR
Max grinding length	1200 mm , 1800 mm, 2100 mm, 2400 mm	1200 mm, 1800 mm, 2100 mm, 2400 mm
Max grinding width	180 mm	180 mm
Type of fixing the knives	<ul style="list-style-type: none"> • "T" slot table with clamps • Manual clamped magnetic - neodymium chuck (60N/cm²) + "T" slot chuck with clamps 	<ul style="list-style-type: none"> • "T" slot table with clamps • Electromagnetic chuck (90N/cm²) + "T" slot table with clamps
Swivel range magnet	+ / - 90 ° (Polarity 20 mm)	+ / - 90 ° (Polarity 20 mm)
Type of downfeed system	Manual (by hand wheel)	Electrical (by stepper motor) from 0,001 mm
PLC	no	yes
Functions	Semi-auto	Auto (programmed on the panel)
Grinding motor speed	1400 rpm (switched right/left)	1400 rpm (switched right/left)
Carriage speed	1m/min - 12m/min (smooth regulation)	1m/min - 16m/min (smooth regulation)
Grinding motor power	4 kW , 5,5 kW, 7,5 kW	5,5 kW, 7,5 kW, 11kW
Grinding motor swivel	+ / - 10 °	+ / - 10 °
Length x width of the machine according to max grinding length	2200 x 1000 mm (for 1200 mm grinding length) 2800 x 1000 mm (for 1800 mm grinding length) 3000 x 1000 mm (for 2000 mm grinding length) 3400 x 1000 mm (for 2400 mm grinding length)	2200 x 1000 mm (for 1200 mm grinding length) 2800 x 1000 mm (for 1800 mm grinding length) 3000 x 1000 mm (for 2000 mm grinding length) 3400 x 1000 mm (for 2400 mm grinding length)
Coolant filtration	Yes (by external separator)	Yes (by external separator)
Grinding wheel (every type: corundum, CBN, DIA, Grinding wheel with segments)	Φ 150 - 250 mm	Φ 180 - 250 mm

GR Model

Heavy duty machine for grinding industrial blades

OUR FLAGSHIP MODEL

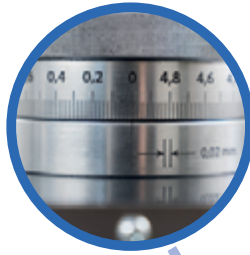
Machine functions

- automatic working cycle programmed before or during work
- automatic down feed, and spark-out
- down feed from 0,001 mm to 0,03
- all electrical by stepper motor
- pause mode

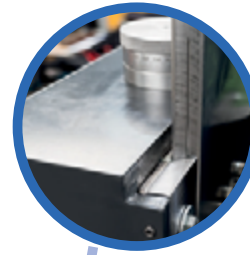
Smooth adjustment of carriage speed by potentiometer knob (from 1 to 16 m/min)



Scale that represents the position of the grinding wheel, relative to the knife



Special guides on bronze lining, guaranting longterm work



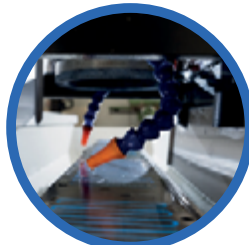
Motor equipped with special reinforced bearings with the elimination of axial play
Highest efficiency IE3, IP65 as standard



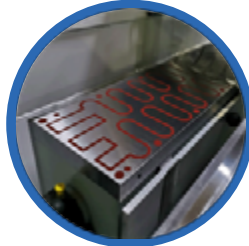
Safety switch key against using machine by unqualified person



Easy of use 7" HMI Touchpanel mounting on grinding carriage and PLC controller



2 nozzles with regulation of the coolant flow



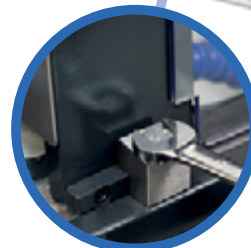
Electromagnetic chuck for knives fixing available in 4 options



Modern electronic components from proven European manufactures



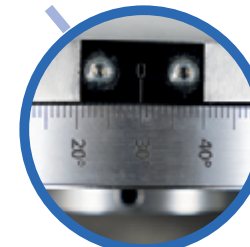
Additional limit switches which secure trolley from moving out of the base



Special guides enabling adjust of the carriage position in Z axis relative to the trolley



Hardened exchangeable inox strips mounted on previously machined guides



Possibility of precise setting the table at a specific angle from 0° do 90°



Magnetic protection against removing the grinding wheel cover



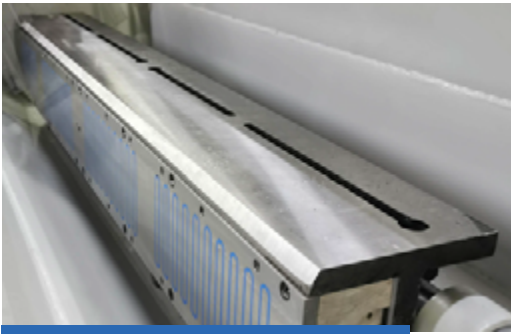
Easy mount and exchange grinding wheel (it takes only 60 sec.)
Possibility of fixing any types of grinding wheel (diameter 180-250mm)

The machine can be adapted to individual customer needs

The machine base is made of electrowelded steel sheets 16 mm, with appropriate ribs, in cell design - which makes the whole structure extremely stable.

Types of swiveling tables

In both grinding machines, it is possible to install one of two types of magnetic swivelling tables. Each of the tables allows for grinding flat surfaces.



Steel plate with "T" channel

In addition, one of the sides of each magnetic swivelling chuck has the option of fastening the knives with clamps, useful for non-magnetic blades (e.g. cemented carbides).



Electromagnetic chuck table

The electromagnetic swivelling chuck allows for greater knife attraction force, therefore, working with heavier knives and easier knife releasing after grinding.

We invite you to free of charge consultation that will help to determine what kind of the swivelling chuck will meet most of your business challenges.



electromagnetic knife holder

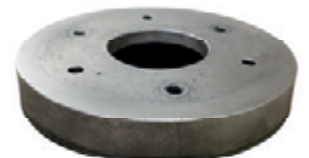
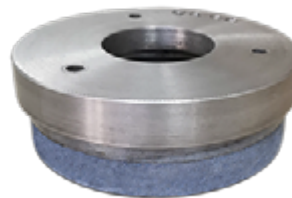
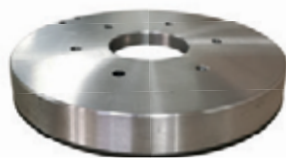
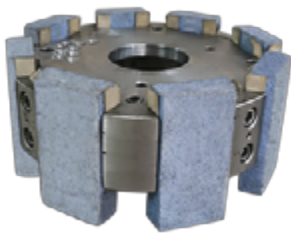


"T" slot table with clamps



function of flat surface grinding

Grafs - Grinding tools



Segment grinding wheel	CBN grinding wheel	Corundum Wheel	Diamond grinding wheel
8 Corundum segments (with special steel holder) Φ250 mm	Φ 250 mm	(fixed on our aluminum holder) Φ 200 mm	Φ 200 mm
For hard steel 58-60 HRC (Chipper blades)	For HSS knives used mainly in paper and printing industry	For hard steel 58-60 HRC (Chipper blades)	Standard steel, SS

We provide grinding tools dedicated to our grinders.

Their quality and price encourage many companies to use them in their daily work.

We provide the necessary technical documentation to our customers who want to make their grinding tools by themselves.



Transparent functions on the panel allow for easy and efficient operation of the machine. Functions programmed on the panel:

- down feed from 0,001 mm up to 0,03 mm,
- number of grinding passes,
- number of sparking out passes,
- coolant flow on/off
- turning on fast grinding wheel exchange (fast ride up of the grinding motor)

All functions are displayed on the panel by the special icons during each process.

What are the benefits of using separators?

The use of separators very effectively cleans the coolant, protecting the grinders and improving the precision of the grinding process.

1 Exceeds coolant lifetime

2 Improves the work and efficiency of the grinding wheel

3 Improves quality of grinding

MS magnetic separator

Our separators are made of high-quality materials, which means that they will work reliably even under continuous and long-term load.

- energy efficient
- fully automated does not need supervision
- build with strong neodymium magnets
- Solid construction, made of thick aluminium plates
- 98% efficiency of filtering ground magnetic material



Magnetic separator MS combined with PS paper separator



The combination of two kinds of separators results in 99% efficiency in filtering magnetic and non-magnetic bits and lets to use coolant for a way longer period.

Capacitive sensor for filtered liquid. When the defined level is exceeded, the fabric is rewound automatically what results in spending up of the filtration process.



We proudly present to you the result of our work.
We are confident that our grinder will work well and reliably for the needs of your business.

Project and supervisory team GRAFS

GRAFS Technology is a producer of high-performance grinding machines for sharpening industrial knives.

Since 2011, we support partners from the printing industry in the field of technical and service. We also provide knife sharpening services for companies from various industries.

Driven by passion and supported by 35 years of technical experience, we decided to create a universal machine for sharpening straight knives of all types.

Our numerically controlled grinders are designed for many sectors of industry: metal processing, wood, printing, packaging, and mainly the recycling industry.

We provide service, machine installation, training and professional assistance in choosing the right materials, accessories and operating parameters.

COMPREHENSIVE TECHNICAL SUPPORT

For our part, we provide full technical support related to the purchase of our machines and devices. We have been involved in technical service and machine relocation for 8 years. We know how important today is the reliability and continuity of machine operation, where so many manufacturers are focused on after-sales service in the form of distribution of spare parts.

That is why we strive to manufacture machines that meet the highest standards of durability, providing the user with many years of trouble-free operation.

We offer our clients advice on adjusting machine parameters and material consulting. On request, we can provide and install machine at the customer's premises.

We are proud member of



**METAL
PROCESSING CLUSTER**



KEY
NATIONAL
CLUSTER

Cluster
Management
Excellence
CERTIFICATION BY CLUSTER COOPERATION

www.metalklaster.pl/en

**“Quality means doing it right
when no one is looking”**

Henry Ford



Grafs
Hryniewiczze 16
15-378 Bialystok
Poland

Contact
email: biuro@grafs.tech
+48 609 743 771
www.grafs.tech



Republic
of Poland

European Union
European Regional
Development Fund

