Kaindl®
SCHLEIFTECHNIK

Operating manual for the RMS - I

Circular knife grinding machine

Original operating manual
Please retain for future use!

Kaindl-Schleiftechnik REILING GmbH, Remchinger Str. 4, D-75203 Königsbach-Stein
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EC DECLARATION OF CONFORMITY

The manufacturer:

Kaindl-Schleiftechnik
Reiling GmbH
Remchinger Straße 4

75203 Königsbach-Stein

hereby declares that the following machine: circular knife grinding machine
Type: RMS - I

fulfils the health and safety requirements of the following EC directives:
EG Machinery Directive (2006/42/EG)
EMC directive (2004/108/EG)

Harmonized standards applied:

EN ISO 12100:2010; EN ISO 13857:2019; EN ISO 13732-1:2008;
EN 61029-1:2009; EN 60204-1:2019; EN 61000-6-1:2019;
EN 61000-6-2:2019;EN 61000-6-3:2020; EN 61000-6-4:2020

Design changes that affect the technical data specified in the operating manual and the intended use, i.e. that significantly change the machine, render this declaration of conformity invalid!

The documents were compiled by: Reinhard Reiling

Kaindl-Schleiftechnik
Reiling GmbH
Remchinger Straße 4
75203 Königsbach-Stein

Königsbach 11.01.2023

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1. Transport

The RMS I circular knife grinding machine is delivered from the factory in a wooden crate on a pallet. The weight of the machine with packaging is c. 180 kg.
Transport is performed by pallet and pallet truck or forklift truck.

1.1 Environmental requirements for installation

Only set up and operate the RMS I circular knife grinding machine in dry rooms.
Ambient temperature: from +5 to +50°C
Humidity: up to 90%; non-condensing

1.2 Installing up the machine

Move your machine as close as possible to its final location whilst still on the pallet. First unscrew the machine from the pallet. Lifting points at each corner of the tub. Before setting the machine down at its final location, the machine feet included in the scope of delivery must first be screwed in from below. Please ensure that the machine stands level on the floor; a spirit level should be used to align it (a construction spirit level is sufficient). Place the spirit level on the adjustment bridge in the machine and align it in both directions by adjusting the machine feet.
Please ensure that the machine location is selected to ensure vibration-free operation of the machine.

1.3 Safety instructions

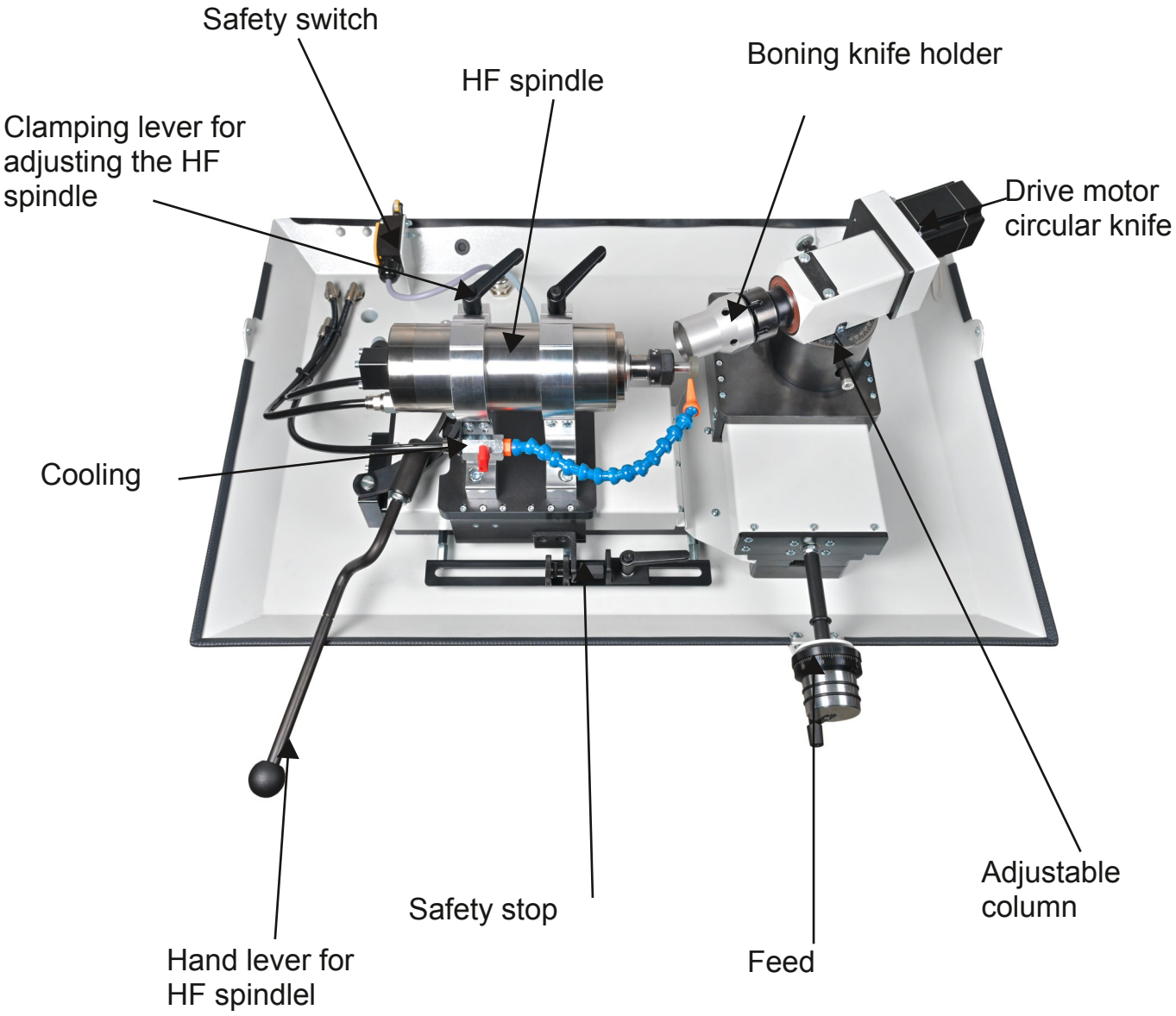
Read the entire operating manual closely!

We will accept no liability for damage caused by ignorance of the contents or failure to follow the specifications of the operating manual!
Great care must be taken when handling boning knives, as they can be razor sharp and cause serious cuts if handled carelessly. We strongly recommend the use of cut-resistant gloves in order to prevent this as far as possible.

1.4 Intended use

The RMS I circular knife grinding machine is designed exclusively for the sharpening of boning knives (inside and outside).
Zur bestimmungsgemäßen Verwendung gehört auch das Lesen und Verstehen dieser Intended use also includes reading and understanding this operating manual and compliance with all instructions contained therein. The operating company is responsible for all damage to property and personal injury resulting from non-intended use!

2. STRUCTURE


Safety switch
HF spindle
Boning knife holder
Clamping lever for adjusting the HF spindle
Drive motor circular knife
Cooling
Adjustable column
Safety stop
Hand lever for HF spindlel
Feed

3. TECHNICAL DATA

Main dimensions

Length:	560 mm
Width:	820 mm
Height:	1270 mm
Net weight:	160 Kg
Grinding wheel:	Ø 20mm / B 91
Noise emission:	<70 dB(A)

Electronic data

Drive grinding spindle:

Motor:	1~ 230V / 50 Hz
Rotational speed HF spindle:	24.000 rpm
Output:	2,2 KW water-cooled
Protection class:	IP 55
Coolant liquid:	AG 13

Run-out time of the mounted grinding wheel c. 5 sec.

Coolant pump:

Motor:		1~ 230V / 50 Hz
Output	Level 1:	0,028 KW
	Level 2:	0,045 KW
	Level 3:	0,063 KW
Protection class:		IP 65
Delivery capacity:		16-35 l/min

Grinding areas:

Grinding in the Ø area inside:

At 0° max. Ø 40 mm
At 22° max. Ø 160 mm
At 45° max. Ø 180 mm

Grinding in the Ø area outside:

At 0° max. Ø 270 mm
At 22° max. Ø 145 mm
At 45° max. Ø 40 mm

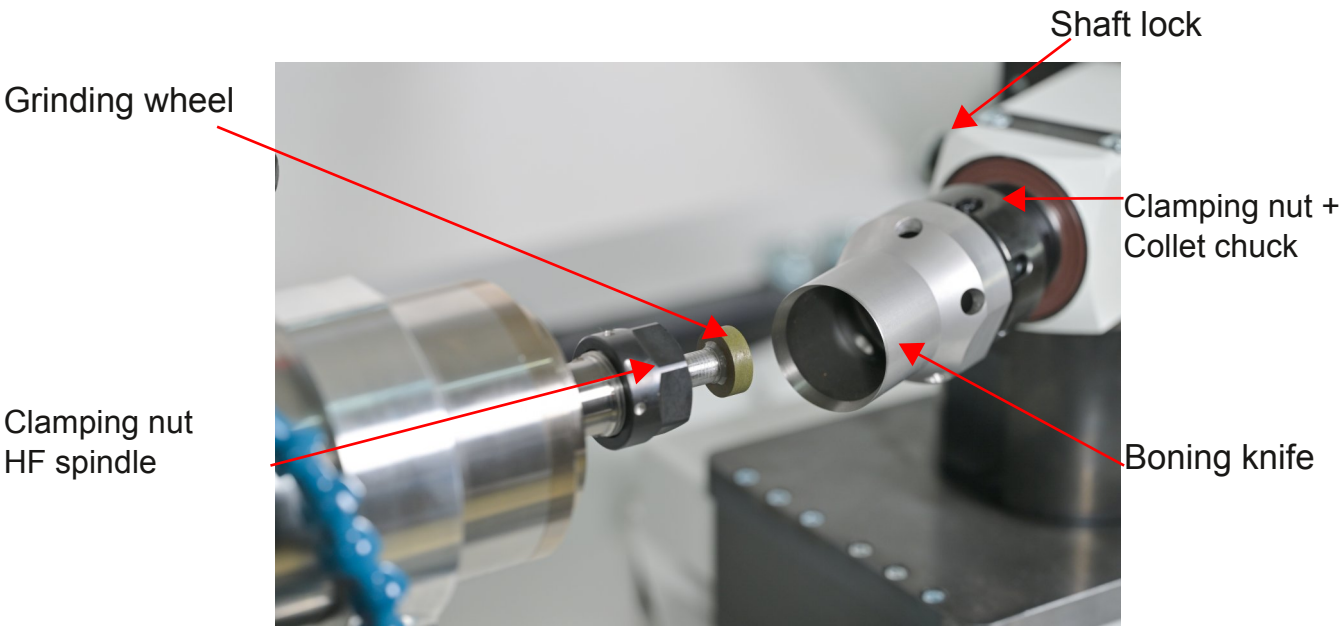
Subject to technical alterations.

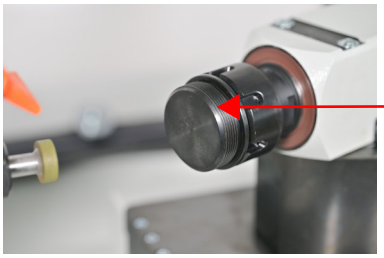
4. Operation

4.1 Clamping the boning knife

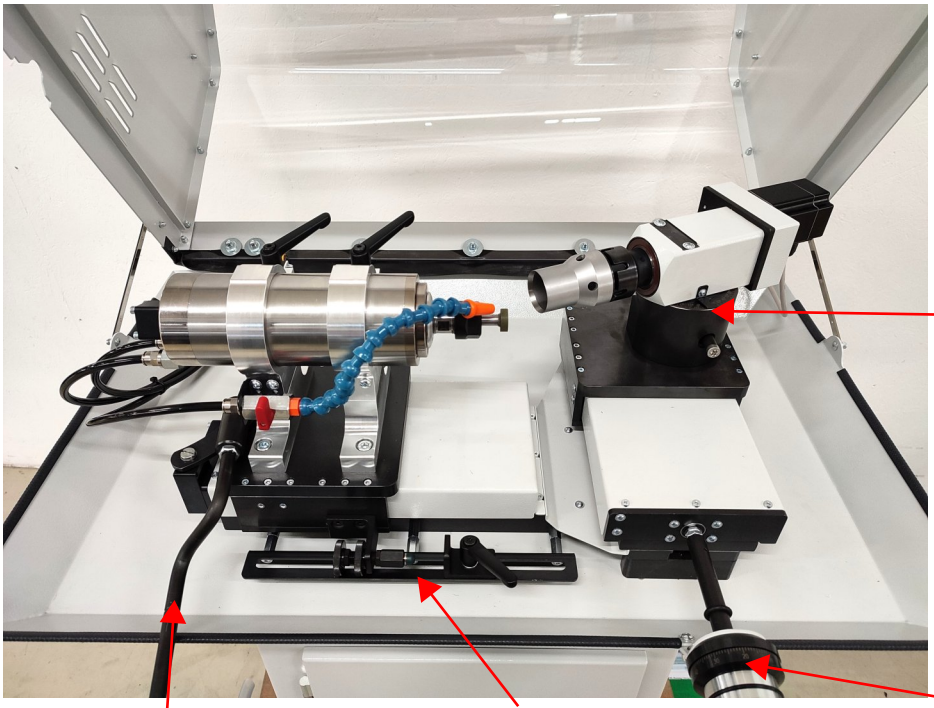
Centre the thread adapter in the collet chuck and tighten it accordingly using the hook spanner. Now screw the boning knife onto the thread adapter. You must keep the shaft lock pressed when tightening and loosening the clamping nut. Turn the shaft with the hook spanner included in the scope of delivery, until the shaft lock engages.

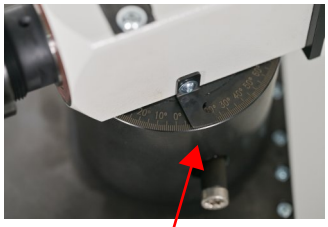
!!! Exercise caution when tightening and loosening the boning knife - danger of injury !!!





4.2 Aligning/grinding the boning knife





Scale
Fixed to 22°

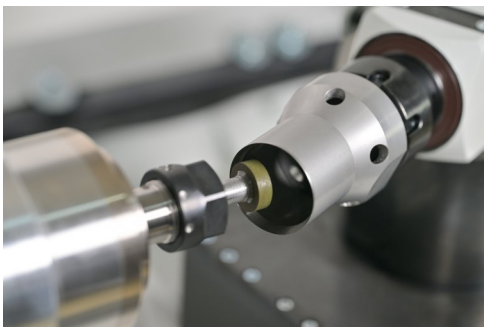
Hand lever for HF spindle

Safety stop

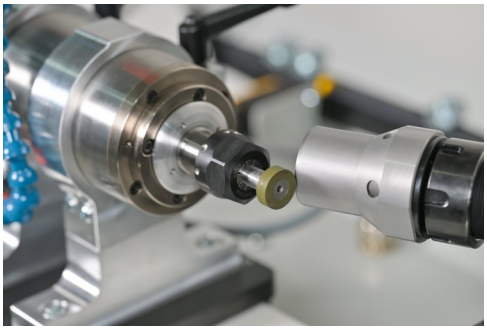
Feed

Once you have mounted the boning knife on the holder, set the safety stop to the required travel distance.
Position the coolant hose accordingly.
With the feed, you now have the option of sharpening the boning knife either on the inside or outside.

Inside



Outside

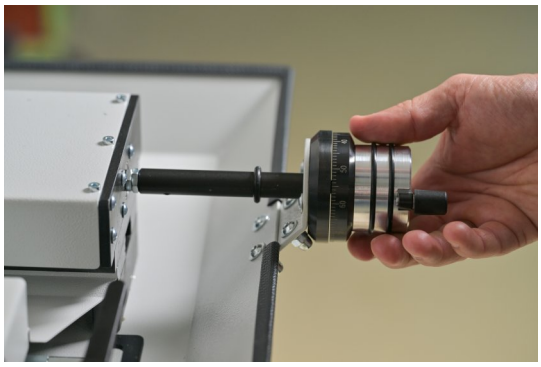


7. Manual operation

Feeding in manual operation is performed using the hand lever on the left-hand side of the machine and the feed wheel on the right-hand side.

The HF spindle is moved forwards and backwards using the hand lever.

The feed wheel allows you to approach the boning knife slowly and feed it accordingly.

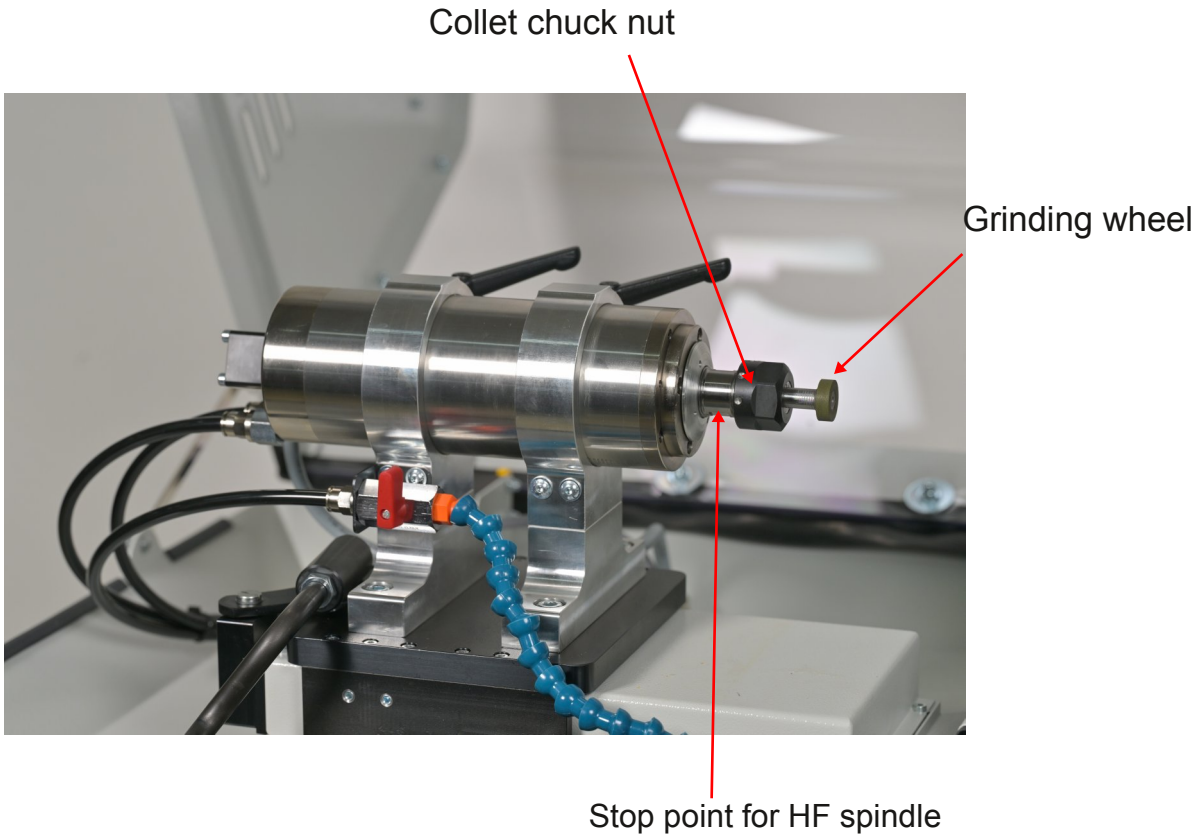


After pressing the main switch, it takes c. 3-4 seconds until the green light flashes in the centre of the Start-Stop switch. The machine is ready for use from this moment. When the safety guard is open, only the tool spindle runs (e.g. for deburring work).

8. Changing the grinding wheel

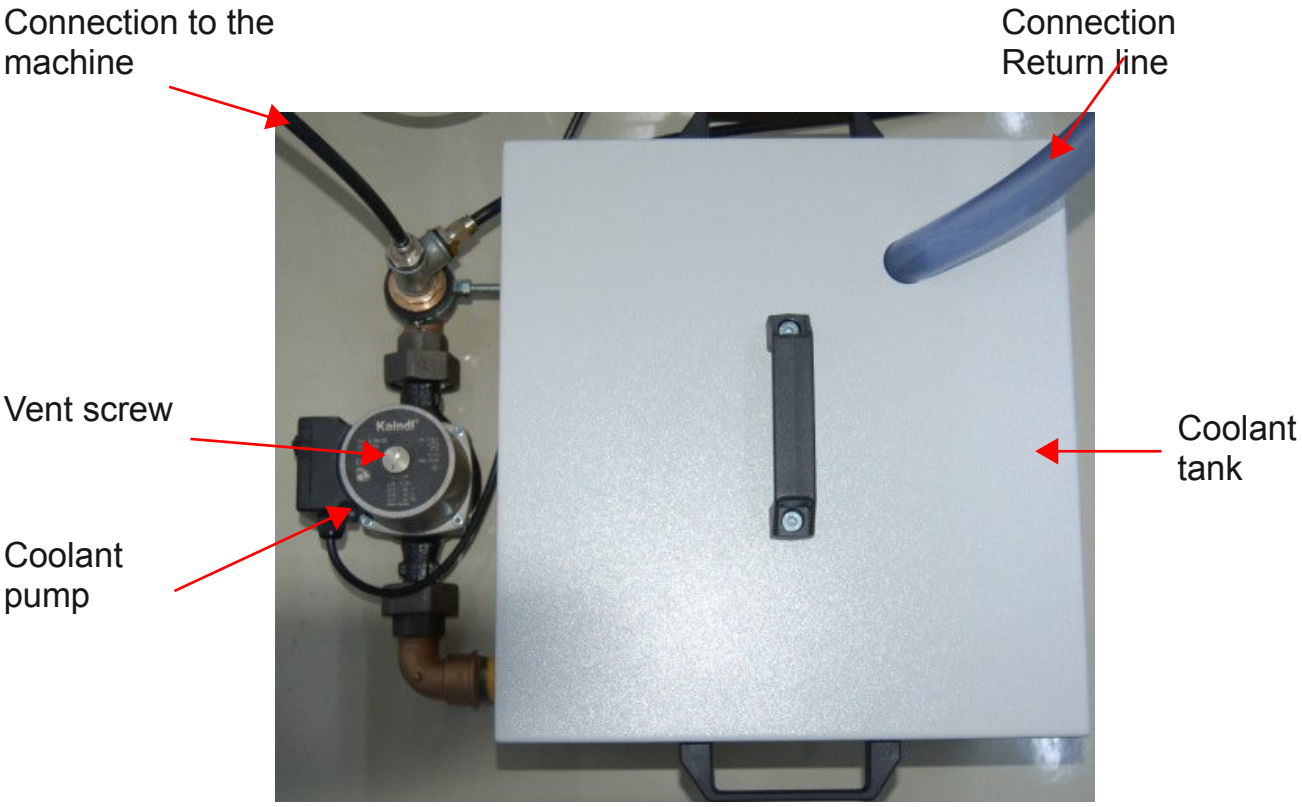
It is imperative that you first disconnect the mains plug before changing the grinding wheel!

Furthermore, it is imperative that you first remove the boning knife when changing the grinding wheel !

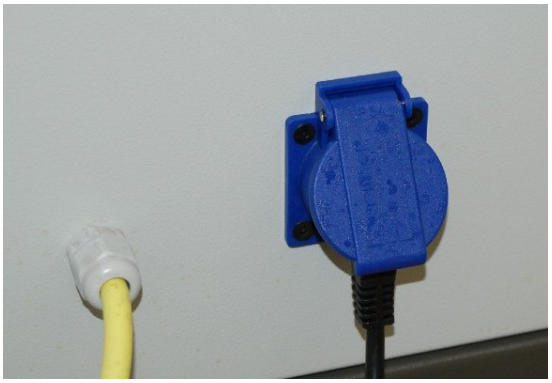


Holding the HF spindle with the spanner AF 21 included in the scope of delivery, you can unscrew the collet chuck nut using the spanner AF 30.
You can now remove the grinding wheel and change it.

9. Description of the coolant system



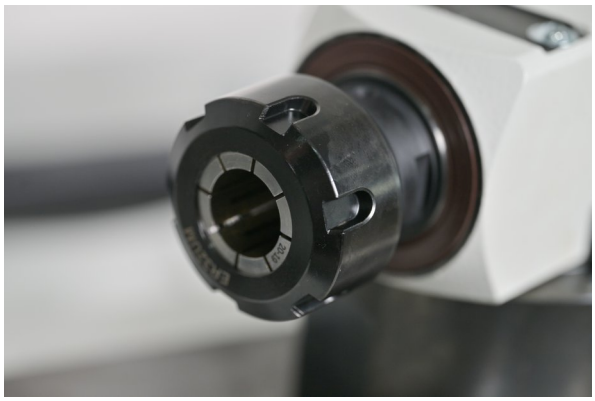
Bleed the coolant pump before initial operation!
Fill the container to at least the top edge of the pump
Socket for coolant system (connection on the machine stand)



Basic information on coolant lubricants:
Use only mineral oil-based water-miscible emulsions.
Synthetic products can cause considerable damage to the paintwork,
various plastic parts and bearing seals, for which we cannot accept any liability.
Comply with the directives of the relevant lubricant manufacturer when testing coolant lubricants.

Comply with the relevant disposal regulations.

10. Changing the collet chuck



Unscrew the collet chuck + collet chuck nut from the holder.
You can then change the collet chuck accordingly.

11. Circuit diagram

You will find the circuit diagram on the USB-Stick, inside of the switching cabinet door.

12. Maintenance

The RMS I circular knife grinding machine requires no special maintenance. Occasionally check the power cable and mains plug for damage and the coolant system for leaks. The coolant lubricant must be checked in accordance with the manufacturer's directives.

IMPORTANT: Perform regular checks (1 x week) of the fluid level of the HF spindle and clean the radiators in the housing if necessary.

Fluid level
HF spindle
Coolant liquid AG 13

Hazard statements
H302 - Harmful if swallowed.
H319 - Causes serious eye irritation.
H373 - May cause damage to kidneys through prolonged or repeated exposure. Form of exposure: Ingestion.

Safety instructions
P101 - Should medical consultation become necessary, have the packaging or label to hand.
P102 - Keep out of the reach of children.
P103 - Read all instructions carefully and comply with them.
P260 - Do not inhale dust / fumes / gas / mist / vapour / aerosol.
P264 - Wash thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product. P280 - Wear eye protection / face protection.
P301 + P312 - IF SWALLOWED: If you feel unwell, telephone a POISON INFORMATION CENTRE / a doctor.
P330 - Rinse out mouth.
P305 + P351 + P338 - UPON CONTACT WITH EYES: Rinse gently with water for a few minutes. Remove any contact lenses if possible. Continue rinsing.
P314 - Should you feel unwell, seek medical advice / attention.
P337 + P313 - In case of persistent eye irritation: Seek medical advice / medical attention. P501 - Dispose of contents / container in accordance with local / regional / national / international regulations.

13. Cleaning and lubricating

The RMS I circular knife grinding machine should be cleaned regularly (depending on the type and scope of use) in order to ensure its full functional safety. Remove grinding dust from the machine using coolant and a brush. Regularly clean the cooling fins and the ventilation (fan wheel/fan grille) of the grinding motor. Clean stubborn soiling with a commercially available machine cleaner (do not use any aggressive agents). To prevent corrosion, apply a film of oil to bare parts and burnished machine parts.

! Important ! The machine's protective covers protect the guides, spindles and switches underneath from dirt and coolant. As such, not coolant may be permitted to penetrate the protective cover when cleaning the machine with the coolant gun.

14. Repair

Repairs to the RMS I and other mechanical assemblies may only be carried out at Kaindl or by persons authorized by Kaindl.
This does not affect the replacement of wear parts.
Replacement of electrical spare parts may only be carried out by a qualified electriciant.

15. Disposal of the machine within the EU

Given delivery to our factory, Kaindl-Schleiftechnik Reiling GmbH will dispose of the old machine correctly in accordance with the applicable directives of the European Waste Electrical and Electronic Equipment Directive.

16. Warranty

The warranty period is 12 months from the date of delivery and relates to single-shift operation. Operation in multi-shift operation comes with a warranty period of 6 months starting from the delivery date; this requires intended use of the machine and due diligence from the operating company.

The warranty covers the replacement of defective parts and assemblies, including the necessary labour. Replacements may also include reconditioned, used parts and assemblies.

The following are excluded from any warranty:

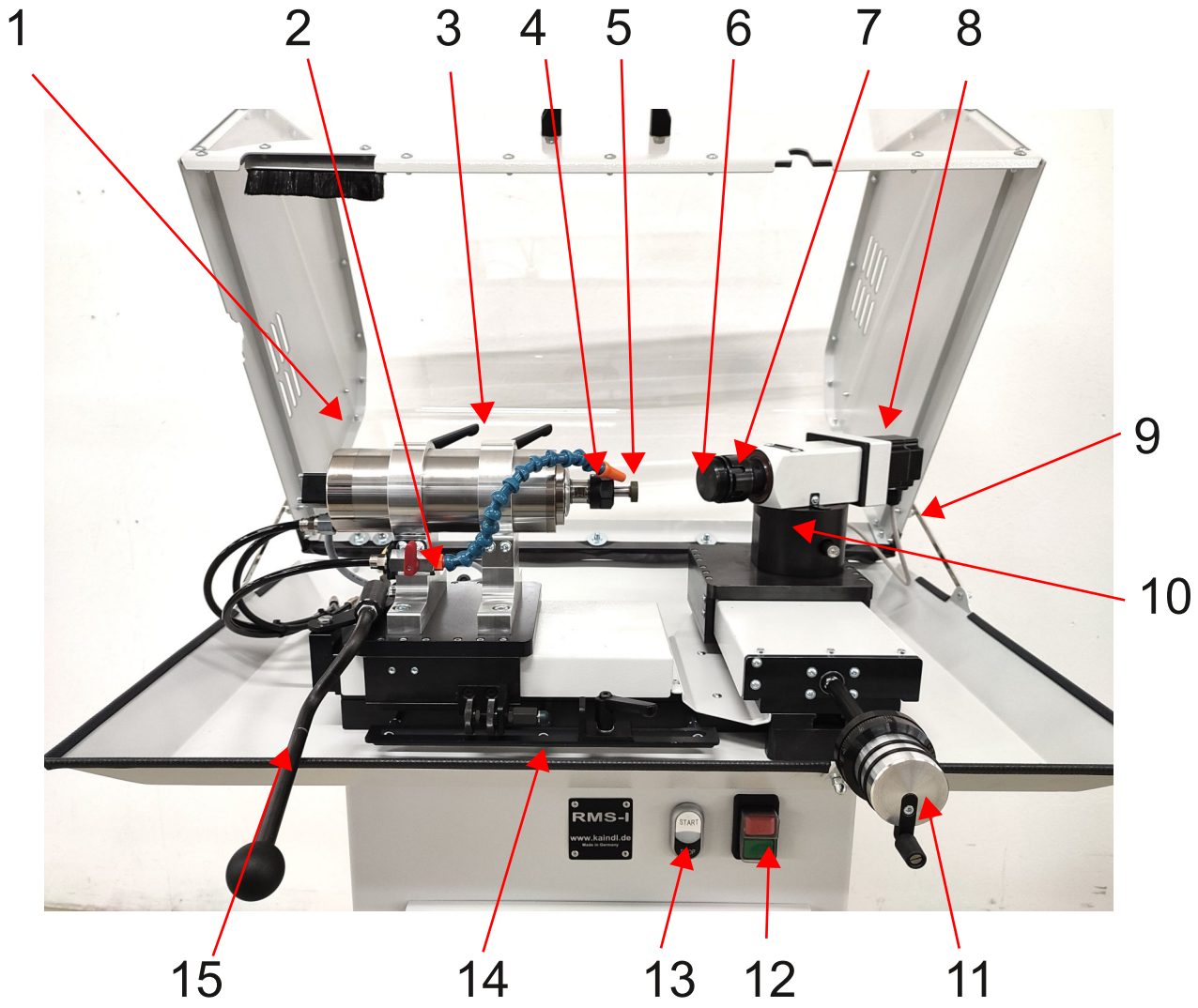
- Operating-related wear parts
- Transport damage
- Damage resulting from improper use of the machine
- Damage resulting from program parameter errors
- Damage from the impact of violence
- Damage and consequential damage caused by failure on the part of the operating company to exercise due care or by disregarding the safety instructions
- Damage resulting from aggressive media such as sharp or corrosive cleaning agents, solvents etc. or aggressive cooling lubricants

In the event of warranty claims, please inform us immediately, stating the machine type, serial number and year of manufacture.

It is not possible to process your warranty claim without the year of manufacture and the machine number!
Machine returns require our prior consent.
We reserve the right to charge transport costs for unauthorized returns.

We assume ownership of all parts replaced under the scope of the warranty.

17. RMS - I SPARE PARTS LIST



1. HF spindle
2. Coolant hose + valve
3. Clamping lever adjustment
4. Collet chuck + collet chuck nut
5. Grinding wheel
6. Meyn thread adapter
7. Collet chuck + collet chuck nut ER20
8. Drive motor for rectum cutter
9. Hinge for safety cover
10. Adjustable column
11. Handwheel feed
12. Main switch
13. Start-Stop switch
14. Safety stop
15. Hand lever for HF spindle

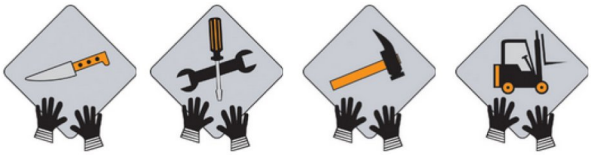
Kaindl-Schleiftechnik, Reiling GmbH

Item No..:	Model name:
18235	CUTGRIP

Design & Construction

Description:	5-finger cut protection gloves (10 Gauge) made of 76% KEVLAR® in black and 24% PES / glass. Extra long knite waistband as pulse protection. With slip resistant PVC – nup like surface.	
Sizes:	09 green 10 blue 11 brown 12 black	
Colors:	black	
Characteristics:	76% KEVLAR® and 24% PES / glass as protection against cuts • very high cut resistance • Elastivc waistband for good fit • extra long knite waistband The gloves do not contain substances, known to cause allergies	

Directions for use:

Scope of application:	**Automotive industry, Metalworking industry, Assembly, Packing industry Transport**	
		
Restrictions:	The gloves do not protect against chemical, bacteriological, electrostatic and thermal dangers. They cannot be used, when working with turning objects. Gloves which are badly damaged and provide no more protection, have to be changed.	
Launder:		**60°C machine washable. Do not use bleaching- and oxidising agents.**
Storage:	**Do not expose to direct sunlight!**	

Pictogram and power stage as per EN 388:2003

BP 60033128 0001
Report: 21151902 003 & 004

Demand	LS
Abrasion resistance	2
Cutting resistance	5
Tear resistance	4
Penetration resistance	4

0197
TÜV Rheinland LGA Products GmbH – Tillystraße 2 – D-90431 Nürnberg/Germany

Source of supply: **Kaindl-Schleiftechnik, Reiling GmbH, Remchinger Str. 4, D-75203 Königsbach Stein- Germany**
Phone: +49(0)-7232-40010, Fax: +49(0)-7232-400130 www.kaindl.de info@kaindl.de

Kaindl-Schleiftechnik, Reiling GmbH

Kaindl®

Dear customer,

for clamping- and unclamping of the tools, please always wear the appropriate cut protection gloves.
To the first delivery, we add a pair of special cut protection gloves. These protect you from cuts of the tool cutting edges and possibly resulting burr.

For repeat ordering, please use the following item numbers:

5 pairs/package

Cut protection glove	**CUTGRIP, size 9 (M),**	**Item No. :18234**
Cut protection glove	**CUTGRIP, size 10 (L),**	**Item No.: 18235**
Cut protection glove	**CUTGRIP, size 11 (XL),**	**Item No.: 18236**
Cut protection glove	**CUTGRIP, size 12 (XXL),**	**Item No.: 18237**