

MT3 / MT3 pro

Nr. 1808 / 1809

Bedienungsanleitung
Instruction manual • Mode d'emploi
Istruzioni d'uso • Instrucciones para el servicio
Инструкция по эксплуатации
取扱説明書 • 사용 설명서 • 说明书



Seriennummer, Herstelldatum und Geräte-Version befinden sich auf dem Geräte-Typenschild.
Serial number and date of manufacturing are shown on the type plate of the unit.
Le numéro de série et la date de fabrication se trouvent sur la plaque signalétique de l'appareil.
Il numero di serie e la data costruzione si trovano sulla targhetta dell'apparecchio.
El número de serie y la fecha de fabricación están indicados en la placa identificadora del aparato.
Номер серии и дата изготовления указаны на фирменной табличке прибора.
产品编号和生产日期被标于本机的铭牌上。
シリアル番号、製造日および装置のバージョンは装置の型番号ラベルに記載されています。
시리얼넘버, 제조일자 및 기기 버전은 기기의 명판에 표시되어 있습니다.

MT3 / MT3 pro

1808 / 1809

ENGLISH

EN

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Please read the following instructions through carefully before use and observe the safety advice in order to ensure problem-free function and a long service life.



Instruct operators on the application, possible hazards during use and operation of this appliance based on the user information.

Ensure that this user information is available to operators.

Further information can be found in the

„Information for the purchaser“

section at the end of this manual.

Symbols

This manual contains symbols also found on the appliance itself with the following meaning:



Danger!
Immediate risk of injury.



High Voltage!
Danger – high voltage.



Caution:
Risk of damage to the unit if the instruction is not followed.



Notice
A general notice that improves and eases use.



Caution:
Wear protective glasses.

IPX2 The appliance is protected against dripping water from 15° angle.



The appliance complies with applicable EU directives.



Within the EU, this device is subject to the provisions of the directive 2002/96/EG (WEEE directive).

Other symbols are explained when displayed.

Instruction Manual

1. Appliance Description

1.1 MT3

- | | |
|---------------------|----------------------------------|
| 1 hose clamp | 13 darin water connecting branch |
| 2 ON/OFF-switch | 14 water inlet |
| 5 grinding table | 15 cover |
| 6 door latch (4x) | 16 fastening screw |
| 7 mains plug | 17 lock pins |
| 8 drain hose | 18 rinse tube |
| 9 water hose | 21 bracket |
| 11 pull-off tool | 22 Allen key, SW4 |
| 12 water connection | 23 flange |

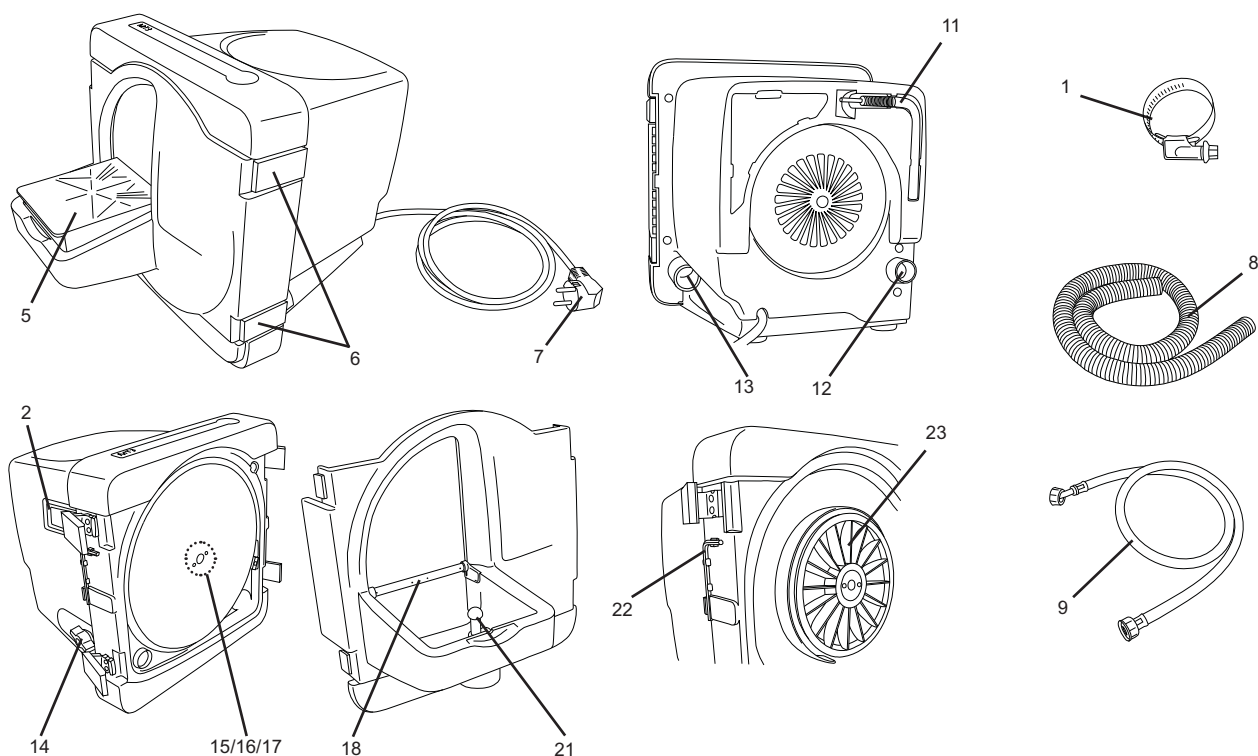


Fig. 1

1.2 MT3 pro

- | | |
|-----------------------|----------------------------------|
| 1 hose clamp | 12 water connection |
| 2 ON/OFF-pushbutton | 13 darin water connecting branch |
| 3 operating indicator | 14 water inlet |
| 4 fault indicator | 15 cover |
| 5 grinding table | 16 fastening screw |
| 6 door latch (4x) | 17 lock pins |
| 7 mains plug | 18 rinse tube |
| 8 drain hose | 19 adjusting screw |
| 9 water hose | 20 knurled nut |
| 10 angle bracket | 22 Allen key, SW4 |
| 11 pull-off tool | 23 flange |

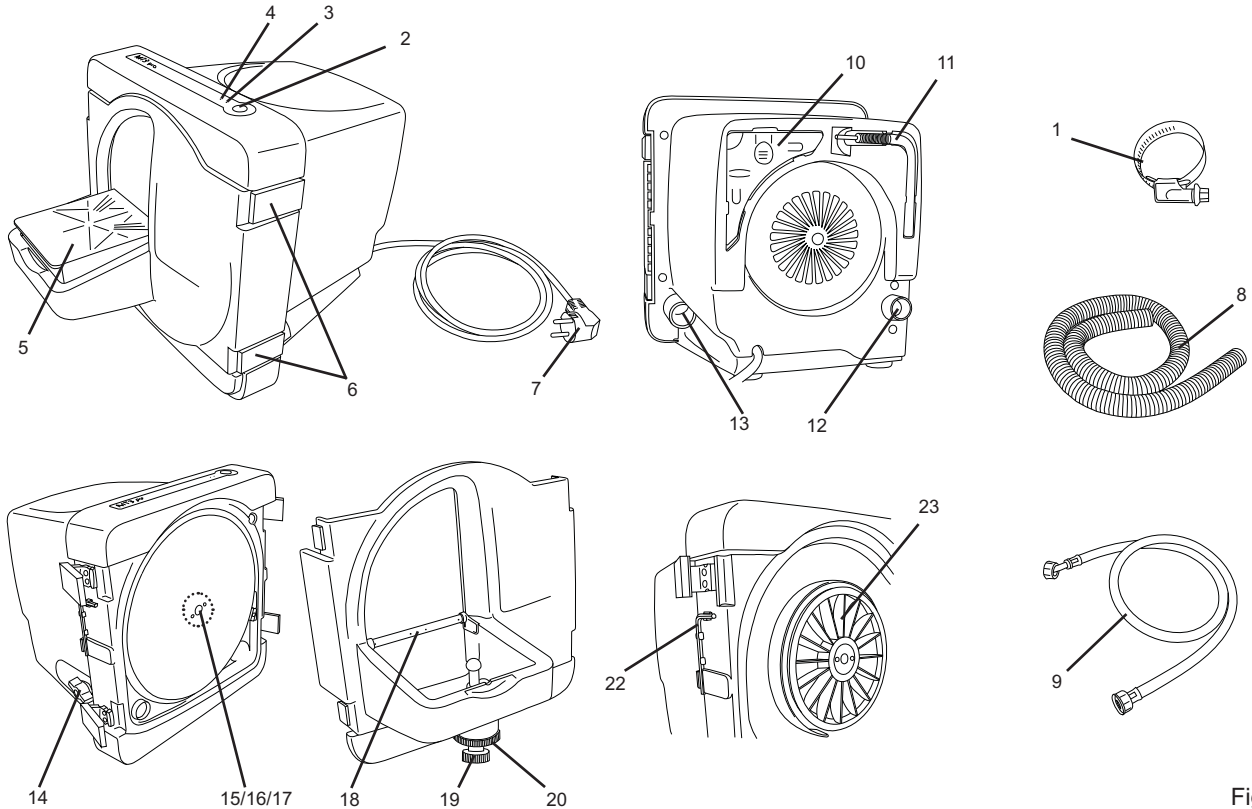


Fig. 2

2. Commissioning

2.1 Positioning

- Place appliance on solid even working surface.
- Place appliance close to a supply water connection and drain.
- Place appliance with easy access to the mains plug socket.

2.2 Water connection

2.2.1 Water supply

- Connect water hose (9) to water connection (12).
- Connect the water hose to a water supply with a shutoff tap.
- Open the shutoff tap and check for leaks.

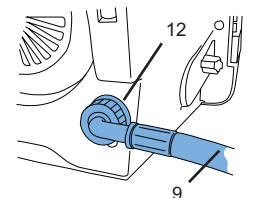


Fig. 3

2.2.2 Drain water

- Twist drain hose (8) onto connection fitting (13).
- Fix with a hose clamp.
- Place drain water hose with downward slope.

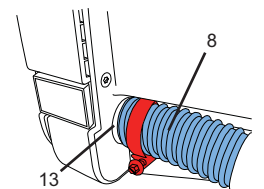


Fig. 4

2.3 Electrical connection

- Ensure the mains supply and voltage marked on the nameplate is identical.
- Plug in at the mains.

2.4 Switching on/off

MT3:

Switch the appliance on and off by the On/Off switch (2, Fig. 1).

MT3 pro:



If the operating screen is damaged or defect in any way, please remove the device from operation and send in for repair.

Switch the appliance on and off by the On/Off switch (2, Fig. 2).

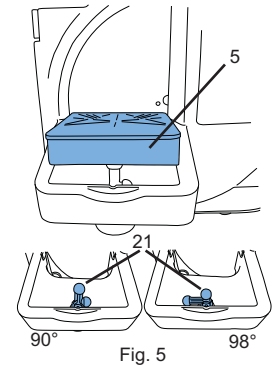
The blue LED (3, Fig. 2) remains illuminated when the appliance is in operation.

3. Operation

3.1 Grinding Angle Adjustment

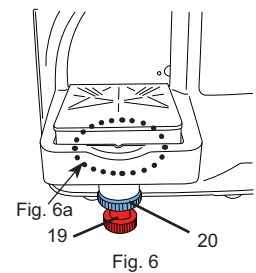
3.1.1 MT3

- Turn off appliance and wait, until the trimmer disk comes to an complete standstill.
- Pull grinding table (5) at leading edge upward from ball head.
- Turn bracket (21) to desired position.
 - long axle stub: 90°
 - short axle stub: 98°
- Press grinding table back onto ball head.



3.1.2 MT3 pro

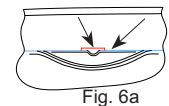
- Turn off appliance and wait, until the trimmer disk comes to an complete standstill.
- Loosen the knurled nut (20)
- Adjust the grinding angle with the adjusting screw (19).
- Retighten the knurled nut (20).



The 90° position is roughly adjusted, when the marking of the grinding table aligns with the top edge of the grinding table holder (Fig. 6a).

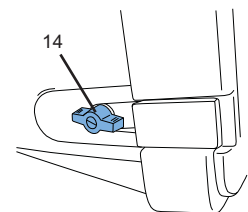
The fine adjustment ist done with the angle bracket (10, Fig. 2).

The angle bracke can be stored away at the back of the appliance.



3.2 Adjust the water flowrate

- Open water supply shutoff tap.
- Turn on appliance.
- Adjust water flow rate at water inlet (14).

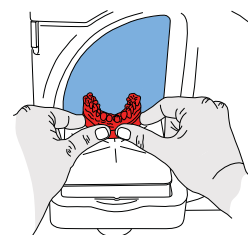


3.3 Trimming

- If necessary check and adjust the grinding angle.
- Turn on appliance.
- If necessary readjust the water flow rate.
- Using both hands, securely set the model on the grinding table and press it against the disc

Once the work has been finished:

- Switch off the appliance.



The water supply shutoff tap should be closed when work is interrupted for longer periods and when the appliance is unattended (e.g. over night).

3.4 Trimmer Disc Replacement

- Switch the unit off.
- Disconnect from mains.
- Close water supply shutoff tap.
- Open door latches (Fig. 9).
- Remove door and set aside.
- Remove the Allen key (22) from its holder.
- Remove cover (15).
- If necessary, remove the Klettfix trimmer disc.
- Loosen the fastening screw (16), and remove the disc.
- If necessary, clean the flange.
- Place a new disc on the lock pin (17).
- Retighten the fastening screw with the Allen key.
- Place the cover back on the fastening screw.
- Return the Allen key to its holder.
- Put door back in position and close the door latches.
- Plug in at the mains plug.

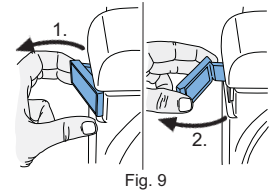


Fig. 9

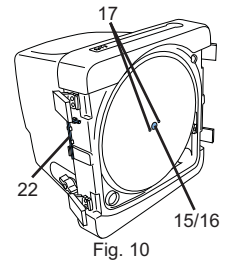


Fig. 10



Retighten the fastening screw (16) after several minutes of operation to guard against possible settlement.

3.5 Loading monitoring

MT3 pro only

The control electronics monitors the loading of the trimmer motor. It gives a warning when the trimmer motor is loaded in a way, that may cause an unacceptable motor temperature and a trigger of the motor thermal fuse

- During trimming:
 - Red LED is on:
Loading will cause heating up the trimmer motor.
→ Reduce grinding pressure as soon as possible.
- Trimmer is loaded until the disc comes to a complete standstill and is turned off automatically:
 - Red LED flashes:
Loading limit exceeded, let trimmer motor cool down.
→ Turn off appliance at ON/OFF-pushbutton.
- Trimmer cannot be switched on, red LED begins to flash approx. 5 seconds after trimmer has been switched on:
 - Red LED flashing at 1 Hz (1x / sec.):
trimmer still too hot.
→ Leave trimmer on and allow to cool until red LED stops flashing
 - Red LED flashing at 4 Hz (4x / sec.):
motor winding thermal protection switch has tripped.
→ Switch trimmer off by ON/OFF switch and allow to cool further.



Once the disk has been blocked to a complete standstill, and the appliance has been turned off by the control electronics, it need to be turned off at the ON/OFF-pushbutton also, before it can be turned on again.

3.6 Operation brake

MT3pro only

An electrical operation brake stops the trimmer disc within about 5 sec. after switching the appliance off.

The blue LED (3, Fig. 2) flashes during the deceleration process.

The operation brake is only operative with the door closed. Therefore, only open the door after the trimmer disc has come to a complete standstill.

4. Cleaning and Maintenance

In order to maintain a fully functioning device, the trimmer must be cleaned in regular intervals (at least once a week) and checked for damage.



Please removed damaged devices from operation immediately and send in for repair.



The device does not include parts which require maintenance. It is not permitted to open the device!



Switch off and unplug the appliance before cleaning or servicing.



Do not clean the device using sharp edged objects, abrasive or solvent cleaning agents! Use soft brush or cleaning cloth only!

4.1 Clean the housing



Do not steam clean the housing!

- Only wipe with a damp cloth.

4.2 Cleaning internal space

- Turn off appliance and wait, until the trimmer disk comes to an complete standstill.
- Open door latches (fig. 9), remove door and set aside.
- Clean door with a brush or cleaning cloth under running water
- Wipe the internal space with a brush or cleaning cloth.

4.3 Cleaning grinding table

- Turn off appliance and wait, until the trimmer disk comes to an complete standstill.
- Pull grinding table (5) at leading edge upward from ball head.
- Clean grinding table with a brush under running water.

4.4 Cleaning rinse tube

- Turn off appliance and wait, until the trimmer disk comes to an complete standstill.
- Close water supply shutoff tap.
- Pull grinding table (5) at leading edge upward from ball head.
- Open door latches (fig. 9), remove door and set aside.
- Turn rinse tube (18) backwards at curved side and take out (Fig 11).

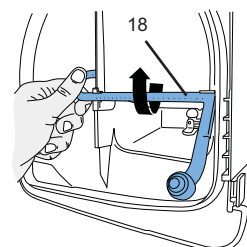


Fig. 11

- Allow the rinse tube to soak in decalcifying agent overnight
- Replace rinse tube by pressing rinse tube into both clamps (Fig. 12).

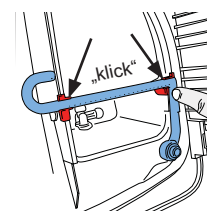


Fig. 12

4.5 Cleaning water inlet sieve

- Pull mains plug.
- Close water supply shutoff tap.
- Disconnect water hose (9, Fig. 3) from water connection (12, Fig 3).
- Use pliers to pull out sieve and clean it.
- Put sieve back in place.

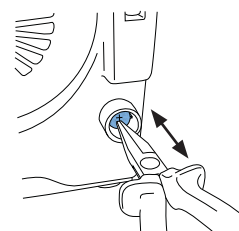


Fig. 13

4.6 Flange Replacement

- Turn off appliance and wait, until the trimmer disk comes to an complete standstill.
- Pull mains plug.
- Open door latches (Fig. 9), remove door and set aside.
- Remove the disc (chap. 3.4).
- Screw pull-off tool (11) into flange (23) until flange comes off.



The flange may not be removed by hand. Always use the pull-off tool to remove the flange!

- Remove the flange.
- Unscrew the pull-off tool.
- If necessary clean space behind flange.
- If necessary, clean the hub.
- Replace new flange
- >>> **Note the engagement groove.**
- Replace the flange by hand on the shaft (
- Reinstall the grinding disc (chap. 3.4).
- Put door back in position and close the door latches.
- Plug in at the mains.

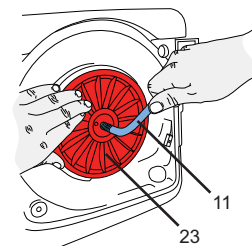


Fig. 14

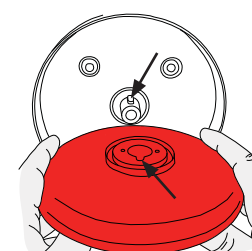


Fig. 15

5. Spare Parts

Refer to the spares list at the end of this manual for numbers of wearing and replacement parts. Serial number and date of manufacturing are shown on the type plate of the unit.


6. Standard Delivery

- 1 Trimmer (MT3 / MT3 pro)
- 1 Water hose
- 1 Drain hose
- 1 Allen key, SW4
- 1 Pull-off tool
- 1 Angle bracket, only with No. 1809-xxxx
- 1 Marathon Trimmer Disc, only with No. 1808-x500 and 1809-x500

7. Accessories

- 2011-0000 GO-2011, plaster solvent
- 1803-3001 1 *Infinity* trimmer disc, diamond-coated
- 1803-2001 1 *Marathon* trimmer disc, partially diamond-coated
- 1803-1001 Basic kit: 5 *Klettfix* silicon carbide trimmer discs (3 x corn 80, 2 x corn 120) + support disc
- 1803-1100 Refill kit: 5 *Klettfix* silicon carbide trimmer discs, corn 80
- 1803-1200 Refill kit: 5 *Klettfix* silicon carbide trimmer discs, corn 120

8. Troubleshooting

Error	Cause	Solution
Device fails to start.	Power supply not established.	Check the mains power supply.
	Mains fuse faulty.	Check the mains fuse.
	Front cover not properly closed.	Close the front cover latches (6, Fig 1, 2)
	Motor overheated.	Allow motor to cool down for approx. 60 minutes then press power switch again. Checks may be made in the meantime to see whether the thermal protector has cooled down again.
	MT3 pro: temperature fault	Wait until red LED flashes after switching on (approx. 5 seconds). For cause/remedy see flash codes at end of table.
MT3 pro: On/off button (2, fig. 2) is activated by pressing hard.	Defect key	Send the device in for repair.  Do not press the key too hard, there is a risk that the operating screen may tear.
Trimmer disc wobbles.	Disc is not lying flush on the flange.	Reinstall the disc according to the directions (see chap. 3.4). Pay attention that the disc is mounted exactly on the lock pin (17, Fig. 10). Remove all deposits from the back of the disc and from the stopping face of the flange.
	Fastening screw not tightened sufficiently.	Tighten the fastening screw.
Excessive noise while the trimmer disc is running.	Fastening screw not adequately tightened.	Tighten the fastening screw, or reinstall, as required (chap. 3.4).
Grinding table wobbling.	Grinding table incorrectly installed.	Push grinding table all the way down onto ball head.
Disc buildup.	Water volume incorrectly adjusted at the device.	Increase the water volume at the trimmer (chap. 3.2).
	Water supply not sufficient.	Fully open the water supply (chap. 3.2).
	Rinse tube plugged.	Clean/decalcify the rinse tube (chap. 4.3).
	Inlet strainer plugged	Remove the strainer with pliers and clean / decalcify it (chap. 4.4).
	No rinse tube seal.	Check if rinse tube seal is attached.
	No rinse tube.	Put rinse tube in place.

Error	Cause	Solution
	Inlet water pressure too low.	The diameter of the inlet pipe is too small resp. too many users are connected to a small pipe >>> Check if water pressure is at least 1 bar (ask your plumber). If necessary the water pressure can be artificially increased by a domestic water work (electric pump and pressure tank).
Water sprays out of the grinding opening.	Too much water.	Reduce the water volume at the trimmer (chap. 3.2).
	Water drainage impeded.	Check/properly lay out drain tube >>> downward slope (chap. 2.2.2).
No rinse water.	Water connection not properly established.	Check the water connection (chap. 2.2.1).
	Spray tube clogged up / blocked by limescale.	Clean / descale spray tube (section hose clamp 4.3).
Water is dripping out between the front door and the housing.	Gypsum powder or plaster grains on the sealing surface.	Clean the sealing surface and the sealing ring.
Red LED is on.	Appliance is working in its limit range	Reduce load as soon as possible. Replace trimmer disc.
Appliance turns off and red LED flashes with 1 Hz.	The electrical temperature control has been activated.	Wait until the appliance can be turned on again (about 10 min.)
Red LED flashing at 1 Hz (1x per sec.).	The electronic temperature monitor has been activated.	Leave appliance switched on and wait until red LED goes out (approx. 10 minutes).
Red LED flashing at 4 Hz (4x per sec.).	The thermal protection of the motor has been activated.	Switch trimmer off and allow to cool for approx. 60 min. Checks may be made in the meantime to see whether the thermal protector has cooled down again.
Red LED flashing at 2 Hz (2x per sec.).	Motor has been immobilised and switched off.	Switch appliance off. It can then be switched back on and work can be resumed.
All flash codes for the red LED not described here.	Appliance or parts are defective	Send appliance in for repair.

Information for the purchaser

The following information is intended to help purchasers ensure safe operation of this appliance in their laboratory.



Instruct operators on the application, possible hazards during use and operation of this appliance based on the user information.

Ensure that this user information is available to operators.

A. Application

A.1 Correct use of the unit

This plaster trimmer MT3 / MT3 pro is designed solely for wet grinding plaster models.

A.2 Unapproved use

Using the appliance for dry grinding is not allowed.

This appliance may not be used for grinding investment material. Cancer causing dusts are released.

No accessories may be used on this appliance other than those supplied by Renfert. The use of other components is not approved and carries the risk of serious injury.

A.3 Ambient Conditions

(in accordance with DIN EN 61010-1)

The appliance should only be operated:

- Indoors;
- up to an altitude of 2,000 m [6,500 ft] above sea level,
- at an ambient temperature of 5 - 40°C [41 - 104°F] *),
- at a maximum relative humidity of 80% at 31°C [87.8°F], linear reduction up to 50% relative humidity at 40°C [104°F] *)
- with mains electricity supply provided that the voltage fluctuation is within 10% of the rated value
- under overvoltage category II conditions.
- under level 2 contamination conditions;

*) „Between 5 – 30°C [41 - 86°F], the unit can be operated at a relative humidity of up to 80%. At temperatures between 31 - 40°C [87.8 - 104°F], the humidity must decrease proportionally in order to ensure operational readiness (e.g., at 35°C [95°F] = 65% humidity; at 40°C [104°F] = 50% humidity). The unit may not be operated at temperatures above 40°C [104°F].“

B. Hazards and warnings



- ▶ **Granted protection is not given any longer in case the unit is not operated according to the instruction manual on hand.**
- ▶ **The unit should only be operated using a mains cable with a country-specific plug system. Any modification required should only be carried out by an electrician.**
- ▶ **The unit should only be operated if the data on the rating plate corresponds with the data of regional mains voltage.**
- ▶ **The unit should only be plugged into earthed sockets.**
- ▶ **The mains socket should be easily accessible.**
- ▶ **Check the connection lines (such as the mains cable), tubes and housing (such as the operating screen) on a regular basis for damage (such as bends, cracks, porosity) or aging. Devices with damaged connection lines, tubes or housing parts or other defects must no longer be used!**
- ▶ **Remove the plug and ensure the device is not switched back on!**
- ▶ **The unit should always be operated under supervision.**
- ▶ **Risk of injury!**
Risk of injury if the components used are not approved. Always use original Renfert components.
- ▶ **Please observe all applicable accident prevention regulations together with the following safety notes when trimming:**
- ▶ **Always keep long hair, loose or wide sleeves or other clothing away from the trimmer. Hair or clothing can be pulled into and wrapped up on the grinding wheel, resulting in injury!**
- ▶ **Never open the front cover while the motor is running. The restart protection will not stop the grinding wheel.**
- ▶ **Only open the front cover after the grinding wheel has come to a complete stop.**
- ▶ **Always wear protective eyewear when grinding.**
- ▶ **Do not reach into the grinding wheel while it is turning.**
- ▶ **Do not work without the model table installed and locked („click“). Small parts or fingers can be drawn into the trimmer, resulting in serious injury.**
- ▶ **Trimmer table may only be lifted off when disc is at a standstill.**

C. Approved personnel

The appliance may only be operated and serviced by trained personnel.

D. Prior to installation



Compare the data on the rating plate with the data of the regional mains voltage before installation.



**The unit should only be plugged into earthed sockets.
We recommend connecting the device to a FI circuit breaker safety socket!**



For the disposal of the grinding water install a separator system.

E. Repair

Repairs should only be carried out by qualified personnel.

Repairs to the electrical equipment, which are not specified in these operating instructions, should only be carried out by an electrician.



Switch off and unplug the appliance before carrying out repairs and servicing work on electrical components.

F. Disposal instructions

The unit should be disposed of by a specialist firm. The specialist firm should be informed of any hazardous residue in the unit.

F.1 Disposal instructions for countries in the EU

To conserve and protect the environment, prevent environmental pollution and improve the recycling of raw materials, the European Commission adopted a directive that requires the manufacturer to accept the return of electrical and electronic units for proper disposal or recycling.



Within the European Union units with this symbol should not therefore be disposed of in unsorted domestic waste.

For more information regarding proper disposal please apply at your local authorities.

G. Technical data

	MT3	MT3 pro
Mains voltage	220-240 V, 50/60 Hz	230 V, 50 Hz
	100-120 V, 50/60 Hz	120 V, 60 Hz
Power consumption	1.300 W / 1,74 hp (220-240 V)	1.650 W / 2,21 hp (230 V)
	1.325 W / 1,78 hp (120 V)	1.500 W / 2,01 hp (120 V)
Speed	2.880 1/min. (50 Hz)	
	3.450 1/min. (60 Hz)	
Water consumption, max.	7 l/min.	
Necessary water pressure	min. 1 bar / max 5 bar	
Connection piece diameters for drain hose	36 mm	
Dimensions (WxHxD)	305 x 330 x 410 mm	
	12,0 x 13,0 x 16,1 inch	
Trimmer disc dimensions	Ø 234 mm	
	Ø 9,2 inch	
Weight (without trimmer disc)	13,2 kg	14,5 kg
LpA *) (idel)	74 dB(A)	

*) sound pressure level in accord. with EN ISO 11202

Measurement of motor sound only. Depending on workpiece and method of operation the grinding noise can be louder.

H. Disclaimer

Renfert GmbH is not liable for claims for compensation or claims under guarantee if:

- ▶ **the product is used for purposes other than those stated in the operating instructions**
- ▶ **the product is modified in any way – apart from modifications described in the operating instructions**
- ▶ **the product has not been repaired by a specialist firm or original Renfert replacement parts have not been used**
- ▶ **there is continued use of the product despite obvious safety defects or damage**
- ▶ **the product has been subjected to mechanical knocks or has been dropped.**

I. Guarantee

Renfert gives a **3-year guarantee** on all parts of the MT3 / MT3pro provided that the product is used in accordance with the operating instructions.

The original sales invoice of the specialist depot is required for a claim under guarantee.

Parts subject to natural wear and tear and also consumables (trimming discs etc. ...) are not covered by the guarantee.

The guarantee is rendered void in the case of incorrect use, non-adherence to the operating, cleaning, servicing or connection instructions, repairs carried out by the owner or repairs that are not carried out by a specialist firm, use of replacement parts from another manufacturer or unusual or unapproved uses not specified in the user guidelines.

Successful claims under guarantee do not extend the guarantee period.