

OPERATION MANUAL

GRINDING MACHINE WINTER GRINDER 800 MAGNETIC



WARNING!

*The operator must thoroughly read this manual before operation.
Keep this manual for future reference.*

Henrik Winter Holztechnik GmbH

Druckereistr. 8
04159 Leipzig

Tel: +49 (0)341/ 4619021 Fax: +49 (0)341/4618358 Funk: +49 (0)171/2820443
Em@il: info@winter-holztechnik.de Internet: www.winter-holztechnik.de

INDEX	-2-
1. Safety Instruction	-3-
1.1 Safety regulation.....	-3-
1.2 Warning plates.....	-4-
1.3 Safety signs.....	-5-
2. Technic	-7-
2.1 Components.....	-7-
2.2 Specifications.....	-8-
3. Installation	-9-
3.1 Selection of location.....	-9-
3.2 Installation drawing.....	-9-
3.3 Installation and leveling.....	-10-
3.4 Power supply requirement.....	-10-
3.5 Connect power source wires.....	-11-
3.6 Check power wires connection.....	-11-
4. Operation	-12-
4.1 Operation safety rules.....	-12-
4.2 Emergency stop.....	-12-
4.3 Operational processes.....	-12-
5. Maintenance	-13-
5.1 Day/week/month/year maintenance.....	-14-
6. Electric	-14-
6.1 Safety rules for electrical control system.....	-14-
6.2 Electrical drawing.....	-14-

1. Safety Instruction

1.1 Safety regulation

- 1, The machine should be put on the flat ground which can make the working platform keep level.
- 2, Connect the power well.
- 3, Examine if the grinder wheel is locked up.
- 4, The volume of out-water of refrigerating pipe can be adjusted by switch.(emulsification oil plus water, that is the proportion is 1:20)
- 5, The first time, please unlock the screw which is in the backside before operate the machine.
- 6, Turret and tracks and clean steel sliders, need to play a little oil.

Warranty

If any part is proved to be defective within ONE YEARS from the date of purchase then the manufacturer or distributor shall repair or replace the part provided the defective part is returned immediately to the manufacturer or distributor.

The manufacturer or distributor shall have no obligation to repair or replace those parts failing due to operator carelessness, misuse or due to any cause such as parts failing due to poor lubrication, inadequate cleaning, improper operating environment, improper utilities or operator error.

Temporary storage

If the machine is not installed and used immediately upon delivery, it should be stored in a dry place that is adequately protected against atmospheric condition.

We recommend that the machine is kept in its original packaging cases and protective package until the time of installation. The reason is to retain integrity of hygienic standard of the machine

1.2 WARNING PLATES

This machine has warning symbols attached on it as shown below to ensure proper and safe operation.

These symbols are used on the machine to indicate points or instances of specific danger to operating personnel.

Make sure to memorize these symbols and bring them to the attention of others as and when necessary. **Do not remove safety symbols from the machine.**



DANGER
Dangerous zone keep clear



WARNING
Do not put hands near it when machine operating.



WARNING
High speed! Do not put hands near it when machine operation



ELECTRIC

SHOCK
Operate Carefully



Rotation direction

1.3 SAFETY SIGNS

DEFINITION OF SYMBOLS



ATTENTION! Ignoring the safety signs and warnings applied on the machine as well as ignoring the security and operating instructions can cause serious injuries and even lead to death.



Read the user and maintenance manual carefully and get familiar with the controls in order to use the machine correctly and to avoid injuries and machine defects.



EC-CONFORM: This product complies with EC-directives.



General note.



Protective clothing



Stop and pull out the power plug before any break and engine maintenance.



Only trained staff!



Operation with jewelry forbidden!



Operation with tie forbidden!



Operation with long hair forbidden!



Do not climb onto the machine!



High voltage!



Warning about cut injuries!



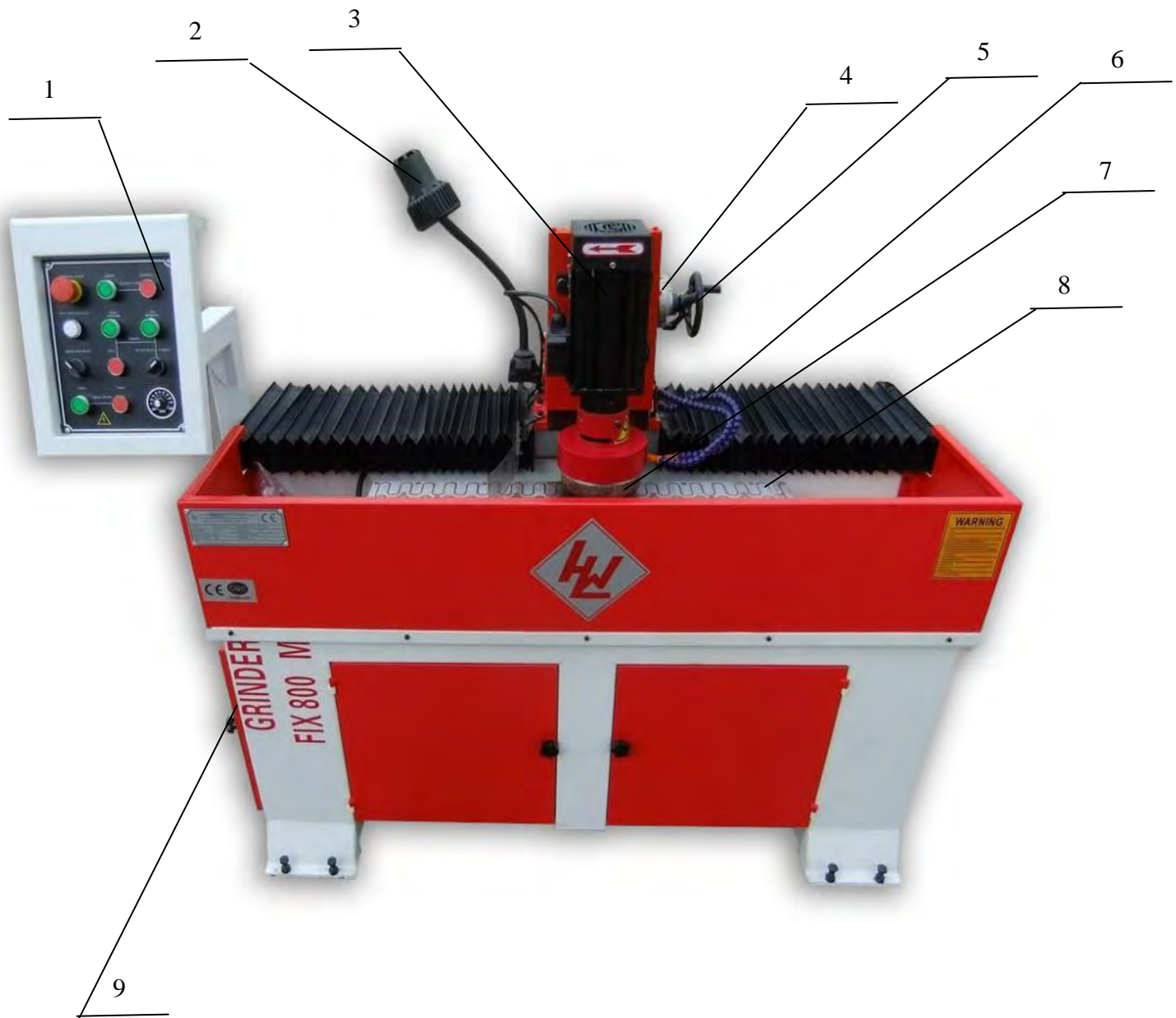
Warning of rotating parts!



Warning against hand injuries (bruises)!

2. Technic

2.1 Components



1	Control plate	6	Water pipes
2	Work light	7	Grinding wheel
3	Main motor	8	Electromagnetic chuck
4	Lifting scale ring	9	Electrical control box
5	Lifting head wheel		

2.2 Specification

GRINDER 820 AUTO - MAGNETIC MF257B

MAX. grinding capacity(L*W*H)	800*130*30mm
Electromagnetic chuck suction	≥100N/cm²
Grinding wheel dimension	Φ32×Φ 125×50mm(U-SHAPE)
Grinding head vertical moving speed	3-15(Adjustment)
Grinding head rotary speed	2840r/m
Grinding blade adjustable angle	0-90°
Control	Adjustable-speed motor
Electromagnetic chuck spec	100*800
Main motor power	1.5Kw
Feeding motor power	60w
Water pump power	40W
Machine size	1320*800*1350mm
Weight	350kg

3 Installation**3.1 SELECTION OF LOCATION**

Requirement of operating environment the operating temperature for this machine should be between +5°C and +40°C, while the relative humidity should not exceed 50% at a maximum temperature of +40°C.

3.2 INSTALLATION DRAWING



3.3 INSTALLATION AND LEVELLING

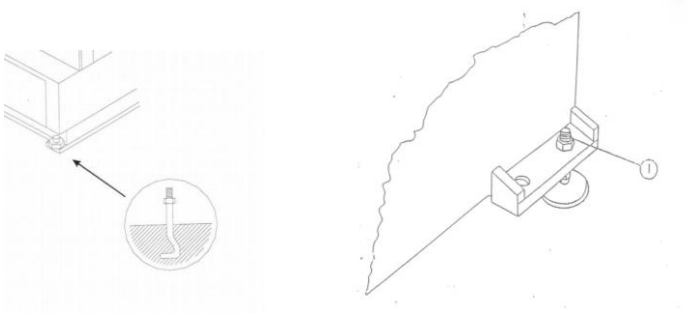
Install this machine on a solid and level concrete floor. Leave proper space around the machine for handling the materials to be machined. After the machine has been located at a proper work site, proper leveling needs to be made.

The following steps should be taken:

Screw the rubber pads under the machine.

Adjust the leveling screws until proper leveling is obtained.

Fix the leveling nuts (1).



3.4 POWER SUPPLY REQUIREMENT

Insufficient voltage from factory power source may affect the power output of the motor and the function of the controller.

It is important to connect this machine to the correct voltage in the factory power source. Use only an independent power source.

Table for power supplies requirement:

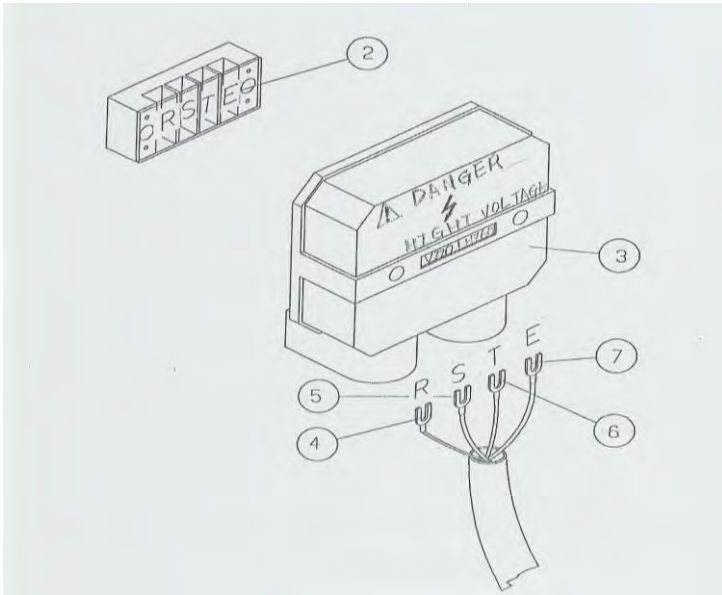
Model	Kw	Voltage	Current	Breaker capacity	Wire size
	Kw	V	A	A	mm ²

3.5 Connect Power Source Wires

1. Before connecting the power wires make sure the voltage between the machine and your factory power source is the same.
2. Take out the electrical cover (A) at the electrical control box outside.
3. Connect the power wires to the L1, L2, L3 and PE.
4. The machine must be properly grounded to prevent possible injury from electrical shock.
5. Connect the power wires from machine bed to the electrical control box according connector type.
6. Qualified electrical personnel should perform all electrical connections.

WARNING

Grounding should be based on the local regulations.



3.6 CHECK POWER WIRES CONNECTION

1. After the power wires have been connected it is necessary to check if the power wires are connected to the correct connection points.

Turn on the power switch on the control panel.

4. Operation

4.1 Operation safety rules

Please read the following instruction in order to know the machine's operation and maintenance.

4.2 Emergency stop

During machining, if any malfunction occurs, press this switch to stop all motion. When restarting machine remember to turn this switch to the right to release it.

4.3 Operational processes

1.The installation and amendment of the grinding wheel

When the user install or renew grinding wheel, firstly turn the grinding wheel lifting hand wheel, let the grinding wheel approach the workbench, wrench the nut off, fix the grinding wheel which has been amended and passed the balance test on the motor shaft and lock the nut. Insert the diamond knife (user-owned) into the center hole of the grinding wheel amendment rack, lock the screw, put the corrector on the workbench, and shorten the travel of grinding wheel, turn on power for electromagnetic disk, amend the cutting surface of the grinding wheel when starting up.

When grinding wheel has been extremely worn to a certain extent, it is required to replace with the new one. Before installing the new grinding wheel, it should be fitted with the grinding wheel disc, and then do the balance test on the balance rack. (Note: Please regulate the balance rack to the level position before the balance adjustment.) If it is imbalance, regulate the balanced block position on the grinding wheel circle until the grinding wheel come to balance.

2. The running stationarity adjustment of the grinding head

The running stationarity of the grinding head depends on the contact uniformity between the guide rail surface and the four rolling bearings which is on the bottom of the carriage. All of the rolling bearings should cling to the guide rail surface; the grinding head should not swing when running, take apart the guard on the sliding seat when it need adjusting, turn the eccentric screw, that can adjust the space between the bearing and the track, the grinding head running speed is 0-60HZ on the control panel, it can be adjusted properly according to the feed of work-piece and its surface smoothness requirement.

3. The working travel adjustment of the grinding wheel

When grinding the blade of different length, the user can adjust the travel adjustment handle according to the length of the grinded blade. That can adjust the working travel of the grinding wheel, when regulating the distance, it is appropriate to control the grinding wheel travel exceeding the blade length range of 30-50mm.

4. The vertical feed adjustment of the grinding wheel

The vertical feeding adjustment is effected by turning the internal wave hand wheel on the sliding seat. Turn the grinding wheel lifting hand wheel in a round of clockwise, the amount of feed are 0.6mm, while the retract is effected by turning the hand wheel in a round of anti-clockwise. The grinding wheel and the workbench can be adjusted at about $\pm 10^\circ$ vertical angle.

In the grinding processing, the user should pay attention to the feeding amount, it needn't feed too much, the range of 0.05-0.30mm is appropriate. If the feeding amount is too much, that will burn the blade into black and impact the grinding quality. (NOTE: The micro-feed at both ends is necessary to prevent the grinding wheel colliding with the blade.)

5. The adjustment of manual and automatic feed device

After the travel adjustment of the grinding head, move the sliding seat of the automatic feed locking handle to the proper position, lock the adjustable handle. (This mechanism is decided by adopting the lever principle)When adjusting the manual feed, release the feed locking handle; adjust the feed amount adjustment handle to the position of manual feed. When adjusting the automatic feed, adjust the feed amount adjustment handle to the actual required position, the automatic feed amount can be adjusted in the range of 0-0.24mm.

6. The angle adjustment of workbench

When grinding the blade in different angle, the user can adjust the scale ring on the cutter rest as per the angle requirement of the cutting tool; the cutter rest can be adjusted in the range of 0-90 °. The fixed handle at both ends should be released when the cutter rest is adjusted, and adjust the required angle appropriately, then lock the handle at both ends.

5.1 Day/week/month/year maintenance

1. Refuel the track before every shift to maintain grinding precision and clean the track and knife rest after every shift. Make sure the track and electromagnetic is in clean situation.
2. Amend the aris of the grinding wheel regularly with diamond stylus to avoid abrasion quality problem. Pay attention to the abrasion of the grinding wheel and screw it when necessary.
3. No lubrication and cleaning is allowed when the machine is running.
4. Frequently check the temperature of the motor and bearing and make sure its below 60°.
5. The parameters of the frequency converter are set before delivery. No arbitrary altering is allowed unless in special needs.
6. The provided shield should be put into use to ensure safety of the machine and operator.
7. Those who are not familiar with the machine structure and performance are not allowed to operate it in case any maloperation or damage happens.

6. Electric

6.1 SAFETY RULES FOR ELECTRICAL CONTROL SYSTEM

1. Only personnel who are properly trained and have adequate knowledge and skill should undertake all electrical/electronic troubleshooting and repair.
2. Do not alter or bypass protective interlocks.
3. Before starting, read and observe all warning labels.
4. When trouble shooting make sure the power source has been disconnected and main switch has been locked.
5. Take extra precautions in damp areas to protect you from accidental grounding.
6. Before applying power to any equipment it must be established, without a doubt, that all persons are clear.
7. Do not open the electrical control panel unless it is necessary to check the electrical equipment.
8. Do not alter the electrical circuits unless authorized to do so by the manufacturer.
9. When replacing electrical components, make sure they conform to the manufacturer's specifications, including proper color coding.
10. Do not wear metal frame glasses, metallic necklaces or chains while working on any electrical equipment. Also do not wear any ring, watch or bracelet while operating electrical equipment.

6.2 Electrical drawing