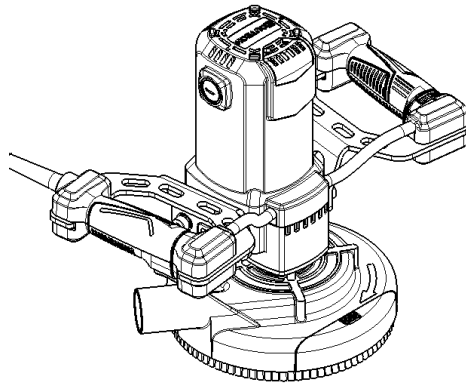


14x21cm

ROUTECH

RT-MD180 2000W Concrete Grinder User Manual



**For your safety, please read this manual carefully before use
and keep it for future reference.**

Introduction

Thank you for choosing a ROUTECH tool. This manual provides essential information for the safe and effective operation of your ROUTECH concrete grinder. To fully utilize its unique features and functions, please read this manual carefully before use.

Description of Symbols

The rating plate on your tool may show symbols. These represent important information about the product or instructions on its use.



Wear hearing protection



Wear eye protection

Wear breathing protection

Wear head protection



Wear hand protection



Read instruction manual



Warning: Sharp blades or teeth!



DO NOT use in rain or damp environments!



Always disconnect from the power supply when adjusting, changing accessories, cleaning, carrying out maintenance and when not in use!



Dust extraction required or recommended



WARNING: Moving parts can cause crush and cut injuries



Caution!



Class II construction (double insulated for additional protection)



Please recycle where facilities exist.
Check with your local authority or retailer for recycling advice.
Environmental Protection
Electrical products should not be disposed of as household waste.

Technical Abbreviations Key

V	Volts
~, AC	Alternating current
A, mA	Ampere, milli-Amp
n0	No load speed
n	Rated speed
°	Degrees
∅	Diameter
Hz	Hertz
DC	Direct current
W, kW	Watt, kilowatt
/min or min-1	Operations per minute
dB(A)	Decibel sound level (A weighted)
m/s2	Metres per second squared (vibration magnitude)

WARNING: Hearing Protection Required. This tool produces sound levels may exceed 85dB(A). Always wear ear protection. If the sound becomes uncomfortable, even with hearing protection, stop using the tool immediately and check that your hearing protection is properly fitted and provides adequate noise reduction.

Limit exposure time as needed.

WARNING: Vibration Hazard. Prolonged exposure to tool vibration can cause numbness, tingling, and reduced grip strength. Long-term exposure may lead to chronic conditions. To minimize risk, limit vibration exposure time, wear anti-vibration gloves, and keep your hands warm. Refer to the specifications for vibration levels and use them to calculate safe operating durations.

General Safety

- **WARNING:** Read and Understand All Instructions. Failure to follow these safety warnings and instructions may result in electric shock, fire, or serious injury.
- **WARNING:** User Responsibility. This tool is not intended for use by individuals (including children) with limited physical, sensory, or mental capabilities, or those lacking experience or knowledge, unless they are supervised or instructed by a responsible person. Children must be supervised to prevent them from playing with the tool.
- **Keep These Instructions Safe. Save all warnings and instructions for future reference.**
- **"Power Tool" Defined. In these warnings, "power tool" refers to your corded (mains-powered) or cordless (battery-powered) tool.**

Work Area Safety

1. Maintain a Clean and Well-Lit Workspace. Cluttered or dark areas increase the risk of accidents.
2. Avoid Explosive Environments. Do not use power tools in areas where flammable liquids, gases, or dust are present. Power tools create sparks that can ignite these substances.
3. Keep Children and Bystanders Away. Distractions can cause you to lose control of the tool.

Electrical Safety

1. Use Correct Plugs and Outlets. Power tool plugs must match the outlet. Never modify the plug. Do not use adapter plugs with grounded tools. Using unmodified plugs and matching outlets reduces the risk of electric shock.
2. Avoid Grounded Surfaces. Do not touch grounded surfaces like pipes, radiators, ranges, and refrigerators while using the tool. This increases the risk of electric shock.
3. Protect From Moisture. Do not expose power tools to rain or wet conditions. Water entering the tool increases the risk of electric shock.
4. Protect the Cord. Do not abuse the power cord. Never use it to carry, pull, or unplug the tool. Keep it away from heat, oil, sharp edges, and moving parts. Damaged or tangled cords increase the risk of electric shock.
5. Use Outdoor-Rated Extension Cords. When using the tool outdoors, use an extension cord rated for outdoor use.
6. Use an RCD in Damp Locations. If using the tool in a damp location is unavoidable, use a residual current device (RCD). This reduces the risk of electric shock.

Personal Safety

1. Stay Alert and Use Common Sense. Do not use the tool if you are tired or under the influence of drugs, alcohol, or medication. Inattention can lead to serious injury.
2. Wear Personal Protective Equipment (PPE). Always wear eye protection. Use dust masks, non-slip safety shoes, hard hats, and hearing protection as needed.
3. Prevent Accidental Starts. Ensure the switch is off before plugging in the tool or inserting the battery. Do not carry the tool with your finger on the switch.
4. Remove Adjustment Tools. Remove any wrenches or keys before turning on the tool. A tool left attached can cause injury.
5. Maintain Proper Footing and Balance. Do not overreach. This allows better control in unexpected situations.
6. Dress Appropriately. Do not wear loose clothing or jewelry. Keep hair, clothing, and gloves away from moving parts.
7. Use Dust Collection Systems. If dust collection systems are provided, use them correctly to reduce dust-related hazards.

Power Tool Use and Care

1. Use the Right Tool for the Job. Do not force the tool. The correct tool will work better and safer.
2. Repair Faulty Switches. Do not use the tool if the switch does not turn it on and off.
3. Disconnect Before Adjustments. Unplug the tool or remove the battery before making adjustments, changing accessories, or storing the tool. This prevents accidental starts.

4. Store Tools Safely. Keep idle tools out of reach of children. Do not allow untrained individuals to use the tool.
5. Maintain Tools Properly. Check for misalignment, binding, and breakage. Repair damaged tools before use.
6. Keep Cutting Tools Sharp and Clean. Sharp tools are less likely to bind and are easier to control.
7. Use Tools as Intended. Use the tool, accessories, and bits according to these instructions and the intended application. Using tools for unintended purposes can be hazardous.

Grinder-Specific Safety Warnings

WARNING: Risk of Electric Shock.

- Hold the grinder by insulated gripping surfaces only, as the disc may contact its own cord. Cutting a "live" wire can make exposed metal parts of the tool "live," causing electric shock.
- If the power cord needs replacement, it must be done by the manufacturer or their authorized agent to prevent a safety hazard.
- Use a residual current device (RCD) with a rated residual current of 30 A or less.

WARNING: Risk of Injury and Loss of Control.

- Secure the workpiece with clamps or another stable method. Holding the work by hand or against your body is unstable and can lead to loss of control.
- Always use both handles and maintain a firm grip on the grinder.
- Keep handles and gripping surfaces dry, clean, and free of oil and grease for a secure grip.
- Remove any adjusting keys or wrenches before turning the machine on.
- Do not overreach. Maintain proper footing and balance.
- Keep pressure constant while grinding, do not force the tool or overload the motor.
- Disconnect the grinder from the power supply before making any adjustments, servicing, or maintenance.

WARNING: General Safety Practices.

- Use safety equipment, including safety goggles or a shield, ear protection, a dust mask, and protective clothing, including safety gloves.
- Never leave clothes, cords, strings, etc., around the work area.
- Ensure the mains supply voltage matches the tool's rating plate voltage.
- Ensure any extension cords are in safe electrical condition and have the correct ampere rating.
- Completely unwind cable drum extensions to avoid overheating.
- Use detectors to locate utility cables or pipes before working. Consult utility companies if needed. Contact with utilities can cause electric shock, fire, explosion, or property damage.
- Remove embedded objects like nails and screws from the workpiece before starting.
- Before using the grinder to clean the surface, switch it on and let it run briefly. Vibration may indicate an improperly installed disc.
- Disc may become hot during operation. Do not handle immediately after use to avoid burns.
- Ensure rating labels and safety warnings on the tool remain legible and replace them if damaged.
- Even when used as prescribed, residual risks remain. If you have any doubts about safe use, do not use the tool.

WARNING: Dust Hazards.

- Dust generated by power tools can be toxic. Some materials may be chemically treated or coated, posing a toxic hazard.
- Avoid prolonged exposure to dust. Do not allow dust to contact skin or eyes, and do not ingest it.
- Work in a well-ventilated area.
- Use a suitable dust mask and dust extraction system where possible.
- With higher frequency of exposure, follow all safety precautions and use a higher level of personal protection.

Applications and Technical Parameters

The ROUTECH RT-MD180 is a professional-grade handheld concrete grinder designed for demanding smoothing and material removal applications. When equipped with an appropriate grinding wheel, the RT-MD180 is ideal for:

- **Smoothing rough concrete surfaces.**
- **Removing mould seams and residual mud.**
- **Stripping joint fillers and tile adhesives.**

Misuse and Modifications: The ROUTECH concrete grinder **RT-MD180** must only be used for its intended purpose as outlined in this manual. Any use outside of these specifications will be considered misuse. The operator assumes full responsibility for any damage or injury resulting from misuse. The manufacturer is not liable for any modifications made to the tool, nor for any damage resulting from such modifications.

Model no:	RT-MD180
Voltage:	120V60Hz/230V50Hz
Input power:	15A/2000W
No load speed(RPM):	600-3000
6 speed setting(RPM):	1) 600 2) 1000 3) 1500 4) 2000 5) 2500 6) 3000
Disc size:	7" (180mm)
Protection class:	Double Insulated
Dimensions (L x W x H):	41 x 29x 30cm <input type="checkbox"/>
Weight(Gross/Net):	8.6kg/7.6kg

As part of our ongoing product development, specifications of ROUTECH products may alter without notice.

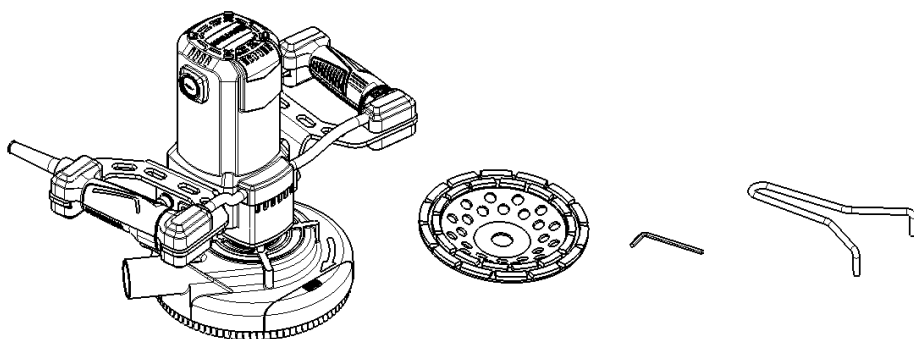
Sound and vibration information:

Sound pressure LPA:	84dB(A)
Sound power LWA:	95.3dB(A)
Uncertainty K:	3dB
Weighted vibration	3.27m/s ²
Uncertainty	2.5m/s ²

Warning: The sound intensity level for the operator may exceed 85dB(A) and sound protection measures are necessary.

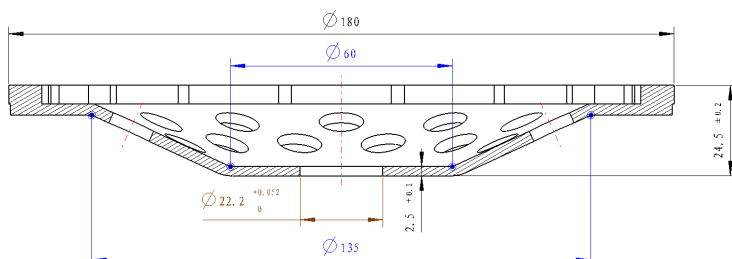
Unpacking and Inspection

- **Carefully Unpack Your ROUTECH Concrete Grinder:** Remove all packaging materials and inspect the grinder and its components for any damage.
- **Familiarize Yourself with Your Grinder:** Take time to understand all the features and functions of your ROUTECH concrete grinder as described in this manual.
- **Verify All Components Are Present:** Check the contents of the package against the parts list (refer to section [insert section number or page number here] of this manual). Ensure all listed items are present and in good condition.
- **Report Missing or Damaged Parts:** Do not attempt to use the concrete grinder if any parts are missing or damaged. Contact ROUTECH customer service or your retailer immediately for assistance and replacement parts.

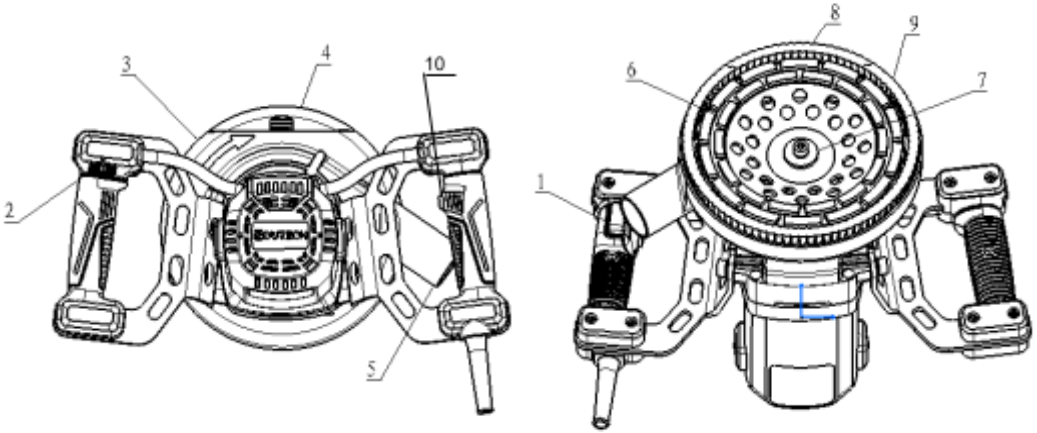


- 1X Grinder body
- 1X Grinding wheel disc
- 1X Y wrench
- 1X Hex wrench
- 1X User manual

Grinding wheel disc size (mm)



Description of Parts



- 1 – Switch on/off
- 2 – Speed control knob
- 3 – Dust hood
- 4 – Removable edging guard segment
- 5 – Dust spout

- 6 – Diamond grinding wheel
- 7 – Grinding wheel fix screw
- 8,9 – Dustproof brush (changable)
- 10 – Safety button

Operation Instructions

Before you assemble and operate your concrete grinder, please read these instructions and all safety warnings carefully.

1. Dust Extraction (Health and Safety)

Dust generated during the grinding process can be hazardous to health. To protect the operator and maintain a safe working environment, strict dust extraction procedures must be followed.

- The concrete grinder must be used in conjunction with a suitable vacuum cleaner.
- An appropriate dust mask must be worn by the operator at all times during operation.

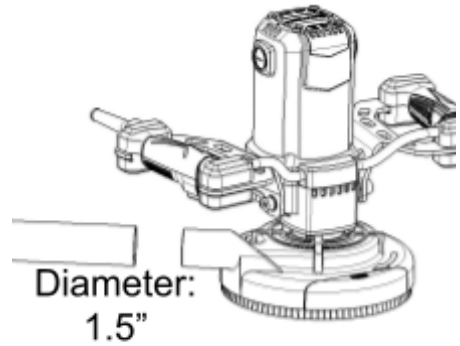


Figure 1

Connecting the Vacuum Cleaner:

The dust hood features a dedicated connection for direct attachment of the vacuum system.

Connection: As illustrated in **Figure 1**, the dust collector tube from the vacuum cleaner is connected directly to the spout on the machine's dust hood.

Spout Size: The connection spout has an approximate diameter of 1.5 inches (38mm).

2. Switch on/off

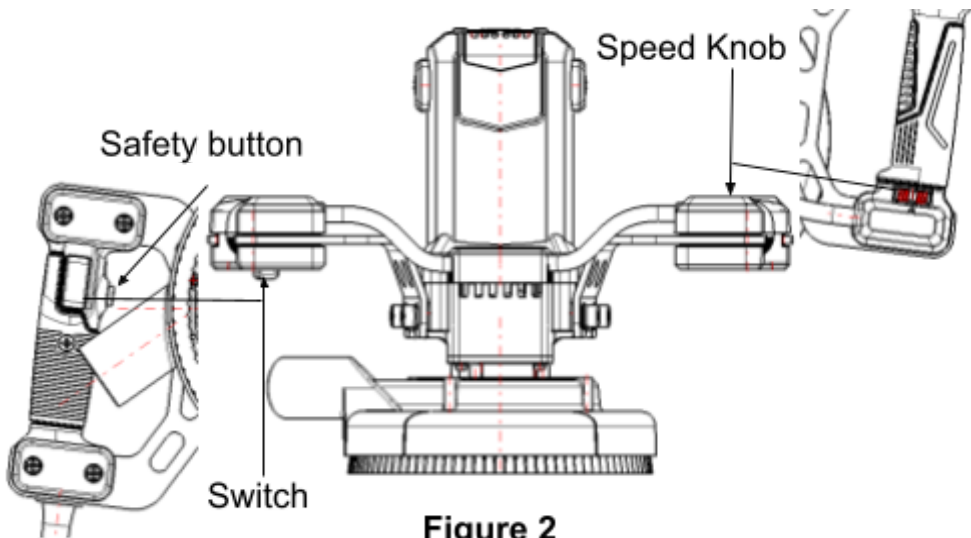


Figure 2

To prevent accidental startup, the machine is equipped with a safety button and an on/off switch. Both must be pressed simultaneously to initiate the machine's operation.

For best working results, avoid applying excessive pressure to the handles.

As shown in **Figure 2**, grip the handle with both hands and position the roughing machine horizontally on the working surface, applying only minimal pressure.

Subsequently, depress the safety button and on/off switch. Once the machine has stabilized, the roughing operation may commence. Adjust the machine's operating speed by rotating the speed knob on the left handle. Throughout the entire working procedure, ensure that the machine is maintained in a level position.

3. Edge Grinding

For grinding works right into edges of the wall **one segment of the dust guard can be removed. This allows grinding on surfaces which are usually hard to reach.**

As shown in **Figure 3**, move off the edge guard in the direction of the arrow so that it is separated from the dust cover and the edge of the diamond grinding wheel slightly exceeds the edge of the dust cover, then start the machine until the machine has stabilized, work at the edge.

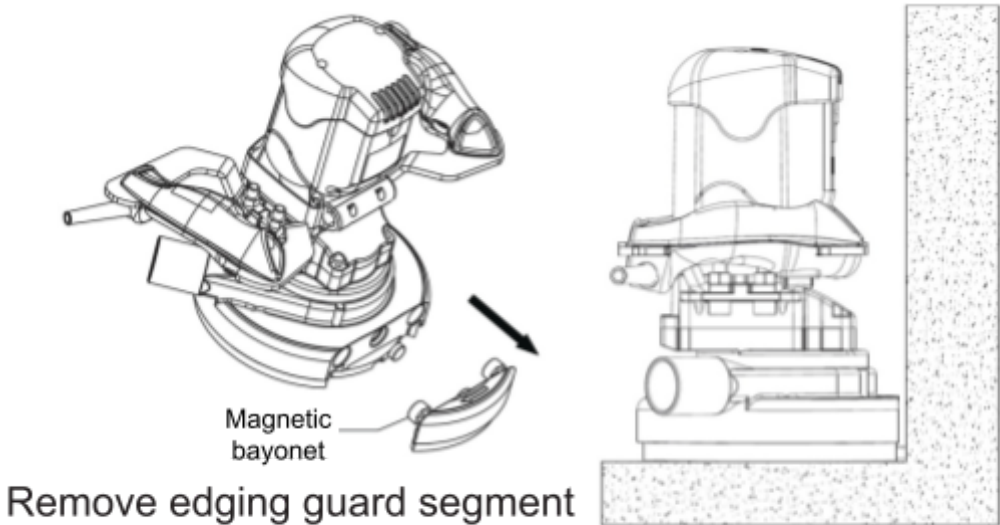


Figure 3

4. Changing the Diamond Grinding Wheel

Attention!

- The grinding wheel can become extremely hot during operation. There is a serious risk of burns, cuts, or injury from sharp segments. Therefore, always wear protective gloves when handling the grinding wheel.
- Crucially, before performing any work or maintenance on the tool, always disconnect the plug from the mains power supply!

The grinding wheel is secured by a locking screw and requires the use of two specialized wrenches, as illustrated in **Figure 5**.

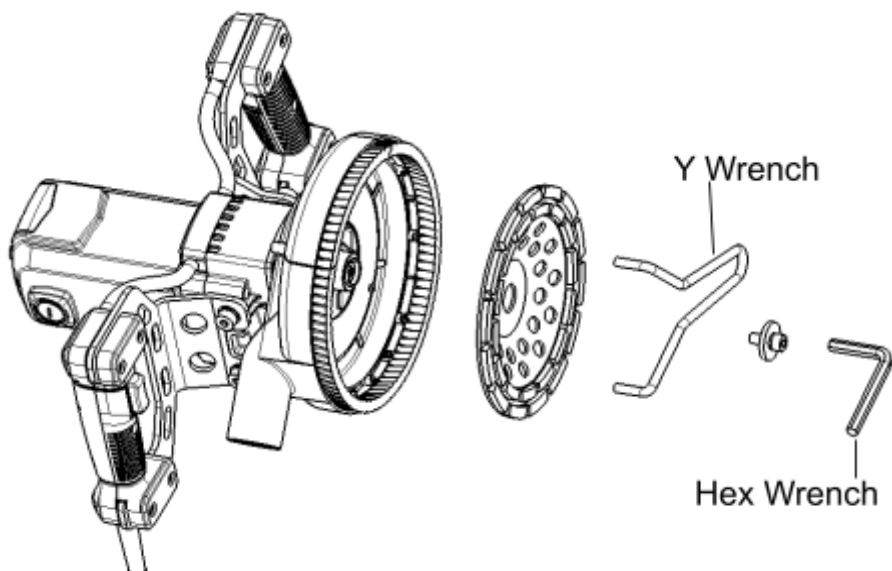
To remove the grinding wheel:

1. Insert the y-wrench into the outer ring hole system of the grinding stone.
2. Hold the lock screw in place with the hexagon wrench.
3. Rotate the Y wrenches in clockwise direction and the hexagon wrench oppositely to loosen the lock screw.
4. Once loosened, unscrew the locking screw completely.
5. Carefully remove the used grinding wheel from the spindle.

To install the new grinding wheel:

1. Place the new grinding wheel onto the spindle.

2. Repeat the removal operation, but turn the wrenches in the tightening direction until the locking screw is securely fastened. This completes the replacement of the grinding wheel.



Maintenance

WARNING: Disconnect Power Before Maintenance. Always disconnect the concrete grinder from the power supply before any inspection, maintenance, or cleaning.

General Inspection and Maintenance

- **Check Fasteners Regularly:** Periodically ensure all fixing screws are securely tightened.
- **Inspect Power Cords:** Before each use, carefully inspect the tool's power supply cord for any signs of damage or wear. Repairs should be performed by an authorized service supplier. This also applies to any extension cords used with the tool.

Lubrication

- **Lifetime Lubrication:** This ROUTECH concrete grinder is lubricated with a high-grade lubricant at the factory, designed to last the tool's lifespan under normal operating conditions. No further lubrication is required.

Inspecting Carbon Brushes

Carbon Brush size is 17*7mm

- Our original carbon brushes can last for over 300 hours.
- Worn carbon brushes can cause a loss of power or sparking.
- Replace both brushes at the same time with identical new ones.

Overload Protection

The concrete grinder is equipped with a power overload protection system to safeguard the operator, motor, and grinding bit.

- **Activation:** Overload protection activates if the output power exceeds 2500W, typically due to excessive downward pressure on the machine.
- **Reset:** If overload protection is triggered, wait for a few seconds, then restart the machine.
- **Operation:** To ensure proper function and prevent re-activation, reduce the pressure applied to the handle during operation.

Contact

For technical or repair service advice, please contact the us online

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