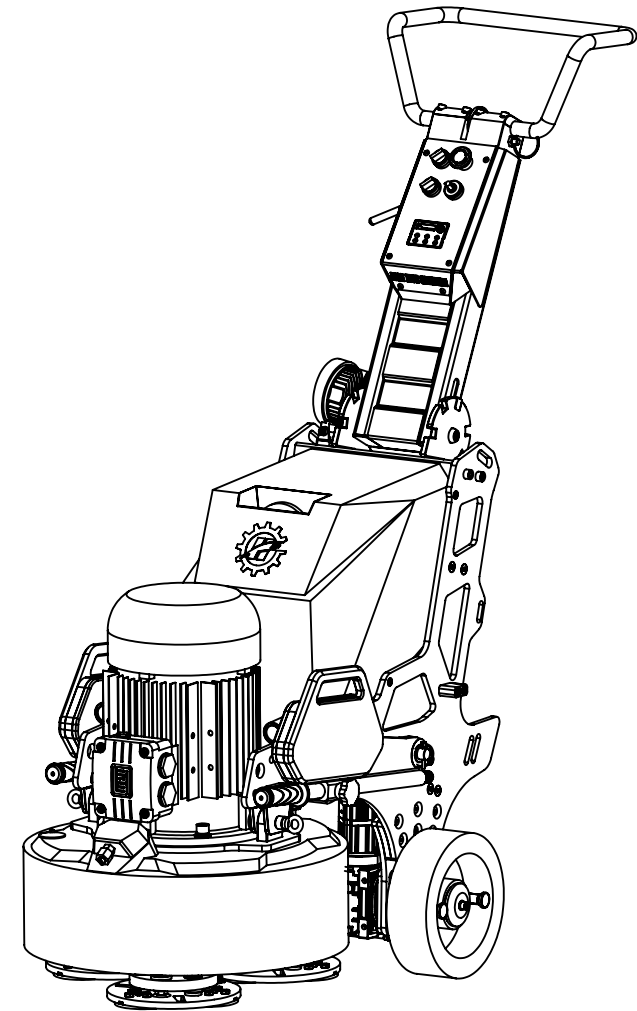


THE LEADER IN GEAR DRIVEN FLOOR GRINDERS



HIGH TECH GRINDING



THANK YOU FOR CHOOSING HTG!

PLEASE REGISTER YOUR MACHINE INFORMATION ON THE WEBSITE.

www.hightechgrinding.com

Have Questions? Call Us Anytime at:

+1 214 377 0570

Feel free to reach out to us at:

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MANUAL OF

HTG-550RC

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1. Introduction

1.1 Summary

HTG's machines are used to treat floor surfaces. The range of use of the machine depends on the choice of tools. In addition to usage and general functions, this manual provides information on the use, repair and maintenance of the grinder. For further information, contact your local retailer.

1.2 Liability

We have made every effort to make this manual as complete and accurate as possible, and we do not assume any responsibility for any errors or missing information. HTG reserves the right to change the instructions in this manual without prior notice.

This manual is protected by copyright law. No part of it may be copied or used without the written consent of HTG.

1.3 Packing List

The product mainly includes the following items, if anything is missing please contact the retailer.

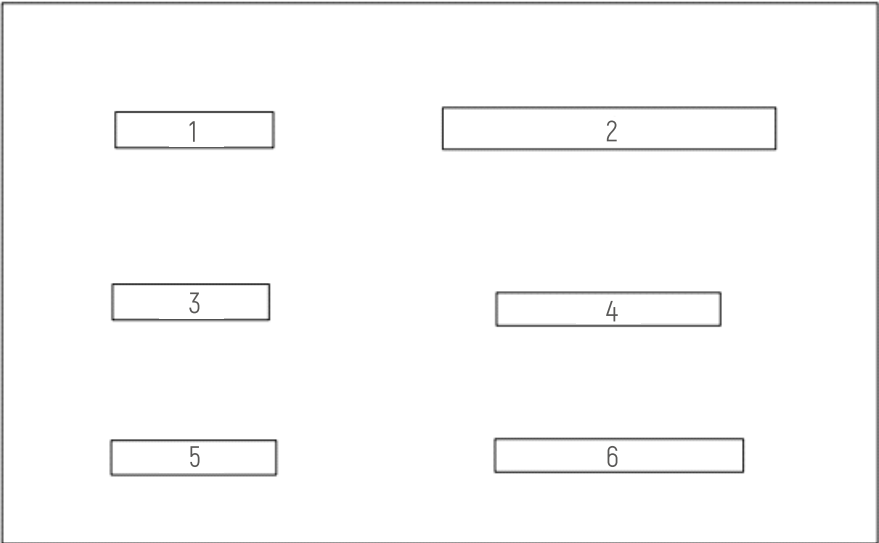
- (1) Machine*1
- (2) Manual*1
- (3) Socket*1
- (4) Dust skirt*1
- (5) Electrical cabinet key*1
- (6) 4" Velcro-adapters*3 (another 9 are installed on the machine grinding disc)

1.4 Receiving goods

Carefully inspect the packaging and the machine for shipping damage. If the machine shows any signs of damage, contact the retailer and report the damage. If the packaging is damaged, report the packaging damage to the shipping company.

Check that the delivery is what you ordered. If you have any questions, contact the retailer.

1.5 Machine information metal plate



- | | |
|--------------------|------------|
| 1. Model | 4. Voltage |
| 2. Production date | 5. Current |
| 3. Power | 6. Weight |

1.6 Processing and storage

The grinder should be stored in a dry place at room temperature when not in use. Otherwise it may be damaged by condensation and cold. The dimensions and weight of the grinder are given in the technical data of (See P45).

1.7 Warranty

This warranty covers manufacturing defects only. HTG is not responsible for damages that occur during transportation, unpacking or use. In no case will HTG be responsible for damages and defects caused by improper use, corrosion or use beyond the specified specifications. HTG is not responsible for consequential damages or expenses in any case. For complete information on the product warranty period, please refer to HTG's current warranty terms. Local dealers may have special warranty terms. If there is anything unclear about the warranty terms , please contact your retailer.

2. Risk List

2.1 General safety instructions



Warning: Please read the following carefully before using the machine.

1. This manual lists important information for using this machine and operating it safely! You must read this manual carefully before operating this machine for the first time!
2. This product must not be operated unless the operator has read and understood the contents of the operator's manual.
3. Never rent a machine without its operating instructions.
4. Please comply with local laws and regulations when using this equipment.
5. All work must be done by trained and qualified professionals, and operators should ensure safety and prevent dangers during operation.
6. Do not operate this product when you are tired, sick, or under the influence of alcohol or drugs.
7. Keep this equipment out of reach of children.
8. This machine only requires one person to operate. When the machine is working, attention should be paid to children or unrelated personnel approaching the machine, maintaining a certain working distance, and remembering "one machine, one person".
9. Do not modify the product at will, and do not use illegally modified products. Only personnel designated by HTG Company can perform repairs and modifications using accessories provided by HTG Company.
10. Keep the product clean and ensure that you can read markings and labels clearly.
11. The products used should be intact and undamaged to ensure safe use.

2.2 Operation Safety Instructions



Warning: Please read the following carefully before using the machine.

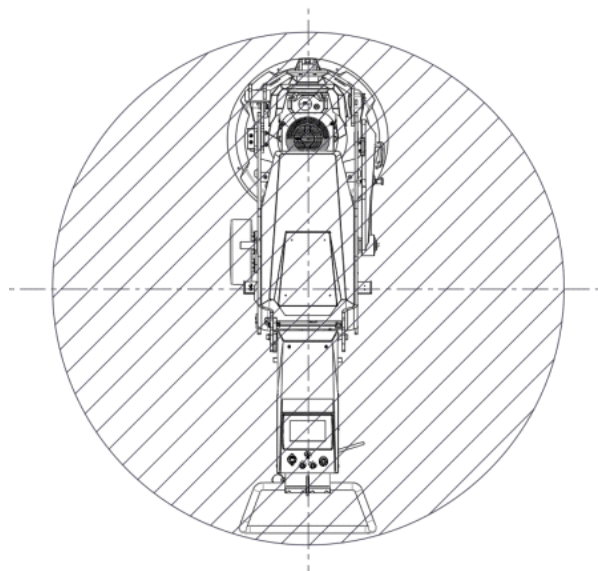
1. When working, you should be equipped with professional personal protective equipment.
2. This machine is only used for floor surface grinding and polishing. Please do not use it in other occasions.
3. HTG machines can only be used in the way recommended by HTG. Please read and understand the operating instructions of the machine manual. Different models have different accessories and control operations. Wrong operation may cause safety problems.
4. This machine must be operated at a slope less than 20°. The company does not assume any responsibility for any accidents caused by operation at a slope greater than 20°.

5. During machine operation, the operator should not leave this product and ensure that it is functioning properly within sight.
6. When leaving this product, please press the emergency stop switch and disconnect the power cord.
7. Before operation, make sure the dust skirt is installed on the machine to prevent dust from being inhaled into the lungs and causing harm, and to prevent the soles of your feet from accidentally touching the grinding disc.
8. Do not pull the hose to prevent the machine from tipping over and causing injury.
9. During operation, ensure that the machine is in a safe and stable position to prevent personal injury during operation.
10. Keep your body, hair, jewelry, and loose clothing away from moving parts of the machine, otherwise it may cause physical injury.
11. If the machine is found to be working abnormally, such as abnormal vibration, abnormal noise, etc., stop using the machine immediately and have it checked for damage and repaired by authorized dealers and maintenance personnel.

2.2.1 Personal protective equipment

1. When operating the equipment, please make sure to wear personal protective equipment that meets the standards to reduce the harm caused by accidents.
2. Please do not wear loose clothes or carry anything that could be dangerous, such as scarves, bracelets, rings, etc. Tie your hair up when operating the machine to avoid it being caught in the machine and causing injury.
3. Be sure to wear certified protective glasses to prevent dust or foreign objects from damaging your eyes.
4. Certified rubber protective gloves must be worn to ensure a firm grip and prevent wet concrete from injuring your palms.
5. Certified safety shoes must be worn with steel toes and non-slip soles to avoid slipping and foot injuries.
6. The machine will generate noise and dust when working. Protective earmuffs and masks must be worn to avoid noise damage to the ears and dust inhalation into the lungs to damage the respiratory tract.
7. A certified protective helmet must be worn.
8. Make sure there are fire extinguishers, first aid kits and other supplies at the work site to prevent accidents.

2.2.2 Work area safety



1. As shown in the figure above, except for the operator, no other personnel are allowed to enter this area, and the operator in this area should be extra careful during operation.
2. Do not use the machine in rain, lightning, dense fog, strong wind or other adverse conditions.
3. Do not operate the machine near explosive or flammable materials or steam. Do not operate the machine near dust, solvents, thinners or other flammable items.
4. Before the equipment is put into operation, check the ground area to be ground and remove any hard objects such as bolts and nails that may cause damage to the abrasive or equipment. For hard objects such as steel bars and expansion bolts protruding from the ground, use a cutting machine to clean the part protruding from the ground in advance.

2.3 Electricity safety tips

⚠ Warning: Please read the following carefully before using the machine.

1. All circuit repairs can only be performed by professionals.
2. After the machine stops, the circuit is still energized. All power supplies should be cut off before repairing the machine.
3. The machine is equipped with an overload protection equipment which will automatically trip and prohibit the machine from running when the machine is overloaded (the overload can be readjusted under safe conditions).
4. HTG will not provide warranty for other losses and malfunction of the machine caused by continuous use of the machine under overload conditions.
5. The purpose of adding an inverter to the machine is to adjust the speed and protect the safety of the user and the machine. It is forbidden to modify or adjust the inverter or modify the inverter parameters without HTG's consent. If the equipment fails, only the accessories provided by HTG can be used to replace the broken accessories. (HTG will not provide warranty for other losses and machine failure caused by modifying or adjusting the inverter or modifying the inverter parameters without HTG's consent)
6. Never modify the internal parts or circuits of the inverter by yourself.
7. Do not operate the machine when the distribution box is not closed.
8. If the machine current is overloaded, special attention must be paid.
9. Never connect or remove wires when the wires are live or under load.
10. Using a damaged power cord may cause electric shock. Do not use a damaged power cord.
11. Keep wires away from high temperature surfaces.
12. All electrical components of the machine should be kept dry and the machine should be stored in a dry place.
13. After cutting off the power supply, before the panel indicator light goes out, it means that there is still high voltage inside the inverter, which is very dangerous. Do not touch the uninsulated electrical machine parts.
14. Do not allow water to enter the machine motor or inverter. (HTG will not provide warranty for other losses or malfunction of the machine due to water ingress)
15. The machine must use the wire specifications and voltage specifications specified by HTG. (The power specifications are indicated on the machine label)

2.4 Safety warning signs



Please read and understand the instructions before using this equipment.



Be sure to wear earmuffs and protective glasses to avoid noise damage to the ears and foreign objects damage to the eyes.



You must wear a protective mask to avoid inhaling dust and damaging your lungs.



Make sure all parts of the equipment are intact and all bolts are tightened, otherwise personal injury may occur.



Insulated rubber shoes must be worn, otherwise there may be a risk of electric shock.



High voltage danger, do not open, otherwise personal injury may occur.



Danger warning, please pay attention to the text description below this icon to avoid danger.



This is the hook mark.



Pay attention to voltage: 220V 1PH



Pay attention to voltage: 380V 3PH

3. Machine

3.1 Overview

HTG-550RC is used to treat various types of floors. It is used to grind (rough grinding, grinding, polishing) concrete, natural stone and terrazzo floors or materials specified in this manual or recommended by HTG. It can be used for a variety of purposes from rough grinding to fine polishing. This machine is intended for commercial applications, such as hotels, schools, hospitals, factories, offices and other places.

The swing handle and the handle can be set in many different tilting positions. When the machine is operated manually, a position that is most suitable can be selected. The grinding head of the machine can be used with different grinding discs for grinding operations.

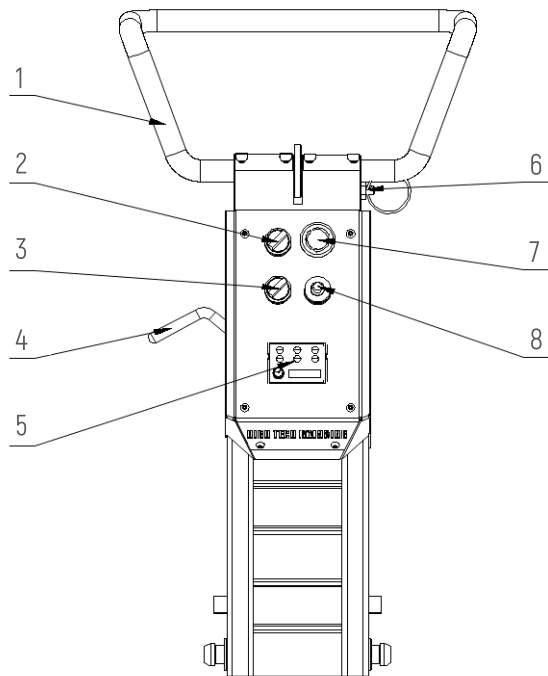
Equipped with a water tank so that the machine can not only dry grind, but also wet grind.

When dry grinding, be sure to connect a vacuum cleaner to the grinder (it is best to equip it with a vacuum cleaner that matches HTG for better results). This prevents dust from being exposed to the air and posing a threat to the health of the operator, operator, and nearby people. Inhaling dust is harmful, so during operation, even with a vacuum cleaner, you should wear a protective mask to protect your own health.

This machine can use different HTG abrasives, and the abrasives used in grinding will be different depending on the different ground materials.

3.2 Swing handle assembly

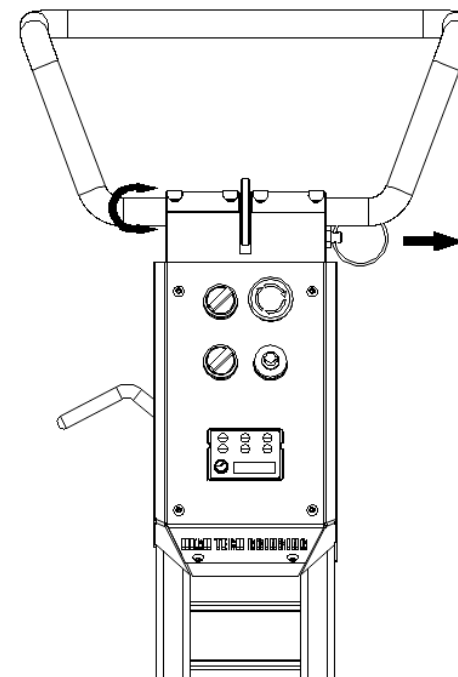
3.2.1 Overview



1. Operating handle: The position of the user's hand during operation.
2. Three-position selector switch: This switch has three positions. Rotate to turn on the emergency stop switch, change the direction of the switch rotation, and the left side will rotate the motor forward; In the middle gear, the motor does not rotate; Rotate to the right to reverse the motor.
3. LED light switch: Control the switch of LED light.
4. Swing handle angle adjustment bar: Used to adjust the position of the swing handle.
5. Inverter panel: Displays various parameters such as voltage, current, motor speed, and overload fault indications.
6. Handle latch: When this latch is pulled out, the position of the handle can be adjusted, and it will automatically bounce back after adjustment.
7. Emergency stop switch: When the equipment is in a dangerous state or needs to stop working, press the emergency stop switch to cut off the power and stop the equipment from running, in order to protect personal and equipment safety.
8. Speed regulator: Primarily used to adjust the rotational speed of the motor.

3.2.2 Handle

The adjustment latch on the handle adjusts the handle to different positions by positioning in different round holes to meet different user needs. Hold the armrest with one hand, pull out the adjustment latch with the other hand, rotate it to the appropriate position, and then release the adjustment latch.

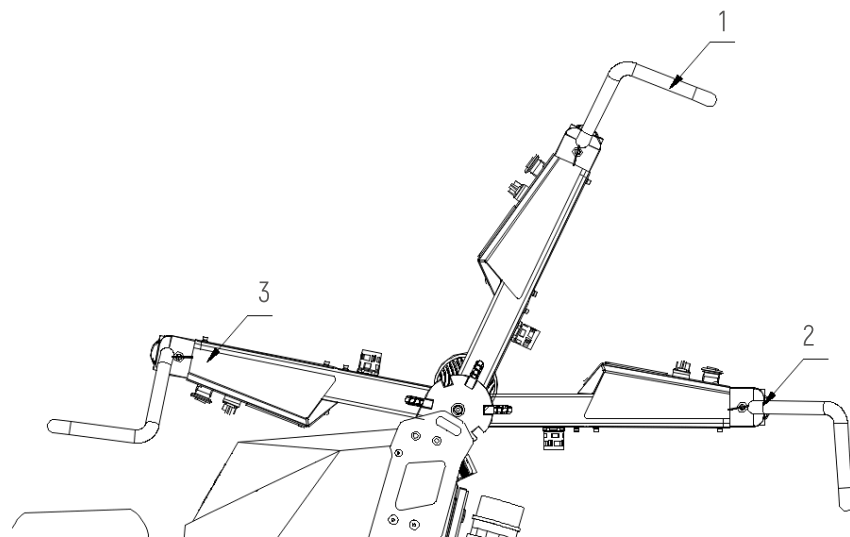
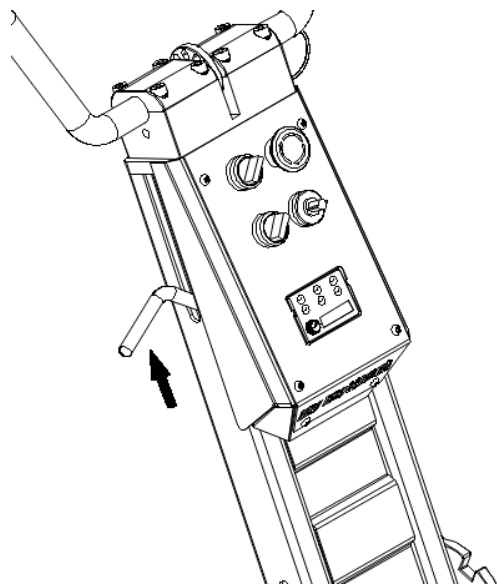


Be careful:

1. When pulling out the handle adjustment latch, it sometimes gets stuck. In this case, you need to shake the handle while pulling out the latch.
2. When the handle adjustment latch automatically resets, there may be a misalignment of the holes. Simply rotate it up and down to adjust.
3. When adjusting the position of the handle, it is essential to check whether the handle adjustment latch automatically resets before operating the equipment.

3.2.3 Angle adjustment of swing handle

The adjustable equipment of the swing handle relies on the handle to control different positions of the swing handle, adapting to the conversion of machine placement in different states (Different states, see P34). Hold the handle with one hand to support the swing handle, and with the other hand, pull up the handle without moving it. Rotate the swing handle to the desired position according to the hole position on the welding piece, and then release the handle.



1. Tilt position 2. Working position 3. Transportation position

Pull up the swing handle angle adjustment bar to switch the swing handle angle.

When replacing abrasive or when the machine is tilting, the swing handle should be in position 1.

When the machine is operating, the swing handle should be in position 2.

During machine transportation, the swing handle should be in position 3.

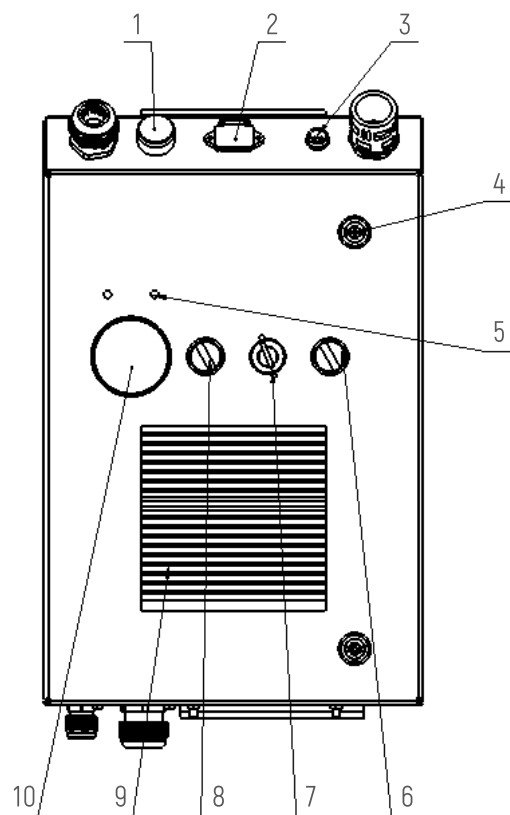


Be careful:

1. After adjusting the position of the swing handle, it is necessary to check whether the swing handle has reached its limit before operating the equipment.

2. The swing handle is heavy, so you need to hold it steady with one hand.

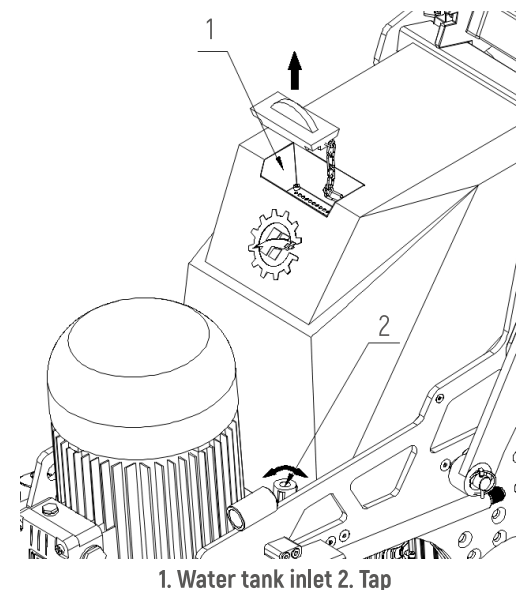
3.3 Electrical cabinet components



1. Charging indicator light: When the equipment starts charging, the indicator light lights up.
2. Charging port: Used for charging the internal battery of the equipment itself.
3. LED light socket: Used to connect LED lights.
4. Cabinet lock: The inverter cabinet can be locked with a key.
5. Indicator light: Remote controller status indicator light.
6. Spray switch: Control the opening/closing of the tap.
7. Key switch: Turn on/off the DC power supply.
8. Control mode switch: Manual control/remote control switching.
9. Filter: Plays a role in heat dissipation to prevent the internal temperature of the inverter cabinet from being too high, which may cause damage to the components inside the inverter cabinet.
10. Multi-functional battery indicator: Display the battery level and the total running time of the machine.

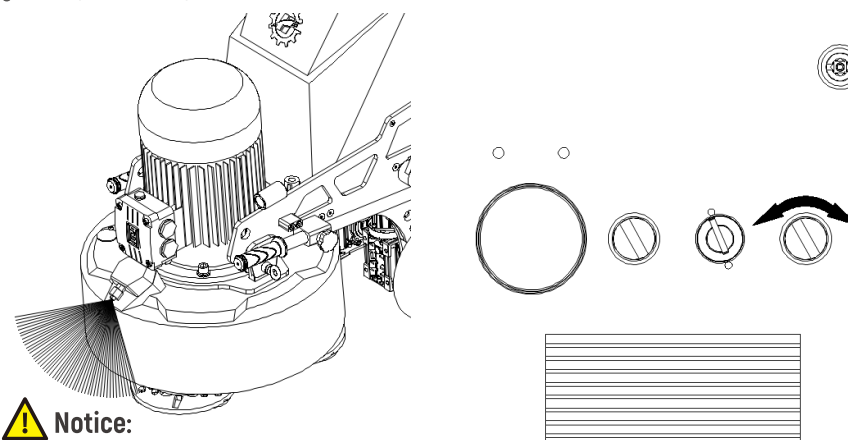
3.4 Water tank

There is a water tank cover on top of the water tank. After removing the water tank cover, there is a water inlet that can fill the water tank with water. When the equipment needs to perform wet grinding work, rotate the tap clockwise to start the wet grinding work. After the wet grinding work is completed, rotate the tap counterclockwise to end the wet grinding work.



1. Water tank inlet 2. Tap

Turn on the spray switch on the inverter cabinet and start spraying water at the bottom of the gearbox; otherwise, it will be turned off.

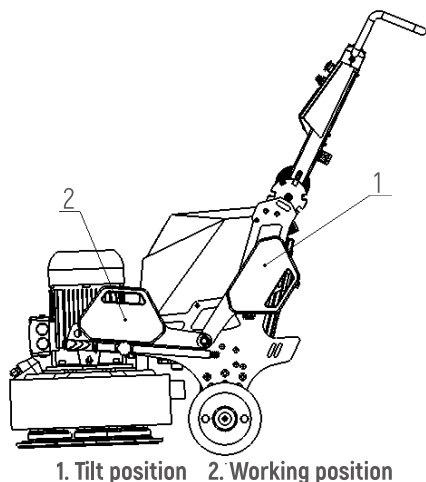


⚠ Notice:

1. When carrying out wet grinding and spraying operations, always pay attention to the water level in the water tank.

3.5 Counterweight

The counterweight has two different positions, corresponding to the tilt position and working position on the machine.



1. When the grinding disc needs to reduce pressure or the machine needs to replace abrasive, or when the machine is tilted, the counterweight should be in position 1.
2. When the grinding disc needs to increase pressure, the counterweight should be in position 2.

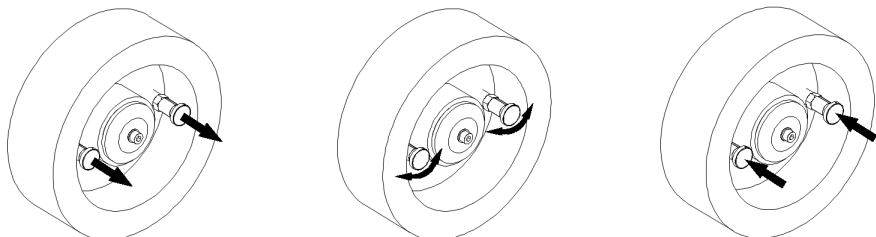


Notice:

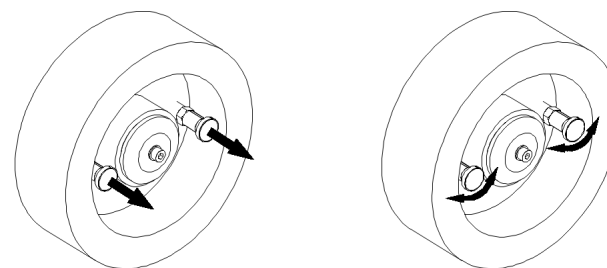
1. The counterweight is very heavy, please be sure to handle it with care, otherwise it may cause personal injury or machine damage.
2. Please hold the handle of the counterweight to adjust it. Improper movement of the counterweight may cause your hand to be pinched and cause personal injury.

3.6 Self-locking indexing pin

Lock the self-locking indexing pin: Push the self-locking indexing pin outward, then rotate the self-locking indexing pin 90 degrees, and then push it inward.



Unlock the self-locking indexing pin: Push the self-locking indexing pin outwards, and then rotate it 90 degrees.

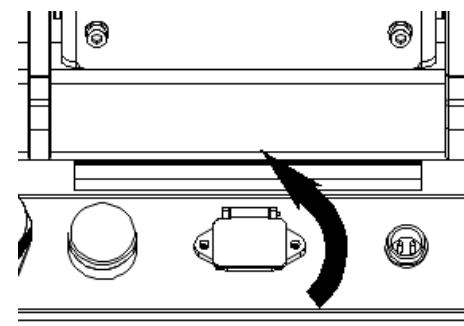


Notice:

1. The self-locking indexing pin may get stuck when you pull it out. Just shake the machine while pulling it out.
2. When performing grinding work, the self-locking indexing pin needs to be rotated to the corresponding position. If the self-locking indexing pin does not bounce back automatically, the self-locking indexing pin will automatically bounce back when the machine wheel is pushed again.

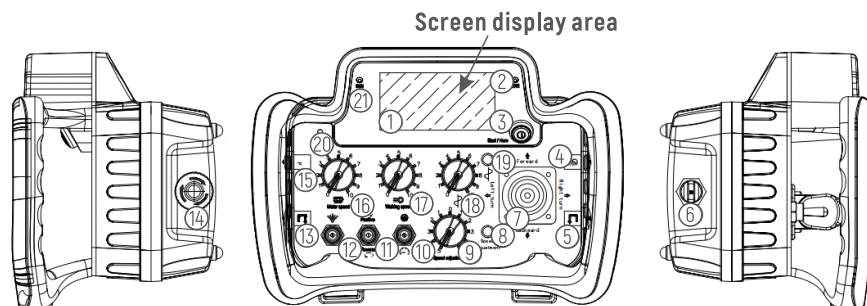
3.7 Battery charging

When the battery of the equipment runs out of power and the multi-functional battery indicator on the inverter cabinet is below 20%, it is necessary to charge the battery. Open the cover of the charging port and use the charger provided by HTG for charging.



3.8 Remote control equipment

3.8.1 Remote controller-control panel



1. HMI: Mainly displays some parameters, such as voltage, current, motor speed, overload fault prompt, etc.

2. Transmitter battery indicator: When the battery voltage is low, the indicator light (Battery level indicator $\odot$ $\rightarrow$ $\ominus$) turns green. Please replace the battery within 20 minutes.

3. Reset switch: Used to start the remote controller in conjunction with the emergency stop switch.

4. Spotlight switch: Controls the switch of the spotlight at the bottom of the inverter cabinet.

5. U-turn left switch: Press to make the machine turn left.

6. Power switch: The switch that controls the power.

7. Directional control joystick: Controls the machine to move forward, backward, turn left, and turn right.

(1) Turn the directional joystick to the center. The machine will move at the speed set on the travel speed controller.

(2) Push the directional joystick backward slightly. The machine will move backwards at the speed set on the travel speed controller.

(3) Use force to push it to the left until the end, and the machine will coordinate the left and right wheels to turn left according to the minimum turning radius.

(4) Use force to push it to the right until the end, and the machine will coordinate the left and right wheels to turn right according to the minimum turning radius.

(5) Slightly push the joystick to the left, and the machine will turn the left wheel and turn left.

(6) Slightly push the joystick to the right, and the machine will turn the right wheel and turn right.

(7) After the machine completes the turn, the joystick is reset and the machine moves according to the forward or backward command set in the previous step.

(8) Machine travel speed: 0-30m/min.

8. Speed adjustment status indicator light: When the speed regulator is started normally, the indicator light is on green.

9. Left and right wheel speed regulator: Ensures that the machine performs straight-line grinding. When the machine deviates slightly to the right (left) from the straight line, turning the switch to the left will reduce the speed of the left wheel, causing the machine to deviate to the left (right) and maintain a straight-line walking route.

10. Remote control/memory grinding mode switch: Push it down and the machine is in normal remote control mode, push it up and the machine switches to full-automatic grinding mode.

11. Motor forward-reverse switch: This switch has three positions: pushing forward controls the motor to rotate forward, the middle position controls the motor not to rotate, and pushing backward controls the motor to rotate in reverse.

12. Spray switch: Control the opening and closing of the tap of the grinding disc cover.

13. U-turn right switch: Press to achieve the right turn action of the machine.

14. Emergency stop switch (located at the bottom of the machine): Activate or interrupt the control of radio usage to stop the machine from working.

15. Brake switch: Drive wheel brakes instantly.

16. Motor speed regulator: Control the speed of the grinding disc drive motor.

17. Traction wheel speed regulator: Controls the travel speed of the machine.

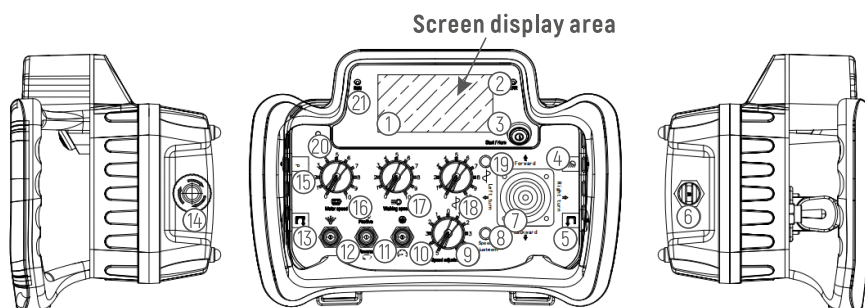
18. Oscillation switch: Adjust the contact angle between the grinding disc and the ground

19. Oscillation indicator light: When the oscillation grinding function starts normally, the indicator light turns green.

20. External antenna: Used to receive control signals.

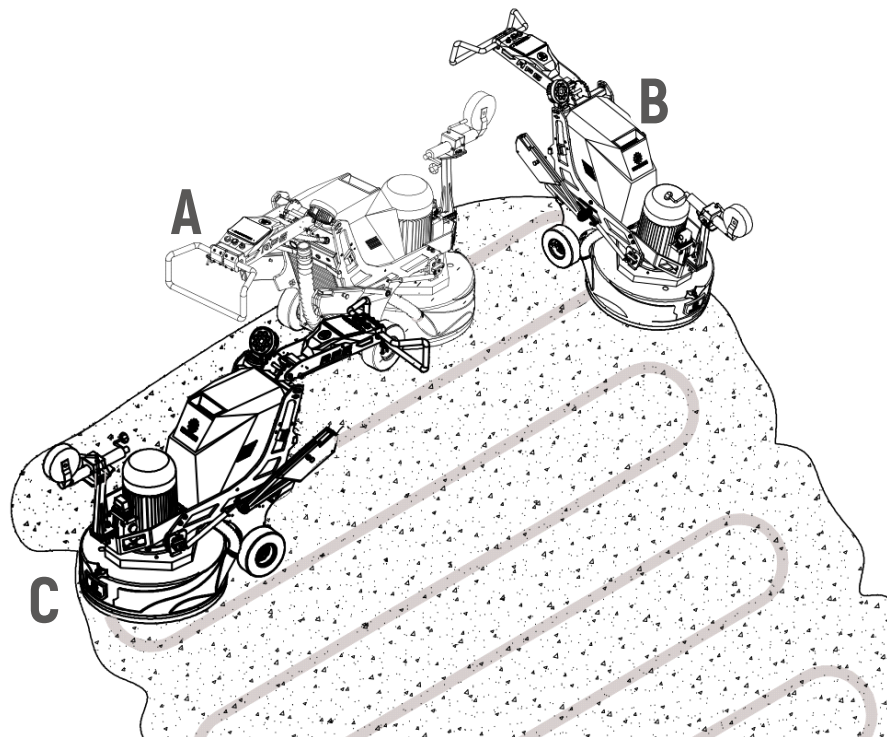
21. Operation indicator light.

3.8.2 U-turn



When the machine is grinding, if machine A needs to turn during straight grinding, you can press NO.13 U-turn right switch to turn right (or press NO.5 U-turn left switch to turn left according to your needs) to turn into machine B and grind while turning, and finally grind in straight line in machine C.

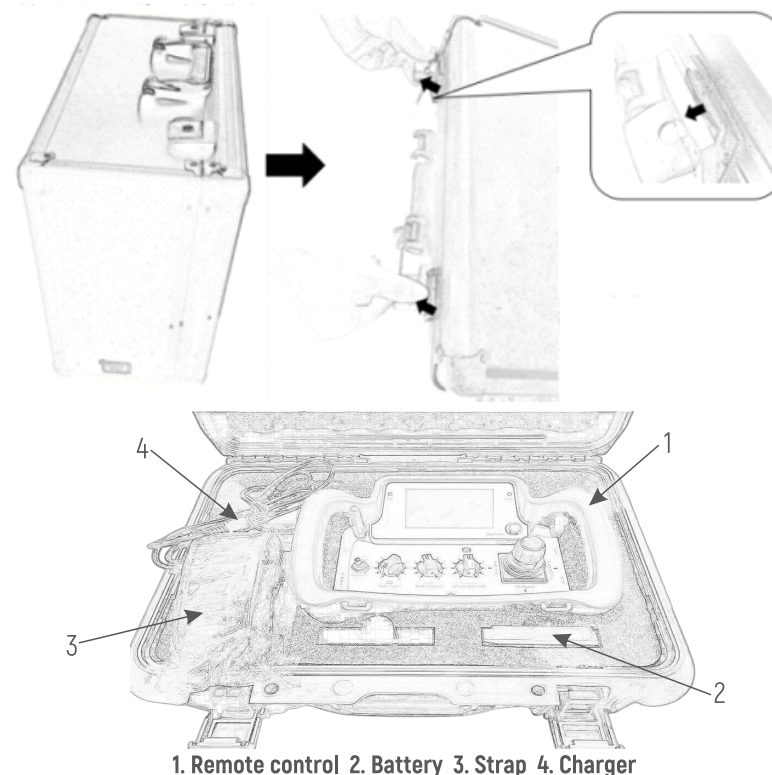
⚠ Attention: The actual turning point is between the two rear wheels, so when turning, a 40cm space must be reserved at the front. It is not recommended for novices to use one click turning when close to a wall.



3.9 Remote control tool box

3.9.1 Overview

The remote control tool box contains:



3.9.2 Use of remote controller

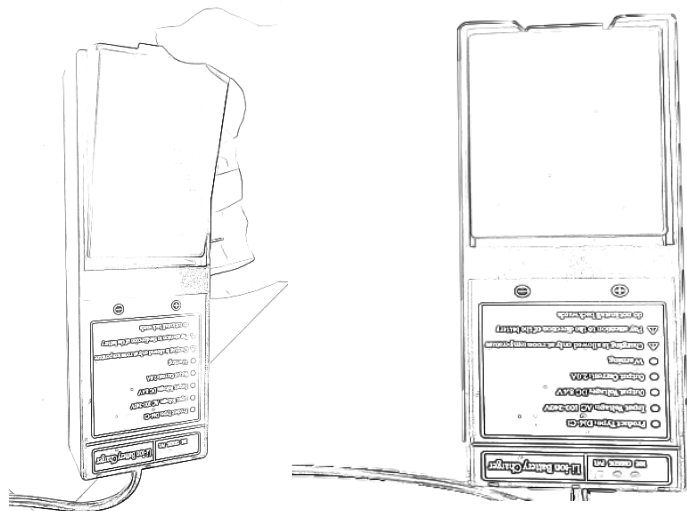
Installation of remote control battery: Please check the battery power before installation to avoid malfunction due to insufficient battery voltage; pay attention to the direction of the battery during installation and ensure that the battery is installed securely; remove the battery when the remote controller is not used for a long time.

Location of remote controller: The remote controller should be placed in a safe and conspicuous place to avoid it from falling and being damaged.

To turn on the remote controller: Put a fully charged battery pack into the battery box, release the emergency stop switch on the remote controller, and long press the "start" switch until the green light is on and flashes once per second, which means it is turned on normally.

To turn off the remote controller: Press the emergency stop switch on the remote controller, the battery indicator light goes out and the remote controller turns off.

3.9.3 Use of charger



1. Input the correct voltage according to the mark on the charger.

2. Put the rechargeable battery into the charger:

The charger indicator light changes from solid green to solid red, indicating normal charging;

The charger indicator light changes from solid green to flashing red, indicating:

the battery is over-discharged and the charger is in trickle-charge mode. After a short period of trickle charging, the indicator light changes to solid red and enters normal charging mode;

If the rechargeable battery malfunctions, it needs to be replaced.

3. After charging is complete, the indicator light changes from solid red to solid green.



Attention:

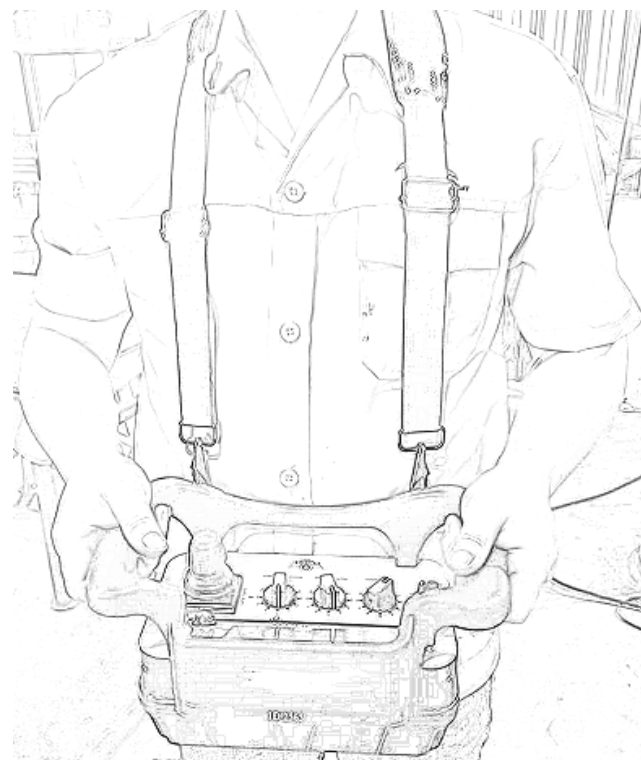
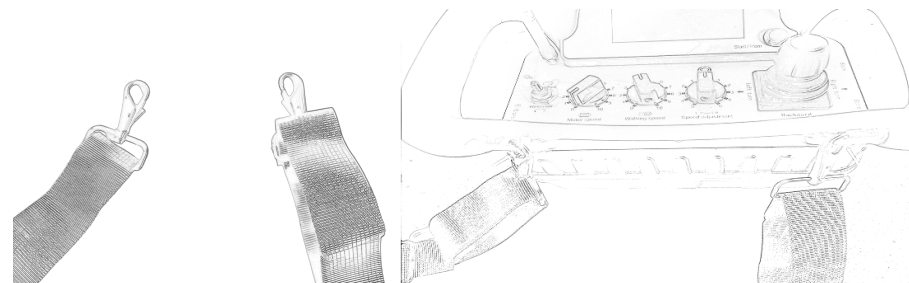
1. Be sure to confirm the charger voltage.

2. Make sure the rechargeable battery is fully inserted into the charger.

If charging is not completed after more than 4 hours, please check whether the charger or battery is in good condition .

3.9.4 The remote controller is hung on the body

Take out the strap of the remote control, connect it to the bottom of the remote controller (as shown in the picture), hang the strap around your neck, and adjust the length of the strap.



4. Machine Operation Guide

4.1 Overview

The following section describes the grinders at different locations, their main operations, and how to install and replace abrasive.



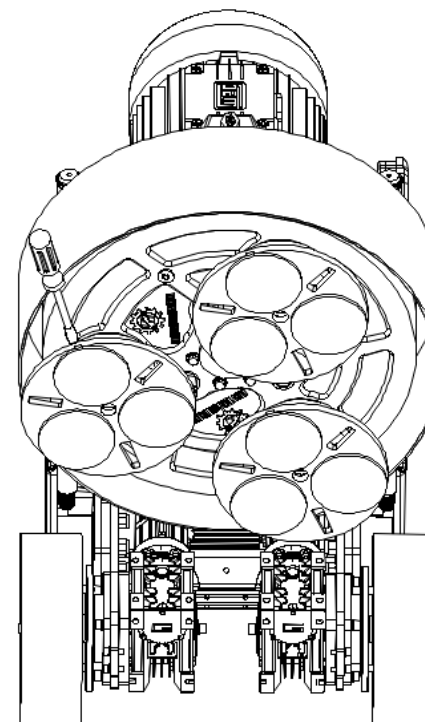
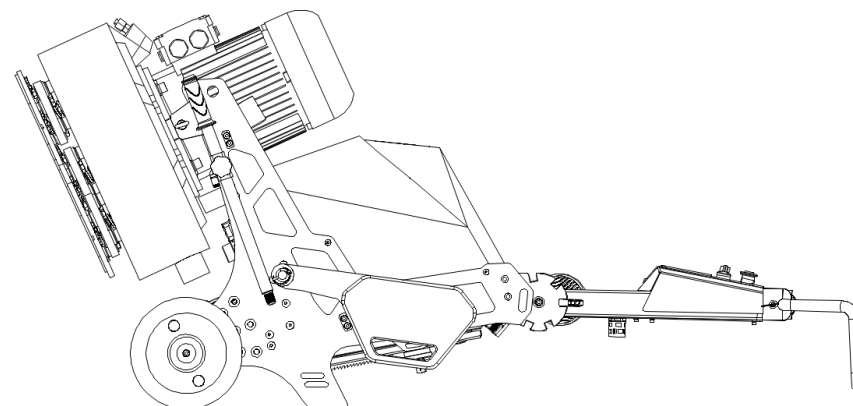
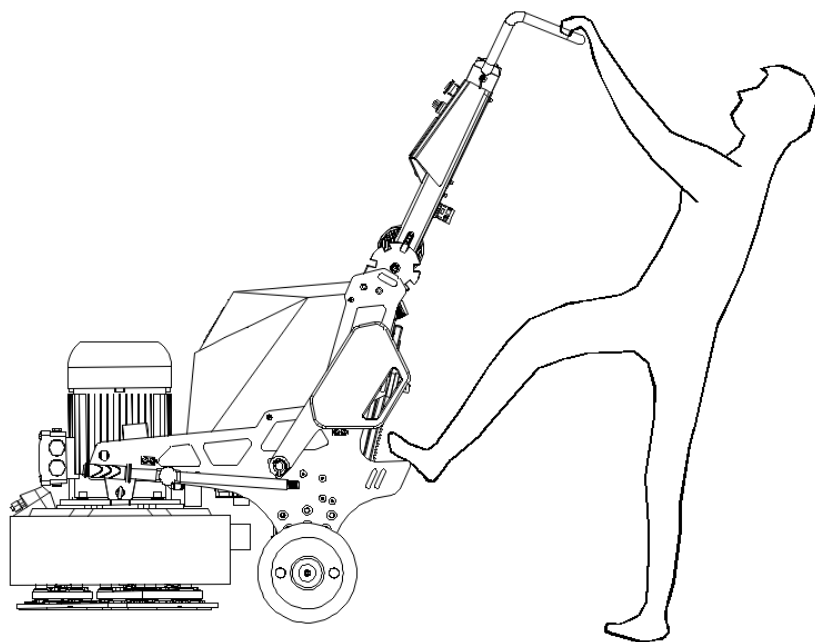
Note:

1. Grinder can only be used or repaired by personnel who have received necessary theoretical and practical training and have carefully read the user manual.
2. When operating the grinder, protective equipment such as gloves, face shields, work clothes, helmets, insulated shoes, etc. should be used.

4.2 Grinding operation instructions

4.2.1 Replace the abrasive

When replacing the abrasive, you need to adjust the machine to the tilt position, then tilt the machine and carefully lay it flat. After laying the machine flat, stand next to the machine and check whether the machine is stable. Use a screwdriver and hammer to knock out the abrasive.



1. Switch the counterweight position to the "tilt position".
2. Switch the swing handle to the "tilt position".
3. As shown in the figure, stand on the machine frame and press down on the machine.
4. Replace the appropriate abrasive.

Velcro-adapter List

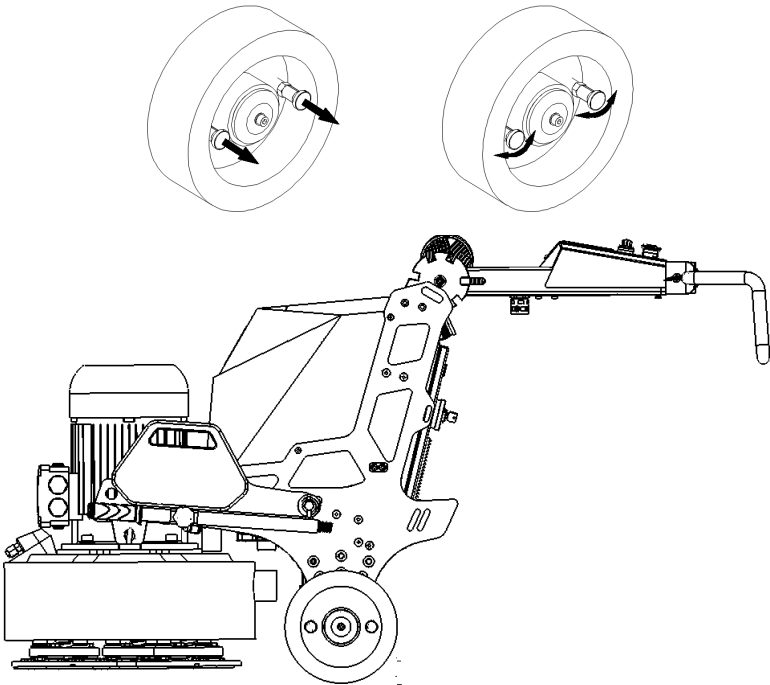
Name	Code	Picture	Optional Velcro- adapter	Name	Code	Picture
Round grinding disc	3.14.112.005			100 Velcro-adapter	3.22.115.003	

 Attention:

1. Please ensure that the machine does not tilt forward before replacing the abrasive;
2. After the machine has been running for a period of time, the abrasive, grinding disc, and gearbox will generate high temperatures. Please exercise caution when replacing the abrasive to avoid burns.
3. Ensure to perform the operation of replacing the grinding disc only after the power is unplugged and the emergency stop switch is pressed.

4.2.2 Start the grinder (manual mode)

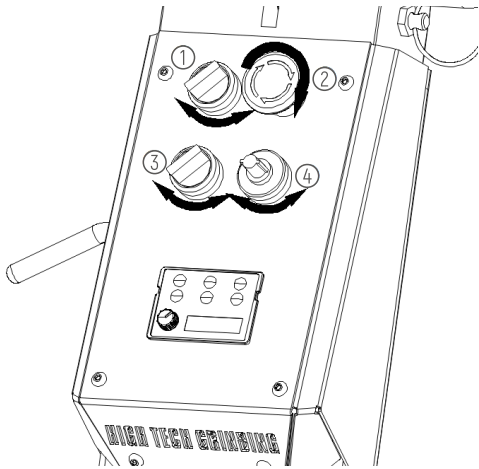
(1) Unlock the self-locking indexing pin (For detailed introduction, please refer to P38); Adjust the swing handle, handle, and counterweight to their corresponding working positions (as shown in the figure below after adjustment).



(2) Plug in the power cord (before doing this, make sure the emergency stop switch is pressed and all switches have been reset); if it is dry grinding, connect the vacuum cleaner (if the vacuum cleaner shipped by HTG is equipped with a camlock, it can be quickly connected to the vacuum cleaner).If it is wet grinding, fill the water tank with water.

(3) Rotate the emergency stop switch on the control panel, turn the speed regulator to adjust the rotation speed of the motor, rotate the three-position selector switch, turn the switch to the left to rotate the motor forward (turn it to the right to rotate the motor in reverse), and the equipment can be started for grinding (if wet grinding is to be carried out, the water tank needs to be filled with water before turning on the spray switch), as shown in the figure below. If the machine is operated in a low light environment, the LED light switch can be turned on according to one's own needs to start the machine for grinding work.

- ① Three-position selector switch
- ② Emergency stop switch
- ③ LED light switch
- ④ Speed regulator

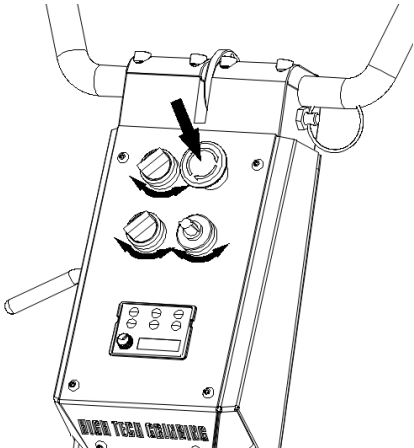


4.2.3 Stop the grinder (manual mode)

Press the emergency stop switch to stop the machine (remember to reset all switches and unplug the power plug).

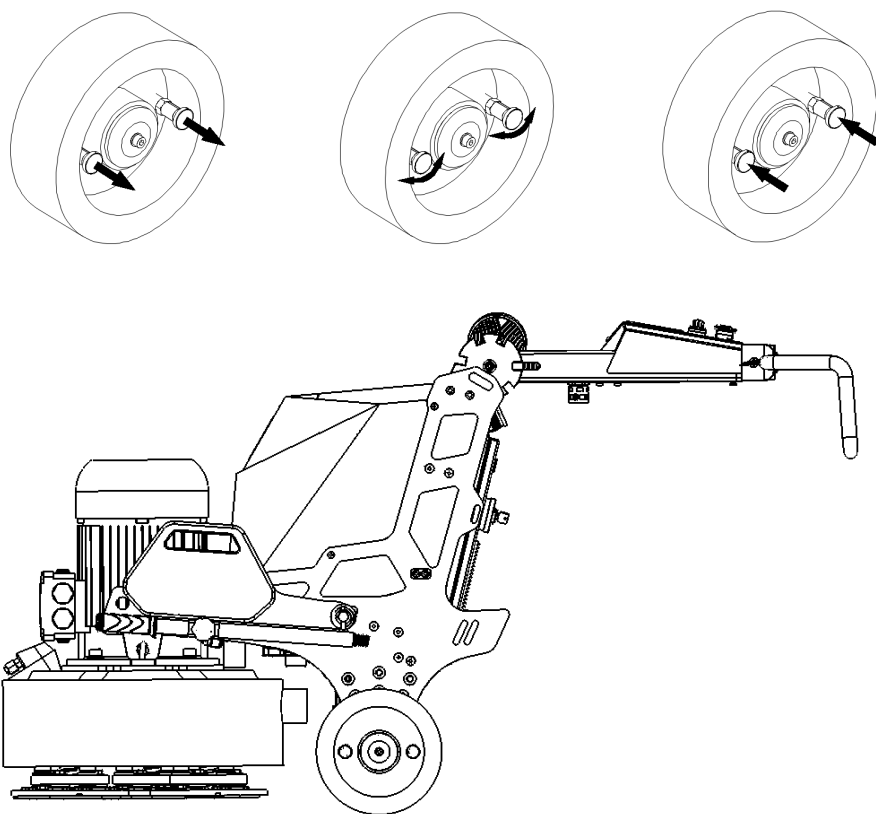
 Attention:

1. For safety reasons, it is recommended to unplug the power when stopping the machine.
2. The emergency stop switch can only rotate and press down according to the rotation direction on the emergency stop switch, and cannot be pulled up.



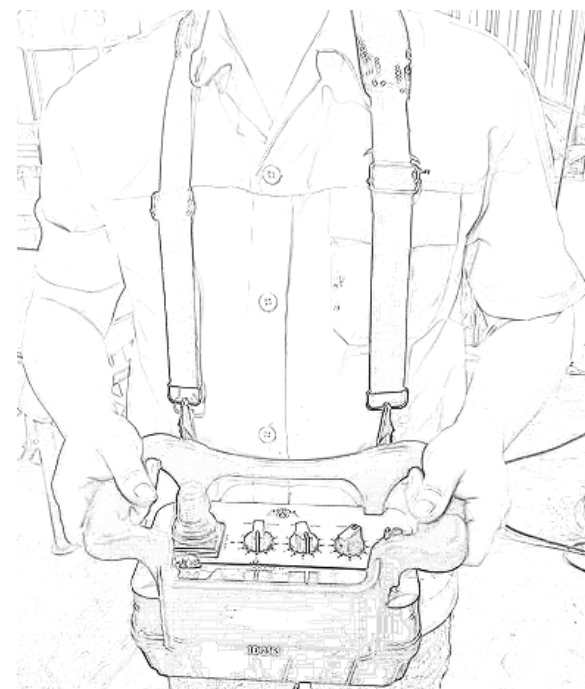
4.2.4 Start the grinder (remote control mode)

(1) Lock the self-locking indexing pin (For detailed introduction, please refer to P15), adjust the counterweight (For specific operations, please refer to P15), the swing handle (For specific operations, please refer to P11), and the handle (For specific operations, please refer to P10) to the corresponding working position.

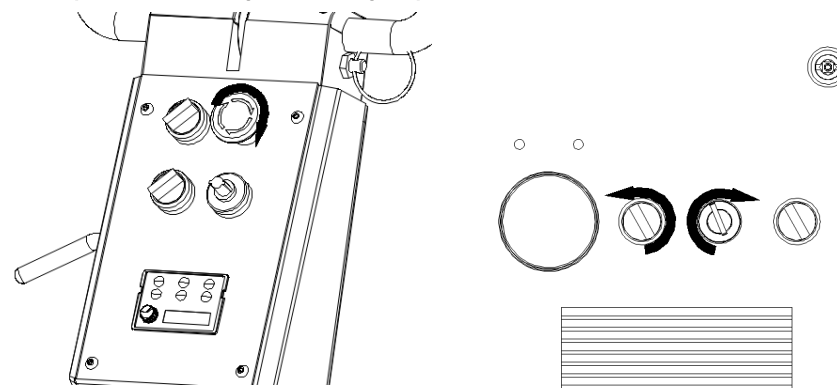


(2) Plug in the power cord (make sure the emergency stop switch is pressed down and all switches are reset before doing so); if it is in a dry grinding state, connect the vacuum cleaner (if the vacuum cleaner shipped by HTG is equipped with a camlock, it can be quickly connected to the vacuum cleaner); in the water mill state, the water tank needs to be filled with water, for detailed operation, see P14.

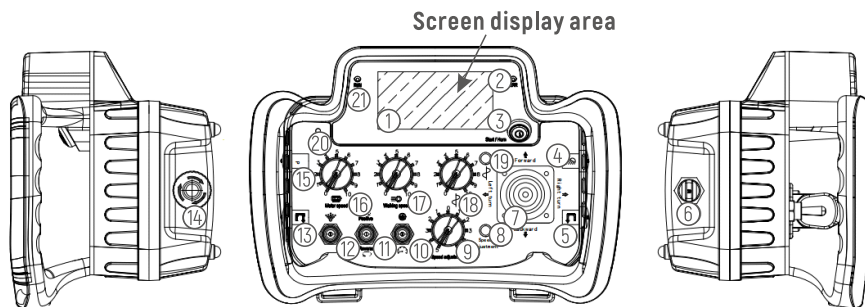
(3) Take out the remote control device box and hang the remote controller around your neck.



(4) Select the key switch on the electrical cabinet to the on state, and select the control mode switch to the remote control mode; Turn on the emergency stop switch and wait for the inverter panel on the swing handle to light up.



Remote control mode operation: Turn on the No.5 emergency stop switch, press the No.3 start switch, and push the No.11 motor forward-reverse switch to make the motor rotate forward (or backward). Rotate the No.16 motor speed regulator and the No.17 driving wheel speed regulator to adjust the motor speed and driving wheel speed respectively, and then start the machine for grinding work. Use the No.7 directional control joystick to control the direction of the machine.

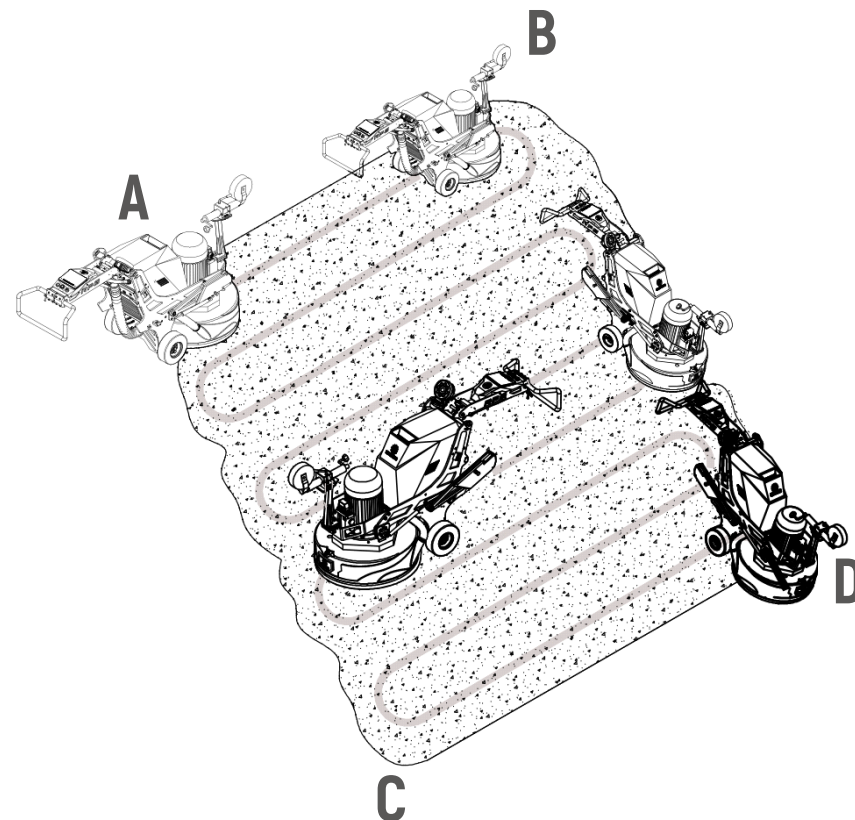
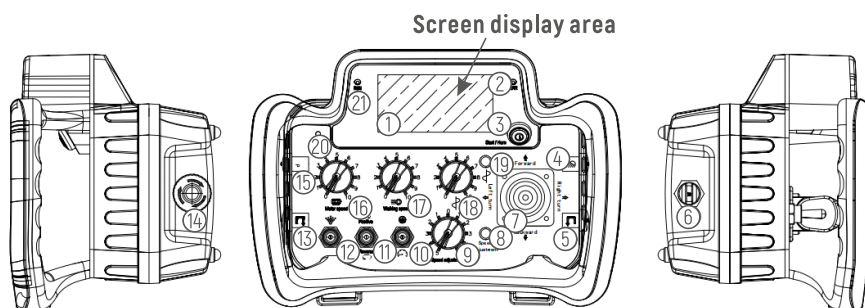


Memory grinding operation: For example, there is an area ABCD, and the machine starts grinding at point A and ends grinding at point D. At point A, the machine must first rotate to turn on the No.14 emergency stop switch, press the No.3 reset switch, turn up the No.10 remote control/memory grinding mode switch to switch to the memory grinding mode. Push the NO.11 motor forward-reverse switch forward to rotate the motor forward (backward to rotate the motor in reverse), and turn the NO.16 motor speed regulator and the NO.17 traction wheel speed regulator to adjust the motor speed and traction wheel speed respectively, turning the NO.7 directional control joystick forward controls the grinding direction of the machine, start the machine for grinding work; When the grinder is approaching point B, press the NO.13 U-turn right switch, and the machine will turn right for grinding. After that, the machine will continue to automatically grind between points A and B. When the user needs to stop at point D, press the emergency stop on the swing handle to end the grinding work of the machine.



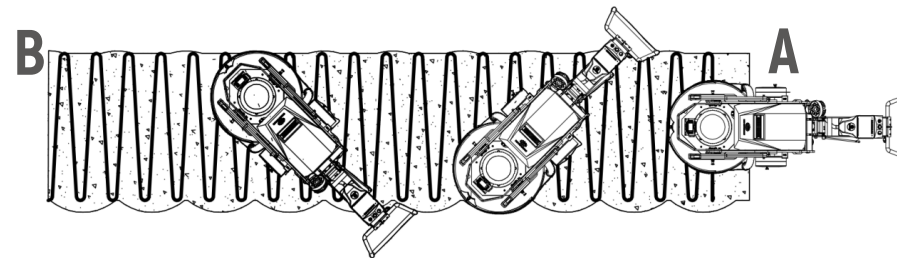
Note:

Due to different ground quality and conditions, there will be slight deviations when using the memory function, which requires manual adjustment. At the same time, at least 40cm of space should be reserved on both sides.



Oscillation grinding operation:

The oscillation grinding function is mainly used to prevent the formation of edges/ridges between the paths during the grinding process by oscillating/swinging the machine.

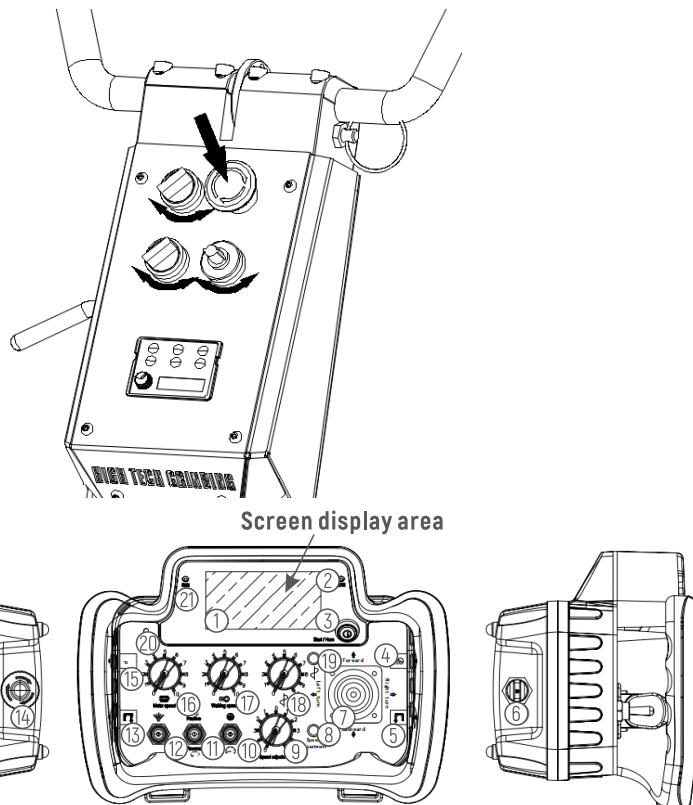


In case of wet grinding, press the No.12 spray switch on the remote controller according to your own needs.

If the machine is operated in a low light environment, you can press the NO.4 spotlight switch on the remote controller according to your own needs.

4.2.5 Stop the grinder (remote control mode)

Press the emergency stop switch to stop the equipment. (Remember to reset the three-position selector switch and speed regulator, and unplug the power plug).



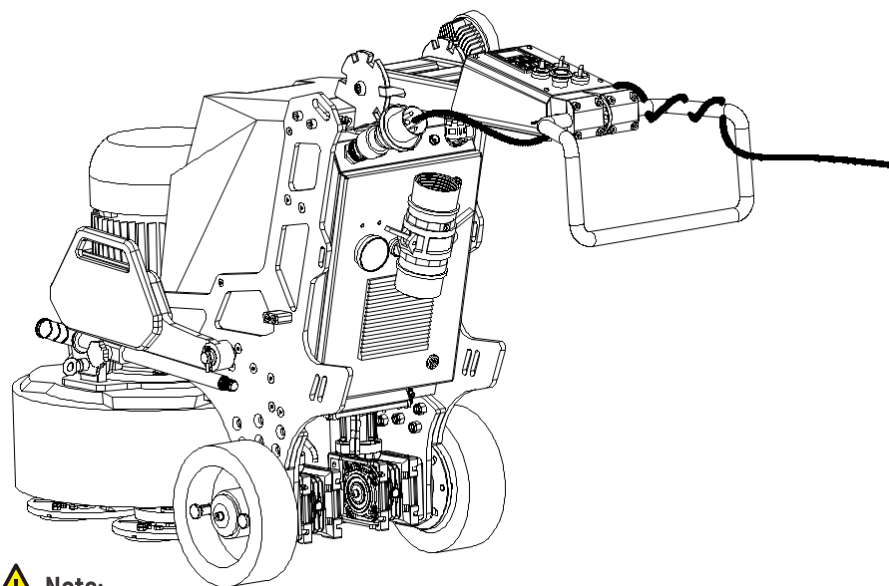
⚠ Notice:

1. When stopping the machine, if it is not used temporarily, it is recommended to unplug the power supply for safety reasons.
2. When turning on the machine, be sure to reset all switches on the remote controller to ensure normal operation of the machine. Otherwise, the machine will not operate even if the power switch is turned on.
3. When using a remote control device, the remote controller cannot leave the normal operating range of the machine. You can pay attention to the signal light on the remote controller. Otherwise, if it is too far away, you will not be able to control the machine.
4. The grinding disc drive motor must be started before the direction joystick can be moved.
5. When the machine needs to stop working or in an emergency, press the emergency stop switch on the transmitter.

4.2.6 Connect to the correct power supply

When the machine is working, the wire winding method is particularly important, which can greatly improve your work efficiency and safety. The specific operation methods are as follows:

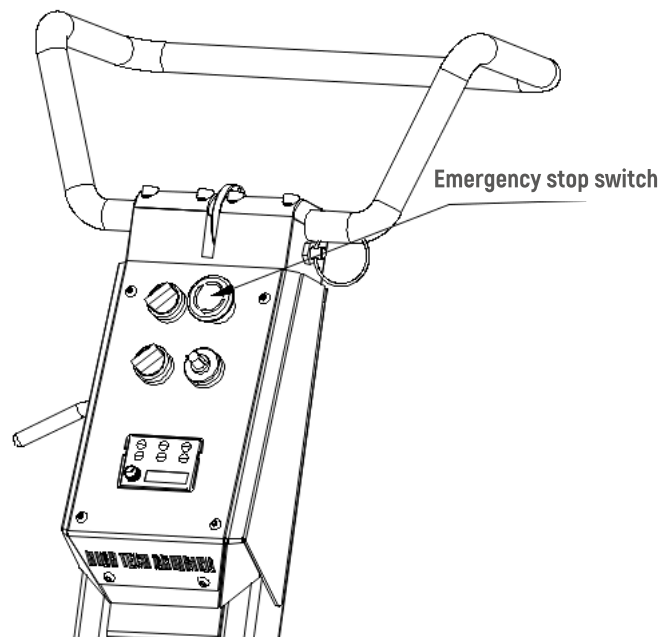
1. Plug in the external power supply.
2. Pass the power cord through the swing handle.
3. Wrap the power cord around one side of the handle at least twice.
4. Pull the power cord slightly to ensure that there is enough friction to firmly fix the power cord on the handle.



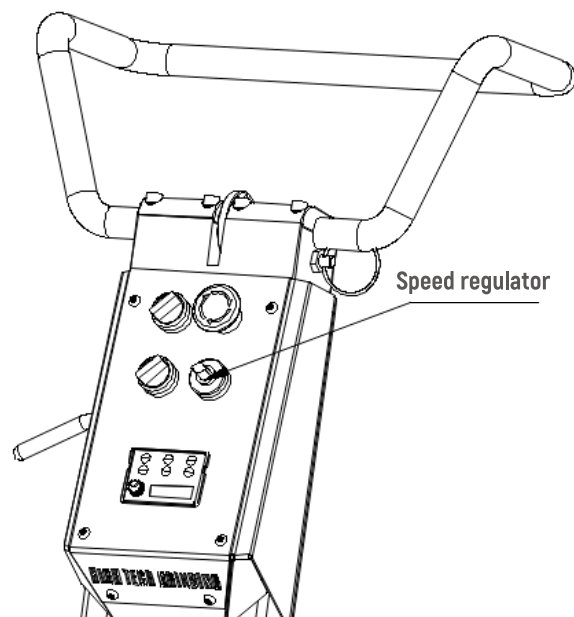
⚠ Note:

1. Make sure the power plug and socket are firmly connected;
2. Before plugging in the power plug, make sure the emergency stop switch has been pressed and other switches have been reset;
3. Please use the power cord according to the minimum specifications;
4. Please use the correct power supply.

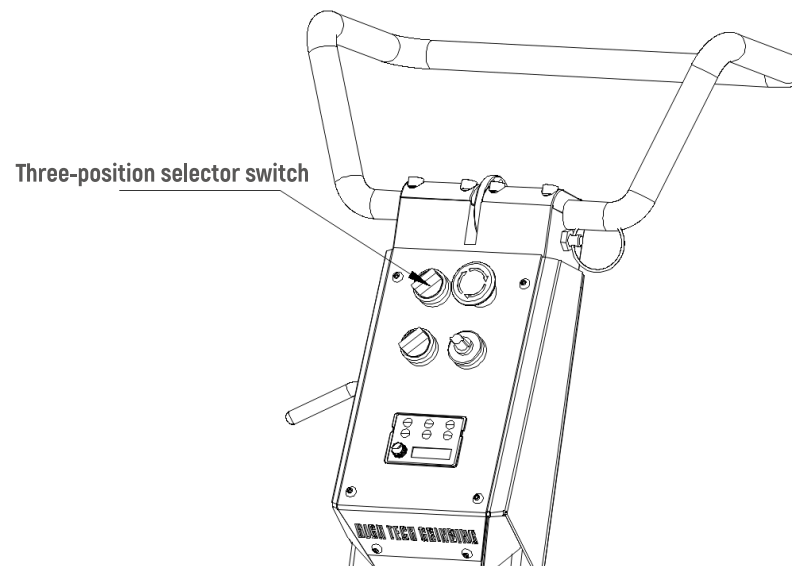
4.2.7 Reset the emergency stop switch on the control panel



4.2.8 Adjust the appropriate speed regulator according to the grinding needs and determine the required working/speed status



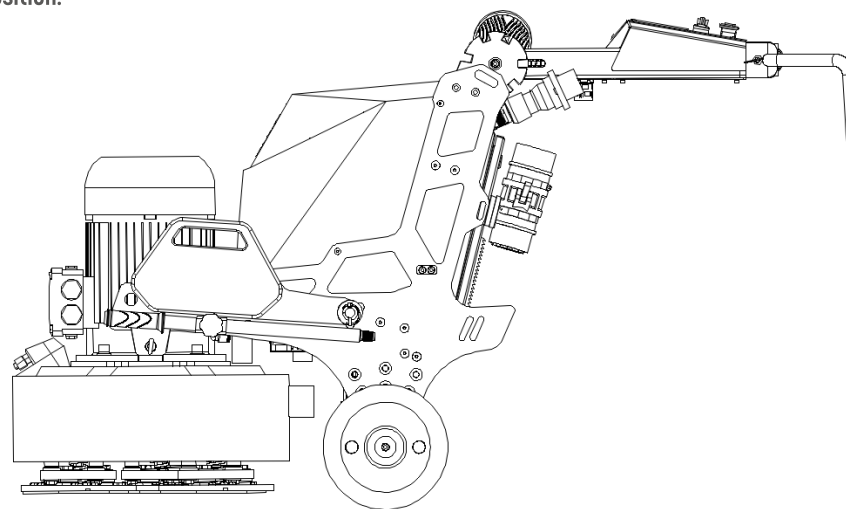
4.2.9 Adjust the appropriate working state of the three-position selector switch according to the grinding needs



4.3 Machine position description

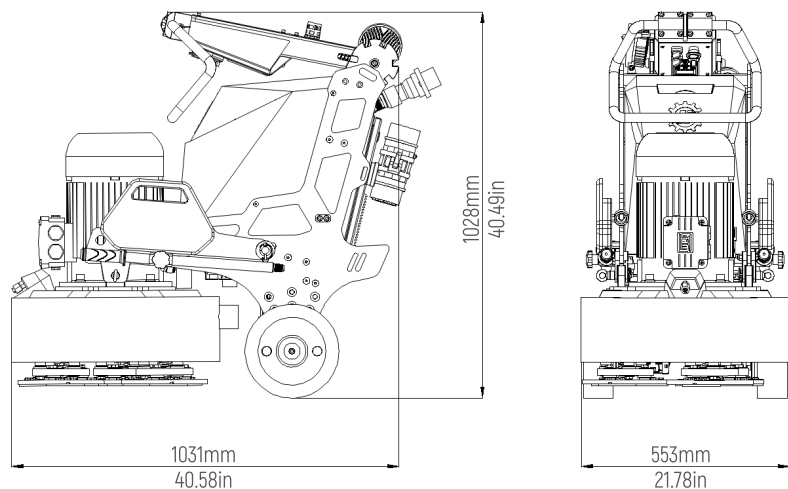
4.3.1 Machine working position

When the grinder is working, gently lower the counterweight to the appropriate position and adjust the position of the handle and swing handle to achieve the most suitable working position.



4.3.2 Machine packaging position

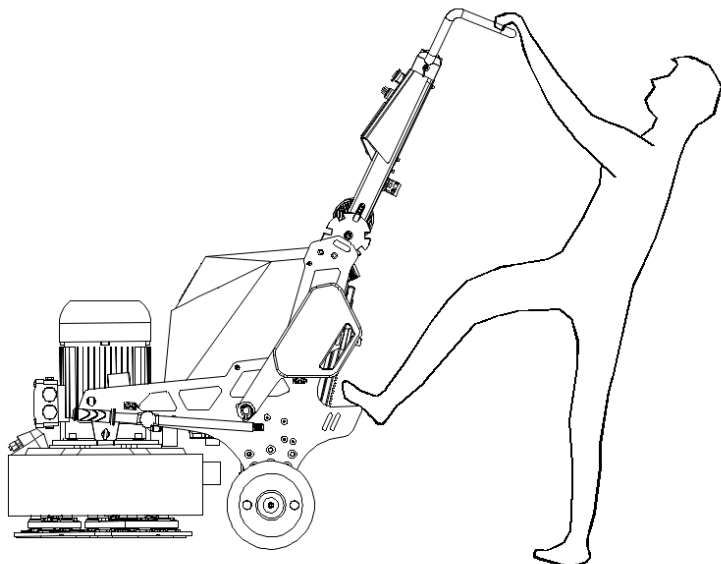
When packaging, the position of the swing handle and handle can be adjusted to reach the packaging position. The minimum packaging size is as follows, and packaging can be done according to its dimensions.



4.3.3 Machine tilt position

Adjust the position of the counterweight so that it is at the tilt position, and adjust the handle and swing handle to the tilt position of the machine. (The best recommended tilt position)

Holding the handles tightly with both hands, place one foot on the counterweight and press the machine down with force.



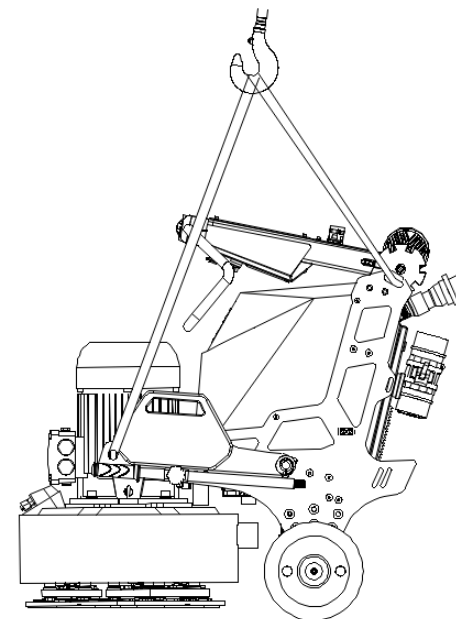
To put the machine down, you need to hold the handle tightly with both hands, put your feet on the counterweight, balance the machine with your own gravity, and slowly put it down to protect the grinding head. When putting the machine down, you must pay attention to your own strength, do it within your ability, and operate carefully to ensure the safety of the machine and yourself. HTG does not assume any responsibility for machine losses and personal injuries caused by improper operation.

Be careful:

After tilting, remember to stand next to the grinding head and press it lightly to see if the machine is stable and whether there is a threat of tipping over in front to ensure your own personal safety.

4.3.4 Lifting the machine

When lifting the machine, fasten the lifting belt to the two lifting holes on the frame next to the motor and the two lifting holes on the frame near the swing handle to lift the machine. (Note: Two ropes that can withstand 500 kg are required to tie the machine)



Notice:

1. When lifting the machine, there is a possibility of personal injury or damage to the machine or surrounding objects. Determine the danger zone and then check to ensure that no one is in the danger zone during lifting.
2. Check whether the rope is fixed firmly to the lifting holes.
3. The two ropes need to be connected diagonally to the lifting holes.

4.3.5 Notes

! Please be sure to read the following content carefully, otherwise it may cause unnecessary harm.

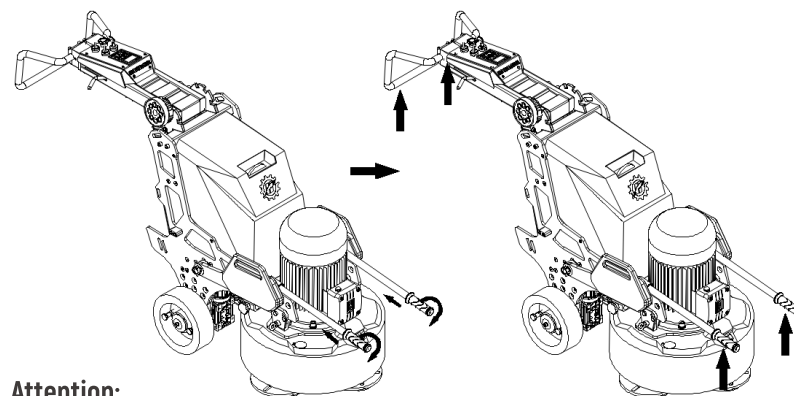
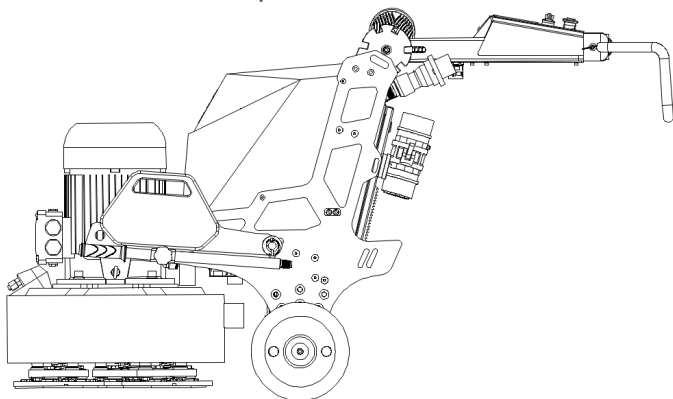
1. If the operation is not careful, the grinder may overturn, causing machine damage and personal injury.
2. When you pull out the handle adjustment pin, it may get stuck. In this case, you need to shake the handle while pulling out the pin.
3. When adjusting the handle position, be sure to check whether the handle adjustment pin has been automatically reset before operating the machine.
4. After adjusting the position of the swing handle, you need to check whether the swing handle has been limited before operating the machine.
5. When the grinder is adjusted to the position for transportation or packaging, there is a risk of squeezing injury, so please be careful.
6. When tilting or lowering the machine, you must pay special attention to your own safety to avoid injury or damage to the machine.

4.4 Transportation

There are two ways to transport this machine: lifting transportation and manual transportation.

4.4.1 Lifting transportation

During the transportation of the machine, if it is necessary to lift the machine, adjust the swing handle, handle, and counterweight to their corresponding working positions (as shown in the figure below). Pull out the lifting handles on both sides of the frame and screw them into the threaded holes on the front two ends of the frame. Then, one person uses the lifting handle to lift the machine, and the other uses the handle to lift the machine, apply force at the same time to lift the machine for transportation.

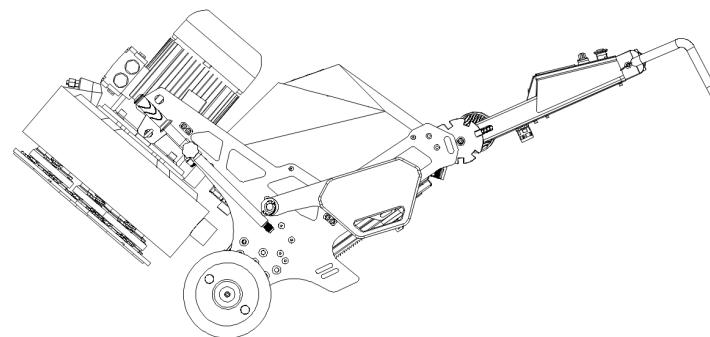


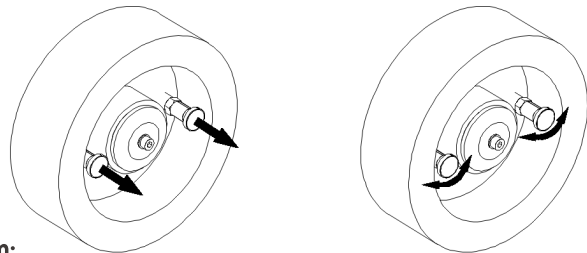
! Attention:

1. Pay attention to your own safety when lifting the equipment, and always act within your means.
2. Before transportation, be sure to remove the abrasive to prevent it from falling or losing, causing unnecessary damage.
3. Before transportation, press the emergency stop switch. (Remember to reset the three-position selector switch and speed regulator, and unplug the power plug).

4.4.2 Manual transportation

1. Press the emergency stop switch. (Remember to reset the three-position selector switch and speed regulator, and unplug the power plug)
2. Adjust the handle and swing handle to the tilt position, and adjust the counterweight to the tilt position. (the specific adjustment actions of each component are explained in the previous text, and after adjustment, they are shown in the following figure)
3. Unlocking self-locking indexing pin: Move the self-locking indexing pin outward, and then rotate it 90 degrees.
4. Tilt the machine to the appropriate angle.
5. Use the handle to push the machine.



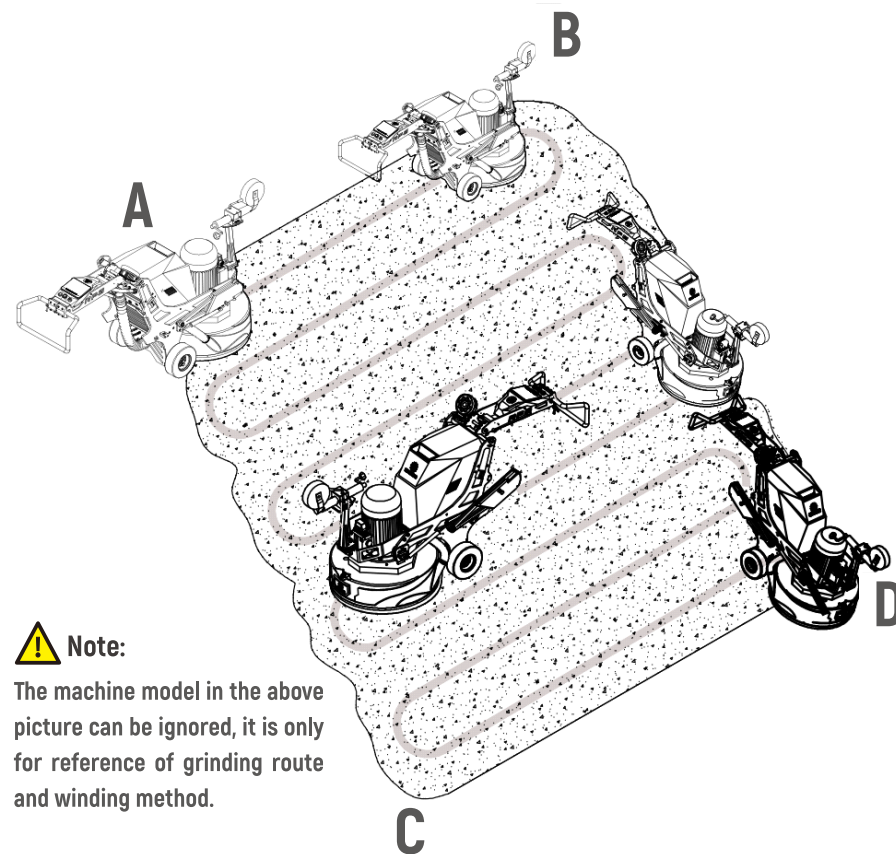
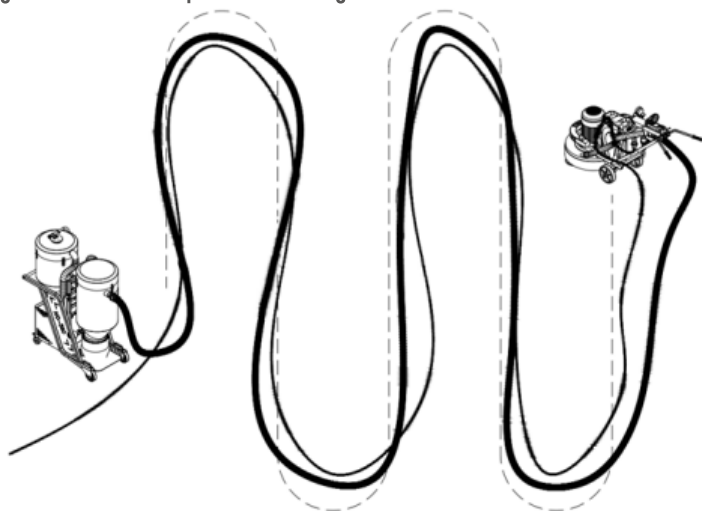


⚠ Attention:

1. The self-locking indexing pin may get stuck when you pull it out. Just shake the machine while pulling it out.
2. Pay attention to your own safety when tilting the machine and always do it within your ability.
3. Before transportation, be sure to take out the abrasive to prevent it from falling and being lost, causing unnecessary losses.
4. When using the walk-behind method, the self-locking indexing pin must be in the unlocked state.
5. When the self-locking indexing pin is in locked state, using the walk-behind method will cause damage to the drive motor!

4.5 Optimal grinding route

When grinding the floor, you should grind it in the shape of #, so that the grinding effect will be better. When grinding the floor in the shape of #, the grinding direction of the grinder should be such that the wire is pulled farther and farther, so as to further avoid the wire interfering with the normal operation of the grinder.



⚠ Note:

The machine model in the above picture can be ignored, it is only for reference of grinding route and winding method.

4.6 Notes

⚠ Please be sure to read the following content carefully, otherwise it may cause unnecessary harm.

1. During the grinding process, always pay attention to the working condition reflected by the working indicator light on the electrical cabinet.
2. When grinding, pay attention to observing the wires while grinding to prevent them from being compressed.
3. During the grinding process, be sure to pay attention to obstacles nearby to avoid machine damage and personal injury.
4. Before grinding, the safety of the work area should be checked. For details, please refer to P05.

5. Equipment Maintenance

5.1 Overview

We recommend that you inspect your grinder regularly to extend its life.



Note:

During maintenance and repair, the grinder must be disconnected from the power supply. Use protective equipment such as safety shoes, protective gloves, protective masks, etc.

5.2 Daily Inspection

5.2.1 Check the switch

Connect the three-phase power supply, check the emergency stop, machine start, speed regulation and other functions of the control panel.



Notice:

For safety reasons, it is strongly recommended that you remember to press the emergency stop switch when stopping the machine so that all switches are reset, which is safer.

5.2.2 Check the grinding disc cover

When there is a lot of dust, it is easy to cause the hose on the grinding disc cover of the grinder to be blocked by dust. Use a flashlight to illuminate the hose to see if there is any dust blocking it. Clean it if necessary. (See P42)

5.2.3 Check the grinding disc

When the grinder is working for a long time or there is a lot of grinding dust, the velcro-adaptor of the grinding head may be stained with dust. Too much dust and not cleaning it in time will cause the grinding head and the velcro-adaptor to not fit well, affecting the grinding efficiency. In more serious cases, it will cause the abrasive to fall and cause an accident. Remember to clean it when necessary. (See P42)

5.2.4 Long-term storage of battery

• During long-term storage, the battery should be maintained and charged once a month.

5.2.5 Attention



Remember to use protective equipment when performing maintenance inspections, such as protective gloves, protective masks, insulated shoes, etc.

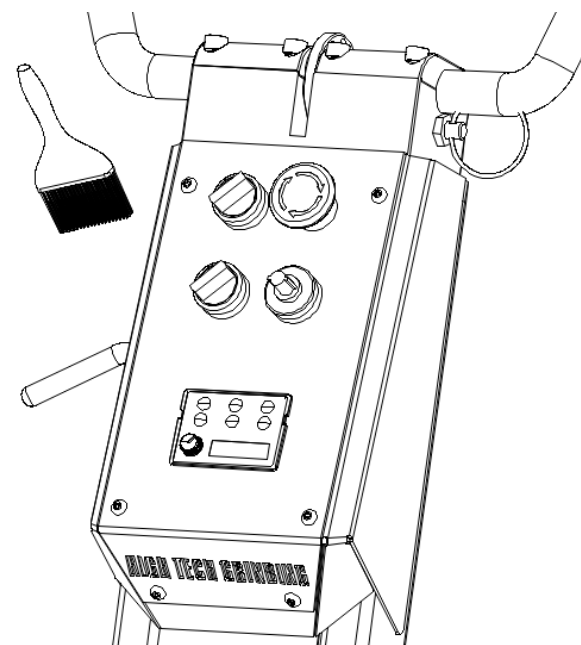
Inspection and maintenance can only be carried out after pressing the emergency stop switch and unplugging the power supply.

When you tilt up the machine, remember to check whether the machine is level before checking the grinding disc.

5.3 Cleanup

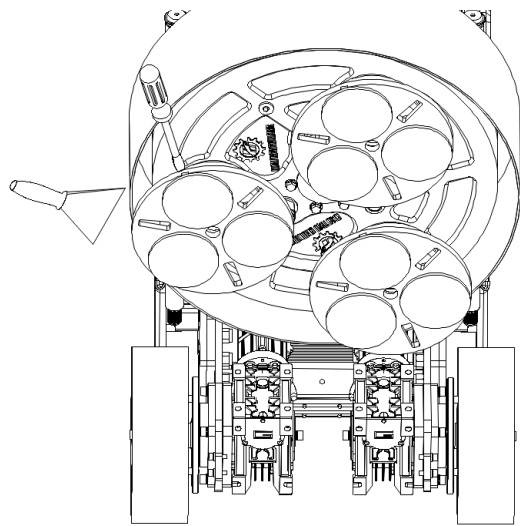
5.3.1 Clean the switch

The grinder works on the construction site for a long time, and dust will inevitably get into the switch. Therefore, after each operation of the grinder, you should check whether the switch part is blocked by dust, which may cause the switch to malfunction.



5.3.2 Cleaning the velcro-adaptor

Tilt the equipment, use a screwdriver to lift down the abrasive, and use a shovel to remove dust. If not cleaned in a timely manner, there is a possibility that the abrasive may not adhere firmly, and flying abrasive may occur during the grinding process, causing equipment damage and personal safety threats.



5.3.3 Attention

1. Be sure to unplug the plug from the socket before cleaning, maintenance, or assembly.
2. Be sure to clean the entire machine after work each day. Do not use a high-pressure cleaner to clean the machine directly.
3. In order to effectively cool the machine, the cooling air vent must be kept unobstructed and clean.

5.3.4 Overload protection

The inverter of this equipment is equipped with overload protection. When the equipment is overloaded, the inverter panel on the control panel will show that the equipment is overloaded. At this time, it is necessary to cut off the power, reduce the load, stop the machine for 10-30 minutes (depending on the heat of the motor), and then start the machine.

5.3.5 Repair

Any repairs that may be required must be performed by HTG Service Center trained service personnel and using HTG original parts and accessories. If your machine requires repair, please contact your retailer.

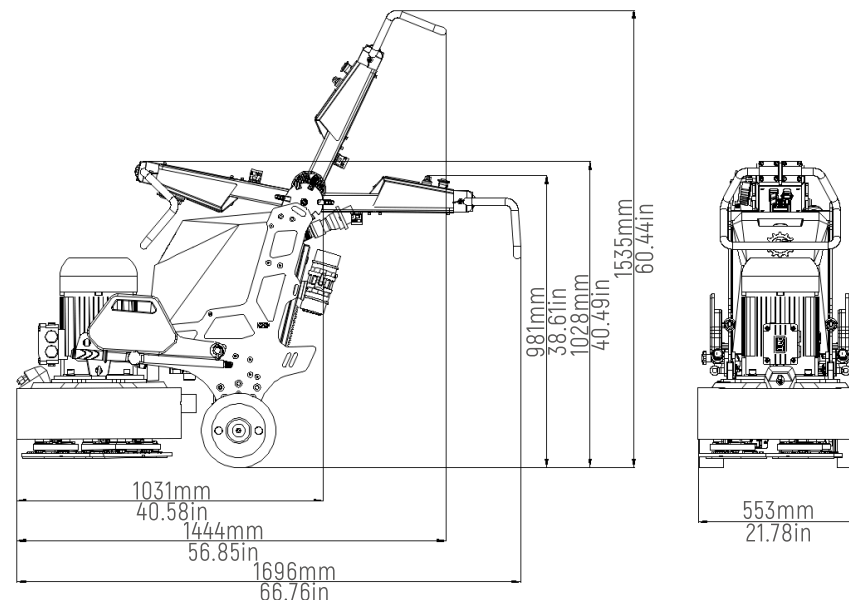
8. Common problems and solutions

This chapter describes some possible faults and how to deal with them. If they cannot be solved or an error occurs, please contact your nearest retailer.

Problem	Possible Cause	Solution
Cannot start the machine	The emergency stop switch is pressed	Release the emergency stop switch
	Motor is stuck	Troubleshooting motor jam
	Power system and cables are damaged	Contact a licensed electrician
	Not operating according to specifications	Refer to the operation instruction video
When turned on, the machine emits a low humming sound	Motor burnt out	Replace the motor
	Three-phase power failure	Contact a licensed electrician or check whether the input power is three-phase input
The machine is difficult to control or the motor consumes a lot of current	Too few diamonds under the machine or wrong type of tool applied	Use the number of diamonds recommended by HTG to reduce stress on the grinder and operator
Lead-acid battery built into the machine 1.Cannot charge when using three-phase power 2.Cannot charge when using dedicated charger	Three-phase power supply voltage is lower than 320V	Make sure the voltage is not less than 320V
	Lead-acid battery power is used up to 0	Charge for 2 hours using a dedicated charger
	The battery is damaged, or has been charged and discharged more times than its lifespan	Consider replacing the battery
	Dedicated charger is damaged	Replace the charger
Machine vibration	The diamond may not be installed correctly or at a different height	Correctly install diamonds with the same height
	Is the grinding disc flat?	Adjust and install the grinding disc
The machine moves forward or backward out of control	The self-locking indexing pin of the wheel is broken or there is no self-locking indexing pin	Replace or install a new self-locking indexing pin
	Servo motor, servo controller failure/remote control receiver failure	Contact HTG for repair
	Is the key way connecting the shaft and the drive damaged?	Check and contact HTG for repair or replacement of damaged key ways

9. Technical Data

Model	HTG-550RC	
Motor Power	7.5KW/10HP	
Rated Voltage	3P 380V-480V	1P 220V
Rated Current	16.8A	18.9A
Input Hertz	50HZ/60HZ	
Inverter power	7.5KW/10HP	
Grinding Width	550 mm/21.65in	
Grinding Disc Size	Φ230mm/Φ9.05in	
Grinding Speed	350~1500r/min	
Grinding Pressure (Counterweight in front)	172.5KG/380.3lb	
Grinding Pressure (Counterweight at the back)	150.5KG/331.8lb	
Working position Length F × Width L × Height A	1696×553×981mm/66.76×21.78×38.61in	
Tilt position Length E × Width L × Height C	1444×553×1535mm/56.85×21.78×60.44in	
Package Dimensions Length D × Width L × Height A	1031×553×1028mm/40.9×21.78×40.49in	
Longest F × Widest L × Highest C	1696×553×1535mm/66.76×21.78×60.44in	
Machine Weight	316KG/696.6lb	
Wire Type	3*10 + 1*12 AWG	3*10 AWG
Storage Temperature	-20~+60°C/-4~+140°F	
Operating Temperature	-10~+40°C/+14~+104°F	
Humidity	Below 95% (no condensation)	



The technical data and dimensions of the grinder are shown in the table and image above.

10. Warranty

Warranty Policy

HTG is not responsible for the cost of machine damage caused by transportation, unpacking, or improper use. Local dealers may have specific warranty terms. Please contact the local dealer for specific terms.