

X T R E M E · P O L I S H I N G · S Y S T E M S



M A M M O T H

F L O O R · G R I N D I N G · M A C H I N E

Product Code
* Mammoth800

📍 2200 NW 32ND ST. POMPANO BEACH, FL 33069

☎ TOLL FREE (800) 659-5843 • FAX (954) 933-3473

Xtreme Polishing Systems

This book has important information for the use and safe operation of this machine. Failure to read this book prior to operating or attempting any service or maintenance procedure to your Mammoth could result in injury to you or other personnel, damage to the machine or to other property could occur as well. You must have training in the operation of this machine before using it. If your operator(s) cannot read this manual, please have it explained fully before attempting to operate this machine. All directions given in this manual are as seen from the operator's position at the rear of the machine.

Floor Grinding Machine Instructions

Contents

Operators Safety Instructions	1-2
Machine Structure.....	3
Machine Parts.....	4
Machine Features.....	5
Machine Operation Procedures.....	6
Troubleshooting.....	7-9
Coating Removal Process.....	10

Before Operation when receiving the machine:

1. When the machine is received, carefully inspect parking and if damage is evident. Keep shipping carton should there be a need for additional inspection.
2. If damage is detected contact the freight company and Xtreme Polishing Systems, Customer Service Department.
3. Unpack the power cord and connect it to a suitable power outlet.
4. Attach grinding metals and polishing pads as needed.

***This manual is subject to change without notice.**

AN AMERICAN GRINDER COMPANY



www.xtremepolishingsystems.com



(866)812-9319



info@xtremepolishingsystems.com



www.youtube.com/user/XtremePolishing



2200 NW 32nd Street #700
Pompano Beach, FL 33069



www.facebook.com/xtremepolishingsystems

Thank you for choosing the MAMMOTH grinding machine, designed with unique double gear-driven planetary, it is the best in the industry and it offers a three (3) or four (4) head option. This three phase / 220 volt machine can reach a speed of 1800 rpm. It's aluminum alloy gear box has both high reliability and stability. It covers a grinding area of 800mm / 32" in., and meets demands of large construction areas. This manual provides you information about the three (3) and four (4) head MAMMOTH, including; how to wire it correctly, how to adjust a new machine, how to repair it in case of problems, how to test it and so on. Please read this manual carefully.



OUTLET



PLUG



DUST COVER



FRONT WHEEL



Delivery Inspection

Each machine would have strictly quality control and test, after receiving the machine, please check it by steps as below:

- Please check if the paint on the surface of the machine have peeled off
- Please check if any button or part have loosened
- Please check if the machine has been in accordance with what you bought.

Warning & Attention

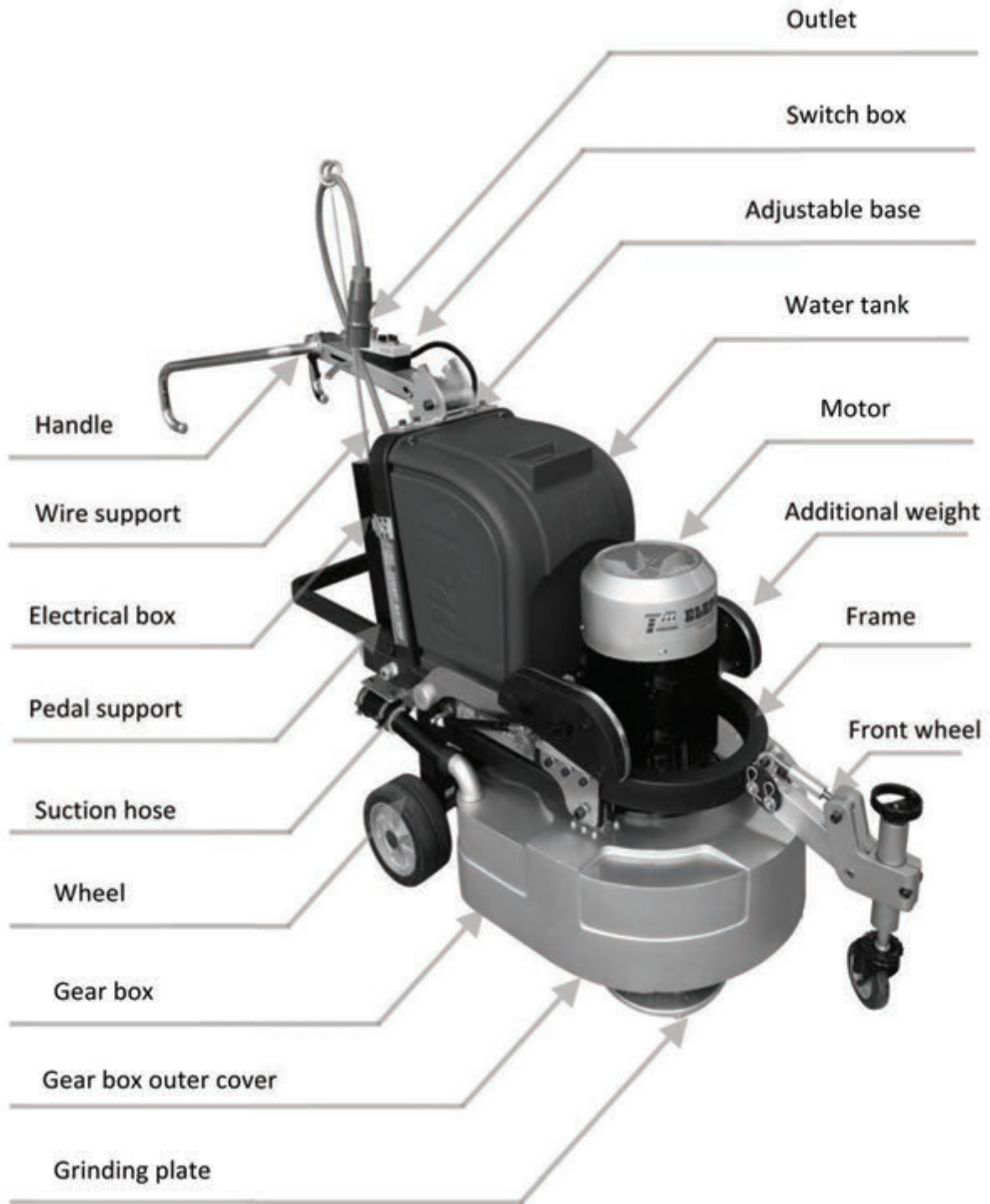
WARNING

- Not do the conductor arrangement during electric implementation Voltage input point should apply leakage protection device
- Use national standard six square three cores cable and check the status of its insulation

ATTENTION

- Operating process must ensure that the motor, operation control part shall not be wet phenomenon
- Operating process to avoid water splashing water on the motor and electrical box
- Immediately stop the machine and cut off power supply when something unusual happen
- During the operating process, make sure the cable and grinder keep space with each other
- Make sure installation of abrasives right and stable
- Do reset action when failure happens on inverter

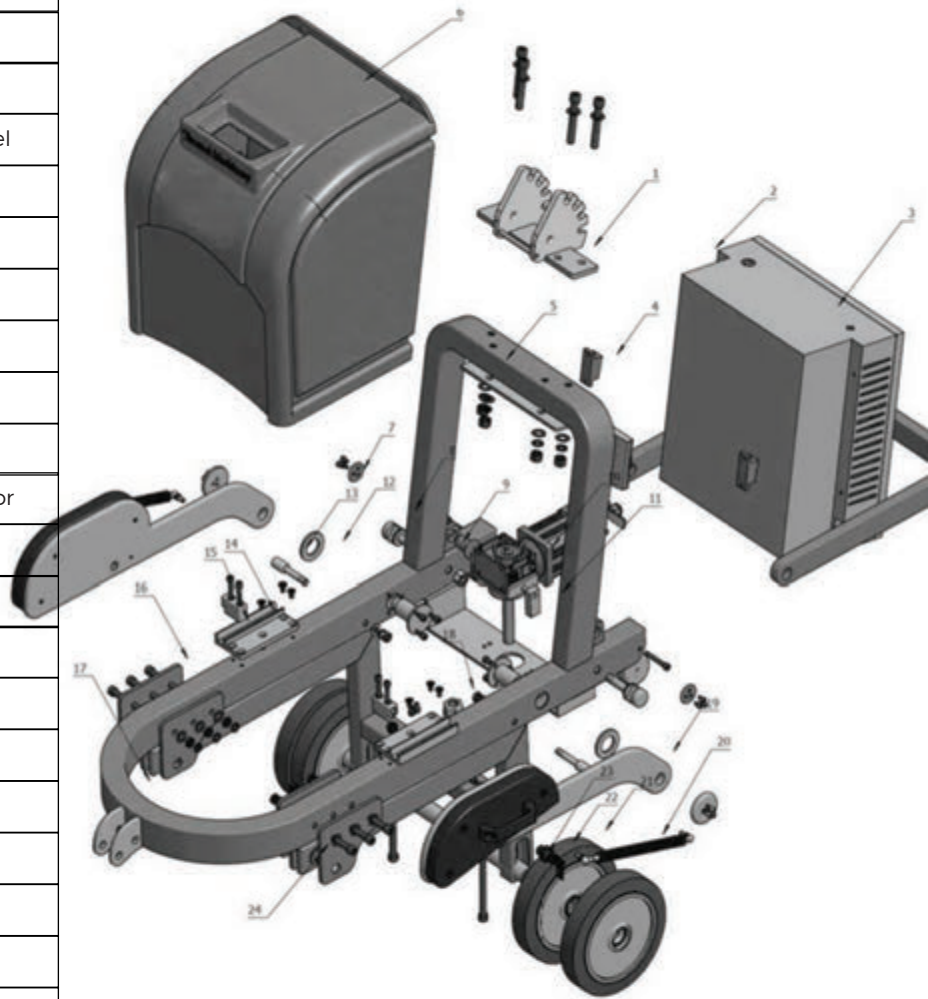
Machine Structure



Model	Grinding Area	Inverter	Amps	Weight	Voltage
Mammoth	800mm	15KW	30A	500KG	3 Phase 220V / 380V / 460V

Machine Parts

No.	Name
NO 1	Handle Base
NO 2	Folding Panel
NO 3	Electrical Box
NO 4	Magnetic Base for Folding Panel
NO 5	Hand Adjust Bottom Pane
NO 6	Water Tank
NO 7	Weight - 1
NO 8	Weight - 2
NO 9	Bracket Fixing Axle
NO 10	Pressure Adjust Motor
NO 11	Frame For Pressure Adjust Motor
NO 12	Weight Bushings
NO 13	Weight Components - 3
NO 14	Weight Components - 4
NO 15	Weight Components - 5
NO 16	Split Frame
NO 17	Main Frame
NO 18	Screw Cover
NO 19	Weight
NO 20	Gas Spring
NO 21	Wheels
NO 22	Key Pin
NO 23	Shaft
NO 24	Sub Frame



Manual - Mammoth

Machine Features:

All gears are designed with both high strength and a high precision helical gear, the box is built by a precision CNC machine & composed of high strength aluminum alloy, three coordinate detection ensures the service life of the machine. The machine can be used with or without water, it runs with a high frequency Schneider inverter; and has a 15 H.P. motor, yielding the machine 650 lbs. of head pressure. This machine is counter rotating planetary and is built to maximize performance, increase the overall machine longevity, and maximize diamond tooling endurance.

Perfect Space Design

Three (3) or Four (4) Planetary Grinding Heads

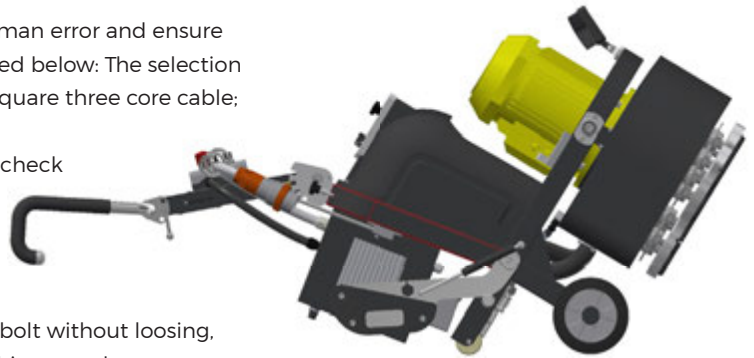
Humanization Designs



Wiring & Mechanical Performance Index

Wiring:

In order to make the machine work normally, avoid human error and ensure the security of operators, please follow wiring as specified below: The selection of the national certification brand cable should be six square three core cable; the leakage protection device must be to ensure the personal safety; Before the machine wiring, check the wiring insulation integrity; operating personnel must wear insulated protective shoes; the machine must be safety grounding circumstances may use; inspection wiring haven't a short phase or open phase phenomenon; check the wiring terminals fixing bolt without loosening, ensure the output voltage and working voltage of machine matches; connection lines L1, L2, L3 (Note: L1, L2, L3, commonly known as Fire Wire, in use of order); wiring intact please check again, to ensure the normal and to prevent short circuit caused by improper wiring or epilepsy damage and leakage protection device.



Prompt:

For your safety, please make sure that the correct grounding! The zero line and the bottom line is two different concepts, the potential to ground zero, zero line to ground voltage is not - must be zero.

Name of index	Hard Floor	Soft Floor
1. Efficiency	★ ★ ★	★ ★ ★
2. Operate	★ ★ ★ ★	★ ★ ★
3. Reliable	★ ★ ★ ★ ★	★ ★ ★ ★ ★
4. Flatness	★ ★ ★ ★	★ ★ ★
5. Glossiness	★ ★ ★ ★ ★	★ ★ ★ ★ ★
6. Sharpness	★ ★ ★ ★ ★	★ ★ ★ ★ ★

Machine Operation Procedures

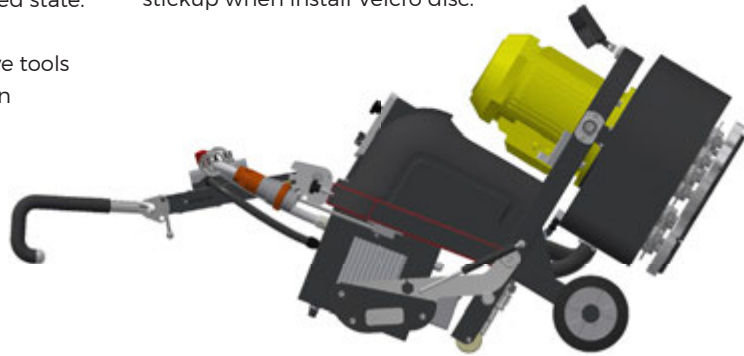
1. Check condition of machine before operation, ensure machine operation control and electric parts without damp phenomenon, and operation switch knob are in good condition.

2. Learn construction case, select grinding mode, such as dry grinding and wet grinding. Make sure no water in water tank by dry grinding; connect industrial vacuum by dust-free construction. Firstly inject clean construction water into water tank by wet grinding. Do not inject into too full water and prevent water from spilling into electric box when replace abrasive tools under machine titled state.

3. Install abrasive tools: choose matched abrasive tools according to construction case and construction procedures. Install abrasive tools correctly and avoid abrasive tools separating from abrasive fixing part and hurt human or other things during its operation. When use metal

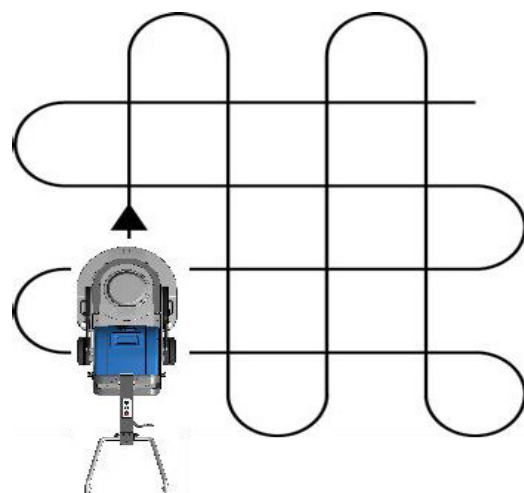
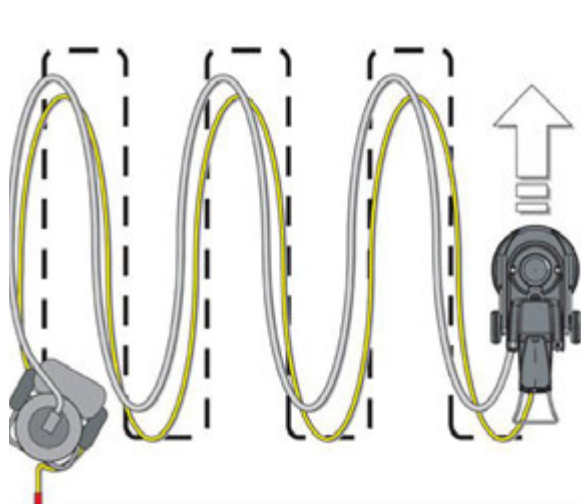
tools, choose magnetic connection abrasive tools, make sure tools enter into magnetic disc; when choose screw connection abrasive tools, make sure tighten nut; when choose velcro type, make sure correct abrasive connection.

4. Lean machine before abrasive tools installation, support rubber touch the ground, adjust the operation switch to close position, and press down and close emergency stop knob. Replace different connection modes according to specific abrasive tools. Clear dirt on the magnets before install magnetic disc; make sure Velcro stickup when install Velcro disc.



Machine Operation Mode

Machine operation has fan swing operation, straight line running operation and cross running operation. Different operation mode should be applied in different machine equipments, different construction conditions and different grinding procedures. Correct application not only can improve construction efficiency, but also improve construction standards, such as straight line running operation can improve the work efficiency in the later period of grinding procedures on the soft ground; cross running grinding mode can improve the floor flatness; fan swing operation mode can improve the work efficiency of gap leveling.



Grind floor surface by cross mode, 1/3 of the machine width covers the track of last streak. As fast as possible begin grinding from the nearest point from the vacuum and gradually move away from it.

Troubleshooting

Trouble No.	Abnormal Phenomenon	Cause	What To Do
1	Machine Fails to Start	<ol style="list-style-type: none"> 1.improper line connection 2.Unmatched output voltage 3.Machine direction switch is broken 4. Machine speed-control switch is broken 5.Machine emergency stop switch is broken 6.Inverter is broken 7.Motor is broken 8. Air switch 9. The grinding plate is jammed by other things 	<ol style="list-style-type: none"> 1.Check line connection and power input terminal; Make sure power output terminal no phase open 2.Adjust to matched voltage that agrees with the supplied machine voltage. 3.Replace broken direction switch 4. Replace broken speed-control switch 5. Replace broken emergency stop switch 6.Repair or replace inverter 7.Repair or replace motor 8. Input ampere should be at least 60A 9. Open the out cover of gear box and check if there is other things
2	Fails to adjust machine frequency	<ol style="list-style-type: none"> 1.Inverter parameters setup error 2.Speed-control potentiometer is broken 3.Short or open circuit of connecting control line 	<ol style="list-style-type: none"> 1. Reset inverter parameters 2. Replace potentiometer 3. Replace control line
3	Machine Operation noise	<ol style="list-style-type: none"> 1.Motor or bearing is in an abnormal phenomenon 2.lack of lubricants 3.Bearing or drive shaft is broken 	<ol style="list-style-type: none"> 1.Replace motor or bearing 2.Add lubricants 3.Replace bearing or drive shaft
4	Machine operation Migration phenomenon	<ol style="list-style-type: none"> 1. Move wheel and grinding plates are not parallel 2.Three grinding plates are not on the same level surface 3.Unmatched abrasive or different height of abrasive tools 	<ol style="list-style-type: none"> 1.Adjust move wheel bolt to make sure the move wheel keep the same force on the same flat surface 2.Adjust grinding plates fixed bolt to make sure all three grinding plates on the same level surface 3.replace same specification and height Abrasive tools
5	Machine operation dithering phenomenon	<ol style="list-style-type: none"> 1. move wheel and grinding plates are not parallel 2.Three grinding plates are not on the same level surface 3.Unmatched abrasive or different height of abrasive tools 4.Gear box fixed bolt is loosing 	<ol style="list-style-type: none"> 1.Adjust move wheel bolt to make sure the move wheel keep the same force on the same flat surface 2.Adjust grinding plates fixed bolt to make sure all three grinding plates on the same level surface 3.replace same specification and height Abrasive tools 4.Tighten gear box fixed bolt to keep a proper situation
6	Unusual LED data	<ol style="list-style-type: none"> 1.LED digital operator is broken 	<ol style="list-style-type: none"> 1.Replace LED digital operator 2.Check and fix

Troubleshooting

Trouble No.	Abnormal Phenomenon	Cause	What To Do
7	Water pipe blocked	<ol style="list-style-type: none"> 1. Water switch is broken 2. Water pipe and water tank is dirty 3. Water pipe is warping 	<ol style="list-style-type: none"> 1. Replace water switch 2. Open water tank, clear pipe and tank 3. Replace water pipe
8	Unusual work of pressure adjustable motor	<ol style="list-style-type: none"> 1. Non-full-phase of power supply 2. Improper line connection or short circuit 3. Open switch is broken 4. Pressure adjustable motor is broken 5. Beyond scope of pressure adjustment 	<ol style="list-style-type: none"> 1. Check the power supply And make sure line connection terminal is firm 2. Replace and check line connection is correct 3. Replace pressure adjustable motor switch 4. Repair or replace pressure adjustable motor 5. Disassemble adjustable bracket, manually readjust it to its normal state
9	Electricity Leakage phenomenon	<ol style="list-style-type: none"> 1. Wrong line connection 2. Damp phenomenon of electric box 3. Damp motor, low insulation level 	<ol style="list-style-type: none"> 1. Check the machine is safe grounding wire 2. Keep electric box dry, bake the damp part with low temperature 3. Look for the professional people to repair
10	Abrasive tools are easy to drop down during operation	<ol style="list-style-type: none"> 1. Unmatched connection of Abrasive tools and magnetic discs 2. Velcro discs are aging, easily damage and lose stickup effect 3. Bad flatness of work yard or too fast rotation speed 	<ol style="list-style-type: none"> 1. Replace matched abrasive tools 2. Replace velcro discs or velcro glues 3. Choose magnetic discs or fasten abrasive tools installation and reduce rotation speed
11	Bad dust collector effect	<ol style="list-style-type: none"> 1. Dust collector pump is broken 2. Dust proof cover is broken or wrong installation 	<ol style="list-style-type: none"> 1. Replace dust collector pump 2. Replace dust proof cover and make sure correct installation
12	Oil leakage or impregnate on grinding plate drive shaft	<ol style="list-style-type: none"> 1. Bearing is broken 2. Sealing part is aging 3. debris twist drive shaft 	<ol style="list-style-type: none"> 1. Replace bearing 2. Replace sealing part 3. Pay attention to machine maintaining, repair damaged parts resulted by debris twist
13	Different wear intensity of abrasives	<ol style="list-style-type: none"> 1. Rubber cushion is aging or broken 2. Three grinding head plates heads is not on the same level surface 3. Spring cushion is broken 	<ol style="list-style-type: none"> 1. Replace rubber cushion 2. Adjust holding bolts to make grinding plates on the same level surface 3. Replace spring cushion

Troubleshooting

Trouble No.	Abnormal Phenomenon	Cause	What To Do
14	Big heating on the machine motor	<ol style="list-style-type: none"> 1.Unstable input voltage 2.Wrong line connection 3.Loose wiring terminals 	<ol style="list-style-type: none"> 1.Adjust to stable power supply point 2.Replace matched Power line connection 3.Fasten wiring terminals and make sure wire connection point in good condition
15	Emergency stop switch can't work normally	<ol style="list-style-type: none"> 1.Emergency stop switch is broken 2.Connection operation control wire is short circuit or open circuit. 	<ol style="list-style-type: none"> 1.Replace emergency stop switch 2.Replace operation control wire
16	Power supply indication light is not working or blinking	<ol style="list-style-type: none"> 1.Indicator light is broken 2.Indicator wire connection terminal is loose 3.Unstable input voltage 4.Loose wiring terminals 	<ol style="list-style-type: none"> 1.Replace indicator light 2.Tighten wire connection terminal 3.Adjust to stable inputvoltage 4.Fasten wiring terminals and make sure connection point in good condition
17	Grinding plate pressure adjustable Indicator light is not working or blinking	<ol style="list-style-type: none"> 1.Indicator light is broken 2.Indicator wire connection terminal is loose 3.Grinding plate adjusting switch error 	<ol style="list-style-type: none"> 1.Replace indicator light 2.Tighten wire connection terminal 3. Use adjusting switch correctly
18	Machine can not close water	<ol style="list-style-type: none"> 1. Water switch is broken 2. Water pipe is broken 3. Switch is not in the certain place 4. Water tank is broken 	<ol style="list-style-type: none"> 1. Replace water switch 2. Replace water soft pipe 3. Use switch correctly 4. Replace water tank

Coating Removal Process

Blade-type tool is designed to remove coatings and start from the side not from the above. Note: do not spend much time on removing the coating at the same place by blade type tool and

When remove the coating by metal bond tools, keep one half of the machine on the coating and the other half on the concrete. PCD-metal - This method can make the diamond to grind continuously and keep its sharpness.



Consumable Parts

Rubber cushion: It's mainly to protect the machine under heavy torque use, for example. When machine grinding with the metal object during construction process, rubber cushion can give machine gear box adequate protection by its own strength; meanwhile improve the stick force between the grinding tools and grinding ground; reduce the machine dithering; keep machine stability. Replace promptly the aging and cracking rubber cushion.

Velcro disk: It's mainly easy for quick installation and removal of abrasive tools, and generally for the connection of resin abrasive tools. The velcro will reduce its adhesive ability in prolonged use and result in abrasive tools slipping off the machine fixing part, and need replace promptly velcro disk or velcro on the disk.

Machine waterproof / dust cover: It's mainly used for wet grinding, avoid spill water out during construction, improve the industrial vacuum dust hitting strength, and reduce construction dust in dry grinding. Replace promptly the damaged waterproof or dust cover.



Grinding Treatment



Screws and Other metal objects on the ground



Before grinding, check the ground thoroughly to confirm what necessary measures should be taken including that clear convex surface objects, use hydraulic to repair damaged concrete, meanwhile use urea or Semi-rigid epoxy resin to fill connection joints. Firstly try to grind 2-5 metric meters, then check concrete quality and get final effect construction methods. It also lets you know what tools to use on the surface.

Any convex surface object should be cut off and hammering into the ground that prevent damaging the machine tool box. Another way is to pull them and use the current same quality of concrete to repair the area.



Rubber Cushion



Velcro Disk



Water / Dust Proof Cover



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