



BABY-MAMMOTH (4 head)

XTREME Machine



XTREME POLISHING SYSTEMS
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Thank you for choosing XTREME machine, Baby Mammoth (4 head), designed with double gear-driving, planetary grinding with four plates. The machine speed can reach 1800 rpm.

Aluminum alloy gear box with high reliability and high stability. It has 650mm grinding areas and it can meet the demands of large areas construction.

This manual can tell you some information about (4 head), including how to wire correctly, how to adjust the new machine, how to repair it when suffer some problems, how to make a test and so on, please read this manual carefully.



Dust cover



Wire pole holder



Outlet



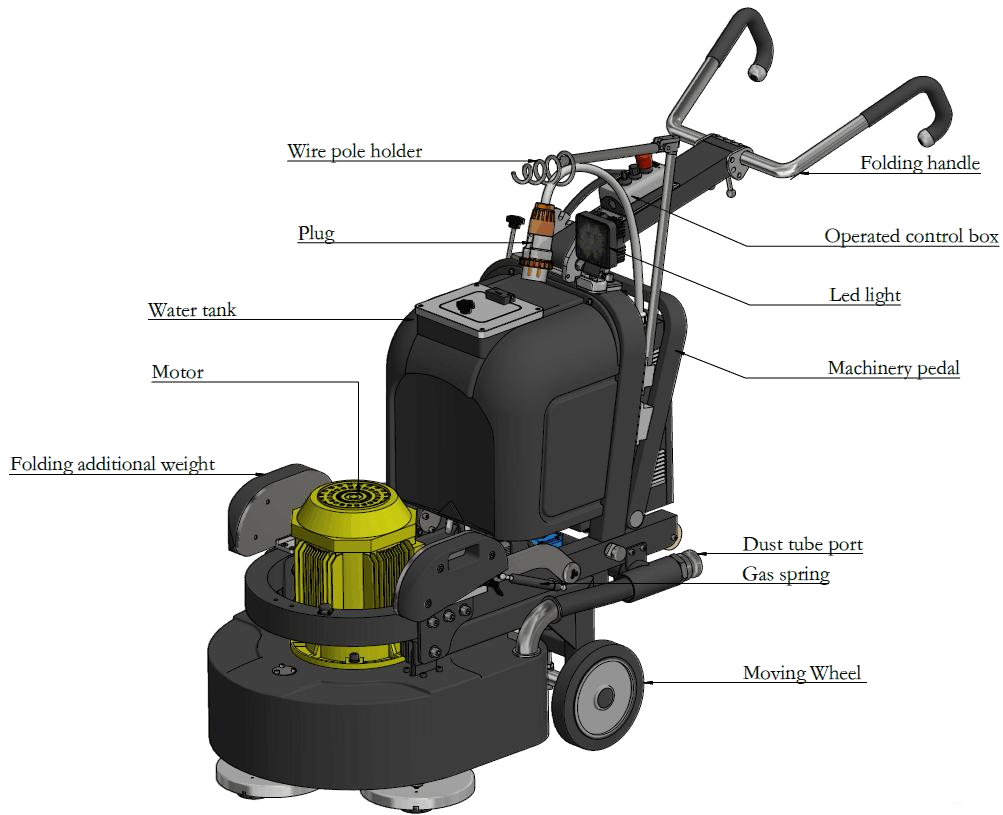
Plug

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.

(4 head) Structure



Model	Grinding area	Voltage	Motor	Inverter	Ampere	Weight	Height	Width	Revolution	Rotation
(4 head)	650mm	single phase 220V	10HP	15HP	16-20A	375kg	1350mm	675mm	0-400 rpm	0-1800 rpm

WARNING&ATTENTION

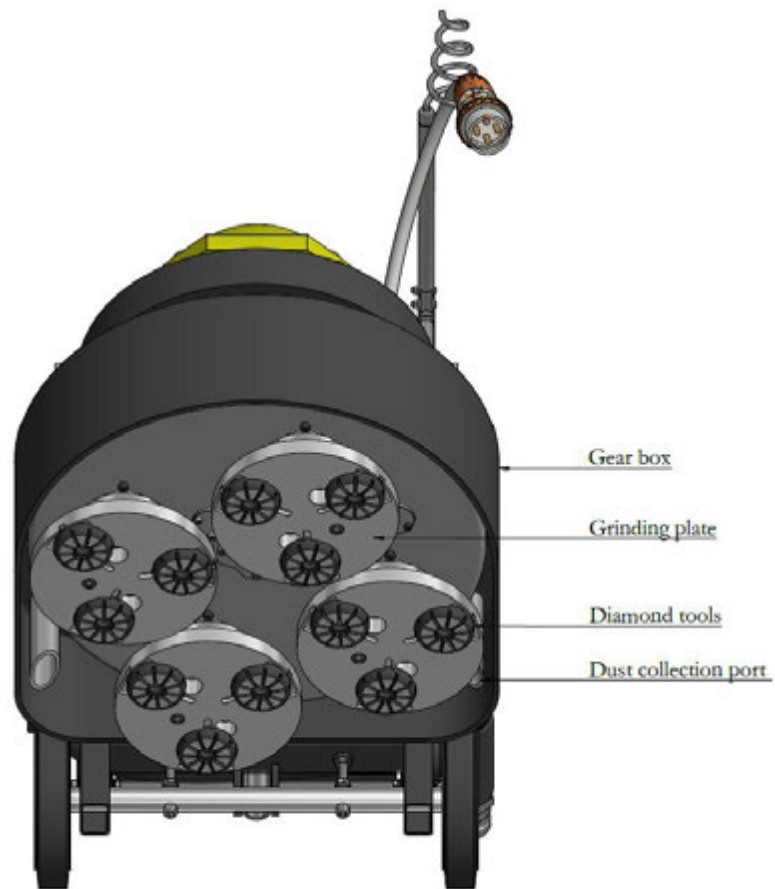
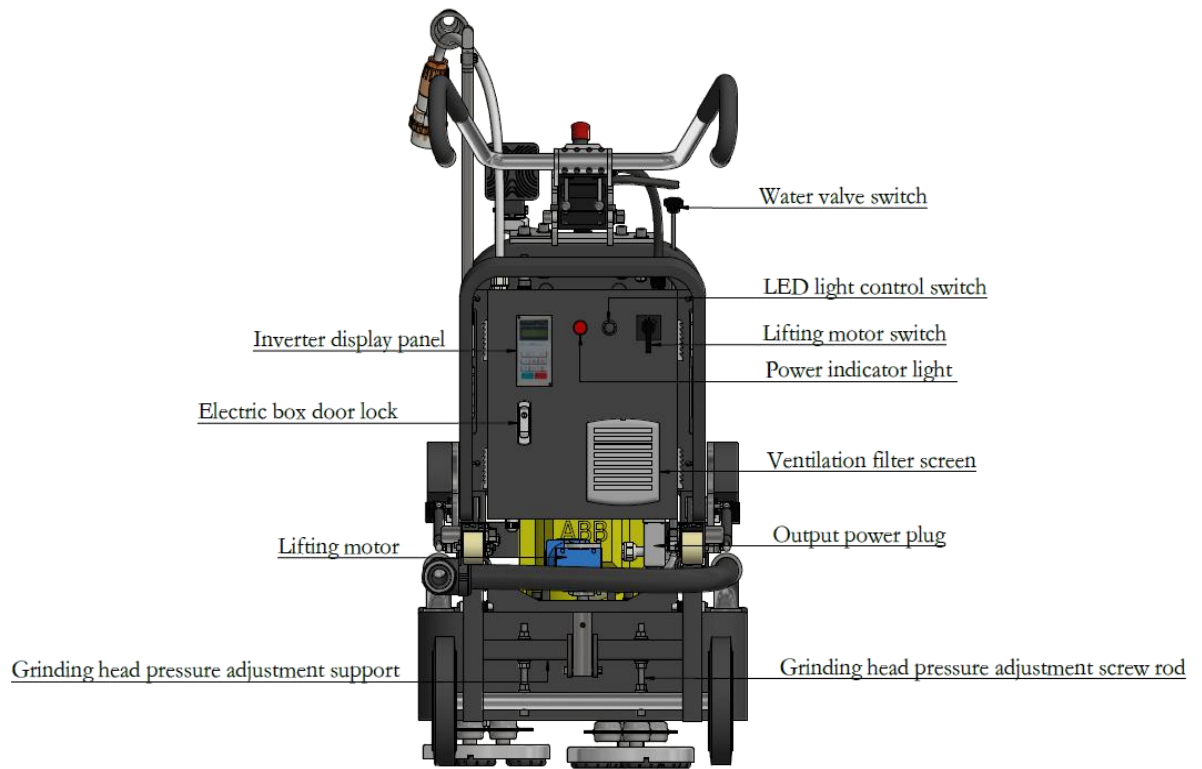
WARNING

- 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

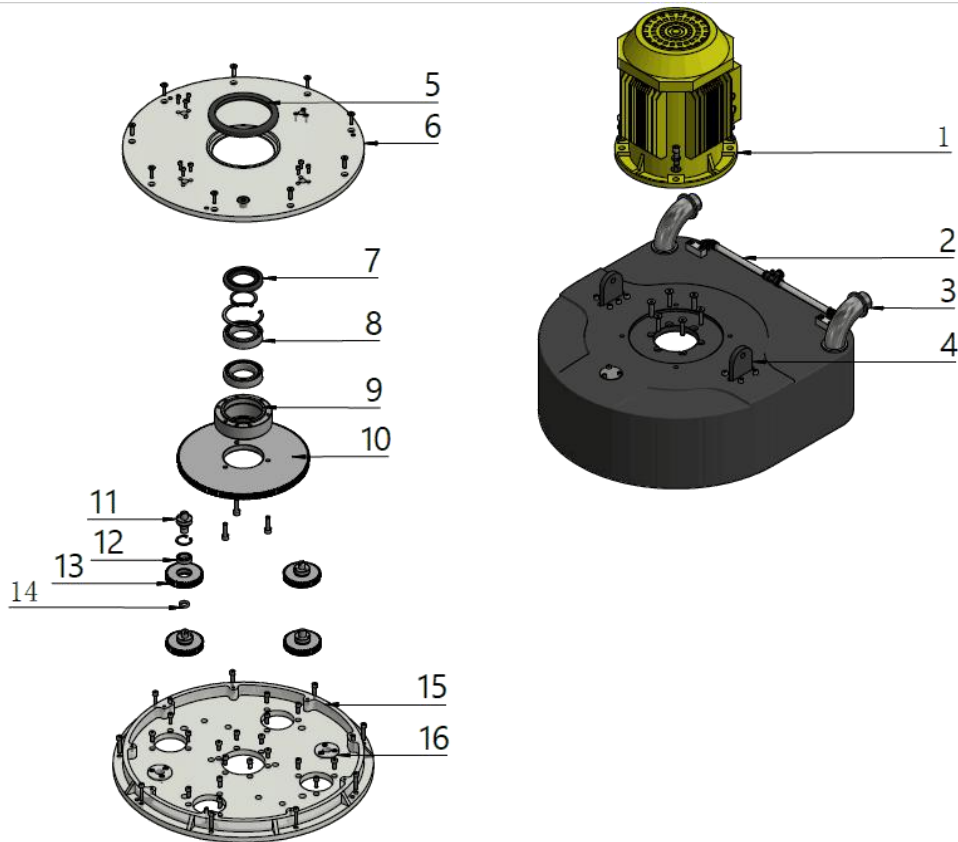
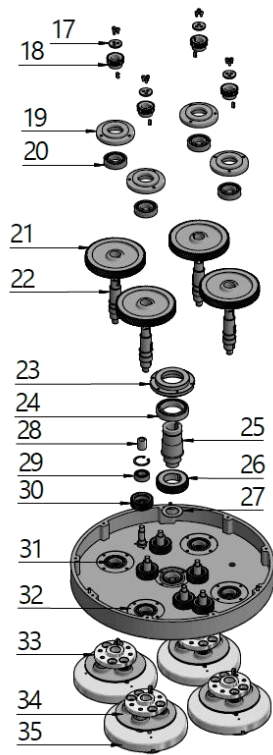
ATTENTION

- 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

(4 head)



(4 head



NO.	Name	Quantity
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NO 1	Main motor	1
NO 2	Drainage system	1
NO 3	Dust collection tube	2
NO 4	Connection base	2
NO 5	Oil sealing 140*170*15	1
NO 6	Gear box top cover	1
NO 7	Oil sealing 60*95*10	1
NO 8	6012 bearing	2
NO 9	6012 bearing base	1
NO 10	Z160 gear	1
NO 11	Transition shaft(top)	4
NO 12	61904 bearing	4
NO 13	Z44 gear	4
NO 14	Transition shaft ring (up)	4
NO 15	Gear box middle cover	1
NO 16	Oil spilling plug	2
NO 17	Gear baffle	4
NO 18	Z25 gear	4
NO 19	6207 bearing pedestal	4
NO 20	6207 bearing	4
NO 21	Z86 gear	4
NO 22	Second drive shaft	4
NO 23	6013 bearing base	1

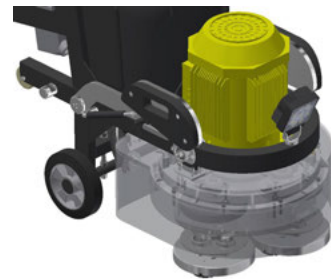
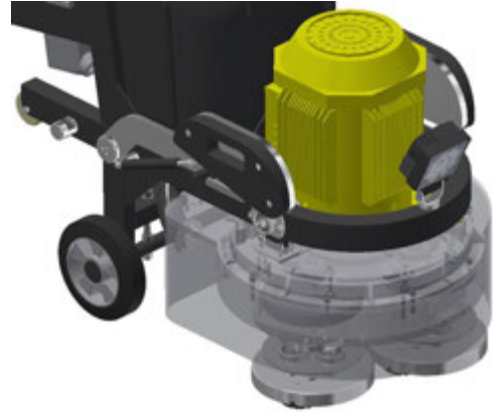
NO 24	6013 bearing	1
NO 25	Main drive shaft	1
NO 26	Z44 main gear	1
NO 27	Main shaft spacer	1
NO 28	Transition shaft ring (down)	6
NO 29	61907 bearing	12
NO 30	Z44 gear	6
NO 31	6207 bearing	4
NO 32	6207 lower bearing pedestal	4
NO 33	Grinding plate base	4
NO 34	Cushion pad	4
NO 35	Grinding plate	4

(4 head

Features:

All gears design: high strength and high precision helical gear, gear to ensure ten years service life; used high strength aluminum alloy box, CNC high precision processing equipment ,Three coordinate detection, ensure the service life of the machine, reducing the noise of the machine with double sealing design: famous brand high strength and high precision bearing and bearing base design, to ensure that the machine in the stability of large area construction, meet the needs of dry grinding;

High-frequency inverter : using foreign brand 15HP high-frequency inverter , ensure the machine load conditions and bad construction environment machine normal use, to meet the different construction working procedure and different construction conditions can choose grinding head the different speed; four planetary grinding head design: TM-TIGER adopts four planetary grinding head design to improve the mechanical construction and surface sticking force, the revolution and rotation in the opposite direction, the traction force can be offset, machine operation particularly relaxed, smooth; Abrasive used widely: TM-TIGER can choose diamond abrasives, ceramics, resin abrasive, different specification for abrasive can choose buckle installation, strong magnetic installation, bolt installation, Fastener installation, improve the using range of abrasive, reduce the construction cost of abrasive grinding; high efficiency: This machine work area can reach 650mm, improve the smoothness and efficiency of construction.



Humanization design



Perfect space design



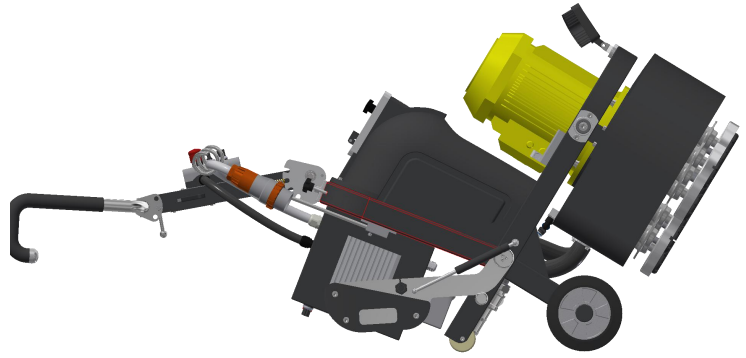
Four planetary grinding heads

Wiring and mechanical performance index

Wiring:

In order to make the machine working normally, avoiding the damages by human factor and ensure the secure of the workers, please wire correctly as 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 losing, 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

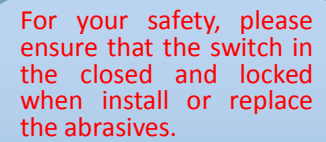
1. Check condition of machine before operation, make sure machine operation control and electric parts without damp phenomenon, and operation switch knob in good condition.

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 clear 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.



For your safety, please ensure that the switch is closed and locked when install or replace the abrasives.



Troubleshooting

Trouble NO.	Abnormal phenomenon	Cause	What to do
01	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
02	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
03	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
04	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
05	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 losing 	<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
06	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
07	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
08	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
09	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 	<ol style="list-style-type: none"> 1. Replace rubber cushion 2. Adjust holding bolts to make grinding plates on the same level surface

		3.Spring cushion is broken	3.Replace spring cushion
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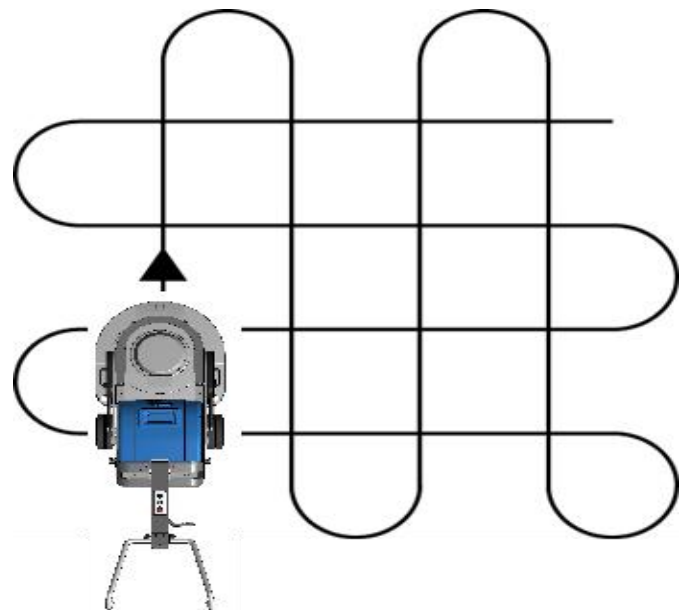
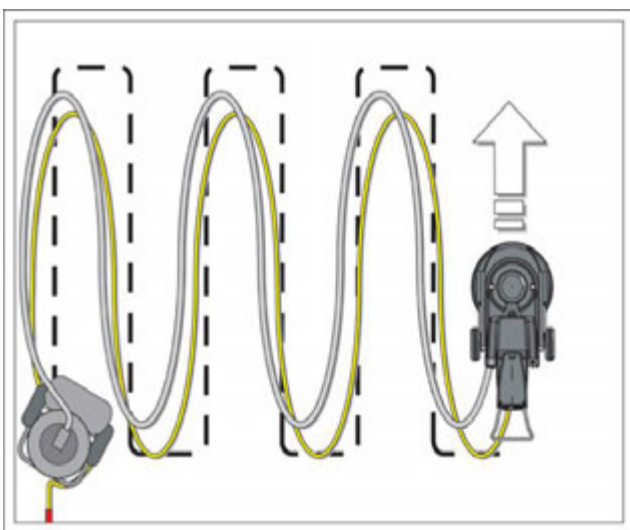
Troubleshooting

Trouble NO.	Abnormal phenomenon	Cause	What to do
14	Big heating on the machine motor	1.Unstable input voltage 2.Wrong line connection 3.Loose wiring terminals	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	1.Emergency stop switch is broken 2.Connection operation control wire is short circuit or open circuit.	1.Replace emergency stop switch 2.Replace operation control wire
16	Power supply indication light is not working or blinking	1.Indicator light is broken 2.Indicator wire connection terminal is loose 3.Unstable input voltage 4.Loose wiring terminals	1.Replace indicator light 2.Tighten wire connection terminal 3.Adjust to stable input voltage 4.Fasten wiring terminals and make sure connection point in good condition
17	Grinding plate pressure adjustable Indicator light is not working or blinking	1.Indicator light is broken 2.Indicator wire connection terminal is loose 3.Grinding plate adjusting switch error	1.Replace indicator light 2.Tighten wire connection terminal 3. Use adjusting switch correctly
18	Machine can not close water	1. Water switch is broken 2. Water pipe is broken 3. Switch is not in the certain place 4. Water tank is broken	1. Replace water switch 2. Replace water soft pipe 3. Use switch correctly 4. Replace water tank
19.	Moving wheel can not move normally	1. Bearing of moving wheel is broken 2. The mud solidified	1. Replace bearing 2. Clear mud and wrap butter on the bearing

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.



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.

Grinding treatment

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.



Screws and other metal objects on the ground

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.

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.



Rubber cushion



Velcro disk



waterproof / dust proof cover