HL-YMC V ALGINATE MIXER INSTRUCTION



Dear customers,

Thanks for purchasing HL-YMC V Alginate Mixer produced by Hangzhou ZhongRun Medical Instrument Co., LTD. You must read the instruction carefully before using the device on the safe and right side and make sure to keep it near the device so as to be read at any time.

When run the device, you must observe the rules strictly and preserve correctly and regularly.

On the other hand, our company has the right to reserve an extra notice of the improvement of the device.

The product agrees to ISO13485：2016 standard.

The utility model patent No: **ZL 2016 2 0168204.0.** (Counterfeiting not allowed).

I． Notes of the Medical appliances

1. The device must be used by specific persons instead of nonprofessional ones.

3. Notes on placing the device:

1）It must be put in the place which is not connected with water or any other liquid.

2) It must be kept and used in the place where there is no adverse air caused by air pressure, temperature, humidity, ventilation, insolation, dust, and salt, ion etc.

3) It must be placed steadily and stably without any tilt, quake or the possibility of impact. If placed on the table, the table must be solid, not shake.

4) It must be far away from chemicals and chemical gas.

5) Power socket must apply with the required voltage and current of the device. Make sure to set the socket and lines correctly and the device requires separate socket with safety grounding.

3. Notes before using

1) Check is a must before using. Make sure there is no abnormal phenomenon on the appearance, esp. no water, the electrical lines of the socket is integrated without any crack or breakage, the switch and indicator are normal.

2) Make sure the safety grounding correctly and stably.

3) Make sure the supplying voltage and frequency agrees with the requirement.

4) Because of the damping system of Alginate Mixer, 4pcs red screws are fixed under the device in the case of safety transportation. Before using the device, please remove the red screws and put them aside.

4. Notes while using it

1) The device must be used in stomatology dept, it uses for mixing impression material.

2) Must not start Alginate Mixer before the mixing blow is closed completely. Or the impression material and water will be spit out.

3) If Mixing bowl cover vent holes are blocking please open them immediately, otherwise it will cause the cover is not easy to cover and tighten.

4) This machine each time can mix 25 g ~ 100 g, please do not exceed the maximum mixing powder.

5) Monitor whether there is any abnormal phenomena strictly. Once something is abnormal, turn off the switch and pull out the socket, then to check the device.

6) The mixing bowl belong to Consumables, if not normal use, please change in time

7) The patient mustn’t contact the device.

8) This machine is forbidden in the no -load condition. Because of this machine is using centrifugal force to stir, in no-load exist large eccentric loading, if no-load running, the machine will produce a great shaking, easy to cause an accident.

5.Notes after using

1）Checks must be made according to the requirement strictly and turn off the switch.

2）After turning off the switch, the socket must be held down instead of pulling down.

3）Keep requirement about discontinued devices:

1. It must be put in the place which is not connected with water or any other liquid.

2. It must be kept and used in the place where there is no adverse air caused by air pressure, temperature, humidity, ventilation, insolation, dust, and salt, ion etc.

3. It must be placed steadily and stably without any tilt, quake or the possibility of impact.

4. It must be far away from chemicals and chemical gas.

4) To guarantee the normal use of the device, the device and its accessories must be kept properly after cleaning.

5) For repairing or before shipping again, please be sure to install on the four red screws at the former position. Otherwise it will cause malfunction and damage.

6.You mustn’t dismantle, or repair the device by yourself when met problem, must contact distributors, and repair by specific persons.

7. You mustn't remake the device, or you have to be responsible for the consequences and lose the warranty at last.

8.Regular check and maintenance

1) Under normal circumstances, it is suggested that check once before using and make maintenance weekly.

2) If it is in idle for a while, the check on the safety and function is needed before resetting. You can use it when you make sure it is normal.

9. Other important notes

If you don't use the device according to the instruction, there will be something wrong with it or some danger and accident, so be on the alert.

II. To guarantee the safety of using the device, the rules must be observed.

1. Pay attention to spatula and mixing bowl when operation, avoiding water and impression material spill out to hurt somebody or something.

2. For safety, the machine after using, should be timely clean Spatula, Mixing Bowl and Stirring Stick, placed in ventilated, dry indoor without corrosive gas

3. To prevent the metal parts from rusting, the device mustn't be kept in the high heat and moist places.

4. The instruction explains the safe use of the device specifically, please be sure to put it near the device and read it

*Our company is not responsible for the following problems:

1. Mechanical damage and personal accident caused because the staff out of company reform, detach and repair the device.
2. Mechanical damage and personal accident caused due to using the parts out of our recognition.
3. Mechanical damage and personal accident caused because of not obeying the above rules properly.
4. Mechanical damage and personal accident caused due to violating the required voltage, grounding and placed environment.
5. Mechanical damage and personal accident caused by natural disasters such as earthquake, fire, and flood.
6. Spatula, Mixing Bowl and Stirring Stick are easy to damage, the fee on renewing and changing them should be dealt by you.

Marks on the introduction：

⚠ Caution

Mechanical damage and personal accident will be caused if you violate it.

⚠ Attention

Mechanical damage and personal accident will be caused if you violate it.

III. Type and Specifications

1. Product name: Automatic Alginate Mixer
2. Specifications：HL-YMC □
3. Power：AC 110V, 60 Hz □
   AC 120V, 60 Hz □
   AC 220V, 50 Hz □
   AC 230V, 50 Hz □
   AC 240V, 50 Hz □
4. Motor Power：250~300W
5. Motor Speed：1500~2000rpm
6. Temperature: 18~28℃, Relative humidity: ≤80%
7. Timer: according to the manufacturer's instructions of various impression materials
8. Set the stirring time: according to all kinds of alginate impression material manufacturers' specifications
9. Dimension：24cmx26cmx30cm
10. Classification of the devices: □ Medical devices; B: Electrical devices, common devices，non -AP or non-APG devices, intermittent working mode.
11. Service life：5 years.

IV. Methods of use

1． Plug in the power cord , turn on the Power switch on the back of the machine, the light turns on, see Figure 1. Meanwhile The power indicator light on the control panel will be light, see figure 2.

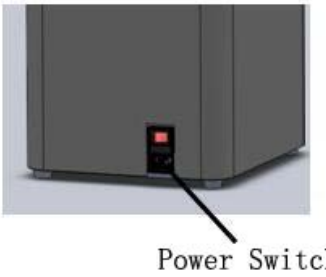


Figure 1.

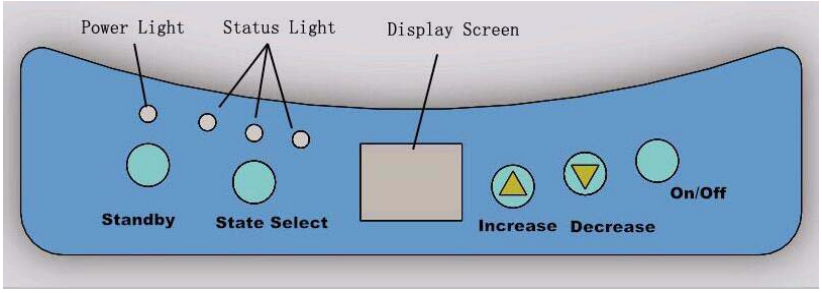


Figure 2

2、Press the standby button on the control panel, the LCD screen and the status indicator light on the operation panel will be light, see figure 2.

3、Put the impression material and water according to the impression material manufacture's ratio in the mixing bowel, then mix the bowl inner wall several times by the Stirring Stick. Use a mixing stick to stir around the inside edge of the mixing bowl gently to prevent nonuniform stirring at the top and bottom. (Reminder: In constant working time, stirring speed: the amount of water will affect the consistency of the impression material powder, please adjust the ratio of water and powder according to the impression material manufacturers' manual. If the mixture viscosity is high, please increase the amount of water. If the mixture viscosity is thin, please reduce the amount of water to achieve the desired effect. (The mixing ratio of water and powder provided by the impression material manufacturers is mainly about the hand mixing parameters, which is for reference only.)

4、Screw tight of the mixing bowl cover, put the mixing bowel into the mixing tank, see Figure 3, then turn left and right of the mixing bowel to make sure the mixing bowel is in the right place.

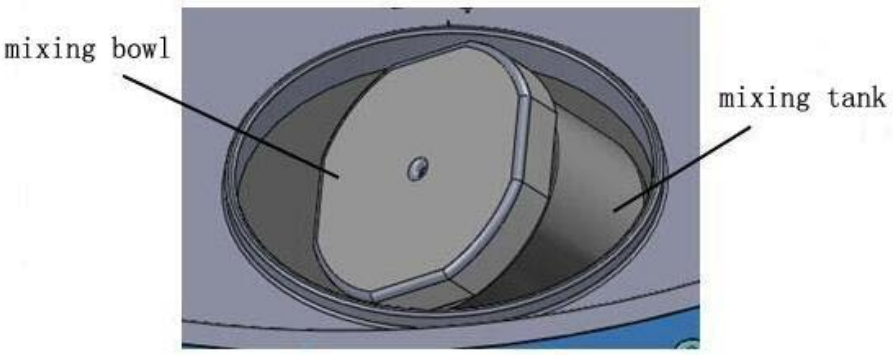


Figure 3.

5、Close the cover of Alginate Mixer.

6、Set the mixing time according to the amount of impression material, see Figure 2

(1)Below form is the three timing memory models of initial setting, it can be adjusted the time as required during using.

Memory Model	Timer Setting（second）
1	10
2	15
3	20

（2）Press the state select button to select the desired memory to set time.

（3）If need to adjust the memory setting time,can use ▲or▼ to increase or decrease, each memory setting time can increase or decrease in 5 seconds. So the min mixing time is 5s,max mixing time is 25 seconds. Can be adjusted as required. When the operation finished, mixing time will be back to the memory setting time, convenience for the next operation, and automatic memory the time set just now (means the initial setting time will be replaced).

（4）Mixing time for your reference

Scoop of Alginate	Recommended time (seconds)
1	8～12s
2	13～18s
3	19～25s

Mixing time should be adjusted according to different Alginate manufacturers, seasons and temperature.

7、After set the time, press the on / off button, then the mixer begin to mixing, the mixing time will be reduced by per second (countdown), when it finished it will show the mixing time.

8、Confirm the mixer stops running, open the cover, take out the mixing bowl, then take out the impression material by stirring stick .

9、If need to restore the three initial memory models, please press the state select button for a while, hear the "ding" sound, then success.

10、Press long time of the standby button, enter the standby protection state; or the machine does not operate for 10 minutes, will automatically enter standby protection state.

⚠ Caution

1) When the mixer is running, the machine cover automatically locked, the upper cover can not be opened, safety protection. When the mixer stops running, the cover lock device automatically returns to the loose position, at this time, the upper cover can be opened.
2) When there is something wrong with the machine, press on /off button or standby button or cut off the power switch can stop it immediately.

■ Notice in use.

⚠ Attention

A. Long time mixing may result in bad property of impression material.
B. After using, must turn off the switch.
C. Please unplug the power cord if you do not use in a long time.

⚠ warning

A. This machine is alginate mixer, please don't use it for other materials, especially toxic liquid and chemicals.

V. Daily inspection and maintenance

1.Turn off the power switch.

⚠ warning

1) The inspection and maintenance must be done after complete cooling.
2) The plug must be pulled down.
2. Please clean the bowl and spatula each time after using.
3. The small holes in the cover of the mixing bowl should be cleaned regularly to keep the holes clearly.
4. Wipe away the dust on surface.

⚠ Attention

Chemical cleaner mustn't be used for cleaning the device.

VI. Analysis and Answers to common problems

1.Impression material mixed nouniform or part nonuniform.
The main reason is disproportion of water and impression material, mix too short or operate incorrectly.
→Mixing again with correct proportion, correct operation. (Details please check IV. Methods of use)

2. Impression material too thin, or too thick mostly because of powder, liquid ratio is not right.
→See IV. Methods of use 3

3. Partial insolubility
First consider that the properties of the impression material have deteriorated.
Replace the new impression material and operate it again.

4. Press the power switch, But the indicator light is not light
May be the power plug is in the poor contact
→Reinsert the power plug
（2）May be the fuse burned
→Replace fuse tube
5、Control panel display is not normal
May be the fault of the circuit board
→Repair
6、Motor rotation slow
May be it is starting capacitor aging
→Repair
7、Abnormal sound or abnormal vibration during operation
（1）Alginate is too much
→Use the Alginate according to the right quantity.
（2）No powder or no mixing bowl.
→No no-load operation
（3）The mixing bowl cover is not closed
→To check whether the mixing bowl cover is closed or not
（4）May be problem of the spare parts
→Repair
8、Error code E1
May be the cover is not closed.
→Close the cover.

- ■ If the problems can not be solved according to the above suggestions, don't detach and repair the device by yourself. It is a must to keep a connection with the distributor and we will supply our specialized staff to resolve them for you.

VII. Packing List

No	Name	Quantity(Piece)
1	Main machine	1
2	Power cord	1
3	Mixing Bowl	4
4	Spatula	1
5	Stirring Stick	1
6	Basket（magnetic）	1
7	Instruction	1
8	The outer: Fuse 3A（220V）/ Fuse 5A（110V）	2
9	built-in: Fuse 5A（220V）/ Fuse 10A（110V）	2
10	Certificate	1
11	Warranty Card	1
12	Water-dosing bottle	1