

LABSTAC



OPERATION M
Stomache
ST011-400

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01. Working principle and application

The original state of microbial samples may be block, paste, powder, etc., all of which must be made into fine liquid samples to facilitate microbial analysis and inoculation. The working principle of this instrument is as follows: the original sample (large sample shall be cut into a block of about 10×10mm), put into a homogenizing bag with some liquid or solvent, and hammer it repeatedly on the homogenizing bag with the hammer plate of this instrument, generating pressure, causing oscillation and accelerating mixing, so as to achieve the uniform distribution of microbial components in the solution. This instrument is suitable for the homogenization treatment of brain, kidney, liver, spleen and other tissues and microorganisms. It is widely used in the fields of food, medicine, clinical, molecular, toxin and bacteria detection.

Storage of raw material and solvent homogeneous sample bag, made of special materials, have aseptic processing (now kaifeng homogeneous bag users should again disinfection sterilization to ensure that the sterile), through the blender along the rail for the clamping of the seal on the door, can avoid the overflow of the hammer hammer board solution, blender blows board constantly homogeneous hammer on the bag, pressure can be produced bag samples of smash blending. The homogenization speed can be programmed, 3~12 times per second for each section, and the homogenization time can be set as 1 second ~100 minutes or continuous operation for each section. Users can make reasonable choices according to the sample and solvent conditions to achieve the best homogenization effect. For example, the liver of mice and rats was set regularly for 3 minutes at a moderate speed of 6~10 times per second.



02. Feature

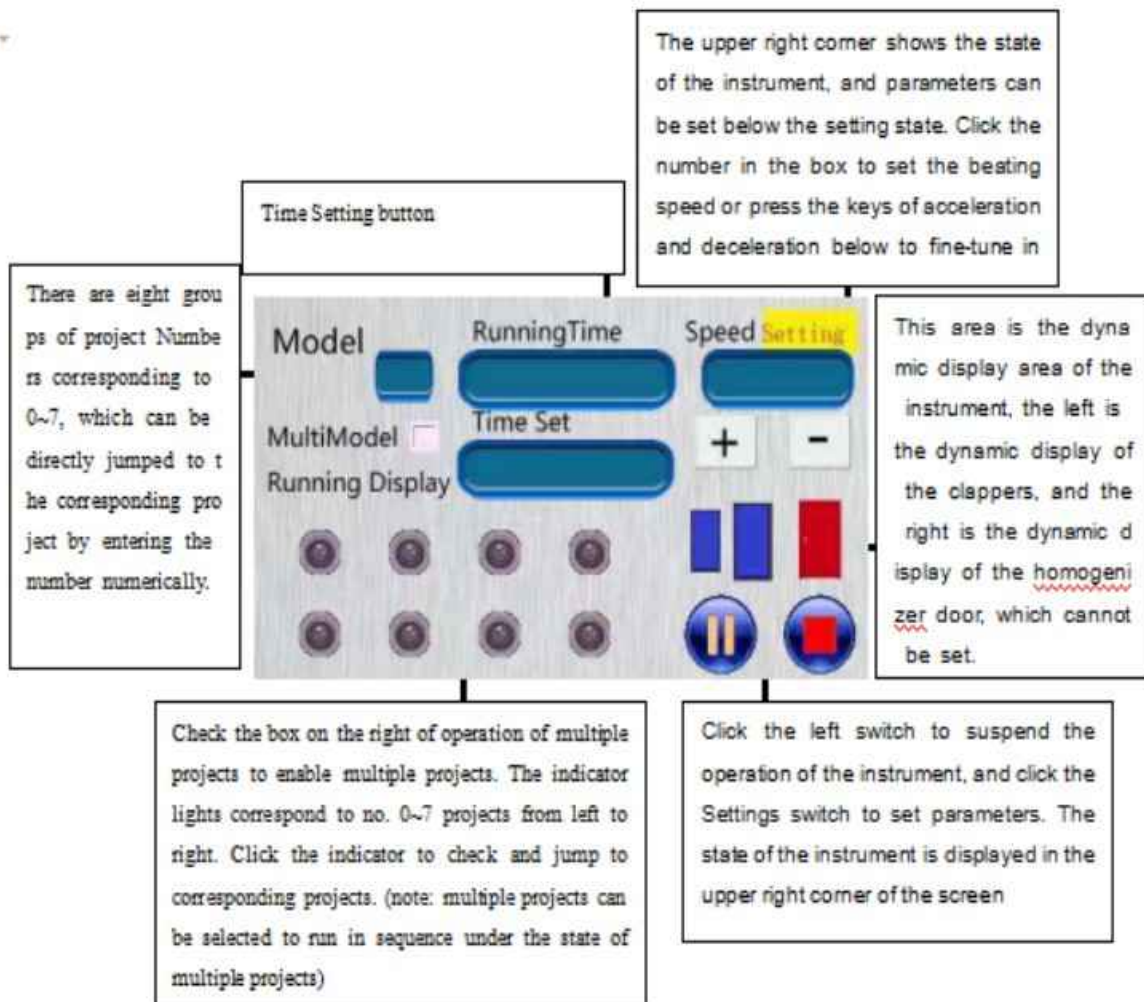
This instrument makes the process of extracting bacteria, cell tissue and other substances from solid samples very simple. You only need to add the samples and diluents to the special sterile sample bag, and then put them into the blender. After the door is closed, the simple setting will automatically start beating homogenization and complete the sample processing. The device effectively separates particles contained within and on the surface of solid samples, and ensures that samples mixed in sterile bags are sufficiently representative. The operation is simple, convenient and time consuming. Disposable aseptic homogenization bag can be used to eliminate tedious cleaning after work. Samples are packed in disposable aseptic homogenization bag, which can effectively prevent cross-contamination and protect the safety of operators.

03. Main technical parameters

1. Capacity: 3-400ml
2. Timing time: 1 second ~100 minutes or continuous operation (8 sets of timing values can be programmed simultaneously)
3. Slapping speed: 3~12 times of squeezing/second (8 sets of speed can be programmed simultaneously)
4. Adjustable flapping distance: 0~50mm (the black plastic knob on the back of the instrument can adjust the squeezing force of the flapping plate according to the amount of samples, and it is not recommended to adjust it too close to the front, generally it can be intuitively seen that the sample is obviously squeezed when flapping.) ★
5. Overall dimension: 420×230×330mm
6. Operating environment temperature: 0~35°C
7. Net weight: 19kg

8. Power supply -- power: 220V/ 50hz-200w
9. Size of sterile homogeneous bag: 17×30cm
10. Display mode: 4.3-inch touch screen display
11. End alarm function: yes

04. Description of buttons



05. Operating Steps and Setting

Take out packing case, and machine, and place it on the table smoothly near the power supply.

1. Connect the power cord to the socket at the back of the machine and plug it into the external output socket. Turn on the power switch.

2. There is a black plastic knob in the middle position of the bottom of the instrument. When the sample quantity is large, the distance between the clapping plate and the sample can be adjusted counterclockwise (rotate to the left), while when the sample quantity is small, it can be adjusted clockwise (rotate to the right).

3. Check and confirm whether the groove along the bottom of the blender door is buckled onto the bar at the bottom of the blender box, and turn the door handle to open the door to the maximum. Will be equipped with sample and solvent homogeneous bag in homogeneous box, homogeneous bag under basic parallel to the border under the hammer plate plane (when the sample is less than 100 ml, homogeneous bag under border best is higher than the panting plate plane 1-2 cm, in order to prevent the homogeneous bag burst), the edge of homogeneous mouth should be above the door cover, the mouth not wrinkle, and then turn the door switch, after hearing the "drop" sound (the screen should show "closed"), that door is shut. At this point, the door and upper rail squeeze and clamp the homogeneous bag, making it sealed.

4, according to the need to homogenize the sample selection panel speed and timing time, each button will have sound prompt. Press the set key, set switch "at this point, the screen on the yellow box display Settings, set said into the state, input the corresponding lamp, engineering, or click on project selection project set, click speed box Settings flapping frequency, and then click set time set time according to the requirements of the samples within a box. After setting, click the "run" and "pause" keys. At this time, the yellow box on the upper right of the screen will display the running state. The dynamic display of the screen clapper is on, and the instrument starts to work. Reach the set time, "di" sound, liquid crystal display pause, machine stop working. Press the run button again to run again. If in multi-project mode, the screen will automatically display the parameters of the next group after sound after running a single group of programs, and run this group of parameters until the checked program is finished. In the running process, there is a door opening action, the screen shows the door opening, and enter the pause state. After closing the door, press "run" again to start working.



5. Hold the upper edge of the homogenizing bag with the left hand, open the blender door with the right hand, take out the homogenizing bag, and finish the work once. If the sample is contaminated, use special tools to extract homogenizing bag.
6. If you need to suspend or terminate the operation during the working period of the device, press the "run or pause" button (the current state should be displayed on the screen at this time), and the hammering board will stop working immediately.
7. For safety reasons, all operation procedures are locked and automatically stop working when the door is opened. When the blender door is opened in the middle of operation, the instrument will automatically stop working and the liquid crystal screen will display the current state to prevent finger injury.

06. Note

- (1) The power plug must be inserted tightly in place, which may affect the computer controller and cause the crash. If the crash occurs, please turn off the power switch at the back side, and restart after 3 minutes of shutdown.
- (2) Do not open the blender door when hammering the plate, so as to avoid overflow of sample liquid. Press the "run, pause" button and the device will automatically stop running. When the door is closed, press "run, pause" and the device will automatically complete the rest of the work.
- (3) If the instrument is not in use for a long time, the power should be cut off and the plug unplugged.
- (4) The bottom of blender door to prevent the accidental rupture of blender bag, easy to clean overflow, the bottom design is empty, can be placed to catch water dish, so do not use the hand from the bottom of the operation of the instrument, so as not to wring fingers.
- (5) Before running the machine, please check whether there is any foreign matter in the blender box, so as to avoid failure and damage of homogenizing bag during operation.
- (6) Hard, bone and ice materials should not be used to avoid damage to homogeneous bags.



(7) The equipment and blender bag should be kept away from direct sunlight, especially the homogenizing bag should be stored in a place without sunlight or ultraviolet radiation to avoid aging.

(8) When the amount is small and the speed needs to be accelerated, when the homogenized fiber is tough, the back knob can be used to adjust the distance between the batting plate and the window to achieve better homogenization effect

07. Maintenance

Wipe the shell of the instrument and the hammering board inside the homogenizing box with a clean cloth, especially after the homogenizing bag is damaged, the power supply must be cut off when carrying out this work.

08. Instrument maintenance and troubleshooting

(1) when the instrument does not operate under the condition that the box door is closed tightly, check whether the power supply is normally connected and whether the fuse is intact if there is no display on the LCD screen.

★(2) abnormal operation sound of the instrument, check whether the connecting bolts, springs or slapping plates are loose. After a long period of work, if the machine inside the spring, nylon sleeve lubrication dry to clean and add new grease (generally 3-6 months to add once).

09. Warranty

(1) Under normal use and maintenance, the product shall be guaranteed free of charge within one year after the end user receives the product.

(2) In case of failure, please contact the factory by telephone, fax, Email, etc., so as to solve the problem in time.



(3) For the performance defects caused by the wrong use of the instrument, or the failure to operate and maintain the instrument in accordance with the instructions, and the repair of the instrument by personnel authorized by the manufacturer, it shall not be responsible for free warranty.

10. Packing list

Host	1	
The power line	1	
Sterile homogenous bag	100/bag	
Manual	1	
Certificate (including warranty card)	1	
Fuses 3A	2	
Door handle	1	

Solution A:

1. Soak the two granules in boiling water for 10 minutes, then put them into a homogenizing bag with the water, and put another homogenizing bag on the outside.
2. Finally, put the particles of the two layers of bags on the blender and beat. The homogenization is completed after two and a half minutes.
3. Use 6-9 times/second. Results: no leakage was found in two homogeneous bags.

Solution B:

1. Soak the two granules in cold water for 10 minutes, then put them in a homogeneous bag with water, and put another homogeneous bag on the outside.
2. Finally, put the particles of the two layers of bags on the blender and beat it for 3-5 minutes. Homogenization is completed.
3. Use 7-10 times/second.



Results: the inner bag is broken, the outer bag is not leaky, but the surface has been rising (uneven).\

Compared with the second group, the color of the first group was slightly darker.

Conclusion: soaking in cold water for 10 minutes and using two homogeneous bags can achieve homogeneous effect.

Methods of obtaining large number of single cells with aseptic blender (for reference only) :

Cut in the operation of tumor tissue (such as gastric cancer, colorectal cancer, breast cancer) in aseptic AGAR, with contain gentamicin 100 u/ml saline washing, removing tissue adhesion of bacteria, according to 2 g weight after wash three times add 10 ml saline, use scissors to cut into small pieces, as far as possible, 2-5 mm square, load a homogeneous bag.

According to the operating instructions of aseptic blender, the technical parameters are 10 times per second, 5-10 minutes, stop for 1 minute per minute, calculate and remember minutes, the use time of different tissues is slightly different. Then mixture treated group suction tube and let stand for 3 to 5 minutes, take to clarify some cell suspensions, which contain a large number of scattered single cells, 1000 turn/separation heart 5 minutes, add containing 20% calf serum culture medium, can cultivate directly, cell number can be adjusted at about 2×10^5 ml, the total number of cells with the tissue block size can change, but enough culture with cells.

It was observed that the single round cells in the picture are the scattered single cells needed, including glandular cells and epithelial cells. The irregular spindle cells are scattered muscle fiber cells, which are also scattered single cells. All have complete round cell morphology, activity is very good

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