ULTRASONIC CLEANER

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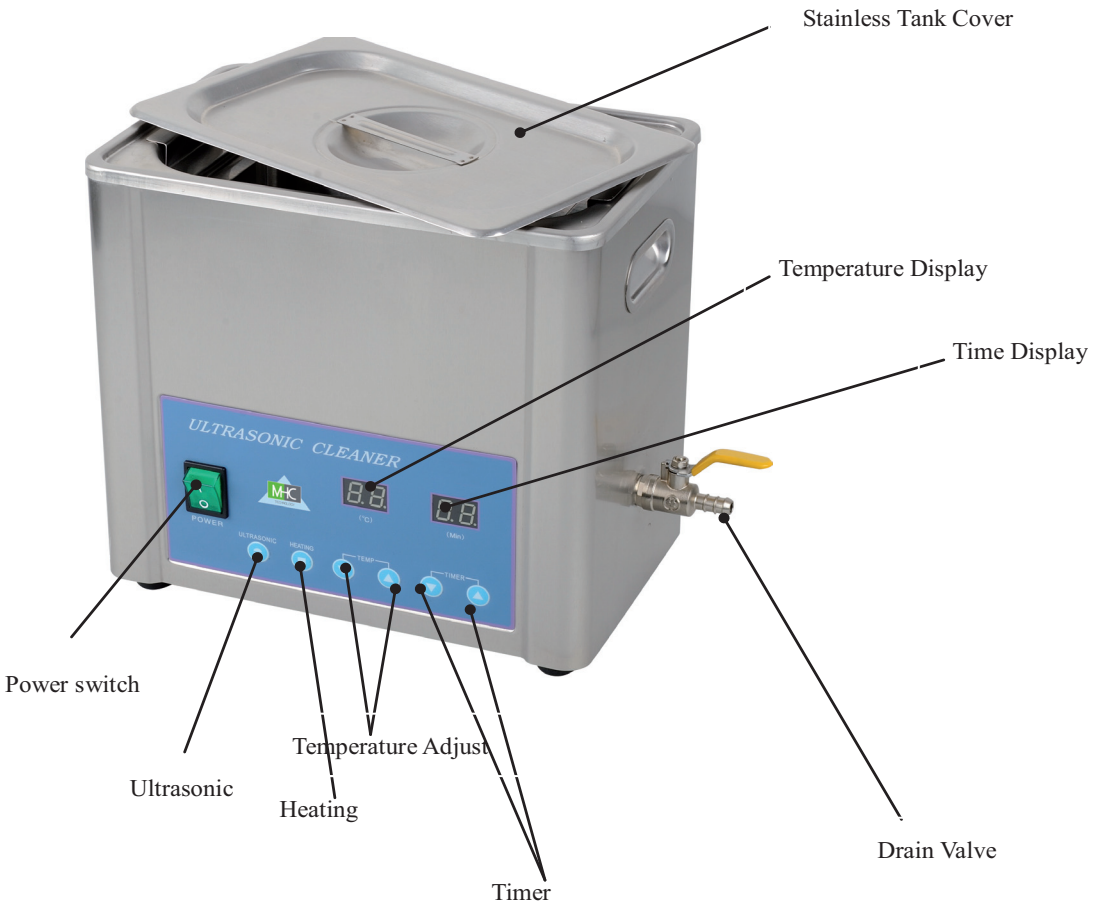
Content

A Outline

The MHC ultrasonic cleaner is a product with the efforts of technicians for several years based on advanced techniques and equipments introduced aboard. The ultrasonic cleaner of the Company has been widely applied in hospitals, medicals, schools, scientific researching, patrols, chemical industry, light industry, metallurgy, mechanism, transportation, national defense etc. to make deep and thorough clean on components and irregular parts of apparatuses, instruments, electric elements, circuit board, semiconductor silicon, magnetic material, electroplating units, hardware, optical mirror slip and accessories, audio magnetic head, terylene filter core, silk spraying board, emulsion moldings, medical apparatus, glassware, treasures and jewelry, clock and watch and accessories, fine hardware, bearings, choke pumps and mechanical production, especially for dirt in deep holes, dead holes and rough surface. The product is the most effective and precise cleaning equipments so far. Various cleaning agents can be provided by the Company.

B Structure (Graph 1)



Graph 1

C Theory

Ultrasonics by itself is just sound frequencies above what you can hear. Ultrasonic cleaning is performed through a process called cavitation. Cavitation generates millions of bubbles in the solution. These bubbles grow in size and eventually implode. When these bubbles collapse, the fluid surrounding the bubbles collapses with great force creating shock waves upwards of 20,000 pounds per square inch.

When the solution outside the bubble rushes towards the center of this cavity it generates high temperatures upwards of 20,000 degrees Fahrenheit. This is what causes the temperature of the solution to increase naturally while the unit is in operation.

The cavitation process is possible due to the use of transducers. A transducer is a thin ceramic disk, which when charged with an electrical alternating current, will create a sound outside of the normal hearing range of humans. It is this sound that we use to create ultrasonic action within the cleaner tank. As the transducer is electrically charged it will generate the ultrasonic wave in an upwards direction (ultrasonics go upwards, not outwards), creating an implosion of the sound waves, which creates the cleaning action.

D Main specification

1. Power voltage and frequency：AC~220V；50Hz±1 Hz or AC~110V; 60Hz±1。
2. Fuse tube：F2A～250V

Type	Cleaning tank Dimensions （㎜） （L×W×H）	Liter	Frequency KHz	Ultrasonic Power (W)	Drain	cover	Heating power W	Time setting （min）	Heating (℃)
U3LH	238×140×100	3L	40	120	yes	yes	150	1-99	20-80
U5LH	240×140×150	5L	40	120	Yes	Yes	150	1-99	20-80
U10LH	300×240×150	10L	40	240	Yes	Yes	150	1-99	20-80
U7LH	500×140×100	7L	40	240	Yes	Yes	150	1-99	20-80
U40LH	620×500×200	40L	40	1000	Yes	Yes	150	1-99	20-80

E Operating Your Unit

1. Check whether the ground line and power line of Ultrasonic bath is correct.
2. Make sure the drain valve is closed.
3. Add the liquid to the cleaning tank. While washing , the liquid lever can not be lower than 1/3 of cleaning tank, and no more than2/3.To increase the effect, please use detergent accordingly, and all detergent should be no corrosion to the inner and body of cleaner .
4. Put the power plug into the faucet with three holes in end voltage, turn on the POWER （means ON; means OFF ）。
5. Degassing: To condition the freshly prepared fluid, set the timer to 15 minutes and allow it to operate without adding material to be cleaned. This process is known as a degas phase. After the initial degassing has been completed, subsequent startup only requires 1-2 minutes to complete the degassing. Degassing is required to eliminate air bubbles in the solution for maximum efficacy.
6. Place the substances to be cleaned into the accessory basket and insert accessory basket into the ultrasonic cleaner containing the proper amount of ultrasonic solution.
7. Set the cleaning time (Timer) to the desired time. (Normally 3 to 30 min, the time can be accordingly with the materials' situation). Then press START/STOP. If the liquid surface is making reticulation waving with vibration sounds, it means the cleaner is now under the process of cleaning.
8. Put out the substances cleaned together with the net basket after cleaning and rinse them.
9. Drain the cleaning liquids and wipe the machine body clean if the cleaner will be left unused for long period.

F Security Attention

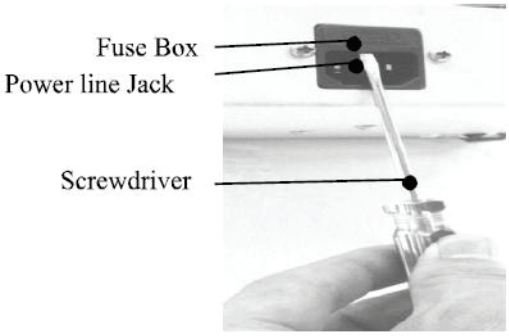
1. Please read the Manual before using
2. Reliable earthing device should be connected before use.
3. Kindling or uncovered fire is strictly prohibited on the work site.
4. Cover and keep an eye on flammable liquid such as alcohol, acetone and gas etc.
5. Do not let the cleaning liquid above 80 .Generally clean with normal and mid-temperature.
6. Do not start or heat up the machine without cleaning liquid in the tank to avoid the damage to the machine.

G Maintenance and repair

The machine belongs to valuable equipments and should be applied and maintained by assigned special personnel. Thorough inspection should be made periodically.

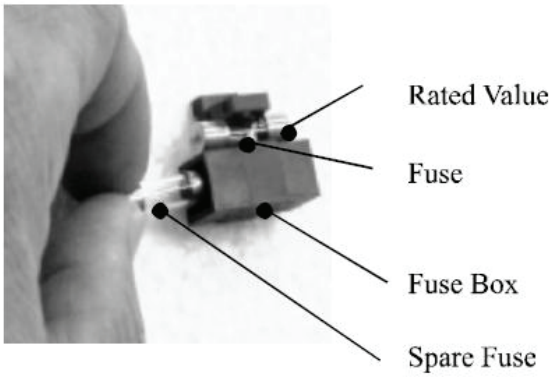
1. Inspect whether there s loosing, overheating, damping and fail connection of the power line and the joints.

2. Inspect the guard of cooling fan of ultrasonic source and wipe away the dust.
3. Inspect whether there s leakage in the bottom plate of the cleaning tank
4. If transducer shedding or defective, please contact with the manufacturer or authorized service representative.
5. Replacement of Fusing Wire (see Graph 2 and Graph 3)



Graph 2

Graph 3



H Packing List

NO	Name Q	uantity	Remarks
1	Ultrasonic Cleaner	1set	
2	Manual 1	pc	
3	washing mesh basket p	er 1pc	
4	Plastic hose 1	radix	
5	Power line 1	radix	