

YUNYISONIC

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Focusing on ultrasonic technology
R & D and manufacturing

Ultrasonic vibration plate. Guide to the use of vibration bar

Scope of application:

Cleaning, diffusion and dispersion, defoaming, homogenization, mixing and accelerating reaction of chemical solutions, cell wall breaking (cell crushing), emulsification, extraction of biological industry, water degradation, alcoholization of wine, milk cavitation treatment, etc.

Equipment Overview

Thank you for purchasing our ultrasonic products, please understand some major precautions before installation and use. Ultrasonic vibration plate & vibration bar is made of high quality stainless steel, strong corrosion resistance, long service life. Adopt high performance and high quality transducer, with advanced bonding process, High efficiency of electro-acoustic conversion, ultrasonic output power, good conversion effect. Before operation, please read this manual carefully, and keep the manual so that you can check it at any time, fully understand the use of this product, to avoid causing damage to the machine or endangering you or others.

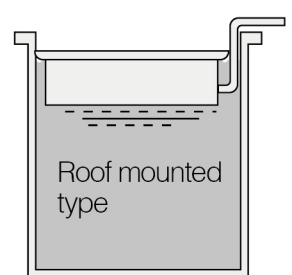
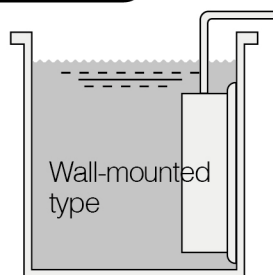
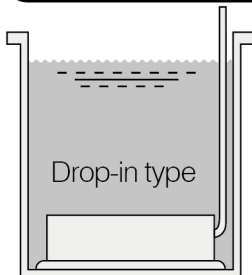
Caution

- Before connecting the power supply, please make sure that it is within the rated range. Modification of this product is strictly prohibited.
- Before use, make sure the ground wire is connected reliably to prevent static electricity.
- Do not start the machine when there is no liquid.
- When there is no liquid, it is forbidden to start the machine to work.
- The liquid must be completely immersed in the vibrating plate or vibrating rod.
- Objects from the vibrating plate vibrating rod distance greater than 2mm to ensure the effect.
- It is recommended that priority be given to the use of environmentally friendly water-soluble cleaning agent, and the use of strong acid and alkali cleaning agent is strictly prohibited.
- After 2 hours of machine work, it is recommended to pause for a period of time (usually more than 3 minutes) before starting work.
- Please do not use the machine in the environment of too high or too low temperature.
- Please do not use the machine in the environment of strong vibration or impact.
- Do not use the machine in an environment where corrosive gases or dust are present.
- Do not use the machine in an environment where water, oil, or chemicals are flying.

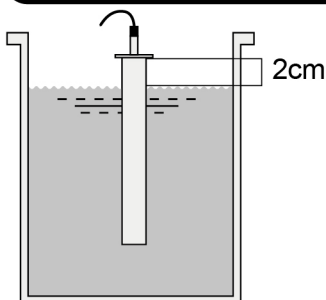


In the use of flammable, volatile liquid (such as alcohol, circuit board cleaning solution, etc.) to do cleaning fluid, it is strictly prohibited to work for a long time! With the cleaning agent used together, cleaning effect is better.

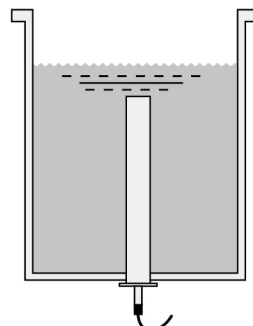
Ultrasonic vibration plate installation method



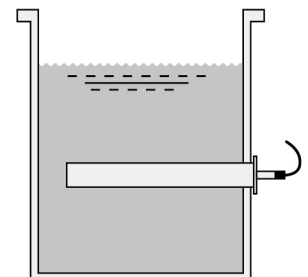
Ultrasonic vibrating bar installation method



When the vibrating bar is put in from above
The distance from the water level to the surface of the vibrating bar should not exceed 2cm



When the vibrating bar is put in from below
The water level should exceed the top of the vibrating bar

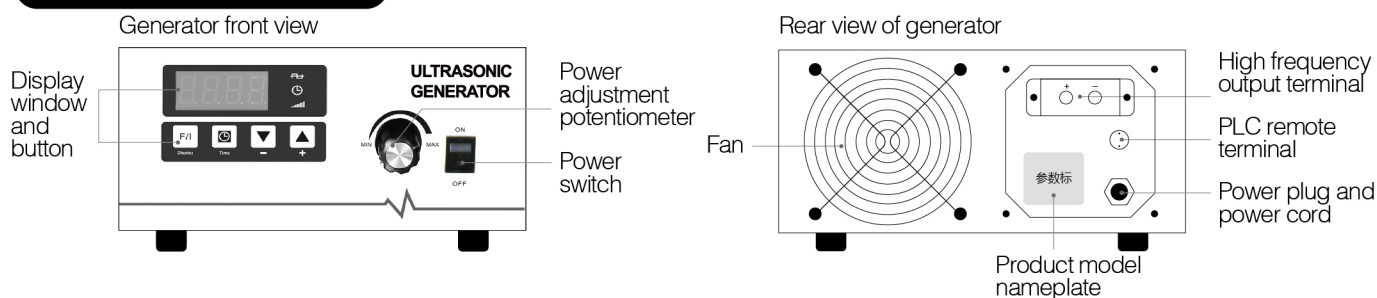


When the vibrating bar is put in from the side
The water level line should exceed the vibration bar

How to use the vibration bar/ vibration plate

1. Plug in the power supply, check whether the display is normal, confirm that the machine has been powered on, the power indicator lights up, the display panel display lights up;
2. Put the vibration bar or vibration plate into the tank, add liquid;
3. The liquid must exceed the vibrating rod or vibrating plate;
4. Press the switch to start working;
5. After cleaning, cut off the machine power, dispose of the inner tank cleaning liquid, wipe clean the machine and put it away;

Generator introduction



Power switch: turn on or cut off the input power; ON means turn on, OFF means turn off. If the switch is set to ON and the built-in light of the switch is on, it means the input power is can work normally.

Display window and key: display the generator working status and the generator work for timing.

Power adjustment potentiometer: the left side is small, the right side is large, adjust the potentiometer can control the power size.

High-frequency output terminal: left is positive, right is negative, can not be reversed. If the connection is reversed, there may be leakage or no output.

PLC remote terminal: the terminal is optional, there are two lines of output, only when the two lines of the terminal short-circuit, there can be output.

Power plug and power cord: Connected to the power supply through the plug to supply power to the generator.

Fan: the internal device of the generator to implement air cooling, to ensure the reliability of the original.

Product model nameplate: represents the main electrical parameters of the machine, frequency, power, input voltage three parameters, pay attention to the conditions of use must be identified with the nameplate. Note that the conditions of use must be the same as the specifications marked on the nameplate, otherwise it will damage the generator.

Machine operation instructions

1. The default display window shows the current X.XXA; if the machine is in normal communication with the host computer (PC or PLC and other 485 communication devices), A will be If the machine is in normal communication with the host computer (PC or PLC and other 485 communication devices), A will flash at a frequency of 2 times per second, if there is no flash, it means no communication or communication is not normal.
2. Press F/1 continuously, then the display will be switched in four working conditions of current/frequency/mode/communication address, respectively:
 - 1) **Current display:** X.XXA, A represents amperage, the basic unit of current.
 - 2) **Frequency display:** FXXX or FXX.X both format, F is the frequency. When the frequency range is less than 99.9K, accurate to one digit after the decimal point. When the frequency range is greater than 100K, it is accurate to a single digit.

Mode display: There are three cases.

Timer mode: TXX. X units are minutes, and 0.1 minutes per unit after the decimal point, that is, each unit represents 6 seconds. This time can be adjusted by using the up and down keys. Press the TIME key to start the timer, the machine will stop automatically after the timer is finished, and the timer can be restarted only when the machine is turned on again or the TIME key is pressed again.

Long time operation mode: display ON, press TIME and + keys simultaneously under the mode selection menu to finish.

Remote control mode: Under the mode selection menu, press TIME and - at the same time to complete. If the machine is running for a long time or in remote control mode, to switch back to timing mode, press the +/- key at the same time.

Machine power adjustment: Rotate the power adjustment potentiometer, left to reduce the power, right to increase the power.

More functions of the generator description

- **Frequency tracking:** in the transducer frequency deviation in the range of plus or minus 1.5KHZ, the generator can achieve automatic adaptation to the transducer frequency without adjusting the frequency
- **Current stabilization loop:** The machine is equipped with a loop stabilization circuit, regardless of the load or water temperature and power supply voltage changes, the current can be stabilized to the specified parameters Within plus or minus 0.1 A. For the quality and stability of cleaning products, it is very critical.
- The circuit is equipped with EMI circuit and adopts phase shifting full bridge technology to adjust the power, which minimizes the interference of the generator to the outside world, compared to the traditional SCR The power regulation circuit can completely solve the serious inrush current generated by the SCR circuit when it is turned on near 90 and 270 degrees of phase and the serious inrush current derived from it. and radiation harassment, and minimize the interference caused to PLC and other electrical appliances.

Product electrical characteristics

- **Input voltage:** 110VAC/220VAC \pm 10%
- **Ultrasonic power:** 50X number of transducers X70%-50X number of transducers X90%

Note: Because of the ultrasonic working principle of high-frequency vibration to produce ultrasonic signals in the liquid propagation so as to clean the object, when we need to have in the cleaning process Water ripple change before the object surface cleaning out of the dirt from the object, so the ultrasonic drive design is not rectified 220V electricity with capacitors into the Source wave, that is, the electrical signal of the transducer ends of the VPP value is changing, so the power of the transducer work will be lower than the nominal power.

Product warranty

Machine warranty of one year, lifetime maintenance

Product maintenance

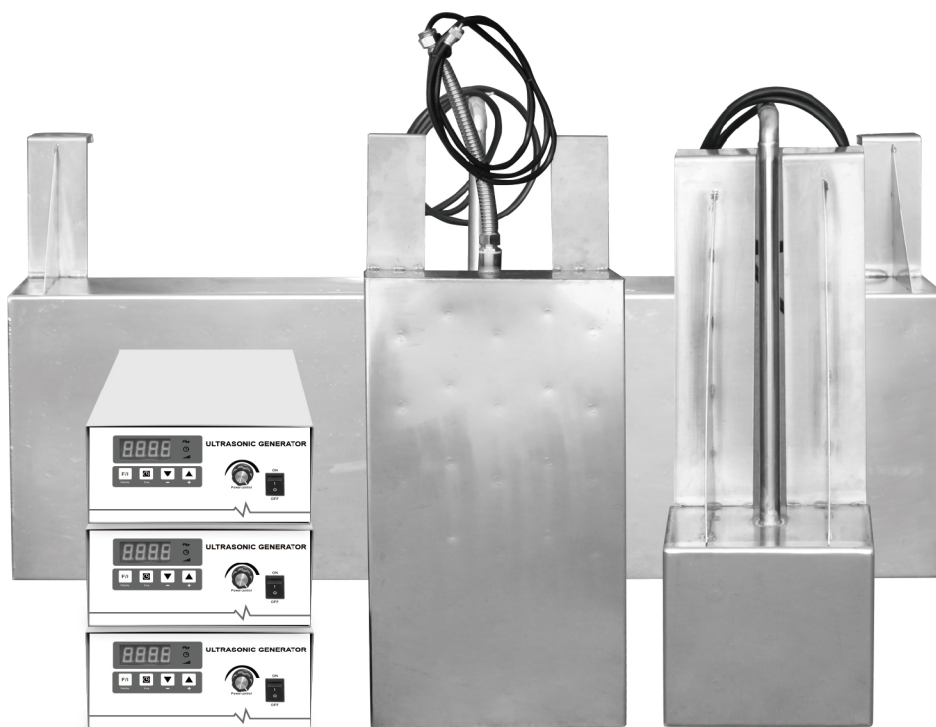
Regularly blow off the dust with high pressure wind on the control part of the machine

Machine parts


Main machine x1 , generator control box x1 , manual warranty card certificate x1


Common troubleshooting methods

1. Power on the display does not light.
 - A. Check whether the switch light is on, if the light is on, it means that the power supply is normal, otherwise please check the power supply.
 - B. Check whether the fuse is damaged, if there is, check whether the transistor is damaged (transistor damage is the performance of 2, 3 feet short circuit).
 - C. Replace the insurance and transistor are normal, then check the display board itself is not bad. If the insurance, crystal, display board are normal, then check whether the auxiliary power transformer is normal.
2. No output
 - A. The load is connected or not.
 - B. Remote control terminals are connected (The remote must be connected correctly to have output), there is a timing function of the model to understand whether the timing to start.
 - C. Whether the motherboard is in good contact with each row of wires.



Series	Ultrasonic vibration plate series						
Model	YK0618	YK1225	YK1830	YK2435	YK3042	YK3650	YK4860
Unit size	280*180*100	360*250*100	410*300*100	500*350*100	550*420*100	620*500*100	750*600*100
Frequency(Khz)	28/40	28/40	28/40	28/40	28/40	28/40	28/40
Transducers/Power (PCS/W)	6/300	12/600	18/900	24/1200	30/1500	36/1800	48/2400
Generator	External	External	External	External	External	External	External
Max power(W)	300	600	900	1200	1500	1800	2400

	Series	Ultrasonic vibration rod						
	Model	YH0320	YH0635	YH0950	YH1265	YH1580	YH1895	YH21105
	Frequency(Khz)	28/40	28/40	28/40	28/40	28/40	28/40	28/40
	Power(W)	150W	300W	450W	600W	750W	900W	1050W
	Transducers(PCS)	3	6	9	12	15	18	21
	Length(mm)	200	350	500	650	800	950	1050
	Diameter(mm)	60/50	60/50	60/50	60/50	60/50	60/50	60/50

	Series	Immersible rhombus ultrasonic vibration rod								
	Model	YHQ1230	YHQ1845	YHQ2460	YHQ3075	YHQ3690	YHQ42105	YHQ48120	YHQ54135	YHQ60140
	Frequency(Khz)	40	40	40	40	40	40	40	40	40
	Power(W)	600W	900W	0-1200W	0-1500W	0-1800W	0-2100W	0-2400W	0-2700W	0-3000W
	Transducers(PCS)	12	18	24	30	36	42	48	54	60
	Length(mm)	300	450	600	750	900	1050	1200	1350	1400
	Diameter(mm)	140	140	140	140	140	140	140	140	140



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Professional teams provide design solutions for OEM/ODM

- Optional size, power and functions
- Frequency: 20/25/28/40/68/80/120/132/200 KHZ
- Voltage: Single-phase 110V/220V Three-phase 220V/380V/415V
- Material: SUS304/SUS316 T2.0/T2.5/T3.0
- Other functions: Filtration, Spray, Bubbling, Drying, Lifting, Throwing, Condensation, Slow-pulling, PLC (Programmable Logic Controller) system, etc.

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