



SWP-H500 Ultrasonic Homogenizer User Manual

Contents

SWP-H500 ULTRASONIC HOMOGENIZER USER MANUAL	1
1 PRODUCT INTRODUCTION	2
2 PRODUCT SPECIFICATION.....	2
3 PRODUCT INSTALLATION	2
4 THE NOTES BEFORE TURNING ON THE MACHINE.....	3
5 CONTROL PANEL	3
6 USING STEPS.....	3
7 AFTER-SALES SERVICES	4

1 Product Introduction

This machine can convert the mains power into high-frequency and high-voltage electrical energy, then the energy will be transmitted to the transducer and converted into high-frequency mechanical vibration. It is then amplified by the energy concentration and amplitude displacement of the titanium alloy probe and acts on the liquid to produce a powerful vibration. Pressure wave, this pressure wave will form millions of microscopic bubbles. With high-frequency vibration, the bubbles will grow rapidly and then suddenly close. When the bubbles close, a powerful shock wave will be generated around them due to the collision between liquids. Pressures of thousands of atmospheres (i.e. ultrasonic cavitation). It causes strong shearing activity at the top of the titanium alloy probe, so that the molecules in the gas are strongly stirred and sheared into finer and more broken pieces.

Ultrasonic cavitation is a unique physical process caused by strong ultrasound in liquid coal medium. It is accompanied by many effects, mainly manifested as: high temperature effect, discharge effect, luminescence effect, jet, impact, pressure effect, etc. This energy is enough to degrade, break, recombine and homogenize cells and various organic substances, as well as disperse and crush nanomaterials.

Please attention that:

- ✓ Before connecting the power supply, please make sure it is within the rated range. Modification of this product is strictly prohibited! Please note that the control panel of the main body will be corroded by organic solutions, strong acids, and strong alkali.
- ✓ Before using, please make sure the ground wire is reliably connected to prevent leakage.
- ✓ Please DO NOT use it in the following harsh environments:
 - ◆ Places with drastic temperature changes.
 - ◆ Where the humidity is too high and dew occurs.
 - ◆ Places with strong vibration or shock.
 - ◆ Where corrosive gas or dust exists.
 - ◆ Places where water, oil, or chemicals are splashed.
 - ◆ Places filled with explosive and flammable gases.

2 Product Specification

- ✓ Power supply voltage: AC220V, -5~+5%
- ✓ Power consumption: 1.0A max
- ✓ Indoor temperature: -10℃~40℃
- ✓ Indoor humidity: 35~85%
- ✓ Product model: SWP-H500

3 Product Installation

- ✓ Please make sure if the product received is consistent with the customized product.
- ✓ Please make sure the accessories received.

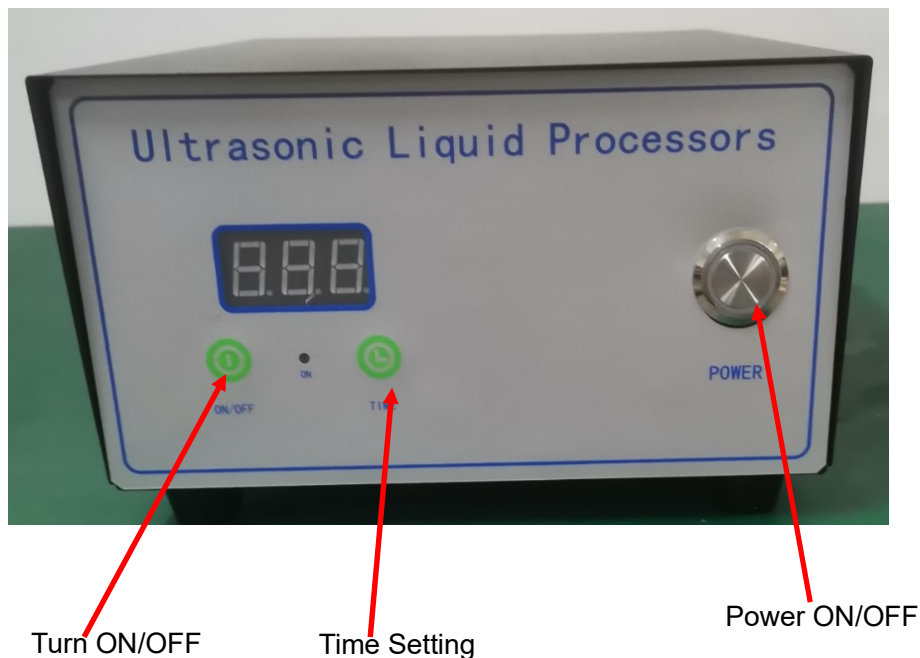
The standard configuration of 1 set processor includes: 1 titanium alloy energy-concentrating rod and an

ultrasonic generator. A power cord of the EU plug, a manual, and a product inspection certificate and warranty card.

4 The notes before turning on the machine

- 1) Set the system activation button to the “OFF” position.
- 2) Do not let the liquid solution splash into the electrical parts.
- 3) Install the cleaning machine in a well-ventilated and dry place.
- 4) The ultrasonic signal output line is connected to the signal plug on the back of the ultrasonic generator.
- 5) When there is no cleaning fluid in the tank, please DO NOT turn on the machine, otherwise the ultrasonic transducer will be damaged.
- 6) Do not splash liquid on the transducer and ultrasonic generator.
- 7) When there is too much sediment in the cleaning tank, the liquid should be discharged and flushed out in time.
- 8) Do not move the equipment when there is still cleaning fluid in the cleaning tank to prevent the cleaning fluid from overflowing.
- 9) The power supply of the ultrasonic generator is 220V 50HZ 10AMP and must be grounded.

5 Control Panel



6 Using steps

- 1) Put in the liquid to be processed. It is absolutely forbidden to start the machine without water or for a long time.



- 2) It is recommended that a single boot time should not exceed 10 minutes.
- 3) Start processing (you can pay attention to the effect at any time during the processing and make appropriate adjustments).
- 4) Please turn off the power after completing the work.

7 After-sales services

- 1) The warranty period of this product is one year. The titanium alloy probe is a wearing part and has a three-month warranty.
- 2) During the warranty period, any malfunction that occurs under normal use in accordance with the instruction manual (determined by our company's formal staff) will be repaired free of charge.
- 3) During the warranty period, if one of the following situations occurs, it must be repaired for a fee:
 - a) Unable to provide this warranty and valid purchase receipt.
 - b) Failure and damage caused by incorrect use and improper repair by yourself.
 - c) Failure or damage caused by transportation, moving, or falling after purchase.
 - d) Failure and damage caused by other unavoidable external factors.
 - e) Damage caused by water or other solutions entering the equipment due to improper use.
 - f) Damage caused by using other than specified power supply and voltage.
- 4) Only the above guarantees are made, and no other express or implied guarantees (including implied guarantees of merchantability, reasonableness and adaptability to a specific application, etc.) are made, regardless of contract or civil negligence. , or otherwise, the company is not responsible for any special, incidental or indirect damages.