Zirconia Sintering Furnace

Instruction Manual

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一. Overview

Thank you very much for purchasing and using CERAMAN's products. This series of sintering furnaces adopts an ergonomic appearance design, with a novel design and reasonable structure. Utilizing modern mechanical manufacturing and processing equipment to produce and manufacture products with exquisite workmanship and superior quality. The high-temperature furnace liner is made of imported alumina lightweight fiber material with excellent insulation performance, environmental protection, and pollution-free performance; The control interface is a 7-inch high-definition true color LCD touch screen, with graphic display and easy operation. The imported PID intelligent temperature control has high temperature control accuracy and reliable operation.

Please read this operation manual carefully before using this product.

二. Technical Parameter

Temperature control accuracy: ±1°C
Touch screen size: 7" true color
Rated power: ≤2KW
Number of programs: 24 programs
Number and model of heating rods: 4 pcs of 1850 high-purity silicon-molybdenum rods
Sensor type: S shape double platinum rhodium
Maximum temperature: 1560°C
Operating temperature: ≤1550℃

Heating rate: 0 ～ 30 degrees/minute (0 ～ 500 degrees)
0 ～ 10 degrees/minute (500 ~ 1200 degrees)
0 ～ 12 degrees/minute (100 ～ 1530 degrees)
Furnace size: Ø110mm × 130mm

Dimension size: width 37 × depth 53 × height 78cm

Equipment weight: about 45kg

三． Parts list

Serial number	Name	Reference image	Unit	Quantity
1	Zirconia Sintering Furnace		set	1
2	Zirconia slow burning crucible		pcs	2
3	Special fast burning crucible		pcs	1
4	Crucible Tongs Crucible Tongs for fast burning crucible		pcs	Each 1pcs
5	Sintered beads		bag	1
6	Stove		pcs	1

四． Introduction to Equipment Structure

①： Sintering furnace body ②： Bottom tray ③： Youch screen control panel

五. Equipment Installation

1. installation tips：

※ Open the packing wooden box, check whether the equipment is in good condition, and check whether the accompanying accessories are complete according to the packing list.。

※ Place the furnace body on a dry, ventilated, and dust-free indoor platform, and the distance from other surrounding objects should not be less than 25cm, so that the equipment can have good ventilation and heat dissipation conditions when it works normally.

※ Attention should be paid to the heat resistance of the peripheral equipment of the device. The device will release a certain amount of heat to the surrounding environment during use, and the heat value is within the safe range. Possibility of causing discoloration of peripheral equipment casings.

※ It is strictly forbidden to place flammable and explosive materials around the furnace body.

3, When installing the power cord of the equipment, please pay attention to the power supply mark on the power cord of the equipment, and do not use

The power supply voltage is introduced (the domestic power supply is 220V/ 50HZ), so as not to cause damage to the control system, please turn off the power supply when not in use.

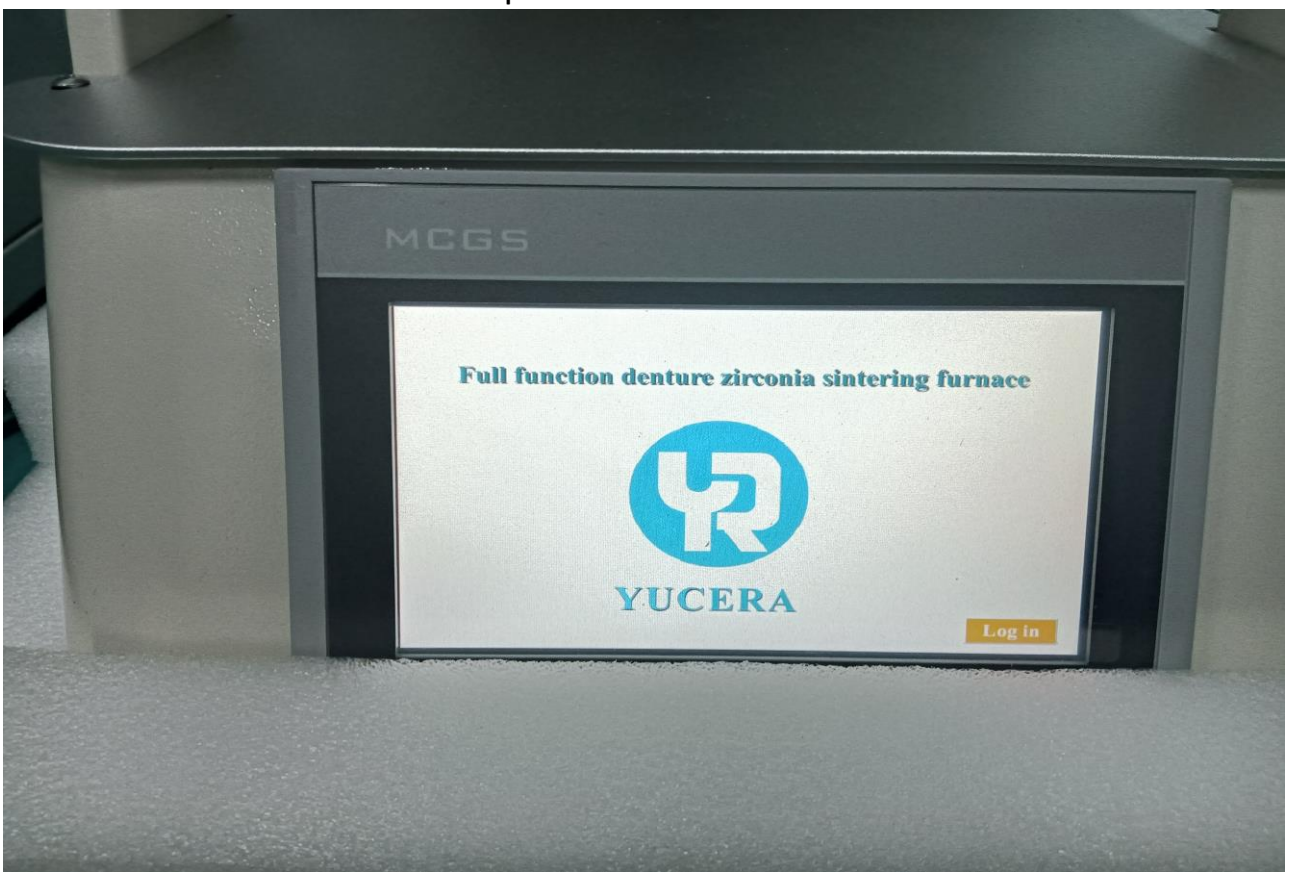
Note: This device is a 2kw high-power device, please plug it into a socket with guaranteed quality, and ensure that the power supply line of the socket is more than 2.5 square meters.

六. Startup

The main power switch on the side of the machine screen, push it up to open.

七. Equipment Operation

A※The touch screen startup interface is as follows:



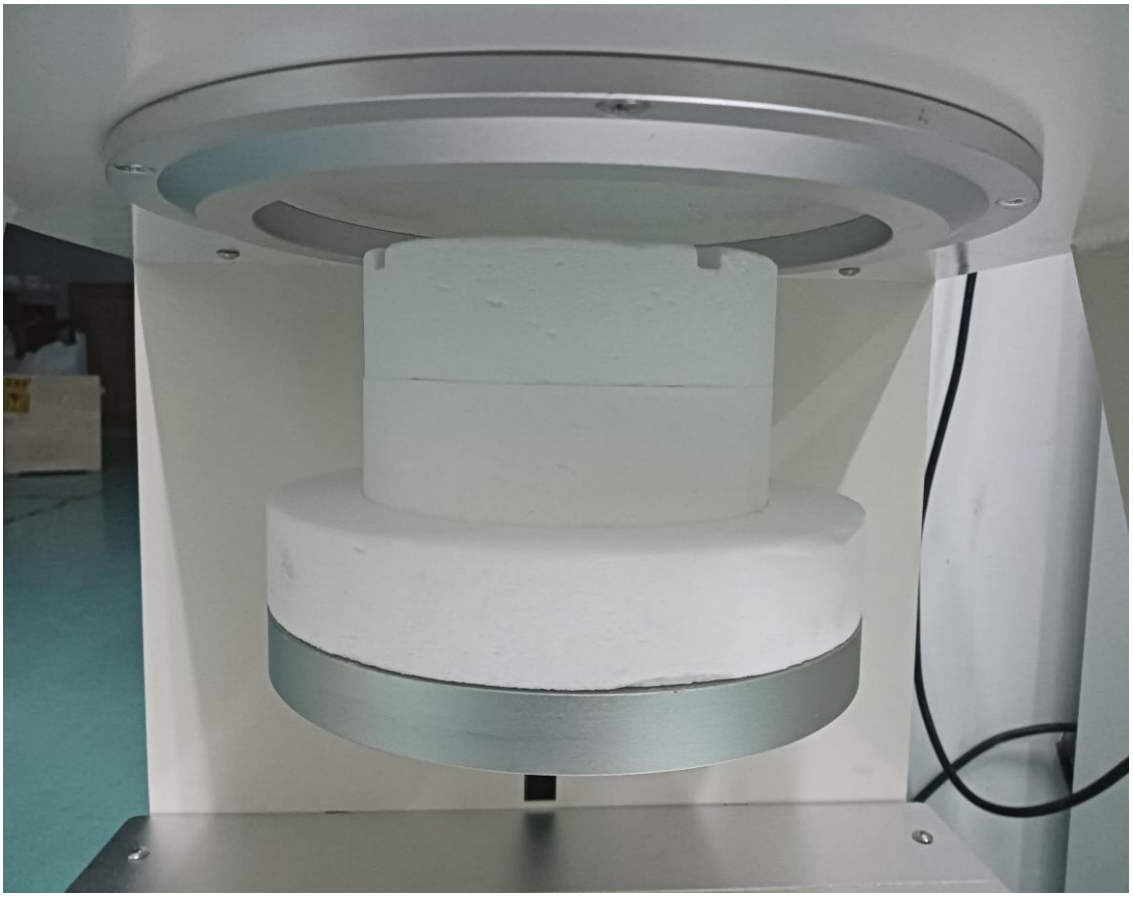
Log in to the main display

General steps：

1， Select the curve, confirm the curve

2.1, P1-P16 of this machine is a slow-burning curve, and the starting temperature of the furnace platform lowering is ≤500°C，
2.2, P17-24 is a special curve for fast burning, and the starting temperature of the stove base is ≤1000°C. Be sure to choose a special crucible for fast burning.
2.3 ,4 fast-burning reference curves are set in advance for customers to choose.

2，Check that the crucible is in the middle of the stovetop

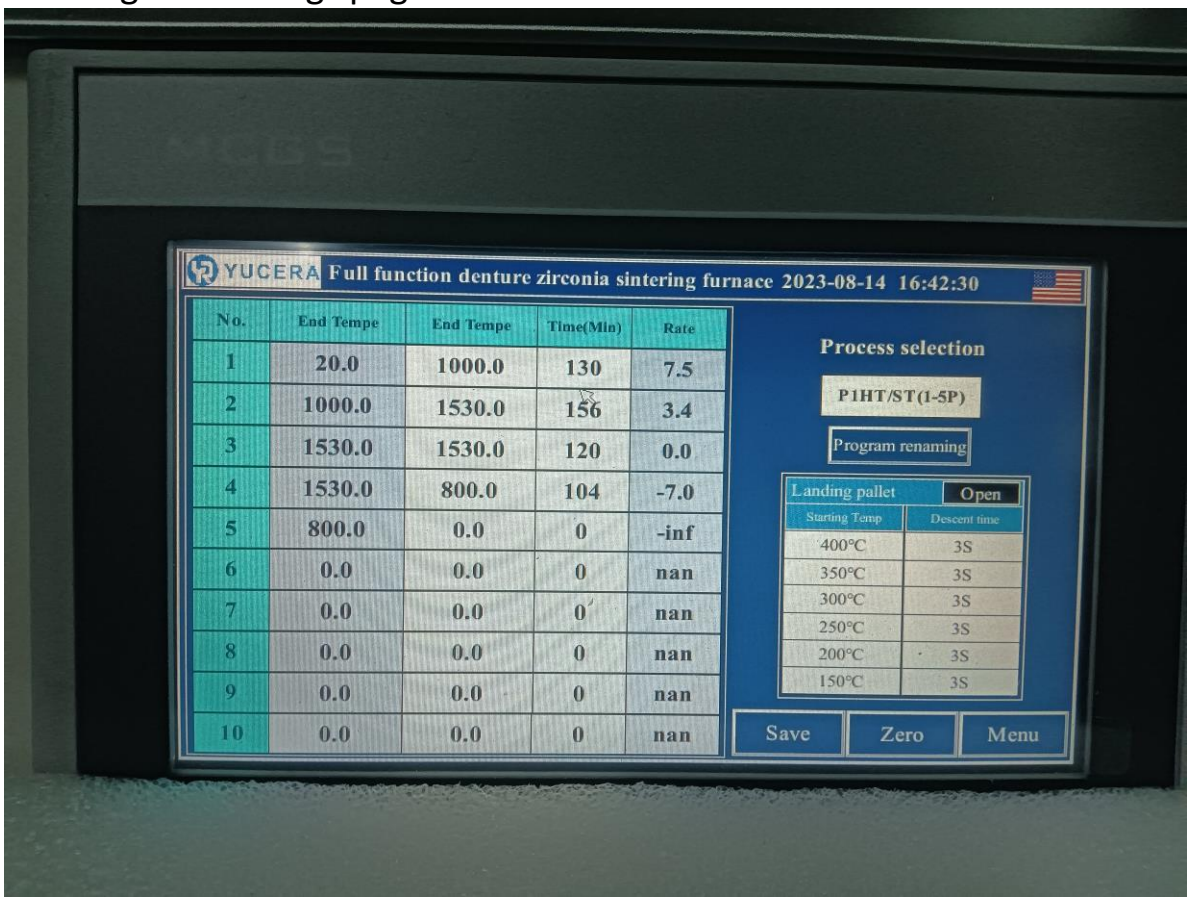


3，Click "Start", click "OK" to start, realize one-key start and run

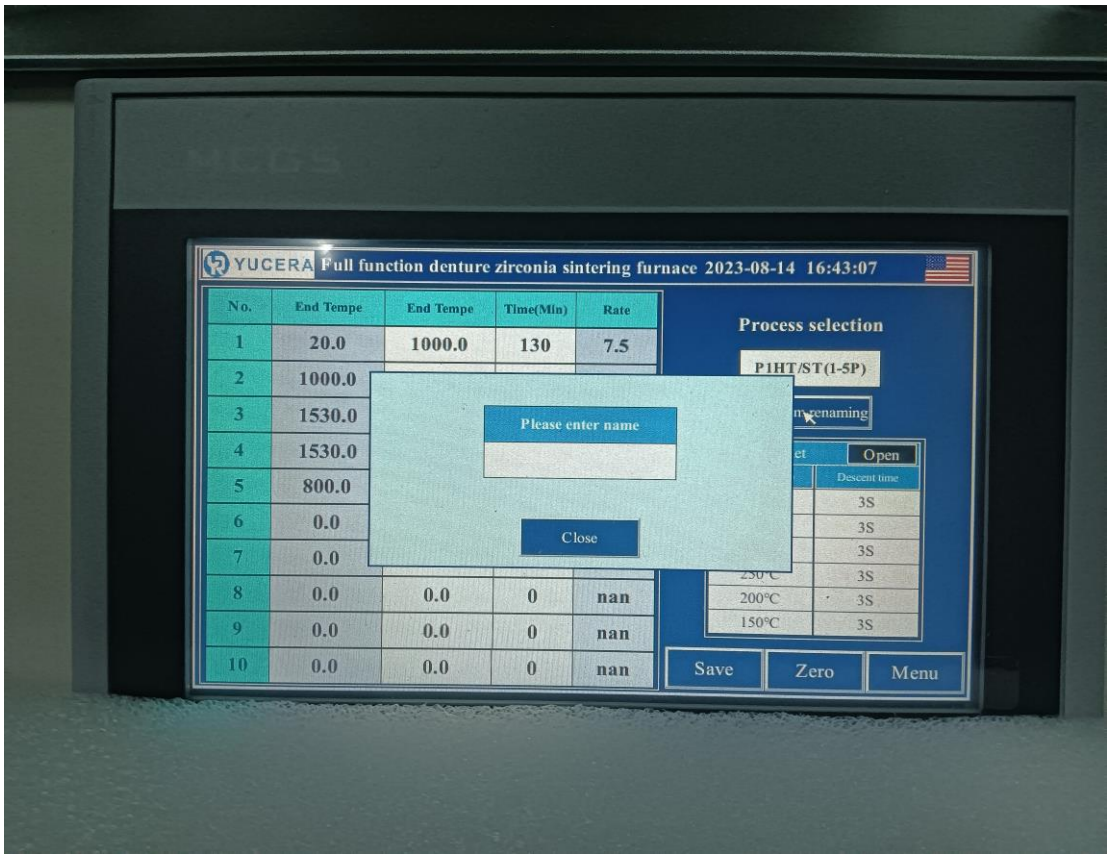
B※Program curve setting steps

1， Click "Menu", 2 Click "Curve Settings",

2， Program settings page introduction.



3， Customers modify the curve name by themselves



八、Product Highlights

- CERAMAN technology zirconia fast-slow integrated sintering furnace is a new presentation. The heat preservation furnace made of imported raw materials is equipped with 1850-type high-standard silicon-molybdenum rods, so that each crown has excellent performance, and only uses a maximum power of 2 kilowatts, about 2.3 degrees The sintering of about 15 crowns can be achieved in the fastest 90 minutes. Traditional 10-hour slow burning can be done by stacking two layers of crucibles with a diameter of 100mm, and the sintering can be completed with only 8.5 degrees of electricity. It can be fast or slow, it can be in the factory or beside the chair, saving energy and electricity, and the whole machine is guaranteed for one year. It is another best choice for your future development!
- 1、Integrated fast-burning and slow-burning furnace, which reduces the equipment purchase cost of the factory
- 2、The sintering of the front tooth single crown can be completed in 90 minutes at the fastest, and it can be delivered for polishing in 2 hours. The sintering effect can be achieved in 5-7 hours of daily use, and the color is transparent and not easy to deform. Even if the sintering is carried out late at night, it will not affect the progress of the next day's grinding, which improves the production efficiency of the factory.
- 3、This furnace has 24 sintering programs, 4 of which are preset curve programs by the furnace manufacturer for customers' reference.
- 4 、A factory with a large amount of teeth can be sintered three times a day without affecting normal shipments, the color is accurate and pollution-free.

九、Note：

【A】When the stove is used for the first time or after a long period of non-use, it should be fired under normal procedures. The furnace temperature must not exceed the rated temperature, so as not to damage the heating element and furnace lining.

【B】After the program runs, it will automatically enter the stop state.

【C】When the equipment is not in use, the lifting platform should be lifted to the top to ensure the dryness of the furnace cavity.

十. Maintenance

【A】 During high temperature sintering, please do not open the furnace. Because this is not only dangerous, but also the heating element is easily bent and deformed due to sudden changes in temperature, and the furnace is also prone to cracking and damage.

【B】 After sintering, please confirm whether the temperature in the furnace is lower than 300°C. If the temperature in the furnace is higher than 300°C, please do not cut off the power supply. This will cause the cooling fan to stop working, and the surface temperature of the furnace may rise sharply, damaging the furnace body.

【C】 When the furnace is used for the first time or after a long period of non-use, it should be baked at about 120°C for 1 hour, and at about 300°C for 2 hours before use, so as not to cause the furnace to crack. The furnace temperature must not exceed the rated temperature, so as not to damage the heating element and furnace lining. It is forbidden to directly pour various liquids and dissolved metals into the furnace to keep the furnace clean.

【D】The furnace body uses silicon-molybdenum rods as heating elements. According to the physical characteristics of silicon-molybdenum rods, they are very brittle at room temperature. Therefore, the furnace body cannot be disassembled and moved at will after the heating elements are installed.

【E】 When the cold furnace is used, since the furnace is cold, a large amount of heat must be absorbed, so the temperature rise rate of the low temperature section should not be too fast, and the temperature rise rate difference of each temperature section should not be too large. When setting the temperature rise rate, the physical and chemical properties of the sintered material should be fully considered. , so as to avoid the phenomenon of spraying and polluting the furnace.

【F】Regularly check whether the contact of the electrical connection part of the temperature control system is good, and special attention should be paid to the connection and fastening of each connection point of the heating element

【G】 When silicon-molybdenum rods are used as heating elements, it is not suitable to operate at a temperature range of 400-700 °C for a long time, otherwise the silicon carbide rods will be oxidized at low temperature.

【H】The furnace is suitable for the following working conditions:

1) The ambient temperature is between -10 and 75°C;
2) The relative humidity of the surrounding environment does not exceed 85%;
3) There is no conductive dust, explosive gas and serious damage to metal and insulating materials around the furnace corrosive gas
body.
4) There is no obvious tilt, vibration and bump.

【L】Under the condition that the user abides by the storage, use, installation and transportation regulations, if the product is damaged due to product quality problems and cannot work normally within 12 months from the date of delivery by our company, our company will provide the user with a warranty service for the whole machine (Man-made damage is excluded). After the warranty period expires, our company will continue to provide paid lifetime maintenance according to user requirements.

Note: The heating element is a consumable, But the company still guarantees 12

months.

If you encounter any problems during use, please contact us in time.