

Heytemp -T61

Instructions for Use of Porcelain Casting Furnace



TABLE OF CONTENTS

1. SAFETY AND CLEANING	2
2. THE INTRODUCTION FOR THE PORCELAIN FURNACE PRESS	2
2. 1 THE FUNCTIONS OF Heytemp-T61 PORCELAIN CASTING FURNACE	2
2.2 THE INTRODUCTION OF SPECIFICATIONS	3
2.3 AMBIENT CONDITIONS	3
2.4 DEVICE IN BOX COMPLETE WITH	3
3.SAFETY INSTRUCTIONS	3
3. 1 PICTOGRAMS	3
4. INSTALLMENT AND START UP	3
4. 1 THE PLACE OF INSTALLMENT	3
4.2 CONNECTING THE DEVICE TO THE MAINS POWER SUPPLY	4
4.3 PORCELAIN FURNACE PRESS STAND BY MODE INTRODUCTION	4
5. FURNACE HARDWARE (AND ACCESSORIES) INSTRUCTIONS	4
5. 1 FUSES	4
5.2 FAN	4
5.3 SPARE PARTS	4
6. WARRANTY AND LIABILITY	4
7. DESCRIPTION OF THE FURNACE	4
7. 1 OPERATION PANEL	4
7.2 BUTTONS NAMES	5
7.3THE DISPLAYS INTERFACE	5
7.4 CHOOSE A CURRENT FIRING PROGRAM	5
7.5SET PARAMETERS FOR A PROGRAM	5
7.6 COMPREHENSIVE PARAMETER SETTING	6
7.7 BUTTONS NAMES	6
7.8 VACUUM TEST	7
7.9 TEMPERATURE FIX	7
7. 10 IDEL TEMPERATURE	8
7. 11 1MOTOR SPEED	8
7. 12 PAN POS	9
7. 13 RESTORE FACTORY	9
7. 14 CLEAN MODE	10
7. 15 SOUND	10
7.16FURNACE HEALTH	10
7.17PRESS SET	10
7. 18 ABOUT	11
7. 19 START A FIRING/CASTING PROGRAM	11
7. 20 STOP A FIRING/CASTING PROGRAM	12
8.TROUBLE SHOOTING	13

1.SAFETY AND CLEANING

1. Porcelain furnace PRESS is use for firing ceramic or Ingot casting materials of teeth.
2. The device must be put at least 25-30cm away from the wall.Be assure that the Porcelain furnace PRESS must be under normal ventilation environment.
3. The sockets must be put near the power source.The instrument board behind must be connected firmly.
4. Do not operate near by inflammable.
5. Please use dry or a little wet cloth clean the surface of the Porcelain furnace PRESS.Do not use solvent or other liquid cleaner to purify the control panel.Please do not let the liquid seep into the Porcelain furnace PRESS.
6. Damages caused by mis-operation can not be included in warranty scope.
7. In order to the best work environment,we suggest you use a exclusive circuit. The socket use an overload resistant protector would be best.The three-phase circuit must have a dedicated line for a reliable groundingwire.
8. Before any maintenance,you must plug off from the electrical socket .
9. In order to avoid any accident of serious scald,please use proper instrument to put in or move the objects .
10. Do not use nippers or other instrument to operate the furnace,these instruments may damage the screen or the membrane.
11. The firing deck is a movable (up or down)part.The to-and-fro motion is controlled by the program.
12. The inner place of the furnace include fireproof ceramic-fiber and porcelain dust,these may be released by the movement of opening.Once these materials are inhaled by human,it may cause cancer.The dust can irritate the skin and eyes,cause the respiratory tract hoarse or fester.Do not use condense air blow the dust into the work environment.

CAUTIONS:

1. Please read the instruction carefully before you use the furnace.If you do not use the device according to the manual,the life span of the Porcelain furnace PRESS may be reduced.
2. The producer do not take the responsibility of lost caused by fault operation or misunderstand of the instruction.
3. Before move or assemle the furnace,please cool down the temperature.
4. Be careful for the part of high temperature when the device is operating.
5. The device is constructed according to a state of the art design and recognized safety regulations. However, if it is used inappropriately, hazards for the health and safety of the user or third parties may arise as well as the risk of damaging the device and other valuable assets.
6. After the back-plate has been removed, a voltage of up to 400 volts may still exist in components in the area of the power supply unit on the circuit board, even when the device is switched off.

The manufacturer is not liable for accidents to the user occurring when the device is open!

7. The standard for the user disassemble the instrument privately is depend on whether the easily damaged sticker is damaged.
8. Never start up the device without the firing socket attached.
9. In continuous operation (max. final temperature, max. firing time), some parts of the firing chamber may reach high temperatures (above 70 °C).
10. Do not reach into the open firing chamber when the device is switched on. There is a risk of touching electrically live or hot parts.

2.THE INTRUDUCTION FOR THE PROCELAIN FURNACE PRESS

2.1 THE FUNCTIONS OF PROCELAIN FURNACE PRESS:

- Motor driven die casting mode, no gas source, constant pressure, adjustable speed, high success rate of die casting.
- Fully compatible with the function of porcelain furnace, it can automatically switch to porcelain furnace mode or porcelain casting furnace mode according to the selected program.
- Voice prompt function.
- High quality temperature automatic adjustment function, to ensure that the actual temperature error within + / - 1 degrees.
- Precision stepper motor drive, smooth free operation and no jitter.
- Quartz spiral furnace.
- Automatic temperature calibration before each baking procedure.
- Low noise tray, programmable speed.
- True color touch screen, easy to operate.
- 50 custom programs and built-in programs.
- Status indication.
- The die-casting pressure can be adjusted.
- Crack detection function.
- Die casting distance display.

2.2 THE INTRODUCTION OF SPECIFICATIONS:

OPERATION:

The velocity of temperature increasing: 200C/min max. (392°F /minute)

The max temperature: : 1200C max

(2283°F) The time which can be kept at the max temperature: 2 H Vacuum level:-97kpa

ELECTRIC POWER:

Operation range: 100- 120V 50/60HZ 230V 50/60HZ

Electric current: 14.5ampere@110V 7.0ampere@230V

Power: max 1500w

TYPICAL SPECIFICATION:

WXDXH :width 27cm Depth 36cm Height 70cm

Usable measure (firing chamber): 9cm (3.5")

Net weight: 23Kg

Weight include the package:26.5Kg

2.3 AMBIENT CONDITIONS

- Indoor use
- Ambient temperature: 2°C to 40°C
- Relative humidity 80% at 31°C
- Maximum altitude: 1500 m (Special Model:3500m)
- Rated voltage fluctuations must not exceed plus/minus 10% of the rated voltage

2.4 DEVICE IN BOX COMPLETE WITH:

- 1PHOENIX furnace.pressed.
- 1 firing pan
- 1 connection cable for the mains power supply
- 1 furnace tweezers
- 1 Tongs
- 2 Press rod
- 1 Embedding ring 100g
- 1 Cooling rack

3. SAFETY INSTRUCTIONS

3.1 PICTOGRAMS



This pictogram warns injured voltage. Before opening the device, it must be pulling out the mains plug.



This pictogram warns the hot surfaces. Burn injuries may occur.



This pictogram warns may cause personal injury or damage to the device.



This pictogram show useful tips, explanations and additional information.

4. INSTALLMENT AND START UP

4.1 THE PLACE OF INSTALLMENT

- The Porcelain furnace PRESS must be installed in the dry room,and it must be put at least 25cm away from the wall.

- If the temperature is below 15 °C (59 °F) (e.g. after transport), leave the device to stand for approx. 30 minutes before using it for the first time at room temperature.
- Ensure that the device is on a heat-resistant surface. The radiation and heating of the device is in the non-hazardous range. However, heat-sensitive surfaces of furniture and veneers could become somewhat discolored over time due to the constant influence of heat.
- Please avoid direct sunlight.
- MUST NOT put flammable around the Porcelain furnace PRESS.

4.2 CONNECTING THE DEVICE TO THE MAINS POWER SUPPLY

- A 、 Connect the vacuum pump, power supply and tube connection.
 - B 、 Connect the device to the mains power supply using the supplied mains power cable.
- Avoid connecting to multiple-outlet power strips with extension cords. In the event of overloading, a risk of fire exists.
- Never start up the device without the firing socket attached!

4.3 PROCELAIN FURNACE PRESS STAND BY MODE INTRODUCTION

Idle temperature:

Idle temperature is Porcelain furnace PRESS not in firing ,a temperature value user hope to it static. The furnace will automatically adjust the idle temperature according to the current mode.

Sound:

If sound function on,there will be a beep that press any key.

5、 FURNACE HARDWARE (AND ACCESSORIES) INSTRUCTIONS

5.1 FUSES

On the back of the device, there are 2 device fuses. The identification plates show information about the fuse ratings used in the device. Fuses with other ratings must not be used.
230V T8H250V 100/1 10V T20H250V

5.2 FAN

The device is equipped with a fan. Activation, deactivation of the fan are controlled automatically. The fan prevents excessive heating of the device and contributes to its general operating safety. For safety reasons, the device must not be operated without a fan. The upper cover of the firing chamber and the openings in the rear cover must not be closed or blocked.

5.3 SPARE PARTS

Spare parts must comply with the technical requirements determined by the manufacturer. This is always assured when using original spare parts .

6. WARRANTY AND LIABILITY

The PHOENIX furnace provide 1 years (Furnace, Resistance wire, Thermocouple provide one-year warranty) limited warranty: warranty starting from goods delivery for the first vendors. Vacuum pump warranty time base on its instruction.

7. DESCRIPTION OF THE FURNACE

7.1 OPERATION PANEL



7.2 BUTTONS NAMES:

[FIRING/PRESS] :Enter the sintering or die casting interface.
[STANDARD]:Standard procedure selection.
[CUSTOM]:Custom program selection.
[PROGRAM]:Program parameter setting interface.
[SET]:Other settings.
[UP]:The tray rises.
[DOWN]:Tray down.

7.3 THE DISPLAYS INTERFACE

P 01: The current chosen program ID is 01.The following is the name of the programme.
VITA = programme name
TEMPERATURE 27C: The furnace temperature 27C.

7.4 CHOOSE A CURRENT FIRING PROGRAM

Press [CUSTOM] enter program ID choose interface , as follow



Press program number ,then it will jump a soft keyboard.Use the key 0-9 input a program ID which you want,input the number,press OK complete the current program number choose. If input wrong program number ,press BACK to cancel.

You can also use the **PROGRAM SETING** interface to select the program with "previous page, next page"button.

You can also press "**STANDARD PROGRAM**" to call the built-in program directly.

NOTE:The built-in program of Standard Program corresponds to the program number, and the standard program 1 corresponds to the program number 1. The parameters of standard built-in program 1 can be edited by editing program 1.

7.5 SET PARAMETERS FOR A PROGRAM

Press [program-set] to enter the program parameter setting interface. Press "previous page, next page" to select a program, and finally input 10 parameters in turn to complete the parameter setting of the current program.



Input parameters ok then please press key **[SAVE]** to save, Press **[CANCEL]** back.
Parameters table:

Parameter	Explain	Unit	
1. 1 PRE-DRY	Pre drying temperature	°C	
1.2 PRE-TIM	Pre drying time	s	
1.3 RATE	Temperature rate	°C/min	
1.4 FIR-TEM	maximum temperature	°C	
1.5 HOLD-TIM	Maximum temperature holding time	s	
1.6 COOL-TIM	Cooling time	s	
1.7 VACUUM	Vacuum level	ON or OFF	
1. 8 P-PREHEAT TIME	Preheating time of ring	s	
1. 9 END-SPEED	Stop speed	um/min	
1.10 File Name	File name of the program	Users can freely change the name of the program, just press the program name on the set interface.	

P-PREHEAT TIME: preheating time of embedding ring in furnace before die casting.

END-SPEED: the final stop speed of die casting rod. If the end speed is higher, the die press time is short. If the end speed is smaller, the press time will long. When the end speed is set to any value other than 0. This program is a die casting program. When the end speed is set to 0, the current program is porcelain program. The programme was performed in porcelain mode.

Error parameters remind:

When you input a program parameter or other parameters, you input a parameter the system can not run, or the parameter with Logic errors, system will automatic change into the maximum/minimum limit value.

7.6 COMPREHENSIVE PARAMETER SETTING

Press **[SET]** into SET interface, as follow:



7.7 BUTTONS NAMES:

[VACUUM TEST]: Start a Vacuum test.

[CORRECTION]: Fix the temperature correction.

[IDLE TEM]: Input the idle temperature. Idle temperature is Porcelain furnace PRESS not in firing ,a temperature value user hope to it static.

[MOTOR SPEED]: Pan speed set. Too fast or too slow will cause noise.

[PAN POS]: Starting the program, in the Pre-dry stage, the pan will up two times ,this set are two up position.

[RESTORE FACTORY]: Restore to factory settings.

[CLEAN MODE]: Porcelain furnace PRESS impurity.

[SOUND]: Set Sound ON or OFF.

[FURNACE HEALTH]: Health status of porcelain furnace.

[PRESS SET]: Setting of casting related parameters

[ABOUT]: About Porcelain furnace PRESS.

[BACK]: Back to main interface.

7.8 VACUUM TEST



Press [START] to start vacuum test.

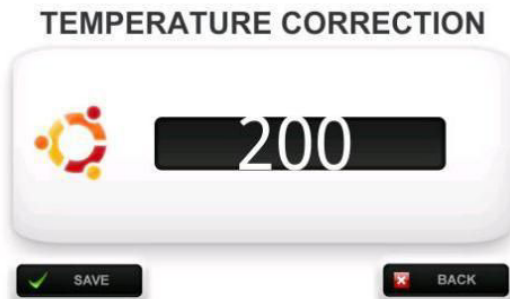
Notice : before the test must up the pan upper.

If the time run out 60 sec the vacuum more than 90% is qualified, or not the test failure.

However, it should be noted that if the altitude is high, the vacuum may reach 80%, but the vacuum is OK.

Press [STOP] to STOP vacuum test.

7.9 TEMPERATURE FIX



Temperature adjustment automatically before every firing procedure. But we still provide manual methods of temperature correction.

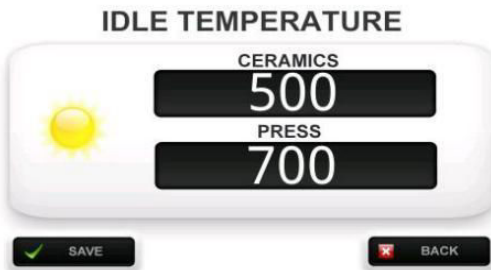
When the thermocouple is used for a long time, the thermocouple itself will produce deviation. We provide manual calibration to correct this error.

The specific operation is to use the silver ball for calibration, place the silver ball on the burning rack, and observe the silver ball after running the calibration procedure: complete melting minus 5 degrees, non melting plus 5 degrees. The semi melting state is normal temperature. Continuous fine adjustment and correction of parameters can adjust the furnace temperature to an accurate range.

Fix value 200 as the center, to increase this number means that reduce the actual temperature, reduce this number means increasing the actual temperature, usually this value is 200 .

Press [SAVE] to save temperature fix.
Press [BACK] to back to main interface.

7.10 IDEL TEMPERATURE



Idle temperature is Porcelain furnace PRESS not in firing ,a temperature value user hope to it static. The idle temperature of the casting furnace will be automatically adjusted according to the selected program type. When the casting program is selected, the idle temperature of the casting program will be automatically maintained. When the selection is porcelain program, the idle temperature of porcelain program is automatically selected.



The vacuum test will switch off the heating, The temperature may reduce when the vacuum test is completed, this is a normal phenomenon, will be restored after some time.
Press [SAVE] to save idle temperature.
Press [BACK] to back to main interface.

7.11 MOTOR SPEED



Pan speed set.Too fast or too slow will cause noise.

Press [SAVE] to save motor speed.

Press [BACK] to back to main interface.

7.12 PAN POS



Starting the program, in the Pre-dry stage, the pan will up two times , this set are two up position. This two parameters is very useful for steam

Pre-evaporation, adjusted according to practical experience required.

Press [SAVE] to save Pan position.

Press [BACK] to back to main interface.

7.13 RESTORE FACTORY



Press [RESTORE] to restore to factory setting .

Press [BACK] to back to main interface.

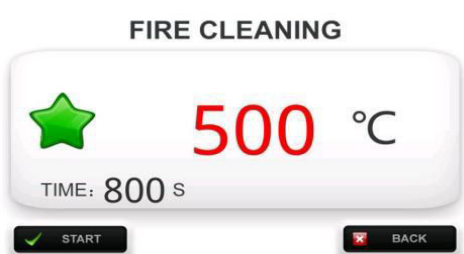


Press [RESTORE]A dialog box will pop up for asking the user continue or NOT,press CONTINUE to restore the factory data.CANCEL to abort.



This operation will restore all parameters back to factory set.

7.14 CLEAN MODE



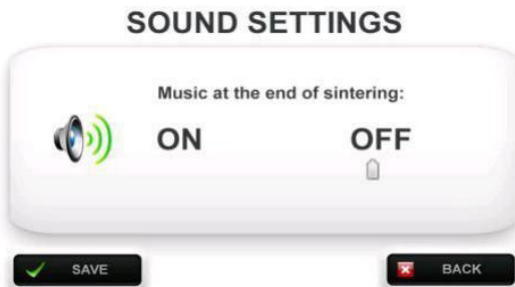
Press [START] to start clean mode .
Press [BACK] to back to main interface.

User must placed the activated carbon on the pan,then up the pan upper.



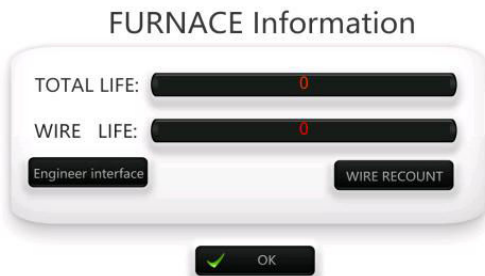
User must proper treatment the activated carbon which is used, discarded will occurrence fire.

7.15 SOUND



Use the scroll bar select sound ON or OFF.
Press [SAVE] to save sound statu .
Press [BACK] to back to main interface.

7.16 FURNACE HEALTH



The individual life of the furnace wire and the total working life of the porcelain furnace are shown here. After replacing the furnace wire each time, press wire count to reset the current furnace wire life counter. However, the overall life of the porcelain oven cannot be reset.

Press [OK] to back to main interface.

7.17 PRESS SET

PRESS SETTING



PRE DIE-CASTING TIME: 120 S

DIE-CASTING PRESSURE: 250 N

ACTIVATION CRACK DETECTION: 1 1=ON
0=OFF

INFRARED TEMPERATURE
COMPENSATION 1=ON
0=OFF

✓
SAVE

✗
BACK

These parameters control the overall pressure process. Please ask the service provider when changing these parameters.

PRE DIE-CASTING TIME: When entering the main die-casting procedure, the pre-die-casting time under constant pressure.

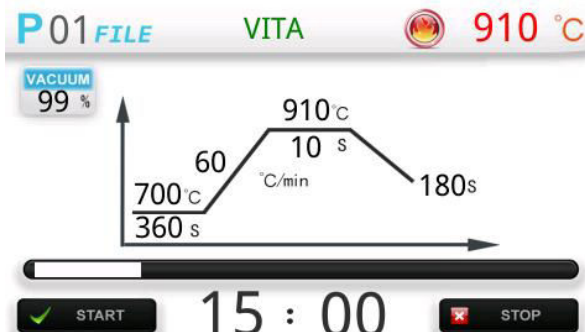
DIE-CASTING PRESSURE: Die casting pressure: different pressure values are selected according to the strength of different embedded materials. It is generally recommended to be between 200 and 350. The greater the pressure, the faster the completion time of die casting.

ACTIVATION CRACK DETECTION: When this option is activated, the press furnace will automatically reduce the pressure when the embedded ring is found to be crack. After a period of time, stop the die casting.

7.18 ABOUT

Contains the version dates and other information.

7.19 START A FIRING/CASTING PROGRAM

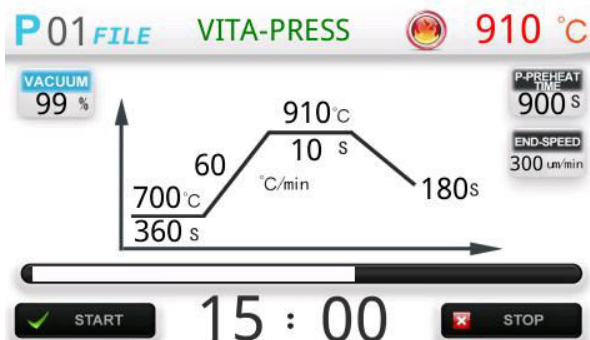


The program will automatically enter the [Sintering] or [Die Casting] interface according to the program type selected by the user.

If you choose porcelain sintering process:

press [START] to start a firing program, the current firing program number which is the Program ID display number, pan will automatic down to the bottom, after ,you can put the porcelain teeth in the firing pan, It will automatically complete the firing process.

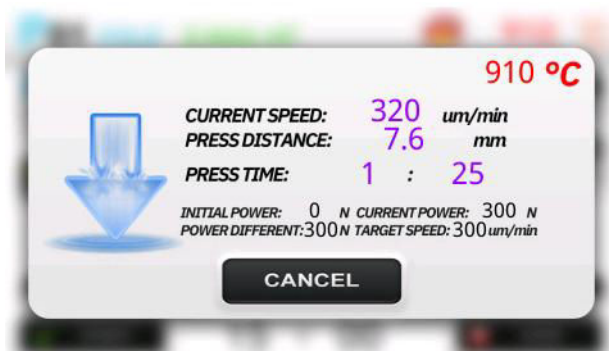
If you choose the casting process:



At this time, the necessary items such as embedding ring, casting block and push rod should be ready. After placing the embedding ring, press [start] to start a die casting process.

Information displayed during die casting:

When pressing, the following information will be displayed:



When the current stop speed is less than the target stop speed, die casting will automatically terminate and die casting will be completed.

7.20 STOP A FIRING/CASTING PROGRAM

When a firing/casting program is running, press [STOP] to stop a firing/casting program, system will back to the main Interface and temperature will stable at stand by temperature when the program end.

8. TROUBLE SHOOTING

In case of the following fault, please contact customer service:

- Hardware failures: Memory chips ,real time chips,or the other problem,Power off to restart.
- Temperature failures: After start up,the display of temperature too large,or temperature too small,may be the thermocouple damage cause the Porcelain furnace PRESS temperature display too hot or too cold ,for this ,please turn off the power and restart,then to check out the temperature control.
- The parameters value for program may beyond the Max value,the Factory Settings of max temperature cannot exceed 1200 (unitsC), vacuum value cannot exceed 1 10 (%), time can not exceed 9999 (S), limit temperature cannot exceed 1000 (C).

Vacuum pump troubleshooting:

- Check the connection of vacuum pump tube with furnace connector. Check the vacuum Power Fuse. Detection the moisture inside the furnace.
- Start vacuum testing, check the pump on or off
- Confirm vacuum pump power plug connect Porcelain furnace PRESS socket
- Check vacuum tubes road leaks.
- Check on the platform of the furnace whether o-rings have crack, or particles may cause leakage, check with cooperate of surface.
- Use external instrument check vacuum pump value

If vacuum pump without problem , Follow the following solutions:

- 1.check whether the O-ring on the drying platform has cracks or particles that may cause leakage, and check the mating surface .
2. check whether the circuit and air circuit of the vacuum pump are independent.
3. check whether there are debris and particles blocking the pipeline at the air inlet of the furnace.

目 录

一、安全和清	-----	1 5
二、压铸炉简介	-----	1 5
2.1 PHOENIX 压铸炉的功能特点	-----	1 5
2.2 规格介绍	-----	1 5
2.3 设备清单	-----	1 6
三、安全标识	-----	1 6
3.1 标识	-----	1 6
四、安装与启动	-----	1 6
4.1 安装位置	-----	1 6
4.2 压铸炉与主要附件的连接	-----	1 6
4.3 快插接头使用方法	-----	1 7
4.4 将导气管从快插接头中拔出	-----	1 7
4.5 压铸炉待机界面快速入门	-----	1 7
五、压铸炉硬件（及配件）的说明维护	-----	1 7
5.1 保险丝	-----	1 7
5.2 排风扇	-----	1 7
5.3 零备件	-----	1 7
六、保修责任	-----	1 7
七、压铸炉的正常使用	-----	1 7
7.1 操作面板	-----	1 7
7.2 按键名称介绍	-----	1 7
7.3 显示主界面	-----	1 8
7.4 选择一个当前需要的使用的程序	-----	1 8
7.5 为一个程序设置参数	-----	1 8
7.6 系统参数设定与功能界面	-----	1 9
7.7 系统参数与功能按键名称解释	-----	1 9
7.8 真空度测试	-----	2 0
7.9 温度校准	-----	2 0
7.10 闲置温度	-----	2 1
7.11 电机速度设置	-----	2 1
7.12 托盘位置	-----	2 2
7.13 恢复出厂设置	-----	2 2
7.14 清洁模式	-----	2 3
7.15 声音设定	-----	2 3
7.16 铸瓷炉健康状态	-----	2 3
7.17 铸瓷炉压铸参数设定	-----	2 4
7.18 关于压铸炉	-----	2 4
7.19 开始一个烧结程序/压铸程序	-----	2 4
7.20 停止一个烧结/压铸过程	-----	2 6
八、发现并处理故障	-----	2 6

一、安全和清洁

1. 压铸炉是专门用来烧结牙齿陶瓷材料的。
2. 设备放置至少距离墙壁 25-30cm，保证烤炉正常的通风，台架要接近电源开关，后部仪表板要连接的牢靠。
3. 不要在易燃物附近操作。
4. 用干或微湿的布清洁烤炉的表面。不要在控制面板上用溶剂或者液体清洁剂，保证液体不要流入烤炉。
5. 对于使用或清洁操作不当引起的显示屏损坏，不被列入保修范围。
6. 为了达到最佳的工作环境，建议使用专用的电路，插座最好有超载保护器。专用线应该是有可靠的接地线的三线电路。
7. 在进行任何维护之前，一定要从插座上拔掉烤炉的插头。
8. 为避免可能发生的严重烫伤，用适当的工具从烤炉伸入或者移动对象。
9. 不要用钳子或者其它工具操作烤炉，它们可能损坏按键区域的薄膜。
10. 烧结平台是可（上、下）移动的部分。它的往复动作是由程控的。

注意：

11. 操作前请仔细阅读说明书，如果不依照此手册的方法操作烤炉，有可能减少压铸炉的使用寿命。
12. 制造商不承担由于操作失误或者误解操作说明造成的损失。
13. 在想要移动或者装配运输烤炉之前，应当首先降温冷却。
14. 注意设备运行时的高温部位。
15. 仪器基于艺术化的角度出发，根据人体健康安全的原则设计。但是，如果不正确使用仪器，则有危害用户健康或第三方安全的可能性出现。
16. 用户绝对不可私自拆装仪器，即使在系统断电的情况下打开下盖，主电板还可能有400伏的剩余电压。
厂家对用户私自拆卸设备造成的事故不承担任何责任。
18. 用户对压铸炉的私自拆卸以易损贴纸是否损毁为准，因用户私自拆装导致易损贴纸损毁不予保修。
19. 设备没有放置工作台（焙烧台）时绝对不能启动升温。
20. 在连续操作时（在最高工作温度和最长工作时间内），压铸炉外壳局部可能会产生 70℃ 以上的过热现象。
21. 当系统与主电源相连时勿将手触及炉膛，以防触电及烫伤。

二、压铸炉简介

2.1 PHOENIX系列压铸炉的功能特点：

压铸炉的功能特点：

- 电机驱动压铸模式，不用气源，压力恒定，速度可调，压铸成功率高。
- 完全兼容烤瓷炉功能，能根据所选择的程序自动切换成烤瓷炉模式或铸瓷炉模式。
- 语音提示功能。
- 高质量的温度自动调节功能，保证实际温度误差在 $\pm 1^{\circ}$ 以内。
- 精密步进电机驱动，平滑的自由运作和无抖动。
- 石英螺旋炉膛。
- 每个焙烧程序前进行温度自动校准。
- 托盘低噪音，速度可编程。
- 真彩色触摸屏，操作简单方便。
- 50条自定义程序和内置程序。
- 压铸力量可调，压铸距离实时显示。
- 裂圈探测功能。
- 状态指示。

2.2 规格介绍：

操作：

升温速度：最大200摄氏度/分钟
(392华氏度/分钟)

最高温度：最大1200摄氏度
(2283华氏度)

最高温度保持时间：最长2小时46分钟

真空水平设置标准：1- 101%

电力：

操作范围：100- 120V 50/60HZ 230V 50/60HZ

电流：14.5安培@110V 7.0安培@230V

功率：最大1500瓦特（不含真空泵）

典型规格:

体积: 27m 高× 36cm 宽×70cm 深

炉芯平台: 9cm (3.5") 直径

净重: 23Kg (视配件酌情加减1Kg以内)

含包装重量26.5Kg (视配件酌情加减1Kg以内)

2.3 设备清单:

- 1台铸瓷炉主机
- 1个焙烧底座
- 1条电源线
- 1本操作手册
- 1个钳子
- 2个压铸杆
- 1个包埋圈100g
- 1个冷却架

三 安全标识

3.1 标识



这个标志是警告有电危险，再拆开外壳前需要切断电源连接，即拔下电源插头。



这个标志是警告高温的表面，触摸可能会引起烫伤。



这个标志是警告有可能会发生人身伤害的警示。



这个标志是提示注意有用的信息标志。

四、安装与启动

4.1 安装位置

- 压铸炉应安放在干燥的室内，离墙壁的距离应不少于 25 厘米。
- 当温度低于 15℃时 (比如搬运后)，应在室温放置下 30 分钟在启动。
- 应注意该设备放置台面的抗热性，该设备释放的热辐射和热效应应均在无损范围内，但也不排除由于设备长期使用而引起的家具表面及贴面的轻微变色。
- 避免阳光直接照射。
- 该系统周围严禁放置易燃物品。
- 请勿将可以燃烧的物品放在炉膛辐射范围内。

4.2 压铸炉与主要附件的连接

- A、将焙烧炉芯从附件中取出备用 (必须放置在一个合理安全的地方)
- B、将真空泵插头插在压铸炉后放预置配套的插座上。
- C、将真空泵气管插在压铸炉后快插接头上。
- D、插上压铸炉电源开关，打开电源。

E、压铸炉启动进入主接口时(当显示温度时)，按下向下键，压铸炉烧结平台即向下移动(在压铸炉烧结平台运动的轨迹路线上不要放置任何阻碍物)

F、将焙烧炉芯装配在焙烧托盘上。

4.3 快插接头使用方法:

A、将导气管插入快插接头;

B、将导气管沿快插接头内管径插入即可(1.5厘米);

4.4 将导气管从快插接头中拔出:

首先用力按住快插接头最外方的塑料圆圈，按下2-3mm左右，这时才可以用力拔出快插接头。如果不按照上述方法拔出导气管可能引起快插接头的永久性损坏。

通过上述操作，压铸炉的硬件安装配置完成。

4.5 压铸炉待机快速入门:

闲置模式:

当压铸炉闲置时，如果用户设定了闲置时间在指定的时间过后工作台将自动回到炉膛内。

闲置温度:

闲置温度是压铸炉在暂不使用时用户希望压铸炉所静止在的温度。压铸炉会根据当前模式自动调整闲置温度。

声音:

当声音选项被启动时，每次按键按下及程序结束后都会有提示音的产生。

五、压铸炉硬件(及配件)的说明维护

5.1 保险丝

压铸炉的背部有两个系统保险丝,保险丝的型号分别用标签标出,请勿选用不同型号的保险丝。

230 伏 T8H250V 100/ 1 10 伏 T20H250V

5.2 排风扇

压铸炉后表面装有排风扇。风扇是用来控制温度的,风扇避免了压铸炉过热,保证了系统的安全性。

出于安全考虑,系统在没有风扇运行的情况下不可启动。在压铸炉工作时,不可遮挡或打开炉膛上盖及后盖。

5.3 零备件

零备件以具体零备件所附带的说明书为准。

六、保修责任

此系列压铸炉公司提供1年保修(炉膛,炉丝,热电偶提供一年保修)有限责任担保期限:质保期从货物运达第一销售商起始。

如此型号压铸炉搭配第三方公司生产的真空泵出售,真空泵保修年限以真空泵附带说明书时间及标准为准。

七、压铸炉的正常使用

7.1 操作面板



7.2 按键名称:

[FIRING/PRESS]:进入烧结/压铸界面.

[STANDARD]:标准程序选择.

[CUSTOM]:自定义程序选择.

[PROGRAM]:程序参数设定界面.

[SET]:其他设定.
[UP]:托盘上升.
[DOWN]:托盘下降.

7.3 显示界面

P: 01: 当前选择的程序号为 01。后面为当前程序的名称。

TEMPERATURE 27C: 烤炉当前温度为 27℃。

7.4 选择一个当前需要的使用的程序



按下【CUSTOM PROGRAM】进入程序选择界面，如图：

按下程序数字，会弹出一个软键盘，此时，使用按键 0-9，即可输入一个当前所选择的程序号，当输入完所需的程序号后，按下OK即完成了当前程序号的选择。在输入的过程中如果输入错误，按下BACK键即可清除当前错误的数值。

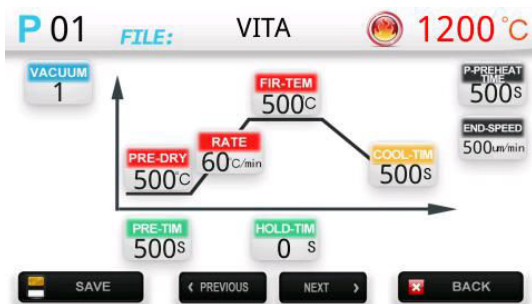
同样也可以使用参数设定界面用“上一页，下一页”来选择程序。也可以按“STANDARD PROGRAMME”直接调用内置程序。

注意：

STANDARD PROGRAMME 标准内置程序和程序号是相对应关系，标准程序1对应 程序号1。可以通过对程序1的更改改变标准内置程序1的参数。

7.5 为一个程序设置参数。

按【PROGRAM-SET】进入到程序参数设置模式。按“上一页，下一页”选择一个程序，最后依次输入11个参数后即完成了当前程序的参数设置工作：



输入参数完成后，按【SAVE】保存，按【CANCEL】放弃保存，返回主界面。

Parameter	Explain	Unit	
1.1 PRE-DRY	预干温度	℃	
1.2 PRE-TIM	预干时间	s	
1.3 RATE	T温度速率	℃/min	
1.4 FIR-TEM	最高温度	℃	
1.5 HOLD-TIM	最高温度保持时间	s	
1.6 COOL-TIM	冷却时间	s	
1.7 VACUUM	真空开关	ON or OFF	
1.8 P-PREHEAT TIME	包埋圈预热时间	s	
1.9 END-SPEED	停止速度	um/min	
1.10 File Name	文件名称	用户可以自由的设定文件名称，只需要点击文件名称就可以编辑。	

P-PREHEAT TIME(压铸预热时间): 在压铸前包埋圈在铸瓷炉里面的预热时间。

END-SPEED（停止速度）：压铸杆最终的停止速度，停止速度越大，压铸的时间越短，停止速度越小，压铸的时间越大。当停止速度被设定成不为0的任何数值时。此程序为压铸程序。当停止速度设置为0时，当前所设置的程序为烤瓷程序，程序按照烤瓷模式执行。

错误的程序参数提醒：

当您在输入程序参数或其它参数时，当您输入了一个压铸炉无法达到或者在逻辑上是错误的参数时，会自动将此参数修改为上限/下限值。

7.6 系统参数设定与功能界面

按下【SET】进入系统参数设定与功能界面，如下图：



7.7 系统参数与功能按键名称解释:

[VACUUM TEST]: 进入真空度测试界面。

[CORRECTION]: 进入温度修正界面。

[IDEL TEM]: 闲置温度界面, 闲置温度是压铸炉在暂不使用时用户希望压铸炉所静止在的温度。
 [MOTOR SPEED]: 电机速度设置界面, 太快或太慢都会导致电机噪声过大。 . [PAN POS]: 当程序开始时, 在预干阶段, 托盘会停在两个不同的位置, 这个设定就是设定两个托盘停止的位置。
 [RESTORE FACTORY]: 恢复出厂设置。
 [CLEAN MODE]: 压铸炉炉膛清洁程序。
 [SOUND]: 设定声音打开或者关闭。
 [FURNACE HEALTH]: 铸瓷炉使用寿命。
 [PRESS SET]: 压铸相关参数设定。
 [ABOUT]: 关于压铸炉的信息。
 [BACK]: 返回主界面。

7.8 真空度测试



按下[START] 开始真空度测试。 .

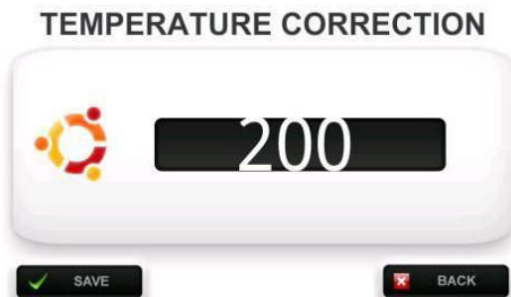
注意在真空度测试开始之前, 托盘必须上升到最顶端。 .

如果 60 秒之后, 真空度高于 90%, 压铸炉是可以使用的, 如果低 90%请联系经销商维修处理。

请注意: 高海拔地区可能会有真空度显示过低的问题, 比如太原 (85%) 昆明 (75%) 乌兰察布 (85%) 这些都是合格的真空度。不会影响义齿烧结和压铸。

按下 [STOP] 停止真空度测试。

7.9 温度校准



压铸炉在每次程序开始之前, 都会自动校准温度, 确保温度在 ± 1 摄氏度之内。

但是当热电偶长时间使用之后, 热电偶本身会产生偏差, 我们提供手动的校准方式, 来修正这个误差。

修正参数以 200 为中心，增加这个数值时显示的温度会减少，减少这个温度时显示的温度会增加，通常这个数值设定为 200。

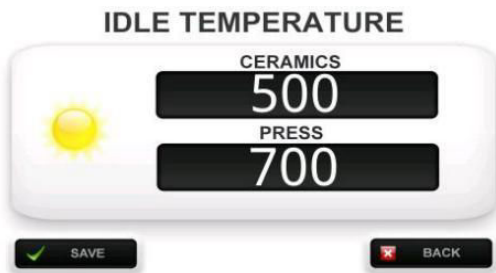
但是当热电偶长时间使用之后，热电偶本身会产生偏差，我们提供手动的校准方式，来修正这个误差。

具体操作是使用银球校准，将银球放置在烧架上，运行校准程序结束后观察银球：完全融化减5度，未融化加5度。半融状态为温度正常。持续的微调修正参数可以将炉温调节到准确范围之内。

按下 [SAVE] 保存校准参数。

按下 [BACK] 返回主界面。

7.10 闲置温度



闲置温度是压铸炉在暂不使用时用户希望压铸炉所静止在的温度。

铸铝炉的闲置温度会根据所选择的程序类型自动调节，当选择为压铸程序时，自动保持压铸程序的闲置温度。当选择为烤瓷程序时，自动选择烤瓷程序的闲置温度。



真空度测试会关闭加热器，真空度测试结束时压铸炉的闲置温度会降低，这是正常现象，在一段时间后会恢复正常。

按下 [SAVE] 保存闲置温度。

按下 [BACK] 返回主界面。

7.11 电机速度设置



电机速度设置。注意，速度过高或过低可能产生一定的噪音。

按下 [SAVE] 保存电机速度参数。

按下 [BACK] 返回主界面。

7.12 托盘位置



当程序开始时,在干预阶段,托盘会停在两个不同的位置,这个设定就是设定两个托盘停止的位置。这两个参数对牙齿水汽蒸发非常有用,用户可根据经验来设定这两个值。

按下 [SAVE] 保存托盘位置参数。

按下 [BACK] 返回主界面。

7.13 恢复出厂设置



按下 [RESTORE]恢复出厂数据。

按下 [BACK] 返回主界面。

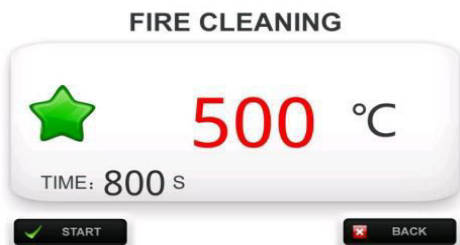


当按下[RESTORE]会弹出一个窗口询问是否继续，按 CONTINUE继续恢复出厂设置.CANCLE 终止恢复。



这个操作将会把所有数据恢复到出厂状态。

7.14 清洁模式



按下 [START] 开始清洁压铸炉炉膛。

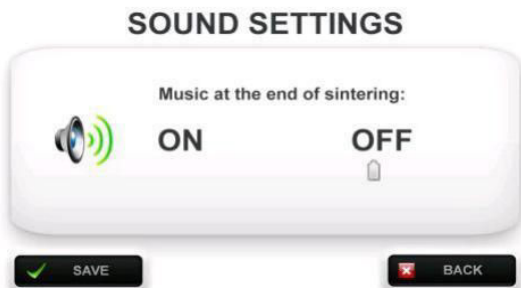
按下 [BACK]返回主界面。

请用户将活性炭置于托盘之上，并且关闭炉膛。



用户须妥善处理残留的活性炭，随意丢弃可能会发生火灾。

7.15 声音设定



使用滚动条打开或关闭声音。

按下 [SAVE]保存声音状态。

按下 [BACK] 返回主界面。

7.16 铸瓷炉健康状态

FURNACE Information

TOTAL LIFE: 0

WIRE LIFE: 0

Engineer interface WIRE RECOUNT

OK

此处显示了炉丝的单独寿命和铸瓷炉的总工作寿命。每次更换炉丝后，按下计数以重置当前炉丝寿命计数器。然而，瓷炉的整体寿命无法重置。
按[OK]返回主界面。

7.17 铸瓷炉压铸参数设定

PRESS SETTING

PRE DIE-CASTING TIME: 120 S

DIE-CASTING PRESSURE: 250 N

ACTIVATION CRACK DETECTION: 1 1=ON 0=OFF

INFRARED TEMPERATURE COMPENSATION: 0=ON 0=OFF

SAVE BACK

这些参数控制整个压力过程。更改这些参数时，请询问服务提供商。

PRE DIE-CASTING TIME预压铸时间：当进入主压铸程序时，在恒定压力下的预压铸时间。

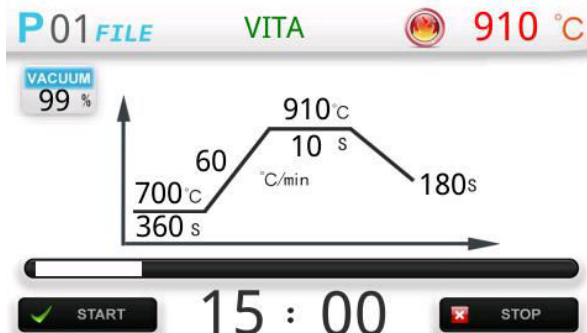
DIE-CASTING PRESSURE压铸压力：压铸压力：根据不同嵌入材料的强度选择不同的压力值。通常建议介于200和350之间。压力越大，压铸完成时间越快。

ACTIVATION CRACK DETECTION激活裂纹检测：激活此选项后，当发现包埋圈开裂时，压铸炉将自动降低压力。一段时间后，停止压铸。

7.18 关于压铸炉

包含版本信息和其他信息。

7.19 开始一个烤瓷烧结/压铸程序

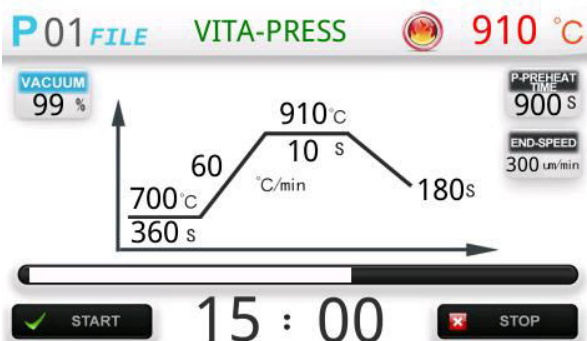


程序将根据用户选择的程序类型自动进入[烧结]或[压铸]界面。

如果您选择陶瓷烧结程序：

按[START]启动烧制程序，当前烧制程序编号即程序ID编号，托盘将自动向下移动到底部，之后，您可以将瓷牙放入托盘上，它将自动完成烧制过程。

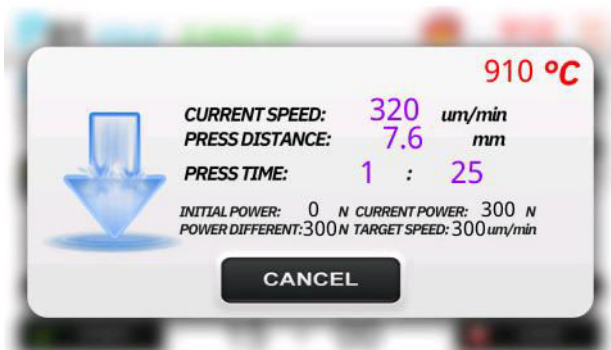
如果选择铸造程序：



此时，应准备好必要的物品，如去蜡后的包埋圈（此刻应该放置于850度的烧蜡炉里）、铸造块和推杆。放置包埋圈后，按[START开始]开始压铸过程。

压铸过程中显示的信息：

当推杆工作（压铸）的时候，将显示以下信息：



当当前停止速度小于目标停止速度时，压铸将自动终止，压铸将完成。

7.20 停止一个烧结/压铸过程

在一个烧结过程进行中，按下【STOP】即停止了一个烧结程序，烧结程序终止后，系统自动回到主界面，温度稳定在闲置温度之上。

参数显示

所有参数显示在焙烧主界面方便用户观察；并且倒计时功能，能让用户合理安排时间。

八、发现并处理故障

如遇以下故障，请联系售后服务：

- 1 硬件故障：记忆芯片，实际时间晶片，或者周边元件的自诊断决定性问题，关闭电源重新启动。
- 2 温度故障：开机后，温度显示过大，或者加热一段时间后温度显示过小。可能由于热电偶的缺陷而导致烘炉过热或过冷。关闭电源重新开机，并且看下面的温度损失控制。
- 3 输入的程序参数值可能超越程序模式参数。出厂设置为温度数值不可超过1200 (输入以℃为单位)，真空度不可超过110 (%)，时间不可超过9999 (S)，限制温度不可超过1000 (℃)。

真空泵故障处理：

- 4 检查确保真空泵管与压铸炉接口连接。检查连接开关的真空泵的保险管。检测炉腔内的湿气。
- 5 进行真空度测试，检查泵是否开启。
- 6 确认真空泵电源线接到压铸炉插口。
- 7 检查真空线路及管路连接是否泄漏。
- 8 检查在烘炉平台上O型圈是否有裂痕或颗粒可能引起泄漏，检查配合表面。
- 9 用外接仪表检查真空泵。
- 10 检查是否平台对正，从而保证炉腔为密闭空间。

如果检查真空泵本身无故障则应用以下方案：

- 11 检查在烘炉平台上O型圈是否有裂痕或颗粒可能引起泄漏，检查配合表面。
- 12 检查真空泵的电路和气路是否独立。
- 13 检查烘炉进气孔是否有碎屑和颗粒阻塞了管路。

