

AEOT 系列模温机操作手册

**Operation Original Instruction Manual of
AEOT Mold Temperature Controller**

前言

PREFACE

AEOT 模具温度控制机操作说明书;

AEOT Instruction Manual of Mold Temperature Controller;

1、提供温度控制方面的领先技术，以优良的品质，完善的服务为客户创造价值

We provide advanced technology in temperature controlling and create values for customers with top quality and perfect service.

2、本手册说明如何操作使用此模温机，它同时提供一些平常保养事项及可预见问题的故障处理。This manual illustrates how to operate the mold temperature controller and provides ordinary maintenance items and solutions to predictable faults.

3、为了操作人员对本设备能最有效安全的使用，请详阅本手册。

In order to make the most effective and safe use of the equipment, please read this manual carefully.

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第一章 安全守则

Chapter One Safety Regulations



危险！ Danger!

此机组内有高温高电压，为安全起见，请勿移动机盖或开关。

The unit is designed to endure high temp and high voltage. For safe operation, do not remove the covers or switches.



注意！ Attention!

此机组仅供合格人员操作。

The unit should be operated by qualified personnel only.

切断电源后请关闭总开关。

Turn off main switch when power supply is off.

当发生可能因漏电而引起电源问题时，停止运行机组。

Stop the unit when there power supply problems probably caused by power trip

安装或移位时请穿戴安全手套和鞋子。

Put on safety gloves and shoes during installation or relocation.



警告！ Warning!

勿用潮湿物体或湿手接触开关。

Do not touch the switch with wet object or hands.

完全了解机器性能之后方可使用。

Do not use the machine before fully aware of its performance.

注意勿接触或撞击开关或感应器。

Be not careful to touch or hit the switch or sensor.

请保留足够的操作空间，清理障碍物。

Please keep enough operation space, and keep away obstacles.

为免产生漏电，清除地板的油或水以保持干燥环境。

To avoid creepage, clean the floor from oil or water to keep a dry environment.

保护机器勿受强烈震动或撞击。

Protect the machine against severe vibration or collision.

勿移除或弄污安全提示。

Do not remove safety signs or make it dirty.

酒后或药后以及判断失准者请勿操作机器。

Drunken, medicine-taking, or men without proper judgment should not operate the machine.

1.1 安全提示标志 Signs and Labels

	<p>为确保机器在没有工作状态下出现异常的故障现象, 机器不工作时请将本设备的总电源开关切断。</p> <p>To ensure no abnormal jam occur during m/c stop, m/c should be off power switch during machine no operating.</p>
 <p>(Attached to pump cover)</p>	<p>此标志用以指示马达旋转方向。</p> <p>This sing indicates motor rotating direction.</p> <p>出现相反转时, 警报器鸣响, 控制面板的指示灯将给予指示。请调转两条电源线位置以解决这一问题。</p> <p>When phase reversal happens, the alarm sounds and indicator on control panel will indicate. Please exchange the place of two of the electrical wires to solve this problem.</p>
	<p>警告在运转前, 必须确认是否完全接地, 否则有可能会触电。</p> <p>Warning, Before revolving, Have to confirm whether gnd, Otherwise may get an electric shock.</p>
	<p>注意无循环媒介和压力严禁加热</p> <p>NO Allow Heating Opreating Without Circulation Medium Or NO System Pressure.</p>
	<p>注意! 操作人员应对此警告引起注意。</p> <p>Attentions! This is general warnings which operators should pay attention to.</p>
	<p>高压危险! 可能会被电击, 操作人员应小心。</p> <p>High voltage! Electrical shock may happen. Carefulness is required from the operator.</p>

1.2 操作守则 Operation Regulations

1.2.1 在操作之前，确认使用优质的干净的统一品牌的高温导热油。建议使用美孚、首诺、道达尔等品牌的导热油。

Before operation, ensure using high quality, clean, family brand of the thermal conductivity oil; such as "Mobil", "Total", "Solutia".

1.2.2 如果使用劣质的导热油会使加热器结油垢烧坏，泵叶轮磨损，流量减少。会减短设备的正常使用寿命。

If ban quality of thermal conductivity oil used, it may due to dirty of oil cause heater burn out, pump of impeller wear out or flow decrease; it may cause unit shortage of normal tool life.

1.2.3 当机器运行时，不要轻易去移动。

Do not move the unit when it is in operation.

1.2.4 如有需要机器修理，必须等油温降到80℃以下之后。

When in need of repairing, wait until oil temperature falls below 80℃.

1.2.5 马达过载可能因为电源缺相，管道堵塞，轴承损坏等；当马达过载时，马达过载继电器会自动跳闸停止机器来保护马达；可以按过载继电器上的“复位”开关来清除警报；

Motor load may cause for power phase lack, pipeline plugging, bearing damage, etc.; When the motor load, motor load the electrical appliances will automatically stop machine to protect motor trip; Can press the reset overload relays switch to clear the alarm

1.2.6 在关闭泵浦之前，必须等油温降到80℃以下，否则会影响它的使用寿命。

Before turn off the pump, wait until oil temperature falls below 80℃. Otherwise the life of the unit would be affected.

1.2.7 为保持控制温度稳定，冷却水压力应该在1-3kg/cm².流量应该在60L/min以上。

In order to keep stable water temperature, cooling water pressure should be 1~3kg/cm², The flow should be above in the 60 L/min.

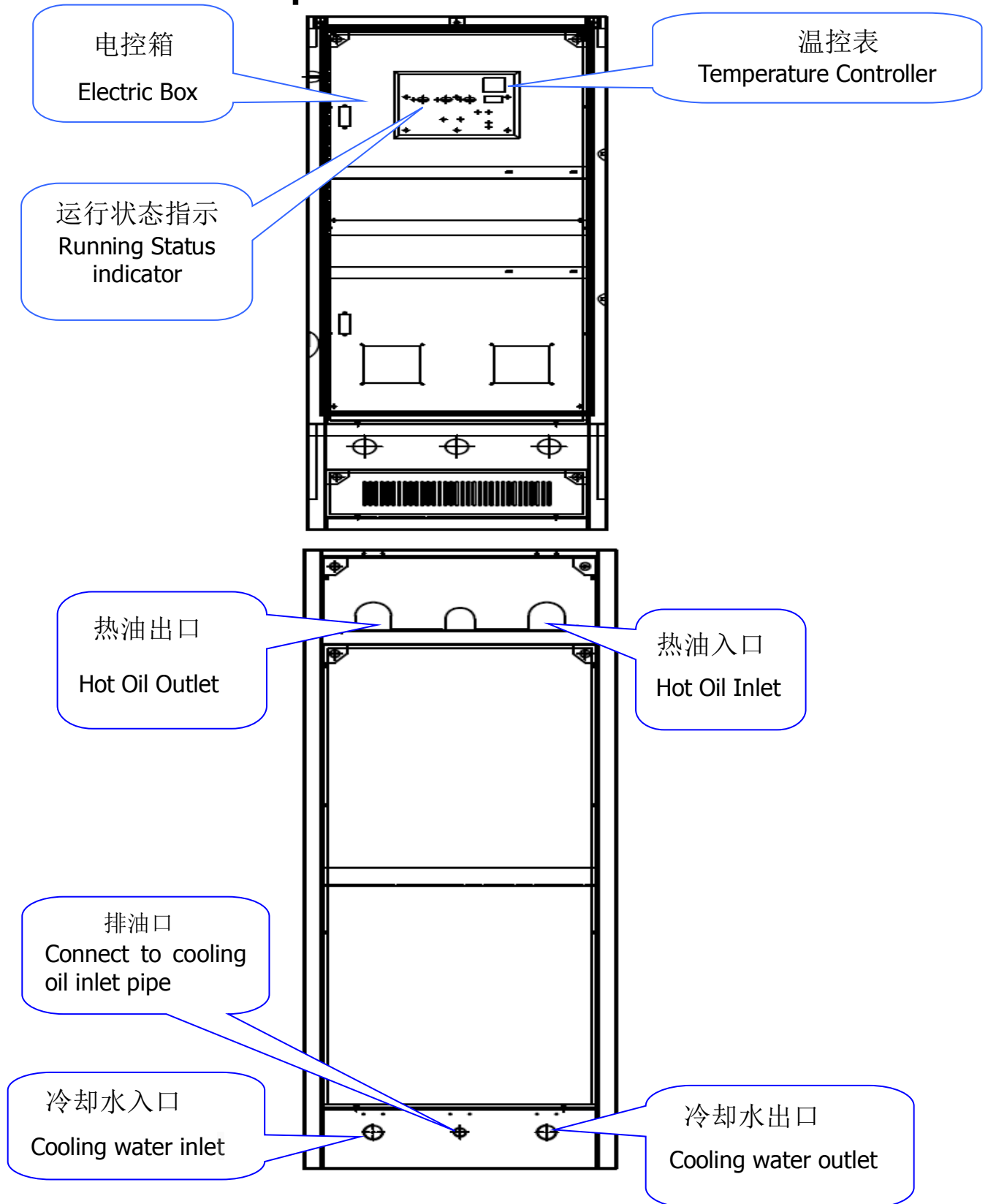
第二章 产品特点

Chapter Two Product Features

1. 最高使用温度 300℃.
Machine operating temperature 300℃.
2. 采用微电脑控制面板，便于操作。
Use microcomputer control panel, simple operation.
3. 开机自动排气。
Power on with automatic air exhaust.
4. 出油、回油温度显示。
Temperature display of outlet and returned oil.
5. 模具回油功能（选购）。
Clean mold (option).
6. 采用 WEST、ABB、MOELLER、WEIDMULLER 等控制零件。
Controlling accessories of WEST、ABB、MOELLER、WEIDMULLER,
7. 不锈钢管路，减少管阻及锈垢。
Stainless pipeline, reduced resistance and rust.
8. 故障显示，方便专业人员维修。
Jam display automatically, it's easy for maintenance.

第三章 机器各部分名称

Chapter Three Name of Parts



第四章 技术参数 Chapter Four Specifications

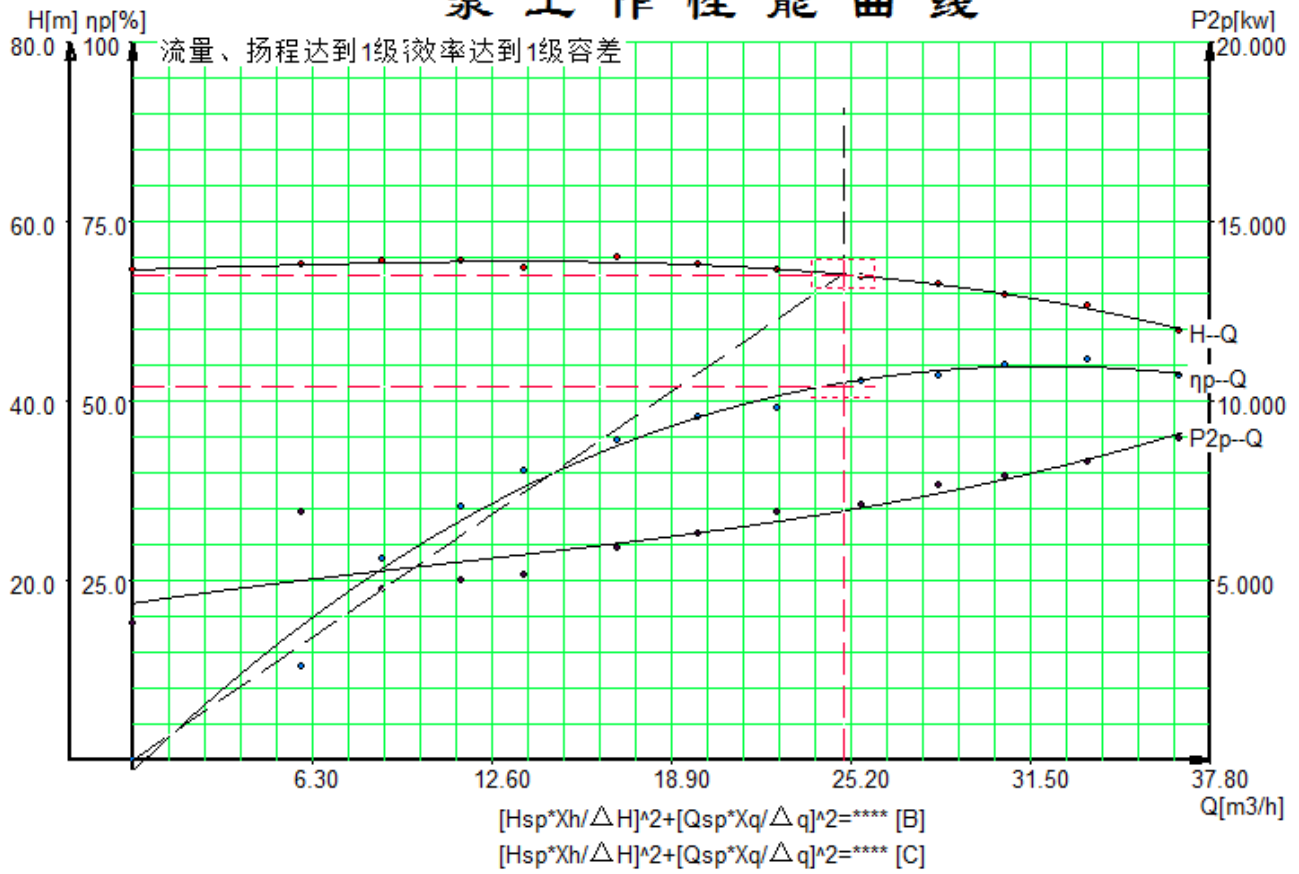
4.1 机器的规格如下:

机型	单位	AEOT-100-150
Model		
温控范围	℃	常温-300℃
Control range		
温控精度	℃	PID±1℃
Temp.control accuracy		
电源		AC3 φ 380V60HZ (3P+E)
Power		
传热媒体		油 oil
Heat transfer medium		
冷却方式		间接冷却
Cooling method		
加热能量	KW	150
Heating capacity		
泵浦马力	KW	7.5
Pump power		
泵浦工作流量	M ³ /h	25
Pump flow		
系统工作压力	kg/cm ²	5.4
System pressure		
最大电力消耗	KW	157.5
Max power supply		
警报功能	泵反转/缺油/过载/超温	
Alert function		
冷却水配管	INCH	3/4"
Cooling water pipe		
循环油配管	INCH	2"
Circulation water pipe		
外型尺寸	MM	1780*650*1700 (不含脚轮)
L+W+H		

4.2 泵浦性能曲线 Pump performance curve

SAP65-40-200 泵的工作性能曲线

泵工作性能曲线



第五章 安装及注意事项

Chapter Five Installation and Precautions

5.1 安装注意事项 (Installation and Precautions):

5.1.1 本机仅可使用机箱铭牌的标示之三相电压及频率，地线必接。

The equipment can only use the three-phase voltage and frequency that are stated on the nameplate on the cabinet; the earth wire must be connected to the ground.

5.1.2 外部配管的选择 (External Pipe Selection) :

名称 Name	使用温度 Working Temperature	适用时间 Tool Life
棉纱管 cotton yarn pipe	60°C	约半年 about half a year
中压皮管 mid-pressureleather pipe	120°C	约一年 about one year
铁氟龙管 Teflon pipe	200°C	约一年 about one year
波纹管 ripple pipe	350°C	约一年 about one year

注：管路的寿命也可能因环境影响而造成；冷却水出口处温度比较高，冷却水出口应使用铁氟龙管，热油进出口应使用波纹管连接。

Notes: The pipe service life may be related to the environment. Teflon pipe should be used in the cooling water outlet due to the higher temperature, and ripple pipe should be applied in the hot oil inlet and outlet.

5.1.3 导热油的选用 (Heat Transfer Oil Selection):

描述 Description	型号 Model	温度 Temperature
首诺 Mobil	首诺 T55	300°C
美孚 Mobil	美孚 603 Mobil 603	200°C
美孚 Mobil	美孚 605 Mobil 605	300°C

油的特性是不可以混合使用的，否则会产生油泥，造成堵塞。

Different oil cannot be mixed, or there will be oil sludge and consequent blockage.

请每期定时更换干净的循环油，若长时间使用在 150°C 以上时，每三至六个月检查导热油，根据实际情况决定是否更换。

Please change the circulating oil regularly. In case of long-term use above 150°C, change

the oil every 3 to 6 months, Decide if replace according to the physical truth.

更换循环油时，勿让水或异物掉入油箱内。

When changing the circulating oil, don't drop water or impurities into the oil tank.

5.2 安装步骤 (Installation Steps):

5.2.1 冷却水循环系统 (Cooling Water Circulating System):

将本机上的冷却水出入口大小对贵公司的循环水出入口接妥避免浪费。

Connect the cooling water inlet and outlet to those of the circulation water according to their sizes, in order to avoid waste.

5.2.2 热媒油循环系统 (Hot Oil Circulating System):

将模具出口接本机的热油入口处。

Connect mold outlet with hot oil inlet.

将模具入口接本机的热油出口处。

Connect mold inlet with hot oil outlet.

附：将其它没有用上的热油进出口旋上堵头或用波纹管短接。

Plus: Plug up the unused hot oil inlet and outlet with blocks or short circuit it with ripple pipes.

5.2.3 注油时，根据油箱侧面的视油口位置加油即可，在第一次泵循环时要特别注意油在油箱内所处的位置。在泵刚启动后检查油箱内的油是否够了，如果油不够请继续加油；并观察压力表状况。

When filling oil, just refer to the oil sight gauge which flanks the oil tank. Pay special attention to the oil position during the first pump circulation, and check if there is enough oil in the tank right after the pump starts. If not, please add oil till it is enough. Meanwhile, observe the pressure gauge status.

5.2.4 确认波纹管和水管的接头是否拧紧。

Make sure that the joint of ripple pipe and water pipe are tightened.

5.2.5 将本机上的电源线接在贵公司的开关盒上并接紧；如果没有配电源线，那请将贵公司的电源线接在机器电控箱内的空气开关上；地线必接。

Connect and tighten the machine's power supply wire to your switch box. If no wire is supplied with the machine, then connect your own power supply wire to the machine's air switch box in the electronic controlling chest. The earth wire must be connected to the ground.

注：以上出入口在机器外部标签都能看到。

Note: The above inlets and outlets can be seen on the outside labels.

5.2.6 特殊机型如：

- A. 吹气式模温机安装时直接将气管接在气管入口处即可。
- B. 油箱架高式模温机在安装时要先将油箱固定在机器上面，再把机器里面出来的波纹管对应接在油箱上（1 寸的波纹管接在油箱的底面上的接头；2 条 1/2 寸管接在油箱另一侧面上的对应接头上即可）。

For special models:

- A. When installing air-blown mold temperature controller, just connect the air pipe directly to the inlet.
- B. When installing roof-mounted oil tank mold temperature controller, please secure the oil tank to the machine first, then connect the ripple pipe from the machine to the oil tank. (For one 1-inch ripple pipe, connect it to the joint at the bottom of the oil tank; for two 1/2-inch pipes, connect them to the joint at the other flank of the oil tank.)

第六章 运转操作说明

Chapter Six Operating Instructions

6.1 运转方法 (Operating Instructions):

6.1.1 将油箱内的导热油加到指定的位置。

Add the heat transfer oil to the specified position in the oil tank.

6.1.2 打开循环油管的阀门和循环水的阀门（油箱架高式的把油箱下面的阀门打开）。

Open the valves of circulating oil pipe and circulating water. (For roof-mounted oil tank model, open the valve under the tank.)

6.1.3 打开贵公司电源开关与本装置的空气开关。

Open your company the power switch and this device's air switch

- a. 先按**电源开/关**键，将温度设定在 0℃左右，再按**开机/关机**键，泵开始运转。

Press the **POWER ON/OFF** key, and set the temperature at about 0℃. Then press the **RUN/STOP** key, and pump starts to work.

- b. 不需要控温时将温度降到 80℃，再次按**开机/关机**键就停止了。

When temperature control is not needed, decrease the temperature at 80℃, and press the **RUN/STOP** key again to stop it.

蒸水的方法：在 80℃之前，每 5℃-10℃上升

Steamed water methods: in 80, before every 5-10 rise

注意事项：被控制温设备如果之前有用过水加热设备，一定要把设备内的水分吹干

Notice: temperature control device if water heating equipment before useful, must take the equipment of water in the blow dry

6.1.4 特殊机型如(Special type such as):

- a. 带吹气回油模温机时，将控制面板上的吹气选择开关拨到吹气处，在按吹气启动本机会自动进行吹气功能，吹完后按停止键。

- b. 油箱架高式模温机在开机前一定要把油箱下面的阀门打开。

For special models:

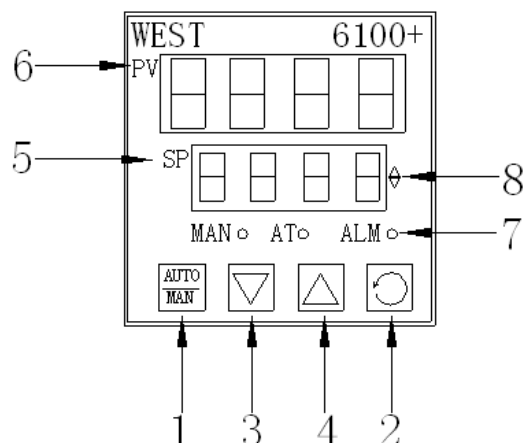
- a. For air-blown mold temperature controller, move the blowing switch on the control panel to the blowing side. Then press start key and the machine will blow air automatically. When finished, press the stop key.
- b. For roof-mounted oil tank mold temperature controller, do open the valve under the tank before turning on the machine.





附：吹气入口处气压一般设定在 4 kg 左右，以防油箱内膨胀使油从泄油口漏出。

Notes: The air pressure of the air blowing inlet is often set at 4 kg, in order to avoid oil leakage resulted from oil tank expansion.

6.2 温控器使用与设定 (Temperature Controller Operation Setting):

WEST P6100 型 (Model WEST P6100):



1.  阶层键：设定内部参数。
Level Key: Set interior parameter.
2.  模能键：设定内部参数转换。
Condition Key: Set transformation of interior parameter.
3.  减少键：用于减少值。如欲降低温度，控此键设定值会下降；如连续按住不放，下降速度会加快。
Down Key: Decrease values. Press it to decrease temperature; press and hold to speed up the decrease.
4.  增加键：用于增加值。如欲提高温度，控此键设定值会上升；如连续按住不放，上升速度会加快。
Up Key: Increase values. Press it to increase temperature; press and hold to speed up the increase.
5. SP: 设定温度显示。Display the setting temperature value.
6. PV: 实际温度显示。Display the practical temperature value.
7. 状况讯号指示灯。Temperature Unit.
8. 加热冷却讯号指示灯。Indicator of heating output

注： 客户设定温度只需按 增加 和 减少 键，其他按键请勿动。

Note: Just press  or  to set the temperature. Do not press other keys.

附加：当采用双仪表来进行远程设置时，需对现场仪表进行如下操作

1. 按 2 号模能键，进入设置画面
2. 按 2 号模能键翻滚
3. 当选择 PV 区显示显示-LSP 时，仪表设定值由本仪表控制
4. 当选择 PV 区显示显示-rSP 时，仪表设定值由远程仪表控制
5. 选择好后按 1 键确认

6.3 温控器设置：（出机前温控器已经设置好，无需再调节）

AEOT系列温控器控制操作说明书

步骤一：刚上电5S就

- 按 Δ + \square 键直到出现

OPtP
SLCt
- 按 Δ 键1S进入下一步

SEtP
SLCt

 ←不调
- 按 Δ 键1S进入下一步

CO nF
SLCt
- 按 \square 键1S进入下一步

0
ULoc

 ←调为

20

- 按 \square 键1S进入下一步

HC
InPt

 ←调为

HC

 按

AUTO
MAN

 确定
- 按 \square 键1S进入下一步

1373
rUL

 ←调为

最高温度

 按

AUTO
MAN

 确定
- 按 \square 键1S进入下一步

-240
rLL

 ←调为

0

 按

AUTO
MAN

 确定
- 按 \square 键1S进入下一步

5dL
CtYP

 ←调为

dAL

 按

AUTO
MAN

 确定
- 按 \square 键1S进入下一步

rEu
CtL

 ←不调
- 按 \square 键1S进入下一步

P_Hi
ALAI

 ←调为

dE

 按

AUTO
MAN

 确定
- 按 \square 键1S进入下一步

5
dALI

 ←调为

20

 按

AUTO
MAN

 确定
- 按 \square 键1S进入下一步

nonE
Inhi

 ←不调
- 按 \square 键1S进入下一步

Pri
USE1

 ←不调
- 按 \square 键1S进入下一步

Fri
USE2

 ←调为

SEC

 按

AUTO
MAN

 确定
- 按 \square 键1S进入下一步

Fri
USE3

 ←调为

HI_d

 按

AUTO
MAN

 确定
- 按 \square 键1S进入下一步

31
di SP

 ←调为

2

 按

AUTO
MAN

 确定
- 按 \square 键1S进入下一步

20
CLoc

步骤二: 按 Δ + \square 转到

CONF
SLOC

按 \square 键1S进入下一步

SEtP
SLOC

按 \square 键1S进入下一步

0
ULoc

 ← 调为

10

按 \square 键1S进入下一步

2.0
FILt

 ← 不调

按 \square 键1S进入下一步

0
PFfS

 ← 不调

按 \square 键1S进入下一步

0
PPW

 ← 不调

按 \square 键1S进入下一步

100
SPW

 ← 不调

按 \square 键1S进入下一步

10.0
Pb.P

 ← 调为

5.00

按 \square 键1S进入下一步

10.0
Pb.S

 ← 调为

5.00

按 \square 键1S进入下一步

5.00
PrSt

 ← 调为

--

按 \square 键1S进入下一步

1.15
rALe

 ← 调为

0.1

按 \square 键1S进入下一步

0
DL

 ← 不调

按 \square 键1S进入下一步

25
GAS

 ← 调为

0

按 \square 键1S进入下一步

537.7
SPd

 ← 调为

120

按 \square 键1S进入下一步

-240
SPLL

 ← 调为

0

按 \square 键1S进入下一步

100
OPd

 ← 不调

按 \square 键1S进入下一步

32
Cl

 ← 调为

16

按 \square 键1S进入下一步

32
Cl2

 ← 调为

8

按 \square 键1S进入下一步

1
PHH1

 ← 不调

按 \square 键1S进入下一步

1
PHH2

 ← 不调

按 \square 键1S进入下一步

ErAb
APt

 ← 调为

d5A

按 \square 键1S进入下一步

ErAb
PaEn

 ← 调为

d5A

按 \square 键1S进入下一步

ErAb
SPr

 ← 调为

d5A

按 \square 键1S进入下一步

rP

 ← 不调

按 \square 键1S进入下一步

-240
SP

 ← 不调

按 \square 键1S进入下一步

10
SLOC

 ← 不调

按 Δ + \square 转到

SEtP
SLOC

按 Δ 键1S进入下一步

OPEr
SLOC

按 \square 键1S进入正常温控界面

6.4 控制面板操作方法 (Control Panel Operation):



序号 (NO.)	名称(Name)	功能(Functions)	备注(Remarks)
1	泵浦开关 Run/stop	打开或关闭泵浦 Turn on/off the pump.	注意：马达旋转方向应正确。 Note: motor rotating direction should be correct.
2	电源开关 Power on/off	打开或关闭电源 Turn on/off power	注意：停机时请关闭电源开关 Note: turn off power switch when machine stop
3	警报复位 Buzzer reset	报警后复位使用 Press reset clear jam	注：消除警报时使用 Note: Use for jam clearing
4	简易流程图 Simple flow chart	机器工作的简易流程 M/C operation flow	注：机器工作时的流程参考 Note: M/C operating reference flow
5	指示灯 Indicating lamp	机器工作时的状态信息指示 M/C running status	注：使我们能更好的了解机器当前的工作状态 Note: Let us know machine performance
6	回媒介温度 Back to medium temperature	显示从模具回来的媒介温度 From the media that come back mould temperature	注：作为机器使用过程中的参考温度 Note: as machine reference temperature
7	温度设定按钮 Temp. setting button	设定机器所需控制的温度 Set machine request temperature.	注：当需要调整温度时使用 Note: use for temp adjusting.
8	温度显示 Temp. display	机器控制的温度显示 Show m/c temperature	注：PV 区显示当前温度 To show current temperature SV 区显示设定温度 To show setting temperature

6.5 控制面板操作方法 (Control Panel Operation):

序号 No.	操作内容 Operation	确认内容 Confirmation
1	打开贵公司电源总开关 Turn the factory's power on.	
2	打开本设备的电源总开关 Turn the instrument's power on.	
3	按 电源开/关 键 Press the POWER ON/OFF key.	电源灯亮 The POWER ON/OFF lamp lights.
4	按 开机/关机 ，泵开始运转启动后，为了使空气排放良好需做以下操作： Press the RUN/STOP key, and when the pump starts to work, do as follows for good ventilation: 泵运转 10 分钟后，再将温度设在 80℃ 运转并观察压力表和热油进出口温度。如果压力和温度都稳定，就将温度上升 10℃ 并检查温度的稳定情况。每上升 10℃ 都要检查温度和压力的稳定状态，直到温度上升到贵公司设备所需要的温度进行工作。如压力不稳定或者没有压力，可用重复停机 10 秒然后开机的方法加快排气。 After the pump runs for 10 minutes, set the temperature at 80℃ to run it. Observe the pressure gauge and hot oil inlet/outlet temperature. If both of them are stable, increase the temperature by 10℃ to check its stability. Check the pressure and temperature stability at every 10℃ increase, until the temperature reaches your required point. If the pressure is unstable or there is no pressure, you can stop the machine for 10 seconds and run it again for several times, in order to ventilate faster.	一开始运转，运转灯灯亮。 Once the machine starts to run, the RUN/STOP lamp lights.
5	为了保护泵，将温度下降到 80℃ 左右，才可以按 开机/关机 以关机。 In order to protect the pump, will drop in temperature to about 80, can press RUN/STOP the phone to shutdown	按 开机/关机 ，指示灯熄灭。 Press the RUN/STOP key and the indicator lamp goes out.
6	警报时按 警报/复位 。 When there is an alarm, press the BZ/RESET key.	警报灯亮 The BZ/RESET lamp lights.

6.6 各部分名称及用途 (Names and Functions of Each Part):

序号 No.	名称 Names	机能/用途 Functions	参考 Reference
1	电源开/关 POWER ON/OFF	PC 板上电源的投入 Power supply of the PC board.	
2	开机/关机 RUN/STOP	控制泵浦的运行和停止 To run or stop the pump.	
3	警报/复位 BZ/RESET	故障时，按此键消除警报声 Press the key to cancel the buzzer when failure happens.	
4	冷却指示灯 Cooling indicator	说明该设备正在冷却状态下 To indicate the device is cooling.	
5	加热指示灯 HEATER	说明该设备正在加热状态下 To indicate the device is heating.	
6	缺油指示灯 MEDIUM SHORT	说明该设备系统内油不足 To indicate oil shortage of the device.	
7	泵反转指示灯 CONVERSE	该设备正处于逆相保护之中 The device is under reversal protection.	
8	过载指示灯 OVER LOAD	该泵运转受故障影响指示 The pump is affected by malfunction.	
9	超温指示灯 OVER TEMP.	说明温度过高，保护加热器 The temperature is too high, please protect the heater.	
10	回油温度指示灯 RETURN TEMP.	测试回油温度，预防堵塞 To test the return oil temperature and avoid blockage.	
11	选择开关 SELECTION SWITCH	对功能/功率的不同选择 To select different function or power.	
12	蜂鸣器 BUZZER	异常情况警报提醒 Abnormal situation alarm.	
13	设定温度 PV	贵公司设备所需的温度 The temperature your devices require.	
14	实际温度 SV	该设备所处的温度 The temperature of this instrument.	
15	温控器上℃ °C ON TEMP. CONTROLLER	温度单位指示 Temp. unit	
16	压力表 PRESSURE GAUGE	检测系统内部压力 To test the pressure of inside the system.	

第七章 异常现象及解决方法

Chapter Seven Abnormal Phenomena and Solutions

7.1 使用本机器专用的控制装置，齐备各种各样的警报功能，在发生异常时，保护功能会在面膜上警报并指示故障项目。特别是在加热器异常时，请仔细阅读以下项目。警报时按**警报/复位**键，就会消除警报声。有关原因、故障及处理方法参照以下项目。

The controlling devices of this instrument are equipped with various alarm functions, and there will be alarms and problem indication when malfunctions happen. Read the following items carefully, especially when the heater is abnormal. Press the **BZ/RESET** key to cancel the buzzer. Please refer to the following items for courses, problems and solutions.

7.2 消除异常原因后，按**开机/关机**键重启。


Press the **RUN/STOP** key to restart the machine after the problem is solved.

7.3 配件的更换、修理或者清扫时，一定要将电源总开关 OFF 之后进行工作。

Do turn off the power before replacing, repairing or cleaning the accessories.

7.4 问题处理指导参考表 Trouble shooting guideline:

序号 No.	项目/状况 Problems	异常原因/点检处 Courses	对策/处置方法 Solutions
1	即使按了 电源开/关 键， 电源指示灯不亮 Power indicator lamp not on even when pressing the POWER ON/OFF key.	电路板故障 Circuit board failure. 保险丝烧坏 Fuse down. 按钮开关不良 Switch button in bad condition.	更换电路板 Change the circuit board. 更换保险丝 Change the fuse.
2	泵反转指示灯亮并警报 Pump reversal indicator lamp on with buzzer.	电源线反相接续 Reversal of power supply wires.	关闭该设备的总电源，将电源线中的 R 和 T 的位置互相调换。如果还是警报，则更换反 相保护器 Turn off the power and exchange R and T of the power supply wires. If there is still buzzer, change the reversal protector.
3	缺油指示灯亮并警报 Oil shortage indicator lamp on with buzzer.	缺导热油 Oil shortage. 机械部分漏油 Oil leakage. 液位开关误动作 False action of level switch.	确定按照规定加油 Make sure oil is added by rules. 确定媒体配管是否堵塞 Check if the medium pipe is blocked. 清洗液位开关或更换 Clean level switch or change it.
4	超温指示灯亮并警报 Over temp. indicator lamp on with buzzer.	加热接触器卡住 Heating contactor stuck. 电路板加热一直输 出 Circuit board keeps heating. 超温保护开关误动 作 False action of over temp. protection switch.	更换接触器 Change the contactor. 更换电脑 PC 板 Change the PC board. 更换超温保护开关 Change the over temp. protection switch.
5	无法加温 Fail to heat up.	冷却电磁阀堵塞损 坏 Cooling solenoid valve blocked or damaged. 加热管烧坏 Heating pipe burnt out. 电路板故障 Circuit board failure. 压力开关起作用	清除电磁阀内水孔杂物并清洗 Clear up the water hole in electromagnetic valve. 更换加热器/电路板 Change the heating pipe/ circuit board. 检查压力开关 Check the pressure switch.

		Pressure switch works.	
6	无法降温 Fail to lower the temperature.	电磁阀堵塞或电磁阀线圈老化 Blocked electromagnetic valve or aging loop of electromagnetic valve. 冷却水阀门未开 Cooling water valve is not open.	清洗或更换电磁阀 Clean or change the electromagnetic valve. 打开冷却水进出口阀门 Open the valves of cooling water inlet and outlet.
7	泵过载指示灯亮并警报 Pump over load indicator lamp on with buzzer.	电源电压不正常或欠相 Abnormal power supply voltage or phase deficiency. 有杂物掉入泵体内 Impurity dropped in the pump. 散热不良 Bad heat emission. 热过载继电器误动作/老化 False action/aging of heat overload relay.	更换泵请与我们联系 Contact us when changing pump. 解除热继电器错误 Correct the heat relay mistake. (确认左边上的热设定值) (Confirm the heat setting value on the left.)  按箭头所对处，消除超负荷原因后，按电源开关键，再开始重新启动 Eliminate overload errors as the arrow points, and press the power on/off key to restart.
8	按 开机/关机 键泵不运转 The pump doesn't work when pressing the RUN/STOP key.	未通电源 No power supply. 其它异常警报在显示 Other buzzers are indicating.	打开电源 Turn the power on. 解除异常情况 To eliminate errors.
9	温控器显示 Serr 或回油温度显示 999 The temperature controller indicates "Serr", or return oil temperature is "999".	热电偶接触不良/老化 Poor contact/aging of thermocouple. 电路板误动作 False action of the circuit board.	更换热电偶/温控器/电路板 Change the thermocouple/temp. controller/circuit board. 请来电联系我司 24 小时售后服务热线 Please contact with our 24 hrs service hotline;

第八章 保养和点检

Chapter Eight Maintenance and Repair

8 保养/点检 (Maintenance and Repair):

8.1 模温机要保持清洁并且干燥的状态。

The mold temperature controller should be kept in clean and dry conditions.

8.2 定时切断电源，拆卸所有外盖，使用干燥压缩空气吹干灰尘，特别是电器部分的接点，要彻底清洁。

Time to cut off the power supply and remove all cover, use dry compressed air is blown dry dust, especially electrical part of the contact, thoroughly clean

8.3 使用碎布擦内部时，要特别注意不要损坏电器部分。

Pay special attention not to damage the electric parts when using a cloth to wipe the interior parts.

8.4 在媒体油裂化的状态下要进行更换。如果使用裂化的媒体油，是导致泵加热器损伤的原因。本装置到了保养期限时，请实施保养/点检。

Replace when it is used under medium oil cracking condition. Using cracking medium oil can cause damage of the pump heater. Please maintain and repair the instrument when it is time to do so.

保养计划日程 Maintenance Schedule		
项目 Items	周期 Period	保养要领 Main Points
过滤器 Filter	2 周(实际运转 300 个小时) 2 weeks (run for 300 hours)	拆除清洗 disassemble to clean
电磁阀 Solenoid Valve	1 个月(实际运转 600 个小时) 1 month (run for 600 hours)	拆除清洗 disassemble to clean
液位开关 Level switch	1 个月(实际运转 600 个小时) 1 month (run for 600 hours)	拆除清洗 disassemble to clean
模具接续软管 Mold connection tube	2 个月(实际运转 1200 个小时) 2 months (run for 1200 hours)	拆除清洗拧紧 disassemble to clean and tighten
杂音/怪味/发热 Noise/Smell/Heat	每天 every day	无杂音/振动 no noise/vibration
端子松动 Loosened terminal	收货时, 3 个月 during acceptance, 3 months	拧紧 tighten
盆内的灰尘和垃圾 Dust and trash in the basin	1 个月 1 month	清扫 clear up
电磁接触器(加热器) Electromagnetic Contactor (heater)	1 年 1 year	更换 replace
电磁接触器(泵浦) Electromagnetic Contactor (pump)	1 年 1 years	更换 replace
视油口 Depending on the oil mouth	每天 every day	检油是否适量 check if the oil amount is proper
热媒体更换 Heat medium change	6 个月 6 months	更换 replace
PC 板 PC board	3 年 3 years	换新 replace for a new one
泵浦 Pump	1 年 (每天) 1 year (every day)	确认杂音 confirm the noise