



操作使用说明书

Operation Instructions

非常感谢您选用耐美特产品，请在使用前详细阅读本说明书，并将手册

放置于易拿处以便参考。

Thank you very much for choosing NMET products, please read the manual carefully before use, and put the manual in easy-to-take place for reference.





在使用本设备之前，请仔细翻阅本说明书，并依照规定的程序操作，可使您顺利地操作

Before using this equipment, please carefully read this manual, and in accordance with the provisions of the procedures to enable you to operate smoothly



一、适应范围:

1. Scope of adaptation:

此款旋转硫化烤箱适应于五金、塑料、制药、化工、食品、农副产品、水产品、轻工、重工等行业物料及产品的加热固化、干燥脱水。如原料药、生药、中药饮片、浸膏、粉剂、颗粒、冲剂、水丸、包装瓶、颜料染料、脱水蔬菜、瓜果干、香肠、塑料树脂、电器组件、烘漆等。

This rotary curing oven is suitable for heating, curing, drying and dehydration of materials and products in metal, plastic, pharmaceutical, chemical, food, agricultural and sideline products, aquatic products, light industry and heavy industry. Such as raw materials, crude drugs, Chinese herbal pieces, extracts, powder, particles, granules, water pills, bottles, pigment dyes, dehydrated vegetables, dried fruits, sausages, plastic resin, electrical components, baking paint.

二、产品特点:

2. Features:

大风量热风在箱内循环，热效率高，节约能源。利用强制通风作用，箱内设有可调式分风板，物料干燥均匀，热源可采用蒸汽、热水、电、远红外，选择广泛。整机噪音小，运转平衡。温度自控，安装维修方便。适用范围广泛，可用于干燥各种物料，是通用干燥设备。

Large air volume hot air circulation in the box, high thermal efficiency, energy saving. Use of forced ventilation, the box is equipped with adjustable air distribution board, materials, even drying, heat sources can be used steam, hot water, electricity, far infrared, a wide range of options. Low noise and balanced operation. Automatic Temperature Control, easy installation and maintenance. The utility model has a wide range of applications and can be used for drying various materials. It is a universal drying equipment.

三、规格及配置:

3. Specifications and configuration:

项目 Project	名称 Name	内容 Content	备注 Remarks
产品名称 Product Name		标准烘箱 Standard Oven	
型号 Type		NMT-1005	
主要技术参数 Main Parameter	内胆尺寸 Inner chamber	W600*D500*H1200mm	
	外形尺寸(约) Outer dimension	W1000*D630mm*H2090	
	温度范围 Temperature range	室温~+300°C可调 Room temperature to 300°C adjustable	



	温度波动度 Precision of instrument	$\leq \pm 1^{\circ}\text{C}$	
	炉内温差 Temperature difference in chamber	$\leq \pm 3^{\circ}\text{C}$ (恒温状态) $\leq \pm 3^{\circ}\text{C}$ (constant temperature)	
	升温速率 Speed of temperature up	$\leq 8^{\circ}\text{C}/\text{min}$	
	外壳温度 Out shell temperature	温度不超过环境+15°C, 门周边除外。 The temperature does not exceed ambient +15°C, except around the door.	
	循环风方式 Air recycles	Depends on the parts heated in the oven	
	电源 Power Source	单项交流, AC380V Single phase, AC380V, 50Hz	
	总功率 Power	Around 30KW	
箱体结构特征 Body structure	外壳材料 Out shell material	采用 1.5mm 厚不锈钢 304 制作 Made of 1.5mm thick SUS304, bending and welding	
	内胆材料 Chamber material	采用 3 mm 厚 SUS316 不锈钢板制作 Made of 3.0mm thick SUS304 stainless steel plate, full welded	
	箱体骨架 Oven support	50*50*3mm 不锈钢制造, 保持箱体内外各个面的承载强度, 并保留热胀冷缩系数, 可防止箱体变形。 It is made of 50*50*3mm Stainless Steel, which maintains the bearing strength of each surface inside and outside the box, and retains the coefficient of thermal expansion and contraction, which can prevent the box from deforming.	
	保温材料 Insulation material	采用 100K 陶瓷棉, 具有不可燃烧, 隔热性强等特点, 厚度为 300mm It adopts 100K thicken ceramic wool, which is incombustible and has the characteristics of strong heat insulation. The thickness is 300mm.	
	密封材料 Seal material	密封条采用玻璃纤维制作, 耐高温不变形, 门框四周与门边内胆之间严实密封, 防止漏热 The sealing strip is made of glass fiber strip, which can withstand high temperature without deformation.	



	脚轮脚杯 Caster and cup	<p>1.底部装有可调节脚杯，方便调节箱体高度及水平度</p> <p>2.底部装有转向脚轮，方便移动设备</p> <p>1. The bottom is equipped with an adjustable foot cup, which is convenient to adjust the height and level of the box</p> <p>2. The bottom is equipped with steering casters, which is convenient for moving the equipment</p>	
	开门 One side open door	<p>1. 烘箱前侧为单开门</p> <p>2. 左、右侧安装镀铬加强型合页 3 件，可防止门下垂，中间安装镀铬防爆型方钢锁 1 件，预紧力强，操作方便</p> <p>1. The front side of the oven is one side open door</p> <p>2. 3 chrome-plated reinforced hinges are installed on the left and right sides to prevent the door from sagging, and 1 chrome-plated explosion-proof square steel lock is installed in the middle, with strong pre-tightening force and easy operation</p>	
	换气装置 Air exchange	<p>1、箱体上面设有进气口配调节阀门、排气口配二次换气风机</p> <p>2、可调节空气流量，使炉内温度更加均匀</p> <p>3. 进气口配高效过滤器</p> <p>1. There is an air inlet with a regulating valve on the top of the box, and an air outlet with a secondary ventilation fan</p> <p>2. The air flow can be adjusted to make the temperature in the oven more uniform</p> <p>3. Equipped with HEPA for air inlet.</p>	
控制系统 Control system	运风马达 Recirculation	<p>顶部装 2.2KW 运风马达 1 台，配变频器</p> <p>The top is equipped with 1 sets of 2.2kw air recirculation motors, with converter</p>	
	运风风轮 Fan Blade	<p>配 9 寸不锈钢大叶片式</p> <p>With 9 inch stainless steel large blade to recirculate the hot air</p>	
	加热管 Heating pipe	<p>采用 SUS304 U 型不锈钢发热管，带散热片，可是发热管温度均匀散发</p> <p>U-shaped stainless steel 304 heating tube with heat sink is adopted, so the temperature of the heating tube can be evenly distributed</p>	



空气加热方式 Hot Air Convection	由烤箱进气口进风至加热管风槽内，空气经加热后在烤箱内部做循环运风，废气从排气口排出 The air is taken in from the air inlet of the oven to the air slot of the heating pipe, and the air is circulated inside the oven after being heated, and the exhaust gas is discharged from the exhaust port	
控制系统 Control system	采用 Delta 温控器, PV 与 SV 双 LED 显示功能 Siemens Smart 200 PLC and 7' HMI 自带 P.I.D 自整定模块演算输出，控制精准 Adopt Delta thermostat, PV and SV dual LED display function Siemens Smart 200 PLC and 7' HMI Comes with P.I.D self-tuning module calculation output, precise control	
自动恒温 Automatic constant temperature	温控器可根据用户设定的温度值，采用 PID 自动计算输出功率的大小，越接近温度设定值时，输出功率越小，以达到恒温控制的目的，并可节能省电 The temperature controller can automatically calculate the output power according to the temperature value set by the user using PID. The closer it is to the temperature setting value, the smaller the output power is, so as to achieve the purpose of constant temperature control and save energy.	
超温保护温控器 Over temperature controller	当温度超过超温保护温控器设定值时，自动切断加热电源 When the temperature exceeds the set value of the over-temperature protection thermostat, the heating power is automatically cut off	
时间控制 Timer setting	LED 数显控制器，可设置最大时间为 99 小时，单位可以任意切换为小时、分钟、秒 LED digital controller, the maximum time can be set to 99 hours, and the unit can be arbitrarily switched to hours, minutes, seconds	
加热管控制 Heating pipe control	采用欧陆 SCR 控制每组发热管 Adopt OMRON SCR power adjuster to control each group of heating tubes	
温度传感器 Thermal sensor	标准采用 K 型热电偶 Standard K-type thermocouple	
其它 Other	控制电器均采用施耐德 Control electrical appliances are Schneider	



Function and safety 功能及安全	定时功能 Timing function	定时分为 2 档 (手动/自动)：选择手动时为立即开始计时；选择自动时为温度必须达到设定温度值时才开始计时；时间到达后有声光报警并自动停机 Timing is divided into 2 grades (manual/automatic): when manual is selected, the timing starts immediately; when automatic is selected, the timing starts when the temperature must reach the set temperature value; after the time is reached, there will be an audible and visual alarm and automatic shutdown	
	声光报警 Audible alarm	配带蜂鸣器的报警灯。 Equipped with warning light with buzzer.	
	接地保护 Grounding cable	结构件安全接地保护。 Structural safety grounding protection.	
	漏电保护 Leakage Protection	装有漏电保护开关 Equipped with leakage protection switch	
	电源缺相、相序保护 Power phase loss, phase sequence protection	配有相序保护器：防止重接电源时马达反项、没有强风，电源项缺相而烧坏马达 Equipped with a phase sequence protector: to prevent the motor from being reversed when the power is reconnected, there is no strong wind, and the motor is burned out due to the lack of phase of the power supply.	
	超温报警 Over temperature alarm	当实际检测温度超过超温保护温控器设定值时，自动切断加热电源，启动声光报警器，起到双重保护功能 When the actual detected temperature exceeds the set value of the over-temperature protection thermostat, the heating power will be automatically cut off, and the sound and light alarm will be activated to play a double protection function.	
	噪声 Noisy	距离烘箱外壳 1m 范围内 ≤70db ≤70db within 1m from the oven shell	
环境条件 Environment	环境温度 Environment temperature	5°C-40°C	
	相对湿度 Relative humidity	≤85%RH	
	电源 Power source	AC380V±10%	
Training & technical support		Free remote training and technical support all the time	

五、产品使用前须知

5. Before using the product

1. 使用本产品前请仔细阅读说明书。

1. Please read the instruction carefully before using this product.



电源线、插头及电烤箱浸入水中或其它液体，以防触电。

2. Do not dip power cord, plug or electric oven into water or other liquids to prevent electric shock.
3. 电烤箱在工作时，表面温度可能很高，请勿随意触摸。
3. Electric oven in the work, the surface temperature may be very high, do not touch.
4. 将电烤箱放在干燥、平坦的地方上使用，并在周围保留足够的空间，与周围物体保持至少 10-15cm 的距离。
4. Use the oven in a dry, flat place with enough space around it to keep at least 10-15cm away from the surrounding objects.
5. 请不要使用非厂家提供的配件。
5. Please do not use non-manufacturer supplied accessories.
6. 严禁拉拽电源线，在移动电烤箱前需先拔出电源。
6. Do not pull the power cord. Unplug the power cord before moving the oven.
7. 严禁将烤箱放置在易燃物或热源的附近使用。
7. Do not place the oven near flammable materials or heat sources.
8. 如果电源线或插头有损坏，请停止使用并及时维修。
8. If the power cord or plug is damaged, please stop using and timely repair.
9. 使用本产品时，如果电路超载，可能导致电烤箱工作不正常。电烤箱应单独使用一条线路。
9. When using this product, if the circuit is overloaded, it may cause the electric oven to work abnormally. The electric oven should use a separate line.
10. 请不要将密闭的容器放置在炉内加热，否则可能有爆炸的危险。
10. Please do not put the sealed container in the furnace heating, otherwise there may be the risk of explosion.
11. 烤箱处于工作状态时，为免灼伤，仅可使用旋钮或把手。
11. When the oven is in working condition, only knobs or knobs can be used to avoid burns.
12. 不同类型的产品，所吸收的热量和升温速度不同，使用时掌握好烘烤产品的温度、时间最为重要，靠近炉门有散热现象，小心灼伤，取用产品要停电操作，戴上高温手套，以防止触碰发热组件烫伤手指。
12. Different types of products, the absorption of heat and heating speed is different, the use of baking products to master the temperature, time is the most important, near the furnace door there are heat dissipation phenomenon, be careful of Burns, take the product to blackout operation, wear high-temperature gloves to prevent burning fingers by touching the heating component.
13. 不用时把加热开关、运风开关、电源开关三个转换开关转到关停位置上，保持内腔壁洁净，烘烤



腔有油渍等脏物, 可用工业酒精轻擦烤箱内腔壁达洁净为止, 并且从炉门排出湿气, 烤箱表面用柔软布擦净, 不能用清水冲洗内腔, 以防接电, 更不能用天那水擦拭。

13. When not in use, switch the heating switch, air transfer switch and power switch to the off position, keep the inner wall clean, bake the product, if there are oil stains inside the furnace, etc. , can use industrial alcohol to clean the oven cavity wall, and exhaust moisture from the oven door, the surface of the oven with a soft cloth clean, can not use water rinse cavity, in order to prevent electricity, can not use the day that water wipe.
14. 烤箱安装一根三相五线电源线, 使用交流电, 电压和频率标在设备铭板上。接地线是黄/绿双色线。
14. The oven is fitted with a three-phase five-wire power line, and the AC, voltage and frequency are marked on the device nameplate. The ground wire is yellow/green.
15. 电线与电源连接: 根据铭牌上标明的荷载, 安装一个标准插头。将电线连接电源时, 必须在设备附近安装一个具有最小触头间隙为 3mm 的多极断路器, 并且符合当前的规定。
15. Wire connection to power supply: install a standard plug according to the load indicated on the nameplate. When connecting the wires to the power supply, a multi-pole circuit breaker with a minimum contact clearance of 3 mm must be installed near the equipment and comply with current regulations.
16. 只有在烤箱使用得当, 有效接地并遵守安全用电规章的情况下, 设备的用电安全才能得到保证。一定要确保有效地接地, 如果您有任何疑问, 可以通知有资格的技术人员进行检查。制造商不为由于设备没有接地系统所造成的破坏后果承担任何责任。
16. Only when the oven is properly used, effectively grounded, and in compliance with safe electrical regulations, the electrical safety of equipment can be guaranteed. Be sure to ground effectively, and if you have any doubts, notify a qualified technician for an inspection. The manufacturer shall not be liable for any damage caused by the ungrounded equipment.
17. 设备接通电源前, 要检查配电柜中的电源系统是否符合设备铭牌上的指标, 检查电柜供电系统及插座的电负荷是否支持设备铭牌上所标明的最大功率。如有疑问, 可通知具有资格的技术人员进行检查。
17. Before connecting the power supply to the equipment, check whether the power supply system in the distribution cabinet conforms to the specifications on the equipment nameplate, and check whether the electrical load of the power supply system and the outlet of the cabinet supports the maximum power as indicated on the equipment nameplate. If in doubt, a qualified technical person may be notified for inspection.



插座不匹配，应请有资格的技术人员来更换合适的插座。特别是后者，必须确保插座线适合设备的功率。不要使用适配器，多用插座以及延长导线。

18. If the plugs and sockets do not match, a qualified technician should be asked to replace the appropriate sockets. In particular, the latter must ensure that the socket line is suitable for the power of the device. Do not use adapters, use sockets and extension cords.

19. 下列情况下，必须与制造商授权的服务中心联系：

19. Contact the service center authorized by the Manufacturer IF:

— 将设备从包装中取出后，如果怀疑它的可靠性；

—If the reliability of the equipment is in doubt after it is removed from the package;

— 如果电源导线损坏，或需要更换时；

— If the power cord is damaged or needs to be replaced;

— 设备破损，功能差，需求原配件。

—Equipment damaged, poor function, the need for the original accessories.

20. 请最好按以下去做：

21. Please do as follows:

— 打开包装后，检查设备的可靠性；

—After opening the package, check the reliability of the equipment;

— 如果设备没有工作，以及清洁和进行维护保养时，使设备脱离电源；

—If the equipment is not working, as well as cleaning and maintenance, make the equipment out of power;

— 设备如果放置不用时，将设备插头从电源上拔掉。

—If the device is not in use, unplug the device from the power supply.

— 工作时应使用烤箱手套搬送产品；

—Work should be used oven gloves to transfer products;

— 由于热空气外泄，炉门末端可能很热，因此要抓门把手的中部；

—Because of the hot air leakage, the furnace door end may be very hot, so to grasp the middle of the door

handle;

— 在设备不使用时，应确认按钮是在“•”/“0”位置；

—When the device is not in use, make sure the button is in the “•”/“0” position;

— 当您决定舍弃设备时，在脱离电源后，要切断电源线；

—When you decide to abandon the device, cut the power cord after disconnecting from the power supply;



* 制造商不对由于不正确安装，不适当的、错误的或缺乏理性的使用所造成的任何损害承担责任。

***The manufacturer shall not be liable for any damage caused by improper installation, improper, incorrect or irrational use.**

* 本设备必须由具有资格的人员，遵照设备所提供的说明书进行安装。

***The equipment must be installed by qualified personnel in accordance with the specifications provided by the equipment.**

* 制造商不对由于不正确安装所造成的人员及动物的伤害及财产的破坏承担任何责任。

***The manufacturer shall not be liable for any damage to persons, animals or property caused by improper installation.**

* 注意：在进行任何调节和维护保养之前，必须切断设备的电源。

***Power must be cut off before any adjustment and maintenance can be performed.**

六、保养方法

6.Maintenance method

日保养

Daily Maintenance

1.打扫表面及内腔灰尘，保持机体干净、卫生。

1. Clean the surface and cavity, keep the body clean and sanitary.

2.检查升温速度是否正常，与以往相比如有异常，通知维修工检修。

2. Check whether the heating speed is normal, compared with the past, such as abnormal, inform the maintenance workers overhaul.

3.检查电机运转是否正常，有无异常声音，如有马上关闭机器，通知维修检修。

3. Check whether the motor operation is normal, there is no abnormal sound, if there is immediately shut down the machine, inform maintenance and repair.

月保养

Monthly maintenance

1.检查通风口是否堵塞。

1. Check for clogged vents.

2. 维修工检查电流是否正常。

2. The maintenance man checks whether the current is normal.



是否准确。如不准确，请调整温控器的静态补偿或传感器修正值。

3. Check the thermostat for accuracy. If not, adjust the thermostat's static compensation or sensor correction.

4. 检查发热管有无损坏，线路是否老化。

4. Check whether there is any damage to the heating pipe, whether the wiring aging.

半年保养

Six months maintenance

1. 检查开关及线路是否正常，有无老化。

1. Check whether the switches and wiring is normal, there is no aging

2. 电机变速箱加油。

2. Motor gearbox refueling.

七、注意事项

7.Points to note

1.温控仪表上 A/M 键所对应的指示灯 MAN 严禁按亮，是自动切换到手动的按键，MAN 指示灯按亮后温度将直线上升，不受所设定的温度限制。

1. Man is not allowed to light the A/M key on the temperature control instrument. It is automatically switched to the manual key. The temperature of MAN indicator will rise linearly after the light is pressed. It is not limited by the set temperature.

2.此烤箱属常温烤箱:严禁烘烤,易燃易爆物品

2. This oven is a normal temperature oven: no baking, flammable and explosive materials

3.此烤箱安全正确接地线.

3. This oven is safely grounded.

4.发现烤箱内无风吹出,应改变电源相序

4. If there is no wind blowing out of the oven, the phase sequence of the power supply should be changed

5.如需计时烘烤时间，首先应调整好所需烘烤时间，再打开计时开关，不应打开计时开关后再作时间调整，这样会导致计时错误。拿出产品时避免高温！

5.If need time baking time, first should adjust the required baking time, and then open the timing switch, should not be opened after the timing switch for time 6.5. This can cause timing errors. Avoid high



when taking out the product!

6. 严禁任意修改温控器和定时器的内部参数，温控器的输出 OUTL 参数不能为 0，定时器输出 OUTL 模式是 A-2，严禁改动。

6. Do not modify the internal parameters of the thermostat and timer arbitrarily. The output OUTL parameters of the thermostat can not be 0. The output OUTL mode of the timer is A-2. Do not change it.

7. 有防爆门的烘箱，烘箱背部离墙体或障碍物 1.5 米（防爆门位置）

7. Oven with explosion-proof door, the back of oven is 1.5 meters away from wall or obstacle (explosion-proof door position)

8. 在温度零度时，停机必须放完管道内的水，防止管道冻爆裂。

8. At the temperature of zero, the shutdown must be put out the water in the pipeline, to prevent the pipeline burst