

RXH-48

Hot Air Dry Oven



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MACHINE OVERVIEW

This equipment uses electricity as the heat source, and under forced circulation by a fan, the hot air layer flows through the drying plate to transfer heat to the material, taking away the humidity in the material. According to the different requirements of the material and the different states of the drying process, the proportion of air discharge and circulation can be adjusted, thereby achieving the dual improvement of drying speed and heat utilization rate. This is also the advantage of the hot air circulation drying oven.

This oven is a tray type gap drying equipment with a wide range of versatility, suitable for dehumidification, solidification, and drying of materials and finished products in industries such as pharmaceuticals, chemicals, food, light industry, electronics, etc., such as raw materials, raw medicines, traditional Chinese medicine decoction pieces, powders, granules, granules, honey balls, pigments, spices, packaging bottles, dehydrated vegetables, food, plastic resins, electrical components, baking paints, etc.

MACHINE FEATURES

1. Most of the hot air is circulated inside the box, with high thermal efficiency and energy conservation;
2. The whole machine has low noise and smooth operation. Temperature control, easy installation and maintenance;
3. Utilizing the principle of forced ventilation, there is a adjustable air distribution plate inside the box, which ensures uniform drying of materials;
4. It has a wide range of applications and can dry various materials, making it a universal drying equipment.
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MANUFACTURING REQUIREMENTS

1. Production capacity: Maximum drying capacity each time~120kg
2. Operating temperature: Room temperature~120 °C (adjustable)
3. Heating source: Electric
4. Electric heating: With a heating power of 18kw, a set of stainless steel 304 heating pipes are installed in the top air duct of the box; Cooperate with instrument PID and solid-state relay to stabilize output and adjust the temperature inside the chamber
5. In order to shorten the drying time, improve the drying efficiency, and ensure the uniformity of temperature in each layer by evenly sending hot air into every corner of the box, a hot air circulating axial flow fan with an air volume of 4600m³/ h is installed on the right side of the

box. The fan has a power of 0.75KW and a voltage of 380V. It is a high temperature resistant and high air volume fan.

6. Two supporting drying trucks, made of stainless steel square tubes and stainless steel plates. The stainless steel plates are bent into tracks and made of SUS 304 material. The drying wheels are made of high-temperature resistant nylon (4-inch)
7. The external dimensions of the drying car are: 705 wide, 940 deep, and 1380mm high (including wheels)
8. Equipped with 48 baking trays, with dimensions of 460 × 640 × 45 (mm) and material of 304 stainless steel. They are formed by one-time stamping (with straight or rolled edges optional and punched as needed), with a thickness of $\geq 0.7\text{mm}$.
9. The four corners inside the box are all rounded corners, and the intersection between the corners is a spherical semi-circle, which is convenient for cleaning and smooth hot air flow. The outer surface of the box is free of unevenness, flat, smooth, and beautiful, meeting the requirements of GMP.
10. The joints of the surface panels inside the box are all formed by argon arc welding and fully welded, and polished. They are produced as a complete assembly.
11. The box door is a front facing door, consisting of 2 doors. The door structure is a lever pressed structure, and the door pressure strip is a high-temperature resistant silicone rubber sealing strip, with excellent insulation performance.
12. In order to supplement some fresh air inside the oven and meet the cleanliness requirements, one air inlet is made at the top of the hot air circulation fan in the oven, equipped with a high-temperature and high-efficiency filter (150x150x150mm), and one air inlet is installed in the oven.
13. In order to improve drying efficiency, ensure that the moisture inside the box is quickly and evenly discharged outside the box, and meet the cleanliness requirements, a dehumidification port is made at the top of the box, and a high-temperature and high-efficiency filter (150x150x150mm) is installed. There is one dehumidification port in the

box, and a dehumidification fan is installed on top of it. The dehumidification time is automatic dehumidification, and the power of the dehumidification fan is 370 W/380V; Simultaneously install electric check valves, dehumidification check linkage, and check valves φ 60 per piece.

14. The high-temperature and high-efficiency filters at the top of the box, including the air inlet and dehumidification air outlet, are both made of quick installation, making them easy to disassemble and clean
15. To ensure that the bottom plate of the box does not deform during long-term use and the drying truck enters and exits smoothly, the steel structure at the bottom of the box is strengthened
16. The diagonal feeding rack for the inlet and outlet of the supporting drying truck is made of 304 stainless steel plate with a thickness of 2.0 mm. The hinges on the diagonal feeding rack are a set of lock type hinges made of stainless steel round steel.
17. The track groove on the bottom plate of the box is a concave convex closed track groove, which is made on top of the bottom plate inside the box. It is fully welded without gaps or dead corners and meets the latest requirements of GMP, making it easy for insulation inside the box and preventing impurities from entering the box.
18. The external dimensions of the box are: door width 2460 x depth 1100 x height 2280 (mm)
19. The outer surface plate is made of 304 stainless steel plate with a thickness of 1.2 mm, which is a laminated matte plate.
20. Studio dimensions: Door width 1600 x depth 1000 x height 1460 (mm)
21. The inner plate is made of 304 stainless steel plate with a thickness of 1.2mm to 1.5mm, which is a laminated matte plate.
22. In order to minimize the loss of temperature inside the box, save energy consumption, and ensure the temperature in the working environment, the insulation layer of the box is 60 mm thick and filled with high-temperature and fire-resistant insulation cotton.
23. To ensure that the hot air is evenly fed into the box, a staggered adjustable air distribution

plate is installed outside the left and right air duct layers inside the box, which is movable and adjustable, making it easy for the hot air inside the box to be evenly adjusted from top to bottom.

24. The control system of the box is installed on the right side of the box, and the temperature is adjusted by the solid-state relay PID module. It automatically controls temperature and maintains constant temperature, with a smooth process and easy operation.

MACHINE PAPAMETER

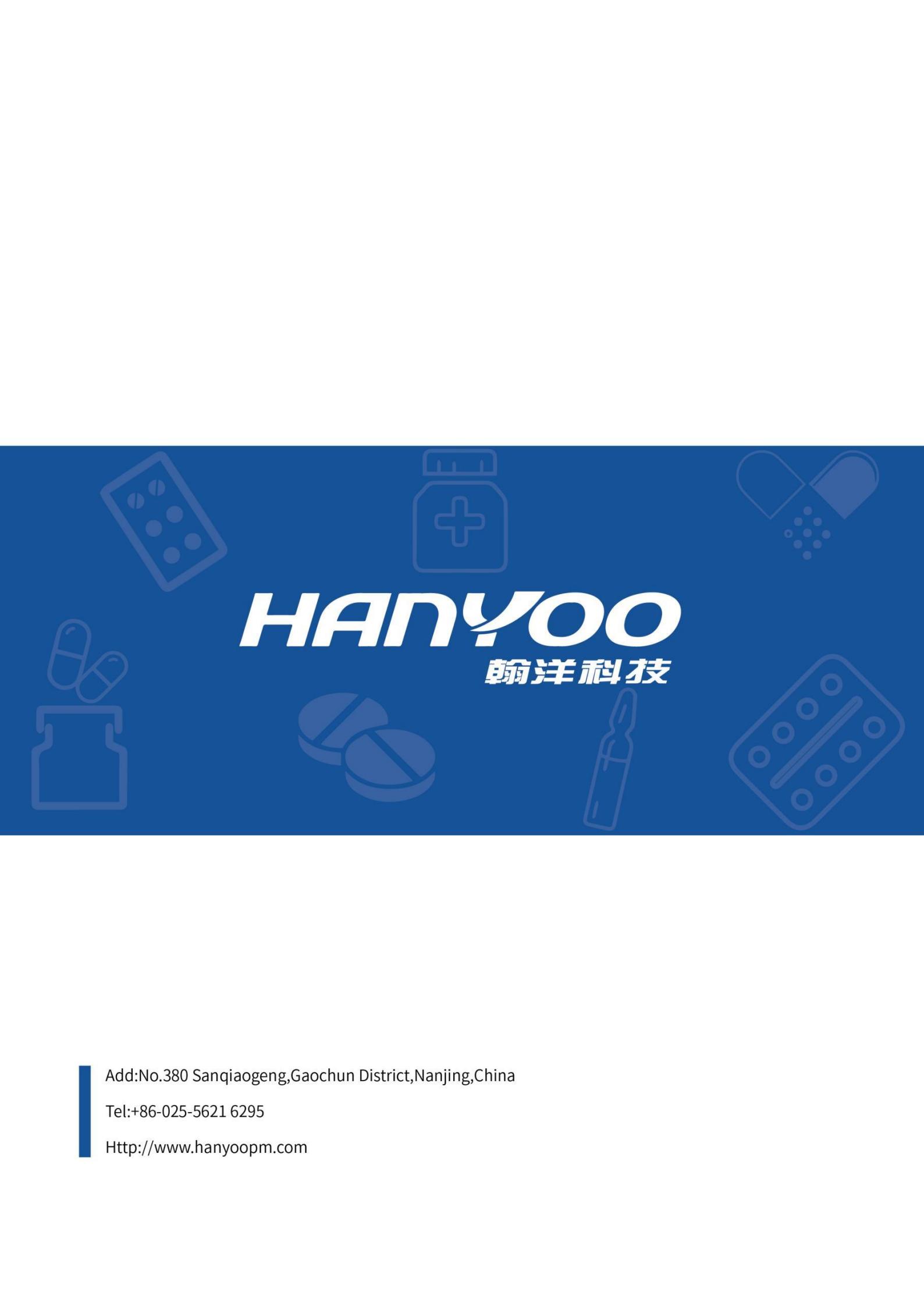
MOLD	RXH-48	REMARK
Overall Dimensions (mm)	2460×1100×2280	
Working Dimensions (mm)	1600×1000×1460	
Temperature Range(°C)	Room Temperature-120°C	
Heating Method (kw)	18KW	
Fan Power (kw)	0.75	
Supporting Drying Truck (vehicle)	705×940×1270 (2 Viechle)	2
Baking Tray (mm)	640×460×45 mm	48
Moisture Removal Power (w)	370W	
Weight (kg)	1300	

ELECTRONIC PART LIST

NO.	NAME	MODEL	BRAND
1	Box Shell	δ1.2 mm	Wuxi
2	Inner Wall Of The Box	δ1.2-1.5 mm	Wuxi
3	Air Duct And Convection Wall	δ1.2 mm	Wuxi
4	Trolley Ramp	δ2.0 mm	Wuxi
5	Second Floor Air Duct Board	δ1.2 mm	Wuxi
6	Heating Tube	SS 304/18kw	Hanyoo
7	Drying Car	30×30×1.5mm	Wuxi
8	Baking Tray	460×640×45mm	Hanyang
9	Insulation Materials	Aluminum Silicate Fiber Cotton 60mm	Wuxi Insulation Material Factory
10	Sealing Material	Edible high-temperature resistant silicone rubber	Nanjing Xiushen
11	Hinge Compression	6 INCH	Wenzhou
12	Drying Wheels	100mm Grivory HT	Guangzhou
13	Control Box	SS 304δ1.2 mm	Hanyoo
14	High Efficiency Filter	150×150×150×2	Guoyi Purification
15	Main Fan	0.75kw	Shengzhou Electromechanica
16	Moisture Exhaust Fan	0.37kw	Zhejiang Yinniu
17	Electric Check Valve	MCφ60/SS 304	Shanghai Yuehua

LIST OF APPLIANCES

NO.	NAME	MODEL	BRAND
1	AIR BREAKER	DZ47-60A 3P C100	CHINT
2	AIR BREAKER	DZ47-60A 1P C10	CHINT
3	AIR BREAKER	CJX2-0910/1210 220V	CHINT
4	AIR BREAKER	CJX2-5011 220V	CHINT
5	BUTTON	DN16-22BS/4 220V	CHINT
6	BUTTON	DN16-22BS/4 220V	CHINT
7	TEMPERATURE CONTROL	AK-6	HUIBANG
8	TIME RELAY	DH48S-1Z	ZHUOCHUANG
9	TEMPERATURE SENSOR	PT-100	JIASHANG
10	BUTTON	NP2-BS542	CHINT
11	BUTTON	NP2-BS542	CHINT
12	BUTTON	NP2-BS542	CHINT
13	ELECTRICAL CABLLE	Several	CHINT
14	SOLID STATE RELAY	80A	TAIWAN



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