

YC-2000实验室低温喷雾干燥机

YC-2000 LAB LOW TEMP. SPRAY DRYER

一直以来，热敏性的物料的快速干燥问题困扰着很多科研人员。普通的真空干燥和喷雾干燥，对物料的生物活性或物料结构都有较大的破坏，冷冻干燥干燥时间长，能效低，且干燥后的物料成块状，需要第二次粉碎。上海雅程仪器设备有限公司在与科研人员的长期接触中，意识到低温喷雾干燥能有效解决科研人员在热敏物料干燥上的问题，精心开发了YC-2000实验室低温喷雾干燥机，该机充分保留了YC-015实验室喷雾干燥机的诸多优点，又创新性的结合了真空干燥的优点，能在进风温度在60℃左右，对物料进行快速的干燥（1秒），完全避免了物料在干燥过程中的活性或结构的破坏，为热敏物料提供了极为方便极为安全的干燥方法，如酶制剂活菌等生物制品，含糖量高的中药天然产物提取物，不耐热的高分子材料，遇热气化的材料等等。

Fast drying of thermo-sensitive material has always baffled scientific research personnel. General vacuum drying and spray drying bring great damage to material biological activity or structure. Freeze drying is time-consuming and inefficient, and dried materials are in bulks which require a second grinding. Based on long-term contact with research personnel, Shanghai Pilotech Instrument & Equipment Co., Ltd has realized that low-temperature spray dryer can effectively help research personnel solve thermo-sensitive material drying difficulty and deliberately developed YC-2000 Laboratory low-temperature dryer. YC-2000 fully retains beauties of YC-015 Laboratory spray dryer with innovative combination of advantages of vacuum drying. It can conduct rapid drying (1 second) with an inlet air temperature of 50℃, which completely avoids damage to material activity and structure during the drying process and provides very convenient and safe drying method for thermo-sensitive material drying, such as enzyme preparation viable bacteria, high carbohydrate traditional Chinese medicine natural product extract, thermolabile polymer material, heat gasification material and so on.

YC-2000实验室低温喷雾干燥机专为热敏物料精心开发而成，整机设计紧凑，自成一体，无需其他设施即可运行。一键式开机，彩色大液晶触摸屏操作，可采用完全自动或人工监控两种运行模式，方便操作和实验过程的监控，特别是实现了低温条件（50℃）物料的瞬间干燥，为热敏物料提供了极为方便极为安全的干燥方法，如酶制剂活菌等生物制品，含糖量高的中药天然产物提取物，不耐热的高分子材料，遇热气化的材料等等。

YC-2000 laboratory low-temperature spray dryer is deliberately designed for thermo-sensitive materials by Shanghai Yacheng Instrument & Equipment Co., Ltd and American PILOTECH. The entire machine is compact and complete with no need of any other facility to operate. One-touch boot, large color LCD touch screen, either automatic or manual control, convenient for monitoring of operation and experiment. In particular, it achieves rapid material drying at low temperature (50℃) and provides very convenient and safe drying method for thermo-sensitive materials, such as biological product, high carbohydrate traditional Chinese medicine natural product extract, thermolabile polymer material, heat gasification material and so on.





YC-2000实验室低温喷雾干燥机的技术特点

1) 喷雾干燥整个实验过程在最低 50°C 即可完成, 大大降低了物料干燥温度, 解决了热敏性物料喷雾干燥的难题。
Spray dry at low temperature (50°C) using for thermosensitive material.

2) 7"彩色触摸屏操作, 中英文操作界面。
7" high-resolution LCD, human-oriented interface, Chinese and English menu, Optimize operation procedure, efficiency, flexibility, easy-going and easy Learning.

3) 喷粉的粒径呈正态分布, 流动性非常好。
Particle size with normal distribution

4) 二流体喷雾的雾化结构, 采用优质不锈钢材料精密制造, 设计紧凑, 无需附属设备, 方便使用, 历久如新。
Two fluid atomizing structure, made of SUS 304 (316 optional) Stainless steel. Easy operating.

5) 为了满足用户在实验范围调节各项参数的要求, 在干燥温度控制的设计上采用实时调控PID恒温控制技术, 使全温区控温准确, 加热控温精度 $\pm 1^{\circ}\text{C}$ 。
To assure accurate temperature control and easy parameter adjusting, YC-1800 applies PID.

6) 进料量可通过进料蠕动泵调节, 额定处理量 $1500\text{mL}/\text{H}$ (根据物料浓度, 干燥温度不同而有差异)
The self-priming peristaltic pump delivers the sample liquid from a container through a small diameter jet into the main chamber to avoid secondary pollution, capacity: $1500\text{mL}/\text{H}$

YC-2000实验室低温喷雾干燥机技术参数 Parameter

1、整机全不锈钢制作，二流体喷雾的雾化结构；

Two fluid atomizing structure, made of SUS 304 (316 optional)
Stainless steel. Easy operating.

2、设有喷咀清洁剂（通针），在喷咀被堵塞时会自动清除，通针的频率可调；

Automatic de-blocking device prevents the nozzle from becoming
blocked and variably controlled

3、额定物料处理量：1500mL/H；（根据物料浓度，干燥温度不同而有差异）

Capacity: 1500mL/H

4、最小样品量：50mL（视物料固形物含量差异）；

Min sample: 50ml

5、实时调控PID恒温控制技术，加热控温精度：±1℃；

To assure accurate temperature control and easy parameter adjusting,
YC-1800 applies PID.

6、喷嘴口径：0.5mm、0.7mm、1mm、1.5mm、2mm 可选，并可根据客户要求定制；

Standard with 0.7mm jet and other sizes are available as accessories

7、整机功率：7KW/380V；

Power: 7KW/380V

8、在低温（进风温度50℃）条件下能完成瞬间喷雾干燥；

Spray dry at low temperature (inlet temp. 50℃) using for
thermosensitive material.

9、真空度-0.05~0.06MPa；

Vacuum: -0.05~0.06MPa

10、7"彩色LCD触摸屏操作控制，全中文操作界面。

7" high-resolution LCD, PLC controller

11、进风温度最低50℃，最高可达200℃

Inlet air temp.: 50~200℃

12、出风温度最低可达45℃

Outlet air temp.: 45℃ available





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