

YC-3000实验室喷雾冷冻干燥机

YC-3000 LAB SPRAY FREEZE DRYER



上海雅程仪器设备有限公司成功开发出实验室喷雾冷冻干燥机YC-3000，填补了国内实验室喷雾冷冻干燥研发设备领域的空白。适合在实验室内完全模拟喷雾冷冻整个过程，能用于实验室里原始配方确定/配方更新、口味的甄别、颜色的评估、稳定剂/乳化剂应用、货架期实验以及制作赠送客户之样品，实验数据可直接放大应用于工业生产。适用于热敏性、粘稠性、活性物料及含糖量高的物料的低温干燥，如中草药天然产物提取液、乳制品、生物制剂、酶制剂、水果原汁、高分子材料等。也适合纳米材料的干燥。

Shanghai Pilotech Instrument & Equipment Co., Ltd has successfully developed YC-3000 laboratory spray freeze dryer, which fills in the gap of domestic laboratory spray freeze drying equipment research and development. YC-3000 is suitable for laboratory simulation of full process of spray freezing, determination and update of laboratory original formula, taste discrimination, color evaluation, stabilizer/emulsifier application, shelf life experiment as well as customer sample production. Experimental data can be directly applied to industrial production, suitable for low temperature drying of thermo-sensitive, viscous, active and high carbohydrate materials such as Chinese herbal medicine natural product extract, dairy product, biological agent, enzyme preparation, fruit juice and high polymer materials, etc.

适用范围Application

YC-3000实验室喷雾冷冻干燥机适用于热敏性、粘稠性、活性物料及含糖量高的物料的低温干燥，如中草药天然产物提取液、乳制品、生物制剂、酶制剂、水果原汁、高分子材料等

YC-3000 Laboratory Spray freezing dryer can be used for low-temperature dehydration of heat-sensitive, viscous, active and high sugar materials, such as Chinese herbal medicine and nature product extract, dairy product, biological agent, enzyme, fruit original juice, and polymer materials.

主要特点Features

1、实验室喷雾冷冻干燥机把喷雾干燥和真空冷冻干燥二者有机的结合起来，所需的干燥时间极短，极大的缩短了传统的真空冷冻干燥时间，且干燥后的物料为粉状的固体，经喷雾冷冻干燥的物品，原有的生物、化学特性基本不变，易于长期保存，加水后能恢复到冻干前的形态，并且能保持其原有的生化特性；

Laboratory spray freeze dryer combines spray drying and vacuum freeze drying with very short drying time, which greatly shortens traditional vacuum freeze drying time, and dried materials are powdery solid. Spray freeze dried materials do not change in biological and chemical properties, easy for long-term preservation. When watered, they resume the state before the freezing with original biological and chemical properties retained.

2、设备采用风冷冷凝式全封闭压缩机制冷系统，制冷迅速，结冰器温度低，吸附水份能力强，温度、真空度显示均为数字式，准确、直观；

YC-3000 adopts air-cooled condensing fully closed compressor refrigeration system that provides rapid refrigeration, low icer temperature, powerful water adsorbing capability, and digital, accurate and direct temperature and vacuum degree.

3、喷雾冷冻干燥物品采用空气自然加热升华，保持样品的安全性；

Spray freeze drying adopts spontaneous air heating and sublimation to guarantee sample safety.

4、主机上配有真空泵电源插头，不需另接电源，使用方便；

The host is equipped with vacuum pump power plug, with no need for power connection, easy to use.

5、真空连接采用国际通用标准卡箍，方便可靠；

Vacuum connection uses international standards clamp, convenient and reliable.

6、性能稳定，操作简便，噪音低；

Stable performance, simple operation, low noise.

7、快速冷冻喷雾干燥对比传统冻干机：能对易粘壁、含有机物的液态物料进行快速冻干（果汁、中药浸膏等），且干燥后的成品呈颗粒状态，流动性好，颗粒粒径在一定范围内可调。

Compared with traditional freeze dryer, rapid spray freeze dryer can achieve fast freezing and drying of sticky and biological materials (fruit juice, Chinese medicine extract, etc.), and dried finished products are particles of good liquidity with particle size adjustable in a certain range.

技术参数 Parameters

1) 彩色LCD触摸屏参数显示：干燥室温度/蠕动泵转速 /风机频率 /通针频率/干燥室压力

Color LCD touch screen parameters displays drying chamber temperature/peristaltic pump rotating speed/ airflow frequency/ de-blocker frequency/drying chamber pressure

2) 处理量：1500ml/次
Capacity : 1500ml each experiment

3) 喷雾冷冻温度：<-15℃
Spray freezing temperature: <-15℃

4) 冷阱温度：≤-60℃
Cold trap temperature: ≤-60℃

5) 真空泵功率：2KW
Vacuum pump power: 2KW

6) 极限真空压力 <20Pa (空载)
Ultimate vacuum pressure: <20Pa (idle)

7) 喷雾压力：2-5BAR (喷雾压力可调)
Spray pressure: 2-5BAR (adjustable)

8) 空压机产气量：4.2M³/h
Air compressor gas production rate: 4.2M³/h

9) 冷风风量：5.5M³/min
Cold air volume: 5.5M³/min