

YC-310实验室喷雾造粒包衣机（实验室流化床）

YC-310 Laboratory Spray Granulator

YC-310实验室喷雾造粒包衣机（流化床制粒）是上海雅程开发的集成流化床干燥，喷雾造粒，包衣一体的实验室设备，专为实验室大颗粒粉末制粒包衣特别是中药一步制粒需要而生产。

Developed by Shanghai Pilotech Instrument & Equipment Co., Ltd., YC-310 laboratory spray granulator (fluidized bed granulation) combines spray dehydration and granulation focusing on large particles powder granulation in laboratory.

将流化床干燥，喷雾制粒和包衣3道工序集成在一台设备中完成

Three processes of spray dry, granulation and coating in fluidized bed spray granulation are completed in one equipment.

最低需要50克的样品即可完成实验。

The experiment requires a minimum amount of samples of 50g.

占地面积小:仅占地0.5平米，可直接放在实验台上。

Small area coverage of 0.5 square meters that can be placed on the laboratory table.

工艺流程简单、设备紧凑、能耗低、环保性能好。

Simple process, concise equipment, low power-consumption and environmental performance.

适合于热敏物料和颗粒易溶化样品。

Suitable for heat-sensitive materials and samples of easy dissolving particulates.

PLC操作控制，整个工艺实验状态彩色LCD触摸屏显示PLC operation control. Color LCD touch screen displays the whole experimental process.

关机保护功能:关机时只需按停止键，机器除风机外立即停止运行，保证设备不会因为误操作（强行关风机）而导致加热部分烧坏。

Shutdown protection: press the stop button and the machine (except the blower) stops working immediately so that heating parts will not be burnt due to misuse (forced shutdown of the blower).

整机全不锈钢制作,二流体喷雾的雾化结构
Stainless steel machine body and two-fluid spray atomization structure.

YC-310喷雾制粒包衣干燥一体机（沸腾制粒机）结构:顶喷装置是由一个锥形的锅体及扩展室组成，由于锅体是锥形的，保证了锅体内的喷泉式流化状态，进风气流推动锅体内的物料向上进入扩展室，由于扩展室直径大于锅体底部进风口，进风风速下降，物料因自身重力大于风力而下降，物料在锅体及扩展室内往返运动。在扩展室顶部有多个喷枪安装口，可用于在制粒及包衣过程中喷入雾化液体。顶喷可应用于干燥、制粒及掩味包衣等多方面。

The top spray device consists of a conical material tank and an expansion chamber. The material rises and falls, forming a fluidized motion. In the conical tank the reciprocation of the material brings about a fluidized state like the shape of a fountain. The spray head sprays liquid evenly onto the material, where liquid bridge is formed, followed by solid bridge, thus bigger granules are made.

底喷装置是由一个圆锥形的锅体及内置的导流筒组成，锅体底部采用双风道进风结构，以控制导流筒内外的气流状态。物料在导流筒内高速向上运动，进入扩展室后落入导流筒外，如此循环。雾化喷枪安装在导流筒中心，喷枪自下向上喷液，方向与物料、气流方向一致。底喷主要用于各种微丸及细粒的功能性包衣。

The bottom spray device, a significant breakthrough in coating technology, has made coating of small particle size possible. With the development of the technology, powder as small as 50 μm can be coated. The bottom spray device comprises a conical pot and a guide cylinder. The bottom of the pot has a dual-path air intake structure so as to control the air flow state both inside and outside the guide cylinder. The material in the guide cylinder ascends at a high speed, enters the expansion chamber and falls outside the guide cylinder, which is a cycle that goes repeatedly. The spray nozzle at the center of the guide cylinder atomizes the liquid drops upwardly from the bottom so the liquid drops spread evenly on particle surface and forms patches of coating film. In this process the coating film becomes thicker steadily and dries until the coating process is complete.



彩色LCD触摸屏参数显示:进风口温度/物料温度/风机频率

Color LCD touch screen parameters: air in take temperature/material temperature/blower frequency

进风温度:40 °C~150°C

Inlet air temperature: 40°C~150°C

电压:220V/50Hz, 3KW

Voltage: 220V/50Hz, 3KW

尺寸:700*600*1150mm

Size: 700*600*1150mm

重量:80 Kg

Weight: 80 Kg

应用领域Application area

制药产品/食品和饲料/陶瓷产品/塑料、橡胶/聚合物和树脂/生化产品/化学品和化肥/香水/色素和染料/蔬菜和植物提取物/芳香物/粮食作物等等

Pharmaceutical product/food and feed/ceramic product/plastic and rubber/polymer and resin/biogenetic product/chemicals and fertilizer/perfume/ coloring matter and dye/vegetable and fruit extract/ aromatic substance/grain crop, etc.

应用范围Application

喷雾干燥和微粉化、微胶囊化、合成和提取产品的恢复、悬浮液干燥、颗粒尺寸控制和结构修正

Spray dehydration and micronization, microencapsulation, restoration of product-composition and extraction, suspending liquid-dehydration, particle size control and structure revision

最高进气速度可达:150M³/H

Maximum inlet air speed: 150M³/h

压缩空气压力:0.15Mpa~0.6Mpa, 压缩空气耗量:≤4M³/H

Air compression pressure: 0.15Mpa~0.6Mpa;

Air compression consumption: ≤4M³/h

物料处理量:最大300克/次

Material treatment capacity: 300g/batch