

环保涂料成套装备生产线

Environmental protection Painting Production System

产品概述

整套系统由搅拌釜、高性能珠磨机、储存釜、调漆釜、输送泵、强制冷却机构、连接管道等组成。通过优化的系统配置，最大程度的将能量转移到研磨介质，进行磨碎。整机运用的特殊技术，使物料流量非常大。这样的好处既可以迅速达到磨细产品的目的，又可以使物料升温较小，有效的控制了系统整体温升。通过强制冷却机构，最大程度的带走热量。使物料不至因为温升造成变色、团聚等现象。采用了多种监控设备，通过PLC进行采集并最终传送到工业控制计算机（或触摸屏）上。操作人员可以便捷的通过计算机对整套设备进行监控，特别适用于对防爆、人体危害有严格要求的产品粉碎。浆料由搅拌釜通过定量输送泵进入磨机，在磨机中进行粉碎，并由输送泵进入储存釜，通过对储存釜物料进行检测，达标浆料进入灌装或下道工序，未达标浆料可以返回磨机进行再次粉碎。通过一次或数次的经验可以确认系统运行参数。最终实现自动化生产。

该成套设备能独立完成分散、研磨、过滤、真空自动吸料以及半自动灌装等全过程。有年产800吨、1800吨、4800吨、8800吨、11000吨、18000吨、28000吨、58000吨、88000吨等多种型号可供选择，并可根据客户实际产能需求，设计制造专业涂料一体化成套设备。

特点

- 特级冷却：设计了大面积的多层冷却区域，能够有效逸散磨腔中产生的热量。无论是单道加工还是多次循环操作，均无需进行额外的冷却。物料的温度在安全范围，尤其适用于热敏性物料的研磨。
- 研磨筒体、棒销、转子的材料可根据耐磨性、耐腐蚀性的要求加以更换。
- 采用了先进的动态分离技术，可实现研磨介质与浆料有效分离，研磨介质在内外研磨带循环进行研磨。浆料通过中心设置的保护分离筛网进入卸料管进行出料。该项技术使得该设备可采用极其细小的研磨介质（ $\Phi 0.2\text{mm} \sim \Phi 1.2\text{mm}$ ），填珠个数可几何程度增长，同时由于研磨介质的有效分离及循环使用，可实现高流量的研磨，使研磨具备高效能、大产量、高分散性等特点。
- 适用粘度范围广泛，在20mpas~7000mpas都可以进行用。
- 采用经优化设计的机械密封。

Product introduction:

The system is made of stirred tank, high-performance bead mill, storage kettle, paint mixing kettle, delivery pump, forced cooling unit, and connecting pipelines. Through the optimization of the system configuration, can extremely transfer energy to grinding media, and do well grinding. The system uses special technology, makes the material flowing very high. The advantage of this is quickly grinding products, and can make less temperature rise of the material. It will effectively control the temperature rise of the whole system. The forced cooling unit takes away heat furthest, To prevent the material from changing color and agglomerating.

A variety of monitoring equipments send information to the industrial control computer (or touch screen) by virtue of PLC. The operator can control the whole system on a computer monitor conveniently, it is especially suitable for grinding industries which needs explosion-proof and guard against the material doing harm to people. The slurry is transmitted from stirred tank to grinding mill by quantitative delivery pump, Then will be ground in the grinding mill, After that the slurry will be transmitted to storage kettle by delivery pump, the operator can take and test the sample from the storage kettle, If the size of slurry is up to requirement, It will be transmitted to filling or other next process, if the size is not ok, then it will be transmitted to grinding mill to grind again till it can meet the requirement. By one or several times of operation experience, The operation parameters of the system can be fixed to finally realize the automatic production.

The system can independently finish scattered, grinding, filter, vacuum feeding as well as semi-automatic filling process, etc. We have models with annual output of 800 tons, 1800 tons, 4800 tons, 8800 tons, 11000 tons, 18000 tons, 28000 tons, 58000 tons, 88000 tons etc. for your choosing, and we can design and manufacture professional integrated complete set of equipment systems for paint industry according to customer's required actual production.

FEATURES

Super cooling: We designed large multilayer cooling area, can effectively release the heat in grinding chamber. Whether during single or multiple processing, there is no need to add extra cooling equipments. The temperature of the material is in safe range, especially suitable for the grinding of thermal sensitive material.

The material of grinding barrel, stick pins and rotor resistance can be changed according to requirements of abrasive and corrosion resistance.

The system applies advanced dynamic separation technology, it can realize effective separation of grinding media and slurry, the grinding media grind circularly in the inner and outer of ground belt.

The slurry will be transmitted into discharge pipe through screen separation,

The technology make the equipment can use very fine grinding medium ($\Phi 0.2\text{ mm to } \Phi 1.2\text{ mm}$), the filling beads number can be increased at geometry degree, at the same time, the grinding media can be efficiently separated and cyclically used, it can achieve high flow grinding, make the mill have big production, high efficiency and high dispersion characteristics.

Applicable viscosity range, can be used from 20 mpas to 7000 mpas..

Use mechanical seal of optimized design.

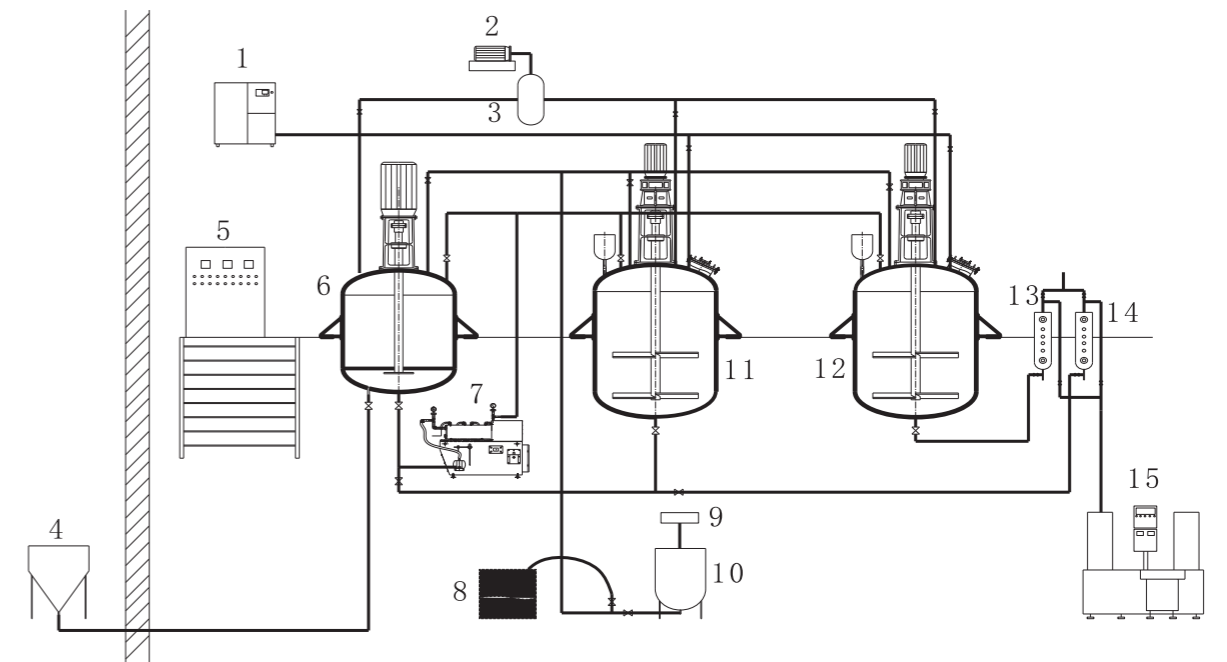
环保涂料成套装备生产线流程图

Environmental protection Painting Production System Layout



涂料一体化成套装备工艺流程图

Painting Production System Techonology Flowchart.



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| 1.空压机 | 8.液体吸入槽 | 1. Air compressor |
| 2.真空泵 | 9.液体计量器 | 2. Vacuum buffering tank |
| 3.真空缓冲罐 | 10.添加剂槽 | 3. Vacuum pump |
| 4.粉体吸入槽 | 11. 12. 调配釜 | 4. Powder suction groove |
| 5.电路控制系统 | 13. 14. 反冲式袋式过滤器 | 5. Circuit control system |
| 6.高速预分散釜 | 15. 灌装机 | 6. High speed dispersing machine |
| 7.卧式砂磨机 | | 7. Horizontal sand mill |
| | | 8. Liquid suction groove |
| | | 9. Liquid meter |
| | | 10. Additive Tank |
| | | 11. 12. Formulation tank |
| | | 13. 14. Recoil Bag Filter |
| | | 15. Filling machine |