

XJZ/XZ

上悬式离心机

Top-suspended Motor Centrifuge



● 工作原理

上悬式离心机主要由转鼓、驱动系统、轴座、上机壳、外壳、下主轴、刮刀组等组成。其结构是传动系统置于上方，由立式电机通过联轴器直接驱动主轴运转，转鼓固定在下端。上悬式离心机的工作原理：电机驱动转鼓旋转，达到进料转速状态时，待分离的悬浮液物料由进料管进入高速旋转的转鼓内，进料达到预定容积后停止进料，转鼓升至高速分离转速，在离心力的作用下，物料通过滤布(滤网)实现过滤，液相穿过滤层经转鼓孔甩至空腔经出液管排出，固相则被截留在转鼓内形成圆桶状滤饼，随后可对滤饼进行洗涤，达到分离要求后，转速降到卸料转速状态，下部转鼓罩壳沿轴线方向向下运动，刮刀装置动作，将滤饼从转鼓内壁刮下经离心机下部出料口排出。

● Working Principle

The top-suspended Motor Centrifuge is composed of drum, driving system, bearing seat, upper housing, outer housing, lower shaft, scraper group and etc. Its structure adopts top located transmission system, vertical motor provide the driving of drum through the coupling directly and the drum is fixed on the lower end of shaft. The working principle of the top-suspended motor centrifuge: The motor drives drum to turn. When drum reaches feeding speed, the suspension products to be separated will enter into the drum on a high speed from the feeding pipe. Feeding will stop when the preset volume is reached. Then the speed of the drum will be raised for separating. Under the centrifugal force, the products will be filtered by filter cloth (filter screen). The liquid phase will be thrown through the rotary drum hole to the empty chamber and discharged through the liquid discharging pipe. The solid phase will be retained on the drum and form cylindrical filter cakes which can be washed. After the requirements for separating is met, the speed will be lowered for discharging. Housing of the drum moves downwards along the axial direction. The scraper device acts to scrape the filter cakes off the internal wall of the drum and discharge them from the discharging port on the bottom of the centrifuge.

● Main characteristics

1. The centrifuge adopts frequency motor driving and full-automatic repetitive operation. During the automatic repetitive operation, the optimized operation is realized through frequency stepless speed control so that the requirements of low speed feeding, high speed separating and low speed discharging are met.
2. The centrifuge adopts dynamic or regenerative braking to achieve obvious efficiency effects.
3. The electric control is realized by PLC. Time setting can be carried out for all working procedures and the real-time working status of each procedure can be displayed on the operation screen.
4. Product contact parts of centrifuge are made of austenitic stainless steel (according to users' requirements) to ensure cleanliness and sanitation during the production process.
5. The structure of centrifuge adopts compact structure and stable running.
6. Higher production capacity, automation and speed, better separation efficiency, lower noise and labor intensity.

● 主要特点

1. 离心机采用电机变频驱动，全自动循环操作，在周期自动循环操作中，变频无级调速实现最优化的操作，最大限度地满足低速加料、高速分离、低速卸料对转速的要求。
2. 离心机采用能耗或回馈制动，节能效果显著。
3. 电气控制采用可编程控制器(PLC)，可对各个工序进行时间设置，操作屏上显示各工序的实时工作状态。
4. 离心机与物料接触的零件采用奥氏体不锈钢(根据用户需要)制造，使生产过程做到了清洁卫生。
5. 离心机整体结构紧凑，运转平稳。
6. 生产能力大、自动化程度高、转速高、分离效率高、噪音低、劳动强度低。

● 产品主要规格及参数

上悬式离心机，根据分离不同物料的卸料方式，分为以下两大类：

- 固体晶粒较细、质地较紧密，转鼓采用圆柱形筒体，可通过刮刀径向和轴向运动将物料从转鼓壁上刮下完成卸料过程。称为“XJZ”型。
- 固体晶粒较粗、质地较酥松，转鼓采用圆锥形筒体，利用转鼓低速即停由惯性使物料松散，靠重力完成卸料，称为“XZ”型。

● Main specifications and parameters

According to different discharging methods for different products, the top-mounted motor centrifuges include two types as follows:

- If the solid grain is relatively fine with relatively dense texture. The drum can adopt cylindrical bucket structure. The products can be scraped off the drum wall through radial and axial movements of the scraper and discharged. It is "XJZ" model.
- If the solid grain is relatively rough with relatively sparse texture. The rotary drum adopts conical structure. From the low speed to zero speed, the products can be loosened by inertia and discharged by gravity. It is "XZ" model.

机器型号 Machine Model	转鼓内径(mm) Drum inside diameter	最高转速 (r/min) Max. Speed	分离因素 Separating factor	外形尺寸 (长x宽x高)mm Dimensions	机器重量 (Kg) Weight
刮刀卸料 Scraper Discharge	XJZ1300	1300	1200	2686x1750x4655	6200
	XJZ1320	1320	1300/1450	2686x1740x4480	6600
	XJZ1600	1600	1100	2234x2232x4530	9000
	XJZ1700	1700	1100	2300x2360x4680	10800
	XJZ1800	1800	1000	2360x2386x4980	12600
重力卸料 Gravity discharge	XZ1250	1250	960	2150x1764x3788	6120
	XZ1320	1320	1300	2176x2480x4578	7100

● 应用领域

上悬式离心机适用范围广泛，从细颗粒的淀粉到中粗颗粒的白糖，特别适用于细粘物料的分离，广泛适用于化工、轻工、制药等行业。如食用糖、葡萄糖、甲糖膏、磷酸氢钙、味精、硼酸、硼砂、碳酸钙、淀粉、氯化钾、石膏等物料。

● Application fields

The top-suspended centrifuge has a wide application range, like starch of fine granules and sugar of middle roughness granules. It is especially suitable for separating fine and sticky products. It is widely used for edible sugar, glucose, A-masseccite, dicalcium phosphate, monosodium glutamate, boric acid, borax, calcium carbonate, starch, potassium chloride, gypsum and other materials in chemical industry, light industry, pharmacy, etc.

