



卧式螺旋卸料过滤离心机概述 Scroll discharge screen centrifuge



结构原理

锥形转鼓内套装有同心的卸料螺旋，两者高速同向旋转的同时又有一定的转速差，该转速差由传动系统及差速器产生。悬浮液由进料管连续引入并均匀分布到转鼓内端锥面上，在离心力的作用下，液相物穿过滤网和转鼓壁滤孔排出转鼓，经排液口排出机外。固相物被截留在滤网内形成滤渣，滤渣在离心力的锥面分力和卸料螺旋的共同作用下，连续地向转鼓大端移动排出转鼓，经卸料槽排出机外，从而实现悬浮液的固液分离。

Basic Principles

The taper drum is internally installed with a concentric discharge screw. As they rotate in the same direction at a high speed, they have a certain rotational speed difference, which is caused by the driving system and the differential case. Suspension is continuously led in through the feed pipe and evenly distributed on the pyramidal face of the drum inner end. Under a centrifugal force, liquid phase flows through filter screen and filtration pores of the drum wall and is discharged out of the drum, and then out of the machine through the leakage fluid dram. Solid phase is caught in the filtration screen and forms cake, which is continuously moves toward the big end of the drum and out of it, and then out of the machine through a blowtank under a joint action of a pyramidal-face component force of centrifugal force and discharge screw, hence solid-liquid separation of suspension.

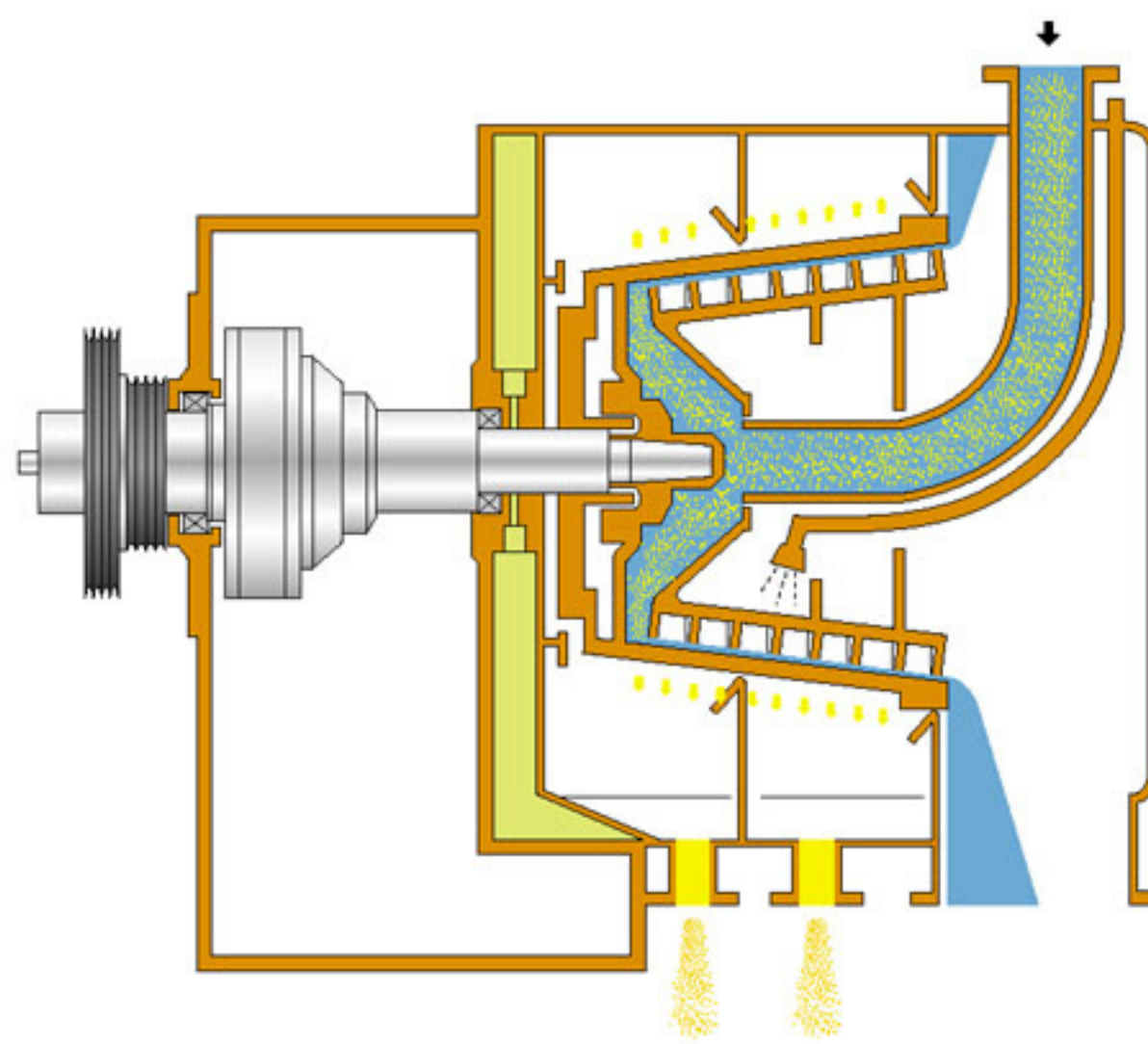
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性能特点

卧式螺旋卸料过滤离心机能在全速下连续进料、分离和卸料。具有结构紧凑、体积小、分离因数高、连续操作、运转平稳、适应性强、处理量大、滤饼含湿率低、分离效率高、能耗低、对悬浮液浓度波动不敏感等特点。必要时可对分离物料进行洗涤。

Characteristics of property

For the decanter centrifuge, the continuous feeding, separating and discharging can be realized as it rotates at its full speed. It is characterized by compact structure, small size, high separating factor, continuous operation, smooth running, fine adaptability, large handling capacity, low moisture content, high separating efficiency, low power waste, and being insensitive to unsteady suspension concentration, etc. When necessary, it can be used to wash materials separated.



适用范围

卧式螺旋卸料过滤离心机适用于固相粒度大于0.075mm，浓度范围在10%–75%的无机结晶产品、有机合成产品及纤维产品加工等悬浮液的分离。如钾盐、钠盐、铵盐、硫酸铜、硫酸锌、硫酸亚铁、芒硝、硼砂、活性炭、原料药、医药中间体、离子交换树脂、棉绒纤维等。

Application scope

The decanter centrifuge is suitable for separating suspensions of processing inorganic crystal products, organic sintetics and fibre products, etc. with solid – phase particles over 0.075mm and concentration of 10%–75%, such as , potassium salt, sodium salt, ammonium salt, copper sulfate, zinc sulfate, ferrous sulfate, glauber salt , borax, absorbent charcoal, raw medicine, medical midbody, ion exchange resin and linters, etc.

卧式螺旋卸料过滤离心机依靠卸料螺旋与转鼓的相对移动，确保筛网内壁上的固相颗粒物均匀分布，防止布料不均所致的过度振动。即使停车时，螺旋无残留潜在的非平衡固粒。离心机运行平稳、振动小、噪声低。

The decanter centrifuge insures even distribution of solid phase particles on the interior wall of screen cloth and prevents overvibration caused by uneven cloth by relying on relative move of discharge screw and drum. Even when machine stops, there are no non – balanced particles left on the screw. The machine runs well, with small vibration and low noise.

根据操作条件，可采用穿孔金属板网、多层烧结金属网或契形金属条焊接长缝网

According operateion conditions, a perforated metal lath, a multi – layered sintered wire netting or a long slot netting welded with wedge – shaped metal bars can be used.

针对一些难分离的物料，还可对离心机作相应的调整和改进，

- 增加转鼓长度
- 调整转鼓转速
- 调整转鼓与卸料螺旋的差转速
- 改变转鼓锥段半锥角
- 改变卸料螺旋之螺旋头数和螺旋升角

To those materials difficult to separate, centrifuges may also be adjusted and improved.

- increase length of drum
- adjust rotate speed of drum
- adjust differential speed of drum with discharge screw
- change angle of slope of drum in cone section
- change the number of screws of discharge screw and helix angle

对离心机技术参数的调整和相关部位的改进，均须在离心机产品制作前确定。另外，针对分离物不同的腐蚀性，具有不同抗腐能力的材质与之相匹配。因此，顾客垂询时，请详细赐告分离物料的特性参数、工况条件及分离要求等。

As for the adjustment of technical parameters and improvement of corresponding parts of a centrifuge, all must be fixed before manufacturing it except that separating rotate speed, differential rotate speed and overflow radius of liquid phase out – let can be changed a liffle on the separating field. What’ s more, for the different corrosion of materials separated, corrosion – resisant materials of different kinds can be used. So when customers ask for information, please tell us in details about nat – ural parameters, work condition and separation requirements, etc.



卧式螺旋卸料过滤离心机主要产品型号规格及技术参数 Main products' models, specifications and technical parameters of Xiangli decanter centrifuge

型号规格	转鼓直径 (mm)	转鼓长度 (mm)	转鼓最高转速 (rpm)	最大分离因数	处理能力 (M3/h)	主电机功率 (Kw)	外形尺寸 长X宽X高 (mm)
LWL300x200	300	200	3500	2060	0.5~3	7.5	900x1100x850
LWL350x280	350	280	3000	1760	1~6	7.5~11	1000x1200x950
LWL450x300	450	300	2300	1330	3~10	15~22	1150x1500x1150
LWL560x450	560	450	2200	1520	5~15	22~30	1350x1800x1300
LWL630x500	630	500	1800	1140	7~20	30~37	1600x2100x1450
LWL720x520	720	520	1650	1100	18~45	37~55	2000x2300x1720

型号规格: Specifications

转鼓直径mm Drum's nominal diameter,mm
 转鼓长度mm Drum's active length,mm
 转鼓最高转速 rpm Drum Speed,rpm
 最大分离因数 Separating factor
 处理能力M3/h Capacity,M3/h
 主电机功率 Kw Power of main motor,Kw
 辅电机功率Kw Power of auxiliary motor,Kw
 重量Kg weight,Kg
 外形尺寸 长X宽X高
 external dimensions: Length x width x height mm



卧式螺旋卸料过滤离心机典型分离物料 Typical materials separated for the decanter centrifuge

己二酸	Adipic	草酸	Oxalic acid
AH-盐	AH-Salt	聚甲基丙烯酸酯	Polymethacrylic acid acetum
氨基醋酸	Amino - acetic acid	聚苯乙烯	Polystyrene
过硫酸铵	Ammonium persulfate	聚乙烯醇	Polyvinyl alcohol
磷酸铵	Ammonium phosphate	钾碱 (碳酸钾)	Potash(Kalium carbonate)

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硫酸铵	Ammonium Sulfate	钾矾	Potassium alum
硫代硫酸铵酚	sulfo - Ammonium Persulfate phenol	钾溶液残余物	Potash solvent Residue
蒽	Anthracene	碳酸氢钾	Potassium Bicarbonate
阿司匹灵	Aspirin	重铬酸钾	Potassium dichromate
双酚	Bisphenol	氯化钾	Potassium Chloride
硼砂	Borax	一铬酸钾	Potassium Monochromate
甲酸钙	Calcium Formate	五硫化二钾	Potassium Pensulphate
羟甲基纤维素	hydroxymethyl cellulose	碳酸钾	Kalium carbinat
赛璐珞羊毛	Celluloid Wool	硫酸钾	Potassium Sulfate
纤维素羊毛	Cellulose Wool	聚乙烯醇	PVA
巧克力碎块	Chocolates (broken)	聚氯乙烯	PVC
柠檬酸	Citric Acid	吡唑	Pyrazolene
煤浆	Coal Slurry	岩盐	Rock Salt
冷冻浓缩咖啡	Coffee Freeze Concentrate	再生橡胶	Regenerated rubber
咖啡豆碎块	Coffee Grounds	硝酸银	Silver nitrate
硫酸铜	Copper Sulfate	醋酸钠	Sodium acetate
棉绒	Cotton Linters	亚硫酸氢铵	Ammonium hydrogen sulfite
结晶苏打	Crystal Soda	碳酸钠	Sodium carbonate
核	Kern	氯酸钠	Sodium chlorate
邻苯二甲酸二甲脂	DMP	氯化钠	Sodium chloride
从甲醇中提取	DMT DMT form Methanol	甲酸钠	Sodium formate
二硝基甲基苯胺	Dinitro Methylanilin	葡萄糖酸钠	Sodium Glucunate
农药	Pesticide	偏硼酸钠	Sodium metaborate
磷酸二钠	Disodium Phosphate	硝酸钠	Sodium nitrate
精切洋葱片	Finely chopped onions	钠硝石	Natron saltpeter
菌丝	Mycelium	过硼酸钠	Sodium perborate
冰醋酸	Glacial acetic acid	磷酸钠	Sodium phosphate
芒硝	Glauber salt	硫酸钠	Sodium sulphate
金属渣	Metallic cinder	亚硫酸钠	Sodium sulfate
火药	Gunpowder	四硼酸钠	Sodium tetraborate
石膏	Gypsun	大苏打	Sodium hyposulphite
乌洛托品	Hexamethylene Teramin	酒石酸	Tartaric acid
二氯甲烷制的酒花	Hips from Methylene choride	硫酸锡	Tin Sulfate
离子交换树脂	Ion Exchange resin	磷酸三钠	Trisodium Phosphate
七水硫化铁	Lron sulphate Heptahydrate	蔬菜	Vegetables
乳糖	Lactose	蔬菜萃取	Vegetable Extracts
硫酸锰	Manganese sulfate	硫酸锌	Zinc Sulfate
甲基纤维素	Methylcellulose	其他各种物质	and other kinds of substances
磷酸钠	Sodium phosphate	上等苏打	Top-grade soda
氨基环烷磺酸醋	Naphtiomate	珠状聚合物	bead Polymer
胡桃碎粒	Butternuts (broken)	季戊四醇	Pentaerythritol
尼龙切片	Nylon Chips	塑料颗粒	Plastic Granules
		聚乙烯	Polyethylene