

## LW

## 系列卧式螺旋卸料沉降离心机

LW Sedimentation Centrifuge

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## ● 性能与用途

LW系列螺旋卸料离心机是卧式、连续工作、螺旋连续卸料的沉降式离心机。适用于各工业部门中各类悬浮液的固液分离、粒度分级液相澄清和污泥脱水(如:聚氧乙烯树脂、亚硫酸铵、碳酸钡、硫酸锶、立德粉、钛白粉、矿石、瓷土、高岭土、硅藻土、淀粉、大豆蛋白、花生蛋白、果汁、饮料、植物油、柠檬酸、废油净化、洗涤水净化、酒糟、动物脂肪、血粉、电厂污泥、印染污泥、造纸污泥、天然气脱硫污泥、活性污泥、氨污泥、洗车污泥、明矾污泥、钻探泥浆、煤浮选废物、冰晶石浮选液等)。

## ● 工作原理

主机启动并自动升速，当达到预定指标且转鼓转速达到加料速度时，进料阀打开，待分离的悬浮液由加料管进入螺旋推料器的料仓内，经初步加速后经料仓出口进入转鼓，由于离心力的作用，转鼓内的悬浮液很快分成二相；较重的固相沉降在转鼓内壁，由于差速器的差速作用使螺旋推料器与转鼓之间产生相对运动，固相被螺旋推送转鼓小端的干燥区进一步脱水，然后经出渣口排出，分离液经大端溢流排出或采用向心泵排出。

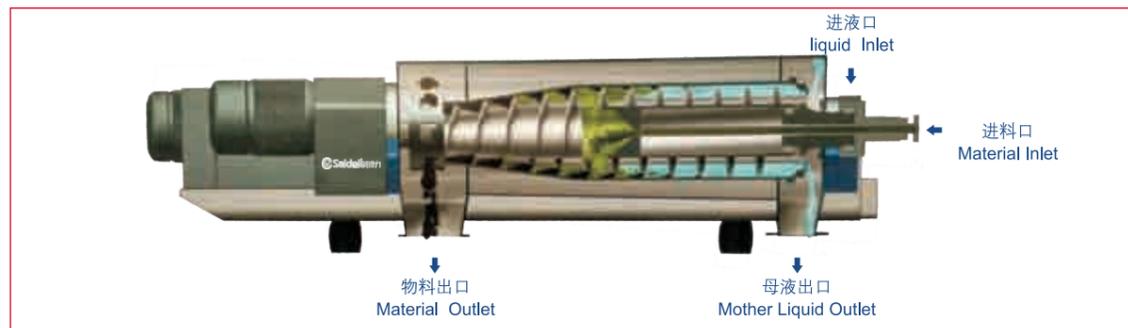
## ● Working principle

The machine starts and speeds up automatically. When the proper working condition are met and the revolving drum reaches the feeding speed, the feeding valve opens and allows suspension which will be separated to enter into the product compartment of the spiral feeder through the feeding pipe. After the preliminary speed-up, the suspension passes the outlet of compartment and into the drum. Because of centrifugal force, the suspension in the drum is quickly divided into two phases; the heavier solid phase deposits to the inner wall of the drum, and driven by the differential gear which results in the non-synchronous movement between the spiral feeder and the drum, the solid phase will be transferred into the small end for further dehydration and finally discharged through solid phase outlet. The separated liquid flows out through the big end or will be driven out by centrifugal pump.

## ● Properties and Uses

LW Sedimentation Centrifuge is a horizontal, continuously working and continuously spiral discharging sedimentation centrifuge. It is used in a variety of industries for separating all kinds of solid-liquid suspension, defecating liquid phase with graded grains, and dehydrating sludge such as: polyoxyethylene, sulfurous acid, tansuanbei, strontium sulfate, lidefen, titanium pigment, ore, porcelain, clay, kaoline, diatomite, amyllum, soyaabean protein, earthnut protein, syrup, beverage, vegetable oil, citric acid, scavenge oil purification, cleansing water purification, lees, tallow, blood powder, sludge from power plants, sludge from printing and dyeing, sludge from paper making, sludge from desulfurizing natural gas, calcium carbide sludge, activated sludge ammonia sludge, sludge from washing cars, alum sludge, drilling mud, coal flotation waste, cryolite flotation liquid.

## ● LW系列离心机结构示意图 Structure Indication of LW Series Centrifuge



## ● 主要特点

1. 连续运转，螺旋卸料，生产能力大。
2. 双电机控制，转鼓螺旋转速分别双级可调。
3. 应用范围广，能广泛地用于化工、石油、食品、制药、环保等需要固液分离的领域。
4. 对物料的适应性较大，能分离的固相粒度范围较广(0.002-2mm)，在固相粒度大小不均时能照常进行分离。

## ● 材质选择

离心机接触料液部分的材质可根据用户使用物料的要求选用奥氏体不锈钢(321、316L...904L、C2205)、哈氏合金、钛合金或其他防腐材料。

## ● 结构选择

1. 润滑方式：A. 油脂式润滑 B. 循环式强制润滑
2. 根据用户使用要求，螺旋叶片的头数可以选择，单头螺旋、双头螺旋、多头螺旋
3. 螺旋表面喷涂高硬度合金

## ● 特殊配置

可根据客户的要求提供以下配置：

1. 变频+PLC控制
2. 振动，主轴升温监测保护系统
3. 进料速度控制
4. 排液口气液分离装置
5. 摆线齿轮、行星齿轮、液压差速器三种结构选择，差速调节范围大，用于不同固相的推料扭矩传递

## ● Special Allocation

Following allocation can be possible to meet customer's demand:

1. Frequency conversion plus PLC controlling system.
2. Protection system for vibration and temperature rising
3. Feeding speed control.
4. Gas-liquid separation device on liquid outlet.
5. Three kinds of structure selection of cycloid gear, planetary gear and hydraulic differential. They are used to be transferred the different solid phase by pushing the torque.

## ● 型号及主要技术参数 Model and Main Parameters

项目Item	型号Model	LW-250×1000	LW-350×1450	LW-450×1800	LW-520×2130	LW-650×2275	LW-720×2665	LW-900×2700	LW-1000×2500
转鼓直径Drum diameter(mm)		250	350	450	520	650	720	900	1000
转鼓有效长度Drum effective length(mm)		1000	1460	1800	2130	2275	2665	2700	2500
最高转速Max speed(r/min)		4000	4000	3600	2800	2500	2000	1500	1500
最大分离因素Max separating factor(N)		2238	3133	3265	2281	2273	1611	1133	1259
处理能力Processing capability(m <sup>3</sup> /h)		0.5-3	3-12	6-20	12-30	25-35	45-100	50-110	50-120
主机功率Main motor power(KW)		11	22	30-45	45-75	75-110	110-160	160-220	280
外形尺寸Overall dimension(mm)		2740×700×900	3950×830×1170	4385×1140×1508	4760×1250×1554	5120×1450×1750	5500×1550×1850	5800×1750×2050	5600×1850×2150
机器重量Weight (Kg)		1200	2250	3200	5600	7800	14000	19000	25000

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外形尺寸及机器重量仅作参考，以具体实物为准。Note: The overall dimension and the weight are for reference only and detailed information is in accordance with the final product.

## ● Main Characteristics

1. Continuous working, spiral discharging, high capacity.
2. Controlled by two motors, revolving drum can be adjustable two-stage separately.
3. Wide applicability for chemical, oil, foodstuff, pharmacy industries and green industry in which solid-liquid separation is required.
4. Suitable for various products, capable for separating wide-ranging solid phase grains (0.002-2mm), especially when separating solid phase has different size grains.

## ● Material Choice

According to users' requirement, the product contact parts can be made of austenite stainless steel (321, 316L...904L, C2205), Haynes alloy titanic alloy or other anti-erosion materials.

## ● Structure Choice

1. Methods of lubrication : A. Grease lubrication B. Circular forced lubrication
2. Number of helical blade head is selectable within single head helix, double head helix or multiple head helix.
3. Helix surface is coated with high hardness alloy.

