

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、电石污泥、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，由于差速器的差动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离心泵排出。

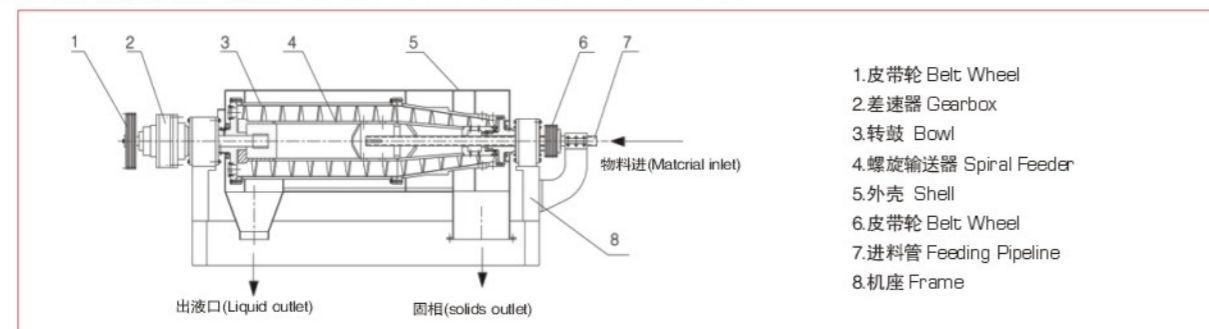
## ● Working principle

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-cynchronous 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



1. 皮带轮 Belt Wheel
2. 差速器 Gearbox
3. 转鼓 Bowl
4. 螺旋输送机 Spiral Feeder
5. 外壳 Shell
6. 皮带轮 Belt Wheel
7. 进料管 Feeding Pipeline
8. 机座 Frame

## ● 主要特点

1. 连续运转，螺旋卸料，生产能力大。
2. 结构紧凑，操作维修方便。
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(0.005-2mm)，在固相粒度大小不均时能照常进行分离。

## ● 材质选择

离心机接触物料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...), 哈氏合金, 钛合金或其他耐腐蚀材料。

## ● 结构选择

1. 润滑方式: A. 油脂自润滑 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，主轴承温升监测保护系统
3. 进料速度控制
4. 排液口气液分离装置
5. 用户的其他配置要求

## ● 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. Other allocation demand.

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

项目 Item	型号 Model	LW-200 x600	LW-220 x930	LW-250 x1000	LW-300 x907	LW-350 x1460	LW-380 x1158	LW-450 x1800	LW-520 x2130	LW-630 x2200	LW-720 x2665	LW-1000 x3000
转鼓直径 Drum diameter(mm)		200	220	250	300	350	380	450	520	630	720	1000
转鼓长度 Drum Length (mm)		600	930	1000	907	1460	1158	1800	2130	2200	2665	3000
最高转速 Max.Speed (r/min)		5800	4800	4000	3800	4000	2750	3000	3200	2500	2000	1500
最大分离因素 Maximum separating factor		3760	2833	2240	2420	3130	1606	2263	2976	2205	1609	1258
处理能力 Processing capability(m <sup>3</sup> /h)		0.5-1	0.5-2	0.5-3	2-8	3-12	3-15	6-20	12-30	25-35	45-100	50-110
主电机功率 Master motor power(kw)		7.5	11	11	15	22	18.5	30	75	75	75	132
外形尺寸 Overall dimensions(mm)		1512 x1200 x688	1786 x1068 x688	2740 x700 x900	2168 x1445 x730	3950 x830 x1170	2600 x1500 x780	3100 x1800 x1200	4940 x1050 x1470	5120 x1450 x1750	5365 x3200 x1500	5200 x2400 x1950
机器重量 Weight(Kg)		900	1000	1200	1300	2250	2500	3200	5600	7800	11500	14500

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