

FW

系列卧式翻袋离心机

FW Series Horizontal Bag-Turning Centrifuge

● 工作原理

该型机器主要由旋转机构、卸料机构、机座、轴承组合、转鼓、推盘、筛网、机壳、电控部分等组成。

转鼓在高速运行下，悬浮液通过进料管进入转鼓内，在离心力的作用下，悬浮液被均匀分布在转鼓内的滤布内，液相经滤布的孔隙、筛网的缝隙和转鼓过滤孔并从母液管口排出机外，固相则被截留在滤网上形成环状滤渣层。卸料时，主机先降至卸料转速，启动卸料电机，将推盘从转鼓中推出。因滤布两端是固定在推盘及转鼓上的，此时滤布内外翻转，截留的物料就被翻转至滤布外侧，同样在离心力场的作用下，物料被甩离滤布，从出料口卸出。

● Working principle

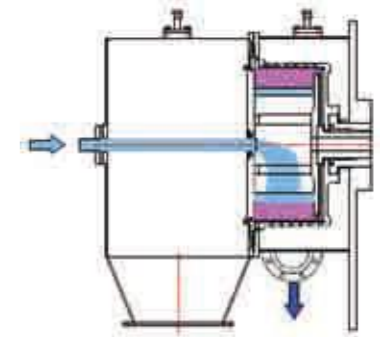
The machine is mainly composed of rotating mechanism, discharging mechanism, base, bearing combination, drum, pusher, screen mesh, shell, electronic control part, etc.

Under the high-speed operation of the drum, the suspension enters the drum through the feed pipe. Under the action of centrifugal force, the suspension is evenly distributed in the filter cloth of the drum. The liquid phase passes through the pore of the filter cloth, the gap of the screen mesh and the filter hole of the drum and is discharged from the outlet of the mother liquor pipe, while the solid phase is intercepted to form a ring filter slag layer on the filter mesh. When discharging, the main engine first slows down to the discharging speed, starts the discharging motor, and pushes the pusher out of the drum. Because the two ends of the filter cloth are fixed on the pusher and drum, at this point, the inside and outside of the filter cloth turn over, and the retained material is turned to the outside of the filter cloth. Under the action of centrifugal force field, the material is thrown away from the filter cloth and discharged from the outlet.

清洗液通过进料管进入转鼓内，使得清洗液透过滤饼层达到洗涤效果，清洗液的量可根据时间或流量来控制，也可由一个称重传感器来控制。

The cleaning liquid enters the drum through the feeding pipe, which makes the cleaning liquid pass through the cake layer to achieve the washing effect. The quantity of the cleaning liquid can be controlled according to the time or flow rate, and can also be controlled by a weighing sensor.

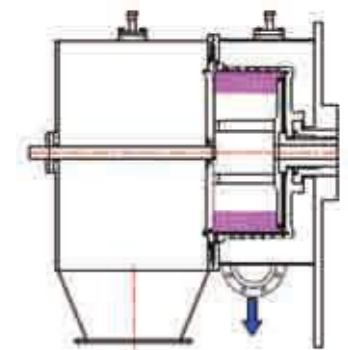
清洗 cleaning



转鼓根据预设值转动，预设速度根据工艺要求预设。滤液流经排出机外，固体被截留在滤布内形成环形滤饼。

The drum rotates according to the preset value, and the preset speed is set according to the technological requirements. The filtrate flows out of the discharger, and the solid is intercepted in the filter cloth to form a circular filter cake.

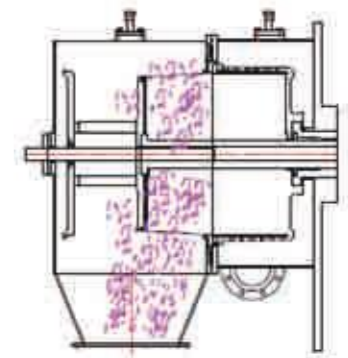
分离 Separating



通过轴转动将滤布翻转，被分离出的固体被排出，同时推料盘将保持低速的转动，使得物料彻底排出机外。

The filter cloth is turned over by shaft rotation, and the separated solids are discharged. At the same time, the disc will keep a low-speed rotation, so that the material is completely discharged out of the machine.

卸料 discharging



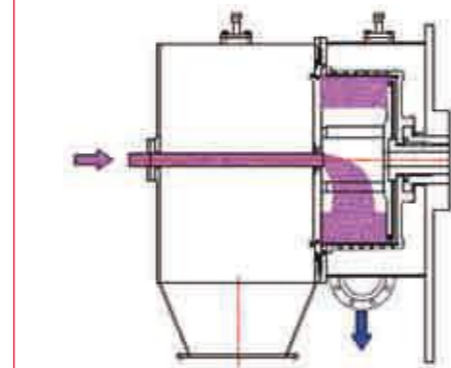
● 卧式翻袋离心机工作示意图

Working process diagram

悬浮液通过进料管进入转鼓内，加料量可根据时间或流量来控制，也可由一个称重传感器来控制。

The suspension enters the drum through the feeding pipe. The feeding amount can be controlled by time or flow rate or by a weighing sensor.

加料 feeding



FW

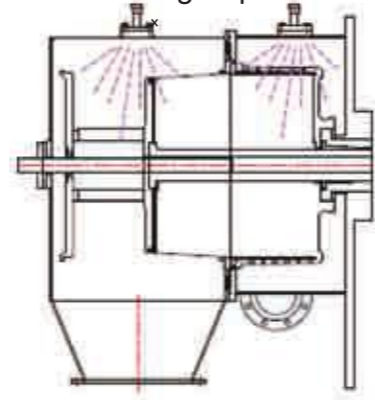
系列卧式翻袋离心机

FW Series Horizontal Bag-Turning Centrifuge

在密闭环境中，通过CIP在位清洗系统来实现对机器内部的有效清洗。

In the hermetical condition, the CIP in-plac- cleaning system is used to achieve the effective cleaning of the machine interior.

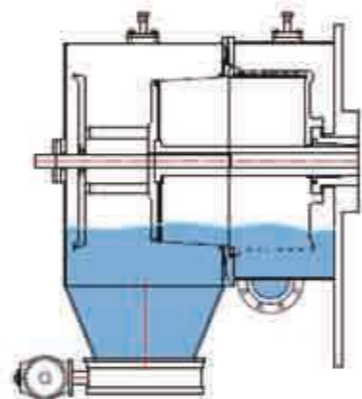
在位清洗 cleaning-in-place



为了达到处理最优的清洗效果，可以将出料口和母液口用阀门关闭，对机器进行浸泡清洗，并通过液位开关检测液面达到预设水平。

In order to achieve the optimal cleaning effect, the outlet and mother liquid can be closed with valves, the machine can be soaked and cleaned, and the liquid level can be detected by the level switch to reach the preset level.

浸泡清洗（可选项） Soak cleaning (optional)



● 性能和用途

FW系列离心机为间歇进料间歇卸料的过滤式离心机。进料、分离、洗涤、脱水等操作工序在全速运行下完成，在降速条件下完成卸料操作，避免了其物料与设备以外的物质接触，能够保护操作人员和物料免受污染。该型机器满足GMP规范，适用于制药、食品、化工等行业的过滤分离。

● Performance and use

FW series are filter centrifuges with intermittent feeding and intermittent discharging. Feeding, separation, washing, dehydration and other operating procedures are completed under full speed; discharging is completed under the condition of deceleration, which avoids material contact with subject other than equipment, and can protect the operator and the material from pollution as well. The machine meets GMP specifications and is suitable for filtration and separation in pharmaceutical, food and chemical industries.

● 主要特点

1. 全密闭结构设计，可靠的密封，对物料无污染；
2. 外壳可全翻设计，便于清洗和检查；
3. 卸料无刮刀机械部件，对晶粒无破坏；
4. 滤布无物料残留，便于下批次物料的分选；
5. 无人操作，自动检测和运行；

● Main features

1. Fully sealed structure design, reliable sealing, no pollution to materials.
2. The shell can be completely turned over for easy cleaning and inspection.
3. Discharge without scraper mechanical parts, no damage to grain crystal;
4. There is no material residue in the filter cloth, which facilitates the separation of materials in the next batch.
5. Unmanned operation, automatic detection and operation;

● FW系列离心机主要技术参数 FW Main technical parameter

项目Item	型号Model	FW-630	FW-800	FW-1000	FW-1300
转鼓直径mm	Drum diameter	630	800	1000	1300
转鼓容积L	Drum volume	70	120	200	350
过滤面积m ²	Filter area	0.56	0.85	1.26	2.0
最高转速r/min	Max revolving speed	1940	1600	1270	1000
最大分离因素	Max seperating factor	1325	1144	901	726
机器重量kg	Machine weight	3600	4200	5500	6500
外形尺寸 (长×宽×高) mm	Outline size (length * width * height)	2970×1040×1650	3980×1450×1890	4990×1650×2560	5900×2050×3250

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● 离心机结构外形图 FW Structure outline drawing

