Zhangjiagang Hengrui Pharmaceutical Machinery

PROFESSIONAL CENTRIFUGE MANUFACTURER

Continuous discharge centrifuge

Intermittent discharge centrifuge

Extraction centrifuge

Centrifuge sieve

张家港市恒瑞制药机械有限公司

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ABOUT US

Zhangjiagang Hengrui Pharmaceutical Machinery Co., Ltd. specializes in the production of separation machinery and provides separation technology, including sludge dewatering machines, screw centrifuges, centrifugal extractors, horizontal centrifuges, automatic centrifuges, continuous discharge centrifuges, intermittent discharge centrifuges, and spiral screen centrifuges. The company was formerly known as Zhangjiagang Pharmaceutical Machinery Factory. Since the development of centrifuge products in 2001, the company has formed an annual production capacity of more than 800 units (sets) of Hengrui Pharmaceutical Machine series products, and has been exporting since 2006. With the strong technical strength of our company, we have the ability to manufacture equipment such as LWL, LW, LWLZ, HR, LGZ, PLD and other series of centrifuges. Produce over 50 varieties across eight major series. The products are strictly produced in accordance with national standards such as GB/T13755-92, GB/T13756-92, JB/TQ619-90, JB/T8585-97, JB/T4335-91, etc. Zhangjiagang Hengrui Pharmaceutical Co., Ltd. is a professional manufacturer of centrifuges. The company is based in China and faces the world, guided by the development trend and market demand of foreign centrifuge products to meet customer requirements. After years of development. At present, we have become a professional manufacturer and technical service provider of centrifuges. And successfully cooperated with multiple merchants from Japan, South Korea, Russia, Southeast Asia, and other countries.

In our team, we view innovation as a driving force and quality as life. We always adhere to customer-centric and excellence oriented approach, and strive for excellence through our team Cooperate and make unremitting efforts, constantly surpass oneself, and pursue excellence. Whether in the fields of technology research and development, marketing, or customer service, we are dedicated to providing you with Provide the highest quality solutions and services. Looking forward to working together with you to create a better tomorrow!

ENTERPRISE ADVANTAGE

SATISFACTION GUARANTEE

Your success is our greatest achievement, and we look forward to working with you to create a better future together



1、PROCESS CONTROL

Hengrui Pharmaceutical Machinery is committed to providing effective and affordable solid-liquid separation solutions to satisfy every customer. From the beginning of the project to the use of the equipment, customers will benefit greatly from our professional design and production team, mature and reliable production technology, and comprehensive control equipment.

2、ENTERPRISE COMPETITIVENESS

After more than 20 years of experience, our engineers have accumulated rich experience in process control technology from over 2000 products and 6000 application examples. These extensive experiential knowledge support our production and sales foundation, enabling us to provide one-stop solutions in terms of economy and product performance tailored to your specific requirements.

3、SOLUTION

A national liquid separation application is not just the application of a machine. We evaluate the entire process to determine how to better integrate mechanical and thermal components, as well as peripheral devices, into a system. In this way, we have the ability to reduce the number of decomposition surfaces, optimize processes and production operations, avoid spraying phenomena, and reduce

4、TECHNICAL SUPPORT

We have a professional service team that provides maintenance and repair support from installation to operation. We will optimize your production process and provide you with professional and comprehensive technical solutions.

HONOR
QUALIFICATION









Specialized centrifuge for sugar industry



XGZ SERIES GAP CENTRIFUGE



SL SERIES CONTACT CENTRIFUGE

XGZ SERIES GAP CENTRIFUGE

▶ COMPANY PROFILE

XGZ centrifuge is a fully automatic centrifuge with a suspended mechanical scraper for unloading. It separates sugar and honey under the action of centrifugal force field, and completes the unloading process by scraping the sugar material off the drum wall through the radial and axial movement of the scraper. The machine is equipped with water washing and steam washing devices, which thoroughly wash the materials.



▶ SCOPE OF APPLICATION

1. The machine is equipped with water washing and steam washing devices, which fully wash the materials and meet the requirements of sugar production process.
2. This machine is widely used for separating glucose paste and is a key equipment in the glucose industry.
3. This machine can also be used to separate materials with fine solid grains, high viscosity, good flowability, compact texture, and difficult to discharge by gravity. Generally, a solid-liquid ratio (weight ratio) of 40-60% is suitable for suspensions.



4. This machine has good performance and the following characteristics:

(1) Adopting AC variable frequency drive, in the automatic cycle operation of the cycle, variable frequency stepless speed regulation can greatly meet the requirements of low-speed feeding, high-speed separation, low-speed unloading and other speed requirements. According to the changes in material properties, corresponding speed points can be provided to achieve more optimized operations.
(2) The electrical control adopts programmable logic controller (PLC). The 10 inch color touch screen can set the time for each process and display the real-time working status of each process, with flexible, simple, and convenient operation.
The whole machine is controlled by a combination of electrical, pneumatic, and mechanical components, achieving fully automatic cyclic operation of each process.
The parts in contact with the material are made of austenitic stainless steel to ensure cleanliness and hygiene of sugar and paste.
The overall structure is compact and operates smoothly.
(4) Large capacity, high speed, high separation efficiency, high production ca-



working principle
When the drum rotates at high speed, it will generate centrifugal force that is thousands of times greater than its own weight, causing the sugar paste on the wall to be subjected to centrifugal force. The sugar grains are trapped in the drum by the sieve, forming a filter layer. Under the action of centrifugal force, molasses needs to pass through the filter layer and sieve, and then flow out from the drum hole wall to complete the separation of crystals and mother liquor.
A sugar paste separation can be divided into four stages, namely the formation stage of the loading filter layer, the centrifugal honey removal stage, the honey washing stage, and the drying stage.

Model	Maximum capacity (Kg)	Cycle/h	Speed r/min	Separation factor	Inner diameter of sieve basket (mm)	Height inside the sieve basket (mm)	Maximum loading thickness of sieve basket (mm)	Maximum loading capacity (L)
XGZ1300	1300	18-21	1200	1097	1360	1050	225	840
XGZ1500	1500	18-21	1120	1054	1500	1100	220	973
XGZ1750	1750	18-21	1100	1084	1600	1100	230	1088

SL SERIES CONTACT CENTRIFUGE



▶ PERFORMANCE CHARACTERISTICS

The design of a centrifugal unloading centrifuge aims to achieve efficient material separation while maintaining low operating costs and high reliability. This type of centrifuge has a high degree of automation, which can reduce the workload of operators and improve production safety.

▶ APPLICATION AREA

Due to its excellent separation ability, centrifugal discharge centrifuges are widely used in various fields, including chemical, petroleum, food, pharmaceutical, mineral processing, coal, water treatment, and shipbuilding. It improves production efficiency and ensures product quality through a rapid and effective separation process.





▶ WORKING PRINCIPLE

During the operation of a centrifugal unloading centrifuge, the high-speed rotation of the rotor generates strong centrifugal force, which accelerates the settling of particulate matter in the liquid. During this process, substances with different settlement coefficients and buoyancy densities will be separated based on their physical properties. The shape and speed of the drum are important factors affecting the separation effect



▶ TECHNICAL ADVANTAGES

Compared to traditional unloading methods, using centrifugal force for unloading can more accurately control the separation and discharge process of materials, reducing material loss and waste.

▶ STRUCTURAL COMPOSITION

The main structure of a centrifugal unloading centrifuge includes a base, body, feed tube, buffer plate, and blue screen support. These components work together to ensure efficient operation of the machine and effective separation of substances.



Model	Diameter	Speed	Separation factor	B sugar processing capacity	C sugar processing capacity	Motor power
SL1350	1350	1900	2730	15-25	10-20	75
SL1450	1450	1800	2630	18-30	12-22	90
SL1550	1550	1700	2508	22-35	16-25	110

Flat top discharge centrifuge

PSD/POFD flat hanging bag unloading centrifuge



PSD regular type



PSD online cleaning type



POFD Clean Bag Unloading Centrifuge

PSB/POFB flat top discharge centrifuge



PSB type



PSB lined PE type



PQFB clean type upper discharge centrifuge



Low temperature immersion type



Low temperature immersion type
(direct connection type)



PBZ type flat discharge centrifuge

PSB/PBZ VERTICAL TOP DISCHARGE CENTRIFUGE



The PSB/PBZ series are enclosed manual top discharge and filtration centrifuges designed in line with the GMP standards and environmental protection requirements, which can be used for separating a wide range of materials. This product is highly applicable to the separation of various suspensions and fibrous materials with high temperature, strong viscosity and small particle sizes (minimum size of 1 μ m). Characterized by high separation factor, simple structure and high performance, the PBZ300 and 450 products are commonly selected as testing machines by various research institutions.

In compliance with the GMP standards: enclosed structure designed to effectively avoid contamination of materials. Configured with CIP online cleaning system to realize all-around cleaning.

MAIN FEATURES

Wide opening structure designed for easier discharging and replacement of the filter bag.

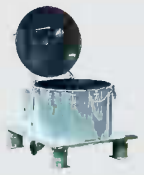
Small floor covering area, easy maintenance, low failure rate and long service life.





High separation factor designed for better separation effect.

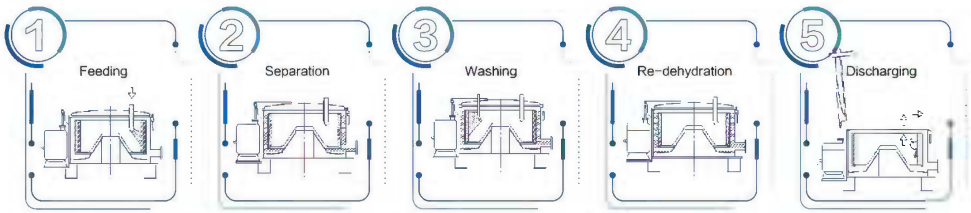
Light in structure, simple in operation, low in gravity center, small in vibration and stable in operation.

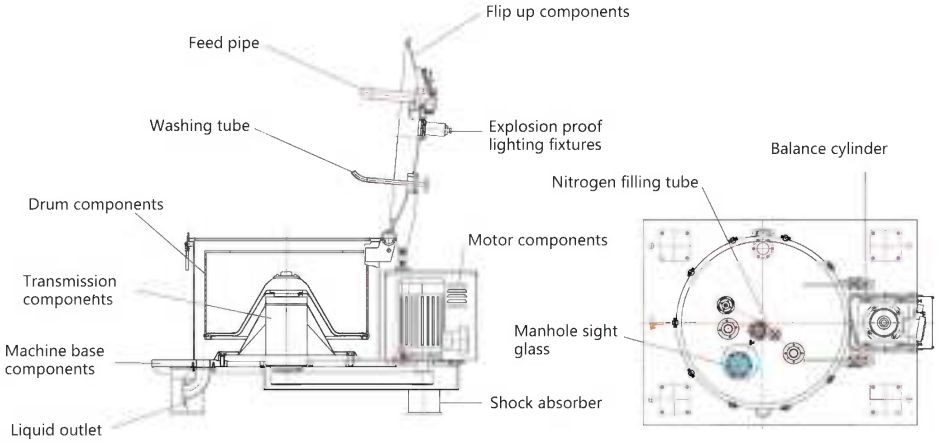


Grains less prone to breakage, with a wide scope of application.

Multiple safety protection configurations, variable frequency control to realize stepless regulation of speed.

▶ WORKING PROCESS





▶ MAIN TECHNICAL PARAMETERS OF PSB

Items	Models					
	PSB600	PSB800	PSB1000	PSB1200	PSB1250	PSB1500
Basket Diameter	600	800	1000	1200	1250	1500
Effective Basket Height	325	450	520	550	630	680
Basket Volume	47	120	200	270	400	555
Loading Capacity	70	150	250	340	500	7000
Max. Speed	1600/1800	1500	1200/1400	1100	1000/1200	850
Max. Separation Factor	860/1087	1007	805/1096	812	700/1007	606
Motor Power	3/4	7.5	11/15	15	18.5/22	30
Weight (kg)	1000/1200	1500	2400/2600	3000	3800/4800	6200
Dimension (LxWxH) (mm)	1470x990x1150	1730x1200x1320	1970x1400x1500	2300x1550x1500	2550x1800x1780	2750x2200x1750

▶ MAIN TECHNICAL PARAMETERS OF PBZ

Items	Models				
	PBZ300	PBZ450	PBZ600	PBZ800	PBZ1000
Basket Diameter (mm)	300	450	600	800	1000
Basket Volumee (L)	5	20	40	100	155
Max. Loading Weight (kg)	7.5	30	55	135	200
Basket Speed (r/min)	2825	1900	1500	1200	1000
Separation Factor	1340	910	755	645	560
Motor Power (kW)	1.1	1.5	3	5.5	7.5
Dimension(L × W × H)	605x605x830	800x800x1000	1200x1050x1300	1500x1250x1400	1600x1400x1450
Weight(Standard Type)	200	300	1100	1500	2000

PSD VERTICAL BAG LIFTING TOP DISCHARGE CENTRIFUGE



▶ PRODUCT OVERVIEW

Aided mechanical discharge is adopted for the PSD centrifuge. Combining high efficiency of the automatic peeler centrifuge and wide application scope of the top discharge centrifuge, this product is advanced in structural design, small in floor covering area, low in failure rate and high in cost performance.



▶ WORKING PRINCIPLE

Under the action of centrifugal force, the materials reach the basket wall, where the liquid phase passes through the filtering medium covered on the basket wall and then flows through the pores on the wall to the inner wall of the enclosure, then drops off to the bottom tray and is discharged out via the liquid discharge port. While the solid matters are retained inside the basket and fully washed to complete the solid-liquid separation. After the equipment is shutdown, open the flippable cover, remove the filter bag with special lifting appliances, transfer it to the unloading area for discharging. After that, install the basket lip and filter bag back, lock the basket lip, close the flippable cover and lock it, and at this time, the next circulation can be started.

▶ SCOPE OF APPLICATION

This product can be used for the solid-liquid separation of suspensions containing solid particles, as well as for the solid-liquid separation of fibrous materials, such as gypsum, copper sulfate, potassium chloride, borax, dyes, pesticides, salt, monosodium glutamate, food additives, starch, sugar, chemical seasoners, antibiotics, vitamins, copper, zinc, aluminum and other minerals, metal refining, sludge treatment, and sewage treatment has been widely applied in the pharmaceutical, chemical, food, environmental protection, energy and other industries.



▶ PRODUCT FEATURES



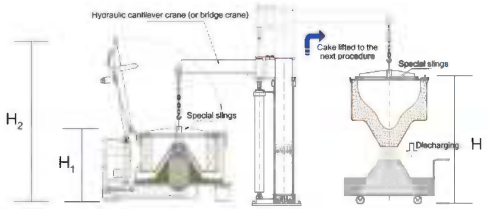
· Low labor intensity and high efficiency: configured with a hydraulic cantilever crane for mechanical discharge.
· Grains less prone to breakage: special-purpose slings used to lift and discharge the materials as a whole.
· Stable operation: low gravity center of the equipment designed and liquid damping device adopted to attenuate vibration.



· Variable frequency control: stable startup and adjustable separation factor.
· Easy replacement of filter cloth: basket lip designed with special structure that can be disassembled fast.

· Optional configurations for the installation of cake layer control device, atomizing & washing pipe, CIP online cleaning system, explosion-proof sight glass with lamp, etc.
· Multiple safety protections: nitrogen protection system, overvibration protection, cover opening protection, overload protection, electromagnetic interlocking, etc.
· Cover opening mode: hydraulic drive and mechanical drive.





Code	Models						
	PSD800	PSD1000	PSD1200	PSD1250	PSD1500	PSD1600	PSD1800
H	1950	2180	2350	2650	2850	3600	3350
H_2	990	1110	1110	1370	1310	1750	1650
H_3	2080	2430	2650	2950	3210	3720	3930

▶ WORK FLOW CHART

Items	Models						
	PSD800	PSD1000	PSD1200	PSD1250	PSD1500	PSD1600	PSD1800
Basket Diamete (mm)	800	1000	1200	1250	1500	1600	1800
Effective Basket Height (mm)	450	520	550	630	680	800	750
Basket Volume (L)	120	200	270	400	555	800	910
Max loading Capacity (kg)	150	250	340	500	7000	1000	1100
Max. Speed (r/min)	1500	1200/1400	1100	1000/1200	850	850	780
Max. Separation Factor	1007	805/1096	812	700/1007	606	647	612
Motor Power (kw)	7.5	11/15	15	18.5/22	30	37	37
Dimension(L*W*H)(mm)	1730x1200x1320	1970x1400x1500	2300x1550x1500	2550x1800x1780	2750x2200x1750	3200x2400x2150	3300x2500x2150
Weight (kg)	1500	2500/2700	3200	4000/5000	6500	8500	10000

PSB.P SERIES – LOW-TEMPERATURE EXTRACTION CENTRIFUGE

This product is a special low-temperature extraction centrifuge, which is mainly used for steep extraction and solid-liquid separation of herbs, plant roots, etc. Equipped with an enclosed filter bag, it can separate materials with the solid particle sizes ≥0.10MM and has been widely applied in the fields of food, pharmaceutical, chemical, and others.



Triangle belt transmission type



Motor direct connection type

▶ MAIN FEATURES

· Soaking temperature designed to be −40° C, customizable as needed by customers.
· Optional basket volumes, large in filtering area and good in soaking & separation effect.
· Configured with a quick-opening connector for easier pipe connection.
· Variable control and energy consumption braking adopted to realize stepless speed regulation and bidirectional (forward and reverse) revolving.
· Solid particles less prone to breakage, easier in replacement of filter bag.
· In compliance with the GMP standards, enclosed structure and zero sanitary dead angle designed to effectively avoid contamination of materials.
· Multiple safety protections: pressure detection, overvibration protection, cover opening protection, electromagnetic interlocking, etc.
· Small floor covering area, easy maintenance, low failure rate and long service life.
· Explosion-proof design, meeting the requirements for certification of explosion protection, etc.

▶ MAIN FEATURES

Items	Models					
	PSB300P	PB7320P	PB7400P	PSB420P	PSB550P	PSB630P
Effective Volume (L)	18	50	100	100	200	200
Basket Volume (L)	10	30	50	62	120	140
Basket Diameter (mm)	300	320	400	420	550	600
Basket Height (mm)	165	380	450	450	550	500
Shell Diameter (mm)	364	400	500	500	650	700
Shell Height (mm)	215	450	545	555	700	620
Max. Loading Weigh (kg)	7	7.5	15	15	30	30
Basket Speed (r/min)	1970	1800	1500	1500	1300	1500
Separation Factor	650	580	500	529	520	755
Motor Power (kw)	1.5	2.2	4	4	7.5	5.5
Transmission Mode	Belt drive	Direct motor drive	Direct motor drive	Belt drive	Belt drive	Belt drive
Dimension (LxWxH)mm	950x600x1100	700x700x1200	800x800x1350	1250x800x1100	1200x900x1500	1670x1100x1250

PQFB/PQSD SERIES – VERTICAL FULL FLIP COVER TOP DISCHARGE CENTRIFUGE



PQFB lined food grade HL type

PQFB/PQSD series centrifuges are applicable to the solid-liquid separation in the clean areas with certain requirements for sanitation. Being aesthetic in appearance, high in manufacturing technology, stable in operation, easy in maintenance, and complying with the GMP standards and high requirements for sanitation, this product has been broadly applied in pharmaceutical production, food production and fine chemical engineering and other industries.

▶ SCOPE/FIELD OF APPLICATION

suspensions containing solid particles, with the particle size of 0.02mm~5mm and solid content above 10%, 50% to the maximum.

This product is commonly used for the treatment of gypsum, ammonium sulphate, mirabilite, ferric sulphate, copper sulphate, nickel sulphate, potassium chloride, acetic acid, borax, soda, rubber additive, dye, starch, sugar, vitamin, antibiotic, herbicide, insect repellent, copper, zinc, aluminum, acid discharge gypsum, metal refining, sludge after water purification, sludge in sewage, and other kinds of chemicals and pharmaceuticals.



PQFB衬HL型

▶ MAIN CONFIGURATIONS

Large flip cover: hand-controlled reducing mechanism or hydraulic drive.
Base: foundation platform and stainless steel liquid damper.
Washing mode: washing pipe, atomizing & washing pipe, CIP online cleaning system.
Filtering medium: imported sintering screen, filter cloth, etc.
Flip cover configuration: large flip cover + small flip cover, explosion-proof sight class with lamp, diluting pipe, observation mirror, feeding pipe.
Electric configuration: PLC control, variable-frequency (VF) control, electric control cabinet (ordinary type and explosion-proof type), motor (ordinary type, explosion-proof type, VF type and energy saving type), field operation box (ordinary type and explosion-proof type). Nitrogen protection system, oxygen content detection system, liquid seal, gas seal, etc.
Other requirements of customer.

▶ MAIN FEATURES

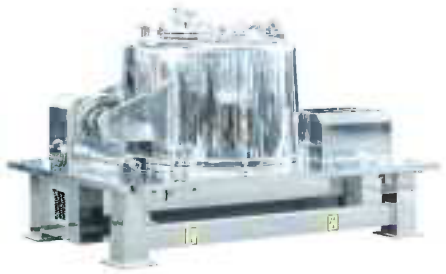
EXCELLENT CORROSION RESISTANCE
Stainless steel, anti-corrosion alloy or anti-corrosion coating is adopted for the parts requiring contact with materials.

EASY MAINTENANCE
Complete flip cover design allows flip angle of over 90° ; overall structure of basket is exposed for easier cleaning of the machine and replacement of the filter cloth.

ALL-DIRECTIONAL ONLINE CLEANING AND DISINFECTION
CIP online cleaning system is configured to complete all-directional cleaning and disinfection of the inner cavities, meeting the GMP standards and the requirements for cleanliness.



PQFD Clean Hanging Bag Centrifuge



ADVANCED STRUCTURAL DESIGN
Enclosed modular structure is adopted to avoid contamination caused by belt-worn dust and foreign matters.
Precise polishing is adopted for the parts requiring contact with the materials and no sanitary dead angle exists inside the equipment, meeting the GMP standards.
Equipment has low gravity center, small floor covering area and is easy to maintain.
Variable-frequency startup and stepless speed regulation are designed to ensure stable operation and low failure rate.
Internal nitrogen filling structure and nitrogen protection system are configured to meet the requirements for explosion protection in occasions involving toxic, flammable and explosive materials.

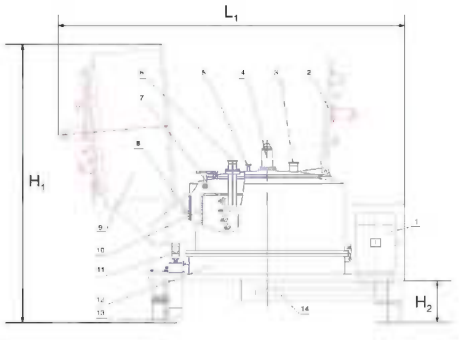
WIDE APPLICATION SCOPE
It can be used for the separation of not only suspensions containing solid particles but also fibrous materials.

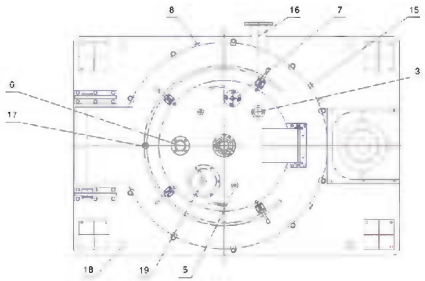
MANUAL DISCHARGING FOR BETTER GRAIN PROTECTION

MULTIPLE SAFETY PROTECTIONS
Nitrogen protection system, liquid seal, gas seal, overvibration protection, cover opening protection, overload protection, electromagnetic interlocking, etc.



▶ PRODUCT STRUCTURE





1 Motor	2 Small flip cover	3 Exhaust pipe
4 Explosion-proof lamp	5 Nitrogen supply pipe	6 Feeding pipe
7 Washing pipe	8 Side washing adapter	9 Large flip cover
10 Basket	11 Flip mechanism	12 Base
13 Hydraulic-drive damper	14 Transmission device	15 Bottom online spray pipe
16 Liquid discharge pipe	17 Top online spray pipe	18 Lifting point
19 Observation mirror		

▶ PRODUCT DIMENSION

Items	Models						
	PQFB600	PQFB800	PQFB1000	PQFB1250	PQFD800	PQFD1000	PQFD1250
(LxWxH) (mm)	1880x1100x1100	2200x1250x1310	2460x1400x1400	2770x1800x1470	2200x1250x1310	2370x1400x1490	2770x1800x1510
H_1	1700	2020	2220	2770	2020	2430	2770
H_2	280	330	380	370	330	380	370
L_1	2340	2800	3150	3600	2800	3200	3600

▶ TECHNICAL PARAMETERS

Items	Models						
	PQFB600	PQFB800	PQFB1000	PQFB1250	PQFD800	PQFD1000	PQFD1250
Basket Diameter (mm)	600	800	1000	1250	800	1000	1250
Basket Volume (mm)	325	400	425	485	400	425	450
Basket Volume (L)	47	100	145	320	100	145	300
Max. Loading Weight (kg)	70	140	200	400	140	200	375
Max. Speed(r/min)	1600	1200/1500	1100/1200	1000/1200	1200/1500	1100/1200	1000/1200
Max. Separation Factor	860	645/1007	680/805	700/1007	645/1007	680/805	700/1007
Motor Power (kW)	4	7.5	11	18.5/22	7.5	11	18.5/22
Weight (kg)	1200	2000	2600	4300	2300	3000	5000

Fully automatic vertical scraper discharge centrifuge



PLD bag type scraper unloading centrifuge
(square box type)



PLD bag type scraper discharge centrifuge
(lined with HL type)



PLD bag type scraper discharge centrifuge
(insulated type)



POLD Clean Bag Pulling Scraper Bottom Discharge Centrifuge



LGZ scraper unloading centrifuge
(lined with HL type)



LGZ scraper unloading centrifuge
(lined with PE type)



PGZ scraper unloading centrifuge
(square box type)



PGZ Scraper Discharge Centrifuge
(Flat Plate Type)



PAUT hanging scraper bottom discharge centrifuge

PLD-TYPE VERTICAL BOTTOM DISCHARGE SCRAPER CENTRIFUGES WITH PULLING BAG

▶ PRODUCT INTRODUCTION

PLD automatic bottom discharge scraper centrifuge is a new type of product that are developed independently by HUADA, with multiple patents and completely independent intellectual property rights. This series of products is batch-processing separation centrifuge, After discharge, the filter bag can be regenerated, with good filtration and high efficiency, and it can effectively reduce the influence of the residual cake layer on the filtration performance of materials, avoid the cross contamination during material separation, and meet the requirements of GMP and FDA, thus realizing remote intelligent control and automatic production and online fault diagnosis.



PLD square box type



PLD regular model



PLD lined HL type

▶ WORKING PRINCIPLE

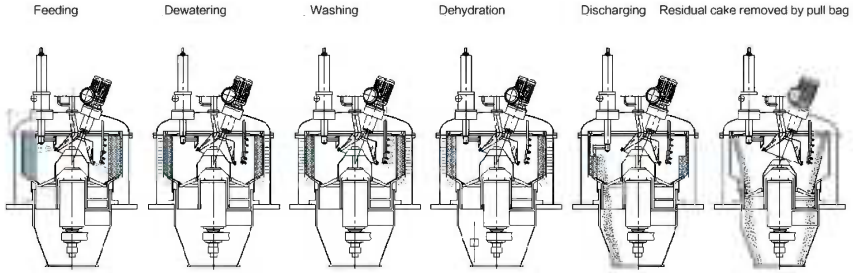
Materials to be separated are added into the high-speed rotating centrifuge basket through the feeding pipe. Under the action of the centrifugal field, the material will be filtered through the filter cloth, the liquid phase will be discharged through the liquid outlet, and the solid phase will be retained in the basket. When the basket is filled with materials and the feeding and dehydration stop, wash the cake and filter out the washing liquid. The centrifuge continues to spinning to dry the filter cake. After the cake meets the separation requirements, the centrifuge slows down and the scraper removes the cake from the bottom and out of the machine. Then, the centrifuge slows down again and the pneumatic bag puller moves up and down to shake off the residual cake, so as to completely remove the cake.

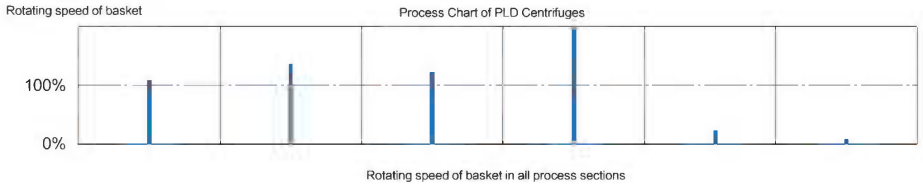
▶ PLD INSULATION-TYPE

Adhering to the excellent characteristics of conventional PLD products, it is designed in an insulation layer structure with low or high temperature resistant bearings and seals, and it can achieve solid-liquid separation of materials in low or high-temperature environment.

Insulation layer: single insulation layer (insulation agent filling layer) or double insulation layer (insulation agent filling layer + cold and hot media circulation chamber).







▶ PQLD PHARMA CENTRIFUGES

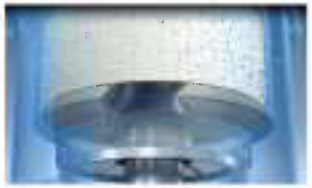


The product is designed with an overall turnover cover, and the transition of the whole structure is smooth and flat, which can give a thorough cleaning, effectively putting an end to the dead corners and can remove online residuals to avoid cross-contamination of materials. It is suitable for material separation requiring high purity and hygiene.



▶ MAIN FEATURES

Cake removal rate higher than 99%



After scrapping



After the first pull-bag removal



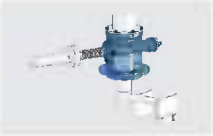
Several removals by pull bag

The filter bag is designed with a renewable structure and it can well remove the residual cake, avoiding cross contamination of materials. Moreover, it can improve the filtering efficiency and prolong the service life of the filter bag.

Compliance with GMP specifications and anti-explosion requirements

The structure of a large turnover cover or overall turnover cover + CIP online cleaning system can achieve thorough cleaning in centrifuges.

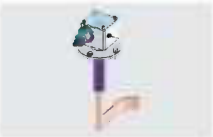
The high surface cleanliness and roughness up to Ra0.2-0.4 μm are in line with cGMP requirements.



Smooth discharge: Automatic scraper device has the functions of speed regulation and pitch adjustment, and the scraper is designed with multi-structures, including double-blade (wear-resistant: carbide tip, wear-resistant coating, etc.). The cutting angle has been improved, with smaller scraping resistance, and the layered scraping technique shall be selected for hard materials.



Small vibration, low noise and stable operation: The liquid damping shock absorber technology is adopted, and it is installed without base, which effectively reduces the vibration of the centrifuge and facilitates the installation and maintenance of the machine.
Frame square box design: The chassis weight is increased, the centrifuge center of gravity is lowered, and the vibration speed is reduced.



The cake layer control device and electromechanical material level detection device are provided to effectively control the feeding amount, prevent the centrifuge from overload work, prevent the material from escaping, and ensure the automatic operation of the feeding process.



The basket is comprehensively machined and undergoes 100% weld flaw detection, with high machining precision and large filtering area, conducive to ultrafine particle filtration.

Quick filter bag replacement

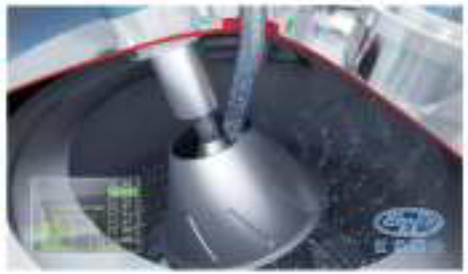
It is designed with a detachable basket lip, reliable self-locking, and scientific filter cloth fixed module (tensioning device + quick assembly structure), by which, the filter cloth can be replaced quickly.



Fully enclosed structure: The material is completely separated from the transmission, which can protect the nitrogen filling inside the equipment, effectively prevent material from contamination, and ensure the safety of personnel.

Uniform distribution: Streamline distributor can improve the distribution balance and reduce the distribution vibration for the material with poor fluidity.





Multiple safety protection and guarantee

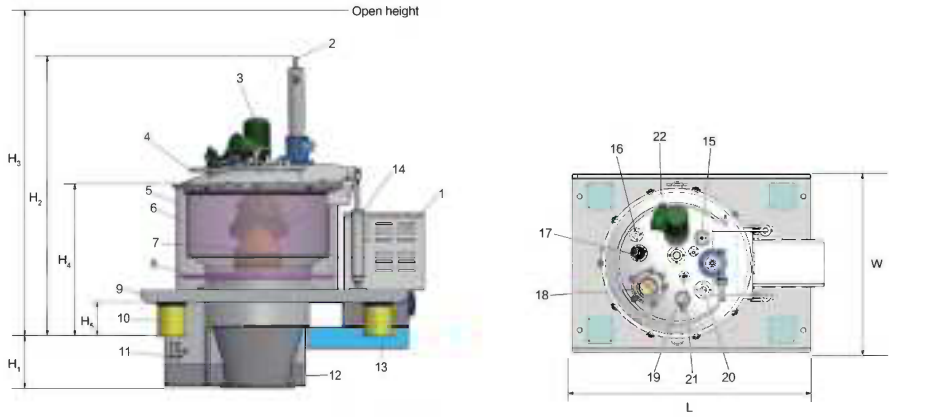
It has multiple protections, including overvibration protection, overcurrent protection, temperature control protection, scraper in-situ position protection, scraper stroke protection, cap protection, interlock protection, scraper blocking protection, nitrogen protection, etc.



Fully automatic vertical scraper discharge centrifuge

▶ MAIN STRUCTURE AND TECHNICAL PARAMETERS

Models	Code						
	L	W	H1	H2	H3	H4	H5
PLD800	2050	1250	590	2000	2100	965	250
PLD1000	2200	1530	625	2210	2500	1185	370
PLD1250	2550	1800	620	2500	2950	1370	370
PLD1400	3000	2100	740	2720	3340	1575	400
PLD1600	3200	2400	800	3000	3700	1750	425
PLD1670	3250	2400	800	3000	3780	1750	425
PLD1800	3500	2500	880	3300	4400	2100	425



1 Motor parts 2 Scraper parts 3 Inclined feeding distributor 4 CIP upper cleaning 5 Shell 6 Basket assembly

7 Transmission assembly 8 CIP bottom cleaning 9 Base parts 10 Damping shock absorber 11 Integrated terminal 12 Discharge hopper

13 Belt cover 14 Balance cylinder 15 Atomizing washing pipe 16 Vent port 17 Explosion-proof lamp 18 Manhole sight glass

19 Cake layer detection device 20 Vent pipe 21 Nitrogen pipe 22 Turnover cover assembly

▶ MAIN STRUCTURE AND TECHNICAL PARAMETERS

项 目 Items		Model						
		PLD800	PLD1000	PLD1250	PLD1400	PLD1600	PLD1670	PLD1800
Basket Diameter		800	1000	1250	1400	1600	1670	1800
Effective Basket Height		460	570	700	800	900	920	1100
Basket Volume		100	190	400	600	800/750	900	1250
Loading Capacity		130	230	500	700	1000	1125	1500
Motor Power		7.5/11	15	22	30/37	37/55	45	55
Max. Speed (r/min)		1200/1500	1100/1200	1000/1200	950/1150	850/1050	850	800
Max. Separation Factor		645/1007	678/805	700/1007	700/1036	647/987	675	645
Machine weight	Platform construction	2000	3500	5000	9000	12000	12500	17000
	Square box structure		4000	6000				

▶ MAIN USE

It is mainly used for solid-liquid separation of the suspension of various kinds of solid particles and fibrous materials, especially toxic, flammable and explosive materials and those materials with high viscosity and fine particle size. For example, medical products such as antibiotics, vitamins and medical intermediates, food such as salt, monosodium glutamate, food additives, starch, sugar and chemical seasoning, chemical materials, such as ammonium sulphate, gypsum, mirabilite, copper sulphate, potassium chloride, borax, dye, pigment, resin and pesticide, and materials related to industries concerning lithium ternary precursor new energy, mining, metallurgy and environmental protection.



Medical intermediate Ternary precursor



CPE Potassium carbonate Potassium sulfate Strontium carbonate

▶ PRODUCT CONFIGURATION SELECTION

Configuration selection	Models					
	PLD	PQLD	LGZ	LQGZ	PGZ	PAUT
Full turnover cover		√		√		
Big turnover cover	√		√		√	
Flat cover	√		√		√	√
Platform construction	√	√	√	√	√	
Square box structure	√		√		√	√
Insulation structure	√		√			
Lateral permeability	√				√	√
Feeding method	Inclined feeding and central feeding					Side feeding
Discharging method	Scraper + pull bag discharge, layered scraper			Scraper discharge, layered scraper		
Washing method	CIP online cleaning, atomizing nozzle washing, spray ball washing, spray pipe cleaning, distribution plate washing and pulse washing					
Control system	PLC control, man-machine interface, frequency conversion control, energy consumption braking or feedback braking, etc					
Drive motor	General motor, energy-saving motor, frequency conversion motor, explosion-proof motor and plateau motor					
Safety protection	Explosion-proof device, nitrogen protection system, oxygen content detection system, vibration protection, temperature protection, electromechanical interlock, speed detection, overload protection, material level detection, cover-opening protection device, antistatic protection, etc					
Filtration performance	Basket volume (maximum loading capacity), 2. Basket rotating speed (maximum separation factor) can be designed according to customer's process requirements.					

Fully automatic vertical scraper discharge centrifuge

LGZ/PGZ INSULATION SERIES – VERTICAL BOTTOM DISCHARGE SCRAPER CENTRIFUGES



LGZ lined HL type

LGZ series centrifuge is a kind of fully automatic and highly technical centrifuge with scientific structure design, large handling capacity and simple operation and maintenance.





LGZ online cleaning type

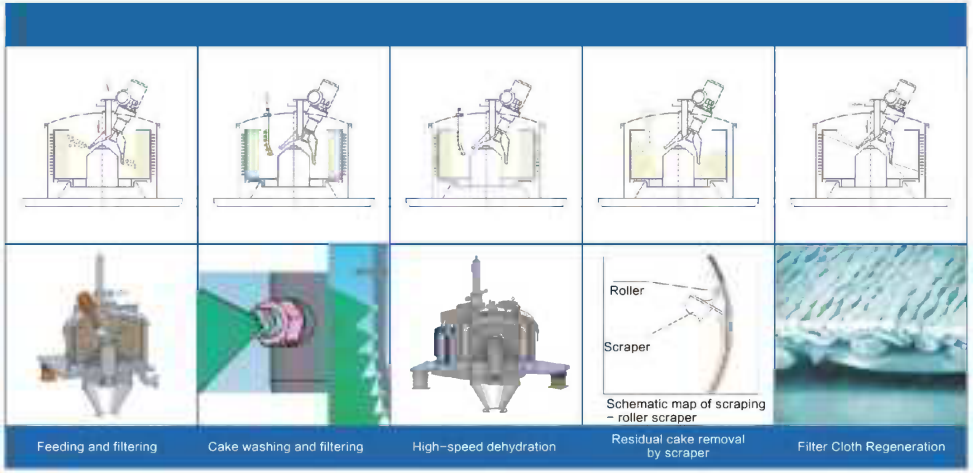


LGZ lined PE type

It is suitable for solid-liquid separation of fibrous material with solid-containing content of 5%~40%, suspension, materials with high viscosity and fine particle size of 10 μm~a few millimeters, and toxic, flammable and explosive materials. It is featured by aseptic sanitation, airtight explosion-proof performance and multiple safety protection, and can operate in plateau working condition. Moreover, it has been widely used in pharmaceutical, fine chemical, new energy, food and other industries.

▶ MAIN ADVANTAGES

It is mainly used for solid-liquid separation of the suspension with various kinds of solid particles and fibrous materials, especially toxic, flammable and explosive materials and those materials with high viscosity and fine particle size. For example, medical products such as antibiotics, vitamins and medical intermediates, food such as salt, monosodium glutamate, food additives, starch, sugar and chemical seasoning, chemical materials, such as ammonium sulphate, gypsum, mirabilite, copper sulphate, potassium chloride, borax, dye, pigment, resin and pesticide, and materials related to mining, metallurgy and environmental protection industries, etc. The centrifuge can achieve remote control, with high automation and large handling capacity.



▶ MAIN ADVANTAGES

· It has scientific structure design, low center of gravity, smooth operation, and no foundation installation, convenient for installation and maintenance of the machine.
· The liquid damping shock absorber system is adopted, with good vibration absorption and better vibration isolation and vibration attenuation.
· The CIP online cleaning system is configured to conduct thorough cleaning and disinfection inside the machine to prevent cross contamination.
· The fully-enclosed structure prevents the material from being contaminated, and achieves the nitrogen filling protection of the machine chamber, bearing seat, scraper chamber and distribution chamber.
· The feeding system with inclined feeding and cake layer control device is adopted to control the distribution and make it uniform, and realize automatic control.
· Gas recoiler and roller scraper device can effectively remove cake residue for cloth regeneration.
· DCS control interface and automatic man-machine interface control can realize intelligent remote control.
· Independent transmission assembly is convenient for assembly/disassembly, and a double seal of labyrinth and oil seal is applied between spindle and basket to make spindle completely isolated from corrosive gas.

PGZ SERIES – AUTOMATIC VERTICAL BOTTOM DISCHARGE SCRAPER CENTRIFUGES

PGZ series of products, with the advantages of LGZ products, is designed with fixed cover, suitable for the separation of toxic, volatile, inflammable and explosive materials.



PGZ衬HL型



PGZ方箱型

▶ WORKING PRINCIPLE

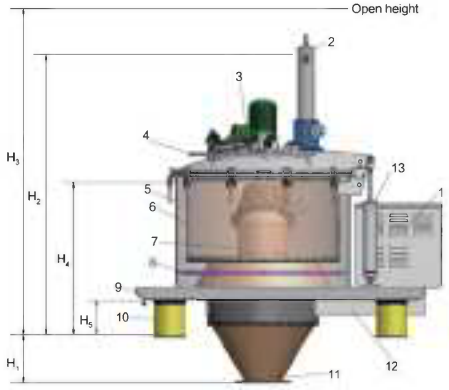
The bottom discharge scraper centrifuge is the automatic vertical filteringcentrifuge. The motor drives the basket to rotate at a high speed through the belt, andthe materials to be separated enter into the centrifuge basket at a high speed throughthe feeding system under the control of the pre-programmed program. Under theaction of the centrifugal field, the material will be filtered through the filter media (filtercloth/screen), the liquid phase will be discharged through the liquid outlet, and thesolid phase will be retained in the basket. The material detection device will detect thefilling level of the material in real time. When the basket cake reaches the loadingcapacity specified by the machine, it stops feeding. The filter cake is then washedand dried. After the cake meets the dehydration requirements, the centrifugereduces to the scraping speed, and the scraper removes the cake under the hydrau-lic (pneumatic) drive, and then the cake is discharged through the solid dischargeport of the centrifuge at the lower part

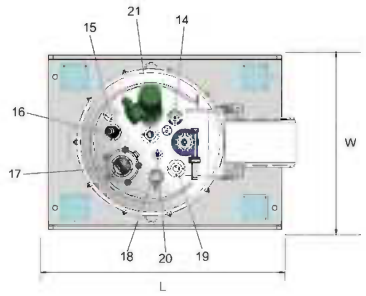


PGZ1800型

▶ TECHNICAL PARAMETERS OF LGZ&PGZ CENTRIFUGES

Models	Code						
	L	W	H1	H2	H3	H4	H5
LGZ/PGZ800	1900	1250	170	1900	2060	955	250
LGZ/PGZ1000	2200	1530	275	2200	2500	1185	320
LGZ/PGZ1250	2550	1800	275	2550/2900	2950/3150	1370/1540	370
LGZ/PGZ1500	3000	2100	390	2800	3340	1575	400
LGZ/PGZ1600	3200	2400	400	2850/3100	3700/3900	1750/1830	425
LGZ/PGZ1800	3500	2500	500	3400	4400	2100	425





1 Motor parts 2 Scraper parts 3 Inclined feeding distributor 4 CIP Upper cleaning 5 Shell 6 Basket assembly

7 Transmission assembly 8 CIP Bottom cleaning 9 Base parts 10 Damping shock absorber 11 Discharge hopper 12 Belt cover

13 Balance cylinder 14 Atomizing washing pipe 15 Vent port 16 Explosion-proof lamp 17 Manhole sight glass 18 Cake layer detection device

19 Vent pipe 20 Nitrogen pipe 21 Cover assembly

▶ TECHNICAL PARAMETERS OF LGZ/PGZ CENTRIFUGES

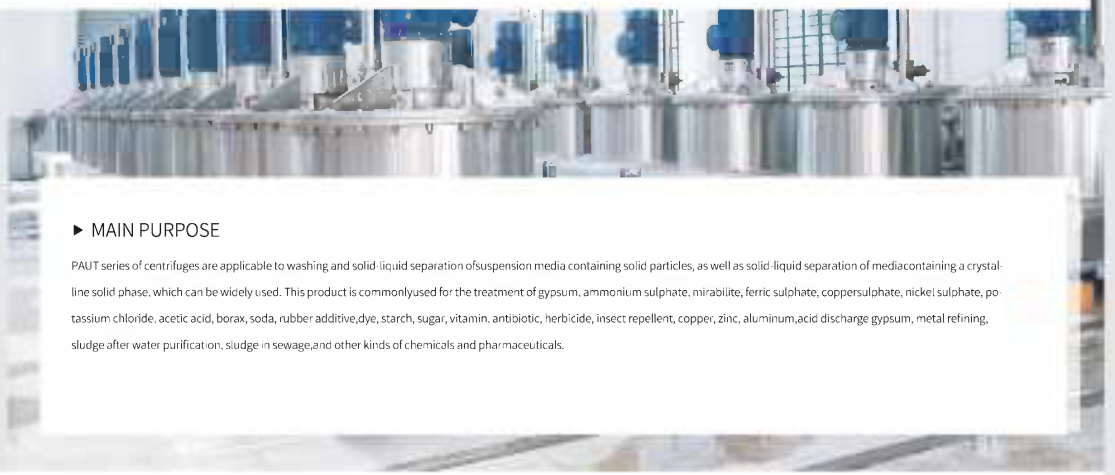
Items		Models					
		LGZ/PGZ800	LGZ/PGZ1000	LGZ/PGZ1250	LGZ/PGZ1400	LGZ/PGZ1600	LGZ/PGZ1800
Basket Diameter(mm)		800	1000	1250	1400	1600	1800
Effective Basket Height (mm)		420	550	630/800	750	800/1000	1000
Basket Volume(L)		100	190	400/500	600	800/1000	1250
Loading Capacity (kg)		135	230	500/600	700	1000/1250	1500
Motor Power (kw)		7.5/11	15	22/30	30/37	37/45	55
Max. Speed (r/min)		1200/1500	1100/1200	1000/1200	950/1150	850	800
Max. Separation Factor		645/1007	678/805	700/1007	700/1036	647	645
Machine weight	Platform construction	2000	3500	5000	9000	12000	17000
	Square box structure		4000	6000		13000	

Fully automatic vertical scraper discharge centrifuge

PAUT TOP-SUSPENDED BOTTOM DISCHARGE SCRAPER CENTRIFUGES







▶ MAIN PURPOSE

PAUT series of centrifuges are applicable to washing and solid-liquid separation ofsuspension media containing solid particles, as well as solid-liquid separation of mediacontaining a crystalline solid phase, which can be widely used. This product is commonlyused for the treatment of gypsum, ammonium sulphate, mirabilite, ferric sulphate, coppersulphate, nickel sulphate, potassium chloride, acetic acid, borax, soda, rubber additive,dye, starch, sugar, vitamin, antibiotic, herbicide, insect repellent, copper, zinc, aluminum,acid discharge gypsum, metal refining, sludge after water purification, sludge in sewage,and other kinds of chemicals and pharmaceuticals.

▶ PRODUCT FEATURES

IT IS DESIGNED WITH A SIMPLE STRUCTURE, STABLE AND SIMPLE OPERATION AND EXCELLENT DAMPING PERFORMANCE

· The top-suspended dynamical straight connected structure is adopted, in which, the transmission and the gyration center of the basket are aligned with the machine center, with stable operation.

· It is provided with a square box base + liquid damping shock absorber system, with a low center of gravity and excellent vibration attenuation.

· IAn independent bearing seat is adopted, with large bearing span, low center of gravity, large bearing capacity and great operation performance.

· The body is designed with a full load-bearing structure, with high rigidity, simple structure and good appearance.

HIGH EFFICIENCY AND LARGE HANDLING CAPACITY

· Large length-to-diameter ratio and large loading volume.

· Wide application of materials.

AUTOMATIC CONTROL + MULTIPLE SAFETY PROTECTION EQUIPMENT OPERATION, WITH HIGH RELIABILITY

· Automatic program control, reliable operation, and high safety.

· The frequency conversion speed regulation drive is adopted, with stable start, and effective overload protection of the motor.

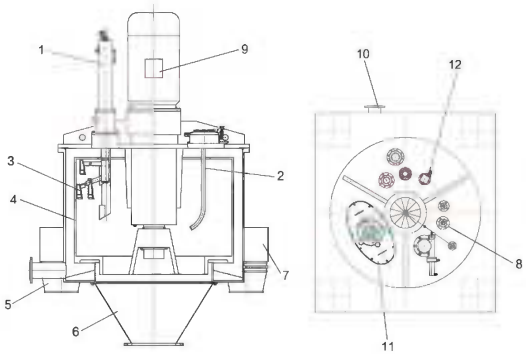
· Multiple safety protection + non-polar layered scraping control.

EXPLOSION-PROOF, ANTI-CORROSION AND ANTI-POLLUTION

· It has a fully enclosed structure, and the motor and spindle are directly connected, without belt transmission or environmental pollution due to friction dust.

· Nitrogen protection device can be configured for explosion-proof applications.

· Anti-corrosion alloy material and coating treatment can be adopted.



1 Scraper drive device 2 Washing pipe 3 Scraper
4 BASKET 5 Shock absorber 6 Solid discharge port
7 Base 8 Feeding pipe 9 Motor
10 Liquid discharge pipe 11 Inspection cover 12 Cake layer controller

▶ TECHNICAL PARAMETERS

Items	Models		
	PAUT1250	PAUT1320	PAUT1600
Basket Diameter (mm)	1250	1320	1600
Effective basket height (mm)	800	800	1000
Basket Volume (L)	450	490	1000
Loading capacity (kg)	560	620	1250
Motor power (kw)	30	30	45
Max. speed (r/min)	970	900	850
Max. Separation Factor	658	600	647
Dimension (mm)	2100x2000x2600	2100x2000x2600	2700x2350x2900
Weightv (kg)	5000	5500	10000

Fully automatic vertical scraper discharge centrifuge

Horizontal scraper unloading centrifuge

GK horizontal scraper discharge centrifuge



Slant discharge type



Spiral discharge type

GKH siphon type horizontal scraper discharge centrifuge



Conventional type



Fully hydraulic type

GKF Clean Horizontal Scraper Discharge Centrifuge



Steel platform type



Floating platform

GK SERIES – HORIZONTAL AUTOMATIC PEELER CENTRIFUGE

▶ DESCRIPTION

GK horizontal centrifuge is a type of automatic filtration centrifuge featuring continuous running, intermittent operation and high-speed peeling, which is able to complete feeding, separation, washing, dehydration, discharging, back-blowing and other processes at full speed, and therefore is commonly applied to the washing and solid-liquid separation of suspension medium containing solid particles.

With high separation factor, short single circulation duration and large handling capacity, relatively dry residues after filtration can be obtained and ideal washing effect can be ensured.



SPIRAL DISCHARGE TYPE



CHUTE DISCHARGE TYPE

This type has high performance in separating suspensions with the cake density of 0.8~2.5, particle size of 0.05mm~1mm and solid concentration of 15%~80%.

It has been widely applied in the chemical, food, pharmaceutical, light industry and other industries for separating such materials as sodium bicarbonate, caustic soda, starch, boric acid, ammonium sulfide, sulfuric acid, sodium sulfate, ferrous sulfate, calcium phosphate, polyvinyl chloride, sodium chloride, and potassium chloride.

▶ WORKING PROCESS



▶ PRODUCT CONFIGURATION

· Control mode: PLC control, with touch panel and human-machine interface and supporting electric-hydraulic actuator to realize automatic remote control.

· Multiple safety protections: speed detection, overvibration protection, cover opening protection, overload protection, overtemperature protection, peeler action protection, nitrogen protection, electromagnetic interlocking, etc.

· Discharge mode: open discharging through chute or integrated discharging with peeler conveyed through spiral.

· Hydraulic coupler can be adopted for the transmission of models below GK1250 to realize stable startup, simple control and effective overload protection of motor.

· Variable-frequency control, dynamic braking or energy feedback braking, stepless regulation of speed are designed to realize energy saving, environmental protection and more reliable operation.

· Optional configurations: online washing system, nitrogen protection system, steel platform, hydraulic locking device, etc.

▶ STRUCTURAL ADVANTAGES



Dovetail slot design is adopted for door and base fitting flange to ensure reliable sealing.

Full-hydraulic locking door and dual-locking protection are designed to ensure structural reliability and easy operation.

Enclosed and explosion-proof design is employed for the whole structure to meet the GMP standards and the requirements for the application in flammable and explosive places of the pharmaceutical industry.

Cake layer controller is configured to effectively control the thickness material layers, prevent overload operation, and avoid overflowing of materials.

Hydraulic drive is adopted to ensure stable discharge.

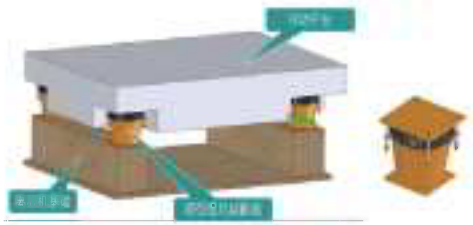
Detachable were-resistant hard-alloy blades are configured to expand the service life.

Spiral discharge is adopted to ensure high collection rate of cakes and effectively prevent the blockage of materials.

Equipment is supported by front and rear rolling bearing, with high rigidity and small revolving resistance.

Peeler support is welded and polished as a whole, with high structural strength and high rigidity to ensure smooth scrapping.





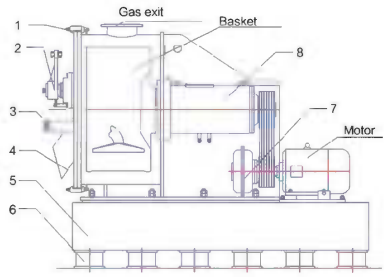
- Maximum service life of 30 years.
- Large bearing capacity and good vibration attenuation effect.
- Anti-slip base plate, without fixing the equipment with bolts.
- Integrated design of floating platform and vibration attenuation system.
- Dynamic load isolated positively, with no need to lay a foundation, easier to be installed.
- Imported damper adopted for the vibration absorber, with special structural design to effectively improve the vibration isolating capacity as well as the equipment running safety and stability.

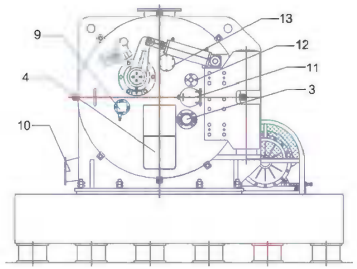


- Integrated design for the equipment base, which is manufactured as a whole to ensure both aesthetic appearance and production safety.
- Coaxial machining for the front and rear bearings to ensure high coaxial precision.
- Ion plating process employed for the spindle sleeve to resist wear and corrosion, and realize a longer service life.
- Welded as a whole to eliminate stress, with high strength and strong vibration resistance.
- Multiple sealing structures such as lip seal, air-tight seal and labyrinth seal adopted to ensure reliable sealing for transmission.
- Forcible lubricant spraying mode adopted to ensure good lubricating and cooling effect.
- Devices for detecting the temperature, velocity, vibration, etc. are configured for the spindle assembly to realize real-time monitoring of the equipment's operation.

▶ PRODUCT DIMENSION

Items		GK600	GK800	GK1000	GK1250	GK1350	GK1600	GK1800
Chute+Floating Platform	Machine		2500x1890x1300	2760x1980x1550	3400x2170x2020		4000x2750x2480	
	Installation		3400x2500x1900	3900x2500x2200	4600x3200x2600		5700x4100x3500	
	Machine	2400x1350x1400	2200x2100x1700	2460x2400x2100	3660x2100x2600	4400x2100x2700		
	Installation	2800x1800x1400	2800x2100x1700	3300x2400x2100	4800x2900x2600	5400x3000x2700		
			2600x2300x400	2630x2360x450	3100x2600x500		4040x3400x700	4700x3600x800
	Machine				3800x2170x2020		4850x2750x2480	5650x2850x2700
	Installation				4800x4000x2600		6100x4700x3500	6500x5600x4000





1	Locking device	2	Peeler	3	Feeding pipe
4	Solid discharge port	5	Vibration isolating block	6	Anti-vibration pad
7	Fluid coupling	8	Bearing seat	9	Cake layer control
10	Liquid discharge pipe	11	Manual inspection hole	12	Washing pipe
13	Standby port				

▶ TECHNICAL PARAMETERS

Items		Models						
		GK600	GK800	GK1000	GK1250	GK1350	GK1600	GK1800
Basket Diameter (mm)		600	800	1000	1250	1350	1600	1800
Basket Length (mm)		325	450	500	600	680	800	1000
Filtering Area		0.61	1.13	1.57	2.45	2.88	4	5.65
Basket Volume (L)		45	100	165	355	465	700	1100
Max. Loading Weight (kg)		60	135	220	460	600	930	1500
Basket Speed (r/min)		2400	1550	1400	1200	1200	950	800
Separation Factor		1935	1076	1098	1008	1088	808	645
Power of Driving Motor (kW)		22	30	37	55	55	90	132
Weight (kg)	Chute		3500	6000	8000		14000	
	Chute+Steel Platform	3500	6000	10000	13500	21000		
	Weight of Floating Platform		5000	6000	9000		21000	33000
	Spiral discharge host				8500		15000	23000

GKH SERIES – AUTOMATIC SIPHON PEELER CENTRIFUGE

GKH siphon centrifuge is a new type of product that is developed on the basis of the ordinary peeler centrifuge. Based on the siphon principle, this product discharges the filtrate out via a siphoning device or skimming device. The filtering impetus can be changed by adjusting the liquid level at the suction inlet of the siphon pipe (skimming pipe) to further regulate the filtering rate, handling capacity, cake moisture and washing effect. A back-flushing device is configured to realize regeneration of the filter cloth and improve the separation effect. With back-flush, scouring, siphoning and other functions by configuring special devices, the filter cloth can be regenerated completely.



SPIRAL DISCHARGE TYPE



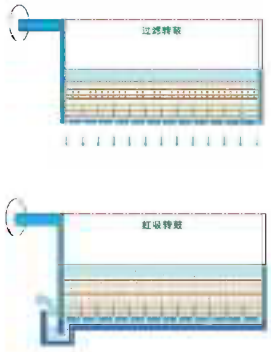
SPIRAL DISCHARGE TYPE

The siphon-type peeler centrifuge is applicable to the occasions involving large-scale production and requiring low cake moisture and sufficient washing, and therefore is commonly used for the separation of starch, sodium bicarbonate, potassium chloride, calcium phosphate and other materials. Currently, it has been widely applied in such industries as pharmaceutical production, food production, bioengineering and chemical engineering.

▶ ADVANTAGES OF SIPHON PEELER CENTRIFUGE

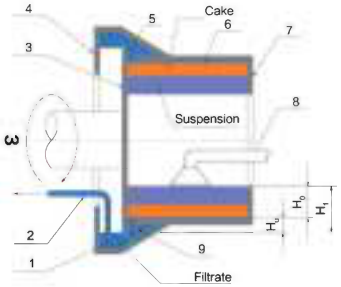


▶ SCHEMATIC DIAGRAM OF GKH HORIZONTAL SIPHON PEELER

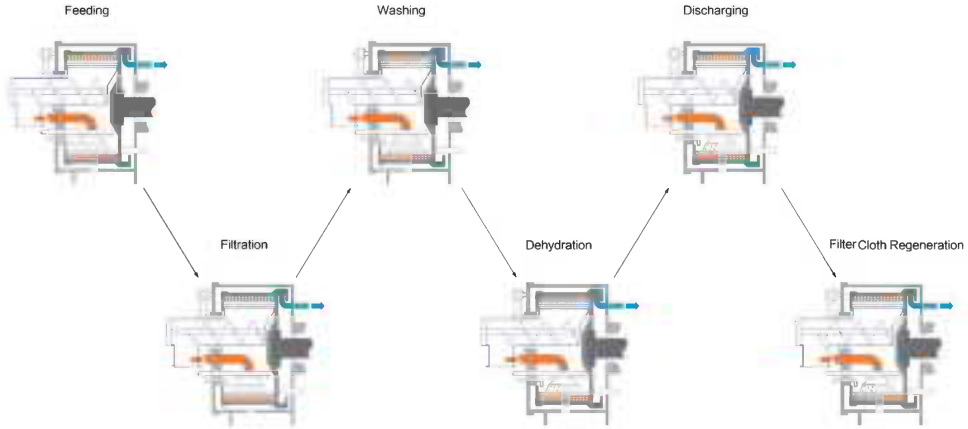


Filtration Rate $V=K\frac{H_0+H_u}{H_1}$

1 Siphon chamber
2 Siphon pipe
3 Basket
4 Auxiliary basket
5 Baffle
6 Screen
7 Basket lip
8 Feeding pipe
9 Filtrate chamber



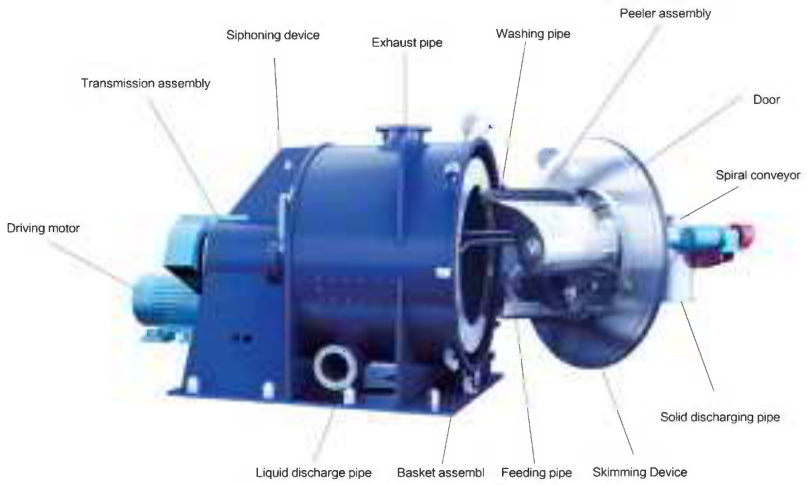
▶ WORKING PROCESS



▶ DIMENSION

Items		GKH800	GKH1000	GKH1250	GKH1600	GKH1800
Chute and Floating Platform	Machine	2550x1750x1300	2850x2100x1550	3550x2200x1900		
	Installation	3400x2500x1900	4100x2600x2200	4600x3200x2600		
[illegible]	Machine	2200x2100x1700	2600x2400x2100	4300x2100x2600		
	Installation	2800x2100x1700	3400x2600x2100	5300x2700x2600		
Floating Platform		2300x2600x400	2700x2400x450	3100x2600x500	4040x3400x700	4700x3600x800
Spiral Discharge and Floating Platform	Machine		3600x2100x1550	3900x2200x1900	5200x2750x2300	5850x2880x2700
	Installation		4400x3600x2200	4800x4000x2600	6300x5000x3500	6900x5600x4000
Spiral Discharge and Steel Platform	Machine		2900x2400x2100	4600x2100x2600	5300x3100x3100	
	Installation		3400x2900x2100	5500x2800x2600	6300x4800x3100	

▶ STRUCTURE OF GKH CENTRIFUGE



▶ TECHNICAL PARAMETERS

Items		Models				
		GKH800	GKH1000	GKH1250	GKH1600	GKH1800
Basket Diameter (mm)		800	1000	1250	1600	1800
Basket Length (mm)		450	500	600	1000	1250
Filtering Area		1.13	1.57	2.36	5	7
Basket Volume (L)		100	165	355	830	1325
Loading Weight (kg)		135	225	450	1000	1780
Basket Speed (r/min)		1550	1400	1200	950	800
Separation Factor		1078	1098	1008	808	645
Power of Driving Motor (kW)		45	55	90	132	200
Weight (kg)	Chute Weight	4500	6500	10000		
	Chute and Steel Platform	7000	11000	20000		
	Weight of Floating Platform	5000	6500	9000	21000	33000
	Spiral Discharge Weight		6800	10500	16000	25000
	Spiral Discharge and Steel Platform		11300	22000	33000	

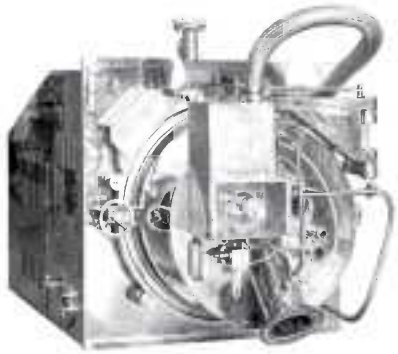
GKF PHARMA PEELER CENTRIFUGE



With special structural design and system configuration, GKF pharma peeler centrifuge can be used to obtain pharmaceutical products or intermediate products that meet the GMP (FDA, COS, TGA) standards with reasonable consumption, without generating new impurities and pollutants during the operation.

GKF centrifuge series are new types of products integrated with multiple patents





Scope of application:
particle diameter: 0.05mm~1mm

Solid content: 10%~50%
Cake density: 1~1.5



Characterized by automatic control, batch processing, continuous working, short circulating period, large handling capacity, low moisture and good washing effect, the product is applicable to the solid-liquid separation of toxic, hazardous, inflammable and explosive media of low viscosity and with high requirements for sanitation. It has been widely applied in the pharmaceutical production, food production and other fields.

▶ MAIN FEATURES

· Gas back-blowing device: assist the peeler to discharge materials and remove the residual cakes effectively.
· High-quality stainless steel or alloy is adopted for the part contacting materials, and surfaces are polished, meeting the requirements for corrosion protection and cleanliness.
· Online cleaning system: Multiple spraying balls and directional nozzles are arranged on the inner surface, basket bottom, discharging bucket, door and other parts of the centrifuge to realize comprehensive flushing of the equipment online.
· Online SIP disinfection, CIP cleaning and soaking & cleaning are available to effectively avoid cross contamination of materials and meet the GMP standards and high requirements for sanitation.



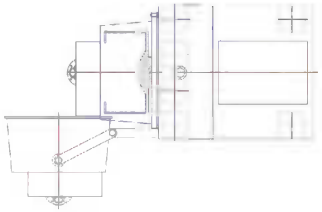


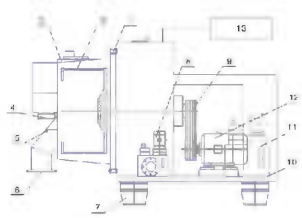
· Variable-frequency control, energy consumption or energy feedback braking, speeds in different processes set as needed, stepless speed regulation are designed to reduce power consumption significantly.
· Automatic electric-hydraulic control is adopted for the actuating components, and feeding, filtration, washing, dehydration, discharging, residual cake removing, online cleaning and other processes are monitored in the whole process.
· System of multiple safety protection devices: devices for speed monitoring, overvibration protection, door opening protection, motor overtemperature and overload protection, electric-hydraulic interlocking protection for door locking, peeler position limitation, spindle temperature rise protection, lubrication interruption protection, etc. are configured to ensure safe operation of the centrifuge.

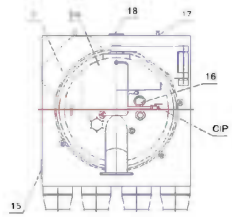
· Dual-sealing structure is designed for the spindle to effectively prevent oil leak and contamination.
· Diaphragm-type structure is designed. The power area and production area are flexibly connected through the base panel and wall, which are completely separated, so as to effectively prevent contamination in the production area.
· An automatic nitrogen monitoring system is configured to ensure the centrifuge always works under positive pressure of the inert gases, and an online oxygen content detection system is configured to meet the requirements for explosion protection.



▶ STRUCTURE OF GKF CENTRIFUGE







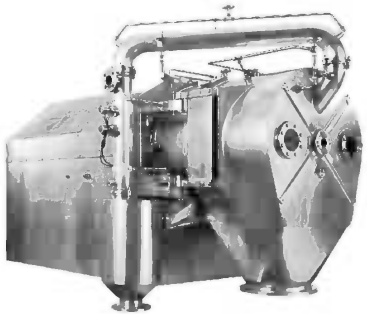
1	Locking device	2	Basket	3	Flippable cover of shell
4	Feeding pipe	5	Washing pipe	6	Discharging pipe
7	Vibration absorber	8	Lubricating system	9	Transmission assembly
10	Base	11	Hydraulic station	12	Driving motor
13	Nitrogen protection system	14	Peeler assembly	15	Liquid discharge pipe
16	Cake layer controller	17	Gas back-blowing	18	Exhaust pipe

▶ TECHNICAL PARAMETERS

Items		Model							
		[illegible]	[illegible]	[illegible]	GKF1050	GKF1250	GKF1350	[illegible]	GKF1800
Basket Diameter (mm)		600	800	1000	1050	1250	1350	1600	1800
Basket Length (mm)		325	400	500	500	600	680	800	1000
Filtering Area		0.61	1	1.57	1.65	2.36	2.88	4	5.65
Basket Volume (L)		45	88	165	205	355	465	700	1100
Max. Loading Weight (kg)		60	120	225	275	450	600	930	1500
Basket Speed (r/min)		2400	1600	1400	1350	1200	1200	950	800
Separation Factor		1930	1154	1098	1070	1008	1088	808	645
Power of Driving Motor (kW)		22	30	37	37	55/75	55/75	90	132
Dimension (LxWxH)(mm)	Machine	2400x1390x1700	2850x1600x1950	3250x1800x2200	3420x2000x2400	3950x2150x2600	4350x2150x2700	5100x2500x3100	5800x2800x3600
	Installation	3100x1900x1700	3600x2400x1950	4100x2900x2200	4300x3000x2400	5000x3300x2600	5200x3600x2700	6400x4400x3100	7500x4800x3600
Weight (kg)		3500	5500	9000	10000	16000	18000	25000	36000

FW SERIES – AUTOMATIC INVERTING FILTER CENTRIFUGE

FW inverting filter centrifuge is a new type of precise centrifugal filtering equipment featuring automatic discharge, intermittent operation and high performance, which complies with the GMP standards for pharmaceutical production and can realize CIP in-position cleaning, soaking & cleaning and disinfection. As no scrapping or squeezing force is applied on the cake particles during discharging, shapes of these particles can be reasonably maintained. This product is highly applicable to those materials that are extremely difficult to be filtered, as the filter cloth can be properly washed and regenerated, leaving no residual cake layers that affect the filtration next time. It is applicable to the filtration and separation of materials in the pharmaceutical production, food production, chemical engineering and other industries.



▶ PRODUCT ADVANTAGES



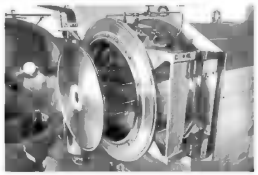
Filtering and separation of 2mm–10mm cake layers are available. Filtration yield per unit area is high and filtration and washing quality per cycle is stable. Between different batches, soaking, beating and washing of the filter bags can be realized inside the centrifuge to regenerate the filter cloth online.

It is designed to meet the requirements for through-wall installation and clean production. Automatic control, high technology and high accuracy requirements, and stable operation.



Enclosed and well-sealed structure and small working cavity are designed to effectively reduce nitrogen consumption.
It can effectively avoid cross contamination of materials and meet the GMP standards and high requirements for sanitation.



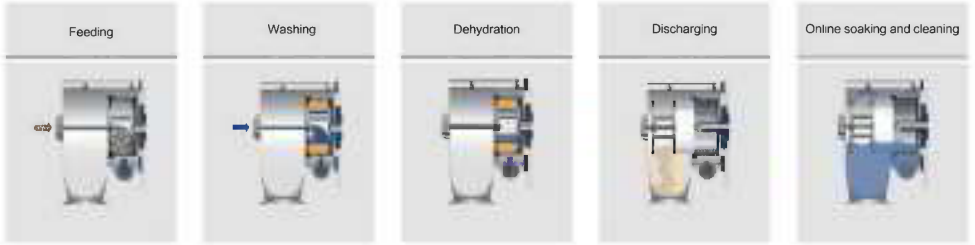


Flip design is adopted for the door structure for easier cleaning and maintenance.
Special bag-inverting structure is designed to prevent the cake from clotting.
Compared to the horizontal automatic centrifuge, the inverting centrifuge is able to realize 100% recovery of the cakes, without residues.
Grains are less prone to damage.

Materials are fed from the central position to ensure airtightness and reduce the impact of the airflow on the cloth during separation.



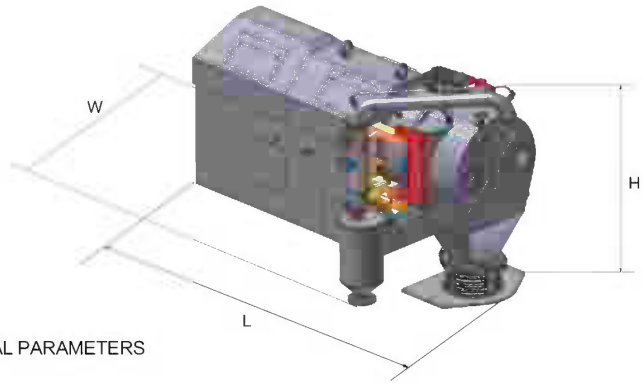
▶ WORKING PROCESS



▶ WORKING PRINCIPLE

With low-speed running of the basket, the materials enter the basket through the feeding pipe. Under the action of centrifugal force, the materials are evenly distributed onto the filter cloth inside the basket, where the liquid phase is filtered out through the cloth pores, screen apertures and filtration pores on the basket and then discharged out through the liquid discharge pipe, while the solid phase is retained on the screen to form annular slag layers. After the materials are initially dehydrated at a high speed, the washing liquid enters the basket through the feeding pipe to wash the materials, which will again be dehydrated at a high speed. Then, the host lowers the speed for discharging and starts the discharging motor, which will then push the dropping tray out of the basket, and the filter cloth starts to flip inside out to discharge the materials through the discharging port under the action of the centrifuge and their own gravity.





▶ TECHNICAL PARAMETERS

Items	Basket Diameter	Filtering area	Basket Volume	Max. Speed (r/min)	Max. Separation Factor	DimensionLxWxH (mm)	Weight (kg)
FW300	300	0.12	6.8	3000	1500	2050x900x1050	1600
FW630	630	0.56	72	1950	1330	2900x1050x1600	3550
FW800	800	0.87	122	1600	1137	4000x1450x1850	4300
FW1000	1000	1.28	205	1270	938	4850x1700x2060	5700
FW1300	1000	2	350	1100	873	5800x2150x3100	6650

HR PUSHER CENTRIFUGE

HR pusher centrifuge is a type of filtering centrifuge characterized by continuous feeding and intermittent discharging.

Composed of hydraulic system, pushing mechanism, base, enclosure, transmission mechanism, basket, etc., this product is able to realize continuous feeding, separation, washing, discharging and other processes at full speed.



▶ SCOPE OF APPLICATION

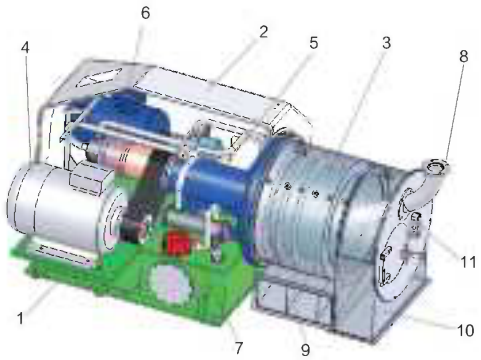
- Solid particle size >0.08MM
- Concentration of 40%~80% (mass percentage)
- Material viscosity <10~1PA.S

▶ INDUSTRIAL APPLICATION

This product is applicable to the filtration of sodium chloride, ammonium chloride, ammonium bicarbonate, urea, polyethylene, polypropyl ethylene, ammonium nitrate, oxalic acid, sodium sulfate, caffeine, etc. in the chemical, fertilizer, alkali production, salt production and other industries.

▶ WORKING PRINCIPLE

Driven by the driving motor, the transmission device operates at full speed to bring the materials into the inner basket through the feeding pipe. Under the action of centrifugal force, the materials are evenly distributed onto the screen wall of the inner basket, where the liquid phase flows into the liquid discharge pipe through the screen and pores on the basket wall, while the solid phase is retained on the screen to form a cake layer. The inner basket and outer basket revolve at the same speed. Driven by the piston, the inner basket moves in the axial direction repeatedly and recipro-cally to make the pushing tray to push the materials from the inner basket to the outer basket for further separation, where annular cake layers are formed. Continuously pushed by the outer end face of the inner basket, the materials are discharged out of the outer basket and then be conveyed out of the equipment through the material scrapping slot.



1 Base
2 Shell
3 Basket
4 Motor
5 Transmission device
6 Pushing mechanism
7 Hydraulic system
8 Feeding pipe
9 Liquid discharging port
10 Discharge port
11 Washing pipe

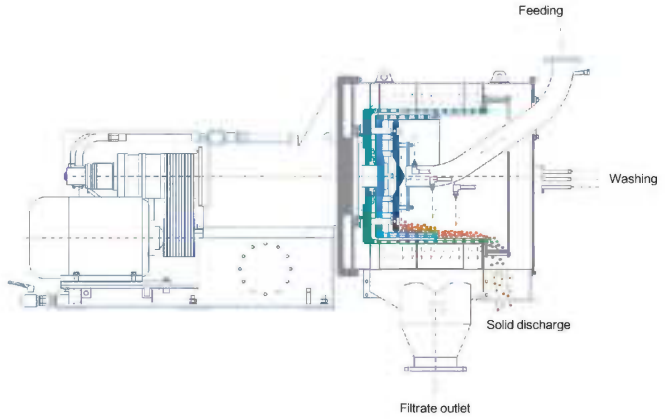
▶ MAIN FEATURES

A High separation factor, multi-stage dehydration and washing of materials, with better washing effect and lower moisture content.

B Continuous working, large handling capacity, high efficiency, and stable operation.

C Low solid content in mother liquid, which can be discharged together with washing liquid or discharged separately

D Low and stable energy consumption.



▶ TECHNICAL PARAMETERS

Items	Models			
	HR400-N	HR500-N	HR630-N	HR800-N
Basket Diameter (mm)	337/400	430/500	560/630	720/800
Filter area length (mm)	320	360	480	600
Speed (r/min)	1500-2400	1200-2100	1000-1800	800-1600
Separation Factor	504-1290	403-1235	353-1143	286-1146
Pushing stroke (mm)	40	50	50	50
Pushing times (N/min)	30-80	50-70	30-80	30-80
Power of Driving Motor (KW)	7.5-15	30-55	45-75	55-90
Motor power of oil pump (KW)	5.5	22	30	45
Weight (Kg)	2400	3600	3900	6100
Dimension (mm)	2600x1130x1250	3600x1450x1650	3130x1430x1360	3650x1890x1610

Horizontal spiral discharge centrifuge

Horizontal spiral discharge settling centrifuge



LW regular type



LWX centripetal pump outlet type



LWS three-phase separation type



LWZ sedimentation filtration centrifuge



LWFX Explosion proof Type

Horizontal spiral discharge filtration centrifuge



LLWZ type concentration and filtration centrifuge



LLWV Conventional Type



LLW hydraulic type

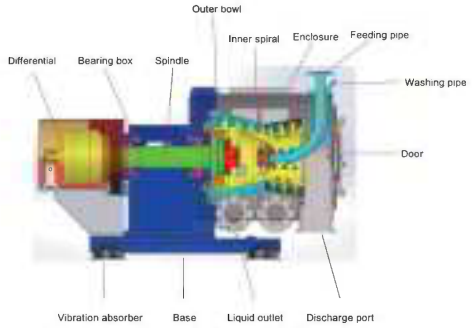


LLWV spiral feeding type

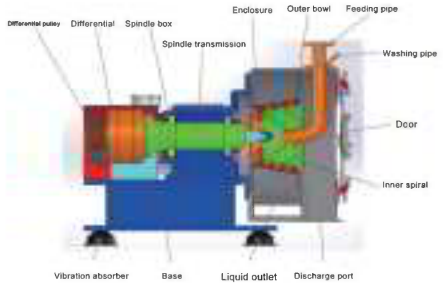
LLWZ AND LLW HORIZONTAL THICKENING SCREEN/SCREEN WORM CENTRIFUGES

▶ DESCRIPTION

Horizontal screen worm centrifuge is an advanced solid-liquid separation equipment featuring low energy consumption, high performance, high automation, high production efficiency, good separation effect, and continuous working capability. After the suspension enters the centrifuge, the liquid phase is discharged out through the screen and the holes on the bowl wall under the centrifugal force generated by the high-speed revolution of the bowl, while the solid phase is retained on the screen to form a cake layer and then pushed to the discharge port through the spiral under the action of the relative differential. In this way, automatic and continuous separation of the solid and liquid phases is realized.



LLWZ Thickening Screen Worm Centrifuge



LLW Horizontal Screen Worm Centrifuge

▶ SUCCESSFUL APPLICATIONS OF LLWZ AND LLW PRODUCTS

Horizontal screen worm centrifuge has been widely applied in the chemical, food, salt, mining, pharmaceutical and other industries. Based on its separation principle, structural characteristics and relatively specific separation objects, this product is mainly applicable to the separation of materials with relatively large particle sizes and without strict requirements for the integrity of the particles, such as various crystals, fibers, crop shells, and plastic particles.

Successful Applications								
Adipic acid	Mirabilite	Pyrazole	AH-Salt	Ammonium persulfate	Gypsum	Silver nitrate	Ammonium phosphate	Ammonium sulfate
Ion exchange resin	Sodium chloride	Anthracene	Sodium chlorate	Acetylsalicylic acid	Sodium formate	Manganese sulfate	Borax	Methyl cellulose (MC)
Calcium formate	Sodium nitrate	Sodium perborate	Sodium phosphate	Citric acid	Sodium sulfate	Polystyrene	Polystyrene alcohol	Sodium thiosulfate
Potash (potassium carbonate)	Tartaric acid	Crystallized soda	Potassium vanadium	Trisodium phosphate	Potassium bicarbonate	Zinc sulfate	Pentaerythritol	Plastic particles
Ammonium thiosulfate	Sodium metaborate	Copper sulfate	Glacial acetic acid	Potassium chloride	Potassium pentasulfide	Potassium phosphate	Potassium sulfate	.....

▶ ADVANTAGES OF LLWZ AND LLW DECANTER CENTRIFUGES



▶ FEATURES OF PLANETARY DIFFERENTIAL

Compared to the cycloidal pinwheel differential, the planetary differential is more uniquely advantageous, especially in: power dividing and adaptive compensation during power transmission; achieving transmission ratio of high efficiency and high speed; coaxality of the input shaft and output shaft; compact structure, small volume, small mass, balanced stress, and strong impact resistance. Currently, the planetary transmission system is more used than the cycloidal pinwheel system as the speed reducer, increaser and variator for various mechanical driving systems.

Main Features of Planetary Differential:

- mall volume, light weight, compact structure and large bearing capacity;
- High transmission efficiency, with the maximum value of 0.97~0.99;
- Transmission comparison design to realize composition and decomposition of motions as well as various complicated variable motions;
- Stable motion, strong resistance to impact and vibration.



LLWZ Thickening Screen Worm Centrifuge



LLWZ Thickening Screen Worm Centrifuge

LLWZ thickening screen worm centrifuge is a major product independently developed by our company, which perfectly combines the structural characteristics of the decanter centrifuge and the screen centrifuge. It is highly applicable to the working condition where there is low solid content or low content of sticky substances in the mother liquid, broadening the application scope of the LLW centrifuges.

Driven by the centrifugal force, the feed liquid is divided into a solid layer and a liquid layer at the decanting section, where most liquid or low-density sticky substances are discharged out, and then the concentrated materials are further dehydrated at the filtering section. Under the combined action of the dual-dehydration mechanism, the moisture content in the solid phase can be ensured to meet the process design requirements.

Model	Bowl Diameter	Bowl Speed	Separation Factor	Production Capacity	Power of Driving Motor	Weight	Dimension (LxWxH)
LLWZ450	450	2500	1575	2-8	30	1800	1800x1400x1250
LLWZ530	530	1800	960	3-10	45	3300	2450x1700x1500
LLWZ650	650	1600	930	5-15	55	4200	2650x1700x1600
LLWZ800	800	1500	1000	8-20	75	5000	3000x2200x2000
LLWZ900	900	1200	725	10-25	75	6500	3000x2200x2000

LLW Screen Worm Centrifuge (Standard Type)

▶ DESCRIPTION

Single-motor variable-frequency driving, stepless speed regulation.

Cycloidal pinwheel differential or planetary differential is adopted to ensure a certain speed difference between the spiral and bowl.



LLW Screen Worm Centrifuge (Standard Type)

Model	Bowl Diameter	Bowl Speed	Separation Factor	Production Capacity	Power of Driving Motor	Weight	Dimension (LxWxH)
LLW320	320	2630	1240	0.5-3	7.5	700	1050x1350x1000
LLW350	350	3000	1765	1-5	11	1200	1520x1380x1190
LLW450	450	2500	1575	2-8	22	1700	1570x1240x1200
LLW530	530	2000	1190	3-10	30	2500	1680x1390x1340
LLW630	630	1800	1140	5-15	37	3500	2100x1430x1530
LLW800	800	1500	1000	8-20	55	4500	2500x2200x1800
LLW1000	1000	900	450	10-30	75	6200	3200x2200x2300

LLW SCREEN WORM CENTRIFUGE (MECHANICAL GEARBOX TYPE)

· Configured with hydraulic differential, small in volume and large in pushing moment, applicable to separation of materials with high solid content.
· Differential feedback control, with the functions of overload alarm at the leading-out terminal, maximum pressure alarm, and shutdown.
· Online stepless control of differential speed at 1-30r/min, without shutdown of the equipment, realizing full-automatic control.
· Designed with automatic differential adjustment and power compensation, as well as large compensation range to eliminate the blockage of materials, highly adaptive to various working conditions.
· The pushing moment at the initial differential remains unchanged despite the change of differential (for better operation at small differential speed).
· Deslagging can be enabled in the static state of the bowl, with no need to disassemble the equipment for washing, easier for troubleshooting.



LLW Screen Worm Centrifuge (Hydraulic Drive Type)

Model	Bowl Diameter	Bowl Speed	Separation Factor	Production Capacity	Power of Driving Motor	Power of Hydraulic Station Motor	Weight (kg)	Dimension (LxWxH) (mm)
LLW530Y	530	2000	1190	3-10	30	11-18.5	2500	1680x1390x1340
LLW630Y	630	1800	1140	5-15	37	15-30	3500	2100x1430x1530

LLW Screen Worm Centrifuge (Screw Feeding Type)



LLW Screen Worm Centrifuge (Screw Feeding Type)

Stable and reliable feeding, with small vibration

Simple structure in whole, easy to operate and maintain

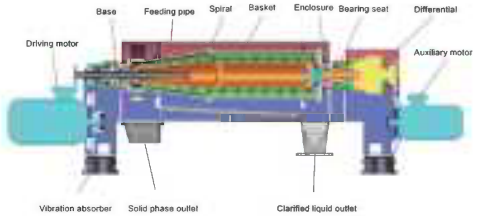
Applicable to the separation of crystal materials with high concentration and poor fluidity

Model	Bowl Diameter (mm)	Bowl Speed (r/min)	Separation Factor	Production Capacity	Power of Driving Motor	Weight (kg)	Dimension (LxWxH) (mm)
LLW350LX	350	2500	1765	1-5	11	1400	2300x1180x1000
LLW450LX	450	2500	1575	2-8	22	2000	2360x1210x1040
LLW530LX	530	2000	1190	3-10	30	2800	2650x1350x1230
LLW630LX	630	1800	1140	5-15	37	4200	3050x1580x1400

LW DECANTER CENTRIFUGE

▶ DESCRIPTION

LW series products are decanter centrifuges that can work continuously and are mainly used for solid-liquid separation, dehydration, fractionation, clarification, and concentration of materials. Based on different phase densities, it separates the solid phases and liquid phases under the action of the centrifugal force generated by the high-speed revolution of the bowl. The solid phases are conveyed to the conical end of the bowl through a spiral and then discharged, and the liquid phases are discharged out from the overflow port at the big end of the bowl. Characterized by simple design, high efficiency and scientific configuration, this product has been widely applied to chemical, pharmaceutical, environmental protection, food, mining, energy and other industries.





▶ DRIVING TECHNOLOGY

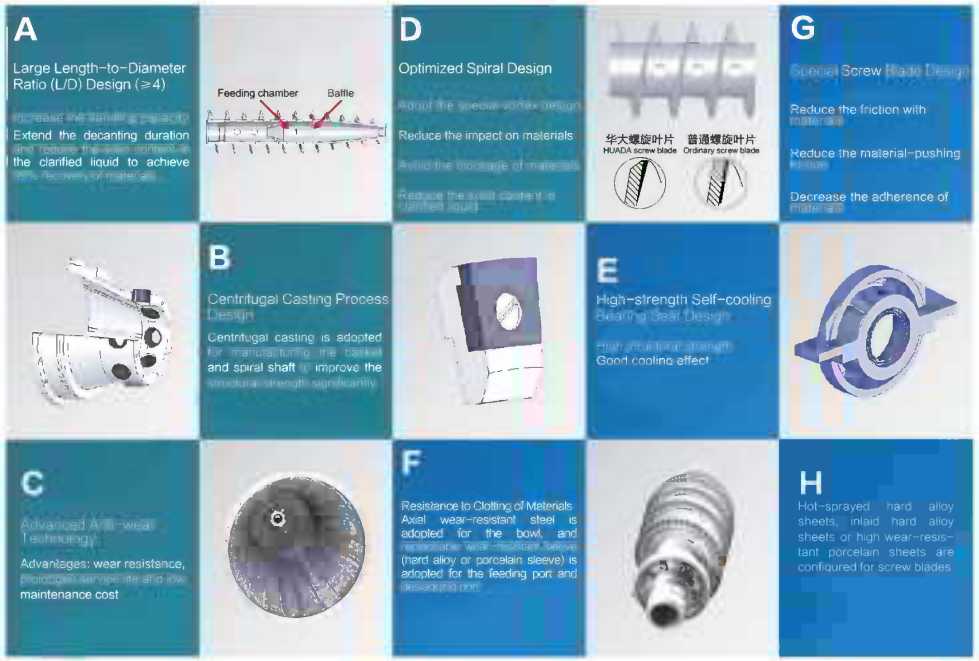


Conjugate DC Bus Driving System

Dual-motor and dual-frequency driving mode is adopted for better differential regulation;
It is more adaptive to the change of working conditions to ensure the separation effect;
Dynamic feedback design is employed to reduce power consumption effectively.

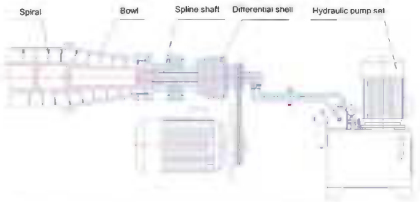
▶ ADVANTAGES OF LW CENTRIFUGES

■ STRUCTURAL DESIGN



■ HYDRAULIC SPIRAL DIFFERENTIAL SYSTEM

◇Moisture content in the mud cake is always maintained at the minimum
◇Gearless driving device is applied
◇ "Constant" humidity of mud cake
◇The liquid after treatment is highly clarified
◇ Torsion-free vibration (flutter)
◇Safety pin design ensures operation safety
◇The power to transport the solid substances varies with load
◇ Breakage of parts caused by excess load is avoided
◇Being insensitive to the increase/decrease of feeding quantity, it minimizes the material blocking possibility



Schematic Diagram of the Hydraulic Spiral Differential System

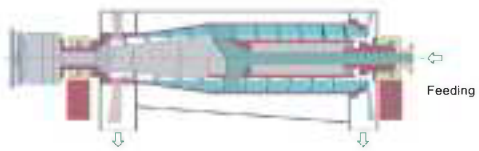


Horizontal spiral discharge centrifuge

LW DECANTER CENTRIFUGE (STANDARD TYPE)

▶ DESCRIPTION

Labyrinth seal is adopted for both ends of the bowl of the standard type of the LW series, which is simple yet efficient. After separation, the solid phases are pushed to the solid discharge outlet through a spiral and then discharged out of the bowl under the action of the centrifugal force generated from high-speed revolution, and the clarified liquid is discharged out of the overflow port at the big end of the bowl. Featuring simple operation, stable operation, high efficiency and high automation, and continuous working of 24 hours, this type is widely applied.





▶ TECHNICAL PARAMETERS OF LW CENTRIFUGE SERIES

Model	Bowl Diameter (mm)	L/D	Bowl Speed (r/min)	Separation Factor	Power of Driving Motor	Weight	Dimension (LxWxH) (mm)
LW220x880	220	4	4800	2840	11	1000	2660x740x780
LW300x1290	300	4.3	4400	3250	15	1500	3250x960x1000
LW355x1460	350	4.17	4000	3130	22-30	2200	3550x1010x1030
LW450x1800	450	4	2800-3200	1575-2580	30-37	3500	4150x1090x1250
LW450x2050	450	4.5	3200-3600	2580-3265	30-37	4000	4350x1090x1250
LW530x2120	530	4	2800-3200	2330-3040	45-55	5300	4850x1230x1450
LW530x2650	530	5	2500	1850	55	6000	5400x1230x1450
LW650x2800	650	4.3	2500	2270	90	9600	5400x1750x1600
LW720x2880	720	4	2000	1610	110	11000	5300x2050x1750
LW850x3200	720	3.76	2000	1900	160	16000	6750x2280x1900
LW1000x3000	1000	3	1500	1260	132	16000	5200x2500x2000

LWX DECANTER CENTRIFUGE (CENTRIPETAL PUMP TYPE)

▶ DESCRIPTION

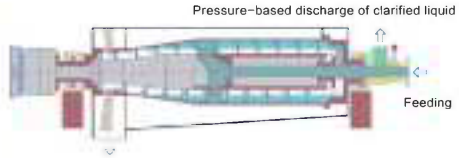
Materials enter the equipment through the feeding pipe. Under the action of centrifugal force, the solid phases will deposit to form a sediment layer on the bowl wall, and the liquid phases will form a liquid ring, successively forming a solid layer and liquid layer inward from the bowl wall. The spiral works continuously to push the solid matters on the bowl wall to the conical end of the bowl and then discharge them out of the equipment through the slag discharging port. And the liquid phases are discharged out through the centripetal pump at the big end of the bowl.

As the liquid after separation is discharged through the centripetal pump with certain pressure, the mother liquid can be conveyed horizontally for a certain distance, thus to replace a relay pump and save energy. Meanwhile, the possibility of a secondary contact between the tiny droplets and solid matters after the discharge of mother liquid can be completely avoided as they are at different cavities when discharged, so high-degree cleanliness can be ensured, making the product applicable to pharmaceutical and food production, and other fields.







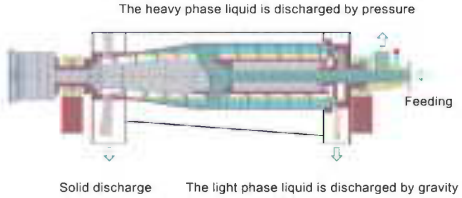


▶ TECHNICAL PARAMETERS OF LWX CENTRIFUGE SERIES

Model	Bowl Diameter	L/D	Bowl Speed (r/min)	Separation Factor	Power of Driving Motor	Weight	Dimension (LxWxH)
LWX355x1460	350	4.17	4000	3130	22-30	2200	3450x1010x1030
LWX420x1680	420	4	3600	3050	30-37	4000	3500x1450x1300
LWX530x2120	530	4	3200	3040	45-55	5500	4100x1600x1450
LWX720x2880	720	4	2000	1610	110	11000	5300x2050x1750

LWS DECANTER CENTRIFUGE (THREE-PHASE TYPE)

▶ DESCRIPTION



This type is mainly used for solid-liquid-liquid separation, which means to separate a solid phase (with its density being the maximum) with two liquid phases of different densities. Based on a certain differential, the basket and spiral revolve in the same direction at high speeds, and the materials enter the equipment through the feeding pipe. Under the action of centrifugal force, the solid matters will deposit to form a sediment layer on the basket wall, and the two liquid phases will form a light liquid ring and a heavy liquid ring respectively, successively forming a solid layer, light liquid layer and heavy liquid layer inward from the basket wall. The spiral works continuously to push the solid matters on the basket wall to the conical end of the basket and then discharge them out of the equipment through the slag discharging port. The light liquid phase continuously flows out of the overflow port at the big end of the basket, while the heavy liquid phase is discharged out through the centripetal pump also at the big end. Thus, continuous separation of three phases is realized.



▶ TECHNICAL PARAMETERS OF LWS CENTRIFUGE SERIES

Model	Basket Diameter	L/D	Basket Speed	Separation Factor	Power of Driving Motor	Weight(kg)	Dimension (LxWxH) (mm)
LWS355x1460	350	4.17	4000	3130	22-30	2200	3450x1010x1030
LWS420x1680	420	4	3600	3050	30-37	4000	3500x1450x1300
LWS530x2120	530	4	3200	3040	45-55	5500	4100x1600x1450
LWS720x2880	720	4	2000	1610	110	11000	5300x2050x1750

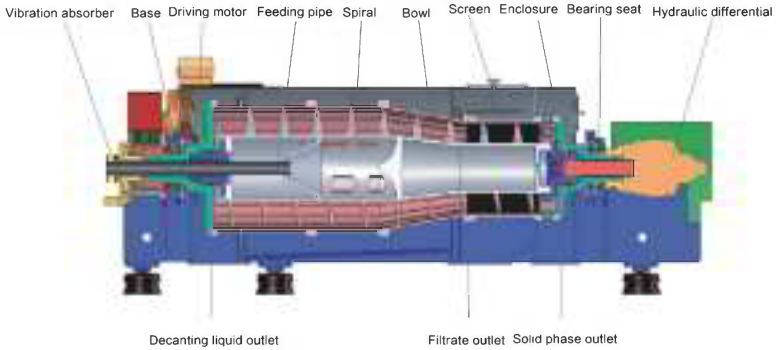
LWZ SCREEN DECANTER CENTRIFUGE

▶ DESCRIPTION



LWZ centrifuge series are integrated with the advantages of both centrifugal sedimentation and centrifugal filtration, which are also designed to be mutually complementary to enhance the separation effect and separation efficiency and expand the scope of product application, so as to realize optimal application.
It is especially applicable to the solid-liquid separation of suspension liquids containing crystals, particles, fibers or others.
In the particle size scattergram, the particles with d≥0.08mm;
The feeding concentration of solid matters entering the centrifuge is 5~60Wt%;
It can also be used for separating the materials containing a small amount of organic or adhesive substances (such as tar).

Typical Applications			
Separation of ammonium sulfate wastewater and process products	Separation of ammonium chloride wastewater and process products	Separation of potassium sulfate products	Separation of potassium chloride products
Separation of nitro-cotton products	Separation of degradable plastic products	Separation of CPE insulating materials	.....



▶ TECHNICAL PARAMETERS OF LWZ CENTRIFUGE SERIES

Model	Bowl Diameter	L/D	Bowl Speed(r/min)	Separation Factor	Power of Driving Motor	Weight	Dimension (LxWxH)(mm)
LWZ530x2120	530	4	2800	2330	45-55	5500	4870x1230x1520
LWZ650x1950	650	3	2500	2260	90	7500	4750x1720x1560
LWZ1000x3000	720	3	1500	1260	132	16000	5200x2500x2000

LWFX DECANTER CENTRIFUGE (EXPLOSION-PROOF TYPE)

▶ DESCRIPTION

This type of centrifuge is mainly used in the chemical, petrochemical and pharmaceutical industries involving flammable and explosive occasions. In the process of solid-liquid separation, gases are not allowed to leak into the extraneous air, or extraneous air is not allowed to enter the equipment, or it may lead to explosion. The product is configured with an airtight seal with automatic compensation function, which allows a dynamic enclosed space with micro-positive pressure to be formed inside the centrifuge during the process of operation, so as to realize good sealing and explosion-proof effect.



▶ UNIQUE SEALING STRUCTURE



Open sealing
It is applied in the occasions where no material or gas inside the equipment will be emitted to the environment and it is not necessary to separate the bowl from the ambient atmosphere.



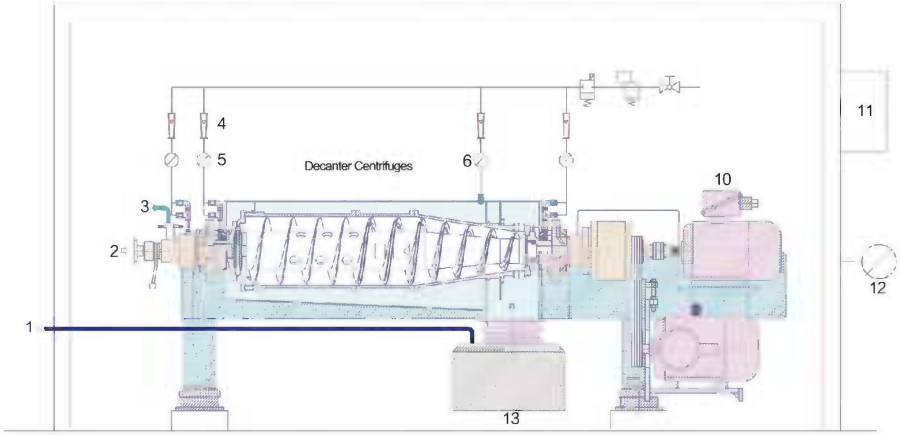
Vapor-tight sealing
It is applied in the occasions where the process medium will disperse and pollute the atmosphere, or the process medium is not expected to contact the atmosphere.



Air-tight sealing
It is applied to ensure operation safety in the occasions where inert gases are added to the equipment from the sealing position and toxic and corrosive or flammable medium is used.



▶ LWFX EXPLOSION-PROOF DECANTER CENTRIFUGE SYSTEM



1 Exhaust of nitrogen with impurities
2 Feeding
3 Liquid pressure release
4 Flowmeter
5 Differential pressure gauge
6 Pressure gauge
7 Solenoid valve
8 Pressure relief valve
9 Nitrogen source
10 Explosion-proof motor
11 Hazardous gas detector
12 Ambient gas pressure
13 Solid discharge

Note: According to the principle of sealing, partial inert gas injected to the equipment will diffuse to the ambient, so sufficient oxygen shall be guaranteed in the operating environment. An environmental monitoring system (such as gas detector) is recommended to ensure personal safety during the maintenance or in case of failure of the centrifuge.

▶ TECHNICAL PARAMETERS OF LWFX CENTRIFUGE SERIES

Model	Bowl Diameter(mm)	L/D	Bowl Speed(r/min)	Separation Factor	Power of Driving Motor	Weight (kg)	Dimension (LxWxH) (mm)
LWFx355x1460	350	4.17	4000	3130	22-30	2200	3450x1010x1030
LWFx420x1680	420	4	3600	3050	30-37	4000	3500x1450x1300
LWFx530x2120	530	4	3200	3040	45-55	5500	4100x1600x1450
LWFx720x2880	720	4	2000	1610	110	11000	5300x2050x1750

Top performance in gypsum dewatering



VZ SERIES FULLY AUTOMATIC LOWER DISCHARGE CENTRIFUGE

VZ SERIES FULLY AUTOMATIC LOWER DISCHARGE CENTRIFUGE

XGZ SERIES GAP CENTRIFUGE

In response to the industry’ s request for an efcient dewatering solution, ANDRITZ has been serving its customers for many years with extensive

▶ PRODUCT PROCESS

The development of many different processes for desulfurization of flue gases from coal-fired heat and power plants started more than four decades ago.
Washing the flue gas with a limestone slurry became established as the most successful method. Efficient dewatering of the gypsum slurry provides an end product with good reusability. High purity levels and lowest residual moisture are best obtained using Krauss-Maffei vertical centrifuges. With more than 400 machines operating successfully worldwide, ANDRITZ has extensive process experience in gypsum dewatering as well as in the necessary protection against corrosion and wear by using rubber-lined process parts. Continuous improvements to our machines guarantee reliability and maximum efficiency.

▶ PRODUCT PROCESS

- Various grades of stainless steel
- Nickel-based alloys
- Rubber-lined steel

Operation	Batch-type filtration
Basket diameter	1,000, 1,250, 1,600 mm
Basket volume	220-1300 l
Filter area	2.0-6.3 m2
Solids content	10-70 % by weight
Average particle size	20-100 µm
Solids throughput	Up to 10 t/h

▶ PRODUCT PROCESS

- Dewatering gypsum slurries from FGD plants in coalfired power plants or waste incinerators
- Neutralization gypsum from copper smelters
- Additional applications on request







▶ PROCESS ADVANTAGES

KRAUSS-MAFFEI CENTRIFUGES OUTPERFORM CONVENTIONAL EQUIPMENT

When it comes to gypsum dewatering, Krauss-Maffei vertical basket centrifuges offer major advantages over conventional solutions. The benefits include significant cost savings, lower cake moisture, lower power consumption, reduced floor space requirements, cleaner and quieter processing, and less spare installed capacity. Even under irregular plant conditions, Krauss-Maffei centrifuges will continue to perform.

DEWATER GYPSUM WITH CENTRIFUGES AND SAVE MILLIONS IN ENERGY COSTS

There is simply no contest between the money‐saving opportunities of Krauss-Maffei vertical basket centrifuges against other equipment when dewatering gypsum. A 20-year lifecycle study of a typical 600-900 MW power plant (60 TPH gypsum) shows that using Krauss-Maffei vertical basket centrifuges instead of conventionel equipment generated over € 12 million in total cost savings.

CLEAN, QUIET PROCESSING MEANS A BETTER WORK ENVIRONMENT

A centrifuge is a clean, totally enclosed system that minimizes housekeeping requirements and eliminates exposure to vapors and dust. The centrifuges also operate quietly (<80 dBA), providing an operator‐friendly environment.

▶ PROCESS ADVANTAGES

CENTRIFUGES PROVIDE GREATER RELIABILITY AND THUS REQUIRE LESS SPARE CAPACITY

Krauss-Maffei vertical basket centrifuges’ simple, rugged design increases reliability in day-to-day operations compared to conventional equipment. This means that spare capacity requirements are minimized. To assure 99.5%+ availability, only one spare machine is needed for every 6 operating machines. Conventional equipment typically requires 50-100% installed capacity to maintain the same reliability.

CENTRIFUGES NEED LESS SPACE

For any given throughput, a centrifuge installation requires only 1/3 the floor space of a conventional installation. Where space is limited, this can be an enormous advantage. With scrubber retrofit installations, for example, this space difference may eliminate the need for demolition and relocation of existing plant components.

YOUR BENEFITS

- Low residual moisture due to high g-force
- The batch process guarantees highest flexibility and efficiency, even at changing parameters
- Minimum footprint and installation costs thanks to skid-mounted units

Top performance in gypsum dewatering

VZ SERIES FULLY AUTOMATIC LOWER DISCHARGE CENTRIFUGE

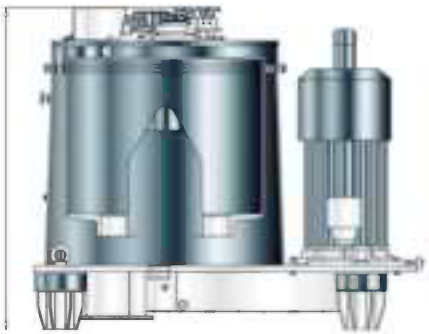
▶ DIMENSIONS AND WEIGHTS

Centrifuge model	L [mm]	W [mm]	H [mm]	Weight [kg]
VZU 100/2.0 G	1800	1550	2200	4300
VZU 125/3.2 G	2020	1800	2480	5200
VZU 160/5.0 G	2700	2400	3150	11500
VZU 160/6.3 G	2900	240	3150	13000

▶ TECHNICAL DATA

Centrifuge model	Basket inside diameter [mm]	Basket length [mm]	Basket volume [l]	Filter area [m2]	Max. g-force [-]	Max. speed* [rpm]
VZU 100/2.0 G	1000	630	220	2.0	800	1200
VZU 125/3.2 G	1250	800	500	3.2	570	900
VZU 160/5.0 G	1600	1000	1000	5.0	570	800
VZU 160/6.3 G	1600	1250	130	6.3	570	800

*)Density of saturated cake 1,250 kg/m3 at T = 50°C
When using specific materials, it is possible to increase the permissible speed of rotation and g-values, respectively.
All data are approximate and subject to change without notice.





INTELLIGENCE FOR MACHINE AND PROCESS CONTROL

With Metris addIQ, you have a well-proven, intelligent control solution for industrial processes and machines. Our solid/liquid separation specialists use their in-depth expertise to provide scalable solutions that are individually tailored to regional and application requirements. Whether you' re automating new equipment or upgrading to extend the lifecycle of existing systems, we find the ideal solution for you.

▶ METRIS ADDIQ CONTROL SYSTEMS

Our tailored turnkey systems from a single supplier can improve entire plants or individual machines. By providing state-of-the art automation technologies and digitalization, we ensure best in-class performance. Automating machine and plant equipment measurably reduces gaps in many different production process steps. By using automation from ANDRITZ, you can reduce downtime thanks to features such as predictive analysis that allow you to optimize productivity.

Metris addIQ covers all levels of automation, starting at basic automation (machine, process, and plant control), to upgrades, and add-ons for process optimization. Together, you have a full range of optimized solutions that help reduce maintenance efforts and ensure preventive service for your machines and plants. These are all delivered from a single source and always individually tailored to your business demands. addIQ control systems are part of Metris, the ANDRITZ brand for digital solutions.

LOCAL SUPPORT
Responsive local service centers and field service technicians

REPAIRS & UPGRADES
Optimization of machine and process performance, repair work, retrofitting, and modernization

LAB AND ON-SITE TESTS
Lab and testing capabilities for process optimization and machine upgrades

TRAINING
Operator training and tailored seminars for operating and maintenance personnel

OEM SPARE PARTS
Filter cloths, spare and wear parts from OEMs or with OEM level quality, all readily available

SERVICE AGREEMENTS
Preventive maintenance, contracts for spare parts, maintenance, inspections, repairs, upgrades, operation, and equipment monitoring

PROCESS OPTIMIZATION
Automation tools and process expertise to boost your profit

SECOND-HAND & RENTALS
Certified second-hand and rental machines



Tripod centrifuge



SS three legged upper discharge centrifuge



SB three legged upper discharge centrifuge



SGZ Three Leg Scraper Bottom Unloading Automatic Centrifuge

SS THREE LEGGED UPPER DISCHARGE CENTRIFUGE

▶ MAIN FEATURES

1. The structural design is reasonable and effectively eliminates hygiene blind spots. The transition of structural components is smooth, and the surface is polished. The external structural components, fasteners, and drum are all made of stainless steel. The shell is flip type, which can thoroughly clean the space between the centrifuge shell and the drum compartment.
2. Flip cover of the shell, equipped with feeding tube, washing tube, observation mirror, and lighting hole.
3. Configure an online cleaning system to clean the invisible parts inside the centrifuge, such as the inner wall of the centrifuge shell, the inner and outer surfaces of the drum, and the surface of the collection tank, to ensure cleanliness requirements and comply with GMP standards.
4. The structure is simple and easy to operate and maintain.
5. Strong universality and wide applicability. It can be used for separating suspensions with solid particles, as well as for separating fibrous materials.
ents.



6. Can be started using a frequency converter, with smooth start-up and adjustable separation factor; Non contact energy consumption braking system; Anti static belt drive; The body has a sealed structure, and the sealing components are made of silicone rubber or fluororubber. It can meet the requirements of airtight explosion-proof and is suitable for applications in toxic, flammable, and explosive environments.
7. Configure a nitrogen protection system to ensure that the centrifuge chamber is isolated from the external air.
8. The grains are not easily broken.
The above configurations are divided into chemical and pharmaceutical use, and can be selected according to specific requirements to meet technical and economic requirem

▶ TECHNICAL PARAMETER

Project	Model					
	SS200	SS450	SS600	SS800	SS1000	SS1250
Drum diameter mm	300	450	600	800	1000	1200
Drum capacity L	5	20	40	100	140	230
Maximum loading limit kg	7.5	30	70	140	200	350
Drum speed r/min	2825	1900	1500	1200	1000	800
Separation factor ω2r/g	1340	910	750	645	560	430
Motor power kw	1.1	1.5	3	5.5	7.5	11
Dimensions (length, width, height)mm	660*650*760	1000*750*630	1400*1150*850	1750*1300*1000	2000*1550*1000	2250*1800*1100
Machine weight kg	150	250	1000	1300	1800	2200



SB THREE LEGGED UPPER DISCHARGE CENTRIFUGE

▶ WORKING PRINCIPLE:

SS, SB, PSB, SD, PSD series centrifuges are upper discharge filtration centrifuges. The material to be separated enters the high-speed rotating centrifuge drum through the feed pipe. Under the action of the centrifuge force field, the material is filtered through the filter cloth (screen). The liquid phase is discharged through the outlet pipe, and the solid phase is trapped in the drum. When the filter cake in the drum reaches the machine's specified loading amount, the loading is stopped, the filter cake is washed, and the washing solution is filtered out. After reaching the separation requirements, the machine is stopped, and the SS, SB, PSB series centrifuge filter cake is manually unloaded.

▶ MAIN FEATURES

1. The structural design is reasonable and effectively eliminates hygiene blind spots. The transition of structural components is smooth, and the surface is polished. The external structural components, fasteners, and drum are all made of stainless steel. The shell is flip type, which can thoroughly clean the space between the centrifuge shell and the drum compartment.
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7. Configure a nitrogen protection system to ensure that the centrifuge chamber is isolated from the external air.
8. The grains are not easily broken.

▶ TECHNICAL PARAMETER

Project	Model				
	SS/SB600	SS/SB800	SS/SB1000	SS/SB1200	SS/SB1250
Drum diameter (mm)	600	800	1000	1200	1250
Drum capacity (L)	45	100	140	280	310
Maximum loading limit (kg)	75	135	200	380	420
Drum speed (r/min)	1600	1200/1500	1000/1200	960/1050	960/1050
Separation factor	860	645/1006	560/806	620/740	645/770
Motor power (kw)	3	5.5/7.5	7.5/1	11/15	15/18.5
Dimensions (length, width, height)mm	1410*140*80	1680*130*980	200*1550*120	2260*1765*1350	2260*1765*1350
Machine weight (kg)	650	1200	1500	2300	2500

▶ MAIN PURPOSE

Used for solid-liquid phase separation of suspension materials with solid particles, and can also be used for solid-liquid phase separation of fibrous materials. Such as gypsum, copper sulfate, potassium chloride, borax, dyes, pesticide agents, salt, monosodium glutamate, food additives, starch, sugar, chemical seasonings, antibiotics, vitamins, copper, zinc, aluminum and other mineral products, metal refining, sludge treatment, sewage treatment, etc.

SGZ THREE LEG SCRAPER BOTTOM UNLOADING AUTOMATIC CENTRIFUGE



▶ WORKING PRINCIPLE

The LGZ, AUT, PAUT, SGZ, and SG series centrifuges are vertical scraper discharge filtration centrifuges. The material to be separated enters the high-speed rotating centrifuge drum through the feed pipe. Under the action of the centrifuge force field, the material is filtered through the filter cloth (filter screen). The liquid phase is discharged through the outlet pipe, and the solid phase is trapped in the drum. When the filter cake in the drum reaches the machine's specified loading amount, the loading is stopped, the filter cake is washed, and the washing liquid is filtered out. After reaching the separation requirements, the centrifuge runs at low speed, and the scraper device moves to scrape off the filter cake, completing one working cycle.

▶ MAIN PURPOSE

Used for solid-liquid phase separation of suspension materials with solid particles, and can also be used for solid-liquid phase separation of fibrous materials. Especially for the separation of high viscosity, fine particle size, toxic, and flammable materials. For example, chemical raw materials such as gypsum, ammonium sulfate, saltpeter, copper sulfate, potassium chloride, borax, dyes, pigments, resins, pesticide agents, food such as salt, monosodium glutamate, food additives, starch, sugar, chemical seasonings, antibiotics, vitamins and other drugs, as well as solid and liquid phase filtration and separation in the mineral and environmental protection industries.

▶ OPTIONAL CONFIGURATION

A Nitrogen protection system.

B RF admittance material process control.

C Touch screen control.

D Gearbox transmission (low-speed driven by a small motor)

▶ MAIN FEATURES

1. Adopting PLC control, program setting, unmanned automated operation, monitoring the entire process of feeding, initial filtration, washing, fine filtration, and unloading.
2. Variable frequency speed regulation, smooth start-up, adjustable separation factor.
3. Energy consumption braking, non-contact braking method, no friction dust pollution.
4. Sealed structure, with sealing components made of silicone rubber or fluororubber, and nitrogen protection inside the centrifuge chamber, can meet the requirements of sealed explosion-proof.
5. Reasonable structural design and online cleaning system ensure cleanliness requirements and comply with GMP standards.
6. Mechanical and electrical material process control.
7. Safety protection: speed detection, over vibration protection, motor overload and overheating protection, dual control of scraper rotation and lifting machinery and electrical system, linkage locking between scraper and drum.

▶ STANDARD CONFIGURATION

1. Structure: The shell is equipped with a flip cover, feeding tube, washing tube, observation mirror, exhaust port, and lighting hole; The sealed structure, drum, shell, flip cover and other components are made of stainless steel material (SUS304). The machine base and other components are cast parts, with stainless steel lining on the surface. The inner and outer surfaces of the drum, shell, and exposed parts of the machine are all polished.
2. Adopting PLC control.
3. Mechanical and electrical material process control.
4. Transmission and braking: ordinary motor (or explosion-proof motor)+frequency converter+energy consumption braking.
5. Hydraulic actuation system.

▶ TECHNICAL PARAMETER

Project	Model		
	SG/SGZ800	SG/SGZ1000	SG/SGZ1250
Drum diameter (mm)	800	1000	1250
Drum capacity (L)	115	175	400
Maximum loading limit (kg)	150	250	530
Drum speed (r/min)	1200/1500	1000/1200	960/1050
Separation factor	645/1008	560/806	645/770
Motor power (kw)	7.5/11	11/15	18.5/22
Dimensions (length, width, height)mm	2510*1650*2250	2350*1850*2200	2520*2000*2350
Machine weight (kg)	1800	2800	3800