

GK GKF GKH系列 卧式刮刀卸料离心机

GK GKF GKH Series Peeler Centrifuges



GK卧式刮刀卸料离心机



斜槽出料型



螺旋出料型

GKH虹吸式卧式刮刀卸料离心机



常规型

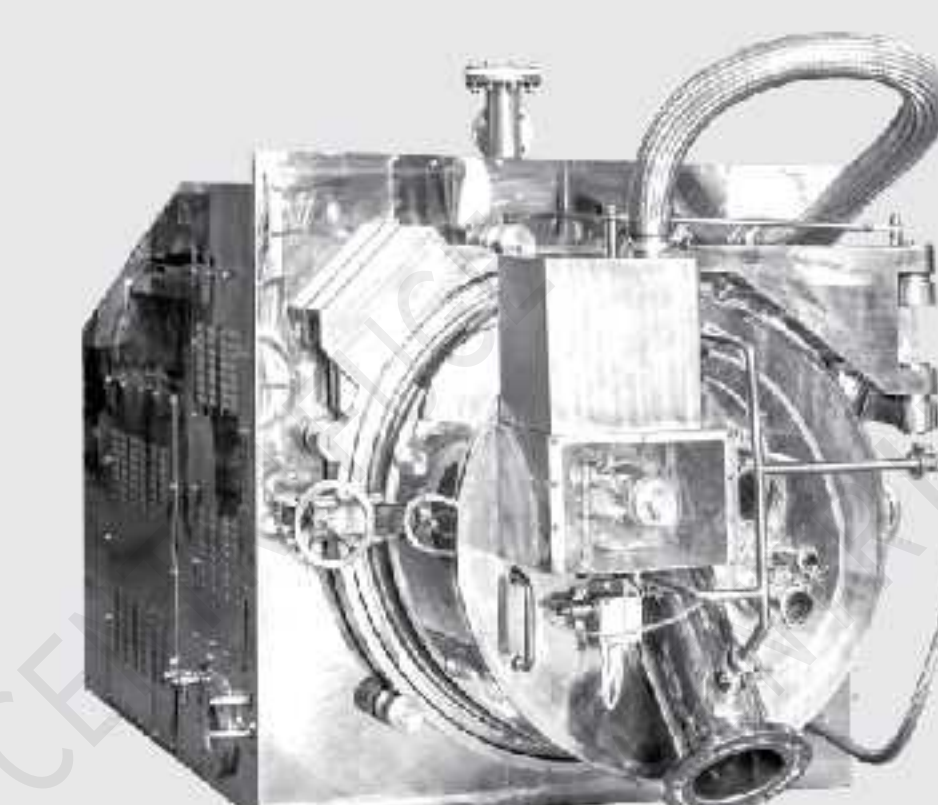


全液压型

GKF洁净型卧式刮刀卸料离心机



钢平台型



浮动平台

GK 系列-卧式刮刀全自动卸料离心机 GK SERIES - HORIZONTAL AUTOMATIC PEELER CENTRIFUGE

► 产品介绍 DESCRIPTION

GK型卧式离心机是一种连续运转、间歇操作、宽刮刀高速刮料的全自动过滤离心机，可在全速状态下完成进料、分离、洗涤、脱水、卸料及反吹等过程。常用于含固相颗粒的悬浮液介质的洗涤和固、液相分离。

该产品具有分离因数高，单次循环时间短，处理量大，可获得较干的滤渣和良好的洗涤效果。

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.



螺旋出料型
SPIRAL DISCHARGE TYPE



斜槽出料型
CHUTE DISCHARGE TYPE

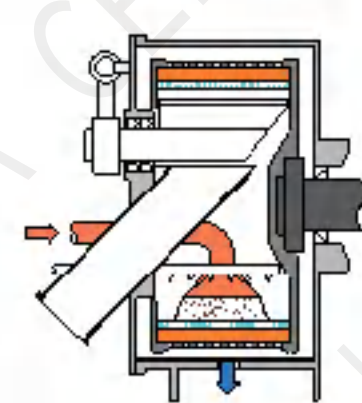
对滤饼密度在0.8~2.5，粒径0.05~1mm，固相浓度15%~80%以内的悬浮液等具有良好的分离效果。

已广泛应用于化工、食品、轻工、制药等行业，比如重碱、烧碱、淀粉、硼酸、硫酸、硫酸钠、硫酸亚铁、磷酸钙、聚氯乙烯、氯化钠氯化钾等类似物料。

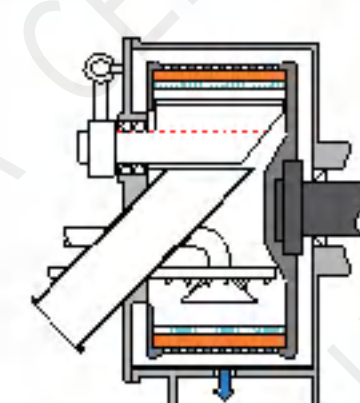
This type has high performance in separating suspensions with the cake density of 0.8~2.5, particle size of 0.05mm~1mm and solid concentration of 15%~80%.

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.

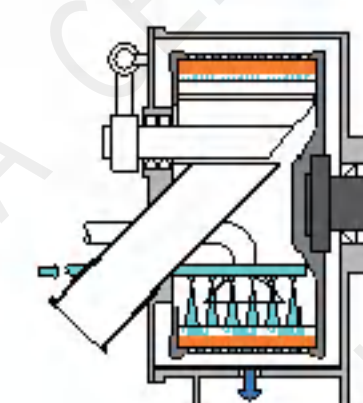
► GK型离心机工序流程 WORKING PROCESS



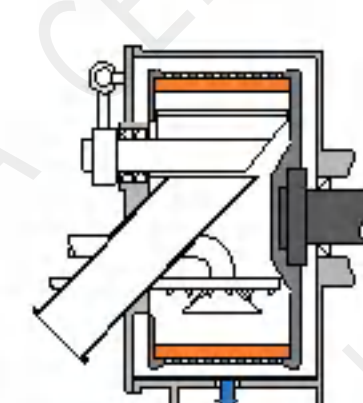
进料
Feeding



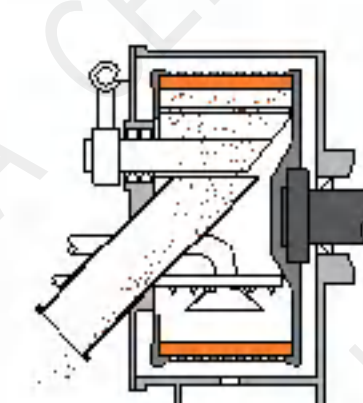
过滤
Filtration



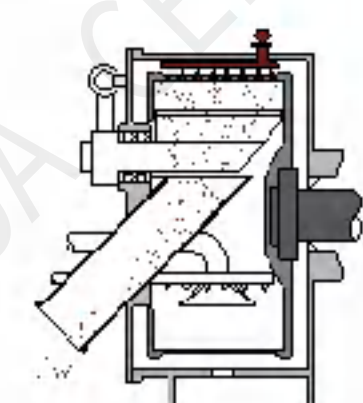
洗涤
Washing



甩干
Dehydration



卸料
Discharging



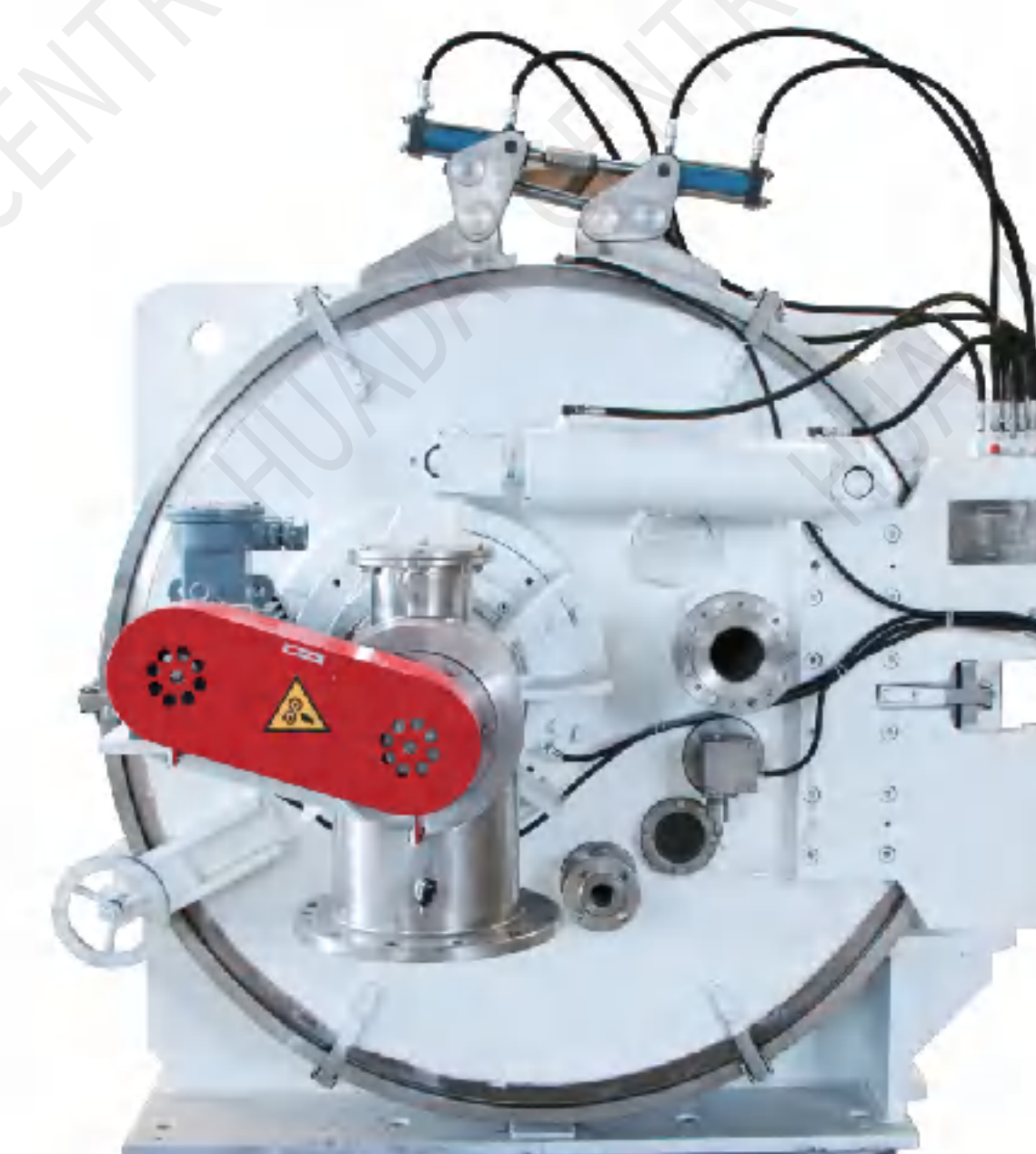
再生
Regeneration

► 产品配置 PRODUCT CONFIGURATION

- 控制方式：PLC控制、触摸屏人机界面、配套电气-液压执行机构，可实现全自动远程控制。
- 多重安全防护：转速检测、过振动保护、开盖保护、过载保护、过热保护、刮刀动作保护、氮气保护、机电联锁等。
- 出料方式：斜槽开放式出料或螺旋输送刮刀集成卸料。
- GK1250型以下机型可采用液压偶合器传动，启动平稳，控制简单，有效防护电机过载。
- 变频控制、能耗制动或能量回馈制动，可进行无极调速，节能环保，运行更可靠。
- 选择配置：在线清洗系统、氮气保护系统、钢制平台、液压锁紧装置等。

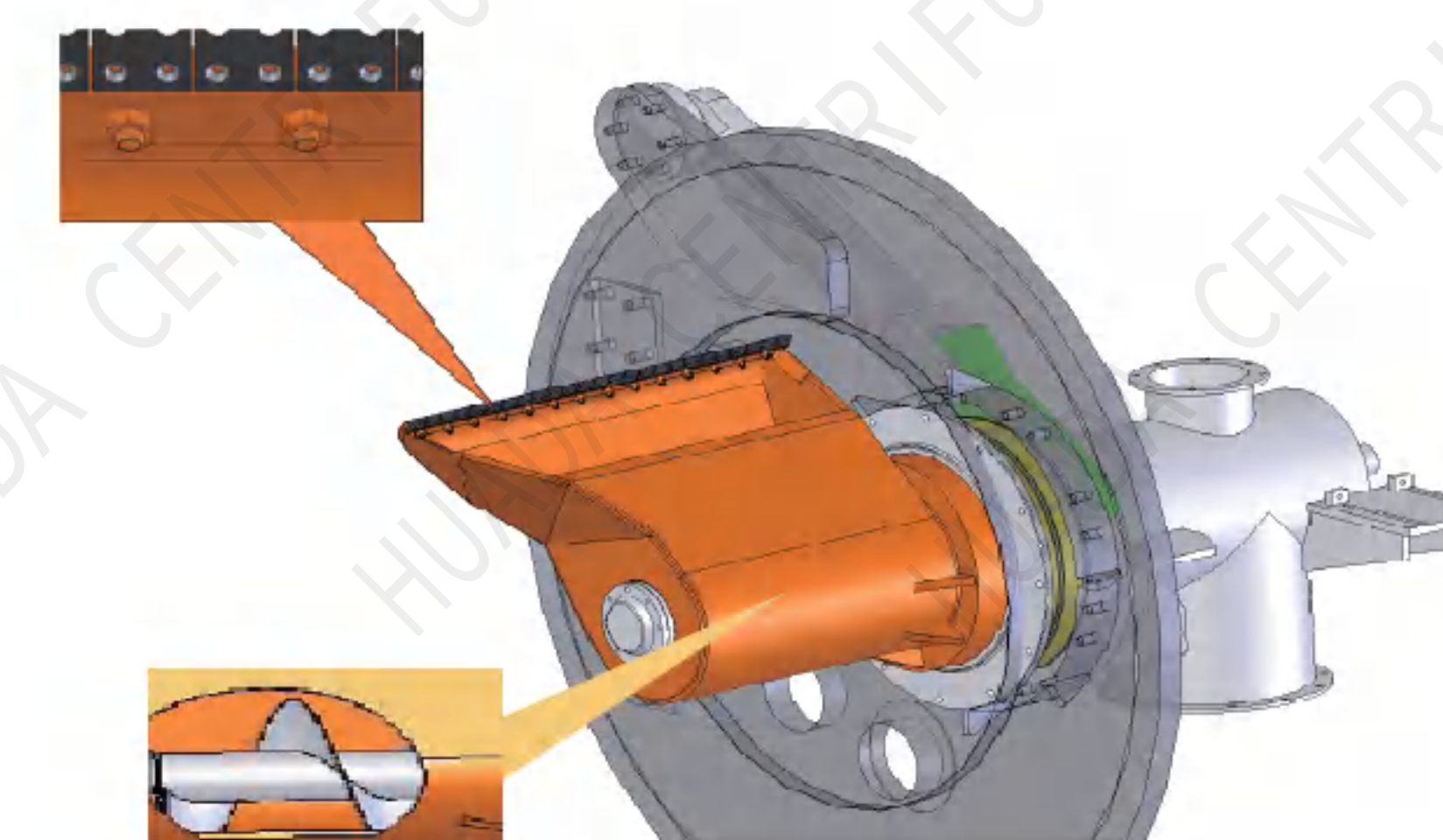
- Control mode: PLC control, with touch panel and human-machine interface and supporting electric-hydraulic actuator to realize automatic remote control.
- Multiple safety protections: speed detection, overvibration protection, cover opening protection, overload protection, overtemperature protection, 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.

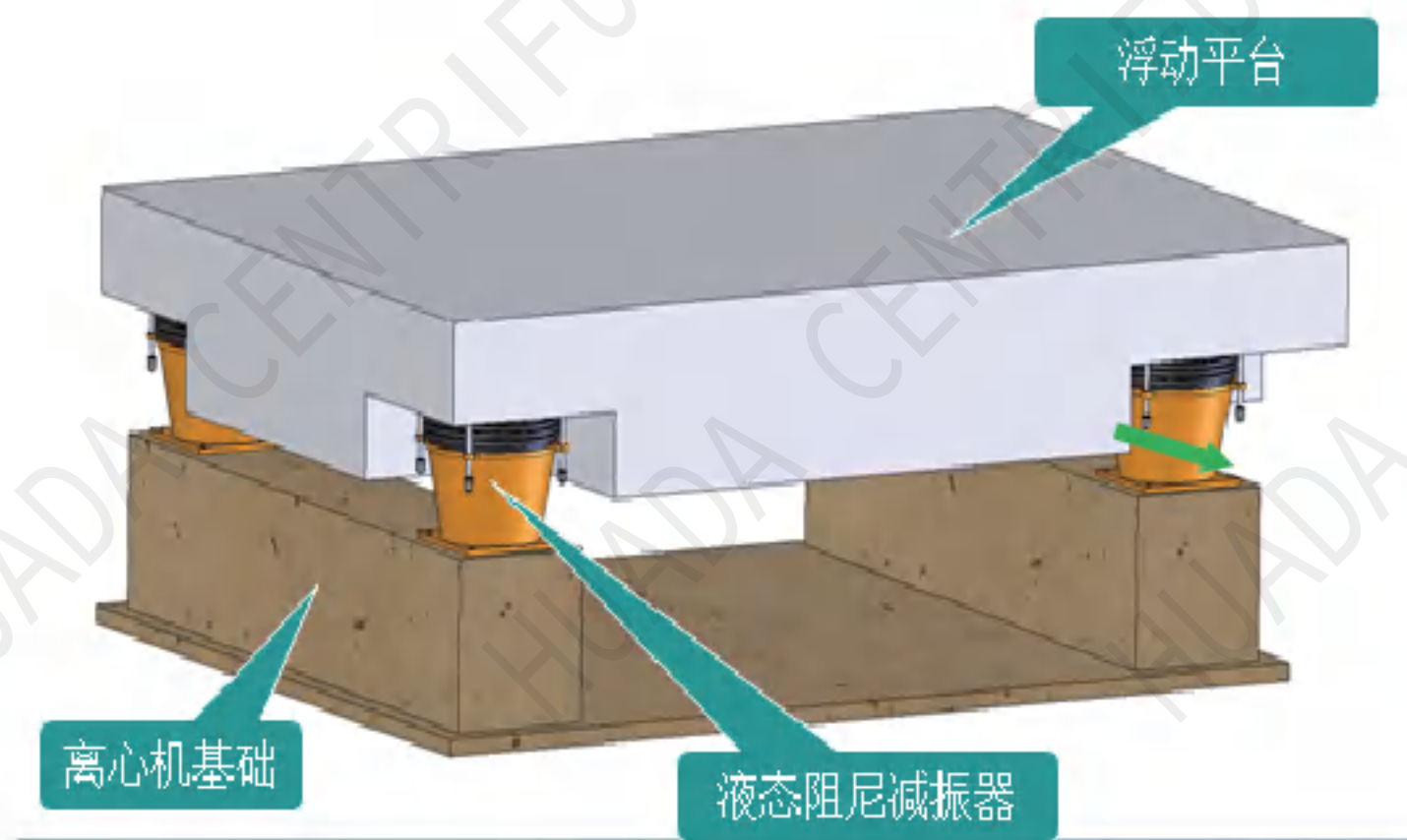
► GK型离心机结构优点 STRUCTURAL ADVANTAGES



- 门盖与机座配合法兰采用燕尾槽结构设计，密封可靠。
- 全液压锁紧门盖，双重锁紧保护，结构可靠，操作方便。
- 全封闭防爆结构设计，满足制药行业GMP规范及易燃易爆场所。
- 配置料层控制器，有效控制物料厚度，防止超负荷运行，避免物料逸出。
- 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.

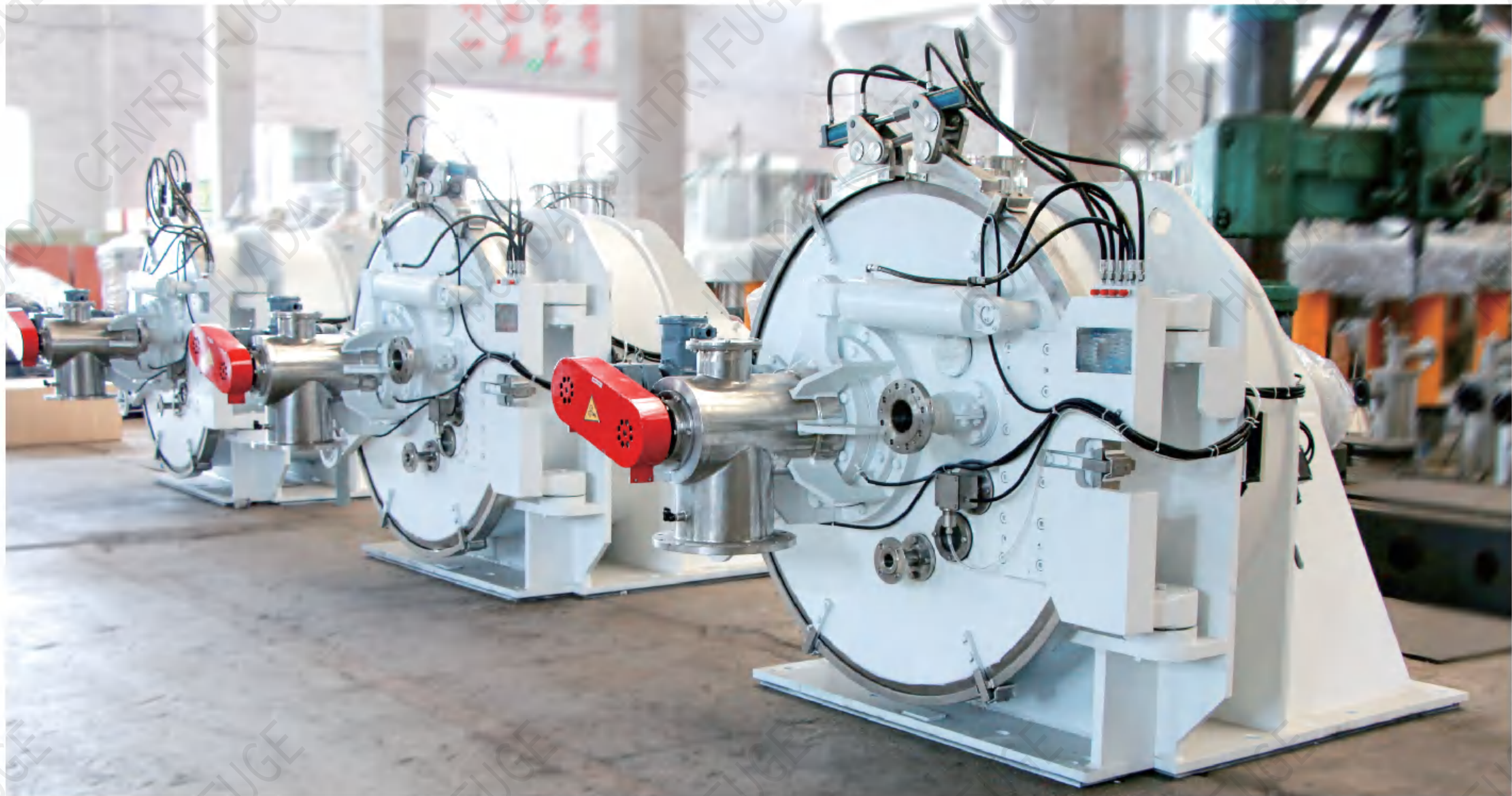
- 液压驱动，卸料平稳。
- 可拆式硬质合金刀片，耐磨损，寿命长。
- 螺旋出料，滤饼收集率高、有效防止堵料。
- 采用前后滚动轴承支撑，刚度高、旋转阻力小。
- 刮刀支架整体焊接并抛光，结构强度高，刚性好，刮料平稳。
- Hydraulic drive is adopted to ensure stable discharge.
- Detachable wear-resistant hard-alloy blades are configured to expand the service life.
- Spiral discharge is adopted to ensure high 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.





- 使用寿命可达30年。
- 承载能力大，减振效果好。
- 采用防滑垫板，无需螺栓固定。
- 一体化浮动平台减震系统结构设计。
- 主动隔除动载荷，无需做基础，安装更方便。
- 减振器采用进口阻尼，独特结构设计，有效提升隔振能力，提高了设备运转的稳定性和安全性。

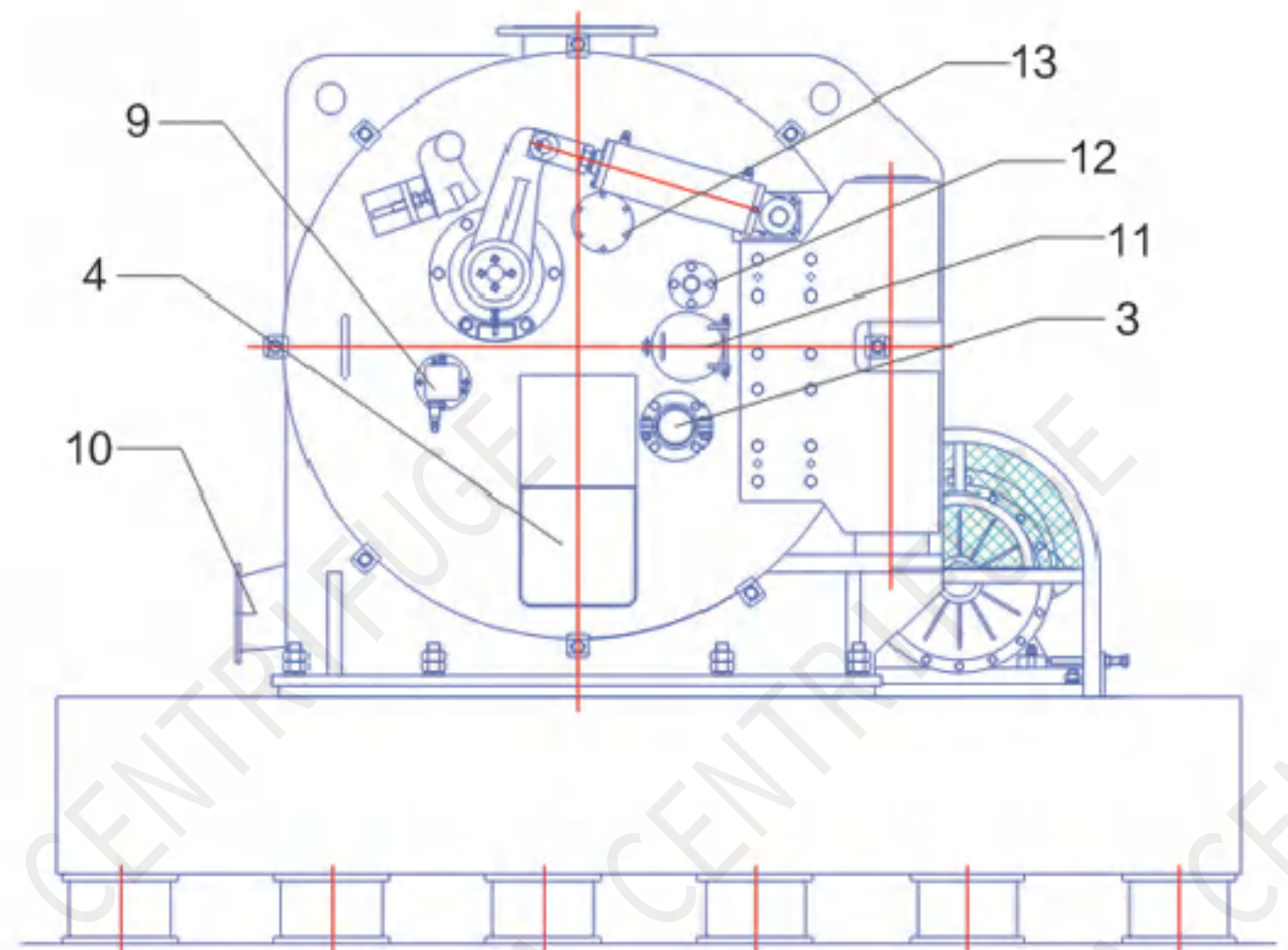
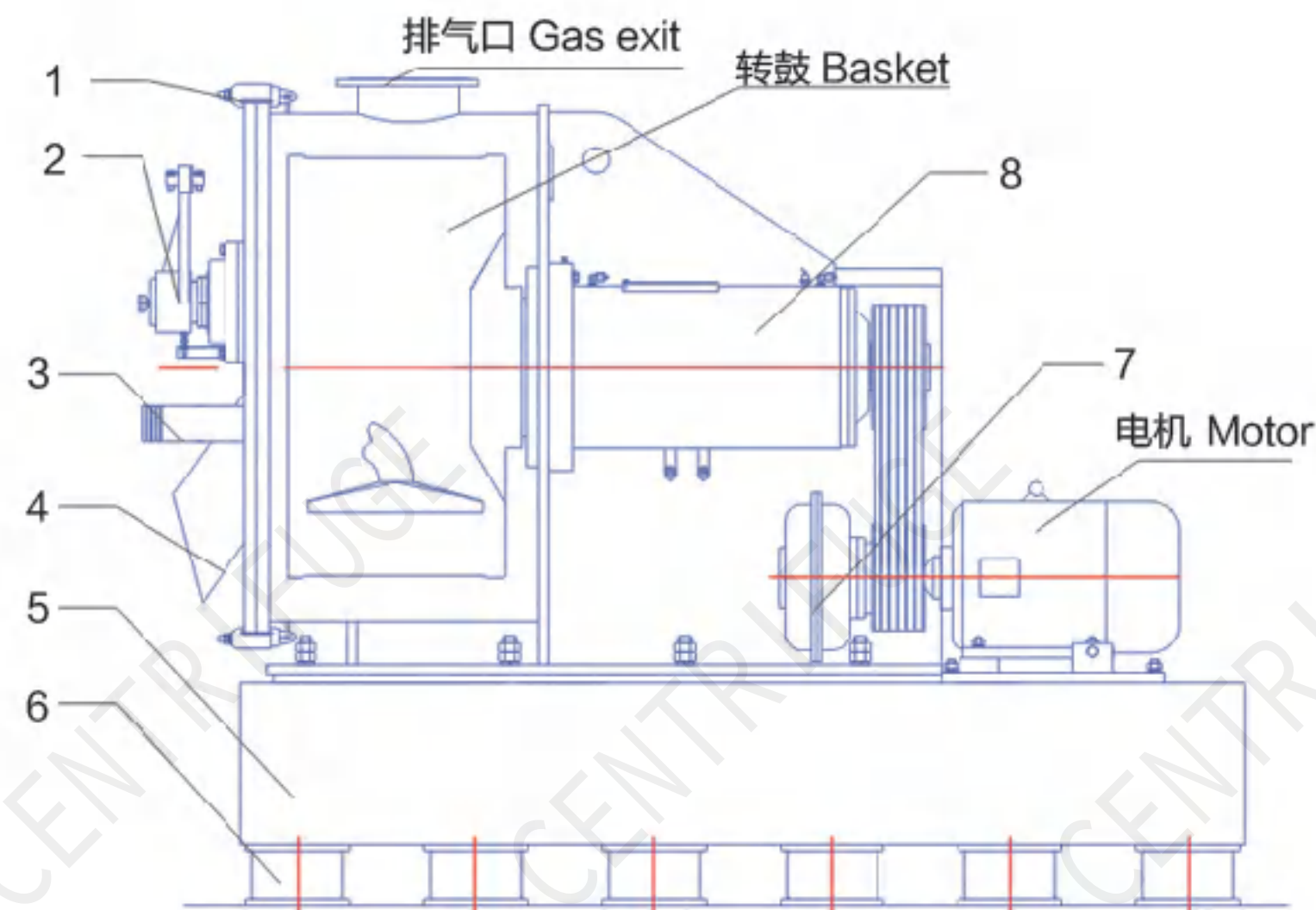
- Maximum service life of 30 years.
- Large bearing capacity and good vibration attenuation effect.
- Anti-slip base plate, without fixing the equipment with bolts.
- Integrated design of floating platform and vibration attenuation system.
- Dynamic load isolated positively, with no need to lay a foundation, 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.



- 机座一体化结构设计，整体全加工、安全美观。
- 前后轴承支承同轴加工，同轴精度高。
- 主轴密封护套采用离子镀膜工艺，耐磨耐腐、寿命长。
- 整体焊接，消除应力，强度高，抗震好。
- 采用唇口密封、气密封、迷宫密封等多重密封结构；传动密封可靠。
- 传动采用强制喷油润滑方式，具有良好的润滑和冷却效果。
- 主轴部件配置测温、测速、振动等检测装置，可实时监控设备运行。
- 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.

► 产品外形尺寸
PRODUCT DIMENSION

项目 Items		GK600	GK800	GK1000	GK1250	GK1350	GK1600	GK1800
斜槽 + 浮动平台 Chute+Floating Platform	主机外形 Machine	2500x1890x1300		2760x1980x1550	3400x2170x2020		4000x2750x2480	
	安装外形 Installation	3400x2500x1900		3900x2500x2200	4600x3200x2600		5700x4100x3500	
斜槽 + 钢平台 Chute+Steel Platform	主机外形 Machine	2400x1350x1400	2200x2100x1700	2460x2400x2100	3660x2100x2600	4400x2100x2700		
	安装外形 Installation	2800x1800x1400	2800x2100x1700	3300x2400x2100	4800x2900x2600	5400x3000x2700		
浮动平台外形 Floating Platform			2600x2300x400	2630x2360x450	3100x2600x500		4040x3400x700	4700x3600x800
螺旋卸料 + 浮动平台 Spiral Discharge+ Floating Platform	主机外形 Machine				3800x2170x2020		4850x2750x2480	5650x2850x2700
	安装外形 Installation				4800x4000x2600		6100x4700x3500	6500x5600x4000



- | | | | | | |
|---------|-----------------------|---------|---------------------------|--------|--------------------|
| 1 锁紧装置 | Locking device | 2 刮刀装置 | Peeler | 3 进料管 | Feeding pipe |
| 4 出料口 | Solid discharge port | 5 隔振块 | Vibration isolating block | 6 减振垫 | Anti-vibration pad |
| 7 液力耦合器 | Fluid coupling | 8 轴承座 | Bearing seat | 9 料层控制 | Cake layer control |
| 10 出液管 | Liquid discharge pipe | 11 检查手孔 | Manual inspection hole | 12 洗涤管 | Washing pipe |
| 13 备用口 | Standby port | | | | |

► 技术参数
TECHNICAL PARAMETERS

项 目 Items	型 号 Models						
	GK600	GK800	GK1000	GK1250	GK1350	GK1600	GK1800
转鼓直径 Basket Diameter (mm)	600	800	1000	1250	1350	1600	1800
转鼓长度 Basket Length (mm)	325	450	500	600	680	800	1000
过滤面积 Filtering Area	0.61	1.13	1.57	2.45	2.88	4	5.65
转鼓容积 Basket Volume (L)	45	100	165	355	465	700	1100
最大装料限重 Max. Loading Weight (kg)	60	135	220	460	600	930	1500
转鼓转速 Basket Speed (r/min)	2400	1550	1400	1200	1200	950	800
分离因数 Separation Factor	1935	1076	1098	1008	1088	808	645
主电机功率 Power of Driving Motor (kW)	22	30	37	55	55	90	132
机器重量 Weight (kg)	斜槽主机 Chute		3500	6000	8000	14000	
	斜槽 + 钢平台 Chute+Steel Platform		3500	6000	10000	13500	21000
	浮动平台重量 Weight of Floating Platform			5000	6000		9000
	螺旋卸料主机 Spiral discharge host					8500	15000

GKH系列-虹吸型卧式刮刀全自动卸料离心机 GKH SERIES - AUTOMATIC SIPHON PEELER CENTRIFUGE

GKH虹吸型离心机是在普通卧式刮刀卸料离心机基础上研发的新型产品。该型产品利用虹吸原理，将滤液经虹吸装置或撇液装置排出，通过调节虹吸管（撇液管）吸入口液面深度来改变过滤推动力，从而调节过滤速度、处理能力、滤饼含湿量以及洗涤效果。配置反冲装置，实现滤布再生，增加分离效果；可通过特殊配置使用反冲、强洗、虹吸等功能，实现滤布完全再生。

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.



常规型
 SPIRAL DISCHARGE TYPE

全液压型
 SPIRAL DISCHARGE TYPE

虹吸式卧式刮刀卸料离心机适合于生产量大、要求滤饼含湿量低并充分洗涤的场合，常用于淀粉、碳酸氢钠、氯化钾、磷酸钙等物料的分离。已广泛应用于制药、化工、生物工程、食品等行业。

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.

GKH卧式虹吸刮刀原理图 SCHEMATIC DIAGRAM OF GKH HORIZONTAL SIPHON PEELER



卧式虹吸刮刀离心机优点 ADVANTAGES OF SIPHON PEELER CENTRIFUGE

卧式结构，浮动平台减震系统，机器运转平稳，振动噪声小。

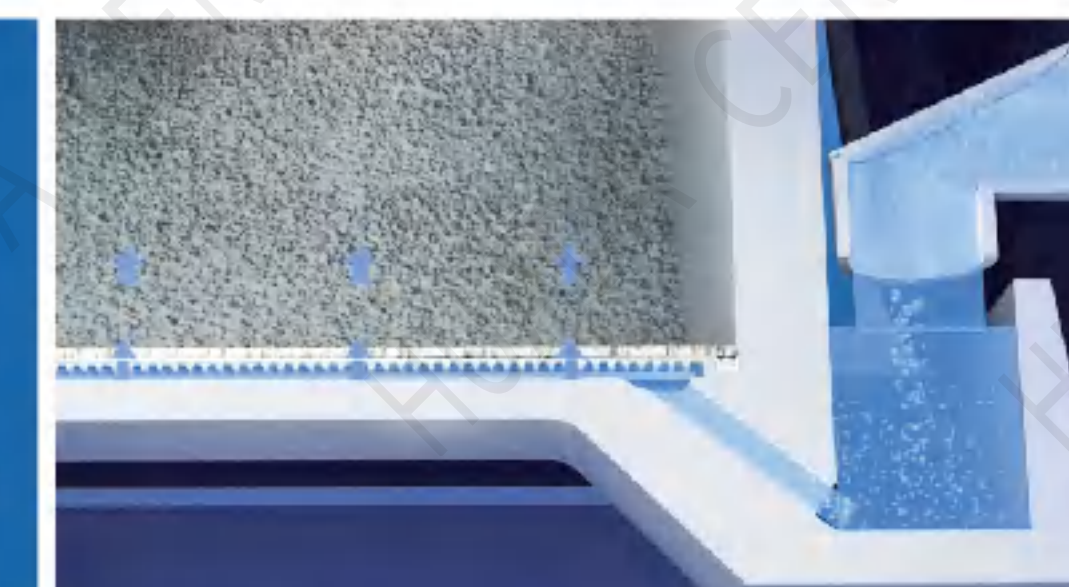
Horizontal structure and floating platform damping system adopted to ensure stable operation and suppress noise.



反冲洗装置
Back-flushing Device

可对残余滤饼和过滤介进行反向浸泡冲洗，从而实现滤布再生。

Residual cake and filtering medium soaked and flushed reversely to realize regeneration of filter cloth.



撇液装置
Skimming Device

适用于含蛋白质、胶体物质等物料分离。

Applicable to the separation of materials containing protein, colloidal substances, etc.

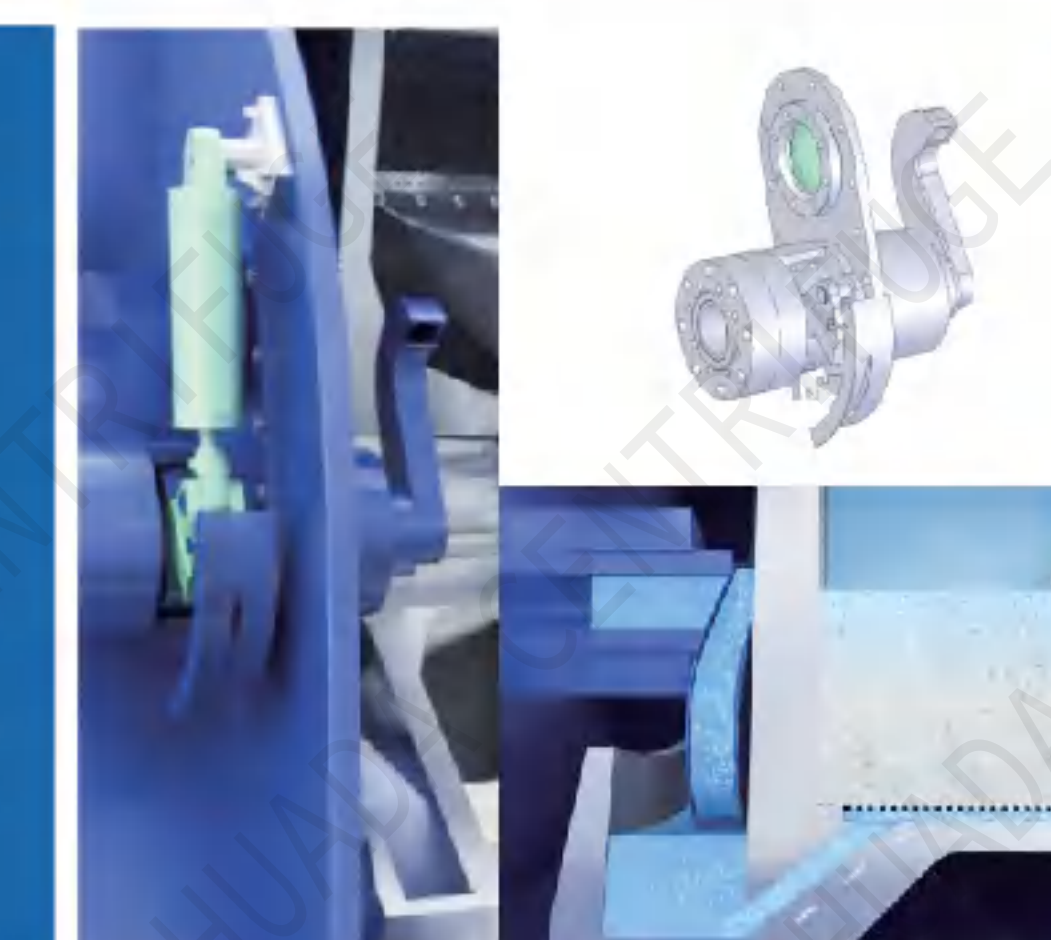


脱水时间短，生产效率高，滤饼含湿量低。

Shorter dehydration duration designed to realize high production efficiency and low cake moisture.

液压操作，全自动控制，运转平稳三位控制，可完成分离、脱液、洗涤等工作，角度准确，重复性好。

Hydraulic operation and automatic control employed to ensure stable running of equipment
Three-position control designed to complete separation, dehydration, washing and other processes, and ensure accurate angles, with good reproducibility

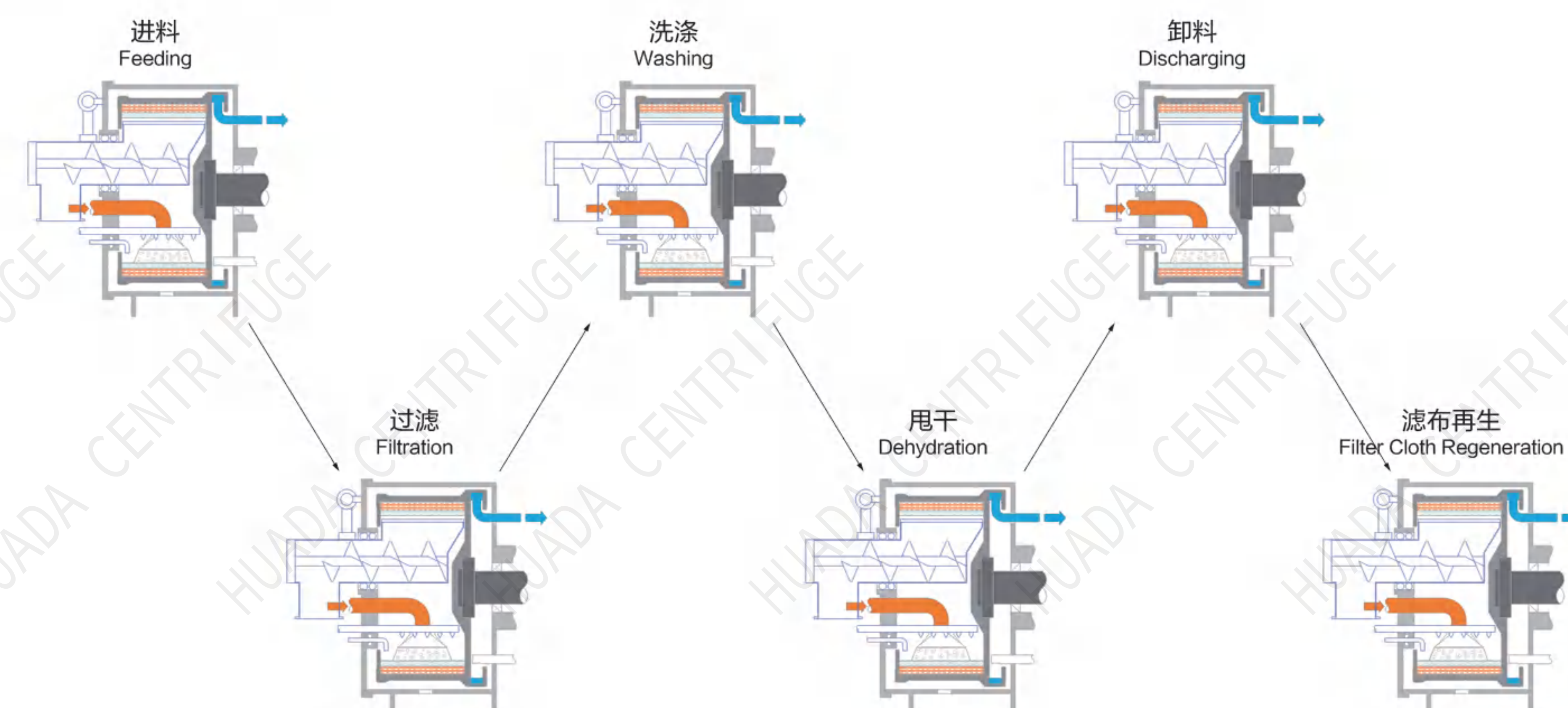


门盖大转角设计，采用全自动液压锁紧系统，操作安全，检修、维护、清洗更方便，劳动强度低。

Large corner design for the door and automatic hydraulic locking system configured to ensure operation safety, reduce labor intensity and provide convenience for overhaul, maintenance and washing.



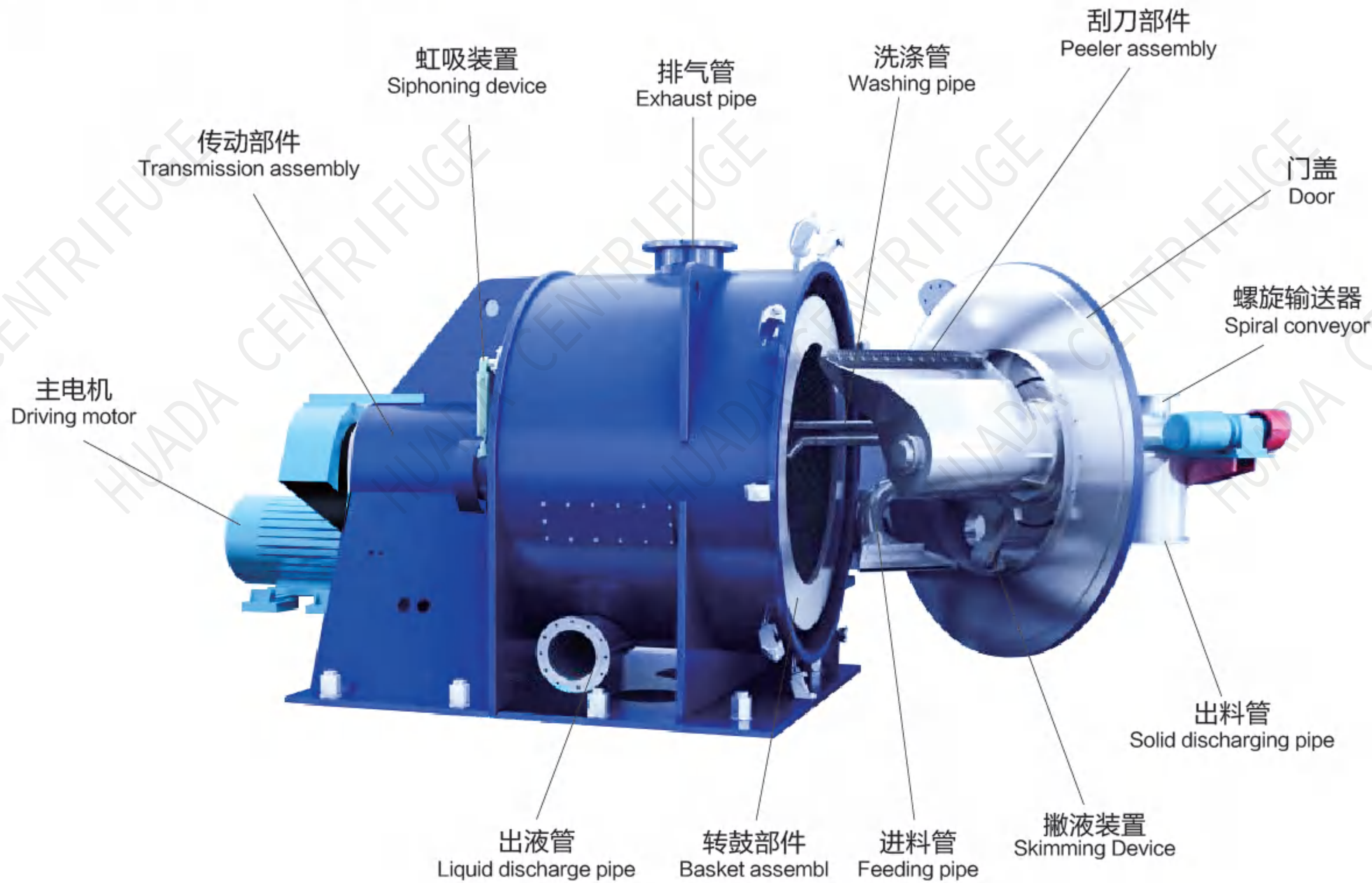
GKH型离心机工作流程图 WORKING PROCESS



外形尺寸
DIMENSION

项目 Items		GKH800	GKH1000	GKH1250	GKH1600	GKH1800
斜槽、浮动平台 Chute and Floating Platform	主机外形 Machine	2550x1750x1300	2850x2100x1550	3550x2200x1900		
	安装外形 Installation	3400x2500x1900	4100x2600x2200	4600x3200x2600		
斜槽、钢平台 Chute and Steel Platform	主机外形 Machine	2200x2100x1700	2600x2400x2100	4300x2100x2600		
	安装外形 Installation	2800x2100x1700	3400x2600x2100	5300x2700x2600		
浮动平台外形 Floating Platform		2300x2600x400	2700x2400x450	3100x2600x500	4040x3400x700	4700x3600x800
螺旋卸料、浮动平台 Spiral Discharge and Floating Platform	主机外形 Machine		3600x2100x1550	3900x2200x1900	5200x2750x2300	5850x2880x2700
	安装外形 Installation		4400x3600x2200	4800x4000x2600	6300x5000x3500	6900x5600x4000
螺旋卸料、钢平台 Spiral Discharge and Steel Platform	主机外形 Machine		2900x2400x2100	4600x2100x2600	5300x3100x3100	
	安装外形 Installation		3400x2900x2100	5500x2800x2600	6300x4800x3100	

GKH离心机结构图
STRUCTURE OF GKH CENTRIFUGE



技术参数
TECHNICAL PARAMETERS

项目 Items		型号 Models				
		GKH800	GKH1000	GKH1250	GKH1600	GKH1800
机器重量 Weight (kg)	转鼓直径 Basket Diameter (mm)	800	1000	1250	1600	1800
	转鼓长度 Basket Length (mm)	450	500	600	1000	1250
	过滤面积 Filtering Area	1.13	1.57	2.36	5	7
	转鼓容积 Basket Volume (L)	100	165	355	830	1325
	最大装料重量 Max. Loading Weight (kg)	135	225	450	1000	1780
	转鼓转速 Basket Speed (r/min)	1550	1400	1200	950	800
	分离因数 Separation Factor	1078	1098	1008	808	645
	主电机功率 Power of Driving Motor (kW)	45	55	90	132	200
	斜槽主机重量 Chute Weight	4500	6500	10000		
	斜槽、钢平台 Chute and Steel Platform	7000	11000	20000		
机器重量 Weight (kg)	浮动平台重量 Weight of Floating Platform	5000	6500	9000	21000	33000
	螺旋卸料主机重量 Spiral Discharge Weight		6800	10500	16000	25000
	螺旋卸料、钢平台 Spiral Discharge and Steel Platform		11300	22000	33000	

GKF洁净型-卧式刮刀卸料离心机
GKF PHARMA PEELER CENTRIFUGE



GKF洁净型卧式刮刀全自动卸料离心机，其独特的结构设计和系统配置，能够以合理的消耗分离出符合GMP(FDA、COS、TGA)标准的医药产品或中间体，同时在运行过程中不会产生新的杂质及污染。

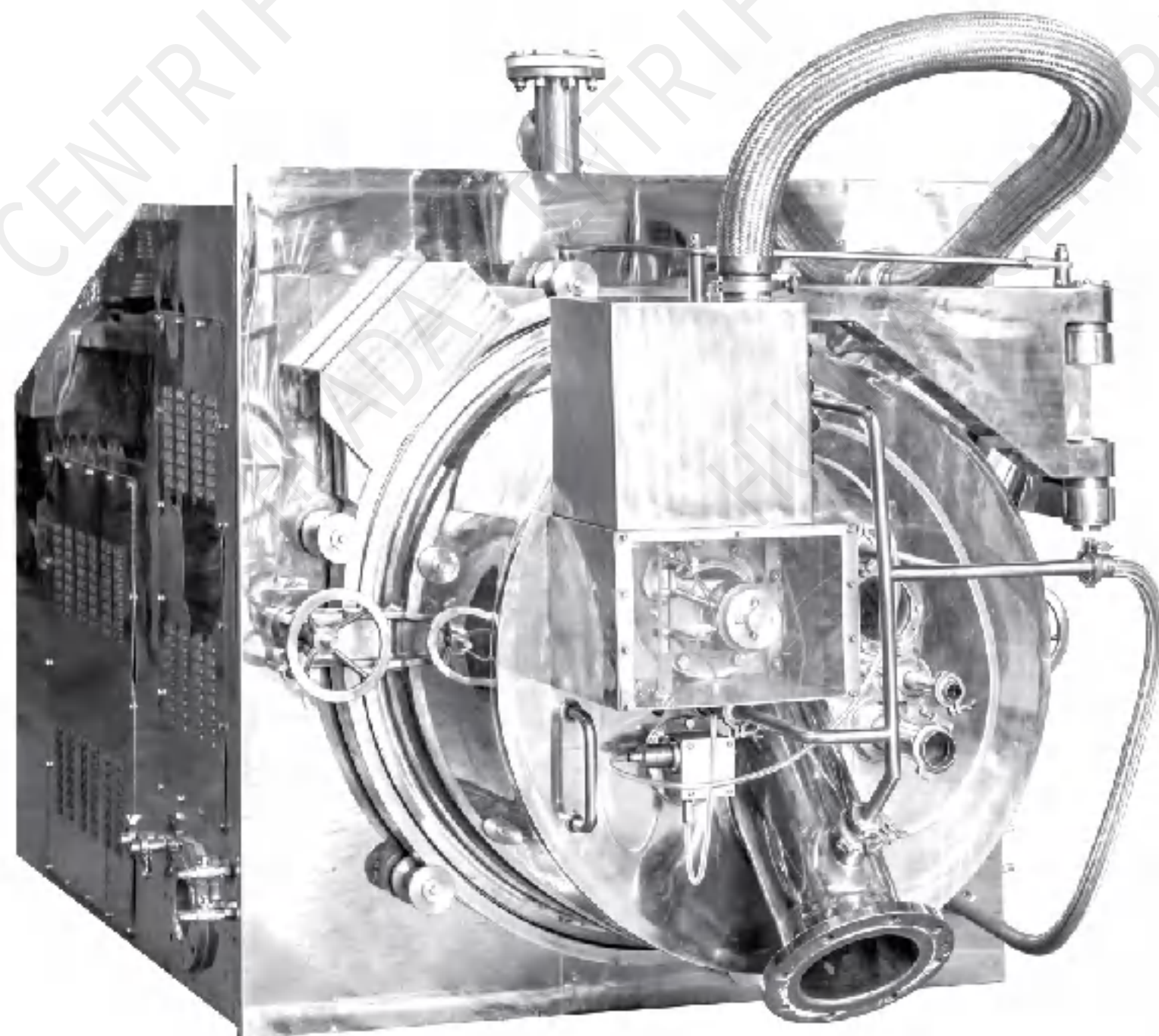
With special structural design and system configuration, GKF pharma peeler centrifuge can be used to obtain pharmaceutical products or intermediate products that meet the GMP (FDA, COS, TGA) standards with reasonable consumption, without generating new impurities and pollutants during the operation.

GKF离心机系列是集多项专利于一身的新型离心机
GKF centrifuge series are new types of products integrated with multiple patents



适用范围：
颗粒径：0.05~1mm
含固量10%~50%
滤饼密度为1~1.5

Scope of application:
particle diameter: 0.05mm~1mm
Solid content: 10%~50%
Cake density: 1~1.5



产品具有全自动控制、批量处理、连续运转、循环周期短，处理量大、含湿量低、洗涤效果好等特点。适用于粘度小、卫生要求高、有毒、有害、易燃易爆介质的固液分离。已广泛应用于制药、食品等领域。

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.