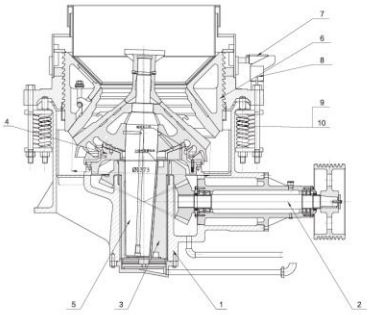
تجهیزات‌معدن گراندتای

۱،سنگ شکن مخروطی مرکب سری PYF (سایمونز)



01.机架部 / Rack section
02.传动部 / Drive shaft
03.偏心套部 / Eccentric sleeve
04.碗型轴承架部 / Bowl type bearing frame
05.主轴部 / Spindle part
06.调整套部 / Adjusting sleeve
07.推动缸部 / Drive cylinder
08.液压清控部 / Hydraulic clearance
09.弹簧部1 / Spring1
10.弹簧部2 / Spring2

产品介绍 Product Introduction

复合圆锥破碎机是我公司在引进、吸收国外西蒙斯圆锥技术的基础上，根据客户的需求，基于层压破碎原理及多破少磨概念设计研发的集高产量、优化腔型和合理冲程于一体的现代高性能破碎机。高性能破碎腔型与高破碎频率的圆满结合，使得复合圆锥破碎机处理能力大大提高，又由于采用了层压破碎原理，故破碎产品多为立方结构，极大程度上减少了针片状物料。复合圆锥破碎机结构简单，排料口调整方便快捷，检修时省时省力，特别是衬板易于快速更换，减少了停机时间。广泛应用于矿山/矿石破碎、高硬度岩石物料破碎、建筑物料破碎、水泥厂、砂石料场、混凝土搅拌站、干粉砂浆、电厂脱硫、石英砂等。

The PYS series cone crusher is a kind of spring insurance cone crusher, it sets up the new concept of crushing materials, which is the ideal device to realize more crushing and less grinding. This product is characterized by high productivity, fine product particle size, good product shape, ligh device weight, convenient maintenance as well as easy operation. It is superior to the spring cone crusher in aspects of output, uniformity of product particle, product fineness of fine crushers, service life of parts, operation rate as well as production and management expenses.

主要技术参数 Technical parameters

型号 Model	腔型 Cavity type	最大进料粒度 Max feed size (mm)	最小排料口尺寸 Closed side size (mm)	电机功率 Motor power (kW)	处理能力 Capacity (t/h) 闭边排料口 Closed side size (mm)									重量 Weight (T)
					6	10	13	16	19	22	25	38	51	64	
PYF1300	C	200	16	200				150	180	220	230	310	390		22.3
	M	150	13				115	140	160	190	210				
	F	102	10			90	115	145	160						
	EF	70	8			88	115	135	155						
PYF1400	C	215	19	220					200	220	260	350	440		26.3
	M	160	16					155	180	200	220				
	F	115	13				150	190	210	230					
	EF	76	8			122	148	185	200						
PYF1500	C	235	22	250						265	310	420	525	580	36.5
	M	175	19						215	240	265	320			
	F	130	13				180	210	235	255	275				
	EF	90	10			148	178	200	220						
PYF1680	C	300	22	280						330	390	525	655	725	44.3
	M	203	16					230	270	300	330				
	F	140	13				185	225	265	340					
	EF	95	10			180	220	260	335						

注：以上参数表仅供参考，实际生产能力均以物料类型和生产条件而定。

۲.تجهیزات شناورسازی

FLOTATION SEPARATIING

- SF Type Mechanical Agitation Flotation Machine
- BF Mechanical Agitation Flotation Machine
- XCF/KYF Air-Inflation Mechanical Agitation Flotation Machine
- KYF Circular Flotation Machine
- CLF Coarse Particle Flotation Machine
- Flotation Column

Flotation machines are categorized into three types based on their aeration and agitation methods:

Type	Features	Models	Advantages	Disadvantages
Mechanical Agitation Flotation Machine	The aeration and agitation of the pulp are completed by the mechanical agitation device composed of an impeller and a stator. It belongs to the external air self-suction flotation machine, usually with top air suction, i.e., air is drawn near the mechanical agitation device at the bottom of the flotation cell.	BF Type SF Type	Self-suck air and pulp; easy to achieve self-flow for returning middling; few auxiliary devices; neat equipment configuration; easy operation and maintenance.	Low aeration volume, high power consumption, heavy wear.
Air-Inflation Agitation Flotation Machine	Equipped with a mechanical agitation device and a specially designed external blower to force air in. The mechanical agitator only serves to agitate the pulp and distribute the airflow, while the air is mainly introduced by an external blower. The pulp aeration and agitation are separated.	XCF Type KYF Type CLF Type	The air volume can be adjusted as needed, maintaining constancy, which helps improve the flotation machine's processing capacity and separation indexes; the impeller doesn't have to suck air, so it runs at low speed, consumes less power, has less wear, and fragile minerals are less likely to become muddy; due to high capacity and shallow cells, the power consumption per unit is low.	Requires an additional air compression system.
Air-Inflation Flotation Machine	No mechanical agitator or transmission components, with a specially installed blower providing air for aeration.	Flotation Column	Simple structure, easy to manufacture.	Without an agitator, the flotation effect is somewhat compromised; aerators are prone to calcium buildup, affecting air dispersion.

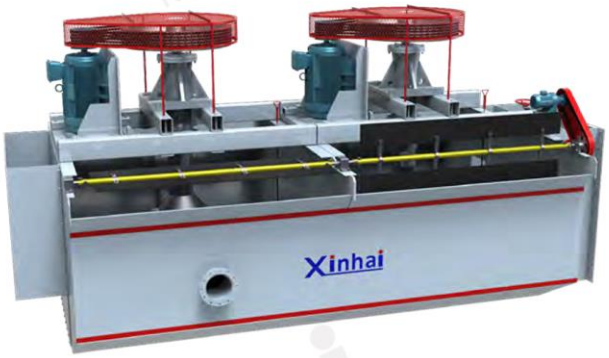
01 SF Type Mechanical Agitation Flotation Machine

Working Principle:

The motor drives the main shaft through a V-belt, rotating the impeller. The impeller features backward-inclined double-sided blades, creating dual slurry circulation in the tank. As the impeller rotates, slurry is sucked into the upper impeller chamber and mixed with air through the suction pipe, forming mineralized bubbles. These rise to the froth layer, which is scraped out as foam products.

Features:

- Self-suction of air and slurry, no need for foam pumps.
- Low impeller speed, long wear part life.
- Large air intake with minimal energy consumption.
- Facilitates coarse mineral suspension with dual slurry circulation.
- Slurry flows in a fixed direction, reducing dead zones.
- The forward-tilted tank design reduces dead zones and increases the speed of foam movement.



SF Mechanical Agitation Flotation Machine Technical Parameters:

Model	Effective Volume (m^3)	Processing Capacity (m^3/min)	Max Air Intake (m^3/m^2.min)	Motor Power (kW)		Dimensions (mm)	Single Tank Weight (kg)
				Agitation	Scraper		
SF-0.37	0.37	0.2-0.4	1	1.5	0.55	700×700×750	405
SF-0.7	0.7	0.3-0.7	1	3	1.1	900×900×860	640
SF-1.2	1.2	0.6-1.3	1	5.5	1.1	1100×1100×1100	1375
SF-2	2	1.5-2.5	1	11	1.5	1600×1600×1150	2150
SF-2.8	2.8	1.5-3.1	1	11	1.5	1700×1600×1150	2230
SF-4	4	2-4	1	15	1.5	1850×2050×1200	2790
SF-6	6	3-6	1	30	2.2	2200×2286×1263	3620
SF-8	8	4-8	1	30	2.2	2200×2900×1400	4500
SF-16	16	5-16	1	45	1.5	2850×3800×1700	6940
SF-20	20	5-20	1	55	1.5	2850×3800×2000	9800

02 BF Mechanical Agitation Flotation Machine

Working Principle:

An improvement on the SF model.

Features:

- Double truncated cone impeller produces strong downward slurry circulation.
- Large air intake, low power consumption.
- Performs air suction, pulp suction, and flotation in one unit, simplifying equipment setup.
- Rational slurry circulation reduces coarse sand deposition.

BF Mechanical Agitation Flotation Machine Technical Parameters:

Model	Effective Volume (m^3)	Processing Capacity (m^3/min)	Max Air Intake (m^3/m^2.min)	Motor Power (kW)		Dimensions (mm)	Single Tank Weight (kg)
				Agitation	Scraper		
BF-0.05	0.05	0.01-0.05	1	0.55	0.18	390×390×340	105
BF-0.15	0.15	0.06-0.16	1	1.5	0.55	550×550×600	240
BF-0.25	0.25	0.12-0.28	1	1.5	0.55	600×600×700	340
BF-0.37	0.37	0.2-0.4	1	1.5	0.55	700×700×750	405
BF-0.7	0.7	0.3-0.7	1	3	1.1	900×900×860	640
BF-1.2	1.2	0.6-1.3	1	5.5	1.1	1100×1100×1100	1370
BF-2	2	1.5-2.5	1	11	1.5	1600×1600×1150	2150
BF-2.8	2.8	1.5-3.1	1	11	1.5	1700×1600×1150	2230
BF-4	4	2-4	1	15	1.5	1850×2050×1200	2790
BF-6	6	3-6	1	30	2.2	2200×2286×1263	3620
BF-8	8	4-8	1	30	2.2	2200×2900×1400	4500
BF-10	10	5-10	1	30	2.2	2200×2900×1700	4750
BF-16	16	5-16	1	45	1.5	2850×3800×1700	6940
BF-20	20	5-20	1	55	1.5	2850×3800×2000	9800
BF-24	24	5-24	1	55	1.5	3150×4150×2000	10150

03 XCF/KYF Air-Inflation Mechanical Agitation Flotation Machine

Working Principle:

As the impeller rotates, the slurry is drawn from the surrounding areas through the bottom of the tank and into the space between the impeller blades. Simultaneously, low-pressure air, provided by a blower, enters through the hollow shaft and air distributor within the impeller chamber. The slurry and air mix thoroughly between the impeller blades, and the resulting mixture is discharged upwards and outward from the upper portion of the impeller towards the surrounding stator. The stator stabilizes and directs the flow evenly across the tank. As bubbles rise to the froth stabilization zone, the valuable minerals attach to the bubbles, concentrating in the froth. The froth is then scraped off the top by a froth scraper into a collection trough. Meanwhile, a portion of the slurry is drawn back to the lower part of the impeller, where it is re-agitated, and more mineral-laden bubbles are formed. This process continues across multiple cells in the flotation circuit, with non-valuable minerals eventually becoming tailings and exiting the flotation system.

Features:

- Backward-inclined conical impeller, large pulp lifting, low head, and simple structure.
- Even air dispersion and good mixing.
- Low impeller speed, reduced wear, and long part life.
- Good pulp circulation, reducing reagent consumption.
- U-shaped tank prevents material from settling.
- XCF has self-suction for slurry, but not for air. KYF needs both external air and slurry feeds.

Special Notes:

- Pneumatic mechanical agitation flotation machines require a separate air supply system.
- The XCF model can self-prime slurry but cannot self-prime air.
- The KYF model cannot self-prime slurry or air; when used alone, it requires step-wise configuration between operations.
- XCF and KYF flotation machines can form a combined flotation unit. When arranged on the same level, they form an independent flotation circuit, eliminating the need for a froth pump.

XCF/KYF Air-Inflation Mechanical Agitation Flotation Machine Technical Parameters:

Model	Effective Volume (m^3)	Processing Capacity (m^3/min)	Max Air Intake (m^3/m^2.min)	Blower Air Pressure (Kpa)	Motor Power (kW)		Dimensions (mm)	Single Tank Weight (kg)
					Agitation	Scraper		
XCF-1	1	0.2-1	2	≥ 12.6	5.5	0.75	1000×1000×1100	1154
KYF-1					4			903
XCF-2	2	0.4-2	2	≥ 14.7	7.5	1.1	1300×1300×1230	1659
KYF-2					5.5			1419
XCF-4	4	1.2-4	2	≥ 19.8	15	1.5	1800×1800×1500	2170
KYF-4					11			1920
XCF-8	8	3-8	2	≥ 21.6	22	1.5	2200×2200×1950	4380
KYF-8					15			3885
XCF-10	10	4-10	2	≥ 21.6	30	1.5	2370×2370×2100	4325
KYF-10					22			4010
XCF-16	16	4-16	2	≥ 25.5	37	1.5	2800×2800×2400	6205
KYF-16					30			5705
XCF-20	20	4-20	2	≥ 27	45	1.5	2920×2920×2730	7586
KYF-20					37			6667
XCF-24	24	4-24	2	≥ 30.4	55	1.5	3100×3100×2900	9935
KYF-24					37			8265
XCF-30	30	7-30	2	≥ 31.6	55	1.5	3500×3500×3025	12005
KYF-30					45			10455
XCF-38	38	10-38	2	≥ 34.3	75	1.5	3600×3600×3400	13200
KYF-38					55			11566
XCF-40	40	10-40	2	≥ 35	75	1.5	3800×3800×3400	13750
KYF-40					55			12116
XCF-50	50	10-40	2	≥ 42	90	2.2	4200×4200×3600	14500
KYF-50					75			13800

04 KYF Circular Flotation Machine

The KYF circular flotation machine is a highly efficient, energy-saving flotation device that can be widely used for the separation of various metallic and non-metallic minerals. It is flexible to operate, easy to control, stable in operation, and convenient to maintain. The circular tank structure facilitates onsite installation, saves space, and reduces investment costs.

Working Principle:

When the flotation machine operates, the motor drives the rotor via a hollow shaft. The slurry enters between the rotor blades from the lower part of the rotor, while the air is introduced through the hollow shaft into the rotor chamber. The slurry and air mix between the rotor blades and are discharged from the upper part of the rotor. The flow is guided and stabilized by the stator before entering the tank. The mineral-attached bubbles rise to the surface of the slurry, forming a froth layer. In the center of the tank, the rising bubbles and the slurry they carry encounter a compressed froth cone, which directs the froth to the overflow weir. The froth, carrying the concentrate, flows over the weir, while the remaining slurry is discharged from the slurry outlet and either sent to the next flotation cell or discarded as tailings.

Features:

- Large Scale: The circular design distributes force evenly, avoiding stress concentration, making it suitable for large-scale development.
- Non-Clogging Tank: The circular tank has better fluid dynamics than rectangular tanks, eliminating dead zones and preventing clogging.
- Energy Efficiency: The geometric shape of the impeller and the fluid dynamics in the tank reduce power consumption by 15-20% compared to other flotation machines of the same size.
- High Recovery Rate: The thorough mixing of reagents with minerals, coupled with the rich and stable froth, increases the recovery rate by 1-3% compared to similar machines.
- High Concentrate Grade: Due to strong agitation and abundant froth, the concentrate grade is improved by 10-35% over other flotation machines.
- Simple Operation and Maintenance: Starting and stopping operations do not require draining the slurry. The machine has no froth-scraping device, making it simple to operate and easy to maintain.
- Safety and Environmental Protection: The flotation tank can be fully enclosed, preventing the release of harmful gases into the atmosphere.
- High Automation: Automated systems control liquid levels, aeration, and lubrication, reducing operator workload and ensuring precision.

Advanced Features:

① Fully automatic lubrication system ensures reliable operation and long service life.

② Automated tailings (intermediate) discharge system allows precise control of slurry removal.

③ Automatic liquid level detection and control enable remote operation, improving accuracy and reducing manual effort.

④ Airflow detection and control system allow for remote adjustment, displaying the real-time airflow to ensure stable aeration.

⑤ pH monitoring device provides real-time detection and display of slurry pH levels.

⑥ Concentration detection system monitors and displays the slurry density in real-time.

KYF Circular Flotation Machine Technical Parameters:

Model	Tank Diameter (mm)	Tank Height (mm)	Effective Volume (m^3)	Processing Capacity (m^3/min)	Maximum Air Inflation (m^3/m^2.min)	Blower Air Pressure (Kpa)	Motor Power (kW)
KYF-50	4600	3500	50	5-25	1.5	≥ 42	75
KYF-70	5200	4200	70	20-50	1.5	≥ 45	110
KYF-100	5800	4560	100	20-60	1.5	≥ 52	185
KYF-130	6200	4800	130	20-60	1.5	≥ 55	220
KYF-160	6800	5500	160	20-60	1.5	≥ 60	250
KYF-200	7500	5600	200	20-100	1.5	≥ 65	280

05 CLF Coarse Particle Flotation Machine

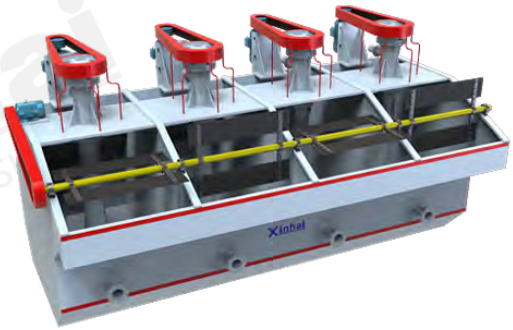
The CLF flotation machine is a mechanically agitated flotation device that can process both conventional and coarse particle sizes, as well as high-density and high-concentration full-grade materials. It is especially suitable for the separation of coarse-grained non-ferrous, ferrous, and non-metallic minerals, such as quartz sand and smelting slag.

Working Principle:

As the impeller rotates, low-pressure air supplied by the blower enters between the impeller blades through the hollow main shaft and the distributor. Simultaneously, the slurry is drawn from below the impeller into the space between the impeller blades, where it is thoroughly mixed with air. The mixture is then discharged from the upper part of the impeller, passing through the stator to stabilize the flow, and moves through the grid plate into the upper region of the flotation tank. Inside the flotation machine, there are many bubbles in the internal channel, while the external circulation channel contains few or no bubbles. This pressure differential, combined with the suction effect of the impeller, causes the internal slurry and bubbles to rise through the grid plate, carrying coarse mineral particles to the top, forming a suspension layer. The mineralized bubbles and finer mineral particles continue to rise, with the mineralized bubbles forming a froth layer at the surface. The finer mineral particles are recirculated back to the impeller zone for further flotation.

Features:

- The new impeller-stator system and innovative slurry circulation method enable coarse-grained minerals to suspend in the central zone of the tank even at lower impeller speeds, facilitating coarse particle flotation.
- The grid plate supports coarse particle suspension, reducing the upward travel distance for coarse particles and minimizing turbulence in the upper region of the tank, enhancing coarse particle flotation.
- The external air supply system provides large amounts of air, ensuring uniform bubble dispersion and a stable froth surface, improving coarse particle flotation efficiency.
- The circulation channel allows fine particles to pass through the impeller zone multiple times, increasing the collision probability between fine particles and bubbles, improving fine particle flotation recovery.
- The upward slurry movement helps mineralized bubbles carrying coarse particles to rise, reducing detachment forces between the coarse particles and the bubbles.
- Low impeller peripheral speed and the fine particle size of the recirculating slurry reduce wear on the impeller and stator, lowering power consumption.
- The wide gap between the impeller and stator ensures that wear does not significantly affect air intake or bubble dispersion, maintaining consistent flotation performance.
- The flotation machine is available in both self-suction and direct-flow tank designs, allowing for horizontal configuration without the need for a froth pump.
- The machine can process coarse particles up to 1mm without causing settling in the tank.



CLF Coarse Particle Flotation Machine Technical Parameters:

Model		Effective Volume (m^3)	Feed Particle Size (mm)	Processing Capacity (m^3/min)	Blower Air Pressure (Kpa)	Maximum Air Inflation (m^3/m^2.min)	Motor Power (kW)		Dimensions (mm)	Single Tank Weight (kg)
							Agitation	Scraper		
CLF-2	Suction Tank	2	< 1	1-2	≥ 15	2	7.5	1.5	1200×1600×1250	1591
	Direct Current Tank						5.5			1481
CLF-4	Suction Tank	4	< 1	1-4	≥ 19.8	2	15	1.5	1600×2100×1500	3202
	Direct Current Tank						11			2955
CLF-8	Suction Tank	8	< 1	1-8	≥ 21.6	2	22	1.5	2500×1900×1930	4690
	Direct Current Tank						15			4360
CLF-16	Suction Tank	16	< 1	5-16	≥ 25	2	45	1.5	2500×3200×2400	6975
	Direct Current Tank						37			6350

06 Flotation Column

Working Principle:

Slurry is fed into the flotation column through an upper feed pipe, where it flows evenly into the column. Compressed air is introduced through an air injection chamber at the bottom of the column via a vertical air pipe, creating a large number of fine bubbles that are evenly distributed across the column' s cross-section. The slurry descends slowly under the influence of gravity, while the bubbles rise upward, continuously interacting with the valuable minerals in the slurry. Under the influence of flotation reagents, the target minerals adhere to the surface of the rising bubbles, forming a mineralized froth layer at the top of the column. This froth is scraped or naturally overflows into the concentrate launder, while the remaining minerals (usually gangue or non-valuable minerals) are discharged from the tailings pipe at the conical bottom of the column.

Features:

- Simple structure and compact footprint; no mechanical moving parts, ensuring safety and energy efficiency.
- Stable flotation kinetics, with smaller, more evenly distributed bubbles, providing an adequate bubble-particle interface, leading to higher enrichment ratios and recovery rates. Well-suited for the separation of fine particles and easily scalable and automatable.
- Fast flotation rates, which simplify the flotation process and reduce the number of flotation stages.
- Not suitable for coarse particle flotation, as the likelihood of coarse particles contacting bubbles is reduced.
- Poorly liberated minerals may not fully benefit from the flotation column' s ability to enhance concentrate grade, often resulting in a trade-off between recovery and grade improvement.
- Slurries with high chemical sensitivity or high viscosity can cause fine gangue particles to remain in the column for an extended time, deteriorating the separation process.
- Primarily applied in cleaning stages, and its performance in rougher flotation operations is suboptimal.

Applications:

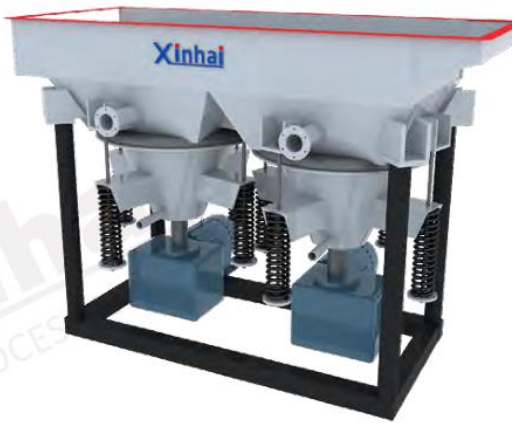
Suitable for the flotation of particles below 0.5mm in coal washing plants, metal mines, and non-metallic mineral mines.

Flotation Column Technical Parameters:

Model	Column Diameter (mm)	Column Height (mm)	Production Capacity		Circulation Pump Power (kW)	Wet Weight (t)
			Slurry (m^3/h)	Dry Ore Quantity (t/h)		
FXZ-10	1000	5000	30-60	3-5	15	5.4
FXZ-15	1500	5000	60-80	5-7	30	11.8
FXZ-20	2000	5500	80-150	7-10	45	20.7
FXZ-30	3000	5500	200-300	15-25	75	45.3
FXZ-40	4000	6200	300-450	25-35	110	77.8
FXZ-50	5000	6200	450-600	35-45	132	116.2
FXZ-60	6000	6200	600-800	45-55	200	143.5

۳.تجهیزات گرانشی

01 Sawtooth Wave Jig



Working Principle:

The sawtooth wave jig is an energy-efficient gravity concentration equipment developed and improved based on the traditional jig, utilizing the stratification rules of jig bed theory. The pulsation curve of this jig is sawtooth-shaped, meaning that the rising water flow is faster than the falling water flow, with a shorter rise time and longer fall time. This design overcomes the limitations of sinusoidal pulsation curves in conventional jigs, where both the rising and falling water flows have equal speed and duration. The sawtooth design enhances bed looseness, reduces suction effects, and ensures that heavy mineral particles fully settle, significantly improving the separation ratio, capacity, and recovery rate of the equipment.

Features:

- The bottom-driven transmission structure makes the equipment more compact, offering high throughput for its footprint.
- The cam-driven mechanism generates a sawtooth wave pulsation curve that produces uniform rising water flow and rapid falling water flow, significantly increasing the recovery rate of fine-grained valuable minerals and providing excellent beneficiation effects for fine particles.
- The equipment is water-saving and can operate continuously.
- Stroke and pulsation frequency adjustments are convenient, and the installation and maintenance processes are simple.

Applications:

The sawtooth wave jig is primarily used for the beneficiation of various minerals such as tungsten, tin, gold, iron, manganese, titanium, antimony, chrome, and sulfur. It is also used for alloy particle recovery from smelting slags like manganese slag, chrome slag, stainless steel slag, and for metal recovery from mining tailings and tailing treatment processes.

Sawtooth Wave Jig Technical Parameters:

Item Parameters Model	Jigging Chamber		Diaphragm		Feed Size (mm)	Adding Water Yield Under Screen (m^3/t)	Water Pressure	Handling Capacity (t/h)	Motor Power (kW)	Dimension (mm)	Weight (kg)	Remarks
	Shape	Area (m^2)	Stroke (mm)	Jig Frequency (times/min)								
JT0.57-1	Trapezoid	0.57	8.5-12	80-180	<6		≥ 0.05	1.5-3	1.5	1550×780×1530	610	
JT1-1	Trapezoid	1.04	10-17		<10			2.5-5	2.2	2270×1110×1890	900	
JT2-2	Rectangle	2.28	12-21		<10				3	3225×1550×2050	1640	
JT3-1	Trapezoid	3	12-30	50-125	<10		≥ 0.05	7.5-15	5.5	2745×2000×3030	3085	
JT4-2	Rectangle	4	25-57		<25				7.5	4240×1990×2750	3098	Large Particle Jig
JT4-2A	Rectangle	4	25-57		<25				4x2	4240×1990×2750	3500	Twin Drive Of Large Particle Jig
JT5-2	Trapezoid	4.86			<10				7.5	3600×2000×2600	4500	

02 6-S Shaking Table

Working Principle:

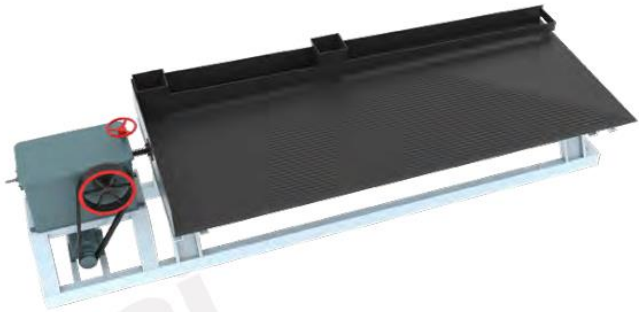
The mineral separation process on a shaking table takes place on an inclined surface with riffles. Ore particles are fed from the feed trough on the table, while lateral wash water is supplied from the water trough. The ore particles are subjected to gravity, lateral water flow, and the inertia and friction generated by the table's asymmetric reciprocating motion. These forces cause the particles to stratify based on their density and size, moving longitudinally along the table and laterally across the inclined surface. As a result, particles with different densities and sizes fan out in their respective directions, gradually separating into streams of concentrate, middling, and tailings, discharged from different zones on the concentrate and tailing sides.

Features:

◆ High concentration ratio, high separation efficiency, and simple operation.

Applications:

The 6-S shaking table is widely used for the beneficiation of tungsten, tin, tantalum, niobium, gold, and other rare and precious metals. It can be used for roughing, cleaning, and scavenging operations, suitable for separating coarse sand (2-0.5mm), fine sand (0.5-0.074mm), and slime (-0.074mm). Additionally, it can be used for separating iron, manganese ores, and coal. When processing tungsten and tin ores, the effective recovery size range for the shaking table is 2-0.22mm.



6-S Shaking Table Technical Parameters:

Model		6-S 7.6			6-S 4.08	6-S 1.95	6-S 0.5
Bed Surface Type		Coarse Sand Bed Surface	Fine Sand Bed Surface	Slurry Bed Surface	3 Kinds Of Bed Surfaces Selectable		
Beneficiation Area Of Bed Surface (M^2)		7.6	7.6	7.6	4.08	1.95	0.5
Bed Surface Dimension	Length (mm)	4500	4500	4500	3000	2100	1100
	Width Of Driving End (mm)	1850	1850	1850	1320	1050	500
	Width Of Concentration End (mm)	1550	1550	1550	1100	850	430
Feed Size (mm)		0.5-2	0.074-0.5	0-0.074	Mineral sand: 0-2 Slurry: 0-0.074		
Capacity (t/h)		1-1.2	0.5-1	0.3-0.5	0.4-1.5	0.3-0.8	0.05-0.2
Feed Density (%)		20-30	18-25	15-20	10-30		
Stroke (mm)		16-22	11-16	8-16	6-30	12-28	9-17
Jig Frequency (r/min)		220	250	280	210-320	250-450	280-460
Water Consumption (t/h)		0.7-1	0.4-0.7	0.4-0.7	0.3-1.5	0.2-1	0.1-0.5
Notch Groove Section Shape		Rectangle	Sawtooth Wave	Triangle	Rectangle, Sawtooth Wave and Triangle Selectable		
Motor Power (kW)		1.1	1.1	1.1	1.1	1.1	0.55

03 Spiral Chute

Working Principle:

Ore sand is fed into the feeding port located at the top of the spiral chute, where supplementary water is added to adjust the slurry concentration. The slurry naturally spirals down the chute, and as it rotates along the inclined surface, an inertial centrifugal force is generated. Due to differences in the ore's specific gravity, particle size, and shape, the centrifugal and gravitational forces cause the separation of minerals from the sand. The minerals are discharged at different points along the chute, producing streams of concentrate, middling, and tailings.

Features:

- ◆ Stable separation process, easy to control.
- ◆ Wide range of permissible feed concentration variations, high concentration ratio, and recovery rate.
- ◆ Low water consumption, no power required.
- ◆ Simple structure, easy installation, and convenient operation.
- ◆ Large processing capacity with low investment and quick returns.

Applications:

The spiral chute is suitable for sorting fine materials with a particle size of 0.3-0.02 mm, including iron ore, ilmenite, chromite, pyrite, zircon, rutile, monazite, phosphorite, tungsten, tin, tantalum, niobium, and other non-ferrous, rare, and non-metallic minerals with a significant difference in specific gravity.

Spiral Chute Technical Parameters:

Model	Diameter (mm)	Pitch (mm)	Number of Spiral Heads (item)	Feed Particle Size (mm)	Feed Concentration (%)	Processing Capacity (t/h)	Dimensions (mm)	Weight (kg)
BLL-400	400	240/180	2	0.02-0.2	25-55	0.15-0.2	460×460×1500	50
BLL-600	600	450/360/270	2	0.02-0.2	25-55	0.4-0.8	700×700×2600	150
BLL-900	900	675/540/405	4	0.03-0.3	25-55	2-3	1060×1060×4000	400
BLL-1200	1200	900/720/540	4	0.03-0.3	25-35	4-6	1360×1360×5230	600
BLL-1500	1500	720/540	4	0.037-0.8	30-60	6-8	1560×1560×5230	800
BLL-2000	2000	1200	3	0.04-4	20-45	15-40	2300×2300×6500	1100

04 Agitating Chute

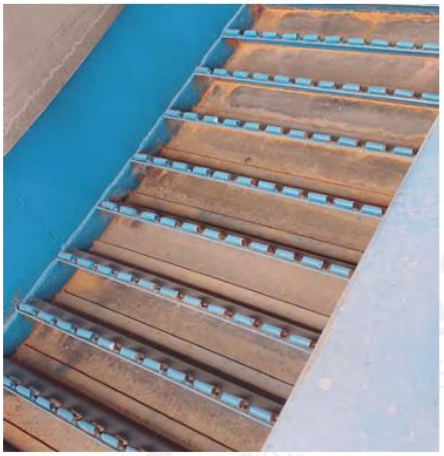
Working Principle:

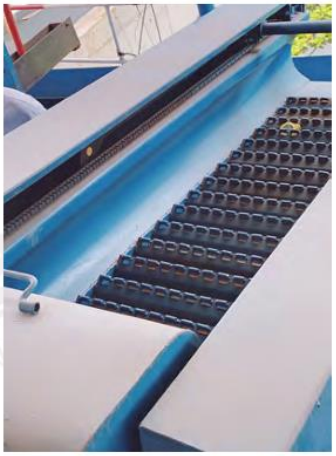
Traditional fixed chutes, which utilize gold extraction carpets, often suffer from problems like chute caking and sediment buildup. The agitating chute is designed to address these issues by incorporating a rubber baseplate. The mechanical agitation of the baseplate induces a slow and periodic motion, which helps prevent sediment caking and promotes the layering and discharge of sand. This significantly improves recovery rates.

Features:

- ◆ Resistant to caking, with simple operation.
- ◆ Durable, with fewer malfunctions.
- ◆ Low energy consumption, high output, and increased recovery rates.
- ◆ Automated design that reduces labor requirements and enables automatic discharge.

Applications: The agitating chute is primarily used for selecting alluvial gold deposits. It is especially effective in recovering fine gold and thin-layered gold.





Agitating Chute Technical Parameters:

Model	FGS-12	FGS-15
Dimensions (mm)	3200x1200x730	4000x1500x730
Processing Capacity (m^3/h)	20-25	30-35
Feed Particle Size (mm)	<20	<20
Feed Concentration (%)	30	30
Water Consumption (m^3/h)	40-50	60-80
Motor Power (kW)	Conveying Motor 1.1kW, Lifting Motor 0.8kW	Conveying Motor 2.2kW, Lifting Motor 0.8kW
Pulsation Frequency (times/min)	28-30	28-30
Installation Angle	6° -7°	6° -7°
Concentrate Discharge Period (h)	4	4
Weight (kg)	750	1100

05 Water-Jacket Centrifugal Concentrator

Working Principle:

The centrifugal concentrator operates based on the principle of centrifugal force. When the drum rotates at high speed, minerals inside the drum are subjected to centrifugal force. Heavier minerals move towards the outer side of the drum, while lighter minerals tend to remain near the center. This process allows for the separation of minerals based on their density.

Features:

- ◆ High processing capacity.
- ◆ Effective recovery of fine particles with low size limits.
- ◆ Stable operation and easy to operate.
- ◆ High concentration ratio.

Applications:

This equipment is widely used for the recovery and beneficiation of heavy and valuable metals such as gold, silver, copper, iron, manganese, tungsten, tin, lead, zinc, chromium, titanium, zirconium, palladium, rhodium, platinum, rare earth elements, tantalum, niobium, and more. It is particularly suitable for the separation of heavy metals from both coarse-grained ores and fine-grained tailings.

Water-Jacket Centrifugal Concentrator Technical Parameters:

Model	Feed Concentration (%)	Feed Particle Size (mm)	Processing Capacity (t/h)	Slurry Water Consumption (m^3/h)	Backwash Water Consumption (m^3/h)	Concentrate Cleaning	Concentrate Amount (kg/times)	Power (kW)	Dimensions (mm)	Weight (kg)
STLB20	0-50	0-3	0-0.6	1.5-4	2-3	Rock gold: 1-3h Placer gold: 2-6h	2	0.75	914×700×900	205
STLB30	0-50	0-3	2-3	5-7	3-5		3-5	1.5	1160×885×1165	380
STLB60	0-50	0-5	8-12	8-12	7-10		10-20	4	1820×1450×1700	1100
STLB80	0-50	0-5	40-50	40-45	30-36		40-50	11	2476×2032×2018	2300
STLB100	0-50	0-6	80-120	70-100	60-80		70-85	18.5	2849×2085×2426	3200

06 Centrifugal Concentrator

Working Principle:

The concentrator operates based on the principle of centrifugal force. When the drum rotates at high speed, minerals within the drum are subjected to centrifugal force. Heavier minerals are pushed toward the outer wall of the drum, while lighter minerals remain closer to the center, enabling the separation of minerals based on their density.The concentrator comes in two types: batch-type and Continuous Variable Discharge (CVD) models. These two types are suitable for different scenarios depending on the concentrate yield. The batch-type is generally used when the concentrate yield is below 0.1%, while the CVD model is more suitable for yields above 0.1%.

Features:

- ◆ High processing capacity.
- ◆ Ability to recover fine particles with a low size limit.
- ◆ Stable operation and easy to operate.
- ◆ High concentration ratio.
- ◆ Capable of continuous discharge of concentrate.

Applications:

The batch-type concentrator is primarily used for the recovery of precious metals such as gold, silver, and platinum group metals. The CVD model is suited for the concentration of heavy minerals with a high specific gravity, including ferberite (tungsten), cassiterite (tin), columbite-tantalite, chromite, ilmenite, rutile, hematite, and sulfides containing gold and silver. It is also applied for industrial mineral de-ironing and coal desliming.

Centrifugal Concentrator Technical Parameters:

Model	Solid Throughput (t/h)	Fluidization Water Volume (m^3/h)	Feed Particle Size (mm)	Gravity Field G-Value	Concentrate Weight (kg)	Main Unit Weight (kg)	Motor Power (kW)	Feed Concentration (%)
KC-CD10	0.9-8	3.4-4.5	-6/-1.7	60-150	2-3.8	201	1.1-1.5	0-75
KC-CD12	6-20	4.1-5.7	-6/-1.7	60-150	2.5-4.5	363	1.5-2.1	0-75
KC-CD20	10-50	8-14	-6/-1.7	60-90	7-10	900	5.5-7.5	0-75
KC-CD30	50-100	17-25	-6/-1.7	60-90	20-70	1565	11-19	0-75
KC-XD20	15-80	27-45	-6/-1.7	60-180	7-10	1000	5.5-7.5	0-75
KC-XD30	75-150	17-25	-6/-1.7	60-180	20-27	1724	11-19	0-75
KC-XD40	125-250	27-45	-6/-1.7	60-180	26-38	4100	30-45	0-75
KC-XD48	200-400	41-61	-6/-1.7	60-180	45-50	5680	30-75	0-75
KC-XD70	300-1000	68-125	-6/-1.7	60-180	100-140	18450	150-375	0-50
KC-QS30	75-150	17-25	-6/-1.7	60-180	20-27	1724	11-19	0-75
KC-QS40	125-250	27-45	-6/-1.7	60-180	26-38	4100	30-45	0-75
KC-QS48	200-400	41-61	-6/-1.7	60-180	45-50	5600	30-75	0-75
KC-CVD6	0.5-2	1.1-2.7	-3.2/-1.7	30-90	1-50%	230	1.1	0-50
KC-CVD20	10-35	4.5-9.1	-3.2/-1.7	30-90	1-50%	2500	11	0-50
KC-CVD32	30-70	16-36	-3.2/-1.7	30-90	1-50%	6800	30	0-50
KC-CVD42	40-100	14-36	-3.2/-1.7	30-90	1-50%	7100	30	0-50
KC-CVD64	100-300	34-75	-3.2/-1.7	30-90	1-50%	18150	75-150	0-50

07 Suspended Vibration Blanket Machine

Working Principle:

This equipment utilizes a suspended vibration mechanism, where an eccentric hammer drives the minerals to rotate and oscillate on a blanket. The vigorous shaking causes strong dispersion, allowing fine particles to rotate horizontally. Lighter minerals float to the upper layer and are discharged through the tailing’ s outlet, while heavier minerals gradually settle and are collected through the concentrate outlet as the blanket rotates.

Features:

- ◆ Capable of recovering very fine particles with a low size limit.
- ◆ Easy to operate with low energy consumption.
- ◆ High concentration ratio and recovery rate.

Applications:

This machine can recover minerals in the particle size range of 10 to 100 μm, particularly effective for fine minerals in the 19 μm to 37 μm (400 to 800 mesh) range. It is suitable for the separation of non-ferrous metals like tungsten, tin, tantalum, niobium, lead, zinc, and titanium, as well as ferrous metals such as iron, manganese, and chromium.

Suspended Vibration Blanket Machine Technical Parameters:

Model	Applicable Particle Size	Processing Capacity (t/h)	Operation Stage	Concentration Ratio	Mat Material	Mat Lifespan (years)	Power (kW)
XZLC-500×4000	120-600 Mesh	0.2-0.6	Rough Selection	5-10	Wool / Synthetic Fiber	1	4
XZLC-1000×5000	120-600 Mesh	1-1.6	Rough Selection	5-10	Wool / Synthetic Fiber	1	4
XZLC-1200×6000	120-600 Mesh	1.5-2	Rough Selection	5-10	Wool / Synthetic Fiber	1	4
XZLC-2000×6000	120-600 Mesh	2-4	Rough Selection	5-10	Wool / Synthetic Fiber	1	4
XZLC-2200×8000	120-600 Mesh	3-5	Rough Selection	5-10	Wool / Synthetic Fiber	1	4

08 Suspended Vibration Conical Separation Machine

Working Principle:

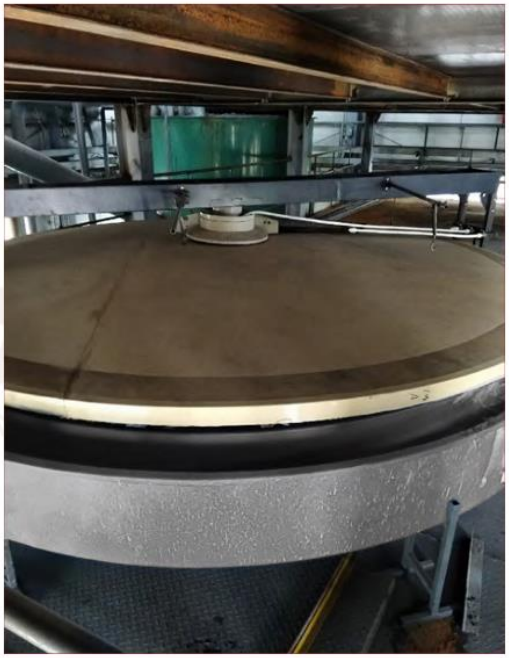
The slurry enters the initial selection area of the conical surface through a central feeder, where it spreads out in a fan shape and flows outward. During this flow, the thickness of the fluid film gradually decreases, resulting in a corresponding reduction in flow velocity. Under the influence of gravitational force and shear repulsion from the cyclical vibration, the mineral particles become adequately loosened and layered on the disk surface. The rotation of the conical disk sequentially transports minerals of different densities into the tailings, middling, and concentrate outlets.

Features:

- Capable of recovering very fine particles with a low size limit.
- Easy to operate with low energy consumption.
- High concentration ratio and recovery rate.

Applications:

This machine is particularly suitable for the separation of fine minerals in the 400-800 mesh range, including non-ferrous metals such as tungsten, tin, tantalum, niobium, lead, zinc, and titanium, as well as ferrous metals like iron, manganese, and chromium. It offers a high concentration ratio and can effectively recover valuable metal minerals from various new and old tailings in practical production.



Suspended Vibration Conical Separation Machine Technical Parameters:

Model	Applicable Particle Size	Processing Capacity (t/h)	Cone Surface Material	Cone Surface Lifespan (years)	Power (kW)
XZZX-4000	120-800 Mesh	0.8-1.7	Fiberglass	1-2	2

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01 Dual-Impeller Leaching Agitation Tank

Working Principle:

The mineral slurry flows from top to bottom at the center under the action of the dual impellers. It diffuses through the surrounding damping plates, with air and slurry introduced at the lower end of the shaft for mixing and upward circulation, resulting in a uniform suspension mixture.

Features:

- Smooth mineral flow with uniform slurry mixing and low power consumption.
- Air enters the tank at multiple points via a hollow drive shaft and is evenly dispersed by the blades.
- Compact structure, easy maintenance.
- The impeller is lined with rubber, operates at low peripheral speeds, ensuring a long service life.

Applications:

This series of agitation tanks is designed for gold cyanidation processes, suitable for slurries with a fineness of -200 mesh accounting for over 90% and concentrations up to 45%. It can also be used in metallurgy, chemical, and light industry for corresponding mixing, agitation, and leaching operations.

Dual-Impeller Leaching Agitation Tank Technical Parameters:

Model	Tank Diameter (mm)	Tank Height (mm)	Effective Volume(m^3)	Motor Power (kW)	Equipment Weight (kg)
SJ2.0×2.5	2000	2500	6	4	2144
SJ2.5×2.5	2500	2500	6	4	2729
SJ2.5×3.15	2500	3150	13	4	3095
SJ3.15×3.55	3150	3550	24	5.5	4320
SJ3.5×4.0	3500	4000	30	5.5	5429
SJ4.0×4.5	4000	4500	48	7.5	7830
SJ4.5×5.0	4500	5000	71.57	7.5	10865
SJ5.0×5.6	5000	5600	98	11	15365
SJ5.5×6.0	5500	6000	112	15	18800
SJ6.0×6.5	6000	6500	166.7	18.5	20545
SJ6.5×7.0	6500	7000	195	22	25731
SJ7.0×7.5	7000	7500	245.4	22	29000
SJ7.5×8.0	7500	8000	268.6	22	32220
SJ8.0×8.5	8000	8500	319	30	42470
SJ8.5×9.0	8500	9000	395	30	45900
SJ9.0×9.5	9000	9500	540	Customized based on client's needs	
SJ9.5×10.0	9500	10000	640		
SJ10.0×10.5	10000	10500	762		
SJ11.0×11.5	11000	11500	998		
SJ12.0×12.5	12000	12500	1345		
SJ13.0×14.0	13000	14000	1700		
SJ14.0×15.0	14000	15000	2100		
SJ15.0×16.0	15000	16000	2600		

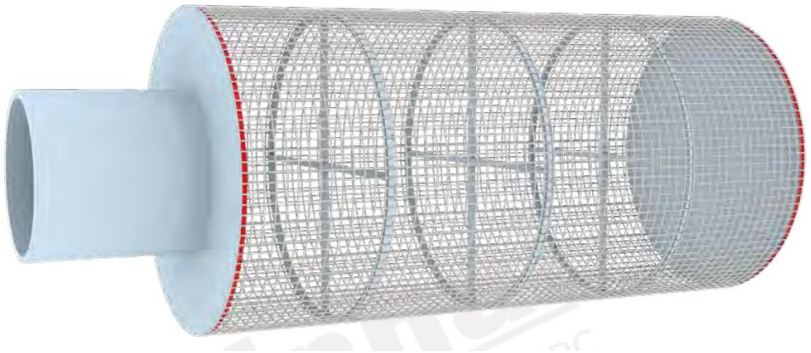
02 Carbon Screen

Working Principle:

The carbon screen is typically placed inside the dual-impeller leaching agitation tank. It uses a mesh screen to separate activated carbon from the slurry, allowing the slurry to flow into the next leaching tank while retaining the activated carbon within the leaching tank.

Features:

- ◆ No moving parts, ensuring low maintenance requirements.
- ◆ Screen holes are resistant to clogging.
- ◆ Simple structure, easy to operate and maintain, low cost, and long service life.



Carbon Screen Technical Parameters:

Model	Dimensions (mm)	Screen Inner Diameter (mm)	Screen Length (mm)	Weight (kg)
SY-100	φ100x470	100	370	2.87
SY-150	φ150x800	150	600	8.92
SY-200	φ200x900	200	700	10.97
SY-250	φ250x1000	250	800	14.52
SY-300	φ300x1300	300	1000	17.16
SY-500	φ500x1300	500	1000	35.72
SY-600	φ600x1300	600	1000	39.08
SY-800	φ800x1800	800	1500	112.18
SY-1000	φ1000x2500	1000	2000	147.91

03 Air Lifter

Working Principle:

High-pressure air is introduced into the air lifter through a central air pipe. The density of the slurry in the pipe decreases as air enters, creating a pressure difference between the slurry in the pipe and the slurry in the tank. Under this pressure, the slurry is lifted to a higher elevation. Air lifters are commonly used in mineral processing and cyanide production, leveraging excess air sources to transport slurry, which reduces power consumption and minimizes wear on components. Compared to sand pumps, air lifters save significant equipment and maintenance costs.

Features:

- Scientifically designed structure that significantly reduces damage to carbon.
- High efficiency, with each carbon transfer taking approximately 0.5 to 1 hour.
- Compact size for easy installation on leaching agitation tanks or adsorption tanks, facilitating operation and maintenance.
- From a design perspective, the air lifter can also save on elevation differences and floor space requirements, reducing plant and infrastructure investment.

Air Lifter Technical Parameters:

Model	Carbon Transfer Box Dimensions (mm)	Suction Box (mm)	Carbon Lifting Pipe Diameter (mm)	Carbon Lifting Pipe Length (mm)
KT-60	400×400×450	Φ300×200	Φ60	2250-4690
KT-80	350×350×350	Φ350×250	Φ89	4760-5760
KT-100	350×350×350	Φ400×250	Φ108	2190-7190
KT-125	420×370×545	Φ520×250	Φ133	3850-5350
KT-150	450×400×550	Φ550×250	Φ159	3600-6000
KT-200	710×708×700	Φ540×648	Φ219	5500-9000
KT-300	Φ854×1450	Φ700×792	Φ325	9800-10800

04 Efficient Low-Consumptiont Rapid Desorption Electrolysis System

Working Principle:

The system introduces anions that are more easily adsorbed by activated carbon, displacing $Au(CN)_2^-$ and achieving the desorption of gold. The resulting gold-laden liquid is recovered via electrolysis, leading to solid gold production.

Features:

- High Temperature and Pressure: Operates without cyanide, featuring automatic control for efficient, low-consumption, and rapid desorption.
- Efficiency: When the gold content in carbon reaches 3000 g/t, desorption rates can exceed 96%.
  Speed: The desorption electrolysis temperature can reach up to 150° C (30-55° C higher than other models), with operating pressures up to 0.5 MPa (0.2-0.5 MPa higher than others), resulting in faster desorption times, typically around 12 hours.
- Low Consumption: Similar temperatures for desorption electrolysis do not require heat exchange, leading to lower total energy consumption.
- Cyanide-Free: No sodium cyanide is added to the desorption liquid, reducing costs and pollution.
- High Concentration: Full mud with high grades eliminates the need for reverse electrolysis, simplifying gold extraction.
- Automated Control: Equipped with liquid level control, temperature control, and an automatic control system.
- Safety: Features triple safety measures, including system intelligence, automatic pressure relief, and safety valves.

System Composition:

The desorption electrolysis system consists of a desorption column, filter, electrolysis tank, circulation pump, electric heater, carbon injector, air compressor, desorption liquid tank, clean water pump, acid storage tank, magnetic pump, carbon storage tank, control cabinet, silicon rectifier cabinet, and acid washing tank.

Applications:

Used for extracting solid gold from gold-laden carbon in cyanidation processes.

Efficient Low-Consumption Rapid Desorption Electrolysis System Technical Parameters:

Model	Applicable Scale		Basic System Equipment Details	System Instrument Details	Operating Parameters
	Mine Scale (t/d)	Ore Grade (g/t)			
GJD-200	<150	2-8	Desorption Column Filter Electrolytic Cell Circulation Pump Electric Heater Carbon Injector Air Compressor Desorption Solution Tank Clean Water Pump Magnetic Pump Carbon Storage Tank Control Cabinet Silicon Rectifier Cabinet	Resistant Remote Diaphragm Pressure Gauge Pressure Indication Regulator Diaphragm Pressure Gauge Vortex Flowmeter Flow Totalizer Thermal Temperature Gauge Temperature Sensor Instrument Diaphragm Pressure Gauge Level Gauge Temperature Sensor Instrument Temperature Indication Regulator	Desorption Solution: pH: ≥ 13.5 Number of Uses: Unlimited Electrolysis Start Temperature: 100-110° C Electrolysis End Temperature: 150° C Pressure at 150° C: Top of Desorption Column: 0.5-0.57 MPa Electrolytic Cell: 0.45-0.52 MPa
GJD-300	150-300				
GJD-500	300-500				
GJD-1000	600-1000				
GJD-1500					
GJD-2000	1300-2000	2-20			
GJD-3000					
GJD-5000	3000-4000				
GJD-6000					
GJD-8000	5000-7000				
GJD-10000					

05 Carbon Regeneration Furnace

The regeneration of activated carbon is essential for metallurgical and water treatment systems. In gold mining processes, such as carbon-in-pulp, tank leaching, and heap leaching, activated carbon becomes contaminated by organic substances during the adsorption of gold. Even after desorption, these contaminants may remain on the carbon or infiltrate its micropores, diminishing its ability to adsorb gold. Therefore, reactivation and regeneration are necessary to restore its activity.

Working Principle:

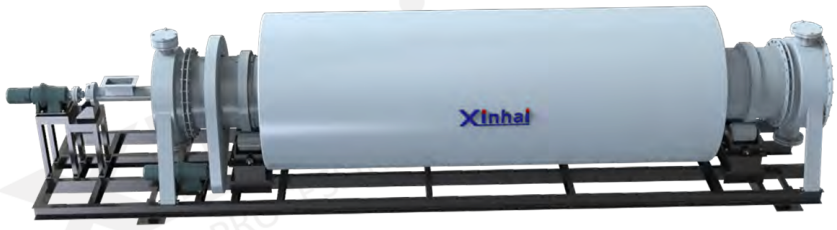
Activated carbon to be regenerated is fed into the furnace through a hopper, forming a moving carbon bed inside the furnace. The quantity of carbon processed is controlled by a discharge device. The residence time of the activated carbon in the furnace typically ranges from 15 to 25 minutes, depending on its moisture content. An electric current is supplied through a wiring panel, generating heat within the flowing carbon layer to achieve drying, activation, and carbonization. A temperature control circuit, comprising temperature sensors and controllers, maintains the optimal regeneration temperature between 700℃ and 850℃. The moisture carried by the activated carbon forms high-temperature steam at this temperature, which continuously flows over the heated carbon surface, facilitating the regeneration process. The ideal moisture content for the regenerated activated carbon is about 5%.

Features:

- Feed quantity can be controlled; the residence time of materials in the furnace can be adjusted; and the heating temperature can be regulated.
- During operation, the process can continuously complete the drying, high-temperature carbonization, and activation stages in one cycle, maintaining a slightly positive pressure within the entire regeneration system.
- Favorable working conditions with convenient operation.

Applications:

The automatic activated carbon regeneration furnace is suitable for the thermal regeneration of various powdered activated carbons, including coconut shell and apricot pit carbons.



Carbon Regeneration Furnace Technical Parameters:

Model	Maximum Processing Capacity (kg/d)	Heating Power (kW)	Insulation Power (kW)	Drum Rotation Speed (r/min)	Drum Rotation Speed (mm)	Power (kW)
ZSL-1000	1000	110	65	0.5-3	7792×1795×1700	1.5+0.75
ZSL-2000	2000	180	100	0.5-3	8785×1900×1995	2.2+1.1
ZSL-3000	3000	240	200	0.5-3	10200×1900×1995	2.2+1.1
ZSL-4000	4000	240	200	0.5-3	10200×1900×1995	2.2+1.1
ZSL-5000	5000	280	200	0.5-3	11411×1900×2022	3+1.1

06 Multi-Deck Scrubbing Thickener

Working Principle:

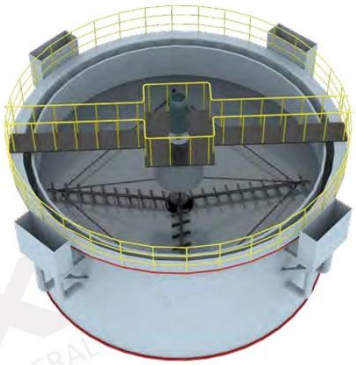
The slurry is fed into the system through a feeding cylinder. The slurry settles freely in the raking zone, where it is further concentrated under the pressure of the scraper. The rakes gradually push the slurry toward the center of the tank, and under gravity, the concentrated material is discharged into the next layer of the tank. Clean water enters the bottom layer through a distribution box for washing the material. The overflow from the lower layer sequentially returns to the distribution box and enters the upper layer for washing. The overflow from the first layer is discharged through an overflow weir, while the washed material is discharged from the bottom.

Features:

Compact footprint, saving space and energy.

Applications:

Primarily used for counter-current washing in gold cyanidation processes. It can also be applied in hydrometallurgy, light industry, and chemical processes for washing and dewatering operations.



Multi-Deck Scrubbing Thickener Technical Parameters:

Model	Thickening Tank Diameter (m)	Number of Layers	Settling Area (m^2)	Rake Arm Rotation Speed (r/min)	Maximum Processing Capacity (t/d)	Motor Power (kW)	Weight (kg)
2NZSG-6	6	2	28.3	0.2481	15-50	2.2	19639
2NZSG-9	9	2	63	0.28	88	4	41694
2NZSG-12	12	2	113	0.2	50-250	5.5	86713
2NZSG-15	15	2	177	0.1	70-350	5.5	10750
3NZSG-6	6	3	28.3	0.2481	15-50	2.2	32163
3NZSG-9	9	3	63	0.28	88	4	54628
3NZSG-12	12	3	113	0.2	50-250	5.5	119650
3NZSG-15	15	3	177	0.1	70-350	5.5	150000

07 Deoxygenation Column

Working Principle:

In the cyanidation gold extraction process, the oxygen dissolved in the pregnant solution is detrimental to zinc replacement. The solution is drawn into the top of the tower through a vacuum, then sprayed onto the packing layer via a spray nozzle. Under vacuum conditions, the gases dissolved in the liquid are expelled, achieving the deoxygenation purpose.

Features:

- ◆ An ideal device for deoxygenation.
- ◆ Simple structure and easy operation.

Applications:

Capable of reducing the oxygen content in the pregnant solution to below 0.5 g/m³, with a deoxygenation rate of over 95%.

Deoxygenation Column Technical Parameters:

Model	Tower Dimensions (mm)	Working Pressure Vacuum Degree (MPa)	Working Temperature	Spraying Volume ($m^3/m^2 \cdot h$)	Weight (kg)
TY-830	φ800×3000	0.09~0.096	Normal Temperature	1.56	747
TY-1030	φ1000×3000				956
TY-1236	φ1200×3600				1232
TY-1536	φ1500×3600				1632
TY-1840	φ1800×4000			2	2042
TY-2040	φ2000×4000	0.2			3900
TY-2440	φ2400×4000				4524

08 Carbon Adsorption Column

A method for recovering gold cyanide complexes from the pregnant solution by placing activated carbon into a series of connected adsorption columns. The solution flows sequentially through the suspended carbon bed, minimizing wear on the carbon without the need for carbon transfer.

The carbon adsorption columns are available in open and closed designs, allowing mines to choose based on their specific conditions.

Carbon Adsorption Column Technical Parameters:

Type	Model	Tower Dimensions (mm)	Liquid Supply Pressure (MPa)	Carbon Load (kg)	Adsorption Liquid Volume (m^3/h)	Weight (kg)
Open Type	XFZK0340	φ300×4000	≤0.2	300	8	385
	XFZK0528	φ500×2800		300	8	670
	XFZK1524	φ1500×2400		1000	50	1680
	XFZK2046	φ2000×4600	≤0.4	5000	300	3220
	XFZK3060	φ3000×6000		6000	600	8121
Closed Type	XFZB1025	φ1000×2500	≤0.2	500	40	1100
	XFZB1030	φ1000×3000		500	40	1173
	XFZB1230	φ1200×3000		600	40	1509
	XFZB1236	φ1200×3600		1000	50	1617
	XFZB1530	φ1500×3000		1000	50	3400
	XFZB2045	φ2000×4500	≤0.4	5000	300	4190
	XFZB2250	φ2200×5000		5000	300	3714
	XFZB2256	φ2200×5600		5000	300	6224
	XFZB2460	φ2400×6000		10000	600	6140

09 Spiral Zinc Powder Feeder & Automatic Zinc Powder Mixer

Working Principle:

The electromagnetic speed-regulating motor drives a turbine reducer via a belt, which in turn rotates the spiral tube to convey zinc powder from the storage hopper.

Features:

- The spiral feeder ensures uniform and continuous delivery of zinc powder, addressing the challenges of adjusting the quantity and uniformity seen in traditional mechanical feeders.
- Reduces residual zinc content, thereby lowering production costs.
- Minimizes the surface area of zinc powder exposed to air, reducing oxidation during use and improving the replacement effect.

Applications:

Suitable for the cyanidation process in gold extraction for the continuous and uniform addition of zinc powder to mixers filled with pregnant solution. It can also be widely used in mining, chemical, pharmaceutical, and food industries for the continuous and uniform addition of powdered materials.

۵.تجهیزات آسیاب سنگ زنی

主要技术参数表 Main Specification

型号 Model	磨环内径尺寸Ring Diameter (mm)	磨辊数量 Quantity of Rollers (pcs.)	主机转速 Trma Speed of MainMill (r/min)	进料粒度 Max. Feeding Size(mm)	成品粒度 The Final Size (mesh)	处理能力 Capacity (t/h)	外型尺寸 External Dimension (mm)
YGM95Q	950	4	132	≤25	80-800	0.5-6.5	7350×5900×7900
YGM130Q	1280	4	106	≤30	80-600	2-13.8	8000×8550×9700
YGM138Q	1380	4	105	≤30	80-600	2.9-17.5	9700×8500×10200
YGM160Q	1600	4	92	≤30	80-425	5-25	9230×10116×10510
YGM178Q	1800	4	78	≤35	80-425	6.5-32	9368×11500×11000
YGM190Q	1900	4	72	≤35	80-425	8.4-40	10465×11372×11500

设备功率参数表 Power Specification

型号 Model	主机功率 Main frame Power (kw)	风机功率 Power of Air Blower (kw)	分析机功率 Power of Classifier (kw)	除尘器型号 Model of Pulse Dust Collector	除尘器功率（千瓦）Dust Catcher Power (kw) Blower +Air Compressor	给料设备功率（千瓦）Feeder Power (kw)
YGM95Q	37	30-37	5.5-11	DMC36	3+4	0.15
YGM130Q	75-90	75-90	18.5-22	DMC36	3+4	3
YGM138Q	90-110	110-132	22-30	DMC48	3+4	4
YGM160Q	132-160	160-200	30-37	DMC64	5.5+5.5	5.5
YGM178Q	185-200	200-220	37-45	DMC96	7.5+7.5	5.5
YGM190Q	220-250	220-250	45-55	DMC96	7.5+7.5	5.5

注

①表中处理能力是以粉磨石灰石（SiO2<1%)为例，其产品的通筛率为80%。
②销售和技术的组合团队可根据不同生产需求如物料、工艺、产能等要求为您做一对一服务。

Note

① The treatment capacity in the table is based on grinding limestone (SiO2 < 1%), and the screening rate of the product is 80%.
② This series of models can be configured according to different production requirements, such as material, process, capacity and so on. Please contact the relevant person in charge of business for details.