



698 Longquan Road, Panlong District, Kunming City, Yunnan Province



TEL : +86 871 65150398

FAX: +86 871 65217071



E-mail: caibao@yncb.cn

<http://www.yncb.cn>



FLOTATION MACHINE



探宝

Founded in 1977

KUNMING CIBA DIGGINGS MACHINERY CO.,LTD

厂区效果图
Effect drawing of plant area



Kunming Ciba Diggings Machinery Co., Ltd., founded in 1977, is attached to Yunnan Noah's Ark Group. It is a high-tech company with business covering industrial process design, product research and development (R&D) and manufacturing. Over the past 40 years, the company has been investing in product innovation and R&D, and obtained more than 40 patents on technologies. Furthermore, it has brought in and learned internationally advanced technologies in screening and conveying to keep relevant to the time.

Since the company registered its trademark named "Caibao" 40 years ago, it has gotten considerable experience during serving its customers, including a good knowledge of ore dressing, aggregate crushing and conveying of food and beverage. Based on the experience, the investment in R&D and the professional technical group, Ciba machinery is competent to offer comprehensive services such as industrial process design, complete equipment supply and trainings for installation, adjustment and maintenance.

The company has more than 200 employees, including over 30 researchers and designers, 6 senior engineers, 10 professional engineers, 15 assistant engineers and 2 talents leading regional-level high-tech enterprises. In addition, Ciba Machinery enjoys a provincial-level technological center in Yunnan province, which consists of divisions of industrial process design, product R&D and technology development; the 3 divisions form a vital technological innovation system. Meanwhile, we have carried

out in-depth cooperation and technical exchanges with reputable companies from United States and Italy to bring in advanced technologies and ideas.

With constant technological R&D and international communications, our company's technologies reached international level, and our products are widely recognized and complimented in international market. Today, our products are exported to more than 20 countries and regions such as South America, North America, Australia, Indonesia, Malaysia, Thailand, Myanmar, Vietnam, Laos, India, and Africa.

In the year 2003, our company took the lead in passing the ISO9001 quality management system certification among other domestic counterparts. In addition, it was honored with "a high-tech company", "certificate of company-level technological center in Yunnan Province", "a growing small and medium-sized company in Yunnan" and "a pilot company for S&T innovation in Kunming". The GK screener developed and produced by our company was honored with one of the industrialized demonstration programmes. The "Caibao" branded vibrating screen and ball mill are honored with well-known trademark in Yunnan, and its flotation machines and crushers with Famous Trademark in Kunming.

Over the past 40 years, in the spirit of "fraternity and gratitude", our company, based on technological research, scientific and standardized production, operation and management, and superior after-sales service, has been working jointly with domestic and overseas customers to seek common growth and brilliant future.



云南省认定
企业技术中心

云南省工业和信息化委员会 云南省发展和改革委员会 云南省科学技术厅
云南省财政厅 云南省国家税务局 云南省地方税务局 昆明海关



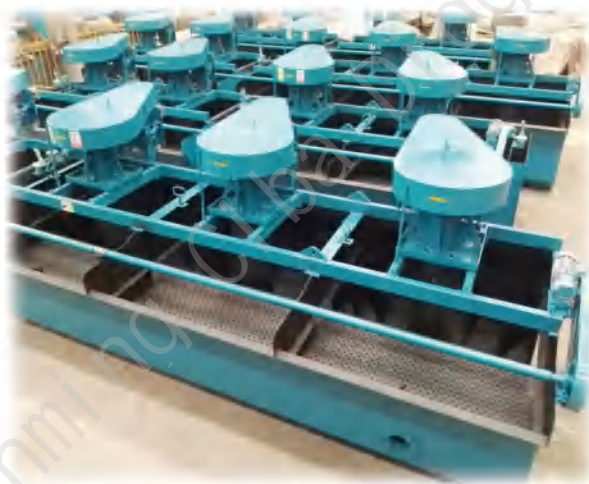
XF (XGK) Flotation Machine



The series of mechanical agitation flotation machines are researched and developed by our company and Kunming Engineering & Research Institute of Nonferrous Metallurgy Co., Ltd combined, and designated to manufacture in our company. The flotation cell is suitable for ore easily to handle and low-aeration process. The new equipment is quite applicable to small- and medium-scale ore dressing plants.

This series of products are widely used in concentrations of gold, sulfur, fluorite, lead, zinc, copper and other minerals.

A unit of the XF (XGK) flotation cell is composed of two slurry tanks. Equipped with a nozzle, XF machine in the first tank injects slurry and suck air into the tank; XGK machine in the second tank, without pulp injecting, sucks air into the tank for separation. There is an intermediate compartment between the two tanks. The unit does not need a froth pump to return the pulp. The principal axis with an impeller installed at the bottom and a belt wheel at the top is driven by a motor. The unit could suck air and pulp, achieve automatic flow when middling returns, featuring less auxiliary equipment, tidy equipment placement, simple operation and maintenance, etc.



The rotating part with a tall impeller and big blades is installed shallow. Pulp is fed into the center of the air column (also known as shaft) by a feed pipe and splashed out with the centrifugal force caused by the rotation of the impeller. Meanwhile, negative pressure forms between the impeller and stator, as a result, air in the atmosphere is automatically sucked into the tank from the top of the column (shaft). This machine ensures sufficient self-sucked air and turbulence without extra power consumption. In addition, it ensures suspension of high-density and large particles, and dispersion and emulsification of less dissolvable reagents.



The impeller is made of rubber or polyurethane, which makes it light, corrosion resistant and less in rotational inertia. Every impeller is strictly tested on static balance before assembly to allow the complete machine stable operation.



The separation tank is equipped with a bubble generating baseplate and a diversion tube device at the bottom to allow slurry circulation in a certain direction, ensuring the pulp passes through the aeration zone frequently to increase the incidence of mineral separation and pulp suspension.

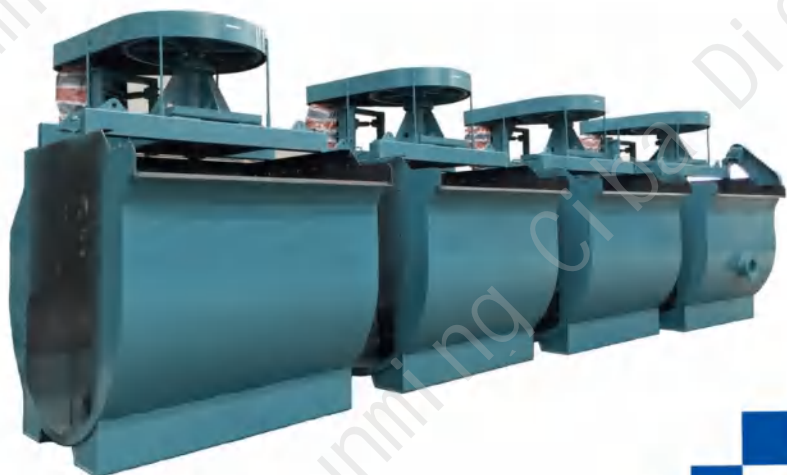


Main technical parameters of XF (XGK) Flotation machine

Model	Cell volume (m ³)	Capacity (m ³ /min)	Air sucking (m ³ /min)	Motor power (kw)	Motor power of paddle (kw)	Tank weight (t)
XF/XGK-1.1	1.1	0.5-1.5	≈1.0	5.5	1.5	0.9
XF/XGK-1.8	1.8	1-3	≈1.0	7.5	1.5	1.2
XF/XGK-2.8	2.8	1.5-3.5	≈1.0	11	1.5	1.5
XF/XGK-4	4	2-6	≈1.0	15	1.5	3.5
XF/XGF-8	8	4-8	≈1.0	30/22	1.5	5.3

XCF (KYF) Flotation Machine

The pneumatic agitation flotation machine is equipped with a mechanical agitator and a specialized air blower to inject air into the cell. The tank of the XCF machine with pulp and air injecting is called inlet tank, while the tank of the KYF cell with only air injecting is called direct flow tank. Both machines can be used separately or combined as an XCF/KYF unit to form a horizontal arrangement. Both machines are suitable for non-ferrous, ferrous and non-metallic mineral processing and sewage treatment.



The XCF (KYF) flotation machine adopts a U-shaped tank, a hollow shaft and a suspended stator. Compared with an ordinary mechanical flotation machine, it features as follows:

1. Aeration easily to be adjusted and keep constant improves the cell's capacity and flotation results.
2. Well air dispersion, low power consumption, less wear and damage, and low clayed brittle minerals.
3. High capacity and shallow tank allows lower per unit power consumption.
4. Simple structure, ease of maintenance, availability of horizontal and multistep arrangements, and start at full operation.



The machine adopts a cone impeller with inclined blades, which resembles a wheel of a high specific speed centrifugal pump. The new type impeller lifts large quantities of slurry with low pressure head, low power consumption and simple structure. In the impeller cavity, a perforated cylindrical air distributor is deployed to uniformly disperse air into most area around the blades, providing broad contact interface of pulp and air.





The impeller, a rotor with inclined blades, is made of rubber or polyurethane, which makes it light, corrosion resistant and less in rotational inertia. Every impeller is strictly tested on static balance before assembly to ensure the complete machine stable operation.

The suspended low-damping stator, made of rubber or polyurethane, has blades to guide the slurry flow splashed by the impeller.

Main technical parameters of XCF (KYF) Flotation machine

Model	Cell volume (m ³)	Capacity (m ³ /min)	Aeration (m ³ /min)	Motor power (kw)	Motor power of paddle (kw)	Air pressure of blower(kpa)	Tank weight (t)
XCF-2	2	0.4~2	0~3	7.5	1.5	≥16	1.3
KYF-2				5.5			1.2
XCF-3	3	0.6~3	0~5	11	1.5	≥18	1.5
KYF-3				7.5			1.4
XCF-4	4	1.2~4	0~6	18.5	1.5	≥19.8	2.5
KYF-4				11			2.4
XCF-8	8	3~8	0~10	30	1.5	≥21.6	3.5
KYF-8				18.5			3.3
XCF-16	16	4~16	0~15	45	1.5	≥25.5	6.6
KYF-16				30			6.4
XCF-24	24	6~24	0~17	55	1.5	≥30	7.8
KYF-24				37			7.5
XCF-38	38	10~38	0~23	55	1.5	≥34	17.2
KYF-38				45			16.9
XCF-50	50	10~40	0~29	90	1.5	≥50	23
KYF-50				75			22
XCF-70	70	13~50	0~35	90	1.5	≥50	26.2

Note:

- Capacity of the flotation machine provided is only for reference, instead of a tacit promise of the manufacturer. As rocks or ores vary widely, results of actual flotation may be different from parameters in the table.
- For other specifications, models and specific applications, please contact the technical center of Ciba Mining Machinery

Sales network in the map



Our company reserves the right to change and interpret the text, pictures and data in this brochure.