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AGITATOR



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.



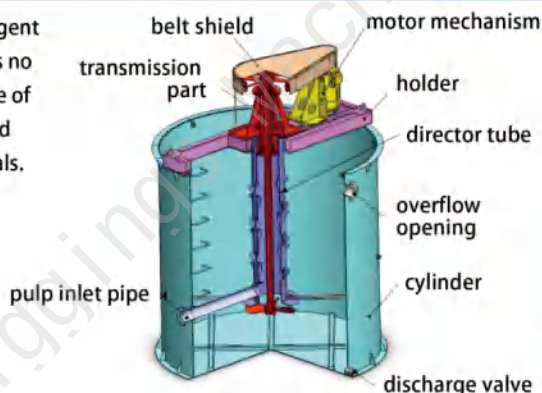
云南省认定
企业技术中心

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
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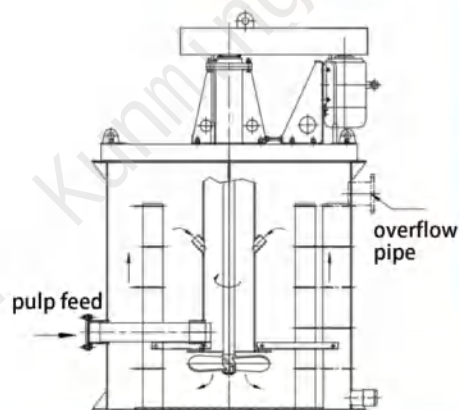
Average agitator

The machine is applicable to agitation of pulp and reagent prior to flotation. Concentration of the pulp agitated is no more than 40% (measured by weight). The particle size of materials agitated is less than 1mm. The machine could also be used for agitation of other non-metallic minerals.

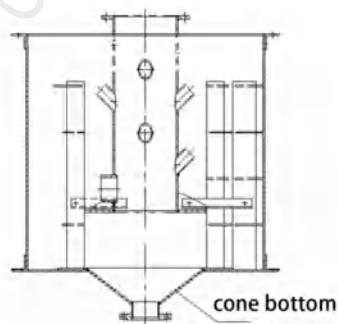


The average agitator could be flat- or cone-bottomed. The flat-bottomed is mainly used for pulp agitation, while the cone-bottomed for reagent agitation. Pulp feeds from lower part, and the outlet is the overflow pipe at upper part.

For an average flat-bottom agitator, pulp is fed to the director tube through the inlet pipe, and then agitated under the combined force of impeller on the transmission part and baffles on the cylinder wall. Right amounts of reagent is added amid agitation to make it fully mixed with pulp. The director tube (central tube for pulp receiving and circulation) make constantly circulation and fully agitation of pulp and reagent. As pulp keeps feeding, pulp and reagent fully agitated rise to pass the overflow pipe.



An average cone-bottom agitator gets no inlet or overflow pipe. Reagent is discharged from the cone bottom after agitation. The director tube part is standard. Application of a director tube is based on actual needs.



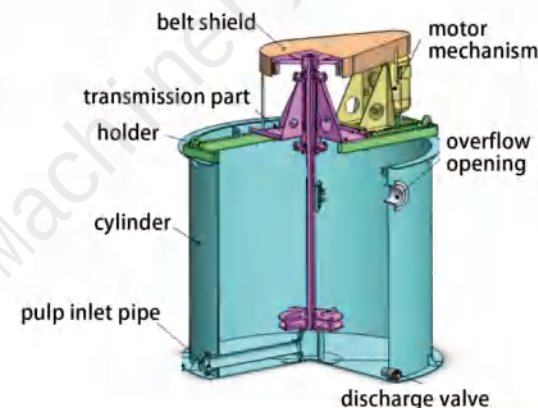
Main parameters of average agitators

Model	Effective volume (m ³)	Max external diameter (mm)	Boundary height (mm)	Motor power (kw)	Weight for reference (t)
XB-φ1000×1000	0.6	φ1192	1632	2.2	0.8
XB-φ1500×1500	2.7	φ1692	2305	5.5	1.5
XB-φ2000×2000	5.5	φ2196	2798	7.5	2.2
XB-φ2500×2500	11	φ2696	3468	15	3.1
XB-φ3000×3000	19	φ3200	4125	22	5.2
XB-φ3500×3500	30	φ3700	4725	30	7.7
XB-φ4000×4000	45	φ4200	5300	45	11

Lifting agitator

A lifting agitator is indispensable in flotation. It creates fine process conditions for ore dressing, so as to raise efficiency and achieve good processing indexes. The agitator is applicable to metallic and non-metallic mines.

The rotatory impeller in the lifting agitator acts as a centrifugal pump, it suck pulp with suction lift from the inlet pipe into the fluid director pipe, then the pulp is splashed out in the centrifugal direction of the impeller. The pulp splashed out with suspended solid phase fills the whole tank. As a result, agitation and pulp lifting are achieved. The lifting agitator produces no pulp circulation.



* The lifting agitator is mainly used prior to flotation to stir pulp and reagent with concentration no more than 40% (measured by weight), particle size less than 1mm. The agitator before flotation is for both stirring and pulp lifting. When level difference caused by equipment arrangement is not enough for automatic flow or pumping, the lifting agitator could be adopted to reduce the level difference required.

*A lifting agitator consists of a cylinder, a bearing assembly, an impeller, a director pipe, a motor, a belt wheel, a motor bracket, a protective shield, etc.

Main parameters of lifting agitators

Model	Effective volume (m ³)	Max external diameter (mm)	Boundary height (mm)	Motor power (kw)	Weight for reference (t)
CXB-φ1500×1500	2.7	φ1692	2295	11	1.5
CXB-φ2000×2000	5.5	φ2196	2904	15	2.1
CXB-φ2500×2500	11	φ2700	3490	22	3.6
CXB-φ3150×3150	22	φ3350	4300	30	5.8
CXB-φ3500×3500	30	φ3700	4800	45	8.5

Efficient agitator

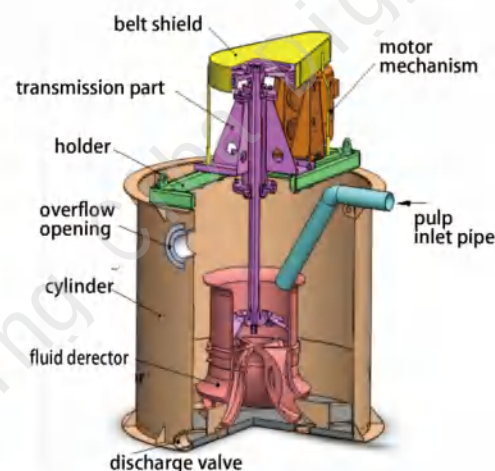
The efficient agitator series is developed by Changsha Research Institute of Mining and Metallurgy Co., Ltd. and patented. Identified and approved by the Department of Metallurgical Industry, the equipment are designated to be manufactured in our company.



When a tank works, pulp enters into a fluid director through a pulp inlet pipe, amid which a certain amount of reagent is added into the pulp. With the rotation and stirring of the blades of transmission part, pulp with evenly mixed reagent circulates from the channel at the bottom of the director to the tank. As pulp keeps entering, pulp uniformly agitated goes up to overflow through the overflow opening. As a result, the whole process of agitation proceeds constantly, providing pulp for the next operation.



Blades on the impeller at inclination angle of 45° favor the circulation of pulp



Uniquely designed and casted director structure makes fully mixture of reagent and pulp and wear resistance

1. Efficient agitation and great circulation volume make even pulp, particle size and mineral grade, in this term, average agitators could not parallel with efficient agitators.
2. Efficient agitators are adaptive to varied concentrations. They are capable of agitating not only pulp with concentration under 60% but also high-density pulp with concentration of 60-70%.
3. An efficient agitator could function as not only a pulp agitator but also a leaching tank for hydrometallurgy.
4. When the product is used for pulp agitation prior to flotation, reagent can be saved by 2% and recovery be raised by 1%-5%.

Main parameters of efficient agitators

Model	Effective volume (m ³)	Max external diameter (mm)	Boundary height (mm)	Motor power (kw)	Weight for reference(t)
GJ-φ1000×1000	0.6	φ1192	1632	3	0.9
GJ-φ1500×1500	2.7	φ1692	2305	7.5	1.7
GJ-φ2000×2000	5.5	φ2196	2898	11	2.9
GJ-φ2500×2500	11	φ2696	3428	18.5	4.1
GJ-φ3000×3000	19	φ3196	4081	22	5.8
GJ-φ3150×3150	22	φ3350	4287	22	7.1
GJ-φ3500×3500	30	φ3700	4725	37	8.5
GJ-φ4000×4000	45	φ4224	5153	45	12



Sales network in the map

销往地区和国家
Marketing regions and countries

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