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ORE WASHER



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.

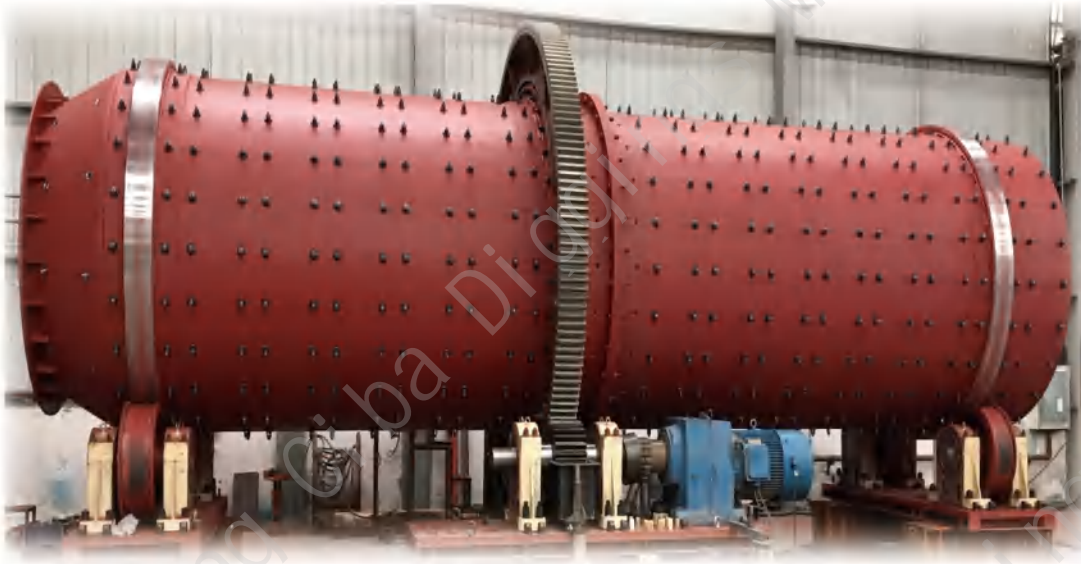


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Efficient drum washer (Efficient Wet Pulping Machine, Efficient Slurry Dispersing Machine)



The efficient drum washer is used in such areas as mining, metallurgical and chemical industry to wash and screen clayed ores size 300mm below. It manages washing of low-grade, clayed and lumped raw ore in mineral processing. After ore washing, the slime in the ore is reduced to less than 2%. During the washing operation, the ore can be primarily classified, as a result, it is unnecessary for high-clay bulk ore to be washed before crushing and to perform corrosion prevention.

The drum washer with great capacity is energy efficient; its hourly capacity is 4-6 times as high as a conventional ore washer.

The drum washer adopts horizontal installation, which is simpler and easier. During operation, the ores are fully scrubbed and pulped to separate the ore from slime. The drum washer is efficient in ore washing (with efficiency reaching 98%) and consumes less water.

The drum washer is designed to be driven peripherally by a viable-frequency driven motor combined with a PLC system to permit it more steady and reliable operation, and easier adjustment of rotational speed.



The cylinder liners consist of stirring liners, conveying liners and discharge liners. Depending on physical properties of various ores (ore type, slime content and lump size), liners can be arranged in different ways to achieve a good result of ore washing.



The cylinder is manufactured by specialized ultra-large machine tool. The rolling ring and gear-mounting ring flanges are once clamped and machined to ensure the cylinder rotate concentrically so that the whole machine achieves stable operation.

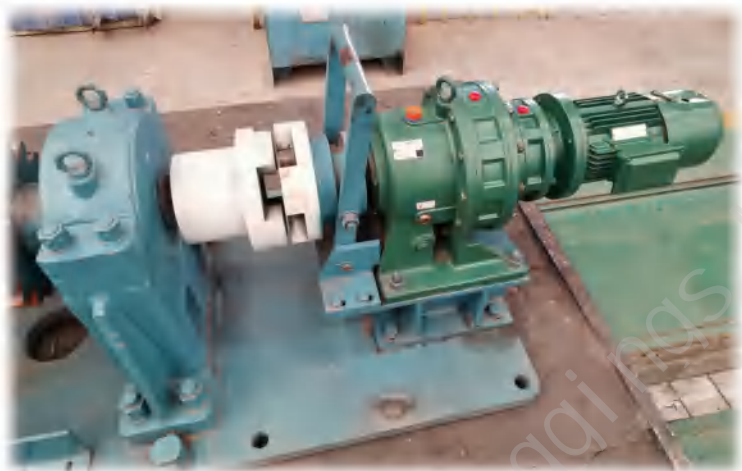
An oil atomizer regularly sprays certain amount of oil onto working surface of the gear for lubrication.



Quick-wear parts are few, easy to replace and cheap, leading to low using cost of the whole equipment.

The liners of high-manganese steel has enough impact toughness, and liner surfaces become cold hardened and more wear resistant when the liners are impacted.





The low-speed driving mechanism makes the cylinder rotate at the speed of 0.1r/min for motor turning, maintenance or charge loosening.

Main technical parameters of the efficient drum washer
(efficient wet pulping machine, efficient slurry dispersing Machine)

Model	Cylinder size (mm)	Feed size (mm)	Capacity (t/h)	Motor power (kw)	Weight (t)	Boundary dimension (mm)
TX-1754	φ1700 × 5400	≤ 250	25~150	37	27.1	7800 × 3000 × 3300
TX-1760	φ1700 × 6000	≤ 250	25~150	37	29.6	8200 × 3000 × 3300
TX-1766	φ1700 × 6600	≤ 250	25~150	45	36	8800 × 3000 × 3300
TX-1762	φ1700 × 7200	≤ 250	25~150	55	28	9400 × 3000 × 3300
TX-2260	φ2200 × 6000	≤ 300	30~150	55	34.7	6234 × 3600 × 3582
TX-2442	φ2400 × 4200	≤ 300	100~400	45	42	7200 × 5780 × 4380
TX-2454	φ2400 × 5400	≤ 300	100~500	55	43	8400 × 5780 × 4380
TX-2460	φ2400 × 6000	≤ 300	100~500	55	50	9000 × 5780 × 4380
TX-2462	φ2400 × 6200t	≤ 300	100~200	90	48	6500 × 5780 × 4380
TX-2472	φ2400 × 7200	≤ 300	100~300	55	56	10500 × 4000 × 4300
TX-2496	φ2400 × 9600	≤ 300	100~350	75	70	10210 × 4300 × 4100
LT-3090 Tire transmission	φ3000 × 9000	≤ 200	200~500	160	40~65 weight of the trommel varies depending on liners	10000 × 3600 × 4000

Notes:

- 1.Weight of the drum washer varies depending on the material the liners made of and configuration of the complete equipment.
- 2.The drum washer can be custom-designed based on the type of ore and the processing result desired.
- 3.The drum washer can be used for such operation as desliming, slurry dispersing, slurring.

Double-Spiral Trough Ore Washer

The double-spiral trough ore washer is widely used for desliming clayed ores size less than 50mm, in particular, it works well in breaking up sticky clayed ores. Washing of ores can enrich ores, improve product quality, and protect crushers from clogging by clayed ores with high moisture content.

The installation angle of the equipment is 9° - 14° . Ores are wetted through by hydraulic giant before feeding to the washer to ensure good ore washing effect. In the trough, coarse ores are scrubbed repeatedly by the blades and conveyed to the discharge end; before discharge the ores are rinsed to be accepted. Slime and other clayed material removed from the feed flow out as tailings through the overflow weir at the other end of the trough.

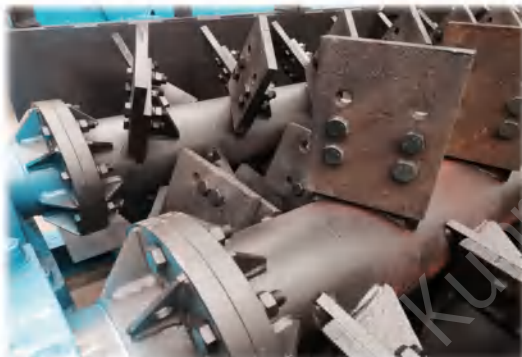


The motor drives the spiral shafts through the belt wheel, the reducer and the gear pair, and the transmission is stable and reliable.





- A** The tail bearing is sealed by high pressure water to block the slurry, so as to make the bearing a longer service life.
- B** The trough is welded with high-quality structural steel plates and shaped steel.
- C** The overflow end of the trough is equipped with a baffle, which is to adjust the area of ore washing, so as to adjust the result of ore washing and its capacity.
- D** 3 rows of 2 bolt holes are prepared on the blade for shift.
- E** A lifting gantry is deployed above the overflow end of the trough to facilitate maintenance of the equipment.



Main technical parameters of double-spiral trough ore washer

Model	Tank size (Length X width)mm	Feed size (mm)	Inclination angle of the tank (°)	Capacity (t/h)	Motor power (kw)	Weight for reference (t)
XK-1100 × 5600	5600 × 1100	<50	10~14	20~40	15	5.1
XK-1500 × 7200	7200 × 1500	<50	7~11	40~80	22	8.2
XK-1800 × 7600	7600 × 1800	<50	10~14	40~100	30	13.4
XK-2000 × 5000	5000 × 1950	<50	10~14	50~120	37	17.0
XK-2000 × 8000	8000 × 1950	<50	10~14	50~120	37	18.5
XK-2200 × 8400	8400 × 2200	<50	9~14	40~100	55	21.1
XK-2400 × 9600	9650 × 2400	<50	9~14	80~140	90	28.2

Sales network in the map

