

GTEK Attrition Scrubber

Brochure



Product Display



Project cases

Bangladesh



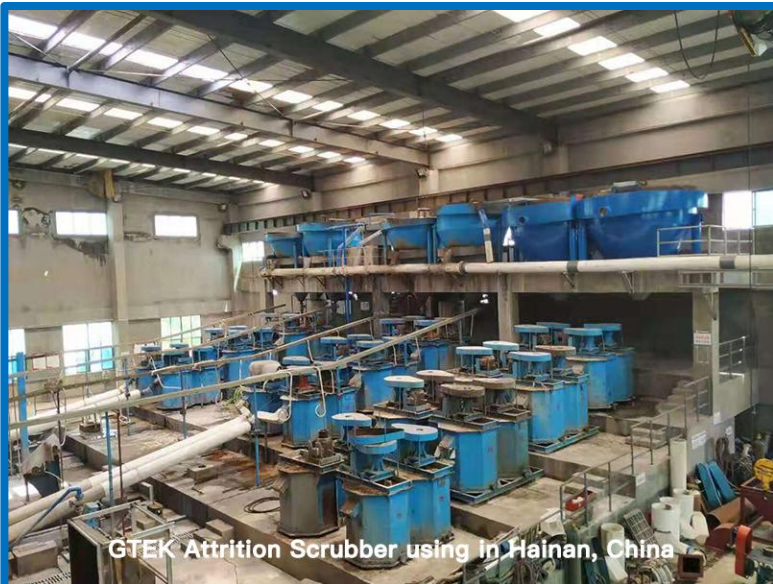
GTEK Attrition Scrubber using in Bangladesh

Hainan, China



GTEK Attrition Scrubber using in Bangladesh

Fujian, China



GTEK Attrition Scrubber using in Hainan, China



GTEK Attrition Scrubber using in Fujian, China

Yemen



Description

Attrition Scrubbing is the process where a mineral is scrubbed primarily by the action of the slurry particles impacting one another. Attrition scrubbers, also known as Attrition Cells, are relatively simple devices. They consist of a tank, impeller system and drive system. Generally, the tank is PE lined and can be either square or octagonal. The impeller system is PE coated and normally consists of two sets of impellers with opposing pitches. The v-belt drive system is designed to effectively transmit the power to spin the shaft and impellers. The most important function of the attrition machine is the scrubbing of particle scrubbing of particle surfaces to remove film or coating.

Application

GTEK's versatile attrition scrubber is specially developed for a vast range of applications:

- Cleaning of silica sand for glass making;
- Liberation of mineral from slime coatings;
- Disintegration of clay agglomerates;
- Separation of sand grains from cement minerals;
- High intensity conditioning;
- Efficient lime slaking;

Features

- Low power consumption, strong scrubbing ability;
- Easy of operation, Lower operating and maintenance cost;
- Simple structure, large effective volume and small occupation area;
- Minimal wear, longer life

Technical Specification

Model	Impeller Diameter (mm)	Impeller Speed (r/min)	Power (KW)	Dimensions (L*W*H) (mm)	Weight (KG)
CX-0.25	280	322	3*2	800*800*1000	660
CX-0.5	320	320	7.5*2	1340*920*1350	890
CX-1	480	322	15*2	2774*1510*2057	2400
CX-2	480	319	30*2	3012*1597*2779	4800
CX-2.5	500	320	37*2	3300*1750*2900	9600
CX-3	600	300	45*2	4033*2160*3200	13600
CX-4	700	286	55*2	4475*2800*3470	16406

OPERATION MANUAL

Working Principle

The attrition scrubber is a high concentration, powerful agitation scrubbing device. Suitable for metallurgy, chemical, building materials, light industry, food, pharmaceutical and other industrial sectors, designed to scrub the surface of the materials. By scrubbing and friction between materials, dirt, impurities and oxides on the surface of the material can be removed to form a fresh surface, so as to facilitate the reaction of the material in the next process. This machine is especially suitable for the beneficiation process. The scrubbed materials are beneficial to flotation mineralization and then be collected. The recovery rate of the beneficiation operation can be improved, and the scrubbing effect is more remarkable for the high concentration of the slurry.

Mechanism and Structure

The machine is double cell unit and the scrubbing machine is provided with an independent transmission system in each cell. Each cell is driven by a motor through a triangular belt to rotate the main shaft at a high speed, and the structure is shown in the figure.

1. Each main shaft is equipped with two or three(optional) high-speed impellers with opposite rotation directions (with 45 ° inclination). The upper impeller presses the slurry, and the lower impeller pushes the

slurry. The material is placed between the two impellers, and the upper and lower opposite thrust forces strongly make the material collide and form friction.

2. The tank body adopts an octagonal structure. Since the direction in which the slurry particles collide with the tank body is different, the collision opportunity is increased when the particles rebound. Prevent the pulp from turning and increase the height of cell to keep the liquid surface stable.

3. The circulation tube structure is adopted to fully circulate the slurry to ensure the scrubbing time and reduce the upward splash of the slurry.

Operation and Maintenance

1. Before starting the machine, it is necessary to check whether the foundation is firm, whether the bolts at the joints of each piece are tight and the belt is tight.

2. First fill the water, then start, running for 1 hour if there is no abnormal situation after, then operate with feeding. Do not test without water.

3. When the equipment is running, always pay attention to the motor and shaft bearing temperature. Generally not more than 90° C. Lubricate the shaft bearings at least once a week. The bearing clearance must be readjusted after 6 months of use.

4. Do not start the machine with load, if stop by accident, the grit in the tank should be discharged to the lower impeller surface, and then filled with clean water before restarting to avoid burning the motor.

5. The equipment must be inspected at least once a month by the relevant personnel. Problems shall be solved in time. Overhauled once a year, replace the grease and wearing parts.



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