THICKENING

Updated High-efficiency Thickener

Principle

The thickener is mainly composed of two major parts including circular thickening tank and rake-type mud scraper: The solid particles suspended in the slurry in the thickening tank is settled by the gravity effect, after that, the clear water is on top, which makes the solid-liquid separation. The slurry deposited at the bottom of the thickening tank is continuously scraped to the center of the tank bottom by rake-type mud scraper and discharged by the outlet, and the clean water overflows from the top edge of the thickening tank.

Features

The deaerating tank is added to avoid solid particles attaching to bubbles and settling as parachute phenomena.

The feeding pipe is installed under the liquid level in order to bring the air when feeding.

The feeding sleeve is moved to a lower position and equipped with a receiving plate in order to make the slurry fed fall evenly and steadily and effectively prevent the rolling phenomena caused by the overbottom pressure from feeding.

The overflow dam in sawtooth shape can reduce part suction phenomena caused by out of level of overflow dam.

The linear of rabble blade is changed from slash to curve, which makes the rise of discharging underflow concentration and the improvement of the treatment capacity.

Application

It can be widely used for the treatment of slime, waste water, and waste residue in metallurgy, mining, coal, chemical industry, building materials, and environmental protection departments.

Technical Parameters

Model	Tank Diameter (mm)	Tank Depth (mm)	Subsidence Area (m^2)	Capacity (t/d)	Motor Model	Motor Power (kW)	Steel Tank Weight (kg)	Weight (kg)
NZSG-2.5	2500	1850	4.9	5~22.4	Y90L-6	1.1	1000	2225
NZSG-3A	3000	1800	7	5~23.3	Y100L-6	1.5	1664	3168
NZSG-3	3600	1800	10.2	5~28.5	Y100L-6	1.5	2097	3680
NZSG-5	5000	2956	16	16~90	Y90L-4	1.5	5160	8031
NZSG-6	6000	2956	28.3	98	Y90L-4	1.5	5769	9200
NZSG-7	7000	3000	38.5	140	Y112M-6	2.2	8800	13862
NZSG-8	8000	3318	50.2	185	Y132S-6	3	12966	19158
NZSG-9	9000	3376	63	210	Y132S-6	3	15418	21733
NZSG-12	12000	3600	113	370	Y132S-6	3	25589	34823
NZSG-15	15000	3600	176	580	Y132S-4	5.5	35800	54315
NZSG-18	18000	4400	255	960	YCT200-4B	7.5	52485	73588
NZSG-20	20000	4400	315	1400	YCT200-4B	7.5	59365	76312

Note: The specification can be designed according to the requirements of the users.
If adding flocculant, the capacity can be improved by 3-6 times.
The concrete structure can be adopted if the thickening diameter is greater than ϕ7m.