⏵ High-efficiency Deep-cone Thickener

Principle

High-efficiency deep-cone thickener is a new product used in the process of solid-liquid separation technology currently. Because of its less investment, less floor space and high efficiency, both the underflow concentration and the overflow water quality are significantly improved. It also can realize intelligent operation. Normally, its processing capacity is 3-8 times larger than that of traditional thickeners. The underflow concentration is up to 300-800 g/L, and the overflow water quality can meet the state standard of effluent discharge.

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 height of tank is much greater than the diameter, and the overall tank is in vertical barrel-taper shape.

The slender tank body and the flocculants added in the process of thickening accelerate the process of materials subsidence and the thickening process of overflow water clarification.

Small floor space, large capacity, high degree of automation, and power saving.

Application

It is mainly used for high concentration thickening of minerals in mineral processing plant, also for slurry thickening with fine particle and small density and wastewater treatment.

Technical Parameters

Model	Tank Diameter (mm)	Tank Depth (mm)	Subsidence Area (m^2)	Capacity (m^3/h)
GSNG-3	3000	4400	21	60~70
GSNG-6	6000	8800	85	210~260
GSNG-9	9000	13500	310	570~700
GSNG-12	12000	17500	510	800~1200
GSNG-15	15000	19000	1200	1000~1500
GSNG-18	18000	22000	2000	1400~2100
GSNG-20	20000	22800	2700	2100~2600

⏵ Automatic Control Device of High-efficiency Thickener

Features

Monitor the height of flocbed automatically in high-efficiency thickener, and control the underflow pump speed of automatic control high-efficiency thickener hereby, so as to maintain the steady of flocbed.

Frequency-converting control and linear adjustment.

Technical Parameters

Model	Control High-Efficiency Thickener Model	Control Underflow Pump Motor Power (kW)	Max. Control Height of Flocbed (m)
GJK-33	GX-3.6	3	0~2.5
GJK-375	GX-3.6	7.5	0~2.5
GJK-311	GX-3.6	11	0~2.5
GJK-575	GX-5.18	7.5	0~2.5
GJK-511	GX-5.18	11	0~2.5
GJK-5185	GX-5.18	18.5	0~2.5
GJK-1245	GX-12	45	0~2.5
GJK-1255	GX-12	55	0~2.5