Submerged Spiral Classifier

Principle

The grinded slurry is fed into water tank from the inlet located in the middle of depression area, and the slurry classification depression area is under the inclined water tank. The spiral with low speed rotation stirs the slurry, so that the fine particles suspended in the upper flow into overflow weir and overflow. Meanwhile, the coarse particles sink to the bottom of tank, and then they are delivered to the outlet by the spiral and discharged as sand return.

Features

The whole spiral of overflow end is sunk under the liquid surface of depression area with larger area and depth.

A sand return automotive lifting device is added on sand return end, and the configuration of big spoon bit is canceled for ball mill.

1-1.5 degrees of electricity can generally be saved per ton of ore.

Frequent maintenance of big spoon bit is avoided.

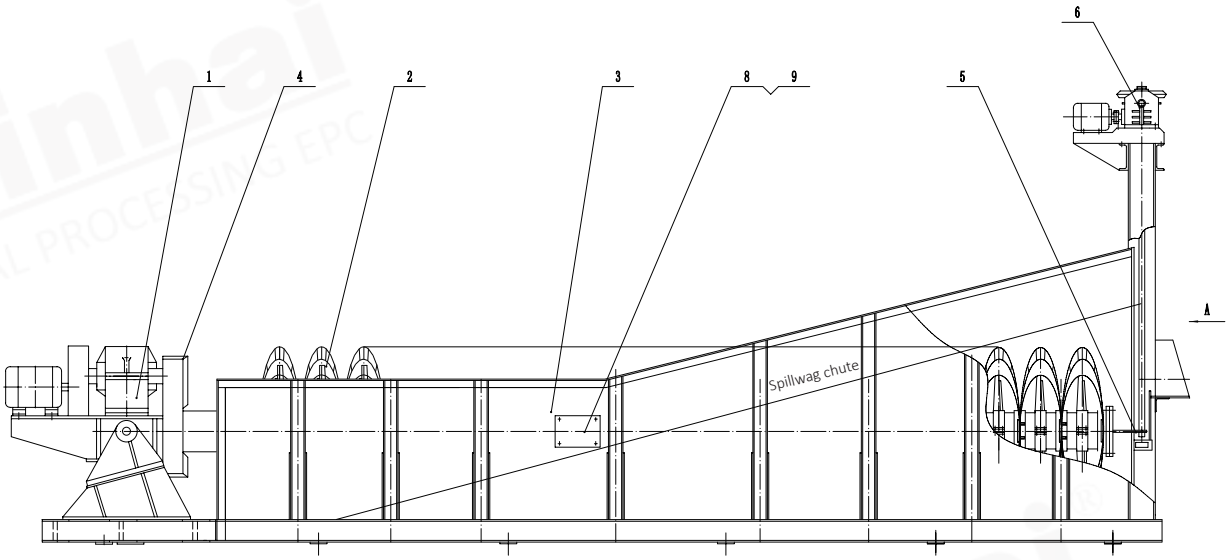
Uneven impact on large and small gear is retarded.

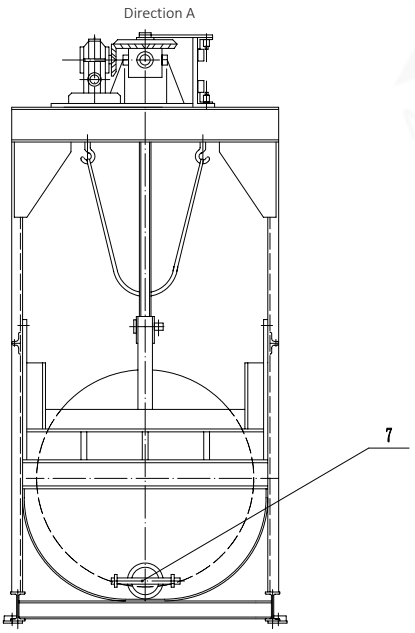
Application

Fit for fine size classification.

Technical Parameters

Type	Model	Rotating Speed of Spiral (r/min)	Capacity of Sand Return (t/d)	Capacity of Overflow (t/d)	Spiral Diameter (mm)	Spiral Length (mm)	Slope of Water Tank	Drive Motor Model	Drive Motor Power (kW)	Lifting Motor Model	Lifting Motor Power (kW)	Weight (kg)
High Weir Single Spiral Classifier	FLG-300	7.7	30~80	10-30	ϕ300	3900	14~18	Y100L1-4	2.2	Manual driven	—	668
	FLG-500	8	145~260	21-32	ϕ500	4390		Y112M-6				1600
	FLG-750	7.8	256~654	31-65	ϕ750	5500		Y132S-6	3			2716
	FLG-1000	6.7	473~1026	85	ϕ1000	6556		Y132M2-6	5.5			4000
	FLG-1200	5,6,7	1145~1600	150	ϕ1200	6500		Y132M2-6	5.5	Y90L-4	1.5	7943
	FLG-1500	2.5,4,6	1140~2740	235	ϕ1500	8265		Y160M-6	7.5	Y100L1-4	2.2	11827
	FLG-2000	3.6,5.5	3890~5940	400	ϕ2000	8700		Y160L-6/4	11； 15	Y100L2-4	3	20814
	FLG-2400	3.6	6800	580	ϕ2400	9130		Y200L2-6	22	Y112M-4	4	24194
	FLG-3000	3.2	11625	890	ϕ3000	12500		Y200L-4	30	Y112M-4	4	42188
High Weir Double Spirals Classifier	2FLG-1200	5,6,7	2340~3200	310	ϕ1200	6500		Y132M2-6	5.5×2	Y90L1-4	1.5×2	15840
	2FLG-1500	2.5,4,6	2280~5480	470	ϕ1500	8230		Y160M-6	7.5×2	Y100L1-4	2.2×2	22903
	2FLG-2000	3.6,5.5	7780~11880	800	ϕ2000	8400		Y160L-4	15×2	Y100L2-4	3.0×2	34621
	2FLG-2400	3.63	13600	1160	ϕ2400	9130		Y200L2-6	22×2	Y112M-4	4×2	42460
	2FLG-3000	3.2	23300	1785	ϕ3000	12500		Y200L-4	30×2	Y112M-4	4.0×2	73030
Submerged Single Spiral Classifier	FLC-1000	2.5~7.4	160~700	50-260	ϕ1000	8397		Y132M2-6	5.5	Manual driven	—	5225
	FLC-1200	5~7	1150~1640	120	ϕ1200	8400		Y160M-6	7.5	Y90L-4	1.5	9583
	FLC-1500	2.5~6	1140~2740	185	ϕ1500	10500				Y100L1-4	2.2	14226
	FLC-2000	3.6~5.5	3240~5940	320	ϕ2000	13000		Y160L-4	15	Y100L2-4	3	27753
	FLC-2400	3.6	6800	455	ϕ2400	14130		Y200L1-6	18.5	Y112M-4	4	32467
	FLC-3000	3.2	11650	705	ϕ3000	14300		Y200L-4	30	Y112M-4	4	43500
Submerged Double Spirals Classifier	2FLC -1200	3.8~6	1770~2800	240	ϕ1200	8040		Y160M-6	7.5×2	Y100L1-4	2.2×2	19610
	2FLC-1500	2.5~6	2280~5480	370	ϕ1500	10500						27450
	2FLC-2000	3.6,5.5	7780~11880	640	ϕ2000	12900		Y200L2-6, Y200L-4	22;30	Y100L2-4	3.0×2	50621
	2FLC-2400	3.67	13700	910	ϕ2400	14130		Y25S-4	37	Y112M-4	4.0×2	65283
	2FLC-3000	3.2	23300	1410	ϕ3000	14300		Y225M-4	45	Y112M-4	4.0×2	84900





Structure Drawing of Submerged Spiral Classifier

◎ Notes: 1. Transmission mechanism 2. Spiral
3. Sink 4. Gear guard
5. Lower bracket 6. Lifting mechanism
7. Ore discharging valve 8. Label
9. Rivet