

BF Mechanical Agitation Flotation Cell

Principle

When the impeller rotates, the centrifugal force with the action of the impeller is produced, and drives the slurry in the impeller chamber thrown around, by which the negative pressure area is formed. The air is sucked into the impeller chamber via suction pipe and center cylinder, mixing with absorbed ore slurry, and forming a large number of tiny air bubbles. After steady flow through the cover board, these bubbles are evenly dispersed in tank, forming mineral laden bubbles. Then mineral laden bubbles will rise to the foam layer, and become foam products by the scraper.



Features

The impeller composed of closed double truncated cones can produce strong lower circulation of slurry.

Large amount of air suction and low power consumption.

Each tank with triple functions of air suction, slurry suction and flotation can form its flotation circuit without any auxiliary equipment, and the level configuration is easy to change the process.

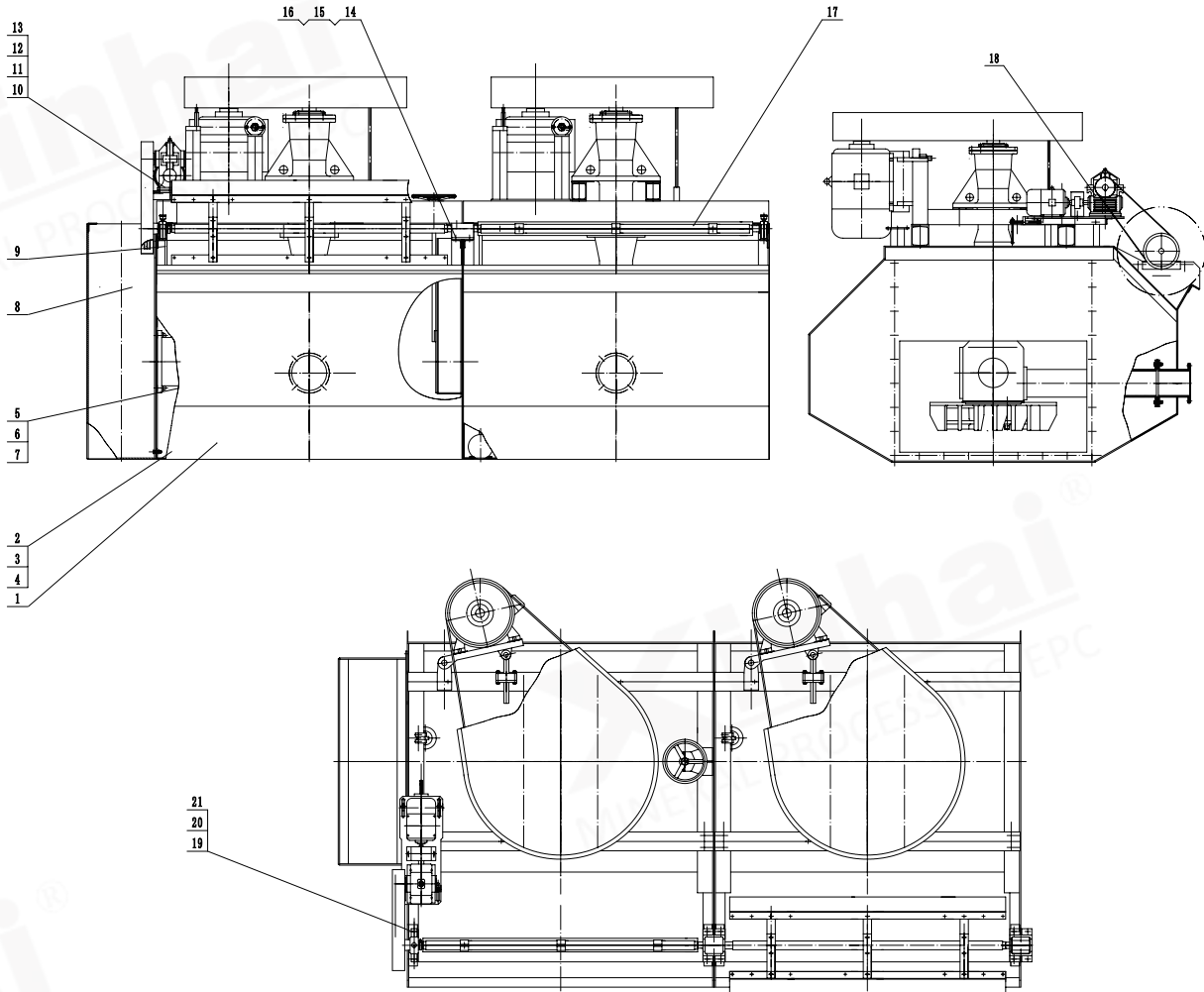
Reasonable slurry circulation can minimize coarse sand deposits.

Application

BF mechanical agitation flotation cell can be widely used in the mineral classifications of non-ferrous metals, black metals, and non-metals. It is suitable for roughing and scavenging in large and medium flotation plant.

Technical Parameters

Model	Effective Volume (m ³)	L×W×H (mm)	Impeller Diameter (mm)	Circular Velocity of Impeller (m/s)	Air Suction Amount (m ³ /m ² ·min)	Motor Model	Motor Power (kW)	Capacity (m ³ /min)	Single Tank Weight (kg)
BF-0.15	0.15	550×550×600	200	6	0.9-1.05	Y112M-6	2.2	0.06~0.16	270
BF-0.25	0.25	650×600×700	250			Y100L-6	1.5	0.12~0.28	370
BF-0.37	0.37	740×740×750	286	7.2		Y90L-4		0.2~0.4	470
BF-0.65	0.65	850×950×900	300	7.35	0.9~1.10	Y132S-6	3	0.3~0.7	932
BF-1.2	1.2	1050×1150×1100	450	7.02		Y132M2-6	5.5	0.6~1.2	1370
						Y132M1-6	4		
BF-2.0	2	1400×1450×1120	500	7.5		Y160M-6	7.5	1.0~2.0	1750
BF-2.8	2.8	1650×1650×1150	550	8.06		Y180L-8	11	1.4~3.0	2130
BF-4.0	4	1900×2000×1200	650	8		Y200L-8	15	2.4~4.0	2585
BF-6.0	6	2200×2350×1300	700	7.5		Y225S-8	18.5	3.0~6.0	3300
BF-8.0	8	2250×2850×1400	760			7.52	Y225M-8	22	4.0~8.0
BF-10	10	2250×2850×1700		850		8.7	Y280S-8 Y280M-8	37 45	5.0~10
BF-16	16	2850×3800×1700	8.0~16						8320
BF-20	20	2850×3800×2000	10.0~20		8670				
BF-24	24	3150×4150×2000	920		Y315S-8	55	12.0~24	8970	



■ Structure Drawing of BF Mechanical Agitation Flotation Cell

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| ① Notes: 1. Flotation cell component | 2. Bolt | 3. Nut | 4. Washer |
| 5. Bolt | 6. Nut | 7. Washer | 8. Feed box |
| 9. Belt | 10. Head pulley guard | 11. Bolt | 12. Nut |
| 13. Washer | 14. Bolt | 15. Nut | 16. Washer |
| 17. Scraper component | 18. Scraper transmission | 19. Bolt | 20. Nut |
| 21. Washer | | | |