



McNally Sayaji Engineering Limited

An ISO 9001:2000 Company

A Subsidiary of McNally Bharat Engineering Company Limited



MBE FLOTATION CELLS

At MBE we believe in constantly reinventing ourselves. And in line with this we are always on the lookout for new avenues and opportunities.

McNally Sayaji Engineering Limited (MSEL), with factories in Kumardhubi, Asansol, Bangalore and Baroda, is one of the country's leading manufacturers of Crushing, Screening, Milling, Material Handling and other heavy equipment, serving the core sectors of the economy. These sectors include Coal, Mining and Mineral Processing, Power, Steel, Ports, Cement, Aluminium and Non-Ferrous Metals.

The manufacturing units have ISO 9000 certification.
We have marketing and branch offices at Kolkata, Baroda, Mumbai, Kumardhubi, Bangalore, Chennai,

Secunderabad, Cochin, Nagpur, Vizag and Vijaywada. This makes us capable of comprehensive customer support at all times.

MSEL has inducted technology over the years through strategic alliances and developed focused R&D and Design & Development teams, who offer optimum and cost effective solutions to meet customer needs.



Sizes Offered

MBE flotation cells are working in almost all mineral beneficiation plants in India. We have installations over Cells. Our cells are working for almost all mineral application like Graphite, Coal, Lime stone, Iron Ore, Lead, Zinc, Copper, Sillimanite, Fluorspar, etc. MBE cells are popular because of its efficient performance, swift installation & easy operation. Our Flotation Cells are working even at overseas.....

Cell Designation	Effective Cell Volume
	m3
MB 40	38
MB 17	16
MB 8.5	8
MB 5	5
MB 3	3
MB 1.5	1.5
MB 0.5	0.5

Flotation Operation

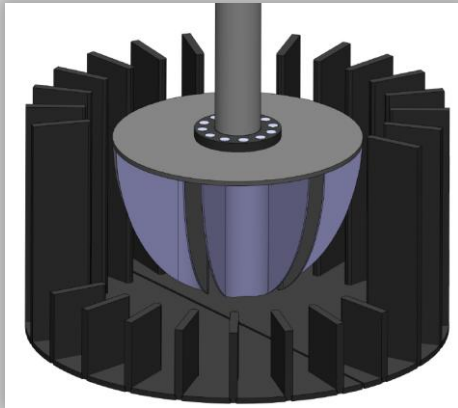
Conditioned slurry is introduced into the tank through the feed box normally by gravity. Flotation Banks will be placed at suitable relative elevations to facilitate easy gravity flow. It is envisaged that the feed distributor and flotation cell system will be installed at suitable height above the existing Flotation Cells. Flotation air is uniformly dispersed into the slurry through the slots in the rotor. Further the air bubble breaks into smaller sizes & dispersed throughout the cell which maximizes the probability of contact with particle, hence increases recovery. Air feed to the rotor takes place through the hollow lower shaft. Particles that are conditional for affinity to air rise to the surface carried by air bubbles and form a froth which flows over the forth lip provided either side of the tank through the launders.

The level control in the flotation cell is maintained automatically by an automatic level control system. The Intermediate or Discharge Boxes are supplied with 1 no. manually operated valve assembly & the other with automatic level control assembly. The automatic level control assembly has a pneumatically operated cylinder with positioner fitted to the dart valve shaft assembly which accepts the level signal from Ultrasonic level transmitter. The Ultrasonic level transmitter is installed at the preceding cell to the Intermediate and (or) Discharge Box to sense the level in flotation bank. The ultrasonic level sensor gives signal (4 to 20 m amps) to the positioner of the pneumatic cylinder to open / close by maintaining level in the flotation cell banks.

Main Features

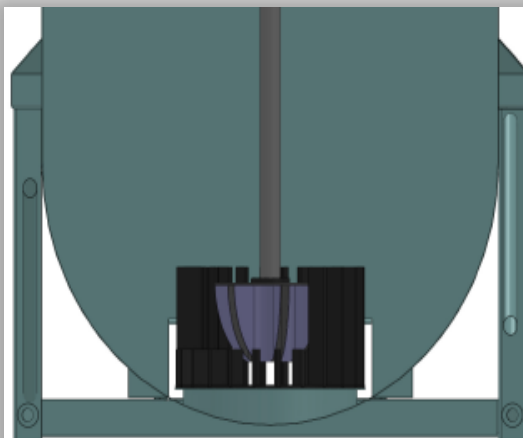
Unique Rotor & Stator Design

The MBE Flotation cell's mechanism disperses the air in the slurry and also keeps the slurry in a complete suspension by its pumping action. The mechanism consists of a rotor coupled to a hollow shaft and a stator attached to the base of the tank. The shaft is connected to a bearing unit, which is driven by an electric motor & power transmission through a V-belt drive.



'U' Shaped Tank

'U' Shaped Tank avoids sanding at the corners, maximizes utilization of the tank volume. It avoids dead zone & helps in smooth restart of the equipment.



Control of Froth Depth

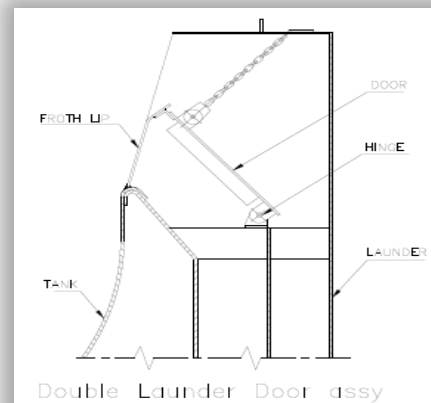
It is very important to maintain the uniform froth depth during cell operation. We provide effective froth level control system to maintain this. The operation is complete automatic & the instrument has advantage of connecting with HART communicator where you can re calibrate / change settings at field based on process requirements



Dart Valve

Froth Launder

We provide option of Single & Double Launder to have flexibility in operation. Over the period there will be change in ore characteristic & this option helps in diverting the collected froth as per the process requirement.



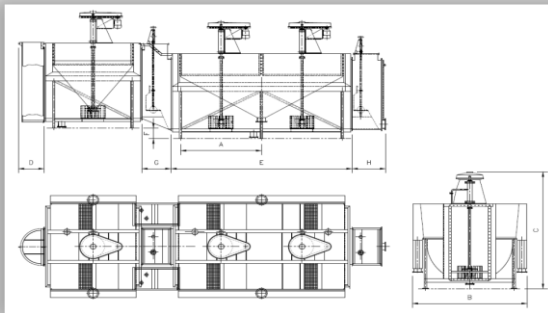
Services offered

We provide following services:

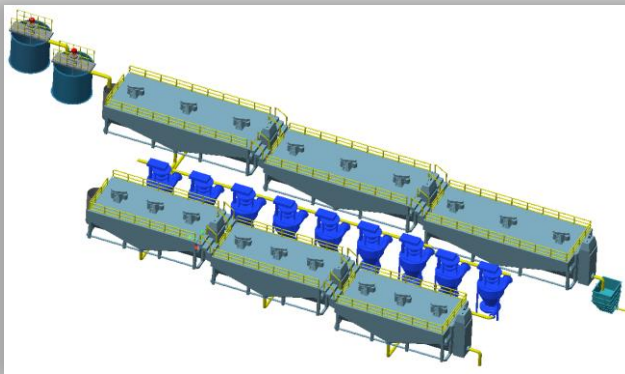
- Lab Scale & Pilot Scale Testing



- Basic Engineering, Sizing & complete Design of Flotation Plants



- Design, Manufacture & Supply 10 to 50 TPH of Skid Mounted Flotation system



McNally Sayaji Engineering Company Limited

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Crusher | Screens | Mills | Feeders | Conveyors | Port Cranes | Stacker Reclaimer | Wagon Tippler | Slurry Pump | Thickener | Pressure Vessels | Equipments for Steel, Cement, Power & Non Ferrous Metals