

# GTEK Laboratory Continuous Flotation Machine



## I Application

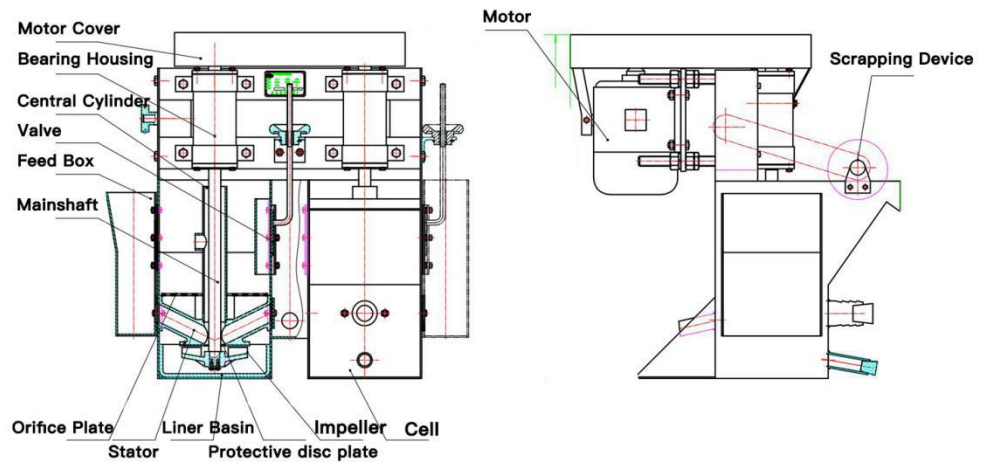
**FX mechanical agitated continuous flotation machine** is suitable for continuous flotation test or semi-industrial production test of a small amount of minerals in the laboratory by flotation method. It is made up of several units and the number of cells is even. Left feed configuration or right feed configuration is available upon request.

## II Specification

Model		FX2-1.5	FX2-3	FX2-7	FX2-12	FX2-24	FX2-39
Cell Volume (L)		1.5	3	7	12	24	39
Cell Quantity		2					
Impeller Diameter (mm)		Φ70		Φ110	Φ130	Φ170	Φ200
Impeller Speed (r/min)		1400	1332,1600,1836	1050-1320	680-1080	447-787	809
Scraper Speed (r/min)		33	20,30	20,30	24	12,16,20	13,21
Feeding Size (mm)		≤0.2					
Power (W)		250	250	370	600	1100	1500
External Size	Length (mm)	378	500	623	740	924	1081
	Width (mm)	406	500	590	600	804	762
	Height (mm)	523	600	750	700	925	930
Weight (kg)		25	40	55	85	260	280

### III Structure

FX-12 mechanical agitated continuous flotation machine is self-aspirating mechanical agitated flotation machine, Mainly composed of the following parts:



#### 1. Cell Part

The cell is a welding assembly. A cast iron liner is placed on the bottom to prevent wear of the bottom. An intermediate tank is disposed between the two tanks. The upper beam is used to mount the motor and the mainshaft bearing housing. At the bottom of the cell body and at the bottom of the intermediate tank, there is a discharge pipe for discharging the slurry when clearing the tank. A suction pipe is arranged on the front wall of the tank to facilitate the adjustment of the process.

#### 2. Main Shaft Part

The motor drives the main shaft and the impeller to rotate by means of V-belt. The outer part of the main shaft is a central cylinder, and the upper part is provided with an air suction hole, and the lower part is a three-section suction pipe for the left feed, the right feed or the front feed. The upper part of the impeller is provided with a protective disc plate. The gap between the protective disk and the impeller shall no more than 3 mm to avoid affecting the aspiration capacity. When the clearance is too large, the protective disc plate should be replaced or properly adjusted. The upper part of the three-section suction pipe is provided with an orifice plate to prevent the chaotic movement of the slurry which will affect the foam layer and to prevent the gangue from being brought into the concentrate mechanically. The middle and lower part of the center cylinder is provided with a slurry circulation hole to facilitate the thorough mixing of the slurry and the air.

#### 3. Pulp Regulator

A pulp regulator is arranged on the upper part of the feed box and the intermediate tank to adjust the slurry surface level and the thickness of the foam layer by changing the angle of pulp regulator.

#### 4. Foam Scrapping Device

The foaming scrapping device is driven to rotate by a separate drive motor to cause the foam to be scraped out along the flotation cell.