

► KYF Air-inflation Flotation Cell

The design of this type is based on Finland Autoquenpu OK floatation cell

Principle

When flotation cell is at work, the rotation of impeller makes the slurry all around via tank bottom absorbed from downside of impeller into inner-vanes of impeller, where low pressure air produced by the blower goes into via hollow shaft and the air distributor of impeller chamber at the same time. After fully mixture of the slurry and air among vanes, they are pushed out in inclined upward direction from upper half of the impeller around, and go into the tank via steady flow and orientation by the stator. Air bubbles rise to the foam stability area, and after concentration process, the foams overflow from the overflow weir into the foam tank. Another part of the slurry flows toward the lower part of impeller, then through the impeller agitation, they are mixed together to form mineral laden bubbles again, and the rest of the slurry will flow to the next tank to become tailings eventually.



Features

Cone impeller is equipped with the vanes sloping backward at a certain angle, which makes strong agitation ability and simple structure.

The impeller chamber is equipped with multi holes cylinder air distributor, which makes uniform air distribution and good mixing effect of air and slurry.

U-shaped tank and little sand sediment.

Small impeller diameter, low circle velocity, and low power consumption.

Low power consumption with 30%-50% of energy saving.

Full suspension of mineral particles and high flotation index.

Light abrasion of wearing parts and long service life.

Special Tips

Mechanical agitation, no automatic air suction, no automatic slurry suction, and ladder in necessity during operation.

It can be combined with XCF flotation cell to be a set of flotation cells as direct flow tanks.

Application

KYF air-inflation 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)	Capacity (m ³ /min)	Impeller Diameter (mm)	Impeller Revolution (r/min)	Air Pressure of Blower (kPa)	Max. Air Inflation Volume (m ³ /m ² .min)	Motor Power for Agitation (kW)	Motor Power for Scraper (kW)	Weight (kg)
KYF-1	1	0.2~1	340	281	≥ 12.6	2	4	0.75	903
KYF-2	2	0.4~2	410	247	≥ 14.7	2	5.5	1.1	1419
KYF-3	3	0.6~3	480	219	≥ 19.8	2	7.5	1.5	1885
KYF-4	4	1.2~4	550	200	≥ 19.8	2	11	1.5	2206
KYF-8	8	3.0~8	630	175	≥ 21.6	2	15	1.5	3984
KYF-10	10	4.0~10	630	192	≥ 21.6	2	22	1.5	4406
KYF-16	16	4.0~16	740	160	≥ 25.5	2	30	1.5	5900
KYF-24	24	4.0~24	800	150	≥ 30.4	2	30	1.5	7500
KYF-38	38	10.0~38	880	139	≥ 34.3	2	45	1.5	10300