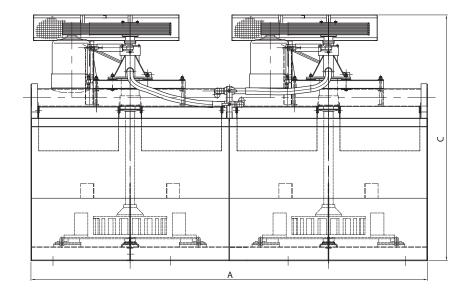
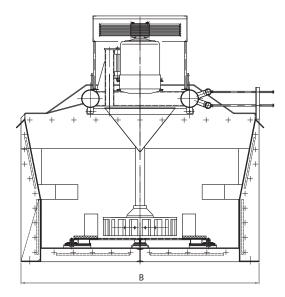


IZ FLOTATION MACHINES



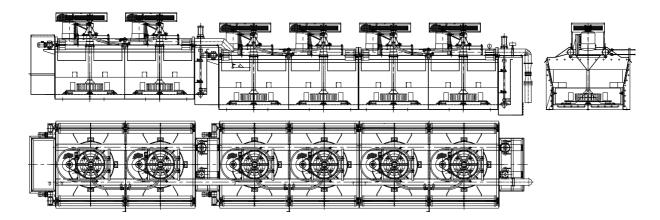


TECHNOLOGICAL AND TECHNICAL PARAMETERS

Machine type		IZ-1	IZ-3	IZ-5	IZ-12	IZ-30
	Α	2500	3400	3800	5400	7800
	В	1520	1800	2320	3240	4100
Basic dimensions [mm]	C	2050	2540	2949	3225	3780
Mounting Unit		Section 2-chamber				
Weight section [kg]		1950	2400	5000	8570	17900
Maximum number of sections mounted on one level		4	4	3	2	2
The minimum level difference [mm]		200	200	300	400	500
Number of electric motors in the		1	1	2	2	2
Electric motor power [kW]		10	18,5	18,5	22	45
Rotor speed [r / min]		160	190	190	139	110
Quantity of air to one of the [Nm ³ /min]		to 1,2	to 2	to 4	to 8	to 16
Supply air pressure [atm] Geometric shot volume		0,1	0.17	0,23	0,25	0,27
Chamber [m³]		1,1	3	6	13	30



EXEMPLARY CONFIGURATION OF IZ-TYPE MACHINES



STRUCTURE

IZ-type flotation machines were developed at the Institute of Non-Ferrous Metals in Gliwice for the purpose of conducting the process of flotation of useful minerals. The basic units of the machines include two sections of the chamber assembly, rotor mechanisms, boxes: loading, intermediate and waste and foam scrapers.

Chambers of IZ-type flotation machines in a form of respectively shaped cuboidal-type tye are made of steel. At the bottom of the chamber there is a stator. In the upper part of the chamber structure there is air collector which is at the same time the supporting element for the rotary mechanism installed in each chamber.

From the air collectors of the machines - through ball valves, rubber hoses, the rotary mechanism body and a hollow rotor shaft of the rotary mechanism - compressed air is supplied into the individual rotors. Foam scraper consists of a drive, and scrapers. The loading box is a separately mounted unit used to supply the pulp to flotation machines. Intermediate box connects two groups of machines that are set at different levels, and the waste box that is also a separately mounted unit is used mounting is used to drain the post-flotation waste.

DESCRIPTION OF THE ACTION

The feed and agents are transported to the flotation machine chambers by means of a loading box.

As a consequence of a rotary movement of rotors and air that is supplied under rotors, pulp which is in the machine chambers is subjected to agitation and subjected to aerification what creates good conditions for the flotation process and creating on the pulp surface a foam product (concentrate).

Waste flow at the bottom of the machines to the waste box, from where they are drained out via the pipeline.

Foam product (concentrate) is collected from the particular machine chambers by scrappers to gutters located along both walls of side machines from where it is drained for further processing. Work of the flotation machine is stabilized by adjusting the pulp level in intermediate boxes and in waste box and by changing the amount of air supplied to the rotors.



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