

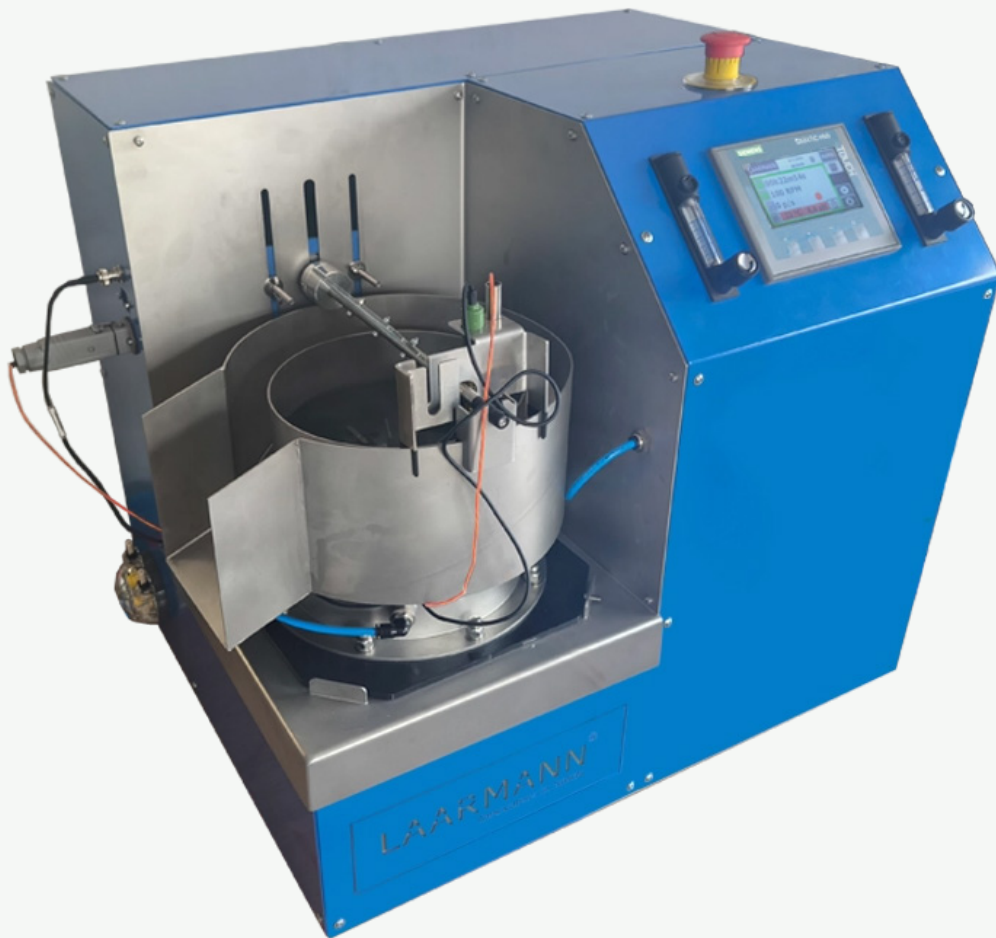
LAARMANN[®]

Innovators in Solids

Material Testing

FLOTATION MACHINE BOTTOM DRIVEN

Laboratory Flotation Test Machine



ACCURATE AND RELIABLE LABORATORY
FLOTATION TESTING WITH A BOTTOM-DRIVEN
CONFIGURATION

Features and benefits

- Digital operation and parameter control via touchscreen
- Flotation cells capacities from 0,2 - 7 Litres
- Square and round flotation cells available
- Cell materials include stainless steel, acrylic, PU-coated and PTFE-coated versions
- Stainless-steel cells and impellers available for high-temperature flotation
- Impellers and diffusers available in several materials, including stainless steel, acrylic, PU-coated and PTFE-coated versions
- Interchangeable components for flexible laboratory test configurations

Product Overview

The LAARMANN Bottom Driven Flotation Machine is a versatile laboratory system developed to provide an accurate and reliable means of reproducing flotation test results. It is particularly suited for laboratory investigations where process conditions need to be controlled and repeated consistently. The machine can be used for:

- Flotation
- Attritioning
- Blending
- Agitating

A range of impeller styles and diffuser arrangements is available, allowing the machine to be configured for different laboratory applications. Wetted metal components are manufactured from high-quality 316 stainless steel.

Control Panel

The LAARMANN Bottom Driven Flotation Machine features an intuitive touchscreen interface from which the main operating parameters can be configured and controlled. Process settings include test duration, continuous operating mode and product-specific settings, allowing test procedures to be configured for repeatable operation.

Airflow can be adjusted over two ranges, 0–10 L/min and 10–50 L/min, with individual regulators providing fine adjustment. Impeller speed is variable from 300 to 2000 rpm.

The optional froth remover can be configured with adjustable intervals or continuous operation for tests producing larger quantities of froth.

Optional pH and temperature sensors can also be integrated into the system. Pump operation can be controlled using pH, temperature or level measurements, with user-defined limits and alarm functions available for monitored parameters.

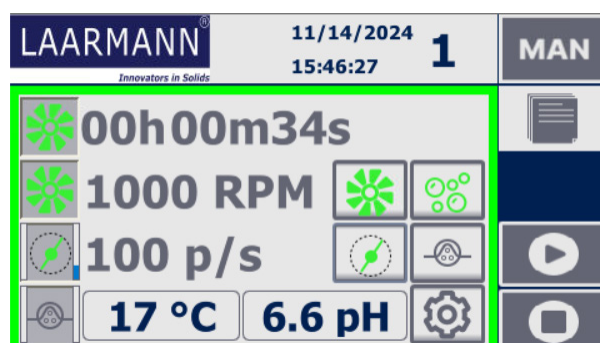
Flotation cells

The Bottom Driven Flotation Machine can be equipped with flotation cells in a range of sizes and materials to suit different test requirements. Clear acrylic cells provide good visibility of the flotation process and can be combined with 316 stainless-steel impellers.

For applications involving high temperatures or demanding attrition conditions, stainless-steel cells and impellers are available. Flotation cell capacities range from 0.2 litres up to 7 litres, providing flexibility for different sample quantities and laboratory procedures.



Bottom Driven Flotation Machine with Automatic Froth Remover, temprature meter and pH meter



Digital control panel of the flotation machine



Flotation cell rounded

Applications

The LAARMANN Bottom Driven Flotation Machine is designed for laboratory-scale flotation testing, mineral-processing research and process development.

The system can be used to evaluate mineral separation performance, investigate flotation parameters, optimize reagent dosage and reproduce selected process conditions under controlled laboratory conditions.

Its adjustable operating parameters, interchangeable flotation cells and configurable accessories make the machine suitable for research and test programs involving a wide range of mineral samples.



- Copper ores
- Lead and Zinc Ores
- Gold and Silver Ores
- Industrial Minerals

Technical specifications

Application fields	Laboratory analysis
Applications	Separation of materials, particularly minerals, by flotation of pulverized solids in liquids
Working method	Flotation, attritioning, blending and agitating
Flotation cells capacity	0,2 - 7 liters
Flotation cells and impellers material	stainles steel, acrylic, pu-coated, PTFE coated
Avialible Accessories	Froth remover, level indicator, Peristaltic pump, PH indicator
Impellers	Interchangeable
Setting adjustment method	Digital control panel
Impeller speed / Electronic digital read out	300-2000 rpm
Froth remover speed	5 - 19 rpm
Air flow setting	0 - 10 Ltr/Min
10 - 50 Ltr/Min	Weight
Power Supply	0.75kW
Electrical requirements	220-240V 50Hz (others on request)
Power Connections	1 phase
Ingress Protection rating	IP 55
Standards	CE
Weight	92kg
Dimensions (length x width x height)	490 x 642 x 580 mm