Cryogenic Grinder - Liquid Nitrogen Freezer Mill - 0.1-100 g - 5-15 Hz Impact

Model **MSGM-L200SWISS** | Brand **Master Science**







The Master Science Cryogenic Grinder freezes samples in liquid nitrogen and breaks them with electromagnetic impact, making it possible to grind materials that are too tough, elastic or heat-sensitive to mill at room temperature. A typical grinding cycle takes about 2 minutes.

KEY HIGHLIGHTS

- Grinds what other mills cannot
- Protects sensitive analytes
- Fast and repeatable
- Flexible batch sizes
- Safer operation

AT A GLANCE

0.1 to 100 g
BATCH CAPACITY

Request a Quotation
Contact us for pricing, configuration options and delivery details.

support@themsci.com
www.themsci.com

Scan to view online

Overview

Typical samples include polymers, rubber, textiles, grains, hair, nails, skin, bone and muscle tissue, as well as food, mineral, drug and plant material for DNA and biochemical work.

Browse more sample preparation equipment in the Master Science laboratory instrument range.

Overview

- Manual or automatic filling
- Level sensor with alarm
- Automatic top-up during runs

Key Benefits

Grinds what other mills cannot
the Master Science Cryogenic Grinder embrittles rubber, plastics and tissue first.

Protects sensitive analytes
frozen samples avoid heat damage.

Fast and repeatable
2-minute cycles with set frequency.

Flexible batch sizes
jars from 3 mL to 200 mL.

Safer operation
lid interlock and low nitrogen alarm.

Technical Specifications

GENERAL

Brand	Master Science
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Grinding Principle	Electromagnetic vibration impact under liquid nitrogen
Single Grinding Time	2 min
Minimum Pre-cooling Time	4.5 min
Batch Capacity	**0.1 to 100 g**
Pre-cooling Chamber	400 mL
Grinding Chamber	200 mL
Grinding Jars	4 groups of 3 × 3 mL (12 jars), 4 × 20 mL, 1 × 100 mL or 1 × 200 mL
Liquid Nitrogen Filling	Manual or automatic (option)
Control	Industrial touch screen

POWER

Impact Frequency	5 to 15 Hz
Rated Power	1.9 kW
Power Supply	220 V, 50/60 Hz

DIMENSIONS & WEIGHT

External Dimensions	510 × 440 × 450 mm
Package Dimensions	870 × 720 × 750 mm

HOW THE MASTER SCIENCE CRYOGENIC GRINDER HANDLES DIFFICULT SAMPLES	
Elastic samples smear instead of breaking	cryogenic freezing makes them brittle.
Volatile or heat-sensitive compounds lost	grinding stays at liquid nitrogen temperature.
Running out of nitrogen mid-run	level sensor and auto top-up.
Many small samples	12 × 3 mL jars per batch.

Applications

The Master Science Cryogenic Grinder is used for
Polymer, rubber and plastic analysis Animal and plant tissue for DNA extraction Cell disruption Food, drug and mineral sample preparation Textile, hair and bone samples

Grinding

- Electromagnetic impact drive
- Impact frequency 5 to 15 Hz
- Programmable pre-cooling, grinding time and cycles

Safety and Control

- Starts only with lid closed and locked
- Stops on low nitrogen to protect the coil
- Touch screen panel

Standard Accessories Included

- Grinding jars set (configuration as ordered)

Optional Accessories

- Automatic liquid nitrogen filling system
- Additional grinding jars 3, 20, 100 or 200 mL