-86°C Chest ULT Freezer 105 L and 485 L, Ultra Low Temperature Lab Freezer, -40 to -86°C

Model **MSULF86-H110SWISS,MSULF86-H490SWISS** | Brand **Master Science**











The Master Science -86°C Chest ULT Freezer stores samples at -40 to -86°C in a top-opening chest cabinet. It comes in two sizes: 105 L, holding up to 34 two-inch boxes (3400 x 2 mL samples) with optional racks, and 485 L, holding up to 300 boxes (30000 x 2 mL samples).

KEY HIGHLIGHTS

- True -86°C storage
- Easy to clean
- Stable insulation
- Protected settings

AT A GLANCE

-40 to -86°C (at ambient 10-32°C)
TEMPERATURE RANGE

105 L / 485 L
CAPACITY

Rated to reach -86°C at up to 32°C ambient.
TEMPERATURE DRIFT IN WARM ROOMS

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

support@themsci.com
www.themsci.com

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Overview

An optimised single-stage auto-cascade refrigeration system cools quickly and saves energy, while a PT100 sensor and microprocessor control hold the set temperature. The chamber and inner door are 304 stainless steel, surrounded by 100 mm of insulation.

Prefer an upright cabinet? See our -86°C Upright ULT Freezer, 338-838 L, an alternative to the -86°C Chest ULT Freezer.

Key Benefits

True -86°C storage
Reaches -86°C at ambient temperatures from 10 to 32°C.

Easy to clean
304 stainless steel chamber and inner door.

Stable insulation
A 100 mm insulation layer helps maintain low temperatures.

Protected settings
Keyboard lock with password prevents casual changes.

Technical Specifications

GENERAL

Brand	Master Science
Model Number	MSULF86-H110SWISS,MSULF86-H490SWISS
SKU	MSULF86-H110SWISS,MSULF86-H490SWISS
Capacity	**105 L / 485 L**
Temperature Range	**-40 to -86°C (at ambient 10-32°C)**
Sensor	PT100
Controller	Microprocessor
Refrigerant	R4001
Defrost	Manual
Compressor	1
Alarms	High/low temperature, sensor error
Interior and Inner Door	304 stainless steel
Exterior	Powder-coated steel
Casters	Standard
Test Hole	1 x 25 mm
Noise	50 dB / 54.5 dB

DIMENSIONS & WEIGHT

Internal Dimensions (W x D x H)	480 x 380 x 665 mm / 1455.5 x 525.2 x 674 mm
External Dimensions (W x D x H)	680 x 580 x 935 mm / 1695 x 840 x 962 mm
Net / Gross Weight	65 / 90 kg; 130 / 150 kg
Package Dimensions (W x D x H)	770 x 760 x 1040 mm / 1770 x 900 x 1100 mm

DISPLAY & DATA

Display	Digital display
Storage with Optional Racks	34 boxes / 3400 x 2 mL (105 L); 300 boxes / 30000 x 2 mL (485 L)

POWER

Power Supply	AC 110/220 V ±10%, 50/60 Hz
Power Consumption	500 W / 670 W

HOW IT HELPS PROTECT VALUABLE SAMPLES

Temperature drift in warm rooms	Rated to reach -86°C at up to 32°C ambient.
Compressor stress after outages	Restart delay protection staggers start-up.
Unauthorised setting changes	Keyboard lock and password protection.
Hard-to-clean interiors	Smooth 304 stainless steel chamber.

The -86°C Chest ULT Freezer is suitable for

- **Long-term storage of biological samples**
- **Research institutes and university laboratories**
- **Hospital and clinical laboratories**
- **Pharmaceutical and biotech laboratories**

Refrigeration and Control

- Single-stage optimised auto-cascade refrigeration for fast cooling and energy saving
- Microprocessor control with PT100 sensor
- Large digital display
- Wide voltage range, 187-242 V

Safety

- Visual and audible alarms for high/low temperature and sensor error
- Restart delay protection after power failure
- Keyboard lock with password
- Noise-reduction design
- Safety door lock

Handling

- 4 casters with brakes
- Standard 25 mm test hole for external temperature monitoring
- 304 stainless steel inner door

Standard Accessories Included

- 4 casters with brakes

Optional Accessories

- Frozen racks: 2 x (11 x 1) + 2 x (6 x 1) for 105 L model
- Frozen racks: 24 x (11 x 1) + 6 x (6 x 1) for 485 L model