Cryostat Microtome - Frozen Section Cryostat - Chamber to -50°C - 0.5-100 µm Sections

Model **MSRMT-R300SWISS** | Brand **Master Science**







The Master Science Cryostat Microtome freezes and sections fresh tissue for rapid examination. A microcomputer control panel sits on top, the freezing chamber with the microtome is in the middle, and the compressor unit is housed below.

KEY HIGHLIGHTS

- Quick return to work
- Fast freezing
- Clear view
- Flat sections
- Operator protection

AT A GLANCE

10 to -50 °C CHAMBER TEMPERATURE	**0.5 to 100 µm** SECTION THICKNESS RANGE
0 to -50 °C FREEZING SHELF TEMPERATURE	**10 to 600 µm** TRIMMING THICKNESS RANGE

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

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Overview

Dual compressors cool five points separately: the chamber, freezing shelf, knife holder, sample chuck and tissue presser. Chamber and chuck temperatures reach -50 °C, and an added semiconductor stage takes the fast-freeze position to -60 °C. Sections are cut from 0.5 to 100 µm.

The Master Science Cryostat Microtome is used for rapid frozen sectioning of human, animal and plant tissue in:

Overview

- Snap-on tissue chuck with X-axis 360° and Y-axis 12° rotation
- Handwheel locks at any point through 360°
- Chuck returns to start automatically at the travel limit
- Blade pusher and full-length knife guard

Overview

- Single-layer heated glass door
- UV disinfection
- Rubber instrument rack and waste box

Key Benefits

Quick return to work
from sleep mode the Master Science Cryostat Microtome reaches sectioning temperature within 15 minutes.

Fast freezing
18 stations plus a -60 °C semiconductor stage.

Clear view
heated glass door resists fogging.

Flat sections
anti-adhesive flattening device.

Operator protection
full-length knife guard and handwheel lock.

For paraffin work, see the Master Science fully automated microtome.

Technical Specifications

GENERAL

Brand	Master Science
Model Number	MSRMT-R300SWISS
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Chamber Temperature	10 to -50 °C
Freezing Shelf Temperature	0 to -50 °C
Sample Chuck Temperature	10 to -50 °C
Semiconductor Fast Cooling	-60 °C, 15 min working time
Freezing Stations	18
Peltier Elements	6
Vertical / Horizontal Stroke	65 mm / 22 mm
Electric Feed Speed	0.9 mm/s and 0.45 mm/s
Section Thickness Range	**0.5 to 100 µm**
Section Increments	0.5 µm (0.5-5), 1 µm (5-20), 2 µm (20-40), 5 µm (40-100)
Trimming Thickness Range	**10 to 600 µm**
Trimming Increments	5 µm (10-50), 10 µm (50-100), 50 µm (100-600)
Specimen Retraction	0 to 100 µm in 5 µm steps
Disinfection	UV
Electricity	AC 110-120 V / AC 220-240 V, 50/60 Hz

DIMENSIONS & WEIGHT

Maximum Specimen Size	55 × 80 mm
Dimensions	700 × 760 × 1160 mm
Weight	135 kg

DISPLAY & DATA	
Display	10-inch colour LCD touch screen
Languages	Chinese, English, Spanish, Portuguese

COMMON PROBLEMS AND HOW THIS CRYOSTAT HELPS	
Common Problems and How This Cryostat Helps	How the Master Science Cryostat Microtome handles frozen-section challenges:
Tissue freezing too slowly	semiconductor stage reaches -60 °C.
Sections curling or sticking	anti-adhesive flattening plate.
Condensation on the window	heated glass door.
Energy use between cases	sleep mode with fast recovery.

Applications

- **Hospitals**
- **Medical schools**
- **Forensic laboratories**
- **Animal and plant research units**

Control

- 10-inch touch screen showing section count, total thickness, retraction, temperatures, date and time
- Timed sleep mode holding the chamber between -1 and -9 °C
- Defrost function
- Temperature sensor self-check

Refrigeration

- Dual compressors cooling five points separately
- Specimen refrigeration down to -50 °C
- Semiconductor fast-cooling stage