

CR1000



CR1000 shown mounted
on MT990 Rotary
Microtome

Bring Cryo To Your Microtome With The LN₂ Cooled Cryosectioning System

The RMC CR1000 is a cryo chamber made specifically for the RMC MT990 rotary microtome. It is cooled by liquid nitrogen, to make possible sectioning of samples which are too soft to cut at room temperature. Soft polymers and rubbers are among the many samples prepared using the CR1000.

- Fully controllable temperature between -160°C and +40°C, accurate to within +/- 0.1°C to optimize conditions for each sample.
- LED backlight for rapid and secure knife alignment and approach. LED intensity can be set according to sample and operator needs.
- Liquid nitrogen reservoirs on specimen arm dippers for stable specimen temperatures and consistent sectioning.
- Improved liquid nitrogen Knife Stage cooling maintains a constant temperature during the sectioning process.
- Multiple chamber heaters and improved baffle heaters maintain a frost-free outer surface for operator comfort.
- Knife Holder stop for improved control of knife loading.
- Larger liquid nitrogen trough for improved cryochamber temperature stability.
- Improved LED illumination on the MT990 increases operator visibility in the cryochamber.
- 15L is easy to refill, and can last up to 9 hours before refill, depending on application.

Ideal tool for cryosectioning polymers, rubbers, and films for optical and FTIR transmission microscopy, as well as cryo-planing sample surfaces for AFM and SEM.

Applications cover a broad spectrum of light microscopy and scanning electron microscopy needs, ranging from:

Materials research • Forensic science • Biological applications • Product development • Product testing • Quality control

For samples requiring an inert atmosphere for preparation, the cryo chamber is flooded with gaseous nitrogen, or for specific samples, argon can be used for the cooling/atmosphere.

SPECIFICATIONS

- Section thickness: 0.25µm to 30 µm
- Cutting stroke: Motorized and manual
- Control units: Stackable for space saving and convenience
- Large chamber: For ease of specimen handling
- Removable chamber: Easily return to room temperature work
- 12 L tabletop dewar: Uses little space, easy to refill, up to 9 hours before refill
- Temperature range: +40°C to -160°C
- Temperature stability: ±0.1°C
- Knife rotation: ± 15 degrees rotation by a knob on the outside of the chamber

INCLUDES

- Knife Holders for:
 - Wet or dry cryo diamond knives
 - Glass knives from 6mm to 12mm wide
 - Triangular tungsten carbide
 - 38mm wide tungsten carbide blade
- Specimen Holders:
 - 10mm flat specimen holder for blocks and films
 - 2mm pins, 3mm pins and 6.5mm pins for mounting specimens
 - Also accommodates standard ultramicrotome holders for 8mm round and 7mm wide flat specimens

KNIFE HOLDERS AVAILABLE FOR PURCHASE SEPARATELY



SINGLE KNIFE HOLDER



DOUBLE KNIFE HOLDER



TUNGSTEN CARBIDE BLADE HOLDER

SPECIAL CONFIGURATIONS AVAILABLE - enquire with your RMC Boeckeler representative or info@boeckeler.com

The CR1000 cryo module can be configured with

- **Liquid Argon** for samples that are sensitive or reactive to Liquid Nitrogen
- **2cm x 2cm Sample Holder, stainless steel**, for larger samples
- **Tungsten Carbide Blade Holder, additional reinforcement, stainless steel, 1mm thick blade**, for cutting extra hard materials
- **Tungsten Carbide Blade Holder, additional reinforcement, stainless steel, 4mm thick blade**, for cutting extra hard materials