

# CR1000



## Bring Cryo To Your Microtome With The LN<sub>2</sub> 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
- LN<sub>2</sub> reservoirs on specimen arm dippers for stable specimen temperatures and consistent sectioning
- Improved LN<sub>2</sub> 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 LN<sub>2</sub> trough for improved cryochamber temperature stability
- Improved LED illumination on the MT990 increases operator visibility in the cryochamber
- Larger 12 L table top Dewar uses little space, is easy to refill, and lasts up to 9 hours before refill

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.

#### TECHNICAL 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

#### INCLUDED ACCESSORIES

- 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 use with  
Also accommodates standard ultramicrotomy holders

#### SHIPPING

- Dimensions: 660mm x 660mm x 660mm / 26" x 26" x 26"
- Weight: 39kg / 85lbs

#### KNIFE TYPES (SHOWN IN HOLDERS)



316995 - GLASS KNIFE



50882 - DIAMOND KNIFE



50287 - TRIANGULAR  
TUNGSTEN CARBIDE KNIFE



50288 - TUNGSTEN CARBIDE BLADE  
(BOX OF 3)

<u>PART #</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
<b>79802</b>	<b>CR1000 ASSEMBLY</b>	<b>1</b>
- 79964	Controller	1
- 79821	Cryochamber Assembly	1
- 79347	Incl Arm Assembly	1
- 79321	Incl Adapter, Arm Assembly	1
- 74310	Transfer Line Assembly	1
- 74065	Incl Fill Line Stand	1
- 74951	Transformer Pump Assembly	1
- 60454	Dewar, 12L	1
- 74257	Dewar Cap	1
- 74203	Cable, Dewar Level	1
- 284106	Cable, Cryochamber to Controller	1
- 67080	Power Cord	1
- 60453	Tubing, Tygon for Pump	6'
- 76314	Trough Cover	1
- 74322	Nitrogen Vent Hose	1
- 79406	Cryochamber Cover Assembly	1
- 79913	Instruction Manual	1
- 74208	Pump Stand	1
<b>79304</b>	<b>ACCESSORY KIT</b>	<b>1</b>
- 68882	Plastic Box	1
- 79346	Knife Holder, Single	1
- 79413	Knife Holder, Double	1
- 79355	Knife Holder, Tungsten Carbide	1
- 71292	Flat Specimen Clamp	1
- 71091	Pin Adapter, 3mm	1
- 71092	Pin Adapter, 2mm	1
- 71295	Flat Specimen Clamp, 10mm	1
- 70861	Specimen Pins, 2mm, 10pk.	1
- 70862	Specimen Pins, 3mm, 10pk.	1
- 70863	Specimen Pins, 6.5mm, 10pk.	1
- 74290	Hex Driver, 1/16"	1
- 74291	Hex Driver, 5/64"	1
- 74292	Hex Driver, 3/32"	1
- 50032	Hex Tool, 7/64"	1
- 311309	Hex Tool, 3mm	1
- 50526	Fuse, 5A, 250V, 5mm x 20mm	2
- 71130-4	6mm Glass Knife Spacer	1
- 71170-4	3mm Glass Knife Spacer	1
- 50031	5/16" Nut Driver	1
- 71220	Handling Tool	1
- 71291	Specimen Pin Mounting Disk	1
- 794426	Specimen Adapter	1