

Clini-RF Rapid Freezer

At the cutting edge of
sectioning technology

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Introduction

The Bright Clini-RF is a small, free standing, top opening, and ultra low temperature freezer. Its function is to rapidly freeze tissue specimens ready for cryotomy or for storage. Inside the Clini-RF are two cylindrical chambers, the upper chamber is held at -40°C and the lower at -80°C .

The lower chamber can be filled with 3M's Novec HFE-7100, into which specimens can be immersed. Alternatively, an aluminium block can be incorporated into which a specimen holder or chuck can be fitted. The upper chamber is used as a short term storage area for specimens after they have been initially frozen in the lower chamber.

A seven day timer can be fitted to the Clini-RF and is available as an accessory. This means that during the hours when the Clini-RF is not being used it can be run in a 'standby' mode with both the upper and lower chambers running at -40°C , thus saving power. At the start of the working day it can be switched to its normal operating mode and the lower chamber can be brought down to -80°C .

Features and Benefits

Replaces liquid nitrogen freezing systems

Replaces carbon dioxide freezing systems of all types

Offers a distinct improvement in laboratory safety

Easy to use, therefore little operator training

Upper chamber available for storage at -40°C

Hold 3M's Novec Engineered Fluid HFR-7100 for immersion of specimens

Typical tissue cooling rate of $0.5^{\circ}\text{C}/\text{s}$

Standard accessories include:

- Cryo-M-Bed
- Cooling block removal tool
- Allen key
- Spare set of fuses
- Operating manual



Specifications

Compressor type	1 x 15cc displacement (primary) 1 x 12cc displacement (secondary)
Refrigerant	primary - R404a secondary - R23
Cooling power	300 watts Main freezer at -40°C Rapid freezer at -70°C
Lowest set temperature	-43°C (preset) main freezer -83°C rapid freezer
Main freezer to -35°C	60 minutes
Rapid freezer to -80°C (Liquid bath or solid freezer block)	50 minutes - main freezer at -40°C
Fixed freezer block (optional) to -80°C	less than 30 minutes - main freezer at -40°C
Cabinet dimensions	H1000 x W450 x D500mm
Freezer dimensions	diameter 275 x depth 136mm
Rapid freezer dimensions	diameter 95 x depth 95mm
Weight:	Unpacked weight: 85Kgs Packed weight: 113kgs



The lower chamber is pictured here containing the aluminium block for quick freezing.

Ordering Information

Order Code	Description
3000-001	Clini-RF with removable block for 240V/50Hz
3000-002	Clini-RF with removable block for 110V/60Hz
3000-003	Clini-RF with fixed block 240V/50Hz
3000-004	Clini-RF with fixed block 110V/60Hz
3000-005	Clini-RF rapid freezer timer (optional feature)
/XLT	(Optional Feature) Extra Low Temperature Rapid Freezer tank to -100°C

Further information is available on request. Do you have a specific need? If so, consult us. Our equipment and production facilities are flexible and are not limited to those described in this brochure.

The Bright Instrument Company has a policy of constantly seeking improvements to its products and therefore reserves the right to change specifications without notice and to incorporate such changes as convenient during manufacture.



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