



# Leica CM 1850

The cryostat for routine histology  
and clinical pathology

*Leica*  
MICROSYSTEMS

# Ergonomic design with outstanding safety features

For 125 years Leica has been providing state-of-the-art microtome technology and this commitment is still the driving force behind our new developments. The design of the Leica CM 1850 cryostat incorporates the proven excellent features of its predecessor, the Leica CM 1800, but additional emphasis was placed on power saving, increased efficiency and operator safety. The result is a versatile cryostat with optimized cooling system, rapid specimen freezing and smooth specimen orientation for the high-quality sectioning demanded in routine histology and clinical pathology. Up-to-date technology with an ergonomic design - for quick and safe sectioning.

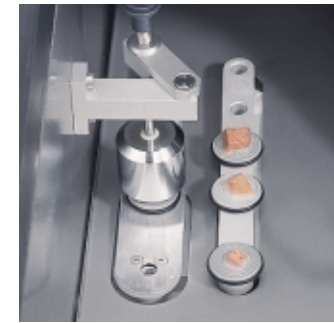


## Spacious cryochamber

The perfectly illuminated cryochamber is easily accessible through a large heated sliding window. Ample space is provided for convenient specimen handling. Smooth surfaces inside ensure safe and easy cleaning.

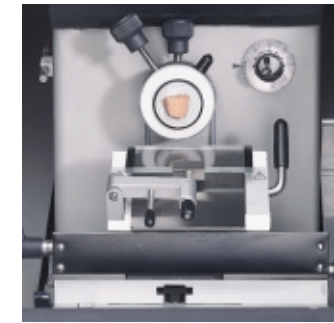
## Enhanced insulation

A new insulation technology leads to power savings of approximately 10% compared to conventional heat insulation systems. This new feature enhances the durability of the refrigerating system and ensures stable cryochamber temperatures, even when operating in unfavorable environmental conditions in the lab such as high humidity.



## Quick specimen freezing

An actively cooled freezing shelf allows extremely fast specimen freezing down to -60 °C with the Peltier unit. Manual defrosting prevents icing of the freezing shelf ensuring that it is always ready to use.



## Functional CE knife holder

The lateral displacement feature of the CE knife holder for disposable blades allows the use of the entire blade length without need to reposition the blade. A glass anti-roll guide integrated into the holder is automatically positioned with blade movement. With the new CE knife holder serial sections down to 3 µm are easily obtained.



## Easy handling and disinfection

The microtome is protected by a slot cover to allow easy and safe spray disinfection with Leica Cryofect. The smooth specimen orientation with automatic centering and zero notch features outstanding handling capabilities for fast and precise sectioning.

## Self-explanatory control panel

The control panel is divided into functional groups. Large, easy-to-read LEDs ensure ease of operation and prevent operating errors.



## Enclosed drainage system

A closed drainage system ensures that condensation and defrost fluids are collected into a container placed at the front of the cryostat cabinet allowing controlled disposal of fluids. This considerably reduces the release of germs into the air.



## Ergonomic coarse feed panel

The motorized coarse feed control is ergonomically positioned in the left arm rest. Either fast or slow specimen advance and return can be selected.



## Easy-to-service

In developing the Leica CM 1850 emphasis was placed on reliable performance and a service-friendly design. All serviceable components are easily accessible.



## At a glance...

- Chamber temperature down to -35 °C
- Actively cooled quick freeze shelf with Peltier unit for freezing down to -60 °C.
- Power-saving refrigeration system
- Splash-protected microtome
- Motorized coarse feed at two speeds
- Smooth specimen orientation with automatic centering
- Automatic and manual chamber defrost cycles
- Manual quick freeze shelf defrost cycle
- Ergonomic design with convenient foot rest
- LED
- Compact dimensions
- Efficient service and maintenance concept

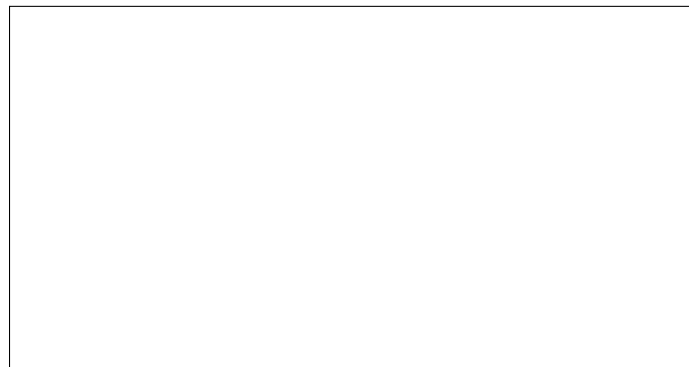
# Leica CM 1850 – Technical specifications

Section thickness setting: .....	1 to 60 µm	Chamber defrosting: .....	programmable
	0 - 10 µm in 1 µm increments		1 automatic defrost cycle/24 hours
	10 - 20 µm in 2 µm increments		duration: max. 12 min.
	20 - 60 µm in 5 µm increments		manual defrost cycle
Maximum specimen size: .....	55 mm Ø	Freeze shelf temperature: .....	down to -40 °C (± 2K)
Horizontal specimen feed: .....	25 mm	Peltier unit: .....	down to -60 °C (+ 5K) at
Vertical specimen stroke: .....	59 mm		maximum freeze shelf temperature
Specimen orientation: .....	Standard delivery	Freeze shelf defrosting: .....	manual defrost cycle
Trimming: .....	via motorized coarse feed	Cryocabinet:	
Motorized coarse feed: .....	2 speeds	Dimensions: .....	670 x 1165 x 695 mm
	rapid: 0.7 mm/s	Weight (incl. microtome): .....	131 kg
	slow: 0.2 mm/s		
Cooling capacity:		Wide range of accessories on request.	
Temperature setting range: .....	0 °C to -35 °C	Technical specification subject to change.	
Cooling down time to -35 °C: .....	3,5 hours		

The Leica CM 1850 is manufactured in compliance with the UL, CSA, IEC and VDE standards. Up-to-date development, production and quality control procedures certified under DIN EN ISO 9001 ensure highest quality and reliability.

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