H I S T O C O R E

Research Microtomes

HistoCore Rotary Microtomes - For Research, Industry & Special Applications

Leica
BIOSYSTEMS

HISTOCORE RESEARCH MICROTOMES
NEW WORLDS DISCOVERED - RESEARCH REIMAGINED

Built on 145+ years of market-leading microtomes, Leica Biosystems offers the next generation of microtomes specially designed for research and industry.

The new portfolio of Research Microtomes facilitates faster trimming with new coarse feed wheel options allowing you to customize the direction of rotation. Available with the actively cooled RM CoolClamp for non-human tissue, serial cutting is enhanced for consistent slice thickness over multiple sections.

Broaden your research with a wide selection of blade and specimen holders enabling you to discover new breakthroughs in research for biomedical to industrial applications.

TECHNICAL DATA	HistoCore BIOCUT R	HistoCore MULTICUT R	HistoCore AUTOCUT R	HistoCore NANOCUT R
Type of microtome	Mechanical	Semi Motorized	Fully Motorized	Fully Motorized
GENERAL				
Nominal supply voltages:	N/A	100/120/230/240 V AC	100/120/230/240 V AC	100/120/230/240 V AC
Nominal frequency:	N/A	50/60 Hz	50/60 Hz	50/60 Hz
DIMENSIONS AND WEIGHT				
Width (including handwheel and coarse feed wheel) Depth (including the section waste tray) Height (without top tray) W x D x H:	477 mm x 620 mm x 295 mm	477 mm x 620 mm x 295 mm	477 mm x 620 mm x 295 mm	415 mm x 620 mm x 295 mm
Weight (without accessories):	Approx. 31 kg	Approx. 31 kg	Approx. 40 kg	Approx. 40 kg
MICROTOME				
Section thickness setting range:	1 - 60 µm	0.5 - 100 µm	0.5 - 100 µm	0.25 - 50 µm
Trimming section thickness setting range:	10 µm, 30 µm	1 - 600 µm	1 - 600 µm	1 - 300 µm
Specimen feed:	Approx. 24 mm ±2 mm	Approx. 24 mm ±1 mm	Approx. 24 mm ±1 mm	Approx. 24 mm ±1 mm
Vertical stroke:	70 mm ±1 mm	70 mm ±1 mm	70 mm ±1 mm	70 mm ±1 mm
Maximum specimen size (H x W x D):	Large standard clamp: 55 x 50 x 30 mm Super Cassette clamp: 68 x 48 x 15 mm	Large standard clamp: 55 x 50 x 30 mm Super Cassette clamp: 68 x 48 x 15 mm	Large standard clamp: 55 x 50 x 30 mm Super Cassette clamp: 68 x 48 x 15 mm	Large Standard Clamp: 55 x 50 x 30 mm Super Cassette clamp: 68 x 48 x 15 mm
Unique force balance system	Yes	Yes	Yes	Yes
Specimen retraction:	Approx. 40 µm; can be turned off	5 - 100 µm in 5 µm increments; can be turned off	5 - 100 µm in 5 µm increments; can be turned off	5 - 50 µm (in 5 µm increments); can be turned off
COARSE FEED AND MOTORIZED SECTIONING SPEEDS				
Slow forward and backward speed Fast forward speed Fast backward speed (fast homing)	N/A	300 µm/s 800 µm/s 1800 µm/s	300 µm/s 800 µm/s 1800 µm/s	150 µm/s 400 µm/s 900 µm/s
Sectioning speed:	N/A (manual)	N/A (manual)	0-420 mm/s ±10 %	0-195 mm/s ±10%
Personalized coarse feed wheel	User selectable	User selectable	User selectable	N/A
Specimen orientation with zero postion horizontal / vertical rotation:	± 8°/ ± 8°	± 8°/ ± 8°	± 8°/ ± 8°	± 8°/ ± 8°
Waste tray	Standard	Standard	Standard	Standard

HISTOCORE BIOCUT R
CUSTOMIZED TRIMMING TO MATCH YOUR STYLE

HistoCore BIOCUT R facilitates faster trimming thanks to the new coarse feed wheel that lets you customize the direction of rotation. This next generation research microtome is specifically designed for serial cutting on non-human paraffin embedded tissue with the actively cooled RM CoolClamp.

FLEXIBILITY TO CUT YOUR WAY

Advance or retract specimen according to your preference by manually turning the Personalized Coarse Feed Wheel. Silent retraction produces little to no noise, allowing the user to work in a quiet environment, creating a comfortable user experience.

PREPARE HIGH QUALITY NON-HUMAN PARAFFIN SECTIONS

The RM CoolClamp keeps the block cold longer for consistent slice thickness over multiple sections of non-human paraffin embedded tissue.

HISTOCORE MULTICUT R
CONSISTENT CUTS FOR ALL YOUR RESEARCH NEEDS

HistoCore MULTICUT R is specially designed for serial cutting with the actively cooled RM CoolClamp, which keeps the block cold longer for consistent slice thickness over multiple sections.

FASTER TRIMMING

Facilitates faster trimming thanks to the new Coarse Feed Wheel. Advances or retracts the specimen according to your preference – manually turn the Personalized Coarse Feed Wheel or simply push a button to automatically turn the wheel.

REMEMBER WHERE YOU LEFT OFF

Allows you to program the Memory position – the instrument remembers the optimal specimen exchange position for your block enabling you to achieve fast and efficient trimming.
Serial cutting with the actively cooled RM CoolClamp, which keeps the block cold longer for consistent slice thickness over multiple sections.

HISTOCORE AUTOCUT R

PRODUCE QUALITY SECTIONS FROM NON-HUMAN PARAFFIN TO RESIN EMBEDDED TO THIN SECTIONING WITH OUR SPECIAL ACCESSORIES

Does your Microtome allow you to conduct a wide range of research? The HistoCore AUTOCUT R gives you the flexibility to produce sections across multiple research applications. Whether you are researching paraffin or cutting resin embedded bones or thin-sections down to 0.5 microns, you can easily select the blade and specimen holder to meet your needs and broaden your research horizons with every cut.

SELECT YOUR SPECIAL ACCESSORIES

The microtome is specially designed to adjust to your needs. Choose the TC-65 disposable tungsten carbide blade for applications as thin as 2 microns or the reusable tungsten carbide knife for slices as thin as 1 micron.

MAXIMIZE SAFETY IN THE LAB

HistoCore AUTOCUT R features a new enhanced model with an automatic electronic brake to minimize the risk of hand injury when changing the block.
As soon as you pause the automated sectioning function, the Electronic Brake kicks in immediately to return and hold the specimen in the safest position away from the blade.

HISTOCORE NANOCUT R

DISCOVER NEW BREAKTHROUGHS WITH AN ENHANCED LEVEL OF PRECISION AND VERSATILITY

When your microtomy involves diverse samples in order to discover new breakthroughs in your research projects, then NANOCUT R is the optimal solution for you.
From biomedical research to industrial applications, NANOCUT R can cut a wide range of materials you put in front of it.

PRECISE AND CONSISTENT SEMI-THIN SECTIONING

Cut sections that can be prepared for analysis in light microscopy and electron microscopy - down to 250 nm (0.25 µm, semi-thin). Preserve sample integrity when performing semi-thin sectioning with the Special Spindle and expanded Slow Speed Adjustment.

TACKLE THE TOUGHEST MATERIALS WITH A WIDE RANGE OF ACCESSORIES

Leverage a wide range of accessories available to the NANOCUT R, including holders for disposable steel and tungsten carbide blades, reusable knives, and a special holder for glass and diamond knives.

3D RECONSTRUCTION

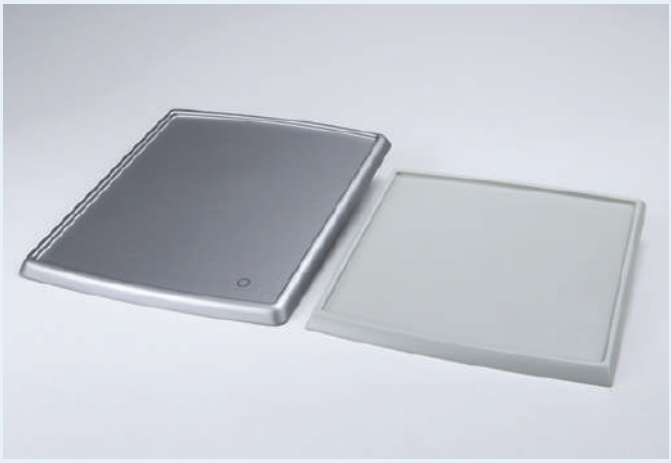
Precisely stop the sample in the object head's optimal position for photo-capture of the cut sample surface when running 3-dimensional reconstruction programs.

**Source for Featured 3D Reconstruction Content: IGBMC, PHENOMIN, iCS*

RESEARCH MICROTOMES

SAVE ROOM ON YOUR WORKBENCH – STORE TOOLS ON YOUR MICROTOME

Our new models feature 40% more surface area on top of the microtome (23.5 cm W x 27.5 cm L, vs. 21.7 cm W x 21.2 cm L on the RM2200 series) so you can store the tools you need for your job – brushes, blades, wipes, and more.

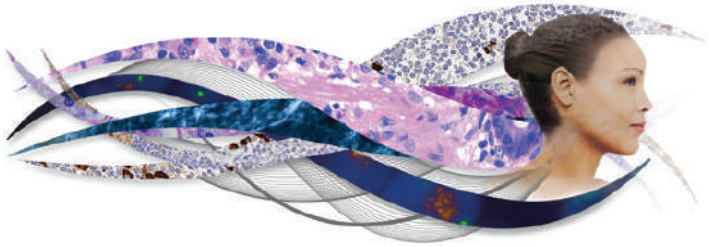


PRECISION-ORIENTATION SYSTEM

Always get back to the 0-position on the microtome. The precision-orientation system allows you to precisely position your specimen prior to sectioning.

The unique force balance system handles various block sizes as well as the cooled RM CoolClamp, which minimizes the risk of injury from an unbalanced object head.

Leica Biosystems is a cancer diagnostics company and a global leader in workflow solutions, offering the most comprehensive portfolio from biopsy to diagnosis. Our mission of "Advancing Cancer Diagnostics, Improving Lives" is at the heart of our corporate culture. Our easy-to-use and consistently reliable offerings help improve workflow efficiency and diagnostic confidence.



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