Technical data/accessories

Technical data HM 520 / HM 525
Open top model.
Cryostat housing can be moved by means of steering rollers that can be fixed.
Retractable handle on the front side of the cryostat for easy transportation.
Spacious stainless steel cryo chamber with even surfaces and drain system, easy to clean and disinfect.
Temperature control of the cryo chamber continuously from +5° to -30°C (HM 525: +5° to -35°C).
Storage possibility for labelled slides as well as for staining cuvettes on top of the cryostat.
Large storage shelves inside the cryo chamber for additional chucks and heat extractor.
Electronical control via touchpad keyboard for the setting of all parameters, e.g. section thicknesses and temperatures.
Indication of preset and actual temperature.
Programmable „memory" function for the fast, automatic finding of the first cut position.
Automatic 24h-defroster with additional interrupt key.
Active fast freezing device with max. 27 stations down to -35°C for the storage of chucks (4 Peltier supported stations up to -60°C on HM 525).
Heated sliding window.
Removable section waste tray and brush shelf.
Cold-light lamp for cryo chamber with separate on/off switch.
Rotary microtome with backlash and maintenance free cross roller bearings in stainless steel with slot cover.
Specimen retraction during return travel.
Feed system via precise stepping motor technology.
Settings from outside via ergonomical touchpad keyboard.
Section thickness setting from 2 µm up to 500 µm (1 µm up to 500 µm on HM 525), divided into fine section thicknesses and trimming thicknesses.
Section thickness setting of the fine sections from 2 up to 22 µm up to 10 µm in 1 µm-increments from 10 up to 22 µm in 2 µm-increments. (HM 525: from 1 up to 20 µm up to 10 µm in 1 µm-increments, from 10 up to 20 µm in 2 µm-increments). Section thickness setting of trimming sections from 10 up to 500 µm from 10 up to 80 µm in 10 µm-increments up to 300 µm in 50 µm-increments up to 500 µm in 100 µm-increments
Horizontal feed range 28 mm.
Vertical specimen stroke 60 mm.
Motorized coarse feed.
LED-display for section counter, sum of section thicknesses and remaining travel for front end position.
Specimen orientation in X/Y-axes 8° in either direction and specimen rotation on Z-axis.
„Zero positioning" of the chuck for easy parallel alignment of the chuck towards the blade.
Max. specimen size 70 x 55 mm.
Smooth running handwheel that can be locked.

Dimensions: (W x D x H): 640 x 760 x 1200 mm
Weight: 147 kg

Additional storage unit for chucks
Inside the cryochamber, this accessory serves as an additional storage unit for six chucks. Outside the cryochamber, the storage unit is used for detaching the tissue specimens from the chuck.

Neg –50 Cryomedium
Using the freezing medium Neg –50, the automatic approach can be carried out down to a specimen temperature of –50°C.

Disposable blades
SEC 35 blades are made of high-quality steel and coated with a unique, newly developed layer allowing for longevity of the knife at best cutting results.

Anatomical Pathology

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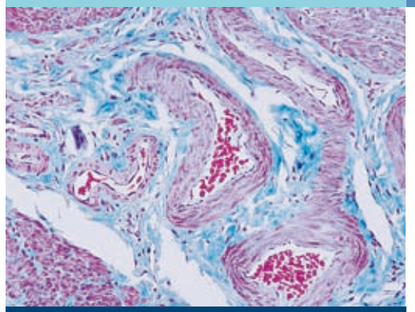
Thermo Scientific Microm HM 520 / HM 525 Routine cryostat



Simply perfect

Efficient routine and Mohs cryostat

*Accessories not included.

HM 520 / HM 525 Routine cryostat

The cryostat HM 520 / HM 525 combines a maximum of user benefit with highest operator comfort. Again we dedicated our special attention to the operator comfort of this Microm cryostat resulting in ergonomically shaped surfaces and intuitively comprehensible operating elements. The introduction of the stepping motor technique into this instrument class now allows reproducible as well as excellent sectioning results also in the histological/pathological routine. The below-mentioned features of the HM 520 / HM 525 will guarantee the fast and uncomplicated creation of sections also in your lab.

Stepping motor technique for lasting reproducible section thicknesses

The reproducibility of the section thickness is a principal domain of the HM 520 / HM 525 and cannot be achieved without stepping motors.

The use of stepping motors in this market segment sets new standards concerning operator safety. Section thicknesses are set outside the chamber via the keyboard without having to reach into the potentially infectious cryo chamber over the knife.

In addition, this technology allows the indication of the number of sections, the section thickness sum and the remaining sectioning travel on the display.

Highest operator comfort and user benefit

To gain an optimum of operator comfort and user benefit for the HM 520 / HM 525 has been our utmost goal.

Fast freezing device with max. 27 positions

Due to the large number of fast freezing stations up to 27 pieces of tissue can simultaneously be frozen very fast. If there is a very a high amount of specimens to be processed, the time-consuming freezing of the specimens „one after the other“ can be avoided.
HM 525 with 4 Peltier supported stations, up to -60°C for even faster freezing.

Memory function

With the memory function it is possible for the operator to automatically approach the specimen towards the knife. This process can be programmed and the first cut position can be found again rapidly.

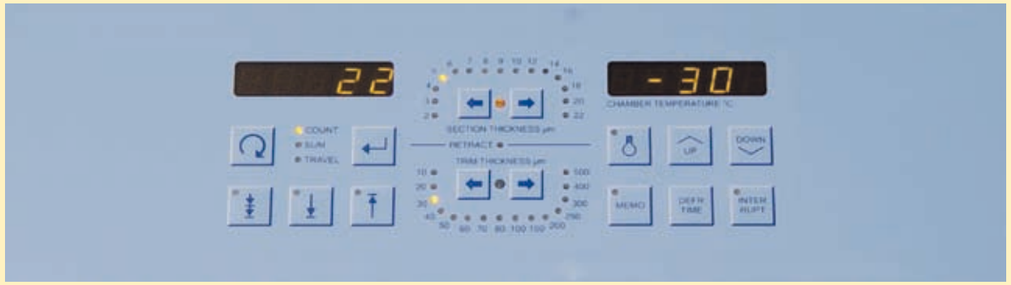
Keyboard and operation

Most simple operation of the instrument due to logically arranged, easy-to-clean keyboard and display for the indication of relevant data. Self-explanatory setting of all instrument functions.

Specimen orientation with „zero“ positioning

In the zero position, the specimen orientation automatically locks into place. The surface of the chuck is aligned parallel in x- and y-axes towards the horizontal specimen stroke.

This easy and uncomplicated specimen orientation allows the fast orientation of the specimen in relation to the knife.



Ergonomy and design

The ergonomical design allows for a non-tiring and fast operation both while sitting or standing.

The front area of the cryostat hood has a recessed surface for labelled slides that can be put down here in a row. A recessed storage surface on top of the cryostat hood offers a safe and space-saving positioning of staining kits.

Operator safety and cleaning

Operator safety and easy cleaning have been very important features when designing the cryostat. The handwheel brake is integrated into the handwheel. The spacious cryo chamber is made of stainless steel that can easily be cleaned. The microtome is protected against debris via close-fitting stainless steel plates.

Large brush shelf and divided section waste tray

All necessary tools such as brushes, tweezers etc. can be stored in the large brush shelf. The divided, easily removable section waste tray is integrated below the blade carrier and/or specimen.

Drain system with spacious container

The cleaning and disinfection liquids of the cryostat as well as the defrost water are collected in the easily removable, spacious container.

Disposable blade carrier EC 70

With this new blade carrier for disposable blades, larger specimen sizes can be sectioned. This is supported by the special coating of the anti-roll plate. It has an anti-static coating on its bottom side and an anti-reflecting coating on its upper side. The anti-static coating supports the gliding of sections underneath the plate. The anti-reflecting coating allows the evaluation of the section when it is created underneath the plate. The length of the glass anti roll plate is 70 mm.

Handle for transportation or movement purposes

The retractable handle is integrated in the front area of the cryostat. Via this handle, the instrument can easily be transported on its smooth running rollers.