

H/B Hacker-Bright 8250 & 9400 Cryostats

Cryostat Microtomes for Large Area Sections



The use of cryostat microtomes to prepare frozen sections for microscopy is widely known. Hacker-Bright has been specializing in this field for more than 30 years. But for some applications these cryostats are simply not large enough or powerful enough. It is for these cases that the Hacker-Bright 8250 and 9400 Cryostats have been developed.



FEATURES 8250 CRYOSTAT

- * High precision research instrument for specimens up to 250mm long
- * Fitted with Hacker-Bright 8000 retracting sledge microtome
- * Full range of microtome controls
- * Heated window for clear viewing
- * Microtome chamber made of polished stainless steel
- * Ridged polyurethane foam insulation allows low temperatures to be maintained
- * Hermetically sealed dual refrigeration system giving fast cool down times and maintaining low temperatures even at ambient
- * Cabinet constructed from Stelvetite, a steel sheet material with a permanently-bonded PVC surface to resist scratches, solvents and acids

FEATURES 9400 CRYOSTAT

- * Very large area sections up to 400mm long
- * Hacker-Bright 9000 microtome installed for extreme rigidity and cutting power
- * Electro-linear motor drive
- * Knife retraction (optional)
- * Comprehensive control with several options
- * Hermetically sealed dual refrigeration system
- * Defrost delay for section drying
- * Quick-release specimen holder
- * Twin turret knife holder
- * Photo-electronic device for knife guarding (optional)
- * Cabinet constructed from Stelvetite
- * Electro-mechanical interlocked system fitted
- * Debris collector and vacuum extractor (optional)

The most usual application for the 8250 and 9400 is whole-body autoradiography (WBA), which is used to trace radio-labeled drugs or other compounds in the frozen bodies of test animals. The cryostat enables researchers to accurately cut thin sections through the whole length of the test animals at different levels. The sections are collected on wide adhesive tape, then transferred to X-ray film. After a suitable exposure period, the film is developed and compared with the original section so revealing the site of deposition of the test compound.

There are many other uses of these large cryostats. In the field of anatomy training, it is possible to prepare sections of different layers of a joint (for example) and use these to aid interpretation of tomographic scans.

Outside the biological field, these instruments are used by material scientists to cut cut objects as diverse as electrical insulation, timber and plastic automobile chassis joints.

MICROTOMES

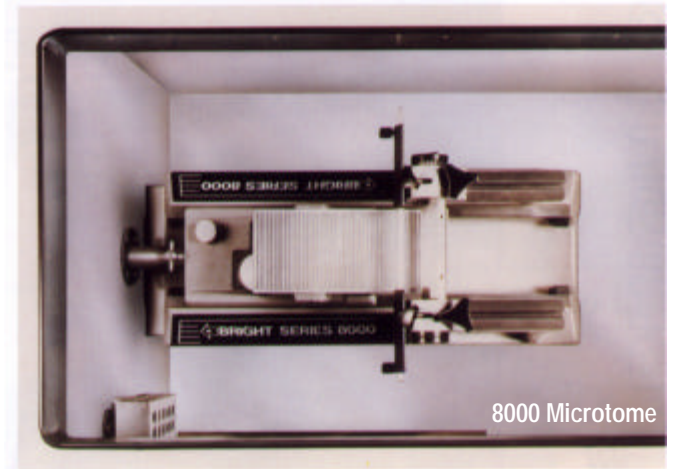
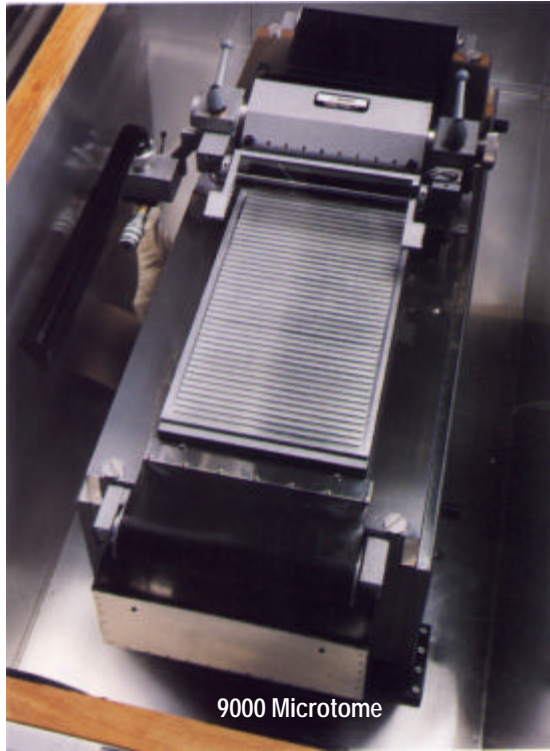
The design of the 8000 microtome knife support pillars is such that they may be reversed to provide greater clearance for larger blocks. In their normal position blocks up to 110mm wide may be accommodated but when reversed the block width may be increased to 170mm. Substantial knife clamps provide considerable knife rigidity with the dual facility of both angle tilt and slew, and spacers are available to raise the height of the knife.

The 9000 microtome has been specially designed to meet the exacting criteria of **whole bode sectioning**. Constructed of stainless steel and other non-corroding alloys, the powerful motor drive provides a smooth and positive cutting action.

EASE OF USE

Although these instruments are both powerful and large, careful design has resulted in a user friendly control system which makes setting up and section cutting a straight forward procedure. The electronic control panel allows the operator to select single or continuous cutting, pause, emergency return, cutting speed, section thickness as well as temperature setting.

The full cutting stroke of the microtome can be utilized to accommodate the broadest range of specimen sizes.



SPECIFICATIONS

FEATURE	MODEL 8250	MODEL 9400
MICROTOME Maximum specimen length, mm Maximum specimen width, mm Maximum specimen depth, mm Section thickness range, Fm Cutting speed range, mm	250 110 (standard) 170 (optional) 45 0 - 40 0 - 50	400 250 100 1 - 99 0 - 80
DUAL REFRIGERATION Compressors Minimum temperature, ° C	2 -30 at 25° C ambient	2 -30 at 25° C ambient
CABINET Dimension, l x w x h, mm	1675 x 556 x 580	2750 x 850 x 965 overall
PACKING Gross weight, kg Total volume, m ³	420 2.1 (1 crate)	600 3.5 (3 crates)

STANDARD EQUIPMENT

Model 8250	Cryostat cabinet with Hacker-Bright 8000 microtome, knife holder with guards, standard steel knife (with box), stainless steel embedding mould, dual refrigeration system, electronic control console, object stage 250 x 110mm, knife cleaning brush, low temperature oil and grease, roll of special tape 6m x 50mm, Allen keys, instruction manual.
Model 9000	Cryostat cabinet with Hacker-Bright 9000 microtome, twin turret knife holder with guards, tungsten carbide tipped knife (with box), object stage 400 x 250mm, stainless steel embedding mould, dual refrigeration system, electronic control console, auto defrost system, raised temperature alarm, knee switch, freezing tongs, dehydration set, dusting brush, low temp oil and grease, roll of special tape 6m x 50mm, Allen keys, instruction manual.

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