

Vibroslice Automatic Tissue Slicers

Vibrating Microtomes 5100mz, 5100mz-Plus & 7000smz-2

British designed and manufactured vibrating tissue slicers that will cut 50 to 700µm sections of fresh, unfixed tissue for in vitro recordings, tissue culture and microassay work. They can cut fixed material down to 20µm without previous embedding or freezing.



5100mz

The 5100mz, 5100mz-Plus and 7000smz-2 are very competitively priced, high precision, vibrating microtomes. Tissue sectioning is made easy for the expert and beginner alike with a z-axis deflection of only 1-2 microns, and a blade advance controllable to 10µm/sec. Sectioning for visual patching of neurological tissue, heart and lung have all been published using the previous generation of "Integralslice" machine from which the new instruments represent a significant advance in higher precision at lower cost.

A completely new design of vibrating mechanism, with near silent operation and wider amplitude and speed ranges, gives the 5100mz and 7000smz-2 much higher performance and long term reliability whilst keeping to a low cost. The user interface is completely new and extremely simple. Slicing begins at the touch of a button and a menu enables the setting of your own preferences. With the exception of 5100mz all the models include the OptiCal Z-axis deflection device which guarantees the accuracy of the Z axis movement and is traceable to National Standards.



7000smz-2

7000smz-2 shown with optional illuminator

Cooling is by either an ice-water bath or an electronically controlled thermo-electric cooler. Supplied as standard with all Vibroslice machines is an autoclavable tissue bath, two autoclavable tissue mounts (one fixed, one adjustable), an outer ice bath and a pack of blades. Other options include the cold light and magnifier or stereo binocular for clear observation whilst slicing.

- Includes a z-axis calibration unit
- Z-axis blade adjust minimizer
- Blade holder angle to user requirement
- Set start and stop position from blade travel
- Vibration speeds from 50 to 120 Hz
- Amplitudes from 0.5mm to 2.5mm
- Controlled blade advance at 10microns per sec.
- Manual or automatic operation
- "Auto" programming by storage of the first slicing
- Ice water bath easily removed for cleaning
- Optional LED light and scope for clear observation

V106 Vibrating Microtome 5100mz **V106/A** Vibrating microtome 5100mz-Plus
V107 Vibrating Microtome 7000smz-2



shown with optional Scope and Cold Light

Vibrating Microtome 7000smz-2

Vibroslice Accessories

All Vibroslices are fitted with cutting heads and tissue baths that can be removed and sterilised by autoclave.

B294 100 S/S injector blades in safety holder for Vibroslice
B294/RF 100 blade refill for B294 (return to TAAB for loading)
B406 Injector style single edge blades PTFE coated pack of 20

Automatic temperature controlled cooling and heating modules for the tissue bath available - please ask for quote for your application

Vibroslice Specifications

	5100mz	5100mz-Plus	7000smz-2
Section thickness step size	1µm	1µm	1µm
Z axis deflection	5-8µm (2µm ± 0.1 with calibration upgrade kit)	1-2µm	sub micron
Max. specimen size	33x15x19mm	33x15x19mm	33x15x19mm
Blade oscillation frequency range	50-80Hz	50-80Hz	50-120Hz
Blade oscillation amplitude	Min 0.5mm Max 1.5mm	Min 0.5mm Max 1.5mm	Min 0.5mm Max 2.5mm
Amplitude step size	0.5mm	0.5mm	0.25mm
Specimen retraction on return stroke	Yes	Yes	Yes
Memory to store section thickness	Yes	Yes	Yes
Total vertical travel of bath table	19mm	19mm	19mm
Multiple user settings	8 different	8 different	8 different
Bath table rise & fall speed	0.85mm/sec max	0.85mm/sec max	0.85mm/sec max
Cutting head speed resolution	0.1mm/sec	0.1mm/sec	0.01mm/sec
Cutting head retraction speed	2.0mm/sec	2.0mm/sec	4.0mm/sec
Blade oscillation frequency	50Hz to 120Hz	50Hz to 120Hz	50Hz to 120Hz
Dimensions less peripherals mm	H 350 x W 350 x D 450	H 350 x W 350 x D 450	H 270 x W 410 D 400mm
Automation	Manual or Semi-Auto, 'Slice Repeat'	Manual or Semi-Auto, 'Slice Repeat'	Manual, semi-auto, 'Slice Window' or fully auto 'Profile Repeat'
Cooling options	Ice bath or Peltier cooler	Ice bath or Peltier cooler	Ice bath or Peltier cooler
Power requirements	230v 50Hz or 115v 150v Hz	230v 50Hz or 115v 150v Hz	230v 50Hz or 115v 150v Hz

Replacement Blades for all Tissue Choppers

- B294** 100 S/S injector blades in safety holder
B294/RF 100 blade refill for B294 (return to TAAB for loading)
B581 Sapphire blades (each). See also page 12.16 for more details
 Blades can be resharpened
B406 Injector style single edge blades PTFE coated 38mm wide x 8mm high x 0.25mm thick (cutting edge 36.8mm long) pack of 20



B406 PTFE coated blades