

Vibroslice® Tissue Slice System



This Vibroslice® tissue slice system is offered in two models: hand advance and motorized advance. The hand advance model provides complete control during sectioning. It is recommended for use in producing a small number of sections or for use on tissues with differing mechanical properties. The motorized advance model allows control of the advance speed of the tissue to be sectioned. It is set on a rotary dial and activated by depressing the control switch on the front panel. This model is recommended for use in cutting serial sections for reconstruction or for producing multiple sections. Both models can be fitted with a holder and a cutting head which are removable for autoclaving. Blade displacement is 1 mm nominal.

- Economical and easy to use
- Sealed unit avoids damage from spillage
- Easy maintenance
- Available in motorized and manual versions
- High blade speed — up to 4500 rpm
- Blade angle variable through 90° from horizontal to vertical
- Optional removable autoclavable tissue bath and cutting head

Both the hand advanced and the motorized advance Vibroslice® tissue slice systems use a horizontal vibrating blade technology to cut 50 to 700 micron sections of fresh, unfixed tissues for in vitro recordings, tissue culture and microassay work. They can also be used to section fixed tissue down to 20 microns without previous embedding or freezing. Its superior performance will section tissue, such as brain stem and liver, maintaining the integrity of surface cells for recording. The lateral vibrating blade technology slices tissue without the traumatic damage of other methods. The blade oscillates at a fixed lateral displacement of 1.0 mm at a frequency set by the user and then actuated by a footswitch leaving both hands free during operation.

The Vibroslice® is designed to be flexible with a removable tissue-holder and bath. There is also a range of accessories and consumables including autoclavable cutting heads and tissue baths. All models are supplied with a standard tissue bath and holder and 10 stainless steel blades. The remote motorized advance Vibroslice® was designed especially for working with sterile sections and hazardous tissues such as those containing Prions or rabies infection. The cutting head, tissue bath and drive mechanisms are operated on an umbilical from the control box and thus can be placed inside a controlled environment. The tissue bath and cutting head can withstand autoclaving. The optional Peltier cooling unit enables the cooling of physiological fluid and tissue from normal room temperature to freezing point in approximately 10 minutes. The cooled bath fits onto the Vibroslice® exactly as the standard bath and takes its power from the control unit.

Specifications

Section Thickness:	
Minimum	20 µm fixed tissue/50 µm fresh tissue
Maximum	700 µm
Step Size	5 µm
Chamber Dimensions	55 x 82 x 31 mm (2.2 x 3.2 x 1.2 in)
Chamber Volume	140 ml
Bath Advance	Manual feed for manual Vibroslice®, continuously variable feed in motorized Vibroslice®
Bath Reverse	Manual speed for manual Vibroslice®, fixed speed in motorized Vibroslice®
Vibration Speed	User adjustable
Blade Displacement	1 mm nominal