Cell MicroControls
Norfolk, VA 23509
Tel: (757) 622-0261
Fax: (757) 622-0262
WWW: http://www.cellmc.com; Email: info@cellmc.com
Equipment for cellular & electrophysiology research

Brain slice chambers

BT-1xxxSY/LN/Sci Brain slice chambers

The **BT-1xxxSY** brain slice chambers fit into the **Siskiyou Inc. 8090C** stage as well as our MSAS-xxx Stage adapters. Some are also available for the **Luigs & Neumann** (**LN**) stage and **Scientifica** (**Sci**) stages. These slice chambers all have inflow and outflow via a slit to promote laminar flow for flow rates up to 2ml/min (4ml/min for larger chambers). They come either with a smooth top or with a machined recess allowing electrode access at low angles.

Typically a transparent ITO heater (eg. **HI-25Dp**) will be used to directly heat the chamber from below. Perfusing solution is heated with the **HPRE2** Pre-heater connected to the inlet tube. Chambers have a thermistor groove to allow permanent placement of the thermistor sensor for measurement/control of the chamber temperature. Ground wires can either be placed in the outflow area or in the main working area to the side of the slice.

Superior flow pattern

Turbulence in solution flowing through chambers can create regions with non-uniform drug concentrations. Our chamber designs demonstrate a predictable laminar flow pattern as in the example below.

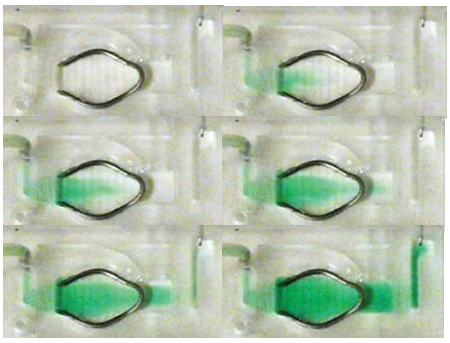


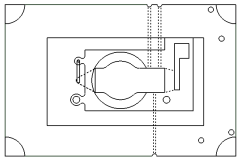
Fig 1. shows dye containing solution flowing into **BT112B-45SY** fitted with a Warner Instruments, Inc 12mm harp (eg. SHD26H/10). Typical laminar flow pattern for solution front.

Customization

Please call with any questions about modifying the chambers. We can for example vary the angle of the bevelled area to suit your lens or for example adapt a chamber for use with another microscope stage (see Fig. 2). With our advanced CAD/CAM software we have designed many chambers and can usually modify current chambers at no extra cost.

Fig 2. **BT-1-TB** chamber adapted to Luigs & Neumann stage.

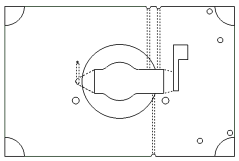
BT112B45/SY/Sci/LN



Application: brain slices-low electrode angles

- size platform 7.4 x 4.9 x 0.5cm
- size central chamber: 12.7mm dia; 1mm lower level; 3.2mm height; 42° bevel
- outflow chamber, ground & thermistor groove
- constructed of polycarbonate
- compatible with **HI-24p,HI-25Dp**
- compatible with **12mm** harp (Warner Instruments, Inc SHD-26/xx)

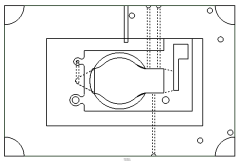
BT112B37HSY



Application: brain slices

- size platform 7.4 x 4.9 x 0.5cm
- size central chamber: 12.7mm dia; 1mm lower level; 5mm height; 37° bevel
- outflow chamber, ground & thermistor groove
- constructed of polycarbonate
- compatible with **HI-24p,HI-25Dp**
- compatible with **12mm** harp (Warner Instruments, Inc SHD-26/xx)

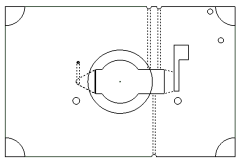
BT113B45/SY/Sci/LN



Application: brain slices-low electrode angles, 12mm cover slides

- size platform 7.4 x 4.9 x 0.5cm
- size central chamber: 14.3mm diam; 1mm bottom height; 3.2mm height; 45° bevel
- outflow chamber, ground & thermistor groove
- constructed of polycarbonate
- compatible with **HI-24p,HI-25Dp**

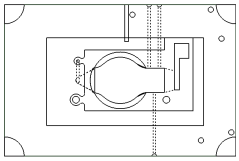
BT113B45HSY



Application: brain slices-12mm cover slides

- size platform 7.4 x 4.9 x 0.5cm
- size central chamber: 14.3mm diam; 5mm height; 45° bevel
- outflow chamber, ground & thermistor groove
- constructed of polycarbonate
- compatible with **HI-24p,HI-25Dp**

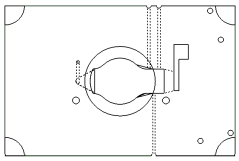
BT115B45/SY/Sci/LN



Application: brain slices-low electrode angles,

- size platform 7.4 x 4.9 x 0.5cm
- size central chamber: 15.2mm diam; 3.2mm height; 45° bevel
- outflow chamber, ground & thermistor groove
- constructed of polycarbonate
- compatible with **HI-24p,HI-25Dp**
- compatible with **15mm** harp (Warner Instruments, Inc SHD-26G/xx)

BT115B45HSY



Application: brain slices

- size platform 7.4 x 4.9 x 0.5cm
- size central chamber: 15.2mm diam; 5mm height; 45° bevel
- outflow chamber, ground & thermistor groove
- constructed of polycarbonate
- compatible with **HI-24p,HI-25Dp**
- compatible with **15mm** harp (Warner Instruments, Inc SHD-26G/xx)