

## Delta T Hinged Perfusion Adapter Set Instructions

The Bioptechs Hinged Perfusion Supports provide Delta T users with a convenient and inexpensive method of supporting perfusion needles in the culture dish. A typical application is to maintain low volume perfusion over cells during long-term experiments. Perfusion supports are sold in pairs, one hinge and needle is for irrigation, the other is for aspiration. The balance between irrigation and aspiration can be maintained continuously with the use of the Delta T Micro-Perfusion Pump\*. Additional supports can be added to hold gas jets, pH probes, cooling apparatus, or other items which do not require critical positioning.

### Benefits:

- Needles compatible with 1/16" tubing
- User adjustable friction for reliable positioning
- Repeatable positioning, flips in and out to replace dishes
- Adjustable pick-up tube to control level of media in dish\*
- Perfusion assembly translates with the stage adapter and dish
- Eliminates the need for expensive micromanipulators for low precision positioning

\*Bioptechs recommends the use of the Delta T Micro-Perfusion Pump for closely regulated perfusion.

### Instructions:

Press fit the 1/8" ends of the hinge adapter into the stage adapter. Adjust the tension of the hinge with the 5/64" Allen driver provided. The hinge can be rotated or adjusted up and down as needed. Press tubing onto the 14 gauge needles and attach to fluid irrigation and aspiration as noted below.

### Continual Delta T Perfusion with the Delta T Micro-Perfusion Pump:

The Delta T Micro-Perfusion Pump is shipped with dual channel tubing. When the tubing pair is stretched around the rollers on the pump, the tube with the black band will have a slightly smaller ID yielding a slower fluid transport capability. Attach the supply line from your media to the barb on the input side of the black band pump tubing and another tube from the output side of this tube to the selected irrigation port of the dish. Attach tubing from the aspiration port of the dish to the input side of the other pump tube and a line from the output side of this pump tube to a waste container. Adjust the pump speed as needed for suitable perfusion rate. Adjust the depth of the aspiration needle to obtain the desired level of media in the dish.

