

## Delta T Cooling Ring Instructions

### Description:

The Bioptechs cooling ring is an immersion device, which provides a thermally conductive physical barrier between chilled fluid passing through the ring and the fluid surrounding the specimen thus absorbing heat from the specimen. This cooling ring is made of autoclavable 304 stainless steel and provides the microscopist with a convenient and inexpensive method of reducing the temperature of specimens in Delta T Culture Dishes. The cooling ring is supported on the stage adapter and translates along with the dish. It is easily flipped up and out of the way to enable easy exchange of dishes in the stage adapter.

### Instructions:

1. Mount an empty Delta T Dish into the stage adapter.
2. Press fit the 1/8" end of the hinged cooling ring adapter into the holes provided adjacent to the rectangular opening on the stage adapter.
3. Using the 5/64" Allen driver provided, adjust the immersion ring to fit into the dish and flip up and down as needed to replace dishes.
4. Adjust the tension of the hinge with the 5/64" wrench.
5. Press 1/16" Tygon tubing onto the 14 gauge tube and attach to a chilled fluid source and drain.  
Note: A simple Dewar of ice water above the stage, Tygon tubing, and a pinch clamp will reduce the temperature in the dish to 4 - 10°C. It is simplistic, inexpensive and it works!
6. When you need temperatures above ambient simply stop the chilled water flow and turn on the Delta T Controller.

