**THP Series** Theta Glass Holders permit quick and easy coupling of theta tubing to a pressurized source. These kits allow microinjection using theta glass and include all needed supplies. The lightweight acrylic electrode holder assembly permits easy coupling to the pressure source, and the complete system is rated to 100 PSI.

A drop of hot glue bonds the theta tubing to two polyimide coated, fused silica tubes known as flexible-fill capillary tubing. A Lure-lock fitting with barbed connector at the input end of the flexible-fill capillary tubing allows coupling to a pressure source using 1/16” ID Tygon® tubing.

Kits accommodate both 1.5 mm and 2.0 mm (**THP-15** and **THP-20**, respectively) theta tubing.

**COMPONENTS**

Each kit contains:
- an acrylic, **THP Series** theta tubing holder assembly with integrated handle
- 50 feet of 1/16” Tygon® tubing
- a hot glue gun with 5 hot glue sticks
- one 25 pack of male Luer-to-1/16” barb fittings

In addition to the above, the **THP-15** kit contains:
- 100 pack of theta glass tubes, 1.5 mm OD
- 10 pack of flexible-fill capillary tubes, 350 µm OD

and the **THP-20** kit contains:
- 100 pack of theta glass tubes, 2.0 mm OD
- 10 pack of flexible-fill capillary tubes, 450 µm OD
Assembly is straightforward. The following instructions make reference to the THP-15 but apply equally well to the THP-20. The constitutive components, in their proper orientation, are shown below.

1. Plug in the hot glue gun, insert a fresh glue stick, and allow the gun to get hot.
2. Pre-pull a theta tube to the desired length, tip diameter, and shape.
3. Mount the pulled theta tube into the theta glass holder on the output side of the THP-15.
4. Insert two flexible-fill capillary tubes into the capillary tube holder on the input side of THP-15.

5. Loosen the set screw on the capillary tube holder and slide the tube holder assembly (with attached flexible-fill capillary tubes) towards the theta tube until the ends of the flexible-fill capillary tubes overlap the theta tubing by about ¼”.

6. Pull back slightly on one flexible-fill tube and insert the free end into one opening in the theta glass.

7. Repeat the procedure for the other flexible-fill tube.
8. Next, apply a drop of hot glue to bond the theta glass to the flexible-fill capillary tubes.

**Note:** Flexible-fill capillary tubes are supplied longer than needed and can be cut to any length by scoring with a diamond cutter, cleaving stone, or razor blade. In addition, scoring and cutting allows these tubes to be reused several times before discarding.

9. Cut two lengths of Tygon® tubing, each long enough to reach from the THP holder to your pressure source. Attach one end of the tubing to your pressure source and the other to the barbed end of a Luer-to-1/16” fitting.

10. Finally, make a connection between the barb fittings and the female Lure connector at the input end of each flexible-fill capillary tube.
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