

PROCEDURE FOR DRILLING MOUNTING HOLES THROUGH A FORTE EPOXY RESIN ELECTRODE

RECOMMENDED DRILL BIT FOR ELECTRODE MOUNTING HOLES:

A high-speed twist drill bit, steel or Cobalt steel (also referred to as Silver and Deming) is recommended, with a bright or black-oxide treated or TiN coated finish.

Flute length = ~80mm

Overall length = ~ 160mm

118 degree point, or 135 degree (self-centering) split point

Drill Size: The electrode bushings normally supplied by FORTE TECHNOLOGY (FORTE part number 56-1265-XX) require a 13/16" (0.8125) through hole in the electrode and the use of 1/2-13 mounting bolts.

If different mounting bolts and bushings are required, select the appropriate drill diameter.

DRILLING PROCEDURE:

FORTE does not recommend the use of a hand drill.

For accuracy, use an industrial drill press to drill the mounting holes through the epoxy electrode.

1. Eye protection, a dust mask, and safety gloves should all be worn when drilling the electrode.
2. The side of the electrode that will contact the coverplate should face the drill bit.
3. Be careful not to damage the BNC coaxial connectors located on the side of the electrode.
4. **The electrode should be clamped in place when drilling to prevent "walking" of the drill bit. Make sure that the electrode is level.**

5. Carefully layout the mounting holes on the top surface of the electrode. Refer to the electrode drawing to locate the correct hole positions.
6. If this is a replacement electrode, FORTE recommends using the coverplate as a template when locating and drilling the mounting holes.
7. Use a center punch, or drill a small pilot hole to center the large bit at the mounting hole locations.
8. The bottom surface of the electrode should be firmly supported by a disposable wooden surface to help prevent tear-out and flaking of the epoxy resin around the edge of the hole when the drill bit emerges.
9. Use a low speed of ~60 RPM or less when drilling the mounting holes through the epoxy. Do not force the drill through the resin. Use a light but steady pressure while drilling.
10. The use of lubricating oil or cutting fluid while drilling is not required or recommended.
11. Use a vacuum to clear away the resin dust as you drill.