

Molding a teflon catheter tip

Objective Heat a water-cooled steel mandrel to 700°F (371°C) to form a high quality Teflon catheter tip.

Material Teflon catheter tubing, mandrel assembly

Temperature 600-700°F (315-371°C)

Frequency 376 kHz

Equipment

- Ambrell 3 kW induction heating system, equipped with a remote workhead containing one 0.66μF capacitor.
- An induction heating coil designed and developed specifically for this application.

Process A two turn coil is used to heat the steel mandrel to 660°F (371°C) in 2.7 seconds. To form the catheter tip, RF power is applied while the catheter is held over the mandrel. The tubing is then pushed on to the mandrel to form a consistent, even tip.

Results/Benefits Induction heating provides:

- Precise, repeatable application of heat
- Non-contact heating
- Faster cycle times

