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Curing epoxy on aluminum copier roller assembly

- **Objective** Heat the end of an aluminum copier roller to 400 °F (200 °C) to cure epoxy
- **Material** Aluminum roller 4.75" (120mm) diameter, 2' (0.6m) long with 1.5" (38.1mm) thick plug at end
- **Temperature** 400 °F (200 °C)
 - Frequency 112 kHz
 - Equipment
 Ambrell 15 kW induction heating system, equipped with a remote workhead containing eight 1.0μF capacitors for a total of 2.0μF
 - An induction heating coil designed and developed specifically for this application.
 - **Process** A four turn helical pancake coil is used to heat the end of the copier roller assembly. The assembly is heated 90 seconds to cure the adhesive.

Results/Benefits Induction heating provides:

- Faster process time
- Hands-free heating that involves no operator skill for manufacturing
- Even distribution of heat between tube and end plug



Precision Induction Heating

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Aluminum rollers and end plugs prior to curing



Aluminum roller and end plug assembly in coil

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Ameritherm France SARL www.amerithermfrance.com +33 (0)3 89 76 01 24