

## Measuring Tape Paint Curing

**Objective** To heat measuring tape stock at a maximum rate of 600 feet per minute to cure the applied paint. The heating coil is to accommodate the 3/8" wide stock within the customer's current framework. Curing must occur above 400°F at the rate specified.

**Material** Steel Measuring Tape stock, 3/8" wide on a continuous feed.

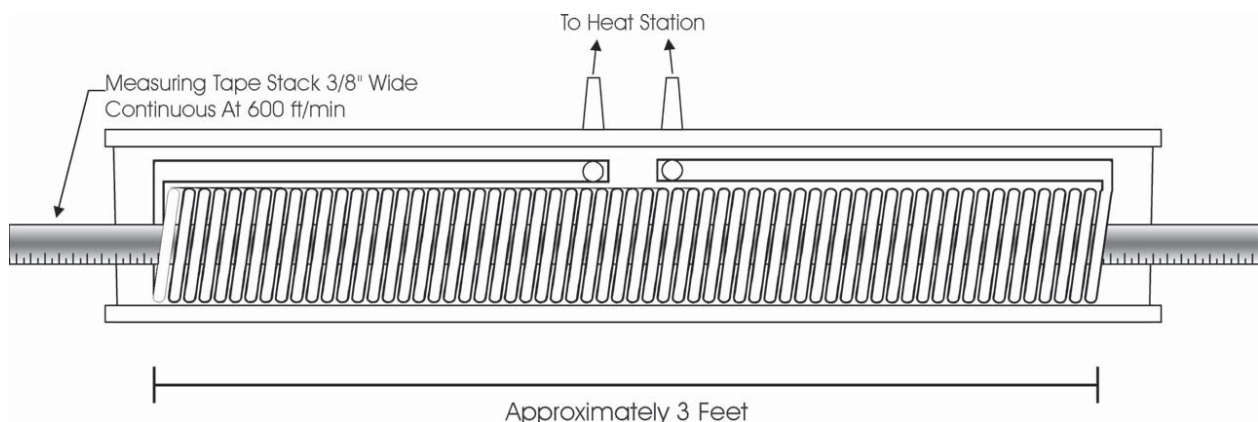
**Temperature** Above 400°F

**Frequency** 75 kHz

**Equipment** Ameritherm 20kW output solid state induction power supply with remote heat station housing eight (8) 0.33  $\mu$ F capacitors totaling 0.66  $\mu$ F, along with a 30" multi turn helical coil designed specifically for this application.

**Process** The Ameritherm 20kW output solid state induction power supply along with a unique 30" long multi turn helical coil was found to produce the following results.

- Results**
- A temperature of 500°F was achieved, at the necessary rate, using the unique 30" multi-turn helical coil which surpasses the customer's requirement of 400°F.
  - The helical coil was designed to integrate with the customer's present framework to eliminate any re-fixturing.
  - The helical coil allows for the tape to travel internally with absolutely no contact thus maximizing surface quality.



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