TM-50

# TM-50 Trickle Impregnation Machine



### S P E C I F I C A T I O N S

The **Broomfield TM-50** Trickle Impregnation Machine is designed to apply resins or coatings to small motor armatures and other products. The operator is responsible for simply loading and unloading parts. The machine is automatically controlled by a programmable logic controller (PLC) that provides for multiple program storage. The machine status and set up information is displayed on a terminal. Program changes can be easily made in response to menu-driven prompting.

### **Features & Benefits:**

- · Easy changeover.
- · Compact design.
- · Machine tool collets for firm accurate parts handling.
- · Programmable dual zone oven temperatures.
- · Part temperature sensing.
- · PLC control.
- · Accurate resin application.
- · Key lock to prevent unauthorized program changes.
- 32-station turret provides for 5.75" (146 mm) maximum diameter armatures.
- · Part rejection warning light.

The Broomfield TM-50 Trickle Impregnation Machine features a rotary table with collets to hold 32 armatures. These collets are machine tool grade to ensure that the armatures are held firmly for accurate positioning. In its standard configuration, the machine has one trickle station with dual applicator tubes positional along the armature axis.





### BROOMFIELD

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#### Operation:

During a typical machine cycle, a door automatically opens when the machine is ready to be loaded. The armature then goes into the Preheat Oven which raises the temperature of the part for proper resin application. This temperature may be displayed in either Celsius or Fahrenheit. After heating, the temperature of the armature is automatically measured. If the part is not at the correct temperature, no coating is applied. This operation also senses if no part is present. In either case, the machine remembers the location of the empty or bad part and turns on a reject part light when that part is ready to be unloaded. After the part is trickled, the resin cures as it indexes toward the unload position where the door opens for removal. The TM-50 may be configured with a cure oven for resins requiring additional heating after trickle application if required. The temperature of this oven is controlled independently from the Preheat Oven. Armatures are rotated during the preheat, trickle and cure operations to ensure an even distribution of the resin or coating.

### **Power Requirements:**

**Electrical:** 460 volts, three phase, 50amps. Other voltages available. **Air:** 80 PSI (5.5 Bars).

#### **Overall Size:**

84" wide by 60" deep by 98" high. (2134 mm wide by 1524 mm deep by 2489 mm high)

Weight: 3700 lbs (1682 kg).

### **Options:**

- · Automatic loading and unloading.
- Oven modifications to meet your product requirements.
- Quick-change collet inserts for adapting to various shaft sizes.
- 48 or 64 collet locations, to enable shorter cycle times with smaller diameter parts.
- Second and third trickle stations, each with dual applicator tubes.
- Gel band application equipment.



TRICKLE PROCESS



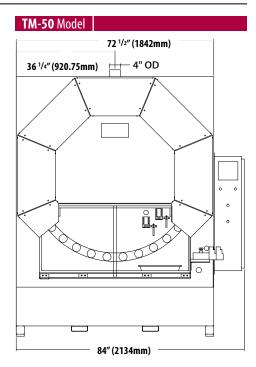
TRICKLE PROCESS COMPLETED

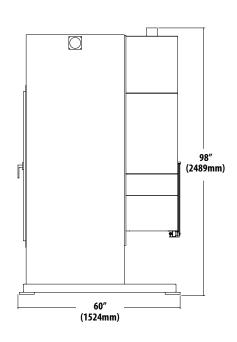


**GEL BAND PROCESS** 



LOADING TROLLEY





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