SUBJECT: COATING COILED FILAMENTS (By Machine)
Process Specification

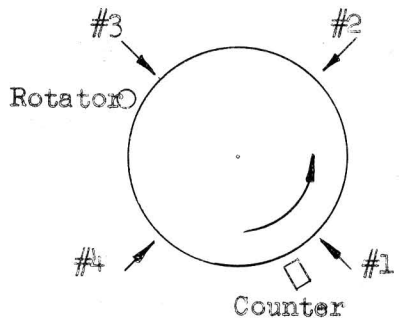
This specification applies to the process of spray coating coiled heaters. Pages 0 and 0a are the general processes pages for specific criteria, see schedules on following pages.

1. EQUIPMENT
   a. Model 813F Spray Machine with
   b. Model 728S adjustable spray gun mounts.
   c. Bottle roller.
   d. Furnace and boats.
   e. Clips and board for holding loaded clips.
   f. Torsion balance.
   g. Microscope.
   h. Drying oven or lamp box.

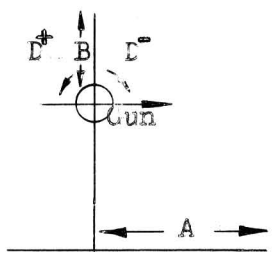
2. MATERIALS ____ Coating preparation (as specified on heater)

3. PROCEDURE

   a. Gun positions and settings.



Gun Numbers



Gun Position

Gun positions A, B, C and D, gun nozzle setting and air pressure while spraying are listed in individual schedules. Both spray and drying air pressures should be recorded.

b. Coating
   1. Type spray - controlled by number of rounds required to obtain required weight. Number of rounds specified on individual schedules.
   2. Rotor RPM - 5.6.
   3. Legs of coils should be in horizontal plane before clamping clips onto legs. Proper clamping eliminates pinching of coils. Care must be exercised in this operation to cover the proper length of legs with the clips.
   4. Clips must be kept clean to avoid improper spraying of legs and bottom turns. Dried coating should be buffed off metal parts with wire brush. A bristle brush rubbed crosswise should be used to remove coating from the rubber along edges of jaws.
   5. Run 3 or 4 clips to check spray texture and distribution each time machine set-up is changed.

3. PROCEDURE (Cont'd)

b. Coating (Cont'd)
6. Coating must be rolled at least 1 hour immediately before preparation is used. A longer time may be necessary if preparation has been allowed to settle for a long period of time.
7. Load machine while spray is turned off. Seat crosspins of clip posts in slots across heads of rotor.
8. Spraying may be started at any time regardless of the positions of spray guns due to previous stopping of the machine. Operator must check the performance of all guns and should keep bottles filled with spray preparation.
9. When spraying operation is nearly complete, as determined by experience, operator should weigh samples to determine completion of the process.
10. Parts should be inspected for spray texture and distribution before being removed from clips.

c. Inspection (Before Firing)
1. Parts should be given a casual inspection for bare wires, chips, uniformity of coating, paired turns, uneven legs, long or short coated legs, crossed legs, etc. If rejects are above normal, make 100% inspection.
2. Check coating weight and diameter of parts from clips on opposite sides of the machine.
3. All rejects should be set aside for washing and recoating.

d. Firing
1. Load parts into moly boats so that there will be little opportunity for deformation during firing.
2. Fire at 1625°C ± 25°C for 5 min. in humidified line hydrogen. Temperature of humidifier 45-55°C. For operation of humidifier refer to SN34-38-34B.

SCHEDULE NO. 1

(Initially for MCH6001A-1 for tube type 3D22)

1. PROCEDURE

a. Gun positions

Gun	A	B	C	D	Nozzle Setting
1	2-16/32	2-23/32	5.1	-4	0
2	4-18/32	1-13/32	5.75	-8	0
3	3-16/32	3-20/32	5.75	-4	0
4	3-5/32	5-1/32	5.0	+18	0

b. Air pressure while spraying: 12 lbs, drying maximum from line.
c. Number of rounds - 150 - 225.

SCHEDULE NO. 2

(Initially for MCH6017 for tube type 914A)

1. PROCEDURE

a. Gun positions

Gun	A	B	C	D	Nozzle Setting
1	2-16/32	3-19/32	5.1	-2	0
2	4	4-17/32	5.75	+8	0
3	3-8/32	2-31/32	5.8	-8	0
4	2-24/32	3-24/32	4.7	-1.5	0

b. Air pressure while spraying - 8 lbs, drying maximum from line.
c. Number of rounds - 90 - 100.
d. Inside of booth should be slightly wet at all guns while spraying.

SCHEDULE NO. 3

(Initially for FM6749A for the 2E24 tube type)

1. PROCEDURE

a. Gun positions

Gun	A	B	C	D	Nozzle Setting
1	2-16/32	3-15/32	5.1	-2	0
2	4	3-14/32	5.75	0	0
3	3-8/32	3-21/32	5.7	-2	0
4	2-24/32	3-24/32	4.9	-1.5	0

b. Air pressure while spraying: 8 lbs, drying maximum from line.
c. Number of rounds - 90 - 100.
d. Approximately 1/3 bottle of spray preparation used by each gun for each run.