

SUBJECT BEADING BUTTON CONTACT ASSEMBLY

SUPERSEDED DATE

Initially used for 5TP4, 7DP4, 10BP4

## I. MATERIALS

#18 Gauge, #12 glass cane

## II. EQUIPMENT

- a. Standard Single Head Stem Machine, basic Model #703 with spindle inserts for holding the above parts.
- b. Pair long tweezers

## III. OPERATION

- a. Adjust ring burner with oxygen, gas, and very little air to give fire with maximum cone of  $1/4$ "
- b. Insert end of cane in one fire until soft, place cap on spindle bottom side up and with left foot pedal (top spindle) depressed to make cup turn with spindle, allow to heat until just above a dull red, meanwhile, holding end of cane in one fire.
- c. When hot, wipe cap with end of cane by pushing cane against revolving cap side for one revolution, covering side from just over top radius which holds insert ring to a point approximately  $1/8$ " down the  $30^\circ$  tapered side. (Since cap is upside down in this machine it is really  $1/8$ " up side). Glass should be about .030" thick.
- d. Remove excess glass, if any, and allow cap to revolve once or twice in fire.
- e. Remove cap with tweezers without using foot economizer.

NOTES: The 39003 cap, when used on thin wall bulbs such as 5TP4 type, should have only approximately  $3/32$ " wide glass band instead of  $1/8$ ".

Avoid excessive heating of metal (over approximately  $1000^\circ\text{C}$ ) during beading since bubbling is likely to result at higher temperatures even with well degassed parts.

## IV. INSPECTION

- a. Seal should present a dull, uniform green, not blue or black, free from all but very small random bubbles when viewed under the microscope.
- b. Upon starting any lot, take one beaded cap and holding on wood, hit bead with sharp instrument. Glass should split around cap, excess falling off and leaving a thin adherent coat next to metal, with no bare, clean metal visible. If glass chips off taking oxide with it leaving clean metal then cap has not been properly processed or oxidized and lot should be re-oxidized at standard schedule.

STANDARDIZING SECTION  
ENGINEERING DEPT.