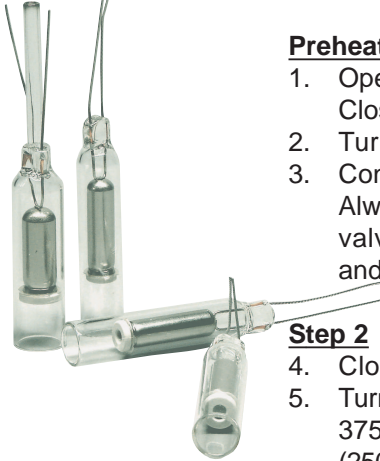


MASONLITE Millennium™ Electrodes

Bombarding & Pumping Procedure

The following procedure is for 15/50C and 15/50CT electrodes on 15mm or larger diameter coated Sign Tubing. Adjust the procedure for other electrode sizes, smaller diameter tubing, and tubes less than 18" long.



Preheat

1. Open vacuum valve and evacuate tube to approximately 2 to 3 Torr (2-3 mm Hg) pressure. Close vacuum valve.
2. Turn on bombarder and bring current to between 150 and 200 mA
3. Continue bombarding until the tube reaches 275° to 300°F (135° to 150°C). Always release bombarder switch prior to opening of main stopcock. Then open vacuum valve. Evacuate tube(s) for 45 to 60 seconds depending on tube length and configuration

Step 2

4. Close vacuum valve, refill tube(s) with 2 to 3 Torr (2-3 microns) of dry air.
5. Turn on bombarder, and raise current to 325 mA, and continue heating until tube reaches 375° to 400°F (190° to 205°C). Note: for uncoated tubes, heat to 482°F (250°C). At this point reduce pressure to 1 Torr or slightly less.

Step 3

6. Increase current to 800 mA.
7. Bring electrode shells to a bright cherry-red color, (1,652° to 1,832°F (900° to 1,000°C)) while maintaining ½ to 1 Torr pressure. Once all shells are of a uniform color, release the bombarder switch and open the vacuum valve.
8. Evacuate the tube(s) to lowest possible pressure, at least 3 to 5 millitorr (3-5 microns). Continue pumping until you can comfortably handle the tube(s), about 122 °F (50°C).
9. Release accumulated moisture in the tabulation(s) at this time with the aid of a heat gun or hand torch. This prevents transfer of moisture to the finished tube(s) during flushing and/or backfilling of the inert gas(es).
10. Backfill the tube(s) to the designated pressure with the desired gas using a positive pressure gauge if possible.

| Masonlite Millennium™ Electrode Type | Preheat Current Pressure | Step 2 Pressure | Step 3 Pressure |
|--------------------------------------|--------------------------|-----------------|-----------------|
| 12/30C | 150 mA | 225 mA | 450 mA |
| 12/30CT | 2 Torr | 2 Torr | 1 Torr |
| 13/30C | 150 mA | 225 mA | 450 mA |
| 13/30CT | 2 Torr | 2 Torr | 1 Torr |
| 12/25C | 75 mA | 125 mA | 300 mA |
| 12/25CT | 2 Torr | 2 Torr | 1 Torr |
| 13/25C | 75 mA | 125 mA | 300 mA |
| 13/25CT | 2 Torr | 2 Torr | 1 Torr |
| 15/30C | 150 mA | 225 mA | 450 mA |
| 15/30CT | 2 Torr | 2 Torr | 1 Torr |
| 15/50C | 200 mA | 325 mA | 800 mA |
| 15/50CT | 2 Torr | 2 Torr | 1 Torr |
| 18/120C | 200 mA | 480 mA | 850 mA |
| 18/120CT | 2 Torr | 2 Torr | 2 Torr |



37 Robinson Blvd ♦ Blvd Orange, CT 06477
 Tel: 203-578-4600 ♦ Fax: 203-578-4605
www.voltarc.com