# Procedure for Straightening (XL, XIi, and GSK) Etcher Spray Tubes:

### Procedure for Straightening (XL, Xli, and GSK) Etcher Spray Tubes:

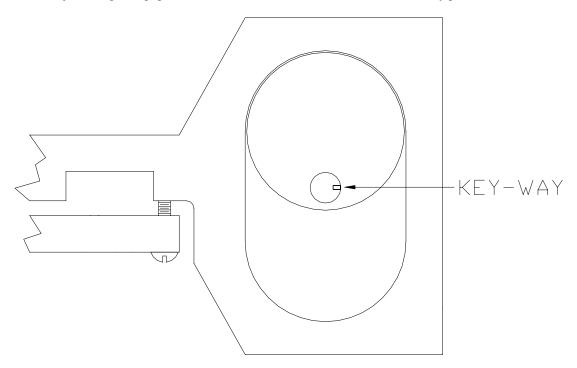
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Material: Fixture – P/N 602916 (30 inch), P/N 700579 (60 inch).

<u>Objective</u>: Accurately set the Etcher spray tubes so they are centered when the oscillation cam is at **Top Dead Center (TDC).** This procedure should be done at the module build level to get the tubes centered and repeated at final inspection to be sure the tubes are still centered before shipment.

### **Procedure**

1. TDC oscillation cam per Figure 1. This can be done by two methods; disconnect motor coupling and adjust using vise grips / channel locks or use electrical controls too slowly position cam.



#### FIGURE 1

- 2. Loosen the bolts on the lower yoke so the spray tubes will rotate freely.
- 3. Install fixture across the spray tubes. The holes drilled in the fixture will slide over the nozzles in position 1 (closest to the manifold), 4 or 7. If the fixture slides down over the nozzles, then they are centered.
- 4. Repeat for all lower spray tubes.
- 5. Tighten the bolts on the yoke so the spray tubes are no longer free to rotate independently.
- 6. Remove fixture.
- 7. Repeat for Upper Rack.

## Procedure for (XL, XII, and GSK) Etcher Spray Bar Balancing:

### Procedure for (XL, Xli, and GSK) Etcher Spray Bar Balancing:

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### Material:

- 3/8 to ½ reducing bushing.
- ½ Jaco fitting and tubing.
- Pressure Gauge.
- Seven (7) numbered spray tubes.

**Objective:** Accurately set the Etcher <u>Upper</u> Spray Bar Pressure.

### **Procedure**

- 8. Remove the first spray nozzle (next to the throttle bolt)
- 9. Install reducer bushing, using Jaco fitting and tubing connect to pressure gauge.
- 10. Connect the spray bar to a water source.
- 11. Turn the throttle bolt out until no change of pressure. Document as full pressure (example 30 PSI).
- 12. The three (3) middle spray bars( tubes #3,4,5) should be at full pressure.
- 13. Spray tubes #2 and #6 should be 3 PSI less than full pressure. Adjust the throttle bolt to set pressure.
- 14. Spray tubes #1 and #7 should be 6 PSI less than full pressure. Adjust the throttle bolt to set pressure.
- 15. With a 30 PSI full pressure: the tubes should be as follows (Figure #1):

<u>#1</u>	<u>#2</u>	<u>#3</u>	<u>#4</u>	<u>#5</u>	<u>#6</u>	<u>#7</u>
24	27	30	30	30	27	24

16. This procedure is for <u>Upper Spray Bar</u> only. The lower spray bar throttle bolt is left wide opened.

