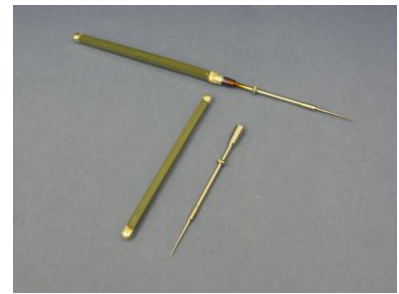


# Brazing & Soldering **APPLICATION DATA** No. 550 – Dental Scaler Assembly

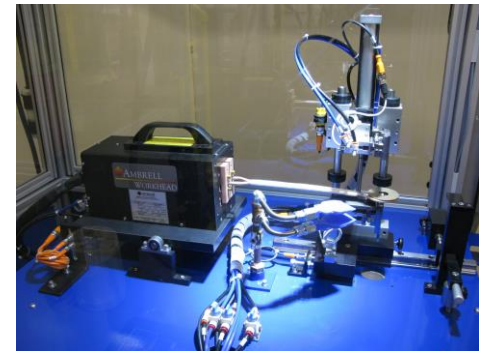
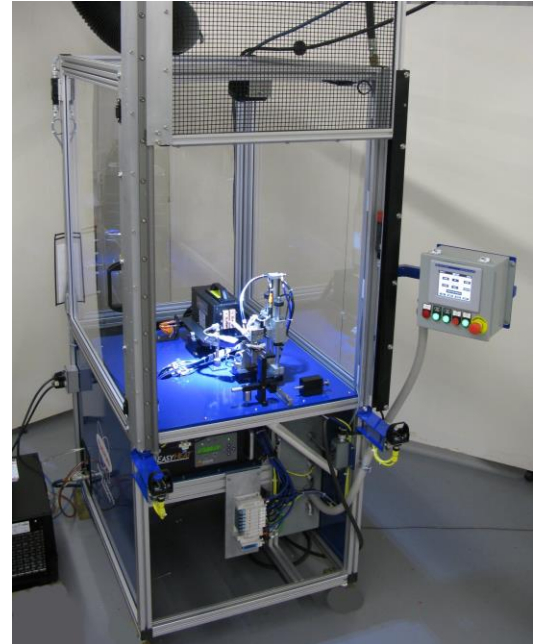


## Single Station Brazing Machine Specifications

- **Assembly:** Pretinned nickel lamination stack to stainless tip.
- **Induction Heat:** Ambrell 4.2 kW induction power unit with coil; includes water circulator.
- **Flux:** Fusion DAF-1Z, dispensable, corrosive, must be removed after brazing.
- **Production Rate:** 60 parts per hour, one operator (Heat time: 12 seconds)
- **Dimensions:** 36" X 48" aluminum extrusion frame. Induction control mounted under frame; water circulator positioned nearby.
- **Utilities:** Electrical (220 VAC, 1PH) 30 amp, Control voltage 24VDC, Compressed air (5 CFM)
- **PLC:** Allen Bradley *CompactLogix 1500* with Panel View Plus 600 operator interface.
- **Safety Features:** Perimeter guarding on three sides of machine with safety interlocks on doors. Rigid mesh screen moves into position before heating cycle begins. Vent hood for fume extraction.

### Sequence:

1. Operator loads pretinned (silver ball brazed) stack into the lower fixture gripper.
2. Operator dips end of stainless tip into jar of Fusion DAF-1Z Flux, then loads it into upper fixture gripper.
3. Operator pushes fixture into machine where a shotpin holds it in position.
4. With safety gate down, the tip is lowered to meet the stack, followed by the induction coil moving into position and heating the assembly to brazing temperature.
5. Air cooling solidifies the braze joint, the tip and stack clamps open, ejecting the brazed assembly down a chute.



*Compact brazing work station mounted within 30"x36" space.*



*Induction workhead remelts pretinned silver brazing filler metal, completing the joint.*



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