

Induction Atmosphere Brazing







Fusion introduces a new brazing machine that offers a good alternative to furnace brazing of steel and stainless steel. Enjoy the following benefits:

- Use less expensive filler metals
- Braze without flux
- No post-braze cleaning

- Produce clean joints-no heat scale
- Fast cycle times
- Braze in-house, eliminate costs of outsourcing

Induction Atmosphere Brazing Machine Specification

- Construction: Welded steel frame with clear acrylic guarding on three sides; 36" dia. aluminum tooling plate.
- **Dimensions:** 60"W x 68"D x 38" load height; center carousel supports long length parts.
- **Fixtures:** Two assemblies per fixture; fixture enclosure mates with an external, sealed guard throughout heating and cooling cycle.
- Indexer: Weiss Barrel Cam TC 220.
- Paste Filler Metal: Fusion CBL-A330-87X (BCu1a) 1980°F (1082°C) liquidus; fluxless.
- **Heating:** Four (CEIA) 3.5 kW units, two per assembly, preheat and final braze; induction coils water cooled by 2 gallon recirculating chiller; pyrometers monitor brazing temperature.
- **Atmosphere:** 95Nitrogen/5Hydrogen blend displaces oxygen inside fixture enclosures.
- Control: Omron PLC with Omron interface (others can be specified).
- Utilities: Electrical 480/3/60; 24 VDC control voltage; compressed air, 5 CFM, Nitrogen/Hydrogen, 700 CFH.
- Rate: 275 parts per hour; rate may vary depending on application requirements.







FUSION INCORPORATED

4658 E. 355th St., Willoughby, OH 44094 Phone 1-800-626-9501 • (440) 946-3300 Fax (440) 942-9083 • e-mail: info@fusion-inc.com Web: www.fusion-inc.com



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8-Station Brazing Machine Sequence

Station 1 - Load/Unload Assembly (Two Assemblies Per Fixture)

Station 2 - Brazing Paste Filler Metal Applied

Station 3 - Induction-Preheat

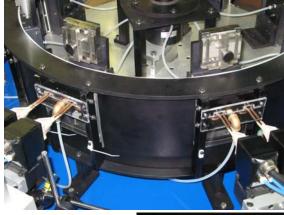
Station 4 - Induction - Final Heat

Station 5 - Cool

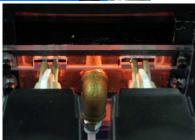
Station 6 - Cool

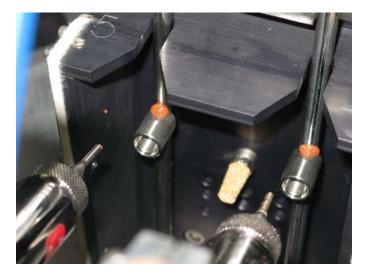
Station 7 - Cool

Station 8 - Cool



Two induction units heat parts in enclosed fixture where nitrogen/hydrogen mix displaces oxygen to effect sound brazed joints.





Premeasured deposits of copper paste filler metal are applied to joint areas of stainless steel assemblies.

