

Brazing & Soldering **APPLICATION DATA** No. 536 – Well Pump Motor Cores

Ask for

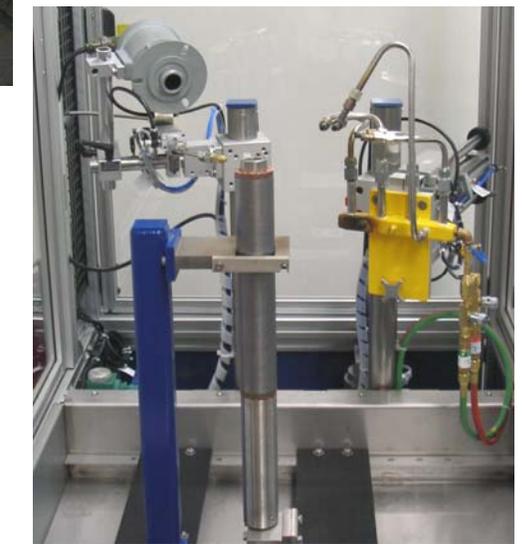


“Braz Mate” Machine Specifications

- **Assembly:** Copper laminations (stack) onto both ends of rotor bar, 12” and 18” lengths.
- **Wire Filler Metal:** Silver/Copper/Phosphorous brazing wire, 1190°F liquidus.
- **Production Rate:** 15 parts per hour (both ends), one operator.
- **Dimensions:** 36”W x 48”D x 34” load height.
- **Utilities:** 240V, single phase, 5 Amp; Propane Gas (30 CFH high flame, 3 CFH low flame); Oxygen (100 CFH high, 3 CFH low); 80 psi air (5 CFM); Water for fixture cooling (1 GPM).
- **PLC:** Allen Bradley MicroLogix 1000 with Panel View 300 Interface.
- **Safety Features:** Perimeter guarding on 3 sides of machine with safety interlocks. Light curtain for E-stop function.

Sequence:

1. Operator slides steel mandrel into ID of assembly stack.
2. Stack is loaded into skewing fixture to align and seat copper laminations.
3. Assembly stack is removed from skewing fixture and loaded onto brazing machine fixture.
4. Operator depresses touch switches to actuate automatic brazing cycle.
5. Propane/Oxygen burners advance into position and adjust to high flame output.
6. Optical pyrometer monitors part temperature ramping to 1300°F.
7. At 1300°F, wire filler metal advances to rotating part and flows in between copper laminations.
8. Heat cycle times out, burners retract to low flame state.
9. Operator inverts assembly stack to braze the opposite end as the heating cycle is repeated.



Precision heat pattern distributes filler metal throughout laminations as stack rotates.



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