



Brazing & Soldering APPLICATION DATA

No. 541 – Carbide Bur Assembly

Ask for



Video



Brazing Machine Specifications

- **Assembly:** Tungsten carbide blank (1/4", 3/8", and 1/2" in cylinder and conical shapes) to 3mm, 1/8", 6mm, and 1/4" dia. shanks; 10 part numbers.
- **Joint Specs:** T.I.R. of 0.008" max. Strength Test: bend shank at 90° without breaking braze joint.
- **Paste Filler Metal:** Fusion STK-1260-750 (BAg 24) cadmium-free, 1305°F liquidus.
- **Production Rate:** 250 parts per hour, no operator.
- **Dimensions:** 55" X 72" welded steel base, 21" dia. anodized tooling plate mounted to Weiss TC 220 indexer.
- **Utilities:** Electrical (460 VAC, 3PH), Control voltage 24VDC, Compressed air (2 CFM)
- **PLC:** Allen Bradley SLC 5/03 with PanelView 550 operator interface.
- **Safety Features:** Perimeter guarding on four sides of machine with safety interlocks.

Sequence:

- Station 1 - Robot picks shank from tray, presents it to paste dispenser and loads into fixture nest.
- Station 2 - Robot picks blank from tray and loads onto pasted shank.
- Station 3 - Open
- Station 4 - Induction Heat
- Station 5 - Bur assembly aligned and cooled.
- Station 6 - Brazed assembly automatically ejected to discharge chute.

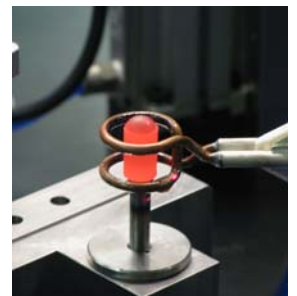


Applicator gun dispenses premeasured deposit of paste filler metal to shank.



SCARA robot loads both shanks and carbide blanks into machine fixtures.

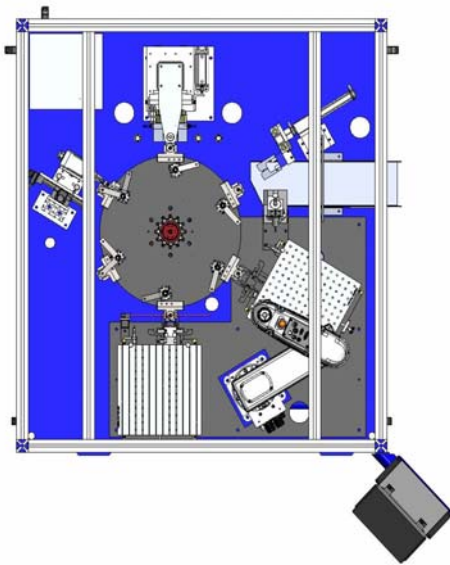
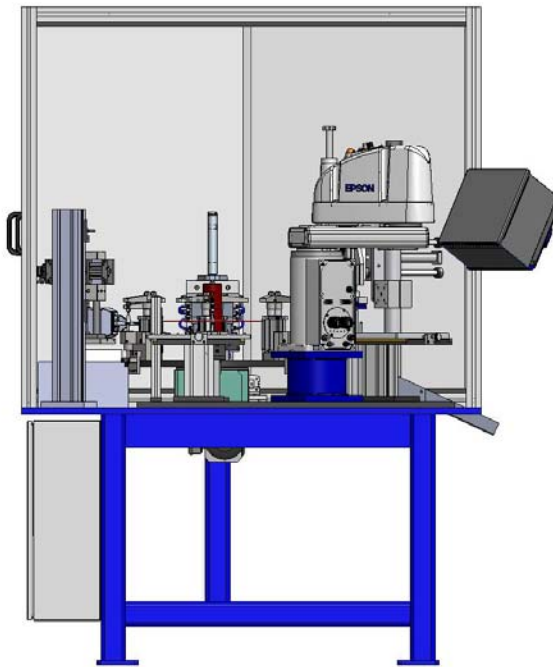
Induction coil brings silver brazing filler metal to 1305°F liquidus temperature.



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

See Reverse Side for 3-D System Drawings



Six Station Brazing Machine Special Features

- Part trays hold 144 blanks and 144 shanks.
- Alignment station includes water cooled part grippers to dissipate heat.
- Optical pyrometer measures part temperature.
- 4-axis motion SCARA robot
- Fixture nests hold 3mm, 1/8", 6mm, and 1/4" dia. shanks.

