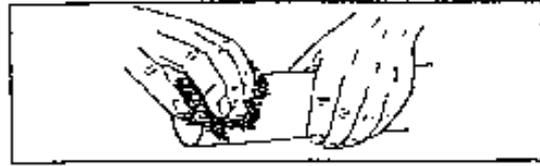


BRAZING COPPER TUBE TO BROWNALL BRAZOWELD FITTINGS

- 1) Preparation: Ensure that the tube is cut square and deburred.
- 2) Cleaning: The surfaces to be joined on the fitting and tube must be clean and free from oil, grease and heavy oxide. Steel wool can be used for this, but all slivers of steel must be removed from the fitting and tube before assembly and fluxing.



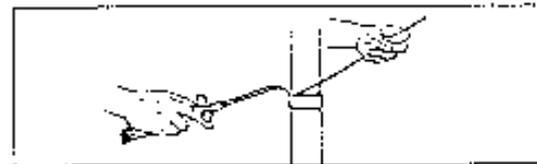
- 3) Fluxing: The flux should be applied to the cleaned area of the tube and fitting evenly and sparingly, avoiding any excess. Tenacity 4A or the Easyflow range of fluxes are recommended.



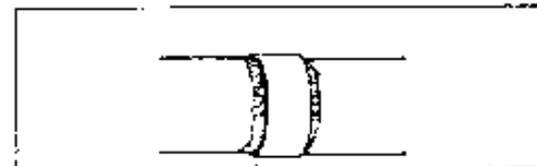
- 4) Assembly: Once fluxed, assemble by inserting the tube hard against the fitting abutment. Firmly support the assembly and braze as soon as possible. Recommended rod is BS EN 1044 (CP102).



- 5) Brazing: Heat the cast fitting first ensuring the whole fitting is uniformly heated before attempting brazing (important: two torches are required on sizes above 76mm). Brazing temperature is approached as the flux takes on an appearance of glass, apply the flame to the joint area and introduce the filler metal. Ensure the flame is kept moving at all times, when the joint is filled, allow to cool in air (Do Not quench).



- 6) Cleaning: Remove residual flux from the joint using hot water and detergent.



Caution - Brazing alloy and flux manufacturers' recommendations should be adhered to.

- 7) Testing: All Brownall Brazoweld Fittings are hydraulically pressure tested during manufacture and therefore should only require pressure testing after installation.

Brownall Fittings are designed to withstand the working pressures of BS EN 12449 tubing, but Brownall recommend that installation test pressures do not exceed the values given in BS EN 12449, copper tubing in the fully annealed condition.

These notes are given as a guide only and Delta Fluid Products Limited cannot accept any responsibility for installation work or system performance.

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These installation instructions are an excerpt from the full Brazoweld technical documentation. For further details please contact Brownall Sales Department.