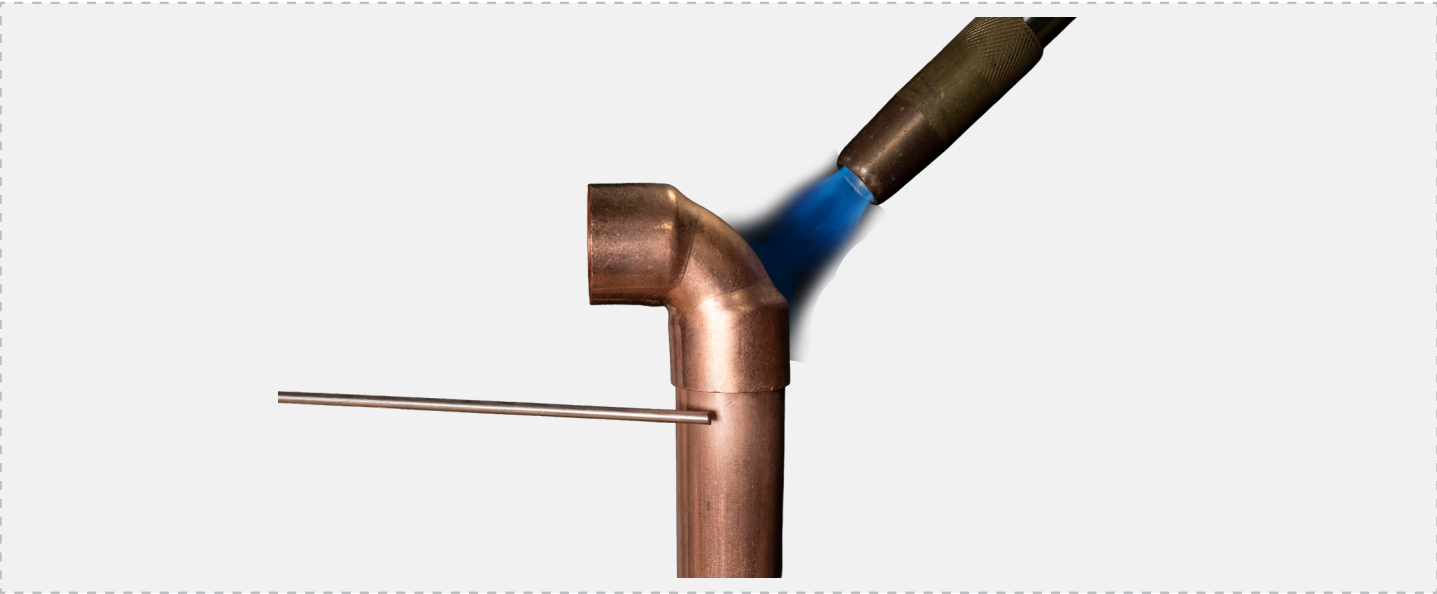


How to Braze Lawton Plumbing Capillary Fittings

Brazing copper tube to capillary fittings for plumbing and heating installations.



Lawton Plumbing Capillary Fittings	Joined by brazing, a higher temperature process than soft soldering. Conform to BS EN 1254.
Applications	Potable Water, Heating, Cooling
Not Covered	Medical gas, vacuum and refrigeration pipework. Those services carry further requirements, including purging, and have their own guides.
Filler and Flux	See the Lawton Jointing Solutions Data Sheet, including whether flux is needed for the joint. The filler shall suit the joint and the specification.
Standard	EN 1254-1
Further Detail	Characteristics not covered here are given in the relevant datasheet. The standards and the project specification take precedence over this guide.

Safety

- Brazing shall be carried out in a well ventilated area. Brazing and flux fume is harmful and must not be breathed.
- Brazing goggles or a face shield and suitable gloves must be worn.
- Hot work precautions shall be observed. Combustible materials must be cleared from the area, a fire extinguisher kept to hand and a fire watch maintained after the work. Particular care is needed when working near joists, floorboards and insulation.

These are general precautions. Site rules and any permit to work may differ and shall be followed.

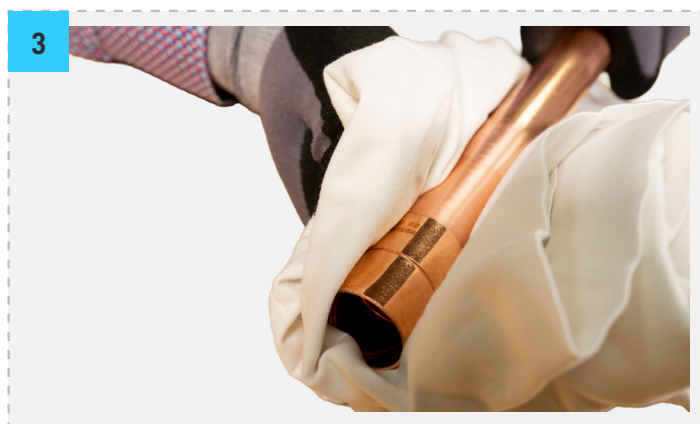
Procedure



1. Cut the tube square with a tube cutter or fine hacksaw (a 32 tooth blade is recommended). Remove the burr.



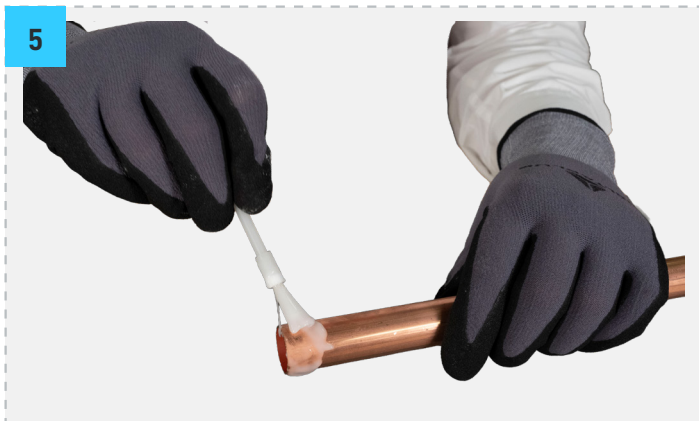
2. Clean the outside end of the copper tube thoroughly with sand cloth or sandpaper, to a length equal to the depth of the fitting. No dark spots shall remain.



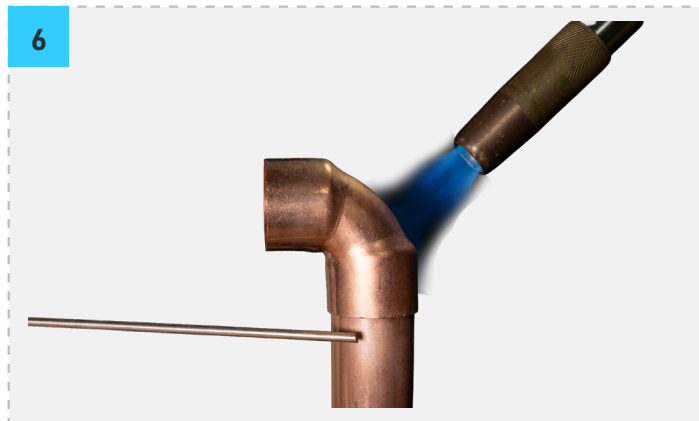
3. Clean the inside of the fitting to the tube stop with a wire brush. Sand cloth or sandpaper may also be used.



4. Where flux is required for the joint, prepare it as directed by the flux manufacturer; powder flux is mixed with clean water to a smooth paste, unless it is supplied ready mixed. Apply a thin, even coat to the cleaned end of the tube with a brush immediately after cleaning. Flux must not be allowed to enter the bore.



5. Slip the tube into the fitting up to the tube stop.



6. Apply heat uniformly around the fitting with the torch. When the filler melts on contact with the heated fitting, the brazing temperature has been reached. Remove the flame and feed the filler slightly off centre at the bottom of the joint, working around the fitting until a complete ring of filler shows at the mouth. The joint must not be disturbed until it has set.



6. Where flux has been used, remove the residues once the joint has cooled by washing with hot water and a cloth or brushing. Pipework connected by fluxed joints shall be flushed thoroughly to eliminate presence of flux from the bore. Flux residues are corrosive and must not be left on the joint or any elements of the pipework.

CAUTION: the joint must not be overheated and the flame must not be directed into the face of the fitting cup. Overheating can damage the tube and fitting, and on flux-requiring joints it burns the flux so that the filler will not flow.

For more details, please refer to our website or contact us by e-mail at technical@lawtontubes.co.uk