

SAFETY AND HYGIENE REGULATIONS



UNIVERSITAT POLITÈCNICA DE CATALUNYA
BARCELONATECH
Servei de Prevenció de Riscos Laborals

SOLDERING

CODE

SHR 218

Date:

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DESCRIPTION OF SOLDERING

Soldering consists of **joining two pieces of metal** (usually copper, brass or iron) **using a filler metal** (generally tin) in order to obtain electrical continuity between the metals that are joined.

The joint must provide the least possible resistance to the electric current (the aim is to obtain a dependable electrical joint).



GENERAL RECOMMENDATIONS

1. Keep the area well-ventilated.
2. Do not get the equipment wet or use it in damp environments.
3. Do not touch the tip of the soldering iron when it is hot, as it may be at a temperature of around 350°C. Only change the tip of the soldering iron when it is cold.
4. Do not use the soldering iron in the presence of gas or inflammable materials or in environments in which there is a risk of fire or explosion.
5. The voltage on the soldering iron's identification plate must be the same as that of the electricity supply to which the equipment is connected.
6. Use a file to sharpen tips of soldering irons.

PERSONAL PROTECTION EQUIPMENT TO USE

You must use **safety goggles** when you use soldering equipment.



Protecció obligatòria
de la vista

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BEFORE SOLDERING

Check that:

- ✓ The tip is well-tinned.
- ✓ The parts to be soldered are totally clean and preferably pre-tinned.



WHILE SOLDERING

- ✓ During short breaks in the task or when you want to cool the soldering iron, place it in its **holder**. (Fig.1)
- ✓ Use an **extractor to remove soldering fumes** (Fig. 2), so that they are not inhaled.
- ✓ On completion, **disconnect the equipment from the electrical current**. Let the tip cool down before you store the soldering iron.



Fig. 1



Fig. 2

MANTENANCE, ORDER AND CLEANING

- ✓ To change a tip or carry out any other maintenance on the soldering iron, disconnect the equipment from the electricity supply and wait for it to cool down.
- ✓ Periodically remove the soldering tip (when the soldering iron is cold) and clean off any remains of solder.
- ✓ Use the wet sponge in the holder to clean the tips. Only use deionised water to dampen the sponge.
If you use normal water, the tip is likely to get dirty with the dissolved salts that are present in the water.
- ✓ If the tip has not been tinned for a long time, use a suitable metal brush that is adaptable to the support to clean off oxide and dirt.