Best Practice for Gas & Torch when Soldering

**Typical products used for soldering of 15mm & 22mm copper pipe.**

- Gas Torch (Swirl flame combustion type)
- MAP/Pro & Propane
- Wrap-around Protective Heat Shield

**Gas - Safety First**

To **minimise risk**, if you **smell, hear or suspect gas** is leaking from the torch or gas cylinder, do not ignite the torch. Move the torch and gas cylinder outside to a **well ventilated area away from any ignition** or heat source and **disconnect the torch from the gas cylinder.**

**Background**

Soldering copper pipe requires the use of a gas torch and a gas e.g **Propane or MAP/Pro**. The main hazard with soldering is fire and soldering has the three fire triangle requirements for fire - **Heat** from the torch, **Fuel** from the gas and surrounding material, **Oxygen** from the air. Always keep a **Fire Extinguisher** within easy reach when soldering to help minimise the risk of fire and injury.

**Fire Extinguisher**

Minimising Risk to users of the torch and property is a legal requirement under Health and Safety Law.

By following the **Best Practice**, risk can be reduced. Importantly when working with gas and torch there will always be a **risk of fire** so ensure that a **fit for purpose and up to date fire extinguisher is within easy reach** when soldering.

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**12 Steps to Minimising Risk**

- **✓ Prior to use - read & follow instructions.**
- **✓ Select correct torch & correct gas for the job.**
- **✓ Do NOT modify, reengineer or disassemble.**
- **✓ Check condition of vents, seals & threads.**
- **✓ Connect cylinder to torch outside building.**
- **✓ Keep Fire Extinguisher within reach.**
- **✓ Wear correct Personal Protective Equipment.**
- **✓ Protect surrounding areas when soldering.**
- **✓ Keep away from children and pets.**
- **✓ Do NOT leave torch and gas unattended.**
- **✓ Disconnect after use.**
- **✓ Transport safely and disconnected.**

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**Why does my torch tip get hot?**

The liquid gas inside the cylinder needs latent (hidden) heat through the walls of the cylinder to vaporize and turn into a gas. Prolonged use of the torch or use in cold surroundings makes the vaporization process more difficult. If the transformation from liquid to gas is getting insufficient heat via the cylinder walls then the pressure of gas supplied drops and the tip gets hot. Let the cylinder warm up naturally without any assistance and recommence the job when the cylinder is warmer.

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**Is it safe to use torches upside down?**

Many torches have anti-flare devices built in. This device is designed to stop the liquid gas in the cylinder reaching the combustion part of the torch. Do **not use the torch upside down for long periods.**

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**How long should my torch last?**

All products get dropped, knocked, bumped and degrade with normal use, wear and tear. A torch is an engineered & complicated product. **Never use a torch if you suspect it is damaged or blocked.**

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