

## **Soldering, Brazing, Welding**

### **Introduction**

These processes all involve heat, possible open flame and potential for injury to people and damage to equipment so care must be taken. The frequency of this work should not be a reason to forgo simple steps to minimize extra work or problems that could result in poor quality work or personal risk. Because of the fire risk, it is important to consider location and housekeeping of the area

### **General**

Because of the fire risk it is important to consider location and housekeeping of the area or use the designated places to do this work. The welding area is well defined and there is a dedicated soldering bench that can be moved to the location where work is being done. The bench has all the equipment needed for soldering as well as very small braze work. Larger braze work in other locations should all start with cleaning up and moving anything flammable, especially any solvents, gas bottles, or sensitive equipment, before starting the work.

### **Precautions**

The welding area has a ventilation fan and it should always be used when work is being done. This also includes any brazing work in the welding area. The soldering bench has a vent fan that is portable, if not used there, it can be taken to a location where soldering is being done and returned to the solder bench when complete.

Always wear eye protection, glasses for soldering and shields or welding helmet for braze and welding work. For welding gloves, jacket, long pants and proper footwear must be worn at all times. Let people around you know the welding area is in use and have them avoid looking at arc.

When finished the job, remember to turn off all welding and soldering equipment and close valves on gas bottles used for brazing. Look for anything that may still be hot and make sure it is not left unattended until cool enough to avoid fire risk.

### **Special Precautions**

NO ONE is to weld, solder or braze without the general safety class from DRS on record and MAY ONLY DO SO after training from NPL shop staff. Only those who have been trained may use equipment and only with DIRECT supervision and explicit permission for EACH use.