

Some useful precautions in the use of infrared equipment can prolong the life of the emitters.

- Avoid vibrations from neighbouring machinery.
- Avoid impact from workpieces swinging on jigs or hangers.
- Avoid frequent starting and stopping at full rated voltage.
- Avoid failure of cooling air over terminals. The terminals must be kept as cool as possible.
- Avoid the movement of mobile units over uneven flooring.
- Avoid bunching of web fed materials in the heater zones.
- Reflectors on all systems must be kept as clean as possible and free of oxidation to maintain the system at peak efficiency and to prevent the reflectors themselves from being overheated.
- Thin sheets of Aluminium foil placed on the unheated hearth of the oven improve internal reflectivity and overall efficiency. These sheets being very low in cost can be replaced frequently if they become contaminated. Such foil should, however, not be allowed to come in close proximity with the emitters.
- Where IR ovens are used for solvent removal processes, checks on the correct operation of ventilating air supplies must be made regularly, including sequencing and interlocking switches which initiate a shutdown of the oven in the event of air supply failure.
- Where automatic control of heat output employs radiation pyrometer sensors, sighting apertures may need to be cleaned periodically to ensure that the temperature signals are accurate and strong.
- Care should be taken that nothing drops on the emitters.
- Over-voltage: If there is a voltage surge of 270V when using elements rated at 230V , lasting for a period of 30 seconds, it will in all probability not affect the elements. However, if it is for a longer duration, the elements will get damaged. Safest range of operation is $\pm 10V$.
- In case of thermocouple elements, sometimes the connection point (of the thermocouple leads and the extension wire) tends to become very hot. This point should be kept as cool as possible