

Guidance on the safe use and maintenance of café boilers

Café boilers, also known as Espresso/coffee machines, are prevalent in cafés, tearooms, public bars and restaurants.

Most café boilers incorporate the use of a steam boiler and fall within the definition of a pressure system. Failure during use can result in serious, or fatal, injuries to anybody in close proximity as well as significant damage to property.



For example, a café boiler in a UK supermarket café failed catastrophically due to over pressurisation. The boiler itself was propelled over the counter and landed in the customer area, resulting in several people being hospitalised.

This guidance is aimed at employers and the self-employed who own and/or operate café boilers. It sets out what they need to do to minimise the risks when working with café boilers and to comply with their legal obligations under health and safety law.

Legal requirements

Article 3 of the Health and Safety at Work (Jersey) Law 1989 (HSW Law) places a duty on every employer to ensure, so far as is reasonably practicable, the health, safety and welfare of all their employees whilst at work. This extends to the provision and operation of safe, well-maintained equipment, including café boilers.

Article 5 of the HSW Law places a duty on employers and the self-employed to conduct their undertaking in such a way as to ensure, so far as is reasonably practicable, that persons other than their employees, such as members of the public, are not exposed to risks to their health or safety.

'The Safety of Pressure Systems and Transportable Gas Containers: Approved Code of Practice' (ACoP) sets out practical guidance on how to comply with the general duties imposed by the HSW Law. By following the ACoP you will be doing enough to comply with the law.

Principal causes of pressure-related incidents

Café boilers are typically subject to high volumes of use and if not used properly and well-maintained can result in risks to staff and others in the vicinity.

The principal causes of incidents and accidents are due to:

- poor equipment and/or system design
- poor installation
- poor maintenance of equipment
- inadequate repairs or modifications
- an unsafe system of work for the operation of the equipment
- operator error, poor training and/ or supervision

The main hazards are:

- impact from the blast of an explosion or release of compressed liquid
- impact from parts of equipment that fail or any flying debris
- contact with the released liquid, such as steam

Managing the risks

To manage the risk of poor maintenance and operation of café boilers, the following should be addressed:

Provision of safe and suitable equipment

Ensure the café boiler is suitable for its intended purpose and designed for use in a commercial setting. Make sure it is installed correctly, and any modifications/repairs are carried out properly, by a competent person.

Understand and always follow the manufacturer's directions in respect of the pressure system including the safe operating limits, and making sure adjustable devices are always set to their correct settings and in good working order to ensure they function properly.

The equipment should be subject to regular maintenance by someone who is competent to do so and should follow written procedures that take account of the manufacturer's instructions, any special factors relating to the particular use of the pressure equipment and frequency of operation. A record of such maintenance and any remedial actions should be kept by the user/owner.

Written scheme of examination and thorough examination and inspection

A competent person should be appointed to draw up a Written Scheme of Examination (WSE) before the machine is brought into use, and to carry out subsequent examinations at the frequency set out in the WSE.

The competent person must have the necessary knowledge, skills and, importantly, independence to undertake their role and responsibilities effectively. In most cases the competent person will be an engineer surveyor appointed by the employer's insurers.

Suitable arrangements should be in place for addressing any issues that may be raised as a result of the thorough examination and inspection.

Provision of operator training

All persons operating the café boiler must be given adequate training and provided with clear operational instructions, which should be updated as required to ensure that they are fully conversant with the operation of all protective devices.

Manufacturer's instructions and/or other suitable operating procedures should be readily available to operators. All training should be documented and designed to ensure that operators understand the procedures and dangers that may arise from incorrect operation. Operators and their managers should be fully aware of the dangers of bypassing or interfering with safety devices or of other malpractice.

Further guidance

A copy of the 'Safety of Pressure Systems and Transportable Gas Containers – Approved Code of Practice' is available on the Inspectorate's website at www.gov.uk/hsi

Further guidance aimed at owners and /or operators of café boilers is provided by The Safety Assessment Federation, in conjunction with the UK Health and Safety Executive, via [Cafe-Boiler leaflet-Issue-01-15-Oct-2021-.pdf \(safed.co.uk\)](https://www.safed.co.uk/leaflets/Cafe-Boiler-leaflet-Issue-01-15-Oct-2021-.pdf)