

Pressure Equipment

*Pressure Equipment Regs 1999: 2001 ECA
as amended by 2002: 1267, 2004: 639, 2008: 960, 2008: 1597,
2012: 1809, 2014: 469, 2015: 399 and 2015: 1630*

12 months from commission

TSO's – equipment for private use or consumption only

Application

1). Applies to pressure equipment (vessels, piping, safety- and pressure-accessories, and, where applicable, elements attached to pressurised parts, eg flanges, nozzles, couplings, supports and lifting lugs) **and** assemblies with a maximum allowable pressure greater than 0.5 bar.

2). Does not apply to

- ♣ items covered by Directives on
 - ♥ simple pressure vessels,
 - ♥ aerosol dispensers,
 - ♥ equipment for cars and trailers,
 - ♥ equipment for two or three wheel motor vehicles,
 - ♥ machinery, lifts, electrical equipment, medical devices, gas appliances, equipment and protective systems intended for use in potentially explosive atmospheres,
- ♣ pressure equipment consisting of a flexible casing, eg tyres, air cushions, balls used for play, inflatable craft,
- ♣ exhaust and inlet silencers,
- ♣ bottles or cans for carbonated drinks for final consumption,
- ♣ vessels for the transport and distribution of certain drinks,
- ♣ central heating radiators and pipes,
- ♣ vessels for liquids with a gas pressure above the liquid of not more than 0.5 bar,
- ♣ the assembly of pressure equipment on the site under the responsibility of the user,
- ♣ pressure equipment and assemblies
 - ♥ placed on the market before 29 November 1999,
 - ♥ placed on the market before 30 May 2002 which complied with the safety provisions in force on 28 November 1999, **unless**
 - ♦ it bears a CE mark (**unless** this was required by other regulations), **or**
 - ♦ it bears or is accompanied by any other indication that it complies with the Pressure Equipment Directive,
 - ♥ exhibited at trade fairs and exhibitions, which do not comply with the regulations, provided that
 - ♦ a notice is displayed stating that it does not comply with the regulations, **and** that it must not be placed on the market or supplied until it does, **and**
 - ♦ people's safety is assured if it is demonstrated,
 - ♥ to be used outside the EC, **or** imported into the EC for re-export outside the EC, **unless** it bears a CE mark, or a marking likely to be confused with it,
 - ♥ which has been used otherwise in the course of a business at all times since its manufacture or import.

Definition

Responsible person - the manufacturer, his authorised representative in the EC, or, if there isn't one, the person who places it on the market.

Safety

1). A responsible person must not place on the market

- ♣ pressure equipment, ie
 - ♥ vessels and piping for gases, liquefied gases, gases dissolved under pressure, vapours etc within certain volume and pressure limits,
 - ♥ fired or otherwise heated pressure equipment with the risk of overheating intended for generation of steam or super-heated water at temperatures higher than 110°C having a volume greater than 2L, and all pressure cookers, **or**
 - ♥ accessories for the above, **or**
- ♣ certain assemblies (including a product intended by the manufacturers to be placed on the market as an assembly) which include any of the above

unless

- ♣ it satisfies the essential safety requirements, eg it must
 - ♥ be safe when used in accordance with the manufacturer's instructions, or in reasonably foreseeable conditions,
 - ♥ have warnings about misuse, if the dangers cannot be eliminated,
 - ♥ be safe throughout its intended life,
 - ♥ be strong enough,
 - ♥ be designed for loadings appropriate to its intended use and other reasonably foreseeable operating conditions, eg internal/external pressure, temperature, corrosion erosion, and fatigue,
 - ♥ allow safe handling, eg closures and openings (eg a device to prevent it being opened when the pressure or temperature of the fluid presents a hazard), dangerous discharge of pressure relief blow-off, prevention of access whilst pressure or a vacuum exists, surface temperature,
 - ♥ be designed so that examinations can be carried out safely,
 - ♥ have means to drain and vent it, eg to avoid harmful effects,
 - ♥ have protection against corrosion or chemical attack,
 - ♥ have the effect of severe erosion or abrasion minimised,
 - ♥ be able to be filled and discharged safely,
 - ♥ have protection against exceeding the pressure limits (this could include an alarm enabling automatic or manual action to be taken,
 - ♥ be possible to trace through the production process the material used for pressure resistance,
 - ♥ undergo final inspection (on every part of the equipment in the course of manufacture if final inspection is no longer possible),
 - ♥ not be significantly affected by ageing,
- ♣ a conformity assessment procedure has been carried out,

- ♣ it bears a CE mark,
- ♣ a declaration of conformity has been drawn up by the manufacturer or his authorised representative in the EC, **and**
- ♣ it is in fact safe.

NB: If it complies with a transposed harmonised standard it is presumed to satisfy the essential safety requirements.

- 2). A responsible person must not place on the market pressure equipment or an assembly which is below the volume and pressure limits mentioned under 'pressure equipment' in paragraph 1 above **unless** it
 - ♣ is designed and manufactured in accordance with sound engineering practice in order to ensure safe use,
 - ♣ is accompanied by instructions,
 - ♣ bears markings to identify the manufacturer or of his authorised representative established within the EC,
 - ♣ is safe, **and**
 - ♣ does **not** bear the CE mark.
- 3). Pressure equipment or an assembly which
 - ♣ is CE marked, **and**
 - ♣ is accompanied by an EC declaration of conformity
 must be assumed to comply with the regulations, **unless**
 - ♣ there are reasonable grounds for suspecting that it does not, **or**
 - ♣ a person fails to make available to a TSO a copy of the 'declaration of conformity' documentation.
- 4). A person who is **not** a responsible person must not supply equipment or an assembly which is unsafe.

Labelling

- 1). Labelling, marking, information and instructions must be in English.
- 2). The CE marking and information must be on the pressure equipment **or** on a dataplate firmly attached to it, **except** that
 - ♣ where applicable, appropriate documentation may be used to avoid repetitive marking of individual parts intended for the same assembly,
 - ♣ where the pressure equipment is too small, e.g. accessories, the 'further information' below may be given on a label attached to that pressure equipment,
- 2). The CE mark must
 - ♣ be at least 5mm high,
 - ♣ be accompanied by the number of the notified body,
 - ♣ be fixed indelibly to each item of pressure equipment or assembly so that it is visible and easily legible, although each item of pressure equipment in an assembly does not need to be CE marked **unless** it was when the assembly was built,
 - ♣ include an indication that the equipment or assembly is presumed to comply with other directives, if it is subject to other CE marking Directives, **and** if in a transitional period, indicate that the product fulfils the provisions only of the directive(s) applied by the manufacturer (particulars of which must be given in the accompanying documents, notices or instructions).
- 3). No person may affix any marks or inscriptions which might
 - ♣ mislead third parties about the meaning or form of the CE mark,

- ♣ make the CE mark less visible or legible.
- 4). The following information must be provided
- ♣ for all pressure equipment:
 - ♥ the name and address or other means of identification of the manufacturer **and**, where appropriate, his authorised representative established within the Community,
 - ♥ the year of manufacture,
 - ♥ its identity eg type, series or batch identification and serial number,
 - ♥ essential maximum/minimum allowable limits, **and**
 - ♣ depending on the type of pressure equipment: **further information** necessary for its safe installation, operation or use, **and**, where applicable, maintenance and periodic inspection, eg
 - ♥ the volume V of the pressure equipment in L,
 - ♥ the nominal size for piping DN,
 - ♥ the test pressure PT applied in bar and date,
 - ♥ safety device set pressure in bar,
 - ♥ output of the pressure equipment in kW,
 - ♥ supply voltage in V (volts),
 - ♥ intended use,
 - ♥ filling ratio kg/L,
 - ♥ maximum filling mass in kg,
 - ♥ tare mass in kg,
 - ♥ the product group,
 - ♣ where necessary: warnings fixed to the pressure equipment about misuse.
- 5). Instructions must
- ♣ give details of
 - ♥ mounting and assembling of different pieces of pressure equipment,
 - ♥ putting into service,
 - ♥ use, **and**
 - ♥ maintenance, including checks by the user,
 - ♣ include the above information (except for the serial number) **and** must be accompanied, where appropriate, by technical documents, drawings and diagrams necessary for a full understanding,
 - ♣ refer, if appropriate, to hazards arising from misuse.

Compliance Notice

- 1). **Except for** taking enforcement action
- ♣ under the CRA to ascertain whether a CE mark has been correctly affixed,
 - ♣ in respect of CE marked pressure equipment or an assembly which jeopardises the safety of any person, domestic animals or property, **or**
 - ♣ after the expiry of a compliance notice,
- the **only** enforcement action which may be taken in respect of non-compliant equipment or assemblies is the serving of a compliance notice on the manufacturer or his authorised representative in the EC, **or**, if

neither of them has placed the product on the market, the person who placed it on the UK market.

2). The notice must

- ♣ state that a CE mark has been affixed incorrectly,
- ♣ give reasons for suspicions,
- ♣ either
 - ♥ require the infringement to be rectified within a specified period, **or**
 - ♥ require evidence of compliance to be produced,
- ♣ warn that further action may be taken if the notice is not complied with.

3). TSOs must inform the Secretary of State if equipment or assemblies are prohibited or restricted etc.