

# A Concise Guide to Pressure Systems Regulations

*Assisting with pressure systems compliance*

## What legislation applies?

If you have a pressure system on your site the following legislation may apply:

- The Pressure Systems Safety Regulations 2000 (PSSR) is the primary piece of legislation relating to pressure systems - also commonly referred to as piped systems. Its purpose is to ensure systems are properly designed, installed, maintained and inspected so as to prevent serious injury from the failure of the system, or one of its component parts.
- Additionally, the Provision and Use of Work Equipment Regulations 1998 aims to ensure that work equipment “should not result in health and safety risks, regardless of its age, condition or origin”.
- More generally, the Health and Safety at Work Act 1974 requires employers to provide and maintain plant and systems of work that are safe and without risks to health.

## Does my pressure system fall within the scope of PSSR?

The PSSR regulations are complex but broadly speaking, if you have...

- Pipework containing a relevant fluid that operates above 0.5 bar pressure (approx 7psi) with protective devices (e.g. a safety valve and / or gas regulator) to which a gas cylinder, cylinders, bulk storage tank or cryogenic vessel is connected

and/or

- A pressure storage vessel, including cryogenic storage vessels, with associated pipework and protective devices that has a pressure x volume equal to 250 bar litres or more (multiply the litre volume of your vessel by the pressure at which the primary relief valve operates e.g. 200 litre x 3.5 bar = 700 bar litres)

...you are in the scope of PSSR and need to be compliant.

*Note: Certain pressure systems are exempt from all or part of the PSSR legislation. Please contact us for assistance if you are in any doubt.*



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## What must I do to comply with PSSR?

The Pressure Systems Safety Regulations 2000 require users / owners to:

- ***Ensure that a Written Scheme of Examination (WSE) is in place before the system is used***

Any pressure system that is within the scope of PSSR must have a WSE. This is a legal requirement, you cannot operate the system without one.

A WSE defines how a pressure system functions and, among other things, how often (and how) it needs to be inspected – the Health and Safety Executive (HSE) refers to this inspection as an ‘examination’.

The WSE has to be drawn up by a Competent Person, or by the owner of the system or vessel and certified as suitable by a Competent Person.

- ***Ensure that the system is being examined in accordance with the WSE***

Any pressure system that falls within the scope of PSSR and therefore has a WSE must be periodically examined (inspected) in accordance with it. The WSE will detail how often and how this must take place. It is very likely to include the requirement to pressure test the system. The examinations must be conducted by a Competent Person at the intervals identified in the WSE.

If a system has not been examined and its scheduled examination date has passed, the PSSR legislation states that system must not be used until an examination has been carried out, unless a written grant of postponement has been obtained from the HSE or similar.

- ***Keep all documentation up to date and easily accessible for audit***

The PSSR legislation requires that the user / owner of a pressure system must keep various documents available for inspection by the HSE or similar. These include examination reports relating to the system and any documents supplied by the systems designer or installer.

- ***Carry out proper maintenance on the system***

Pressure systems must be properly maintained and in a good state of repair. They must not present a danger to either employees or members of the public. All parts of the system that need to be maintained or replaced must receive attention to ensure their ongoing suitability, including items such as pressure relief devices. This is the legal responsibility of the user or owner of the system.



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## ● *Know the safe operating limits of the system*

To prevent accidents, the PSSR legislation states that the owner / user of a pressure system must not operate it until its safe operating limits are known. Additionally, it should not be operated beyond its safe operating limits. The systems limits will be documented in its WSE.

## **What else must I do to be compliant?**

## ● *Provide adequate operating instructions to any person operating the system*

PSSR legislation does not cover the need for training relating to pressure systems however, The Provision and Use of Work Equipment Regulations 1998 does.

Any person operating a pressure system must be trained so they know how to operate it safely. They should also be trained in any special procedures to be followed in the event of any emergency.

## ● *Distribution pipework that operates below 0.5 bar is not subject to a Written Scheme of Examination but requires regular maintenance and pressure testing*

In addition to the various legislation outlined above, British Compressed Gases Association (BCGA) Code of Practice 23 relates to pressure systems. Its purpose is to detail how the PSSR legislation relates to compressed gases. It also gives guidance on what tests should be undertaken on pipework that is not covered by a systems Written Scheme of Examination.

Put another way, it states that the distribution pipework associated with a pressure system, while not subject to testing under the WSE, must also receive proper regular maintenance and testing to ensure its ongoing safety. The Code of Practice is not law like other legislation but does have a special legal standing; it is regarded as the minimum acceptable standard. Should an organisation fail to adhere to it the HSE can prosecute in much the same way as they can re non-compliance of the main legislation relating to pressure systems.



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## Explanations of terms

### ● Competent person

The definition and role of a Competent Person under PSSR is quite complex. It may however be summarised by saying that, with the exception of very large organisations who may employ their own Competent Person, organisations should appoint a Competent Person who has suitable qualifications and experience (e.g. a Chartered Engineer) and is independent

Should you require any further guidance or explanation regarding the definition and role of a Competent Person under the PSSR legislation, please contact us for advice.

### ● Relevant fluid

The PSSR legislation defines a relevant fluid as a gas or mixture of gases, or a liquid that would turn into a gas if system failure occurred. As well as compressed and liquefied gases it also specifically includes steam and compressed air.

This document provides an overview of Pressure Systems Regulations - please visit **[www.gas-safe-pressure-systems.com](http://www.gas-safe-pressure-systems.com)** for details of how Gas Safe Pressure Systems services can assist you with compliance

## Contact us...

If you know or wish to discuss your requirements;  
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