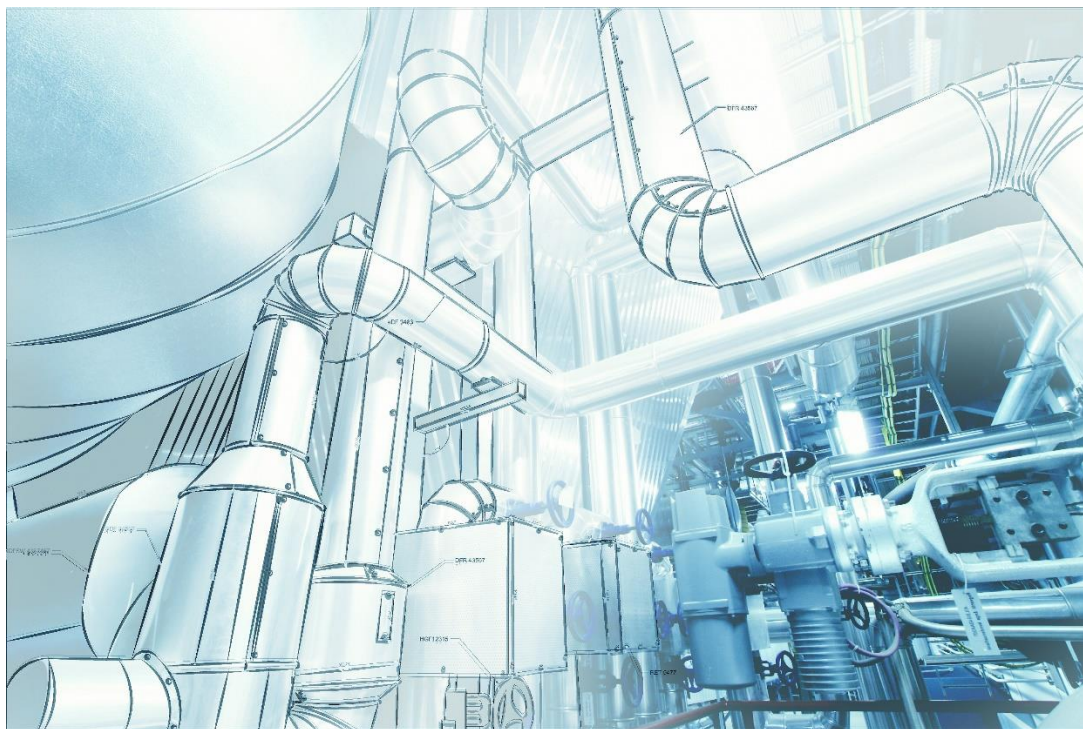


UK Pressure Equipment

A guide to pressure system installation where site assembly is required under the control of the end user

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PECF

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Foreword

This document has been developed by the Pressure Equipment Consultation Forum (PECF), Safety Assessment Federation (SAFed) and Engineering Equipment and Materials Users Association (EEMUA) in consultation with Lloyd's Register and other stakeholders within the pressure equipment industry to help designers, purchasers, installation contractors, users and other parties achieve their legal requirements to ensure pressure equipment can be correctly certified prior to use in the United Kingdom.

This document has been prepared using technical advice provided by the Health and Safety Executive (HSE).

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1. Introduction

- 1.1 This document is written to assist stakeholders in understanding the roles and activities when assembling pressure equipment on site. The activity of assembly may involve some design and manufacture. The need for the document has arisen after many years of questions and interpretations of Regulations and is perhaps more important as the UK evolves in its relationship with other trading partners following its departure from the EU trading bloc. The primary intention of this document is to address activities on site whether under the control of the end user of the pressure equipment or by other parties. It refers to other guidance where activities overlap with previous documents and does not repeat the content of existing documents.
- 1.2 This document primarily relates to pressure systems containing a relevant fluid as defined under the Pressure Systems Safety Regulations 2000 (PSSR). Where a relevant fluid is not present, other relevant legislation that may be applicable (such as PUWER, COMAH, DSEAR) must be consulted, the methodology in this document may still be a useful means of complying with such legislation.
- 1.3 The Pressure Equipment (Safety) Regulations 2016 (PE(S)R) originally transposed European Directive 2014/68/EU and remains the UK law relating to design, manufacture and supply of pressure equipment which has a pressure greater than 0.5 bar gauge.
- 1.4 The PE(S)R includes requirements for the type and level of audit-trail, testing and certification required, to demonstrate that the pressure system is safe before it can be operated. Often this may involve a Conformity Assessment Body at the Design, Construction and Installation stages, to review this evidence.
- 1.5 Guidance from BEIS also involves identification of the relevant fluid Group (1 or 2) and additional criteria based on the pressure and volume that the pressure system is intended to contain (referred to as Classification charts). BEIS guidance can be obtained via the weblink in section 8 of this document.
- 1.6 PE(S)R commenced on 08th December 2016 and applies to the majority of pressure systems, with exclusions and limitations stated within the Regulations. These relevant clauses with respect to this document are reproduced below:

Pressure equipment and assemblies

3. ***(1) Subject to paragraph (2) and regulation 4, these Regulations apply to pressure equipment and assemblies with a maximum allowable pressure PS greater than 0.5 bar.***

(2) These Regulations apply to pressure equipment and assemblies placed on the market on or after the commencement date.

Excluded pressure equipment and assemblies

4. ***(1) These Regulations do not apply to the items listed in Schedule 1.***

(2) These Regulations do not apply to the assembly of pressure equipment on the site of and under the responsibility of a user who is not the manufacturer.

2. Scope

- 2.1 The purpose of this document is to provide practical advice on how legal compliance should be demonstrated where on-site manufacture and assembly of pressure equipment are undertaken under the direct control of the intended user of the equipment (and shall be subsequently referred to as “the end user” in this document).
- 2.2 A summary of the various design, construction and installation assessment routes related to pressure equipment are illustrated in the flowchart (Figure 1) below. The end user should follow this flowchart, to ensure they have correctly followed the appropriate compliance route.

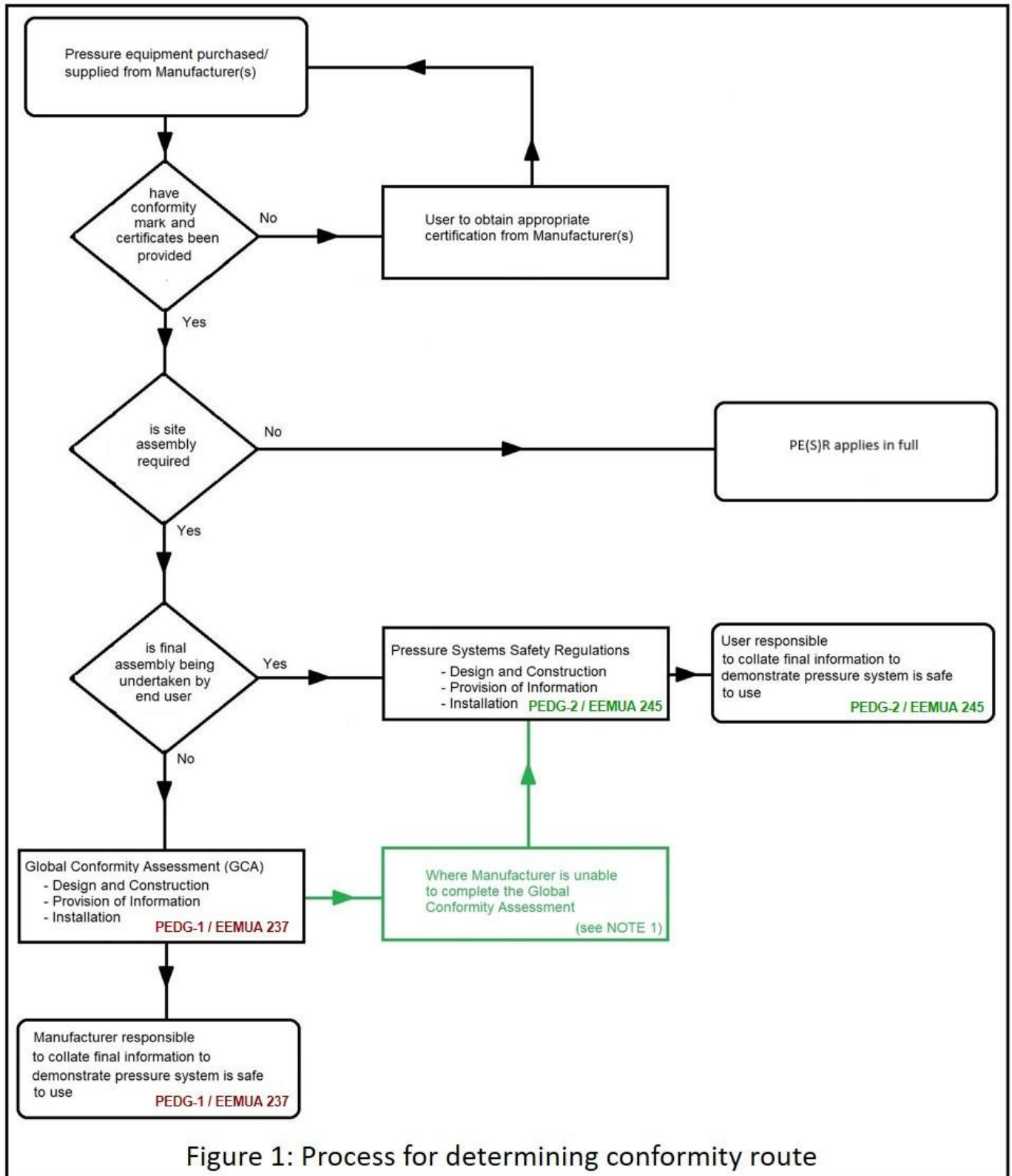


Figure 1: Process for determining conformity route

NOTE 1 - In exceptional circumstances where the GCA cannot be completed, the end user may assume the role for the on-site assessment. This is shown in green in Figure 1

NOTE 2: For “CE” mark, after 31 December 2020 a UKCA mark is allowed and after 31 December 2021 a UK CA mark is required in lieu of or in addition to a CE mark.

3. Application

- 3.1 This document relates only to the on-site manufacture, assembly and integration aspects for a pressure system containing a relevant fluid as defined under the Pressure Systems Safety Regulations 2000 (PSSR)¹.

NOTE 1: Where on-site assembly and integration of the pressure system is undertaken by the end user, they must identify and refer to all other relevant legislation that may be applicable (such as PUWER, COMAH, DSEAR) especially where the pressure system does not contain a relevant fluid.

- 3.2 Where third-party manufacture or assembly takes place on-site as part of the final installation of the pressure system under the control of an intermediary, such as a main/principal contractor, this requires a Global Conformity Assessment (GCA), defined within PE(S)R².

NOTE 2: Guidance PEDG-1/EEMUA 237 has been produced to provide a route for compliance for the overall (i.e. “global”) assessment of the on-site final assembly by a manufacturer or person in direct control, other than the end user.

- 3.3 For clarification, the term “manufacture” relates to the creation of a component that is introduced into the pressure system. The term “assembly” relates to the bringing together and jointing of components that already exist i.e. they have previously been manufactured. The PE(S)R refers to items of equipment, these are all “manufactured”, prior to assembly.
- 3.4 For the purposes of this document, the end user remains responsible for confirming that the correct conformity paperwork accompanies all pre-assembled and manufactured pressure equipment in compliance with PE(S)R. This document expands on the particular requirements of Regulations 4 to 7 of PSSR to meet the requirements for on-site manufacture and assembly under the control of the end user, together with a quick reference guide in Appendix B that acts as an aide-memoire for the requirements.
- 3.5 Additionally, regulation 8 of PSSR requires the end user to engage a Competent Person, in order to produce a Written Scheme of Examination (WSE), before the pressure system is operated. To allow creation of the WSE in good time, the Competent Person will need to refer to the relevant conformity documentation (to be provided by the end user) so as to devise a suitable WSE. The Competent Person in this instance is not responsible for reviewing or authorising the design, construction or on-site installation of the pressure system unless agreed under specific circumstances.