

# **Information regarding the requirements of the Pressure Equipment Directive 2014/68/EU.**

## **Dovre Sertifisering AS GUIDELINE**

**GL-DSE-2020-011 Information that  
could be required to perform a  
conformity assessment of pressure  
equipment**

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Last Revision date: November 25<sup>th</sup> 2020.

**Number: GL-DSE-2020-011 Information to perform a Conformity assessment of pressure equipment**

To perform a conformity assessment a Notified Body needs to receive enough information to assess the design against the essential safety requirements of the PED 2014/68/EU. This information depends on the type and complexity of the system under investigation.

We have made a list to inform the manufacturer on the basic information that could be required to perform the conformity assessment.

The list is extensive and it is possible that not all information will be applicable for your specific equipment. If you are in doubt or have any questions regarding the information please contact us. We will help you to clarify what information is needed for your equipment.

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## Some general rules

For all types of pressure equipment the following applies.

- If the product is in the scope of PED 2014/68/EU, the directive applies
- Under PED, standards are voluntary. The manufacturer is responsible to ensure that the product meets the requirements of the directive
- If a European harmonised standard is used, there is presumption of conformity with the Directive (at least and limited to the ESR (Essential Safety Requirements) listed in Annex Z(A))
- If another standard and or private code is used, the manufacturer has to demonstrate compliance with all applicable ESR.
- The fact that a standard is well-known, commonly used, .... Is in itself not sufficient.
- The reference with the requirements is the Directive, not the standard.

To prevent issues with the ESR of the PED it should be prevented that bits and pieces of various codes are mixed. This could cause serious problems and is dangerous as the standard/code need to be applied in full for coherence and safety reasons.

By using private codes such as ASME, additional measures must be taken by the manufacturer and taken into consideration by Dovre Sertifisering AS to ensure full compliance with PED. The manufacturer shall document the compliance and confirm this in the DOC. Dovre Sertifisering AS shall ensure that based on category and module used that full compliance with PED is verified.

The use of other non-harmonised standards will only be indicated on the COC if these are reviewed and validated and confirmed that these are used in full. To prevent any issues on this matter Dovre Sertifisering will review the pressure equipment according to Harmonised standards if not specifically mentioned otherwise.

We refer to the following Guidelines for more information.

Guideline: F-06; Guideline: F-08; Guideline: G-01; Guideline: F-08; Guideline: I-06; Guideline: I-05.

**Pressure vessel (including accessories under pressure)**

**Basic information that is required for all pressure vessels.**

1. Application for a conformity assessment.
2. Technical specifications of the pressure vessel (Pressure, temperature, Fluid description and phase).
3. The (harmonised) standards used for the design of the vessel.
4. Design calculations and drawings (the documents should include latest revisions and date).
5. Materials used for the construction of the vessel.
6. Risk / hazard analysis.
7. Serial and TAG number.

**Other information that could be required if found applicable.**

8. For vessels with a module B approval a design or product approval document is required if the vessel was approved before.
9. Information on forging, pressing, cold / hot forming of components.
10. Information the welding of the vessel (procedures, approvals etc.).
11. Information on the Non-destructive testing.
12. Heat treatment information (if required).
13. Information on hydrostatic testing and other tests.
14. Marking of the piping.
15. User manual (ref. to CEN/TS 764-6).

## Piping

### Basic information that is required for all piping.

1. Application for a conformity assessment.
2. Technical specifications of the piping (Pressure, temperature, Fluid description and phase).
3. The (harmonised) standards used for the design of the piping.
4. Design calculations and drawings (the documents should include latest revisions and date).
5. Materials used for the construction of the piping.
6. Risk / hazard analysis.
7. Serial and TAG number and marking of the piping.
8. Marking of the piping.

### Other information that could be required if found applicable.

1. Drawings that show the supports and piping elevations.
2. Information on piping components (Valves, safety equipment).
3. Information on forging, pressing, cold / hot forming of components.
4. Stress and/ or flexibility analysis.
5. For piping with a module B approval a design or product approval document is required if the vessel was approved before.
6. Information the welding of the piping (procedures, approvals etc.).
7. Information on the Non-destructive testing.
8. Heat treatment information (if required).
9. Information on hydrostatic testing and other tests.
10. Quality plan (production, test and inspection).
11. User manual (ref. to CEN/TS 764-6).

## Assemblies

### Basic information that is required for all assemblies.

1. Application for a conformity assessment.
2. Process description.
3. Complete overview of all substances in the system (if the system contains different substances).
4. Process flow diagram (PFD).
5. Piping & Instrumentation diagram (P&ID) or Engineering flow diagram (EFD).
6. The (harmonised) standards used for the design.
7. Classification list and line list.
8. Description of all safety features against exceeding the allowable limits (PSV, Flow limiters, Level control and instrumental safety).
9. CE documents of all separate pressure equipment where applicable.
10. Risk / hazard analysis.
11. Design calculations and drawings (the documents should include latest revisions and date).
12. Information on piping components (Valves, safety equipment).
13. User manual (ref. to CEN/TS 764-6).
14. Maintenance instructions.

### Other information that could be required if found applicable.

1. Mass flow balance calculations.
2. SIL calculations.
3. Heat balance due to exothermal reactions.
4. Stress and/ or flexibility analysis.
5. Information on the supports and piping elevations.
6. Information the welding of the piping (procedures, approvals etc.).
7. Information on the Non-destructive testing.
8. Information on environmental conditions (loads, connected systems).
9. Information on all pressure generating equipment (pumps, compressors).
10. Calculation of flare system, flame arresters, blow off systems.
11. Heat treatment information (if required).
12. Information on drain and purge systems.
13. Information on hydrostatic testing and other tests.
14. Quality plan (production, test and inspection).
15. Marking of the piping.

## **Safety equipment**

### **Basic information that is required for all assemblies.**

1. Application for a conformity assessment.
2. Documentation on the boundaries of the system under investigation.
3. Documentation on the identification of the components.
4. Explanation on the function of the system.
5. Explanation on the "layout" and technical documentation on the protection of the pressure equipment.
6. Calculation of the capacity of the safety equipment.
7. Marking of the equipment.
8. User manual (ref. to CEN/TS 764-6) this could include (including, maintenance, spare parts and required inspection).

### **Other information that could be required if found applicable.**

1. Set values of the equipment.
2. Report on changes of the set values of the equipment.