

Guideline**2/19****CLAP****FORM N°110****Version : 8****Directive 97/23/EC****Keywords :**

Vessel

Compartment

Directive references:

Article 9 § 1 and § 3 - 97/23 EC

Article 3 § 1.1 - 97/23 EC

Article 1 § 2.1.1 - 97/23 EC

Annex I § 2.2.23b first indent - 97/23 EC

Adopted by WPG: 31/03/2006**Adopted by CLAP:** 31/03/2006**Subject:** Classification – Vessels made of several "compartments"**Question:**

Do two housings, designed to contain fluids under pressure and which have a common boundary (e.g. separating wall), constitute two vessels, or two chambers of the same vessel and what requirements apply to such an item of pressure equipment?

Answer:

They constitute two chambers of the same vessel.

Technical requirements and conformity assessment procedure to be applied are determined as follows:

- each chamber will be classified according to Article 3 § 1.1 and Article 9 § 1. This establishes the technical requirements for each chamber.
- the conformity assessment procedure to be applied to the whole vessel is based on the highest category of the chambers.

The technical requirements to be applied to the common boundary are those of the highest category of the two chambers.

Hazard analysis of individual chambers must take account of the effect of any perceived hazard on the vessel as a whole.

The marking shall include the limits of the two chambers even if the limits of one chamber do not exceed the limits of Article 3 § 1.1.

Reason: If a vessel is composed of a number of chambers each individual chamber must be first classified. The classification and the technical requirements of each individual chamber are based to Article 3 § 1.1 and Article 9 § 1. The conformity assessment procedure to be applied to the whole vessel is determined by the highest category.

Examples:

- A refrigerant heat exchanger that has water in tube or shell side,
- A valve body or a pipe with heating or cooling jacket that has a small volume.

NOTE 1: Sound engineering practice can be applied as technical requirement for a chamber that does not exceed relevant limit of Article 3 § 1.1.

NOTE 2: Refer to CLAP 74 - Guideline 1/13 for those cases where maximum allowable pressure of a chamber does not exceed 0,5 bar.