

Guideline**2/34****CLAP****FORM N°250****Version : 4****Directive 97/23/EC****Keywords :** Compressor

Vessel

Category

Directive references: Article 1 § 2.1.1 - 97/23 EC

Article 1 § 2.5 - 97/23 EC

Article 9 § 3 - 97/23 EC

Adopted by WPG: 07/09/2004**Adopted by CLAP:** 07/09/2004**Subject:** Classification – Category of hermetically sealed refrigeration compressor**Question:** How to determine the category of a hermetically sealed refrigeration compressor?**Answer:** Hermetically sealed refrigeration compressors are pressure vessels.

Usually, a compressor is composed of two chambers: the low pressure side PS1, the volume of which is V1, and the high pressure side PS2, the volume of which is V2. The equalizing pressure during standstill is PS3 (always higher than PS1).

The category is the higher of the low pressure side (based on PS3 and V1) and of the high pressure side (based on PS2 and V2).

See CLAP 29 - Guideline 1/12.

Note 1: The highest pressure cannot occur simultaneously on both sides; during standstill there is no direct communication between the 2 chambers, due to the presence of the valves; if a valve fails, the movement of the piston cannot create pressure.

Note 2: When a compressor has more than 2 chambers (i.e. several chambers constitute the low pressure side and several chambers constitute the high pressure side) the above volumes V1 and V2 are the sums of the low pressure and the high pressure chambers respectively.

Modification compared to the previous adopted version: Copy of guideline 2/34 (07/09/2004).