Guideline	Ar.1-01	CLAP	FORM N°Z001
			Version : 1

Directive 87/404/EEC

Directive references: Article 1

Adopted by WPG: November 1993 **Adopted by CLAP:** November 1993

Subject: Permanent of removal fittings

Question: Do vessels with permanent or removable fittings fall within the scope of Directive 87/404/EEC?

Answer:

Withdrawn in August 1998

1) Vessels with permanent or removable fittings fall within the scope of the Directive in as far as the fittings
- do not cause additional stresses nor corrosion problems impairing the safety of the vessels and
- do not render the inspection of the inside impossible.

2) When the volume is calculated for the purpose of determining the risk potential, the volume taken up
- by the permanent fittings may be subtracted from the volume of the vessel;
- by the removable fittings may not be subtracted from the volume of the vessel.

Reasons
b1) No fundamental restrictions are placed on fittings by the Directive's requirements.
b2) Permanent fittings are incompressible and therefore lessen the risk potential by reducing the volume. With removable fittings there is no guarantee that the vessel will be always operated using these fittings.

Guideline	Ar.1-02	CLAP	FORM N°Z002
			Version : 1

Directive 87/404/EEC

Directive references: Article 1

Adopted by WPG: Novembre 1993 **Adopted by CLAP:** Novembre 1993

Subject: Fillers

Question: Do vessels containing fillers intended for the treatment of air or nitrogen fall within the scope (Article 1) of Directive 87/404/EEC?

Answer:

1) If the vessels are intended to contain air or nitrogen and the fillers in the vessels
a) serve to treat air or nitrogen,
b) do not attack the vessel wall and
c) guarantee safe operation in conjunction with the transport medium, the vessels containing these fillers can be treated as simple pressure vessels.

2) When the volume is calculated for the purpose of determining the risk potential, the volume taken up by the fillers may not be subtracted from the volume of the vessel.

Reasons
b1) No fundamental restrictions are placed on fillers provided all of the Directive's requirements are satisfied.
b2) It is not always possible to assume that these vessels will be used only with the planned volume of filler(s).

Guideline	Ar.1-03	CLAP	FORM N°Z003
			Version : 1

Directive 87/404/EEC

Directive references: Article 1

Adopted by WPG: November 1993 **Adopted by CLAP:** November 1993

Subject: Liquid media

Question: Do vessels in which the transport medium of air or nitrogen also includes other media fall within the scope (Article 1) of Directive 87/404/EEC?

Answer:

Provided that
1) the medium of air or nitrogen can include another medium (e.g. oil or water) and
2) the vessel is intended to contain air or nitrogen (i.e. the other media are merely suspended regardless of their possible percentages by volume)

vessels including these other media in the transport medium (for example oil separators) should be treated as simple pressure vessels.

Reasons
See record of the Commission working party meeting of 25.5.1992, item 7. This states, in relation to air/oil separators "Vessels for the purpose of separating oil or water from compressed air or nitrogen and of a construction complying with the simple vessel definition were considered to be within the scope of the directive."

Note: the parts of the text which have been amended are underlined.

Guideline	Ar.1-04	CLAP	FORM N°Z004
			Version : 1

Directive 87/404/EEC

Directive references: Article 1

Adopted by WPG: November 1993 **Adopted by CLAP:** November 1993

Subject: Multi chamber vessels

Question: Under what conditions do multi-chamber vessels fall within the scope (Article 1) of Directive 87/404/EEC?

Answer:

Multi-chamber vessels fall within the scope of the Directive if

1) each separate chamber can be regarded as a simple pressure vessel (i.e. the dividing walls may only be flat),

2) the sum of the products of the pressure and capacity of all vessel chambers PS.V is no greater than 10 000 bar.litre,

3) the conformity assessment procedure is based on the sum of the products of the pressure and capacity of all vessel chambers, and

4) the design of the vessel as a whole corresponds to the chamber with the highest class of requirements.

Reasons
b1) It has been agreed during Council discussions (24.06.1987).
b2) The risk potential does not exceed 10 000 bar.litre.
b3) Account is to be taken of the risk potential of all chambers in the event of failure.
b4) In order to avoid unnecessary interfaces, it is advisable for the vessel as a whole to comply with the highest class of requirements (for classification see EN 286-1).

Guideline	Ar.1-05	CLAP	FORM N°Z005
			Version : 1

Directive 87/404/EEC

Directive references: Article 1

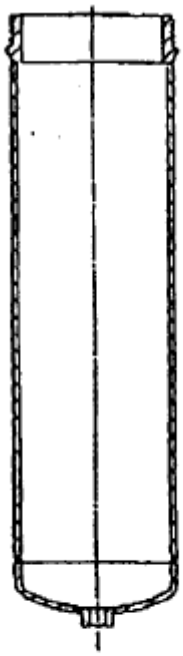
Adopted by WPG: November 1993 **Adopted by CLAP:** November 1993

Subject: Open-ended vessels

Question: Does an open-ended vessel (see drawing for an example) fall within the scope (Article 1) of Directive 87/404/EEC?

Answer: An open-ended vessel does not fall within the scope of the Directive.

Reasons
The Directive states in Article 1 that a vessel must have two ends.



Open-ended vessel (air dryer)

Guideline	Ar.1-06	CLAP	FORM N°Z006
			Version : 1

Directive 87/404/EEC

Directive references: Article 1

Adopted by WPG: November 1993 **Adopted by CLAP:** November 1993

Subject: Vessels for the purpose of heating or cooling

Question: Does a vessel for the purpose of heating or cooling fall within the scope of Directive 87/404/EEC?

Answer: A vessel for the purpose of heating or cooling does not fall in the scope of the Directive.

Reasons

1. The Directive applies to simple pressure vessels which implies also a simple geometry for these vessels.

2. Possible thermal stresses are not considered by the Directive.

3. In many cases
- the vessels are equipped with heating pipes subject to external pressure which is not in the scope of the Directive;
- the vessels are also operated with fluids other than air or nitrogen;
- other materials than those permitted by Directive are applied.

Guideline	Ar.1-07	CLAP	FORM N°Z007
			Version : 1

Directive 87/404/EEC

Directive references: Article 1

Adopted by WPG: November 1993 **Adopted by CLAP:** November 1993

Subjet: Cold regenerated dryers

Question: Under what conditions do cold-regenerated dryers fall within the scope (Article 1) of Directive 87/404/EEC?

Answer: Cold-regenerated dryers raise several questions, e.g. permanent fittings, fillers and liquid media; the interpretation of these items is given in separate guidance sheets. The dryer can be treated as a simple pressure vessel if the answers to all these questions permit such a classification.

Reasons
See the reasons given with regard to the relevant problems.

Guideline	Ar.1-08	CLAP	FORM N°Z008
			Version : 1

Directive 87/404/EEC

Directive references: Article 1

Adopted by WPG: November 1993 **Adopted by CLAP:** November 1993

Subjet: Heat-regenerated dryers

Question: Under what conditions do heat-regenerated dryers fall within the scope (Article 1) of Directive 87/404/EEC?

Answer: Heat-regenerated dryers raise several questions, e.g. permanent fittings, fillers, liquid media, vessels with heating tubes plus the question of additional stresses. The interpretation of these items is given in separate guidance sheets. The dryers can only be treated as simple pressure vessels if the answers to all these questions permit such a classification.

Reasons
See the reasons with regard to the relevant problems.

Guideline	Ar.1-09	CLAP	FORM N°Z009
			Version : 1

Directive 87/404/EEC

Directive references:	Article 1	

Adopted by WPG: November 1993 **Adopted by CLAP:** November 1993

Subjet: Length/width ratio, ratio of branch diameter to cylinder diameter and ratio of flat bottom end opening to cylinder diameter

Question: Do the ratios referred to above play a part when classifying a pressure vessel as a simple vessel in accordance with Article 1 of Directive 87/404/EEC?

Answer: Vessels are classified as simple pressure vessels if the ratios in question do not necessitate complex calculation methods and/or complex compensating measures. There is a consensus that the solutions given by the harmonised standard conform to this principle and provide a good guide with respect to “simple” constructions.

Reasons
Although the directive says nothing about these ratios, it applies to simple pressure vessels and thus also to simple processes, e.g. for calculation purposes.

Guideline	Ar.1-10	CLAP	FORM N°Z010
			Version : 1

Directive 87/404/EEC

Directive references: Article 1

Adopted by WPG: Novembre 1993 **Adopted by CLAP:** Novembre 1993

Subjet: Check list

Question: Is there a simple means of determining whether a vessel is a simple pressure vessel within the meaning of Directive 87/404/EEC?

Answer:

It is possible to determine whether a vessel is a simple pressure vessel by reference to the following check list:

Simple pressure vessel criteria	Conforms to directive Yes	No
(i) Geometry of vessel simple:		
(ii) Material of construction:		
(iii) Contents (air/nitrogen):		
(iv) Internal pressure greater than 0.5 bar:		
(v) Internal pressure not exceeding 30 bar:		
(vi) Pressure x volume product not exceeding 10 000 bar.litres		
(vii) Operating temperature: (-50°C to 300°C for steel) (-50°C to 100°C for aluminium)		
(viii) Manufactured in series:		
(ix) Intended to be unfired:		
(x) All risks covered by Directive:		

Description of any item which requires clarification
Conclusion
Vessel may be considered as a simple pressure vessel yes/no

Reasons
The criteria set out in the check list are those given in the directive.

Guideline	Ar.1-11	CLAP	FORM N°Z011
			Version : 1

Directive 87/404/EEC

Directive references:	Article 1	

Adopted by WPG: June 1997 **Adopted by CLAP:** Juin 1997

Subject: Vessels consisting of two outwardly vaulted bottoms connected by beaded welding seam

Question: Does a vessel consisting of two outwardly vaulted bottoms connected by a beaded welding seam fall within the scope of Directive 87/404/EEC?

Answer: Such vessels fall within the scope of the Directive. However, particular attention must be paid to the requirements
related to
- vessel design (Annex I, point 2, last paragraph);
- preparation of component parts (Annex I, point 3.1).

Reason
The Directive does not exclude such vessels.

Guideline	Ar.1-12	CLAP	FORM N°Z012
			Version : 1

Directive 87/404/EEC

Directive references:	Article 1	

Adopted by WPG: June 1997 **Adopted by CLAP:** June 1997

Subjet: Vessels with locally embossed zones in dished ends

Question: Do vessels with ends of this nature fall within the scope of Directive 87/404?

Answer:

Vessels of this nature fall within the scope of the Directive
- if the embossed zones are locally delimited,
- if conformity in operational loading conditions is proved.

Reasons
The Directive does not exclude vessels of this nature.

Guideline	Ar.1-13	CLAP	FORM N°Z013
			Version : 1

Directive 87/404/EEC

Directive references: Article 1

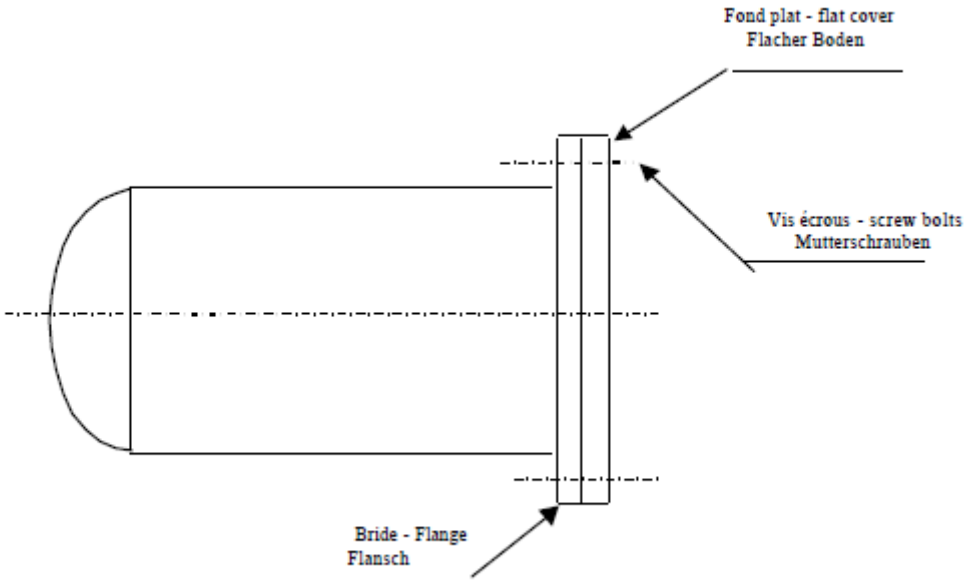
Adopted by WPG: June 1997 **Adopted by CLAP:** June 1997

Subjet: Vessels with flange and flat cover

Question: Is the vessel shown a simple pressure vessel?

Answer: The vessel shown is a simple pressure vessel.

Reasons
The vessel is made of a cylinder with an outwardly dished end and a flat end. The corresponding manufactured model is already being produced by several manufacturers in Europe as a simple pressure vessel.



Guideline	Ar.11-01	CLAP	FORM N°Z014
			Version : 1

Directive 87/404/EEC

Directive references: Article 1

Adopted by WPG: November 1993 **Adopted by CLAP:** November 1993

Subjet: Maximum working pressure

Question:
Article 11(3) of the Directive requires a pneumatic test at a pressure Ph equal to 1.5 times the design pressure. EN 286-1 (ratified 1991, title published in O.J. C 104, 24.04.92, p. 4) requires a pneumatic test at a pressure Ph equal to 1.5 times the maximum working pressure.
Does the pneumatic test in accordance with EN 286-1 (1991) satisfy the requirements of the Directive?

Answer:

Withdrawn in August 1998

The pneumatic test in accordance with EN 286-1 (1991) at a pressure equal to 1.5 times the maximum working pressure satisfies the Directive which requires a pneumatic test at a pressure equal to 1.5 times the design pressure.

Reasons
EN 286-1 permits vessels to be designed with two different design pressures P:
1) Cylindrical shell ring: P = 1.0 PS or P = 1.25 PS
2) Ends: P = 1.0 PS
So as not to exceed the yield strength during the pneumatic test, it is necessary to take P = 1.0 PS for the ends into account. This results in Ph = 1.5 PS = 1.5 P.

Note: The proposed revised version of EN 286.1 will correct this anomaly.

Guideline	Ar.12/14-01	CLAP	FORM N°Z015
			Version : 1

Directive 87/404/EEC

Directive references:	Article 12	Article 14		
	Article 13			
Adopted by WPG:	**November 1994**	**Adopted by CLAP:**	**Novembre 1994**	

Subject: Certification procedure using EN 29 002

Question: Does a manufacturer with a quality assurance system that complies with EN 29 002 fulfil the requirements of Article 13 of Directive 87/404/EEC?

Answer:

A quality assurance system implementing all aspects of Article 13 which complies with EN 29 002, fulfils the requirements of Article 13. However additional checking and inspection is required, by Article 14, for vessels where PS·V is greater than 200 bar.litres.

Reasons
When an EN 29002 procedure is drafted to take account of all the elements of Article 13 then it satisfies Article 13; this includes the Article 13(1)(c) requirement for a hydrostatic or pneumatic test of each vessel.

In addition for vessels where PS·V is greater than 200 bar.litres Article 14.2 requires that the notified body during manufacture
- ensures that the manufacturer actually checks series-produced vessels in accordance with Article 13(1)(c),
- takes random samples at the places of manufacture or at the place of storage of vessels for inspection purposes.

Guideline	Ar.15/16-01	CLAP	FORM N°Z016
			Version : 1

Directive 87/404/EEC

Directive references:	Article 15	Article 16

Adopted by WPG: Novembre 1994 **Adopted by CLAP:** Novembre 1994

Subject: Identification (before/after hydrostatic/pneumatic test)

Question: Is it permitted to affix the proof of conformity with Directive 87/404/EEC prior to the hydrostatic or pneumatic test on the vessel?

Answer:

The moment at which the proof of conformity is affixed is left to the manufacturer under his own responsibility (Articles 12-14) provided that he is entitled to affix a CE marking to the manufactured product on the basis of his design approval either by a certificate of adequacy under Article 8 or a type-examination certificate under Article 10. It must be ensured that nonconforming products are not placed on the market.

Reasons

The moment at which the proof of conformity is affixed during the vessel manufacturing process does not release the manufacturer from his responsibility not to place on the market a vessel which fails to satisfy the Directive's requirements (as proved, for example, by the hydrostatic test). Concerning the moment of affixing the CE marking the Directive specifies nothing. Risks are ruled out by virtue of the procedure itself. There is a Council Decision on conformity assessment and CE marking (93/465/EEC of 22 July 1993, O.J. L 220, 30.08.93, p. 23). In this Council Decision there is a difference between the English and French versions relating to the moment of affixing the CE marking. This difference has been brought to the attention of the Commission services for review and amendment as necessary.

The above guidance conforms to the French language version which permits the affixing of the CE marking during the production control phase. The English version is more restrictive; it requires the affixing of the CE marking at the end of the production control phase.

Guideline	Anx I-01	CLAP	FORM N°Z017
			Version : 1

Directive 87/404/EEC

Directive references:	Annex I	

Adopted by WPG: July 1993 **Adopted by CLAP:** July 1993

Subjet: Clause 2 - Protection against corrosion

Question: The Directive in Annexes I, clause 2 requires that: "The manufacturer must also take account of the following provisions:
- the vessels shall, bearing in mind their prescribed use, be adequately protected against corrosion".

Answer:

a) The prescribed use must be specified by the manufacturer in the instruction which calls for information on the "intended use of the vessels".
The intended use of the vessel must take into account the foreseeable service conditions which are related to the function of the vessel (e.g. air/oil separators etc.).
There are however real service conditions of which a manufacturer cannot be aware, e.g. possible presence of even small traces of water in the gas or presence of an industrial atmosphere which contains droplets of salt water etc., which can greatly increase the corrosion phenomena.

b) Adequate corrosion protection can be achieved by different measures such as
- A specified corrosion allowance which must be chosen by the manufacturer as a function of the "intended use".
- A protective coating or lining, the effectiveness of which must be demonstrated by the manufacturer through appropriate tests which could be considered by the notified body in the framework of the means of attestation procedures chosen by the manufacturer. If the coating is a proprietary system the manufacturer may demonstrate adequate protection without specific tests; the technical documents should include the detailed information.

Consensus with respect to "protection against corrosion":
The manufacturer shall in the instructions clearly specify the intended use by referring to the phenomena considered. In addition the manufacturer shall specify:
- The measures ta ken with respect to corrosion protection and the precautions that a user shall take in order to ensure that possible corrosion phenomena are under control; this shall include information on the recommended frequency of the periodic examination of the vessel which should be reasonable and realistic. This item related to the manufacturers' recommendations and not to any examination which may be required by Member State national legislation.

Guideline	Anx I – 02	CLAP	FORM N°Z018
			Version : 1

Directive 87/404/EEC

Directive references:	Annexe I	

Adopted by WPG: July 1993 **Adopted by CLAP:** July 1993

Subject: Clause 2 - Stresses other than pressure

Question: The Directive, in Annex I, clause 2 requires:
"- that the vessels (under the conditions of use) will not be subjected to stresses likely to impair their safety in use".

Answer: This means that the manufacturer must not only take stresses due to pressure into account but also foreseeable stresses due to superimposed weight, mechanical or thermal stresses transmitted by connecting piping, dynamical stresses due to vibrations or due to wind etc.

The manufacturer shall make his evaluation of the level of such stresses considering the intended use of the vessel and take into account the effects of their combination with the stresses generated by pressure. That does not necessarily mean to calculate them: in some cases the presence of additional stresses can be taken into account on the basis of common fabrication practice. A very common case is cyclic stresses due to vibrations caused by an alternative compressor connected to the vessel and transmitted by supports or piping, which could be substantially reduced by an adequate design of the connecting elements or by rounding off of all their sharp corners.

With respect to "foreseeable stresses other than pressure"
- the measures taken with respect to additional stresses, or, possible that the vessel is designed for pressure only, in which case attention must be drawn to the fact that additional stresses must be negligible.

Note: The Commission services will at a future date amend this document to provide more detailed information on its meaning.

Guideline	Anx.I – 03	CLAP	FORM N°Z019
			Version : 1

Directive 87/404/EEC

Directive references: Annex I

Adopted by WPG: July 1993 **Adopted by CLAP:** July 1993

Subject: Clause 2 - Inspection openings

Question: The Directive in Annex I, clause 2 requires:
"...it must be possible to inspect the inside of vessels".
The purpose of internal inspection is to clearly detect possible corrosion phenomena, failures of coatings or lining and defects of any other type (e.g. regarding the welds).

Answer: Consensus

It is for the manufacturer to give details on the size of the opening and for the examining body to be able to undertake the required internal examinations.

In each case the size of the opening shall be adequate in relation to the use of the vessel and shall enable the inspection to be undertaken easily.

Guideline	Anx.I-04	CLAP	FORM N°Z020
			Version : 1

Directive 87/404/EEC

Directive references:	Annexe I	

Adopted by WPG: November 1994 **Adopted by CLAP:** November 1994

Subject: Point 2 - Drainage openings for air braking vessels

Question: Essential requirement point 2 of Annex 1 of Directive 87/404/EEC states that it must be possible to drain vessels.
Is it acceptable that the drainage of the vessels can be realized by the means of a dip tube?

Answer: The following could be considered as satisfying this part of the essential requirement:
- vessels which have the drainage openings situated in the lowest points;
- vessels which have the drainage openings not placed in the lowest points but which are equipped with a dip tube capable of effectively draining the vessel (see diagrams).

Reasons
The presence of a dip tube from which the end is situated in the lowest point of the vessel permits a satisfactory evacuation of the condensate.
If the drainage opening cannot be made in the bottom of the vessel, drainage may nevertheless be provided by one of the methods shown in figures 1 to 4.

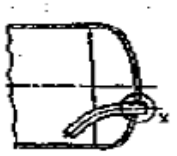


Abb. 1: an einem Ende befestigtes Eintauchrohr

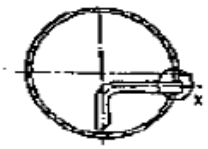


Abb. 2: am Gehäuse eines horizontalen Behälters befestigtes Eintauchroh

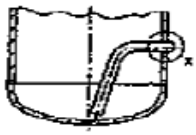


Abb. 3: am Gehäuse eines vertikalen Behälters angebrachtes Eintauchrohr

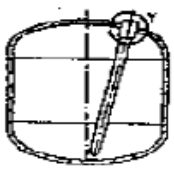


Abb. 4: an der Oberseite eines vertikalen Behälters angebrachtes Eintauchrohr

Guideline	Anx.I-05	CLAP	FORM N°Z021
			Version : 1

Directive 87/404/EEC

Directive references:	Annex I	

Adopted by WPG: June 1995 **Adopted by CLAP:** June 1995

Subject: Clause 2 - Wall Thickness

Question:
The directive requires that the vessel shall be adequately protected against corrosion and that the actual wall thickness of the cylindrical section and ends shall, for steel vessels, be not less than 2mm.
In the situation where protection against corrosion is provided by an extra depth of material does the 2mm include or exclude this allowance?

Answer:
The minimum wall thickness of 2mm for steel vessels is a separate requirement from any need to provide a corrosion allowance. Therefore in the situation where corrosion protection is to be afforded by increased vessel wall thickness then this is in addition to the requirement for a 2mm minimum vessel wall thickness.

Reason
In Annex I the requirements relating to protection against corrosion and minimum wall thickness are two separate items.

Guideline	Anx.I-06	CLAP	FORM N°Z022

Version : 1

Directive 87/404/EEC

Directive references:	Anenx I	

Adopted by WPG: June 1995 **Adopted by CLAP:** June 1995

Subject: Point 1.3 - Impact strength of accessories

Question: Can the tubes, tappings, bosses etc... be considered as accessories which contribute to the strength of the vessel and, if so, should they be the subject of a guarantee regarding the breaking strength at the minimum working temperature?

Answer:

Standards EN 286-1 and 286-2 along with the proposal for amendment of EN 286-1 judge them to be accessories and include no requirement regarding the value of the breaking strength.

Guideline	Anx.II-01	CLAP	FORM N°Z023
			Version : 1

Directive 87/404/EEC

Directive references: Annexe II

Adopted by WPG: November 1993 **Adopted by CLAP:** November 1993

Subject: Point 4 - Series

Question: Directive 87/404/EEC gives the following definition in Annex II, point 4.1(h):
"There is series manufacture within the meaning of this Directive if more than one vessel of the same type is manufactured during a given period by a continuous manufacturing process, in accordance with a common design and using the same manufacturing process."
The term "series" should be spelt out.

Answer: **Withdrawn on March 1998**

The definition of the term "series" is retained, but the term "type" is spelt out (see separate guidance document).

Reasons
The Directive's definition of "series" is the same as the definition in EN 286-1 and has stood the test of time.

Note: The notified body forum will propose a definition of "given period by a continuous manufacturing process".

Guideline	Anx.II-02	CLAP	FORM N°Z024
			Version : 1

Directive 87/404/EEC

Directive references: Annex II

Adopted by WPG: November 1993 **Adopted by CLAP:** November 1993

Subject: Point 4 - Family

Question:
Directive 87/404/EEC gives the following definition in Annex II, point 4.1(f):
"Vessels form part of the same family if they differ from the prototype only in diameter, provided that the permissible requirements referred to in sections 2.1.1 or 2.1.2 of Annex I are complied with and/or in the length of their cylindrical portion within the following limits:
- where a prototype has one or more shell rings in addition to the ends, variants in the family must have at least one shell ring,
- where a prototype has just two dished ends, variants in the family must have no shell rings.
Variations in length causing the apertures and/or penetrations to be modified must be shown in the drawing for each variant."
The term "family" should be spelt out.

Answer:
Withdrawn in March 1998

1) their diameter, provided that the requirements referred to in sections 2.1.1 or 2.1.2 of Annex I to the Directive are complied with,
or
2) their length
- if the prototype has one or more shell rings in addition to the ends, the vessels must have at least one shell ring
- if the prototype has just two dished ends, the vessels must have no shell rings
or
3) their wall thickness, which must be between t/2 and 2t if t is the wall thickness of the prototype,
or
4) their apertures and/or penetrations, if the cross-section of the apertures and/or penetrations in one line is not greater than 1.2 times the cross-section of the apertures and/or penetrations of the prototype.

Any combination of 1) to 4) is possible.
All other design parameters are to be adhered to.

Reasons
The technical definition of "family" has stood the test of time.

Note: The notified body forum will propose more detail on the meaning of items (b3) and (b4)

Guideline	Anx.II-03	CLAP	FORM N°Z025
			Version : 1

Directive 87/404/EEC

Directive references: Annexe II

Adopted by WPG: November 1993 **Adopted by CLAP:** November 1993

Subject: Point 4 - Batch

Question:
Directive 87/404/EEC gives the following definition in Annex II, 4.1(g):
"A batch of vessels consists at the most of 3 000 vessels of the model of the same type".
The term "batch" should be spelt out.

Answer:

Withdrawn in March 1998

The term "batch" is defined as follows: "A batch of vessels consists at the most of 3 000 vessels of the model of the same type, manufactured in the same year". The term "type" is spelt out (see separate guidance document).

Reasons
The Directive's definition of "batch" has stood the test of time.
Note: The notified body forum will propose a more detailed wording of section (c) "reasons".

Guideline	Anx.I-04	CLAP	FORM N°Z026
			Version : 1

Directive 87/404/EEC

Directive references: Annexe II

Adopted by WPG: November 1993 **Adopted by CLAP:** November 1993

Subject: Point 4 - Type

Question: The term "type", which is used in the definitions of "batch" and "series", ought to be spelt out.

Answer:

Withdrawn in March 1998

The following definition is proposed for "type":
"Vessel type : vessels are of the same type if
- they have a similar geometrical shape (i.e. rings and ends or only ends, but in both cases ends having the same shape);
- they belong to the same class (more than 3 000 bar·litre but not more than 10 000 bar·litre; more than 200 bar·litre but not more than 3 000 bar·litre; more than 50 bar·litre but not more than 200 bar·litre);
- the vessel material and wall thickness satisfy the welding process test requirements including the requirements for stubs, branches and inspection openings;
- their inspection openings are of the same type (examples of different types of inspection openings are viewing holes, handholes, head holes and manholes);
- they are designed for the same design temperature limits."

Reasons
The definition corresponds to EN 286-1 and has stood the test of time.

Guideline	Anx.II-05	CLAP	FORM N°Z027
			Version : 1

Directive 87/404/EEC

Directive references:	Annex II	

Adopted by WPG: Juin 1995 **Adopted by CLAP:** Juin 1995

Subjet: Continuous production/Definition of concepts

Question: What does continuous manufacture mean?

Answer: If the production parameters, e.g. welding parameters, and machine settings remain unchanged, then the manufacturing process is continuous. Uninterrupted manufacture in temporal terms (e.g. the production process can still be classified as continuous, even if there are breaks or week-end shutdowns) is not a yardstick for continuous manufacture; the yardstick is rather no change in the parameters specific to the manufacture.

Justification
Resetting of manufacturing parameters can lead to deviations in the properties relating to safety.

Guideline	Anx.II-06	CLAP	FORM N°Z028
			Version : 1

Directive 87/404/EEC

Directive references:	Annexe II	

Adopted by WPG: Juin 1995 **Adopted by CLAP:** Juin 1995

Subject: Vessel marking

Question: In practice, pressure vessels are accompanied by instructions for use in which details of vessel markings are replaced by a reference to the type identification plate.

Answer: Details of the vessel markings shall be given in the instructions for use. Users shall not be referred back to the type identification plate.

Reasons
In accordance with Annex II, Section 2 of Directive 87/404/EEC, details of the type identification plate must be given in the instructions for use, with the exception of the series identification.

Guideline	16-01	CLAP	FORM N°Z029
			Version : 1

Directive 87/404/EEC

Directive references: Article 16

Adopted by WPG: 18/03/2004 **Adopted by CLAP:** 18/03/2004

Subjet: Identification number

Question: According to Article 16, the CE-Mark is followed by the identification number of the notified body who makes the surveillance of production within the EC declaration of conformity. Can this identification number of the notified body also be affixed to pressure vessels with a product of pressure and volume PS.V not exceeding 200 bar.L, where such surveillance is not mandatory but takes place on agreement between manufacturer and the notified body?

Answer: No.
There shall be no identification number of a notified body behind the CE-mark. The marking shall be according to the following table :

Table: CE-mark and notified bodies identification number:

	Vessels with 50 bar.L < PS.V ≤ 200 bar.L	**Vessels with 200 bar.L < PS.V ≤ 3000 bar.L**
EC verification (Art. 11)	„CE XXXX“ (CE-mark plus identification number)	„CE XXXX“ (CE-mark plus identification number)
EC declaration of conformity (Art. 12)	„CE“ (CE-mark without identification number)	„CE XXXX“ (CE-mark plus identification number)

Reason : The directive does not require such surveillance for such pressure vessels. It is the wording of the directive that the identification number has to be affixed only in the cases where the surveillance is mandatory.

Note 1: This does not exclude surveillance on a freely agreed basis, but affixing the identification number would confuse and mislead the market surveillance authorities because the surveillance is not part of the procedure required by the directive.

Note 2: In the case of “freely agreed” surveillance, the notified body must not certify compliance with the Articles of the Directive as this is also not part of the procedure required by the directive.