

**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**

**Subject:** Maximum working pressure

**Question:**

Article 11(3) of the Directive requires a pneumatic test at a pressure  $P_h$  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  $P_h$  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**Withdrawn in August 1998**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:  $P = 1.0 \text{ PS}$  or  $P = 1.25 \text{ PS}$

2) Ends:  $P = 1.0 \text{ PS}$

So as not to exceed the yield strength during the pneumatic test, it is necessary to take  $P = 1.0 \text{ PS}$  for the ends into account. This results in  $P_h = 1.5 \text{ PS} = 1.5 P$ .

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