

SCHEDULE 2

(Annex I to the Pressure Equipment Directive) ESSENTIAL SAFETY REQUIREMENTS

SPECIFIC PRESSURE EQUIPMENT REQUIREMENTS

7.1 SPECIFIC QUANTITATIVE REQUIREMENTS FOR CERTAIN PRESSURE EQUIPMENT

7.1. Allowable stresses

(7.1.1) Symbols

Re/t, yield limit, indicates the value at the calculation temperature of:

- the upper flow limit for a material presenting upper and lower flow limits,
- the 1.0% proof strength of austenitic steel and non-alloyed aluminium,
- the 0.2% proof strength in other cases.

Rm/20 indicates the minimum value of the ultimate strength 20°C.

Rm/t designates the ultimate strength at the calculation temperature.

(7.1.2) The permissible general membrane stress for predominantly static loads and for temperatures outside the range in which creep is significant must not exceed the smaller of the following values, according to the material used:

- in the case of ferric steel including normalised (normalised rolled) steel and excluding fine-grained steel and specially heat-treated steel, 2/3 of Re/t and 5/12 of Rm/20
- in the case of austenitic steel:
 - if its elongation after rupture exceeds 30%, 2/3 of Re/t
 - or, alternatively, and if its elongation after rupture exceeds 35%, 5/6 of Re/t and 1/3 of Rm/t;
- in the case of non-alloy or low-alloy cast steel, 10/19 Re/t and 1/3 of Rm/20;
- in the case of aluminium, 2/3 of Re/t;
- in the case of aluminium alloys excluding precipitation hardening alloys 2/3 of Re/t and 5/12 of Rm/20.