



## ACCUMULATOR REGULATIONS

15 JANUARY 2007

REV A

PAGE 1 OF 2

### 1. Clarification

Whether an accumulator is classified as a pressure vessel is determined by its hazard level.

To calculate its hazard level (H) the following formula is used (based on non-corrosive, non-toxic contents)

$$H = p \times V$$

p = design pressure (MPa)

V = volume in litres (L)

If  $H > 30$  then its hazard level is D or above and so is classified as a pressure vessel.

*Hyspecs EPE accumulators with a volume of 1L and above will normally be classified as pressure vessels.*

If  $H < 30$  then its hazard level is E and the accumulator is not classified as a pressure vessel.

*Hyspecs EPE accumulators less than 1L will normally not be classified as pressure vessels.*

Hyspecs recommends the use of EPE certified relief and isolation valves (safety blocks) on all accumulators classified as pressure vessels.

### 2. Accumulators classified as Pressure Vessels

How pressure vessels are designed, installed and inspected is defined by the *Approved Code of Practise for Pressure Equipment (excluding boilers)*.

The following regulations are referenced in the above code and apply in Australia and New Zealand.

*AS 1210 : Australian Standard for the design and construction of pressure equipment*

*AS 3788 : Australian Standard for the in service inspection of pressure equipment*

*AS 4343 : Australian Standard for hazard levels of pressure equipment*

Hyspecs now stocks accumulators manufactured to AS1210.



## ACCUMULATOR REGULATIONS

15 JANUARY 2007

REV A

PAGE 2 OF 2

### 3. Inspection

Accumulators and pressure relief valves must be inspected by a competent person in accordance with AS 3788.

The table below defines the inspection frequency and type of inspection. It is based on design **pV** (MPa) x vessel **V** (L).

Accumulators with non-corrosive, non-toxic contents	Commissioning Inspection required?	First Yearly Inspection required?	External Inspection (yrs)	Nominal Internal Inspection (yrs)	Extended Internal Inspection (yrs)
<b>pV &lt; 100</b>	N	N	-	-	-
<b>pV &gt; 100 &lt; 200</b>	Y	N	-	-	-
<b>pV &gt; 200</b>	Y	Y	2	12	12

**DISCLAIMER** : The above document is intended as a guide only and is Hydraulic Specialities interpretation of the various acts and regulations. Hydraulic Specialities does not accept any responsibility with regard to the accuracy of the above information or any legal ramifications that may arise from the use of this document. It is the responsibility of the end user to ensure that accumulators and associated pressure equipment comply with all the local health and safety regulations.