

# Heating Vessels



CE

altecnic

# Heating Vessels



## Introduction

Altecnic offer a complete range of expansion vessels to meet the requirements for most heating.

The expansion vessels are manufactured to meet the requirements of PED 97/23/EC Directive and BS EN 13831:2007 'Closed expansion vessels with built in diaphragm for installation in water'.

## Design

Designed for higher system pressures - 8 to 25 litre up to 6 bar and 35 litre up to 5 bar

Manufactured in carbon steel with a two part welded construction. Pre-pressurised air chamber with rubber bladder suitable for heating systems.

The shell should not be in contact with the liquid as this is a bladder design.

External surfaces have a red durable powder coated finish.

Altecnic expansion vessels are all tested according to the Pressure Systems Directive.

## How It Works

In a closed heating circuit, the water cannot be compressed so any increase in volume, created by an increase in temperature, has to be accommodated by an expansion vessel.

When water is cold, the pre-charge pressure forces the bladder to collapse until the pump is started when the bladder starts to inflate.

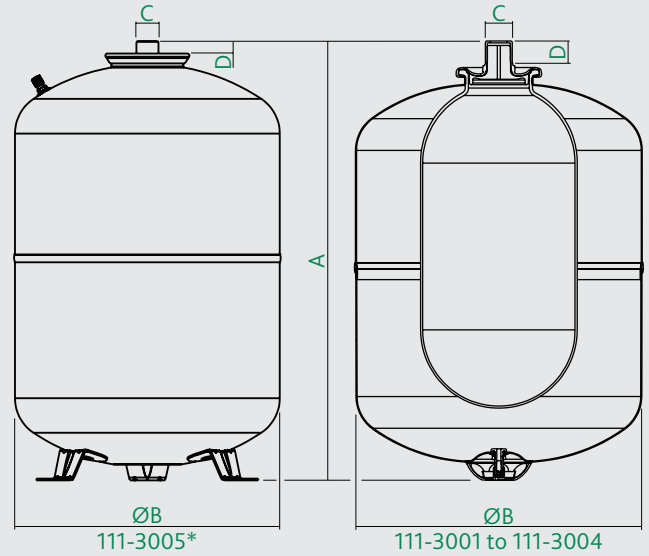
As the temperature in the system increases, with the associated increase in pressure and volume, the expanded water enters the bladder creating additional volume and lowering the pressure.

When the temperature decreases, the pre-charge pressure forces the water from the bladder and back into the main water circuit.

## Materials

Component	Material
Shell	Carbon steel
Connection	Carbon steel
Bladder	Elastomer
Coating	Powder epoxy

## Dimensions



Ref No	Vol litres	A	B	C	D	Wt kg
111-3001	8	336	201	G <sup>3</sup> / <sub>4</sub>	26	2.6
111-3002	12	325	270	G <sup>3</sup> / <sub>4</sub>	26	2.9
111-3003	18	415	272	G <sup>3</sup> / <sub>4</sub>	26	3.7
111-3004	25	455	288	G <sup>3</sup> / <sub>4</sub>	18	4.9
111-3005	35	530	318	G <sup>3</sup> / <sub>4</sub>	18	8.9

## Technical Specification

Max. working pressure:	8 to 32 litre	6 bar
	35 litre	5 bar
Test pressure:	8 to 32 litre	9 bar
	35 litre	7.5 bar
Working temperature range:		-10 to 99°C
Factory pre-charge:		1.5 bar - air
Bladder:		Non-replaceable
35 litre vessel is floor standing with feet*		
System water connection thread:		BS EN ISO 228
CE marked		

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