

flow through potable water

expansion vessels



# flow through potable water expansion vessels



## Introduction

Altecnic offer a complete range of flow through expansion vessels for use with potable water.

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 bladder for installation in water'.

## Design

Manufactured in carbon steel with a two or three part weld construction.

Pre-pressurised air chamber with synthetic rubber compound bladder.

The internal surfaces of the vessel in contact with the water are coated against corrosion.

External surfaces have a green durable powder coated finish.

Suitable for temperatures up to 70°C, resistant to ethylene or propylene glycol mixtures and has low gas permeability.

Available with 'flowjet' 4 function valve.

R<sub>p</sub>3/4 bronze 'Tee' supplied as standard for easy installation

33 litre vessel has integral wall mounting bracket.

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

## How It Works

In a closed hot water 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	Stainless steel
Bladder	Synthetic rubber compound
Coating	Powder epoxy

## Technical Specification

Max. working pressure:	10 bar
Max. operating temperature:	70°C
Factory air pre-charge:	4.0 bar - nitrogen
Non Replaceable bladder	
System water connection thread:	BE EN ISO 228 - male parallel

## E & O.E

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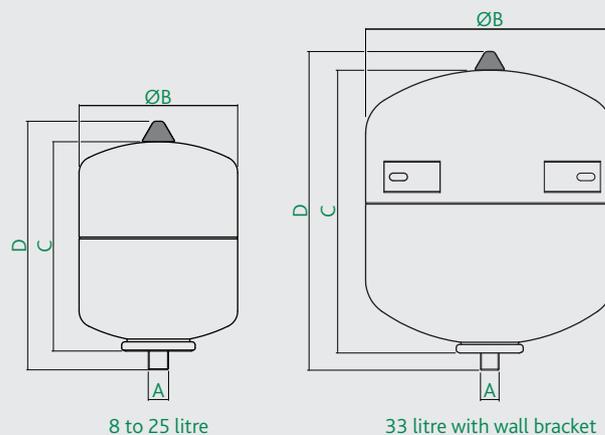
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## Dimensions



Product Code	Capacity	ØD	H	C	Weight
	litres	mm	mm	Connection	kg
PVA8G	8	206	335	G3/4B	2.7
PVA12G	12	280	325	G3/4B	3.7
PVA18G	18	280	395	G3/4B	4.7
PVA25G	25	280	515	G3/4B	5.7
PVA33G	33	354	465	G3/4B	6.5

## Flowjet Valve

The Flowjet valve enable 4 functions to be performed easily.

- Continuous water flow through the bladder helping to maintain the quality of the potable water by minimising stagnation.
- Isolation should the expansion vessel need to be removed
- Drain facility
- Bypass



Flowjet Valve  
Product Code - PVACC1

CE marked

WRAS Approved Product

altecnic