









# Introduction

Altecnic offer a complete range of expansion vessels to meet the requirements of most heating or cooling systems.

Expansion vessels for heating systems 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

The two halves of the vessel and the diaphragm are retained by a crimped collar to give a pressure tight seal.

Non-replaceable diaphragm.

Epoxy coated in red.

Suitable for flow temperatures up to 120°C, resistant to ethylene or propylene glycol mixtures and has low gas permeability.

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

#### How It Works

In a closed heating system 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 diaphragm against the tank towards the inlet.

As the temperature increases, the expanded water volume pushes against the diaphragm creating additional volume for the water to enter.

When the temperature decreases, the pre-charge pressure forces the water from the tank and back into the main heating system.

This maintains a constant pressure within the heating system helping to reduce energy consumption.

# Materials

#### Component

Shell Connections Diaphragm Coating

Material

Carbon Steel Carbon Steel Synthetic rubber compound Powder Epoxy

## **Technical Specification**

Max. working pressure

Factory air pre-charge

50 to 140 litres Test pressure Max. flow operating temperature Max. vessel operating temperature

8 to 35 litres 6 bar 1.5 x max working pressure 120°C 70° C 1.5 bar - nitrogen

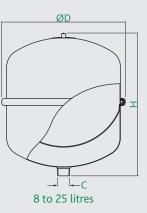
3 bar

# E & O.E

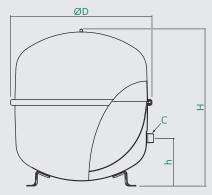
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# Dimensions



Product Code	Capacity	ØD	н	С	Weight
	litres	mm	mm	Connection	kg
HV8C	8	272	235	R3⁄4	1.7
HV12C	12	272	315	R3⁄4	2.3
HV18C	18	308	365	R3⁄4	2.8
HV25C	25	308	485	R3⁄4	3.5



#### 35 to 140 litres

Product Code	Capacity	ØD	Н	h	С	Weight
	litres	mm	mm	mm	Connection	kg
HV35C	35	376	465	130	R3⁄4	5.7
HV50C	50	441	495	175	R3⁄4	7.5
HV80C	80	512	570	175	R1	9.9
HV100C	100	512	680	175	R1	11.2
HV140C	140	512	895	175	R1	14.5

**€** marked

# Accessories - Vessels 8 to 25 litres

Wall bracket with retaining strap - RS MB2

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