

HV I heating

expansion vessels



altecnic

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Introduction

Altecnic OEM heating expansion vessels are round with a compact flat design to meet the needs of boiler and heat interface unit manufacturers.

Expansion vessels for heating systems are manufactured to meet the requirements for pressure vessels 2014/108/EC Directive and BS EN 13831:2007 'Closed expansion vessels with built in diaphragm for installation in water'.

Design

The vessels are fabricated by welding the two sections together which results in a very reliable structure suitable for internal pressures up to 3 bar.

The tanks are designed with no corners to trap sediment.

Complete with suspension bracket for wall mounting.

Durable epoxy coating in white.

Suitable for temperatures up to 70°C, resistant to ethylene or propylene glycol mixtures.

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 presses the diaphragm against the tank.

As the temperature in the system increases, with the associated increase in pressure and volume, the expanded water pushes against the diaphragm and water enters the vessel, providing additional volume.

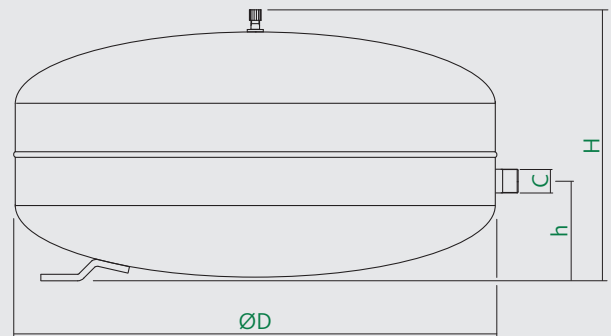
When the temperature decreases, the pre-charge pressure forces the water back into the main heating circuit, maintaining a constant pressure helping to reduce energy consumption.

Materials

Component

Component	Material
Shell	Carbon steel
Connections	Carbon steel
Diaphragm	Rubber - butyl
Coating	Powder epoxy

Dimensions



Ref No	Capacity litres	ØD mm	C	H mm	h mm	Wt kg
HV8I	8	287	G½B	163	52	2.8
HV12I	12	362	G½B	168	64	3.2
HV18I	18	362	G¾B	222	76	4.7
HV25I	25	409	G¾B	239	93	5.5
HV35I	35	480	G¾B	240	97	7.3
HV50I	50	480	G¾B	318	125	8.1
HV80I	80	634	G¾B	325	135	14.5

Technical Specification

Max. working pressure:	3 bar
Max. operating temperature:	70°C
Factory pre-charge:	8 to 35 litres 1 bar - nitrogen
	50 & 80 litres 1.5 bar - nitrogen

PVA34L Shut-Off - Drain Valve

The 18 to 80 litre expansion vessels can be used with the PVA34L shut-off - drain valve with a protected shut-open facility to protect against inadvertent closure.



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