



HV I

heating expansion vessels c/w integral bracket

SD 046 28-08-2020

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 of PED 97/23/EC Directive and BS EN 13831:2007 'Closed expansion vessels with built in diaphragm for installation in water'.

Nitrogen improves the life of the expansion vessel by reducing internal corrosion and prevents the loss of pre-charge pressure.

Nitrogen permeates through rubber slower than oxygen, is far less reactive to steel and does not degrade rubber prolonging the life of the membrane.

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

Altecnic expansion vessels are all tested according to the Pressure Equipment 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.

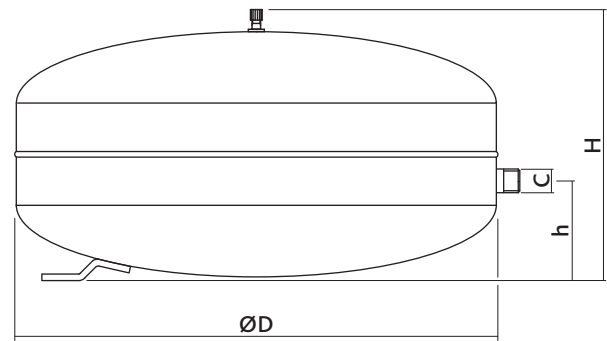
Component

Shell
Connections
Diaphragm
Coating

Material

Carbon Steel
Carbon Steel
Rubber - butyl
Powder Epoxy

Dimensions



Ref No	Capacity litre	ØD mm	H mm	h mm	C Connection	Weight kg
HV8I	8	287	163	52	G½	2.8
HV12I	12	362	168	64	G½	3.2
HV18I	18	362	222	76	G¾	4.7
HV25I	25	409	239	93	G¾	5.5
HV35I	35	480	240	97	G¾	7.3
HV50I	50	480	318	125	G¾	8.1
HV80I	80	634	325	135	G¾	14.5

Technical Specification

Max. working pressure: 3 bar
 Test pressure: 1.5 x max working pressure
 Max. vessel operating temperature: 70° C
 Factory pre-charge: 8 to 35 litre 1.0 bar - nitrogen
 50 & 80 litre 1.5 bar - nitrogen

CE marked