

SSV stainless steel

expansion vessel



altecnic
Caleffi group

SSV stainless steel expansion vessel



Application

If the pressure in a system is high, the water when flowing has a greater momentum which when brought to a sudden halt, will create a shock effect causing pipes to shudder and vibrate.

This is normally caused by the rapid closure of lever operated taps or valves, solenoid valves or valves in dish washers and washing machines.

The Altecnic stainless steel expansion vessels can be used as water hammer arresters intended for a single outlet, such as a tap or washing machine, or a small group of outlets, such as in a bathroom.

The vibration caused by water hammer is not only annoying but eventually can result in split or cracked pipe fittings, especially at joints.

The expansion vessel should be installed close to the tap or valve minimising the effect of the shock on the system.

These expansion vessels are suitable for use in coastal environments and with brackish water due to their stainless steel construction.

Operating Principle

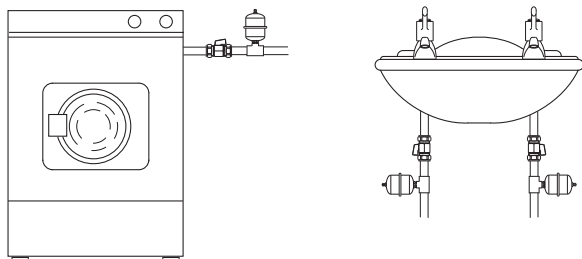
The expansion vessel consists of a pressure vessel, divided into two chambers by a flexible rubber membrane or diaphragm.

The closed chamber is filled with air, pressurised to 3.5 bar, which acts as a damper due to the compressibility of the trapped air.

The open chamber is connected directly to the system and is filled with water.

When a pressure surge occurs, the compression of the air counteracts the thrust on the rubber membrane allowing a small change in volume which absorbs the excess pressure.

Typical Applications



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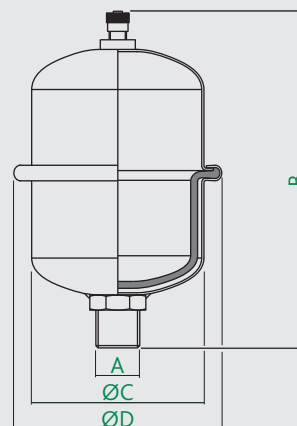
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Dimensions



Prod Code	A	B	C	D	kg
PV016C	G½B	112	65	80	0.24
SSV05A	G½B	156	78	95	0.35
SSV1A	G½B	193	98	114	0.56
SSV2A	G½B	225	120	135	0.78

Construction Details

Component	Material	Grade
Body - PV016C	Stainless steel	AISI 304
Body	Stainless steel	AISI 304
Inlet connection - PV016C	Stainless steel	AISI 304
Inlet connection	Stainless steel	AISI 304
Membrane	Synthetic butyl elastomer	

Technical Data

Medium:	water
Max. working pressure - PV016C:	15 bar
Max. working pressure:	10 bar
Max. system temperature:	100°C
Pre-charge pressure:	3.5 bar - air
PED:	2014/68/EU
WRAS approved products	

Product Code	Volume	Connection
PV016C	0.16 litre	male screwed
SSV05A	0.5 litre	male screwed
SSV1A	1 litre	male screwed
SSV2A	2 litre	male screwed

Service and Maintenance

Altecnic recommend that the air pressure is checked annually and adjusted if necessary.

This can be done using an air pressure gauge and foot pump.

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