



5516

de-aerator for heat pumps

Application

The Altecnic 5516 de-aerators automatically and continuously removes the air contained in the hydraulic circuits of heating and cooling systems to micro-bubble level. The discharge capacity means that up to 99 % of the air within the flow can be removed from the very first passage. The de-aerator can be installed on horizontal, vertical or angled pipes with two adjustable elbows.

Product Codes

551602	high efficiency de-aerator	22mm compression
551603	high efficiency de-aerator	28mm compression
551606	high efficiency de-aerator	1" thread female
551607	high efficiency de-aerator	1¼" thread female
551617	high efficiency de-aerator	1½" thread female

Technical Specification

Materials

Body:	polymer	PA66G30
Float:	polymer	PP
Float guide and stem:	brass	BS EN 12164 CW614N
Float lever and spring:	stainless steel	BS EN 10270-3 AISI 302
Seals:	elastomer	EPDM

Materials

Medium:		water
Maximum working pressure:		3 bar
Maximum discharge pressure:		3 bar
Maximum working temperature:		0 to 90°C
Connections:	compression threaded 1¼" threaded	BS EN 1254 BS EN ISO 228-1 with 'O' ring
Air vent:		hygroscopic cap

Insulation

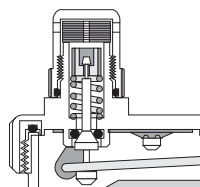
Material:	EPP
Density:	38 g/l
Thermal conductivity at 10°C:	0.039 W/(m.K)
Co-efficient of resistance to water vapour:	≥ 39700

Hygroscopic cap

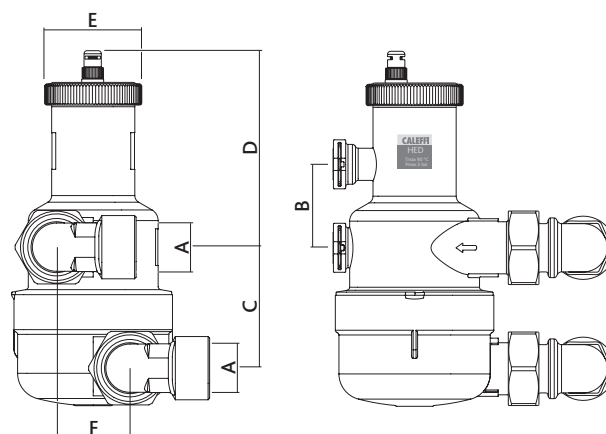
The operating principle of the hygroscopic safety cap is based on the properties of the cellulose fibre disks forming the sealing cartridge.

These discs increase in volume by 50% when they come into contact with water, thus closing the valve.

This avoids any damage in the event of water leakage.



Dimensions



Ref No	A	B	C	D	ØE	F
551602	Ø22	54.5	78	128	64	48
551603	Ø22	54.5	78	128	64	48
551606	G1	54.5	78	128	64	48
551607	G1¼	54.5	78	128	64	48
551617	G1½	54.5	78	128	64	48

Composite Material

The de-aerator is made using a composite material specifically selected for heating and cooling system applications. Its basic features are:

- high strain strength while maintaining good ultimate elongation
- good resistance to crack propagation
- very low humidity absorption, which allows consistent mechanical behaviour
- high resistance to abrasion caused by continuous flow
- constant performance as the temperature varies
- compatibility with the glycols and additives used in circuits.

These basic features, combined with the appropriate shapes of the most highly stressed areas, allow comparison with the metals typically used in the construction of the de-aerators.

Sizing and Maximum Flowrate

The maximum flow rate at which the device maintains optimal performance is 3 m³/h = 50 l/s. Below this flow rate, the component can be sized according to the diameter of the pipe in which it is to be fitted.

DN	DN20	DN25	DN25	DN32	DN32
Kv - m³h	10	13	13	13	13
l/s	28.7	45.8	27.7	45.8	45.8