

AIR & DIRT SEPARATOR

DATA SHEET



CORE[®]

Core values, quality products

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Flanged Microbubble Air & Dirt Separator:

For use in sealed heating and cooling systems. CORE Air & Dirt Separators protect against damage caused by the deposit of dirt particles, and large amounts of dissolved and undissolved air.

Advantages of using Air & Dirt Separators reduction in:

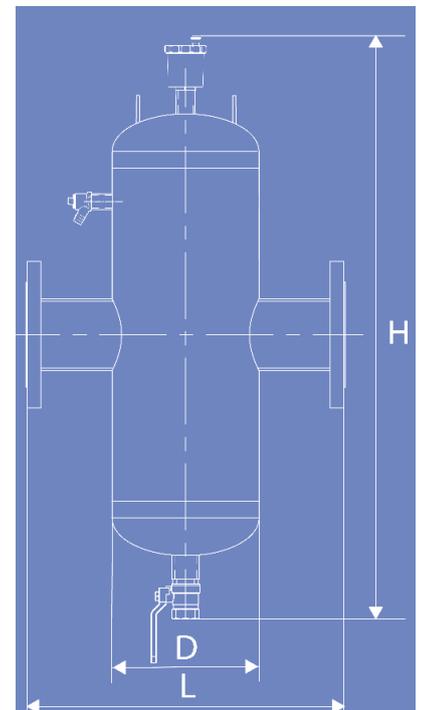
- Corrosion of pipe and fixings.
- Dependence on chemicals.
- Unwanted dirt build up in radiators, vessels & pipe.

CORE Air & Dirt separators are essential when refurbishing older systems or when an open system is converted to a closed system.

- Flanged connection EN 1092-1 PN16.
- Extremely low flow resistance.
- Flow Rate up to 1.5 m/s.
- 5 Year Warranty.

Specifications:

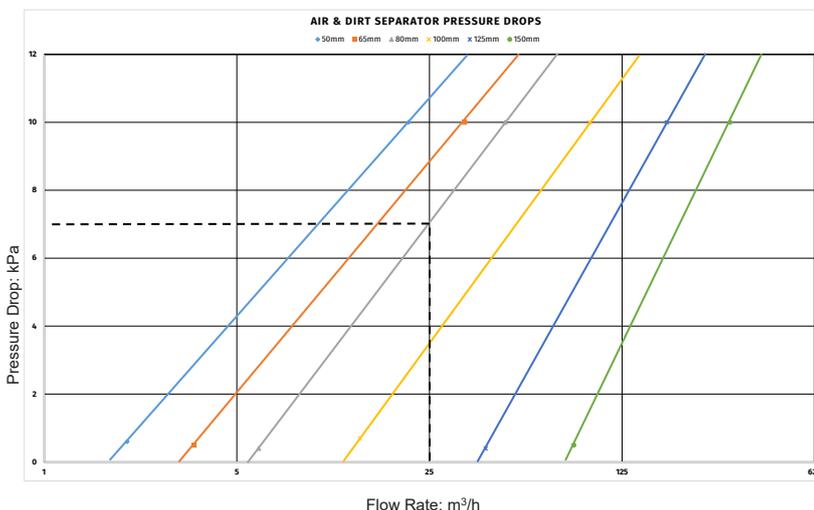
- Maximum working pressure: 10 bar.
- Mild Steel Body with Stainless steel filament internals.
- Brass valves, automatic air vent & blow down valve.
- Suitable for systems with a maximum flow temperature of 110 °C.
- Suitable for addition of glycol-based anti-freeze up to 50%.
- In accordance with Pressure Equipment Directive 2014/68/EU Cat SEP and Pressure Equipment (Safety) Regulations 2016.



Pipe Size	Length L	Body Dia D	Height H	Flange	Weight (Empty)
50mm	430mm	168mm	478mm	PN16	20kg
65mm	430mm	168mm	478mm	PN16	22kg
80mm	490mm	220mm	669mm	PN16	35kg
100mm	490mm	220mm	669mm	PN16	40kg
125mm	630mm	325mm	841mm	PN16	65kg
150mm	630mm	325mm	841mm	PN16	100kg
200mm*	810mm	410mm	1155mm	PN16	103kg

*200mm dimensions not including valves

Pressure Drop Chart



Example: When the water flow is 25m³/h pressure drop for the DN80 Air & Dirt Separators:

1. From the 'Flow' axis at 25m³/h, move vertically to the DN 80 curve.
2. Move left from the point of intersect to meet the "Pressure Drop" axis, for this example Pressure Drop will be 7kPa

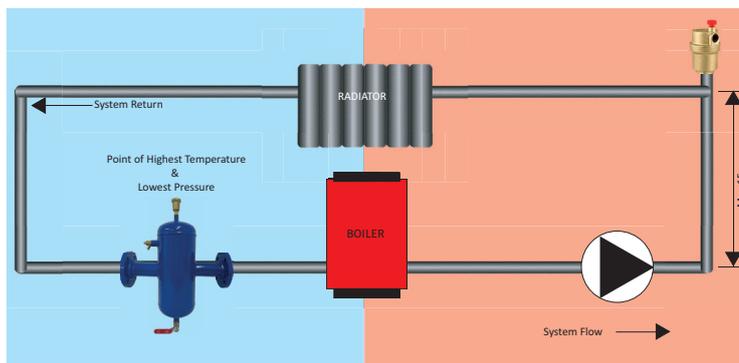
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Location

1. Microbubbles are easily released from circulating water, where the highest temperature and lowest pressure conditions occur in the system.
2. The separators should normally be fitted where water is at the highest temperature and the lowest pressure point available.
3. The examples shown below are typical installation layouts, but other acceptable locations for the separator exist.

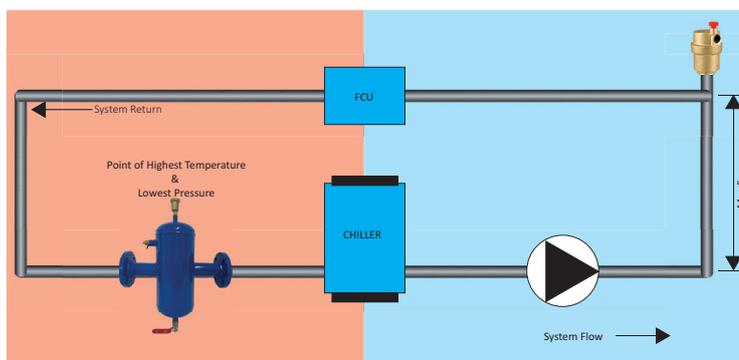
System Set up Hot Water



PLEASE NOTE

The static head must not exceed 15m for a heating system and 5m for a cooling/chilled water system.

System Set up Cold Water



The efficiency of the unit will be reduced if the system static head exceeds those indicated, or system or flow velocity exceeds 1.5m/s.

4. When selecting the position for the separator please be aware that pressure also has a major effect on the release of microbubbles.
5. Where lower temperatures are involved in cooling applications, system pressure becomes the determining factor for the position of the separator.
6. CORE Air & Dirt separators should be installed in horizontal pipework, the direction of flow is optional.