

# AIR & DIRT SEPARATOR OPERATION & MAINTENANCE



**CORE**®

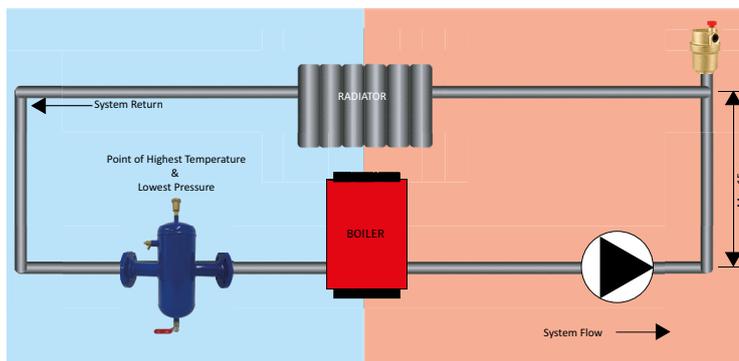
Core values, quality products

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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.

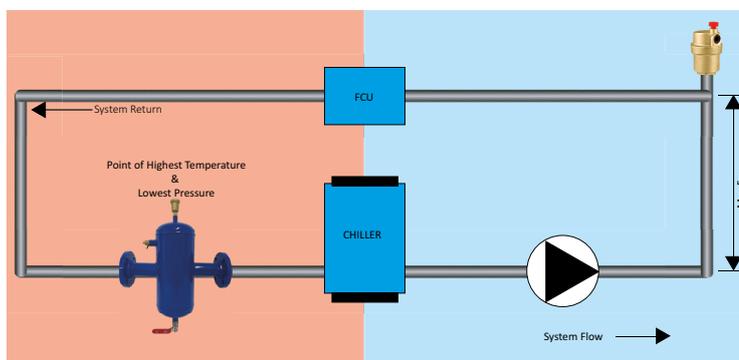
## System Set up Hot Water



### 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



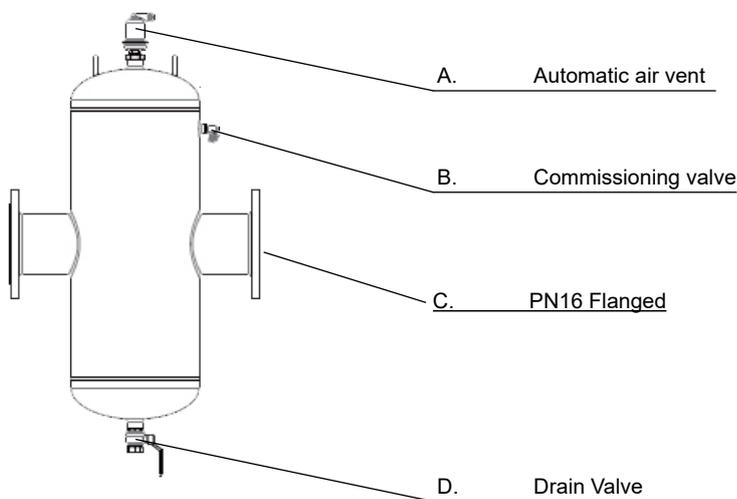
*The efficiency of the unit will be reduced if the system static head exceeds those indicated, or system or flow velocity exceeds 1.5m/s.*

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.

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## Installation (To Be Performed by Qualified Personnel)

1. Protect the CORE Air & Dirt separator from adverse environmental conditions, protect from frost.
2. This equipment will form part of the main system's maintenance regime, do not obstruct access.
3. The main system must be flushed before installation of the CORE Air & Dirt separator.
4. CORE Air & Dirt separators are not bi-directional.
5. The equipment must be installed vertically with isolation valves on the inlet and outlet connections to facilitate maintenance inspection and venting of separated dirt.
6. To provide the best protection for your system typically this equipment is installed on the hottest side of the heat exchanger, on the suction side of the circulation pump. Please refer to section "Location" for more details.
7. For service purposes it is essential to have 100mm access clearance above the air vent when installed.
8. When installing, please take into account the weight of the unit, and use the correct equipment for lifting and fitting. Lifting eyes are provided on 150mm units.
9. Loose accessories should be fitted to unit using CORE SH27 or suitable threadlocking methods:
  - A. Automatic air vent - fitted to the top of the separator.
  - B. Commissioning valve - should be fitted to the side.
  - C. Drain Valve - fitted to the bottom of the unit.
10. Ensure that the vent cap on the air vent is open when commissioning this equipment.
11. Flexible or fixed pipework should be installed to drain dirty water out safely.



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## Service & Maintenance

1. It is recommended that the CORE Air & Dirt separator should be inspected and drained of dirt after 3 months, then annually thereafter.
2. Should particulate debris build up within the air vent valve, and induce a leak, this can be isolated using the vent cap until such time as appropriate maintenance can take place.
3. Before draining the particulate debris, first isolate the CORE Air & Dirt separator from the main system.
4. Where temperatures are likely to cause harm, please allow the unit to cool before discharging the debris.
5. Open the drain valve to release the accumulated debris from the equipment.
6. Once complete, close the drain valve and reintroduce the CORE Air & Dirt Separator to the main system by opening the isolation valves.
7. Never use the drain valve or air vent to reintroduce water to the system.

**WARNING: Any and all maintenance must only take place with the equipment isolated from the main system and when the temperature of the unit and fluid is within safe limits.**

## Decommissioning & Removal

1. To remove the CORE Air & Dirt from the system first isolate the unit.
2. Allow the unit to cool if used on hot water systems.
3. Discharge the system fluid through the drain valve.
4. When the unit is empty, and only when safe to do so, remove the retaining bolts and withdraw the equipment.

## Environmental Considerations

Observe local legislation and regulations when disposing of the CORE Air & Dirt separator.

## Warranty

1 Year from date of purchase – proof of purchase required

## Spares List

1/2" Automatic Air Vent - 10 Bar Rated  
1/2" Drain Valve