



Combined Air (Deaerator) & Dirt Separator. Demountable

- 1 High capacity auto air vent
- 2 Fast bleed Valve
- 3 Drain Valve



Model No.	Dimensions (mm)							Tested to
	A	B	C	D	E	F	G	
SS CVAD-R50	50	430	338	170	25	380	718	21 bar
SS CVAD-R65	65	430	338	170	25	380	718	21 bar
SS CVAD-R80	80	490	408	220	25	440	848	21 bar
SS CVAD-R100	100	490	408	220	25	440	848	21 bar
SS CVAD-R125	125	630	518	325	25	550	1068	21 bar
SS CVAD-R150	150	630	518	325	25	550	1068	21 bar
SS CVAD-R200	200	810	695	410	50	625	1320	21 bar
SS CVAD-R250	250	880	845	510	50	775	1620	21 bar
SS CVAD-R300	300	1100	945	610	50	875	1820	21 bar
SS CVAD-R350	350	1500	1020	770	50	950	1970	21 bar
SS CVAD-R400	400	1500	1195	770	50	1125	2320	21 bar
SS CVAD-R450	450	1750	1195	920	50	1125	2320	21 bar



Dearation

The word Dearation describes the removal of dissolved gases from liquids such as air from water. When water is heated or the pressure reduced gas microbubbles are released into the system. Microbubbles can be the cause of major problems such as pump failure, corrosion and energy loss.

The Solution

The Stainless Steel CleanVent combines the removal of air and dirt through a single unit. Installed at the hottest point in the system the CleanVent will eliminate these microbubbles from heating and chilled water systems.

Features and Benefits

- Greatly reduced commissioning times after initial fill.
- Longer system life (through air and dirt elimination)
- Low-pressure drop
- Bi-directional flow
- Maximum Temperature. 110 °c. Higher temperature units available on request.
- Tested to 21 bar
- All stainless steel vessel
- Air collects in the air chamber before being automatically vented
- Floating dirt can be removed by opening the valve situated under the air vent.
- The same valve is used for releasing air when filling the system
- Large collector ensures that flushing is only required now and then
- Can be flushed while fully operational (no need to shut down)
- An internal stainless steel concentrator to aid removal of air and dirt.
- Smooth surfaces with Stainless Steel lead to lower friction
- Stainless will not degrade in service thanks to its excellent resistance to corrosion.
- Stainless Steel is extensively more resistant to oxidation by water and biocides than carbon steel. Therefore Stainless Steels are not contributing to oxidation, sludge's etc.;
- Thermal properties of stainless steel. They are far superior to iron or carbon steel.
- Maximum flow rate up to 3m/sec

Stainless Steel: Safe, Clean, Efficient and Hygienic

- Stainless is highly resistant against micro bacteria attacks plus lower bacteria colonization
- Hygienic and cleanable material (Smooth surface internally & externally). Due to their very high passive film (protecting the surface)
- Lower adhesion of deposits (dirt and sludge) with the smooth internals of Stainless Steels. Sludge & magnetite is washed/ removed from the collection chamber far easier than the inferior iron/ carbon steel
- Stability, Stainless Steel is basically inert in water. Leaching of alloying elements is within safe limits. As a result, they provide better quality water. No turbidity problems. All resulting in less bacterial slime, low energy consumption, low cleaning costs, good for conveying wet solids.
- Excellent durability and abrasion resistance, as Stainless Steels are resistant to crevice corrosion, cavitations and wear in pure and polluted waters as well as in atmosphere (even polluted), they are cost effective for long term use and do not cause environmental pollution.

CleanVent location

This demountable combined unit (our model ref SS CVAD-R) must be installed at the hottest part of the system (before the pumps).

In a heating system this is the main flow from the boilers.

In a chilled water system the unit must be located in the return close to the chiller.

The static head must not exceed 60 metres in a Heating system.

Maximum static head must not exceed 40 metres in a chilled water system.

N.B. if the static head is greater than these figures the efficiency of the SS CleanVent & MagVent is reduced

Commissioning

The SS CleanVent requires no special commissioning. All units are fitted with a fast bleed valve, which should be used when initially filling the system. The same valve is used for draining off floating scum and also prevents the possibility of dirt clogging the air vent. Maintenance will be required to remove trapped dirt and sludge. Opening the ball valve at the bottom of the unit does this. The valve may be opened while the system is under pressure.

Scalding is a danger at high pressures and temperatures. Ensure that the water is safely piped to drain before opening the valve.

The system pressure will flush the dirt out. Leave the valve open until the collected dirt has been flushed out; repeat

this operation every few days. Once the water is clear it may be possible to drain every 6 months or so depending on the size and age of the system.

Most of the dissolved air will be removed in a few days. However this may vary from system to system .In large systems it may take several weeks.

Dirt separators can only remove dirt that is circulating

Flanges

All flanges are drilled to BS 4504 PN16 as standard.
The CleanVent unit is maintenance free.

Drain valve

All models are supplied with a ball valve for draining the collected dirt and sludge.