

MAGVENT

Stainless Steel Demountable Air,
Magnetite & Dirt Separation for the
Heating & Ventilation Industry

- 1 High capacity auto air vent
- 2 3-Way Valve / Bleed Valve
- 3 Drain Valve
- 4 Removable high gauss magnetic rod



Model No.	Dimensions (mm)							Tested to
	A	B	C	D	E	F	G	
MAGCVAD-R50	50	430	338	170	25	380	718	21 bar
MAGCVAD-R65	65	430	338	170	25	380	718	21 bar
MAGCVAD-R80	80	490	408	220	25	440	848	21 bar
MAGCVAD-R100	100	490	408	220	25	440	848	21 bar
MAGCVAD-R125	125	630	518	325	25	550	1068	21 bar
MAGCVAD-R150	150	630	518	325	25	550	1068	21 bar
MAGCVAD-R200	200	810	615	410	50	650	1265	21 bar
MAGCVAD-R250	250	880	845	510	50	775	1620	21 bar
MAGCVAD-R300	300	1100	945	610	50	875	1820	21 bar
MAGCVAD-R350	350	1500	1020	770	50	950	1970	21 bar
MAGCVAD-R400	400	1500	1195	770	50	1125	2320	21 bar
MAGCVAD-R450	450	1750	1195	920	50	1125	2320	21 bar

Deaeration

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

Dirt Removal

The MagVent is also used to remove dirt particles from heating and chilled water systems. Installed it will eliminate all dirt particles down to 5 microns and less.

Features and Benefits

- High-gauss magnetic rod installed to remove all magnetite in the water system.
- 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.
- Max working pressure - 10 bar (Higher MWP 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 velocity up to 3m/sec
- Two PN16 flanges are installed to aid removal of the internal filters

The Solution

As an aid to system cleaning you should specifically install Magnetic Filtering. The MagVent range has been developed by Fabricated Products (UK) to remove potentially damaging particles from both hot and chilled water systems. It is comprised of a very fine stainless-steel strainer capable of stopping debris down to 5 microns. Inside the body of our unit is also a high-gauss magnetic rod, these two elements combined together providing a very powerful cleaning device. As the water flows through the unit the magnetite is attracted to the magnetic rod and even the smallest particles down to 5 micron and less are collected. Through simple & cost-effective maintenance the magnetic rod is then removed. All magnetite which flows through the unit will be removed 100%.

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.

MagVent location

This combined unit (our model ref MAGCVAD-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 CleanVent & MagVent is reduced

Commissioning

The MagVent requires no special commissioning. All units are fitted with a ½" 3-way 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.

Maintenance- Removing & Cleaning the Magnetic Rod

Scalding is a danger at high pressures and temperatures.

Ensure that the water is safely piped to drain before opening the drain valve.

Turn off The Pumps

Open the Drain Valve

Unscrew and remove The Magnet

After approx. 15-20 Seconds

Close the ball valve

Replace the Magnet

Turn back on the pumps

Flanges

All flanges are drilled to BS 4504 PN16 as standard.

Flushing the MagVent.

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 or weeks (depending on the state of the water).

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.

It is still very important to flush the dirt separator as part of the standard maintenance programme through the valve on the bottom of the unit.

If a combined unit is installed (Air & Dirt) 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.

Drain valve

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