

## Data Sheet 8 – Magnetic dirt separator - MAGCVD

# MAGVENT

Stainless Steel Magnetite & Dirt Separation for the Heating & Ventilation Industry.

- 2 Bleed Valve
- 3 Drain Valve
- 4 Removable high gauss magnetic rod



Dimensions ( mm )								
Model No.	A	B	C	D	E	F	G	Tested to
MAGCVD-50	50	430	310	170	25	114	424	21 bar
MAGCVD-65	65	430	304	170	25	120	424	21 bar
MAGCVD-80	80	490	379	220	25	141	520	21 bar
MAGCVD-100	100	490	366	220	25	154	520	21 bar
MAGCVD-125	125	630	505	325	25	193	698	21 bar
MAGCVD-150	150	630	491	325	25	207	698	21 bar
MAGCVD-200	200	810	649	410	50	251	900	21 bar
MAGCVD-250	250	880	835	510	50	303	1138	21 bar
MAGCVD-300	300	1100	947	610	50	353	1300	21 bar
MAGCVD-350	350	1500	1025	770	50	406	1431	21 bar
MAGCVD-400	400	1500	1262	770	50	432	694	21 bar
MAGCVD-450	450	1750	1218	920	50	495	1713	21 bar

**POD INSULATED** **READY**

## Dirt Removal

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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.

## The Solution

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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 micron. 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%.

## Features and Benefits

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- High-gauss magnetic rod installed to remove all magnetite in the water system.
- Greatly reduced commissioning times after initial fill.
- Longer system life (through 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
- 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

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- 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

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This unit (our model ref MAGCVD) should be installed in the return pipe work before the flow of water enters any plant (boilers, pumps, etc.). There is no head restriction on this unit.

### Commissioning

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The MagVent requires no special commissioning. All units are fitted with a 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

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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

## Flushing the MagVent.

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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.

## Flanges

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All flanges are drilled to BS 4504 PN16 as standard.

## Drain valve

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