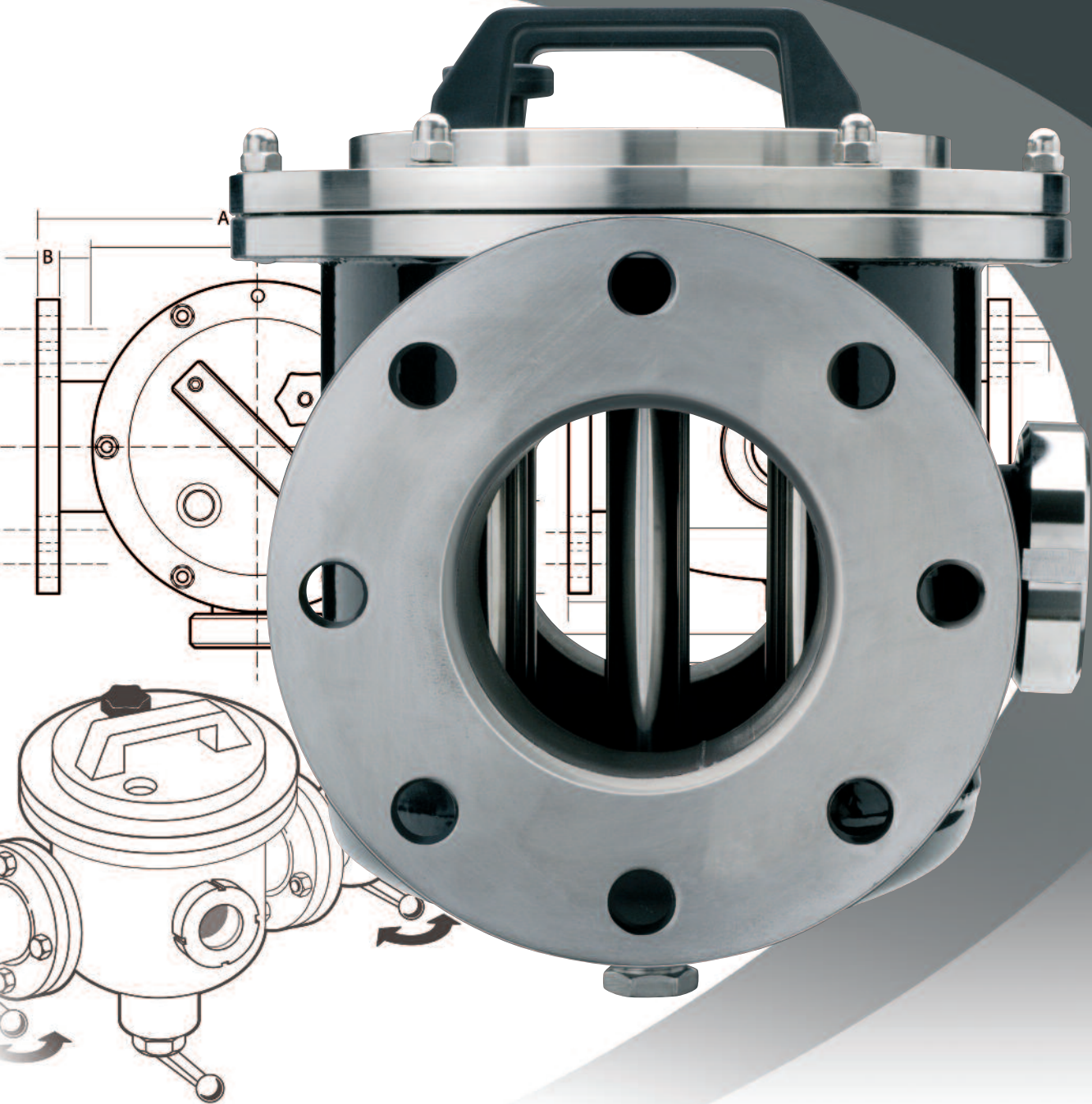


MagnaClean[®]

Industrial

Installation and servicing instructions



ADEY

PROFESSIONAL HEATING SOLUTIONS

Installation instructions

MagnaClean® Industrial, from ADEY Professional Heating Solutions, is an incredibly powerful magnetic filtration unit designed to tackle a multitude of demanding industrial and commercial applications or large modulated systems for heavy-duty domestic use.

The exceptional design characteristics and high quality production of *MagnaClean Industrial* make installation and ongoing maintenance extremely straightforward.

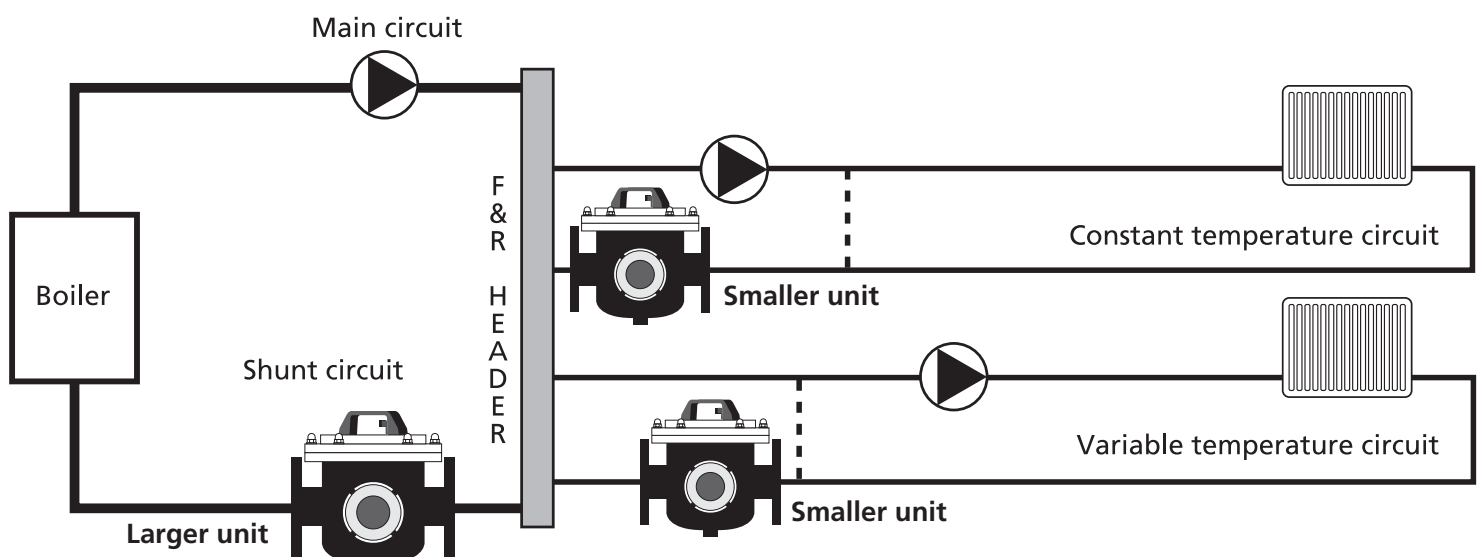
Correct installation and servicing is essential to ensure optimum operating performance and a long operational life and should only be undertaken by qualified heating engineers and technicians. It is important that all procedures and guidelines contained within this installation and servicing brochure are followed closely.



Flexible magnetic filtration options

MagnaClean Industrial's powerful and proven magnetic filtration capability and robust design make it ideal for the broadest range of commercial heating and ventilation systems.

As can be seen in the diagram below, *MagnaClean Industrial* provides a number of installation solutions in terms of unit size and location. The typical HVAC system illustrated identifies two of these options within the various circuits.



Step by step guide to installation

Follow the illustrations and measurements for easy installation of *MagnaClean Industrial*. There are four key steps to successful installation:

Step 1

Use the measurements table to identify the correct length of pipework to be cut out, allowing for your isolation valves (refer to measurement A). We recommend installing on the primary circuit on the return to the boiler. Leave sufficient space above *MagnaClean Industrial* to access and remove the magnets easily during servicing.

Step 2

Install the isolation valves and connect the two PN16 flanges to the isolation valves.

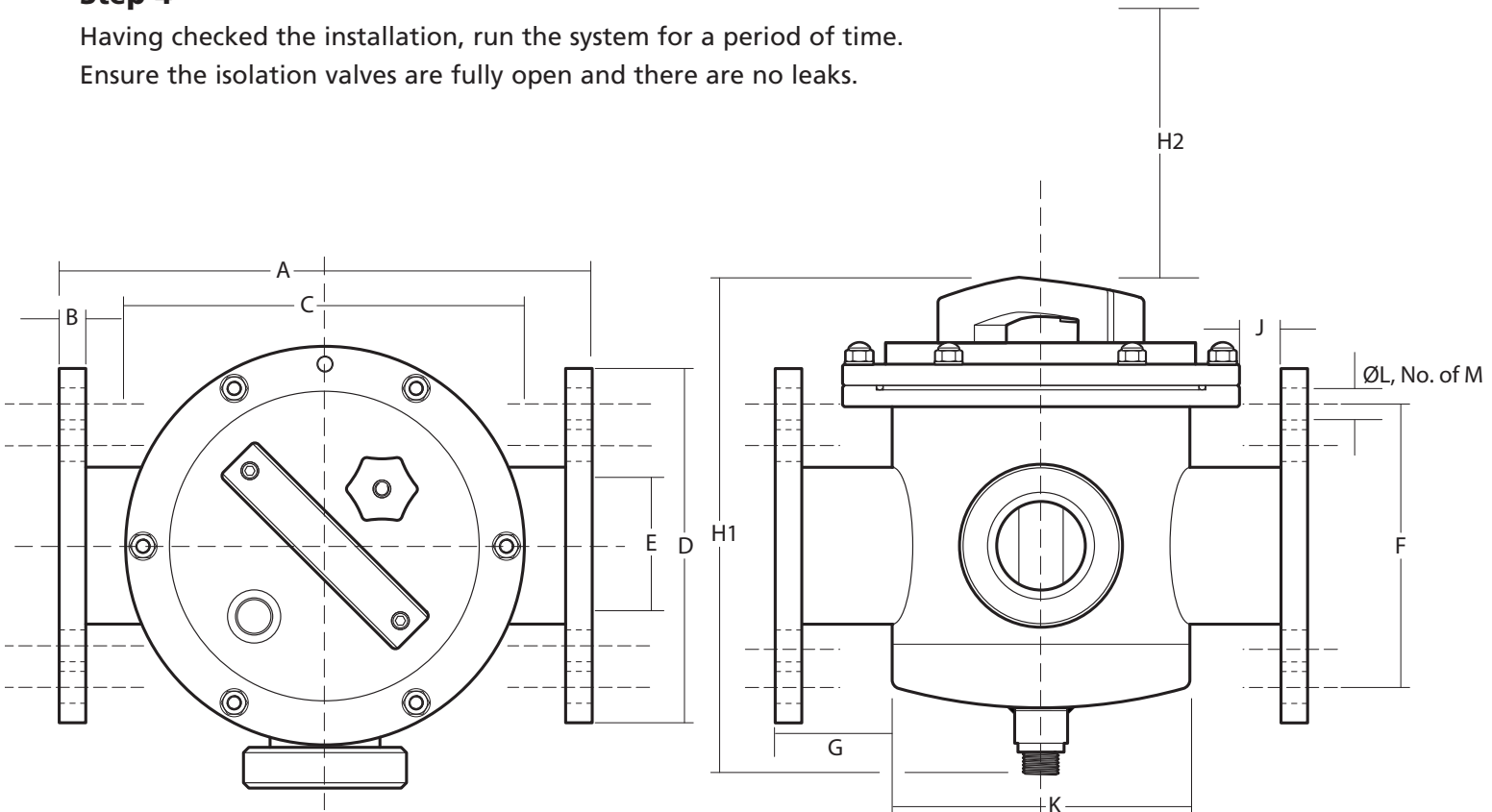
Step 3

Install *MagnaClean Industrial*, ensuring that all fittings are aligned correctly and secure. Install a fixed drainage pipe and drain valve to the 1¼" drain point at the base of the unit. Alternatively, remove the drain plug and connect to a drain hose when servicing.

Step 4

Having checked the installation, run the system for a period of time.

Ensure the isolation valves are fully open and there are no leaks.

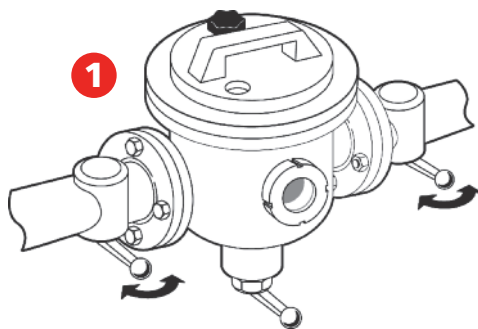


Measurements table

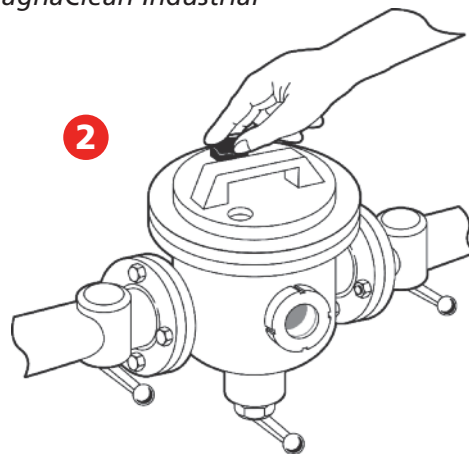
Product code	Filter diameter (mm)	Inlet size (mm)	No. of magnetic rods	Measurement (mm)												
				A	B	Ø C	Ø D	Ø E	F	G	H1	H2	J	Ø K	L	M
MCIN2001	150	50	5	282	15	225	165	54.8	125	57	280	220	13.5	168	18	4
MCIN4001	200	100	7	360	15	280	220	108.2	180	70.5	333	270	25	219	18	8
MCIN4001HF	300	100	9	470	15	390	220	108.2	180	73	398	310	25	324	18	8
MCIN6001	300	150	9	470	15	390	285	161.5	240	73	417	330	25	324	22	8

Servicing instructions

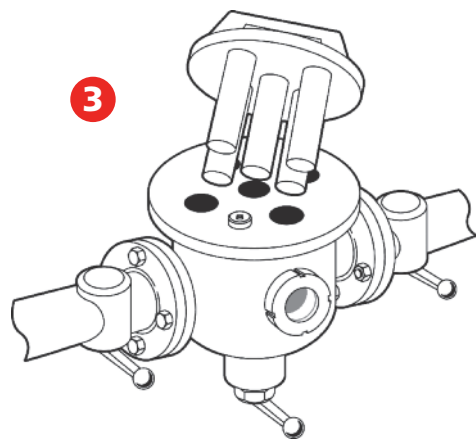
Follow the simple steps below when undertaking a service on the *MagnaClean Industrial* in-line magnetic filter:



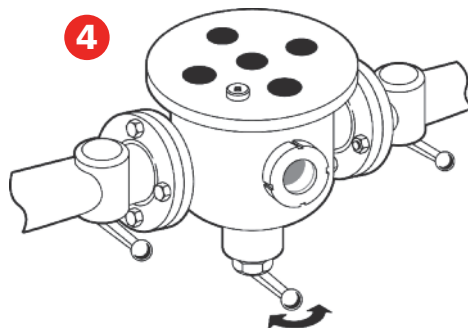
Check the *MagnaClean Industrial* sight glass for build-up of black iron oxides. If needed, turn off the boiler and isolate the electrics. Turn off the full bore isolation valves on either side.



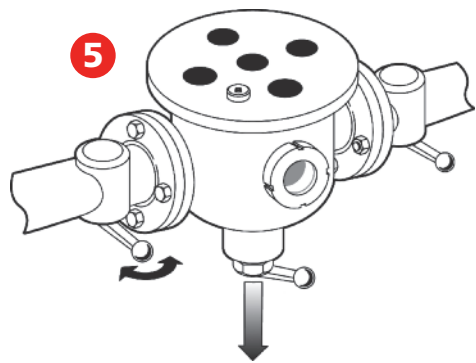
Unscrew the black retaining knob on the *MagnaClean Industrial* lid.



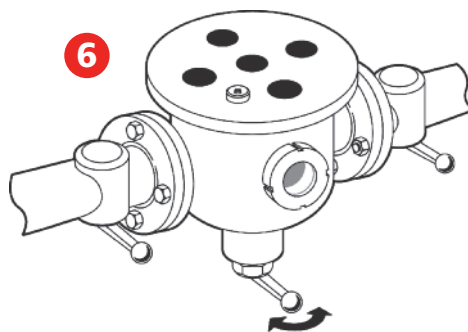
Using the handle, lift out the magnetic cores to remove from stainless steel housing. Take care not to knock or drop the magnetic cores as this can result in damage.



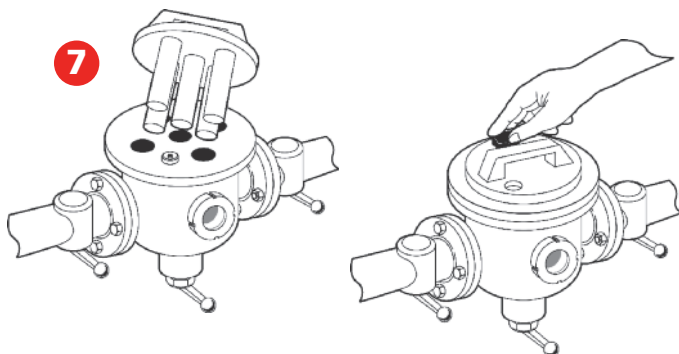
Connect hose to the 1 ¼" drain valve and open the valve or place a bucket underneath and remove the drain plug.



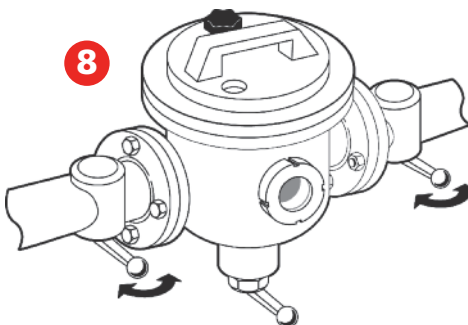
Slightly open the inlet isolation valve, leaving the other valve closed, and allow the deposits to drain through.



Close the drain point, i.e. turn off the drain valve or replace the plug.



Replace the magnetic core and tighten the black retaining knob - Hand tighten only.



Re-open full bore isolation valves to complete the process. Use the *MagnaClean Industrial* isolation valve to remove the air from the unit.



Frequently asked questions

1. What is the pressure drop between flanges on *MagnaClean Industrial*?

The pressure drop is minimal, up to 0.2 bar.

2. What material is *MagnaClean Industrial* made of?

MagnaClean Industrial is made from 304 stainless steel.

3. What is the maximum temperature the magnets will withstand?

The magnets will operate efficiently up to 140°C.

4. Where on the system should I install *MagnaClean Industrial*?

MagnaClean Industrial should be installed on the return of the circuit, as close to the boiler as possible.

5. Does *MagnaClean Industrial* come with a warranty?

Yes, *MagnaClean Industrial* is backed by a two year limited warranty, starting from the date of installation.

6. What is the maximum flow rate that *MagnaClean Industrial* will allow?

The flow rates on the system will vary according to the boiler and pump size. In order to work out the flow rate, you will need to know the pipe size, the quantity of boilers, the number of pumps on the system and their individual sizes. You can fill out these details online on our Contact page and we will contact you within 48 hours of your enquiry with the suggested *MagnaClean Industrial* for your system. Alternatively, please call 01242 546700.

7. Which side is the inlet on *MagnaClean Industrial*?

Either side can be used as inlet or outlet. This will not affect the performance of *MagnaClean Industrial*.

8. Can I fit *MagnaClean Industrial* vertically?

Yes. However, when servicing, allow extra time, as you will need to open one of the valves, let the water flush through and drain until the sludge is removed and the water is clear.

MagnaClean[®]

Industrial

Technical specifications

Casing

Material: 304 stainless steel

Maximum working pressure: 10 bar

Shape: single inlet/outlet; 1/4" BSP drain

Lid seal: EPDM

Sight glass: high temperature glass and seal

Inlet/outlet

Size options: 2", 4", 6"

Flanges: PN16 - 15mm (4 or 8 bolt holes)

Magnets

Material: high-power, 'rare earth' high intensity core

Sleeve: 316 stainless steel

Length: 145mm, 205mm, 243mm

Diameter: 25mm

Maximum temperature: 140 degrees

Sight glass

Weld material: DIN1.4404 stainless steel (316L)

Collar nut: DIN1.4301/DIN1.4307 stainless steel (304L)

Glass: toughened soda lime to BS3463

Product side seal: EPDM



Outer seal: non-asbestos fibre (Klingsil C4400)

Maximum pressure: 10 bar (correct installation)

Maximum temperature: 145 degrees

Service guarantee

MagnaClean Industrial will provide years of protection maintaining the high efficiency of your heating system and result in financial benefit and increased reliability.

The product is backed by a two year guarantee.

MagnaClean Industrial flow rates

Product code	Filter diameter (mm)	Inlet size (mm)	No. of magnetic rods	Flow rate – cubic m/hr	Casing volume (litres)
MCIN2001	150	50	5	16	3.4
MCIN4001	200	100	7	69	8.0
MCIN4001HF	300	100	9	78	22
MCIN6001	300	150	9	100	23.8

For more information

For more information on the installation and servicing of ADEY's MagnaClean Industrial, call 01242 546700.

Alternatively, visit www.akeysolutions.co.uk



PROFESSIONAL HEATING SOLUTIONS

Telephone: 01242 546700 Email: info@adeysolutions.co.uk

www.akeysolutions.co.uk



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