

# BoilerMag®

Domestic Heating System Protection

PRODUCT  
GUIDE

Fast fit  
Zero hassle



3 YEAR  
WARRANTY

- High performance heating system filter
- Improves energy efficiency
- Captures magnetic and non-magnetic debris
- No block design



**ECLIPSE  
MAGNETICS**

A world leader in magnetic technology



## Fits in Minutes, Protects for Years

Black ferrous oxide or sludge can seriously reduce your boiler's efficiency by reducing heat transfer or causing blockages in the boiler and pipework.

Most new build or refurbishment projects now specify a heating system filter.

BoilerMag is a highly efficient filter system which removes both harmful **magnetic** and **non-magnetic** debris, such as recirculating lime scale, protecting your boiler and ensuring full thermal efficiency of boilers and radiators.

## Superior Design

BoilerMag is the latest innovation from Eclipse Magnetics, a world leader in magnetic technology. Using our wealth of experience in magnetic design and fluid flow we have designed a highly efficient filter.

BoilerMag delivers outstanding features and benefits for the **installer, service engineer, householder** and the **environment**.

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For further information please contact us:

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Email: [service@eclipsemagnetics.com](mailto:service@eclipsemagnetics.com)

Fax: **0114 225 0525**

or visit [www.boilermag.com](http://www.boilermag.com)



# Features and benefits



## For the Installer

Fast, Hassle Free Fit

3 YEAR  
WARRANTY

**BoilerMag allows the installer to fit in minutes and have the assurance the unit will have a long trouble free operation...**

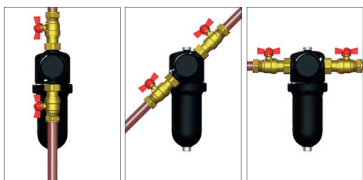
**It's All in the Box** – everything you need is in the kit: no need to buy additional fittings or adaptors, simply measure, cut and fit.

**Standard Pipework** – comes complete with fittings to suit 22mm pipe (28mm version also available).

**High Quality Fittings** – we use only the best quality isolation valves available.

**No Block Design** – utilises Eclipse Magnetics's patented free flow design which ensures zero blockages (see p4).

**360° Adjustment** – fits easily to any pipework configuration: horizontal, vertical or angled.



## For the Service Contractor

Cleans in Minutes

**BoilerMag is the perfect choice for fast, hassle free servicing...**

**Cleans in Minutes** – cleaning can be done in minutes following the simple instructions provided.

**No Need to Carry Spares** – no consumable items to replace. BoilerMag's high quality fittings are built to last a lifetime.

**Trouble-Free Service Calls** – protects the whole system, reduces time servicing and replacing other parts. Fewer callouts!

**Superior Collection Capacity** – only requires cleaning during the annual heating system service\*. Design ensures no blockages can occur.

**Long Lasting Components** – significantly increases the lifespan of boilers, radiators, pumps and valves.



## For the Householder

Reduced Energy Bills

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**If you want an efficient trouble-free heating system BoilerMag is a must...**

**Reduced Energy Bills** – improves performance efficiency – no more radiator cold spots or reduced boiler heat transfer.

**Significantly Increased Boiler Life** – a typical boiler and installation costs around £2000, why not protect it?

**Increased Component Life** – increases the lifespan of other components such as radiators, pumps, valves etc.

**Fit and Forget** – as a householder you can enjoy all the benefits with zero hassle. BoilerMag only requires cleaning at the annual heating service.\*

**Zero Running Costs** – once fitted BoilerMag requires no replacement parts or consumable items.



## For the Environment

The Greener Option

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**Products which make a positive contribution to the environment are often specified in new build or retrofit projects. BoilerMag is the perfect fit...**

**Reduced Energy Use** – reduced system debris means increased heating efficiency.

**Reduced Carbon Emissions** – reduced energy use means reduced CO<sub>2</sub> emissions.

**No Consumables** – requires no throw away items to run and maintain .

\*in normal operating conditions

# BoilerMag in operation

BoilerMag has a unique combination of design features ensuring high performance filtration by capturing both magnetic and non-magnetic debris. As a world leader in magnetic technology we have utilised our patented magnetic circuit to provide guaranteed performance. The key features are shown below:

**High quality isolation valves**

**Adjustable locking collar allows 360° adjustment to pipes at any angle**

**Magnetic core with patented circuit**

**Dual flow around the magnetic core ensures maximum magnetic extraction\***

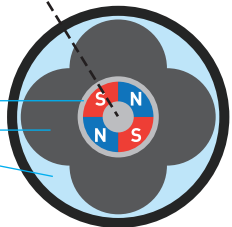
**Mesh filter extracts non-magnetic debris**

**Drain valve**

CROSS SECTION

**Unit does not block even when fully loaded with contamination**

**Magnet core**  
**Contamination attracted to core**  
**Fluid channels remain unblocked**



# The BoilerMag package

## It's all in the box!

The BoilerMag package contains all the components you need for quick and easy installation including high quality isolation valves.



BoilerMag filter **1a**

Product guide **5**

Port block **1b**

Drain valve spanner **6**

2 × Isolation valves **2**

Boiler sticker **7**

2 × Valve seals **3**

Pipe cut template **8**

Bowl spanner/cleaning tool **4**

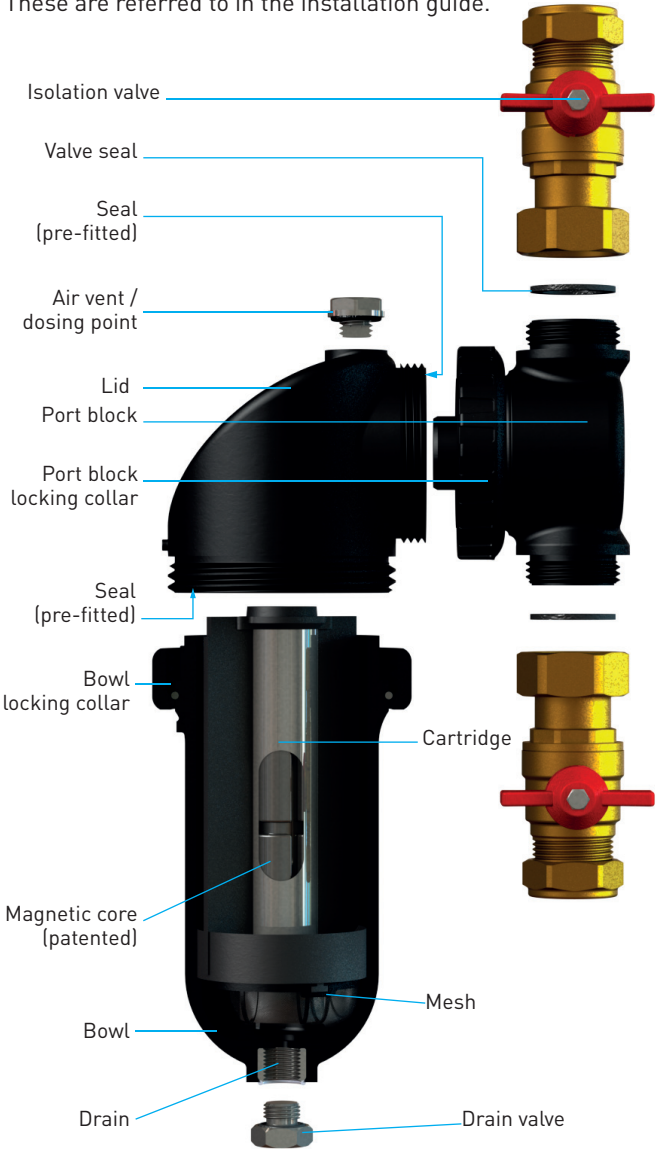
## Flush attachment

If you need to flush your system, a quick and easy-fit adaptor is available (part no. BMFA). This simply fits onto the port block ensuring that nothing needs to be removed from the pipework (see p15).



# BoilerMag components

BoilerMag's main components are shown below. These are referred to in the installation guide.





# Where to install BoilerMag

BoilerMag is ideal for domestic central heating systems.

To achieve the best results we recommend installing BoilerMag in the heating circuit after the last radiator, prior to the boiler return.

Please also ensure that the BoilerMag is located in a position which gives adequate access for servicing and maintenance.

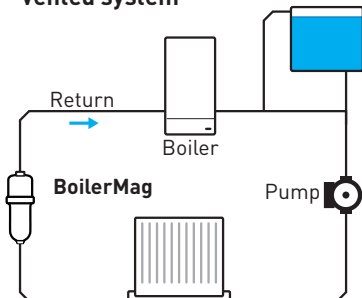
To prevent frost damage do not install externally or in locations where temperatures can fall below zero°C.

## 360° pipe orientation

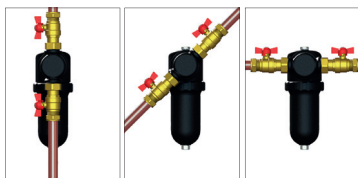
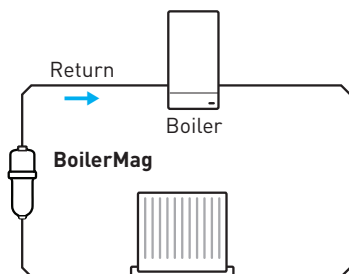
These instructions show BoilerMag installed on a vertical pipe, however, the port block locking collar design facilitates fitting on any angle of pipework.

Simply loosen the port block locking collar, ensure the BoilerMag is vertical and align the inlet and outlet points to the pipework.

## Vented system



## Combi /sealed system



# Prior to installation

**BoilerMag is designed for easy fit and hassle free maintenance. Please follow the instructions to ensure correct installation and servicing.**

BoilerMag is guaranteed for 2 years against manufacturing defects. This can be extended to 3 years by registering your warranty. Failure to follow the recommended instructions will invalidate the warranty.



## **IMPORTANT**

**Please read below before commencing installation or servicing.**

**BoilerMag is only for use on domestic central heating systems. For other applications always consult the manufacturer before installing.**



**This product contains strong magnets. Care and attention should be taken at all times during installation and servicing. Do not place the magnetic core on any ferrous surfaces or near ferrous items.**

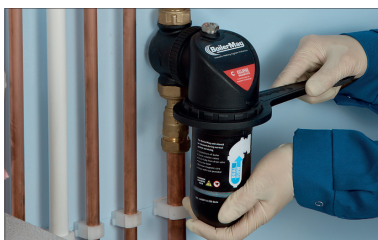


**Suitable personal protective equipment should be used during all installation and servicing.**

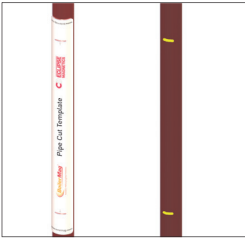


**BoilerMag must be installed by a qualified person in accordance with all relevant current regulations.**

**Ensure the heating system is isolated prior to carrying out any installation or maintenance work.**



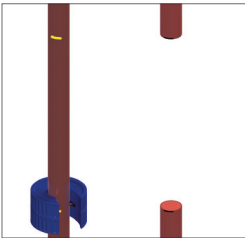
# Installation instructions



1

1 Using the pipe cut template provided mark the pipe through the slits.

2 Using a suitable tool cut out the marked section and remove burrs.



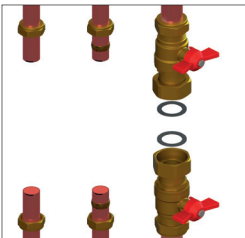
2

3 Fit the isolation valves provided onto both inlet and outlet pipes in the following sequence:

a. Slide the isolation valve nuts on to pipes.

b. Position olives on the pipes.

c. Loosely position isolation valves onto the outer nuts.



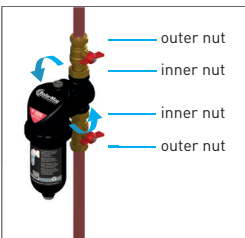
3

4 a. Introduce the pre-assembled Boilermag unit ensuring the directional arrow follows the heating system flow. Ensure valve seals are fitted in place. Tighten the inner nuts fully.

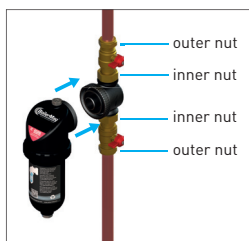
b. Tighten the outer compression nuts on both valves to ensure a watertight seal. Align the Boilermag to the vertical position and hand-tighten the Boilermag locking collar.



Do not overtighten isolation valve nuts.



4



5

## 5 Alternative

For installations where access is restricted or where a flush adaptor is to be attached, the BoilerMag body can be removed from the port block. If required the port block can be fitted separately then the body attached.



6



Before proceeding ensure that the drain valve is in the closed position and the bowl is firmly hand tightened.

6 Open isolation valves.

Turn on heating system.



7

7 Open air vent to release residual air.


Close air vent.

N.B. Run the heating system at operating temperature. Check for installation integrity.

Complete details on the boiler sticker and apply to the boiler.

Complete the warranty card and return to Eclipse Magnetics or visit [www.boilermag.com](http://www.boilermag.com) to register your details. By registering your serial number the warranty is extended from 2 to 3 years.

# Cleaning / servicing

 **Cleaning and servicing must only be carried out by a qualified person in accordance with all relevant current regulations.**

**To maintain optimum efficiency we recommend cleaning is carried out annually.**

Ensure you have a container available to hold a minimum of 750ml.



1

**1** Isolate the heating system and close both isolation valves. Open the air vent in the top of the filter.

**2** Using the spanner included in the pack, open the drain valve. Drain all contents and firmly close the drain valve.



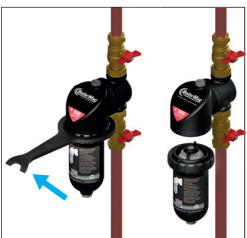
2

**3** Using the bowl spanner provided unscrew the bowl locking collar releasing the bowl from the lid.

Pull out the cartridge (shown in Fig. 4 overleaf).

Rinse out the bowl.

All non-magnetic contaminant is collected in the bottom of the bowl. This should be emptied and any retained contaminant should be rinsed off if necessary. Check the mesh filter in the cartridge for blockages.



3



4 Magnetic contamination (black sludge) will be held around the centre of the cartridge.

4



5 Hold over a suitable container. Using the dual purpose bowl spanner / cleaning tool provided slide the contamination deposits to the top of the cartridge.



Ensure that the bulk of the contamination is removed, it is not essential to remove all contamination.

5

**Do not use any sharp or abrasive object to clean the cartridge.**





6

6 Replace the cartridge back into the bowl ensuring that the 3 cartridge splines are aligned to the grooves in the bowl wall as shown.



7

7 Check that the pre-fitted seal is still seated correctly. Hold the bowl to the lid ensuring the spigots on each are aligned then hand tighten the bowl locking collar.



Do not overtighten.

Open the isolation valves.



8

8 Open the air vent to release any trapped air.

Close the air vent.

Turn on heating system.

N.B. Run the system at operating temperature. Check for installation integrity prior to continuing.

# Chemical dosing



1 Isolate the boiler. Close isolation valves.

Release air pressure by opening the drain valve (as shown in step 2 on page 11). No need to drain fully. Close drain valve.



2 1 Remove air vent central screw.

2 Connect dosing device.

Open outlet isolation valve. Dose chemical into the system.

Close the outlet isolation valve. Remove the dosing device.



3 1 Replace air vent central screw.

2 Open both isolation valves.

Turn on heating system to flush. Vent if required.

**Method 2**  
Drain the BoilerMag unit fully by following steps 1 to 2 on page 11.




4 3 Fully remove the air vent.

4 Dose chemicals through the air vent hole using a funnel. Maximum capacity 500ml.

Once dosing is complete replace the air vent. Open both isolation valves.

Turn on heating system to flush. Vent system if required.

 Do not allow chemicals to remain static in the BoilerMag for long periods.



# System flushing



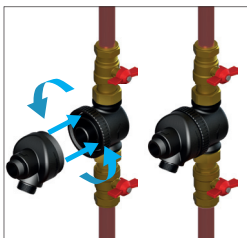
**This pack does not contain the flush attachment (left). This is available separately from your BoilerMag supplier. Product code: BMFA.**

To flush system follow instructions 1 to 2 on page 11.



**1** Unscrew the port block collar to release the BoilerMag filter.

1



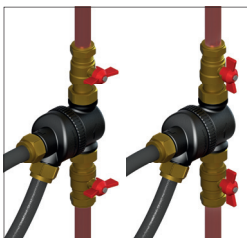
**2** Fit the flush adaptor to the port block by hand tightening the port block locking collar.



Do not overtighten.

2

**3** Fit hoses to the flushing adaptor and open the isolation valves.



Complete flushing, close isolation valves, remove hoses and unscrew the flush adaptor from the port block.

To reassemble re-fit the boilermag filter back onto the portblock and follow steps 6&7 on page 10.

3

# Troubleshooting

By following these instructions carefully any operational problems will be avoided. In the rare instances where problems occur there is often a simple solution.

## **Water is leaking from the BoilerMag.**

Turn off the system, close the isolation valves. Perform the following checks:

- a. Check all seals for location and condition. Please contact us for replacements.
- b. Check the isolation valve nuts to ensure they are fully tightened.
- c. Ensure the drain valve is fully closed.
- d. Check the bowl locking collar is firmly tightened and not cross threaded.
- e. Check the port block locking collar is firmly tightened and not cross threaded.

## **Port block cannot be located onto the isolation valves.**

Remove valves and re-cut the pipe to the correct length.

## **Cartridge will not fit back into the bowl.**

Ensure correct alignment of the 3 cartridge splines and bowl grooves. See step 6 on page 13.

## **Mesh filter is blocked, do I need to replace it?**

No, simply rinse out any contamination to unblock.

## **Inlet and outlet pipes are not vertical.**

BoilerMag can be fitted to any pipework orientation. Simply loosen the port block locking collar, ensure the BoilerMag is vertical and align the inlet and outlet points to the pipework.

If you have any questions please contact the BoilerMag service line 0114 225 0624.

# Spares and accessories

The complete BoilerMag package is available in 22mm and 28mm versions.

| Item           | Product code |
|----------------|--------------|
| BoilerMag 22mm | BM22         |
| BoilerMag 28mm | BM28         |

## Spares and accessories

BoilerMag is supported by a package of spares and ancillary products. The complete list with product codes is shown below:

| Spare fittings and tools | Product code |
|--------------------------|--------------|
| Flushing attachment      | BMFA         |
| Seal kit                 | BMSK         |
| Spanner/cleaning tool    | BMCT         |
| Drain valve spanner      | BMDS         |
| Mesh insert              | BMMI         |
| Valve 22mm               | BM22IV       |
| Valve 28mm               | BM28IV       |

## Installer rewards

# Have you registered?

Join our installer reward scheme and receive **FREE** Eclipse tools

Earn a point for every BoilerMag you install by registering the product serial number.

Exchange points for any of a large selection of high quality Eclipse and Spear & Jackson tools.



Register now [www.boilermag.com](http://www.boilermag.com)

## Other associated Eclipse Magnetics products

High performance filtration for large industrial and commercial heating and cooling systems, to suit connections from 1 1/2" (32mm) to 6" (150mm).



Ideal for commercial, municipal or industrial buildings.

20121122 | PML boilermag-domestic-DL-product-gal-08-v02

**Eclipse Magnetics has over 100 years' experience in the design and manufacture of high performance magnetic systems. We supply critical equipment to some of the leading names in industry.**

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**A world leader in magnetic technology**