

THE SMART MAG CLEANER (FILTER)

Operation & Installation Instructions

BWORLD

Professional Heating Solutions

- ACTIVELY FILTERS MAGNETIC AND NON FERROUS DEBRIS
- 360° INSTALLATION
- INSTALLATION / SERVICING DATE WHEEL
- FULL BORE ISOLATING BALL VALVES ON INLET AND OUTLET CONNECTIONS
- SUPPLIED WITH A FULL SET OF SPARE SEALING WASHERS, O RINGS AND DRAIN HOSE ADAPTER MANUAL AIR BLEED
- EFFORTLESS SERVICING AND FITTING

Installation Instructions

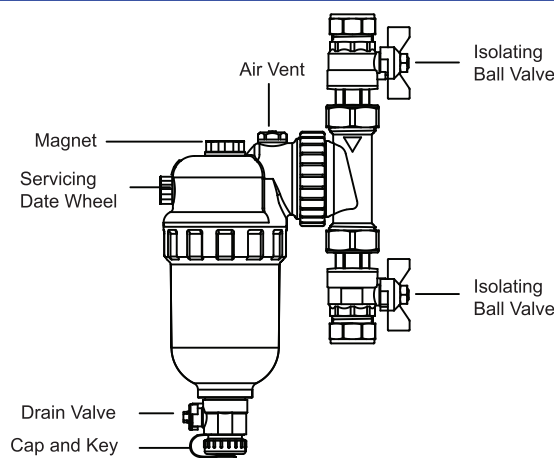
Mag Cleaner are easy to install and should preferably be installed in the return circuit upstream of the boiler.

This enables debris already present in the pipework to be intercepted before it reaches the boiler, particularly during system flushing. Mag Cleaner should always be installed as shown with the drain valve beneath the collection chamber.

Mag Cleaner are uni-directional and must be installed with the flow direction as indicated by the arrow on the body.

The union joint between the body and the collection chamber allows the Mag Cleaner to be installed in horizontal, vertical or inclined pipework thus eliminating the need to stock both horizontal and vertical models.

Component Parts



Technical Data

Medium:	water glycol solution
Magnet:	12000 G
Max. working pressure:	4 bar
Temperature range:	0 to 120°C
Minimum particle size:	5 µm

Fast Clean

Prior to cleaning the Mag Cleaner, ensure that the working environment is safe. It is advisable to turn the boiler off before commencing any maintenance works. Caution should also be taken regarding the temperature of the contents of the filter.

1. Turn the inlet and outlet isolation valves to the closed position.
2. Unscrew the magnet from the screw cap and pull it free from the pot.
3. Open outlet and drain valves. (The blanking cap is the operating key for the Drain valve and provides long term security.)
4. Close Drain valve, replace magnet and open inlet valve.

Air Vent

The collection chamber can be vented to release any trapped air that may have accumulated during system filling or when in service using a screw driver to open the manual air vent.

Notes

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

Do not install externally or at temperatures of 0 °C or below to prevent frost damage.



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.

BIWORLD

Professional Heating Solutions

CENTRAL HEATING PROTECTOR B1

- **Protects against corrosion and scale in mixed metal central heating systems**
- **When used in conjunction with Cleaner B3 gas savings of up to 15% can be achieved every time you heat your room**
- **Stops frequent venting of radiators**
- **Prevents sticking pumps and boiler noise**
- **Reduces maintenance costs and saves on fuel bills**
- **Prevents cold spots in radiators**
- **Non toxic, environmentally friendly**

Product Uses

Biword Protector B1 gives long-term protection of domestic central heating systems against internal corrosion and limescale formation. It prevents corrosion of all metals found in these systems, i.e. ferrous metals, copper and copper alloys and aluminium. It is suitable for all types of boiler, radiators and pipe work systems. Biworld Protector B1 is compatible with all metals and materials commonly used in central heating systems.

Physical Properties

Protector B1 is a blend of inorganic and organic corrosion and scale inhibitors and biocide.

Form:	Clear translucent liquid
Odour:	Faint. Aromatic
Form:	Clear liquid
pH (conc):	7.1 – 8.1
pH (soln):	7.6 – 8.2
SG:	1.095 at 20°C

Application and Dosage

The recommended 'in use' concentration of the product is 0.5%. One 500ml bottle will treat an average 3 to 4 bedroom house (100 litres). For open vented systems add via the feed and expansion tank.

In single feed indirect cylinders, e.g. "Primatic" or similar, potable water chemicals must be used.

For continued protection Biword Protector B1 levels should be checked regularly (annually). We recommend untreated or sludged systems are thoroughly cleansed and flushed in accordance with BS7593 and Benchmark using Biworld Cleaner B3, before treating with Biworld Protector B1, as existing debris can damage the installation.

Packaging, Handling and Storage

Biworld Protector B1 is supplied in 500ml containers.

Biworld Protector B1 is classified as non-hazardous, but as with all chemicals: Keep out of reach of children. Do not mix with other chemicals. Do not take internally. In case of contact with eyes or skin, rinse immediately with plenty of water



Professional Heating Solutions

CENTRAL HEATING CLEANER B3

- Neutral universal cleanser for pre-commissioning new systems in accordance with BS7593:1992
- Removes sludge and scale and restores heating efficiency of existing systems
- Removes flux residues and other debris
- Compatible with all metals and materials commonly used in heating systems
- Easy to use system can be left running normally during cleansing
- Suitable for use with all known powerflushing machines
- pH Neutral, non-hazardous formula (COSHH rated zero)

Product Description

Biworld Cleaner B3 is a quick and effective pH neutral cleanser for central heating systems. It is designed to remove all debris, sludge and scale from existing systems of all ages. In this way, it will restore heating efficiency and eliminate or reduce boiler noise. It has also been designed for pre-commission cleansing new installations in accordance with BS7593:1992, removing flux residues and other debris, thereby helping extend the life of a system.

For older sludged systems, Cleaner B3 is particularly effective when used in conjunction with a powerflushing unit. Cleaner B3 is a neutral, non-hazardous product that is well inhibited and compatible with all metals and materials commonly used in heating systems.

For continued long term protection the system should be thoroughly cleansed and flushed in accordance with BS7593:1992 and Benchmark using Biworld Cleaner B3, before treating with Biworld Protector B1. We recommend Protector levels are checked regularly (annually).

Physical Properties

Color: Dark amber
Odour: Faint
Form: Liquid
pH (conc): 7.0 - 7.5
pH (1% soln) 7.5 - 7.8
SG: 1.20 @ 20°C



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Application and Dosage

One 500 ml container of Cleaner B3 is usually sufficient to clean a typical domestic central heating system. Additional/repeat applications of Cleaner B3 may be necessary for large systems, or if systems are heavily sludged.

First drain and refill the entire system with plain water. For optimum results the entire system, including drop feed radiators where fitted, should be completely drainable. Preferably full bore gate valves with hose connectors should be provided temporarily for this purpose. Motorized and thermostatically controlled valves must be set so that no part of the system is closed off during cleansing or rinsing. Discharges must be made to the foul drain and not the surface water drain.

For open vented systems add Biworld Cleaner B3 via the header tank. Biworld Cleaner B3 can also be used in conjunction with a powerflushing unit. In this case, please refer to the unit manufacturer's instructions.

When pre-commission cleansing new systems, Biworld Cleaner B3 should be circulated for a minimum of 1 hour at normal operating temperature. For cleansing existing systems, sludge and debris should be dispersed also within 1 hour at normal operating temperatures. However, to remove hardened iron oxides and limescale, the cleaning time can be extended to up to 1 week under the normal heating cycle. If a radiator still has a cold spot after 1 hour, increase the flow through the radiator by closing the valves on the other radiators. An additional or repeat dose of Cleaner B3 may be necessary in some cases.

Drain and flush thoroughly, at least twice, until the water runs clear. When using Cleaner B3 with a powerflushing unit, cleaning should be completed within an hour. Use dynamic flushing with plain water until the water is clear.

Refill the system adding a suitable Biworld Protector B1 for long term protection against corrosion and limescale.

In single feed indirect cylinders, e.g. "Primatic" or similar, potable water chemicals must be used.

Packaging, Handling and Storage

Biworld Cleaner B3 is supplied in 1 pint ≈ 500ml containers.

Biworld Cleaner B3 is classified as non-hazardous. In case of contact with skin or eyes, rinse with water. If soreness persists seek medical attention. Not to be taken internally. If swallowed do not induce vomiting. Drink copious amounts of water. Keep out of reach of children.