



- Twin cylinder unit containing both magnet and heater.
- 11,000 gauss of magnetic power.
- 3kW CombiHeat power flush heater.
- Increases power flushing efficiency; Reduces time taken to power flush a system.
- Prevents re-circulation of debris through the boiler.
- Minimises water consumption during power flushing.
- Transparent cylinder gives visible indication of system contamination and the need to clean magnet.
- Built-in by-pass enables filter to be cleaned without interrupting power flush process or heating process.
- Supplied in protective case, with coupling hose.



CombiMag Dual valve assembly

COMBIMAG module

The CombiMag power flush filter quickly removes circulating black iron oxide contamination from the flushing water, using the power of a rare earth magnet to snatch the debris from the water flow.

The CombiMag Dual unit is installed between the power flushing pump and the heating system.

The cyclone construction of the magnet chamber directs contaminated water through a powerful magnetic field. Even the smallest of particles are retained on the magnet. Debris which may



lead to blockages in small bore pipe work, is prevented from re-entering the heating system.

The rapid removal of debris prevents saturation of the

cleaning solution with black sludge, leading to a more effective power flush, reducing heating costs resulting in a more efficient heating system.

The time savings on each power flush when using a CombiMag will rapidly cover its cost, reducing the job time, and disruption for householders. Debris retained on

the magnet is an impressive visual aid. It demonstrates to householders the need for the power flush, and proves that the clean has been professionally carried out.



CombiMag magnets before and after use

COMBIHEAT module

During the chemical application stage of a power flush it is beneficial for the water to be warm, ideally around 50°C.

Input of heat enhances the performance of flushing chemicals, and reduces the time taken for a power flush.

If operational, the central heating boiler should ideally be used, but if a non-functional boiler is being replaced, this may not be possible.

Additionally, when installing a new boiler to an existing system,

it is not advisable to leave the power flush until the new boiler is operational, because of the risk of contamination of it with debris from the old system, as this would invalidate a boiler warranty.

In situations where the boiler cannot be fired, the CombiHeat can be used to raise the water temperature higher than ambient.

The CombiHeat is particularly useful when applying heat specifically to one or two problem radiators when normal power flushing has failed to remove heavy, adhesive deposits.

The corrosion resistant element enables the CombiHeat to be used with all power flushing chemicals.

CombiMag high power magnetic power flushing filter plus CombiHeat integral heater for use when system boilers are not functional, in one compact unit.

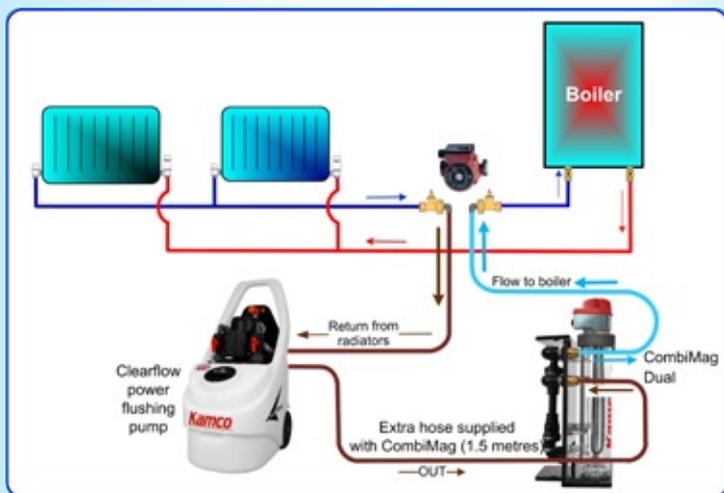


CombiHeat power flush heater element

Carry case for CombiMag Dual (included)



CombiMag Dual power flushing filter and heater



Instructions for use

Whilst a power flushing pump can circulate system water in either direction, the initial set-up should be such that the water flow after leaving radiators passes through the CombiMag Dual before entering the boiler to provide it with a higher level of protection in the early stages of the power flush.

1. Place the CombiMag Dual adjacent to the power flushing pump on a suitable tray.
2. Select the required direction of flow and position the flow reverser lever in that direction.
3. Install the CombiMag Dual on the flow from the flushing pump using the short (1½ metre) coupling hose supplied. Connect the flow to the bottom connection on the filter.
4. Using the power flushing pump standard flow and return hoses connect both the pump and the top connection on the CombiMag Dual to the heating system.

Operating instructions - CombiMag Filter

1. Turn on the power flushing pump and immediately check all connections, and the top of the cylinders for leaks.
2. After initial circulation for approximately ten minutes, turn both three-port valves 180° into the **BYPASS** position.

3. Remove the securing ring from the top of the magnet cylinder and, gripping the handle firmly, carefully lift out the magnet.

Note: the magnet is very powerful and is strongly attracted to steel surfaces. Take care not to trap fingers and avoid contact with sensitive equipment.

4. Inspect the magnet for deposits and, if necessary,

clean as follows:

5. Grip the cylinder lid and handle with one hand. Whilst wearing disposable gloves, grip and slide the magnetite sludge down and off the magnet (see pictures below).

Note: It is advisable to only remove a proportion of the deposits with each stroke, starting at the lower end of the magnet, rather than all at the same time. Clean the end of the magnet.

6. Collect the sludge in a suitable container for later disposal.
7. Re-assemble the CombiMag Dual ensuring that the magnet locates within the circular recess at the base of the cylinder, and turn both three-port valves back into the **CIRCULATE** position.
8. Repeat inspection and cleaning procedure as required during the flushing process.

Cleaning the magnet

It is not necessary to remove all deposits during the intermediate cleans whilst power flushing. However, to ensure a long life the magnet should be thoroughly cleaned and dried at the end of each job.

Caution

The CombiMag generates a very powerful magnetic field. When removed from the cylinder, keep away from electronic equipment, watches, mobile phones, credit cards etc.

Operating instructions - CombiHeat Element

Set the pump flow reverser so that the water flow enters the bottom of the cylinder and leaves at the top. Allow water to circulate through the canister for at least two minutes before switching the element on to ensure that all air has been expelled from the canister.

Ensure that an adequate water level is maintained within the power flushing pump tank (i.e. 15cm above the minimum).

Do **NOT** operate the flow reverser or turn the motor off whilst the heating element is on.

Once the desired temperature has been achieved, turn off the power supply to the CombiHeat.

Safety Precautions

All normal safety precautions should be observed when using electrical equipment near water.

The plug must be fitted with a 13 amp fuse. Use with a residual circuit breaker adaptor. PAT test (Portable Appliance Test) electricians annually.

Do not remove or reset the CombiHeat thermostat, and always use with the protective cap in place.

It is important to always replace units in the correct cylinder, as labelled, for safety and proper operation.



Technical data

Magnet:	
Strength of magnet:	11,000 gauss
Length of magnet:	400mm
Magnet surface area:	314 cm ²
Heater	
Voltage:	240 volt
Rating:	3 kW
IP Protection:	IP55
Weight of complete unit:	12.65 kg (in case)
Overall height:	545mm
Overall width:	330mm
Overall depth:	245mm
Length of coupling hose:	1.5m
Case dimensions:	600 x 400 x 291mm



Attention - heating element warranty notice:
Ensure that water flow always enters the cylinder at the bottom entry and leaves at the top whilst the heater is on, to ensure that it does not run dry.

As for any electric heating element, the guarantee is not valid if upon examination the heating element has been found to run dry.