



- Replaces pump motor for quick and easy connection onto large diameter equivalent pipe work.
- No requirement to undo corroded pump nuts.
- More effective than attaching power flushing pump to radiator valves.
- Connects directly onto most combi boiler pumps.
- Flushes the primary water side of combi plate heat exchangers without removal from the boiler.
- Pump body is included in the flushing process.

The CP2™ adaptor has been developed for use with heating system power flushing pumps, to enable them to be connected directly onto the body of standard heating system circulator pumps, after removal of the motor head.



The compact dimensions of the CP2™ allow for easy connection of a power

flushing pump even in boilers which contain the circulator pump within the casing, such as combination and system boilers, where access is often difficult, or which have non-standard connections.

When using the CP2™, there is no

need to physically disconnect the circulator pump 1.1/2" unions, which are often seized and difficult to remove.

During power flushing, the circulator pump body (volute), which may often contain considerable corrosion debris, is included in the cleaning process.

All combi system radiators may be power flushed, as there is no need to remove one to connect onto the radiator tails.

The central heating (primary) water side of the secondary heat exchanger of combination boilers can be efficiently flushed with the heat exchanger in place in the boiler casing, giving useful time savings.

Which pumps will the CP2 fit?

CP2™ has been designed primarily for the Grundfos Selectric and combination boiler pumps, but will fit a number of other units, including some Myson, Terrier, Circulator Pumps Ltd and Wilo Gold models.

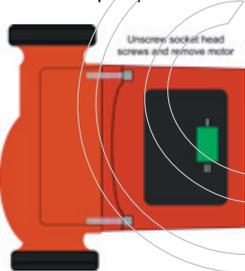
What do you get with the CP2 kit?

- Adaptor body
- 2 x 50cm adaptor hoses
- 4 x M5 socket head bolts
- 2 x M6 socket head bolts
- Hexagon key to adjust centre connector
- Large O ring to seal body to pump
- Small O ring to seal chambers of pump
- Plastic carry container for kit

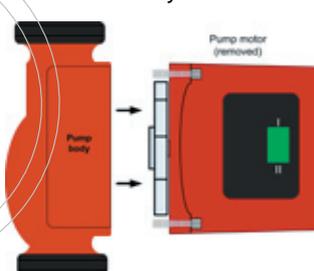
Instructions for use



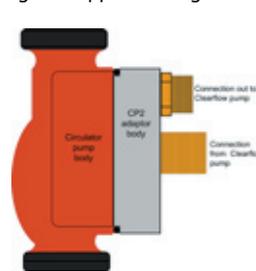
Side view of a system circulator pump



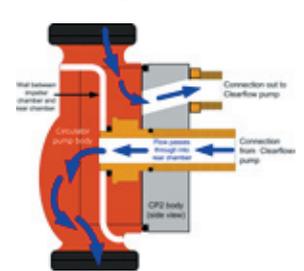
Remove hexagon bolts holding the motor to the body



Fasten the CP2 adaptor to the body using the supplied hexagon bolts



Schematic diagram showing how the CP2 works



CP2™ circulator pump body adaptor

Before you start:

Switch off or electrically isolate the existing circulation pump and make safe the cable and connectors. Protect the area around the pump from water leakage.

Close the circulator pump isolation valves



The CP2™ circulation pump adaptor kit

(where fitted), remembering that it is common for valves not to seal completely even though they are apparently fully closed.

Procedure:

1. Unscrew the Allen bolts and carefully remove the circulator pump head and motor assembly, leaving the circulator pump body installed as normal.

2. As you withdraw the pump head, a small volume of water (the capacity of the pump itself and a short length of pipe work) should be collected in a drip tray, and disposed of safely.

3. Clean the loose rust off the inside of the pump body with a cloth. Make sure that there is a clean surface area for both supplied O rings to seat on. Use a flat bladed screwdriver if necessary.

4. A small quantity of silicon sealant can be used to hold the central 'O' ring in place on the brass centre boss whilst securing the CP2™.

5. Offer up the adaptor and attach with the hexagon socket (Allen) screws provided. Use an Allen key to tighten the bolts firmly and evenly, but without using extra mechanical leverage.

6. Using the supplied hexagonal centre boss key, gently tighten the brass centre boss until it



seals on the inner 'O' ring. Only medium pressure is necessary.

NOTE: Do not overtighten, as this may damage the large 'O' ring, or the main body of the CP2 adaptor.

7. Connect the hoses to the adaptor and to the supply and return hoses of your power flush pump.



8. Open the isolation valves on the power flush pump (located each side of the flow reverser on Clearflow pumps).

9. Slowly open the circulator pump isolation valves, and check the CP2™ adaptor and all hoses for leaks.

10. Switch on the power flushing pump for approx. 5 seconds, and recheck the system for leaks. Carry out the power flushing procedure as normal.

Particular care must be taken to avoid water leaks and splashes when using the CP2™ within the casing of a combination boiler, because of the close proximity of sensitive electronics and PCBs. Use only chemical resistant O-rings. Never add chemicals until you have checked the system for leaks.

Procedure when flushing a combination boiler system

When the radiator circuit power flush is complete, turn on a hot tap, so that the boiler directs the flow through the plate heat exchanger, and the boiler fires up.

If the liquid in the tank of the Clearflow reaches 50°C, turn the boiler off until it cools.

Note: Some boilers will only allow flow in one direction when in hot water mode.

Add a further 1/2 litre of Powerflush FX2 to the Clearflow tank, and flush for 15 to 20 minutes, reversing the flow regularly.

Set the Clearflow into dump mode, and

dump (in both directions if possible) until the dump water is clear.

Whilst this procedure of power flushing the plate heat exchanger may be carried out as a stand-alone procedure, without power flushing the rest of the heating system, we would always recommend a total system power flush when a heat exchanger has been blocked.

If this is not carried out, there is a high probability that the heat exchanger will again block in future, as system debris is carried into the heat exchanger with the normal flow and operation of the boiler.

Note 1: To achieve the maximum flow rate around a system when power flushing, the number of bends and restrictions should be kept to a minimum, and the pipe sizes should be as large a diameter as possible.

Note 2: Take care when using on combination boilers such as the Worcester Bosch Heatslave and others which have valves allowing flow in one direction only.

Always refer to manufacturer instructions before use.

Engineers tip

On certain pumps it can be difficult to get a seal on the large outer 'O' ring. In such cases the addition of a standard Grundfos flat 'O' ring attached to the CP2 body can enable a seal to be made. The flat 'O' rings can easily be removed from any new or used Grundfos pump head.

Kamco also have available a thicker, 7mm large O ring which enables better sealing on the pumps used in Vaillant Eco-Tec boilers.