

CP2™ circulator pump body adapter for use with power flushing pumps



The CP2 pump head adapter:

- Replaces the circulator pump motor for quick and easy connection onto large diameter pipe work.
- Avoids the need to undo corroded pump nuts.
- Is more effective than attaching a power flushing pump to radiator valves.
- Connects directly onto most combination boiler pumps.
- Flushes the primary water side of combi plate heat exchangers without removing them from the boiler.
- Includes the pump body in the cleaning process.

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

as combination and system boilers, where pump access is often difficult, or which have non-standard connections.

There is no need to 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 often contains corrosion debris, is included in the cleaning process.

All combination boiler system radiators may be power flushed. There is no need to remove one radiator to connect the power flushing pump onto the tails of a radiator.

The central heating (primary) water side of the secondary heat exchanger of combination boilers can be efficiently flushed with the heat exchanger in place

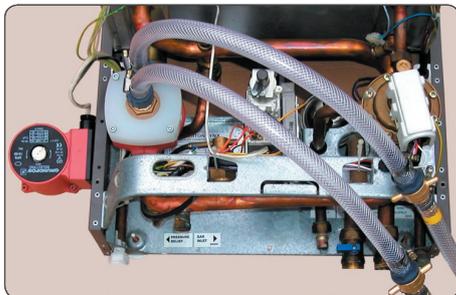
in the boiler casing, giving useful time savings.

Which pumps will the CP2 fit?

The 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 you get with the CP2 kit?

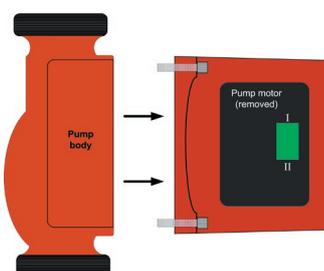
- Adapter body
- 2 x 0.5m adapter hoses
- 4 x M5 + 2 x M6 socket head bolts
- Hexagon key to adjust centre connector
- Large O ring to seal body to pump
- Small O ring to seal chambers of pump
- Plastic carry container for kit



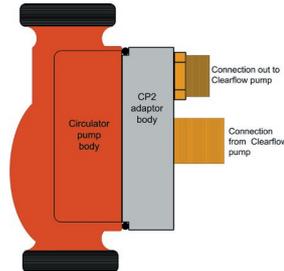
The compact dimensions allow easy connection of a power flushing pump even in boilers which contain the circulator pump within the casing, such



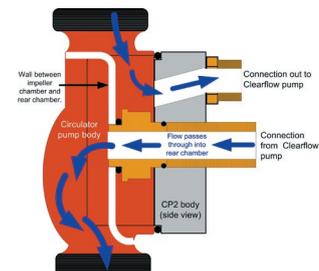
Remove hexagon bolts holding the motor to the body



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



Schematic diagram showing how the CP2 works

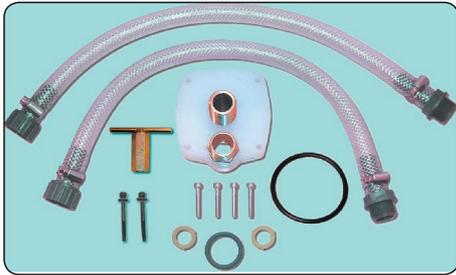


CP2 circulator pump body adapter - operating instructions

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



The CP2 circulation pump adapter kit

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 adapter 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 adapter.

7. Connect the hoses to the adapter 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™ adapter 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 have available a thicker, 7mm large O ring which enables better sealing on the pumps used in Vaillant Eco-Tec boilers.