*CPII™ circulator pump body adaptor **
for use with Kamco power flushing and descaling pumps

REF: ALK

The CPII™ 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 CPII™ 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 CPII™, 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 radiators may be power flushed, as there is no need to remove one to connect the power flushing pump 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.

Instructions for use

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 common for valves not to seal completely even though they are apparently fully closed.

Procedure:

1. Remove the four Allen screws and then 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 and make sure that there is a clean surface area for both of the supplied O rings to seat on. Use a flat bladed screwdriver if necessary.

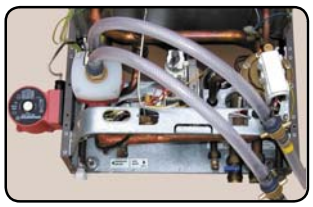
4. A small quantity of silicon sealant can be used to hold the central 'O' ring in place on the brass centre boss whilst securing the CPII™.

5. Offer up the adaptor and attach with the hexagon socket cap (Allen) screws provided. Using an Allen key, tighten the bolts evenly, using strong finger pressure but no extra mechanical leverage.

6. Using the supplied large hexagonal centre boss key, gently tighten the brass centre boss until you feel it seal on the inner 'O' ring. Only medium finger pressure is necessary.

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

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



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

9. Slowly open the circulator pump isolation valves, and check the CPII™ 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 CPII™ 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 entire 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 all of the flow through the plate heat exchanger, and the boiler fires up.

If the liquid in the tank of the Clearflow CF30 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 Power-flush FX2 to the Clearflow tank, and flush for 15 to 20 minutes, reversing the flow regularly.

Set the Clearflow CF30 into dump mode, and dump (in both directions if possible) until the dump water is clear.

Whilst this procedure of power flushing only 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.

* Patent applied for: GB0320679.4

CPII™ 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.

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