

## CP3 Circulator Pump Head Adapter (MI012C)



- Replaces the circulator pump head for quick and easy connection onto a 3/4" connection for Power flushing flow & return hoses.
- Enables the primary water side of combi plate heat exchangers to be cleaned without removal from the boiler.
- Connects directly onto most combination boiler circulator pump housings.
- Avoids the need to undo corroded pump gate valves
- Achieves more effective flushing than connecting to system via radiator valves.
- Includes the circulator pump housing in the cleaning process.

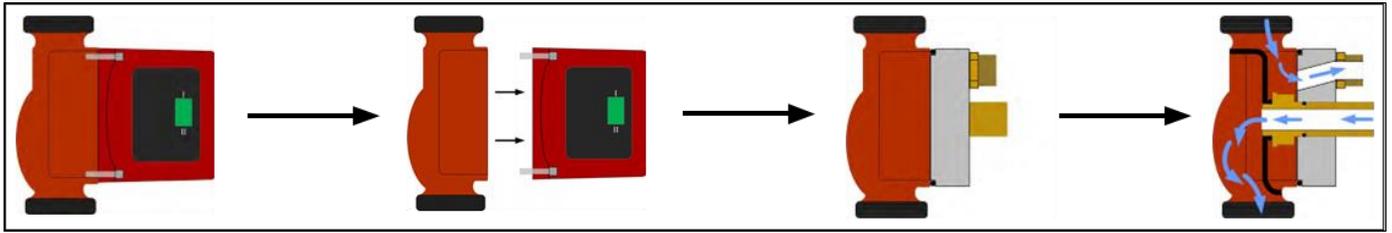
### **'A quick and effective connection for Power Flushing'**

- The CP3 adapter has been developed for use when power flushing a heating system and to enable a machine to be connected directly onto the circulator housing or an internal or external heating circulator.
- The compact dimensions allow 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 pump access is often difficult, or which have non-standard connections.
- When used to connect on to pumps that are external to the boiler 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 housing (volute), which often contains corrosion debris, is included in the cleaning process.
- Use of the CP3 adapter is the preferred method of flushing combination boiler systems, and is superior to the alternative method of connecting the power flushing pump onto the tails of a radiator.
- It allows the central heating (primary) water side of the secondary heat exchanger of combination boilers to be efficiently flushed with the heat exchanger in place in the boiler casing, giving useful time savings.
- Which pumps will the CP3 fit?
  - Grundos UPS/UPS2/UPS3 & UPM3
  - Wilo Gold / Yonos Pico
  - Xylem, Archer Gas, Britherm and many others
- **What you get with the CP3 kit**
  - Adapter body
  - 2 x 0.5m adapter hoses
  - 4 x M5 + 2 x M6 socket head bolts Hexagon key to adjust center connector Large O ring to seal body to pump
  - Small O ring to seal chambers of pump
  - Plastic carry container for kit.

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## CP3 Pump Head Adapter (MI012C) - 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.

### **Procedure:**

1. Unscrew the 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. Ensure 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 center boss whilst securing the CP3.
5. Offer up the adapter and attach with the hexagon socket screws provided. Use an Allen key to tighten the bolts firmly and evenly, but without using extra mechanical leverage.
6. Using the supplied hexagonal center boss key, gently tighten the brass center boss until it seals on the inner 'O' ring, medium pressure is necessary.
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 CP3 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.

### **Cleaning procedure for plate heat exchanger when flushing a combination boiler system:**

- Add a further 1/2L of Powerflush FX2 to the Clearflow tank, and flush for 10 minutes, reversing the flow regularly. Set the Clearflow.
- 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.

### **Engineers' tips:**

- Care must be taken to avoid water leaks and splashes when using the CP3 within the casing of a combination boiler, because of the proximity of sensitive electronics and PCBs.
- Use only chemical resistant O-rings. Never add chemicals until you have checked the system for leaks.
- 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.
- Take care when using on combination boilers such as the Worcester Bosch Heat and others which have valves allowing flow in one direction only.
- 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 CP3 body can enable a seal to be made, the flat 'O' rings can easily be removed from any new or used Grundfos pump head.