

Hydroflow Water Conditioner—Domestic Models

Environmentally friendly and easy to install | No chemicals or cutting of pipework required

Hydroflow is installed before the point of heat exchange or pressure change and on the outlet side of any pumps.
Hydroflow is not flow dependent: choice of model is determined by pipework diameter.

Hydroflow Pearl Domestic Model



Order code: **Hydroflow Pearl**

For pipe sizes: **15mm and 22mm**
Requires: **3 Amp fused spur**
Mains supply fluctuations: **+/-10%**
Units: **12vDC – 150mA**
Temperature: **5 – 40°C**
Max. rel. humidity: **80% up to 31°C;**
50% at 40°C
Multi-LED operation lights.
Manufactured to ISO9000.
Reliable solid state circuits.
Dimensions: **110mm(l) ×**
70mm(w) × 60mm(d)

The **Hydroflow Pearl** is designed to protect against hard limescale deposits in domestic pipelines and on heating elements and surfaces, to protect appliances such as dishwashers and washing machines, and to make limescale-stained taps, sinks and bathtubs easier to clean. Limescale can be a major problem in hard water areas, causing blockages, requiring replacement of equipment, and decreasing heating efficiency and thereby increasing costs. Just 0.8mm of limescale can decrease heating efficiency by as much as 10%. Use of a **Hydroflow Pearl** may over time, lead to a reduction in the existing and problematic hard encrusted limescale from heating surfaces. Less limescale means greater efficiency.

The **Hydroflow Pearl** can protect combination boilers as well as vented and unvented cylinders.

Hydroflow HS40 Domestic/Light Commercial Model



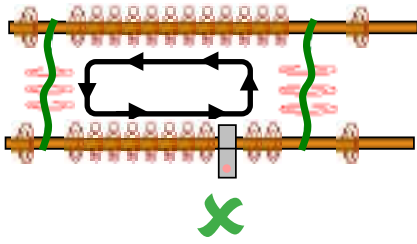
Order code: **Hydroflow HS40**

For pipe sizes: **up to 1 inch**
Activity monitor light operated
by feedback to show correct
operation.
Manufactured to ISO9000.
Reliable solid state circuits.

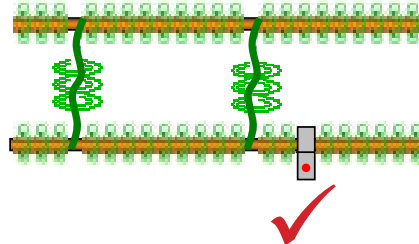
The **Hydroflow HS40** is also designed for domestic systems (*or light commercial*) and is especially suitable for multi-bathroomed homes. In domestic use the unit should be fitted around pipes of any material of up to 1 inch diameter and with no plumbing required.

Biofouling: Contamination by bacteria and other biological material is known as biofouling. Biofouling is a major problem in industrial and commercial systems. In recirculating water systems bacteria can build up to problematic levels and can be very difficult or expensive to treat with chemicals. Additionally, bacteria cling to pipes and heat exchanges surfaces to form biofilm which reduces heat transfer and blocks flow. The HydroFLOW signal is transmitted through the pipe and the water, causing the biofilm to detach and the amount of bacteria in the recirculating water system to decrease.

Explanation of an electrical loop or short circuit



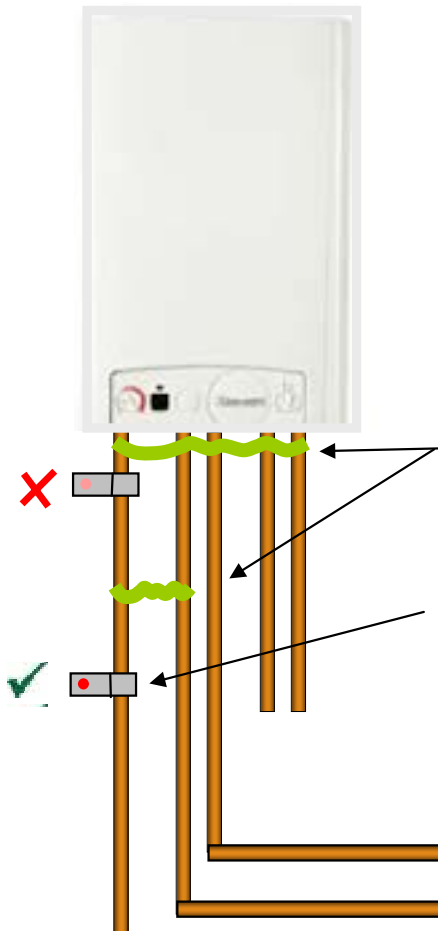
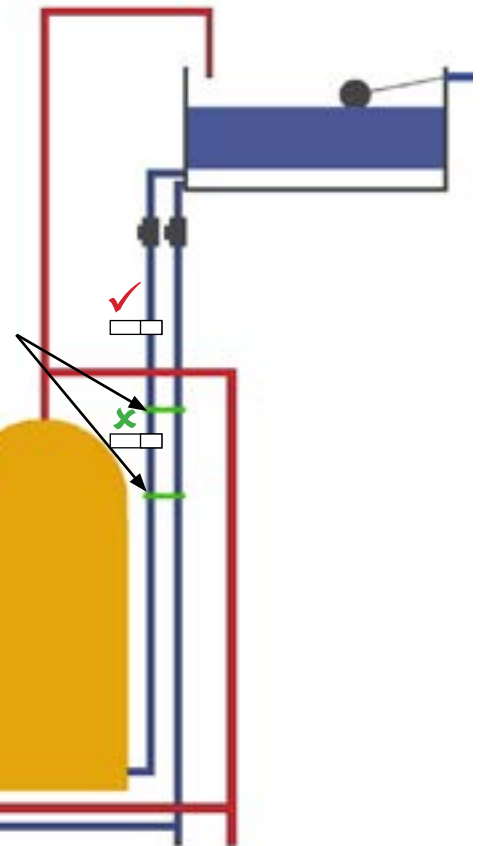
This is an electrical loop, the signal does not propagate correctly and is trapped in the loop



By moving the unit to a different location, out of the loop, the signal propagates throughout the system.

Cross bonding between pipes

With open vented systems, i.e. cylinder in the airing cupboard with a tank in the loft, there is often cross bonding between the pipes. For the same technical reasons as with the Combi boiler (below) it is possible to fit the unit in an electrical loop (short circuit). Although this will not harm the unit, the signal will be trapped in the loop and will not propagate properly throughout the system.



With Combi boilers it is usual to have earth bonding across all pipes as they enter the unit. If there is any additional earth bonding from the mains water pipe to an adjacent pipe below the **Hydroflow** unit, this will create an electrical short circuit across it. Although this will not harm the unit, the signal will be trapped in the loop and not propagate properly throughout the system.

By moving the unit below the cross bonding, the short circuit is removed and the signal will then propagate correctly throughout the system



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