

Double-Walled Waste Water **Heat** Recovery System



Why Install a Double-Walled Waste Water Heat Recovery System (WWHRS) in the UK?

Ensuring Water Regulation Compliance

A double-walled WWHRS provides essential protection against contamination, ensuring that wastewater heat recovery occurs without compromising the quality of Wholesome (potable) water in buildings.

UK Standards and Regulations

BSEN 1717 – Safeguarding Water Quality

- **BSEN 1717** is a vital standard for preventing contamination of Wholesome (potable) water in buildings, outlining protection devices and measures to safeguard public health.
- The standard categorizes wastewater from **Category 1** (lowest risk) to **Category 5** (highest risk).

- In the UK, shower wastewater in the tray is categorised as Category 3.

Once this wastewater enters the drainage system, it becomes Category 5, signifying a higher risk due to potential exposure to harmful pathogens and contaminants.

Wastewater Category 5 Hazards

- **Category 5** wastewater can carry dangerous pathogens, toxins, or human and animal waste, which pose significant health risks if backflow occurs.
- This highlights the need for rigorous measures to prevent any possible contamination of drinking water.

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How Showersave WWHRS Systems Address Compliance

Double-Walled Separation Technology

Showersave WWHRS units are built with a double-walled Fluid Category 5 backflow prevention device in accordance BS EN 1717 (Protection against pollution of Wholesome (potable) water in water installations and general requirements of devices to prevent pollution by backflow).

Additional Contamination Protection if there is no double-walled separation – Air Break to Drain

- An air break to drain should be used to create a physical air gap between waste water and Wholesome (potable) water in compliance with the UK Regulators Specification and BS EN 1717. This is a common method to further ensure there is no risk of backflow of pathogens to the Wholesome (potable) water supply.
- Traditional U-bend traps do not serve this purpose, as they only prevent odours by providing a fluid barrier and not an air break. It would still be sensible to keep this trap in situation to prevent the odours.

UK Water Regulations

- To protect Wholesome (potable) water from contamination, UK regulations mandate adherence to the **Water Supply (Water Fittings) Regulations 1999**, the **Water Supply (Water Fittings) (Scotland) Byelaws 2014** and the **Water Supply (Water Fittings) Regulations (Northern Ireland) 2009**.

Third-Party Testing and Certification

- Showersave products undergo rigorous testing with **KIWA UK Regulation 4 Product Approval Scheme (KUKreg4)**, verifying compliance with UK water supply regulations.



- **Organisations:** WRAS approval is optional. Showersave complies with it to ensure their WWHRS systems meet all water safety standards.



Why is double-walled WWHRS important?

Installing a compliant WWHRS system isn't just about meeting legal requirements. It's about:

- **Protecting public health** by preventing contamination.
- **Ensuring safety** in the water systems we install in homes and buildings.
- **Contributing to water efficiency and sustainability** in the UK by making sure all installations are compliant and reliable.

In water safety, prevention is key. By choosing double-walled WWHRS, you ensure a safe, compliant, and efficient water system for your building.