

AWARD-WINNING STUDENT ACCOMMODATION DEVELOPMENT REDUCES DHW COSTS BY >40% WITH WASTE WATER HEAT RECOVERY FROM SHOWERS



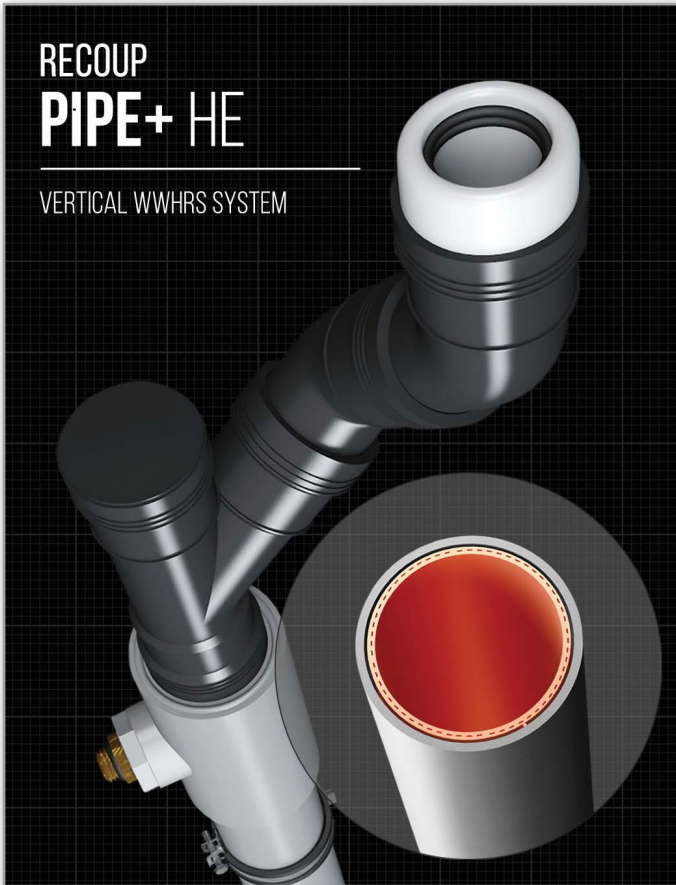
Student apartment building "Uilenstede" in Amsterdam

An award-winning student apartment building "Uilenstede" in Amsterdam, owned and operated by DUWO has demonstrated huge savings in hot water cost, thanks to the installation of WWHRS.

DUWO are the largest student housing corporation in the Netherlands, with over 30,000 rooms and houses across the Netherlands. On this 110 x 1 bed Studio development, 102 vertical WWHRS pipes and 8 horizontal WWHRS integrated shower trays were installed (in 2014). The project has been monitored for two years now, as part of a 10-year monitoring programme.

Each of the studio apartments has a dedicated Heat Interface Unit (HIU) for space and hot water heating via a centralised district heating system. In all, 10 Apartments have in-situ monitoring equipment. The WWHRS pipes are located in service compartments which are accessible from the communal corridors (image right), with the WWHRS integrated shower trays, being located on the ground floor.





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VERTICAL WWHRS SYSTEM

The results are very good so far: an average performance of 58% efficiency has been measured for the WWHRS units themselves. That's a staggering amount of heat energy, that would normally be wasted down the drain, being returned to the domestic hot water (DHW) system!

Since the largest part of the hot water budget in these self-contained student dwellings is attributed to showering, the total energy requirement for DHW heating has been reduced by over 40%.

These results have been confirmed by direct comparison to an adjacent 110 student apartment building, which is an exact copy in terms of design and build. The benchmark building was built one year earlier, but has the exception of NO WWHRS installed. Through this, DUWO concludes a 40% reduction in energy consumption in the new building, with WWHRS installed

"Results have confirmed by comparison to an adjacent student apartment with NO WWHRS, a 40% reduction in energy consumption has been achieved in the new building, WITH WWHRS installed!"



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HORIZONTAL WWHRS SYSTEM