

## Case study of the Recoup Drain+ Compact WWHRs installation at Highgate Golf Club, North London

Highgate Golf Club is the closest 18-hole golf course to central London, situated in North London, very close to Hampstead Heath & Kenwood House it is one of golf in the city's best kept secrets.

In 2015 work was undertaken with a complete refurbishment and alteration to their male locker room and club facilities. Part of the refurbishment included the creation of a new high-end bathroom, toilet, shower and cubicle installation. T&B Contractors Special Works Division completed the construction work for the project with plumbing installation by The Beaver Company.

As part of the shower facility installation sustainable measures were introduced to provide improved energy efficiency in what would be a high use area. Synergy Consulting Engineers specified the Recoup Energy Systems Drain+ Compact waste water heat recovery system as part of the installation for the Golf Club showers. Five units were installed within the cubicle facilities with the Drain+ Compact being chosen for the combination of performance, flush integration and compact size.

The Drain+ Compact is Recoup's 800mm wide drain, the smaller of the two Drain+ options, with a 900mm wide version also available. Both versions are installed below the floor surface and flush with the finished floor level. Heat carrying waste water from the shower runs into the slot of the stainless steel drain cover and over copper exchangers transferring the heat to incoming mains cold water. The energy transfer creates pre-heated water which can then be fed back to the shower and/or the water heater for the building.

The Drain+ Compact is a horizontal waste water heat recovery system that achieves impressive efficiencies of up to 40%, recovering in excess of 9.5 kWh of energy depending upon flow rate and installation method. It has a patented heat exchanger and incorporates a built in water trap that is easily accessible for cleaning. The Drain+ Compact is an ideal solution for any domestic or commercial wet room setting.



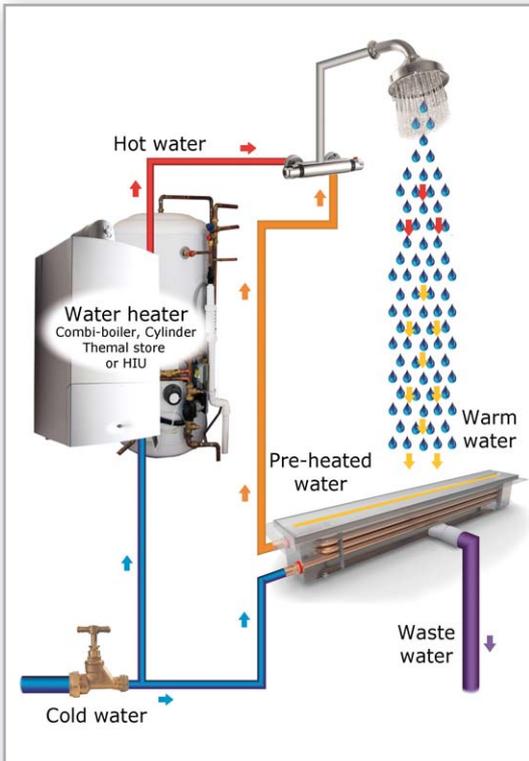
Highgate Golf Club, North London



Male locker room



High-end bathroom, toilet, shower and cubicle installation



Installation Method B

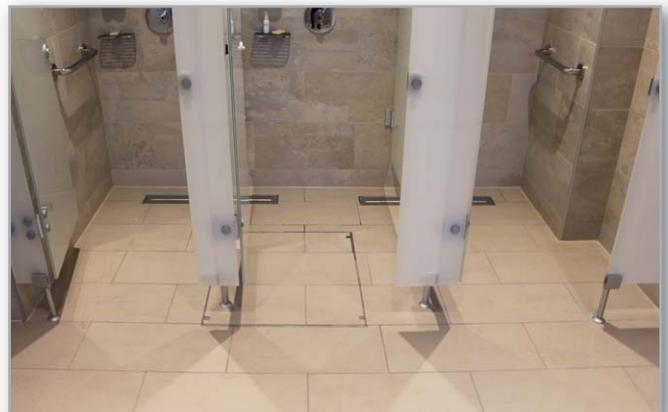
At Highgate Golf Club the Drain+ Compact units are installed using the System B installation method. The pre-heated water is sent back to just the shower on the mains cold water side of each thermostatic shower mixer. As the temperature of the pre-heated water increases during the use of the shower the amount of hot water required to keep a constant temperature reduces. This in turn decreases the demand of hot water from the water heater and therefore the energy that would have been used to create it.

Both T&B and The Beaver Company had no previous experienced installing or the performance of waste water heat recover systems. Due to the size of the shower room it was important for them to ensure there was adequate drainage to allow for all showers to be running at the same time. Rob Ironmonger from T&B advised that they initially had to adjust the mixer tap control sensitivity to account for the warmer water coming in on the preheated side mainly because of the high water pressure system installed. This indicated to them that the units were performing beyond initial expectation:

*"I was surprised by the results achieved by the Recoup Drain+. We were dubious at first whether it would make a difference but it does"*  
 Rob Ironmonger, T&B Contractors



Three Drain+ Compact units installed in cubicle spaces



Two Drain+ Compact units draining and supplying three cubicles



Flush fitted Drain+ Compact with stainless steel decorative cover



Cut through the three areas of the Drain+ Compact

For more information on Highgate Golf Club ([www.highgategc.co.uk](http://www.highgategc.co.uk)), Synergy Consulting Engineers ([www.synergyconsulting.co](http://www.synergyconsulting.co)) T&B Contractors ([www.tandbcontractors.com](http://www.tandbcontractors.com)), or The Beaver Company ([www.thebeaverco.co.uk](http://www.thebeaverco.co.uk)) visit their websites.

For more information on Recoup Energy Solutions and the Drain+ Compact visit [www.recoupenergysolutions.co.uk](http://www.recoupenergysolutions.co.uk) or contact us on [info@recoupenergysolutions.co.uk](mailto:info@recoupenergysolutions.co.uk) or 01379 844010.