WASTE WATER HEAT RECOVERY FOR SHOWERS



TECHNICAL SPECIFICATION RECOUP PIPE HEX







- Double-walled copper vertical heat exchanger
- Designed for first-floor showers or above
- Up to 68.5% heat recovery efficiency *
- Fits within standard UK ceiling height
- · Cost-effective SAP points for Part-L Compliance
- First-fix friendly design
- 3 recognised installation methods (System A, B & C)
- No-end user interaction required
- No planned maintenance
- · PVC outer provides on-site theft deterrent
- SAP listed, SBEM, BREEAM, DEAP & ETL recognised
- WRAS approved
- · Legionella Control risk assessed
- Market leading 10 year guarantee
- Shorter Pipe HEX Rd & bespoke solutions available

GENERAL DATA

DESCRIPTION	VALUE
Overall height required for installation	2308 mm
Outside diameter of external tube	63 mm
Material - Internal tube	Copper
Material - External tube	PVC
Shower flow rate range (when installed as System A)	5 - 15 Litres/min
Max. Mains water inlet pressure	10 bar
Min. Mains water inlet pressure	1 bar
Max. Mains water working temp	40 °C
Mains & Preheated water connection	½" female BSP
Shower waste in & soil waste water out connection	43 mm
Full product weight	10 kg
Water volume - mains water	0.3 Litres

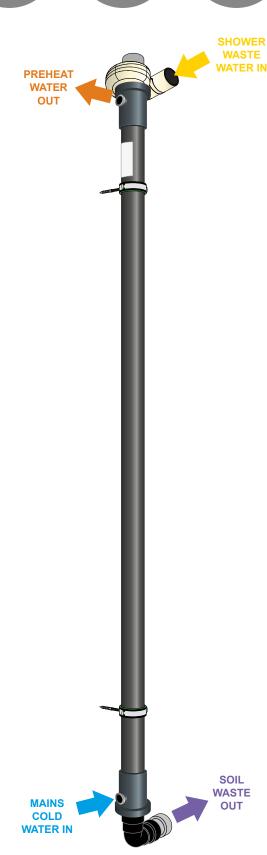
PERFORMANCE & EFFICIENCY

SHOWER FLOW RATE @	PIPE HEX EFFICIENCY (RECOVERED ENERGY KW) *			
40°C (LITRES/MIN)	SYSTEM A	SYSTEM B	SYSTEM C	
9.2	65.2% (10.88)			
11.0	63.6% (12.69)	49.9% (9.96)	54.0% (10.77)	
12.5	62.5% (14.17)			

^{*} Based on KIWA test data and PCDB figures for SAP 2012

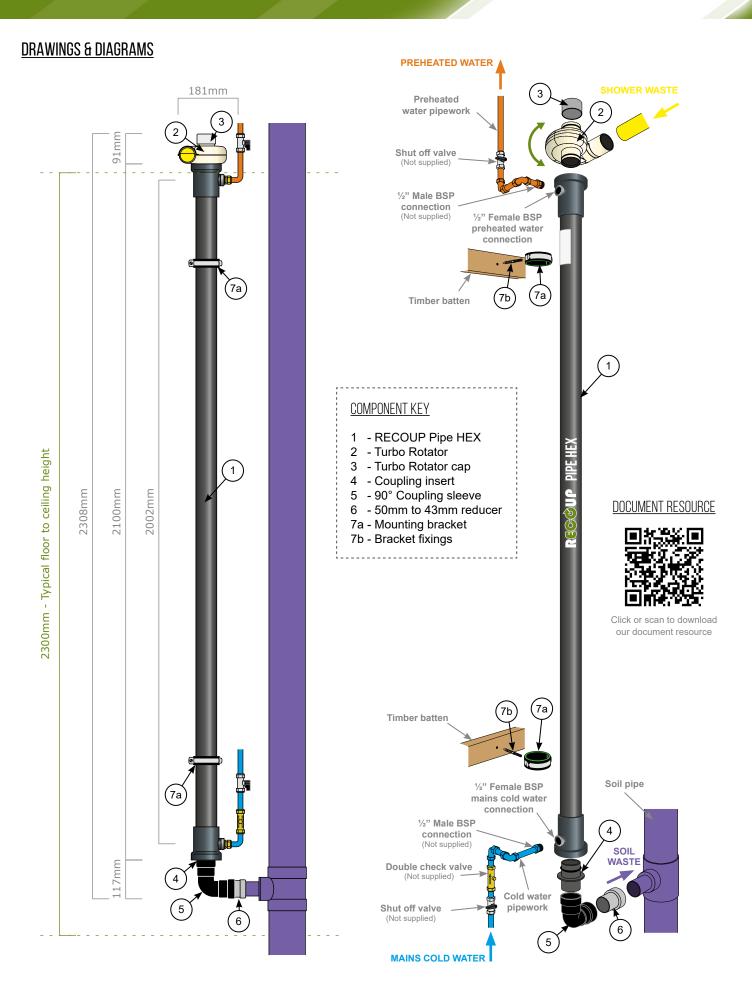
PRESSURE DROP ON THE MAIN WATER CIRCUIT

SHOWER FLOW RATE @	PIPE HEX PRESSURE DROP (BAR)			
40°C (LITRES/MIN)	SYSTEM A	SYSTEM B	SYSTEM C	
9.2	0.39	0.24	0.16	
12.5	0.67	0.41	0.27	



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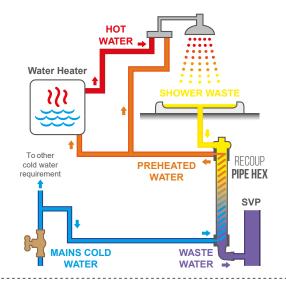




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INSTALLATION METHODS



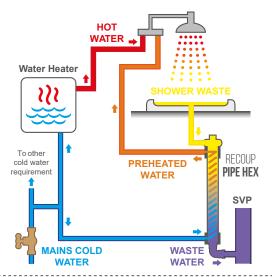
SYSTEM A

Preheated water supplied to shower mixer (cold inlet) and the water heater

This installation method provides the highest WWHRS efficiency.

Only one WWHRS unit can supply preheated water to the water heater as System A. All secondary WWHRS units should be connected as System B.

To maximise SAP impact, install WWHRS as System A on the primary shower, or in a room with a shower only. If design and layout allow, it may be possible to connect two showers to one WWHRS unit. Connected as System A, the total flow rate of both showers should be <16 l/min.



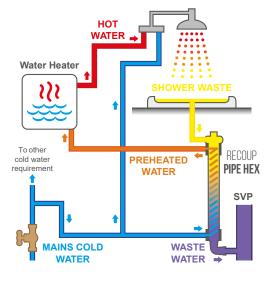
SYSTEM B

Preheated water supplied to shower mixer (cold inlet) on the shower only

The WWHRS efficiency of this installation method is not as high as System A or C but is the simplest and often the most cost-effective method to install or retrofit.

As preheated water is supplied to the cold side of the shower TMV only, there is no additional connection to the water heater . System B should be used for any secondary showers in a dwelling or where multiple showers are fed from centralised plant.

If design and layout allow, it may be possible to connect two showers to one WWHRS unit. Connected as System B, the total flow rate of both showers should be <24 l/min (@60°C DHW temp).



SYSTEM C

Preheated water supplied to water heater and only

Greater WWHRS efficiencies are produced than System B but lower than System A. Only one WWHRS unit can feed preheated water to the water heater as System C.

This installation method can offer a more cost-effective installation option where two stacked showers are attached to a single WWHRS (eg. In a town house with 1st & 2nd floor showers). Connected as System C, the total flow rate of both showers should be <24 l/min (@60°C DHW temp).

- Combi-Boiler, Cylinder (Any heat source inc. Boiler, Heat Pump, Direct Electric, Solar Thermal), Heat Interface Unit (HIU) or Thermal Store.
- For more detail watch our installation method animation here.

SPECIFYING - RECOUP PIPE HEX

Recoup WWHRS | Pipe HEX | Installed as System A; System B; System C (delete as appropriate) | to (Add shower(s) install location) Include the line of text above or go to specify.recoup.co.uk for the full Recoup Pipe HEX product specification.