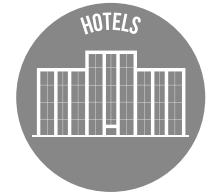
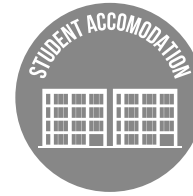
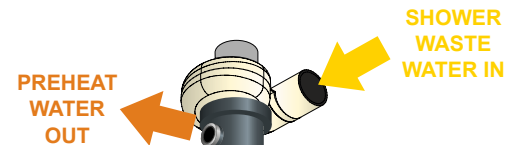


# TECHNICAL SPECIFICATION RECOUP PIPE HEX

WASTE WATER HEAT RECOVERY FOR SHOWERS



- 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

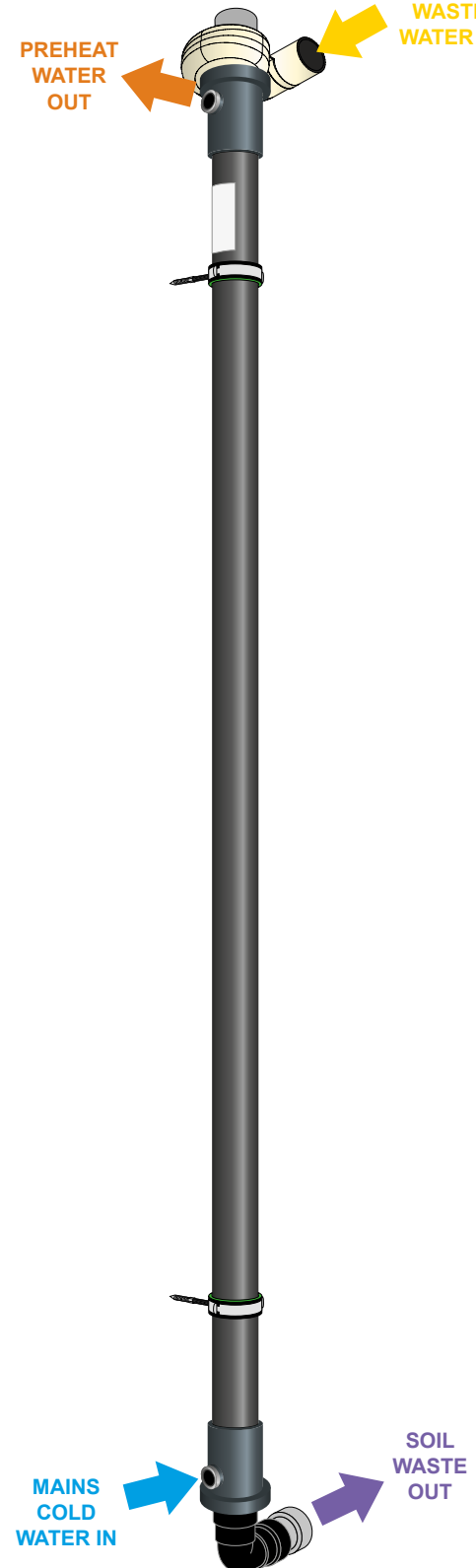
| DESCRIPTION   | VALUE             |
|---|-------------------|
| Overall height required for installation            | 2308 mm           |
| Outside diameter of external tube                   | 63 mm             |
| Material - Internal tube                            | Copper            |
| Material - 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

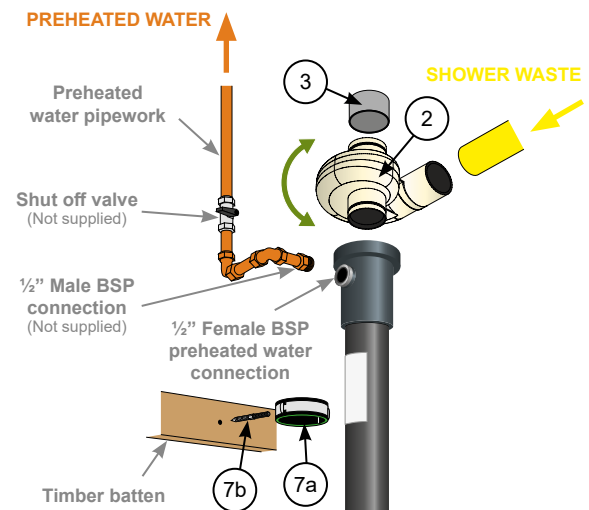
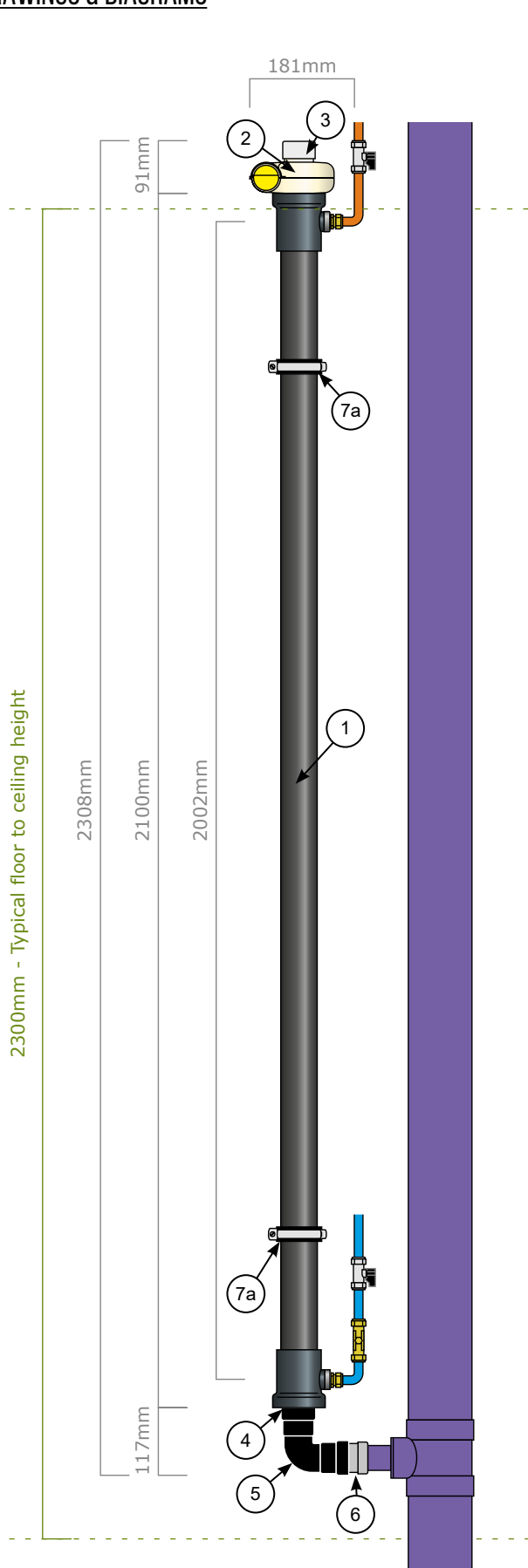
| SHOWER FLOW RATE @<br>40°C (LITRES/MIN) | PIPE HEX EFFICIENCY ( RECOVERED ENERGY KW ) |              |               |
|---|---|--------------|---------------|
|   | SYSTEM A                                    | SYSTEM B     | SYSTEM C      |
| 9.2                                     | 65.2% (10.88)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

## PRESSURE DROP ON THE MAIN WATER CIRCUIT

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

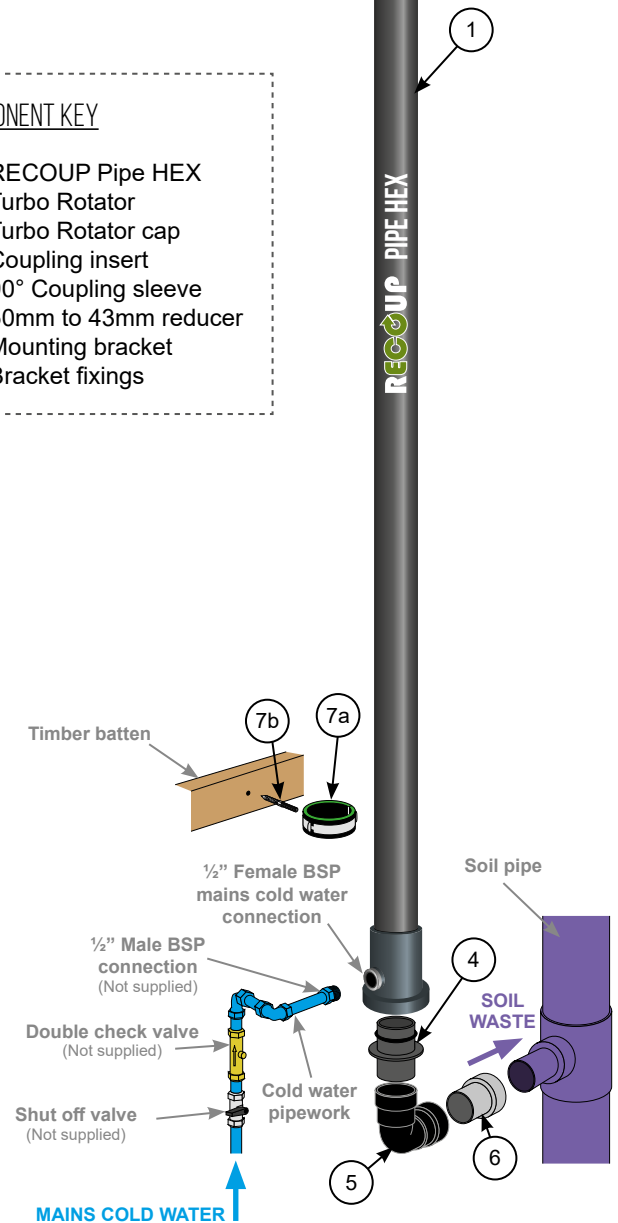


## DRAWINGS & DIAGRAMS

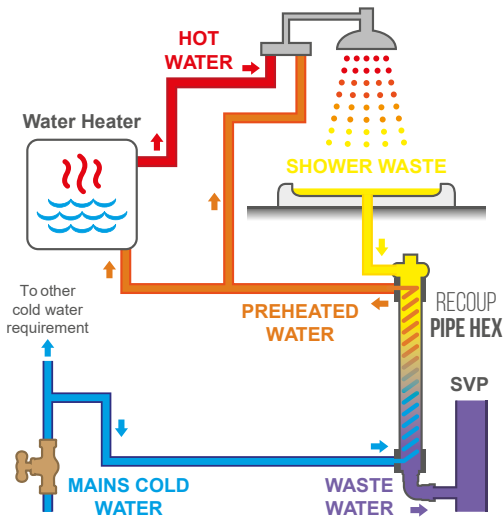


### COMPONENT KEY

- 1 - RECOUP Pipe HEX
- 2 - Turbo Rotator
- 3 - Turbo Rotator cap
- 4 - Coupling insert
- 5 - 90° Coupling sleeve
- 6 - 50mm to 43mm reducer
- 7a - Mounting bracket
- 7b - Bracket fixings




## INSTALLATION METHODS



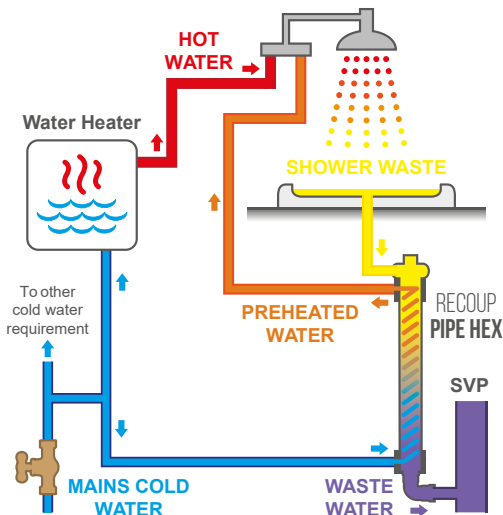
### SYSTEM A

**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 <math>< 16 \text{ l/min}</math>.



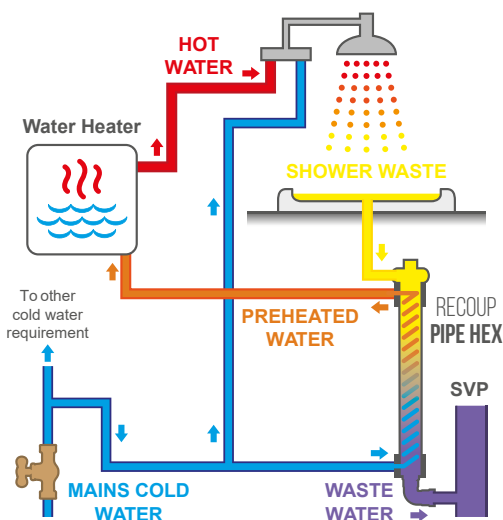
### SYSTEM B

**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 <math>< 24 \text{ l/min}</math> (@60°C DHW temp).




### SYSTEM C

**Preheated water supplied to water heater  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 <math>< 24 \text{ l/min}</math> (@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 - RECUP PIPE HEX

Recup 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.recoupwwhrs.co.uk](https://specify.recoupwwhrs.co.uk) for the full Recup Pipe HEX product specification.