

RECOUP HEATDECK™ INSTALLATION INSTRUCTIONS

SHOWER WASTE WATER HEAT RECOVERY SYSTEM

These instructions must be left with the user.

1. Introduction

The RECOUP HeatDeck is a Waste Water Heat Recovery System for shower water (WWHRS). It recovers heat from the warm waste water as it passes through the unit, before going to the drainage system.

The heat recovery is possible due to the double walled heat copper heat exchanger within the HeatDeck, a very effective material for transferring heat. The double walled exchanger gives full protection against any contamination between the waste water going out and the fresh potable water coming in. This preheated water then supplies the mains cold feed to the shower and/or a water heater (Combi-boiler, hot water storage cylinder, Thermal store or HIU).

The reason for doing this is to save money and energy. In an average shower, the water will come out of the shower head at 40°C, and the water going down the drain will only be a few degrees cooler than this. This energy has been paid for once, and we believe at RECOUP, that the home owner should get as much benefit from this energy before paying to reheat more water and at the same time reduce the energy consumption and CO₂ emissions of the home.

The RECOUP HeatDeck should be installed by a suitably qualified plumber who gives consideration and attention to the system design as well as a correct installation.

The RECOUP HeatDeck is a horizontal heat exchanger, and is designed to be the shower tray at the base of the shower. It is very important to follow all the instructions for installation of the RECOUP HeatDeck for the product to perform successfully.

1.a) Standard Assessment Procedure (SAP) - IMPORTANT

For recognition of the RECOUP HeatDeck energy saving performance within the National Calculation Method (NCM) for the energy rating of a new build dwelling within the UK (also known as the Standard Assessment Procedure (SAP)) it is vital that the pre-installation requirements (Section 3) and installation process (Section 4) contained in this installation manual are followed correctly and complied with fully.

An NCM (SAP) identifier label (already applied) is permanently fixed to the RECOUP HeatDeck. A second label supplied with the RECOUP HeatDeck for application must be attached to a nearby water heater or service cupboard within the property. The 'model qualifier' section of the first label denotes the system installation method (A, B or C) and will state 'Refer to installation certificate **otherwise System B will be assumed**'. The actual system installation method will be recorded on the installation / warranty certificate and the second NCM (SAP) identifier label. The second NCM (SAP) label applied within the property must be edited to record the installation method (A, B or C) when installed.

1.b) Please Read Important Information

1. **Store the product flat within its packaging until ready to install. DO NOT lean against the wall.**
2. **Ensure the tray is flat and level prior to install.**
3. Read all of these instructions and retain this guide for later use.
4. Pass on this guide in the event of change of ownership of the installation site.
5. Follow all warnings, cautions and instructions contained in this guide.
6. **Warning!** This product is a two man lift.
7. Before installation, carefully remove all of the protective film from the tray for inspection.
8. Carefully unpack and check the tray for colour, size, flatness, general acceptability and compatibility with the shower enclosure and other bathroom furniture.
9. Check for transit damage.
10. Report any faults immediately to your supplier. No claims will be considered after installation.
11. Fitting this product is acceptance of quality.
12. **Caution!** Additional protective coverings such as a dust sheet should be used to protect the tray from damage from falling objects during installation.
13. We recommend this tray is fitted as part of a fully enclosed cubical. If this tray is fitted as a walk-in installation, it is expected that an amount of water will spill onto the open area of the floor. We would therefore advise fixing a threshold strip to minimise this.
Note: Where the shower tray comes into contact with the wall or plaster board surface, apply a liberal amount of silicone sealant before installation. This will help secure the shower tray in position and reduce any rubbing of the surfaces.
14. Hand tighten the waste to ensure a correct seal. Excessive overtightening can lead to damage.
Caution! DO NOT stand on waste outlet as damage may occur.
15. Once the waste pipe has been connected pour water into the tray to check the tray and pipe connection for correct drainage prior to final fix and tiling.
16. Excessive flow rates may lead to overflowing and leaking. Flow rate into the tray must not exceed flow of the shower waste. We recommend a drainage test is carried out to ensure the waste is adequate for the flow delivered.
17. The waste should be connected to 40 mm rigid waste pipe only, which must be installed to have a minimum fall of 18 mm per meter. The use of reducers, horizontal 90° connectors, or flexible waste pipes, are not suitable for this product, and may lead to water build up in the tray and potential overflowing.
18. All legs supplied must be fitted. Make sure that all locking nuts are secured.
19. The shower tray should be positioned so that the waste is easily accessible for maintenance.
20. Water Spray may extend beyond the entrance of walk-in enclosures and we recommend tiling of the adjacent area.
21. **Caution!** Take care when showering. Wet Tray surfaces can increase the risk of slipping, particularly when soaps, shampoos and other bathing products are used.
22. The Recoup HeatDeck shower tray is primarily designed to be installed with enclosures comprising a wall mounted hinged door that opens outwards. **Any alternative specified enclosure should have no protrusion into the enclosure more than 50mm from the outer edge.** (See section 9 for details)

1.c) Recommended Usage

Domestic ✓	Light Commercial ✓	Heavy Commercial ✗	Healthcare ✗
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Notification to designers, installers and users:

The majority of all shower trays will show an increase in the potential for slipping, when the surface is wet. This is particularly the case when soap, shampoo, bath oil etc. are used. The Construction Products Directive (89/106/EEC)"

2. Product technical data

2.a) General Information – RECOUP HeatDeck

Description	800 x 800	1200 x 800
Overall product height with no upstands (excluding trap)	80 mm	84 mm
Overall product height with upstands (excluding trap)	102.25 mm	106.25 mm
Overall product length	805 mm	1205 mm
Overall product width	805 mm	805 mm
Material - Heat Exchanger	Copper	
Advised shower flow rate range	5 - 15 Litres/min	
Max. Mains water inlet pressure	18 bar	
Min. Mains water inlet pressure	1 bar	
Max. Mains water working temp	85 °C	
Mains water connection	½" male BSP	
Waste water connection	40 - 43mm	
Full product weight (Boxed)	<43 kg	<56 kg
Water volume - mains water	1.6 Litres	
Maximum user weight	160 kg	

The mains water and preheat connections are 15mm copper pipe which allow for an appropriate connector to be selected, connecting to 22mm pipe will require a reducer. Additional care should be taken with heated connectors. The waste water connection will fit either a 40mm push-fit or 43mm solvent pipe.

2.b) Performance & Efficiency - Based on KIWA test data, SAP registered and PCDB listed

Shower Flow Rate @ 40°C (Litres/min)	HeatDeck Efficiency (Recovered energy kW)		
	System A	System B	System C
5.8	42.9% (4.51)		
9.2	37.8% (6.3)		
11.0	35.47% (7.07)	28.6% (5.71)	32.0% (6.39)
12.5	32.5% (7.36)		

2.c) Pressure drop on main water circuit - Calculations based on DHW at 60°C

Shower Flow Rate @ 40°C (Litres/min)	HeatDeck Pressure Drop (bar)		
	System A	System B	System C
5.8	0.078	0.052	0.039
9.2	0.214	0.143	0.107
11.0	0.318	0.213	0.159
12.5	0.41	0.275	0.205

3. Pre-installation requirement

3.a) Basic system principle

The RECOUP HeatDeck is a Waste Water Heat Recovery System (WWHRS) for shower water, meaning it recovers heat from the warm waste water from a shower as it passes through before going to the drainage system for the property.

This preheated water then supplies the mains cold feed to the shower and the Domestic Hot Water (DHW) heater or in the case of system configurations System B and System C, the shower or the DHW heater respectively. The DHW heater could be:

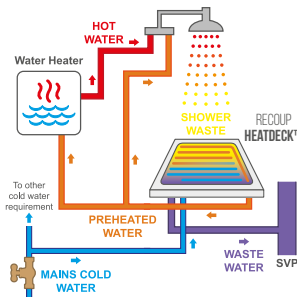
- Unvented hot water cylinder
- A combination boiler
- A thermal store or heat battery (Mains pressure DHW delivery)
- A Heat Interface Unit (HIU) on a district heating scheme (Mains pressure DHW delivery)

Note: The DHW heater must be a mains pressure system and able to accept preheated cold water.

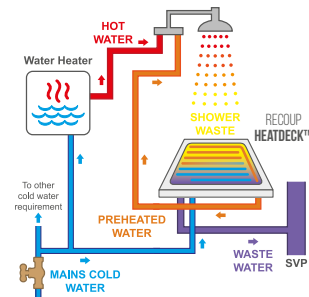
3.b) Installation configuration

The inlet for the RECOUP HeatDeck is connected to the mains water supply, and the outlet (preheated water) can be connected in one of three ways.

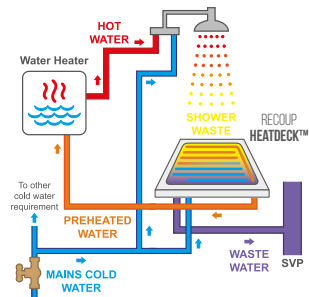
SYSTEM A



SYSTEM B



SYSTEM C



SYSTEM A – Preheated water supplied to shower mixer (Cold inlet) and DHW heater.

SYSTEM B – Preheated water supplied to shower mixer (Cold inlet) on the shower only

SYSTEM C – Preheated water supplied to DHW heater only

The performance of Systems A, B & C are all recognised within the SAP Products Characteristics Database (PCDB) for energy saving calculations, but remember that System A will produce the highest efficiencies (see section 2.b. for different system efficiencies).

3.c) Locating the RECOUP HeatDeck

The RECOUP HeatDeck needs to be installed horizontally. Installation should take place on a flat surface capable of supporting the WWHRS using the fixings provided. The location should allow for access to all parts and allow routine maintenance (E.g. Cleaning) to be carried out with relative ease.

The RECOUP HeatDeck must be located within the heated envelope of the building.

The RECOUP HeatDeck must be installed with consideration to the most recent ‘Approved document – Part H of the Building Regulations’ for preventing the ingress of foul sewer gases.

3.d) Design checklist

For recognition within the SAP calculations, the following must be complied with:-

- Consideration given to DHW delivery performance (Pressure & Flow rate)
- DHW system must be a mains pressure system
- DHW system must accept preheated water
- The MCW into the property must be protected against backflow
- The RECOUP HeatDeck must be located within the heated envelope of the building
- The shower must incorporate a Thermostatic Mixing Valve (TMV)
- The Preheated water supply from the RECOUP HeatDeck to the shower cold water inlet and/or water heater must be:
 - Labelled to prevent any future cross-connection of services (E.g. Taps).
 - As short as possible and no greater than 4.75m from the WWHRS to the shower TMV.
- **DO NOT INSULATE THE RECOUP HEATDECK™**
- Prevent the RECOUP HeatDeck being heated above 25°C by both external sources and from ambient temperature.
- If shut-off valves are specified they should be ‘full-flow (non-restricting) shut-off valves.
- Approved document – Part H of the Building Regulations has been consulted and an appropriate method for preventing the ingress of foul sewer smells chosen.

3.e) Electric showers

The RECOUP HeatDeck WWHRS is compatible with the Mira Heatloop™ electric shower range. Visit heatloop.recoup.co.uk or scan this QR code for more information, also review the Mira Heatloop™ Installation and User Guide. **For user safety do not connect a Recoup WWHRS unit to any other electric shower.**

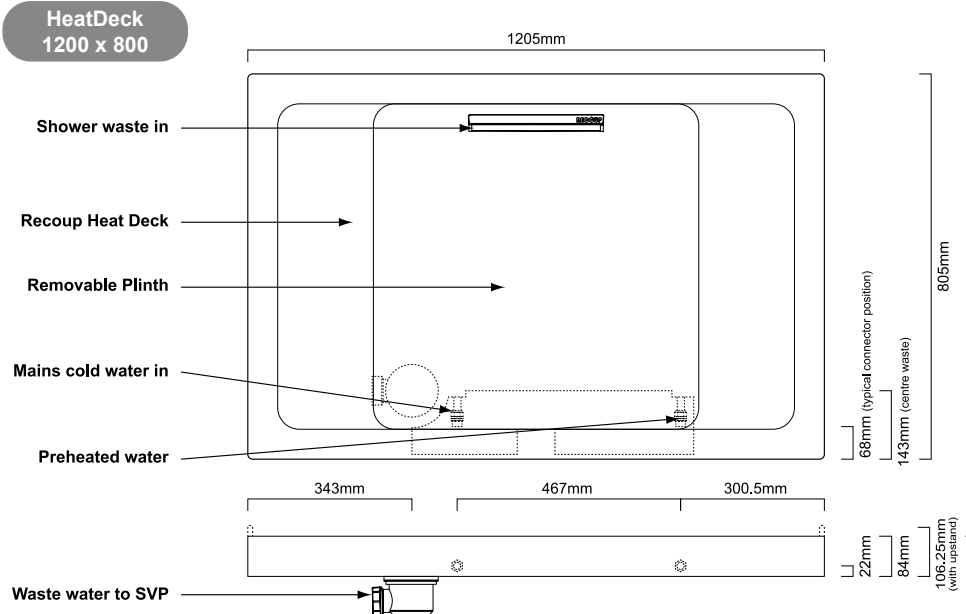
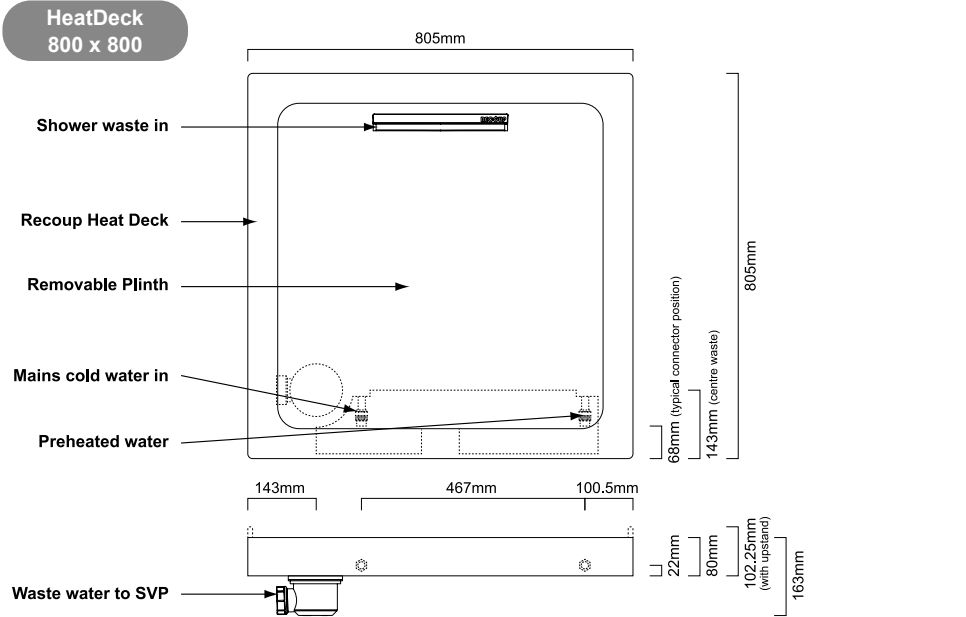


4. Installation of the RECOUP HeatDeck

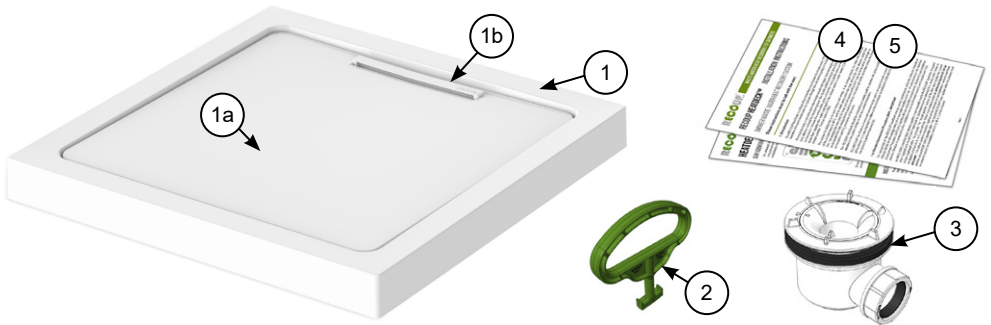
Check section 3.c) for guidance on locating a suitable area for installation.

4.a) Dimensions & Connections

RECOUP HeatDeck is available with no upstands, or with two, three, or four upstands



4.b) Installation contents



PART NUMBER KEY

- | | |
|--|--|
| <p>1 - RECOUR HeatDeck WWHR unit
Main seal part SKU: GP3050943</p> <p>1a - RECOUR HeatDeck plinth
Part SKU: Standard - GP3050940, Anti-slip - GP3050949</p> <p>1b - RECOUR HeatDeck hair catcher
Part SKU: Catcher - GP3050942, False waste - GP3050941</p> <p>2 - RECOUR HeatDeck plinth lifting tool
Part SKU: GP3050944</p> | <p>3 - Mira Rapi-Flo waste trap
Part SKU: 4.1970.009</p> <p>4 - Installation instructions</p> <p>5 - NCM (SAP) identifier label for nearby boiler or service cupboard.</p> |
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If spare parts are required at any point, please contact us with the relevant part SKU code from above, info@recoup.co.uk.

YOU WILL NEED The following non-supplied parts...

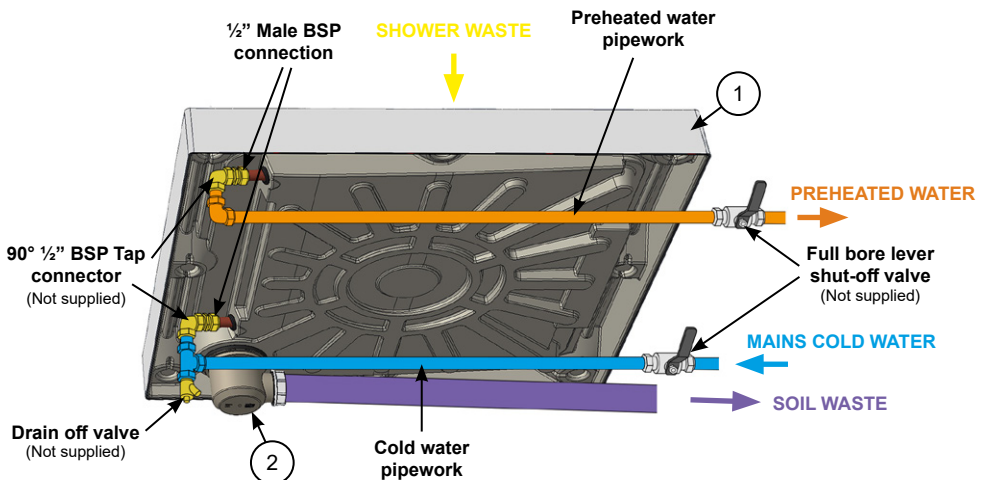
2No 90° ½" female BSP connectors or 90° ½" BSP Tap connectors (compression or PVC push-fit),
2No full bore lever shut-off valves, 1No drain off valve (all valves must be corrosion resistant if concealed),
Thread sealant - Complying to The Water Supply (Water Fittings) Regulations, liquid recommended.

OPTIONAL Mira riser kit

A Mira riser kit with tray legs and side skirts will raise the RECOUR HeatDeck by up to 120mm. If you want to install your shower tray using a riser conversion kit, please refer to the Installation and User Guide packed with the riser kit.

4.c) Pipework Installation Diagram

IMPORTANT NOTE
To ensure SAP compliance check buildings spec for correct installation method (System A, B or C)

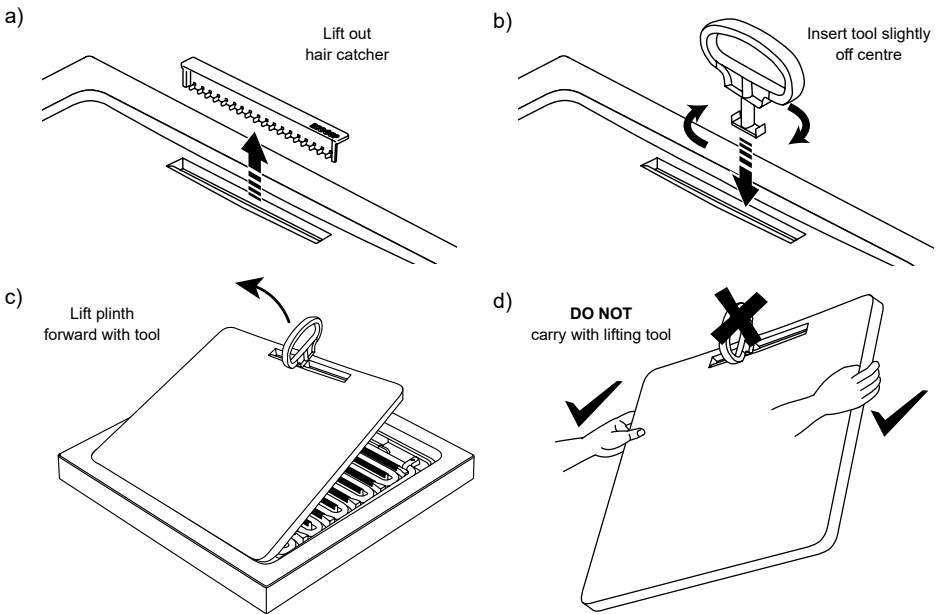


4.d) Installation process overview

While every effort is made to ensure this product arrives in optimum condition, please ensure you inspect the packaging and contents for any obvious signs of damage before installing the RECOUP HeatDeck.

The unit must be installed horizontally on a suitable flat surface which is capable of holding the weight of the unit. If the mounting is not horizontal the efficiency and drainage of the unit will be affected.

1. Before installation, keeping the RECOUP HeatDeck in a horizontal position, remove the HeatDeck plinth from the HeatDeck main unit by following this process.
 - a) Remove the hair catcher from the top of the HeatDeck plinth.
 - b) Insert the plinth lifting tool provided (part 2) into the hair catcher slot and rotate through 90°.
 - c) Use the tool to lift the plinth. The plinth weighs 10.4kg so should be handled carefully. **DO NOT use the plinth lifting tool as a carrying handle**, it is solely intended for lifting the plinth from the main unit. The tool is likely to break if it is used to carry the plinth.
 - d) Holding the plinth with a hand gripping either edge, lift it from the RECOUP HeatDeck main unit and lay it flat on a solid horizontal surface. **DO NOT lean the HeatDeck plinth against a wall.**
 - e) Cover the internal heat exchanger and channels to prevent dirt and debris from collecting in the unit.

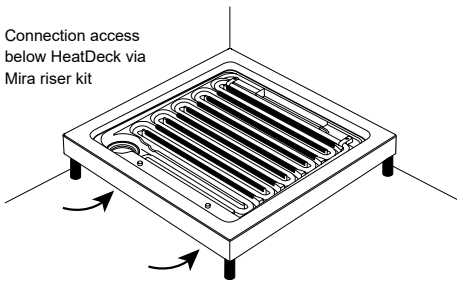


2. Using the RECOUP HeatDeck Dimensions and Connections diagram in Section 4.a) consider the positions and pipework for the waste trap and connections to the mains cold water and preheated water ½" Male BSP connectors under the RECOUP HeatDeck.

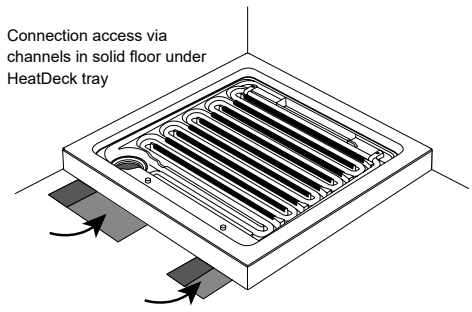
This will be affected by the floor surface, if there is access from below, or if a Mira tray riser kit is being used in the installation. Access to connect the waste, mains cold water, and preheated water, must be considered prior to fixing the RECOUP HeatDeck.

Raising the RECOUP HeatDeck up to 120mm above floor level with a Mira tray riser kit provides access below the unit. Installation on first floor and above could be accessed through the ceiling of the floor below. Solid / concrete floors may require pipe and access channels pre-cut into the surface to allow connections to be made once the RECOUP HeatDeck is in position.

IMPORTANT: Always consider access to the connections and components installed onto the cold and preheated pipework before and after the tray is positioned.



Connection access below HeatDeck via Mira riser kit



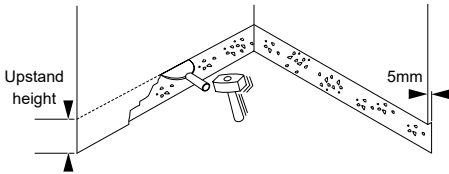
Connection access via channels in solid floor under HeatDeck tray

3. Prepare the RECOUP HeatDeck by connecting 90° 1/2" female BSP connectors, or 90° 1/2" BSP Tap connectors (Not supplied), to the 1/2" Male BSP connectors under the RECOUP HeatDeck for the mains cold water supply and preheated water. **Do not disturb the factory fitted connections.** Consider connecting some pipework to provide easier access once the RECOUP HeatDeck is in place.

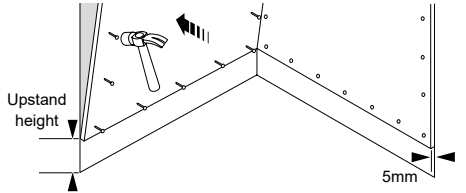
IMPORTANT: Compression connections should be sealed using a suitable thread sealant complying to The Water Supply (Water Fittings) Regulations, liquid sealant recommended.

4. A full bore lever shut-off valve and drain off valve (Not supplied) should be installed on the mains cold water supply prior to the WWHRS unit. Another full bore lever shut-off valve (Not supplied) should be installed close to the connection for the preheated water leaving the WWHRS to facilitate any replacement of parts. It is recommended that both shut-off valves are installed in the same location, **any concealed valves MUST be manufactured from corrosion resistant materials** (such as CR brass).
5. For the **RECOUP HeatDeck with Upstands** prepare the base of the walls for the tray. The **RECOUP HeatDeck with no Upstands** does not require this wall preparation.

Solid Wall Preparation

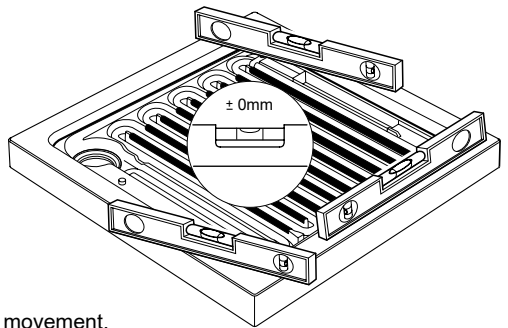


Stud Wall Preparation



6. Temporarily dry fix the RECOUP HeatDeck in place and using a spirit level check that it sits level across the whole unit and that the shower cubicle will sit on its surface correctly when fitted.

It is imperative that the RECOUP HeatDeck is installed totally level to ensure the correct water flow and efficiency is achieved.

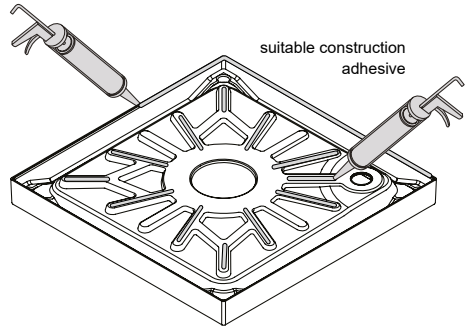
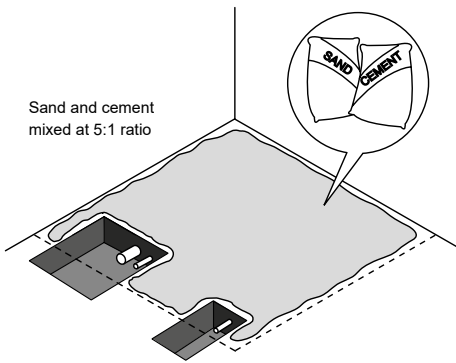


7. Fix the RECOUP HeatDeck into position. Cover any waste and pipework connections to prevent dirt and debris from entering while preparing a bed of sand and cement or construction adhesive.

- Ensure floor/substrate is level, solid and with no movement.
- Ensure floor/substrate is dry, clean and dust/debris free.
- Ensure floor/substrate is suitably primed.

It is recommended to use a 5:1 ratio of sand and cement, ensuring adequate mortar distribution under the tray with a minimum 10mm thickness.

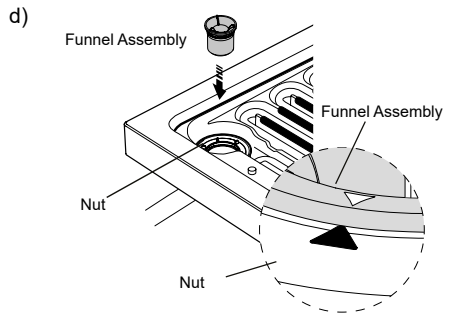
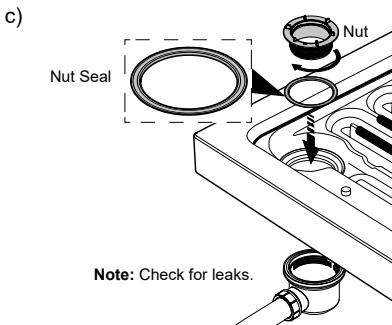
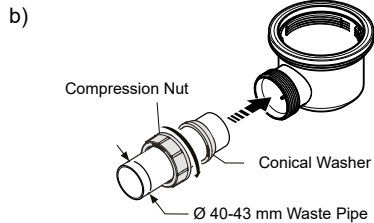
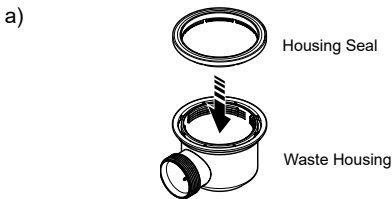
Alternatively, if this is not practical, a suitable construction adhesive may be used but **this MUST be suitable** for the substrate being adhered to (check construction adhesive label carefully for suitability prior to use).



The construction adhesive should be applied to all contact points underneath the tray. The tray should then be pushed down onto the substrate until it is level in all planes.

IMPORTANT: Recoup Energy Solutions are not liable for the performance of 3rd party adhesives and materials. Double check that the RECOUP HeatDeck is level using a spirit level (See Point 6).

8. Install the Mira Rapi-flo waste trap onto the RECOUP HeatDeck (as shown below) and connect the mains cold water and preheated water pipework to the prepared connections under the RECOUP HeatDeck. Ensure pipework is adequately supported, **ensure no undue load is applied onto the heat exchanger ½" Male BSP connectors, and ensure that these factory fitted connections are not disturbed.**

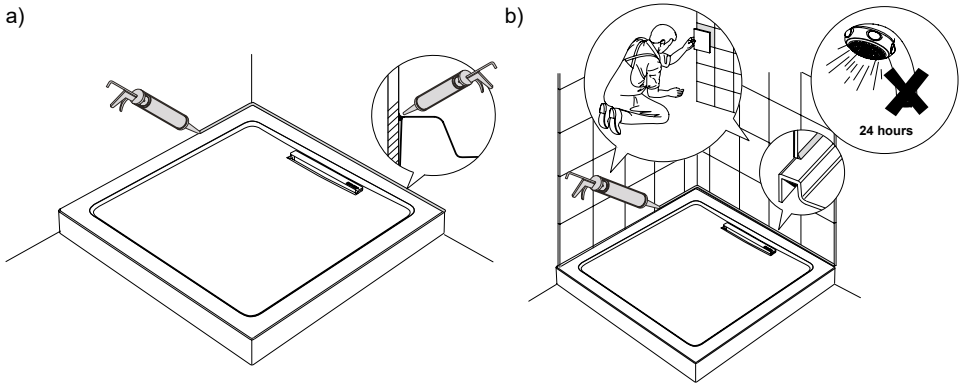


9. Remove any coverings and check and clean any dust or debris from the channels and spaces around the heat exchanger inside the RECOUP HeatDeck.

Reverse the process detailed in Point 1 to replace the RECOUP HeatDeck plinth. Using the plinth lifting tool to lower the plinth but not to carry it. Position the bottom edge first and **ensure that the slot drain is orientated and lowered correctly into the well within the RECOUP HeatDeck. Be careful of finger trapping as the plinth is lowered.** Replace the slot drain hair catcher into the plinth slot. The hair catcher should sit flush to the top of the plinth, if it does not then the plinth could be incorrectly positioned. Remove the plinth as detailed and check positioning before lowering again.

10. Fully test the water flow through the RECOUP HeatDeck before sealing, tiling, or installing an enclosure. Run water from the shower at full flow rate or replicate the same flow rate through the unit to ensure water is flowing correctly, escaping the trap, and that there are no pipework leaks.

11. a) Apply silicone sealant where the tray meets the wall (in accordance with the sealant manufacturer's instructions) to seal the shower tray to the wall.
- b) Tile the walls down on top of the RECOUP HeatDeck. Apply silicone sealant (in accordance with the sealant manufacturer's instructions) to seal the RECOUP HeatDeck to the tiled wall surface.



12. Check and complete the following

- a) Ensure the preheated water supply is only feeding the DHW water heater and the cold water inlet of the shower's thermostatic mixing valve (System A), the cold inlet of the shower's thermostatic mixing valve only (System B) or the water heater only (System C).
- b) The preheated water supply from the RECOUP HeatDeck is clearly labelled to avoid future cross-connection of services (E.g. Taps). Preheat supply tape is available for this preheattape.recoup.co.uk.
- c) Pressure test the system. The RECOUP HeatDeck can be pressure tested up to a **maximum of 18 bar** depending on system / pipework testing requirements. The RECOUP HeatDeck must be isolated at 18 bar if the system requires testing above this. **Before testing ensure you are aware of the maximum test pressures of all other system components.**
- d) Ensure the SAP identifier label (Part No.5) supplied correctly identifies the System installed and the serial number from the product label on the RECOUP HeatDeck. Apply the label near the water heater in the property.
- e) Take photos of the whole product installation and SAP identifier label on the product body for Part L building regulation compliance.
- f) Register the installation for SAP and guarantee requirements (Section 8).



Preheat supply tape
(Not supplied)

13. The Recoup HeatDeck shower tray is primarily designed to be installed with enclosures comprising a wall mounted hinged door that opens outwards. **Any alternative specified enclosure should have no protrusion into the enclosure more than 50mm from the outer edge.** (See section 9 for details)



SAP identifier label (Part No.5)

Visit the RECOUP HeatDeck product page on our website for more installation support, heatdeck.recoup.co.uk or scan this QR code.

For all technical or installation queries, please contact RECOUP directly. For product related issues, please contact your place of purchase.



IMPORTANT NOTE

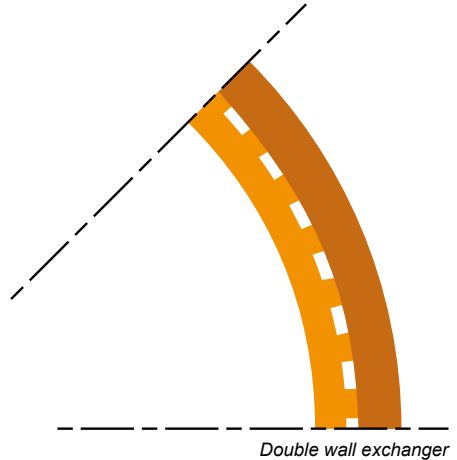
This document should be left with the home owners pack.

5. Water Safety, Legionella Risk & Protection

5.a) Double Walled Heat Exchanger

European regulations (EN 1717) require that double walls must be used to separate drain water and drinking water. In the RECOUP HeatDeck, this is accomplished by squeezing two copper pipes against each other. This creates a very sturdy and reliable construction, in which the contact between the pipes does not depend on the water pressure. The design meets all the relevant safety requirements.

The RECOUP HeatDeck should be protected against return flow through a verifiable double check valve plus shut-off valve. It is permissible to connect the system directly to the SVP as shown in Section 4.



5.b) Legionella

Consideration must be given to the potential risks of legionella bacteria growth when installing any hot or cold water system and this includes ALL devices that are used in the production and transportation of hot or cold water in the domestic home or commercial environment. Please refer to the following information provided covering Legionella.

5.c) Legionella Risk & Protection when installing a RECOUP WWHRs product

Care and attention must be paid to the system design to protect against the potential risk of Legionella growth within the hot and cold water system with or without a WWHRs unit being installed. The guidance below is to highlight the potential risks that installation of a WWHRs can have on the hot and cold water supply within a property, but due to the variations in design in properties a final risk assessment needs to be carried out by the system designer and installer.

The following guidance is provided to keep the risk to a smaller level as possible, with general and specific guidance depending on the System of installation (A, B or C). Within the UK, there is no specific guidance on Legionella control within the domestic home, but the document known as HSG 274 and written for Health and Safety guidance in the work place, does in Part 2 offer guidance on the control of Legionella in water systems, some of which is aimed at recirculating hot water systems, but never the less offers good advice. The World Health Organisation (WHO) have also published a document (Last version 2007) titled 'Legionella and the prevention of Legionellosis', however, this is for information purposes only.

General guidance

For best practice the pipework between the WWHRs and the cold mixer on the shower and the boiler/hot water cylinder should be copper, as this is a material that is less susceptible to the formation of biofilm, which is a known factor in the growth of Legionella bacteria. However, if plastic / PVC plumbing has been considered suitable for the property by the installer/designer then an onsite risk assessment should be carried out to ensure the risk is minimal. If products do require flexible hoses instead of copper pipe then these must be PEX and never EPDM

It is always recommended to clean any TMV at least once every 6 months to remove the build-up of any contamination.

Showers in general can be a problem area for Legionella growth in the domestic home, and L8 recommends that shower heads are dismantled quarterly or as necessary to clean and descale them and the hoses.

The frequency that domestic showers are used in the home means that the system is flushed on a high number of occasions per week, which in itself helps in prevention of Legionella bacteria growth. It should be remembered that after any dormant periods (HSG 274 Part 2 recommends weekly flushing is acceptable as long as a risk assessment does not identify a susceptible population), it is good practice for a shower (With or without a WWHRS fitted) to be slowly flushed taking care not to create an aerosol, either by unscrewing the shower head or covering the shower head with a plastic bag and allowed to run for 3 minutes to introduce fresh water into the system. The hose on a shower from the TMV to a shower head will contain a mixture of cold and hot water, and the warming of the cold water brings it into the optimum temperature range for Legionella growth (TMV is set by the user between 36°C and 41°C). This water will cool down in time and in the domestic home be flushed through on a near daily basis, but it still introduces a risk.

System A – Delivery of preheated water to a water heater (Cylinder, combi-boiler, HIU) and the cold mixer on the TMV

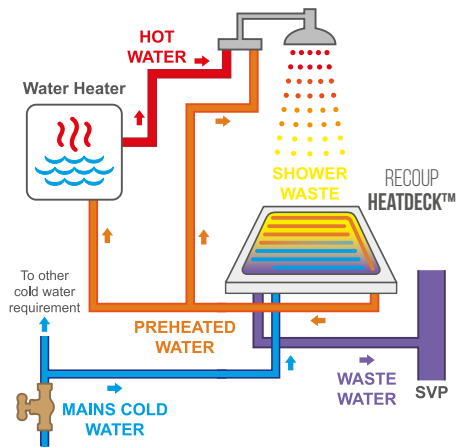
If the water heater being installed is a hot water cylinder that will raise the temperature to 60°C for a period longer than 10 minutes, then the distance of pipe from the WWHRS to the cylinder doesn't matter with regard to Legionella, as the preheated water in the pipe will on entering the cylinder be raised to sufficient temperature to kill any bacteria (Note: that for energy efficiency this distance should still be kept to a minimum).

If a combination boiler or HIU (Heat Interface Unit) is being used then it should be capable of heating the preheated water to 60°C and holding it at that temperature for greater than 10 minutes, so any potential growth within stagnant pre-heated water from the previous shower is raised to a level where the Legionella bacteria can be killed. Any water heater used in the domestic home that does not raise hot water above 60°C for this period of time is introducing the same level of risk to the system (With or without a WWHRS), and these risks need to be assessed in terms of the level and frequency of usage, and whether the device is used for stored or instantaneous hot water.

For System A there is also a feed of the pre-heated water straight to the cold inlet of the TMV. Regardless of the water heater that is installed in the installation, the pre-heated water (25°C) that remains between the WWHRS and the TMV will not be re-heated, so can never pass a temperature of 60°C, and therefore introduces the same level of risk to the system as any instantaneous water heater that does not achieve 60°C would do. HSG 274 Part 2 recommends that all cold water supplies should be kept to 20°C or below, however, it does note that the Water Supply (Water Quality) Regulations do permit water utilities to supply water to premises at temperatures up to 25°C, but due to the climate in the UK this is not likely, except in summer. Table 3: Monitoring the temperature control regime, of HSG 274 Part 2 states that the standard to meet for cold water on a monthly basis is that a temperature of below 20°C should be reached after running the water for up to 2 minutes. Therefore, it is suggested that the pipe run from the WWHRS to the cold inlet of the TMV is kept as short as possible, and no greater than 4.75 meters.

Users of the shower could additionally run the shower for 15 seconds after showering on the cold setting of the TMV to flush through the remaining pre-heated water. As mentioned in the general section, the regular use of showers in the domestic home means flushing happens on a regular occasion, however, prior to periods of non-use (E.g. Holiday), this practice would be advisable.

SYSTEM A

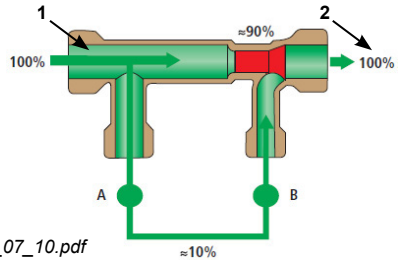


To further protect the system from potential risk of legionella growth, the installation of a device from Kemper (KHS-Multi-Circ Distributor Unit) will reduce the amount of stagnation that occurs in the pre-heated pipe from the WWHRS to the cold inlet of the TMV, as each time a hot water outlet in the property is opened a small circulation will be created within the water (basic details below, and more information on www.kemper-valves.com)

The flow distributor's operation is based on the principle of the Venturi nozzle. The minimum pressure difference between Supply line A and Return line B causes an induced flow in the branch. The drive comes from water removal after the KHS-Multi-Circ Distributor Unit. The entire water content in the branch is thus changed, stagnation is prevented and the water temperature is kept low.

Taken from...

http://www.kempervalves.com/pdf/pdf%20englisch/khs_20s_engl_07_10.pdf



1. The pre-heated water from the WWHRS before it splits to the water heater and the cold inlet of the shower TMV.
 - A. The split of the pre-heated water, with 'A' going to the cold inlet of the TMV for the shower.
 - B. A return loop taken from as close to the TMV as possible and back into the valve
2. Continues to the water heater

System B Installation – Cold inlet on the TMV only

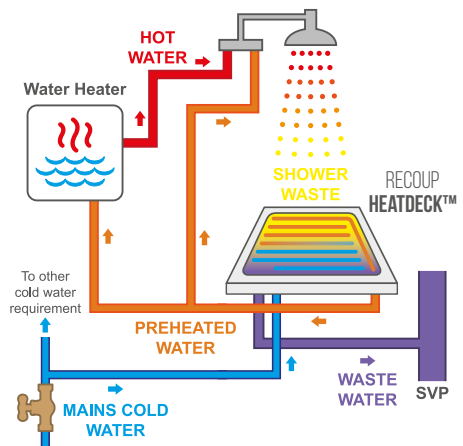
This installation provides the highest risk of the three installation methods.

Regardless of the water heater that is installed in the installation, the pre-heated water (25°C) that remains between the WWHRS and TMV will not be re-heated, so can never pass a temperature of 60°C, and therefore introduces the same level of risk to the system as any instantaneous water heater that does not achieve 60°C would do. HSG 274 Part 2 recommends that all cold water supplies should be kept to 20°C or below, however, it does note that the Water Supply (Water Quality) Regulations do permit water utilities to supply water to premises at temperatures up to 25°C, but due to the climate in the UK this is not likely, except in summer. Table 3: Monitoring the temperature control regime, of HSG 274 Part 2 states that the standard to meet for cold water on a monthly basis is that a temperature of below 20°C should be reached after running the water for up to 2 minutes. Therefore, it is suggested that the pipe run from the WWHRS to the cold inlet of the TMV is kept as short as possible, and no greater than 4.75 meters.

It should be noted that the pre-heated water is never stored and maintained at the 25°C temperature, therefore, even though still a risk to consider if the system is to be used/flushed frequently this will be in line with guidance in HSG 274 Part 2 for treatment of the mixed water after the TMV which is also water containing cold water that has been heated above 20°C but not past 60°C (Along with the guidance in the general section for general maintenance of a shower with or without a WWHRS installed).

Users of the shower could additionally run the shower for 15 seconds after showering on the cold setting of the TMV to flush through the remaining pre-heated water. As mentioned in the general section, the regular use of showers in the domestic home means flushing happens on a regular occasion, however, prior to periods of non-use (E.g. Holiday), this practice would be advisable.

SYSTEM B



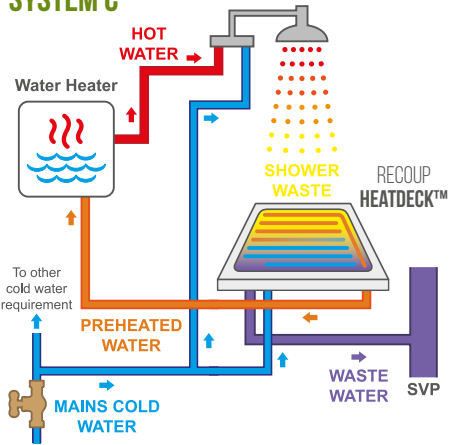
System C Installation – Feed to water heater only

This is the lowest risk of all the installation methods.

If the water heater being installed is a hot water cylinder that will raise the temperature to 60°C for greater than 10 minutes, then the distance of pipe from the WWHRS to the cylinder doesn't matter with regard to Legionella, as the preheated water in the pipe will on entering the cylinder be raised to sufficient temperature to kill any bacteria (Note: that for energy efficiency this distance should still be kept to a minimum).

If a combination boiler or HIU (Heat Interface Unit) is being used then it should be capable of heating the preheated water to 60°C and holding it at that temperature for greater than 10 minutes, so any potential growth within stagnant pre-heated water from the previous shower is raised to a level where the Legionella bacteria can be killed. Any water heater used in the domestic home that does not raise hot water above 60°C for this period of time is introducing the same level of risk to the system (With or without a WWHRS), and these risks need to be assessed in terms of the level and frequency of usage, and whether the device is used for stored or instantaneous hot water.

SYSTEM C



6. Care & Maintenance

Warning! The use of grout/tile cleaners, scale removers, abrasive scourers, drain unblockers and other powerful detergents may lead to damage of metallic, plated and plastic surfaces, including the tray and shower waste.

The acrylic ABS surface of this shower tray has good resistance properties to mild acids but should not come into contact with alkalis or organic solvents, such as caustic soda, dry cleaning agents and paint strippers and strong acids. Should the shower tray be subjected to any non-approved substance it must be cleaned immediately. Particular care must be taken not to damage the manufacturing logo.

Only clean this shower tray with hot soapy water, the tray should be wiped dry with a lint free cloth.

Cleaners of gritty or abrasive nature should **never** be used.

Care should be taken when cleaning anti-slip surface.

Regular cleaning is essential to retain a high performance efficiency and flow rate.

Recoup Energy Solutions cannot be held responsible for damage or the effects e.g. discoloration, caused by third party substances and / or materials such bath or shower mats.

Routine Cleaning

The following steps should be completed regularly, the chosen frequency will be based upon the amount of use the RECOUP HeatDeck receives. Follow the guidance below and refer to the Installation information and diagrams in Section 4.d) Point 1.a) to 1.d) for lifting the RECOUP HeatDeck Plinth.

1. Remove the hair trap from the slot drain and thoroughly clean under running water.
2. Remove the RECOUP HeatDeck Plinth.
 - a) Insert the plinth lifting tool provided (part 2) into the hair catcher slot and rotate through 90°.
 - b) Use the tool to lift the plinth. The plinth weighs 10.4kg so should be handled carefully to avoid damage or injury. **DO NOT use the plinth lifting tool as a carrying handle**, it is solely intended for lifting the plinth from the main unit. The tool is likely to break if it is used to carry the plinth.
 - c) Holding the plinth with a hand gripping either edge, lift it from the RECOUP HeatDeck main unit. Clean the underside and edges of the plinth and then lay it flat on a solid horizontal surface. **DO NOT lean the HeatDeck plinth against a wall.**

3. Clean the channels within the RECOUP HeatDeck that surround the copper pipework of the heat exchanger. It may be beneficial to use the shower head and running water to complete this.
4. Remove the funnel from the waste, reach into the funnel section with your fingers and pull upward in a twisting motion to remove it. Thoroughly clean with running water.
5. Once clean replace all items.
 - a) When fitting the funnel back into the waste body ensure the two arrows are aligned. See Section 4.d) Point 8.d)
 - b) Replace the RECOUP HeatDeck plinth. Use the plinth lifting tool to lower the plinth but not to carry it. Position the bottom edge first and ensure that the slot drain is orientated and lowered correctly into the well within the RECOUP HeatDeck. **Be careful of finger trapping as the plinth is lowered.**
 - c) Replace the slot drain hair catcher into the plinth slot.

7. Warranty

The RECOUP HeatDeck comes with a 5 year warranty. This starts from either the date of invoice from Recoup Energy Solutions Ltd or purchase from partnered trade distributors. Installation registration should be completed as part of the guarantee requirements.

Note: Wastes, upstand kits and riser kits are guaranteed for 1 year only.

This warranty is conditional on the product being installed in accordance with these instructions (Installation and ALL requirements for SAP, if product is to be recognised for Energy Efficiency Calculations), correct plumbing practices and Building Regulations.

8. Registration

Please register this installation for SAP and guarantee. See the accompanying SAP identifier and installation registration document for further details.

9. Shower Enclosures

The RECOUP HeatDeck is designed to be installed with enclosures comprising a hinged door that opens outwards. **No part of the enclosure or door should protrude into the enclosure by more than 50mm from the outer edge** of the tray as this will prevent removal of the RECOUP HeatDeck plinth for routine cleaning.

Adequate access may be obtained if the enclosure comprises a removable door system that can be easily and safely removed as part of the cleaning process. This must be correctly assessed alongside the enclosure manufacturers specification and documents, then communicated correctly with the user upon or after installation.



Design Registration Nos:-

UK 6370471, 6370472, 6370473, 6370474, 6370475, 6370476, 6370477

EU 015075044-0001-0007

WASTE WATER HEAT RECOVERY FOR SHOWERS

PLEASE REGISTER THIS INSTALLATION

The installation of this WWHRs should be registered for SAP and guarantee requirements.

Visit our website registration page
REGISTRATION.RECOUP.CO.UK
or scan the QR code.



RECOUP HEATDECK™ **RECYCLABLE** AT END OF LIFE

Visit our website recycling page for more information
RECYCLE.RECOUP.CO.UK

T: 01379 844010

E: TECHNICAL@RECOUP.CO.UK

W: RECOUP.CO.UK



HEATDECK

SAP IDENTIFIER LABEL & INSTALLATION REGISTRATION

SAP IDENTIFIER LABEL

As detailed in the accompanying RECOUP HeatDeck instructions, this peel-out label should be completed with the serial number (from product label) and amended under model qualifier to correctly identify the system installation method installed by deleting the two incorrect system types.

Cut line

HEATDECK
Horizontal Shower Waste Water
Heat Recovery Unit

NCM (SAP) IDENTIFIER	RECOUP HeatDeck	Recoup Energy Solutions Ltd, Trumpeter House, Trumpeter Rise, Long Stratton, NR15 2DY
Serial Number: Technology type: Technology category: Brand name: Model qualifier:	SN: Waste Water Heat Recovery System Instantaneous Shower Heat Recovery RECOUP System A / System B / System C <small>Delete as appropriate</small>	
This dwelling has been fitted with a Waste Water Heat Recovery System for Showers which is recognised by the Government's Standard Assessment Procedure (SAP) for Energy rating of dwellings. Note: One label must be permanently fixed to the WWHRS unit and another to a nearby Boiler or Service Cupboard.		
PLEASE REGISTER for SAP and guarantee requirements. Visit our website registration page registration.recoup.co.uk END OF LIFE product recycling available. Visit recycle.recoup.co.uk		

Once complete peel out the label, and apply it on or next to the water heater in the property. This process forms an important part of the SAP requirements for waste water heat recovery.

PLEASE REGISTER THIS INSTALLATION

INSTALLATION REGISTRATION

The installation of the RECOUP HeatDeck WWHRS should be registered for SAP and guarantee requirements. Registration can be completed by submitting an online installation registration form. Visit registration.recoup.co.uk or scan the QR code to access the form.



Once submitted you will receive your installation registration certificate by email.

Visit our website registration page or scan the QR code

REGISTRATION.RECOUP.CO.UK