

Installation guide

DSS Shower Heat Recovery Drain Unit



CONGRATULATIONS ON THE PURCHASE OF YOUR DSS SHOWER HEAT RECOVERY DRAIN UNIT

The unit is contained in a stainless steel housing with a covering grille. Underneath this is a distribution plate, and underneath that a heat exchanger.



CONNECTIONS

WASTE WATER OUTFLOW

A waste water outlet, 50mm in diameter, projects from the housing half-way along one of its longest sides. Connect this to the drainage system using a sleeve joint.

Make sure that the drain has sufficient capacity for the amount of water the shower produces. If the drain is unable to cope with the flow of water, it will accumulate inside the unit and reduce the efficiency of the heat exchanger.

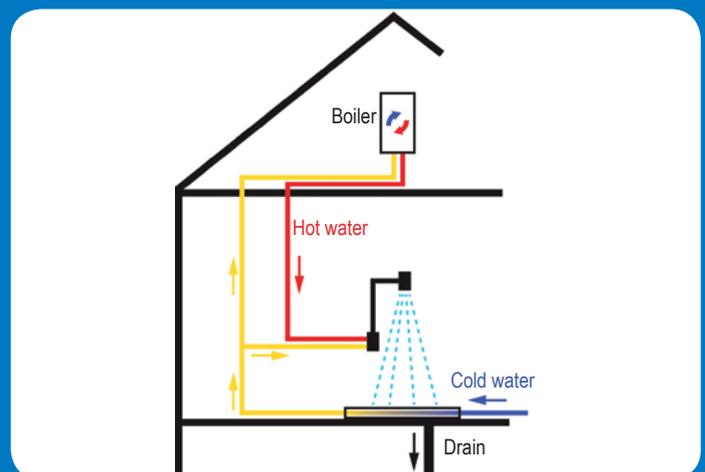
Use pipes at least 50mm in diameter, and if necessary increase this to 75mm. Do not create sharp elbows in the outflow pipework. For effective venting, connect it horizontally to the waste stack.

MAINS WATER INTAKE AND OUTFLOW

The copper heat exchanger is located at the bottom of the housing. Its copper inlet and outlet connectors project from one end of the unit. Both are tipped with a brass 1/2" male thread. Use 1/2" female compression fittings to connect these to the mains water system. For a watertight seal, apply Loctite 55, a Teflon thread sealant or similar.

Depending upon the orientation of the pipework, either straight or elbow fittings can be used.

The lower connector is the cold water inlet. Connect this to the incoming water supply. A controllable check valve (EA protection type) must be fitted upstream of the inlet, in an accessible, frostproof place (eg. the meter cupboard).



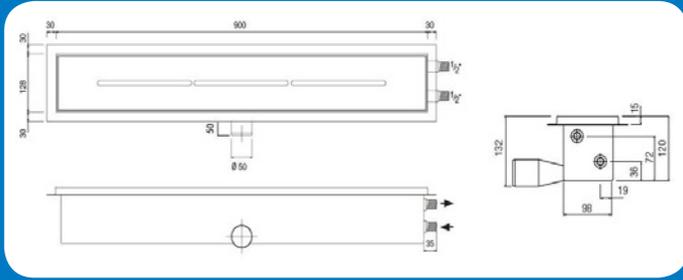
Note that cold water pipes should never be routed close to sources of heat, to prevent unintended warming.

The upper connector is the preheated water outlet. Connect this to the cold water supply to the shower mixing valve and/or the combination.

To protect the copper pipes and fittings against corrosive substances in the surrounding concrete or cement, wrap them in bitumen tape or similar, or use another suitable safeguard.

INSTALLATION

A stainless steel rim, 30mm wide, runs all around the top of the DSS Shower Heat Recovery Drain Unit housing.



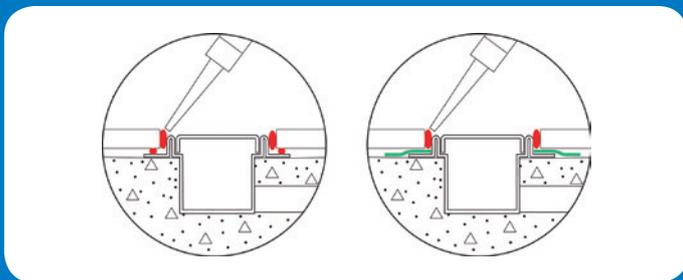
If possible, install the unit at least 5-10cm away from a wall. This leaves enough space for a strip of slightly inclined tiling, to prevent water collecting at the junction of the floor and the wall. It also makes it easier to apply mortar properly between the unit and the wall.

The unit should be absolutely level when installed. Use the adjustable feet to achieve this. Once the unit is in position, connect the pipework as described on the previous page. Protect the copper components against cement corrosion by wrapping them in bitumen tape or similar.

Check once again that the unit is perfectly level. When you are satisfied that it is, secure the adjustable feet to the surface below or cover them with a first layer of mortar and allow it to set. The unit is now fixed in position.

Fill the gaps around the unit, right up to the rim, with a suitable low-shrinkage mortar and allow this to set.

Clean, degrease and dry the rim, and dust off the hardened mortar. Affix the pre-cut DSS ShowerTape passe-partout over the joint between the rim and the floor. This creates a watertight seal around the unit.



Tile the floor, leaving a 3-5mm gap between the tiling and the rim of the unit for the application of sealant.

DSS ShowerTape does not adversely affect tile adhesive, or vice versa, so you can tile directly onto it.

When applying the adhesive, run the applicator comb parallel to the installed unit. In this way the adhesive ridges act as an extra barrier against water seepage around the unit should the grout seams ever be damaged.

Fill the gap between the unit and the tiles with DSS Seal, following the instructions provided with that product.

MAINTENANCE

The DSS Shower Heat Recovery Drain Unit contains a distribution plate, located immediately underneath the grille. Together, the plate and grille regulate the flow of water from the shower floor into the unit. The grille can be removed using the special tool provided.

The distribution plate is punctured with small holes, which ensure that the water enters the heat exchanger evenly. If too many of these holes are blocked, the internal bypass system activates. As a result, less heat is recovered from the waste water.

For the best performance, then, the grille and the distribution plate need to be cleaned regularly. How often this should be done depends upon how frequently the shower is used.

The shallow sump in the distribution plate is part of the flow regulation system. It is possible that heavier material, such as sand, may collect here. This should be removed during cleaning.

Stainless steel is vulnerable to scratching, so do not use abrasive substances to clean the grille.

If the copper pipes in the heat exchanger itself need to be cleaned, use a household degreaser spray and a soft brush. Then rinse thoroughly.

Replace the distribution plate and grille and run the shower briefly to refill the sump.

