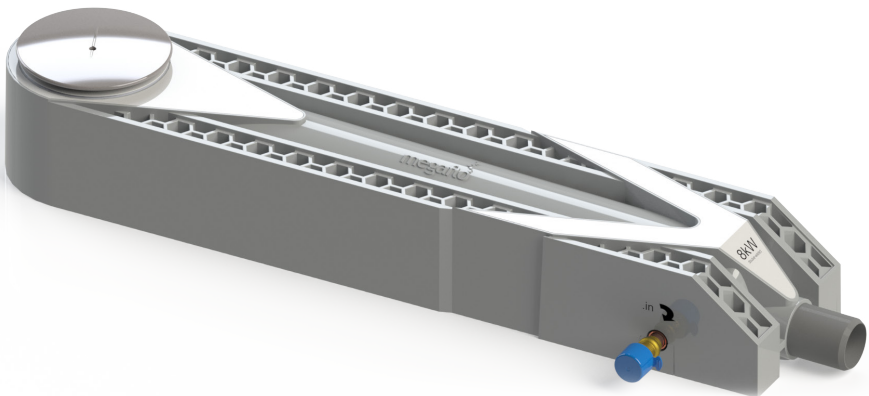




MEGAFLO HORIZONTAL SHRU STANDARD

INSTALLATION MANUAL



These instructions are to be left with the user for the home user pack.

The MegaFlo Horizontal SHRU should only be installed by a competent plumber who has the expertise to be guided by this manual. Please read the entire manual before commencing the installation process. Should you have any technical questions do not hesitate to contact us.

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1. INTRODUCTION

Thank you for your purchase of the Megaflo Horizontal SHRU.

This unit will allow you to recover the heat contained in the shower waste water and to transfer this heat to the cold water before it goes to the shower mixer tap and/or water heater device.

There is no contact between the water supply and the drain water.

The transfer of heat is achieved through a double-walled copper heat exchanger in accordance with the regulations EN 1717.

When utilizing the Megaflo Horizontal SHRU, the cold water feeding into your mixer valve or heater device is pre-heated to approximately 20 - 25°C, an increase of approximately 15°C (depending on the type of configuration and flow of the shower), the result is a significant energy saving.

IMPORTANT!

Please note that this manual contains important information, read it carefully before starting the installation or use of the product.

- Installation and associated work on this equipment must be carried out by a competent professional.

- Non-compliance with the recommendations for installation and use may void any warranty.

- Keep this manual in a safe place for easy reference when required throughout the life of the product.

- This product has a waste trap integral to the unit. There is no requirement to install an additional trap.

NCM/SAP recognition

For the recognition of the Megaflo Horizontal SHRU energy saving performance within the National Calculation Method (NCM) for energy rating of dwellings known as SAP (Standard Assessment Procedure) it is vital to comply with the following:

- a) This instruction manual
- b) The system design checklist
- c) The Installation checklist
- d) The Certificate of installation

b, c & d are supplied as a single document and are available at: www.ncm-pcdb.org.uk/sap (under 'Technical Documents') – A signed copy of each should:

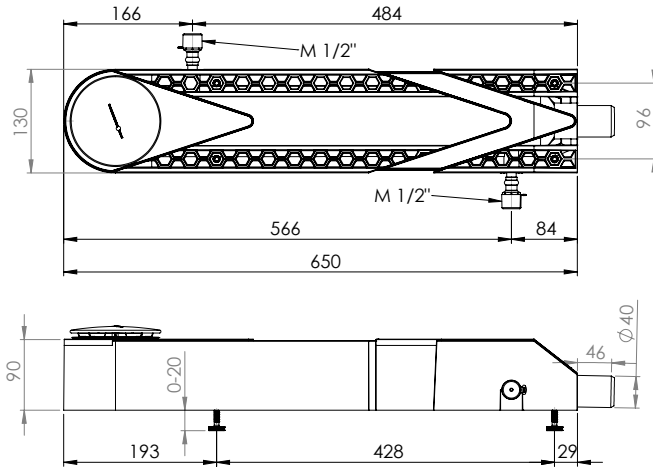
- 1. Be left with the home user pack (for the home owner)
- 2. Retained by the installer
- 3. A copy sent to Heatrae Sadia (See company details on Page 16).

(Note: Building control officers may also request a copy)

A NCM (SAP) identifier label is permanently fixed to the Megaflo Horizontal SHRU unit and a second label attached to a nearby boiler or service cupboard. The 'model qualifier' denotes the system installation configuration System A, B or C. For the permanent label, the model qualifier will state "Refer to installation certificate, if unknown assume System B". The actual system configuration will be recorded on the system design checklist, installation checklist/ certificate of installation and the second NCM (SAP) identifier label.

2. PRODUCT TECHNICAL DATA

2.1. Dimensions



(mm)

2.2. Technical specifications

Description	Unit	Value
Heat exchanger material	-	copper
Body material	-	ABS
Weight	kg	6.0
Temperature range	°C	0 - 60
Maximum shower flow	L/min	30.0
Maximum mains water inlet pressure	Bar	6.0
Heat exchanger pressure drop at 9.2 L/min — mains water	Bar	0.36
Heat exchanger pressure drop at 12.5 L/min — mains water	Bar	0.65

3. PRE-INSTALLATION REQUIREMENTS

3.1. Principle of Operation

The Megaflo Horizontal SHRU is a Waste Water Heat Recovery Unit (WWHRU).

The Megaflo Horizontal SHRU recovers the heat contained in the shower drain water and transfers this heat to the cold mains water prior to reaching the shower mixer tap and/or Domestic Hot Water heater (DHW). The DHW heater could be a combination boiler, an unvented cylinder, a heat interface unit on a district heating scheme* or a thermal store.*

(*) mains pressure DHW delivery

3.2. Installation Configuration

The Megaflo Horizontal SHRU should be located horizontally on a suitable base below the shower, with the desired separation.

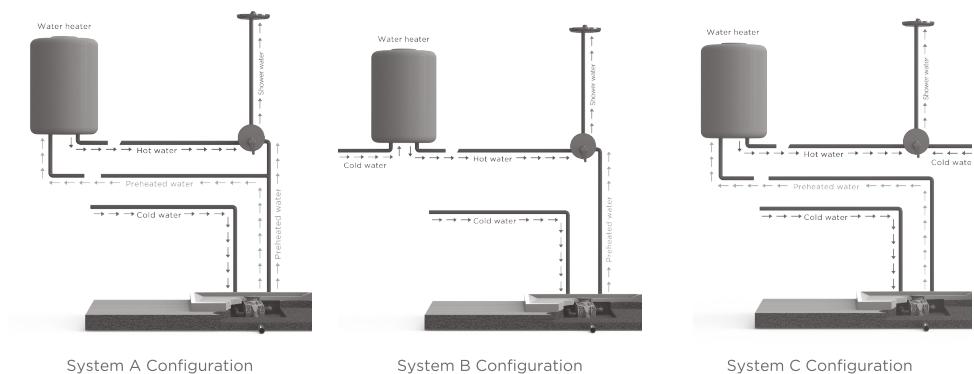
The mains cold water is connected to the Megaflo Horizontal SHRU inlet and the preheated water from the Megaflo Horizontal SHRU is connected in one of the following 3 configurations

System A: To the shower mixing valve (mains cold water) inlet and the DHW heater inlet. This will provide the maximum amount of recovered energy.

System B: To the shower mixing valve (mains cold water) inlet ONLY. We recommend this configuration if the connection to the DHW heater involves too much work or it is too far.

System C: To the DHW heater inlet ONLY.

SAP calculation recognises the performances of Systems A, B & C. System A will provide the highest efficiencies (see section 2.3 for different system performances). Note: kWh calculations are estimates and are not calculated by SAP



3.3. Requirements for Recognition within SAP Calculations

3.3.1. Dwelling Evaluation

The following dwelling requirements must be satisfied in order for the WWHRs to be recognised in SAP calculations:

- Supply water pressure and flow rate must be sufficient to ensure satisfactory DHW performance after installation of the MegaFlo Horizontal SHRU.
- The domestic hot water system (DHW) must be a mains pressure system;
- If not installed in System B configuration, the DHW heater must accept a preheated water inlet (Max. 30°C).
- The shower(s) must use a thermostatic mixing valves.
- The MegaFlo Horizontal SHRU must be installed within the dwelling heated envelope.

NOTE: Whilst the MegaFlo Horizontal SHRU can be connected to Instantaneous electric showers, such combinations are not recognised in SAP calculations.

3.3.2. Drainage Connections

The length of the drain pipe between the shower and the MegaFlo Horizontal SHRU must be minimised, preferably to less than 3 metres.

With reference to Approved Document – Part H (2002) of the Building Regulations, an appropriate method for preventing the ingress of foul sewer gases as a result of the WWHRs installation must be devised. Aeration valve is not required.

3.3.3. Plumbing Connections

The pipework between the Megaflo Horizontal SHRU preheated water outlet and the water heater and/or shower cold water inlet(s) (depending on installation configuration) must be:

- Labelled to indicate that no other services can be interconnected, to prevent the future connection of any other service points, such as taps;
- Insulated in accordance with the specification for DHW primary circulation pipes defined in 'Domestic Building Services Compliance Guide - 2013 Edition'.
- The WWHRS preheated water outlet is only connected to the water heater and shower cold water inlet(s), but not any other service points, such as taps.
- If shut-off valves are specified for the Megaflo Horizontal SHRU unit inlet and/or outlet, they must be 'full flow' (non-restricting) shut-off valves.

3.3.4. Installation Location

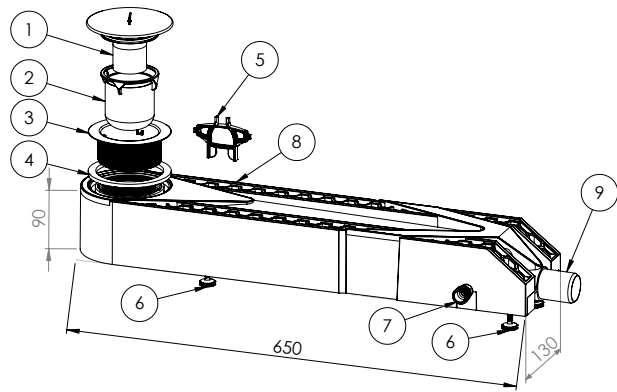
The location must allow access to all parts and easily allow any maintenance, such as cleaning.

The installation location for the Megaflo Horizontal SHRU should not normally exceed 25°C.

The Megaflo Horizontal SHRU installation should ensure compliance with Approved Document Part H (2002) of the Building Regulations.

4. INSTALLATION

4.1. Package contents

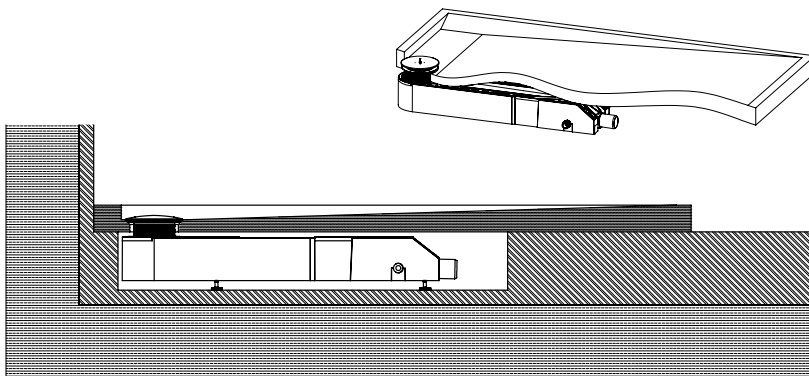


N°	Description	Material	Connection	Quantity
1	Valve cap Ø90 mm	ABS	-	1
2	Trap	ABS	-	1
3	Thread ring	PP	-	1
4	Sealing ring	Rubber	-	1
5	Wrench	PP	-	1
6	Adjustable foot	Steel/Plastic	-	4
7	Input connector 1/2"	Brass	M	1
8	Output connector 1/2"	Brass	M	1
9	Water discharge Ø40 mm	PVC	M	1

4.2 TWO METHODS OF INSTALLATION

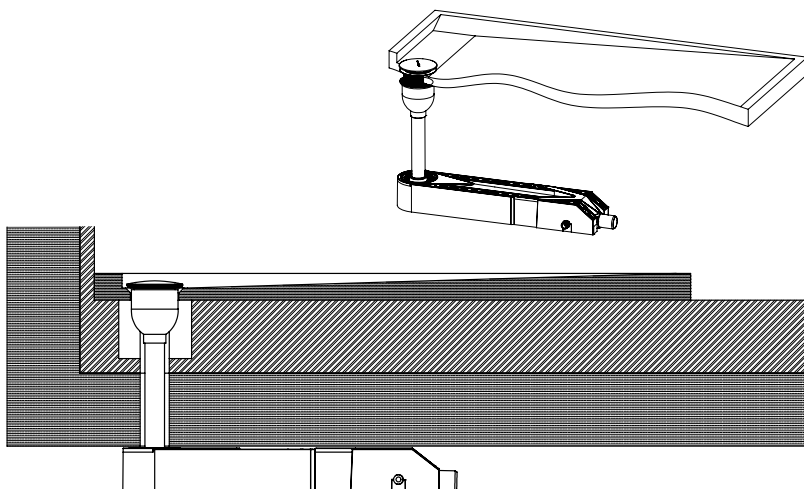
4.2.1 Installation above the slab / coupled to the shower tray.

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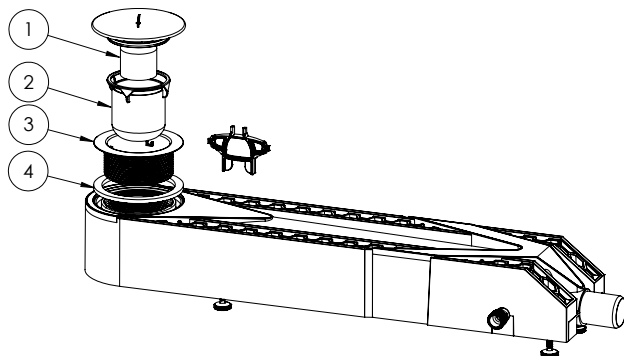
4.2.2 Installation under the slab / under the shower tray or bathtub with desired separation.

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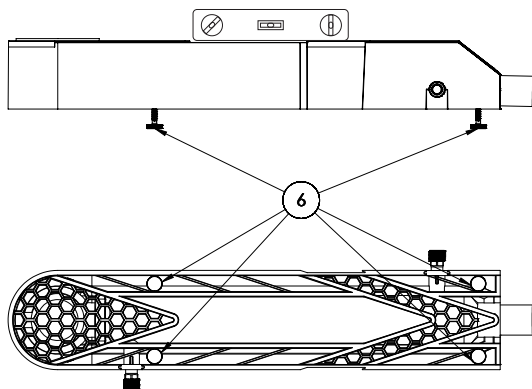


4.2.1 INSTALLATION - METHOD 1

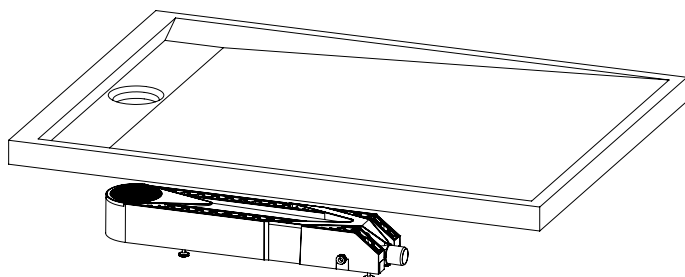
- 1 Remove components (1), (2), and (3).



- 2 Using a spirit level and 4 adjustable feet (6) adjust the unit's height and position it horizontally in its final location. The internal bore of the Megaflo Horizontal SHRU already has a slope of 2% to ensure the correct flow of waste water from the shower.



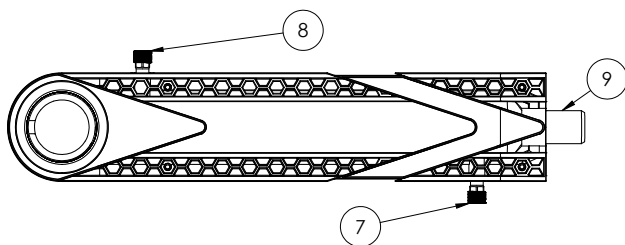
- 3 Put the shower tray over the Megaflo Horizontal SHRU and align it. Remove the tray for implementing the next steps.



4

Connect the mains cold water to the unit's inlet (7), and preheated water outlet (8) from the unit to the cold side of the shower mixer tap and/or domestic water heater (depending on installation configuration). Use both of the provided Male 1/2" fittings and seal the connections.

Connect the Megaflo Horizontal SHRU drain water outlet (9) to the drain pipe sewer/floor drain.

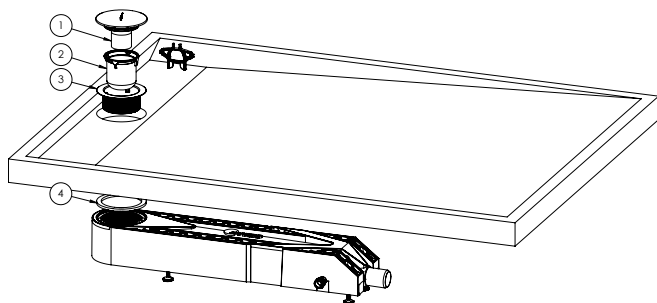


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We recommend that the installer performs a leak test on the mains water circuit and on the drain water circuit to ensure the integrity of the inlet and outlet connections.

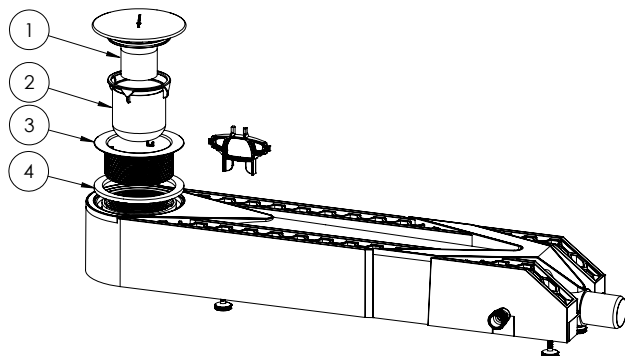
6

Replace shower tray and re-attach components (1), (2), (3) and (4).

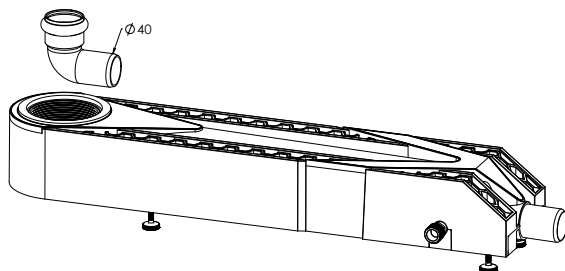


4.2.2 INSTALLATION - METHOD 2

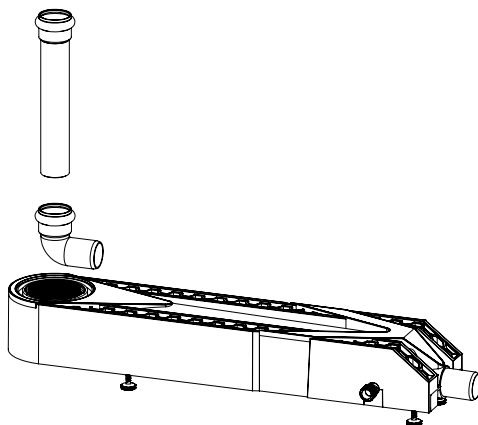
- 1 Remove components (1), (2), (3) and (4).



- 2 Install a 90° elbow $\varnothing 40$ mm. Ensure that the elbow fits beyond the seal of the unit.

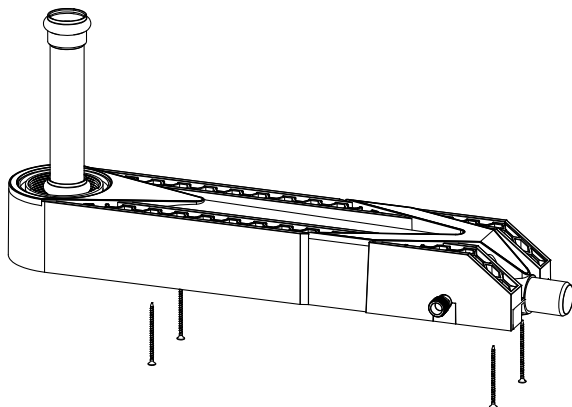


- 3 If necessary, use an appropriately rated PVC pipe of suitable length.



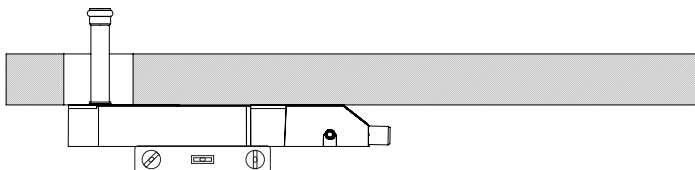
4

Using screws, fix the Megaflo Horizontal SHRU to the slab.



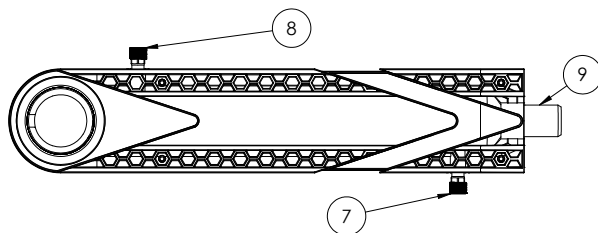
5

Make sure that the unit is installed horizontally. The internal bore of the Megaflo Horizontal SHRU already has a slope of 2% to ensure the correct flow of waste water from the shower.



6

Connect the mains cold water to the unit's inlet (7), and preheated water outlet (8) from the unit to the cold side of the shower mixer tap and/or domestic water heater (depending on installation configuration). Use both of the provided Male 1/2" fittings and proceed to seal in accordance with best plumbing practice. Connect the Megaflo Horizontal SHRU drain water outlet (9) to the drain pipe sewer.

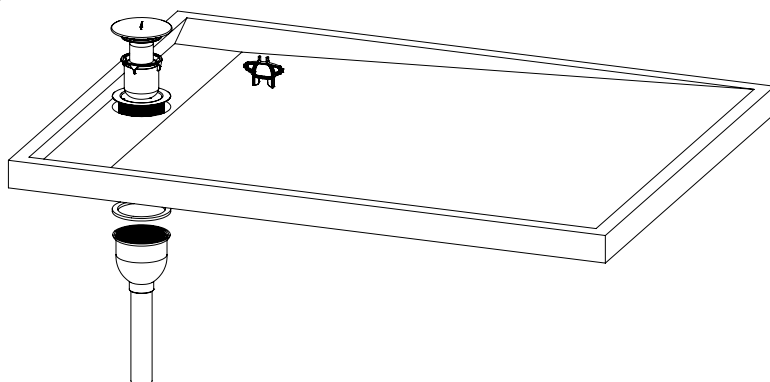


7

We recommend that the installer performs a leak test on the mains water circuit and on the drain water circuit to ensure the integrity of the inlet and outlet connections.

8

Install the shower tray and the shower valve.



5. MAINTENANCE

The Megaфло Horizontal SHRU has been designed to require minimal maintenance other than regular cleaning of traps and filters removing all hair and dirt, thus preventing blockages.

To avoid losing efficiency in the long term, we recommend you periodically dissolve soap residue on the inside copper pipe with your usual drain cleaner and/or to clean the unit with a pipe cleaning brush and hot water.

6. WARRANTY - 2 YEARS

During the warranty period, the manufacturer or an authorized service company will replace or repair any Product that has a defect in design, material or workmanship.

The warranty will be invalidated if product failures are caused by the following:

- Installed with cold inlet pressure above 6 bar.
- Use of the system without a trap.
- Inadequate cleaning of the trap.
- Installation of the Megaфло SHRU not in accordance to these instructions..
- Unauthorized repairs and modifications.

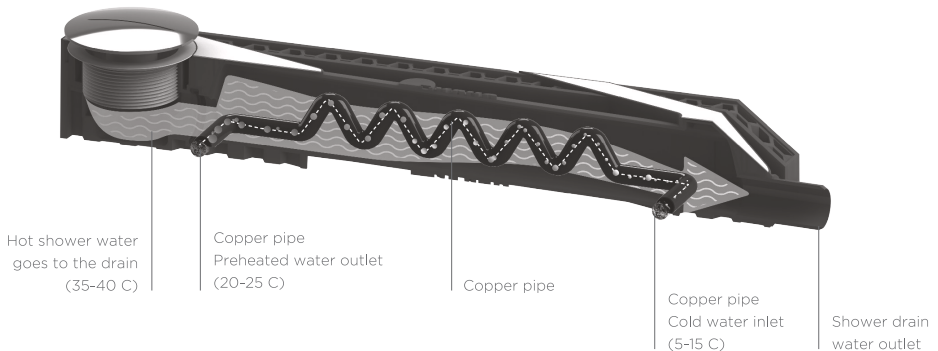
7. SAFETY

7.1. Tested for drinking Water Consumption

The Megaflo Horizontal SHRU complies with the requirements of the United Kingdom Water Supply Regulations and Scottish Water Byelaws: Certificated by WRAS

European regulations EN 1717 ("Protection against pollution of potable water in water installations and general requirements of devices to prevent pollution by backflow") require that double walls must be used to separate drain water and drinking water. The copper coil heat exchanger is made by squeezing two copper pipes against each other. This creates a very robust and consistent structure, in which the contact between the pipes does not depend on water pressure.

7.2. Legionella Prevention



The Megaflo Horizontal SHRU design also complies with the Directive Legionella Prevention:

- The unit has no dead spaces and is subject to high flow rates which prevents water from stagnation.
- Drain water never stays inside the unit for a long period of time since its construction guarantees that it is fully drained out at the end of the shower.
- After showering, fresh water cools down below 25 °C, as recommended by the WHO.
- The Megaflo Horizontal SHRU is always installed relatively close to the shower mixer which minimizes the distance between the unit and shower valve.
- The copper coil itself contributes to reducing Legionella-related risks.



Customer Service

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Important notice to installations outside of the UK.

References to legislation, legal requirements, regulations, building regulations benchmark, spares stockists, guarantees and warranty are ONLY APPLICABLE WITHIN THE UK.

For local legislation, legal requirements, regulations, building regulations outside of the UK, contact your local Authority.

For spares stockists, guarantees and warranty outside the UK, contact your local supplier or,

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