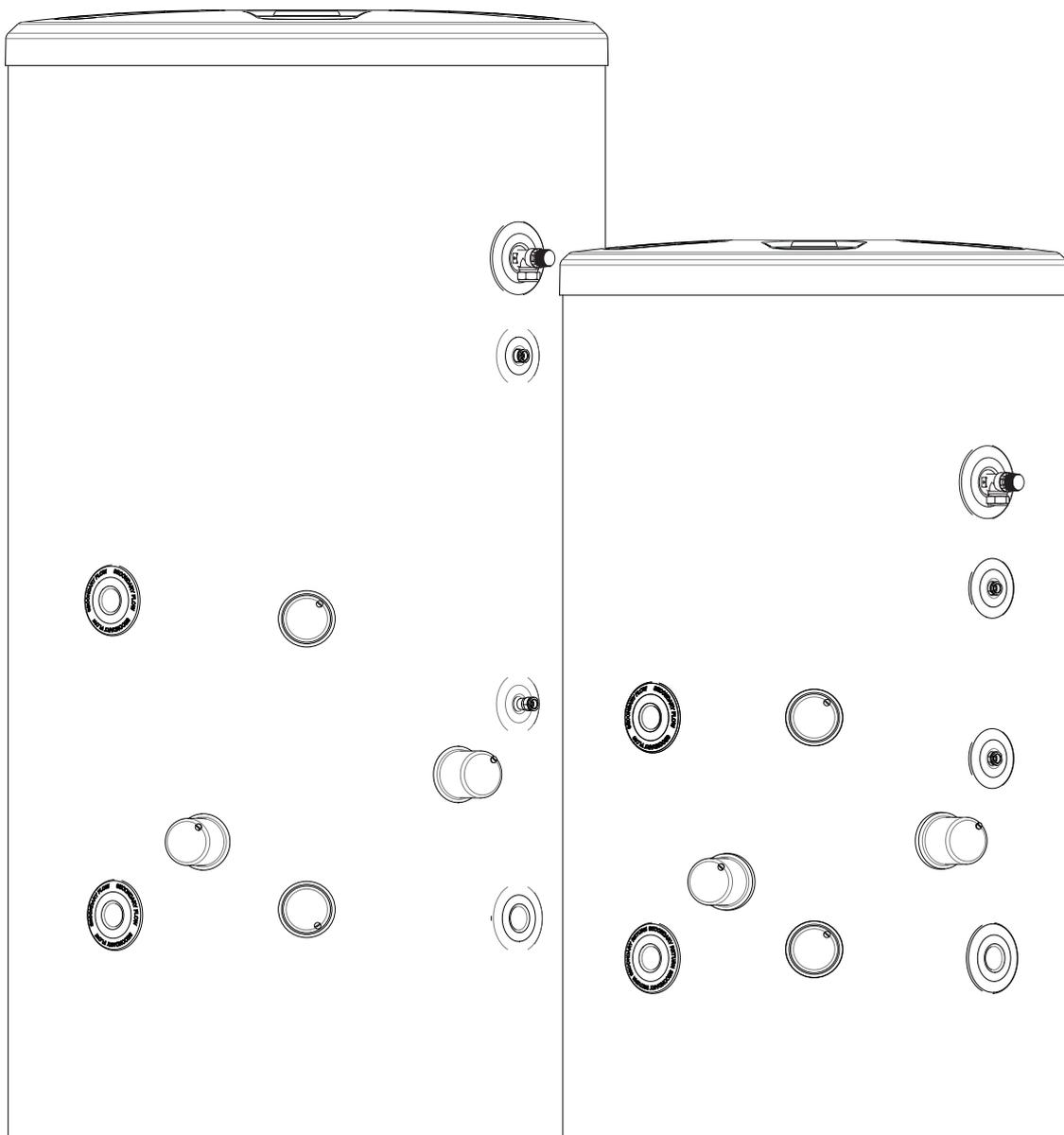




MegaFlo Eco Plus Flexistor Unvented Hot Water Cylinders 400 - 1000L



Important

Please read & understand all these instructions before commencing installation.
This cylinder range does not incorporate an internal heat exchanger.
Please leave this manual with the customer for future reference.

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THE BENCHMARK™ SCHEME

Benchmark™ places responsibilities on both manufacturers and installers. The purpose is to ensure that customers are provided with the correct equipment for their needs, that it is installed, commissioned and serviced in accordance with the manufacturer's instructions by competent persons and that it meets the requirements of the appropriate Building Regulations and relevant electrical qualifications. The Benchmark™ Checklist can be used to demonstrate compliance with Building Regulations and should be provided to the customer for future reference. Installers are required to carry out installation, commissioning and servicing work in accordance with the Benchmark™ Code of Practice which is available from the Heating and Hotwater Industry Council who manage and promote the Scheme. Visit www.centralheating.co.uk for more information.



IMPORTANT NOTE TO USER: PLEASE REFER TO THE USER GUIDE SECTION ON PAGES 34 FOR IMPORTANT INFORMATION WITH RESPECT TO THE BENCHMARK SCHEME

Introduction

Introduction

Congratulations on your purchase of a Megaflo Eco Flexistor unvented water heater. The Megaflo Eco Flexistor products are manufactured in the UK from top quality materials and meets all the latest relevant safety and constructional standards. The high grade Duplex stainless steel cylinder offers exceptional strength and corrosion resistance which is backed by a 30 year warranty* Its performance and insulation levels exceed the latest requirements of Building Regulation Part L. The Megaflo Eco Flexistor unvented water heater can be fed directly from the cold water mains supply to the property without the need for separate feed cisterns or vent pipes. It is supplied complete with all its necessary inlet and safety controls.

The Megaflo Eco Flexistor cylinder range all require a separate expansion vessel to accommodate any expanded water.

General Requirements

IMPORTANT: Please read and understand this product guide before installing the Megaflo Eco Flexistor water heater. Incorrect installation may invalidate the warranty*.

The Megaflo Eco Flexistor must be Installed, Commissioned and Maintained by a competent installer in accordance with Building Regulation G3 (England and Wales), Technical Standard P3 (Scotland) or Building Regulation P5 (Northern Ireland) and the Water Fitting Regulations (England and Wales) or Water Byelaws (Scotland).

THIS APPLIANCE CAN BE USED BY CHILDREN AGED FROM 8 YEARS AND ABOVE AND PERSONS WITH REDUCED PHYSICAL SENSORY OR MENTAL CAPABILITIES OR LACK OF EXPERIENCE AND KNOWLEDGE IF THEY HAVE BEEN GIVEN SUPERVISORY OR INSTRUCTION CONCERNING USE OF THE APPLIANCE IN A SAFE WAY AND UNDERSTAND THE HAZARDS INVOLVED. CHILDREN SHALL NOT PLAY WITH THE APPLIANCE. CLEANING AND USER MAINTENANCE SHALL NOT BE MADE BY CHILDREN WITHOUT SUPERVISION.

Also:

- water may drip from the discharge pipe of the pressure-relief device and this pipe must be left open to the atmosphere; (see page 16 for more details)
- the pressure-relief device is to be operated regularly to remove lime deposits and to verify that it is not blocked; (see page 24 for more details)
- how hot water can be drained. (see page 24 for more details)
- A discharge pipe connected to the pressure-relief device is to be installed in a continuously downward direction and in frost free environment; (see page 17 for details)

Details on how to set the temperature controls for immersion heaters can be found on pages 20 & 22.

* See Terms and Conditions of warranty on page 36

Important Notice:

When installed with the KIWA approved unvented kit Megaflo Eco Plus Flexistore cylinders are approved as meeting current water regulations.

To satisfy these regulations when the kit is not supplied it will be required that the installer ensures that all of the system components meet the required standards.

The Megaflo Eco Flexistor must be Installed (Section 2), Commissioned (Section 2) and Maintained (Section 3) by a competent installer in accordance with Building Regulation G3 (England and Wales), Technical Standard P3 (Scotland) or Building Regulation P5 (Northern Ireland) and the Water Fitting Regulations (England and Wales) or Water Byelaws (Scotland). Following Installation and Commissioning, the operation of the heater should be explained to the user (Section 4) and this product guide left with them for future reference.

Storage and Handling

Please take care when handling a packaged Megaflo Eco Flexistor. The unit is heavy and must only be moved manually within safe working practices. If the unit is to be stored before installation, it must be placed on a secure, level surface and in a dry, frost free environment.

Siting the Megaflo Eco Flexistor (See Figure 1)

The Megaflo Eco Flexistor unit must be vertically floor mounted. It can be placed anywhere convenient provided the discharge pipe(s) from its safety valves can be correctly installed. Areas that are subject to freezing must be avoided. Ensure that the floor is of sufficient strength to support the "full" weight of the unit (refer to Table 4, page 8 for unit weights). Pipe runs should be kept as short as possible for maximum economy. Access to associated controls, immersion heaters and indirect controls should be possible for servicing and maintenance of the system.

Component Checklist (If purchased through Heatrae Sadia)

Before commencing installation check that all the components for your Megaflo Eco Flexistor unit are contained in the package. The following components are supplied as standard with your Megaflo Eco Flexistor unit:

- Cold Water Inlet Control Kit, comprising of:
 - 3.5 Bar Pressure Reducing Valve
 - 8 Bar Pressure Relief Valve
- Factory fitted Temperature / Pressure Relief Valve (set at 90°C / 1 Mpa (10bar))
- Tundish (included in Cold Water Combination Valve pack)
- Expansion vessel with bracket
- Isolating valve
- Drain valve

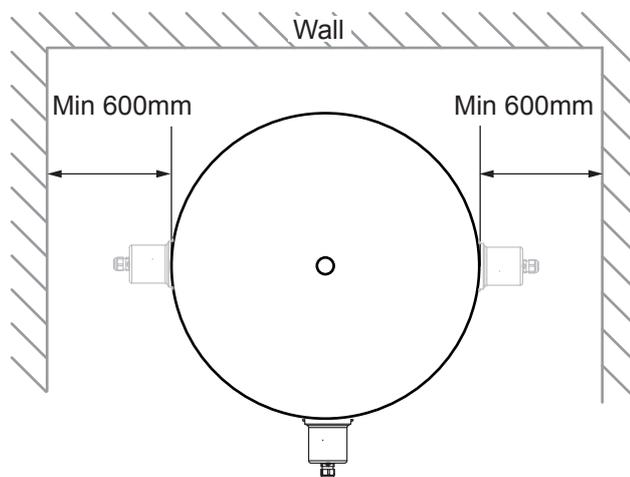


Figure 1 - Siting the unit

Outlet/Terminal Fittings (Taps, Etc.)

The Megaфло Eco Flexistor can be used in conjunction with most types of terminal fittings. It is advantageous in many mixer showers to have balanced hot and cold water supplies, in these instances the balanced cold water supply should be teed off the supply to the Megaфло Eco Flexistor after the pressure reducing valve but before the pressure relief valve (See Figure 6 page 13). Branches to cold drinking outlets should be taken before the valve. Outlets situated higher than the Megaфло Eco Flexistor unit will give outlet pressures lower than that at the heater, a 10m height difference will result in a 0.1 Mpa (1 bar) pressure reduction at the outlet fitting.

NOTE: Accessories should have a rated operating pressure of at least 0.8 MPa (8 bar).

Limitations

The Megaфло Eco Flexistor unvented water heater should not be used in any of the following instances:

- Solid fuel boilers or any other boiler in which the energy input is not under effective thermostatic control unless additional and appropriate safety measures are installed.
- Gravity circulation primaries.
- Steam heating plant unless additional and appropriate safety devices are installed.
- Ascending spray type bidets or any other Class 5 back syphonage risk requiring that a Type AA, AB, AD or AG air gap be employed.
- Water supplies that have either inadequate pressure or where the supply may be intermittent.
- Situations where it is not possible to safely pipe away any discharge from the safety valves.
- Areas where the water consistently contains a high proportion of solids, eg. suspended matter that could block the strainer, unless adequate filtration can be ensured.
- The installation must be carried out in accordance with the relevant requirements of:
 - The appropriate Building Regulations: either The Building Regulations (England), The Building Regulations (Scotland) or Building Regulations (Northern Ireland).
 - The Water Fittings Regulations (England and Wales) or Water Byelaws (Scotland).

Water Supply

Bear in mind that the mains water supply to the property will be supplying both the hot and cold water requirements simultaneously. It is recommended that the maximum water demand be assessed and the water supply checked to ensure this demand can be met.

NOTE: A high mains water pressure will not always guarantee high flow rates.

Wherever possible the main supply pipe should be in 28mm. The minimum mains water supply requirements should be 0.15 MPa (1.5 bar) working pressure and 50 litres per minute flow rate. If a smaller supply is used it could reduce the performance of the unit.

At these values outlet flowrates may be poor if several outlets are used simultaneously, the higher the available pressure and flowrate the better the system performance will be.

The Megaфло Eco Flexistor has an operating pressure of 3.5 bar which is controlled by the Cold Water Combination Valve. The Cold Water Combination Valve can be connected to a maximum mains supply pressure of 1.6 MPa (16 bar). The water supply must be of wholesome water quality (Fluid Category 1 as defined by the Water Supply Regulations 1999).

The Megaфло Eco Flexistor is to be used for the storage of wholesome water (max. 250mg/l chloride).

Electrical Supply

WARNING: THIS APPLIANCE MUST BE EARTHED. IT IS SUITABLE FOR A.C. SUPPLY ONLY. ELECTRICAL INSTALLATION MUST BE CARRIED OUT BY A COMPETENT ELECTRICIAN AND BE IN ACCORDANCE WITH THE LATEST I.E.E. WIRING REGULATIONS.

ENSURE THE ELECTRICAL SUPPLY IS SWITCHED OFF BEFORE MAKING ANY CONNECTIONS TO THE MEGAFLO ECO FLEXISTOR

The Environment

This product is made from many recyclable materials, therefore at the end of its useful life it should be disposed of at a Local Authority Recycling Centre in order to realise the full environmental benefits. Insulation is by means of an approved HCFC/CFC free polyurethane foam.

Specifications and Dimensions

Outline Specifications

| | |
|--|---------------------------------|
| Maximum mains water supply pressure (to 3.5 Bar Pressure Reducing Valve) | 1.6 MPa (16 bar) |
| Operating pressure (Pressure reducing valve set pressure – non adjustable) | 0.35 MPa (3.5 bar) |
| Pressure Relief Valve | 0.8 MPa (8 bar) |
| Temperature / Pressure Relief Valve set temp / pressure | 90°C / 1MPa (10 bar) |
| Immersion heater rating 400 -570L | 3kW @ 240V ~ 2.7kW @ 230V ~ |
| Immersion heater rating 800 - 1000L | 6kW @ 240V ~ 5.75Kw @ 230V ~ |
| Expansion vessel pre-charge pressure | 0.3MPa (3 bar) |

Outer casing:

White removable jacket

Water container:

Duplex stainless steel. 100% pressure tested to 1.5 MPa (15 bar).

Thermal insulation:

CFC/HCFC free fire retardant expanded polyurethane foam with zero ozone depletion potential. It has a Global Warming Potential (GWP) of 3.1. Nominal thickness 100mm.

Pipe connections:

All connections are 1" BSP female connections to fit 28mm pipe apart from 800 - 1000L cylinders where hot outlet is 2" BSP

Safety features:

Manually re-settable thermal cut-out on each heating element

Factory fitted Temperature / Pressure Relief Valve

Thermal cut-out for external heat source (if connected).

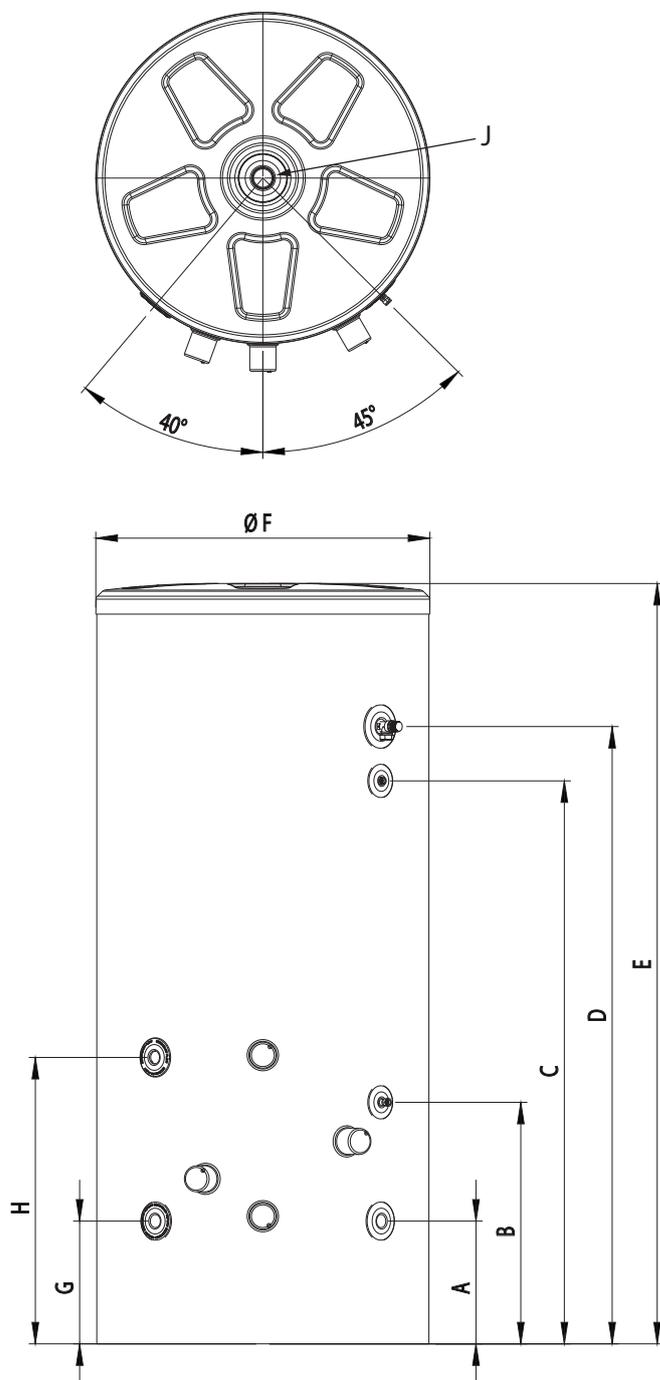


Figure 2 - Dimensions

| | Connection | 400 | - | 500 | - | 570L | Connection | 800 | - | 1000L |
|---|------------|------|---|------|---|------|------------|------|---|-------|
| A | 1" BSP | 309 | | 309 | | 309 | 1" BSP | 502 | | 502 |
| B | ½" BSP | 649 | | 649 | | 649 | ½" BSP | 744 | | 744 |
| C | ½" BSP | 939 | | 1229 | | 1394 | ½" BSP | 1009 | | 1217 |
| D | ¾" BSP | 1119 | | 1419 | | 1614 | ¾" BSP | 1263 | | 1687 |
| E | N/A | 1533 | | 1817 | | 2012 | N/A | 1502 | | 1897 |
| F | N/A | 872 | | 872 | | 872 | N/A | 1024 | | 1024 |
| G | 1" BSP | 309 | | 309 | | 309 | 1" BSP | 880 | | 880 |
| H | 1" BSP | 719 | | 719 | | 719 | 1" BSP | 1906 | | 2301 |
| J | 1" BSP | N/A | | N/A | | N/A | 2" BSP | N/A | | N/A |

Table 1 - Dimensions

| N o m i n a l Capacity (Litres) | Per Day (kWh/24h) | Per Year kWh/24h) |
|---------------------------------------|----------------------|----------------------|
| 400 | 1.72 | 627 |
| 500 | 2.14 | 781 |
| 570 | 2.44 | 890 |
| 800 | 2.74 | 1000 |
| 1000 | 3.33 | 1215 |

Table 2: Standing heat-loss

| N o m i n a l Capacity (Litres) | HEAT-UP TIMES | |
|---------------------------------------|---------------|-------------|
| | MAX kW | TIME (mins) |
| 400 | 12 | 105 |
| 500 | 12 | 131 |
| 570 | 12 | 150 |
| 800 | 24 | 95 |
| 1000 | 24 | 117 |

Table 3: Auxiliary Heating - Heat up Times

| N o m i n a l Capacity (Litres) | Unit Weight (kg) | |
|---------------------------------------|------------------|------|
| | Empty | Full |
| 400 | 81 | 481 |
| 500 | 88 | 588 |
| 570 | 92 | 662 |
| 800 | 155 | 955 |
| 1000 | 215 | 1215 |

Table 4: Cylinder weights

ErP data

| ErP Data | | | | | |
|----------------------------|------|------|-------|-------|-------|
| Model(s) | 400 | 500 | 570 | 800 | 1000 |
| Energy efficiency class | B | C | C | C | C |
| Standing loss W | 72.0 | 89.0 | 102.0 | 114.0 | 139.0 |
| Storage volume V in Litres | 400 | 500 | 570 | 800 | 1000 |

Table 5: ErP Data Information

Technical parameters in accordance with European Commission regulations 814/2013 and 812/2013

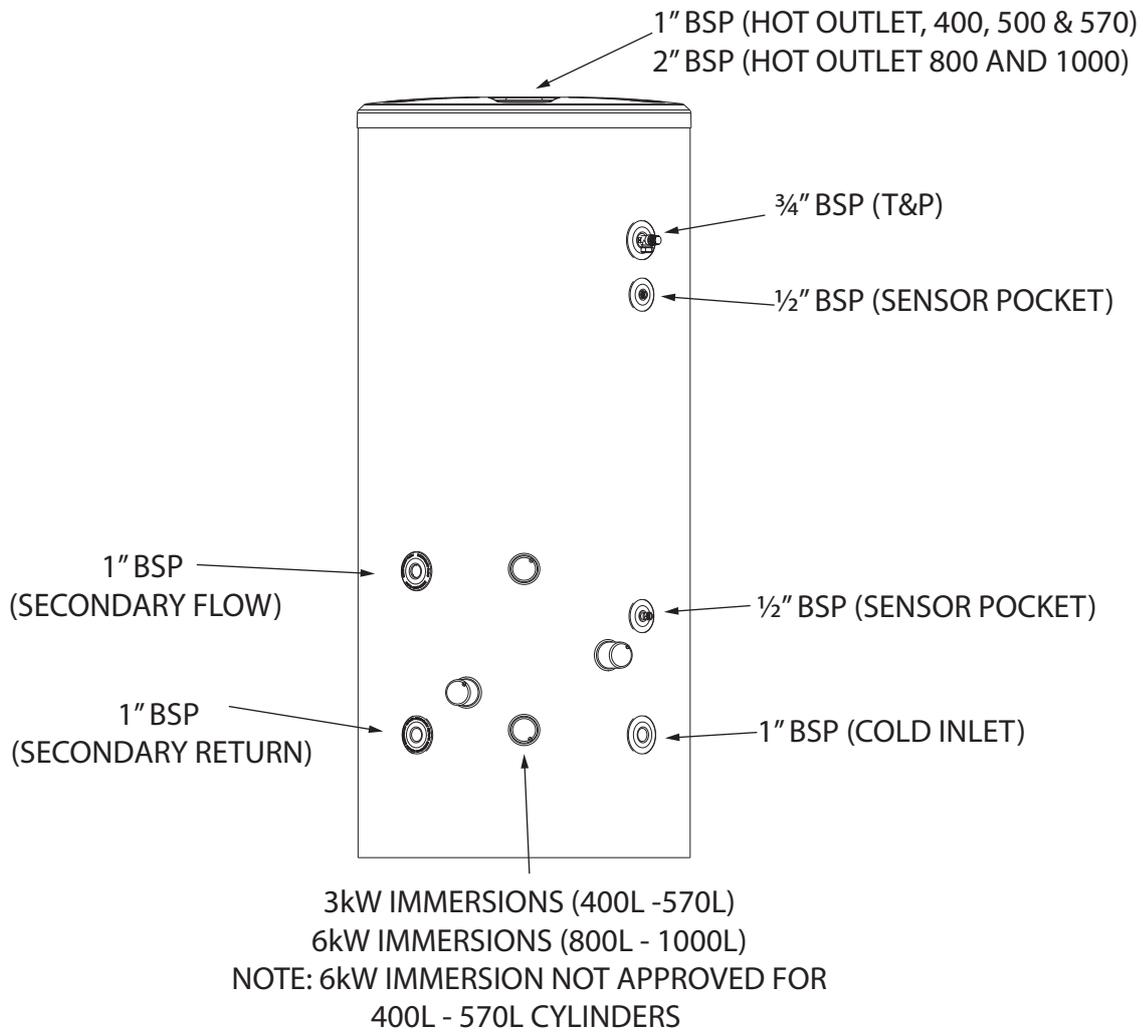


Figure 3 - Connections

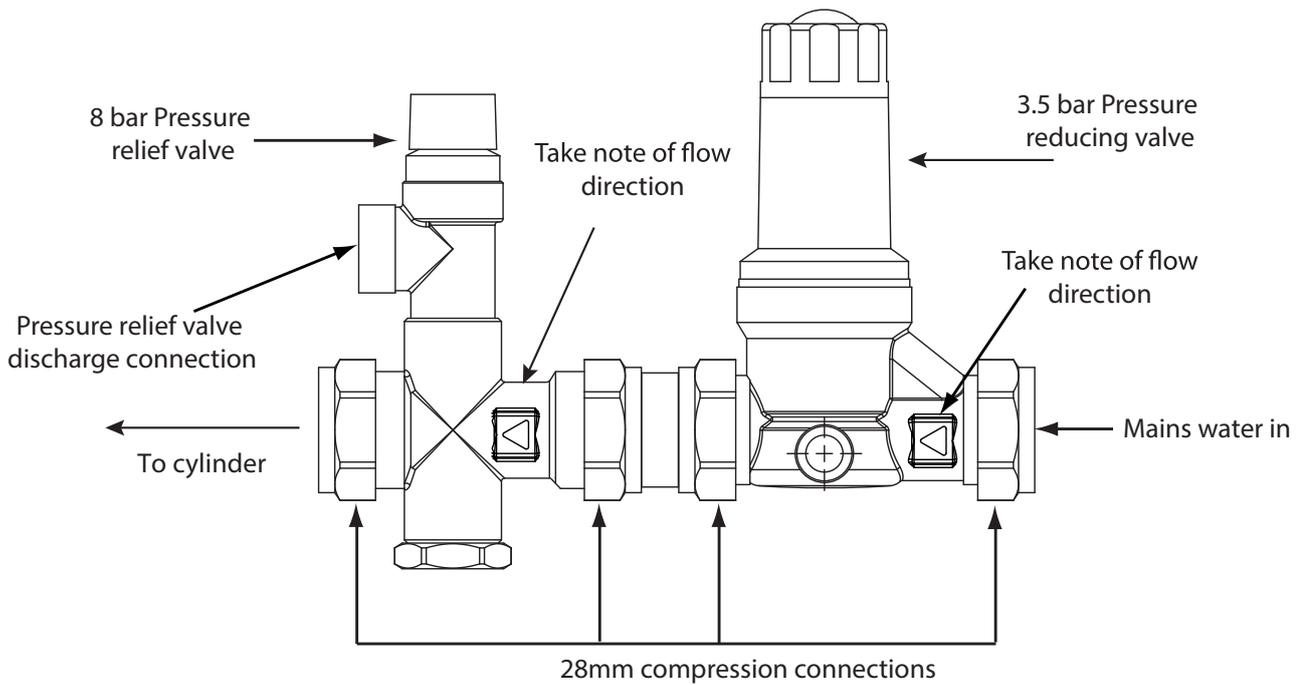


Figure 4 - Inlet valve set incorporating 3.5 pressure reducing valve

General Installation

Pipe Fittings

All pipe connections to the Megaflo Eco Flexistor 400 - 500L are 1" BSP female to fit 28mm pipe. All pipe connections to the Megaflo Eco Flexistor 800 - 1000L are 1" BSP female to fit 28mm pipe except hot outlet pipe which is 2" BSP female.

Cold Water Supply

A 28mm cold water supply is recommended, however, if a 22mm (3/4") supply exists which provides sufficient flow (see Section 1 Page 5 "Water Supply") this may be used. More flow noise may be experienced from small bore pipes due to the increased water velocity through them.

3.5 Bar Pressure Reducing Valve

The 3.5 Bar Pressure Reducing Valve can be connected anywhere on the cold water mains supply prior to the Megaflo Eco Flexistor unit. There is no requirement to site it close to the unit, it can be located at a point where the mains supply enters the premises if this is more convenient but you must install a non-return valve just after the reducing valve for ease of maintenance.

The 3.5 Bar Pressure Reducing Valve can be installed as a complete one-piece unit or split. The valve incorporates a factory set, non-adjustable Pressure Reducer / Strainer. The valve can be fitted in any orientation to suit the installation, however, ensure that the valve is installed with the direction of flow arrows (stamped on the side of the brass body) pointing towards the Megaflo Eco Flexistor heater.

8 Bar Pressure Relief Valve

This should be installed between the 3.5 bar Pressure Reducing Valve and the Megaflo Eco Flexistor cylinder.

Branches to drinking water outlets should be taken before the 8 Bar Pressure Relief Valve to avoid the possibility of warm expanded water being drawn from the tap.

Balanced take-off

Should a balanced pressure cold water draw off supply be required for the cold water outlets, this should be taken off between the 3.5 bar Pressure Reducing Valve and 8 bar Pressure Relief Valve (see Figure 6, page 13).

Drain Tap

A drain tap is supplied and should be installed in the cold water supply to the Megaflo Eco Flexistor unit between the 8 Bar Pressure Relief Valve and the heater at as low a level as possible (see Figure 5, page 12). It is recommended that the outlet point of the drain pipe work be at least 1 metre below the level of the heater (this can be achieved by attaching a hose pipe to the drain tap outlet spigot). The drain tap supplied provides very good water flow control and blanking cap for extra security.

Outlet Pipework

Ideally the pipework from the Megaflo Eco Flexistor to the outlet fittings should be in 28mm pipe with short runs of 22mm and 15mm pipe to showers and basin taps. Small bore pipe can also be used to suit some taps, but runs should be of minimum length. Pipe sizes may vary due to system design.

Secondary Circulation

If a secondary circulation system is required it is recommended that it be connected to the Megaflo Eco Flexistor as shown in Figure 5, page 12. The secondary return pipe should be in 22mm pipe as a minimum and incorporate a check valve to prevent backflow. A suitable **WRAS** circulation pump will be required.

De-stratification kits

The correct size of de-stratification kit must be used with your cylinder to ensure the volume can be circulated in 1 hour. The pump instructions will need to be reviewed for information on the correct setting. Please follow the installation schematic (Figure 2, page 5) for guidance. When the system circulates it needs to be specified by the installer to ensure water is not drawn off during the de-stratification process. If a hot water demand is required during this period cold water may be discharged from the hot outlet. It is recommended that a check valve be installed before the pump to stop any risk of cold water draw off through the pump when it is not in use. For guidance on installation please refer to Figure 5, page 12.

Tundish

The tundish should not be located adjacent to any electrical components.

Note:

On large systems, due to the increase in system water content, it may be necessary to fit additional expansion volume to the secondary system by fitting an external expansion vessel to the circuit. This should be done if the capacity of the secondary circuit exceeds 10 litres.

Pipe capacities (copper)

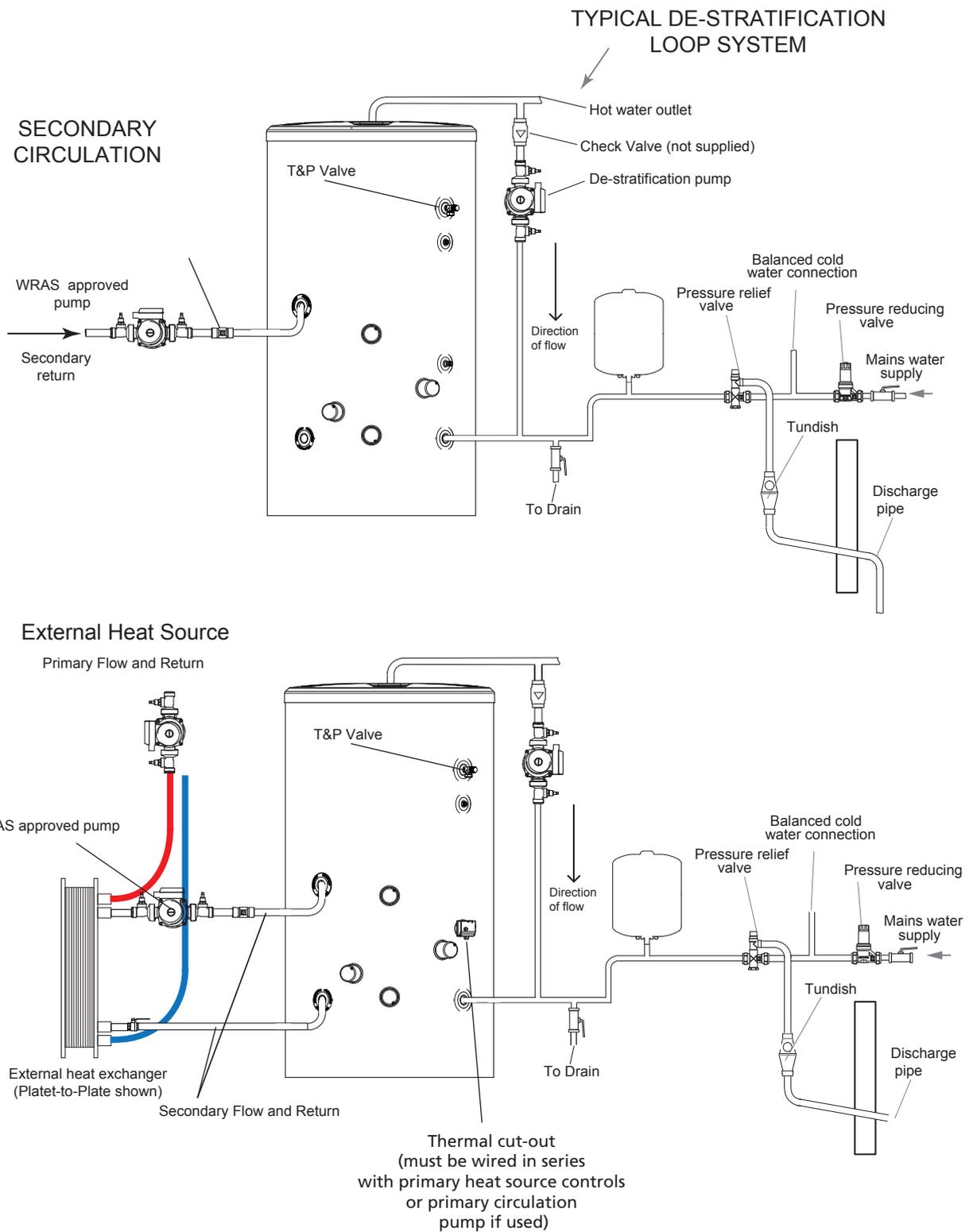
15mm o/d = 0.13 litres per metre run (10 litres = 77m)

22mm o/d = 0.38 litres per metre run (10 litres = 26m)

28mm o/d = 0.55 litres per metre run (10 litres = 18m)

Note:

In direct electric installations where a secondary circulation is required particular attention should be paid by the installer to maintain the returning water temperature (guidelines state that a minimum of 55°C return temperature is advisable). Factors such as, but not limited to, secondary circulation flow rates, minimising heat loss of all secondary circuit pipework and timed operation during periods of high demand are critical to the correct operation and longevity of the heating element(s) and thermostats.



Notes:

1. Primary heat source must be able to cope with working pressure of cylinder.
2. Secondary flow and return is wholesome water only.
3. There is no internal heat exchanger fitted to this cylinder range.

Please note, that these are typical installations and other options are permissible

FIGURE 5 - Schematic Installation Details (Guidance Only)

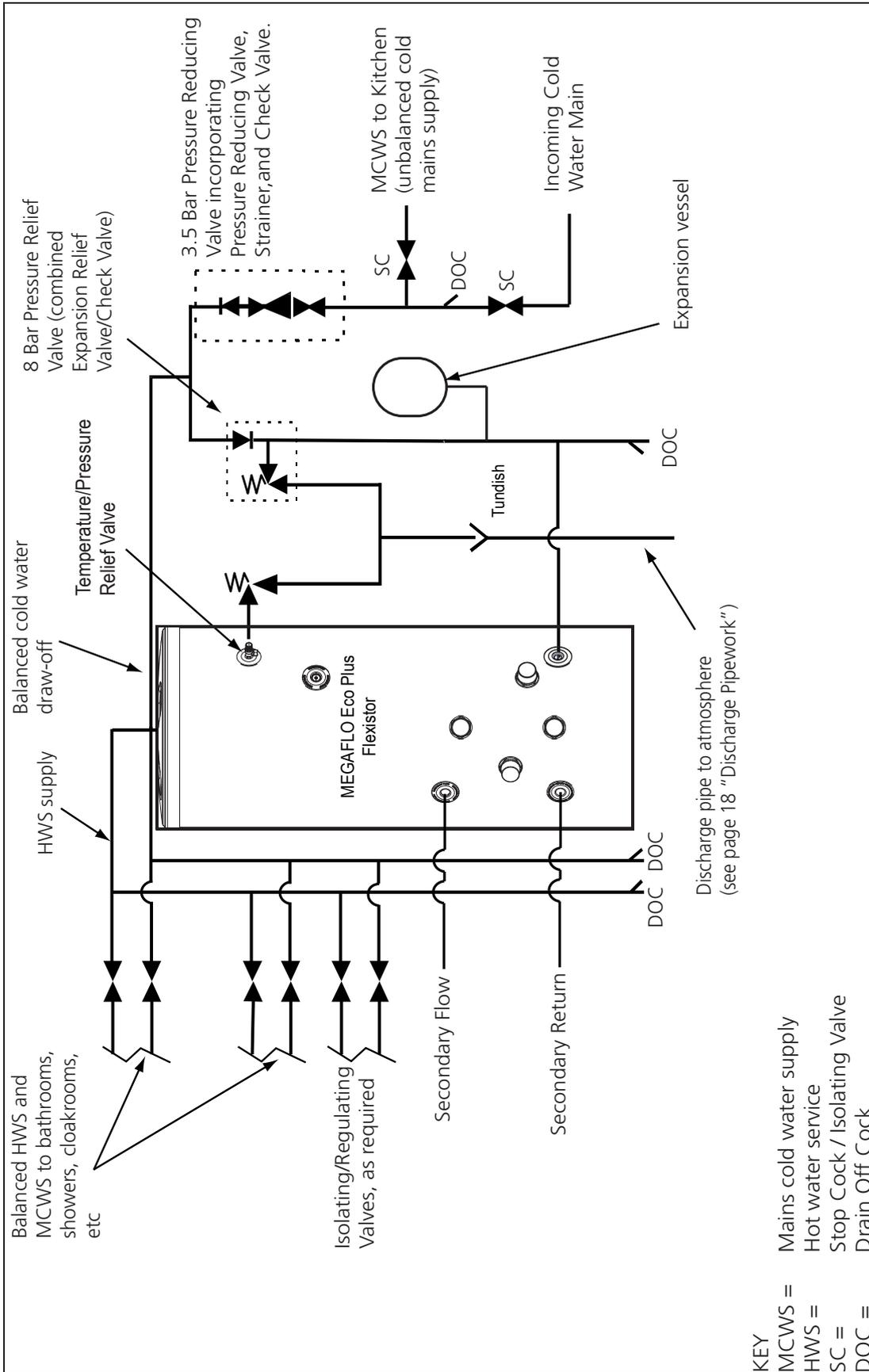


Figure 6 - Schematic Installation diagram using 3.5 bar pressure reducing valve in conjunction with 8 bar pressure relief valve

The following extract is taken from latest G3 Regulations

Discharge pipes from safety devices

Discharge pipe D1

3.50 Safety devices such as **temperature relief valves or combined temperature and pressure relief valves** (see paragraphs 3.13 or 3.18) should discharge either directly or by way of a manifold via a short length of metal pipe (D1) to a **tundish**.

3.51 The diameter of discharge pipe (D1) should be not less than the nominal outlet size of the safety device, e.g. **temperature relief valve**.

3.52 Where a manifold is used it should be sized to accept and discharge the total discharge from the discharge pipes connected to it.

3.53 Where valves other than a **temperature and pressure relief valve** from a single unvented hot water system discharge by way of the same manifold that is used by the safety devices, the manifold should be factory fitted as part of the **hot water storage system unit** or package.

Tundish

3.54 The **tundish** should be vertical, located in the same space as the unvented **hot water storage system** and be fitted as close as possible to, and lower than, the safety device, with no more than 600mm of pipe between the valve outlet and the **tundish** (see Diagram 1).

Note: To comply with the Water Supply (Water Fittings) Regulations, the tundish should incorporate a suitable air gap.

3.55 Any discharge should be visible at the tundish. In addition, where discharges from safety devices may not be apparent, e.g. in dwellings occupied by people with impaired vision or mobility, consideration should be given to the installation of a suitable safety device to warn when discharge takes place, e.g. electronically operated.

Discharge pipe D2

3.56 The discharge pipe (D2) from the **tundish** should:

- a. have a vertical section of pipe at least 300mm long below the tundish before any elbows or bends in the pipework (see Diagram 1); and
- b. be installed with a continuous fall of at least 1 in 200 thereafter.

3.57 The discharge pipe (D2) should be made of:

- a. metal; or
- b. other material that has been demonstrated to be capable of safely withstanding temperatures of the water discharged and is clearly and permanently marked to identify the product and performance standard (e.g. as specified in the relevant part of BS 7291- 1:2006 Thermostatic pipes and fittings for hot and cold water for domestic purposes and heating installations in buildings. General requirements).

3.58 The discharge pipe D2 should be at least one pipe size larger than the nominal outlet size of the safety device unless its total equivalent hydraulic resistance exceeds that of a straight pipe 9m long, i.e. for discharge pipes between 9m and 18m the equivalent resistance length should be at least two sizes larger than the nominal outlet size of the safety device; between 18 and 27m at least 3 sizes larger, and so on; bends must be taken into account in calculating the flow resistance. See Diagram 1, Table 3.1 and the worked example.

Note: An alternative approach for sizing discharge pipes would be to follow Annex D, section D.2 of BS 6700:2006 + A1:2009 Specification for design, installation, testing and maintenance of services supplying water for domestic use within buildings and their curtilages.

3.59 Where a single common discharge pipe serves more than one system, it should be at least one pipe size larger than the largest individual discharge pipe (D2) to be connected.

3.60 The discharge pipe should not be connected to a soil discharge stack unless it can be demonstrated that the soil discharge stack is capable of safely withstanding temperatures of the water discharged, in which case, it should:

- a. contain a mechanical seal, not incorporating a water trap, which allows water into the branch pipe without allowing foul air from the drain to be ventilated through the **tundish**;
- b. be a separate branch pipe with no **sanitary appliances** connected to it;
- c. if plastic pipes are used as branch pipes carrying discharge from a safety device, they should be either polybutalene (PB) or crosslinked polyethylene (PE-X) complying with national standards such as Class S of BS 7291-2:2006 or Class S of BS 7291-3:2006 respectively; and
- d. be continuously marked with a warning that no **sanitary appliances** should be connected to the pipe.

Notes:

1. Plastic pipes should be joined and assembled with fittings appropriate to the circumstances in which they are used as set out in BS EN ISO 1043-1:2002 Plastics. Symbols and abbreviated terms. Basic polymers and their special characteristics.
2. Where pipes cannot be connected to the stack it may be possible to route a dedicated pipe alongside or in close proximity to the discharge stack.

Termination of discharge pipe

3.61 The discharge pipe (D2) from the **tundish** should terminate in a safe place where there is no risk to persons in the vicinity of the discharge.

3.62 Examples of acceptable discharge arrangements are:

- a. to a trapped gully with the end of the pipe below a fixed grating and above the water seal;
- b. downward discharges at low level; i.e. up to 100mm above external surfaces such as car parks, hard standings, grassed areas etc. are acceptable providing that a wire cage or similar guard is positioned to prevent contact, whilst maintaining visibility; and,
- c. discharges at high level: e.g. into a metal hopper and metal downpipe with the end of the discharge pipe clearly visible or onto a roof capable of withstanding high temperature discharges of water and 3 m from any plastic guttering system that would collect such discharges.

3.63 The discharge would consist of high temperature water and steam. Asphalt, roofing felt and nonmetallic rainwater goods may be damaged by such discharges.

Discharge Pipework

It is a requirement of Building Regulations that any discharge from an unvented system is conveyed to where it is visible, but will not cause danger to persons in or about the building. The tundish and discharge pipes should be fitted in accordance with the requirements and guidance notes of Building Regulations. Building Regulation G3 Requirements and Guidance section 2 (page 17) are reproduced in the following sections.

For discharge pipe arrangements not covered by G3 Guidance advice should be sought from your local Building Control Officer. Any discharge pipe connected to the pressure relief devices (Expansion Valve and Temperature / Pressure Relief Valve) must be installed in a continuously downward direction and in a frost free environment.

The water may drip from the discharge pipe of the pressure relief device and that this pipe must be left open to the atmosphere. The pressure relief device is to be operated regularly to remove lime deposits and to verify that it is not blocked.

G3 Requirement

"...there shall be precautions...to ensure that the hot water discharged from safety devices is safely conveyed to where it is visible but will not cause danger to persons in or about the building".

Worked example of discharge pipe sizing

The example on page 18 (G3 Guidance notes) is for a G $\frac{1}{2}$ temperature relief valve with a discharge pipe (D2) having 4 No. elbows and length of 7m from the tundish to the point of discharge.

From Table 5:

Maximum resistance allowed for a straight length of 22mm copper discharge pipe (D2) from a G $\frac{1}{2}$ temperature relief valve is 9m.

Subtract the resistance for 4 No. 22mm elbows at 0.8m each = 3.2m

Therefore the permitted length equates to: 5.8m

5.8m is less than the actual length of 7m therefore calculate the next largest size.

Maximum resistance allowed for a straight length of 28mm pipe (D2) from a G $\frac{1}{2}$ temperature relief valve equates to 18m.

Subtract the resistance of 4 No. 28mm elbows at 1m each = 4m

Therefore the maximum permitted length equates to: 14m

As the actual length is 7m, a 28mm (D2) copper pipe will be satisfactory.

Notes:

- 1) Discharge pipe-work D2 can now be a plastic pipe but only pipes that have been tested to a minimum 110°C must be used.
- 2) Discharge pipe D2 can now be plumbed in the soil stack but only soil stacks that can handle temperatures of 99°C or greater should be used.
- 3) The tundish must be installed away from any electrical components.

| VALVE OUTLET SIZE | MINIMUM SIZE OF DISCHARGE PIPE D1 | MINIMUM SIZE OF DISCHARGE PIPE D2 FROM TUNDISH | MAXIMUM RESISTANCE ALLOWED, EXPRESSED AS A LENGTH OF STRAIGHT PIPE (I.E. NO ELBOWS OR BENDS) | RESISTANCE CREATED BY EACH ELBOW OR BEND |
|-------------------|-----------------------------------|--|--|--|
| G 1/2 | 15mm | 22mm 28mm 35mm | UP TO 9m UP TO 18m UP TO 27m | 0.8m 1.0m 1.4m |
| G 3/4 | 22mm | 28mm 35mm 42mm | UP TO 9m UP TO 18m UP TO 27m | 1.0m 1.4m 1.7m |
| G 1 | 28mm | 35mm 42mm 54mm | UP TO 9m UP TO 18m UP TO 27m | 1.4m 1.7m 2.3m |

Table 6 - Sizing of copper discharge pipe "D2" for common T&P Relief Valve sizes.

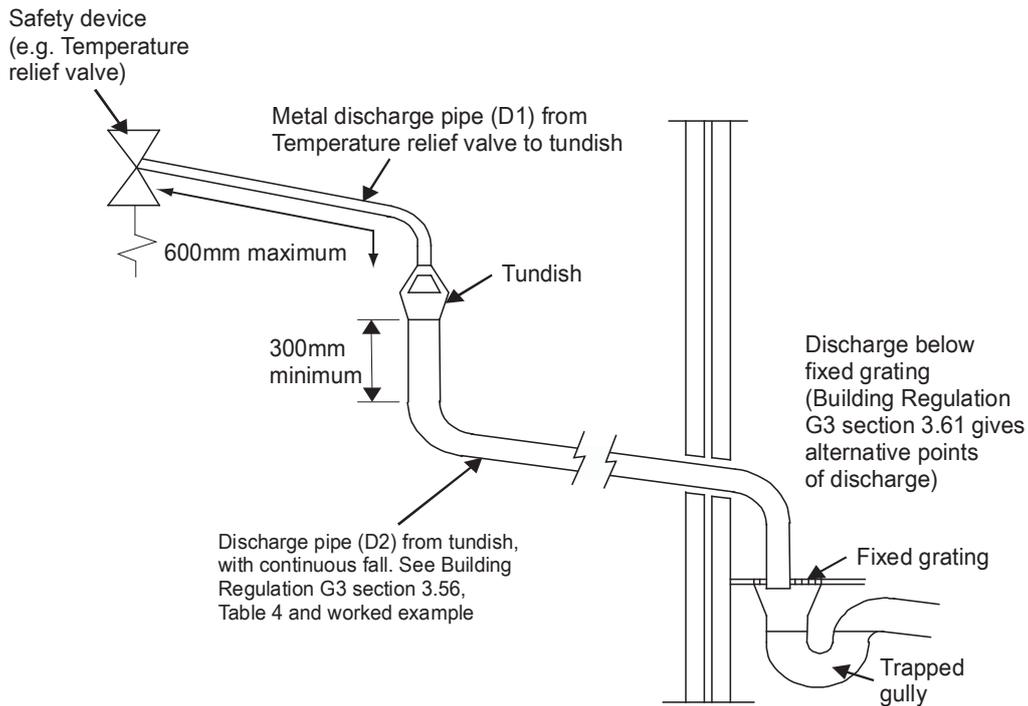


Figure 7 - D1 and D2 schematic

Wiring

All electrical wiring should be carried out by a competent electrician and be in accordance with the latest I.E.E. Wiring Regulations.

Immersion Heater(s)

The Megaflo Eco Flexistor can be supplied with four immersion heaters. Each immersion heater is rated 3kW at 240V~ or 6kW at 240V~

To remove the immersion heater:

Depressurise the cylinder and drain down. Disconnect the immersion from the mains electrical supply taking care that the cylinder may have two supplies to it. Remove the immersion cover and disconnect the wiring from the thermostat. Withdraw the thermostat from the immersion heater and put aside. With the aid of a large box spanner unscrew the immersion heater from the cylinder. No attempt should be made by the end user to remove the immersion heater (or any other device) from this cylinder. This must be done by a qualified person.

Replacement

Before replacement make sure the boss thread is clean and free from any debris. Make sure the "O" ring on the immersion heater is in place and in good condition. Screw in the immersion heater making a watertight seal. Replace the thermostat making sure the pins align with the female receptacles on the immersion heater. Refill the cylinder with water and check for leaks. Connect up the Immersion heater to the electrical supply. Turn on the supply and set the thermostat to the desired water temperature (60°C - 65°C is recommended).

Wiring (See Figures 8, 9,10 & 11 Pages 19-21)

All electrical wiring should be carried out by a competent electrician and be in accordance with the latest I.E.E. Wiring Regulations. Each circuit must be protected by a suitable fuse and double pole isolating switch with a contact separation of at least 3mm in both poles. The immersion heater(s) should be wired in accordance with Figure 8, page 19 or Figure 11, page 21. The immersion heaters MUST be earthed. The supply cable must meet minimum requirements for power requirements, see table ?? and must be routed through the cable gland provided with the outer sheath of the cable firmly secured by tightening the screw on the cable gland. Replace the immersion heater cover(s) before operating ensuring that the threaded edge clip is in position to provide a suitable thread for the cover screw.

DO NOT OPERATE THE IMMERSION HEATER(S) UNTIL THE MEGAFLO ECO FLEXISTOR HAS BEEN FILLED WITH WATER.

Operation

It is recommended that the immersion heater thermostats are set to between position 4 and 5 (60° - 65°C), however they can be set between 1 and 5 (10° and 70°C). The thermostat incorporates a thermal cut-out that will switch off the immersion heater in the event of a thermostat failure. The thermal cut-out reset button position is indicated on Diagram 13. DO NOT bypass the thermal cut-out in any circumstances.

3kW - Single phase Immersion

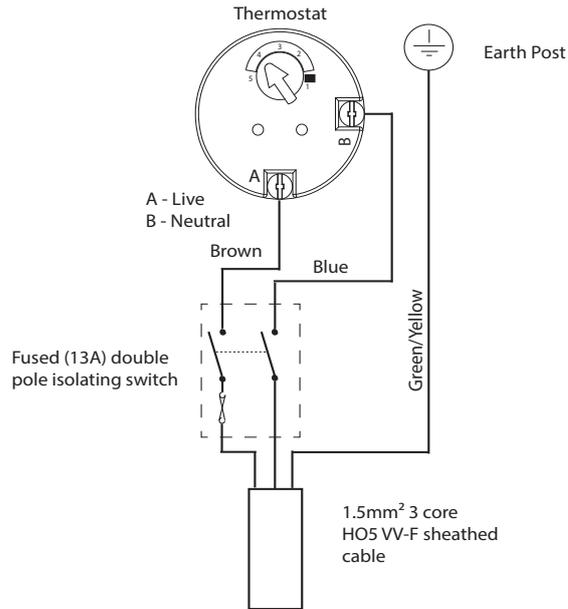


Figure 8 - Auxiliary wiring schematic, 3kW

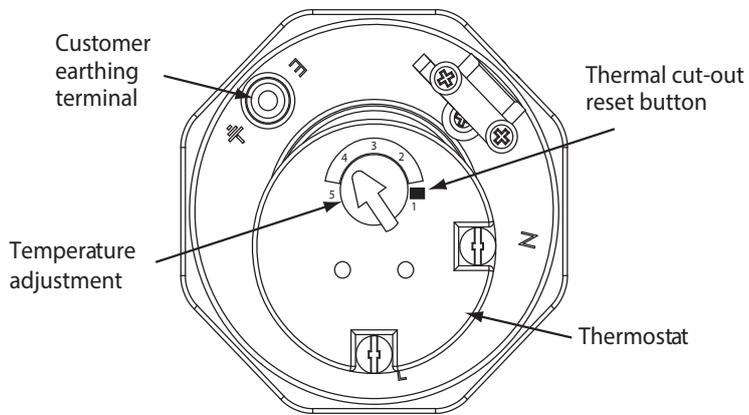
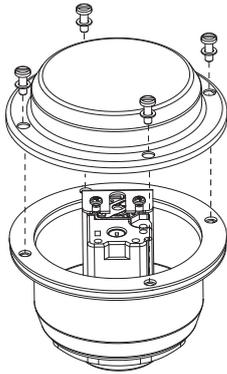
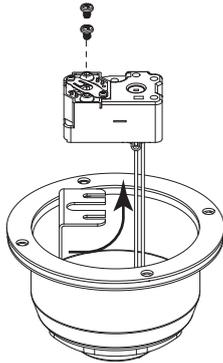


Figure 9 - Adjustment details, 3kW

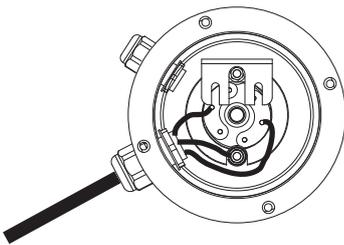
6kW immersion



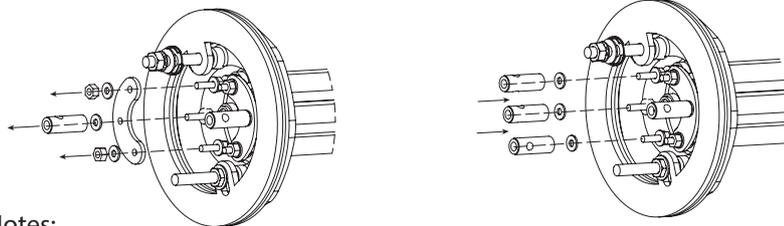
Step 1:
- remove 4 retaining screws and lift lid off immersion heater



Step 2:
- remove 2 screws holding thermostatic controls and slide out thermostat from stat pocket.



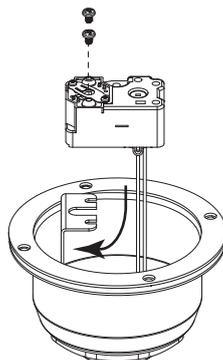
Step 3:
- Wire up immersion as per figures 6 or 7, page 9. If three phase wiring chosen remove "Live" side buzz bar and fit extra posts (supplied) to L1, L2 & L3. (outer case and bracket removed for clarity)



Notes:

For single phase wiring use 4mm² H07RNF 3 Core
Use 2 x Two Pole 40A contactors for single phase
For 3 phase use Five core 1mm² Fused at max 10A
Use 2 x Three Pole 16A per pole contactors for 3 phase
For signal wire use 5 core 1mm² Fused at max 6A for thermostat and thermal cut-out controls.

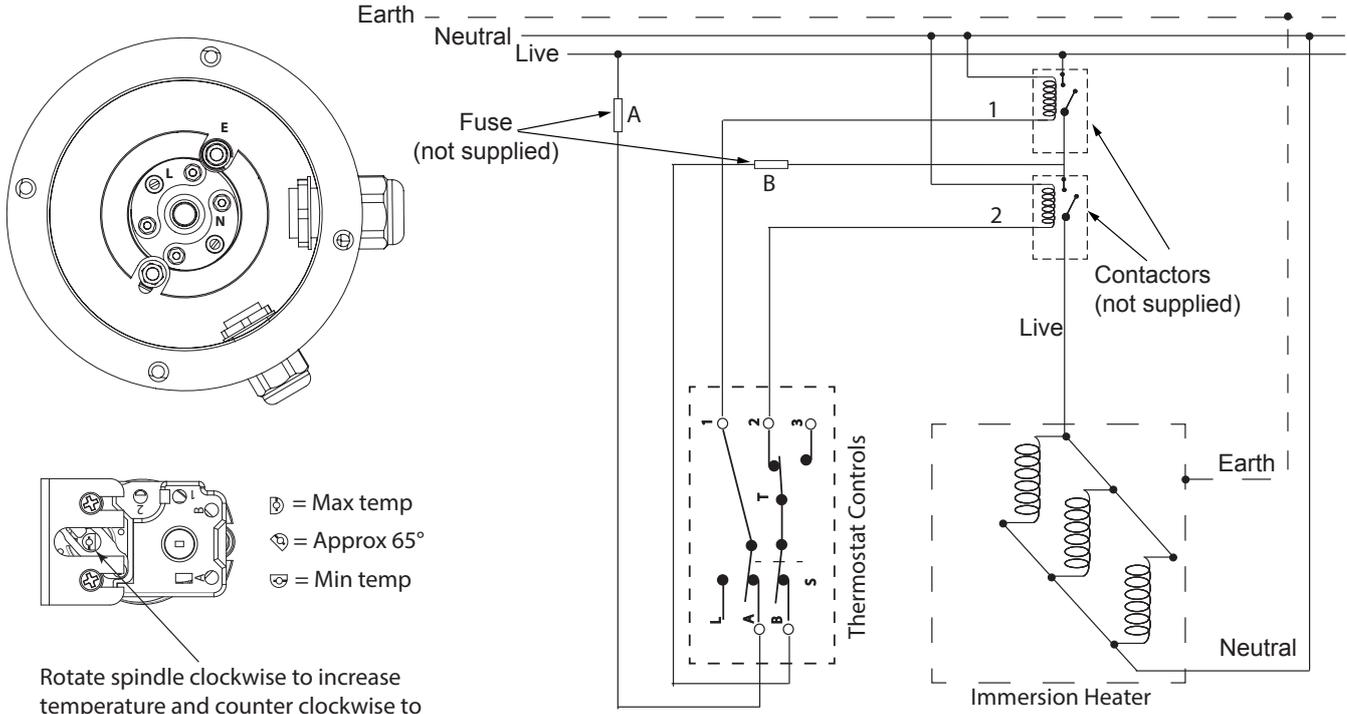
Disconnection time of the circuit protective device must be maintained below the regulatory minimum (in the UK 5 seconds for fixed equipment), cable sizes may have to be higher depending on the characteristics of the installation supply.



Step 4:
Replace thermostatic controls taking care when inserting the capillary bulbs into stat pocket and wire up as per figure 6 or 7, page 9.

Figure 10: Immersion head assembly - 6kW

Single phase wiring schematic



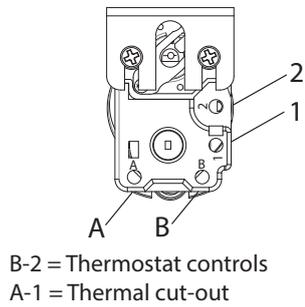
- = Max temp
- = Approx 65°
- = Min temp

Rotate spindle clockwise to increase temperature and counter clockwise to decrease the temperature

Note:
The 2 external contactors must be approved components certified for 10,000 cycles of operation for the contactor controlled by the thermostat and at least 30 for the contactor controlled by the non-self-resetting thermal cut-out.

INSTALLATION AND COMMISSIONING (2)

3 phase wiring schematic



B-2 = Thermostat controls
A-1 = Thermal cut-out

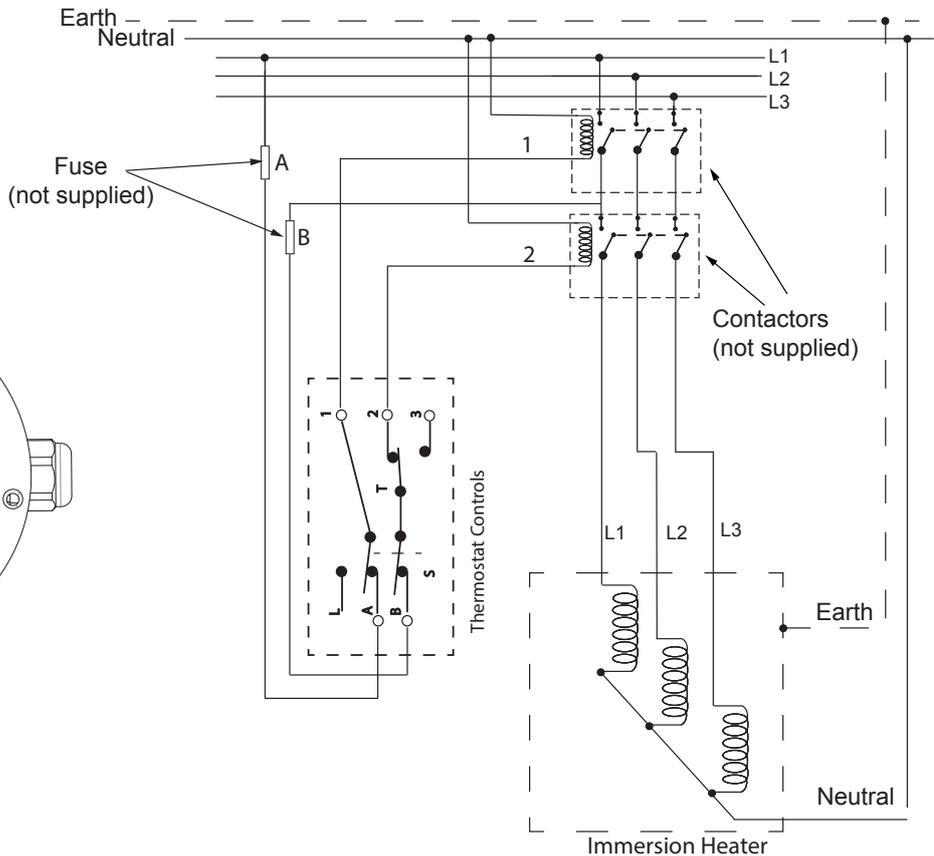
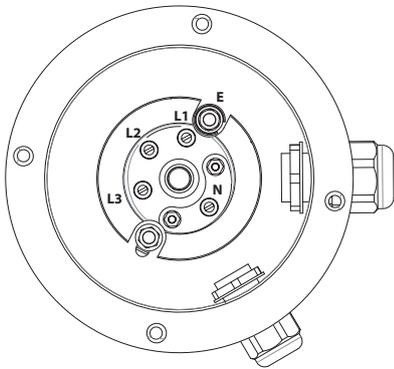


Figure 11: Three phase wiring schematic - 6kW

Commissioning

Filling and flushing the Megaflo Eco Flexistor

Ensure that all fittings and immersion heaters are correctly fitted and tightened.

- i) Open a hot tap furthest from the Megaflo Eco Flexistor .
- ii) Open the isolating valve on the 3.5 Bar Pressure Reducing Valve by turning the blue handle on the stop cock (if fitted in this position) so that it lies parallel to the direction of flow. Open the mains stop cock to fill the unit. When water discharges from the tap, allow to run for a few minutes to thoroughly flush through any residue, dirt or swarf, then close tap.
- iii) Open successive hot taps to purge any air from the system.
- iv) Check all connections for leaks and rectify as necessary.
- v) The Strainer housed within the 3.5 Bar Pressure Reducing Valve should be cleaned to remove any debris that may have been flushed through the main supply pipe. Refer to Section 3, Page 22 for instructions on how to do this.

Check the operation of the Safety Valves

- i) Slowly, manually open (turn black knob on end counter-clockwise), for a few seconds, the Temperature and Pressure Relief Valve (T&P Valve) situated on the Megaflo Eco Flexistor unit (see Figure 5, page 12). Check water discharged runs freely away through the tundish and discharge pipework. Close valve, ensure water flow stops and valve reseats correctly.
- ii) Repeat for the 8 Bar Pressure Relief Valve (see Figure 4, page 9).

Auxiliary Immersion heaters 3kW

Switch on the electrical supply to the immersion heater(s) and allow the unit to heat up. Check that the thermostat operates correctly. A storage temperature of approx. 60°C is recommended (between graduations 4 and 5 on the thermostat). If necessary the temperature can be adjusted by inserting a flat bladed screwdriver in the adjustment arrow on top of the immersion heater thermostat and rotating (see Fig 9, page 19). The adjustment range 1 to 5 represents a temperature range of between 10° and 70°C.

Auxiliary Immersion heaters 6kW

Switch on the electrical supply to the immersion heater(s) and allow the unit to heat up. Check that the thermostat operates correctly. A storage temperature of approx. 60°C is recommended. If necessary the temperature can be adjusted by inserting a flat bladed screwdriver in the adjustment arrow on top of the immersion heater thermostat and rotating (see Fig 11, page 21).

Check that no water is discharged from either the Expansion Valve or Temperature and Pressure Relief Valve during the heating cycle.

Benchmark™ Log Book

On completion of the installation and commissioning procedures detailed in this manual the Benchmark™ "Installation, Commissioning and Service Record Log, pages 30 and 31 should be completed and signed off by the competent installer or commissioning engineer in the relevant sections. The various system features, location of system controls, user instructions and what to do in the event of a system failure should be explained to the customer. The customer should then countersign the Benchmark™ commissioning checklist (page 30) to accept completion. The Service Record should be filled in when any subsequent service or maintenance operation is carried out on the Megaflo Eco Flexistor unit (See Maintenance and Servicing, page 24).

Maintenance

Maintenance requirements

To ensure the continued optimum performance of the Megaflo Eco Flexistor it should be regularly maintained. This is of particular importance in hard water areas or where the water supply contains particulate matter. Maintenance should be carried out by a competent person and any replacement parts used should be authorised Megaflo Eco Flexistor spare parts. It is recommended that maintenance is carried out every 12 months and includes the checks detailed below.

In hard water areas consideration should be given to periodically de scaling the immersion heater elements. To do this the Megaflo Eco Flexistor unit will need to be drained, details below list how to drain the unit and remove the immersion heater(s).

Check operation of Safety Valves

Slowly open the Temperature and Pressure Relief Valve by twisting its cap for a few seconds. Check water is discharged and that it flows freely through the tundish and discharge pipe work. Check valve reseats correctly when released.

NOTE: The water discharged may be very hot.

Repeat the procedure for the 8 Bar Pressure Relief Valve.

Clean the strainer

The strainer is incorporated within the Pressure Reducing Valve housing of the Cold Water Combination Valve (see Figure 4, Page 9). To inspect and clean the strainer:

- i) Turn off the isolating valve to the 3.5 Bar Pressure Reducing Valve or the main stop cock to the house.
- ii) Open the lowest hot tap in the system to relieve the system pressure.
- iii) Using a spanner unscrew the pressure reducing cartridge and remove the moulded housing. The strainer will be removed with the cartridge.
- iv) Wash any particulate matter from the strainer under clean running water.
- v) Replace the strainer and screw the Pressure Reducing Valve cartridge into the moulded housing.
- vi) Close hot tap, turn on isolating valve by turning handle so it lies parallel to the direction of flow. Check for leaks.

Draining the Megaflo Eco Flexistor unit

Switch off the electrical supply to the immersion heater(s) and shut down the boiler on indirect units. Turn off the mains water supply to the Megaflo Eco Flexistor unit. Attach a hosepipe to the drain cock having sufficient length to take water to a suitable discharge point below the level of the unit, at least one metre below the unit is recommended. Open hot water tap nearest to the Megaflo Eco Flexistor to relieve the system pressure. Open drain cock. If water fails to drain from the Megaflo Eco Flexistor vent the unit by manually opening the Temperature / Pressure Relief Valve.

De-scaling immersion heater(s)

After making sure the electrical supply has been switched off and the cylinder drained down remove the cover to the immersion heater and disconnect the power cable. With a suitable tool unscrew the immersion from the housing. Take care of the "O" ring on the immersion housing and replace if worn. Carefully remove any scale from the surface of the element(s). DO NOT use a sharp implement as damage to the element surface could be caused. Ensure sealing surfaces are clean and seals are undamaged, if in doubt fit a new "O" ring.

To refit the element make sure the housing is clean and free from any contamination, screw the element in, taking care not to damage the "O" ring. If more than one element has been removed repeat the operation until all elements have been replaced. Refill the cylinder and check for leaks. Rewire the immersions as per Figure 8, page 20 or Figure 11, page 22. Close and secure terminal cover(s).

Note:

If the cylinder needs to be inspected internally this can be done via the immersion heater boss.

Refilling system

DO NOT switch on the immersion heater(s) or boiler until the system has been completely refilled.

Close the drain tap. With the hot tap open, turn on mains water supply. When water flows from the hot tap allow to flow for a short while to purge air and to flush through any disturbed particles. Close hot tap and then open successive hot taps in system to purge any air. The electrical supply can now be switched on.

Expansion vessel charge pressure

- i) Remove the dust cap on top of the vessel.
- ii) De-pressurise the system by turning the mains supply off and then opening a hot tap.
- iii) Check the charge pressure using a tyre pressure gauge. The pressure must be set in accordance with the inlet pressure set on the pressure reducing valve.
- iv) If it is lower than the required setting it should be recharged using a tyre pump (Schrader valve type).
- v) Re-check the pressure and when correct replace the dust cap.

CAUTION: DO NOT OVER-CHARGE THE EXPANSION VESSEL

Benchmark™

On completion of any maintenance or service of the Megaflo Eco Flexistor, the Benchmark™ "Installation, Commissioning and Service Record" should be filled in to record the actions taken and the date the work was undertaken.

Servicing

Important

- i) Servicing should only be carried by authorised Baxi Customer Support engineers, Agents or by installers competent in the installation and maintenance of unvented water heating systems.
- ii) Any spare parts used MUST be authorised Megaflor Eco Flexistor parts.
- iii) Disconnect the electrical supply before removing any electrical equipment covers.
- iv) NEVER bypass any thermal controls or operate system without the necessary safety valves.
- v) Water contained in the Megaflor Eco Flexistor unit may be very hot, especially following a thermal control failure. Caution must be taken when drawing water from the unit.

12.1 Spare parts list

A full range of spare parts are available for the cylinder range. Refer to the Technical Data label on the unit to identify the model installed and ensure the correct part is ordered.

| Number | Description | Spares number |
|--------|---|---------------|
| 1 | Integrated inlet control valve set (28mm) | 95605104 |
| 2 | Pressure reducing valve (3.5 bar, 28mm) | 95605105 |
| 3 | Pressure relief valve (8 bar, 28mm) | 95605107 |
| 4 | Pressure relief cartridge | 95605108 |
| 5 | ¾" Temperature/Pressure relief valve | 95605103 |
| 6 | 6 kW Immersion heater (1 ¾" screw thread) | 95602001 |
| 7 | Dual temperature and thermal cut-out (Immersion heater) | 95612064 |
| 8 | 3 kW Immersion heater (1 ¾" screw thread) | 95602030 |
| 9 | TSR combined thermostat and cut-out | 95612026 |
| 10 | Immersion Heater "O" ring | 95611810 |
| 11 | Expansion vessel (60L) | 95607445 |
| 12 | Expansion vessel (35L) | 95607438 |
| 13 | Expansion vessel bracket (35L) | 95607444 |
| 14 | Tundish (22mm - 28mm) | 95607367 |
| 15 | 1/2" Blanking stat pocket | 95607690 |
| 16 | Isolating ball valve 1" | 95605178 |
| 17 | Isolating drain valve 1" | 95605182 |
| 18 | Cut-out thermostat | 7031593 |
| 19 | 1" Taper Plug | 7038681 |
| 20 | Dummy immersion head | 7038682 |

Table 7 - Spares table

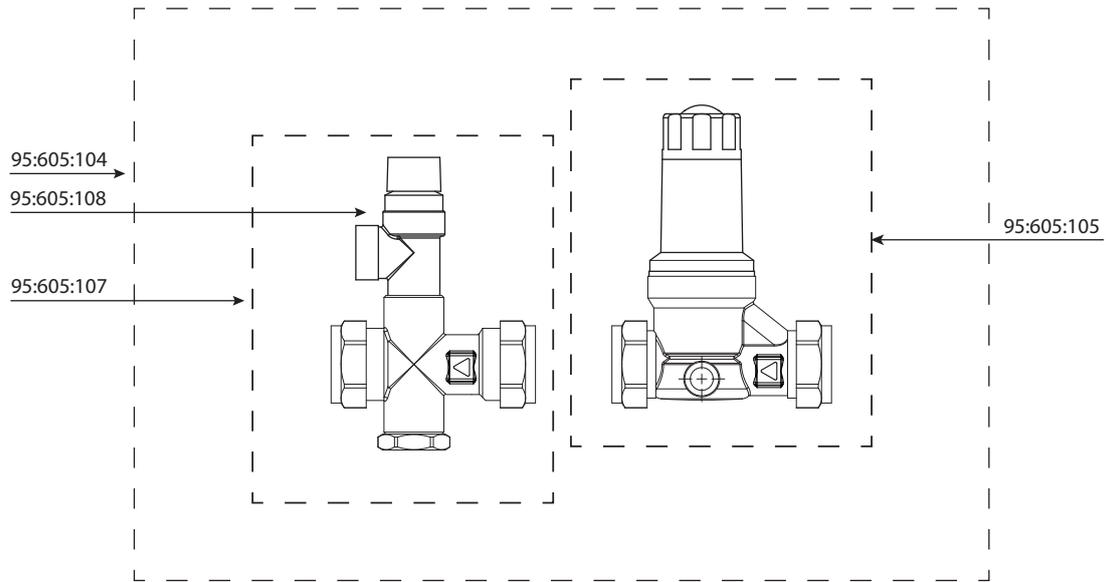


Figure 12: Spares, inlet pressure reducing valve and pressure relief valve

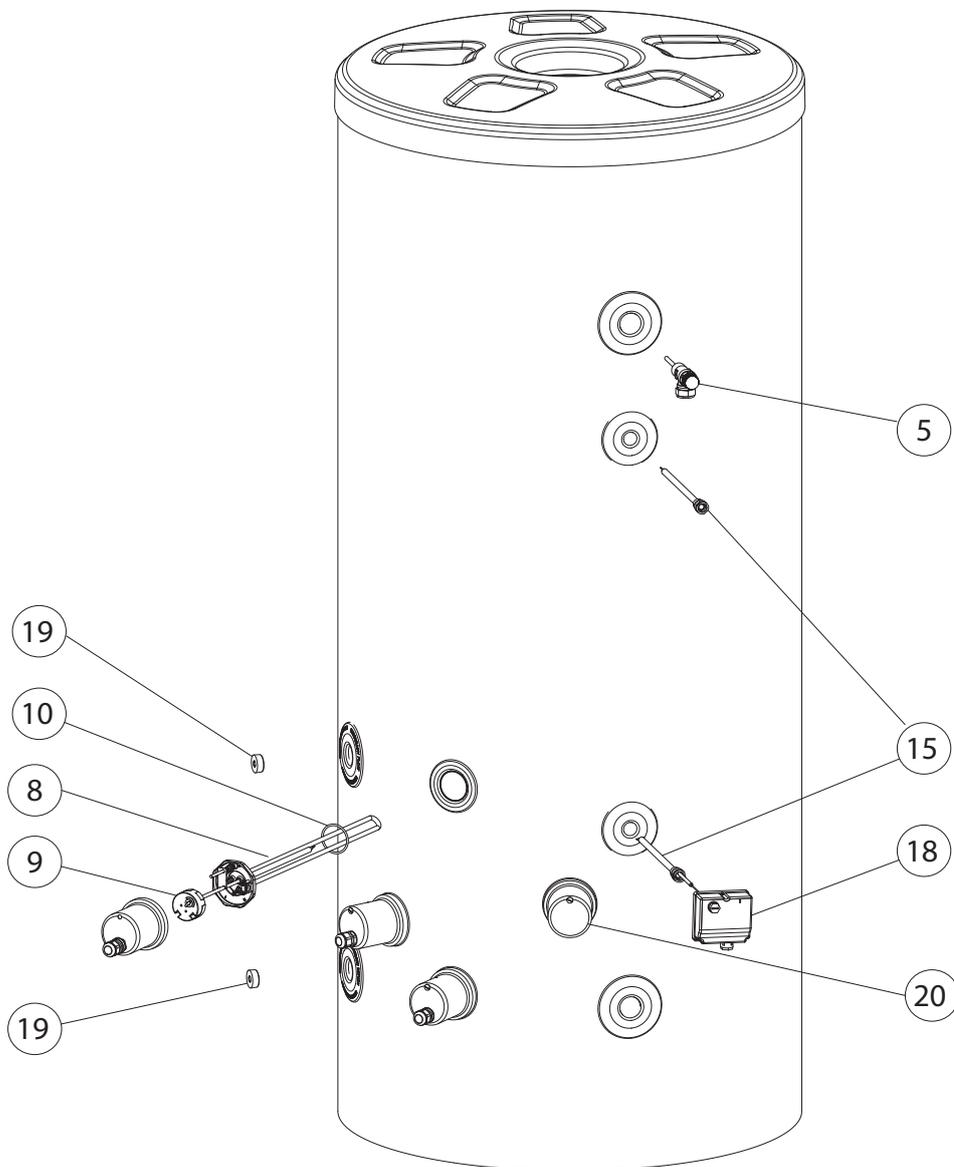


Figure 13: Spares, 400L - 570L

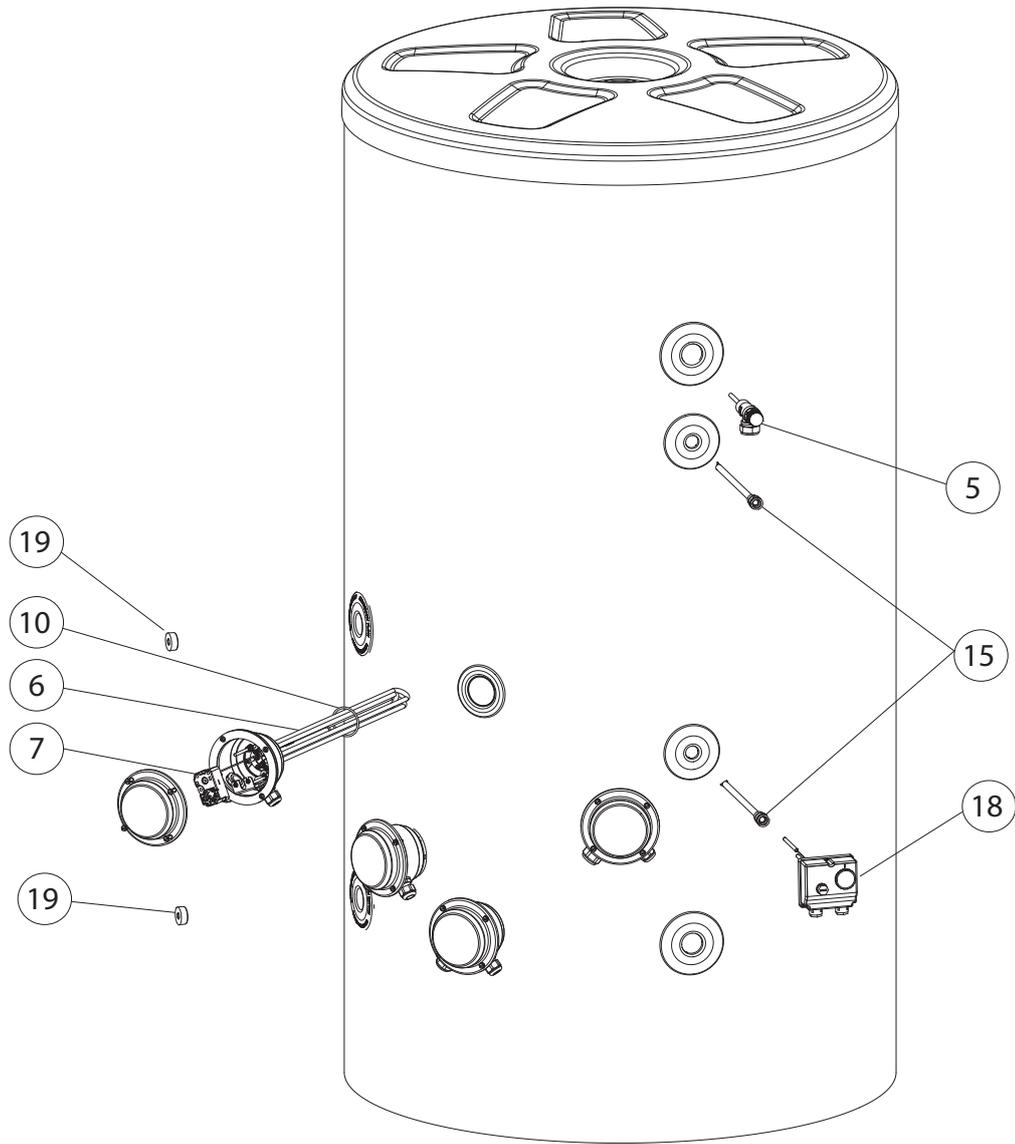


Figure 14: Spares, 800L - 1000L

Figure 13 - Spares schematic

Fault finding

The Fault Finding chart will enable operational faults to be identified and their possible causes rectified. Any work carried out on the Megaflo Eco Flexistor unvented water heater and its associated controls MUST be carried out by a competent installer for unvented water heating systems. In case of doubt contact the Megaflo Eco Flexistor Service Department.

| Fault | Possible Cause | Remedy |
|---|---|--|
| No hot water flow | Mains water supply off | Check and open stop cock/isolating valve |
| | Strainer blocked | Turn off water supply, remove strainer and clean |
| | Cold water combination valve incorrectly fitted | Check and refit as required |
| Water from hot tap is cold | Auxiliary immersion heater not switched on | Check and switch on |
| | Auxiliary immersion heater thermal cut-out has operated | Check, reset by pushing button on thermal cut-out |
| | External heat source not switched on | Check, turn on external heat source |
| | External heat source not working | Check heat source operation. If fault is suspected consult heat source manufacturer's instructions |
| | External heat source thermal cut-out has operated | Check, reset by pushing button on thermal cut-out Check operation of heat source thermostat |
| Water discharges from overflow visual indicator (tundish) | INTERMITTENTLY | Incorrect pre-charge pressure for expansion vessel |
| | CONTINUALLY | Check pressure from pressure reducing valve Remove expansion relief cartridge from pressure relief valve and check seating. If necessary fit new cartridge |
| Water discharges from the T&P relief valve intermittently | Expansion relief valve faulty | Check valve and replace if necessary |
| Water discharges from the T&P relief valve continually | Thermal control failure NOTE: Water will be very hot | Switch off power to immersion heater(s) and shut down external heat source. DO NOT turn off water supply. When discharge stops check all thermal controls, replace if faulty |
| Performance has deteriorated | GRADUALLY | Check for scale build up in the DHW heat exchanger |

Table 8 - Fault finding

MAINS PRESSURE HOT WATER STORAGE SYSTEM COMMISSIONING CHECKLIST

This Commissioning Checklist is to be completed in full by the competent person who commissioned the storage system as a means of demonstrating compliance with the appropriate Building Regulations and then handed to the customer to keep for future reference.

Failure to install and commission this equipment to the manufacturer's instructions may invalidate the warranty but does not affect statutory rights.

Customer Name _____ Telephone Number _____
 Address _____
 Cylinder Make and Model _____
 Cylinder Serial Number _____
 Commissioned by (*print name*) _____ Registered Operative ID Number _____
 Company Name _____ Telephone Number _____
 Company Address _____
 _____ Commissioning Date _____

To be completed by the customer on receipt of a Building Regulations Compliance Certificate*:

Building Regulations Notification Number (*if applicable*) _____

ALL SYSTEMS PRIMARY SETTINGS (indirect heating only)

Is the primary circuit a sealed or open vented system? Sealed Open
 What is the maximum primary flow temperature? _____ °C

ALL SYSTEMS

What is the incoming static cold water pressure at the inlet to the system? _____ bar
 Has a strainer been cleaned of installation debris (if fitted)? Yes No
 Is the installation in a hard water area (above 200ppm)? Yes No
 If yes, has a water scale reducer been fitted? Yes No
 What type of scale reducer has been fitted? _____
 What is the hot water thermostat set temperature? _____ °C
 What is the maximum hot water flow rate at set thermostat temperature (measured at high flow outlet)? _____ l/min
 Time and temperature controls have been fitted in compliance with Part L of the Building Regulations? Yes
 Type of control system (if applicable) Y Plan S Plan Other
 Is the cylinder solar (or other renewable) compatible? Yes No
 What is the hot water temperature at the nearest outlet? _____ °C
 All appropriate pipes have been insulated up to 1 metre or the point where they become concealed Yes

UNVENTED SYSTEMS ONLY

Where is the pressure reducing valve situated (if fitted)? _____
 What is the pressure reducing valve setting? _____ bar
 Has a combined temperature and pressure relief valve and expansion valve been fitted and discharge tested? Yes No
 The tundish and discharge pipework have been connected and terminated to Part G of the Building Regulations Yes
 Are all energy sources fitted with a cut out device? Yes No
 Has the expansion vessel or internal air space been checked? Yes No

THERMAL STORES ONLY

What store temperature is achievable? _____ °C
 What is the maximum hot water temperature? _____ °C

ALL INSTALLATIONS

The hot water system complies with the appropriate Building Regulations Yes
 The system has been installed and commissioned in accordance with the manufacturer's instructions Yes
 The system controls have been demonstrated to and understood by the customer Yes
 The manufacturer's literature, including Benchmark Checklist and Service Record, has been explained and left with the customer Yes

Commissioning Engineer's Signature _____
 Customer's Signature _____
 (*To confirm satisfactory demonstration and receipt of manufacturer's literature*)

*All installations in England and Wales must be notified to Local Authority Building Control (LABC) either directly or through a Competent Persons Scheme. A Building Regulations Compliance Certificate will then be issued to the customer.



MAINTENANCE AND SERVICING (3)



SERVICE RECORD

It is recommended that your hot water system is serviced regularly and that the appropriate Service Record is completed.

Service Provider

Before completing the appropriate Service Record below, please ensure you have carried out the service as described in the manufacturer's instructions.

SERVICE 1 Date _____
Engineer Name _____
Company Name _____
Telephone Number _____
Comments _____

Signature _____

SERVICE 2 Date _____
Engineer Name _____
Company Name _____
Telephone Number _____
Comments _____

Signature _____

SERVICE 3 Date _____
Engineer Name _____
Company Name _____
Telephone Number _____
Comments _____

Signature _____

SERVICE 4 Date _____
Engineer Name _____
Company Name _____
Telephone Number _____
Comments _____

Signature _____

SERVICE 5 Date _____
Engineer Name _____
Company Name _____
Telephone Number _____
Comments _____

Signature _____

SERVICE 6 Date _____
Engineer Name _____
Company Name _____
Telephone Number _____
Comments _____

Signature _____

SERVICE 7 Date _____
Engineer Name _____
Company Name _____
Telephone Number _____
Comments _____

Signature _____

SERVICE 8 Date _____
Engineer Name _____
Company Name _____
Telephone Number _____
Comments _____

Signature _____

SERVICE 9 Date _____
Engineer Name _____
Company Name _____
Telephone Number _____
Comments _____

Signature _____

SERVICE 10 Date _____
Engineer Name _____
Company Name _____
Telephone Number _____
Comments _____

Signature _____

MAINTENANCE AND
SERVICING (3)

Spares Stockists

Electric Water Heating Co.
2 Horsecroft Place
Pinnacles
Harlow
Essex
CM19 5BT
Tel: 0845 0553811
E-Mail: sales@ewh.co.uk

SPD

Special Product Division
Units 9 & 10
Hexagon Business Centre
Springfield Road
Hayes
Middlesex
UB40 0TY
Tel: 0208 5730574

Parts Center

Network 65 Business Park
Bentley Wood Way
Burnley
Lancashire
BB11 5ST
Tel: 01282 834403
www.partscenter.co.uk

Newey & Eyre

Specialist Products Division
Please Contact your Local Branch

UK Spares Ltd

Unit 1155
Aztec West
Almondsbury
Bristol
BS32 4TF
Tel: 01454 620500

William Wilson Ltd

Unit 3A
780 South Street
Whiteinch
Glasgow
G14 0SY
Tel: 0141 434 1530

IMPORTANT LEGAL REQUIREMENT FOR INSTALLERS

Megaflo Eco Flexistor, a trading name of Heatrae Sadia, a licensed member of the Benchmark™ Scheme which aims to improve the standards of installation and commissioning of domestic heating and hot water systems in the UK and to encourage regular servicing to optimise safety, efficiency and performance is managed and promoted by the Heating and Hotwater Industry Council. For more information visit www.centralheating.co.uk. Please ensure that the installer has fully completed the Checklist on Page 30 of this manual and that you have signed it to say that you have received a full and clear explanation of its operation. The installer is legally required to complete a commissioning checklist as a means of complying with the appropriate Building Regulations (England and Wales). All installations must be notified to Local Area Building Control either directly or through a Competent Persons Scheme. A Building Regulations Compliance Certificate will then be issued to the customer who should, on receipt, write the Notification Number on the Checklist. This product should be serviced regularly to optimise its safety, efficiency and performance. The service engineer should complete the relevant Service Record on the Checklist after each service. The Checklist may be required in the event of any warranty work.

User Instructions

Warnings

IF WATER DISCHARGES FROM THE TEMPERATURE / PRESSURE RELIEF VALVE ON THE Megaflo Eco Flexistor UNIT REFER TO PAGE 29, TABLE 8 FIRST FOR GUIDANCE. IF THIS DOES NOT RECTIFY THE FAULT SWITCH OFF ELECTRICAL SUPPLY TO THE IMMERSION HEATER(S) [DIRECT UNITS] OR SHUT DOWN THE BOILER [INDIRECT UNITS]. DO NOT TURN OFF THE WATER SUPPLY. CONTACT A COMPETENT INSTALLER FOR UNVENTED WATER HEATERS TO CHECK THE SYSTEM.

DO NOT TAMPER WITH ANY OF THE SAFETY VALVES FITTED TO THE MEGAFLO ECO FLEXISTOR SYSTEM, IF A FAULT IS SUSPECTED CONTACT A COMPETENT INSTALLER.

Immersion Heaters

A combined thermostat and thermal cut-out is provided for each immersion heater. The thermostat is factory set to give a water storage temperature of approx. 60°C, however it can be set to control between 10°C and 70°C. This will usually have been done during installation. Adjustments can only be made by removing the terminal cover(s), DO NOT remove the cover(s) without first switching off the electrical supply. The temperature adjustment is made by inserting a flat bladed screwdriver in arrow top of the thermostat and rotating (see Figure 9, page 19 and Figure 11, page 21).

If in any doubt consult a competent electrician.

Flow Performance

When initially opening hot outlets a small surge in flow may be noticed as pressures stabilise. This is quite normal with unvented systems and does not indicate a fault. In some areas a cloudiness may be noticed in the hot water. This is due to aeration of the water, is quite normal and will quickly clear.

Operational Faults

Operational faults and their possible causes are detailed in Table 8, page 29 . It is recommended that faults should be checked by a competent installer.

The air volume within the expansion vessel will periodically require recharging to ensure expanded water is accommodated within the unit. A discharge of water INTERMITTENTLY from the expansion valve will indicate the air volume has reduced to a point where it can no longer accommodate the expansion.

Lifetime Warranty*

The MEGAFLO Lifetime Warranty provides unrivalled levels of customer support and peace of mind in the unlikely event that a problem arises from a manufacturing defect. It is supported by a large nationwide team of company-employed field-based engineers and our own call centre, which is open 363 days a year.

This Lifetime Warranty applies in relation to the following MEGAFLO products:

- MEGAFLO cylinders
- MEGAFLO calorifiers

The MEGAFLO Domestic Lifetime* Warranty

The MEGAFLO Domestic Lifetime* Warranty covers MEGAFLO cylinders installed in domestic properties† against corrosion for the lifetime* of the owner.

The cold water combination valve (and expansion vessel, where supplied) is covered by a five year warranty from the date of purchase of the MEGAFLO product that includes both parts and labour. All other components, including any other valves, fittings and controls are covered by a two year warranty from the date of purchase of the MEGAFLO product that includes both parts and labour.

In the case of the Megaflo Systemready, Megaflo Systemfit and Megaflo SolaReady units the supplied pumps and motorized valves (where fitted) are also covered by this two year warranty.

Incalloy immersion heaters (where fitted) are covered by a two year warranty.

Titanium Immersion heaters (where fitted) are covered by a five year warranty.

The MEGAFLO Commercial Lifetime* Warranty

The MEGAFLO Commercial Lifetime Warranty covers MEGAFLO cylinders and calorifiers installed in non-domestic properties^ against corrosion for a period of 30 years from the date of purchase.

All other components, including valves, expansion vessels, immersion heaters, fittings and controls are covered by a two year warranty from the date of purchase of the MEGAFLO product that includes both parts and labour.

Accessories

Shower heat recovery units are covered against manufacturing defects for a period of two years. Flat plate solar collectors are covered against manufacturing defects for a period of 10 years from the date of purchase of the MEGAFLO product. Evacuated tube solar collectors are covered against manufacturing defects for a period of five years from the date of purchase of the MEGAFLO product. All other solar accessories are covered against manufacturing defects for a period of two years from the date of purchase of the MEGAFLO product.

Outside of the UK

These warranties are valid for installations within the United Kingdom.

For installation in the Republic of Ireland please contact Potterton Myson (Ireland) Limited on 00353 (0) 1 4590870

For installations outside of the United Kingdom and the Republic of Ireland, please telephone MEGAFLO Export on +44 1603 420271 for further details of the warranty terms and conditions applicable.

These guarantees are valid provided that:

- The MEGAFLO product has been installed by a competent installer in accordance with the instructions contained in the installation instructions and in compliance with all relevant laws, guidance, codes of practice and regulations in force at the time of installation.
- The MEGAFLO product has not been modified or tampered with in any way, other than by a Heatrae Sadia or Baxi Customer Support approved engineer.
- The MEGAFLO product has not been subject to damage by scale.
- The MEGAFLO product and any part or parts of the MEGAFLO product (whether factory fitted or otherwise) have not been repaired or replaced other than by a Baxi Customer Support approved engineer and any replacement parts used on the MEGAFLO product are authorised MEGAFLO spare parts.
- The factory fitted temperature and pressure relief valve have not been tampered with or removed.
- The MEGAFLO product has not been subject to misuse or neglect.
- The MEGAFLO product has only been used for the storage of wholesome water. Should another substance be put through the product, the warranty will be invalid unless it is part of a disinfectant procedure carried out in accordance with BS EN 806.
- The MEGAFLO product has not been subjected to frost or freezing temperatures (except for solar collectors which are designed for external installation).
- The Benchmark™ commissioning checklist service record, included in the MEGAFLO installation instructions has been completed.
- Regular maintenance has been carried out by a competent person/, an approved engineer from Heatrae Sadia or any other part of the Baxi Group Baxi Customer Support approved engineer in accordance with the requirements set out in the maintenance section of the installation instructions.
- Access is available, at reasonable times and upon reasonable notice, to the MEGAFLO product to allow for any inspection repair or replacement.
- The product is registered within 60 days of purchase. This can be done by telephone, online or by using the registration form provided with the product.
- Evidence of purchase (for example a receipt or delivery note) and date of supply is submitted when making a claim.
- The MEGAFLO product has not been affected by any cause beyond our reasonable control including, without limitation: an act of God, explosion, flood, fire or accident; war or civil disturbance; strike, industrial action or stoppages of work; any form of government intervention; a third party act or omission including theft or malicious damage; failure by you to give us a correct delivery address or notify us of any change of address.

If any of the following situations occur, the MEGAFLO Lifetime Warranty* will not apply:

- Any wilful or accidental damage caused by your negligence
- Damage caused as a result of scale.
- Installation not in line with the installer and user manuals provided,
- Failure to comply with installation instructions (whether oral or in writing),
- Misuse of the MEGAFLO product or alteration of the MEGAFLO product not in accordance with the requirements set out above.
- Defects which are not reported to us outside of the warranty period on 03444 8711535 or customer.support@baxi.co.uk
- Any third party repair or replacement costs unless those costs have been agreed and authorised by Baxi Customer Support or Heatrae Sadia in writing prior to incurring the costs.
- In relation to the MEGAFLO Commercial Lifetime Warranty only, we will not be liable for any indirect and consequential losses and any loss of earnings, loss of business, or losses in relation to stress and inconvenience, howsoever caused.

Claims

Defects should be reported to us as soon as you are aware of them. Please report defect to us by contacting 03444 8711535 or customer.support@baxi.co.uk .

Notes

We are only able to carry out warranty repair/replacement to MEGAFLO solar collectors which have safe access and that meet current Health & Safety working at heights requirements. The customer will cover the cost of any safety equipment including but limited to scaffolding and lifting equipment that is required to meet this standard and will appoint a contractor to carry this work out.

Heatrae Sadia accepts no liability for any third party damage.

These warranties do not affect your statutory rights and remedies in relation to the MEGAFLO products.

Annual service

Annual services are available from Baxi Customer Support, the service division of Heatrae Sadia. Please contact Baxi Customer Support on 0844 871 1535 for details.

*In domestic† properties, lifetime is the period during which the first owner of the MEGAFLO or new build home continues to own the property. Should the property be sold, the new owner and any subsequent owners will receive a 30 year warranty from the date the original owner purchased the MEGAFLO or new home with a MEGAFLO installed. In non-domestic properties lifetime is a period of 30 years from the date of purchase by the original owner and is transferable to any new owner of the property.

†Domestic is any premises not being, or ever having been, wholly or partly utilised for business purposes.

^Non-domestic premises are any premises other than those defined as Domestic.†

All MEGAFLO warranties are conditional on the installation being carried out in accordance with the installation instructions supplied with the product. These warranties do not affect your statutory rights. Full terms and conditions of these warranty packages are available on request or via www.heatraesadia.com/megaflo

Heatrae Sadia*, Hurricane Way, Norwich, Norfolk, NR6 6EA

MEGAFLO may introduce modifications to their products from time to time. Consequentially the details given in this brochure are subject to alteration without notice.

Contacts:

Specification Advice Hotline

T: 01603 420220

F: 01603 420229

E: specifier@heatraesadia.com

www.heatraesadia.com

* Heatrae Sadia is a trading name of Baxi Heating UK Limited, Brooks House, Coventry Road, Warwick, CV34 4LL



Customer service

| | |
|------------------------------|---------------|
| Telephone: | Megaflo |
| 0344 8711535 | Hurricane Way |
| Facsimile: | Norwich |
| 0344 8711528 | Norfolk |
| E-mail: | NR6 6EA |
| Megafloservice@heateam.co.uk | |

BY **HEATRAESADIA**