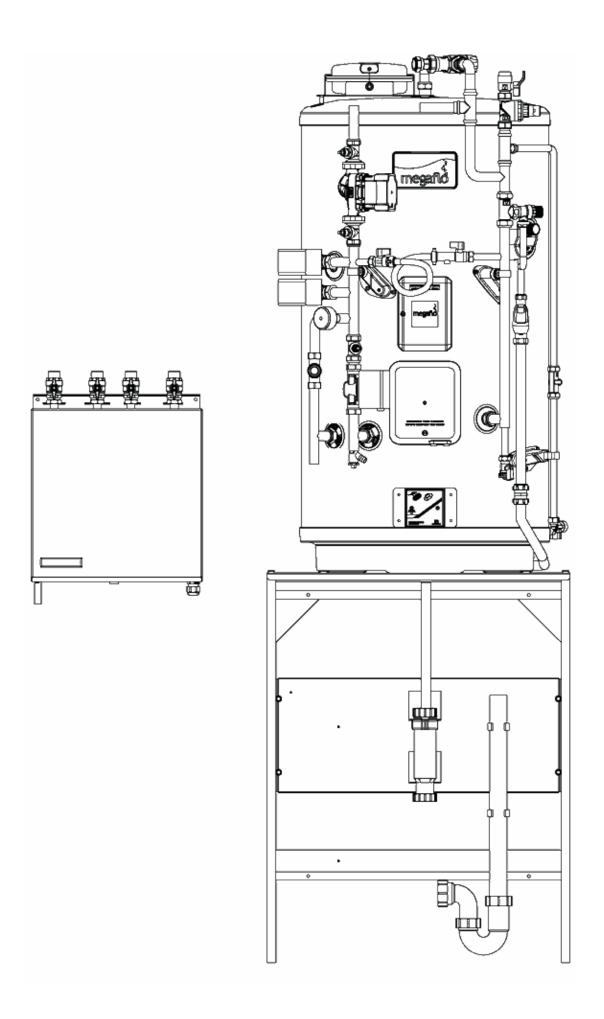


## **HI-MAX STORE**

## Installation, operation and maintenance manual



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10. Warranty

10.1 Warranty

page 2

### 1. Introduction

#### 1.1 General

The following instructions are offered as a guide to the user and installer.

The installation must be carried out by a competent plumbing and electrical installer in accordance with Building Regulations, The Building Standards (Scotland) Regulations 1990, The Building Regulations (Northern Ireland), UK Water Regulations and IEE Electrical Regulations.

The heating and hot water to your home are provided by the HI-MAX STORE HIU and unvented cylinder.

Heat is supplied to the HI-MAX STORE HIU from the central boiler(s) installed elsewhere in the building. The central boiler will provide heat to your HIU for your central heating and domestic hot water.

The unit works in conjunction with an indirect domestic hot water cylinder to provide heating and hot water to your taps. As such you must read these instructions in conjunction with those for the cylinder.

The cylinder frame arrangement permits the cylinder to sit above a washing machine. The HI-MAX STORE HIU is wall mounted and can be supplied with a first fix rail for ease of installation.

The unit is supplied complete with all the necessary safety and control devices needed to allow connection to the community heating system and the apartment's central heating and hot water systems.

This appliance complies with the requirements of the CE marking directive.

The following instructions are offered as a guide to installation which must be carried out by a competent plumbing and electrical installer in accordance with Building, Electrical and Water Regulations.

#### 1.2 Symbols used

In these instructions various risk levels are employed to draw the user's attention to particular information. In doing so we wish to safeguard the user, avoid hazards and guarantee the correct operation of the appliance.



DANGER

Risk of a dangerous situation causing serious physical injury.



WARNING

Risk of dangerous situation causing slight physical injury.



CAUTION Risk of material damage.

#### 1.3 Abbreviations

- # DHW Domestic Hot Water
- # T&P Temperature & Pressure relief valve
- # PRV Pressure Reducing Valve
- # Prv Pressure relief valve
- # Stv Safety Tempering Valve
- # HIU Heat Interface Unit
- # PICV Pressure Independent Control Valve

#### 1.4 Liabilities

#### **Manufacturers liability**

Our products are manufactured in compliance with the requirements of the various applicable European Directives. This appliance complies with the requirements of the CE marking directive and is Kiwa approved to show compliance with Building Regulations (part G, section G3). In the interest of UK customers we are continuously endeavouring to make improvements in product quality. All the specifications stated in this document are therefore subject to change without notice.

#### Our liability as the manufacturer may not be invoked in the following cases:

- # Failure to abide by the instructions on using the appliance.
- # Faulty or insufficient maintenance of the appliance.
- # Failure to abide by the instructions on installing the appliance.

#### **Installer's liability**

The installer is responsible for the installation and the commissioning of the appliance. The installer must respect the following instructions:

- # Read and follow the instructions given in the manuals provided with the appliance.
- # Carry out installation in compliance with the prevailing legislation and standards.
- # Perform the initial start up and carry out any checks necessary.
- # Complete the commissioning checklist.
- # Explain the installation to the user.
- # If maintenance is necessary, warn the user of the obligation to check the appliance and maintain it in good working order.
- # It is the installers responsibility to ensure that all joints made in the factory are sound after installation.
- # Leave all the instruction manuals with the user.

#### Users liability

To guarantee optimum operation of the appliance, the user must respect the following instructions:

- # Read and follow the instructions given in the manuals provided with the appliance.
- # Call on qualified professionals to carry out installation and initial start up.
- # Ask the installer to explain the installation.
- # Have the required checks and services carried out annually.
- # Keep the instruction manuals in good condition and **close to the appliance**.

page 3

## 2. Safety

#### 2.1 General safety warnings



#### DANGER

This unit becomes pressurised when in operation.

The combination of pressurisation and hot water could lead to serious physical injury if the safety instructions in this manual are not adhered to.

The unit is also designed to work at district heating hydraulic pressures up to 16 bar g and temperatures up to 90°C, which, if exposed to could lead to serious physical injury.



#### WARNING

- # Only competent persons having received adequate training are permitted to work on the appliance and the installation.
- # Do not tamper with any of the safety valves or controls supplied with the cylinder.
- # Before any work, switch off the electrical mains supply to the appliance and the water mains.
- # Do not switch on if there is a possibility that the water in the cylinder is frozen.



#### WARNING

- # Do not adjust the safety tempering valve (Stv). This is factory set to prevent excessive hot water temperatures reaching the taps in the event of a system failure.

  The purpose of this valve should not be confused with that of a point of use mixing valve which is fitted near to the tap to prevent scalding.
- # Do not tamper with any of the safety valves fitted to the system. If a fault is suspected contact a competent installer.

#### 2.2 Recommendations



#### WARNING

When handling the unit, take appropriate precautions for the weight of the unit. Weights can be found in <u>section 3 page 7</u>.



#### **CAUTION**

Annual maintenance is recommended by a competent person.

The HWA Charter Statement requires that all members adhere to the following:

- # To supply fit for purpose products clearly and honestly described.
- # To supply products that meet, or exceed appropriate standards and building and water regulations.
- # To provide pre and post sales technical support.
- # To provide clear and concise warranty details to customers.

page 4

#### 2.3 Specific safety instructions



#### WARNING

- # Under no circumstances should the factory fitted safety valves (Stv and Prv) be removed by anyone other than a competent person.
  - The unit must not be run if either of these safety valves have been removed. Doing so will invalidate any guarantee or claim.
- # No control or safety valves should be tampered with or used for any other purpose.
- # The Prv discharge pipe should not be blocked or used for any other purpose.
- # Where a tundish is fitted, this should not be located adjacent to any electrical components.

# $\triangle$

#### CAUTION

Do not operate immersion heaters until the cylinder has been filled with water.



#### WARNING

- # If water discharges from the temperature/ pressure relief valve on the cylinder, shut down the boiler/immersion heaters.
  - Do not turn off any 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 system. If a fault is suspected contact a competent installer.
- **# DO NOT** bypass the thermal cut-out(s) in any circumstances.



#### WARNING

# The heat meter can be installed within the space provided inside the HI-MAX STORE HIU.

Although most heat meters are now battery powered some are still provided with a mains power supply.

In these instances it is important that the installer clearly indicates that there are two power supplies to the HIU.

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 supervision 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. Children must be supervised to ensure they do not play with the appliance.

- **Water may drip from the discharge pipe of the pressure-relief device and 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
- **#** How hot water can be drained. (See Systemfit manual for more details)
- # The type of characteristics of the pressure-relief device and how to connect it. (See Systemfit manual 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.

Details on how to set the temperature controls for both immersion heaters and boiler controls can be found in the Systemfit manual supplied.

page 5

## 3. Technical Specification

#### 3.1 Product features

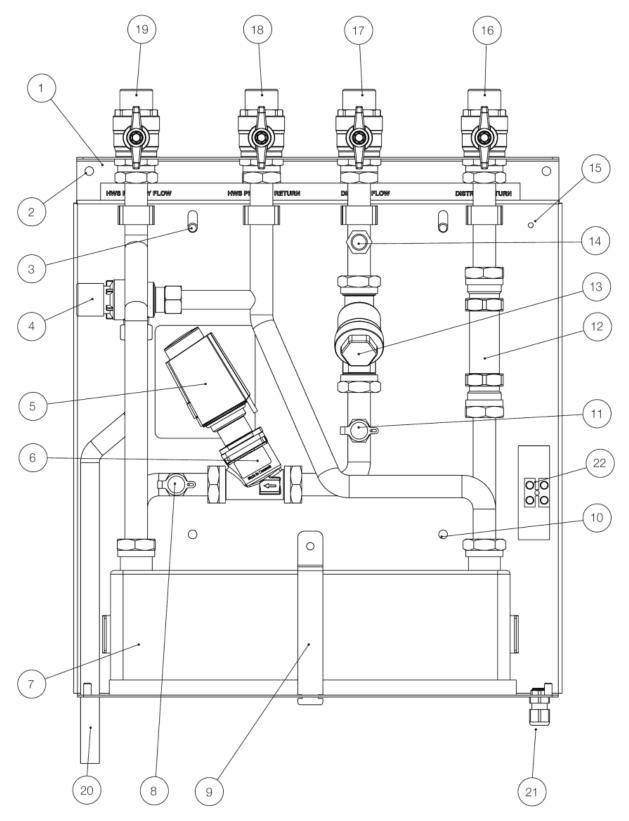


Fig 1. Product Features and Components for the HI-MAX STORE HIU page 6

- 1. First fix rail bracket
- 2. 4 No. Fixing holes for first fix rail (Ø 7mm)
- 3. HIU mounting studs (M6) x 2. Supplied with HIU
- 4. 15mm central heating system safety valve 3 bar g

- 5. 230V on/off thermo actuator
- 6. DN 15 Frese Optima Compact pressure independent balancing and control valve
- 7. Brazed stainless steel plate heat exchanger
- 8. Test point to measure the pressure drop across the district control valve
- 9. Plate heat exchanger support bracket
- 10. Wall mounting bottom fixing holes Ø7mm (2 No.)
- 11. Test point to measure the pressure drop across the district control valve
- 12. Volume flow meter (for heat meter) spool piece 3/4" bsp x 110mm centres EN1434
- 13. 3/4"#bsp male Y strainer
- 14. Position of 1/4"# bsp heat meter flow sensor pocket (supplied by heat meter company)
- 15. Earth stud (M4)
- 16. Community (district) heating return 3/4"# bsp male
- 17. Community (district) heating flow 3/4" #bsp male
- 18. HWS primary return connection 3/4" #bsp male
- 19. HWS primary flow connection 3/4"# bsp male
- 20. Safety valve discharge pipe Ø15 mm
- 21. M12 cable gland (2 No.)
- 22. Actuator Cable Connector block

#### 3.2 Dimensions and Weight

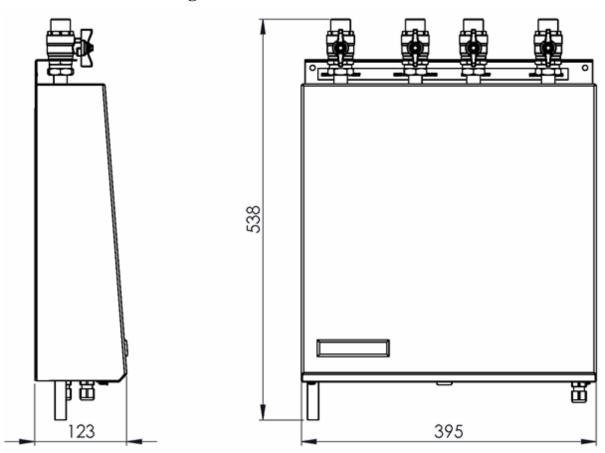
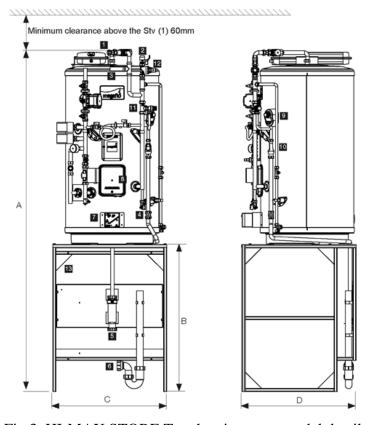


Fig 2. HI-MAX STORE HEAT INTERFACE UNIT

Unit	Dry Weight (kg)	Wet Weight (kg)					
HI-MAX STORE 1st fix rail	1.6	1.6					
HI-MAX STORE WITH CASINGS	11.2	13.0					

Note: All dimensions are for reference only. page 7

#### 3.3 Dimensions and features - HI-MAX STORE



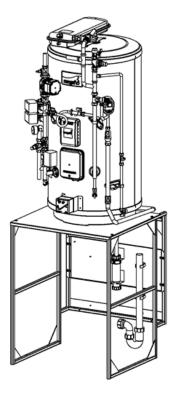


Fig 3. HI-MAX STORE Two heating zone model detailed

#### Cylinder size\*\* 125i 145i 170i 210i 250i 300i Dimension (mm)

1	A	2096	2217	2379	1584*	1855*	XXXX
1	3	900	900	900	-	-	-
(	C	700	700	700	630	xxxx	xxxx
I	)	700	700	700	700	XXXX	XXXX

<sup>\*</sup>Floor standing cylinder height (no frame).

## Available depth for washing machine frame 580mm.

1.	Domestic hot water flow	22mm
2.	Cold feed connection (1/4 turn isolation valve)	22mm
3.	Balanced cold feed	22mm
4.	Cylinder drain cock	
5.	Hepvo dry trap	32mm
6.	Washing machine waste pipe	40mm
7.	Immersion heater run back timer	
8.	Main 3kW immersion heater and thermostat enclosure	IPX4
9.	Temperature and pressure relief valve	$10bar/90\text{-}95^{\circ}C$
10.	Tundish	15mm x 22mm
11.	Combined expansion relief valve / check valve	8bar
12.	Pressure reducing valve	3bar

13. Earth stud M4 22mm

For further information on the range of Megaflo Systemfit models please go to: www.heatraesadia.com

#### **Maximum Working Pressure:**

Primary Side (Community / District Heating): 16 bar g Secondary Side (Apartment Heating): 3 bar g

**Maximum Working Temperature:** 

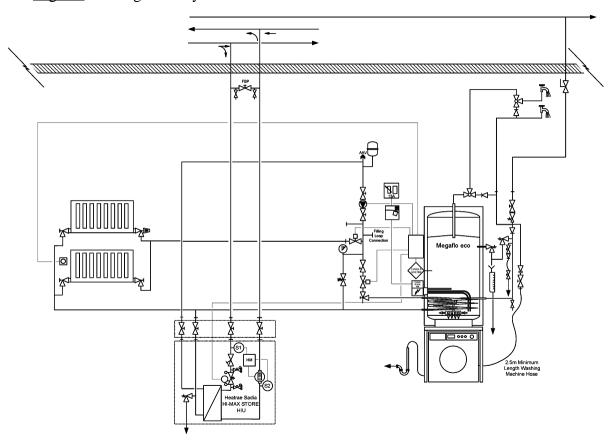
Primary Side (Community / District Heating): 90 deg C Secondary Side (Apartment Heating): 85 deg C Primary Side Pressure drop 30 kPa

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### 3.4 Hydraulic Diagrams

Fig 4. HI-MAX STORE Heat Interface Unit with a Megaflo Systemfit cylinder- One Heating Zone

See Page 10 for a legend of symbols



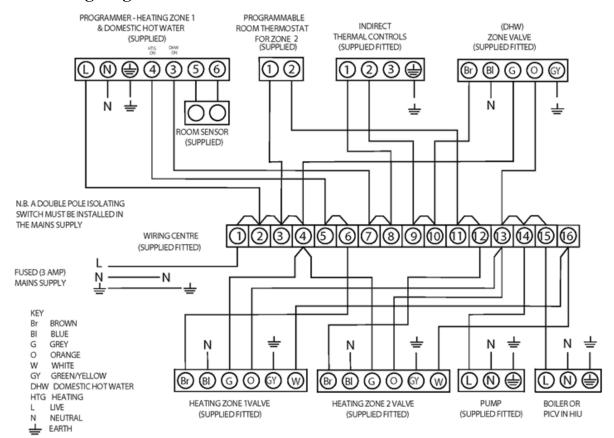
page 9

## 3.5 Hydraulic diagrams legend

Symbol	Description	Symbol	Description	Symbol	Description	Symbol	Description
$\Box$	Centrifugal fan	725	Thermostatic Mixing Valve		Thermostatic Radiator Valve	<b>←</b> M	Air Separator
(4)	Air intake	函	Combi TMV	72	Radiator Lock Shield Valve	₩	Combined Isolation & Check Valve with Thermometer
<b>(A)</b>	Pump	ĮΣ	Drain Cock	ightharpoons	Needle Valve		Safety Discharge Vessel
0	Compressor	环	Angle pattern Drain Cock	₩₩₩	Filling Loop	Xo X	Auto Balancing Valve
⅓	Pressure Reducing Valve	0	Expansion Vessel	HWWH	Flexible Connection	°¥3°	Dynamic Balancing Valve
7	Isolation Valve	AAV T	Automatic Air Vent	Áqui —	Aqua Stat		Hep₀O dry trap
₹.	Lock Shield Valve	Ħ	Air Separator	Stat	Thermostat	NI	Double Check Valve
N	Non Return Valve	<b>Ø</b>	Pressure Gauge Assembly	-1	Flow Switch	- <b>\</b> Z\$	Flushing and Filling Points
₩	Strainer	) SZ	ressure Gauge Assembly		Flow Meter	SS	Pressure independent control & balancing valve
Σ'	Double Reg. Valve	Ø	Thermometer	HM	Heat Meter	808	Honeywell SMILE controller
ٷۧ	Orifice Plate	Y	Tundish	0	Room Stat	<b>T</b>	STW10WE Room Stat
°CHOP	Commissioning Station	(\$1)	Temperature Sensor	A W	Angle Pattern 2 Port Zone Thermostatic Control Valve	$\mathbb{X}_{1}$	Gas Stop Cock
<b>&gt;</b> ■	Flow Setter	(\$2)	Temperature Sensor		3 Port Bypass Thermostatic Control Valve	Marie	Smartfit Wiring Centre
₩	Automatic Bypass Valve	(3)	Temperature Sensor		2 Port Zone Thermostatic Control Valve	iŞi	Frese EVA dynamic balancing & zone valve
壿	Safety Valve	\$4	Temperature Sensor	6	Thermostatic Control Valve Sensor	体	Relay
<b>→</b> 2*	T & P Valve	(\$5)	Temperature Sensor		Smartfit room unit		
墨	3 Port Motorised Valve	\$6	Temperature Sensor	5	Run Back Timer		
丛	2 Port Motorised Valve	<b>7</b>	Immersion Heater	£	Pre Payment Unit		

Fig 5. Schematics Table page 10

### 3.6 Wiring diagram



#### **NOTES**

- 1. ALL EARTH CONNECTIONS MUST BE LINKED BACK TO THE EARTH TERMINALS IN THE WIRING CENTRE
- 2. ALL NEUTRAL CONNECTIONS MUST BE LINKED BACK TO THE NEUTRAL TERMINALS IN THE WIRING CENTRE
- 3. ASSUMES BASIC BOILER
- 4. THE 22 MM MOTORISED VALVES DO NOT HAVE A WHITE WIRE
- 5. THE ABOVE DIAGRAM IS FOR GUIDANCE ONLY, THE MANUFACTURER ACCEPTS NO LIABILITY FOR ANY LOSS OR DAMAGE ARISING FROM

ANY ERRORS OR OMISSIONS THAT MAY BE INADVERTENTLY CONTAINED WITHIN THIS DIAGRAM.

THE VARIOUS EQUIPMENT MANUFACTURERS SHOULD BE CONSULTED TO CONFIRM THE CORRECT OPERATION OF THEIR PRODUCTS WITHIN THE SYSTEM

page 11

#### 4.0 Before installation

#### 4.1 Installation regulations



#### WARNING

Installation of the appliance must be carried out by a competent person in accordance with prevailing national regulations as listed below.

- # Building Regulations
- # The Building Standards (Scotland)
- # The Building Regulations (Northern Ireland)
- # I.E.E Electrical Regulations UK Water Regulations

#### 4.2 Installation requirements

#### Limitations

The HI-MAX STORE HIU should not be used in association with any of the following:

- # Situations where maintenance is likely to be neglected or safety devices tampered with.
- # 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.
- # In areas where the water consistently contains a high proportion of solids, e.g. suspended matter that could block the strainer, unless adequate filtration can be ensured.
- # In areas where the water supply contains chloride levels that exceed 150mg/l. For information or advice regarding any of the above contact Technical Enquiries on: 0344 871 1535.

#### 4.3 Transport and Storage

If the unit has to be stored prior to installation, it must be in a secure area free from frost, excessive dampness and humidity.

#### 4.4 Choice of location

The HI-MAX STORE HIU is a wall mounted HIU with a floor/frame standing cylinder. Although location is not critical, the following points should be considered:

# The Megaflo unvented cylinder should be sited to ensure minimum dead leg distances, particularly to the point of most frequent use.

- # Avoid siting where extreme cold temperatures will be experienced. All exposed pipework should be insulated.
- # The discharge pipework from the heating system safety valve should have a continuous fall.
- # Access to associated controls must be available for the servicing and maintenance of the system.
- # Ensure that the wall that the Heatrae Sadia HI- MAX STORE is mounted on is level and capable of permanently supporting the weight when the unit is full of water.

#### 4.5 Positioning and access

Access to the unit and all its components is gained from the front.

It is important that as much access is provided around the unit as is practical. In the event of a component failure, full access in front of the unit is required for servicing. Access to all isolation valves and controls is also required for normal operation and servicing.



#### **CAUTION**

Ensure that the HI-MAX STORE HIU is correctly positioned.

Consideration should be given to the access and space requirements for operating and servicing the unit (See page 13 for guidelines).



#### WARNING

- # Consideration through risk assessments must be made to both the unit siting and routing of pipework to and from the HIU.
- # High pressures associated with the heat networks pose a risk to the health and safety of anyone who could be within contact of them.

page 12

#### 4.6 Installation guidelines

#### Access

The unit must be vertically mounted, on a supporting wall. Although location is not critical, the following points should be considered:

- # Avoid siting where extreme cold temperatures will be experienced. All exposed pipe work should be insulated.
- # The discharge pipework from the safety valves must have minimum fall of 1:200 from the unit and terminate in a safe and visible position.
- # Access to associated controls and components must be available to provide for the servicing and maintenance of the system. Please refer to Fig 6 and Fig 7 for minimum clearance requirements.
- # Ensure the first fix rail is installed horizontally, check using a spirit level.
- # Ensure the surface to be used will sustain the weight of the unit when full of water.

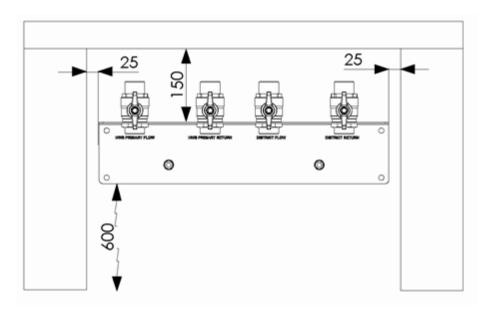


Fig 6. Fitting the first fix rail (Minimum clearance)

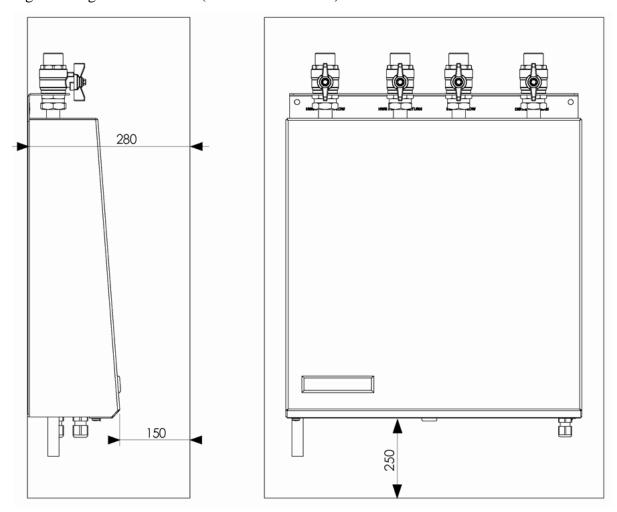


Fig 7. Minimum Clearances

Please note that the clearance dimension detailed above are for guidance. All dimensions are in mm.

## 5. Installation

#### **5.1 HIU Installation**

1. Fix the 1st fix rail to the wall using suitable fixings and ensure the rail is level (<u>Fig.</u> 6).

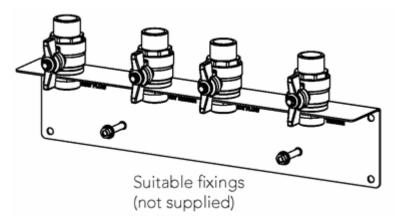


Fig 8. First fix rail mounting details

2. Slide the two studs provided on the 1st fix rail through the slotted holes in the unit back plate and secure loosely with the M6 nuts provided (Fig. 8)

Insert the washers supplied onto the top of the pipe faces on the HIU and slide upwards until the washers come in contact with the isolation valves on the 1st fix rail and tighten nuts. Close all isolation valves before flushing and filling the system.

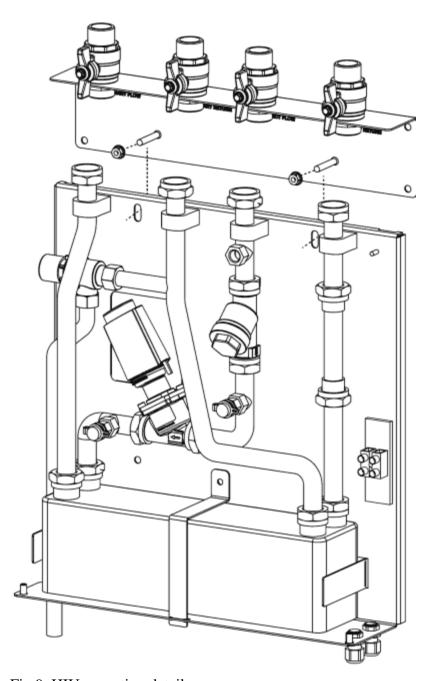


Fig 9. HIU mounting details

3. Mark out and drill the bottom fixing points and use suitable fixings for the mounting surface (see  $\underline{\text{Fig }10}$ ).

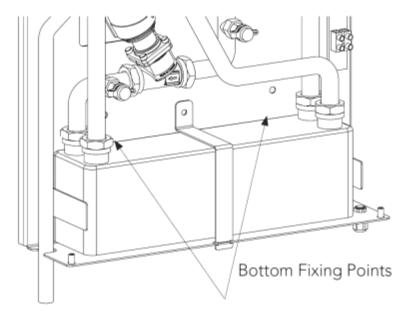


Fig 10. HI-MAX STORE - Bottom Support Fixing Points

4. Fix the casing on by dropping the folds on the casing into the slots on the backplate. Fix with two screws underneath (Fig.12)

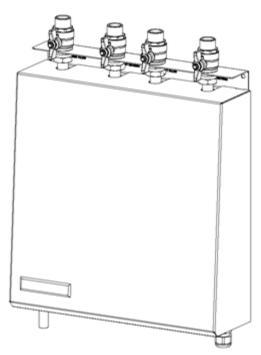


Fig 11. HI-MAX STORE HIU - Casing mounting

#### Fig 12. HI-MAX STORE - Casing fixing

5. Ensure the actuator cable is fixed tightly in cable gland. (Fig.12) Connect the actuator cable to the wiring centre. (See page 11 for wiring diagram).

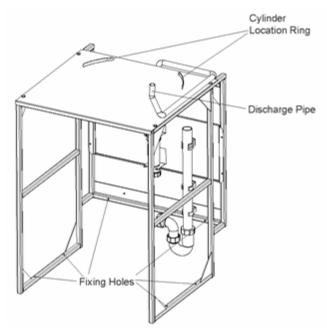


#### WARNING

- # Disconnect from the mains electrical supply before removing any covers.
- **# DO NOT** bypass the thermal cut-out(s) in any circumstances.
- # 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.

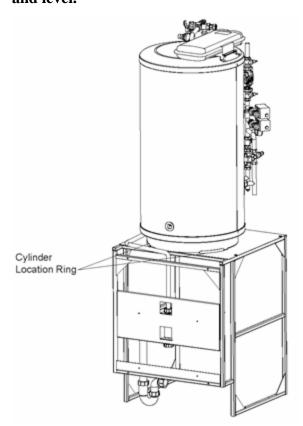
page 14

## 5.2 Cylinder and frame installation



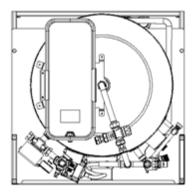
1. Place the frame in final position, ensuring the back of the frame is up against the wall. Secure the frame to the floor and wall using screws through the 8 holes provided.

# IMPORTANT Ensure when fixing the frame to the floor that the surface is even and level.

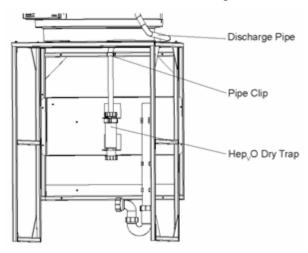


2. Lift the cylinder on to the frame and push it back to the location ring on the frame cylinder shelf. Take care not to scratch the shelf by tilting the cylinder back.

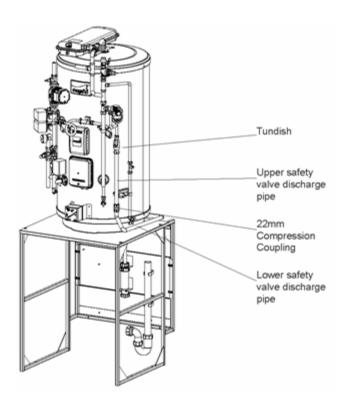
For lifting purposes please take note of the cylinder weight detailed in the cylinder manual and add 5kgs for any ancillary components.



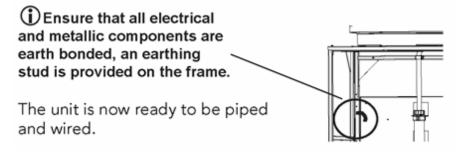
3. Ensure that the front of the cylinder is square with frame. The immersion heater enclosures should be facing forwards.



4. Fit lower safety valve discharge pipe into the dry trap, manipulate the cylinder if necessary for alignment and secure in pipe clip.



5. Fit the lower safety valve discharge pipe to the upper discharge pipe using the 22mm compression coupling provided. Adjust the cylinder as necessary on the frame.





#### IMPORTANT

The safety discharge pipework from an unvented cylinder must be suitable to withstand high temperatures circa 100°C for prolonged periods.

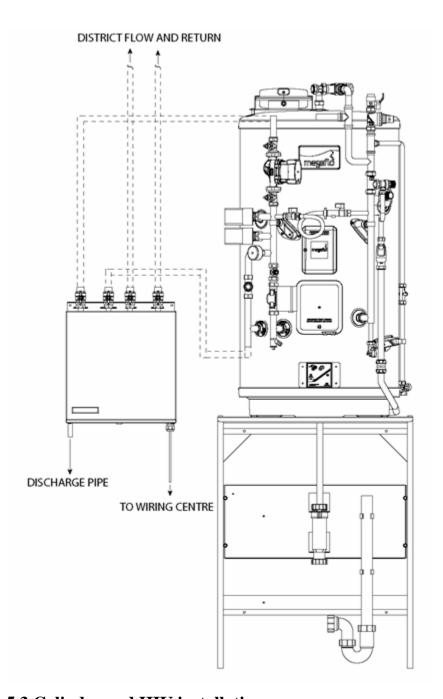
The installer must ensure that the correct material specification is used in the discharge pipework and soil stacks when connecting them to the

temperature and pressure relief valve discharge. If in doubt please consult After Sales Service.

For cylinder installation please refer to the Systemfit manual supplied.

IMPORTANT Once the unit is piped up, check that all the factory made joints have not been disturbed during installation.

page 15



### 5.3 Cylinder and HIU installation

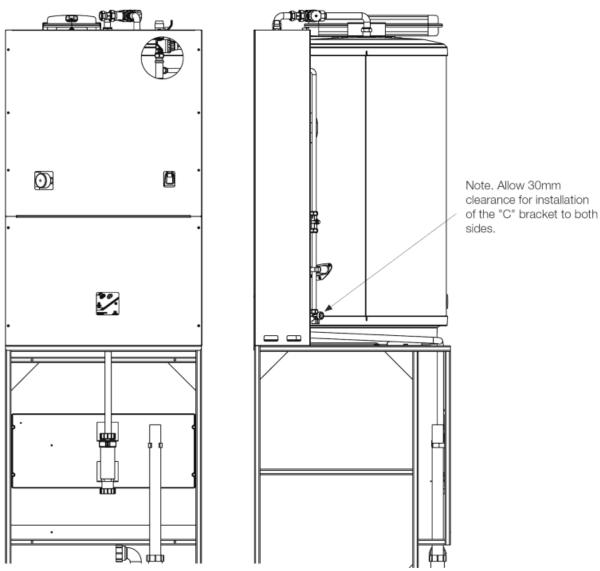
#### Filling the Cylinder

- # Ensure the drain cock is **CLOSED**.
- # Open a hot tap furthest from the cylinder.
- # Open the isolating valve on the 3 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 the tap.
- # Open successive hot taps to purge the system of air.
- # Fill the indirect (primary) circuit following the boiler manufacturer's commissioning instructions.
- # Ensure the filling loop hose is connected at both ends and is tight.

- # Open the isolating valves at either end of the filling loop and allow to fill from the mains inlet supply.
- # To ensure the cylinder primary heat exchanger is filled, both of the 2 port motorised valve (supplied) should be manually opened by moving the lever on the motor housing to the **MANUAL** setting. When the primary circuit is full return the lever to the **AUTOMATIC** position.
- # Air can be vented from the primary heating coil by unscrewing the small dust cap on the auto air vent by half a turn.
- # The primary system should be pressurised to the minimum pressure required by the boiler (usually 1 bar), the pressure gauge fitted should be used to ensure the correct system pressure is set.
- # When full and pressurised, the filling loop isolating valves should be closed and the levers on the motorised valves returned to the Auto position.
- # Switch on the boiler, ensure the programmer is set to Hot Water and allow the cylinder to heat up to a normal working temperature (60 65°C recommended).

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#### **5.4 Modesty panel installation**





#### WARNING

# When handling the unit, take appropriate precautions for the weight and stability of the unit.

- # Follow the instructions carefully.
- # It is recommended that the finished installation is checked by a qualified electrician for earth continuity.
- # The provided shakeproof washers are essential to creating earth continuity within the product and **MUST** be used.

Please refer to operation 8 of the fitting instructions on following page.

<b>Dimension / Connection</b>	125	145	170
A	2082	2208	2364
В	460	460	460
C	665	790	947
D	1125	1250	1407

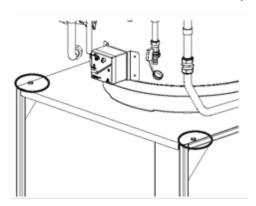
All dimensions are reference only

Note: Side frame and side panel can be switched to suit site requirements.

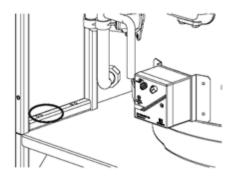
page 17

#### 5.5 Modesty panel fitting instructions

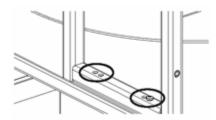
1. Remove front screws from cylinder support frame.



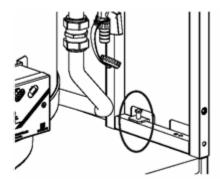
2. Using 1 No. M4x35mm screw and a shakeproof washer fix the side frame to the cylinder frame.



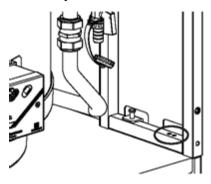
3. Note there are four holes in the bottom of the side frame / panel. The outer holes are through holes to screw through to the cylinder frame and the inner holes are blind holes for the "C" bracket.



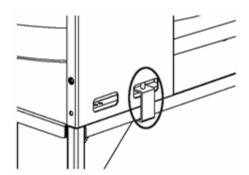
4. Using the "C" bracket, secure the back of the side frame with 1 No. M4x35mm screw.



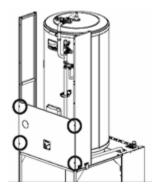
5. Using 1 No. M4x35mm screw and shakeproof washer fix the side panel to the cylinder frame.



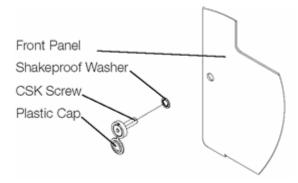
6. Using the "C" bracket, secure the back of the side panel with 1 No. M4x35mm screw.



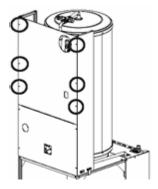
7. Using M5x20mm screws, shakeproof washers & plastic caps fit lower front panel.



8. When fixing the front panels ensure that the shakeproof washers are correctly fitted.



9. Using M5x20mm screw, shakeproof washer & plastic cap fit upper front panel.



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## **Components**

#### **6.1 District control valve**

#### **Application**

- # The pressure independent balancing & control valve (PICV) in your unit provides on/off control with full authority regardless of any fluctuations in the differential pressure of the system.
- # The PIČV combines an externally adjustable automatic balancing valve (1), a differential pressure valve (2), flow regulating control valve (3) and when fitted with a 230V thermo-actuator (4) an on/off control valve.



Fig13. PICV

PICV makes it simple to achieve 100% control of the water flow in the building, while creating high comfort and energy savings at the same time.

# An additional benefit is that no balancing is required if further stages are added to the system, or if the dimensioned capacity is changed.



- (a) Flow Range
- (b) Stroke

Fig 14. Flow rate adjustment

# The PICV is factory set at position 4 and can be adjusted on site to suit site conditions. Based on a design temperature differential of 20K this setting will control the community heating flow rate to provide over 13kW of power to each apartment.

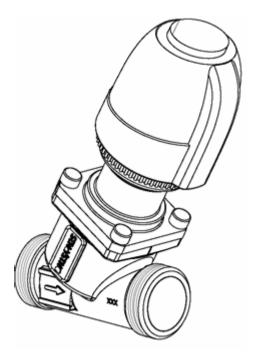


Fig 15. PICV

#### **Installation Benefits**

- # No further regulating valves required in the distribution pipework when PICV is installed at terminals.
- # Total number of valves minimized due to the 4-in-1 design.
- # Minimized commissioning time due to automatic balancing of the system.
- # No minimum straight pipe lengths required before or after the valve.

#### Technical data valve

Valve housing and flow setting: DZR Brass, CW602N

DP controller: PPS 40% glass

Spring: Stainless steel Diaphragm: HNBR O-rings: EPDM Pressure class: PN25

Max. differential pressure: 800 kPa

Medium temperature range: 0°C to 120°C

#### **Technical data actuators**

Characteristics: Thermo actuators, normally

closed

Protection class: IP 54 to EN 60529

Frequency: 50/60 Hz

Control signal: 230V On/Off Actuating force: 100 N

Stroke: 2.5mm

Running time: 180 s On/Off

Ambient operating conditions: 0°C to 60°C

Cable length: 3.0 m

Weight: 100 g

#### **PICV**

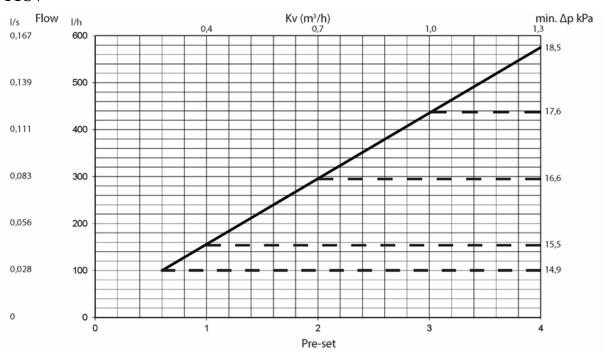


Fig 16. Flow Characteristics

Pre-set	Flow l/h	Flow l/s,	Flow gpm
0.6	100	0.028	0.44
0.8	128	0.036	0.56
1.0	156	0.043	0.69
1.2	184	0.051	0.81
1.4	212	0.059	0.93
1.6	240	0.067	1.06
1.8	268	0.074	1.18
2.0	296	0.082	1.30
2.2	324	0.090	1.42
2.4	351	0.098	1.55
2.6	379	0.105	1.67
2.8	407	0.113	1.79
3.0	435	0.121	1.92
3.2	463	0.129	2.04
3.4	491	0.136	2.16
3.6	519	0.144	2.29
3.8	547	0.1521	2.41
4.0	575	0.160	2.53

Fig 17. Flow Settings

#### **DISTRICT FLOW VERIFICATION**

The district flow rate can be verified using the heat meter within the HIU.

To guarantee the flow through the HIU, it is important that the minimum PICV pressure differential detailed in  $\underline{\text{Fig. 16}}$  is achieved.

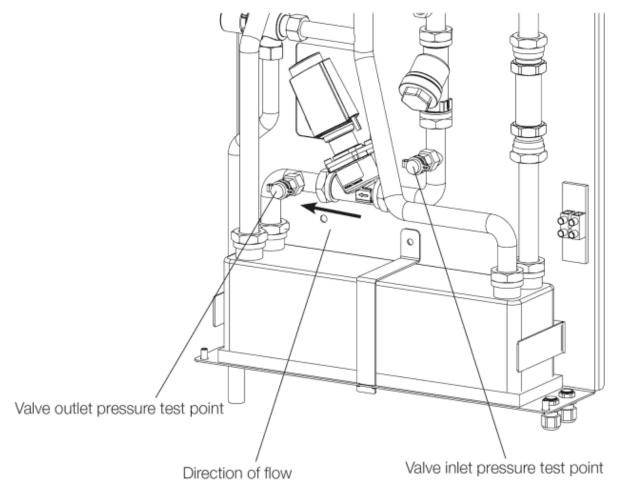


Fig 18. Test points page 20

#### **6.2 Safety valve**

#### **Safety Valve**

The HI-MAX STORE HIU is supplied with a sealed system safety valve set to lift at 3.0 bar g.

The safety valve should be checked periodically to ensure that the valve is operational. This is done by simply twisting the red plastic cap at the top of the valve. In doing so, a small burst of water will discharge from the valve, which can be witnessed through a tundish.

#### WARNING.

Any water discharged from the safety valve may be hot and poses a scalding risk. It is important during handover that the end user is instructed to check this periodically to ensure the unit is not discharging.

#### Note:

Check the system pressure on the pressure gauge once the above has been performed and top up as necessary using the filling loop on the cylinder.

#### **6.3 Strainer**

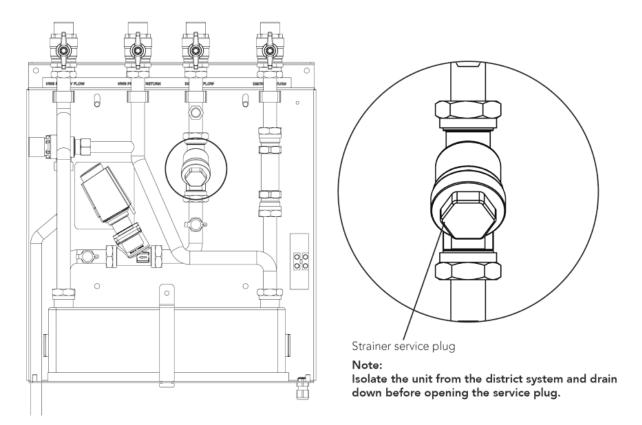


Fig 19 Y Strainer

**Y Strainer** Installed in the district heating flow pipe, the Y pattern strainer is fitted with a 500 micron filter to prevent any debris from entering the HI-MAX STORE HIU from the district heating system.

This filter can be accessed for cleaning purposes through the service plug.

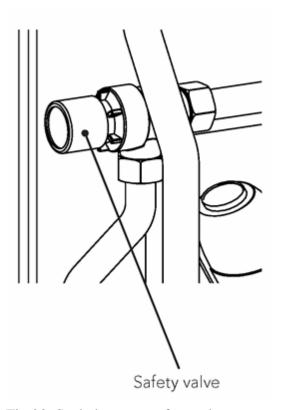


Fig 20. Sealed system safety valve

#### 6.4 Plate heat exchanger

#### Brazed plate heat exchanger

The brazed plate heat exchanger supplied within the heat interface unit provides a break between the primary (community / district) heating circuit and the secondary (apartment) central heating circuit. This is particularly useful in high rise apartment blocks where the primary circuit can run at high pressures.

As standard, the unit has a plate heat exchanger that is capable of working up to 32 bar g.

To maximise heat transfer across the plate heat exchanger the unit has been piped up in a counter flow method. The primary water enters the heat exchanger to the left and exits to the right, whilst the secondary water flows in on the right and out on the left.

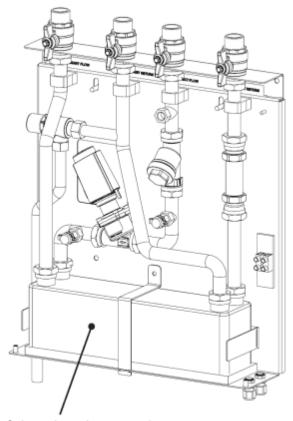
#### **Brazed Plate Heat Exchanger Specification**

- # Channel plates (316 ss)
- # 4 x 3/4 inch bsp male connections (grade 304 ss)
- # Secondary design pressure of 32.0 bar g
- # Primary design pressure of 32.0 bar g
- # Design temperature of 150.0°C
- # 100% air pressure test

#### **Water Quality**

Do not use the heat exchanger with de-ionized water and / or installations with galvanized pipes as this could chemically/electrochemically affect or be affected by the channel plates (Stainless steel) and the brazing material (Copper).

Maximum chloride content for the water in contact with the plate heat exchanger is 150mg/l (150PPM).



Position of the plate heat exchanger

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## 7.0 Commissioning

#### 7.1 Commissioning the district heating system

- 1. Depending on the size of the building there will be an element of diversification factored into the design. As such the centralised plant and pumps are unlikely to be able to supply 100% of the heat load to all apartments at any one time. Where extensive parts of the development are ready to be commissioned (especially in the depths of winter), this must be done with a controlled and phased approach to overcome the initial thermal inertia within the building.
- 2. With the power off, unclip the PICV actuator and ensure that the valve is set to 4 on the dial. pressure

The valve is fully open when the actuator is unclipped. If the project requires the flow rate to each apartment to be individually set refer to the setting details <u>here</u>, otherwise leave at setting 4 (see <u>Fig 14</u>).

- 3. Once the district heating flow rate has been set, clip the actuator back on and switch on the power to the central heating system.
- 4. Using the controller manually override the heating and hot water. The radiators and hot water store should now start to heat up.
- 5. Set up the programmer times in line with the customers' requirements. Please refer to separate controller instructions for details.

  Note the cylinder recovery can be operated on a time and temperature basis using a suitable two channel controller. Alternatively it can be run on a temperature only basis using the thermostats.
- 6. Leave all instruction manuals on site with the client.

#### 7.2 Filling the apartments central heating

- 1. Ensure the apartment central heating system is switched off at the mains isolation switch.
- 2. Ensure the HIU is isolated from the district heating system using the isolation valves on the first fix rail and thoroughly flush out the distribution pipework throughout the building using the flushing bypass arrangement. Ensure that all drain valves on the unit are closed. Only when all the debris has been removed from the system should the isolation valves be opened. Now check all joints for leaks.
- 3. It is recommended during the commissioning phase that the strainer is checked and the filter is cleaned out as necessary. To do this, shut the isolation valves and drain down and remove the service plug on the strainer.
- 4. Manually open up the zone valves using the lever on the actuator.
- 5. Ensure the pump isolation valves are open.
- 6. Open up the isolation valves on the first fix rail.
- 7. Using the filling loop on the cylinder, fill the central heating system. Radiators etc. should be vented separately, do not rely on the AAV to expel all the air from the system. Once all air has been expelled from the system and the system pressure is up to 1.3 bar g, switch on the central heating system at the electrical isolation switch and manually override the heating and hot water system on the two channel controller or programmable room stat.

The central heating pump, heating zone valve(s) and district heating control valve should operate. Please note the district control valve will take three minutes to open once the zone valves have opened.

Bleed any air that has worked its way around the system at all radiators and automatic air vents and adjacent to the cylinder / thermal store primary coil.

8. Switch off central heating and hot water manual override. The pump should stop and the valves close.

Note the PICV will take a few minutes to close.



Fig 22. Setting the flow rate dial page 23

## 7.3 Product installation & service documentation HEAT INTERFACE UNIT COMMISSIONING CHECKLIST

This commissioning checklist is to be completed in full by the competent person who commissioned the HIU as a means of demonstrating how the unit was installed and commissioned and must be handed to the customer to keep for future reference.

Failure to install and commission according to the manufacturer's instructions and complete this Benchmark Commissioning Checklist may invalidate the warranty. This does not affect the customer's statutory rights.

· · · · · · · · · · · · · · · · · · ·																												
Customer name:						Telephone number:																						
Address:													Ema	il:														
HIU Make and Model:																												
HIU Serial Number:																							Π	Τ				
Commissioned by (PRINT N	Commissioned by (PRINT NAME): Registered Operative ID number:																											
Company name: Telephone number:																												
Company address: Email:																												
													Con	nmiss	sio	ning da	te:											
Installer name:													Inst	allatio	or	n compa	ny:											
Installer contact telephone r	numb	er:																										
Building Regulations Notific	ation	Numb	er (i	f ap	plicab	ole	)																					
HIU TYPE																												
1. Hot water only. (1 DHW F	HEn	o Heat	na	cont	trole)																						Yes	
2. Direct Apartment Heating			_		_		artme	nt H	aatin		Contr	ole)															Yes	_
3. Indirect Apartment Heating						_				_				ontro	٠le	٠١							_	_			Yes	_
4. Heat Only (Direct) (No pla										ıcıı	iig rn	ic w	itii C	onac	JIS	» <sub>/</sub> .								_			Yes	_
5. Heat Only (Indirect) (1 Ap										h h	Heatin	.a. C	ontr	le\													Yes	_
6. HIU with integral cylinder		ent nec	uniç	g pie	ace me	at	excii	angei	WILL		reaciii	ig c	Jona	115).													Yes	_
7. HIU to be connected to a		der																									Yes	
NOTE: If connecting HIU to	-		cylir	nder	. have	. v	ou ch	ecker	d cor	mn	atibil	itv?	,														Yes	
						,	ou cii	o circo			Jacinoni				-												103	_
DISTRICT SYSTEM (COMMU		HEAII	NG	515	I EIVI)				_	7	C		(-l	dali.	,					6	trol '	V-1-						
Primary Control arrangemen	ıt:								+	$\rightarrow$	Conti				_				+	-					н	U		
Balancing arrangements: HIU Flow Regulation:						_			+	$\rightarrow$	Press On/C		inae	pena	ıeı	nt			$\vdash$	_	eren dulat		ress	ure				_
Differential pressure across	нш.	(if appl	cah	اما		_				_	Oli/C	211							_	IVIO	uuiat	ing		_			kPa	_
Static District pressure: (max																											bar (	(a)
District flow temperature:	, syst	em pre	35U	10)																							°C	9/
Flow control valve setting: (i	if ann	olicable													_									_			_	_
Flow control valve type: (if e			_																									
Make:	Acon	icity										Mod	del:															
Size:																												
Primary pressure system breaks:  Yes																												
Flushing bypass fitted and closed:  Yes								_																				
Dwelling isolation valves fitt																											Yes	_
If 'Yes' where:																												
Strainer checked and cleane	d if n	ecessa	ry:																								Yes	
																					_	_	_	_	_			_
																					- 1	h	OI.	20	h	P99.	ar	L

<sup>\*</sup>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.



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### HEAT INTERFACE UNIT COMMISSIONING CHECKLIST (continued)

DWELLING SYSTEM							
Heat emitters type:	Radiators	Underfloor system	1	MVHR		Fan Coil	
Controls section:							
Time and temperature control to heating:	Room thermostat	and Programmer/Timer	r	Programm	nable	Room Thermostat	
Load/Weather Compensation							
ime and temperature control to Hot Water: Cylinder thermostat HIU Not applicable							
Hot Water Zone Valves: (Stored) Fitted Not applicable							
Thermostatic radiator valves: Fitted Not applicable							
Automatic Bypass to System: Fitted within HIU Fitted outside HIU							
Design Detail:							
Pump setting: (if applicable)							
Auto bypass setting: (if adjustable)							
Radiator circuit:				Radial		Manifold	
If 'Manifold' where is it:							
Number of heating zones:							
Cold fill pressure: (bar) (heating circuit)							
Expansion vessel pre charge pressure valve: bar (g)							
Filling loop disconnected and capped:				Yes		Not applicable	
Safety valve setting: bar (g)							
Discharge pipework has been connected:		Yes	(In accord	dance with	h the i	relevant regulation	ns)
Separate air vents: (external to unit)				Yes		Not applicable	
If 'yes', location:							
Secondary Strainer fitted:						Yes	;
Cold water meter installed?		Inside unit	Outside	unit		None	
Drain cocks fitted:						Yes	;
DOMESTIC HOT WATER MODE							
Type:	Instantaneous	Vented Store	Unvent	ted Store		Thermal Store	
Store Details: (If present)							
Make and model:							
Serial number:							Т
Date commissioned:							
Appropriate Benchmark Commissioning Checklist comple	ted for cylinder: (if r	not instantaneous)				Yes	T
Instantaneous systems only: (types 1,2,3)	-						_
What is the incoming static cold water pressure at the inl	et to the system? ba	ır (g)					
Has a strainer been cleared of installation debris (if fitted	-			Yes		Not applicable	T
Is the installation in a hard water area (above 200ppm)?				Yes		No	
If yes, has a scale reducer been fitted?						Yes	
What type of scale reducer has been fitted?							
What is the hot water temperature set to?							
DHW recirculation fitted?				Yes		No	T
HEAT METERS							
Heat Meter commissioned?				Yes		No	
Error Codes cleared?				103		Yes	_
						103	_
ALL INSTALLATIONS	17 11 5 1 11	•					
The HIU system complies with the appropriate Building a						Yes	_
he system has been installed in accordance with the manufacturer's instructions?  Yes						_	
f an external cylinder has been connected, compatibility with HIU has been checked?						-	
The manufacturer's literature, including the Benchmark C	hecklist and Service	Record, has been comp	pleted clearly ar	ıd left witl	h HIU	? Yes	1
Commissioning Engineer's Signature							
Commissioning Engineer's Name and Company: (Printed)							
Date:							
(To confirm satisfactory demonstration and receipt of ma	nufacturer's literatur	e)					
*All installations in England and Wales must be notified to Lo	cal Authority Building	Control (LABC) either d	irectly or through	na [	be	nchmai	rk

Competent Persons Scheme. A Building Regulations Compliance Certificate will then be issued to the customer.



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## 8.0 Service

#### 8.1 General

#### Check and clean strainer filter

The strainer filter is accessed through the strainer service plug as detailed in Fig 24.

- 1. Isolate the electrical supply.
- 2. Using the isolation valves shut off the district heating flow and return connections as detailed in Fig 23.

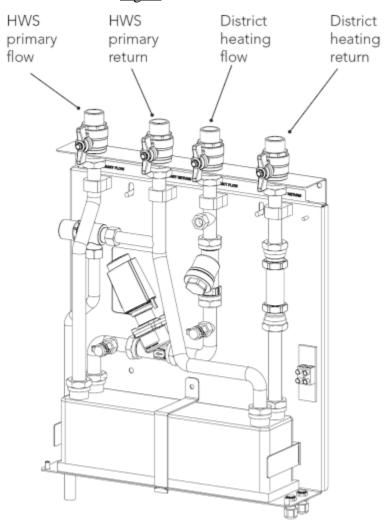


Fig 23. District connections and drain cock

3. With the district heating system isolated, drain down the unit.

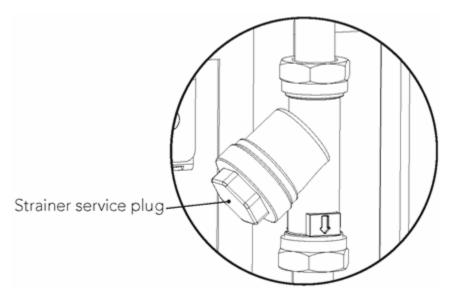


Fig 24. Strainer service plug

- 4. Remove the strainer filter and clean under a cold water tap.
- 5. Replace filter, refit service plug, open up the district isolation valves and switch electrical power back on.

#### Check the inhibitor content in the apartment's central heating system

- 1. Take a small sample of the water from the apartment central heating system. Using a protector test kit, check the concentration of inhibitor in the system.
- 2. Top up the system using the filling loop and add inhibitor as necessary.

#### Check the safety valve

- 1. Twist the red plastic cap anti-clockwise and witness water discharge through the tundish.
- 2. Using filling loop top up the system with water and inhibitor as necessary.



#### WARNING

# Any water discharged from the safety valve may be hot and pose a scalding risk.

#### Check charge in the expansion vessel

- 1. Isolate the central heating flow and return and HWS primary flow and return connections.
- 2. Drain down so that there is no system pressure exerted on the expansion vessel.
- 3. Using a pressure gauge, check the charge in the expansion vessel. This should be 1.0 bar g.
- 4. If charge is low, recharge the pressure using a bicycle pump or compressor.

#### Check the system pressure

1. With the apartment central heating system cold, check the system pressure. This should be 1.3 bar g. Top up using the filling loop as necessary.

In addition to the above carry out all checks detailed in the Systemfit manual. page 26

#### TRVs, Room Thermostats and Automatic Bypass:

The room thermostat should be installed in the coldest room in the house where the only heat source is a radiator without TRV. The radiator should be fitted with lock shield valves to avoid it being inadvertently isolated. It will then act as a system bypass and heat dissipater for the system.

#### **Access for Servicing:**

When installing the equipment within a confined space / cupboard consideration should be given to future servicing and maintenance of the unit. Therefore adequate access should be given to pumps, valves and accessories. Please see <u>Fig 3</u> and <u>Fig 4</u>.

#### **System Filling:**

The heating system filling loop is intended for temporary connection to the system only. When this is not in use for filling / topping up, the filling loop must be disconnected in accordance with local water bylaws.

#### **System Venting:**

Automatic air vents should be used where practicable at system high points. In the case of pipework at high level which is not accessible (i.e. on district systems within apartments and similar) a line size automatic separator should be fitted.

#### **Pipe Jointing and Cleaning:**

All joints which are to be soldered should be made using a flux that is sparingly applied and any residue to be flushed out of the system before commissioning using a chemical cleanser if necessary. All as per British Gas specification for domestic wet central heating systems.

#### **Pipework Insulation:**

Heatrae Sadia system packages are supplied without pipe insulation to allow the installer to ensure all joints are still sound after installation. It is recommended that these pipes are insulated. District heating flow and return pipes should be insulated to avoid stray heat losses in the apartment. All pipes in unheated areas must be insulated in accordance with local and national regulations.

#### Flushing bypass arrangement:

It is recommended that a flushing bypass arrangement is installed to allow the HI-MAX STORE HIU to be isolated from the district heating system during flushing and filling of the distribution network.

District heating piping arrangement: Where the HI-MAX STORE HIU is fitted with a two port on/off district heating control valve, all branches within the distribution pipework should be fitted with a reduced flow bypass valve to ensure water flows through these pipes at all times. It is recommended that this valve is sized and set to pass 5% of the design flow rate for each branch. Details of this arrangement are shown in Fig 24

#### Two channel programmable room thermostat:

The HI-MAX STORE can be supplied with a Danfoss TP9000 2 channel controller (available as an accessory). The controller has an in built room thermostat to control one heating zone and also comes with a separate room sensor should you wish to install the controller in a cupboard or the kitchen for example. On systems where there are two heating zones, an additional programmable room thermostat, such as the TP5000 is required (available as an accessory).

#### Treatment of water in the central heating system

All re-circulatory water systems will be subject to corrosion unless they are flushed and an appropriate water treatment is applied. To prevent this, follow the guidelines given in BS 7593 'Treatment of Water in Domestic Hot Water Central Heating Systems" and the treatment manufacturer"s instructions. Treatment must involve the use of a proprietary cleanser, such as Sentinel X300 or X400, or Fernox F3 and an inhibitor such as Sentinel X100 or Fernox MB-1. Full instructions are supplied with the products. For further information contact Sentinel or Fernox. Failure to flush and add inhibitor to the system will invalidate the appliance warranty.

It is important to check the inhibitor concentration after installation, system modification and at every service in accordance with the inhibitor manufacturer"s instructions. (Test kits

are available from inhibitor stockists.) For information or advice regarding any of the above contact Technical Enquiries  $0344\ 335\ 8819$ .

#### **District Control Valve**

The district control valve is supplied with a 3m cable. This needs to be wired to the cylinder wiring centre box.

#### **Earth Bonding**

Ensure the installation is earth bonded in accordance with BS EN 7671:2008.



#### **IMPORTANT**

# See Wiring diagram in the Systemfit manual

page 27

#### 8.2 Fault finding

Fault	Cause	Action
No Heating	Programmer incorrectly set, faulty, or wired incorrectly. Room thermostat set wrong, faulty, or wired incorrectly. Heating zone valve seized, faulty, or wired incorrectly. Central heating pump seized, faulty, or wired incorrectly. District heating control valve seized, blocked, faulty, or wired incorrectly.	Check programmer settings, wiring, and is operating correctly. Check room thermostat settings, wiring, and is operating correctly. Check zone valve wiring, is operating correctly and auxiliary switches. Check central heating pump wiring, is operating correctly. Check valve wiring and is operating correctly. Check pipe temperature either side of the valve. Check actuator is operational. Remove and clean as necessary.
	Strainer blocked. Isolation valves in closed position. Incorrectly piped.	Remove and clean filter. Ensure all isolation valves are open. Ensure HI-MAX STORE unit is correctly piped
No hot water	Programmer incorrectly set, faulty, or wired incorrectly. Cylinder thermostat set wrong, faulty, or wired incorrectly. When used the district pipe stat is set wrong, faulty, not fitted correctly or district piping not correct. Hot water zone valve seized, faulty, or wired incorrectly. Central heating pump seized, faulty, or wired incorrectly. District heating control valve seized, blocked, faulty, or wired incorrectly. Strainer blocked. Isolation valves in closed position. Incorrectly piped.	Check programmer settings, wiring, and is operating correctly. Check cylinder thermostat settings, wiring, and operating correctly. Check thermostat setting, check the stat is fitted to the pipe correctly, ensure the thermostat is on the correct pipe with heat constantly flowing through it. Check zone valve wiring, is operating correctly and auxiliary switches. Check central heating pump wiring, is operating correctly. Check valve wiring, is operating correctly. Check pipe temperature either side of the valve. Check actuator is operational. Remove and clean as necessary. Remove and clean filter. Ensure all isolation valves are open. Ensure HI-MAX STORE unit is correctly piped
No heating or hot water	No power to programmer / heating system.	Check power supply / fuse / circuit breaker. Check programmer settings, wiring, and is operating correctly.

	Programmer incorrectly set, faulty, or wired incorrectly. Cylinder and room thermostat set wrong, faulty, or wired incorrectly. Heating and hot water zone valve seized, faulty, or wired incorrectly. Central heating pump seized, faulty, or wired incorrectly. District heating control valve seized, blocked, faulty, or wired incorrectly. Strainer blocked. Isolation valves in closed position. Incorrectly piped.	Check cylinder and room thermostat settings, wiring, and is operating correctly. Check zone valve wiring, is operating correctly and auxiliary switches. Check central heating pump wiring, is operating correctly. Check valve wiring, is operating correctly. Check pipe temperature either side of the valve. Check actuator is operational. Remove and clean as necessary. Remove and clean filter. Ensure all isolation valves are open. Ensure HI-MAX STORE unit is correctly piped.
Insufficient heat	Low district heating flow temperature. Low district heating flow rate. No district heating flow to the HI-MAX STORE. Distribution pumps not set correctly or under sized.	Check district flow pipe temperature / heat meter temperatures. Check central boiler flow temperature settings and boiler size. Using heat meter check pressure drop across district control valve to verify flow rate, check and clean strainer, isolation valves and district control valve. Check pipe sizing. Check strainer isn't blocked, check isolation valves and district control valve are fully open. Check district heating pumps.

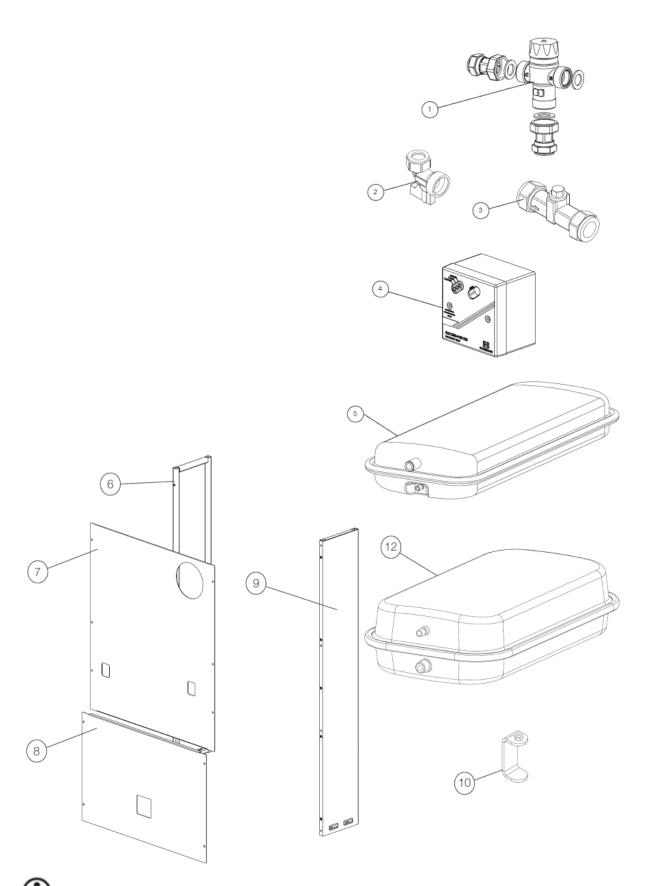
## For cylinder fault finding see Megaflo Systemfit manual

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## 9.0 Spare Parts

## **9.1 Spare Parts - HI-MAX STORE**

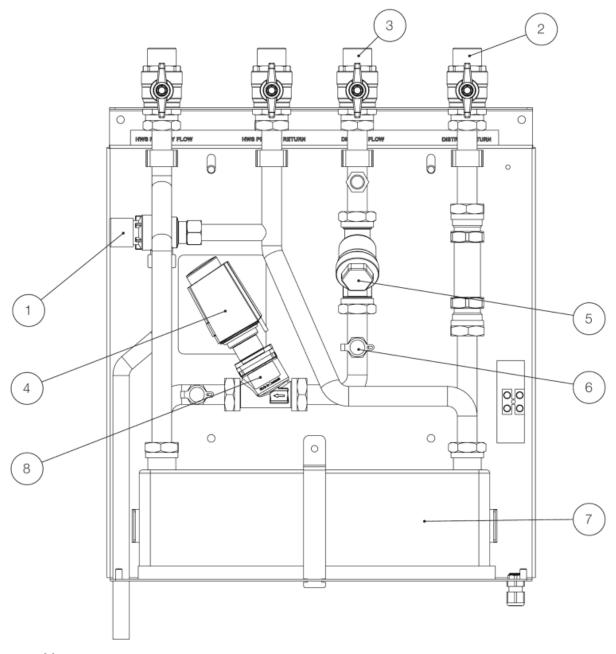
Item	Description	Part Number
1	Thermostatic mixing valve assembly	90002460
2	15mm x 3/4"# washing machine cold fill valve	24200184
3	15mm double check valve	40995096
4	Horstmann E30 run back timer	24500018
5	Expansion Vessel	24100037
	Side Support Frame 125L	24800009
6	Side Support Frame 145L	24800013
	Side Support Frame 170L	24800018
	Upper Modesty Panel 125L	7034927
7	Upper Modesty Panel 145L	7034928
	Upper Modesty Panel 170L	7034929
8	Lower Modesty Panel	7034930
	Side Support Panel 125L	24800010
9	Side Support Panel 145L	24800014
	Side Support Panel 170L	24800019
10	"C"# Bracket	24800017
11	Bag of Fixings	24800016
12	Expansion Vessel 12L	40990010



Please note for all other spare parts associated with the Megaflo eco Systemfit cylinder, refer to the spare parts section of the Megaflo Eco Systemfit Cylinder manual. page 29

## **9.2 Spare Parts - HI-MAX STORE HIU**

Item	Description	Part Number
1	Safety valve - 15mm - 3 bar	40405000
2	Isolation valve 3/4"# bsp male/male (blue)	5136203
3	Isolation valve 3/4"# bsp male/male (red)	5136204
4	Actuator - on/off - 230V	24500024
5	Strainer - 3/4"# bsp male/male	24500020
6	Binder test points - 1/4"# bsp (pack of 2)	24500022
7	Plate heat exchanger	24100040
8	District heating control valve	24500019



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## 10.0 Warranty

#### 10.1 Warranty

The Megaflo Cylinder and HI-MAX STORE Heat Interface Unit (HIU) contained within Heatrae Sadia package are covered by their individual respective warranties

#### In short;

- # The HI-MAX STORE HIU is covered for a two year parts and labour warranty
- # The Megaflo Cylinder is covered by the Megaflo Lifetime warranty full details of which are available in the Megaflo Cylinder fitting instructions.
- # All other components, including the packages frame, are covered by a two year parts and labour warranty.

Both warranties are subject to terms and conditions.

The warranty for the HI-MAX STORE HIU is valid provided that:

- # It has been correctly installed as per the instructions contained in the instruction manual and all relevant Codes of Practice and Regulations in force at the time of installation
- # It has not been modified in any way, other than by Heatrae Sadia
- # It has not been frost damaged.
- # It has not been tampered with or been subjected to misuse or neglect.
- # It has been installed in the United Kingdom.
- # The Heatrae Sadia 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./ BS 8558 and relevant building regulations.

Any scale related issues are not covered under the warranty of the unit.

The product warranty is valid from date of installation. Evidence of purchase and date of supply may be required. The warranty is transferable, cylinder is reduced from lifetime to 30 years on transfer.

Product warranties can be registered online at:

https://www.heatraesadia.com/includes/warranty-registration.htm page 31



#### **After Sales Service**

Tel: 0344 871 1535 Fax: 0344 871 1528

Email: heatraesadiaservice@baxi.co.uk

www.heatraesadia.com

**Heatrae Sadia,** Hurricane Way, Norwich, Norfolk, NR6 6EA, United Kingdom.

#### **SPARES STOCKISTS:**

**Advanced Water Company Ltd** 

Unit D5

Enterprise Way

Vale Park,

Evesham

Worcs,

WR11 1GS

Tel: 01386 760066 Fax: 01386 760077

#### **Electric Water Heating Co**

2 Horsecroft Place,

Pinnacles,

Harlow,

Essex,

CM19 5BT

Tel: 0845 055 3811

Email: sales@ewh.co.uk

#### SPD

Units 9 & 10

Hexagon Business Centre

Springfield Road,

Hayes,

Middlesex,

UB4 0TY

Tel: 020 8606 3567

#### **Parts Center**

Tel: 0845 270 9800 www.partscenter.co.uk

#### Newey & Eyre

Unit 3/4/5

Wassage Way

Hampton Lovett Industrial Estate

Droitwich,

Worcestershire,

WR9 0NX

Tel: 01905 791500 Fax: 01905 791501

#### **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

Alternatively contact your local supplying merchant or wholesale branch.

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