

PROVISIONAL COPY

Grant ThermaWave System

Thermal Store Range

Installation & User Instructions



WRAS
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PRODUCT



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1 Introduction & General Requirements

1.1 Installation Requirements

Thank you for purchasing a Grant thermal store from our Wave range. This installation manual must be read carefully before you begin installing the store. This thermal store must be installed by a competent person in compliance with all relevant current legislation, codes of practice and local by-laws.

Please also make sure that any installation complies with the instructions contained in this installation instruction manual.

1.2 Location

The unit is designed to be floor standing, vertically mounted, indoors, in a frost-free environment. When choosing a suitable location for the thermal store, consideration should be given to the connection and routing of the pipework and also the availability of an adequate power supply for connecting the immersion heaters.

The store may stand on any flat and level surface without any special foundation preparations, provided that it is sufficiently robust to support the full weight of the store. (Refer to Technical specifications for weights).

The position of the store should be such that easy access is provided for servicing the controls and replacing the immersion heater should the need arise. Generally, pipe runs should be made as short as possible and lagged to prevent heat loss.

1.3 Storage and Handling

If the store is not being installed immediately, it should remain in its carton to prevent damage. We recommend that the store be transported to its installation position on a sack truck or similar whilst still within the carton.

1.4 About Your Thermal Store

ThermaWave thermal stores have only one coil, for connection to a Solar Thermal system, where the solar fluid in the system must not mix with the primary system water in the thermal store. If Solar Thermal is to be connected, please refer to the manufacturers installation instructions for more information.

This thermal store is suitable for connection to open-vented systems ONLY, i.e. fed from a feed and expansion cistern and fitted with an Open Safety Vent (OSV) pipe provided the maximum head does not exceed 33m.

The store must NOT be installed or used as part of a sealed system.

If existing appliances and circuits that you wish to connect to the store are already sealed systems, contact the appliance manufacturer concerned to seek guidance on converting the installation to an open-vented type.

In all cases, each input from a heat generator must be connected using a 2-port motorised valve (with the exception of the solar coil and the 28mm tapping's when using an uncontrolled heat source e.g. Aga, solid fuel back boiler, etc) to shut off the flow to the primary source and electrically interlocked with the heat source via the store control and limit thermostat. Refer to Section 4.

All ThermaWave thermal stores are also fitted with two 3kW electric immersion heaters as standard. Refer to page 14 for further details on the immersion heaters. Note: These immersion heaters can be upgraded to 6kW units if required.

1.5 Pipework Connections

Pipework connections to the cylinder must be made in accordance with Figure 2-2.

1.6 Insulation

All Grant Thermal Stores are insulated with 40mm thick CFC/HFC free, fire retardant, polyurethane foam injected between the stainless steel cylinder and the outer casing. This polyurethane foam has a Global Warming Potential (GWP) of less than 3 and an Ozone Depletion Potential (ODP) of 0.

1.7 Health and Safety

The information supplied in the table in Section 2 Technical Specification will help you assess the safest way to manoeuvre your store into position. Please use the table to find the empty weight of your store and then consider how you can safely move it into its final position.

Please leave this manual with the householder after installation.

2 Technical Specifications

2.1 Technical Data

Model Number	GTHERM250	GERM300	GTHERM400
Store volume (litres)	250	300	400
Overall diameter (mm)	580	580	580
Overall height (mm)	1485	1735	2110
Weight empty (kg)	55	61	74
Weight full (kg)	305	361	474
Primary input connections (mm)	22	22	22
Primary output connections (mm)	22	22	22
Solid fuel (gravity circulation) flow connection (mm)	28	28	28
Solid fuel (gravity circulation) return connection (mm)	28	28	28
Fill and drain connection (mm)	22	22	22
Open safety vent connection (mm)	22	22	22
Maximum working pressure (bar)	3	3	3
Solar coil details:			
Solar coil connections (mm)	22	22	22
Solar coil length (m)	8.01	8.01	11.68
Solar coil surface area (m ²)	1.14	1.14	1.56
Solar coil rating (kW)	16	16	24
Performance:			
Standing heat loss (kW)*	2.69	2.71	2.94
Check list:			
Thermal store assembly 250 litre	1		
Thermal store assembly 300 litre		1	
Thermal store assembly 400 litre			1
Drain cock (1/2" end feed)	1	1	1
Dual thermostat (Control 25-65°C High Limit 90°C)	2	2	2
Immersion heater 3kW (1 3/4" boss) factory-fitted	2	2	2

* Test carried out at 60°C.

2.2 Dimensions

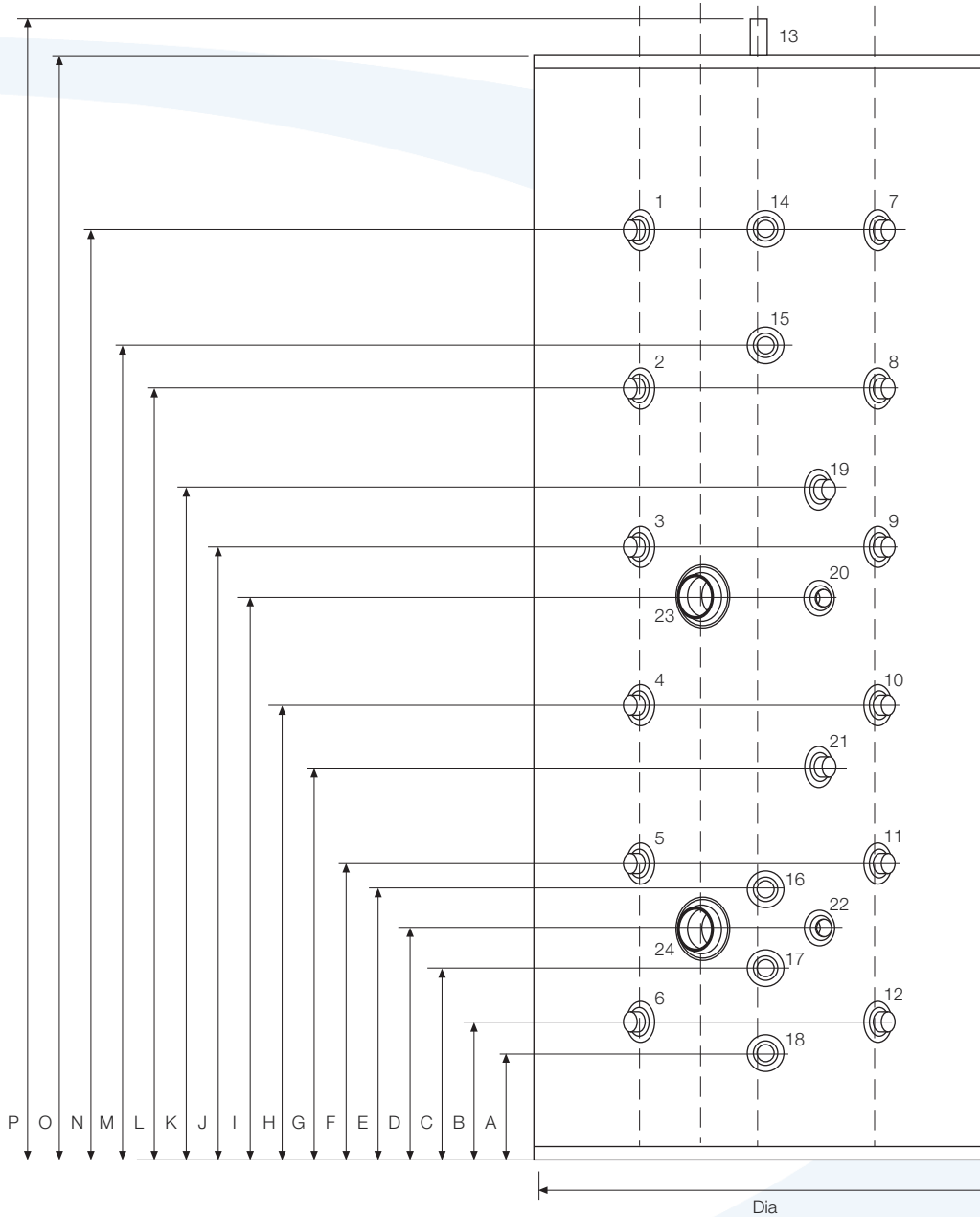
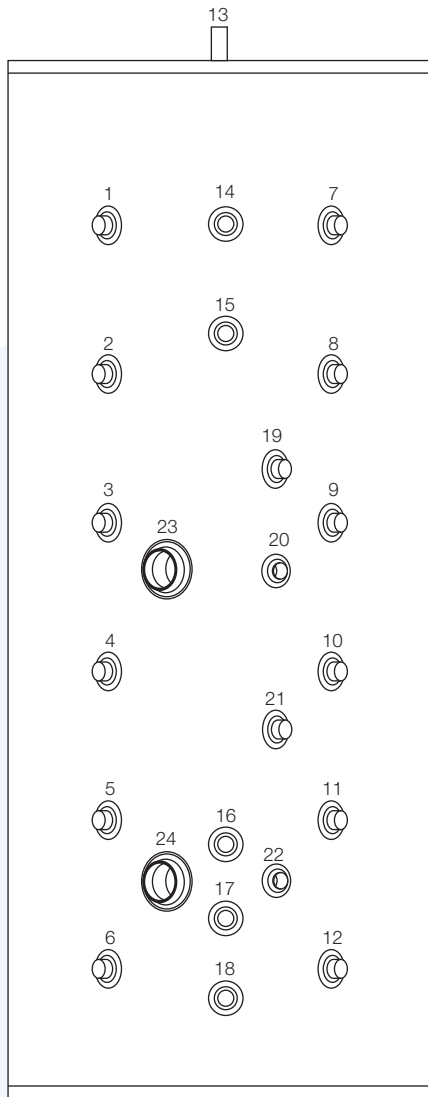


Figure 2-1: ThermaWave store dimensions

Dims (mm)	Model			Dims (mm)	Model		
	250	350	400		250	350	400
A	200	200	200	J	780	940	1250
B	240	240	240	K	870	1055	1410
C	310	315	320	L	960	1170	1580
D	360	365	370	M	1050	1285	1745
E	410	415	420	N	1140	1400	1910
F	420	475	580	O	1430	1685	2050
G	510	595	745	P	1485	1735	2110
H	605	710	915	Dia	580	580	580
I	735	890	1200				

2 Technical Specifications

2.3 Connections and Controls



Item	Description	Connection Size
1	Flow from boiler – if DHW fitted (note a)	22mm compression
2	Flow from boiler – if no DHW (note b)	22mm compression
3	Return from DHW kit or cylinder	22mm compression
4	Flow from Heat pump	22mm compression
5	Return from CH system	22mm compression
6	Return from UFH system	22mm compression
7	Flow to CH - if no DHW (note c)	22mm compression
8	Flow to CH - if DHW fitted or Return to boiler (note d)	22mm compression
9	Flow to UFH – high capacity (note e)	22mm compression
10	Return to boiler	22mm compression
11	Flow to UFH – low capacity (note f)	22mm compression
12	Return to Heat pump	22mm compression
13	OSV and flow to HW cylinder or DHW kit	22mm compression
14	Not used - to be blanked off	1/2" BSPF
15	1/2" sensor pocket	
16	Solar coil return	22mm compression
17	Solar coil flow	22mm compression
18	Feed (from expansion tank)	22mm compression
19	Flow – gravity circuit	28mm compression
20	1/2" sensor pocket	Dual Thermostat
21	Return – gravity circuit	28mm compression
22	1/2" sensor pocket	Solar Sensor
23	Immersion heater (factory fitted) c/w control and limit thermostat (note g)	1 3/4" BSPF
24	Immersion heater (factory fitted) c/w control and limit thermostat (note g)	1 3/4" BSPF

Figure 2-2: ThermaWave thermal store connections

Notes:

- (a) Use as flow from boiler if the store is being used to produce domestic hot water – refer to section 3.2 for further details on usage.
- (b) Use as flow to central heating (e.g. radiators) if the store is not being used to produce domestic hot water.
- (c) Use as flow from boiler if the store is not being used to produce domestic hot water.
- (d) Use as flow to central heating if the store is being used to produce domestic hot water.
- (e) Use as flow to underfloor heating (UFH) if the whole house is heated by UFH (i.e. a high capacity system)
- (f) Use as flow to UFH if only part of the house is heated by UFH (i.e. a low capacity system).
- (g) Immersion elements can be upgraded to 6kW if required.

IMPORTANT

The above information on connections is given as a general guide only and, as such, Grant Engineering UK Ltd cannot accept responsibility for the correct operation as it is impossible to cover all possible permutations of heat generators and heat emitters for all systems. Depending on the inputs and outputs you wish to connect to the ThermaWave thermal store, there may be a more suitable configuration for your application. In order to assist you and other installers in the future, we would ask you to please complete and return the 'Installation feedback' sheet enclosed with these installation instructions so we may build a comprehensive library for your use. For further assistance with the application and connection of the Grant ThermaWave thermal store, please contact the Grant Technical helpline.

2.4 Internal Pipework

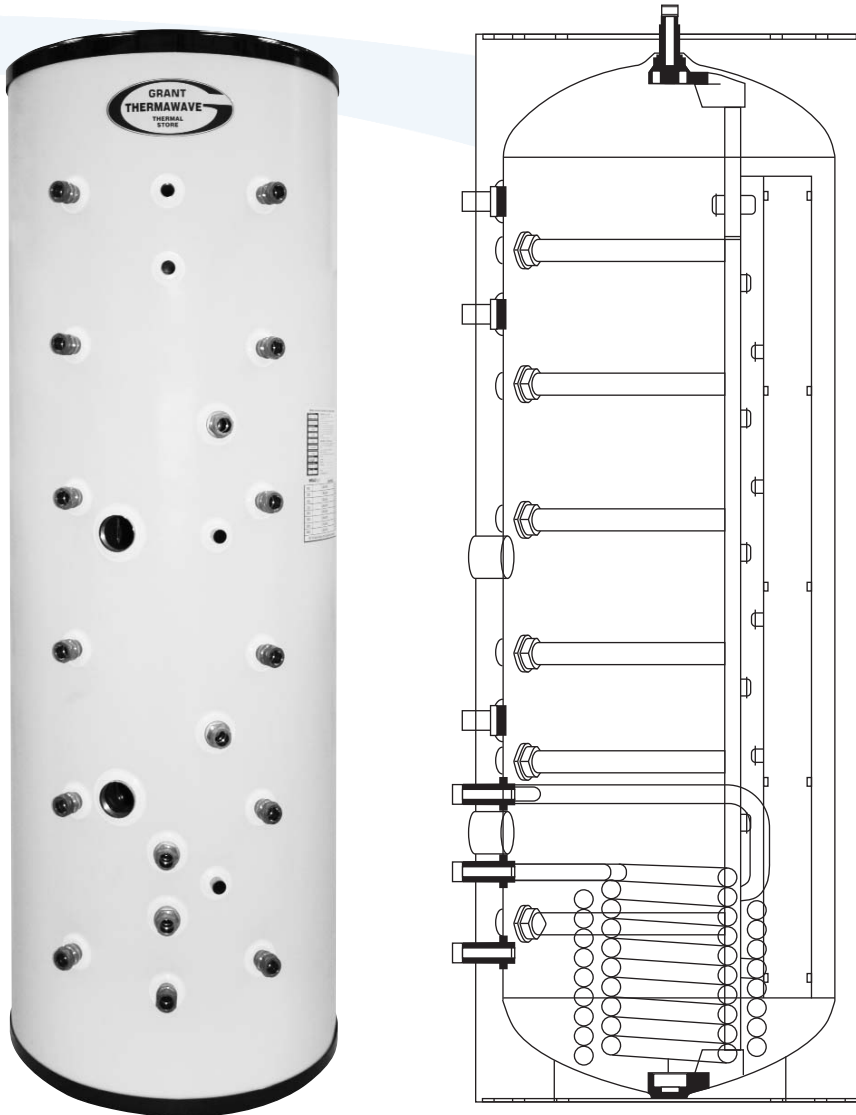


Figure 2-3: Section view of store

3 Primary Circuit Installation

3.1 Grant ThermaWave Thermal Stores

There are 9 inputs and 9 outputs available for connection to this store. Do not confuse these inputs and outputs with the flow and return connections that would be found on a heat producing appliance such as a boiler for instance.

An input could be a flow from a heat source (e.g. a boiler, heat pump or solid fuel appliance) or the return from a heating circuit (e.g. a radiator circuit).

An output could be the flow to a heating circuit (e.g. an Underfloor heating circuit) or the return to a heat source (e.g. a boiler, heat pump or solid fuel appliance).

The only defined connections on the store, that have a dedicated use, are as follows:

- a) The OSV (Open Safety Vent) connection (13).
- b) The feed and expansion cistern connection (18).
- c) The solar thermal coil flow and return connections (17 & 16).
- d) The gravity circuit flow and return connections (19 & 21).
- e) The immersion heaters - factory fitted (23 & 24).

3.2 Principle of Operation and Connection

Before deciding on which inlet and outlet connections to use for a particular installation, it is worth taking a short while to understand how the Grant ThermaWave thermal store works.

Apart from the dedicated connections detailed above in section 3.1, there are six main input or 'inlet' connections and six main output or 'outlet' connections that can be used in a variety of ways, depending on the heat sources (e.g. boiler, heat pump, etc.) and heat emitters (e.g. radiator circuit, underfloor heating circuit, hot water heating, etc.) to be connected in any given installation. Refer to Figure 3-1.

The 6 inlets are each connected via an internal corrugated stainless steel tube into a stainless steel vertical header – approximately 100 x 100mm square in

section. The purpose of this header is to both slow down the water as it enters the inlet tube and assist in promoting and maintaining the natural stratification within the store. A series of holes in this vertical header allow the water from the 'inlet' connections to mix with the main body of water in the store, once it has reached the level in the store where the incoming and store water temperatures are the same.

For example, if the store water temperature 300mm from the top of the store is 65°C and the water entering the second from top input connection (connection 2 on Figure 2-2) is only 40°C then, being less buoyant than the surrounding store water, the inlet water will fall until it reaches a level where it meets water of a similar temperature.

The inlet selected for connection must therefore be based on the normal working temperature of that inlet.

For example: If a boiler with a nominal flow temperature of 70°C is to be connected, a connection towards the top of the store should be used.

If a heat pump is to be connected with a nominal flow temperature of only 50°C a connection around the halfway up the store should be used.

If the return from an Underfloor heating system at around 30°C is to be connected a connection at the bottom of the store should be used.

The 6 outlets are connected directly into the main body of water in the store – with no tube or header involved.

Pumping any water into these outlets must be avoided as it would result in a fully mixed store with water at one temperature only, and thus negate the natural stratification

The Golden rule for Grant ThermaWave Thermal Store is to always pump away from the store.

As the feed and expansion and open safety vent (OSV) pipe connections are made at the store there will be no issue of pumping over and drawing re-oxygenated water into the system(s).

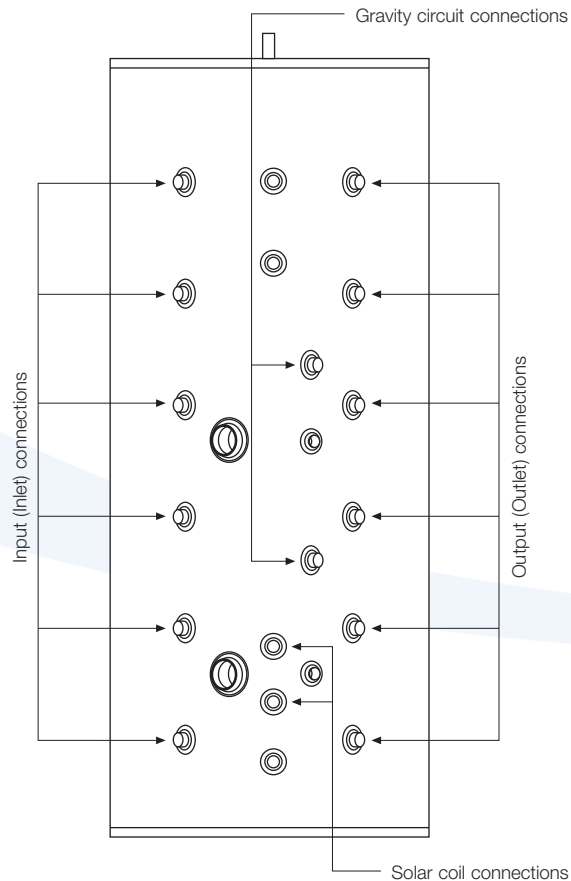


Figure 3-1: Inlet and Outlet connections

3.3 Gravity Circuit

A 28mm flow and return connection is provided on the store for connection of a 'gravity circulation' circuit – for connection of an uncontrolled solid fuel or wood burning appliance. These connections are both directly into the main body of water in the store and not through either an internal corrugated stainless steel tube into the vertical manifold or via an indirect coil. Refer to Figure 3-1.

3.4 Open Vented System Connections

The ThermaWave thermal store includes provision for connection of the Open Safety Vent (OSV) pipe and the Feed and Expansion Cistern for the system. Refer to Figure 3-2 for details.

The Minimum static head for the system, i.e. the vertical height from the highest point of the system (e.g. the top of the highest radiator) is 1 metre. The Maximum head on the system must not exceed 33 metres.

3.5 Feed and Expansion Cistern Sizing

The correct size of feed and expansion cistern must be determined based on the total primary circuit volume of the system – i.e. the total volume of

- a) all heat generators (e.g. boilers, heat pumps, etc) and their connecting pipework
- b) all heat emitter circuits (e.g. radiators, underfloor, etc) and their connecting pipework
- c) the thermal store volume

The cistern must be capable of accommodating at least 4% of the total system volume, e.g. 4 litres for every 100 litres of primary system volume, without any water overflowing to waste as the level rises.

The Feed and Expansion Cistern, and all associated components (e.g. the float valve), must be capable of withstanding the temperature of boiling water.

The Feed and Expansion Cistern should be installed in accordance with the requirements of the the Building Regulations Approved Document G 2010, the Water Supply (Water Fittings) Regulations 1999 or the Water Byelaws 2000, Scotland, as appropriate.

Vent pipe shall terminate not less than twice the internal diameter of the vent pipe above the top of the float operated valve 'a' or top of the overflow pipe 'b' whichever is the higher.

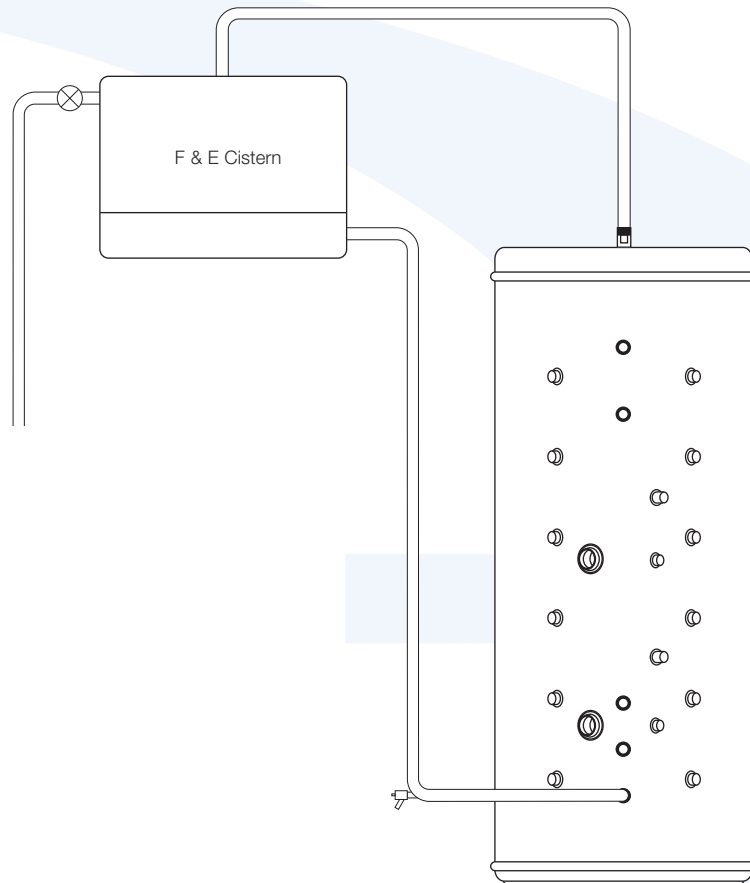


Figure 3-2: Feed and expansion cistern connections

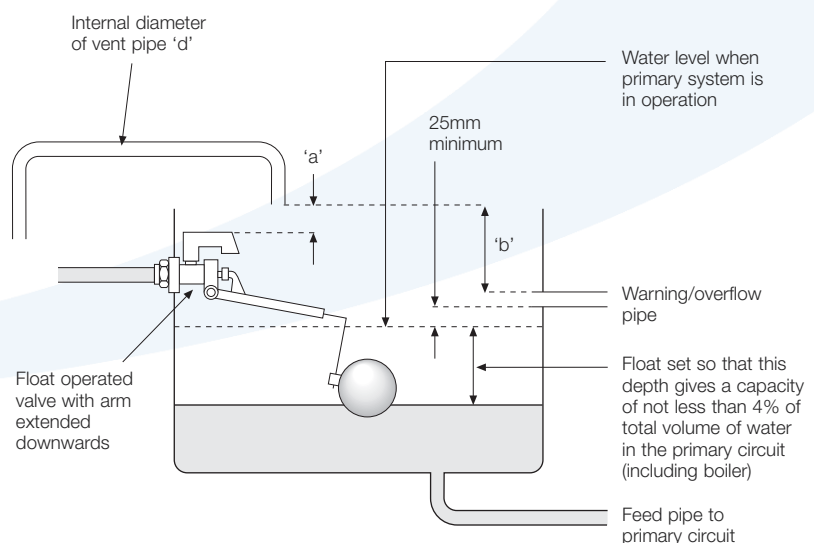


Figure 3-3: Relative water levels in feed and expansion cisterns

3 Primary Circuit Installation

3.6 Solar Thermal

Between the Solar thermal connections on the store is a corrugated stainless steel coil to provide the indirect primary circuit through which the solar thermal fluid will be circulated.

Refer to Section 2.1 Technical Data for details of the solar thermal coil fitted to each of the different ThermoWave thermal stores.

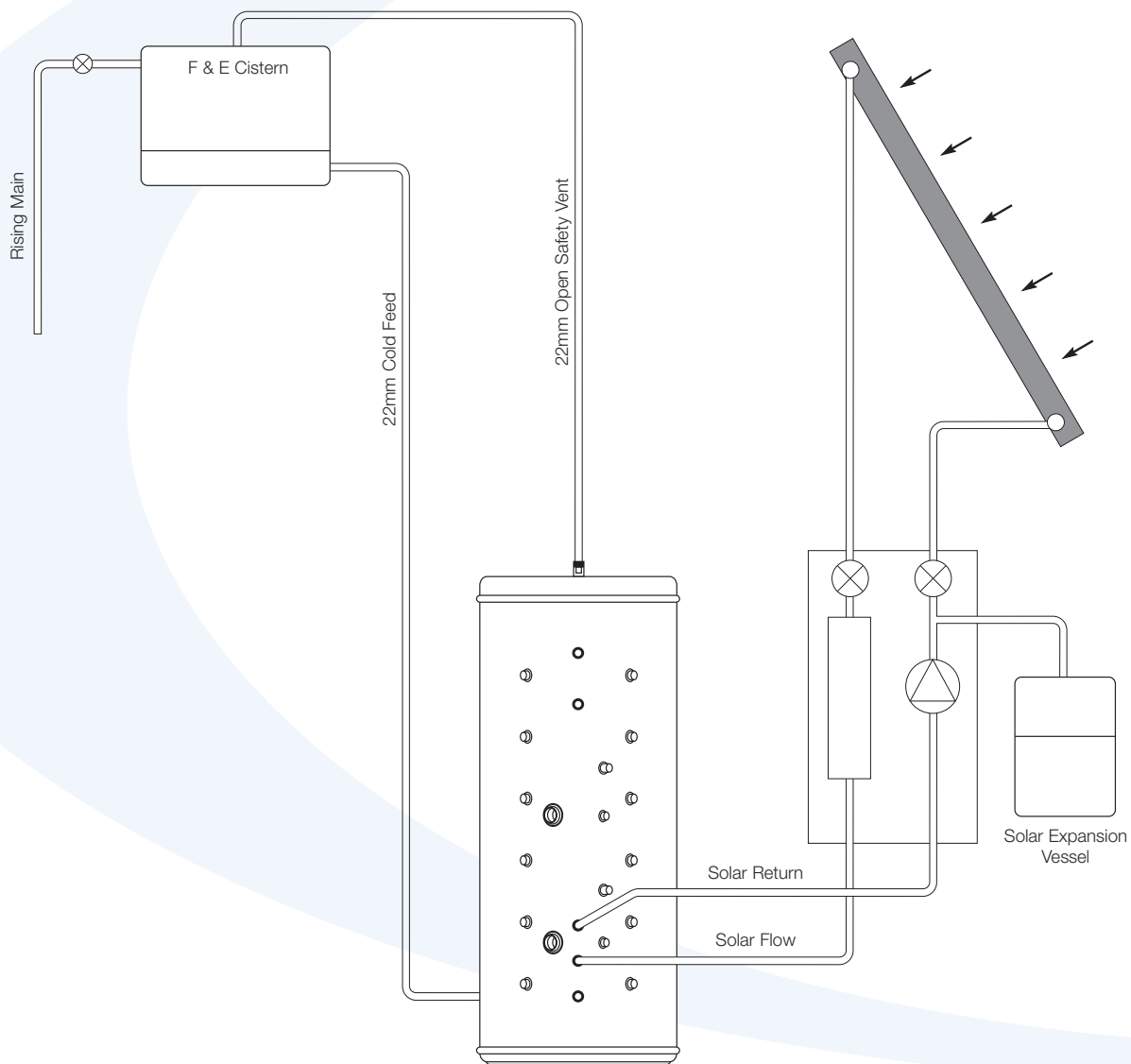


Figure 3-4: Solar thermal system connections

4 System Arrangements

4.1 General

The following system diagrams show typical arrangements and connections to the Grant ThermoWave thermal store.

As described in Section 3.2, the connection for a particular heat generator and heat emitter circuit should be selected based on:

- a) The flow and return temperatures for the heat source and of emitter concerned, and

- b) The other heat sources and emitter circuits to be connected to the same thermal store.

Consequently, the following diagrams are given as an indication of how the store can be used to connect several heat sources and emitter circuits as one system.

4.2 Boiler with underfloor and radiator heating circuits

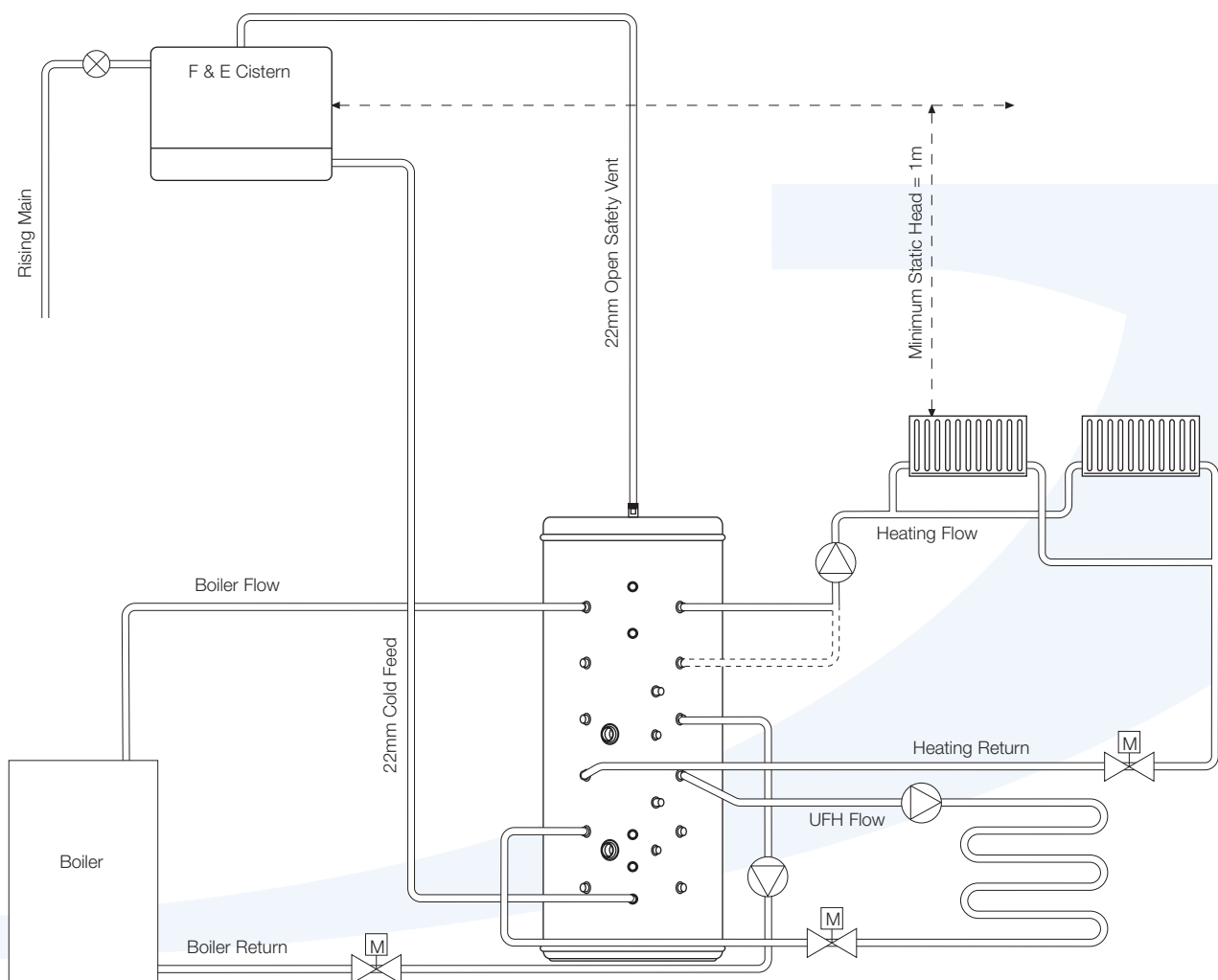
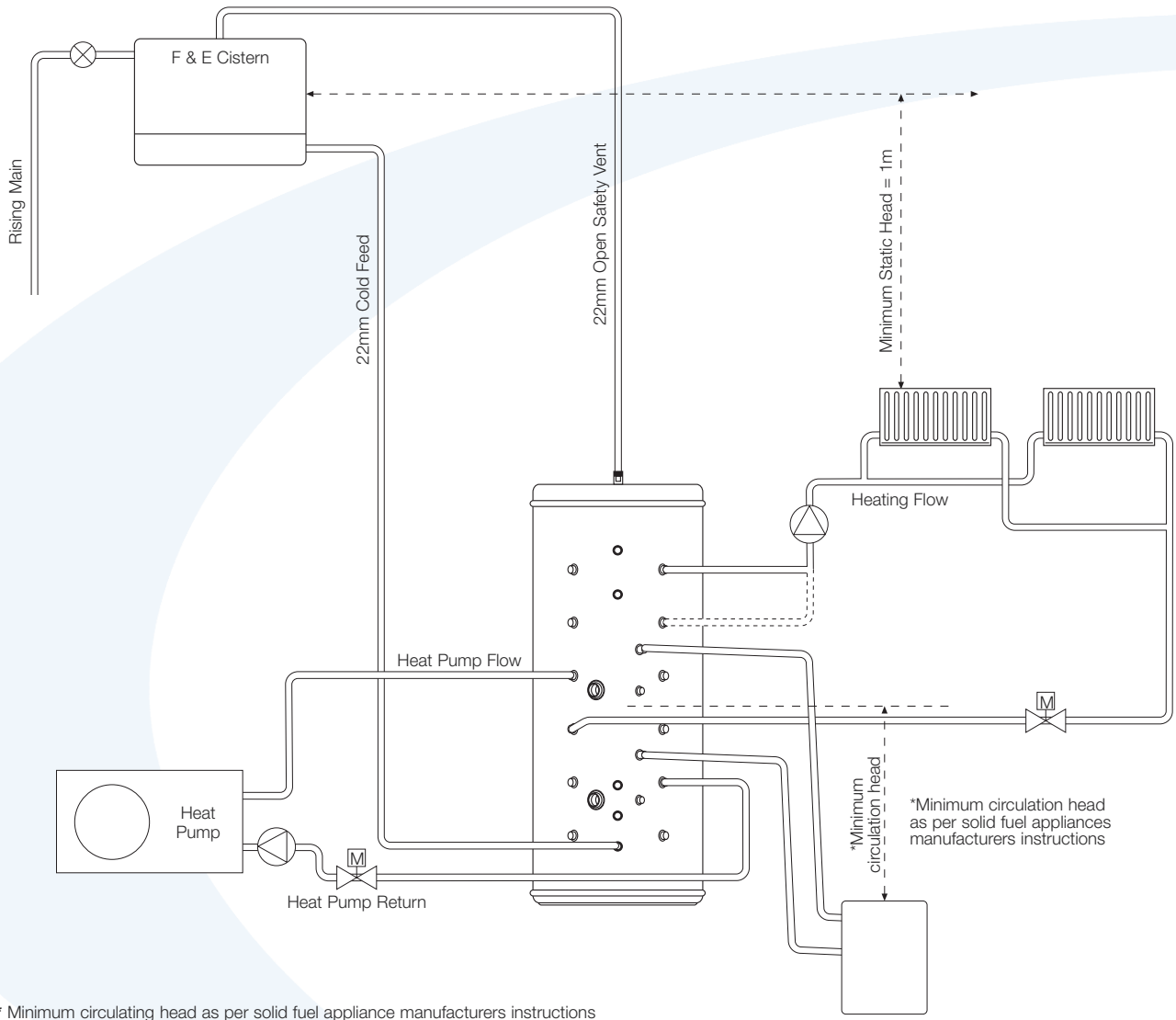


Figure 4-1: Boiler primary with underfloor and radiator circuit connections

NB: Open vented Boiler must be fitted with an automatic air vent and high limit thermostat.

4 System Arrangements

4.3 Heat Pump and Solid Fuel Appliance with Radiator Circuit



* Minimum circulating head as per solid fuel appliance manufacturers instructions

Figure 4-2: Heat pump and solid fuel appliances with radiator heating circuit

4.4 Boiler, Heat Pump and Solar Thermal with Radiator Circuit

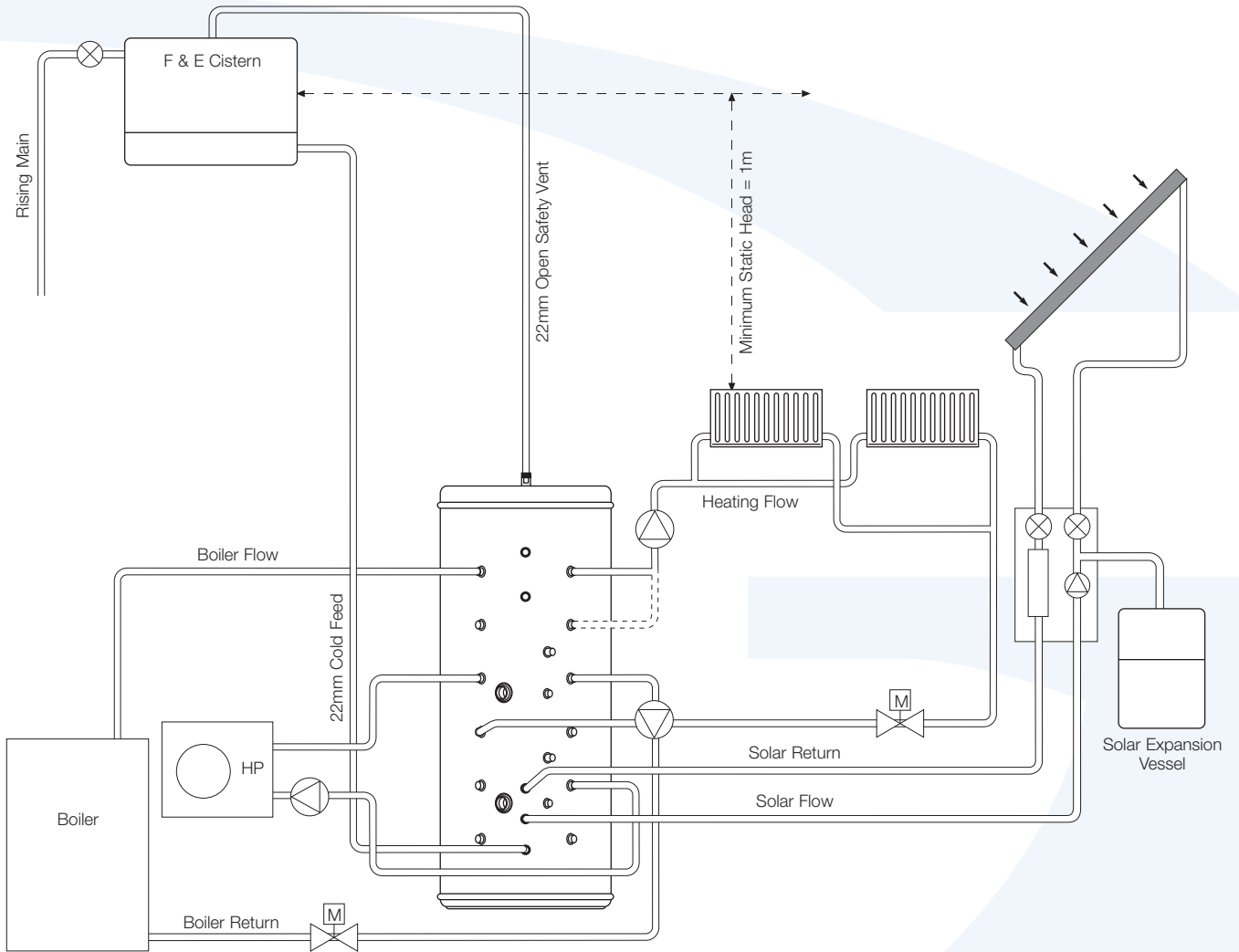


Figure 4-3: Boiler heat pump and solar thermal with radiator heating circuit

5 Electrical Installation

WARNING

This appliance **must** be earthed. All electrical wiring must be carried out by a competent person and in accordance with the current I.E.E. Wiring Regulations.

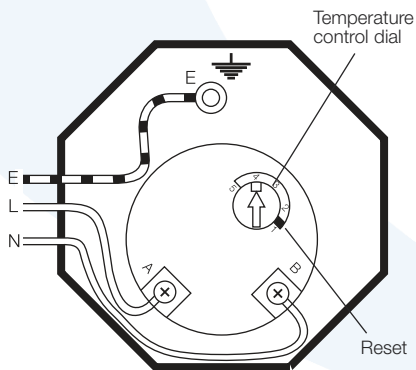
5.1 Immersion Heater

All Grant ThernaWave thermal stores are supplied factory-fitted with two 3kW immersion heaters - one at the bottom of the store and the second about half way up the store.

Each 3kW 230V 50Hz-immersion heater should be wired in accordance with the instructions given in Figure 5-1.

The cable must be routed through the strain relief bush. The control thermostat is pre-set at approximately 60°C. The immersion heater conforms to EEC Directive 76/889 for radio interference and complies with EN 60335-2-73.

Installation and wiring instructions for the immersion heater are supplied with each unit. Follow the wiring instructions connecting the live, neutral and earth as indicated.




-  = Earth (Green/Yellow)
- A = Live (Brown)
- B = Neutral (Blue)

Figure 5-1: Immersion heater wiring connections

The unit must be permanently connected to the electrical supply through a double-pole isolator. A safety cut-out is also incorporated within the thermostat and will operate at $80^{\circ}\text{C} \pm 3^{\circ}\text{C}$.

IMPORTANT

Before resetting the safety cut-out, or altering the thermostat setting, isolate electrical supply to the unit prior to removal of the cover. Investigate and identify the cause of the cut-out operation and rectify the fault before manually resetting the cut-out by pressing in the reset button. Ensure the cover to the immersion element is replaced correctly and the retaining nut is fitted. Finally switch the mains electricity supply back on.

WARNING

The manual re-set high limit thermostat must not under any circumstances be bypassed. This is pre-set to 80°C and to prevent nuisance tripping the control thermostat should always be left in position 4.

5.2 Immersion Heater Wiring Instructions

- a) Ensure the mains voltage corresponds to the voltage rating of the immersion heater as shown on the rating label on the terminal cover.
- b) The immersion heaters are factory fitted to the cylinder. If either of the immersion heaters needs to be removed or replaced it must be fitted to the cylinder using the gasket provided. Use a shaped spanner. Stillsons or pipe grips should not be used. The use of sealing compound is not recommended.
- c) Wire the immersion heater in accordance with the wiring diagram (Figure 5-1). It should be wired through a double pole isolator switch or controller, with a minimum break capacity of 13 amp having contact separation of at least 3mm, using 1.5mm sq. flexible cable, 85°C rubber insulated HOFR sheathed, to comply with BS 6141 table 8 and must be fully earthed.

- d) The BEAB approval certification on this immersion heater only applies if a Cotherm TSE rod type thermostat is used. The temperature setting of the control thermostat should always be left in position 4.

5.3 Dual Thermostats

Two Dual Thermostats (each a combined control and high limit thermostat) are supplied separately with the thermal store.

One is fitted into the upper sensor pocket in the cylinder (see Figures 2-3 to 2-8 for position) to control the operation of the boiler or heat pump. The second is fitted in the lower sensor pocket to control the operation of the Solar coil.

The control thermostat has an adjustment range between 25°C and 65°C, however it is recommended that it is set to 60°C. The overheat thermostat incorporated within the dual thermostat will operate at 90°C.

6 Commissioning, Draining Down & Safety

6.1 Before Commissioning

The Grant ThermaWave thermal store is provided with a single coil in the lower part of the store for the connection of a solar thermal system. These will be commissioned (as per manufactures instructions) after the Thermal Store has been filled, tested and commissioned.

Check that the correct thermal store been chosen for the system in hand?

Remember this is an open vented thermal store and will require a feed and expansion cistern fitted above the highest radiator in the system. Refer to Section 3.5 for feed and expansion cistern sizing.

The thermal store will usually be connected to the heating system, underfloor circuit or radiators. The water contained in the store will be the same water in the heating system and the gas or oil central heating boilers. For this reason it is important that the thermal store is flushed in accordance with the guidelines given in BS 7593:1992 "Treatment of water in domestic hot water central heating systems".

6.2 Filling and Flushing

Check that all pipe connections to the store for tightness, including all factory fitted connections.

Visually check that any unused Inlet and outlet connections on the thermal store are blanked OFF with either a cap end or an isolation valve and cap end.

Check that both immersion heaters have not become loosened in transit. Tighten as necessary using a shaped spanner. Stillsons or pipe grips should not be used.

Any valves on the store connecting to the heat sources and heat emitter circuits may be left open if they are to be flushed and commissioned at the same time as the thermal store.

Check that ALL drain-off cocks are closed.

Fill the thermal store and any connected circuits via the feed and expansion cistern by opening the service valve on the supply to the float operated valve in the cistern.



Isolation valves should not be fitted to the feed and expansion pipe.

IMPORTANT

The thermal store and connected systems are flushed in accordance with the guidelines given in BS 7593:1992 "Treatment of water in domestic hot water central heating systems" This must involve the use of a proprietary cleaner, such as either Sentinel X300 or X400, or Fernox Restorer.

For long term protection against corrosion and scale, after flushing, it is recommended that an inhibitor such as Sentinel X100 or Fernox MB-1 is used in accordance with the guidelines given in BS 7593:1992 and the inhibitors manufacturer's instructions.

6.3 Cold System Checks

After filling and flushing is complete, and before any heat source connected to the thermal store is switched on, the water level in the feed and expansion cistern should be checked (cold). There should be sufficient room for the expansion of the water in the thermal store and all the system circuits connected to it.

6.4 Commissioning

Turn on the heat sources connected to the thermal store and check their thermostat settings and their correct operation.

Check the operation of any electrically operated motorised valves.

Balance the flow and return temperature of the heat input from any gas/oil boilers in accordance with the manufacturer's instructions.

Balance the flow and return temperatures of the connected heat emitter circuits, e.g. radiator or underfloor heating circuits, in accordance with manufacturer's Instructions.

Check and set any hot water system connected to the thermal store for correct operation and flow rate.

If any thermostatic mixing valves have been fitted to the hot water system check their operation and temperature settings.

6.5 Customer Handover

Complete the Benchmark book supplied with the Cylinder and leave it with the User.

Explain the operation of the system to the User, referring to Section 10 of these instructions.

In particular, make the User aware of what to do if water is seen to flow from the T&P Valve. Refer User to the Information given in Section 10.

6.6 Draining Down

If for any reason the thermal Store needs to be drained down, use the following procedure:

Switch OFF all electrical supplies to the store.

Switch OFF all heat sources connected to the store.

Shut off the service valve to the float operated valve in the feed and expansion cistern.

Connect a hose pipe to the lowest drain cock on the system, route it to a convenient gully and drain the system. The cylinder may take several minutes to empty completely.

When required, refill the system as described above in Section 6.2.

7 Maintenance

7.1 General

Servicing and maintenance must only be carried out by a competent hot water installer, or by Grant Engineering (UK) Limited authorised personnel.

Before any work is carried out on the installation, it MUST first be isolated from the mains electricity supply.



Both the primary and secondary systems will contain very hot water that will scald. Ensure all systems connected to the store are allowed to cool down before commencing any work. Care must be taken when disconnecting any joints, seals or valves.

Only use spare parts authorised by Grant Engineering (UK) Limited. The use of unauthorised spare parts will invalidate the warranty.

7.2 Routine Maintenance

Annual maintenance of the feed and expansion cistern is not normally required. However, inspection of the water level and the operation of the float valve would be advised along with a check of the strength of and inhibitors which have been provided to protect the system.

Check to see if 'Pumping over' is taking place when all pumps connected to the store are switched ON.

In hard water areas it may be necessary from time to time to remove and de-scale the immersion heater element. Replace the gasket each time it is removed.

To drain the cylinder – refer to section 6.6.

8 Fault Finding Guide

8.1 Store is Cold

1. Check all heat inputs to the Store
2. Electric immersion heater – thermostat – limit stat operation.
3. Solar Thermal input – pump – system pressure – PRV discharge – expansion vessel – control settings – limit stat operation.
4. Oil / Gas Input – appliance problems – pump – motorised valve – thermostat – limit stat operation.
5. Air/Ground source heat pump – appliance problems – pump – motorised valve – thermostat – limit stat operation.
6. Solid fuel – appliance is lit – gravity pipework sized correctly – sufficient circulating head – thermostat – limit stat operation.

8.2 Store is Hot - No Hot Water (If fitted)

1. If an automatic – manual – air vent fitted is there water present in the store.
2. Is the store full of primary water – Check the feed and expansion cistern has sufficient water to feed store.
3. Check the operation of the hot water kit (if fitted) including the flow switch.
4. Check the pump is operating when required.
5. Check any thermostats that may be fitted – limit stat operation.
6. Store is hot no heating to radiators or underfloor circuits.
7. Check operation of room thermostats and motorised valves.
8. Check the heating circuit pump is working.

9 Spare Parts

ThermaWave Thermal Store Spare Parts

Part Name	Part No.
Coil control/Limit Thermostat	GCS11
Immersion Heater Element	GCS13
Immersion Heater Thermostat	GCS15

10 User Instructions

10.1 User Instructions

Your Grant ThermaWave thermal store has been designed to give many years of trouble-free service and is made from hygienic high grade stainless steel. It is fitted with two 3kW electric immersion heaters for times when your boiler, heat pump or solid fuel appliance and solar thermal system is not operating or requires a back-up to provide the required store temperature.

The required temperature can be set on both immersion heaters. The control thermostats on both immersion heaters should be left set to setting 4 – refer to Section 5.1 of this Installation and User manual. The control thermostats should not be set any higher otherwise or they may prevent efficient operation of a solar thermal system (if connected to the store). If you are in any doubt, these adjustments should be best left to either your system installer or a qualified electrician.

11 Warranty

11.1 The Grant Cylinder Warranty

Dear Customer

You are now the proud owner of a Grant thermal store from Grant Engineering (UK) Limited, which has been designed to give you years of reliable, trouble free operation.

Grant Engineering (UK) Ltd. guarantees all electrical and mechanical components supplied with the thermal store for a period of two years from the date of purchase. In addition, the stainless steel used in the manufacture of the thermal store is guaranteed for a period of twenty five years with the manufacturing process of the thermal store guaranteed for two years from the date of purchase, provided that the thermal store is installed in full accordance with the installation instructions provided and the system is serviced after twelve months operation. (See Terms and Conditions).

Important

Please register your Grant thermal store with Grant UK within thirty days of the installation as follows.

Visit www.grantuk.com and follow the links to the 'Householder zone' where you can register your thermal store for a further one year warranty (giving two years from the date of purchase). This does not affect your statutory rights.

Breakdown during the Manufacturer's Warranty

If your Grant thermal store should fail during the first two years, you must contact Grant Engineering (UK) Limited, who will arrange for the repair under the terms of their Warranty, providing that the system has been correctly installed and commissioned, serviced (if older than twelve months) and the fault is not due to misuse, or the failure of any external components not supplied by Grant UK (e.g. pipework, etc.). This extended two year warranty only applies if the thermal store is registered with Grant UK within thirty days of installation.

In the first Instance:

Contact your installer or commissioning engineer to ensure that the fault does not lie with the system or any other

components, or any incorrect setting of the system controls.

If a Fault is Found:

Ask your installer to contact Grant Engineering (UK) Limited, Service Department on 01380 736920 who will arrange for a qualified service engineer to attend to the fault.

Free of Charge Repairs:

During the first two years no charge for parts or labour will be made providing that the thermal store has been installed and commissioned correctly in accordance with the manufacturer's instructions, serviced at twelve month intervals and the thermal store was registered with Grant UK within thirty days of installation. Proof of 'purchase' date must be provided upon request.

Chargeable Repairs:

A charge will be made if the cause of the breakdown is due to any of the following:

- **Faults caused by the plumbing or heating system, external electrics and external components.**
- **The Grant thermal store has not been commissioned, or serviced in accordance with the installation and servicing manual.**
- **The system has been installed for over two years.**

Remember before you contact Grant:

Please register your Grant thermal store within thirty days of the installation.

Terms of Manufacturer's Guarantee

1. The Grant thermal store guarantee starts from the date of purchase.
2. All electrical and mechanical components supplied with the Grant thermal store are guaranteed for a period of two years. The stainless steel used in the manufacture of the thermal store is guaranteed for a period of twenty five years with the manufacturing process of the thermal store guaranteed for two years.
3. The thermal store is registered within 30 days of installation. Failure to do so does not affect your statutory rights.

4. The Grant thermal store must be installed by a competent/licensed installer and in accordance with the Codes of Practice and Regulations in force at the time of the installation.
5. The Grant thermal store and its components must not have been modified or tampered with.
6. The installation must be serviced every twelve months as per the installation instructions. (Receipts should be kept as proof).
7. The Grant thermal store must be connected to a mains water supply (installations utilising a private water supply are not covered by this guarantee).
8. Breakdown/failure due to lime-scale will not be covered by this guarantee.
9. The Grant thermal store must not be sited in a location where it may be subjected to frost.
10. All claims under this guarantee must be made to Grant Engineering (UK) Ltd prior to any work being undertaken. Proof of purchase and date of installation must be provided on request. Invoices for call out/repair work by any third party will not be accepted unless previously authorised by Grant Engineering (UK) Ltd.
11. This guarantee is transferable providing the installation is serviced prior to the dwelling's new owners taking up residence. Grant Engineering (UK) Ltd must be informed of the new owner's details.
12. Grant Engineering (UK) Ltd will endeavour to provide prompt service in the unlikely event of a problem occurring, but cannot be held responsible for any consequence of delay however caused.
13. This guarantee applies to Grant Thermal stores installed on the UK mainland, Isle of Man and Channel Islands only. Provision of in-warranty cover elsewhere in the UK is subject to agreement with Grant Engineering (UK) Ltd.

11.2 Extended Warranty

For further peace of mind Grant Engineering (UK) Ltd offer the option to insure all the components of your Grant thermal store for a further three years, following on from the two year product warranty period. For a single premium payment (inclusive of Insurance Premium tax) you get five years of protection against breakdown costs. At the end of this period you will have the opportunity to continue this cover on an annual basis.

To access full details and an application form for this extended cover, first visit www.grantuk.com.

Follow the links to the 'Householder Zone', register your thermal store for a further one year product warranty (giving two years from the date of purchase), and then download the extended warranty details and application form.

Please note that this special offer is only available if the application form is submitted to Bluefin Insurance Services available if the application form is submitted to Bluefin Insurance Services Ltd. within three month of the installation date.

Notes





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