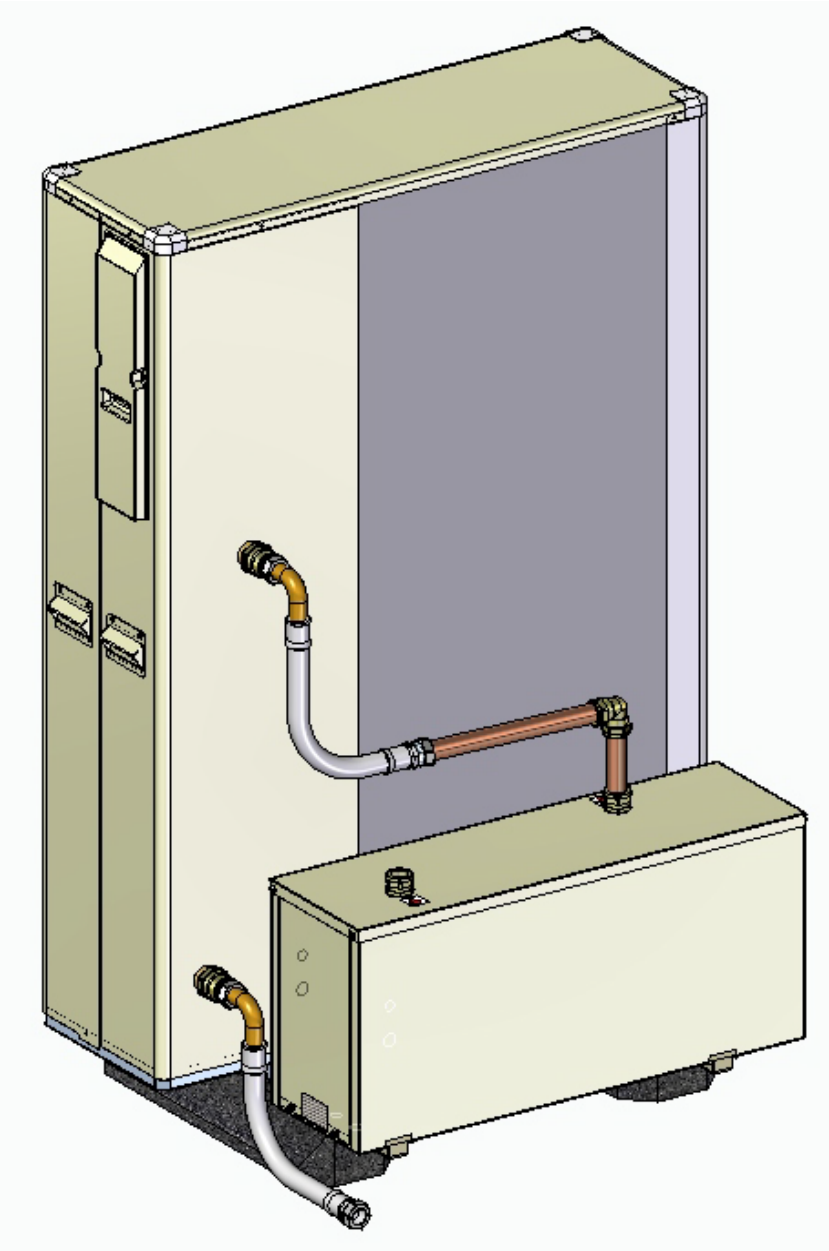
Grant

External Volumiser

Installation Instructions



UK | DOC 0183 | Rev 1.1 | March 2023

IMPORTANT NOTE FOR USERS

These installation instructions are intended to guide the installer in the installation of the Grant External Volumiser.

SPECIAL TEXT FORMATS

The following special text formats are used in these instructions for the purposes listed below:

! WARNING !

Warning of possible human injury as a consequence of not following the instructions in the warning.

! CAUTION !

Caution concerning likely damage to equipment or tools as a consequence of not following the instructions in the caution.

! NOTE !

Used for emphasis or information not directly concerned with the surrounding text but of importance to the reader.

PRODUCT CODES COVERED

These instructions cover the following product codes:

Product code	Product Description
HPIDVOL30EXT	Grant 30 litre External Volumiser (HPID10R32, HPID13R32 and HPID17R32 models only)
HPIDVOL30EXT6	Grant 30 litre External Volumiser (HPID6R32 models only)

SERVICING

The External Volumiser should be inspected at least every twelve months, when the heat source and/or heating system is serviced.

GRANT ENGINEERING (UK) LIMITED

Frankland Road, Blagrove Industrial Estate, Swindon, SN5 8YG

Tel: +44 (0)1380 736920 Fax: +44 (0)1380 736991

Email: info@grantuk.com www.grantuk.com

CONTENTS

! NOTE !

These Installation Instructions must be read in conjunction with the Aerona³ Installation and Servicing Instructions supplied with the heat pump.

1 INTRODUCTION

1.1 GENERAL

A 'volumiser' is simply a vessel used to increase the volume of the heating system connected to the heat pump. It has one inlet and one outlet for connection to the heat pump and heating system.

The Grant External volumiser can be used in the following situations:

a) Where there is insufficient water volume in the heating system connected to the heat pump.

b) Where there is no available space inside the property to accommodate a volumiser/low loss header, such as the Grant combined volumiser/low loss header.

c) When a plate heat exchanger is used to provide hydraulic separation between the heat pump and the heat emitter circuits.

The Grant External 30 litre volumiser is an insulated rectangular tank fitted with a single 3kW electric immersion heater and is designed for use with the Grant Aerona³ air source heat pumps. This is housed within a weatherproof external casing with a removable cover at one end to access the electrical connections and immersion heater.

It is designed to be located behind the Aerona³ heat pumps, on the same anti-vibration mounts (Grant product code: HPIDFOOT/KIT2) as the heat pump, using the mounting brackets provided with the volumiser. See Figure 1-1.

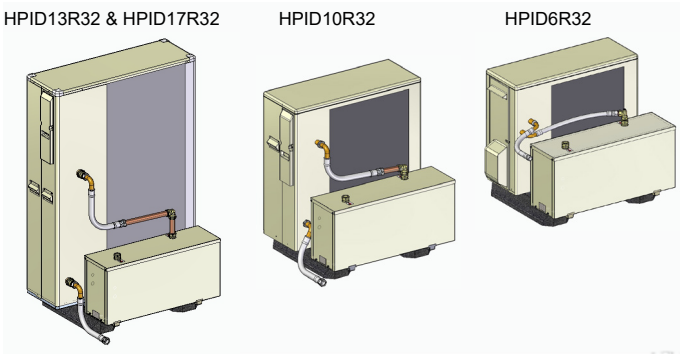


Figure 1-1: Grant External Volumiser behind Aerona³ heat pumps

! NOTE !

This volumiser is designed to be installed in the flow from the heat pump.

The volumiser has two pipe connections located on the upper surface of the unit. Refer to Figure 2-1. These are 28mm compression connections. Refer to Section 3.6 for further details on the connections to the external volumiser.

The flexible hoses supplied with the Grant Aerona³ will be used to connect the External Volumiser to the heat pump.

The 3kW electric immersion element is supplied, factory fitted and located inside a removable panel at the right-hand side of the volumiser (viewed from the front).

It is intended to provide a backup heat source controlled by the Grant Aerona air source heat pump to which it is connected. Refer to Section 4 – Electrical.

The shell of the volumiser is a mild steel welded construction, insulated with mineral wool. This is enclosed within an outer galvanised steel casing with a powder coated paint finish to match the casing of the heat pump.

The volumiser is fitted with a ½" drain cock, located to the left of the immersion heater, to allow the volumiser to be drained down if required.

! WARNING !

The immersion heater must NOT be used unless it is fully immersed in water. Always ensure that the electrical supply to the volumiser/immersion heater is isolated BEFORE draining down the volumiser.

Always ensure that volumiser is fully refilled with water BEFORE switching the electrical supply back on

1.2 PRODUCT CONTENTS

All models of Grant External Volumiser are supplied as a pack, in a box, containing the following items:

- 1 x External Volumiser c/w immersion heater
- 2 x Mounting Brackets
- 1 x Cable gland M20mm
- 1 x Cable gland M16mm
- 1 x Installation instructions

HPIDVOL30EXT6 models (for HPID6R32 models of Grant Aerona³ heat pumps only) contain the additional items:

- 1 x 22mm compression elbow c/w integral manual air vent
- 2 x 28mm x 22mm compression reducing set

Refer to Section 1.3 for more information on HPIDVOL30EXT6 models.

1.3 PIPE FITTINGS FOR HPIDVOL30EXT6 ONLY

As the INLET on the top of the external volumiser is higher than the flow connection on the back of the HPID6R32 heat pump, an elbow with an integral manual vent must be fitted to the volumiser inlet to allow the volumiser to be vented of any air. Refer to Figure 3-8.

The necessary 22mm compression elbow with integral manual air vent is supplied with the volumiser (HPIDVOL30EXT6) for this connection arrangement.

Two 28mm x 22mm compression reducing sets are also supplied with the volumiser (HPIDVOL30EXT6). These allow 22mm pipe to be connected to the 28mm inlet and outlet connections on the external volumiser. Refer to Figure 3-9.

2 TECHNICAL DATA

2.1 TECHNICAL SPECIFICATION

Table 2-1: External Volumiser technical data

	Grant External Volumiser
Nominal capacity (litres)	30
Actual capacity (litres)	28
Weight - empty (kg)	31
Weight - full (kg)	59
Inlet/outlet connections	28mm compression
Drain cock connection	½" BSP
	Materials
Shell	Mild steel
Outer casing	Galvanised mild steel, polyester powder coated
Insulation	Mineral wool
	Immersion Heater
Make	Cotherm TSR
Output (kW)	3
Electrical supply	230V 50Hz 1ph

2.2 DIMENSIONS

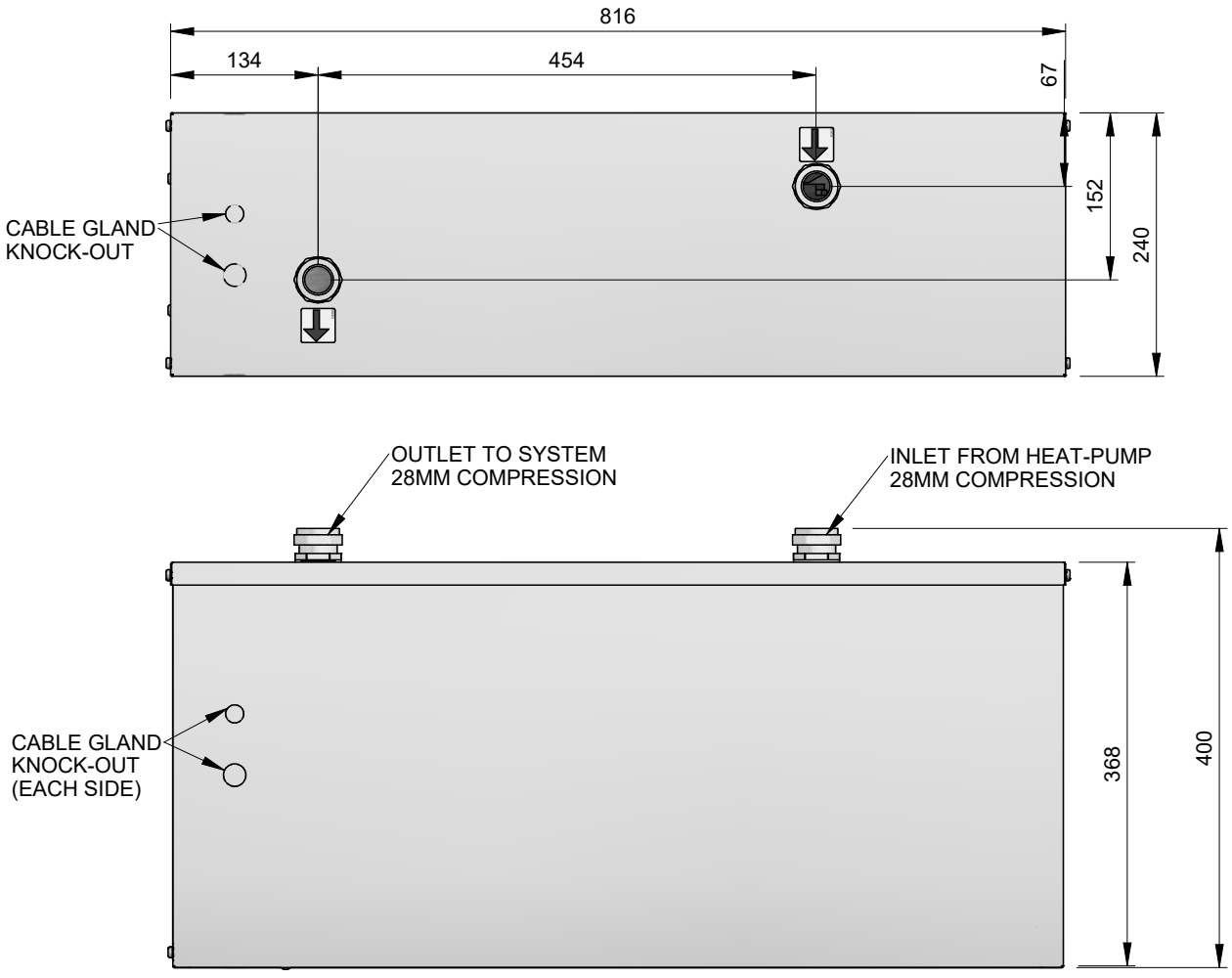


Figure 2-1: Grant External Volumiser dimensions

3 INSTALLATION

3.1 GENERAL

This section gives details of the installation process for the Grant External Volumiser with backup immersion heater.

These installation instructions must be read in conjunction with the Grant Aerona³ air source heat pump installation instructions (provided with the heat pump).

Before starting any installation work on the Grant Aerona³ air source heat pump and external volumiser, please read the Health and Safety information given in Section 14 of the Aerona³ Installation Instructions.

3.2 REGULATIONS AND STANDARDS

The installation of the Grant Aerona³ air source heat pump and the External Volumiser must be in accordance with the following recommendations, as applicable:

- Building Regulations for England and Wales, and Building Standards for Scotland
- Local Bylaws (check with the Local Authority for the area)
- Water Supply (Water Fittings) Regulations 1999
- MCS Installer Standards (if applying for the Renewable Heat Incentive)
  - MIS3005 Requirements for contractors undertaking the supply, design, installation, set to work, commissioning and handover of microgeneration heat pump systems.
  - MCS020 MCS Planning Standard

The installation should also be in accordance with the latest edition of the following standards and Codes of Practice:

- BS7671 and amendments
- BS EN 12831

3.3 LOCATION

Refer to the Grant Aerona³ air source heat pump installation instructions (provided with the heat pump) for the details and requirements on the location of the heat pump and the clearances required.

3.4 CLEARANCES

With the external volumiser mounting brackets fitted into heat pump AV mounts (as described in Section 3.6) there will be a gap of approximately 100mm between the back of the heat pump and the front face of the external volumiser.

If the rear face of the volumiser is 50mm from the wall, this will leave a distance of approximately 400mm between the wall and the back of the heat pump.

3.5 UNPACKING

The Grant External Volumiser is supplied in a cardboard carton. Please note that this is a two-man lift.

To remove it from this carton for installation, use the following procedure:

- Lay a clean dust sheet, or similar on the ground to prevent scratching the casing.
- Place the carton on the dust sheet taped joint uppermost.
- Cut the along taped joint and open the two flaps of the cardboard carton.
- Carefully tilt the carton over so the volumiser is resting on the dust sheet.
- Lift the carton up and off the volumiser

! NOTE !

Take care if cutting the tape with a knife not to damage the volumiser casing immediately beneath.

3.6 INSTALLATION PROCEDURE

! NOTE !

These instructions apply when using the 600mm long Grant anti-vibration mounts (AV mounts) only - Grant product code: HPIDFOOT/KIT2.

1. Fit the volumiser mounting brackets to the AV mounts, as follows:
   - Identify the correct end of the mounting bracket to fit into the AV mount – see Figure 3-1.
   - Insert this end of the mounting bracket into the metal channel of the AV mount as far as it will go – i.e., until it reaches the stop on the bracket. See Figure 3-2.
   - Repeat with the second bracket and AV mount.

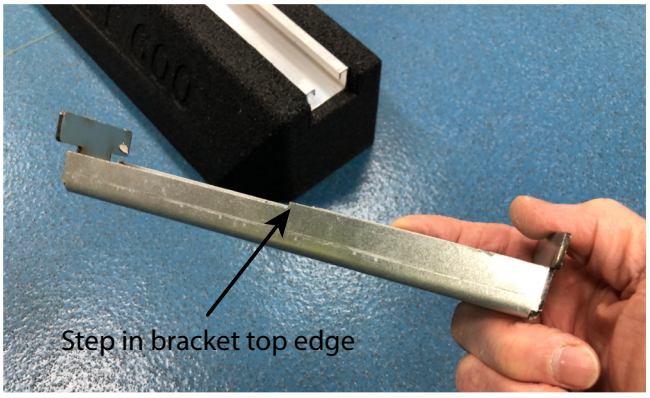


Figure 3-1: Mounting bracket

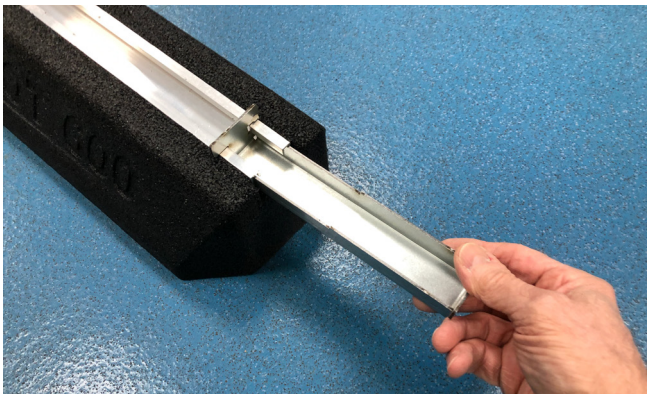


Figure 3-2: Fitting mounting bracket

2. Position the AV mounts in the required location, allowing for the fact that the heat pump will be positioned at the front end of the mounts.

   If the backup immersion heater fitted to the Grant External Volumiser is to be used; remove the two semi-pierced knockouts on the front face of the volumiser casing and fit the two cable glands supplied with the unit. Refer to Figure 3-3.

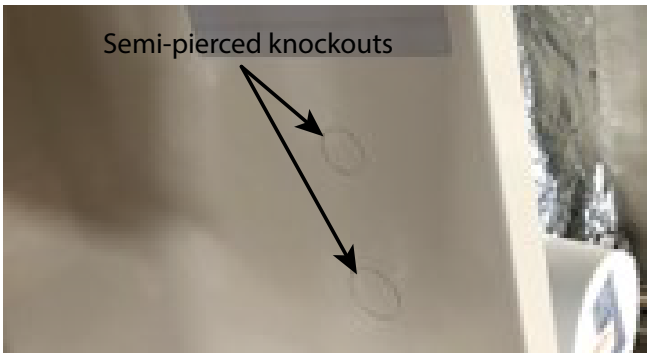


Figure 3-3: Semi-pierced knockouts in front face of volumiser

! NOTE !

If the backup immersion heater is to be used ensure that the two semi-pierced knockouts are removed BEFORE the external volumiser is fitted and piped up to the heat pump.

3. Fit the external volumiser onto the AV mounts, ensuring that the flow and return connections are facing upwards and the removable cover is at the right-hand end of the volumiser when facing the heat pump from the front.
   Refer to Figure 3-4.

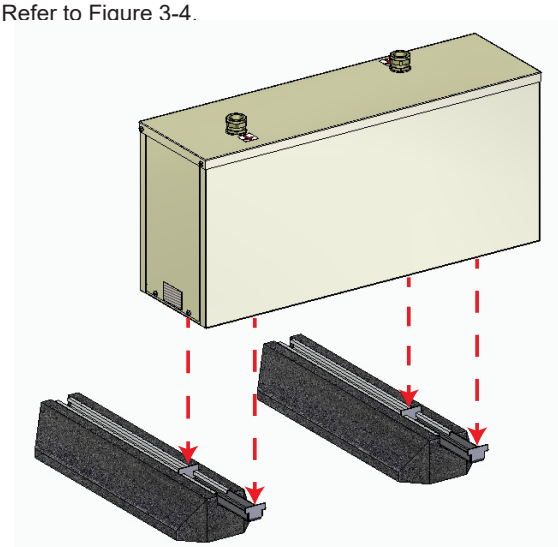


Figure 3-4: Locating volumiser on mounting brackets

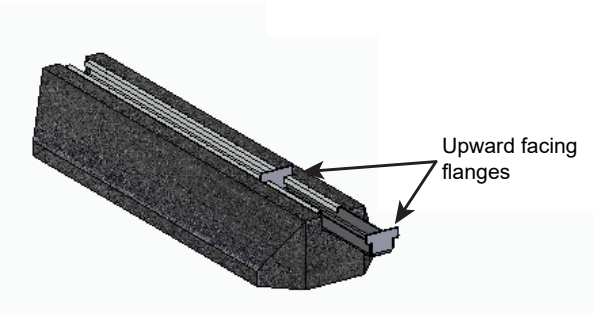


Figure 3-5: Volumiser mounting brackets

4. Ensure that the base of the External Volumiser is correctly located between the two upward facing flanges on both of the mounting brackets. Refer to Figure 3-5.
5. Position the Aerona³ heat pump on the AV mounts, with the front feet at the end of the metal channel of the mounts. Tighten the four fixing screws to secure the heat pump feet to the AV mounts.

   The gap between the rear of the heat pump and the front of the External Volumiser should be approximately 100mm. Refer to Figure 3-6.

   If not, then slacken the four screws securing the heat pump to the AV mounts and adjust its position to achieve approx. 100mm. Then ensure that the four screws are re-tightened to secure the heat pump to the AV mounts.

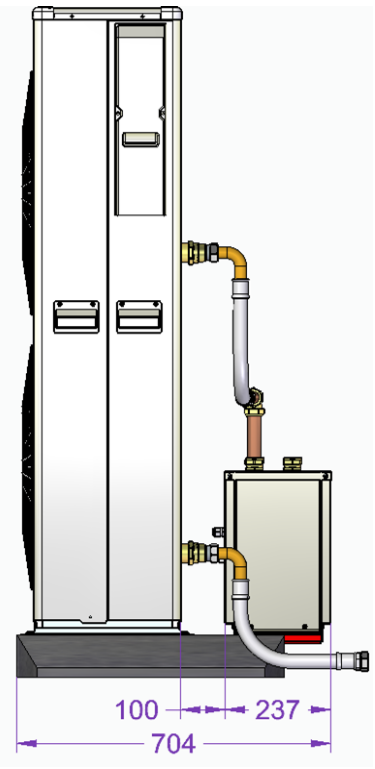


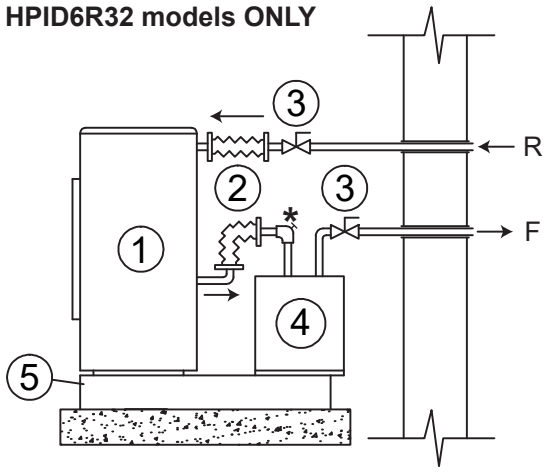
Figure 3-6: Distance between heat pump and volumiser (HPID13R32 shown)

3.7 SYSTEM CONNECTIONS

The Grant External Volumiser is designed to be installed in the flow from the heat pump. It must not be installed in the return from the system. Refer to Figure 3-7.

IMPORTANT

HPID6R32 models ONLY

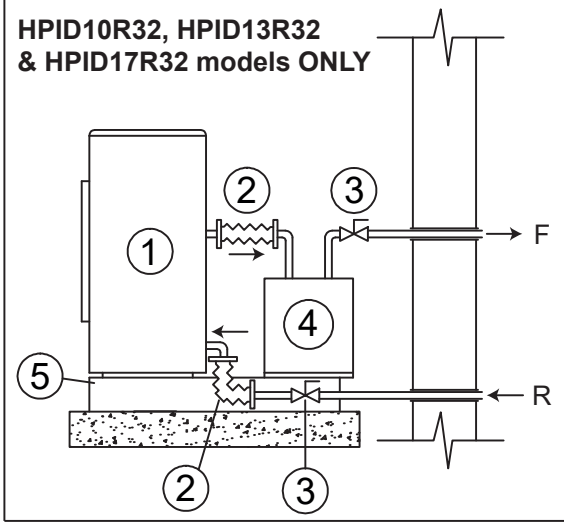


IMPORTANT

The above diagram shows the Flow (outlet) and Return (inlet) connection positions for HPID6R32 models ONLY.

For positions of the Flow (outlet) and Return (inlet) connections on HPID10R32, HPID13R32 and HPID17R32 models, see below.

HPID10R32, HPID13R32 & HPID17R32 models ONLY



HPID6R32 models ONLY

***Compression elbow c/w air vent** (supplied with HPIDVOL30EXT6)

Figure 3-7: Typical diagram showing position and connection of external volumiser

Table 3-1: Key to Figure 3-7

Item	Description
1	Aerona³ ASHP
2	Flexible hose
3	Isolation valve
4	Grant external volumiser
5	Anti-vibration mounts

The Grant External Volumiser is supplied with two connections – one inlet and one outlet. Refer to Figure 2-1.

Each connection is identified on the volumiser casing with an arrow to indicate which is the inlet and outlet. These connections are 28mm compression.

GENERAL

In all cases the FLOW connection on the back of the heat pump is connected to the INLET connection on the top of the external volumiser, via one of the two flexible hoses supplied with the heat pump.

The OUTLET connection on the top of the external volumiser is connected to the flow pipe of the heating system.

One of the two isolating valves, supplied with the heat pump, should be fitted externally, in the system flow pipe. Refer to Figure 3-7.

The heating system return pipe is connected to the RETURN connection on the back of the heat pump via the second of the two flexible hoses supplied with the heat pump.

The second of the two isolating valves, supplied with the heat pump, should be fitted externally in the system return pipe. Refer to Figure 3-7.

The actual means of connection between the heat pump, the external volumiser and the system is slightly different, depending on which size of heat pump the volumiser is connected to.

Refer to the following details for the model of heat pump being fitted:

3.7.1 AERONA³ HPID6R32 HEAT PUMP

As the INLET on the top of the external volumiser is higher than the flow connection on the back of the HPID6R32 heat pump, an elbow with an integral manual vent (supplied with HPIDVOL30EXT6) must be fitted to the volumiser inlet to allow the volumiser to be vented of any air. Refer to Figure 3-8 for the connection arrangement.

For details of the pipe and fittings required to make the connection between the heat pump and external volumiser refer to Figure 3-9.

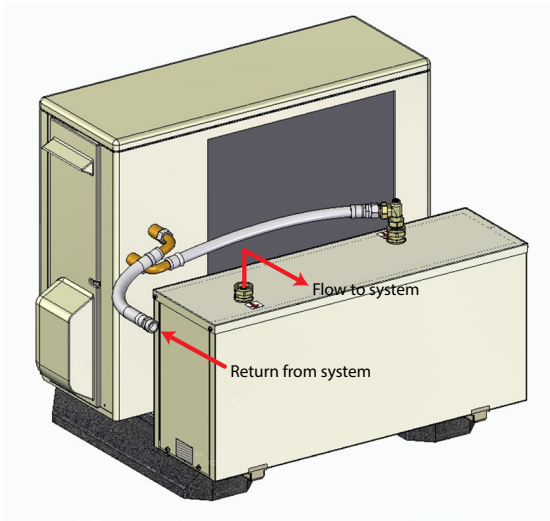


Figure 3-8: External volumiser connection to HPID6R32 heat pump

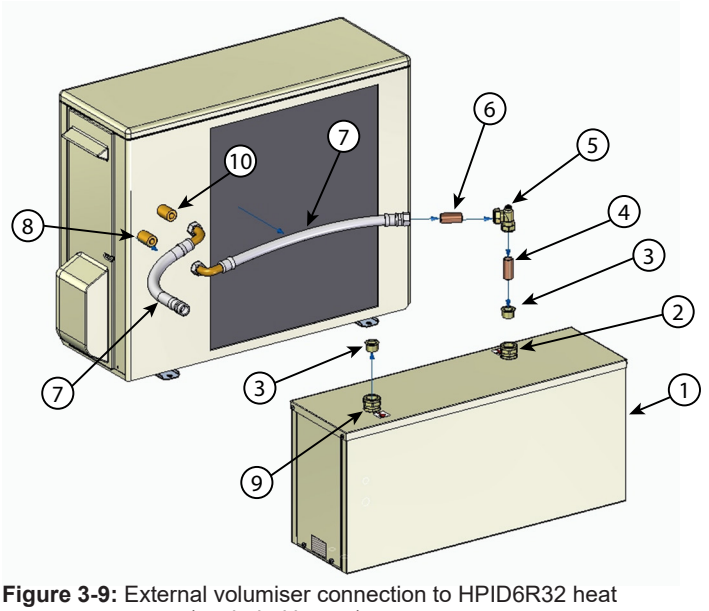


Figure 3-9: External volumiser connection to HPID6R32 heat pump (exploded image)

Table 3-2: Key to Figure 3-9

Item	Description	Source
1	External volumiser	N/A
2	Volumiser inlet connection - 28mm compression	Supplied on Volumiser
3	Compression reducing set - 28mm x 22mm	Supplied with Volumiser
4	Copper pipe 22mm - length to suit	Supplied by installer
5	Elbow c/w manual air vent - 22mm compression	Supplied with Volumiser
6	Copper pipe 22mm - length to suit	Supplied by installer
7	Flexible hose - ¾" BSP x 22mm c/w washer	Supplied with heat pump
8	Heat pump flow connection - ¾" BSP	N/A
9	Volumiser outlet connection - 28mm compression	Supplied on Volumiser
10	Heat pump return connection - ¾" BSP	N/A

3.7.2 AERONA³ HPID10R32 HEAT PUMP

Refer to Figure 3-10 for the connection arrangement between the external volumiser and an HPID10R32 heat pump.

For details of the pipe and fittings required to make the connection between the heat pump and external volumiser refer to Figure 3-11.

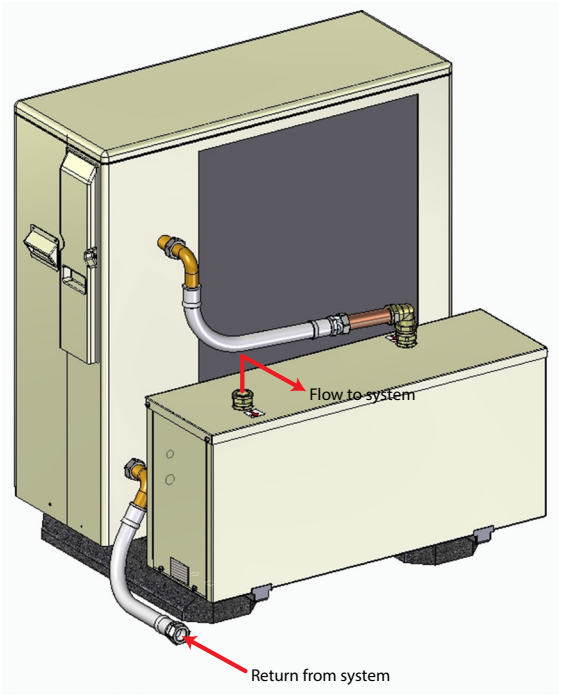


Figure 3-10: External volumiser connection to HPID10R32 heat pump

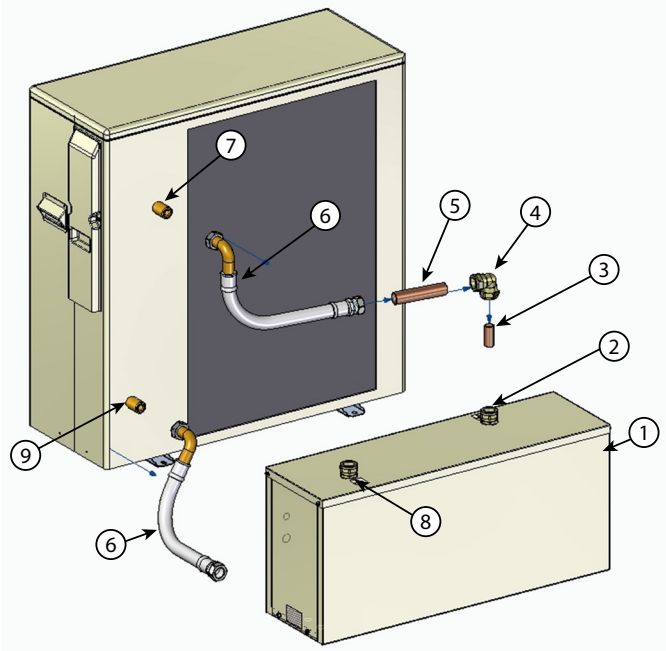


Figure 3-11: External volumiser connection to HPID10R32 heat pump (exploded image)

Table 3-3: Key to Figure 3-11

Item	Description	Source
1	External volumiser	N/A
2	Volumiser inlet connection - 28mm compression	Supplied on Volumiser
3	Copper pipe 28mm - length to suit	Supplied by installer
4	Elbow - 28mm compression	Supplied by installer
5	Copper pipe 28mm - length to suit	Supplied by installer
6	Flexible hose - 1” BSP x 28mm c/w washer	Supplied with heat pump
7	Heat pump flow connection - 1” BSP	N/A
8	Volumiser outlet connection - 28mm compression	Supplied on Volumiser
9	Heat pump return connection - 1” BSP	N/A

3.7.3 AERONA³ HPID13R32 AND HPID17R32 HEAT PUMPS

Refer to Figure 3-12 for the connection arrangement between the external volumiser and an HPID13R32 or HPID17R32 heat pump.

For details of the pipe and fittings required to make the connection between the heat pump and external volumiser refer to Figure 3-13.

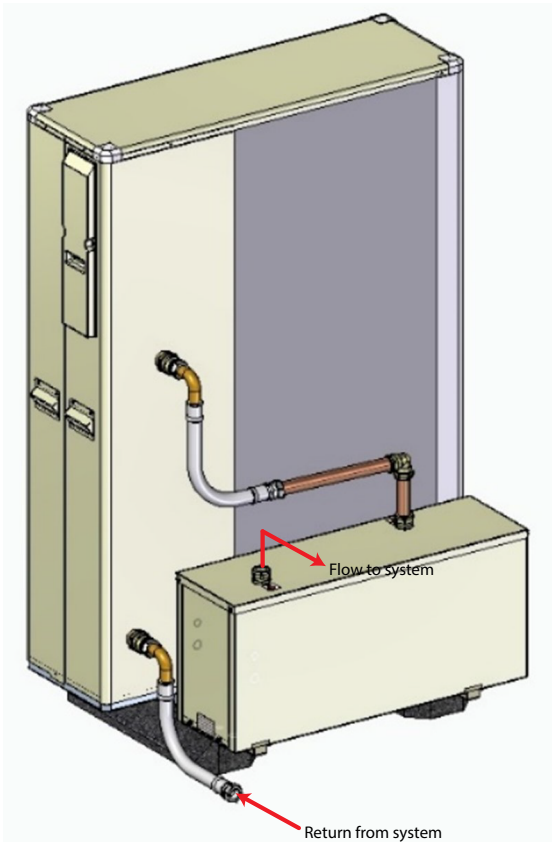


Figure 3-12: External volumiser connection to HPID13R32 and HPID17R32 heat pumps

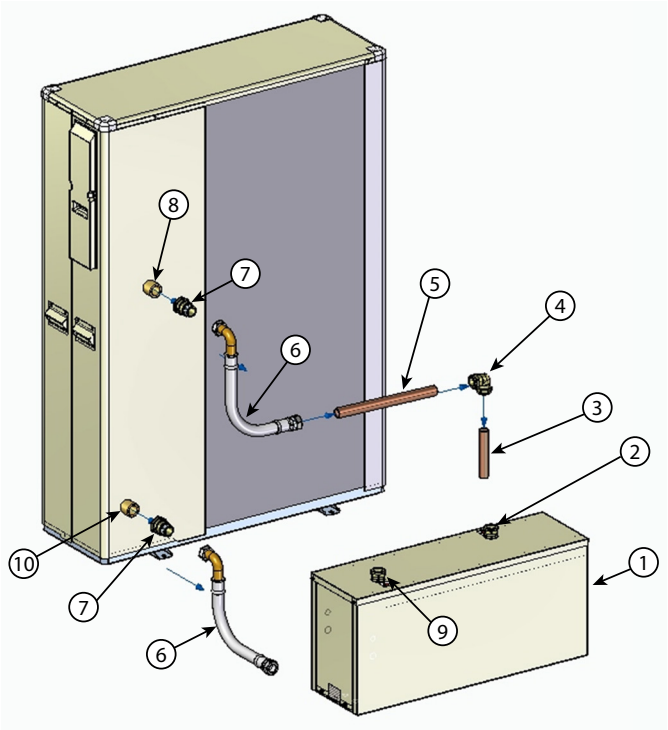


Figure 3-13: External volumiser connection to HPID13R32 and HPID17R32 heat pumps (exploded image)

Table 3-4: Key to Figure 3-13

Item	Description	Source
1	External volumiser	N/A
2	Volumiser inlet connection - 28mm compression	Supplied on Volumiser
3	Copper pipe 28mm - length to suit	Supplied by installer
4	Elbow - 28mm compression	Supplied by installer
5	Copper pipe 28mm - length to suit	Supplied by installer
6	Flexible hose - 1" BSP x 28mm c/w washer	Supplied with heat pump
7	1" nipple and 1¼" BSP x 1" BSP reducing socket	Supplied with heat pump
8	Heat pump flow connection - 1¼" BSP	N/A
9	Volumiser outlet connection - 28mm compression	Supplied on Volumiser
10	Heat pump return connection - 1¼" BSP	N/A

4 ELECTRICAL

! WARNING !

Electric shock may cause serious personal injury or death.

All electrical work must be undertaken by a competent person and in accordance with the current edition of BS7671 (the I.E.T. Wiring Regulations), including any amendments. Failure to observe this legislation could result in an unsafe installation and will invalidate all guarantees.

The equipment supplied must be wired according to these Installation Instructions to ensure that the heat pump and supplementary immersion heater function safely. All electrical connections made on-site are solely the responsibility of the installer.

4.1 GENERAL

If the supplementary immersion heater fitted to the Grant External Volumiser is to be used, the immersion heater requires a 230V 50Hz single phase electrical supply. This will be taken from the 230V supply to the Aerona³ heat pump. Refer to Section 4.2 – Electrical connections below.

In order for the supplementary immersion heater to be controlled by the Aerona³ heat pump, the External Volumiser will also need to be connected to the heat pump terminal PCB. Refer to Section 4.2 – Electrical connections below.

4.2 ELECTRICAL CONNECTIONS

! WARNING !

Ensure that all electrical supplies to the heat pump and external volumiser are isolated before making any electrical connections.

The supplementary immersion heater fitted in the external volumiser is supplied pre-wired from the factory. Refer to Section 4.3 – Immersion Heater for further details.

4.2.1 IMMERSION HEATER POWER SUPPLY

The supplementary immersion heater uses a dedicated power supply from a correctly sized circuit breaker in the consumer unit. The final supply connection must be made from a weatherproof lockable isolator located outside the building. Refer to Figure 4-1.

To connect this power supply to the electrical terminals in the external volumiser, proceed as follows:

1. Remove the access cover from the external volumiser. To do this unscrew and remove the two screws at the bottom of the cover and remove the cover.
2. If not already fitted, insert the two cable glands supplied into the two semi-pierced knockouts on the front face of the volumiser casing and secure from the inside with the back nuts.
3. Feed the immersion heater supply cable through the larger of the two cable glands and connect it to the external volumiser electrical terminals as follows:
   - Live to Terminal L (Brown terminal block)
   - Neutral to Terminal N (Blue terminal block)
   - Earth to Terminal ⏚ (Green terminal block)

   Refer to Figure 4-2 for external volumiser connection diagram.
4. Tighten the cable gland to securely grip the cable

! NOTE !

The cable glands supplied with the External Volumiser have been selected for use with the following cable sized:

- **3 x 0.75mm² cable for the smaller M16 cable gland**
- **3 x 1.5mm² cable for the larger M20 cable gland**

As these glands are required to securely clamp the cable and prevent it from being pulled out, they MUST only be used with the correct cable size, as above.

If cables of a different size to that specified above are used, then it is the responsibility of the installer to provide the correctly sized cable glands to ensure the cables are securely clamped once installed.

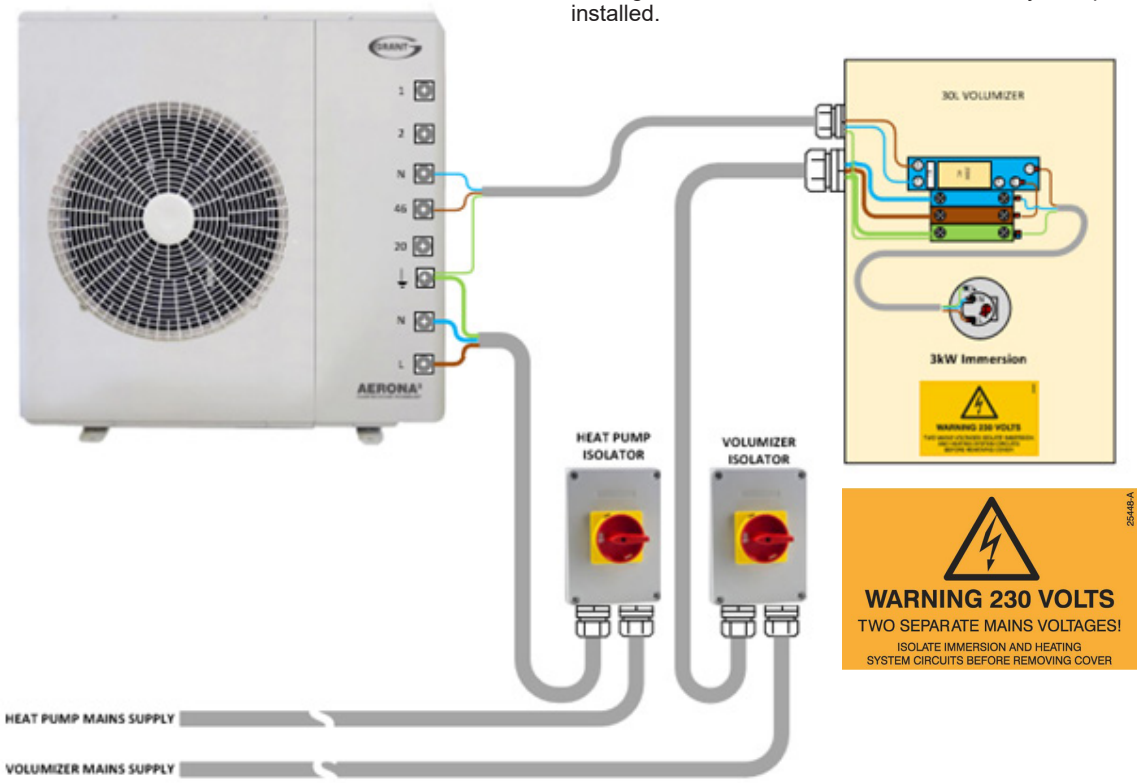


Figure 4-1: Electrical power supply for External Volumiser

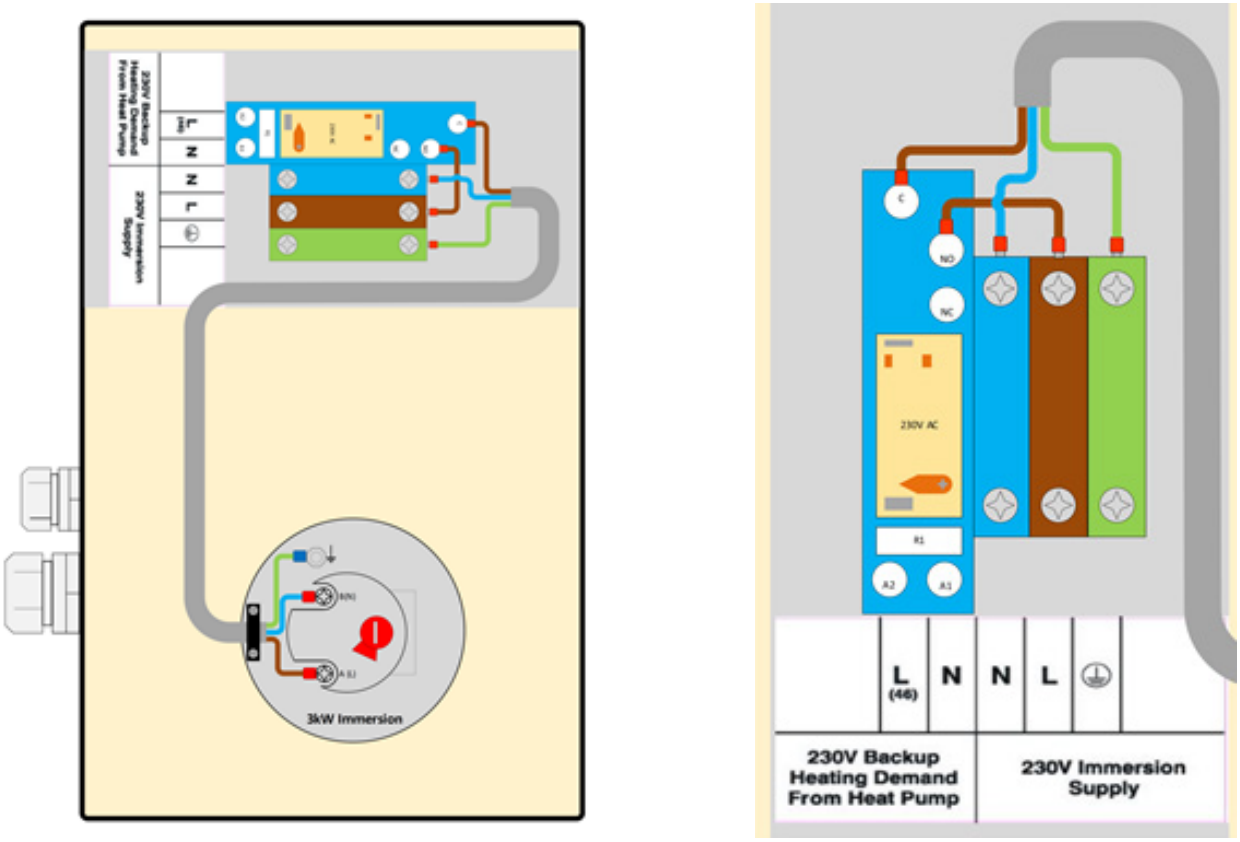


Figure 4-2: Connection diagram for External Volumiser

4.2.2 SUPPLEMENTARY HEATER CONTROL WIRING

The operation of the backup immersion heater is controlled by the Grant Aerona³ heat pump.

The 230V output from the 'Electric heater' terminal (terminals 46 and N) on the Aerona³ Terminal PCB is connected to the external volumiser electrical terminals as follows:

- Terminal 46 on heat pump terminal PCB to Terminal L (A2 on the backup heater relay)
- Terminal N on heat pump Terminal PCB to Terminal N (A1 on the backup heater relay)

Refer to Figure 4-2 for external volumiser connection diagram

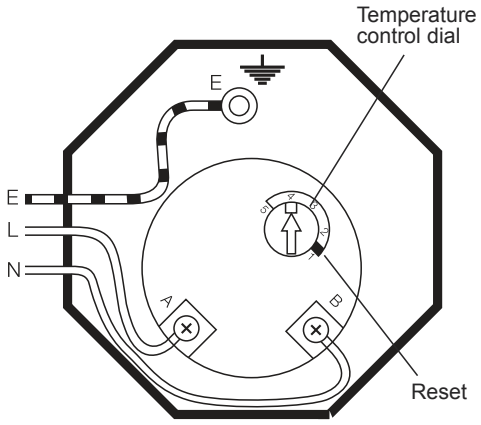
4.3 IMMERSION HEATER

The Grant External Volumiser is supplied factory-fitted with a pre-wired 3kW Cotherm Type TSR immersion heater.

! WARNING !

The immersion heater must NOT be used unless it is fully immersed in water. Always ensure that the volumiser is full of water BEFORE switching on the electrical supply.

The immersion heater control thermostat is pre-set on position 4 at a temperature of approximately 65°C. This can be adjusted as required. Refer to Figure 4-3.



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

Figure 4-3: Immersion heater wiring connections

The wiring connections are also shown in Figure 4-3. Follow the wiring instructions connecting the live, neutral and earth as indicated.

OVER-TEMPERATURE CUT-OUT

This immersion heater is fitted with a Cotherm type TSR thermostat that incorporates an independent non-self-resetting over-temperature cut-out to prevent excessive water temperatures.

The reset pin is located in a small opening to the side of the control dial and indicated by small triangle with the word ‘safety’. Refer to Figure 4-3.

In normal operation the reset pin will be approximately 2-3mm below the surface of the plastic thermostat housing.

Should the over-temperature cut-out operate, the reset pin will be pushed up to become level or slightly above the surface of the housing.

To reset the over-temperature cut-out:

- Isolate the volumiser / immersion element from the mains electrical supply.
- Wait for the temperature in the volumiser to fall sufficiently.
- Using a suitably sized implement, push the reset pin using hand pressure only to return it to its normal operating position.

! WARNING !

Ensure the volumiser / immersion heater is isolated from the mains before attempting to reset to over-temperature cut-out.

If the immersion heater needs to be replaced it must be fitted to the volumiser using the gasket provided on the unit. Only use a correctly shaped spanner. Stilsons or pipe grips should NOT be used. The use of sealing compound is not recommended.

! WARNING !

Always ensure that the immersion heater cap is not covered.

5 OPERATION

5.1 GENERAL

Before starting to commission the installation, including the Aerona³ air source heat pump, installation of the External Volumiser must be completed as detailed in Sections 3 and 4 of these instructions.

! NOTE !

In order to commission the installation, the following information must be used in conjunction with the Aerona³ installation instructions supplied with the heat pump.

5.2 AERONA³ HEAT PUMP PARAMETER SETTINGS

Switch on the power to the heat pump, via the external isolator.

Press and hold the ON/OFF button on the heat pump remote controller for three seconds to turn the heat pump on – *refer to Aerona³ installation instructions Section 9.1.*

Set the day and time on the heat pump remote controller – *refer to Aerona³ installation instructions Section 9.2*

Access the heat pump parameter setting menus via the heat pump remote controller – *refer to Aerona³ installation instructions Section 9.3*

Set the parameters as detailed in the table below.

Table 5-1: Aerona³ heat pump parameter settings for supplementary immersion heater operation

Level	Parameter		Function description	Display and input value			
	Group	Code		Default	Min.	Max.	Setting
I	46	00	Backup heater type of function 0 = disable 1 = Replacement mode 2 = Emergency mode 3 = Supplementary mode	0	0	3	3
I	46	01	Manual water set point	50°C	40	60	55
I	46	04	Heater activation delay time	5 mins	0	900	0
I	46	05	Integration time for starting heaters	600	0	900	0
I	46	11	Outdoor air temperature to enable Backup heaters and disable compressor	-5.0°C	-20.0	20.0	-20.0
I	46	13	Outdoor air temp to enable backup heaters (supplementary mode)	5.0°C	-20.0	+20	5
I	46	14	Outdoor air hysteresis to disable Backup heaters	5.0°C	0.5	10.0	2
I	51	46	Terminal 46: DHW electric heater or Backup heater 0 = DHW electric heater 1 = Backup heater	0 or 1	0	1	1

! NOTE !

Refer to the Aerona³ installation instructions, supplied with the heat pump, for further details on how to access and adjust the above heat pump parameters.

6 DECLARATION OF CONFORMITY

DECLARATION OF CONFORMITY

This declaration is made under the sole responsibility of the following Manufacturer.

The Manufacturer declares that the following Products conform to the requirements of the UK Legislation and Regulations as detailed below.

The Technical Construction Files are retained at the following Manufacturer's location

We: Grant Engineering (UK) Limited

Of: Frankland Road
Blagrove Industrial Estate
Swindon
SN5 8YG

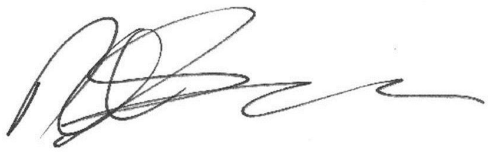
Telephone: +44 (0)1380 736920
Fax: +44 (0)1380 736991
Email: info@grantuk.com
Website: www.grantuk.com

Product : 30Ltr EXTERNAL VOLUMISER C/W 3KW BACKUP HEATER
Model: HPIDVOL30EXT

In accordance with the following Legislation:
Electrical Equipment (Safety) Regulations 2016

This declaration is only valid when the installation of this unit is carried out in accordance with the instructions supplied with the unit.

Responsible Person: Neil Sawers
Position: Commercial Technical Manager
Signature:



Date: 18th February 2022

7 GUARANTEE

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

Grant Engineering (UK) Limited guarantees the manufacture of the External Volumiser including all electrical and mechanical components for a period of **twelve months from the date of installation[4]**, provided that the External Volumiser has been installed in full accordance with the installation instructions issued.

This will be extended to a total period of **two years** if the External Volumiser is registered with Grant Engineering (UK) Limited within **thirty days of installation** and it is inspected when the heat source/heating system is serviced at twelve month intervals[3]. See main Terms and Conditions below.

Registering the product with Grant Engineering (UK) Limited

Please register your Grant Combined External Volumiser with Grant Engineering UK Limited **within thirty days of installation**. To do so visit:

www.grantuk.com/support/product-registration

You can register your External Volumiser for a further **twelve months** guarantee (giving **two years** from the date of installation[4]). This does not affect your statutory rights[1].

If a fault or defect occurs within the manufacturer's guarantee period

If your External Volumiser should fail within the guarantee period, you must contact Grant Engineering (UK) Limited who will arrange for the repair under the terms of the guarantee, providing that the External Volumiser has been correctly installed, commissioned and inspected when the heat source/heating system is serviced (if the product has been installed for more than twelve months) by a competent person and the fault is not due to tampering, debris, system water contamination, misuse, trapped air or the failure of any external components not supplied by Grant Engineering (UK) Limited, e.g. circulating pump, motorised valve, etc.

This two year guarantee only applies if the External Volumiser is registered with Grant Engineering (UK) Limited within thirty days of installation[4] and is inspected after twelve months[3], when the heat source and/or heating system is serviced.

In the first instance

Contact your installer or commissioning engineer to ensure that the fault does not lie with the system components or any incorrect setting of the system controls that falls outside of the manufacturer's guarantee otherwise a service charge could result. Grant Engineering (UK) Limited will not be liable for any charges arising from this process.

If a fault covered by the manufacturer's guarantee is found

Ask your installer to contact Grant Engineering (UK) Limited Service Department on +44 (0)1380 736920 who will arrange for a competent service engineer to rectify the fault.

Remember - before you contact Grant Engineering (UK) Limited

- Ensure the External Volumiser has been installed, commissioned and inspected by a competent person in accordance with the installation instructions.
- Ensure the problem is not being caused by the heating system or its controls.

Free of charge repairs

During the **two year** guarantee period no charge for parts or labour will be made provided that the External Volumiser has been installed and commissioned correctly in accordance with the manufacturer's installation instructions, it was registered with Grant Engineering (UK) Limited within thirty days of installation[4] and, for External Volumisers over twelve months old, details of inspection when the heat source and/or heating system is serviced are available[3].

The following documents must be made available to Grant Engineering (UK) Limited on request:

- Proof of purchase
- Commissioning Report Form
- Service documents
- System Design Criteria

Chargeable repairs

A charge may be made (if necessary following testing of parts) if the breakdown is due to any fault(s) caused by the plumbing or heating system, e.g. contamination of parts due to system contamination, sludge, scale, debris or trapped air. Refer to 'Extent of manufacturer's guarantee'.

Extent of manufacturer's guarantee

The manufacturer's guarantee does NOT cover the following:

- If the External Volumiser has been installed for over **two years**.
- If the External Volumiser has not been installed, commissioned, or inspected by a competent person in accordance with the installation instructions.
- Instances where the serial number has been removed or made illegible.
- Fault(s) due to accidental damage, tampering, unauthorised adjustment, neglect, misuse or operating the External Volumiser contrary to the manufacturer's installation instructions.
- Damage due to external causes such as bad weather conditions (flood, storms, lightning, frost, snow, or ice), fire, explosion, accident or theft.
- Fault(s) due to incorrectly sized expansion vessel(s), incorrect vessel charge pressure or inadequate expansion on the system.
- Fault(s) caused by external electrics and external components not supplied by Grant Engineering (UK) Limited.
- Product servicing, de-scaling or flushing.
- Checking and replenishing system pressure.
- Electrical cables and plugs, external controls not supplied by Grant Engineering (UK) Limited.
- Heating system components, such as radiators, pipes, fittings, pumps and valves not supplied by Grant Engineering (UK) Limited.
- Instances where the External Volumiser has been un-installed and re-installed in another location.
- Use of spare parts not authorised by Grant Engineering (UK) Limited.
- Consumable items including, but not limited to, antifreeze and biocide inhibitor.

Terms of manufacturer's guarantee

- The Company shall mean Grant Engineering (UK) Limited.
- The External Volumiser must be installed by a competent person and in full accordance with the relevant Codes of Practice, Regulations and Legislation in force at the time of installation.
- The External Volumiser is guaranteed for **two years** from the date of installation[4], providing that every twelve months the annual service has been completed[3] and the External Volumiser registered with the Company within thirty days of installation. Any work undertaken must be authorised by the Company and carried out by a competent service engineer.
- This guarantee will be invalid if the External Volumiser is not inspected when the heat source/heating system receives its annual (every twelve months) service and will then be limited to twelve months from the date of installation[4].
- The External Volumiser is operated correctly, in accordance with the Installation instructions.
- Grant Engineering (UK) Limited **strongly recommends** that a Grant Mag-One in-line magnetic filter/s (or equivalent[5]) is fitted in the heating system pipework. This should be installed and regularly serviced in accordance with the filter manufacturer's instructions. We reserve the right to ask for proof of installation – failure to provide this may result in the guarantee becoming invalid.
- Proof is provided that the system has been flushed or chemically cleaned where appropriate (refer to BS 7593) and that the required quantity of a suitable corrosion inhibitor added.
- Proof of annual servicing (including the checking of any expansion vessels and pressure relief valves) must be provided if and when requested by the Company.
- This guarantee does not cover breakdowns caused by incorrect installation, neglect, misuse, accident or failure to operate the External Volumiser in accordance with the manufacturer's installation instructions.
- The External Volumiser is registered with the Company within thirty days of installation. Failure to do so does not affect your statutory rights[1].
- The balance of the guarantee is transferable providing the installation is serviced prior to the dwelling's new owners taking up residence. Grant Engineering (UK) Limited must be informed of the new owner's details.
- The Company will endeavour to provide prompt service in the unlikely event of a problem occurring, but cannot be held responsible for any consequences of delay however caused.
- This guarantee applies to Grant Engineering (UK) Limited External Volumisers purchased and installed on the UK mainland, Isle of Wight, Channel Islands and Scottish Isles only[2]. Provision of in-guarantee cover elsewhere in the UK is subject to agreement with the Company.
- All claims under this guarantee must be made to the Company prior to any work being undertaken. Invoices for call out/repair work by any third party will not be accepted unless previously authorised by the Company.
- Proof of purchase and date of installation, commissioning and service documents must be provided on request.
- If a replacement External Volumiser is supplied under the guarantee (due to a manufacturing fault) the product guarantee continues from the installation date of the original External Volumiser and **not** from the installation date of the replacement[4].
- The External Volumiser must be connected to a mains water supply (installations utilising a private water supply are not covered by this guarantee).
- Breakdown/failure due to lime scale will not be covered by this guarantee.
- The replacement of a External Volumiser under this guarantee does not include any consequential costs.
- The External Volumiser must not be sited in a location where it may be subjected to frost.

Foot notes

1. Your statutory rights entitle you to a one year guarantee period only.
2. The UK mainland consists of England, Scotland and Wales only. Please note that for the purposes of this definition, Northern Ireland, Isle of Man and Scilly Isles are **not** considered part of the UK mainland.
3. We recommend that your heating system is serviced every twelve months, and that your External Volumiser is inspected at the same time (even when the guarantee has expired) to prolong the lifespan and ensure it is operating safely and efficiently.
4. The guarantee period will commence from the date of installation, unless the installation date is more than six months from the date of purchase, in which case the guarantee period will commence six months from the date of purchase.
5. As measured by gauss. The MagOne magnetic filter has a gauss measurement of 12,000.

Version 1.0 – September 2022

NOTES

GRANT ENGINEERING (UK) LIMITED
Frankland Road, Blagrove Industrial Estate, Swindon, SN5 8YG
Tel: +44 (0)1380 736920 Fax: +44 (0)1380 736991
Email: info@grantuk.com www.grantuk.com